Surveyor Spacecraft System/JPL 950056/August 1965

SURVEYOR STATION VIEW PERIODS AND TRAJECTORY COORDINATES

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HUGHES
HUGHES AIRCRAFT COMPANY
SPACE SYSTEMS DIVISION

Surveyor Spacecraft Laboratory/JPL 950056

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LAUNCH DATES DECEMBER, 1965, JANUARY, FEBRUARY, MARCH, APRIL, MAY, MAY/JUNE, JUNE/JULY, JULY, AUGUST, 1966

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HUGHES
HUGHES AIRCRAFT COMPANY
SPACE SYSTEMS DIVISION

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ERRATA

Due to an inadvertent computer program error, five pages in this document have one line of data omitted. The page numbers and the missing line of data are shown below. Each page with a missing line has an asterisk indicating where the line should be placed.

SYMBOL	Page 9-3	Page 9-52
EVNT	SET	RISE
STA	72	42
TFI	2351.	878.
TFL	2362.	889.
DAY	18	23
HR	16	21
MIN	31.	11.
HA	92.	255.
DHA	.0041	.0040
DEC	- 18.	- 24.2
DDE	.0001	- .0000
RNG	284800.	157200.
DRG	1.6	1.68
ELE	.00	2.50
DEL	- .0039	.0029
AZI	253.	118.15
DAZ	- .0005	- .0022
LAT	- 18.45	- 25.62
LONG	252.	251.96

Errata (continued)

SYMBOL	Page 9-325	Page 9-336	Page 9-484
EVNT	RISE	RISE	RISE
STA	42	42	42
TFI	882.	881.	877.
TFL	893.	892.	888.
DAY	6	7	3
HR	9	10	8
MIN	38.	34.	57.
HA	255.	255.	255.
DHA	.0040	.0040	.0040
DEC	- 26.6	- 26.6	- 23.53
DDE	- .0001	- .0001	- .0000
RNG	156800.	157000.	156800.
DRG	1.66	1.67	1.66
ELE	3.97	3.98	2.11
DEL	.0028	.0028	.0029
AZI	120.03	120.06	117.64
DAZ	- .0021	- .0021	- .0022
LAT	- 28.00	- 28.03	- 24.99
LONG	251.91	251.92	251.96

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1. INTRODUCTION

The purpose of this document is to present in handbook form a tabulation of station view periods and trajectory characteristics for Surveyor missions. Final trajectory selection for Surveyor missions for the launch periods contained in this report has not been completed, but changes which might occur are expected to be negligible, yielding data sufficiently accurate to be used for much of the preflight mission analysis. Used in conjunction with "Surveyor Direct Ascent Trajectory Characteristics," (see Section 8, References) this document should satisfy the need of the agencies supporting the Surveyor project.


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2. TRAJECTORY DESCRIPTION

THE ASCENT TRAJECTORY

The Surveyor spacecraft will be injected into an earth-moon transfer trajectory by the Atlas-Centaur launch vehicle. Two seconds after liftoff Atlas-Centaur begins a programmed roll that orients the vehicle into the proper flight azimuth. At 15 seconds, a pitchover program begins, tilting the vehicle to the required attitude for its particular mission. At approximately 144 seconds, the Atlas thrust structure and booster engines are jettisoned. The sustainer engine continues to provide thrust. After about 236 seconds, the Atlas phase of flight ends and the Centaur separates from the first stage. The Centaur is now traveling at approximately 10,000 mph at a height of about 80 miles. The Centaur engines ignite and propel the vehicle to a predetermined set of injection conditions. The spacecraft is separated from the Centaur about 1 minute after injection. To prevent later interference of the Centaur with the operation of the spacecraft Canopus sensor, the Centaur is turned 180 degrees and a retro maneuver is initiated about 4.5 minutes after injection.

THE POSTINJECTION TRAJECTORY

The Surveyor postinjection trajectories can, in general, be described by a geocentric ellipse. This earth-moon transfer ellipse can be thought of as rotating with the earth and containing the launch site until the time of liftoff. At liftoff time the ellipse is fixed in geocentric inertial coordinates. The plane containing the transfer ellipse can be considered to contain the launch site at launch time and the moon at touchdown. To compensate for the earth's rotation the launch azimuth is adjusted to maintain the required geometry. After the trajectory plane has been chosen, the trajectory is completed by specifying the central angle between launch and lunar impact.

The Surveyor lunar trajectories have flight times of approximately 64 hours. The flight time results in a central angle of approximately 170 degrees from injection to lunar encounter. Direct ascent trajectories require a boost arc close to 28 degrees in length, depending on the value of the flight-path angle (or true anomaly) at injection. Payload considerations limit the

injection flight-path angle to values between about -5.5 and +11 degrees. This restriction precludes arrivals at declinations more positive than -15 degrees for direct ascent trajectories.

NEAR EARTH CONIC PROGRAM

A detailed description of the conic program used to generate the information contained in this document is presented in the "Parking Orbit and Direct Ascent Near Earth Conic User Guide," EPD-198 (Reference 2) and the "Near Earth Conic Computer Program," EPD-163 Revision 1 (Reference 6).

The Near Earth Conic Computer Program solves the geometrical problem of finding a geocentric transfer ellipse that contains the launch site at launch time and the moon at encounter time.

CONIC VIEW PERIOD PROGRAM

The trajectory parameters as determined in the preceding Near Earth Conic Program paragraphs are inputs to the Conic View Period Program. The Conic View Period Program approximates time-variant geocentric position and velocity vectors in order to derive the station view periods. This program in general can be described as follows:

1) The geocentric position of the postinjection trajectory is approximated by the conic elements determined by the Near Earth Conic Program.

2) The lunar encounter portion of the trajectory is approximated by a rectilinear hyperbola as determined by conditions near the moon's sphere of influence.

The program gives a continuous view period and trajectory information from injection to lunar encounter.

3. SCOPE

This document contains station view periods and trajectory characteristics for the trajectories shown in Table 3-1.

The launch day is arbitrarily determined by the day on which a launch azimuth of 108 degrees would occur. This point is of importance in cases where the firing window straddles midnight, i. e., where the firing window occupies portions of each of two days.

View periods are provided for the following Deep Space Instrumentation Facility (DSIF) tracking sites; Ascension Island, Canberra, Australia; Johannesburg, South Africa; Goldstone, California; and Madrid, Spain. Table 3-2 lists the station coordinates and identification numbers. Air Force Eastern Test Range (AFETR) station view periods are not included in this document. However, due to their close proximity, ETR 75 (Ascension) may use the data generated for DSIF 72 (Ascension), and ETR 76 (Pretoria) may use DSIF 51 (Johannesburg) data.

In addition to the station view periods, the tabular listing presented in Section 9 includes important mission events and the associated tracking station parameters for the stations viewing these occurrences. The events are defined in Section 5. The geocentric trajectory characteristics at these significant times are presented at the end of the view period tabulations.

TABLE 3-1. STATION VIEW PERIODS AND TRAJECTORY CHARACTERISTICS

Launch Date 1965/1966	Launch Azimuth, degrees									
December 17									111	115
December 18						99	102	105	108	
December 19			90	93	96					
December 20		87								
December 21	84									
December 22		87	90	93						
December 23					96	99	102			
December 24								105	108	111	115
January 13							102	105	108	111	115
January 15				93	96	99				
January 16		87	90							
January 17	84									
January 18		87	90							
January 19				93	96	99				
January 20							102	105	108		
January 21										111	115
February 9								105	108	111	115
February 10					96	99	102			
February 12		87	90	93						
February 13	84									
February 14		87								
February 15			90	93	96					
February 16						99	102	105		
February 17									108	111	115
March 8										111	115
March 9						99	102	105	108	
March 10			90	93	96					
March 11	84	87								
March 13	84									
March 14		87	90							
March 15				93	96	99	102			
March 16								105	108	111	115
April 5							102	105	108	111	115
April 6				93	96	99				
April 7		87	90							
April 8	84									
April 9	84	87								
April 10			90	93	96					
April 12						99	102	105	108		
April 13										111	115

Table 3-1 (continued)

Launch Date 1966	Launch Azimuth, degrees									
May 2								108	111	115
May 3				96	99	102	105			
May 4		87	90	93						
May 5	84									
May 6	84									
May 7		87	90	93						
May 8					96	99	102			
May 9							105	108	111	115
May 29									111	115
May 30						99	102	105	108	
May 31			90	93	96					
June 1	84	87								
June 2	84									
June 3		87	90							
June 4				93	96	99				
June 5							102	105	108	111	115
June 26							105	108	111	115
June 27				93	96	99	102			
June 28		87	90							
June 29	84									
June 30	84	87								
July 1			90	93						
July 2					96	99	102	105		
July 3								108	111	115
July 23								108	111	115
July 24					96	99	102	105		
July 25		87	90	93						
July 26	84									
July 27	84									
July 28		87	90							
July 29				93	96	99	102			
July 30							105	108	111	115
August 20						99	102	105	108	111	115
August 21			90	93	96					
August 22	84	87								
August 23										
August 24	84	87								
August 25			90	93	96	99				
August 26							102	105	108	111	115

TABLE 3-2. TRACKING SITE LOCATIONS

Station Number	Name	Geocentric Coordinates*		
		Latitude, degrees	Longitude, degrees	Radius, kilometers
72	Ascension	- 7.9042	345.6708	6378.295
51	Johannesburg	[illegible]	27.685181	6375.4980
11	Goldstone	35.20807	243.15082	6372.0341
42	Canberra	-35.219630	148.98028	6371.6686
61	Madrid	40.238	355.7505	6370.0868

*All coordinates except Ascension are from JPL Interoffice Memo 372.21/318 by J. F. Scott, 1 September 1964. Ascension coordinates were obtained from W. O'Neil of Jet Propulsion Laboratory.

4. HOUR-ANGLE AND ELEVATION-ANGLE CONSTRAINTS

The pointing restrictions for the view periods presented are shown in Table 4-1.

TABLE 4-1. POINTING RESTRICTIONS FOR VIEW PERIODS

Station	Hour-Angle Limits, degrees	Elevation Limits,* degrees
Goldstone	± 90	0
Johannesburg	± 90	0
Canberra	±105	0
Madrid	±105	0
Ascension	None	0

*Previous Surveyor view period documents have used 5 degrees for elevation limits. Although this is usually a good approximation to the land or air mask, some stations are able to communicate with the spacecraft at lower elevations. Using an elevation limit of zero degrees gives an optimistic view period that is never exceeded.

If the rise (or set) time at another elevation is desired, divide the new elevation by the elevation rate (DEL) and add (or subtract) this time to (or from) the rise (or set) time.

5. PRINTOUT FORMAT

The printout format for each trajectory (defined by a launch date and launch azimuth) is divided into three sections. The first section contains the orbit parameters of the transfer-orbit trajectory. Included are the initial conditions at transfer-orbit injection (hereafter referred to as injection). This information is generated by the Near Earth Conic Program.

The second section contains the view period and tracking information. At the occurrence of either a view period event or a mission event, the tracking parameters of the probe with respect to all stations viewing it at that instant are calculated and printed.

The third section is a tabular presentation of the position and velocity vectors of the probe at the occurrence of mission events.

6. TABULATED OUTPUT DESCRIPTION

ORBIT PARAMETERS

Line 1

Output Symbol	Description	Units
GHA	Greenwich hour angle of Vernal Equinox at zero hours GMT on the encounter date	degrees
EPS	Earth-probe-sun angle at encounter	degrees
LOM	Longitude of the moon at encounter	degrees

Line 2

SX, SY, SZ	Geocentric unit vector to Moon at encounter (Mean of date)	
DAO	Declination of outgoing asymptote	degrees
RAO	Right ascension of outgoing asymptote	degrees
RM	Distance to moon at encounter	kilometers
LAT	Latitude of launch site	degrees
LON	Longitude of launch site	degrees

Output Symbol	Description	Units
Line 3		
C3	Twice the total energy per unit mass	km^2/sec^2
ECC	Eccentricity of the transfer conic	
SLR	Semilatus rectum of transfer conic	kilometers
RCA	Perigee distance of transfer conic	kilometers
LTA	Lower limit of injection true anomaly	degrees
GTA	Upper limit of injection true anomaly	degrees
TB	Burn time	seconds
POL	Identification of burn polynomial	
Line 4		
NSX NSY NSZ	Geocentric unit vector to new aiming point	
C3M	Twice the total selenocentric energy per unit mass	km^2/sec^2
VIM	Impact velocity	km/sec
ZAE	Angle between incoming asymptote and earth-moon line	degrees
B. T	Components of miss vector (B)	kilometers
B. R		kilometers
Line 5		
LATE	Selenographic latitude of subearth point at impact	degrees
LONE	Selenographic longitude of subearth point at impact	degrees
LATS	Selenographic latitude of subsolar point at impact	degrees

Output Symbol	Description	Units
LONS	Selenographic longitude of subsolar point at impact	degrees
LATI	Selenographic latitude of impact point	degrees
LONI	Selenographic longitude of impact point	degrees
RSM	Sun-moon distance	$km/10^6$
TTAN	Angle between "T" direction in lunar orbit plane and "T" direction in lunar equatorial plane	degrees

Line 6

LAUNCH DATE	Month, day, year	
BASE AZIMUTH	Launch azimuth	degrees
TF	Flight time from injection to impact	hours
ARRIVAL DATE	Month, day, year, hour, minute, second	GMT

Columnar Tabulation

Output Symbol	Description	Units
LNCH AZMTH	Launch azimuth	degrees
LNCH TIME	Launch time	hours, minutes, seconds
PB	Burn arc	degrees
INJ LAT	Injection latitude	degrees
ING LONG	Injection longitude	degrees
INJ TA	Injection true anomaly	degrees
INJ RT ASC	Injection right ascension	degrees
INJ AZMTH	Inertial injection azimuth	degrees

Columnar Tabulation

Output Symbol	Description	Units
INJ TIME	Injection time	hours, minutes, seconds GMT
INJ RAD	Geocentric distance to injection	kilometers
INJ VEL	Inertial injection velocity	km/sec
INJ PTH	Inertial injection path angle	degrees

STATION VIEW-PERIOD OUTPUT

Columnar Tabulation

Output Symbol	Description	Units
EVNT	a) Spacecraft events include enter earth shadow (ENTER SHA), exit earth shadow (EXIT SHA), retro maneuver (RETRO), INJECTION and SEPARATION. b) Station events consist of RISE, extreme (EXTM) and SET. Station quantities are also printed out for those stations which are viewing, about to view, or have just finished viewing at a spacecraft event.	
STA	Station number	
TFI	Time from injection	minutes
TFL	Time from launch	minutes
DAY	Day of event	GMT
HR	Hour of event	GMT
MIN	Minutes of event	GMT
HA	Hour-angle	degrees
DHA	Hour-angle rate	deg/sec

Output Symbol	Description	Units
DEC	Declination	degrees
DDEC	Declination rate	deg/sec
RNG	Range	kilometers
DRD	Range rate	km/sec
ELE	Elevation	degrees
DEL	Elevation rate	deg/sec
AZI	Azimuth	degrees
DAZ	Azimuth rate	deg/sec
LAT	Latitude	degrees
LONG	Longitude	degrees

MISSION EVENTS (Summarized at the bottom of each page of data)

Output Symbol	Description	Units
EVNT	Spacecraft event	
STA	Disregard this symbol	
TFI	Time from injection	minutes
TFL	Time from launch	minutes
DAY	Date of event	GMT
HR	Hour of event	GMT
MIN	Minutes of event	GMT
RAD	Radius from center of earth	kilometers
LAT	Latitude	degrees
LONG	Longitude	degrees
VEL	Inertial velocity of spacecraft	km/sec
PTH	Inertial path angle	degrees
AZ	Inertial azimuth	degrees
RT ASC	Right ascension	degrees

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7. ACCURACY OF DATA

Typical values of injection errors resulting from the Near Earth Conic Program are:

Injection longitude	~ 0.1 degree
Injection latitude	~ 0.2 degree
Injection time	~ 200 seconds

It may be noted that these accuracies are somewhat improved relative to those realized in earlier issues of this document using the former Near Earth Conic Program (Reference 3).

The resulting view period events relative to injection are well within the initial acquisition capabilities of the DSIF stations (Reference 4).

Typical values of view period event errors are as follows:

Range rate – 100 m/sec	This results in a frequency uncertainty of 0.71 kc. The expected frequency uncertainty is 15 kc (Reference 4).
Pointing angles (prior to 3 hours)	1.5 degree. S-band DSIF tracking capability is 16 degrees and the maximum expected uncertainty is approximately 8 degrees (Reference 4).
Event time	See below. (Typical event time error.)
Central angle pointing error	1.0 degree maximum

TYPICAL EVENT (RISE, SET, ETC.) TIME ERRORS

An integrating N-body trajectory program was used to check the accuracy of the Event times given in this document. To check these times, the program was run in two ways:

Case 1) Use the same injection time (as is given in this document) and determine subsequent event time errors.

Case 2) Use the same arrival time and determine the time errors for other events.

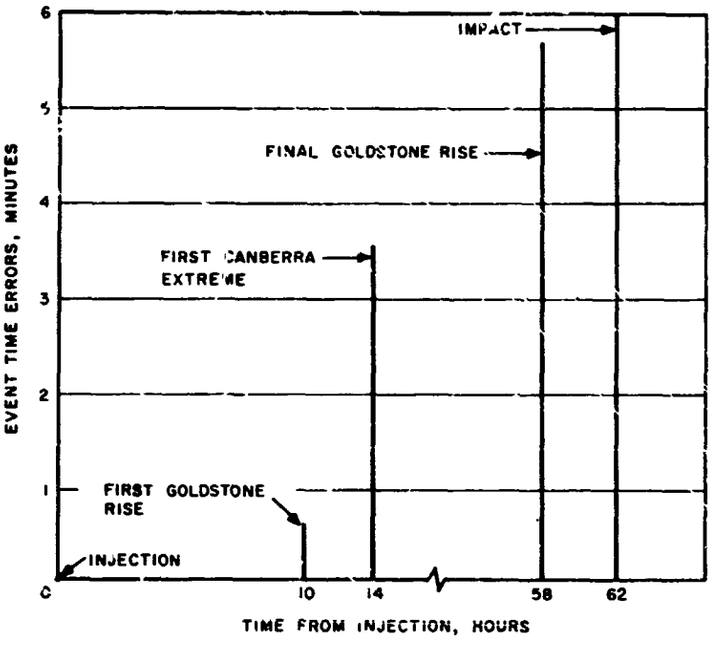
With case 1 it is obvious that event time errors in the vicinity of injection will be small. As the flight progresses, however, these errors increase to about 6 minutes at impact (Figure 7-1a).

From case 2, event time errors are small at impact and are at their maximum at injection (Figure 7-1b).

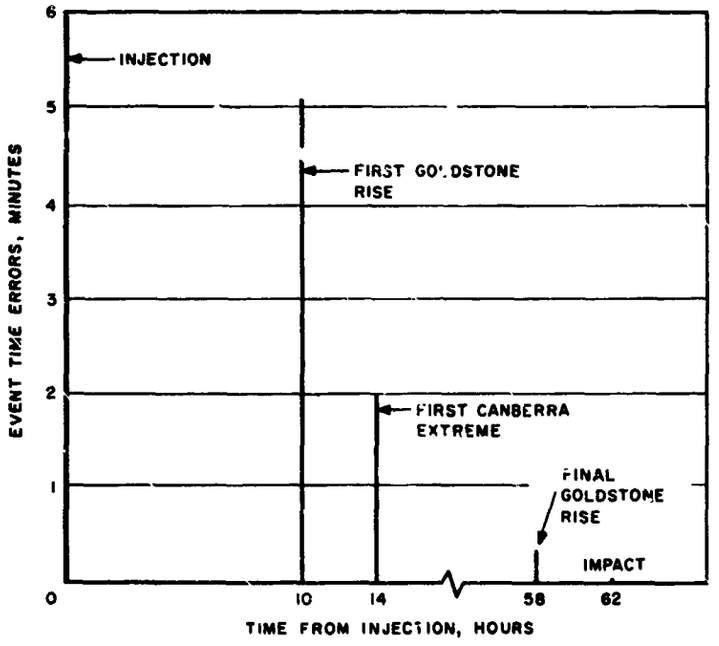
Therefore, in order to keep errors at a minimum when using this document, the following method should be employed:

1) Given a launch azimuth and injection (or launch) time, use columns 2 (or 3) of the data. These columns refer to the time from injection (or launch) and will yield very small event time errors in the vicinity of injection (injection + 10 hours). However, the GMT (column 4) in this neighborhood may be in error typically by 6 minutes.

2) Given an arrival time and a launch azimuth (and launch date), find the corresponding page in this document and determine the difference in the given arrival time and that which is printed out here. This difference may now be added to the GMT of the event times (column 4) in the vicinity of impact (impact -20 hours) and the event time errors will again be very small. Time from injection or launch (columns 2 or 3), however, may be in error by 6 minutes.



a) Case 1



b) Case 2

Figure 7-1. Typical Event Time Errors as Funtion of Time from Injection

8. REFERENCES

1. M. Horstein, "Surveyor Direct Ascent Trajectory Characteristics," SSD 4234R, April 1964.

2. R. Roth, "Parking Orbit and Direct Ascent Near Earth Conic Program User Guide," JPL EPD-198, 27 February 1964.

3. R. Roth, "Near Earth Conic Computer Program," JPL EPD-163, 26 August 1963.

4. "Initial Acquisition Study for Surveyor on Direct Ascent Trajectories," Hughes Aircraft Company, SSD 3466R.

5. D. Roek, "Conic View Period Program for IBM 7090 or 7094 Computers," JPL EPD-220, May 1964.

6. R. Roth, "Near Earth Conic Computer Program," JPL EPD-163, (Rev. 1), August 1965.

9. STATION VIEW PERIODS AND TRAJECTORY COORDINATES

DEC 1965

DEC 1965

SURVEYOR VIEW PERIODS

GHA	87.3852					EPS	142.7128							LOM	262.3547
SX	-.638765	SY	-.714637	SZ	-.285083	DAO	+16.56384	RAO	228.20867	RM	387631.316	LAT	28.510600	LON	279.461800
C3	-1.110883	ECC	.981760	SLR	12969.965	RCA	6544.6650	LTA	+20.0000	GTA	20.00	TB	675.00000	PCL	-.0
NSX	-.621609	NSY	-.726547	NSZ	-.292800	C3M	1.5562	VIM	2.6824	ZAE	135.971	B.T	.0000	B.R	-.0000
LATE	-1.6116	LONE	5.6833	LATS	-.6653	LONS	222.9965	LATI	-12.2850	LONI	322.5703	RSM	146.8741	TTAN	3.7246
LAUNCH DATE		DEC	17,1965		BASE AZM	111.0		TF	62.352				ARRIVAL DATE DEC	19 1965	15 51 16.2

LNCH AZMTH	LNCH TIME	PH	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	1 8 42.6	27.5	17.06	303.92	-10.42	49.38	119.01	1 19 57.6	6598.5	10.94	-5.16

EVNT STA	TFI	TFL	DAY	HR	MIN	PA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	17	1	20.0												
SEPARATION	1.20	12.45	17	1	21.2												
RETRO	3.20	14.45	17	1	23.2												
RISE 72	5.35	16.60	17	1	25.3	85,92	-.1418	27.10	-.0498	2197.0	-9.03	.00	.1324	297.39	-.0297	1.05	328.86
EXTM 72	8.36	19.61	17	1	28.3	35,81	-.4638	-2.45	-.3358	991.1	+1.75	53.94	.5150	276.74	-.4238	-7.33	341.02
RISE 51	11.33	22.58	17	1	31.3	84,80	-.0885	10.65	-.0590	4583.5	+4.61	.00	.1041	281.84	-.0145	-14.17	351.58
EXIT SHA	13.96	25.21	17	1	33.9												
EXIT 72	13.96	25.21	17	1	33.9	307,64	-.0798	-37.25	-.0022	3125.1	8.47	34.39	-.0610	130.21	-.0214	-18.91	359.78
EXIT 51	13.96	25.21	17	1	33.9	69,71	-.1019	-.00	-.0742	4032.2	+2.26	18.20	.1245	279.12	-.0205	-18.91	359.78
EXTM 51	26.45	37.70	17	1	46.4	2,25	-.0556	-34.38	-.0108	6091.8	5.45	81.14	-.0000	192.14	-.3062	-29.97	26.64
EXTM 72	69.48	80.73	17	2	29.4	274,36	.0001	-32.97	.0009	23973.7	4.85	7.93	.0000	122.37	-.0009	-32.88	54.30
RISE 42	80.82	92.07	17	2	40.8	104,99	-.0035	-25.11	-.0007	27725.4	4.31	3.06	.0029	241.16	.0014	32.44	55.94
EXTM 51	84.23	95.48	17	2	44.2	323,65	-.0001	-32.91	.0010	24112.4	4.49	57.68	.0000	111.48	-.0019	-32.30	56.24
EXTM 42	117.31	128.56	17	3	17.3	101,70	-.0001	-25.55	.0001	36932.3	4.09	5.70	-.0000	242.60	.0001	-30.97	56.25
SET 42	170.45	181.70	17	4	10.4	105,00	.0018	24.91	.0003	49426.4	3.76	2.93	-.0015	241.31	-.0008	-29 23	50.58
RISE 61	196.30	207.55	17	4	36.3	304,44	.0032	-33.76	.0006	55190.0	3.18	.00	.0022	136.71	.0017	-28.55	46.60
EXTM 51	294.96	306.21	17	6	14.9	359,53	.0037	-26.69	.0003	67859.6	2.94	88.95	.0016	156.11	.1508	-26.61	28.11
EXTM 61	465.48	476.73	17	9	5.4	4,96	.0040	-27.86	.0003	99315.1	2.50	21.75	.0000	184.72	.0038	-24.54	351.05
EXTM 72	492.45	503.70	17	9	32.4	,81	.0041	-25.32	.0002	99737.1	2.44	72.56	.0000	182.45	.0123	-24.29	344.91
RISE 11	636.58	647.83	17	11	56.5	289,26	.0040	-25.07	.0001	125746.9	1.90	.00	.0029	121.24	.0023	-23.21	311.44
SET 51	683.4_	694.66	17	12	43.4	90,00	.0039	-21.82	.0001	130858.8	2.52	9.29	-.0034	250.17	-.0014	-22.91	300.39
SET 61	724.92	736.17	17	13	24.9	67,24	.0040	-24.58	.0002	137187.9	2.37	-.01	-.0024	236.99	.0027	-22.68	290.54
SET 72	873.27	884.52	17	15	53.2	93,15	.0040	-21.61	.0001	155216.9	2.36	-.00	-.0037	248.17	-.0004	-21.94	255.03
RISE 42	885.84	897.09	17	16	5.8	255,00	.0040	-20.47	.0000	156662.7	1.61	.20	.0030	115.18	-.0023	-21.89	252.00
EXTM 11	928.30	939.55	17	16	48.3	1,45	.0042	-23.64	.0001	158323.1	1.90	31.14	.0000	181.55	.0045	-21.71	241.76
SET 11	1218.59	1229.84	17	21	38.5	73,55	.0041	-21.87	.0001	192858.9	2.02	-.00	-.0029	242.87	.0024	-20.69	171.19
EXTM 42	1308.56	1319.81	17	23	8.5	359,79	.0042	-19.96	.0000	195832.2	1.65	74.74	.0000	.74	-.0149	-20.43	149.18
RISE 51	1443.60	1454.85	18	1	23.6	270,00	.0041	-19.40	-.0000	214022.8	1.19	8.29	.0035	107.60	-.0016	-20.09	116.06
RISE 72	1603.14	1614.39	18	4	3.1	267,18	.0041	-19.50	-.0000	229679.5	1.08	.00	.0038	109.69	-.0006	-19.72	76.82
RISE 61	1647.49	1658.74	18	4	47.5	288,66	.0041	-20.71	.0000	233657.3	1.17	.00	.0028	117.60	.0027	-19.63	65.89
SET 42	1725.92	1737.17	18	6	5.9	103,70	.0041	-18.55	.0001	240572.7	1.80	-.00	-.0031	247.08	-.0023	-19.47	46.55
EXTM 51	1802.14	1813.39	18	7	22.1	359,94	.0042	-19.15	.0000	240902.8	1.42	83.41	.0000	.52	-.0331	-19.32	27.74
EXTM 61	1934.11	1945.36	18	9	34.1	,62	.0042	-20.31	.0000	255137.0	1.38	29.44	-.0000	180.67	.0045	-19.08	355.14
EXTM 72	1972.84	1984.09	18	10	12.8	,11	.0042	19.29	.0000	255258.3	1.36	78.61	-.0000	180.54	.0200	-19.02	345.56
RISE 11	2086.59	2097.84	18	12	6.6	284,60	.0042	-19.66	.0000	270625.4	.98	.00	.0031	114.32	.0024	-18.83	317.42
SET 51	2161.25	2172.50	18	13	21.2	90,01	.0041	-18.18	.0000	275662.6	1.70	7.78	-.0036	253.52	-.0016	-18.72	298.93
SET 61	2220.68	2231.93	18	14	20.6	72,54	.0041	-19.52	.0001	281148.3	1.60	.00	-.0028	244.04	.0027	-18.63	284.21
* RISE 42	2354.92	2366.17	18	16	34.9	256,99	.0041	-17.68	-.0000	291372.2	.90	-.00	.0031	111.83	-.0024	-18.44	250.93
EXTM 11	2387.82	2399.07	18	17	7.8	,38	.0042	-19.40	.0000	290165.4	1.24	39.39	.0000	180.44	.0049	-18.39	242.78
SET 11	2689.24	2700.49	18	22	9.2	76,16	.0042	-18.72	.0000	315604.5	1.51	.01	-.0031	246.87	.0024	-18.01	167.96
EXTM 42	2765.22	2776.47	18	23	25.2	359,90	.0042	-17.58	.0000	314874.0	1.15	72.36	.0000	.33	-.0131	-17.92	149.08
RISE 51	2895.77	2907.02	19	1	35.7	270,00	.0041	-17.32	-.0000	328963.6	.73	7.43	.0036	105.69	-.0017	-17.78	116.64
RISE 72	3054.64	3065.89	19	4	14.6	267,50	.0042	-17.43	-.0000	340502.1	.66	.00	.0039	107.61	-.0006	-17.59	77.06
RISE 61	3088.04	3099.29	19	4	48.0	286,23	.0042	-18.27	.0000	342686.9	.77	.00	.0029	114.25	.0027	-17.54	68.71
SET 42	3172.71	3183.96	19	6	12.7	102,32	.0042	-16.81	.0000	348195.8	1.44	-.00	-.0032	249.27	-.0024	-17.44	47.54
EXTM 51	3251.99	3263.24	19	7	31.9	359,97	.0042	-17.19	.0000	347071.6	1.08	81.45	-.0000	.23	-.0248	-17.35	27.72
EXTM 61	3381.33	3392.58	19	9	41.3	,40	.0042	-18.05	.0000	358302.4	1.07	31.71	-.0000	180.44	.0047	-17.19	355.36
EXTM 72	3420.31	3431.56	19	10	20.3	,07	.0042	-17.31	.0000	357900.0	1.07	80.60	-.0000	180.42	.0238	-17.14	345.60
RISE 11	3524.99	3536.24	19	12	4.9	282,94	.0042	-17.61	.0000	370838.9	.73	.00	.0032	111.73	.0024	-17.01	319.39
SET 51	3607.92	3619.17	19	13	27.9	90,00	.0042	-16.49	.0000	375555.7	1.52	7.08	-.0037	255.06	-.0017	-16.90	298.60
SET 61	3674 3_	3685.59	19	14	34.3	74,59	.0042	-17.44	.0000	380912.0	1.52	-.00	-.0029	246.89	.0028	-16.79	281.90
IMPACT	3741.10	3752.35	19	15	41.1												
IMPC 72	3741.10	3752.35	19	15	41.1	81,64	.0043	-16.53	.0001	385259.5	2.38	10.20	-.0041	254.52	-.0003	-16.62	264.99
IMPC 11	3741.10	3752.35	19	15	41.1	337,85	.0044	-17.35	.0001	382896.2	1.78	33.40	.0016	154.47	.0046	-16.62	264.99
SET 72	3787.18	3798.43	19	16	27.1	92,41	.0042	-16.82	.0001	383802.6	1.76	-.00	-.0040	253.01	-.0005	-16.96	254.25

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	17	1	19.959	6599.730	17.0913	303.8686	10.94104	-5.1598	118.9937	49.3271
SEPARATION	1.20	12.45	17	1	21.159	6550.895	13.6455	309.7949	10.98105	-1.7587	120.6484	55.5543
RETRO	3.20	14.45	17	1	23.159	6576.061	7.6031	319.2679	10.95982	3.9439	122.4944	65.5285
EXIT SHA	13.96	25.21	17	1	33.923	8541.862	+18.9144	359.7782	9.60304	28.7707	117.9022	108.7372
IMPACT	3741.10	3752.35	19	15	41.057	386440.195	-16.6160	264.9943	2.16434	63.0815	304.9316	228.2873

* An additional line of data should appear here. See Errata

SURVEYOR VIEW PERIODS

GMA	87.3852				EPS	142.955						LOM	255.2627
SX	-.635234	SY	-.717154	SZ	-.286524	DAO	-15.65596	RAO	228.46680	RM	387700.781	LAT	28.310600	LON	279.461800
C3	-1.124569	ECC	.981536	SLR	12968.491	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.617895	NSY	-.729074	NSZ	-.294374	C3M	1.5563	VIM	2.6824	ZAS	135.507	B.T	.0000	B.R	-.0000
LATE	-1.5813	LONE	5.6778	LATS	-.6659	LONS	222.7490	LATI	-12.5309	LONI	322.1371	RSM	146.8728	ITAN	3.7099
LAUNCH DATE		DEC	17,1965	BASE AZM		115.0	TF	62.599			ARRIVAL DATE	DEC	19 1965	16 20	55.4

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	1 23	1.4	27.6	15.61	303.24	-7.37	52.28	121.85	1 34 16.4	6571.6	10.96	-3.65

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROSE IN EARTH'S SHADOW															
INJECTION	.00	11.25	17	1	34.3												
SEPARATION	1.20	12.45	17	1	35.5												
RETRO	3.20	14.45	17	1	37.5												
RISE 72	5.23	16.48	17	1	39.5	87.25	-.1253	19.07	-.0867	2339.0	-8.48	.00	.1298	289.26	-.0686	-.95	326.70
EXTM 72	9.05	20.30	17	1	43.3	29.50	-.4072	-29.50	-.2552	1268.1	2.03	54.89	.1653	228.18	-.7028	-11.62	341.40
RISE 51	11.32	22.57	17	1	45.6	87.24	-.0806	5.70	-.0633	4802.7	-4.13	.00	.0998	276.33	-.0220	-16.69	349.05
EXIT SHA	13.21	24.46	17	1	47.5												
EXIT 72	13.21	24.46	17	1	47.5	320.50	-.1271	-45.73	.0081	2859.3	8.05	39.20	-.0674	145.04	-.0752	-20.17	354.85
EXIT 51	13.21	24.46	17	1	47.5	77.65	-.0888	-2.02	-.0723	4421.1	-2.57	12.00	.1114	273.58	-.0268	-20.17	354.85
EXTM 51	28.64	39.89	17	2	2.9	2.11	-.0477	-39.46	-.0052	7040.1	5.48	74.17	-.0000	186.83	-.1554	-32.94	26.66
EXTM 72	69.08	80.33	17	2	43.4	277.23	.0001	-35.17	.0012	23745.2	4.85	10.43	.0000	124.45	-.0012	-34.53	51.21
EXTM 51	83.67	94.92	17	2	57.9	327.24	-.0003	-35.03	.0013	23971.2	4.48	60.41	.0000	116.20	-.0026	-33.84	53.20
RISE 42	105.13	116.38	17	3	19.4	105.00	-.0009	-26.80	.0000	34193.4	5.17	4.09	.0006	239.81	.0005	-32.82	53.76
EXTM 42	116.38	127.63	17	3	30.7	104.67	-.0001	-26.74	.0001	36981.9	4.09	4.28	-.0000	240.04	.0002	-32.32	53.33
SET 42	133.30	144.55	17	3	47.6	104.99	.0007	-26.53	.0002	41077.8	3.98	3.93	-.0007	240.03	-.0002	-31.63	52.07
RISE 61	190.84	202.09	17	4	45.1	306.53	.0032	-35.13	.0007	54159.6	3.21	.00	.0021	138.91	.0016	-29.73	44.48
EXTM 51	283.16	294.41	17	6	17.4	.24	.0037	-27.85	.0003	65833.6	2.99	87.88	.0000	185.80	.0883	-27.66	27.47
EXTM 61	454.11	465.36	17	9	8.4	5.52	.0040	-28.72	.0003	97730.7	2.52	20.86	.0000	185.18	.0037	-25.32	350.53
EXTM 72	479.74	490.99	17	9	34.0	1.03	.0041	-26.16	.0002	97926.0	2.46	71.72	-.0000	182.96	.0117	-25.06	344.71
RISE 11	625.96	637.21	17	12	.2	289.89	.0040	-25.74	.0001	124335.2	1.91	.00	.0028	122.10	.0023	-23.84	310.80
SET 51	669.89	681.14	17	12	44.2	90.00	.0039	-22.44	.0002	129073.8	2.53	9.54	-.0034	249.60	-.0013	-23.54	300.44
SET 61	708.39	719.64	17	13	22.7	66.50	.0040	-25.24	.0002	135080.0	2.39	-.00	-.0024	236.05	.0027	-23.29	291.31
SET 72	860.27	871.52	17	15	54.5	93.24	.0040	-22.13	.0001	153650.1	2.37	-.00	-.0037	247.65	-.0004	-22.46	254.98
RISE 42	872.75	884.00	17	16	7.0	255.00	.0040	-20.97	.0000	155057.4	1.62	.51	.0029	115.58	-.0023	-22.40	251.97
EXTM 11	915.80	927.05	17	16	50.1	1.62	.0042	-24.17	.0001	156890.7	1.91	30.61	-.0000	181.72	.0044	-22.20	241.59
SET 11	1203.83	1215.08	17	21	38.1	73.18	.0041	-22.30	.0001	191244.2	2.03	-.00	-.0029	242.32	.0024	-21.11	171.57
EXTM 42	1295.46	1306.71	17	23	9.7	359.82	.0042	-20.35	.0000	194399.1	1.65	75.13	-.0000	.68	-.0153	-20.82	149.16
RISE 51	1430.45	1441.70	18	1	24.7	270.00	.0041	-19.75	.0000	212606.5	1.19	8.44	.0035	107.93	-.0016	-20.44	116.05
RISE 72	1589.78	1601.03	18	4	4.0	267.13	.0041	-19.82	-.0000	228283.4	1.08	.00	.0038	110.02	-.0006	-20.05	76.85
RISE 61	1635.64	1646.89	18	4	49.9	288.99	.0041	-21.03	.0000	232401.6	1.18	.00	.0028	118.05	.0027	-19.94	65.55
SET 42	1713.64	1724.89	18	6	7.9	103.94	.0041	-18.85	.0001	239284.8	1.80	-.00	-.0031	246.71	-.0023	-19.77	46.32
EXTM 51	1788.85	1800.10	18	7	23.1	359.92	.0042	-19.45	.0000	239529.0	1.43	83.71	.0000	.68	-.0352	-19.62	27.76
EXTM 61	1920.95	1932.20	18	9	35.2	.64	.0042	-20.60	.0000	253811.8	1.38	29.16	-.0000	180.69	.0045	-19.36	355.12
EXTM 72	1959.53	1970.78	18	10	13.8	.09	.0042	-19.57	.0000	253901.1	1.37	78.33	.0000	180.45	.0193	-19.29	345.58
RISE 11	2074.21	2085.46	18	12	8.5	284.82	.0042	-19.92	.0000	269338.8	.98	.00	.0031	114.65	.0024	-19.09	317.20
SET 51	2147.92	2159.17	18	13	22.2	90.00	.0041	-18.42	.0001	279289.7	1.70	7.89	-.0036	253.30	-.0016	-18.96	298.95
SET 61	2206.38	2217.63	18	14	20.6	72.29	.0041	-19.77	.0001	279710.8	1.60	.01	-.0028	243.70	.0027	-18.87	284.47
SET 72	2327.95	2339.20	18	16	22.2	92.66	.0041	-18.50	.0001	288982.2	1.69	-.00	-.0039	251.31	-.0005	-18.68	254.33
RISE 42	2340.94	2352.19	18	16	35.2	256.82	.0041	-17.90	-.0000	289958.1	.90	.00	.0031	112.10	-.0024	-18.66	251.11
EXTM 11	2374.70	2385.95	18	17	9.0	.43	.0042	-19.63	.0000	288835.5	1.24	35.16	-.0000	180.49	.0049	-18.61	242.73
SET 11	2673.28	2686.53	18	22	9.6	76.01	.0042	-18.91	.0000	314176.9	1.51	.00	-.0031	246.62	.0024	-18.20	168.12
EXTM 42	2751.83	2763.08	18	23	26.1	359.88	.0042	-17.77	.0000	313473.4	1.15	72.55	.0000	.38	-.0132	-18.11	149.10
RISE 51	2882.44	2893.69	19	1	36.7	270.00	.0041	-17.49	-.0000	327553.1	.72	7.50	.0036	105.85	-.0017	-17.95	116.63
RISE 72	3041.32	3052.57	19	4	15.6	267.47	.0042	-17.60	-.0000	339079.7	.65	-.01	.0039	107.78	-.0006	-17.75	77.08
RISE 61	3075.49	3086.74	19	4	49.8	286.39	.0042	-18.44	.0000	341304.6	.76	.00	.0029	114.48	.0027	-17.71	68.54
SET 42	3159.95	3171.20	19	6	14.2	102.44	.0042	-16.97	.0000	346775.0	1.43	-.00	-.0032	249.87	-.0024	-17.60	47.42
EXTM 51	3238.75	3250.00	19	7	33.0	359.97	.0042	-17.35	.0000	345592.5	1.07	81.61	-.0000	.22	-.0247	-17.50	27.72
EXTM 61	3368.06	3379.31	19	9	42.3	.39	.0042	-18.20	.0000	356787.3	1.07	31.56	-.0000	180.44	.0047	-17.34	355.37
EXTM 72	3406.98	3418.23	19	10	21.3	.05	.0043	-17.46	.0000	356351.1	1.07	80.45	.0000	180.30	.0231	-17.29	345.62
RISE 11	3512.21	3523.46	19	12	6.5	283.06	.0042	-17.75	.0000	369307.9	.72	.00	.0032	111.91	.0024	-17.15	319.27
SET 51	3594.66	3605.91	19	13	28.9	90.00	.0042	-16.63	.0000	373851.2	1.50	7.14	-.0037	254.94	-.0017	-17.04	298.60
SET 61	3660.58	3671.83	19	14	34.9	74.44	.0042	-17.59	.0000	379040.5	1.47	-.00	-.0029	246.68	.0027	-16.94	282.05
IMPACT	3755.91	3767.16	19	16	10.2												
IMPC 72	3755.91	3767.16	19	16	10.2	88.70	.0043	-16.59	.0001	386077.7	2.37	3.49	-.0041	253.72	-.0004	-16.71	257.95
IMPC 11	3755.91	3767.16	19	16	10.2	344.99	.0044	-17.45	.0001	382787.6	1.81	35.45	.0012	162.35	.0049	-16.71	257.95
SET 72	3771.14	3782.39	19	16	25.4	92.38	.0043	-16.63	.0001	386463.0	2.34	-.00	-.0041	253.21	-.0005	-16.76	254.27

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	17	1	34.273	6571.887	15.6221	303.2198	10.96307	-3.6525	121.8492	52.2666
SEPARATION	1.20	12.45	17	1	35.473	6544.776	11.8942	308.9219	10.98560	-.2364	123.2794	58.2695
RETRO	3.20	14.45	17	1	37.473	6604.750	5.4624	318.0361	10.93514	5.4476	124.7359	67.8851
EXIT SHA	13.21	24.46	17	1	47.481	8480.011	-20.1732	354.8496	9.63771	20.3913	119.3643	107.2074
IMPACT	3755.91	3767.16	19	16	10.185	386518.031	-16.7084	257.9497	2.15794	62.5771	305.0630	228.5447

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SURVEYOR VIEW PERIODS

GHA	88.3709					EPS	154.5834							LOM	272.4553
SX	-.451373	SY	-.819618	SZ	-.352831	DAO	-20.66056	RAO	241.15793	RM	391014.457	LAT	28.310600	LON	279.461800
C3	-1.023996	ECC	.983187	SLR	12979.295	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	679.00000	POL	-.0
NSX	-.432368	NSY	-.827326	NSZ	-.358593	C3M	1.5522	VIM	2.6817	ZAE	138.439	B.T	.0000	B.R	-.0000
LATE	-.0994	LONE	5 2845	LATS	-.6929	LONS	210.7498	LATI	-9.6203	LONI	324.6282	RSM	146.8191	TTAN	5.0878
LAUNCH DATE		DEC	18 1965		BASE AZM	99.0		TF	61.957			ARRIVAL DATE		DEC 20 1965 15 58 42.1	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99.00	1 44 26.0	27.4	21.39	305.94	-11.76	61.34	110.55	1 55 41.0	6613.5	10.93	-5.83

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	00	11.25	18	1	55.7												
SEPARATION	1.20	12.45	18	1	56.9												
RETRO	3.20	14.45	18	1	58.9												
RISE 72	5.64	16.89	18	2	1.3	79.01	-.2505	53.95	.0797	2217.2	-8.13	-.00	.1247	324.71	.1119	7.79	334.63
EXTM 72	9.91	21.16	18	2	5.6	322.92	-.2088	21.95	-.2735	1485.9	4.62	42.96	.0000	49.83	.4579	-2.47	352.06
RISE 51	11.42	22.67	18	2	7.1	76.18	-.1102	26.37	-.0384	4524.2	-4.71	-.00	.1050	299.54	.0142	-5.58	357.29
EXIT SHA	13.70	24.95	18	2	9.4												
EXIT 72	13.70	24.95	18	2	9.4	299.98	-.0508	-9.90	-.0616	3113.7	8.15	30.75	-.0463	96.85	.0750	-9.67	4.37
EXIT 51	13.70	24.95	18	2	9.4	60.34	-.1191	19.76	-.0576	4011.6	-2.68	15.62	.1247	301.79	.0191	-9.67	4.37
EXTM 51	26.08	37.33	18	2	21.8	355.66	-.0463	-18.09	-.0224	5901.5	5.45	61.36	.0000	28 1	.3289	-22.08	29.83
EXTM 72	68.87	80.12	18	3	4.6	273.75	-.0000	-28.83	-.0003	23845.9	4.88	7.07	.0000	118.25	.0003	-29.12	55.44
RISE 42	74.24	85.59	18	3	10.0	105.00	-.0042	-21.31	-.0019	26119.5	4.29	.72	.0042	244.16	.0009	-29.23	56.32
EXTM 42	122.99	134.24	18	3	58.7	100.56	.0003	-23.89	-.0003	38322.3	4.04	5.54	-.0000	244.57	-.0004	-29.11	56.96
SET 42	181.01	192.26	18	4	56.7	105.00	.0020	-24.29	.0003	51754.1	3.69	2.55	-.0014	241.80	-.0011	-28.43	30.24
RISE 61	199.93	211.18	18	5	15.6	303.80	.0032	-33.32	.0004	55978.3	3.19	.00	.0020	136.02	.0013	-28.21	47.28
EXTM 51	305.12	316.37	18	7	.8	.08	.0037	-27.31	.0002	69765.9	2.92	88.43	.0000	182.90	.1177	-27.18	27.61
EXTM 61	468.89	480.14	18	9	44.6	3.79	.0040	-29.38	.0002	100223.2	2.51	20.30	.0000	183.52	.0037	-26.04	352.16
EXTM 72	500.27	511.52	18	10	15.9	.65	.0041	-26.98	.0001	101209.4	2.44	70.91	-.0000	181.78	.0111	-25.87	345.06
RISE 11	653.15	664.40	18	12	48.8	291.10	.0040	-27.03	.0000	128352.0	1.90	.00	.0027	123.79	.0023	-25.17	309.66
SET 51	692.49	703.74	18	13	28.2	90.00	.0039	-23.95	.0001	132386.2	2.52	10.15	-.0033	248.19	-.0013	-25.01	300.40
SET 61	723.29	734.54	18	13	59.0	64.65	.0040	-26.83	.0001	137461.7	2.38	.00	-.0023	233.74	.0027	-24.90	293.12
SET 72	884.55	895.80	18	16	40.2	93.56	.0040	-24.05	.0001	157179.3	2.36	-.01	-.0036	245.76	-.0004	-24.38	254.63
RISE 42	895.55	906.80	18	16	51.2	254.99	.0040	-22.95	-.0000	158277.6	1.63	1.72	.0029	117.14	-.0022	-24.35	251.99
EXTM 11	936.96	948.21	18	17	32.6	1.17	.0042	-26.19	.0001	160249.9	1.91	28.59	-.0000	181.19	.0043	-24.23	242.02
SET 11	1218.44	1229.69	18	22	14.1	70.99	.0041	-24.79	.0001	193856.9	2.03	-.00	-.0028	239.14	.0024	-23.57	173.75
EXTM 42	1319.41	1330.66	18	23	55.1	359.89	.0042	-23.00	.0000	197956.5	1.66	77.78	.0000	.49	-.0172	-23.38	149.09
RISE 51	1454.33	1465.58	19	2	10.0	270.00	.0041	-22.47	-.0000	216197.0	1.21	9.55	.0035	110.44	-.0015	-23.14	116.04
RISE 72	1612.00	1623.25	19	4	47.7	266.67	.0041	-22.67	-.0000	231979.5	1.10	-.01	.0037	112.60	-.0005	-22.89	77.31
RISE 61	1672.00	1683.25	19	5	47.7	292.02	.0041	-23.90	-.0000	237413.6	1.20	.00	.0027	122.05	.0027	-22.81	62.35
SET 42	1742.18	1753.43	19	6	57.9	105.00	.0041	-21.79	.0000	243548.8	1.21	1.02	-.0030	243.77	-.0023	-22.71	45.26
EXTM 51	1813.40	1824.65	19	8	9.1	359.98	.0042	-22.53	.0000	243601.9	1.44	86.79	-.0000	.43	-.0466	-22.61	27.70
EXTM 61	1944.77	1956.02	19	10	20.5	.48	.0042	-23.70	.0000	258298.7	1.40	26.06	-.0000	180.49	.0043	-22.45	355.28
EXTM 72	1983.99	1995.24	19	10	59.7	.08	.0042	-22.76	.0000	258262.3	1.38	75.15	.0000	180.30	.0149	-22.40	345.59
RISE 11	2109.68	2120.93	19	13	5.4	287.51	.0042	-23.10	-.0000	274648.7	1.01	.00	.0030	118.69	.0024	-22.26	314.52
SET 51	2172.58	2183.83	19	14	8.3	90.00	.0041	-21.67	.0000	278671.1	1.71	9.23	-.0035	250.31	-.0015	-22.19	298.96
SET 61	2217.46	2228.71	19	14	53.1	68.89	.0041	-23.05	.0000	283247.0	1.61	-.00	-.0027	239.14	.0027	-22.14	287.85
SET 72	2354.89	2366.14	19	17	10.6	93.19	.0041	-21.83	.0000	293923.1	1.70	-.00	-.0038	247.95	-.0005	-22.01	253.81
RISE 42	2358.46	2369.71	19	17	14.1	255.00	.0041	-21.24	-.0000	294120.8	.94	.68	.0030	115.80	-.0023	-22.00	252.92
EXTM 11	2399.18	2410.43	19	17	54.9	.32	.0042	-23.01	.0000	293961.4	1.26	31.78	-.0000	180.35	.0046	-21.96	242.83
SET 11	2688.61	2699.86	19	22	44.3	73.07	.0042	-22.42	.0000	318637.8	1.53	-.00	-.0030	242.17	.0024	-21.70	171.04
EXTM 42	2777.12	2788.37	20	0	12.8	359.91	.0042	-21.36	.0000	318802.0	1.17	76.14	.0000	.35	-.0160	-21.63	149.07
RISE 51	2907.72	2918.97	20	2	23.4	270.00	.0041	-21.09	-.0000	333032.0	.76	8.99	.0035	109.16	-.0016	-21.53	116.63
RISE 72	3064.15	3075.40	20	4	59.8	266.90	.0042	-21.24	-.0000	344807.7	.69	-.01	.0038	111.45	-.0006	-21.39	77.64
RISE 61	3115.29	3126.54	20	5	51.0	290.07	.0042	-22.08	-.0000	348220.9	.80	.00	.0028	119.50	.0027	-21.34	64.87
SET 42	3195.41	3206.66	20	7	11.1	105.00	.0041	-20.64	.0000	353508.4	1.45	.31	-.0031	244.68	-.0024	-21.27	44.85
EXTM 51	3264.05	3275.30	20	8	19.7	359.98	.0042	-21.13	.0000	351782.7	1.10	85.39	-.0000	.28	-.0320	-21.22	27.70
EXTM 61	3393.04	3404.29	20	10	28.7	.31	.0042	-21.98	.0000	363630.0	1.10	27.78	-.0000	180.32	.0044	-21.10	355.45
EXTM 72	3432.33	3443.58	20	11	8.0	.05	.0042	-21.30	.0000	363028.6	1.11	76.61	.0000	180.23	.0161	-21.07	345.62
RISE 11	3550.06	3561.31	20	13	5.7	286.20	.0042	-21.56	-.0000	377037.2	.79	.01	.0031	116.73	.0024	-20.96	316.14
SET 51	3619.95	3631.20	20	14	15.6	90.00	.0042	-20.49	.0000	380894.5	1.58	8.75	-.0036	251.39	-.0016	-20.88	298.61
SET 61	3670.37	3681.62	20	15	6.1	70.56	.0042	-21.47	.0000	385567.7	1.60	-.00	-.0028	241.35	.0028	-20.81	285.92
IMPACT	3717.45	3728.70	20	15	53.1												
IMPC 72	3717.45	3728.70	20	15	53.1	72.64	.0043	-20.69	.0001	387670.5	2.42	18.96	-.0040	250.76	-.0000	-20.71	273.97
IMPC 11	3717.45	3728.70	20	15	53.1	328.75	.0044	-21.45	.0001	386949.1	1.80	26.06	.0020	147.49	.0040	-20.71	273.97

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	18	1	55.684	6615.473	21.4192	305.8594	10.93249	-5.8317	110.5227	61.2591
SEPARATION	1.20	12.45	18	1	56.884	6556.620	18.8535	312.4146	10.98016	-2.4371	112.8887	68.1151
RETRO	3.20	14.45	18	1	58.884	6566.294	14.0695	322.8513	10.97200	3.2764	115.9996	79.0931
EXIT SHA	13.70	24.95	18	2	9.386	6407.510	-9.6701	4.3673	9.68487	27.9504	117.8221	123.2023
IMPACT	3717.45	3728.70	20	15	53.132	389790.078	-20.7122	273.9741	2.19322	65.5672	298.5205	241.2797

DEC 18, 1965
99 DEGREES

SURVEYOR VIEW PERIODS

GHA 88.3709 EPS 154.7310 LOM 268.2144
SX -.448958 SY -.820636 SZ -.353543 DAO -20.70417 RAO 241.31759 RM 391054.852 LAT 28.310000 LON 279.461800
CX -1.025050 ECC .98317U SLR 12979.187 RCA 6544.6650 LTA -20.0000 GTA 20.00 TB 675.00000 POL -.0
NSX -.429922 NSY -.828297 NSZ -.359293 C3M 1.5561 VIM 2.6824 ZAE 138.324 B.T .0000 B.R -.0000
LATE -.0811 LONE 5.2781 LATS -.6932 LONS 219.6010 LATI -9.7572 LONI 324.5344 RSM 146.8185 TTAN 5.0942
LAUNCH DATE DEC 18,1965 BASE AZM 102.0 TF 61.985 ARRIVAL DATE DEC 20 1965 16 18 15.4

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	1 59	7.8	27.6	20.22	305.66	-8.49	64.75	112.73	2 10 22.8	6580.4	10.96	-4.21

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	18	2	10.4												
SEPARATION	1.20	12.45	18	2	11.6												
RETRO	3.20	14.45	18	2	13.6												
RISE 72	5.32	16.57	18	2	15.7	81.64	-.2043	46.52	.0438	2306.1	-8.50	.00	.1296	316.90	.0710	6.70	332.14
EXTM 72	9.12	20.37	18	2	19.5	347.72	-.3639	25.35	-.3009	1240.9	2.09	54.67	.1604	19.42	.7191	-2.67	347.51
RISE 51	11.26	22.51	18	2	21.6	78.58	-.1012	22.52	-.0426	4699.8	-4.44	.01	.1026	294.93	.0063	-7.14	354.85
EXIT SHA	13.06	24.31	18	2	23.4												
EXIT 72	13.06	24.31	18	2	23.4	308.57	-.0715	-13.53	-.0636	2746.5	8.05	39.24	-.0703	100.79	.0811	-10.37	.34
EXIT 51	13.06	24.31	18	2	23.4	67.28	-.1075	17.02	-.0552	4298.5	-2.94	11.86	.1164	295.68	.0076	-10.37	.34
EXTM 51	27.34	38.59	18	2	37.7	358.29	-.0420	-22.25	-.0171	6472.0	5.45	86.18	.0000	24.48	.6371	-9.98	23.56
EXTM 72	69.02	80.27	18	3	19.4	277.17	-.0000	-30.14	-.0001	23732.2	4.86	10.13	.0000	119.55	.0001	-.94	52.11
RISE 42	93.02	104.27	18	3	43.4	105.00	-.0018	-23.38	-.0009	31275.4	4.22	1.99	.0018	242.51	.0003	-30.04	54.39
EXTM 42	122.57	133.82	18	4	12.9	103.86	.0003	-24.56	-.0003	38592.1	4.03	3.42	-.0000	242.38	-.0004	-29.75	53.60
SET 42	147.22	158.47	18	4	37.6	105.00	.0012	-24.64	-.0001	44442.3	3.88	2.77	-.0008	241.53	-.0008	-29.42	51.32
RISE 61	188.17	199.42	18	5	18.6	305.19	.0031	-34.25	.0004	53663.9	3.27	-.00	.0019	137.50	.0017	-28.87	45.75
EXTM 51	288.40	299.65	18	6	58.8	.14	.0037	-27.93	.0002	66905.2	2.98	87.80	.0000	183.15	.0837	-27.74	27.56
EXTM 61	455.07	466.32	18	9	45.5	4.14	.0039	-29.86	.0002	98270.0	2.53	19.80	.0000	183.82	.0036	-26.45	351.83
EXTM 72	485.40	496.65	18	10	15.8	.72	.0040	-27.43	.0001	99116.4	2.47	70.46	-.0000	181.92	.0107	-26.27	345.00
RISE 11	640.01	651.26	18	12	50.4	291.43	.0040	-27.38	.0000	126675.9	1.92	.00	.0027	124.25	.0023	-25.49	309.29
SET 51	677.64	688.89	18	13	28.0	90.00	.0039	-24.26	.0001	130511.5	2.53	10.28	-.0033	247.91	-.0013	-25.33	300.45
SET 61	706.82	718.07	18	13	57.2	64.24	.0040	-27.18	.0002	135422.9	2.40	.00	-.0023	233.24	.0027	-25.21	293.56
SET 72	870.17	881.42	18	16	40.5	93.60	.0040	-24.61	.0001	151542.7	2.37	-.01	-.0036	245.44	-.0004	-24.64	254.62
RISE 42	881.23	892.48	18	16	51.6	254.99	.0040	-23.19	-.0000	156639.5	1.64	1.87	.0029	117.34	-.0022	-24.61	251.97
EXTM 11	922.87	931.12	18	17	33.3	1.24	.0042	-26.47	.0001	158710.8	1.93	28.31	-.0000	181.26	.0042	-24.48	241.95
SET 11	1203.32	1214.57	18	22	13.7	70.80	.0041	-24.99	.0001	192340.7	2.04	-.00	-.0028	238.86	.0024	-23.78	173.96
EXTM 42	1305.14	1316.39	18	23	55.5	359.88	.0042	-23.19	.0000	196571.6	1.67	77.97	.0000	.53	-.0182	-23.57	149.09
RISE 51	1440.16	1451.41	19	2	10.5	270.00	.0041	-22.65	-.0000	214872.5	1.22	9.62	.0035	110.60	-.0015	-23.31	116.03
RISE 72	1597.75	1609.00	19	4	48.1	266.64	.0041	-22.82	-.0000	230710.0	1.11	-.01	.0037	113.06	-.0005	-23.05	77.33
RISE 61	1658.54	1669.79	19	5	48.9	292.20	.0041	-24.05	.0000	236235.3	1.20	.00	.0027	122.28	.0027	-22.96	62.37
SET 42	1727.97	1739.22	19	6	58.4	105.00	.0041	-21.94	.0001	242314.0	1.81	1.11	-.0030	243.66	-.0023	-22.86	45.27
EXTM 51	1799.23	1810.48	19	8	9.6	359.98	.0042	-22.68	.0000	242400.6	1.45	86.94	-.0000	.41	-.0497	-22.75	27.70
EXTM 61	1930.70	1941.95	19	10	21.1	.51	.0042	-23.84	.0000	257155.2	1.40	25.92	-.0000	180.51	.0043	-22.58	355.26
EXTM 72	1969.85	1981.10	19	11	.2	.09	.0042	-22.89	.0000	257113.0	1.39	75.01	.0000	180.32	.0147	-22.53	345.58
RISE 11	2095.98	2107.23	19	13	6.4	287.62	.0042	-23.22	-.0000	273561.2	1.02	.00	.0030	118.85	.0024	-22.38	314.41
SET 51	2158.40	2169.65	19	14	8.8	90.00	.0041	-21.78	.0000	277553.7	1.71	9.27	-.0035	250.20	-.0015	-22.31	298.96
SET 61	2202.78	2214.03	19	14	53.2	68.77	.0041	-23.17	.0000	282104.6	1.62	-.00	-.0027	238.97	.0027	-22.26	287.98
SET 72	2340.78	2352.03	19	17	11.2	93.20	.0041	-21.93	.0000	292854.8	1.70	-.00	-.0038	247.85	-.0005	-22.11	253.80
RISE 42	2344.33	2355.58	19	17	14.7	255.00	.0041	-21.35	-.0000	293044.2	.94	.74	.0030	115.88	-.0023	-22.11	252.92
EXTM 11	2385.09	2396.34	19	17	55.5	.34	.0042	-23.12	.0000	292913.1	1.27	31.68	-.0000	180.37	.0045	-22.07	242.82
SET 11	2674.13	2685.38	19	22	44.5	72.99	.0042	-22.51	.0000	317602.7	1.53	-.00	-.0030	242.05	.0024	-21.79	171.12
EXTM 42	2762.99	2774.24	20	0	13.4	359.92	.0042	-21.45	.0000	317804.1	1.18	76.23	.0000	.34	-.0161	-21.72	149.06
RISE 51	2893.58	2904.83	20	2	24.0	270.00	.0041	-21.17	-.0000	332052.6	.76	9.02	.0035	109.23	-.0016	-21.61	116.63
RISE 72	3050.10	3061.35	20	5	.5	266.89	.0042	-21.31	-.0000	343864.6	.69	-.01	.0038	111.93	-.0006	-21.47	77.65
RISE 61	3101.60	3112.85	20	5	52.0	290.15	.0042	-22.15	-.0000	347302.5	.81	.00	.0028	119.60	.0027	-21.42	64.79
SET 42	3181.36	3192.61	20	7	11.7	105.00	.0041	-20.71	.0000	352561.3	1.45	.35	-.0031	244.62	-.0024	-21.35	44.86
EXTM 51	3250.00	3261.25	20	8	20.4	359.98	.0042	-21.20	.0000	350838.4	1.10	85.47	-.0000	.28	-.0329	-21.29	27.70
EXTM 61	3379.01	3390.26	20	10	29.4	.32	.0042	-22.05	.0000	362684.9	1.10	27.71	-.0000	180.33	.0044	-21.17	355.44
EXTM 72	3418.27	3429.52	20	11	8.7	.06	.0042	-21.36	.0000	362071.0	1.10	76.54	.0000	180.23	.0163	-21.13	345.62
RISE 11	3536.21	3547.46	20	13	6.6	286.25	.0042	-21.62	-.0000	376058.2	.78	.01	.0031	116.81	.0024	-21.02	316 08
SET 51	3605.88	3617.13	20	14	16.3	90.00	.0042	-20.56	.0000	379846.4	1.56	8.77	-.0036	251.33	-.0016	-20.94	298.61
SET 61	3656.07	3667.32	20	15	6.5	70.49	.0042	-21.54	.0000	384412.4	1.55	-.00	-.0028	241.25	.0028	-20.88	285.99
IMPACT	3719.12	3730.37	20	16	9.5												
IMPC 72	3719.12	3730.37	20	16	9.5	76.62	.0043	-20.71	.0001	388105.6	2.42	15.25	-.0040	250.60	-.0001	-20.75	270.02
IMPC 11	3719.12	3730.37	20	16	9.5	332.76	.0044	-21.51	.0001	386831.4	1.82	27.68	.0018	151.25	.0041	-20.75	270.02

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	18	2	10.380	6580.924	20.2302	305.6336	10.96020	-4.2078	112.7236	64.7174
SEPARATION	1.20	12.45	18	2	11.580	6545.925	17.4326	312.0245	10.98916	-.7914	114.8872	71.4090
RETRO	3.20	14.45	18	2	13.580	6593.326	12.3315	322.1863	10.94965	4.9073	117.6230	82.0722
EXIT SHA	13.06	24.31	18	2	23.441	8389.833	-10.3714	.3367	9.69503	27.8376	118.3759	122.6951
IMPACT	3719.12	3730.37	20	16	9.504	389832.055	-20.7532	270.0194	2.19167	65.3063	298.3635	241.4292

SURVEYOR VIEW PERIODS

GHA	88.3709					GPS	154.8942							LOM	283.3579
SX	-.446189	SY	-.821796	SZ	-.354355	DAD	-20,75392	RAD	241.50051	RM	391101.094	LAT	28.310600	LOM	279.461800
C3	-1.031132	ECC	.983070	SLR	12978.534	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.427069	NSY	-.829419	NSZ	-.360106	C3M	1.5564	VIM	2.6825	ZAE	138.109	B.T	.0000	B.R	-.0000
LATE	-.0600	LONE	5.2709	LATS	-.6936	LONS	210.4307	LATI	-9.9337	LONI	324.3454	RSM	146.8179	TTAN	5.0953
LAUNCH DATE		DEC	18,1965		BASE AZM	105.0		TF	32.094			ARRIVAL DATE		DEC 20 1965	16 36 21.5

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
105.00	2 12	2.5	27.7	19.07	305.30	-5.66	67.69	114.89	2 23 17.5	6560.5	10.98	-2.81

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW														
INJECTION	.00	11.25	18	2	23.3												
SEPARATION	1.20	12.45	18	2	24.5												
RETRO	3.20	14.45	18	2	26.5												
RISE 72	5.08	16.33	18	2	28.4	33.40	-.1768	39.60	.0114	2397.6	-8.63	.00	.1320	310.06	.0355	5.48	329.97
EXTM 72	8.87	20.12	18	2	32.2	4.76	-.3970	17.16	-.2739	1193.4	1.07	64.49	.3412	349.39	.7433	-4.01	344.94
RISE 51	11.17	22.42	18	2	34.5	80.73	-.0936	18.46	-.0464	4866.2	-4.16	.00	.1002	290.50	-.0006	-8.80	352.60
EXIT SHA	12.47	23.72	18	2	35.8												
EXIT 72	12.47	23.72	18	2	35.8	318.41	-.1010	-17.69	-.0639	2441.5	7.84	48.38	-.1043	107.80	.0747	-11.13	356.52
EXIT 51	12.47	23.72	18	2	35.8	73.26	-.0976	14.54	-.0541	4580.3	-3.14	8.17	.1089	290.50	-.0008	-11.16	356.52
EXTM 51	27.93	39.18	18	2	51.2	2.23	-.0409	-25.54	-.0145	6820.5	5.57	87.98	.0383	275.28	-.2960	-25.64	26.53
EXTM 72	69.50	80.75	18	3	32.8	280.16	.0100	-31.59	.0001	23740.2	4.83	12.76	.0000	120.72	-.0001	-30.92	49.26
RISE 61	179.66	190.91	18	5	23.0	306.74	.0030	-35.25	.0005	51970.6	3.32	.00	.0019	139.12	.0016	-29.65	44.10
EXTM 51	273.90	285.15	18	6	57.2	.22	.0036	-28.68	.0002	64371.0	3.03	87.06	.0000	183.74	.0614	-28.41	27.49
EXTM 61	443.49	454.74	18	9	46.8	4.53	.0039	-30.41	.0002	96616.5	2.55	19.22	.0000	184.14	.0036	-26.93	351.47
EXTM 72	472.67	483.92	18	10	16.0	.82	.0040	-27.95	.0001	97294.8	2.49	69.94	.0000	182.10	.0104	-26.74	344.91
RISE 11	629.12	640.37	18	12	52.4	291.83	.0040	-27.79	.0000	125253.1	1.94	.00	.0027	124.79	.0023	-25.87	308.87
SET 51	664.81	676.06	18	13	28.1	90.00	.0039	-24.62	.0001	128845.9	2.55	10.42	-.0033	247.57	-.0013	-25.70	330.49
SET 61	692.07	703.32	18	13	55.4	63.76	.0040	-27.59	.0002	133550.6	2.41	-.00	-.0023	232.65	.0027	-25.58	294.07
SET 72	857.79	869.04	18	16	41.1	97.65	.0040	-24.62	.0001	154087.6	2.38	-.01	-.0036	245.13	-.0004	-24.95	254.60
RISE 42	868.87	880.12	18	16	52.2	254.99	.0040	-23.49	-.0000	155172.8	1.65	2.06	.0029	117.67	-.0022	-24.92	251.94
EXTM 11	910.79	922.04	18	17	34.1	1.33	.0042	-26.79	.0001	157350.0	1.93	27.99	-.0000	181.35	.0042	-24.78	241.87
SET 11	1189.97	1201.22	18	22	13.3	70.56	.0041	-25.25	.0001	199053.9	2.04	-.00	-.0028	238.53	.0024	-24.02	174.20
EXTM 42	1292.80	1304.05	18	23	56.1	359.87	.0042	-23.42	.0000	195300.0	1.67	78.90	.0000	.57	-.0185	-23.79	149.70
RISE 51	1427.91	1439.16	19	2	11.2	270.00	.0041	-22.85	-.0000	213643.6	1.23	9.71	.0035	110.79	-.0015	-23.52	11 2
R	1585.38	1596.63	19	4	48.7	266.61	.0041	-23.01	-.0000	229516.3	1.12	-.01	.0037	113.25	-.0005	-23.24	7 .35
S 1	1647.11	1658.36	19	5	50.4	292.40	.0041	-24.24	.0000	235138.2	1.21	.00	.0027	122.54	.0027	-23.14	69.16
SET 42	1715.67	1726.92	19	6	59.0	105.00	.0041	-22.11	.0001	241139.2	1.81	1.21	-.0030	243.52	-.0023	-23.03	45.28
EXTM 51	1786.97	1798.22	19	8	10.3	359.99	.0042	-22.85	.0000	241253.2	1.45	87.11	-.0000	.39	-.0518	-22.92	27.70
EXTM 61	1918.54	1929.79	19	10	21.8	.53	.0042	-24.01	.0000	256054.0	1.40	25.75	-.0000	180.54	.0043	-22.74	355.23
EXTM 72	1957.61	1968.86	19	11	.9	.10	.0042	-23.05	.0000	255998.5	1.39	74.85	.0000	180.34	.0146	-22.69	345.58
RISE 11	2084.25	2095.50	19	13	7.5	287.75	.0042	-23.37	-.0000	272499.6	1.02	.00	.0030	119.04	.0026	-22.52	314.27
SET 51	2146.11	2157.36	19	14	9.4	90.00	.0041	-21.92	.0000	276446.7	1.72	9.33	-.0035	250.07	-.0015	-22.45	298.97
SET 61	2189.88	2201.13	19	14	53.2	68.61	.0041	-23.31	.0001	280960.5	1.62	-.00	-.0027	238.77	.0027	-22.40	288.13
SET 72	2328.61	2339.86	19	17	11.9	93.23	.0041	-22.06	.0001	291780.9	1.70	-.01	-.0038	247.12	-.0005	-22.24	253.78
RISE 42	2332.09	2343.34	19	17	15.4	255.00	.0041	-21.47	-.0000	291956.1	.94	.82	.0030	115.97	-.0023	-22.23	252.91
EXTM 11	2372.90	2384.15	19	17	56.2	.36	.0042	-23.24	.0000	291853.0	1.47	31.55	-.0000	180.38	.0045	-22.19	242.80
SET 11	2661.46	2672.71	19	22	44.8	72.90	.0042	-22.62	.0000	316514.4	1.50	-.00	-.0030	241.91	.0024	-21.90	171.22
EXTM 42	2750.74	2761.99	20	0	14.0	359.92	.0042	-21.55	.0000	310747.4	1.18	76.33	.0000	.32	-.0160	-21.82	149.06
RISE 51	2881.33	2892.58	20	2	24.6	270.00	.0041	-21.26	-.0000	330998.4	.76	9.06	.0035	109.32	-.0016	-21.70	116.62
RISE 72	3037.79	3049.04	20	5	1.1	266.88	.0042	-21.40	-.0000	342911.5	.69	-.01	.0038	111.62	-.0006	-21.55	77.65
RISE 61	3089.71	3100.96	20	5	53.0	290.25	.0042	-22.24	-.0000	346271.1	.80	.00	.0028	119.73	.0027	-21.50	64.09
SET 42	3169.09	3180.34	20	7	12.4	105.00	.0041	-20.79	.0000	351487.5	1.45	.40	-.0031	244.56	-.0024	-21.43	44.86
EXTM 51	3237.74	3248.99	20	8	21.0	359.98	.0042	-21.29	.0000	349759.8	1.10	85.55	-.0000	.30	-.0320	-21.37	27.70
EXTM 61	3366.80	3378.05	20	10	30.1	.32	.0042	-22.13	.0000	361390.9	1.10	27.63	-.0000	180.34	.0044	-21.25	355.43
EXTM 72	3406.04	3417.29	20	11	9.3	.06	.0042	-21.44	.0000	360959.3	1.10	76.46	.0000	180.24	.0162	-21.21	345.62
RISE 11	3524.27	3535.52	20	13	7.6	286.32	.0042	-21.70	-.0000	374914.7	.78	.01	.0031	116.91	.0024	-21.09	316.02
SET 51	3593.69	3604.94	20	14	17.0	90.00	.0042	-20.63	.0000	378626.2	1.54	8.80	-.0036	251.27	-.0016	-21.02	298.61
SET 61	3643.60	3654.85	20	15	6.9	70.40	.0042	-21.62	.0000	383092.9	1.51	-.00	-.0028	241.14	.0027	-20.96	286.08
IMPACT	3725.65	3736.90	20	16	28.9												
IMPC 72	3725.65	3736.90	20	16	28.9	81.33	.0043	-20.73	.0001	388627.8	2.43	10.86	-.0040	250.29	-.0002	-20.80	265.32
IMPC 11	3725.65	3736.90	20	16	28.9	337.51	.0044	-21.56	.0001	386716.3	1.84	29.35	.0015	155.92	.0043	-20.80	265.32

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION	.00	11.25	18	2	23.291	6560.631	19.0720	305.2874	10.97662	-2.8060	114.8828	67.6178
SEPARATION	1.20	12.45	18	2	24.491	6545.440	16.0484	311.5186	10.98929	.6213	116.8563	74.1358
RETRO	3.20	14.45	18	2	26.491	6524.929	10.6517	321.3910	10.92260	6.2923	119.2605	84.5136
EXIT SHA	12.47	23.72	18	2	35.758	6362.179	-11.1638	356.5187	9.71100	27.6590	119.9837	121.9643
IMPACT	3725.65	3736.90	20	16	28.940	3959879.453	-20.8018	265.3248	2.18864	69.1450	298.8221	241.6064

SURVEYOR VIEW PERIODS

OMA	88.3709					EPS	155.0536					LOM	-5-.5171
SX	-.443481	SY	-.822919	SZ	-.355144	DAO	-20.89429	RAO	241.67915	RM	391146.230	LAT	28.310500	LON	2[illegible].461800
CO	-1.038943	ECC	.9829-2	SLR	12977.693	RCA	6944.6650	LTA	-29.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.424262	NSY	-.830512	NSZ	-.360903	C3M	1.5563	VIM	2.6825	ZAE	157.844	B.T	.0000	B.R	-.0000
LATE	-.0395	LONE	5.2642	LATS	-.6940	LONS	210.2649	LATI	-10.1373	LONI	324.1113	RSM	146.8173	TTAN	5.0928
LAUNCH DATE		DEC	18.1965		BASE AZM	108.0		TF	62.230			ARRIVAL DATE		DEC	20 1965	16 55 39.0	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPTH
108.00	2 23 12.9	27.8	17.94	304.85	-3.26	69.97	117.02	2 34 [illegible].9	6549.9	10.99	-1.61

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DF	AZI	DAZ	LAT	LONG
			PROBE	IN	EARTH'S	SHADOW												
INJECTION		.00	11.25	18	2	34.5												
SEPARATION		1.20	12.45	18	2	35.7												
RETRO		3.20	14.45	18	2	37.7												
RISE	72	4.91	16.16	18	2	39.4	84.72	-.1578	33.55	-.0171	2488.4	-8.58	-.00	.1326	303.92	.0048	4.17	328.07
EXTM	72	9.57	20.82	18	2	44.0	.31	-.3147	-5.21	-.2108	1354.1	3.72	87.29	.2447	353.49	6.0791	-7.43	345.62
RISE	51	11.12	22.37	18	2	45.6	82.70	-.0871	14.76	-.0497	5022.4	-3.88	-.00	.0976	286.43	-.0066	-10.57	350.54
EXIT	SHA	12.02	23.27	18	2	46.5												
EXIT	72	12.02	23.27	18	2	46.5	328.93	-.1355	-23.23	-.0044	2256.5	7.49	56.50	-.1581	120.78	.0162	-12.21	353.20
EXIT	51	12.02	23.27	18	2	46.5	77.95	-.0896	11.96	-.0543	4831.4	-3.21	5.39	.1028	286.06	-.0072	-12.21	353.20
EXTM	51	30.42	41.67	18	3	4.9	1.48	-.0343	-30.04	-.0092	7777.0	5.43	65.51	.0000	196.56	-.3964	-28.10	26.89
EXTM	72	69.79	81.04	18	3	44.3	282.73	.0000	-33.15	.0003	23721.5	4.62	14.95	.0000	122.36	-.0003	-32.04	46.77
EXTM	51	87.60	98.85	18	4	2.1	333.33	-.0001	-32.96	.0004	25025.9	4.41	65.73	.0000	113.60	-.0011	-31.97	48.72
RISE	61	174.24	185.49	18	5	28.7	306.40	.0030	-36.28	.0006	50896.7	3.36	.00	.0019	140.81	.0016	-30.46	42.41
EXTM	51	261.6	272.88	18	6	56.1	.34	.0035	-29.31	.0003	62189.6	3.08	86.21	.0000	184.45	.0468	-29.16	27.58
EXTM	61	434.02	445.27	18	9	48.5	4.96	.0039	-31.01	.0002	95265.3	2.57	18.60	.0000	184.48	.0036	-27.47	351.07
EXTM	72	461.99	473.24	18	10	16.5	.93	.0040	-28.52	.0002	95751.2	2.51	69.36	.0000	182.32	.0101	-27.26	344.81
RISE	11	620.29	631.54	18	12	54.5	292.27	.0040	-28.24	.0001	124083.8	1.95	.00	.0027	125.58	.0023	-26.29	308.40
SET	51	653.87	665.12	18	13	28.3	90.00	.0039	-25.03	.0001	127401.1	2.56	10.59	-.0033	247.19	-.0013	-26.12	300.53
SET	61	678.93	690.18	18	13	53.4	63.21	.0040	-28.04	.0002	131856.2	2.42	-.00	-.0023	231.99	.0027	-26.00	294.63
SET	72	847.30	858.55	18	16	41.8	93.71	.0039	-24.96	.0001	152829.7	2.39	-.01	-.0036	244.78	-.0004	-25.30	254.57
RISE	42	858.35	869.60	18	16	52.8	254.99	.0040	-23.82	-.0000	153895.0	1.66	2.26	.0029	117.83	-.0022	-25.26	251.92
EXTM	11	900.58	911.83	18	17	35.0	1.43	.0042	-27.14	.0001	156183.8	1.94	27.64	-.0000	181.43	.0042	-25.11	241.78
SET	11	1178.34	1189.59	18	22	12.8	70.30	.0041	-25.53	.0001	189678.4	2.05	-.00	-.0028	238.16	.0024	-24.29	174.47
EXTM	42	1282.33	1293.58	18	23	56.6	359.89	.0042	-23.68	.0000	194184.6	1.68	78.46	-.0000	.53	-.0189	-24.04	149.09
RISE	51	1417.46	1428.71	19	2	11.9	270.00	.0041	-23.98	-.0000	212551.8	1.23	9.80	.0035	111.00	-.0015	-23.75	116.01
RISE	72	1574.79	1586.04	19	4	49.3	266.58	.0041	-23.42	-.0000	228447.6	1.12	-.01	.0037	113.46	-.0005	-23.45	77.37
RISE	61	1637.55	1648.80	19	5	52.0	292.63	.0041	-24.45	.0000	234171.6	1.21	.00	.0027	122.96	.0027	-23.34	61.93
SET	42	1705.14	1716.39	19	6	59.6	105.00	.0041	-22.30	.0001	240080.7	1.81	1.33	-.0030	243.37	-.0023	-23.22	45.28
EXTM	51	1776.43	1787.68	19	8	10.9	359.98	.0042	-23.04	.0000	240214.0	1.45	87.30	.0000	.56	-.0697	-23.11	27.71
EXTM	61	1908.17	1919.42	19	10	22.6	.57	.0042	-24.18	.0000	255059.2	1.41	25.57	-.0006	180.97	.0042	-22.91	355.20
EXTM	72	1947.14	1958.39	19	11	1.6	.10	.0042	-23.22	.0000	254986.2	1.39	74.68	.0000	180.36	.0145	-22.85	345.57
RISE	11	2074.33	2085.58	19	13	8.8	287.89	.0042	-23.53	-.0000	271535.0	1.02	.00	.0030	119.25	.0024	-22.68	314.13
SET	51	2135.58	2146.83	19	14	10.0	90.00	.0041	-22.37	.0001	275429.2	1.72	9.39	-.0035	249.94	-.0015	-22.60	298.97
SET	61	2178.69	2189.94	19	14	53.2	68.45	.0041	-23.46	.0001	279899.8	1.62	-.00	-.0027	238.56	.0027	-22.54	288.30
SET	72	2318.16	2329.41	19	17	12.6	93.25	.0041	-22.19	.0001	290783.5	1.70	-.01	-.0038	247.38	-.0005	-22.37	253.76
RISE	42	2321.59	2332.84	19	17	16.1	255.00	.0041	-21.60	-.0000	290946.4	.94	.90	.0030	116.08	-.0023	-22.37	252.91
EXTM	11	2362.46	2373.71	19	17	56.9	.38	.0042	-23.38	.0000	290871.0	1.27	31.41	-.0000	180.41	.0045	-22.32	242.78
SET	11	2650.52	2661.77	19	22	45.0	72.80	.0042	-22.74	.0000	315484.7	1.53	-.00	-.0030	241.76	.0024	-22.01	171.33
EXTM	42	2740.24	2751.49	20	0	14.7	359.93	.0042	-21.66	.0000	315746.4	1.18	76.44	.0000	.30	-.0180	-21.93	149.05
RISE	51	2870.81	2882.06	20	2	25.3	270.00	.0041	-21.36	-.0000	329992.4	.76	9.10	.0035	109.41	-.0016	-21.80	116.62
RISE	72	3027.35	3038.60	20	5	1.8	266.86	.0042	-21.50	-.0000	341820.7	.69	-.01	.0038	111.71	-.0006	-21.65	77.67
RISE	61	3079.72	3090.97	20	5	54.2	290.35	.0042	-22.34	-.0000	345302.2	.80	.00	.0028	119.86	.0027	-21.60	54.59
SET	42	3158.66	3169.91	20	7	13.1	105.00	.0041	-20.98	.0000	350470.9	1.44	.46	-.0031	244.49	-.0024	-21.52	44.86
EXTM	51	3227.32	3238.57	20	8	21.8	359.98	.0042	-21.37	.0000	348736.1	1.10	85.64	-.0000	.28	-.0362	-21.45	27.70
EXTM	61	3356.41	3367.66	20	10	30.9	.33	.0042	-22.22	.0000	360348.5	1.09	27.54	-.0030	180.35	.0044	-21.33	355.42
EXTM	72	3395.61	3406.86	20	11	10.1	.06	.0042	-21.52	.0000	359896.9	1.09	76.38	.0000	180.25	.0161	-21.29	345.61
RISE	11	3514.10	3525.35	20	13	8.6	286.38	.0042	-21.78	-.0000	373818.4	.77	.00	.0031	117.01	.0024	-21.17	315.95
SET	51	3583.25	3594.50	20	14	17.7	90.00	.0042	-20.70	.0000	377457.2	1.52	8.83	-.0036	251.20	-.0016	-21.09	298.62
SET	61	3632.86	3644.11	20	15	7.3	70.32	.0042	-21.70	.0000	381839.0	1.48	-.00	-.0028	241.03	.0027	-21.03	286.17
IMPACT		3733.79	3745.04	20	16	48.3												
IMPC	72	3733.79	3745.04	20	16	48.3	86.00	.0043	-20.76	.0001	389155.9	2.42	6.50	-.0040	249.86	-.0003	-20.85	260.66
IMPC	11	3733.79	3745.04	20	16	48.3	342.24	.0044	-21.62	.0001	386635.6	1.86	30.73	.0012	150.74	.0045	-20.85	260.66

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPTH	AZ	RT ASC
INJECTION		.00	11.25	18	2	34.465	6549.924	17.9444	304.8461	10.98523	-1.6146	117.0148	69.9678
SEPARATION		1.20	12.45	18	2	35.665	6551.280	14.7033	310.9134	10.98400	1.8128	118.8072	76.3359
RETRO		3.20	14.45	18	2	37.665	6657.609	9.0268	320.4907	10.89516	7.4517	120.8671	86.4146
EXIT	SHA	12.02	23.27	18	2	46.483	8353.318	-12.2142	353.2019	9.71581	27.6006	119.8672	121.3361
IMPACT		3733.79	3745.04	20	16	48.255	389929.930	-20.8500	260.6589	2.18465	64.7891	298.9395	241.7830

SURVEYOR VIEW PERIODS

GMA	88.3709				EPS 155.2084							LOM	254.0094
SX	-.440849	SY	-.824004	SZ	-.355908	DAD	-20.84911	RAG	241.85285	RM	391190.067	LAT	28.310600
C3	-1.047915	ECC	.982794	SLR	12976.726	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000
NSX	-.421517	NSY	-.831572	NSZ	-.361678	C3M	1.5562	VIM	2.6824	ZAE	137.541	B.T	.0000
LATE	-.0195	LONE	5.2575	LATS	-.6943	LONS	210.1035	LATI	-10.3592	LONI	323.8412	RSM	246.8166
LAUNCH DATE		DEC	18,1965		BASE AZM	111.0		TF	62.385			ARRIVAL DATE	DEC 20 1965 17 15 3.4

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	2 32 54.1	27.9	16.85	304.33	-1.22	71.88	119.13	2 44 9.1	6545.4	10.99	-.60

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	18	2	44.2												
SEPARATION	1.20	12.45	18	2	45.4												
RETRO	3.20	14.45	18	2	47.4												
RISE 72	4.80	16.05	18	2	49.0	85.77	-.1435	27.98	-.0420	2578.5	-8.38	-.00	.1317	298.27	-.0217	2.77	326.37
EXTN 72	9.27	20.52	18	2	53.4	18.72	-.3245	-11.72	-.2066	1410.1	2.54	74.06	.2659	254.89	-.9832	-8.64	342.87
RISE 51	11.12	22.37	18	2	55.3	84.34	-.0815	11.17	-.0528	5170.3	-3.60	-.00	.0950	282.42	-.0119	-12.43	348.64
EXIT SHA	11.59	22.84	18	2	55.7												
EXIT 72	11.59	22.84	18	2	55.7	340.90	-.1759	-29.04	-.0601	2139.8	6.94	62.26	-.1502	142.07	-.1472	-13.29	350.00
EXIT 51	11.59	22.84	18	2	55.7	82.25	-.0826	9.68	-.0548	5074.7	-5.26	2.68	.0974	282.08	-.0124	-13.29	350.00
EXTN 51	32.28	43.53	18	3	16.4	2.12	-.0308	-33.66	-.0062	8522.8	5.41	81.87	-.0000	192.61	-.1867	-30.27	26.51
EXTN 72	70.04	81.29	18	3	54.2	284.90	-.0000	-34.81	.0005	23716.7	-.80	16.71	.0000	124.06	-.0006	-33.28	44.63
EXTN 51	87.58	98.83	18	4	11.7	335.94	-.0002	-34.47	.0006	25047.1	4.40	67.50	.0000	118.56	-.0017	-33.10	46.58
RISE 61	171.58	182.8	18	5	35.7	310.14	.0029	-37.29	.0006	30394.0	3.38	.01	.0019	142.54	.0015	-31.34	40.70
EXTN 51	251.47	262.72	18	6	55.6	.51	.0035	-30.43	.0003	60359.5	3.12	85.28	-.0000	185.38	.0368	-29.98	27.22
EXTN 61	426.42	437.67	18	9	50.6	5.41	.0039	-31.64	.0003	94134.5	2.59	17.95	.0000	184.84	.0035	-28.05	350.65
EXTN 72	453.10	464.35	18	10	17.3	1.96	.0040	-29.14	.0002	94456.8	2.53	68.74	.0000	182.55	.0097	-27.82	344.69
RISE 11	613.26	624.51	18	12	57.4	292.74	.0040	-28.72	.0001	123138.4	1.96	.00	.0027	126.02	.0023	-26.75	307.91
SET 51	644.59	655.84	18	13	28.7	90.00	.0039	-25.48	.0001	126153.3	2.57	10.77	-.0033	246.77	-.0013	-26.57	300.57
SET 61	667.22	678.47	18	13	51.4	62.62	.0040	-28.52	.0002	130324.3	2.43	-.00	-.0022	231.28	.0027	-24.45	295.25
SET 72	838.43	849.68	18	16	42.6	93.77	.0039	-25.33	.0001	151747.0	2.39	-.00	-.0035	244.41	-.0004	-25.67	254.54
RISE 42	949.43	960.68	18	16	53.6	254.99	.0040	-24.18	-.0000	152785.3	1.67	2.48	.0029	118.12	-.0022	-25.63	251.90
EXTN 11	892.00	903.25	18	17	36.2	1.53	.0042	-27.52	.0001	155190.6	1.95	27.26	-.0000	181.53	.0042	-25.46	241.67
SET 11	1168.18	1179.43	18	22	12.3	70.02	.0041	-25.83	.0001	188553.6	2.05	-.00	-.0028	237.77	.0024	-24.59	174.76
EXTN 42	1273.25	1284.50	18	23	57.4	359.86	.0042	-23.95	.0000	193186.0	1.68	78.73	.0000	.68	-.0194	-24.31	149.12
RISE 51	1408.54	1419.79	19	2	12.7	270.00	.0041	-23.32	-.0000	211584.0	1.23	9.90	.0034	111.22	-.0015	-24.00	116.00
RISE 72	1565.72	1576.97	19	4	49.9	266.54	.0041	-23.44	-.0000	227493.2	1.12	-.01	.0037	113.68	-.0006	-23.67	77.40
RISE 61	1629.58	1640.83	19	5	53.7	292.87	.0041	-24.67	.0000	233322.6	1.21	.00	.0027	123.14	.0027	-23.55	61.68
SET 42	1696.13	1707.38	19	7	.3	105.00	.0041	-22.50	.0001	239129.6	1.82	1.45	-.0030	243.21	-.0023	-23.43	45.29
EXTN 51	1767.49	1778.74	19	8	11.6	359.98	.0042	-23.24	.0000	239285.2	1.45	87.50	-.0000	.53	-.0599	-23.30	27.70
EXTN 61	1899.32	1910.57	19	10	23.5	.60	.0042	-24.37	.0000	254164.0	1.41	25.39	-.0000	180.61	.0042	-23.09	355.16
EXTN 72	1938.19	1949.44	19	11	2.3	.11	.0042	-23.41	.0000	254070.1	1.39	74.50	.0000	180.39	.0144	-23.03	345.94
RISE 11	2065.96	20 7.21	19	13	10.1	288.04	.0042	-23.70	-.0000	270662.6	1.62	.00	.0030	119.46	.0024	-22.84	313.97
SET 51	2126.56	2137.81	19	14	10.7	90.00	.0041	-22.23	.0001	274498.0	1.72	9.46	-.0035	249.79	-.0015	-22.76	298.98
SET 61	2168.98	2180.23	19	14	53.1	68.28	.0042	-23.63	.0001	278920.5	1.62	-.00	-.0027	238.33	.0027	-22.70	288.48
SET 72	2309.22	2320.47	19	17	13.4	93.28	.0041	-22.34	.0001	289864.0	1.70	-.01	-.0038	247.44	-.0005	-22.52	253.74
RISE 42	2312.60	2323.85	19	17	16.8	255.00	.0041	-21.74	-.0000	290014.0	.94	.99	.0030	116.19	-.0023	-22.51	252.91
EXTN 11	2353.54	2364.79	19	17	57.7	.40	.0042	-23.53	.0000	289966.5	1.27	31.26	-.0000	180.43	.0045	-22.46	242.76
SET 11	2641.05	2652.30	19	22	45.2	72.69	.0042	-22.86	.0000	314517.5	1.53	-.00	-.0030	241.61	.0024	-22.13	171.44
EXTN 42	2731.24	2742.49	20	0	15.4	359.94	.0042	-21.77	.0000	314805.7	1.18	76.55	-.0000	.27	-.0160	-22.04	149.04
RISE 51	2861.79	2873.04	20	2	25.9	270.00	.0041	-21.46	-.0000	329040.8	.76	9.14	.0035	109.50	-.0016	-21.91	116.61
RISE 72	3018.26	3029.51	20	5	2.4	266.84	.0042	-21.59	-.0000	340859.4	.68	-.01	.0038	111.81	-.0006	-21.74	77.68
RISE 61	3071.08	3082.33	20	5	55.2	290.45	.0042	-22.43	-.0000	344361.1	.80	.00	.0028	119.99	.0027	-21.69	64.49
SET 42	3149.61	3160.86	20	7	13.8	105.00	.0041	-20.97	.0000	349480.5	1.44	.51	-.0031	244.42	-.0023	-21.61	44.87
EXTN 51	3218.28	3229.53	20	8	22.4	359.98	.0042	-21.46	.0000	347737.3	1.09	85.72	-.0000	.28	-.0378	-21.54	27.70
EXTN 61	3347.42	3358.67	20	10	31.6	.35	.0042	-22.30	.0000	359529.2	1.09	27.46	-.0000	180.36	.0044	-21.41	355.41
EXTN 72	3386.60	3397.85	20	11	10.7	.06	.0042	-21.61	.0000	358857.8	1.09	76.30	.0000	180.25	.0161	-21.37	345.61
RISE 11	3505.37	3516.62	20	13	9.5	286.45	.0042	-21.86	-.0000	372748.1	.76	.00	.0031	117.11	.0024	-21.25	315.88
SET 51	3574.26	3585.51	20	14	18.4	90.00	.0042	-20.78	.0000	376321.4	1.51	8.86	-.0036	251.13	-.0016	-21.17	298.62
SET 61	3623.57	3634.82	20	15	7.7	70.24	.0042	-21.78	.0000	380633.8	1.46	-.00	-.0028	240.92	.0027	-21.11	286.25
IMPACT	3743.10	3754.35	20	17	7.3												
IMPC 42	3743.10	3754.35	20	17	7.3	252.13	.0043	-20.31	.0000	390147.5	1.62	-2.50	.0031	116.73	-.0026	-20.90	256.07
IMPC 72	3743.10	3754.35	20	17	7.3	90.60	.0043	-20.78	.0001	389675.5	2.41	2.24	-.0040	249.33	-.0004	-20.90	256.07
IMPC 11	3743.10	3754.35	20	17	7.3	346.90	.0044	-21.67	.0001	386584.2	1.88	31.78	.0009	165.65	.0046	-20.90	256.07

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	18	2	44.152	6545.396	16.8463	304.3295	10.98865	-.6023	119.1304	71.8795
SEPARATION	1.20	12.45	18	2	45.352	6560.717	13.3936	310.0313	10.97561	2.8231	120.7504	78.0821
RETRO	3.20	14.45	18	2	47.352	6689.915	7.4500	319.5102	10.86851	8.4249	122.5862	87.8624
EXIT SHA	11.59	22.84	18	2	55.737	8331.911	-13.2932	350.0008	9.72796	27.4600	120.7904	120.4550
IMPACT	3743.10	3754.35	20	17	7.255	389977.281	-20.8973	256.0694	2.18074	64.5699	299.2593	241.9564

DEC 18, 1965
111 DEGREES

SURVEYOR VIEW PERIODS

GHA	88.3704				EPS 155.4107							LOM	247.9866
SX	-.437481	SY	-.825410	SZ	-.356982	DAO	-20.91004	RAG	242.08002	RM	391247.336	LAT	28.310500	LON	279.461800
CJ	-1.061165	ECC	.982572	SLR	12975.271	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	679.00000	POL	-.0
NSX	-.417904	NSY	-.832952	NSZ	-.362697	C3M	1.5562	VIM	2.6824	ZAE	137.083	B.T	.0090	B.R	-.0000
LATE	.0066	LONE	5.2464	LATS	-.6948	LONS	209.8922	LATI	-10.6723	LONI	323.4293	RSM	146.8158	TTAN	5.0754
LAUNCH DATE	DEC	18.1965		AZSE AZM	115.0		TF 62.619					ARRIVAL DATE DEC		20 1965	17 34 09.3

LNCH AZMTH	LNCH TIME	PA	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	2 43 55.6	28.0	15.43	303.55	1.05	73.86	121.94	2 55 10.6	6545.2	10.99	.52

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW														
INJECTION	.00	11.25	18	2	55.2												
SEPARATION	1.20	12.45	18	2	56.4												
RETRO	3.20	14.45	18	2	58.4												
RISE 72	4.72	15.97	18	2	59.9	86.93	-.1283	21.07	-.0702	2699.1	-7.54	.00	.1288	291.28	-.0518	.77	324.38
EXTM 72	10.17	21.42	18	3	5.3	11.85	-.2683	-31.04	-.1222	1826.0	4.55	64.37	-.0000	203.96	-.6919	-13.03	343.33
EXIT SHA	11.07	22.32	18	3	6.2												
EXIT 72	11.07	22.32	18	3	6.2	358.44	-.2242	-36.16	-.0703	2113.6	5.95	61.71	-.0804	177.35	-.3729	-14.83	346.00
EXIT 51	11.07	22.32	18	3	6.2	87.32	-.0746	6.88	-.0559	5380.4	-3.29	-.59	.0919	277.36	-.0180	-14.83	346.00
RISE 51	11.18	22.43	18	3	6.4	86.84	-.0748	6.52	-.0563	5359.8	-3.21	.00	.0915	277.24	-.0161	-15.03	346.31
EXTM 51	35.27	46.52	18	3	30.4	1.99	-.0264	-36.16	-.0030	9665.9	5.37	77.47	-.0000	187.23	-.0962	-33.23	26.55
EXTM 72	70.13	81.38	16	4	5.3	287.24	-.0001	-37.13	.0009	23678.8	4.79	18.48	.0000	126.60	-.0006	-35.07	42.22
EXTM 51	86.29	97.54	18	4	21.5	338.84	-.0005	-36.68	.0009	24757.1	4.41	68.93	.0000	126.40	-.0027	-34.77	44.14
RISE 61	171.46	182.71	18	5	46.6	312.50	.0029	-38.60	.0007	50442.2	3.37	.00	.0019	147.82	.0015	-32.55	38.45
EXTM 51	240.77	252.02	18	6	55.9	.81	.0034	-31.76	.0004	58410.3	3.17	83.94	-.0000	186.55	.0278	-31.16	26.96
EXTM 61	418.71	429.96	18	9	53.9	6.05	.0039	-32.53	.0003	93103.7	2.80	17.02	.0000	185.33	.0035	-28.87	350.05
EXTM 72	443.62	454.87	18	10	18.8	1.26	.0040	-30.02	.0002	93067.1	2.54	67.85	.0000	182.90	.0092	-28.63	344.50
RISE 11	606.21	617.46	18	13	1.4	293.12	.0040	-29.59	.0001	122174.2	1.97	.00	.0027	126.92	.0023	-27.39	307.21
SET 51	634.37	645.62	18	13	29.5	90.00	.0039	-26.11	.0002	124751.5	2.57	11.02	-.0032	246.17	-.0012	-27.21	300.62
SET 61	653.44	664.69	18	13	48.6	61.75	.0040	-29.22	.0002	128495.0	2.44	.00	-.0022	239.25	.0027	-27.10	296.14
SET 72	828.73	839.98	18	16	43.9	93.86	.0039	-25.86	.0001	150534.2	2.40	.00	-.0015	243.88	-.0004	-26.20	254.48
RISE 42	839.61	850.86	18	16	54.8	254.99	.0040	-24.70	-.0000	151527.5	1.67	2.60	.0029	118.53	-.0022	-26.15	251.87
EXTM 11	882.67	893.92	18	17	37.8	1.68	.0042	-28.05	.0001	154093.4	1.95	26.73	.0000	181.66	.0041	-25.97	241.93
SET 11	1156.56	1167.81	18	22	11.7	69.62	.0041	-26.26	.0001	187227.7	2.05	-.00	-.0027	237.21	.0024	-25.30	175.17
EXTM 42	1263.28	1274.53	18	23	58.5	359.85	.0042	-24.35	.0000	192043.1	1.68	77.13	-.0000	.73	-.0201	-24.69	149.13
RISE 51	1398.63	1409.88	19	2	13.8	270.00	.0041	-23.67	-.0000	210455.4	1.24	10.04	.0034	111.55	-.0015	-24.34	115.96
RISE 72	1555.58	1566.83	19	4	50.8	266.49	.0041	-23.75	-.0000	226369.5	1.12	-.01	.0037	114.00	-.0006	-23.99	77.43
RISE 61	1621.00	1632.25	19	5	56.2	293.21	.0041	-24.97	.0000	232343.3	1.21	.00	.0026	123.58	.0027	-23.85	61.34
SET 42	1686.10	1697.35	19	7	1.3	105.00	.0041	-22.78	.0001	238000.8	1.81	1.63	-.0030	242.99	-.0023	-23.72	45.30
EXTM 51	1757.48	1768.73	19	8	12.7	359.98	.0042	-23.52	.0000	238178.8	1.45	87.79	-.0000	.57	-.0675	-23.58	27.70
EXTM 61	1889.49	1900.74	19	10	24.7	.65	.0042	-24.64	.0000	253099.3	1.41	25.12	-.0000	180.65	.0042	-23.35	355.11
EXTM 72	1928.20	1939.45	19	11	3.4	.12	.0042	-23.66	.0000	252973.1	1.39	74.24	.0000	180.42	.0141	-23.28	345.55
RISE 11	2056.78	2068.03	19	13	12.0	288.25	.0042	-23.93	-.0000	269618.3	1.02	.00	.0029	119.77	.0024	-23.07	313.76
SET 51	2116.47	2127.72	19	14	11.6	90.00	.0041	-22.65	.0001	273367.4	1.71	9.55	-.0035	249.59	-.0015	-22.98	298.99
SET 61	2157.90	2169.15	19	14	53.1	68.03	.0042	-23.85	.0001	277719.4	1.61	-.00	-.0026	238.01	.0027	-22.92	288.73
SET 72	2299.24	2310.49	19	17	14.4	93.31	.0041	-22.54	.0001	288740.8	1.70	-.01	-.0038	247.23	-.0005	-22.72	253.72
RISE 42	2302.54	2313.79	19	17	17.7	255.00	.0041	-21.94	-.0000	288870.2	.94	1.11	.0030	116.35	-.0023	-22.72	252.60
EXTM 11	2343.58	2354.83	19	17	58.8	.43	.0042	-23.73	.0000	288859.8	1.27	31.06	-.0000	180.46	.0045	-22.66	242.73
SET 11	2630.31	2641.56	19	22	45.5	72.54	.0042	-23.03	.0000	313307.2	1.52	-.00	-.0030	241.39	.0024	-22.30	171.59
EXTM 42	2721.14	2732.39	20	0	16.3	359.95	.0042	-21.93	.0000	313627.2	1.18	76.71	-.0000	.23	-.0160	-22.20	149.03
RISE 51	2951.66	2962.91	20	2	26.8	270.00	.0041	-21.61	-.0000	327840.7	.76	9.20	.0035	109.64	-.0016	-22.05	116.61
RISE 72	3008.20	3019.45	20	5	3.4	266.85	.0042	-21.72	-.0000	339662.9	.68	.00	.0038	111.94	-.0006	-21.88	77.70
RISE 61	3061.63	3072.88	20	5	56.8	290.59	.0042	-22.57	-.0000	343196.7	.79	.00	.0028	120.18	.0027	-21.82	64.34
SET 42	3139.55	3150.80	20	7	14.7	105.00	.0041	-21.09	.0000	348239.6	1.44	.59	-.0031	244.32	-.0023	-21.73	44.87
EXTM 51	3208.25	3219.48	20	8	23.4	359.98	.0042	-21.58	.0000	346482.2	1.09	85.85	-.0000	.30	-.0375	-21.66	27.70
EXTM 61	3337.42	3348.67	20	10	32.6	.36	.0042	-22.42	.0000	358243.4	1.08	27.34	-.0000	180.38	.0044	-21.52	355.39
EXTM 72	3376.54	3387.79	20	11	11.7	.07	.0042	-21.72	.0000	357543.5	1.08	76.19	.0000	180.27	.0150	-21.48	345.61
RISE 11	3495.66	3506.91	20	13	10.8	286.54	.0042	-21.96	-.0000	371390.1	.75	.00	.0030	117.24	.0024	-21.35	315.79
SET 51	3564.18	3575.43	20	14	19.4	90.00	.0042	-20.88	.0000	374879.1	1.49	8.90	-.0036	251.04	-.0016	-21.27	298.62
SET 61	3603.07	3614.32	20	15	8.2	70.15	.0042	-21.88	.0000	379108.9	1.43	-.00	-.0028	240.77	.0027	-21.21	286.36
SET 72	3743.00	3754.25	20	17	18.2	93.93	.0042	-20.87	.0001	388581.3	1.95	-.00	-.0039	248.92	-.0005	-21.00	253.63
RISE 42	3744.76	3756.01	20	17	19.9	255.00	.0042	-20.42	.0000	388720.9	1.19	.18	.0031	115.15	-.0025	-21.00	253.19
IMPACT	3757.13	3768.38	20	17	32.3												
IMPC 42	3757.13	3768.38	20	17	32.3	258.16	.0043	-20.40	.0000	389711.5	1.60	2.52	.0032	113.33	-.0025	-20.96	250.02
IMPC 72	3757.13	3768.38	20	17	32.3	96.64	.0043	-20.80	.0001	390362.6	2.40	-3.34	-.0040	248.45	-.0006	-20.96	250.02
IMPC 11	3757.13	3768.38	20	17	32.3	353.03	.0044	-21.74	.0001	386567.1	1.90	32.67	.0005	172.31	.0048	-20.96	250.02

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	18	2	55.176	6545.212	15.4263	303.5464	10.98822	.5208	121.9372	73.8399
SEPARATION	1.20	12.45	18	2	56.376	6576.001	11.7008	309.2226	10.96212	3.9411	123.3409	79.8369
RETRO	3.20	14.45	18	2	58.376	6729.418	5.4120	318.1090	10.83533	9.4952	124.7428	89.2247
EXIT SHA	11.07	22.32	18	3	6.249	8300.107	-14.8292	346.0016	9.74609	27.2489	122.1948	119.0910
IMPACT	3757.13	3768.38	20	17	32.302	390043.355	-20.9595	250.0197	2.17495	64.0715	299.5178	242.1857

SURVEYED VIEW PERIODS

GHA	89.5565					EPS	166.3869							LOM	277.7702
SX	-.741248	SY	-.883004	SZ	-.402621	DAO	-23.74213	RAO	254.71898	RM	394329.758	LAT	28.310600	LON	279.461800
C3	-.961344	ECC	.984216	SLR	12986.028	RCA	6544.6650	LTA	-26.0000	GTA	20.00	TR	675.00000	ROL	-.0
NSX	-.221284	NSY	-.866513	NSZ	-.406360	C3M	1.5623	VIM	2.6817	ZAE	140.103	B.T	.0000	B.R	-.0000
LATE	1.4157	LONE	4.6764	LATS	-.7194	LONS	198.31 2	LATI	-6.8051	LONI	325.5565	RSM	146.7793	TTAN	6.0388

LAUNCH DATE DEC 19.1965 BASE AZM 90 0 TF 61.961 ARRIVAL DATE DEC 21 1965 16 27 39.9

LNCH AZMTH	LNCH TIME	PH	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
90.00	2 21 11.2	27.2	24.61	306.93	-14.19	72.52	104.09	2 32 26.2	6645.2	10.91	-7.04

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PRORE	IN	EARTH'S SHADOW												
INJECTION	.00	11.25	19	2	32.4												
SEPARATION	1.20	12.45	19	2	33.6												
RETRO	3.2	14.45	19	2	35.6												
RISE 72	6.45	17.70	19	2	38.9	57.22	-.7675	25.42	.1033	2349.4	-5.32	.00	.1016	347.95	.1916	11.87	341.44
EXTM 72	11.61	22.86	19	2	44.1	297.20	-.0540	21. 9	-.1525	2644.9	6.15	21.89	-.0000	63.43	.1731	.55	2.10
RISE 51	11.83	23.08	19	2	44.3	67.76	-.1335	38.13	-.0265	4516.1	-4.39	.00	.1022	313.27	.0358	.14	2.80
EXIT SHA	12.68	23.93	19	2	45.1												
EXIT 72	12.68	23.93	19	2	45.1	294.20	-.0405	12.06	-.1126	3068.4	6.97	21.48	-.0114	73.00	.1276	-1.46	5.57
EXIT 51	12.68	23.93	19	2	45.1	60.77	-.1372	36.92	-.0360	4308.2	-3.66	5.45	.1091	315.21	.0394	-1.46	5.57
EXIT 61	12.68	23.93	19	2	45.1	335.80	-.1039	-52.61	.0204	5458.6	7.00	-4.91	-.0014	165.13	-.0670	-1.46	5.57
EXTM 51	27.07	38.32	19	2	59.5	345.77	-.0361	-8.18	-.0268	6276.7	5.55	68.39	-.0000	41.25	.1212	-17.50	35.07
EXTM 72	66.45	77.70	19	3	38.9	271.35	-.0002	-55.44	-.0012	23281.2	4.95	4.64	.0010	115.48	.0012	-26.59	57.66
RISE 42	69.43	80.68	19	3	41.9	103.62	-.0049	-18.55	-.0029	24672.1	4.28	.00	.0054	247.20	.0005	-26.79	58.21
EXTM 51	81.19	92.44	19	3	53.6	319.64	-.0001	-24.59	-.0009	23347.3	4.57	53.92	.00 0	100.49	.0015	-27.38	59.66
EXTM 42	126.29	137.54	19	4	38.7	98.19	.0005	-23.18	-.0006	38904.5	4.01	6.90	-.0010	246.42	-.0007	-28.21	59.16
SET 42	199.76	210.95	19	5	52.1	105.00	.0023	-24.49	-.0001	55617.8	3.60	2.61	-.0016	241.72	-.0014	-28.26	49.80
RISE 61	211.98	223.23	19	6	4.4	303.50	.0033	-33.11	.0002	58403.3	3.14	.00	.0019	135.69	.0020	-28.23	47.76
EXTM 51	317.75	329.00	19	7	50.2	.07	.0037	-28.14	.0001	72016.2	2.89	87.70	-.0000	181.49	.0793	-27.85	27.62
EXTM 61	477.27	488.52	19	10	29.7	2.88	.0040	-30.52	.0001	101746.1	2.50	19.10	.0006	182.62	.0036	-27.30	353.02
EXTM 72	511.68	522.93	19	11	4.1	.47	.0041	-28.67	.0001	103091.3	2.43	69.53	-.0000	181.18	.0102	-27.20	345.23
RISE 11	671.79	683.04	19	13	44.2	292.65	.0040	-28.42	.0000	1310R4.5	1.90	.00	.0027	125.89	.0023	-26.77	308.15
SET 51	704.74	715.99	19	14	17.2	90.00	.0039	-25.96	.0001	134192.1	2.51	10.84	-.0033	246.59	-.0013	-26.69	300.40
SET 61	726.67	737.92	19	14	39.1	62.53	.0040	-28.00	.0001	138207.0	2.38	-.00	-.0023	231.17	.0027	-26.64	295.22
SET 72	898.23	909.48	19	17	30.7	93.88	.0040	-25.47	.0001	159223.7	2.35	-.00	-.0035	243.76	-.0004	-26.30	254.32
RISE 42	908.01	919.26	19	17	40.5	255.00	.0040	-24.40	-.0000	160047.0	1.63	2.93	.0029	118.68	-.0022	-26.28	251.97
EXTM 11	948.26	959.51	19	18	20.7	.89	.0042	-28. 8	.0001	162217.1	1.92	26.60	.0000	180.87	.0041	-26.21	242.30
SET 11	1222.62	1233.87	19	22	55.1	68.93	.0041	-27.10	.0001	194991.5	2.03	-.00	-.0027	236.24	.0024	-25.78	175.81
EXTM 42	1332.41	1343.66	20	0	44.8	359.96	.0042	-25.34	.0000	199999.2	1.67	80.12	-.0000	.22	-.0190	-25.64	149.01
RISE 51	1467.19	1478.44	20	2	59.6	270.00	.0041	-24.43	-.0000	218238.3	1.23	10.51	.0034	112.63	-.0015	-25.48	116.02
RISE 72	1623.34	1634.59	20	5	35.8	266.27	.0041	-25.18	-.0000	234076.2	1.12	.00	.0037	115.34	-.0005	-25.31	77.69
RISE 61	1695.98	1707.23	20	6	48.4	294.77	.0041	-26.34	-.0000	240694.6	1.22	.00	.0026	125.53	.0027	-25.24	59.82
SET 42	1755.08	1766.33	20	7	47.5	105.00	.0041	-24.28	.0000	245704.1	1.81	2.54	-.0030	241.81	-.0022	-25.18	45.27
EXTM 51	1822.57	1833.82	20	8	55.0	359.02	.0042	-25.19	.0000	245641.0	1.45	88.91	.0031	54.65	-.1176	-25.12	28.64
EXTM 61	1957.55	1968.80	20	11	10.0	.41	.0042	-26.27	.0000	261015.4	1.41	23.49	-.0000	180.40	.0041	-25.00	355.35
EXTM 72	1996.94	2008.19	20	11	49.4	.05	.0042	-25.68	.0000	260846.4	1.40	72.52	.0000	180.17	.0120	-24.97	345.62
RISE 11	2132.25	2143.50	20	14	4.7	289.86	.0042	-25.70	-.0000	278037.4	1.04	.00	.0029	122.06	.0024	-24.86	312.18
SET 51	2185.69	2196.94	20	14	58.1	90.00	.0041	-24.51	.0000	281223.2	1.72	10.30	-.0035	247.85	-.0015	-24.82	298.97
SET 61	2218.79	2230.04	20	15	31.2	65.96	.0042	-25.72	.0000	285014.1	1.62	-.00	-.0026	235.37	.0027	-24.79	290.78
SET 72	2369.84	2381.09	20	18	2.3	93.63	.0041	-24.61	.0000	296891.3	1.70	-.00	-.0037	245.24	-.0005	-24.69	253.38
RISE 42	2371.71	2382.96	20	18	4.1	255.00	.0041	-23.24	-.0000	296777.4	.96	2.33	.0030	117.92	-.0023	-24.69	252.92
EXTM 11	2412.33	2423.58	20	18	44.5	.23	.0042	-25.72	.0000	297064.0	1.28	29.07	.0000	180.23	.0043	-24.66	242.93
EXTM 11	2412.84	2423.29	20	18	44.5	.23	.0042	-25.72	.0000	297065.2	1.28	29.07	.0000	180.24	.0043	-24.66	242.93
SET 11	2692.11	2703.26	20	23	24.4	70.61	.0042	-25.20	.0000	321069.8	1.53	-.00	-.0029	238.59	.0024	-24.48	173.51
EXTM 42	2790.74	2801.99	21	1	3.2	359.98	.0042	-24.21	.0000	321996.4	1.19	78.99	-.0010	.14	-.0149	-24.42	149.00
RISE 51	2921.53	2932.80	21	3	14.0	270.00	.0042	-25.42	-.0000	336593.0	.77	10.14	.0035	111.78	-.0015	-24.34	116.62
RISE 72	3075.90	3087.15	21	5	44.3	266.44	.0042	-24.10	-.0000	348224.0	.71	.00	.0038	114.34	-.0006	-24.25	78.09
RISE 61	3141.28	3152.53	21	6	53.7	293.18	.0042	-24.45	-.0000	352635.8	.83	.00	.0027	123.54	.0027	-24.21	61.77
SET 42	3208.99	3220.24	21	8	1.4	105.00	.0041	-23.55	.0000	356951.9	1.46	2.09	-.0030	242.39	-.0023	-24.17	44.86
EXTM 51	3277.71	3288.96	21	9	10.1	359.99	.0042	-24.10	.0000	355468.7	1.12	88.36	.0000	.64	- 0561	-24.13	27.69
EXTM 61	3406.51	3417.76	21	11	18.9	.25	.0042	-24.45	.0000	367731.7	1.12	24.82	-.0010	180.25	.0042	-24.05	355.50
EXTM 72	3445.89	3457.14	21	11	58.3	.02	.0042	-24.50	.0000	366968.2	1.12	73.60	.0010	180.09	.0101	-24.03	345.65
RISE 11	3574.15	3585.40	21	14	6.6	288.81	.0042	-24.05	-.0000	381768.7	.84	.00	-.0030	120.57	.0024	-23.94	313.54
SET 51	3633.59	3644.84	21	15	6.0	90.00	.0042	-23.92	.0000	384892.8	1.61	9.98	-.0035	248.59	-.0015	-23.90	298.62
SET 61	3671.10	3682.35	21	15	43.5	67.29	.0042	-24.03	.0000	388832.2	1.62	-.01	-.0027	237.06	.0028	-23.86	289.18
IMPACT	3717.65	3728.90	21	16	30.1												
IMPC 72	3717.65	3728.90	21	16	30.1	69.25	.0043	-23.41	.0001	390647.5	2.44	22.12	-.0040	247.45	.0001	-23.79	277.36
IMPC 11	3717.65	3728.90	21	16	30.1	325.32	.0044	-24.54	.0000	390680.6	1.83	21.82	.0020	146.11	.0037	-23.79	277.36

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	19	2	32.437	6649.365	24.8440	306.7753	10.90906	-7.0381	104.0275	72.3741
SEPARATION	1.20	12.45	19	2	33.637	6571.729	22.9844	313.7914	10.97028	-3.6649	107.0015	79.6910
RETRO	3.20	14.45	19	2	35.637	6553.115	9.1989	324.9585	10.98597	2.0502	111.2155	91.3595
EXIT SHA	12.68	23.93	19	2	45.121	8026.674	-1.4621	5.5658	9.91757	25.3393	118.2773	134.3445
IMPACT	3717.65	3728.90	21	16	30.085	393093.918	-23.7909	277.3639	2.21151	67.2261	290.4529	254.9187

SURVEYOR VIEW PERIODS

GHA	89.3565				E=S 166.5582							LOM	272.3304
SX	-.237927	SY	-.883629	SZ	-.403226	DAO	-23.7813	PAO	254.92991	RM	94379.449	LAT	28.310603 LON 279.461800
C3	-.958693	FPC	.986267	SLR	12986.368	RCA	6544.6 50	LTA	-20.0000	GTA	20.00	TH	475.00000 PDL -.0
NSX	-.247979	NSY	-.887099	NSZ	-.406932	C3M	-.5454	VIM	2.6823	ZAE	140.140	B.T	.0000 B.R -.0000
DATE	1.4396	LONG	4.6660	LATS	-.7198	LONS	198.1288	LATI	-6.7945	LONI	325.5871	RSM	146.7789 TTAN 6.0517
LAUNCH DATE		DEC	19,1965		BASE AZM	93.0		TC	61.928			ARRIVAL	DATE DEC 21 1965 16 50 12.4

LNCH AZMTH	LNCH TIME	RR	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
93.00	2 42 19.1	27.5	23.59	306.89	-9.13	77.79	106.36	2 53 33 1	6588.8	11.96	-4.68

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PRORE IN EARTH'S SHADOW														
INJECTION	.00	11.25	19	2	53.6												
SEPARATION	1.20	12.45	19	2	54.8												
RETRO	3.20	14.45	19	2	56.8												
RISE 72	5.82	17.07	19	2	59.4	72.53	-.3841	65.78	.1042	2427.7	-6.54	-.00	.1136	337.03	.1510	11.30	337.53
EXTM 72	11.59	21.84	19	3	4.1	310.91	-.1048	26.95	-.1977	2164.0	5.02	31.05	.0145	51.85	.2547	.77	356.56
RISE 51	11.52	22.77	19	3	5.1	71.27	-.1188	33.06	-.0302	4749.5	-4.15	.00	.1004	307.97	.0258	-1.01	359.61
EXIT SHA	11.87	23.12	19	3	5.4												
EXIT 72	11.87	23.12	19	3	5.4	304.61	-.0653	14.42	-.1358	2611.6	6.54	30.74	-.0170	68.09	.1732	-1.65	.70
EXIT 51	11.87	23.12	19	3	5.4	68.80	-.1200	33.10	-.0332	4659.4	-3.89	2.10	.1026	308.51	.0267	-1.65	.70
EXIT 61	11.87	23.12	19	3	5.4	347.54	-.1193	-53.53	.0154	5404.5	6.52	-4.38	.0035	172.61	-.0727	-1.65	.70
EXTM 51	28.53	39.78	19	3	22.1	350.29	-.0322	-12.48	-.0209	6934.3	5.50	74.05	-.0000	36.82	.1374	-19.00	32.94
EXTM 72	46.81	78.06	19	4	.4	276.32	-.0001	-26.59	-.0010	23155.6	4.92	9.16	.0000	115.91	.0011	-26.84	52.99
EXTM 51	83.36	94.61	19	4	16.9	325.56	-.0001	-27.26	-.0007	23903.0	4.51	59.24	.0000	100.62	.0015	-27.65	55.00
RISE 42	83.68	94.93	19	4	17.2	105.00	-.0026	-20.40	-.0618	28937.8	4.25	.17	.0030	244.87	.0001	-27.66	55.02
EXTM 42	126.13	137.38	19	4	59.7	102.97	.0005	-23.10	-.0006	39461.4	4.00	3.31	-.0000	243.88	-.0007	-28.36	54.23
SET 42	156.14	169.39	19	5	31.7	104.99	.0015	-23.49	-.0003	46961.7	3.81	2.31	-.0009	242.12	-.0011	-28.44	50.88
RISE 61	188.90	200.15	19	6	5.5	304.41	.0031	-33.14	.0003	53848.2	3.28	-.00	.0018	136.68	.0018	-28.40	46.51
EXTM 51	292.93	304.18	19	7	44.5	.06	.0037	-26.26	.0001	57802.3	2.67	87.48	.0000	181.33	.0701	-28.04	27.63
EXTM 61	455.79	467.04	19	10	29.3	3.12	.0039	-30.68	.0001	98664.5	2.54	18.83	.0000	182.43	.0036	-27.45	352.80
EXTM 72	489.38	500.63	19	11	2.9	.46	.0040	-28.56	.0001	99953.9	2.47	69.34	.0000	181.15	.0100	-27.35	345.24
RISE 11	651.12	662.37	19	13	44.7	292.81	.0040	-28.78	.0000	128472.9	1.93	.00	.0027	126.11	.0023	-26.90	307.94
SET 51	683.87	694.25	19	14	16.6	90.00	.0039	-25.77	.0001	131485.8	2.53	10.88	-.0032	246.50	-.0013	-26.82	300.46
SET 61	704.19	715.44	19	14	37.7	62.32	.0040	-28.77	.0001	135442.5	2.41	-.00	-.0023	230.92	.0027	-26.77	295.47
SET 72	877.05	888.30	19	17	30.6	93.90	.0039	-24.17	.0001	156845.2	2.37	-.00	-.0035	243.66	-.0004	-26.40	254.34
RISE 42	887.32	898.27	19	17	40.6	254.99	.0040	-24.48	-.0000	157695.3	1.65	2.97	.0029	118.75	-.0022	-26.38	251.95
EXTM 11	927.53	938.78	19	18	21.1	.96	.0042	-26.52	.0001	159956.4	1.94	26.47	-.0000	180.95	.0041	-26.31	242.22
SET 11	12 1.33	1212.58	19	22	54.9	68.83	.0041	-27.1	.0001	192897.8	2.05	-.00	-.0027	236.11	.0024	-25.87	175.93
EXTM 42	1311.61	1322.86	20	0	45.2	359.95	.0042	-25.42	.0000	198035.7	1.68	80.20	-.0000	.29	-.0203	-25.72	149.03
RISE 51	1446.56	1457.81	20	3	.1	270.00	.0041	-24.91	-.0000	216375.4	1.24	10.53	.0034	112.70	-.0015	-25.56	116.01
RISE 72	1602.69	1613.94	20	5	36.2	266.25	.0041	-25.16	-.0000	232304.8	1.13	-.01	.0037	115.42	-.0005	-25.38	77.70
RISE 61	1645.78	1657.03	20	6	49.3	294.96	.0041	-25.42	-.0000	239001.1	1.23	.00	.0026	125.65	.0027	-25.31	59.72
SET 42	1734.45	1745.70	20	7	48.0	105.00	.0041	-24.54	.0000	243997.5	1.82	2.58	-.0030	241.76	-.0022	-25.25	45.28
EXTM 51	1798.48	1809.73	20	8	52.0	358.13	.0042	-25.8	.0000	243670.4	1.45	88.22	.0036	71.97	-.0400	-25.19	29.51
EXTM 61	1936.93	1948.18	20	11	16.5	.40	.0042	-26.44	.0000	259416.6	1.42	23.42	.0000	180.39	.0041	-25.07	355.36
EXTM 72	1976.49	1987.74	20	11	56.0	.08	.0042	-25.45	.0000	259273.5	1.40	72.46	.0000	180.23	.0123	-25.03	345.60
RISE 11	2112.10	2123.25	20	14	5.6	289.92	.0042	-25.77	-.0000	276534.7	1.04	.00	.0029	122.15	.0024	-24.92	312.11
SET 51	2165.14	2176.39	20	14	58.7	90.00	.0041	-24.47	.0000	279714.5	1.72	10.32	-.0035	247.80	-.0015	-24.88	298.97
SET 61	2197.93	2209.18	21	15	31.5	65.87	.0042	-25.78	.0000	283495.6	1.62	-.00	-.0026	235.27	.0027	-24.85	290.86
SET 72	2349.37	2360.62	21	18	2.9	93.64	.0041	-24.56	.0000	295461.2	1.71	-.00	-.0037	245.19	-.0005	-24.74	253.38
RISE 42	2351.26	2362.51	20	18	4.8	255.00	.0041	-23.99	-.0000	295345.4	.97	2.37	.0030	117.96	-.0023	-24.74	252.91
EXTM 11	2391.73	2402.98	20	18	45.3	.27	.0042	-25.78	.0000	295667.9	1.29	29.01	-.0000	180.28	.0043	-24.71	242.89
SET 11	2671.31	2682.56	20	23	24.9	70.55	.0042	-25.26	.0000	319731.7	1.54	-.00	-.0029	238.51	.0024	-24.53	173.57
EXTM 42	2771.25	2782.50	21	1	5.8	359.97	.0042	-24.26	.0000	320704.0	1.20	79.04	.0000	.19	-.0170	-24.47	149.01
RISE 51	2911.74	2911.99	21	3	4.3	270.00	.0041	-23.47	-.0000	335038.9	.79	10.16	.0035	111.82	-.0015	-24.39	116.61
RISE 72	3055.35	3066.60	21	5	48.9	266.43	.0042	-24.14	-.0000	346995.9	.71	-.00	.0038	114.39	-.0006	-24.30	78.10
RISE 61	3121.00	3132.25	21	6	54.6	293.24	.0042	-25.30	-.0000	351432.5	.83	.00	.0027	123.61	.0027	-24.26	61.71
SET 42	3186.47	3199.72	21	8	2.0	105.00	.0041	-23.59	.0000	355735.2	1.46	2.12	-.0030	242.35	-.0023	-24.22	44.87
EXTM 51	3257.25	3268.50	21	9	10.8	360.00	.0042	-24.15	.0000	354263.6	1.12	88.41	-.0000	.63	-.0109	-24.17	27.69
EXTM 61	3385.99	3397.24	21	11	19.5	.24	.0042	-24.99	.0000	366529.1	1.12	24.77	-.0000	180.24	.0042	-24.10	355.51
EXTM 72	3425.54	3436.79	21	11	59.1	.05	.0042	-24.65	.0000	365770.6	1.12	73.55	.0000	180.17	.0127	-24.07	345.62
RISE 11	3553.91	3565.16	21	14	7.5	288.85	.0042	-24.00	-.0000	380540.7	.83	.00	.0029	120.63	.0024	-23.99	313.49
SET 51	3613.21	3624.46	21	15	6.8	90.00	.0042	-23.37	.0000	383596.1	1.59	10.00	-.0035	248.55	-.0015	-23.94	298.62
SET 61	3651.50	3661.75	21	15	44.1	67.23	.0042	-24.58	.0000	387437.7	1.56	-.00	-.0027	236.98	.0027	-23.91	289.25
IMPACT	3715.65	3726.90	21	16	49.2												
IMPC 72	3715.65	3726.90	21	16	49.2	73.89	.0043	-23.81	.0001	391130.1	2 46	17.88	-.0040	247.45	.0000	-23.82	272.75
IMPC 11	3715.65	3726.90	21	16	49.2	329.99	.0044	-24.38	.0000	390520.6	1.86	23.80	.0018	150.19	.0039	-23.82	272.75

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	19	2	53.552	6589.617	23.6051	306.8507	10.95618	-4.6766	106.3438	77.7428
SEPARATION	1.20	12.45	19	2	54.752	6547.861	21.4939	313.6958	10.99056	-1.2612	109.0886	84.8887
RETRO	3.20	14.45	19	2	56.752	6584.588	17.3567	324.5886	10.95962	4.4483	112.8916	96.2829
EXIT SHA	11.87	23.12	19	3	5.419	8033.141	-1.0480	.7021	9.91370	25.3878	118.3988	134.5691
IMPACT	3715.65	3726.90	21	16	49.207	393135.047	-23.8230	272.7492	2.21195	67.2774	290.5085	255.0975

SURVEYOR VIEW PERIODS

GHA	89.3565					EPS	166.7663							LOM	265.7714
SX	-.234041	SY	-.884346	SZ	-.403928	DAO	-23.82395	RAO	255.17657	RM	394437.468	LAT	28.510600	LON	279.461800
CJ	-.963491	ECC	.984181	SLR	12985.804	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSY	-.214026	NSY	-.887719	NSZ	-.407612	C3M	1.5918	VIM	2.6816	ZAE	140.027	B.T	.0000	B.R	-.0000
LATE	1.4660	LONE	4.6531	LATS	-.7202	LONS	197.9036	LATI	-5.8692	LONI	325.4785	RSM	146.7783	TTAN	6.0594
LAUNCH DATE		DEC	19,1965		BASE AZM	96.0		TF	62.024				ARRIVAL DATE	DEC	21 1965 17 16 33.4

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
96.00	3 0 34.1	27.7	22.39	306.73	-5.37	82.20	108.57	3 11 49.1	6559.0	10.98	-2.67

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW														
INJECTION	.00	11.25	19	3	11.8												
SEPARATION	1.20	12.45	19	3	13 0												
RETRO	3.20	14.45	19	3	15.0												
RISE 72	5.36	16.61	19	3	17.2	77.46	-.2714	57.39	.0788	2519.0	-7.28	.00	.1213	328.26	.1135	10.46	334.54
EXTM 72	10.61	21.86	19	3	22 4	320.64	-.1297	21.01	-.1887	2052.0	5.16	41.73	-.0000	52.49	.3005	-1.03	354.52
EXIT SHA	11.05	22.30	19	3	2..9												
EXIT 72	11.05	22.30	19	3	22.9	317.47	-.1084	16.29	-.1651	2198.9	5.80	41.46	-.0187	59.97	.2592	-1.86	355.94
EXIT 51	11.05	22.30	19	3	22.9	75.85	-.1067	30.02	-.0318	5013.9	-4.09	-1.52	.0962	302.87	.0171	-1.86	355.94
EXIT 61	11.05	22.30	19	3	22.9	359.51	-.1328	-54.35	.0080	5384.6	6.02	-4.58	.0075	179.71	-.0777	-1.86	355.94
RISE 51	11.31	22.56	19	3	23.1	74.17	-.1074	29.50	-.0337	4951.3	-3.90	.00	.0978	303.14	.0175	-2.34	356.75
EXTM 51	30.22	41.47	19	3	42.0	353.87	-.0286	-16.41	-.0161	7652.0	5.46	79.06	-.0000	32.68	.1675	-20.68	31.13
EXTM 72	67.52	78.77	19	4	19.5	280.71	-.0000	-27.79	-.0009	23160.9	4.88	13.12	.0000	116.81	.0009	-27.39	48.97
EXTM 51	85.52	96.7	19	4	37.3	330.74	-.0000	-28.15	-.0006	24474.7	4.46	63.87	-.0000	101.91	.0013	-28.16	50.92
RISE 61	170.34	181.59	19	6	2.2	305.66	.0029	-34.56	.0003	50044.8	3.41	-.00	.0017	138.00	.0017	-28.76	44.97
EXTM 51	271.20	282.45	19	7	43.0	.09	.0036	-28.66	.0001	63995.4	3.05	87.08	.0000	181.53	.0600	-28.34	27.61
EXTM 61	437.70	448.95	19	10	29.5	3.43	.0039	-31.25	.0002	96019.6	2.58	18.44	.0000	183.09	.0035	-27.73	352.51
EXTM 72	470.73	481.98	19	11	2.5	.58	.0040	-28.88	.0001	97267.8	2.51	69.02	-.0000	181.41	.0098	-27.61	345.13
RISE 11	633.94	645.19	19	13	45.8	293.07	.0040	-29.04	.0000	126239.9	1.95	.00	.0026	126.45	.0023	-27.11	307.64
SET 51	664.38	675.63	19	14	16.2	90.00	.0039	-25.97	.0001	129092.7	2.55	10.96	-.0032	246.51	-.0013	-27.03	300.52
SET 61	684.34	695.59	19	14	36.2	62.00	.0040	-29.03	.0001	132923.3	2.43	-.00	-.0022	230.54	.0027	-26.98	295.83
SET 72	858.97	870.22	19	17	30.8	93.93	.0039	-26.25	.0001	154735.2	2.38	-.00	-.0035	243.48	-.0004	-26.59	254.35
RISE 42	869.11	880.36	19	17	40.9	254.99	.0040	-25.15	-.0000	155604.1	1.67	3.07	.0029	118.88	-.0022	-26.56	251.92
EXTM 11	909.77	921.02	19	18	21.6	1.02	.0042	-28.52	.0001	157947.4	1.95	26.26	-.0000	181.00	.0041	-26.48	242.17
SET 11	1182.85	1194.10	19	22	54.7	68.67	.0041	-27.27	.0001	190974.2	2.05	-.00	-.0027	235.89	.0024	-26.02	176.10
EXTM 42	1293.90	1305.15	20	0	45.7	359.95	.0042	-25.56	.0000	196246.9	1.69	80.34	-.0000	.30	-.0206	-25.86	149.03
RISE 51	1428.95	1440.20	20	3	.8	270.00	.0041	-25.03	-.0000	214654.6	1.25	10.58	.0034	112.81	-.0015	-25.69	116.00
RISE 72	1585.05	1596.30	20	5	36.9	266.24	.0041	-25.27	-.0000	230645.0	1.14	-.01	.0037	115.53	-.0005	-25.50	77.70
RISE 61	1658.79	1670.04	20	6	50.6	295.00	.0041	-26.54	-.0000	237425.4	1.23	.00	.0026	125.62	.0027	-25.42	59.57
SET 42	1716.82	1728.07	20	7	48.6	105.00	.0041	-24.45	.0000	242375.2	1.82	2.65	-.0030	241.67	-.0022	-25.36	45.29
EXTM 51	1780.77	1792.02	20	8	52.6	358.09	.0042	-25.79	.0000	242067.1	1.46	88.22	.0037	75.70	-.0325	-25.30	29.54
EXTM 61	1919.45	1930.70	20	11	11.3	.41	.0042	-26.46	.0000	257881.7	1.42	23.31	.0000	180.40	.0041	-25.17	355.35
EXTM 72	1958.97	1970.22	20	11	50.8	.08	.0042	-25.55	.0000	257737.4	1.41	72.35	.0000	180.25	.0122	-25.13	345.59
RISE 11	2094.38	2106.13	20	14	6.7	290.01	.0042	-25.87	-.0000	275058.7	1.05	.00	.0029	122.28	.0024	-25.02	312.02
SET 51	2147.59	2158.84	20	14	59.4	90.00	.0041	-24.46	.0000	278211.1	1.73	10.36	-.0034	247.72	-.0015	-24.97	298.98
SET 61	2179.94	2191.19	20	15	31.8	65.76	.0042	-25.88	.0000	281967.6	1.63	-.00	-.0026	235.13	.0027	-24.95	290.98
SET 72	2331.90	2343.15	20	18	3.7	93.65	.0041	-24.65	.0000	294003.1	1.71	-.00	-.0037	245.10	-.0005	-24.83	253.37
RISE 42	2333.79	2345.04	20	18	5.6	255.00	.0041	-24.07	-.0000	293881.7	.97	2.42	.0030	118.03	-.0023	-24.83	252.90
EXTM 11	2374.28	2385.53	20	18	46.1	.28	.0042	-25.87	.0000	294227.1	1.29	28.92	-.0000	180.29	.0043	-24.80	242.88
SET 11	2653.53	2664.78	20	23	25.3	70.48	.0042	-25.34	.0000	318299.3	1.54	-.00	-.0029	238.41	.0024	-24.61	173.64
EXTM 42	2752.78	2764.03	21	1	4.8	359.96	.0042	-24.33	.0000	319305.8	1.20	79.11	.0000	.20	-.0176	-24.54	149.02
RISE 51	2883.31	2894.56	21	3	15.1	270.00	.0041	-24.03	-.0000	333656.0	.79	10.19	.0035	111.89	-.0015	-24.46	116.61
RISE 72	3038.01	3049.26	21	5	49.8	266.42	.0042	-24.21	-.0000	345655.1	.71	-.00	.0038	114.46	-.0006	-24.36	78.11
RISE 61	3104.00	3115.25	21	6	55.8	293.32	.0042	-25.07	-.0000	350107.8	.83	.00	.0027	123.71	.0027	-24.32	61.63
SET 42	3171.12	3182.37	21	8	2.9	105.00	.0041	-23.65	.0000	354374.5	1.46	2.10	-.0030	242.50	-.0023	-24.28	44.87
EXTM 51	3235.48	3246.73	21	9	7.3	358.87	.0042	-24.21	.0000	352603.0	1.11	88.16	.0021	34.03	-.1007	-24.24	28.79
EXTM 61	3368.64	3379.89	21	11	20.5	.24	.0042	-25.06	.0000	365140.9	1.11	24.70	-.0000	180.24	.0042	-24.16	355.51
EXTM 72	3408.19	3419.44	21	12	.0	.05	.0042	-24.41	.0000	364365.1	1.12	73.49	.0000	180.17	.0129	-24.13	345.62
RISE 11	3536.81	3548.06	21	14	8.6	288.90	.0042	-24.66	-.0000	379080.3	.81	.00	.0029	120.71	.0024	-24.05	313.43
SET 51	3595.88	3607.13	21	15	7.7	90.00	.0042	-23.63	.0000	382048.7	1.56	10.02	-.0035	248.49	-.0015	-24.00	298.63
SET 61	3632.92	3644.17	21	15	44.7	67.15	.0042	-24.65	.0000	385794.6	1.51	-.00	-.0027	236.89	.0027	-23.97	289.33
IMPACT	3721.43	3732.68	21	17	13.3												
IMPC 72	3721.43	3732.68	21	17	13.3	79.71	.0043	-23.82	.0001	391757.7	2.46	12.55	-.0039	247.25	-.0002	-23.86	266.95
IMPC 11	3721.43	3732.68	21	17	13.3	335.86	.0044	-24.64	.0000	390364.3	1.88	25.94	.0015	155.59	.0041	-23.86	266.95

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	19	3	11.818	6559.047	22.3950	306.7205	10.98102	-2.6652	108.5693	82.1914
SEPARATION	1.20	12.45	19	3	13.018	6545.836	20.0436	313.4033	10.99203	.7642	111.1003	89.1750
RETRO	3.20	14.45	19	3	15.018	6628.651	15.5963	323.9768	10.92260	6.4372	114.5017	100.2499
EXIT SHA	11.05	22.30	19	3	22.868	8005.569	-1.8641	355.9418	9.93066	29.1807	118.7283	134.1830
IMPACT	3721.43	3732.68	21	17	13.252	393193.133	-23.8631	266.9474	2.20813	66.9769	290.4455	255.3235

SURVEYOR VIEW PERIODS

GHA 89.3565 EPS 166.9202 LOM 261.2642
SX -.231163 SY -.884867 SZ -.404443 DAO -23.85620 RAO 255.35922 RM 3V4480.402 LAT 2[illegible].510600 LON 279.4[illegible]1800
CS -.966222 ECC .V84136 SLR 12985.506 RCA 6544.6[illegible] LTA -20.0000 GTA 20.30 TH 679.00000 POL -.0
NSX -.211111 NSY -.888187 NSZ -.408113 C3M 1.5[illegible]24 VIM 2.6817 ZAE 139.917 B.T .0000 B.R -.0000
LATE 1.4856 LONE 1.6437 LATS -./206 LONS 197.7385 LATI -/.0103 LONI 325.3873 RSM 146.7779 TTAN 6.0652
LAUNCH DATE DEC 19.1965 BASE AZM 99.0 TF 62.078 ARRIVAL DATE DEC 21 1965 17 3[illegible] 3.7

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99.00	3 15 28.0	27.9	21.22	306.44	-2.10	85.64	110.1	3 26 43.0	6546.9	10.99	-1.04

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE	IN	EARTH'S	SHADOW											
INJECTION	.00	11.25	19	3	26.7												
SEPARATION	1.20	12.45	19	3	27.9												
RETRO	3.20	14.45	19	3	29.9												
RISE 72	5.05	16.28	19	3	31.7	80.38	-.2198	50.30	.0518	2607.1	-7.71	-.01	.[illegible]26[illegible]	320.97	.0808	9.43	331.69
EXTM 72	9.65	20.60	19	3	36.4	340.76	-.2273	25.76	-.2214	1720.1	3.23	1.49	.0811	28.46	.4666	-.95	349.42
EXIT SHA	10.50	21.75	19	3	37.2												
EXIT 72	10.50	21.75	19	3	37.2	331.01	-.1587	15.46	-.1816	1934.6	3.05	53.03	-.01[illegible]	50.94	.3943	-2.60	352.15
EXIT 51	10.50	21.75	19	3	37.2	80.62	-.0969	27.04	-.0628	5290.[illegible]	-4.13	-3.82	.0918	298.27	.0101	-2.60	352.15
RISE 51	11.18	22.43	19	3	37.9	76.63	-.0986	25.62	-.0369	5132.1	-3.66	-.00	.0956	298.69	.0105	-3.85	354.23
EXTM 51	31.98	43.25	19	3	58.7	356.66	-.0256	-20.00	-.0125	8369.[illegible]	5.42	93.50	.0000	28.71	.2392	-22.49	29.60
EXTM 72	68.29	79.54	19	4	35.0	284.40	.0000	-29.10	-.0006	232[illegible].0	4.66	16.38	.0000	118.10	.0007	-28.20	45.63
EXTM 51	87.76	99.01	19	4	54.5	335.03	.0000	-29.24	-.0004	2503.[illegible]	4.41	67.62	.0000	104.68	.0011	-28.91	47.54
RISE 61	157.02	168.27	19	6	3.7	307.16	.0027	-35.52	.0004	47[illegible]3	3.52	-.00	.0017	139.56	.0015	-29.30	43.24
EXTM 51	253.15	264.40	19	7	39.9	.14	.0035	-29.22	.0001	6[illegible]0	3.12	86.52	.0000	162.02	.0496	-28.89	27.56
EXTM 61	423.39	434.54	19	10	30.1	3.79	.0039	-31.70	.0002	93 1	2.67	17.97	.0000	183.39	.0035	-28.09	352.18
EXTM 72	455.34	466.59	19	11	2.1	.64	.0040	-29.28	.0001	950[illegible].5	2.[illegible]	68.61	-.0000	181.52	.0096	-27.97	345.08
RISE 11	620.44	631.69	19	13	47.2	293.39	.0040	-29.36	.0000	124478.2	1.97	.00	.0026	126.88	.0023	-27.40	307.28
SET 51	649.18	660.43	19	14	15.9	90.00	.0039	-26.24	.0001	127124.9	2.57	[illegible].[illegible]	.0032	246.06	-.0013	-27.32	300.57
SET 61	667.53	678.78	19	14	34.2	61.59	.0040	-29.35	.0001	130776.3	2.44	[illegible]	.0022	230.06	.0027	-27.27	296.27
SET 72	844.29	855.54	19	17	31.0	93.9[illegible]	.0039	-26.48	.0001	153021.1	2.40	-.00	-.0035	243.35	-.0004	-26.82	254.35
RISE 42	854.54	865.79	19	17	41.3	254.99	.0040	-25.[illegible]7	-.0000	153895.4	1.68	3.21	.0029	119.06	-.0022	-26.80	251.89
EXTM 11	895.41	906.66	19	18	22.1	1.09	.0042	-28.[illegible]7	.0001	156333.2	1.96	26.01	-.0000	181.07	.0041	-26.71	242.10
SET 11	1167.53	1178.78	19	22	54.[illegible]	68.48	.0041	-27.47	.0001	189388.0	2.06	-.00	-.0027	235.63	.0024	-26.20	176.30
EXTM 42	1279.44	1290.69	20	0	46.2	359.95	.0042	-25.73	.0000	194799.8	1.69	80.51	-.0000	.30	-.0215	-26.03	149.03
RISE 51	1414.60	1425.85	20	3	1.3	270.00	.0041	-25.16	-.0000	213265.7	1.45	10.64	.0034	112.95	-.0015	-25.84	115.98
RISE 72	1570.63	1581.88	20	5	37.3	266.21	.0041	-25.41	-.0000	229308.9	1.15	-.01	.0037	115.67	-.0005	-25.64	77.71
RISE 61	1645.12	1656.37	20	6	51.8	295.16	.0041	-26.48	-.0000	236180.1	1.24	.00	.0026	126.03	.0027	-25.56	59.40
SET 42	1702.43	1713.68	20	7	49.1	105.00	.0041	-24.57	.0000	241072.8	1.83	2.72	-.0030	241.58	-.0022	-25.49	45.30
EXTM 51	1766.28	1777.53	20	8	53.0	358.06	.0042	-25.41	.0000	240782.4	1.46	88.22	.0 37	79.93	-.0237	-25.42	29.58
EXTM 61	1905.21	1916.46	20	11	11.9	.44	.0042	-26.58	.0000	256664.7	1.43	23.18	.0000	180.42	.0041	-25.28	355.32
EXTM 72	1944.66	1955.91	20	11	51.4	.09	.0042	-25.67	.0000	256515.7	1.41	72.24	.0000	180.26	.0122	-25.24	345.59
RISE 11	2080.99	2092.24	20	14	7.7	290.11	.0042	-25.98	-.0000	273895.9	1.05	.00	.0029	122.42	.0024	-25.12	311.91
SET 51	2133.25	2144.50	20	14	60.0	90.00	.0041	-24.56	.0000	277017.9	1.73	10.40	-.0034	247.63	-.0015	-25.07	298.99
SET 61	2165.13	2176.38	20	15	31.8	65.64	.0042	-25.98	.0000	280747.1	1.63	-.00	-.0026	254.98	.00[illegible]	-25.05	291.10
SET 72	2317.64	2328.89	20	18	4.4	93.67	.0041	-24.74	.0000	292854.0	1.71	-.00	-.0037	245.01	-.0005	-24.92	253.36
RISE 42	2319.51	2330.76	20	18	6.2	255.00	.0041	-24.16	-.0000	292725.6	.97	2.47	.0030	118.10	-.0023	-24.92	252.90
EXTM 11	2360.63	2371.28	20	18	46.7	.30	.0042	-25.97	.0000	293096.0	1.29	28.82	-.0000	180.30	.0043	-24.89	242.86
SET 11	2638.94	2650.19	20	23	25.7	70.41	.0042	-25.42	.0000	317175.2	1.54	-.00	-.0029	238.31	.0024	-24.68	173.72
EXTM 42	2738.48	2749.73	21	1	5.2	359.96	.0042	-24.40	.0000	318715.3	1.20	79.18	.0000	.21	-.0181	-24.61	149.02
RISE 51	2869.04	2880.29	21	3	15.8	270.00	.0041	-24.10	-.0000	3325[illegible]2.1	.79	10.21	.0035	111.95	-.0015	-24.53	116.60
RISE 72	3023.70	3034.95	21	5	50.4	266.41	.0042	-24.27	-.0000	344596.6	.71	-.00	.0038	114.52	-.0006	-24.42	78.11
RISE 61	3090.00	3101.25	21	6	56.7	293.38	.0042	-25.[illegible]3	-.0000	349068.0	.83	.00	.0027	123.80	.0027	-24.38	61.56
SET 42	3156.83	3168.08	21	8	3.5	105.00	.0041	-23.71	.0000	353308.[illegible]	1.45	2.19	-.0030	242.26	-.0023	-24.34	44.87
EXTM 51	3221.21	3232.46	21	9	7.9	358.87	.0042	-24.27	.0000	351538.1	1.11	88.21	.0022	35.01	-.1021	-24.29	28.79
EXTM 61	3354.41	3365.66	21	11	21.1	.25	.0042	-25.[illegible]1	.0000	364070.4	1.11	24.65	-.0000	180.25	.0042	-24.21	355.51
EXTM 72	3393.94	3405.19	21	12	.7	.05	.0042	-24.46	.0000	363283.3	1.11	73.44	.0000	180.17	.0128	-24.18	345.62
RISE 11	3522.77	3534.02	21	14	9.5	288.95	.0042	-24.[illegible]1	-.0000	377972.4	.81	.00	.0029	120.77	.0024	-24.10	313.39
SET 51	3581.66	3592.91	21	15	8.4	90.00	.0042	-23.67	.0000	380888.6	1.54	10.04	-.0035	248.45	-.0015	-24.05	298.63
SET 61	3618.50	3629.75	21	15	45.2	67.10	.0042	-24.70	.0000	384580.9	1.49	-.00	-.0027	256.81	.0027	-24.02	289.38
IMPACT	3728.69	3735.94	21	17	31.4												
IMPC 42	3724.69	3735.94	21	17	31.4	245.66	.0043	-23.28	.0000	393701.9	1.70	-4.67	.0029	122.89	-.0026	-23.89	262.57
IMPC 72	3724.69	3735.94	21	17	31.4	84.11	.0043	-23.62	.0001	392256.2	2.46	8.55	-.0039	246.96	-.0003	-23.89	262.57
IMPC 11	3724.69	3735.94	21	17	31.4	340.39	.0044	-24.68	.0000	390273.6	1.90	27.28	.0013	159.65	.0042	-23.89	262.57

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	19	3	26.716	6546.854	21.2161	306.4386	10.99115	-1.0427	110.7360	85.6444
SEPARATION	1.20	12.45	19	3	27.916	6556.133	18.6331	312.9634	10.98320	2.3875	113.[illegible]65[illegible]	92.4700
RETRO	3.20	14.45	19	3	29.916	6675.380	13.9027	323.2030	10.88387	8.0117	116.[illegible]16	103.2109
EXIT SHA	10.50	21.75	19	3	37.213	8008.965	-2.6015	352.1542	9.92859	25.2080	119.2221	133.4912
IMPACT	3724.69	3735.94	21	17	31.402	393234.586	-23.8935	262.5675	2.20646	66.8803	290.6703	265.4937

SURVEYOR VIEW PERIODS

GHA	89.3565				EPS 167.0666						LOM	256.7855	
SX	-.228424	SY	-.885356	SZ	-.404929	DAO	-23.88669	RAO	255.53306	RM	394521.211	LAT	28.510600
C3	-.971542	ECC	.984048	SLR	12984.934	RCA	6544.6659	LTA	-20.0000	GTA	20.00	TB	675.00000
NSX	-.208309	NSY	-.888627	NSZ	-.406594	C3M	1.5519	VIM	2.6816	ZAE	139.743	B.T	.0000
LATE	1.5043	LONE	4.6348	LATS	-.7209	LONS	197.5815	LATI	-7.2068	LONI	325.2421	RSM	146.7775
LAUNCH DATE		DEC	19,1965		BASE AZM	102.0		TF	62.171			ARRIVAL DATE	DEC

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
102.00	3 27 46.1	28.0	20.06	306.05	.55	88.34	112.87	3 39 1.1	6544.8	10.99	.27

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW														
INJECTION	.00	11.25	19	3	39.0												
SEPARATION	1.20	12.45	19	3	40.2												
RETRO	3.20	14.45	19	3	42.2												
RISE 72	4.78	16.03	19	3	43.8	82.27	-.1898	44.11	.0264	2689.1	-7.93	-.00	.1287	314.65	.0520	8.26	329.45
EXIT SHA	10.01	21.26	19	3	49.0												
EXIT 72	10.01	21.26	19	3	49.0	345.66	-.2108	12.84	-.1886	1756.1	4.10	64.84	.0355	34.60	.6508	-3.49	348.71
EXTM 72	10.22	21.47	19	3	49.2	343.14	-.1955	10.55	-.1788	1809.8	4.53	65.05	-.0000	42.54	.6222	-3.88	349.35
RISE 51	11.09	22.34	19	3	50.1	78.81	-.0913	21.92	-.0399	5290.8	-3.43	.00	.0935	294.49	.0044	-5.50	351.96
EXTM 51	33.82	45.07	19	4	12.8	358.87	-.0231	-23.49	-.0096	9093.6	5.38	87.52	-.0000	24.85	.5377	-24.42	28.36
EXTM 72	69.23	80.48	19	4	48.2	287.48	.0000	-30.58	-.0004	23366.8	4.81	19.03	.0000	119.70	.0004	-29.22	42.88
RISE 61	148.51	159.76	19	6	7.5	308.87	.0026	-36.56	.0005	45438.3	3.59	-.00	.0016	141.30	.0014	-30.02	41.41
EXTM 51	238.09	249.34	19	7	37.1	.20	.0034	-29.93	.0001	57989.2	3.19	85.80	.0000	182.43	.0400	-29.52	27.50
EXTM 61	412.20	423.45	19	10	31.2	4.21	.0039	-32.24	.0002	92279.0	2.63	17.42	.0000	185.73	.0034	-28.55	331.79
EXTM 72	442.98	454.23	19	11	2.0	.74	.0040	-29.78	.0001	93220.7	2.56	68.11	-.0000	181.72	.0093	-28.41	344.99
RISE 11	609.98	621.23	19	13	49.0	293.78	.0040	-29.75	.0000	123094.5	1.98	.00	.0026	127.40	.0023	-27.76	306.86
SET 51	636.77	648.02	19	14	15.8	90.00	.0038	-26.58	.0001	125486.3	2.58	11.20	-.0032	245.74	-.0013	-27.67	300.61
SET 61	653.11	664.36	19	14	32.1	61.09	.0039	-29.74	.0002	128901.8	2.46	-.00	-.0022	229.47	.0027	-27.62	296.79
SET 72	832.38	843.63	19	17	31.4	94.02	.0039	-26.76	.0001	151601.9	2.40	-.00	-.0035	242.96	-.0004	-27.11	254.33
RISE 42	842.66	853.91	19	17	41.7	254.99	.0040	-25.64	-.0000	152468.9	1.69	3.37	.0029	119.27	-.0022	-27.08	251.87
EXTM 11	883.82	895.07	19	18	22.8	1.18	.0042	-29.07	.0001	155011.2	1.97	25.71	-.0000	181.15	.0040	-26.98	242.01
SET 11	1154.70	1165.95	19	22	53.7		.0041	-27.70	.0001	188020.4	2.07	.00	-.0027	235.32	.0024	-26.43	176.55
EXTM 42	1267.64	1278.89	20	0	46.7	359.99	.0042	-25.94	.0000	193576.1	1.70	80.72	-.0000	.33	-.0217	-26.24	149.03
RISE 51	1402.88	1414.13	20	3	1.9	270.00	.0041	-25.36	-.0000	212083.6	1.26	10.72	.0034	113.13	-.0015	-26.03	115.97
RISE 72	1558.81	1570.06	20	5	37.8	266.18	.0041	-25.58	-.0000	228162.2	1.15	-.01	.0037	115.84	-.0005	-25.81	77.77
RISE 61	1634.19	1645.44	20	6	53.2	295.36	.0041	-26.84	-.0000	235130.2	1.24	.00	.0025	126.27	.0027	-25.72	59.20
SET 42	1690.67	1701.92	20	7	49.7	105.00	.0041	-24.72	.0001	239946.9	1.83	2.82	-.0030	241.46	-.0022	-25.65	45.31
EXTM 51	1754.43	1765.68	20	8	53.5	358.03	.0042	-25.57	.0000	239670.7	1.46	88.2_	.0038	84.89	-.0132	-25.57	29.61
EXTM 61	1893.61	1904.86	20	11	12.6	.46	.0042	-26.72	.0000	255610.6	1.43	23.04	.0000	180.45	.0041	-25.42	355.30
EXTM 72	1932.97	1944.22	20	11	52.0	.09	.0042	-25.81	.0000	259450.5	1.41	72.10	.0000	180.28	.0121	-25.38	345.58
RISE 11	2069.76	2081.01	20	14	8.6	290.23	.0042	-26.10	-.0000	272881.6	1.05	.00	.0029	122.58	.0024	-25.24	311.79
SET 51	2121.52	2132.77	20	15	.5	90.00	.0041	-24.68	.0000	275962.3	1.73	10.44	-.0034	247.52	-.0015	-25.19	299.00
SET 61	2152.81	2164.06	20	15	31.8	65.50	.0042	-26.10	.0000	279652.2	1.63	.01	-.0026	234.80	.0027	-25.16	291.26
SET 72	2305.98	2317.23	20	18	5.0	93.69	.0041	-24.84	.0001	291828.3	1.72	-.00	-.0037	244.90	-.0005	-25.02	253.35
RISE 42	2307.82	2319.07	20	18	6.8	255.00	.0041	-24.26	-.0000	291690.6	.97	2.53	.0030	118.18	-.0023	-25.02	252.89
EXTM 11	2348.40	2359.65	20	18	47.4	.32	.0042	-26.07	.0000	292086.2	1.29	28.72	-.0000	180.32	.0043	-24.99	242.84
SET 11	2626.89	2638.14	20	23	25.9	70.32	.0042	-25.51	.0000	316144.1	1.54	-.00	-.0029	238.19	.0024	-24.77	173.80
EXTM 42	2726.77	2738.02	21	1	5.8	359.96	.0042	-24.48	.0000	317212.5	1.20	79.26	.0000	.23	-.0181	-24.69	149.02
RISE 51	2857.35	2868.60	21	3	16.4	270.00	.0041	-24.17	-.0000	331585.3	.80	10.24	.0035	112.01	-.0015	-24.60	116.60
RISE 72	3012.10	3023.35	21	5	51.1	266.40	.0042	-24.34	-.0000	343641.2	.71	-.00	.0038	114.58	-.0006	-24.49	78.12
RISE 61	3078.73	3089.98	21	6	57.7	293.46	.0042	-25.20	-.0000	348127.6	.83	.00	.0026	123.89	.0027	-24.44	61 48
SET 42	3145.23	3156.48	21	8	6.2	105.00	.0041	-23.77	.0000	352333.9	1.45	2.23	-.0030	242.21	-.0023	-24.40	44.88
EXTM 51	3209.63	3220.88	21	9	8.6	358.88	.0042	-24.33	.0000	350559.9	1.11	88.26	.0022	36.04	-.0038	-24.35	28.79
EXTM 61	3342.85	3354.10	21	11	21.9	.26	.0042	-25.17	.0000	363074.9	1.11	24.59	-.0000	180.26	.0042	-24.26	355.49
EXTM 72	3382.34	3393.59	21	12	1.4	.05	.0042	-24.52	.0000	362272.3	1.11	73.38	.0000	180.18	.0128	-24.24	345.62
RISE 11	3511.56	3522.81	21	14	10.4	289.00	.0042	-24. 6	-.0000	376926.3	.80	.00	.0029	120.84	.0024	-24.14	313.34
SET 51	3570.05	3581.30	21	15	9.1	90.00	.0042	-23.72	.0000	379789.4	1.53	10.06	-.0035	248.40	-.0015	-24.10	298.63
SET 61	3606.68	3617.93	21	15	45.7	67.04	.0042	-24.75	.0000	383432.3	1.46	-.00	-.0027	236 74	.0027	-24.07	289.44
RISE 42	3751.73	3762.98	21	18	10.8	255.00	.0043	-23.12	.0000	392349.8	1.37	2.02	.0031	117.51	-.0024	-23.98	253.18
IMPACT	3730.27	3741.52	21	17	49.3												
IMPC 42	3730.27	3741.52	21	17	49.3	249.95	.0043	-23.33	.0000	393410.8	1.69	-1.65	.0030	120.35	-.0025	-23.92	258.25
IMPC 72	3730.27	3741.52	21	17	49.3	88.43	.0043	-23.82	.0001	392714.6	2.46	4.61	-.0039	246.56	-.0004	-23.92	258.25
IMPC 11	3730.27	3741.52	21	17	49.3	344.68	.0044	-24.72	.0000	390213.6	1.92	28.35	.0010	164.18	.0044	-23.92	258.25
SET 72	3751.82	3763.07	21	18	10.8	93.52	.0043	-23.85	.0001	392565.6	2.14	-.00	-.0039	245.91	-.0005	-23.98	253.16

EVNT STA	TFI	TFL	DAY	HR	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	19	3	39.018	6544.617	20.0648	306.0528	10.99261	.2740	112.8688	88.3425
SEPARATION	1.20	12.45	19	3	40.218	6572.257	17.2587	312.4160	10.96937	3.7003	115.0039	95.0065
RETRO	3.20	14.45	19	3	42.218	6720.522	12.2609	322.3241	10.84671	9.2715	117.6653	105.4160
EXIT SHA	10.01	21.26	19	3	49.029	8002.633	-3.4880	348.7137	9,93209	25.1576	119.8790	133.5130
IMPACT	3730.27	3741.52	21	17	49.289	393278.941	-23.9233	258.2519	2.20308	66.5799	290.8415	259.6620

J

SURVEYOR VIEW PERIOUS

GMA	89.3565					EPS	167.1984							LOM	252.7509
SX	-.225954	SY	-.885790	SZ	-.405365	DAO	-23.91397	RAO	255.66971	RM	394557.953	LAT	28.510500	LON	279.461800
CS	-.977791	ECC	.983946	SLR	129B4.263	RCA	6544.6651	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.208770	NSY	-.889019	NSZ	-.409029	C3M	1.5917	VIM	2.6816	ZAE	139.530	B.T	.0000	B.R	-.0000
LATE	1.5711	LONE	4.6261	LATS	-.7212	LONS	197.4394	LATI	-7.4428	LONI	325.0655	RSM	146.7772	TTAN	3.0566
LAUNCH DATE		DEC	19.1965		BASE AZM	105.0		TF	62.278			ARRIVAL	DATE DEC	21 1965	18 1 20.5

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
105.00	3 37 51.6	28.0	18.94	305.59	2.69	90.41	114.98	3 49 6.6	6546.3	10.99	1.34

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	URG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW														
INJECTION	.00	11.25	19	3	49.1												
SEPARATION	1.20	12.45	19	3	50.3												
RETRO	3.20	14.45	19	3	52.3												
RISE 7z	4.61	15.86	19	3	53.7	83.65	-.1694	38.54	.0032	2764.7	-8.00	-.00	.1299	308.98	.0265	6.98	327.52
EXIT SHA	9.62	20.87	19	3	58.7												
EXIT 7z	9.62	20.87	19	3	58.7	.04	-.2481	8.34	-.1856	1671.1	3.08	73.75	.1853	359.84	.8007	-4.55	345.66
EXTM 7z	10.20	21.45	19	3	59.3	359.09	-.2087	2.78	-.1611	1802.7	4.41	77.12	-.0000	38.06	1.1822	-5.67	347.42
RISE 5i	11.06	22.31	19	4	.2	80.79	-.0853	18.56	-.0427	5430.7	-3.21	.00	.0915	290.47	-.0010	-7.26	349.92
EXTM 5i	34.62	45.87	19	4	23.7	1.96	-.0227	-26.56	-.0081	9469.4	5.32	38.13	.0166	250.15	-.4389	-26.11	26 51
EXTM 7z	70.05	81.30	19	4	59.2	290.02	.0006	-32.18	-.0002	23508.4	4.79	21.11	.0000	121.52	.0002	-30.39	40.59
RISE 6i	144.34	155.59	19	6	13.5	310.75	.0025	-37.03	.0006	44571.3	3.63	-.00	.0016	143.12	.0013	-30.87	39.55
EXTM 5i	226.62	237.27	19	7	35.1	.35	.0033	-30.78	.0002	55729.4	3.24	84.95	-.0000	183.58	.0322	-30.26	27.58
EXTM 6i	403.70	414.95	19	10	32.8	4.67	.0039	-32.83	.0002	91038.2	2.65	16.80	.0000	164.10	.0034	-29.08	351.36
EXTM 7z	433.16	444.41	19	11	2.3	.85	.0040	-30.55	.0001	91768.7	2.58	67.54	.0000	181.95	.0090	-28.92	344.87
RISE 1i	602.11	613.36	19	13	51.2	294.23	.0040	-30. 8	.0000	122040.0	1.99	.00	.0026	127.09	.0023	-28.17	306.39
SET 5i	626.73	637.98	19	14	15.8	90.00	.0038	-26.98	.0001	124137.9	2.59	11.36	-.0032	245.37	-.0014	-28.07	300.66
SET 6i	640.72	651.97	19	14	29.8	60.52	.0039	-30.18	.0002	127267.7	2.47	-.00	-.0021	228.81	.0027	-28.02	297.39
SET 7z	822.83	834.08	19	17	31.9	94.07	.0039	-27.09	.0001	150445.6	2.41	-.00	-.0035	242.63	-.0004	-27.44	254.30
RISE 4z	833.08	844.33	19	17	42.2	254.99	.0040	-25.96	-.0000	151292.0	1.70	3.57	.0028	119.53	-.0022	-27.41	251.85
EXTM 1i	874.58	885.83	19	18	23.7	1.28	.0042	-29.40	.0001	153947.1	1.98	25.38	-.0000	181.24	.0040	-27.30	241.91
SET 1i	1144.03	1155.28	19	22	53.1	67.57	.0041	-27.97	.0001	186858.0	2.07	.00	-.0027	234.97	.0024	-26.68	176.82
EXTM 4z	1258.09	1269.34	20	0	47.2	359.94	.0042	-26.18	.0000	192556.4	1.70	80.96	-.0000	.34	-.0226	-26.47	149.04
RISE 5i	1393.39	1404.64	20	3	2.5	270.00	.0041	-25.57	-.0000	211092.8	1.26	10.80	.0034	113.32	-.0015	-26.24	115.96
RISE 7z	1549.20	1560.45	20	5	38.3	266.15	.0041	-25.77	-.0000	227194.6	1.15	-.01	.0037	116.03	-.0005	-26.00	77.75
RISE 6i	1625.57	1636.82	20	6	54.7	295.58	.0041	-27.03	-.0000	234.64.2	1.24	.00	.0025	126.53	.0027	-25.89	58.98
SET 4z	1681.12	1692.37	20	7	50.2	105.00	.0041	-24.89	.0001	238991.7	1.63	2.92	-.0029	241.32	-.0022	-25.82	45.32
EXTM 5i	1744.84	1756.09	20	8	54.0	358.01	.0042	-25.74	.0000	238751.0	1.47	88.20	.0038	90.55	-.0017	-25.74	29.63
EXTM 6i	1884.23	1895.48	20	11	13.3	.50	.0042	-26.88	.0000	254718.5	1.43	22.88	.0000	180.48	.0041	-25.57	355.26
EXTM 7z	1923.49	1934.74	20	11	52.6	.10	.0042	-25.94	.0000	254542.6	1.42	71.95	.0000	180.30	.0121	-25.52	345.57
RISE 1i	2060.78	2072.03	20	14	9.9	290.36	.0042	-26.24	-.0000	272019.5	1.06	.00	.0028	122.76	.0024	-25.37	311.66
SET 5i	2111.98	2123.23	20	15	1.1	90.00	.0041	-24.89	.0001	275052.0	1.73	10.50	-.0034	247.40	-.0015	-25.32	299.00
SET 6i	2142.68	2153.93	20	15	31.8	65.35	.0042	-26.24	.0001	278701.9	1.63	.00	-.0025	234.61	.0027	-25.29	291.41
SET 7z	2295.52	2307.77	20	18	5.6	93.71	.0041	-24.95	.0001	290939.2	1.72	-.00	-.0037	244.79	-.0005	-25.14	253.56
RISE 4z	2295.32	2309.57	20	18	7.4	255.00	.0041	-24.57	-.0000	290790.6	.97	2.60	.0030	118.27	-.0023	-25.14	252.89
EXTM 1i	2338.97	2350.22	20	18	48.1	.34	.0042	-26.19	.0000	291212.0	1.29	28.60	-.0000	180.35	.0043	-25.10	242.82
SET 1i	2617.00	2628.25	20	23	26.1	70.24	.0042	-25.60	.0000	315231.6	1.54	-.00	-.0029	238.07	.0024	-24.86	173.89
EXTM 4z	2717.23	2728.48	21	1	6.3	359.96	.0042	-24.57	.0000	316324.9	1.20	79.35	.0000	.24	-.0189	-24.78	149.02
RISE 5i	2847.83	2859.08	21	3	16.9	270.00	.0041	-24.25	-.0000	330697.9	.80	10.27	.0035	112.08	-.0015	-24.68	116.60
RISE 7z	3002.70	3013.95	21	5	51.8	266.39	.0042	-24.40	-.0000	342791.8	.71	.00	.0037	114.65	-.0006	-24.56	78.12
RISE 6i	3069.65	3080.90	21	6	58.8	293.54	.0042	-25.26	-.0000	347291.8	.83	.00	.0026	123.99	.0027	-24.51	61.41
SET 4z	3135.81	3147.06	21	8	4.9	105.00	.0041	-23.83	.0000	351462.1	1.45	2.27	-.0030	242.16	-.0023	-24.46	44.88
EXTM 5i	3200.24	3211.49	21	9	9.4	358.89	.0042	-24.39	.0000	349684.8	1.10	88.32	.0023	87.65	-.1057	-24.42	28.78
EXTM 6i	3333.46	3344.71	21	11	22.6	.27	.0042	-25.23	.0000	362180.8	1.10	24.53	-.0000	180.27	.0042	-24.32	355.48
EXTM 7z	3372.92	3384.17	21	12	2.0	.06	.0042	-24.58	.0000	361362.3	1.10	73.33	.0000	180.19	.0127	-24.29	345.62
RISE 1i	3502.10	3513.35	21	14	11.2	289.04	.0042	-24.81	-.0000	375983.7	.79	.00	.0029	120.90	.0024	-24.19	313.29
SET 5i	3560.60	3571.85	21	15	9.7	90.00	.0042	-23.77	.0000	378799.4	1.52	10.08	-.0035	248.36	-.0015	-24.15	298.63
SET 6i	3597.03	3608.28	21	15	46.1	66.99	.0042	-24.80	.0000	382400.9	1.45	-.00	-.0027	236.6	.0027	-24.12	289.50
RISE 4z	3740.87	3752.12	21	18	10.0	255.08	.0044	-23.67	.0000	393605.2	2.20	1.99	.0031	117.48	-.0025	-23.94	253 18
IMPACT	3736.66	3747.91	21	18	5.8												
IMPC 4z	3736.66	3747.91	21	18	5.8	253.91	.0043	-23.58	.0000	393135.3	1.67	1.20	.0031	118.10	-.0025	-23.95	254.28
IMPC 7z	3736.66	3747.91	21	18	5.8	92.40	.0043	-23.82	.0001	393156.7	2.45	1.01	-.0039	246.08	-.0005	-23.95	254.28
IMPC 1i	3736.66	3747.91	21	18	5.8	348.71	.0044	-24.45	.0000	390192.3	1.94	29.10	.0008	168.26	.0045	-23.95	254.28
SET 7z	3740.92	3752.17	21	18	10.0	93.51	.0044	-23.80	.0001	393834.3	3.01	.00	-.0040	245.96	-.0005	-23.94	253.17

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION	.00	11.25	19	3	49.110	6548.256	18.9391	305.5697	10.98944	1.3352	114.9814	90.4094
SEPARATION	1.20	12.45	19	3	50.310	6590.222	15.9227	311.7764	10.95400	4.7500	116.9274	96.8969
RETRO	3.20	14.45	19	3	52.310	6761.392	10.6656	321.3657	10.81332	10.2714	119.2558	106.9875
EXIT SHA	9.62	20.87	19	3	58.726	7996.302	-4.5520	345.6621	9.93575	25.1091	120.6737	132.4922
IMPACT	3736.66	3747.91	21	18	5.767	393520.527	-23.9508	254.2764	2.19955	66.2577	291.0752	255.8171

SURVEYOR VIEW PERIODS

GHA	89.5565					EPS 167.3174								LOM	249.1069
SX	-.223723	SY	-.8861//	SZ	-.405755	DAO	-23,93848	RAO	255.83122	RM	394591.117	LAT	28.310800	LON	279.461800
CJ	-.984506	ECC	.983835	SLR	12983.543	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	PO	-.0
NSX	-.203462	NSY	-.089368	NSZ	-.409423	C3M	1.5523	VIM	2.6817	ZAE	139.288	B.T	.0000	B.R	-.0000
LATE	1.5563	LONE	4.5108	LATS	-.7215	LONS	197.2037	LATI	-7.7054	LONI	324.7581	RSM	146.7769	TTAN	6.0675
LAUNCH DATE		DEC	19.1965		BASE AZM	108.0		TF	62.391				ARRIVAL DATE	DEC	21 1965 18 26 26.5

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	3 46 10.6	28.1	17.84	305.06	4.42	91.97	117.08	3 57 25.6	6554.3	10.98	2.19

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW														
INJECTION	.00	11.25	19	3	57.4												
SEPARATION	1.20	12.45	19	3	58.6												
RETRO	3.20	14.45	19	4	.6												
RISE 72	4.49	15.74	19	4	1.9	84.75	-.1542	33.38	-.0180	2835.7	-7.95	.00	.1299	305.75	.0035	5.62	325.83
EXIT SHA	9.29	20.54	19	4	6.7												
EXIT 72	9.29	20.54	19	4	6.7	13.26	-.2629	2.64	-.1791	1669.0	2.12	73.08	.3169	308.04	.0824	-5.75	342.91
EXTM 72	9.71	20.96	19	4	7.1	6.89	-.2414	-1.72	-.1650	1736.8	3.72	80.76	.2896	311.67	.2498	-6.59	344 19
RISE 51	11.06	22.31	19	4	8.5	82.63	-.0801	14.90	-.0455	5556.8	-3.00	.00	.0895	286.59	-.0058	-9.11	348.06
EXTM 51	37.82	49.07	19	4	35.2	1.58	-.0191	-30.19	-.0053	10599.4	5.30	85.34	-.0000	197.08	-.2129	-28.52	26.71
EXTM 72	70.67	81.92	19	5	8.1	292.08	-.0000	-33.88	.0000	23622.7	4.76	22.69	.0000	126.51	-.0000	-31.69	38.68
EXTM 51	91.36	102.61	19	5	28.8	343.91	-.0000	-33.35	.0001	26122.5	4.33	74.10	.0000	122.36	-.0004	-32.03	40.44
RISE 61	143.81	155.06	19	6	21.2	312.65	.0025	-38.68	.0006	44514.8	3.63	-.00	.0016	144.96	.0012	-31.81	37.73
EXTM 51	216.44	227.69	19	7	33.9	.54	.0032	-31.74	.0002	53911.9	3.29	83.98	-.0000	184.38	.0262	-31.11	27.21
EXTM 61	397.40	408.65	19	10	34.8	5.17	.0039	-33.47	.0002	99134.7	2.66	16.14	.0000	184.46	.0034	-29.67	350.90
EXTM 72	425.45	436.70	19	11	2.9	1.00	.0040	-30.98	.0002	90625.0	2.59	66.91	.0000	182.20	.0087	-29.49	344.74
RISE 11	596.34	607.59	19	13	53.8	294.73	.0040	-30.66	.0000	121260.1	2.00	.00	.0026	129.61	.0023	-28.62	305.88
SET 51	618.64	629.89	19	14	16.1	90.00	.0038	-27.42	.0001	123032.8	2.60	11.54	-.0032	244.95	-.0012	-28.52	300.70
SET 61	629.99	641.24	19	14	27.4	59.88	.0039	-30.67	.0002	125834.2	2.48	-.00	-.0021	228.07	.0027	-28.47	298.05
SET 72	815.19	826.44	19	17	32.6	94.14	.0039	-27.45	.0001	149507.3	2.41	-.00	-.0035	242.26	-.0004	-27.81	254.26
RISE 42	825.37	836.62	19	17	42.8	254.99	.0040	-26.31	-.0000	150323.6	1.71	5.79	.0028	119.81	-.0022	-27.77	251.83
EXTM 11	867.25	878.50	19	18	24.7	1.40	.0042	-29.77	.0001	153098.1	1.98	25.01	.0000	181.34	.0040	-27.65	241.81
SET 11	1135.10	1146.35	19	22	52.5	67.71	.0041	-28.26	.0001	185866.7	2.07	-.00	-.0027	234.59	.0024	-26.96	177.11
EXTM 42	1250.20	1261.45	20	0	47.6	359.90	.0042	-26.44	.0000	191693.1	1.71	81.22	.0000	.57	-.0241	-26.72	149.07
RISE 51	1385.71	1396.96	20	3	3.1	270.00	.0041	-25.80	-.0000	210263.5	1.27	10.89	.0034	113.53	-.0015	-26.47	115.95
RISE 72	1541.37	1552.62	20	5	38.8	266.12	.0041	-25.97	-.0000	226378.7	1.16	-.01	.0036	116.24	-.0005	-26.21	77.78
RISE 61	1618.81	1630.06	20	6	56.2	295.81	.0041	-27.23	-.0000	233553.8	1.25	.00	.0025	126.82	.0027	-26.09	58.74
SET 42	1673.36	1684.61	20	7	50.8	105.00	.0041	-25.08	.0001	238181.9	1.83	3.03	-.0029	241.18	-.0022	-26.01	45.32
EXTM 51	1737.12	1748.37	20	8	54.6	358.01	.0042	-25.92	.0000	237942.0	1.47	88.20	.0038	96.21	.0105	-25.92	29.62
EXTM 61	1876.63	1887.88	20	11	14.1	.54	.0042	-27.04	.0000	253965.1	1.43	22.72	.0000	180.52	.0041	-25.73	355.23
EXTM 72	1915.98	1927.23	20	11	53.4	.16	.0042	-26.12	.0000	253786.2	1.42	71.78	-.0000	180.47	.0121	-25.68	345.51
RISE 11	2053.60	2064.85	20	14	11.0	290.49	.0042	-26.39	-.0000	271289.1	1.06	.00	.0028	122.95	.0024	-25.52	311.52
SET 51	2104.21	2115.46	20	15	1.6	90.00	.0041	-24.94	.0001	274268.1	1.73	10.55	-.0034	247.27	-.0015	-25.46	299.01
SET 61	2134.28	2145.53	20	15	31.7	65.19	.0042	-26.38	.0001	277873.8	1.63	.00	-.0025	234.41	.0027	-25.42	291.57
SET 72	2288.83	2300.08	20	18	6.3	93.73	.0041	-25.08	.0001	2901/0.1	1.72	-.00	-.0037	244.67	-.0005	-25.26	253.32
RISE 42	2290.58	2301.83	20	18	8.0	255.00	.0041	-24.49	-.0000	290009.5	.97	2.67	.0030	118.36	-.0023	-25.26	252.88
EXTM 11	2351.31	2362.56	20	18	48.7	.36	.0042	-26.31	.0000	290457.2	1.29	28.48	-.0000	180.37	.0043	-25.22	242.80
SET 11	2608.85	2620.10	20	23	26.3	70.15	.0042	-25.70	.0000	314426.3	1.54	-.00	-.0028	237.04	.0024	-24.96	173.99
EXTM 42	2709.43	2720.68	21	1	6.9	359.95	.0042	-24.66	.0000	315542.2	1.20	79.44	.0000	.26	-.0193	-24.87	149.03
RISE 51	2840.06	2851.31	21	3	17.5	270.00	.0041	-24.33	-.0000	329911.2	.80	10.30	.0035	112.16	-.0015	-24.76	116.59
RISE 72	2994.87	3006.12	21	5	52.3	266.38	.0042	-24.47	-.0000	342002.5	.71	.00	.0037	114.72	-.0006	-24.63	78.13
RISE 61	3062.16	3073.41	21	6	59.6	293.61	.0042	-25.33	-.0000	346517.5	.82	.00	.0026	124.09	.0027	-24.58	61.33
SET 42	3128.00	3139.25	21	8	5.4	105.00	.0041	-23.89	.0000	350652.9	1.45	2.31	-.0030	242.11	-.0023	-24.53	44.88
EXTM 51	3192.51	3203.76	21	9	9.9	358.90	.0042	-24.45	.0000	348875.2	1.10	88.37	.0023	87.93	-.1062	-24.48	28.76
EXTM 61	3325.73	3336.98	21	11	23.2	.29	.0042	-25.29	.0000	361353.9	1.10	24.48	-.0000	180.28	.0042	-24.37	355.47
EXTM 72	3365.15	3376.40	21	12	2.6	.06	.0042	-24.63	.0000	360520.8	1.10	73.27	.0000	180.20	.0128	-24.34	345.61
RISE 11	3494.52	3505.77	21	14	12.0	289.09	.0042	-24.86	-.0000	375116.4	.78	.00	.0029	120.97	.0024	-24.24	313.24
SET 51	3552.84	3564.09	21	15	10.3	90.00	.0042	-23.81	.0000	377892.1	1.51	10.10	-.0035	248.32	-.0015	-24.19	298.64
SET 61	3589.07	3600.32	21	15	46.5	66.93	.0042	-24.85	.0000	381459.5	1.43	-.00	-.0027	236.60	.0027	-24.16	289.55
RISE 42	3733.52	3744.77	21	18	10.9	255.00	.0042	-23.43	.0000	392028.9	1.28	2.02	.0031	117.52	-.0024	-24.00	253.18
SET 72	3733.57	3744.82	21	18	11.0	93.52	.0042	-23.86	.0001	392258.5	2.05	.00	-.0038	242.90	-.0005	-24.00	253.16
IMPACT	3743.45	3754.70	21	18	20.9												
IMPC 42	3743.45	3754.70	21	18	20.9	257.54	.0043	-23.42	.0000	392874.9	1.66	3.87	.0031	116.10	-.0024	-23.98	250.63
IMPC 72	3743.45	3754.70	21	18	20.9	96.04	.0043	-23.82	.0001	393558.7	2.44	-2.28	-.0039	245.57	-.0006	-23.98	250.63
IMPC 11	3743.45	3754.70	21	18	20.9	352.41	.0044	-24.78	.0000	390171.3	1.96	29.59	.0005	172.07	.0045	-23.98	250.63

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	19	3	57.427	6554.385	17.8377	305.0657	10.98395	2.1933	117.0823	91.9702
SEPARATION	1.20	12.45	19	3	58.627	6608.000	14.6194	311.0709	10.93883	5.5954	118.8470	98.2762
RETRO	3.20	14.45	19	4	.627	6797.402	9.1073	320.3543	10.78408	11.0718	120.8656	108.0610
EXIT SHA	9.29	20.54	19	4	6.717	7989.848	-5.7490	342.9132	9.93946	25.0594	121.5880	132.1466
IMPACT	3743.45	3754.70	21	18	20.873	3[illegible].344	-23.9760	250.6313	2.19679	66.0927	291.5084	255.9590

SURVEYOR VIEW PERIODS

GHA	89.3565					EPS	167.4109							LOM	246.2417
SX	-.2221969	SY	-.8864778	SZ	-.406081	DAO	-23.95765	RAD	255.94251	RM	394617.180	LAT	28.510600	LON	279.4[illegible]800
CS	-.989616	ECC	.985791	SLR	12982.990	RCA	6544.6[illegible]	LIA	-20.0000	GIA	20.00	TH	675.00000	POL	-.0
NSX	-.201654	NSY	-.809636	NSZ	-.409735	C3M	1.[illegible]	VIM	2.6823	ZAE	139.049	B.T	.0000	B.R	-.0000
LATE	1.5481	LONE	4.6137	LATS	-.7216	LONS	197.2118	LATI	-7.9820	LONI	324.6746	RSM	146.7760	TTAN	6.0014
LAUNCH DATE		DEC	19,1965		BASE AZM	111.0		TF	62.477			ARRIVAL DATE		DEC	21 1965 18 56 18.9

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RI ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
111.00	3 52 59.2	28.1	16.77	304.48	5.82	93.09	119.17	4 4 14.2	6561.4	10.98	2.86

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW														
INJECTION	.00	11.25	19	4	4.2												
SEPARATION	1.20	12.45	19	4	5.4												
RETRO	3.20	14.45	19	4	7.4												
RISE 7z	4.42	15.67	19	4	8.7	85.67	-.1419	28.52	-.0574	2903.4	-7.79	.00	.1290	298.81	-.0174	4.16	324.35
EXIT SHA	9.01	20.26	19	4	13.2												
EXIT 7z	9.01	20.26	19	4	13.2	25.09	-.2586	-3.22	-.1742	1733.4	1.29	54.60	.2882	279.22	-.2758	-7.01	340.55
EXTM 7z	9.70	20.95	19	4	13.9	14.75	-.2375	-10.04	-.1520	1825.0	3.07	75.27	.2132	260.55	-.2076	-8.43	342.42
RISE 51	11.10	22.35	19	4	15.3	84.36	-.0755	11.51	-.0481	5672.3	-2.79	.61	.0876	282.80	-.0108	-11.06	346.35
EXTM 51	40.14	51.39	19	4	44.4	2.12	-.0173	-33.40	-.0036	11434.6	5.25	82.12	-.0000	193.33	-.1083	-30.67	26.36
EXTM 7z	71.21	82.46	19	5	15.4	293.73	-.0000	-35.66	.0003	23740.2	4.74	23.83	.0000	125.60	-.0003	-33.09	37.10
EXTM 51	90.75	102.00	19	5	35.0	345.80	-.0002	-34.95	.0003	26009.3	4.34	14.73	.0001	130.48	-.0011	-33.28	38.84
RISE 61	146.19	157.44	19	6	30.4	314.57	.0025	-39.67	.0007	45107.5	3.60	-.00	.0006	146.75	.0022	-32.81	35.99
EXTM 51	209.13	220.38	19	7	33.4	.78	.0032	-32.79	.0003	52515.1	3.33	82.92	.0000	145.34	.0217	-32.03	26.49
EXTM 61	95	404.20	19	10	37.2	5.68	.0039	-34.13	.0003	89519.5	2.67	15.45	.0000	184.68	.0033	-30.29	330.42
EXTM 7z	49	460.70	19	11	3.7	1.14	.0040	-31.64	.0002	89739.9	2.61	66.24	.0000	182.42	.0084	-30.10	344.61
RISE 11	552.50	603.58	19	13	56.6	295.25	.0040	-31.15	.0000	120718.4	2.01	.00	.0026	129.28	.0023	-29.09	305.35
SET 51	612.17	623.42	19	14	16.4	90.00	.0038	-27.89	.0001	122144.1	2.61	11.72	-.0032	244.51	-.0017	-29.00	300.73
SET 61	620.67	631.92	19	14	24.9	59.19	.0039	-31.18	.0002	124585.5	2.48	-.00	-.0021	227.25	.0027	-28.94	298.75
SET 7z	809.13	820.38	19	17	33.4	94.20	.0039	-27.84	.0001	148761.6	[illegible]	-.00	-.0034	241.87	-.0004	-28.19	254.22
RISE 42	819.24	830.49	19	17	43.5	255.00	.0040	-26.69	-.0000	149547.5	[illegible]	4.02	.0028	120.10	-.0022	-28.15	251.80
EXTM 11	861.35	872.60	19	18	25.6	1.48	.0042	-30.15	.0001	152424.7	[illegible]	14.63	.0000	181.41	.0040	-28.01	241.75
SET 11	1127.64	1138.89	19	22	51.9	67.42	.0041	-28.56	.0001	185041.4	2.07	-.00	-.0026	234.19	.0024	-27.26	177.41
EXTM 42	1215.70	1226.95	20	0	19.9	352.80	.0042	-26.77	.0000	188136.1	1.68	79.54	.0021	38.38	-.0171	-27.05	155.97
RISE 51	1379.53	1390.78	20	3	3.8	270.00	.0041	-26.04	-.0000	209597.9	1.27	10.99	.0034	113.75	-.0015	-26.71	115.94
RISE 7z	1535.03	1546.28	20	5	39.3	266.09	.0041	-26.18	-.0000	225723.5	1.16	.00	.0036	116.35	-.0005	-26.42	77.80
RISE 61	1613.56	1624.81	20	6	57.8	296.06	.0041	-27.43	-.0000	233005.1	1.25	.00	.0025	127.12	.0027	-26.29	58.50
SET 42	1667.09	1678.34	20	7	51.3	105.00	.0041	-25.27	.0001	237530.1	1.83	3.15	-.0029	241.02	-.0022	-26.20	45.33
EXTM 51	1730.96	1742.21	20	8	55.2	358.04	.0042	-26.11	.0000	237317.4	1.47	88.20	.0037	102.26	.0230	-26.10	29.60
EXTM 61	1870.62	1881.87	20	11	14.9	.60	.0042	-27.21	.0000	253377.3	1.43	22.55	-.0000	180.58	.0040	-25.90	355.16
EXTM 7z	1909.65	1920.90	20	11	53.9	.15	.0042	-26.29	.0000	253161.2	1.42	71.62	-.0000	180.43	.0119	-25.84	345.55
RISE 11	2047.88	2059.13	20	14	12.1	290.63	.0042	-26.56	-.0000	270713.7	1.16	.00	.0028	123.15	.0024	-25.66	311.38
SET 51	2097.90	2109.15	20	15	2.1	90.01	.0041	-25.08	.0001	273640.0	1.73	10.60	-.0034	247.[illegible]4	-.0015	-25.60	299.01
SET 61	2127.33	2138.58	20	15	31.6	65.03	.0042	-26.52	.0001	277200.7	1.63	-.00	-.0025	234.21	.0027	-25.56	291.73
SET 7z	2282.55	2293.80	20	18	6.8	93.75	.0041	-25.20	.0001	289553.3	1.72	-.00	-.0037	244.54	-.0005	-25.38	253.31
RISE 42	2284.25	2295.50	20	18	8.5	254.99	.0041	-24.61	-.0000	289381.2	.98	2.75	.0030	118.46	-.0023	-25.38	252.89
EXTM 11	2324.93	2336.18	20	18	49.2	.35	.0042	-26.43	.0000	289845.3	1.29	28.36	.0000	180.36	.0043	-25.34	242.81
EXTM 11	2324.95	2336.20	20	18	49.2	.35	.0042	-26.43	.0000	289846.3	1.29	28.36	.0000	180.36	.0043	-25.34	242.81
SET 11	2602.15	2613.40	20	23	26.4	70.06	.0042	-25.80	.0000	313779.4	1.54	-.00	-.0028	237.82	.0024	-25.05	174.08
EXTM 42	2703.16	2714.41	21	1	7.4	359.97	.0042	-24.75	.0000	314923.6	1.20	79.53	-.0000	.16	-.0171	-24.96	149.01
RISE 51	2833.71	2844.96	21	3	17.9	270.00	.0041	-24.40	-.0000	329283.2	.80	10.34	.0035	112.23	-.0015	-24.84	116.59
RISE 7z	2988.46	2999.71	21	5	52.7	266.37	.0042	-24.54	-.0000	341372.9	.71	.00	.0037	114.79	-.0006	-24.70	78.14
RISE 61	3056.08	3067.33	21	7	.3	293.69	.0042	-25.10	-.0000	345904.1	.82	.00	.0026	124.18	.0027	-24.64	61.25
SET 42	3121.62	3132.87	21	8	5.9	105.00	.0041	-23.95	.0000	350009.3	1.45	2.34	-.0030	242.07	-.0023	-24.58	44.88
EXTM 51	3185.72	3196.97	21	9	10.0	358.80	.0042	-24.51	.0000	348201.8	1.10	88.36	.0025	41.82	-.1013	-24.53	29.87
EXTM 61	3319.50	3330.75	21	11	23.7	.32	.0042	-25.34	.0000	360706.5	1.10	24.42	-.0000	180.32	.0042	-24.42	355.43
EXTM 7z	3358.68	3369.93	21	12	2.9	.04	.0042	-24.68	.0000	359848.4	1.10	73.23	.0000	180.13	.0118	-24.39	345.54
RISE 11	3488.33	3499.58	21	14	12.6	269.13	.0042	-24.91	-.0000	374434.3	.78	.00	.0029	121.03	.0024	-24.28	313.20
SET 51	3546.47	3557.72	21	15	10.7	90.00	.0042	-23.85	.0000	377178.7	1.50	10.11	-.0035	248.28	-.0015	-24.23	298.64
SET 61	3586.57	3593.82	21	15	46.8	66.90	.0042	-24.49	.0000	380723.1	1.43	-.01	.0026	236.55	.0027	-24.20	289.59
SET 7z	3727.42	3738.67	21	18	11.7	93.53	.0042	-23.90	.0001	391255.8	1.88	-.00	-.0038	245.85	-.0005	-24.04	253.15
RISE 42	3727.34	3738.59	21	18	11.6	255.00	.0042	-23.47	.0000	391021.3	1.11	2.05	.0031	117.55	-.0024	-24.04	253.18
IMPACT	3748.64	3759.89	21	18	32.9												
IMPC 42	3748.64	3759.89	21	18	32.9	260.43	.0043	-23.46	.0000	392665.5	1.65	6.02	.0032	114.55	-.0026	-24.00	247.73
IMPC 7z	3748.64	3759.89	21	18	32.9	98.93	.0043	-23.82	.0001	393876.9	2.43	-4.88	-.0039	245.09	-.0007	-24.00	247.73
IMPC 11	3748.64	3759.89	21	18	32.9	355.35	.0044	-24.80	.0001	390176.6	1.97	29.83	.0004	175.13	.0046	-24.00	247.73
EXTM 11	3770.84	3782.09	21	18	55.1	.67	.0043	-24.87	.0000	389450.5	1.68	29.92	-.0000	180.70	.0045	-24.06	242.49

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION	.00	11.25	19	4	4.236	6561.530	28.7603	304.4904	10.97776	2.8841	119.1767	93.1018
SEPARATION	1.20	12.45	19	4	5.436	6624.424	3.3470	310.3118	10.92492	6.2738	120.7691	99.2240
RETRO	3.20	14.45	19	4	7.436	6828.308	7.5815	319.3070	10.75921	11.7110	122.4998	108.7157
EXIT SHA	9.01	20.26	19	4	13.241	7978.911	-7.0150	340.3541	9.946[illegible]	24.9756	122.6126	131.223[illegible]
IMPACT	3748.64	3759.89	21	18	32.878	3933[illegible]5.250	-23.9961	247.7346	2.194[illegible]	65.9270	291.9784	256.071[illegible]

SURVEYOR VIEW PERIODS

GHA	89.3565					EPS	167.9675							LOM	241.4408
SX	-.213027	SY	-.586976	SZ	-.406571	SMD	-23.04959	RAD	256.12904	RM	394660.820	LAT	28.310600	LON	279.461800
C3	-1.002082	ECC	.963547	SLR	12081.655	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	679.00000	PDL	-.0
NSX	-.198577	NSY	-.890083	NSZ	-.410257	C3M	1.5556	VTI	2.6824	ZAE	138.621	A.T	.0000	B.R	-.0000
LATE	1.5681	LONE	4.6034	LATS	-.7220	LONS	97.0429	LATI	-8.3706	LONI	324.3101	GSM	146.7762	ITAN	5.0590
LAUNCH DATE		DEC	19,1965		BASE AZM	115.0		TF	62.685			ARRIVAL DATE		DEC	21 1965 18 58 12.6

LNCH AZMTH	LNCH TIME	PD	INJ LAT	INJ LONG	INJ TA	INJ RI ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	4 [illegible] 43.0	28.1	15.37	303.64	7.35	94.19	121.96	[illegible] 11 58.0	6571.4	10.97	3.64

EVNT STA	TFI	TFL	DAY	HR	MIN	FA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PRCBE IN EARTH'S SHADOW														
INJECTION	.00	11.25	19	4	12.0												
SEPARATION	1.20	12.45	19	4	13.2												
RETRO	3.20	14.45	19	4	15.2												
RISE 72	4.39	15.64	19	4	16.4	86.74	-.1282	22.43	-.0403	2996.3	-7.44	-.00	.1263	292.55	-.0422	2.12	322.53
EXIT SHA	8.69	19.94	19	4	20.7												
EXIT 72	8.69	19.94	19	4	20.7	38.28	-.2243	-10.35	-.1699	1903.7	.51	52.15	.2293	263.29	-.2795	-8.80	337.20
EXTM 72	10.80	22.05	19	4	22.8	10.26	-.1961	-27.51	-.0935	2269.5	4.81	68.12	-.0000	265.09	-.5249	-13.05	343.20
RISE 51	11.19	22.44	19	4	23.2	86.58	-.0699	7.06	-.0512	5823.3	-2.50	.00	.0848	277.84	-.0197	-13.78	344.23
EXTM 51	44.07	55.32	19	4	56.0	1.87	-.0146	-37.50	-.0017	12794.1	5.17	78.14	-.0000	187.23	-.0570	45.60	26.49
EXTM 72	71.47	82.72	19	5	23.4	295.46	-.0001	-38.12	.0006	23794.8	4.73	24.83	.0000	128.50	.0007	-35.06	35.70
EXTM 51	87.89	99.14	19	5	39.9	348.05	-.0007	-37.30	.0005	25331.1	4.37	74.62	.0000	141.63	-.0028	-35.09	36.99
RISE 61	152.45	163.70	19	6	44.4	317.16	.0026	-40.91	.0007	46568.2	3.54	.00	.0016	149.98	.0013	-34.15	33.71
EXTM 51	202.70	213.95	19	7	34.7	1.31	.0031	-34.27	.0003	51286.1	3.36	81.39	-.0000	187.26	.0172	-33.33	26.53
EXTM 61	389.00	400.25	19	10	41.0	6.40	.0038	-35.06	.0004	88998.4	2.68	14.47	.0000	185.41	.0033	-31.18	349.75
EXTM 72	413.50	424.75	19	11	5.5	1.39	.0040	-32.58	.0002	88855.5	2.62	65.29	.0000	182.79	.0080	-30.97	344.39
RISE 11	588.91	600.16	19	14	.9	295.00	.0040	-31.95	.0001	120228.1	2.02	.00	.0025	130.23	.0023	-29.77	304.56
SET 51	605.27	616.52	19	14	17.2	90.00	.0038	-28.58	.0002	121153.8	2.61	11.99	-.0032	243.87	-.0012	-29.68	300.78
SET 61	609.57	620.82	19	14	21.5	58.19	.0039	-31.93	.0002	123057.7	2.49	-.01	-.0020	226.16	.0027	-29.65	299.77
SET 72	632.75	644.00	19	14	34.7	94.30	.0039	-28.38	.0001	147930.1	2.42	-.00	-.0034	241.32	-.0004	-28.74	254.15
RISE 42	812.68	823.93	19	17	44.6	255.00	.0040	-27.23	-.0000	148658.7	1.72	4.35	.0028	120.53	-.0022	-28.70	251.78
EXTM 11	855.37	866.62	19	19	27.3	1.65	.0042	-30.69	.0001	151706.4	1.99	24.08	.0000	181.56	.0039	-28.54	241.56
SET 11	1119.10	1130.35	19	22	51.1	66.98	.0041	-29.00	.0001	194024.1	2.07	-.00	-.0026	233.61	.0024	-27.68	177.85
EXTM 42	1207.99	1219.24	20	0	20.0	352.54	.0042	-27.17	.0000	187213.3	1.68	79.74	.0022	40.42	-.0169	-27.44	156.21
RISE 51	1372.83	1384.08	20	3	4.8	270.00	.0041	-26.39	-.0000	208776.6	1.27	11.13	.0034	114.08	-.0015	-27.05	115.93
RISE 72	1528.09	1539.34	20	5	40.1	266.03	.0041	-26.49	-.0000	224894.4	1.16	.00	.0036	111.76	-.0005	-26.73	77.84
RISE 61	1608.24	1619.49	20	7	.2	296.41	.0042	-27.73	.0000	232323.7	1.25	.00	.0025	127.55	.0027	-26.58	58.14
SET 42	1660.27	1671.52	20	7	52.2	105.00	.0041	-25.55	.0001	236690.7	1.83	3.32	-.0029	240.80	-.0022	-26.46	45.33
EXTM 51	1731.92	1743.17	20	9	3.9	.00	.0042	-26.57	.0000	237183.3	1.48	89.37	.0000	184.52	.0516	-26.36	27.68
EXTM 61	1864.00	1875.25	20	11	16.0	.86	.0042	-27.46	.0000	252590.8	1.43	22.29	-.0000	180.63	.0040	-26.14	355.11
EXTM 72	1902.72	1913.97	20	11	54.7	.13	.0042	-26.53	.0000	252329.0	1.42	21.37	.0000	180.36	.0117	-26.08	345.55
RISE 11	2041.87	2053.12	20	14	13.8	290.84	.0042	-25.75	-.0000	269938.6	1.06	.00	.0028	123.43	.0024	-25.88	311.16
SET 51	2091.01	2102.26	20	15	3.0	90.01	.0041	-25.29	.0001	272778.9	1.73	10.69	-.0034	246.94	-.0015	-25.81	299.01
SET 61	2119.45	2130.70	20	15	31.4	64.79	.0042	-26.73	.0001	276266.0	1.63	-.00	-.0025	233.91	.0027	-25.77	291.98
SET 72	2275.76	2287.01	20	18	7.7	93.78	.0041	-25.38	.0001	288691.1	1.71	-.00	-.0037	244.36	-.0005	-25.57	253.28
RISE 42	2277.37	2288.62	20	18	9.3	254.99	.0041	-24.79	-.0000	288500.2	.97	2.86	.0030	118.60	-.0023	-25.56	252.88
EXTM 11	2318.18	2329.43	20	18	50.1	.39	.0042	-26.62	.0000	288999.6	1.29	28.18	.0000	180.39	.0043	-25.51	242.77
EXTM 11	2318.19	2329.44	20	18	50.2	.39	.0042	-26.62	.0000	289000.5	1.29	28.18	.0000	180.40	.0043	-25.51	242.77
SET 11	2594.64	2605.89	20	23	26.6	69.92	.0042	-25.95	.0000	312826.5	1.54	-.00	.0028	237.62	.0024	-25.20	174.22
EXTM 42	2696.20	2707.45	21	1	8.2	359.97	.0042	-24.88	.0000	313994.8	1.20	79.66	-.0000	.17	-.0167	-25.09	149.01
RISE 51	2826.75	2838.00	21	3	18.7	270.00	.0041	-24.52	-.0000	328333.0	.79	10.38	.0035	112.34	-.0015	-24.96	116.58
RISE 72	2981.40	2992.65	21	5	53.4	266.35	.0041	-24.65	-.0000	340192.0	.72	.00	.0037	114.90	-.0006	-24.81	78.15
RISE 61	3049.71	3060.96	21	7	1.7	293.80	.0042	-25.50	-.0000	344994.6	.82	.00	.0026	124.33	.0027	-24.74	61.13
SET 42	3114.74	3125.99	21	8	6.7	105.00	.0041	-24.04	.0000	349042.4	1.44	2.40	-.0030	241.99	-.0023	-24.68	44.89
EXTM 51	3178.61	3189.86	21	9	10.6	358.74	.0042	-24.60	.0000	347201.3	1.09	88.39	.0027	45.38	-.0975	-24.62	28.93
EXTM 61	3312.68	3323.93	21	11	24.6	.34	.0042	-25.42	.0000	359596.5	1.09	24.34	-.0000	180.24	.0042	-24.50	355.41
EXTM 72	3351.80	3363.05	21	12	3.8	.04	.0042	-24.76	.0000	358814.1	1.09	73.15	.0000	180.14	.0124	-24.47	345.63
RISE 11	3481.68	3492.93	21	14	13.6	289.19	.0042	-24.98	-.0000	373354.0	.77	.00	.0029	121.12	.0024	-24.35	313.13
SET 51	3539.54	3550.79	21	15	11.5	90.00	.0042	-23.92	.0000	376040.9	1.49	10.14	-.0035	248.22	-.0015	-24.30	298.64
SET 61	3575.34	3586.59	21	15	47.3	66.82	.0042	-24.95	.0000	379539.9	1.41	-.01	-.0026	236.46	.0027	-24.27	289.67
SET 72	3720.67	3731.92	21	18	12.6	93.54	.0042	-23.97	.0001	389752.6	1.74	-.00	-.0038	245.79	-.0009	-24.11	252.15
RISE 42	3720.57	3731.82	21	18	12.5	255.00	.0042	-23.53	.0000	389513.6	.98	2.09	.0030	117.60	-.0024	-24.11	253.17
EXTM 11	3763.68	3774.93	21	18	55.6	.97	.0044	-24.82	.0001	390541.9	2.24	29.96	.0000	181.02	.0046	-24.02	242.20
IMPACT	3761.08	3772.33	21	18	53.0												
IMPC 42	3761.08	3772.33	21	18	53.0	265.28	.0043	-23.52	.0000	392314.1	1.64	9.70	.0033	112.01	-.0023	-24.03	242.87
IMPC 11	3761.08	3772.33	21	18	53.0	.29	.0044	-24.83	.0001	390617.3	1.99	29.96	.0000	180.30	.0046	-24.03	242.87
EXTM 11	3763.68	3774.93	21	18	55.6	.97	.0044	-24.82	.0001	390541.9	2.24	29.96	.0000	181.02	.0046	-24.02	242.20

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	19	4	11.966	6571.720	15.3611	303.6548	10.96875	3.6433	121.9654	94.2040
SEPARATION	1.20	12.45	19	4	13.166	6644.652	11.6974	309.2278	10.90756	7.0168	123.3.13	100.0779
RETRO	3.20	14.45	19	4	15.166	6864.225	5.5985	317.83[illegible]	10.73020	12.[illegible]078	124.7169	109.1901
EXIT SHA	8.69	19.94	19	4	20.660	7967.745	-8.8006	337.1975	9.95262	24.8872	124.1265	129.926[illegible]
IMPACT	3761.08	3772.33	21	18	53.043	393437.996	-24.0295	242.8697	2.18896	65.4185	292.4028	256.7620

EVNT	STA	TYPE	TIME	DAY	HR	MIN	SEC	MACH	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	20	3	33.277		6619.192	25.9469	307.2716	10.93439	-5.9804	101.9585	89.1078
SEPARATION		1.20	12.45	20	3	34.477		6559.109	24.3199	314.4125	10.98368	-2.4853	105.1248	96.5494
RETRO		1.20	14.45	20	3	36.477		6564.461	20.8541	335.8282	10.97833	1.1366	109.7183	108.4666
EXIT SMA		10.59	21.84	20	3	43.868		7614.171	5.0141	359.6305	10.18731	21.9227	117.9846	143.9317
IMPACT		3735.68	3746.93	22	17	48.921		3983.281	-25.6392	270.9430	2.22147	68.4744	281.6032	269.2565

[illegible]

EVNT	STA	TFI	TFL	DAY	HR	MIN	[illegible]	RAD	LAT	LONG	VEL	PTH	[illegible]	RT ASC
INJECTION		.00	11.25	20	3	57.707		6566.335	24.7038	307.3874	10.97723	-3.2663	104.2880	95.3479
SEPARATION		1.20	12.45	20	3	58.907		6544.717	22.8210	314.3673	10.99523	.1649	107.2256	102.6285
RETRO		3.20	14.45	20	4	.907		6613.942	19.0170	325.4522	10.93710	5.8519	111.3771	114.2148
EXIT	SHA	9.60	20.85	20	4	7.306		7606.666	5.2542	353.7950	10.19263	21.8534	117.8599	144.1617
IMPACT		3732.13	3743.38	22	18	9.841		396356.625	-25.6546	265.9078	2.22085	68.2500	291.2880	269.4554

SURVEYOR VIEW PERIODS

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GHA    95.3422                                  EMS 177.4946                                  LCM 260.3448
SX    -.0000865 SY    -.9981427 SZ    -.0432955 CAD  -25.64689 RAC  269.46729 RM  397662.625 LAT  28.310690 LCN 279.461800
CB    -.3184144 EEC     .9481491 SLN  1.0921.101 RCA  6544.6650 LTA   -20.1000 GTA  20.00      TB  675.00000 PUL         -.0
NSR   -.0111904 NSY    -.9600627 NSZ    -.4364439 C3R     1.5556 VIM     2.6823 ZAL    141.278 R.I      .0000 R.M     -.0000
LATE   2.9284 LONE    -.8309 EATS    -.7456 LONS 185.0742 LATI  -3.9183 LONI 345.6943 RSP  146.7556 TTAM   6.6141
LAUNCH DATE   DEC  20.1965       PARK AZM   93.0       TF  62.220                    ARRIVAL DATE DEC  22 1965  18 32  9.4

 LNCH      LNCH                      INJ      INJ      INJ      INJ      INJ          INJ          INJ      INJ      INJ
 AZMTH     TIME          PR          LAT      LONG     TA       RT ASC   AZMTH        TIME         RAD      VEL      PTH
 93.00     4  7 47.6     27.9        23.49    307.27   -7.09    100.33   106.51       4 18  2.6    6546.8   10.99    -1.04

EVNT STA  TFI      TFL    DAY HR MIN     HA      DHA     DEC      COE      RNG      DRG     ELE      DEL      AZI      DAZ      LAT      LONG
                         PROPE IN EARTH'S SHADOW
INJECTION    .00    11.25  20  4 18.0
SEPARATION  1.20    12.45  20  4 19.2
RETRO       3.20    14.45  20  4 21.2
 RISE 72    5.37    16.57  20  4 23.4    75.24  -.3046   61.43   .0818    2719.0  -6.50    .00     .1161   332.45   .1204   -2.58  334.96
EXIT SHA    8.80    20.05  20  4 26.8
 EXIT 72    8.80    20.05  20  4 26.8   340.85  -.2776   49.78   -.2065   2034.6    .84  29.95    .1243    14.15   .2612    5.11  348.93
 EXIT 61    8.80    20.05  20  4 26.8    18.70  -.1737  -50.61   -.0087   4436.1   4.73  -2.51    .0185   191.70  -.1086    5.11  348.93
 EXTM 72   10.80    22.05  20  4 28.8   319.90  -.1073   26.12   -.1667   2402.4   4.86  38.30    .0187    47.48   .2441    1.28  355.56
 RISE 51   11.34    22.61  20  4 29.4    72.01  -.1077   32.65   -.0302   5211.7  -3.39    .00     .0932   306.79   .0209     .30  357.23
 EXTM 51   33.06    45.11  20  4 51.9   351.72  -.0200  -14.86   -.0131   9063.0   5.41  76.65   -.0000    37.04   .1011  -19.40   32.69
 EXTM 72   66.13    77.38  20  5 24.2   284.25  -.0500  -26.11   -.0013  22416.0   4.90  16.23    .0000   114.98   .0014  -25.50   45.77
 EXTM 51   84.22    95.87  20  5 42.7   334.82  -.0001  -26.50   -.0010  24270.4   4.46  67.41    .0000    97.52   .0026  -26.71   47.68
 RISE 61  147.02   159.27  20  6 45.1   305.67   .0026  -34.57    .0003  45038.5   3.62    -.00   .0015   138.01   .0015  -28.12   44.43
 EXTM 51  252.02   263.27  20  8 50.1      .01   .0035  -28.73    .0000  60616.4   3.14  87.01    .0000   180.39   .0316  -28.44   27.67
 EXTM 61  419.36   430.61  20 11 17.4     2.93   .0039  -31.87    .0001  93452.0   2.62  17.84    .0000   182.61   .0035  -28.24  352.99
 CRP 72   454.09   465.34  20 11 52.1      .41   .0040  -29.  '    .0001  95016.7   2.54  68.39   -.0000   180.97   .0095  -28.18  345.29
 RISE 11  672.47   683.72  20 14 40.5   293.90   .0040  -29.86   -.0000  125004.1  1.98    .00    .0026   127.54   .0023  -27.90  306.79
 SET  51  649.07   660.32  20 15  7.1    90.00   .0038  -26.79    .0001  127351.0  2.58  11.29   -.0032   245.55  -.0013  -27.96  300.58
 SET  61  664.31   675.56  20 15 22.3    60.85   .0040  -24.93    .0001  130623.5  2.46    -.00  -.0022   229.19   .0026  -27.83  297.01
 SET  72  844.30   856.15  20 18 22.9    94.10   .0039  -27.23    .0001  153471.3  2.40    -.00  -.0035   242.49  -.0005  -27.57  254.23
 RISE 42  854.49   865.94  20 18 32.7   254.99   .0040  -26.14   -.0001  154244.6  1.49  3.68    .0029   119.67  -.0021  -27.56  251.89
 EXTM 11  894.60   905.85  20 19 12.6      .86   .0041  -29.58    .0000  156724.9  1.97  25.21   -.0000   180.82   .0040  -27.51  242.33
 SET  11 1163.79  1175.04  20 23 41.8    67.49   .0041  -28.47    .0001  189574.0  2.07    .00   -.0027   234.30   .0024  -27.20  171.29
 EXTM 42 1279.87  1291.12  21  1 37.9   359.95   .0042  -26.92    .0000  195486.6  1.71  81.60    .0000     .30  -.0236  -27.09  149.02
 RISE 51 1415.11  1426.36  21  3 53.2   270.00   .0041  -26.31   -.0000  214025.7  1.27  11.10   .0034   114.01  -.0014  -26.96  115.97
 RISE 72 1570.39  1581.64  21  6 28.4   266.01   .0041  -26.60   -.0000  230161.2  1.16    -.01   .0036   116.88  -.0005  -26.83   77.91
 RISE 61 1651.56  1662.81  21  7 49.6   296.62   .0041  -27.90   -.0000  237705.4  1.25    .00    .0025   127.80   .0027  -26.77   57.96
 SET  42 1703.00  1714.25  21  8 41.0   105.00   .0041  -25.92    .0000  242017.0  1.84  3.40   -.0029   240.59  -.0022  -26.73   45.31
 EXTM 51 1773.04  1784.29  21  9 51.1   359.61   .0042  -26.71    .0000  242410.5  1.48  88.97    .0013   160.05   .1964  -26.68   29.07
 EXTM 61 1905.55  1916.80  21 12  3.6      .35   .0042  -27.89    .0000  257967.9  1.44  21.87   -.0000   180.33   .0040  -26.59  355.41
 EXTM 72 1945.44  1956.69  21 12 43.5      .11   .0042  -27.02    .0000  257801.3  1.43  70.89   -.0000   180.30   .0113  -26.56  345.56
 RISE 11 2086.91  2098.16  21 15  5.0   291.40   .0042  -27.34   -.0000  275674.6  1.07    .00    .0028   124.20   .0024  -26.47  310.63
 SET  51 2133.97  2145.22  21 15 52.0    90.00   .0041  -25.94    .0000  278348.7  1.74  10.95   -.0034   246.34  -.0015  -26.45  299.00
 SET  61 2159.31  2170.56  21 16 17.4    64.01   .0042  -27.38    .0000  281631.6  1.64    -.00  -.0025   232.96   .0027  -26.43  292.73
 SET  72 2319.37  2330.62  21 18 57.4    93.91   .0041  -26.16    .0000  294484.5  1.72    -.00  -.0037   243.57  -.0005  -26.34  253 13
 RISE 42 2320.34  2331.59  21 18 58.4   255.00   .0041  -25.59   -.0000  294189.5   .99  3.35    .0029   119.23  -.0023  -26.34  252.89
 EXTM 11 2360.62  2371.87  21 19 38.7      .24   .0042  -27.41    .0000  298812.9  1.31  27.39   -.0000   180.24   .0042  -26.32  242.92
 SET  11 2634.17  2645.42  22  0 12.2    69.00   .0042  -26.92    .0000  318608.2  1.55    -.00   -.0028   236.35   .0024  -26.18  175.12
 EXTM 42 2739.42  2750.67  22  1 57.5   359.97   .0042  -25.95    .0000  320136.0  1.22  80.73    .0000     .21  -.0188  -26.13  149.01
 RISE 51 2870.00  2881.25  22  4  8.0   270.00   .0041  -25.65   -.0000  334591.0   .82  10.83   .0034   113.39  -.0015  -26.07  116.60
 RISE 72 3023.77  3035.02  22  6 41.8   266.14   .0042  -25.04   -.0000  346786.3   .73    -.00   .0037   116.11  -.0005  -26.00   78.37
 RISE 61 3098.40  3109.65  22  7 56.4   295.21   .0042  -26.72   -.0000  351853.4   .85    .00    .0026   126.08   .0027  -25.96   59.74
 SET  42 3157.94  3169.19  22  8 56.0   105.00   .0041  -25.32    .0000  355522.9  1.46  3.18   -.0030   240.99  -.0023  -25.94   44.88
 EXTM 51 3221.66  3232.91  22  9 59.7   358.69   .0042  -25.92    .0000  359847.0  1.11  88.81   .0038    98.68   .0262  -25.91   28.97
 EXTM 61 3355.33  3366.58  22 12 13.4      .18   .0042  -26.77    .0000  366646.5  1.12  22.99   -.0000   180.17   .0041  -25.86  355.57
 EXTM 72 3395.26  3406.51  22 12 53.3      .08   .0042  -26.15    .0000  365794.5  1.12  71.75   -.0000   180.24   .0118  -25.84  345.59
 RISE 11 3530.73  3541.98  22 15  8.3   290.51   .0042  -26.41   -.0000  380911.8   .82    .00    .0029   122.98   .0024  -25.79  311.83
 SET  51 3582.88  3594.13  22 16   .9    90.00   .0042  -25.39    .0000  383353.3  1.54  10.73   -.0035   246.85  -.0015  -25.76  298.63
 SET  61 3611.89  3623.14  22 16 29.9    65.12   .0042  -26.43    .0000  386575.2  1.47    .00   -.0026   234.32   .0027  -25.75  291.36
IMPACT   3733.18  3744.43  22 18 31.2
 IMPC 42 3733.18  3744.43  22 18 31.2   247.46   .0043  -25.07   -.0000  396604.0  1.73  -2.25   .0029   123.15  -.0025  -25.67  260.75
 IMPC 72 3733.18  3744.43  22 18 31.2    85.93   .0043  -25.59    .0001  395570.9  2.48  7.05   -.0039   245.03  -.0003  -25.67  260.75
 IMPC 11 3733.18  3744.43  22 18 31.2   342.14   .0044  -26.47    .0000  393564.3  1.95  26.06   .0011   162.21   .0042  -25.67  260.75

EVNT STA  TFI      TFL    DAY HR MIN        RAD          LAT          LONG          VEL          PTH          AZ          RT ASC
INJECTION    .00    11.25  20  4 18.043     6546.838     23.4922      307.2683     10.99353     -1.0392     106.5115     100.3265
SEPARATION  1.20    12.45  20  4 19.243     6556.177     21.3666      314.0995     10.98554      2.3929     109.2324     107.4486
RETRO       3.20    14.45  20  4 21.243     6675.612     17.2709      324.8011     10.88607      8.0205     112.3568     118.6615
EXIT SHA    8.80    20.05  20  4 26.838     7601.310      5.1055      348.9334     10.19624     21.8035     118.0184     144.1965
IMPACT   3733.18  3744.43  22 18 31.222   396404.629    -25.6704      260.7515     -2.21664     67.9884     281.1712     269.6591
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SURVEYOR VIEW PERIOD

GHA	90.3422				EPS 177.9567							LON	255.1780
SX	-.004833	SY	-.901331	SZ	-.433405	DAO	-25.66475	RAO	269.69277	RM	397705.801	LAT	28.310603	LON	279.461800
CR	-.917226	ECC	.984940	SLR	12990.774	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	PCL	-.0
NSX	.015168	NSY	-.900463	NSZ	-.434668	C3M	1.5541	VIM	2.6820	ZAE	141.201	B.T	.0000	B.R	-.0000
LATE	2.9482	LONE	3.8174	LATS	-.7459	LONS	184.8914	LATI	-4.0271	LONI	325.6747	TSM	146.7555	TTAN	6.6181
LAUNCH DATE		DEC 20,1965			BASE AZM	96.0		TF	62.278			ARRIVAL DATE		DEC 27 1965		IN	53 48.4

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
96.00	4 22 58.5	28.0	22.31	306.99	1.42	104.11	108.67	4 34 13.5	6545.7	10.99	.71

EVNT STA	TFI	TFL	DAY	HR	MIN	PROBE IN EARTH'S SHADOW	DHA	DEC	DOE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
INJECTION	.00	11.25	20	4	34.2												
SEPARATION	1.20	12.45	20	4	35.4												
RETRO	3.20	14.45	20	4	37.4												
RISE 72	4.94	16.19	20	4	39.2	78.83	-.2393	54.36	.0599	2808.8	-7.01	.00	.1214	325.13	.0911	11.64	332.07
EXIT SHA	8.17	19.42	20	4	42.4												
EXIT 72	8.17	19.42	20	4	42.4	5.01	-.3670	49.77	-.1595	1947.6	-.91	32.16	.1829	356.18	.2593	4.60	344.84
EXIT 61	8.17	19.42	20	4	42.4	29.13	-.1689	-49.97	-.0195	4577.7	4.17	-3.77	.0224	198.29	-.1083	4.60	344.94
EXTM 72	11.07	22.32	20	4	45.3	327.42	-.1151	18.34	-.1482	2389.2	5.20	48.50	-.0000	50.47	.2780	-.96	354.11
RISE 51	11.22	22.47	20	4	45.4	74.63	-.0983	28.80	-.0327	5408.2	-3.16	.00	.0910	302.33	.0142	-1.12	354.34
RISE 61	15.44	26.69	20	4	49.7	341.28	-.0613	-48.22	.0108	7162.9	6.76	.00	.0005	167.65	-.0422	-7.35	5.02
EXTM 61	15.94	27.19	20	4	50.2	339.51	-.0572	-47.90	.0106	7365.0	6.79	.01	-.0000	166.43	-.0398	-7.96	6.07
SET 61	16.38	27.63	20	4	50.6	338.06	-.0539	-47.62	.0104	7543.2	6.81	.01	-.0004	165.41	-.0378	-8.49	6.97
EXTM 51	36.25	47.50	20	5	10.5	354.83	-.0174	-18.14	-.0101	9974.8	5.35	81.02	-.0000	33.26	.1242	-21.12	30.91
EXTM 72	67.40	78.65	20	5	41.6	288.37	.0000	-27.36	-.0011	22816.7	4.85	19.90	.0000	116.30	.0012	-24.24	42.22
EXTM 51	87.40	98.65	20	6	1.6	339.52	.0000	-27.51	-.0008	25039.1	4.41	71.62	.0000	100.08	.0026	-27.39	44.00
RISE 61	128.99	140.24	20	6	43.2	307.20	.0022	-35.55	.0004	40988.5	3.80	-.00	.0014	139.60	.0012	-28.38	42.46
EXTM 51	231.38	242.63	20	8	25.6	.04	.0033	-29.12	.0000	56792.1	3.23	86.61	-.0000	180.66	.0443	-28.78	27.65
EXTM 61	403.31	414.56	20	11	17.5	3.26	.0039	-32.26	.0001	71038.0	2.66	17.44	.0000	182.89	.0034	-28.52	352.68
EXTM 72	437.15	448.40	20	11	51.4	.47	.0040	-29.84	.0001	92511.5	2.58	68.06	-.0000	181.10	.0092	-28.45	345.23
RISE 11	607.53	618.58	20	14	41.5	294.17	.0040	-30.12	-.0000	123005.4	2.00	.00	.0026	127.89	.0023	-28.12	306.48
SET 51	632.43	643.68	20	15	6.7	90.00	.0038	-26.99	.0001	125173.3	2.59	11.37	-.0032	245.36	-.0013	-28.08	300.63
SET 61	646.34	657.59	20	15	20.6	60.51	.0039	-30.19	.0001	128295.3	2.47	-.00	-.0022	228.79	.0026	-28.05	297.38
SET 72	828.83	840.08	20	18	23.1	94.13	.0039	-27.41	.0001	151574.6	2.41	-.00	-.0035	242.31	-.0004	-27.76	254.23
RISE 42	838.37	850.02	20	18	33.0	254.99	.0040	-26.30	-.0001	152363.2	1.71	3.78	.0028	119.79	-.0021	-27.74	251.86
EXTM 11	878.86	890.11	20	19	13.1	.92	.0041	-29.78	.0001	154927.6	1.98	25.01	-.0000	180.88	.0040	-27.68	242.27
SET 11	1147.29	1158.54	20	23	41.5	67.34	.0041	-28.63	.0001	187845.0	2.08	.01	-.0026	234.09	.0024	-27.34	177.46
EXTM 42	1264.12	1275.37	21	1	38.3	359.95	.0042	-26.95	.0000	193894.2	1.71	81.73	.0000	.33	-.0242	-27.21	149.03
RISE 51	1399.48	1410.73	21	3	53.7	270.00	.0041	-26.42	-.0000	212500.1	1.28	11.14	.0034	114.12	-.0014	-27.08	115.96
RISE 72	1554.72	1565.97	21	6	28.9	265.99	.0041	-26.70	-.0000	228694.3	1.17	-.01	.0036	116.98	-.0005	-26.94	77.91
RISE 61	1636.48	1647.73	21	7	50.7	296.74	.0041	-28.00	-.0000	236..9.6	1.26	.00	.0025	127.96	.0027	-26.87	57.83
SET 42	1687.35	169P.60	21	8	41.6	105.00	.0041	-25.91	.0000	240588.1	1.84	3.54	-.0029	240.52	-.0022	-26.83	45.32
EXTM 51	1756.26	1767.51	21	9	50.5	359.31	.0042	-26.80	.0000	240908.4	1.49	88.77	.0019	149.90	.1 10	-26.77	28.36
EXTM 61	1890.04	1901.29	21	12	4.3	.37	.0042	-27.98	.0000	256623.5	1.44	21.78	-.0000	180.35	.0040	-26.67	355.39
EXTM 72	1929.88	1941.13	21	12	44.1	.11	.0042	-27.10	.0000	256456.5	1.43	70.80	-.0000	180.31	.0113	-26.65	345.56
RISE 11	2071.67	2082.92	21	15	5.9	291.47	.0042	-27.42	-.0000	274386.4	1.07	.00	.0026	124.30	.0024	-26.55	310.55
SET 51	2118.39	2129.64	21	15	52.6	90.00	.0041	-26.01	.0000	277038.5	1.74	10.98	-.0034	246.27	-.0015	-26.52	299.00
SET 61	2143.37	2154.62	21	16	17.6	63.92	.0042	-27.45	.0000	280300.8	1.64	-.00	-.0025	232.85	.0027	-26.50	292.83
SET 72	2303.85	2315.10	21	18	58.1	93.92	.0041	-26.22	.0000	293219.1	1.73	-.00	-.0037	243.51	-.0005	-26.40	253.13
RISE 42	2304.83	2316.08	21	18	59.0	255.00	.0041	-25.65	-.0000	292920.6	.99	3.38	.0029	119.27	-.0023	-26.40	252.88
EXTM 11	2345.13	2356.38	21	19	39.4	.25	.0042	-27.47	.0000	293564.5	1.31	27.32	-.0000	180.25	.0042	-26.38	242.91
SET 11	2618.43	2629.68	22	0	12.6	68.95	.0042	-26.98	.0000	317378.4	1.55	-.00	-.0028	236.28	.0024	-26.23	175.18
EXTM 42	2723.88	2735.13	22	1	58.1	359.96	.0042	-25.99	.0000	318935.5	1.22	80.77	.0000	.25	-.0203	-26.17	149.02
RISE 51	2854.51	2865.76	22	4	8.7	270.00	.0041	-25.69	-.0000	333410.4	.82	10.85	.0034	113.43	-.0015	-26.11	116.59
RISE 72	3008.26	3019.51	22	6	42.5	266.13	.0042	-25.88	-.0000	345626.5	.73	-.00	.0037	116.15	-.0005	-26.03	78.37
RISE 61	3083.10	3094.35	22	7	57.3	295.26	.0042	-26.76	-.0000	350705.5	.85	.00	.0026	126.14	.0027	-26.00	59.70
SET 42	3142.43	3153.68	22	9	56.7	105.00	.0041	-25.35	.0000	354356.5	1.46	3.20	-.0030	240.96	-.0023	-25.98	44.88
EXTM 51	3206.15	3217.40	22	10	.4	358.69	.0042	-25.95	.0000	352679.5	1.11	88.80	.0038	100.67	.0310	-25.95	28.97
EXTM 61	3339.87	3351.12	22	12	14.1	.19	.0042	-26.80	.0000	365472.7	1.12	22.96	-.0000	180.18	.0041	-25.89	355.57
EXTM 72	3379.79	3391.04	22	12	54.0	.08	.0042	-26.18	.0000	364611.2	1.17	71.72	-.0000	180.25	.0118	-25.87	345.59
RISE 11	3514.89	3526.14	22	15	9.1	290.54	.0042	-26.44	-.0000	379698.7	.82	.00	.0029	123.02	.0024	-25.81	311.80
SET 51	3567.44	3578.69	22	16	1.7	90.00	.0042	-25.42	.0000	382101.3	1.53	10.74	-.0035	246.82	-.0015	-25.79	298.64
SET 61	3596.32	3607.57	22	16	30.5	65.08	.0042	-26.46	.0000	385291.0	1.46	.01	-.0026	234.28	.0027	-25.78	291.40
IMPACT	3736.71	3747.96	22	18	50.9												
IMPC 42	3736.71	3747.96	22	18	50.9	252.19	.0043	-25.11	-.0000	396277.6	1.72	1.06	.0030	120.43	-.0024	-25.69	256.00
IMPC 72	3736.71	3747.96	22	18	50.9	90.69	.0043	-25.57	.0001	396084.8	2.48	2.79	-.0039	244.56	-.0005	-25.69	256.00
IMPC 11	3736.71	3747.96	22	18	50.9	346.97	.0044	-26.49	.0000	393504.4	1.97	27.09	.0008	166.90	.0043	-25.69	256.00

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	20	4	34.224	6545.668	22.3096	306.9946	10.99438	.7054	108.6736	104.1093
SEPARATION	1.20	12.45	20	4	35.424	6579.049	19.9541	313.6497	10.96614	4.1299	111.1845	111.0652
RETRO	3.20	14.45	20	4	37.424	6736.869	15.5933	323.9838	10.83599	9.6856	114.5035	121.9007
EXIT SHA	8.17	19.42	20	4	42.391	7596.173	4.6041	344.8398	10.19956	21.7552	118.4441	144.0016
IMPACT	3736.71	3747.96	22	18	50.932	396446.309	-25.6850	255.9979	2.21682	67.8979	291.3456	269.8464

DEC 20, 1965
96 DEGREES

SURVEYOR VIEW PERIODS

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GHA    90.3422                                  EMS 177.5929                                                    LOM  231.6161
SX    -.002662 SY    -.901260 SZ    -.433270 DAO  -25.07924 RAO  269.83078 RM  397736.438 LAT  24.318600 LON 279.461800
C3    -.918C31 ECC    .9N4927 SLR  1.990.6N6 RCA  6544.665C LTA   -20.CCCC GTA  20.00     TH   675.00000 PCL        -.0
NSX    .017344 NSY   -.9C0345 NSZ   -.434824 C3P     1.5561 VIM     2.6824 ZAE    141.127 BAT      .0000 MAR      -.0000
LATE   2.9619 LONE   3.8090 LATS   -.7451 LONS 184.7687 LATI  -4.2104 LONI 325.5774 RSM  145.7353 ITAR   6.6214
LAUNCH DATE   DEC  20,1965      PASE AZM   99.0      TF  62.299                    ARRIVAL DATE DEC  22 1965  19   9 22.9

 LNCH      LNCH                    INJ      INJ      INJ      INJ      INJ      INJ          INJ      INJ      INJ
AZMTH      TIME          RP        LAT      LONG     FA       RT ASC   AZMTH    TIMF         RAD      VEL      FPA
 99.CO     4 35 20.6     28.1      21.15    306.62     4.08    106.53   110.80     4 46 35.6    6552.9   10.77     2.02

EVNT STA  TFI      TFL    DAY HR MIN    HA      DHA    DEC      DCE      RNG      DRG      ELE      DEL      AZI      DAZ      LAT      LONG
                  PROPE IN EARTH'S SHADOW
INJECTION    .CO    11.25  20  4 46.6
SEPARATION  1.20    12.45  20  4 47.8
RETRO       3.20    14.45  20  4 49.8
 RISE 72    4.67    15.92  20  4 51.3    81.03 -.2039   48.32    .0386   2884.1   -7.33     .00      .1247  318.94    .0656   10.31  327.69
EXIT SHA    7.70    18.95  20  4 54.3
 EXIT 72    7.70    18.95  20  4 54.3    24.01 -.3650   45.38   -.1161   1934.0   -2.25   32.52     .2245  340.18    .2012    3.77  341.49
 EXTM 72   10.87    22.12  20  4 57.5   337.31 -.1387   13.97   -.1453   2259.2    4.94   58.60    -.0000   45.94    .3801   -2.27  351.46
 RISE 51   11.13    22.38  20  4 57.7    76.91 -.0010   25.17   -.0353   5565.3   -2.96     .00      .0892  298.17    .0085   -2.72  352.21
 EXTM 51   38.47    49.72  20  5 25.1   357.31 -.0156  -21.29   -.0079   10797.4   5.29   94.91    -.0000   29.52    .1846  -22.94   29.40
 EXTM 72   68.47    79.72  20  5 55.1   291.63  .0000  -28.02   -.0009   22989.8   4.82   22.72    -.0000  118.90    .0007  -27.24   39.39
 RISE 61  118.15   129.44  20  6 44.8   309.07  .0019  -36.68    .0005   38498.0   3.92    -.00      .0013  141.49    .0009  -28.94   40.33
 EXTM 51  214.86   226.11  20  8 21.5     .07   .0032  -29.75    .0000   53649.8   3.31   35.99    -.0000  160.66    .0347  -29.32   27.63
 EXTM 61  391.65   402.90  20 11 18.2    3.68   .0030  -32.75    .0002   89293.5   2.69   16.93     .0000  183.23    .0034  -28.93  352.30
 EXTM 72  424.34   435.59  20 11 50.9     .57   .0040  -30.27    .0001   99606.8   2.61   67.61    -.0000  181.29    .0090  -28.84  345.15
 RISE 11  596.42   607.67  20 14 43.0   294.53  .0040  -30.47   -.0000   121564.4  2.02     .00      .0026  128.36    .0023  -28.43  306.09
 SET  51  619.70   630.95  20 15  6.3    90.00  .0038  -27.79    .0001   123492.2  2.61   11.48    -.0032  245.08    -.0013  -28.38  300.68
 SET  61  631.76   643.01  20 15 18.4    60.05  .0039  -30.54    .0001   126391.1  2.49    -.00     -.0021  228.27    .0026  -28.36  297.87
 SET  72  816.63   827.88  20 18 23.2   -94.18  .0039  -27.66    .0001   150135.8  2.42    -.00     -.0034  242.05    -.0004  -28.01  254.22
 RISE 42  826.43   837.88  20 18 33.2   254.99  .0040  -26.53   -.0001   150921.5  1.72    3.92     .0028  119.98    -.0021  -27.99  251.83
 EXTM 11  866.99   878.24  20 19 13.6     1.00  .0041  -30.04    .0001   153586.4  1.99   24.74    -.0000  180.96    .0040  -27.92  249.18
 SET  11 1134.39  1145.64  20 23 41.0    67.14  .0041  -28.83    .0001   1865C2.5  2.06    -.00     -.0026  233.63    .0024  -27.53  177.67
 EXTM 42 1252.07  1263.32  21  1 38.7   359.94  .0042  -27.13    .0000   192687.9  1.72   81.91     .0000     .37    -.0249  -27.39  149.03
 RISE 51 1387.53  1398.78  21  3 54.1   270.00  .0041  -26.58   -.0000   211347.7  1.29   11.20     .0034  114.26    -.0014  -27.23  115.95
 RISE 72 1542.70  1553.95  21  6 29.3   265.97  .0041  -26.84   -.0000   227589.1  1.17    -.01     .0030  117.12    -.0005  -27.08   77.92
 RISE 61 1625.22  1636.47  21  7 51.8   296.91  .0041  -28.14   -.0000   235307.1  1.27     .00     .0025  128.16    .0027  -27.00   57.66
 SET  42 1675.37  1686.62  21  8 42.0   105.00  .0041  -26.03    .0000   239514.7  1.84    3.62    -.0029  240.42    -.0022  -26.95   45.33
 EXTM 51 1743.63  1754.88  21  9 50.2   359.14  .0042  -26.92    .0000   239863.0  1.49   48.59     .0021  146.39    .1267  -26.89   28.53
 EXTM 61 1878.22  1889.47  21 12  4.8     .40  .0042  -28.10    .0000   255632.2  1.45   21.67    -.0000  180.38    .0040  -26.78  355.36
 EXTM 72 1917.98  1929.23  21 12 44.6     .12  .0042  -27.21    .0000   255459.8  1.43   70.69    -.0000  180.33    .0112   -6.75  345.55
 RISE 11 2060.15  2071.40  21 15  6.7   291.57  .0042  -27.51   -.0000   273445.6  1.08     .00     .0028  124.43    .0024  -26.64  310.45
 SET  51 2106.44  2117.69  21 15 53.0    90.00  .0041  -26.10    .0000   276068.4  1.75   11.01    -.0034  248.17    -.0015  -26.61  299.01
 SET  61 2130.99  2142.24  21 16 17.6    63.81  .0042  -27.55    .0000   279303.1  1.64    -.00     -.0025  232.71    .0027  -26.59  292.94
 SET  72 2291.97  2303.22  21 18 58.6    93.93  .0041  -26.30    .0000   292291.1  1.73    -.00     -.0037  243.43    -.0005  -26.48  253.12
 RISE 42 2292.93  2304.18  21 18 59.5   255.00  .0041  -25.72   -.0000   291986.4  1.00    3.43     .0029  119.33    -.0023  -26.48  252.88
 EXTM 11 2333.29  2344.54  21 19 39.9     .27  .0042  -27.55    .0000   292654.5  1.31   27.24    -.0000  180.27    .0042  -26.45  242.89
 SET  11 2606.27  2617.52  22  0 12.9    68.89  .0042  -27.04    .0000   316478.4  1.56    -.00     -.0028  236.19    .0024  -26.29  175.24
 EXTM 42 2711.94  2723.19  22  1 58.5   359.95  .0042  -26.05    .0000   318065.5  1.22   80.83     .0000     29    -.0217  -26.23  149.03
 RISE 51 2842.62  2853.87  22  4  9.2   270.00  .0041  -25.73   -.0000   33256C.C   .82   10.87     .0034  113.47    -.0015  -26.16  116.59
 RISE 72 2996.50  3007.75  22  6 43.1   266.13  .0042  -25.92   -.0000   344850.4   .73     .00     .0037  116.19    -.0005  -26.08   78.37
 RISE 61 3071.51  3082.76  22  7 58.1   295.30  .0042  -26.80   -.0000   349941.1   .85     .00     .0026  126.20    .0027  -26.04   59.65
 SET  42 3130.64  3141.89  22  8 57.2   105.00  .0041  -25.38    .0000   353574.2  1.46    3.22    -.0030  240.93    -.0023  -26.01   44.89
 EXTM 51 3194.35  3205.61  22 10  1.C   358.69  .0042  -25.99    .0000   351897.7  1.11   88.80     .0037  102.07    .0358  -25.98   28.97
 EXTM 61 3328.10  3339.35  22 12 14.7     .20  .0042  -26.83    .0000   364686.9  1.12   22.93    -.0000  180.19    .0041  -25.92  355.56
 EXTM 72 3367.99  3379.24  22 12 54.6     .09  .0042  -26.21    .0000   363817.1  1.12   71.69    -.0000  180.26    .0118  -25.90  345.59
 RISE 11 3503.17  3514.42  22 15  9.8   290.56  .0042  -26.46   -.0000   379884.2   .81     .00     .0029  123.05    .0024  -25.84  317.77
 SET  51 3555.  0 3566.85  22 16  2.2    90.00  .0042  -25.44    .0000   381259.6  1.52   10.75    -.0035  246.60    -.0015  -25.81  298.64
 SET  61 3584.38  3595.63  22 16 31.0    65.05  .0042  -26.48    .0000   384427.8  1.45     .01    -.0026  234.25    .0027  -25.80  291.43
 RISE 42 3736.17  3747.42  22 19  2.8   255.00  .0043  -25.14   -.0000   395873.2  1.59    3.07     .0031  118.87    -.0024  -25.70  253.17
 SET  72 3737.33  3748.58  22 19  3.9    93.81  .0043  -25.56    .0001   396349.9  2.43     .00     -.0038  244.18    -.0005  -25.70  252.88
IMPACT   3737.97  3749.22  22 19  4.6
 INPC 42 3737.97  3749.22  22 19  4.6   255.46  .0043  -25.14   -.0000   396048.9  1.71    3.40     .0031  118.62    -.0024  -25.70  252.71
 INPC 72 3737.97  3749.22  22 19  4.6    93.97  .0043  -25.56    .0001   396442.9  2.48    -.15     -.0038  244.16    -.0005  -25.70  252.71
 INPC 11 3737.97  3749.22  22 19  4.6   350.30  .0044  -26.50    .0000   393484.3  1.99   27.61     .0006  170.20    .0044  -25.70  252.71

EVNT STA  TFI      TFL    DAY HR MIN        RAD          LAT          LONG          VEL          FPA          AZ          RT ASC
INJECTION    .CO    11.25  20  4 46.593    6552.927     21.1523      306.6190     10.98822      2.0235     110.8011     106.8344
SEPARATION  1.20    12.45  20  4 47.793    6604.280     18.5831      313.0873     10.94498      5.4310     113.1046     113.6035
RETRO       3.20    14.45  20  4 49.793    6790.256     13.9669      323.0676     10.79288     10.9211     116.0520     124.0852
EXIT SHA    7.70    18.95  20  4 54.292    7594.521      3.7654      341.4892     10.20064     21.7396     119.1061     143.6346
IMPACT   3737.97  3749.22  22 19  4.561  3964773.907    -25.6953      252.7114      2.1497     67.6620     281.5994     269.9764
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SURVEYOR VIEW PERIODS

GHA	90.3422				EPS 177.6227							LOM	248.1883
SX	-.000540	SY	-.901188	SZ	-.433429	DAO	-25.68536	RAO	269.96568	RM	397765.371	LAT	28.310600	LON	279.461800
C3	-.422250	ECC	.986856	SLR	12990.229	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.019503	NSY	-.900230	NSZ	-.434978	C3H	1.5560	VIM	2.6824	ZAE	140.989	B.T	.0000	B.R	-.0000
LATE	2.9744	LONE	3.9304	LATS	-.7464	LONS	184.7785	LATI	-4.4697	LONI	325.6000	RSM	146.7552	TTAN	6.6233
LAUNCH DATE		DEC	20,1965		BASE AZM	102.0		TF	62.370			ARRIVAL DATE		DEC	22 1965 19 27 33.5

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	4 44 59.6	28.1	20.02	306.16	6.11	108.80	112.91	4 56 14.6	6563.2	10.98	3.03

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	20	4	56.2												
SEPARATION	1.20	12.45	20	4	57.4												
RETRO	3.20	14.45	20	4	59.4												
RISE 72	4.48	15.73	20	5	.7	82.58	-.1810	42.93	.0185	2948.1	-7.50	.00	.1267	313.44	.0431	9.26	327.69
EXIT SHA	7.34	18.59	20	5	3.6												
EXIT 72	7.34	18.59	20	5	3.6	37.43	-.3242	39.02	-.0952	1962.7	-3.20	31.63	.2454	326.32	.1301	2.71	338.65
EXTN 72	10.76	22.01	20	5	7.0	345.98	-.1554	7.94	-.1372	2188.6	4.76	68.87	-.0000	41.72	.5720	-3.90	349.24
RISE 51	11.09	22.34	20	5	7.3	78.95	-.0851	21.69	-.0379	5694.3	-2.79	.00	.0876	274.22	.0035	-4.46	350.14
EXTN 51	40.58	51.83	20	5	36.8	359.27	-.0143	-24.36	-.0062	11560.3	5.26	88.47	.0000	25.71	.5399	-24.85	28.15
EXTN 72	69.86	81.11	20	6	6.1	294.22	.0001	-30.46	-.0006	23295.8	4.77	24.84	.0000	119.98	.0007	-28.47	37.19
RISE 61	113.96	125.21	20	6	50.2	311.12	.0017	-37.86	.0006	37544.3	3.97	-.00	.0013	143.50	.0008	-29.80	38.27
EXTN 51	201.88	213.13	20	8	18.1	.15	.0031	-30.56	.0001	51120.0	3.37	85.17	-.0000	181.59	.0314	-30.03	27.55
EXTN 61	383.36	394.61	20	11	19.6	4.15	.0038	-33.33	.0002	88060.9	2.71	16.33	.0000	183.61	.0033	-29.44	351.86
EXTN 72	414.70	425.95	20	11	50.9	.69	.0040	-30.84	.0001	99158.9	2.63	67.06	-.0000	181.52	.0087	-29.34	345.03
RISE 11	588.77	600.02	20	14	45.0	294.96	.0040	-30.88	.0000	120535.9	2.03	.00	.0025	128.92	.0023	-28.83	305.63
SET 51	609.91	621.16	20	15	6.2	90.00	.0038	-27.47	.0001	122168.8	2.62	11.63	-.0032	244.72	-.0013	-28.77	300.72
SET 61	619.65	630.90	20	15	15.9	59.48	.0039	-30.97	.0001	124777.3	2.50	-.00	-.0021	227.62	.0026	-28.75	298.46
SET 72	807.36	818.61	20	18	23.6	94.23	.0039	-27.97	.0001	149012.8	2.43	-.01	-.0034	241.74	-.0004	-28.32	254.19
RISE 42	817.34	828.59	20	18	33.6	254.99	.0040	-26.84	-.0000	149780.6	1.73	4.11	.0028	120.22	-.0021	-28.30	251.81
EXTN 11	858.05	869.30	20	19	14.3	1.11	.0041	-30.36	.0001	157557.2	2.00	24.42	-.0000	181.05	.0039	-28.22	242.09
SET 11	1124.07	1135.32	20	23	40.3	66.90	.0041	-29.08	.0001	185384.6	2.09	-.00	-.0026	233.50	.0024	-27.77	177.93
EXTN 42	1242.93	1254.18	21	1	39.2	359.97	.0042	-27.35	.0000	191725.6	1.72	82.13	-.0000	.24	-.0240	-27.60	149.01
RISE 51	1378.37	1389.62	21	3	54.6	270.00	.0041	-26.77	-.0000	210407.5	1.29	11.28	.0034	114.44	-.0014	-27.43	115.94
RISE 72	1533.43	1544.68	21	6	29.7	265.94	.0041	-27.01	-.0000	226675.9	1.18	-.01	.0036	117.29	-.0005	-27.25	77.94
RISE 61	1616.87	1628.12	21	7	53.1	297.11	.0041	-28.30	-.0000	234492.8	1.27	.00	.0025	128.40	.0027	-27.16	57.45
SET 42	1666.16	1677.41	21	8	42.4	105.00	.0041	-26.18	.0000	238618.1	1.85	3.71	-.0029	240.30	-.0022	-27.11	45.33
EXTN 51	1733.81	1745.06	21	9	50.0	358.97	.0042	-27.07	.0000	238872.0	1.49	88.38	.0022	145.64	.1086	-27.04	28.69
EXTN 61	1869.18	1880.43	21	12	5.4	.43	.0042	-28.23	.0000	254801.3	1.45	21.53	.0000	180.41	.0040	-26.91	355.33
EXTN 72	1908.85	1920.10	21	12	45.1	.13	.0042	-27.34	.0000	254615.8	1.44	70.56	-.0000	180.35	.0112	-26.88	345.54
RISE 11	2051.45	2062.70	21	15	7.7	291.68	.0042	-27.69	-.0000	272647.6	1.08	.00	.0028	124.59	.0024	-26.76	310.33
SET 51	2097.25	2108.50	21	15	53.5	90.00	.0041	-26.21	.0000	275228.6	1.75	11.06	-.0034	246.08	-.0014	-26.72	299.02
SET 61	2121.26	2132.51	21	16	17.5	63.67	.0042	-27.66	.0000	278426.0	1.64	-.00	-.0025	232.55	.0027	-26.70	293.08
SET 72	2282.85	2294.10	21	18	59.1	93.95	.0041	-26.39	.0001	291476.2	1.73	-.00	-.0036	243.34	-.0005	-26.58	253.11
RISE 42	2283.78	2295.03	21	19	.0	255.00	.0041	-25.81	-.0000	291162.9	1.00	3.49	.0029	119.41	-.0023	-26.58	252.88
EXTN 11	2324.21	2335.46	21	19	40.5	.29	.0042	-27.65	.0000	291855.2	1.31	27.14	-.0000	180.29	.0042	-26.55	242.86
SET 11	2596.79	2608.04	22	0	13.0	68.82	.0042	-27.11	.0000	315655.4	1.56	-.00	-.0028	236.10	.0024	-26.36	175.31
EXTN 42	2702.84	2714.09	22	1	59.1	359.97	.0042	-26.12	.0000	317274.3	1.22	80.90	-.0000	.19	-.0187	-26.29	149.01
RISE 51	2833.46	2844.71	22	4	9.7	270.00	.0041	-25.79	-.0000	331766.7	.82	10.89	.0034	113.52	-.0015	-26.22	116.59
RISE 72	2987.30	2998.55	22	6	43.5	266.12	.0042	-25.97	-.0000	344064.6	.73	.00	.0037	116.23	-.0005	-26.12	78.38
RISE 61	3062.56	3073.81	22	7	58.8	295.36	.0042	-26.84	-.0000	349167.9	.84	.00	.0026	126.26	-.0027	-26.08	59.59
SET 42	3121.45	3132.70	22	8	57.7	105.00	.0041	-25.42	.0000	352778.5	1.45	3.25	-.0030	240.90	-.0023	-26.05	44.89
EXTN 51	3185.18	3196.43	22	10	1.4	358.69	.0042	-26.03	.0000	351100.1	1.11	88.79	.0037	103.90	-.0411	-26.02	28.97
EXTN 61	3318.99	3330.24	22	12	15.2	.21	.0042	-26.87	.0000	363884.2	1.11	22.89	-.0000	180.20	.0041	-25.95	355.54
EXTN 72	3358.84	3370.09	22	12	55.1	.09	.0042	-26.24	.0000	362004.3	1.11	71.66	-.0000	180.26	.0118	-25.93	345.58
RISE 11	3494.14	3505.39	22	15	10.4	290.59	.0042	-26.49	-.0000	378050.7	.81	.00	.0029	123.09	.0024	-25.86	311.74
SET 51	3546.46	3557.71	22	16	2.7	90.00	.0042	-25.47	.0000	380399.3	1.52	10.76	-.0035	246.78	-.0015	-25.84	298.64
SET 61	3575.13	3586.38	22	16	31.4	65.02	.0042	-26.51	.0000	383546.8	1.44	.01	-.0026	234.21	.0027	-25.82	291.46
RISE 42	3727.32	3738.57	22	19	3.6	255.00	.0042	-25.16	-.0000	394566.5	1.23	3.08	.0030	118.89	-.0023	-25.72	253.17
SET 72	3728.48	3739.73	22	19	4.7	93.81	.0042	-25.58	.0000	395018.8	2.00	.00	-.0038	244.15	-.0005	-25.72	252.87
IMPACT	3742.23	3753.48	22	19	18.5												
IMPC 42	3742.23	3753.48	22	19	18.5	258.81	.0043	-25.17	-.0000	395809.0	1.70	5.84	.0031	116.81	-.0023	-25.71	249.36
IMPC 72	3742.23	3753.48	22	19	18.5	97.32	.0043	-25.54	.0001	396804.4	2.47	-3.13	-.0038	243.67	-.0006	-25.71	249.36
IMPC 11	3742.23	3753.48	22	19	18.5	353.70	.0044	-26.51	.0000	393477.1	2.00	17.99	.0004	173.62	.0044	-25.71	249.36

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	20	4	56.243	6563.313	20.0174	306.1724	10.97937	3.0322	112.9095	108.8069
SEPARATION	1.20	12.45	20	4	57.443	6628.220	17.2443	312.4484	10.92484	6.4220	116.0135	115.3837
RETRO	3.20	14.45	20	4	59.443	6835.363	12.3759	322.0994	10.75674	11.8551	117.6174	125.5361
EXIT SHA	7.34	18.59	20	5	3.586	7593.729	3.7072	338.6523	10.20097	21.7318	119.9524	143.1274
IMPACT	3742.23	3753.48	22	19	18.470	396907.605	-25.7090	249.3567	2.21327	67.5721	282.0602	270.1086

DEC 20, 1965
102 DEGREES

SURVEYOR VIEW PERIODS

GHA	90.3427			FPS	177.6458							LON	245.0767
SX	.001386	SY	-.901118	SZ	-.433572	DAP	-25.69444	RAD	270.08814	PM	397791.617	LAT	28.310600	LON	271.461400
C3	-.927649	ECC	.984769	SLR	1.989.655	PCA	6544.4650	LTA	-20.0000	GTA	20.00	TB	67.00000	RDL	-.0
NSX	.021479	NSY	-.900114	NSZ	-.435121	C3M	1.5556	VIP	7.6824	TAL	140.801	B.T	.0000	B.R	-.0000
LATE	2.9862	LONE	3.7922	LATS	-.7466	LONS	184.5388	LATI	-4.7601	LONI	325.3321	RSM	146.7551	FTAN	6.6246
LAUNCH DATE	DEC 20,1965			BASE AZM	105.0		TF 62.460					ARRIVAL DATE	DEC 22 1965 17 35 27.5		

LNCH AZMTH	LNCH TIME	PP	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAL	INJ VEL	INJ FPA
105.00	4 52 32.8	28.1	18.91	305.65	7.67	110.18	115.00	5 3 47.8	6573.9	10.97	3.81

EVNT STA	TFI	TFL	DAY	HR	MIN	PA PROPR	DHA	DEC	DDE	RNG	DRG	ELE	DFL	AZI	DAZ	LAT	LONG
						IN EARTH'S SHADOW											
INJECTION	.00	11.25	20	5	3.8												
SEPARATION	1.20	12.45	20	5	5.0												
RETRO	3.20	14.45	20	5	7.0												
RISE 72	4.35	15.60	20	5	8.1	83.78	-.1643	37.17	-.0004	3003.7	-7.57	.00	.1276	308.40	.0242	7.92	325.97
EXIT SHA	7.08	18.33	20	5	10.9												
EXIT 72	7.08	18.33	20	5	10.9	46.76	-.2809	32.08	-.0924	2019.1	-3.79	30.12	.2495	314.47	.0629	1.47	336.22
EXTM 72	10.73	21.98	20	5	14.5	353.37	-.1652	.72	-.1253	2175.9	4.67	79.14	-.0000	37.74	1.1018	-5.72	347.37
RISE 51	11.08	22.33	20	5	14.9	80.83	-.0801	18.30	-.0404	5802.9	-2.63	.00	.0361	290.40	-.0012	-6.31	348.28
EXTM 51	42.67	53.92	20	6	46.5	.75	-.0132	-27.41	-.0048	12239.8	5.19	88.20	.0000	201.45	-.4020	-26.84	27.19
EXTM 72	70.95	82.20	20	6	14.7	296.27	.0001	-32.20	-.0004	23544.8	4.74	26.37	.0000	122.12	.0004	-23.82	35.40
EXTM 51	93.94	105.19	20	6	37.7	348.45	.0002	-31.64	-.0002	26870.1	4.29	78.28	.0000	122.91	.0014	-30.59	36.92
RISE 61	115.10	126.35	20	6	58.9	313.19	.0017	-30.97	.0007	27889.9	3.95	-.00	.0013	145.47	.0008	-30.97	36.38
EXTM 51	191.81	203.06	20	8	15.6	.29	.0030	-31.54	.0001	49124.4	3.43	84.19	.0000	182.46	.0250	-30.88	27.43
EXTM 61	377.68	388.93	20	11	21.5	4.66	.0038	-33.47	.0002	47236.4	2.72	15.67	.0000	184.02	.0033	-30.04	351.38
EXTM 72	407.68	418.93	20	11	51.5	.87	.0039	-31.46	.0001	48103.6	2.64	6.43	-.0000	181.85	.0084	-29.91	344.87
RISE 11	583.64	594.89	20	14	47.4	295.46	.0040	-31.35	.0000	119837.1	2.04	.00	.0025	129.55	.0023	-29.27	305.11
SET 51	602.42	613.67	20	15	6.2	90.00	.0038	-28.11	.0001	121134.7	2.03	11.81	-.0031	244.31	-.0012	-29.21	300.76
SET 61	609.46	620.71	20	15	13.3	58.83	.0039	-31.45	.0002	123397.7	2.01	-.00	-.0021	226.88	.0024	-29.13	299.13
SET 72	800.35	811.60	20	18	24.1	94.30	.0039	-28.32	.0001	148146.8	2.44	-.01	-.0034	241.38	-.0004	-28.66	254.15
RISE 42	810.25	821.50	20	18	34.0	254.99	.0040	-27.18	-.0000	148885.0	1.73	4.32	.0028	120.50	-.0021	-28.65	251.79
EXTM 11	851.36	862.61	20	19	15.2	1.22	.0041	-30.72	.0001	1[illegible]782.3	2.01	24.06	-.0[illegible]	181.15	.0039	-29.55	241.37
SET 11	1115.78	1127.03	20	23	39.6	66.61	.0041	-29.36	.0001	1[illegible].7	2.09	-.00	-.0 26	233.13	.0024	-28.04	178.22
EXTM 42	1235.78	1247.03	21	1	39.6	359.95	.0042	-27.60	.0000	19094	1.73	82.38	-.0000	.38	-.0261	-27.84	149.03
RISE 51	1371.34	1382.59	21	3	55.1	270.00	.0041	-26.98	-.0000	209652.3	1.29	11.36	.0034	114.64	-.0014	-27.64	115.93
RISE 72	1526.26	1537.51	21	6	30.1	265.90	.0041	-27.20	-.0000	225934.7	1.18	-.01	.0036	117.48	-.0005	-27.44	77.97
RISE 61	1610.74	1621.99	21	7	54.5	297.34	.0041	-28.49	-.0000	233856.1	1.27	.00	.0025	128.67	.0027	-27.34	57.22
SET 42	1659.07	1670.32	21	8	42.9	105.00	.0041	-26.35	.0001	237884.7	1.85	3.01	-.0029	240.17	-.0022	-27.28	45.34
EXTM 51	1725.79	1737.04	21	9	49.6	358.73	.0042	-27.24	.0000	238073.1	1.49	88.11	.0023	143.26	.0903	-27.21	28.92
EXTM 61	1862.27	1873.52	21	12	6.1	.47	.0042	-28.39	.0000	254124.6	1.45	21.37	.0000	180.44	.0040	-27.06	355.29
EXTM 72	1901.82	1913.07	21	12	45.6	.14	.0042	-27.49	.0000	253921.2	1.44	70.41	-.0000	180.38	.0111	-27.02	345.53
RISE 11	2044.91	2056.16	21	15	8.7	291.81	.0042	-27.76	-.0000	271994.0	1.08	.00	.0028	124.76	.0024	-26.88	310.20
SET 51	2090.16	2101.41	21	15	54.0	90.00	.0041	-26.33	.0001	274525.4	1.75	11.11	-.0034	245.97	-.0014	-26.84	299.02
SET 61	2113.56	2124.81	21	16	17.4	63.52	.0042	-27.79	.0000	277679.1	1.64	-.00	-.0025	232.36	.0027	-26.82	293.24
SET 72	2275.82	2287.07	21	18	59.6	93.97	.0041	-26.50	.0001	290788.7	1.73	-.00	-.0036	243.23	-.0005	-26.68	253.09
RISE 42	2276.71	2287.96	21	19	.5	255.00	.0041	-25.92	-.0000	290465.0	1.00	3.55	.0029	119.49	-.0023	-26.68	252.87
EXTM 11	2317.24	2328.49	21	19	41.0	.32	.0042	-27.76	.0000	291152.4	1.31	27.04	-.0000	180.32	.0042	-26.65	242.84
SET 11	2589.37	2600.62	22	0	13.2	68.74	.0042	-27.20	.0000	314540.2	1.56	-.00	-.0028	235.99	.0024	-26.44	175.40
EXTM 42	2695.74	2706.99	22	1	59.5	359.97	.0042	-26.19	.0000	316581.1	1.22	80.97	-.0000	.20	.0197	-26.37	149.01
RISE 51	2826.37	2837.62	22	4	10.2	270.00	.0041	-25.85	-.0000	331071.6	.82	10.91	.0034	113.58	-.0015	-26.28	116.58
RISE 72	2980.16	2991.41	22	6	44.0	266.11	.0042	-26.02	-.0000	343369.2	.72	.00	.0037	116.29	-.0005	-26.18	78.39
RISE 61	3055.70	3066.95	22	7	59.5	295.42	.0042	-26.49	-.0000	348483.9	.84	.00	.0026	126.34	.0027	-26.13	59.53
SET 42	3114.34	3125.59	22	8	58.1	105.00	.0041	-25.47	.0000	352068.5	1.45	3.27	-.0030	240.87	-.0023	-26.10	44.89
EXTM 51	3177.56	3188.81	22	10	1.4	358.56	.0042	-26.07	.0000	350353.2	1.18	88.66	.0037	104.59	.0369	-26.06	29.10
EXTM 61	3311.65	3322.90	22	12	15.7	.22	.0042	-26.91	.0000	363162.1	1.11	22.85	-.0000	180.22	.0041	-25.99	355.53
EXTM 72	3351.77	3363.02	22	12	55.6	.09	.0042	-26.28	.0000	362270.8	1.11	71.62	-.0000	180.27	.0119	-25.97	345.58
RISE 11	3487.18	3498.43	22	15	11.0	290.62	.0042	-26.52	-.0000	377294.7	.80	.00	.0029	123.12	.0024	-25.89	311.71
SET 51	3539.38	3550.63	22	16	3.2	90.00	.0042	-25.49	.0000	379616.6	1.51	10.77	-.0035	246.76	-.0015	-25.86	298.64
SET 61	3567.93	3579.18	22	16	31.7	64.99	.0042	-26.54	.0000	382744.4	1.43	.01	-.0026	234.17	.0027	-25.85	291.49
RISE 42	3720.41	3731.66	22	19	4.2	255.00	.0042	-25.18	-.0000	393510.4	1.09	3.10	.0030	118.91	-.0023	-25.75	253.17
SET 72	3721.57	3732.82	22	19	5.4	93.81	.0042	-25.61	.0000	393953.2	1.85	.00	-.0038	244.13	-.0005	-25.74	252.88
IMPACT	3747.58	3758.83	22	19	31.4												
IMPC 42	3747.58	3758.83	22	19	31.4	261.91	.0043	-25.19	.0000	395584.2	1.69	8.13	.0032	115.18	-.0023	-25.72	246.24
IMPC 11	3747.58	3758.83	22	19	31.4	356.86	.0044	-26.53	.0000	393485.4	2.02	28.19	.0002	176.81	.0044	-25.72	246.24

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	20	5	3.747	6574.225	18.9036	305.6702	10.97009	3.8071	115.0069	110.1983
SEPARATION	1.20	12.45	20	5	4.947	6649.344	15.9338	311.7538	10.90709	7.1802	116.9211	116.5827
RETRO	3.20	14.45	20	5	6.947	6872.476	10.8129	321.0978	10.72717	12.5659	119.2059	126.4281
EXIT SHA	7.08	18.33	20	5	10.873	7595.141	1.4731	336.2224	10.19975	21.7445	120.9454	142.5244
IMPACT	3747.58	3758.83	22	19	31.377	396535.730	-25.7156	246.2438	2.21116	67.4521	282.5952	270.2314

SURVEYOR VIEW PERIODS

GHA	90.3422				EPS 177.6636									LOM	242.1573
SX	.003193	SY	-.901050	SZ	-.433704	CAD	-25.70287	HAD	270.20304	RM	397816.227	LAT	28.310600	LON	277.461800
C3	-.934031	ECC	.984664	SLR	12988.967	RCA	6544.6650	LTA	-20.0000	GTA	20.00	IB	675.00000	PGL	-.0
NSX	.023346	NSY	-.900004	NSZ	-.435256	C3M	1.5557	VIM	2.6823	ZAE	140.585	B.T	.0000	H.R	-.0000
LATE	2.9972	LONE	3.8956	LATS	-.7468	LONS	184.5471	LATI	-5.0753	LONI	325.2770	RSM	146.7550	TTAN	6.6254
LAUNCH DATE		DEC	20,1965		BASE AZM	108.0		TF	62.564				ARRIVAL DATE	DEC	22 1965 14 47 33.8

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	4 58 34.0	28.1	17.83	305.09	8.89	111.12	117.09	5 9 49.0	6583.9	10.96	4.41

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW														
INJECTION	.00	11.25	20	5	9.8												
SEPARATION	1.20	12.45	20	5	11.0												
RETRO	3.20	14.45	20	5	13.0												
RISE 72	4.26	15.51	20	5	14.1	84.77	-.1511	33.29	-.0182	3054.9	-7.54	.00	.1276	103.65	.0028	6.49	324.45
EXIT SHA	6.87	18.12	20	5	16.7												
EXIT 72	6.87	18.12	20	5	16.7	53.68	-.2443	25.23	-.0985	2097.6	-4.12	28.17	.2418	304.23	.0054	.13	334.06
EXTM 72	10.26	21.51	20	5	20.1	5.33	-.1904	-3.28	-.1301	2085.1	3.82	82.97	.2287	310.77	.2264	-6.77	344.35
RISE 51	11.10	22.35	20	5	20.9	82.59	-.0757	14.97	-.0429	5898.9	-2.48	.00	.0846	286.66	-.0095	-8.24	346.58
EXTM 51	44.92	56.17	20	5	54.7	1.74	-.0121	-30.42	-.0035	13074.6	5.14	85.07	-.0000	197.78	-.1283	-28.89	26.43
EXTM 72	71.62	82.87	20	6	21.4	297.87	.0000	-34.02	-.0001	23701.8	4.72	27.44	.0000	124.35	.0002	-31.27	33.92
EXTM 51	94.46	105.71	20	6	44.3	350.27	.0001	-33.24	-.0001	27048.9	4.28	78.70	.0000	133.84	.0005	-31.87	35.45
RISE 61	119.97	131.22	20	7	9.8	315.23	.0019	-40.00	.0007	29125.7	3.89	-.00	.0014	147.35	.0008	-32.05	34.67
EXTM 51	184.56	195.81	20	8	14.4	.55	.0029	-32.65	.0002	47673.6	3.47	83.08	-.0000	183.84	.0201	-31.83	27.20
EXTM 61	374.01	385.26	20	11	23.8	5.21	.0038	-34.66	.0002	86730.6	2.73	14.95	.0000	184.44	.0033	-30.68	350.87
EXTM 72	402.29	413.54	20	11	52.1	1.00	.0039	-32.15	.0001	87294.5	2.65	65.74	.0000	182.07	.0081	-30.53	344.75
RISE 11	580.44	591.69	20	14	50.3	296.02	.0040	-31.86	.0000	119393.3	2.04	.01	.0025	130.25	.0023	-29.76	304.55
SET 51	596.64	607.89	20	15	6.5	90.00	.0038	-28.59	.0001	120320.3	2.63	11.99	-.0031	243.85	-.0012	-29.70	300.80
SET 61	600.66	611.91	20	15	10.5	58.11	.0039	-31.98	.0002	122191.7	2.52	-.00	-.0020	226.08	.0026	-29.68	299.86
SET 72	795.03	806.28	20	18	24.8	94.37	.0039	-28.71	.0001	147473.7	2.44	-.01	-.0034	240.99	-.0004	-29.07	254.10
RISE 42	804.81	816.06	20	18	34.6	254.99	.0040	-27.56	-.0000	148174.0	1.74	4.55	.0028	120.80	-.0021	-29.04	251.77
EXTM 11	846.36	857.61	20	19	16.2	1.35	.0041	-31.10	.0001	151198.3	2.01	23.68	.0000	181.26	.0039	-28.93	241.85
SET 11	1108.99	1120.24	20	23	38.8	66.30	.0041	-29.56	.0001	183683.7	2.09	-.00	-.0026	232.72	.0024	-28.34	178.54
EXTM 42	1230.23	1241.48	21	1	40.1	359.93	.0042	-27.87	.0000	190310.5	1.73	82.65	.0000	.49	-.0280	-28.11	149.05
RISE 51	1365.90	1377.15	21	3	55.7	270.00	.0041	-27.72	-.0000	209033.8	1.29	11.45	.0034	114.86	-.0014	-27.88	115.92
RISE 72	1520.66	1531.91	21	6	30.5	265.87	.0041	-27.41	-.0000	225320.2	1.18	-.01	.0036	117.70	-.0005	-27.65	78.00
RISE 61	1606.26	1617.51	21	7	56.1	297.59	.0041	-28.69	-.0000	233349.7	1.27	.00	.0025	128.97	.0027	-27.53	56.97
SET 42	1653.55	1664.80	21	8	43.4	105.00	.0041	-26.54	.0001	237270.9	1.85	3.93	-.0029	240.02	-.0022	-27.47	45.34
EXTM 51	1719.63	1730.88	21	9	49.5	358.57	.0042	-27.43	.0000	237417.9	1.49	87.88	.0023	143.14	.0798	-27.39	29.08
EXTM 61	1856.93	1868.18	21	12	6.7	.51	.0042	-28.55	.0000	253560.4	1.45	21.21	.0000	180.48	.0040	-27.22	355.25
EXTM 72	1896.36	1907.61	21	12	46.2	.15	.0042	-27.65	.0000	253335.6	1.44	70.25	-.0000	180.41	.0110	-27.18	345.52
RISE 11	2039.96	2051.21	21	15	9.8	291.94	.0042	-27.91	-.0000	271444.9	1.08	.00	.0028	124.95	.0024	-27.02	310.06
SET 51	2084.62	2095.87	21	15	54.4	90.00	.0041	-26.47	.0001	273921.0	1.75	11.16	-.0034	245.84	-.0014	-26.98	299.02
SET 61	2107.36	2118.61	21	16	17.2	63.36	.0042	-27.92	.0001	277026.0	1.64	-.00	-.0025	232.16	.0027	-26.96	293.40
SET 72	2270.35	2281.60	21	19	.2	93.99	.0041	-26.61	.0001	290192.7	1.73	-.00	-.0036	243.11	-.0005	-26.80	253.08
RISE 42	2271.19	2282.44	21	19	1.0	255.00	.0041	-26.03	-.0000	289857.3	1.00	3.62	.0029	119.58	-.0022	-26.80	252.87
EXTM 11	2311.81	2323.06	21	19	41.6	.35	.0042	-27.87	.0000	290600.4	1.31	26.92	-.0000	180.34	.0042	-26.76	242.81
SET 11	2583.42	2594.67	22	0	13.2	68.64	.0042	-27.29	.0000	314297.8	1.55	.01	-.0028	235.86	.0024	-26.53	175.49
EXTM 42	2690.16	2701.41	22	1	60.0	359.97	.0042	-26.27	.0000	315961.7	1.22	81.05	-.0000	.21	-.0209	-26.45	149.01
RISE 51	2820.81	2832.06	22	4	10.6	270.00	.0041	-25.92	-.0000	330445.1	.82	10.94	.0034	113.65	-.0015	-26.35	116.58
RISE 72	2974.53	2985.78	22	6	44.4	266.10	.0041	-26.08	-.0000	342510.2	.75	-.00	.0037	116.35	-.0005	-26.24	78.40
RISE 61	3050.52	3061.77	22	8	.3	295.48	.0042	-26.95	-.0000	347920.6	.84	.00	.0026	126.42	.0027	-26.16	59.47
SET 42	3108.88	3120.13	22	8	58.7	105.00	.0041	-25.52	.0000	351474.0	1.45	3.30	-.0030	240.83	-.0023	-26.15	44.89
EXTM 51	3171.91	3183.16	22	10	1.7	358.51	.0042	-26.12	.0000	349737.8	1.11	88.61	.0037	105.97	.0409	-26.1	29.15
EXTM 61	3306.53	3317.78	22	12	16.3	.24	.0042	-26.95	.0000	362540.3	1.11	22.81	-.0000	180.23	.0041	-26.03	355.51
EXTM 72	3346.29	3357.54	22	12	56.1	.10	.0042	-26.32	.0000	361634.0	1.11	71.59	-.0000	180.29	.0118	-26.00	345.57
RISE 11	3481.79	3493.04	22	15	11.6	290.65	.0042	-26.55	-.0000	376624.9	.80	.00	.0029	123.16	.0024	-25.92	311.68
SET 51	3533.86	3545.11	22	16	3.7	90.00	.0042	-25.52	.0000	378916.7	1.50	10.78	-.0035	246.73	-.0015	-25.89	298.65
SET 61	3562.33	3573.58	22	16	32.1	64.97	.0042	-26.57	.0000	382027.4	1.42	-.00	-.0026	234.14	.0027	-25.87	291.52
RISE 42	3714.98	3726.23	22	19	4.8	255.00	.0042	-25.20	-.0000	392589.7	1.01	3.11	.0030	118.92	-.0023	-25.77	253.17
SET 72	3716.15	3727.40	22	19	6.0	93.82	.0042	-25.63	.0000	393029.4	1.77	-.00	-.0038	244.11	-.0005	-25.77	252.87
IMPACT	3753.81	3765.06	22	19	43.6												
IMPC 42	3753.81	3765.06	22	19	43.6	264.86	.0043	-25.22	.0000	395373.2	1.68	10.34	.0032	113.66	-.0022	-25.72	243.29
IMPC 11	3753.81	3765.06	22	19	43.6	359.86	.0044	-26.54	.0000	393510.1	2.03	28.26	.0000	179.86	.0045	-25.72	243.29
EXTM 11	3756.54	3767.79	22	19	46.4	.58	.0044	-26.53	.0000	393858.9	2.31	28.26	.0000	180.59	.0049	-25.72	242.58

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	20	5	9.816	6584.567	17.8109	305.1207	10.96136	4.4119	117.0981	111.1577
SEPARATION	1.20	12.45	20	5	11.016	6667.690	14.6497	311.0142	10.89183	7.7703	118.8327	117.3520
RETRO	3.20	14.45	20	5	13.016	6902.938	9.2756	320.0688	10.70299	13.1168	120.8200	126.9080
EXIT SHA	6.87	18.12	20	5	16.688	7597.044	.1285	334.0619	10.19815	21.7617	122.0533	141.8716
IMPACT	3753.81	3765.06	22	19	43.627	396566.406	-25.7248	243.2900	2.20740	67.1022	283.0327	270.3485

SURVEYOR VIEW PERIODS

GHA	90.3427					LPS	177.6774					LON	239.3163
SX	.004951	SY	-.900980	SZ	-.433832	DAC	-25.71098	RAD	270.31445	RR	397840.148	LAT	25.310600
CJ	-.941351	ECC	.984544	SLR	1.988.179	PCA	6544.6050	LTA	-20.0000	DTA	20.00	TR	675.00000
NSX	.025174	NSY	-.859891	NSZ	-.435388	C3M	1.9556	VIM	2.6823	ZAP	140.336	B.T	.0000
LATE	3.0079	LONE	3.7783	LATS	-.7470	LONS	184.3372	LATI	-5.4056	LONI	324.9727	RSM	146.7549
LALNCH DATE		DEC	20,1965		BASE AZM	111.0		TF	62.681			ARRIVAL DATE	DEC 22 1965

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	5 3 28.1	28.1	16.76	304.49	9.86	111.75	119.18	5 14 43.1	6593.0	10.95	4.89

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PHCHE IN EARTH'S SHADOW															
INJECTION	.00	11.25	20	5	14.7												
SEPARATION	1.20	12.45	20	5	15.9												
RETRC	3.20	14.45	20	5	17.9												
RISE 72	4.22	15.47	20	5	18.9	85.62	-.1401	28.78	-.0351	6104.6	-7.49	.01	.1267	299.09	-.0154	4.99	323.10
EXIT SHA	6.71	17.96	20	5	21.4												
EXIT 72	6.71	17.96	20	5	21.4	59.12	-.2142	18.76	-.1078	2795.8	-4.24	25.92	.2269	295.37	-.0396	-1.29	332.09
EXTM 72	10.94	22.19	20	5	25.7	4.52	-.1647	-15.35	-.0986	2330.7	4.74	81.34	-.0000	210.31	-1.2638	-9.90	344.49
RISE 51	11.14	22.39	20	5	25.9	84.28	-.0718	11.68	-.0454	5988.6	-2.32	.00	.0831	282.99	-.0095	-10.25	345.00
EXTM 51	47.55	58.80	20	6	2.3	2.20	-.0110	-33.41	-.0024	13958.9	5.08	82.10	-.0000	193.50	-.0691	-31.01	26.21
EXTM 72	72.24	83.49	20	6	27.0	299.13	-.0000	-35.69	.0001	23861.7	4.71	28.11	.0000	126.65	-.0001	-32.79	32.70
EXTM 51	93.42	104.67	20	6	48.1	351.74	-.0001	-34.92	.0001	26828.6	4.29	78.38	.0000	144.19	-.0007	-33.71	34.24
RISE 61	127.18	138.43	20	7	21.9	317.24	.0020	-40.95	.0007	40892.2	3.80	-.00	.0014	149.15	.0009	-33.24	33.04
EXTM 51	179.71	190.96	20	8	14.4	.91	.0028	-33.83	.0002	46703.4	3.50	81.87	-.0000	195.37	.0165	-32.86	26.89
EXTM 61	371.86	383.11	20	11	26.6	5.79	.0038	-35.37	.0002	86468.0	2.73	14.21	.0000	184.87	.0032	-31.37	350.33
EXTM 72	398.53	409.78	20	11	53.2	1.19	.0039	-32.86	.0002	86733.6	2.66	65.02	.0000	162.37	.0078	-31.26	344.57
RISE 11	578.61	589.86	20	14	53.3	296.59	.0040	-32.39	.0000	119129.4	2.05	.00	.0025	130.96	.0023	-30.27	303.97
SET 51	592.18	603.43	20	15	6.9	90.00	.0038	-29.10	.0001	119673.1	2.64	12.19	-.0031	243.37	-.0012	-30.21	300.83
SET 61	592.91	604.16	20	15	7.6	57.33	.0039	-32.54	.0002	121114.3	2.52	-.00	-.0020	225.21	.0027	-30.21	300.66
SET 72	790.98	802.23	20	18	25.7	94.44	.0039	-29.12	.0001	1[illegible]945.1	2.44	-.01	-.0034	240.57	-.0004	-29.48	294.05
RISE 42	800.61	811.86	20	18	35.3	254.99	.0040	-27.97	-.0000	147 [illegible]1.2	1.74	4.80	.0028	121.12	-.0021	-29.45	251.75
EXTM 11	842.63	853.88	20	19	17.4	1.49	.0041	-31.51	.0001	15[illegible]36.8	2.01	23.27	.0000	181.38	.0038	-29.32	241.72
SET 11	1103.32	1114.57	20	23	38.0	65.97	.0041	-29.09	.0001	183012.1	2.09	-.00	-.0026	232.29	.0024	-28.65	178.87
EXTM 42	1225.92	1237.17	21	1	40.6	359.92	.0042	-28.16	.0000	189788.7	1.73	82.94	.0000	.56	-.0292	-28.39	149.05
RISE 51	1361.63	1372.88	21	3	56.3	270.00	.0041	-27.47	-.0000	208514.7	1.29	11.55	.0033	115.10	-.0014	-28.13	115.91
RISE 72	1516.21	1527.46	21	6	30.9	265.83	.0041	-27.63	-.0000	224797.0	1.18	-.01	.0036	117.92	-.0005	-27.87	78.03
RISE 61	1603.00	1614.25	21	7	57.7	297.85	.0042	-28.90	-.0000	232937.0	1.27	.00	.0024	129.24	.0027	-27.74	56.71
SET 42	1649.20	1660.45	21	8	43.9	105.00	.0041	-26.74	.0001	236742.7	1.85	4.05	-.0029	239.86	-.0022	-27.67	45.35
EXTM 51	1715.13	1726.38	21	9	49.8	359.52	.0042	-27.63	.0000	236889.2	1.49	87.70	.0022	145.34	.0756	-27.58	29.12
EXTM 61	1852.75	1864.00	21	12	7.5	.56	.0042	-28.73	.0000	253075.4	1.45	21.03	.0000	180.52	.0039	-27.39	355.20
EXTM 72	1892.05	1903.30	21	12	46.8	.17	.0042	-27.82	.0000	252826.3	1.44	70.08	-.0000	180.44	.0109	-27.34	345.51
RISE 11	2036.18	2047.43	21	15	10.9	292.09	.0042	-28.06	-.0000	270968.7	1.08	.00	.0028	125.14	.0024	-27.17	309.91
SET 51	2080.22	2091.47	21	15	54.9	90.00	.0041	-26.61	.0001	273384.7	1.75	11.21	-.0034	245.71	-.0014	-27.12	299.03
SET 61	2102.26	2113.51	21	16	17.0	63.18	.0042	-28.07	.0001	276437.4	1.64	-.00	-.0025	231.95	.0027	-27.10	293.58
SET 72	2266.03	2277.28	21	19	.7	94.01	.0041	-26.73	.0001	283658.8	1.73	-.00	-.0036	242.99	-.0005	-26.92	253.06
RISE 42	2266.81	2278.06	21	19	1.5	255.00	.0041	-26.16	-.0000	289310.7	1.00	3.69	.0029	119.68	-.0022	-26.92	252.87
EXTM 11	2307.53	2318.78	21	19	42.2	.38	.0042	-27.99	.0000	290079.5	1.31	26.80	-.0000	180.37	.0042	-26.88	242.78
SET 11	2578.63	2589.88	22	0	13.4	68.56	.0042	-27.38	.0000	313709.3	1.55	.00	-.0028	235.74	.0024	-26.62	175.58
EXTM 42	2685.72	2696.97	22	2	.4	359.97	.0042	-26.35	.0000	315389.5	1.22	81.14	-.0000	.23	-.0209	-26.53	149.01
RISE 51	2816.37	2827.62	22	4	11.1	270.00	.0041	-25.99	-.0000	329861.4	.82	10.97	.0034	113.71	-.0015	-26.42	116.58
RISE 72	2970.04	2981.29	22	6	44.8	266.09	.0041	-26.14	-.0000	341912.6	.75	-.00	.0037	116.41	-.0005	-26.30	78.40
RISE 61	3046.33	3057.58	22	8	1.0	295.55	.0042	-27.00	-.0000	347336.6	.84	-.00	.0026	126.50	.0027	-26.24	59.40
SET 42	3104.41	3115.66	22	8	59.1	105.00	.0041	-25.57	.0000	350859.3	1.45	3.33	-.0030	240.79	-.0023	-26.20	44.89
EXTM 51	3168.05	3179.30	22	10	2.8	358.66	.0042	-26.16	.0000	349157.8	1.10	88.72	.0036	109.73	.0555	-26.16	29.00
EXTM 61	3302.13	3313.38	22	12	16.9	.26	.0042	-26.99	.0000	361907.1	1.11	22.77	-.0000	180.25	.0041	-26.07	355.50
EXTM 72	3341.85	3353.10	22	12	56.6	.10	.0042	-26.96	.0000	360987.2	1.10	71.55	-.0000	180.30	.0118	-26.04	345.57
RISE 11	3477.47	3488.72	22	15	12.2	290.68	.0042	-26.38	-.0000	375952.9	.79	.00	.0029	123.21	.0024	-25.95	311.65
SET 51	3529.41	3540.66	22	16	4.1	90.00	.0042	-25.55	.0000	378217.9	1.50	10.79	-.0035	246.71	-.0015	-25.92	298.65
SET 61	3557.75	3569.00	22	16	32.5	64.94	.0042	-26.59	.0000	381309.9	1.41	-.00	-.0026	234.10	.0027	-25.90	291.55
RISE 42	3710.63	3721.88	22	19	5.3	255.00	.0042	-25.22	-.0000	391725.3	.96	3.12	.0030	118.94	-.0023	-25.79	253.17
SET 72	3711.80	3723.05	22	19	6.5	93.83	.0042	-25.65	.0000	392163.2	1.72	-.00	-.0037	244.09	-.0005	-25.79	252.37
EXTM 11	3751.90	3763.15	22	19	46.6	.45	.0043	-26.56	.0000	392570.8	1.66	28.23	-.0000	180.46	.0044	-25.75	242.71
IMPACT	3760.89	3772.14	22	19	55.6												
IMPC 42	3760.89	3772.14	22	19	55.6	267.74	.0043	-25.24	.0000	395162.8	1.68	12.53	.0033	112.20	-.0022	-25.73	240.40
IMPC 11	3760.89	3772.14	22	19	55.6	2.79	.0044	-26.54	.0000	393543.4	2.04	28.19	-.0001	182.83	.0044	-25.73	240.40

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	20	5	14.718	6593.982	16.7398	304.5288	10.95343	4.8935	119.1862	111.7947
SEPARATION	1.20	12.45	20	5	15.918	6682.982	13.3915	310.2348	10.87877	8.2390	120.7513	117.8015
RETRC	3.20	14.45	20	5	17.918	6928.121	7.7639	319.0130	10.68301	13.5529	122.4604	127.0911
EXIT SHA	6.71	17.96	20	5	21.430	7599.355	-1.2887	332.0869	10.19623	21.7826	123.2548	141.0354
IMPACT	3760.89	3772.14	22	19	55.603	396593.430	-25.7339	240.4018	2.20472	66.9302	2[illegible].6299	270.4626

DEC 20, 1965
111 DEGREES

SURVEYOR VIEW PERIODS

GHA	90.3422					EPS 177.6901								LAM	235.5047
SX	.007309	SY	-.900882	SZ	-.434001	DAO	-25.72173	RAD	270.46487	RM	397872.215	LAT	26.310600	LON	279.461800
C3	-.952441	ECC	.984362	SLR	12986.988	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	379.00000	POL	-.0
NSX	.027640	NSY	-.899734	NSZ	-.435563	C3M	1.5556	VIM	2.6823	ZAE	139.957	B.T	.0000	B.R	-.0000
LATE	3.0223	LONE	3.7685	LATS	-.7472	LONS	184.2033	LATI	-5.8569	LONI	324.6707	RSM	146.7548	TTAN	6.6252
LAUNCH DATE		DEC	20,1965		BASE AZM	115.0		TF	62.861			ARRIVAL DATE		DEC 22 1965 20 15	8.7

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME		INJ RAD	INJ VEL	INJ PTH
115.00	5	8 46.3	28.1	15.38	303.62	10.88	112.22	121.96	5	20 1.3	6603.6	10.94	5.40

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PRCBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	20	5	20.0												
SEPARATION	1.20	12.45	20	5	21.2												
RETRO	3.20	14.45	20	5	23.2												
RISE 72	4.21	15.46	20	5	24.2	86.63	-.1274	22.	-.0559	3174.6	-7.13	-.00	.1243	273.19	-.0378	2.21	321.46
EXIT SHA	6.55	17.80	20	5	26.6												
EXIT 72	6.55	17.80	20	5	26.6	64.99	-.1820	10.93	-.1199	2355.9	-4.16	22.64	.2017	285.39	-.0814	-3.24	329.64
RISE 51	11.25	22.50	20	5	31.3	86.44	-.0670	7.34	-.0485	6106.2	-2.08	-.00	.0809	278.15	-.0145	-13.02	343.04
EXTM 72	11.28	22.53	20	5	31.3	9.55	-.1637	-25.87	-.0800	2571.5	4.95	69.87	-.0000	205.69	-.4870	-13.07	343.12
EXTM 51	52.43	63.68	20	6	12.5	1.77	-.0091	-37.25	-.0010	15531.7	4.98	78.39	-.0000	187.03	-.0364	-33.91	26.48
EXTM 72	72.66	83.91	20	6	32.7	300.37	-.0001	-38.46	.0004	23992.2	4.69	26.53	.0000	179.74	-.0005	-34.90	31.37
EXTM 51	88.51	99.76	20	6	48.5	353.41	-.0008	-37.38	.0003	25621.3	4.36	77.09	.0000	153.97	-.0030	-35.10	32.83
RISE 61	138.99	150.24	20	7	39.0	319.88	.0023	-42.10	.0007	43690.3	3.68	-.00	.0015	151.44	.0011	-34.77	30.91
EXTM 51	176.70	187.95	20	8	16.7	1.58	.0027	-35.48	.0003	46122.9	3.52	80.16	-.0000	187.57	.0131	-34.31	26.31
EXTM 61	371.70	382.95	20	11	31.7	6.79	.0038	-36.32	.0003	86552.0	2.73	13.19	-.0000	185.61	.0032	-32.30	349.41
EXTM 72	395.29	406.54	20	11	55.3	1.48	.0039	-33.86	.0002	86260.4	2.67	64.01	.0000	182.80	.0075	-32.12	344.31
RISE 11	577.87	589.12	20	14	57.9	297.40	.0040	-33.11	.0000	119004.1	2.05	.00	.0025	131.96	.0023	-30.98	303.15
SET 61	583.73	594.98	20	15	3.7	56.20	.0039	-33.32	.0002	119817.9	2.53	-.00	-.0019	223.98	.0027	-30.95	301.80
SET 51	587.74	598.99	20	15	7.8	90.00	.0038	-29.82	.0002	119005.0	2.64	12.47	-.0031	242.69	-.0012	-30.93	300.87
SET 72	787.04	798.29	20	18	27.1	94.54	.0039	-29.69	.0001	146406.4	2.44	-.00	-.0034	240.00	-.0004	-30.05	253.97
RISE 42	796.44	807.69	20	18	36.5	254.99	.0040	-28.53	-.0000	146997.0	1.75	5.14	.0028	121.57	-.0021	-30.02	251.73
EXTM 11	839.12	850.37	20	19	19.1	1.67	.0041	-32.07	.0001	150331.5	2.01	22.71	.0000	181.54	.0038	-29.36	241.54
SET 11	1097.05	1108.30	20	23	37.1	65.51	.0041	-30.43	.0001	182236.6	2.09	-.00	-.0025	231.69	.0024	-29.08	179.35
EXTM 42	1221.53	1232.78	21	1	41.5	359.91	.0042	-28.56	.0000	189213.6	1.73	83.34	.0000	.67	-.0309	-28.78	149.06
RISE 51	1357.29	1368.54	21	3	57.3	270.00	.0041	-27.82	-.0000	207933.0	1.29	11.69	.0033	115.43	-.0014	-28.48	115.90
RISE 72	1511.61	1522.86	21	6	31.6	265.77	.0041	-27.94	-.0000	224199.5	1.18	-.00	.0036	118.23	-.0005	-28.18	78.07
RISE 61	1600.10	1611.35	21	8	.1	298.22	.0042	-29.19	-.0000	232492.2	1.27	.01	.0024	129.72	.0027	-28.02	56.33
SET 42	1644.72	1655.97	21	8	44.7	105.00	.0041	-27.01	.0001	236131.1	1.85	4.22	-.0029	239.64	-.0022	-27.95	45.36
EXTM 51	1716.55	1727.80	21	9	56.6	.01	.0042	-27.89	.0000	236822.0	1.50	87.85	.0000	180.54	.0581	-27.83	27.67
EXTM 61	1848.52	1859.77	21	12	8.5	.63	.0042	-28.97	.0000	252514.7	1.45	20.79	-.0000	180.59	.0039	-27.63	355.14
EXTM 72	1887.62	1898.87	21	12	47.6	.19	.0042	-28.06	.0000	252228.6	1.43	69.84	-.0000	180.48	.0108	-27.57	345.49
RISE 11	2032.49	2043.74	21	15	12.5	292.30	.0042	-28.26	-.0000	270409.7	1.08	.00	.0028	125.42	.0024	-27.38	309.71
SET 51	2075.66	2086.91	21	15	55.7	90.00	.0041	-26.81	.0001	272740.5	1.74	11.29	-.0034	245.52	-.0014	-27.32	299.03
SET 61	2096.72	2107.97	21	16	16.7	62.94	.0042	-28.27	.0001	275718.7	1.64	-.00	-.0024	231.66	.0027	-27.29	293.83
SET 72	2261.55	2272.80	21	19	1.6	94.04	.0041	-26.90	.0001	289009.8	1.73	-.00	-.0036	242.82	-.0005	-27.09	253.03
RISE 42	2262.25	2273.50	21	19	2.3	255.00	.0041	-26.32	-.0000	288643.6	1.00	3.80	.0029	119.81	-.0022	-27.09	252.86
EXTM 11	2303.11	2314.36	21	19	43.1	.42	.0042	-28.16	.0000	289446.8	1.31	26.63	-.0000	180.41	.0042	-27.04	242.74
SET 11	2573.50	2584.75	22	0	13.5	68.43	.0042	-27.51	.0000	312971.2	1.55	.00	-.0028	235.57	.0024	-26.75	175.71
EXTM 42	2681.07	2692.31	22	2	1.1	359.96	.0042	-26.47	.0000	314670.2	1.22	81.25	-.0000	.24	-.0224	-26.65	149.02
RISE 51	2811.72	2822.97	22	4	11.7	270.00	.0041	-26.10	-.0000	329121.0	.82	11.01	.0034	113.81	-.0015	-26.52	116.57
RISE 72	2965.31	2976.56	22	6	45.3	266.07	.0041	-26.23	-.0000	341147.4	.75	-.00	.0037	116.50	-.0005	-26.39	78.42
RISE 61	3042.15	3053.40	22	8	2.2	295.64	.0042	-27.08	-.0000	346639.9	.83	.00	.0026	126.61	.0027	-26.32	59.30
SET 42	3099.83	3111.08	22	8	59.9	105.00	.0041	-25.64	.0000	350116.3	1.44	3.38	-.0030	240.73	-.0023	-26.27	44.90
EXTM 51	3164.57	3175.82	22	10	4.6	358.94	.0042	-26.23	.0000	348475.3	1.10	88.93	.0034	117.57	.0921	-26.22	28.72
EXTM 61	3297.62	3308.87	22	12	17.6	.28	.0042	-27.05	.0000	361123.8	1.10	22.71	-.0000	180.27	.0041	-26.12	355.47
EXTM 72	3337.25	3348.50	22	12	57.3	.11	.0042	-26.41	.0000	360182.0	1.10	71.49	-.0000	180.31	.0118	-26.10	345.56
RISE 11	3473.01	3484.26	22	15	13.0	290.72	.0042	-26.63	-.0000	375103.1	.78	.00	.0029	123.27	.0024	-26.00	311.60
SET 51	3524.75	3536.00	22	16	4.8	90.00	.0042	-25.59	.0000	377328.0	1.49	10.81	-.0035	246.67	-.0015	-25.96	298.65
SET 61	3557.91	3564.16	22	16	32.9	64.89	.0042	-26.63	.0000	380392.9	1.40	-.00	-.0026	234.04	.0027	-25.94	291.60
RISE 42	3706.05	3717.30	22	19	6.1	255.00	.0042	-25.25	-.0000	390629.7	.91	3.14	.0030	118.96	-.0023	-25.87	253.16
SET 72	3707.22	3718.47	22	19	7.2	93.83	.0042	-29.68	.0000	391066.3	1.66	-.00	-.0037	244.06	-.0005	-25.82	252.87
EXTM 11	3747.05	3758.30	22	19	47.1	.35	.0043	-26.60	.0000	391202.2	1.43	28.20	.0000	180.35	.0044	-25.78	242.81
IMPACT	3771.66	3782.91	22	20	11.7												
INPC 42	3771.66	3782.91	22	20	11.7	271.62	.0043	-25.28	.0000	394883.7	1.66	15.50	.0033	110.28	-.0022	-25.75	236.53
INPC 11	3771.66	3782.91	22	20	11.7	6.72	.0044	-26.55	.0000	393610.8	2.05	27.91	-.0004	186.81	.0044	-25.75	236.53

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	INC ASC
INJECTION	.00	11.25	20	5	20.021	6605.023	15.3468	303.6735	10.94409	5.3991	121.9695	112.2737
SEPARATION	1.20	12.45	20	5	21.221	6700.247	11.7553	309.1379	10.86412	8.7302	123.3737	118.0339
RETRO	3.20	14.45	20	5	23.221	6955.457	5.7902	317.5607	10.66131	14.0084	124.6893	126.9581
EXIT SHA	6.55	17.80	20	5	26.570	7602.902	-3.2447	329.6390	10.19328	21.8147	124.9783	139.8759
IMPACT	3771.66	3782.91	22	20	11.681	396633.523	-25.7460	236.9250	2.19946	66.4752	284.2846	270.6163

DEC 20, 1965
115 DEGREES

SURVEYOR VIEW PERIODS

GHA	91.3278				EPS	169.4371					LOM	271.8652	
SX	.204720	SY	-.871658	SZ	-.439429	DAO	-26.06745	RAD	283.17364	RM	400452.574	LAT	28.310600
CS	-.894426	ECC	.985314	SLR	12993.220	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000
NSX	.223924	NSY	-.870091	NSZ	-.439091	C3M	1.5517	VIM	2.6816	ZAE	141.863	B.T	.0000
LATE	4.1644	LONE	2.8892	LATS	-.7677	LONS	172.8462	LATI	-1.6199	LONI	329.1681	RSM	146.7510
LAUNCH DATE		DEC	21.1965		BASE AZM	84.0		TF	62.739			ARRIVAL DATE	DEC 23 1965

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
84.00	3 54 20.0	27.1	27.14	307.27	-16.79	98.19	99.68	4 5 35.0	6686.1	10.88	-8.33

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	ORG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW															
INJECTION		.00	11.25	21	4	5.6												
SEPARATION		1.20	12.45	21	4	6.8												
RETRO		3.20	14.45	21	4	8.8												
RISE	72	7.48	18.73	21	4	13.1	319.14	-.6182	79.60	-.1956	2556.6	-2.27	.00	.0767	6.78	.2118	13.79	348.2
EXIT	SHA	9.79	21.04	21	4	15.4												
EXIT	72	9.79	21.04	21	4	15.4	293.96	-.0593	49.09	-.2073	2604.1	2.84	9.18	.0471	37.41	.2082	8.64	358.20
EXIT	61	9.79	21.04	21	4	15.4	352.43	-.1937	-52.36	.0182	3818.8	6.02	-2.83	.0062	175.9	-.1197	8.64	358.20
RISE	51	12.29	23.54	21	4	17.9	60.09	-.1558	45.96	-.0229	4517.3	-4.01	.01	.0988	322.95	.0498	3.51	7.26
EXTM	72	13.27	24.52	21	4	18.9	286.50	-.0240	17.52	-.1006	3688.7	6.71	13.12	-.0000	69.86	.1059	1.66	10.42
EXTM	51	28.30	39.55	21	4	33.9	337.47	-.0287	-5.05	-.0274	6751.9	5.64	60.12	.0000	50.00	.0795	-15.38	39.85
EXTM	72	64.19	75.44	21	5	9.8	268.68	-.0003	-24.06	-.0019	22770.2	5.02	2.02	.0000	114.01	.0019	-25.20	59.98
RISE	42	65.46	76.71	21	5	11.0	102.17	-.0056	-16.63	-.0038	23376.5	4.26	.00	.0066	249.49	.0002	-25.33	60.24
EXTM	51	77.46	88.71	21	5	23.0	316.45	-.0003	-25.05	-.0016	22379.5	4.65	50.84	.0000	98.77	.0025	-26.32	62.03
EXTM	42	128.15	139.40	21	6	13.7	95.66	.0005	-23.21	-.0007	39071.9	4.60	8.82	-.0000	247.75	-.0009	-28.07	61.65
SET	42	217.33	228.58	21	7	42.9	104.98	.0025	-25.02	-.0001	59127.9	3.52	3.01	-.0017	241.23	-.0015	-28.66	49.50
RISE	61	227.72	238.97	21	7	53.3	303.80	.0033	-33.32	.0001	61522.5	3.07	.00	.0019	136.02	.0021	-28.67	47.68
EXTM	51	330.71	341.96	21	9	36.3	.04	.0038	-28.88	.0000	74309.7	2.86	86.85	-.0000	180.64	.0555	-28.64	27.63
EXTM	61	487.23	498.48	21	12	12.8	2.33	.0040	-31.68	.0001	103502.4	2.49	18.05	.0000	182.08	.0035	-28.40	353.55
EXTM	72	523.50	534.75	21	12	49.1	.38	.0041	-29.55	.0001	105038.6	2.42	68.35	-.0000	180.89	.0096	-28.34	345.32
RISE	11	689.20	700.45	21	15	34.8	293.95	.0040	-29.91	-.0000	133672.7	1.90	.00	.0026	127.61	.0023	-28.08	306.89
SET	51	716.76	728.01	21	16	2.3	90.00	.0039	-27.03	.0001	136009.3	2.50	11.38	-.0032	245.31	-.0013	-28.04	300.40
SET	61	731.35	742.60	21	16	16.9	60.77	.0040	-29.99	.0001	139140.6	2.38	-.00	-.0022	229.10	.0027	-28.02	296.95
SET	72	911.29	922.54	21	19	16.9	94.14	.0040	-27.45	.0001	161234.8	2.35	-.00	-.0035	242.27	-.0005	-27.78	254.06
RISE	42	919.98	931.23	21	19	25.6	255.00	.0040	-26.41	-.0001	161829.4	1.64	3.84	.0029	119.88	-.0022	-27.77	251.98
EXTM	11	959.81	971.06	21	20	5.4	.78	.0042	-29.70	.0000	164211.3	1.92	25.09	-.0000	180.75	.0040	-27.72	242.40
SET	11	1228.03	1239.28	22	0	33.6	67.31	.0041	-28.66	.0001	196304.3	2.14	-.00	-.0027	234.06	.0024	-27.43	177.42
EXTM	42	1344.41	1355.66	22	2	30.0	359.96	.0042	-27.07	.0000	202027.2	1.68	81.85	.0000	.30	-.0244	-27.32	149.02
RISE	51	1479.26	1490.51	22	4	44.8	270.00	.0041	-26.57	-.0000	220309.1	1.25	11.20	.0034	114.25	-.0014	-27.20	116.02
RISE	72	1634.19	1645.44	22	7	19.8	265.96	.0041	-26.85	-.0000	236214.3	1.14	-.01	.0036	117.13	-.0005	-27.08	77.99
RISE	61	1716.61	1727.86	22	8	42.2	296.89	.0042	-26.12	-.0000	243775.4	1.24	.00	.0025	128.13	.0027	-27.02	57.72
SET	42	1767.15	1778.40	22	9	32.7	105.00	.0041	-26.09	.0000	247928.5	1.82	3.65	-.0029	240.37	-.0022	-26.98	45.26
EXTM	51	1834.93	1846.18	22	10	40.5	359.98	.0042	-26.97	.0000	248066.8	1.46	88.52	.0021	140.33	.1204	-26.94	28.58
EXTM	61	1969.37	1980.62	22	12	55.0	.34	.0042	-28.12	.0000	263692.0	1.42	21.64	-.0000	180.32	.0040	-26.85	355.42
EXTM	72	2009.28	2020.53	22	13	34.9	.11	.0042	-27.27	.0000	263476.8	1.41	70.63	-.0000	180.29	.0112	-26.82	345.37
RISE	11	2151.55	2162.80	22	15	57.1	291.63	.0042	-27.58	-.0000	281293.6	1.06	.00	.0028	124.52	.0024	-26.74	310.41
SET	51	2197.81	2209.06	22	16	43.4	90.00	.0041	-26.22	.0000	283855.0	1.73	11.06	-.0034	246.08	-.0015	-26.71	298.97
SET	61	2221.92	2233.17	22	17	7.9	63.71	.0042	-27.63	.0000	287032.2	1.63	-.00	-.0025	232.60	.0027	-26.70	293.01
SET	72	2383.31	2394.56	22	19	48.9	93.96	.0041	-26.43	.0000	299886.4	1.71	-.00	-.0036	243.30	-.0005	-26.61	253.06
RISE	42	2383.93	2395.18	22	19	49.5	255.00	.0041	-25.87	-.0000	299944.9	.98	3.52	.0029	119.45	-.0023	-26.61	252.91
EXTM	11	2424.23	2435.48	22	20	29.8	.23	.0042	-27.66	.0000	300189.0	1.30	27.13	-.0000	180.23	.0042	-26.59	242.95
SET	11	2696.76	2708.01	23	1	2.3	68.75	.0042	-27.18	.0000	323742.3	1.54	-.00	-.0028	236.00	.0024	-26.45	175.36
EXTM	42	2802.98	2814.23	23	2	48.6	359.98	.0042	-26.23	.0000	325289.6	1.21	81.01	-.0000	.16	-.0153	-26.40	149.00
RISE	51	2933.42	2944.67	23	4	59.0	270.00	.0041	-25.93	-.0000	339677.2	.81	10.94	.0034	113.65	-.0015	-26.34	116.61
RISE	72	3086.76	3098.01	23	7	32.3	266.09	.0042	-26.13	-.0000	351703.9	.72	-.00	.0037	116.40	-.0005	-26.28	78.43
RISE	61	3162.98	3174.23	23	8	48.6	295.54	.0042	-27.00	-.0000	356855.1	.84	.00	.0026	126.49	.0027	-26.26	59.42
SET	42	3221.32	3232.57	23	9	46.9	105.00	.0041	-25.62	.0000	360407.1	1.45	3.37	-.0030	240.75	-.0023	-26.24	44.87
EXTM	51	3285.65	3296.90	23	10	51.2	358.85	.0042	-26.22	.0000	358777.8	1.11	88.86	.0035	115.28	.0795	-26.22	28.82
EXTM	61	3418.68	3429.93	23	13	4.3	.15	.0042	-27.07	.0000	371554.3	1.12	22.69	-.0000	180.14	.0041	-26.17	355.60
EXTM	72	3458.72	3469.97	23	13	44.3	.07	.0042	-26.47	.0000	370691.7	1.12	71.43	-.0000	180.21	.0116	-26.16	345.60
RISE	11	3594.95	3606.20	23	16	.5	290.82	.0042	-26.73	-.0000	385942.6	.84	.00	.0029	123.40	.0024	-26.12	311.53
SET	51	3646.46	3657.71	23	16	52.0	90.00	.0042	-25.74	.0000	388352.6	1.57	10.87	-.0035	246.52	-.0015	-26.10	298.63
SET	61	3673.90	3685.15	23	17	19.5	64.73	.0042	-26.77	.0000	391535.2	1.51	-.00	-.0026	233.84	.0027	-26.10	291.74
IMPACT		3764.36	3775.61	23	18	49.9												
IMPC	72	3764.36	3775.61	23	18	49.9	77.77	.0043	-26.04	.0000	397563.4	2.50	14.41	-.0039	245.04	-.0001	-26.07	268.89
IMPC	11	3764.36	3775.61	23	18	49.9	333.90	.0044	-26.84	-.0000	396642.9	1.93	33.23	.0015	154.71	.0039	-26.07	268.89

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	21	4	5.584	6694.252	27.1770	307.0201	10.87842	-8.3326	99.5955	97.9406
SEPARATION		1.20	12.45	21	4	6.784	6594.960	25.8148	314.3489	10.95384	-4.9917	102.9692	105.9703
RETRO		3.20	14.45	21	4	8.784	6545.688	22.7348	326.0033	10.99530	.7144	107.9840	117.7261
EXIT	SHA	9.79	21.04	21	4	15.379	7263.797	8.6387	358.2026	10.43342	18.2690	117.4630	151.5786
IMPACT		3764.36	3775.61	23	18	49.948	399198.688	-26.0675	268.8873	2.22545	69.1267	273.1057	284.4748

SURVEYOR VIEW PERIODS

GHA	91.3278				EP	169.1862						LOM	263.8726
SX	.209421	SY	-.873551	SZ	-.439342	DAD	-26.06191	RAD	283.48573	RM	400512.223	LAT	28.310600	LON	279.461800
C3	-.892391	ECC	.985348	SLR	12993.439	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.228652	NSY	-.868929	NSZ	-.438954	C3M	1.5520	VIM	2.6817	ZAS	141.925	B.T	.0000	B.R	-.0000
LATE	4.1905	LONE	2.8659	LATS	-.7682	LONS	172.9658	LATI	-1.4171	LONI	325.1791	RSM	146.7510	TTAN	3.7746
LAUNCH DATE		DEC	21.1965		BASE AZM	87.0		TF	62.726			ARRIVAL DATE		DEC	23 1965 19 5 59.8

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ REL ABC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
87.00	4 22 24.8	27.5	25.91	307.47	-10.48	105.43	102.05	4 33 39.8	6599.4	10.95	-5.20

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	RNG	LAT	LONG
				PROBE IN EARTH'S SHADOW														
INJECTION		.00	11.25	21	4	33.7												
SEPARATION		1.20	12.45	21	4	34.9												
RETRO		3.20	14.45	21	4	36.9												
RISE	72	6.44	17.69	21	4	40.1	47.02	-.9781	78.50	.0657	2999.8	-4.39	-.00	.0961	351.61	.1820	13.97	342.43
EXIT	SHA	8.63	19.88	21	4	42.3												
EXIT	72	8.63	19.88	21	4	42.3	216.23	-.2160	61.39	-.2239	2320.9	.48	12.82	.0866	19.86	.2368	9.20	351.83
EXIT	41	8.63	19.88	21	4	42.3	12.10	-.2158	-51.69	-.0046	3765.3	4.78	-2.53	.0168	187.47	-.0329	9.20	351.83
RISE	51	11.85	23.10	21	4	45.5	65.17	-.1336	41.05	-.0250	4803.6	-3.78	.00	.0968	316.81	.	2.77	3.33
EXTN	72	12.54	23.79	21	4	46.2	296.17	-.0380	19.58	-.1155	3266.5	6.36	21.44	-.0000	65.29	.1249	1.53	5.46
EXTN	51	30.24	41.49	21	5	3.9	343.43	-.0249	-8.47	-.0209	7597.2	5.55	66.62	-.0000	49.31	.0813	-16.50	37.09
EXTN	72	64.31	75.56	21	5	38.0	275.09	-.0002	-24.33	-.0018	22512.6	4.99	7.86	.0000	113.62	.0018	-24.78	53.95
EXTN	51	79.74	90.99	21	5	53.4	324.12	-.0002	-25.15	-.0014	22960.4	4.58	57.70	.0000	96.92	.0027	-26.02	56.03
RISE	42	81.96	93.21	21	5	55.6	103.92	-.0026	-18.82	-.0023	28450.6	4.25	.00	.0034	240.74	-.0003	-26.16	56.19
EXTN	42	127.74	138.99	21	6	41.4	101.89	.0006	-22.49	-.0008	39798.4	3.99	3.73	.0000	244.96	-.0009	-27.66	55 21
SET	42	168.67	179.92	21	7	22.3	105.90	.0018	-23.77	-.0004	49301.7	3.75	2.24	-.0011	242.21	-.0013	-28.12	50.54
RISE	61	192.85	204.10	21	7	46.5	304.05	.0031	-33.49	.0001	54698.9	3.27	-.00	.0018	136.29	.001	-28.26	46.94
EXTN	51	297.99	309.24	21	9	31.7	.03	.0037	-28.64	.0000	68790.2	2.97	87.10	-.0000	180.54	.0031	-28.3	27.66
EXTN	61	457.8	469.06	21	12	11.5	2.44	.0039	-31.65	.0001	99228.4	2.55	18.08	.0000	182.18	.0035	-28.23	353 44
EXTN	72	493.62	504.87	21	12	47.3	.30	.0040	-29.43	.0001	100816.6	2.47	68.47	.0000	180.71	.0096	-28.18	345.39
RISE	11	660.49	671.74	21	15	34.2	293.87	.0040	-29.83	-.0000	130034.0	1.93	.00	.0026	127.51	.0023	-27.95	306.91
SET	51	687.92	699.17	21	16	1.6	90.00	.0039	-26.88	.0001	132416.5	2.53	11.32	-.0032	245.46	-.0013	-27.91	300.47
SET	61	703.04	714.29	21	16	16.7	60.87	.0040	-29.91	.0001	135639.6	2.42	-.00	-.0022	229.21	.0026	-27.89	296.91
SET	72	882.95	894.20	21	19	16.6	94.12	.0039	-27.34	.0001	158026.1	2.37	-.00	-.0035	242.38	-.0005	-27.67	294.13
RISE	42	892.09	903.34	21	19	25.8	255.00	.0040	-26.28	-.0001	158695.9	1.66	3.77	.0029	119.78	-.0021	-27.66	291.94
EXTN	11	931.82	943.07	21	20	5.5	.77	.0042	-29.64	.0000	161104.0	1.95	25.15	.0000	180.74	.0040	-27.62	242.41
SET	11	1200.50	1211.75	22	0	34.2	67.37	.0041	-28.60	.0001	193556.2	2.05	.01	-.0027	234.13	.0024	-27.35	177.38
EXTN	42	1316.86	1328.11	22	2	30.5	359.96	.0042	-26.99	.0000	199385.4	1.69	81.77	.0000	29	-.0233	-27.25	149.02
RISE	51	1451.86	1463.11	22	4	45.5	270.00	.0041	-26.50	-.0000	217791.7	1.26	11.17	.0034	114 19	-.0014	-27.14	116.00
RISE	72	1606.91	1618.16	22	7	20.6	265.97	.0041	-25.79	-.0000	233815.5	1.15	-.01	.0036	117.07	-.0005	-27.02	77.94
RISE	61	1689.09	1700.34	22	8	42.8	296.03	.0041	-28.08	-.0000	241408.1	1.23	.00	.0025	128.07	.0027	-26.97	57.76
SET	42	1739.76	1751.01	22	9	33.4	105.00	.0041	-26.03	.0000	245609.7	1.83	3.62	-.0029	240.42	-.0022	-26.93	45.29
EXTN	51	1807.83	1819.08	22	10	41.5	359.14	.0042	-26.92	.0000	245810.8	1.47	88.59	.0021	146 82	.1270	-26.89	28.53
EXTN	61	1942.06	1953.31	22	12	55.7	.33	.0042	-28.09	.0000	261489.7	1.43	21.67	-.0000	180.31	.0040	-26.80	355.43
EXTN	72	1982.01	1993.26	22	13	35.7	.10	.0042	-27.23	.0000	261301.1	1.42	70.67	-.0000	180.28	.0112	-26.78	345.57
RISE	11	2124.24	2135.49	22	15	57.9	291.60	.0042	-27.55	-.0000	279107.9	1.07	.00	.0028	124.18	.0024	-26.70	310.44
SET	51	2170.56	2181.81	22	16	44.2	90.00	.0041	-26.18	.0000	281778.5	1.73	11.04	-.0034	246 12	-.0015	-26.67	298.98
SET	61	2194.82	2206.07	22	17	8.5	63.79	.0042	-27.60	.0000	284977.9	1.63	-.00	-.0025	232.24	.0027	-26.66	292.98
SET	72	2356.08	2367.33	22	19	49.7	93.95	.0041	-26.39	.0000	297894.3	1.72	-.00	-.0036	243.33	-.0005	-26.53	253.08
RISE	42	2356.79	2368.04	22	19	50.5	255.00	.0041	-25.83	.0000	297962.1	.99	3.90	.0029	119.42	-.0023	-26.58	252.90
EXTN	11	2397.04	2408.29	22	20	30.7	.22	.0042	-27.63	.0000	298215.5	1.30	27.18	-.0000	180.22	.0042	-26.54	242.93
SET	11	2669.69	2680.94	23	1	3.4	68.77	.0042	-27.17	.0000	321889.5	1.55	-.00	-.0028	236.03	.0024	-26.43	175.35
EXTN	42	2775.88	2787.13	23	2	49.5	359.98	.0042	-26.21	.0000	323475.1	1.22	80.99	-.0010	.15	-.0159	-26.38	149.00
RISE	51	2906.35	2917.60	23	5	.0	270.00	.0041	-25.91	-.0000	337911.8	.82	10.94	.0034	113.63	-.0015	-26.33	116.61
RISE	72	3059.81	3071.06	23	7	33.5	266.09	.0042	-26.11	-.0000	350042.2	.72	-.00	.0037	116.38	-.0005	-26.27	78.43
RISE	61	3135.96	3147.21	23	8	49.6	295.93	.0042	-26.99	-.0000	355794.1	.84	.00	.0026	126.48	.0027	-26.24	59.43
SET	42	3194.30	3205.55	23	9	48.0	105.00	.0041	-25.61	.0000	358750.4	1.45	3.36	-.0010	240.76	-.0023	-26.22	44.87
EXTN	51	3259.56	3270.81	23	10	53.2	359.08	.0042	-26.21	.0000	357184.6	1.11	89.05	.0033	170.12	.1134	-26.20	28.58
EXTN	61	3391.61	3402.86	23	13	5.3	.14	.0042	-27.07	.0000	369888.6	1.12	22.69	-.0000	180.14	.0041	-26.17	355.61
EXTN	72	3431.67	3442.92	23	13	45.3	.07	.0042	-26.46	.0000	369020.9	1.12	71.44	-.0012	180.21	.0115	-26.15	345.70
RISE	11	3567.93	3579.18	23	16	1.6	290.82	.0042	-26.73	-.0000	384218.1	.83	.00	.0029	123.40	.0024	-26.12	311.53
SET	51	3619.43	3630.68	23	16	53.1	90.00	.0042	-25.74	.0000	386575.4	1.55	10.87	-.0035	246.53	-.0015	-25.10	298.63
SET	61	3646.89	3658.14	23	17	20.6	64.73	.0042	-26.77	.0000	389713.0	1.48	-.00	-.0026	233.84	.0027	-26.09	291.74
IMPACT		3763.59	3774.84	23	19	17.3												
IMPC	42	3763.59	3774.84	23	19	17.3	265.92	.0043	-25.46	-.0000	399539.8	1.75	-3.04	.0027	124.36	-.0026	-26.06	248.30
IMPC	72	3763.59	3774.84	23	19	17.3	84.37	.0043	-25.99	.0000	399861.5	2.50	8.48	-.0039	244.75	-.0003	-26.06	262.30
IMPC	11	3763.59	3774.84	23	19	17.3	340.97	.0044	-26.85	.0000	39648[illegible].5	1.96	25.28	.0012	160.84	.0041	-26.06	262.30

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	21	4	33.664	6600.578	25.9191	307.4071	10.95038	-5.2034	102.0185	105.3668
SEPARATION		1.20	12.45	21	4	34.964	6551.125	24.2874	314.9443	10.99079	-1.7936	105.1791	112.0849
RETRO		3.20	14.45	21	4	36.864	6575.708	20.8153	325.9442	10.97008	3.9289	109.7595	124.7868
EXIT	SHA	8.63	19.88	21	4	42.290	7255.073	9.2026	351.2330	10.43984	18.185-	116.9601	151.9560
IMPACT		3763.59	3774.84	23	19	17.250	399252.391	-26.0619	268.3009	2.22334	68.8446	278.5985	283.7328

DEC 21, 1965
MIT DRAPER

SURVEYOR VIEW PERIODS

GHA	91.3278				EPS-168.9586							LOM	256.4269
SX	.213819	SY	-.872549	SZ	-.439254	DAO	-26.05630	RAO	283.76854	RM	6000566.090	LAT	28.310600	LON	279.461800
CS	-.892447	ECC	.985347	SLR	12995.432	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.232949	NSY	-.86/852	NSZ	-.438825	C3M	1.5512	VIM	2.6815	ZAE	141.939	B.T	.0000	B.R	-.0000
LATE	4.2141	LONE	2.8446	LATS	-.7687	LONS	172.3183	LATI	-1.3139	LONI	325.1603	RSM	166.7511	TTAN	6.7741
LAUNCH DATE		DEC	21.1965		BASE AZM	90.0		TF	62.743			ARRIVAL DATE		DEC	23 1965 19 40 1.5

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
90.00	4 46 36.4	27.8	24.68	307.48	-5.11	111.50	104.33	4 57 51.4	6557.6	10.99	-2.53

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW														
INJECTION	.00	11.25	21	4	57.9												
SEPARATION	1.20	12.45	21	4	59.1												
RETRO	5.20	16.45	21	5	1.1												
RISE 72	5.73	16.98	21	5	3.6	68.89	-.4351	68.92	.0946	2678.6	-5.68	-.00	.1084	340.40	.1473	13.56	357.99
EXIT SMA	7.65	18.90	21	5	5.5												
EXIT 72	7.65	18.90	21	5	5.5	355.28	-.5501	67.91	-.1458	2223.8	-1.90	14.11	.1279	1.83	.2252	9.40	346.22
EXIT 61	7.65	18.90	21	5	5.5	28.39	-.2108	-49.66	-.0259	3846.0	3.63	-3.30	.0255	197.96	-.1368	9.40	346.22
RISE 51	11.54	22.79	21	5	9.4	69.05	-.1176	36.57	-.0275	5070.7	-3.51	-.00	.0943	311.41	.0279	1.77	359.84
RISE 61	11.91	23.16	21	5	9.8	347.41	-.1078	-49.07	.0155	5252.1	6.59	.01	.0035	171.79	-.0722	1.13	.95
EXTM 72	11.92	23.17	21	5	9.8	306.91	-.0597	20.86	-.1298	2912.4	5.94	30.45	.0000	60.08	.1639	1.11	.97
EXTM 61	15.41	24.66	21	5	11.3	338.95	-.0819	-47.64	.0157	5842.1	6.94	.15	-.0000	166.00	-.0574	-1.34	5.15
SET 61	15.26	26.51	21	5	13.1	331.16	-.0602	-45.99	.0139	6624.7	7.15	-.00	-.0025	160.42	-.0440	-4.05	9.77
EXTM 51	32.61	43.86	21	5	30.5	348.19	-.0211	-11.93	-.0157	8564.7	5.46	72.25	-.0000	41.09	.0851	-17.90	34.70
EXTM 72	64.92	76.17	21	6	2.8	280.84	-.0001	-24.96	-.0016	22427.1	4.95	13.12	.0000	113.90	.0016	-24.78	48.75
EXTM 51	82.12	93.37	21	6	20.0	330.87	-.0002	-25.55	-.0012	25598.1	4.52	63.80	.0000	96.02	.0028	-26.08	50.75
RISE 61	162.38	173.63	21	7	40.2	304.70	.0028	-33.93	.0002	48377.1	3.50	-.00	.0016	136.99	.0017	-27.98	45.73
EXTM 51	268.83	280.08	21	9	26.7	.00	.0036	-28.57	.0000	63679.0	3.07	87.17	.0000	180.31	.0027	-28.31	27.68
EXTM 61	432.64	443.89	21	12	10.5	2.62	.0039	-31.75	.0001	95500.1	2.60	17.97	.0000	182.34	.0035	-28.19	353.28
EXTM 72	468.24	479.49	21	12	46.1	.35	.0040	-29.45	.0001	97155.1	2.52	68.45	.0000	180.82	.0095	-28.15	345.35
RISE 11	636.17	647.42	21	15	34.0	293.90	.0040	-29.86	-.0000	126895.2	1.96	.00	.0026	127.54	.0023	-27.93	306.82
SET 51	663.04	674.29	21	16	.9	90.00	.0039	-26.84	.0001	129255.1	2.56	11.31	-.0032	245.50	-.0013	-27.89	300.54
SET 61	678.14	689.39	21	16	16.9	60.83	.0040	-29.94	.0001	132699.1	2.44	-.00	-.0022	229.17	.0026	-27.87	296.99
SET 72	858.61	869.86	21	19	16.5	94.11	.0039	-27.52	.0001	155221.6	2.39	-.00	-.0035	242.40	-.0005	-27.66	254.18
RISE 42	868.12	879.37	21	19	26.0	254.99	.0040	-26.24	-.0001	155950.1	1.68	3.74	.0029	119.75	-.0021	-27.65	251.91
EXTM 11	907.83	919.08	21	20	5.7	.79	.0042	-29.65	.0000	158402.0	1.96	25.13	-.0000	180.76	.0040	-27.60	242.39
SET 11	1176.65	1187.90	22	0	34.5	67.37	.0041	-28.60	.0001	191179.7	2.07	.01	-.0027	234.13	.0024	-27.34	177.41
EXTM 42	1293.18	1304.43	22	2	31.0	359.96	.0042	-26.98	.0000	197068.8	1.70	81.76	.0000	.29	-.0228	-27.24	149.02
RISE 51	1428.32	1439.57	22	4	46.2	270.00	.0041	-26.48	-.0000	215581.3	1.27	11.16	.0034	114.17	-.0014	-27.13	115.98
RISE 72	1583.44	1594.69	22	7	21.5	265.98	.0041	-26.78	-.0000	231704.2	1.16	-.01	.0036	117.06	-.0005	-27.01	77.95
RISE 61	1665.62	1676.87	22	8	43.5	296.85	.0041	-28.08	-.0000	239341.3	1.26	.00	.0025	128.06	.0027	-26.96	57.75
SET 42	1716.23	1727.48	22	9	34.1	105.00	.0041	-26.61	.0000	243564.4	1.64	3.61	-.0029	240.43	-.0022	-26.92	45.50
EXTM 51	1784.40	1795.65	22	10	42.5	359.15	.0042	-26.91	.0000	243808.6	1.48	88.60	.0021	146.94	.1284	-26.88	28.52
EXTM 61	1918.63	1929.88	22	12	56.5	.33	.0042	-28.09	.0000	259548.9	1.44	21.67	-.0000	180.31	.0040	-26.80	355.43
EXTM 72	1958.58	1969.83	22	13	36.4	.10	.0042	-27.23	.0000	259378.3	1.43	70.68	-.0000	180.28	.0111	-26.77	345.57
RISE 11	2100.86	2112.11	22	15	58.7	291.60	.0042	-27.55	-.0000	277328.3	1.07	.00	.0028	124.48	.0024	-26.69	310.43
SET 51	2147.14	2158.39	22	16	45.0	90.00	.0041	-26.17	.0000	279933.5	1.74	11.04	-.0034	246.13	-.0015	-26.67	298.99
SET 61	2171.42	2182.67	22	17	9.5	63.75	.0042	-27.60	.0000	283143.2	1.64	-.00	-.0025	232.64	.0027	-26.65	292.99
SET 72	2332.69	2343.94	22	19	50.5	93.95	.0041	-26.39	.0000	296119.1	1.73	-.00	-.0036	243.34	-.0005	-26.57	253.08
RISE 42	2338.46	2344	22	19	51.3	255.00	.0041	-25.82	-.0000	295792.9	.99	3.49	.0029	119.41	-.0022	-26.57	252.89
EXTM 11	2373.69	2384.94	22	20	31.5	.22	.0042	-27.63	.0000	296458.0	1.31	27.16	-.0000	180.22	.0042	-26.55	242.93
SET 11	2646.36	2657.61	23	1	4.2	68.77	.0042	-27.17	.0000	320220.3	1.55	-.00	-.0028	236.03	.0024	-26.42	175.35
EXTM 42	2752.58	2763.83	23	2	50.4	359.98	.0042	-26.20	.0000	321839.3	1.22	80.98	-.0000	.16	-.0139	-26.38	149.00
RISE 51	2883.09	2894.34	23	5	.9	270.00	.0041	-25.90	-.0000	336314.2	.82	10.93	.0034	113.63	-.0015	-26.32	116.60
RISE 72	3036.67	3047.92	23	7	34.5	266.10	.0042	-26.11	-.0000	348545.8	.72	-.00	.0037	116.38	-.0005	-26.26	78.42
RISE 61	3112.78	3124.03	23	8	50.6	295.53	.0042	-26.99	-.0000	353697.8	.84	.00	.0026	126.48	.0027	-26.24	59.43
SET 42	3171.09	3182.34	23	9	48.9	105.00	.0041	-25.60	.0000	357252.9	1.45	3.35	-.0030	240.76	-.0023	-26.22	44.88
EXTM 51	3237.67	3248.92	23	10	55.5	359.42	.0042	-26.21	.0000	355773.7	1.12	89.30	.0028	132.03	.2061	-26.20	28.26
EXTM 61	3368.38	3379.63	23	13	6.2	.14	.0042	-27.07	.0000	368378.6	1.12	22.69	-.0000	180.14	.0041	-26.16	355.61
EXTM 72	3408.44	3419.69	23	13	46.3	.07	.0042	-26.46	.0000	367504.6	1.12	71.44	-.0000	180.20	.0116	-26.15	345.60
RISE 11	3544.72	3555.97	23	16	2.6	290.82	.0042	-26.73	-.0000	382656.9	.82	.00	.0029	123.40	.0024	-26.11	311.52
SET 51	3596.20	3607.45	23	16	54.1	90.00	.0042	-25.73	.0000	384974.4	1.53	10.87	-.0035	246.53	-.0015	-26.10	298.63
SET 61	3623.66	3634.91	23	17	21.5	64.72	.0042	-26.78	.0000	388080.9	1.46	-.00	-.0026	233.83	.0027	-26.09	291.75
IMPACT	3764.58	3775.83	23	19	42.4												
IMPC 42	3764.58	3775.83	23	19	42.4	251.96	.0043	-25.48	-.0000	399125.3	1.73	1.14	.0030	120.85	-.0024	-26.06	256.23
IMPC 72	3764.58	3775.83	23	19	42.4	90.46	.0043	-25.94	.0000	398912.9	2.49	3.04	-.0038	244.22	-.0005	-26.06	256.23
IMPC 11	3764.58	3775.83	23	19	42.4	346.74	.0044	-26.86	.0000	396400.4	1.99	26.68	.0008	166.76	.0043	-26.06	256.23

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	21	4	57.857	6557.650	24.6839	307.4732	10.98541	-2.5342	104.3239	111.4978
SEPARATION	1.20	12.45	21	4	59.057	6546.284	22.7976	314.4493	10.99489	.8980	107.2574	118.7747
RETRO	5.20	16.45	21	5	1.057	6632.186	19.0005	325.4970	10.92292	6.5720	111.3917	130.3237
EXIT SMA	7.65	18.90	21	5	5.510	7248.792	9.3961	346.2227	10.44439	18.0903	116.8299	152.1658
IMPACT	3764.58	3775.83	23	19	42.436	399302.332	-26.0567	256.2254	2.22077	68.5524	272.2981	283.9708

SURVEYOR VIEW PERIODS

GMA	91.3278					EPS=168.7830								LOP	251.0397
SX	.217138	SY	-.871704	SZ	-.439180	DAO	-26.05161	RAO	283.98653	RM	400607.512	LAT	28.310600	LCN	279.461800
C3	-.821449	ECC	.985357	SLR	12993.497	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TP	675.00000	MCL	-.0
NSX	.236253	NSY	-.867010	NSZ	-.438724	C3M	1.5519	VIM	2.6816	ZAE	141.943	B.T	.0000	B.R	-.0000
LATE	4.2322	LONE	2.8286	LATS	-.7690	LONS	172.1157	LATI	-1.3315	LONI	325.1533	RSM	146.7512	TIAN	6.7739
LAUNCH DATE		DEC	21,1965		BASE AZM	93.0		TF	62.746			ARRIVAL DATE		DEC 23 1965	20 3 10,9

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
93.00	5 6 14.0	27.9	23.48	307.32	-.79	116.26	106.53	5 17 29.0	6545.0	11.00	-.39

EVNT STA	TFI	TFL	DAY PRORE	HR IN	MIN EARTH'S	HA SHADOW	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
INJECTION	.00	11.25	21	5	17.5												
SEPARATION	1.20	12.45	21	5	18.7												
RETRO	3.20	14.45	21	5	20.7												
RISE 72	5.23	16.48	21	5	22.7	75,66	-.2945	60.72	.0782	2773,6	-6,47	.00	.1162	331.72	.1155	12.81	334.50
EXIT SHA	6.89	18.14	21	5	24.4												
EXIT 72	6.89	18.14	21	5	24.4	32,51	-.5447	64.60	-.0313	2253,3	-3.78	13,53	.1541	346.28	.1834	9.20	341.31
EXIT 61	6.89	18.14	21	5	24.4	40,38	-.1941	-47.43	-.0396	4014,7	2.80	-4,72	.0307	206.09	-.1341	9.20	341.51
RISE 61	11.18	22.43	21	5	28.7	358,63	-.1187	-49.75	.0094	5236,5	6,09	.00	.0080	179.11	-.0768	.82	356.31
RISE 51	11.34	22.59	21	5	28.8	72,12	-.1057	32.48	-.0301	5300,0	-3.25	.00	.0920	306.59	.0202	.53	356.80
EXTM 72	11.48	22.73	21	5	29.0	317,92	-.0861	20.38	-.1391	2646,5	5.55	39,88	-.0000	54.95	.2096	.31	357.19
EXTM 61	14.71	25.96	21	5	32.2	339,61	-.0665	-47.19	.0125	6627,9	6,86	.71	-.0000	166.30	-.0469	-4.63	5.55
SET 61	20.32	31.57	21	5	37.8	324,01	-.0322	-43.71	.0081	8969,8	6,93	.00	-.0032	154.87	-.0244	-10.92	16.40
EXTM 51	35.14	46.39	21	6	52.6	351,96	-.0181	-15.26	-.0119	9548,9	5.39	77,11	-.0000	37.22	.0947	-19.50	32.64
EXTM 72	66.06	77.31	21	8	23.5	285,71	-.0000	-25.95	-.0014	22543,0	4.90	17,54	.0000	114.80	.0015	-25.22	44.49
EXTM 51	84.75	96.00	21	9	42.2	336,49	-.0001	-26.30	-.0011	24325,2	4.46	68,89	.0000	96.70	.0030	-26.50	46.36
RISE 61	137.87	149.12	21	12	35.4	305,83	.0024	-34.67	.0003	43000,2	3.72	-,00	.0014	138.18	.0014	-27.91	44.03
EXTM 51	244.23	255.48	21	17	21.7	360,00	.0034	-28.72	.0000	59215,1	3.17	87,02	.0000	179.66	.0134	-28.43	27.69
EXTM 61	412. 3	423.78	21	22	10.0	2,88	.0039	-31.99	.0001	92483,3	2,64	17,72	.0000	182.56	.0035	-28.32	353.04
EXTM 72	447.48	458.73	21	22	45.0	,38	.0040	-29.62	.0001	94113,1	2,56	68,28	.0000	180.91	.0094	-28.27	345.31
RISE 11	616.92	628.17	21	15	34.4	294,05	.0040	-30,00	-.0000	124384,6	1.99	.00	.0026	127.74	.0023	-28.03	306.63
SET 51	642.78	654.03	21	16	.3	90,00	.0038	-26,92	.0001	126644,1	2,59	11,34	-.0032	245.42	-.0013	-27.99	300.60
SET 61	657.21	668.46	21	16	14.7	60,64	.0039	-30,09	.0001	129824,7	2,47	-,00	-.0022	228.95	.0026	-27.97	297.22
SET 72	838.90	850.15	21	19	16.4	94,13	.0039	-27.39	.0001	152931,9	2.41	-,00	-.0035	242.32	-.0005	-27.74	254.21
RISE 42	848.67	859.92	21	19	26.2	254,99	.0040	-26,30	-.0001	153697,3	1.70	3,78	.0029	119.79	-.0021	-27.73	251.88
EXTM 11	888.46	899.71	21	20	5.9	,83	.0041	-29.76	.0000	156214,3	1,98	25,03	-.0000	180.80	.0040	-27.68	242.35
SET 11	1156.98	1168.23	22	0	34.5	67,29	.0041	-28,67	.0001	189118,5	2,08	,01	-.0026	234.03	.0024	-27.40	177.50
EXTM 42	1273.95	1285.20	22	2	31.4	359,96	.0042	-27.03	.0000	195180,8	1.71	81,81	.0000	.30	-.0235	-27.29	149.02
RISE 51	1409.22	1420.47	22	4	46.7	270,00	.0041	-26,52	-.0000	213782,3	1,28	11,16	.0034	114.21	-.0014	-27.17	115.97
RISE 72	1564.36	1575.61	22	7	21.8	265,97	.0041	-26.82	-.0000	229987,3	1.17	-,01	.0036	117.10	-.0005	-27.05	77.94
RISE 61	1646.79	1658.04	22	8	44.3	296,89	.0041	-28.12	-.0000	237686,1	1.26	.00	.0025	128.13	.0027	-26.99	57.69
SET 42	1697.11	1708.36	22	9	34.6	105,00	.0041	-26,04	.0000	241902,8	1.84	3,62	-.0029	240.41	-.0022	-26.96	45.31
EXTM 51	1765.21	1776.46	22	10	42.7	359,11	.0042	-26,94	.0000	242171,3	1.49	88,56	.0021	146.72	.1239	-26.91	28.55
EXTM 61	1899.64	1910.89	22	12	57.1	,34	.0042	-28,13	.0000	257985,8	1.45	21,63	-.0000	180.32	.0040	-26.83	355.42
EXTM 72	1939.57	1950.82	22	13	37.1	,11	.0042	-27.26	.0000	257825,3	1.43	70,64	-.0000	180.29	.0112	-26.80	345.57
RISE 11	2082.01	2093.26	22	15	59.5	291,63	.0042	-27.58	-.0000	275836,6	1.08	.00	.0028	124.52	.0024	-26.72	310.40
SET 51	2128.11	2139.36	22	16	45.6	90,00	.0041	-26,19	.0000	278442,4	1.75	11,05	-.0034	246.11	-.0015	-26.69	299.00
SET 61	2152.27	2163.52	22	17	9.7	63,71	.0042	-27.63	.0000	281650,2	1.65	-,00	-.0025	232.60	.0027	-26.68	293.03
SET 72	2313.70	2324.95	22	19	51.2	93,95	.0041	-26,41	.0000	294689,9	1.73	-,00	-.0036	243.32	-.0005	-26.59	253.09
RISE 42	2314.51	2325.76	22	19	52.0	255,00	.0041	-25,84	-.0000	294365,6	1.00	3.50	.0029	119.43	-.0022	-26.59	252.89
EXTM 11	2354.75	2366.00	22	20	32.2	,23	.0042	-27.66	.0000	295047,0	1.31	27.13	-.0000	180.23	.0042	-26.57	242.92
SET 11	2627.33	2638.58	23	1	4.8	68,75	.0042	-27.18	.0000	318874,5	1.56	-,00	-.0028	236.01	.0024	-26.44	175.37
EXTM 42	2733.64	2744.89	23	2	51.1	359,98	.0042	-26,21	.0000	320526,9	1.22	81,00	-.0000	.15	-.0158	-26.39	149.00
RISE 51	2864.18	2875.43	23	5	1.7	270,00	.0041	-25,91	-.0000	335034,6	.82	10,94	.0034	113.64	-.0015	-26.33	116.60
RISE 72	3017.92	3029.17	23	7	35.4	266,10	.0042	-26,11	-.0000	347369,2	.72	,00	.0037	116.38	-.0005	-26.27	78.41
RISE 61	3094.03	3105.28	23	8	51.5	295,54	.0042	-27,00	-.0000	352524,4	.84	,00	.0026	126.49	.0027	-26.24	59.42
SET 42	3152.27	3163.52	23	9	49.8	105,00	.0041	-25,60	.0000	356075,8	1.45	3,35	-.0030	240.76	-.0023	-26.22	44.88
EXTM 51	3217.63	3228.83	23	10	55.1	359,11	.0042	-26,21	.0000	354516,0	1.11	89,07	.0033	120.80	.1182	-26.20	28.56
EXTM 61	3349.55	3360.80	23	13	7.0	,14	.0042	-27,08	.0000	367196,3	1.11	22,69	-.0000	180.14	.0041	-26.17	355.61
EXTM 72	3389.59	3400.84	23	13	47.1	,07	.0042	-26,47	.0000	366317,4	1.12	71,44	-.0000	180.20	.0116	-26.15	345.60
RISE 11	3525.89	3537.14	23	16	3.4	290,82	.0042	-26.74	-.0000	381440,9	.81	,00	.0029	123.41	.0024	-26.12	311.52
SET 51	3577.33	3588.58	23	16	54.8	90,00	.0042	-25,73	.0000	383732,1	1.52	10,87	-.0035	246.53	-.0015	-26.10	298.64
SET 61	3604.79	3616.04	23	17	22.3	64,72	.0042	-26,78	.0000	386819,0	1.44	-,00	-.0026	233.83	.0027	-26.09	291.76
RISE 42	3758.03	3769.28	23	19	55.5	255,00	.0043	-25,50	-.0000	398169,8	1.41	3,29	.0030	119.16	-.0023	-26.05	253.18
SET 72	3759.46	3770.71	23	19	56.9	93,87	.0043	-25,92	.0000	398685,8	2.21	.00	-.0038	243.82	-.0006	-26.05	252.81
IMPACT	3764,78	3776.03	23	20	2.3												
IMPC 42	3764,78	3776.03	23	20	2.3	256,73	.0043	-25,51	-.0000	398787,6	1.72	4,54	.0031	118.21	-.0023	-26.05	251.44
IMPC 72	3764,78	3776.03	23	20	2.3	95,23	.0043	-25,91	.0000	399426,2	2.49	-1,21	-.0038	243.63	-.0006	-26.05	251.44
IMPC 11	3764,78	3776.03	23	20	2.3	351,59	.0044	-26,86	.0000	396366,7	2,01	27,43	.0005	171.54	.0044	-26.05	251.44

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	21	5	17.483	6544,977	23.4785	307.3188	10,99609	-.3934	106.5317	116.2635
SEPARATION	1.20	12.45	21	5	18.683	6563,212	21,3529	314.1317	10,98062	3.0362	109.2478	123.3772
RETRO	3.20	14.45	21	5	20.683	6696,979	17.2728	324.7964	10.86958	8.6418	112.9535	134.5433
EXIT SHA	6.89	18.14	21	5	24.368	7244,799	9.2011	341.5857	10,44732	18.0424	117.0316	152.1764
IMP. CT	3764,78	3776.03	23	20	2.264	399341,945	-26.0525	251.4422	2,21879	68.2973	272.2557	284.1582

DEC 21, 1965
93 DEGREES

SURVEYOR VIEW PERIODS

GHA	91.3278				EPS-168.6445							LOM	246.6368
SX	.219757	SY	-.871138	SZ	-.439119	DAO	-26,04767	RAO	284.15828	RM	400640.074	LAT	28.510600	LON	279.461800
CS	-.892420	ECC	.985347	SLR	12993.436	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.258865	NSY	-.866334	NSZ	-.438645	C3M	1.3524	VIM	2.6817	ZAE	141.913	B.T	.0000	B.R	-.0000
LATE	4.2464	LONE	2.8154	LATS	-.7693	LONS	171.9610	LATI	-1.4567	LONI	325.1304	RSM	146.7513	TTAN	6.7741
LAUNCH DATE		DEC	21,1965		BASE AZM	96.0		TF	62.764			ARRIVAL DATE		DEC	25 1965 20 21 25.8

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
96.00	5 21 32.1	28.0	22.30	307.02	2.52	1.9.80	108.68	5 32 47.1	6547.8	10.99	1.25

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
				PROBE IN EARTH'S SHADOW														
INJECTION		.00	11.25	21	5	32.8												
SEPARATION		1.20	12.45	21	5	34.0												
RETRO		3.20	14.45	21	5	36.0												
RISE	7Z	4.87	16.12	21	5	37.7	79.02	-.2349	53.91	.0572	2858.5	-6.96	.00	.1212	324.67	.0880	11.83	331.69
EXIT	SHA	6.30	17.55	21	5	39.1												
EXIT	7Z	6.30	17.55	21	5	39.1	52.25	-.5924	57.50	.0080	2337.3	-5.03	12.24	.1651	334.08	.1364	8.65	337.66
EXTM	7Z	11.17	22.42	21	5	44.0	328.48	-.1122	17.08	-.1420	2455.2	5.22	49.54	-.0000	50.17	.2739	-.44	354.05
RISE	51	11.21	22.46	21	5	44.0	74.71	-.0968	28.69	-.0325	5487.2	-3.03	-.01	.0899	302.20	.0138	-.92	354.17
RISE	61	12.08	23.33	21	5	44.9	358.18	-.0997	-49.74	.0083	5854.4	6.20	.01	.0067	178.82	-.0646	-2.34	356.55
EXTM	61	16.14	27.39	21	5	48.9	339.97	-.0552	-47.29	.0101	7450.8	6.77	.67	-.0000	166.57	-.0388	-7.93	5.96
SET	61	22.87	34.12	21	5	55.7	324.68	-.0259	-43.96	.0064	10186.6	6.69	.00	-.0024	155.41	-.0196	-14.24	17.10
EXTM	51	37.57	48.82	21	6	10.4	354.98	-.0158	-18.44	-.0092	10460.1	5.32	81.35	-.0000	35.49	.1173	-21.22	30.87
EXTM	7Z	67.34	78.59	21	6	40.1	289.66	.0000	-27.24	-.0011	22748.2	4.85	21.05	.0000	116.21	.0012	-26.02	41.11
EXTM	51	87.62	98.87	21	7	.4	340.98	.0000	-27.65	-.0009	25122.6	4.40	72.92	.0000	99.63	.0029	-27.23	42.85
RISE	61	120.37	131.62	21	7	33.2	307.44	.0020	-35.70	.0004	38978.2	3.91	-.00	.0015	139.85	.0011	-28.14	41.95
EXTM	51	224.25	235.50	21	9	17.0	.01	.0033	-29.13	.0000	55473.8	3.26	86.61	.0000	180.29	.0162	-28.78	27.68
EXTM	61	397.37	408.62	21	12	10.2	3.22	.0039	-32.58	.0001	90197.2	2.68	.12	.0000	182.85	.0034	-28.60	352.72
EXTM	7Z	431.40	442.65	21	12	44.2	.45	.0040	-29.95	.0001	91727.3	2.5	3	-.0000	181.05	.0092	-28.54	345.25
RISE	11	602.58	613.83	21	15	35.4	294.31	.0040	-30.26	-.0000	122494.2	2.0	0	.0026	128.08	.0023	-28.25	306.33
SET	51	626.98	638.23	21	15	59.8	90.00	.0038	-27.12	.0001	124576.1	2.61	...42	-.0032	245.24	-.0013	-28.21	300.65
SET	61	640.10	651.35	21	16	12.9	60.31	.0039	-30.54	.0001	127606.3	2.49	-.00	-.0022	228.57	.0026	-28.19	297.59
SET	7Z	823.65	834.90	21	19	16.4	94.16	.0039	-27.56	.0001	151139.4	2.42	-.00	-.0035	242.15	-.0004	-27.91	254.21
RISE	42	833.56	844.81	21	19	26.3	254.99	.0040	-26.45	-.0001	151919.9	1.72	3.87	.0028	119.92	-.0021	-27.90	251.85
EXTM	11	873.55	884.80	21	20	6.3	.90	.0041	-29.95	.0001	154521.2	1.99	24.84	-.0000	180.86	.0040	-27.84	242.29
SET	11	1141.39	1152.64	22	0	34.2	67.16	.0041	-28.82	.0001	187503.6	2.09	-.00	-.0026	233.85	.0024	-27.53	177.64
EXTM	42	1258.99	1270.24	22	2	31.8	359.95	.0042	-27.15	.0000	193691.4	1.72	81.93	.0000	.52	-.0243	-27.40	149.03
RISE	51	1394.38	1405.63	22	4	47.2	270.00	.0041	-26.62	-.0000	212360.8	1.29	11.22	.0034	114.30	-.0014	-27.28	115.96
RISE	7Z	1549.49	1560.74	22	7	22.3	265.95	.0041	-26.91	-.0000	228627.0	1.18	-.01	.0036	117.19	-.0005	-27.14	77.94
RISE	61	1632.43	1643.68	22	8	45.2	297.00	.0041	-28.21	-.0000	236401.7	1.27	.00	.0025	128.27	.0027	-27.08	57.57
SET	42	1682.25	1693.50	22	9	35.0	105.00	.0041	-26.12	.0000	240583.4	1.85	3.67	-.0029	240.35	-.0022	-27.04	45.32
EXTM	51	1750.06	1761.31	22	10	42.8	359.03	.0042	-27.02	.0000	240853.9	1.49	88.45	.0021	146.06	.1143	-26.99	28.63
EXTM	61	1884.92	1896.17	22	12	57.7	.36	.0042	-28.20	.0000	256753.0	1.45	21.56	.0000	180.34	.0040	-26.89	355.40
EXTM	7Z	1924.79	1936.04	22	13	37.6	.11	.0042	-27.33	.0000	256593.7	1.44	70.57	-.0000	180.30	.0111	-26.87	345.56
RISE	11	2067.49	2078.74	22	16	.3	291.69	.0042	-27.64	-.0000	274660.3	1.08	.00	.0028	124.60	.0024	-26.77	310.33
SET	51	2113.31	2124.56	22	16	46.1	90.00	.0041	-26.24	.0000	277251.4	1.75	11.07	-.0034	246.06	-.0014	-26.75	299.01
SET	61	2137.19	2148.44	22	17	10.0	63.64	.0042	-27.68	.0000	280444.5	1.65	-.00	-.0025	232.51	.0027	-26.73	293.10
SET	7Z	2298.95	2310.20	22	19	51.7	93.96	.0041	-26.45	.0000	293547.4	1.73	-.00	-.0036	243.27	-.0005	-26.64	253.09
RISE	42	2299.77	2311.02	22	19	52.6	255.00	.0041	-25.88	-.0000	293221.2	1.00	3.53	.0029	119.46	-.0022	-26.64	252.88
EXTM	11	2340.04	2351.29	22	20	32.8	.24	.0042	-27.71	.0000	293921.9	1.32	27.08	-.0000	180.24	.0042	-26.61	242.91
SET	11	2612.43	2623.68	23	1	5.2	68.72	.0042	-27.22	.0000	317783.2	1.56	-.00	-.0028	235.96	.0024	-26.47	175.41
EXTM	42	2718.90	2730.15	23	2	51.7	359.98	.0042	-26.24	.0000	319469.7	1.23	81.02	-.0000	.17	-.0151	-26.42	149.00
RISE	51	2849.46	2860.71	23	5	2.2	270.00	.0041	-25.94	-.0000	333996.4	.83	10.95	.0034	113.66	-.0015	-26.36	116.59
RISE	7Z	3003.15	3014.40	23	7	35.9	266.09	.0042	-26.15	-.0000	346359.7	.73	-.01	.0037	116.40	-.0005	-26.29	78.42
RISE	61	3079.40	3090.65	23	8	52.2	295.56	.0042	-27.02	-.0000	351526.2	.84	.00	.0026	126.52	.0027	-26.26	59.39
SET	42	3137.52	3148.77	23	9	50.3	105.00	.0041	-25.62	.0000	355071.0	1.45	3.36	-.0030	240.75	-.0023	-26.24	44.88
EXTM	51	3202.03	3213.28	23	10	54.8	358.89	.0042	-26.23	.0000	353456.4	1.11	88.89	.0034	116.28	.0849	-26.22	28.78
EXTM	61	3334.85	3346.10	23	13	7.6	.15	.0042	-27.09	.0000	366197.0	1.11	22.67	-.0000	180.15	.0041	-26.18	355.60
EXTM	7Z	3374.88	3386.13	23	13	47.7	.07	.0042	-26.48	.0000	365314.2	1.11	71.43	-.0000	180.21	.0115	-26.16	345.60
RISE	11	3511.22	3522.47	23	16	4.0	290.83	.0042	-26.74	-.0000	380422.8	.81	.00	.0029	123.42	.0024	-26.12	311.51
SET	51	3562.63	3573.88	23	16	55.4	90.00	.0042	-25.74	.0000	382695.9	1.51	10.87	-.0035	246.53	-.0015	-26.11	298.64
SET	61	3590.06	3601.31	23	17	22.8	64.71	.0042	-26.79	.0000	385769.5	1.43	-.00	-.0026	233.82	.0027	-26.10	291.77
RISE	42	3743.59	3754.84	23	19	56.4	255.00	.0042	-25.50	-.0000	396730.2	1.14	3.29	.0030	119.16	-.0023	-26.06	253.17
SET	7Z	3744.98	3756.23	23	19	57.8	93.96	.0042	-25.92	.0000	397218.9	1.91	.00	-.0038	243.82	-.0005	-26.06	252.82
IMPACT		3765.86	3777.11	23	20	18.6												
IMPC	42	3765.86	3777.11	23	20	18.6	260.67	.0043	-25.52	-.0000	398500.0	1.71	7.41	.0032	116.11	-.0023	-26.05	247.49
IMPC	7Z	3765.86	3777.11	23	20	18.6	99.18	.0043	-25.88	.0000	399845.2	2.48	-4.71	-.0038	243.03	-.0007	-26.05	247.49
IMPC	11	3765.86	3777.11	23	20	18.6	355.60	.0044	-26.86	.0000	396360.6	2.03	27.80	.0003	175.56	.0044	-26.05	247.49

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	21	5	32.784	6547.821	22.3005	307,0237	10,99371	1.2523	108.6846	119.8041
SEPARATION		1.20	12.45	21	5	33.984	6588,695	19.9483	313,6657	10,95918	4.6720	111.1900	126.7469
RETRO		3.20	14.45	21	5	35.984	6758.303	15.6079	323,9506	10.81975	10.2031	114.4946	137.5332
EXIT	SHA	6.30	17.55	21	5	39.086	7243,244	8.6524	337,6559	10,44842	18.0236	117.5591	152.0159
IMPACT		3765.86	3777.11	23	20	18.649	3993/1.902	-26.0492	247,4889	2,21810	68.2485	272.4870	284.5125

SURVEYOR VIEW PERIODS

EPS-168.5293

GHA	91.3278													LOM	242.9742
SX	.221934	SY	-.870613	SZ	-.439065	DAO	-26.04425	RAO	284.30111	RM	400667.098	LAT	28.310600	LON	279.461800
CS	-.894830	ECC	.985308	SLR	12993.17	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.241053	NSY	-.865760	NSZ	-.438581	C3M	1.5919	VIM	2.6816	ZAE	141.879	B.T	.0000	B.R	-.0000
LATE	4.2583	LONE	2.8053	LATS	-.7695	LONS	171.8330	LATI	-1.6660	LONI	325.0800	RSM	146.7513	TTAN	6.7746
LAUNCH DATE		DEC	21,1965		BASE AZM	99.0		TF	62.808			ARRIVAL	DATE DEC	25 1965	20 36 36.6

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
99.00	5 33 14.8		28.1	21.15	306.65	5.02	122.35	110.81	5 44 29.8	6557.2	10.99	2.49

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW														
INJECTION	.00	11.25	21	5	44.5												
SEPARATION	1.20	12.45	21	5	45.7												
RETRO	3.20	14.45	21	5	47.7												
RISE 72	4.62	15.87	21	5	49.1	81.12	-.2016	48.03	.0360	2928.8	-7.26	-.00	.1244	318.65	.0636	10.68	329.38
EXIT SHA	5.82	17.07	21	5	50.3												
EXIT 72	5.82	17.0	21	5	50.3	63.27	-.2944	49.95	.0100	2448.4	-5.89	10.45	.1661	324.24	.0933	7.92	334.35
EXTM 72	10.97	22.22	21	5	55.5	337.96	-.1342	13.51	-.1392	2328.8	4.96	59.38	-.0000	45.75	.3746	-2.26	351.43
RISE 51	11.14	22.39	21	5	55.6	76.95	-.0898	25.10	-.0350	5635.5	-2.85	.00	.0882	298.10	.0083	-2.55	351.90
RISE 61	15.22	26.47	21	5	59.7	348.08	-.0656	-49.14	.0088	7327.6	6.55	.00	.0022	172.23	-.0425	-8.45	1.67
EXTM 61	17.70	28.95	21	6	2.2	339.98	-.0466	-47.84	.0085	8311.3	6.67	.15	-.0000	168.71	-.0324	-11.25	6.45
SET 61	20.90	32.15	21	6	5.4	332.46	-.0328	-46.54	.0071	9592.7	6.64	.00	-.0013	161.38	-.0237	-14.20	11.67
EXTM 51	39.80	51.05	21	6	24.3	357.41	-.0143	-21.50	-.0073	11272.	5.26	85.14	-.0000	29.77	.1788	-23.04	29.36
EXTM 72	68.76	80.01	21	6	53.3	292.78	.0001	-28.75	-.0009	23034.6	4.81	23.73	.0000	118.00	.0010	-27.09	38.46
RISE 61	110.45	121.70	21	7	35.0	309.40	.0017	-36.88	.0005	36641.9	4.03	-.00	.0012	141.82	.0008	-28.72	39.73
EXTM 51	208.38	219.63	21	9	12.9	.04	.0032	-29.76	.0000	52416.8	3.34	85.98	.0000	180.54	.0364	-29.55	27.65
EXTM 61	386.49	397.74	21	12	11.0	3.65	.0038	-32.88	.0002	88558.4	2.70	16.61	.0000	183.20	.0034	-29.02	352.33
EXTM 72	419.33	430.58	21	12	43.8	.55	.0040	-30.40	.0001	89916.9	2.62	67.43	-.0000	181.24	.0089	-28.34	345.16
RISE 11	592.40	603.65	21	15	36.9	294.67	.0040	-30.61	-.0000	121134.8	2.03	.00	.0025	128.55	.0023	-28.56	305.93
SET 51	614.95	626.20	21	15	59.4	90.00	.0038	-27.42	.0001	122971.6	2.62	11.54	-.0032	244.95	-.0013	-28.52	300.70
SET 61	626.19	637.44	21	16	10.7	59.85	.0039	-30.69	.0001	125772.1	2.50	-.00	-.0021	228.04	.0026	-28.50	298.08
SET 72	812.14	823.39	21	19	16.6	94.20	.0039	-27.81	.0001	149765.1	2.43	-.00	-.0034	241.90	-.0004	-28.16	254.20
RISE 42	822.11	833.36	21	19	26.6	254.99	.0040	-26.69	-.0001	150541.3	1.73	4.02	.0028	120.10	-.0021	-28.15	251.82
EXTM 11	862.38	873.63	21	20	6.9	.99	.0041	-30.21	.0001	153242.9	2.00	24.57	-.0000	180.94	.0039	-28.08	242.20
SET 11	1129.14	1140.39	22	0	33.6	66.96	.0041	-29.02	.0001	186204.0	2.09	-.00	-.0026	233.58	.0024	-27.71	177.86
EXTM 42	1247.76	1259.01	22	2	32.3	359.98	.0042	-27.32	.0000	192541.4	1.73	82.10	-.0000	.18	-.0188	-27.57	149.00
RISE 51	1383.11	1394.36	22	4	47.6	270.00	.0041	-26.77	-.0000	211245.3	1.29	11.28	.0034	114.44	-.0014	-27.43	115.95
RISE 72	1538.15	1549.40	22	7	22.6	265.93	.0041	-27.04	-.0000	227552.4	1.18	-.01	.0036	117.32	-.0005	-27.28	77.96
RISE 61	1621.81	1633.06	22	8	46.3	297.16	.0041	-28.34	-.0000	235414.2	1.27	.00	.0025	128.46	.0027	-27.20	57.41
SET 42	1670.95	1682.20	22	9	35.4	105.00	.0041	-26.23	.0000	239535.6	1.85	3.74	-.0029	240.26	-.0022	-27.15	45.33
EXTM 51	1738.23	1749.48	22	10	42.7	358.88	.0042	-27.14	.0000	239780.6	1.50	88.28	.0022	144.67	.1011	-27.10	28.77
EXTM 61	1873.78	1885.03	22	12	58.3	.39	.0042	-28.31	.0000	255778.7	1.45	21.45	.0000	180.37	.0040	-26.99	355.37
EXTM 72	1913.57	1924.82	22	13	38.1	.12	.0042	-27.43	.0000	255612.4	1.44	70.47	-.0000	180.62	.0111	-26.96	345.56
RISE 11	2056.61	2067.86	22	16	1.1	291.78	.0042	-27.73	-.0000	273727.4	1.09	.00	.0028	124.72	.0024	-26.86	310.24
SET 51	2102.05	2113.30	22	16	46.5	90.00	.0041	-26.32	.0000	276290.0	1.75	11.10	-.0034	245.98	-.0014	-26.83	299.01
SET 61	2125.52	2136.77	22	17	10.1	63.54	.0042	-27.77	.0000	279457.2	1.65	-.00	-.0025	232.59	.0027	-26.81	293.21
SET 72	2287.74	2298.99	22	19	52.2	93.97	.0041	-26.52	.0000	292620.3	1.74	-.00	-.0036	243.21	-.0005	-26.71	253.08
RISE 42	2289.55	2299.80	22	19	53.0	255.00	.0041	-25.95	-.0000	292288.9	1.00	3.57	.0029	119.51	-.0022	-26.71	252.88
EXTM 11	2328.89	2340.14	22	20	33.4	.26	.0042	-27.78	.0000	293011.0	1.32	27.01	-.0000	180.26	.0042	-26.68	242.89
SET 11	2600.99	2612.24	23	1	5.5	68.67	.0042	-27.27	.0000	316875.3	1.56	-.00	-.0028	235.89	.0024	-26.52	175.46
EXTM 42	2707.66	2718.91	23	2	52.2	359.98	.0042	-26.29	.0000	318583.5	1.23	81.07	-.0000	.16	-.0181	-26.46	149.00
RISE 51	2838.24	2849.49	23	5	2.7	270.00	.0041	-25.97	-.0000	333126.8	.83	10.96	.0034	113.69	-.0015	-26.39	116.59
RISE 72	2991.93	3003.18	23	7	36.4	266.09	.0041	-26.16	-.0000	345273.2	.76	-.00	.0037	116.43	-.0005	-26.32	78.42
RISE 61	3068.44	3079.69	23	8	52.9	295.59	.0042	-27.04	-.0000	350753.6	.84	.00	.0026	126.55	.0027	-26.28	59.36
SET 42	3126.43	3137.68	23	9	50.9	105.00	.0041	-25.64	.0000	354283.1	1.45	3.38	-.0030	240.73	-.0023	-26.26	44.89
EXTM 51	3192.17	3203.42	23	10	56.7	359.20	.0042	-26.25	.0000	352747.0	1.11	89.12	.0031	125.49	.1424	-26.24	28.47
EXTM 61	3323.77	3335.02	23	13	8.3	.16	.0042	-27.11	.0000	365393.8	1.11	22.65	-.0000	180.16	.0041	-26.19	355.59
EXTM 72	3363.76	3375.01	23	13	48.3	.08	.0042	-26.49	.0000	364501.6	1.11	71.41	-.0000	180.22	.0115	-26.18	345.60
RISE 11	3500.13	3511.38	23	16	4.6	290.84	.0042	-26.76	-.0000	379582.6	.80	.00	.0029	123.43	.0024	-26.13	311.49
SET 51	3551.48	3562.73	23	16	56.0	90.00	.0042	-25.75	.0000	381833.9	1.51	10.87	-.0035	246.52	-.0015	-26.12	298.64
SET 61	3578.88	3590.13	23	17	23.4	64.70	.0042	-26.79	.0000	384892.9	1.42	-.00	-.0026	233.81	.0027	-26.11	291.78
RISE 42	3732.57	3743.82	23	19	57.1	255.00	.0042	-25.50	-.0000	395610.3	1.04	3.29	.0030	119.16	-.0023	-26.06	253.17
SET 72	3733.97	3745.22	23	19	58.5	93.87	.0042	-25.92	.0000	396091.4	1.80	-.00	-.0037	243.81	-.0005	-26.06	252.82
IMPACT	3768.50	3779.75	23	20	33.0												
IMPC 42	3768.50	3779.75	23	20	33.0	264.13	.0043	-25.54	-.0000	398248.9	1.70	9.97	.0032	114.31	-.0022	-26.05	244.03
IMPC 11	3768.50	3779.75	23	20	33.0	359.11	.0044	-26.85	.0000	396377.3	2.05	27.93	.0001	179.10	.0044	-26.05	244.03
EXTM 11	3772.54	3783.79	23	20	37.0	.18	.0044	-26.85	.0000	396920.3	2.57	27.94	.0000	180.18	.0045	-26.04	242.98

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION	.00	11.25	21	5	44.496	6557.223	21.1462	306.6364	10.98566	2.4923	110.8073	122.3528
SEPARATION	1.20	12.45	21	5	45.696	6614.915	18.5833	313.0868	10.93716	5.8933	113.1044	129.1040
RETRO	3.20	14.45	21	5	47.696	6810.840	13.9893	323.0204	10.77751	11.3592	116.0406	139.5390
EXIT SHA	5.82	17.07	21	5	50.321	7234.927	7.9215	334.3466	10.45436	17.9227	118.3294	151.5232
IMPACT	3768.50	3779.75	23	20	32.995	399401.781	-26.0463	244.0284	2.21539	67.9860	272.8078	284.4482

DEC 21, 1965
99 DEGREES

SURVEYOR VIEW PERIODS

GHA	91.3278					EPS-168.4336								LOM	239.9300
SX	.223743	SY	-.8701/3	SZ	-.439019	DAO	-26.04 30	RAO	264.41980	RM	400689.535	LAT	28.310500	LON	279.461800
CS	-.898184	ECC	.985253	SLR	12992.823	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.242883	NSY	-.8652/4	NSZ	-.438530	C3M	1.5514	VIM	2,6815	ZAE	141.733	B.T	.0000	B.R	-.0000
LATE	4.2681	LONE	2.7011	LATS	-.7697	LONS	1/1,6310	LATI	-1.9341	LONI	324.9137	RSM	146.7513	TTAN	6.7757
LAUNCH DATe		DEC	21,1965		BASE AZM	102.0		TF	62.865			ARRIVAL DATE		DEC 23 1965	20 49 13.7

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	5 42 11.8	28.1	20.02	306.17	6.90	124.13	112.91	5 53 26.8	6568.3	10.98	3.42

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	21	5	53.4												
SEPARATION	1.20	12.45	21	5	54.6												
RETRO	3.20	14.45	21	5	56.6												
RISE 7z	4.44	15.69	21	5	57.9	82.62	-.1797	42.77	.0176	2986.6	-7.44	.00	.1263	313.28	.0420	9.41	327.44
EXIT SHA	5.54	16.79	21	5	59.0												
EXIT 7z	5.54	16.79	21	5	59.0	68.71	-.2423	43.35	-.0037	2528.1	-6.32	9.62	.1662	316.59	.0594	6.80	331.89
EXTM 7z	10.85	22.10	21	6	4.3	346.34	-.1502	7.60	-.1320	2249.8	4.79	69.36	-.0000	41.62	.5646	-3.90	349.22
RISE 51	11.09	22.34	21	6	4.5	78.97	-.0842	21.65	-.0376	5754.8	-2.69	.00	.0857	294.18	.0033	-4.31	349.88
EXTM 51	41.85	53.10	21	6	35.3	359.34	-.0131	-24.50	-.0057	12005.7	5.21	88.63	-.0000	25.97	.5533	-24.95	28.12
EXTM 7z	69.90	81.15	21	7	3.3	295.22	.0001	-30.41	-.0007	23275.9	4.77	25.70	.0000	120.02	.0007	-28.34	36.56
RISE 61	107.62	118.87	21	7	41.1	311.50	.0015	-38.06	.0006	36011.1	4.06	-.00	.0012	143.86	.0006	-29.64	37.57
EXTM 51	196.04	207.29	21	9	9.5	.12	.0030	-30.60	.0001	49986.3	3.41	85.13	-.0000	181.25	.0305	-30.05	27.98
EXTM 61	378.96	390.21	21	12	12.4	4.15	.0038	-33.46	.0002	87441.2	2.72	16.20	.0000	183.59	.0033	-29.54	331.88
EXTM 7z	410.42	421.67	21	12	43.9	.68	.0040	-30.96	.0001	88576.0	2.64	66.93	-.0000	181.48	.0087	-29.45	345.05
RISE 11	585.45	596.70	21	15	38.9	295.11	.0040	-31.03	.0000	120200.3	2.04	.00	.0025	129.11	.0023	-28.96	305.47
SET 51	605.86	617.11	21	15	59.3	90.00	.0038	-27.80	.0001	121739.1	2.63	11.69	-.0031	244.59	-.0013	-28.91	300.74
SET 61	614.76	626.01	21	16	8.2	59.28	.0039	-31.12	.0001	124243.2	2.51	-.00	-.0021	227.59	.0026	-28.89	298.67
SET 72	803.56	814.81	21	19	17.0	94.26	.0039	-28.12	.0001	148725.0	2.44	-.01	-.0034	241.58	-.0004	-28.48	254.17
RISE 4z	813.49	824.74	21	19	26.9	254.99	.0040	-26.99	-.0000	149481.7	1.74	4.20	.0028	120.54	-.0021	-28.46	251.80
EXTM 11	854.12	865.37	21	20	7.6	1.09	.0041	-30.53	.0001	152295.8	2.01	24.26	-.0000	181.03	.0039	-28.38	242.10
SET 11	1119.50	1130.75	22	0	32.9	66.71	.0041	-29.26	.0001	185161.9	2.10	-.00	-.0026	233.26	.0024	-27.95	178.11
EXTM 4z	1239.11	1250.36	22	2	32.6	359.96	.0042	-27.54	.0000	191633.9	1.73	82.32	-.0000	.51	-.0290	-27.78	149.02
RISE 51	1374.61	1385.86	22	4	48.1	270.00	.0041	-26.96	-.0000	210377.1	1.29	11.35	.0034	114.61	-.0014	-27.61	115 94
RISE 7z	1529.54	1540.79	22	7	23.0	265.90	.0041	-27.20	-.0000	226710.1	1.19	-.01	.0036	117.49	-.0005	-27.44	77.97
RISE 61	1614.09	1625.34	22	8	47.5	297.35	.0041	-28.50	-.0000	234667.7	1.28	.00	.0025	128.69	.0027	-27.35	57.21
SET 42	1662.40	1673.65	22	9	35.8	105.00	.0041	-26.38	.0000	238710.0	1.85	3.83	-.0029	240.14	-.0022	-27.30	45.33
EXTM 51	1728.91	1740.16	22	10	42.4	358.68	.0042	-27.28	.0000	238905.7	1.50	88.06	.0023	142.86	.0872	-27.24	28.97
EXTM 61	1865.41	1876.66	22	12	58.9	.42	.0042	-28.44	.0000	255017.3	1.46	21.32	.0000	180.40	.0040	-27.12	335.34
EXTM 7z	1905.10	1916.35	22	13	38.5	.13	.0042	-27.55	.0000	254838.2	1.44	70.35	-.0000	180.34	.0110	-27.08	345.55
RISE 11	2048.53	2059.78	22	16	2.0	291.88	.0042	-27.84	-.0000	272996.8	1.09	.00	.0028	124.86	.0024	-26.96	310.13
SET 51	2093.51	2104.76	22	16	47.0	90.00	.0041	-26.42	.0000	275520.9	1.75	11.14	-.0034	245.89	-.0014	26.93	299.02
SET 61	2116.49	2127.74	22	17	9.9	63.42	.0042	-27.87	.0000	278653.4	1.65	-.00	-.0025	232.24	.0027	-26.91	293.34
SET 7z	2279.26	2290.51	22	19	52.7	93.99	.0041	-26.61	.0001	291875.7	1.74	-.00	-.0036	243.12	-.0005	-26.79	253.07
RISE 4z	2280.05	2291.30	22	19	53.5	255.00	.0041	-26.03	-.0000	291536.5	1.01	3.62	.0029	119.58	-.0022	-26.79	252.88
EXTM 11	2320.46	2331.71	22	20	33.9	.29	.0042	-27.86	.0000	292281.9	1.52	26.93	-.0000	180.29	.0042	-26.76	242.87
SET 11	2592.17	2603.42	23	1	5.6	68.60	.0042	-27.34	.0000	316123.7	1.56	.01	-.0028	235.80	.0024	-26.58	175.54
EXTM 4z	2699.13	2710.38	23	2	52.6	359.98	.0042	-26.34	.0000	317858.8	1.23	81.12	-.0000	.18	-.0179	-26.52	149.00
RISE 51	2829.73	2840.98	23	5	3.2	270.00	.0041	-26.02	-.0000	332407.7	.83	10.98	.0034	113.74	-.0015	-26.44	116.59
RISE 7z	2983.39	2994.64	23	7	36.8	266.08	.0041	-26.20	-.0000	344559.6	.76	-.00	.0037	116.47	-.0005	-26.36	78.42
RISE 61	3060.08	3071.33	23	8	53.5	295.63	.0042	-27.08	-.0000	350054.9	.84	.00	.0026	126.60	.0027	-26.32	59.32
SET 42	3117.89	3129.14	23	9	51.3	105.00	.0041	-25.66	.0000	353568.0	1.45	3.39	-.0030	240.71	-.0023	-26.29	44.89
EXTM 51	3183.40	3194.65	23	10	56.8	359.14	.0042	-26.27	.0000	352015.0	1.11	89.06	.0031	124.91	.1309	-26.27	28.53
EXTM 61	3315.31	3326.56	23	13	8.8	.18	.0042	-27.13	.0000	364675.5	1.11	22.63	-.0000	180.17	.0041	-26.21	355.58
EXTM 7z	3355.26	3366.51	23	13	48.7	.08	.0042	-26.51	.0000	363775.5	1.11	71.39	-.0000	180.23	.0116	-26.20	345.59
RISE 11	3491.69	3502.94	23	16	5.1	290.85	.0042	-26.77	-.0000	378840.6	.80	.00	.0028	123.45	.0024	-26.15	311.48
SET 51	3542.97	3554.22	23	16	56.4	90.00	.0042	-25.76	.0000	381075.1	1.50	10.88	-.0035	246.51	-.0015	-26.13	298.64
SET 61	3570.32	3581.57	23	17	23.8	64.69	.0042	-26.81	.0000	384122.7	1.42	-.00	-.0026	233.79	.0027	-26.12	291.79
RISE 4z	3724.17	3735.42	23	19	57.6	255.00	.0042	-25.50	-.0000	394691.0	.98	3.29	.0030	119.16	-.0023	-26.06	253.17
SET 7z	3725.57	3736.82	23	19	59.0	93.87	.0042	-25.92	.0000	395167.3	1.74	-.00	-.0037	243.81	-.0005	-26.06	252.82
EXTM 11	3764.32	3775.57	23	20	37.8	.16	.0043	-26.86	.0000	395561.5	1.71	27.94	.0000	180.16	.0044	-26.05	243.00
IMPACT	3771.91	3783.16	23	20	45.4												
IMPC 4z	3771.91	3783.16	23	20	45.4	267.11	.0043	-25.55	-.0000	398028.1	1.70	12.21	.0033	112.80	-.0022	-26.04	241.05
IMPC 11	3771.91	3783.16	23	20	45.4	2.14	.0044	-26.85	.0000	396402.5	2.06	27.91	-.0001	182.16	.0044	-26.04	241.05

EVNT STA	TI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	21	5	53.446	6568.510	20.0132	306.1828	10.97614	3.4245	112.9130	124.1428
SEPARATION	1.20	12.45	21	5	54.646	6638.628	17.2483	312.4390	10.91731	6.8072	115.0108	0.6998
RETRO	3.20	14.45	21	5	56.646	6853.964	12.4018	322.0486	10.74313	12.2185	117.6065	140.8108
EXIT SHA	5.54	16.79	21	5	58.987	7243.343	6.8046	331.8927	10.44808	18.0243	119.3534	151.2418
IMPACT	3771.91	3783.16	23	20	45.357	399424.633	-26.0441	241.0458	2.21410	67.9289	273.3247	284.5647

SURVEYOR VIEW PERIODS

GHA	91.3278				EPS-168.3549							LOM	237.4300
SX	.225228	SY	-.869810	SZ	-.438980	DAO	-26.03860	RAO	284.51726	RM	40707.934	LAT	28.510600	LON	279.461H00
CO	-.901651	ECC	.985196	SLR	12992.446	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSY	.244393	NSY	-.864869	NSZ	-.438490	C3M	1.5517	VIM	2.6816	ZAE	141 407	B.T	.0000	B.R	-.0000
LATE	4.2761	LONE	2.7885	LATS	-.7698	LONS	171.6381	LATI	-2.2405	LONI	124.9259	RSM	146.7514	TTAN	6.7770
LAUNCH DATE		DEC	21,1965		BASE AZM	105.0		TF	62.923			ARRIVAL DATE		DEC	25 1965 21 54 55.5

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME		INJ RAI	INJ VEL	INJ PTH
105.00	5 49	6.2	28.1	18.91	305.65	8.33	125.34	115.00	6	0 21.2	69.9.1	10.97	4.13

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
				PROBE IN EARTH'S SHADOW														
INJECTION		.00	11.25	21	6	.4												
SEPARATION		1.20	12.45	21	6	1.5												
RETRO		3.20	14.45	21	6	3.6												
RISE	72	4.31	15.56	21	6	4.7	83.79	-.1636	37.90	-.0008	3036.4	-7.51	.00	.1272	318.53	.0217	8.04	325.76
EXIT	SHA	5.30	16.55	21	6	5.7												
EXIT	72	5.30	16.55	21	6	5.7	72.82	-.2068	37.56	-.0195	2615.6	-6.58	8 58	.1630	309.83	.0295	5.62	329.68
EXTM	72	10.82	22.07	21	6	11.2	353.53	-.1600	.53	-.1218	2230.6	4.70	79.38	-.0000	37.70	1.0912	-5.73	347.36
RISE	51	11.08	22.33	21	6	11.4	80.83	-.0794	18.29	-.0401	5854.4	-2.55	.00	.0854	290.39	-.0012	-6.18	348.06
EXTM	51	43.86	55.11	21	6	44.2	.80	-.0122	-27.49	-.0045	12709.0	5.16	88.11	.0000	202.04	-.3556	-26.90	27.16
EXTM	72	70.93	82.18	21	7	11.5	297.12	.0001	-32.18	-.0004	23517.0	4.74	27.09	.0000	122.20	.0005	-29.73	34.69
EXTM	51	94.44	105.69	21	7	34.8	349.39	.0002	-31.59	-.0003	27026.0	4.29	79.01	.0000	124.62	.0018	-30.54	36 18
RISE	61	110.28	121.53	21	7	50.6	313.57	.0016	-39.16	.0007	36739.3	4.12	-.00	.0012	145.62	.0006	-30.79	35.87
EXTM	51	186 72	197.97	21	9	7.1	.28	.0029	-31.61	.0001	48123.2	3.46	84.13	-.0000	182.33	.0242	-30.92	27.44
EXTM	61	373.98	385.23	21	12	14.3	4.65	.0038	-34.11	.0002	86728.0	2.73	15.53	.0000	184.00	.0033	-30.14	351.39
EXTM	72	405.98	415.23	21	12	44.3	.84	.0039	-31.59	.0001	87610.4	2.65	66.30	-.0000	181.78	.0084	-30.02	344.90
RISE	11	580.94	592.19	21	15	41.3	295.62	.0040	-31.49	.0000	119590.8	2.05	.00	.0025	129.75	.0023	-29.41	304.96
SET	51	598.99	610.24	21	15	59.3	90.00	.0038	-28.24	.0001	120792.4	2.64	11.86	-.0031	244.18	-.0012	-29.35	300.77
SET	61	605.16	616.41	21	16	5.5	58.65	.0039	-31.60	.0002	122945.9	2.52	-.00	-.0021	226.65	.0026	-29.33	299 54
SET	72	797.15	808.40	21	19	17.5	94.33	.0039	-28.47	.0001	147940.9	2.44	-.01	-.0034	241.23	-.0004	-28.83	254.15
RISE	42	807.00	818.25	21	19	27.4	254.99	.0040	-27.34	-.0000	148666.8	1.74	4.41	.0028	120.62	-.0021	-28.81	251.78
EXTM	11	848.05	859.30	21	20	8.4	1.21	.0041	-30.88	.0001	151602.8	2.01	23.90	-.0000	181.14	.0039	-28.72	241.99
SET	11	1111.62	1123.07	22	0	32.2	66.44	.0041	-29.54	.0001	184319.2	2.10	-.00	-.0026	232.89	.0024	-28.21	178.40
EXTM	42	1232.55	1243.80	22	2	32.9	359.94	.0042	-27.78	.0000	190932.6	1.73	82.56	.0000	.42	-.0271	-28.02	149.04
RISE	51	1368.16	1379.41	22	4	48.5	270.00	.0041	-27.17	-.0000	209701.9	1.50	11.43	.0034	114.61	-.0014	-27.83	115.93
RISE	72	1522.96	1534.21	22	7	23.3	265.87	.0041	-27.39	-.0000	226050.6	1.19	-.01	.0036	117.67	-.0005	-27.63	78.00
RISE	61	1608.50	1619.75	22	8	48.9	297.57	.0041	-28.68	-.0000	234110.7	1.28	.00	.0025	128.95	.0022	-27.52	56.99
SET	42	1655.89	1667.14	22	9	36.2	105.00	.0041	-26.54	.0001	238060.5	1.86	3.93	-.0029	240.01	-.0022	-27.47	45.34
EXTM	51	1721.94	1733.19	22	10	42.3	358.56	.0042	-27.44	.0000	238232.9	1.50	87.86	.0023	143.24	.0795	-27.40	29.09
EXTM	61	1859.07	1870.32	22	12	59.4	.46	.0042	-28.58	.0000	254426.7	1.46	21.18	.0000	180.44	.0046	-27.26	355.30
EXTM	72	1898.65	1909.90	22	13	39.0	.14	.0042	-27.69	.0000	254230.8	1.44	70.21	-.0000	180.57	.0110	-27.22	3 .53
RISE	11	2042.52	2053.77	22	16	2.9	292.00	.0042	-27.96	-.0000	272430.4	1.09	.00	.0028	125.02	.0024	-27.08	310.01
SET	51	2086.99	2098.24	22	16	47.3	90.00	.0041	-26.54	.0001	274909.1	1.75	11.19	-.0034	245.78	-.0014	-27.04	299.02
SET	61	2109.40	2120.65	22	17	9.8	63.28	.0042	-27.69	.0000	278001.0	1.65	-.00	-.0025	232.07	.0027	-27.02	293.48
SET	72	2272.81	2284.06	22	19	53.2	94.00	.0041	-26.70	.0001	291282.8	1.74	-.00	-.0036	243.02	-.0005	-26.89	253.06
RISE	42	2273.55	2284.80	22	19	53.9	255.00	.0041	-26.13	-.0000	290934.1	1.01	3.68	.0029	119.66	-.0022	-26.89	252.87
EXTM	11	2314.06	2325.31	22	20	34.4	.31	.0042	-27.96	.0000	291704.4	1.32	26.83	-.0000	180.31	.0042	-26.86	242.84
SET	11	2585.37	2596.62	23	1	5.7	68.53	.0042	-27.41	.0000	315514.8	1.56	.01	-.0028	235.70	.0024	-26.65	175.61
EXTM	42	2692.59	2703.84	23	2	52.9	359.98	.0042	-26.41	.0000	317271.4	1.23	81.19	-.0000	.18	-.0202	-26.58	149.01
RISE	51	2823.20	2834.45	23	5	3.6	270.00	.0041	-26.07	-.0000	331822.2	.83	11.00	.0034	113.79	-.0015	-26.49	116.58
RISE	72	2976.83	2988.08	23	7	37.2	266.07	.0041	-26.24	-.0000	3439/5.3	.76	-.00	.0037	116.51	-.0005	-26.40	78.43
RISE	61	3053.73	3064.98	23	8	54.1	295.63	.0042	-27.11	-.0000	349485.4	.84	.00	.0026	126.66	.0027	-26.35	59.27
SET	42	3111.34	3122.59	23	9	51.7	105.00	.0041	-25.76	.0000	352979.8	1.45	3.41	-.0030	240.68	-.0023	-26.33	44.89
EXTM	51	3180.24	3191.49	23	11	.6	.00	.0042	-26.31	.0000	351652.0	1.12	89.43	-.0000	181.83	.0537	-26.30	27.68
EXTM	61	3308.84	3320.09	23	13	9.2	.19	.0042	-27.16	.0000	364084.6	1.11	22.60	-.0000	180.19	.0041	-26.24	355.56
EXTM	72	3348.74	3359.99	23	13	49.1	.08	.0042	-26.54	.0000	363175.9	1.11	71.37	-.0000	180.24	.0115	-26.22	345.59
RISE	11	3485.23	3496.48	23	16	5.6	290.87	.0042	-26.79	-.0000	378226.8	.80	.00	.0028	123.48	.0024	-26.16	311.46
SET	51	3536.44	3547.69	23	16	56.8	90.00	.0042	-25.77	.0000	380445.6	1.50	10.88	-.0035	246.50	-.0015	-26.14	298.64
SET	61	3563.73	3574.98	23	17	24.1	64.67	.0042	-26.82	.0000	383482.7	1.41	-.00	-.0026	233.77	.0027	-26.13	291.81
RISE	42	3717.72	3728.97	23	19	58.1	255.00	.0042	-25.50	-.0000	393946.3	.95	3.29	.0030	119.16	-.0023	-26.07	253.17
SET	72	3719.11	3730.36	23	19	59.5	93.87	.0042	-25.93	.0000	394419.4	1.70	-.00	-.0037	243.80	-.0005	-26.07	252.82
EXTM	11	3757.81	3769.06	23	20	38.2	.12	.0043	-26.86	.0000	394624.9	1.52	27.93	.0000	180.12	.0043	-26.05	243.04
IMPACT		3775.39	3786.64	23	20	55.7												
IMPC	42	3775.39	3786.64	23	20	55.7	269.61	.0043	-25.57	-.0000	397842.4	1.70	14.12	.0033	111.54	-.0021	-26.04	238.54
IMPC	11	3775.39	3786.64	23	20	55.7	4.68	.0044	-26.85	.0000	396433.9	2.08	27.79	-.0003	184.72	.0044	-26.04	238.54

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	21	6	.354	6579.574	18.9008	305.6764	10.96692	4.1323	115.0087	125.3681
SEPARATION		1.20	12.45	21	6	1.554	6658.930	15.9402	311.7406	10.90038	7.4988	116.9175	131.7331
RETRO		3.20	14.45	21	6	3.554	6888.778	10.8396	321.0492	10.71558	12.8657	119.1968	141.5431
EXIT	SHA	5.30	16.55	21	6	5.658	7245.647	5.6232	329.6818	10.44624	18.0518	120.5124	150.7032
IMPACT		3775.39	3786.64	23	20	55.746	399444.141	-26.0423	238.5395	2.21281	67.8570	273.9274	284.6626

SURVEYOR VIEW PERIODS

GHA	V1.3278					EPS-168.3107								LOM	236.0276
SX	.226060	SY	-.869605	SZ	-.438957	UAO	-26,0373	RAO	284.57193	RM	400/18 242	LAT	28,310000	LON	279.461800
CS	-.902146	ECC	.985188	SLR	12992.392	NCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.249229	NSY	-.864641	NSZ	-.438475	CSM	1.5959	VIM	2.6824	ZAE	141.501	B.T	.0000	H.R	-.0000
LATE	-.2806	LONE	2.6936	LATS	-.7699	LONS	171.4981	LATI	-2.5686	LONI	324.7818	RSM	146.7514	TTAN	6.7787
LAUNCH DATE		DEC	21,1965		BASE AZM	108.0		TF	62.934			ARRIVAL	DATE DEC	23 1965	21 5 24.1

LNCH A/MTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RI ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	5 54 25.7	28.1	17.83	305.09	9.42	126.11	117.09	6 5 40.7	6586.7	10.96	4.67

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
				PROBE IN EARTH'S SHADOW														
INJECTION		.00	11.25	21	6	5.7												
SEPARATION		1.20	12.45	21	6	6.9												
RETRO		3.20	14.45	21	6	8.9												
RISE	7Z	4.24	15.49	21	6	9.9	84.77	-.1507	33.27	-.0182	3081.3	-7.49	.01	.1273	303.64	.0027	6.59	324.29
EXIT	SHA	5.13	16.38	21	6	10.8												
EXIT	7Z	5.13	16.38	21	6	10.8	75.86	-.1818	31.85	-.0361	2699.3	-6.68	7.64	.1585	303.79	.0032	6.33	327.9
EXTM	7Z	10.45	21.70	21	6	16.1	3.79	-.1802	-4.39	-.1225	2160.9	-1.09	84.85	.2149	312.79	.3749	-7.02	344.71
RISE	51	11.10	22.35	21	6	16.8	82.59	-.0752	14.98	-.0426	5941.2	-2.81	.00	.0840	286.67	-.0054	-8.14	346.41
EXTM	51	46.00	57.25	21	6	51.7	1.77	-.0114	-30.46	-.0033	13441.2	5.12	85.02	-.0000	197.92	-.1193	-28.95	26.50
EXTM	7Z	71.85	83.10	21	7	17.5	298.59	.0000	-34.02	-.0002	23750.2	4.72	28.02	.0000	124.47	.0002	-31.21	33.85
EXTM	51	94.94	106.19	21	7	40.6	351.05	.0001	-33.21	-.0001	27199.8	4.28	79.22	.0000	139.92	.0001	-31.84	34.93
RISE	61	116.52	127.77	21	8	2.2	315.57	.0018	-40.16	.0007	38326.4	3.93	-.00	.0013	147.66	.0008	-32.03	34.25
EXTM	51	179.94	191.19	21	9	5.6	.50	.0028	-32.73	.0002	46757.3	3.50	82.99	.0000	183.44	.0194	-31.89	27.25
EXTM	61	370.96	382.21	21	12	16.6	5.21	.0038	-34.79	.0002	86338.1	2.74	14.82	.0000	184.43	.0032	-30.79	350.87
EXTM	7Z	399.79	410.54	21	12	45.0	1.00	.0039	-32.27	.0001	86921.7	2.66	65.61	.0000	182.04	.0081	-30.65	344.75
RISE	11	578.28	589.51	21	15	43.9	296.16	.0040	-32.00	.0000	119241.2	2.05	.00	.0025	130.43	.0023	-29.89	304.41
SET	51	593.80	605.05	21	15	59.5	90.00	.0038	-28.72	.0001	120079.8	2.04	12.05	-.0031	243.73	-.0012	-29.83	300.81
SET	61	596.97	608.22	21	16	2.6	57.91	.0039	-32.12	.0002	121840.8	2.53	-.00	-.0020	225.85	.0026	-29.82	300.07
SET	7Z	792.39	803.64	21	19	18.1	94.39	.0039	-28.86	.0001	147371.1	2.45	-.01	-.0034	240.84	-.0004	-29.22	254.08
RISE	42	802.11	813.36	21	19	27.8	254.99	.0040	-27.71	-.0000	148058.3	1.75	4.64	.0028	120.92	-.0021	-29.19	251.77
EXTM	11	843.61	854.86	21	20	9.3	1.34	.0041	-31.26	.0001	151123.6	2.02	23.52	.0000	181.25	.0039	-29.08	241.86
SET	11	1105.60	1116.85	22	0	31.3	66.15	.0041	-29.83	.0001	183659.1	2.10	-.00	-.0026	232.50	.0024	-28.50	178.71
EXTM	42	1227.57	1238.82	22	2	33.3	359.93	.0042	-28.05	.0000	190424.7	1.74	82.83	.0000	.49	-.0281	-28.28	149.04
RISE	51	1363.24	1374.49	22	4	48.9	270.00	.0041	-27.40	-.0000	209213.1	1.50	11.92	.0034	115.03	-.0014	-28.05	115.92
RISE	7Z	1317.87	1529.12	22	7	23.6	265.83	.0041	-27.59	-.0000	225576.1	1.19	-.01	.0036	117.88	-.0005	-27.83	78.03
RISE	61	1604.50	1615.75	22	8	50.4	297.81	.0042	-28.87	-.0000	233746.4	1.28	.00	.0024	129.23	.0027	-27.71	56.75
SET	42	1650.89	1662.14	22	9	36.6	105.00	.0041	-25.72	.0001	237597.1	1.66	4.04	-.0029	239.87	-.0022	-27.69	45.54
EXTM	51	1716.81	1728.06	22	10	42.5	358.52	.0042	-27.62	.0000	237777.8	1.50	87.71	.0022	145.26	.0757	-27.57	29.12
EXTM	61	1854.25	1865.50	22	12	59.9	.51	.0042	-28.74	.0000	254026.8	1.46	21.02	.0000	180.48	.0039	-27.41	355.25
EXTM	7Z	1893.69	1904.94	22	13	39.4	.15	.0042	-27.64	.0000	253813.0	1.45	70.06	-.0000	180.40	.0109	-27.36	345.52
RISE	11	2038.04	2049.29	22	16	3.7	292.13	.0042	-28.09	-.0000	272058.1	1.09	.00	.0028	125.20	.0024	-27.21	309.88
SET	51	2081.96	2093.21	22	16	47.6	90.00	.0041	-26.66	.0001	274489.2	1.76	11.23	-.0034	245.66	-.0014	-27.17	299.02
SET	61	2103.76	2115.01	22	17	9.4	63.12	.0042	-28.11	.0001	277537.8	1.65	-.00	-.0025	231.88	.0027	-27.15	293.63
SET	7Z	2267.83	2279.08	22	19	53.5	94.02	.0041	-26.81	.0001	290886.8	1.74	-.00	-.0036	242.92	-.0005	-26.99	253.04
RISE	42	2268.53	2279.78	22	19	54.2	255.00	.0041	-26.23	-.0000	290527.0	1.01	3.74	.0029	119.74	-.0022	-26.99	252.87
EXTM	11	2309.13	2320.38	22	20	34.8	.34	.0042	-28.06	.0000	291325.2	1.32	26.73	-.0000	180.54	.0042	-26.96	242.82
SET	11	2580.01	2591.26	23	1	5.7	68.46	.0042	-27.49	.0000	315109.5	1.56	.00	-.0028	235.60	.0024	-26.73	175.68
EXTM	42	2687.51	2698.76	23	2	53.2	359.97	.0042	-26.48	.0000	316892.0	1.23	81.26	-.0000	.20	-.0196	-26.65	149.01
RISE	51	2818.13	2829.38	23	5	3.8	270.00	.0041	-26.13	-.0000	331448.9	.83	11.02	.0034	113.84	-.0015	-26.55	116.58
RISE	7Z	2971.71	2982.96	23	7	37.4	266.06	.0041	-26.29	-.0000	343609.0	.76	-.00	.0037	116.56	-.0005	-26.45	78.43
RISE	61	3048.84	3060.09	23	8	54.5	295.73	.0042	-27.16	-.0000	349138.4	.84	.00	.0026	126.72	.0027	-26.40	59.22
SET	42	3106.23	3117.48	23	9	51.9	105.00	.0041	-25.74	.0000	352616.9	1.45	3.44	-.0030	240.65	-.0023	-26.37	44.89
EXTM	51	3170.72	3181.97	23	10	56.4	358.88	.0042	-26.54	.0000	350998.2	1.11	88.82	.0033	121.12	.0941	-26.33	28.79
EXTM	61	3308.79	3315.04	23	13	9.5	.21	.0042	-27.18	.0000	363732.9	1.11	22.98	-.0000	180.20	.0041	-26.26	355.55
EXTM	7Z	3343.65	3354.90	23	13	49.3	.09	.0042	-26.56	.0000	362818.4	1.11	71.34	-.0000	180.25	.0116	-26.24	345.58
RISE	11	3480.20	3491.45	23	16	5.9	290.89	.0042	-26.81	-.0000	377868.0	.80	.00	.0028	123.50	.0024	-26.18	311.44
SET	51	3531.34	3542.59	23	16	57.0	90.00	.0042	-25.78	.0000	380077.6	1.50	10.89	-.0035	246.48	-.0015	-26.16	298.65
SET	61	3558.56	3569.81	23	17	24.2	64.65	.0042	-26.83	.0000	383108.3	1.41	-.00	-.0026	233.75	.0027	-26.14	291.83
RISE	42	3712.65	3723.90	23	19	58.3	255.00	.0042	-25.51	-.0000	393525.9	.93	3.30	.0030	119.17	-.0023	-26.07	253.17
SET	7Z	3719.04	3725.29	23	19	59.7	93.88	.0042	-25.93	.0000	393997.8	1.68	-.00	-.0037	243.80	-.0005	-26.07	252.82
EXTM	11	3752.91	3764.16	23	20	38.6	.15	.0043	-26.87	.0000	394145.4	1.46	27.93	.0000	180.15	.0043	-26.05	253.00
IMPACT		3776.03	3787.28	23	21	1.7												
IMPC	42	3776.03	3787.28	23	21	1.7	271.05	.0043	-25.57	-.0000	397735.9	1.70	19.22	.0033	110.83	-.0021	-26.04	237.10
IMPC	11	3776.03	3787.28	23	21	1.7	6.14	.0044	-26.85	.0000	396456.1	2.08	27.67	-.0004	186.19	.0044	-26.04	237.10

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	21	6	5.678	6589.526	17.8091	305.1244	10.95880	4.6731	117.0989	126.1908
SEPARATION		1.20	12.45	21	6	6.878	6615.789	14.6570	311.0005	10.88648	8.0262	118.8292	132.3277
RETRO		3.20	14.45	21	6	8.878	6916.599	9.3005	320.0266	10.69381	13.3575	120.8132	141.8552
EXIT	SHA	5.13	16.38	21	6	10.810	7249.122	4.3307	327.7572	10.44369	18.0935	121.7906	150.0699
IMPACT		3776.03	3787.28	23	21	1.707	399455.422	-26.0417	237.1011	2.21268	87.7996	274.6084	284.7187

SURVEYOR VIEW PERIODS

GHA	91.5278					EPS-168.2351								LOM	233.5240
SX	.22/487	SY	-.869253	SZ	-.438918	DAO	-26.0348/	RAO	284.66561	RM	400/35.898	LAT	28.516600	LON	279.461800
CS	-.9081U9	ECC	.985090	SLR	12991.750	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TH	675.00000	POL	-.0
NSX	.246700	NSY	-.864241	NSZ	-.438437	C3M	1.9555	VIM	2.6823	ZAE	141.30(	B.T	.0000	B.R	-.0000
LATE	4.2883	LONE	2.7777	LATS	-.7700	LONS	171.5050	LATI	-2.9158	LONI	324./297	HSM	146./514	TTAN	6.7808
LAUNCH DATE		DEC	21,1965		BASE AZM	111.0		TF	63.029			ARRIVAL DATE		DEC 23 1965	21 15 21.8

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPTH
111.00	5 58 52.0	28.1	16.77	304.48	10.79	126.62	119.17	6 10 7.0	6597.4	10.95	5.11

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	GHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW														
INJECTION	.00	11.25	21	6	10.1												
SEPARATION	1.20	12.45	21	6	11.3												
RETRO	3.20	14.45	21	6	13.3												
RISE 72	4.19	15.44	21	6	14.3	85.62	-.1398	28.81	-.0349	3127.2	-7.38	-.00	.1265	299.11	-.0152	5.09	322.96
EXIT SHA	5.00	16.25	21	6	15.1												
EXIT 72	5.00	16.25	21	6	15.1	78.36	-.1624	26.75	-.0518	2788.7	-6.66	6.69	.1527	298.28	-.0197	2.99	325.99
EXTM 72	11.00	22.25	21	6	21.1	4.48	-.1650	-15.28	-.0966	2370.1	4.77	81.42	-.0000	210.35	-.2476	-9.91	344.48
RISE 51	11.15	22.40	21	6	21.3	84.27	-.0714	11.70	-.0451	6024.0	-2.26	-.00	.0826	283.01	-.0094	-10.16	344.86
EXTM 51	48.59	59.84	21	6	58.7	2.22	-.0104	-33.42	-.0023	14302.6	5.06	82.09	-.0000	193.56	-.0651	-31.05	26.19
EXTM 72	72.30	83.55	21	7	22.4	299.74	-.0000	-35.91	.0001	238/0.6	4.71	28.60	.0000	126.77	-.0001	-32.75	32.21
EXTM 51	93.77	105.02	21	7	43.9	352.40	-.0001	-34.91	.0001	26946.4	4.29	78.74	.0000	146.25	-.0006	-33.19	33.72
RISE 61	124.73	135.98	21	8	14.8	317.55	.0020	-41.09	.0007	40346.0	3.83	-.00	.0014	149.42	.0009	-33.26	32.69
EXTM 51	175.77	187.02	21	9	5.9	.88	.0027	-33.94	.0002	45919.6	3.53	81.77	.0000	185.12	.0159	-32.94	26.92
EXTM 61	369.33	380.58	21	12	19.4	5.79	.0038	-35.49	.0002	86158.7	2.74	14.08	.0000	184.86	.0032	-31.48	350.33
EXTM 72	396.01	407.26	21	12	46.1	1.19	.0039	-32.99	.0002	86437.4	2.67	64.89	.0000	182.35	.0078	-31.31	344.58
RISE 11	576.89	588.14	21	15	47.0	296.74	.0040	-32.52	.0000	119045.8	2.05	-.00	.0025	131.14	.0023	-30.40	303.82
SET 61	589.66	600.91	21	15	59.8	57.12	.0039	-32.68	.0002	120824.0	2.53	-.00	-.0020	224.98	.0026	-30.34	300.87
SET 51	589.79	601.04	21	15	59.9	90.00	.0038	-29.24	.0001	119496.8	2.65	12.25	-.0031	243.24	-.0012	-30.34	300.84
SET 72	788.77	800.02	21	19	18.9	94.47	.0039	-29.26	.0001	146901.8	2.45	-.01	-.0034	240.43	-.0004	-29.62	254.03
RISE 42	798.34	809.59	21	19	28.5	254.99	.0040	-28.11	-.0000	147544.3	1.75	4.89	.0028	121.23	-.0021	-29.59	251.75
EXTM 11	840.32	851.57	21	20	10.4	1.48	.0041	-31.06	.0001	150741.1	2.02	23.12	.0000	181.37	.0038	-29.47	241.73
SET 11	1100.39	1111.64	22	0	30.5	65.81	.0041	-30.15	.0001	183046.4	2.10	-.00	-.0026	232.07	.0024	-28.81	179.04
EXTM 42	1223.68	1234.93	22	2	33.8	359.93	.0042	-28.33	.0000	189959.7	1.74	83.11	.0000	.56	-.0298	-28.55	149.05
RISE 51	1359.39	1370.64	22	4	49.5	270.00	.0041	-27.64	-.0000	208751.4	1.50	11.62	.0033	115.25	-.0014	-28.30	115.91
RISE 72	1513.85	1525.10	22	7	24.0	265.80	.0041	-27.80	-.0000	229111.3	1.19	-.00	.0036	118.09	-.0005	-28.04	78.08
RISE 61	1601.62	1612.87	22	8	51.7	298.06	.0042	-29.07	-.0000	233389.3	1.28	.00	.0024	129.53	.0027	-27.91	56.50
SET 42	1646.96	1658.21	22	9	37.1	105.00	.0041	-26.91	.0001	237128.9	1.66	4.16	-.0029	239.72	-.0022	-27.84	45.35
EXTM 51	1718.80	1730.05	22	10	48.9	.02	.0042	-27.80	.0000	237857.3	1.51	87.94	-.0000	180.63	.0790	-27.74	27.67
EXTM 61	1850.51	1861.76	22	13	.6	.36	.0042	-28.90	.0000	253604.2	1.46	20.86	-.0000	180.52	.0039	-27.57	335.20
EXTM 72	1889.80	1901.05	22	13	39.9	.17	.0042	-28.01	.0000	253365.7	1.45	69.90	-.0000	180.43	.0108	-27.52	345.51
RISE 11	2034.64	2045.89	22	16	4.8	292.27	.0042	-28.23	-.0000	271643.0	1.09	.00	.0028	125.58	.0024	-27.35	309.74
SET 51	2077.98	2089.23	22	16	48.1	90.30	.0041	-26.79	.0001	274018.1	1.75	11.29	-.0034	245.54	-.0014	-27.30	299.03
SET 61	2099.13	2110.38	22	17	9.2	62.96	.0042	-28.25	.0001	277017.4	1.65	-.00	-.0024	231.68	.0027	-27.28	293.80
SET 72	2263.91	2275.16	22	19	54.0	94.04	.0041	-26.92	.0001	290420.0	1.74	-.00	-.0036	242.80	-.0005	-27.11	253.03
RISE 42	2264.55	2275.80	22	19	54.7	255.00	.0041	-26.34	-.0000	290048.4	1.01	3.81	.0029	119.83	-.0022	-27.11	252.87
EXTM 11	2305.26	2316.51	22	20	35.4	.37	.0042	-28.18	.0000	290871.7	1.32	26.62	-.0000	180.37	.0042	-27.06	242.79
SET 11	2575.66	2586.91	23	1	5.8	68.38	.0042	-27.57	.0000	314596.5	1.56	.08	-.0028	235.49	.0024	-26.81	175.76
EXTM 42	2683.48	2694.73	23	2	53.6	359.97	.0042	-26.55	.0000	316394.9	1.23	81.33	-.0000	.21	-.0207	-26.72	149.01
RISE 51	2814.10	2825.35	23	5	4.2	270.00	.0041	-26.19	-.0000	330943.0	.83	11.05	.0034	113.90	-.0015	-26.62	116.58
RISE 72	2967.63	2978.88	23	7	37.7	266.05	.0041	-26.34	-.0000	343892.4	.76	-.00	.0037	116.61	-.0005	-26.50	78.44
RISE 61	3045.11	3056.36	23	8	55.2	295.78	.0042	-27.20	-.0000	348699.1	.84	.00	.0026	126.78	.0027	-26.44	59.17
SET 42	3102.29	3113.54	23	9	52.4	105.00	.0041	-25.77	.0000	352151.0	1.45	3.46	-.0030	240.62	-.0023	-26.40	44.89
EXTM 51	3166.23	3177.48	23	10	56.3	358.74	.0042	-26.38	.0000	350488.3	1.11	88.70	.0033	119.72	.0813	-26.37	28.92
EXTM 61	3299.88	3311.13	23	13	10.0	.22	.0042	-27.21	.0000	363238.5	1.11	22.55	-.0000	180.22	.0041	-26.29	355.53
EXTM 72	3339.69	3350.94	23	13	49.8	.09	.0042	-26.59	.0000	362311.5	1.10	71.32	-.0000	180.26	.0116	-26.27	345.58
RISE 11	3476.28	3487.53	23	16	6.4	290.91	.0042	-26.83	-.0000	377330.0	.79	.00	.0028	123.53	.0024	-26.20	311.42
SET 51	3527.32	3538.57	23	16	57.4	90.00	.0042	-25.80	.0000	379917.3	1.49	10.89	-.0035	246.47	-.0015	-26.17	298.65
SET 61	3554.47	3565.72	23	17	24.6	64.64	.0042	-26.85	.0000	382533.9	1.40	-.00	-.0026	233.73	.0027	-26.16	291.85
RISE 42	3708.66	3719.91	23	19	58.8	255.00	.0042	-25.51	-.0000	392846.2	.91	3.30	.0030	119.17	-.0023	-26.08	253.17
SET 72	3710.05	3721.30	23	20	.2	93.88	.0042	-25.94	.0000	393315.9	1.65	-.00	-.0037	243.79	-.0005	-26.08	252.62
EXTM 11	3749.06	3760.31	23	20	39.2	.18	.0043	-26.87	.0000	393368.9	1.38	27.92	.0000	180.18	.0043	-26.06	242.98
IMPACT	3781.74	3792.99	23	21	11.9												
IMPC 42	3781.74	3792.99	23	21	11.9	273.50	.0043	-25.59	-.0000	397558.7	1.69	17.10	.0033	109.63	-.0021	-26.04	234.65
IMPC 11	3781.74	3792.99	23	21	11.9	8.62	.0044	-26.84	.0000	396504.7	2.09	27.42	-.0005	188.67	.0044	-26.04	234.65

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPTH	AZ	RT ASC
INJECTION	.00	11.25	21	6	10.116	6598.499	16.7386	304.5310	10.95129	5.1080	119.1865	126.6699
SEPARATION	1.20	12.45	21	6	11.316	6600.187	13.3991	310.2217	10.87439	8.4491	120.7482	132.6614
RETRO	3.20	14.45	21	6	13.316	6939.715	7.7869	318.9764	10.67957	13.7505	122.4554	141.9179
EXIT SHA	5.00	16.25	21	6	15.113	7252.822	2.9875	325.9917	10.44072	18.1373	123.1579	149.3832
IMPACT	3781.74	3792.99	23	21	11.858	399478.617	-26.0399	234.6529	2.20912	67.4814	279.1704	284.8151

SURVEYOR VIEW PERIODS

GHA	91.3278					EPS-168.1364								LOM	230.4873
SX	.229347	SY	-.868791	SZ	-.438866	DAO	-26.03157	RAD	284.78784	RM	400758.900	LAT	28.310600	LON	279.461800
CS	-.916948	ECC	.984945	SLR	12990.799	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.000000	POL	-.0
NSX	.248034	NSY	-.863712	NSZ	-.438886	CSM	1.5555	VIM	2.6823	ZAE	141.000	B.T	.0000	B.N	-.0000
LATE	4.2984	LONE	2.7884	LATS	-.7702	LONS	171.3949	LATI	-3.3913	LONI	324.5035	RSM	146.7515	TTAN	6.7841
LAUNCH DATE		DEC	21,1965		BASE AZM	115.0		TF	63.1/1			ARRIVAL DATE		DEC	25 1965 21 28 21.8

LNCH A/MTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FTH
115.00	0 3 37.6	28.1	15.38	303.62	11.21	126.95	121.96	0 14 52.6	6607.2	0.94	5.96

EVNT	STA	T	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	ORG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW															
INJECTION		.00	11.25	21	0	14.9												
SEPARATION		1.20	12.45	21	0	16.1												
RETRO		5.20	14.45	21	0	18.1												
RISE	7d	4.19	15.44	21	0	19.1	86.62	-.1273	23.02	-.0556	3191.5	-7.10	-.00	.1242	293.25	-.0374	2.98	321.56
EXIT	SHA	4.87	16.12	21	0	19.7												
EXIT	7d	4.87	16.12	21	0	19.7	81.15	-.1420	20.46	-.0708	2915.4	-6.47	5.43	.1437	291.57	-.0455	1.12	323.84
RISE	51	11.25	22.50	21	0	26.1	86.43	-.0667	7.57	-.0482	6133.7	-2.65	-.00	.0806	278.18	-.0144	-12.95	342.92
EXTM	7d	11.33	22.58	21	0	26.2	9.48	-.1609	-25.73	-.0788	2602.1	4.96	70.02	-.0000	209.75	-.4830	-13.08	343.11
EXTM	51	58.46	64.71	21	7	8.3	1.77	-.0086	-37.23	-.0010	15861.7	4.96	78.41	-.0000	187.02	-.0345	-33.94	26.47
EXTM	7d	72.69	83.94	21	7	27.6	300.86	-.0001	-38.49	.0004	23996.6	4.69	28.90	.0000	129.87	-.0005	-34.88	30 98
EXTM	51	86.49	99.74	21	7	43.4	353.94	-.0008	-37.38	.0003	25639.6	4.36	77.28	.0000	157.60	-.0031	-35.09	32.42
RISE	61	137.48	148.73	21	8	32.4	320.15	.0023	-42.22	.0007	43379.2	3.70	-.00	.0015	151.67	.0011	-34.82	30.64
EXTM	51	173.94	185.19	21	9	8.8	1.63	.0027	-35.59	.0003	45585.1	3.54	80.05	.0000	187.68	.0128	-34.39	26.28
EXTM	61	368.94	380.19	21	12	23.8	6.61	.0038	-36.45	.0003	66207.2	2.74	13.07	-.0000	185.46	.0031	-32.42	349.57
EXTM	7d	393.33	404.58	21	12	48.2	1.48	.0039	-33.98	.0002	68054.2	2.68	64.89	.0000	182.79	.0074	-32.23	344.31
RISE	11	576.63	587.88	21	15	51.5	297.54	.0040	-33.24	.0000	118993.8	2.06	-.00	.0025	132.13	.0023	-31.10	303.01
SET	61	581.01	592.26	21	15	55.9	56.00	.0039	-33.46	.0002	119604.5	2.53	-.00	-.0019	223.76	.0027	-31.08	302.00
SET	51	585.87	597.12	21	16	.7	90.00	.0038	-29.95	.0002	118906.0	2.65	12.52	-.0031	242.57	-.0012	-31.05	300.88
SET	72	785.38	796.58	21	19	20.2	94.57	.0039	-29.82	.0001	146435.0	2.45	-.00	-.0034	239.66	-.0004	-30.19	253.95
RISE	4d	794.69	805.90	21	19	29.5	254.99	.0040	-28.67	-.0000	147811.8	1.76	5.23	.0028	121.68	-.0021	-30.15	251.73
EXTM	11	837.30	848.55	21	20	12.2	1.67	.0041	-32.21	.0001	150387.3	2.02	22.97	.0000	181.53	.0038	-30.00	241.55
SET	11	1094.64	1105.89	22	0	29.5	65.35	.0041	-30.58	.0001	182346.5	2.10	-.00	-.0025	231.49	.0024	-29.23	179.50
EXTM	4d	1219.76	1231.01	22	2	34.6	359.92	.0042	-28.72	.0000	189457.4	1.74	83.50	.0000	.67	-.0315	-28.93	149.08
RISE	51	1355.51	1366.76	22	4	50.4	270.00	.0041	-27.98	-.0000	208244.4	1.50	11.75	.0033	115.57	-.0014	-28.63	119.90
RISE	7d	1509.72	1520.97	22	7	24.6	265.74	.0041	-28.10	-.0000	224591.3	1.19	-.00	.0036	118.39	-.0005	-28.34	78.10
RISE	61	1599.09	1610.34	22	8	54.0	298.41	.0042	-29.35	-.0000	233016.2	1.28	.00	.0024	129.95	.0027	-28.18	56.14
SET	4d	1642.94	1654.19	22	9	37.8	105.00	.0041	-27.18	.0001	236998.2	1.86	4.52	-.0029	239.51	-.0022	-28.11	45.36
EXTM	51	1714.77	1726.02	22	10	49.7	.01	.0042	-28.05	.0000	237341.6	1.51	87.69	.0000	180.48	.0591	-27.99	27.67
EXTM	61	1846.73	1857.98	22	13	1.6	.62	.0042	-29.13	.0000	253125.5	1.46	20.63	-.0000	180.58	.0039	-27.79	355.14
EXTM	72	1885.83	1897.08	22	13	40.7	.18	.0042	-28.23	.0000	252853.0	1.44	69.67	-.0000	180.47	.0107	-27.74	345.49
RISE	11	2031.35	2042.60	22	16	6.2	292.46	.0042	-28.43	-.0000	271169.2	1.09	.00	.0028	125.64	.0024	-27.54	309.55
SET	51	2075.88	2085.13	22	16	48.8	90.00	.0041	-26.98	.0001	278465.2	1.75	11.36	-.0034	245.37	-.0014	-27.49	299.03
SET	61	2094.11	2105.36	22	17	9.0	62.73	.0042	-28.44	.0001	276394.9	1.65	-.00	-.0024	231.41	.0027	-27.46	294.03
SET	72	2259.89	2271.14	22	19	54.8	94.07	.0041	-27.07	.0001	289866.3	1.73	-.00	-.0036	242.64	-.0005	-27.26	253.00
RISE	4d	2260.45	2271.70	22	19	55.3	295.00	.0041	-26.50	-.0000	289478.0	1.01	3.90	.0029	119.95	-.0022	-27.26	252.80
EXTM	11	2301.30	2312.55	22	20	36.2	.41	.0042	-28.43	.0000	290334.9	1.32	26.46	-.0000	180.41	.0041	-27.22	242.74
SET	11	2571.02	2582.27	23	1	5.9	68.26	.0042	-27.69	.0000	314967.1	1.56	.00	-.0028	235.34	.0024	-26.93	175.88
EXTM	4d	2679.27	2690.52	23	2	54.2	359.97	.0042	-26.65	.0000	315785.5	1.23	81.44	-.0000	.23	-.0216	-26.82	149.01
RISE	51	2809.90	2821.15	23	5	4.8	270.00	.0041	-26.28	-.0000	330317.3	.83	11.08	.0034	113.98	-.0015	-26.70	116.58
RISE	72	2963.36	2974.61	23	7	38.2	266.04	.0041	-26.41	-.0000	342447.6	.76	-.00	.0037	116.68	-.0005	-26.57	78.45
RISE	61	3041.18	3052.43	23	8	56.1	295.86	.0042	-27.26	-.0000	348069.0	.84	.00	.0026	126.88	.0027	-26.50	59.09
SET	4d	3098.03	3109.28	23	9	52.9	105.00	.0041	-25.83	.0000	351485.9	1.45	3.49	-.0030	240.58	-.0023	-26.46	44.89
EXTM	51	3162.80	3174.05	23	10	57.7	358.95	.0042	-26.43	.0000	349870.8	1.10	88.83	.0031	126.49	.1090	-26.42	28.72
EXTM	61	3295.72	3306.97	23	13	10.6	.25	.0042	-27.26	.0000	362952.4	1.10	22.50	-.0000	180.24	.0041	-26.33	355.51
EXTM	72	3335.46	3346.71	23	13	50.3	.10	.0042	-26.63	.0000	361600.2	1.10	71.28	-.0000	180.28	.0116	-26.31	345.57
RISE	11	3472.14	3483.39	23	16	7.0	290.93	.0042	-26.86	-.0000	376598.4	.79	.00	.0028	123.57	.0024	-26.23	311.39
SET	51	3523.06	3534.31	23	16	57.9	90.00	.0042	-25.82	.0000	378759.8	1.48	10.98	-.0035	246.45	-.0015	-26.20	298.65
SET	61	3550.10	3561.35	23	17	25.0	64.61	.0042	-26.87	.0000	381759.9	1.40	-.00	-.0026	233.69	.0027	-26.18	291.88
RISE	4d	3704.46	3715.71	23	19	59.3	255.00	.0042	-25.52	-.0000	391965.8	.88	3.31	.0030	119.18	-.0023	-26.09	253.16
SET	7d	3705.84	3717.09	23	20	.7	93.88	.0042	-25.95	.0000	392433.5	1.63	-.00	-.0037	243.78	-.0005	-26.09	252.82
EXTM	11	3745.00	3756.25	23	20	39.9	.20	.0043	-26.88	.0000	392399.0	1.51	27.91	.0000	180.20	.0043	-26.07	242.95
IMPACT		3790.24	3801.49	23	21	25.1												
IMPC	4d	3790.24	3801.49	23	21	25.1	276.70	.0043	-25.60	-.0000	397324.6	1.68	19.58	.0034	108.08	-.0021	-26.04	231.46
IMPC	11	3790.24	3801.49	23	21	25.1	11.87	.0044	-26.84	.0000	396577.3	2.11	26.95	-.0007	191.88	.0043	-26.04	231.46

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FTH	AZ	RT ASC
INJECTION		.00	11.25	21	0	14.877	6608.798	15.3461	303.6796	10.94269	5.9610	121.9695	127.0110
SEPARATION		1.20	12.45	21	0	16.077	6705.997	11.7625	309.1267	10.86106	8.8888	123.5215	132.7599
RETRO		5.20	14.45	21	0	18.077	6964.514	5.8898	317.5320	10.65598	14.1579	124.6864	141.6666
EXIT	SHA	4.87	16.12	21	0	19.748	7259.796	1.1195	323.8416	10.43526	18.2194	125.0939	148.6951
IMPACT		3790.24	3801.49	23	21	25.112	399505.344	-26.0377	231.4554	2.20888	67.2710	276.0791	284.9402

SURVEYOR VIEW PERICOS

GHA	92.3135				EPS-157.7394							LCM	260.8316
SX	.417648	SY	-.803322	SZ	-.424551	DAO	-25.12228	RAC	297.46598	RM	402953.320	LAT	28.310600
C3	-.880607	ECC	.985541	SLR	12994.705	RCA	6544.6650	LTA	-20.0000	GTA	20.00	LON	279.461800
NSX	.435151	NSY	-.795185	NSZ	-.422284	C3M	1.5521	VIM	2.6817	ZAE	142.390	B.T	.0000
LATE	5.2545	LONE	1.7421	LATS	-.7891	LCNS	159.8367	LATI	.6668	LONI	324.3410	RSM	140.7636
LAUNCH DATE		DEC	22,1965	BASE AZM		87.0	TF	63.269				ARRIVAL DAT	DEC

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LCNG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME		INJ VEL	INJ PTH	
87.00	4 53 37.6		27.2	25.97	307.12	-15.56	113.89	101.89	5 4 52.6		6665.9	10.30	-7.72

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
				PROBE IN EARTH'S SHADOW														
INJECTION		.00	11.25	22	5	4.9												
SEPARATION		1.20	12.45	22	5	6.1												
RETRO		3.20	14.45	22	5	8.1												
RISE	72	6.91	18.16	22	5	11.8	20.36	-1.5396	81.58	-.0130	2428.8	-3.90	-.00	.0399	157.08	.2072	12.92	344.60
EXIT	SHA	8.01	19.26	22	5	12.9												
EXIT	72	8.01	19.26	22	5	12.9	318.98	-.3922	71.62	-.2257	2254.0	-1.32	6.04	.0600	12.01	.2425	10.41	349.57
RISE	51	12.04	23.29	22	5	16.9	64.18	-.1441	42.09	-.0241	4506.9	-4.23	.00	.1008	318.08	.0431	1.85	4.99
EXTM	72	12.40	23.65	22	5	17.3	291.26	-.0351	19.24	-.1232	3144.9	6.49	17.09	-.0000	67.00	.1335	1.16	6.19
EXTM	51	27.55	38.80	22	5	32.4	341.71	-.0327	-6.65	-.0276	6461.2	5.59	64.13	-.0000	45.61	.0976	-16.33	37.34
EXTM	72	65.34	76.59	22	6	10.2	269.98	-.0002	-24.93	-.0015	23044.8	4.99	3.31	.0000	114.72	.0015	-25.88	58.87
RISE	42	67.31	78.56	22	6	12.2	102.88	-.0053	-17.53	-.0034	23997.5	4.27	.00	.0060	248.37	.0004	-26.04	59.25
EXTM	51	79.31	90.56	22	6	24.2	318.01	-.0002	-25.80	-.0012	22874.6	4.61	52.35	.0000	90.56	.0020	-26.83	60.89
EXTM	42	127.31	138.56	22	7	12.2	96.89	.0005	-23.16	-.0006	39035.8	4.01	7.86	-.0000	247.14	.0008	-28.09	60.43
SET	42	208.97	220.22	22	8	33.9	105.00	.0024	-24.65	-.0001	57531.8	3.56	2.77	-.0017	241.51	-.0016	-28.39	43.61
RISE	61	219.60	230.75	22	8	44.4	303.55	.0033	-33.14	.0002	59955.4	3.11	.01	.0019	134.75	.0020	-28.39	47.82
EXTM	51	324.24	335.49	22	10	29.1	.04	.0037	-28.40	.0001	73257.8	2.88	87.34	.0000	180.23	.0004	-28.19	27.65
EXTM	61	482.21	493.46	22	13	7.1	2.60	.0040	-31.10	.0001	102771.3	2.50	18.63	.0000	180.35	.0000	-28.40	353.29
EXTM	72	517.53	528.78	22	13	42.4	.41	.0041	-28.91	.0001	104227.7	2.44	68.99	-.0000	181.01	.0009	-27.72	349.28
RISE	11	680.19	691.44	22	16	25.1	293.25	.0040	-29.22	-.0000	132590.0	1.91	.00	.0026	125.69	.0023	-27.38	307.58
SET	51	710.71	721.96	22	16	55.6	90.00	.0039	-26.31	.0001	135364.8	2.51	11.09	-.0032	245.99	-.0013	-27.12	300.39
SET	61	729.24	740.49	22	17	14.1	61.72	.0040	-29.25	.0001	138981.3	2.39	-.00	-.0022	230.21	.0027	-27.29	296.01
SET	72	904.67	915.92	22	20	9.6	94.01	.0040	-26.67	.0001	160590.3	2.36	-.01	-.0035	243.05	-.0005	-27.00	254.19
RISE	42	913.86	925.11	22	20	18.7	255.00	.0040	-25.62	-.0000	161300.6	1.65	3.36	.0029	119.25	-.0022	-26.98	251.98
EXTM	11	953.83	965.08	22	20	58.7	.81	.0042	-28.90	.0000	163583.6	1.93	25.89	.0000	180.73	.0040	-26.92	242.37
SET	11	1225.38	1236.63	23	1	30.3	68.17	.0041	-27.79	.0001	196215.7	2.05	-.00	.0027	241.21	.0024	-26.52	176.56
EXTM	42	1338.12	1349.37	23	3	23.0	359.93	.0042	-26.17	.0000	201616.5	1.68	80.65	.0000	.39	.0030	-26.45	149.04
RISE	51	1473.00	1484.25	23	5	37.9	270.00	.0041	-25.67	-.0000	219975.1	1.2	10.84	.0034	113.41	-.0015	-26.31	116.03
RISE	72	1628.55	1639.80	23	8	13.4	266.13	.0041	-25.94	-.0000	239953.7	1.14	.00	.0036	116.24	-.0005	-26.16	77.84
RISE	61	1705.83	1717.08	23	9	30.7	295.77	.0041	-27.19	-.0000	243074.0	1.24	.00	.0025	126.78	.0027	-26.10	58.83
SET	42	1760.50	1771.75	23	10	25.8	105.00	.0041	-25.16	.0000	247721.2	1.83	3.08	-.0029	241.11	-.0022	-26.0	55.27
EXTM	51	1824.69	1835.94	23	11	29.6	358.09	.0042	-26.01	.0000	247466.9	1.46	88.26	.0037	99.28	.0179	-26.00	29.55
EXTM	61	1963.23	1974.48	23	13	[illegible]	.38	.0042	-27.16	.0000	263402.0	1.43	22.60	-.0000	180.37	.0040	-25.90	355.37
EXTM	72	2002.93	2014.18	23	14	27.8	.10	.0042	-26.30	.0000	263244.7	1.42	71.61	-.0000	180.29	.0118	-25.87	345.57
RISE	11	2141.44	2152.69	23	16	46.3	290.71	.0042	-26.61	-.0000	280833.9	1.06	.00	.0028	123.25	.0024	-25.77	311.34
SET	51	2191.49	2202.74	23	17	36.4	90.01	.0041	-25.24	.0000	283766.2	1.74	10.67	-.0036	246.99	-.0015	-25.74	298.96
SET	61	2220.29	2231.54	23	18	5.2	64.89	.0042	-26.64	.0000	287289.8	1.64	-.00	-.0025	236.03	.0027	-25.72	291.84
SET	72	2376.27	2387.52	23	20	41.1	93.79	.0041	-25.44	.0000	299759.5	1.72	-.00	-.0037	244.30	-.0005	-25.62	253.22
RISE	42	2377.47	2388.72	23	20	42.4	254.99	.0041	-24.88	-.0000	299531.4	.98	2.91	.0030	118.67	-.0023	-25.62	252.92
EXTM	11	2417.74	2428.99	23	21	22.6	.21	.0042	-26.66	.0000	300021.4	1.30	28.13	.0000	180.21	.0043	-25.60	242.95
EXTM	11	2417.75	2429.00	24	21	22.6	.21	.0042	-26.66	.0000	300022.1	1.30	28.13	.0000	180.21	.0043	-25.60	242.94
SET	11	2694.22	2705.47	24	1	59.1	89.72	.0042	-26.17	.0000	326055.9	1.55	-.00	-.0028	237.34	.0024	-25.44	174.39
EXTM	42	2796.43	2807.68	24	3	41.3	359.96	.0042	-25.20	.0000	325359.5	1.21	79.96	.0000	.23	-.0193	-25.39	149.02
RISE	51	2926.91	2938.16	24	5	51.8	270.00	.0041	-24.91	-.0000	339819.1	.81	10.54	.0035	112.70	-.0015	-25.32	116.62
RISE	72	3081.03	3092.28	24	8	25.9	266.27	.0042	-25.10	-.0000	351938.7	.71	.00	.0037	115.36	-.0005	-25.26	78.27
RISE	61	3151.77	3163.02	24	9	36.6	294.34	.0042	-25.97	-.0000	356701.7	.83	.00	.0026	125.01	.0027	-25.23	60.62
SET	42	3214.92	3226.17	24	10	39.8	105.00	.0041	-24.60	.0000	360629.7	1.45	2.74	-.0030	241.55	-.0023	-25.21	44.86
EXTM	51	3282.23	3293.48	24	11	47.1	359.62	.0042	-25.19	.0000	359108.8	1.11	89.35	.0020	31.98	-.2857	-25.19	28.06
EXTM	61	3412.20	3423.45	24	13	57.1	.15	.0042	-26.05	.0000	371525.1	1.11	23.71	-.0000	180.15	.0041	-25.15	355.60
EXTM	72	3451.96	3463.21	24	14	36.3	.00	.0042	-25.44	.0000	370691.7	1.11	72.46	.0000	180.06	.0020	-25.15	345.67
RISE	11	3584.72	3595.97	24	16	49.6	289.88	.0042	-25.72	-.0000	385625.3	.81	.00	.0029	122.09	.0024	-25.12	312.47
SET	51	3640.06	3651.31	24	17	44.9	90.00	.0042	-24.74	.0000	388254.6	1.54	10.47	-.0035	247.46	-.0015	-25.10	298.62
SET	61	3672.16	3683.41	24	18	17.0	65.90	.0042	-25.77	.0000	391653.8	1.47	-.00	-.0026	235.29	.0027	-25.10	290.57
IMPACT		3796.12	3807.37	24	20	21.0												
IMPC	42	3796.12	3807.37	24	20	21.0	246.90	.0043	-24.51	-.0000	401814.2	1.74	-1.02	.0030	121.87	-.0029	-25.10	259.31
IMPC	72	3796.12	3807.37	24	20	21.0	87.35	.0043	-25.01	.0000	400999.4	2.50	5.71	-.0037	240.41	-.0004	-25.10	259.31
IMPC	11	3796.12	3807.37	24	20	21.0	326.61	.0044	-25.88	-.0000	398754.2	1.98	28.97	.0010	163.49	.0043	-25.10	259.31
SEI	72	3823.12	3834.37	24	20	48.0	93.70	.0042	-24.92	.0000	400408.6	2.04	-.01	-.0038	244.84	-.0006	-25.05	252.96

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	22	5	4.877	6671.870	26.0114	306.9203	10.89509	-7.7211	101.8014	113.6905
SEPARATION		1.20	12.45	22	5	6.077	6583.031	24.3978	314.0946	10.96446	-4.3826	104.9938	121.1657
RETRO		3.20	14.45	22	5	8.077	6548.342	20.9601	325.5108	10.99368	1.3537	109.6050	133.0832
EXIT	SHA	8.01	19.26	22	5	12.885	6984.755	10.4080	349.5651	10.64211	14.4833	116.5672	158.3427
IMPACT		3796.12	3807.37	24	20	20.995	401684.578	-25.0975	259.3110	2.22213	68.9975	265.0369	297.7083

[illegible], 1965
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SURVEYOR VIEW PERICES

GHA	92.3135				EPS-157.5500						LOM	254.8144	
SX	.420930	SY	-.801829	SZ	-.424132	DAO	-25.09576	RAO	297.69781	RM	402988.777	LAT	28.310600
LON	279.461800												
C3	-.87e600	ECC	.985607	SLR	12995.143	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.000000
POL	-.0												
NSR	.43R365	NSY	-.793655	NSZ	-.421838	C3M	1.5557	VIM	2.6823	ZAE	142.443	B.T	.0000
B.R	-.0000												
LATE	5.2700	LCNE	1.7228	LATS	-.7894	LCNS	159.6262	LATI	.7493	LONI	324.3754	RSM	146.7639
TTAN	6.5823												
LAUNCH DATE	DEC 22,1965			BASE AZM	90.0		TF 63.219				ARRIVAL DATE	DEC 24 1965 20 38 53.3	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LCNG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
90.00	5 16 55.9	27.5	24.75	307.18	-10.31	119.80	104.20	5 28 10.9	6597.5	10.95	-5.12

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LCNG
			PROBE IN EARTH'S SHADOW															
INJECTION		.00	11.25	22	5	28.2												
SEPARATION		1.20	12.45	22	5	29.4												
RETRO		3.20	14.45	22	5	31.4												
RISE	72	6.13	17.38	22	5	34 3	63.63	-.5777	72.64	.1036	2484.2	-5.53	.00	.1052	344.50	.1714	12.61	339.97
EXIT	SHA	7.05	18.30	22	5	35.2												
EXIT	72	7.05	18.30	22	5	35.2	19.00	-.9343	75.06	-.0434	2226.3	-3.72	6.24	.1192	355.16	.2151	10.51	344.11
RISE	51	11.68	22.93	22	5	39.9	68.34	-.1265	37.44	-.0271	4746.8	-4.02	-.01	.0990	312.45	.0322	.85	1.53
EXTN	72	11.70	22.95	22	5	39.9	301.32	.0571	21.10	-.1436	2742.6	6.06	25.52	-.0000	62.02	.1697	.80	1.62
EXTN	51	29.05	40.30	22	5	57.2	346.87	-.0292	-10.20	-.0216	7136.4	5.53	70.10	-.0000	41.04	.1056	-17.64	34.91
EXTN	72	65.65	76.90	22	6	33.8	275.39	-.0001	-25.54	-.0014	22883.5	4.96	8.24	.0000	114.82	.0014	-25.88	53.78
RISE	42	81.17	92.42	22	6	49.4	104.44	-.0028	-19.46	-.0021	28245.2	4.26	.00	.0034	245.93	-.0000	-26.87	55.79
EXTN	51	81.61	92.86	22	6	49.8	324.46	-.0001	-26.26	-.0010	23463.0	4.55	58.16	.0000	98.89	.0020	-26.89	55.82
EXTN	42	127.04	138.29	22	7	35.2	102.12	.0005	-22.81	-.0007	39643.1	4.00	3.75	-.0000	244.57	-.0008	-28.01	55.03
SET	42	166.65	177.90	22	8	14.8	104.99	.0017	-23.88	-.0003	48874.1	3.77	2.30	-.0011	242.13	-.0012	-28.26	50.60
RISE	61	192.21	203.46	22	8	40.4	304.15	.0031	-33.56	.0002	54588.8	3.28	-.00	.0018	136.40	.0019	-28.31	46.83
EXTN	51	296.98	308.23	22	10	25.2	.04	.0037	-28.40	.0001	68642.6	2.97	87.33	.0000	180.81	.0651	-28.18	27.65
EXTN	61	458.15	469.40	22	13	6.3	2.79	.0039	-31.20	.0001	99290.8	2.55	18.51	.0000	182.51	.0036	-27.79	353.12
EXTN	72	492.82	504.07	22	13	41.0	.38	.0040	-29.94	.0001	100738.1	2.48	68.96	.0000	180.93	.0098	-27.71	345.32
RISE	11	656.70	667.95	22	16	24.9	293.27	.0040	-29.25	-.0000	129614.4	1.94	.00	.0026	126.72	.0023	-27.37	307.50
SET	51	686.70	697.95	22	16	54.9	90.00	.0039	-26.27	.0001	132373.6	2.54	11.08	-.0032	246.03	-.0013	-27.31	300.45
SET	61	705.21	716.46	22	17	13.4	61.68	.0040	-29.28	.0001	136015.4	2.42	-.00	-.0022	230.16	.0026	-27.27	296.10
SET	72	881.14	892.39	22	20	9.3	94.00	.0039	-26.65	.0001	157934.2	2.38	-.00	-.0035	243.08	-.0005	-26.98	254.24
RISE	42	890.66	901.91	22	20	18.8	254.99	.0040	-25.58	-.0000	158698.8	1.67	3.34	.0029	119.22	-.0022	-26.96	251.95
EXTN	11	930.80	942.05	22	20	59.0	.87	.0042	-28.91	.0001	161047.3	1.95	25.88	-.0000	180.85	.0040	-26.90	242.31
SET	11	1202.27	1213.52	23	1	30.5	68.16	.0041	-27.79	.0001	193929.4	2.00	.01	-.0027	235.21	.0024	-26.55	176.58
EXTN	42	1315.36	1326.61	23	3	23.5	359.98	.0042	-26.14	.0000	199457.3	1.7.	80.92	-.0000	.18	-.0175	-26.42	149.00
RISE	51	1450.19	1461.44	23	5	38.4	270.00	.0041	-25.64	-.0000	217905.5	1.26	10.83	.0034	113.39	-.0015	-26.29	116.01
RISE	72	1605.80	1617.05	23	8	14.0	266.13	.0041	-25.91	-.0000	233986.9	1.15	-.01	.0036	116.18	-.0005	-26.14	77.83
RISE	61	1683.02	1694.27	23	9	31.2	295.75	.0041	-27.18	-.0000	241145.9	1.25	.00	.0025	126.75	.0027	-26.08	58.84
SET	42	1738.09	1749.34	23	10	26.3	105.00	.0041	-25.13	.0000	245826.5	1.83	3.06	-.0029	241.13	-.0022	-26.03	45.28
EXTN	51	1801.88	1813.13	23	11	30.1	358.07	.0042	-25.98	.0000	245604.8	1.47	88.24	.0038	98.46	.0160	-25.98	29.57
EXTN	61	1940.42	1951.67	23	13	48.6	.36	.0042	-27.15	.0000	261608.5	1.44	22.61	.0000	180.35	.0040	-25.87	355.40
EXTN	72	1980.28	1991.53	23	14	28.5	.11	.0042	-26.28	.0000	261485.1	1.43	71.63	-.0000	180.33	.0119	-25.84	345.56
RISE	11	2118.72	2129.97	23	16	46.9	290.69	.0042	-26.60	-.0000	279132.6	1.07	.00	.0028	123.23	.0024	-25.75	311.35
SET	51	2168.78	2180.03	23	17	37.0	90.00	.0041	-25.21	.0000	282088.3	1.74	10.66	-.0034	247.01	-.0015	-25.72	298.97
SET	61	2197.62	2208.87	23	18	5.8	64.89	.0042	-26.62	.0000	285626.0	1.64	.01	-.0025	234.05	.0027	-25.70	291.84
SET	72	2353.61	2364.86	23	20	41.8	93.79	.0041	-25.42	.0000	298162.8	1.73	-.01	-.0037	244.32	-.0005	-25.60	253.22
RISE	42	2354.88	2366.13	23	20	43.1	255.00	.0041	-24.85	-.0000	297941.0	.99	2.90	.0030	118.65	-.0023	-25.60	252.91
EXTN	11	2395.25	2406.50	23	21	23.4	.25	.0042	-26.64	.0000	298452.9	1.31	28.15	-.0000	180.25	.0043	-25.57	242.91
SET	11	2671.65	2682.90	24	1	59.8	69.73	.0042	-26.15	.0000	322535.4	1.56	-.00	-.0028	237.36	.0024	-25.42	174.38
EXTN	42	2773.88	2785.13	24	3	42.1	359.97	.0042	-25.17	.0000	323927.9	1.22	79.95	.0000	.18	-.0177	-25.37	149.01
RISE	51	2904.33	2915.58	24	5	52.5	270.00	.0041	-24.88	-.0000	338430.2	.82	10.53	.0035	112.67	-.0015	-25.30	116.62
RISE	72	3058.58	3069.83	24	8	26.8	266.27	.0042	-25.08	-.0000	350670.6	.72	-.00	.0037	115.34	-.0005	-25.23	78.26
RISE	61	3129.19	3140.44	24	9	37.4	294.32	.0042	-25.95	-.0000	355433.0	.83	.00	.0026	124.97	.0027	-25.21	60.64
SET	42	3192.41	3203.66	24	10	40.6	105.00	.0041	-24.57	.0000	359373.7	1.45	2.72	-.0030	241.58	-.0023	-25.19	44.87
EXTN	51	3255.75	3267.00	24	11	43.9	358.61	.0042	-25.16	.0000	357593.2	1.11	88.62	.0035	65.60	-.0673	-25.17	29.05
EXTN	61	3389.58	3400.83	24	13	57.8	.13	.0042	-26.03	.0000	370268.0	1.11	23.73	-.0000	180.13	.0041	-25.14	355.62
EXTN	72	3429.51	3440.76	24	14	37.7	.02	.0042	-25.42	.0000	369444.9	1.11	72.49	.0000	180.09	.0097	-25.13	345.65
RISE	11	3562.11	3573.36	24	16	50.3	289.86	.0042	-25.70	-.0000	384346.9	.81	.00	.0029	122.06	.0024	-25.09	312.49
SET	51	3617.41	3628.76	24	17	45.7	90.00	.0042	-24.72	.0000	386955.3	1.53	10.46	-.0035	247.48	-.0015	-25.08	298.62
SET	61	3649.68	3660.93	24	18	17.9	65.91	.0042	-25.75	.0000	390333.0	1.46	-.00	-.0026	235.31	.0027	-25.08	290.56
RISE	42	3797.80	3809.05	24	20	46.0	255.00	.0044	-24.53	-.0000	402014.6	2.40	2.70	.0032	118.39	-.0024	-25.08	253.19
IMPACT		3793.12	3804.37	24	20	41.3												
IMPC	42	3793.12	3804.37	24	20	41.3	253.79	.0043	-24.51	-.0000	401464.4	1.73	1.82	.0031	119.06	-.0024	-25.08	254.41
IMPC	72	3793.12	3804.37	24	20	41.3	92.26	.0043	-24.95	.0000	401522.5	2.50	1.30	-.0039	244.99	-.0005	-25.08	254.41
IMPC	11	3793.12	3804.37	24	20	41.3	348.58	.0044	-25.86	-.0000	398688.4	2.00	27.98	.0007	168.36	.0044	-25.08	254.41
SET	72	3798.67	3809.92	24	20	46.9	93.70	.0044	-24.93	.0000	402463.9	3.53	-.00	-.0040	244.80	-.0006	-25.08	252.96

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	22	5	28.182	6598.662	24.7643	307.1249	10.95264	-5.1161	104.1772	119.7372
SEPARATION		1.20	12.45	22	5	29.382	6550.501	22.8919	314.1185	10.99204	-1.7037	107.1289	127.0316
RETRO		3.20	14.45	22	5	31.382	6577.142	19.0847	325.2691	10.96959	4.0191	111.3173	138.6836
EXIT	SHA	7.05	18.30	22	5	35.228	6980.310	10.5148	344.1103	10.64571	14.4133	116.4383	158.4890
IMPACT		3793.12	3804.37	24	20	41.305	4017?.277	-25.0754	254.4060	2.22109	68.7555	264.8329	297.8946

SURVEYOR VIEW PERIODS

GHA	92.3135					EPS-157.3678							LOM	249.0226	
SX	.424084	SY	-.80C382	SZ	-.423724	DAO	-25.06990	RAO	297.91697	RM	403022.727	LAT	28.310600	LON	279.461800
C3	-.876798	ECC	.985604	SLR	12995.120	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.441489	NSY	-.792154	NSZ	-.421403	C3M	1.5556	VIM	2.6823	ZAE	142.440	B.T	.0000	B.R	-.0000
LATE	5.2849	LONE	1.7C37	LATS	-.7897	LCNS	159.4231	LATI	.7336	LONI	324.3575	RSM	146.7642	TTAN	6.5766
LAUNCH DATE		DEC	22,1965		BASE AZM	93.0		TF	63.232			ARRIVAL DATE		DEC 24 1965 21 2 52.0	

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
93.00	5 36 44.6	27.7	23.54	307.09	-5.89	124.67	106.44	5 47 59.6	6561.9	10.98	-2.93

EVNT STA	TFI	TFL	DAY PROBE	HR IN	MIN EARTH'S	HA SHADOW	DHA	DEC	DDE	RNG	DRG	L.E	DEL	AZI	DAZ	LAT	LONI
INJECTION	.00	11.25	22	5	48.0												
SEPARATION	1.20	12.45	22	5	49.2												
RETRO	3.20	14.45	22	5	51.2												
RISE 72	5.57	16.82	22	5	53.6	73.78	-.3403	63.59	.0931	2564.6	-6.55	-.00	.1152	334.72	.1353	11.92	336.3(
EXIT SHA	6.25	17.50	22	5	54.2												
EXIT 72	6..5	17.50	22	5	54.2	56.28	-.5199	66.93	.0622	2316.0	-5.50	5.11	.1335	340.90	.1666	10.35	339.3(
EXTM 72	11.16	22.41	22	5	59.2	312.44	-.0885	21.58	-.1609	2423.1	5.60	34.82	-.0000	56.71	.2201	.10	357.65
RISE 51	11.42	22.67	22	5	59.4	71.64	-.1134	33.16	-.0303	4963.9	-3.79	.00	.0969	307.39	.0233	-.38	358.47
EXTM 51	30.78	42.03	22	6	18.8	351.01	-.0259	-13.73	-.0168	7864.7	5.48	75.32	-.0000	36.81	.1196	-19.16	32.82
EXTM 72	66.34	77.59	22	6	54.3	280.14	-.0001	-26.46	-.0012	22868.1	4.92	12.56	.0000	115.47	.0012	-26.23	49.45
EXTM 51	83.97	95.22	22	7	12.0	330.06	-.0001	-26.97	-.0009	24090.6	4.49	63.20	.0000	99.33	.0019	-27.24	51.44
RISE 61	169.87	181.12	22	8	37.9	305.10	.0029	-34.20	.0003	49998.7	3.43	-.00	.0017	137.42	.0017	-28.42	45.50
EXTM 51	273.33	284.58	22	10	21.3	.06	.0036	-28.59	.0001	64506.3	3.06	87.15	-.0000	181.04	.0601	-28.33	27.63
EXTM 61	438.33	449.58	22	13	6.3	3.10	.0039	-31.42	.0001	96378.4	2.59	18.28	-.0000	182.79	.0035	-27.91	352.82
EXTM 72	472.34	483.59	22	13	40.3	.48	.0040	-29.10	.0001	97791.4	2.52	68.80	-.0000	181.17	.0097	-27.82	345.22
RISE 11	637.27	648.52	22	16	25.3	293.40	.0040	-29.37	-.0000	127102.9	1.96	.00	.0026	126.89	.0023	-27.45	307.32
SET 51	666.36	677.61	22	16	54.4	90.00	.0039	-26.34	.0001	129781.8	2.56	11.11	-.0032	245.97	-.0013	-27.39	300.51
SET 61	684.32	695.57	22	17	12.3	61.52	.0040	-29.40	.0001	133380.7	2.44	-.00	-.0022	229.98	.0026	-27.36	296.2(
SET 72	861.28	872.53	22	20	9.3	94.01	.0039	-26.70	.0001	155642.2	2.40	-.00	-.0035	243.02	-.0004	-27.04	254.27
RISE 42	871.06	882.31	22	20	19.1	254.99	.0040	-25.62	-.0000	156445.3	1.68	3.36	.0029	119.26	-.0022	-27.03	251.92
EXTM 11	911.30	922.55	22	20	59.3	.91	.0042	-29.00	.0001	158855.0	1.96	25.79	-.0000	180.89	.0040	-26.96	242.27
SET 11	1182.55	1193.80	23	1	30.5	68.11	.0041	-27.84	.0001	191919.7	2.07	.00	-.0027	235.14	.0024	-26.59	176.65
EXTM 42	1295.97	1307.22	23	3	24.0	359.98	.0042	-26.18	.0000	197554.6	1.71	80.96	-.0000	.19	-.0176	-26.46	149.00
RISE 51	1430.92	1442.17	23	5	38.9	270.00	.0041	-25.67	-.0000	216088.4	1.2(	10.84	.0034	113.41	-.0015	-26.31	116.00
RISE 72	1586.56	1597.81	23	8	14.6	266.12	.0041	-25.93	-.0000	232249.9	1.16	-.01	.0036	116.20	-.0005	-26.16	77.82
RISE 61	1663.92	1675.17	23	9	31.9	295.79	.0041	-27.21	-.0000	239456.2	1.26	.00	.0025	126.79	.0027	-26.09	58.80
SET 42	1718.81	1730.C6	23	10	26.8	105.00	.0041	-25.14	.0000	244142.5	1.84	3.07	-.0029	241.13	-.0022	-26.05	45.29
EXTM 51	1782.61	1793.86	23	11	30.6	358.06	.0042	-26.00	.0000	243948.9	1.48	88.23	.0038	98.90	.0168	-25.99	29.58
EXTM 61	1921.26	1932.51	23	13	49.3	.37	.0042	-27.17	.0000	260015.9	1.44	22.59	.0000	180.36	.0040	-25.88	355.39
EXTM 72	1961.09	1972.34	23	14	29.1	.12	.0042	-26.29	.0000	259903.2	1.43	71.62	-.0000	180.34	.0119	-25.85	345.56
RISE 11	2099.61	2110.86	23	16	47.6	290.70	.0042	-26.61	-.0000	277602.7	1.07	.00	.0028	123.24	.0024	-25.75	311.34
SET 51	2149.58	2160.83	23	17	37.6	90.00	.0041	-25.22	.0000	280567.2	1.75	10.66	-.0034	247.01	-.0015	-25.72	298.98
SET 61	2178.39	2189.64	23	18	6.4	64.88	.0042	-26.63	.0000	284111.2	1.65	.01	-.0025	234.03	.0027	-25.70	291.85
SET 72	2334.44	2345.69	23	20	42.4	93.79	.0041	-25.42	.0000	296698.5	1.73	-.01	-.0037	244.32	-.0005	-25.60	253.23
RISE 42	2335.75	2347.CO	23	20	43.7	255.00	.0041	-24.85	-.0000	296481.1	.99	2.89	.0030	118.64	-.0023	-25.60	252.90
EXTM 11	2376.14	2387.39	23	21	24.1	.25	.0042	-26.65	.0000	297005.3	1.31	28.14	-.0000	180.26	.0043	-25.57	242.90
SET 11	2652.52	2663.77	24	2	.5	69.73	.0042	-26.15	.0C00	321207.6	1.56	-.00	-.0028	237.36	.0024	-25.41	174.38
EXTM 42	2754.77	2766.02	24	3	42.8	359.97	.0042	-25.17	.0000	322575.3	1.22	79.95	.0000	.18	-.0181	-25.36	149.01
RISE 51	2885.25	2896.50	24	5	53.2	270.00	.0041	-24.87	-.0000	337108.8	.82	10.52	.0035	112.66	-.0015	-25.29	116.61
RISE 72	3039.66	3050.91	24	8	27.7	266.28	.0042	-25.06	-.0000	349459.7	.72	.00	.0037	115.32	-.0005	-25.21	78.25
RISE 61	3110.15	3121.40	24	9	38.1	294.30	.0042	-25.93	-.0000	354215.8	.83	.00	.0026	124.95	.0027	-25.19	60.66
SET 42	3173.40	3184.65	24	10	41.4	105.00	.0041	-24.55	.0000	358160.0	1.45	2.71	-.0030	241.59	-.0023	-25.17	44.87
EXTM 51	3236.79	3248.04	24	11	44.8	358.62	.0042	-25.14	.0000	356380.4	1.11	88.62	.0034	64.75	-.0696	-25.15	29.04
EXTM 61	3370.56	3381.81	24	13	58.6	.13	.0042	-26.02	.0000	369041.4	1.11	23.75	-.0000	180.13	.0041	-25.12	355.62
EXTM 72	3410.48	3421.73	24	14	38.5	.02	.0042	-25.40	.0000	368214.1	1.11	72.50	.0000	180.09	.0098	-25.11	345.65
RISE 11	3543.02	3554.27	24	16	51.0	289.84	.0042	-25.69	-.0000	383082.0	.80	.00	.0029	122.04	.0024	-25.08	312.50
SET 51	3598.46	3609.71	24	17	46.5	90.00	.0042	-24.69	.0000	385668.0	1.52	10.45	-.0035	247.50	-.0015	-25.06	298.62
SET 61	3630.72	3641.97	24	18	18.7	65.93	.0042	-25.73	.0000	389028.0	1.44	-.00	-.0026	235.34	.0027	-25.06	290.54
RISE 42	3779.22	3790.47	24	20	47.2	255.00	.0042	-24.49	-.0000	399865.8	1.24	2.67	.0031	118.36	-.0023	-25.05	253.19
SET 72	3780.07	3791.32	24	20	48.1	93.70	.0042	-24.91	.0000	400243.3	2.01	.00	-.0038	244.83	-.0006	-25.05	252.97
IMPACT	3793.90	3805.15	24	21	1.9												
IMPC 42	379[illegible].90	3805.15	24	21	1.9	258.74	.0043	-24.52	-.0000	401100.1	1.71	5.41	.0032	116.32	-.0023	-25.05	249.43
IMPC 72	3793.90	3805.15	24	21	1.9	97.22	.0043	-24.90	.0000	402051.7	2.49	-3.16	-.0038	244.32	-.0007	-25.05	249.43
IMPC 11	3793.90	3805.15	24	21	1.9	353.63	.0044	-25.85	-.0000	398656.8	2.03	28.65	.0004	173.46	.0045	-25.05	249.43

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	22	5	47.993	6562.007	23.5428	307.0819	10.98254	-2.9254	106.4370	124.6605
SEPARATION	1.20	12.45	22	5	49.193	6545.180	21.4230	313.9157	10.99653	.5076	109.1690	131.7951
RETRO	3.20	14.45	22	5	51.193	6622.265	17.2938	324.7444	10.93187	6.1918	112.9380	143.1751
EXIT SHA	6.25	17.50	22	5	54.246	6976.791	10.3519	339.3564	10.64841	14.3574	116.6397	158.9025
IMPACT	3793.90	3805.15	24	21	1.895	401750.672	-25.0530	249.4332	2.21878	68.4952	264.8091	298.0833

SURVEYOR VIEW PERIODS

EPS-157.2182

GHA	92.3135													LOM	244.2662
SX	.426669	SY	-.799187	SZ	-.423384	DAC	-25.04843	RAO	298.09684	RM	403050.488	LAT	28.3106CC	LON	279.461800
C3	-.877625	ECC	.985590	SLR	12995.028	RCA	6544.6650	LTA	-20.0000	GTA	20.CO	TB	675.00000	POL	-.0
NSX	.444057	NSY	-.79C908	NSZ	-.421044	C3M	1.5554	VIM	2.6823	ZAE	142.419	B.T	.0000	B.R	-.0000
LATE	5.2970	LONE	1.6881	LATS	-.7900	LCNS	159.2565	LATI	.6283	LONI	324.3362	RSM	146.7645	TTAN	6.5723

LAUNCH DATE DEC 22,1965 BASE AZM 96.0 TF 63.253 ARRIVAL DATE DEC 24 1965 21 22 33.4

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
96.00	5 53 1.9	27.9	22.35	306.87	-2.31	128.53	108.62	6 4 16.9	6547.3	10.99	-1.15

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	22	6	4.3												
SEPARATION	1.20	12.45	22	6	5.5												
RETRO	3.20	14.45	22	6	7.5												
RISE 72	5.16	16.41	22	6	9.4	78.15	-.2557	55.96	.0698	2647.2	-7.18	-.01	.1216	326.78	.1028	10.99	333.32
EXIT SHA	5.62	16.87	22	6	9.9												
EXIT 72	5.62	16.87	22	6	9.9	70.33	-.3189	57.79	.0626	2458.1	-6.64	3.52	.1366	329.81	.1193	9.93	335.33
EXTM 72	10.78	22.03	22	6	15.1	323.84	-.1240	19.84	-.1700	2191.5	5.18	44.87	-.0000	51.56	.2909	-.95	354.34
RISE 51	11.25	22.50	22	6	15.5	74.38	-.1033	29.18	-.0333	5153.2	-3.57	-.00	.0948	302.77	.0160	-1.79	355.76
EXTM 51	32.59	43.84	22	6	36.9	354.31	-.0232	-17.19	-.0132	8598.2	5.43	79.95	-.0000	32.83	.1476	-20.85	31.03
EXTM 72	67.34	78.59	22	7	11.6	284.18	-.0000	-27.64	-.0010	22979.3	4.88	16.18	.0000	116.58	.0010	-26.90	45.87
EXTM 51	86.38	97.63	22	7	30.7	334.74	.0000	-27.92	-.0007	24745.4	4.44	67.40	.0000	101.21	.0018	-27.85	47.77
RISE 61	152.97	164.22	22	8	37.3	306.40	.0027	-35.04	.0003	46402.7	3.57	-.00	.0016	138.77	.0015	-28.75	43.88
EXTM 51	253.34	264.59	22	10	17.6	.08	.0035	-28.96	.0001	60910.7	3.13	86.77	.0000	181.21	.0529	-28.66	27.62
EXTM 61	421.97	433.22	22	13	6.3	3.36	.0039	-31.77	.0002	93951.6	2.62	17.93	.0000	183.00	.0035	-28.16	352.58
EXTM 72	455.28	466.53	22	13	39.6	.52	.0040	-29.38	.0001	95303.6	2.55	68.52	-.0000	181.25	.0095	-28.06	345.18
RISE 11	621.82	633.07	22	15	26.1	293.62	.0040	-29.59	.0000	125085.4	1.98	.00	.0026	127.18	.0023	-27.64	307.06
SET 51	649.64	660.89	22	16	53.9	90.00	.0039	-26.50	.0001	127620.2	2.58	11.17	-.0032	245.81	-.0013	-27.57	300.56
SET 61	666.54	677.79	22	17	10.8	61.25	.0040	-29.62	.0001	131106.1	2.46	-.00	-.0022	229.65	.0026	-27.54	296.60
SET 72	845.04	856.29	22	20	9.3	94.03	.0039	-26.84	.0001	153747.8	2.41	-.00	-.0035	242.88	-.0004	-27.18	254.28
RISE 42	855.00	866.25	22	20	19.3	254.99	.0040	-25.74	-.0000	154572.3	1.70	3.44	.0029	119.35	-.0022	-27.17	251.90
EXTM 11	895.41	906.66	22	20	59.7	.97	.0042	-29.15	.0001	157059.5	1.98	25.63	-.0000	180.94	.0040	-27.10	242.21
SET 11	1166.11	1177.36	23	1	30.4	68.01	.0041	-27.95	.0001	190224.7	2.08	.00	-.0027	234.99	.0024	-26.69	176.77
EXTM 42	1280.07	1291.32	23	3	24.4	359.97	.0042	-26.27	.0000	195974.7	1.71	81.05	-.0000	.19	-.0190	-26.55	149.01
RISE 51	1415 12	1426.37	23	5	39.4	270.00	.0041	-25.74	-.0000	214578.2	1.28	10.87	.0034	113.47	-.0015	-26.39	115.99
RISE 72	1570.75	1582.00	23	8	15.0	266.11	.0041	-26.00	-.0000	230803.6	1.17	-.01	.0036	116.27	-.0005	-26.23	77.82
RISE 61	1648.47	1659.72	23	9	32.8	295.86	.0041	-27.27	-.0000	238071.2	1.26	.00	.0025	126.89	.0027	-26.15	58.71
SET 42	1702.99	1714.24	23	10	27.3	105.00	.0041	-25.19	.0000	242738.4	1.85	3.10	-.0029	241.09	-.0022	-26.10	45.30
EXTM 51	1766.82	1778.07	23	11	31.1	358.06	.0042	-26.05	.0000	242573.0	1.48	88.22	.0037	100.60	.0203	-26.05	29.58
EXTM 61	1905.58	1916.83	23	13	49.9	.39	.0042	-27.22	.0000	258695.6	1.45	22.54	.0000	180.38	.0040	-25.93	355.37
EXTM 72	1945.35	1956.60	23	14	29.6	.12	.0042	-26.33	.0000	258586.4	1.44	71.57	-.0000	180.35	.0118	-25.90	345.55
RISE 11	2084.04	2095.29	23	16	48.3	290.74	.0042	-26.65	-.0000	276335.1	1.08	.00	.0028	123.29	.0024	-25.79	311.29
SET 51	2133.82	2145.07	23	17	38.1	90.00	.0041	-25.25	.0000	279294.6	1.75	10.67	-.0034	246.98	-.0015	-25.75	298.99
SET 61	2162.46	2173.71	23	18	6.7	64.84	.0042	-26.67	.0000	282833.2	1.65	.01	-.0025	233.98	.0027	-25.73	291.90
SET 72	2318.71	2329.96	23	20	43.0	93.79	.0041	-25.44	.0000	295473.5	1.74	-.01	-.0037	244.29	-.0005	-25.63	253.23
RISE 42	2320.05	2331.30	23	20	44.3	255.00	.0041	-24.87	-.0000	295256.9	1.00	2.91	.0030	118.66	-.0023	-25.62	252.90
EXTM 11	2360.47	2371.72	23	21	24.7	.27	.0042	-26.68	.0000	295796.7	1.32	28.12	-.0000	180.27	.0043	-25.60	242.89
SET 11	2636.74	2647.99	24	2	1.0	69.72	.0042	-26.16	.0000	320043.7	1.57	-.00	-.0028	237.34	.0024	-25.43	174.40
EXTM 42	2739.06	2750.31	24	3	43.3	359.97	.0042	-25.17	.0000	321435.4	1.23	79.95	.0000	.19	-.0177	-25.37	149.01
RISE 51	2869.56	2880.81	24	5	53.8	270.00	.0041	-24.87	-.0000	335993.1	.82	10.52	.0035	112.67	-.0015	-25.30	116.61
RISE 72	3023.95	3035.20	24	8	28.2	266.27	.0042	-25.06	-.0000	348373.4	.72	-.01	.0037	115.32	-.0005	-25.22	78.25
RISE 61	3094.47	3105.72	24	9	38.8	294.30	.0042	-25.94	-.0000	353134.5	.84	.00	.0026	124.96	.0027	-25.19	60.65
SET 42	3157.70	3168.95	24	10	42.0	105.00	.0041	-24.55	.0000	357079.6	1.45	2.71	-.0030	241.59	-.0023	-25.17	44.87
EXTM 51	3221.12	3232.37	24	11	45.4	358.63	.0042	-25.14	.0000	355304.1	1.11	88.62	.0034	64.51	-.0704	-25.15	29.03
EXTM 61	3354.91	3366.16	24	13	59.2	.14	.0042	-26.01	.0000	367964.7	1.11	23.75	-.0000	180.13	.0041	-25.11	355.62
EXTM 72	3394.80	3406.05	24	14	39.1	.02	.0042	-25.39	.0000	367134.7	1.11	72.51	.0000	180.10	.0098	-25.10	345.65
RISE 11	3527.33	3538.58	24	16	51.6	289.83	.0042	-25.68	-.0000	381985.4	.80	.00	.0029	122.03	.0024	-25.07	312.51
SET 51	3582.79	3594.04	24	17	47.1	90.00	.0042	-24.68	.0000	384597.7	1.51	10.45	-.0035	247.51	-.0015	-25.05	298.63
SET 61	3615.11	3626.36	24	18	19.4	65.94	.0042	-25.72	.0000	387907.0	1.43	-.00	-.0026	235.35	.0027	-25.05	290.53
RISE 42	3763.77	3775.02	24	20	48.1	255.00	.0042	-24.47	-.0000	398422.0	1.07	2.66	.0030	118.34	-.0023	-25.03	253.18
SET 72	3764.59	3775.84	24	20	48.9	93.69	.0042	-24.89	.0000	398786.3	1.83	-.00	-.0038	244.85	-.0006	-25.03	252.98
IMPACT	3795.15	3806.40	24	21	19.4												
IMPC 42	3795.15	3806.40	24	21	19.4	262.97	.0043	-24.52	-.0000	400781.1	1.71	8.53	.0032	114.07	-.0022	-25.03	245.20
IMPC 11	3795.15	3806.40	24	21	19.4	357.92	.0044	-25.83	-.0000	398654.8	2.05	28.93	.0001	177.87	.0045	-25.03	245.20
EXTM 11	3801.27	3812.52	24	21	25.6	359.55	.0046	-25.83	-.0000	399556.7	3.45	28.96	.0000	179.54	.0047	-25.04	243.60

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	22	6	4.282	6547.304	22.3498	306.8659	10.99481	-1.1451	108.6247	128.5279
SEPARATION	1.20	12.45	22	6	5.482	6555.203	19.9928	313.5435	10.98802	2.2898	111.1482	135.5063
RETRO	3.20	14.45	22	6	7.482	6672.365	15.5746	324.0265	10.89041	7.9230	114.5150	146.4907
EXIT SHA	5.62	16.87	22	6	9.900	6974.888	9.9297	335.3261	10.64984	14.3269	117.1552	158.3964
IMPACT	3795.15	3806.40	24	21	19.433	401776.074	-25.0341	245.1971	2.21808	68.4488	265.0030	298.2438

SURVEYOR VIEW PERIODS

EPS-157.1051

GHA	92.3135													LOM	240.6705
SX	.428621	SY	-.798279	SZ	-.423125	DAO	-25.03206	RAO	298.23275	RM	403071.391	LAT	28.310600	LON	279.461800
C3	-.877883	ECC	.985586	SLR	12994.998	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.445992	NSY	-.789961	NSZ	-.420776	C3M	1.5562	VIM	2.6824	ZAE	142.393	B.T	.0000	B.R	-.0000
LATE	5.3062	LONE	1.6758	LATS	-.7902	LCNS	159.1300	LATI	.4491	LONI	324.3238	RSM	146.7647	TTAN	6.5692

LAUNCH DATE DEC 22,1965 BASE AZM 99.0 TF 63.262 ARRIVAL DATE DEC 24 1965 21 37 26.6

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99.00	6 6 9.5	28.0	21.18	306.53	.55	131.48	110.77	6 17 24.5	6544.8	11.00	.27

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE	IN	EARTH'S	SHADOW											
INJECTION	.00	11.25	22	6	17.4												
SEPARATION	1.20	12.45	22	6	18.6												
RETRO	3.20	14.45	22	6	20.6												
RISE 72	4.87	16.12	22	6	22.3	80.67	-.2129	49.42	.0457	2723.2	-7.56	.00	.1257	320.07	.0740	9.89	330.85
EXIT SHA	5.12	16.37	22	6	22.5												
EXIT 72	5.12	16.37	22	6	22.5	77.32	-.2346	50.09	.0433	2611.7	-7.32	1.95	.1344	321.22	.0804	9.29	331.93
EXTM 72	10.54	21.79	22	6	27.9	334.68	-.1557	15.70	-.1694	2037.9	4.85	55.56	-.0000	46.72	.4000	-2.29	351.59
RISE 51	11.14	22.39	22	6	28.6	76.75	-.0953	25.42	-.0363	5314.2	-3.36	.00	.0929	298.46	.0096	-3.37	353.36
EXTM 51	34.40	45.65	22	6	51.8	356.95	-.0210	-20.54	-.0103	9309.1	5.38	84.09	-.0000	28.95	.2158	-22.66	29.52
EXTM 72	68.28	79.53	22	7	25.7	287.51	.0000	-29.02	-.0007	23109.7	4.84	19.11	.0000	118.05	.0008	-27.81	42.91
RISE 61	141.63	152.88	22	8	39.0	307.98	.0025	-36.03	.0004	43934.1	3.67	-.00	.0015	140.40	.0013	-29.30	42.08
EXTM 51	236.93	248.18	22	10	14.3	.13	.0034	-29.53	.0001	57889.5	3.21	86.21	-.0000	181.75	.0439	-29.15	27.57
EXTM 61	409.52	420.77	22	13	6.9	3.74	.0039	-32.21	.0002	92108.1	2.65	17.47	.0000	183.32	.0034	-28.52	352.23
EXTM 72	441.77	453.02	22	13	39.2	.61	.0040	-29.78	.0001	93318.5	2.58	68.12	-.0000	181.43	.0093	-28.41	345.10
RISE 11	609.97	621.22	22	16	27.4	293.93	.0040	-29.89	.0000	123531.2	2.00	.00	.0026	127.59	.0023	-27.91	306.72
SET 51	636.19	647.44	22	16	53.6	90.00	.0038	-26.76	.0001	125864.0	2.60	11.27	-.0032	245.58	-.0013	-27.84	300.61
SET 61	651.54	662.79	22	17	8.9	60.86	.0039	-29.92	.0001	129170.4	2.48	-.00	-.0022	229.20	.0026	-27.80	297.02
SET 72	832.06	843.31	22	20	9.5	94.07	.0039	-27.05	.0001	152228.0	2.42	-.00	-.0035	242.67	-.0004	-27.39	254.28
RISE 42	842.11	853.36	22	20	19.5	254.99	.0040	-25.94	-.0000	153057.4	1.71	3.56	.0029	119.51	-.0022	-27.37	251.87
EXTM 11	882.78	894.03	22	21	.2	1.05	.0041	-29.38	.0001	155636.9	1.99	25.41	-.0000	181.02	.0040	-27.30	242.14
SET 11	1152.59	1163.84	23	1	30.0	67.85	.0041	-28.12	.0001	188829.3	2.09	.00	-.0027	234.77	.0024	-26.84	176.94
EXTM 42	1267.14	1278.39	23	3	24.5	359.94	.0042	-26.40	.0000	194689.8	1.72	81.18	.0000	.39	-.0234	-26.68	149.04
RISE 51	1402.42	1413.67	23	5	39.8	270.00	.0041	-25.86	-.0000	213364.1	1.28	10.91	.0034	113.58	-.0015	-26.51	115.98
RISE 72	1558.00	1569.25	23	8	15.4	266.09	.0041	-26.10	-.0000	229641.1	1.17	-.01	.0036	116.37	-.0005	-26.33	77.82
RISE 61	1636.27	1647.52	23	9	33.7	295.99	.0041	-27.37	-.0000	236983.5	1.27	.00	.0025	127.04	.0027	-26.25	58.59
SET 42	1690.25	1701.50	23	10	27.7	105.00	.0041	-25.28	.0000	241610.3	1.85	3.16	-.0029	241.02	-.0022	-26.19	45.31
EXTM 51	1754.16	1765.41	23	11	31.6	358.06	.0042	-26.14	.0000	241475.0	1.49	88.21	.0037	103.44	.0260	-26.13	29.57
EXTM 61	1892.99	1904.24	23	13	50.4	.42	.0042	-27.30	.0000	257647.3	1.45	22.46	.0000	180.40	.0040	-26.00	355.34
EXTM 72	1932.69	1943.94	23	14	30.1	.13	.0042	-26.41	.0000	257535.7	1.44	71.50	-.0000	180.37	.0118	-25.97	345.55
RISE 11	2071.63	2082.88	23	16	49.0	290.80	.0042	-26.71	-.0000	275333.6	1.08	.00	.0028	123.38	.0024	-25.85	311.23
SET 51	2121.12	2132.37	23	17	38.5	90.00	.0041	-25.31	.0000	278277.1	1.75	10.70	-.0034	246.93	-.0015	-25.81	298.99
SET 61	2149.52	2160.77	23	18	6.9	64.78	.0042	-26.73	.0000	281805.2	1.65	-.00	-.0025	233.90	.0027	-25.79	291.97
SET 72	2306.05	2317.30	23	20	43.5	93.80	.0041	-25.49	.0000	294498.3	1.74	-.01	-.0037	244.25	-.0005	-25.67	253.23
RISE 42	2307.39	2318.64	23	20	44.8	255.00	.0041	-24.92	-.0000	294279.2	1.00	2.94	.0030	118.70	-.0023	-25.67	252.90
EXTM 11	2347.86	2359.11	23	21	25.3	.28	.0042	-26.72	.0000	294838.5	1.32	28.07	-.0000	180.29	.0043	-25.64	242.87
SET 11	2623.93	2635.18	24	2	1.3	69.69	.0042	-26.20	.0000	319112.6	1.57	-.00	-.0028	237.30	.0024	-25.46	174.44
EXTM 42	2726.38	2737.63	24	3	43.8	359.97	.0042	-25.20	.0000	320529.7	1.23	79.98	.0000	.19	-.0193	-25.39	149.01
RISE 51	2856.91	2868.16	24	5	54.3	270.00	.0041	-24.89	-.0000	335107.8	.83	10.53	.0035	112.69	-.0015	-25.32	116.61
RISE 72	3011.30	3022.55	24	8	28.7	266.27	.0041	-25.08	-.0000	347272.7	.76	-.00	.0037	115.33	-.0005	-25.23	78.25
RISE 61	3081.99	3093.24	24	9	39.4	294.31	.0042	-25.94	-.0000	352364.9	.83	.00	.0026	124.97	.0027	-25.20	60.64
SET 42	3145.15	3156.40	24	10	42.6	105.00	.0041	-24.55	.0000	356304.0	1.45	2.71	-.0030	241.59	-.0023	-25.17	44.87
EXTM 51	3208.56	3219.81	24	11	46.0	358.62	.0042	-25.14	.0000	354524.8	1.11	88.62	.0034	64.65	-.0699	-25.15	29.04
EXTM 61	3342.37	3353.62	24	13	59.8	.14	.0042	-26.01	.0000	367178.1	1.11	23.75	-.0000	180.14	.0041	-25.11	355.61
EXTM 72	3382.23	3393.48	24	14	39.6	.03	.0042	-25.39	.0000	366342.3	1.11	72.51	.0000	180.10	.0100	-25.10	345.65
RISE 11	3514.73	3525.98	24	16	52.1	289.83	.0042	-25.67	-.0000	381170.0	.79	.00	.0029	122.02	.0024	-25.06	312.51
SET 51	3570.19	3581.44	24	17	47.6	90.00	.0042	-24.67	.0000	383727.3	1.50	10.44	-.0035	247.52	-.0015	-25.05	298.63
SET 61	3602.54	3613.79	24	18	19.9	65.95	.0042	-25.72	.0000	387066.0	1.43	-.00	-.0026	235.36	.0027	-25.04	290.53
RISE 42	3751.26	3762.51	24	20	48.7	255.00	.0042	-24.45	-.0000	397389.3	.99	2.65	.0030	118.33	-.0023	-25.01	253.18
SET 72	3752.05	3763.30	24	20	49.5	93.69	.0042	-24.88	.0000	397746.9	1.75	-.00	-.0038	244.87	-.0005	-25.01	252.98
EXTM 11	3790.91	3802.16	24	21	28.3	.02	.0043	-25.81	-.0000	398123.1	1.81	28.98	-.0000	180.02	.0049	-25.02	243.13
IMPACT	3795.73	3806.98	24	21	33.1												
IMPC 42	3795.73	3806.98	24	21	33.1	266.28	.0043	-24.52	-.0000	400532.8	1.70	11.02	.0033	112.35	-.0022	-25.02	241.89
IMPC 11	3795.73	3806.98	24	21	33.1	1.28	.0044	-25.81	-.0000	398674.7	2.07	28.97	-.0001	181.32	.0045	-25.02	241.89

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	22	6	17.409	6544.815	21.1834	306.5312	10.99689	.2723	110.7695	131.4838
SEPARATION	1.20	12.45	22	6	18.609	6572.272	18.5991	313.0476	10.97363	3.7027	113.0919	138.3011
RETRO	3.20	14.45	22	6	20.609	6720.722	13.9093	323.1892	10.85086	9.2803	116.0813	148.9440
EXIT SHA	5.12	16.37	22	6	22.525	6973.993	9.2931	331.9305	10.65051	14.3126	117.9411	158.1657
IMPACT	3795.73	3806.98	24	21	33.140	401799.281	-25.0193	241.8867	2.21593	68.2079	265.3024	298.3697

SURVEYOR VIEW PERIODS

GHA	92.3135				EPS-157.0046							LOM	237.4729
SX	.430355	SY	-.797468	SZ	-.422893	DAO	-25.01740	RAO	298.35357	RM	403089.930	LAT	28.310600
LON	279.461800	C3	-.879891	ECC	.985553	SLR	12994.781	RCA	6544.6650	LTA	-20.0000	GTA	20.00
TB	675.00000	POL	-.0	NSX	.447726	NSY	-.789107	NSZ	-.420537	C3M	1.5560	VIM	2.6824
ZAE	142.330	B.T	.0000	B.R	-.0000	LATE	5.3143	LONE	1.7864	LATS	-.7904	LONS	159.1392
LATI	.2121	LONI	324.4063	RSM	146.7649	TTAN	6.5674						

LAUNCH DATE DEC 22,1965 BASE AZP 102.0 TF 63.298 ARRIVAL DATE DEC 24 1965 21 50 40.8

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	6 16 42.5	28.0	20.04	306.11	2.81	133.71	112.89	6 27 57.5	6548.6	10.99	1.39

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	CDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	22	6	28.0												
SEPARATION	1.20	12.45	22	6	29.2												
RETRO	3.20	14.45	22	6	31.2												
RISE 72	4.65	15.90	22	6	32.6	82.40	-.1863	43.62	.0230	2792.3	-7.77	-.00	.1280	314.14	.0482	8.67	328.75
EXIT SHA	4.73	15.98	22	6	32.7												
EXIT 72	4.73	15.98	22	6	32.7	81.57	-.1908	43.72	.0223	2757.9	-7.71	.57	.1307	314.36	.0494	8.48	329.06
EXTM 72	10.41	21.66	22	6	38.4	344.37	-.1784	9.45	-.1607	1954.6	4.63	66.69	-.0000	42.19	.6022	-3.89	349.31
RISE 51	11.08	22.33	22	6	39.0	78.87	-.0888	21.83	-.0391	5451.5	-3.17	.00	.0912	294.38	.0040	-5.07	351.23
EXTM 51	36.21	47.46	22	7	4.2	359.02	-.0192	-23.83	-.0081	9999.1	5.34	87.89	-.0000	25.12	.5263	-24.57	28.29
EXTM 72	69.29	80.54	22	7	37.2	290.24	.0000	-30.56	-.0005	23296.8	4.81	21.40	.0000	119.80	.0005	-28.93	40.51
RISE 61	135.50	146.75	22	8	43.5	309.77	.0023	-37.09	.0005	42600.4	3.73	-.00	.0015	142.19	.0012	-30.06	40.23
EXTM 51	223.60	234.85	22	10	11.6	.21	.0033	-30.26	.0001	55379.7	3.27	85.47	.0000	182.25	.0358	-29.80	27.50
EXTM 61	400.19	411.44	22	13	8.2	4.18	.0039	-32.73	.0002	90731.8	2.67	16.93	.0000	183.68	.0034	-28.97	351.82
EXTM 72	431.19	442.44	22	13	39.1	.72	.0040	-30.27	.0001	91751.5	2.60	67.63	-.0000	181.64	.0090	-28.84	345.00
RISE 11	601.15	612.40	22	16	29.1	294.31	.0040	-30.26	.0000	122361.2	2.01	.00	.0026	120.08	.0023	-28.25	306.32
SET 51	625.49	636.74	22	16	53.4	90.00	.0038	-27.08	.0001	124442.3	2.61	11.40	-.0032	245.27	-.0013	-28.17	300.65
SET 61	638.87	650.12	22	17	6.8	60.38	.0039	-30.29	.0002	127510.2	2.49	-.00	-.0021	228.64	.0026	-28.14	297.53
SET 72	821.83	833.08	22	20	9.8	94.11	.0039	-27.31	.0001	151010.8	2.43	-.00	-.0035	242.40	-.0004	-27.66	254.25
RISE 42	831.90	843.15	22	20	19.9	254.99	.0040	-26.19	-.0000	151829.4	1.72	3.71	.0028	119.71	-.0022	-27.64	251.85
EXTM 11	872.88	884.13	22	21	.8	1.15	.0041	-29.65	.0001	154512.1	2.00	25.13	-.0000	181.10	.0040	-27.55	242.04
SET 11	1141.50	1152.75	23	1	29.5	67.64	.0041	-28.32	.0001	187655.8	2.09	.01	-.0027	234.50	.0024	-27.04	177.16
EXTM 42	1256.95	1268.20	23	3	24.9	359.93	.0042	-26.58	.0000	193648.8	1.73	81.36	.0000	.44	-.0240	-26.86	149.05
RISE 51	1392.32	1403.57	23	5	40.3	270.00	.0041	-26.01	-.0000	212365.8	1.29	10.97	.0034	113.73	-.0015	-26.67	115.97
RISE 72	1547.81	1559.06	23	8	15.8	266.07	.0041	-26.23	-.0000	228678.6	1.18	-.01	.0036	116.50	-.0005	-26.47	77.84
RISE 61	1626.80	1638.05	23	9	34.8	296.14	.0041	-27.50	-.0000	236104.0	1.27	.00	.0025	127.23	.0027	-26.37	58.43
SET 42	1680.11	1691.36	23	10	28.1	105.00	.0041	-25.39	.0000	240671.2	1.85	3.23	-.0029	240.92	-.0022	-26.31	45.31
EXTM 51	1744.12	1755.37	23	11	32.1	358.08	.0042	-26.26	.0000	240566.2	1.49	88.20	.0036	107.16	.0333	-26.24	29.55
EXTM 61	1883.00	1894.25	23	13	51.0	.45	.0042	-27.40	.0000	256777.2	1.46	22.36	.0000	180.43	.0040	-26.10	355.31
EXTM 72	1922.61	1933.86	23	14	30.6	.14	.0042	-26.51	.0000	256657.0	1.44	71.40	-.0000	180.39	.0118	-26.06	345.54
RISE 11	2061.86	2073.11	23	16	49.8	290.88	.0042	-26.80	-.0000	274498.4	1.08	.00	.0028	123.49	.0024	-25.93	311.14
SET 51	2110.99	2122.24	23	17	38.9	90.00	.0041	-25.38	.0000	277415.0	1.76	10.73	-.0034	246.86	-.0015	-25.89	299.00
SET 61	2139.01	2150.26	23	18	7.0	64.68	.0042	-26.81	.0000	280919.4	1.66	-.00	-.0025	233.78	.0027	-25.87	292.07
SET 72	2295.96	2307.21	23	20	43.9	93.81	.0041	-25.55	.0001	293667.3	1.74	-.01	-.0027	244.18	-.0005	-25.74	253.22
RISE 42	2297.29	2308.54	23	20	45.3	255.00	.0041	-24.98	-.0000	293443.0	1.00	2.97	.0030	118.75	-.0023	-25.74	252.89
EXTM 11	2337.83	2349.08	23	21	25.8	.30	.0042	-26.79	.0000	294023.1	1.32	28.00	-.0000	180.31	.0043	-25.70	242.85
SET 11	2613.63	2624.88	24	2	1.6	69.64	.0042	-26.24	.0000	318299.4	1.57	-.00	-.0028	237.24	.0024	-25.50	174.48
EXTM 42	2716.25	2727.50	24	3	44.2	359.96	.0042	-25.24	.0000	319738.2	.23	80.02	.0000	.21	-.0197	-25.43	149.02
RISE 51	2846.80	2858.05	24	5	54.8	270.00	.0041	-24.92	-.0000	334328.3	.83	10.54	.0035	112.71	-.0015	-25.35	116.60
RISE 72	3001.17	3012.42	24	8	29.1	266.27	.0041	-25.10	-.0000	346505.1	.76	-.00	.0037	115.36	-.0005	-25.25	78.25
RISE 61	3071.96	3083.21	24	9	39.9	294.33	.0042	-25.96	-.0000	351610.2	.83	.00	.0026	125.00	.0027	-25.22	60.62
SET 42	3135.02	3146.27	24	10	43.0	105.00	.0041	-24.57	.0000	355540.8	1.45	2.72	-.0030	241.58	-.0023	-25.19	44.87
EXTM 51	3198.44	3209.69	24	11	46.4	358.62	.0042	-25.16	.0000	353762.7	1.11	88.63	.0035	65.16	-.0690	-25.17	29.04
EXTM 61	3332.30	3343.55	24	14	.3	.16	.0042	-26.02	.0000	366416.6	1.11	23.74	-.0000	180.15	.0041	-25.12	355.60
EXTM 72	3372.13	3383.38	24	14	40.1	.03	.0042	-25.40	.0000	365575.6	1.11	72.50	.0000	180.10	.0110	-25.10	345.64
RISE 11	3504.64	3515.89	24	16	52.6	289.83	.0042	-25.68	-.0000	380390.8	.79	.00	.0029	122.03	.0024	-25.06	312.51
SET 51	3560.08	3571.33	24	17	48.0	90.00	.0042	-24.67	.0000	382936.8	1.50	10.44	-.0035	247.52	-.0015	-25.04	298.63
SET 61	3592.45	3603.70	24	18	20.4	65.95	.0042	-25.71	.0000	386267.5	1.42	-.00	-.0026	235.36	.0027	-25.04	290.53
RISE 42	3741.25	3752.50	24	20	49.2	255.00	.0042	-24.44	-.0000	396462.8	.95	2.64	.0030	118.32	-.0023	-25.00	253.18
SET 72	3742.02	3753.27	24	20	50.0	93.69	.0042	-24.87	.0000	396815.7	1.71	-.00	-.0038	244.88	-.0005	-25.00	252.99
EXTM 11	3780.61	3791.86	24	21	28.6	359.92	.0043	-25.80	.0000	396919.3	1.53	28.99	.0000	179.92	.0045	-25.00	243.23
IMPACT	3797.89	3809.14	24	21	45.8												
IMPC 42	3797.89	3809.14	24	21	45.8	269.34	.0043	-24.53	-.0000	400298.4	1.70	13.35	.0033	110.78	-.0022	-25.01	238.82
IMPC 11	3797.89	3809.14	24	21	45.8	4.40	.0044	-25.80	-.0000	398704.0	2.08	28.85	-.0003	184.52	.0045	-25.01	238.82

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	22	6	27.958	6548.569	20.0414	306.1119	10.99365	1.3927	112.8890	133.7090
SEPARATION	1.20	12.45	22	6	29.158	6591.364	17.2428	312.4518	10.95751	4.8111	115.0145	140.3497
RETRO	3.20	14.45	22	6	31.158	6764.007	12.2904	322.2665	10.81573	10.3362	117.6531	150.6658
EXIT SHA	4.73	15.98	22	6	32.684	6974.153	8.4834	329.0610	10.65029	14.3151	118.9494	157.8429
IMPACT	3797.89	3809.14	24	21	45.844	401817.465	-25.0057	238.8181	2.21513	68.1808	265.7675	298.4858

SURVEYOR VIEW PERIODS

GHA	92.3135					EPS-156.9176								LOM	234.7062
SX	.431854	SY	-.796765	SZ	-.422692	DAO	-25.00464	RAO	298.45808	RM	403105.922	LAT	28.310600	LON	279.461800
C3	-.882652	ECC	.985508	SLR	12994.484	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.449235	NSY	-.788359	NSZ	-.420331	C3M	1.5557	VIM	2.6823	ZAE	142.242	B.T	.0000	B.R	-.0000
LATE	5.3213	LONE	1.6569	LATS	-.7905	LONS	158.9218	LATI	-.0669	LONI	324.2306	RSM	146.7651	TTAN	6.5669
LAUNCH DATE	DEC 22,1965			BASE AZM	105.0		TF 63.345					ARRIVAL DATE	DEC 24 1965 22 2 8.0		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	6 25 12.5	28.1	18.92	305.62	4.59	135.35	114.99	6 36 27.5	6555.1	10.99	2.28

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DOE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	22	6	36.5												
SEPARATION	1.20	12.45	22	6	37.7												
RETRO	3.20	14.45	22	6	39.7												
EXIT SHA	4.42	15.67	22	6	40.9												
EXIT 72	4.42	15.67	22	6	40.9	84.49	-.1640	38.30	.0027	2892.1	-7.90	-.61	.1264	308.63	.0242	7.54	326.60
RISE 72	4.50	15.75	22	6	41.0	83.70	-.1676	38.31	.0018	2854.5	-7.84	.00	.1292	308.75	.0248	7.34	326.93
EXTM 72	10.38	21.63	22	6	46.8	352.61	-.1909	1.65	-.1467	1938.5	4.52	77.93	-.0000	37.95	1.1515	-5.69	347.40
RISE 51	11.05	22.30	22	6	47.5	80.80	-.0833	18.34	-.0419	5570.8	-2.99	.00	.0895	290.45	-.0010	-6.89	349.29
EXTM 51	35.51	46.76	22	7	12.0	3.54	-.0210	-25.99	-.0079	9876.1	5.28	86.80	.0184	264.82	-.1633	-25.90	25.53
EXTM 72	70.28	81.53	22	7	46.7	292.43	.0000	-32.22	-.0003	23507.0	4.78	23.15	.0000	121.74	.0003	-30.19	38.56
EXTM 51	91.83	103.08	22	8	8.3	344.22	.0001	-31.81	-.0001	26274.8	4.34	74.92	.0000	117.37	.0006	-30.78	40.26
RISE 61	133.83	145.08	22	8	50.3	311.66	.0023	-38.15	.0006	42281.2	3.74	.00	.0015	144.02	.0011	-30.97	38.40
EXTM 51	213.11	224.36	22	10	9.6	.34	.0032	-31.14	.0002	53372.8	3.32	84.59	-.0000	183.13	.0290	-30.56	27.38
EXTM 61	393.11	404.36	22	13	9.6	4.60	.0038	-33.32	.0002	89699.1	2.69	16.32	.0000	184.01	.0034	-29.50	351.43
EXTM 72	423.11	434.36	22	13	39.6	.88	.0040	-30.83	.0001	90552.1	2.61	67.06	-.0000	181.94	.0088	-29.35	344.86
RISE 11	594.77	606.02	22	16	31.2	294.75	.0040	-30.68	.0000	121508.4	2.02	.00	.0026	128.65	.0023	-28.64	305.86
SET 51	617.01	628.26	22	16	53.5	90.00	.0038	-27.47	.0001	123298.6	2.62	11.56	-.0032	244.91	-.0012	-28.57	300.69
SET 61	628.07	639.32	22	17	4.5	59.81	.0039	-30.72	.0002	126076.6	2.50	-.00	-.0021	228.00	.0027	-28.53	298.11
SET 72	813.80	825.05	22	20	10.3	94.17	.0039	-27.62	.0001	150043.0	2.43	-.00	-.0035	242.09	-.0004	-27.97	254.22
RISE 42	823.81	835.06	22	20	20.3	254.99	.0040	-26.49	-.0000	150839.7	1.73	3.90	.0028	119.95	-.0022	-27.95	251.83
EXTM 11	865.16	876.41	22	21	1.6	1.26	.0041	-29.96	.0001	153634.4	2.00	24.82	-.0000	181.20	.0040	-27.84	241.94
SET 11	1132.44	1143.69	23	1	28.9	67.41	.0041	-28.56	.0001	186683.3	2.09	-.00	-.0026	234.18	.0024	-27.27	177.40
EXTM 42	1248.84	1260.09	23	3	25.3	359.92	.0042	-26.79	.0000	192803.3	1.73	81.57	.0000	.50	-.0247	-27.06	149.06
RISE 51	1384.29	1395.54	23	5	40.7	270.00	.0041	-26.19	-.0000	211551.6	1.29	11.05	.0034	113.90	-.0015	-26.85	115.96
RISE 72	1539.67	1550.92	23	8	16.1	266.04	.0041	-26.39	-.0000	227888.7	1.18	-.01	.0036	116.66	-.0005	-26.63	77.86
RISE 61	1619.49	1630.74	23	9	35.9	296.32	.0041	-27.66	-.0000	235403.9	1.27	.00	.0025	127.45	.0027	-26.52	58.24
SET 42	1672.02	1683.27	23	10	28.5	105.00	.0041	-25.53	.0001	239897.0	1.86	3.31	-.0029	240.82	-.0022	-26.45	45.32
EXTM 51	1736.18	1747.43	23	11	32.6	358.12	.0042	-26.39	.0000	239823.4	1.49	88.18	.0035	111.55	.0416	-26.38	29.52
EXTM 61	1875.08	1886.33	23	13	51.5	.48	.0042	-27.53	.0000	256065.0	1.46	22.23	.0000	180.46	.0040	-26.22	355.28
EXTM 72	1914.58	1925.83	23	14	31.0	.15	.0042	-26.62	.0000	255931.6	1.44	71.28	-.0000	180.41	.0117	-26.18	345.53
RISE 11	2054.19	2065.44	23	16	50.6	290.98	.0042	-26.90	-.0000	273813.4	1.09	.00	.0028	123.62	.0024	-26.03	311.04
SET 51	2102.89	2114.14	23	17	39.4	90.00	.0041	-25.48	.0001	276695.1	1.76	10.76	-.0034	246.77	-.0015	-25.99	299.00
SET 61	2130.47	2141.72	23	18	6.9	64.57	.0042	-26.91	.0000	280168.9	1.66	-.00	-.0025	233.64	.0027	-25.96	292.18
SET 72	2287.92	2299.17	23	20	44.4	93.83	.0041	-25.63	.0001	292971.0	1.74	-.01	-.0037	244.10	-.0005	-25.82	253.21
RISE 42	2289.22	2300.47	23	20	45.7	255.00	.0041	-25.06	-.0000	292739.6	1.01	3.02	.0030	118.81	-.0023	-25.82	252.89
EXTM 11	2329.84	2341.09	23	21	26.3	.33	.0042	-26.87	.0000	293341.8	1.32	27.92	-.0000	180.33	.0042	-25.78	242.83
SET 11	2605.31	2616.56	24	2	1.8	69.59	.0042	-26.30	.0000	317603.4	1.57	-.00	-.0028	237.16	.0024	-25.56	174.54
EXTM 42	2708.14	2719.39	24	3	44.6	359.96	.0042	-25.29	.0000	319062.4	1.23	80.07	.0000	.22	-.0202	-25.48	149.02
RISE 51	2838.70	2849.95	24	5	55.2	270.00	.0041	-24.96	-.0000	333659.1	.83	10.56	.0035	112.75	-.0015	-25.39	116.60
RISE 72	2993.05	3004.30	24	8	29.5	266.26	.0041	-25.13	-.0000	345842.1	.76	-.00	.0037	115.39	-.0005	-25.28	78.25
RISE 61	3064.08	3075.33	24	9	40.5	294.36	.0042	-25.98	-.0000	351033.8	.83	.00	.0026	125.03	.0027	-25.24	60.59
SET 42	3127.02	3138.27	24	10	43.5	105.00	.0041	-24.58	.0000	354949.8	1.45	2.73	-.0030	241.57	-.0023	-25.21	44.88
EXTM 51	3190.59	3201.84	24	11	47.0	358.66	.0042	-25.17	.0000	353176.6	1.10	88.67	.0035	65.05	-.0712	-25.18	29.00
EXTM 61	3324.32	3335.57	24	14	.8	.17	.0042	-26.03	.0000	365807.4	1.11	23.73	-.0000	180.17	.0041	-25.13	355.58
EXTM 72	3364.11	3375.36	24	14	40.6	.03	.0042	-25.41	.0000	364957.5	1.10	72.50	.0000	180.12	.0109	-25.11	345.64
RISE 11	3496.61	3507.86	24	16	53.1	289.83	.0042	-25.68	-.0000	379748.0	.79	.00	.0029	122.03	.0024	-25.06	312.50
SET 51	3552.03	3563.28	24	17	48.5	90.00	.0042	-24.67	.0000	382277.7	1.50	10.44	-.0035	247.52	-.0015	-25.04	298.63
SET 61	3584.39	3595.64	24	18	20.8	65.95	.0042	-25.71	.0000	385597.9	1.41	-.00	-.0026	235.36	.0027	-25.03	290.53
RISE 42	3733.24	3744.49	24	20	49.7	255.00	.0042	-24.43	-.0000	395679.2	.92	2.64	.0030	118.31	-.0023	-25.00	253.18
SET 72	3733.99	3745.24	24	20	50.4	93.69	.0042	-24.86	.0000	396028.6	1.67	-.00	-.0038	244.89	-.0005	-25.00	252.99
EXTM 11	3773.06	3784.31	24	21	29.5	.02	.0043	-25.79	.0000	396034.9	1.42	29.00	.0000	180.02	.0043	-24.99	243.13
IMPACT	3800.68	3811.93	24	21	57.1												
IMPC 42	3800.68	3811.93	24	21	57.1	272.07	.0043	-24.53	-.0000	400093.4	1.69	15.45	.0033	109.40	-.0021	-24.99	236.09
IMPC 11	3800.68	3811.93	24	21	57.1	7.16	.0044	-25.79	-.0000	398745.0	2.10	28.63	-.0005	187.35	.0045	-24.99	236.09

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	22	6	36.458	6555.162	18.9223	305.6278	10.98798	2.2801	114.9937	135.3557
SEPARATION	1.20	12.45	22	6	37.658	6610.004	15.9179	311.7863	10.94182	5.6851	116.9301	141.8151
RETRO	3.20	14.45	22	6	39.658	6801.494	10.7069	321.2906	10.78554	11.1636	119.2419	151.8208
EXIT SHA	4.42	15.67	22	6	40.881	6975.239	7.5413	326.6025	10.64933	14.3323	120.1339	157.4393
IMPACT	3800.68	3811.93	24	21	57.141	401837.172	-24.9937	236.0899	2.21249	67.9422	266.2574	298.5896

SURVEYOR VIEW PERIODS

GHA	92.3135					EPS-156.8397								LOM	232.2296
SX	.433194	SY	-.796133	SZ	-.422510	CAO	-24.99315	RAO	298.55160	RM	403120.207	LAT	28.310600	LON	279.461800
C3	-.886089	ECC	.985451	SLR	12994.119	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.450592	NSY	-.787683	NSZ	-.420146	C3M	1.5555	VIM	2.6823	ZAE	142.128	B.T	.0000	B.R	-.0000
LATE	5.3276	LONE	1.7426	LATS	-.7907	LONS	158.9289	LATI	-.3755	LONI	324.2505	RSM	146.7652	TTAN	6.5674
LAUNCH DATE	DEC 22,1965			BASE AZM	108.0		TF 63.401					ARRIVAL DATE	DEC 24 1965 22 12 23.2		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	6 32 7.6	28.1	17.83	305.08	6.02	136.54	117.09	6 43 22.6	6562.6	10.98	2.99

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	CDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW															
INJECTION		.00	11.25	22	6	43.4												
SEPARATION		1.20	12.45	22	6	44.6												
RETRO		3.20	14.45	22	6	46.6												
EXIT SHA		4.19	15.44	22	6	47.6												
EXIT	72	4.19	15.44	22	6	47.6	86.70	-.1456	33.56	-.0148	3015.4	-7.96	-1.63	.1222	303.67	.0031	6.50	324.46
RISE	72	4.40	15.65	22	6	47.8	84.76	-.1532	33.35	-.0181	2913.3	-7.81	-.00	.1292	303.71	.0032	5.93	325.34
EXTM	72	10.44	21.69	22	6	53.8	359.38	-.1951	-6.99	-.1298	1988.5	4.52	88.89	.0000	33.93	12.0643	-7.69	345.82
RISE	51	11.06	22.31	22	6	54.4	82.61	-.0785	14.93	-.0446	5677.9	-2.81	.00	.0878	286.62	-.0057	-8.80	347.53
EXTM	51	40.06	51.31	22	7	23.4	1.63	-.0164	-30.26	-.0046	11410.4	5.25	85.26	-.0000	197.27	-.1800	-28.64	26.66
EXTM	72	70.95	82.20	22	7	54.3	294.20	.0000	-33.96	-.0000	23651.4	4.76	24.43	.0000	123.80	.0000	-31.55	36.93
EXTM	51	92.26	103.51	22	8	15.6	346.25	-.0000	-33.34	.0000	26427.4	4.33	75.85	.0000	125.68	-.0002	-31.98	38.61
RISE	61	135.55	146.80	22	8	58.9	313.58	.0023	-39.17	.0006	42739.4	3.72	-.00	.0015	145.83	.0011	-31.97	36.66
EXTM	51	205.11	216.36	22	10	8.5	.56	.0031	-32.13	.0002	51824.3	3.36	83.60	-.0000	184.23	.0237	-31.43	27.19
EXTM	61	388.59	399.84	22	13	12.0	5.18	.0038	-33.94	.0002	89067.7	2.70	15.67	.0000	184.46	.0033	-30.08	350.89
EXTM	72	416.73	427.98	22	13	40.1	1.00	.0040	-31.45	.0001	89604.0	2.63	66.44	.0000	182.14	.0085	-29.92	344.74
RISE	11	590.31	601.56	22	16	33.7	295.23	.0040	-31.14	.0000	120908.3	2.03	.00	.0026	129.26	.0023	-29.08	305.37
SET	51	610.28	621.53	22	16	53.7	90.00	.0038	-27.90	.0001	122377.0	2.63	11.72	-.0032	244.50	-.0012	-29.00	300.72
SET	61	618.74	629.99	22	17	2.1	59.18	.0039	-31.19	.0002	124823.3	2.51	-.00	-.0021	227.28	.0027	-28.97	298.75
SET	72	807.48	818.73	22	20	10.9	94.23	.0039	-27.97	.0001	149272.4	2.44	-.01	-.0034	241.74	-.0004	-28.32	254.18
RISE	42	817.41	828.66	22	20	20.8	254.99	.0040	-26.83	-.0000	150038.7	1.73	4.10	.0028	120.21	-.0021	-28.29	251.81
EXTM	11	859.16	870.41	22	21	2.5	1.38	.0041	-30.30	.0001	152951.8	2.01	24.48	.0000	181.40	.0039	-28.17	241.83
SET	11	1124.88	1136.13	23	1	28.3	67.15	.0041	-28.83	.0001	185856.3	2.10	-.00	-.0026	233.83	.0024	-27.52	177.67
EXTM	42	1242.37	1253.62	23	3	25.7	359.91	.0042	-27.03	.0000	192111.1	1.73	81.81	.0000	.56	-.0257	-27.29	149.07
RISE	51	1377.88	1389.13	23	5	41.3	270.00	.0041	-26.39	-.0000	210880.8	1.29	11.13	.0034	114.08	-.0015	-27.05	115.95
RISE	72	1533.13	1544.38	23	8	16.5	266.01	.0041	-26.57	-.0000	227233.0	1.18	-.01	.0036	116.84	-.0005	-26.80	77.88
RISE	61	1613.86	1625.11	23	9	37.2	296.53	.0041	-27.82	-.0000	234842.7	1.28	.00	.0025	127.69	.0027	-26.68	58.04
SET	42	1665.54	1676.79	23	10	28.9	105.00	.0041	-25.69	.0001	239250.5	1.86	3.41	-.0029	240.69	-.0022	-26.61	45.32
EXTM	51	1731.79	1743.04	23	11	35.2	358.64	.0042	-26.54	.0000	239382.2	1.50	88.54	.0032	123.70	.0800	-26.52	29.01
EXTM	61	1868.76	1880.01	23	13	52.1	.52	.0042	-27.66	.0000	255474.8	1.46	22.10	.0000	180.50	.0040	-26.35	355.24
EXTM	72	1908.14	1919.39	23	14	31.5	.16	.0042	-26.76	.0000	255324.5	1.45	71.15	-.0000	180.44	.0116	-26.30	345.52
RISE	11	2048.15	2059.40	23	16	51.5	291.09	.0042	-27.01	-.0000	273243.7	1.09	.00	.0028	123.77	.0024	-26.14	310.93
SET	51	2096.38	2107.63	23	17	39.8	90.00	.0041	-25.58	.0001	276084.2	1.76	10.81	-.0034	246.67	-.0015	-26.09	299.00
SET	61	2123.45	2134.70	23	18	6.8	64.44	.0042	-27.01	.0001	279522.3	1.66	-.00	-.0025	233.49	.0027	-26.06	292.31
SET	72	2281.46	2292.71	23	20	44.8	93.84	.0041	-25.72	.0001	292377.7	1.74	-.01	-.0037	244.01	-.0005	-25.90	253.20
RISE	42	2282.73	2293.98	23	20	46.1	255.00	.0041	-25.14	-.0000	292137.6	1.01	3.07	.0030	118.88	-.0023	-25.90	252.89
EXTM	11	2323.43	2334.68	23	21	26.8	.35	.0042	-26.96	.0000	292762.8	1.32	27.83	-.0000	180.36	.0042	-25.86	242.81
SET	11	2598.53	2609.78	24	2	1.9	69.53	.0042	-26.36	.0000	316996.1	1.57	-.00	-.0029	237.08	.0024	-25.62	174.60
EXTM	42	2701.59	2712.84	24	3	45.0	359.96	.0042	-25.34	.0000	318473.8	1.23	80.12	.0000	.25	-.0204	-25.53	149.02
RISE	51	2832.17	2843.42	24	5	55.5	270.00	.0041	-25.01	-.0000	333072.8	.83	10.58	.0034	112.79	-.0015	-25.43	116.60
RISE	72	2986.48	2997.73	24	8	29.9	266.26	.0041	-25.16	-.0000	345257.0	.76	-.00	.0037	115.42	-.0005	-25.32	78.26
RISE	61	3057.67	3068.92	24	9	41.0	294.39	.0042	-26.02	-.0000	350461.7	.83	.00	.0026	125.07	.0027	-25.27	60.56
SET	42	3120.45	3131.70	24	10	43.8	105.00	.0041	-24.61	.0000	354362.6	1.45	2.74	-.0030	241.55	-.0023	-25.23	44.88
EXTM	51	3189.26	3200.51	24	11	52.6	359.99	.0042	-25.19	.0000	352935.2	1.11	89.45	.0000	1.78	-.1218	-25.20	27.69
EXTM	61	3317.83	3329.08	24	14	1.2	.19	.0042	-26.05	.0000	365217.9	1.10	23.71	-.0000	180.18	.0041	-25.14	355.57
EXTM	72	3357.56	3368.81	24	14	40.9	.04	.0042	-25.42	.0000	364359.8	1.10	72.48	.0000	180.13	.0111	-25.13	345.64
RISE	11	3490.10	3501.35	24	16	53.5	289.84	.0042	-25.69	-.0000	379136.9	.78	.00	.0029	122.04	.0024	-25.07	312.49
SET	51	3545.47	3556.72	24	17	48.8	90.00	.0042	-24.68	.0000	381654.4	1.49	10.45	-.0035	247.52	-.0015	-25.05	298.63
SET	61	3577.82	3589.07	24	18	21.2	65.95	.0042	-25.72	.0000	384966.6	1.41	-.00	-.0026	235.36	.0027	-25.04	290.53
RISE	42	3726.74	3737.99	24	20	50.1	255.00	.0042	-24.43	-.0000	394969.7	.89	2.63	.0030	118.31	-.0023	-24.99	253.18
SET	72	3727.47	3738.72	24	20	50.9	93.69	.0042	-24.85	.0000	395316.5	1.65	-.00	-.0038	244.89	-.0005	-24.99	252.99
EXTM	11	3766.77	3778.02	24	21	30.1	.06	.0043	-25.78	.0000	395251.3	1.36	29.01	.0000	180.06	.0044	-24.98	243.09
IMPACT		3804.06	3815.31	24	22	7.4												
IMPC	42	3804.06	3815.31	24	22	7.4	274.56	.0043	-24.53	-.0000	399903.9	1.69	17.37	.0034	108.16	-.0021	-24.98	233.60
IMPC	11	3804.06	3815.31	24	22	7.4	9.69	.0044	-25.77	.0000	398788.9	2.11	28.33	-.0006	189.91	.0044	-24.98	233.60

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	22	6	43.377	6562.776	17.8256	305.0906	10.98144	2.9890	117.0897	136.5531
SEPARATION		1.20	12.45	22	6	44.577	6627.128	14.6222	311.0656	10.92741	6.3810	118.8457	142.8290
RETRO		3.20	14.45	22	6	46.577	6833.461	9.1545	320.2744	10.75993	11.8191	120.8529	152.5391
EXIT SHA		4.19	15.44	22	6	47.565	6977.203	6.5001	324.4561	10.64765	14.3634	121.4566	156.9684
IMPACT		3804.06	3815.31	24	22	7.438	401852.324	-24.9829	233.6029	2.21133	67.8884	266.8698	298.6837

SURVEYOR VIEW PERIODS

GHA	92.3135					EPS-156.7668								LON	229.9114
SX	.434448	SY	-.795541	SZ	-.422339	DAO	-24.98235	RAO	298.63911	RM	403133.551	LAT	28.310600	LON	279.461800
C3	-.890221	ECC	.985383	SLR	12993.675	RCA	6544.6650	LTA	-20.0000	GYA	20.00	TB	675.00000	POL	-.0
NSX	.451869	NSY	-.787043	NSZ	-.419974	C3M	1.5554	VIM	2.6823	ZAE	141.988	B.T	.0000	B.R	-.0000
LATE	5.3334	LONE	1.6410	LATS	-.7908	LONS	158.7537	LATI	-.7046	LONI	324.0618	RSM	146.7654	TTAN	6.5691
LAUNCH DATE	DEC 22,1965			BASE AZM	111.0		TF 63.468					ARRIVAL DATE	DEC 24 1965 22 21 59.0		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	6 37 50.4	28.1	16.76	304.49	7.18	137.38	119.18	6 49 5.4	6570.2	10.97	3.56

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	CDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW															
INJECTION		.00	11.25	22	6	49.1												
SEPARATION		1.20	12.45	22	6	50.3												
RETRO		3.20	14.45	22	6	52.3												
EXIT SHA		4.00	15.25	22	6	53.1												
EXIT	72	4.00	15.25	22	6	53.1	88.47	-.1317	29.30	-.0305	3131.2	-7.92	-2.54	.1179	299.24	-.0149	5.39	322.54
RISE	72	4.35	15.60	22	6	53.4	85.66	-.1414	28.61	-.0366	2970.4	-7.67	.00	.1283	298.91	-.0167	4.44	323.91
EXTN	72	10.59	21.84	22	6	59.7	4.76	-.1933	-15.80	-.1121	2103.8	4.61	80.84	-.0000	210.10	-1.3643	-9.87	344.52
RISE	51	11.10	22.35	22	7	.2	84.34	-.0743	11.57	-.0472	5778.0	-2.63	.00	.0861	282.87	-.0100	-10.78	345.89
EXTN	51	42.34	53.59	22	7	31.4	2.14	-.0150	-33.39	-.0032	12213.1	5.21	62.13	-.0000	193.17	-.0942	-30.77	26.31
EXTN	72	71.45	82.70	22	8	.5	295.59	-.0000	-35.76	.0002	23769.8	4.74	25.31	.0000	125.95	-.0002	-33.00	35.57
EXTN	51	91.50	102.75	22	8	20.6	347.90	-.0002	-34.97	.0002	26275.3	4.33	76.09	.0000	134.42	-.0011	-33.27	37.24
RISE	61	139.86	151.11	22	9	9.0	315.49	.0024	-40.12	.0007	43783.7	3.67	-.00	.0015	147.58	.0012	-33.00	34.99
EXTN	51	199.31	210.56	22	10	8.4	.85	.0030	-33.19	.0003	50699.7	3.39	82.51	-.0000	185.46	.0197	-32.36	26.94
EXTN	61	385.37	396.62	22	13	14.5	5.71	.0038	-34.59	.0002	88640.3	2.71	14.99	.0000	184.86	.0033	-30.70	350.40
EXTN	72	412.01	423.26	22	13	41.1	1.18	.0040	-32.10	.0002	88907.0	2.64	65.78	.0000	182.43	.0082	-30.52	344.59
RISE	11	587.35	598.60	22	16	36.4	295.75	.0040	-31.62	.0000	120507.3	2.04	.00	.0025	129.91	.0023	-29.54	304.84
SET	51	604.94	616.19	22	16	54.0	90.00	.0038	-28.36	.0001	121631.3	2.63	11.91	-.0031	244.07	-.0012	-29.46	300.76
SET	61	610.54	621.79	22	16	59.6	58.50	.0039	-31.69	.0002	123709.3	2.51	-.00	-.0020	226.51	.0027	-29.44	299.45
SET	72	802.52	813.77	22	20	11.6	94.30	.0039	-28.33	.0001	148656.2	2.44	-.01	-.0034	241.37	-.0004	-28.69	254.14
RISE	42	812.33	823.58	22	20	21.4	254.99	.0040	-27.19	-.0000	149385.7	1.74	4.32	.0028	120.50	-.0021	-28.65	251.80
EXTN	11	854.51	865.76	22	21	3.6	1.50	.0042	-30.67	.0001	152421.6	2.01	24.11	.0000	181.41	.0039	-28.52	241.71
SET	11	1118.53	1129.78	23	1	27.6	66.87	.0041	-29.11	.0001	185145.9	2.10	-.00	-.0026	233.46	.0024	-27.80	177.96
EXTN	42	1237.29	1248.54	23	3	26.4	359.93	.0042	-27.28	.0000	191541.6	1.73	82.06	-.0000	.44	-.0258	-27.53	149.04
RISE	51	1372.72	1383.97	23	5	41.8	270.00	.0041	-26.61	-.0000	210320.0	1.30	11.21	.0034	114.29	-.0015	-27.27	115.94
RISE	72	1527.82	1539.07	23	8	16.9	265.98	.0041	-26.75	-.0000	226679.3	1.19	-.01	.0036	117.03	-.0005	-26.99	77.90
RISE	61	1609.54	1620.79	23	9	38.6	296.74	.0042	-28.00	-.0000	234386.7	1.28	.00	.0025	127.96	.0027	-26.86	57.82
SET	42	1660.30	1671.55	23	10	29.4	105.00	.0041	-25.85	.0001	238700.7	1.86	3.51	-.0029	240.56	-.0022	-26.78	45.33
EXTN	51	1730.49	1741.74	23	11	39.6	359.63	.0042	-26.70	.0000	239202.4	1.50	88.98	.0012	161.20	.2000	-26.68	28.04
EXTN	61	1863.69	1874.94	23	13	52.8	.57	.0042	-27.81	.0000	254976.1	1.46	21.95	-.0000	180.54	.0040	-26.49	355.19
EXTN	72	1902.94	1914.19	23	14	32.0	.17	.0042	-26.90	.0000	254805.6	1.45	71.01	-.0000	180.46	.0115	-26.44	345.51
RISE	11	2043.37	2054.62	23	16	52.5	291.20	.0042	-27.14	-.0000	272759.2	1.09	.00	.0028	123.93	.0024	-26.26	310.81
SET	51	2091.10	2102.35	23	17	40.2	90.00	.0041	-25.70	.0001	275553.8	1.76	10.85	-.0034	246.56	-.0015	-26.21	299.01
SET	61	2117.62	2128.87	23	18	6.7	64.31	.0042	-27.13	.0001	278952.1	1.66	-.00	-.0025	233.32	.0027	-26.18	292.45
SET	72	2276.22	2287.47	23	20	45.3	93.86	.0041	-25.82	.0001	291859.4	1.74	-.01	-.0037	243.92	-.0005	-26.00	253.19
RISE	42	2277.45	2288.70	23	20	46.5	255.00	.0041	-25.24	-.0000	291609.5	1.01	3.13	.0029	118.95	-.0023	-26.00	252.88
EXTN	11	2318.25	2329.50	23	21	27.3	.38	.0042	-27.05	.0000	292258.3	1.32	27.74	-.0000	180.38	.0042	-25.96	242.78
SET	11	2592.94	2604.19	24	2	2.0	69.46	.0042	-26.43	.0000	316451.9	1.57	-.00	-.0028	236.99	.0024	-25.69	174.67
EXTN	42	2696.24	2707.49	24	3	45.3	359.95	.0042	-25.40	.0000	317946.6	1.23	80.18	.0000	.27	-.0206	-25.59	149.03
RISE	51	2826.84	2838.09	24	5	55.9	270.00	.0041	-25.06	-.0000	332544.1	.83	10.60	.0034	112.84	-.0015	-25.48	116.60
RISE	72	2981.11	2992.36	24	8	30.2	266.25	.0041	-25.20	-.0000	344725.2	.76	-.00	.0037	115.46	-.0006	-25.36	78.26
RISE	61	3052.47	3063.72	24	9	41.6	294.43	.0042	-26.05	-.0000	349942.0	.83	.00	.0026	125.12	.0027	-25.30	60.51
SET	42	3115.08	3126.33	24	10	44.2	105.00	.0041	-24.64	.0000	353825.4	1.45	2.76	-.0030	241.52	-.0023	-25.26	44.88
EXTN	51	3180.47	3191.72	24	11	49.6	359.12	.0042	-25.22	.0000	352168.5	1.10	89.05	.0032	56.98	-.1281	-25.23	28.55
EXTN	61	3312.53	3323.78	24	14	1.6	.20	.0042	-26.07	.0000	364674.1	1.10	23.69	-.0000	180.20	.0041	-25.16	355.55
EXTN	72	3352.22	3363.47	24	14	41.3	.04	.0042	-25.44	.0000	363808.0	1.10	72.46	.0000	180.13	.0118	-25.14	345.63
RISE	11	3484.78	3496.03	24	16	53.9	289.85	.0042	-25.70	-.0000	378570.5	.78	.00	.0029	122.06	.0024	-25.08	312.48
SET	51	3540.11	3551.36	24	17	49.2	90.00	.0042	-24.68	.0000	381074.7	1.49	10.45	-.0035	247.51	-.0015	-25.06	298.64
SET	61	3572.43	3583.68	24	18	21.5	65.94	.0042	-25.73	.0000	384378.3	1.41	-.00	-.0026	235.35	.0027	-25.04	290.54
RISE	42	3721.42	3732.67	24	20	50.5	255.00	.0042	-24.42	-.0000	394313.1	.88	2.63	.0030	118.31	-.0023	-24.99	253.18
SET	72	3722.14	3733.39	24	20	51.2	93.69	.0042	-24.85	.0000	394657.8	1.63	-.00	-.0038	244.89	-.0005	-24.99	252.99
EXTN	11	3761.59	3772.84	24	21	30.7	.09	.0043	-25.78	.0000	394537.8	1.31	29.01	.0000	180.10	.0044	-24.98	243.06
IMPACT		3808.08	3819.33	24	22	17.2												
IMPC	42	3808.08	3819.33	24	22	17.2	276.92	.0043	-24.54	-.0000	399725.8	1.69	19.21	.0034	107.00	-.0021	-24.97	231.25
IMPC	11	3808.08	3819.33	24	22	17.2	12.07	.0044	-25.76	.0000	398839.0	2.12	27.97	-.0008	192.31	.0044	-24.97	231.25

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	22	6	49.090	6570.484	16.7514	304.5071	10.91491	3.5619	119.1812	137.4017
SEPARATION		1.20	12.45	22	6	50.290	6642.415	13.3548	310.2983	10.91454	6.9420	120.7659	143.4937
RETRO		3.20	14.45	22	6	52.290	6860.606	7.6313	319.2233	10.73826	12.3455	122.4885	152.9201
EXIT SHA		4.00	15.25	22	6	53.094	6979.975	5.3862	322.5417	10.64533	14.4071	122.8877	156.4401
IMPACT		3808.08	3819.33	24	22	17.175	401867.035	-24.9728	231.2511	2.20992	67.8114	267.5251	298.7728

SURVEYOR VIEW PERIODS

GHA	92.3135					EPS-156.6728								LOM	226.9230
SX	.436062	SY	-.794774	SZ	-.422118	DAO	-24.96835	RAO	298.75190	RM	403150.719	LAT	28.310600	LON	279.461800
C3	-.896857	ECC	.985275	SLR	12992.960	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.453525	NSY	-.786210	NSZ	-.419750	C3M	1.5555	VIM	2.6823	ZAE	141.758	B.T	.0000	B.R	-.0000
LATE	5.3409	LONE	1.7444	LATS	-.7910	LONS	158.7622	LATI	-1.1637	LONI	324.0131	RSM	146.7656	TTAN	6.5728
LAUNCH DATE	DEC 22,1965			BASE AZM	115.0		TF 63.575					ARRIVAL DATE	DEC 24 1965 22 34 21.2		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	6 44 3.7	28.1	15.37	303.64	8.40	138.09	121.96	6 55 18.7	6579.7	10.97	4.17

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	22	6	55.3												
SEPARATION	1.20	12.45	22	6	56.5												
RETRO	3.20	14.45	22	6	58.5												
EXIT SHA	3.82	15.07	22	6	59.1												
EXIT 72	3.82	15.07	22	6	59.1	90.45	-.1171	24.17	-.0487	3279.6	-7.73	-3.63	.1120	293.91	-.0353	3.82	320.25
RISE 72	4.33	15.58	22	6	59.6	86.70	-.1281	22.52	-.0591	3048.8	-7.35	.00	.1258	292.75	-.0409	2.36	322.22
EXTM 72	10.93	22.18	22	7	6.2	10.03	-.1857	-26.98	-.0892	2356.9	4.86	68.68	-.0000	205.27	-.5173	-13.06	343.17
RISE 51	11.20	22.45	22	7	6.5	86.53	-.0691	7.15	-.0504	5907.5	-2.37	.00	.0837	277.94	-.0153	-13.53	343.87
EXTM 51	46.25	57.50	22	7	41.6	1.84	-.0128	-37.41	-.0015	13539.2	5.12	78.23	-.0000	187.20	-.0505	-33.68	26.48
EXTM 72	71.75	83.00	22	8	7.1	296.99	-.0001	-38.25	.0005	23854.3	4.73	25.99	.0000	128.87	-.0006	-35.02	34.08
EXTM 51	88.10	99.35	22	8	23.4	349.73	-.0007	-37.35	.0005	25454.3	4.38	75.48	.0000	145.56	-.0028	-35.10	35.69
RISE 61	148.31	159.56	22	9	23.6	318.01	.0025	-41.30	.0007	45756.8	3.59	-.00	.0016	149.83	.0013	-34.37	32.84
EXTM 51	194.73	205.98	22	10	10.0	1.39	.0030	-34.68	.0003	49822.2	3.42	80.98	-.0000	187.29	.0158	-33.67	26.47
EXTM 61	383.01	394.26	22	13	18.3	6.44	.0038	-35.49	.0003	88373.2	2.71	14.04	.0000	185.40	.0032	-31.57	349.71
EXTM 72	407.63	418.88	22	13	42.9	1.43	.0040	-33.01	.0002	88267.6	2.65	64.85	.0000	182.83	.0078	-31.37	344.35
RISE 11	585.22	596.47	22	16	40.5	296.48	.0040	-32.29	.0001	120211.0	2.04	.00	.0025	130.82	.0023	-30.19	304.11
SET 51	599.48	610.73	22	16	54.8	90.00	.0038	-29.01	.0002	120850.6	2.64	12.16	-.0031	243.45	-.0012	-30.11	300.80
SET 61	600.95	612.20	22	16	56.3	57.51	.0039	-32.40	.0002	122389.6	2.52	-.00	-.0020	225.41	.0027	-30.10	300.45
SET 72	797.51	808.76	22	20	12.8	94.39	.0039	-28.85	.0001	148018.3	2.44	-.01	-.0034	240.85	-.0004	-29.20	294.07
RISE 42	807.12	818.37	22	20	22.4	254.99	.0040	-27.70	-.0000	148691.4	1.74	4.63	.0028	120.90	-.0021	-29.17	291.78
EXTM 11	849.92	861.17	22	21	5.2	1.68	.0042	-31.17	.0001	151895.1	2.01	23.60	.0000	181.57	.0039	-29.01	241.54
SET 11	1111.49	1122.74	23	1	26.8	66.46	.0041	-29.51	.0001	184335.2	2.10	-.00	-.0026	232.93	.0024	-28.18	179.37
EXTM 42	1231.85	1243.10	23	3	27.2	359.92	.0042	-27.63	.0000	190921.0	1.74	82.41	-.0000	.53	-.0273	-27.88	149.05
RISE 51	1367.34	1378.59	23	5	42.7	270.00	.0041	-26.91	-.0000	209698.9	1.30	11.33	.0034	114.57	-.0015	-27.57	115.93
RISE 72	1522.21	1533.46	23	8	17.5	265.93	.0041	-27.02	-.0000	226057.4	1.19	-.01	.0036	117.30	-.0005	-27.26	77.94
RISE 61	1605.31	1616.56	23	9	40.6	297.05	.0042	-28.25	.0000	233897.3	1.28	.00	.0025	128.33	.0027	-27.10	57.51
SET 42	1654.78	1666.03	23	10	30.1	105.00	.0041	-26.09	.0001	238076.7	1.86	3.65	-.0029	240.37	-.0022	-27.02	45.33
EXTM 51	1723.00	1734.25	23	11	38.3	359.13	.0042	-26.93	.0000	238418.7	1.90	88.57	.0021	147.13	.1257	-26.90	28.53
EXTM 61	1858.38	1869.63	23	13	53.7	.63	.0042	-28.01	.0000	254410.4	1.46	21.75	.0000	180.59	.0040	-26.69	355.14
EXTM 72	1897.46	1908.71	23	14	32.8	.18	.0042	-27.09	.0000	254211.3	1.45	70.81	-.0000	180.50	.0114	-26.63	345.49
RISE 11	2038.47	2049.72	23	16	53.8	291.37	.0042	-27.31	-.0000	272206.2	1.09	.00	.0028	124.16	.0024	-26.43	310.69
SET 51	2085.50	2096.75	23	17	40.8	90.00	.0041	-25.86	.0001	274934.1	1.76	10.92	-.0034	246.41	-.0014	-26.37	299.01
SET 61	2111.24	2122.49	23	18	6.6	64.11	.0042	-27.29	.0001	278274.8	1.66	-.00	-.0025	233.08	.0027	-26.34	292.64
SET 72	2270.65	2281.90	23	20	46.0	93.87	.0041	-25.95	.0001	291244.8	1.74	-.00	-.0037	243.78	-.0005	-26.14	253.18
RISE 42	2271.85	2283.10	23	20	47.2	255.00	.0041	-25.37	-.0000	290984.1	1.01	3.21	.0029	119.06	-.0023	-26.14	252.88
EXTM 11	2312.77	2324.02	23	21	28.1	.42	.0042	-27.18	.0000	291664.3	1.32	27.61	-.0000	180.42	.0042	-26.09	242.74
SET 11	2586.89	2598.14	24	2	2.2	69.37	.0042	-26.53	.0000	315790.6	1.57	-.00	-.0028	236.86	.0024	-25.78	174.76
EXTM 42	2690.53	2701.78	24	3	45.8	359.95	.0042	-25.49	.0000	317305.2	1.23	80.27	.0000	.30	-.0206	-25.68	149.03
RISE 51	2821.14	2832.39	24	5	56.4	270.00	.0041	-25.13	-.0000	331895.1	.83	10.62	.0034	112.90	-.0015	-25.55	116.59
RISE 72	2975.35	2986.60	24	8	30.7	266.24	.0041	-25.26	-.0000	344066.1	.76	-.00	.0037	115.52	-.0006	-25.41	78.27
RISE 61	3047.01	3058.26	24	9	42.3	294.50	.0042	-26.10	-.0000	349081.1	.87	.00	.0026	125.20	.0027	-25.35	60.45
SET 42	3109.37	3120.62	24	10	44.7	105.00	.0041	-24.68	.0000	353183.4	1.45	2.79	-.0030	241.49	-.0023	-25.31	44.88
EXTM 51	3173.77	3185.02	24	11	49.1	358.87	.0042	-25.26	.0000	351455.0	1.10	88.87	.0035	64.99	-.0843	-25.27	28.80
EXTM 61	3306.89	3318.14	24	14	2.2	.22	.0042	-26.10	.0000	364012.8	1.10	23.66	-.0000	180.22	.0041	-25.19	355.53
EXTM 72	3346.51	3357.76	24	14	41.8	.05	.0042	-25.47	.0000	363133.4	1.10	72.44	.0000	180.15	.0118	-25.17	345.63
RISE 11	3479.11	3490.36	24	16	54.4	289.87	.0042	-25.72	-.0000	377869.4	.78	.00	.0029	122.08	.0024	-25.10	312.46
SET 51	3534.36	3545.61	24	17	49.7	90.00	.0042	-24.69	.0000	380353.0	1.48	10.45	-.0035	247.50	-.0015	-25.07	298.64
SET 61	3566.64	3577.89	24	18	21.9	65.93	.0042	-25.74	.0000	383643.4	1.40	-.00	-.0026	235.33	.0027	-25.05	290.56
RISE 42	3715.72	3726.97	24	20	51.0	255.00	.0042	-24.42	-.0000	393489.2	.86	2.43	.0030	118.30	-.0023	-24.99	253.17
SET 72	3716.42	3727.67	24	20	51.7	93.69	.0042	-24.85	.0000	393831.6	1.61	-.00	-.0038	244.90	-.0005	-24.99	253.00
EXTM 11	3756.04	3767.29	24	21	31.3	.12	.0043	-25.78	.0000	393651.6	1.27	29.02	.0000	180.13	.0044	-24.97	243.03
IMPACT	3814.48	3825.73	24	22	29.8												
IMPC 42	3814.48	3825.73	24	22	29.8	279.97	.0043	-24.54	-.0000	399498.4	1.69	21.60	.0034	105.50	-.0021	-24.96	228.20
IMPC 11	3814.48	3825.73	24	22	29.8	15.16	.0044	-25.74	.0000	398917.3	2.13	27.38	-.0009	195.38	.0043	-24.96	228.20

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	22	6	55.311	6580.204	15.3554	303.6643	10.96661	4.1689	121.9675	138.1186
SEPARATION	1.20	12.45	22	6	56.511	6660.033	11.7086	309.2105	10.89968	7.5348	123.3384	143.9656
RETRO	3.20	14.45	22	6	58.511	6890.640	5.6457	317.7704	10.71434	12.8996	124.7102	153.0269
EXIT SHA	3.82	15.07	22	6	59.133	6984.890	3.8212	320.2462	10.64124	14.4844	124.9274	155.6585
IMPACT	3814.48	3825.73	24	22	29.788	401887.938	-24.9596	228.2048	2.20704	67.5960	268.3991	298.8885

SURVEYOR VIEW PERIODS

GHA	93.2991					EPS-145.9476								LOM	244.0854
SX	.609660	SY	-.691169	SZ	-.388073	CAO	-22.83464	RAO	311.41461	RM	404782.852	LAT	28.310600	LON	279.461800
C3	-.881221	ECC	.985531	SLR	12994.643	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.624709	NSY	-.679884	NSZ	-.384053	C3M	1.5521	VIM	2.6817	ZAE	142.705	B.T	.0000	B.R	-.0000
LATE	6.0791	LONE	.4557	LATS	-.8085	LONS	146.6491	LATI	2.3105	LONI	3.2413	RSM	146.7935	TTAN	6.0577
LAUNCH DATE	DEC 23,1965			BASE AZM	96.0		TF 63.823					ARRIVAL DATE	DEC 25 1965 22 12 28.3		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
96.00	6 8 17.7	27.5	22.49	306.43	-10.75	132.90	108.46	6 19 32.7	6602.2	10.95	-5.34

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	CDE	RNG	ORG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW															
INJECTION		.00	11.25	23	6	19.5												
SEPARATION		1.20	12.45	23	6	20.7												
RETRO		3.20	14.45	23	6	22.7												
EXIT	SHA	5.69	16.94	23	6	25.2												
EXIT	72	5.69	16.94	23	6	25.2	76.60	-.2994	59.93	.0971	2322.8	-7.43	-.23	.1186	330.83	.1337	9.62	335.92
RISE	72	7.72	16.97	23	6	25.3	76.03	-.3058	60.11	.0971	2308.8	-7.39	-.00	.1197	331.08	.1353	9.54	336.06
EXTM	72	9.68	20.93	23	6	29.2	321.52	-.1972	33.18	-.2686	1671.1	3.53	35.01	.0527	39.48	.3795	.29	352.37
RISE	51	11.45	22.70	23	6	31.0	73.77	-.1148	30.09	-.0339	4619.1	-4.46	.00	.1029	303.82	.0205	-3.30	358.16
EXTM	51	27.09	38.34	23	6	46.6	353.04	-.0393	-15.07	-.0221	6339.3	5.49	77.50	-.0000	32.73	.2028	-20.45	31.28
EXTM	72	67.87	79.12	23	7	27.4	274.98	-.0001	-27.84	-.0007	23536.7	4.91	8.67	.0000	117.16	.0007	-28.06	54.27
RISE	42	78.05	89.30	23	7	37.6	105.00	-.0034	-20.78	-.0019	27304.5	4.29	.40	.0037	244.57	.0005	-28.41	55.73
EXTM	51	84.05	95.30	23	7	43.6	324.01	-.0000	-28.29	-.0004	24113.9	4.51	57.96	.0000	102.80	.0007	-28.55	56.24
EXTM	42	124.52	135.77	23	8	24.1	101.70	.0004	-23.54	-.0005	38932.1	4.03	4.51	-.0000	244.22	-.0006	-28.77	55.66
SET	42	170.81	182.06	23	9	10.4	105.00	.0018	-24.24	-.0001	49734.0	3.76	2.52	-.0012	241.84	-.0011	-28.55	50.50
RISE	61	195.09	206.34	23	9	34.6	304.18	.0031	-33.58	.0003	55166.2	3.25	.00	.0019	136.43	.0018	-28.38	46.85
EXTM	51	299.26	310.51	23	11	18.8	.08	.0037	-27.86	.0001	69023.9	2.96	87.88	.0000	182.03	.0856	-27.68	27.61
EXTM	61	462.45	473.70	23	14	2.0	3.46	.0039	-30.18	.0002	99817.7	2.54	19.51	.0000	183.18	.0036	-26.81	352.47
EXTM	72	495.04	506.29	23	14	34.6	.60	.0040	-27.83	.0001	100999.3	2.47	70.06	-.0000	181.55	.0105	-26.67	345.11
RISE	11	652.23	663.48	23	17	11.8	291.99	.0040	-27.96	.0000	123981.1	1.93	.00	.0027	125.01	.0023	-26.09	308.77
SET	51	687.74	698.99	23	17	47.3	90.00	.0039	-24.93	.0001	132532.7	2.54	10.55	-.0033	247.28	-.0013	-25.98	300.42
SET	61	713.51	724.76	23	18	13.1	63.43	.0040	-27.86	.0001	137056.6	2.42	-.00	-.0023	232.25	.0027	-25.90	294.34
SET	72	880.77	892.02	23	21	.3	93.74	.0040	-25.13	.0001	157846.4	2.39	-.01	-.0036	244.61	-.0004	-25.46	254.46
RISE	42	891.11	902.36	23	21	10.7	254.99	.0040	-24.04	-.0000	158812.2	1.66	2.39	.0029	118.01	-.0022	-25.43	251.98
EXTM	11	932.09	943.34	23	21	51.6	1.06	.0042	-27.31	.0001	160995.3	1.95	27.47	-.0000	181.06	.0042	-25.34	242.12
SET	11	1209.49	1220.74	24	2	29.0	69.86	.0041	-26.01	.0001	194628.9	2.06	-.00	-.0028	237.54	.0024	-24.80	174.87
EXTM	42	1315.16	1326.41	24	4	14.7	359.90	.0042	-24.29	.0000	199403.3	1.69	79.07	.0000	.48	-.0198	-24.63	149.08
RISE	51	1450.08	1461.33	24	6	29.6	270.00	.0041	-23.77	-.0000	217899.4	1.25	10.08	.0034	111.64	-.0015	-24.43	116.04
RISE	72	1606.88	1618.13	24	9	6.4	266.45	.0041	-23.99	-.0000	234001.7	1.15	-.01	.0037	114.24	-.0005	-24.22	77.53
RISE	61	1673.70	1684.95	24	10	13.2	293.50	.0041	-25.23	-.0000	240198.3	1.24	.00	.0026	123.94	.0027	-24.14	61.09
SET	42	1737.96	1749.21	24	11	17.5	105.00	.0041	-23.16	.0000	245852.9	1.84	1.86	-.0030	242.69	-.0023	-24.06	45.26
EXTM	51	1803.62	1814.87	24	12	23.2	358.57	.0042	-23.94	.0000	245661.6	1.47	87.79	.0022	36.11	-.0815	-23.99	9.08
EXTM	61	1940.38	1951.63	24	14	39.9	.43	.0042	-25.10	.0000	261288.6	1.44	24.56	.0000	180.43	.0042	-23.85	355.33
EXTM	72	1979.79	1991.04	24	15	19.3	.08	.0042	-24.19	.0000	261262.8	1.42	73.71	.0000	180.26	.0135	-23.81	345.59
RISE	11	2110.54	2121.79	24	17	30.1	288.77	.0042	-24.52	-.0000	278330.4	1.06	.00	.0029	120.52	.0024	-23.68	313.27
SET	51	2168.41	2179.66	24	18	28.0	90.00	.0041	-23.12	.0000	282023.0	1.75	2.82	-.0035	248.97	-.0015	-23.63	298.95
SET	61	2206.94	2218.19	24	19	6.5	67.32	.0042	-24.50	.0000	286257.6	1.65	-.00	-.0026	237.09	.0027	-23.59	289.42
SET	72	2351.71	2362.96	24	21	31.3	93.43	.0041	-23.29	.0000	297871.8	1.74	-.00	-.0037	246.47	-.0005	-23.47	253.56
RISE	42	2354.27	2365.52	24	21	33.8	255.00	.0041	-22.72	-.0000	297897.6	.98	1.59	.0030	116.96	-.0023	-23.47	252.93
EXTM	11	2394.88	2406.13	24	22	14.4	.29	.0042	-24.48	.0000	298072.3	1.31	30.31	-.0000	180.31	.0044	-23.44	242.86
SET	11	2679.13	2690.38	25	2	58.7	71.75	.0042	-23.94	.0000	322976.3	1.56	-.00	-.0029	240.23	.0024	-23.22	172.36
EXTM	42	2773.12	2784.37	25	4	32.7	359.96	.0042	-22.92	.0000	323745.2	1.22	77.70	.0000	.20	-.0163	-23.15	149.02
RISE	51	2903.51	2914.76	25	6	43.1	270.00	.0041	-22.64	-.0000	338284.4	.81	9.62	.0035	110.59	-.0016	-23.07	116.63
RISE	72	3059.35	3070.60	25	9	18.9	266.65	.0042	-22.82	-.0000	350596.8	.70	.00	.0038	113.05	-.0005	-22.97	77.90
RISE	61	3118.33	3129.58	25	10	17.9	291.78	.0042	-23.67	-.0000	354545.9	.82	.00	.0027	121.74	.0027	-22.95	63.18
SET	42	3191.73	3202.98	25	11	31.3	105.00	.0041	-22.30	.0000	359288.0	1.45	1.33	-.0030	243.37	-.0023	-22.92	44.85
EXTM	51	3260.42	3271.67	25	12	40.0	359.99	.0042	-22.85	.0000	357676.5	1.11	87.11	.0000	.32	-.0416	-22.90	27.69
EXTM	61	3388.81	3400.06	25	14	48.4	.14	.0042	-23.74	.0000	369671.4	1.10	26.03	-.0000	180.14	.0043	-22.86	355.62
EXTM	72	3428.69	3439.94	25	15	28.2	.02	.0042	-23.10	.0000	368974.9	1.10	74.81	.0000	180.10	.0106	-22.84	345.65
RISE	11	3553.02	3564.27	25	17	32.6	287.79	.0042	-23.41	-.0000	383280.5	.78	.00	.0030	119.10	.0024	-22.81	314.56
SET	51	3616.75	3628.00	25	18	36.3	90.00	.0042	-22.42	.0000	386471.4	1.51	9.53	-.0035	249.61	-.0016	-22.80	298.61
SET	61	3659.07	3670.32	25	19	18.6	68.47	.0042	-23.45	.0000	390382.7	1.44	-.00	-.0027	238.58	.0027	-22.79	288.01
SET	72	3797.09	3808.34	25	21	36.6	93.33	.0042	-22.66	.0000	400384.6	1.82	-.00	-.0038	247.11	-.0006	-22.79	253.33
RISE	42	3797.58	3808.83	25	21	37.1	255.00	.0042	-22.23	-.0000	400282.1	1.05	1.29	.0031	116.57	-.0024	-22.79	253.20
IMPACT		3829.39	3840.64	25	22	8.9												
IMPC	42	3829.39	3840.64	25	22	8.9	263.08	.0043	-22.29	-.0000	402643.9	1.70	7.33	.0033	112.17	-.0023	-22.81	245.11
IMPC	11	3829.39	3840.64	25	22	8.9	358.01	.0044	-23.58	-.0000	400170.9	2.05	31.18	.0001	177.87	.0047	-22.81	245.11
EXTM	11	3834.47	3845.72	25	22	14.0	359.35	.0045	-23.59	-.0000	400879.4	2.87	31.20	.0000	179.31	.0048	-22.82	243.79

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION		.00	11.25	23	6	19.545	6603.528	22.5048	306.3654	10.94849	-5.3354	108.4320	132.8393
SEPARATION		1.20	12.45	23	6	20.745	6552.121	20.1643	313.0694	10.99046	-1.9262	110.9855	139.8441
RETRO		3.20	14.45	23	6	22.745	6573.641	15.7010	323.7382	10.97232	3.7930	114.4372	151.0142
EXIT	SHA	5.69	16.94	23	6	25.234	6779.417	9.6207	335.9182	10.80328	10.6848	117.2588	163.8183
IMPACT		3829.39	3840.64	25	22	8.939	403506.715	-22.8077	245.1094	2.21281	68.4184	258.8227	311.5522

SURVEYOR VIEW PERIODS

GMA	93.2991					EPS=145.8096								LON	23 6587
SX	.611741	SY	-.689636	SZ	-.387525	DAO	-22.80056	RAO	311.57460	RM	404799.191	LAT	28.310600	LON	279.461800
CS	-.882643	ECC	.985508	SLR	12994.486	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	PCL	-.0
NSX	.626768	NSY	-.678305	NSZ	-.383489	CSM	1.5514	VIM	2.6815	ZAE	142.675	B.T	.0000	B.R	-.0080
LATE	6.0869	LONE	.4396	LATS	-.8087	LONS	146.4937	LATI	2.1657	LONI	323.2138	RSM	146.7940	TTAN	6.0504
LAUNCH DATE		DEC	23,1965		BASE AZM	99.0		TF	63.850			ARRIVAL DATE		DEC 25 1965 22 30 48.8	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99.00	6 23 20.9	27.6	21.30	306.19	-7.40	136.44	110.65	6 34 35.9	6571.9	10.97	-3.68

EVNT STA	TFI	TFL	DAY PROBE	HR IN	MIN EARTH'S SHADOW	MA	DMA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
INJECTION	.00	11.25	23	6	34.6												
SEPARATION	1.20	12.45	23	6	35.8												
RETRO	3.20	14.45	23	6	37.8												
EXIT SHA	5.09	16.34	23	6	39.7												
EXIT 72	5.09	16.34	23	6	39.7	83.12	-.2071	51.19	.0652	2512.6	-8.20	-1.88	.1160	321.50	.0874	9.18	332.16
RISE 72	5.35	16.60	23	6	40.0	79.70	-.2356	52.21	.0658	2387.2	-7.97	-.01	.1259	322.92	.0966	8.52	333.33
EXTM 72	9.98	21.23	23	6	44.6	328.45	-.1997	20.81	-.2388	1624.5	4.50	47.74	.8883	46.67	.4507	-2.24	391.64
RISE 51	11.28	22.53	23	6	45.9	76.39	-.1050	26.02	-.0379	4790.8	-4.24	.00	.1009	299.14	.0124	-4.88	355.91
EXTM 51	28.32	39.57	23	7	2.9	356.14	-.0360	-18.97	-.0174	6889.6	5.47	82.35	-.8000	28.58	.2868	-22.23	29.74
EXTM 72	68.24	79.49	23	7	42.8	278.54	-.0000	-29.05	-.0005	23480.8	4.88	11.27	.8000	118.18	.0005	-28.78	50.90
EXTM 51	85.80	97.05	23	8	.4	328.25	.0000	-29.32	-.0002	24571.8	4.47	61.70	.8200	104.56	.0005	-29.28	52.89
RISE 61	181.69	192.94	23	9	36.3	305.42	.0030	-34.41	.0004	52476.0	3.33	-.00	.8019	137.75	.0017	-28.89	45.42
EXTM 51	281.86	293.11	23	11	16.5	.13	.0036	-28.33	.0001	66003.2	3.02	87.40	-.8000	182.58	.0696	-28.11	27.57
EXTM 61	448.04	459.29	23	14	2.6	3.80	.0039	-30.55	.0002	97735.9	2.57	19.12	.8000	183.46	.0036	-27.11	352.16
EXTM 72	479.50	490.75	23	14	34.1	.62	.0040	-28.16	.0001	98779.1	2.50	89.74	.8000	181.58	.0103	-26.96	345.89
RISE 11	638.26	649.51	23	17	12.9	292.24	.0040	-28.21	.0000	127173.2	1.95	.00	.8027	125.34	.0023	-26.31	308.49
SET 51	672.46	683.71	23	17	47.1	90.00	.0039	-25.13	.0001	130577.1	2.56	10.65	-.8035	247.10	-.0013	-26.19	300.47
SET 61	697.08	708.33	23	18	11.7	63.14	.0040	-28.10	.0001	134987.4	2.43	-.00	-.8023	231.90	.0027	-26.11	294.66
SET 72	865.90	877.15	23	21	.5	93.77	.0040	-25.29	.0001	156134.0	2.40	-.01	-.8035	244.45	-.0004	-25.63	254.47
EXTM 11	917.56	928.81	23	21	52.2	1.13	.0042	-27.49	.0001	159367.0	1.96	27.29	-.8000	181.13	.0042	-25.49	242.86
SET 11	1194.29	1205.54	24	2	28.9	69.75	.0041	-26.13	.0003	193070.5	2.07	-.00	-.8028	237.38	.0024	-24.91	175.08
EXTM 42	1300.46	1311.71	24	4	15.1	359.88	.0042	-24.39	.0000	197943.9	1.70	79.17	.8000	.57	-.0200	-24.73	149.09
RISE 51	1435.52	1446.77	24	6	30.1	270.00	.0041	-23.85	-.0000	216506.9	1.26	10.11	.8034	111.72	-.0015	-24.51	116.03
RISE 72	1592.30	1603.55	24	9	6.9	266.44	.0041	-24.06	-.0000	232665.4	1.15	-.01	.8037	114.31	-.0005	-24.29	77.53
RISE 61	1659.48	1670.73	24	10	14.1	293.98	.0041	-25.30	-.0000	238917.0	1.25	.00	.8026	124.04	.0027	-24.20	61.00
SET 42	1723.37	1734.62	24	11	18.0	105.00	.0041	-23.21	.0000	244552.6	1.84	1.89	-.8030	242.65	-.0023	-24.12	45.27
EXTM 51	1789.08	1800.33	24	12	23.7	358.59	.0042	-24.00	.0000	244388.9	1.48	87.83	.8023	36.90	-.0044	-24.05	29.07
EXTM 61	1925.92	1937.17	24	14	40.5	.46	.0042	-25.15	.0000	260064.4	1.44	24.61	.8000	180.45	.0042	-23.89	355.31
EXTM 72	1965.26	1976.51	24	15	19.9	.08	.0042	-24.24	.0000	270039.2	1.43	73.67	.8000	180.28	.0038	-23.85	345.59
RISE 11	2096.17	2107.42	24	17	30.8	288.81	.0042	-24.56	-.0000	284148.5	1.06	.00	.8029	120.57	.0024	-23.72	313.23
SET 51	2153.85	2165.10	24	18	28.5	90.00	.0041	-23.15	.0000	290837.1	1.75	9.83	-.8035	248.94	-.0015	-23.66	298.96
SET 61	2192.24	2203.49	24	19	6.8	67.28	.0042	-24.54	.0000	285069.3	1.65	-.00	-.8026	237.04	.0027	-23.62	289.46
SET 72	2337.18	2348.43	24	21	31.8	93.43	.0041	-23.31	.0000	296726.5	1.74	-.00	-.8037	246.45	-.0025	-23.49	253.56
RISE 42	2339.77	2351.02	24	21	34.4	255.00	.0041	-22.74	-.0000	296753.4	.99	1.60	.8030	116.98	-.0028	-23.49	252.92
EXTM 11	2380.41	2391.66	24	22	15.0	.31	.0042	-24.51	.0000	296942.7	1.31	30.28	-.8000	180.32	.0044	-23.46	242.85
SET 11	2664.56	2675.81	25	2	59.2	71.74	.0042	-23.95	.0000	321886.6	1.57	-.00	-.8029	240.21	.0024	-23.23	172.37
EXTM 42	2758.61	2769.85	25	4	33.2	359.96	.0042	-22.92	.0000	322672.4	1.22	77.70	.8000	.21	-.0169	-23.16	149.02
RISE 51	2889.01	2900.26	25	6	43.6	270.00	.0041	-22.64	-.0000	337252.3	.81	9.62	.8035	110.58	-.0016	-23.07	116.63
RISE 72	3044.84	3056.09	25	9	19.4	266.65	.0041	-22.81	-.0000	349329.4	.74	-.00	.8038	113.06	-.0004	-22.96	77.98
RISE 61	3103.91	3115.16	25	10	18.5	291.77	.0042	-23.66	-.0000	353618.5	.81	.00	.8027	121.72	.0027	-22.93	63.19
SET 42	3177.34	3188.59	25	11	31.9	105.00	.0041	-22.28	.0000	358352.2	1.45	1.32	-.8030	243.39	-.0023	-22.90	44.85
EXTM 51	3246.03	3257.28	25	12	40.6	359.99	.0042	-22.83	.0000	356734.5	1.10	87.89	.8000	.54	-.0394	-22.88	27.69
EXTM 61	3374.42	3385.67	25	14	49.0	.14	.0042	-23.72	.0000	368714.4	1.10	26.65	-.8000	180.14	.0013	-22.83	355.61
EXTM 72	3414.27	3425.52	25	15	28.9	.02	.0042	-23.08	.0000	368012.5	1.10	74.83	.8000	180.10	.0117	-22.82	349.69
RISE 11	3538.51	3549.76	25	17	33.1	287.77	.0042	-23.39	-.0000	382287.5	.72	.00	.8030	119.07	.0024	-22.79	314.98
SET 51	3602.30	3613.55	25	18	36.9	90.00	.0042	-22.40	.0000	385461.8	1.50	9.52	-.8035	249.64	-.0016	-22.77	298.61
SET 61	3644.73	3655.98	25	19	19.3	68.49	.0042	-23.43	.0000	389358.3	1.43	-.00	-.8027	238.62	.0027	-22.76	287.98
SET 72	3782.72	3793.97	25	21	37.3	93.32	.0042	-22.62	.0000	399131.0	1.73	-.00	-.8038	247.15	-.0006	-22.75	253.33
RISE 42	3783.24	3794.49	25	21	37.8	255.00	.0042	-22.20	-.0000	399031.1	.97	1.27	.8031	116.55	-.0024	-22.75	253.28
EXTM 11	3822.22	3833.47	25	22	16.8	359.82	.0043	-23.54	-.0000	399224.5	1.68	31.25	.8000	179.81	.0046	-22.77	243.33
IMPACT	3831.02	3842.27	25	22	25.6												
IMPC 42	3831.02	3842.27	25	22	25.6	267.11	.0043	-22.28	-.0000	402327.3	1.69	10.48	.8033	110.02	-.0022	-22.78	241.87
IMPC 11	3831.02	3842.27	25	22	25.6	2.11	.0044	-23.55	-.0000	400187.6	2.07	31.21	-.8002	182.26	.0047	-22.78	241.87

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	23	6	34.599	6572.171	21.3099	306.1721	10.97382	-3.6751	110.6389	136.4198
SEPARATION	1.20	12.45	23	6	35.799	6544.787	18.7326	312.7162	10.99660	-.2478	112.9859	143.2647
RETRO	3.20	14.45	23	6	37.799	6604.711	13.9526	323.0979	10.94623	9.4514	116.0593	154.1478
EXIT SHA	5.09	16.34	23	6	39.692	6778.197	9.1758	332.1603	10.80419	18.6576	117.9771	163.6848
IMPACT	3831.02	3842.27	25	22	25.619	403526.035	-22.7768	241.0743	2.21804	68.1495	259.0568	311.6986

* An additional line of data should appear here. See Errata

SURVEYOR VIEW PERIODS

GHA	93.2991					EPS-145.7309								LOM	237.1231
SX	.612925	SY	-.688760	SZ	-.387211	DAO	-22.78107	RAC	311.66574	RM	404808.441	LAT	28.310600	LON	279.461800
C3	-.878971	ECC	.985568	SLR	12994.882	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.627906	NSY	-.677425	NSZ	-.383181	C3M	1.5562	VIM	2.6824	ZAE	142.702	B.T	.0000	B.R	-.0000
LATE	6.0914	LONE	.4313	LATS	-.8089	LCNS	146.4060	LATI	1.9720	LONI	323.2576	RSM	146.7943	TTAN	6.0434
LAUNCH DATE	DEC 23,1965			BASE AZM	102.0		TF 63.796					ARRIVAL DATE	DEC 25 1965 22 41 14.8		

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	6 36	3.1	27.8	20.14	305.86	-4.60	139.29	112.80	6 47 18.1	6555.1	10.99	-2.28

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW															
INJECTION		.00	11.25	23	6	47.3												
SEPARATION		1.20	12.45	23	6	48.5												
RETRO		3.20	14.45	23	6	50.5												
EXIT	SHA	4.60	15.85	23	6	51.9												
EXIT	72	4.60	15.85	23	6	51.9	87.10	-.1640	44.28	.0365	2707.8	-8.61	-3.45	.1115	314.25	.0519	8.60	328.88
RISE	72	5.08	16.33	23	6	52.4	81.93	-.1982	45.32	.0355	2465.7	-8.28	-.00	.1297	315.88	.0621	7.36	331.01
EXTM	72	9.65	20.90	23	6	56.9	343.15	-.2616	16.31	-.2400	1475.3	3.73	60.60	.0478	34.52	.7008	-3.45	348.73
RISE	51	11.16	22.41	23	6	58.5	78.68	-.0970	22.15	-.0416	4947.3	-4.61	-.00	.0989	294.74	.0054	-6.43	353.61
EXTM	51	29.68	40.93	23	7	17.0	358.53	-.0329	-22.78	-.0135	7470.4	5.45	86.75	-.0000	24.57	.5863	-24.14	28.48
EXTM	72	68.80	80.05	23	7	56.1	281.60	-.0000	-30.42	-.0002	23511.5	4.86	13.97	.0000	119.49	.0002	-29.69	48.04
EXTM	51	87.25	98.50	23	8	14.6	331.86	.0000	-30.49	-.0000	24965.0	4.44	64.80	.0000	107.37	.0001	-30.02	50.01
RISE	61	172.10	183.35	23	9	39.4	306.85	.0029	-35.33	.0005	50529.1	3.40	-.00	.0018	139.25	.0016	-29.53	43.86
EXTM	51	266.97	278.22	23	11	14.3	.19	.0036	-28.95	.0002	63376.2	3.08	36.79	.0000	182.98	.0554	-28.65	27.91
EXTM	61	436.24	447.49	23	14	3.5	4.17	.0039	-31.00	.0002	96042.9	2.59	18.65	.0000	183.77	.0036	-27.49	351.81
EXTM	72	466.75	478.00	23	14	34.0	.74	.0040	-28.57	.0001	96952.8	2.53	69.32	-.0000	181.84	.0100	-27.32	344.98
RISE	11	626.89	638.14	23	17	14.2	272.55	.0040	-28.52	.0000	125715.0	1.97	.00	.0027	125.76	.0023	-26.59	308.16
SET	51	659.52	670.77	23	17	46.8	90.00	.0039	-25.40	.0001	128929.1	2.58	10.73	-.0032	246.85	-.0013	-26.47	300.51
SET	61	682.64	693.89	23	18	9.9	62.76	.0040	-28.41	.0002	133177.6	2.45	-.00	-.0023	231.44	.0027	-26.38	295.07
SET	72	853.37	864.62	23	21	.7	93.80	.0039	-25.50	.0001	154698.6	2.41	-.01	-.0035	244.23	-.0004	-25.86	254.46
RISE	42	863.90	875.15	23	21	11.2	254.99	.0040	-24.39	-.0000	155678.9	1.69	2.61	.0029	118.29	-.0022	-25.81	251.94
EXTM	11	905.35	916.60	23	21	52.6	1.21	.0042	-27.72	.0001	158037.4	1.97	27.06	-.0000	181.21	.0041	-25.70	241.98
SET	11	1181.17	1192.42	24	2	28.5	69.59	.0041	-26.30	.0001	191772.9	2.08	-.00	-.0027	237.16	.0024	-25.07	175.17
EXTM	42	1288.14	1299.39	24	4	15.4	359.91	.0042	-24.53	.0000	196777.1	1.71	79.31	-.0000	.47	-.0200	-24.86	149.07
RISE	51	1423.16	1434.41	24	6	30.5	270.00	.0041	-23.97	-.0000	215389.6	1.27	10.16	.0034	111.83	-.0015	-24.63	116.02
RISE	72	1579.89	1591.14	24	9	7.2	266.42	.0041	-24.17	-.0000	231605.8	1.16	-.01	.0037	114.42	-.0005	-24.40	77.54
RISE	61	1647.60	1658.85	24	10	14.9	293.69	.0041	-25.40	-.0000	237929.8	1.25	.00	.0026	124.19	.0027	-24.30	60.85
SET	42	1710.97	1722.22	24	11	18.3	105.00	.0041	-23.30	.0000	242532.7	1.85	1.95	-.0030	242.58	-.0023	-24.22	45.28
EXTM	51	1776.80	1788.05	24	12	24.1	358.60	.0042	-24.09	.0000	243406.6	1.48	87.92	.0023	37.90	-.0846	-24.13	29.05
EXTM	61	1913.66	1924.91	24	14	41.0	.48	.0042	-25.24	.0000	259133.1	1.45	24.53	.0000	180.48	.0042	-23.97	355.28
EXTM	72	1952.92	1964.17	24	15	20.2	.09	.0042	-24.31	.0000	259107.0	1.43	73.59	.0000	180.30	.0134	-23.92	345.58
RISE	11	2084.05	2095.30	24	17	31.4	285.87	.0042	-24.62	-.0000	276269.7	1.07	.00	.0029	120.66	.0024	-23.78	313.17
SET	51	2141.47	2152.72	24	18	28.8	90.00	.0041	-23.21	.0000	279948.5	1.76	9.85	-.0035	248.88	-.0015	-23.72	298.96
SET	61	2179.59	2190.84	24	19	6.9	67.21	.0042	-24.60	.0000	284171.9	1.66	-.00	-.0026	236.96	.0027	-23.68	289.53
SET	72	2324.82	2336.07	24	21	32.1	93.45	.0041	-23.36	.0000	295889.9	1.74	-.00	-.0037	246.40	-.0005	-23.54	253.56
RISE	42	2327.41	2338.66	24	21	34.7	255.00	.0041	-22.79	-.0000	295914.4	.99	1.63	.0030	117.01	-.0023	-23.54	252.92
EXTM	11	2368.11	2379.36	24	22	15.4	.32	.0042	-24.55	.0000	296125.5	1.31	30.24	-.0000	180.34	.0044	-23.50	242.83
SET	11	2652.06	2663.31	25	2	59.4	71.71	.0042	-23.98	.0000	321115.5	1.57	-.00	-.0029	240.17	.0024	-23.26	172.40
EXTM	42	2746.21	2757.46	25	4	33.5	359.95	.0042	-22.95	.0000	321930.8	1.23	77.73	.0000	.22	-.0167	-23.18	149.03
RISE	51	2876.64	2887.89	25	6	43.9	270.00	.0041	-22.65	-.0000	336519.8	.82	9.63	.0035	110.61	-.0016	-23.08	120 63
RISE	72	3032.46	3043.71	25	9	19.8	266.65	.0041	-22.82	-.0000	348649.3	.75	-.00	.0038	113.05	-.0006	-22.97	77.90
RISE	61	3091.57	3102.82	25	10	18.9	291.78	.0042	-23.67	-.0000	352947.9	.82	-.00	.0027	121.73	.0027	-22.94	63.18
SET	42	3164.95	3176.20	25	11	32.3	105.00	.0041	-22.28	.0000	357695.1	1.45	1.32	-.0030	243.38	-.0023	-22.91	44.85
EXTM	51	3233.64	3244.89	25	12	40.9	359.99	.0042	-22.83	.0000	356086.9	1.11	87.09	.0000	.43	-.0328	-22.88	27.70
EXTM	61	3362.07	3373.32	25	14	49.4	.15	.0042	-23.72	.0000	368084.2	1.10	26.04	-.0000	180.15	.0043	-22.83	355.60
EXTM	72	3401.89	3413.14	25	15	29.2	.02	.0042	-23.08	.0000	367384.0	1.10	74.83	.0000	180.11	.0116	-22.82	345.65
RISE	11	3526.12	3537.37	25	17	33.4	287.77	.0042	-23.38	-.0000	381665.7	.77	.00	.0030	119.06	.0024	-22.78	314.58
SET	51	3589.92	3601.17	25	18	37.2	90.00	.0042	-22.39	.0000	384840.8	1.50	9.52	-.0035	248.64	-.0016	-22.76	298.61
SET	61	3632.39	3643.64	25	19	19.7	68.50	.0042	-23.42	.0000	388736.4	1.43	-.00	-.0027	238.63	.0027	-22.75	287.97
SET	72	3770.38	3781.63	25	21	37.7	93.32	.0042	-22.40	.0000	398432.6	1.70	-.01	-.0038	247.17	-.0006	-22.74	253.34
RISE	42	3770.93	3782.18	25	21	38.2	255.00	.0042	-22.18	-.0000	398339.4	.94	1.26	.0031	116.53	-.0024	-22.74	253.20
EXTM	11	3809.90	3821.15	25	22	17.2	359.80	.0043	-23.52	-.0000	398367.4	1.52	31.27	.0000	179.78	.0046	-22.75	243.35
IMPACT		3827.79	3839.04	25	22	35.1												
IMPC	42	3827.79	3839.04	25	22	35.1	269.40	.0043	-22.28	-.0000	402143.4	1.69	12.16	.0034	108.82	-.0022	-22.76	238.78
IMPC	11	3827.79	3839.04	25	22	35.1	4.43	.0044	-23.93	-.0000	400204.5	2.08	31.11	-.0003	184.74	.0 7	-22.76	238.78

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	23	6	47.302	6555.193	20.1434	305.8535	10.98810	-2.2833	112.8002	139.2894
SEPARATION		1.20	12.45	23	6	48.502	6547.323	17.3379	312.2380	10.99461	1.1518	114.9510	145.9708
RETRO		3.20	14.45	23	6	50.502	6638.929	12.2623	322.3215	10.91794	6.8187	117.6667	156.3557
EXIT	SHA	4.60	15.85	23	6	51.903	6777.809	8.5996	328.8797	10.80468	10.6491	118.9178	163.4832
IMPACT		3827.79	3839.04	25	22	35.088	403533.660	-22.7597	238.7831	2.21126	68.1852	259.4573	311.7812

SURVEYOR VIEW PERIODS

GHA	93.2991					EPS-145.6308								LOM	233.9070
SX	.614429	SY	-.687644	SZ	-.386811	DAO	-22.75620	RAO	311.78167	RM	404820.156	LAT	28.310600	LON	279.461800
C3	-.880925	ECC	.985536	SLR	12994.672	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TR	675.00000	POL	-.0
NSX	.629402	NSY	-.670267	NSZ	-.382774	C3M	1.5559	VIM	2.6824	ZAE	142.643	B.T	.0000	B.R	-.0000
LATE	6.0971	LONF	.5415	LATS	-.8091	LONS	146.4151	LATI	1.7330	LONI	323.3412	RSM	146.7946	TTAN	6.0394
LAUNCH DATE	DEC 23,1965			BASE AZM	105.0		TF 63.830					ARRIVAL DATE	DEC 25 1965 22 54 32.3		

LNCH AZMTH	LNCH TIME	PB	INJ L.T	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	6 46 50.7	27.9	19.00	305.44	-2.27	141.58	114.93	6 58 5.7	6547.2	10.99	-1.13

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW															
INJECTION		.00	11.25	23	6	58.1												
SEPARATION		1.20	12.45	23	6	59.3												
RETRO		3.20	14.45	23	7	1.3												
EXIT	SHA	4.20	15.45	23	7	2.3												
EXIT	72	4.20	15.45	23	7	2.3	89.90	-.1393	38.71	.0129	2895.3	-8.80	-4.85	.1067	308.45	.0248	7.92	326.01
RISE	72	4.88	16.13	23	7	3.0	83.51	-.1741	39.15	.0077	2542.6	-8.39	-.00	.1315	309.60	.0315	6.09	329.00
EXTM	72	9.42	20.67	23	7	7.5	356.95	-.2989	9.05	-.2271	1412.8	3.02	72.77	.1709	10.23	1.1173	-4.85	346.22
RISE	51	11.09	22.34	23	7	9.2	80.76	-.0903	18.43	-.0450	5089.7	-3.78	-.00	.0968	290.54	-.0007	-8.17	351.51
EXTM	51	31.16	42.41	23	7	29.3	.31	-.0303	-26.47	-.0103	8079.8	5.43	89.21	.0000	200.66	-2.1088	-26.15	27.51
EXTM	72	69.35	80.60	23	8	7.4	284.18	.0000	-31.92	-.0000	23566.7	4.83	16.18	.0000	121.03	.0000	-30.76	45.63
EXTM	51	88.33	99.58	23	8	26.4	334.90	-.0000	-31.79	.0001	25268.4	4.41	67.24	.0000	111.26	-.0003	-30.97	47.57
RISE	61	166.07	177.32	23	9	44.2	308.42	.0028	-36.29	.0005	49305.6	3.44	-.00	.0018	140.84	.0015	-30.28	42.24
EXTM	51	254.62	265.87	23	11	12.7	.29	.0035	-29.67	.0002	61152.3	3.13	86.06	.0000	183.68	.0442	-29.30	27.42
EXTM	61	426.85	438.10	23	14	4.9	4.59	.0039	-31.51	.0002	94688.9	2.61	18.13	.0000	184.11	.0035	-27.93	351.42
EXTM	72	456.15	467.40	23	14	34.2	.84	.0040	-29.05	.0001	95413.8	2.55	68.84	.0000	182.04	.0097	-27.75	344.89
RISE	11	617.86	629.11	23	17	16.0	292.90	.0040	-28.88	.0000	124530.1	1.98	.00	.0027	126.23	.0023	-26.93	307.78
SET	51	648.74	659.99	23	17	46.8	90.00	.0039	-25.71	.0001	127517.3	2.59	10.86	-.0032	246.55	-.0013	-26.80	300.55
SET	61	670.09	681.34	23	18	8.2	62.32	.0040	-28.77	.0002	131562.1	2.46	-.00	-.0022	230.92	.0027	-26.71	295.53
SET	72	842.98	854.23	23	21	1.1	93.85	.0039	-25.76	.0001	153474.4	2.42	-.00	-.0035	243.98	-.0004	-26.10	254.44
RISE	42	853.53	864.78	23	21	11.6	254.99	.0040	-24.64	-.0000	154446.5	1.70	2.76	.0029	118.48	-.0022	-26.07	251.91
EXTM	11	895.28	906.53	23	21	53.4	1.31	.0042	-27.98	.0001	156904.4	1.98	26.80	-.0000	181.29	.0041	-25.94	241.89
SET	11	1170.02	1181.27	24	2	28.1	69.41	.0041	-26.49	.0001	190606.1	2.08	-.00	-.0027	236.91	.0024	-25.25	175.36
EXTM	42	1277.76	1289.01	24	4	15.9	359.90	.0042	-24.70	.0000	195724.7	1.71	79.48	-.0000	.51	-.0204	-25.03	149.08
RISE	51	1412.86	1424.11	24	6	31.0	270.00	.0041	-24.12	-.0000	214379.0	1.27	10.22	.0034	111.96	-.0015	-24.78	116.01
RISE	72	1569.50	1580.75	24	9	7.6	266.40	.0041	-24.29	-.0000	230631.3	1.16	-.01	.0037	114.54	-.0005	-24.52	77.55
RISE	61	1637.84	1649.09	24	10	15.9	293.83	.0041	-25.52	-.0000	237027.8	1.26	.00	.0026	124.36	.0027	-24.42	60.74
SET	42	1700.61	1711.86	24	11	18.7	105.00	.0041	-23.41	.0001	242581.0	1.85	2.01	-.0030	242.49	-.0023	-24.33	45.28
EXTM	51	1766.72	1777.97	24	12	24.8	358.66	.0042	-24.19	.0000	242499.8	1.49	88.04	.0023	38.39	-.0891	-24.23	28.99
EXTM	61	1903.44	1914.69	24	14	41.5	.51	.0042	-25.33	.0000	258247.7	1.45	24.43	.0000	180.51	.0042	-24.06	355.25
EXTM	72	1942.61	1953.86	24	15	20.7	.10	.0042	-24.40	.0000	258213.3	1.44	73.50	.0000	180.32	.0133	-24.01	345.58
RISE	11	2074.01	2085.26	24	17	32.1	288.94	.0042	-24.70	-.0000	275415.4	1.07	.00	.0029	120.76	.0024	-23.85	313.09
SET	51	2131.11	2142.36	24	18	29.2	90.00	.0041	-23.27	.0000	279073.3	1.76	9.88	-.0035	248.82	-.0015	-23.79	298.97
SET	61	2168.92	2180.17	24	19	7.0	67.13	.0042	-24.67	.0000	283279.5	1.66	-.00	-.0026	236.86	.0027	-23.75	289.61
SET	72	2314.49	2325.74	24	21	32.6	93.45	.0041	-23.42	.0001	295044.2	1.74	-.00	-.0037	246.35	-.0005	-23.60	253.56
RISE	42	2317.08	2328.33	24	21	35.2	255.00	.0041	-22.84	-.0000	295065.2	.99	1.66	.0030	117.05	-.0023	-23.59	252.92
EXTM	11	2357.84	2369.09	24	22	15.9	.34	.0042	-24.61	.0000	295295.0	1.32	30.18	-.0000	180.36	.0044	-23.55	242.81
SET	11	2641.56	2652.81	25	2	59.7	71.68	.0042	-24.01	.0000	320293.1	1.57	-.00	-.0029	240.13	.0024	-23.29	172.44
EXTM	42	2735.83	2747.08	25	4	33.9	359.95	.0042	-22.98	.0000	321125.9	1.23	77.76	.0000	.24	-.0170	-23.21	149.03
RISE	51	2866.28	2877.53	25	6	44.4	270.00	.0041	-22.67	-.0000	335727.6	.82	9.64	.0035	110.62	-.0016	-23.11	116.63
RISE	72	3022.09	3033.34	25	9	20.2	266.64	.0041	-22.83	-.0000	347869.5	.75	-.00	.0038	113.07	-.0006	-22.99	77.90
RISE	61	3081.25	3092.50	25	10	19.3	291.79	.0042	-23.68	-.0000	352177.7	.82	.00	.0027	121.75	.0027	-22.95	63.16
SET	42	3154.57	3165.82	25	11	32.7	105.00	.0041	-22.29	.0000	356920.7	1.45	1.32	-.0030	243.38	-.0023	-22.91	44.85
EXTM	51	3223.26	3234.51	25	12	41.4	359.99	.0042	-22.83	.0000	355313.2	1.11	87.09	.0000	.37	-.0413	-22.89	27.70
EXTM	61	3351.75	3363.00	25	14	49.8	.16	.0042	-23.72	.0000	367311.7	1.10	26.04	-.0000	180.17	.0043	-22.83	355.59
EXTM	72	3391.53	3402.78	25	15	29.6	.03	.0042	-23.07	.0000	366607.3	1.10	74.83	.0000	180.12	.0120	-22.82	345.65
RISE	11	3515.74	3526.99	25	17	33.8	287.76	.0042	-23.38	-.0000	380877.7	.77	.00	.0030	119.05	.0024	-22.77	314.58
SET	51	3579.55	3590.80	25	18	37.6	90.00	.0042	-22.38	.0000	384044.2	1.50	9.52	-.0035	249.65	-.0016	-22.75	298.61
SET	61	3622.08	3633.33	25	19	20.2	68.51	.0042	-23.41	.0000	387932.5	1.42	-.00	-.0027	238.64	.0027	-22.74	287.96
SET	72	3760.07	3771.32	25	21	38.2	93.32	.0042	-22.58	.0000	397522.2	1.67	-.01	-.0038	247.19	-.0006	-22.72	253.34
RISE	42	3760.64	3771.89	25	21	38.7	255.00	.0042	-22.16	-.0000	397426.5	.90	1.24	.0031	116.52	-.0024	-22.72	253.20
EXTM	11	3800.26	3811.51	25	22	18.4	359.95	.0043	-23.50	-.0000	397366.8	1.40	31.29	.0000	179.94	.0045	-22.72	243.20
IMPACT		3829.77	3841.02	25	22	47.9												
IMPC	42	3829.77	3841.02	25	22	47.9	272.49	.0043	-22.27	-.0000	401896.4	1.69	14.56	.0034	107.21	-.0022	-22.74	235.69
IMPC	11	3829.77	3841.02	25	22	47.9	7.57	.0044	-23.51	-.0000	400240.7	2.10	30.85	-.0005	188.08	.0046	-22.74	235.69

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	23	6	58.094	6547.217	19.0051	305.4396	10.99469	-1.1261	114.9326	141.5772
SEPARATION		1.20	12.45	23	6	59.294	6555.365	15.9785	311.6622	10.98773	2.3076	116.8960	148.1006
RETRO		3.20	14.45	23	7	1.294	6672.910	10.6217	321.4455	10.88981	7.9395	119.2706	158.3853
EXIT	SHA	4.20	15.45	23	7	2.292	6777.881	7.9167	326.0052	10.80453	10.6507	120.0460	163.1952
IMPACT		3829.77	3841.02	25	22	47.869	403545.176	-22.7363	235.6908	2.21059	68.1677	259.9310	311.8928

SURVEYOR VIEW PERIODS

GHA	93.2991					EPS-145.5416										LOM	231.0399
SX	.615768	SY	-.686647	SZ	-.386453	DAO	-22.73395	RAO	311.88497	RM	404830.539	LAT	28.310600	LON	279.461800		
C3	-.883411	ECC	.985495	SLR	12994.404	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0		
NSX	.630739	NSY	-.675227	NSZ	-.382410	C3M	1.5557	VIM	2.6823	ZAE	142.564	B.T	.0000	B.R	-.0000		
LATE	6.1021	LCNE	.4089	LATS	-.8092	LONS	146.1925	LATI	1.4612	LONI	323.1671	RSM	146.7949	TTAN	6.0372		
LAUNCH DATE	DEC 23,1965			BASE AZM	108.0		TF 63.871					ARRIVAL DATE	DEC 25 1965 23 6 23.3				

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	6 55 59.7	28.0	17.89	304.95	-.33	143.38	117.05	7 7 14.7	6544.7	11.00	-.16

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	CDE	RNG	ORG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW																
INJECTION		.00	11.25	23	7	7.2												
SEPARATION		1.20	12.45	23	7	8.4												
RETRO		3.20	14.45	23	7	10.4												
EXIT SHA		3.87	15.12	23	7	11.1												
RISE	72	4.74	15.99	23	7	12.0	84.73	-.1568	33.49	-.0175	2617.7	-8.35	-.00	.1319	303.85	.0043	4.72	327.23
EXTM	72	9.16	20.41	23	7	16.4	10.92	-.3150	1.60	-.2147	1417.1	2.10	75.55	.3783	310.68	.1860	-6.20	343.68
RISE	51	11.07	22.32	23	7	18.3	82.67	-.0845	14.82	-.0481	5221.6	-3.55	-.00	.0946	286.50	-.0063	-10.01	349.59
EXTM	51	32.79	44.04	23	7	40.0	1.50	-.0278	-30.06	-.0075	8731.2	5.41	85.48	-.0000	196.70	-.3196	-28.24	26.83
EXTM	72	69.85	81.10	23	8	17.1	286.32	-.0000	-33.51	.0002	23632.7	4.81	17.94	.0000	122.75	-.0002	-31.96	43.59
EXTM	51	88.79	100.04	23	8	36.0	337.44	-.0001	-33.20	.0003	25417.8	4.40	69.05	.0000	116.16	-.0009	-32.04	45.50
RISE	61	163.12	174.37	23	9	50.4	310.07	.0028	-37.26	.0006	48729.1	3.47	-.00	.0018	142.48	.0015	-31.11	40.61
EXTM	51	244.51	255.76	23	11	11.8	.43	.0034	-30.49	.0002	59306.8	3.17	85.23	-.0000	184.51	.0358	-30.03	27.29
EXTM	61	419.48	430.73	23	14	6.7	5.03	.0039	-32.06	.0002	93635.8	2.63	17.56	.0000	184.47	.0035	-28.43	351.01
EXTM	72	447.50	458.75	23	14	34.7	.96	.0040	-29.58	.0002	94152.6	2.56	68.31	.0000	182.26	.0095	-28.23	344.78
RISE	11	610.83	622.08	23	17	18.1	293.31	.0040	-29.27	.0000	123599.7	1.99	.01	.0027	126.76	.0023	-27.30	307.35
SET	51	639.76	651.01	23	17	47.0	90.00	.0039	-26.08	.0001	126326.0	2.60	11.00	-.0032	246.21	-.0013	-27.16	300.58
SET	61	659.08	670.33	23	18	6.3	61.82	.0040	-29.16	.0002	130129.1	2.47	-.00	-.0022	230.33	.0027	-27.08	296.05
SET	72	834.36	845.61	23	21	1.6	93.89	.0039	-26.05	.0001	152448.9	2.42	-.00	-.0035	243.68	-.0004	-26.39	254.42
RISE	42	844.89	856.14	23	21	12.1	254.99	.0040	-24.92	-.0000	153404.5	1.70	2.93	.0029	118.70	-.0022	-26.35	251.90
EXTM	11	886.99	898.24	23	21	54.2	1.41	.0042	-28.27	.0001	155967.9	1.98	26.51	-.0000	181.39	.0041	-26.21	241.79
SET	11	1160.46	1171.71	24	2	27.7	69.20	.0041	-26.71	.0001	189593.4	2.09	-.00	-.0027	236.62	.0024	-25.46	175.58
EXTM	42	1269.07	1280.32	24	4	16.3	359.89	.0042	-24.89	.0000	194829.2	1.72	79.67	-.0000	.54	-.0209	-25.22	149.08
RISE	51	1404.23	1415.48	24	6	31.5	270.00	.0041	-24.28	-.0000	213516.3	1.28	10.28	.0034	112.12	-.0015	-24.94	116.00
RISE	72	1560.77	1572.02	24	9	8.0	266.38	.0041	-24.43	-.0000	229795.7	1.17	-.01	.0037	114.68	-.0005	-24.66	77.56
RISE	61	1629.82	1641.07	24	10	17.1	293.99	.0041	-25.66	.0000	236270.3	1.26	.00	.0026	124.56	.0027	-24.55	60.58
SET	42	1691.91	1703.16	24	11	19.2	105.00	.0041	-23.53	.0001	241762.0	1.86	2.09	-.0030	242.40	-.0022	-24.45	45.29
EXTM	51	1758.63	1769.88	24	12	25.9	358.81	.0042	-24.31	.0000	241753.7	1.49	88.21	.0023	37.33	-.0992	-24.35	28.84
EXTM	61	1894.89	1906.14	24	14	42.1	.55	.0042	-25.44	.0000	257489.8	1.45	24.32	.0000	180.54	.0042	-24.16	355.22
EXTM	72	1933.95	1945.20	24	15	21.2	.11	.0042	-24.50	.0000	257444.0	1.44	73.40	.0000	180.34	.0133	-24.11	345.57
RISE	11	2065.65	2076.90	24	17	32.9	289.02	.0042	-24.79	-.0000	274682.9	1.07	.00	.0029	120.87	.0024	-23.94	313.01
SET	51	2122.39	2133.64	24	18	29.6	90.00	.0041	-23.35	.0001	278313.0	1.76	9.91	-.0035	248.75	-.0015	-23.87	298.97
SET	61	2159.84	2171.09	24	19	7.1	67.04	.0042	-24.75	.0001	282496.7	1.66	-.00	-.0026	236.74	.0027	-23.83	289.70
SET	72	2305.81	2317.06	24	21	33.1	93.46	.0041	-23.48	.0001	294308.1	1.75	-.00	-.0037	246.28	-.0005	-23.66	253.55
RISE	42	2308.38	2319.63	24	21	35.6	255.00	.0041	-22.90	-.0000	294323.7	.99	1.70	.0030	117.11	-.0023	-23.66	252.91
EXTM	11	2349.21	2360.46	24	22	16.5	.36	.0042	-24.68	.0000	294573.5	1.32	30.11	-.0000	180.38	.0044	-23.62	242.79
SET	11	2632.66	2643.91	25	2	59.9	71.64	.0042	-24.06	.0000	319566.2	1.57	-.00	-.0029	240.07	.0024	-23.33	172.48
EXTM	42	2727.07	2738.32	25	4	34.3	359.95	.0042	-23.01	.0000	320415.7	1.23	77.79	.0000	.26	-.0170	-23.25	149.03
RISE	51	2857.54	2868.79	25	6	44.8	270.00	.0041	-22.70	-.0000	335026.0	.82	9.65	.0035	110.65	-.0016	-23.13	116.62
RISE	72	3013.33	3024.58	25	9	20.6	266.64	.0041	-22.85	-.0000	347175.7	.75	-.00	.0038	113.09	-.0006	-23.01	77.90
RISE	61	3072.66	3083.91	25	10	19.9	291.80	.0042	-23.69	-.0000	351321.4	.86	.00	.0027	121.77	.0027	-22.96	63.15
SET	42	3145.91	3157.16	25	11	33.2	105.00	.0041	-22.29	.0000	356305.1	1.45	1.32	-.0030	243.37	-.0023	-22.92	44.86
EXTM	51	3214.60	3225.85	25	12	41.8	359.99	.0042	-22.84	.0000	354691.1	1.10	87.10	.0000	.39	-.0409	-22.89	27.70
EXTM	61	3343.11	3354.36	25	14	50.4	.17	.0042	-23.72	.0000	366676.9	1.10	26.04	-.0000	180.18	.0043	-22.83	355.58
EXTM	72	3382.85	3394.10	25	15	30.1	.03	.0042	-23.07	.0000	365964.9	1.10	74.83	.0000	180.12	.0124	-22.81	345.64
RISE	11	3507.02	3518.27	25	17	34.3	287.75	.0042	-23.37	-.0000	380211.8	.77	.00	.0030	119.05	.0024	-22.77	314.59
SET	51	3570.84	3582.09	25	18	38.1	90.00	.0042	-22.37	.0000	383363.8	1.49	9.51	-.0035	249.66	-.0016	-22.74	298.61
SET	61	3613.41	3624.66	25	19	20.7	68.52	.0042	-23.40	.0000	387241.2	1.42	-.00	-.0027	238.66	.0027	-22.73	287.95
SET	72	3751.36	3762.61	25	21	38.6	93.31	.0042	-22.57	.0000	396730.5	1.64	-.01	-.0038	247.21	-.0005	-22.70	253.34
RISE	42	3751.96	3763.21	25	21	39.2	255.00	.0042	-22.14	-.0000	396636.8	.88	1.23	.0031	116.50	-.0024	-22.70	253.19
EXTM	11	3791.81	3803.06	25	22	19.1	360.00	.0043	-23.48	.0000	396494.0	1.34	31.31	.0000	179.99	.0014	-22.70	243.15
IMPACT		3832.27	3843.52	25	22	59.5												
IMPC	42	3832.27	3843.52	25	22	59.5	275.31	.0043	-22.26	-.0000	401675.3	1.68	16.76	.0034	105.76	-.0022	-22.71	232.87
IMPC	11	3832.27	3843.52	25	22	59.5	10.42	.0044	-23.48	-.0000	400289.3	2.11	30.48	-.0007	191.10	.0046	-22.71	232.87

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	23	7	7.245	6544.719	17.8932	304.9516	10.99670	-.1625	117.0473	143.3830
SEPARATION		1.20	12.45	23	7	8.445	6566.145	14.6523	311.0092	10.97853	3.2671	118.8314	149.7414
RETRO		3.20	14.45	23	7	10.445	6704.966	9.0250	320.4937	10.86344	8.8621	120.8876	159.7274
EXIT SHA		3.87	15.12	23	7	11.112	6778.487	7.1485	323.4065	10.80393	10.6639	121.3294	162.8673
IMPACT		3832.27	3843.52	25	22	59.513	403559.117	-22.7149	232.8742	2.20804	67.9413	260.4183	311.9951

SURVEYOR VIEW PERIODS

GHA	93.2991					EPS-145.4598								LOM	228.4111
SX	.616994	SY	-.685731	SZ	-.386123	DAO	-22.71350	RAO	311.97964	RM	404840.012	LAT	28.310600	LON	279.461800
C3	-.886511	ECC	.985444	SLR	12994.074	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
MSX	.631969	NSY	-.674265	NSZ	-.382076	C3M	1.5556	VIM	2.6823	ZAE	142.462	B.T	.0000	B.R	-.0000
LATE	6.1067	LONE	.4990	LATS	-.8093	LONS	146.2000	LATI	1.1648	LONI	323.1977	RSM	146.7951	TTAN	6.0364
LAUNCH DATE	DEC 23,1965			BASE AZM	111.0		TF 63.922					ARRIVAL DATE	DEC 25 1965 23 17 15.1		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	7 3 47.8	28.0	16.81	304.40	1.29	144.79	119.15	7 15 2.8	6545.5	11.00	.64

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	CDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW															
INJECTION		.00	11.25	23	7	15.0												
SEPARATION		1.20	12.45	23	7	16.2												
RETRO		3.20	14.45	23	7	18.2												
EXIT SHA		3.59	14.84	23	7	18.6												
RISE	72	4.66	15.51	23	7	19.7	85.73	-.1433	28.18	-.0402	2691.7	-8.18	.00	.1310	298.48	-.0200	3.26	325.65
EXTM	72	9.99	21.24	23	7	25.0	5.43	-.2595	-17.03	-.1479	1676.6	4.30	79.45	.0000	209.63	-1.5769	-9.81	344.57
RISE	51	11.09	22.34	23	7	26.1	84.47	-.0794	11.30	-.0511	5345.8	-3.31	.00	.0925	282.56	-.0113	-11.94	347.82
EXTM	51	34.64	45.89	23	7	49.7	2.11	-.0254	-33.53	-.0052	9444.6	5.38	82.00	-.0000	192.75	-.1566	-30.39	26.46
EXTM	72	70.16	81.41	23	8	25.2	288.09	-.0000	-35.18	.0004	23671.5	4.80	19.31	.0000	124.59	-.0005	-33.25	41.84
EXTM	51	88.47	99.72	23	8	43.5	339.57	-.0002	-34.73	.0005	25367.7	4.40	70.25	.0000	121.92	-.0016	-33.21	43.74
RISE	61	162.73	173.98	23	9	57.8	311.77	.0028	-38.21	.0006	48703.4	3.47	-.00	.0018	144.12	.0014	-31.98	38.99
EXTM	51	236.43	247.68	23	11	11.5	.63	.0034	-31.39	.0003	57821.5	3.21	84.32	-.0000	185.48	.0294	-30.83	27.12
EXTM	61	413.82	425.07	23	14	8.9	5.50	.0039	-32.64	.0003	92840.9	2.64	16.95	.0000	184.84	.0034	-28.96	350.57
EXTM	72	440.50	451.75	23	14	35.5	1.10	.0040	-30.15	.0002	93130.9	2.58	67.73	.0000	182.51	.0092	-28.75	344.65
RISE	11	605.36	616.61	23	17	20.4	293.73	.0040	-29.70	.0001	122874.5	2.00	.00	.0026	127.33	.0023	-27.70	306.91
SET	51	632.29	643.54	23	17	47.3	90.00	.0039	-26.47	.0001	125322.9	2.61	11.16	-.0032	245.84	-.0013	-27.56	300.62
SET	61	649.35	660.60	23	18	4.4	61.27	.0040	-29.60	.0002	128851.5	2.48	-.00	-.0022	229.69	.0027	-27.48	296.61
SET	72	827.22	838.47	23	21	2.3	93.95	.0039	-26.36	.0001	151591.3	2.43	-.00	-.0035	243.37	-.0004	-26.71	254.39
RISE	42	837.70	848.95	23	21	12.7	254.99	.0040	-25.22	-.0000	152523.4	1.71	3.12	.0029	118.94	-.0022	-26.67	251.88
EXTM	11	880.16	891.41	23	21	55.2	1.52	.0042	-28.58	.0001	155197.0	1.99	26.19	.0000	181.49	.0041	-26.51	241.69
SET	11	1152.23	1163.48	24	2	27.3	68.97	.0041	-26.95	.0001	188709.8	2.09	-.00	-.0027	236.31	.0024	-25.69	175.81
EXTM	42	1261.78	1273.03	24	4	16.8	359.89	.0042	-25.10	.0000	194065.0	1.72	79.88	-.0000	.59	-.0213	-25.42	149.09
RISE	51	1396.99	1408.24	24	6	32.0	270.00	.0041	-24.46	-.0000	212776.5	1.28	10.36	.0034	112.28	-.0015	-25.13	115.99
RISE	72	1553.40	1564.65	24	9	8.4	266.35	.0041	-24.59	-.0000	229075.1	1.17	-.01	.0037	114.84	-.0005	-24.82	77.58
RISE	61	1623.23	1634.48	24	10	18.3	294.16	.0041	-25.81	.0000	235631.8	1.26	.00	.0026	124.78	.0027	-24.70	60.40
SET	42	1684.58	1695.83	24	11	19.6	105.00	.0041	-23.67	.0001	241052.6	1.86	2.17	-.0030	242.29	-.0022	-24.59	45.29
EXTM	51	1752.05	1763.30	24	12	27.1	359.00	.0042	-24.45	.0000	241128.1	1.49	88.42	.0022	35.33	-.1149	-24.48	28.66
EXTM	61	1887.71	1898.96	24	14	42.8	.58	.0042	-25.56	.0000	256836.0	1.45	24.20	.0000	180.58	.0042	-24.27	355.18
EXTM	72	1926.66	1937.91	24	15	2..7	.12	.0042	-24.62	.0000	256775.5	1.44	73.29	.0000	180.37	.0132	-24.22	345.56
RISE	11	2058.68	2069.93	24	17	33.7	289.11	.0042	-24.89	-.0000	274049.3	1.07	.00	.0029	121.00	.0024	-24.04	312.92
SET	51	2115.02	2126.27	24	18	30.1	90.00	.0041	-23.45	.0001	277646.3	1.76	9.95	-.0035	248.66	-.0015	-23.96	298.98
SET	61	2152.06	2163.31	24	19	7.1	66.94	.0042	-24.84	.0001	281802.8	1.66	-.00	-.0026	236.61	.0027	-23.92	289.81
SET	72	2298.48	2309.73	24	21	33.5	93.47	.0041	-23.56	.0001	293660.1	1.75	-.00	-.0037	246.20	-.0005	-23.74	253.54
RISE	42	2301.02	2312.27	24	21	36.1	255.00	.0041	-22.98	-.0000	293669.2	1.00	1.75	.0030	117.16	-.0023	-23.74	252.91
EXTM	11	2341.93	2353.18	24	22	17.0	.39	.0042	-24.75	.0000	293939.6	1.32	30.04	-.0000	180.41	.0044	-23.69	242.77
SET	11	2625.07	2636.32	25	3	.1	71.59	.0042	-24.11	.0000	318915.0	1.57	-.00	-.0029	240.00	.0024	-23.38	172.53
EXTM	42	2719.65	2730.90	25	4	34.7	359.94	.0042	-23.06	.0000	319780.1	1.23	77.84	.0000	.27	-.0174	-23.29	149.04
RISE	51	2850.14	2861.39	25	6	45.2	270.00	.0041	-22.74	-.0000	334395.1	.82	9.66	.0035	110.68	-.0016	-23.17	116.62
RISE	72	3005.90	3017.15	25	9	20.9	266.64	.0041	-22.88	-.0000	346548.4	.75	-.00	.0038	113.11	-.0006	-23.03	77.90
RISE	61	3065.33	3076.58	25	10	20.4	291.83	.0042	-23.72	-.0000	350702.8	.86	.00	.0027	121.80	.0027	-22.98	63.12
SET	42	3138.47	3149.72	25	11	33.5	105.00	.0041	-22.31	.0000	355678.1	1.45	1.33	-.0030	243.36	-.0023	-22.94	44.86
EXTM	51	3207.16	3218.41	25	12	42.2	359.99	.0042	-22.85	.0000	354062.8	1.10	87.11	.0000	.40	-.0425	-22.90	27.70
EXTM	61	3335.73	3346.98	25	14	50.8	.19	.0042	-23.73	.0000	366046.8	1.10	26.03	-.0000	180.19	.0043	-22.84	355.57
EXTM	72	3375.43	3386.68	25	15	30.5	.03	.0042	-23.08	.0000	369328.5	1.09	74.83	.0000	180.13	.0133	-22.82	345.64
RISE	11	3499.60	3510.85	25	17	34.6	287.75	.0042	-23.37	-.0000	379563.0	.76	.00	.0030	119.05	.0024	-22.77	314.59
SET	51	3563.41	3574.66	25	18	38.5	90.00	.0042	-22.36	.0000	382704.9	1.49	9.51	-.0035	249.67	-.0016	-22.74	298.61
SET	61	3606.00	3617.25	25	19	21.1	68.53	.0042	-23.39	.0000	386574.9	1.41	-.00	-.0027	238.66	.0027	-22.72	287.95
SET	72	3743.96	3755.21	25	21	39.0	93.31	.0042	-22.55	.0000	395993.8	1.62	-.01	-.0038	247.22	-.0005	-22.69	253.35
RISE	42	3744.58	3755.83	25	21	39.6	255.00	.0042	-22.12	-.0000	395902.0	.86	1.22	.0031	116.49	-.0024	-22.69	253.19
EXTM	11	3784.60	3795.85	25	22	19.6	.03	.0043	-23.46	.0000	395701.9	1.29	31.33	.0000	180.04	.0045	-22.68	243.12
IMPACT		3835.31	3846.56	25	23	10.4												
IMPC	42	3835.31	3846.56	25	23	10.4	277.94	.0043	-22.25	-.0000	401467.3	1.69	18.83	.0034	104.42	-.0022	-22.70	230.25
IMPC	11	3835.31	3846.56	25	23	10.4	13.08	.0044	-23.46	-.0000	400342.1	2.13	30.04	-.0009	193.88	.0045	-22.70	230.25

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	23	7	15.047	6545.498	16.8071	304.4029	10.99591	.6427	119.1516	144.7903
SEPARATION		1.20	12.45	23	7	16.247	6578.035	13.3562	310.2958	10.96839	4.0692	120.7654	150.9840
RETRO		3.20	14.45	23	7	18.247	6734.510	7.4634	319.4889	10.83927	9.6299	122.5234	160.6785
EXIT SHA		3.59	14.84	23	7	18.642	6779.729	6.3097	321.2047	10.80278	10.6915	122.7410	162.4932
IMPACT		3835.31	3846.56	25	23	10.357	403569.227	-22.6952	230.2504	2.20698	67.8980	261.0101	312.0898

SURVEYOR VIEW PERIODS

GHA	93.2991					EPS-145.3583								LON	225.1500
SX	.618513	SY	-.684593	SZ	-.385714	DAO	-22.68806	RAC	312.09704	RM	404851.695	LAT	28.310600	LON	279.461800
C3	-.891552	ECC	.985362	SLR	12993.532	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.633501	NSY	-.673062	NSZ	-.381660	C3M	1.5556	VIM	2.6823	ZAE	142.289	B.T	.0000	B.R	-.0000
LATE	6.1124	LONE	.3888	LATS	-.8095	LONS	145.9873	LATI	.7419	LONI	322.9785	RSM	146.7955	TTAN	6.0380
LAUNCH DATE	DEC 23,1965			BASE AZM	115.0		TF 64.003					ARRIVAL DATE	DEC 25 1965 23 30 43.8		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	7 12 31.9	28.0	15.40	303.59	3.06	146.17	121.95	7 23 46.9	6549.3	10.99	1.52

EVNT STA	TFI	TFL	DAY PROBE	HR IN	MIN EARTH'S	HA SHADOW	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
INJECTION	.00	11.25	23	7	23.8												
SEPARATION	1.20	12.45	23	7	25.0												
RETRO	3.20	14.45	23	7	27.0												
EXIT SHA	3.31	14.56	23	7	27.1												
RISE 72	4.61	15.86	23	7	28.4	86.87	-.1286	21.49	-.0669	2792.2	-7.79	.00	.1282	291.71	-.0485	1.20	323.79
EXTM 72	10.34	21.59	23	7	34.1	11.27	-.2426	-29.79	-.1122	1958.5	4.64	65.69	-.0000	204.33	-.5797	-13.04	343.29
RISE 51	11.16	22.41	23	7	34.9	86.75	-.0734	5.70	-.0547	5505.5	-2.98	.00	.0894	277.44	-.0173	-14.62	345.64
EXTM 51	37.62	48.87	23	8	1.4	1.95	-.0221	-37.91	-.0026	10550.0	5.33	77.72	-.0000	187.27	-.0830	-33.33	26.53
EXTM 72	70.25	81.50	23	8	34.0	289.93	-.0001	-37.52	.0008	23661.1	4.79	20.59	.0000	127.21	-.0008	-35.11	39.89
EXTM 51	86.71	97.96	23	8	50.5	341.90	-.0006	-36.96	.0008	24962.8	4.42	70.95	.0000	130.46	-.0027	-34.92	41.77
RISE 61	165.35	176.60	23	10	9.1	314.06	.0028	-39.41	.0007	49341.1	3.44	.00	.0018	146.27	.0014	-33.16	36.88
EXTM 51	228.25	239.50	23	11	12.0	.94	.0033	-32.67	.0004	56305.1	3.24	83.02	.0000	186.55	.0233	-31.97	26.84
EXTM 61	408.25	419.50	23	14	12.0	6.11	.0039	-33.45	.0003	92080.1	2.65	16.10	.0000	185.30	.0034	-29.73	350.01
EXTM 72	433.28	444.53	23	14	37.1	1.31	.0040	-30.96	.0002	92078.3	2.59	66.91	.0000	182.87	.0088	-29.50	344.46
RISE 11	600.18	611.43	23	17	24.0	294.35	.0040	-30.30	.0001	122179.0	2.01	.00	.0026	128.13	.0023	-28.28	306.28
SET 51	624.23	635.48	23	17	48.0	90.00	.0038	-27.04	.0002	124223.0	2.61	11.39	-.0032	245.31	-.0012	-28.13	300.66
SET 61	638.01	649.26	23	18	1.8	60.48	.0040	-30.21	.0002	127342.1	2.48	-.00	-.0021	228.76	.0027	-28.05	297.43
SET 72	819.58	830.83	23	21	3.4	94.02	.0039	-26.81	.0001	150658.3	2.43	-.00	-.0035	242.91	-.0004	-27.16	254.34
RISE 42	829.94	841.19	23	21	13.7	254.99	.0040	-25.66	-.0000	151549.2	1.72	3.39	.0028	119.29	-.0022	-27.12	251.86
EXTM 11	872.92	884.17	23	21	56.7	1.67	.0042	-29.03	.0001	154374.4	1.99	25.74	.0000	181.62	.0040	-26.94	241.54
SET 11	1142.92	1154.17	24	2	26.7	68.64	.0041	-27.30	.0001	187687.0	2.09	.00	-.0027	235.85	.0024	-26.02	176.16
EXTM 42	1253.82	1265.07	24	4	17.6	359.88	.0042	-25.41	.0000	193206.3	1.72	80.19	-.0000	.64	-.0219	-25.72	149.10
RISE 51	1389.08	1400.33	24	6	32.9	270.00	.0041	-24.72	-.0000	211939.0	1.28	10.46	.0034	112.53	-.0015	-25.39	115.98
RISE 72	1545.29	1556.54	24	9	9.1	266.31	.0041	-24.82	-.0000	228252.5	1.17	-.01	.0037	115.07	-.0005	-25.05	77.61
RISE 61	1616.25	1627.50	24	10	20.0	294.41	.0042	-26.03	.0000	234922.6	1.26	.00	.0026	125.09	.0027	-24.91	60.15
SET 42	1673.54	1687.79	24	11	20.3	105.00	.0041	-23.87	.0001	240237.5	1.86	2.29	-.0030	242.13	-.0022	-24.79	45.30
EXTM 51	1744.86	1756.11	24	12	28.6	359.21	.0042	-24.64	.0000	240409.6	1.50	88.69	.0021	33.26	-.1415	-24.67	28.46
EXTM 61	1879.85	1891.10	24	14	43.6	.63	.0042	-25.73	.0000	256087.1	1.45	24.03	-.0000	180.62	.0041	-24.44	355.13
EXTM 72	1918.64	1929.89	24	15	22.4	.13	.0042	-24.78	.0000	256003.6	1.44	73.12	.0000	180.40	.0131	-24.38	345.55
RISE 11	2051.14	2062.39	24	17	34.9	289.24	.0042	-25.03	-.0000	273320.0	1.08	.00	.0029	121.19	.0024	-24.18	312.78
SET 51	2106.90	2118.15	24	18	30.7	90.00	.0041	-23.58	.0001	276866.3	1.76	10.00	-.0035	248.54	-.0015	-24.10	298.98
SET 61	2143.34	2154.59	24	19	7.1	66.79	.0042	-24.97	.0001	280980.9	1.66	-.00	-.0026	236.42	.0027	-24.05	289.96
SET 72	2290.40	2301.65	24	21	34.2	93.49	.0041	-23.67	.0001	292897.7	1.75	-.00	-.0037	246.09	-.0005	-23.85	253.53
RISE 42	2292.90	2304.15	24	21	36.7	255.00	.0041	-23.09	-.0000	292896.2	1.00	1.81	.0030	117.25	-.0023	-23.85	252.91
EXTM 11	2333.92	2345.17	24	22	17.7	.42	.0042	-24.86	.0000	293194.9	1.32	29.93	-.0000	180.44	.0044	-23.79	242.74
SET 11	2616.60	2627.85	25	3	.4	71.52	.0042	-24.19	.0000	318131.8	1.57	-.00	-.0029	239.90	.0024	-23.46	172.60
EXTM 42	2711.43	2722.68	25	4	35.2	359.93	.0042	-23.12	.0000	319015.6	1.23	77.90	.0000	.30	-.0176	-23.36	149.04
RISE 51	2841.93	2853.18	25	6	45.7	270.00	.0041	-22.79	-.0000	333631.9	.82	9.68	.0035	110.73	-.0016	-23.22	116.62
RISE 72	2997.64	3008.89	25	9	21.4	266.63	.0041	-22.92	-.0000	345784.1	.75	-.00	.0038	113.15	-.0006	-23.07	77.91
RISE 61	3057.24	3068.49	25	10	21.0	291.87	.0042	-23.75	-.0000	349949.8	.86	.00	.0027	121.85	.0027	-23.01	63.08
SET 42	3130.33	3141.58	25	11	34.1	105.00	.0041	-22.33	.0000	354990.9	1.45	1.35	-.0030	243.35	-.0023	-22.96	44.86
EXTM 51	3199.01	3210.26	25	12	42.8	359.99	.0042	-22.87	.0000	353366.4	1.10	87.13	.0000	.44	-.0425	-22.92	27.70
EXTM 61	3327.63	3338.88	25	14	51.4	.21	.0042	-23.74	.0000	365333.5	1.09	26.02	-.0000	180.21	.0043	-22.85	355.55
EXTM 72	3367.27	3378.52	25	15	31.0	.04	.0042	-23.08	.0000	364603.4	1.09	74.82	.0000	180.14	.0131	-22.83	345.64
RISE 11	3491.40	3502.65	25	17	35.2	287.75	.0042	-23.37	-.0000	378808.7	.76	.00	.0030	119.05	.0024	-22.76	314.58
SET 51	3555.19	3566.44	25	18	39.0	90.00	.0042	-22.36	.0000	381931.1	1.48	9.51	-.0035	249.67	-.0016	-22.74	298.62
SET 61	3597.81	3609.06	25	19	21.6	68.54	.0042	-23.38	.0000	385787.0	1.41	-.00	-.0027	238.67	.0027	-22.72	287.94
SET 72	3735.74	3746.99	25	21	39.5	93.31	.0042	-22.53	.0000	395109.4	1.60	-.01	-.0038	247.24	-.0005	-22.67	253.35
RISE 42	3736.38	3747.63	25	21	40.2	255.00	.0042	-22.10	-.0000	395019.8	.84	1.21	.0031	116.47	-.0024	-22.67	253.19
EXTM 11	3776.56	3787.81	25	22	20.3	.07	.0043	-23.44	.0000	394755.3	1.25	31.35	.0000	180.07	.0045	-22.66	243.09
IMPACT	3840.18	3851.43	25	23	24.0												
IMPC 42	3840.18	3851.43	25	23	24.0	281.24	.0043	-22.24	-.0000	401212.3	1.68	21.45	.0035	102.74	-.0021	-22.67	226.96
IMPC 11	3840.18	3851.43	25	23	24.0	16.42	.0044	-23.43	-.0000	400426.1	2.14	29.33	-.0011	197.31	.0044	-22.67	226.96

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	23	7	23.781	6549.325	15.3991	303.5917	10.99243	1.5210	121.9492	146.1686
SEPARATION	1.20	12.45	23	7	24.981	6593.864	11.6833	309.2498	10.95489	4.9370	123.3464	152.1275
RETRO	3.20	14.45	23	7	26.981	6769.221	5.4446	318.0618	10.81100	10.4549	124.7383	161.4410
EXIT SHA	3.31	14.56	23	7	27.091	6782.240	5.1092	318.5198	10.80054	10.7468	124.7830	161.9263
IMPACT	3840.18	3851.43	25	23	23.965	403585.738	-22.6704	226.9538	2.20360	67.6085	261.7755	312.2093

SURVEYOR VIEW PERIODS

GHA	94.2848					EPS-134.4955								LCM	234.5492
SX	.766470	SY	-.548740	SZ	-.333778	DAO	-19.49827	RAO	324.39995	RM	405657.004	LAT	28.310600	LON	279.461800
C3	-.895851	ECC	.985291	SLR	12993.069	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TA	675.00000	POL	-.0
NSX	.778518	NSY	-.534921	NSZ	-.328283	C3M	1.5523	VIM	2.6817	ZAE	142.851	B.T	.0000	B.R	-.0000
LATE	6.5831	LONE	359.1128	LATS	-.8257	LONS	133.7405	LATI	3.1943	LONI	321.9732	RSM	146.8379	TTAN	5.2432

LAUNCH DATE DEC 24,1965 BASE AZM 105.0 TF 64.314 ARRIVAL DATE DEC 26 1965 23 38 22.8

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LCNG	INJ FPA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	7 0 2.4	27.4	19.19	305.01	-11.04	145.44	114.79	7 11 17.4	6605.3	10.95	-5.48

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LCNG
			PROBE IN EARTH'S SHADOW															
INJECTION		.00	11.25	24	7	11.3												
SEPARATION		1.20	12.45	24	7	12.5												
RETRO		3.20	14.45	24	7	14.5												
EXIT SHA		4.35	15.60	24	7	15.6												
RISE	72	5.41	16.66	24	7	16.7	83.22	-.1804	40.37	.0185	2183.3	-8.98	-.00	.1318	310.84	.0430	4.57	331.44
EXTM	72	9.21	20.46	24	7	20.5	350.80	-.4176	11.38	-.3293	1036.9	2.90	68.65	.1184	25.50	1.4063	-5.25	346.94
RISE	51	11.31	22.56	24	7	22.6	80.70	-.0987	18.52	-.0486	4536.3	-4.75	.01	.1055	290.65	-.0003	-9.77	354.29
EXTM	51	25.19	36.44	24	7	36.5	2.51	-.0561	-25.06	-.0200	5629.3	5.32	87.64	.0545	286.07	-.1006	-25.43	26.51
EXTM	72	69.37	80.62	24	8	20.7	274.35	.0000	-30.89	.0003	23988.8	4.87	7.76	.0000	120.28	-.0003	-30.97	54.68
RISE	42	78.29	89.54	24	8	29.6	105.00	-.0037	-23.32	-.0012	27180.4	4.32	1.96	.0034	242.57	.0011	-30.87	56.00
EXTM	42	120.29	131.54	24	9	11.6	101.33	.0001	-24.66	-.0001	37781.0	4.08	5.44	-.0000	243.52	-.0002	-29.98	56.36
SET	42	173.87	185.12	24	10	5.2	105.00	.0019	-24.57	.0001	50352.5	3.75	2.72	-.0014	241.58	-.0010	-28.82	50.44
RISE	61	196.79	208.04	24	10	28.1	304.15	.0032	-33.56	.0005	55492.1	3.22	.00	.0021	136.40	.0017	-28.39	46.90
EXTM	51	292.50	303.75	24	12	3.8	358.43	.0037	-27.10	.0002	67782.9	2.98	88.04	.0025	134.30	.0617	-26.98	29.12
EXTM	61	465.84	477.09	24	14	57.1	4.36	.0040	-28.65	.0002	100128.4	2.53	20.99	.0000	184.10	.0037	-25.33	351.62
EXTM	72	495.05	506.30	24	15	26.3	.74	.0041	-26.20	.0002	100887.3	2.47	71.70	.0000	182.10	.0116	-25.12	344.98
RISE	11	643.59	654.84	24	17	54.9	290.22	.0040	-26.09	.0001	127739.1	1.93	.00	.0028	122.57	.0023	-24.24	310.53
SET	51	686.63	697.88	24	18	37.9	90.00	.0039	-22.95	.0001	132386.4	2.55	9.75	-.0033	249.12	-.0014	-24.02	300.38
SET	61	722.56	733.81	24	19	13.9	65.89	.0040	-25.76	.0002	138135.1	2.41	-.00	-.0024	235.29	.0027	-23.86	291.87
SET	72	877.58	888.83	24	21	48.9	93.37	.0040	-22.91	.0001	157347.0	2.40	-.00	-.0036	246.86	-.0004	-23.23	254.80
RISE	42	889.20	900.45	24	22	.5	255.00	.0040	-21.79	-.0000	158618.0	1.65	1.02	.0029	116.23	-.0023	-23.19	252.01
EXTM	11	931.20	942.45	24	22	42.5	1.32	.0042	-24.98	.0001	160542.3	1.94	29.80	-.0000	181.37	.0044	-23.05	241.88
SET	11	1216.74	1227.99	25	3	28.0	72.21	.0041	-23.42	.0001	195213.1	2.07	-.00	-.0029	240.90	.0024	-22.23	172.52
EXTM	42	1312.40	1323.65	25	5	3.7	359.85	.0042	-21.59	.0000	198987.9	1.69	76.37	.0000	.59	-.0164	-22.01	149.12
RISE	51	1447.22	1458.47	25	7	18.5	270.00	.0041	-21.06	-.0000	217516.7	1.24	8.97	.0035	109.13	-.0016	-21.73	116.07
RISE	72	1605.71	1616.96	25	9	57.0	266.91	.0041	-21.21	-.0000	233634.0	1.13	.00	.0038	111.42	-.0006	-21.43	77.10
RISE	61	1658.27	1669.52	25	10	49.6	290.43	.0041	-22.41	.0000	238508.7	1.23	.00	.0027	119.96	.0027	-21.34	64.15
SET	42	1735.00	1746.25	25	12	6.3	105.00	.0041	-20.30	.0001	245494.6	1.84	.10	-.0030	244.95	-.0023	-21.21	45.24
EXTM	51	1806.02	1817.27	25	13	17.3	359.97	.0042	-20.98	.0000	245590.6	1.48	85.24	-.0000	.37	-.0413	-21.10	27.71
EXTM	61	1937.52	1948.77	25	15	28.8	.53	.0042	-22.13	.0000	260417.7	1.43	27.63	-.0000	180.55	.0044	-20.91	355.23
EXTM	72	1976.52	1987.77	25	16	7.8	.08	.0042	-21.17	.0000	260560.0	1.42	76.74	.0000	180.35	.0169	-20.85	345.59
RISE	11	2096.52	2107.77	25	18	7.8	286.14	.0042	-21.51	-.0000	276796.9	1.05	-.00	.0030	116.66	.0024	-20.69	315.90
SET	51	2165.07	2176.32	25	19	16.4	90.00	.0041	-20.08	.0000	281501.1	1.75	8.57	-.0035	251.77	-.0016	-20.60	298.93
SET	61	2216.76	2228.01	25	20	8.1	70.61	.0041	-21.43	.0000	286659.5	1.66	-.00	-.0027	241.41	.0027	-20.54	286.12
SET	72	2346.24	2357.49	25	22	17.5	92.94	.0041	-20.21	.0000	297010.9	1.74	-.01	-.0038	249.58	-.0005	-20.39	254.03
RISE	42	2352.29	2363.54	25	22	23.6	255.41	.0041	-19.63	-.0000	297487.6	.97	.00	.0031	114.29	-.0024	-20.38	252.53
EXTM	11	2391.52	2402.77	25	23	2.8	.35	.0042	-21.35	.0000	297076.5	1.30	33.44	-.0000	180.39	.0047	-20.34	242.80
SET	11	2686.50	2697.75	26	3	57.8	74.51	.0042	-20.73	.0000	323008.7	1.57	-.00	-.0030	244.33	.0024	-20.03	169.59
EXTM	42	2769.19	2780.44	26	5	20.5	359.93	.0042	-19.66	.0000	323005.6	1.22	74.44	-.0000	.24	-.0142	-19.95	149.05
RISE	51	2899.52	2910.77	26	7	30.8	270.00	.0041	-19.40	-.0000	337572.1	.80	8.29	.0036	107.60	-.0016	-19.83	116.65
RISE	72	3057.37	3068.62	26	10	8.7	267.17	.0041	-19.55	-.0000	349606.3	.73	-.01	.0039	109.75	-.0006	-19.70	77.40
RISE	61	3100.64	3111.89	26	10	51.9	288.32	.0042	-20.38	-.0000	352820.8	.79	.00	.0028	117.14	.0027	-19.66	66.63
SET	42	3184.18	3195.43	26	12	15.5	104.07	.0041	-19.01	.0000	358344.1	1.45	-.00	-.0031	246.51	-.0024	-19.63	45.76
EXTM	51	3256.42	3267.67	26	13	27.7	359.97	.0042	-19.48	.0000	356810.3	1.10	83.74	.0000	.29	-.0296	-19.59	27.71
EXTM	61	3384.90	3396.15	26	15	36.2	.15	.0042	-20.40	.0000	368375.8	1.09	29.37	-.0000	180.17	.0045	-19.54	355.60
EXTM	72	3424.68	3435.93	26	16	16.0	.02	.0042	-19.73	.0000	367885.8	1.09	78.18	.0000	180.12	.0138	-19.53	345.65
RISE	11	3537.60	3548.85	26	18	8.9	284.94	.0042	-20.07	-.0000	381432.1	.75	.00	.0031	114.84	.0024	-19.49	317.41
SET	51	3612.78	3624.03	26	19	24.1	90.00	.0042	-19.08	.0000	385453.6	1.50	8.16	-.0036	252.70	-.0016	-19.46	298.59
SET	61	3669.00	3680.25	26	20	20.3	71.97	.0042	-20.10	.0000	390083.0	1.43	-.00	-.0028	243.25	.0027	-19.45	284.51
SET	72	3791.16	3802.41	26	22	22.4	92.79	.0042	-19.31	.0000	398552.3	1.67	-.00	-.0039	250.50	-.0006	-19.44	253.84
RISE	42	3797.75	3809.00	26	22	29.0	256.03	.0042	-18.88	-.0000	399042.8	.90	.00	.0032	113.34	-.0024	-19.44	252.19
EXTM	11	3833.01	3844.26	26	23	4.3	359.86	.0043	-20.20	-.0000	398229.9	1.42	34.59	.0000	179.84	.0049	-19.45	243.29
IMPACT		3858.81	3870.06	26	23	30.1												
IMPC	42	3858.81	3870.06	26	23	30.1	271.48	.0043	-18.99	-.0001	403013.6	1.67	11.98	.0034	104.91	-.0022	-19.47	236.72
IMPC	11	3858.81	3870.06	26	23	30.1	6.52	.0044	-20.22	-.0000	400765.6	2.09	34.23	-.0005	187.41	.0049	-19.47	236.72

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	24	7	11.290	6606.809	19.2202	304.9482	10.94525	-5.4774	114.7692	145.3794
SEPARATION		1.20	12.45	24	7	12.490	6553.285	16.2034	311.1994	10.98881	-2.0713	116.7677	151.9315
RETRO		3.20	14.45	24	7	14.490	6571.467	10.7795	321.1587	10.97348	3.6482	119.2173	162.3921
EXIT SHA		4.35	15.60	24	7	15.636	6640.450	7.5603	326.5891	10.91591	6.8724	120.1296	168.1097
IMPACT		3858.81	3870.06	26	23	30.103	404384.520	-19.4736	236.7177	2.20304	68.0573	254.7764	324.4929

SURVEYOR VIEW PERIODS

GHA	94.2848						EPS-134.4167										LOM	231.9973	
SX	.767430	SY	-.547661	SZ	-.333346	DAO	-19.47199	RAO	324.48722	RM	405659.375	LAT	28.310600	LON	279.461800				
C3	-.894405	ECC	.985315	SLR	12993.226	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0				
NSX	.779446	NSY	-.533830	NSZ	-.327856	C3M	1.5555	VIM	2.6823	ZAE	142.837	B.T	.0000	B.R	-.0000				
LATE	6.5855	LONE	359.1997	LATS	-.8259	LONS	133.7478	LATI	2.9574	LONI	322.0745	RSM	146.8383	TTAN	5.2361				
LAUNCH DATE	DEC	24,1965		BASE AZM	108.0		TF	64.292				ARRIVAL DATE	DEC	26	1965	23	48	54.5	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	7 11 19.6	27.6	18.06	304.60	-8.57	147.86	116.94	7 22 34.6	6581.2	10.97	-4.25

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
				PROBE IN EARTH'S SHADOW														
INJECTION		.00	11.25	24	7	22.6												
SEPARATION		1.20	12.45	24	7	23.8												
RETRO		3.20	14.45	24	7	25.8												
EXIT	SHA	3.91	15.16	24	7	26.5												
RISE	72	5.23	16.48	24	7	27.8	84.69	-.1590	33.67	-.0161	2268.7	-8.96	.00	.1332	304.03	.0060	3.22	329.52
EXTM	72	8.94	20.19	24	7	31.5	9.43	-.4495	1.76	-.3048	1033.4	1.58	76.52	.5316	315.40	.4745	-6.57	344.35
RISE	51	11.23	22.48	24	7	33.8	82.76	-.0918	14.64	-.0527	4686.4	-4.47	.00	.1030	286.30	-.0072	-11.55	352.22
EXTM	51	27.16	38.41	24	7	49.7	1.47	-.0477	-30.07	-.0126	6423.0	5.46	85.48	-.0000	196.33	-.5479	-27.91	26.96
EXTM	72	69.28	80.53	24	8	31.9	276.81	.0000	-32.34	.0005	23859.0	4.87	9.95	.0000	121.60	-.0005	-32.00	52.16
EXTM	51	85.38	96.63	24	8	48.0	326.44	-.0001	-32.31	.0006	24471.9	4.48	60.06	.0000	110.60	-.0013	-31.69	54.14
RISE	42	93.38	104.63	24	8	56.0	105.00	-.0018	-24.90	-.0005	31317.0	4.25	2.93	.0016	241.32	.0006	-31.49	54.51
EXTM	42	119.54	130.79	24	9	22.1	103.78	.0001	-25.34	-.0001	37854.0	4.08	4.07	-.0000	241.64	-.0001	-30.79	53.91
SET	42	147.88	159.13	24	9	50.5	104.99	.0012	-25.32	.0001	44637.9	3.90	3.19	-.0009	240.99	-.0006	-30.06	51.33
RISE	61	190.11	201.36	24	10	32.7	305.53	-.0031	-34.48	.0006	54194.8	3.26	.00	.0021	137.86	.0017	-29.13	45.46
EXTM	51	287.78	299.03	24	12	10.4	.17	.0037	-27.69	.0003	67014.6	3.00	88.04	.0000	184.36	.0952	-27.52	27.53
EXTM	61	456.00	467.25	24	14	58.6	4.74	.0040	-29.14	.0002	98749.9	2.55	20.49	.0000	184.42	.0037	-25.76	351.26
EXTM	72	484.04	495.29	24	15	26.6	.82	.0041	-26.65	.0002	99332.8	2.49	71.23	.0000	182.27	.0113	-25.54	344.91
RISE	11	633.98	645.23	24	17	56.6	290.54	.0040	-26.44	.0001	126503.2	1.95	.00	.0028	123.02	.0023	-24.56	310.18
SET	51	675.44	686.69	24	18	38.0	90.00	.0039	-23.26	.0001	130963.5	2.56	9.87	-.0033	248.83	-.0013	-24.34	300.42
SET	61	709.83	721.08	24	19	12.4	65.51	.0040	-26.10	.0002	136554.2	2.42	-.00	-.0024	234.81	.0027	-24.17	292.28
SET	72	866.71	877.96	24	21	49.3	93.41	.0040	-23.15	.0001	156109.1	2.40	-.00	-.0036	246.61	-.0004	-23.48	254.78
RISE	42	878.32	889.57	24	22	.9	254.99	.0040	-22.03	-.0000	157369.2	1.67	1.16	.0029	116.42	-.0023	-23.44	251.99
EXTM	11	920.63	931.88	24	22	43.2	1.40	.0042	-25.23	.0001	159392.4	1.95	29.54	-.0000	181.46	.0043	-23.28	241.80
SET	11	1205.16	1216.41	25	3	27.7	72.04	.0041	-23.60	.0001	194059.3	2.07	-.00	-.0029	240.66	.0024	-22.41	172.69
EXTM	42	1301.49	1312.74	25	5	4.1	359.84	.0042	-21.75	.0000	197936.3	1.70	76.53	.0000	.63	-.0166	-22.17	149.13
RISE	51	1436.38	1447.63	25	7	19.0	270.00	.0041	-21.19	-.0000	216515.5	1.25	9.03	.0035	109.25	-.0016	-21.86	116.06
RISE	72	1594.79	1606.04	25	9	57.4	266.89	.0041	-21.32	-.0000	232678.3	1.14	.00	.0038	111.54	-.0006	-21.55	77.11
RISE	61	1647.91	1659.16	25	10	50.5	290.55	.0041	-22.53	.0000	237618.8	1.23	.00	.0027	120.12	.0027	-21.45	64.02
SET	42	1724.10	1735.35	25	12	6.7	105.00	.0041	-20.40	.0001	244568.5	1.85	.16	-.0030	244.87	-.0023	-21.31	45.24
EXTM	51	1795.13	1806.38	25	13	17.7	359.97	.0042	-21.08	.0000	244690.1	1.48	85.34	-.0000	.39	-.0421	-21.20	27.71
EXTM	61	1926.74	1937.99	25	15	29.3	.56	.0042	-22.22	.0000	259567.0	1.44	27.54	-.0000	180.58	.0044	-20.99	355.20
EXTM	72	1965.65	1976.90	25	16	8.2	.09	.0042	-21.25	.0000	259704.0	1.42	76.66	.0000	180.37	.0167	-20.93	345.58
RISE	11	2085.90	2097.15	25	18	8.5	286.21	.0042	-21.58	-.0000	275985.4	1.05	.00	.0030	116.76	.0024	-20.76	315.83
SET	51	2154.15	2165.40	25	19	16.7	90.00	.0041	-20.14	.0000	280676.0	1.76	8.60	-.0035	251.71	-.0016	-20.67	298.93
SET	61	2205.58	2216.83	25	20	8.2	70.54	.0041	-21.49	.0000	285826.2	1.66	-.00	-.0027	241.32	.0027	-20.60	286.19
SET	72	2335.35	2346.60	25	22	17.9	92.95	.0041	-20.26	.0000	296226.1	1.74	-.01	-.0038	249.53	-.0005	-20.44	254.03
RISE	42	2341.23	2352.48	25	22	23.8	255.37	.0041	-19.68	-.0000	296690.6	.98	.00	.0031	114.35	-.0024	-20.43	252.57
EXTM	11	2360.67	2391.92	25	23	3.2	.37	.0042	-21.40	.0000	296308.8	1.31	33.39	-.0000	180.41	.0047	-20.39	242.79
SET	11	2675.45	2686.70	26	3	58.0	74.48	.0042	-20.76	.0000	322272.1	1.57	-.00	-.0030	244.29	.0024	-20.06	169.62
EXTM	42	2758.23	2769.48	26	5	20.8	359.93	.0042	-19.68	.0000	322288.9	1.22	74.46	-.0000	.26	-.0143	-19.98	149.05
RISE	51	2888.58	2899.83	26	7	31.2	270.00	.0041	-19.41	-.0000	336877.0	.80	8.30	.0036	107.61	-.0016	-19.85	116.65
RISE	72	3046.41	3057.66	26	10	9.0	267.17	.0041	-19.56	-.0000	348934.5	.73	-.01	.0039	109.76	-.0006	-19.71	77.40
RISE	61	3089.76	3101.01	26	10	52.3	288.33	.0042	-20.39	-.0000	351942.7	.84	.00	.0028	117.15	.0027	-19.67	66.62
SET	42	3173.26	3184.51	26	12	15.8	104.07	.0041	-19.01	.0000	357721.8	1.45	-.00	-.0031	246.51	-.0024	-19.63	45.77
EXTM	51	3245.50	3256.75	26	13	28.1	359.97	.0042	-19.48	.0000	356190.9	1.10	83.74	.0000	.28	-.0314	-19.59	27.71
EXTM	61	3374.01	3385.26	26	15	36.6	.16	.0042	-20.39	.0000	367761.4	1.09	29.37	-.0000	180.18	.0045	-19.53	355.59
EXTM	72	3413.75	3425.00	26	16	16.3	.02	.0042	-19.72	.0000	367269.9	1.09	78.19	.0000	180.13	.0140	-19.52	345.65
RISE	11	3526.64	3537.89	26	18	9.2	284.94	.0042	-20.06	-.0000	380811.6	.75	.00	.0031	114.83	.0024	-19.47	317.41
SET	51	3601.84	3613.09	26	19	24.4	90.00	.0042	-19.06	.0000	384829.1	1.49	8.15	-.0036	252.71	-.0016	-19.45	298.59
SET	61	3658.12	3669.37	26	20	20.7	71.98	.0042	-20.08	.0000	389452.8	1.43	-.00	-.0028	243.27	.0027	-19.43	284.49
SET	72	3780.23	3791.48	26	22	22.8	92.79	.0042	-19.29	.0000	397852.5	1.65	-.00	-.0039	250.52	-.0006	-19.42	253.85
RISE	42	3786.92	3798.17	26	22	29.5	256.05	.0042	-18.86	-.0000	398342.0	.88	.00	.0032	113.31	-.0024	-19.42	252.16
EXTM	11	3822.42	3833.67	26	23	5.0	359.93	.0043	-20.17	-.0000	397461.8	1.36	34.62	.0000	179.92	.0049	-19.42	243.22
IMPACT		3857.51	3868.76	26	23	40.1												
IMPC	42	3857.51	3868.76	26	23	40.1	273.90	.0043	-18.97	-.0001	402810.8	1.67	13.89	.0034	103.62	-.0022	-19.45	234.30
IMPC	11	3857.51	3868.76	26	23	40.1	8.98	.0044	-20.19	-.0000	400794.6	2.10	33.95	-.0007	190.17	.0049	-19.45	234.30

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	24	7	22.577	6581.713	18.0768	304.5725	10.96552	-4.2548	116.9293	147.8331
SEPARATION		1.20	12.45	24	7	23.777	6546.054	14.8382	310.6593	10.99499	-.8327	118.7424	154.2208
RETRO		3.20	14.45	24	7	25.777	6592.622	9.1077	320.3537	10.95580	4.8744	120.8655	164.4165
EXIT	SHA	3.91	15.16	24	7	26.489	6640.430	7.0270	323.6561	10.91598	6.8723	121.3542	167.8975
IMPACT		3857.51	3868.76	26	23	40.087	404387.887	-19.4492	234.2982	2.20278	67.9845	255.2409	324.5760

SURVEYOR VIEW PERICCS

GHA	94.2848					EPS-134.3256								LOM	229.0454
SX	.768537	SY	-.546411	SZ	-.332845	DAO	-19.44155	RAO	324.58813	RM	405662.043	LAT	28.310600	LON	279.461800
C3	-.896437	ECC	.985281	SLR	12993.003	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.C0000	POL	-.0
NSX	.780539	NSY	-.532542	NSZ	-.327350	C3M	1.5558	VIM	2.6824	ZAE	142.765	B.T	.0000	B.R	-.0000
LATE	6.5883	LONE	359.0927	LATS	-.8259	LCNS	133.5488	LATI	2.6920	LONI	321.9285	RSM	146.8387	TTAN	5.2321

LAUNCH DATE DEC 24,1965 BASE AZP 111.0 TF 64.325 ARRIVAL DATE DEC 27 1965 0 1 5.2

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	7 21 15.8	27.7	16.96	304.12	-6.45	149.87	119.07	7 32 30.8	6565.3	10.98	-3.20

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	CDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW															
INJECTION		.00	11.25	24	7	32.5												
SEPARATION		1.20	12.45	24	7	33.7												
RETRO		3.20	14.45	24	7	35.7												
EXIT SHA		3.54	14.79	24	7	36.1												
RISE	72	5.10	16.35	24	7	37.6	85.85	-.1433	27.51	-.0461	2356.0	-8.77	.00	.1327	297.80	-.0259	1.78	327.81
EXTM	72	8.74	19.99	24	7	41.3	24.72	-.4161	-8.08	-.2838	1131.6	.64	65.53	.4185	267.86	-.6615	-8.02	342.02
RISE	51	11.20	22.45	24	7	43.7	84.67	-.0857	10.89	-.0563	4830.3	-4.18	.00	.1004	282.11	-.0133	-13.42	350.31
EXTM	51	28.57	39.82	24	8	1.1	2.18	-.0436	-34.00	-.0086	7031.8	5.47	81.52	.0000	192.36	-.2518	-30.08	26.59
EXTM	72	69.28	80.53	24	8	41.8	278.91	.0000	-33.89	.0007	23775.2	4.86	11.77	.0000	123.10	-.0008	-33.15	49.99
EXTM	51	85.40	96.65	24	8	57.9	329.02	-.0001	-33.73	.0008	24489.1	4.47	62.06	.0000	114.00	-.0018	-32.74	52.00
RISE	61	185.81	197.0C	24	10	38.3	306.97	.0031	-35.40	.0006	53369.8	3.28	.00	.0020	139.37	.0016	-29.91	44.00
EXTM	51	277.43	288.68	24	12	9.9	.27	.0036	-28.45	.0003	65206.6	3.04	87.28	.0000	185.07	.0675	-28.21	27.44
EXTM	61	447.87	459.12	24	15	.4	5.14	.0040	-29.65	.0003	97608.4	2.57	19.95	.0000	184.75	.0037	-26.23	350.89
EXTM	72	474.83	486.08	24	15	27.3	.94	.0041	-27.15	.0002	98017.2	2.51	70.73	.0000	182.54	.0109	-25.99	344.79
RISE	11	626.08	637.33	24	17	58.6	290.90	.0040	-26.81	.0001	125476.4	1.96	.00	.0028	123.52	.0023	-24.92	309.80
SET	51	665.80	677.05	24	18	38.3	90.00	.0039	-23.60	.0001	129710.3	2.57	10.01	-.0033	248.52	-.0013	-24.68	300.45
SET	61	698.49	709.74	24	19	11.0	65.09	.0040	-26.47	.0002	135115.4	2.43	-.00	-.0023	234.28	.0027	-24.50	292.72
SET	72	857.38	868.63	24	21	49.9	93.45	.0040	-23.42	.0001	155016.3	2.41	-.00	-.0036	246.34	-.0004	-23.75	254.76
RISE	42	868.97	880.22	24	22	1.5	254.99	.0040	-22.29	.0000	156262.3	1.67	1.32	.0029	116.62	-.0023	-23.71	251.98
EXTM	11	911.59	922.84	24	22	44.1	1.50	.0042	-25.51	.0001	158384.0	1.96	29.27	-.0000	181.55	.0043	-23.54	241.71
SET	11	1194.99	1206.24	25	3	27.5	71.87	.0041	-23.80	.0001	193003.1	2.08	-.00	-.0028	240.40	.0024	-22.60	172.87
EXTM	42	1292.04	1303.29	25	5	4.6	359.83	.0042	-21.93	.0000	196979.2	1.70	76.71	.0000	.68	-.0168	-22.34	149.14
RISE	51	1427.00	1438.25	25	7	19.5	270.00	.0041	-21.34	-.0000	215595.9	1.25	9.09	.0035	109.39	-.0016	-22.01	116.05
RISE	72	1585.31	1596.56	25	9	57.8	266.87	.0041	-21.45	-.0000	231789.9	1.14	.00	.0038	111.67	-.0006	-21.68	77.12
RISE	61	1639.04	1650.29	25	10	51.6	290.68	.0041	-22.65	.0000	236796.6	1.24	.00	.0027	120.30	.0027	-21.57	63.89
SET	42	1714.64	1725.89	25	12	7.2	105.00	.0041	-20.51	.0001	243698.5	1.85	.23	-.0030	244.78	-.0023	-21.43	45.25
EXTM	51	1785.68	1796.93	25	13	18.2	359.97	.0042	-21.18	.0000	243840.2	1.49	85.45	-.0000	.41	-.0434	-21.30	27.72
EXTM	61	1917.40	1928.65	25	15	29.9	.59	.0042	-22.32	.0000	258757.7	1.44	27.44	-.0000	180.61	.0044	-21.08	355.17
EXTM	72	1956.22	1967.47	25	16	8.7	.10	.0042	-21.34	.0000	258884.9	1.43	76.56	.0000	180.39	.0167	-21.02	345.58
RISE	11	2076.72	2087.97	25	18	9.2	286.28	.0042	-21.66	.0000	275201.2	1.05	.00	.0030	116.86	.0024	-20.84	315.76
SET	51	2144.66	2155.91	25	19	17.2	90.00	.0041	-20.21	.0001	279871.5	1.76	8.63	-.0035	251.65	-.0016	-20.74	298.94
SET	61	2195.80	2207.05	25	20	8.3	70.47	.0042	-21.56	.0001	285007.4	1.66	-.00	-.0027	241.22	.0027	-20.67	286.27
SET	72	2325.88	2337.13	25	22	18.4	92.95	.0041	-20.32	.0001	295447.5	1.75	-.01	-.0038	249.48	-.0005	-20.50	254.02
RISE	42	2331.57	2342.82	25	22	24.1	255.33	.0041	-19.74	-.0000	295897.8	.98	.00	.0031	114.42	-.0024	-20.49	252.61
EXTM	11	2371.26	2382.51	25	23	3.8	.39	.0042	-21.46	.0000	295544.4	1.31	33.33	-.0000	180.43	.0047	-20.44	242.77
SET	11	2665.80	2677.05	26	3	58.3	74.45	.0042	-20.80	.0000	321513.0	1.58	-.00	-.0030	244.24	.0024	-20.10	169.65
EXTM	42	2748.69	2759.94	26	5	21.2	359.92	.0042	-19.71	.0000	321543.6	1.22	74.49	-.0000	.27	-.0144	-20.01	149.05
RISE	51	2879.06	2890.31	26	7	31.6	270.00	.0041	-19.43	-.0000	336142.7	.80	8.31	.0036	107.63	-.0016	-19.87	116.65
RISE	72	3036.87	3048.12	26	10	9.4	267.16	.0041	-19.57	-.0000	348210.8	.73	-.01	.0039	109.77	-.0006	-19.72	77.40
RISE	61	3080.26	3091.51	26	10	52.8	288.34	.0042	-20.40	-.0000	351224.8	.84	.00	.0028	117.17	.0027	-19.68	66.61
SET	42	3163.80	3175.05	26	12	16.3	104.07	.0041	-19.00	.0000	357080.8	1.45	-.00	-.0031	246.52	-.0024	-19.62	45.77
EXTM	51	3236.05	3247.30	26	13	28.6	359.97	.0042	-19.47	.0000	355545.3	1.10	83.73	.0000	.30	-.0308	-19.58	27.71
EXTM	61	3364.57	3375.82	26	15	37.1	.17	.0042	-20.38	.0000	367103.2	1.09	29.38	-.0000	180.18	.0045	-19.52	355.58
EXTM	72	3404.28	3415.53	26	16	16.8	.02	.0042	-19.71	.0000	366605.7	1.09	78.20	.0000	180.13	.0148	-19.50	345.65
RISE	11	3517.10	3528.35	26	18	9.6	284.92	.0042	-20.05	-.0000	380126.4	.74	.00	.0031	114.81	.0024	-19.46	317.42
SET	51	3592.33	3603.58	26	19	24.8	90.00	.0042	-19.04	.0000	384130.5	1.49	8.14	-.0036	252.73	-.0016	-19.43	298.59
SET	61	3648.69	3659.94	26	20	21.2	72.00	.0042	-20.06	.0000	388741.0	1.42	-.00	-.0028	243.30	.0027	-19.41	284.47
SET	72	3770.72	3781.97	26	22	23.2	92.78	.0042	-19.26	.0000	397050.7	1.63	-.00	-.0039	250.55	-.0006	-19.39	253.85
RISE	42	3777.54	3788.79	26	22	30.0	256.07	.0042	-18.83	-.0000	397539.6	.86	.00	.0031	113.27	-.0024	-19.39	252.14
EXTM	11	3813.15	3824.40	26	23	5.7	359.98	.0043	-20.14	-.0000	396584.8	1.30	34.65	.0000	179.97	.0045	-19.39	243.17
IMPACT		3859.47	3870.72	26	23	52.0												
IMPC	42	3859.47	3870.72	26	23	52.0	276.79	.0043	-18.96	-.0000	402572.3	1.67	16.18	.0035	102.08	-.0022	-19.42	231.42
IMPC	11	3859.47	3870.72	26	23	52.0	11.90	.0044	-20.16	-.0000	400842.9	2.11	33.49	-.0008	193.42	.0048	-19.42	231.42

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	24	7	32.513	6565.481	16.9643	304.1078	10.97876	-3.2023	119.0656	149.8591
SEPARATION		1.20	12.45	24	7	33.713	6544.768	13.5109	310.0283	10.99599	.2289	120.7032	156.0805
RETRO		3.20	14.45	24	7	35.713	6615.930	7.4846	319.4554	10.93658	5.9187	122.5191	166.0089
EXIT SHA		3.54	14.79	24	7	36.057	6640.714	6.4384	321.0157	10.91567	6.8817	122.7187	167.6557
IMPACT		3859.47	3870.72	26	23	51.983	404394.281	-19.4199	231.4154	2.20037	67.7545	255.7149	324.6753

SURVEYOR VIEW PERIODS

GHA	94.2848						EPS-134.2111										LOM	225.3378	
SX	.769925	SY	-.544839	SZ	-.332214	DAO	-19.40323	RAO	324.71481	RM	405665.297	LAT	28.310600	LON	279.461800				
C3	-.900364	ECC	.985217	SLR	12992.586	RCA	6544.6650	LTA	-20.0000	GTA	20.00		TB	675.00000	POL	-.0			
NSX	.781917	NSY	-.530910	NSZ	-.326712	C3M	1.5559	VIM	2.6824	ZAE	142.631	B.T	.0000	B.R	-.0000				
LATE	6.5917	LCNE	359.0790	LATS	-.8261	LCNS	133.4194	LATI	2.3062	LONI	321.8316	RSM	146.8392	TTAN	5.2300				
LAUNCH DATE	DEC	24,1965		BASE AZM	115.0		TF	64.387				ARRIVAL DATE	DEC	27	1965	0	16	22.9	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPTH
115.00	7 32 42.3	27.8	15.53	303.38	-4.07	152.00	121.89	7 43 57.3	6552.9	10.99	-2.02

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	24	7	44.0												
SEPARATION	1.20	12.45	24	7	45.2												
EXIT SHA	3.14	14.39	24	7	47.1												
RETRO	3.20	14.45	24	7	47.2												
RISE 72	5.02	16.27	24	7	49.0	87.12	-.1271	19.91	-.0796	2476.5	-8.29	-.00	.1299	290.11	-.0613	-.28	325.80
EXTM 72	9.59	20.84	24	7	53.5	18.06	-.3530	-32.39	-.1745	1486.9	3.73	60.32	.0480	211.92	-.6908	-12.55	342.70
RISE 51	11.23	22.48	24	7	55.2	87.08	-.0785	6.04	-.0605	5016.7	-3.77	-.00	.0967	276.71	-.0204	-16.03	347.97
EXTM 51	30.83	42.08	24	8	14.8	2.06	-.0382	-38.87	-.0042	7961.1	5.46	76.75	-.0000	187.02	-.1309	-33.04	26.62
EXTM 72	69.10	80.35	24	8	53.1	281.18	-.0000	-36.06	.0011	23650.5	4.85	13.67	.0000	125.30	-.0011	-34.83	47.54
EXTM 51	84.46	95.71	24	9	8.4	331.88	-.0004	-35.82	.0011	24270.2	4.48	63.94	.0000	119.55	-.0026	-34.29	49.56
RISE 61	183.23	194.48	24	10	47.2	308.96	.0031	-36.61	.0007	52908.5	3.30	.00	.0020	141.37	.0016	-30.99	42.05
EXTM 51	266.23	277.48	24	12	10.2	.47	.0036	-29.55	.0003	63226.9	3.08	86.17	-.0000	186.11	.0471	-29.20	27.26
EXTM 61	439.30	450.55	24	15	3.3	5.70	.0040	-30.38	.0003	96413.6	2.58	19.19	.0000	185.21	.0036	-26.89	350.36
EXTM 72	464.64	475.89	24	15	28.6	1.10	.0041	-27.86	.0002	96552.8	2.53	70.02	.0000	182.86	.0105	-26.65	344.64
RISE 11	617.67	628.92	24	18	1.6	291.41	.0040	-27.35	.0001	124368.6	1.97	.00	.0028	124.21	.0023	-25.42	309.27
SET 51	654.99	666.24	24	18	38.9	90.00	.0039	-24.09	.0002	128283.1	2.59	10.21	-.0033	248.06	-.0013	-25.18	300.49
SET 61	685.15	696.40	24	19	9.1	64.47	.0040	-26.99	.0002	133402.3	2.44	.00	-.0023	233.52	.0027	-25.00	293.36
SET 72	846.94	858.19	24	21	50.9	93.52	.0040	-23.81	.0001	153776.2	2.42	-.01	-.0036	245.95	-.0004	-24.15	254.73
RISE 42	858.46	869.71	24	22	2.4	254.99	.0040	-22.66	.0000	154994.9	1.68	1.55	.0029	116.92	-.0023	-24.09	251.95
EXTM 11	901.52	912.77	24	22	45.5	1.63	.0042	-25.90	.0001	157252.4	1.97	28.88	-.0000	181.67	.0043	-23.90	241.58
SET 11	1183.26	1194.51	25	3	27.2	71.61	.0041	-24.09	.0001	191760.7	2.08	-.00	-.0028	240.03	.0024	-22.88	173.14
EXTM 42	1281.34	1292.59	25	5	5.3	359.82	.0042	-22.18	.0000	195869.5	1.71	76.96	.0000	.75	-.0171	-22.59	149.16
RISE 51	1416.37	1427.62	25	7	20.3	270.00	.0041	-21.56	-.0000	214525.3	1.26	9.18	.0035	109.59	-.0016	-22.23	116.04
RISE 72	1574.53	1585.78	25	9	58.5	266.84	.0041	-21.64	-.0000	230749.2	1.15	.00	.0038	111.86	-.0006	-21.87	77.14
RISE 61	1629.14	1640.39	25	10	53.1	290.88	.0041	-22.84	.0000	235848.9	1.24	.00	.0027	120.56	.0027	-21.75	63.69
SET 42	1703.89	1715.14	25	12	7.8	105.00	.0041	-20.68	.0001	242674.4	1.85	.33	-.0030	244.65	-.0023	-21.59	45.25
EXTM 51	1774.94	1786.19	25	13	18.9	359.97	.0042	-21.34	.0000	242839.5	1.49	85.60	-.0000	.45	-.0485	-21.46	27.72
EXTM 61	1906.82	1918.07	25	15	30.8	.63	.0042	-22.46	.0000	257805.6	1.44	27.30	-.0000	180.66	.0044	-21.22	355.13
EXTM 72	1945.48	1956.73	25	16	9.4	.11	.0042	-21.47	.0000	257915.6	1.43	76.43	.0000	180.42	.0166	-21.15	345.57
RISE 11	2066.37	2077.62	25	18	10.3	286.38	.0042	-21.78	.0000	274275.1	1.06	.00	.0030	117.01	.0024	-20.95	315.65
SET 51	2133.84	2145.09	25	19	17.8	90.00	.0041	-20.32	.0001	278910.3	1.76	8.67	-.0035	251.55	-.0016	-20.85	298.94
SET 61	2184.53	2195.78	25	20	8.5	70.36	.0042	-21.67	.0001	284020.8	1.66	-.00	-.0027	241.08	.0027	-20.77	286.38
SET 72	2315.09	2326.34	25	22	19.0	92.97	.0041	-20.41	.0001	294512.6	1.75	-.01	-.0038	249.39	-.0005	-20.58	254.01
RISE 42	2320.48	2331.73	25	22	24.4	255.26	.0041	-19.82	-.0000	294939.9	.98	.00	.0031	114.52	-.0024	-20.58	252.68
EXTM 11	2360.53	2371.78	25	23	4.5	.42	.0042	-21.54	.0000	294626.9	1.31	33.25	-.0000	180.46	.0047	-20.52	242.74
SET 11	2654.73	2665.98	26	3	58.7	74.41	.0042	-20.85	.0000	320585.0	1.58	-.00	-.0030	244.17	.0024	-20.15	169.70
EXTM 42	2737.78	2749.03	26	5	21.7	359.92	.0042	-19.75	.0000	320631.8	1.22	74.53	-.0000	.30	-.0144	-20.05	149.06
RISE 51	2868.17	2879.42	26	7	32.1	270.00	.0041	-19.47	-.0000	335239.7	.80	8.32	.0036	107.66	-.0016	-19.91	116.65
RISE 72	3025.94	3037.19	26	10	9.9	267.16	.0041	-19.59	-.0000	347314.8	.73	-.01	.0039	109.79	-.0006	-19.74	77.40
RISE 61	3069.42	3080.67	26	10	53.4	288.36	.0042	-20.42	-.0000	350336.7	.84	.00	.0028	117.20	.0027	-19.70	66.59
SET 42	3152.88	3164.13	26	12	16.8	104.08	.0041	-19.01	.0000	356191.4	1.45	-.00	-.0031	246.50	-.0024	-19.63	45.77
EXTM 51	3225.10	3236.35	26	13	29.1	359.97	.0042	-19.48	.0000	354651.1	1.09	83.74	.0000	.31	-.0316	-19.59	27.72
EXTM 61	3353.70	3364.95	26	15	37.7	.19	.0042	-20.38	.0000	366207.6	1.09	29.38	-.0000	180.20	.0045	-19.52	355.56
EXTM 72	3393.35	3404.60	26	16	17.3	.02	.0042	-19.70	.0000	365703.2	1.08	78.20	.0000	180.13	.0171	-19.50	345.65
RISE 11	3506.14	3517.39	26	18	10.1	284.92	.0042	-20.04	-.0000	379209.5	.74	.00	.0031	114.80	.0024	-19.45	317.43
SET 51	3581.39	3592.64	26	19	25.3	90.00	.0042	-19.03	.0000	383202.1	1.49	8.14	-.0036	252.74	-.0016	-19.42	298.59
SET 61	3637.83	3649.08	26	20	21.8	72.02	.0042	-20.04	.0000	387801.5	1.42	-.00	-.0028	243.32	.0027	-19.39	284.46
SET 72	3759.80	3771.05	26	22	23.8	92.78	.0042	-19.23	.0000	396027.1	1.61	-.00	-.0039	250.58	-.0006	-19.36	253.86
RISE 42	3766.76	3778.01	26	22	30.7	256.09	.0042	-18.80	-.0000	396516.6	.83	.00	.0031	113.23	-.0024	-19.36	252.11
EXTM 11	3802.47	3813.72	26	23	6.4	.02	.0043	-20.11	.0000	395493.5	1.25	34.68	.0000	180.03	.0047	-19.36	243.13
IMPACT	3863.21	3874.46	27	0	7.2												
IMPC 42	3863.21	3874.46	27	0	7.2	280.48	.0043	-18.94	-.0000	402265.6	1.67	19.13	.0035	100.11	-.0022	-19.38	227.73
IMPC 11	3863.21	3874.46	27	0	7.2	15.63	.0044	-20.12	-.0000	400918.1	2.14	32.72	-.0011	197.50	.0047	-19.38	227.73

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPTH	AZ	RT ASC
INJECTION	.00	11.25	24	7	43.955	6552.899	15.5279	303.3770	10.98907	-2.0200	121.8919	151.9968
SEPARATION	1.20	12.45	24	7	45.155	6548.681	11.7944	309.0773	10.99249	1.4143	123.3113	157.9978
EXIT SHA	3.14	14.39	24	7	47.096	6641.451	5.9879	317.8690	10.91488	6.9076	124.7184	167.2761
RETRO	3.20	14.45	24	7	47.155	6646.188	5.3980	318.1294	10.91095	7.0731	124.7447	167.5513
IMPACT	3863.21	3874.46	27	0	7.168	404398.180	-19.3828	227.7349	2.19915	67.7103	256.4859	324.8015

JAN 1966

JAN 1966

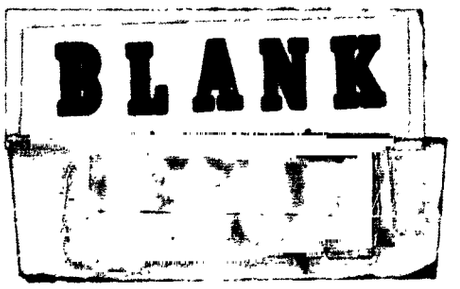
SURVEYOR VIEW PERIODS

GHA 114.9834 EPS 123.0063 LOM 274.9182
SX -.514964 SY -.789224 SZ -.334569 DAO -19.54635 RAC 236.87579 RM 390783.895 LAT 28.310600 LON 279.461800
C3 -1.013434 ECC .983360 SLR 12980.436 RCA 6544.6650 LTA -20.0000 GTA 20.00 TB 675.000000 POL -.0
NSX -.496614 NSY -.798233 NSZ -.340880 C3M 1.5516 VIM 2.6816 ZAE 138.227 B.T .0000 B.R -.0000
LATE -.4397 LONE 6.5766 LATS -1.2651 LONS 243.6764 LATI -10.2350 LONI 325.7266 RSM 146.9583 TTAN 4.7522
LAUNCH DATE JAN 13,1966 BASE AZM 102.0 TF 61.728 ARRIVAL DATE JAN 16 1966 13 45 38.2

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	23 43 36.2	27.4	20.29	305.48	-11.69	57.20	112.67	23 54 51.2	6612.7	10.93	-5.80

EVNT STA	TFI	TFL	DAY	HR	MIN	PROBE IN EARTH'S SHADOW	DHA	DEC	DCE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
INJECTION	.00	11.25	13	23	54.9												
SEPARATION	1.20	12.45	13	23	56.1												
RETRO	3.20	14.45	13	23	58.1												
RISE 72	5.53	16.78	14	0	.4	81.37	-.2096	47.20	.0517	2181.7	-8.67	.00	.1290	317.80	.0794	6.16	333.04
EXTM 72	9.38	20.63	14	0	4.2	338.04	-.3392	21.32	-.3267	1179.7	3.30	53.69	.0573	36.03	.7615	-3.49	348.88
RISE 51	11.36	22.61	14	0	6.2	78.50	-.1045	22.46	-.0435	4506.7	-4.79	.00	.1057	295.10	.0070	-7.71	355.85
EXIT SHA	17.84	29.09	14	0	12.7												
EXIT 72	17.84	29.09	14	0	12.7	292.15	-.0272	-23.42	-.0158	5095.1	8.15	23.42	-.0253	112.15	.0166	-17.56	13.86
EXIT 51	17.84	29.09	14	0	12.7	34.74	-.1060	-1.98	-.0666	3847.2	1.62	49.00	.1244	299.74	.0210	-17.56	13.86
EXTM 51	25.80	37.05	14	0	20.7	358.09	-.0503	-21.83	-.0205	5786.5	5.44	85.71	.0000	24.49	.6829	-23.88	28.61
EXTM 72	69.18	80.43	14	1	4.0	273.72	.0000	-29.81	.0000	23933.9	4.87	7.13	.0000	119.24	-.0000	-30.04	55.37
RISE 42	75.10	86.35	14	1	10.0	105.00	-.0042	-22.23	-.0016	26282.5	4.30	1.29	.0040	243.43	.0011	-30.06	56.32
EXTM 42	121.59	132.84	14	1	56.4	100.62	.0002	-24.23	-.0002	37974.6	4.05	5.70	-.0000	244.26	-.0003	-29.49	57.00
SET 42	180.35	191.60	14	2	55.2	105.00	.0020	-24.34	.0001	51621.8	3.70	2.58	-.0015	241.76	-.0011	-28.50	50.26
RISE 61	199.42	210.67	14	3	14.3	303.80	.0032	-33.32	.0004	55886.6	3.19	.00	.0020	136.03	.0018	-28.21	47.27
EXTM 51	296.75	308.00	14	4	51.6	358.40	.0037	-27.11	.0002	68312.9	2.95	88.02	.0025	134.08	.0613	-26.99	29.15
EXTM 61	469.04	480.29	14	7	43.9	4.08	.0040	-28.88	.0002	100232.0	2.51	20.78	.0000	183.82	.0037	-25.56	351.89
EXTM 72	499.32	510.57	14	8	14.2	.70	.0041	-26.45	.0001	101091.7	2.44	71.44	-.0000	181.96	.0114	-25.36	345.02
RISE 11	649.43	660.68	14	10	44.3	290.52	.0040	-26.42	.0000	127913.0	1.91	.00	.0028	122.99	.0023	-24.56	310.23
SET 51	691.19	702.44	14	11	26.0	90.00	.0039	-23.31	.0001	132306.7	2.52	9.89	-.0033	248.79	-.0014	-24.38	300.39
SET 61	725.31	736.56	14	12	.2	65.45	.0040	-26.15	.0002	137782.7	2.39	-.00	-.0024	234.74	.0027	-24.23	292.32
SET 72	882.59	893.84	14	14	37.4	93.44	.0040	-23.33	.0001	157030.7	2.37	-.00	-.0036	246.43	-.0004	-23.66	254.74
RISE 42	893.99	905.24	14	14	48.8	254.99	.0040	-22.22	-.0000	158229.0	1.63	1.28	.0029	116.57	-.0023	-23.62	252.00
EXTM 11	935.74	946.99	14	15	30.6	1.25	.0042	-25.44	.0001	160126.3	1.92	29.34	-.0000	181.29	.0043	-23.49	241.95
SET 11	1219.84	1231.09	14	20	14.7	71.75	.0041	-23.94	.0001	194128.4	2.04	-.00	-.0028	240.23	.0024	-22.74	172.98
EXTM 42	1317.56	1328.81	14	21	52.4	359.87	.0042	-22.12	.0000	197933.8	1.66	76.90	.0000	.55	-.0170	-22.53	149.11
RISE 51	1452.45	1463.70	15	0	7.3	270.00	.0041	-21.59	-.0000	216218.3	1.21	9.19	.0035	109.62	-.0016	-22.27	116.05
RISE 72	1610.68	1621.93	15	2	45.5	266.82	.0041	-21.76	-.0000	232044.0	1.11	.00	.0038	111.98	-.0005	-21.99	77.17
RISE 61	1666.07	1677.32	15	3	40.9	291.03	.0041	-22.98	.0000	237074.8	1.20	.00	.0027	120.76	.0027	-21.90	63.54
SET 42	1740.28	1751.53	15	4	55.1	105.00	.0041	-20.87	.0000	243649.7	1.81	.45	-.0030	244.50	-.0023	-21.78	45.25
EXTM 51	1811.43	1822.68	15	6	6.3	359.98	.0042	-21.57	.0000	243655.5	1.45	85.83	-.0000	.32	-.0394	-21.68	27.70
EXTM 61	1942.88	1954.13	15	8	17.7	.51	.0042	-22.74	.0000	258284.7	1.40	27.02	-.0000	180.53	.0043	-21.50	355.25
EXTM 72	1981.97	1993.22	15	8	56.8	.08	.0042	-21.78	.0000	258314.3	1.39	76.13	.0000	180.33	.0160	-21.45	345.59
RISE 11	2104.20	2115.45	15	10	59.1	286.67	.0042	-22.12	-.0000	274474.1	1.02	.00	.0030	117.45	.0024	-21.29	315.36
SET 51	2170.54	2181.79	15	12	5.4	90.00	.0041	-20.69	.0000	278832.0	1.72	8.82	-.0035	251.21	-.0016	-21.21	298.95
SET 61	2219.64	2230.89	15	12	54.5	69.95	.0041	-22.06	.0000	283706.3	1.62	-.00	-.0027	240.53	.0027	-21.16	286.79
SET 72	2352.16	2363.41	15	15	7.0	93.03	.0041	-20.83	.0000	294025.6	1.70	-.00	-.0038	248.96	-.0005	-21.01	253.96
RISE 42	2356.30	2367.55	15	15	11.2	255.00	.0041	-20.25	-.0000	294336.2	.94	.07	.0031	115.01	-.0024	-21.01	252.93
EXTM 11	2397.11	2408.36	15	15	52.0	.34	.0042	-21.99	.0000	294030.5	1.27	32.80	-.0000	180.38	.0046	-20.96	242.82
SET 11	2689.99	2701.24	15	20	44.8	73.96	.0042	-21.39	.0000	319112.0	1.53	-.00	-.0030	243.49	.0024	-20.67	170.15
EXTM 42	2775.01	2786.26	15	22	9.9	359.94	.0042	-20.31	.0000	319073.7	1.18	75.09	-.0000	.23	-.0146	-20.60	149.04
RISE 51	2905.43	2916.68	16	0	20.3	270.00	.0041	-20.04	-.0000	333340.0	.76	8.56	.0036	108.19	-.0016	-20.48	116.64
RISE 72	3062.90	3073.75	16	2	57.4	267.07	.0042	-20.18	-.0000	345153.5	.69	-.01	.0039	110.38	-.0006	-20.33	77.49
RISE 61	3108.57	3119.82	16	3	43.4	288.97	.0042	-21.01	-.0000	348245.6	.81	.00	.0028	118.02	.0027	-20.29	65.97
SET 42	3191.28	3202.53	16	5	6.1	104.55	.0041	-19.58	.0000	353771.4	1.46	-.00	-.0031	249.78	-.0024	-20.21	45.30
EXTM 51	3261.66	3272.91	16	6	16.5	359.98	.0042	-20.04	.0000	352162.9	1.11	84.30	-.0000	.27	-.0334	-20.14	27.71
EXTM 61	3390.73	3401.98	16	8	25.6	.33	.0042	-20.89	.0000	363948.0	1.11	28.87	-.0000	180.35	.0045	-20.02	355.43
EXTM 72	3429.92	3441.17	16	9	4.8	.05	.0042	-20.19	.0000	363436.1	1.11	77.72	.0000	180.25	.0177	-19.98	345.62
RISE 11	3543.85	3555.10	16	10	58.7	285.26	.0042	-20.45	.0000	377274.8	.80	.00	.0031	115.32	.0024	-19.86	317.08
SET 51	3617.48	3628.73	16	12	12.3	90.00	.0042	-19.38	.0000	381499.1	1.60	8.28	-.0036	252.42	-.0016	-19.77	298.60
SET 61	3672.46	3683.71	16	13	7.3	71.73	.0042	-20.33	.0001	386589.5	1.69	-.00	-.0028	242.93	.0028	-19.68	284.75
IMPACT	3703.65	3714.90	16	13	38.5												
IMPC 72	3703.65	3714.90	16	13	38.5	69.78	.0043	-19.59	.0001	387161.6	2.42	21.63	-.0041	252.00	.0000	-19.60	276.81
IMPC 11	3703.65	3714.90	16	13	38.5	325.88	.0044	-20.33	.0001	386749.4	1.79	25.73	.0021	144.28	.0039	-19.60	276.81

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	13	23	54.853	6614.560	20.3212	305.4015	10.93372	-5.7953	112.6411	57.1232
SEPARATION	1.20	12.45	13	23	56.053	6556.266	17.5301	311.8037	10.96094	-2.4007	114.8209	63.8263
RETRO	3.20	14.45	13	23	58.053	6566.778	12.4257	322.0019	10.97207	3.3129	117.5964	74.5258
EXIT SHA	17.84	29.09	14	0	12.693	9616.256	-17.5638	13.8566	9.04923	34.2486	114.7978	130.0509
IMPACT	3703.65	3714.90	16	13	38.505	389557.543	-19.5981	276.8129	2.20102	65.1887	300.5960	236.9821


BLANK

SURVEYOR VIEW PERIODS

GHA	114.9834					EPS	123.1424							LOM	273.8484
SX	-.512750	SY	-.790351	SZ	-.335310	DAO	-19.59137	RAO	237.62602	RM	390832.125	LAT	28.310600	LON	279.461800
C3	-1.015391	ECC	.983328	SLR	12980.221	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.494359	NSY	-.799318	NSZ	-.341613	C3M	1.9560	VIM	2.6824	ZAE	138.069	B.T	.0000	B.R	-.0000
LATE	-.4224	LONE	6.5698	LATS	-1.2653	LONS	243.5338	LATI	-10.3905	LONI	325.5974	RSM	146.9576	TTAN	4.7555
LAUNCH DATE	JAN 14,1966			BASE AZM	105.0		TF 61.772					ARRIVAL DATE	JAN 16 1966 14 2 28.2		

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	23 53 3.2	27.6	19.14	305.14	-8.73	60.22	114.84	24 4 18.2	6582.4	10.96	-4.33

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW														
INJECTION	.00	11.25	15	0	4.3												
SEPARATION	1.20	12.45	15	0	5.5												
RETRO	3.20	14.45	15	0	7.5												
RISE 72	5.27	16.52	15	0	9.6	83.30	-.1789	40.03	.0152	2272.9	-8.83	.00	.1320	310.50	.0396	4.96	330.83
EXTN 72	9.10	20.35	15	0	13.4	356.34	-.4086	13.55	-.3071	1100.6	2.19	68.24	.2349	9.64	1.1973	-4.79	346.20
RISE 51	11.24	22.49	15	0	15.5	80.72	-.0965	18.50	-.0476	4674.8	-4.50	.00	.1032	290.62	-.0004	-9.36	353.57
EXIT SHA	17.21	28.46	15	0	21.5												
EXIT 72	17.21	28.46	15	0	21.5	297.70	-.0337	-27.09	-.0128	4746.9	8.14	28.20	-.0311	116.57	.0111	-18.49	9.98
EXIT 51	17.21	28.46	15	0	21.5	43.47	-.1022	-3.85	-.0654	4025.8	1.07	42.95	.1212	290.31	-.0015	-18.49	9.98
EXTN 51	26.47	37.72	15	0	30.8	1.78	-.0483	-25.48	-.0169	6167.7	5.38	88.38	.0458	278.93	-.3294	-25.61	26.81
EXTN 72	69.33	80.58	15	1	13.6	276.76	.0000	-31.22	.0002	23841.9	4.85	9.85	.0000	120.46	-.0002	-30.98	52.37
RISE 42	91.42	102.67	15	1	35.7	105.00	-.0020	-24.06	-.0008	30795.2	4.24	2.41	.0019	241.98	.0005	-30.78	54.62
EXTN 42	121.03	132.28	15	2	5.3	103.59	.0002	-24.82	-.0002	38162.6	4.05	3.89	-.0000	242.16	-.0002	-30.23	54.00
SET 42	150.70	161.95	15	2	35.0	105.00	.0013	-24.95	.0000	45208.3	3.87	2.96	-.0009	241.28	-.0007	-29.65	51.21
RISE 61	190.02	201.27	15	3	14.3	305.24	.0031	-34.29	.0005	54051.5	3.25	.00	.0020	137.56	.0017	-28.94	45.72
EXTN 51	289.43	300.68	15	4	53.7	.15	.0037	-27.72	.0002	67097.8	2.98	88.01	.0000	183.76	.0932	-27.55	27.55
EXTN 61	456.86	468.11	15	7	41.2	4.45	.0040	-29.40	.0002	98519.6	2.53	20.24	.0000	184.13	.0059	-26.01	351.54
EXTN 72	486.00	497.25	15	8	10.3	.77	.0041	-26.94	.0001	99215.5	2.47	70.95	.0000	19[illegible].10	.0111	-25.81	334.95
RISE 11	637.89	649.14	15	10	42.2	290.90	.0040	-26.81	.0000	126434.1	1.92	.01	.0028	123.51	.0023	-24.92	309.83
SET 51	677.82	689.07	15	11	22.1	90.00	.0039	-23.65	.0001	130607.1	2.54	10.03	-.0033	248.47	-.0013	-24.73	300.43
SET 61	710.17	721.42	15	11	54.5	65.01	.0040	-26.53	.0002	135903.1	2.40	-.00	-.0023	234.18	.0027	-24.58	292.78
SET 72	869.64	880.89	15	14	33.9	93.49	.0040	-23.62	.0001	155548.3	2.38	-.01	-.0036	246.14	-.0004	-23.95	254.72
RISE 42	881.07	892.32	15	14	45.4	254.99	.0040	-22.49	-.0000	156737.7	1.64	1.45	.0029	116.79	-.0023	-23.91	251.98
EXTN 11	923.67	934.32	15	15	27.4	1.33	.0042	-25.74	.0001	158738.3	1.93	29.04	-.0000	181.37	.0043	-23.77	241.87
SET 11	1206.02	1217.27	15	20	10.3	71.54	.0041	-24.17	.0001	192730.1	2.04	-.00	-.0028	239.92	.0024	-22.97	173.21
EXTN 42	1304.64	1315.89	15	21	48.9	359.86	.0042	-22.34	.0000	196663.5	1.67	77.12	.0000	.59	-.0172	-22.74	149.12
RISE 51	1439.63	1450.88	16	0	3.9	270.00	.0041	-21.78	-.0000	215000.7	1.22	9.27	.0035	109.80	-.0016	-22.46	116.04
RISE 72	1597.76	1609.01	16	2	42.1	266.79	.0041	-21.94	-.0000	230873.2	1.11	.00	.0038	112.16	-.0006	-22.16	77.19
RISE 61	1654.00	1665.25	16	3	38.3	291.22	.0041	-23.16	.0000	235996.5	1.20	.00	.0027	121.01	.0027	-22.07	63.34
SET 42	1727.40	1738.65	16	4	51.7	105.00	.0041	-21.03	.0001	242507.1	1.82	.55	-.0030	244.37	-.0023	-21.95	45.26
EXTN 51	1798.53	1809.78	16	6	2.8	359.97	.0042	-21.73	.0000	242538.7	1.45	85.99	.0000	.48	-.0485	-21.34	27.72
EXTN 61	1930.14	1941.39	16	8	14.4	.54	.0042	-22.89	.0000	257227.1	1.40	26.87	-.0000	180.55	.0043	-21.64	355.22
EXTN 72	1969.15	1980.40	16	8	53.5	.09	.0042	-21.92	.0000	257247.4	1.39	75.98	.0000	180.35	.0159	-21.59	345.58
RISE 11	2091.85	2103.10	16	10	56.2	286.79	.0042	-22.26	-.0000	273465.4	1.02	.00	.0030	117.62	.0024	-21.42	319.24
SET 51	2157.68	2168.93	16	12	2.0	90.00	.0041	-20.81	.0000	277788.5	1.72	8.88	-.0035	251.10	-.0016	-21.34	298.95
SET 61	2206.24	2217.49	16	12	50.5	69.81	.0041	-22.18	.0000	282634.8	1.62	-.00	-.0027	240.35	.0027	-21.28	286.93
SET 72	2339.37	2350.62	16	15	3.7	93.05	.0041	-20.95	.0000	293024.9	1.71	-.00	-.0038	248.84	-.0005	-21.13	253.95
RISE 42	2343.48	2354.73	16	15	7.8	255.00	.0041	-20.36	-.0000	293325.9	.94	.14	.0031	115.10	-.0024	-21.12	252.93
EXTN 11	2384.33	2395.58	16	15	48.6	.36	.0042	-22.11	.0000	293049.0	1.27	32.68	-.0000	180.39	.0046	-21.07	242.80
SET 11	2676.79	2688.04	16	20	41.1	73.88	.0042	-21.48	.0000	318131.0	1.53	-.00	-.0030	243.37	.0024	-20.77	170.24
EXTN 42	2767.14	2773.39	16	22	6.4	359.94	.0042	-20.40	.0000	318125.3	1.18	75.18	-.0000	.24	-.0148	-20.69	149.04
RISE 51	2892.59	2903.84	17	0	16.9	270.00	.0041	-20.13	-.0000	332407.5	.76	8.59	.0036	108.27	-.0016	-20.57	116.63
RISE 72	3054.86	3066.11	17	2	59.2	266.99	.0039	-20.66	-.0001	344139.9	.64	-.01	.0036	110.96	-.0004	-20.81	77.55
RISE 61	3108.12	3119.37	17	3	52.4	289.74	.0039	-21.76	-.0001	347485.5	.78	.00	.0025	115.05	.0024	-21.03	65.20
SET 42	3195.70	3206.95	17	5	20.0	105.00	.0039	-20.73	-.0000	353126.3	1.42	.37	-.0028	244.61	-.0023	-21.36	44.86
EXTN 51	3269.81	3281.06	17	6	34.1	.08	.0039	-21.56	-.0001	351847.8	1.14	85.82	-.0000	358.96	-.0493	-21.63	27.61
EXTN 61	3402.56	3413.81	17	8	46.9	359.09	.0039	-22.95	-.0000	364636.6	1.22	26.80	-.0000	179.06	.0041	-22.07	356.65
EXTN 72	3448.64	3459.89	17	9	32.9	359.79	.0040	-22.45	-.0000	364762.5	1.24	75.45	.0000	179.23	.0145	-22.21	345.88
RISE 11	3581.65	3592.90	17	11	46.0	287.59	.0039	-23.18	-.0001	381220.9	1.06	.00	.0028	118.80	.0023	-22.58	314.76
SET 51	3650.67	3661.92	17	12	55.0	90.00	.0039	-22.38	-.0000	386112.1	1.90	9.51	-.0033	249.65	-.0015	-22.75	298.60
SET 61	3695.79	3707.04	17	13	40.1	68.39	.0039	-23.52	-.0000	391732.3	2.27	-.00	-.0025	238.48	.0025	-22.86	288.78
IMPACT	3706.30	3717.55	17	13	50.6												
IMPC 72	3706.30	3717.55	17	13	50.6	60.90	.0039	-22.95	-.0000	389939.1	2.82	29.82	-.0035	248.03	.0003	-22.89	285.65
IMPC 51	3706.30	3717.55	17	13	50.6	102.92	.0038	-22.45	-.0000	393228.0	2.82	-1.17	-.0031	244.29	-.0017	-22.89	285.65
IMPC 11	3706.30	3717.55	17	13	50.6	316.94	.0039	-23.60	-.0001	391084.1	2.27	18.44	.0020	138.74	.0031	-22.89	285.65
IMPC 61	3706.30	3717.55	17	13	50.6	70.83	.0038	-23.53	-.0000	393277.0	2.77	-1.61	-.0026	240.04	.0024	-22.89	285.65

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	15	0	4.303	6583.021	19.1497	305.1097	10.95892	-4.3261	114.8238	60.1861
SEPARATION	1.20	12.45	15	0	5.503	6546.329	16.1309	311.3489	10.98925	-.9104	116.8093	66.7261
RETRO	3.20	14.45	15	0	7.503	6591.016	10.7137	321.2784	10.95162	4.7905	119.2396	77.1570
EXIT SHA	17.21	28.46	15	0	21.513	9582.838	-18.4877	[illegible].9834	9.06508	34.1032	115.3071	129.3743
IMPACT	3706.30	3717.55	17	13	50.598	393149.664	-22.8874	285.6472	3.32256	48.3202	97.4312	249.8337

SURVEYOR VIEW PERIODS

GHA	114.9834					EPS	123.3054							LOM	265.9716
SX	-.510092	SY	-.791694	SZ	-.336194	DAO	-19.64513	RAO	237.20611	RM	390889.840	LAT	28.310600	LON	279.461800
C3	-1.022763	ECC	.983207	SLR	12979.433	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.CCCCO	POL	-.0
NSX	-.491604	NSY	-.8CC635	NSZ	-.342505	C3P	1.5564	VIM	2.6825	ZAE	137.814	B.T	.CCCO	B.R	-.0000
LATE	-.4018	LONE	6.5624	LATS	-1.2656	LCNS	243.3636	LATI	-10.5771	LONI	325.3688	RSM	146.9568	TTAN	4.7535
LAUNCH DATE	JAN 14,1966			BASE AZM	108.0		TF 01.902					ARRIVAL DATE	JAN 16 1966 14 22 38.6		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LCNG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	0 8 54.3	27.7	18.00	304.72	-6.14	62.79	116.98	0 20 9.3	6563.3	10.97	-3.04

EVNT STA	TFI	TFL	DAY	HR	MIN PROBE IN EARTH'S SHADOW	HA	DHA	CEC	CDE	RNG	CRG	ELE	DEL	AZI	DAZ	LAT	LCNG
INJECTION	.CO	11.25	14	C	20.2												
SEPARATION	1.20	12.45	14	0	21.4												
RETRO	3.20	14.45	14	0	23.4												
RISE 72	5.08	16.33	14	0	25.2	84.71	-.1585	33.61	-.0166	2367.7	-8.79	-.01	.1330	303.98	.0054	3.65	328.86
EXTM 72	8.59	19.84	14	C	28.7	20.02	-.4289	8.46	-.2787	1117.7	-.21	64.20	.5053	308.93	.1123	-5.53	342.73
RISE 51	11.18	22.43	14	0	31.3	82.73	-.0896	14.70	-.0513	4836.8	-4.20	.00	.1005	286.36	-.0069	-11.11	351.46
EXIT SHA	16.36	27.61	14	0	36.5												
EXIT 72	16.36	27.61	14	0	36.5	304.21	-.0444	-31.15	-.0096	4317.8	8.13	33.21	-.0392	122.23	.0020	-19.20	5.67
EXIT 51	16.36	27.61	14	0	36.5	52.82	-.C978	-4.65	-.0654	4217.0	.37	35.29	.1169	283.36	-.0135	-19.20	5.67
EXTM 51	28.52	39.77	14	0	48.7	1.47	-.0412	-30.04	-.0110	6995.3	5.45	85.50	.0000	196.42	-.4765	-27.99	26.93
EXTM 72	69.50	80.75	14	1	29.7	279.44	.0000	-32.74	.0004	23780.3	4.84	12.18	.0000	121.91	-.0004	-32.05	49.73
EXTM 51	86.50	97.75	14	1	46.7	329.51	-.0001	-32.64	.0006	24729.6	4.44	62.61	.C000	111.77	-.0012	-31.84	51.72
RISE 61	183.41	194.66	14	3	23.6	306.82	.0031	-35.30	.0006	52753.5	3.29	.00	.0020	139.20	.0016	-29.76	44.09
EXTM 51	276.48	287.73	14	4	56.6	.24	.0036	-28.53	.0003	64838.7	3.03	87.20	.0C00	184.42	.0652	-28.28	27.46
EXTM 61	446.56	457.81	14	7	46.7	4.86	.0039	-29.99	.0002	97057.9	2.55	19.63	.0000	184.46	.0036	-26.53	351.16
EXTM 72	474.58	485.83	14	8	14.7	.88	.0040	-27.50	.0002	97579.4	2.49	70.39	.CC00	182.33	.0107	-26.32	344.85
RISE 11	628.19	639.44	14	10	48.3	291.31	.0040	-27.25	.0001	125158.6	1.93	.00	.0028	124.08	.0023	-25.34	309.39
SET 51	666.13	677.38	14	11	26.1	90.00	.0039	-24.05	.0001	129077.9	2.55	10.19	-.0033	248.10	-.0013	-25.13	300.47
SET 61	696.41	707.66	14	11	56.6	64.49	.0040	-26.97	.0002	134148.0	2.41	.00	-.0C23	233.55	.0027	-24.98	293.32
SET 72	858.39	869.64	14	14	38.5	93.54	.0040	-23.95	.0001	154211.0	2.38	-.01	-.0036	245.80	-.0004	-24.29	254.70
RISE 42	869.80	881.05	14	14	50.0	254.99	.0040	-22.82	-.0000	155382.2	1.65	1.64	.0029	117.04	-.0023	-24.24	251.96
EXTM 11	912.10	923.35	14	15	32.3	1.42	.0042	-26.08	.0001	157492.1	1.93	28.69	-.CC00	181.46	.0043	-24.09	241.78
SET 11	1193.68	1204.93	14	20	13.8	71.29	.0041	-24.45	.0001	191410.2	2.05	-.00	-.0028	239.56	.0024	-23.23	173.47
EXTM 42	1293.34	1304.59	14	21	53.5	359.85	.0042	-22.59	.0000	195473.7	1.67	77.37	.0000	.63	-.0175	-22.99	149.12
RISE 51	1428.43	1439.68	15	0	8.6	270.00	.0041	-22.01	-.0000	213846.4	1.23	9.36	.0035	110.01	-.0016	-22.68	116.03
RISE 72	1586.42	1597.67	15	2	46.6	266.76	.0041	-22.14	-.0000	229746.1	1.11	.00	.0038	112.37	-.0006	-22.37	77.21
RISE 61	1643.66	1654.91	15	3	43.8	291.44	.0041	-23.36	.0000	234969.5	1.21	.00	.0027	121.30	.0027	-22.26	63.12
SET 42	1716.12	1727.37	15	4	56.3	105.00	.0041	-21.21	.0001	241392.6	1.82	.66	-.0C30	244.23	-.0023	-22.14	45.27
EXTM 51	1787.28	1798.53	15	6	7.4	359.97	.0042	-21.92	.0000	241447.6	1.45	86.18	.C000	.50	-.0533	-22.02	27.72
EXTM 61	1919.01	1930.26	15	8	19.2	.57	.0042	-23.07	.0000	256179.6	1.41	26.69	-.0000	180.58	.0043	-21.81	355.20
EXTM 72	1957.93	1969.18	15	8	58.1	.10	.0042	-22.10	.0000	256183.4	1.39	75.81	.0000	180.37	.0157	-21.75	345.58
RISE 11	2081.17	2092.42	15	11	1.3	286.93	.0042	-22.42	-.0000	272451.2	1.02	.00	.0030	117.83	.0024	-21.58	315.10
SET 51	2146.40	2157.65	15	12	6.6	90.00	.0041	-20.96	.0001	276723.5	1.72	8.94	-.0035	250.96	-.0016	-21.49	298.96
SET 61	2194.31	2205.56	15	12	54.5	69.65	.0041	-22.34	.0001	281528.7	1.62	-.00	-.0027	240.14	.0027	-21.43	287.09
SET 72	2328.17	2339.42	15	15	8.3	93.07	.0041	-21.08	.0001	291983.4	1.71	-.00	-.0038	248.70	-.0005	-21.26	253.93
RISE 42	2332.24	2343.49	15	15	12.4	255.00	.0041	-20.49	-.0000	292271.9	.94	.22	.0030	115.20	-.0024	-21.26	252.92
EXTM 11	2373.15	2384.40	15	15	53.3	.38	.0042	-22.25	.0000	292023.3	1.27	32.54	-.0000	180.41	.0046	-21.21	242.78
SET 11	2665.10	2676.35	15	20	45.3	73.77	.0042	-21.60	.0000	317063.0	1.53	-.00	-.0030	243.22	.0024	-20.89	170.34
EXTM 42	2750.86	2762.11	15	22	11.0	359.93	.0042	-20.51	.0000	317084.1	1.18	75.29	-.0000	.26	-.0148	-20.80	149.05
RISE 51	2881.	2892.58	16	0	21.5	270.00	.0041	-20.23	-.0000	331366.6	.76	8.63	.0035	108.36	-.0016	-20.67	116.63
RISE 72	3C38.	3049.67	16	2	58.6	267.04	.0042	-20.36	-.0000	343202.9	.69	-.01	.0039	110.56	-.0006	-20.51	77.51
RISE 61	3085.3c	3C96.57	16	3	41.5	289.15	.0042	-21.19	.0000	346342.6	.80	.00	.0028	118.27	.0027	-20.46	65.79
SET 42	3167.78	3179.03	16	5	7.9	104.68	.0041	-19.74	.0000	351835.0	1.46	-.00	-.0031	245.57	-.0024	-20.38	45.18
EXTM 51	3237.64	3248.89	16	6	17.8	359.98	.0042	-20.20	.0000	350173.6	1.11	84.47	-.0000	.30	-.0334	-20.30	27.71
EXTM 61	3366.78	3378.03	16	8	26.9	.35	.0042	-21.05	.0000	361935.6	1.10	28.71	-.0000	180.37	.0045	-20.17	355.41
EXTM 72	3405.92	3417.17	16	9	6.1	.06	.0042	-20.34	.0000	361389.1	1.10	77.56	.0C00	180.26	.0177	-20.13	345.62
RISE 11	3520.39	3531.64	16	11	.5	285.39	.0042	-20.61	.0000	375168.4	.78	.00	.0031	115.51	.0024	-20.01	316.95
SET 51	3593.53	3604.78	16	12	13.7	90.00	.0042	-19.53	.0000	379221.8	1.56	8.35	-.0036	252.28	-.0016	-19.92	298.61
SET 61	3647.96	3659.21	16	13	8.1	71.56	.0042	-20.50	.0000	384023.5	1.55	-.00	-.0028	242.70	.0028	-19.84	284.92
IMPACT	3714.12	3725.37	16	14	14.3												
IMPC 72	3714.12	3725.37	16	14	14.3	78.47	.0043	-19.64	.0001	388134.5	2.42	13.45	-.C041	251.60	-.0002	-19.69	268.17
IMPC 11	3714.12	3725.37	16	14	14.3	334.64	.0044	-20.44	.0001	386503.0	1.82	29.37	.0017	152.58	.0043	-19.69	268.17

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LCNG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	14	0	20.155	6563.450	18.0093	304.7121	10.97467	-3.0418	116.9733	62.7768
SEPARATION	1.20	12.45	14	0	21.355	6544.961	14.7702	310.7876	10.99008	.3847	118.7751	69.1531
RETRO	3.20	14.45	14	0	23.355	6619.105	9.0581	320.4377	10.92783	6.0617	120.8787	79.3046
EXIT SHA	16.36	27.61	14	0	36.514	9460.246	-19.1968	5.6710	9.12394	33.5584	116.1744	127.8367
IMPACT	3714.12	3725.37	16	14	14.279	389667.734	-19.6946	268.1651	2.19573	64.7252	300.9255	237.3023

SURVEYOR VIEW PERIODS

GHA	114.9834					EPS	123.4676							LOM	261.1197
SX	-.507444	SY	-.793022	SZ	-.337070	DAC	-19.69844	RAC	237.38536	RM	390947.148	LAT	28.310600	LON	279.461800
C3	-1.031814	ECC	.983059	SLR	12978.457	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.488842	NSY	-.801943	NSZ	-.343395	C3M	1.5564	VIM	2.6825	ZAE	137.513	B.T	.0000	B.R	-.0000
LATE	-.3813	LONE	6.5540	LATS	-1.2659	LONS	243.1935	LATI	-10.7823	LONI	325.0952	RSM	146.9560	TTAN	4.7478
LAUNCH DATE	JAN	14,1966		BASE AZM	111.0		TF 62.060					ARRIVAL DATE	JAN 16 1966	14 42 42.8	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	0 19 21.5	27.8	16.90	304.23	-3.91	64.92	119.10	0 30 36.5	6552.2	10.98	-1.94

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	14	0	30.6												
SEPARATION	1.20	12.45	14	0	31.8												
RETRO	3.20	14.45	14	0	33.8												
RISE 72	4.95	16.20	14	0	35.6	85.81	-.1435	27.75	-.0440	2462.1	-8.58	-.00	.1323	298.03	-.0238	2.26	327.12
EXTM 72	9.46	20.71	14	0	40.1	9.73	-.3483	-16.49	-.2055	1327.4	3.44	77.19	.1176	226.99	-1.6874	-9.40	344.04
RISE 51	11.16	22.41	14	0	41.8	84.61	-.0825	11.03	-.0546	4991.8	-3.90	-.00	.0978	282.26	-.0126	-12.94	349.51
EXIT SHA	15.66	26.91	14	0	46.3												
EXIT 72	15.66	26.91	14	0	46.3	311.10	-.0586	-35.87	-.0052	9999.1	8.04	37.46	-.0464	129.70	-.0141	-20.11	1.79
EXIT 51	15.66	26.91	14	0	46.3	60.55	-.0921	-5.85	-.0652	4432.8	-.13	29.00	.1110	277.93	-.0205	-20.11	1.79
EXTM 51	30.21	41.46	14	1	.8	2.15	-.0371	-33.82	-.0074	7699.3	5.44	81.71	-.0000	192.47	-.2197	-30.17	26.55
EXTM 72	69.71	80.96	14	1	40.3	281.73	.0000	-34.35	.0006	23751.6	4.82	14.11	.0000	123.54	-.0007	-33.24	47.45
EXTM 51	86.56	97.81	14	1	57.2	332.29	-.0002	-34.12	.0007	24763.1	4.43	64.66	.0000	115.91	-.0017	-32.93	49.44
RISE 61	179.42	190.67	14	3	30.0	308.47	.0030	-36.32	.0006	51981.9	3.32	.00	.0020	140.69	.0016	-30.62	42.44
EXTM 51	265.51	276.76	14	4	56.1	.38	.0036	-29.41	.0003	62894.8	3.07	86.31	.0000	185.16	.0486	-29.07	27.34
EXTM 61	438.09	449.34	14	7	48.7	5.29	.0039	-30.61	.0003	95856.1	2.57	18.98	.0000	184.81	.0036	-27.10	350.76
EXTM 72	464.88	476.13	14	8	15.5	1.00	.0040	-28.10	.0002	96175.5	2.51	69.78	.0000	182.56	.0103	-26.87	344.74
RISE 11	620.31	631.56	14	10	50.9	291.76	.0040	-27.72	.0001	124104.7	1.94	.00	.0027	124.70	.0023	-25.78	308.91
SET 51	656.08	667.33	14	11	26.7	90.00	.0039	-24.48	.0001	127738.3	2.56	10.37	-.0033	247.70	-.0013	-25.58	300.51
SET 61	684.09	695.34	14	11	54.7	63.93	.0040	-27.44	.0002	132551.4	2.42	-.00	-.0023	232.86	.0027	-25.42	293.91
SET 72	848.75	860.00	14	14	39.4	93.60	.0040	-24.32	.0001	153041.8	2.39	-.01	-.0036	245.43	-.0004	-24.65	254.66
RISE 42	860.11	871.36	14	14	50.7	254.99	.0040	-23.17	-.0000	154187.8	1.66	1.86	.0029	117.32	-.0023	-24.61	251.93
EXTM 11	902.73	913.98	14	15	33.3	1.52	.0042	-26.45	.0001	156411.6	1.94	28.32	-.0000	181.55	.0042	-24.44	241.68
SET 11	1182.81	1194.06	14	20	13.4	71.02	.0041	-24.75	.0001	190214.2	2.05	-.00	-.0028	239.18	.0024	-23.52	173.75
EXTM 42	1283.58	1294.83	14	21	54.2	359.84	.0042	-22.86	.0000	194408.7	1.68	77.64	.0000	.68	-.0179	-23.25	149.13
RISE 51	1418.75	1430.00	15	0	9.4	270.00	.0041	-22.25	-.0000	212806.7	1.23	9.46	.0035	110.23	-.0016	-22.93	116.02
RISE 72	1576.59	1587.84	15	2	47.2	266.73	.0041	-22.36	-.0000	228722.9	1.12	.00	.0038	112.59	-.0006	-22.59	77.23
RISE 61	1634.94	1646.19	15	3	45.6	291.68	.0041	-23.58	.0000	234052.5	1.21	.01	.0027	121.61	.0027	-22.48	62.87
SET 42	1706.36	1717.61	15	4	57.0	105.00	.0041	-21.42	.0001	240374.3	1.82	.79	-.0030	244.07	-.0023	-22.34	45.27
EXTM 51	1777.54	1788.79	15	6	8.1	359.97	.0042	-22.12	.0000	240448.9	1.45	86.38	.0000	.57	-.0553	-22.22	27.72
EXTM 61	1909.40	1920.65	15	8	20.0	.60	.0042	-23.26	.0000	255219.3	1.41	26.50	-.0000	180.62	.0043	-22.00	355.16
EXTM 72	1948.22	1959.47	15	8	58.8	.10	.0042	-22.28	.0000	255202.6	1.39	75.62	.0000	180.40	.0155	-21.93	345.57
RISE 11	2072.04	2083.29	15	11	2.6	287.07	.0042	-22.59	-.0000	271515.9	1.02	.00	.0030	118.04	.0024	-21.75	314.95
SET 51	2136.62	2147.87	15	12	7.2	90.00	.0041	-21.12	.0001	275730.1	1.72	9.00	-.0035	250.81	-.0015	-21.65	298.96
SET 61	2183.85	2195.10	15	12	54.5	69.48	.0041	-22.50	.0001	280488.7	1.62	-.00	-.0027	239.91	.0027	-21.59	287.27
SET 72	2318.48	2329.73	15	15	9.1	93.09	.0041	-21.23	.0001	291004.7	1.71	-.00	-.0038	248.56	-.0005	-21.41	253.91
RISE 42	2322.49	2333.74	15	15	13.1	255.00	.0041	-20.64	-.0000	291279.4	.94	.31	.0030	115.32	-.0024	-21.40	252.92
EXTM 11	2363.47	2374.72	15	15	54.1	.40	.0042	-22.40	.0000	291058.8	1.27	32.39	-.0000	180.44	.0046	-21.35	242.76
SET 11	2654.87	2666.12	15	20	45.5	73.67	.0042	-21.73	.0000	316038.1	1.53	-.00	-.0030	243.06	.0024	-21.01	170.45
EXTM 42	2741.05	2752.30	15	22	11.7	359.93	.0042	-20.63	.0000	316083.2	1.18	75.41	-.0000	.27	-.0150	-20.92	149.05
RISE 51	2871.55	2882.80	16	0	22.2	270.00	.0041	-20.34	-.0000	330359.3	.76	8.68	.0035	108.46	-.0016	-20.78	116.63
RISE 72	3028.57	3039.82	16	2	59.2	267.03	.0042	-20.46	-.0000	342183.4	.69	-.01	.0039	110.66	-.0006	-20.61	77.52
RISE 61	3075.94	3087.19	16	3	46.5	289.26	.0042	-21.29	.0000	345345.4	.80	.00	.0028	118.41	.0027	-20.56	65.68
SET 42	3158.27	3169.52	16	5	8.9	104.75	.0041	-19.83	.0000	350811.8	1.45	-.00	-.0031	245.46	-.0024	-20.47	45.10
EXTM 51	3227.85	3239.10	16	6	18.5	359.97	.0042	-20.30	.0000	349114.8	1.10	84.56	-.0000	.31	-.0334	-20.40	27.71
EXTM 61	3357.04	3368.29	16	8	27.7	.36	.0042	-21.14	.0000	360854.4	1.10	28.62	-.0000	180.38	.0045	-20.26	355.40
EXTM 72	3396.16	3407.41	16	9	6.8	.06	.0042	-20.43	.0000	360286.6	1.10	77.47	.0000	180.27	.0174	-20.22	345.61
RISE 11	3510.94	3522.19	16	11	1.5	285.46	.0042	-20.69	.0000	374030.9	.77	.00	.0031	115.62	.0024	-20.09	316.88
SET 51	3583.80	3595.05	16	12	14.4	90.00	.0042	-19.61	.0000	378001.3	1.54	8.38	-.0036	252.21	-.0016	-20.00	298.61
SET 61	3637.92	3649.17	16	13	8.5	71.47	.0042	-20.59	.0000	382695.3	1.51	-.00	-.0028	242.57	.0027	-19.93	285.02
IMPACT	3723.58	3734.83	16	14	34.2												
IMPC 72	3723.58	3734.83	16	14	34.2	83.30	.0043	-19.67	.0001	388688.0	2.42	8.92	-.0040	251.21	-.0003	-19.75	263.35
IMPC 11	3723.58	3734.83	16	14	34.2	339.51	.0044	-20.51	.0001	386408.8	1.84	30.99	.0014	157.52	.0045	-19.75	263.35

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	14	0	30.609	6552.240	16.9004	304.2280	10.98364	-1.9370	119.1008	64.9132
SEPARATION	1.20	12.45	14	0	31.809	6549.136	13.4464	310.1399	10.98613	1.4919	120.7292	71.1260
RETRO	3.20	14.45	14	0	33.809	6648.226	7.4569	319.4992	10.90325	7.1389	122.5248	80.9866
EXIT SHA	15.66	26.91	14	0	46.265	9365.002	-20.1122	1.7950	9.17029	33.1218	117.0866	126.4053
IMPACT	3723.58	3734.83	16	14	34.188	389728.309	-19.7481	263.3525	2.19172	64.5065	301.2162	237.4805

SURVEYOR VIEW PERIODS

GHA	114.9834					EPS	123.6816							LOM	254.7147
SX	-.503942	SY	-.794763	SZ	-.338221	DAO	-19.76850	RAC	237.62210	RM	391022.660	LAT	28.3106CC	LON	279.461800
C3	-1.045769	ECC	.982830	SLR	12976.962	RCA	6544.6650	LTA	-20.0000	GTA	20.CO	TB	675.00CCC	POL	-.0
NSX	-.485170	NSY	-.803667	NSZ	-.344571	C3M	1.5562	VIM	2.6824	ZAE	137.053	B.T	.0000	B.R	-.0000
LATE	-.3542	LONE	6.5440	LATS	-1.2663	LCNS	242.9698	LATI	-11.0735	LONI	324.6752	RSM	146.9549	TTAN	4.7357
LAUNCH DATE	JAN 14,1966			BASE AZM	115.0		TF 62.302					ARRIVAL DATE	JAN 16 1966 15 9 12.4		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LCNG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	0 31 22.3	27.9	15.47	303.48	-1.41	67.17	121.92	0 42 37.3	6545.6	10.99	-.70

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LCNG
		PROBE IN EARTH'S SHADOW															
INJECTION	.CO	11.25	14	0	42.6												
SEPARATION	1.20	12.45	14	0	43.8												
RETRO	3.20	14.45	14	0	45.8												
RISE 72	4.87	16.12	14	0	47.5	87.02	-.1279	20.52	-.0745	2589.6	-8.11	.00	.1294	290.73	-.0561	.26	325.07
EXTM 72	9.39	20.64	14	0	52.0	23.74	-.3206	-26.91	-.1862	1548.9	2.88	60.54	.1229	226.89	-.6471	-11.73	341.48
RISE 51	11.20	22.45	14	0	53.8	86.95	-.0766	6.29	-.0583	5190.8	-3.48	.00	.0940	276.99	-.0192	-15.52	347.11
EXIT SHA	14.79	26.04	14	0	57.4												
EXIT 72	14.79	26.04	14	0	57.4	321.70	-.0861	-42.81	.0005	3673.5	7.79	41.58	-.0516	142.56	-.0487	-21.43	356.88
EXIT 51	14.79	26.04	14	0	57.4	69.57	-.0840	-7.33	-.0653	4737.4	-.66	21.55	.1031	272.18	-.0261	-21.43	356.88
EXTM 51	32.92	44.17	14	1	15.5	2.03	-.0318	-38.49	-.0036	8775.1	5.42	77.14	.0000	187.15	-.1129	-33.13	26.58
EXTM 72	69.67	80.92	14	1	52.3	284.23	-.0000	-36.63	.0010	23660.6	4.81	16.11	.0000	125.94	-.0010	-34.98	44.84
EXTM 51	85.54	96.79	14	2	8.2	335.40	-.0004	-36.30	.0010	24532.7	4.44	66.52	.0000	122.65	-.0026	-34.55	46.82
RISE 61	177.57	188.82	14	3	40.2	310.74	.0030	-37.64	.0007	51670.2	3.33	.00	.0019	143.14	.0015	-31.81	40.23
EXTM 51	253.72	264.97	14	4	56.3	.64	.0035	-30.69	.0004	60779.8	3.11	85.02	.0000	186.31	.0351	-30.22	27.11
EXTM 61	429.23	440.48	14	7	51.9	5.90	.0039	-31.48	.0003	94608.9	2.58	18.08	.0000	185.29	.0035	-27.90	350.19
EXTM 72	454.32	465.57	14	8	16.9	1.19	.0040	-28.96	.0002	94636.0	2.52	68.91	.0000	182.89	.0098	-27.66	344.57
RISE 11	612.16	623.41	14	10	54.8	292.41	.0040	-28.38	.0001	122994.4	1.96	.00	.0027	125.58	.0023	-26.42	308.24
SET 51	644.86	656.11	14	11	27.5	90.00	.0039	-25.11	.0002	126211.2	2.57	10.62	-.0033	247.11	-.0013	-26.21	300.56
SET 61	669.53	680.78	14	11	52.2	63.12	.0040	-28.12	.0002	130633.6	2.43	-.00	-.0022	231.88	.0027	-26.06	294.75
SET 72	838.04	849.29	14	14	40.7	93.69	.0040	-24.84	.0001	151711.9	2.39	-.01	-.0036	244.91	-.0004	-25.18	254.61
RISE 42	849.30	860.55	14	14	51.9	254.99	.0040	-23.68	.0000	152815.2	1.67	2.17	.0029	117.72	-.0022	-25.13	251.91
EXTM 11	892.38	903.63	14	15	35.0	1.67	.0042	-26.98	.0001	155196.1	1.95	27.79	-.0000	181.68	.0042	-24.94	241.55
SET 11	1170.25	1181.50	14	20	12.9	70.63	.0041	-25.17	.0001	188790.5	2.05	-.00	-.0028	238.63	.0024	-23.93	174.15
EXTM 42	1272.61	1283.86	14	21	55.2	359.83	.0042	-23.25	.0000	193160.6	1.68	78.03	.0000	.76	-.0185	-23.63	149.15
RISE 51	1407.86	1419.11	15	0	10.5	270.00	.0041	-22.59	-.0000	211579.0	1.23	9.60	.0035	110.55	-.0016	-23.27	116.01
RISE 72	1565.47	1576.72	15	2	48.1	266.67	.0041	-22.68	-.0000	227503.2	1.12	.00	.0037	112.91	-.0006	-22.91	77.27
RISE 61	1625.33	1636.58	15	3	48.0	292.01	.0041	-23.89	.0000	232973.3	1.21	.00	.0027	122.04	.0027	-22.78	62.54
SET 42	1695.35	1706.60	15	4	58.0	105.00	.0041	-21.70	.0001	239151.1	1.82	.96	-.0030	243.84	-.0023	-22.63	45.28
EXTM 51	1766.54	1777.79	15	6	9.2	359.96	.0042	-22.41	.0000	239247.3	1.45	86.67	.0000	.66	-.0610	-22.50	27.72
EXTM 61	1898.58	1909.83	15	8	21.2	.65	.0042	-23.53	.0000	254062.2	1.41	26.23	-.0000	180.66	.0043	-22.25	355.12
EXTM 72	1937.26	1948.51	15	8	59.9	.12	.0042	-22.54	.0000	254013.6	1.39	75.36	.0000	180.43	.0153	-22.19	345.96
RISE 11	2061.88	2073.13	15	11	4.5	287.28	.0042	-22.83	.0000	270381.9	1.02	.00	.0030	118.35	.0024	-21.98	314.73
SET 51	2125.56	2136.81	15	12	8.2	90.00	.0041	-21.35	.0001	274509.9	1.72	9.10	-.0035	250.60	-.0015	-21.88	2[illegible].97
SET 61	2171.81	2183.06	15	12	54.4	69.24	.0042	-22.73	.0001	279199.1	1.62	-.00	-.0027	239.59	.0027	-21.81	28..52
SET 72	2307.53	2318.78	15	15	10.2	93.12	.0041	-21.43	.0001	289793.2	1.71	-.00	-.0038	248.35	-.0005	-21.62	253.89
RISE 42	2311.47	2322.72	15	15	14.1	255.00	.0041	-20.84	-.0000	290047.6	.94	.43	.0030	115.48	-.0024	-21.61	252.91
EXTM 11	2352.54	2363.79	15	15	55.2	.43	.0042	-22.61	.0000	289864.5	1.27	82.18	-.0000	180.47	.0046	-21.55	242.73
SET 11	2643.16	2654.41	15	20	45.8	73.52	.0042	-21.91	.0000	314741.1	1.53	-.00	-.0030	242.83	.0024	-21.18	170.61
EXTM 42	2729.93	2741.18	15	22	12.6	359.92	.0042	-20.80	.0000	314814.5	1.18	75.58	-.0000	.30	-.0152	-21.08	149.06
RISE 51	2860.46	2871.71	16	0	23.1	270.00	.0041	-20.49	-.0000	329074.2	.76	8.74	.0035	108.60	-.0016	-20.93	116.62
RISE 72	3017.52	3028.77	16	3	.1	267.00	.0042	-20.60	-.0000	340895.3	.68	-.01	.0039	110.81	-.0006	-20.75	77.53
RISE 61	3065.55	3076.80	16	3	48.2	289.40	.0042	-21.43	.0000	344087.5	.80	.00	.0028	118.60	.0027	-20.70	65.53
SET 42	3147.68	3158.93	16	5	10.3	104.86	.0041	-19.96	.0000	349515.2	1.45	-.00	-.0031	245.29	-.0024	-20.60	45.00
EXTM 51	3216.83	3228.08	16	6	19.5	359.97	.0042	-20.43	.0000	347766.1	1.10	84.69	-.0000	.31	-.0364	-20.52	27.71
EXTM 61	3346.08	3357.33	16	8	28.7	.37	.0042	-21.26	.0000	359472.3	1.09	28.50	-.0000	180.39	.0045	-20.38	355.38
EXTM 72	3385.14	3396.39	16	9	7.8	.06	.0042	-20.55	.0000	358873.6	1.09	77.35	.0000	180.28	.0175	-20.34	345.61
RISE 11	3500.31	3511.56	16	11	2.9	285.56	.0042	-20.81	.0000	372570.5	.76	.00	.0031	115.77	.0024	-20.20	316.77
SET 51	3572.77	3584.02	16	12	15.4	90.00	.0042	-19.72	.0000	376436.9	1.52	8.43	-.0036	252.10	-.0016	-20.11	298.61
SET 61	3626.45	3637.70	16	13	9.1	71.35	.0042	-20.70	.0000	381012.9	1.47	-.00	-.0028	242.41	.0027	-20.04	285.14
IMPACT	3738.10	3749.35	16	15	.7												
IMPL 42	3738.10	3749.35	16	15	.7	251.27	.0043	-19.23	.0001	390128.5	1.62	-3.31	.0031	116.40	-.0026	-19.82	256.94
IMPC 72	3738.10	3749.35	16	15	.7	89.72	.0043	-19.70	.0001	389435.6	2.41	2.92	-.0040	250.50	-.0004	-19.82	256.94
IMPC 11	3738.10	3749.35	16	15	.7	346.02	.0044	-20.59	.0001	386337.9	1.87	32.65	.0010	164.41	.0047	-19.82	256.94

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	14	0	42.622	6545.650	15.4689	303.4754	10.98853	-.6984	121.9183	67.1723
SEPARATION	1.20	12.45	14	0	43.822	6559.644	11.7397	309.1622	10.97662	2.7271	123.3286	73.1599
RETRO	3.20	14.45	14	0	45.822	6686.355	5.3932	318.1364	10.87120	8.3338	124.7454	82.6354
EXIT SHA	14.79	26.04	14	0	57.411	9234.692	-21.4254	356.8758	9.23480	32.5046	118.5039	124.2800
IMPACT	3738.10	3749.35	16	15	.720	389812.543	-19.8192	256.9393	2.18531	64.0092	301.4295	237.7186

SURVEYOR VIEW PERIODS

GHA	115.9690					EPS	134.9072							LOM	275.3877		
SX	-.309631	SY	-.867043	SZ	-.390340	DAO	-22.97566	RAO	250.34779	RM	394769.793	LAT	28.310600	LON	279.461800		
C3	-.949890	ECC	.984404	SLR	12987.263	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0		
NSX	-.290074	NSY	-.871849	NSZ	-.394636	C3M	1.5512	VIM	2.6815	ZAE	140.121	B.T	.0000	B.P	-.0000		
LATE	1.0657	LONE	5.8829	LATS	-1.2864	LONS	231.0943	LATI	-7.4188	LONI	326.8178	RSM	146.9041	TT	5.7778		
LAUNCH DATE	JAN 15,1966			BASE AZM	93.0		TF 61.916					ARRIVAL DATE	JAN 17 1966 14 33 34.4				

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
93.00	0 26 21.2	27.4	23.64	306.71	-12.38	70.13	106.29	0 37 36.2	6621.0	10.93	-6.14

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DCE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	15	0	37.6												
SEPARATION	1.20	12.45	15	0	38.8												
RETRO	3.20	14.45	15	0	40.8												
RISE 72	6.04	17.29	15	0	43.6	70.21	-.4328	67.72	.1138	2319.5	-6.50	-.01	.1117	339.10	.1655	10.78	338.54
EXTM 72	10.94	22.19	15	0	48.5	305.11	-.0861	22.56	-.1865	2215.8	5.70	28.25	-.0000	59.05	.2302	-.20	358.26
RISE 51	11.62	22.87	15	0	49.2	70.96	-.1234	34.08	-.0300	4566.0	-4.45	-.00	.1027	308.47	.0281	-1.53	.55
EXIT SHA	17.52	28.77	15	0	55.1												
EXIT 72	17.52	28.77	15	0	55.1	289.15	-.0216	-9.90	-.0328	5162.5	7.87	20.10	-.0184	97.70	.0367	-10.72	16.70
EXIT 51	17.52	28.77	15	0	55.1	27.53	-.1058	14.65	-.0684	3970.0	1.26	41.53	.1138	323.32	.0628	-10.72	16.70
EXTM 51	27.01	38.26	15	1	4.6	349.64	-.0380	-11.79	-.0247	6279.2	5.51	72.97	-.0000	36.94	.1523	-18.89	33.04
EXTM 72	67.20	78.45	15	1	44.8	273.24	-.0001	-26.79	-.0009	23407.9	4.93	6.43	.0000	116.25	.0009	-27.27	55.90
RISE 42	72.91	84.16	15	1	50.5	104.49	-.0042	-19.52	-.0024	25781.1	4.28	00	.0046	245.86	.0005	-27.56	56.85
EXTM 51	82.72	93.97	15	2	.3	321.91	-.0001	-27.39	-.0006	23746.1	4.53	56.02	.0000	101.45	.0012	-27.92	57.90
EXTM 42	125.44	136.69	15	2	43.0	100.01	.0004	-23.30	-.0005	38924.2	4.02	5.60	-.0000	245.34	-.0006	-28.43	57.34
SET 42	185.54	196.79	15	3	43.1	105.00	.0021	-24.24	-.0001	52762.8	3.67	2.52	-.0014	241.84	-.0012	-28.31	50.12
RISE 61	202.74	213.99	15	4	.3	303.74	.0032	-33.28	.0003	56609.5	3.19	.00	.0019	135.96	.0019	-28.23	47.39
EXTM 51	308.23	319.48	15	5	45.8	.07	.0037	-27.88	.0001	70432.3	2.92	87.86	.0000	181.74	.0841	-27.70	27.62
EXTM 61	469.61	480.86	15	8	27.2	3.16	.0040	-30.34	.0002	100653.6	2.52	19.36	.0000	182.89	.0036	-27.00	352.75
EXTM 72	503.18	514.43	15	9	.8	.54	.0041	-28.04	.0001	101922.7	2.45	69.86	-.0000	181.39	.0104	-26.88	345.17
RISE 11	661.60	672.85	15	11	39.2	292.26	.0040	-28.23	.0000	129839.3	1.91	.00	.0027	125.38	.0023	-26.37	308.51
SET 51	696.04	707.29	15	12	13.6	90.00	.0039	-25.24	.0001	133188.2	2.52	10.67	-.0033	246.99	-.0013	-26.28	300.41
SET 61	720.19	731.44	15	12	37.8	63.05	.0040	-28.17	.0001	137484.2	2.39	-.00	-.0023	231.79	.0027	-26.22	294.71
SET 72	889.31	900.56	15	15	26.9	93.80	.0040	-25.49	.0001	158299.4	2.36	-.01	-.0035	244.25	-.0004	-25.82	254.40
RISE 42	899.40	910.65	15	15	37.0	254.99	.0040	-24.41	-.0000	159197.6	1.64	2.62	.0029	118.30	-.0022	-25.80	251.98
EXTM 11	940.10	951.35	15	16	17.7	.99	.0042	-27.69	.0001	161361.0	1.93	27.09	-.0000	180.99	.0041	-25.72	242.19
SET 11	1216.13	1227.38	15	20	53.7	69.45	.0041	-26.45	.0001	194486.2	2.04	-.00	-.0027	236.96	.0024	-25.24	175.
EXTM 42	1323.67	1334.92	15	22	41.3	359.93	.0042	-24.76	.0000	199319.1	1.67	79.54	-.0000	.35	-.0200	-25.08	149.
RISE 51	1458.54	1469.79	16	0	56.1	270.00	.0041	-24.25	-.0000	217636.7	1.23	10.27	.0034	112.08	-.0015	-24.90	116.03
RISE 72	1615.06	1626.31	16	3	32.7	266.37	.0041	-24.48	-.0000	233544.4	1.13	-.01	.0037	114.73	-.0005	-24.71	77.60
RISE 61	1684.50	1695.75	16	4	42.1	294.06	.0041	-25.73	-.0000	239897.7	1.22	.00	.0026	124.66	.0027	-24.63	60.52
SET 42	1746.44	1757.69	16	5	44.0	105.00	.0041	-23.66	.0000	245228.5	1.82	2.16	-.0030	242.30	-.0023	-24.57	45.27
EXTM 51	1813.92	1825.17	16	6	51.5	359.02	.0042	-24.45	.0000	245148.2	1.45	88.45	.0022	35.05	-.1168	-24.50	28.64
EXTM 61	1948.86	1960.11	16	9	6.5	.41	.0042	-25.63	.0000	260501.5	1.42	24.13	-.0000	180.41	.0041	-24.37	355.35
EXTM 72	1988.35	1999.60	16	9	46.0	.08	.0042	-24.73	.0000	260396.9	1.40	73.18	.0000	180.25	.0129	-24.33	345.60
RISE 11	2121.13	2132.38	16	11	58.7	289.26	.0042	-25.05	-.0000	277448.7	1.04	.00	.0029	121.22	.0024	-24.21	312.78
SET 51	2176.99	2188.24	16	12	54.6	90.00	.0041	-23.66	.0000	280878.7	1.72	10.03	-.0035	248.47	-.0015	-24.17	298.96
SET 61	2213.07	2224.32	16	13	30.7	66.70	.0042	-25.05	.0000	284891.1	1.63	-.00	-.0026	236.31	.0027	-24.14	290.03
SET 72	2360.69	2371.94	16	15	58.3	93.52	.0041	-23.84	.0000	296544.5	1.71	-.00	-.0037	245.92	-.0005	-24.02	253.49
RISE 42	2362.98	2374.23	16	16	.6	255.00	.0041	-23.27	-.0000	296508.4	.96	1.92	.0030	117.39	-.0023	-24.02	252.92
EXTM 11	03.51	2414.76	16	16	41.1	.28	.0042	-25.04	.0000	296714.9	1.28	29.75	-.0000	180.29	.0044	-23.99	242.88
SET 11	2685.76	2697.01	16	21	23.4	71.23	.0042	-24.51	.0000	321040.8	1.54	-.00	-.0029	239.48	.0024	-23.79	172.88
EXTM 42	2781.90	2793.15	16	22	59.5	359.96	.0042	-23.50	.0000	321825.4	1.20	78.28	.0000	.19	-.0171	-23.73	149.02
RISE 51	2912.35	2923.60	17	1	10.0	270.00	.0041	-23.22	-.0000	336176.1	.79	9.86	.0035	111.13	-.0015	-23.64	116.62
RISE 72	3067.44	3078.69	17	3	45.0	266.55	.0042	-23.39	-.0000	348139.6	.71	-.00	.0038	113.62	-.0006	-23.54	77.99
RISE 61	3129.20	3140.45	17	4	46.8	292.39	.0042	-24.23	-.0000	352322.3	.83	.00	.0027	122.53	.0027	-23.50	62.56
SET 42	3200.09	3211.34	17	5	57.7	105.00	.0041	-22.83	.0000	356918.2	1.46	1.65	-.0030	242.95	-.0023	-23.45	44.86
EXTM 51	3268.82	3280.07	17	7	6.4	360.00	.0042	-23.36	.0000	355404.1	1.12	87.62	-.0000	.37	-.0165	-23.41	27.69
EXTM 61	3397.60	3408.85	17	9	15.2	.26	.0042	-24.21	.0000	367614.5	1.12	25.55	-.0000	180.26	.0043	-23.32	355.50
EXTM 72	3437.09	3448.34	17	9	54.7	.05	.0042	-23.56	.0000	366915.1	1.13	74.35	.0000	180.18	.0137	-23.29	345.62
RISE 11	3562.57	3573.82	17	12	.2	288.14	.0042	-23.81	-.0000	381555.6	.83	.00	.0030	119.60	.0024	-23.20	314.20
SET 51	3624.72	3635.97	17	13	2.3	90.00	.0042	-22.77	.0000	384890.6	1.61	9.68	-.0035	249.29	-.0016	-23.15	298.61
SET 61	3665.50	3676.75	17	13	43.1	68.12	.0042	-23.77	.0000	389026.8	1.61	-.00	-.0027	238.13	.0028	-23.11	288.35
IMPACT	3714.95	3726.20	17	14	32.6												
IMPC 72	3714.95	3726.20	17	14	32.6	70.81	.0043	-23.03	.0001	391226.7	2.45	20.70	-.0040	248.30	.0001	-23.02	275.81
IMPC 11	3714.95	3726.20	17	14	32.6	326.89	.0044	-23.77	.0000	390972.5	1.84	23.20	.0020	147.05	.0038	-23.02	275.81

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	15	0	37.603	6623.402	23.6694	306.6108	10.92969	-6.1401	106.2458	70.0351
SEPARATION	1.20	12.45	15	0	38.803	6559.860	21.5672	313.4676	10.98080	-2.7479	109.0048	77.1927
RETRO	3.20	14.45	15	0	40.803	6562.413	17.4381	324.3864	10.97865	2.9695	112.8311	88.6128
EXIT SHA	17.52	28.77	15	0	55.128	9485.157	-10.7227	16.7015	9.11580	33.6822	116.5018	144.5193
IMPACT	3714.95	3726.20	17	14	32.555	393526.512	-23.0243	275.8082	2.21729	67.0777	293.0063	250.5125

SURVEYOR VIEW PERICCS

GHA	115.9690					EPS	135.0525							LOM	270.9537
SX	-.306998	SY	-.867725	SZ	-.390903	DAO	-23.01068	RAO	250.51637	RM	394815.406	LAT	28.310600	LON	279.461800
C3	-.946492	ECC	.984460	SLR	12987.628	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.287462	NSY	-.872471	NSZ	-.395172	C3M	1.5564	VIM	2.6825	ZAE	140.128	B.T	.0000	B.R	-.0000
LATE	1.0839	LONE	5.8729	LATS	-1.2867	LONS	230.9390	LATI	-7.4764	LONI	326.8306	RSM	146.9035	TTAN	5.7888
LAUNCH DATE	JAN 15,1966			BASE AZM	96.0		TF 61.878					ARRIVAL DATE	JAN 17 1966 14 51 56.0		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
96.00	0 44 33.4	27.6	22.44	306.57	-8.28	74.56	108.51	0 55 48.4	6578.7	10.97	-4.11

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW															
INJECTION		.00	11.25	15	0	55.8												
SEPARATION		1.20	12.45	15	0	57.0												
RETRO		3.20	14.45	15	0	59.0												
RISE	72	5.55	16.80	15	1	1.4	76.73	-.2887	58.83	.0883	2403.1	-7.35	-.00	.1206	329.75	.1248	9.96	335.28
EXTM	72	10.47	21.72	15	1	6.3	317.45	-.1335	22.02	-.2067	1939.4	5.16	38.67	.0000	53.42	.3086	-1.11	354.71
RISE	51	11.38	22.63	15	1	7.2	73.96	-.1114	29.82	-.0339	4768.7	-4.21	-.00	.1006	303.51	.0191	-2.86	357.68
EXIT	SHA	16.74	27.99	15	1	12.5												
EXIT	72	16.74	27.99	15	1	12.5	295.80	-.0275	-11.69	-.0341	4691.0	7.87	26.75	-.0251	99.16	.0397	-11.13	12.11
EXIT	51	16.74	27.99	15	1	12.5	37.89	-.1028	13.04	-.0631	4168.5	.63	36.48	.1147	311.92	.0364	-11.13	12.11
EXTM	51	28.39	39.64	15	1	24.2	353.43	-.0341	-15.68	-.0192	6897.9	5.48	78.22	-.0000	32.68	.1865	-20.54	31.21
EXTM	72	67.72	78.97	15	2	3.5	277.57	-.0000	-27.85	-.0007	23361.2	4.89	10.35	.0000	117.01	.0008	-27.78	51.85
EXTM	51	84.84	96.09	15	2	20.6	327.06	-.0000	-28.27	-.0005	24296.8	4.48	60.63	.0000	102.44	.0010	-28.40	53.83
RISE	42	93.73	104.98	15	2	29.5	105.00	-.0016	-21.92	-.0012	31603.3	4.21	1.10	.0019	243.67	-.0001	-28.57	54.17
EXTM	42	125.22	136.47	15	3	1.0	104.14	.0004	-23.45	-.0005	39370.8	4.01	2.66	-.0000	242.94	-.0006	-28.78	53.08
SET	42	143.33	154.58	15	3	19.1	105.00	.0011	-23.89	-.0003	43667.7	3.90	2.31	-.0006	242.11	-.0009	-28.77	51.41
RISE	61	184.43	195.68	15	4	.2	304.88	.0030	-34.05	.0003	52962.3	3.31	-.00	.0018	137.18	.0018	-28.61	45.98
EXTM	51	286.82	298.07	15	5	42.6	.09	.0036	-28.26	.0001	66765.2	3.00	87.48	.0000	181.85	.0718	-28.04	27.60
EXTM	61	451.82	463.07	15	8	27.6	3.54	.0039	-30.69	.0002	98108.3	2.55	19.00	-.0000	183.22	.0036	-27.25	352.40
EXTM	72	484.01	495.26	15	8	59.8	.54	.0040	-28.34	.0001	99216.7	2.48	69.56	.0000	181.36	.0102	-27.12	345.17
RISE	11	644.22	655.47	15	11	40.0	292.50	.0040	-28.47	.0000	127635.3	1.94	.00	.0027	125.69	.0023	-26.58	308.24
SET	51	677.33	688.58	15	12	13.1	90.00	.0039	-25.42	.0001	130847.1	2.54	10.74	-.0032	246.82	-.0013	-26.48	300.47
SET	61	700.38	711.63	15	12	36.2	62.76	.0040	-28.41	.0001	135040.1	2.42	-.00	-.0023	231.44	.0027	-26.41	295.04
SET	72	871.10	882.35	15	15	26.9	93.83	.0039	-25.65	.0001	156249.4	2.38	-.01	-.0035	244.08	-.0004	-25.99	254.41
RISE	42	881.36	892.61	15	15	37.2	254.99	.0040	-24.56	-.0000	157167.8	1.66	2.71	.0029	118.42	-.0022	-25.96	251.95
EXTM	11	922.21	933.46	15	16	18.0	1.05	.0042	-27.88	.0001	159413.8	1.94	26.90	-.0000	181.04	.0041	-25.88	242.14
SET	11	1197.60	1208.85	15	20	53.4	69.31	.0041	-26.60	.0001	192664.2	2.05	-.00	-.0027	236.77	.0024	-25.37	175.44
EXTM	42	1305.80	1317.05	15	22	41.6	359.93	.0042	-24.88	.0000	197632.0	1.68	79.66	-.0000	.36	-.0206	-25.20	149.05
RISE	51	1440.77	1452.02	16	0	56.6	270.00	.0041	-24.35	-.0000	216033.5	1.24	10.31	.0034	112.18	-.0015	-25.01	116.02
RISE	72	1597.26	1608.51	16	3	33.1	266.35	.0041	-24.58	-.0000	232021.7	1.14	-.01	.0037	114.84	-.0005	-24.81	77.60
RISE	61	1667.25	1678.50	16	4	43.1	294.19	.0041	-25.83	-.0000	238457.6	1.23	.00	.0026	124.81	.0027	-24.73	60.39
SET	42	1728.64	1739.89	16	5	44.4	105.00	.0041	-23.75	.0000	243760.5	1.82	2.22	-.0030	242.22	-.0023	-24.66	45.28
EXTM	51	1796.59	1807.84	16	6	52.4	359.12	.0042	-24.56	.0000	243756.1	1.46	88.58	.0021	34.06	-.1289	-24.59	28.54
EXTM	61	1931.20	1942.45	16	9	7.0	.43	.0042	-25.73	.0000	259144.3	1.42	24.04	-.0000	180.42	.0041	-24.45	355.33
EXTM	72	1970.64	1981.89	16	9	46.4	.08	.0042	-24.82	.0000	259044.9	1.41	73.09	.0000	180.26	.0129	-24.41	345.59
RISE	11	2103.76	2115.01	16	11	59.6	289.34	.0042	-25.14	-.0000	276169.9	1.05	.00	.0029	121.33	.0024	-24.29	312.70
SET	51	2159.26	2170.51	16	12	55.1	90.00	.0041	-23.73	.0000	279587.6	1.73	10.06	-.0035	248.40	-.0015	-24.24	298.97
SET	61	2194.99	2206.24	16	13	30.8	66.61	.0042	-25.13	.0000	283587.2	1.63	-.00	-.0026	236.19	.0027	-24.21	290.13
SET	72	2343.02	2354.27	16	15	58.8	93.53	.0041	-23.91	.0000	295323.6	1.72	-.00	-.0037	245.85	-.0005	-24.09	253.48
RISE	42	2345.31	2356.56	16	16	1.1	255.00	.0041	-23.34	-.0000	295283.7	.97	1.96	.0030	117.45	-.0023	-24.09	252.91
EXTM	11	2385.86	2397.11	16	16	41.7	.29	.0042	-25.12	.0000	295516.7	1.29	29.67	-.0000	180.30	.0044	-24.06	242.87
SET	11	2667.85	2679.10	16	21	23.7	71.17	.0042	-24.58	.0000	319900.9	1.54	-.00	-.0029	239.40	.0024	-23.85	172.94
EXTM	42	2764.24	2775.49	16	23	.0	359.96	.0042	-23.56	.0000	320729.9	1.20	78.34	.0000	.20	-.0169	-23.79	149.02
RISE	51	2894.71	2905.96	17	1	10.5	270.00	.0041	-23.27	-.0000	335117.0	.79	9.88	.0035	111.18	-.0015	-23.70	116.62
RISE	72	3049.76	3061.01	17	3	45.6	266.54	.0042	-23.44	-.0000	347116.0	.72	-.00	.0038	113.68	-.0006	-23.59	77.99
RISE	61	3111.79	3123.04	17	4	47.6	292.45	.0042	-24.29	-.0000	351323.3	.83	.00	.0027	122.60	.0027	-23.55	62.50
SET	42	3182.43	3193.68	17	5	58.2	105.00	.0041	-22.87	.0000	355905.8	1.46	1.68	-.0030	242.92	-.0023	-23.50	44.86
EXTM	51	3251.17	3262.42	17	7	7.0	360.00	.0042	-23.41	.0000	354401.2	1.12	87.67	-.0000	.46	-.0105	-23.45	27.69
EXTM	61	3379.97	3391.22	17	9	15.8	.26	.0042	-24.26	.0000	366621.7	1.12	25.90	-.0000	180.26	.0043	-23.37	355.49
EXTM	72	3419.45	3430.70	17	9	55.3	.05	.0042	-23.60	.0000	365916.6	1.12	74.30	.0000	180.19	.0134	-23.34	345.62
RISE	11	3545.13	3556.38	17	12	.9	288.18	.0042	-23.85	-.0000	380542.6	.82	.00	.0030	119.67	.0024	-23.25	314.16
SET	51	3607.12	3618.37	17	13	2.9	90.00	.0042	-22.82	.0000	383819.8	1.59	9.69	-.0035	249.25	-.0016	-23.19	298.62
SET	61	3647.72	3658.97	17	13	43.5	68.06	.0042	-23.82	.0000	387873.3	1.57	-.00	-.0027	238.06	.0028	-23.15	288.41
IMPACT		3712.69	3723.94	17	14	48.5												
IMPC	72	3712.69	3723.94	17	14	48.5	74.68	.0043	-23.04	.0001	391639.8	2.46	17.14	-.0040	248.25	-.0003	-23.05	271.96
IMPC	11	3712.69	3723.94	17	14	48.5	330.79	.0044	-23.81	.0000	390849.8	1.86	24.82	.0018	150.54	.0039	-23.05	271.96

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	15	0	55.806	6579.180	22.4493	306.5452	10.96521	-4.1085	108.5019	74.5327
SEPARATION		1.20	12.45	15	0	57.006	6545.615	20.1041	313.2363	10.99299	-.6898	111.0429	81.5246
RETRO		3.20	14.45	15	0	59.006	6595.447	15.6428	323.8711	10.95106	5.0143	114.4732	92.6608
EXIT	SHA	16.74	27.99	15	1	12.549	9466.896	-11.1330	12.1085	9.12488	33.6007	116.7149	144.2933
IMPACT		3712.69	3723.94	17	14	48.497	393566.574	-23.0548	271.9583	2.21764	67.0375	293.1085	250.6590

SURVEYOR VIEW PERIODS

GHA	115.9690					EPS	135.2281							LOM	265.5911
SX	-.303813	SY	-.868541	SZ	-.391579	DAO	-23.05278	RAO	250.72034	RM	394870.465	LAT	28.310600	LON	279.461800
C3	-.950957	ECC	.984386	SLR	12987.151	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.284217	NSY	-.873233	NSZ	-.395835	C3M	1.5554	VIM	2.6823	ZAE	139.996	B.T	.0000	B.R	-.0000
LATE	1.1060	LONE	5.8614	LATS	-1.2870	LONS	230.7517	LATI	-7.6035	LONI	326.7130	RSM	146.9028	YTAN	5.7947
LAUNCH DATE	JAN 15,1966			BASE AZM	99.0		TF 61.961					ARRIVAL DATE	JAN 17 1966 15 14 8.3		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99.00	1 0 17.4	27.8	21.26	306.32	-4.80	78.25	110.69	1 11 32.4	6556.1	10.98	-2.38

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	CDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW															
INJECTION		.00	11.25	15	1	11.5												
SEPARATION		1.20	12.45	15	1	12.7												
RETRO		3.20	14.45	15	1	14.7												
RISE	72	5.19	16.44	15	1	16.7	80.04	-.2276	51.25	.0586	2492.8	-7.85	-.00	.1261	321.94	.0885	8.96	332.54
EXTM	72	9.85	21.10	15	1	21.4	334.00	-.2113	22.86	-.2307	1672.0	3.96	50.08	.0381	39.01	.4666	-1.69	350.68
RISE	51	11.22	22.47	15	1	22.8	76.51	-.1018	25.82	-.0374	4955.0	-3.96	.00	.0983	298.92	.0115	-4.34	355.09
EXIT	SHA	16.03	27.28	15	1	27.6												
EXIT	72	16.03	27.28	15	1	27.6	302.66	-.0355	-14.14	-.0347	4271.8	7.85	33.50	-.0343	101.76	.0417	-11.75	7.85
EXIT	51	16.03	27.28	15	1	27.6	46.77	-.0982	11.15	-.0592	4383.9	.12	31.42	.1119	303.10	.0187	-11.75	7.85
EXTM	51	29.96	41.21	15	1	41.5	356.41	-.0306	-19.47	-.0149	7563.4	5.45	82.91	-.0000	28.60	.2632	-22.35	29.67
EXTM	72	68.26	79.51	15	2	19.8	281.37	-.0000	-29.11	-.0005	23344.6	4.86	13.74	.0000	118.14	.0006	-28.52	48.33
EXTM	51	86.74	97.99	15	2	38.3	331.53	.0000	-29.32	-.0003	24802.4	4.44	64.57	.0000	104.59	.0007	-29.08	50.29
RISE	61	170.35	181.60	15	4	1.9	306.29	.0029	-34.97	.0004	50079.9	3.41	-.00	.0018	138.66	.0016	-29.15	44.36
EXTM	51	268.25	279.50	15	5	39.8	.14	.0036	-28.80	.0001	63492.1	3.07	86.93	.0000	182.31	.0578	-28.53	27.56
EXTM	61	436.32	447.57	15	8	27.9	3.81	.0039	-31.14	.0002	95848.3	2.58	18.53	.0000	183.43	.0035	-27.61	352.16
EXTM	72	468.09	479.34	15	8	59.6	.66	.0040	-28.74	.0001	96922.9	2.51	69.16	-.0000	181.63	.0099	-27.47	345.00
RISE	11	629.89	641.14	15	11	41.4	292.82	.0040	-28.79	.0000	125767.9	1.96	.00	.0027	126.12	.0023	-26.86	307.89
SET	51	661.35	672.60	15	12	12.9	90.00	.0039	-25.69	.0001	128782.4	2.56	10.85	-.0032	246.57	-.0013	-26.76	300.52
SET	61	682.85	694.10	15	12	34.4	62.36	.0040	-28.73	.0001	132809.4	2.43	-.00	-.0022	230.97	.0027	-26.69	295.47
SET	72	855.63	866.88	15	15	27.2	93.87	.0039	-25.88	.0001	154438.7	2.39	-.00	-.0035	243.85	-.0004	-26.22	254.41
RISE	42	866.00	877.25	15	15	37.5	254.99	.0040	-24.78	-.0000	155363.4	1.67	2.84	.0029	118.59	-.0022	-26.20	251.92
EXTM	11	907.05	918.30	15	16	18.6	1.12	.0042	-28.13	.0001	157702.3	1.95	26.65	-.0000	181.10	.0041	-26.10	242.07
SET	11	1181.50	1192.75	15	20	53.0	69.12	.0041	-26.80	.0001	190984.7	2.06	-.00	-.0027	236.51	.0024	-25.55	175.64
EXTM	42	1290.56	1301.81	15	22	42.1	359.93	.0042	-25.05	.0000	196088.7	1.69	79.83	-.0000	.39	-.0207	-25.37	149.05
RISE	51	1425.64	1436.89	16	0	57.2	270.00	.0041	-24.51	-.0000	214548.5	1.25	10.37	.0034	112.33	-.0015	-25.17	116.00
RISE	72	1582.06	1593.31	16	3	33.6	266.33	.0041	-24.73	-.0000	230588.5	1.14	-.01	.0037	114.98	-.0005	-24.96	77.62
RISE	61	1652.81	1664.06	16	4	44.4	294.35	.0041	-25.98	-.0000	237114.8	1.24	.00	.0026	125.02	.0027	-24.87	60.22
SET	42	1713.47	1724.72	16	5	45.0	105.00	.0041	-23.88	.0000	242358.8	1.83	2.30	-.0030	242.12	-.0022	-24.80	45.29
EXTM	51	1782.20	1793.45	16	6	53.7	359.31	.0042	-24.69	.0000	242450.0	1.47	88.78	.0019	30.89	-.1552	-24.72	28.36
EXTM	61	1916.18	1927.43	16	9	7.7	.45	.0042	-25.85	.0000	257826.5	1.43	23.91	-.0000	180.44	.0041	-24.57	355.31
EXTM	72	1955.56	1966.81	16	9	47.1	.09	.0042	-24.94	.0000	257721.4	1.41	72.97	.0000	180.27	.0128	-24.53	345.59
RISE	11	2089.11	2100.36	16	12	.7	289.44	.0042	-25.25	-.0000	274904.6	1.05	.00	.0029	121.47	.0024	-24.40	312.59
SET	51	2144.15	2155.40	16	12	55.7	90.00	.0041	-23.84	.0000	278289.2	1.73	10.11	-.0035	248.30	-.0015	-24.35	298.98
SET	61	2179.38	2190.63	16	13	30.9	66.48	.0042	-25.24	.0000	282259.9	1.63	-.00	-.0026	236.03	.0027	-24.32	290.26
SET	72	2327.99	2339.24	16	15	59.5	93.55	.0041	-24.01	.0000	294066.0	1.72	-.00	-.0037	245.75	-.0005	-24.19	253.47
RISE	42	2330.26	2341.51	16	16	1.8	255.00	.0041	-23.43	-.0000	294019.0	.97	2.02	.0030	117.52	-.0023	-24.19	252.91
EXTM	11	2370.85	2382.10	16	16	42.4	.30	.0042	-25.22	.0000	294277.1	1.29	29.57	-.0000	180.32	.0044	-24.15	242.85
SET	11	2652.46	2663.71	16	21	24.0	71.09	.0042	-24.66	.0000	318660.2	1.55	-.00	-.0029	239.29	.0024	-23.93	173.03
EXTM	42	2749.17	2760.42	16	23	.7	359.96	.0042	-23.64	.0000	319522.4	1.20	76.42	.0000	.21	-.0175	-23.87	149.02
RISE	51	2879.67	2890.92	17	1	11.2	270.00	.0041	-23.34	-.0000	333922.9	.79	9.91	.0035	111.25	-.0015	-23.78	116.61
RISE	72	3034.81	3046.06	17	3	46.4	266.53	.0042	-23.51	-.0000	345963.9	.72	-.00	.0038	113.75	-.0006	-23.66	78.00
RISE	61	3097.19	3108.44	17	4	48.7	292.53	.0042	-24.36	-.0000	350189.7	.83	.00	.0027	122.70	.0027	-23.62	62.42
SET	42	3167.48	3178.73	17	5	59.0	105.00	.0041	-22.94	.0000	354736.5	1.46	1.72	-.0030	242.86	-.0023	-23.57	44.86
EXTM	51	3236.20	3247.45	17	7	7.7	359.99	.0042	-23.48	.0000	353225.9	1.12	87.74	.0000	.42	-.0547	-23.52	27.70
EXTM	61	3365.05	3376.30	17	9	16.6	.27	.0042	-24.32	.0000	365432.3	1.12	25.44	-.0000	180.27	.0043	-23.43	355.49
EXTM	72	3404.50	3415.75	17	9	56.0	.05	.0042	-23.67	.0000	364710.4	1.12	74.24	.0000	180.19	.0133	-23.40	345.62
RISE	11	3530.41	3541.66	17	12	2.0	288.24	.0042	-23.92	-.0000	379293.2	.81	.00	.0030	119.75	.0024	-23.31	314.10
SET	51	3592.18	3603.43	17	13	3.7	90.00	.0042	-22.88	.0000	382492.1	1.56	9.72	-.0035	249.19	-.0016	-23.25	298.62
SET	61	3632.54	3643.79	17	13	44.1	67.99	.0042	-23.89	.0000	386454.8	1.52	-.00	-.0027	237.97	.0027	-23.22	288.49
IMPACT		3717.66	3728.91	17	15	9.2												
IMPC	72	3717.66	3728.91	17	15	9.2	79.69	.0043	-23.04	.0001	392190.1	2.46	12.53	-.0040	248.04	-.0002	-23.09	266.96
IMPC	11	3717.66	3728.91	17	15	9.2	335.85	.0044	-23.86	.0000	390723.1	1.88	26.65	.0015	155.26	.0041	-23.09	266.96

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	15	1	11.540	6556.132	21.2588	306.3175	10.98401	-2.3814	110.6920	78.2491
SEPARATION		1.20	12.45	15	1	12.740	6546.881	18.6779	312.8523	10.99172	1.0499	113.0295	85.0848
RETRO		3.20	14.45	15	1	14.740	6636.160	13.9162	323.1746	10.91694	6.7165	116.0778	95.9085
EXIT	SHA	16.03	27.28	15	1	27.569	9434.434	-11.7471	7.8524	9.14050	33.4531	117.0657	143.8028
IMPACT		3717.66	3728.91	17	15	9.195	393622.750	-23.0943	266.9604	2.21436	66.7502	293.1408	250.8499

SURVEYOR VIEW PERIODS

GHA	115.9690					EPS	135.3722							LOM	261.1916
SX	-.301197	SY	-.869203	SZ	-.392130	DAO	-23.08712	RAO	250.88773	RM	394915.535	LAT	28.310600	LON	279.461800
C3	-.954921	ECC	.984321	SLR	12986.721	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.281551	NSY	-.873849	NSZ	-.396379	C3M	1.5564	VIM	2.6825	ZAE	139.841	B.T	.0000	B.R	-.0000
LATE	1.1240	LONE	5.8509	LATS	-1.2872	LONS	230.5970	LATI	-7.7803	LONI	326.5824	RSM	146.9022	TTAN	5.7982
LAUNCH DATE		JAN	15,1966		BASE AZM	102.0		TF	62.034			ARRIVAL DATE		JAN 17 1966 15 32 21.3	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	1 13 19.5	27.9	20.10	305.97	-1.96	81.17	112.84	1 24 34.5	6546.6	10.99	-.97

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	CDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
				PROBE	IN	EARTH'S	SHADOW											
INJECTION		.00	11.25	15	1	24.6												
SEPARATION		1.20	12.45	15	1	25.8												
RETRO		3.20	14.45	15	1	27.8												
RISE	72	4.92	16.17	15	1	29.5	82.11	-.1939	44.69	.0306	2578.1	-8.11	.00	.1293	315.23	.0567	7.82	330.22
EXTN	72	10.03	21.28	15	1	34.6	341.65	-.2155	11.85	-.2008	1664.8	4.43	63.11	.0000	42.94	.6438	-3.89	349.40
RISE	51	11.12	22.37	15	1	35.7	78.75	-.0941	22.03	-.0407	5120.0	-3.72	.00	.0961	294.61	.0049	-5.95	352.77
EXIT	SHA	15.41	26.66	15	1	40.0												
EXIT	72	15.41	26.66	15	1	40.0	309.58	-.0458	-17.36	-.0340	3923.0	7.80	40.05	-.0461	106.08	.0400	-12.59	4.01
EXIT	51	15.41	26.66	15	1	40.0	54.20	-.0931	9.02	-.0569	4595.7	-.27	26.89	.1079	296.08	.0069	-12.59	4.01
EXTN	51	31.62	42.87	15	1	56.2	358.70	-.0277	-23.13	-.0114	8242.7	5.42	87.14	.0000	24.66	.5585	-24.27	28.42
EXTN	72	69.10	80.35	15	2	33.7	284.96	.0000	-30.53	-.0003	23454.5	4.83	16.52	.0000	119.59	.0003	-29.48	45.43
RISE	61	160.77	172.02	15	4	9.3	307.90	.0028	-35.97	.000	48091.7	3.48	-.00	.0017	140.31	.0015	-29.84	42.62
EXTN	51	252.81	264.06	15	5	37.4	.23	.0035	-29.49	.0002	60714.4	3.13	86.25	-.0000	183.02	.0462	-29.13	27.48
EXTN	61	424.30	435.55	15	8	28.9	4.20	.0039	-31.66	.0002	94097.6	2.61	18.00	.0000	183.76	.0035	-28.05	351.79
EXTN	72	494.91	466.16	15	8	59.5	.74	.0040	-29.21	.0001	95006.3	2.54	68.68	-.0000	181.78	.0096	-27.90	344.98
RISE	11	618.59	629.84	15	11	43.2	293.19	.0040	-29.16	.0000	124284.8	1.97	.00	.0026	126.61	.0023	-27.20	307.48
SET	51	648.18	659.43	15	12	12.8	90.00	.0039	-26.02	.0001	127061.7	2.57	10.98	-.0032	246.27	-.0013	-27.10	300.56
SET	61	667.80	679.05	15	12	32.4	61.90	.0040	-29.11	.0002	130875.0	2.45	-.00	-.0022	230.42	.0027	-27.03	295.96
SET	72	842.94	854.19	15	15	27.5	93.91	.0039	-26.16	.0001	152943.6	2.40	-.00	-.0035	243.57	-.0004	-26.50	254.39
RISE	42	853.36	864.61	15	15	37.9	254.99	.0040	-25.04	-.0000	153863.2	1.68	3.01	.0029	118.80	-.0022	-26.47	251.90
EXTN	11	894.68	905.93	15	16	19.3	1.20	.0042	-28.42	.0001	156304.5	1.96	26.36	-.0000	181.18	.0041	-26.37	241.99
SET	11	1167.97	1179.22	15	20	52.5	68.91	.0041	-27.02	.0001	189564.4	2.06	-.00	-.0027	236.21	.0024	-25.77	175.87
EXTN	42	1277.99	1289.24	15	22	42.6	359.92	.0042	-25.25	.0000	194807.0	1.70	80.04	-.0000	.41	-.0214	-25.57	149.05
RISE	51	1413.16	1424.41	16	0	57.7	270.00	.0041	-24.69	-.0000	213314.1	1.26	10.45	.0034	112.49	-.0015	-25.35	115.99
RISE	72	1569.49	1580.74	16	3	34.1	246.30	.0041	-24.89	-.0000	229399.4	1.19	-.01	.0037	119.14	-.0005	-25.12	77.63
RISE	61	1641.10	1652.35	16	4	45.7	294.54	.0041	-26.14	-.0000	236017.0	1.24	.00	.0026	125.25	.0027	-25.02	60.03
SET	42	1700.95	1712.20	16	5	45.5	105.00	.0041	-24.03	.0001	241190.8	1.83	2.39	-.0030	242.01	-.0022	-24.95	45.30
EXTN	51	1770.21	1781.46	16	6	54.8	359.44	.0042	-24.84	.0000	241354.0	1.47	88.96	.0019	29.59	-.1849	-24.86	28.23
EXTN	61	1903.82	1915.07	16	9	8.4	.48	.0042	-25.99	.0000	256736.3	1.43	23.77	-.0000	180.47	.0041	-24.71	355.20
EXTN	72	1943.11	1954.36	16	9	47.7	.09	.0042	-25.07	.0000	256621.7	1.42	72.63	.0000	180.29	.0127	-24.66	345.58
RISE	11	2077.12	2088.37	16	12	1.7	289.55	.0042	-25.38	-.0000	273859.3	1.05	.00	.0029	121.64	.0024	-24.52	312.47
SET	51	2131.66	2142.91	16	12	56.2	90.00	.0041	-23.95	.0000	277206.0	1.74	10.15	-.0035	248.19	-.0015	-24.47	298.98
SET	61	2166.36	2177.61	16	13	30.9	66.35	.0042	-25.36	.0000	281143.7	1.64	-.00	-.0026	235.86	.0027	-24.43	290.40
SET	72	2315.97	2326.82	16	16	.1	93.56	.0041	-24.11	.0001	293010.2	1.72	-.00	-.0037	245.64	-.0005	-24.29	253.46
RISE	42	2317.81	2329.06	16	16	2.4	255.00	.0041	-23.93	-.0000	292962.7	.97	2.09	.0030	117.60	-.0023	-24.29	252.90
EXTN	11	2358.46	2369.71	16	16	43.0	.32	.0042	-25.33	.0000	293246.8	1.29	29.46	-.0000	180.33	.0044	-24.25	242.84
SET	11	2639.66	2650.91	16	21	24.2	71.01	.0042	-24.75	.0000	317618.9	1.55	-.00	-.0029	239.17	.0024	-24.02	173.11
EXTN	42	2736.70	2747.95	16	23	1.3	359.96	.0042	-23.72	.0000	318911.9	1.20	78.90	.0000	.22	-.0179	-23.95	149.02
RISE	51	2867.23	2878.48	17	1	11.8	270.00	.0041	-23.42	-.0000	332922.8	.80	9.94	.0035	111.31	-.0015	-23.85	116.61
RISE	72	3022.32	3033.57	17	3	46.9	266.52	.0042	-23.58	-.0000	344972.4	.71	-.00	.0038	113.82	-.0006	-23.73	78.01
RISE	61	3085.04	3096.29	17	4	49.6	292.60	.0042	-24.43	-.0000	349217.2	.83	.00	.0027	122.80	.0027	-23.68	62.34
SET	42	3155.01	3166.26	17	5	59.6	105.00	.0041	-21.00	.0000	353733.4	1.46	1.76	-.0030	242.82	-.0023	-23.63	44.87
EXTN	51	3223.75	3235.00	17	7	8.3	359.99	.0042	-23.54	.0000	352221.5	1.12	87.80	.0000	.51	-.2508	-23.58	27.70
EXTN	61	3352.64	3363.89	17	9	17.2	.28	.0042	-24.38	.0000	364420.1	1.12	25.38	-.0000	180.28	.0043	-23.49	355.48
EXTN	72	3392.08	3403.33	17	9	56.7	.05	.0042	-23.73	.0000	363605.2	1.12	74.18	.0000	180.19	.0135	-23.46	345.62
RISE	11	3518.21	3529.46	17	12	2.8	288.28	.0042	-23.97	-.0000	378241.3	.80	.00	.0030	119.82	.0024	-23.36	314.05
SET	51	3579.78	3591.03	17	13	4.4	90.00	.0042	-22.93	.0000	381385.0	1.55	9.74	-.0035	249.14	-.0015	-23.31	298.62
SET	61	3619.93	3631.18	17	13	44.5	67.93	.0042	-23.94	.0000	385288.5	1.50	-.00	-.0027	237.09	.0027	-23.27	288.55
IMPACT		3722.02	3733.27	17	15	26.6												
IMPC	72	3722.02	3733.27	17	15	26.6	83.91	.0043	-23.05	.0001	392656.6	2.47	8.66	-.0040	247.75	-.0003	-23.13	262.76
IMPC	11	3722.02	3733.27	17	15	26.6	340.11	.0044	-23.91	.0000	390640.2	1.90	27.96	.0013	159.39	.0043	-23.13	262.76

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	15	1	24.575	6546.560	20.0984	305.9678	10.99188	-.9702	112.8396	81.1671
SEPARATION		1.20	12.45	15	1	25.775	6556.896	17.2910	312.3434	10.98311	2.4615	114.9824	87.8436
RETRO		3.20	14.45	15	1	27.775	6677.742	12.2502	322.3450	10.88245	6.0831	117.6698	98.3466
EXIT	SHA	15.41	26.66	15	1	39.981	9395.266	-12.5903	4.0139	9.15933	33.2736	117.5265	143.0756
IMPACT		3722.02	3733.27	17	15	26.594	393667.609	-23.1275	262.7589	2.21235	64.6354	293.4269	251.0099

JAN 15, 1966
102 DEGREES

SURVEYOR VIEW PERIODS

GHA	115.9690					EPS	135.5135							LOM	256.8777
SX	-.298630	SY	-.869846	SZ	-.392668	DAO	-23.12061	RAO	251.05192	RM	394959.652	LAT	28.310600	LON	279.461800
C3	-.961314	ECC	.984216	SLR	12986.032	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.278911	NSY	-.874452	NSZ	-.396917	C3M	1.5563	VIM	2.6824	ZAE	139.627	B.T	.0000	B.R	-.0000
LATE	1.1417	LONE	5.8413	LATS	-1.2875	LCNS	230.4461	LATI	-7.9969	LONI	326.3998	RSM	146.9016	TTAN	5.7988

LAUNCH DATE JAN 15,1966 BASE AZM 105.0 TF 62.143 ARRIVAL DATE JAN 17 1966 15 50 13.2

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	1 24 15.9	28.0	18.97	305.53	.39	83.47	114.96	1 35 30.9	6544.7	10.99	.19

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	CDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW														
INJECTION	.00	11.25	15	1	35.5												
SEPARATION	1.20	12.45	15	1	36.7												
RETRO	3.20	14.45	15	1	38.7												
RISE 72	4.73	15.98	15	1	40.2	83.59	-.1717	38.81	.0052	2659.5	-8.19	.00	.1308	309.26	.0287	6.56	328.22
EXTM 72	9.24	20.49	15	1	44.8	3.30	-.2932	12.08	-.2125	1502.7	2.21	69.75	.2568	350.65	.7158	-4.13	345.05
RISE 51	11.07	22.32	15	1	46.6	80.77	-.0876	18.39	-.0438	5268.9	-3.48	.00	.0940	290.51	-.0009	-7.69	350.67
EXIT SHA	14.86	26.11	15	1	50.4												
EXIT 72	14.86	26.11	15	1	50.4	316.68	-.0585	-21.31	-.0320	3642.9	7.72	46.16	-.0597	112.65	.0301	-13.61	.51
EXIT 51	14.86	26.11	15	1	50.4	60.55	-.0880	6.79	-.0557	4800.9	-.57	22.86	.1036	290.23	-.0017	-13.61	.51
EXTM 51	33.40	44.65	15	2	8.9	.40	-.0251	-26.68	-.0086	8949.4	5.39	88.99	-.0000	200.80	-1.3637	-26.29	27.45
EXTM 72	69.71	80.96	15	2	45.2	287.25	.0000	-32.09	-.0001	23524.5	4.81	18.78	.0000	121.28	.0001	-30.59	42.95
EXTM 51	89.66	100.91	15	3	5.2	338.40	.0000	-31.86	.0000	25614.6	4.37	70.15	.0000	112.98	-.0001	-30.94	44.82
RISE 61	155.16	166.41	15	4	10.7	309.65	.0027	-37.02	.0005	46934.4	3.53	-.00	.0017	142.06	.0014	-30.65	40.83
EXTM 51	239.98	251.23	15	5	35.5	.34	.0034	-30.30	.0002	58361.9	3.18	85.43	-.0000	183.74	.0369	-29.85	27.38
EXTM 61	414.85	426.10	15	8	30.4	4.64	.0039	-32.23	.0002	92722.8	2.63	17.40	.0000	184.11	.0035	-28.56	351.38
EXTM 72	444.21	455.46	15	8	59.7	.86	.0040	-29.76	.0001	93435.6	2.56	68.13	.0000	182.00	.0093	-28.39	344.88
RISE 11	609.79	621.04	15	11	45.3	293.62	.0040	-29.59	.0000	123112.6	1.98	.00	.0026	127.18	.0023	-27.60	307.03
SET 51	637.29	648.54	15	12	12.8	90.00	.0038	-26.40	.0001	125611.5	2.59	11.13	-.0032	245.91	-.0013	-27.49	300.61
SET 61	654.70	665.95	15	12	30.2	61.35	.0040	-29.53	.0002	129162.4	2.46	-.00	-.0022	229.78	.0027	-27.42	296.53
SET 72	832.52	843.77	15	15	28.0	9? 97	.0039	-26.48	.0001	151689.2	2.41	-.00	-.0035	243.25	-.0004	-26.82	254.37
RISE 42	842.94	854.19	15	15	38.5	25..99	.0040	-25.35	-.0000	152593.2	1.69	3.20	.0029	119.04	-.0022	-26.79	251.88
EXTM 11	884.58	895.83	15	16	20.1	1.30	.0042	-28.75	.0001	155144.5	1.97	26.03	-.0000	181.27	.0041	-26.67	241.90
SET 11	1156.45	1167.70	15	20	52.0	68.65	.0041	-27.28	.0001	188316.8	2.07	.01	-.0027	235.87	.0024	-26.02	176.15
EXTM 42	1267.60	1278.85	15	22	43.1	359.92	.0042	-25.49	.0000	193705.1	1.70	80.27	-.0000	.44	-.0216	-25.80	149.06
RISE 51	1402.84	1414.09	16	0	58.4	270.00	.0041	-24.89	-.0000	212244.7	1.26	10.53	.0034	112.68	-.0015	-25.56	115.98
RISE 72	1559.05	1570.30	16	3	34.6	266.27	.0041	-25.07	-.0000	228352.2	1.15	-.01	.0037	115.33	-.0005	-25.31	77.65
RISE 61	1631.62	1642.87	16	4	47.1	294.75	.0041	-26.32	-.0000	235074.1	1.24	.00	.0026	125.52	.0027	-25.20	59.81
SET 42	1690.57	1701.82	16	5	46.1	105.00	.0041	-24.19	.0001	240161.7	1.83	2.49	-.0030	241.87	-.0022	-25.12	45.30
EXTM 51	1754.78	1766.03	16	6	50.3	358.15	.0042	-25.01	.0000	239899.8	1.47	88.18	.0035	66.88	-.0493	-25.03	29.49
EXTM 61	1893.58	1904.83	16	9	9.1	.51	.0042	-26.15	.0000	255771.1	1.43	23.51	.0000	180.50	.0041	-24.86	355.25
EXTM 72	1932.80	1944.05	16	9	48.3	.10	.0042	-25.23	.0000	255642.9	1.42	72.68	.0000	180.31	.0126	-24.81	345.57
RISE 11	2067.31	2078.56	16	12	2.8	289.68	.0042	-25.51	-.0000	272926.0	1.05	.00	.0029	121.82	.0024	-24.66	312.34
SET 51	2121.28	2132.53	16	12	56.8	90.00	.0041	-24.08	.0001	276227.3	1.74	10.21	-.0035	248.07	-.0015	-24.60	298.99
SET 61	2155.39	2166.64	16	13	30.9	66.20	.0042	-25.50	.0001	280124.5	1.64	-.00	-.0026	235.67	.0027	-24.56	290.55
SET 72	2305.27	2316.52	16	16	.8	93.58	.0041	-24.23	.0001	2?2062.0	1.72	-.00	-.0037	245.53	-.0005	-24.41	253.45
RISE 42	2307.48	2318.73	16	16	3.0	255.00	.0041	-23.64	-.0000	291996.2	.97	2.15	.0030	117.69	-.0023	-24.41	252.90
EXTM 11	2348.19	2359.44	16	16	43.7	.34	.0042	-25.44	.0000	292306.3	1.30	29.35	-.0000	180.35	.0044	-24.37	242.82
SET 11	2628.94	2640.19	16	21	24.5	70.93	.0042	-24.85	.0000	316642.3	1.55	-.00	-.0029	239.05	.0024	-24.12	173.20
EXTM 42	2726.33	2737.58	16	23	1.8	359.95	.0042	-23.81	.0000	317561.2	1.20	78.59	.0000	.24	-.0178	-24.03	149.03
RISE 51	2856.88	2868.13	17	1	12.4	270.00	.0041	-23.50	-.0000	331973.3	.80	9.97	.0035	111.39	-.0015	-23.93	116.61
RISE 72	3012.06	3023.31	17	3	47.6	266.51	.0042	-23.65	-.0000	344058.7	.71	-.00	.0038	113.89	-.0006	-23.81	78.01
RISE 61	3075.14	3086.39	17	4	50.7	292.68	.0042	-24.50	-.0000	348319.6	.83	.00	.0027	122.91	.0027	-23.75	62.26
SET 42	3144.76	3156.01	17	6	.3	105.00	.0041	-23.07	.0000	352796.9	1.46	1.80	-.0030	242.76	-.0023	-23.70	44.87
EXTM 51	3213.49	3224.74	17	7	9.0	359.99	.0042	-23.61	.0000	351278.1	1.12	87.87	.0000	.56	-.0537	-23.65	27.70
EXTM 61	3342.42	3353.67	17	9	17.9	.29	.0042	-24.45	.0000	363459.3	1.11	25.31	-.0000	180.29	.0043	-23.55	355.47
EXTM 72	3381.82	3393.07	17	9	57.3	.06	.0042	-23.79	.0000	362707.3	1.11	74.12	.0000	180.20	.0137	-23.52	345.61
RISE 11	3508.15	3519.40	17	12	3.7	288.34	.0042	-24.03	-.0000	377227.9	.80	.00	.0030	119.89	.0024	-23.41	314.00
SET 51	3569.51	3580.76	17	13	5.0	90.00	.0042	-22.98	.0000	380314.5	1.53	9.76	-.0035	249.09	-.0015	-23.36	298.63
SET 61	3609.42	3620.67	17	13	44.9	67.87	.0042	-24.00	.0000	384162.6	1.47	-.00	-.0027	237.81	.0027	-23.32	288.61
IMPACT	3728.59	3739.84	17	15	44.1												
IMPC 42	3728.59	3739.84	17	15	44.1	249.68	.0043	-22.57	.0000	393924.0	1.69	-2.33	.0030	119.93	-.0026	-23.16	258.53
IMPC 72	3728.59	3739.84	17	15	44.1	88.14	.0043	-23.06	.0001	393132.7	2.46	4.79	-.0039	247.35	-.0004	-23.16	258.53
IMPC 11	3728.59	3739.84	17	15	44.1	344.40	.0044	-23.95	.0000	390585.0	1.92	29.03	.0011	163.67	.0044	-23.16	258.53

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	15	1	35.516	6544.741	18.9655	305.5298	10.99316	.1928	114.9620	83.4719
SEPARATION	1.20	12.45	15	1	36.716	6571.070	15.9396	311.7419	10.97083	3.6203	116.9179	89.9848
RETRO	3.20	14.45	15	1	38.716	6717.590	10.6316	321.4275	10.84956	9.19??	119.2673	100.1717
EXIT SHA	14.86	26.11	15	1	50.375	9352.730	-13.6107	.5125	9.18022	33.0760	118.0975	142.1799
IMPACT	3728.59	3739.84	17	15	44.102	393716.266	-23.1609	258.5316	2.20867	66.3132	293.6120	251.1716

SURVEYOR VIEW PERIODS

GHA	115.9690					EPS	135.6457							LOM	252.8370
SX	-.296225	SY	-.870442	SZ	-.393169	DAO	-23.15183	RAO	251.20575	RM	39500.891	LAT	28.310600	LON	279.461800
C3	-.968753	ECC	.984094	SLR	12985.233	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.276422	NSY	-.875012	NSZ	-.397423	C3M	1.5564	VIM	2.6825	ZAE	139.374	B.T	.0000	B.R	-.0000
LATE	1.1583	LONE	5.8325	LATS	-1.2877	LONS	230.3049	LATI	-8.2408	LONI	326.1846	RSM	146.9011	TTAN	5.7972
LAUNCH DATE	JAN 15,1966			BASE AZM	108.0		TF 62.268					ARRIVAL DATE	JAN 17 1966 16 6 57.1		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LCNG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	1 33 25.9	28.0	17.86	305.02	2.32	85.26	117.07	1 44 40.9	6547.3	10.99	1.15

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	15	1	44.7												
SEPARATION	1.20	12.45	15	1	45.9												
RETRO	3.20	14.45	15	1	47.9												
RISE 72	4.60	15.85	15	1	49.3	84.74	-.1554	33.43	-.0178	2737.1	-8.13	-.00	.1309	303.79	.0038	5.21	326.46
EXTM 72	9.90	21.15	15	1	54.6	1.59	-.2447	-5.07	-.1647	1675.9	3.93	86.75	.2625	330.74	2.3480	-7.31	345.34
RISE 51	11.64	22.31	15	1	55.7	82.64	-.0821	14.87	-.0467	5404.6	-3.25	.00	.0918	286.55	-.0060	-9.52	348.75
EXIT SHA	14.35	25.60	15	1	59.0												
EXIT 72	14.35	25.60	15	1	59.0	324.16	-.0743	-25.81	-.0294	3417.0	7.57	51.51	-.0729	122.12	.0050	-14.73	357.22
EXIT 51	14.35	25.60	15	1	59.0	66.22	-.0832	4.63	-.0553	4998.7	-.82	19.09	.0994	285.17	-.0081	-14.73	357.22
EXTM 51	35.36	46.61	15	2	20.0	1.54	-.0227	-30.12	-.0062	9697.1	5.35	85.41	-.0000	196.86	-.2582	-28.38	26.77
EXTM 72	70.37	81.62	15	2	55.0	289.47	-.0000	-33.74	.0001	23638.0	4.78	20.54	.0000	123.15	-.0001	-31.84	40.89
EXTM 51	90.18	101.43	15	3	14.9	341.00	-.0001	-33.32	.0002	25786.8	4.36	71.85	.0000	119.13	-.0007	-32.05	42.72
RISE 61	153.02	164.27	15	4	17.7	311.49	.0026	-38.06	.0006	46523.8	3.54	-.00	.0017	143.85	.0014	-31.54	39.04
EXTM 51	229.51	240.76	15	5	34.2	.50	.0033	-31.22	.0002	56411.5	3.23	84.51	-.0000	184.44	.0298	-30.66	27.24
EXTM 61	407.60	418.85	15	8	32.3	5.12	.0039	-32.85	.0002	91677.2	2.64	16.76	.0000	184.49	.0034	-29.13	350.94
EXTM 72	435.61	446.86	15	9	.3	.99	.0040	-30.37	.0002	92164.5	2.57	67.52	.0000	182.24	.0090	-28.95	344.75
RISE 11	603.10	614.35	15	11	47.8	294.09	.0040	-30.05	.0000	122209.2	1.99	.00	.0026	127.80	.0023	-28.04	306.54
SET 51	628.35	639.60	15	12	13.0	90.00	.0038	-26.83	.0001	124397.9	2.59	11.30	-.0032	245.51	-.0013	-27.92	300.65
SET 61	643.27	654.52	15	12	27.9	60.75	.0039	-30.01	.0002	127644.8	2.47	-.00	-.0021	229.07	.0027	-27.86	297.16
SET 72	824.03	835.28	15	15	28.7	94.03	.0039	-26.83	.0001	150646.7	2.61	-.00	-.0035	242.89	-.0004	-27.18	254.34
RISE 42	834.40	845.65	15	15	39.1	254.99	.0040	-25.69	-.0000	151525.4	1.70	3.41	.0028	119.31	-.0022	-27.14	251.86
EXTM 11	876.39	887.64	15	16	21.1	1.41	.0042	-29.11	.0001	154193.0	1.98	25.67	-.0000	181.36	.0040	-27.01	241.80
SET 11	1146.75	1158.00	15	20	51.4	68.38	.0041	-27.57	.0001	187240.2	2.07	.00	-.0027	235.50	.0024	-26.29	176.42
EXTM 42	1259.03	1270.28	15	22	43.7	359.92	.0042	-25.75	.0000	192766.0	1.70	80.53	-.0000	.46	-.0223	-26.05	149.06
RISE 51	1394.33	1405.58	16	0	59.0	270.00	.0041	-25.12	-.0000	211327.3	1.26	10.62	.0034	112.90	-.0015	-25.78	115.97
RISE 72	1550.40	1561.65	16	3	35.1	266.23	.0041	-25.28	-.0000	227450.1	1.15	-.01	.0037	115.54	-.0005	-25.51	77.68
RISE 61	1624.03	1635.28	16	4	48.7	294.98	.0041	-26.52	-.0000	234276.0	1.24	.00	.0026	125.80	.0027	-25.39	59.58
SET 42	1681.99	1693.24	16	5	46.7	105.00	.0041	-24.38	.0001	239266.2	1.84	2.60	-.0030	241.73	-.0022	-25.30	45.31
EXTM 51	1746.03	1757.28	16	6	50.7	358.10	.0042	-25.20	.0000	239006.5	1.47	88.20	.0036	72.84	-.0382	-25.21	29.53
EXTM 61	1885.16	1896.41	16	9	9.8	.54	.0042	-26.32	.0000	254932.6	1.43	23.44	.0000	180.53	.0041	-25.02	355.22
EXTM 72	1924.27	1935.52	16	9	49.0	.11	.0042	-25.39	.0000	254785.7	1.42	72.51	.0000	180.34	.0126	-24.97	345.56
RISE 11	2059.31	2070.56	16	12	4.0	289.82	.0042	-25.66	-.0000	272113.7	1.06	.00	.0029	122.01	.0024	-24.80	312.20
SET 51	2112.70	2123.95	16	12	57.4	90.00	.0041	-24.22	.0001	275359.4	1.74	10.26	-.0035	247.94	-.0015	-24.74	298.99
SET 61	2146.15	2157.40	16	13	30.8	66.04	.0042	-25.64	.0001	279211.1	1.64	-.00	-.0026	235.47	.0027	-24.70	290.72
SET 72	2296.76	2308.01	16	16	1.4	93.60	.0041	-24.35	.0001	291209.2	1.72	-.00	-.0037	245.40	-.0005	-24.53	253.43
RISE 42	2298.93	2310.18	16	16	3.6	255.00	.0041	-23.77	-.0000	291131.3	.98	2.23	.0030	117.79	-.0023	-24.53	252.89
EXTM 11	2339.70	2350.95	16	16	44.4	.37	.0042	-25.57	.0000	291467.6	1.30	29.22	-.0000	180.38	.0044	-24.49	242.79
SET 11	2619.96	2631.21	16	21	24.6	70.83	.0042	-24.95	.0000	315752.0	1.55	-.00	-.0029	238.91	.0024	-24.22	173.30
EXTM 42	2717.72	2728.97	16	23	2.4	359.95	.0042	-23.91	.0000	316693.9	1.20	78.69	.0000	.26	-.0183	-24.13	149.03
RISE 51	2848.30	2859.55	17	1	13.0	270.00	.0041	-23.58	-.0000	331101.6	.80	10.00	.0035	111.47	-.0015	-24.02	116.60
RISE 72	3003.59	3014.84	17	3	48.3	266.50	.0042	-23.73	-.0000	343219.3	.71	.00	.0038	113.97	-.0006	-23.88	78.02
RISE 61	3067.02	3078.27	17	4	51.7	292.77	.0042	-24.58	-.0000	347495.0	.83	.00	.0027	123.01	.0027	-23.83	62.17
SET 42	3136.26	3147.51	17	6	.9	105.00	.0041	-23.14	.0000	351931.9	1.45	1.84	-.0030	242.71	-.0023	-23.77	44.87
EXTM 51	3204.99	3216.24	17	7	9.7	359.99	.0042	-23.68	.0000	350404.7	1.11	87.94	.0000	.51	-.0704	-23.71	27.70
EXTM 61	3333.96	3345.21	17	9	18.6	.30	.0042	-24.51	.0000	362567.7	1.11	25.25	-.0000	180.30	.0043	-23.61	355.45
EXTM 72	3373.32	3384.57	17	9	58.0	.06	.0042	-23.85	.0000	361798.1	1.11	74.06	.0000	180.21	.0134	-23.58	345.61
RISE 11	3499.84	3511.09	17	12	4.5	288.39	.0042	-24.08	-.0000	376284.7	.79	.00	.0030	119.96	.0024	-23.47	313.95
SET 51	3560.98	3572.23	17	13	5.7	90.00	.0042	-23.03	.0000	379318.9	1.52	9.78	-.0035	249.04	-.0015	-23.42	298.63
SET 61	3600.67	3611.92	17	13	45.3	67.81	.0042	-24.05	.0000	383119.4	1.46	-.00	-.0027	237.73	.0027	-23.38	288.68
IMPACT	3736.08	3747.33	17	16	.8												
IMPC 42	3736.08	3747.33	17	16	.8	253.68	.0043	-22.62	.0000	393648.4	1.67	.57	.0031	117.63	-.0025	-23.19	254.51
IMPC 72	3736.08	3747.33	17	16	.8	92.16	.0043	-23.06	.0001	393587.2	2.45	1.12	-.0039	246.87	-.0005	-23.19	254.51
IMPC 11	3736.08	3747.33	17	16	.8	348.48	.0044	-23.98	.0001	390956.6	1.94	29.81	.0008	167.86	.0045	-23.19	254.51
SET 72	3740.77	3752.02	17	16	5.5	93.38	.0044	-23.04	.0001	394342.0	3.12	.00	-.0040	246.73	-.0005	-23.18	253.29

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	15	1	44.682	6547.322	17.8585	305.0230	10.99066	1.1487	117.0693	85.2628
SEPARATION	1.20	12.45	15	1	45.882	6586.745	14.6252	311.0602	10.95733	4.5664	118.8443	91.6008
RETRO	3.20	14.45	15	1	47.882	6753.941	9.0577	320.4383	10.81975	10.0974	120.8789	101.4803
EXIT SHA	14.35	25.60	15	1	59.030	9299.277	-14.7329	357.2243	9.20647	32.8244	118.7930	141.0610
IMPACT	3736.08	3747.33	17	16	.763	393763.168	-23.1926	254.5089	2.20478	65.9657	293.8330	251.3256

SURVEYOR VIEW PERIODS

GHA	115.9690					EPS	135.7755							LOM	248.8728
SX	-.293864	SY	-.871021	SZ	-.393658	DAO	-23.18229	RAO	251.35672	RM	395041.285	LAT	28.310600	LON	279.461800
C3	-.977468	ECC	.9[illegible]3951	SLR	12984.301	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.273964	NSY	-.875559	NSZ	-.397920	C3M	1.5563	VIM	2.6824	ZAE	139.083	B.T	.0000	B.R	-.0000
LATE	1.1745	LONE	5.8233	LATS	-1.2879	LONS	230.1659	LATI	-8.5030	LONI	325.9335	RSM	146.9006	TTAN	5.7936

LAUNCH DATE JAN 15,1966 BASE AZM 111.0 TF 62.414 ARRIVAL DATE JAN 17 1966 16 23 22.0

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	1 41 12.0	28.1	16.78	304.46	3.91	86.64	119.17	1 52 27.0	6552.3	10.99	1.94

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DOE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
				PROBE	IN	EARTH'S	SHADOW											
INJECTION		.00	11.25	15	1	52.4												
SEPARATION		1.20	12.45	15	1	53.6												
RETRO		3.20	14.45	15	1	55.6												
RISE	72	4.52	15.77	15	1	57.0	85.70	-.1426	28.38	-.0385	2812.7	-7.96	.00	.1299	298.68	-.0185	3.78	324.89
EXTM	72	10.23	21.48	15	2	2.7	5.11	-.2279	-14.44	-.1309	1854.2	4.44	80.11	-.0000	209.83	-1.4835	-9.83	344.55
RISE	51	11.09	22.34	15	2	3.5	84.41	-.0771	[illegible].42	-.0493	5531.8	-3.01	.00	.0896	282.70	-.0107	-11.43	346.97
EXIT	SHA	13.88	25.13	15	2	6.3												
EXIT	72	13.88	25.13	15	2	6.3	332.14	-.0930	-30.71	-.0268	3252.1	7.35	55.40	-.0807	134.98	-.0431	-15.94	354.13
EXIT	51	13.88	25.13	15	2	6.3	71.31	-.0786	2.55	-.0554	5191.0	-1.03	15.61	.0953	280.71	-.0132	-15.94	354.13
EXTM	51	37.57	48.82	15	2	30.0	2.11	-.0205	-33.44	-.0043	10516.1	5.31	82.08	-.0000	192.89	-.1281	30.54	26.41
EXTM	72	70.71	81.96	15	3	3.2	291.30	-.0000	-35.48	.0003	23687.5	4.77	21.89	.0000	125.16	-.0004	-33.18	39.12
EXTM	51	89.79	101.04	15	3	22.2	343.16	-.0002	-34.89	.0004	25726.5	4.36	72.86	.0000	126.26	-.0014	-33.27	40.94
RISE	61	153.70	164.95	15	4	26.1	313.37	.0026	-39.06	.0007	46730.9	3.53	-.00	.0017	145.64	.0013	-32.49	37.28
EXTM	51	221.32	232.57	15	5	33.8	.73	.0033	-32.22	.0003	54868.5	3.27	83.49	-.0000	185.47	.0245	-31.55	27.03
EXTM	61	401.32	412.57	15	8	33.8	5.42	.0039	-33.52	.0003	90771.2	2.65	16.07	.0000	184.70	.0034	-29.75	350.65
EXTM	72	428.75	440.00	15	9	1.2	1.15	.0040	-31.02	.0002	91146.4	2.59	66.86	.0000	182.50	.0087	-29.54	344.61
RISE	11	598.14	609.39	15	11	50.6	294.60	.0040	-30.54	.0000	121526.5	2.00	.00	.0026	128.46	.0023	-28.51	306.01
SET	51	620.99	632.24	15	12	13.4	90.00	.0038	-27.30	.0001	123378.5	2.60	11.49	-.0032	245.07	-.0012	-28.39	300.68
SET	61	633.15	644.40	15	12	25.6	60.08	.0039	-30.52	.0002	126282.3	2.47	-.00	-.0021	228.30	.0027	-28.33	297.84
SET	72	817.10	828.35	15	15	29.5	94.10	.0039	-27.21	.0001	149777.4	2.42	-.00	-.0035	242.51	-.0004	-27.56	254.29
RISE	42	827.37	838.62	15	15	39.8	254.99	.0040	-26.06	-.0000	150621.2	1.71	3.63	.0028	119.61	-.0022	-27.52	251.84
EXTM	11	869.75	881.00	15	16	22.2	1.52	.0042	-29.49	.0001	153409.9	1.98	25.29	.0000	181.47	.0040	-27.38	241.68
SET	11	1138.38	1149.63	15	20	50.8	68.08	.0041	-27.88	.0001	186283.0	2.07	.01	-.0027	235.09	.0024	-26.59	176.74
EXTM	42	1251.94	1263.19	15	22	44.4	359.92	.0042	-26.02	.0000	191955.5	1.71	80.80	-.0000	.48	-.0230	-26.32	149.06
RISE	51	1387.28	1398.53	16	0	59.7	270.00	.0041	-25.36	-.0000	210528.3	1.27	10.72	.0034	113.12	-.0015	-26.03	115.96
RISE	72	1543.19	1554.44	16	3	35.6	266.20	.0041	-25.49	-.0000	226656.7	1.15	-.0[illegible]	.0037	115.76	-.0005	-25.73	77.71
RISE	61	1617.94	1629.19	16	4	50.4	295.23	.0041	-26.73	.0000	233589.5	1.25	.00	.0026	126.11	.0027	-25.60	55.33
SET	42	1674.86	1686.11	16	5	47.3	105.00	.0041	-24.57	.0001	238472.3	1.84	2.73	-.0030	241.57	-.0022	-25.50	45.32
EXTM	51	1738.73	1749.98	16	6	51.2	358.05	.0042	-25.39	.0000	238212.9	1.47	88.21	.0037	79.28	-.0252	-25.40	29.58
EXTM	61	1878.19	1889.44	16	9	10.6	.58	.0042	-26.50	.0000	254187.8	1.43	23.26	.0000	180.57	.0041	-25.19	355.18
EXTM	72	1917.19	1928.44	16	9	49.6	.12	.0042	-25.56	.0000	254018.7	1.42	72.34	.0000	180.36	.0125	-25.14	345.55
RISE	11	2052.78	2064.03	16	12	5.2	289.97	.0042	-25.82	-.0000	271385.4	1.06	.00	.0029	122.21	.0024	-24.96	312.05
SET	51	2105.53	2116.78	16	12	58.0	90.00	.0041	-24.37	.0001	274571.5	1.74	10.32	-.0035	247.80	-.0015	-24.89	299.00
SET	61	2138.30	2149.55	16	13	30.7	65.86	.0042	-25.79	.0001	278372.9	1.63	-.00	-.0026	235.25	.0027	-24.85	290.89
SET	72	2289.68	2300.93	16	16	2.1	93.63	.0041	-24.48	.0001	290428.8	1.72	-.00	-.0037	245.27	-.0005	-24.67	253.41
RISE	42	2291.79	2303.04	16	16	4.2	255.00	.0041	-23.90	-.0000	290337.4	.98	2.31	.0030	117.89	-.0023	-24.66	252.89
EXTM	11	2332.65	2343.90	16	16	45.1	.39	.0042	-25.70	.0000	290700.2	1.29	29.09	-.0000	180.40	.0043	-24.62	242.77
SET	11	2612.37	2623.62	16	21	24.8	70.73	.0042	-25.06	.0000	314917.6	1.55	-.00	-.0029	238.77	.0024	-24.32	173.40
EXTM	42	2710.52	2721.77	16	23	3.0	359.94	.0042	-24.01	.0000	315879.7	1.20	78.79	.0000	.27	-.0188	-24.23	149.04
RISE	51	2841.12	2852.37	17	1	13.6	270.00	.0041	-23.67	-.0000	330277.5	.80	10.04	.0035	111.55	-.0015	-24.11	116.60
RISE	72	2996.34	3007.59	17	3	48.8	266.49	.0042	-23.81	-.0000	342385.5	.71	.00	.0038	114.05	-.0006	-23.96	78.03
RISE	61	3060.16	3071.41	17	4	52.6	292.85	.0042	-24.65	-.0000	346676.4	.82	.00	.0027	123.12	.0027	-23.90	62.09
SET	42	3129.05	3140.30	17	6	1.5	105.00	.0041	-23.21	.0000	351071.2	1.45	1.89	-.0030	242.65	-.0023	-23.84	44.88
EXTM	51	3197.82	3209.07	17	7	10.3	359.99	.0042	-23.75	.0000	349538.6	1.11	88.01	-.0000	.48	-.0343	-23.78	27.69
EXTM	61	3326.83	3338.08	17	9	19.3	.31	.0042	-24.58	.0000	361681.3	1.10	25.18	-.0000	180.32	.0043	-23.67	355.44
EXTM	72	3366.14	3377.39	17	9	58.6	.06	.0042	-23.91	.0000	360894.3	1.10	73.99	.0000	180.22	.0136	-23.64	345.61
RISE	11	3492.89	3504.14	17	12	5.3	288.44	.0042	-24.14	-.0000	375350.3	.78	.00	.0030	120.04	.0024	-23.53	313.89
SET	51	3553.81	3565.06	17	13	6.3	90.00	.0042	-23.09	.0000	378336.4	1.51	9.81	-.0035	248.99	-.0015	-23.47	298.63
SET	61	3593.27	3604.52	17	13	45.7	67.75	.0042	-24.11	.0000	382094.6	1.44	-.00	-.0027	237.65	.0027	-23.43	288.74
SET	72	3734.08	3745.33	17	16	6.5	93.40	.0042	-23.12	.0001	392626.6	2.04	-.00	-.0039	246.65	-.0005	-23.25	253.28
RISE	42	3734.45	3745.70	17	16	6.9	255.00	.0042	-22.68	.0000	392487.9	1.27	1.56	.0031	116.93	-.0024	-23.25	253.18
IMPACT		3744.82	3756.07	17	16	17.3												
IMPC	42	3744.82	3756.07	17	16	17.3	257.65	.0043	-22.67	.0000	393366.6	1.66	3.50	.0032	115.43	-.0024	-23.22	250.52
IMPC	72	3744.82	3756.07	17	16	17.3	96.14	.0043	-23.07	.0001	394033.8	2.44	-2.50	-.0039	246.29	-.0006	-23.22	250.52
IMPC	11	3744.82	3756.07	17	16	17.3	352.52	.0044	-24.02	.0001	390548.9	1.96	30.35	.0005	172.08	.0046	-23.22	250.52

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	15	1	52.449	6552.275	16.7766	304.4600	10.98608	1.9416	119.1680	86.6470
SEPARATION		1.20	12.45	15	1	53.649	6602.487	13.3437	310.3173	10.94376	5.3480	120.7703	92.8052
RETRO		3.20	14.45	15	1	55.649	6786.585	7.5215	319.3971	10.79307	10.8383	122.5114	102.3863
EXIT	SHA	13.88	25.13	15	2	6.328	9241.507	-15.9411	354.1251	9.23505	32.5480	119.6036	139.7913
IMPACT		3744.82	3756.07	17	16	17.269	393807.113	-23.2240	250.5232	2.20127	65.7626	294.2457	251.4778

JAN 15, 1966
111 DEGREES

SURVEYOR VIEW PERIODS

GHA	115.9690					EPS	135.9475							LOP	243.6149
SX	-.290729	SY	-.871781	SZ	-.394302	DAO	-23.22248	RAC	251.55702	RM	395C94.754	LAT	28.310600	LON	279.461800
C3	-.990801	ECC	.983732	SLR	12982.867	RCA	6544.6650	LTA	-20.0000	GTA	20.CO	TB	675.CCCOO	POL	-.0
NSX	-.270682	NSY	-.876279	NSZ	-.398580	C3H	1.5560	VIM	2.6824	ZAE	138.640	B.T	.0000	B.R	-.0000
LATE	1.1960	LONE	5.8110	LATS	-1.2882	LCNS	229.9815	LATI	-8.8688	LONI	325.5478	RSM	146.8999	TTAN	5.7860
LAUNCH DATE	JAN 15,1966			BASE AZM	115.0		TF 62.636					ARRIVAL DATE	JAN 17 1966 16 45 8.4		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LCNG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	1 49 52.0	28.1	15.38	303.63	5.65	87.99	121.96	2 1 7.0	6560.5	10.98	2.80

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DCE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LCNG
			PRORE IN EARTH'S SHADOW														
INJECTION	.CO	11.25	15	2	1.1												
SEPARATION	1.20	12.45	15	2	2.3												
RETRO	3.20	14.45	15	2	4.3												
RISE 72	4.47	15.72	15	2	5.6	86.71	-.1284	22.00	-.0630	2913.8	-7.58	.CO	.1271	292.23	-.0446	1.75	323.04
EXTM 72	10.61	21.86	15	2	11.7	10.64	-.2135	-28.37	-.1006	2139.6	4.74	67.20	-.0000	204.79	-.5499	-13.04	343.23
RISE 51	11.18	22.43	15	2	12.3	86.65	-.0713	6.92	-.0526	5694.3	-2.69	.00	.0867	277.69	-.0163	-14.10	344.79
EXIT SHA	13.30	24.55	15	2	14.4												
EXIT 72	13.30	24.55	15	2	14.4	343.86	-.1218	-37.40	-.0260	3124.9	6.93	97.07	-.0715	156.03	-.1293	-17.64	350.21
EXIT 51	13.30	24.55	15	2	14.4	77.43	-.0728	-.07	-.0562	5442.3	-1.24	11.34	.0902	275.47	-.0185	-17.64	350.21
EXTM 51	41.18	52.43	15	2	42.3	1.91	-.0175	-37.65	-.0020	11802.9	5.24	77.98	-.0000	187.29	-.0672	-33.48	26.50
EXTM 72	70.99	82.24	15	3	12.1	293.21	-.0001	-37.91	.0007	23734.3	4.75	23.11	.0000	127.96	-.0007	-35.10	37.15
EXTM 51	87.92	98.77	15	3	28.6	345.56	-.0006	-37.19	.0006	25195.5	4.39	73.22	.0000	136.53	-.0027	-35.04	38.93
RISE 61	157.98	169.23	15	4	39.1	315.91	.0027	-40.32	.0007	47738.8	3.50	.00	.0017	147.96	.0014	-33.78	35.00
EXTM 51	213.46	224.71	15	5	34.6	1.16	.0032	-33.65	.0004	53380.9	3.30	82.02	-.0000	186.97	.0193	-32.81	26.66
EXTM 61	397.11	408.36	15	8	38.2	6.31	.0039	-34.42	.0003	90213.3	2.66	15.12	.0000	185.39	.0033	-30.60	349.82
EXTM 72	421.80	433.05	15	9	2.9	1.38	.0040	-31.94	.0002	90112.7	2.60	65.93	.0000	182.87	.0083	-30.39	344.40
RISE 11	593.67	604.92	15	11	54.8	295.33	.0040	-31.23	.0001	120893.8	2.01	.00	.0026	129.39	.0023	-29.17	305.27
SET 51	613.14	624.39	15	12	14.3	90.00	.0038	-27.96	.0002	122263.8	2.61	11.75	-.0032	244.44	-.0012	-29.06	300.73
SET 61	621.29	632.54	15	12	22.4	59.11	.0039	-31.24	.0002	124659.4	2.48	-.00	-.0021	227.20	.0027	-29.01	298.83
SET 72	809.78	821.03	15	15	30.9	94.19	.0039	-27.75	.0001	148830.9	2.42	-.00	-.0035	241.96	-.0004	-28.10	254.22
RISE 42	819.88	831.13	15	15	41.0	254.99	.0040	-26.60	-.0000	149619.7	1.71	3.96	.0028	120.03	-.0022	-28.06	251.81
EXTM 11	862.81	874.06	15	16	23.9	1.69	.0042	-30.03	.0001	152575.0	1.98	24.75	.0000	181.61	.0040	-27.89	241.53
SET 11	1129.02	1140.27	15	20	50.1	67.66	.0041	-28.31	.0001	185173.0	2.07	-.00	-.0026	234.52	.0024	-27.01	177.16
EXTM 42	1244.15	1255.40	15	22	45.3	359.88	.0042	-26.41	.0000	191017.9	1.71	81.19	.0000	.73	-.0242	-26.70	149.10
RISE 51	1379.68	1390.93	16	1	.8	270.00	.0041	-25.70	-.0000	209607.9	1.27	10.85	.0034	113.44	-.0015	-26.37	115.95
RISE 72	1535.34	1546.59	16	3	36.5	346.14	.0041	-25.80	-.0000	225730.8	1.16	-.01	.0037	116.07	-.0005	-26.04	77.75
RISE 61	1611.69	1622.94	16	4	52.8	295.58	.0042	-27.03	.0000	232809.8	1.25	.00	.0025	126.54	.0027	-25.89	58.97
SET 42	1667.12	1678.37	16	5	48.2	105.00	.0041	-24.85	.0001	237536.4	1.83	2.90	-.0030	241.35	-.0022	-25.79	45.32
EXTM 51	1730.85	1742.10	16	6	52.0	358.01	.0042	-25.67	.0000	237281.9	1.47	88.21	.0038	88.28	-.0064	-25.67	29.62
EXTM 61	1870.67	1881.92	16	9	11.8	.64	.0042	-26.75	.0000	253307.2	1.43	23.01	.0000	180.62	.0041	-25.44	355.13
EXTM 72	1909.50	1920.75	16	9	50.6	.14	.0042	-25.81	.0000	253104.3	1.42	72.09	.0000	180.40	.0123	-25.38	345.54
RISE 11	2045.87	2057.12	16	12	7.0	290.17	.0042	-26.04	-.0000	270516.6	1.05	.00	.0029	122.51	.0024	-25.17	311.84
SET 51	2097.73	2108.98	16	12	58.9	90.00	.0041	-24.58	.0001	273615.9	1.73	10.41	-.0035	247.61	-.0015	-25.10	299.01
SET 61	2129.51	2140.76	16	13	30.6	65.62	.0042	-26.00	.0001	277344.0	1.63	-.00	-.0026	234.95	.0027	-25.06	291.14
SET 72	2281.98	2293.23	16	16	3.1	93.66	.0041	-24.67	.0001	289473.2	1.72	-.00	-.0037	245.08	-.0005	-24.85	253.39
RISE 42	2284.01	2295.26	16	16	5.1	255.00	.0041	-24.08	-.0000	289362.3	.97	2.42	.0030	118.04	-.0023	-24.85	252.89
EXTM 11	2324.98	2336.23	16	16	46.1	.43	.0042	-25.89	.0000	289760.2	1.29	28.90	-.0000	180.44	.0043	-24.80	252.73
SET 11	2603.94	2615.19	16	21	25.1	70.59	.0042	-25.22	.0000	313868.5	1.54	-.00	-.0029	238.57	.0024	-24.47	173.34
EXTM 42	2702.64	2713.89	16	23	3.8	359.94	.0042	-24.15	.0000	314854.1	1.20	78.93	.0000	.31	-.0189	-24.37	149.04
RISE 51	2833.26	2844.51	17	1	14.4	270.00	.0041	-23.80	-.0000	329231.4	.79	10.09	.0035	111.66	-.0015	-24.23	116.60
RISE 72	2988.37	2999.62	17	3	49.5	266.46	.0041	-23.92	-.0000	341111.1	.72	-.00	.0037	114.17	-.0006	-24.08	78.05
RISE 61	3052.93	3064.18	17	4	54.0	292.98	.0042	-24.76	-.0000	345671.5	.82	.00	.0027	123.28	.0027	-24.01	61.96
SET 42	3121.29	3132.54	17	6	2.4	105.00	.0041	-23.31	.0000	350003.9	1.45	1.95	-.0030	242.57	-.0023	-23.93	44.88
EXTM 51	3190.06	3201.31	17	7	11.2	360.00	.0042	-23.85	.0000	348457.0	1.10	88.11	-.0000	.45	-.0297	-23.88	27.69
EXTM 61	3319.12	3330.37	17	9	20.2	.33	.0042	-24.67	.0000	360567.4	1.10	25.09	-.0000	180.34	.0042	-23.76	355.42
EXTM 72	3358.37	3369.62	17	9	59.5	.37	.0043	-24.00	.0000	359753.9	1.10	73.90	.0000	180.24	.0135	-23.72	345.60
RISE 11	3485.38	3496.63	17	12	6.5	288.51	.0042	-24.22	-.0000	374162.1	.77	.00	.0030	120.14	.0024	-23.60	313.82
SET 51	3545.99	3557.24	17	13	7.1	90.00	.0042	-23.16	.0000	377081.6	1.50	9.84	-.0035	248.92	-.0015	-23.55	298.63
SET 61	3585.12	3596.37	17	13	46.2	67.66	.0042	-24.19	.0000	380784.5	1.42	-.00	-.0027	237.54	.0027	-23.51	288.83
SET 72	3726.54	3737.79	17	16	7.7	93.41	.0042	-23.20	.0001	390879.3	1.79	-.00	-.0038	246.57	-.0005	-23.33	253.27
RISE 42	3726.88	3738.13	17	16	8.0	255.00	.0042	-22.76	.0000	390727.9	1.03	1.61	.0031	116.99	-.0024	-23.33	253.18
IMPACT	3758.17	3769.42	17	16	39.3												
IMPC 42	3758.17	3769.42	17	16	39.3	262.96	.0043	-22.74	.0000	392987.7	1.64	7.50	.0032	112.60	-.0023	-23.27	245.21
IMPC 11	3758.17	3769.42	17	16	39.3	357.91	.0044	-24.06	.0001	390579.0	1.97	30.70	.0002	177.78	.0046	-23.27	245.21
EXTM 11	3771.01	3782.26	17	16	52.1	1.10	.0044	-24.07	.0001	390859.8	2.18	30.71	-.0000	181.16	.0047	-23.28	242.07

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	15	2	1.116	6560.588	15.3731	303.6348	10.97852	2.8028	121.9604	87.9943
SEPARATION	1.20	12.45	15	2	2.316	6622.396	11.6849	309.2472	10.92655	6.1940	123.3459	93.9076
RETRO	3.20	14.45	15	2	4.316	6824.579	5.5279	317.9411	10.76211	11.6359	124.7268	103.1028
EXIT SHA	13.30	24.55	15	2	14.420	9160.058	-17.6365	350.2051	9.27577	32.1501	120.8623	137.8999
IMPACT	3758.17	3769.42	17	16	39.286	393869.973	-23.2656	245.2077	2.19506	65.2425	294.5979	251.6815

SURVEYOR VIEW PERIODS

G'A	116.9546					EPS 146.6691								LOM	272.9705
SX	-.090130	SY	-.900299	SZ	-.425837	DAO	-25.20368	RAO	264.28311	RM	398210.496	LAT	28.310600	LON	279.461800
C3	-.912077	ECC	.989525	SLR	12991.326	RCA	6544.6650	LTA	-20.0000	G'A	20.00	TB	675.00000	POL	-.0
NSX	-.070218	NSY	-.900998	NSZ	-.428104	C3M	1.5520	VIM	2.6816	ZAE	141.275	B.T	.0000	B.R	-.0000
LATE	2.5053	LONE	4.9805	LATS	-1.3067	LONS	218.3949	LATI	-4.6762	LONI	326.8945	RSM	146.8624	TTAN	6.3947
LAUNCH DATE	JAN 16,1966			BASE AZM	87.0		TF 62.340					ARRIVAL DATE	JAN 18 1966 15 34 52.3		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FTH
87.00	1 9 49.4	27.3	25.95	307.24	-13.84	82.55	101.95	1 21 4.4	6640.4	10.92	-6.87

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE	IN	EARTH'S	SHADOW												
INJECTION	.00	11.25	16	1	21.1												
SEPARATION	1.20	12.45	16	1	22.3												
RETRO	3.20	14.45	16	1	24.3												
RISE 72	6.74	17.99	16	1	27.8	31.80	-1.3494	80.73	.0249	2481.6	-4.09	-.01	.0922	355.13	.1985	13.28	343.86
RISE 51	11.97	23.22	16	1	33.0	64.53	-.1405	41.73	-.0244	4605.0	-4.08	.00	.0995	317.64	.0412	2.16	4.43
EXTM 72	12.44	23.69	16	1	33.5	292.89	-.0361	19.37	-.1207	3182.2	6.44	18.53	-.0000	66.44	.1323	1.28	9.95
EXIT SHA	16.06	27.31	16	1	37.1												
EXIT 72	16.06	27.31	16	1	37.1	287.12	-.0203	1.79	-.0591	4739.8	7.55	16.69	-.0119	85.73	.0580	-4.66	16.09
EXIT 51	16.06	27.31	16	1	37.1	30.79	-.1233	30.14	-.0660	4061.7	-.21	26.82	.1117	330.26	.0641	-4.66	16.09
EXIT 61	16.06	27.31	16	1	37.1	318.58	-.0532	-45.88	.0153	6748.0	7.54	-3.74	-.0055	152.51	-.0398	-4.66	16.09
EXTM 51	28.36	39.61	16	1	49.4	342.31	-.0299	-7.26	-.0252	6811.4	5.58	64.98	-.0000	45.46	.0921	-16.37	37.28
EXTM 72	65.07	76.32	16	2	29.1	271.68	-.0002	-24.76	-.0016	22881.0	4.98	4.82	.0000	114.37	.0016	-25.94	57.23
RISE 42	71.29	82.54	16	2	32.4	103.18	-.0044	-17.91	-.0030	25247.4	4.27	.00	.0051	247.39	.0002	-26.05	58.31
EXTM 51	79.57	90.82	16	2	40.6	320.04	-.0002	-25.62	-.0013	22923.4	4.60	54.13	.0000	98.75	.0022	-26.59	59.27
EXTM 42	127.57	138.82	16	3	28.6	98.57	.0005	-22.96	-.0007	39301.5	4.00	6.48	-.0000	246.40	-.0009	-27.97	58.08
SET 42	196.70	207.95	16	4	37.8	105.00	.0022	-24.47	-.0002	55059.2	3.61	2.66	-.0015	241.66	-.0014	-28.38	49.86
RISE 61	211.09	222.34	16	4	52.2	303.76	.0032	-33.29	.0002	58293.0	3.16	.00	.0018	135.98	.0020	-28.39	47.49
EXTM 51	315.66	326.91	16	6	36.7	.03	.0037	-28.52	.0000	71760.1	2.91	57.22	.0000	180.73	.0085	-26.20	27.69
EXTM 61	474.26	485.51	16	9	15.3	2.55	.0040	-31.31	.0001	101536.8	2.51	18.42	.0000	182.30	.0036	-27.97	353.34
EXTM 72	509.80	521.05	16	9	50.9	.40	.0041	-29.11	.0001	103033.4	2.44	68.79	-.0000	180.96	.0098	-27.90	349.38
RISE 11	673.89	685.14	16	12	35.0	293.48	.0040	-29.45	-.0000	131630.9	1.91	.00	.0026	126.99	.0023	-27.59	307.33
SET 51	703.28	714.53	16	13	4.4	90.00	.0039	-26.52	.0001	134252.1	2.52	11.18	-.0032	245.79	-.0013	-27.54	308.48
SET 61	720.56	731.81	16	13	21.6	61.41	.0040	-29.49	.0001	137719.5	2.39	-.00	-.0022	229.84	.0026	-27.51	296.34
SET 72	897.62	908.87	16	16	18.7	94.05	.0040	-26.91	.0001	159545.8	2.36	-.00	-.0035	242.81	-.0005	-27.24	254.17
RISE 42	906.81	918.06	16	16	27.9	255.00	.0040	-25.85	-.0000	160240.4	1.65	3.51	.0029	119.44	-.0022	-27.23	251.96
EXTM 11	946.65	957.90	16	17	7.7	.79	.0042	-29.16	.0000	162549.3	1.93	25.62	.0000	180.76	.0040	-27.17	248.39
SET 11	1217.26	1228.51	16	21	38.3	67.89	.0041	-28.08	.0001	195024.0	2.04	-.00	-.0027	234.83	.0024	-26.85	176.85
EXTM 42	1331.42	1342.67	16	23	32.5	359.98	.0042	-26.46	.0000	200545.4	1.68	81.24	-.0000	.16	-.0167	-26.73	149.08
RISE 51	1466.22	147[illegible]	17	1	47.3	270.00	.0041	-25.96	-.0000	218853.9	1.25	10.96	.0034	113.68	-.0015	-26.60	116.01
RISE 72	1621.61	1[illegible]	17	4	22.7	266.08	.0041	-26.23	-.0000	234785.7	1.14	.00	.0036	116.51	-.0005	-26.46	77.88
RISE 61	1700.98	1[illegible]	17	5	41.7	296.14	.0041	-27.50	-.0000	242036.0	1.24	.00	.0025	127.23	.0027	-26.40	58.46
SET 42	1754.11	1765.76	17	6	35.2	105.00	.0041	-25.46	.0000	246505.0	1.82	3.26	-.0029	240.87	-.0022	-26.36	48.28
EXTM 51	1819.32	1830.57	17	7	40.4	358.43	.0042	-26.32	.0000	246373.6	1.46	88.47	.0035	112.77	.0529	-26.31	29.22
EXTM 61	1956.49	1967.74	17	9	57.6	.37	.0042	-27.49	.0000	262171.2	1.42	22.28	-.0000	180.36	.0040	-26.21	355.38
EXTM 72	1996.28	2007.53	17	10	37.4	.11	.0042	-26.62	.0000	261985.6	1.41	71.28	-.0000	180.32	.0116	-26.18	348.96
RISE 11	2136.06	2147.31	17	12	57.1	291.02	.0042	-26.94	-.0000	279611.9	1.06	.00	.0028	123.68	.0024	-26.09	311.02
SET 51	2184.80	2196.05	17	13	45.9	90.01	.0041	-25.56	.0000	282402.8	1.73	10.79	-.0034	246.69	-.0015	-26.06	298.97
SET 61	2212.05	2223.30	17	14	13.1	64.50	.0042	-26.97	.0000	285803.5	1.63	-.00	-.0025	233.55	-.0037	-26.04	292.23
SET 72	2369.84	2381.09	17	16	50.9	93.84	.0041	-25.77	.0000	298350.8	1.71	-.00	-.0037	243.97	-.0035	-25.99	293.17
RISE 42	2370.89	2382.14	17	16	52.0	254.99	.0041	-25.20	-.0000	298088.2	.98	3.11	.0030	118.93	-.0023	-25.99	292.91
EXTM 11	2411.11	2422.36	17	17	32.2	.20	.0042	-27.00	.0000	298611.5	1.29	27.80	.0000	180.20	.0042	-25.92	242.09
[illegible]M 11	2411.11	2422.36	17	17	32.2	.21	.0042	-27.00	.0000	298612.1	1.29	27.80	.0000	180.21	.0042	-25.92	242.09
SET 11	2686.34	2697.59	17	22	7.4	69.48	.0042	-26.91	.0000	322392.2	1.54	-.00	-.0028	236.89	.0024	-25.78	174.71
EXTM 42	2789.85	2801.10	17	23	50.9	359.95	.0042	-25.54	.0000	323734.7	1.21	80.32	.0000	.28	-.0209	-25.73	149.03
RISE 51	2920.72	2931.97	18	2	1.8	269.99	.0042	-25.24	-.0000	338500.1	.77	10.67	.0035	113.01	-.0015	-25.66	116.02
RISE 72	3074.28	3085.53	18	4	35.4	266.21	.0042	-25.43	-.0000	350176.8	.72	.00	.0037	115.69	-.0005	-25.90	78.31
RISE 61	3146.70	3157.95	18	5	47.8	294.72	.0042	-26.30	-.0000	355083.5	.84	.00	.0026	125.48	.0027	-25.55	60.84
SET 42	3208.29	3219.54	18	6	49.4	105.00	.0041	-24.91	.0000	358911.6	1.46	2.93	-.0030	241.31	-.0023	-25.53	44.87
EXTM 51	3271.13	3282.38	18	7	52.2	358.48	.0042	-25.49	.0000	367144.1	1.11	88.61	.0038	80.21	-.0288	-25.58	29.18
EXTM 61	3405.79	3417.04	18	10	6.9	.21	.0042	-26.34	.0000	369972.1	1.12	23.42	-.0000	180.21	.0041	-25.44	359.94
EXTM 72	3445.15	3456.60	18	10	46.4	.02	.0042	-25.72	.0000	369132.4	1.13	72.19	.0000	180.09	.0091	-25.42	348.68
RISE 11	3578.87	3590.12	18	12	59.9	290.10	.0042	-25.97	-.0000	384246.8	.84	.00	.0029	122.41	.0024	-25.36	318.24
SET 51	3633.19	3644.44	18	13	54.3	90.00	.0042	-24.96	.0000	386908.4	1.58	10.56	-.0035	247.25	-.0015	-25.33	298.62
SET 61	3664.27	3675.52	18	14	25.3	65.65	.0042	-25.98	.0000	390347.0	1.54	-.01	-.0026	234.98	.0077	-25.31	298.82
IMPACT	3740.89	3752.14	18	15	42.0												
IMPC 72	3740.89	3752.14	18	15	42.0	75.21	.0043	-25.23	.0001	395082.3	2.48	16.78	-.0039	245.95	-.0000	-25.24	271.44
IMPC 11	3740.89	3752.14	18	15	42.0	331.31	.0044	-26.01	.0000	394424.9	1.89	23.04	.0017	152.04	.0038	-25.24	271.44

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FTH	AZ	RT ASC
INJECTION	.00	11.25	16	1	21.073	6644.099	25.9774	307.1008	10.91534	-6.8685	101.8824	82.4888
SEPARATION	1.20	12.45	16	1	22.273	6569.198	24.3582	314.2568	10.97446	-3.4901	105.0607	89.8647
RETRO	3.20	14.45	16	1	24.273	6554.646	20.9063	325.6724	10.98692	2.2283	109.6627	101.7817
EXIT SHA	16.06	27.31	16	1	37.132	8972.694	-4.6619	16.0866	9.37744	31.2129	118.0487	159.4196
IMPACT	3740.89	3752.14	18	15	41.961	396962.238	-25.2403	271.4379	2.22358	58.2952	284.3473	264.9268

SURVEYOR VIEW PERIODS

GHA	116.9546				EPS 146.8667							LOM	266.8215
SX	-.086361	SY	-.9004/2	SZ	-.426254	DAO	-25.23008	RAO	264.52171	RM	398263.848	LAT	28.310600	LON	279.461800
C3	-.907004	ECC	.985108	SLR	12991.872	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.066495	NSY	-.901101	NSZ	-.428479	C3M	1.5557	VIM	2.6823	ZAE	141.368	B.T	.0000	B.R	-.0000
LATE	2.5787	LONE	4.9636	LATS	-1.3070	LONS	218.1792	LATI	-4.5729	LONI	326.9589	RSM	146.8619	TTAN	6.4037

LAUNCH DATE JAN 16,1966 BASE AZM 90.0 TF 62.288 ARRIVAL DATE JAN 18 1966 16 0 21.2

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
90.00	1 34 13.7	27.6	24.72	307.30	-8.35	88.73	104.25	1 45 28.7	6579.3	10.97	-4.14

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW															
INJECTION		.00	11.25	16	1	45.5												
SEPARATION		1.20	12.45	16	1	46.7												
RETRO		3.20	14.45	16	1	48.7												
RISE	72	5.97	17.22	16	1	51.5	65.95	-.5134	71.20	.1010	2555.6	-5.60	-.01	.1066	342.89	.1619	12.97	339.22
RISE	51	11.62	22.87	16	1	57.1	68.60	-.1231	37.11	-.0273	4865.4	-3.83	.00	.0972	312.05	.0305	1.19	.91
EXTM	72	11.77	23.02	16	1	57.2	303.42	-.0583	21.06	-.1387	2800.2	6.01	27.36	-.0000	61.29	.1677	.92	1.38
EXIT	SHA	15.08	26.33	16	2	.6												
EXIT	72	15.08	26.33	16	2	.6	295.50	-.0282	2.48	-.0612	4174.0	7.42	24.84	-.0173	83.54	.0717	-4.45	10.56
EXIT	51	15.08	26.33	16	2	.6	43.21	-.1158	28.31	-.0555	4369.9	-.85	21.84	.1093	319.51	.0424	-4.45	10.56
EXIT	61	15.06	26.33	16	2	.6	328.87	-.0634	-47.42	.0154	6533.7	7.22	-1.92	-.0028	159.51	-.0455	-4.45	10.56
EXTM	51	30.24	41.49	16	2	15.7	347.38	-.0260	-10.84	-.0193	7624.3	5.51	70.91	-.0000	40.99	.0979	-17.72	34.83
EXTM	72	65.38	76.63	16	2	50.9	277.41	-.0001	-25.36	-.0015	22708.2	4.95	10.04	.0000	114.49	.0015	-25.49	51.90
EXTM	51	81.94	93.19	16	3	7.4	326.84	-.0001	-26.04	-.0011	23540.5	4.53	60.25	.0000	97.96	.0023	-26.61	53.94
RISE	42	90.22	101.47	16	3	15.7	104.99	-.0018	-20.12	-.0017	30803.1	4.21	.00	.0023	245.10	-.0003	-26.98	54.33
EXTM	42	127.43	138.68	16	3	52.9	104.05	.0006	-22.59	-.0007	39970.3	3.99	2.21	-.0000	243.68	-.0009	-27.86	53.00
SET	42	144.87	156.12	16	4	10.4	105.00	.0012	-23.21	-.0005	44093.3	3.89	1.89	-.0006	242.66	-.0011	-28.05	51.30
RISE	61	181.81	193.06	16	4	47.3	304.40	.0030	-33.73	.0002	52442.7	3.34	-.00	.0017	136.67	.0018	-28.25	46.41
EXTM	51	286.81	298.06	16	6	32.3	.04	.0036	-28.51	.0000	66827.8	3.00	87.23	-.0000	180.84	.0597	-28.27	27.65
EXTM	61	448.87	460.12	16	9	14.3	2.73	.0039	-31.44	.0001	97849.4	2.56	18.28	.0000	182.46	.0035	-27.97	353.17
EXTM	72	483.80	495.05	16	9	49.3	.36	.0040	-29.16	.0001	99349.0	2.49	68.74	.0000	180.86	.0097	-27.90	345.34
RISE	11	649.35	660.60	16	12	34.8	293.53	.0040	-29.50	-.0000	128521.1	1.94	.00	.0026	127.06	.0023	-27.60	307.22
SET	51	678.08	689.33	16	13	3.6	90.00	.0039	-26.51	.0001	131107.6	2.54	11.18	-.0032	245.81	-.0013	-27.55	300.49
SET	61	695.18	706.43	16	13	20.7	61.33	.0040	-29.55	.0001	134582.8	2.42	-.00	-.0022	229.75	.0026	-27.52	296.46
SET	72	872.96	884.21	16	16	18.4	94.04	.0039	-26.92	.0001	156767.1	2.38	-.00	-.0035	242.80	-.0005	-27.25	254 22
RISE	42	882.48	893.73	16	16	28.0	254.99	.0040	-25.84	-.0001	157515.0	1.67	3.90	-.0029	119.43	-.0022	-27.24	251.93
EXTM	11	922.47	933.72	16	17	8.0	.84	.0042	-29.21	.0000	159894.7	1.95	25.58	-.0000	180.82	.0040	-27.19	242.34
SET	11	1192.91	1204.16	16	21	38.4	67.85	.0041	-28.11	.0001	192625.8	2.06	.00	-.0027	234.78	.0024	-26.86	176.90
EXTM	42	1307.28	1318.53	16	23	32.8	359.95	.0043	-26.47	.0000	198267.3	1.69	81.25	.0000	.30	-.0230	-26.74	149.03
RISE	51	1442.31	1453.56	17	1	47.8	270.00	.0041	-25.97	-.0000	216701.0	1.26	10.96	.0034	113.69	-.0015	-26.62	116.00
RISE	72	1597.74	1608.99	17	4	23.2	266.07	.0041	-26.25	-.0000	232742.7	1.15	-.01	.0036	116.52	-.0005	-26.48	77.87
RISE	61	1676.88	1688.13	17	5	42.4	296.17	.0041	-27.53	-.0000	240057.4	1.25	.00	.0025	127.26	.0027	-26.42	58.41
SET	42	1730.21	1741.46	17	6	35.7	105.00	.0041	-25.47	.0000	244539.4	1.83	3.27	-.0029	240.86	-.0022	-26.38	48.29
EXTM	51	1794.30	1805.55	17	7	39.8	358.13	.0042	-26.34	.0000	244348.7	1.47	88.21	.0036	110.15	.0397	-26.33	29.91
EXTM	61	1932.60	1943.85	17	9	58.1	.35	.0042	-27.52	.0000	260323.5	1.43	22.25	.0000	180.33	.0040	-26.23	355.41
EXTM	72	1972.49	1983.74	17	10	38.0	.11	.0042	-26.64	.0000	260165.7	1.42	71.26	-.0000	180.31	.0116	-26.20	349.56
RISE	11	2112.42	2123.67	17	12	57.9	291.04	.0042	-26.97	-.0000	277873.9	1.06	.00	.0028	123.71	.0024	-26.11	311.00
SET	51	2161.01	2172.26	17	13	46.5	90.00	.0041	-25.58	.0000	280673.8	1.73	10.81	-.0034	246.67	-.0015	-26.08	298.98
SET	61	2188.13	2199.38	17	14	13.6	64.46	.0042	-27.00	.0000	284077.4	1.63	-.00	-.0025	233.51	.0027	-26.06	292.28
SET	72	2346.14	2357.39	17	16	51.6	93.85	.0041	-25.79	.0000	296715.7	1.72	-.01	-.0037	243.94	-.0005	-25.97	253.17
RISE	42	2347.22	2358.47	17	16	52.7	255.00	.0041	-25.22	-.0000	296453.8	.98	3.12	.0030	118.94	-.0023	-25.97	252.90
EXTM	11	2387.54	2398.79	17	17	33.0	.24	.0042	-27.03	.0000	297007.2	1.30	27.77	-.0000	180.24	.0042	-25.95	242.92
SET	11	2662.52	2673.77	17	22	8.0	69.36	.0042	-26.54	.0000	320878.2	1.95	-.00	-.0028	236.85	.0024	-25.80	174.75
EXTM	42	2766.28	2777.53	17	23	51.8	359.98	.0042	-25.57	.0000	322279.9	1.21	80.35	.0000	.17	-.0180	-25.75	149.00
RISE	51	2896.77	2908.02	18	2	2.3	270.00	.0041	-25.27	-.0100	336714.0	.81	10.68	.0034	113.04	-.0015	-25.69	116.61
RISE	72	3050.66	3061.91	18	4	36.1	266.21	.0042	-25.46	-.0000	348833.9	.73	-.00	.0037	115.72	-.0005	-25.62	78.32
RISE	61	3123.24	3134.49	18	5	48.7	294.76	.0042	-26.33	-.0000	353762.8	.84	.00	.0026	125.52	.0027	-25.58	60.20
SET	42	3184.65	3195.90	18	6	50.1	105.00	.0041	-24.93	.0000	357586.3	1.46	2.95	-.0030	241.29	-.0023	-25.55	44.87
EXTM	51	3248.38	3259.63	18	7	53.9	358.70	.0042	-25.52	.0000	355886.9	1.12	88.81	.0038	79.80	-.0347	-25.53	28.96
EXTM	61	3382.06	3393.31	18	10	7.5	.19	.0042	-26.37	.0000	368661.3	1.12	23.39	-.0000	180.19	.0041	-25.47	355.56
EXTM	72	3421.79	3433.04	18	10	47.3	.04	.0042	-25.75	.0000	367829.5	1.12	72.16	.0000	180.14	.0108	-25.45	345.63
RISE	11	3555.37	3566.62	18	13	.9	290.13	.0042	-26.00	-.0000	382916.7	.83	.00	.0029	122.45	.0024	-25.39	312.21
SET	51	3609.58	3620.83	18	13	55.1	90.00	.0042	-24.99	.0000	385526.9	1.56	10.57	-.0035	247.22	-.0015	-25.36	298.63
SET	61	3640.47	3651.72	18	14	26.0	65.60	.0042	-26.02	.0000	388907.0	1.51	.00	-.0026	234.92	.0027	-25.34	290.88
IMPACT		3737.29	3748.54	18	16	2.8												
IMPC	72	3737.29	3748.54	18	16	2.8	80.25	.0043	-25.22	.0001	395616.7	2.49	12.14	-.0039	245.79	-.0002	-25.26	266.42
IMPC	11	3737.29	3748.54	18	16	2.8	336.40	.0044	-26.04	.0000	394291.6	1.92	24.81	.0014	156.66	.0040	-25.26	266.42

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	16	1	45.478	6579.789	24.7306	307.2712	10.96649	-4.1447	104.2391	88.6963
SEPARATION		1.20	12.45	16	1	46.678	6545.717	22.8533	314.2541	10.99470	-.7255	107.1816	95.9800
RETRO		3.20	14.45	16	1	48.678	6594.786	19.0452	325.3761	10.95342	4.9824	111.3522	107.6034
EXIT	SHA	15.08	26.33	16	2	.561	8970.692	-4.4512	10.5573	9.37874	31.2034	117.9885	155.7636
IMPACT		3737.29	3748.54	18	16	2.768	397007.543	-25.2614	266.4171	2.22367	68.1808	284.0974	264.7220

SURVEYOR VIEW PERIODS

GHA	116.9546					EPS	147.0618							LOM	260.7451
SX	-.082637	SY	-.900629	SZ	-.426660	DAO	-25.25577	RAO	264.75753	RM	398316.414	LAT	28.310600	LON	279.461800
C3	-.907291	ECC	.985103	SLR	12991.840	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.062766	NSY	-.901191	NSZ	-.428854	C3M	1.5557	VIM	2.6823	ZAE	141.357	B.T	.0000	B.R	-.0000
LATE	2.5517	LONE	4.9466	LATS	-1.3073	LONS	217.9657	LATI	-4.5748	LONI	326.9360	RSM	146.8613	TTAN	6.4103

LAUNCH DATE JAN 16.1966 BASE AZM 93.0 TF 62.308 ARRIVAL DATE JAN 18 1966 16 25 32.0

LNCH AZMTH	LNCH TIME	P8	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
93.00	1 54 51.7	27.8	23.51	307.20	-3.77	93.79	106.48	2 6 6.7	6551.7	10.99	-1.87

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW														
INJECTION	.00	11.25	16	2	6.1												
SEPARATION	1.20	12.45	16	2	7.3												
RETRO	3.20	14.45	16	2	9.3												
RISE 72	5.42	16.67	16	2	11.5	74.63	-.3192	62.36	.0867	2649.7	-6.52	-.00	.1157	333.43	.1267	12.29	338.56
EXTM 72	11.27	22.52	16	2	17.4	214.75	-.0879	21.13	-.1520	2508.3	5.57	36.94	.0000	55.96	.2161	.19	357.45
RISE 51	11.38	22.63	16	2	17.5	71.84	-.1102	32.87	-.0302	5100.6	-3.57	.00	.0949	307.06	.0220	-.00	357.78
EXIT SHA	14.24	25.49	16	2	20.4												
EXIT 72	14.24	25.49	16	2	20.4	304.33	-.0400	2.49	-.0696	3686.2	7.25	33.51	-.025	81.69	.0912	-4.59	5.59
EXIT 51	14.24	25.49	16	2	20.4	53.02	-.1070	26.01	-.0489	4678.8	-1.30	17.25	.1046	311.26	.0276	-4.59	5.59
EXIT 61	14.24	25.49	16	2	20.4	338.81	-.0736	-48.87	.0240	6414.9	6.89	-1.05	.0001	166.24	-.0504	-4.59	5.59
EXTM 51	32.39	43.64	16	2	38.5	351.41	-.0225	-14.36	-.0147	8500.0	5.45	76.06	-.0000	36.90	.1092	-19.28	32.74
EXTM 72	66.21	77.46	16	3	12.3	282.42	-.0000	-26.28	-.0013	22722.6	4.91	14.59	.0000	115.20	.0013	-25.84	47.40
EXTM 51	84.21	95.46	16	3	30.3	332.70	-.0001	-26.72	-.0010	24151.9	4.48	65.54	-.0000	98.38	.0023	-26.95	49.34
RISE 61	157.67	168.92	16	4	43.8	305.44	.0027	-34.42	.0003	47374.2	3.53	-.00	.0016	137.77	.0016	-28.30	44.91
EXTM 51	261.61	272.86	16	6	27.7	.03	.0035	-28.69	.0000	62364.8	3.10	87.05	.0000	180.59	.0500	-28.42	27.66
EXTM 61	427.78	439.03	16	9	13.9	2.99	.0039	-31.69	.0001	94728.6	2.61	18.02	.0000	182.67	.0035	-28.11	352.93
EXTM 72	462.24	473.49	16	9	48.4	.43	.0040	-29.35	.0001	96229.4	2.53	68.55	-.0000	181.04	.0096	-28.04	345.27
RISE 11	629.19	640.44	16	12	35.3	293.69	.0040	-29.66	-.0000	125909.5	1.97	.00	.0026	127.27	.0023	-27.71	307.01
SET 51	656.83	668.08	16	13	2.9	90.00	.0039	-26.60	.0001	128392.1	2.57	11.21	-.0032	245.72	-.0013	-27.66	300.55
SET 61	673.20	684.45	16	13	19.3	61.13	.0040	-29.71	.0001	131799.1	2.45	-.00	-.0022	229.52	.0026	-27.64	296.71
SET 72	852.27	863.52	16	16	18.4	94.06	.0039	-27.01	.0001	154375.7	2.40	-.00	-.0035	242.71	-.0004	-27.35	254.24
RISE 42	862.05	873.30	16	16	28.2	254.99	.0040	-25.92	-.0001	155160.5	1.69	3.54	.0029	119.49	-.0022	-27.34	251.90
EXTM 11	902.12	913.37	16	17	8.2	.88	.0042	-29.33	.0001	157607.5	1.97	25.45	-.0000	180.85	.0040	-27.28	242.30
SET 11	1172.20	1183.45	16	21	38.3	67.76	.0041	-28.20	.0001	190514.6	2.07	.00	-.0027	234.66	.0024	-26.94	177.01
EXTM 42	1287.08	1298.33	16	23	33.2	359.95	.0042	-26.55	.0000	196285.4	1.70	81.33	.0000	.31	-.0231	-26.82	149.03
RISE 51	1422.25	1433.50	17	1	48.4	270.00	.0041	-26.04	-.0000	214809.3	1.27	10.99	.0034	113.75	-.0015	-26.68	115.98
RISE 72	1577.68	1588.93	17	4	23.8	266.06	.0041	-26.31	-.0000	230934.3	1.16	-.01	.0036	116.59	-.0005	-26.55	77.87
RISE 61	1657.21	1668.46	17	5	43.3	296.26	.0041	-27.60	-.0000	238321.3	1.25	.00	.0025	127.37	.0027	-26.48	58.32
SET 42	1710.14	1721.39	17	6	36.3	105.00	.0041	-25.52	.0000	242786.3	1.84	3.31	-.0029	240.82	-.0022	-26.44	45.30
EXTM 51	1774.29	1785.54	17	7	40.4	358.13	.0042	-26.40	.0000	248633.7	1.47	88.19	.0035	112.00	.0429	-26.39	29.91
EXTM 61	1912.65	1923.90	17	9	58.8	.36	.0042	-27.58	.0000	258673.8	1.44	22.18	.0000	180.34	.0040	-26.29	355.40
EXTM 72	1952.51	1963.76	17	10	38.6	.11	.0042	-26.70	.0000	258524.7	1.43	71.20	-.0000	180.32	.0115	-26.26	348.56
RISE 11	2092.71	2103.96	17	12	58.8	291.09	.0042	-27.02	-.0000	276301.3	1.07	.00	.0028	123.78	.0024	-26.16	310.94
SET 51	2141.03	2152.28	17	13	47.1	90.00	.0041	-25.63	.0000	279093.0	1.74	10.82	-.0034	246.63	-.0015	-26.13	298.99
SET 61	2167.89	2179.14	17	14	14.0	64.39	.0042	-27.06	.0000	282486.6	1.64	-.00	-.0025	233.43	.0027	-26.12	292.39
SET 72	2326.18	2337.43	17	16	52.3	93.85	.0041	-25.84	.0000	295196.0	1.72	-.00	-.0037	243.90	-.0005	-26.02	253.18
RISE 42	2327.32	2338.57	17	16	53.4	255.00	.0041	-25.27	-.0000	294936.3	.99	3.15	.0030	118.97	-.0023	-26.02	252.90
EXTM 11	2367.65	2378.90	17	17	33.8	.25	.0042	-27.08	.0000	299510.1	1.31	27.71	-.0000	180.25	.0042	-26.00	248.91
SET 11	2642.43	2653.68	17	22	8.5	69.32	.0042	-26.59	.0000	319435.7	1.55	-.00	-.0028	236.79	.0024	-25.85	174.88
EXTM 42	2746.50	2757.75	17	23	52.6	.00	.0042	-25.61	.0000	320885.5	1.22	80.39	-.0000	359.89	-.0032	-25.79	148.98
RISE 51	2876.92	2886.17	18	2	3.0	270.00	.0041	-25.31	-.0000	335342.8	.81	10.70	.0034	113.07	-.0015	-25.73	116.60
RISE 72	3030.78	3042.03	18	4	36.9	266.20	.0042	-25.50	-.0000	347495.1	.73	-.00	.0037	115.76	-.0005	-25.65	78.32
RISE 61	3103.57	3114.82	18	5	49.7	294.80	.0042	-26.37	-.0000	352441.0	.84	.00	.0026	125.58	.0027	-25.62	60.15
SET 42	3164.77	3176.02	18	6	50.9	105.00	.0041	-24.97	.0000	356249.9	1.46	2.97	-.0030	241.26	-.0023	-25.59	44.88
EXTM 51	3228.49	3239.74	18	7	54.6	358.70	.0042	-25.56	.0000	354553.7	1.12	88.81	.0038	81.54	-.0293	-25.56	28.97
EXTM 61	3362.21	3373.46	18	10	8.3	.19	.0042	-26.41	.0000	367328.3	1.12	23.35	-.0000	180.19	.0041	-25.50	359.56
EXTM 72	3401.94	3413.19	18	10	48.1	.04	.0042	-25.78	.0000	366489.0	1.12	72.12	.0000	180.14	.0105	-25.48	349.63
RISE 11	3535.69	3546.94	18	13	1.8	290.16	.0042	-26.04	-.0000	381547.9	.82	.00	.0029	122.49	.0024	-25.42	312.17
SET 51	3589.76	3601.01	18	13	55.9	90.00	.0042	-25.02	.0000	384108.9	1.55	10.58	-.0035	247.19	-.0015	-25.39	298.63
SET 61	3620.51	3631.76	18	14	26.6	65.56	.0042	-26.06	.0000	387443.5	1.48	.00	-.0026	234.87	.0027	-25.38	290.92
IMPACT	3738.47	3749.72	18	16	24.6												
IMPC 42	3738.47	3749.72	18	16	24.6	247.06	.0043	-24.68	.0000	397312.3	1.74	-2.78	.0029	123.09	-.0026	-25.28	261.15
IMPC 72	3738.47	3749.72	18	16	24.6	85.52	.0043	-25.20	.0001	396184.3	2.49	7.38	-.0039	245.45	-.0003	-25.28	261.15
IMPC 11	3738.47	3749.72	18	16	24.6	341.74	.0044	-26.07	.0000	394187.1	1.95	26.33	.0011	161.70	.0042	-25.28	261.15

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	16	2	6.112	6551.732	23.5126	307.1934	10.98968	-1.8720	106.4816	93.7911
SEPARATION	1.20	12.45	16	2	7.312	6549.568	21.3883	314.0227	10.99143	1.5623	109.2080	100.9213
RETRO	3.20	14.45	16	2	9.312	6650.437	17.2749	324.7912	10.90713	7.2177	112.9519	112.1912
EXIT SHA	14.24	25.49	16	2	20.350	8957.102	-4.5899	5.5862	9.38591	31.1323	118.1004	155.7935
IMPACT	3738.47	3749.72	18	16	24.581	397054.434	-25.2835	261.1934	2.22256	68.0947	284.0657	264.9266

JAN 16, 1966
93 DEGREES

SURVEYOR VIEW PERIODS

GHA	116.9546				EPS 147.2269							LOM	255.6045
SX	-.079486	SY	-.900752	SZ	-.426998	DAO	-25.27721	RAO	264.95707	RM	398360.758	LAT	28.310600
C3	-.909345	ECC	.985069	SLR	12991.620	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000
NSX	-.059595	NSY	-.901255	NSZ	-.429172	C3M	1.5554	VIM	2.6823	ZAE	141.292	B.T	.0000
LATE	2.5712	LONE	4.9328	LATS	-1.3076	LONS	217.7858	LATI	-4.6741	LONI	326.8770	RSM	146.8608

LAUNCH DATE JAN 16 1966 BASE AZM 96.0 TF 62.351 ARRIVAL DATE JAN 18 1966 16 46 50.1

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
96.00	2 11 30.7	28.0	22.32	306.95	-.13	97.72	108.66	2 22 45.7	6544.7	11.00	-.06

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	16	2	22.8												
SEPARATION	1.20	12.45	16	2	24.0												
RETRO	3.20	14.45	16	2	26.0												
RISE 72	5.03	16.28	16	2	27.8	78.55	-.2459	55.02	.0639	2740.1	-7.08	.01	.1216	325.81	.0958	11.36	332.60
EXTM 72	10.94	22.19	16	2	33.7	325.97	-.1190	18.98	-.1572	2302.6	5.19	47.02	-.0000	50.91	.2835	-.90	354.20
RISE 51	11.23	22.48	16	2	34.0	74.53	-.1004	28.96	-.0330	5300.5	-3.33	-.00	.0926	302.51	.0149	-1.40	355.05
EXIT SHA	13.57	24.82	16	2	36.3												
EXIT 72	13.57	24.82	16	2	36.3	313.22	-.0553	1.30	-.0763	3304.1	7.06	42.45	-.0382	80.90	.1167	-5.14	1.34
EXIT 51	13.57	24.82	16	2	36.3	60.44	-.0988	23.39	-.0455	4953.0	-1.58	13.62	.1000	304.77	.0174	-5.14	1.34
EXIT 61	13.57	24.82	16	2	36.3	347.77	-.0820	-50.18	.0114	6401.4	6.59	-1.06	.0028	172.20	-.0537	-5.14	1.34
EXTM 51	34.60	45.85	16	2	57.4	354.62	-.0197	-17.74	-.0113	9361.5	5.38	80.57	-.0000	33.03	.1339	-21.00	30.96
EXTM 72	47.27	78.52	16	3	30.0	286.61	.0000	-27.49	-.0011	22847.3	4.86	18.34	.0000	116.42	.0011	-26.52	43.73
EXTM 51	87.01	98.26	16	3	49.8	337.52	.0000	-27.70	-.0008	24920.6	4.42	69.86	.0000	100.61	.0022	-27.60	45.57
RISE 61	139.65	150.90	16	4	42.4	306.87	.0024	-35.34	.0004	43428.4	3.69	-.00	.0015	139.26	.0013	-28.59	43.09
EXTM 51	240.70	251.95	16	6	23.5	.05	.0034	-29.09	.0000	58542.4	3.18	86.65	.0000	180.81	.0480	-28.76	27.64
EXTM 61	411.22	422.47	16	9	14.0	3.31	.0039	-32.07	.0002	92254.3	2.64	17.63	.0000	182.94	.0034	-28.38	352.63
EXTM 72	444.82	456.07	16	9	47.6	.50	.0040	-29.66	.0001	93669.5	2.56	68.24	-.0000	181.17	.0094	-28.30	345.21
RISE 11	613.52	624.77	16	12	36.3	293.95	.0040	-29.91	-.0000	123853.0	1.99	.00	.0026	127.62	.0023	-27.93	306.71
SET 51	639.71	650.96	16	13	2.5	90.00	.0038	-26.80	.0001	126163.3	2.59	11.29	-.0032	245.53	-.0013	-27.88	300.60
SET 61	654.79	666.04	16	13	17.6	60.80	.0039	-29.97	.0001	129427.7	2.47	-.00	-.0022	229.13	.0026	-27.85	297.06
SET 72	835.69	846.94	16	16	18.5	94.09	.0039	-27.18	.0001	152430.9	2.41	-.00	-.0035	242.53	-.0004	-27.53	254.25
RISE 42	845.65	856.90	16	16	28.4	254.99	.0040	-26.08	-.0000	153233.2	1.70	3.64	.0029	119.62	-.0021	-27.51	251.87
EXTM 11	885.88	897.13	16	17	8.6	.94	.0041	-29.53	.0001	155763.7	1.98	25.25	-.0000	180.91	.0040	-27.45	242.24
SET 11	1155.22	1166.47	16	21	38.0	67.61	.0041	-28.36	.0001	188749.7	2.08	.00	-.0027	234.46	.0024	-27.08	177.18
EXTM 42	1270.83	1282.08	16	23	33.6	359.95	.0042	-26.68	.0000	194657.6	1.71	81.46	.0000	.34	-.0235	-26.94	149.03
RISE 51	1406.12	1417.37	17	1	48.9	270.00	.0041	-26.15	-.0000	213251.8	1.27	11.03	.0034	113.86	-.0015	-26.80	115.97
RISE 72	1561.53	1572.78	17	4	24.3	266.04	.0041	-26.42	-.0000	229439.5	1.17	-.01	.0036	116.69	-.0005	-26.65	77.87
RISE 61	1641.64	1652.89	17	5	44.4	296.39	.0041	-27.71	-.0000	236909.1	1.26	.00	.0025	127.52	.0027	-26.58	58.19
SET 42	1693.99	1705.24	17	6	36.8	105.00	.0041	-25.62	.0000	241332.4	1.84	3.36	-.0029	240.75	-.0022	-26.53	45.31
EXTM 51	1758.45	1769.70	17	7	41.2	358.19	.0042	-26.50	.0000	241234.0	1.48	88.21	.0034	115.50	.0501	-26.48	29.44
EXTM 61	1896.65	1907.90	17	9	59.4	.38	.0042	-27.67	.0000	257309.5	1.44	22.09	.0000	180.36	.0040	-26.37	355.38
EXTM 72	1936.47	1947.72	17	10	39.2	.12	.0042	-26.79	.0000	257160.9	1.43	71.11	-.0000	180.33	.0115	-26.34	345.56
RISE 11	2076.99	2088.24	17	12	59.8	291.17	.0042	-27.10	-.0000	274997.7	1.07	.00	.0028	123.89	.0024	-26.24	310.85
SET 51	2124.95	2136.20	17	13	47.7	90.00	.0041	-25.70	.0000	277768.1	1.74	10.85	-.0034	246.56	-.0015	-26.21	299.00
SET 61	2151.45	2162.70	17	14	14.2	64.30	.0042	-27.13	.0000	281141.4	1.64	-.00	-.0025	233.31	.0027	-26.19	292.44
SET 72	2310.17	2321.42	17	16	52.9	93.87	.0041	-25.90	.0000	293920.5	1.73	-.00	-.0037	243.83	-.0005	-26.09	253.17
RISE 42	2311.32	2322.57	17	16	54.1	255.00	.0041	-25.33	-.0000	293657.1	.99	3.19	.0030	119.02	-.0023	-26.08	252.89
EXTM 11	2351.67	2362.92	17	17	34.4	.26	.0042	-27.15	.0000	294252.6	1.31	27.64	-.0000	180.26	.0042	-26.06	242.90
SET 11	2626.18	2637.43	17	22	8.9	69.27	.0042	-26.64	.0000	318202.5	1.56	-.00	-.0028	236.71	.0024	-25.90	174.86
EXTM 42	2730.47	2741.72	17	23	53.2	360.00	.0042	-25.66	.0000	319684.8	1.22	80.44	-.0000	.12	-.0049	-25.84	148.99
RISE 51	2860.94	2872.19	18	2	3.7	270.00	.0041	-25.35	-.0000	334164.9	.82	10.72	.0034	113.11	-.0015	-25.78	116.60
RISE 72	3014.91	3026.16	18	4	37.7	266.19	.0042	-25.54	-.0000	346391.8	.73	-.00	.0037	115.80	-.0005	-25.70	78.32
RISE 61	3087.91	3099.16	18	5	50.7	294.85	.0042	-26.41	-.0000	351350.1	.84	.00	.0026	125.64	.0027	-25.66	60.10
SET 42	3148.88	3160.13	18	6	51.6	105.00	.0041	-25.01	.0000	355137.4	1.46	2.99	-.0030	241.23	-.0023	-25.63	44.88
EXTM 51	3212.60	3223.85	18	7	55.4	358.70	.0042	-25.60	.0000	353439.7	1.11	88.82	.0038	83.43	-.0233	-25.60	28.97
EXTM 61	3346.33	3357.58	18	10	9.1	.20	.0042	-26.45	.0000	366204.6	1.12	23.32	-.0000	180.19	.0041	-25.54	355.55
EXTM 72	3386.22	3397.47	18	10	49.0	.09	.0042	-25.82	.0000	365366.9	1.12	72.08	-.0000	180.27	.0121	-25.52	345.98
RISE 11	3519.92	3531.17	18	13	2.7	290.20	.0042	-26.07	-.0000	380380.9	.81	.00	.0029	122.54	.0024	-25.45	312.14
SET 51	3573.85	3585.10	18	13	56.6	90.00	.0042	-25.05	.0000	382898.5	1.53	10.60	-.0035	247.16	-.0015	-25.43	298.63
SET 61	3604.45	3615.70	18	14	27.2	65.52	.0042	-26.09	.0000	386196.5	1.46	.00	-.0026	234.82	.0027	-25.41	290.96
IMPACT	3741.09	3752.34	18	16	43.8												
IMPC 42	3741.09	3752.34	18	16	43.8	251.69	.0043	-24.72	.0000	396996.3	1.72	.46	.0030	120.42	-.0025	-25.30	256.50
IMPC 72	3741.09	3752.34	18	16	43.8	90.18	.0043	-25.19	.0001	396691.9	2.49	3.20	-.0039	245.00	-.0004	-25.30	256.50
IMPC 11	3741.09	3752.34	18	16	43.8	346.45	.0044	-26.10	.0000	394129.4	1.97	27.37	.0009	166.30	.0043	-25.30	256.50

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION	.00	11.25	16	2	22.761	6544.676	22.3244	306.9471	10.99554	-.0633	108.6555	97.7185
SEPARATION	1.20	12.45	16	2	23.961	6567.433	19.9696	313.6072	10.97626	3.3630	111.1700	104.6795
RETRO	3.20	14.45	16	2	25.961	6708.339	15.5833	324.0067	10.85950	8.9523	114.5097	115.9803
EXIT SHA	13.57	24.82	16	2	36.334	8947.041	-5.1433	1.3428	9.39114	31.0792	118.3591	155.5170
IMPACT	3741.09	3752.34	18	16	43.849	3970 8.785	-25.3031	256.5045	2.21993	67.8384	284.1123	265.1078

SURVEYOR VIEW PERIODS

GHA	116.9546					EPS	147.3549							LOM	251.6170
SX	-.077041	SY	-.900842	SZ	-.427258	DAO	-25.29366	RAO	265.11188	RM	398395.070	LAT	28.310600	LON	279.461800
C3	-.911428	ECC	.985035	SLR	12991.394	RCA	6544.6650	LTA	-20.0000	GTA	2L	TB	675.00000	POL	-.0
NSX	-.057131	NSY	-.901296	NSZ	-.429420	C3H	1.5565	VIM	2.6825	ZAE	141.198	B.T	.0000	B.R	-.0000
LATE	2.5863	LONE	4.9219	LATS	-1.3078	LONS	217.6460	LATI	-4.8518	LONI	326.8045	RSM	146.8604	TTAN	6.4186
LAUNCH DATE	JAN 16,1966			BASE AZM	99.0		TF 62.392					ARRIVAL DATE	JAN 18 1966 17 3 21.5		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99.00	2 24 34.2	28.0	21.16	306.59	2.69	100.63	110.79	2 35 49.2	6548.2	10.99	1.34

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PRORE IN EARTH'S SHADOW															
INJECTION	.00	11.25	16	2	35.8												
SEPARATION	1.20	12.45	16	2	37.0												
RETRO	3.20	14.45	16	2	39.0												
RISE 72	4.75	16.00	16	2	40.6	80.89	-.2074	48.74	.0413	2819.9	-7.42	.00	.1251	319.37	.0689	10.27	330.15
EXTM 72	10.73	21.98	16	2	46.0	336.31	-.1454	14.64	-.1545	2168.0	4.90	57.44	-.0000	46.24	.3881	-2.27	351.51
RISE 51	11.13	22.38	16	2	47.0	76.85	-.0927	25.27	-.0357	5464.9	-3.12	.00	.0907	298.29	.0090	-2.98	352.67
EXIT SHA	13.03	24.28	16	2	48.8												
EXIT 72	13.03	24.28	16	2	48.8	322.06	-.0733	-1.09	-.0807	3005.2	6.85	51.60	-.0559	81.71	.1506	-6.01	357.67
EXIT 51	13.03	24.28	16	2	48.8	66.32	-.0919	20.71	-.0441	5185.9	-1.77	10.65	.0961	299.35	.0099	-6.01	357.67
EXIT 61	13.03	24.28	16	2	48.8	355.75	-.0887	-51.44	.0082	6457.2	6.32	-1.75	.0051	177.35	-.0557	-6.01	357.67
EXTM 51	36.72	47.97	16	3	12.5	357.17	-.0177	-20.98	-.0088	10167.6	5.33	84.58	-.0000	29.24	.1980	-22.82	29.45
EXTM 72	68.59	79.84	16	3	44.4	289.99	.0001	-28.92	-.0008	23090.4	4.82	21.28	.0000	118.03	.0009	-27.49	40.81
RISE 61	128.17	139.42	16	4	44.0	308.63	.0022	-36.42	.0005	40849.1	3.81	-.00	.0014	141.05	.0011	-29.15	41.08
EXTM 51	223.80	235.05	16	6	19.6	.09	.0033	-29.69	.0001	55370.8	3.26	86.05	.0000	181.20	.0406	-29.28	27.60
EXTM 61	398.83	410.08	16	9	14.7	3.71	.0039	-32.55	.0002	90405.3	2.67	17.13	.0000	183.27	.0034	-28.78	352.26
EXTM 72	431.33	442.58	16	9	47.2	.59	.0040	-30.10	.0001	91671.1	2.59	67.80	-.0000	181.35	.0091	-28.69	345.13
RISE 11	601.92	613.17	16	12	37.7	294.30	.0040	-30.25	.0000	122319.0	2.01	.00	.0026	128.07	.0023	-28.24	306.33
SET 51	626.33	637.58	16	13	2.2	90.01	.0038	-27.09	.0001	124401.8	2.60	11.40	-.0032	245.26	-.0013	-28.18	300.65
SET 61	639.60	650.85	16	13	15.4	60.35	.0039	-30.31	.0001	127448.6	2.48	-.00	-.0022	228.62	.0026	-28.15	297.55
SET 72	822.83	834.08	16	16	18.7	94.13	.0039	-27.43	.0001	150910.3	2.42	-.00	-.0035	242.29	-.0004	-27.78	254.24
RISE 42	832.85	844.10	16	16	28.7	254.99	.0040	-26.31	-.0000	151711.5	1.71	3.78	.0028	119.80	-.0021	-27.76	251.85
EXTM 11	873.34	884.59	16	17	9.2	1.03	.0041	-29.79	.0001	154340.4	1.99	24.99	-.0000	180.98	.0040	-27.68	242.16
SET 11	1141.65	1152.90	16	21	37.5	67.42	.0041	-28.56	.0001	187328.7	2.08	-.00	-.0026	234.19	.0024	-27.27	177.39
EXTM 42	1258.13	1269.38	16	23	34.0	359.94	.0042	-26.85	.0000	193374.2	1.72	81.63	.0000	.39	-.0241	-27.12	149.04
RISE 51	1393.53	1404.78	17	1	49.4	270.00	.0041	-26.30	-.0000	212022.8	1.28	11.09	.0034	114.00	-.0015	-26.96	115.96
RISE 72	1548.86	1560.11	17	4	24.7	266.02	.0041	-26.55	-.0000	228257.6	1.17	-.01	.0036	116.83	-.0005	-26.79	77.88
RISE 61	1629.73	1640.98	17	5	45.6	296.55	.0041	-27.84	-.0000	235819.0	1.26	.00	.0025	127.72	.0027	-26.71	58.02
SET 42	1681.37	1692.62	17	6	37.2	105.00	.0041	-25.74	.0000	240181.3	1.85	3.44	-.0029	240.65	-.0022	-26.66	45.32
EXTM 51	1748.92	1760.17	17	7	44.7	358.97	.0042	-26.62	.0000	240383.6	1.49	88.72	.0028	133.75	.1153	-26.60	28.69
EXTM 61	1884.19	1895.44	17	10	.0	.41	.0042	-27.79	.0000	256240.0	1.45	21.97	.0000	180.39	.0040	-26.48	355.35
EXTM 72	1923.92	1935.17	17	10	39.7	.12	.0042	-26.90	.0000	256084.8	1.43	71.00	-.0000	180.35	.0115	-26.45	345.55
RISE 11	2064.83	2076.08	17	13	.7	291.27	.0042	-27.20	-.0000	273977.0	1.08	.00	.0028	124.02	.0024	-26.34	310.75
SET 51	2112.37	2123.62	17	13	48.2	90.00	.0041	-25.79	.0000	276710.8	1.75	10.89	-.0034	246.48	-.0015	-26.30	299.00
SET 61	2138.42	2149.67	17	14	14.2	64.19	.0042	-27.23	.0000	280061.8	1.65	-.00	-.0025	233.17	.0027	-26.28	292.56
SET 72	2297.65	2308.90	17	16	53.5	93.88	.0041	-25.98	.0000	292909.4	1.73	-.00	-.0037	243.75	-.0005	-26.17	253.16
RISE 42	2298.78	2310.03	17	16	54.6	255.00	.0041	-25.41	-.0000	292639.6	1.00	3.24	.0029	119.09	-.0023	-26.17	252.89
EXTM 11	2339.19	2350.44	17	17	35.0	.28	.0042	-27.23	.0000	293259.1	1.31	27.56	-.0000	180.28	.0042	-26.14	242.88
SET 11	2613.37	2624.62	17	22	9.2	69.20	.0042	-26.71	.0000	317214.1	1.56	-.00	-.0028	236.62	.0024	-25.96	174.93
EXTM 42	2717.90	2729.15	17	23	53.7	359.99	.0042	-25.72	.0000	318725.9	1.22	80.50	-.0000	.13	-.0127	-25.90	148.99
RISE 51	2848.42	2859.67	18	2	4.2	270.00	.0041	-25.41	-.0000	333223.3	.82	10.74	.0034	113.16	-.0015	-25.83	116.59
RISE 72	3002.51	3013.76	18	4	38.3	266.19	.0042	-25.59	-.0000	345523.4	.73	.00	.0037	115.85	-.0005	-25.74	78.32
RISE 61	3075.72	3086.97	18	5	51.5	294.91	.0042	-26.46	-.0000	350493.5	.84	.00	.0026	125.71	.0027	-25.70	60.04
SET 42	3136.45	3147.70	18	6	52.3	105.00	.0041	-25.05	.0000	354258.7	1.46	3.01	-.0030	241.20	-.0023	-25.67	44.88
EXTM 51	3200.17	3211.42	18	7	56.0	358.70	.0042	-25.64	.0000	352559.8	1.11	88.82	.0038	85.38	-.0172	-25.64	28.97
EXTM 61	3333.93	3345.18	18	10	9.7	.21	.0042	-26.48	.0000	365317.0	1.12	23.28	-.0000	180.20	.0041	-25.57	355.55
EXTM 72	3373.78	3385.03	18	10	49.6	.09	.0042	-25.86	.0000	364469.0	1.12	72.05	-.0000	180.27	.0121	-25.55	345.98
RISE 11	3507.60	3518.85	18	13	3.4	290.23	.0042	-26.10	-.0000	379458.1	.81	.00	.0029	122.58	.0024	-25.48	312.11
SET 51	3561.39	3572.64	18	13	57.2	90.00	.0042	-25.08	.0000	381942.0	1.52	10.61	-.0035	247.14	-.0015	-25.45	298.64
SET 61	3591.86	3603.11	18	14	27.7	65.48	.0042	-26.12	.0000	385213.1	1.45	.00	-.0026	234.78	.0027	-25.44	291.00
RISE 42	3741.93	3753.18	18	16	57.7	255.00	.0043	-24.76	.0000	396577.6	1.61	2.84	.0031	118.57	-.0024	-25.32	253.18
SET 72	3742.87	3754.12	18	16	58.7	93.74	.0043	-25.18	.0001	397003.8	2.43	.00	-.0038	244.56	-.0005	-25.32	252.93
IMPACT	3743.53	3754.78	18	16	59.4												
IMPC 42	3743.53	3754.78	18	16	59.4	255.41	.0043	-24.76	.0000	396735.5	1.71	3.14	.0031	118.34	-.0024	-25.32	252.76
IMPC 72	3743.53	3754.78	18	16	59.4	93.91	.0043	-25.18	.0001	397101.0	2.48	-.15	-.0039	244.54	-.0005	-25.32	252.76
IMPC 11	3743.53	3754.78	18	16	59.4	350.25	.0044	-26.12	.0000	394105.6	1.99	27.98	.0006	170.08	.0044	-25.32	252.76

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	16	2	35.821	6548.254	21.1630	306.5889	10.99243	1.3352	110.7903	100.6341
SEPARATION	1.20	12.45	16	2	37.021	6590.251	18.5861	313.0797	10.95701	4.7533	113.1022	107.4287
RETRO	3.20	14.45	16	2	39.021	6761.587	13.9390	323.1266	10.81623	10.2788	116.0662	117.9739
EXIT SHA	13.03	24.28	16	2	48.848	8930.669	-6.0059	357.6743	9.39972	30.9926	118.7596	154.9882
IMPACT	3743.53	3754.78	18	16	59.356	397135.148	-25.3189	252.7632	2.21756	67.5845	284.3121	269.2538

SURVEYOR VIEW PERIODS

GHA	116.9546					EPS	147.4743							LOM	247.8957
SX	-.074760	SY	-.900920	SZ	-.427498	DAO	-25.30885	RAO	265.25637	RM	398427.031	LAT	28.310600	LON	279.461800
C3	-.916058	ECC	.984959	SLR	12990.895	RCA	6544.6650	LTA	-20.0000	GTA	20.00	T8	675.00000	POL	-.0
NSX	-.054806	NSY	-.901328	NSZ	-.429655	C3M	1.5563	VIM	2.6824	ZAc	141.043	B.T	.0000	B.R	-.0000
LATE	2.6003	LONE	4.9112	LATS	-1.3080	LONS	217.5151	LATI	-5.0881	LONI	326.6826	RSM	146.8601	TTAN	6.4207
LAUNCH DATE		JAN	16,1966		BASE AZM	102.0		TF	62.471			ARRIVAL DATE		JAN 18 1966	17 18 46.8

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	2 34 53.1	28.1	20.03	306.15	4.88	102.78	112.90	2 46 8.1	6556.4	10.99	2.42

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	16	2	46.1												
SEPARATION	1.20	12.45	16	2	47.3												
RETRO	3.20	14.45	16	2	49.3												
RISE 72	4.54	15.79	16	2	50.7	82.51	-.1830	43.18	.0201	2889.0	-7.60	.00	.1272	313.70	.0449	9.04	328.09
EXTM 72	10.62	21.87	16	2	56.8	345.40	-.1637	8.49	-.1456	2097.5	4.71	68.08	-.0000	41.89	.5834	-3.89	349.26
RISE 51	11.08	22.33	16	2	57.2	78.92	-.0865	21.74	-.0383	5602.0	-2.93	.00	.0889	294.28	.0037	-4.69	350.55
EXIT SHA	12.55	23.80	16	2	58.7												
EXIT 72	12.55	23.80	16	2	58.7	330.99	-.0936	-4.50	-.0830	2770.7	6.59	60.97	-.0806	85.02	.1967	-7.06	354.39
EXIT 51	12.55	23.80	16	2	58.7	71.29	-.0861	18.10	-.0439	5387.2	-1.93	8.03	.0928	294.61	.0038	-7.06	354.39
EXIT 61	12.55	23.80	16	2	58.7	3.02	-.0941	-52.65	.0046	6553.2	6.09	-2.93	.0069	181.83	-.0569	-7.06	354.39
EXTM 51	35.97	47.22	16	3	22.1	2.16	-.0193	-22.84	-.0087	10037.1	5.26	86.50	.0172	325.30	.1629	-23.97	26.35
EXTM 72	69.60	80.85	16	3	55.7	292.72	.0001	-30.51	-.0006	23280.8	4.79	23.54	.0000	119.91	.0006	-28.65	38.43
RISE 61	122.69	133.94	16	4	48.8	310.59	.0020	-37.56	.0006	39624.9	3.86	-.00	.0014	142.99	.0010	-29.95	39.06
EXTM 51	210.33	221.58	16	6	16.5	.18	.0032	-30.48	.0001	52782.5	3.33	85.26	-.0000	181.92	.0329	-29.97	27.52
EXTM 61	390.33	401.58	16	9	16.5	4.29	.0038	-33.11	.0002	89147.8	2.69	16.54	-.0000	183.75	.0034	-29.28	351.72
EXTM 72	421.00	432.25	16	9	47.1	.70	.0040	-30.64	.0001	90124.4	2.61	67.26	-.0000	181.57	.0088	-29.17	345.02
RISE 11	593.55	604.80	16	12	39.7	294.73	.0040	-30.66	.0000	121196.1	2.02	.00	.0026	128.62	.0023	-28.62	305.88
SET 51	615.85	627.10	16	13	2.0	90.00	.0038	-27.46	.0001	122989.5	2.61	11.55	-.0032	244.92	-.0013	-28.56	300.70
SET 61	626.91	638.16	16	13	13.0	59.81	.0039	-30.72	.0002	125763.5	2.49	-.00	-.0021	227.99	.0026	-28.53	298.12
SET 72	812.90	824.15	16	16	19.0	94.19	.0039	-27.73	.0001	149708.7	2.43	-.00	-.0034	241.98	-.0004	-28.08	254.21
RISE 42	822.91	834.16	16	16	29.0	254.99	.0040	-26.60	-.0000	150493.9	1.72	3.96	.0028	120.03	-.0021	-28.06	251.82
EXTM 11	863.73	874.98	16	17	9.9	1.13	.0041	-30.10	.0001	153232.5	2.00	24.68	-.0000	181.07	.0039	-27.98	242.07
SET 11	1130.71	1141.96	16	21	36.8	67.17	.0041	-28.80	.0001	186143.3	2.09	-.00	-.0026	233.87	.0024	-27.50	177.64
EXTM 42	1248.23	1259.48	16	23	34.4	359.93	.0042	-27.07	.0000	192331.3	1.72	81.85	.0000	.44	-.0251	-27.33	149.04
RISE 51	1383.73	1394.98	17	1	49.9	270.00	.0041	-26.49	-.0000	211016.3	1.28	11.16	.0034	114.18	-.0014	-27.15	115.95
RISE 72	1538.95	1550.20	17	4	25.1	265.99	.0041	-26.72	-.0000	227279.7	1.18	-.01	.0036	117.00	-.0005	-26.96	77.90
RISE 61	1620.73	1631.98	17	5	46.9	296.75	.0041	-28.01	-.0000	234939.7	1.27	.00	.0025	127.96	.0027	-26.87	57.81
SET 42	1671.52	1682.77	17	6	37.7	105.00	.0041	-25.89	.0000	239221.0	1.85	3.53	-.0029	240.53	-.0022	-26.81	45.33
EXTM 51	1740.92	1752.17	17	7	47.1	359.43	.0042	-26.77	.0000	239610.1	1.49	88.85	.0017	153.63	.1672	-26.74	28.24
EXTM 61	1874.51	1885.76	17	10	.6	.44	.0042	-27.93	.0000	255346.9	1.45	21.83	-.0000	180.42	.0040	-26.61	355.32
EXTM 72	1914.14	1925.39	17	10	40.3	.13	.0042	-27.03	.0000	255178.4	1.44	70.87	-.0000	180.37	.0114	-26.58	345.54
RISE 11	2055.50	2066.75	17	13	1.6	291.38	.0042	-27.32	-.0000	273117.8	1.08	.00	.0028	124.18	.0024	-26.45	310.63
SET 51	2102.54	2113.79	17	13	48.7	90.00	.0041	-25.90	.0000	275815.6	1.75	10.93	-.0034	246.37	-.0015	-26.41	299.01
SET 61	2128.05	2139.30	17	14	14.2	64.05	.0042	-27.34	.0000	279123.4	1.65	-.00	-.0025	233.01	.0027	-26.39	292.70
SET 72	2287.89	2299.14	17	16	54.0	93.90	.0041	-26.08	.0001	292033.8	1.73	-.00	-.0037	243.65	-.0005	-26.26	253.15
RISE 42	2288.99	2300.24	17	16	55.1	255.00	.0041	-25.50	-.0000	291755.3	1.00	3.09	.0029	119.16	-.0023	-26.26	252.88
EXTM 11	2329.47	2340.72	17	17	35.6	.30	.0042	-27.33	.0000	292399.2	1.31	27.46	-.0000	180.30	.0042	-26.23	242.86
SET 11	2603.26	2614.51	17	22	9.4	69.13	.0042	-26.79	.0000	316330.2	1.56	-.00	-.0028	236.52	.0024	-26.04	175.00
EXTM 42	2708.05	2719.30	17	23	54.2	359.98	.0042	-25.79	.0000	317865.4	1.22	80.57	-.0000	.18	-.0175	-25.97	149.00
RISE 51	2838.62	2849.87	18	2	4.8	270.00	.0041	-25.47	-.0000	332369.9	.82	10.76	.0034	113.22	-.0015	-25.89	116.59
RISE 72	2992.67	3003.92	18	4	38.8	266.18	.0042	-25.64	-.0000	344677.6	.72	.00	.0037	115.90	-.0005	-25.80	78.33
RISE 61	3066.16	3077.41	18	5	52.3	294.97	.0042	-26.51	-.0000	349661.2	.84	.00	.0026	125.78	.0027	-25.75	59.98
SET 42	3126.63	3137.88	18	6	52.8	105.00	.0041	-25.09	.0000	353401.4	1.46	3.04	-.0030	241.16	-.0023	-25.72	44.88
EXTM 51	3190.35	3201.60	18	7	56.5	358.69	.0042	-25.68	.0000	351700.2	1.11	88.82	.0038	87.57	-.0101	-25.68	28.97
EXTM 61	3324.18	3335.43	18	10	10.3	.22	.0042	-26.53	.0000	364451.1	1.11	23.24	-.0000	180.22	.0041	-25.61	355.53
EXTM 72	3364.00	3375.25	18	10	50.1	.09	.0042	-25.90	.0000	363592.3	1.11	72.01	-.0000	180.28	.0122	-25.59	345.58
RISE 11	3497.96	3509.21	18	13	4.1	290.26	.0042	-26.14	-.0000	378559.7	.80	.00	.0029	122.63	.0024	-25.52	312.07
SET 51	3551.62	3562.87	18	13	57.8	90.00	.0042	-25.11	.0000	381012.8	1.52	10.62	-.0035	247.11	-.0015	-25.49	298.64
SET 61	3581.96	3593.21	18	14	28.1	65.45	.0042	-26.15	.0000	384260.1	1.44	.00	-.0026	234.73	.0027	-25.47	291.04
RISE 42	3732.46	3743.71	18	16	58.6	255.00	.0042	-24.79	-.0000	395168.9	1.21	2.86	.0030	118.60	-.0024	-25.36	253.17
SET 72	3733.41	3744.66	18	16	59.5	93.75	.0042	-25.22	.0000	395575.0	1.99	.00	-.0038	244.52	-.0005	-25.36	252.93
IMPACT	3748.26	3759.51	18	17	14.4												
IMPC 42	3748.26	3759.51	18	17	14.4	259.03	.0043	-24.80	.0000	396475.4	1.70	5.78	.0031	116.39	-.0023	-25.33	249.13
IMPC 72	3748.26	3759.51	18	17	14.4	97.54	.0043	-25.17	.0001	397493.7	2.47	-3.39	-.0038	244.00	-.0006	-25.33	249.13
IMPC 11	3748.26	3759.51	18	17	14.4	353.93	.0044	-26.14	.0000	394099.1	2.01	28.38	.0004	173.80	.0044	-25.33	249.13

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	16	2	46.135	6556.503	20.0250	306.1532	10.98529	2.4202	112.9031	102.7840
SEPARATION	1.20	12.45	16	2	47.335	6613.216	17.2406	312.4567	10.93761	5.8214	115.0160	109.3884
RETRO	3.20	14.45	16	2	49.335	6807.569	12.3391	322.1713	10.77913	11.2899	117.6327	119.6043
EXIT SHA	12.55	23.80	16	2	58.688	8902.908	-7.0626	354.3914	9.41426	30.8446	119.2975	154.1690
IMPACT	3748.26	3759.51	18	17	14.393	397167.875	-25.3342	249.1346	2.21563	67.4848	284.7335	265.3949

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SURVEYOR VIEW PERIODS

GHA	116.9546					EPS	147.5826							LOM	244.5211
SX	-.072691	SY	-.900987	SZ	-.427713	DAO	-25.32251	RAO	265.38741	RM	396455.965	LAT	28.310600	LON	279.461800
C3	-.921900	ECC	.984863	SLR	12990.271	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.052681	NSY	-.901352	NSZ	-.429871	C3M	1.5560	VIM	2.6824	ZAE	140.849	B.T	.0000	B.R	-.0000
LATS	2.6130	LONE	5.0299	LATS	-1.3081	LONS	217.5247	LATI	-5.3640	LONI	326.6576	RSM	146.8598	TTAN	6.4216
LAUNCH DATE	JAN 16,1966			BASE AZM	105.0		TF 62.567					ARRIVAL DATE	JAN 18 1966 17 32 45.8		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	2 43 3.3	28.1	18.92	305.64	6.58	104.32	115.00	2 54 18.3	6566.1	10.98	3.26

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW														
INJECTION	.00	11.25	16	2	54.3												
SEPARATION	1.20	12.45	16	2	55.5												
RETRO	3.20	14.45	16	2	57.5												
RISE 72	4.40	15.65	16	2	58.7	83.75	-.1655	38.09	.0004	2949.9	-7.67	-.00	.1282	308.52	.0231	7.71	326.32
EXTM 72	10.60	21.85	16	3	4.9	353.11	-.1740	1.04	-.1330	2088.1	4.61	78.72	-.0000	37.81	1.1195	-5.71	347.38
RISE 51	11.07	22.32	16	3	5.4	80.82	-.0812	18.31	-.0409	5718.8	-2.76	.00	.0873	290.41	-.0011	-6.52	348.65
EXIT SHA	12.17	23.42	16	3	6.5												
EXIT 72	12.17	23.42	16	3	6.5	339.76	-.1141	-8.99	-.0825	2613.3	6.30	69.95	-.1149	94.56	.2316	-8.32	351.51
EXIT 51	12.17	23.42	16	3	6.5	75.43	-.0811	15.47	-.0445	5559.8	-2.03	5.89	.0899	290.33	-.0013	-8.32	351.51
EXIT 61	12.17	23.42	16	3	6.5	9.47	-.0977	-53.80	.0010	6691.8	5.91	-4.39	.0082	185.59	-.0573	-8.32	351.51
EXTM 51	40.87	52.12	16	3	35.2	.68	-.0147	-27.28	-.0053	11679.0	5.23	88.35	.0000	201.60	-.4884	-26.73	27.24
EXTM 72	70.61	81.86	16	4	4.9	294.88	.0000	-32.22	-.0003	23499.9	4.76	25.21	.0000	121.97	.0004	-29.96	36.52
EXTM 51	93.13	104.38	16	4	27.4	346.93	.0001	-31.71	-.0002	26636.9	4.31	77.09	.0000	120.57	.0010	-30.67	38.12
RISE 61	122.29	133.54	16	4	56.6	312.62	.0020	-38.67	.0006	29596.9	3.86	-.00	.0014	144.93	.0009	-30.95	37.16
EXTM 51	199.78	211.03	16	6	14.1	.32	.0031	-31.42	.0001	50720.5	3.39	84.31	-.0000	182.80	.0264	-30.79	27.40
EXTM 61	383.43	394.68	16	9	17.7	4.67	.0038	-33.75	.0002	88131.9	2.71	15.89	.0000	184.94	.0033	-29.85	351.37
EXTM 72	413.43	424.68	16	9	47.7	.90	.0040	-31.25	.0001	88989.2	2.63	66.64	-.0000	181.94	.0085	-29.72	344.84
RISE 11	587.75	599.00	16	12	42.1	295.22	.0040	-31.12	.0000	120406.9	2.03	.00	.0025	129.24	.0023	-29.06	309.37
SET 51	607.74	618.99	16	13	2.0	90.00	.0038	-27.89	.0001	121874.3	2.62	11.72	-.0031	244.52	-.0012	-28.99	300.74
SET 61	616.19	627.44	16	13	10.5	59.18	.0039	-31.20	.0002	124317.7	2.50	-.00	-.0021	227.27	.0026	-28.96	298.77
SET 72	805.27	816.52	16	16	19.6	94.25	.0039	-28.08	.0001	148767.7	2.43	-.01	-.0034	241.63	-.0004	-28.43	254.18
RISE 42	815.21	826.46	16	16	29.5	254.99	.0040	-26.94	-.0000	149525.6	1.73	4.17	.0028	120.30	-.0021	-28.41	251.80
EXTM 11	856.41	867.66	16	17	10.7	1.24	.0041	-27.45	.0001	152382.7	2.00	24.33	-.0000	181.17	.0039	-28.31	241.96
SET 11	1121.84	1133.09	16	21	36.1	66.90	.0041	-29.08	.0001	185156.6	2.09	-.00	-.0026	233.50	.0024	-27.77	177.93
EXTM 42	1240.64	1251.89	16	23	35.0	359.96	.0042	-27.31	.0000	191502.1	1.73	82.09	-.0000	.31	-.0246	-27.57	149.02
RISE 51	1376.10	1387.35	17	1	50.4	270.00	.0041	-26.70	-.0000	210198.0	1.29	11.25	.0034	114.38	-.0014	-27.36	119.94
RISE 72	1531.19	1542.44	17	4	25.5	265.95	.0041	-26.91	-.0000	226477.1	1.18	-.01	.0036	117.19	-.0005	-27.15	77.93
RISE 61	1614.00	1625.25	17	5	48.3	296.98	.0041	-28.19	-.0000	234240.9	1.27	.00	.0025	128.24	.0027	-27.05	57.58
SET 42	1663.83	1675.08	17	6	38.1	105.00	.0041	-26.06	.0001	238426.8	1.85	3.63	-.0029	240.40	-.0022	-26.99	45.33
EXTM 51	1732.06	1743.31	17	7	46.4	359.12	.0042	-26.94	.0000	238728.2	1.49	88.57	.0021	146.97	.1249	-26.91	28.54
EXTM 61	1866.99	1878.24	17	10	1.3	.48	.0042	-28.08	.0000	254610.1	1.45	21.68	.0000	180.45	.0040	-26.76	355.28
EXTM 72	1906.52	1917.77	17	10	40.8	.14	.0042	-27.18	.0000	254424.3	1.44	70.72	-.0000	180.39	.0113	-26.72	345.53
RISE 11	2048.37	2059.62	17	13	2.7	291.51	.0042	-27.46	-.0000	272405.5	1.08	.00	.0028	124.35	.0024	-26.58	310.50
SET 51	2094.85	2106.10	17	13	49.2	90.00	.0041	-26.03	.0001	275053.6	1.75	10.98	-.0034	246.26	-.0014	-26.54	299.01
SET 61	2119.75	2131.00	17	14	14.1	63.90	.0042	-27.47	.0000	278317.8	1.65	-.00	-.0025	232.82	.0027	-26.51	292.86
SET 72	2280.28	2291.53	17	16	54.6	93.92	.0041	-26.19	.0001	291288.1	1.73	-.00	-.0037	243.54	-.0005	-26.37	253.14
RISE 42	2281.33	2292.58	17	16	55.6	255.00	.0041	-25.61	-.0000	290999.2	1.00	3.36	.0029	119.25	-.0023	-26.37	252.88
EXTM 11	2321.89	2333.14	17	17	36.2	.32	.0042	-27.44	.0000	291668.1	1.31	27.35	-.0000	180.32	.0042	-26.34	242.84
SET 11	2595.23	2606.48	17	22	9.5	69.05	.0042	-26.88	.0000	315556.3	1.56	-.00	-.0028	236.41	.0024	-26.12	178.09
EXTM 42	2700.31	2711.56	17	23	54.6	359.96	.0042	-25.87	.0000	317111.3	1.22	80.65	.0000	.23	-.0205	-26.05	149.02
RISE 51	2830.94	2842.19	18	2	5.2	270.00	.0041	-25.53	-.0000	331616.6	.82	10.79	.0034	113.28	-.0015	-25.96	116.59
RISE 72	2984.93	2996.18	18	4	39.2	266.16	.0041	-25.70	-.0000	343699.7	.75	-.00	.0037	115.97	-.0005	-25.86	78.34
RISE 61	3058.74	3069.99	18	5	53.0	295.03	.0042	-26.56	-.0000	348927.3	.84	.00	.0026	125.86	.0027	-25.81	59.92
SET 42	3118.94	3130.19	18	6	53.2	105.00	.0041	-25.14	.0000	352639.2	1.45	3.07	-.0030	241.13	-.0023	-25.77	44.89
EXTM 51	3182.66	3193.91	18	7	57.0	358.69	.0042	-25.73	.0000	350933.9	1.11	88.82	.0038	89.91	-.0026	-25.73	28.97
EXTM 61	3316.56	3327.81	18	10	10.9	.24	.0042	-26.57	.0000	363675.0	1.11	23.19	-.0000	180.23	.0041	-25.65	359.52
EXTM 72	3356.35	3367.60	18	10	50.7	.10	.0042	-25.94	.0000	362803.7	1.11	71.97	-.0000	180.29	.0121	-25.63	348.57
RISE 11	3490.44	3501.69	18	13	4.7	290.29	.0042	-26.17	-.0000	377747.5	.80	.00	.0029	122.67	.0024	-25.55	312.04
SET 51	3543.96	3555.21	18	13	58.3	90.00	.0042	-25.14	.0000	380170.4	1.51	10.63	-.0035	247.08	-.0015	-25.52	298.64
SET 61	3574.16	3585.41	18	14	28.5	65.41	.0042	-26.19	.0000	383395.3	1.43	.00	-.0026	234.68	.0027	-25.50	291.07
RISE 42	3724.98	3736.23	18	16	59.3	255.00	.0042	-24.82	-.0000	394038.4	1.08	2.88	.0030	118.62	-.0023	-25.39	253.17
SET 72	3725.93	3737.18	18	17	.2	93.75	.0042	-25.25	.0000	394438.2	1.84	.00	-.0038	244.49	-.0005	-25.39	252.93
IMPACT	3754.03	3765.28	18	17	28.3												
IMPC 42	3754.03	3765.28	18	17	28.3	262.39	.0043	-24.83	.0000	396232.0	1.69	8.28	.0032	114.63	-.0023	-25.39	248.77
IMPC 11	3754.03	3765.28	18	17	28.3	357.34	.0044	-26.15	.0000	394110.9	2.02	28.59	.0002	177.28	.0045	-25.39	248.77

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	16	2	54.306	6566.304	18.9091	305.6576	10.97693	3.2638	115.0031	104.3367
SEPARATION	1.20	12.45	16	2	55.506	6634.284	19.9252	311.7714	10.91983	6.6488	116.9260	110.7512
RETRO	3.20	14.45	16	2	57.506	6846.235	10.7709	321.1743	10.74814	12.0683	119.2202	120.6585
EXIT SHA	12.17	23.42	16	3	6.479	8878.497	-8.3236	351.5096	9.42702	30.7130	119.9454	153.2362
IMPACT	3754.03	3765.28	18	17	28.336	397199.109	-25.3485	249.7703	2.21322	67.3342	285.2120	268.9288

SURVEYOR VIEW PERIODS

GHA	116.9546				EPS 147.6840							LOM	241.3598
SX	-.070753	SY	-.901046	SZ	-.427913	DAO	-25.33520	RAO	265.51018	RM	398483.023	LAT	28.310600
C3	-.928710	ECC	.984752	SLR	12989.541	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000
NSX	-.050676	NSY	-.901370	NSZ	-.430074	C3M	1.5559	VIM	2.6824	ZAE	140.620	B.T	.0000
LATE	2.6250	LONE	4.8934	LATS	-1.3084	LONS	217.2861	LATI	-5.6654	LONI	326.3481	RSM	146.8595
LAUNCH DATE	JAN 16,1966			BASE AZM	108.0		TF 62.678					ARRIVAL DATE	JAN 18 1966 17 45 51.9

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
108.00	2 49 37.5	28.1	17.83	305.09	7.92	105.41	117.09	3 0 2.5	6575.8	10.97	3.93

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	16	3	.9												
SEPARATION	1.20	12.45	16	3	2.1												
RETRO	3.20	14.45	16	3	4.1												
RISE 72	4.31	15.56	16	3	5.2	84.77	-.1518	33.31	-.0182	3006.0	-7.63	.00	.1281	303.67	.0030	6.30	324.76
EXTM 72	10.58	21.83	16	3	11.4	.46	-.1814	-6.47	-.1215	2115.1	4.48	88.50	.1707	342.14	5.1202	-7.55	345.55
RISE 51	11.08	22.33	16	3	12.0	82.60	-.0767	14.96	-.0435	5822.4	-2.59	.00	.0857	286.65	-.0055	-8.43	346.91
EXIT SHA	11.91	23.16	16	3	12.8												
EXIT 72	11.91	23.16	16	3	12.8	348.01	-.1318	-14.43	-.0791	2541.7	6.01	76.56	-.1498	120.08	.0457	-9.80	349.02
EXIT 51	11.91	23.16	16	3	12.8	78.79	-.0767	12.74	-.0457	5706.9	-2.06	4.30	.0875	286.36	-.0059	-9.80	349.02
EXTM 51	43.11	54.36	16	3	44.0	1.70	-.0135	-30.36	-.0039	12461.5	5.18	85.14	-.0000	197.55	-.1451	-28.80	26.58
EXTM 72	71.49	82.74	16	4	12.4	296.60	.0000	-34.01	-.0001	23709.8	4.73	26.40	.0000	124.16	.0001	-31.38	34.96
EXTM 51	93.64	104.89	16	4	34.5	348.89	.0000	-33.28	-.0000	26814.9	4.30	77.75	.0000	130.60	.0002	-31.91	36.53
RISE 41	125.65	136.90	16	5	6.5	314.65	.0020	-39.71	.0007	40454.1	3.82	.70	.0014	146.82	.0009	-32.05	35.38
EXTM 51	191.79	203.04	16	6	12.7	.53	.0030	-32.49	.0002	49138.1	3.43	2.24	.0000	183.84	.0213	-31.71	27.22
EXTM 61	379.11	390.36	16	9	20.0	5.21	.0038	-34.42	.0002	87524.8	2.72	87.19	.0000	184.45	.0033	-30.49	350.87
EXTM 72	407.34	418.59	16	9	48.2	1.01	.0040	-31.91	.0001	88073.8	2.64	61.97	.0000	182.10	.0082	-30.33	344.74
RISE 11	583.91	595.16	16	12	44.8	295.75	.0040	-31.62	.0000	119875.8	2.04	.00	.0025	129.91	.0023	-29.53	304.83
SET 51	601.41	612.66	16	13	2.3	90.00	.0038	-28.36	.0001	120986.3	2.63	11.90	-.0031	244.67	-.0012	-29.46	300.77
SET 61	606.93	618.18	16	13	7.8	58.47	.0039	-31.71	.0002	123052.4	2.51	-.00	-.0020	271.19	.0026	-29.44	299.49
SET 72	799.39	810.64	16	16	20.3	94.32	.0039	-28.46	.0001	148026.9	2.44	-.01	-.0034	241.24	-.0004	-28.82	254.13
RISE 42	809.23	820.48	16	16	30.1	254.99	.0040	-27.31	-.0000	148748.8	1.73	4.40	.0028	120.60	-.0021	-28.79	251.78
EXTM 11	850.86	862.11	16	17	11.7	1.36	.0041	-30.83	.0001	151730.9	2.01	23.95	.0000	181.28	.0039	-28.67	241.84
SET 11	1114.54	1125.79	16	21	35.4	66.59	.0041	-29.38	.0001	184321.2	2.09	-.00	-.0026	233.10	.0024	-28.06	178.24
EXTM 42	1234.54	1245.79	16	23	35.4	359.93	.0042	-27.58	.0000	190807.0	1.73	82.36	-.0000	.46	-.0269	-27.83	149.05
RISE 51	1370.12	1381.37	17	1	51.0	270.00	.0041	-26.94	-.0000	209522.6	1.29	11.34	.0034	114.60	-.0014	-27.60	115.93
RISE 72	1525.06	1536.31	17	4	25.9	265.92	.0041	-27.12	-.0000	225807.2	1.18	-.01	.0036	117.40	-.0005	-27.36	77.95
RISE 61	1608.98	1620.23	17	5	49.9	297.22	.0041	-28.39	-.0000	233678.6	1.27	.00	.0025	128.53	.0027	-27.24	57.34
SET 42	1657.78	1669.03	17	6	38.7	105.00	.0041	-26.25	.0001	237758.2	1.85	3.75	-.0029	240.25	-.0022	-27.18	45.34
EXTM 51	1725.19	1736.44	17	7	46.1	358.91	.0042	-27.12	.0000	238001.8	1.49	88.31	.0022	145.08	.1030	-27.09	28.75
EXTM 61	1861.12	1872.37	17	10	2.0	.52	.0042	-28.25	.0000	253991.6	1.45	21.51	.0000	180.49	.0040	-26.92	355.24
EXTM 72	1900.52	1911.77	17	10	41.4	.16	.0042	-27.35	.0000	253784.7	1.44	70.56	-.0000	180.42	.0112	-26.88	345.52
RISE 11	2042.89	2054.14	17	13	3.8	291.65	.0042	-27.60	-.0000	271803.4	1.08	.00	.0028	124.54	.0024	-26.72	310.36
SET 51	2088.78	2100.03	17	13	49.7	90.00	.0041	-26.16	.0001	274395.9	1.75	11.04	-.0034	246.13	-.0014	-26.67	299.02
SET 61	2113.02	2124.27	17	14	13.9	63.73	.0042	-27.61	.0001	277611.5	1.65	-.00	-.0025	232.62	.0027	-26.65	291.02
SET 72	2274.28	2285.53	17	16	55.2	93.94	.0041	-26.30	.0001	290639.3	1.73	-.00	-.0037	243.42	-.0005	-26.49	253.12
RISE 42	2275.29	2286.54	17	16	56.2	255.00	.0041	-25.73	-.0000	290338.6	1.00	3.43	.0029	119.34	-.0023	-26.49	252.87
EXTM 11	2315.93	2327.18	17	17	36.8	.35	.0042	-27.56	.0000	291033.2	1.31	27.24	-.0000	180.35	.0042	-26.45	242.81
SET 11	2588.78	2600.03	17	22	9.7	68.96	.0042	-26.97	.0000	314863.9	1.56	-.00	-.0028	236.29	.0024	-26.21	175.18
EXTM 42	2694.17	2705.42	17	23	55.0	359.95	.0042	-25.95	.0000	316435.9	1.22	80.73	.0000	.30	-.0217	-26.13	149.03
RISE 51	2824.85	2836.10	18	2	5.7	270.00	.0041	-25.60	-.0000	330937.0	.82	10.82	.0034	113.35	-.0015	-26.03	116.59
RISE 72	2978.79	2990.04	18	4	39.7	266.15	.0041	-25.76	-.0000	343010.9	.75	-.00	.0037	116.03	-.0005	-25.92	78.35
RISE 61	3053.04	3064.29	18	5	53.9	295.10	.0042	-26.62	-.0000	348307.3	.84	.00	.0026	125.95	.0027	-25.86	59.85
SET 42	3112.94	3124.19	18	6	53.8	105.00	.0041	-25.19	.0000	351986.0	1.45	3.10	-.0030	241.09	-.0023	-25.82	44.89
EXTM 51	3176.67	3187.92	18	7	57.5	358.69	.0042	-25.78	.0000	350273.2	1.11	88.82	.0038	92.36	.0053	-25.78	28.97
EXTM 61	3310.60	3321.85	18	10	11.5	.25	.0042	-26.61	.0000	362994.9	1.11	23.15	-.0000	180.24	.0041	-25.70	355.50
EXTM 72	3350.34	3361.59	18	10	51.2	.10	.0042	-25.98	.0000	362108.3	1.11	71.93	-.0000	180.30	.0121	-25.67	345.57
RISE 11	3484.54	3495.79	18	13	5.4	290.33	.0042	-26.21	-.0000	377019.8	.79	.00	.0029	122.72	.0024	-25.58	312.00
SET 51	3537.91	3549.16	18	13	58.8	90.00	.0042	-25.18	.0000	379410.1	1.50	10.64	-.0035	247.05	-.0015	-25.55	298.64
SET 61	3567.97	3579.22	18	14	28.8	65.37	.0042	-26.22	.0000	382611.6	1.42	.00	-.0026	234.64	.0027	-25.53	291.11
RISE 42	3719.03	3730.28	18	16	59.9	255.00	.0042	-24.85	-.0000	393052.6	1.00	2.89	.0030	118.64	-.0023	-25.41	253.17
SET 72	3719.99	3731.24	18	17	.9	93.76	.0042	-25.28	.0000	393450.6	1.76	-.00	-.0038	244.46	-.0005	-25.41	252.93
EXTM 11	3760.69	3771.94	18	17	41.6	.58	.0044	-26.17	.0000	394140.3	2.03	28.62	.0000	180.59	.0045	-25.36	242.58
IMPACT	3760.69	3771.94	18	17	41.6												
IMPC 42	3760.69	3771.94	18	17	41.6	265.57	.0043	-24.86	.0000	396002.4	1.68	10.67	.0032	112.99	-.0022	-25.36	242.58
IMPC 11	3760.69	3771.94	18	17	41.6	.58	.0044	-26.17	.0000	394140.3	2.03	28.62	.0000	180.59	.0045	-25.36	242.58
EXTM 11	3760.70	3771.95	18	17	41.6	.58	.0044	-26.17	.0000	394141.7	2.03	28.62	.0000	180.60	.0045	-25.36	242.58

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION	.00	11.25	16	3	.874	6576.170	17.8149	305.1124	10.96844	3.9284	117.0959	105.4382
SEPARATION	1.20	12.45	16	3	2.074	6652.870	14.6376	311.0367	10.90413	7.2987	118.8384	111.6633
RETRO	3.20	14.45	16	3	4.074	6878.483	9.2306	320.1452	10.72240	12.6767	120.8323	121.2731
EXIT SHA	11.91	23.16	16	3	12.785	8870.069	-9.8044	349.0243	9.43119	30.6667	120.6706	152.3388
IMPACT	3760.69	3771.94	18	17	41.560	397231.945	-25.3621	242.5799	2.20944	66.9990	285.6141	265.6986

SURVEYOR VIEW PERIODS

GHA	116.9546					EPS 147.7825								LON	238.2899
SX	-.068871	SY	-.901101	SZ	-.428106	DAO	-25.34742	RAO	265.62941	RM	398509.254	LAT	28.310600	LON	279.461800
C3	-.936456	ECC	.984624	SLR	12988.705	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.048718	NSY	-.901384	NSZ	-.430272	C3M	1.5558	VIM	2.6824	ZAE	140.359	B.T	.0000	B.R	-.0000
LATE	2.6365	LONE	5.0013	LATS	-1.3085	LONS	217.2948	LATI	-5.9822	LONI	326.2542	RSM	146.8592	TTAN	6.4213
LAUNCH DATE	JAN	16.1966		BASE AZM	111.0		TF 62.804					ARRIVAL DATE	JAN 18 1966	1, 58 35,2	

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	2 55	.5	28.1	16.76	304.49	8.99	106.17	119.18	3 6 15.9	6584.8	10.96	4.46

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
PROBE IN EARTH'S SHADOW																	
INJECTION	.00	11.25	16	3	6.3												
SEPARATION	1.20	12.45	16	3	7.5												
RETRO	3.20	14.45	16	3	9.5												
RISE 72	4.26	15.51	16	3	10.5	85.63	-.1405	28.73	-.0356	3060.6	-7.50	.00	.1273	299.03	-.0158	4.82	323.36
EXTM 72	10.82	22.07	16	3	17.1	4.59	-.1764	-15.49	-.1029	2254.4	4.70	81.19	-.0000	210.24	-1.2966	-9.89	344.50
RISE 51	11.13	22.38	16	3	17.4	84.30	-.0726	11.65	-.0460	5918.9	-2.42	.00	.0841	282.95	-.0097	-10.42	349.29
EXIT SHA	11.63	22.88	16	3	17.9												
EXIT 72	11.63	22.88	16	3	17.9	356.73	-.1492	-19.84	-.0779	2505.3	5.62	77.66	-.1122	165 48	-.5372	-11.26	346.56
EXIT 51	11.63	22.88	16	3	17.9	82.12	-.0726	10.25	-.0471	5851.3	-2.10	2.53	.0850	282.66	-.0099	-11.26	346.56
EXTM 51	45.68	56.93	16	3	51.9	2.18	-.0123	-33.39	-.0026	13339.2	5.12	82.11	-.0000	193.38	-.0771	-30.92	26.25
EXTM 72	71.92	83.17	16	4	18.2	297.96	-.0000	-35.86	.0001	23811.3	4.72	27.19	.0000	126.41	-.0002	-32.86	33.64
EXTM 51	92.74	103.99	16	4	39.0	350.48	-.0002	-34.95	.0001	26628.0	4.31	77.67	.0000	140.58	-.0009	-33.23	39.23
RISE 61	131.58	142.83	16	5	17.8	316.66	.0022	-40.68	.0007	41897.7	3.75	-.00	.0015	148.63	.0010	-33.18	33.69
EXTM 51	186.47	197.72	16	6	12.7	.90	.0029	-33.64	.0002	48085.1	3.46	82.06	-.0000	185.44	.0175	-32.71	26.90
EXTM 61	376.40	387.65	16	9	22.7	5.77	.0038	-35.12	.0002	87170.8	2.72	14.46	.0000	184.87	.0032	-31.16	350.35
EXTM 72	403.05	414.30	16	9	49.3	1.19	.0039	-32.62	.0002	87431.9	2.65	65.26	.0000	182.39	.0080	-30.98	344.58
RISE 11	581.61	592.86	16	12	47.9	296.32	.0040	-32.14	.0000	119547.0	2.04	.00	.0025	130.63	.0023	-30.04	304.25
SET 51	596.45	607.70	16	13	2.7	90.00	.0038	-28.86	.0001	120273.2	2.63	12.10	-.0031	243.59	-.0012	-29.97	300.81
SET 61	598.77	610.02	16	13	5.0	57.71	.0039	-32.26	.0002	121922.4	2.52	-.00	-.0020	225.63	.0027	-29.96	300.27
SET 72	794.86	806.11	16	16	21.1	94.40	.0039	-28.96	.0001	147438.1	2.44	-.01	-.0034	240.83	-.0004	-29.22	254.08
RISE 42	804.55	815.80	16	16	30.8	254.99	.0040	-2	-.0000	148117.7	1.74	4.64	.0028	120.92	-.0021	-29.19	251.77
EXTM 11	846.64	857.89	16	17	12.9	1.49	.0041	-31.23	.0001	151229.2	2.01	23.54	.0000	181.39	.0039	-29.06	241.72
SET 11	1108.42	1119.67	16	21	34.7	66.27	.0041	-29.70	.0001	183598.6	2.09	-.00	-.0026	232.67	.0024	-28.37	178.57
EXTM 42	1229.73	1240.98	16	23	36.0	359.92	.0042	-27.87	.0000	190230.6	1.73	82.65	.0000	.57	-.0282	-28.11	149.06
RISE 51	1365.39	1376.64	17	1	51.6	270.00	.0041	-27.19	-.0000	208952.8	1.29	11.44	.0034	114.83	-.0014	-27.85	118.92
RISE 72	1520.15	1531.40	17	4	26.4	265.88	.0041	-27.34	-.0000	225234.4	1.18	-.01	.0036	117.43	-.0005	-27.58	77.99
RISE 61	1605.25	1616.50	17	5	51.5	297.48	.0042	-28.60	-.0000	233216.1	1.27	.00	.0025	128.64	.0027	-27.45	97.08
SET 42	1652.96	1664.21	17	6	39.2	105.00	.0041	-26.44	.0001	237180.8	1.85	3.87	-.0029	240.09	-.0022	-27.38	49.34
EXTM 51	1719.33	1730.58	17	7	45.6	358.64	.0042	-27.32	.0000	237345.3	1.49	88.01	.0023	142.82	.0847	-27.28	29.01
EXTM 61	1856.47	1867.72	17	10	2.7	.56	.0042	-28.42	.0000	253457.9	1.45	21.34	.0000	180.53	.0040	-27.09	355.20
EXTM 72	1895.75	1907.00	17	10	42.0	.17	.0042	-27.52	.0000	253227.1	1.44	70.39	-.0000	180.45	.0111	-27.04	349.51
RISE 11	2038.66	2049.91	17	13	4.9	291.79	.0042	-27.75	-.0000	271279.7	1.08	.00	.0028	124.74	.0024	-26.87	310.21
SET 51	2083.92	2095.17	17	13	50.2	90.00	.0041	-26.31	.0001	273811.7	1.75	11.09	-.0034	245.99	-.0014	-26.82	299.02
SET 61	2107.46	2118.71	17	14	13.7	63.56	.0042	-27.76	.0001	276974.8	1.64	-.00	-.0025	232.41	.0027	-26.79	293.20
SET 72	2269.49	2280.74	17	16	55.7	93.96	.0041	-26.43	.0001	290057.8	1.73	-.00	-.0036	243.30	-.0005	-26.61	253.11
RISE 42	2270.44	2281.69	17	16	56.7	255.00	.0041	-25.85	-.0000	289744.3	1.00	3.51	.0029	119.44	-.0023	-26.61	252.87
EXTM 11	2311.19	2322.44	17	17	37.4	.38	.0042	-27.68	.0000	290464.7	1.31	27.11	-.0000	180.38	.0042	-26.57	248.78
SET 11	2583.51	2594.76	17	22	9.8	65.87	.0042	-27.07	.0000	314225.7	1.55	-.00	-.0028	236.16	.0024	-26.31	179.27
EXTM 42	2689.22	2700.47	17	23	9515	359.94	.0042	-26.04	.0000	319812.2	1.22	80.82	.0000	.38	-.0226	-26.22	149.84
RISE 51	2819.96	2831.21	18	2	6.2	270.00	.0041	-25.68	-.0000	330304.9	.82	10.85	.0034	113.42	-.0015	-26.11	116.98
RISE 72	2973.84	2985.09	18	4	40.1	266.14	.0041	-25.83	-.0000	342364.6	.75	-.00	.0037	116.09	-.0005	-25.98	78.35
RISE 61	3048.41	3059.66	18	5	54.7	295.17	.0042	-26.68	-.0000	347675.8	.84	.00	.0026	126.03	.0027	-25.92	59.78
SET 42	3108.01	3119.26	18	6	54.3	105.00	.0041	-25.25	.0000	351321.7	1.45	3.14	-.0030	241.04	-.0023	-25.88	44.89
EXTM 51	3171.73	3182.98	18	7	56.0	358.69	.0042	-25.84	.0000	349602.9	1.10	88.81	.0038	94.94	.0135	-25.83	28.97
EXTM 61	3305.75	3317.00	18	10	12.0	.27	.0042	-26.66	.0000	362311.0	1.10	23.10	-.0000	180.26	.0041	-25.74	359.49
EXTM 72	3345.44	3356.69	18	10	51.7	.11	.0042	-26.02	.0000	361410.2	1.10	71.88	-.0000	180.31	.0121	-25.71	348.57
RISE 11	3479.78	3491.03	18	13	6.0	290.36	.0042	-26.25	-.0000	376296.4	.79	.00	.0029	122.77	.0024	-25.62	311.97
SET 51	3533.00	3544.25	18	13	59.3	90.00	.0042	-25.21	.0000	378057.2	1.50	10.66	-.0035	247.02	-.0015	-25.58	298.64
SET 61	3562.91	3574.16	18	14	29.2	65.33	.0042	-26.25	.0000	381837.4	1.41	.00	-.0026	234.59	.0027	-25.56	291.15
RISE 42	3714.22	3725.47	18	17	.5	255.00	.0042	-24.88	-.0000	392129.8	.95	2.91	.0030	118.66	-.0023	-25.44	253.17
SET 72	3715.18	3726.43	18	17	1.4	93.77	.0042	-25.30	.0000	392527.0	1.70	-.00	-.0038	244.44	-.0005	-25.44	252.93
EXTM 11	3755.89	3767.14	18	17	42.1	.54	.0043	-26.21	.0000	392881.3	1.59	28.58	-.0000	180.55	.0044	-25.40	242.62
IMPACT	3768.22	3779.47	18	17	54.5												
IMPC 42	3768.22	3779.47	18	17	54.5	268.69	-.043	-24.89	.0000	395774.7	1.68	13.05	.0033	111.42	-.0022	-25.38	239.46
IMPC 11	3768.22	3779.47	18	17	54.5	3.74	.44	-26.18	.0000	394180.7	2.05	28.51	-.0002	183.82	.0045	-25.38	239.46

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	16	3	6.259	6588.481	16.7428	304.5233	10.96051	4.4611	119.1851	106.1988
SEPARATION	1.20	12.45	16	3	7.459	6669.032	13.3771	310.2597	10.89046	7.8181	120.7570	112.2360
RETRO	3.20	14.45	16	3	9.459	6785.467	7.7175	319.0866	10.78089	13.1613	122.4703	121.5643
EXIT SHA	11.63	22.88	16	3	17.884	8841.875	-11.2648	346.9581	9.44596	30.5129	121.5208	151.1479
IMPACT	3768.22	3779.47	18	17	54.474	397281.438	-29.3793	239.4639	2.20659	66.8183	286.1729	269.7720

JAN 16, 1966
111 DEGREES

SURVEYOR VIEW PERIODS

GHA 116 9546 EPS 147.9132 LOM 234.2126
SX -.0 6371 SY -.901168 SZ -.428360 DAO -25.36150 RAO 265.78779 RM 398544.023 LAT 28.310600 LON 279.461800
C3 -.948075 ECC .984434 SLR 12987.455 RCA 6544.6650 LTA -20.0000 GTA 20.00 TB 675.00000 POL -.0
NSX -.046102 NSY -.901396 NSZ -.430534 C3M 1.5558 VIM 2.6824 ZAE 139.964 B.T .0000 B.R -.0000
LATE 2.6519 LONE 4.8736 LATS -1.3088 LONS 217.0354 LATI -6.4165 LONI 325.8147 RSM 146.8588 TTAN 6.4196
LAUNCH DATE JAN 16,1966 BASE AZM 115.0 TF 62.992 ARRIVAL DATE JAN 1[illegible] 1966 18 15 29.0

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	3 0 51.3	28.1	15.38	303.63	10.13	106.77	121.96	3 12 6.3	6595.6	10.95	5.02

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	16	3	12.1												
SEPARATION	1.20	12.45	16	3	13.3												
RETRO	3.20	14.45	16	3	15.3												
RISE 72	4.25	15.50	16	3	16.4	86.64	-.1277	22.82	-.0569	3135.2	-7.19	.01	.1248	293.06	-.0387	2.73	321.70
EXTM 72	11.17	22.42	16	3	23.3	9.69	-.1702	-26.20	-.0827	2503.5	4.92	69.92	-.0000	205.57	-.4963	-13.07	343.13
RISE 51	11.23	22.48	16	3	23.3	86.47	-.0676	7.28	-.0491	6044.5	-2.17	-.00	.0818	278.09	-.0148	-13.18	343.29
EXIT SHA	11.30	22.55	16	3	23.4												
EXIT 72	11.30	22.55	16	3	23.4	8.33	-.1665	-26.85	-.0787	2543.7	5.07	69.47	-.0110	201.64	-.4785	-13.30	343.47
EXIT 51	11.30	22.55	16	3	23.4	86.18	-.0676	7.07	-.0492	6035.1	-2.13	.35	.0819	278.02	-.0148	-13.30	343.47
EXTM 51	50.28	61.53	16	4	2.4	1.81	-.0102	-37.29	-.0012	14846.5	5.03	78.35	-.0000	187.15	-.0408	-33.83	26.47
EXTM 72	72.39	83.64	16	4	24.5	299.32	-.0001	-38.40	.0005	23949.3	4.70	27.74	.0000	129.46	-.0005	-34.95	32.21
EXTM 51	88.44	99.69	16	4	40.5	352.27	-.0007	-37.38	.0004	25578.4	4.36	76.64	.0000	152.44	-.0029	-35.11	33.72
RISE 61	142.03	153.28	16	5	34.1	319.30	.0024	-41.86	.0007	44359.5	3.65	-.00	.0015	150.94	.0012	-34.66	31.52
EXTM 51	182.64	193.89	16	6	14.7	1.54	.0028	-35.24	.0003	47342.5	3.48	80.40	-.0000	187.56	.0140	-34.12	26.35
EXTM 61	374.66	385.91	16	9	26.8	6.54	.0038	-36.08	.0003	86997.4	2.72	13.45	.0000	185.43	.0032	-32.09	349.64
EXTM 72	399.20	410.45	16	9	51.3	1.47	.0039	-33.60	.0002	86863.5	2.66	64.27	.0000	182.81	.0076	-31.89	344.32
RISE 11	580.24	591.49	16	12	52.3	297.12	.0040	-32.86	.0000	119333.7	2.04	.00	.0025	131.61	.0023	-30.74	303.45
SET 61	589.15	600.40	16	13	1.3	56.61	.0039	-33.04	.0002	120570.6	2.52	-.00	-.0019	224.42	.0027	-30.69	301.38
SET 51	591.46	602.71	16	13	3.6	90.00	.0038	-29.57	.0002	119530.0	2.64	12.38	-.0031	242.93	-.0012	-30.68	300.85
SET 72	790.37	801.62	16	16	22.5	94.50	.0039	-29.43	.0001	146830.7	2.44	-.00	-.0034	240.26	-.0004	-29.79	254.00
RISE 42	799.84	811.09	16	16	31.9	254.99	.0040	-28.27	-.0000	147446.5	1.74	4.99	.0028	121.36	-.0021	-29.76	251.75
EXTM 11	842.57	853.82	16	17	14.7	1.68	.0041	-31.79	.0001	150734.8	2.01	22.98	.0000	181.55	.0038	-29.60	241.54
SET 11	1101.64	1112.89	16	21	33.7	65.81	.0041	-30.15	.0001	182764.5	2.09	-.00	-.0026	232.07	.0024	-28.80	179.04
EXTM 42	1224.81	1236.06	16	23	36.9	359.91	.0042	-28.27	.0000	189596.0	1.73	83.05	.0000	.66	-.0297	-28.50	149.07
RISE 51	1360.52	1371.77	17	1	52.6	270.00	.0041	-27.54	-.0000	208312.9	1.29	11.58	.0033	115.16	-.0014	-28.20	115.91
RISE 72	1515.02	1526.27	17	4	27.1	265.82	.0041	-27.65	-.0000	224580.0	1.18	-.01	.0036	117.94	-.0005	-27.89	78.03
RISE 61	1601.78	1613.03	17	5	53.9	297.85	.0042	-28.90	.0000	232711.1	1.27	.00	.0025	129.27	.0027	-27.74	56.71
SET 42	1647.95	1659.20	17	6	40.1	105.00	.0041	-26.72	.0001	236512.7	1.85	4.04	-.0029	239.87	-.0022	-27.66	48.35
EXTM 51	1713.88	1725.13	17	7	46.0	358.53	.0042	-27.60	.0000	236653.8	1.49	87.73	.0022	145.02	.0762	-27.55	29.12
EXTM 61	1851.70	1862.95	17	10	3.8	.62	.0042	-28.67	.0000	252839.7	1.45	21.09	.0000	180.59	.0040	-27.33	355.14
EXTM 72	1890.79	1902.04	17	10	42.9	.19	.0042	-27.76	.0000	252573.6	1.43	70.15	-.0000	180.49	.0110	-27.28	348.49
RISE 11	2034.45	2045.70	17	13	6.6	292.00	.0042	-27.96	-.0000	270666.2	1.08	.00	.0028	125.02	.0024	-27.08	310.00
SET 51	2078.83	2090.08	17	13	50.9	90.00	.0041	-26.51	.0001	273112.1	1.74	11.17	-.0034	245.81	-.0014	-27.02	299.03
SET 61	2101.39	2112.64	17	14	13.5	63.31	.0042	-27.96	.0001	276200.3	1.64	-.00	-.0025	232.11	.0027	-26.99	293.45
SET 72	2264.49	2275.74	17	16	56.6	93.99	.0041	-26.60	.0001	289353.7	1.73	-.00	-.0036	243.12	-.0005	-26.79	253.88
RISE 42	2265.36	2276.61	17	16	57.5	255.00	.0041	-26.02	-.0000	289021.8	1.00	3.61	.0029	119.57	-.0023	-26.79	252.87
EXTM 11	2306.24	2317.49	17	17	38.3	.42	.0042	-27.85	.0000	289776.7	1.31	26.94	-.0000	180.42	.0042	-26 74	242.74
SET 11	2577.79	2589.04	17	22	9.9	68.73	.0042	-27.20	.0000	313426.0	1.55	.01	-.0028	235.97	.0024	-26.44	175.42
EXTM 42	2684.14	2695.39	17	23	56.2	359.96	.0042	-26.16	.0000	315043.8	1.22	80.94	-.0000	.27	-.0218	-26.34	149.02
RISE 51	2814.79	2826.04	18	2	6.9	270.00	.0041	-25.79	-.0000	329508.1	.82	10.89	.0034	113.52	-.0015	-26.21	116.58
RISE 72	2968.59	2979.84	18	4	40.7	266.13	.0041	-25.92	-.0000	341542.3	.75	-.00	.0037	116.18	-.0006	-26.08	78.37
RISE 61	3043.74	3054.99	18	5	55.8	295.27	.0042	-26.77	-.0000	346926.3	.83	.00	.0026	126.16	.0027	-26.00	59.67
SET 42	3102.92	3114.17	18	6	55.0	105.00	.0041	-25.32	.0000	350522.8	1.44	3.18	-.0030	240.98	-.0023	-25.96	44.89
EXTM 51	3166.64	3177.89	18	7	58.7	358.69	.0042	-25.91	.0000	348791.9	1.10	88.81	.0038	98.49	.0246	-25.91	28.97
EXTM 61	3300.71	3311.96	18	10	12.8	.29	.0042	-26.73	.0000	361470.2	1.10	23.04	-.0000	180.28	.0041	-25.80	355.47
EXTM 72	3340.33	3351.58	18	10	52.4	.11	.0042	-26.08	.0000	360547.0	1.10	71.82	-.0000	180.33	.0121	-25.77	345.56
RISE 11	3474.83	3486.08	18	13	6.9	290.41	.0042	-26.30	-.0000	375388.7	.78	.00	.0029	122.84	.0024	-25.67	311.91
SET 51	3527.83	3539.08	18	13	59.9	90.00	.0042	-25.26	.0000	377706.0	1.49	10.68	-.0035	246.98	-.0015	-25.63	298.65
SET 61	3557.52	3568.77	18	14	29.6	65.27	.0042	-26.30	.0000	380855.1	1.40	.00	-.0026	234.52	.0027	-25.61	291.21
RISE 42	3709.13	3720.38	18	17	1.2	255.00	.0042	-24.91	-.0000	390970.6	.90	2.93	.0030	118.69	-.0023	-25.48	253.17
SET 72	3710.10	3721.35	18	17	2.2	93.77	.0042	-25.34	.0000	391367.9	1.65	-.00	-.0037	244.40	-.0005	-25.48	252.92
EXTM 11	3750.27	3761.52	18	17	42.4	.37	.0043	-26.25	.0000	391447.8	1.39	28.54	.0000	180.38	.0044	-25.44	242.78
IMPACT	3779.55	3790.80	18	18	11.7												
IMPC 42	3779.55	3790.80	18	18	11.7	272.83	.0043	-24.93	.0000	395475.3	1.66	16.24	.0033	109.38	-.0022	-25.39	238.32
IMPC 11	3779.55	3790.80	18	18	11.7	7.95	.0044	-26.20	.0000	394259.8	2.06	28.14	-.0005	188.09	.0044	-25.39	238.32

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	16	3	12.105	6596.703	15.3487	303.6753	10.95093	5.0233	121.9693	106.8165
SEPARATION	1.20	12.45	16	3	13.305	6687.314	11.7388	309.1635	10.87491	8.3651	123.3289	112.6055
RETRO	3.20	14.45	16	3	15.305	6935.940	5.7432	317.6289	10.67732	13.6696	124.6961	121.5783
EXIT SHA	11.30	22.55	16	3	23.408	8805.813	-13.3069	343.4713	9.46487	30.3139	122.7960	149.4488
IMPACT	3779.55	3790.80	18	18	11.654	397304.465	-25.3927	235.3195	2.20110	66.3533	286.7691	269.9341

SURVEYOR VIEW PERIODS

GHA	117.9403				E*S 158.2298						LOM	269.0684	
SX	.131875	SY	-.888397	SZ	-.439728	DAO	-26.08652	RAO	278.44345	RM	401082.898	LAT	28.310600
LON	279.461800												
C3	-.893252	ECC	.985334	SLR	12993.347	RCA	6544.6650	LTA	-20.0000	QTA	20.00	TB	675.00000
POL	-.0												
NSX	.151304	NSY	-.885163	NSZ	-.439993	C3M	1.5516	VIM	2.6816	ZAE	141.912	B.T	.0000
B.R	-.0000												
LATE	3.8064	LONE	3.9228	LATS	-1.3254	LONS	205.6333	LATI	-2.2048	LONI	326.2910	RSM	146.8357
TTAN	6.6368												
LAUNCH DATE	JAN 17,1966			BASE AZM	84.0		TF 62.907				ARRIVAL DATE	JAN 19 1966 16 42 59.6	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
84.00	1 50 27.5	27.1	27.14	307.30	-16.49	93.78	99.69	2 1 42.5	6681.1	10.88	-8.18

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW														
INJECTION	.00	11.25	17	2	1.7												
SEPARATION	1.20	12.45	17	2	2.9												
RETRO	3.20	14.45	17	2	4.9												
RISE 72	7.44	18.69	17	2	9.1	320.97	-.6617	79.87	-.1917	2564.0	-2.32	.00	.0772	6.36	.2105	13.86	348.11
RISE 51	12.27	23.52	17	2	14.0	60.17	-.1550	45.89	-.0229	4534.2	-3.99	.00	.0986	322.85	.0494	3.57	7.16
EXTM 72	13.28	24.53	17	2	15.0	286.75	-.0241	17.53	-.1002	3696.1	6.71	13.35	-.0000	69.79	.1057	1.68	10.38
EXIT SHA	14.55	25.80	17	2	16.3												
EXIT 72	14.55	25.80	17	2	16.3	285.08	-.0204	10.90	-.0760	4224.1	7.17	13.12	-.0053	76.80	.0806	-.53	14.10
EXIT 51	14.55	25.80	17	2	16.3	39.06	-.1492	40.64	-.0537	4130.4	-1.86	18.35	.1098	330.43	.0623	-.53	14.10
EXIT 61	14.55	25.80	17	2	16.3	319.68	-.0659	-45.69	.0190	5859.8	7.69	-3.19	-.0063	153.08	-.0494	-.53	14.10
EXTM 51	28.44	39.69	17	2	30.2	337.59	-.0283	-5.16	-.0270	6812.3	5.63	60.28	-.0000	49.97	.0787	-15.38	39.83
EXTM 72	64.10	75.35	17	3	5.8	268.98	-.0003	-24.01	-.0019	22730.0	5.02	2.28	.0000	113.93	.0019	-25.12	59.69
RISE 42	66.06	77.31	17	3	7.8	102.22	-.0055	-16.69	-.0037	23571.9	4.26	.00	.0064	249.41	.0002	-25.33	60.09
EXTM 51	77.50	88.75	17	3	19.2	316.81	-.0003	-25.01	-.3016	22388.4	4.65	51.15	.0000	98.61	.0025	-26.27	61.75
EXTM 42	128.19	139.44	17	4	9.9	95.95	.0006	-23.17	-.0007	39122.8	4.00	8.57	-.0000	247.63	-.0009	-28.04	61.34
SET 42	215.26	226.51	17	5	37.0	104.98	.0025	-24.98	-.0001	58726.1	3.53	2.99	-.0017	241.26	-.0015	-28.65	49.54
RISE 61	226.18	237.43	17	5	47.9	303.82	.0033	-33.33	.0001	61231.6	3.08	.00	.0019	136.04	.0021	-28.67	47.64
EXTM 51	329.18	340.43	17	7	30.9	.03	.0038	-28.90	.0000	74058.5	2.87	86.84	-.0000	180.63	.0521	-28.65	27.65
EXTM 61	485.82	497.07	17	10	7.5	2.32	.0040	-31.71	.0001	103306.9	2.49	18.02	.0000	182.08	.0035	-28.42	353.55
EXTM 72	522 10	533.35	17	10	43.8	.37	.0041	-29.58	.0001	104848.5	2.43	68.32	-.0000	180.88	.0095	-28.36	345.32
RISE 11	688.02	699.27	17	13	29.7	293.99	.0040	-29.95	-.0000	133531.6	1.90	.00	.0026	127.66	.0023	-28.11	306.85
SET 51	715.41	726.66	17	13	57.1	90.00	.0039	-27.07	.0001	135847.3	2.50	11.40	-.0032	245.28	-.0013	-28.07	300.40
SET 61	729.81	741.06	17	14	11.5	60.73	.0040	-30.02	.0001	138957.1	2.39	-.00	-.0022	229.05	.0026	-28.05	297.00
SET 72	910.00	921.25	17	17	11.7	94.14	.0040	-27.49	.0001	161098.9	2.35	-.00	-.0035	242.23	-.0005	-27.81	254.06
RISE 42	918.68	929.93	17	17	20.4	255.00	.0040	-26.44	-.0001	161691.0	1.64	3.87	.0029	119.91	-.0021	-27.80	251.98
EXTM 11	958.50	969.75	17	18	.2	.77	.0042	-29.74	.0000	164079.5	1.92	25.05	-.0000	180.74	.0040	-27.74	249.40
SET 11	1226.56	1237.81	17	22	28.3	67.27	.0041	-28.70	.0001	196170.5	2.04	-.00	-.0027	234.00	.0024	-27.47	177.46
EXTM 42	1343.14	1354.39	18	0	24.8	359.96	.0042	-27.12	.0000	201919.8	1.68	81.90	.0000	.30	-.0246	-27.36	149.02
RISE 51	1478.00	1489.25	18	2	39.7	270.00	.0041	-26.62	-.0000	220208.3	1.25	11.22	.0034	114.30	-.0014	-27.25	116.02
RISE 72	1632.90	1644.15	18	5	14.6	269.96	.0041	-26.90	-.0000	236120.4	1.14	-.01	.0036	117.18	-.0005	-27.13	78.00
RISE 61	1715.60	1726.85	18	6	37.3	296.95	.0042	-28.17	-.0000	243710.7	1.24	.00	.0025	128.20	.0027	-27.07	57.66
SET 42	1765.89	1777.14	18	7	27.6	105.00	.0041	-26.14	.0000	247839.9	1.82	3.68	-.0029	240.33	-.0022	-27.03	48.28
EXTM 51	1833.44	1844.69	18	8	35.1	359.02	.0042	-27.02	.0000	247964.6	1.46	88.45	.0021	145.80	.1139	-26.99	28.64
EXTM 61	1968.11	1979.36	18	10	49.8	.33	.0042	-28.17	.0000	263620.9	1.43	21.59	-.0000	180.32	.0040	-26.90	355.42
EXTM 72	2008.03	2019.28	18	11	29.7	.11	.0042	-27.33	.0000	263404.5	1.41	70.58	-.0000	180.29	.0111	-26.87	349.57
RISE 11	2150.51	2161.76	18	13	52.2	291.68	.0042	-27.64	-.0000	281243.0	1.06	.00	.0028	124.59	.0024	-26.79	310.36
SET 51	2196.56	2207.81	18	14	38.3	90.00	.0041	-28.27	.0000	283786.4	1.73	11.08	-.0034	246.03	-.0015	-26.76	298.98
SET 61	2220.41	2231.66	18	15	2.1	63.65	.0042	-27.68	.0000	286945.7	1.63	-.00	-.0025	232.52	.0027	-26.75	293.08
SET 72	2382.10	2393.35	18	17	43.8	93.97	.0041	-26.48	.0000	299830.6	1.71	-.00	-.0036	243.25	-.0005	-26.66	253.05
RISE 42	2382.69	2393.94	18	17	44.4	255.00	.0041	-25.92	-.0000	299482.9	.98	3.95	.0029	119.49	-.0022	-26.66	252.91
EXTM 11	2422.98	2434.23	18	18	24.7	.23	.0042	-27.71	.0000	300137.1	1.30	27.08	-.0000	180.23	.0042	-26.64	248.93
SET 11	2695.30	2706.55	18	22	57.0	68.70	.0042	-27.24	.0000	323679.5	1.54	-.00	-.0028	235.93	.0024	-26.51	178.41
EXTM 42	2801.75	2813.00	19	0	43.5	359.98	.0042	-26.29	.0000	325246.5	1.21	81.07	-.0000	.15	-.0163	-26.46	149.00
RISE 51	2932.19	2943.44	19	2	53.9	270.00	.0041	-25.99	-.0000	339637.3	.81	10.97	.0034	113.71	-.0015	-26.40	116.61
RISE 72	3085.59	3096.84	19	5	27.3	266.08	.0042	-26.18	-.0000	351718.2	.72	-.00	.0037	116.45	-.0005	-26.34	78.44
RISE 61	3162.10	3173.35	19	6	43.8	295.61	.0042	-27.05	-.0000	356876.7	.84	.00	.0026	126.57	.0027	-26.31	59.36
SET 42	3220.18	3231.43	19	7	41.9	105.00	.0041	-25.67	.0000	360397.7	1.45	3.40	-.0030	240.70	-.0023	-26.29	44.87
EXTM 51	3283.47	3294.72	19	8	45.2	358.59	.0042	-26.28	.0000	358692.5	1.11	88.62	.0035	113.25	.0605	-26.27	29.07
EXTM 61	3417.94	3428.79	19	10	59.2	.15	.0042	-27.12	.0000	371915.5	1.12	22.64	-.0000	180.15	.0041	-26.22	355.60
EXTM 72	3457.56	3468.81	19	11	39.3	.07	.0042	-26.52	.0000	370638.5	1.12	71.38	-.0000	180.21	.0115	-26.21	348.60
RISE 11	3593.98	3605.23	19	13	55.7	290.86	.0012	-26.78	-.0000	389850.6	.83	.00	.0029	123.46	.0024	-26.17	311.48
SET 51	3645.31	3656.56	19	14	47.0	90.00	.0042	-25.78	.0000	388214.3	1.56	10.89	-.0035	246.48	-.0015	-26.15	298.63
SET 61	3672.57	3683.82	19	15	14.3	64.68	.0042	-26.82	.0000	391358.9	1.49	-.00	-.0026	233.78	.0027	-26.14	291.79
IMPACT	3774.41	3785.66	19	16	56.1												
IMPC 72	3774.41	3785.66	19	16	56.1	80.59	.0043	-26.05	.0000	398467.1	2.50	11.88	-.0039	244.92	-.0002	-26.10	266.08
IMPC 11	3774.41	3785.66	19	16	56.1	336.74	.0044	-26.88	.0000	397181.1	1.94	24.14	.0014	157.30	.0040	-26.10	266.08

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	17	2	1.709	6688.650	27.1714	307.0592	10.88263	-8.1850	99.5718	93.5348
SEPARATION	1.20	12.45	17	2	2.909	6591.916	25.8081	314.3818	10.95644	-4.8388	102.9834	101.1081
RETRO	3.20	14.45	17	2	4.909	6546.192	22.7219	326.0463	10.99492	.8733	108.0005	113.3280
EXIT SHA	14.55	25.80	17	2	16.257	6411.780	-.5339	14.1850	9.68913	27.9944	118.6840	164.2317
IMPACT	3774.41	3785.66	19	16	56.122	399829.316	-26.0964	266.0788	2.22345	68.9620	275.6507	278.7444

SURVEYOR VIEW PERIODS

GHA	117.9403				EPS 158.4516							LOM	261.9914
SX	.136137	SY	-.887727	SZ	-.439781	DAO	-26.08992	RAO	278.71866	RM	401133.027	LAT	28.31[illegible]600
LON	279.461800												
CS	-.887033	ECC	.985436	SLR	12994.016	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000
POL	-.0												
NSX	.155492	NSY	-.884433	NSZ	-.440001	C3M	1.5560	VIM	2.6824	ZAE	142,034	B.T	.0000
B.R	-.0000												
LATE	3.8299	LONE	3.9008	LATS	-1.3258	LONS	205.3848	LATI	-1.9927	LONI	326.3624	RSM	146.8354
TTAN	5.6379												
LAUNCH DATE	JAN 17,1966			BASE AZM	87.0		TF 62.828					ARRIVAL DATE	JAN 19 1966 17 12 19.3

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
87.00	2 18 39.4	27.5	25.90	307.49	-10.15	101.04	102.06	2 29 54.4	6595.9	10.93	-5.04

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PRORE IN EARTH'S SHADOW															
INJECTION	.00	11.25	17	2	29.9												
SEPARATION	1.20	12.45	17	2	31.1												
RETRO	3.20	14.45	17	2	33.1												
RISE 72	6.41	17.66	17	2	36.3	48.14	-.9475	78.25	.0680	2602.2	-4.42	-.00	.0964	351.28	.1805	14.03	348.29
RISE 51	11.84	23.09	17	2	41.7	65.24	-.1330	40.98	-.0250	4824.3	-3.75	.00	.0965	316.72	.0373	2.83	3.22
EXTM 72	12.55	23.80	17	2	42.5	296.51	-.0382	19.60	-.1149	3276.1	6.35	21.74	-.0000	65.17	.1296	1.55	9.41
EXIT SHA	13.30	24.55	17	2	43.2												
EXIT 72	13.30	24.55	17	2	43.2	294.91	-.0325	14.83	-.0961	3573.8	6.76	21.60	-.0056	70.56	.1085	.26	7.63
EXIT 51	13.30	24.55	17	2	43.2	53.47	-.1329	38.11	-.0401	4546.7	-2.53	8.85	.1039	320.22	.0423	.26	7.63
EXIT 61	13.10	24.55	17	2	43.2	332.68	-.0836	-47.34	.0189	5544.8	7.21	-.88	-.0022	161.88	-.0597	.26	7.63
EXTM 51	30.45	41.70	17	3	.4	343.54	-.0244	-8.58	-.0205	7683.4	5.54	66.78	-.0000	45.29	.0802	-16.52	37.07
EXTM 72	64.11	75.36	17	3	34.0	275.44	-.0002	-24.27	-.0018	22436.7	4.99	8.17	.0000	113.53	.0018	-24.68	53.60
EXTM 51	79.62	90.87	17	3	49.5	324.54	-.0002	-25.09	-.0014	22927.5	4.58	58.06	.0000	96.68	.0027	-25.95	55.69
RISE 42	83.37	94.[illegible]	7	3	53.3	104.01	-.0025	-18.93	-.0022	23860.1	4.25	.00	.0032	246.60	-.0003	-26.18	55.95
EXTM 42	128.13	139.38	17	4	38.0	102.24	.0006	-22.45	-.0008	39940.7	3.99	3.45	-.0000	244.80	-.0010	-27.63	54.82
SET 42	165.39	176.64	17	5	15.3	105.00	.0017	-23.66	-.0004	48608.9	3.77	2.17	-.[illegible]0	242.30	-.0013	-28.08	50.63
RISE 61	190.88	202.13	17	5	40.8	304.07	.0031	-33.51	.0001	54306.2	3.29	-.00	.0[illegible]	136.31	.0019	-28.23	46.86
EXTM 51	296.11	307.36	17	7	26.0	.01	.0037	-28.64	.0000	68474.8	2.97	87.10	[illegible]	180.42	.0362	-28.39	27.67
EXTM 61	456.10	467.35	17	10	6.0	2.42	.0039	-31.68	.0001	98996.2	2.55	18.05	.0000	182.17	.0035	-28.25	353.46
EXTM 72	491.97	503.22	17	10	41.9	.29	.0040	-29.46	.0001	100599.3	2.48	68.44	.0000	180.69	.0095	-28.20	345.40
RISE 11	659.07	670.32	17	13	29.0	293.91	.0040	-29.87	-.0000	129880.8	1.94	.00	.0026	127.55	.0023	-27.98	306.87
SET 51	686.33	697.58	17	13	56.2	90.00	.0039	-26.91	.0001	132243.6	2.54	11.34	-.0032	245.43	-.0013	-27.95	300.47
SET 61	701.26	712.51	17	14	11.2	60.82	.0040	-29.95	.0001	135445.5	2.42	-.00	-.0022	229.16	.0026	-27.93	296.96
SET 72	881.43	892.68	17	17	11.3	94.12	.0039	-27.38	.0001	157892.4	2.38	-.00	-.0035	242.34	-.0005	-27.71	254.13
RISE 42	890.56	901.81	17	17	20.5	255.00	.0040	-26.32	-.0001	158560.3	1.66	3.79	-.0029	119.81	-.0021	-27.70	251.94
EXTM 11	930.26	941.51	17	18	.2	.77	.0042	-29.68	.0000	160977.1	1.95	25.11	-.0000	180.74	.0040	-27.66	242.41
SET 11	1199.79	1210.04	17	22	28.7	67.32	.0041	-28.65	.0001	193443.1	2.06	.01	-.0027	234.07	.0024	-27.48	177.43
EXTM 42	1315.36	1326.61	18	0	25.3	359.96	.0042	-27.04	.0000	199308.2	1.69	81.82	.0000	.28	-.0233	-27.30	149.02
RISE 51	1450.36	1461.61	18	2	40.3	270.00	.0041	-26.55	-.0000	217729.6	1.26	11.19	.0034	114.23	-.0014	-27.19	116.00
RISE 72	1605.38	1616.63	18	5	15.3	265.96	.0041	-26.85	-.0000	233770.2	1.16	-.01	.0036	117.12	-.0005	-27.08	77.97
RISE 61	1687.86	1699.11	18	6	37.8	296.90	.0041	-28.13	-.0000	241400.2	1.25	.00	.0025	128.15	.0027	-27.02	57.70
SET 42	1738.26	1749.51	18	7	28.2	105.00	.0041	-26.09	.0000	245579.1	1.83	3.65	-.0029	240.38	-.0022	-26.99	45.29
EXTM 51	1806.10	1817.35	18	8	36.0	359.08	.0042	-26.97	.0000	245771.3	1.48	88.51	.0021	146.33	.1197	-26.94	28.59
EXTM A1	1940.56	1951.81	18	10	50.5	.32	.0042	-28.15	.0000	261491.0	1.44	21.62	-.0000	180.31	.0040	-26.86	355.43
EXTM 72	1980.51	1991.76	18	11	30.4	.10	.0042	-27.29	.0000	261304.0	1.42	70.61	-.0000	180.28	.0112	-26.84	349.57
RISE 11	2122.98	2134.23	18	13	52.9	291.66	.0042	-27.61	-.0000	279224.2	1.07	.00	.0028	124.56	.0024	-26.76	310.38
SET 51	2169.07	2180.32	18	14	39.0	90.00	.0041	-26.24	.0000	281798.4	1.74	11.07	.0034	246.06	-.0015	-26.73	298.98
SET 61	2193.04	2204.29	18	15	3.0	63.68	.0042	-27.66	.0000	284979.6	1.64	-.00	-.0025	232.55	.0027	-26.72	293.05
SET 72	2354.63	2365.88	18	17	44.5	93.96	.0041	-26.45	.0000	297941.3	1.72	-.00	-.0036	243.27	-.0005	-26.64	253.07
RISE 42	2355.30	2366.55	18	17	45.2	255.00	.0041	-25.89	-.0000	297602.0	.99	3.53	.0029	119.47	-.0022	-26.64	252.90
EXTM 11	2395.54	2406.79	18	18	25.5	.22	.0042	-27.70	.0000	298269.4	1.31	27.10	-.0000	180.22	.0042	-26.62	242.93
SET 11	2667.96	2679.21	18	22	57.9	68.71	.0042	-27.23	.0000	321951.2	1.55	-.00	-.0028	235.94	.0024	-26.49	179.41
EXTM 42	2774.40	2785.65	19	0	44.3	359.98	.0042	-26.27	.0000	323566.5	1.22	81.05	-.0000	.14	-.0195	-26.45	149.00
RISE 51	2904.87	2916.12	19	2	54.8	270.00	.0041	-25.97	-.0000	338016.6	.82	10.96	.0034	113.69	-.0015	-26.39	116.01
RISE 72	3058.29	3069.54	19	5	28.2	266.08	.0042	-26.18	-.0000	350162.0	.72	-.00	.0037	116.45	-.0005	-26.33	78.44
RISE 61	3134.77	3146.02	19	6	44.7	295.60	.0042	-27.05	-.0000	355336.7	.84	.00	.0026	126.57	.0027	-26.31	59.36
SET 42	3192.82	3204.07	19	7	42.7	105.00	.0041	-25.67	.0000	358868.3	1.45	3.40	-.0030	240.71	-.0023	-26.29	44.87
EXTM 51	3257.15	3268.40	19	8	47.1	353.85	.0042	-26.28	.0000	357243.9	1.11	88.83	.0034	117.60	.0847	-26.27	28.82
EXTM 61	3390.17	3401.42	19	11	.1	.15	.0042	-27.13	.0000	370014.3	1.12	22.63	-.0000	180.14	.0041	-26.28	355.60
EXTM 72	3430.21	3441.46	19	11	40.1	.07	.0042	-26.52	.0000	369139.6	1.12	71.38	-.0000	180.21	.0114	-26.21	349.60
RISE 11	3566.69	3577.94	19	13	56.6	290.87	.0042	-26.79	-.0000	384334.9	.82	.00	.0028	123.47	.0024	-26.17	311.48
SET 51	3617.99	3629.24	19	14	47.9	90.00	.0042	-25.79	.0000	386664.7	1.54	10.89	-.0035	246.48	-.0015	-26.15	298.63
SET 61	3645.22	3656.47	19	15	15.1	64.67	.0042	-26.92	.0000	389778.3	1.47	-.00	-.0026	233.76	.0027	-26.14	291.80
IMPACT	3769.69	3780.94	19	17	19.6												
IMPC 42	3769.69	3780.94	19	17	19.6	247.80	.0043	-25.50	-.0000	400012.8	1.75	-1.74	.0029	123.28	-.0025	-26.18	266.41
IMPC 72	3769.69	3780.94	19	17	19.6	86.26	.0043	-26.01	.0000	399065.5	2.50	6.80	-.0034	244.57	-.0003	-26.18	260.41
IMPC 11	3769.69	3780.94	19	17	19.6	342.49	.0044	-26.89	.0000	397062.5	1.97	25.73	.0011	162.67	.0042	-26.18	260.41

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	17	2	29.907	6596.931	25.9138	307.4347	10.95395	-5.0354	102.0307	100.9831
SEPARATION	1.20	12.45	17	2	31.107	6549.960	24.2813	314.5638	10.99202	-1.6234	105.1892	100.4180
RETRO	3.20	14.45	17	2	33.107	6578.436	20.8065	325.9644	10.96803	4.0936	109.7667	120.3150
EXIT SHA	13.30	24.55	17	2	43.211	8380.769	.2570	7.6256	9.76754	27.7971	118.3935	164.5092
IMPACT	3769.69	3780.94	19	17	19.598	399870.402	-26.0983	260.4140	2.22427	68.8896	279.2081	278.9640

SURVEYOR VIEW PERIODS

GHA	117.9403					EPS	158.6739							LOM	254.8885
SX	.140411	SY	-.887039	SZ	-.439827	DAO	-26.09281	RAO	278.99482	RM	401183.137	LAT	28.310600	LON	279.461800
C3	-.886249	ECC	.985449	SLR	12994.103	RCA	6944.6650	LT	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.159743	NSY	-.883673	NSZ	-.440006	C3M	1.9560	VIM	2.6824	ZAE	142.061	B.T	.0000	B.R	-.0000
LATE	3.8534	LONE	3.8788	LATS	-1.3261	LONS	205.1356	LATI	-1.8902	LONI	326.3554	RSM	146.8350	TTAN	6.6388
LAUNCH DATE	JAN 17,1966			BASE AZM	90.0		TF 62.831					ARRIVAL DATE	JAN 19 1966 17 41 45.4		

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME		INJ RAD	INJ VEL	INJ PTH
90.00	2 43	2.2	27.8	24.68	307.51	-4.72	107.16	104.33	2 54	17.2	6555.7	10.99	-2.34

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DFC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	17	2	54.3												
SEPARATION	1.20	12.45	17	2	55.5												
RETRO	3.20	14.45	17	2	57.5												
RISE 72	5.70	16.95	17	2	60.0	69.20	-.4274	68.66	.0938	2693.7	-5.69	-.01	.1086	340.11	.1456	13.63	337.84
RISE 51	11.54	22.79	17	3	5.8	69.09	-.1169	36.51	-.0275	5095.4	-3.47	.00	.0940	311.33	.0276	1.84	359.71
RISE 61	11.15	22.40	17	3	5.4	352.67	-.1238	-49.54	.0137	4941.6	6.30	.01	.0061	175.44	-.0813	2.52	358.54
EXTM 72	11.94	23.19	17	3	6.2	307.32	-.0598	20.83	-.1287	2927.2	5.94	30.82	.0000	59.94	.1634	1.14	.03
EXIT SHA	12.36	23.61	17	3	6.6												
EXIT 72	12.36	23.61	17	3	6.6	305.91	-.0531	17.77	-.1161	3079.7	6.25	30.75	-.0056	63.83	.1472	.43	2.13
EXIT 51	12.36	23.61	17	3	6.6	63.29	-.1173	34.98	-.0341	4939.0	-2.85	4.75	.0977	312.74	.0293	.43	2.13
EXIT 61	12.36	23.61	17	3	6.6	344.95	-.0987	-48.46	.0156	5413.5	6.70	.31	.0024	170.09	-.0672	.43	2.13
EXTM 61	13.46	24.71	17	3	7.7	339.07	-.0810	-47.43	.0155	5862.4	6.94	.38	-.0000	166.02	-.0569	-1.34	5.14
SET 61	16.57	27.82	17	3	10.9	327.23	-.0494	-44.81	.0122	7190.5	7.19	.00	-.0034	157 42	-.0370	-5.69	18.54
EXTM 51	32.93	44.18	17	3	27.2	348.27	-.0206	-12.06	-.0153	8688.9	5.46	72.41	-.0000	41 13	.0836	-17.93	34.69
EXTM 72	64.90	76.15	17	3	59.2	281.25	-.0001	-24.91	-.0016	22403.9	4.94	13.49	.0000	113.63	.0017	-24.70	48.38
EXTM 51	82.12	93.37	17	4	17.4	331.35	-.0002	-25.49	-.0013	23602.7	4.51	64.22	.0000	95.75	.0029	-26.01	50.37
RISE 61	159.89	171.14	17	5	34.2	304.73	.0028	-33.95	.0002	47846.7	3.52	-.00	.0016	137.02	.0017	-27.92	45.63
EXTM 51	266.69	277.94	17	7	21.0	.01	.0035	-28.56	.0000	63306.9	3.08	87.18	-.0000	180.29	.0246	-28.30	27.68
EXTM 61	430.67	441.92	17	10	5.0	2.60	.0039	-31.78	.0001	95224.2	2.60	17.94	.0000	182.32	.0035	-28.21	353.36
EXTM 72	466.34	477.59	17	10	40.6	.34	.0040	-29.48	.0001	96898.0	2.53	68.42	.0000	180.81	.0095	-26.17	348.35
RISE 11	634.54	645.79	17	13	28.8	293.94	.0040	-29.90	-.0000	126714.4	1.97	.00	.0026	127.99	.0023	-27.96	306.78
SET 51	661.22	672.47	17	13	55.5	90.00	.0039	-26.87	.0001	129052.6	2.57	11.32	-.0032	245.47	-.0013	-27.93	300.94
SET 61	676.11	687.36	17	14	10.4	60.78	.0040	-29.98	.0001	132273.6	2.45	-.00	-.0022	229.11	.0026	-27.91	297.05
SET 72	856.87	868.12	17	17	11.2	94.12	.0039	-27.36	.0001	155065.3	2.40	-.00	-.0035	242.36	-.0005	-27.70	254.15
RISE 42	866.38	877.63	17	17	20.7	254.99	.0040	-26.28	-.0001	155792.0	1.69	3.77	-.0029	119.78	-.0026	-27.69	251.50
EXTM 11	906.04	917.29	17	18	.3	.78	.0042	-29.70	.0000	158253.5	1.97	25.09	-.0000	180.75	.0016	-27.65	242.40
SET 11	1174.70	1185.95	17	22	29.0	67.31	.0041	-28.65	.0001	190998.7	2.07	.01	-.0027	234.06	.0024	-27.39	177.46
EXTM 42	1291.46	1302.71	18	0	25.7	359.96	.0042	-27.03	.0000	196178.4	1.71	81.81	.0000	.25	-.0230	-27.29	149.02
RISE 51	1426.61	1437.86	18	2	40.9	270.00	.0041	-26.54	-.0000	215908.5	1.27	11.18	.0034	114.22	-.0014	-27.18	119.98
RISE 72	1581.69	1592.94	18	5	16.0	269.97	.0041	-26.84	-.0000	231650.9	1.17	-.01	.0036	117.12	-.0005	-27.07	77.95
RISE 61	1664.21	1675.46	18	6	38.5	296.91	.0041	-28.14	-.0000	239330.0	1.26	.00	.0025	128.15	.0027	-27.01	57.68
SET 42	1714.91	1725.76	18	7	28.8	105.00	.0041	-26.07	.0000	243527.9	1.84	3.64	-.0029	240.39	-.0022	-26.58	48.30
EXTM 42	1782.44	1793.69	18	8	36.7	359.08	.0042	-26.97	.0000	243762.9	1.48	88.92	.0021	146.42	.1204	26.94	28.98
EXTM 61	1916.91	1928.16	18	10	51.2	.32	.0042	-28.15	.0000	259549.0	1.44	21.61	-.0000	180.31	.0040	-26.86	359.43
EXTM 72	1956.87	1968.12	18	11	31.2	.10	.0042	-27.29	.0000	259380.4	1.43	70.61	-.0000	180.28	.0111	-26.84	349.97
RISE 11	2099.42	2110.67	18	13	93..	291.66	.0042	-27.62	-.0000	277368.3	1.08	.00	.0028	124.5.	.0024	-26.76	310.37
SET 51	2145.43	2156.68	18	14	39.7	90.00	.0041	-26.23	.0000	279955.3	1.74	11.06	-.0034	246.06	-.0012	-26.73	298.20
SET 61	2169.40	2180.65	18	15	3.7	63.67	.0042	-27.66	.0000	283144.7	1.64	-.00	-.0025	232.54	.0027	-26.72	293.07
SET 72	2331.03	2342.28	18	17	45.3	93.96	.0041	-26.45	.0000	296172.0	1.73	-.00	-.0036	243.27	-.0009	-26.64	258.87
RISE 42	2331.76	2343.01	18	17	46.0	255.00	.0041	-25.89	-.0000	295837.9	1.00	3.53	.0029	119.47	-.0022	-26.64	258.89
EXTM 11	2371.98	2383.23	18	18	26.3	.22	.0042	-27.70	.0000	296518.7	1.31	27.09	-.0000	180.22	.0049	-26.62	248.93
SET 11	2644.39	2655.64	18	22	58.7	68.70	.0042	-27.24	.0000	320290.8	1.56	-.00	-.0028	235.84	.0024	-26.49	178.42
EXTM 42	2750.89	2762.14	19	0	45.2	359.98	.0042	-26.28	.0000	321943.5	1.22	81.06	-.0000	.15	-.0014	-26.49	149.00
RISE 51	2881.40	2892.65	19	2	55.7	270.00	.0041	-25.98	-.0000	336433.9	.82	10.96	.0034	113.70	-.0015	-26.39	118.60
RISE 72	3034.93	3046.18	19	5	29.2	266.08	.0042	-26.18	-.0000	348686.9	.72	-.00	.0037	116.45	-.0004	-26.33	78.43
RISE 61	3111.43	3122.68	19	6	45.7	295.61	.0042	-27.06	-.0000	353866.0	.84	.00	.0026	126.58	.0021	-26.31	59.35
SET 42	3169.40	3180.65	19	7	43.7	105.00	.0041	-25.67	.0000	357394.6	1.45	3.40	-.0030	240.71	-.0023	-26.29	44.88
EXTM 51	3232.92	3244.17	19	8	47.2	358.64	.0042	-26.28	.0000	359716.9	1.11	88.66	.0035	114.14	.0648	-26.27	29.02
EXTM 61	3366.73	3377.98	19	11	1.0	.15	.0042	-27.14	.0000	368533.7	1.12	22.62	-.0000	180.14	.0041	-26.23	359.61
EXTM 72	3406.77	3418.02	19	11	41.1	.07	.0042	-26.53	.0000	367653.7	1.12	71.37	-.0000	180.21	.0114	-26.22	349.60
RISE 11	3543.29	3554.54	19	13	57.6	290.88	.0042	-26.79	-.0000	382811.7	.82	.00	.0028	123.49	.0024	-26.18	311.46
SET 51	3594.54	3605.79	19	14	48.8	90.00	.0042	-25.79	.0000	389103.7	1.53	10.89	-.0035	246.47	-.0015	-26.16	298.63
SET 61	3621.74	3632.99	19	15	16.0	64.65	.0042	-26.83	.0000	386187.7	1.45	-.00	-.0026	233.75	.0027	-26.15	291.82
IMPACT	3769.88	3781.13	19	17	44.2												
IMPC 42	3769.88	3781.13	19	17	44.2	253.70	.0043	-25.54	-.0000	399600.4	1.73	2.39	.0031	119.91	-.0024	-26.10	254.49
IMPC 72	3769.88	3781.13	19	17	44.2	92.19	.0043	-25.98	.0000	399699.0	2.50	1.50	-.0038	243.98	-.0005	-26.10	254.49
IMPC 11	3769.88	3781.13	19	17	44.2	348.58	.0044	-26.98	.0000	396988.8	2.00	26.95	.0007	168.49	.0043	-26.10	254.49

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	17	2	54.286	6559.774	24.6791	307.4938	10.98730	-2.3449	104.3325	107.1536
SEPARATION	1.20	12.45	17	2	55.486	6547.049	22.7912	314.4715	10.99452	1.0896	107.2660	114.4382
RETRO	3.20	14.45	17	2	57.486	6637.263	16.9968	329.9078	10.91899	6.7983	111.3952	128.9407
EXIT SHA	12.36	23.41	17	3	6.646	6381.625	.4293	2.1344	9.70707	27.8027	118.3090	144.8930
IMPACT	3769.88	3781.13	19	17	44.168	3999916.750	-26.1081	254.4862	2.22199	68.6114	274.9031	279.1902

EVT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	17	3	14.045	6544.741	23.4746	307.3333	10.99652	-.1926	106.5374	111.9464
SEPARATION		1.20	12.45	17	3	15.245	6565.728	21.3496	314.1418	10.97873	3.2353	109.2514	119.0588
RETRO		3.20	14.45	17	3	17.245	6703.852	17.2763	324.7879	10.86420	8.8315	112.9509	130.2033
EXIT SMA		11.58	22.83	17	3	25.626	8373.827	.1993	357.3615	9.71160	27.7525	118.4420	164.8777
IMPACT		3771.11	3782.36	19	18	5.152	399556.637	-26.1017	249.4233	2.21960	68.3483	274.8408	279.3938

[illegible]

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	17	3	29.365	6548.911	22.2974	307.0334	10.99292	1.4519	108.6883	119.4878
SEPARATION		1.20	12.45	17	3	30.565	6592.510	19.9469	313.6696	10.95616	4.8690	111.1913	122.4740
RETRO		3.20	14.45	17	3	32.565	6766.398	15.6144	323.9387	10.81341	10.3906	114.4906	133.1915
EXIT SHA		10.98	22.23	17	3	40.349	8368.017	-.4586	353.3972	9.71492	27.7148	118.7802	164.6043
IMPACT		3773.21	3784.46	19	18	22.978	399987.039	-26.1031	249.2185	2.21892	68.2863	279.0698	279.9574

JAN 17, 1966
96 DEGREES

SMA	117.9403					EPS	199.1100							LOM	240.9448
SX	.148790	SY	-.889639	SZ	-.439891	DAO	-26.09695	RAO	279.93681	RM	401280.840	LAT	26.[illegible].0600	LON	279.461800
CS	-.890086	SCC	.989386	SLR	12993.689	RCA	6944.6658	LTA	-20.0000	GTA	20.00	"B	675.00000	POL	-.0
NBR	.148179	NSY	-.882112	NSZ	-.448015	CSM	1.9561	VIM	2.6824	ZAE	141.928	B.T	.0000	B.R	-.8000
LATS	2.8992	LONS	3.9656	LATS	-1.3267	LONS	204.7745	LATI	-2.2428	LONI	326.3697	RSM	146.8344	TTAN	6.6416
LAUNCH DATE	JAN	17.1966		BASE AZM	90.0		TF	62.917				ARRIVAL DATE	JAN 19 1966	18 39 32.5	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FTH
90.00	3 29 42.1	28.1	21.15	306.63	9.40	117.99	110.81	3 40 57.1	6559.1	10.98	2.68

EVNT STA	TFI	TFL	DAY PRORE	HR IN	MIN EARTH'S	MA SHADOW	DMA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
INJECTION	.00	11.25	17	3	41.0												
SEPARATION	1.20	12.45	17	3	42.2												
RETRO	3.20	14.45	17	3	44.2												
RISE 72	4.60	15.85	17	3	45.5	81.15	-.2008	47.92	.0362	2946.6	-7.23	-.00	.1243	318.54	.0630	10.75	329.25
EXIT SHA	10.54	21.79	17	3	51.5												
EXIT 72	10.54	21.79	17	3	51.5	342.24	-.1539	17.40	-.1518	2220.6	4.32	59.20	.0358	34.65	.4066	-1.46	350.11
EXIT 51	10.54	21.79	17	3	51.5	80.18	-.0892	26.28	-.0322	5771.5	-3.19	-3.12	.0859	297.78	.0080	-1.46	350.11
EXIT A1	10.54	21.79	17	3	51.5	13.38	-.1197	-50.61	-.0009	5400.2	5.52	-1.60	.0125	188.45	-.0750	-1.46	350.11
EXTM 72	11.01	22.26	17	3	52.0	338.22	-.1324	13.33	-.1369	2351.7	4.97	59.69	-.0000	45.67	.3723	-2.26	351.41
RISE 51	11.14	22.39	17	3	52.1	76.96	-.0894	25.07	-.0349	5663.6	-2.81	.00	.0878	298.07	.0082	-2.48	351.77
RISE 61	14.02	25.27	17	3	55.0	353.42	-.0745	-49.57	.0082	6862.5	6.41	.00	.0039	175.74	-.0488	-6.80	358.89
EXTM 61	17.78	29.03	17	3	58.7	340.16	-.0461	-47.64	.0083	8345.2	6.66	.37	-.0000	166.78	-.0321	-11.23	6.40
SET 61	23.90	34.75	17	4	4.5	328.38	-.0254	-45.18	.0060	10620.7	6.54	.00	-.0017	158.31	-.0188	-16.02	15.00
EXTM 51	40.36	51.61	17	4	21.3	357.45	-.0138	-21.59	-.0070	11470.1	5.25	85.24	-.0000	29.86	.1758	-23.07	29.34
EXTM 72	68.83	80.08	17	4	49.8	293.23	.0001	-28.72	-.0009	23037.6	4.80	24.13	.0000	117.99	.0010	-27.02	38.09
RISE 61	107.14	118.39	17	5	28.1	309.94	.0016	-36.96	.0005	35829.0	4.07	-.00	.0012	141.96	.0007	-28.61	39.47
EXTM 51	205.79	217.04	17	7	6.7	.03	.0031	-29.76	.0000	51913.8	3.36	85.97	.0000	180.43	.0326	-29.32	27.66
EXTM 61	384.46	395.71	17	10	5.4	3.64	.0038	-32.92	.0002	88255.8	2.71	16.76	.0000	183.19	.0034	-29.05	358.34
EXTM 72	417.35	428.60	17	10	38.3	.54	.0040	-30.45	.0001	89631.3	2.62	67.45	-.0000	181.22	.0089	-28.98	345.17
RISE 11	990.81	802.06	17	13	31.8	294.73	.0040	-30.66	-.0000	120944.8	2.03	.00	.0025	128.62	.0023	-28.61	305.87
SET 51	813.09	824.34	17	13	54.0	90.00	.0038	-27.47	.0001	122745.7	2.62	11.56	-.0032	244.91	-.0013	-28.57	300.70
SET 61	824.02	835.27	17	14	5.0	90.77	.0039	-30.75	.0001	125508.6	2.50	-.00	-.0021	227.95	.0026	-28.55	298.16
SET 72	810.38	821.63	17	17	11.3	94.22	.0039	-27.87	.0001	149589.1	2.43	-.00	-.0034	241.84	-.0004	-28.22	254.19
RISE 42	820.34	831.59	17	17	21.3	254.99	.0040	-26.75	-.0001	150361.9	1.73	4.05	.0028	120.15	-.0021	-28.21	251.82
EXTM 11	860.57	871.82	17	18	1.5	.98	.0041	-30.28	.0001	153075.3	2.00	24.51	-.0000	180.93	.0039	-28.14	242.21
SET 11	1127.10	1138.35	17	22	28.0	66.89	.0041	-29.09	.0001	186041.3	2.09	-.00	-.0026	233.49	.0024	-27.78	177.93
EXTM 42	1244.01	1257.26	18	0	27.0	359.98	.0042	-27.39	.0000	192424.1	1.73	82.17	-.0000	.20	-.0193	-27.64	149.00
RISE 51	1381.39	1392.64	18	2	42.3	270.00	.0041	-26.84	-.0000	211144.6	1.29	11.31	.0034	114.51	-.0014	-27.50	115.94
RISE 72	1536.38	1547.63	18	5	17.3	269.92	.0041	-27.11	-.0000	227467.9	1.18	-.01	.0036	117.40	-.0005	-27.35	77.97
RISE 61	1620.48	1631.73	18	6	41.4	297.25	.0041	-28.42	-.0000	235379.6	1.28	.00	.0025	128.57	.0027	-27.28	57.31
SET 42	1669.23	1680.48	18	7	30.2	105.00	.0041	-26.31	.0000	239465.0	1.85	3.79	-.0029	240.20	-.0022	-27.23	49.33
EXTM 51	1736.04	1747.29	18	8	37.0	358.76	.0042	-27.22	.0000	239680.7	1.50	88.15	.0023	143.44	.0925	-27.18	28.89
EXTM 61	1872.06	1883.31	18	10	53.0	.39	.0042	-28.39	.0000	255743.5	1.46	21.37	.0000	180.36	.0040	-27.07	355.37
EXTM 72	1911.86	1923.11	18	11	32.8	.12	.0042	-27.51	.0000	255577.2	1.44	70.39	-.0000	180.32	.0110	-27.04	345.56
RISE 11	2055.23	2066.48	18	13	56.2	291.86	.0042	-27.81	-.0000	273732.3	1.09	.00	.0028	124.83	.0024	-26.94	310.16
SET 51	2100.34	2111.59	18	14	41.3	90.00	.0041	-26.40	.0000	276268.8	1.75	11.13	-.0034	245.90	-.0014	-26.91	299.01
SET 61	2123.41	2134.66	18	15	4.4	63.44	.0042	-27.85	.0000	279408.5	1.65	-.00	-.0025	232.27	.0027	-26.89	293.31
SET 72	2286.10	2297.35	18	17	47.0	93.99	.0041	-26.60	.0000	292627.4	1.74	-.00	-.0036	243.12	-.0005	-26.79	253.07
RISE 42	2286.85	2298.10	18	17	47.8	255.00	.0041	-26.03	-.0000	292286.3	1.01	3.62	.0029	119.58	-.0022	-26.79	252.88
EXTM 11	2327.18	2338.43	18	18	28.1	.26	.0042	-27.86	.0000	293025.9	1.32	26.93	-.0000	180.26	.0042	-26.76	242.89
SET 11	2598.92	2610.17	18	22	59.9	68.57	.0042	-27.34	.0000	316882.5	1.56	.01	-.0028	235.77	.0024	-26.61	179.56
EXTM 42	2705.98	2717.23	19	0	46.9	359.98	.0042	-26.38	.0000	318630.5	1.23	81.16	-.0000	.17	-.0198	-26.55	149.00
RISE 51	2836.56	2847.81	19	2	57.5	270.00	.0041	-26.06	-.0000	333185.3	.83	11.00	.0034	113.78	-.0015	-26.48	116.59
RISE 72	2990.19	3001.44	19	5	31.1	266.07	.0041	-26.25	-.0000	345347.9	.76	-.00	.0037	116.52	-.0005	-26.41	78.43
RISE 61	3067.18	3078.43	19	6	48.1	295.70	.0042	-27.15	-.0000	350868.4	.84	.00	.0026	126.68	.0027	-26.37	59.26
SET 42	3124.74	3135.99	19	7	45.7	105.00	.0041	-25.72	.0000	354362.6	1.45	3.43	-.0030	240.66	-.0023	-26.35	44.89
EXTM 51	3188.93	3200.18	19	8	49.9	358.81	.0042	-26.34	.0000	352727.8	1.11	88.77	.0033	119.33	.0852	-26.33	28.86
EXTM 61	3322.13	3333.38	19	11	3.1	.17	.0042	-27.19	.0000	365485.1	1.11	22.57	-.0000	180.16	.0041	-26.28	359.59
EXTM 72	3362.10	3373.35	19	11	43.1	.08	.0042	-26.58	.0000	364584.5	1.11	71.33	-.0000	180.22	.0114	-26.26	345.60
RISE 11	3498.78	3510.03	19	13	59.7	290.92	.0042	-26.83	-.0000	379672.9	.80	.00	.0028	123.54	.0024	-26.21	311.42
SET 51	3549.83	3561.08	19	14	50.8	90.00	.0042	-25.82	.0000	381894.0	1.50	10.90	-.0035	246.45	-.0015	-26.19	298.64
SET A1	3576.87	3588.12	19	15	17.8	64.41	.0042	-26.87	.0000	384927.1	1.42	-.00	-.0026	233.69	.0027	-26.18	291.87
RISE 42	3731.00	3742.25	19	17	52.0	255.00	.0042	-25.56	-.0000	395562.6	1.00	3.33	.0030	119.21	-.0023	-26.13	253.17
SET 72	3732.46	3743.71	19	17	53.4	93.88	.0042	-25.99	.0000	396049.0	1.75	-.00	-.0037	243.74	-.0005	-26.12	252.80
EXTM 11	3771.54	3782.79	19	18	32.5	.27	.0043	-26.91	.0000	396588.5	1.86	27.88	-.0000	180.27	.0044	-26.11	242.88
IMPACT	3775.04	3786.29	19	18	36.0												
IMPC 42	3775.04	3786.29	19	18	36.0	266.17	.0043	-25.61	-.0000	398690.2	1.70	11.54	.0032	113.32	-.0022	-26.10	241.98
IMPC 11	3775.04	3786.29	19	18	36.0	1.19	.0044	-26.91	.0000	396995.4	2.06	27.87	-.0001	181.26	.0044	-26.10	241.96

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FTH	AZ	RT ASC
INJECTION	.00	11.25	17	3	40.952	6559.188	21.1439	306.6426	10.98429	2.6789	110.8096	118.0008
SEPARATION	1.20	12.45	17	3	42.152	6619.390	18.5840	313.0850	10.93366	6.0767	113.1039	124.7440
RETRO	3.20	14.45	17	3	44.152	6819.241	13.9994	322.9993	10.77104	11.5324	116.0355	135.1597
EXIT SHA	10.54	21.79	17	3	51.490	8363.461	-1.4601	350.1053	9.71751	27.6852	119.2943	164.1052
IMPACT	3775.04	3786.29	19	18	35.995	400013.832	-26.1043	241.9816	2.21609	68.0307	275.3820	279.6839

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SURVEYOR VIEW PERIODS

SMA	117.9403					EPS	159.2054							LON	237.8948
SX	.150621	SY	-.885325	SZ	-.439901	DAO	-26.09759	RAO	279.65533	RM	401302.105	LAT	28.310800	LON	279.461800
CJ	-.893630	ECC	.995327	SLR	12993.307	RCA	6544.8650	LTA	-20.0000	GTA	20.00	TB	679.00000	POL	-.0
NSX	.169982	NSY	-.861753	NSZ	-.440021	CSM	1.9558	VIN	2.6824	ZAE	141.811	R.T	.0000	B A	-.0000
LATE	3.9093	LONE	3.8265	LATS	-1.3269	LONS	204.5398	LATI	-2.5113	LONI	328.1583	RSM	146.9342	TYAN	6.6430
LAUNCH DATE	JAN 17,1966			BASE AZM	102.0		TF 62.977					ARRIVAL	DATE JAN 19 1966		18 42 10.9

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FTH
102.00	3 38 32.1	28.1	20.02	306.17	7.25	119.74	112.91	3 49 47.1	6970.7	10.97	3.80

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	FLE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW														
INJECTION	.00	11.25	17	3	49.8												
SEPARATION	1.20	12.45	17	3	51.0												
RETRO	3.20	14.45	17	3	53.0												
RISE 72	4.42	15.67	17	3	54.2	82.64	-.1792	42.70	.0171	3003.7	-7.41	.00	.1261	313.21	.0419	9.47	327.32
EXIT SHA	10.20	21.45	17	3	60.0												
EXIT 72	10.20	21.45	17	3	60.0	353.32	-.1808	13.30	-.1504	2098.8	3.72	67.78	.0896	17.43	.5645	-2.70	347.30
EXIT 51	10.20	21.45	17	3	60.0	83.49	-.0836	23.56	-.0339	5940.0	-3.21	-4.59	.0837	293.99	.0033	-2.70	347.30
EXIT 61	10.20	21.45	17	3	60.0	19.86	-.1201	-51.31	-.0058	5777.0	5.31	-3.18	.0139	192.28	-.0741	-2.70	347.30
EXTM 72	10.89	22.14	17	4	.7	346.50	-.1479	7.45	-.1298	2277.4	4.80	69.58	-.0000	41.57	.5613	-3.90	349.21
RISE 51	11.10	22.35	17	4	.9	78.98	-.0838	21.64	-.0374	5781.7	-2.65	.00	.0863	294.16	.0033	-4.24	349.76
EXTM 51	41.00	52.25	17	4	30.8	.52	-.0138	-24.06	-.0062	11759.4	5.21	88.26	.0093	344.30	.3492	-24.65	27.35
EXTM 72	70.03	81.28	17	4	59.8	295.66	.0001	-30.39	-.0007	23300.5	4.77	26.07	.0000	120.04	.0007	-28.29	36.01
RISE 61	104.67	115.92	17	5	34.5	311.68	.0014	-38.16	.0006	35285.7	4.10	-.00	.0012	144.04	.0006	-29.56	37.39
EXTM 51	193.46	204.71	17	7	3.2	.11	.0030	-30.62	.0001	49475.5	3.42	85.12	-.0000	181.13	.0300	-30.06	27.99
EXTM 61	377.05	388.30	17	10	6.8	4.12	.0038	-33.52	.0002	87155.8	2.73	16.15	.0000	183.58	.0033	-29.59	351.89
EXTM 72	408.55	419.80	17	10	38.3	.67	.0040	-31.01	.0001	88304.4	2.64	66.88	-.0000	181.47	.0086	-29.49	348.05
RISE 11	584.01	595.26	17	13	33.8	295.18	.0040	-31.08	.0000	120028.1	2.04	.00	.0025	129.19	.0023	-29.01	308.40
SET 51	604.11	615.36	17	13	53.9	90.00	.0038	-27.86	.0001	121525.2	2.63	11.71	-.0031	244.54	-.0013	-28.96	300.75
SET 61	612.65	623.90	17	14	2.4	59.19	.0039	-31.18	.0001	123984.8	2.51	-.00	-.0021	227.29	.0026	-28.94	298.76
SET 72	801.92	813.17	17	17	11.7	94.27	.0039	-28.18	.0001	148560.5	2.44	-.01	-.0034	241.52	-.0004	-28.54	254.16
RISE 42	811.84	823.09	17	17	21.6	254.99	.0040	-27.05	-.0000	149312.9	1.74	4.24	.0028	120 39	-.0021	-28.52	251.80
EXTM 11	852.44	863.69	17	18	2.2	1.09	.0041	-30.60	.0001	152140.0	2.01	24.19	-.0000	181.03	.0039	-28.45	242.11
SET 11	1117.55	1128.80	17	22	27.3	66.64	.0041	-29.34	.0001	185005.1	2.10	-.00	.0026	233.16	.0024	-28.02	178.19
EXTM 42	1237.55	1248.80	18	0	27.3	359.97	.0042	-27.61	.0000	191532.4	1.73	82.39	-.0000	.2*	-.0235	-27.86	149.01
RISE 51	1373.01	1384.26	18	2	42.8	270.00	.0041	-27.03	-.0000	210283.7	1.30	11.38	.0034	114.63	-.0014	-27.69	118.93
RISE 72	1527.89	1539.14	18	5	17.7	265.89	.0041	-27.28	-.0000	226631.9	1.19	-.01	.0036	117.57	-.0005	-27.52	77.99
RISE 61	1612.90	1624.15	18	6	42.7	297.45	.0041	-28.58	-.0000	234642.0	1.28	.00	.0025	128.81	.0027	-27.43	57.11
SET 42	1660.80	1672.05	18	7	30.6	105.00	.0041	-26.46	.0000	238644.9	1.86	3.88	-.0029	240.08	-.0022	-27.39	48.33
EXTM 51	1726.99	1738.24	18	8	36.8	358.60	.0042	-27.37	.0000	238825.3	1.50	87.95	.0023	142.73	.0822	-27.32	29.05
EXTM 61	1863.80	1875.05	18	10	53.6	.42	.0042	-28.52	.0000	254987.7	1.46	21.24	.0000	180.40	.0040	-27.20	355.34
EXTM 72	1903.50	1914.75	18	11	33.3	.13	.0042	-27.64	.0000	254808.0	1.44	70.26	-.0000	180.34	.0110	-27.17	345.75
RISE 11	2047.29	2058.54	18	13	57.1	291.97	.0042	-27.93	-.0000	273007.4	1.09	.00	.0028	124.98	.0024	-27.05	310.05
SET 51	2091.92	2103.17	18	14	41.7	90.00	.0041	-26.51	.0000	275503.2	1.75	11.17	-.0034	245.80	-.0014	-27.02	299.02
SET 61	2114.47	2125.72	18	15	4.3	63.31	.0042	-27.96	.0000	278606.3	1.65	-.00	-.0025	232.11	.0027	-27.00	293.44
SET 72	2277.74	2288.99	18	17	47.5	94.00	.0041	-26.69	.0001	291885.9	1.74	-.00	-.0036	243.03	-.0005	-26.88	253.05
RISE 42	2278.47	2289.72	18	17	48.3	255.00	.0041	-26.12	-.0000	291536.5	1.01	3.67	.0029	119.65	-.0022	-26.88	252.87
EXTM 11	2318.87	2330.12	18	18	28.7	.29	.0042	-27.95	.0000	292300.1	1.32	26.84	-.0000	180.28	.0042	-26.85	242.87
SET 11	2590.25	2601.50	18	23	.0	68.51	.0042	-27.43	.0000	316135.3	1.56	.01	-.0028	235.68	.0024	-26.67	178.62
EXTM 42	2697.56	2708.81	19	0	47.3	359.98	.0042	-26.44	.0000	317906.6	1.23	81.22	-.0000	.18	-.0164	-26.61	149.00
RISE 51	2828.16	2839.41	19	2	57.9	270.00	.0041	-26.11	-.0000	332466.3	.83	11.02	.0034	113.82	-.0015	-26.53	116.99
RISE 72	2981.76	2993.01	19	5	31.5	266.06	.0041	-26.29	-.0000	344633.5	.76	-.00	.0037	116.56	-.0005	-26.45	78.44
RISE 61	3058.95	3070.20	19	6	48.7	295.74	.0042	-27.17	-.0000	350170.1	.84	.00	.0026	126.74	.0027	-26.41	59.21
SET 42	3116.32	3127.57	19	7	46.1	105.00	.0041	-25.76	.0000	353646.2	1.45	3.45	-.0030	240.64	-.0023	-26.38	44.89
EXTM 51	3180.21	3191.46	19	8	50.0	358.73	.0042	-26.37	.0000	351991.0	1.11	88.70	.0033	119.10	.0795	-26.36	28.93
EXTM 61	3313.78	3325.03	19	11	3.6	.18	.0042	-27.22	.0000	364766.0	1.11	22.54	-.0000	180.18	.0041	-26.30	358.57
EXTM 72	3353.71	3364.96	19	11	43.5	.08	.0042	-26.60	.0000	363857.4	1.11	71.30	-.0000	180.23	.0115	-26.28	348.59
RISE 11	3490.47	3501.72	19	14	.3	290.93	.0042	-26.85	-.0000	378930.9	.80	.00	.0028	123.56	.0024	-26.23	311.40
SET 51	3541.44	3552.69	19	14	51.2	90.00	.0042	-25.84	.0000	381134.4	1.50	10.91	-.0035	246.43	-.0015	-26.21	298.64
SET 61	3568.42	3579.67	19	15	18.2	64.59	.0042	-26.89	.0000	384155.4	1.41	-.00	-.0026	233.67	.0027	-26.20	291.89
RISE 42	3722.71	3733.96	19	17	52.5	255.00	.0042	-25.57	-.0000	394661.9	.95	3.34	.0030	119.22	-.0023	-26.13	253.17
SET 72	3724.16	3735.41	19	17	53.9	93.89	.0042	-26.00	.0000	395144.6	1.71	-.00	-.0037	243.74	-.0005	-26.13	252.80
EXTM 11	3762.93	3774.18	19	18	32.7	.15	.0043	-26.93	.0000	395394.4	1.55	27.67	.0000	180.16	.0043	-26.12	243.00
IMPACT	3778.62	3789.87	19	18	48.4												
IMPC 42	3778.62	3789.87	19	18	48.4	269.16	.0043	-25.63	-.0000	398466.9	1.70	13.81	.0033	111.02	-.0022	-26.11	238.99
IMPC 11	3778.62	3789.87	19	18	48.4	4.23	.0044	-26.91	.0000	397028.8	2.08	27.75	-.0002	184.26	.0044	-26.11	238.99

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FTH	AZ	RT ASC
INJECTION	.00	11.25	17	3	49.785	6571.014	20.0116	306.1869	10.97430	3.5979	112.9143	119.7593
SEPARATION	1.20	12.45	17	3	50.985	6643.418	17.2509	312.4336	10.91356	6.9770	115.0091	123.3068
RETRO	3.20	14.45	17	3	52.985	6862.339	12.4143	322.0243	10.73674	12.3781	117.6012	136.3989
EXIT SHA	10.20	21.45	17	3	59.984	8359.025	-2.7041	347.3023	9.71993	27.6560	119.9527	163.4315
IMPACT	3778.62	3789.87	19	18	48.407	4000035.715	-26.1056	238.9868	2.21475	67.9649	275.8984	279.8005

SURVEYOR VIEW PERIODS

GMA	117.9403					EPS	159.2886							LOM	235.2306
SX	.152220	SY	-.885048	SZ	-.439909	DAO	-26.09806	RAO	279.75886	RM	401320.645	LAT	28.310600	LON	279.461800
CS	-.897992	ECC	.985256	SLR	12992.838	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.171615	NSY	-.881433	NSZ	-.440028	C3M	1.5557	VIM	2.6823	ZAE	141.663	B.T	.0000	B.R	-.0000
LATE	3.9180	LONE	3.9193	LATS	-1.3270	LONS	204.5474	LATI	-2.8178	LONI	326.1552	RSM	146.8341	TTAN	6.6444

LAUNCH DATE JAN 17,1966 BASE AZM 105.0 TF 63.048 ARRIVAL DATE JAN 19 1966 19 3 13.3

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
105.00	3 49 20.6	28.1	18.91	305.65	8.65	120.93	115.00	3 56 35.6	6581.8	10.96	4.29

EVNT STA	TFI	TFL	DAY PRDRE	HR IN	MIN EARTH'S	MA SHADOW	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
INJECTION	.00	11.25	17	3	56.6												
SEPARATION	1.20	12.45	17	3	57.8												
RETRO	3.20	14.45	17	3	59.8												
RISE 72	4.36	15.55	17	4	.9	83.80	-.1632	37.86	-.0010	3052.7	-7.48	.00	.1270	308.29	.0215	8.10	325.66
EXIT SHA	9.94	21.19	17	4	6.5												
EXIT 72	9.94	21.19	17	4	6.5	3.34	-.1979	7.78	-.1461	2038.0	3.20	73.97	.1838	347.92	.5835	-4.13	344.86
EXIT 61	9.94	21.19	17	4	6.5	25.36	-.1188	-52.07	-.0100	5979.4	5.16	-4.90	.0145	195.32	-.0726	-4.13	344.86
EXTM 72	10.86	22.11	17	4	7.5	353.60	-.1576	.44	-.1199	2258.2	4.71	79.50	-.0000	37.68	1.0859	-5.73	347.35
RISE 51	11.09	22.34	17	4	7.7	80.84	-.0790	18.28	-.0399	5880.0	-2.51	.00	.0850	290.38	-.0012	-6.12	347.96
EXTM 51	44.48	55.73	17	4	41.1	.82	-.0118	-27.53	-.0043	12919.0	5.15	88.06	-.0000	202.09	-.3343	-26.94	27.14
EXTM 72	71.00	82.25	17	5	7.6	297.54	.0001	-32.16	-.0004	23522.3	4.74	27.45	.0000	122.24	.0005	-29.68	34.34
EXTM 51	94.71	105.96	17	5	31.3	349.85	.0002	-31.57	-.0003	27107.4	4.28	79.36	.0000	125.54	.0018	-30.52	35.82
RISE 61	107.85	119.10	17	5	44.4	313.76	.0015	-39.26	.0007	36146.0	4.05	-.00	.0012	146.00	.0006	-30.74	35.60
EXTM 51	184.17	195.42	17	7	.8	.27	.0029	-31.63	.0001	47607.7	3 48	84.10	-.0000	182.21	.0238	-30.94	27.45
EXTM 61	372.20	383.45	17	10	8.8	4.65	.0038	-34.17	.0002	86460.9	2.74	15.47	.0000	183.99	.0033	-30.19	351.40
EXTM 72	402.20	413.45	17	10	38.8	.83	.0039	-31.65	.0001	87348.5	2.66	66.24	-.0000	181.75	.0083	-30.07	344.91
RISE 11	579.64	590.89	17	13	36.2	295.69	.0040	-31.56	.0000	119434.2	2.05	.00	.0025	129.84	.0023	-29.47	304.88
SET 51	597.35	608.60	17	13	53.9	90.00	.0038	-28.31	.0001	120588.0	2.64	11.88	-.0031	244.12	-.0012	-29.42	300.78
SET 61	603.12	614.37	17	13	59.7	58.53	.0039	-31.67	.0002	122689.2	2.52	-.00	-.0021	226.54	.0026	-29.40	299.44
SET 72	795.63	806.88	17	17	12.2	94.34	.0039	-28.54	.0001	147783.7	2.44	-.01	-.0034	241.16	-.0004	-28.90	254.12
RISE 42	805.46	816.71	17	17	22.1	294.99	.0040	-27.41	-.0000	148504.3	1.74	4.45	.0028	120.67	-.0021	-28.88	251.78
EXTM 11	846.48	857.73	17	18	3.1	1.21	.0041	-30.96	.0001	151454.2	2.02	23.83	.0000	181.13	.0039	-28.79	241.99
SET 11	1109.95	1121.20	17	22	26.5	66.35	.0041	-29.62	.0001	184161.1	2.10	-.00	-.0026	232.78	.0024	-28.29	178.48
EXTM 42	1231.05	1242.30	18	0	27.6	359.94	.0042	-27.86	.0000	190825.3	1.74	82.64	.0000	.42	-.0270	-28.10	149.04
RISE 51	1366.67	1377.92	18	2	43.3	270.00	.0041	-27.25	-.0000	209606.4	1.30	11.47	.0034	114.89	-.0014	-27.91	115.92
RISE 72	1521.41	1532.66	18	5	18.0	265.85	.0041	-27.47	-.0000	225967.9	1.19	-.01	.0036	117.76	-.0005	-27.71	78.01
RISE 61	1607.46	1618.71	18	6	44.1	297.68	.0041	-28.76	-.0000	234082.2	1.28	.00	.0025	129.08	.0027	-27.61	56.88
SET 42	1654.40	1665.65	18	7	31.0	105.00	.0041	-26.63	.0001	237988.8	1.86	3.98	-.0029	239.94	-.0022	-27.56	45.34
EXTM 51	1720.36	1731.61	18	8	37.0	358.53	.0042	-27.53	.0000	238165.1	1.50	87.78	.0022	144.19	.0773	-27.49	29.11
EXTM 61	1857.59	1868.84	18	10	54.2	.46	.0042	-28.67	.0000	254388.4	1.46	21.09	.0000	180.43	.0039	-27.35	355.30
EXTM 72	1897.17	1908.42	18	11	33.8	.14	.0042	-27.79	.0000	254190.7	1.45	70.12	-.0000	180.37	.0109	-27.31	345.54
RISE 11	2041.42	2052.67	18	13	58.0	292.09	.0042	-28.06	-.0000	272430.3	1.09	.00	.0028	125.14	.0024	-27.17	309.92
SET 51	2085.92	2096.77	18	14	42.1	90.00	.0041	-26.63	.0001	274878.0	1.76	11.22	-.0034	245.69	-.0014	-27.14	299.02
SET 61	2107.48	2118.73	18	15	4.1	63.16	.0042	-28.08	.0000	277938.2	1.65	-.00	-.0023	231.93	.0027	-27.12	293.59
SET 72	2271.40	2282.65	18	17	48.0	94.02	.0041	-26.80	.0001	291277.1	1.74	-.00	-.0036	242.93	-.0005	-26.98	253.04
RISE 42	2272.09	2283.34	18	17	48.7	255.00	.0041	-26.22	-.0000	290917.5	1.01	3.73	.0029	119.73	-.0022	-26.98	252.87
EXTM 11	2312.59	2323.84	18	18	29.2	.31	.0042	-28.06	.0000	291706.1	1.32	26.74	-.0000	180.31	.0042	-26.95	242.84
SET 11	2583.54	2594.79	18	23	.1	68.44	.0042	-27.51	.0000	315503.5	1.56	.00	-.0028	235.58	.0024	-26.75	175.70
EXTM 42	2691.14	2702.39	19	0	47.7	359.98	.0042	-26.51	.0000	317295.8	1.23	81.29	-.0000	.17	-.0192	-26.68	149.00
RISE 51	2821.75	2833.00	19	2	58.3	270.00	.0041	-26.17	-.0000	331854.8	.63	11.04	.0034	113.88	-.0015	-26.59	116.58
RISE 72	2975.31	2986.56	19	5	31.9	266.05	.0041	-26.34	-.0000	344020.6	.76	-.00	.0037	116.61	-.0005	-26.50	78.44
RISE 61	3052.86	3064.11	19	6	49.5	295.79	.0042	-27.21	-.0000	349640.2	.84	.00	.0026	126.80	.0027	-26.45	59.16
SET 42	3110.01	3121.26	19	7	46.6	105.00	.0041	-25.79	.0000	353092.3	1.45	3.47	-.0030	240.61	-.0023	-26.42	44.89
EXTM 51	3174.29	3185.54	19	8	50.9	358.83	.0042	-26.40	.0000	351457.0	1.11	88.76	.0032	122.43	.0921	-26.39	28.84
EXTM 61	3307.50	3318.75	19	11	4.1	.20	.0042	-27.25	.0000	364191.9	1.11	22.51	-.0000	180.19	.0041	-26.33	355.56
EXTM 72	3347.39	3358.64	19	11	44.0	.09	.0042	-26.63	.0000	363271.3	1.11	71.28	-.0000	180.24	.0116	-26.31	345.59
RISE 11	3484.20	3495.45	19	14	.8	290.95	.0042	-26.87	-.0000	378318.3	.79	.00	.0028	123.59	.0024	-26.25	311.38
SET 51	3535.07	3546.32	19	14	51.7	90.00	.0042	-25.85	.0000	380500.2	1.49	10.92	-.0035	246.42	-.0015	-26.23	298.65
SET 61	3561.97	3573.22	19	15	18.6	64.57	.0042	-26.90	.0000	383507.3	1.41	-.00	-.0026	233.65	.0027	-26.21	291.91
RISE 42	3716.39	3727.64	19	17	53.0	255.00	.0042	-25.58	-.0000	393898.0	.92	3.34	.0030	119.22	-.0023	-26.14	253.17
SET 72	3717.84	3729.09	19	17	54.4	93.89	.0042	-26.00	.0000	394378.1	1.67	-.00	-.0037	243.73	-.0005	-26.14	252.80
EXTM 11	3756.78	3768.03	19	18	33.4	.18	.0043	-26.94	.0000	394499.8	1.43	27.86	.0000	180.18	.0043	-26.12	242.97
IMPACT	3782.90	3794.15	19	18	59.5												
IMPC 42	3782.90	3794.15	19	18	59.5	271.84	.0043	-25.64	-.0000	398271.1	1.69	15.86	.0033	110.50	-.0021	-26.11	236.31
IMPC 11	3782.90	3794.15	19	18	59.5	6.94	.0044	-26.91	.0000	397073.2	2.09	27.54	-.0004	186.98	.0044	-26.11	236.31

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION	.00	11.25	17	3	56.593	6582.404	18.8996	305.6792	10.96478	4.2937	115.0095	120.9584
SEPARATION	1.20	12.45	17	3	57.793	6663.838	15.9440	311.7328	10.89650	7.6565	116.9154	127.3128
RETRO	3.20	14.45	17	3	59.793	6896.981	10.8578	321.0233	10.70933	13.0132	119.1919	137.1047
EXIT SHA	9.94	21.19	17	4	6.536	8355.974	-4.1204	344.8611	9.72150	27.6357	120.7281	162.6329
IMPACT	3782.90	3794.15	19	18	59.492	400058.918	-26.1067	236.3126	2.21167	67.6849	276.3959	279.9052

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SURVEYOR VIEW PERIODS

GMA	117.9403					EPS	159.3666							LOM	212.7320
SX	.153719	SY	-.984786	SZ	-.439915	DAC	-26.09444	RAD	279.85595	RM	401337.996	LAT	28.3106800	LON	279.461800
C3	-.903301	ECC	.985169	SLR	12992.269	RCA	6544.6650	GTA	-20.0000	GTA	20.00	TB	475.00000	POL	-.0
NSX	.173159	NSY	-.881127	NSZ	-.440036	C3M	1.9556	VIM	2.6823	ZAE	141.483	B.T	.0000	B.R	-.0000
LATE	3.9261	LONE	3.8100	LATS	-1.3272	LONS	204.3583	LATI	-3.1484	LONI	325.9233	RSM	146.8140	TTAN	4.6461
LAUNCH DATE	JAN 17,1966			PASE AZM	108.0		TF 63.134					ARRIVAL DATE	JAN 19 1966 19 13 34.6		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FTH
108.00	3 5 42.8	28.1	17.83	305.08	9.74	121.71	117.09	4 1 57.8	6591.8	10.96	4.83

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	17	4	2.0												
SEPARATION	1.20	12.45	17	4	3.2												
RETRO	3.20	14.45	17	4	5.2												
RISE 72	4.22	15.47	17	4	6.2	84.77	-.1505	33.27	-.0182	3097.5	-7.46	.01	.1271	303.63	.0027	8.66	324.19
EXIT SHA	9.74	20.99	17	4	11.7												
EXIT 72	9.74	20.99	17	4	11.7	12.48	-.2062	1.53	-.1414	2030.7	2.75	74.39	.2496	306.65	.0468	-5.65	342.65
EXTM 72	10.15	21.40	17	4	12.1	7.55	-.1904	-1.85	-.1307	2109.0	3.54	80.35	.2301	308.44	.1105	-6.41	343.78
RISE 51	11.11	22.36	17	4	13.1	82.59	-.0749	14.98	-.0424	5966.8	-2.37	.00	.0837	286.68	-.0054	-8.07	346.30
EXTM 51	46.68	57.93	17	4	48.6	1.79	-.0109	-30.49	-.0032	13667.1	5.10	85.00	-.0000	197.97	-.1140	-28.98	26.48
EXTM 72	71.90	83.15	17	5	13.9	299.01	.0000	-34.01	-.0002	23751.6	4.72	28.37	.0000	124.53	.0002	-31.17	33.01
EXTM 51	95.26	106.51	17	5	37.2	351.51	.0001	-33.19	-.0001	27290.7	4.27	79.51	.0000	137.24	.0008	-31.82	34.47
RISE 61	114.49	125.74	17	5	56.5	315.78	.0017	-40.26	.0007	37841.2	3.96	-.00	.0013	147.84	.0007	-32.01	33.99
EXTM 51	177.37	188.62	17	6	59.3	.49	.0028	-32.78	.0002	46227.1	3.52	82.95	.0000	183.38	.0190	-31.92	27.26
EXTM 61	369.26	380.51	17	10	11.2	5.22	.0038	-34.86	.0002	86072.0	2.74	14.75	.0000	184.42	.0032	-30.85	350.87
EXTM 72	397.61	408.86	17	10	39.6	1.00	.0039	-32.35	.0001	86661.2	2.67	65.54	.0000	182.03	.0080	-30.71	344.75
RISE 11	577.08	588.33	17	13	39.0	296.24	.0040	-32.07	.0000	119078.7	2.05	.00	.0025	130.53	.0023	-29.96	304.32
SET 51	592.22	603.47	17	13	54.2	90.00	.0038	-28.80	.0001	119860.2	2.64	12.07	-.0031	243.66	-.0012	-29.91	300.81
SET 61	594.91	606.16	17	13	56.9	57.79	.0039	-32.21	.0002	121558.6	2.53	-.00	-.0020	225.72	.0026	-29.90	30f
SET 72	790.94	802.19	17	17	12.9	94.41	.0039	-28.93	.0001	147190.0	2.45	-.01	-.0034	240.76	-.0004	-29.30	29
RISE 42	800.64	811.89	17	17	22.6	254.99	.0040	-27.79	-.0000	147870.7	1.75	4.69	.0028	120.98	-.0021	-29.27	29i.
EXTM 11	842.11	853.36	17	18	4.1	1.34	.0041	-31.34	.0001	150949.4	2.02	23.44	.0000	181.24	.0039	-29.16	241.87
SET 11	1103.77	1115.02	17	22	25.7	66.04	.0041	-29.92	.0001	183454.0	2.10	-.00	-.0026	232.38	.0024	-28.59	178.80
EXTM 42	1226.15	1237.40	18	0	28.1	359.94	.0042	-28.14	.0000	190267.1	1.74	82.92	.0000	.48	-.0286	-28.37	149.04
RISE 51	1361.83	1373.08	18	2	43.8	270.00	.0041	-27.49	-.0000	209058.4	1.30	11.56	.0033	115.11	-.0014	-28.14	115.92
RISE 72	1516.41	1527.66	18	5	18.4	265.82	.0041	-27.68	-.0000	225423.4	1.19	-.01	.0036	117.97	-.0005	-27.92	78.04
RISE 61	1603.57	1614.82	18	6	45.5	297.93	.0042	-28.96	-.0000	233645.7	1.28	.00	.0024	129.37	.0027	-27.80	56.63
SET 42	1649.49	1660.74	18	7	31.4	105.00	.0041	-26.82	.0001	237445.6	1.66	4.10	-.0029	239.80	-.0022	-27.74	45.35
EXTM 51	1715.39	1726.64	18	8	37.4	358.52	.0042	-27.71	.0000	237632.5	1.50	87.62	.0021	146.49	.0741	-27.66	29.13
EXTM 61	1852.85	1864.10	18	10	54.8	.51	.0042	-28.83	.0000	253895.2	1.46	20.93	.0000	180.47	.0039	-27.50	359.26
EXTM 72	1892.31	1903.56	18	11	34.3	.15	.0042	-27.94	.0000	253676.0	1.45	69.96	-.0000	180.39	.0108	-27.46	345.92
RISE 11	2037.05	2048.30	18	13	59.0	292.23	.0042	-28.19	-.0000	271952.0	1.09	.00	.0028	125.33	.0024	-27.31	309.78
SET 51	2080.58	2091.83	18	14	42.5	90.00	.0041	-26.76	.0001	274345.9	1.75	11.27	-.0034	245.57	-.0014	-27.27	289.03
SET 61	2101.89	2113.14	18	15	3.9	63.00	.0042	-28.21	.0001	277358.5	1.65	-.00	-.0025	231.73	.0027	-27.25	293.76
SET 72	2266.52	2277.77	18	17	48.5	94.04	.0041	-26.91	.0001	290754.5	1.74	-.00	-.0036	242.82	-.0005	-27.09	253.03
RISE 42	2267.16	2278.41	18	17	49.1	255.00	.0041	-26.33	-.0000	290383.5	1.01	3.80	.0029	119.82	-.0022	-27.09	252.87
EXTM 11	2307.76	2319.01	18	18	29.7	.34	.0042	-28.17	.0000	291197.6	1.32	26.63	-.0000	180.34	.0042	-27.06	242.82
SET 11	2578.25	2589.50	18	23	.2	68.36	.0042	-27.59	.0000	314943.4	1.56	.00	-.0028	235.47	.0024	-26.83	175.78
EXTM 42	2686.16	2697.41	19	0	48.1	359.97	.0042	-26.58	.0000	316754.2	1.23	81.36	-.0000	.20	-.0188	-26.75	149.01
RISE 51	2816.78	2828.03	19	2	58.7	270.00	.0041	-26.23	-.0000	331307.8	.83	11.06	.0034	113.93	-.0015	-26.69	116.98
RISE 72	2970.29	2981.54	19	5	32.3	266.05	.0041	-26.39	-.0000	343466.6	.76	-.00	.0037	116.66	-.0005	-26.55	78.45
RISE 61	3048.09	3059.34	19	6	50.1	295.85	.0042	-27.26	-.0000	349100.8	.84	.00	.0026	126.87	.0027	-26.49	59.10
SET 42	3105.01	3116.26	19	7	47.0	105.00	.0041	-25.83	.0000	352529.1	1.45	3.50	-.0030	240.58	-.0023	-26.46	44.89
EXTM 51	3169.96	3181.21	19	8	51.9	359.00	.0042	-26.44	.0000	350935.3	1.11	88.86	.0030	128.15	.1162	-26.43	28.67
EXTM 61	3302.58	3313.83	19	11	4.5	.21	.0042	-27.28	.0000	363619.2	1.11	22.48	-.0000	180 21	.0041	-26.36	355.94
EXTM 72	3342.42	3353.67	19	11	44.4	.09	.0042	-26.66	.0000	362688.1	1.10	71.25	-.0000	180.26	.0115	-26.34	345.58
RISE 11	3479.30	3490.55	19	14	1.3	290.97	.0042	-26.90	-.0000	377717.4	.79	.00	.0028	123.62	.0024	-26.27	311.35
SET 51	3530.09	3541.34	19	14	52.0	90.00	.0042	-25.87	.0000	379880.8	1.49	10.92	-.0035	246.40	-.0019	-26.25	298.65
SET 61	3556.90	3568.15	19	15	18.9	64.55	.0042	-26.92	.0000	382875.6	1.40	-.00	-.0026	233.62	.0027	-26.23	291.93
RISE 42	3711.46	3722.71	19	17	53.4	255.00	.0042	-25.59	-.0000	393181.0	.90	3.35	.0030	119.23	-.0023	-26.15	253.17
SET 72	3712.91	3724.16	19	17	54.9	93.89	.0042	-26.02	.0000	393659.3	1.65	-.00	-.0037	243.72	-.0005	-26.15	252.80
EXTM 11	3751.96	3763.21	19	18	33.9	.20	.0043	-26.95	.0000	393695.3	1.36	27.85	.0000	180.20	.0043	-26.13	242.96
IMPACT	3788.04	3799.29	19	19	10.0												
IMPC 42	3788.04	3799.29	19	19	10.0	274.38	.0043	-25.66	-.0000	398082.9	1.69	17.81	.0033	104.26	-.0021	-26.11	233.78
IMPC 11	3788.04	3799.29	19	19	10.0	9.51	.0044	-26.91	.0000	397122.1	2.20	27.23	-.0006	189.54	.0043	-26.11	233.78

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FTH	AZ	RT ASC
INJECTION	.00	11.25	17	4	1.964	6592.692	17.8082	305.1264	10.95618	4.8314	117.0993	121.7519
SEPARATION	1.20	12.45	17	4	3.164	6680.943	14.6621	310.9909	10.88219	8.1402	118.8268	127.9173
RETRO	3.20	14.45	17	4	5.164	6924.938	9.3169	319.9987	10.68727	13.5009	120.8087	137.4265
EXIT SHA	9.74	20.99	17	4	11.703	8351.919	-5.6545	342.6464	9.72361	27.6087	121.6033	161.7133
IMPACT	3788.04	3799.29	19	19	10.003	400078.266	-26.1079	233.7764	2.20979	67.5729	277.0317	280.0040

JAN 17, 1966
108 DEGREES

SURVEYOR VIEW PERIODS

QHA	117.9403				EPS 159.4427							LOM	230.2946
SX	.155181	SY	-.884528	SZ	-.439920	DAO	-26.09875	RAO	279.95064	RM	401354.902	LAT	28.310600	LON	279.461800
C3	-.909476	ECC	.989067	SLR	12991.605	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NBX	.174673	NSY	-.980824	NSZ	-.440043	C3M	1.5555	VIM	2.6823	ZAE	141.272	B.T	.0000	B.R	-.0000
LATE	3.0141	LONE	5.8949	LATS	-1.3273	LONS	204.3652	LATI	-3.4935	LONI	325.8591	RSM	146.8339	TTAN	6.6479
LAUNCH DATE		JAN	17.1966		BASE AZM	111.0		TF	63.233			ARRIVAL DATE		JAN	19 1966 19 23 40.6

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	3 55	3.3	28.1	16.77	304 48	10.59	122.19	119.17	4 6 18.3	6600.5	10.95	5.26

EVNT STA	TFI	TFL	DAY	HR	MIN	MA	DMA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PRORE IN EARTH'S SHADOW															
INJECTION	.00	11.25	17	4	6.3												
SEPARATION	1.20	12.45	17	4	7.5												
RETRO	3.20	14.45	17	4	9.5												
RISE 72	4.18	15.43	17	4	10.5	85.62	-.1397	28.83	-.0347	3142.6	-7.35	-.00	.1263	299.13	-.0151	5.15	322.86
EXIT SHA	9.57	20.82	17	4	15.9												
EXIT 72	9.57	20.82	17	4	15.9	20.86	-.2072	-4.86	-.1380	2072.3	2.36	69.05	.2262	277.09	-.2861	-7.25	340.58
EXTM 72	11.04	22.29	17	4	17.3	4.46	-.1625	-15.23	-.0952	2397.3	4.78	81.47	.0000	210.37	-1.2364	-9.91	344.48
RISE 51	11.15	22.40	17	4	17.5	84.27	-.0711	11.72	-.0449	6048.5	-2.23	-.01	.0823	283.02	-.0094	-10.10	344.75
EXTM 51	49.32	60.57	17	4	55.6	2.23	-.0100	-33.42	-.0022	14539.2	5.04	82.08	-.0000	193.60	-.0624	-31.09	26.17
EXTM 72	72.45	83.70	17	5	18.8	300.15	-.0000	-35.91	.0001	23899.1	4.70	28.92	.0000	126.86	-.0001	-32.72	31.89
EXTM 51	94.05	105.30	17	5	40.4	352.83	-.0001	-34.89	.0001	27027.3	4.29	78.96	.0000	147.69	-.0005	-33.18	33.38
RISE 61	123.12	134.37	17	6	9.4	317.75	.0019	-41.18	.0007	39971.2	3.85	-.00	.0014	149.60	.0009	-33.27	32.45
EXTM 51	173.44	184.69	17	6	59.7	.91	.0027	-34.00	.0002	45436.4	3.54	81.71	.0000	185.23	.0156	-32.98	26.90
EXTM 61	368.44	379.69	17	10	14.7	5.96	.0038	-35.57	.0002	86025.9	2.75	14.00	-.0000	184.99	.0032	-31.54	350.18
EXTM 72	394.44	405.69	17	10	40.7	.19	.0039	-33.07	.0002	86192.8	2.67	64.81	.0000	182.34	.0078	-31.38	344.58
RISE 11	575.85	587.10	17	13	42.2	296.83	.0040	-32.60	.0000	118900.9	2.06	.00	.0025	131.26	.0023	-30.48	303.73
SET 61	587.44	598.69	17	13	53.9	57.00	.0039	-32.77	.0002	120544.8	2.53	-.00	-.0020	224.84	.0026	-30.43	301.00
SET 51	588.31	599.56	17	13	54.6	90.00	.0038	-29.32	.0001	119288.8	2.65	12.28	-.0031	243.17	-.0012	-30.42	300.85
SET 72	787.42	798.67	17	17	13.7	94.48	.0039	-29.35	.0001	146731.6	2.45	.00	-.0034	240.34	-.0014	-29.71	254.02
RISE 42	796.97	808.22	17	17	23.3	254.99	.0040	-28.20	-.0000	147366.6	1.75	-.0	.0028	121.30	-.0021	-29.68	251.75
EXTM 11	838.93	850.18	17	18	5.2	1.47	.0041	-31.75	.0001	150578.1	2.02	23.03	.0000	181.36	.0038	-29.55	241.73
SET 11	1098.63	1109.88	17	22	24.9	65.71	.0041	-30.24	.0001	182846.4	2.10	-.00	-.0026	231.94	.0024	-28.90	179.14
EXTM 42	1222.35	1233.60	18	0	28.7	359.93	.0042	-28.42	.0000	189809.5	1.74	83.20	.0000	.56	-.0298	-28.64	149.05
RISE 51	1358.08	1369.33	18	2	44.4	270.00	.0041	-27.74	-.0000	208603.3	1.30	11.66	.0033	115.34	-.0014	-28.39	115.91
RISE 72	1512.49	1523.74	18	5	18.8	265.78	.0041	-27.90	-.0000	224964.1	1.19	-.00	.0036	118.19	-.0005	-28.14	78.07
RISE 61	1600.82	1612.07	18	6	47.1	298.18	.0042	-29.17	-.0000	233296.7	1.28	.00	.0024	129.68	.0027	-28.01	56.37
SET 42	1645.65	1656.90	18	7	32.0	105.00	.0041	-27.01	.0001	236982.3	1.86	4.22	-.0029	239.64	-.0022	-27.94	45.35
EXTM 51	1717.51	1728.76	18	8	43.8	.02	.0042	-27.90	.0000	237720.3	1.51	87.84	-.0000	180.68	.0733	-27.84	27.66
EXTM 61	1849.21	1860.46	18	10	55.5	.56	.0042	-29.00	.0000	253477.4	1.46	20.76	-.0000	180.52	.0039	-27.67	355.21
EXTM 72	1888.52	1899.77	18	11	34.8	.17	.0042	-28.11	.0000	253232.9	1.45	69.79	-.0000	180.43	.0107	-27.62	345.51
RISE 11	2033.77	2045.02	18	14	.1	292.37	.0042	-28.34	-.0000	271541.7	1.09	.00	.0028	125.52	.0024	-27.45	309.64
SET 51	2076.69	2087.94	18	14	43.0	90.00	.0041	-26.90	.0001	273877.5	1.75	11.33	-.0034	245.44	-.0014	-27.40	299.03
SET 61	2097.33	2108.58	18	15	3.6	62.83	.0042	-28.35	.0001	276838.9	1.65	-.00	-.0024	231.53	.0027	-27.38	293.93
SET 72	2262.71	2273.96	18	17	49.0	94.06	.0041	-27.02	.0001	290289.9	1.74	-.00	-.0036	242.70	-.0005	-27.21	253.01
RISE 42	2263.29	2274.54	18	17	49.6	255.00	.0041	-26.45	-.0000	289906.6	1.01	3.87	.0029	119.91	-.0022	-27.21	252.87
EXTM 11	2303.99	2315.24	18	18	30.3	.37	.0042	-28.28	.0000	290746.4	1.32	26.51	-.0000	180.37	.0041	-27.17	242.79
SET 11	2573.99	2585.24	18	23	.3	68.28	.0042	-27.68	.0000	314429.3	1.56	.00	-.0028	235.35	.0024	-26.92	175.86
EXTM 42	2682.23	2693.48	19	0	48.5	359.97	.0042	-26.66	.0000	316257.0	1.23	81.44	-.0000	.21	-.0192	-26.83	149.01
RISE 51	2812.85	2824.10	19	2	59.2	270.00	.0041	-26.30	-.0000	330800.9	.83	11.09	.0034	114.00	-.0015	-26.72	116.58
RISE 72	2966.31	2977.56	19	5	32.6	266.04	.0041	-26.44	-.0000	342948.3	.76	-.00	.0037	116.72	-.0005	-26.60	78.46
RISE 61	3044.37	3055.62	19	6	50.7	295.91	.0042	-27.31	-.0000	348595.6	.84	.00	.0026	126.94	.0027	-26.54	59.04
SET 42	3101.04	3112.29	19	7	47.3	105.00	.0041	-25.88	.0000	351997.8	1.45	3.52	-.0030	240.54	-.0023	-26.51	44.89
EXTM 51	3166.67	3177.92	19	8	53.0	359.27	.0042	-26.48	.0000	350444.2	1.11	88.95	.0027	135.01	.1445	-26.47	28.50
EXTM 61	3298.69	3309.94	19	11	5.0	.23	.0042	-27.32	.0000	363075.1	1.10	22.45	-.0000	180.22	.0041	-26.39	355.59
EXTM 72	3338.47	3349.72	19	11	44.8	.09	.0042	-26.69	.0000	362132.4	1.10	71.21	-.0000	180.27	.0115	-26.37	345.58
RISE 11	3475.44	3486.69	19	14	1.7	291.00	.0042	-26.92	-.0000	377142.0	.79	.00	.0028	123.65	.0024	-26.29	311.33
SET 51	3526.12	3537.37	19	14	52.4	90.00	.0042	-25.89	.0000	379285.9	1.49	10.93	-.0035	246.38	-.0015	-26.27	298.65
SET 61	3552.84	3564.09	19	15	19.1	64.52	.0042	-26.95	.0000	382268.0	1.40	-.00	-.0026	233.59	.0027	-26.25	291.96
RISE 42	3707.55	3718.80	19	17	53.9	255.00	.0042	-25.60	-.0000	392495.7	.88	3.35	.0030	119.24	-.0023	-26.17	253.16
SET 72	3708.99	3720.24	19	17	55.3	93.89	.0042	-26.03	.0000	392972.8	1.63	-.00	-.0037	243.70	-.0005	-26.17	252.80
EXTM 11	3748.13	3759.38	19	18	34.4	.21	.0043	-26.96	.0000	392943.4	1.31	27.83	.0000	180.21	.0043	-26.14	242.95
IMPACT	3793.99	3805.24	19	19	20.3												
IMPC 42	3793.99	3805.24	19	19	20.3	276.86	.0043	-25.68	-.0000	397899.9	1.69	19.75	.0034	108.06	-.0021	-26.11	231.29
IMPC 11	3793.99	3805.24	19	19	20.3	12.03	.0044	-26.21	.0000	397179.2	2.11	26.85	-.0007	192.03	.0043	-26.11	231.29

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	17	4	6.305	6601.758	16.7379	304.5323	10.94861	5.2561	119.1866	122.2462
SEPARATION	1.20	12.45	17	4	7.505	6695.269	13.4051	310.2113	10.87017	8.5930	120.7458	128.2260
RETRO	3.20	14.45	17	4	9.505	6947.750	7.8043	318.9488	10.66928	13.8841	122.4517	137.4649
EXIT SHA	9.57	20.82	17	4	15.874	8346.606	-7.2460	340.5769	9.72641	27.5734	122.5674	160.6896
IMPACT	3793.99	3805.24	19	19	20.297	400097.672	-26.1091	231.2928	2.20762	67.4320	277.6917	280.1008

SURVEYOR VIEW PERIODS

GMA	117.9403					EPS	159.5448							LOM	227.0238
SX	.157141	SY	-.884179	SZ	-.439924	DAO	-26.09906	RAO	280.07771	RM	401377.551	LAT	28.310600	LON	279.461800
C3	-.918982	ECC	.984911	SLR	12990.583	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.176718	NSY	-.880412	NSZ	-.440051	C3M	1.5556	VIM	2.6823	ZAE	140.946	B.T	.0000	B.R	-.0000
LATE	3.9448	LONF	3.7925	LATS	-1.3275	LONS	204.1582	LATI	-3.9649	LONI	325.5169	RSM	146.8337	TTAN	6.6906
LAUNCH DATE	JAN 17,1966			BASE AZM	115.0		TF 63.386					ARRIVAL DATE	JAN 19 1966 19 17 13.9		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
115.00	3 59 43.1	28.1	15.39	303.61	11.49	122.50	121.96	4 10 58.1	6610.3	10.94	5.70

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	17	4	11.0												
SEPARATION	1.20	12.45	17	4	12.2												
RETRO	3.20	14.45	17	4	14.2												
RISE 72	4.18	15.43	17	4	15.1	86.61	-.1272	23.06	-.0552	3206.0	-7.07	-.00	.1240	293.30	-.0371	3.04	321.27
EXIT SHA	9.38	20.63	17	4	20.3												
EXIT 72	9.38	20.63	17	4	20.3	31.10	-.1999	-12.81	-.1355	2194.9	1.94	59.04	.1796	258.25	-.3017	-9.41	337.95
RISE 51	11.26	22.51	17	4	22.2	86.42	-.0665	7.39	-.0480	6156.6	-2.01	-.00	.0803	278.21	-.0143	-12.89	342.83
EXTM 72	11.37	22.62	17	4	22.3	9.43	-.1586	-25.61	-.0778	2627.9	4.97	70.15	-.0000	205.80	-.4796	-13.08	343.10
EXTM 51	54.36	65.61	17	5	5.3	1.75	-.0082	-37.22	-.0009	16144.2	4.94	78.43	-.0000	186.97	-.0329	-33.98	26.47
EXTM 72	72.73	83.98	17	5	23.7	301.25	-.0001	-38.51	.0004	23995.8	4.69	29.19	.0000	129.98	-.0005	-34.86	30.66
EXTM 51	88.49	99.74	17	5	39.5	354.36	-.0008	-37.37	.0003	25648.8	4.36	77.42	.0000	158.98	-.0031	-35.09	32.09
RISE 61	136.32	147.57	17	6	27.3	320.36	.0022	-42.30	.0007	43119.0	3.71	-.00	.0015	151.85	.0011	-34.85	30.41
EXTM 51	171.71	182.96	17	7	2.7	1.65	.0026	-35.68	.0003	45120.5	3.55	79.96	.0000	187.74	.0125	-34.45	26.25
EXTM 61	366.71	377.96	17	10	17.7	6.45	.0038	-36.56	.0003	85852.9	2.75	12.98	.0000	185.31	.0031	-32.50	349.73
EXTM 72	391.87	403.12	17	10	42.8	1.48	.0039	-34.07	.0002	85827.3	2.68	63.80	.0000	182.78	.0074	-32.31	344.31
RISE 11	575.75	587.00	17	13	46.7	297.65	.0040	-33.33	.0000	118868.1	2.06	.00	.0025	132.26	.0023	-31.18	302.91
SET 61	579.01	590.26	17	13	50.0	55.85	.0039	-33.56	.0002	119323.9	2.54	-.00	-.0019	223.60	.0027	-31.17	302.15
SET 51	584.49	595.74	17	13	55.5	90.00	.0038	-30.04	.0002	118708.9	2.65	12.56	-.0031	242.49	-.0011	-31.14	300.88
SET 72	784.09	795.34	17	17	15.1	94.59	.0039	-29.92	.0001	146274.2	2.45	-.00	-.0034	239.77	-.0004	-30.28	253.94
RISE 42	793.39	804.64	17	17	24.4	254.99	.0040	-28.76	-.0000	146842.2	1.76	5.28	.0028	121.75	-.0021	-30.25	251.73
EXTM 11	836.03	847.28	17	18	7.0	1.67	.0041	-32.30	.0001	150234.0	2.02	22.47	.0000	181.52	.0038	-30.10	241.99
SET 11	1092.95	1104.20	17	22	23.9	65.24	.0041	-30.69	.0001	182146.9	2.10	-.00	-.0025	231.35	.0024	-29.33	179.61
EXTM 42	1218.54	1229.79	18	0	29.5	359.92	.0042	-28.82	.0000	189310.3	1.74	83.60	.0000	.67	-.0323	-29.03	149.06
RISE 51	1354.32	1365.57	18	2	45.3	270.00	.0041	-28.08	-.0000	208097.8	1.30	11.79	.0033	115.67	-.0014	-28.74	115.90
RISE 72	1508.46	1519.71	18	5	19.4	265.73	.0041	-28.20	-.0000	224443.5	1.19	-.00	.0036	118.50	-.0005	-28.44	78.12
RISE 61	1598.46	1609.71	18	6	49.4	298.55	.0042	-29.45	-.0000	232927.2	1.28	.01	.0024	130.11	.0027	-28.29	56.00
SET 42	1641.75	1653.00	18	7	32.7	105.00	.0041	-27.28	.0001	236449.3	1.85	4.38	-.0029	239.43	-.0022	-28.21	45.36
EXTM 51	1713.64	1724.89	18	8	44.6	.03	.0042	-28.16	.0000	237205.3	1.51	87.58	-.0000	180.66	.0794	-28.10	27.66
EXTM 61	1845.55	1856.80	18	10	56.5	.62	.0042	-29.24	.0000	252995.2	1.46	20.52	-.0000	180.58	.0039	-27.90	355.14
EXTM 72	1884.66	1895.91	18	11	35.6	.18	.0042	-28.34	.0000	252715.9	1.44	69.56	-.0000	180.47	.0106	-27.85	345.49
RISE 11	2030.62	2041.87	18	14	1.6	292.57	.0042	-28.54	-.0000	271063.6	1.09	.00	.0028	125.78	.0024	-27.65	309.44
SET 51	2072.71	2083.96	18	14	43.7	90.00	.0041	-27.09	.0001	273317.2	1.75	11.40	-.0034	245.26	-.0014	-27.60	299.04
SET 61	2092.39	2103.64	18	15	3.4	62.59	.0042	-28.55	.0001	276206.2	1.65	-.00	-.0024	231.25	.0027	-27.57	294.17
SET 72	2258.80	2270.05	18	17	49.8	94.09	.0041	-27.18	.0001	289727.1	1.73	-.00	-.0036	242.53	-.0005	-27.37	252.99
RISE 42	2259.30	2270.55	18	17	50.3	255.00	.0041	-26.61	-.0000	289326.4	1.01	3.97	.0029	120.04	-.0022	-27.37	252.86
EXTM 11	2300.15	2311.40	18	18	31.1	.41	.0042	-28.44	.0000	290200.3	1.32	26.35	-.0000	180.41	.0041	-27.32	242.79
SET 11	2569.42	2580.67	18	23	.4	68.15	.0042	-27.80	.0000	313782.9	1.56	.00	-.0028	235.19	.0024	-27.04	175.99
EXTM 42	2678.14	2689.39	19	0	49.1	359.97	.0042	-26.77	.0000	315632.7	1.23	81.55	-.0000	.22	-.0211	-26.93	149.01
RISE 51	2808.77	2820.02	19	2	59.7	270.00	.0041	-26.39	-.0000	330158.3	.83	11.13	.0034	114.08	-.0015	-26.81	116.58
RISE 72	2962.15	2973.40	19	5	33.1	266.02	.0041	-26.52	-.0000	342284.5	.76	-.00	.0037	116.80	-.0005	-26.68	78.47
RISE 61	3040.67	3051.92	19	6	51.6	295.99	.0042	-27.38	-.0000	347754.2	.87	.00	.0025	127.05	.0027	-26.61	58.95
SET 42	3096.97	3108.22	19	7	47.9	105.00	.0041	-25.94	.0000	351353.5	1.44	3.56	-.0030	240.49	-.0023	-26.57	44.90
EXTM 51	3163.22	3174.47	19	8	54.2	359.33	.0042	-26.54	.0000	349830.9	1.10	89.00	.0023	143.04	.1720	-26.52	28.35
EXTM 61	3294.69	3305.94	19	11	5.7	.26	.0042	-27.36	.0000	362399.6	1.10	22.40	-.0000	180.25	.0041	-26.44	355.50
EXTM 72	3334.41	3345.66	19	11	45.4	.10	.0042	-26.73	.0000	361438.5	1.10	71.17	-.0000	180.29	.0115	-26.41	345.57
RISE 11	3471.47	3482.72	19	14	2.4	291.03	.0042	-26.96	-.0000	376412.2	.78	.00	.0028	123.70	.0024	-26.33	311.30
SET 51	3522.00	3533.25	19	14	53.0	90.00	.0042	-25.92	.0000	378526.3	1.48	10.94	-.0035	246.35	-.0015	-26.30	298.65
SET 61	3548.58	3559.83	19	15	19.6	64.49	.0042	-26.97	.0000	381489.4	1.39	-.00	-.0026	233.54	.0027	-26.26	292.00
RISE 42	3703.47	3714.72	19	17	54.4	255.00	.0042	-25.62	-.0000	391611.2	.85	3.36	.0030	119.25	-.0023	-26.18	253.16
SET 72	3704.91	3716.16	19	17	55.9	93.90	.0042	-25.04	.0000	392087.0	1.60	-.01	-.0037	243.69	-.0005	-26.18	252.80
EXTM 11	3744.15	3755.40	19	18	35.1	.23	.0043	-26.97	.0000	391985.3	1.26	27.82	.0000	180.23	.0043	-26.16	242.93
IMPACT	3803.14	3814.39	19	19	34.1												
IMPC 42	3803.14	3814.39	19	19	34.1	280.20	.0043	-25.70	-.0000	397658.8	1.68	22.36	.0034	106.47	-.0021	-26.11	227.96
IMPC 11	3803.14	3814.39	19	19	34.1	15.41	.0044	-26.91	.0000	397272.0	2.12	26.20	-.0009	195.31	.0042	-26.11	227.96

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION	.00	11.25	17	4	10.969	6612.119	15.3457	303.6804	10.93994	5.6989	121.9693	122.5634
SEPARATION	1.20	12.45	17	4	12.169	6710.976	11.7694	309.1160	10.85690	9.0226	123.3192	128.2999
RETRO	3.20	14.45	17	4	14.169	6972.217	5.8283	317.5053	10.64995	14.2818	124.6837	137.1905
EXIT SHA	9.38	20.63	17	4	20.347	8337.235	-9.4145	337.9460	9.73144	27.5111	123.9808	159.1799
IMPACT	3803.14	3814.39	19	19	34.107	400126.316	-26.1106	227.9610	2.20337	67.0865	278.5019	280.2312

SURVEYOR VIEW PERIODS

GHA	118.9259					EPS	169.5855							LOM	255.9288
SX	.350127	SY	-.831405	SZ	-.431481	DAO	-25.56160	RAO	292.83727	RM	403428.402	LAT	28.310600	LON	279.461800
C3	-.885284	ECC	.985497	SLR	12994.422	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.368191	NSY	-.824455	NSZ	-.429778	C3M	1.3521	VIM	2.6817	ZAE	142.335	B.T	.0000	B.R	-.0000
LATE	4.9308	LONE	2.7255	LATS	-1.3425	LONS	192.5490	LATI	.1816	LONI	325.3119	RSM	146.8255	TTAN	6.5258
LAUNCH DATE		JAN	18,1966		BASE AZM	87.0		TF	63.450			ARRIVAL DATE		JAN 20 1966 18 28 53.6	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
87.00	2 57 44.5	27.3	25.94	307.28	-13.35	111.61	101.96	3 8 59.5	6633.7	10.92	-6.63

EVNT	STA	TFI	TFL	DAY PRORE	HR IN	MIN EARTH'S	MA SHADOW	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
INJECTION		.00	11.25	18	3	9.0												
SEPARATION		1.20	12.45	18	3	10.2												
RETRO		3.20	14.45	18	3	12.2												
RISE	72	6.70	17.95	18	3	15.7	34.49	-1.2908	80.44	.0331	2496.9	-4.14	-.00	.0929	354.60	.1961	13.38	343.65
RISE	51	11.95	23.20	18	3	20.9	64.62	-.1395	41.63	-.0245	4633.7	-4.04	.00	.0991	317.52	.0406	2.25	4.27
EXIT	SHA	12.00	23.25	18	3	21.0												
EXIT	72	12.00	23.25	18	3	21.0	294.41	-.0406	22.86	-.1343	3023.4	6.09	1[illegible].89	.0049	62.49	.1473	2.16	4.43
EXIT	51	12.00	23.25	18	3	21.0	64.22	-.1397	41.56	-.0251	4621.9	-4.00	.29	.0995	317.64	.0408	2.16	4.43
EXIT	61	12.00	23.25	18	3	21.0	337.92	-.1132	-50.32	.0216	4960.5	6.97	-2.61	-.0000	166.10	-.0755	2.16	4.43
EXTM	72	12.45	23.70	18	3	21.4	293.36	-.0364	19.40	-.1200	3193.7	6.43	18.95	-.0000	66.28	.1320	1.32	5.88
EXTM	51	28.61	39.86	18	3	37.6	342.48	-.0292	-7.44	-.0245	6920.8	5.58	65.23	-.0000	45.43	.0905	-16.39	37.23
EXTM	72	64.80	76.05	18	4	13.8	272.19	-.0002	-24.69	-.0016	22786.6	4.99	5.27	.0000	114.25	.0017	-25.41	56.71
RISE	42	72.59	83.84	18	4	21.6	103.98	-.0041	-18.03	-.0029	25658.8	4.28	.00	.0049	247.74	.0001	-26.06	58.02
EXTM	51	79.57	90.82	18	4	28.6	320.65	-.0002	-25.56	-.0013	22928.2	4.60	54.67	.0000	98.52	.0023	-26.50	58.78
EXTM	42	127.57	138.82	18	5	16.6	99.07	.0005	-22.89	-.0007	39384.8	4.00	6.06	-.0000	246.18	-.0009	-27.93	58.15
SET	42	192.77	204.02	18	6	21.8	105.00	.0022	-24.40	-.0002	54295.3	3.64	2.62	-.0015	241.71	-.0014	-28.36	49.95
RISE	61	208.37	219.62	18	6	37.4	303.81	.0032	-33.33	.0002	57793.2	3.18	.00	.0018	136.03	.0020	-28.38	47.41
EXTM	51	312.92	324.17	18	8	21.9	.03	.0037	-28.55	.0000	71352.3	2.92	87.19	.0000	180.59	.0574	-28.31	27.66
EXTM	61	471.71	482.96	18	11	.7	2.54	.0039	-31.17	.0001	101265.8	2.52	18.36	.0000	182.28	.0036	-28.02	353.35
EXTM	72	507.37	518.62	18	11	36.4	.41	.0041	-29.17	.0001	102796.0	2.45	68.73	-.0000	180.98	.0097	-27.95	345.29
RISE	11	671.77	683.02	18	14	20.8	293.54	.0040	-29.51	-.0000	131514.6	1.92	.00	.0026	127.08	.0023	-27.65	307.26
SET	51	700.84	712.09	18	14	49.8	90.00	.0039	-26.69	.0001	134104.6	2.52	11.21	-.0032	245.73	-.0013	-27.61	300.43
SET	61	717.76	729.01	18	15	6.8	61.32	.0040	-29.56	.0001	137535.4	2.40	-.00	-.0022	229.74	.0026	-27.58	296.44
SET	72	895.29	906.54	18	18	4.3	94.06	.0040	-26.99	.0001	159503.8	2.37	-.00	-.0035	242.73	-.0005	-27.32	254.16
RISE	42	904.43	915.68	18	18	13.4	255.00	.0040	-25.93	-.0000	160192.6	1.65	3.55	.0029	119.50	-.0022	-27.30	251.97
EXTM	11	944.40	955.65	18	18	53.4	.83	.0042	-29.24	.0000	162546.9	1.94	25.54	-.0000	180.79	.0040	-27.25	242.36
SET	11	1214.52	1225.77	18	23	23.5	67.80	.0041	-28.17	.0001	195085.3	2.05	.00	-.0027	234.71	.0024	-26.93	176.94
EXTM	42	1328.96	1340.21	19	1	18.0	359.95	.0042	-26.55	.0000	200687.7	1.69	81.33	.0000	.30	-.0227	-26.82	149.03
RISE	51	1463.85	1475.10	19	3	32.8	270.00	.0041	-26.06	-.0000	219066.4	1.25	10.99	.0034	113.77	-.0015	-26.69	116.02
RISE	72	1619.16	1630.41	19	6	8.1	266.05	.0041	-26.33	-.0000	235069.0	1.15	-.01	.0036	116.61	-.0005	-26.56	77.90
RISE	61	1698.69	1709.94	19	7	27.7	296.26	.0041	-27.60	-.0000	242408.2	1.24	.00	.0025	127.37	.0027	-26.50	58.34
SET	42	1751.75	1763.00	19	8	20.7	105.00	.0041	-25.56	.0000	246853.2	1.83	3.33	-.0029	240.79	-.0022	-26.46	45.28
EXTM	51	1815.90	1827.15	19	9	24.9	358.16	.0042	-26.43	.0000	246667.8	1.47	88.21	.0035	113.04	.0454	-26.41	29.48
EXTM	61	1954.01	1965.26	19	11	43.0	.34	.0042	-27.59	.0000	262626.7	1.43	22.17	.0000	180.33	.0040	-26.31	359.41
EXTM	72	1993.91	2005.16	19	12	22.9	.11	.0042	-26.73	.0000	262463.5	1.42	71.18	-.0000	180.31	.0115	-26.29	345.56
RISE	11	2134.08	2145.33	19	14	43.1	291.12	.0042	-27.05	-.0000	280190.4	1.06	.00	.0028	123.81	.0024	-26.20	310.93
SET	51	2182.43	2193.68	19	15	31.4	90.00	.0041	-25.67	.0000	282968.0	1.74	10.84	-.0034	246.59	-.0015	-26.17	298 97
SET	61	2209.15	2220.40	19	15	58.1	64.37	.0042	-27.08	.0000	286344.5	1.64	-.00	-.0025	233.39	.0027	-26.15	292.36
SET	72	2367.55	2378.80	19	18	36.5	93.86	.0041	-25.88	.0000	299024.8	1.72	-.00	-.0037	243.85	-.0005	-26.06	253.15
RISE	42	2368.54	2379.79	19	18	37.5	255.00	.0041	-25.32	-.0000	298749.4	.99	3.18	.0030	119.01	-.0023	-26.06	252.91
EXTM	11	2408.87	2420.12	19	19	17.9	.24	.0042	-27.11	.0000	299321.9	1.30	27.69	-.0000	180.24	.0042	-26.04	242.92
SET	11	2683.51	2694.76	19	23	52.5	69.28	.0042	-26.63	.0000	323195.7	1.55	-.00	-.0028	236.74	.0024	-25.89	174.83
EXTM	42	2787.66	2798.91	20	1	36.7	.00	.0042	-25.66	.0000	324641.5	1.22	80.44	-.0000	359.89	-.0024	-25.84	148.98
RISE	51	2918.01	2929.26	20	3	47.0	270.00	.0041	-25.36	-.0000	339087.1	.81	10.72	.0034	113.13	-.0015	-25.78	116.61
RISE	72	3071.93	3083.18	20	6	20.9	266.19	.0042	-25.56	-.0000	351281.5	.71	-.00	.0037	115.83	-.0005	-25.72	78.34
RISE	61	3145.12	3156.37	20	7	34.1	294.88	.0042	-26.43	-.0000	356194.0	.83	.00	.0026	125.67	.0027	-25.69	60.08
SET	42	3206.10	3217.35	20	8	35.1	105.00	.0041	-25.06	.0000	359932.1	1.49	3.02	-.0030	241.19	-.0023	-25.67	44.87
EXTM	51	3269.82	3281.07	20	9	38.8	358.70	.0042	-25.65	.0000	358189.8	1.10	88.83	.0038	86.16	-.0145	-25.66	28.96
EXTM	61	3403.34	3414.59	20	11	52.3	.13	.0042	-26.52	.0000	370853.7	1.11	23.24	-.0000	180.13	.0041	-25.62	355.62
EXTM	72	3443.44	3454.69	20	12	32.4	.07	.0042	-25.91	.0000	369958.0	1.11	72.00	-.0000	180.21	.0119	-25.61	345.60
RISE	11	3577.69	3588.94	20	14	46.7	290.31	.0042	-26.19	-.0000	384956.7	.80	.00	.0029	122.69	.0024	-25.58	312.04
SET	51	3631.29	3642.54	20	15	40.3	90.00	.0042	-25.20	.0000	387409.0	1.52	10.65	-.0035	247.03	-.0015	-25.56	298.62
SET	61	3641.29	3652.54	20	16	10.3	65.36	.0042	-26.23	.0000	390649.3	1.45	-.00	-.0026	234.62	.0027	-25.56	291.11
IMPACT		3807.01	3818.26	20	18	36.0												
IMPC	42	3807.01	3818.26	20	18	36.0	253.80	.0043	-24.98	-.0000	401875.1	1.73	2.12	.0031	119.42	-.0024	-25.54	254.39
IMPC	72	3807.01	3818.26	20	18	36.0	92.28	.0043	-25.42	.0000	401961.5	2.50	1.34	-.0038	244.52	-.0005	-25.54	254.39
IMPC	11	3807.01	3818.26	20	18	36.0	348.60	.0044	-26.34	-.0000	399177.7	2.00	27.52	.0007	168.48	.0043	-25.54	254.39

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	18	3	9.992	6636.944	25.9683	307.1491	10.92218	-6.6284	101.9039	111.4811
SEPARATION		1.20	12.45	18	3	10.192	6565.852	24.3476	314.2996	10.97879	-3.2446	105.0784	110.1325
RETRO		3.20	14.45	18	3	12.192	6557.014	20.8904	325.7198	10.98623	2.4784	109.6796	130.8540
EXIT	SHA	12.00	23.25	18	3	20.989	7893.712	2.1579	4.4316	10.00546	24.3235	118.3192	171.7714
IMPACT		3807.01	3818.26	20	18	34.005	402161.543	-25.5440	254.3880	2.21784	68.8393	267.1597	293.0783

SURVEYOR VIEW PERIODS

GHA	118.9259						EPS 169.7600										LON	249.8542	
SX	.353543	SY	-.830124	SZ	-.431164	DAO	-25.54142	RAO	293.06878	RM	403461.527	LAT	28.310600	LON	279.461800				
C3	-.879259	ECC	.985563	SLR	12994.855	RCA	6544.6650	LTA	-20.0000	GTA	20.00		TB	675.00000	POL		-.0		
NSX	.371542	NSY	-.823132	NSZ	-.429431	C3M	1.5557	VIM	2.6823	ZAE	142.398		B.T	.0000	B.R		-.0000		
LATS	4.9471	LONE	2.7055	LATS	-1.3428	LONS	192.3363	LATI	.2690	LONI	329.3449		RSM	146.8295	TTAN		6.5199		
LAUNCH DATE	JAN 18,1966			BASE AZM	90.0		TF 63.399					ARRIVAL DATE JAN 20 1966 18 54 3.0							

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
90.00	3 21 16.1	27.6	24.72	307.32	-8.07	117.55	104.26	3 32 31.1	6577.0	10.97	-4.01

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW														
INJECTION	.00	11.25	18	3	32.5												
SEPARATION	1.20	12.45	18	3	33.7												
RETRO	3.20	14.45	18	3	35.7												
RISE 72	5.95	17.20	18	3	38.5	66.25	-.5054	71.00	.1005	2566.0	-5.61	-.01	.1066	342.66	.1606	13.02	339.12
EXIT SHA	11.03	22.28	18	3	43.6												
EXIT 72	11.03	22.28	18	3	43.6	306.70	-.0752	27.89	-.1669	2556.0	5.20	27.32	.0154	52.90	.2019	2.31	358.96
EXIT 51	11.03	22.28	18	3	43.6	72.88	-.1206	37.93	-.0224	5022.8	-4.23	-3.31	.0934	310.96	.0280	2.31	358.96
EXIT 61	11.03	22.28	18	3	43.6	351.64	-.1331	-51.35	.0149	4861.1	6.32	-1.88	.0056	174.79	-.0843	2.31	358.96
RISE 51	11.61	22.86	18	3	44.1	68.65	-.1227	37.06	-.0274	5083.2	-3.80	-.00	.0970	311.99	.0353	1.24	.81
EXTM 72	11.78	23.03	18	3	44.3	303.72	-.0585	21.05	-.1379	2809.1	6.01	27.63	.0000	61.19	.1674	.93	1.34
EXTM 51	30.43	41.68	18	4	2.9	347.46	-.0256	-10.94	-.0189	7702.3	5.51	71.03	-.0000	41.00	.0968	-17.73	34.82
EXTM 72	65.32	76.57	18	4	37.8	277.72	-.0001	-25.32	-.0015	22682.6	4.95	10.31	.0000	114.43	.0015	-25.43	51.61
EXTM 51	81.93	93.18	18	4	54.5	327.21	-.0001	-26.00	-.0011	23546.4	4.53	60.57	.0000	97.80	.0023	-26.97	53.65
RISE 42	92.91	104.16	18	5	5.4	105.00	-.0015	-20.33	-.0016	31532.3	4.20	.12	.0021	244.92	-.0004	-27.04	54.08
EXTM 42	127.46	138.71	18	5	40.0	104.34	.0006	-22.56	-.0007	40033.0	3.99	1.97	-.0000	243.54	-.0009	-27.84	52.69
SET 42	140.46	151.71	18	5	53.0	105.00	.0011	-23.04	-.0005	43116.0	3.91	1.79	-.0004	242.79	-.0010	-27.99	51.46
RISE 61	180.06	191.31	18	6	32.6	304.43	.0030	-33.75	.0002	52108.0	3.36	-.00	.0017	136.70	.0018	-28.24	46.34
EXTM 51	285.06	296.31	18	8	17.6	.03	.0036	-28.52	.0000	66568.8	3.01	87.22	.0000	180.58	.0560	-28.28	27.66
EXTM 61	447.29	458.54	18	10	59.8	2.72	.0039	-31.47	.0001	97702.5	2.57	16.25	.0100	182.44	.0035	-28.00	353.18
EXTM 72	482.54	493.79	18	11	35.1	.42	.0040	-29.19	.0001	99263.4	2.50	68.71	-.0000	181.01	.0097	-27.93	349.28
RISE 11	648.04	659.29	18	14	20.6	293.57	.0040	-29.54	-.0000	128492.1	1.95	.00	.0026	127.11	.0023	-27.64	307.18
SET 51	676.59	687.84	18	14	49.1	90.00	.0039	-26.55	.0001	131065.3	2.55	11.19	-.0032	245.77	-.0013	-27.59	300.49
SET 61	693.48	704.73	18	15	6.0	61.28	.0040	-29.59	.0001	134519.8	2.43	-.00	-.0022	229.69	.0026	-27.56	296.92
SET 72	871.52	882.77	18	18	4.0	94.05	.0039	-26.96	.0001	156809.8	2.39	-.00	-.0035	242.76	-.0005	-27.30	254.21
RISE 42	881.02	892.27	18	18	13.5	254.99	.0040	-25.89	-.0001	157554.9	1.67	3.53	.0029	119.47	-.0022	-27.29	251.93
EXTM 11	920.98	932.23	18	18	53.5	.84	.0042	-29.26	.0000	159955.3	1.96	25.53	-.0000	180.81	.0040	-27.23	248.34
SET 11	1191.23	1202.48	18	23	23.8	67.80	.0041	-28.16	.0001	192773.1	2.06	.00	-.0027	234.71	.0024	-26.92	176.95
EXTM 42	1305.81	1317.06	19	1	18.3	359.95	.0042	-26.53	.0000	198483.0	1.70	81.31	.0000	.30	-.0227	-26.80	149.03
RISE 51	1440.83	1452.08	19	3	33.3	270.00	.0041	-26.03	-.0000	216971.6	1.26	10.98	.0034	113.75	-.0019	-26.67	116.00
RISE 72	1596.21	1607.46	19	6	8.7	266.06	.0041	-26.31	-.0000	233079.1	1.16	-.01	.0036	116.58	-.0005	-26.54	77.88
RISE 61	1675.68	1686.93	19	7	28.2	296.25	.0041	-27.59	-.0000	240459.9	1.25	.00	.0025	127.35	.0027	-26.48	58.34
SET 42	1728.74	1739.99	19	8	21.3	105.00	.0041	-25.53	.0000	244935.3	1.84	3.31	-.0029	240.81	-.0022	-26.44	49.29
EXTM 51	1792.88	1804.13	19	9	25.4	358.14	.0042	-26.41	.0000	244783.5	1.48	88.20	.0035	112.28	.0437	-26.39	29.49
EXTM 61	1931.09	1942.34	19	11	43.6	.35	.0042	-27.58	.0000	260820.8	1.44	22.18	.0000	180.33	.0040	-26.29	359.41
EXTM 72	1970.99	1982.24	19	12	23.5	.11	.0042	-26.71	.0000	260678.1	1.43	71.19	-.0000	180.31	.0116	-26.27	345.96
RISE 11	2111.16	2122.41	19	14	43.7	291.10	.0042	-27.03	-.0000	278470.7	1.07	.00	.0028	123.80	.0024	-26.18	310.94
SET 51	2159.91	2170.76	19	15	32.0	90.00	.0041	-25.65	.0000	281271.2	1.74	10.83	-.0034	246.61	-.0015	-26.15	298.98
SET 61	2186.31	2197.56	19	15	58.8	64.38	.0042	-27.07	.0000	284664.7	1.64	-.00	-.0025	233.41	.0027	-26.13	292.35
SET 72	2344.65	2355.90	19	18	37.2	93.86	.0041	-25.86	.0000	297406.9	1.73	-.00	-.0037	243.87	-.0009	-26.04	253.16
RISE 42	2345.71	2356.96	19	18	38.2	255.00	.0041	-25.29	-.0000	297138.6	.99	3.17	.0030	119.00	-.0023	-26.04	252.90
EXTM 11	2386.02	2397.27	19	19	18.5	.24	.0042	-27.09	.0000	297723.4	1.31	27.70	-.0000	180.24	.0042	-26.02	248.92
SET 11	2660.73	2671.98	19	23	53.2	69.30	.0042	-26.61	.0000	321708.0	1.56	-.00	-.0028	236.76	.0024	-25.88	174.82
EXTM 42	2764.86	2776.11	20	1	37.4	.00	.0042	-25.64	.0000	323189.7	1.22	80.42	-.0000	359.88	-.0028	-25.83	148.98
RISE 51	2895.23	2906.48	20	3	47.7	270.00	.0041	-25.35	-.0000	337682.1	.82	10.71	.0034	113.11	-.0015	-25.76	116.01
RISE 72	3049.29	3060.54	20	6	21.8	266.19	.0042	-25.54	-.0000	350006.5	.71	-.01	.0037	115.80	-.0005	-25.70	78.34
RISE 61	3122.37	3133.62	20	7	34.9	294.86	.0042	-26.42	-.0000	354920.7	.83	.00	.0026	125.65	.0027	-25.67	60.10
SET 42	3183.39	3194.64	20	8	35.9	105.00	.0041	-25.04	.0000	358669.7	1.45	3.01	-.0030	241.21	-.0023	-25.66	44.87
EXTM 51	3247.11	3258.36	20	9	39.6	358.70	.0042	-25.64	.0000	356931.8	1.10	88.82	.0038	85.23	-.0175	-25.64	28.96
EXTM 61	3380.60	3391.85	20	11	53.1	.13	.0042	-26.50	.0000	369597.6	1.11	23.26	-.0000	180.13	.0041	-25.60	359.62
EXTM 72	3420.70	3431.95	20	12	33.2	.07	.0042	-25.89	.0000	368742.4	1.11	72.01	-.0000	180.21	.0119	-25.59	348.60
RISE 11	3554.89	3566.14	20	14	47.4	290.29	.0042	-26.17	-.0000	383680.5	.80	.00	.0029	122.67	.0024	-25.56	312.05
SET 51	3608.53	3619.78	20	15	41.0	90.00	.0042	-25.18	.0000	386115.6	1.51	10.65	-.0035	247.05	-.0015	-25.55	298.63
SET 61	3638.57	3649.82	20	16	11.1	65.37	.0042	-26.22	.0000	389339.8	1.44	.00	-.0026	234.64	.0027	-25.54	291.10
RISE 42	3789.34	3800.59	20	18	41.9	255.00	.0042	-24.97	-.0000	400282.4	1.24	2.97	.0030	118.74	-.0023	-25.52	253.18
SET 72	3790.48	3801.73	20	18	43.0	93.78	.0042	-25.39	.0000	400720.5	2.91	.00	-.0038	244.35	-.0006	-25.52	252.89
IMPACT	3803.95	3815.20	20	18	56.5												
IMPC 42	3803.95	3815.20	20	18	56.5	258.73	.0043	-24.99	-.0000	401512.1	1.72	5.68	.0032	116.72	-.0023	-25.53	249.49
IMPC 72	3803.95	3815.20	20	18	56.5	97.21	.0043	-25.37	.0000	402482.9	2.49	-3.06	-.0038	243.86	-.0007	-25.53	249.45
IMPC 11	3803.95	3815.20	20	18	56.5	353.61	.0044	-26.32	-.0000	399144.8	2.03	28.17	.0004	173.50	.0044	-25.53	249.45

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION	.00	11.25	18	3	32.518	6577.460	24.7262	307.2905	10.96967	-4.0076	104.2472	117.9201
SEPARATION	1.20	12.45	18	3	33.718	6545.348	22.8469	314.2767	10.99627	-.5836	107.1984	124.8871
RETRO	3.20	14.45	18	3	35.718	6597.619	19.0399	325.3903	10.95231	3.1212	111.3569	136.4221
EXIT SHA	11.03	22.28	18	3	43.550	7885.332	2.3145	358.9619	10.01103	24.2570	118.2290	171.9571
IMPACT	3803.95	3815.20	20	18	56.464	402192.438	-25.5271	249.4479	2.21677	68.5892	266.9385	293.2672

JAN 18, 1966
90 DEGREES

SURVEYOR VIEW PERIODS

QMA	118.9259					EPS	169.9252							LOM	244.0792
SX	.356789	SY	-.828899	SZ	-.430856	DAO	-25.52192	RAO	293.28872	RM	403492.855	LAT	28.310600	LON	279.461800
C3	-.879584	ECC	.985558	SLR	12994.814	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.374761	NSY	-.821846	NSZ	-.429096	C3M	1.5556	VIM	2.6823	ZAE	142.391	B.T	.0000	B.R	-.0000
LATE	4.9625	LONE	2.6855	LATS	-1.3430	LONS	192.1331	LATI	.2507	LONI	329.3225	RSM	146.8255	TTAN	6.5156

LAUNCH DATE JAN 18,1966 BASE AZM 93.0 TF 63.413 ARRIVAL DATE JAN 20 1966 19 17 57.8

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FPA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
93.00	3 40 57.9	27.8	23.91	307.20	-3.71	122.37	106.48	3 52 12.9	6551.5	10.99	-1.84

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	18	3	52.2												
SEPARATION	1.20	12.45	18	3	53.4												
RETRO	3.20	14.45	18	3	55.4												
RISE 72	5.42	16.67	18	3	57.6	74.66	-.3187	62.33	.0869	2652.3	-6.52	-.00	.1158	333.39	.1264	2.30	339.53
EXIT SHA	10.24	21.49	18	4	2.5												
EXIT 72	10.24	21.49	18	4	2.5	321.52	-.1325	31.84	-.1939	2208.0	4.09	35.89	.0402	40.73	.2722	2.09	354.20
EXIT 61	10.24	21.49	18	4	2.5	4.06	-.1452	-51.77	.0058	4872.2	5.72	-2.07	.0107	102.51	-.0895	2.09	354.20
EXTM 72	11.28	22.53	18	4	3.5	314.83	-.0879	21.11	-.1517	2511.3	5.57	37.00	.0000	55.94	.2159	.19	357.45
RISE 51	11.38	22.63	18	4	3.6	71.85	-.1101	32.86	-.0303	5105.0	-3.96	.00	.0948	307.05	.0219	.01	357.76
EXTM 51	32.45	43.70	18	4	24.7	351.43	-.0224	-14.38	-.0146	8524.3	5.45	76.09	.0000	36.90	.1089	-19.29	32.74
EXTM 72	66.16	77.41	18	4	58.4	282.51	-.0000	-26.27	-.0013	22711.1	4.91	14.67	.0000	115.19	.0013	-25.62	47.32
EXTM 51	84.32	95.57	18	5	16.5	332.81	-.0001	-26.72	-.0010	24191.6	4.48	65.63	.0000	98.35	.002*	-26.94	49.27
RISE 61	157.10	168.35	18	6	29.3	305.45	.0027	-34.43	.0003	47270.8	3.54	-.00	.0016	137.78	.0016	-28.29	44.89
EXTM 51	261.07	272.32	18	8	13.3	.03	.0035	-28.69	.0000	62306.4	3.10	87.04	.0000	180.60	.0481	-28.42	27.66
EXTM 61	427.25	438.50	18	10	59.5	2.98	.0039	-31.70	.0001	94729.1	2.61	18.01	.0000	102.67	.0035	-28.12	352.94
EXTM 72	461.73	472.98	18	11	33.9	.43	.0040	-29.36	.0001	96242.2	2.54	68.54	-.0000	101.03	.0096	-28.05	345.27
RISE 11	628.72	639.97	18	14	20.9	293.70	.0040	-29.67	-.0000	125983.3	1.98	.00	.0026	127.29	.0023	-27.73	307.00
SET 51	656.33	667.58	18	14	48.5	90.00	.0039	-26.61	.0001	128467.8	2.57	11.22	-.0032	245.71	-.0013	-27.68	300.55
SET 61	672.62	683.87	18	15	4.8	61.11	.0040	-29.72	.0001	131871.2	2.45	-.00	-.0022	229.50	.0026	-27.65	296.73
SET 72	851.76	863.01	18	18	4.0	94.06	.0039	-27.03	.0001	154918.4	2.40	-.00	-.0035	242.69	-.0004	-27.37	254.24
RISE 42	861.52	872.77	18	18	13.7	254.99	.0040	-25.94	-.0001	155302.2	1.69	3.56	.0029	119.91	-.0022	-27.35	251.90
EXTM 11	901.58	912.83	18	18	53.8	.88	.0042	-29.35	.0001	157765.0	1.97	25.44	-.0000	100.85	.0040	-27.30	242.30
SET 11	1171.58	1182.83	18	23	23.8	67.74	.0041	-28.22	.0001	190761.0	2.07	.00	-.0027	234.63	.0024	-26.96	177.03
EXTM 42	1286.53	1297.78	19	1	18.7	359.95	.0042	-26.57	.0000	196583.1	1.71	81.35	.0000	.31	-.0231	-26.84	149.03
RISE 51	1421.67	1432.92	19	3	33.9	270.00	.0041	-26.06	-.0000	215158.1	1.27	10.99	.0034	113.77	-.0015	-26.71	115.99
RISE 72	1577.08	1588.33	19	6	9.3	266.05	.0041	-26.34	-.0000	231345.5	1.17	-.01	.0036	116.61	-.0005	-26.57	77.87
RISE 61	1656.73	1667.98	19	7	28.9	296.28	.0041	-27.62	-.0000	238777.7	1.26	.00	.0025	127.40	.0027	-26.50	58.30
SET 42	1709.57	1720.82	19	8	21.8	105.00	.0041	-25.55	.0000	243254.7	1.84	3.32	-.0029	240.80	-.0022	-26.46	45.38
EXTM 51	1773.74	1784.99	19	9	26.0	358.14	.0042	-26.43	.0000	243133.6	1.48	88.19	.0035	112.87	.0446	-26.41	29.58
EXTM 61	1912.05	1923.30	19	11	44.3	.36	.0042	-27.60	.0000	250232.7	1.45	22.16	.0000	180.34	.0040	-26.31	355.40
EXTM 72	1951.92	1963.17	19	12	24.1	.11	.0042	-26.73	.0000	259100.2	1.43	71.78	-.0000	180.32	.0115	-26.28	345.56
RISE 11	2092.19	2103.44	19	14	44.4	291.12	.0042	-27.05	-.0000	276946.9	1.08	.00	.0028	123.82	.0024	-26.19	310.91
SET 51	2140.43	2151.68	19	15	32.6	90.00	.0041	-25.66	.0000	279753.0	1.75	10.84	-.0034	246.60	-.0015	-26.16	298.99
SET 61	2167.17	2178.42	19	15	59.4	64.36	.0042	-27.08	.0000	283149.9	1.69	-.00	-.0025	233.39	.0027	-26.14	292.38
SET 72	2325.60	2336.85	19	18	37.8	93.86	.0041	-25.87	.0000	295945.9	1.73	-.00	-.0037	243.87	-.0005	-26.05	253.17
RISE 42	2326.70	2337.95	19	18	38.9	255.00	.0041	-25.30	-.0000	295681.2	1.00	3.17	.0030	119.00	-.0023	-26.05	252.90
EXTM 11	2367.02	2378.27	19	19	19.2	.24	.0042	-27.10	.0000	296379.3	1.31	27.69	-.0000	180.25	.0042	-26.02	242.91
SET 11	2041.70	2652.95	19	23	53.9	69.29	.0042	-26.61	.0000	320330.1	1.56	-.00	-.0028	236.75	.0024	-25.88	174.83
EXTM 42	2745.86	2757.11	20	1	38.1	.00	.0042	-25.64	.0000	321838.7	1.23	80.42	-.0000	359.91	-.0013	-25.82	148.98
RISE 51	2876.26	2887.51	20	3	48.5	270.00	.0041	-25.34	-.0000	336362.0	.82	10.71	.0034	113.10	-.0015	-25.76	116.61
RISE 72	3030.34	3041.59	20	6	22.5	266.19	.0042	-25.53	-.0000	348725.6	.72	-.01	.0037	115.80	-.0005	-25.69	78.33
RISE 61	3103.38	3114.63	20	7	35.6	294.85	.0042	-26.41	-.0000	353643.6	.83	.00	.0026	125.64	.0027	-25.67	60.10
SET 42	3164.40	3175.65	20	8	36.6	105.00	.0041	-25.03	.0000	357396.9	1.45	3.88	-.0030	241.22	-.0023	-25.65	44.87
EXTM 51	3228.12	3239.37	20	9	40.3	358.70	.0042	-25.63	.0000	359661.9	1.10	88.82	.0038	84.87	-.0186	-25.63	28.97
EXTM 61	3361.64	3372.89	20	11	53.9	.13	.0042	-26.50	.0000	360331.0	1.11	23.26	-.0000	180.13	.0041	-25.59	355.62
EXTM 72	3401.73	3412.98	20	12	33.9	.07	.0042	-25.88	.0000	367474.5	1.11	72.02	-.0000	180.21	.0119	-25.58	349.60
RISE 11	3535.91	3547.16	20	14	48.1	290.28	.0042	-26.16	-.0000	382395.0	.80	.00	.0029	122.64	.0024	-25.55	312.06
SET 51	3589.56	3600.81	20	15	41.8	90.00	.0042	-25.17	.0000	384815.0	1.51	10.64	-.0035	247.06	-.0015	-25.54	298.63
SET 61	3619.66	3630.91	20	16	11.9	65.38	.0042	-26.21	.0000	388027.6	1.43	.00	-.0026	234.65	.0027	-25.53	291.09
RISE 42	3770.62	3781.87	20	18	42.8	255.00	.0042	-24.95	-.0000	398603.6	1.05	2.96	.0030	118.72	-.0023	-25.51	253.18
SET 72	3771.73	3782.98	20	18	43.9	93.78	.0042	-25.37	.0000	399024.4	1.81	-.00	-.0038	244.37	-.0006	-25.51	252.90
IMPACT	3804.80	3816.05	20	19	17.0												
IMPC 42	3804.80	3816.05	20	19	17.0	263.68	.0043	-25.00	-.0000	401137.6	1.71	9.34	.0032	114.10	-.0022	-25.51	244.49
IMPC 11	3804.80	3816.05	20	19	17.0	358.65	.0044	-26.31	-.0000	399143.9	2.05	28.47	.0001	178.62	.0045	-25.51	244.49
EXTM 11	3809.24	3820.49	20	19	21.4	359.82	.0045	-26.31	-.0000	399749.8	2.68	28.48	.0000	179.81	.0045	-25.51	243.33

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	18	3	52.214	6551.498	23.9118	307.1964	10.99115	-1.8413	106.4828	122.3635
SEPARATION	1.20	12.45	18	3	53.414	6549.769	21.3871	314.0263	10.99292	1.5938	109.2093	129.4943
RETRO	3.20	14.45	18	3	55.414	6651.341	17.2758	324.7910	10.90765	7.2492	112.9518	140.7683
EXIT SHA	10.24	21.49	18	4	2.458	7878.375	2.0923	354.1969	10.01547	24.2014	118.3728	171.9322
IMPACT	3804.80	3816.05	20	19	17.013	402220.496	-25.5102	244.4859	2.21606	68.5140	266.9546	293.4564

SURVEYOR VIEW PERIODS

SMA	118.9259					EPS	170.0582							LON	239.4156
SX	.359400	SY	-.827896	SZ	-.430604	DAO	-25.50592	RAO	293.46627	RM	4039[illegible]16.059	LAT	28.3106[illegible]00	LON	279.461800
C3	-.880639	ECC	.985541	SLR	12994.705	RCA	6344.6650	LTA	-20.0000	GTA	20.00	TB	675.000000	POL	-.0
NSX	.377364	NSY	-.820795	NSZ	-.428826	C3H	1.9593	VIM	2.4823	ZAE	142.365	B.T	.0000	B.R	-.0000
LATE	4.9749	LONE	2.6705	LATS	-1.3432	LONS	191.9702	LATI	.1359	LONI	329.2998	RSM	143.8259	TTAN	6.9125
LAUNCH DATE	JAN	18,1966		BASE AZM	96.0		TF	63.436				ARRIVAL	DATE JAN	20 1966	19 37 16.9

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FTH
96.00	3 56 50.7	28.0	22.33	306.94	-.23	126.09	108.65	4 8 5.7	6544.7	11.00	-.12

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW														
INJECTION	.00	11.25	18	4	8.1												
SEPARATION	1.20	12.45	18	4	9.3												
RETRO	3.20	14.45	18	4	11.3												
RISE 72	5.04	16.29	18	4	13.1	78.53	-.2464	55.06	.0641	2739.7	-7.09	.00	.1216	305.86	.0962	11.39	[illegible] 63
EXIT SHA	9.63	20.88	18	4	17.7												
EXIT 72	9.63	20.88	18	4	17.7	338.07	-.2026	33.31	-.2036	1973.9	2.87	43.81	.0880	25.63	.3461	1.51	350.16
EXIT 61	9.63	20.88	18	4	17.7	14.47	-.1494	-51.85	-.0032	4969.1	5.23	-2.95	.0145	188.89	-.0913	1.91	350.16
EXTM 72	10.93	22.18	18	4	19.0	325.87	-.1193	19.02	-.1578	2297.3	5.19	46.92	.0000	50.94	.2839	-.90	354.21
RISE 51	11.23	22.48	18	4	19.3	74.52	-.1005	28.97	-.0330	5293.5	-3.34	.00	.0927	302.52	.0150	-1.42	359.09
EXTM 51	34.50	45.75	18	4	42.6	354.60	-.0199	-17.71	-.0114	9327.2	5.39	80.54	-.0000	33.02	.1345	-20.99	30.96
EXTM 72	67.23	78.48	18	5	15.3	286.51	.0000	-27.49	-.0010	22847.1	4.87	18.25	.0000	116.42	.0011	-26.53	43.81
EXTM 51	86.95	98.20	18	5	35.0	337.41	.0000	-27.71	-.0008	24913.7	4.42	69.76	.0000	100.64	.0022	-27.61	49.66
RISE 61	140.16	151.41	18	6	28.3	306.85	.0024	-35.33	.0004	42560.8	3.69	-.00	.0015	139.24	.0014	-28.60	43.12
EXTM 51	241.15	252.40	18	8	9.2	.05	.0034	-29.08	.0000	58663.8	3.19	86.66	.0000	180.83	.0479	-28.76	27.64
EXTM 61	411.54	422.79	18	10	59.6	3.31	.0039	-32.06	.0002	92381.0	2.65	17.64	.0000	182.94	.0035	-28.38	352.63
EXTM 72	445.14	456.39	18	11	33.2	.50	.0040	-29.66	.0001	93802.8	2.57	68.24	-.0000	181.17	.0094	-28.30	349.21
RISE 11	613.73	624.98	18	14	21.8	293.94	.0040	-29.90	-.0000	124014.2	2.00	.00	.0026	127.60	.0023	-27.92	306.72
SET 51	639.99	651.24	18	14	48.1	90.00	.0038	-26.79	.0001	126341.9	2.59	11.29	-.0032	245.54	-.0013	-27.87	300.60
SET 61	655.13	666.38	18	15	3.2	60.81	.0039	-29.96	.0001	129617.4	2.47	-.00	-.0022	229.15	.0026	-27.84	297.06
SET 72	835.94	847.19	18	18	4.0	94.09	.0039	-27.18	.0001	152662.4	2.42	-.00	-.0035	242.54	-.0004	-27.52	[illegible]34.25
RISE 42	845.86	857.11	18	18	14.0	254.99	.0040	-26.07	-.0000	153468.[illegible]	1.71	3.64	.0029	119.61	-.0022	-27.50	251.88
EXTM 11	886.10	897.35	18	18	54.2	.94	.0041	-29.52	.0001	156[illegible].7	1.98	25.27	-.0000	180.91	.0040	-27.44	242.24
SET 11	1155.46	1166.71	18	23	23.6	67.62	.0041	-28.35	.0001	189090.6	2.08	.00	-.0027	234.47	.0024	-27.07	177.17
EXTM 42	1271.01	1282.26	19	1	19.1	359.95	.0042	-26.67	.0000	195034.4	1.72	81.45	.0000	.34	-.0236	-26.94	149.03
RISE 51	1406.27	1417.52	19	3	34.4	270.00	.0041	-26.14	-.00	213678.6	1.28	11.03	.0034	113.85	-.0015	-26.79	119.97
RISE 72	1561.66	1572.91	19	6	9.8	266.04	.0041	-26.41	-.0000	229927.9	1.17	-.01	.0036	116.68	.0005	-26.64	77.87
RISE 61	1641.73	1652.98	19	7	29.8	296.38	.0041	-27.70	-.0000	237426.4	1.27	.00	.0025	127.51	.0027	-26.57	58.20
SET 42	1694.14	1705.39	19	8	22.2	105.00	.0041	-25.61	.0000	2418[illegible]8.1	1.05	3.36	-.0049	240.75	-.0022	-26.53	49.31
EXTM 51	1758.47	1769.72	19	9	26.6	358.17	.0042	-26.49	.0000	241794.9	1.49	88.19	.0034	114.97	.0485	26.47	29.47
EXTM 61	1896.77	1908.02	19	11	44.9	.38	.0042	-27.66	.0000	257939.8	1.45	22.10	.0000	180.36	.0040	-26.36	359.38
EXTM 72	1936.58	1947.83	19	12	24.7	.12	.0042	-26.78	.0000	257809.6	1.44	71.12	-.0000	180.33	.0119	-26.33	349.54
RISE 11	2077.26	2088.31	19	14	45.2	291.16	.0042	-27.10	-.0000	275707.1	1.08	.00	.0028	123.88	.0021	-26.23	310.86
SET 51	2125.[illegible]	2136.32	19	15	33.2	90.00	.0041	-25.70	.0000	278504.3	1.75	10.85	-.0034	246.57	-.0015	-26.20	298.99
SET 61	2151.60	2162.85	19	15	59.7	64.31	.0042	-27.13	.0000	281892.5	1.65	-.00	-.0025	233.32	.0027	-26.18	292.43
SET 72	2310.27	2321.52	19	18	38.4	93.87	.0041	-25.90	.0000	294743.9	1.74	-.00	-.0037	243.83	-.0005	-26.08	253.17
RISE 42	2311.39	2322.64	19	18	39.5	255.00	.0041	-25.33	-.0000	294479.1	1.00	3.19	.0030	119.02	-.0023	-26.08	252.89
EXTM 11	2351.75	2363.00	19	19	19.8	.26	.0042	-27.14	.0000	295094.0	1.32	27.65	-.0000	180.26	.0042	-26.06	248.90
SET 11	2626.29	2637.54	19	23	54.4	69.27	.0042	-26.64	.0000	319183.7	1.56	-.00	-.0028	236.72	.0024	-25.90	174.85
EXTM 42	2730.54	2741.79	20	1	38.6	360.00	.0042	-25.66	.0000	320717.1	1.23	80.44	-.0000	.12	-.0035	-25.84	148.98
RISE 51	[illegible]60.98	2872.23	20	3	49.1	270.00	.0041	-25.35	-.0000	335264.2	.83	10.71	.0034	113.11	-.0015	-25.77	119.80
RISE 72	3015.07	3026.32	20	6	23.2	266.19	.0041	-25.54	-.0000	347412.8	.76	-.00	.0037	115.81	-.0005	-25.70	78.33
RISE 61	3088.25	3099.50	20	7	36.3	294.85	.0042	-26.42	-.0000	352665.1	.83	.00	.0025	125.65	.0027	-25.67	60.10
SET 42	3149.23	3160.48	20	8	37.3	105.00	.0041	-25.02	.0000	356413.4	1.45	3.00	-.0030	241.22	-.0023	-25.69	44.88
EXTM 51	3212.95	3224.20	20	9	41.0	358.70	.0042	-25.63	.0000	354675.4	1.10	88.82	.0038	94.80	-.0189	-25.63	28.97
EXTM 61	3346.46	3357.71	20	11	54.6	.14	.0042	-26.50	.0000	362333.8	1.11	23.27	-.0000	180.13	.0041	-25.59	359.61
EXTM 72	3386.93	3397.78	20	12	34.6	.07	.0042	-25.88	.0000	366471.4	1.10	72.02	-.0000	180.21	.0120	-25.58	349.60
RISE 11	3520.68	3531.93	20	14	48.8	290.28	.0042	-26.16	-.0000	381364.5	.79	.00	.0029	122.66	.0024	-25.54	312.04
SET 51	3574.34	3585.59	20	15	42.4	90.00	.0042	-25.16	.0000	383767.0	1.50	10.64	-.0035	247.07	.0015	-25.53	298.63
SET 61	3604.47	3615.72	20	16	12.6	65.39	.0042	-26.20	.0000	386967.7	1.42	.00	-.0026	234.66	.0027	-25.52	292.09
RISE 42	3755.50	3766.75	20	18	43.6	255.00	.0042	-24.94	-.0000	397322.3	.97	2.95	.0030	118.71	-.0023	-25.49	253.18
SET 72	3756.59	3767.84	20	18	44.7	93.77	.0042	-25.36	.0000	397734.8	1.72	-.00	-.0038	244.38	.0005	-25.49	252.90
EXTM 11	3794.71	3805.96	20	19	22.8	359.89	.0043	-26.29	.0000	397942.4	1.62	2.98	.0000	179.85	.0044	-25.49	243.26
IMPACT	3806.19	3817.44	20	19	34.3												
IMPC 42	3806.19	3817.44	20	19	34.3	267.84	.0043	-25.01	-.0000	400823.1	1.70	12.47	.0033	111.96	-.0022	-25.[illegible]8	248.32
IMPC 11	3806.19	3817.44	20	19	34.3	2.88	.0044	-26.29	-.0000	399173.9	2.07	28.44	-.0002	182.93	.0045	-25.[illegible]8	240.32

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FTH	AZ	RT ASC
INJECTION	.00	11.25	18	4	8.094	6544.695	22.3255	306.9435	10.99689	-.1168	108.6541	126.0915
SEPARATION	1.20	12.45	18	4	9.294	6546.763	19.9689	313.6092	10.97814	5.3134	111.1707	133.0588
RETRO	3.20	14.45	18	4	11.294	6706.612	15.9803	324.0135	10.46223	8.9068	114.5119	143.9637
EXIT SHA	9.63	20.88	18	4	17.722	7874.749	1.9056	350.1603	10.01774	24.1721	118.7479	171.7218
IMPACT	3806.19	3817.44	20	19	34.283	402247.375	-25.4760	240.3161	2.2[illegible]34	48.2907	267.1114	295.6[illegible]99

SURVEYOR VIEW PERIODS

GHA	118.9259				EPS 170.1568							LOM	235.9466
SX	.361343	SY	-.827148	SZ	-.430415	DAO	-25.49389	RAO	293.59830	RM	403536.742	LAT	28.310600
LON	279.461800												
CB	-.081136	ECC	.985533	SLR	12994.651	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000
POL	-.0												
NBX	.379297	NSY	-.820008	NSZ	-.428628	C3H	1.5562	VIM	2.6824	ZAE	142.328	B.T	.0000
B.R	-.0000												
LATE	4.9841	LONE	2.6585	LATS	-1.3434	LONS	191.8482	LATI	-.0539	LONI	325.2767	RSM	146.8255
TTAN	6.5104												

LAUNCH DATE JAN 18,1966 BASE AZM 99.0 TF 63.450 ARRIVAL DATE JAN 20 1966 19 51 38.4

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99.00	4 9 22.6	28.8	21.17	306.58	2.47	128.87	110.79	4 20 37.6	6547.7	10.99	1.23

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
PROBE IN EARTH'S SHADOW																	
INJECTION	.00	11.25	18	4	20.6												
SEPARATION	1.20	12.45	18	4	21.8												
RETRO	3.20	14.45	18	4	23.8												
RISE 72	4.76	16.01	18	4	25.4	80.88	-.2079	48.81	.0417	2810.5	-7.44	-.01	.1252	319.44	.0694	10.23	330.22
EXIT SHA	9.15	20.40	18	4	29.8												
EXIT 72	9.15	20.40	18	4	29.8	354.54	-.2590	31.65	-.1950	1833.6	1.68	50.11	.1604	7.26	.3848	.62	346.75
EXIT 61	9.15	20.40	18	4	29.8	22.91	-.1481	-51.87	-.0108	5122.9	4.87	-4.25	.0169	193.95	-.0908	.62	346.75
EXTM 72	10.71	21.96	18	4	31.3	336.15	-.1464	14.75	-.1559	2154.7	4.90	57.26	-.0000	46.29	.3893	-2.28	351.92
RISE 51	11.13	22.38	18	4	31.8	76.84	-.0930	25.28	-.0358	5449.8	-3.14	.00	.0909	296.30	.0090	-3.01	352.73
EXTM 51	36.48	47.73	18	4	57.1	357.15	-.0180	-20.94	-.0090	10086.9	5.34	84.53	-.0000	29.21	.1997	-22.81	29.46
EXTM 72	68.40	79.65	18	5	29.0	289.76	.0000	-28.93	-.0008	23054.7	4.83	21.08	.0000	118.02	.0009	-27.51	40.99
RISE 61	129.44	140.69	18	6	30.1	308.57	.0022	-36.38	.0005	41139.6	3.80	-.00	.0014	140.99	.0012	-29.17	41.18
EXTM 51	224.98	236.23	18	8	5.6	.10	.0033	-29.68	.0001	55631.6	3.26	86.06	.0000	181.24	.0409	-29.27	27.60
EXTM 61	399.73	410.98	18	11	.4	3.71	.0039	-32.52	.0002	90620.1	2.67	17.16	.0000	183.27	.0034	-28.76	352.26
EXTM 72	432.21	443.46	18	11	32.8	.59	.0040	-30.07	.0001	91389.2	2.59	67.82	-.0000	181.35	.0091	-28.66	345.12
RISE 11	602.95	613.80	18	14	23.2	294.27	.0040	-30.22	.0000	122540.9	2.01	.00	.0026	128.03	.0023	-28.21	306.36
SET 51	627.11	638.36	18	14	47.7	90.00	.0038	-27.07	.0001	124649.7	2.61	11.40	-.0032	245.29	-.0013	-28.16	300.65
SET 61	640.58	651.83	18	15	1.2	60.40	.0039	-30.28	.0001	127725.9	2.49	-.00	-.0022	228.66	.0026	-28.12	297.50
SET 72	823.56	834.81	18	18	4.2	94.13	.0039	-27.40	.0001	151206.9	2.43	-.00	-.0035	242.32	-.0014	-27.75	254.24
RISE 42	833.55	844.80	18	18	14.2	254.99	.0040	-26.28	-.0000	152009.7	1.72	3.77	.0028	119.78	-.0021	-27.73	251.85
EXTM 11	874.06	885.31	18	18	54.7	1.03	.0041	-29.76	.0001	154648.0	1.99	25.03	-.0000	180.98	.0040	-27.66	242.16
SET 11	1142.48	1153.73	18	23	23.1	67.45	.0041	-28.52	.0001	187742.4	2.09	-.00	-.0027	234.24	.0024	-27.24	177.35
EXTM 42	1258.79	1270.04	19	1	19.4	359.94	.0042	-26.82	.0000	193813.8	1.72	81.60	.0000	.39	-.0239	-27.09	149.04
RISE 51	1394.15	1405.40	19	3	34.8	270.00	.0041	-26.27	-.0000	212513.4	1.29	11.08	.0034	113.97	-.0015	-26.93	115.96
RISE 72	1549.48	1560.73	19	6	10.1	266.02	.0041	-26.52	-.0000	228811.4	1.18	-.01	.0036	116.80	-.0005	-26.76	77.88
RISE 61	1630.17	1641.42	19	7	30.8	296.51	.0041	-27.81	-.0000	236390.1	1.27	.00	.0025	127.67	.0027	-26.68	58.06
SET 42	1681.99	1693.24	19	8	22.6	105.00	.0041	-25.71	.0000	240794.2	1.85	3.42	-.0029	240.67	-.0022	-26.63	45.31
EXTM 51	1747.05	1758.30	19	9	27.7	358.34	.0042	-26.59	.0000	240800.7	1.49	88.29	.0033	120.13	.0614	-26.57	29.30
EXTM 61	1884.77	1896.02	19	11	45.4	.40	.0042	-27.75	.0000	256935.1	1.45	22.01	.0000	180.39	.0040	-26.45	355.35
EXTM 72	1924.50	1935.75	19	12	25.1	.12	.0042	-26.87	.0000	256800.9	1.44	71.04	-.0000	180.34	.0115	-26.42	345.55
RISE 11	2065.26	2076.51	19	14	45.9	291.23	.0042	-27.17	-.0000	274748.5	1.09	.00	.0028	123.98	.0024	-26.30	310.79
SET 51	2112.95	2124.20	19	15	33.6	90.00	.0041	-25.76	.0000	277525.4	1.75	10.88	-.0034	246.50	-.0015	-26.27	299.00
SET 61	2139.16	2150.41	19	15	59.8	64.23	.0042	-27.20	.0000	280894.7	1.65	-.00	-.0025	233.22	.0027	-26.25	292.52
SET 72	2298.20	2309.45	19	18	38.8	93.87	.0041	-25.95	.0000	293865.9	1.74	-.00	-.0037	243.78	-.0005	-26.14	253.17
RISE 42	2299.32	2310.57	19	18	39.9	255.00	.0041	-25.38	-.0000	293537.6	1.00	3.22	.0029	119.06	-.0023	-26.14	252.89
EXT 1	2339.73	2350.98	19	19	20.4	.27	.0042	-27.20	.0000	294173.0	1.32	27.59	-.0000	180.28	.0042	-26.11	242.88
SET 11	2614.04	2625.29	19	23	54.7	69.23	.0042	-26.68	.0000	318283.5	1.57	-.00	-.0028	236.67	.0024	-25.93	174.89
EXTM 42	2718.43	2729.68	20	1	39.1	359.99	.0042	-25.69	.0000	319842.1	1.23	80.47	-.0000	.11	-.0116	-25.87	148.99
RISE 51	2848.91	2860.16	20	3	49.5	270.00	.0041	-25.38	-.0000	334409.2	.83	10.72	.0034	113.14	-.0015	-25.80	116.60
RISE 72	3002.98	3014.23	20	6	23.6	266.19	.0041	-25.56	-.0000	346577.7	.76	-.00	.0037	115.83	-.0005	-25.72	78.33
RISE 61	3076.26	3087.51	20	7	36.9	294.88	.0042	-26.43	-.0000	351846.1	.83	.00	.0026	125.67	.0027	-25.68	60.07
SET 42	3137.13	3148.38	20	8	37.8	105.00	.0041	-25.04	.0000	355589.1	1.45	3.01	-.0030	241.21	-.0023	-25.66	44.88
EXTM 51	3200.86	3212.11	20	9	41.5	358.69	.0042	-25.64	.0000	353853.9	1.10	88.82	.0038	85.41	-.0169	-25.64	28.97
EXTM 61	3334.42	3345.67	20	11	55.1	.15	.0042	-26.51	.0000	366518.3	1.10	23.26	-.0000	180.15	.0041	-25.60	355.60
EXTM 72	3374.47	3385.72	20	12	35.1	.07	.0042	-25.89	.0000	365652.8	1.10	72.02	-.0000	180.22	.0120	-25.58	345.60
RISE 11	3508.64	3519.89	20	14	49.3	290.28	.0042	-26.16	-.0000	380538.6	.79	.00	.0029	122.66	.0024	-25.54	312.05
SET 51	3562.27	3573.52	20	15	42.9	90.00	.0042	-25.16	.0000	382931.6	1.50	10.64	-.0035	247.07	-.0015	-25.53	298.63
SET 61	3592.41	3603.66	20	16	13.0	65.39	.0042	-26.20	.0000	386125.8	1.41	.00	-.0026	234.66	.0027	-25.52	291.09
RISE 42	3743.53	3754.78	20	18	44.2	255.00	.0042	-24.93	-.0000	396364.7	.93	2.94	-.0030	118.71	-.0023	-25.49	253.18
SET 72	3744.60	3755.85	20	18	45.2	93.77	.0042	-25.35	.0000	396772.7	1.68	-.00	-.0037	244.39	-.0005	-25.49	252.91
EXTM 11	3783.30	3794.55	20	19	23.9	.01	.0043	-26.29	.0000	396845.2	1.46	28.51	.0000	180.02	.0035	-25.48	243.14
IMPACT	3806.98	3818.23	20	19	47.6												
IMPC 42	3806.98	3818.23	20	19	47.6	271.06	.0043	-25.02	-.0000	400576.4	1.70	14.93	.0033	110.34	-.0021	-25.49	237.10
IMPC 11	3806.98	3818.23	20	19	47.6	6.14	.0044	-26.28	.0000	399211.0	2.09	28.24	-.0004	186.25	.0044	-25.49	237.10

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	18	4	20.627	6547.697	21.1648	306.5837	10.99432	1.2273	110.7884	128.8735
SEPARATION	1.20	12.45	18	4	21.827	6588.234	18.5867	313.0784	10.96008	4.6478	113.1017	135.6690
RETRO	3.20	14.45	18	4	23.827	6757.332	13.9344	323.1363	10.82106	10.1809	116.0686	146.2283
EXIT SHA	9.15	20.40	18	4	29.780	7873.389	.6180	346.7521	10.01859	24.1611	119.3215	171.3364
IMPACT	3806.98	3818.23	20	19	47.607	402264.977	-25.4893	237.0985	2.21312	68.2293	267.4840	293.7384

SURVEYOR V'EW PERIODS

GHA	118.9259					EPS	170.2441							LOM	232.8691
SX	.363065	SY	-.826482	SZ	-.430245	DAO	-25.48311	RAC	293.71539	RM	403553.266	LAT	28.310600	LON	279.461800
C3	-.883465	ECC	.985494	SLR	12994.399	RCA	6544.6650	LTA	-20.0008	GTA	20.00	TB	675.00000	POL	-.0
NBX	.381026	NSY	-.319297	NSZ	-.428452	C3M	1.5559	VIM	2.6824	ZAE	142.254	B.T	.0000	B.R	-.0000
LATE	4.9922	LONE	2.7648	LATS	-1.3435	LONS	191.8569	LATI	-.3030	LONI	325.3456	RSM	146.6255	TTAN	6.5094

LAUNCH DATE JAN 18.1966 BASE AZM 102.0 TF 63.490 ARRIVAL DATE JAN 20 1966 20 4 23.0

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	4 19 16.0	28.1	20.03	306.14	4.57	130.91	112.90	4 30 31.0	6555.0	10.99	2.27

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW														
INJECTION	.00	11.25	18	4	30.5												
SEPARATION	1.20	12.45	18	4	31.7												
RETRO	3.20	14.45	18	4	33.7												
RISE 72	4.56	15.81	18	4	35.1	82.51	-.1834	43.24	.0205	2875.1	-7.63	-.01	.1273	313.76	.0454	8.99	328.18
EXIT SHA	8.79	20.04	18	4	39.3												
EXIT 72	8.79	20.04	18	4	39.3	9.20	-.2842	27.21	-.1787	1767.6	.63	53.77	.2400	346.07	.3309	-.50	343.84
EXTM 72	10.59	21.84	18	4	41.1	345.26	-.1658	8.63	-.1477	2076.3	4.70	67.89	-.0000	41.94	.5862	-3.89	349.27
RISE 51	11.08	22.33	18	4	41.6	78.91	-.0868	21.75	-.0384	5580.1	-2.97	.00	.0893	294.29	.0037	-4.75	350.65
EXTM 51	35.87	47.12	18	5	6.4	1.87	-.0195	-22.92	-.0087	9992.3	5.27	86.70	.0167	328.47	.1907	-24.02	26.53
EXTM 72	69.52	80.77	18	5	40.0	292.37	.0001	-30 3	-.0006	23278.9	4.79	23.24	.0000	119.89	.0006	-28.69	38.72
RISE 61	124.50	135.75	18	6	35.0	310.47	.0021	-37.49	.0005	40067.1	3.85	-.00	.0014	142.87	.0010	-29.98	39.23
EXTM 51	212.13	223.38	18	8	2.6	.19	.0032	-30.45	.0001	53169.6	3.32	85.28	-.0000	181.96	.0333	-29.95	27.52
EXTM 61	391.14	402.39	18	11	1.7	4.17	.0038	-33.07	.0002	89349.4	2.69	16.59	.0000	183.64	.0034	-29.24	351.84
EXTM 72	422.31	433.56	18	11	32.8	.71	.0040	-30.59	.0001	90412.8	2.62	67.30	-.0000	181.58	.0089	-29.13	345.02
RISE 11	594.49	605.74	18	14	25.0	294.68	.0040	-30.61	.0000	121466.1	2.03	.00	.0026	128.55	.0023	-28.57	305.94
SET 51	617.07	628.32	18	14	47.6	90.00	.0038	-27.41	.0001	123304.9	2.62	11.53	-.0032	244.96	-.0013	-28.51	300.69
SET 61	628.42	639.67	18	14	58.9	59.88	.0039	-30.67	.0002	126118.6	2.50	-.00	-.0021	228.07	.0026	-28.48	298.04
SET 72	814.00	825.25	18	18	4.5	94.18	.0039	-27.68	.0001	150062.3	2.43	-.00	-.0034	242.03	-.0004	-28.03	254.21
RISE 42	823.99	835.24	18	18	14.5	294.99	.0040	-26.56	-.0000	150850.9	1.73	3.93	.0028	120.00	-.0021	-28.01	251.83
EXTM 11	864.83	876.08	18	18	55.3	1.13	.0041	-30.05	.0001	153596.2	2.00	24.74	-.0000	181.07	.0040	-27.93	242.07
SET 11	1132.00	1143.25	18	23	22.5	67.23	.0041	-28.75	.0001	186626.7	2.09	-.00	-.0026	233.94	.0024	-27.45	177.58
EXTM 42	1249.25	1260.50	19	1	19.8	359.93	.0042	-27.01	.0000	192831.8	1.73	81.79	.0000	.43	-.0252	-27.27	149.05
RISE 51	1384.70	1395.95	19	3	35.2	270.00	.0041	-26.44	-.0000	211570.5	1.29	11.14	.0034	114.13	-.0014	-27.09	115.95
RISE 72	1539.94	1551.19	19	6	10.5	266.00	.0041	-26.67	-.0000	227900.8	1.18	-.01	.0036	116.95	-.0005	-26.90	77.90
RISE 61	1621.40	1632.65	19	7	31.9	296.68	.0041	-27.95	-.0000	235567.8	1.27	.00	.0025	127.88	.0027	-26.81	87.89
SET 42	1672.49	1683.74	19	8	23.0	105.00	.0041	-25.84	.0000	239904.7	1.86	3.50	-.0029	240.57	-.0022	-26.76	45.32
EXTM 51	1742.58	1753.83	19	9	33.1	359.61	.0042	-26.71	.0000	240383.6	1.50	88.97	.0013	160.11	.1954	-26.69	28.07
EXTM 61	1875.45	1886.70	19	11	46.0	.44	.0042	-27.87	.0000	256114.6	1.46	21.89	-.0000	180.42	.0040	-26.56	355.32
EXTM 72	1915.07	1926.32	19	12	25.6	.13	.0042	-26.98	.0000	255969.0	1.44	70.93	-.0000	180.37	.0114	-26.52	345.94
RISE 11	2056.18	2067.43	19	14	46.7	291.33	.0042	-27.26	-.0000	273960.6	1.09	.00	.0028	124.10	.0024	-26.40	310.69
SET 51	2103.47	2114.72	19	15	34.0	90.00	.0041	-25.85	.0000	276706.1	1.76	10.91	-.0034	246.42	-.0015	-26.36	299.00
SET 61	2129.25	2140.50	19	15	59.8	64.12	.0042	-27.29	.0000	280047.5	1.66	-.00	-.0025	233.09	.0027	-26.34	292.63
SET 72	2288.77	2300.02	19	18	39.3	93.89	.0041	-26.03	.0001	293015.6	1.74	-.00	-.0037	243.71	-.0005	-26.21	253.16
RISE 42	2289.87	2301.12	19	18	40.4	295.00	.0041	-25.45	-.0000	292741.2	1.01	3.26	.0029	119.12	-.0023	-26.21	252.89
EXTM 11	2330.35	2341.60	19	19	20.9	.30	.0042	-27.27	.0000	293398.5	1.32	27.52	-.0000	180.30	.0042	-26.18	242.86
SET 11	2604.36	2615.61	19	23	54.9	69.18	.0042	-26.73	.0000	317503.7	1.57	-.00	-.0028	236.60	.0024	-25.99	174.94
EXTM 42	2708.93	2720.18	20	1	39.4	359.98	.0042	-25.73	.0000	319083.5	1.23	80.51	-.0000	.15	-.0152	-25.92	149.00
RISE 51	2839.45	2850.70	20	3	50.0	270.00	.0041	-25.41	-.0000	333662.1	.83	10.74	.0034	113.17	-.0019	-25.84	116.60
RISE 72	2993.50	3004.75	20	6	24.0	266.18	.0041	-25.59	-.0000	345840.6	.76	-.00	.0037	115.85	-.0005	-25.75	78.33
RISE 61	3067.02	3078.27	20	7	37.5	294.90	.0042	-26.46	-.0000	351200.5	.83	.00	.0026	125.70	.0027	-25.70	60.05
SET 42	3127.77	3139.02	20	8	36.3	105.00	.0041	-25.05	.0000	354929.5	1.45	3.02	-.0030	241.19	-.0023	-25.68	44.88
EXTM 51	3191.49	3202.74	20	9	42.0	358.70	.0042	-25.65	.0000	353190.1	1.10	88.82	.0038	86.13	-.0146	-25.66	28.97
EXTM 61	3325.08	3336.33	20	11	55.6	.16	.0042	-26.52	.0000	365842.9	1.10	23.24	-.0000	180.16	.0041	-25.61	355.99
EXTM 72	3365.09	3376.34	20	12	35.6	.08	.0042	-25.90	.0000	364969.0	1.10	72.01	-.0000	180.23	.0120	-25.59	345.60
RISE 11	3499.26	3510.51	20	14	49.8	290.29	.0042	-26.17	-.0000	379831.3	.79	.00	.0029	122.67	.0024	-25.55	312.05
SET 51	3552.86	3564.11	20	15	43.4	90.00	.0042	-25.16	.0000	382208.4	1.49	10.64	-.0035	247.07	-.0015	-25.53	298.64
SET 61	3582.98	3594.23	20	16	13.5	65.39	.0042	-26.21	.0000	385392.5	1.41	.00	-.0026	234.66	.0027	-25.52	291.09
RISE 42	3734.16	3745.41	20	18	44.7	295.00	.0042	-24.92	-.0000	395521.1	.90	2.94	.0030	118.70	-.0023	-25.48	253.17
SET 72	3735.22	3746.47	20	18	45.7	93.77	.0042	-25.35	.0000	395925.4	1.65	-.00	-.0037	244.39	-.0005	-25.48	252.91
EXTM 11	3774.16	3785.41	20	19	24.7	.06	.0043	-26.28	.0000	395897.4	1.37	28.51	.0000	180.06	.0044	-25.48	243.09
IMPACT	3809.42	3820.67	20	19	59.9												
IMPC 42	3809.42	3820.67	20	19	59.9	274.04	.0043	-25.03	-.0000	400352.1	1.70	17.22	.0034	108.86	-.0021	-25.48	234.12
IMPC 11	3809.42	3820.67	20	19	59.9	9.16	.0044	-26.27	.0000	399262.2	2.11	27.92	-.0006	189.30	.0044	-25.48	234.12

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	18	4	30.517	6555.070	20.0271	306.1478	10.98798	2.2700	112.9013	130.9169
SEPARATION	1.20	12.45	18	4	31.717	6609.776	17.2399	312.4582	10.94197	5.6751	115.0165	137.5281
RETRO	3.20	14.45	18	4	33.717	6801.048	12.3301	322.1890	10.78585	11.1942	117.6365	147.7602
EXIT SHA	8.79	20.04	18	4	39.307	7873.718	-.9011	343.8408	10.01826	24.1636	120.0594	170.8134
IMPACT	3809.42	3820.67	20	19	59.933	402284.809	-25.4753	234.1224	2.21056	67.9965	287.9131	293.8524

SURVEYOR VIEW PERIODS

GHA 118.9259 EPS 170.3194 LOM 230.2086

SX .364553 SY -.825904 SZ -.430097 DAO -25.47372 RAO 293.81659 RM 403567.523 LAT 28.310600 LON 279.461800

C3 -.886579 ECC .985443 SLR 12994.067 RCA 6544.6650 LTA -20.0000 GTA 20.00 TB 675.00000 POL -.0

NSX .382530 NSY -.818676 NSZ -.428301 C3M 1.5557 VIM 2.6823 ZAE 142.152 B.T .0000 B.R -.0000

LATE 4.9992 LONE 2.6395 LATS -1.3436 LONS 191.6473 LATI -.5930 LONI 325.1634 RSM 146.8255 TTAN 6.5097

LAUNCH DATE JAN 18,1966 BASE AZM 105.0 TF 63.542 ARRIVAL DATE JAN 20 1966 20 15 24.0

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	4 27 6.8	28.1	18.92	305.64	6.21	132.38	115.00	4 38 21.8	6563.8	10.98	3.08

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	18	4	38.4												
SEPARATION	1.20	12.45	18	4	39.6												
RETRO	3.20	14.45	18	4	41.6												
RISE 72	4.42	15.67	18	4	42.8	83.75	-.1659	38.13	.0006	2932.5	-7.70	-.00	.1284	308.56	.0234	7.64	326.43
EXIT SHA	8.51	19.76	18	4	46.9												
EXIT 72	8.51	19.76	18	4	46.9	21.49	-.2826	21.06	-.1656	1761.1	-.20	54.17	.2934	324.28	.1783	-1.78	341.28
EXTM 72	10.56	21.81	18	4	48.9	353.02	-.1770	1.15	-.1354	2060.2	4.60	78.58	-.0000	37.84	1.1254	-5.71	347.38
RISE 51	11.06	22.31	18	4	49.4	80.82	-.0816	18.32	-.0411	5691.7	-2.80	.00	.0877	290.42	-.0011	-6.58	348.76
EXTM 51	40.33	51.58	18	5	18.7	.66	-.0152	-27.24	-.0054	11493.4	5.24	88.39	.0000	201.52	-.5193	-26.70	27.26
EXTM 72	70.33	81.58	18	5	48.7	294.45	.0000	-32.22	-.0003	23446.0	4.77	24.85	-.0000	121.93	.0004	-29.99	36.85
EXTM 51	92.84	104.09	18	6	11.2	346.45	.0001	-31.73	-.0002	26568.9	4.32	76.71	.0000	119.93	.0009	-30.69	38.50
RISE 61	124.35	135.60	18	6	42.7	312.45	.0020	-38.58	.0006	40097.0	3.84	-.00	.0014	144.77	.0010	-30.96	37.39
EXTM 51	202.05	213.30	18	8	.4	.32	.0031	-31.38	.0001	51206.1	3.38	84.35	.0000	182.76	.0268	-30.75	27.40
EXTM 61	385.07	396.32	18	11	3.4	4.47	.0038	-33.67	.0002	88470.8	2.71	15.96	-.0000	184.04	.0033	-29.80	351.37
EXTM 72	415.07	426.32	18	11	33.4	.91	.0040	-31.18	.0001	89334.7	2.63	66.71	-.0000	181.97	.0086	-29.66	344.83
RISE 11	588.88	600.13	18	14	27.2	295.14	.0040	-31.05	.0000	120711.8	2.03	.00	.0025	129.14	.0023	-28.99	305.46
SET 51	609.25	620.50	18	14	47.6	90.00	.0038	-27.82	.0001	[illegible]240.4	2.63	11.69	-.0032	244.57	-.0012	-28.92	300.73
SET 61	618.12	629.37	18	14	56.5	59.28	.0039	-31.12	.0001	[illegible]40.4	2.51	-.00	-.0021	227.39	.0026	-28.90	298.66
SET 72	806.64	817.89	18	18	5.0	94.24	.0039	-28.01	.0001	168.5	2.44	-.01	-.0034	241.70	-.0004	-28.36	254.18
RISE 42	816.56	827.81	18	18	14.9	254.99	.0040	-26.87	-.0000	149931.7	1.73	4.13	-.0028	120.25	-.0021	-28.34	251.81
EXTM 11	857.78	869.03	18	18	56.1	1.24	.0041	-30.38	.0001	152793.0	2.01	24.41	-.0000	181.17	.0039	-28.24	241.96
SET 11	1123.48	1134.73	18	23	21.8	66.98	.0041	-29.00	.0001	185703.2	2.10	-.00	-.0026	233.61	.0024	-27.69	177.84
EXTM 42	1241.80	1253.05	19	1	20.2	359.93	.0042	-27.24	.0000	192046.3	1.73	82.02	.0000	.48	-.0261	-27.49	149.05
RISE 51	1377.32	1388.57	19	3	35.7	270.00	.0041	-26.63	-.0000	210811.8	1.30	11.22	.0034	114.31	-.0014	-27.29	115.94
RISE 72	1532.44	1543.69	19	6	10.8	265.97	.0041	-26.84	-.0000	227162.8	1.19	-.01	.0036	117.12	-.0005	-27.07	77.92
RISE 61	1614.80	1626.05	19	7	33.2	296.88	.0041	-28.11	-.0000	234924.8	1.28	.00	.0025	128.12	.0027	-26.97	57.69
SET 42	1665.05	1676.30	19	8	23.4	105.00	.0041	-25.99	.0001	239180.0	1.86	3.59	-.0029	240.46	-.0022	-26.91	45.33
EXTM 51	1733.57	1744.82	19	9	31.9	359.21	.0042	-26.86	.0000	239536.9	1.50	88.67	.0020	147.72	.1362	-26.83	28.46
EXTM 61	1868.17	1879.42	19	11	46.5	.48	.0042	-28.00	.0000	255450.0	1.46	21.76	-.0000	180.45	.0040	-26.68	355.28
EXTM 72	1907.69	1918.94	19	12	26.1	.14	.0042	-27.10	.0000	255290.1	1.45	70.80	-.0000	180.39	.0114	-26.64	345.53
RISE 11	2049.19	2060.44	19	14	47.6	291.43	.0042	-27.38	-.0000	273322.3	1.09	.00	.0028	124.25	.0024	-26.50	310.58
SET 51	2096.02	2107.27	19	15	34.4	90.00	.0041	-25.95	.0001	276028.5	1.76	10.95	-.0034	246.33	-.0015	-26.46	299.01
SET 61	2121.31	2132.56	19	15	59.7	64.00	.0042	-27.39	.0000	279335.2	1.66	-.00	-.0025	232.94	.0027	-26.44	292.76
SET 72	2281.38	2292.63	19	18	39.7	93.90	.0041	-26.11	.0001	292359.5	1.74	-.00	-.0037	243.62	-.0005	-26.30	253.15
RISE 42	2282.44	2293.69	19	18	40.8	255.00	.0041	-25.54	-.0000	292077.0	1.01	3.31	.0029	119.19	-.0023	-26.29	252.88
EXTM 11	2323.01	2334.26	19	19	21.4	.32	.0042	-27.36	.0000	292757.5	1.32	27.43	-.0000	180.32	.0042	-26.26	242.84
SET 11	2596.65	2607.90	19	23	55.0	69.12	.0042	-26.79	.0000	316840.6	1.57	-.00	-.0028	236.51	.0024	-26.05	175.01
EXTM 42	2701.43	2712.68	20	1	39.8	359.97	.0042	-25.79	.0000	318439.3	1.23	80.57	-.0000	.19	-.0181	-25.97	149.01
RISE 51	2831.99	2843.24	20	3	50.4	270.00	.0041	-25.46	-.0000	333024.5	.83	10.76	.0034	113.21	-.0015	-25.88	116.59
RISE 72	2986.02	2997.27	20	6	24.4	266.18	.0041	-25.62	-.0000	345206.8	.76	-.00	.0037	115.89	-.0005	-25.78	78.33
RISE 61	3059.70	3070.95	20	7	38.1	294.94	.0042	-26.49	-.0000	350581.4	.83	.00	.0026	125.75	.0027	-25.73	60.01
SET 42	3120.29	3131.54	20	8	38.7	105.00	.0041	-25.08	.0000	354295.9	1.45	3.04	-.0030	241.17	-.0023	-25.71	44.98
EXTM 51	3184.01	3195.26	20	9	42.4	358.69	.0042	-25.68	.0000	352556.0	1.10	88.82	.0038	87.32	-.0108	-25.68	28.97
EXTM 61	3317.67	3328.92	20	11	56.0	.17	.0042	-26.54	.0000	365208.7	1.10	23.23	-.0000	180.17	.0041	-25.62	355.56
EXTM 72	3357.64	3368.89	20	12	36.0	.08	.0042	-25.91	.0000	364328.0	1.10	71.99	-.0000	180.24	.0121	-25.61	345.59
RISE 11	3491.84	3503.09	20	14	50.2	290.30	.0042	-26.18	-.0000	379178.6	.78	.00	.0029	122.68	.0024	-25.56	312.04
SET 51	3545.39	3556.64	20	15	43.8	90.00	.0042	-25.17	.0000	381543.9	1.49	10.64	-.0035	247.06	-.0015	-25.54	298.64
SET 61	3575.50	3586.75	20	16	13.9	65.38	.0042	-26.21	.0000	384720.3	1.40	.00	-.0026	234.65	.0027	-25.53	291.10
RISE 42	3726.76	3738.01	20	18	45.1	255.00	.0042	-24.92	-.0000	394775.9	.88	2.94	.0030	118.70	-.0023	-25.48	253.17
SET 72	3727.80	3739.05	20	18	46.2	93.77	.0042	-25.34	.0000	395177.8	1.63	-.00	-.0037	244.40	-.0005	-25.48	252.91
EXTM 11	3766.90	3778.15	20	19	25.3	.09	.0043	-26.28	.0000	395085.9	1.32	28.52	.0000	180.09	.0043	-25.47	243.07
IMPACT	3812.51	3823.76	20	20	10.9												
IMPC 42	3812.51	3823.76	20	20	10.9	276.68	.0043	-25.03	-.0000	400150.9	1.70	19.28	.0034	107.56	-.0021	-25.47	231.48
IMPC 11	3812.51	3823.76	20	20	10.9	11.84	.0044	-26.26	.0000	399315.4	2.12	27.52	-.0007	191.97	.0043	-25.47	231.48

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	18	4	38.363	6563.946	18.9112	305.6528	10.98047	3.0831	115.0016	132.3888
SEPARATION	1.20	12.45	18	4	39.563	6629.548	15.9227	311.7766	10.92537	6.4733	116.9274	138.8133
RETRO	3.20	14.45	18	4	41.563	6837.839	10.7570	321.1997	10.75643	11.9058	119.2250	148.7378
EXIT SHA	8.51	19.76	18	4	46.869	7873.847	-1.7785	341.2840	10.01802	24.1642	120.9310	170.1522
IMPACT	3812.51	3823.76	20	20	10.874	402299.652	-25.4667	231.4804	2.20950	67.9503	268.4858	293.9530

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SURVEYOR VIEW PERIGOS

GHA	118.9259					EPS	170.3874						LOM	227.8038	
SX	.365897	SY	-.825380	SZ	-.429962	DAO	-25.46518	RAO	293.90805	RM	403580.379	LAT	28.310600	LON	279.461800
C3	-.890415	ECC	.985380	SLR	12993.654	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.383897	NSY	-.818106	NSZ	-.428164	C3M	1.5555	VIM	2.6823	ZAE	142.024	B.T	.0000	B.R	-.0000
LATE	5.0055	LONE	2.7226	LATS	-1.3437	LONS	191.6542	LATI	-.9110	LONI	329.1683	RSM	146.8255	TTAN	6.5107

LAUNCH DATE JAN 18,1966 BASE AZM 108.0 TF 63.604 ARRIVAL DATE JAN 20 1966 20 25 21,5

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	4 33 25.4	28.1	17.83	305.09	7.50	133.41	117.09	4 44 40.4	6572.6	10.97	3.72

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	18	4	44.7												
SEPARATION	1.20	12.45	18	4	45.9												
RETRO	3.20	14.45	18	4	47.9												
RISE 72	4.33	15.58	18	4	49.0	84.76	-.1522	33.32	-.0182	2985.8	-7.67	.00	.1284	303.68	.0030	6.22	324.88
EXIT SHA	8.29	19.54	18	4	53.0												
EXIT 72	8.29	19.54	18	4	53.0	31.42	-.2661	14.10	-.1592	1803.9	-.78	51.84	.3031	305.09	.0141	-3.19	339.01
EXTM 72	10.04	21.29	18	4	54.7	6.10	-.2062	-2.60	-.1410	1965.4	3.60	81.94	.2478	310.77	.2151	-6.66	344.22
RISE 51	11.08	22.33	18	4	55.7	82.60	-.0771	14.95	-.0437	5791.1	-2.64	.00	.0862	286.64	-.0056	-8.51	347.04
EXTM 51	42.41	53.66	18	5	27.1	1.68	-.0141	-30.34	.0040	12228.5	5.20	85.17	-.0300	197.48	-.1522	-28.76	26.60
EXTM 72	71.32	82.57	18	5	56.0	296.10	.0000	-34.00	-.0001	23688.2	4.74	25.99	.0000	124.08	.0001	-31.41	39.37
EXTM 51	93.30	104.55	18	6	18.0	348.34	.0000	-33.30	-.0000	26730.1	4.31	77.37	.0000	129.45	.0001	-31.93	36.97
RISE 61	127.74	138.99	18	6	52.4	314.42	.0021	-39.60	.0007	40958.3	3.80	-.00	.0014	146.61	.0010	-32.04	35.65
EXTM 51	194.53	205.78	18	7	59.2	.53	.0030	-32.42	.0002	49724.7	3.42	83.30	.0000	183.86	.0218	-31.66	27.22
EXTM 61	380.98	392.23	18	11	5.7	5.20	.0038	-34.32	.0062	87902.8	2.72	15.28	.0000	184.45	.0033	-30.41	350.88
EXTM 72	409.20	420.45	18	11	33.9	1.00	.0040	-31.82	.0001	88457.5	2.64	66.06	.0000	182.10	.0083	-30.25	344.74
RISE 11	585.14	596.39	18	14	29.8	295.65	.0040	-31.52	.0000	120206.1	2.04	.00	.0025	129.79	.0023	-29.45	304.94
SET 51	603.14	614.39	18	14	47.8	90.00	.0038	-28.27	.0001	121394.6	2.63	11.87	-.0031	244.15	-.0012	-29.38	300.76
SET 61	609.23	620.48	18	14	53.9	58.61	.0039	-31.61	.0002	123536.2	2.51	-.00	-.0029	226.63	.0026	-29.35	299.35
SET 72	800.95	812.20	18	18	5.6	94.31	.0039	-28.37	.0001	148467.9	2.44	-.01	-.0034	241.33	-.0004	-28.72	254.14
RISE 42	810.77	822.02	18	18	15.4	294.99	.0040	-27.23	-.0000	149197.4	1.74	4.35	.0028	120.53	-.0021	-28.70	251.79
EXTM 11	852.42	863.67	18	18	57.1	1.36	.0041	-30.73	.0001	152180.9	2.01	24.05	.0000	181.28	.0039	-28.58	241.84
SET 11	1116.47	1127.72	18	23	21.1	66.70	.0041	-29.28	.0001	184926.3	2.10	-.00	-.0026	233.23	.0024	-27.96	178.13
EXTM 42	1236.00	1247.25	19	1	20.7	359.94	.0042	-27.48	.0000	191417.0	1.73	82.26	-.0000	.44	-.0262	-27.73	149.04
RISE 51	1371.52	1382.77	19	3	36.2	270.00	.0041	-26.84	-.0000	210192.8	1.30	11.30	.0034	114.51	-.0014	-27.50	118.94
RISE 72	1526.49	1537.74	19	6	11.2	265.93	.0041	-27.02	-.0000	226555.1	1.19	-.01	.0036	117.31	-.0005	-27.26	77.95
RISE 61	1609.84	1621.09	19	7	34.5	297.10	.0041	-28.29	-.0000	234416.6	1.28	.00	.0025	128.38	.0027	-27.14	57.47
SET 42	1659.18	1670.43	19	8	23.8	105.00	.0041	-26.15	.0001	238579.1	1.86	3.69	-.0029	240.32	-.0022	-27.08	45.33
EXTM 51	1727.05	1738.30	19	9	31.7	359.04	.0042	-27.02	.0000	238894.0	1.50	88.45	.0021	146.27	.1147	-26.99	28.62
EXTM 61	1862.46	1873.71	19	11	47.1	.52	.0042	-28.14	.0000	254903.3	1.46	21.62	.0000	180.49	.0040	-26.82	355.24
EXTM 72	1901.86	1913.11	19	12	26.5	.16	.0042	-27.24	.0000	254725.4	1.45	70.66	-.0000	180.42	.0113	-26.78	345.52
RISE 11	2043.79	2055.04	19	14	48.5	291.55	.0042	-27.50	-.0000	272795.0	1.09	.00	.0028	124.41	.0024	-26.62	310.47
SET 51	2090.12	2101.37	19	15	34.8	90.00	.0041	-26.07	.0001	275455.9	1.76	11.00	-.0034	246.22	-.0014	-26.57	299.01
SET 61	2114.85	2126.10	19	15	59.5	63.86	.0042	-27.51	.0001	278722.7	1.66	-.00	-.0025	232.77	.0027	-26.55	292.90
SET 72	2275.93	2286.78	19	18	40.2	93.92	.0041	-26.21	.0001	291802.1	1.74	-.00	-.0037	243.52	-.0005	-26.39	253.13
RISE 42	2276.55	2287.80	19	18	41.2	255.00	.0041	-25.63	-.0000	291510.0	1.01	3.37	.0029	119.26	-.0023	-26.39	252.88
EXTM 11	2317.21	2328.46	19	19	21.9	.35	.0042	-27.45	.0000	292214.5	1.32	27.34	-.0000	180.35	.0042	-26.35	242.81
SET 11	2590.45	2601.70	19	23	55.1	69.06	.0042	-26.87	.0000	316261.9	1.57	-.00	-.0028	236.42	.0024	-26.12	178.08
EXTM 42	2695.46	2706.71	20	1	40.1	359.96	.0042	-25.85	.0000	317877.7	1.23	80.63	.0000	.24	-.0203	-26.03	149.02
RISE 51	2826.06	2837.31	20	3	50.7	.00	.0041	-25.51	-.0000	332465.2	.83	10.78	.0034	113.26	-.0015	-25.93	116.59
RISE 72	2980.05	2991.30	20	6	24.7	266.17	.0041	-25.66	-.0000	344646.6	.76	-.00	.0037	115.93	-.0009	-25.82	78.34
RISE 61	3053.92	3065.17	20	7	38.6	294.98	.0042	-26.52	-.0000	350034.7	.83	.00	.0026	125.80	.0027	-25.77	59.97
SET 42	3114.33	3125.58	20	8	39.0	105.00	.0041	-25.11	.0000	353731.9	1.45	3.05	-.0030	241.15	-.0023	-25.74	44.88
EXTM 51	3178.05	3189.30	20	9	42.7	358.69	.0042	-25.71	.0000	351990.6	1.10	88.82	.0038	88.72	-.0063	-25.71	28.97
EXTM 61	3311.78	3323.03	20	11	56.5	.19	.0042	-26.56	.0000	364641.3	1.10	23.20	-.0000	180.19	.0041	-25.65	355.56
EXTM 72	3351.70	3362.95	20	12	36.4	.09	.0042	-25.93	.0000	363752.7	1.10	71.97	-.0000	180.26	.0120	-25.63	345.59
RISE 11	3485.94	3497.19	20	14	50.6	290.31	.0042	-26.19	-.0000	378590.7	.78	.00	.0029	122.70	.0024	-25.57	312.02
SET 51	3539.44	3550.69	20	15	44.1	90.00	.0042	-25.17	.0000	380943.1	1.48	10.64	-.0035	247.05	-.0015	-25.55	298.64
SET 61	3569.51	3580.76	20	16	14.2	65.37	.0042	-26.22	.0000	384111.4	1.40	.00	-.0026	234.63	.0027	-25.54	291.11
RISE 42	3720.85	3732.10	20	18	45.5	255.00	.0042	-24.92	-.0000	394105.0	.86	2.93	.0030	118.70	-.0023	-25.48	253.17
SET 72	3721.88	3733.13	20	18	46.6	93.77	.0042	-25.34	.0000	394505.0	1.61	-.00	-.0037	244.40	-.0005	-25.48	252.91
EXTM 11	3761.11	3772.36	20	19	25.8	.11	.0043	-26.28	.0000	394366.0	1.28	28.52	.0000	180.11	.0044	-25.47	243.04
IMPACT	3816.25	3827.50	20	20	20.9												
IMPC 42	3816.25	3827.50	20	20	20.9	279.12	.0043	-25.04	-.0000	399967.4	1.70	21.18	.0034	106.38	-.0021	-25.46	229.05
IMPC 11	3816.25	3827.50	20	20	20.9	14.30	.0044	-26.25	.0000	399373.4	2.13	27.07	-.0009	194.41	.0043	-25.46	229.05

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	18	4	44.674	6572.930	17.8169	305.1083	10.97284	3.7246	117.0948	133.4263
SEPARATION	1.20	12.45	18	4	45.874	6646.997	14.6330	311.0455	10.91075	7.1010	118.8406	139.6643
RETRO	3.20	14.45	18	4	47.874	6868.532	9.2117	320.1773	10.73201	12.4945	120.8374	149.2975
EXIT SHA	8.29	19.54	18	4	52.963	7879.925	-3.1854	339.0109	10.01649	24.1805	121.9117	169.4069
IMPACT	3816.25	3827.50	20	20	20.924	402313.648	-25.4589	229.0536	2.20822	67.8828	269.1188	294.0486

JAN 18, 1966
108 DEGREES

SURVEYOR VIEW PERIODS

GMA	118.9259					EPS	170.4516							LOM	225.5284
SX	.367167	SY	-.824882	SZ	-.429834	DAO	-25.45704	RAO	293.99456	RM	403592.512	LAT	28.310600	LON	279.461800
C3	-.894978	ECC	.985305	SLR	12993.165	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.385199	NSY	-.81/562	NSZ	-.428035	C3M	1.5554	VIM	2.6823	ZAE	141.868	B.T	.0000	B.R	-.0000
LATE	5.0115	LONE	2.6235	LATS	-1.3438	LONS	191.4829	LATI	-1.2476	LONI	324.9684	RSM	146.8255	TTAN	6.5128

LAUNCH DATE JAN 18,1966 BASE AZM 111.0 TF 63.678 ARRIVAL DATE JAN 20 1966 20 34 46.8

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	4 38 35.3	28.1	16.76	304.49	8.54	134.10	119.18	4 49 50.3	6580.9	10.97	4.24

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
PROBE IN EARTH'S SHADOW																	
INJECTION	.00	11.25	18	4	49.8												
SEPARATION	1.20	12.45	18	4	51.0												
RETRO	3.20	14.45	18	4	53.0												
RISE 72	4.28	15.53	18	4	54.1	85.64	-.1408	28.70	-.0358	3038.1	-7.55	.00	.1276	299.00	-.0160	4.72	323.50
EXIT SHA	8.12	19.37	18	4	58.0												
EXIT 72	8.12	19.37	18	4	58.0	39.62	-.2440	7.17	-.1575	1887.9	-1.13	47.72	.2815	289.88	-.0959	-4.67	336.92
EXTM 72	10.76	22.01	18	5	.6	4.63	-.1804	-15.56	-.1051	2216.6	4.68	81.10	-.0000	210.21	-1.3135	-9.88	344.50
RISE 51	11.12	22.37	18	5	1.0	84.31	-.0730	11.63	-.0463	5884.1	-2.47	.00	.0846	282.93	-.0098	-10.51	345.44
EXTM 51	44.82	56.07	18	5	34.7	2.16	-.0129	-33.39	-.0028	13055.8	5.15	82.12	-.0000	193.28	-.0811	-30.69	26.27
EXTM 72	71.75	83.00	18	6	1.6	297.39	-.0000	-35.84	.0002	23792.3	4.73	26.74	.0000	126.30	-.0002	-32.90	34.09
EXTM 51	92.39	103.64	18	6	22.2	349.87	-.0002	-34.96	.0002	26540.7	4.32	77.31	.0000	138.97	-.0009	-33.24	35.71
RISE 61	133.57	144.82	18	7	3.4	316.38	.0022	-40.55	.0007	42372.4	3.74	-.00	.0015	148.38	.0011	-33.15	34.01
EXTM 51	189.40	200.65	18	7	59.2	.86	.0029	-33.54	.0003	48714.8	3.45	82.16	.0000	185.27	.0180	-32.64	26.93
EXTM 61	378.43	389.68	18	11	8.3	5.75	.0038	-35.00	.0002	87579.2	2.72	14.58	.0000	184.86	.0032	-31.06	350.37
EXTM 72	405.09	416.34	18	11	34.9	1.18	.0040	-32.51	.0002	87850.2	2.65	65.37	.0000	182.40	.0080	-30.88	344.58
RISE 11	582.85	594.10	18	14	32.7	296.19	.0040	-32.02	.0000	119892.5	2.04	.00	.0025	130.47	.0023	-29.93	304.39
SET 51	598.36	609.61	18	14	48.2	90.00	.0038	-28.76	.0001	120718.8	2.64	12.06	-.0031	243.70	-.0012	-29.86	300.79
SET 61	601.41	612.66	18	14	51.2	57.89	.0039	-32.14	.0002	122464.8	2.52	-.00	-.0020	225.83	.0027	-29.85	300.08
SET 72	796.55	807.80	18	18	6.4	94.38	.0039	-28.75	.0001	147915.6	2.44	-.01	-.0034	240.95	-.0004	-29.11	254.09
RISE 42	806.24	817.49	18	18	16.1	254.99	.0040	-27.60	-.0000	148605.1	1.75	4.58	.0028	120.83	-.0021	-29.08	251.78
EXTM 11	848.34	859.59	18	18	58.2	1.49	.0041	-31.11	.0001	151715.1	2.01	23.67	.0000	181.39	.0039	-28.94	241.72
SET 11	1110.60	1121.85	18	23	20.4	66.40	.0041	-29.57	.0001	184260.5	2.10	-.00	-.0026	232.84	.0024	-28.25	178.44
EXTM 42	1231.31	1242.56	19	1	21.2	359.92	.0042	-27.75	.0000	190888.5	1.74	82.53	.0000	.57	-.0277	-27.99	149.06
RISE 51	1366.91	1378.16	19	3	36.8	270.00	.0041	-27.07	-.0000	209678.3	1.30	11.39	.0034	114.72	-.0014	-27.73	115.93
RISE 72	1521.73	1532.93	19	6	11.6	265.90	.0041	-27.22	-.0000	226044.1	1.19	-.01	.0036	117.51	-.0005	-27.46	77.97
RISE 61	1606.12	1617.37	19	7	36.0	297.33	.0042	-28.48	-.0000	234007.9	1.28	.00	.0025	128.66	.0027	-27.33	57.23
SET 42	1654.49	1665.74	19	8	24.3	105.00	.0041	-26.33	.0001	238069.7	1.86	3.80	-.0029	240.18	-.0022	-27.26	45.34
EXTM 51	1721.46	1732.71	19	9	31.3	358.81	.0042	-27.20	.0000	238318.4	1.50	88.19	.0023	143.98	.0951	-27.16	28.85
EXTM 61	1857.94	1869.19	19	11	47.8	.56	.0042	-28.30	.0000	254442.3	1.46	21.46	.0000	180.53	.0040	-26.97	355.20
EXTM 72	1897.21	1908.46	19	12	27.1	.17	.0042	-27.39	.0000	254243.8	1.45	70.51	-.0000	180.45	.0112	-26.92	345.51
RISE 11	2039.59	2050.84	19	14	49.4	291.67	.0042	-27.63	-.0000	272347.7	1.09	.00	.00.6	124.58	.0024	-26.75	310.34
SET 51	2085.38	2096.63	19	15	35.2	90.00	.0041	-26.19	.0001	274958.7	1.76	11.05	-.0034	246.11	-.0014	-26.70	299.02
SET 61	2109.53	2120.78	19	15	59.4	63.71	.0042	-27.63	.0001	278181.9	1.66	-.00	-.0025	232.59	.0027	-26.67	293.05
SET 72	2270.84	2282.09	19	18	40.7	93.94	.0041	-26.31	.0001	291314.7	1.74	-.00	-.0037	243.42	-.0005	-26.49	253.12
RISE 42	2271.83	2283.08	19	18	41.7	255.00	.0041	-25.73	-.0000	291012.1	1.01	3.43	.0029	119.34	-.0023	-26.49	252.88
EXTM 11	2312.58	2323.83	19	19	22.4	.38	.0042	-27.55	.0000	291741.0	1.32	27.24	-.0000	180.38	.0042	-26.45	242.78
SET 11	2585.38	2596.63	19	23	55.2	68.98	.0042	-26.94	.0000	315741.5	1.57	-.00	-.0028	236.32	.0024	-26.19	175.15
EXTM 42	2690.63	2701.88	20	1	40.5	359.95	.0042	-25.92	.0000	317372.6	1.23	80.70	.0000	.30	-.0217	-26.10	149.03
RISE 51	2821.28	2832.53	20	3	51.1	270.00	.0041	-25.56	-.0000	331958.6	.83	10.80	.0034	113.31	-.0015	-25.99	116.59
RISE 72	2975.22	2986.47	20	6	25.1	266.16	.0041	-25.71	-.0000	344134.7	.76	-.00	.0037	115.97	-.0005	-25.87	78.34
RISE 61	3049.35	3060.60	20	7	39.2	295.03	.0042	-26.57	-.0000	349323.6	.87	.00	.0026	125.86	.0027	-25.81	59.92
SET 42	3109.56	3120.81	20	8	39.4	105.00	.0041	-25.14	.0000	353249.4	1.44	3.07	-.0030	241.12	-.0023	-25.77	44.89
EXTM 51	3173.28	3184.53	20	9	43.1	358.69	.0042	-25.74	.0000	351503.4	1.10	88.82	.0038	90.14	-.0018	-25.74	28.97
EXTM 61	3307.07	3318.32	20	11	56.9	.21	.0042	-26.58	.0000	364143.7	1.10	23.18	-.0000	180.20	.0041	-25.67	355.55
EXTM 72	3346.94	3358.19	20	12	36.8	.09	.0042	-25.95	.0000	363245.0	1.10	71.95	-.0000	180.27	.0121	-25.65	345.58
RISE 11	3481.21	3492.46	20	14	51.1	290.32	.0042	-26.21	-.0000	378062.5	.78	.00	.0029	122.71	.0024	-25.58	312.01
SET 51	3534.64	3545.89	20	15	44.5	90.00	.0042	-25.18	.0000	380399.1	1.48	10.65	-.0035	247.04	-.0015	-25.56	298.64
SET 61	3564.64	3575.89	20	16	14.5	65.35	.0042	-26.23	.0000	383555.7	1.39	.00	-.0026	234.62	.0027	-25.54	291.13
RISE 42	3716.08	3727.33	20	18	45.9	255.00	.0042	-24.92	-.0000	393486.6	.85	2.94	.0030	118.70	-.0023	-25.48	253.17
SET 72	3717.10	3728.35	20	18	46.9	93.77	.0042	-25.34	.0000	393885.0	1.60	-.00	-.0037	244.40	-.0005	-25.48	252.91
EXTM 11	3756.42	3767.67	20	19	26.3	.13	.0043	-26.28	.0000	393705.5	1.25	28.52	.0000	180.13	.0043	-25.47	243.02
IMPACT	3820.67	3831.92	20	20	30.5												
IMPC 42	3820.67	3831.92	20	20	30.5	281.44	.0043	-25.04	-.0000	399795.7	1.69	23.01	.0034	105.26	-.0021	-25.45	226.74
IMPC 11	3820.67	3831.92	20	20	30.5	16.65	.0044	-26.23	.0000	399438.3	2.14	26.57	-.0010	196.70	.0042	-25.45	226.74

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	18	4	49.839	6581.420	16.7446	304.5199	10.96570	4.23.3	119.19.4	134.1327
SEPARATION	1.20	12.45	18	4	51.039	6662.145	13.3701	310.2718	10.89803	7.6026	120.7598	140.1854
RETRO	3.20	14.45	18	4	53.039	6894.172	7.6935	319.1246	10.71167	12.9631	122.4754	149.5395
EXIT SHA	8.12	19.37	18	4	57.956	7878.070	-4.6704	336.9209	10.01489	24.1972	122.9850	168.5685
IMPACT	3820.67	3831.92	20	20	30.511	402328.957	-25.4513	226.7389	2.20588	67.6990	269.7469	294.1342

SURVEYOR VIEW PERIODS

GHA	118.9259					EPS	170.5351							LOM	222.5624
SX	.368823	SY	-.824231	SZ	-.429666	DAO	-25.44636	RAO	294.10731	RM	403608.313	LAT	28.310600	LON	279.461800
C3	-.902176	ECC	.985187	SLR	12992.388	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.386905	NSY	-.816845	NSZ	-.427866	C3M	1.5555	VIM	2.6823	ZAE	141.617	B.T	.0000	B.R	-.0000
LATE	5.0193	LONE	2.7259	LATS	-1.3439	LONS	191.4913	LATI	-1.7138	LONI	324.8998	RSM	146.8255	TTAN	6.5168
LAUNCH DATE	JAN 18,1966.			BASE AZM	115.0		TF 63.794					ARRIVAL DATE	JAN 20 1966 20 47 3.7		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
115.00	4 44 10.6	28.1	15.37	303.63	9.63	134.65	121.96	4 55 25.6	6590.7	10.96	4.78

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	18	4	55.4												
SEPARATION	1.20	12.45	18	4	56.6												
RETRO	3.20	14.45	18	4	58.6												
RISE 72	4.27	15.52	18	4	59.7	86.66	-.1278	22.74	-.0575	3110.7	-7.24	-.00	.1251	292.97	-.0393	2.63	321.84
EXIT SHA	7.94	19.19	18	5	3.4												
EXIT 72	7.94	19.19	18	5	3.4	48.65	-.2131	-1.27	-.1578	2052.7	-1.32	41.03	.2360	275.24	-.1604	-6.72	334.32
EXTM 72	11.10	22.35	18	5	6.5	9.78	-.1745	-26.41	-.0845	2461.0	4.90	69.29	-.0000	305.48	-.5024	-13.06	343.15
RISE 51	11.22	22.47	18	5	6.6	86.49	-.0681	7.25	-.0495	6005.4	-2.23	-.01	.0824	278.05	-.0149	-13.28	343.45
EXTM 51	49.06	60.31	18	5	44.5	1.82	-.0109	-37.02	-.0012	14461.1	5.06	78.32	-.0000	147.15	-.0434	-33.79	26.47
EXTM 72	72.13	83.38	18	6	7.6	298.67	-.0001	-38.37	.0005	23906.3	4.71	27.26	.0000	129.30	-.0005	-34.97	32.72
EXTM 51	88.33	99.58	18	6	23.8	351.56	-.0007	-37.37	.0004	25549.8	4.37	76.34	.0000	150.42	-.0029	-35.11	34.26
RISE 61	143.75	155.00	18	7	19.2	318.94	.0024	-41.70	.0007	44766.5	3.64	-.00	.0015	150.63	.0012	-34.59	31.89
EXTM 51	186.00	197.25	18	8	1.4	1.49	.0029	-35.10	.0003	46065.6	3.47	80.56	-.0000	197.47	.0145	-34.00	26.38
EXTM 61	376.85	388.10	18	11	12.3	6.51	.0038	-35.92	.0003	87437.4	2.72	13.61	.0000	185.42	.0032	-31.95	349.66
EXTM 72	401.42	412.67	18	11	36.8	1.46	.0040	-33.45	.0002	87320.1	2.66	64.42	.0000	182.81	.0076	-31.76	344.33
RISE 11	581.52	592.77	18	14	36.9	296.95	.0040	-32.71	.0000	119701.3	2.05	.00	.0025	131.41	.0023	-30.60	303.62
SET 61	592.24	603.49	18	14	47.7	56.85	.0039	-32.87	.0002	121191.6	2.53	-.00	-.0020	224.68	.0027	-30.54	301.14
SET 51	593.55	604.80	18	14	49.0	90.00	.0038	-29.43	.0002	120020.5	2.64	12.32	-.0031	243.06	-.0012	-30.53	300.83
SET 72	792.21	803.46	18	18	7.6	94.47	.0039	-29.28	.0001	147352.9	2.45	-.00	-.0034	240.41	-.0004	-29.64	254.02
RISE 42	801.68	812.93	18	18	17.1	254.99	.0040	-28.13	-.0000	147982.1	1.75	4.90	.0028	121.25	-.0021	-29.61	251.76
EXTM 11	844.42	855.67	18	18	59.8	1.67	.0042	-31.63	.0001	151264.6	2.02	23.14	.0000	181.55	.0038	-29.45	241.54
SET 11	1104.11	1115.36	18	23	19.5	65.97	.0041	-29.99	.0001	183501.0	2.10	-.00	-.0026	232.29	.0024	-28.65	178.87
EXTM 42	1226.53	1237.78	19	1	22.0	359.91	.0042	-28.12	.0000	190318.7	1.74	82.90	.0000	.66	-.0292	-28.35	149.07
RISE 51	1362.18	1373.43	19	3	37.6	270.00	.0041	-27.39	-.0000	209110.8	1.30	11.52	.0034	115.02	-.0014	-28.04	115.92
RISE 72	1516.75	1528.00	19	6	12.2	265.85	.0041	-27.50	-.0000	225471.5	1.19	-.01	.0026	117.79	-.0005	-27.74	78.01
RISE 61	1602.61	1613.86	19	7	38.0	297.65	.0042	-28.74	.0000	233573.7	1.28	.00	.0025	129.04	.0027	-27.59	56.91
SET 42	1649.61	1660.86	19	8	25.0	105.00	.0041	-26.57	.0001	237492.0	1.86	3.95	-.0029	239.99	-.0022	-27.50	48.34
EXTM 51	1715.66	1726.91	19	9	31.1	358.57	.0042	-27.44	.0000	237675.3	1.50	87.87	.0023	143.34	.0797	-27.10	29.08
EXTM 61	1853.28	1864.53	19	11	48.7	.62	.0042	-28.51	.0000	253921.4	1.46	21.25	.0000	180.59	.0040	-27.18	355.14
EXTM 72	1892.38	1903.63	19	12	27.8	.18	.0042	-27.60	.0000	253692.3	1.45	70.30	-.0000	180.49	.0111	-27.13	348.49
RISE 11	2035.38	2046.63	19	14	50.8	291.85	.0042	-27.81	-.0000	271837.2	1.09	.00	.0028	124.82	.0024	-26.93	310.16
SET 51	2080.42	209 .67	19	15	35.8	90.00	.0041	-26.36	.0001	274376.6	1.76	11.12	-.0034	245.95	-.0014	-26.87	299.02
SET 61	2103.73	2114.98	19	15	59.2	63.50	.0042	-27.80	.0001	277537.2	1.65	-.00	-.0025	232.34	.0027	-26.84	293.26
SET 72	2265.95	2277.20	19	18	41.4	93.96	.0041	-26.45	.0001	290738.2	1.74	-.00	-.0036	243.27	-.0005	-26.64	253.10
RISE 42	2266.86	2278.11	19	18	42.3	255.00	.0041	-25.47	-.0000	290420.4	1.01	3.52	.0029	119.46	-.0023	-26.64	252.87
EXTM 11	2307.76	2319.01	19	19	23.2	.42	.0042	-27.70	.0000	291181.8	1.32	27.10	-.0000	180.41	.0042	-26.59	248.74
SET 11	2579.93	2591.18	19	23	55.4	68.88	.0042	-27.05	.0000	315106.0	1.57	-.00	-.0028	236.18	.0024	-26.29	178.25
EXTM 42	2685.52	2696.77	20	1	40.9	359.93	.0042	-26.01	.0000	316754.3	1.23	80.79	.0000	.39	-.0226	-26.19	149.05
RISE 51	2816.22	2827.47	20	3	51.6	270.00	.0041	-25.64	-.0000	331333.6	.83	10.83	.0034	113.38	-.0015	-26.07	116.99
RISE 72	2970.09	2981.34	20	6	25.5	266.15	.0041	-25.77	-.0000	343496.7	.76	-.00	.0037	116.04	-.0006	-25.93	78.35
RISE 61	3044.51	3055.76	20	7	39.9	295.10	.0042	-26.62	-.0000	348700.1	.87	.00	.0026	125.95	.0027	-25.86	99.85
SET 42	3104.57	3115.82	20	8	40.0	105.00	.0041	-25.18	.0000	352677.0	1.44	3.10	-.0030	241.89	-.0023	-25.81	44.89
EXTM 51	3168.30	3179.55	20	9	43.7	358.69	.0042	-25.78	.0000	350921.6	1.10	88.82	.0038	92.08	.0044	-25.78	28.97
EXTM 61	3302.12	3313.37	20	11	57.6	.23	.0042	-26.61	.0000	363539.7	1.09	23.15	-.0000	180.22	.0041	-25.70	359.53
EXTM 72	3341.92	3353.17	20	12	37.4	.10	.0042	-25.98	.0000	362625.1	1.09	71.92	-.0000	180.28	.0120	-25.67	348.98
RISE 11	3476.23	3487.48	20	14	51.7	290.34	.0042	-26.22	-.0000	377408.2	.77	.00	.0029	122.74	.0024	-25.60	311.99
SET 51	3529.57	3540.82	20	15	45.0	90.00	.0042	-25.20	.0000	379720.7	1.47	10.65	-.0035	247.03	-.0015	-25.57	298.64
SET 61	3559.52	3570.77	20	16	14.9	65.34	.0042	-26.25	.0000	382864.1	1.39	.00	-.0026	234.60	.0027	-25.56	291.14
RISE 42	3711.01	3722.26	20	18	46.4	255.00	.0042	-24.92	-.0000	392705.4	.83	2.94	.0030	118.70	-.0023	-25.48	253.17
SET 72	3712.02	3723.27	20	18	47.4	93.77	.0042	-25.35	.0000	393102.1	1.58	-.00	-.0037	244.39	-.0005	-25.48	252.92
EXTM 11	3751.46	3762.71	20	19	26.9	.15	.0043	-26.28	.0000	392875.0	1.22	28.91	.0000	180.15	.0043	-25.47	243.00
IMPACT	3827.62	3838.87	20	20	43.0												
IMPC 42	3827.62	3838.87	20	20	43.0	284.47	.0043	-25.05	-.0000	399575.4	1.69	25.41	.0034	103.79	-.0021	-25.44	223.71
IMPC 11	3827.62	3838.87	20	20	43.0	19.72	.0044	-26.22	.0000	399536.3	2.15	25.80	-.0012	199.64	.0041	-25.44	223.71

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION	.00	11.25	18	4	55.426	6591.621	15.3503	303.6787	10.95709	4.7786	121.9690	134.6862
SEPARATION	1.20	12.45	18	4	56.626	6679.210	11.7286	309.1795	10.83366	8.1890	123.3321	140.4938
RETRO	3.20	14.45	18	4	58.626	6922.148	5.7125	317.6734	10.68949	13.4831	124.7006	149.4891
EXIT SHA	7.94	19.19	18	5	3.364	7880.729	-6.7233	334.3189	10.01283	24.2178	124.5411	167.3218
IMPACT	3827.62	3838.87	20	20	43.044	402353.914	-25.4415	223.7132	2.60179	67. 99	270.5584	294.2503

JAN 18, 1966
115 DEGREES

SURVEYOR VIEW PERIODS

GHA	119.9116					EPS=175.1739								LOM	243.7156
SX	.548130	SY	-.733613	SZ	-.401703	DAC	-23.68471	RAD	306.76577	RM	405148.254	LAT	28.310600	LON	279.461800
C3	-.883800	ECC	.965489	SLR	12994.366	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.564071	NSY	-.723369	NSZ	-.398198	C3M	1.5516	VIM	2.6816	ZAE	142.545	B.T	.0000	B.R	-.0000
LATE	5.7924	LONE	1.4504	LATS	-1.3571	LONS	179.5101	LATI	1.9617	LONI	324.0962	RSM	145.8333	TTAN	6.0825

LAUNCH DATE JAN 19.1966 BASE AZM 93.0 TF 63.973 ARRIVAL DATE JAN 21 1966 20 9 14.6

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
93.00	3 58 37.5	27.4	23.63	306.76	-11.62	127.34	106.31	4 9 52.5	6612.0	10.94	-5.77

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	19	4	9.9												
SEPARATION	1.20	12.45	19	4	11.1												
RETRO	3.20	14.45	19	4	13.1												
RISE 72	5.98	17.23	19	4	15.9	70.71	-.4192	67.21	.1113	2346.8	-6.51	-.00	.1123	338.56	.1617	10.91	338.28
EXIT SHA	9.95	21.20	19	4	19.8												
EXIT 72	9.95	21.20	19	4	19.8	312.56	-.1387	35.27	-.2410	1944.8	3.87	27.88	.0426	42.87	.2974	1.88	354.66
EXTM 72	10.95	22.20	19	4	20.8	305.98	-.0867	22.47	-.1837	2236.7	5.69	29.02	-.0000	58.78	.2292	-.17	358.19
RISE 51	11.59	22.84	19	4	21.5	71.04	-.1222	33.97	-.0301	4611.3	-4.37	.00	.1021	308.34	.0375	-1.40	.31
EXTM 51	27.38	38.63	19	4	37.3	349.81	-.0364	-12.03	-.0236	6445.8	5.51	73.26	-.0000	36.92	.1483	-18.92	33.02
EXTM 72	67.00	78.25	19	5	16.9	274.07	-.0001	-26.77	-.0010	23329.8	4.93	7.16	.0000	116.16	.0010	-27.16	55.10
RISE 42	75.16	86.41	19	5	25.0	104.65	-.0038	-19.71	-.0023	26483.1	4.29	.00	.0042	245.61	.0004	-27.57	56.37
EXTM 51	82.92	94.17	19	5	32.8	322.90	-.0001	-27.37	-.0007	23815.4	4.53	56.90	.0000	101.24	.0012	-27.85	57.12
EXTM 42	125.53	136.78	19	6	15.4	100.81	.0004	-23.25	-.0005	39085.5	4.02	4.98	-.0000	244.94	-.0007	-28.42	56.49
SET 42	178.70	189.95	19	7	8.6	105.00	.0020	-24.20	-.0001	51402.7	3.71	2.49	-.0013	241.87	-.0012	-28.37	50.28
RISE 61	198.92	210.17	19	7	28.8	303.93	.0032	-33.41	.0003	55923.9	3.23	.00	.0019	136.16	.0019	-28.29	47.15
EXTM 51	303.92	315.17	19	9	13.8	.07	.0037	-28.00	.0001	69818.8	2.95	87.74	.0000	181.64	.0800	-27.81	27.62
EXTM 61	465.58	476.83	19	11	55.5	3.15	.0039	-30.50	.0002	100294.3	2.53	19.20	.0000	182.87	.0036	-27.14	352.77
EXTM 72	499.23	510.48	19	12	29.1	.53	.0040	-28.20	.0001	101602.2	2.47	69.70	-.0000	181.36	.0103	-27.02	345.17
RISE 11	658.48	669.73	19	15	8.4	292.43	.0040	-28.40	.0000	129783.6	1.93	.00	.0027	125.60	.0023	-26.54	308.35
SET 51	692.20	703.45	19	15	42.1	90.00	.0039	-25.41	.0001	133062.7	2.54	10.74	-.0033	246.84	-.0013	-26.45	300.42
SET 61	715.45	726.70	19	16	5.3	62.83	.0040	-28.35	.0001	137273.1	2.41	-.00	-.0023	231.53	.0027	-26.39	294.93
SET 72	885.65	896.90	19	18	55.5	93.83	.0040	-25.67	.0001	158390.7	2.38	-.01	-.0035	244.06	-.0004	-26.00	254.37
RISE 42	895.63	906.88	19	19	5.5	254.99	.0040	-24.60	-.0000	159273.2	1.66	2.74	-.0029	118.45	-.0022	-25.98	251.98
EXTM 11	936.28	947.53	19	19	46.2	.98	.0042	-27.88	.0001	161500.4	1.94	26.90	-.0000	180.97	.0041	-25.90	242.20
SET 11	1211.59	1222.84	20	0	21.5	69.25	.0041	-26.66	.0001	194803.6	2.06	-.00	-.0027	236.70	.0024	-25.44	175.48
EXTM 42	1319.93	1331.18	20	2	9.8	359.94	.0042	-24.97	.0000	199824.8	1.69	79.75	-.0000	.34	-.0201	-25.29	149.04
RISE 51	1454.76	1466.01	20	4	24.6	270.00	.0041	-24.46	-.0000	218272.3	1.25	10.36	.0034	112.29	-.0015	-25.11	116.03
RISE 72	1611.12	1622.37	20	7	1.0	266.33	.0041	-24.70	-.0000	234339.0	1.15	-.01	.0037	114.96	-.0005	-24.93	77.64
RISE 61	1681.72	1692.97	20	8	11.6	294.32	.0041	-25.95	-.0000	240873.0	1.24	.00	.0026	124.97	.0027	-24.85	60.27
SET 42	1742.66	1753.91	20	9	12.5	105.00	.0041	-23.89	.0000	246164.0	1.84	2.30	-.0030	242.12	-.0023	-24.79	45.27
EXTM 51	1811.28	1822.53	20	10	21.2	359.31	.0042	-24.70	.0000	246272.9	1.48	88.79	.0019	31.00	-.1557	-24.72	28.36
EXTM 61	1945.04	1956.29	20	12	34.9	.41	.0042	-25.86	.0000	261694.6	1.43	23.90	-.0000	180.40	.0041	-24.60	355.35
EXTM 72	1984.54	1995.79	20	13	14.4	.08	.0042	-24.96	.0000	261620.3	1.42	72.94	.0000	180.24	.0127	-24.56	345.60
RISE 11	2118.16	2129.41	20	15	28.0	289.47	.0042	-25.29	-.0000	278885.5	1.06	.00	.0029	121.52	.0024	-24.45	312.57
SET 51	2173.19	2184.44	20	16	23.1	90.00	.0041	-23.90	.0000	282300.6	1.74	10.13	-.0035	248.24	-.0015	-24.40	298.96
SET 61	2208.19	2219.44	20	16	58.1	66.43	.0042	-25.29	.0000	286277.7	1.64	-.00	-.0026	235.97	.0027	-24.38	290.30
SET 72	2357.03	2368.28	20	19	26.9	93.56	.0041	-24.08	.0000	298204.7	1.73	-.00	-.0037	245.67	-.0005	-24.26	253.44
RISE 42	2359.13	2370.38	20	19	29.0	255.00	.0041	-23.52	-.0000	298139.2	.98	2.08	.0030	117.59	-.0023	-24.26	252.92
EXTM 11	2399.65	2410.90	20	20	9.5	.27	.0042	-25.29	.0000	298433.3	1.30	29.91	-.0000	180.29	.0044	-24.23	242.88
SET 11	2681.02	2692.27	21	0	50.9	71.01	.0042	-24.76	.0000	323015.4	1.56	-.00	-.0029	239.16	.0024	-24.04	173.10
EXTM 42	2778.04	2789.29	21	2	27.9	359.96	.0042	-23.76	.0000	323980.2	1.22	78.54	.0000	.19	-.0173	-23.98	149.02
RISE 51	2908.45	2919.70	21	4	38.3	270.00	.0041	-23.48	-.0000	338488.7	.81	9.96	.0035	111.37	-.0015	-23.90	116.63
RISE 72	3063.72	3074.97	21	7	13.6	266.51	.0042	-23.66	-.0000	350785.9	.70	-.01	.0038	113.90	-.0005	-23.81	78.04
RISE 61	3126.98	3138.23	21	8	16.9	292.71	.0042	-24.52	-.0000	355009.4	.82	.00	.0027	122.94	.0027	-23.79	62.25
SET 42	3196.67	3207.92	21	9	26.5	105.00	.0041	-23.15	.0000	359433.2	1.44	1.85	-.0030	242.70	-.0023	-23.77	44.85
EXTM 51	3265.39	3276.64	21	10	35.3	359.99	.0042	-23.74	.0000	357866.5	1.10	87.97	.0000	.49	-.0488	-23.75	27.69
EXTM 61	3393.80	3409.05	21	12	43.7	.13	.0042	-24.59	.0000	369929.9	1.10	25.17	-.0000	180.13	.0042	-23.71	359.62
EXTM 72	3433.69	3444.94	21	13	23.6	.02	.0042	-23.97	.0000	369168.3	1.10	73.94	.0000	180.09	.0103	-23.70	345.65
RISE 11	3561.09	3572.34	21	15	31.0	288.55	.0042	-24.27	-.0000	383629.2	.78	.00	.0029	120.20	.0024	-23.67	313.80
SET 51	3621.76	3633.01	21	16	31.6	90.00	.0042	-23.28	.0000	386566.8	1.50	9.88	-.0035	248.82	-.0016	-23.65	298.61
SET 61	3660.36	3671.61	21	17	10.2	67.53	.0042	-24.31	.0000	390254.4	1.43	-.00	-.0027	237.36	.0027	-23.65	288.95
RISE 42	3802.72	3813.97	21	19	32.6	255.00	.0042	-23.08	-.0000	400280.9	1.03	1.81	.0031	117.25	-.0024	-23.64	253.19
SET 72	3802.72	3813.97	21	19	32.6	93.47	.0042	-23.51	.0000	400487.8	1.79	-.00	-.0038	246.25	-.0006	-23.64	253.19
IMPACT	3838.36	3849.61	21	20	8.2												
IMPC 42	3838.36	3849.61	21	20	8.2	264.05	.0043	-23.15	-.0000	402877.8	1.70	8.56	.0033	112.36	-.0022	-23.66	244.13
IMPC 11	3838.36	3849.61	21	20	8.2	359.01	.0044	-24.44	-.0000	400618.4	2.05	30.35	.0000	178.95	.0046	-23.66	244.13
EXTM 11	3840.77	3852.02	21	20	10.6	359.64	.0044	-24.44	-.0000	400928.1	2.29	30.35	.0000	179.62	.0046	-23.66	243.91

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	19	4	9.876	6613.832	23.6518	306.6764	10.94019	-5.7694	106.2727	127.2566
SEPARATION	1.20	12.45	19	4	11.076	6555.958	21.5485	313.5259	10.98710	-2.3703	109.0262	134.4070
RETRO	3.20	14.45	19	4	13.076	6567.296	17.4136	324.4472	10.97754	3.3532	112.8494	145.8296
EXIT SHA	9.95	21.20	19	4	19.823	7487.604	1.8815	354.6618	10.27552	20.7059	118.3855	177.7357
IMPACT	3838.36	3849.61	21	20	8.231	403875.273	-23.6573	244.1317	2.21002	68.4385	260.4334	306.9274

SURVEYOR VIEW PERIODS

GHA	119.9116				EPS=175.1181							LOM	239.8898
SX	.550030	SY	-.732415	SZ	-.401292	DAO	-23.65897	RAO	306.90589	RM	405162.570	LAT	28.310600
C3	-.879485	ECC	.985560	SLR	12994.828	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000
NSX	.565913	NSY	-.722159	NSZ	-.397781	C3M	1.5563	VIM	2.6825	ZAE	142.595	B.T	.0000
LATE	5.7998	LONE	1.4370	LATS	-1.3577	LONS	179.3762	LATI	1.8760	LONI	324.1446	RSM	146.8335
LAUNCH DATE	JAN 19,1966			BASE AZM	96.0		TF 63.911				ARRIVAL DATE JAN 21 1966 20 25 3.8		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
96.00	4 15 45.8	27.6	22.43	306.60	-7.78	131.48	108.52	4 27 .8	6574.7	10.97	-3.86

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW														
INJECTION	.00	11.25	19	4	27.0											
SEPARATION	1.20	12.45	19	4	28.2											
RETRO	3.20	14.45	19	4	30.2											
RISE 72	5.52	16.77	19	4	32.5	76.87	-.2855	58.57	.0866	2423.1	-7.34	.00	.1208 329.48	.1228	10.05	335.12
EXIT SHA	9.26	20.51	19	4	36.3											
EXIT 72	9.26	20.51	19	4	36.3	331.60	-.2529	39.40	-.2629	1676.0	2.22	35.87	.1002 26.97	.3849	1.43	350.39
EXTM 72	10.49	21.74	19	4	37.5	318.02	-.1329	21.85	-.2035	1958.4	5.17	39.22	.0000 53.26	.3072	-1.09	354.68
RISE 51	11.36	22.61	19	4	38.4	73.99	-.1107	29.76	-.0339	4800.4	-4.15	.01	.1002 303.44	.0188	-2.77	357.52
EXTM 51	28.69	39.94	19	4	55.7	353.51	-.0331	-15.82	-.0186	7029.2	5.48	78.37	-.0000 32.67	.1830	-20.97	31.20
EXTM 72	67.57	78.82	19	5	34.6	278.16	-.0000	-27.84	-.0008	23306.4	4.90	10.87	.0000 116.96	.0008	-27.71	51.30
EXTM 51	84.89	96.14	19	5	51.9	327.76	-.0000	-28.25	-.0005	24330.7	4.48	61.24	.0000 102.34	.0010	-28.36	53.26
RISE 42	100.62	111.87	19	6	7.6	105.00	-.0010	-22.33	-.0010	33431.8	4.17	1.35	.0013 243.35	-.0002	-28.63	53.63
EXTM 42	125.24	136.49	19	6	32.3	104.69	.0004	-23.42	-.0005	39482.5	4.02	2.24	-.0000 242.66	-.0007	-28.78	52.50
SET 42	133.58	144.83	19	6	40.6	105.00	.0008	-23.66	-.0004	41479.6	3.97	2.16	-.0003 242.30	-.0008	-28.78	51.79
RISE 61	181.68	192.93	19	7	28.7	305.02	.0030	-34.15	.0003	52463.5	3.34	-.00	.0018 137.34	.0017	-28.65	45.79
EXTM 51	283.76	295.01	19	9	10.8	.10	.0036	-28.35	.0001	66342.2	3.02	87.39	-.0000 182.04	.0692	-28.12	27.59
EXTM 61	448.76	460.01	19	11	55.8	3.49	.0029	-30.81	.0002	97871.5	2.57	18.88	-.0000 183.17	.0036	-27.36	352.45
EXTM 72	481.17	492.42	19	12	28.2	.54	.0040	-28.45	.0001	99038.1	2.50	69.44	.0000 181.34	.0101	-27.23	345.17
RISE 11	641.98	653.23	19	15	9.0	292.62	.0040	-28.60	.0000	127682.3	1.95	.00	.0027 125.86	.0023	-26.70	308.12
SET 51	674.58	685.83	19	15	41.6	90.00	.0039	-25.55	.0001	130847.5	2.56	10.79	-.0032 246.70	-.0013	-26.60	300.47
SET 61	696.94	708.19	19	16	4.0	62.59	.0040	-28.55	.0001	134978.2	2.43	-.00	-.0023 231.25	.0027	-26.54	295.20
SET 72	868.47	879.72	19	18	55.5	93.85	.0039	-25.79	.0001	156447.8	2.39	-.00	-.0035 243.94	-.0004	-26.13	254.39
RISE 42	878.63	889.88	19	19	5.6	254.99	.0040	-24.70	-.0000	157354.3	1.67	2.80	.0029 118.53	-.0022	-26.10	251.95
EXTM 11	919.43	930.68	19	19	46.4	1.04	.0042	-28.02	.0001	159656.7	1.96	26.76	-.0000 181.03	.0041	-26.02	242.15
SET 11	1194.27	1205.52	20	0	21.3	69.17	.0041	-26.75	.0001	193097.3	2.07	-.00	-.0027 234.57	.0024	-25.52	175.58
EXTM 42	1303.06	1314.31	20	2	10.1	359.93	.0042	-25.04	.0000	198231.3	1.70	79.82	-.0000 .35	-.0205	-25.36	149.04
RISE 51	1437.99	1449.24	20	4	25.0	270.00	.0041	-24.52	-.0000	216760.7	1.26	10.38	.0034 112.34	-.0015	-25.17	116.02
RISE 72	1594.35	1605.60	20	7	1.4	266.32	.0041	-24.75	-.0000	232905.9	1.15	-.01	.0037 115.01	-.0005	-24.98	77.64
RISE 61	1665.22	1676.47	20	8	12.2	294.38	.0041	-26.00	-.0000	239497.2	1.25	.00	.0026 125.05	.0027	-24.90	60.21
SET 42	1725.87	1737.12		9	12.9	105.00	.0041	-23.93	.0000	244784.9	1.84	2.33	-.0030 242.09	-.0022	-24.83	45.28
EXTM 51	1795.07	1806.32	20	10	22.1	359.45	.0042	-24.74	.0000	244977.4	1.48	88.88	.0017 26.58	-.1757	-24.76	28.22
EXTM 61	1928.37	1939.62	20	12	35.4	.42	.0042	-23.90	.0000	260415.0	1.44	23.86	-.0000 180.42	.0041	-24.63	359.34
EXTM 72	1967.83	1979.08	20	13	14.8	.08	.0042	-25.00	.0000	260348.9	1.43	72.91	.0000 180.25	.0127	-24.59	349.59
RISE 11	2101.57	2112.82	20	15	28.6	289.50	.0042	-25.32	-.0000	277671.7	1.07	.00	.0029 121.56	.0024	-24.47	312.54
SET 51	2156.45	2167.70	20	16	23.5	90.00	.0041	-23.92	.0000	281093.2	1.75	10.14	-.0035 248.22	-.0015	-24.43	298.96
SET 61	2191.35	2202.60	20	16	58.4	66.40	.0042	-25.32	.0000	285074.4	1.65	-.00	-.0026 235.93	.0027	-24.40	290.33
SET 72	2340.32	2351.57	20	19	27.3	93.56	.0041	-24.10	.0000	297061.3	1.74	-.00	-.0037 245.65	-.0005	-24.28	253.44
RISE 42	2342.44	2353.69	20	19	29.5	255.00	.0041	-23.53	-.0000	296997.9	.99	2.08	.0030 117.60	-.0023	-24.28	252.92
EXTM 11	2382.99	2394.24	20	20	10.0	.28	.0042	-25.30	.0000	297309.8	1.31	29.49	-.0000 180.30	.0044	-24.25	242.87
SET 11	2664.29	2675.54	21	0	51.3	71.00	.0042	-24.77	.0000	321969.8	1.57	-.00	-.0029 239.15	.0024	-24.05	173.11
EXTM 42	2761.35	2772.60	21	2	28.4	359.96	.0042	-23.76	.0000	322965.3	1.22	78.54	.0000 .20	-.0169	-23.98	149.02
RISE 51	2891.78	2903.03	21	4	38.8	270.00	.0041	-23.47	-.0000	337511.5	.82	9.96	.0035 111.37	-.0015	-23.90	116.62
RISE 72	3047.08	3058.33	21	7	14.1	268.51	.0041	-23.65	-.0000	349612.5	.75	-.00	.0038 113.90	-.0005	-23.81	78.03
RISE 61	3110.40	3121.65	21	8	17.4	292.69	.0042	-24.51	-.0000	354180.2	.82	.00	.0027 122.92	.0027	-23.78	62.26
SET 42	3180.11	3191.36	21	9	27.1	105.00	.0041	-23.13	.0000	358612.2	1.44	1.84	-.0030 242.71	-.0023	-23.75	44.86
EXTM 51	3248.83	3260.08	21	10	35.8	359.99	.0042	-23.69	.0000	357048.7	1.10	87.96	.0000 .47	-.0482	-23.73	27.69
EXTM 61	3377.21	3388.46	21	12	44.2	.14	.0042	-24.58	.0000	369114.7	1.10	25.18	-.0000 180.14	.0042	-23.69	355.62
EXTM 72	3417.09	3428.34	21	13	24.1	.02	.0042	-23.95	.0000	368353.5	1.10	73.95	.0000 180.10	.0102	-23.68	349.65
RISE 11	3544.42	3555.67	21	15	31.4	288.54	.0042	-24.25	-.0000	382804.1	.78	.00	.0030 120.18	.0024	-23.65	313.81
SET 51	3605.13	3616.38	21	16	32.1	90.00	.0042	-23.26	.0000	385735.4	1.50	9.88	-.0035 248.83	-.0016	-23.63	298.61
SET 61	3643.81	3655.06	21	17	10.8	67.55	.0042	-24.29	.0000	389416.8	1.42	-.00	-.0027 237.39	.0027	-23.63	288.93
RISE 42	3788.13	3797.38	21	19	33.1	255.00	.0042	-23.06	-.0000	399279.7	.96	1.79	.0031 117.23	-.0023	-23.62	253.20
SET 72	3786.13	3797.36	21	19	33.1	93.46	.0042	-23.48	.0000	399479.4	1.73	-.00	-.0038 246.28	-.0006	-23.62	253.20
EXTM 11	3825.13	3836.38	21	20	12.1	359.83	.0043	-24.41	-.0000	399601.0	1.66	30.38	.0000 179.82	.0045	-23.63	243.32
IMPACT	3834.64	3845.89	21	20	21.7											
IMPC 42	3834.64	3845.89	21	20	21.7	267.29	.0043	-23.14	-.0000	402624.6	1.69	11.02	.0033 110.65	-.0022	-23.64	240.89
IMPC 11	3834.64	3845.89	21	20	21.7	2.30	.0044	-24.42	-.0000	400635.1	2.07	30.34	-.0002 182.42	.0046	-23.64	240.89

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION	.00	11.25	19	4	27.013	6575.067	22.4391	306.5783	10.97162	-3.8610	108.5146	131.4546
SEPARATION	1.20	12.45	19	4	28.213	6545.039	20.0900	313.2753	10.99652	-.4397	111.0563	138.4924
RETRO	3.20	14.45	19	4	30.213	6600.763	15.6286	323.9035	10.94967	5.2704	114.4819	149.5820
EXIT SHA	9.26	20.51	19	4	36.271	7484.667	1.4288	3.0.3931	10.27776	20.6768	118.7511	177.5901
IMPACT	3834.64	3845.89	21	20	21.633	403891.004	-23.6355	240.8864	2.20917	68.2138	260.5750	307.0468

SURVEYOR VIEW PERIODS

GHA	119.9116					EPS=175.0562								LOM	235.8109
SX	.552053	SY	-.731133	SZ	-.400851	DKO	-23.63138	RAO	307.05520	RM	405177.762	LAT	28.310600	LON	279.461800
C3	-.880161	ECC	.985549	SLP	12994.755	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.567915	NSY	-.720835	NSZ	-.397328	C3M	1.5565	VIM	2.6825	ZAE	142.571	B.T	.0000	B.R	-.0000
LATE	5.8076	LONE	1.4226	LATS	-1.3574	LONS	179.2334	LATI	1.7213	LONI	324.1260	RSM	146.8336	TTAN	6.0675
LAUNCH DATE	JAN 19.1966			BASE AZM	99.0	TF	63.926					ARRIVAL DATE	JAN 21 1966 20 41 55.8		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ PT ASC	INJ AZMTH	INJ TIME	NJ RAD	INJ VEL	INJ PTH
99.00	4 30 13.4	27.8	21.25	306.33	-4.58	134.83	110.70	4 41 28.4	6555.1	10.99	-2.28

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PRORE IN EARTH'S SHADOW															
INJECTION	.00	11.25	19	4	41.5												
SEPARATION	1.20	12.45	19	4	42.7												
RETRO	3.20	14.45	19	4	44.7												
RISE 72	5.17	16.42	19	4	46.6	80.07	-.2271	51.17	.0580	2502.0	-7.84	.00	.1242	321.86	.0878	9.00	332.47
EXIT SHA	8.69	19.94	19	4	50.2												
EXIT 72	8.69	19.94	19	4	50.2	353.75	-.3655	39.76	-.2405	1522.9	.39	41.99	.1972	6.47	.4209	.74	346.65
EXTM 72	9.42	20.67	19	4	50.9	340.31	-.2587	28.96	-.2470	1593.3	2.78	48.53	.0992	26.44	.4833	-.79	349.19
RISE 51	11.21	22.46	19	4	52.7	76.52	-.1016	25.80	-.0374	4970.0	-3.93	.00	.0982	298.90	.0114	-4.29	355.02
EXTM 51	30.12	41.37	19	5	11.6	356.43	-.0302	-19.52	-.0146	7634.2	5.45	82.96	-.0000	28.62	.2609	-22.36	29.67
EXTM 72	68.16	79.41	19	5	49.6	281.66	-.0000	-29.11	-.0006	23321.6	4.87	14.00	.0000	118.13	.0006	-28.49	48.06
EXTM 51	86.75	98.00	19	6	8.2	331.88	.0000	-29.31	-.0003	24829.1	4.44	64.87	.0000	104.60	.0008	-29.07	50.02
RISE 61	168.92	180.17	19	7	30.4	306.38	.0029	-35.03	.0004	49840.2	3.43	-.00	.0018	138.75	.0016	-29.17	44.25
EXTM 51	266.59	277.84	19	9	8.1	.14	.0036	-28.86	.0001	63303.4	3.08	86.88	.0000	182.28	.0567	-28.57	27.56
EXTM 61	434.75	446.00	19	11	56.2	3.80	.0039	-31.20	.0002	95827.1	2.60	18.47	.0000	183.42	.0035	-27.68	352.17
EXTM 72	466.56	477.81	19	12	28.0	.66	.0040	-28.80	.0001	96929.3	2.53	69.09	-.0000	181.62	.0099	-27.54	345.06
RISE 11	628.66	639.91	19	15	10.1	292.89	.0040	-28.86	.0000	125951.0	1.97	.00	.0027	126.21	.0023	-26.93	307.82
SET 51	659.84	671.09	19	15	41.3	90.00	.0039	-25.76	.0001	128950.4	2.57	10.88	-.0032	246.50	-.0013	-26.83	300.52
SET 61	680.93	692.18	19	16	2.4	62.27	.0040	-28.81	.0001	132946.2	2.45	-.00	-.0022	230.86	.0027	-26.77	295.56
SET 72	854.17	865.42	19	18	55.6	93.88	.0039	-25.97	.0001	154786.8	2.41	-.00	-.0035	243.76	-.0004	-26.30	254.39
RISE 42	864.44	875.69	19	19	5.9	254.99	.0040	-24.86	-.0000	155704.1	1.69	2.90	.0029	118.66	-.0022	-26.28	251.93
EXTM 11	905.47	916.72	19	19	46.9	1.11	.0042	-28.21	.0001	158091.3	1.97	26.57	-.0000	181.09	.0041	-26.19	242.08
SET 11	1179.57	1190.82	20	0	21.0	69.04	.0041	-26.89	.0001	191589.6	2.08	-.00	-.0027	236.39	.0024	-25.65	175.73
EXTM 42	1288.97	1300.22	20	2	10.4	359.93	.0042	-25.15	.0000	196835.8	1.71	79.93	-.0000	.37	-.0208	-25.47	149.05
RISE 51	1423.99	1435.24	20	4	25.5	270.00	.0041	-24.61	-.0000	215426.1	1.27	10.42	.0034	112.43	-.0015	-25.27	116.01
RISE 72	1580.32	1591.57	20	7	1.8	266.31	.0041	-24.83	-.0000	231627.0	1.16	-.01	.0037	115.09	-.0005	-25.06	77.64
RISE 61	1651.62	1662.87	20	8	13.1	294.47	.0041	-26.08	-.0000	238280.6	1.25	.00	.0026	125.17	.0027	-24.98	60.11
SET 42	1711.84	1723.09	20	9	13.3	105.00	.0041	-23.99	.0000	243542.6	1.85	2.37	-.0030	242.03	-.0022	-24.90	45.28
EXTM 51	1781.93	1793.18	20	10	23.4	359.67	.0042	-24.80	.0000	243839.7	1.49	89.02	.0012	17.99	-.2120	-24.83	28.01
EXTM 61	1914.48	1925.73	20	12	36.0	.45	.0042	-25.96	.0000	259251.5	1.45	23.80	-.0000	180.44	.0041	-24.69	355.31
EXTM 72	1953.86	1965.11	20	13	15.3	.09	.0042	-25.05	.0000	259185.2	1.43	72.85	.0000	180.27	.0127	-24.65	345.59
RISE 11	2087.79	2099.04	20	15	29.3	289.54	.0042	-25.36	-.0000	276553.0	1.07	.00	.0029	121.62	.0024	-24.52	312.49
SET 51	2142.46	2153.71	20	16	23.9	90.00	.0041	-23.96	.0000	279966.9	1.75	10.16	-.0035	248.18	-.0015	-24.47	298.97
SET 61	2177.16	2188.41	20	16	58.6	66.35	.0042	-25.36	.0000	283941.8	1.65	-.00	-.0026	235.87	.0027	-24.44	290.38
SET 72	2326.36	2337.61	20	19	27.8	93.57	.0041	-24.13	.0000	295977.5	1.74	-.00	-.0037	245.62	-.0005	-24.31	253.44
RISE 42	2328.49	2339.74	20	19	30.0	255.00	.0041	-23.56	-.0000	295914.0	.99	2.10	.0030	117.62	-.0023	-24.31	252.91
EXTM 11	2369.09	2380.34	20	20	10.6	.30	.0042	-25.34	.0000	296242.2	1.31	29.45	-.0000	180.31	.0044	-24.28	242.86
SET 11	2650.25	2661.50	21	0	51.7	70.98	.0042	-24.79	.0000	320939.3	1.57	-.00	-.0029	239.13	.0024	-24.06	173.13
EXTM 42	2747.38	2758.63	21	2	28.9	359.96	.0042	-23.77	.0000	321956.0	1.23	78.55	.0000	.21	-.0172	-23.99	149.02
RISE 51	2877.83	2889.08	21	4	30.3	270.00	.0041	-23.48	-.0000	326523.7	.82	9.96	.0035	111.27	-.0015	-23.91	116.62
RISE 72	3033.13	3044.38	21	7	14.6	266.51	.0041	-23.66	-.0000	348647.4	.75	-.00	.0038	113.90	-.0005	-23.81	78.03
RISE 61	3096.45	3107.70	21	8	17.9	292.70	.0042	-24.51	-.0000	353225.8	.82	.00	.0027	122.92	.0027	-23.78	62.26
SET 42	3166.14	3177.39	21	9	27.6	105.00	.0041	-23.13	.0000	357660.0	1.45	1.84	-.0030	242.72	-.0023	-23.75	44.86
EXTM 51	3234.87	3246.12	21	10	36.3	359.99	.0042	-23.49	.0000	396099.4	1.10	87.95	.0000	.51	-.0458	-23.73	27.69
EXTM 61	3363.30	3374.55	21	12	44.8	.14	.0042	-24.57	.0000	368169.0	1.10	25.19	-.0000	180.15	.0042	-23.68	355.61
EXTM 72	3403.15	3414.40	21	13	24.6	.02	.0042	-23.94	.0000	367406.1	1.10	73.96	.0000	180.10	.0110	-23.67	345.65
RISE 11	3530.45	3541.70	21	15	31.9	288.53	.0042	-24.24	-.0000	381846.1	.77	.00	.0030	120.17	.0024	-23.63	313.82
SET 51	3591.19	3602.44	21	16	32.7	90.00	.0042	-23.24	.0000	384770.2	1.49	9.87	-.0035	248.85	-.0015	-23.62	298.62
SET 61	3429.94	3441.19	21	17	11.4	67.56	.0042	-24.28	.0000	388445.2	1.42	-.00	-.0027	237.41	.0027	-23.61	288.91
SET 72	3772.26	3783.51	21	19	33.7	93.46	.0042	-23.46	.0000	398366.0	1.68	-.00	-.0038	246.30	-.0006	-23.59	253.20
RISE 42	3772.30	3783.55	21	19	33.8	255.00	.0042	-23.03	-.0000	398170.9	.92	1.78	.0031	117.21	-.0023	-23.59	253.19
EXTM 11	3811.74	3822.99	21	20	13.2	359.91	.0043	-24.38	-.0000	398298.6	1.45	30.41	.0000	179.91	.0045	-23.60	243.24
IMPACT	3835.55	3846.80	21	20	37.0												
IMPC 42	3835.55	3846.80	21	20	37.0	271.00	.0043	-23.14	-.0000	402329.9	1.69	13.87	.0034	108.73	-.0022	-23.61	237.17
IMPC 11	3835.55	3846.80	21	20	37.0	6.07	.0044	-24.39	-.0000	400669.3	2.09	30.13	-.0004	186.39	.0046	-23.61	237.17

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	19	4	41.474	6555.122	21.2550	306.3283	10.98810	-2.2756	110.6959	134.8297
SEPARATION	1.20	12.45	19	4	42.674	6547.368	18.6720	312.8670	10.99452	1.1613	113.0342	141.6692
RETRO	3.20	14.45	19	4	44.674	6639.197	13.9114	323.1846	10.91767	6.8282	116.0802	152.4882
EXIT SHA	8.69	19.94	19	4	50.168	7483.120	.7417	346.6369	10.27880	20.6611	119.3188	177.3277
IMPACT	3835.55	3846.80	21	20	37.020	403905.129	-23.6107	237.1704	2.20876	68.1931	260.8704	307.1829

SURVEYOR VIEW PERIODS

GHA	119.9116				EPS-175.0004						LOM	232.2689	
SX	.553807	SY	-.730017	SZ	-.400466	DAO	-23.60732	RAO	307.18480	RM	405190.883	LAT	28.310600
LON	279.461800												
C3	-.881830	ECC	.985521	SLR	12994.578	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000
POL	-.0												
NSX	.569659	NSY	-.719675	NSZ	-.396934	C3M	1.5561	VIM	2.6824	ZAE	142.923	B.T	.0000
B.R	-.0000												
LATE	5.8144	LONE	1.4099	LATS	-1.3575	LONS	179.1091	LATI	1.5122	LONI	324.0928	RSM	146.8338
TTAN	6.0631												
LAUNCH DATE	JAN 19.1966			BASE AZM	102.0		TF 63.955				ARRIVAL DATE	JAN 21 1966	20 56 34.6

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FTH
102.00	4 42 17.8	27.9	20.10	305.97	-1.96	137.50	112.84	4 53 32.8	6546.6	11.00	-.97

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PRORE IN EARTH'S SHADOW															
INJECTION		.00	11.25	19	4	53.5												
SEPARATION		1.20	12.45	19	4	54.7												
RETRO		3.20	14.45	19	4	56.7												
RISE	72	4.92	16.17	19	4	58.5	82.10	-.1940	44.68	.0306	2578.3	-8.11	.00	.1294	315.23	.0567	7.82	330.22
EXIT	SHA	8.24	19.49	19	5	1.8												
EXIT	72	8.24	19.49	19	5	1.8	14.61	-.4004	35.64	-.1950	1473.9	-1.39	44.33	.2964	343.34	.3310	-.14	343.36
EXTM	72	9.85	21.10	19	5	3.4	344.09	-.2317	14.08	-.2108	1619.8	4.00	62.93	.0350	35.77	.6726	-3.53	348.82
RISE	51	11.12	22.37	19	5	4.7	78.74	-.0941	22.03	-.0407	5121.0	-3.71	.01	.0962	294.61	.0049	-5.95	352.77
EXTM	51	31.63	42.88	19	5	25.2	358.70	-.0276	-23.14	-.0114	8254.4	5.42	87.14	.0000	24.67	.5579	-24.27	28.42
EXTM	72	69.02	80.27	19	6	2.6	284.62	.0000	-30.53	-.0003	23445.5	4.84	16.57	.0000	119.59	.0003	-29.47	48.38
RISE	61	160.37	171.62	19	7	33.9	307.91	.0028	-35.99	.0005	48062.9	3.50	-.00	.0017	140.33	.0015	-29.84	42.60
EXTM	51	252.33	263.58	19	9	5.9	.23	.0035	-29.50	.0002	60728.4	3.14	86.23	-.0000	183.01	.0460	-29.14	27.48
EXTM	61	423.74	434.99	19	11	57.3	4.19	.0039	-31.67	.0002	94222.5	2.62	17.98	.0000	183.75	.0035	-28.09	351.80
EXTM	72	454.38	465.63	19	12	27.9	.74	.0040	-29.24	.0001	95155.7	2.55	68.66	-.0000	181.78	.0096	-27.92	344.98
RISE	11	618.11	629.36	19	15	11.7	293.22	.0040	-29.19	.0000	124566.9	1.98	.00	.0026	126.65	.0023	-27.23	307.46
SET	51	647.63	658.88	19	15	41.2	90.00	.0039	-26.05	.0001	127356.5	2.59	10.99	-.0032	246.24	-.0013	-27.13	300.56
SET	61	667.09	678.34	19	16	.6	61.86	.0040	-29.13	.0002	131166.2	2.46	-.00	-.0022	230.38	.0027	-27.06	295.99
SET	72	842.38	853.63	19	18	55.9	93.92	.0039	-26.20	.0001	153401.7	2.42	-.00	-.0035	243.53	-.0004	-26.54	254.38
RISE	42	852.72	863.97	19	19	6.3	254.99	.0040	-25.08	-.0000	154317.9	1.70	3.03	.0029	118.83	-.0022	-26.51	251.91
EXTM	11	894.02	905.27	19	19	47.6	1.20	.0042	-28.45	.0001	156800.1	1.98	26.33	-.0000	181.17	.0041	-26.40	242.00
SET	11	1167.14	1178.39	20	0	20.7	68.87	.0041	-27.06	.0001	190295.3	2.08	-.00	-.0027	236.16	.0024	-25.81	175.91
EXTM	42	1277.29	1288.54	20	2	10.8	359.93	.0042	-25.31	.0000	195658.8	1.71	80.09	-.0000	.40	-.0212	-25.62	149.05
RISE	51	1412.39	1423.64	20	4	25.9	270.00	.0041	-24.74	-.0000	214297.4	1.27	10.47	.0034	112.54	-.0015	-25.40	116.00
RISE	72	1568.65	1579.90	20	7	2.2	266.29	.0041	-24.94	-.0000	230541.2	1.17	-.01	.0037	115	-.0005	-25.17	77.65
RISE	61	1640.52	1651.77	20	8	14.1	294.60	.0041	-26.19	-.0000	237265.7	1.26	.00	.0026	125.32	.0027	-25.08	59.98
SET	42	1700.19	1711.44	20	9	13.7	105.00	.0041	-24.09	.0000	242484.2	1.85	2.43	-.0030	241.96	-.0022	-25.00	45.29
EXTM	51	1764.72	1775.97	20	10	18.3	358.25	.0042	-24.90	.0000	242307.0	1.49	88.21	.0034	62.48	-.0585	-24.92	29.39
EXTM	61	1902.96	1914.21	20	12	36.5	.47	.0042	-26.05	.0000	258262.8	1.45	23.71	.0000	180.46	.0041	-24.77	355.29
EXTM	72	1942.28	1953.53	20	13	15.8	.09	.0042	-25.13	.0000	258192.6	1.44	72.77	.0000	180.29	.0120	-24.72	349.58
RISE	11	2076.45	2087.70	20	15	30.0	289.61	.0042	-25.43	-.0000	275602.5	1.07	.00	.0029	121.71	.0024	-24.58	312.42
SET	51	2130.82	2142.07	20	16	24.4	90.00	.0041	-24.02	.0000	278998.7	1.76	10.18	-.0035	248.13	-.0015	-24.53	298.97
SET	61	2165.25	2176.50	20	16	58.8	66.28	.0042	-25.42	.0000	282958.7	1.66	-.00	-.0026	235.78	.0027	-24.50	290.46
SET	72	2314.76	2326.01	20	19	28.3	93.57	.0041	-24.18	.0001	295043.3	1.74	-.00	-.0037	245.57	-.0005	-24.36	253.44
RISE	42	2316.90	2328.15	20	19	30.4	255.00	.0041	-23.60	-.0000	294977.2	.99	2.13	.0030	117.66	-.0023	-24.36	252.91
EXTM	11	2357.54	2368.79	20	20	11.1	.32	.0042	-25.39	.0000	295323.8	1.32	29.40	-.0000	180.33	.0044	-24.32	242.84
SET	11	2638.51	2649.76	21	0	52.1	70.95	.0042	-24.82	.0000	320037.3	1.57	-.00	-.0029	239.09	.0024	-24.09	173.10
EXTM	42	2735.75	2747.00	21	2	29.3	359.96	.0042	-23.80	.0000	321073.5	1.23	78.58	.0000	.22	-.0176	-24.02	149.02
RISE	51	2866.23	2877.48	21	4	39.8	270.00	.0041	-23.50	-.0000	335656.6	.82	9.97	.0035	111.39	-.0015	-23.93	116.62
RISE	72	3021.52	3032.77	21	7	11.1	266.51	.0041	-23.67	-.0000	347795.8	.75	-.00	.0038	113.91	-.0006	-23.82	78.05
RISE	61	3084.98	3096.23	21	8	18.5	292.70	.0042	-24.51	-.0000	352467.1	.82	.00	.0027	122.92	.0027	-23.78	62.26
SET	42	3154.63	3165.88	21	9	28.2	105.00	.0041	-23.12	.0000	356895.4	1.44	1.83	-.0030	242.72	-.0023	-23.75	44.86
EXTM	51	3223.36	3234.61	21	10	36.9	359.99	.0042	-23.69	.0000	355330.1	1.10	87.95	.0000	.46	-.0512	-23.72	27.69
EXTM	61	3351.80	3363.05	21	12	45.3	.15	.0042	-24.57	.0000	367389.1	1.10	25.19	-.0000	180.15	.0042	-23.68	355.60
EXTM	72	3391.62	3402.87	21	13	25.2	.03	.0042	-23.93	.0000	366620.2	1.09	73.97	.0000	180.10	.0117	-23.66	348.65
RISE	11	3518.86	3530.11	21	15	32.4	288.52	.0042	-24.23	-.0000	381037.2	.77	.00	.0030	120.15	.0024	-23.62	313.82
SET	51	3579.63	3590.88	21	16	33.2	90.00	.0042	-23.23	.0000	383948.3	1.49	9.86	-.0035	248.86	-.0015	-23.61	298.62
SET	61	3618.44	3629.69	21	17	12.0	67.58	.0042	-24.27	.0000	387613.8	1.41	-.00	-.0027	237.43	.0027	-23.60	280.90
SET	72	3760.72	3771.97	21	19	34.3	93.46	.0042	-23.44	.0000	397412.8	1.65	-.00	-.0038	246.32	-.0005	-23.57	253.21
RISE	42	3760.79	3772.04	21	19	34.3	255.00	.0042	-23.01	-.0000	397221.1	.89	1.77	.0031	117.19	-.0023	-23.57	253.19
EXTM	11	3800.56	3811.81	21	20	14.1	359.98	.0043	-24.36	.0000	397241.1	1.35	30.43	.0000	179.98	.0040	-23.57	243.17
IMPACT		3837.29	3848.54	21	20	50.8												
IMPC	42	3837.29	3848.54	21	20	50.8	274.35	.0043	-23.13	-.0000	402068.5	1.69	16.47	.0031	107.02	-.0021	-23.59	233.83
IMPC	11	3837.29	3848.54	21	20	50.8	9.45	.0044	-24.36	-.0000	400720.5	2.11	29.76	-.0006	189.92	.0045	-23.59	233.83

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FTH	AZ	RT ASC
INJECTION		.00	11.25	19	4	53.547	6546.563	20.0984	305.9678	10.99524	-.9709	112.8396	137.4958
SEPARATION		1.20	12.45	19	4	54.747	6556.867	17.2905	312.3446	10.98642	2.4635	114.9827	144.1735
RETRO		3.20	14.45	19	4	56.747	6677.896	12.2480	322.3492	10.88568	8.0902	117.6706	154.6795
EXIT	SHA	8.24	19.49	19	5	1.785	7482.871	-.1403	343.3560	10.27889	20.6584	120.0629	176.9490
IMPACT		3837.29	3848.54	21	20	50.833	403921.168	-23.5884	233.8305	2.20639	67.9717	261.2324	307.3058

SURVEYOR VIEW PERIODS

GMA	119.9116					EPS-174.9507						LOM	229.2023
SX	.555324	SY	-.729047	SZ	-.400132	DAO	-23.58640	RAO	307.29695	RM	405202.191	LAT	28.310600	LON	279.461800
C3	-.883992	ECC	.985486	SLR	12994.343	RCA	6544.5650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.571173	NSY	-.718663	NSZ	-.396592	C3M	1.5558	VIM	2.6824	ZAE	142.456	B.T	.0000	B.R	-.0000
LATE	5.8282	LONE	1.5151	LATS	-1.3576	LONS	179.1178	LATI	1.2611	LONI	324.1650	RSM	146.8339	TTAN	6.0602
LAUNCH DATE		JAN	19.1966		BASE AZM	105.0		TF	63.992			ARRIVAL DATE		JAN	21 1966 21 9 15.4

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	4 52 21.8	28.0	18.97	305.52	.00	139.58	114.96	5 3 36.8	6544.7	11.00	.10

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
				PRORE IN EARTH'S SHADOW														
INJECTION		.00	11.25	19	5	3.6												
SEPARATION		1.20	12.45	19	5	4.8												
RETRO		3.20	14.45	19	5	6.8												
RISE	72	4.74	15.99	19	5	8.4	83.58	-.1719	38.84	.0053	2651.4	-8.20	.00	.1309	309.28	.0289	6.53	328.27
EXIT	SHA	7.87	19.12	19	5	11.5												
EXIT	72	7.87	19.12	19	5	11.5	31.03	-.3668	28.67	-.1642	1507.4	-2.57	42.74	.3418	321.98	.1596	-1.18	340.44
EXTM	72	9.98	21.23	19	5	13.6	351.35	-.2339	3.15	-.1819	1642.0	4.29	75.98	.0000	38.28	1.2217	-5.66	347.45
RISE	51	11.07	22.32	19	5	14.7	80.77	-.0879	18.40	-.0439	5257.1	-3.50	.00	.0942	290.51	-.0009	-7.72	350.72
EXTM	51	32.61	43.86	19	5	36.2	1.38	-.0266	-26.32	-.0093	8692.4	5.38	88.63	.0176	244.38	-.7759	-26.08	26.89
EXTM	72	69.62	80.87	19	6	13.2	287.08	.0000	-32.08	-.0001	23524.9	4.81	18.64	.0000	121.27	.0001	-30.60	43.09
RISE	61	155.40	166.85	19	7	39.2	309.58	.0027	-36.98	.0005	47085.8	3.53	-.00	.0017	142.00	.0014	-30.63	40.91
EXTM	51	240.42	251.67	19	9	4.0	.31	.0034	-30.27	.0002	58544.0	3.19	85.46	.0000	183.37	.0372	-29.83	27.41
EXTM	61	415.17	426.42	19	11	56.8	4.63	.0039	-32.20	.0002	92981.9	2.64	17.47	.0000	184.10	.0035	-28.55	351.39
EXTM	72	444.55	455.80	19	12	28.2	.85	.0040	-29.74	.0001	93718.5	2.57	68.15	.0000	181.99	.0093	-28.38	344.88
RISE	11	609.92	621.17	19	15	13.5	293.60	.0040	-29.57	.0000	123487.8	2.00	.00	.0026	127.15	.0023	-27.59	307.06
SET	51	637.58	648.83	19	15	41.2	90.00	.0038	-26.39	.0001	126029.7	2.60	11.13	-.0032	245.92	-.0013	-27.47	300.60
SET	61	655.10	666.35	19	15	58.7	61.38	.0040	-29.51	.0002	129607.6	2.47	-.00	-.0022	229.81	.0027	-27.41	296.49
SET	72	932.73	943.98	19	18	56.3	93.97	.0039	-26.47	.0001	152258.9	2.42	-.00	-.0035	243.26	-.0004	-26.81	254.36
RISE	42	843.08	854.33	19	19	6.7	254.99	.0040	-25.34	-.0000	153163.5	1.71	3.19	.0029	119.04	-.0022	-26.78	251.89
EXTM	11	884.70	895.95	19	19	48.3	1.29	.0042	-28.73	.0001	155749.2	1.99	26.05	-.0000	181.26	.0041	-26.66	241.90
SET	11	1156.64	1167.89	20	0	26.3	68.67	.0041	-27.27	.0001	[illegible]89.8	2.09	-.00	-.0027	235.89	.0024	-26.01	176.12
EXTM	42	1267.64	1278.89	20	2	11.3	359.92	.0042	-25.49	.0000	[illegible]674.9	1.72	80.27	-.0000	.43	-.0217	-25.79	149.06
RISE	51	1402.81	1414.06	20	4	26.4	270.00	.0041	-24.89	-.0000	213351.3	1.28	10.53	.0034	112.69	-.0015	-25.56	115.99
RISE	72	1558.98	1570.23	20	7	2.6	266.27	.0041	-25.08	-.0000	229627.7	1.17	-.01	.0037	115.34	-.0005	-25.71	77.66
RISE	61	1631.54	1642.79	20	8	15.2	294.75	.0041	-26.32	-.0000	236430.7	1.26	.00	.0026	125.51	.0027	-25.20	59.82
SET	42	1690.55	1701.80	20	9	14.2	105.00	.0041	-24.20	.0001	241591.5	1.85	2.50	-.0030	241.87	-.0022	-25.12	45.30
EXTM	51	1754.74	1765.99	20	10	18.4	358.16	.0042	-25.02	.0000	241403.0	1.49	88.19	.0035	66.97	-.0493	-25.04	29.48
EXTM	61	1893.47	1904.72	20	12	37.1	30	.0042	-26.15	.0000	257435.2	1.45	23.61	.0000	180.49	.0041	-24.86	355.26
EXTM	72	1932.69	1943.94	20	13	16.3	.10	.0042	-25.23	.0000	257355.4	1.44	72.67	.0000	180.31	.0126	-24.82	345.57
RISE	11	2067.16	2078.41	20	15	30.8	289.69	.0042	-25.52	-.0000	274805.4	1.08	.00	.0029	121.82	.0024	-24.67	312.34
SET	51	2121.18	2132.43	20	16	24.8	90.00	.0041	-24.10	.0000	278175.9	1.76	10.21	-.0035	248.06	-.0015	-24.61	298.98
SET	61	2155.25	2166.50	20	16	58.9	66.19	.0042	-25.50	.0000	282114.3	1.66	-.00	-.0026	235.67	.0027	-24.57	290 55
SET	72	2305.15	2316.40	20	19	28.8	93.58	.0041	-24.24	.0001	294248.3	1.74	-.00	-.0037	245.51	-.0005	-24.42	253.43
RISE	42	2307.28	2318.53	20	19	30.9	255.00	.0041	-23.66	-.0000	294177.6	1.00	2.17	.0030	117.71	-.0023	-24.42	252.91
EXTM	11	2348.00	2359.25	20	20	11.6	.34	.0042	-25.45	.0000	294544.2	1.32	29.34	-.0000	180.35	.0044	-24.36	242.82
SET	11	2628.70	2639.95	21	0	52.3	70.91	.0042	-24.86	.0000	319258.5	1.57	-.00	-.0029	239.03	.0024	-24.13	173.20
EXTM	42	2726.10	2737.35	21	2	29.7	359.95	.0042	-23.83	.0000	320313.4	1.23	78.61	.0000	.24	-.0176	-24.05	149.03
RISE	51	2856.59	2867.84	21	4	40.2	270.00	.0041	-23.52	-.0000	334907.4	.82	9.98	.0035	111.41	-.0015	-23.95	116.62
RISE	72	3011.86	3023.11	21	7	15.5	266.50	.0041	-23.68	-.0000	347057.2	.75	-.00	.0038	113.93	-.0006	-23.84	78.03
RISE	61	3075.40	3086.65	21	8	19.0	292.72	.0042	-24.53	-.0000	351741.0	.82	.00	.0027	122.95	.0027	-23.79	62.24
SET	42	3144.97	3156.22	21	9	28.6	105.00	.0041	-23.13	.0000	356162.3	1.44	1.84	-.0030	242.71	-.0023	-23.76	44.86
EXTM	51	3213.70	3224.95	21	10	37.3	359.99	.0042	-23.70	.0000	354597.4	1.10	87.96	.0000	.49	-.0526	-23.73	27.69
EXTM	61	3342.19	3353.44	21	12	45.8	.17	.0042	-24.57	.0000	366657.1	1.10	25.19	-.0000	180.17	.0042	-23.68	355.59
EXTM	72	3381.98	3393.23	21	13	25.6	.03	.0042	-23.94	.0000	365863.4	1.09	73.97	.0000	180.11	.0120	-23.66	345.64
RISE	11	3509.22	3520.47	21	15	32.8	288.51	.0042	-24.23	-.0000	380289.7	.77	.00	.0030	120.15	.0024	-23.62	313.82
SET	51	3569.98	3581.23	21	16	33.6	90.00	.0042	-23.22	.0000	383192.2	1.49	9.86	-.0035	248.87	-.0015	-23.60	298.62
SET	61	3608.83	3620.08	21	17	12.4	67.58	.0042	-24.26	.0000	386851.5	1.41	-.00	-.0027	237.44	.0027	-23.59	288.89
SET	72	3751.11	3762.36	21	19	34.7	93.45	.0042	-23.42	.0000	396570.6	1.63	-.00	-.0038	246.34	-.0005	-23.56	253.21
RISE	42	3751.20	3762.45	21	19	34.8	255.00	.0042	-22.99	-.0000	356381.7	.85	1.76	.0030	117.18	-.0023	-23.56	253.19
EXTM	11	3791.17	3802.42	21	20	14.8	.02	.0043	-24.34	.0000	396332.5	1.30	30.45	.0000	180.03	.0042	-23.55	240.13
IMPACT		3839.51	3850.76	21	21	3.1												
IMPC	42	3839.51	3850.76	21	21	3.1	277.32	.0043	-23.13	-.0000	401833.8	1.69	18.00	.0034	105.52	-.0021	-23.57	230.86
IMPC	11	3839.51	3850.76	21	21	3.1	12.47	.0044	-24.34	-.0000	400776.7	2.12	29.29	-.0008	193.03	.0045	-23.57	230.86

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	19	5	3.613	6544.686	18.9679	305.5242	10.99670	.0992	114.9601	139.5755
SEPARATION		1.20	12.45	19	5	4.813	6569.759	15.9406	311.7399	10.97546	3.5306	116.9173	146.0921
RETRO		3.20	14.45	19	5	6.813	6714.416	10.6272	321.4355	10.85571	9.1152	119.2687	156.2891
EXIT	SHA	7.87	19.12	19	5	11.483	7483.729	-1.1787	340.4426	10.27819	20.6669	120.9568	176.4668
IMPACT		3839.51	3850.76	21	21	3.126	403932.484	-23.5687	230.8577	2.20559	67.9486	261.7246	307.4147

SURVEYOR VIEW PERIODS

GHA	119.9116					EPS-174.9054						LOM	226.4792
SX	.556669	SY	-.728185	SZ	-.399833	DAO	-23.56776	RAO	307.39650	RM	405212.199	LAT	28.310600
LON	279.461800												
C3	-.886724	ECC	.985441	SLR	12994.048	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000
POL	-.0												
NSX	.572522	NSY	-.717756	NSZ	-.396289	C3M	1.5556	VIM	2.6823	ZAE	142.367	B.T	.0000
B.R	-.0000												
LATE	5.8254	LONE	1.3898	LATS	-1.3577	LONS	178.9068	LATI	.9780	LONI	323.9904	RSM	146.8341
TTAN	6.0590												
LAUNCH DATE	JAN 19.1966			BASE AZM	108.0		TF 64.037					ARRIVAL DATE	JAN 21 1966 21 20 31.0

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	NJ EL	INJ PTH
108.00	5 0 47.4	28.0	17.86	305.01	1.97	141.18	117.07	5 12 2.4	6546.6	0.99	.98

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PRORE IN EARTH'S SHADOW															
INJECTION	.00	11.25	19	5	12.0												
SEPARATION	1.20	12.45	19	5	13.2												
RETRO	3.20	14.45	19	5	15.2												
RISE 72	4.62	15.87	19	5	16.7	84.74	-.1557	33.44	-.0178	2721.9	-8.16	-.00	.1311	303.80	.0039	5.15	326.55
EXIT SHA	7.57	18.82	19	5	19.6												
EXIT 72	7.57	18.82	19	5	19.6	43.05	-.3140	20.93	-.1548	1599.7	-3.36	38.83	.3314	305.08	.0147	-2.34	337.83
EXTM 72	9.50	20.75	19	5	21.5	7.40	-.2722	-1.08	-.1859	1577.9	2.93	79.96	.3258	312.42	.2844	-6.56	344.19
RISE 51	11.06	22.31	19	5	23.1	82.65	-.0824	14.86	-.0469	5381.7	-3.28	-.00	.0922	286.55	-.0061	-9.58	348.85
EXTM 51	35.01	46.26	19	5	47.1	1.53	-.0233	-30.11	-.0064	9577.2	5.36	85.43	-.0000	196.86	-.2693	-28.36	26.78
EXTM 72	70.20	81.45	19	6	22.2	289.11	-.0000	-33.72	.0001	23625.7	4.79	20.25	.0000	123.11	-.0001	-31.85	41.19
EXTM 51	89.93	101.18	19	6	42.0	340.60	-.0001	-33.31	.0002	25746.7	4.37	71.54	.0000	118.75	-.0001	-32.05	43.03
RISE 61	154.05	165.30	19	7	46.1	311.33	.0027	-37.97	.0006	46804.8	3.54	-.00	.0017	143.70	.0014	-31.50	39.22
EXTM 51	231.05	242.30	19	9	3.1	.49	.0033	-31.15	.0002	56802.0	3.23	84.58	-.0003	184.44	.0304	-30.60	27.25
EXTM 61	408.63	419.88	19	12	.7	5.09	.0039	-32.78	.0002	92048.2	2.65	16.83	.0000	184.47	.0034	-29.07	350.96
EXTM 72	436.67	447.92	19	12	28.7	.98	.0040	-30.30	.0002	92561.1	2.58	67.59	.0000	182.23	.0091	-28.88	344.76
RISE 11	603.70	614.95	19	15	15.7	294.02	.0040	-29.98	.0000	122660.8	2.01	.00	.0026	127.71	.0023	-27.98	306.61
SET 51	629.33	640.58	19	15	41.4	90.00	.0038	-26.77	.0001	124924.0	2.61	11.28	-.0032	245.56	-.0014	-27.86	300.63
SET 61	644.62	655.87	19	15	56.7	60.84	.0040	-29.93	.0002	128230.4	2.48	-.00	-.0022	229.18	.0027	-27.80	297.05
SET 72	824.85	836.10	19	18	56.9	94.02	.0039	-26.77	.0001	151314.6	2.43	-.00	-.0035	242.95	-.0004	-27.12	254.33
RISE 42	835.16	846.41	19	19	7.2	254.99	.0040	-25.64	-.0000	152198.9	1.71	3.37	.0028	119.27	-.0022	-27.09	251.87
EXTM 11	877.15	888.40	19	19	49.2	1.40	.0042	-29.04	.0001	154894.4	1.99	25.74	-.0000	181.36	.0040	-26.95	241.80
SET 11	1147.72	1158.97	20	0	19.8	68.44	.0041	-27.51	.0001	188235.1	2.09	.00	-.0027	235.58	.0024	-26.24	176.36
EXTM 42	1259.68	1270.93	20	2	11.7	359.92	.0042	-25.69	.0000	193846.7	1.72	80.47	-.0000	.46	-.0221	-26.00	149.06
RISE 51	1394.90	1406.15	20	4	26.9	270.00	.0041	-25.07	-.0000	212551.2	1.28	10.60	.0034	112.85	-.0015	-25.73	115.98
RISE 72	1550.96	1562.21	20	7	3.0	266.24	.0041	-25.23	-.0000	228851.0	1.17	-.01	.0037	115.49	-.0005	-25.46	77.68
RISE 61	1624.30	1635.55	20	8	16.3	294.92	.0041	-26.47	-.0000	235737.9	1.26	.00	.0026	125.72	.0027	-25.35	59.65
SET 42	1682.57	1693.82	20	9	14.6	105.00	.0041	-24.34	.0001	240829.4	1.86	2.58	-.0030	241.76	-.0022	-25.26	45.30
EXTM 51	1746.64	1757.89	20	10	18.7	358.12	.0042	-25.15	.0000	240648.0	1.49	88.21	.0036	71.26	-.0415	-25.17	29.51
EXTM 61	1885.64	1896.89	20	12	37.7	.54	.0042	-26.27	.0000	256732.5	1.45	23.49	.0000	180.53	.0041	-24.98	355.22
EXTM 72	1924.75	1936.00	20	13	16.8	.11	.0042	-25.34	.0000	256639.5	1.44	72.56	.0000	180.33	.0126	-24.93	345.56
RISE 11	2059.56	2070.81	20	15	31.6	289.78	.0042	-25.62	-.0000	274127.2	1.08	.00	.0029	121.95	.0024	-24.76	312.25
SET 51	2113.18	2124.43	20	16	25.2	90.00	.0041	-24.18	.0001	277465.4	1.76	10.25	-.0035	247.97	-.0015	-24.70	298.98
SET 61	2146.83	2158.08	20	16	58.9	66.09	.0042	-25.59	.0001	281376.7	1.66	-.00	-.0026	235.54	.0027	-24.66	290.66
SET 72	2297.19	2308.44	20	19	29.2	93.60	.0041	-24.32	.0001	293560.3	1.74	-.00	-.0037	245.44	-.0005	-24.50	253.43
RISE 42	2299.30	2310.55	20	19	31.3	255.00	.0041	-23.74	-.0000	293482.9	1.00	2.21	.0030	117.76	-.0023	-24.50	252.90
EXTM 11	2340.09	2351.34	20	20	12.1	.36	.0042	-25.53	.0000	293870.6	1.32	29.27	-.0000	180.37	.0044	-24.45	242.80
SET 11	2620.48	2631.73	21	0	52.5	70.87	.0042	-24.92	.0000	318572.2	1.57	-.00	-.0029	238.96	.0024	-24.18	173.25
EXTM 42	2718.05	2729.30	21	2	30.1	339.95	.0042	-23.88	.0000	319644.7	1.23	78.66	.0000	.25	-.0183	-24.10	149.03
RISE 51	2848.56	2859.81	21	4	40.6	270.00	.0041	-23.56	-.0000	334245.5	.82	9.99	.0035	111.44	-.0015	-23.99	116.61
RISE 72	3003.81	3015.06	21	7	15.8	266.50	.0041	-23.71	-.0000	346401.1	.75	-.00	.0038	113.95	-.0006	-23.86	78.03
RISE 61	3067.45	3078.70	21	8	19.5	292.74	.0042	-24.55	-.0000	351097.1	.82	.00	.0027	122.98	.0027	-23.81	62.21
SET 42	3136.91	3148.16	21	9	28.9	105.00	.0041	-23.15	.0000	355508.2	1.44	1.85	-.0030	242.70	-.0023	-23.78	44.86
EXTM 51	3205.64	3216.89	21	10	37.7	359.99	.0042	-23.71	.0000	353943.1	1.10	87.97	.0000	.44	-.0648	-23.75	27.70
EXTM 61	3334.20	3345.45	21	12	46.2	.18	.0042	-24.58	.0000	366003.1	1.09	25.18	-.0000	180.18	.0042	-23.69	355.57
EXTM 72	3373.94	3385.19	21	13	26.0	.03	.0042	-23.94	.0000	365223.8	1.09	73.96	.0000	180.13	.0118	-23.67	345.64
RISE 11	3501.18	3512.43	21	15	33.2	288.52	.0042	-24.23	-.0000	379619.7	.77	.00	.0030	120.15	.0024	-23.62	313.82
SET 51	3561.93	3573.18	21	16	34.0	90.00	.0042	-23.22	.0000	382513.2	1.48	9.86	-.0035	248.87	-.0015	-23.60	298.62
SET 61	3600.80	3612.05	21	17	13.8	67.59	.0042	-24.26	.0000	386166.2	1.40	-.00	-.0027	237.44	.0027	-23.58	280.89
SET 72	3743.09	3754.34	21	19	35.1	93.45	.0042	-23.41	.0000	395820.9	1.61	-.00	-.0038	246.35	-.0005	-23.55	253.22
RISE 42	3743.21	3754.46	21	19	35.2	255.00	.0042	-22.98	-.0000	395634.2	.85	1.75	.0030	117.17	-.0023	-23.58	253.19
EXTM 11	3783.30	3794.55	21	20	15.3	.05	.0043	-24.33	.0000	395535.1	1.26	30.46	.0000	180.06	.0044	-23.54	243.10
IMPACT	3842.23	3853.48	21	21	14.3												
IMPC 42	3842.23	3853.48	21	21	14.3	280.03	.0043	-23.12	-.0000	401622.5	1.69	20.93	.0034	104.16	-.0021	-23.55	228.16
IMPC 11	3842.23	3853.48	21	21	14.3	15.20	.0044	-24.32	-.0000	400838.8	2.14	28.76	-.0010	195.82	.0044	-23.55	228.16

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	19	5	12.040	6546.592	17.8624	305.0149	10.99499	.9788	117.0668	141.1788
SEPARATION	1.20	12.45	19	5	13.240	6583.731	14.6262	311.0582	10.96360	4.4017	118.8438	147.5229
RETRO	3.20	14.45	19	5	15.240	6747.467	9.0487	320.4537	10.82877	9.9467	120.8813	157.4197
EXIT SHA	7.57	18.82	19	5	19.612	7485.688	-2.3403	337.8338	10.27670	20.6864	121.9771	175.8999
IMPACT	3842.23	3853.48	21	21	14.273	403942.883	-23.5509	228.1620	2.20470	67.9149	262.2875	307.5135

JAN 19, 1966
108 DEGREES

SURVEYOR VIEW PERIODS

GHA	119.9116				EPS-174.8628							LOM	223.9726
SX	.567906	SY	-.727389	SZ	-.399558	DAO	-23.55054	RAO	307.48811	RM	405221.379	LAT	28.310600	LON	279.461800
C3	-.890100	ECC	.985385	SLR	12993.688	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.573769	NSY	-.716914	NSZ	-.396010	C3M	1.5555	VIM	2.6823	ZAE	142.254	B.T	.0000	B.R	-.0000
LATE	5.8301	LONE	1.4758	LATS	-1.3578	LONS	178.9139	LATI	.6713	LONI	324.0082	RSM	146.8342	TTAN	6.0591
LAUNCH DATE	JAN 19.1966			BASE AZM	111.0		TF 64.092				ARRIVAL DATE JAN 21 1966 21 30 52.9				

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	5 7 54.1	28.1	16.78	304.45	3.44	142.40	119.16	5 19 9.1	6550.5	10.99	1.71

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PRORE IN EARTH'S SHADOW															
INJECTION	.00	11.25	19	5	19.2												
SEPARATION	1.20	12.45	19	5	20.4												
RETRO	3.20	14.45	19	5	22.4												
RISE 72	4.54	15.79	19	5	23.7	85.70	-.1428	28.35	-.0388	2790.7	-8.00	.00	.1302	298.64	-.0187	3.69	325.03
EXIT SHA	7.33	18.58	19	5	26.5												
EXIT 72	7.33	18.58	19	5	26.5	51.93	-.2655	13.61	-.1561	1731.5	-3.75	34.14	.2954	292.41	-.0732	-3.39	335.46
EXTM 72	9.49	20.74	19	5	28.6	15.65	-.2655	-10.14	-.1704	1668.8	2.79	74.38	.2388	260.59	-.7454	-8.42	342.46
RISE 51	11.08	22.33	19	5	30.2	84.42	-.0776	11.40	-.0497	5498.6	-3.06	.00	.0902	282.68	-.0108	-11.52	347.12
EXTM 51	37.01	48.26	19	5	56.2	2.11	-.0213	-33.45	-.0044	10324.3	5.33	82.07	-.0000	192.86	-.1328	-30.51	26.42
EXTM 72	70.52	81.77	19	6	29.7	290.77	-.0000	-35.44	.0004	23673.6	4.78	21.46	.0000	125.06	-.0004	-33.19	39.56
EXTM 51	89.49	100.74	19	6	48.6	342.57	-.0002	-34.87	.0004	25669.2	4.37	72.44	.0000	125.46	-.0014	-33.26	41.40
RISE 61	155.10	166.35	19	7	54.3	313.11	.0027	-38.93	.0007	47093.5	3.53	-.00	.0017	145.39	.0014	-32.42	37.56
EXTM 51	223.57	234.82	19	9	2.7	.69	.0033	-32.10	.0003	55400.4	3.27	83.61	.0000	185.29	.0252	-31.44	27.07
EXTM 61	403.57	414.82	19	12	2.7	5.54	.0039	-33.38	.0003	91339.1	2.66	16.20	.0000	184.81	.0034	-29.64	350.54
EXTM 72	430.41	441.66	19	12	29.6	1.13	.0040	-30.90	.0002	91643.0	2.60	66.98	.0000	182.49	.0088	-29.43	344.62
RISE 11	599.08	610.33	19	15	18.2	294.48	.0040	-30.43	.0000	122043.1	2.01	.00	.0026	128.30	.0023	-28.40	306.14
SET 51	622.55	633.80	19	15	41.7	90.00	.0038	-27.19	.0001	124003.5	2.61	11.45	-.0032	245.17	-.0012	-28.28	300.67
SET 61	635.39	646.64	19	15	54.5	60.25	.0039	-30.39	.0002	127003.4	2.49	-.00	-.0021	228.49	.0027	-28.22	297.66
SET 72	818.44	829.69	19	18	57.6	94.08	.0039	-27.11	.0001	150537.1	2.43	-.00	-.0035	242.61	-.0004	-27.45	254.29
RISE 42	828.66	839.91	19	19	7.8	254.99	.0040	-25.96	-.0000	151391.5	1.72	3.57	.0028	119.53	-.0022	-27.42	251.85
EXTM 11	871.04	882.29	19	19	50.2	1.52	.0042	-29.37	.0001	154201.5	2.00	25.41	.0000	181.46	.0040	-27.27	241.69
SET 11	1140.09	1151.34	20	0	19.2	68.19	.0041	-27.76	.0001	187405.8	2.09	.00	-.0027	235.24	.0024	-26.48	176.61
EXTM 42	1253.09	1264.34	20	2	12.2	359.91	.0042	-25.92	.0000	193145.5	1.73	80.70	-.0000	.50	-.0227	-26.21	149.06
RISE 51	1388.35	1399.60	20	4	27.5	270.00	.0041	-25.26	-.0000	211869.8	1.28	10.68	.0034	113.03	-.0015	-25.93	115.97
RISE 72	1544.27	1555.52	20	7	3.4	266.21	.0041	-25.40	-.0000	228185.0	1.17	-.01	.0037	115.66	-.0005	-25.63	77.70
RISE 61	1618.46	1629.71	20	8	17.6	295.11	.0042	-26.63	.0000	235159.6	1.27	.00	.0026	125.96	.0027	-25.50	59.45
SET 42	1675.93	1687.18	20	9	15.1	105.00	.0041	-24.49	.0001	240172.4	1.86	2.67	-.0030	241.64	-.0022	-25.41	45.31
EXTM 51	1739.87	1751.12	20	10	19.0	358.09	.0042	-25.30	.0000	239995.7	1.49	88.22	.0037	76.03	-.0321	-25.31	29.55
EXTM 61	1879.15	1890.40	20	12	38.3	.58	.0042	-26.40	.0000	256129.4	1.45	23.36	.0000	180.56	.0041	-25.10	355.19
EXTM 72	1918.15	1929.40	20	13	17.3	.12	.0042	-25.47	.0000	256020.5	1.44	72.44	.0000	180.36	.0125	-25.05	345.56
RISE 11	2053.32	2064.57	20	15	32.5	289.88	.0042	-25.72	-.0000	273543.2	1.08	.00	.0029	122.09	.0024	-24.87	312.15
SET 51	2106.50	2117.75	20	16	25.7	90.00	.0041	-24.28	.0001	276843.8	1.76	10.29	-.0035	247.88	-.0015	-24.80	298.99
SET 61	2139.70	2150.95	20	16	58.8	65.98	.0042	-25.69	.0001	280723.5	1.66	-.00	-.0026	235.39	.0027	-24.76	290.77
SET 72	2290.55	2301.80	20	19	29.7	93.61	.0041	-24.40	.0001	292955.9	1.74	-.00	-.0037	245.35	-.0005	-24.58	253.42
RISE 42	2292.63	2303.88	20	19	31.8	255.00	.0041	-23.82	-.0000	292870.5	1.00	2.26	.0030	117.83	-.0023	-24.58	252.90
EXTM 11	2333.50	2344.75	20	20	12.7	.39	.0042	-25.61	.0000	293279.9	1.32	29.18	-.0000	180.40	.0043	-24.53	242.77
SET 11	2613.55	2624.80	21	0	52.7	70.81	.0042	-24.97	.0000	317956.8	1.57	-.00	-.0029	238.89	.0024	-24.24	173.31
EXTM 42	2711.32	2722.57	21	2	30.5	359.95	.0042	-23.93	.0000	319045.7	1.23	78.71	.0000	.27	-.0184	-24.15	149.03
RISE 51	2841.84	2853.09	21	4	41.0	270.00	.0041	-23.60	-.0000	333649.3	.82	10.01	.0035	111.48	-.0015	-24.03	116.61
RISE 72	2997.05	3008.30	21	7	16.2	266.49	.0041	-23.74	-.0000	345806.6	.75	-.00	.0038	113.98	-.0006	-23.89	78.03
RISE 61	3060.85	3072.10	21	8	20.0	292.78	.0042	-24.58	-.0000	350266.2	.86	.00	.0027	123.02	.0027	-23.84	62.17
SET 42	3130.29	3141.54	21	9	29.4	105.00	.0041	-23.16	.0000	355006.6	1.44	1.86	-.0030	242.69	-.0023	-23.79	44.87
EXTM 51	3199.01	3210.26	21	10	38.2	359.99	.0042	-23.72	.0000	353432.8	1.10	87.98	.0000	.58	-.0525	-23.76	27.70
EXTM 61	3327.59	3338.84	21	12	46.7	.19	.0042	-24.59	.0000	365476.7	1.09	25.17	-.0000	180.19	.0042	-23.69	355.56
EXTM 72	3367.29	3378.54	21	13	26.4	.03	.0042	-23.95	.0000	364687.8	1.09	73.96	.0000	180.13	.0122	-23.68	345.64
RISE 11	3494.51	3505.76	21	15	33.7	288.52	.0042	-24.23	-.0000	379058.0	.76	.00	.0030	120.15	.0024	-23.62	313.82
SET 51	3555.24	3566.49	21	16	34.4	90.00	.0042	-23.22	.0000	381935.7	1.48	9.86	-.0035	248.87	-.0015	-23.60	298.62
SET 61	3594.11	3605.36	21	17	13.3	67.59	.0042	-24.25	.0000	385578.1	1.40	-.00	-.0027	237.45	.0027	-23.58	288.89
SET 72	3736.39	3747.64	21	19	35.5	93.45	.0042	-23.40	.0000	395157.6	1.59	-.01	-.0038	246.36	-.0005	-23.53	253.22
RISE 42	3736.52	3747.77	21	19	35.7	255.00	.0042	-22.97	-.0000	394972.8	.83	1.74	.0030	117.16	-.0023	-23.53	253.19
EXTM 11	3776.71	3787.96	21	20	15.9	.07	.0043	-24.32	.0000	394827.7	1.23	30.47	.0000	180.08	.0045	-23.53	243.08
IMPACT	3845.53	3856.78	21	21	24.7												
IMPC 42	3845.53	3856.78	21	21	24.7	282.55	.0043	-23.12	-.0000	401431.1	1.68	22.94	.0035	102.90	-.0021	-23.53	225.65
IMPC 11	3845.53	3856.78	21	21	24.7	17.75	.0044	-24.30	-.0000	400910.2	2.15	28.16	-.0011	198.37	.0043	-23.53	225.65

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	19	5	19.152	6550.531	16.7814	304.4509	10.99152	1.7061	119.1655	142.3976
SEPARATION	1.20	12.45	19	5	20.352	6597.589	13.3435	310.3178	10.95184	5.1196	120.7704	148.5653
RETRO	3.20	14.45	19	5	22.352	6776.898	7.5060	319.4216	10.80489	10.6281	122.5147	158.1704
EXIT SHA	7.33	18.58	19	5	26.483	7488.519	-3.5948	335.4603	10.27458	20.7145	123.1044	175.2448
IMPACT	3845.53	3856.78	21	21	24.682	403956.762	-23.5341	225.6456	2.20160	67.6326	262.8186	307.6064

SURVEYOR VIEW PERIODS

GMA	119.9116					EPS=174.8085								LOM	220.8434
SX	.559447	SY	-.726394	SZ	-.399213	DAO	-23.52897	RAO	307.60243	RM	405232.797	LAT	28.310600	LON	279.461800
C3	-.895495	ECC	.985297	SLR	12993.107	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.575333	NSY	-.715853	NSZ	-.395660	C3M	1.5556	VIM	2.6823	ZAE	142.065	B.T	.0000	B.R	-.0000
LATE	5.8360	LONE	1.3701	LATS	-1.3579	LONS	178.7096	LATI	.2371	LONI	323.7808	RSM	146.8343	TTAN	6.0615
LAUNCH DATE		JAN	19,1966		BASE AZM	115.0		TF	64.179				ARRIVAL DATE JAN 21 1966 21 43 49.2		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	5 15 47.3	28.1	15.38	303.62	5.02	143.54	121.96	5 27 2.3	6557.2	10.99	2.49

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	19	5	27.0												
SEPARATION	1.20	12.45	19	5	28.2												
RETRO	3.20	14.45	19	5	30.2												
RISE 72	4.50	15.75	19	5	31.5	86.80	-.1286	21.88	-.0639	2884.1	-7.63	.00	.1275	292.11	-.0455	1.62	323.22
EXIT SHA	7.08	18.33	19	5	34.1												
EXIT 72	7.08	18.33	19	5	34.1	60.73	-.2142	5.18	-.1608	1947.5	-3.84	28.03	.2418	280.21	-.1288	-5.37	332.56
EXTM 72	10.54	21.79	19	5	37.6	10.78	-.2202	-28.69	-.1032	2095.0	4.72	66.86	-.0000	204.68	-.5573	-13.04	343.25
RISE 51	11.17	22.42	19	5	38.2	86.67	-.0718	6.87	-.0531	5648.9	-2.76	.00	.0874	277.63	-.0166	-14.22	344.99
EXTM 51	40.26	51.51	19	6	7.3	1.92	-.0185	-37.70	-.0021	11494.8	5.26	77.93	-.0000	187.30	-.0708	-33.44	26.51
EXTM 72	70.75	82.00	19	6	37.8	292.47	-.0001	-37.82	.0007	23715.0	4.77	22.54	.0000	127.79	-.0007	-35.10	37.77
EXTM 51	87.27	98.52	19	6	54.3	344.73	-.0006	-37.15	.0007	25147.8	4.40	72.73	.0000	135.02	-.0027	-35.02	39.57
RISE 61	159.57	170.82	19	8	6.6	315.49	.0027	-40.12	.0007	48143.4	3.49	.00	.0017	147.59	.0014	-33.65	35.42
EXTM 51	216.73	227.98	19	9	3.8	1.11	.0032	-33.45	.0004	54117.4	3.30	82.23	-.0000	186.89	.0201	-32.64	26.70
EXTM 61	399.39	410.64	19	12	6.4	6.26	.0039	-34.22	.0003	90791.1	2.67	15.32	.0000	185.37	.0033	-30.43	349.87
EXTM 72	424.14	435.39	19	12	31.2	1.36	.0040	-31.74	.0002	90726.7	2.61	66.13	.0000	182.86	.0084	-30.21	344.41
RISE 11	594.92	606.17	19	15	22.0	295.14	.0040	-31.05	.0001	121481.7	2.02	.00	.0026	129.14	.0023	-29.00	309.48
SET 51	615.37	626.62	19	15	42.4	90.00	.0038	-27.79	.0002	123010.2	2.62	11.68	-.0032	244.61	-.0012	-28.88	300.71
SET 61	624.62	635.87	19	15	51.7	59.38	.0039	-31.04	.0002	125555.0	2.50	.00	-.0021	227.51	.0027	-28.83	298.54
SET 72	811.70	822.95	19	18	58.7	94.16	.0039	-27.58	.0001	149705.3	2.44	-.00	-.0035	242.13	-.0004	-27.93	254.24
RISE 42	821.76	833.01	19	19	8.8	254.99	.0040	-26.43	-.0000	150511.9	1.73	3.86	.0028	119.90	-.0022	-27.89	251.83
EXTM 11	864.69	875.94	19	19	51.7	1.68	.0042	-29.83	.0001	153479.1	2.00	24.94	.0000	181.60	.0040	-27.72	241.54
SET 11	1131.59	1142.84	20	0	18.6	67.84	.0041	-28.12	.0001	186461.4	2.09	-.00	-.0027	234.77	.0024	-26.83	176.97
EXTM 42	1246.00	1257.25	20	2	13.0	359.91	.0042	-26.24	.0000	192367.5	1.73	81.02	-.0000	.54	-.0234	-26.53	149.07
RISE 51	1381.28	1392.53	20	4	28.3	270.00	.0041	-25.54	-.0000	211107.3	1.29	10.79	.0034	113.29	-.0015	-26.20	115.96
RISE 72	1537.00	1548.25	20	7	4.0	266.17	.0041	-25.64	-.0000	227432.5	1.18	-.01	.0037	115.90	-.0005	-25.87	77.73
RISE 61	1612.41	1623.66	20	8	19.4	295.38	.0042	-26.86	.0000	234527.7	1.27	.00	.0026	126.29	.0027	-25.73	59.18
SET 42	1668.74	1679.99	20	9	15.8	105.00	.0041	-24.70	.0001	239424.8	1.86	2.80	-.0030	241.48	-.0022	-25.62	45.31
EXTM 51	1732.53	1743.78	20	10	19.6	358.05	.0042	-25.50	.0000	239254.2	1.49	88.22	.0038	82.85	-.0180	-25.51	29.59
EXTM 61	1872.15	1883.40	20	12	39.2	.63	.0042	-26.58	.0000	255445.9	1.46	23.18	.0000	180.61	.0041	-25.28	355.13
EXTM 72	1910.99	1922.24	20	13	18.0	.13	.0042	-25.65	.0000	255312.2	1.44	72.26	.0000	180.40	.0124	-25.22	345.54
RISE 11	2046.66	2057.91	20	15	33.7	290.02	.0042	-25.88	-.0000	272877.8	1.08	.00	.0029	122.29	.0024	-25.02	312.00
SET 51	2099.23	2110.48	20	16	26.3	90.00	.0041	-24.43	.0001	276122.1	1.76	10.34	-.0035	247.75	-.0015	-24.94	298.99
SET 61	2131.76	2143.01	20	16	58.8	65.81	.0042	-25.84	.0001	279954.4	1.66	-.00	-.0026	235.19	.0027	-24.90	290.94
SET 72	2283.33	2294.58	20	19	30.4	93.63	.0041	-24.52	.0001	292249.9	1.74	-.00	-.0037	245.23	-.0005	-24.70	253.40
RISE 42	2285.36	2296.61	20	19	32.4	255.00	.0041	-23.94	-.0000	292152.3	1.00	2.33	.0030	117.92	-.0023	-24.70	252.90
EXTM 11	2326.34	2337.59	20	20	13.4	.42	.0042	-25.73	.0000	292591.2	1.32	29.06	-.0000	180.43	.0043	-24.65	242.74
SET 11	2605.88	2617.13	21	0	52.9	70.74	.0042	-25.06	.0000	317220.3	1.57	-.00	-.0029	238.78	.0024	-24.32	173.39
EXTM 42	2703.94	2715.19	21	2	31.0	359.94	.0042	-24.00	.0000	318329.0	1.23	78.78	.0000	.30	-.0188	-24.22	149.04
RISE 51	2834.48	2845.73	21	4	41.5	270.00	.0041	-23.66	-.0000	332931.4	.82	10.03	.0035	111.54	-.0015	-24.09	116.61
RISE 72	2989.64	3000.89	21	7	16.7	266.49	.0041	-23.79	-.0000	345085.0	.75	-.00	.0038	114.03	-.0006	-23.94	78.04
SET 42	3122.87	3134.12	21	9	29.9	105.00	.0041	-23.20	.0000	354280.7	1.44	1.88	-.0030	242.66	-.0023	-23.83	44.87
EXTM 51	3191.63	3202.88	21	10	38.7	360.00	.0042	-23.75	.0000	352706.4	1.10	88.01	-.0000	.50	-.0157	-23.79	27.69
EXTM 61	3320.25	3331.50	21	12	47.3	.21	.0042	-24.61	.0000	364744.1	1.09	25.15	-.0000	180.21	.0042	-23.71	355.54
EXTM 72	3359.89	3371.14	21	13	26.9	.04	.0042	-23.97	.0000	363945.2	1.09	73.94	.0000	180.14	.0127	-23.69	345.63
RISE 11	3487.13	3498.38	21	15	34.2	288.53	.0042	-24.24	-.0000	378298.9	.76	.00	.0030	120.16	.0024	-23.63	313.81
SET 51	3547.81	3559.06	21	16	34.8	90.00	.0042	-23.22	.0000	381161.9	1.48	9.86	-.0035	248.87	-.0015	-23.60	298.62
SET 61	3586.68	3597.93	21	17	13.7	67.59	.0042	-24.26	.0000	384794.5	1.39	-.00	-.0027	237.44	.0027	-23.58	288.89
SET 72	3728.98	3740.23	21	19	36.0	93.45	.0042	-23.39	.0000	394308.3	1.58	-.01	-.0038	246.37	-.0005	-23.53	253.22
RISE 42	3729.13	3740.38	21	19	36.2	255.00	.0042	-22.96	-.0000	394125.4	.82	1.74	.0030	117.15	-.0023	-23.53	253.18
EXTM 11	3769.45	3780.70	21	20	16.5	.10	.0043	-24.31	.0000	393939.5	1.21	30.49	.0000	180.11	.0045	-23.51	243.05
IMPACT	3850.76	3862.01	21	21	37.8												
IMPC 42	3850.76	3862.01	21	21	37.8	285.73	.0043	-23.11	-.0000	401188.2	1.69	25.48	.0035	101.30	-.0021	-23.51	222.47
IMPC 11	3850.76	3862.01	21	21	37.8	20.97	.0044	-24.27	-.0000	401008.4	2.16	27.29	-.0013	201.53	.0042	-23.51	222.47

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	19	5	27.038	6557.216	15.3786	303.6257	10.98566	2.4916	121.9581	143.5494
SEPARATION	1.20	12.45	19	5	28.238	6614.900	11.6814	309.2527	10.93715	5.8923	123.3470	149.4773
RETRO	3.20	14.45	19	5	30.238	6810.808	5.5019	317.9788	10.77791	11.3583	124.7304	158.7047
EXIT SHA	7.08	18.33	19	5	34.117	7493.296	-5.3691	332.5633	10.27101	20.7618	124.7486	174.2616
IMPACT	3850.76	3862.01	21	21	37.801	403969.789	-23.5133	222.4732	2.19987	67.5371	263.6786	307.7227

SURVEYOR VIEW PERIODS

GHA	120.8972				EPS=165.6278							LOM	233.7604
SX	.716661	SY	-.601624	SZ	-.352769	DAO	-20.65678	RAO	319.98713	RM	406192.863	LAT	28.310600	LON	279.461800
C3	-.891209	ECC	.985367	SLR	12993.566	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.729816	NSY	-.588422	NSZ	-.347696	C3M	1.5522	VIM	2.6817	ZAE	142.654	B.T	.0000	B.R	-.0000
LATE	6.3570	LONE	.1279	LATS	-1.3691	LONS	166.5717	LATI	2.9933	LONI	322.7994	RSM	146.8587	TTAN	5.3445
LAUNCH DATE	JAN 20,1966			BASE AZM	102.0		TF 64.403				ARRIVAL DATE JAN 22 1966 21 37 45.9				

LNCH AZMTH	LNCH TIME	RR	INJ LAT	INJ LONG	INJ IA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
102.00	4 55 18.6	27.5	20.27	305.53	-10.78	141.31	112.69	5 6 33.6	6602.5	10.95	-5.35

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROPE IN EARTH'S SHADOW															
INJECTION	.00	11.25	20	5	6.6												
SEPARATION	1.20	12.45	20	5	7.8												
RETRO	3.20	14.45	20	5	9.8												
RISE 72	5.47	16.72	20	5	12.0	81.45	-.2082	46.95	.0493	2216.9	-8.63	.00	.1293	317.54	.0770	6.32	332.79
EXIT SHA	8.26	19.51	20	5	14.8												
EXIT 72	8.26	19.51	20	5	14.8	9.41	-.5621	41.73	-.2463	1162.0	-2.01	39.63	.3290	350.89	.4653	-.83	344.54
EXTM 72	8.91	20.16	20	5	15.5	349.87	-.4301	30.17	-.3271	1145.8	1.19	50.71	.2123	13.89	.7066	-2.37	347.04
RISE 51	11.32	22.57	20	5	17.9	78.53	-.1036	22.42	-.0433	4562.5	-4.69	.00	.1049	295.05	.0068	-7.54	355.56
EXTM 51	26.21	37.46	20	5	32.8	358.15	-.0477	-21.95	-.0195	5983.5	5.45	85.85	.0000	24.48	.6686	-23.91	28.60
EXTM 72	69.09	80.34	20	6	15.7	274.79	.0000	-29.92	-.0000	23890.2	4.88	8.06	.0000	119.28	.0000	-30.02	54.37
RISE 42	79.10	90.35	20	6	25.7	105.00	-.0035	-22.55	-.0014	27476.0	4.30	1.48	.0034	243.18	.0009	-30.06	55.80
EXTM 42	121.72	132.97	20	7	8.3	101.62	.0002	-24.29	-.0002	38191.2	4.06	5.00	-.0000	243.67	-.0003	-29.58	55.94
SET 42	171.33	182.58	20	7	57.9	105.00	.0018	-24.50	.0000	49819.8	3.76	2.68	-.0013	241.64	-.0010	-28.79	50.51
RISE 61	195.75	207.00	20	8	22.3	304.25	.0032	-33.62	.0004	55292.5	3.23	.00	.0020	136.50	.0018	-28.44	46.79
EXTM 51	292.03	303.28	20	9	58.6	358.54	.0037	-27.42	.0002	67713.8	2.98	87.88	.0022	142.44	.0661	-27.27	29.02
EXTM 61	464.18	475.43	20	12	50.7	4.08	.0040	-29.21	.0002	99953.2	2.53	20.45	.0000	183.80	.0037	-25.88	351.89
EXTM 72	494.51	505.76	20	13	21.1	.70	.0041	-26.79	.0001	100850.0	2.47	71.10	-.0000	181.94	.0112	-25.69	345.01
RISE 11	646.08	657.33	20	15	52.6	290.85	.0040	-26.76	.0000	128104.0	1.93	.01	.0028	123.44	.0023	-24.90	309.91
SET 51	686.46	697.71	20	16	33.0	90.00	.0039	-23.66	.0001	132363.8	2.55	10.04	-.0033	248.46	-.0013	-24.72	300.40
SET 61	718.82	730.07	20	17	5.4	65.03	.0040	-26.52	.0002	137685.0	2.41	-.00	-.0024	234.21	.0027	-24.59	292.74
SET 72	878.16	889.41	20	19	44.7	93.50	.0040	-23.69	.0001	157457.7	2.39	-.01	-.0036	246.06	-.0004	-24.02	254.68
RISE 42	889.31	900.56	20	19	55.9	254.99	.0040	-22.59	-.0000	158619.5	1.66	1.50	.0029	116.86	-.0023	-23.99	252.00
EXTM 11	931.01	942.26	20	20	37.6	1.24	.0042	-25.81	.0001	160642.4	1.95	28.97	-.0000	181.27	.0043	-23.86	241.96
SET 11	1213.72	1224.97	21	1	20.3	71.39	.0041	-24.33	.0001	194955.9	2.06	-.00	-.0028	239.72	.0024	-23.14	173.33
EXTM 42	1312.88	1324.13	21	2	59.4	359.88	.0042	-22.54	.0000	199078.4	1.69	77.32	.0000	.53	-.0175	-22.93	149.10
RISE 51	1447.71	1458.96	21	5	14.3	270.00	.0041	-22.01	-.0000	217595.9	1.25	9.36	.0035	110.01	-.0016	-22.67	116.06
RISE 72	1605.60	1616.85	21	7	52.2	266.75	.0041	-22.18	-.0000	233709.0	1.14	-.01	.0038	112.41	-.0005	-22.41	77.25
RISE 61	1663.08	1674.33	21	8	49.6	291.48	.0041	-23.40	.0000	239038.9	1.23	.00	.0027	121.35	.0027	-22.32	63.10
SET 42	1735.54	1746.79	21	10	2.1	105.00	.0041	-21.30	.0000	245567.9	1.84	.72	-.0030	244.16	-.0023	-22.21	45.24
EXTM 51	1806.62	1817.87	21	11	13.2	359.97	.0042	-22.02	.0000	245733.4	1.48	86.28	.0000	.47	-.0519	-22.11	27.71
EXTM 61	1938.04	1949.29	21	13	24.6	.50	.0042	-23.17	.0000	260671.8	1.44	26.59	-.0000	180.52	.0043	-21.93	355.26
EXTM 72	1977.17	1988.42	21	14	3.7	.08	.0042	-22.22	.0000	260753.3	1.42	75.68	.0000	180.32	.0155	-21.88	345.59
RISE 11	2100.86	2112.11	21	16	7.4	287.05	.0042	-22.56	-.0000	277276.4	1.05	.00	.0030	118.01	.0024	-21.73	315.00
SET 51	2165.74	2176.99	21	17	12.3	90.00	.0041	-21.14	.0000	281632.5	1.75	9.01	-.0035	250.79	-.0016	-21.66	298.94
SET 61	2212.94	2224.19	21	17	59.5	69.48	.0041	-22.50	.0000	286477.6	1.65	-.00	-.0027	239.91	.0027	-21.61	287.25
SET 72	2347.63	2358.88	21	20	14.2	93.10	.0041	-21.29	.0000	297257.8	1.74	-.00	-.0038	248.50	-.0005	-21.46	253.88
RISE 42	2351.40	2362.65	21	20	18.0	255.00	.0041	-20.71	-.0000	297516.7	.98	.35	.0030	115.37	-.0024	-21.46	252.94
EXTM 11	2392.21	2403.46	21	20	58.8	.33	.0042	-22.44	.0000	297373.1	1.30	32.35	-.0000	180.36	.0046	-21.42	242.82
SET 11	2683.52	2694.77	22	1	50.1	73.56	.0042	-21.85	.0000	322953.5	1.57	-.00	-.0030	242.90	.0024	-21.14	170.54
EXTM 42	2770.09	2781.34	22	3	16.6	359.95	.0042	-20.79	.0000	323211.8	1.22	75.57	-.0000	.22	-.0147	-21.07	149.03
RISE 51	2900.43	2911.68	22	5	27.0	270.00	.0041	-20.53	-.0000	337769.3	.80	8.76	.0035	108.64	-.0016	-20.96	116.65
RISE 72	3057.58	3068.83	22	8	4.1	266.99	.0041	-20.69	-.0000	349818.7	.73	-.01	.0038	110.90	-.0006	-20.84	77.58
RISE 61	3106.24	3117.49	22	8	52.8	289.49	.0042	-21.52	-.0000	353396.0	.80	.00	.0028	118.72	.0027	-20.80	65.46
SET 42	3188.81	3200.06	22	10	15.4	105.00	.0041	-20.15	.0000	358849.7	1.44	.01	-.0031	245.07	-.0024	-20.77	44.84
EXTM 51	3257.44	3268.69	22	11	24.0	359.99	.0042	-20.65	.0000	357063.2	1.10	84.91	-.0000	.20	-.0167	-20.74	27.69
EXTM 61	3385.83	3397.08	22	13	32.4	.15	.0042	-21.56	.0000	368744.6	1.09	28.20	-.0000	180.16	.0045	-20.69	355.61
EXTM 72	3425.65	3436.90	22	14	12.2	.02	.0042	-20.90	.0000	368171.0	1.09	77.01	.0000	180.11	.0128	-20.68	345.65
RISE 11	3542.46	3553.71	22	16	9.0	285.91	.0042	-21.23	-.0000	381939.8	.75	.00	.0031	116.31	.0024	-20.64	316.44
SET 51	3613.76	3625.01	22	17	20.3	90.00	.0042	-20.24	.0000	385650.9	1.49	8.64	-.0036	251.63	-.0016	-20.62	298.59
SET 61	3665.26	3676.51	22	18	11.8	70.78	.0042	-21.26	.0000	390014.5	1.42	-.00	-.0028	241.64	.0027	-20.61	285.66
SET 72	3792.91	3804.16	22	20	19.5	92.97	.0042	-20.47	.0000	398823.1	1.66	-.00	-.0039	249.33	-.0006	-20.60	253.66
RISE 42	3795.00	3806.25	22	20	21.6	255.07	.0042	-20.04	-.0000	398977.5	.89	-.01	.0031	114.80	-.0024	-20.60	253.14
EXTM 11	3834.21	3845.46	22	21	.8	359.90	.0043	-21.36	-.0000	398522.2	1.39	33.43	.0000	179.88	.0047	-20.61	243.25
IMPACT	3864.21	3875.46	22	21	30.8												
IMPC 42	3864.21	3875.46	22	21	30.8	272.57	.0043	-20.16	-.0001	403389.0	1.67	13.48	.0034	105.34	-.0022	-20.63	235.62
IMPC 11	3864.21	3875.46	22	21	30.8	7.64	.0044	-21.38	-.0000	401421.1	2.09	32.95	-.0005	188.48	.0048	-20.63	235.62

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	20	5	6.560	6603.868	20.2935	305.4724	10.94775	-5.3502	112.6665	141.2481
SEPARATION	1.20	12.45	20	5	7.760	6552.250	17.4993	311.8735	10.98989	-1.9433	114.8419	147.9501
RETRO	3.20	14.45	20	5	9.760	6573.394	12.3913	322.0692	10.97208	3.7767	117.6109	158.6471
EXIT SHA	8.26	19.51	20	5	14.820	7175.445	-.8281	344.5389	10.49813	17.1814	120.0529	182.3853
IMPACT	3864.21	3875.46	22	21	30.767	404922.082	-20.6308	235.6203	2.20180	68.0192	255.8049	320.0921

SURVEYOR VIEW PERIODS

GHA	120.8972					EPS=165.5473								LOM	231.0399
SX	.717777	SY	-.600541	SZ	-.352344	DAO	-20.63076	RAO	320.08184	RM	406197.895	LAT	28.310600	LON	279.461800
C3	-.889190	ECC	.985400	SLR	12993.784	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.730896	NSY	-.587529	NSZ	-.347276	C3M	1.5556	VIM	2.6823	ZAE	142.655	B.T	.0000	B.R	-.0000
LATE	6.3600	LONE	.2208	LATS	-1.3692	LONS	166.5794	LATI	2.7801	LONI	322.9184	RSM	146.8590	TTAN	5.3366
LAUNCH DATE	JAN 20,1966			BASE AZM	105.0		TF 64.373					ARRIVAL DATE	JAN 22 1966 21 48 59.7		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	5 7 32.8	27.6	19.12	305.18	-8.08	144.02	114.85	5 18 47.8	6577.1	10.97	-4.01

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PRORE IN EARTH'S SHADOW															
INJECTION	.00	11.25	20	5	18.8												
SEPARATION	1.20	12.45	20	5	20.0												
RETRO	3.20	14.45	20	5	22.0												
RISE 72	5.23	16.48	20	5	24.0	83.33	-.1786	39.94	.0144	2299.6	-8.80	-.00	.1321	310.40	.0387	5.07	330.64
EXIT SHA	7.79	19.04	20	5	26.6												
EXIT 72	7.79	19.04	20	5	26.6	33.61	-.4861	33.84	-.1710	1205.4	-4.05	37.49	.4026	324.59	.2189	-1.64	341.24
EXTM 72	9.36	20.61	20	5	28.2	350.81	-.3575	8.71	-.2825	1171.2	3.35	71.03	.0747	29.07	1.3725	-5.36	347.09
RISE 51	11.22	22.47	20	5	30.0	80.72	-.0960	18.49	-.0474	4716.1	-4.43	.00	.1026	290.62	-.0005	-9.24	353.36
EXTM 51	26.61	37.86	20	5	45.4	2.29	-.0472	-25.34	-.0168	6263.4	5.37	87.90	.0451	280.42	-.2179	-25.55	26.55
EXTM 72	69.17	80.42	20	6	28.0	277.57	.0000	-31.31	.0002	23790.2	4.87	10.54	.0000	120.52	-.0002	-30.97	51.61
RISE 42	98.73	109.98	20	6	57.5	104.99	-.0013	-24.37	-.0006	32785.2	4.20	2.60	.0013	241.74	.0003	-30.71	53.99
EXTM 42	121.20	132.45	20	7	20.0	104.33	.0002	-24.88	-.0002	38358.2	4.06	3.39	-.0000	241.70	-.0003	-30.31	53.20
SET 42	139.66	150.91	20	7	38.5	105.00	.0010	-25.02	-.0001	42790.2	3.94	3.00	-.0007	241.22	-.0006	-29.96	51.63
RISE 61	187.37	198.62	20	8	26.2	305.61	.0031	-34.53	.0005	53643.5	3.28	.00	.0020	137.95	.0017	-29.13	45.34
EXTM 51	285.42	296.67	20	10	4.2	.17	.0037	-27.98	.0002	65614.2	3.01	87.75	.0000	183.75	.0821	-27.78	27.53
EXTM 61	453.13	464.38	20	12	51.9	4.45	.0040	-29.67	.0002	98393.2	2.56	19.97	.0000	184.11	.0037	-26.27	351.54
EXTM 72	482.32	493.57	20	13	21.1	.78	.0041	-27.22	.0001	99124.9	2.50	70.67	.0000	182.08	.0109	-26.07	344.95
RISE 11	635.32	646.57	20	15	54.1	291.15	.0040	-27.08	.0000	126726.5	1.95	.00	.0028	123.86	.0023	-25.20	309.58
SET 51	674.17	685.42	20	16	33.0	90.00	.0039	-23.94	.0001	130805.4	2.56	10.15	-.0033	248.20	-.0013	-25.01	300.43
SET 61	705.04	716.29	20	17	3.8	64.65	.0040	-26.83	.0002	135971.9	2.43	.00	-.0023	233.75	.0027	-24.88	293.14
SET 72	866.24	877.49	20	19	45.0	93.54	.0040	-23.92	.0001	156100.9	2.40	-.01	-.0036	245.83	-.0004	-24.25	254.67
RISE 42	877.43	888.68	20	19	56.2	254.99	.0040	-22.80	-.0000	157260.1	1.67	1.64	.0029	117.03	-.0023	-24.21	251.98
EXTM 11	919.39	930.64	20	20	38.2	1.32	.0042	-26.04	.0001	159376.8	1.96	28.74	-.0000	181.35	.0043	-24.07	241.88
SET 11	1201.17	1212.42	21	1	20.0	71.24	.0041	-24.50	.0001	193708.4	2.07	-.00	-.0028	239.50	.0024	-23.30	173.50
EXTM 42	1300.98	1312.23	21	2	59.8	359.87	.0042	-22.69	.0000	197937.4	1.70	77.47	.0000	.57	-.0177	-23.07	149.11
RISE 51	1435.89	1447.14	21	5	14.7	270.00	.0041	-22.13	-.0000	216510.7	1.25	9.41	.0035	110.12	-.0016	-22.80	116.05
RISE 72	1593.71	1604.96	21	7	52.5	266.73	.0041	-22.29	-.0000	232675.1	1.14	-.01	.0038	112.52	-.0005	-22.52	77.26
RISE 61	1651.75	1663.00	21	8	50.5	291.60	.0041	-23.50	.0000	238073.9	1.24	.01	.0027	121.50	.0027	-22.42	62.97
SET 42	1723.66	1734.91	21	10	2.5	105.00	.0041	-21.39	.0001	244568.0	1.85	.77	-.0030	244.09	-.0023	-22.30	45.25
EXTM 51	1794.76	1806.01	21	11	13.6	359.97	.0042	-22.10	.0000	244761.1	1.48	86.37	.0000	.50	-.0532	-22.20	27.71
EXTM 61	1926.29	1937.54	21	13	25.1	.53	.0042	-23.25	.0000	259752.3	1.44	26.51	-.0000	180.54	.0043	-22.01	355.23
EXTM 72	1965.34	1976.59	21	14	4.1	.09	.0042	-22.30	.0000	259830.7	1.43	75.61	.0000	180.34	.0154	-21.96	348.58
RISE 11	2089.25	2100.50	21	16	8.0	287.10	.0042	-22.63	-.0000	276399.9	1.06	.00	.0030	118.09	.0024	-21.80	314.94
SET 51	2153.86	2165.11	21	17	12.7	90.00	.0041	-21.20	.0000	280746.5	1.76	9.03	-.0035	250.74	-.0016	-21.72	298.94
SET 61	2200.81	2212.06	21	17	59.6	69.42	.0041	-22.56	.0000	285584.7	1.66	-.00	-.0027	239.83	.0027	-21.66	287.31
SET 72	2335.77	2347.02	21	20	14.6	93.11	.0041	-21.33	.0000	296416.5	1.74	-.00	-.0038	248.45	-.0005	-21.51	253.87
RISE 42	2339.55	2350.80	21	20	18.3	255.00	.0041	-20.75	-.0000	296673.1	.98	.38	.0030	115.41	-.0024	-21.51	252.94
EXTM 11	2380.41	2391.66	21	20	59.2	.35	.0042	-22.49	.0000	296549.6	1.31	32.30	-.0000	180.38	.0046	-21.46	242.81
SET 11	2671.53	2682.78	22	1	50.3	73.54	.0042	-21.88	.0000	322168.9	1.57	-.00	-.0030	242.87	.0024	-21.17	170.56
EXTM 42	2758.19	2769.44	22	3	17.0	359.94	.0042	-20.82	.0000	322449.5	1.22	75.60	-.0000	.23	-.0151	-21.09	149.04
RISE 51	2888.55	2899.80	22	5	27.3	270.00	.0041	-20.54	-.0000	337031.4	.80	8.76	.0035	108.65	-.0016	-20.98	116.65
RISE 72	3045.69	3056.94	22	8	4.5	266.99	.0041	-20.70	-.0000	349107.6	.74	-.01	.0038	110.90	-.0006	-20.85	77.58
RISE 61	3094.43	3105.68	22	8	53.2	289.50	.0042	-21.53	-.0000	352494.0	.84	.00	.0028	118.73	.0027	-20.81	65.45
SET 42	3176.98	3188.23	22	10	15.8	105.00	.0041	-20.14	.0000	358207.1	1.44	.00	-.0031	245.07	-.0024	-20.77	44.84
EXTM 51	3245.60	3256.85	22	11	24.4	359.99	.0042	-20.65	.0000	356423.2	1.10	84.91	-.0000	.18	-.0201	-20.74	27.69
EXTM 61	3374.02	3385.27	22	13	32.8	.16	.0042	-21.55	.0000	368108.7	1.09	28.21	-.0000	180.16	.0045	-20.68	355.60
EXTM 72	3413.80	3425.05	22	14	12.6	.02	.0042	-20.89	.0000	367534.1	1.09	77.02	.0000	180.11	.0140	-20.67	348.65
RISE 11	3530.57	3541.82	22	16	9.4	285.90	.0042	-21.22	-.0000	381297.3	.75	.00	.0031	116.30	.0024	-20.63	316.44
SET 51	3601.89	3613.14	22	17	20.7	90.00	.0042	-20.22	.0000	385004.6	1.49	8.63	-.0036	251.64	-.0016	-20.61	298.59
SET 61	3653.46	3664.71	22	18	12.3	70.79	.0042	-21.24	.0000	389363.3	1.42	-.00	-.0028	241.66	.0027	-20.59	285.68
SET 72	3781.05	3792.30	22	20	19.8	92.97	.0042	-20.44	.0000	398101.0	1.64	-.00	-.0039	249.35	-.0006	-20.58	253.67
RISE 42	3783.28	3794.53	22	20	22.1	255.10	.0042	-20.01	-.0000	398262.0	.87	.00	.0031	114.77	-.0024	-20.58	253.11
EXTM 11	3822.61	3833.86	22	21	1.4	359.95	.0043	-21.34	-.0000	397733.1	1.33	33.45	.0000	179.94	.0047	-20.58	243.20
IMPACT	3862.41	3873.66	22	21	41.2												
IMPC 42	3862.41	3873.66	22	21	41.2	275.11	.0043	-20.14	-.0000	403181.5	1.67	15.48	.0034	104.00	-.0022	-20.61	233.09
IMPC 11	3862.41	3873.66	22	21	41.2	10.20	.0044	-21.36	-.0000	401458.4	2.11	32.61	-.0007	191.29	.0047	-20.61	233.09

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	20	5	18.797	6577.528	19.1320	305.1503	10.96918	-4.0116	114.8374	143.9937
SEPARATION	1.20	12.45	20	5	19.997	6545.359	16.1120	311.3879	10.99581	-.5893	116.8201	150.5321
RETRO	3.20	14.45	20	5	21.997	6597.504	10.6953	321.3118	10.95195	5.1155	119.2458	160.9573
EXIT SHA	7.79	19.04	20	5	26.586	7175.925	-1.6442	341.2393	10.49787	17.1877	120.9377	182.0384
IMPACT	3862.41	3873.66	22	21	41.207	404928.422	-20.6071	233.0916	2.20137	67.9134	256.2120	320.1806

SURVEYOR VIEW PERIODS

QHA	120.8972					EPS=165.4561								LOM	227.9599
SX	.719330	SY	-.599314	SZ	-.351862	DAO	-20.60124	RAO	320.18903	RM	406203.535	LAT	28.310600	LON	279.481800
C3	-.890794	ECC	.985374	SLR	12993.612	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.732143	NSY	-.586264	NSZ	-.346788	C3M	1.5558	VIM	2.6824	ZAE	142.596	B.T	.0000	B.R	-.0000
LATE	6.3634	LONE	.1063	LATS	-1.3692	LONS	166.3696	LATI	2.5320	LONI	322.7759	RSM	1 6.8593	TTAN	5.3318

LAUNCH DATE JAN 20,1966 BASE AZM 108.0 TF 64.401 ARRIVAL DATE JAN 22 1966 22 1 42,5

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	5 19 12.1	27.7	18.00	304.74	-5.78	146.25	116.98	5 29 27.4	6561.2	10.98	-2.87

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW														
INJECTION	.00	11.25	20	5	29.5												
SEPARATION	1.20	12.45	20	5	30.7												
RETRO	3.20	14.45	20	5	32.7												
RISE 72	5.06	16.31	20	5	34.5	84.71	-.1586	33.61	-.0167	2382.5	-8.77	-.00	.1331	303.97	.0054	3.72	328.76
EXIT SHA	7.39	18.64	20	5	36.8												
EXIT 72	7.39	18.64	20	5	36.8	49.48	-.3689	24.50	-.1547	1339.4	-5.19	31.91	.3691	305.42	.0210	-2.57	338.25
EXTM 72	9.10	20.35	20	5	38.5	7.51	-.3889	.03	-.2626	1165.4	2.22	79.09	.4590	316.31	.5420	-6.69	344.50
RISE 51	11.16	22.41	20	5	40.6	82.73	-.0894	14.71	-.0512	4861.0	-4.16	.00	.1002	286.37	-.0069	-11.04	351.34
EXTM 51	28.75	40.00	20	5	58.2	1.47	-.0402	-30.04	-.0107	7102.3	5.46	85.51	-.0000	196.43	-.4651	-28.01	26.93
EXTM 72	69.36	80.61	20	6	38.8	279.94	.0000	-32.81	.0004	23748.7	4.85	12.60	.0000	121.97	-.0004	-32.05	49.26
EXTM 51	86.51	97.76	20	6	56.0	330.10	-.0001	-32.70	.0005	24775.1	4.45	63.09	.0000	112.03	-.0012	-31.86	51.26
RISE 61	181.79	193.04	20	8	31.2	307.07	.0031	-35.46	.0006	52548.5	3.32	.00	.0020	139.47	.0016	-29.88	43.83
EXTM 51	273.87	285.12	20	10	3.3	.26	.0036	-28.71	.0003	64587.5	3.05	87.02	.0000	184.43	.0610	-28.44	27.45
EXTM 61	444.06	455.31	20	12	53.5	4.85	.0039	-30.18	.0002	97107.0	2.57	19.44	.0000	184.45	.0036	-26.72	351.17
EXTM 72	472.12	483.37	20	13	21.6	.89	.0040	-27.70	.0002	97664.0	2.51	70.19	.0000	182.31	.0106	-26.51	344.85
RISE 11	626.51	637.76	20	15	56.0	291.50	.0040	-27.44	.0001	125578.9	1.96	.00	.0027	124.34	.0023	-25.54	309.21
SET 51	663.68	674.93	20	16	33.1	90.00	.0039	-24.26	.0001	129443.8	2.57	10.28	-.0033	247.90	-.0013	-25.34	300.47
SET 61	692.87	704.12	20	17	2.3	64.23	.0040	-27.19	.0002	134427.6	2.44	.00	-.0023	233.23	.0027	-25.20	293.58
SET 72	856.08	867.33	20	19	45.5	93.58	.0040	-24.18	.0001	154914.7	2.41	-.01	-.0036	245.58	-.0004	-24.51	254.65
RISE 42	867.28	878.53	20	19	56.7	254.99	.0040	-23.85	-.0000	156063.8	1.68	1.79	.0029	117.22	-.0023	-24.47	251.96
EXTM 11	909.54	920.79	20	20	39.0	1.41	.0042	-26.31	.0001	158278.1	1.96	28.47	-.0000	181.44	.0042	-24.32	241.79
SET 11	1190.24	1201.49	21	1	19.7	71.07	.0041	-24.69	.0001	192578.0	2.08	-.00	-.0028	239.25	.0024	-23.48	173.68
EXTM 42	1290.77	1302.02	21	3	.2	359.86	.0042	-22.85	.0000	196910.6	1.71	77.63	.0000	.62	-.0179	-23.24	149.12
RISE 51	1425.75	1437.00	21	5	15.2	270.00	.0041	-22.27	-.0000	215525.9	1.26	9.47	.0035	110.25	-.0016	-22.94	116.04
RISE 72	1583.52	1594.77	21	7	53.0	266.72	.0041	-22.41	-.0000	231728.1	1.15	.00	.0038	112.64	-.0006	-22.64	77.26
RISE 61	1642.11	1653.36	21	8	51.6	291.73	.0041	-23.62	.0000	237191.1	1.24	.00	.0027	121.67	.0027	-22.53	62.84
SET 42	1713.46	1724.71	21	10	2.9	105.00	.0041	-21.50	.0001	243640.9	1.85	.84	-.0030	244.00	-.0023	-22.41	45.26
EXTM 51	1784.57	1795.82	21	11	14.0	359.97	.0042	-22.21	.0000	243855.6	1.49	86.47	.0000	.54	-.0562	-22.30	27.72
EXTM 61	1916.22	1927.47	21	13	25.7	.56	.0042	-23.35	.0000	258890.0	1.44	26.41	-.0000	180.57	.0043	-22.10	355.20
EXTM 72	1955.17	1966.42	21	14	4.6	.10	.0042	-22.39	.0000	258960.3	1.43	75.52	.0000	180.36	.0154	-22.04	345.58
RISE 11	2079.33	2090.58	21	16	8.8	287.17	.0042	-22.70	-.0000	275566.7	1.06	.00	.0030	118.19	.0024	-21.87	314.87
SET 51	2143.64	2154.89	21	17	13.1	90.00	.0041	-21.26	.0000	279894.9	1.76	9.06	-.0035	250.68	-.0015	-21.79	298.95
SET 61	2190.31	2201.56	21	17	59.8	69.35	.0042	-22.63	.0001	284719.5	1.66	-.00	-.0027	239.74	.0027	-21.73	287.39
SET 72	2325.58	2336.83	21	20	15.0	93.12	.0041	-21.39	.0001	295594.3	1.75	-.00	-.0038	248.40	-.0005	-21.56	253.87
RISE 42	2329.35	2340.60	21	20	18.8	255.00	.0041	-20.81	-.0000	295847.6	.98	.41	.0030	115.45	-.0024	-21.56	252.93
EXTM 11	2370.27	2381.52	21	20	59.7	.37	.0042	-22.54	.0000	295742.3	1.31	32.25	-.0000	180.40	.0046	-21.51	242.79
SET 11	2661.17	2672.42	22	1	50.6	73.51	.0042	-21.91	.0000	321372.7	1.57	-.00	-.0030	242.82	.0024	-21.20	170.59
EXTM 42	2747.94	2759.19	22	3	17.4	359.94	.0042	-20.84	.0000	321668.9	1.22	75.62	-.0000	.25	-.0151	-21.12	149.04
RISE 51	2878.31	2889.56	22	5	27.8	270.00	.0041	-20.56	-.0000	336264.1	.81	8.77	.0035	108.67	-.0016	-21.00	116.64
RISE 72	3035.44	3046.69	22	8	4.9	266.99	.0041	-20.71	-.0000	348353.4	.74	-.01	.0038	110.91	-.0006	-20.86	77.57
RISE 61	3084.22	3095.47	22	8	53.7	289.51	.0042	-21.54	-.0000	351746.5	.84	.00	.0028	118.75	.0027	-20.82	65.44
SET 42	3166.83	3178.08	22	10	16.3	105.00	.0041	-20.14	.0000	357543.3	1.44	-.00	-.0031	245.08	-.0024	-20.76	44.84
EXTM 51	3235.45	3246.70	22	11	24.9	359.99	.0042	-20.64	.0000	355753.7	1.09	84.90	-.0000	.18	-.0221	-20.73	27.69
EXTM 61	3363.88	3375.13	22	13	33.3	.16	.0042	-21.54	.0000	367427.5	1.09	28.22	-.0000	180.17	.0045	-20.67	355.59
EXTM 72	3403.63	3414.88	22	14	13.1	.02	.0042	-20.88	.0000	366847.2	1.09	77.03	.0000	180.12	.0139	-20.66	345.65
RISE 11	3520.33	3531.58	22	16	9.8	285.89	.0042	-21.21	-.0000	380589.6	.75	.00	.0031	116.28	.0024	-20.61	316.46
SET 51	3591.68	3602.93	22	17	21.1	90.00	.0042	-20.20	.0000	384284.7	1.49	8.62	-.0036	251.66	-.0016	-20.59	298.60
SET 61	3643.33	3654.58	22	18	12.8	70.81	.0042	-21.23	.0000	388632.2	1.42	-.00	-.0028	241.69	.0027	-20.57	285.69
SET 72	3770.84	3782.09	22	20	20.3	92.97	.0042	-20.42	.0000	397281.1	1.62	-.00	-.0039	249.38	-.0006	-20.55	253.08
RISE 42	3773.18	3784.43	22	20	22.6	255.12	.0042	-19.99	-.0000	397447.5	.84	.00	.0031	114.73	-.0024	-20.55	253.09
EXTM 11	3812.61	3823.86	22	21	2.1	359.99	.0043	-21.31	-.0000	396843.9	1.28	33.48	.0000	179.98	.0032	-20.55	243.16
IMPACT	3864.04	3875.29	22	21	53.5												
IMPC 42	3864.04	3875.29	22	21	53.5	278.08	.0043	-20.13	-.0000	402940.3	1.67	17.84	.0035	102.43	-.0022	-20.58	230.12
IMPC 11	3864.04	3875.29	22	21	53.5	13.21	.0044	-21.32	-.0000	401516.0	2.12	32.09	-.0009	194.56	.0047	-20.58	230.12

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	20	5	29.451	6561.349	18.0005	304.7303	10.98242	-2.8698	116.9789	146.2445
SEPARATION	1.20	12.45	20	5	30.651	6545.297	14.7607	310.8054	10.99580	.5610	118.7797	152.6204
RETRO	3.20	14.45	20	5	32.651	6623.570	9.0499	320.4515	10.93015	6.2430	120.8809	162.7679
EXIT SHA	7.39	18.64	20	5	36.845	7176.956	-2.5694	338.2459	10.49703	17.2008	121.9614	181.6137
IMPACT	3864.04	3875.29	22	21	53.487	404937.582	-20.5790	230.1175	2.19902	67.6882	256.6510	320.2848

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SURVEYOR VIEW PERIODS

GHA	120.8972					EPS=165.3702								LOM	225.0606
SX	.720224	SY	-.598156	SZ	-.351407	DAO	-20.57339	RAO	320.28989	RM	406208.789	LAT	28.310600	LON	279.461800
C3	-.893355	ECC	.985332	SLR	12993.339	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.733321	NSY	-.585063	NSZ	-.346327	C3M	1.5557	VIM	2.6823	ZAE	142.512	B.T	.0000	B.R	-.0000
LATE	6.3666	LONE	.2053	LATS	-1.3694	LONS	166.3768	LATI	2.2577	LONI	322.8256	RSM	146.8595	TTAN	5.3289
LAUNCH DATE		JAN	20,1966		BASE AZM	111.0		TF	64.442			ARRIVAL DATE		JAN 22 '66 22 13 40.6	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	5 27 28.8	27.8	16.90	304.23	-3.82	148.07	119.10	5 38 43.8	6551.9	10.99	-1.49

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	20	5	38.7												
SEPARATION	1.20	12.45	20	5	39.9												
RETRO	3.20	14.45	20	5	41.9												
RISE 72	4.95	16.20	20	5	43.7	85.81	-.1436	27.76	-.0440	2466.6	-8.58	-.00	.1324	298.05	-.0237	2.28	327.09
EXIT SHA	7.06	18.31	20	5	45.8												
EXIT 72	7.06	18.31	20	5	45.8	59.83	-.2822	16.33	-.1596	1523.3	-5.64	26.04	.3064	292.57	-.0781	-3.58	335.51
EXTM 72	9.06	20.31	20	5	47.8	18.18	-.3676	-11.19	-.2385	1268.7	1.99	71.78	.3200	258.18	-.9300	-8.51	342.71
RISE 51	11.15	22.40	20	5	49.9	84.60	-.0836	11.04	-.0545	4999.7	-3.89	-.00	.0977	282.27	-.0126	-12.92	349.47
EXTM 51	30.30	41.55	20	6	9.0	2.14	-.0367	-33.81	-.0074	7745.2	5.45	81.72	-.0000	192.47	-.2179	-30.17	26.55
EXTM 72	69.57	80.82	20	6	48.3	281.94	.0000	-34.39	.0006	23736.8	4.84	14.29	.0000	123.58	-.0007	-33.24	47.25
EXTM 51	86.47	97.72	20	7	5.2	332.54	-.0002	-34.15	.0007	24785.0	4.44	64.86	.0000	116.08	-.0017	-32.94	49.24
RISE 61	178.64	189.89	20	8	37.4	308.59	.0030	-36.40	.0006	51948.9	3.34	.00	.0020	141.01	.0016	-30.68	42.31
EXTM 51	264.19	275.44	20	10	2.9	.39	.0036	-29.51	.0003	62868.2	3.09	86.21	.0000	185.15	.0472	-29.16	27.33
EXTM 61	436.69	447.94	20	12	55.4	5.27	.0039	-30.71	.0003	96068.0	2.59	18.88	.0000	184.79	.0036	-27.21	350.77
EXTM 72	463.53	474.78	20	13	22.3	1.00	.0040	-28.22	.0002	96426.8	2.53	69.66	.0000	182.54	.0103	-26.98	344.74
RISE 11	619.36	630.61	20	15	58.1	291.88	.0040	-27.83	.0001	124638.4	1.97	.00	.0027	124.85	.0023	-25.90	308.81
SET 51	654.71	665.96	20	16	33.4	90.00	.0039	-24.62	.0001	128264.9	2.58	10.42	-.0033	247.57	-.0013	-25.70	300.50
SET 61	682.06	693.31	20	17	.8	63.78	.0040	-27.57	.0002	133041.0	2.45	-.00	-.0023	232.68	.0027	-25.56	294.05
SET 72	847.43	858.68	20	19	46.2	93.63	.0040	-24.46	.0001	153891.7	2.42	-.01	-.0036	245.29	-.0004	-24.80	254.63
RISE 42	858.60	869.85	20	19	57.3	254.99	.0040	-23.32	-.0000	155023.9	1.69	1.95	.0029	117.44	-.0022	-24.75	251.94
EXTM 11	901.19	912.44	20	20	39.9	1.51	.0042	-26.59	.0001	157340.1	1.97	28.19	-.0000	181.53	.0042	-24.58	241.70
SET 11	1180.68	1191.93	21	1	19.4	70.88	.0041	-24.91	.0001	191571.8	2.08	-.00	-.0028	238.97	.0024	-23.69	173.88
EXTM 42	1281.99	1293.24	21	3	.7	359.85	.0042	-23.04	.0000	196009.4	1.71	77.82	.0000	.67	-.0181	-23.42	149.13
RISE 51	1417.04	1428.29	21	5	15.8	270.00	.0041	-22.43	-.0000	214658.1	1.26	9.54	.0035	110.40	-.0016	-23.10	116.03
RISE 72	1574.70	1585.95	21	7	53.4	266.70	.0041	-22.55	-.0000	230887.3	1.15	.00	.0038	112.78	-.0006	-22.78	77.28
RISE 61	1633.93	1645.18	21	8	52.7	291.87	.0041	-23.76	.0000	276420.4	1.25	.00	.0027	121.85	.0027	-22.66	62.69
SET 42	1704.66	1715.91	21	10	3.4	105.00	.0041	-21.62	.0001	242816.0	1.85	.91	-.0030	243.91	-.0023	-22.53	45.26
EXTM 51	1775.78	1787.03	21	11	14.5	359.97	.0042	-22.32	.0000	243049.6	1.49	86.58	.0000	.61	-.0563	-22.41	27.72
EXTM 61	1907.55	1918.80	21	13	26.3	.59	.0042	-23.45	.0000	258123.4	1.44	26.31	-.0000	180.60	.0043	-22.20	355.17
EXTM 72	1946.40	1957.65	21	14	5.1	.10	.0042	-22.48	.0000	258182.4	1.43	75.42	.0000	180.39	.0153	-22.14	349.57
RISE 11	2070.83	2082.08	21	16	9.6	287.24	.0042	-22.79	-.0000	274823.4	1.06	.00	.0030	118.30	.0024	-21.95	314.79
SET 51	2134.82	2146.07	21	17	13.5	90.00	.0041	-21.34	.0001	279126.9	1.76	9.09	-.0035	250.61	-.0015	-21.86	298.95
SET 61	2181.15	2192.40	21	17	59.9	69.27	.0042	-22.70	.0001	283933.2	1.66	-.00	-.0027	239.63	.0027	-21.80	287.47
SET 72	2316.78	2328.03	21	20	15.5	93.13	.0041	-21.45	.0001	294849.6	1.75	-.00	-.0038	248.34	-.0005	-21.63	253.86
RISE 42	2320.54	2331.79	21	20	19.3	255.00	.0041	-20.87	-.0000	295098.1	.98	.45	.0030	115.50	-.0024	-21.62	252.93
EXTM 11	2361.52	2372.77	21	21	.2	.39	.0042	-22.61	.0000	295011.6	1.31	32.18	-.0000	180.43	.0046	-21.57	242.77
SET 11	2652.17	2663.42	22	1	50.9	73.48	.0042	-21.95	.0000	320639.2	1.57	-.00	-.0030	242.77	.0024	-21.24	170.63
EXTM 42	2739.06	2750.31	22	3	17.8	359.93	.0042	-20.87	.0000	320949.5	1.22	75.65	-.0000	.26	-.0153	-21.15	149.05
RISE 51	2869.45	2880.70	22	5	28.2	270.00	.0041	-20.58	-.0000	335553.4	.81	8.78	.0035	108.69	-.0016	-21.02	116.64
RISE 72	3026.55	3037.80	22	8	9.3	266.98	.0041	-20.72	-.0000	347650.4	.74	-.01	.0038	110.93	-.0006	-20.87	77.57
RISE 61	3075.40	3086.65	22	8	54.1	289.53	.0042	-21.55	-.0000	351050.2	.85	.00	.0028	118.76	.0027	-20.83	69.43
SET 42	3157.93	3169.18	22	10	16.7	105.00	.0041	-20.14	.0000	356845.1	1.44	.00	-.0031	245.07	-.0024	-20.77	44.84
EXTM 51	3226.55	3237.80	22	11	25.3	359.99	.0042	-20.64	.0000	355055.2	1.09	84.90	-.0000	.22	-.0205	-20.73	27.69
EXTM 61	3355.04	3366.29	22	13	33.8	.18	.0042	-21.54	.0000	366729.2	1.09	28.22	-.0000	180.19	.0045	-20.67	359.58
EXTM 72	3394.75	3406.00	22	14	13.5	.03	.0042	-20.87	.0000	366144.2	1.09	77.03	.0000	180.12	.0148	-20.65	345.65
RISE 11	3511.43	3522.68	22	16	10.2	285.89	.0042	-21.20	-.0000	379876.7	.74	.00	.0031	116.27	.0024	-20.60	316.46
SET 51	3582.79	3594.04	22	17	21.5	90.00	.0042	-20.19	.0000	383564.3	1.48	8.62	-.0036	251.67	-.0016	-20.58	298.60
SET 61	3634.49	3645.74	22	18	13.2	70.83	.0042	-21.21	.0000	387905.1	1.41	-.00	-.0028	241.71	.0027	-20.56	285.65
SET 72	3761.97	3773.22	22	20	20.7	92.96	.0042	-20.40	.0000	396491.4	1.60	-.00	-.0039	249.40	-.0006	-20.53	253.68
RISE 42	3764.42	3775.67	22	20	23.1	255.14	.0042	-19.97	-.0000	396662.6	.83	.00	.0031	114.71	-.0024	-20.53	253.07
EXTM 11	3803.91	3815.16	22	21	2.6	.02	.0043	-21.29	.0000	396006.4	1.25	33.50	.0000	180.03	.0041	-20.53	243.13
IMPACT	3866.53	3877.78	22	22	5.3												
IMPC 42	3866.53	3877.78	22	22	5.3	280.94	.0043	-20.11	-.0000	402707.3	1.67	20.12	.0035	100.94	-.0022	-20.55	227.26
IMPC 11	3866.53	3877.78	22	22	5.3	16.10	.0044	-21.29	-.0000	401580.2	2.14	31.47	-.0011	197.64	.0046	-20.55	227.26

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	20	5	38.730	6551.904	16.8983	304.2318	10.99017	-1.8946	119.1020	148.0781
SEPARATION	1.20	12.45	20	5	39.930	6549.431	13.4417	310.1481	10.99218	1.5405	120.7312	154.2893
RETRO	3.20	14.45	20	5	41.930	6649.816	7.4491	319.5116	10.90828	7.1972	122.5264	164.1541
EXIT SHA	7.06	18.31	20	5	45.792	7178.706	-3.5836	335.5108	10.49562	17.2229	123.1055	181.1213
IMPACT	3866.53	3877.78	22	22	5.263	404943.102	-20.5522	227.2648	2.19823	67.6652	257.1922	320.3843

SURVEYOR VIEW PERIODS

GHA 120.8972 EPS-165.2653 LOM 221.5226

SX	.721667	SY	-.596742	SZ	-.350850	DAO	-20.53933	RAO	320.41290	RM	406215.148	LAT	28.310600	LON	279.461800
C3	-.897464	ECC	.985265	SLR	12992.896	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.734761	NSY	-.583587	NSZ	-.345763	C3M	1.5558	VIM	2.6824	ZAE	142.369	B.T	.0000	H.R	-.0000
LATE	6.3704	LONE	.0832	LATS	-1.3694	LONS	166.1439	LATI	1.8614	LONI	322.6129	RSM	146.8599	TTAN	5.3281

LAUNCH DATE JAN 20,1966 BASE AZM 115.0 TF 64.509 ARRIVAL DATE JAN 22 1966 22 28 16.8

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	5 38	4.3	27.9	15.47	303.47	-1.63	149.96	121.92	5 49 19.3	6546.0	10.99	-.81

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PRORE	IN EARTH'S SHADOW														
INJECTION	.00	11.25	20	5	49.3												
SEPARATION	1.20	12.45	20	5	50.5												
RETRO	3.20	14.45	20	5	52.5												
RISE 72	4.87	16.12	20	5	54.2	87.03	-.1279	20.48	-.0749	2581.1	-8.13	-.00	.1295	290.69	-.0565	.22	325.13
EXIT SHA	6.70	17.95	20	5	56.0												
EXIT 72	6.70	17.95	20	5	56.0	69.01	-.2087	7.82	-.1668	1802.8	-5.65	19.44	.2354	281.22	-.1306	-5.05	332.19
EXTM 72	9.80	21.05	20	5	59.1	15.64	-.3125	-31.38	-.1505	1628.8	4.06	62.37	.0305	209.74	-.6572	-12.68	342.87
RISE 51	11.20	22.45	20	6	.5	86.96	-.0769	6.27	-.0585	5178.1	-3.50	.00	.0943	276.97	-.0193	-15.56	347.18
EXTM 51	32.76	44.01	20	6	22.1	2.03	-.0321	-38.51	-.0036	8727.0	5.43	77.12	-.0000	187.13	-.1140	-33.12	26.58
EXTM 72	69.48	80.73	20	6	58.8	284.09	-.0000	-36.61	.0010	23648.8	4.83	15.99	.0000	125.91	-.0010	-34.98	44.96
EXTM 51	85.34	96.59	20	7	14.7	335.24	-.0004	-36.28	.0010	24526.0	4.45	66.40	.0000	122.51	-.0026	-34.55	46.95
RISE 61	177.61	188.86	20	8	46.9	310.67	.0030	-37.60	.0007	51806.2	3.34	.00	.0020	142.07	.0016	-31.79	40.31
EXTM 51	253.95	265.20	20	10	3.3	.63	.0035	-30.66	.0003	61032.1	3.13	85.04	.0000	186.26	.0353	-30.20	27.12
EXTM 61	429.10	440.35	20	12	58.4	5.86	.0039	-31.46	.0003	95014.4	2.60	18.09	.0000	185.26	.0035	-27.90	350.22
EXTM 72	454.27	465.52	20	13	23.6	1.18	.0040	-28.96	.0002	95088.5	2.55	68.92	.0000	182.87	.0098	-27.66	344.58
RISE 11	611.97	623.22	20	16	1.3	292.42	.0040	-28.39	.0001	123661.1	1.98	.00	.0027	125 58	.0023	-26.43	308.25
SET 51	644.76	656.01	20	16	34.1	90.00	.0039	-25.13	.0002	126939.2	2.59	10.63	-.0033	247.09	-.0013	-26.22	300.55
SET 61	669.36	680.61	20	16	58.7	63.11	.0040	-28.12	.0002	131392.5	2.46	-.00	-.0022	231.87	.0027	-26.08	294.74
SET 72	837.86	849.11	20	19	47.2	93.70	.0040	-24.87	.0001	152747.2	2.42	-.01	-.0036	244.88	-.0004	-25.21	254.59
RISE 42	848.96	860.21	20	19	58.3	254.99	.0040	-23.72	.0000	153848.4	1.69	2.20	.0029	117.75	-.0022	-25.16	251.92
EXTM 11	892.01	903.26	20	20	41.3	1.65	.0042	-27.00	.0001	156305.4	1.98	27.77	-.0000	181.66	.0042	-24.97	241.56
SET 11	1169.72	1180.97	21	1	19.0	70.60	.0041	-25.21	.0001	190400.2	2.08	-.00	-.0028	238.58	.0024	-23.98	174.17
EXTM 42	1272.14	1283.39	21	3	1.5	359.83	.0042	-23.31	.0000	194979.2	1.71	78.09	.0000	.74	-.0185	-23.69	149.14
RISE 51	1407.26	1418.51	21	5	16.6	270.00	.0041	-22.66	-.0000	213662.2	1.27	9.63	.0035	110.62	-.0016	-23.34	116.02
RISE 72	1564.73	1575.98	21	7	54.0	266.65	.0041	-22.75	-.0000	229914.9	1.16	-.01	.0037	112.98	-.0006	-22.98	77.31
RISE 61	1624.94	1636.19	21	8	54.3	292.08	.0041	-23.95	.0000	235549.2	1.25	.00	.0027	122.13	.0027	-22.85	62.48
SET 42	1694.76	1706.01	21	10	4.1	105.00	.0041	-21.79	.0001	241859.9	1.86	1.02	-.0030	243.77	-.0023	-22.71	45.27
EXTM 51	1765.88	1777.13	21	11	15.2	359.96	.0042	-22.49	.0000	242115.5	1.49	86.75	.0000	.66	-.0035	-22.58	27.72
EXTM 61	1897.82	1909.07	21	13	27.1	.63	.0042	-23.60	.0000	257238.1	1.45	26.16	-.0000	180.65	.0043	-22.34	359.13
EXTM 72	1936.53	1947.78	21	14	5.8	.11	.0042	-22.63	.0000	257278.2	1.43	75.27	.0000	180.42	.0152	-22.28	345.56
RISE 11	2061.35	2072.60	21	16	10.7	287.35	.0042	-22.91	.0000	273962.4	1.06	.00	.0030	118.46	.0024	-22.08	314.68
SET 51	2124.84	2136.09	21	17	14.2	90.00	.0041	-21.46	.0001	278226.3	1.76	9.14	-.0035	250.50	-.0015	-21.98	298.96
SET 61	2170.69	2181.94	21	18	.0	69.14	.0042	-22.82	.0001	283001.9	1.66	-.00	-.0027	239.47	.0027	-21.91	287.60
SET 72	2306.84	2318.09	21	20	16.2	93.14	.0041	-21.54	.0001	293973.1	1.75	-.00	-.0038	248.24	-.0005	-21.72	253.85
RISE 42	2310.57	2321.82	21	20	19.9	255.00	.0041	-20.96	-.0000	294213.6	.99	.51	.0030	115.57	-.0024	-21.72	252.93
EXTM 11	2351.65	2362.90	21	21	1.0	.42	.0042	-22.70	.0000	294152.9	1.31	32.09	-.0000	180.46	.0046	-21.66	242.74
SET 11	2641.91	2653.16	22	1	51.2	73.42	.0042	-22.01	.0000	319761.6	1.58	-.00	-.0030	242.69	.0024	-21.30	170.69
EXTM 42	2728.99	2740.24	22	3	18.3	359.93	.0042	-20.93	.0000	320089.3	1.22	75.71	-.0000	.29	-.0153	-21.20	149.05
RISE 51	2859.40	2870.65	22	5	28.7	270.00	.0041	-20.62	-.0000	334700.2	.81	8.80	.0035	108.73	-.0016	-21.06	116.64
RISE 72	3014.47	3027.72	22	8	5.8	266.98	.0041	-20.75	-.0000	346802.1	.74	-.01	.0038	110.96	-.0006	-20.90	77.58
RISE 61	3065.42	3076.67	22	8	54.7	289.55	.0042	-21.58	-.0000	350211.5	.85	.00	.0028	118.80	.0027	-20.85	65.40
SET 42	3147.82	3159.07	22	10	17.1	105.00	.0041	-20.16	.0000	355999.1	1.44	.01	-.0031	245.06	-.0024	-20.79	44.84
EXTM 51	3216.44	3227.69	22	11	25.8	359.99	.0042	-20.66	.0000	354207.6	1.09	84.92	-.0000	.22	-.0239	-20.75	27.70
EXTM 61	3345.01	3356.26	22	13	34.3	.20	.0042	-21.55	.0000	365880.4	1.09	28.21	-.0000	180.21	.0045	-20.68	359.56
EXTM 72	3384.66	3395.91	22	14	14.0	.03	.0042	-20.88	.0000	365288.1	1.08	77.03	.0000	180.14	.0154	-20.66	345.64
RISE 11	3501.32	3512.57	22	16	10.6	285.88	.0042	-21.20	-.0000	379007.0	.74	.00	.0031	116.27	.0024	-20.60	314.46
SET 51	3572.68	3583.93	22	17	22.0	90.00	.0042	-20.18	.0000	382683.4	1.48	8.62	-.0036	251.68	-.0016	-20.57	298.60
SET 61	3624.44	3635.69	22	18	13.8	70.84	.0042	-21.20	.0000	387014.9	1.41	-.00	-.0028	241.72	.0027	-20.55	285.64
SET 72	3751.88	3763.13	22	20	21.2	92.96	.0042	-20.37	.0000	395531.3	1.59	-.01	-.0039	249.42	-.0005	-20.51	253.69
RISE 42	3754.44	3765.69	22	20	23.8	255.16	.0042	-19.94	-.0000	395707.9	.81	.00	.0031	114.67	-.0024	-20.51	253.04
EXTM 11	3794.01	3805.26	22	21	3.3	.05	.0043	-21.26	.0000	394998.5	1.21	33.53	.0000	180.06	.0046	-20.50	243.10
IMPACT	3870.52	3881.77	22	22	19.8												
IMPC 42	3870.52	3881.77	22	22	19.8	284.49	.0043	-20.10	-.0000	402422.3	1.67	22.96	.0035	99.07	-.0022	-20.52	223.73
IMPC 11	3870.52	3881.77	22	22	19.8	19.68	.0044	-21.26	-.0000	401476.2	2.16	30.53	-.0013	201.37	.0045	-20.52	223.73

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	20	5	49.321	6545.983	15.4733	303.4681	10.99499	-.8091	121.9163	149.9635
SEPARATION	1.20	12.45	20	5	50.521	6558.504	11.7414	309.1596	10.98433	2.6233	123.3281	155.9558
RETRO	3.20	14.45	20	5	52.521	6683.026	5.3892	318.1421	10.88075	8.2419	124.7459	165.4397
EXIT SHA	6.70	17.95	20	5	56.024	7182.410	-5.0478	332.1929	10.49270	17.2699	124.7908	180.3686
IMPACT	3870.52	3881.77	22	22	19.844	404950.258	-20.5191	223.7327	2.19696	67.6105	257.9820	320.5075

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SURVEYOR VIEW PERIODS

GHA	121.8829					EPS=154.6198								LOM	228.2704
SX	.848562	SY	-.443790	SZ	-.288086	DAO	-14.74341	RAD	332.39085	RM	406486.352	LAT	28.310600	LON	279.461800
C3	-.904682	ECC	.985146	SLR	12992.120	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.858411	NSY	-.428673	NSZ	-.281727	C3M	1.5558	VIM	2.6824	ZAE	142.680	B.T	.0000	B.R	-.0000
LATE	6.6092	LONE	358.7876	LATS	-1.3785	LONS	153.8124	LATI	3.5205	LONI	321.4397	RSM	146.9006	ITAN	4.3672
LAUNCH DATE	JAN	21	1966	BASE AZM	111.0	TF	64.706					ARRIVAL DATE	JAN 23 1966 22 45 12.8		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	5 41 4.6	27.4	17.12	303.81	-12.47	152.04	118.98	5 52 19.6	6622.2	10.93	-6.19

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	21	5	52.3												
SEPARATION	1.20	12.45	21	5	53.5												
RETRO	3.20	14.45	21	5	55.5												
RISE 72	5.48	16.73	21	5	57.8	85.96	-.1409	26.88	-.0518	2119.5	-9.16	-.00	.1322	297.16	-.0318	.69	329.38
EXIT SHA	7.16	18.41	21	5	59.5												
EXIT 72	7.16	18.41	21	5	59.5	65.28	-.2963	16.81	-.1772	1278.3	-7.06	20.90	.3208	291.44	-.1010	-4.19	336.43
EXTM 72	9.26	20.51	21	6	1.6	8.49	-.5160	-21.74	-.2840	965.0	3.41	13.22	.0118	209.67	-2.0113	-9.72	344.62
RISE 51	11.39	22.64	21	6	3.7	84.86	-.0900	10.53	-.0605	4464.5	-4.83	-.00	.1061	281.70	-.0352	-14.53	352.22
EXTM 51	25.54	36.79	21	6	17.9	2.29	-.0623	-34.59	-.0120	5694.1	5.46	80.94	.0000	192.04	-.3342	-29.92	26.66
EXTM 72	69.29	80.54	21	7	1.6	272.33	.0001	-32.51	.0009	24057.3	4.88	6.19	.0000	122.05	-.0010	-32.72	56.26
RISE 42	73.07	84.32	21	7	5.4	105.00	-.0048	-24.64	-.0010	25528.8	4.36	2.77	.0041	241.53	.0019	-32.55	56.94
EXTM 51	83.34	94.59	21	7	15.7	321.23	-.0000	-32.49	.0011	23944.6	4.53	55.66	.0000	110.57	-.0019	-32.08	58.16
EXTM 42	116.44	127.69	21	7	48.8	99.78	-.0001	-25.27	.0001	36604.1	4.12	6.94	-.0000	243.86	.0002	-30.61	58.25
SET 42	185.92	197.17	21	8	58.2	105.00	.0021	-24.23	.0003	52882.6	3.70	2.51	-.0017	241.85	-.0010	-28.29	58.10
RISE 61	200.27	211.52	21	9	12.6	303.32	.0033	-32.99	.0006	56149.5	3.18	.00	.0022	135.50	.0017	-27.92	47.76
EXTM 51	305.51	316.76	21	10	57.8	.01	.0038	-25.85	.0003	70029.9	2.94	89.89	-.0000	191.13	.7897	-25.84	27.68
EXTM 61	472.11	483.36	21	13	44.4	4.84	.0040	-27.08	.0002	100855.1	2.52	22.53	-.0000	184.66	.0039	-23.83	351.16
EXTM 72	499.35	510.60	21	14	11.7	.78	.0041	-24.55	.0002	101402.4	2.46	73.33	.0000	182.48	.0130	-23.58	344.94
RISE 11	640.27	651.52	21	16	32.6	288.63	.0040	-24.35	.0001	127214.0	1.93	.00	.0029	120.31	.0023	-22.52	312.12
SET 51	690.09	701.34	21	17	22.4	90.00	.0039	-21.13	.0001	132839.4	2.55	9.00	-.0034	250.81	-.0014	-22.21	300.34
SET 61	734.93	746.18	21	18	7.3	69.07	.0040	-23.81	.0002	139638.1	2.41	-.00	-.0025	238.07	.0027	-21.96	289.67
SET 72	879.14	890.39	21	20	31.5	93.05	.0040	-20.92	.0001	157436.0	2.40	-.00	-.0037	248.86	-.0004	-21.25	259.09
RISE 42	892.95	904.20	21	20	45.3	255.28	.0040	-19.79	.0000	159079.1	1.65	.00	.0030	114.49	-.0023	-21.19	251.75
EXTM 11	934.38	945.63	21	21	26.7	1.45	.0042	-22.90	.0001	160616.2	1.94	31.87	-.0000	181.58	.0045	-21.01	241.75
SET 11	1226.87	1238.12	22	2	19.2	74.15	.0041	-21.16	.0001	196141.2	2.07	-.00	-.0029	243.78	.0024	-20.00	170.56
EXTM 42	1314.00	1325.25	22	3	46.3	359.75	.0042	-19.27	.0000	199072.4	1.69	74.05	.0000	.85	-.0144	-19.76	149.22
RISE 51	1448.95	1460.20	22	6	1.3	270.00	.0041	-18.74	.0000	217633.6	1.24	8.02	.0035	106.99	-.0016	-19.42	116.09
RISE 72	1608.78	1620.03	22	8	41.1	267.29	.0041	-18.84	-.0000	233744.9	1.12	.00	.0039	109.02	-.0006	-19.06	76.75
RISE 61	1649.95	1661.20	22	9	22.3	287.97	.0041	-20.03	.0000	237560.0	1.22	.00	.0028	116.66	.0027	-18.97	66.60
SET 42	1729.23	1740.48	22	10	41.6	103.19	.0041	-17.91	.0001	244793.1	1.65	-.00	-.0031	247.88	.0023	-18.81	47.04
EXTM 51	1807.36	1818.61	22	11	59.7	359.94	.0042	-18.48	.0000	245536.5	1.48	82.74	.0000	.50	-.0309	-18.67	27.75
EXTM 61	1939.10	1950.35	22	14	11.4	.58	.0042	-19.63	.0000	260094.4	1.43	30.13	-.0000	180.63	.0046	-18.43	359.18
EXTM 72	1977.84	1989.09	22	14	50.2	.08	.0042	-18.63	.0000	260391.0	1.42	79.28	.0000	180.40	.0211	-18.37	349.60
RISE 11	2089.37	2100.62	22	16	41.7	284.06	.0042	-19.00	.0000	275962.8	1.04	.00	.0031	113.48	.0024	-18.19	317.98
SET 51	2166.36	2177.61	22	17	58.7	90.00	.0041	-17.54	.0000	281472.2	1.76	7.52	-.0036	254.10	-.0016	-18.08	298.91
SET 61	2228.40	2239.65	22	19	.7	73.19	.0041	-18.86	.0000	287341.0	1.66	.01	-.0028	244.95	.0027	-17.99	283.53
SET 72	2345.80	2357.05	22	20	58.1	92.53	.0041	-17.65	.0000	296698.8	1.75	-.00	-.0039	252.17	-.0005	-17.82	254.42
RISE 42	2361.71	2372.96	22	21	14.0	257.48	.0041	-17.07	-.0000	297949.9	.96	.00	.0031	111.05	-.0024	-17.80	250.47
EXTM 11	2392.71	2403.96	22	21	45.0	.38	.0042	-18.74	.0000	296650.6	1.30	36.05	-.0000	180.45	.0049	-17.76	248.78
SET 11	2696.20	2707.45	23	2	48.5	76.68	.0042	-18.08	.0000	323396.5	1.58	-.00	-.0031	247.68	.0024	-17.39	167.41
EXTM 42	2770.00	2781.25	23	4	2.3	359.92	.0042	-16.96	.0000	322809.0	1.21	71.74	-.0000	.27	-.0125	-17.31	149.06
RISE 51	2900.28	2911.53	23	6	12.6	270.00	.0041	-16.72	-.0000	337386.8	.79	7.18	.0036	105.14	-.0017	-17.17	116.67
RISE 72	3059.72	3070.97	23	8	52.0	267.58	.0041	-16.86	-.0000	349381.7	.72	-.01	.0039	107.03	-.0006	-17.01	77.01
RISE 61	3090.69	3101.94	23	9	23.0	285.65	.0042	-17.68	.0000	351522.3	.82	.00	.0029	113.45	.0027	-16.98	69.30
SET 42	3176.39	3187.64	23	10	48.7	101.91	.0042	-16.30	.0000	357498.5	1.45	-.00	-.0032	249.91	-.0024	-16.91	47.92
EXTM 51	3257.25	3268.50	23	12	9.6	359.98	.0042	-16.71	.0000	356538.3	1.09	80.97	.0000	.18	-.0202	-16.87	27.71
EXTM 61	3385.70	3396.95	23	14	18.0	.16	.0042	-17.64	.0000	367742.6	1.08	32.12	-.0000	180.18	.0048	-16.61	359.59
EXTM 72	3425.40	3436.65	23	14	57.7	.01	.0042	-16.94	.0000	367434.2	1.08	80.96	.0000	180.13	.0147	-16.79	349.66
RISE 11	3529.42	3540.67	23	16	41.7	282.72	.0042	-17.33	-.0000	380398.2	.73	.00	.0032	111.38	.0024	-16.75	319.63
SET 51	3613.54	3624.79	23	18	5.9	90.00	.0042	-16.33	.0000	385072.8	1.49	7.01	-.0036	255.22	-.0017	-16.72	298.58
SET 61	3680.57	3691.82	23	19	12.9	74.69	.0042	-17.33	.0000	390239.9	1.43	-.00	-.0029	247.03	.0027	-16.70	281.78
SET 72	3790.29	3801.54	23	21	2.6	92.37	.0042	-16.55	.0000	397678.5	1.63	-.00	-.0040	253.28	-.0006	-16.68	254.25
RISE 42	3807.20	3818.45	23	21	19.5	258.22	.0042	-16.13	-.0000	398887.3	.85	.00	.0032	109.89	-.0024	-16.68	250.00
EXTM 11	3834.23	3845.48	23	21	46.6	359.96	.0043	-17.41	-.0000	397048.9	1.29	37.38	.0000	179.95	.0049	-16.69	243.19
IMPACT	3882.35	3893.60	23	22	34.7												
IMPC 42	3882.35	3893.60	23	22	34.7	277.23	.0043	-16.25	-.0001	403518.6	1.66	15.08	.0035	99.47	-.0023	-16.72	230.99
IMPC 11	3882.35	3893.60	23	22	34.7	12.33	.0044	-17.43	-.0000	401438.1	2.11	36.07	-.0009	194.60	.0050	-16.72	230.99

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	21	5	52.326	6624.611	17.1710	303.7179	10.93079	-6.1865	118.9470	151.9522
SEPARATION	1.20	12.45	21	5	53.526	6560.377	13.7247	309.6571	10.98242	-2.7950	120.6158	158.1923
RETRO	3.20	14.45	21	5	55.526	6561.914	7.6757	319.1528	10.98113	2.9279	122.4791	168.1893
EXIT SHA	7.16	18.41	21	5	59.483	6937.832	-4.1943	336.4268	10.67719	13.7192	123.0418	186.4592
IMPACT	3882.35	3893.60	23	22	34.675	405222.832	-16.7218	230.9856	2.19422	67.6616	252.7936	332.4639

JAN 24, 1966
111 DEGREES

SURVEYOR VIEW PERIODS

GHA	121.8829				EPS-154.4965							LOM	224.2152
SX	.849811	SY	-.441912	SZ	-.287288	DAO	-16.69568	RAO	332.52501	RM	406485.070	LAT	28.310600	LON	279.461800
C3	-.908032	ECC	.985091	SLR	12991.760	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.859637	NSY	-.426741	NSZ	-.280921	C3M	1.5560	VIM	2.6824	ZAE	142.565	B.T	.0000	B.R	-.0000
LATE	6.6103	LONE	358.7727	LATS	-1.3786	LONS	153.6710	LATI	3.1561	LONI	321.3504	RSM	146.9012	TTAN	4.3624
LAUNCH DATE		JAN	21.1966		BASE AZM	115.0		TF	64.759			ARRIVAL DATE		JAN 23 1966 23 1 55.5	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
115.00	5 54 17.5	27.5	15.68	303.12	-9.68	154.67	121.82	6 5 32.5	6591.2	10.96	-4.80

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEI	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	21	6	5.5												
SEPARATION	1.20	12.45	21	6	6.7												
RETRO	3.20	14.45	21	6	8.7												
RISE 72	5.36	16.61	21	6	10.9	87.34	-.1240	18.46	-.0922	2248.6	-8.62	-.00	.1297	288.64	-.0742	-1.40	327.30
EXIT SHA	6.68	17.93	21	6	12.2												
EXIT 72	6.68	17.93	21	6	12.2	75.06	-.1959	8.03	-.1835	1624.4	-6.95	13.51	.2234	280.28	-.1505	-5.38	332.67
EXTM 72	9.14	20.39	21	6	14.7	27.07	-.4516	-33.60	-.2603	1203.7	2.51	54.17	.1245	220.35	-.7525	-12.86	342.05
RISE 51	11.37	22.62	21	6	16.9	87.36	-.0821	5.46	-.0654	4664.1	-4.37	.00	.1021	276.06	-.0232	-17.12	349.18
EXTM 51	27.39	38.64	21	6	32.9	2.13	-.0546	-39.87	-.0058	6521.2	5.50	75.75	-.0000	186.67	-.1720	-32.89	20.69
EXTM 72	68.70	79.95	21	7	14.2	274.85	.0001	-34.59	.0013	23786.7	4.88	8.45	.0000	123.97	-.0013	-34.30	53.44
EXTM 51	82.84	94.09	21	7	28.4	324.43	-.0002	-34.49	.0014	23616.0	4.52	55.19	.0000	114.53	-.0026	-33.53	55.43
RISE 42	84.81	96.06	21	7	30.3	105.00	-.0029	-26.40	-.0003	28846.4	4.32	3.84	.0023	240.13	.0014	-33.42	55.58
EXTM 42	115.28	126.53	21	8	.8	102.48	-.0002	-26.37	.0002	36581.8	4.13	5.62	-.0000	241.52	.0003	-31.86	55.62
SET 42	162.40	173.65	21	8	47.9	105.00	.0017	-25.53	.0003	47826.4	3.83	3.31	-.0014	240.82	-.0007	-29.97	50.84
RISE 61	194.68	205.93	21	9	20.2	305.11	.0032	-34.20	.0007	55091.8	3.72	.00	.0022	137.42	.0017	-28.96	45.94
EXTM 51	292.32	303.57	21	10	57.9	.12	.0037	-26.84	.0003	67768.2	2.98	88.89	.0000	185.60	.1709	-26.75	27.58
EXTM 61	461.50	472.75	21	13	47.0	5.34	.0040	-27.76	.0003	99380.6	2.54	21.82	.0000	185.09	.0038	-24.44	350.69
EXTM 72	487.34	498.59	21	14	12.9	.94	.0041	-25.21	.0002	99707.2	2.48	72.67	-.0000	182.85	.0124	-24.18	344.80
RISE 11	429.84	441.09	21	16	35.4	289.08	.0040	-24.85	.0001	125054.2	1.94	.00	.0029	120.96	.0023	-22.99	311.64
SET 51	477.48	488.73	21	17	23.0	90.00	.0039	-21.57	.0002	130128.7	2.57	9.19	-.0034	250.39	-.0014	-22.67	300.38
SET 61	720.23	731.48	21	18	5.8	67.55	.0040	-24.29	.0002	137794.3	2.42	-.00	-.0024	237.40	.0027	-22.40	290.22
SET 72	866.86	878.11	21	20	32.4	93.10	.0040	-21.98	.0001	156001.3	2.41	-.00	-.0037	248.31	-.0004	-21.61	255.06
RISE 42	879.48	890.73	21	20	45.0	255.00	.0041	-20.13	.0000	157510.4	1.66	.00	.0030	114.92	-.0023	-21.55	252.02
EXTM 11	922.46	933.71	21	21	28.0	1.57	.0042	-23.26	.0001	159289.4	1.95	31.51	-.0000	181.73	.0045	-21.35	241.63
SET 11	1213.51	1224.76	22	2	19.1	73.93	.0041	-21.42	.0001	194756.0	2.07	-.00	-.0029	243.45	.0024	-20.25	170.79
EXTM 42	1301.55	1312.80	22	3	47.1	359.75	.0042	-19.50	.0000	197807.4	1.70	74.28	.0000	.89	-.0146	-19.98	149.23
RISE 51	1436.55	1447.80	22	6	2.1	270.00	.0041	-18.93	.0000	216413.2	1.24	8.10	.0033	107.17	-.0016	-19.61	116.08
RISE 72	1596.25	1607.50	22	8	41.8	267.26	.0041	-19.00	.0000	232563.6	1.13	.00	.0028	109.19	-.0006	-19.22	76.77
RISE 61	1638.17	1649.42	22	9	23.7	288.14	.0041	-20.20	.0000	236458.5	1.22	.00	.0026	116.89	.0027	-19.13	66.43
SET 42	1717.18	1728.43	22	10	42.7	103.31	.0041	-18.06	.0001	243683.9	1.86	-.00	-.0031	247.70	-.0023	-18.96	46.93
EXTM 51	1794.84	1806.09	22	12	.4	359.93	.0042	-18.62	.0000	244400.9	1.48	82.88	.0001	.54	-.0310	-18.80	27.75
EXTM 61	1926.73	1937.98	22	14	12.3	.62	.0042	-19.76	.0000	259010.6	1.43	30.00	-.0010	180.67	.0046	-18.55	359.14
EXTM 72	1965.33	1976.58	22	14	50.9	.08	.00	5.74	.0000	259293.5	1.42	79.16	-.0031	180.43	.0209	-18.48	349.59
RISE 11	2077.18	2088.43	22	16	42.7	284.15	.00	.10	.0000	274907.2	1.04	.00	.0031	113.61	.0024	-18.29	317.90
SET 51	2153.78	2165.03	22	17	59.3	90.00	.0041	-17.63	.0000	280392.6	1.76	7.56	-.0026	254.02	-.0016	-18.17	298.91
SET 61	2215.47	2226.72	22	19	1.0	73.11	.0041	-18.94	.0001	286246.9	1 66	.00	-.0029	244.83	.0027	-18.07	283.62
SET 72	2333.93	2344.48	22	20	58.8	92.54	.0041	-17.72	.0001	295650.1	1.75	-.00	-.0034	252.10	-.0005	-17.89	254.41
RISE 42	2348.92	2360.17	22	21	14.5	257.43	.0041	-17.13	-.0000	296886.0	.96	.00	.0031	111.14	-.0024	-17.87	250.52
EXTM 11	2380.21	2391.46	22	21	45.8	.41	.0042	-18.82	.0000	295620.0	1.30	35.98	-.0000	180.48	.0049	-17.83	248.75
SET 11	2683.42	2694.67	23	2	49.0	76.65	.0042	-18.12	.0000	322372.0	1.58	-.00	-.0031	247.63	.0024	-17.43	167.44
EXTM 42	2757.32	2768.57	23	4	2.9	359.91	.0042	-19.49	.0000	321798.5	1.21	72.72	-.0000	.29	-.0126	-17.34	149.07
RISE 51	2887.64	2898.89	23	6	13.2	270.00	.0041	-19.74	-.0000	336389.9	.79	7.14	.0036	105.16	-.0017	-17.19	116.67
RISE 72	3047.05	3058.30	23	8	52.6	267.58	.0041	-18.87	-.0000	348396.6	.72	.00	.0039	107.04	-.0006	-17.02	77.00
RISE 61	3078.06	3089.31	23	9	23.6	285.66	.0042	-17.69	.0000	350542.2	.83	.00	.0029	113.46	.0027	-16.98	69.29
SET 42	3163.69	3174. 4	23	10	49.2	101.91	.0042	-16.30	.0000	356520.1	1.45	.00	-.0032	249.91	-.0024	-16.91	47.92
EXTM 51	3244.54	3255.79	23	12	10.1	359.97	.0042	-16.71	.0000	355558.7	1.09	65.37	.0000	.19	-.0208	-16.87	27.71
EXTM 61	3373.07	3384.32	23	14	18.6	.18	.0042	-17.63	.0000	366762.6	1.08	32.13	-.0000	180.20	.0048	-16.80	359.57
EXTM 72	3412.71	3423.96	23	14	58.3	.01	.0042	-16.93	.0000	366449.0	1.08	80.97	.0000	180.14	.0162	-16.78	345.66
RISE 11	3516.68	3527.93	23	16	42.2	282.71	.0042	-17.31	-.0000	379400.1	.72	.00	.0032	111.36	.0024	-16.73	319.65
SET 51	3600.84	3612.09	23	18	6.4	90.00	.0042	-16.30	.0000	384065.0	1.49	7.00	-.0036	255.24	-.0017	-16.69	298.58
SET 61	3667.99	3679.24	23	19	13.5	74.71	.0042	-17.30	.0000	389219.5	1.42	-.00	-.0029	247.07	.0027	-16.67	281.76
SET 72	3777.61	3788.86	23	21	3.2	92.36	.0042	-16.51	.0000	396575.6	1.60	-.00	-.0040	253.32	-.0006	-16.64	254.26
RISE 42	3794.70	3805.95	23	21	20.2	258.25	.0042	-16.09	-.0000	397772.4	.83	.00	.0032	139.83	-.0024	-16.64	249.96
EXTM 11	3821.79	3833.04	23	21	47.3	.00	.0043	-17.37	.0000	395873.7	1.24	37.43	.0000	180.02	.0008	-16.64	243.15
IMPACT	3885.52	3896.77	23	22	51.1												
IMPC 42	3885.52	3896.77	23	22	51.1	281.22	.0043	-16.22	-.0001	403178.2	1.66	18.28	.0035	97.29	-.0023	-16.68	227.01
IMPC 11	3885.52	3896.77	23	22	51.1	16.36	.0044	-17.38	-.0000	401518.7	2.14	35.17	-.0012	199.20	.0049	-16.68	227.01

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION	.00	11.25	21	6	5.542	6592.096	15.7027	303.0849	10.95648	-4.8020	121.8116	154.6321
SEPARATION	1.20	12.45	21	6	6.742	6548.535	11.9745	308.7968	10.99227	-1.3880	123.2535	160.6448
RETRO	3.20	14.45	21	6	8.742	6582.380	5.5236	317.9473	10.96376	4.3248	124.7274	170.2967
EXIT SHA	6.68	17.93	21	6	12.221	6940.031	-5.3754	332.6727	10.67533	13.7558	124.7478	185.8942
IMPACT	3885.52	3896.77	23	22	51.062	405222.047	-16.6759	227.0096	2.19318	67.6303	253.5232	332.5958

FEB 1966

FEB 1966

BLANK

SURVEYOR VIEW PERIODS

GHA	141.5958					EPS	90.8201							LOM	291.8373
SX	-.586449	SY	-.747173	SZ	-.317746	DAO	-18.22481	RAO	231.87199	RM	385433.918	LAT	28.310600	LON	279.461800
C3	-1.037603	ECC	.982964	SLR	12977.834	RCA	6544.6659	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.569544	NSY	-.757919	NSZ	-.319869	C3M	1.5513	VIM	2.6815	ZAE	137.099	B.T	.0000	B.R	-.0000
LATE	-.7215	LONE	7.6733	LATS	-1.590	LONS	276.9832	LATI	-10.9810	LONI	325.7303	RSM	147.6890	TTAN	4.3919
LAUNCH DATE	FEB 9,1966			BASE AZM	105.0		TF 60.569					ARRIVAL DATE	FEB 12 1966 10 32 1.5		

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	21 38 11.2	27.4	19.22	304.95	-12.12	51.84	114.77	21 49 26.2	6617.8	10.93	-6.01

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	9	21	49.4												
SEPARATION	1.20	12.45	9	21	50.6												
ENTER SHA	2.11	13.36	9	21	51.6												
RETRO	3.20	14.45	9	21	52.6												
RISE 72	5.49	16.74	9	21	54.9	83.19	-.1 08	40.54	.0201	2141.6	-9.04	-.00	.1315	311.01	.0447	4.39	331.73
EXTM 72	8.58	19.83	9	21	58.0	8.89	-.5554	25.08	-.3311	954.2	-.75	55.90	.4558	345.54	.7018	-3.77	344.60
RISE 51	11.35	22.60	9	22	.8	80.70	-.0997	18.53	-.0490	4470.6	-4.87	-.00	.1064	290.66	-.0003	-9.97	354.63
EXIT SHA	19.67	30.92	9	22	9.1												
EXIT 72	19.67	30.92	9	22	9.1	289.45	-.0231	-28.92	-.0066	5960.8	8.00	20.80	-.0205	118.00	.0061	-21.72	17.09
EXIT 51	19.67	30.92	9	22	9.1	26.15	-.0969	-14.12	-.0538	4060.4	3.16	62.88	.1083	290.31	-.0014	-21.72	17.09
EXTM 51	24.56	35.81	9	22	14.0	3.19	-.0609	-24.75	-.0221	5352.9	5.26	86.95	.0595	288.29	-.0415	-25.30	26.22
EXTM 72	69.48	80.73	9	22	58.9	273.08	.0000	-30.70	.0003	24042.3	4.87	6.66	.0000	120.19	-.0003	-30.95	55.88
RISE 42	73.82	85.07	9	23	3.3	105.00	-.0045	-22.97	-.0014	25834.7	4.32	1.75	.0041	242.84	.0014	-30.89	56.61
EXTM 42	119.94	131.19	9	23	49.4	100.13	.0001	-24.55	-.0001	37482.2	4.07	6.25	-.0000	244.26	-.0001	-29.83	57.63
SET 42	184.14	195.39	10	0	53.6	105.00	.0021	-24.28	.0002	52390.4	3.69	2.54	-.0016	241.81	-.0010	-28.38	50.16
RISE 61	200.62	211.87	10	1	10.1	303.55	.0032	-33.15	.0005	56091.1	3.17	.00	.0021	135.75	.0018	-28.06	47.53
EXTM 51	306.06	317.31	10	2	55.5	.06	.0037	-26.55	.0002	69893.2	2.92	89.18	-.0000	184.09	.2264	-26.49	27.63
EXTM 61	471.06	482.31	10	5	40.5	4.26	.0040	-28.20	.0002	100377.6	2.50	21.45	.0000	184.03	.0038	-24.90	351.71
EXTM 72	500.63	511.88	10	6	10.1	.73	.0041	-25.73	.0002	101163.5	2.44	72.16	.0000	182.14	.0120	-24.68	344.99
RISE 11	647.26	658.51	10	8	36.7	289.79	.0040	-25.63	.0001	127493.1	1.90	.00	-.0028	121.97	.0023	-23.78	310.96
SET 51	692.13	703.38	10	9	21.6	90.00	.0039	-22.48	.0001	132321.0	2.52	9.56	-.0033	249.56	-.0014	-23.56	300.37
SET 61	730.38	741.63	10	9	59.8	66.45	.0040	-25.27	.0002	138273.6	2.38	-.00	-.0024	236.00	.0027	-23.37	291.31
SET 72	882.67	893.92	10	12	32.1	93.29	.0040	-22.42	.0001	156845.0	2.36	-.00	-.0036	247.35	-.0004	-22.75	254.88
RISE 42	894.61	905.86	10	12	44.1	255.00	.0040	-21.30	-.0000	158165.9	1.62	.72	.0029	115.84	-.0023	-22.70	252.01
EXTM 11	936.66	947.91	10	13	26.1	1.33	.0042	-24.48	.0001	159932.6	1.91	30.29	-.0000	181.40	.0044	-22.55	241.87
SET 11	1224.03	1235.28	10	18	13.5	72.67	.0041	-22.89	.0001	194262.7	2.03	-.00	-.0029	241.57	.0024	-21.71	172.06
EXTM 42	1317.81	1329.06	10	19	47.2	359.84	.0042	-21.04	.0000	197658.9	1.66	75.82	.0000	.61	-.0158	-21.48	149.13
RISE 51	1452.71	1463.96	10	22	2.1	270.00	.0041	-20.51	-.0000	215917.6	1.21	8.75	.0035	108.62	-.0016	-21.19	116.06
RISE 72	1611.59	1622.84	11	0	41.0	267.00	.0041	-20.66	-.0000	231697.6	1.10	.00	.0038	110.86	-.0006	-20.88	77.00
RISE 61	1661.50	1672.75	11	1	30.9	289.86	.0041	-21.87	.0000	236216.1	1.19	.00	.0028	119.21	.0027	-20.79	64.71
SET 42	1739.16	1750.41	11	2	48.6	104.68	.0041	-19.74	.0001	243125.3	1.81	-.00	-.0031	245.58	-.0023	-20.66	45.57
EXTM 51	1811.51	1822.76	11	4	.9	359.96	.0042	-20.40	.0000	243170.6	1.44	84.66	-.0000	.40	-.0387	-20.54	27.72
EXTM 61	1943.11	1954.36	11	6	12.5	.54	.0042	-21.57	.0000	257637.2	1.39	28.19	-.0000	180.57	.0044	-20.34	359.22
EXTM 72	1982.07	1993.32	11	6	51.5	.08	.0042	-20.58	.0000	257724.6	1.38	77.32	.0000	180.36	.0176	-20.28	349.59
RISE 11	2100.24	2111.49	11	8	49.7	285.67	.0042	-20.94	-.0000	273538.0	1.01	.00	.0031	115.94	.0024	-20.11	316.36
SET 51	2170.62	2181.87	11	10	.1	90.00	.0041	-19.49	.0000	278249.6	1.71	8.33	-.0036	252.32	-.0016	-20.02	298.94
SET 61	2224.73	2235.98	11	10	54.2	71.20	.0041	-20.84	.0000	283443.7	1.62	-.00	-.0028	242.22	.0027	-19.95	285.54
SET 72	2351.44	2362.69	11	13	.9	92.84	.0041	-19.62	.0000	293253.6	1.70	-.01	-.0038	250.18	-.0005	-19.80	254.14
RISE 42	2359.95	2371.20	11	13	9.4	255.91	.0041	-19.03	-.0000	293902.6	.93	.00	.0031	113.53	-.0024	-19.79	252.03
EXTM 11	2397.19	2408.44	11	13	46.6	.36	.0042	-20.76	.0000	293186.9	1.26	34.03	-.0000	180.41	.0047	-19.74	242.80
SET 11	2694.16	2705.41	11	18	43.6	75.01	.0042	-20.13	.0000	318546.6	1.53	-.00	-.0031	245.09	.0024	-19.42	169.10
EXTM 42	2774.87	2786.12	11	20	4.3	359.93	.0042	-19.03	.0000	318200.0	1.17	73.81	-.0000	.26	-.0137	-19.34	149.05
RISE 51	2905.29	2916.54	11	22	14.7	270.00	.0042	-18.76	-.0000	332602.8	.75	8.03	.0036	107.01	-.0016	-19.21	116.64
RISE 72	3062.80	3074.05	12	0	52.2	267.27	.0042	-18.88	-.0000	344210.1	.70	-.01	.0039	109.07	-.0006	-19.03	77.29
RISE 61	3102.79	3114.04	12	1	32.2	287.65	.0042	-19.71	.0000	346907.7	.81	.00	.0029	116.22	.0027	-18.99	67.29
SET 42	3186.47	3197.72	12	2	55.9	103.48	.0041	-18.27	.0000	352530.5	1.47	-.00	-.0032	247.43	-.0024	-18.90	46.37
EXTM 51	3261.95	3272.30	12	4	10.5	359.96	.0042	-18.69	.0000	351251.7	1.12	82.95	.0000	.33	-.0291	-18.82	27.72
EXTM 61	3390.27	3401.52	12	6	19.7	.37	.0042	-19.53	.0000	362988.9	1.13	30.23	-.0000	180.40	.0046	-18.67	355.39
EXTM 72	3429.27	3440.52	12	6	58.7	.06	.0043	-18.81	.0000	362606.0	1.13	79.09	.0000	180.29	.0204	-18.62	345.62
RISE 11	3538.51	3549.76	12	8	47.9	284.12	.0042	-19.08	.0000	376380.0	.85	.00	.0032	113.58	.0024	-18.48	318.22
SET 51	3616.28	3627.53	12	10	5.7	89.98	.0042	-17.95	.0001	381532.0	1.90	7.70	-.0037	253.74	-.0016	-18.34	298.61
IMPACT	3634.11	3645.36	12	10	23.5												
IMPC 72	3634.11	3645.36	12	10	23.5	52.40	.0043	-18.34	.0001	380244.9	2.35	38.09	-.0041	252.86	.0005	-18.28	294.06
IMPC 51	3634.11	3645.36	12	10	23.5	94.53	.0043	-17.87	.0001	383741.9	2.40	3.76	-.0037	251.96	-.0017	-18.28	294.06
IMPC 11	3634.11	3645.36	12	10	23.5	308.45	.0043	-18.95	.0001	382295.4	1.69	17.06	.0028	129.22	.0031	-18.28	294.06
IMPC 61	3634.11	3645.36	12	10	23.5	62.37	.0043	-18.97	.0001	383365.5	2.29	7.17	-.0027	237.61	.0031	-18.28	294.06

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	9	21	49.437	6620.012	19.2570	304.8637	10.92834	-6.0089	114.7403	51.7580
SEPARATION	1.20	12.45	9	21	50.637	6558.469	16.2441	311.1153	10.97798	-2.6185	116.7442	58.3104
ENTER SHA	2.11	13.36	9	21	51.551	6544.662	13.8189	315.7323	10.98965	-.0357	118.0022	63.1573
RETRO	3.20	14.45	9	21	52.637	6563.938	10.8245	321.0767	10.97337	3.0931	119.2020	68.7732
EXIT SHA	19.67	30.92	9	22	9.111	10159.616	-21.7184	17.0881	8.79946	36.4359	112.6483	128.9147
IMPACT	3634.11	3645.36	12	10	23.549	384212.602	-18.2783	294.0574	2.20374	64.5312	303.0535	231.9669

SURVEYOR VIEW PERIODS

GHA	141.5958					EPS	90.9606							LOM	287.7457
SX	-.584293	SY	-.748511	SZ	-.313580	DAO	-18.27513	RAO	232.02412	RM	385501.398	LAT	28.310600	LON	279.461800
C3	-1.040653	ECC	.982914	SLR	12977.507	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.566332	NSY	-.759222	NSZ	-.320702	C3M	1.5560	VIM	2.6824	ZAE	136.908	B.T	.0000	B.R	-.0000
LATE	-.7041	LONE	7.6709	LATS	-1.5191	LONS	276.8408	LATI	-11.1456	LONI	325.5672	RSM	147.6884	TTAN	4.3926
LAUNCH DATE		FEB	9,1966		BASE AZM	108.0		TF	60.633				ARRIVAL DATE FEB	12 1966	10 48 57.2

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	21 50 39.9	27.5	18.08	304.56	-9.38	54.58	116.93	22 1 54.9	6588.4	10.95	-4.65

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	9	22	1.9												
SEPARATION	1.20	12.45	9	22	3.1												
ENTER SHA	1.64	12.89	9	22	3.6												
RETRO	3.20	14.45	9	22	5.1												
RISE 72	5.28	16.53	9	22	7.2	84.69	-.1589	33.68	-.0159	2235.9	-9.01	.00	.1330	304.05	.0062	3.08	329.74
EXTM 72	8.96	20.21	9	22	10.9	8.52	-.4634	1.27	-.3143	1002.1	1.67	77.50	.5451	316.84	.5896	-6.67	344.51
RISE 51	11.27	22.52	9	22	13.2	82.77	-.0924	14.62	-.0531	4634.9	-4.56	.00	.1037	286.27	-.0073	-11.70	352.49
EXIT SHA	18.32	29.57	9	22	20.2												
EXIT 72	18.32	29.57	9	22	20.2	295.44	-.0307	-32.47	-.0042	5282.3	8.08	25.64	-.0263	122.32	.0011	-22.06	11.72
EXIT 51	18.32	29.57	9	22	20.2	39.41	-.1004	-13.38	-.0605	4080.0	2.05	51.04	.1140	280.81	-.0230	-22.06	11.72
EXTM 51	26.74	37.99	9	22	28.7	1.47	-.0502	-20.08	-.0133	6226.7	5.45	85.47	.0000	196.31	-.5742	-27.89	26.97
EXTM 72	69.59	80.84	9	23	11.5	275.81	.0001	-32.17	.0005	23956.7	4.85	9.10	.0000	121.48	-.0006	-31.97	53.13
EXTM 51	85.30	96.55	9	23	27.2	325.26	-.0000	-32.15	.0007	24407.1	4.47	59.07	.0000	110.18	-.0013	-31.62	55.08
RISE 42	86.68	97.93	9	23	28.6	105.00	-.0026	-24.61	-.0007	29442.2	4.27	2.75	.0023	241.55	.0009	-31.59	55.17
EXTM 42	119.35	130.60	10	0	1.3	102.86	.0001	-25.24	-.0001	37625.5	4.07	4.67	-.0000	242.23	-.0001	-30.65	54.90
SET 42	159.14	170.39	10	0	41.1	104.99	.0015	-25.08	.0001	47039.8	3.82	3.04	-.0012	241.17	-.0007	-29.61	50.94
RISE 61	192.95	204.20	10	1	14.9	305.01	.0032	-34.14	.0006	54609.4	3.22	.00	.0021	137.32	.0017	-28.85	46.00
EXTM 51	292.58	303.83	10	2	54.5	.13	.0037	-27.31	.0003	67594.1	2.97	88.42	.0000	184.34	.1184	-27.18	27.56
EXTM 61	460.45	471.70	10	5	42.4	4.73	.0040	-28.75	.0002	98901.8	2.52	20.87	.0000	184.44	.0037	-25.39	351.27
EXTM 72	488.45	499.70	10	6	10.4	.80	.0041	-26.26	.0002	99451.0	2.46	71.63	.0000	182.28	.0116	-25.17	344.92
RISE 11	636.87	648.12	10	8	38.8	290.19	.0040	-26.05	.0001	126156.7	1.91	.00	.0028	122.52	.0023	-24.18	310.53
SET 51	679.83	691.08	10	9	21.7	90.00	.0039	-22.85	.0001	130753.0	2.53	9.71	-.0033	249.21	-.0013	-23.94	300.41
SET 61	716.22	727.47	10	9	58.1	65.99	.0040	-25.68	.0002	136516.4	2.39	-.00	-.0024	235.41	-.0027	-23.75	291.80
SET 72	870.77	882.02	10	12	32.7	93.34	.0040	-22.73	.0001	155477.1	2.37	-.00	-.0036	247.04	-.0004	-23.06	254.86
RISE 42	882.71	893.96	10	12	44.6	255.00	.0040	-21.60	.0000	156783.2	1.63	.90	.0029	116.08	-.0023	-23.02	251.98
EXTM 11	925.03	936.28	10	13	26.9	1.41	.0042	-24.81	.0001	158656.2	1.92	29.97	-.0000	181.48	.0044	-22.86	241.79
SET 11	1211.15	1222.40	10	18	13.1	72.44	.0041	-23.15	.0001	192950.3	2.04	-.00	-.0029	241.24	.0024	-21.96	172.30
EXTM 42	1305.87	1317.12	10	19	47.8	359.83	.0042	-21.28	.0000	196470.6	1.66	76.06	.0000	.65	-.0161	-21.71	149.14
RISE 51	1440.85	1452.10	10	22	2.8	270.00	.0041	-20.72	-.0000	214775.7	1.21	8.83	.0035	108.82	-.0016	-21.40	116.05
RISE 72	1599.61	1610.86	11	0	41.5	266.97	.0041	-20.84	-.0000	230595.7	1.10	.00	.0038	111.05	-.0006	-21.07	77.02
RISE 61	1650.43	1661.68	11	1	32.3	290.05	.0041	-22.06	.0000	235207.9	1.19	.00	.0028	119.47	.0027	-20.97	64.51
SET 42	1727.80	1739.05	11	2	49.7	104.82	.0041	-19.91	.0001	242107.8	1.81	-.00	-.0031	245.36	-.0023	-20.83	45.44
EXTM 51	1799.61	1810.86	11	4	1.5	359.96	.0042	-20.57	.0000	242119.0	1.44	84.84	-.0000	.44	-.0384	-20.71	27.72
EXTM 61	1931.32	1942.57	11	6	13.2	.57	.0042	-21.73	.0000	256637.4	1.40	28.03	-.0000	180.60	.0044	-20.49	355.19
EXTM 72	1970.19	1981.44	11	6	52.1	.09	.0042	-20.74	.0000	256712.5	1.38	77.16	.0000	180.38	.0175	-20.43	345.58
RISE 11	2088.85	2100.10	11	8	50.8	285.80	.0042	-21.09	.0000	272580.6	1.01	.00	.0030	116.13	.0024	-20.26	316.23
SET 51	2158.69	2169.94	11	10	.6	90.00	.0041	-19.63	.0000	277253.5	1.72	8.39	-.0036	252.19	-.0016	-20.16	298.94
SET 31	2212.24	2223.49	11	10	54.2	71.66	.0041	-20.98	.0001	282417.0	1.62	-.00	-.0028	242.02	.0027	-20.09	285.68
SET 72	2339.58	2350.83	11	13	1.5	92.86	.0041	-19.75	.0001	292294.8	1.70	-.01	-.0038	250.06	-.0005	-19.92	254.12
RISE 42	2347.65	2358.90	11	13	9.6	255.81	.0041	-19.16	-.0000	292910.9	.93	.00	.0031	113.68	-.0024	-19.91	252.13
EXTM 11	2385.34	2396.59	11	13	47.3	.38	.0042	-20.89	.0000	292246.4	1.26	33.90	-.0000	180.43	.0047	-19.87	242.78
SET 11	2681.87	2693.12	11	18	43.8	74.92	.0042	-20.24	.0000	317594.9	1.53	-.00	-.0030	244.96	.0024	-19.53	169.19
EXTM 42	2762.92	2774.17	11	20	4.8	359.92	.0042	-19.13	.0000	317278.2	1.17	73.91	-.0000	.28	-.0138	-19.44	149.06
RISE 51	2893.34	2904.59	11	22	15.3	269.99	.0042	-18.85	-.0000	331696.2	.75	8.06	.0036	107.10	-.0016	-19.30	116.64
RISE 72	3050.83	3062.08	12	0	52.7	267.26	.0042	-18.97	-.0000	343297.2	.69	-.01	.0039	109.16	-.0006	-19.12	77.30
RISE 61	3091.21	3102.46	12	1	33.1	287.74	.0042	-19.80	.0000	346018.6	.81	.00	.0029	116.34	.0027	-19.07	67.20
SET 42	3174.79	3186.04	12	2	56.7	103.54	.0041	-18.35	.0000	351627.0	1.47	-.00	-.0031	247.33	-.0024	-18.98	46.31
EXTM 51	3249.12	3260.37	12	4	11.0	359.96	.0042	-18.77	.0000	350321.8	1.12	83.03	.0000	.34	-.0301	-18.89	27.73
EXTM 61	3378.39	3389.64	12	6	20.3	.38	.0042	-19.61	.0000	362045.1	1.12	30.15	-.0000	180.41	.0046	-18.75	355.38
EXTM 72	3417.37	3428.62	12	6	59.3	.06	.0043	-18.89	.0000	361643.0	1.13	79.01	.0000	180.29	.0202	-18.70	345.62
RISE 11	3526.91	3538.16	12	8	48.8	284.19	.0042	-19.15	.0000	375364.6	.83	.00	.0032	113.68	.0024	-18.56	318.15
SET 51	3604.59	3615.84	12	10	6.5	90.00	.0042	-18.03	.0001	380282.5	1.76	7.73	-.0037	253.66	-.0016	-18.42	298.60
IMPACT	3638.01	3649.26	12	10	39.9												
IMPC 72	3638.01	3649.26	12	10	39.9	56.40	.0043	-18.37	.0001	380649.4	2.36	34.30	-.0041	253.12	.0004	-18.33	290.10
IMPC 51	3638.01	3649.26	12	10	39.9	98.48	.0043	-17.90	.0001	384182.0	2.40	.41	-.0037	250.26	-.0018	-18.33	290.10
IMPC 11	3638.01	3649.26	12	10	39.9	312.45	.0043	-19.02	.0001	382108.2	1.71	19.46	.0027	132.27	.0033	-18.33	290.10
IMPC 61	3638.01	3649.26	12	10	39.9	66.35	.0043	-19.00	.0001	383723.3	2.30	4.54	-.0028	240.32	.0030	-18.33	290.10

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	9	22	1.915	6589.149	18.1019	304.5205	10.95276	-4.6510	116.9128	54.5430
SEPARATION	1.20	12.45	9	22	3.115	6547.745	14.8655	310.6079	10.98690	-1.2388	118.7292	60.9312
ENTER SHA	1.64	12.89	9	22	3.551	6544.662	13.6474	312.7648	10.98951	.0305	119.2874	63.1974
RETRO	3.20	14.45	9	22	5.115	6584.893	9.1347	320.3078	10.95560	4.4635	120.8582	71.1325
EXIT SHA	18.32	29.57	9	22	20.236	9886.730	-22.0588	11.7235	8.92151	35.3723	113.8660	126.3389
IMPACT	3638.01	3649.26	12	10	39.921	384280.141	-18.3275	290.1003	2.20185	64.3884	303.3045	232.1138

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SURVEYOR VIEW PERIODS

GHA	141.5958					EPS	91.1332							LOM	282.7190
SX	-.581641	SY	-.750146	SZ	-.314601	VAO	-18.33675	RAD	232.21106	RM	385584.211	LAT	28.310600	LON	279.461800
C3	-1.049327	ECC	.982771	SLR	12976.578	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.563565	NSY	-.760842	NSZ	-.321737	C3M	1.5564	VIM	2.6825	ZAE	136.612	B.T	.0000	B.R	-.0000
LATE	-.6827	LONE	7.6669	LATS	-1.5192	LONS	276.6648	LATI	-11.3346	LONI	325.2999	RSM	147.6877	TTAN	4.3877
LAUNCH DATE	FEB	9,1966		BASE AZM	111.0		TF	60.788				ARRIVAL DATE	FEB 12 1966 11 9 45.1		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	22 1 56.4	27.7	16.97	304.10	-6.96	56.95	119.06	22 13 11.4	6568.6	10,97	-3.45

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PRORE IN SUNLIGHT											
INJECTION	.00	11.25	9	22	13.2												
SEPARATION	1.20	12.45	9	22	14.4												
ENTER SHA	1.22	12.47	9	22	14.4												
RETRO	3.20	14.45	9	22	16.4												
RISE 72	5.14	16.39	9	22	18.3	95.87	-.1430	27.46	-.0465	2335.2	-8.80	-.00	.1326	297.75	-.0263	1.69	327.95
EXTM 72	8.92	20.17	9	22	22.1	20.32	-.4228	-11.31	-.2789	1120.6	1.45	69.68	.3727	258.74	-.9585	-8.48	342.70
RISE 51	11.23	22.48	9	22	24.4	84.69	-.0860	10.86	-.0567	4796.4	-4.24	.01	.1008	282.07	-.0135	-13.52	350.48
EXIT SHA	16.94	28.19	9	22	30.1												
EXIT 72	16.94	28.19	9	22	30.1	302.53	-.0435	-36.76	-.0007	4618.5	8.11	30.60	-.0340	128.30	-.0090	-22.31	6.25
EXIT 51	16.94	28.19	9	22	30.1	52.17	-.0984	-12.00	-.0658	4196.4	.88	39.10	.1145	275.42	-.0282	-22.31	6.25
EXTM 51	28.26	39.51	9	22	41.4	2.19	-.0451	-34.05	-.0089	6887.3	5.46	81.47	.0000	192.33	-.2592	-30.06	26.59
EXTM 72	69.44	80.69	9	23	22.6	278.22	.0000	-33.76	.0008	23812.4	4.84	11.20	.0000	122.98	-.0008	-33.12	50.64
EXTM 51	85.36	96.61	9	23	38.6	328.21	-.0001	-33.62	.0009	24428.1	4.46	61.40	.0000	113.57	-.0018	-32.68	52.64
RISE 61	187.66	198.91	10	1	20.9	306.58	.0031	-35.16	.0006	53589.4	3.25	.00	.0021	138.96	.0016	-29.70	44.39
EXTM 51	280.80	292.05	10	2	54.0	.24	.0037	-28.17	.0003	65547.9	3.01	87.56	.0000	185.00	.0759	-27.95	27.47
EXTM 61	451.07	462.32	10	5	44.3	5.14	.0040	-29.36	.0003	97580.6	2.54	20.24	.0000	184.77	.0037	-25.94	350.89
EXTM 72	477.99	489.24	10	6	11.2	.93	.0041	-26.85	.0002	97954.3	2.48	71.04	.0000	182.56	.0112	-25.71	344.80
RISE 11	628.06	639.31	10	8	41.3	290.62	.0040	-26.52	.0001	124992.5	1.93	.00	.0028	123.12	.0023	-24.62	310.08
SET 51	668.96	680.21	10	9	22.1	90.00	.0039	-23.28	.0001	129324.0	2.54	9.88	-.0033	248.81	-.0013	-24.37	300.45
SET 61	703.21	714.46	10	9	56.4	65.46	.0040	-26.14	.0002	134856.0	2.40	-.00	-.0024	234.75	.0027	-24.18	292.35
SET 72	860.31	871.56	10	12	33.5	93.40	.0040	-23.09	.0001	154225.0	2.38	-.00	-.0036	246.67	-.0004	-23.43	254.82
RISE 42	872.21	883.46	10	12	45.4	255.00	.0040	-21.95	.0000	155507.6	1.64	1.12	.0029	116.35	-.0023	-23.38	251.96
EXTM 11	914.83	926.08	10	13	28.0	1.51	.0042	-25.18	.0001	157492.0	1.93	29.60	-.0030	181.57	.0043	-23.20	241.70
SET 11	1199.50	1210.75	10	18	12.7	72.18	.0041	-23.44	.0001	191689.8	2.04	.00	-.0029	240.86	.0024	-22.24	172.57
EXTM 42	1295.30	1306.55	10	19	48.5	359.82	.0042	-21.55	.0000	195336.8	1.67	76.33	.0000	.70	-.0164	-21.98	149.15
RISE 51	1430.36	1441.61	10	22	3.6	270.00	.0041	-20.96	-.0000	213671.7	1.22	8.93	.0035	109.04	-.0016	-21.64	116.04
RISE 72	1588.98	1600.23	11	0	42.2	266.93	.0041	-21.07	-.0000	229512.4	1.10	.00	.0038	111.28	-.0006	-21.29	77.05
RISE 61	1640.86	1652.11	11	1	34.0	290.28	.0041	-20.28	.0000	234226.5	1.20	.00	.0028	119.78	.0027	-21.19	64.27
SET 42	1717.90	1729.15	11	2	51.1	104.98	.0041	-20.11	.0001	241104.7	1.81	-.00	-.0031	245.11	-.0023	-21.04	45.28
EXTM 51	1789.07	1800.32	11	4	2.3	359.96	.0042	-20.78	.0000	241064.3	1.45	85.04	-.0000	.44	-.0418	-20.91	27.72
EXTM 61	1920.89	1932.14	11	6	14.1	.60	.0042	-21.93	.0000	255623.3	1.40	27.83	-.0000	180.63	.0044	-20.68	355.16
EXTM 72	1959.67	1970.92	11	6	52.9	.10	.0042	-20.93	.0000	255678.8	1.39	76.98	.0000	180.40	.0172	-20.61	345.58
RISE 11	2078.90	2090.15	11	8	52.1	285.94	.0042	-21.26	.0000	271594.2	1.01	.00	.0030	116.35	.0024	-20.43	316.08
SET 51	2148.11	2159.36	11	10	1.3	90.00	.0041	-19.79	.0001	276211.4	1.72	8.45	-.0036	252.04	-.0016	-20.32	298.95
SET 61	2200.97	2212.22	11	10	54.2	70.89	.0041	-21.15	.0001	281330.5	1.62	-.00	-.0028	241.79	.0027	-20.25	285.86
SET 72	2329.09	2340.34	11	13	2.3	92.89	.0041	-19.89	.0001	291271.0	1.70	-.01	-.0038	249.91	-.0005	-20.07	254.11
RISE 42	2336.62	2347.87	11	13	9.8	255.69	.0041	-19.30	-.0000	291846.0	.93	.00	.0031	113.87	-.0024	-20.06	252.23
EXTM 11	2374.85	2386.10	11	13	48.0	.40	.0042	-21.04	.0000	291237.2	1.26	33.75	-.0000	180.45	.0047	-20.01	242.76
SET 11	2670.83	2682.08	11	18	44.0	74.82	.0042	-20.37	.0000	316530.7	1.53	-.00	-.0030	244.79	.0024	-19.65	169.30
EXTM 42	2752.31	2763.56	11	20	5.5	359.92	.0042	-19.25	.0000	316239.0	1.17	74.03	-.0000	.29	-.0141	-19.56	149.06
RISE 51	2882.80	2894.05	11	22	16.0	270.00	.0041	-18.97	-.0000	330475.3	.75	8.12	.0036	107.21	-.0016	-19.42	116.63
RISE 72	3040.35	3051.60	12	0	53.5	267.24	.0042	-19.08	-.0000	342243.4	.69	-.01	.0039	109.27	-.0006	-19.23	77.31
RISE 61	3081.24	3092.49	12	1	34.4	287.85	.0042	-19.91	.0000	344991.9	.80	.00	.0029	116.49	.0027	-19.18	67.09
SET 42	3164.66	3175.91	12	2	57.9	103.62	.0042	-18.45	.0000	350573.6	1.47	-.00	-.0031	247.20	-.0024	-19.08	46.23
EXTM 51	3238.64	3249.89	12	4	11.8	359.96	.0042	-18.87	.0000	349227.1	1.11	83.14	.0000	.37	-.0307	-19.00	27.73
EXTM 61	3367.94	3379.19	12	6	21.1	.39	.0042	-19.71	.0000	360921.7	1.11	30.05	-.0000	180.42	.0046	-18.84	355.37
EXTM 72	3406.89	3418.14	12	7	.1	.06	.0043	-18.99	.0000	360491.9	1.12	78.92	.0000	180.30	.0202	-18.80	345.61
RISE 11	3516.76	3528.01	12	8	50.0	284.27	.0042	-19.25	.0000	374146.9	.81	.00	.0031	113.80	.0024	-18.65	318.07
SET 51	3594.20	3605.45	12	10	7.4	90.00	.0042	-18.13	.0001	378847.4	1.67	7.77	-.0036	253.56	-.0016	-18.53	298.60
IMPACT	3647.27	3658.52	12	11	.5												
IMPC 72	3647.27	3658.52	12	11	.5	61.40	.0043	-18.41	.0001	381183.3	2.37	29.55	-.0041	253.27	.0002	-18.39	285.14
IMPC 51	3647.27	3658.52	12	11	.5	103.43	.0043	-17.94	.0001	384732.6	2.38	-3.74	-.0036	248.03	-.0019	-18.39	285.14
IMPC 11	3647.27	3658.52	12	11	.5	317.46	.0044	-19.09	.0001	381901.0	1.72	22.35	.0025	136.31	.0035	-18.39	285.14
IMPC 61	3647.27	3658.52	12	11	.5	71.34	.0043	-19.05	.0001	384188.5	2.30	1.15	-.0029	243.60	.0029	-18.39	285.14
SET 61	3653.82	3665.07	12	11	7.0	73.06	.0046	-18.99	.0002	385266.3	4.07	.00	-.0030	244.76	.0031	-18.35	283.42

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	9	22	13.190	6568.877	16.9786	304.0810	10.96899	-3.4483	119.0576	56.9300
SEPARATION	1.20	12.45	9	22	14.390	6544.657	13.5257	310.0027	10.98912	-.0321	120.6972	63.1525
ENTER SHA	1.22	12.47	9	22	14.409	6544.667	13.4739	310.0378	10.98912	.0321	120.7182	63.2422
RETRO	3.20	14.45	9	22	16.390	6609.473	7.5016	319.4285	10.93464	5.6582	122.5156	73.0797
EXIT SHA	16.94	28.19	9	22	30.128	9591.662	-22.3088	6.2545	9.05898	34.1360	115.3597	123.3499
IMPACT	3647.27	3658.52	12	11	.456	384369.422	-18.3890	285.1382	2.19751	63.9585	303.3073	232.2994

FEB 9, 1966
111 DEGREES

SURVEYOR VIEW PERIODS

GHA	141.5958					EPS	91.3660							LOM	275.9341
SX	.578053	SY	-.752340	SZ	-.315974	DAO	-18.41960	RAO	232.46347	RM	385695.820	LAT	28.310600	LON	279.461800
C3	-1.063501	ECC	.982538	SLR	12975.051	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.559798	NSY	-.763026	NSZ	-.323138	C3M	1.5562	VIM	2.6824	ZAE	136.149	B.T	.0000	B.R	-.0000
LATE	-.6538	LONE	7.6622	LATS	-1.5194	LONS	276.4280	LATI	-11.6050	LONI	324.8762	RSM	147.6867	TTAN	4.3757
LAUNCH DATE	FEB	9,1966		BASE AZM	115.0		TF 61.036					ARRIVAL DATE FEB		12 1966	11 37 49.4

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	22 15	3.0	27.8	15.53	303.37	-4.20	59.51	121.89	22 26 18.0	6553.4	10.98	-2.08

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PRORE IN SUNLIGHT											
INJECTION	.00	11.25	9	22	26.3												
ENTER SHA	.75	12.01	9	22	27.1												
SEPARATION	1.20	12.45	9	22	27.5												
RETRO	3.20	14.45	9	22	29.5												
RISE 72	5.03	16.28	9	22	31.3	87.12	-.1270	19.87	-.0799	2469.8	-8.29	.00	.1298	290.07	-.0616	-.32	325.84
EXTM 72	9.60	20.85	9	22	35.9	18.02	-.3552	-32.58	-.1751	1480.2	3.74	60.20	.0467	211.64	-.6914	-12.56	342.73
RISE 51	11.25	22.50	9	22	37.5	87.08	-.0786	6.02	-.0606	5005.4	-3.79	.00	.0968	276.69	-.0204	-16.07	348.02
EXIT SHA	15.05	26.30	9	22	41.4												
EXIT 72	15.05	26.30	9	22	41.4	315.35	-.0782	-43.79	.0055	3777.7	7.98	37.15	-.0466	140.47	-.0405	-22.38	358.74
EXIT 51	15.05	26.30	9	22	41.4	67.79	-.0894	-9.26	-.0693	4490.3	-.63	23.95	.1088	271.07	-.0297	-22.38	358.74
EXTM 51	30.70	41.95	9	22	57.0	2.06	-.0387	-38.91	-.0043	7898.3	5.45	76.71	-.0000	187.01	-.1323	-33.04	26.62
EXTM 72	69.40	80.65	9	23	35.7	280.90	.0000	-35.99	.0011	23707.6	4.83	13.43	.0000	125.22	-.0011	-34.81	47.84
EXTM 51	84.57	95.82	9	23	50.9	331.55	-.0004	-35.77	.0011	24245.8	4.46	63.69	.0000	119.27	-.0026	-34.26	49.82
RISE 61	184.04	195.29	10	1	30.3	308.76	.0031	-36.50	.0007	52916.7	3.27	.00	.0020	141.18	.0016	-30.88	42.23
EXTM 51	267.86	279.11	10	2	54.2	.45	.0036	-29.40	.0003	63268.7	3.05	86.32	-.0000	186.19	.0492	-29.06	27.27
EXTM 61	441.00	452.25	10	5	47.3	5.72	.0040	-30.22	.0003	96164.4	2.55	19.34	.0000	185.24	.0036	-26.73	350.35
EXTM 72	466.28	477.53	10	6	12.6	1.10	.0041	-27.69	.0002	96260.7	2.50	70.19	.0000	182.88	.0106	-26.48	344.65
RISE 11	618.72	629.97	10	8	45.0	291.24	.0040	-27.18	.0001	123732.4	1.94	.00	.0028	123.99	.0023	-25.25	309.42
SET 51	656.65	667.90	10	9	23.0	90.00	.0039	-23.90	.0002	127669.7	2.55	10.13	-.0033	248.24	-.0013	-25.00	300.50
SET 61	687.73	698.98	10	9	54.0	64.68	.0040	-26.81	.0002	132842.3	2.41	.00	-.0023	233.78	.0027	-24.80	293.16
SET 72	848.52	859.77	10	12	34.8	93.48	.0040	-23.61	.0001	152776.7	2.39	-.01	-.0036	246.15	-.0004	-23.95	254.77
RISE 42	860.29	871.54	10	12	46.6	254.99	.0040	-22.45	.0000	154015.5	1.65	1.42	.0029	116.75	-.0023	-23.89	251.94
EXTM 11	903.38	914.63	10	13	29.7	1.65	.0042	-25.70	.0001	156157.3	1.93	29.07	-.0000	181.70	.0043	-23.70	241.56
SET 11	1185.93	1197.18	10	18	12.2	71.81	.0041	-23.97	.0001	190169.3	2.04	-.00	-.0028	240.32	.0024	-22.65	172.96
EXTM 42	1283.25	1294.50	10	19	49.5	359.81	.0042	-21.94	.0000	193986.2	1.67	76.72	.0000	.77	-.0168	-22.36	149.16
RISE 51	1418.42	1429.67	10	22	4.7	270.00	.0041	-21.30	-.0000	212346.3	1.22	9.08	.0035	109.36	-.0016	-21.99	116.03
RISE 72	1576.80	1588.05	11	0	43.1	266.88	.0041	-21.38	-.0000	228199.5	1.11	.00	.0038	111.60	-.0006	-21.61	77.08
RISE 61	1630.20	1641.45	11	1	36.5	290.62	.0041	-22.59	.0000	233054.4	1.20	.00	.0027	120.21	.0027	-21.49	63.93
SET 42	1705.91	1717.16	11	2	52.2	105.00	.0041	-20.40	.0001	239799.6	1.81	.16	-.0031	244.87	-.0023	-21.33	45.27
EXTM 51	1777.03	1788.28	11	4	3.3	359.96	.0042	-21.07	.0000	239773.4	1.45	85.33	-.0000	.47	-.0438	-21.19	27.72
EXTM 61	1909.01	1920.26	11	6	15.3	.65	.0042	-22.20	.0000	254378.0	1.40	27.56	-.0000	180.67	.0044	-20.94	355.12
EXTM 72	1947.64	1958.89	11	6	53.9	.11	.0042	-21.19	.0000	254402.0	1.39	76.71	.0000	180.44	.0169	-20.87	345.57
RISE 11	2067.64	2078.89	11	8	53.9	286.14	.0042	-21.51	.0000	270372.8	1.01	-.00	.0030	116.66	.0024	-20.67	315.88
SET 51	2135.99	2147.24	11	10	2.3	90.00	.0041	-20.02	.0001	274906.8	1.72	8.55	-.0035	251.83	-.0016	-20.56	298.96
SET 61	2187.88	2199.13	11	10	54.2	70.65	.0041	-21.38	.0001	279958.1	1.62	-.00	-.0027	241.47	.0027	-20.48	286.10
SET 72	2317.09	2328.34	11	13	3.4	92.92	.0041	-20.11	.0001	289978.1	1.70	-.01	-.0038	249.69	-.0005	-20.29	254.08
RISE 42	2323.84	2335.09	11	13	10.1	255.52	.0041	-19.51	-.0000	290493.4	.93	.00	.0031	114.13	-.0024	-20.28	252.41
EXTM 11	2362.85	2374.10	11	13	49.2	.43	.0042	-21.26	.0000	289961.4	1.26	33.53	-.0000	180.48	.0047	-20.22	242.73
SET 11	2658.05	2669.30	11	18	44.4	74.66	.0042	-20.55	.0000	315154.4	1.53	-.00	-.0030	244.56	.0024	-19.83	169.46
EXTM 42	2740.14	2751.39	11	20	6.4	359.91	.0042	-19.42	.0000	314892.3	1.17	74.20	-.0000	.31	-.0142	-19.73	149.07
RISE 51	2870.65	2881.90	11	22	17.0	270.00	.0041	-19.13	-.0000	329113.4	.75	8.18	.0036	107.35	-.0016	-19.58	116.63
RISE 72	3028.24	3039.49	12	0	54.5	267.22	.0042	-19.23	-.0000	340853.9	.69	-.01	.0039	109.42	-.0006	-19.38	77.33
RISE 61	3069.83	3081.08	12	1	36.1	288.00	.0042	-20.06	.0000	343636.5	.80	.00	.0029	116.71	.0027	-19.33	66.93
SET 42	3153.05	3164.30	12	2	59.4	103.74	.0042	-18.59	.0000	349177.1	1.46	-.00	-.0031	247.03	-.0024	-19.23	46.12
EXTM 51	3226.57	3237.82	12	4	12.9	359.95	.0042	-19.02	.0000	347770.4	1.11	83.28	.0000	.41	-.0317	-19.14	27.73
EXTM 61	3355.92	3367.17	12	6	22.2	.40	.0042	-19.85	.0000	359422.2	1.10	29.91	-.0000	180.43	.0046	-18.98	355.36
EXTM 72	3394.84	3406.09	12	7	1.1	.06	.0043	-19.12	.0000	358955.0	1.11	78.78	.0000	180.31	.0199	-18.93	345.61
RISE 11	3505.18	3516.43	12	8	51.5	284.37	.0042	-19.38	.0000	372532.3	.79	.00	.0031	113.97	.0024	-18.78	317.96
SET 51	3582.22	3593.47	12	10	8.5	90.00	.0042	-18.27	.0000	377018.7	1.60	7.82	-.0036	253.44	-.0016	-18.66	298.60
SET 61	3641.58	3652.83	12	11	7.9	72.86	.0042	-19.20	.0001	382449.4	1.76	.00	-.0029	244.48	.0028	-18.54	283.62
IMPACT	3662.17	3673.42	12	11	28.5												
IMPC 72	3662.17	3673.42	12	11	28.5	68.23	.0043	-18.46	.0001	381944.0	2.38	23.08	-.0041	253.24	.0000	-18.47	278.37
IMPC 11	3662.17	3673.42	12	11	28.5	324.31	.0044	-19.20	.0001	381661.7	1.74	25.92	.0022	142.22	.0038	-18.47	278.37
IMPC 61	3662.17	3673.42	12	11	28.5	78.13	.0043	-19.10	.0001	384838.5	2.29	-3.61	-.0030	247.91	.0028	-18.47	278.37

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	9	22	26.299	6553.430	15.5312	303.3715	10.98120	-2.0829	121.8904	59.5067
ENTER SHA	.76	12.01	9	22	27.058	6544.676	13.1893	306.9943	10.98846	.0907	122.8367	63.3198
SEPARATION	1.20	12.45	9	22	27.499	6548.297	11.8005	309.0678	10.98540	1.3442	123.3093	65.5038
RETRO	3.20	14.45	9	22	29.499	6644.075	5.4046	318.1198	10.90523	6.9949	124.7438	75.0572
EXIT SHA	15.05	26.30	9	22	41.351	9168.067	-22.3829	358.7388	9.26775	32.1784	117.7842	118.6474
IMPACT	3662.17	3673.42	12	11	28.471	384489.598	-18.4726	278.3682	2.19096	63.4575	303.4732	232.5523

SURVEYOR VIEW PERIODS

GHA	142.5815					EPS	103.0779							LOM	289.3502
SX	-.384210	SY	-.842962	SZ	-.376561	DAO	-22.12083	RAO	245.49720	RM	391096.961	LAT	28.310600	LON	279.461800
C3	-.947999	ECC	.984435	SLR	12987.464	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.364867	NSY	-.849285	NSZ	-.381559	C3M	1.5517	VIM	2.6816	ZAE	139.588	B.T	.0000	B.R	-.0000
LATE	.8072	LONE	7.2210	LATS	-1.5278	LONS	264.3070	LATI	-8.1265	LONI	327.6844	RSM	147.6367	TTAN	5.5547

LAUNCH DATE FEB 10 1966 BASE AZM 96.0 TF 60.841 ARRIVAL DATE FEB 13 1966 11 32 22.0

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
96.00	22 27 6.6	27.4	22.50	306.40	-11.29	66.54	108.44	22 38 21.6	6608.1	10.94	-5.60

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	10	22	38.4												
SEPARATION	1.20	12.45	10	22	39.6												
RETRO	3.20	14.45	10	22	41.6												
RISE 72	5.76	17.01	10	22	44.1	75.85	-.3099	60.41	.0991	2288.2	-7.40	-.00	.1194	331.39	.1378	9.45	336.24
EXTM 72	10.38	21.63	10	22	48.7	313.99	-.1355	22.95	-.2251	1839.7	5.18	35.44	.0000	54.40	.3159	-1.20	354.91
RISE 51	11.48	22.73	10	22	49.8	73.73	-.1155	30.15	-.0339	4586.0	-4.52	.00	.1034	303.90	.0208	-3.39	358.64
EXIT SHA	23.65	34.90	10	23	2.0												
EXIT 72	23.65	34.90	10	23	2.0	284.87	-.0131	-20.40	-.0109	7896.3	7.40	16.63	-.0118	109.01	.0119	-18.42	26.71
EXIT 51	23.65	34.90	10	23	2.0	2.06	-.0564	-9.48	-.0354	5224.8	4.87	73.62	.0415	352.78	.1817	-18.42	26.71
EXTM 51	26.82	38.07	10	23	5.2	352.95	-.0405	-14.92	-.0229	6216.8	5.48	77.33	-.0000	32.74	.2067	-20.43	31.29
EXTM 72	67.96	79.21	10	23	46.3	274.37	-.0001	-27.83	-.0006	23572.7	4.90	7.52	.0000	117.20	.0006	-28.12	54.85
RISE 42	75.65	86.90	10	23	54.0	105.00	-.0038	-20.57	-.0020	26592.1	4.29	.27	.0041	244.74	.0006	-28.39	56.03
EXTM 51	84.01	95.26	11	0	2.4	323.28	-.0000	-28.29	-.0004	24086.9	4.51	57.31	.0000	102.89	.0007	-28.58	56.83
EXTM 42	124.39	135.64	11	0	42.7	101.10	.0004	-23.56	-.0004	38790.4	4.03	4.95	-.0000	244.54	-.0006	-28.77	56.28
SET 42	176.29	187.54	11	1	34.7	105.00	.0019	-24.25	-.0001	50838.3	3.72	2.53	-.0013	241.83	-.0011	-28.47	50.35
RISE 61	197.74	208.99	11	1	56.1	304.00	.0032	-33.46	.0003	55624.2	3.22	-.00	.0019	136.24	.0018	-28.31	47.06
EXTM 51	302.46	313.71	11	3	40.8	.08	.0037	-27.74	.0001	69453.1	2.94	88.00	.0000	182.03	.0925	-27.57	27.61
EXTM 61	465.40	476.65	11	6	23.8	3.46	.0040	-30.04	.0002	100022.1	2.52	19.65	.0000	183.18	.0036	-26.68	352.47
EXTM 72	497.91	509.16	11	6	56.3	.58	.0041	-27.69	.0001	101170.0	2.46	70.20	-.0000	181.53	.0106	-26.54	345.13
RISE 11	654.50	665.75	11	9	32.9	291.85	.0040	-27.81	.0000	128930.9	1.92	.00	.0027	124.82	.0023	-25.95	308.91
SET 51	690.63	701.88	11	10	9.0	90.00	.0039	-24.78	.0001	132538.5	2.53	10.48	-.0033	247.42	-.0013	-25.83	300.41
SET 61	717.19	728.44	11	10	35.6	63.63	.0040	-27.70	.0001	137135.5	2.40	-.00	-.0023	232.49	.0027	-25.75	294.14
SET 72	883.47	894.72	11	13	21.8	93.71	.0040	-24.97	.0001	157644.7	2.37	-.00	-.0036	244.78	-.0004	-25.30	254.50
RISE 42	893.98	905.23	11	13	32.3	255.00	.0040	-23.88	-.0000	158632.9	1.64	2.30	.0029	117.87	-.0022	-25.27	251.97
EXTM 11	934.81	946.06	11	14	13.2	1.03	.0042	-27.15	.0001	160733.5	1.93	27.63	.0000	181.04	.0042	-25.17	242.15
SET 11	1213.02	1224.27	11	18	51.4	70.03	.0041	-25.83	.0001	194204.5	2.05	-.00	-.0028	237.78	.0024	-24.62	174.71
EXTM 42	1318.19	1329.44	11	20	36.5	359.94	.0042	-24.10	.0000	198824.7	1.68	78.88	-.0000	.28	-.0185	-24.44	149.03
RISE 51	1452.97	1464.22	11	22	51.3	270.00	.0041	-23.58	-.0000	217174.8	1.24	10.01	.0034	111.47	-.0015	-24.24	116.03
RISE 72	1609.94	1621.19	12	1	28.3	266.49	.0041	-23.80	-.0000	233120.4	1.13	.00	.0037	114.05	-.0005	-24.03	77.49
RISE 61	1675.74	1686.99	12	2	34.1	293.28	.0041	-25.04	-.0000	239154.7	1.22	.00	.0026	123.67	.0027	-23.95	61.30
SET 42	1740.84	1752.09	12	3	39.2	105.00	.0041	-22.96	.0000	244830.5	1.82	1.73	-.0030	242.85	-.0023	-23.87	45.26
EXTM 51	1812.09	1823.34	12	4	50.5	359.98	.0042	-23.74	.0000	245045.2	1.46	88.00	.0000	.57	-.0814	-23.79	27.70
EXTM 61	1943.40	1954.65	12	7	1.8	.46	.0042	-24.90	.0000	260023.2	1.42	24.86	-.0000	180.46	.0042	-23.64	355.30
EXTM 72	1982.57	1993.82	12	7	40.9	.05	.0042	-23.98	.0000	259947.0	1.41	73.92	.0000	180.17	.0129	-23.60	348.62
RISE 11	2112.76	2124.01	12	9	51.1	288.59	.0042	-24.31	-.0000	276826.4	1.04	.00	.0029	120.26	.0024	-23.48	313.44
SET 51	2171.31	2182.56	12	10	49.7	90.00	.0041	-22.91	.0000	280518.3	1.73	9.73	-.0035	249.16	-.0015	-23.42	298.96
SET 61	2210.80	2222.05	12	11	29.2	67.55	.0041	-24.30	.0000	284775.4	1.63	-.00	-.0026	237.39	.0027	-23.38	289.19
SET 72	2354.47	2365.72	12	13	52.8	93.39	.0041	-23.08	.0000	296131.0	1.72	-.00	-.0038	246.69	-.0005	-23.26	253.61
RISE 42	2357.23	2368.48	12	13	55.6	255.00	.0041	-22.50	-.0000	296183.9	.96	1.45	.0030	116.79	-.0023	-23.26	252.93
EXTM 11	2397.68	2408.93	12	14	36.0	.25	.0042	-24.27	.0000	296263.4	1.29	30.52	.0000	180.27	.0045	-23.22	242.90
EXTM 11	2397.70	2408.95	12	14	36.1	.26	.0042	-24.27	.0000	296265.0	1.29	30.52	.0000	180.27	.0045	-23.22	242.90
SET 11	2682.87	2694.12	12	19	21.2	71.94	.0042	-23.72	.0000	320909.9	1.54	-.00	-.0029	240.51	.0024	-23.00	172.17
EXTM 42	2776.21	2787.46	12	20	54.6	359.99	.0042	-22.69	.0000	321518.8	1.20	77.47	-.0000	.10	-.0105	-22.93	148.99
RISE 51	2906.66	2917.91	12	23	5.0	270.00	.0042	-22.41	-.0000	336099.7	.78	9.53	.0035	110.38	-.0016	-22.84	116.63
RISE 72	3061.95	3073.20	13	1	40.3	266.69	.0042	-22.57	-.0000	347892.3	.73	.00	.0038	112.79	-.0006	-22.72	77.85
RISE 61	3119.55	3130.80	13	2	37.9	291.49	.0042	-23.41	-.0000	351842.5	.84	.00	.0027	121.36	.0027	-22.67	63.46
SET 42	3194.04	3205.29	13	3	52.4	105.00	.0041	-21.99	.0000	356804.1	1.48	1.14	-.0031	243.61	-.0023	-22.62	44.85
EXTM 51	3262.69	3273.94	13	5	1.1	359.99	.0042	-22.51	.0000	355296.5	1.14	86.77	-.0000	.30	-.0262	-22.57	27.69
EXTM 61	3391.61	3402.86	13	7	10.0	.31	.0042	-23.35	.0000	367571.8	1.15	26.41	-.0000	180.31	.0043	-22.46	355.45
EXTM 72	3430.95	3442.20	13	7	49.3	.07	.0043	-22.68	.0000	366979.6	1.15	75.22	-.0000	180.27	.0149	-22.43	345.60
RISE 11	3553.08	3564.33	13	9	51.4	287.36	.0042	-22.92	-.0000	381699.6	.89	.00	.0030	118.47	.0024	-22.32	314.98
SET 51	3618.13	3629.38	13	10	56.5	90.00	.0042	-21.86	.0000	385685.2	1.80	9.31	-.0036	250.13	-.0016	-22.24	298.60
IMPACT	3650.45	3661.70	13	11	28.8												
IMPC 72	3650.45	3661.70	13	11	28.8	56.12	.0043	-22.25	.0001	386226.2	2.41	34.27	-.0040	248.41	.0006	-22.17	290.38
IMPC 51	3650.45	3661.70	13	11	28.8	98.21	.0043	-21.75	.0001	389536.6	2.45	2.38	-.0036	246.94	-.0017	-22.17	290.38
IMPC 11	3650.45	3661.70	13	11	28.8	312.16	.0043	-22.87	.0000	388013.6	1.78	16.33	.0026	134.62	.0032	-22.17	290.38
IMPC 61	3650.45	3661.70	13	11	28.8	66.07	.0043	-22.84	.0001	389581.3	2.35	1.98	-.0027	237.45	.0029	-22.17	290.38
SET 61	3662.83	3674.08	13	11	41.2	69.12	.0044	-22.84	.0001	390158.5	2.60	-.00	-.0028	239.44	.0029	-22.18	287.35

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	10	22	38.359	6609.742	22.5181	306.3221	10.94049	-5.6001	108.4150	66.4662
SEPARATION	1.20	12.45	10	22	39.559	6554.397	20.1811	313.0226	10.98550	-2.2000	110.9693	73.4676
RETRO	3.20	14.45	10	22	41.559	6569.583	15.7194	323.6959	10.97270	3.5171	114.4298	84.6483
EXIT SHA	23.65	34.90	10	23	2.012	11483.174	-18.4234	26.7114	8.27501	40.7834	112.5131	152.7852
IMPACT	3650.45	3661.70	13	11	28.814	389853.430	-22.1709	290.3827	2.22923	66.7203	295.7341	245.6384

SURVEYOR VIEW PERIODS

GHA	142.5815					EPS 103.2202								LOM	285.0796
SX	-.381715	SY	-.843814	SZ	-.377188	DAO	-22.15964	RAO	245.65953	RM	391159.375	LAT	28.310600	LON	279.461800
C3	-.946754	ECC	.984455	SLR	12987.600	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.362368	NSY	-.850081	NSZ	-.382167	C3M	1.5563	VIM	2.6825	ZAE	139.535	B.T	.0000	B.R	-.0000
LATE	.8249	LONE	7.2136	LATS	-1.5279	LONS	264.1577	LATI	-8.2343	LONI	327.6479	RSM	147.6361	TTAN	5.5634

LAUNCH DATE FEB 10,1966 BASE AZM 99.0 TF 60.841 ARRIVAL DATE FEB 13 1966 11 50 3.0

LNCH AZMTH	LNCH TIME	PH	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99.00	22 43 9.8	27.6	21.31	306.18	-7.70	70.35	110.64	22 54 24.8	6574.1	10.97	-3.82

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PRORE	IN	EARTH'S SHADOW													
INJECTION	.00	11.25	10	22	54.4												
SEPARATION	1.20	12.45	10	22	55.6												
RETRO	3.20	14.45	10	22	57.6												
RISE 72	5.37	16.62	10	22	59.8	79.65	-.2365	52.33	.0667	2375.1	-7.98	-.01	.1258	323.04	.0975	8.47	333.42
EXTM 72	9.97	21.22	10	23	4.4	328.10	-.2007	20.92	-.2413	1615.1	4.50	47.42	.0079	46.85	.4515	-2.25	351.66
RISE 51	11.29	22.54	10	23	5.7	75.37	-.1053	26.04	-.0379	4771.5	-4.27	.00	.1012	299.17	.0125	-4.86	356.01
EXIT SHA	22.71	33.96	10	23	17.1												
EXIT 72	22.71	33.96	10	23	17.1	290.05	-.0154	-22.49	-.0103	7376.1	7.45	21.49	-.0143	111.13	.0110	-18.96	22.16
EXIT 51	22.71	33.96	10	23	17.1	11.77	-.0618	-10.38	-.0370	5163.0	4.41	71.03	.0649	321.90	.0901	-18.96	22.16
EXTM 51	28.15	39.40	10	23	22.6	356.11	-.0366	-18.91	-.0177	6810.2	5.46	82.28	-.0000	28.57	.2899	-22.22	29.74
EXTM 72	68.34	79.59	11	0	9.8	278.18	-.0000	-29.04	-.0004	23510.4	4.88	10.95	.0000	118.19	.0004	-28.81	51.24
EXTM 51	85.78	97.03	11	0	20.2	327.81	.0000	-29.32	-.0002	24545.7	4.46	61.32	.0000	104.56	.0004	-29.22	53.23
RISE 42	102.80	114.05	11	0	37.2	105.00	-.0009	-23.13	-.0008	33914.9	4.16	1.84	.0011	242.71	-.0001	-29.32	53.55
EXTM 42	124.15	135.40	11	0	58.6	104.73	.0004	-23.90	-.0004	39154.4	4.02	2.50	-.0000	242.26	-.0005	-29.28	52.55
SET 42	132.35	143.60	11	1	6.8	105.00	.0007	-24.08	-.0003	41119.5	3.97	2.42	-.0003	241.96	-.0007	-29.24	51.89
RISE 61	183.29	194.54	11	1	57.7	305.30	.0030	-34.33	.0004	52743.3	3.31	-.00	.0019	137.63	.0017	-28.85	45.55
EXTM 51	283.83	295.08	11	3	38.2	.13	.0036	-28.26	.0001	66244.6	3.01	87.48	-.0000	182.64	.0720	-28.04	27.57
EXTM 61	449.89	461.14	11	6	24.3	3.80	.0039	-30.46	.0002	97804.8	2.55	19.21	.0000	183.47	.0036	-27.02	352.15
EXTM 72	481.31	492.56	11	6	55.7	.62	.0040	-28.07	.0001	98818.9	2.49	69.82	.0000	181.60	.0103	-26.87	345.09
RISE 11	639.66	650.91	11	9	34.1	292.15	.0040	-28.11	.0000	127036.8	1.94	.00	.0027	125.22	.0023	-26.21	308.58
SET 51	674.24	685.49	11	10	8.7	90.00	.0039	-25.03	.0001	130468.9	2.55	10.59	-.0033	247.19	-.0013	-26.09	300.47
SET 61	699.38	710.63	11	10	33.8	63.26	.0040	-28.00	.0001	134922.5	2.42	-.00	-.0023	232.05	.0027	-26.01	294.54
SET 72	867.60	878.85	11	13	22.0	93.75	.0040	-25.18	.0001	155842.5	2.38	-.01	-.0036	244.56	-.0004	-25.51	254.49
RISE 42	878.16	889.41	11	13	32.6	254.99	.0040	-24.08	-.0000	156831.2	1.66	2.42	.0029	118.04	-.0022	-25.49	251.96
EXTM 11	919.38	930.63	11	14	13.8	1.14	.0042	-27.38	.0001	159045.7	1.94	27.40	-.0000	181.14	.0042	-25.38	242.05
SET 11	1196.54	1207.79	11	18	51.0	69.86	.0041	-26.01	.0001	192561.5	2.05	-.00	-.0028	237.53	.0024	-24.79	174.90
EXTM 42	1302.31	1313.56	11	20	36.7	359.89	.0042	-24.26	.0000	197298.7	1.69	79.04	.0000	.53	-.0198	-24.60	149.09
RISE 51	1437.38	1448.63	11	22	51.8	270.00	.0041	-23.73	-.0000	215737.9	1.24	10.06	.0034	111.60	-.0015	-24.39	116.02
RISE 72	1594.27	1605.52	12	1	28.7	266.46	.0041	-23.93	-.0000	231748.7	1.14	-.01	.0037	114.18	-.0005	-24.16	77.50
RISE 61	1660.78	1672.03	12	2	35.2	293.43	.0041	-25.17	-.0000	237872.7	1.23	.00	.0026	123.86	.0027	-24.07	61.14
SET 42	1725.23	1736.48	12	3	39.6	105.00	.0041	-23.08	.0000	243504.0	1.83	1.81	-.0030	242.76	-.0023	-23.99	45.27
EXTM 51	1790.89	1802.14	12	4	45.3	358.56	.0042	-23.86	.0000	243260.7	1.46	87.71	.0022	35.18	-.0798	-23.91	29.09
EXTM 61	1927.84	1939.09	12	7	2.3	.46	.0042	-25.02	.0000	258789.5	1.42	24.74	.0000	180.46	.0042	-23.75	355.30
EXTM 72	1967.16	1978.41	12	7	41.6	.09	.0042	-24.10	.0000	258731.1	1.41	73.81	.0000	180.29	.0135	-23.71	345.59
RISE 11	2097.60	2108.85	12	9	52.0	288.68	.0042	-24.42	-.0000	275665.8	1.05	.00	.0029	120.39	.0024	-23.58	313.35
SET 51	2155.75	2167.00	12	10	50.2	90.00	.0041	-23.00	.0000	279336.2	1.73	9.77	-.0035	249.07	-.0015	-23.52	298.96
SET 61	2194.77	2206.02	12	11	29.2	67.43	.0041	-24.40	.0000	283570.9	1.63	-.00	-.0026	237.24	.0027	-23.48	289.31
SET 72	2339.00	2350.25	12	13	53.4	93.41	.0041	-23.17	.0000	295009.7	1.72	-.00	-.0038	246.60	-.0005	-23.35	253.59
RISE 42	2341.73	2352.98	12	13	56.1	255.00	.0041	-22.59	-.0000	295054.9	.97	1.51	.0030	116.86	-.0023	-23.34	252.92
EXTM 11	2382.37	2393.62	12	14	36.8	.31	.0042	-24.36	.0000	295174.5	1.29	30.43	-.0000	180.33	.0044	-23.31	242.85
SET 11	2667.04	2678.29	12	19	21.5	71.87	.0042	-23.40	.0000	319840.1	1.55	-.00	-.0029	240.41	.0024	-23.08	172.24
EXTM 42	2760.57	2771.82	12	20	55.0	359.95	.0042	-22.76	.0000	320481.9	1.20	77.54	.0000	.21	-.0165	-23.00	149.03
RISE 51	2891.03	2902.28	12	23	5.4	270.00	.0041	-22.48	-.0000	334890.1	.79	9.56	.0035	110.44	-.0016	-22.91	116.62
RISE 72	3046.31	3057.56	13	1	40.7	266.68	.0042	-22.63	-.0000	346894.4	.73	-.00	.0038	112.86	-.0006	-22.78	77.86
RISE 61	3104.24	3115.49	13	2	38.6	291.55	.0042	-23.47	-.0000	350867.8	.84	.00	.0027	121.44	.0027	-22.73	63.40
SET 42	3178.46	3189.71	13	3	52.9	105.00	.0041	-22.05	.0000	355807.5	1.48	1.17	-.0031	243.57	-.0023	-22.67	44.86
EXTM 51	3247.11	3258.36	13	5	1.5	359.99	.0042	-22.56	.0000	354303.2	1.14	86.83	.0000	.39	-.0448	-22.62	27.70
EXTM 61	3376.04	3387.29	13	7	10.5	.30	.0042	-23.40	.0000	366575.1	1.14	26.36	-.0000	180.30	.0043	-22.52	355.46
EXTM 72	3415.38	3426.63	13	7	49.8	.06	.0043	-22.74	.0000	365971.6	1.15	75.17	.0000	180.21	.0147	-22.49	345.62
RISE 11	3537.82	3549.07	13	9	52.2	287.41	.0042	-22.98	-.0000	380649.8	.87	.00	.0030	118.54	.0024	-22.37	314.93
SET 51	3602.75	3614.00	13	10	57.2	90.00	.0042	-21.92	.0000	384485.8	1.72	9.33	-.0036	250.08	-.0016	-22.30	298.61
SET 61	3647.01	3658.26	13	11	41.4	69.08	.0043	-22.88	.0001	389461.5	2.17	-.00	-.0028	239.39	.0028	-22.22	287.39
IMPACT	3650.43	3661.68	13	11	44.8												
IMPC 72	3650.43	3661.68	13	11	44.8	60.03	.0043	-22.27	.0001	386617.4	2.43	30.67	-.0040	248.75	.0004	-22.21	286.51
IMPC 51	3650.43	3661.68	13	11	44.8	102.07	.0043	-21.77	.0001	389945.2	2.44	-.79	-.0035	245.27	-.0018	-22.21	286.51
IMPC 11	3650.43	3661.68	13	11	44.8	316.07	.0044	-22.92	.0000	387839.5	1.79	18.51	.0024	137.63	.0034	-22.21	286.51
IMPC 61	3650.43	3661.68	13	11	44.8	69.97	.0043	-22.86	.0001	389920.5	2.36	-.57	-.0028	239.97	.0028	-22.21	286.51

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	10	22	54.413	6574.416	21.3163	306.1539	10.96906	-3.8189	110.6322	70.3223
SEPARATION	1.20	12.45	10	22	55.613	6544.977	18.7401	312.6976	10.99352	-.3968	112.9799	77.1669
RETRO	3.20	14.45	10	22	57.613	6601.483	13.9600	323.0823	10.94600	5.3022	116.0556	88.0529
EXIT SHA	22.71	33.96	10	23	17.124	11382.421	-18.9649	22.1640	8.31214	40.4935	112.7981	152.0260
IMPACT	3650.43	3661.68	13	11	44.845	389909.047	-22.2063	286.5109	2.22914	66.7618	296.0250	245.7854

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SURVEYOR VIEW PERIODS

GHA	142.5815					EPS	103.4019							LOM	279.6229
SX	-.378524	SY	-.844895	SZ	-.377986	DAO	-22.20897	RAO	245.86701	RM	391238.965	LAT	28.310600	LON	279.461880
C3	-.953918	ECC	.984338	SLR	12986.830	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.359088	NSY	-.851116	NSZ	-.382959	C3M	1.5542	VIM	2.6821	ZAE	139.338	B.T	.0000	B.R	-.0000
LATE	.8475	LONE	7.2040	LATS	-1.5280	LONS	263.9668	LATI	-8.3985	LONI	327.4729	RSM	147.6354	TTAN	5.5668

LAUNCH DATE FEB 10,1966 BASE AZM 102.0 TF 60.967 ARRIVAL DATE FEB 13 1966 12 12 38.7

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	22 57 12.5	27.8	20.14	305.86	-4.61	73.55	112.80	23 8 27.5	6555.2	10.98	-2.29

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	10	23	8.5												
SEPARATION	1.20	12.45	10	23	9.7												
RETRO	3.20	14.45	10	23	11.7												
RISE 72	5.08	16.33	10	23	13.5	81.93	-.1981	45.33	.0356	2464.8	-8.28	-.00	.1296	315.88	.0621	7.36	331.02
EXTM 72	9.65	20.90	10	23	18.1	343.14	-.2620	16.34	-.2403	1473.7	3.72	60.57	.0480	34.50	.7010	-3.45	348.73
RISE 51	11.16	22.41	10	23	19.6	78.69	-.0970	22.15	-.0415	4945.3	-4.01	-.00	.0988	294.74	.0054	-6.44	353.62
EXIT SHA	21.76	33.01	10	23	30.2												
EXIT 72	21.76	33.01	10	23	30.2	295.21	-.0186	-25.01	-.0094	6874.0	7.49	26.13	-.0174	114.03	.0093	-19.65	17.81
EXIT 51	21.76	33.01	10	23	30.2	21.15	-.0664	-11.39	-.0389	5135.1	3.91	65.41	.0751	301.77	.0247	-19.65	17.81
EXTM 51	29.66	40.91	10	23	38.1	358.53	-.0330	-22.77	-.0135	7456.1	5.44	86.74	.0000	24.55	.5871	-24.14	28.48
EXTM 72	68.90	80.15	11	0	17.4	281.53	-.0000	-30.42	-.0002	23523.9	4.85	13.91	.0000	119.49	.0002	-29.70	48.12
RISE 61	172.54	183.79	11	2	1.0	306.83	.0029	-35.31	.0005	50558.7	3.39	-.00	.0018	139.22	.0016	-29.52	43.89
EXTM 51	267.54	278.79	11	3	36.0	.19	.0036	-28.92	.0002	63364.0	3.07	86.81	.0000	183.00	.0599	-28.63	27.91
EXTM 61	436.87	448.12	11	6	25.3	4.18	.0039	-30.98	.0002	95914.8	2.58	18.68	.0000	183.78	.0036	-27.46	351.80
EXTM 72	467.36	478.61	11	6	55.8	.74	.0040	-28.54	.0001	96799.9	2.51	49.35	-.0000	181.85	.0100	-27.29	344.98
RISE 11	627.41	638.66	11	9	35.9	292.51	.0040	-28.49	.0000	125423.5	1.96	.00	.0027	125.71	.0023	-26.56	308.18
SET 51	660.14	671.39	11	10	8.6	90.00	.0039	-25.35	.0001	128625.4	2.56	10.72	-.0032	246.89	-.0013	-26.43	300.51
SET 61	683.47	694.72	11	10	31.9	62.80	.0040	-28.38	.0002	132878.5	2.43	-.00	-.0023	231.50	.0027	-26.34	295.03
SET 72	854.00	865.25	11	13	22.5	93.80	.0039	-25.46	.0001	154225.5	2.39	-.01	-.0035	244.28	-.0004	-25.80	254.48
RISE 42	864.62	875.87	11	13	33.1	254.99	.0040	-24.34	-.0000	155209.9	1.67	2.38	.0029	118.25	-.0022	-25.77	251.93
EXTM 11	906.08	917.33	11	14	14.5	1.22	.0042	-27.68	.0001	157524.8	1.95	27.10	-.0000	181.21	.0041	-25.65	241.97
SET 11	1182.10	1193.35	11	18	50.6	69.64	.0041	-26.25	.0001	191016.2	2.06	-.00	-.0027	237.23	.0024	-25.01	175.13
EXTM 42	1288.91	1300.16	11	20	37.4	359.90	.0042	-24.47	.0000	195898.5	1.69	79.25	-.0000	.47	-.0200	-24.81	149.07
RISE 51	1424.00	1435.25	11	22	52.5	270.00	.0041	-23.91	-.0000	214375.6	1.25	10.13	.0034	111.77	-.0015	-24.58	116.01
RISE 72	1580.80	1592.05	12	1	29.3	266.43	.0041	-24.10	-.0000	230423.9	1.14	-.01	.0037	114.35	-.0005	-24.33	77.52
RISE 61	1648.21	1659.46	12	2	36.7	293.63	.0041	-25.34	-.0000	236643.5	1.23	.00	.0026	124.11	.0027	-24.24	60.94
SET 42	1711.81	1723.06	12	3	40.3	105.00	.0041	-23.23	.0001	242199.7	1.83	1.90	-.0030	242.63	-.0023	-24.15	48.28
EXTM 51	1777.57	1788.82	12	4	46.0	358.57	.0042	-24.02	.0000	241987.8	1.46	87.85	.0023	37.27	-.0826	-24.07	29.07
EXTM 61	1914.57	1925.82	12	7	3.0	.49	.0042	-25.17	.0000	257557.8	1.43	24.59	.0000	180.48	.0042	-23.90	355.27
EXTM 72	1953.82	1965.07	12	7	42.3	.09	.0042	-24.24	.0000	257488.0	1.41	73.66	.0000	180.30	.0135	-23.85	345.58
RISE 11	2084.76	2096.01	12	9	53.2	288.81	.0042	-24.55	-.0000	274475.2	1.05	.00	.0029	120.57	.0024	-23.71	313.22
SET 51	2142.37	2153.62	12	10	50.8	90.00	.0041	-23.13	.0000	278102.0	1.73	9.82	-.0035	248.96	-.0015	-23.65	298.97
SET 61	2180.82	2192.07	12	11	29.3	67.29	.0042	-24.53	.0000	282300.0	1.64	-.00	-.0026	237.06	.0027	-23.61	289.46
SET 72	2325.70	2336.95	12	13	54.2	93.43	.0041	-23.28	.0001	293804.4	1.72	-.00	-.0037	243.48	-.0005	-23.46	253.58
RISE 42	2328.40	2339.65	12	13	56.9	255.00	.0041	-22.70	-.0000	293840.2	.97	1.58	.0030	116.95	-.0023	-23.46	252.91
EXTM 11	2369.09	2380.34	12	14	37.6	.33	.0042	-24.48	.0000	293985.6	1.29	30.31	-.0000	180.35	.0044	-23.42	242.83
SET 11	2653.32	2664.57	12	19	21.8	71.78	.0042	-23.90	.0000	316623.6	1.55	-.00	-.0029	240.27	.0024	-23.17	172.34
EXTM 42	2747.22	2758.47	12	20	55.7	359.95	.0042	-22.86	.0000	319294.3	1.20	77.64	.0000	.23	-.0165	-23.10	149.03
RISE 51	2877.71	2888.96	12	23	6.2	270.00	.0041	-22.56	-.0000	333706.5	.79	9.59	.0035	110.52	-.0016	-23.00	116.62
RISE 72	3033.06	3044.31	13	1	41.5	266.66	.0042	-22.71	-.0000	345721.5	.72	-.00	.0038	112.94	-.0006	-22.86	77.87
RISE 61	3091.43	3102.68	13	2	39.9	291.65	.0042	-23.55	-.0000	349715.6	.84	.01	.0027	121.57	.0027	-22.82	63.29
SET 42	3165.21	3176.46	13	3	53.7	105.00	.0041	-22.13	.0000	354607.0	1.48	1.22	-.0031	243.51	-.0023	-22.75	44.86
EXTM 51	3233.87	3245.12	13	5	2.3	359.98	.0042	-22.64	.0000	353093.2	1.13	86.90	.0000	.43	-.0447	-22.70	27.70
EXTM 61	3362.83	3374.08	13	7	11.3	.30	.0042	-23.48	.0000	365335.7	1.14	26.28	-.0000	180.31	.0043	-22.59	355.45
EXTM 72	3402.15	3413.40	13	7	50.6	.06	.0043	-22.81	.0000	364708.0	1.14	75.09	.0000	180.22	.0144	-22.56	345.61
RISE 11	3524.89	3536.14	13	9	53.3	287.47	.0042	-23.05	-.0000	379307.9	.85	.00	.0030	118.63	.0024	-22.45	314.87
SET 51	3589.60	3600.85	13	10	58.1	90.00	.0042	-21.99	.0000	382980.4	1.66	9.36	-.0036	250.01	-.0016	-22.37	298.61
SET 61	3633.66	3644.91	13	11	42.1	68.98	.0042	-22.97	.0001	387542.3	1.76	-.00	-.0027	239.25	.0028	-22.31	287.50
IMPACT	3658.02	3669.27	13	12	6.5												
IMPC 72	3658.02	3669.27	13	12	6.5	65.30	.0043	-22.28	.0001	387172.6	2.44	25.80	-.0040	249.02	.0002	-22.25	281.29
IMPC 51	3658.02	3669.27	13	12	6.5	107.27	.0043	-21.79	.0001	390494.5	2.43	-5.00	-.0035	242.89	-.0019	-22.25	281.29
IMPC 11	3658.02	3669.27	13	12	6.5	321.35	.0044	-22.98	.0000	387636.9	1.81	21.24	.0022	141.91	.0036	-22.25	281.29
IMPC 61	3658.02	3669.27	13	12	6.5	75.21	.0043	-22.88	.0001	390395.4	2.36	-4.11	-.0029	243.26	.0027	-22.25	281.29

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	10	23	8.459	6555.253	20.1439	305.8528	10.98462	-2.2889	112.7999	73.5424
SEPARATION	1.20	12.45	10	23	9.659	6547.295	17.3377	312.2385	10.99123	1.1437	114.9511	80.2289
RETRO	3.20	14.45	10	23	11.659	6638.647	12.2634	322.3193	10.91474	6.8063	117.6643	90.8111
EXIT SHA	21.76	33.01	10	23	30.224	11249.664	-19.6503	17.8121	8.36128	4[illegible].1011	113.2207	150.9581
IMPACT	3658.02	3669.27	13	12	6.480	3[illegible]90.715	-22.2540	281.2868	2.22499	66.4433	296.0969	245.9849

SURVEYOR VIEW PERIODS

GHA	142.5815					EPS	103.5388							LOM	275.5089
SX	-.370115	SY	-.845702	SZ	-.378584	DAO	-22.24598	RAO	246.02348	RM	391298.848	LAT	28.310600	LON	279.461800
C3	-.959353	ECC	.984265	SLR	12986.355	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.356623	NSY	-.851883	NSZ	-.383555	C3M	1.5562	VIM	2.6824	ZAE	139.150	B.T	.0000	B.R	-.0000
LATE	.8645	LONE	7.1965	LATS	-1.5281	LONS	263.8227	LATI	-8.5958	LONI	327.3160	RSM	147.6348	TTAN	5.5685

LAUNCH DATE FEB 10,1966 BASE AZM 105.0 TF 61.049 ARRIVAL DATE FEB 13 1966 12 29 40.8

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	23 8 51.2	27.9	19.00	305.45	-2.09	76.06	114.93	23 20 6.2	6546.8	10.99	-1.04

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	10	23	20.1												
SEPARATION	1.20	12.45	10	23	21.3												
RETRO	3.20	14.45	10	23	23.3												
RISE 72	4.87	16.12	10	23	25.0	83.52	-.1739	39.13	.0075	2549.8	-8.38	-.00	.1314	309.57	.0313	6.12	328.95
EXTM 72	9.42	20.67	10	23	29.5	357.19	-.2977	9.12	-.2259	1419.3	2.99	72.74	.1747	9.40	1.1023	-4.83	346.18
RISE 51	11.09	22.34	10	23	31.2	80.76	-.0901	18.43	-.0449	5100.2	-3.76	.00	.0966	290.54	-.0008	-8.14	351.46
EXIT SHA	20.83	32.08	10	23	40.9												
EXIT 72	20.83	32.08	10	23	40.9	300.26	-.0228	-27.98	-.0081	6405.0	7.53	30.36	-.0210	117.88	.0062	-20.49	13.72
EXIT 51	20.83	32.08	10	23	40.9	30.02	-.0699	-12.52	-.0410	5133.2	3.40	58.82	.0796	289.38	-.0041	-20.49	13.72
EXTM 51	30.50	41.75	10	23	50.6	1.78	-.0319	-25.98	-.0113	7867.0	5.39	88.38	.0268	261.02	-.5401	-25.88	26.70
EXTM 72	69.57	80.82	11	0	29.7	284.32	.0000	-31.93	-.0000	23604.2	4.82	16.30	.0000	121.04	.0000	-30.76	45.53
EXTM 51	88.47	99.72	11	0	48.6	335.06	-.0000	-31.80	.0001	25280.7	4.40	67.37	.0000	111.33	-.0003	-30.97	47.44
RISE 61	165.74	176.99	11	2	5.8	308.48	.0028	-36.33	.0005	49173.6	3.44	-.00	.0018	140.90	.0015	-30.30	42.17
EXTM 51	254.14	265.39	11	3	34.2	.29	.0035	-29.69	.0002	60956.3	3.12	86.04	.0000	183.69	.0439	-29.32	27.42
EXTM 61	426.61	437.86	11	6	24.7	4.60	.0039	-31.53	.0002	94434.2	2.60	18.10	.0000	184.12	.0035	-27.95	351.41
EXTM 72	455.88	467.13	11	6	56.0	.84	.0040	-29.07	.0001	95134.8	2.53	68.82	.0000	182.04	.0097	-27.77	344.89
RISE 11	617.78	629.03	11	9	37.9	292.92	.0040	-28.90	.0000	124155.7	1.97	.00	.0027	126.26	.0023	-26.94	307.75
SET 51	648.52	659.77	11	10	8.6	90.00	.0039	-25.72	.0001	127099.5	2.57	10.86	-.0032	246.54	-.0013	-26.81	300.56
SET 61	669.80	681.05	11	10	29.9	62.30	.0040	-28.79	.0002	131117.1	2.44	-.00	-.0022	230.89	.0027	-26.72	295.56
SET 72	842.84	854.09	11	13	22.9	93.85	.0039	-25.76	.0001	152903.1	2.40	-.00	-.0035	243.97	-.0004	-26.11	254.45
RISE 42	853.46	864.71	11	13	33.6	254.99	.0040	-24.64	-.0000	153874.4	1.68	2.76	.0029	118.48	-.0022	-26.07	251.91
EXTM 11	895.22	906.47	11	14	15.3	1.31	.0042	-27.99	.0001	156297.0	1.96	26.79	-.0000	181.30	.0041	-25.95	241.89
SET 11	1169.95	1181.20	11	18	50.1	69.40	.0041	-26.50	.0001	189732.8	2.07	-.00	-.0027	236.90	.0024	-25.25	175.38
EXTM 42	1277.77	1289.02	11	20	37.9	359.90	.0042	-24.70	.0000	194749.6	1.70	79.48	-.0000	.51	-.0204	-25.03	149.08
RISE 51	1412.95	1424.20	11	22	53.1	270.00	.0041	-24.11	-.0000	213266.6	1.25	10.21	.0034	111.96	-.0015	-24.77	116.00
RISE 72	1569.63	1580.88	12	1	29.7	266.40	.0041	-24.28	-.0000	229348.6	1.14	-.01	.0037	114.53	-.0005	-24.51	77.54
RISE 61	1637.96	1649.21	12	2	38.1	293.83	.0041	-25.52	-.0000	235666.0	1.24	.00	.0026	124.36	.0027	-24.41	60.73
SET 42	1700.69	1711.94	12	3	40.8	105.00	.0041	-23.39	.0001	241143.8	1.83	2.00	-.0030	242.51	-.0023	-24.32	45.29
EXTM 51	1766.80	1778.05	12	4	44.9	358.65	.0042	-24.18	.0000	240984.8	1.47	88.02	.0023	38.41	-.0884	-24.22	29.00
EXTM 61	1903.61	1914.86	12	7	3.7	.52	.0042	-25.32	.0000	256574.4	1.43	24.44	.0000	180.51	.0042	-24.04	355.25
EXTM 72	1942.77	1954.02	12	7	42.9	.10	.0042	-24.39	.0000	256492.0	1.42	73.52	.0000	180.32	.0133	-23.99	345.57
RISE 11	2074.18	2085.43	12	9	54.3	288.93	.0042	-24.69	-.0000	273530.7	1.05	.00	.0029	120.74	.0024	-23.84	313.10
SET 51	2131.26	2142.51	12	10	51.4	90.00	.0041	-23.95	.0000	277115.1	1.74	9.87	-.0035	248.84	-.0015	-23.77	298.98
SET 61	2169.14	2180.39	12	11	29.2	67.14	.0042	-24.66	.0001	281277.0	1.64	-.00	-.0026	236.87	.0027	-23.73	289.60
SET 72	2314.67	2325.92	12	13	54.8	93.45	.0041	-23.40	.0001	292847.7	1.72	-.00	-.0037	246.37	-.0005	-23.58	253.57
RISE 42	2317.34	2328.59	12	13	57.4	255.00	.0041	-22.81	-.0000	292873.6	.97	1.65	.0030	117.03	-.0023	-23.57	252.91
EXTM 11	2358.09	2369.34	12	14	38.2	.35	.0042	-24.40	.0000	293045.8	1.29	30.19	-.0000	180.37	.0044	-23.53	242.81
SET 11	2641.88	2653.13	12	19	22.0	71.69	.0042	-24.00	.0000	317662.1	1.55	-.00	-.0029	240.15	.0024	-23.27	172.43
EXTM 42	2736.12	2747.37	12	20	56.2	359.95	.0042	-22.95	.0000	318361.5	1.20	77.73	.0000	.24	-.0170	-23.19	149.03
RISE 51	2866.63	2877.88	12	23	6.7	270.00	.0041	-22.64	-.0000	332780.8	.79	9.62	.0035	110.59	-.0016	-23.08	116.62
RISE 72	3022.06	3033.31	13	1	42.2	266.65	.0042	-22.78	-.0000	344817.6	.72	-.00	.0038	113.02	-.0006	-22.94	77.88
RISE 61	3080.79	3092.04	13	2	40.9	291.73	.0042	-23.63	-.0000	348850.8	.84	.00	.0027	121.67	.0027	-22.89	63.21
SET 42	3154.22	3165.47	13	3	54.3	105.00	.0041	-22.19	.0000	353686.3	1.47	1.26	-.0031	243.45	-.0023	-22.82	44.86
EXTM 51	3222.87	3234.12	13	5	3.0	359.98	.0042	-22.71	.0000	352168.1	1.13	86.97	.0000	.42	-.0506	-22.77	27.70
EXTM 61	3351.87	3363.12	13	7	12.0	.31	.0042	-23.55	.0000	364395.2	1.13	26.22	-.0000	180.32	.0043	-22.65	355.44
EXTM 72	3391.15	3402.40	13	7	51.3	.08	.0043	-22.87	.0000	363749.9	1.14	75.03	.0000	180.23	.0144	-22.62	345.61
RISE 11	3514.11	3525.36	13	9	54.2	287.53	.0042	-23.11	-.0000	378302.3	.84	.00	.0030	118.71	.0024	-22.50	314.81
SET 51	3578.62	3589.87	13	10	58.7	90.00	.0042	-22.05	.0000	381877.2	1.62	9.38	-.0036	249.95	-.0016	-22.43	298.62
SET 61	3622.47	3633.72	13	11	42.6	68.91	.0042	-23.04	.0000	386271.7	1.66	-.00	-.0027	239.16	.0028	-22.37	287.57
IMPACT	3662.94	3674.19	13	12	23.0												
IMPC 72	3662.94	3674.19	13	12	23.0	69.32	.0043	-22.30	.0001	387612.2	2.44	22.07	-.0040	249.08	.0001	-22.29	277.29
IMPC 11	3662.94	3674.19	13	12	23.0	325.39	.0044	-23.03	.0000	387503.9	1.82	23.16	.0021	145.36	.0037	-22.29	277.29

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	A7	RT ASC
INJECTION	.00	11.25	10	23	20.103	6546.835	19.0022	305.4464	10.99152	-1.0378	114.9348	76.0549
SEPARATION	1.20	12.45	10	23	21.303	6556.183	15.9760	311.6673	10.98352	2.3929	116.8974	82.5767
RETRO	3.20	14.45	10	23	23.303	6675.560	10.6228	321.4435	10.88408	8.0174	119.2702	92.8543
EXIT SHA	20.83	32.08	10	23	40.938	11090.456	-20.4883	13.7217	8.42163	39.6178	113.7559	149.5535
IMPACT	3662.94	3674.19	13	12	23.039	390053.953	-22.2905	277.2885	2.22214	66.1429	296.2424	246.1376

SURVEYOR VIEW PERIODS

GHA	142.5815				EPS 103.6832							LOM	271.1691
SX	-.373573	SY	-.846547	SZ	-.379211	DAO	-22.28484	RAO	246.18857	RM	391361.902	LAT	28.310800	LON	279.461800
C3	-.966012	ECC	.984139	SLR	12985.529	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.353992	NSY	-.852695	NSZ	-.384188	C3M	1.5563	VIM	2.6824	ZAE	138.894	B.T	.0000	B.R	-.0000
LATE	.8824	LONE	7.1883	LATS	-1.5282	LONS	263.6704	LATI	-8.8227	LONI	327.0946	RSM	147.6342	TTAN	5.5670

LAUNCH DATE FEB 10,1966 BASE AZM 108.0 TF 61.179 ARRIVAL DATE FEB 13 1966 12 47 39.0

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	23 18 50.5	28.0	17.89	304.96	.03	78.08	117.05	23 30 5.5	6544.7	10.99	.01

EVNT STA	TFI	TFL	DAY HR MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PRDRE IN EARTH'S SHADOW												
INJECTION	.00	11.25	10 23 30.1												
SEPARATION	1.20	12.45	10 23 31.3												
RETRO	3.20	14.45	10 23 33.3												
RISE 72	4.72	15.97	10 23 34.8	84.73	-.1566	33.48	-.0176	2633.0	-8.32	.00	.1317	303.84	.0042	4.78	327.13
EXTM 72	9.14	20.39	10 23 39.2	11.67	-.3127	2.07	-.2129	1430.4	2.00	74.67	.3757	310.13	.1610	-6.10	343.53
RISE 51	11.07	22.32	10 23 41.2	82.67	-.0842	14.83	-.0479	5244.5	-3.51	.00	.0942	286.51	-.0043	-9.95	349.49
EXIT SHA	19.89	31.14	10 23 50.0												
EXIT 72	19.89	31.14	10 23 50.0	305.49	-.0284	-31.37	-.0064	5954.9	7.55	34.24	-.0251	122.77	.0010	-21.39	9.73
EXIT 51	19.89	31.14	10 23 50.0	38.63	-.0724	-13.56	-.0437	5155.2	2.87	51.80	.0822	281.06	-.0169	-21.39	9.73
EXTM 51	33.09	44.34	11 0 3.2	1.50	-.0271	-30.07	-.0074	8839.7	5.40	85.47	-.0000	196.73	-.3117	-28.26	26.83
EXTM 72	79.00	81.25	11 0 40.1	286.68	-.0000	-33.54	.0002	23642.3	4.80	18.24	.0000	122.79	-.0002	-31.95	43.28
EXTM 51	89.03	100.28	11 0 59.1	337.85	-.0001	-33.22	.0003	25456.3	4.38	69.37	.0000	116.46	-.0009	-32.04	45.18
RISE 61	162.15	173.40	11 2 12.2	310.23	.0028	-37.35	.0006	48463.2	3.46	-.00	.0018	142.64	.0015	-31.16	40.43
EXTM 51	243.01	254.26	11 3 33.1	.44	.0034	-30.57	.0002	58922.5	3.17	85.15	-.0000	184.51	.0350	-30.10	27.29
EXTM 61	418.44	429.69	11 6 28.5	5.05	.0039	-32.14	.0002	93258.3	2.62	17.47	.0000	184.48	.0035	-28.49	350.99
EXTM 72	446.43	457.68	11 6 56.5	.97	.0040	-29.66	.0002	93748.2	2.55	68.23	.0000	182.27	.0094	-28.30	344.77
RISE 11	610.20	621.45	11 9 40.3	293.38	.0040	-29.35	.0000	123138.4	1.98	.00	.0027	126.86	.0023	-27.36	307.27
SET 51	638.77	650.02	11 10 8.9	90.00	.0039	-26.14	.0001	125788.5	2.58	11.03	-.0032	241.15	-.0013	-27.23	300.60
SET 61	657.69	668.94	11 10 27.8	61.72	.0040	-29.24	.0002	129526.6	2.45	-.00	-.0022	230.21	.0027	-27.14	298.16
SET 72	833.51	844.76	11 13 23.6	93.90	.0039	-26.11	.0001	151768.3	2.41	-.00	-.0035	243.62	-.0004	-26.45	254.42
RISE 42	844.11	855.36	11 13 34.2	254.99	.0040	-24.97	-.0000	152717.7	1.69	2.97	.0029	118.74	-.0022	-26.42	251.89
EXTM 11	886.21	897.46	11 14 16.3	1.42	.0042	-28.34	.0001	155253.8	1.97	26.43	-.0000	181.39	.0041	-26.28	241.79
SET 11	1159.46	1170.71	11 18 49.5	69.14	.0041	-26.78	.0001	188577.0	2.07	-.00	-.0027	236.53	.0024	-25.52	175.65
EXTM 42	1268.40	1279.65	11 20 38.5	359.89	.0042	-24.95	.0000	193731.3	1.70	79.73	-.0000	.55	-.0209	-25.27	149.08
RISE 51	1403.64	1414.89	11 22 53.7	270.00	.0041	-24.33	-.0000	212274.0	1.26	10.30	.0034	112.16	-.0015	-25.00	115.99
RISE 72	1560.19	1571.44	12 1 30.3	266.37	.0041	-24.48	-.0000	228374.3	1.15	-.01	.0037	114.74	-.0005	-24.72	77.56
RISE 61	1629.54	1640.79	12 2 39.6	294.05	.0041	-25.72	.0000	234793.9	1.24	.00	.0026	124.65	.0027	-24.60	60.50
SET 42	1691.31	1702.56	12 3 41.4	105.00	.0041	-23.58	.0001	240177.4	1.83	2.11	-.0030	242.36	-.0022	-24.50	45.30
EXTM 51	1758.39	1769.64	12 4 48.5	358.89	.0042	-24.36	.0000	240121.4	1.47	88.30	.0022	36.44	-.1050	-24.40	28.77
EXTM 61	1894.39	1905.64	12 7 4.5	.55	.0042	-25.49	.0000	255667.3	1.43	24.27	.0000	180.55	.0042	-24.21	355.21
EXTM 72	1933.45	1944.70	12 7 43.5	.11	.0042	-24.55	.0000	255566.6	1.42	73.35	.0000	180.35	.0132	-24.15	345.57
RISE 11	2065.39	2076.64	12 9 55.5	289.06	.0042	-24.84	-.0000	272649.7	1.05	.00	.0029	120.94	.0024	-23.98	312.96
SET 51	2121.88	2133.13	12 10 52.0	90.00	.0041	-23.39	.0001	276181.3	1.74	9.93	-.0035	248.71	-.0015	-23.91	298.98
SET 61	2159.12	2170.37	12 11 29.2	66.98	.0042	-24.80	.0001	280298.9	1.64	-.00	-.0026	236.67	.0027	-23.87	289.77
SET 72	2305.36	2316.61	12 13 55.4	93.47	.0041	-23.52	.0001	291930.1	1.72	-.00	-.0037	246.21	-.0005	-23.70	253.55
RISE 42	2307.98	2319.23	12 13 58.1	255.00	.0041	-22.94	-.0000	291944.4	.97	1.72	.0030	117.1.	-.0023	-23.70	252.90
EXTM 11	2348.80	2360.05	12 14 38.9	.37	.0042	-24.73	.0000	292143.0	1.29	30.07	-.0000	180.39	.0044	-23.66	242.79
SET 11	2632.10	2643.35	12 19 22.2	71.60	.0042	-24.10	.0000	316709.6	1.55	-.00	-.0029	240.01	.0024	-23.37	172.53
EXTM 42	2726.72	2737.97	12 20 56.8	359.94	.0042	-23.04	.0000	317432.7	1.20	77.82	.0000	.26	-.0172	-23.28	149.04
RISE 51	2857.25	2868.50	12 23 7.3	270.00	.0041	-22.73	-.0000	331848.4	.79	9.66	.0035	110.68	-.0016	-23.17	116.61
RISE 72	3012.63	3023.88	13 1 42.7	266.64	.0042	-22.86	-.0000	343873.4	.72	-.00	.0038	113.10	-.0006	-23.02	77.89
RISE 61	3071.74	3082.99	13 2 41.8	291.82	.0042	-23.71	-.0000	347903.2	.84	.00	.0027	121.79	.0027	-22.97	63.12
SET 42	3144.82	3156.07	13 3 54.9	105.00	.0041	-22.27	.0000	352716.1	1.47	1.31	-.0030	243.40	-.0023	-22.90	44.87
EXTM 51	3213.49	3224.74	13 5 3.6	359.98	.0042	-22.78	.0000	351189.5	1.13	87.05	.0000	.43	-.0542	-22.84	27.70
EXTM 61	3342.54	3353.79	13 7 12.6	.32	.0042	-23.62	.0000	363394.4	1.13	26.15	-.0000	180.33	.0043	-22.72	355.43
EXTM 72	3381.80	3393.05	13 7 51.9	.06	.0043	-22.94	.0000	362729.3	1.13	74.96	.0000	180.24	.0143	-22.69	345.61
RISE 11	3505.01	3516.26	13 9 55.1	287.58	.0042	-23.18	-.0000	377233.4	.82	.00	.0030	118.79	.0024	-22.57	314.75
SET 51	3569.32	3580.57	13 10 59.4	90.00	.0042	-22.11	.0000	380718.8	1.59	9.41	-.0036	249.90	-.0016	-22.50	298.62
SET 61	3612.94	3624.19	13 11 43.0	68.83	.0042	-23.11	.0000	384988.1	1.59	-.00	-.0027	239.06	.0028	-22.44	287.65
IMPACT	3670.76	3682.01	13 12 40.9												
IMPC 72	3670.76	3682.01	13 12 40.9	73.65	.0043	-22.31	.0001	388093.7	2.45	18.07	-.0040	249.03	-.0000	-22.33	272.99
IMPC 11	3670.76	3682.01	13 12 40.9	329.75	.0044	-23.09	.0001	387380.0	1.84	25.04	.0019	149.23	.0039	-22.33	272.99

EVNT STA	TFI	TFL	DAY HR MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	10 23 30.092	6544.667	17.8879	304.9625	10.99298	.0140	117.0507	78.0751
SEPARATION	1.20	12.45	10 23 31.292	6568.542	14.6454	311.0221	10.97275	3.4427	118.8347	84.4356
RETRO	3.20	14.45	10 23 33.292	6711.148	9.0263	320.4915	10.85459	9.0295	120.8872	94.4063
EXIT SHA	19.89	31.14	10 23 49.977	10903.260	-21.3934	9.7345	8.49413	39.0290	114.4570	147.8324
IMPACT	3670.76	3682.01	13 12 40.852	390119.473	-22.3296	272.9871	2.21874	65.9608	296.5920	246.3016

SURVEYOR VIEW PERIODS

GHA	142.5815				EPS 103.8246							LOM	266.9183
SX	-.371081	SY	-.847368	SZ	-.379823	DAD	-22.32274	RAD	246.35033	RM	391423.547	LAT	28.310600	LON	279.461800
C3	-.972049	ECC	.983991	SLR	12984.559	HCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.351397	NSY	.853488	NSZ	-.384810	CSM	1.5562	VIM	2.6824	ZAE	138.596	B.T	.0000	B.R	-.0000
LATE	.8999	LONE	7.1809	LATS	-1.5283	LONS	263.5218	LATI	-9.0684	LONI	326.8362	RSM	147.6336	TTAN	5.5632
LAUNCH DATE	FEB 10,1966			RASE AZM	111.0		TF 61.331					ARRIVAL DATE FEB 13 1966 13 5 15.1			

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	23 27 25.5	28.0	16.80	304.42	1.91	79.67	119.16	23 38 38.3	6546.3	10.99	.90

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PRDRE IN EARTH'S SHADOW															
INJECTION	.00	11.25	10	23	38.6												
SEPARATION	1.20	12.45	10	23	39.8												
RETRO	3.20	14.45	10	23	41.8												
RISE 72	4.63	15.88	10	23	43.3	85.73	-.1431	28.22	-.0399	2715.0	-8.14	-.01	.1307	298.52	-.0197	3.36	325.50
EXTM 72	10.04	21.29	10	23	48.7	5.37	-.2531	-16.92	-.1445	1708.9	4.32	79.58	-.0000	209.66	-1.5587	-9.81	344.57
RISE 51	11.09	22.34	10	23	49.7	84.46	-.0790	11.32	-.0507	5380.3	-3.25	.00	-.0919	282.59	-.0112	-11.84	347.66
EXIT SHA	18.94	30.19	10	23	57.6												
EXIT 72	18.94	30.19	10	23	57.6	311.05	-.0361	-35.19	-.0042	5534.1	7.55	37.65	-.0293	128.89	-.0073	-22.34	5.83
EXIT 51	18.94	30.19	10	23	57.6	46.95	-.0736	-14.44	-.0467	5204.3	2.33	44.73	.0836	275.04	-.0231	-22.34	5.83
EXTM 51	35.15	36.40	11	0	13.8	2.11	-.0245	-33.51	-.0050	9625.4	5.36	82.02	-.0000	192.76	-.1512	-30.42	26.46
EXTM 72	70.38	81.63	11	0	49.0	283.65	-.0000	-35.24	.0004	23689.3	4.78	19.76	.0000	124.69	-.0005	-33.25	41.37
EXTM 51	88.78	100.03	11	1	7.4	340.20	-.0002	-34.76	.0005	25424.8	4.38	70.71	.0000	122.59	-.0015	-33.22	43.25
RISE 61	161.35	172.60	11	2	20.0	312.05	.0028	-38.36	.0006	48346.7	3.47	-.00	.0018	144.39	.0014	-32.07	38.69
EXTM 51	234.01	245.26	11	3	32.8	.65	.0034	-31.53	.0003	57256.6	3.21	84.18	-.0000	185.45	.0285	-30.95	27.11
EXTM 61	412.11	423.36	11	6	30.7	5.53	.0039	-32.78	.0003	92353.9	2.63	16.80	.0000	184.86	.0034	-29.09	350.54
EXTM 72	438.74	449.99	11	6	57.4	1.11	.0040	-30.29	.0002	92612.4	2.57	67.59	.0000	182.52	.0091	-28.88	344.64
RISE 11	604.38	615.63	11	9	43.0	293.87	.0040	-29.83	.0001	122342.7	1.99	.00	.0026	127.50	.0023	-27.82	306.76
SET 51	630.62	641.87	11	10	9.3	90.00	.0038	-26.59	.0001	124671.8	2.59	11.21	-.0032	245.73	-.0013	-27.69	300.63
SET 61	646.96	658.21	11	10	25.6	61.09	.0040	-29.74	.0002	128093.8	2.46	-.00	-.0022	229.47	.0027	-27.60	296.81
SET 72	825.78	837.03	11	13	24.4	93.97	.0039	-26.48	.0001	150804.9	2.41	-.00	-.0035	243.24	-.0004	-26.83	254.39
RISE 42	836.31	847.56	11	13	35.0	254.99	.0040	-25.34	-.0000	151725.2	1.70	3.19	.0029	119.03	-.0022	-26.79	251.87
EXTM 11	878.78	890.03	11	14	17.4	1.53	.0042	-28.72	.0001	154379.5	1.97	26.06	.0000	181.49	.0041	-26.63	241.68
SET 11	1150.36	1161.61	11	18	49.0	68.84	.0041	-27.08	.0001	187544.1	2.07	.01	-.0027	236.13	.0024	-25.81	175.96
EXTM 42	1260.53	1271.78	11	20	39.2	359.89	.0042	-25.22	.0000	192841.7	1.70	80.00	-.0000	.58	-.0216	-25.54	149.09
RISE 51	1395.83	1407.08	11	22	54.5	270.00	.0041	-24.57	-.0000	211399.6	1.26	10.40	.0034	112.39	-.0015	-25.24	115.98
RISE 72	1552.22	1563.47	12	1	30.9	266.33	.0041	-24.70	-.0000	227508.0	1.15	-.01	.0037	114.95	-.0005	-24.93	77.59
RISE 61	1622.67	1633.92	12	2	41.3	294.30	.0041	-25.93	.0000	234032.8	1.24	.00	.0026	124.95	.0027	-24.81	60.26
SET 42	1683.42	1694.67	12	3	42.1	105.00	.0041	-23.77	.0001	239311.6	1.83	2.23	-.0030	242.21	-.0022	-24.70	45.30
EXTM 51	1751.43	1762.68	12	4	50.1	359.12	.0042	-24.56	.0000	239354.4	1.47	88.58	.0021	34.15	-.1289	-24.59	28.54
EXTM 61	1886.66	1897.91	12	7	5.3	.59	.0042	-25.67	.0000	254852.6	1.43	24.09	.0000	180.58	.0041	-24.38	355.17
EXTM 72	1925.61	1936.86	12	7	44.2	.12	.0042	-24.73	.0000	254730.1	1.42	73.17	.0000	180.37	.0131	-24.32	345.56
RISE 11	2058.10	2069.35	12	9	56.7	289.21	.0042	-25.00	-.0000	271852.9	1.05	.00	.0029	121.14	.0024	-24.14	312.81
SET 51	2113.96	2125.21	12	10	52.6	90.00	.0041	-23.54	.0001	275325.8	1.74	9.99	-.0035	248.57	-.0015	-24.07	298.99
SET 61	2150.52	2161.77	12	11	29.2	66.81	.0042	-24.95	.0001	279394.2	1.64	-.00	-.0026	236.45	.0027	-24.02	289.94
SET 72	2297.51	2308.76	12	13	56.2	93.49	.0041	-23.65	.0001	291082.7	1.72	-.00	-.0037	246.10	-.0005	-23.84	253.54
RISE 42	2300.09	2311.34	12	13	58.7	255.00	.0041	-23.67	-.0000	291084.0	.97	1.80	.0030	117.24	-.0023	-23.83	252.90
EXTM 11	2340.99	2352.24	12	14	39.6	.39	.0042	-24.86	.0000	291309.1	1.29	29.93	-.0000	180.41	.0044	-23.79	242.77
SET 11	2423.74	2435.01	12	19	29.4	71.50	.0042	-24.21	.0000	315810.0	1.55	-.00	-.0029	239.87	.0024	-23.48	172.63
EXTM 42	2716.77	2730.02	12	20	57.4	359.94	.0042	-23.15	.0000	316553.9	1.20	77.93	.0000	.28	-.0175	-23.38	149.04
RISE 51	2949.33	2960.58	12	23	8.0	270.00	.0041	-22.82	-.0000	330960.3	.79	9.70	.0035	110.76	-.0016	-23.26	116.61
RISE 72	3004.78	3016.03	13	1	43.4	266.62	.0042	-22.95	-.0000	342993.2	.72	-.00	.0038	113.18	-.0006	-23.11	77.90
RISE 61	3064.29	3075.54	13	2	42.9	291.91	.0042	-23.79	-.0000	347039.3	.83	.00	.0027	121.90	.0027	-23.05	63.03
SET 42	3136.98	3148.23	13	3	55.6	105.00	.0041	-22.34	.0000	351805.1	1.47	1.36	-.0030	243.33	-.0023	-22.98	44.87
EXTM 51	3205.64	3216.89	13	5	4.3	359.98	.0042	-22.86	.0000	350267.7	1.12	87.12	.0000	.51	-.0520	-22.91	27.70
EXTM 61	3334.73	3345.98	13	7	13.4	.34	.0042	-23.69	.0000	362447.0	1.12	26.07	-.0000	180.34	.0043	-22.79	355.42
EXTM 72	3373.95	3385.20	13	7	52.6	.07	.0043	-23.11	.0000	361760.1	1.12	74.89	.0000	180.24	.0144	-22.75	345.61
RISE 11	3497.41	3508.66	13	9	56.0	287.64	.0042	-23.24	-.0000	376214.8	.81	.00	.0030	118.88	.0024	-22.63	314.69
SET 51	3541.46	3552.71	13	11	.1	90.00	.0042	-22.18	.0000	379618.3	1.57	9.43	-.0036	249.84	-.0016	-22.56	298.62
SET 61	3604.83	3616.08	13	11	43.5	68.76	.0042	-23.18	.0000	383789.6	1.54	-.00	-.0027	238.96	.0028	-22.51	287.72
IMPACT	3679.85	3691.10	13	12	58.5												
IMPC 72	3679.85	3691.10	13	12	58.5	77.92	.0043	-22.43	.0001	388582.8	2.45	14.12	-.0040	248.87	-.0001	-22.37	268.73
IMPC 11	3679.85	3691.10	13	12	58.5	334.06	.0044	-23.13	.0001	387284.2	1.85	26.69	.0017	153.24	.0041	-22.37	268.73

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.0	11.25	10	23	38.639	6546.281	16.8004	304.4155	10.99121	.8958	119.1552	79.6708
SEPARATION	1.20	12.45	10	23	39.839	6582.244	13.3532	310.3010	10.[illegible]082	4.3159	120.7666	85.8571
RETRO	3.20	14.45	10	23	41.839	6743.979	7.4749	319.4708	10.82791	9.6587	122.5211	95.5282
EXIT SHA	18.94	30.19	10	23	57.575	10697.428	-22.3434	5.8326	8.57602	38.3546	115.3257	145.8351
IMPACT	3679.85	3691.10	13	12	58.488	3901[illegible]87.664	-22.3683	268.7288	2.21433	65.5837	296.7869	246.4646

SURVEYOR VIEW PERIODS

EPS 104.0108

GHA	142.5815											LOM	261.3192
SX	-.367796	SY	-.848440	SZ	-.380625	DAD	-22.37239	RAD	246.56345	RM	391504.594	LAT	28.310600	LON	279.441800
CS	-.988800	ECC	.983765	SLR	12983.079	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.347956	NSY	-.854527	NSZ	-.385629	C3M	1.5360	VIM	2.6824	7AE	138.146	B.T	.0000	B.R	-.0000
LATE	.9230	LONF	7.1705	LATS	-1.5284	LONS	263.3257	LATI	-9.4128	LONI	326.4400	RSM	147.6328	TTAN	5.5550

LAUNCH DATE FEB 10,1966 BASE AZM 115.0 TF 61.560 ARRIVAL DATE FEB 13 1966 13 28 26.3

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	23 36 60.0	28.1	15.39	303.46	3.75	81.27	121.95	23 48 15.0	6551.6	10.99	1.86

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
					PRORE IN EARTH'S SHADOW												
INJECTION	.00	11.25	10	23	48.2												
SEPARATION	1.20	12.45	10	23	49.4												
RETRO	3.20	14.45	10	23	51.4												
RISE 72	4.57	15.82	10	23	52.8	86.85	-.1285	21.63	-.0659	2824.0	-7.73	-.00	.1279	291.85	-.0474	1.35	323.59
EXTM 72	10.41	21.66	10	23	58.7	11.10	-.2347	-29.41	-.1090	2003.8	4.66	66.10	-.0000	204.45	-.5718	-13.04	343.27
RISE 51	11.17	22.42	10	23	59.4	86.72	-.0726	6.76	-.0541	5553.8	-2.91	.00	.0887	277.51	-.0170	-14.49	345.42
EXIT SHA	17.65	28.90	11	0	5.9												
EXIT 72	17.65	28.90	11	0	5.9	319.53	-.0515	-40.89	-.0011	5017.5	7.48	41.27	-.0338	139.2[illegible]	-.0256	-23.60	.65
EXIT 51	17.65	28.90	11	0	5.9	57.66	-.0731	-15.20	-.0509	5312.1	1.59	35.38	.0341	269.16	-.0272	-23.60	.65
EXTM 51	38.46	49.71	11	0	26.7	1.95	-.0209	-37.44	-.0024	10842.3	5.30	77.79	-.0000	187.28	-.0789	-33.37	28.52
EXTM 72	70.65	81.90	11	0	58.9	290.73	-.0001	-37.42	.0007	23720.6	4.77	21.21	.0000	127.38	-.0008	-35.11	39.24
EXTM 51	87.01	98.26	11	1	15.3	342.79	-.0006	-37.42	.0007	25018.6	4.40	71.53	.0000	131.81	-.0027	-34.95	41.07
RISE 61	163.73	174.98	11	2	32.0	314.51	.0028	-39.64	.0007	48932.1	3.45	.00	.0018	146.69	.0014	-33.31	36.42
EXTM 51	224.91	236.16	11	3	33.2	1.00	.0033	-32.91	.0004	55559.4	3.25	62.28	.0000	186.71	.0222	-32.17	26.79
EXTM 61	405.99	417.24	11	6	34.2	6.20	.0039	-33.67	.0003	91499.7	2.64	15.87	.0000	185.37	.0034	-29.93	340.92
EXTM 72	430.77	442.02	11	6	59.0	1.33	.0040	-31.19	.0002	91429.3	2.58	66.68	.0000	182.88	.0087	-29.70	344.44
RISE 11	598.85	610.10	11	9	47.1	294.57	.0040	-30.51	.0001	121567.9	2.00	.00	.0026	128.41	.0023	-28.48	306.05
SET 51	621.83	633.08	11	10	10.1	90.00	.0038	-27.24	.0002	123435.9	2.60	11.47	-.0032	245.12	-.0012	-28.34	300.68
SET 61	634.36	645.61	11	10	22.6	60.17	.0040	-30.45	.0002	126385.2	2.47	-.00	-.0021	228.41	.0027	-28.27	297.75
SET 72	817.51	828.76	11	13	25.8	94.06	.0039	-27.01	.0001	149745.1	2.41	-.00	-.0035	242.71	-.0004	-27.36	254.32
RISE 42	827.88	839.13	11	13	36.1	254.99	.0040	-25.86	-.0000	150614.3	1.70	3.51	.0028	119.44	-.0022	-27.32	251.84
EXTM 11	870.87	882.12	11	14	19.1	1.69	.0042	-29.25	.0001	153431.5	1.98	25.52	.0000	181.63	.0040	-27.14	241.53
SET 11	1140.10	1151.35	11	18	48.3	68.44	.0041	-27.51	.0001	186339.4	2.07	.00	-.0027	235.58	.0024	-26.22	176.37
EXTM 42	1251.95	1263.20	11	20	40.2	359.89	.0042	-25.61	.0000	191821.8	1.70	80.39	-.0000	.63	-.0223	-25.92	140.09
RISE 51	1387.30	1398.55	11	22	55.6	270.00	.0041	-24.91	-.0000	210386.3	1.26	10.54	.0034	112.70	-.0015	-25.58	115.97
RISE 72	1543.45	1554.70	12	1	31.7	266.28	.0041	-25.01	-.0000	226492.6	1.15	-.01	.0037	115.26	-.0005	-25.24	77.63
RISE 61	1615.47	1626.72	12	2	43.7	294.64	.0042	-26.23	.0000	233161.2	1.24	.00	.0026	125.38	.0027	-25.10	59.91
SET 42	1674.75	1686.00	12	3	43.0	105.00	.0041	-24.05	.0001	238287.5	1.83	2.40	-.0030	241.99	-.0022	-24.98	45.31
EXTM 51	1744.59	1755.84	12	4	52.8	359.57	.0042	-24.83	.0000	238508.3	1.47	89.01	.0015	23.08	-.0055	-24.86	28.10
EXTM 61	1878.22	1889.47	12	7	6.5	.64	.0042	-25.93	.0000	253886.0	1.43	23.83	-.0000	180.63	.0041	-24.63	355.12
EXTM 72	1917.00	1928.25	12	7	45.2	.13	.0042	-24.98	.0000	253730.0	1.42	72.93	.0000	180.41	.0130	-24.[illegible]	349.54
RISE 11	2050.26	2061.51	12	9	58.5	289.41	.0042	-25.22	-.0000	270900.0	1.05	.00	.0029	121.44	.0024	-24.36	312.60
SET 51	2105.24	2116.49	12	10	53.5	90.00	.0041	-23.76	.0001	274286.8	1.73	10.07	-.0035	248.37	-.0015	-24.28	298.99
SET 61	2140.83	2152.08	12	11	29.1	66.57	.0042	-25.17	.0001	278283.5	1.63	-.00	-.0026	236.15	.0027	-24.23	290.19
SET 72	2288.89	2300.14	12	13	57.3	93.52	.0041	-23.84	.0001	290044.4	1.72	-.00	-.0037	245.91	-.0005	-24.03	253.52
RISE 42	2291.40	2302.65	12	13	59.8	255.00	.0041	-23.26	-.0000	290027.0	.97	1.92	.0030	117.38	-.0023	-24.02	252.89
EXTM 11	2332.40	2343.65	12	14	40.7	.43	.0042	-25.05	.0000	290287.3	1.29	29.74	-.0000	180.45	.0044	-23.97	242.73
SET 11	2614.42	2625.67	12	19	22.7	71.36	.0042	-24.37	.0000	314680.6	1.54	-.00	-.0029	239.67	.0024	-23.63	178.77
EXTM 42	2709.97	2721.22	12	20	58.2	359.93	.0042	-23.29	.0000	315448.5	1.20	78.07	.0000	.30	-.0180	-23.53	149.05
RISE 51	2940.56	2951.81	12	23	8.8	270.00	.0041	-22.95	-.0000	329835.0	.79	9.75	.0035	110.88	-.0016	-23.39	116.60
RISE 72	2995.92	3007.17	13	1	44.2	266.61	.0042	-23.07	-.0000	341839.9	.71	-.00	.0038	113.30	-.0006	-23.22	77.92
RISE 61	3055.99	3067.24	13	2	44.2	292.03	.0042	-23.91	-.0000	345906.3	.83	.00	.0027	122.07	.0027	-23.16	62.91
SET 42	3128.17	3139.42	13	3	54.4	105.00	.0041	-22.45	.0000	350607.1	1.46	1.42	-.0030	243.25	-.0023	-23.09	44.87
EXTM 51	3196.85	3208.10	13	5	5.1	359.98	.0042	-22.97	.0000	349054.2	1.12	87.23	.0000	.49	-.0029	-23.02	27.71
EXTM 61	3326.02	3337.27	13	7	14.3	.35	.0042	-23.79	.0000	361198.7	1.11	25.97	-.0000	180.36	.0043	-22.89	359.40
EXTM 72	3365.19	3376.44	13	7	53.4	.07	.0043	-23.11	.0000	360483.3	1.11	74.80	.0000	180.26	.0114	-22.85	345.60
RISE 11	3488.98	3500.23	13	9	57.2	287.72	.0042	-23.33	-.0000	374879.1	.80	.00	.0030	119.00	.0024	-22.72	314.61
SET 51	3552.73	3563.98	13	11	1.0	90.00	.0042	-22.26	.0000	378187.4	1.55	9.47	-.0035	249.76	-.0016	-22.65	298.63
SET 61	3595.75	3607.00	13	11	44.0	68.66	.0042	-23.27	.0000	382257.0	1.50	-.00	-.0027	238.84	.0027	-22.59	287.82
IMPACT	3693.63	3704.88	13	13	21.9												
IMPC 72	3693.63	3704.88	13	13	21.9	83.59	.0043	-22.34	.0001	389236.0	2.44	8.89	-.0040	248.49	-.0003	-22.42	263.08
IMPC 11	3693.63	3704.88	13	13	21.9	339.78	.0044	-23.20	.0001	387191.3	1.89	28.93	.0013	156.81	.0043	-22.42	263.08

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	10	23	48.250	6551.656	15.3912	303.6047	10.98668	1.8614	121.9526	81.2693
SEPARATION	1.20	12.45	10	23	49.450	6600.776	11.6826	309.2508	10.94467	5.2684	123.3466	87.2162
RETRO	3.20	14.45	10	23	51.450	6783.143	5.4463	318.0304	10.79531	10.7623	124.7353	96.4672
EXIT SHA	17.65	28.90	11	0	5.903	10396.178	-23.5983	.6458	8.70022	37.3122	116.7844	142.7360
IMPACT	3693.63	3704.88	13	13	21.878	390274.941	-22.4194	263.0809	2.20867	65.2546	297.2966	246.6842

FEB 10, 1966
115 DEGREES

SURVEYOR VIEW PERIODS

GHA	143.5671					EPS	114.9678							LOM	287.7534
SX	-.147452	SY	-.892377	SZ	-.419073	DAO	-24.77609	RAO	259.37220	RM	395963.715	LAT	28.310600	LON	279.461800
CJ	-.897068	ECC	.985271	SLR	12992.940	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.147566	NSY	-.894508	NSZ	-.421995	C3M	1.5518	VIM	2.6816	ZAE	141.159	B.T	.0000	B.R	-.0000
LATE	2.2543	LONE	6.4359	LATS	-1.5364	LONS	251.6440	LATI	-5.2723	LONI	328.2897	RSM	147.5892	TTAN	6.2535

LAUNCH DATE FEB 11 1966 BASE AZM 87.0 TF 61.481 ARRIVAL DATE FEB 14 1966 12 30 9.2

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
87.00	22 57	2.3	27.1	25.98	307.11	-15.74	75.74	101.89	23 8 17.3	6668.8	10.89	-7.81

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	11	23	8.3												
SEPARATION	1.20	12.45	11	23	9.5												
RETRO	3.20	14.45	11	23	11.5												
RISE 72	6.93	18.18	11	23	15.2	19.04	-1.5557	81.55	-.0176	2423.4	-3.88	-.00	.0897	357.28	.2081	12.88	344.68
RISE 51	12.05	23.30	11	23	20.3	64.14	-.1445	42.13	-.0240	4496.2	-4.25	.00	.1010	318.13	.0433	1.82	5.05
EXTM 72	12.40	23.65	11	23	20.7	291.09	-.0350	19.23	-.1235	3140.7	6.49	16.93	-.0000	67.05	.1336	1.14	6.21
EXIT SHA	23.65	34.90	11	23	31.9												
EXIT 72	23.65	34.90	11	23	31.9	278.84	-.0106	-12.37	-.0168	8174.2	7.32	10.26	-.0085	101.22	.0181	-13.53	31.95
EXIT 51	23.65	34.90	11	23	31.9	351.03	-.0507	1.55	-.0445	5208.9	4.89	61.36	.0277	18.98	.1284	-13.53	31.95
EXTM 51	27.47	38.72	11	23	35.8	341.64	-.0330	-6.58	-.0279	6423.2	5.59	64.04	-.0000	45.62	.0983	-16.32	37.35
EXTM 72	65.41	76.66	12	0	13.7	269.79	-.0002	-24.95	-.0015	23070.8	4.99	3.13	.0000	114.76	.0015	-25.92	59.06
RISE 42	66.90	78.15	12	0	15.2	102.85	-.0054	-17.48	-.0034	23861.2	4.27	.00	.0061	248.42	.0004	-26.04	59.35
EXTM 51	79.38	90.63	12	0	27.7	317.77	-.0002	-25.83	-.0012	22891.9	4.61	52.14	.0000	99.66	.0020	-26.86	61.09
EXTM 42	127.10	138.35	12	1	15.4	96.69	.0005	-23.17	-.0006	38950.8	4.01	8.02	-.0000	247.23	-.0008	-28.10	60.65
SET 42	210.32	221.57	12	2	38.6	105.00	.0024	-24.66	-.0001	57776.8	3.56	2.78	-.0017	241.50	-.0014	-28.39	49.60
RISE 61	220.47	231.72	12	2	48.8	303.52	.0033	-33.13	.0002	60121.4	3.11	.00	.0019	135.72	.0050	-28.38	47.86
EXTM 51	325.30	336.55	12	4	33.6	.04	.0038	-28.39	.0001	73401.8	2.88	87.35	.0000	180.91	.0642	-28.17	27.65
EXTM 61	483.21	494.46	12	7	11.5	2.60	.0040	-31.07	.0001	102858.2	2.50	18.65	.0000	182.35	.0036	-27.78	353.28
EXTM 72	518.58	529.83	12	7	46.9	.43	.0041	-28.88	.0001	104313.2	2.43	69.02	-.0000	181.06	.0099	-27.70	345.27
RISE 11	680.99	692.24	12	10	29.3	295.21	.0040	-29.19	-.0000	132603.4	1.90	.00	.0026	126.65	.0023	-27.35	307.61
SET 51	711.64	722.89	12	10	59.9	90.00	.0039	-26.28	.0001	135388.4	2.51	11.08	-.0032	246.02	-.0013	-27.29	300.39
SET 61	730.34	741.59	12	11	18.6	61.76	.0040	-29.21	.0001	139020.7	2.39	-.00	-.0022	230.26	.0027	-27.26	295.98
SET 72	905.57	916.82	12	14	13.9	94.00	.0040	-26.63	.0001	160562.4	2.36	-.00	-.0035	243.09	-.0005	-26.96	254.20
RISE 42	914.77	926.02	12	14	23.1	255.00	.0040	-25.58	-.0000	161275.2	1.64	3.34	.0029	119.23	-.0022	-26.95	251.99
EXTM 11	954.93	966.18	12	15	3.2	.85	.0042	-28.86	.0000	163563.7	1.93	25.93	-.0000	180.83	.0041	-26.89	242.33
SET 11	1226.41	1237.66	12	19	34.7	68.20	.0041	-27.75	.0001	196122.6	2.04	.01	-.0027	235.25	.0024	-26.53	176.53
EXTM 42	1339.22	1350.47	12	21	27.5	359.98	.0042	-26.13	.0000	201503.6	1.68	80.91	-.0000	.19	-.0179	-26.41	149.00
RISE 51	1473.93	1485.18	12	23	42.2	270.00	.0041	-25.63	-.0000	219811.7	1.24	10.82	.0034	113.37	-.0015	-26.27	116.03
RISE 72	1629.50	1640.75	13	2	17.8	266.13	.0041	-25.89	-.0000	235750.2	1.14	-.01	.0037	116.16	-.0005	-26.12	77.84
RISE 61	1706.56	1717.81	13	3	34.9	295.72	.0041	-27.15	-.0000	242829.7	1.23	.00	.0025	126.71	.0027	-26.05	58.88
SET 42	1761.83	1773.08	13	4	30.1	105.00	.0041	-25.11	.0000	247483.3	1.82	3.05	-.0029	241.15	-.0022	-26.01	45.27
EXTM 51	1825.61	1836.86	13	5	33.9	358.08	.0042	-25.96	.0000	247207.2	1.46	88.26	.0038	97.76	.0146	-25.96	29.56
EXTM 61	1964.68	1975.93	13	7	52.4	.36	.0042	-27.12	.0000	263093.7	1.43	22.64	.0000	180.35	.0040	-25.85	355.40
EXTM 72	2003.93	2015.18	13	8	32.2	.11	.0042	-26.25	.0000	262941.5	1.41	71.65	-.0000	180.33	.0119	-25.82	345.56
RISE 11	2142.22	2153.47	13	10	50.5	290.66	.0042	-26.57	-.0000	280474.4	1.06	.00	.0028	123.19	.0024	-25.72	311.38
SET 51	2192.43	2203.68	13	11	40.7	90.00	.0041	-25.19	.0000	283406.9	1.73	10.65	-.0034	247.04	-.0015	-25.69	298 97
SET 61	2221.40	2232.65	13	12	9.7	64.93	.0042	-26.59	.0000	286933.6	1.63	.00	-.0025	234.09	.0027	-25.67	291 80
SET 72	2377.21	2388.46	13	14	45.5	93.78	.0041	-25.49	.0000	299345.5	1.72	-.01	-.0037	244.34	-.0005	-25.57	253.22
RISE 42	2378.46	2389.71	13	14	46.7	255.00	.0041	-24.83	-.0000	299122.6	.98	2.88	.0030	118.63	-.0023	-25.57	252.91
EXTM 11	2418.85	2430.10	13	15	27.1	.25	.0042	-26.41	.0000	299603.0	1.30	28.18	-.0000	180.25	.0043	-25.55	242.91
SET 11	2695.34	2706.59	13	20	3.6	69.76	.0042	-26.12	.0000	323558.1	1.55	-.00	-.0028	237.40	.0024	-25.39	174.35
EXTM 42	2797.44	2808.69	13	21	45.7	359.97	.0042	-25.14	.0000	324823.0	1.21	79.92	.0000	.17	-.0187	-25.34	149.01
RISE 51	2927.84	2939.09	13	23	56.1	270.00	.0042	-24.85	-.0000	339439.0	.79	10.51	.0035	112.64	-.0015	-25.27	116.62
RISE 72	3081.64	3092.89	14	2	29.9	266.28	.0042	-25.03	-.0000	351252.9	.74	-.00	.0037	115.29	-.0005	-25.19	78.26
SE 61	3151.95	3163.20	14	3	40.2	294.25	.0042	-25.89	-.0000	356081.6	.00	.00	.0026	124.89	.0027	-25.15	60.71
42	3215.45	3226.70	14	4	43.7	105.00	.0041	-24.50	.0000	360129.0	1.47	2.68	-.0030	241.63	-.0023	-25.12	44.86
EXTM 51	3280.21	3291.46	14	5	48.5	358.97	.0042	-25.08	.0000	358529.2	1.13	88.86	.0031	54.67	-.1131	-25.09	28 39
EXTM 61	3412.90	3424.15	14	8	1.2	.21	.0042	-25.91	.0000	371348.4	1.15	23.85	-.0000	180.21	.0042	-25.02	355.54
EXTM 72	3452.54	3463.79	14	8	40.8	.05	.0042	-25.29	.0000	370604.5	1 15	72.61	.0000	180.15	.0116	-25.00	345.63
RISE 11	3584.21	3595.46	14	10	52.5	289.69	.0042	-25.53	-.0000	385928.1	.90	.00	.0029	121.83	.0024	-24.92	312.65
SET 51	3640.07	3651.32	14	11	48.4	90.00	.0042	-24.51	.0000	389026.0	1.72	10.38	-.0035	247.67	-.0015	-24.88	298.62
SET 61	3673.03	3684.28	14	12	21.3	66.18	.0043	-25.51	.0000	392997.5	1.88	-.00	-.0026	235.65	.0028	-24.85	290.28
IMPACT	3688.88	3700.13	14	12	37.2												
IMPC 72	3688.88	3700.13	14	12	37.2	60.31	.0043	-24.90	.0001	391471.7	2.46	30.19	-.0039	245.73	.0005	-24.82	286.24
IMPC 51	3688.88	3700.13	14	12	37.2	102.35	.0043	-24.38	.0001	394641.4	2.47	.22	-.0035	242.84	-.0018	-24.82	286.24
IMPC 11	3688.88	3700.13	14	12	37.2	316.34	.0044	-25.54	.0000	392855.7	1.84	16.55	.0023	139.47	.0033	-24.82	286.24
IMPC 61	3688.88	3700.13	14	12	37.2	70.25	.0043	-25.47	.0001	394951.7	2.39	-2.57	-.0028	238.27	.0028	-24.82	286.24

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	11	23	8.288	6675.058	26.0153	306.9000	10.89258	-7.8119	101.7922	75.5325
SEPARATION	1.20	12.45	11	23	9.488	6584.688	24.4020	314.0775	10.96232	-4.4551	104.9867	83.0109
RETRO	3.20	14.45	11	23	11.488	6547.838	20.9680	325.4872	10.99336	1.2569	109.5965	94.9219
EXIT SHA	23.65	34.90	11	23	31.936	11228.279	-13.5348	31.9507	8.37274	40.0488	115.2006	166.5117
IMPACT	3688.88	3700.13	14	12	37.169	394717.555	-24.8216	286.2363	2.24114	68.5936	287.4404	259.6132

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SURVEYOR VIEW PERIODS

GHA	143.5671					EPS	115.1672							LCM	281.6140
SX	-.163707	SY	-.892821	SZ	-.419608	DAO	-24.80984	RAO	259.60968	RM	396038.660	LAT	28.310600	LON	279.461800
C3	-.891471	ECC	.985363	SLR	12993.538	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.143867	NSY	-.894879	NSZ	-.422486	C3M	1.5557	VIM	2.6823	ZAE	141.263	B.T	.0000	B.R	-.0000
LATE	2.2778	LONE	6.4206	LATS	-1.5366	LONS	251.4292	LATI	-5.1698	LONI	328.3667	RSM	147.5884	TTAN	6.2641
LAUNCH DATE		FEB	11.1966	BASE AZM		90.0	TF	61.422			ARRIVAL DATE		FEB 14 1966 12 55 35.4		

LNCH AZMTH	LNCH TIME	P8	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
90.00	23 21 26.4	27.5	24.75	307.19	-10.23	81.94	104.20	23 32 41.4	6596.7	10.95	-5.08

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW															
INJECTION		.00	11.25	11	23	32.7												
SEPARATION		1.20	12.45	11	23	33.9												
RETRO		3.20	14.45	11	23	35.9												
RISE	72	6.12	17.37	11	23	38.8	63.72	-.5751	72.59	.1035	2486.7	-5.53	.00	.1053	344.44	.1710	12.62	339.94
RISE	51	11.68	22.93	11	23	44.4	68.34	-.1264	37.43	-.0272	4750.6	-4.01	.00	.0989	312.44	.0322	.85	1.52
EXTM	72	11.71	22.96	11	23	44.4	301.40	-.0571	21.10	-.1434	2744.5	6.06	25.59	-.0000	61.99	.1696	.80	1.61
EXIT	SHA	22.66	33.91	11	23	55.3												
EXIT	72	22.66	33.91	11	23	55.3	285.36	-.0122	-13.01	-.0174	7587.4	7.33	16.65	-.0105	101.29	.0191	-13.32	26.41
EXIT	51	22.66	33.91	11	23	55.3	2.68	-.0566	2.03	-.0448	5185.8	4.35	62.11	.0497	354.26	.1117	-13.32	26.41
EXTM	51	29.09	40.34	12	0	1.8	346.89	-.0291	-10.22	-.0215	7151.9	5.53	70.12	-.0000	41.03	.1053	-17.64	34.91
EXTM	72	65.66	76.91	12	0	38.3	275.46	-.0001	-25.54	-.0014	22880.5	4.95	8.30	.0000	114.81	.0014	-25.86	53.72
RISE	42	81.43	92.68	12	0	54.1	104.46	-.0028	-19.48	-.0021	28317.0	4.26	.00	.0034	245.91	-.0001	-26.87	55.75
EXTM	51	81.61	92.86	12	0	54.3	324.54	-.0001	-26.25	-.0011	23459.5	4.55	58.23	.0000	98.86	.0020	-26.88	55.76
EXTM	42	127.07	138.32	12	1	39.8	102.19	.0005	-22.81	-.0007	39650.6	4.00	3.70	-.0000	244.54	-.0008	-28.00	54.96
SET	42	166.05	177.30	12	2	..7	104.99	.0017	-23.86	-.0003	48734.2	3.77	2.29	-.0011	242.14	-.0012	-28.26	50.62
RISE	61	191.92	203.17	12	2	44.6	304.16	.0031	-33.57	.0002	54515.9	3.28	-.00	.0018	136.41	.0019	-28.31	46.81
EXTM	51	296.69	307.94	12	4	29.4	.04	.0037	-28.41	.0000	68566.5	2.97	87.33	.0000	180.86	.0612	-28.18	27.65
EXTM	61	457.90	469.15	12	7	10.6	2.79	.0039	-31.21	.0001	99208.7	2.55	18.51	.0000	182.51	.0036	-27.80	353.12
EXTM	72	492.58	503.83	12	7	45.3	.38	.0040	-28.95	.0001	100653.4	2.48	68.95	.0000	180.93	.0098	-27.72	345.32
RISE	11	656.53	667.78	12	10	29.2	293.28	.0040	-29.25	-.0000	129517.1	1.94	.00	.0026	126.73	.0023	-27.37	307.49
SET	51	686.49	697.74	12	10	59.2	90.00	.0039	-26.28	.0001	132265.2	2.54	11.08	-.0032	246.02	-.0013	-27.32	300.46
SET	61	704.95	716.20	12	11	17.6	61.67	.0040	-29.28	.0001	135899.5	2.42	-.00	-.0022	230.15	.0026	-27.28	296.11
SET	72	880.94	892.19	12	14	13.6	94.00	.0039	-26.65	.0001	157799.0	2.38	-.00	-.0035	243.07	-.0005	-26.99	254.24
RISE	42	890.47	901.72	12	14	23.2	254.99	.0040	-25.58	-.0000	158563.3	1.66	3.34	.0029	119.23	-.0022	-26.97	251.95
EXTM	11	930.62	941.87	12	15	3.3	.87	.0042	-28.92	.0001	160905.8	1.95	25.87	-.0000	180.85	.0040	-26.91	242.31
SET	11	1202.07	1213.32	12	19	34.8	68.16	.0041	-27.79	.0001	193736.2	2.06	.01	-.0027	235.20	.0024	-26.56	176.59
EXTM	42	1315.20	1326.45	12	21	27.9	359.98	.0042	-26.15	.0000	199247.1	1.69	80.93	-.0000	.17	-.0179	-26.43	149.00
RISE	51	1450.04	1461.29	12	23	42.7	270.00	.0041	-25.65	-.0000	217669.2	1.26	10.83	.0034	113.39	-.0015	-26.29	116.01
RISE	72	1605.66	1616.91	13	2	18.3	266.12	.0041	-25.92	-.0000	233718.5	1.15	-.01	.0036	116.19	-.0005	-26.15	77.83
RISE	61	1682.92	1694.17	13	3	35.6	295.76	.0041	-27.19	-.0000	240864.7	1.25	.00	.0025	126.77	.0027	-26.08	58.83
SET	42	1737.95	1749.20	13	4	30.6	105.00	.0041	-25.13	.0000	245528.4	1.83	3.07	-.0029	241.13	-.0022	-26.04	45.28
EXTM	51	1801.74	1812.99	13	5	34.4	358.07	.0042	-25.99	.0000	245293.2	1.47	88.24	.0038	98.67	.0164	-25.99	29.57
EXTM	61	1940.29	1951.54	13	7	53.0	.36	.0042	-27.16	.0000	261267.0	1.43	22.60	.0000	180.35	.0040	-25.88	355.40
EXTM	72	1980.15	1991.40	13	8	32.8	.11	.0042	-26.28	.0000	261133.8	1.42	71.62	-.0000	180.33	.0119	-25.85	345.56
RISE	11	2118.63	2129.88	13	10	51.3	290.70	.0042	-26.60	-.0000	278751.3	1.06	.00	.0028	123.24	.0024	-25.75	311.34
SET	51	2168.65	2179.90	13	11	41.3	90.00	.0041	-25.22	.0000	281691.4	1.74	10.66	-.0034	247.01	-.0015	-25.72	298.97
SET	61	2197.46	2208.71	13	12	10.1	64.88	.0042	-26.63	.0000	285219.6	1.64	.01	-.0025	234.04	.0027	-25.70	291.85
SET	72	2353.49	2364.74	13	14	46.2	93.79	.0041	-25.42	.0000	297721.1	1.72	-.01	-.0037	244.31	-.0005	-25.61	253.23
RISE	42	2354.77	2366.02	13	14	47.5	255.00	.0041	-24.86	-.0000	297499.6	.99	2.90	.0030	118.65	-.0023	-25.60	252.91
EXTM	11	2395.14	2406.39	13	15	27.8	.25	.0042	-26.65	.0000	298002.0	1.30	28.14	-.0000	180.25	.0043	-25.58	242.91
SET	11	2671.51	2682.76	13	20	4.2	69.72	.0042	-26.16	.0000	322060.1	1.55	-.00	-.0028	237.35	.0024	-25.43	174.39
EXTM	42	2773.78	2785.03	13	21	46.5	359.97	.0042	-25.18	.0000	323377.6	1.22	79.96	.0000	.18	-.0179	-25.37	149.01
RISE	51	2904.24	2915.49	13	23	56.9	270.00	.0041	-24.89	-.0000	337844.9	.81	10.53	.0035	112.68	-.0015	-25.31	116.61
RISE	72	3058.12	3069.37	14	2	30.8	266.27	.0042	-25.07	-.0000	349945.5	.74	-.00	.0037	115.33	-.0005	-25.22	78.26
RISE	61	3128.61	3139.86	14	3	41.3	294.29	.0042	-25.93	-.0000	354795.3	.86	.00	.0026	124.95	.0027	-25.19	60.67
SET	42	3191.89	3203.14	14	4	44.6	105.00	.0041	-24.54	.0000	358831.8	1.48	2.70	-.0030	241.60	-.0023	-25.16	44.87
EXTM	51	3256.00	3267.25	14	5	48.7	358.81	.0042	-25.11	.0000	357195.4	1.13	88.76	.0033	60.03	-.0900	-25.12	28.85
EXTM	61	3389.30	3400.55	14	8	2.0	.21	.0042	-25.95	.0000	370056.4	1.15	23.81	-.0000	180.21	.0041	-25.06	359.54
EXTM	72	3428.95	3440.20	14	8	41.6	.04	.0042	-25.33	.0000	369303.5	1.15	72.58	.0000	180.15	.0118	-25.04	349.63
RISE	11	3560.80	3572.05	14	10	53.5	289.73	.0042	-25.57	-.0000	384564.2	.88	.00	.0029	121.89	.0024	-24.96	312.61
SET	51	3616.53	3627.78	14	11	49.2	90.00	.0042	-24.55	.0000	387535.0	1.66	10.40	-.0035	247.63	-.0015	-24.92	298.62
SET	61	3649.36	3660.61	14	12	22.1	66.12	.0042	-25.56	.0000	391296.2	1.69	-.00	-.0026	235.58	.0028	-24.90	290.35
IMPACT		3685.32	3696.57	14	12	58.0												
IMPC	72	3685.32	3696.57	14	12	58.0	65.38	.0043	-24.90	.0001	391984.8	2.47	25.60	-.0039	246.12	.0003	-24.85	281.21
IMPC	51	3685.32	3696.57	14	12	58.0	107.35	.0043	-24.38	.0001	395149.0	2.46	-3.75	-.0034	240.60	-.0019	-24.85	281.21
IMPC	11	3685.32	3696.57	14	12	58.0	321.42	.0044	-25.59	.0000	392652.6	1.86	19.10	.0021	143.48	.0035	-24.85	281.21

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	11	23	32.690	6597.859	24.7629	307.1308	10.95258	-5.0787	104.1797	81.8806
SEPARATION		1.20	12.45	11	23	33.890	6550.248	22.8907	314.1226	10.99157	-1.6678	107.1305	89.1732
RETRO		3.20	14.45	11	23	35.890	6577.727	19.0835	325.2724	10.96842	4.0507	111.3184	100.8243
EXIT	SHA	22.66	33.91	11	23	55.346	11224.309	-13.3161	26.4131	8.37457	40.0381	115.2168	166.8426
IMPACT		3685.32	3696.57	14	12	58.007	394783.063	-24.8488	281.2078	2.24029	68.3389	287.0717	259.8086

FEB 11, 1966
90 DEGREES

SURVEYOR VIEW PERIODS

GHA	143.5671					EPS 115.3690								LOM	275.3989
SX	-.159915	SY	-.893256	SZ	-.420143	DAO	-24.84462	RAO	259.85014	RM	396114.262	LAT	28.310600	LON	279.461800
C3	-.891650	ECC	.985660	SLR	12993.520	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.140067	NSY	-.895244	NSZ	-.422989	C3M	1.5558	VIM	2.6824	ZAE	141.257	B.T	.0000	B.R	-.0000
LATE	2.3016	LONE	6.4047	LATS	-1.5367	LONS	251.2115	LATI	-5.1664	LONI	328.3486	RSM	147.5877	TTAN	6.2720
LAUNCH DATE	FEB 11.1966			BASE AZM	93.0		TF 61.446					ARRIVAL DATE	FEB 14 1966 13 21 20.6		

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
93.00	23 42 22.0	27.7	23.54	307.11	-5.67	87.10	106.45	23 53 37.0	6560.0	10.98	-2.76

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	FLE	DEL	AZI	DAZ	LAT	LONG
		PROFE	IN	EARTH'S	SHADOW												
INJECTION	.00	11.25	11	23	53.6												
SEPARATION	1.20	12.45	11	23	54.8												
RETRO	3.20	14.45	11	23	56.8												
RISE 72	5.55	16.80	11	23	59.2	73.91	-.3369	63.40	.0921	2577.3	-6.54	-.00	.1153	334.52	.1340	11.98	336.19
EXTM 72	11.18	22.43	12	0	4.8	312.80	-.0884	21.52	-.1596	2435.5	5.59	35.14	-.0000	56.60	.2195	.11	357.62
RISE 51	11.42	22.67	12	0	5.0	71.67	-.1129	33.12	-.0303	4984.7	-3.76	-.00	.0966	307.34	.0231	-.32	358.36
EXIT SHA	21.76	33.01	12	0	15.4												
EXIT 72	21.76	33.01	12	0	15.4	291.68	-.0146	-14.17	-.0178	7053.2	7.34	22.85	-.0133	102.10	.0201	-13.45	21.37
EXIT 51	21.76	33.01	12	0	15.4	13.26	-.0608	1.81	-.0444	5223.1	3.83	59.61	.0653	333.05	.0737	-13.45	21.37
EXIT 61	21.76	33.01	12	0	15.4	316.47	-.0282	-44.50	.0081	9585.6	6.97	-3.33	-.0037	150.52	-.0214	-13.45	21.37
EXTM 51	41.61	42.26	12	0	24.6	351.07	-.0254	-13.83	-.0165	7956.6	5.47	75.44	-.0000	36.82	.1180	-19.18	32.81
EXTM 72	66.32	77.57	12	0	59.9	280.49	-.0001	-26.44	-.0012	22841.9	4.92	12.86	.0000	115.43	.0012	-26.17	49.14
EXTM 51	84.04	95.29	12	1	17.7	330.46	-.0001	-26.93	-.0009	24104.4	4.49	63.55	.0000	99.20	.0020	-27.20	51.13
RISE 61	158.13	179.38	12	2	41.7	305.16	.0029	-34.23	.0003	49619.4	3.44	-.00	.0017	137.47	.0017	-28.41	45.41
EXTM 51	271.63	282.88	12	4	25.2	.06	.0036	-28.61	.0001	64182.1	3.06	87.13	-.0000	181.04	.0600	-28.35	27.63
EXTM 61	436.63	447.88	12	7	10.2	3.05	.0039	-31.47	.0001	96083.8	2.59	18.24	-.0000	182.74	.0035	-27.94	352.87
EXTM 72	470.89	482.14	12	7	44.5	.48	.0040	-29.14	.0001	97533.2	2.52	68.76	-.0000	181.16	.0097	-27.86	345.22
RISE 11	636.11	647.36	12	10	29.7	293.45	.0040	-29.42	-.0000	126881.3	1.96	.00	.0026	126.95	.0023	-27.49	307.28
SET 51	664.98	676.23	12	10	58.6	90.00	.0039	-26.38	.0001	129525.9	2.56	11.12	-.0032	245.93	-.0013	-27.43	300.52
SET 61	682.69	693.94	12	11	16.3	61.46	.0040	-29.45	.0001	133093.4	2.44	-.00	-.0022	229.91	.0026	-27.40	296.36
SET 72	859.98	871.23	12	14	13.6	94.02	.0039	-26.75	.0001	155382.8	2.40	-.00	-.0035	242.97	-.0004	-27.09	254.26
RISE 42	869.77	881.02	12	14	23.4	254.99	.0040	-25.66	-.0000	156183.0	1.68	3.39	.0029	119.29	-.0022	-27.07	251.92
EXTM 11	909.98	921.23	12	15	3.6	.91	.0042	-29.05	.0001	158593.5	1.96	25.74	-.0000	180.88	.0040	-27.01	242.28
SET 11	1181.06	1192.31	12	19	34.7	68.06	.0041	-27.89	.0001	191599.0	2.07	.00	-.0027	235.06	.0024	-26.64	176.71
EXTM 42	1294.73	1305.98	12	21	28.4	359.98	.0042	-26.23	.0000	197241.7	1.70	81.01	-.0000	.17	-.0181	-26.51	149.00
RISE 51	1429.70	1440.95	12	23	43.3	270.00	.0041	-25.72	-.0000	215753.2	1.27	10.86	.0034	113.46	-.0015	-26.37	116.00
RISE 72	1585.32	1596.57	13	2	18.9	266.11	.0041	-25.99	-.0000	231886.4	1.16	-.01	.0036	116.26	-.0005	-26.22	77.82
RISE 61	1663.00	1674.25	13	3	56.6	295.86	.0041	-27.26	-.0000	239107.4	1.25	.00	.0025	126.88	.0027	-26.15	58.73
SET 42	1717.59	1728.84	13	4	31.2	105.00	.0041	-25.19	.0000	243752.0	1.84	3.10	-.0029	241.08	-.0022	-26.10	45.29
EXTM 51	1781.43	1792.68	13	5	35.0	358.06	.0042	-26.06	.0000	243553.0	1.48	88.23	.0037	100.80	.0208	-26.05	29.57
EXTM 61	1920.06	1931.31	13	7	53.7	.37	.0042	-27.23	.0000	259595.8	1.44	22.53	.0000	180.36	.0040	-25.94	355.39
EXTM 72	1959.90	1971.15	13	8	33.5	.12	.0042	-26.35	.0000	259471.2	1.43	71.56	-.0000	180.33	118	-25.91	345.56
RISE 11	2098.67	2109.92	13	10	52.3	290.76	.0042	-26.67	-.0000	277139.0	1.07	.00	.0028	123.32	.0024	-25.81	311.28
SET 51	2148.39	2159.64	13	11	42.0	90.00	.0041	-25.28	.0000	280089.2	1.74	10.68	-.0034	246.96	-.0015	-25.78	298.98
SET 61	2176.90	2188.15	13	12	10.5	64.81	.0042	-26.69	.0000	283605.1	1.64	.01	-.0025	233.94	.0027	-25.76	291.93
SET 72	2333.30	2344.55	13	14	46.9	93.80	.0041	-25.48	.0000	296184.6	1.73	-.01	-.0037	244.26	-.0005	-25.66	253.22
RISE 42	2334.59	2345.84	13	14	48.2	255.00	.0041	-24.91	-.0000	295961.3	.99	2.93	.0030	118.69	-.0023	-25.66	252.90
EXTM 11	2374.97	2386.22	13	15	28.6	.25	.0042	-26.71	.0000	296485.3	1.31	28.08	-.0000	180.26	.0043	-25.63	242.90
SET 11	2551.12	2562.37	13	20	4.7	69.67	.0042	-26.21	.0000	320596.7	1.56	-.00	-.0028	237.28	.0024	-25.48	174.44
EXTM 42	2753.62	2764.87	13	21	47.2	359.97	.0042	-25.23	.0000	321956.1	1.22	80.01	.0000	.18	-.0177	-25.42	149.01
RISE 51	2884.11	2895.36	13	23	57.7	270.00	.0041	-24.93	-.0000	336455.2	.82	10.55	.0035	112.72	-.0015	-25.35	116.61
RISE 72	3038.08	3049.33	14	2	31.7	266.26	.0042	-25.11	-.0000	348616.5	.74	-.00	.0037	115.37	-.0005	-25.27	78.26
RISE 61	3108.80	3120.05	14	3	42.4	294.35	.0042	-25.98	-.0000	353482.5	.86	.00	.0026	125.02	.0027	-25.23	60.61
SET 42	3171.82	3183.07	14	4	45.4	105.00	.0041	-24.58	.0000	357496.9	1.48	2.73	-.0030	241.57	-.0023	-25.20	44.87
EXTM 51	3235.12	3246.37	14	5	48.7	358.60	.0042	-25.16	.0000	355804.9	1.13	88.61	.0035	65.59	-.0672	-25.17	29.06
EXTM 61	3349.23	3360.48	14	8	2.8	.21	.0042	-26.00	.0000	368707.7	1.14	23.76	-.0000	180.21	.0041	-25.10	355.54
EXTM 72	3408.88	3420.13	14	8	42.5	.05	.0042	-25.37	.0000	367941.1	1.15	72.53	.0000	180.14	.0122	-25.08	345.63
RISE 11	3540.92	3552.17	14	10	54.5	289.78	.0042	-25.62	-.0000	383137.3	.86	.00	.0029	121.95	.0024	-25.00	312.57
SET 51	3596.50	3607.75	14	11	50.1	90.00	.0042	-24.60	.0000	386003.8	1.62	10.41	-.0035	247.59	-.0015	-24.97	298.62
SET 61	3629.16	3640.41	14	12	22.8	66.06	.0042	-25.62	.0000	389633.7	1.60	-.00	-.0026	235.50	.0028	-24.94	290 41
IMPACT	3686.76	3698.01	14	13	20.4												
IMPC 72	3686.76	3698.01	14	13	20.4	70.82	.0043	-24.89	.0001	392555.5	2.48	20.68	-.0039	246.31	.0001	-24.88	275.81
IMPC 11	3686.76	3698.01	14	13	20.4	326.89	.0044	-25.43	.0000	392466.2	1.88	1.57	.0019	148.02	.0037	-24.85	275.81

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	11	23	53.616	6560.117	23.5378	307.1004	10.98340	-2.7627	106.4444	87.0958
SEPARATION	1.20	12.45	11	23	54.816	6545.564	21.4173	313.9331	10.99553	.6685	109.1753	94.2294
RETRO	3.20	14.45	11	23	56.816	6626.295	17.2910	324.7513	10.92784	6.3490	112.9401	105.5489
EXIT SHA	21.76	33.01	12	0	15.372	11197.168	-13.4462	21.371.	8.38484	39.9564	115.3008	166.8207
IMPACT	3686.76	3698.01	14	13	20.376	394852.965	-24.8779	275.8101	2.23794	68.0836	286.9062	260.0183

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SURVEYOR VIEW PERIODS

GHA	143.5671					EPS	115.5430							LOM	270.0346
SX	-.156642	SY	-.893621	SZ	-.420600	DAO	-24.87946	RAO	260.05771	RM	396179.305	LAT	28.310600	LON	279.461800
C3	-.893788	ECC	.985325	SLR	12993.291	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.136768	NSY	-.895548	NSZ	-.423424	C3M	1.5555	VIM	2.6823	ZAE	141.191	B.T	.0000	B.R	-.0000
LATE	2.3220	LONE	6.3908	LATS	-1.5369	LONS	251.0234	LATI	-5.2556	LONI	328.2878	RSM	147.5870	TTAN	6.2776

LAUNCH DATE FEB 12 1966 BASE AZM 96.0 TF 61.495 ARRIVAL DATE FEB 14 1966 13 43 34.1

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
96.00	23 55 35.2	27.9	22.34	306.89	-1.79	91.18	108.63	24 6 50.2	6546.3	10.99	-.89

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	13	0	6.8												
SEPARATION	1.20	12.45	13	0	8.0												
RETRO	3.20	14.45	13	0	10.0												
RISE 72	5.13	16.38	13	0	12.0	78.25	-.2532	55.74	.0683	2669.0	-7.16	-.01	.1216	326.55	.1011	11.08	333.15
EXTM 72	10.82	22.07	13	0	17.7	324.35	-.1229	19.44	-.1670	2216.5	5.18	45.38	.0000	51.40	.2892	-.93	354.30
RISE 51	11.25	22.50	13	0	18.1	74.42	-.1026	29.13	-.0333	5187.5	-3.51	-.00	.0943	302.71	.0157	-1.70	355.59
EXIT SHA	21.26	32.51	13	0	28.1												
EXIT 72	21.26	32.51	13	0	28.1	297.31	-.0172	-16.25	-.0171	6720.3	7.33	28.34	-.0164	104.24	.0195	-14.19	17.38
EXIT 51	21.26	32.51	13	0	28.1	21.36	-.0617	.12	-.0426	5355.2	3.51	56.93	.0711	318.13	.0435	-14.19	17.38
EXIT 61	21.26	32.51	13	0	28.1	322.69	-.0309	-46.01	.0082	9550.8	6.84	-2.47	-.0027	155.08	-.0228	-14.19	17.38
EXTM 51	33.03	44.28	13	0	39.9	354.39	-.0224	-17.31	-.0127	8767.9	5.42	80.09	-.0000	32.86	.1444	-20.88	31.01
EXTM 72	67.24	78.49	13	1	14.1	284.74	-.0000	-27.61	-.0010	22921.5	4.88	16.68	.0000	116.54	.0010	-26.81	45.35
EXTM 51	86.55	97.80	13	1	33.4	335.39	.0000	-27.87	-.0007	24788.6	4.43	67.97	.0000	101.09	.0019	-27.80	47.26
RISE 61	150.01	161.26	13	2	36.8	306.51	.0026	-35.11	.0003	45742.4	3.59	-.00	.0016	138.89	.0015	-28.72	43.70
EXTM 51	250.46	261.71	13	4	17.3	.07	.0035	-29.00	.0001	60360.6	3.14	86.74	.0000	181.13	.0516	-28.69	27.62
EXTM 61	419.51	430.76	13	7	6.3	3.35	.0039	-31.84	.0002	93541.2	2.63	17.85	.0000	182.99	.0035	-28.21	352.59
EXTM 72	452.89	464.14	13	7	39.7	.52	.0040	-29.45	.0001	94902.9	2.55	68.45	-.0000	181.23	.0095	-28.12	345.19
RISE 11	619.95	631.20	13	10	26.8	293.70	.0040	-29.67	-.0000	124765.3	1.98	.00	.0026	127.29	.0023	-27.71	306.98
SET 51	647.37	658.62	13	10	54.2	90.00	.0038	-26.57	.0001	127242.8	2.58	11.20	-.0032	245.75	-.0013	-27.65	300.57
SET 61	663.83	675.08	13	11	10.7	61.14	.0040	-29.70	.0001	130674.0	2.46	-.00	-.0022	229.53	.0026	-27.61	296.72
SET 72	842.91	854.16	13	14	9.8	94.04	.0039	-26.92	.0001	153383.8	2.41	-.00	-.0035	242.80	-.0004	-27.27	254.27
RISE 42	852.88	864.13	13	14	19.7	254.99	.0040	-25.82	-.0000	154203.2	1.70	3.49	.0029	119.42	-.0022	-27.25	251.89
EXTM 11	893.25	904.50	13	15	.1	.97	.0042	-29.24	.0001	156696.7	1.98	25.54	-.0000	180.94	.0040	-27.18	242.22
SET 11	1163.64	1174.89	13	19	30.5	67.91	.0041	-28.05	.0001	189790.3	2.08	.00	-.0027	234.87	.0034	-26.78	176.87
EXTM 42	1277.89	1289.14	13	21	24.7	359.94	.0042	-26.36	.0000	195553.9	1.71	81.14	.0000	.35	-.0[illegible]	-26.64	149.04
RISE 51	1413.10	1424.35	13	23	39.9	270.00	.0041	-25.83	-.0000	214149.1	1.27	10.90	.0034	113.56	-.0015	-26.49	115.98
RISE 72	1568.68	1579.93	14	2	15.5	266.09	.0041	-26.09	-.0000	230346.3	1.17	-.01	.0036	116.36	-.0005	-26.33	77.83
RISE 61	1646.96	1658.21	14	3	33.8	295.99	.0041	-27.37	-.0000	237650.7	1.26	.00	.0025	127.04	.0027	-26.25	58.59
SET 42	1700.97	1712.22	14	4	27.8	105.00	.0041	-25.29	.0000	242253.5	1.84	3.16	-.0029	241.01	-.0022	-26.20	45.30
EXTM 51	1764.89	1776.14	14	5	31.7	358.07	.0042	-26.16	.0000	242089.4	1.48	88.22	.0037	103.95	.0271	-26.15	29.56
EXTM 61	1903.58	1914.83	14	7	50.4	.39	.0042	-27.32	.0000	258188.5	1.45	22.44	.0000	180.37	.0040	-26.03	355.37
EXTM 72	1943.37	1954.62	14	8	30.2	.12	.0042	-26.44	-.0000	258064.4	1.43	71.46	-.0000	180.34	.0118	-26.00	345.55
RISE 11	2082.48	2093.73	14	10	49.3	290.84	.0042	-26.75	-.0000	275814.1	1.07	.00	.0028	123.43	.0024	-25.89	311.19
SET 51	2131.84	2143.09	14	11	38.7	90.00	.0041	-25.35	.0000	278722.2	1.75	10.71	-.0034	246.89	-.0015	-25.86	298.99
SET 61	2160.02	2171.27	14	12	6.9	64.72	.0042	-26.78	.0000	282221.8	1.65	-.00	-.0025	233.83	.0027	-25.84	292.02
SET 72	2316.81	2328.06	14	14	43.6	93.81	.0041	-25.55	.0000	294868.4	1.73	-.01	-.0037	244.19	-.0005	-25.73	253.22
RISE 42	2318.11	2329.36	14	14	44.9	255.00	.0041	-24.98	-.0000	294640.7	.99	2.97	.0030	118.74	-.0023	-25.73	252.90
EXTM 11	2358.51	2369.76	14	15	25.3	.26	.0042	-26.78	.0000	295187.2	1.31	28.01	-.0000	180.27	.0043	-25.70	242.89
SET 11	2634.38	2645.63	14	20	1.2	69.61	.0042	-26.27	.0000	319322.6	1.56	-.00	-.0028	237.20	.0024	-25.54	174.51
EXTM 42	2737.14	2748.39	14	21	44.0	359.97	.0042	-25.28	.0000	320717.6	1.22	80.07	.0000	.18	-.0190	-25.48	149.01
RISE 51	2867.66	2878.91	14	23	54.5	270.00	.0041	-24.98	-.0000	335238.1	.82	10.57	.0035	112.77	-.0015	-25.[illegible]	116.60
RISE 72	3022.52	3033.77	15	2	29.4	266.25	.0038	-25.19	-.0001	347581.1	.66	-.00	.0034	115.45	-.0005	-25.34	78.27
RISE 61	3100.89	3112.14	15	3	47.7	294.67	.0039	-26.25	-.0001	352546.9	.82	.00	.0024	125.42	.0025	-25.51	60.28
SET 42	3167.90	3179.15	15	4	54.7	105.00	.0038	-25.01	-.0000	356624.8	1.42	2.99	-.0027	241.23	-.0021	-25.63	44.88
EXTM 51	3231.67	3242.92	15	5	58.5	357.46	.0039	-25.73	-.0000	354978.5	1.14	87.71	.0035	90.34	-.0005	-25.73	30.18
EXTM 61	3379.48	3390.73	15	8	26.3	359.71	.0039	-26.82	-.0000	369401.1	1.24	22.94	.0000	179.72	.0038	-25.92	356.03
EXTM 72	3423.92	3435.17	15	9	10.8	359.93	.0039	-26.27	-.0000	369208.6	1.27	71.64	-.0000	179.79	.0108	-25.96	349.74
RISE 11	3571.09	3582.34	15	11	37.9	290.76	.0039	-26.67	-.0000	386934.1	1.12	.00	.0026	123.37	.0023	-26.06	311.59
SET 51	3626.91	3638.16	15	12	33.7	90.00	.0039	-25.73	.0000	390618.3	1.88	10.86	-.0032	246.54	-.0014	-26.09	298.62
SET 61	3656.60	3667.85	15	13	3.4	64.73	.0039	-26.77	.0000	394648.1	1.94	.00	-.0024	233.84	.0025	-26.10	291.73
IMPACT	3689.71	3700.96	15	13	36.6												
IMPC 72	3689.71	3700.96	15	13	36.6	62.47	.0038	-26.18	.0000	395429.5	2.79	28.13	-.0034	244.48	.0004	-26.10	284.10
IMPC 51	3689.71	3700.96	15	13	36.6	104.48	.0038	-25.66	.0000	398521.0	2.78	-.86	-.0030	240.79	-.0016	-26.10	284.10
IMPC 11	3689.71	3700.96	15	13	36.6	318.50	.0038	-26.83	-.0000	396608.1	2.25	16.61	.0019	141.90	.0030	-26.10	284.10
IMPC 61	3689.71	3700.96	15	13	36.6	72.40	.0038	-26.73	.0000	398963.3	2.73	-4.84	-.0025	238.69	.0023	-26.10	284.10

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	13	0	6.836	6546.257	22.3433	306.8867	10.99493	-.8892	108.6326	91.1818
SEPARATION	1.20	12.45	13	0	8.036	6557.686	19.9859	313.5624	10.98519	2.5444	111.1547	98.1584
RETRO	3.20	14.45	13	0	10.036	6680.515	15.5743	324.0271	10.88298	8.1679	114.5151	109.1244
EXIT SHA	21.26	32.51	13	0	28.098	11249.252	-14.1874	17.3832	8.36503	40.1122	115.3086	167.0088
IMPACT	3689.71	3700.96	15	13	36.550	398476.520	-26.1034	284.0962	3.42638	45.7158	90.1699	273.3449

SURVEYOR VIEW PERIODS

GHA	143.5671				EPS 115.6822							LOM	265.7446
SX	-.154023	SY	-.893906	SZ	-.420961	UAO	-24.89231	RAO	260.22375	RM	396231.160	LAT	28.310600	LON	279.461800
C3	-.896209	EEC	.945265	SLR	12993.031	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.134124	NSY	-.895783	NSZ	-.423773	C3M	1.5564	VIM	2.6825	ZAE	141.090	B.T	.0000	B.R	-.0000
LATE	2.3384	LONE	6.3800	LATS	-1.5370	LONS	250.8733	LATI	-5.4205	LONI	328.2078	RSM	147.5865	TTAN	6.2816
LAUNCH DATE	FEB 12,1966			BASE AZM	99.0		TF 61.545					ARRIVAL DATE	FEB 14 1966 14 1 20.7		

LNCH AZMTH	LNCH TIME	PH	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99.00	0 13 11.6	28.0	21.18	306.55	1.18	94.27	110.78	0 24 26.6	6545.4	11.00	.58

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	RDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PRIME IN EARTH'S SHADOW											
INJECTION	.00	11.25	12	0	24.4												
SEPARATION	1.20	12.45	12	0	25.6												
RETRO	3.20	14.45	12	0	27.6												
RISE 72	4.83	16.08	12	0	29.3	80.75	-.2112	49.22	.0444	2751.6	-7.52	-.01	.1255	319.86	.0724	10.00	330.64
EXTM 72	10.59	21.84	12	0	35.0	335.17	-.1527	15.39	-.1650	2074.7	4.86	56.12	-.0000	46.57	.3966	-2.29	351.57
RISE 51	11.14	22.39	12	0	35.6	76.78	-.0946	25.38	-.0361	5357.7	-3.29	.00	.0923	298.41	.0094	-3.25	353.16
EXIT SHA	20.25	31.50	12	0	44.7												
EXIT 72	20.25	31.50	12	0	44.7	303.15	-.0214	-18.29	-.0173	6188.7	7.36	33.88	-.0211	106.77	.0196	-14.73	12.97
EXIT 51	20.25	31.50	12	0	44.7	30.47	-.0650	-.54	-.0432	5373.2	2.98	51.31	.0770	305.80	.0205	-14.73	12.97
EXIT 61	20.25	31.50	12	0	44.7	329.46	-.0357	-47.98	.0084	9334.9	6.74	-2.28	-.0015	160.10	-.0253	-14.73	12.97
EXTM 51	35.14	46.29	12	0	59.5	357.01	-.0200	-20.67	-.0099	9547.3	5.37	84.23	-.0000	29.04	.2106	-22.71	29.50
EXTM 72	68.33	79.54	12	1	32.8	288.23	.0000	-29.30	-.0008	23092.9	4.84	19.74	.0000	118.04	.0008	-27.72	42.30
RISE 61	137.91	149.16	12	2	42.4	308.17	.0024	-36.14	.0004	43087.1	3.71	-.00	.0015	140.59	.0013	-29.27	41.80
EXTM 51	233.22	244.47	12	4	17.7	.12	.0034	-29.58	.0001	57170.3	3.22	86.15	-.0010	181.62	.0431	-29.20	27.57
EXTM 61	406.48	417.73	12	7	10.9	3.74	.0039	-32.31	.0002	91601.7	2.66	17.37	.0000	183.31	.0034	-28.60	352.23
EXTM 72	438.86	450.05	12	7	43.2	.61	.0040	-29.98	.0001	92824.2	2.58	68.02	-.0000	181.40	.0092	-28.49	345.11
RISE 11	407.70	418.95	12	10	32.1	294.04	.0040	-30.00	.0000	123149.2	2.00	.00	.0026	127.73	.0023	-28.01	306.60
SET 51	433.37	444.62	12	10	57.8	90.00	.0038	-26.85	.0001	125403.5	2.60	11.31	-.0032	245.48	-.0013	-27.94	300.62
SET 61	448.11	459.36	12	11	12.6	60.71	.0039	-30.04	.0001	128633.1	2.48	-.00	-.0022	229.03	.0026	-27.90	297.18
SET 72	829.44	840.69	12	14	13.9	94.09	.0039	-27.16	.0001	151792.3	2.42	-.00	-.0035	242.56	-.0004	-27.51	254.27
RISE 42	839.49	850.74	12	14	23.9	254.99	.0040	-26.05	-.0000	152613.0	1.71	3.62	.0028	119.59	-.0022	-27.49	251.86
EXTM 11	880.11	891.36	12	15	4.5	1.05	.0041	-29.50	.0001	155203.3	1.99	25.29	-.0000	181.01	.0040	-27.41	242.14
SET 11	1149.47	1160.72	12	19	33.9	67.72	.0041	-28.25	.0001	188304.5	2.08	.00	-.0027	234.60	.0024	-26.97	177.08
EXTM 42	1264.60	1275.85	12	21	29.0	359.94	.0042	-26.53	.0000	194208.1	1.72	81.31	.0000	.39	-.0236	-26.81	149.04
RISE 51	1399.92	1411.17	12	23	44.4	270.00	.0041	-25.98	-.0000	212859.4	1.28	10.96	.0034	113.70	-.0015	-26.64	115.97
RISE 72	1555.43	1566.68	13	2	19.9	266.07	.0041	-26.23	-.0000	229105.1	1.17	-.01	.0036	116.50	-.0005	-26.46	77.84
RISE 61	1634.46	1645.71	13	3	38.9	296.15	.0041	-27.51	-.0000	236501.0	1.26	.00	.0025	127.24	.0027	-26.38	58.42
SET 42	1687.76	1699.01	13	4	32.2	105.00	.0041	-25.41	.0000	241043.8	1.85	3.24	-.0029	240.91	-.0022	-26.33	45.31
EXTM 51	1751.79	1763.04	13	5	36.2	358.09	.0042	-26.28	.0000	246915.4	1.49	88.20	.0036	107.93	.0349	-26.27	29.54
EXTM 61	1890.52	1901.77	13	7	55.0	.41	.0042	-27.44	.0000	257060.5	1.45	22.32	.0000	180.40	.0040	-26.14	355.35
EXTM 72	1930.23	1941.48	13	8	34.7	.13	.0042	-26.55	.0000	256930.9	1.44	71.35	-.0000	180.36	.0117	-26.11	345.55
RISE 11	2069.75	2081.00	13	10	54.2	290.93	.0042	-26.85	-.0000	274736.9	1.08	.00	.0028	123.56	.0024	-25.99	311.09
SET 51	2118.67	2129.92	13	11	43.1	90.00	.0041	-25.44	.0000	277614.2	1.75	10.75	-.0034	246.80	-.0015	-25.95	299.00
SET 61	2146.40	2157.65	13	12	10.8	64.61	.0042	-26.87	.0000	281085.7	1.65	-.00	-.0025	233.69	.0027	-25.93	292.14
SET 72	2303.71	2314.96	13	14	48.2	93.83	.0041	-25.63	.0000	293801.5	1.73	-.01	-.0037	244.10	-.0005	-25.81	253.21
RISE 42	2304.99	2316.24	13	14	49.4	255.00	.0041	-25.06	-.0000	293567.3	1.00	3.02	.0030	118.81	-.0023	-25.81	252.89
EXTM 11	2345.44	2356.69	13	15	29.9	.28	.0042	-26.87	.0000	294137.8	1.31	27.92	-.0000	180.28	.0042	-25.79	242.88
SET 11	2620.98	2632.23	13	20	5.4	69.55	.0042	-26.34	.0000	318278.1	1.56	-.00	-.0028	237.10	.0024	-25.60	174.58
EXTM 42	2724.61	2735.26	13	21	48.4	359.97	.0042	-25.35	.0000	319705.2	1.22	80.13	.0000	.20	-.0183	-25.54	149.01
RISE 51	2854.56	2865.81	13	23	59.0	270.00	.0041	-25.04	-.0000	334241.0	.82	10.59	.0034	112.82	-.0015	-25.46	116.60
RISE 72	3008.59	3019.84	14	2	33.0	266.25	.0042	-25.21	-.0000	346473.2	.74	-.00	.0037	115.47	-.0005	-25.37	78.27
RISE 61	3079.82	3091.07	14	3	44.3	294.47	.0042	-26.08	-.0000	351369.5	.86	.00	.0026	125.16	.0027	-25.33	60.49
SET 42	3142.33	3153.58	14	4	46.8	105.00	.0041	-24.67	.0000	355335.8	1.47	2.78	-.0030	241.50	-.0023	-25.29	44.88
EXTM 51	3208.30	3219.55	14	5	52.7	359.28	.0042	-25.25	.0000	353821.5	1.13	89.18	.0031	53.25	-.1624	-25.26	28.40
EXTM 61	3339.82	3351.07	14	8	4.3	.23	.0042	-26.09	.0000	366524.2	1.14	23.67	-.0000	180.22	.0041	-25.18	355.53
EXTM 72	3379.42	3390.67	14	8	43.9	.05	.0042	-25.46	.0000	365732.1	1.14	72.45	.0000	180.15	.0120	-25.16	345.62
RISE 11	3511.82	3523.07	14	10	56.3	289.85	.0042	-25.70	-.0000	380844.1	.84	.00	.0029	122.05	.0024	-25.08	312.49
SET 51	3567.10	3578.35	14	11	51.5	90.00	.0042	-24.67	.0000	383582.3	1.58	10.44	-.0035	247.52	-.0015	-25.05	298.63
SET 61	3599.44	3610.69	14	12	23.9	65.97	.0042	-25.70	.0000	387079.0	1.52	-.00	-.0026	235.38	.0027	-25.02	290.51
IMPACT	3692.70	3703.95	14	13	57.1												
IMPC 72	3692.70	3703.95	14	13	57.1	79.73	.0043	-24.88	.0001	393525.8	2.49	12.60	-.0039	246.16	-.0001	-24.93	266.94
IMPC 11	3692.70	3703.95	14	13	57.1	335.87	.0044	-25.71	.0000	392235.9	1.92	24.95	.0015	156.03	.0040	-24.93	266.94

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	12	0	24.443	6545.352	21.1769	306.5496	10.99561	.5839	110.7761	94.2730
SEPARATION	1.20	12.45	12	0	25.643	6577.077	18.5944	313.0594	10.96875	4.0106	113.0957	101.0836
RETRO	3.20	14.45	12	0	27.643	6732.257	13.9165	323.1740	10.84065	9.5732	116.0777	111.6996
EXIT SHA	20.25	31.50	12	0	44.698	11090.220	-14.7297	13.9706	8.42541	39.6296	115.6493	165.7717
IMPACT	3692.70	3703.95	14	13	57.140	394966.004	-24.9259	266.9382	2.23374	67.7395	287.1984	260.3626

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SURVEYOR VIEW PERIODS

GHA	143.5671					EPS	115.8116							LOM	261.7548
SX	-.151587	SY	-.894165	SZ	-.421295	DAO	-24.91638	RAO	260.37818	RM	396279.281	LAT	28.310600	LON	279.461800
C3	-.9n1131	ECC	.985204	SLR	12992.505	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.131640	NSY	-.895996	NSZ	-.424102	C3M	1.5562	VIM	2.6824	ZAE	140.929	B.T	.0000	B.R	-.0000
LATE	2.3536	LONE	6.3697	LATS	-1.5371	LONS	250.7336	LATI	-5.6434	LONI	328.0778	RSM	147.5860	TTAN	6.2839
LAUNCH DATE	FEB 12,1966			BASE AZM	102.0		TF 61.630					ARRIVAL	DATE FEB 14 1966 14 17 52.6		

LNCH AZMTH	LNCH TIME		PB		INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME		INJ RAD	INJ VEL	INJ PTH
102.00	0 24	8.4		28.1	20.04	306.13	3.51	96.59	112.89	0 35	23.4	6550.8	10.99	1.74

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PRORE IN EARTH'S SHADOW														
INJECTION	.00	11.25	12	0	35.4												
SEPARATION	1.20	12.45	12	0	36.6												
RETRO	3.20	14.45	12	0	38.6												
RISE 72	4.62	15.87	12	0	40.0	82.44	-.1851	43.47	.0220	2824.9	-7.71	-.00	.1278	313.99	.0471	8.79	328.52
EXTM 72	10.48	21.73	12	0	45.9	344.73	-.1733	9.12	-.1555	2001.8	4.65	67.17	-.0000	42.09	.5959	-3.89	349.29
RISE 51	11.08	22.33	12	0	46.5	78.88	-.0880	21.80	-.0388	5502.0	-3.09	.00	.0904	294.34	.0039	-4.94	351.00
EXIT SHA	19.61	30.86	12	0	55.0												
EXIT 72	19.61	30.86	12	0	55.0	308.37	-.0259	-21.20	-.0162	5845.0	7.36	38.53	-.0259	110.87	.0169	-15.76	9.44
EXIT 51	19.61	30.86	12	0	55.0	37.51	-.0659	-2.34	-.0431	5455.0	2.63	47.03	.0785	296.82	.0064	-15.76	9.44
EXIT 61	19.61	30.86	12	0	55.0	335.23	-.0399	-49.89	.0382	9291.7	6.62	-2.72	-.0004	164.32	-.0270	-15.76	9.44
EXTM 51	37.04	48.29	12	1	12.4	359.07	-.0181	-23.94	-.0077	10299.1	5.32	88.01	.0000	25.18	.5256	-24.63	28.26
EXTM 72	69.40	80.65	12	1	44.8	291.07	.0000	-30.55	-.0005	23289.8	4.80	22.12	.0000	119.83	.0006	-28.84	39.81
RISE 61	131.38	142.63	12	2	46.8	310.04	.0022	-37.25	.0005	41648.6	3.77	-.00	.0015	142.45	.0011	-30.04	39.85
EXTM 51	219.29	230.54	12	4	14.7	.21	.0033	-30.34	.0001	54529.6	3.29	85.39	-.0000	182.27	.0348	-29.86	27.50
EXTM 61	396.75	408.00	12	7	12.1	4.18	.0039	-32.87	.0002	90157.3	2.68	16.79	.0000	183.67	.0034	-29.08	351.82
EXTM 72	427.81	439.06	12	7	43.2	.72	.0040	-30.40	.0001	91186.8	2.60	67.50	-.0000	181.62	.0090	-28.96	345.01
RISE 11	598.66	609.91	12	10	34.1	294.46	.0040	-30.40	.0000	121936.9	2.01	.00	.0026	128.27	.0023	-28.38	306.17
SET 51	622.30	633.55	12	10	57.7	90.00	.0038	-27.21	.0001	123916.7	2.61	11.45	-.0032	245.15	-.0013	-28.31	300.67
SET 61	634.88	646.13	12	11	10.3	60.18	.0039	-30.44	.0002	126882.7	2.49	-.00	-.0021	228.42	.0026	-28.27	297.73
SET 72	818.88	830.13	12	14	14.3	94.14	.0039	-27.46	.0001	150516.5	2.43	-.00	-.0035	242.26	-.0004	-27.81	254.24
RISE 42	828.93	840.18	12	14	24.3	254.99	.0040	-26.33	-.0000	151323.5	1.72	3.80	.0028	119.82	-.0021	-27.78	251.84
EXTM 11	869.86	881.11	12	15	5.3	1.14	.0041	-29.80	.0001	154021.2	1.99	24.98	-.0000	181.09	.0040	-27.69	242.05
SET 11	1137.96	1149.21	12	19	33.3	67.49	.0041	-28.49	.0001	187058.3	2.09	-.00	-.0026	234.29	.0024	-27.20	177.32
EXTM 42	1254.09	1265.34	12	21	29.5	359.93	.0042	-26.75	.0000	193100.3	1.72	81.53	.0000	.44	-.0245	-27.02	149.05
RISE 51	1389.50	1400.75	12	23	44.9	270.00	.0041	-26.17	-.0000	211790.4	1.28	11.04	.0034	113.88	-.0015	-26.83	115.96
RISE 72	1544.91	1556.16	13	2	20.3	266.04	.0041	-26.40	-.0000	228066.6	1.18	-.01	.0036	116.67	-.0005	-26.63	77.86
RISE 61	1624.84	1636.09	13	3	40.2	296.35	.0041	-27.67	-.0000	235560.0	1.27	.00	.0025	127.49	.0027	-26.54	58.22
SET 42	1677.29	1688.54	13	4	32.7	105.00	.0041	-25.56	.0000	240023.6	1.85	3.33	-.0029	240.79	-.0022	-26.48	45.32
EXTM 51	1741.49	1752.74	13	5	36.9	358.12	.0042	-26.43	.0000	239930.2	1.49	88.18	.0035	112.69	.0437	-26.41	29.51
EXTM 61	1880.23	1991.48	13	7	55.6	.44	.0042	-27.58	.0000	256108.2	1.45	22.18	.0000	180.43	.0040	-26.27	355.32
EXTM 72	1919.85	1931.10	13	8	35.2	.14	.0042	-26.68	.0000	255966.2	1.44	71.22	-.0000	180.38	.0117	-26.23	349.54
RISE 11	2059.81	2071.06	13	10	55.2	291.05	.0042	-26.97	-.0000	273820.3	1.08	.00	.0028	123.72	.0024	-26.11	310.97
SET 51	2108.23	2119.48	13	11	43.6	90.00	.0041	-25.56	.0000	276655.9	1.75	10.80	-.0034	246.70	-.0015	-26.06	299.00
SET 61	2135.42	2146.67	13	12	10.8	64.47	.0042	-26.99	.0000	280090.6	1.65	-.00	-.0025	233.52	.0027	-26.04	292.28
SET 72	2293.35	2304.60	13	14	48.7	93.84	.0041	-25.73	.0001	292869.8	1.74	-.01	-.0037	244.01	-.0005	-25.91	253.20
RISE 42	2294.60	2305.85	13	14	50.0	255.00	.0041	-25.15	-.0000	292626.8	1.00	3.08	.0030	118.88	-.0023	-25.91	252.89
EXTM 11	2335.11	2346.36	13	15	30.5	.30	.0042	-26.97	.0000	293224.6	1.32	27.82	-.0000	180.30	.0042	-25.88	242.86
SET 11	2610.25	2621.50	13	20	5.6	69.47	.0042	-26.42	.0000	317338.5	1.56	-.00	-.0028	237.00	.0024	-25.68	174.66
EXTM 42	2713.58	2724.83	13	21	49.0	359.97	.0042	-25.42	.0000	318791.9	1.23	80.20	.0000	.21	-.0192	-25.61	149.01
RISE 51	2844.16	2855.41	13	23	59.5	270.00	.0041	-25.10	-.0000	333332.6	.82	10.61	.0034	112.88	-.0015	-25.53	116.60
RISE 72	2998.15	3009.40	14	2	33.5	266.24	.0042	-25.27	-.0000	345567.3	.74	-.00	.0037	115.53	-.0005	-25.43	78.28
RISE 61	3069.67	3080.92	14	3	45.1	294.53	.0042	-26.13	-.0000	350477.3	.85	.00	.0026	125.24	.0027	-25.38	60.42
SET 42	3131.91	3143.16	14	4	47.3	105.00	.0041	-24.72	.0000	354415.6	1.47	2.81	-.0030	241.46	-.0023	-25.34	44.88
EXTM 51	3195.13	3206.38	14	5	50.5	358.57	.0042	-25.30	.0000	352711.7	1.13	88.64	.0036	71.45	-.0533	-25.31	29.09
EXTM 61	3329.47	3340.72	14	8	4.9	.24	.0042	-26.13	.0000	365589.0	1.13	23.63	-.0000	180.23	.0041	-25.23	355.52
EXTM 72	3369.05	3380.30	14	8	44.4	.05	.0042	-25.50	.0000	364784.4	1.13	72.40	.0000	180.16	.0118	-25.20	348.62
RISE 11	3501.61	3512.86	14	10	57.0	289.89	.0042	-25.74	-.0000	379862.6	.83	.00	.0029	122.11	.0024	-25.12	312.45
SET 51	3556.75	3568.00	14	11	52.1	90.00	.0042	-24.71	.0000	382553.1	1.56	10.46	-.0035	247.49	-.0015	-25.08	298.63
SET 61	3588.94	3600.19	14	12	24.3	65.92	.0042	-25.74	.0000	386006.4	1.50	-.00	-.0026	235.33	.0027	-25.06	290.56
IMPACT	3697.82	3709.07	14	14	13.2												
IMPC 42	3697.82	3709.07	14	14	13.2	245.16	.0043	-24.33	.0000	395441.4	1.74	-4.30	.0029	123.98	-.0026	-24.95	263.06
IMPC 72	3697.82	3709.07	14	14	13.2	83.62	.0043	-24.88	.0001	393957.9	2.49	9.08	-.0039	245.93	-.0002	-24.95	263.06
IMPC 11	3697.82	3709.07	14	14	13.2	339.80	.0044	-25.74	.0000	392166.7	1.94	26.13	.0013	159.73	.0041	-24.95	263.06

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	12	0	35.390	6550.786	20.0353	306.1272	10.99078	1.7424	112.8943	96.5949
SEPARATION	1.20	12.45	12	0	36.590	6598.333	17.2409	312.4559	10.95071	5.1550	115.0158	103.2244
RETRO	3.20	14.45	12	0	38.590	6778.386	12.3053	322.2373	10.80319	10.6609	117.6468	113.5072
EXIT SHA	19.61	30.86	12	0	55.003	11013.515	-15.7588	9.4404	8.45477	39.3905	115.9372	164.8249
IMPACT	3697.82	3709.07	14	14	13.208	395014.520	-24.9469	263.0605	2.23156	67.6285	287.5872	260.5129

FEB 12, 1966
102 DEGREES

SURVEYOR VIEW PERIODS

GHA 143.5671 EPS 115.9275 LOM 258.1797
SX -.149404 SY -.894393 SZ -.421592 DAO -24.93513 RAO 260.51658 RM 396322.305 LAT 28.310600 LON 279.461800
C3 -.907120 ECC .965106 SLR 12991.859 RCA 6544.6650 LTA -20.0000 GTA 20.00 TB 675.00000 POL -.0
NSX -.129397 NSY -.896182 NSZ -.424399 C3M 1.5562 VIM 2.6824 ZAE 140.728 B.T .0000 B.R -.0000
LATE 2.3672 LONE 6.3601 LATS -1.5371 LONS 250.6079 LATI -5.9061 LONI 327.9168 RSM 147.5856 TTAN 6.2849
LAUNCH DATE FEB 12,1966 BASE AZM 105.0 TF 61.730 ARRIVAL DATE FEB 14 1966 14 32 41.4

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	0 32 53.8	28.1	18.92	305.63	5.35	98.30	115.00	0 44 8.8	6558.8	10.98	2.65

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PRORE IN EARTH'S SHADOW															
INJECTION	.00	11.25	12	0	44.1												
SEPARATION	1.20	12.45	12	0	45.3												
RETRO	3.20	14.45	12	0	47.3												
RISE 72	4.46	15.71	12	0	48.6	83.72	-.1668	38.23	.0012	2890.3	-7.78	.00	.1288	308.66	.0241	7.48	326.70
EXTM 72	10.46	21.71	12	0	54.6	352.81	-.1844	1.42	-.1413	1993.7	4.55	78.24	.0000	37.89	1.1394	-5.70	347.39
RISE 51	11.06	22.31	12	0	55.2	80.81	-.0825	18.33	-.0415	5626.1	-2.90	.00	.0887	290.43	-.0011	-6.75	349.05
EXIT SHA	19.00	30.25	12	1	3.1												
EXIT 72	19.00	30.25	12	1	3.1	313.42	-.0312	-24.58	-.0148	5540.9	7.36	42.56	-.0309	116.27	.0113	-16.94	6.18
EXIT 51	19.00	30.25	12	1	3.1	43.93	-.0663	-4.28	-.0435	5533.1	2.30	42.79	.0791	289.48	-.0032	-16.94	6.18
EXIT 61	19.00	30.25	12	1	3.1	340.72	-.0443	-51.86	.0077	9277.0	6.52	-3.61	.0806	168.21	-.0285	-16.94	6.18
EXTM 51	36.22	47.47	12	1	20.4	3.73	-.0200	-26.00	-.0076	10143.2	5.26	86.63	.0174	264.73	-.1485	-25.91	25.40
EXTM 72	70.46	81.71	12	1	54.6	293.35	.0000	-32.22	-.0003	23519.7	4.77	23.92	.0000	121.83	.0003	-30.11	37.80
EXTM 51	92.31	103.56	12	2	16.5	345.24	.0001	-31.78	-.0002	26404.6	4.33	75.74	.0000	118.45	.0007	-30.74	39.46
RISE 61	129.66	140.91	12	2	53.8	312.01	.0022	-38.34	.0006	41314.0	3.78	-.00	.0015	144.36	.0011	-30.98	37.95
EXTM 51	208.25	219.50	12	4	12.4	.34	.0031	-31.25	.0001	52369.3	3.34	84.48	-.0000	183.03	.0280	-30.66	27.38
EXTM 61	389.73	400.98	12	7	13.9	4.67	.0038	-33.48	.0002	89127.7	2.69	16.16	.0000	184.06	.0033	-29.64	351.37
EXTM 72	419.38	430.63	12	7	43.5	.85	.0040	-30.99	.0001	89924.0	2.62	66.90	.0000	181.86	.0087	-29.49	344.88
RISE 11	592.21	603.46	12	10	36.4	294.93	.0040	-30.85	.0000	121061.2	2.02	.00	.0026	128.87	.0023	-28.80	305.68
SET 51	613.59	624.84	12	10	57.7	90.00	.0038	-27.63	.0001	122726.5	2.62	11.62	-.0032	244.76	-.0012	-28.73	300.71
SET 61	623.61	634.86	12	11	7.8	59.56	.0039	-30.90	.0002	125368.8	2.50	.01	-.0021	227.71	.0026	-28.69	298.37
SET 72	810.66	821.91	12	14	14.8	94.20	.0039	-27.79	.0001	149505.7	2.43	-.00	-.0034	241.92	-.0004	-28.15	254.21
RISE 42	820.66	831.91	12	14	24.8	254.99	.0040	-26.66	-.0000	150287.5	1.73	4.00	.0028	120.08	-.0021	-28.12	251.82
EXTM 11	861.95	873.20	12	15	6.1	1.25	.0041	-30.15	.0001	153101.4	2.00	24.63	-.0000	181.19	.0039	-28.02	241.95
SET 11	1128.54	1139.79	12	19	32.7	67.22	.0041	-28.76	.0001	186014.1	2.09	-.00	-.0026	233.93	.0024	-27.46	177.60
EXTM 42	1245.80	1257.05	12	21	29.9	359.92	.0042	-26.99	.0000	192199.1	1.73	81.77	.0000	.50	-.0254	-27.25	149.06
RISE 51	1381.30	1392.55	12	23	45.5	270.00	.0041	-26.38	-.0000	210915.0	1.29	11.12	.0034	114.07	-.0015	-27.04	115.95
RISE 72	1536.58	1547.83	13	2	20.7	266.01	.0041	-26.58	-.0000	227208.9	1.18	-.01	.0036	116.86	-.0005	-26.82	77.88
RISE 61	1617.51	1628.76	13	3	41.7	296.57	.0041	-27.86	-.0000	234804.8	1.27	.00	.0025	127.74	.0027	-26.72	58.00
SET 42	1669.04	1680.29	13	4	33.2	105.00	.0041	-25.73	.0001	239175.5	1.85	3.43	-.0029	240.66	-.0022	-26.65	45.32
EXTM 51	1733.62	1744.87	13	5	37.8	358.21	.0042	-26.60	.0000	239134.7	1.49	88.18	.0033	118.55	.0548	-26.58	29.42
EXTM 61	1872.14	1883.39	13	7	56.3	.48	.0042	-27.73	.0000	255319.0	1.45	22.03	.0000	180.46	.0040	-26.42	355.28
EXTM 72	1911.65	1922.90	13	8	35.8	.15	.0042	-26.83	.0000	255160.1	1.44	71.07	-.0000	180.40	.0115	-26.38	345.53
RISE 11	2052.10	2063.35	13	10	56.2	291.17	.0042	-27.11	-.0000	273056.8	1.08	.00	.0028	123.89	.0024	-26.24	310.84
SET 51	2099.97	2111.22	13	11	44.1	90.00	.0041	-25.68	.0001	275843.5	1.75	10.85	-.0034	246.58	-.0015	-26.19	299.01
SET 61	2126.57	2137.82	13	12	10.7	64.32	.0042	-27.12	.0000	279236.5	1.65	-.00	-.0025	233.34	.0027	-26.16	292.43
SET 72	2285.13	2296.38	13	14	49.3	93.85	.0041	-25.84	.0001	299271.6	1.74	-.00	-.0037	243.90	-.0005	-26.02	253.19
RISE 42	2286.37	2297.62	13	14	50.5	255.00	.0041	-25.26	-.0000	291821.5	1.00	3.15	.0029	118.97	-.0023	-26.02	252.88
EXTM 11	2326.96	2338.21	13	15	31.1	.33	.0042	-27.08	.0000	292441.4	1.32	27.71	-.0000	180.33	.0042	-25.99	242.83
SET 11	2601.66	2612.91	13	20	5.8	69.39	.0042	-26.51	.0000	316517.0	1.56	-.00	-.0028	236.88	.0024	-25.77	174.74
EXTM 42	2705.32	2716.57	13	21	49.5	359.96	.0042	-25.50	.0000	317993.4	1.23	80.28	.0000	.22	-.0202	-25.69	149.02
RISE 51	2835.91	2847.16	14	0	.1	270.00	.0041	-25.17	-.0000	332532.8	.62	10.64	.0034	112.94	-.0015	-25.60	116.59
RISE 72	2990.00	3001.25	14	2	34.1	266.23	.0042	-25.33	-.0000	344809.7	.73	-.00	.0037	115.59	-.0006	-25.49	78.28
RISE 61	3061.82	3073.07	14	3	46.0	294.60	.0042	-26.19	-.0000	349730.3	.85	.00	.0026	125.33	.0027	-25.44	60.35
SET 42	3123.75	3135.00	14	4	47.9	105.00	.0041	-24.77	.0000	353635.9	1.47	2.84	-.0030	241.42	-.0023	-25.40	44.88
EXTM 51	3186.97	3198.22	14	5	51.1	358.57	.0042	-25.35	.0000	351925.2	1.12	88.65	.0037	73.54	-.0483	-25.36	29.09
EXTM 61	3321.35	3332.60	14	8	5.5	.25	.0042	-26.18	.0000	364784.1	1.13	23.58	-.0000	180.25	.0041	-25.27	355.50
EXTM 72	3360.89	3372.14	14	8	45.0	.05	.0042	-25.54	.0000	363963.7	1.13	72.36	.0000	180.17	.0120	-25.25	345.62
RISE 11	3493.59	3504.84	14	10	57.7	289.92	.0042	-25.76	-.0000	379003.2	.82	.00	.0029	122.16	.0024	-25.16	312.41
SET 51	3548.57	3559.82	14	11	52.7	90.00	.0042	-24.75	.0000	381648.1	1.55	10.47	-.0035	247.45	-.0015	-25.12	298.63
SET 61	3580.60	3591.85	14	12	24.7	65.88	.0042	-25.78	.0000	385062.9	1.48	-.00	-.0026	235.27	.0027	-25.10	290.60
IMPACT	3703.78	3715.03	14	14	27.9												
IMPC 42	3703.78	3715.03	14	14	27.9	248.70	.0043	-24.37	.0000	395217.5	1.73	-1.86	.0030	121.89	-.0025	-24.97	259.51
IMPC 72	3703.78	3715.03	14	14	27.9	87.17	.0043	-24.87	.0001	394359.8	2.49	5.86	-.0039	245.63	-.0003	-24.97	259.51
IMPC 11	3703.78	3715.03	14	14	27.9	343.41	.0044	-25.76	.0000	392124.7	1.95	27.04	.0011	163.21	.0043	-24.97	259.51

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	12	0	44.147	6558.905	18.9168	305.6402	10.98370	2.6527	114.9977	98.3031
SEPARATION	1.20	12.45	12	0	45.347	6618.747	15.9195	311.7830	10.93342	6.0500	116.9292	104.7467
RETRO	3.20	14.45	12	0	47.347	6818.003	10.7295	321.2496	10.77123	11.5062	119.2343	114.7146
EXIT SHA	19.00	30.25	12	1	3.144	10917.515	-16.9427	6.1840	8.49198	39.0861	116.3273	163.6093
IMPACT	3703.78	3715.03	14	14	27.928	395062.395	-24.9662	259.5085	2.22805	67.3191	287.9096	260.6512

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SURVEYOR VIEW PERIODS

GHA	143.5671					EPS 116.0377								LOM	254.7795
SX	-.147327	SY	-.894605	SZ	-.421872	DAO	-24.95284	RAO	260.64822	RM	396363.133	LAT	28.310600	LON	279.461800
C3	-.914358	ECC	.984987	SLR	12991.079	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NBX	-.127249	NSY	-.896355	NSZ	-.424683	C3M	1.5561	VIM	2.6824	ZAE	140.489	B.T	.0000	B.R	-.0000
LATE	2.3801	LONE	6.4801	LATS	-1.5371	LONS	250.6177	LATI	-6.1951	LONI	327.8518	RSM	147.5852	TTAN	6.2847
LAUNCH DATE		FEB	12,1966		BASE AZM	108.0		TF	61.848			ARRIVAL DATE		FEB 14 1966 14 46 46.7	

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
108.00	0 40	.5	28.1	17.83	305.09	6.81	99.53	117.09	0 51 15.5	6567.6	10.98	3.38

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	12	0	51.3												
SEPARATION	1.20	12.45	12	0	52.5												
RETRO	3.20	14.45	12	0	54.5												
RISE 72	4.36	15.61	12	0	55.6	84.77	-.1526	33.33	-.0181	2951.5	-7.74	-.01	.1288	303.69	.0031	6.08	329.10
EXTM 72	10.45	21.70	12	1	1.7	.39	-.1915	-6.40	-.1282	2026.8	4.42	88.45	.1712	345.65	5.6360	-7.54	349.58
RISE 51	11.07	22.32	12	1	2.3	82.61	-.0778	14.94	-.0441	5736.9	-2.72	.00	.0870	286.63	-.0056	-8.65	347.27
EXIT SHA	18.39	29.64	12	1	9.7												
EXIT 72	18.39	29.64	12	1	9.7	318.49	-.0378	-28.34	-.0129	5270.7	7.33	45.89	-.0356	123.05	.0016	-18.23	3.10
EXIT 51	18.39	29.64	12	1	9.7	49.94	-.0664	-6.25	-.0443	5611.0	1.99	38.58	.0791	283.30	-.0101	-18.23	3.10
EXIT 61	18.39	29.64	12	1	9.7	346.12	-.0491	-53.85	.0069	9281.3	6.42	-4.84	.0015	171.83	-.0298	-18.23	3.10
EXTM 51	41.25	52.50	12	1	32.5	1.65	-.0152	-30.30	-.0043	11822.5	5.22	85.22	-.0000	197.37	-.1653	-28.70	26.63
EXTM 72	71.10	82.35	12	2	2.4	295.18	.0000	-33.98	-.0001	23651.6	4.75	25.23	.0000	123.95	.0001	-31.48	36.11
EXTM 51	92.81	104.06	12	2	24.1	347.33	.0000	-33.32	.0000	26576.7	4.31	76.64	.0000	127.52	-.0000	-31.96	37.76
RISE 61	131.65	142.90	12	3	2.9	314.01	.0022	-39.09	.0007	41839.9	3.76	-.00	.0015	146.23	.0011	-32.01	36.15
EXTM 51	199.86	211.11	12	4	11.1	.56	.0031	-32.28	.0002	50761.7	3.39	83.44	-.0000	184.15	.0227	-31.55	27.19
EXTM 61	384.79	396.04	12	7	16.0	5.19	.0038	-34.14	.0002	88422.5	2.70	15.47	.0000	184.46	.0033	-30.25	350.88
EXTM 72	412.96	424.21	12	7	44.2	1.01	.0040	-31.64	.0001	88959.6	2.63	66.24	.0000	182.13	.0084	-30.09	344.74
RISE 11	587.76	599.01	12	10	39.0	295.44	.0040	-31.34	.0000	120447.9	2.03	.00	.0025	129.53	.0023	-29.27	309.15
SET 51	606.72	617.97	12	10	58.0	90.00	.0038	-28.09	.0001	121766.6	2.63	11.80	-.0032	244.32	-.0012	-29.19	300.75
SET 61	613.97	625.22	12	11	5.2	58.89	.0039	-31.41	.0002	124056.9	2.51	-.00	-.0021	226.95	.0027	-29.16	299.06
SET 72	804.24	815.49	12	14	15.5	94.27	.0039	-28.17	.0001	148697.9	2.44	-.01	-.0034	241.54	-.0004	-28.52	254.16
RISE 42	814.15	825.40	12	14	25.4	254.99	.0040	-27.03	-.0000	149445.9	1.73	4.22	.0028	120.37	-.0021	-28.49	251.80
EXTM 11	855.85	867.10	12	15	7.1	1.37	.0041	-30.52	.0001	152382.3	2.00	24.26	.0000	181.30	.0039	-28.37	241.83
SET 11	1120.74	1131.99	12	19	32.0	66.92	.0041	-29.05	.0001	185122.6	2.09	-.00	-.0026	233.53	.0024	-27.74	177.90
EXTM 42	1239.36	1250.61	12	21	30.6	359.95	.0042	-27.25	.0000	191465.5	1.73	82.03	-.0000	.36	-.0254	-27.51	149.03
RISE 51	1374.80	1386.05	12	23	46.1	270.00	.0041	-26.61	-.0000	210182.8	1.29	11.21	.0034	114.29	-.0015	-27.27	119.94
RISE 72	1529.97	1541.18	13	2	21.2	265.97	.0041	-26.79	-.0000	226483.6	1.18	-.01	.0036	117.07	-.0005	-27.03	77.91
RISE 61	1611.05	1623.20	13	3	43.2	296.81	.0041	-28.05	-.0000	234185.7	1.27	.00	.0025	128.03	.0027	-26.91	57.75
SET 42	1662.46	1673.71	13	4	33.7	105.00	.0041	-25.91	.0001	238452.1	1.85	3.54	-.0029	240.51	-.0022	-26.84	45.33
EXTM 51	1731.81	1743.06	13	5	43.1	359.41	.0042	-26.77	.0000	238853.3	1.50	88.84	.0017	153.14	.1648	-26.75	28.26
EXTM 61	1865.75	1877.00	13	7	57.0	.52	.0042	-27.90	.0000	254347.1	1.49	21.86	-.0000	180.50	.0040	-26.58	359.24
EXTM 72	1905.13	1916.38	13	8	36.4	.16	.0042	-26.99	.0000	254466.3	1.44	70.91	-.0000	180.43	.0114	-26.53	349.92
RISE 11	2046.09	2057.34	13	10	57.3	291.31	.0042	-27.25	-.0000	272400.9	1.08	.00	.0028	124.08	.0024	-26.38	310.70
SET 51	2093.38	2104.63	13	11	44.6	90.00	.0041	-25.81	.0001	275132.4	1.75	10.90	-.0034	246.45	-.0015	-26.33	299.01
SET 61	2119.32	2130.57	13	12	10.6	64.16	.0042	-27.25	.0001	278476.5	1.65	-.00	-.0025	233.14	.0027	-26.30	298.60
SET 72	2278.61	2289.86	13	14	49.9	93.87	.0041	-25.95	.0001	291369.7	1.73	-.00	-.0037	243.78	-.0005	-26.14	253.18
RISE 42	2279.80	2291.05	13	14	51.1	255.00	.0041	-25.38	-.0000	291107.9	1.00	3.22	.0029	119.06	-.0023	-26.14	252.88
EXTM 11	2320.48	2331.73	13	15	31.7	.35	.0042	-27.20	.0000	291753.0	1.32	27.59	-.0000	180.35	.0042	-26.10	242.81
SET 11	2594.69	2605.94	13	20	5.9	69.30	.0042	-26.61	.0000	315771.3	1.56	-.00	-.0028	236.76	.0024	-25.86	174.83
EXTM 42	2698.80	2710.05	13	21	50.1	359.99	.0042	-25.58	.0000	317275.3	1.22	80.36	-.0000	.14	-.0124	-25.77	148.99
RISE 51	2829.31	2840.56	14	0	.6	270.00	.0041	-25.24	-.0000	331799.8	.82	10.67	.0034	113.01	-.0015	-25.67	116.59
RISE 72	2983.34	2994.59	14	2	34.6	266.22	.0042	-25.39	-.0000	344068.0	.73	-.00	.0037	115.65	-.0006	-25.55	78.29
RISE 61	3055.48	3066.73	14	3	46.7	294.67	.0042	-26.25	-.0000	349000.5	.85	.00	.0026	125.41	.0027	-25.50	60.28
SET 42	3117.12	3128.37	14	4	48.4	105.00	.0041	-24.82	.0000	352873.0	1.47	2.88	-.0030	241.38	-.0023	-25.45	44.88
EXTM 51	3180.16	3191.41	14	5	51.4	358.52	.0042	-25.40	.0000	351144.5	1.12	88.63	.0037	76.21	-.0402	-25.41	29.14
EXTM 61	3314.80	3326.05	14	8	6.1	.27	.0042	-26.23	.0000	363999.8	1.12	23.53	-.0000	180.26	.0041	-25.32	359.49
EXTM 72	3354.29	3365.54	14	8	45.6	.06	.0042	-25.59	.0000	363164.5	1.13	72.31	.0000	180.18	.0119	-25.29	349.61
RISE 11	3487.15	3498.40	14	10	58.4	289.96	.0042	-25.82	-.0000	378171.6	.82	.00	.0029	122.21	.0024	-25.20	312.37
SET 51	3541.98	3553.23	14	11	53.2	90.00	.0042	-24.78	.0000	380776.4	1.54	10.49	-.0035	247.42	-.0015	-25.16	298.64
SET 61	3573.85	3585.10	14	12	25.1	65.84	.0042	-25.81	.0000	384158.4	1.47	-.00	-.0026	235.22	.0027	-25.13	290.65
RISE 42	3722.68	3733.93	14	14	53.9	255.00	.0043	-24.42	.0000	395189.3	2.03	2.64	.0031	118.31	-.0024	-24.99	253.17
IMPACT	3710.86	3722.11	14	14	42.1												
IMPC 42	3710.86	3722.11	14	14	42.1	252.10	.0043	-24.41	.0000	394993.0	1.71	.55	.0030	119.93	-.0025	-24.98	256.09
IMPC 72	3710.86	3722.11	14	14	42.1	90.60	.0043	-24.87	.0001	394745.6	2.48	2.78	-.0039	245.27	-.0004	-24.98	256.09
IMPC 11	3710.86	3722.11	14	14	42.1	346.88	.0044	-25.78	.0000	392098.3	1.97	27.76	.0009	166.64	.0043	-24.98	256.09
SET 72	3723.91	3734.76	14	14	54.8	93.69	.0043	-24.86	.0001	395373.3	2.69	-.00	-.0039	244.89	-.0005	-24.99	252.99

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION	.00	11.25	12	0	51.259	6567.846	17.8207	305.1006	10.97595	3.3770	117.0926	99.9482
SEPARATION	1.20	12.45	12	0	52.459	6637.328	14.6274	311.0559	10.91765	6.7600	118.8432	105.8024
RETRO	3.20	14.45	12	0	54.459	6851.640	9.1843	320.2237	10.74422	12.1731	120.8448	115.4716
EXIT SHA	18.39	29.64	12	1	9.651	10804.762	-18.2253	3.1044	8.53631	38.7208	116.8343	162.1610
IMPACT	3710.86	3727.11	14	14	42.115	395106.102	-24.9848	256.0850	2.22523	67.1559	288.4136	260.7840

SURVEYOR VIEW PERIODS

GHA	143.5671					EPS	116.1446							LOM	251.4811
SX	-.145313	SY	-.894807	SZ	-.422142	DAO	-24.96991	RAO	260.77593	RM	396402.668	LAT	28.310600	LON	279.461800
C3	-.922587	ECC	.984852	SLR	12990.195	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.125152	NSY	-.896519	NSZ	-.424959	C3M	1.5560	VIM	2.6824	ZAE	140.215	B.T	.0000	B.R	-.0000
LATE	2.3926	LONE	6.3425	LATS	-1.5373	LONS	250.3730	LATI	-6.5002	LONI	327.4990	RSM	147.5848	TTAN	6.2839

LAUNCH DATE FEB 12,1966 BASE AZM 111.0 TF 61.981 ARRIVAL DATE FEB 14 1966 15 0 26.7

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
111.00	0 45 52.5	28.1	16.76	304.49	7.98	100.41	119.18	0 57 7.5	6576.3	10.97	3.96

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
				PRORE IN EARTH'S SHADOW														
INJECTION		.00	11.25	12	0	57.1												
SEPARATION		1.20	12.45	12	0	58.3												
RETRO		3.20	14.45	12	1	.3												
RISE	72	4.31	15.56	12	1	1.4	85.65	-.1410	28.66	-.0361	3010.1	-7.60	.00	.1279	298.96	-.0163	4.61	323.67
EXTM	72	10.69	21.94	12	1	7.8	4.68	-.1857	-15.66	-.1079	2169.3	4.65	81.00	-.0000	210.16	-1.3342	-9.88	344.51
RISE	51	11.11	22.36	12	1	8.2	84.32	-.0735	11.60	-.0466	5839.9	-2.54	.00	.0852	282.90	-.0099	-10.62	345.63
EXIT	SHA	17.81	29.06	12	1	14.9												
EXIT	72	17.81	29.06	12	1	14.9	323.70	-.0457	-32.44	-.0108	5038.6	7.28	48.38	-.0391	131.22	-.0129	-19.58	.15
EXIT	51	17.81	29.06	12	1	14.9	55.63	-.0660	-8.19	-.0454	5694.6	1.70	34.42	.0786	277.97	-.0153	-19.58	.15
EXTM	51	43.74	54.99	12	1	40.9	2.15	-.0138	-33.39	-.0029	12688.4	5.17	82.13	-.0000	193.25	-.0866	-30.84	26.29
EXTM	72	71.62	82.87	12	2	8.7	296.63	-.0000	-35.81	.0002	23775.7	4.73	26.14	.0000	126.15	-.0002	-32.94	34.71
EXTM	51	92.03	103.28	12	2	29.2	349.04	-.0002	-34.96	.0002	26422.5	4.32	76.80	.0000	136.94	-.0010	-33.25	36.36
RISE	61	136.34	147.59	12	3	13.5	316.00	.0023	-40.37	.0007	42978.7	3.71	-.00	.0015	148.04	.0011	-33.09	34.43
EXTM	51	193.81	205.06	12	4	10.9	.87	.0030	-33.39	.0003	49573.5	3.42	82.31	-.0000	185.45	.0187	-32.52	26.92
EXTM	61	381.50	392.75	12	7	18.6	5.74	.0038	-34.83	.0002	87977.7	2.71	14.75	.0000	184.87	.0033	-30.90	350.37
EXTM	72	408.14	419.39	12	7	45.3	1.18	.0040	-32.33	.0002	88237.6	2.64	65.55	.0000	182.42	.0081	-30.73	344.58
RISE	11	584.89	596.14	12	10	42.0	296.00	.0040	-31.85	.0000	120040.2	2.04	.00	.0025	130.23	.0023	-29.76	304.58
SET	51	601.27	612.52	12	10	58.4	90.00	.0038	-28.58	.0001	120988.2	2.63	11.99	-.0031	243.86	-.0012	-29.69	300.78
SET	61	605.44	616.69	12	11	2.6	58.15	.0039	-31.95	.0002	122878.3	2.51	-.00	-.0020	226.12	.0027	-29.67	299.81
SET	72	799.22	810.47	12	14	16.3	94.34	.0039	-28.56	.0001	148048.5	2.44	-.01	-.0034	241.14	-.0004	-28.92	254.11
RISE	42	808.99	820.24	12	14	26.1	254.99	.0040	-27.42	-.0000	148756.0	1.74	4.46	.0028	120.68	-.0021	-28.89	251.78
EXTM	11	851.14	862.39	12	15	8.3	1.50	.0041	-30.92	.0001	151819.4	2.01	23.86	.0000	181.41	.0039	-28.75	241.71
SET	11	1114.19	1125.44	12	19	31.3	66.61	.0041	-29.37	.0001	184349.1	2.09	-.00	-.0026	233.12	.0024	-28.05	178.23
EXTM	42	1233.95	1245.20	12	21	31.1	359.90	.0042	-27.54	.0000	190822.5	1.73	82.32	.0000	.67	-.0272	-27.78	149.08
RISE	51	1369.60	1380.85	12	23	46.7	270.00	.0041	-26.86	-.0000	209561.1	1.29	11.31	.0034	114.52	-.0014	-27.52	115.93
RISE	72	1524.56	1535.81	13	2	21.7	265.94	.0041	-27.01	-.0000	225860.0	1.18	-.01	.0036	117.29	-.0005	-27.25	77.94
RISE	61	1607.74	1618.99	13	3	44.9	297.06	.0042	-28.26	-.0000	233670.8	1.27	.00	.0025	128.34	.0027	-27.11	57.50
SET	42	1657.17	1668.42	13	4	34.3	105.00	.0041	-26.11	.0001	237824.1	1.85	3.66	-.0029	240.36	-.0022	-27.04	45.34
EXTM	51	1725.28	1736.53	13	5	42.4	359.10	.0042	-26.97	.0000	238128.1	1.49	88.53	.0021	146.82	.1213	-26.94	28.57
EXTM	61	1860.64	1871.89	13	7	57.8	.57	.0042	-28.07	.0000	254062.7	1.45	21.69	.0000	180.54	.0040	-26.75	355.20
EXTM	72	1899.89	1911.14	13	8	37.0	.17	.0042	-27.16	.0000	253858.3	1.44	70.74	-.0000	180.46	.0113	-26.70	345.51
RISE	11	2041.39	2052.64	13	10	58.5	291.46	.0042	-27.40	-.0000	271826.9	1.08	.00	.0028	124.28	.0024	-26.52	310.55
SET	51	2088.06	2099.31	13	11	45.2	90.00	.0041	-25.96	.0001	274498.3	1.75	10.96	-.0034	246.32	-.0014	-26.47	299.02
SET	61	2113.31	2124.56	13	12	10.4	63.99	.0042	-27.40	.0001	277790.5	1.65	-.00	-.0025	232.93	.0027	-26.44	292.77
SET	72	2273.36	2284.61	13	14	50.5	93.90	.0041	-26.08	.0001	290738.1	1.73	-.00	-.0037	243.65	-.0005	-26.26	253.16
RISE	42	2274.50	2285.75	13	14	51.6	255.00	.0041	-25.50	-.0000	290463.6	1.00	3.29	.0029	119.16	-.0023	-26.26	252.88
EXTM	11	2315.27	2326.52	13	15	32.4	.38	.0042	-27.32	.0000	291134.2	1.31	27.47	-.0000	180.38	.0042	-26.22	242.78
SET	11	2588.96	2600.21	13	20	6.1	69.21	.0042	-26.70	.0000	315082.3	1.56	-.00	-.0028	236.63	.0024	-25.95	174.93
EXTM	42	2693.40	2704.65	13	21	50.5	359.97	.0042	-25.67	.0000	316601.1	1.22	80.45	-.0000	.18	-.0183	-25.86	149.01
RISE	51	2823.95	2835.20	14	0	1.1	270.00	.0041	-25.32	-.0000	331116.5	.82	10.70	.0034	113.08	-.0015	-25.75	116.59
RISE	72	2978.09	2989.34	14	2	35.2	266.21	.0042	-25.46	-.0000	343418.7	.73	.00	.0037	115.72	-.0006	-25.62	78.29
RISE	61	3050.53	3061.78	14	3	47.7	294.74	.0042	-26.32	-.0000	348359.0	.85	.00	.0026	125.51	.0027	-25.56	60.20
SET	42	3111.85	3123.10	14	4	49.0	105.00	.0041	-24.88	.0000	352193.6	1.46	2.91	-.0030	241.33	-.0023	-25.51	44.89
EXTM	51	3175.44	3186.69	14	5	52.6	358.66	.0042	-25.46	.0000	350492.8	1.12	88.76	.0037	77.25	-.0414	-25.47	29.00
EXTM	61	3309.57	3320.82	14	8	6.7	.28	.0042	-26.28	.0000	363287.3	1.12	23.48	-.0000	180.28	.0041	-25.37	355.47
EXTM	72	3349.01	3360.26	14	8	46.1	.06	.0042	-25.44	.0000	362434.2	1.12	72.27	.0000	180.19	.0121	-25.34	345.61
RISE	11	3482.00	3493.25	14	10	59.1	290.00	.0042	-25.86	-.0000	377401.1	.81	.00	.0029	122.26	.0024	-25.24	312.33
SET	51	3536.66	3547.91	14	11	53.8	90.00	.0042	-24.82	.0000	379963.7	1.53	10.50	-.0035	247.38	-.0015	-25.19	298.64
SET	61	3568.32	3579.57	14	12	25.4	65.78	.0042	-25.85	.0000	383309.1	1.45	.01	-.0026	235.16	.0027	-25.17	290.70
RISE	42	3717.15	3728.40	14	14	54.3	255.00	.0043	-24.44	.0000	394607.9	1.59	2.64	.0031	118.32	-.0024	-25.01	253.18
SET	72	3717.88	3729.13	14	14	55.0	93.69	.0043	-24.87	.0001	394985.7	2.41	.00	-.0039	244.88	-.0005	-25.01	252.99
IMPACT		3718.84	3730.09	14	14	56.0												
IMPC	42	3718.84	3730.09	14	14	56.0	255.43	.0043	-24.44	.0000	394772.6	1.70	2.95	.0031	118.08	-.0024	-25.00	252.74
IMPC	72	3718.84	3730.09	14	14	56.0	93.94	.0043	-24.86	.0001	395125.5	2.47	-.22	-.0039	244.85	-.0005	-25.00	252.74
IMPC	11	3718.84	3730.09	14	14	56.0	350.27	.0044	-25.61	.0000	392092.1	1.98	28.29	.0007	170.05	.0044	-25.00	252.74

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION		.00	11.25	12	0	57.125	6576.708	16.7471	304.5151	10.96832	3.9615	119.1832	100.4314
SEPARATION		1.20	12.45	12	0	58.325	6653.840	13.3635	310.2832	10.90361	7.3312	120.7625	106.5003
RETRO		3.20	14.45	12	1	.325	6880.148	7.6681	319.1649	10.72137	12.7076	122.4808	115.8834
EXIT	SHA	17.81	29.06	12	1	14.932	10682.590	-19.5781	.1546	8.58511	38.3151	117.4605	160.5349
IMPACT		3718.84	3730.09	14	14	55.966	395152.293	-25.0028	252.7432	2.22100	66.7875	288.7840	260.9143

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SURVEYOR VIEW PERIODS

GHA 1[illegible].5671 EPS 116.2881 LOM 247.0523
SX -.142607 SY -.895073 SZ -.422502 DAO -24.99265 RAO 260.94744 RM 396455.617 LAT 28.310600 LON 279.461800
C3 -.935226 ECC .994645 SLR 12988.836 RCA 6544.6650 LTA -20.0000 GTA 20.00 TB 675.00000 POL -.0
NSX -.122318 NSY -.896735 NSZ -.425329 C3M 1.5557 VIM 2.6823 ZAE 139.799 B.T .0000 B.R -.0000
LATE 2.4094 LONE 6.3315 LATS -1.5374 LONS 250.2185 LATI -6.9200 LONI 327.1531 RSM 147.5843 TTAN 6.2812
LAUNCH DATE FEB 12,1966 BASE AZM 115.0 TF 62.184 ARRIVAL DATE FEB 14 1966 15 18 47.8

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
115.00	0 52 17.4	28.1	15.37	303.64	9.24	101.16	121.96	1 3 32.4	6587.0	10.96	4.58

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW														
INJECTION	.00	11.25	12	1	3.5												
SEPARATION	1.20	12.45	12	1	4.7												
RETRO	3.20	14.45	12	1	6.7												
RISE 72	4.29	15.54	12	1	7.8	86.68	-.1279	22.67	-.0580	3090.6	-7.27	-.00	.1253	292.90	-.0398	2.54	321.96
EXTM 72	11.04	22.29	12	1	14.6	9.86	-.1781	-26.60	-.0860	2426.5	4.89	69.09	-.0000	209.41	-.5072	-13.06	343.15
RISE 51	11.21	22.46	12	1	14.8	86.50	-.0684	7.21	-.0498	5973.1	-2.28	.00	.0828	278.01	-.0191	-13.36	343.59
EXIT SHA	17.00	28.25	12	1	20.5												
EXIT 72	17.00	28.25	12	1	20.5	331.39	-.0596	-38.22	-.0084	4768.0	7.16	50.19	-.0407	144.01	-.0394	-21.39	356.25
EXIT 51	17.00	28.25	12	1	20.5	63.02	-.0649	-10.49	-.0475	5816.5	1.30	28.74	.0772	271.95	-.0203	-21.39	356.25
EXTM 51	48.07	59.32	12	1	51.6	1.83	-.0116	-37.35	-.0013	14135.1	5.08	78.29	-.0000	187.19	-.0498	-33.75	26.47
EXTM 72	72.07	83.32	12	2	15.6	298.10	-.0001	-38.33	.0005	23900.4	4.71	26.82	.0000	129.15	-.0006	-34.99	33.18
EXTM 51	88.30	99.55	12	2	31.8	350.94	-.0007	-37.37	.0004	25516.8	4.37	76.06	.0000	148.71	-.0029	-35.11	34.75
RISE 61	145.39	156.64	12	3	28.9	318.63	.0024	-41.57	.0007	45100.5	3.62	-.00	.0016	150.36	.0012	-34.52	32.21
EXTM 51	188.92	200.17	12	4	12.5	1.43	.0029	-34.96	.0003	48623.4	3.44	80.70	.0000	187.27	.0149	-33.89	26.43
EXTM 61	379.09	390.34	12	7	22.6	6.49	.0038	-35.77	.0003	87694.4	2.71	13.76	.0000	185.42	.0032	-31.82	349.67
EXTM 72	403.67	414.92	12	7	47.2	1.45	.0040	-33.30	.0002	87570.7	2.65	64.57	.0000	182.82	.0077	-31.62	344.34
RISE 11	582.92	594.17	12	10	46.5	296.79	.0040	-32.56	.0001	119741.8	2.04	.00	.0025	131.20	.0023	-30.45	303.79
SET 61	595.38	606.63	12	10	58.9	57.08	.0039	-32.71	.0002	121467.4	2.52	.00	-.0020	224.94	.0027	-30.38	300.90
SET 51	595.71	606.96	12	10	59.3	90.00	.0038	-29.28	.0002	120165.5	2.63	12.26	-.0031	243.20	-.0012	-30.38	300.82
SET 72	794.17	805.42	12	14	17.7	94.44	.0039	-29.12	.0001	147366.7	2.44	-.01	-.0034	240.57	-.0004	-29.48	254.04
RISE 42	803.73	814.98	12	14	27.3	254.99	.0040	-27.97	-.0000	148012.6	1.74	4.80	.0028	121.12	-.0021	-29.45	251.76
EXTM 11	846.50	857.75	12	15	10.0	1.68	.0042	-31.46	.0001	151249.9	2.01	23.31	.0000	181.56	.0039	-29.29	241.54
SET 11	1106.89	1118.14	12	19	30.4	66.16	.0041	-29.81	.0001	183450.7	2.09	-.00	-.0026	232.53	.0024	-28.48	178.69
EXTM 42	1228.54	1239.79	12	21	32.1	359.91	.0042	-27.93	.0000	190125.8	1.73	82.71	.0000	.67	-.0284	-28.17	149.07
RISE 51	1364.19	1375.44	12	23	47.7	270.00	.0041	-27.20	-.0000	208854.3	1.29	11.45	.0034	114.84	-.0014	-27.86	119.92
RISE 72	1518.89	1530.14	13	2	22.4	265.88	.0041	-27.31	-.0000	225139.0	1.18	-.01	.0036	117.60	-.0005	-27.59	77.98
RISE 61	1603.70	1614.95	13	3	47.2	297.42	.0042	-28.56	.0000	233097.3	1.27	.00	.0025	128.77	.0027	-27.40	57.13
SET 42	1651.62	1662.87	13	4	35.2	105.00	.0041	-26.38	.0001	237088.9	1.85	3.83	-.0029	240.14	-.0022	-27.32	45.34
EXTM 51	1718.35	1729.60	13	5	41.9	358.74	.0042	-27.24	.0000	237284.0	1.49	88.12	.0023	143.44	.0907	-27.20	28.91
EXTM 61	1855.31	1866.56	13	7	58.9	.63	.0042	-28.32	.0000	253375.8	1.45	21.44	.0000	180.59	.0040	-26.99	359.14
EXTM 72	1894.39	1905.64	13	8	37.9	.19	.0042	-27.40	.0000	253136.4	1.44	70.50	-.0000	180.90	.0112	-26.93	349.49
RISE 11	2036.64	2047.89	13	11	.2	291.66	.0042	-27.61	-.0000	271144.6	1.08	.00	.0028	124.56	.0024	-26.73	310.35
SET 51	2082.43	2093.68	13	11	46.0	90.00	.0041	-26.16	.0001	273729.3	1.75	11.04	-.0034	246.13	-.0014	-26.67	299.02
SET 61	2106.70	2117.95	13	12	10.2	63.74	.0042	-27.60	.0001	276946.9	1.65	-.00	-.0025	232.63	.0027	-26.64	293.02
SET 72	2267.82	2279.07	13	14	51.4	93.93	.0041	-26.25	.0001	289963.3	1.73	-.00	-.0037	243.48	-.0005	-26.44	253.14
RISE 42	2268.89	2280.14	13	14	52.4	255.00	.0041	-25.67	-.0000	289670.5	1.00	3.40	.0029	119.30	-.0023	-26.44	252.87
EXTM 11	2309.79	2321.04	13	15	33.3	.42	.0042	-27.49	.0000	290375.1	1.31	27.30	-.0000	180.42	.0042	-26.39	248.74
SET 11	2582.73	2593.98	13	20	6.3	69.08	.0042	-26.84	.0000	314211.7	1.56	-.00	-.0028	236.45	.0024	-26.09	179.06
EXTM 42	2687.63	2698.88	13	21	51.2	359.95	.0042	-25.80	.0000	315746.4	1.22	80.58	-.0000	.28	-.0210	-25.98	149.03
RISE 51	2818.26	2829.51	14	0	1.8	270.00	.0041	-25.43	-.0000	330243.3	.82	10.75	.0034	113.19	-.0015	-25.86	116.98
RISE 72	2972.30	2983.55	14	2	35.8	266.19	.0042	-25.55	-.0000	342521.0	.73	.00	.0037	115.81	-.0006	-25.71	78.31
RISE 61	3045.22	3056.47	14	3	48.8	294.85	.0042	-26.41	-.0000	347474.9	.84	.00	.0026	125.63	.0027	-25.65	60.10
SET 42	3106.10	3117.35	14	4	49.6	105.00	.0041	-24.96	.0000	351258.4	1.46	2.96	-.0030	241.27	-.0023	-25.60	44.89
EXTM 51	3169.83	3181.08	14	5	53.4	358.69	.0042	-25.54	.0000	349554.7	1.11	88.81	.0038	80.64	-.0323	-25.54	28.97
EXTM 61	3303.92	3315.17	14	8	7.5	.30	.0042	-26.35	.0000	362313.1	1.11	23.41	-.0000	180.30	.0041	-25.43	359.45
EXTM 72	3343.30	3354.55	14	8	46.8	.07	.0042	-25.71	.0000	361437.1	1.11	72.20	.0000	180.21	.0120	-25.40	349.68
RISE 11	3476.51	3487.76	14	11	.1	290.05	.0042	-25.92	-.0000	376357.8	.80	.00	.0029	122.34	.0024	-25.29	312.27
SET 51	3530.94	3542.19	14	11	54.5	90.00	.0042	-24.87	.0000	378868.3	1.52	10.52	-.0035	247.34	-.0015	-25.25	298.64
SET 61	3562.37	3573.62	14	12	25.9	65.72	.0042	-25.91	.0000	382174.5	1.44	.01	-.0026	235.08	.0027	-25.22	290.76
RISE 42	3711.78	3723.03	14	14	55.3	255.00	.0042	-24.50	.0000	392925.8	1.16	2.68	.0030	118.37	-.0024	-25.06	253.17
SET 72	3712.53	3723.78	14	14	56.1	93.70	.0042	-24.92	.0001	393289.9	1.93	-.00	-.0038	244.82	-.0009	-25.06	252.98
IMPACT	3731.06	3742.31	14	15	14.6												
IMPC 42	3731.06	3742.31	14	15	14.6	259.92	.0043	-24.49	.0000	394466.4	1.68	6.25	.0032	115.67	-.0023	-25.03	248.25
IMPC 72	3731.06	3742.31	14	15	14.6	98.43	.0043	-24.86	.0001	395631.0	2.46	-4.24	-.0038	244.16	-.0007	-25.03	248.25
IMPC 11	3731.06	3742.31	14	15	14.6	354.83	.0044	-25.43	.0000	392105.4	2.00	28.76	.0004	174.69	.0045	-25.03	248.25

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION	.00	11.25	12	1	3.540	6587.785	15.3517	303.6703	10.95868	4.5828	121.9686	101.1947
SEPARATION	1.20	12.45	12	1	4.740	6672.880	11.7221	309.1895	10.88734	7.9368	123.3342	107.0147
RETRO	3.20	14.45	12	1	6.740	6911.782	5.6915	317.7038	10.69602	13.2720	124.7036	116.0304
EXIT SHA	17.00	28.25	12	1	20.540	10494.900	-21.3875	356.2468	8.66176	37.6707	118.5312	158.0327
IMPACT	3731.06	3742.31	14	15	14.604	395210.945	-25.0271	248.2456	2.21623	66.4861	289.4880	261.0891

SURVEYOR VIEW PERIODS

GHA	144.5528				EPS 126.8557							LOM	277.7302
SX	.058478	SY	-.896039	SZ	-.440107	DAO	-26.11069	RAO	273.73396	RM	399995.863	LAT	28.310600	LON	279.461800
C3	-.874447	ECC	.985442	SLR	12995.369	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.074088	NSY	-.894119	NSZ	-.440968	C3M	1.5515	VIM	2.6816	ZAE	142.041	B.T	.0000	B.R	-.0000
LATE	3.5900	LONE	5.3840	LATS	-1.5449	LONS	238.6739	LATI	-2.6474	LONI	327.9205	RSM	147.5488	TTAN	6.5567
LAUNCH DATE	FEB 12,1966			BASE AZM	84.0		TF 62.311					ARRIVAL DATE FEB 15 1966 14 3 29.7			

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
84.00	23 46 47.2	27.1	27.13	307.31	-16.31	89.40	99.69	23 58 2.2	6678.0	10.89	-8.09

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
PROBE IN EARTH'S SHADOW																	
INJECTION	.00	11.25	12	23	58.0												
SEPARATION	1.20	12.45	12	23	59.2												
RETRO	3.20	14.45	13	0	1.2												
RISE 72	7.42	18.67	13	0	5.5	322.16	-.6903	80.03	-.1691	2568.6	-2.35	-.00	.0776	6.10	.2098	13.91	348.01
RISE 51	12.26	23.51	13	0	10.3	60.22	-.1546	45.84	-.0230	4544.8	-3.97	.00	.0985	322.80	.0492	3.60	7.10
EXTM 72	13.29	24.54	13	0	11.3	286.91	-.0241	17.55	-.1000	3700.3	6.70	13.49	-.0000	69.74	.1055	1.69	10.35
EXIT SHA	21.19	32.44	13	0	19.2												
EXIT 72	21.19	32.44	13	0	19.2	279.20	-.0115	-6.57	-.0251	7194.8	7.42	9.96	-.0083	95.33	.0267	-9.40	29.07
EXIT 51	21.19	32.44	13	0	19.2	356.85	-.0665	13.28	-.0615	4653.8	3.81	50.86	.0562	4.86	.1098	-9.40	29.07
EXTM 51	28.53	39.78	13	0	26.6	337.67	-.0280	-5.23	-.0268	6852.3	5.63	60.39	-.0000	49.96	.0782	-15.39	39.82
EXTM 72	64.02	75.27	13	1	2.1	269.17	-.0003	-23.98	-.0019	22700.8	5.03	2.45	.0000	113.88	.0019	-25.07	59.49
RISE 42	66.45	77.70	13	1	4.5	102.25	-.0054	-16.73	-.0037	23703.4	4.26	.00	.0063	249.36	.0001	-25 33	59.98
EXTM 51	77.50	88.75	13	1	15.5	317.04	-.0003	-24.98	-.0016	22393.3	4.65	51.35	.0000	98.50	.0026	-26.23	61.57
EXTM 42	128.19	139.44	13	2	6.2	96.15	.0006	-23.14	-.0007	39160.2	4.00	8.40	-.0000	247.55	-.0009	-28.02	61.14
SET 42	213.86	225.11	13	3	31.9	104.98	.0025	-24.96	-.0001	58476.0	3.54	2.98	-.0017	241.28	-.0015	-28.64	49.56
RISE 61	225.10	236.35	13	3	43.1	303.83	.0033	-33.34	.0001	61047.8	3.09	.00	.0019	136.06	.0021	-28.66	47.62
EXTM 51	328.11	339.36	13	5	26.1	.03	.0038	-28.90	.0000	73917.5	2.87	86.84	-.0000	180.62	.0506	-28.65	27.65
EXTM 61	484.78	496.03	13	8	2.8	2.32	.0040	-31.73	.0001	103222.5	2.50	18.00	.0000	182.07	.0035	-28.43	353.56
EXTM 72	521.10	532.35	13	8	39.1	.37	.0041	-29.60	.0001	104777.8	2.43	68.30	-.0000	180.87	.0095	-28.38	345.33
RISE 11	687.15	698.40	13	11	25.2	294.01	.0040	-29.97	-.0000	133523.1	1.90	.00	.0026	127.69	.0023	-28.13	306.83
SET 51	714.43	725.68	13	11	52.5	90.00	.0039	-27.19	.0001	135831.5	2.51	11.41	-.0032	245.26	-.0013	-28.09	300.40
SET 61	728.70	739.95	13	12	6.7	60.69	.0040	-30.05	.0001	138928.9	2.39	-.00	-.0022	229.01	.0026	-28.07	297.04
SET 72	909.05	920.30	13	15	7.1	94.15	.0040	-27.51	.0001	161140.0	2.36	-.00	-.0035	242.20	-.0005	-27.84	254.06
RISE 42	917.71	928.96	13	15	15.7	255.00	.0040	-26.47	-.0001	161730.1	1.65	3.88	.0029	119.93	-.0021	-27.83	251.98
EXTM 11	957.51	968.76	13	15	55.5	.77	.0042	-29.77	.0000	164132.1	1.93	25.02	-.0000	180.74	.0040	-27.78	242.41
SET 11	1225.46	1236.71	13	20	23.5	67.24	.0041	-28.74	.0001	196282.5	2.04	-.00	-.0027	233.95	.0024	-27.51	177.49
EXTM 42	1342.16	1353.41	13	22	20.2	359.96	.0042	-27.15	.0000	202077.8	1.68	81.93	.0000	.30	-.0238	-27.40	149.02
RISE 51	1477.01	1488.26	14	0	35.1	270.00	.0041	-26.66	-.0000	220403.6	1.25	11.23	.0034	114.33	-.0014	-27.29	116.02
RISE 72	1631.89	1643.14	14	3	9.9	265.95	.0041	-26.94	-.0000	236360.2	1.15	-.01	.0036	117.22	-.0005	-27.17	78.01
RISE 61	1714.80	1726.05	14	4	32.8	296.99	.0042	-28.21	-.0000	243994.7	1.24	.00	.0025	128.26	.0027	-27.11	57.61
SET 42	1764.90	1776.15	14	5	22.9	105.00	.0041	-26.18	.0000	248120.5	1.82	3.71	-.0029	240.30	-.0022	-27.07	45.28
EXTM 51	1832.25	1843.50	14	6	30.3	358.97	.0042	-27.46	.0000	248250.6	1.47	88.39	.0022	145.29	.1090	-27.03	28.69
EXTM 61	1967.10	1978.35	14	8	45.1	.33	.0042	-28.21	.0000	263969.7	1.43	21.55	.0000	180.31	.0040	-26.94	355.43
EXTM 72	2007.03	2018.28	14	9	25.1	.10	.0042	-27.37	.0000	263703.8	1.42	70.54	-.0000	180.28	.0111	-26.91	345.57
RISE 11	2149.66	2160.91	14	11	47.7	291.72	.0042	-27.58	-.0000	281659.5	1.07	.00	.0028	124.65	.0024	-26.83	310.32
SET 51	2195.56	2206.81	14	12	38.6	90.00	.0041	-26.31	.0000	284203.8	1.73	11.10	-.0034	245.99	-.0015	-26.80	298.97
SET 61	2219.21	2230.46	14	12	57.2	63.60	.0042	-27.72	.0000	287356.3	1.63	-.00	-.0025	232.46	.0027	-26.79	293.12
SET 72	2351.13	2362.38	14	15	39.2	93.97	.0041	-26.52	.0000	300313.7	1.72	-.00	-.0036	243.20	-.0005	-26.70	253.04
RISE 42	2381.68	2392.93	14	15	39.7	255.00	.0041	-25.97	-.0000	299959.8	.99	3.58	.0029	119.53	-.0022	-26.70	252.91
EXTM 11	2421.97	2433.22	14	16	20.0	.23	.0042	-27.76	.0000	300634.7	1.30	27.04	-.0000	180.23	.0042	-26.68	242.93
SET 11	2494.12	2705.37	14	20	52.2	68.66	.0042	-27.29	.0000	324254.7	1.55	-.00	-.0028	235.87	.0024	-26.55	175.45
EXTM 42	2800.73	2811.98	14	22	38.8	359.98	.0042	-26.33	.0000	325470.9	1.22	81.11	-.0000	.14	-.0162	-26.50	149.00
RISE 51	2931.16	2942.41	15	0	49.2	270.00	.0041	-24.03	-.0000	340306.6	.82	10.99	.0034	113.75	-.0015	-26.45	116.61
RISE 72	3084.32	3095.57	15	3	22.4	266.07	.0042	-26.23	-.0000	352351.7	.73	-.00	.0037	116.50	-.0005	-26.38	78.45
RISE 61	3161.09	3172.34	15	4	39.1	295.66	.0042	-27.10	-.0000	357588.1	.85	.00	.0026	126.64	.0027	-26.36	59.31
SET 42	3218.96	3230.21	15	5	37.0	105.00	.0041	-25.72	.0000	361139.1	1.46	3.43	-.0030	240.67	-.0023	-26.34	44.87
EXTM 51	3282.96	3294.21	15	6	41.0	358.77	.0042	-26.32	.0000	359537.8	1.12	88.75	.0034	118.04	.0799	-26.31	28.90
EXTM 61	3416.35	3427.60	15	8	54.4	.16	.0042	-27.14	.0000	372444.7	1.13	22.60	-.0000	180.16	.0041	-26.27	355.59
EXTM 72	3456.34	3467.59	15	9	34.4	.08	.0042	-26.56	.0000	371603.9	1.14	71.34	-.0000	180.22	.0114	-26.25	345.60
RISE 11	3592.82	3604.07	15	11	50.9	290.89	.0042	-26 81	-.0000	387020.3	.86	.00	.0029	123.51	.0024	-26.20	311.45
SET 51	3644.00	3655.25	15	12	42.0	90.00	.0042	-25.82	.0000	389499.3	1.61	10.90	-.0035	246.45	-.0015	-26.18	298.62
SET 61	3671.08	3682.33	15	13	9.1	64.64	.0042	-26.84	.0000	392733.9	1.57	-.00	-.0026	233.73	.0027	-26.17	291.82
IMPACT	3738.64	3749.89	15	14	16.7												
IMPC 72	3738.64	3749.89	15	14	16.7	71.91	.0042	-26.14	.0000	396550.8	2.50	19.68	-.0039	244.99	.0001	-26.13	274.73
IMPC 11	3738.64	3749.89	15	14	16.7	327.98	.0044	-26.89	.0000	396423.9	1.91	20.92	.0018	149.59	.0037	-26.13	274.73

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	12	23	58.037	6685.265	27.1685	307.0768	10.88599	-8.0948	99.5819	89.1661
SEPARATION	1.20	12.45	12	23	59.237	6590.061	25.8033	314.4048	10.95885	-4.7438	102.9934	96.7950
RETRO	3.20	14.45	13	0	1.237	6546.544	22.7159	326.0664	10.99548	.9676	108.0083	108.9579
EXIT SHA	21.19	32.44	13	0	19.222	10408.150	-9.3952	29.0738	8.70172	37.3761	117.2296	176.4742
IMPACT	3738.64	3749.89	15	14	16.674	398743.965	-26.1304	274.7272	2.23888	69.3922	278.3292	274.0341

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SURVEYOR VIEW PERIODS

GHA	144.5528					EPS	127.0829							LOM	270.5837
SX	.062811	SY	-.895656	SZ	-.440289	DAO	-26.12235	RAO	274.01148	RM	400763.914	LAT	28.31060	LON	279.461800
C3	-.867720	ECC	.985753	SLR	12996.092	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.082347	NSY	-.893671	NSZ	-.441103	C3M	1.5561	VIM	2.6824	ZAE	142.176	B.T	.0000	B.R	-.0000
LATE	3.6140	LONE	5.3617	LATS	-1.5450	LONS	238.4232	LATI	-2.4296	LONI	328.0041	RSM	147.5481	TTAN	6.5590
LAUNCH DATE	FEB 13,1966			BASE AZM	87.0		TF 62.232					ARRIVAL DATE	FEB 15 1966 14 33 6.6		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FTH
87.00	0 15 15.5	27.5	25.90	307.51	-9.90	96.73	102.06	0 26 30.5	6593.1	10.96	-4.91

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELA	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	13	0	26.5												
SEPARATION	1.20	12.45	13	0	27.7												
RETRO	3.20	14.45	13	0	29.7												
RISE 72	6.39	17.64	13	0	32.9	48.93	-.9261	78.07	.0696	2610.6	-4.44	-.00	.0967	351.03	.1793	14.03	342.18
RISE 51	11.83	23.08	13	0	38.3	65.29	-.1325	40.93	-.0251	4839.5	-3.73	-.00	.0963	316.66	.0370	2.88	3.14
EXTM 72	12.56	23.81	13	0	39.1	296.75	-.0394	19.60	-.1144	3283.6	6.34	21.96	-.0000	65.09	.1294	1.57	5.38
EXIT SHA	20.01	31.26	13	0	46.5												
EXIT 72	20.01	31.26	13	0	46.5	286.81	-.0140	-6.08	-.0277	6518.6	7.40	17.42	-.0107	93.93	.0305	-8.67	22.81
EXIT 51	20.01	31.26	13	0	46.5	10.99	-.0736	14.69	-.0586	4735.6	3.01	48.18	.0749	343.95	.0806	-8.67	22.81
EXIT 61	20.01	31.26	13	0	46.5	312.53	-.0309	-41.85	.0088	8517.4	7.33	-2.67	-.0057	146.67	-.0240	-8.67	22.81
EXTM 51	30.61	41.86	13	0	57.1	343.62	-.0240	-8.67	-.0202	7749.5	5.54	66.90	-.0000	45.29	.0794	-16.53	37.06
EXTM 72	64.03	75.28	13	1	30.5	275.70	-.0002	-24.23	-.0018	22406.6	4.99	8.41	.0000	113.47	.0018	-24.62	53.39
EXTM 51	79.60	90.85	13	1	46.1	324.85	-.0002	-25.04	-.0014	22926.4	4.58	58.33	.0000	96.51	.0028	-25.91	58.44
RISE 42	84.47	95.72	13	1	51.0	104.08	-.0023	-19.02	-.0021	29181.3	4.24	.00	.0030	246.49	-.0003	-26.19	58.76
EXTM 42	128.13	139.38	13	2	34.6	102.50	.0006	-22.41	-.0008	39984.8	3.99	3.24	-.0000	244.69	-.0010	-27.60	54.55
SET 42	162.82	174.07	13	3	9.3	105.00	.0017	-23.58	-.0004	48074.3	3.79	2.12	-.0010	242.37	-.0013	-28.03	50.70
RISE 61	189.34	200.59	13	3	35.8	304.08	.0031	-33.51	.0001	54012.7	3.30	-.00	.0017	136.33	.0019	-28.21	46.85
EXTM 51	294.68	305.93	13	5	21.2	.01	.0037	-28.84	.0000	68260.4	2.98	87.10	.0000	180.36	.0351	-28.39	27.67
EXTM 61	454.74	465.99	13	8	1.2	2.41	.0039	-31.70	.0001	98858.2	2.56	18.03	.0000	182.16	.0035	-28.26	353.47
EXTM 72	490.65	501.90	13	8	37.2	.29	.0040	-29.48	.0001	100478.3	2.48	68.42	.0000	180.68	.0095	-28.22	349.40
RISE 11	657.92	669.17	13	11	24.4	293.93	.0040	-29.89	-.0000	129832.8	1.94	.00	.0026	127.59	.0023	-28.00	306.84
SET 51	685.06	696.31	13	11	51.6	90.00	.0039	-26.94	.0001	132186.4	2.54	11.35	-.0032	245.40	-.0013	-27.97	308.47
SET 61	699.85	711.10	13	12	6.4	60.79	.0040	-29.98	.0001	135374.7	2.42	-.00	-.0022	229.12	.0026	-27.95	297.00
SET 72	880.20	891.45	13	15	6.7	94.13	.0039	-27.41	.0001	157898.0	2.38	-.00	-.0035	242.31	-.0005	-27.74	254.12
RISE 42	889.32	900.57	13	15	15.8	255.00	.0040	-26.35	-.0101	158564.2	1.67	3.81	.0029	119.83	-.0021	-27.73	251.94
EXTM 11	928.99	940.24	13	15	55.5	.76	.0042	-29.71	.0000	160995.0	1.95	25.08	-.0000	180.73	.0040	-27.69	248.[illegible]
SET [illegible]	197.38	1208.63	13	20	23.9	67.28	.0041	-28.68	.0001	193522.8	2.06	.01	-.0027	234.02	.0024	-27.43	177.[illegible]
EXT[illegible]	314.11	1325.36	13	22	20.6	359.96	.0042	-27.08	.0000	199438.5	1.70	81.86	.0000	.28	-.0236	-27.34	149.02
RIS [illegible]	1449.11	1460.36	14	0	35.6	270.00	.0041	-26.59	-.0000	217898.9	1.27	11.21	.0034	114.27	-.0014	-27.23	114.60
RISE 72	1604.09	1615.34	14	3	10.6	265.96	.0041	-26.89	-.0000	233986.1	1.16	-.01	.0036	117.17	-.0005	-27.12	77.98
RISE 61	1686.82	1698.07	14	4	33.3	296.95	.0041	-28.17	-.0000	241664.5	1.26	.00	.0025	128.21	.0027	-27.06	97.64
SET 42	1737.01	1748.26	14	5	23.5	105.00	.0041	-26.13	.0000	245837.1	1.83	3.68	-.0029	240.34	-.0022	-27.03	48.29
EXTM 51	1804.63	1815.88	14	6	31.1	355.02	.0042	-27.02	.0000	246034.8	1.48	88.45	.0021	145.84	.1138	-26.99	28.64
EXTM 61	1939.28	1950.53	14	8	45.8	.32	.0042	-28.19	.0000	261820.8	1.44	21.57	-.0000	180.30	.0040	-26.91	355.44
EXTM 72	1979.25	1990.50	14	9	25.3	.10	.0042	-27.34	.0000	261644.4	1.43	70.57	-.0000	180.28	.0111	-26.88	349.97
RISE 11	2121.89	2133.14	14	11	48.4	291.71	.0042	-27.66	-.0000	279625.7	1.08	.00	.0029	124.62	.0024	-26.81	310.33
SET 51	2167.80	2179.05	14	12	34.3	90.00	.0041	-26.29	.0000	282198.7	2.74	11.09	-.0034	246.01	-.0015	-26.74	298.98
SET 61	2191.54	2202.79	14	12	58.1	63.62	.0042	-27.71	.0000	285370.6	1.64	-.00	-.0025	232.48	.0027	-26.77	293.11
SET 72	2353.40	2364.65	14	15	39.9	93.97	.0041	-26.51	.0000	298410.9	1.73	-.00	-.0036	243.22	-.0005	-26.69	253.09
RISE 42	2354.03	2365.28	14	15	40.5	255.00	.0041	-25.94	-.0000	298063.6	1.00	3.56	.0029	119.51	-.0022	-26.69	252.90
EXTM 11	2394.26	2405.51	14	16	20.8	.23	.0042	-27.75	.0000	298753.2	1.31	27.05	-.0000	180.22	.0042	-26.67	248.94
SET 11	2666.48	2677.73	14	20	53.0	68.66	.0042	-27.28	.0000	322512.8	1.56	-.00	-.0028	235.88	.0024	-26.54	179.46
EXTM 42	2773.12	2784.37	14	22	39.6	359.99	.0042	-26.33	.0000	324160.8	1.22	81.11	-.0000	.15	-.0139	-26.50	148.99
RISE 51	2903.58	2914.83	15	0	50.1	270.00	.0041	-26.03	-.0006	338676.9	.82	10.99	.0034	113.75	-.0015	-26.45	116.61
RISE 72	3056.84	3068.09	15	3	23.3	266.07	.0042	-26.23	-.0000	350831.4	.74	-.00	.0037	116.50	-.0005	-26.39	78.45
RISE 61	3133.60	3144.85	15	4	40.1	295.67	.0042	-27.11	-.0000	356081.7	.86	.00	.0026	126.65	.0027	-26.36	59.30
SET 42	3191.41	3202.66	15	5	37.9	105.00	.0041	-25.72	.0000	359636.7	1.47	3.43	-.0030	240.66	-.0023	-26.34	44.87
EXTM 51	3255.22	3266.47	15	6	41.7	358.72	.0042	-26.33	.0000	358030.7	1.12	88.71	.0034	117.36	.0756	-26.32	28.99
EXTM 61	3388.76	3400.01	15	8	55.3	.16	.0042	-27.18	.0000	370954.4	1.13	22.59	-.0000	180.15	.0041	-26.27	329.60
EXTM 72	3428.77	3440.02	15	9	35.3	.07	.0042	-26.57	.0000	370113.2	1.14	71.33	-.0000	180.22	.6115	-26.26	345.80
RISE 11	3565.33	3576.58	15	11	51.8	290.91	.0042	-26.83	-.0000	385485.2	.85	.00	.0028	123.53	.0024	-26.21	311.44
SET 51	3616.45	3627.70	15	12	43.0	90.00	.0042	-25.83	.0000	387902.5	1.58	10.91	-.0035	246.44	-.0015	-26.20	298.63
SET 61	3643.48	3654.73	15	13	10.0	64.62	.0042	-26.86	.0000	391078.0	1.52	-.00	-.0026	233.71	.0027	-26.18	291.89
IMPACT	3733.90	3745.15	15	14	40.4												
IMPC 72	3733.90	3745.15	15	14	40.4	77.66	.0043	-26.11	.0000	397155.5	2.51	14.51	-.0039	244.97	-.0001	26.14	269.00
IMPC 11	3733.90	3745.15	15	14	40.4	333.78	.0044	-26.91	.0000	396256.8	1.94	23.12	.0015	154.64	.0039	-26.14	269.00

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FTH	AZ	RT ASC
INJECTION	.00	11.25	13	0	26.508	6594.391	25.9101	307.4542	10.95642	-4.9149	102.0393	96.6887
SEPARATION	1.20	12.45	13	0	27.708	6549.174	24.2755	314.5921	10.99356	-1.4989	105.1v07	104.1194
RETRO	3.20	14.45	13	0	29.708	6580.519	20.8020	325.9836	10.96716	4.2180	109.7735	116.0123
EXIT SHA	20.01	31.26	13	0	46.514	10395.735	-8.6733	22.8117	8.70736	37.3331	117.1431	177.0957
IMPACT	3[illegible]0	3745.15	15	14	40.408	398801.836	-26.1388	269.0004	2.23840	69.1066	277.7939	274.2572

SURVEYOR VIEW PERIODS

SMA	144.5528					EPS	127.3125							LOM	263.3599
SX	.067188	SY	-.895252	SZ	-.440466	DAO	-26.13359	RAO	274.29198	RM	400132.324	LAT	28.310600	LON	279.461800
C3	-.866855	ECC	.985767	SLR	12996.185	RCA	6544.6450	LTA	-20.0000	GTA	26.00	TB	675.00000	POL	-.0
NSX	.086705	NSY	-.893192	NSZ	-.441237	C3M	1.5561	VIM	2.6824	ZAE	142.209	B.T	.0000	B.R	-.0000
LATE	3.6381	LONE	5.3397	LATS	-1.5452	LONS	238.1704	LATI	-2.3225	LONI	328.0022	RSM	147.5474	TTAN	6.5609

LAUNCH DATE FEB 13.1966 BASE AZM 90.0 TF 62.239 ARRIVAL DATE FEB 15 1966 15 3 2.7

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
90.00	0 39 52.3	27.8	24.67	307.51	-4.43	102.91	104.34	0 51 7.3	6554.4	10.99	-2.20

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PRDRE IN EARTH'S SHADOW														
INJECTION	.00	11.25	13	0	51.1												
SEPARATION	1.20	12.45	13	0	52.3												
RETRO	3.20	14.45	13	0	54.3												
RISE 72	5.68	16.93	13	0	56.8	69.39	-.4221	68.47	.0931	2704.9	-5.69	.00	.1087	339.91	.1444	13.68	337.74
RISE 61	10.74	21.99	13	1	1.9	356.31	-.1331	-49.70	.0121	4792.9	6.11	.00	.0078	177.62	-.0866	3.30	357.19
RISE 51	11.53	22.78	13	1	2.6	69.13	-.1165	36.46	-.0276	5114.6	-3.44	.00	.0937	311.28	.0274	1.90	359.62
EXTM 72	11.96	23.21	13	1	3.1	307.63	-.0599	20.80	-.1279	2939.1	5.93	31.10	-.0000	59.84	.1630	1.15	.89
EXTM 61	13.49	24.74	13	1	4.6	339.17	-.0803	-47.26	.0154	5878.7	6.94	.56	-.0000	166.03	-.0566	-1.34	5.13
SET 61	17.43	28.68	13	1	8.5	325.13	-.0439	-44.11	.0111	7559.1	7.18	.01	-.0038	155.76	-.0332	-6.66	14.18
EXIT SHA	19.00	30.25	13	1	10.1												
EXIT 72	19.00	30.25	13	1	10.1	294.41	-.0177	-6.20	-.0302	5930.5	7.36	24.95	-.0145	93.19	.0351	-8.41	17.19
EXIT 51	19.00	30.25	13	1	10.1	23.25	-.0766	14.78	-.0544	4901.8	2.34	43.58	.0837	328.21	.0523	-8.41	17.19
EXIT 61	19.00	30.25	13	1	10.1	321.36	-.0359	-43.13	.0094	8238.4	7.15	-.37	-.0042	152.89	-.0276	-8.41	17.19
EXTM 51	33.18	44.43	13	1	24.3	348.35	-.0201	-12.16	-.0150	8786.8	5.45	72.53	-.0000	41.14	.0825	-17.95	34.67
EXTM 72	64.86	76.11	13	1	56.0	281.58	-.0001	-24.87	-.0016	22383.0	4.95	13.78	.0000	113.77	.0017	-24.63	48.09
EXTM 51	82.10	93.35	13	2	13.2	331.73	-.0002	-25.43	-.0013	23605.2	4.51	64.55	.0000	95.53	.0030	-25.95	50.07
RISE 61	157.83	169.08	13	3	29.0	304.74	.0027	-33.96	.0002	47415.8	3.54	-.00	.0016	137.03	.0016	-27.88	45.59
EXTM 51	264.61	27 .16	13	5	16.0	.00	.0035	-28.56	-.0000	63015.6	3.09	87.18	-.0000	180.31	.0088	-28.30	27.68
EXTM 61	429.91	441.16	13	8	1.0	2.79	.0039	-31.79	.0001	95171.7	2.61	17.92	-.0000	182.49	.0035	-28.23	353.12
EXTM 72	464.77	476.02	13	8	35.9	.34	.0040	-29.50	.0001	96731.3	2.53	68.40	-.0000	180.79	.0095	-28.19	345.36
RISE 11	633.16	644.41	13	11	24.3	293.97	.0040	-29.93	-.0000	126630.3	1.97	.00	.0026	127.63	.0023	-27.99	306.75
SET 51	659.71	670.96	13	11	50.8	90.00	.0039	-26.90	.0001	128956.6	2.57	11.33	-.0032	245.44	-.0013	-27.96	300.54
SET 61	674.43	685.68	13	12	5.6	60.74	.0040	-30.01	.0001	132162.2	2.45	-.00	-.0022	229.06	.0026	-27.94	297.09
SET 72	855.41	866.66	13	15	6.5	94.13	.0039	-27.79	.0001	155037.3	2.40	-.00	-.0035	242.32	-.0005	-27.73	254.17
RISE 42	864.90	876.15	13	15	16.0	254.99	.0040	-26.31	-.0001	155762.5	1.69	3.79	.0029	119.81	-.0021	-27.72	251.90
EXTM 11	904.54	915.79	13	15	55.7	.77	.0042	-29.74	.0000	158238.6	1.97	25.05	-.0000	180.74	.0040	-27.68	242.40
SET 11	1173.04	1184.29	13	20	24.2	67.27	.0041	-28.70	.0001	191046.2	2.07	.01	-.0027	234.00	.0024	-27.43	177.50
EXTM 42	1289.99	1301.24	13	22	21.1	359.96	.0042	-27.08	.0000	197080.3	1.71	81.86	.0000	.27	-.0237	-27.33	149.02
RISE 51	1425.13	1436.38	14	0	36.3	270.00	.0041	-26.59	-.0000	215650.3	1.28	11.20	.0034	114.27	-.0014	-27.23	115.98
RISE 72	1580.18	1591.43	14	3	11.3	265.96	.0041	-26.89	-.0000	231840.1	1.17	-.01	.0036	117.17	-.0005	-27.12	77.96
RISE 61	1662.97	1674.22	14	4	34.1	296.97	.0041	-28.19	-.0000	239571.6	1.26	.00	.0025	128.23	.0027	-27.07	57.62
SET 42	1713.04	1724.29	14	5	24.2	105.00	.0041	-26.13	.0000	243760.0	1.84	3.67	-.0029	240.34	-.0022	-27.03	45.30
EXTM 51	1780.72	1791.97	14	6	31.8	359.02	.0042	-27.02	.0000	243998.8	1.49	88.44	.0021	145.87	.1136	-26.99	28.64
EXTM 61	1915.41	1926.66	14	8	46.5	.32	.0042	-28.21	.0000	259854.8	1.45	21.55	-.0000	180.30	.0040	-26.91	355.44
EXTM 72	1955.39	1966.64	14	9	26.5	.10	.0042	-27.35	.0000	259696.7	1.44	70.56	-.0000	180.27	.0111	-26.89	345.57
RISE 11	2098.14	2109.39	14	11	49.3	291.72	.0042	-27.67	-.0000	277748.6	1.08	.30	.0028	124.64	.0024	-26.81	310.32
SET 51	2143.95	2155.20	14	12	35.1	90.00	.0041	-26.29	.0000	280331.6	1.75	11.09	-.0034	246.01	-.0015	-26.79	298.99
SET 61	2167.64	2178.89	14	12	58.8	63.60	.0042	-27.72	.0000	283509.4	1.65	-.00	-.0025	232.46	.0027	-26.78	293.13
SET 72	2329.59	2340.84	14	15	40.7	93.97	.0041	-26.51	.0000	296618.4	1.73	-.00	-.0036	243.21	-.0005	-26.70	253.06
RISE 42	2330.27	2341.52	14	15	41.4	255.00	.0041	-25.95	-.0000	296276.4	1.00	3.57	.0029	119.51	-.0022	-26.70	252.89
EXTM 11	2370.48	2381.73	14	16	21.6	.22	.0042	-27.76	.0000	296980.6	1.32	27.03	-.0000	180.22	.0042	-26.68	242.94
SET 11	2642.67	2653.92	14	20	53.8	68.65	.0042	-27.30	.0000	320828.5	1.56	-.00	-.0028	235.96	.0024	-26.55	175.47
EXTM 42	2749.39	2760.64	14	22	40.5	359.99	.0042	-26.34	.0000	322536.5	1.23	81.12	-.0000	.15	-.0135	-26.51	148.99
RISE 51	2879.88	2891.13	15	0	51.0	270.00	.0041	-26.04	-.0000	337073.2	.83	10.99	.0034	113.76	-.0015	-26.46	116.60
RISE 72	3033.25	3044.50	15	3	24.4	266.07	.0042	-26.24	-.0000	349323.4	.74	-.00	.0037	116.51	-.0005	-26.40	78.45
RISE 61	3110.07	3121.32	15	4	41.2	295.68	.0042	-27.12	-.0000	354580.6	.86	.00	.0026	126.67	.0027	-26.37	59.28
SET 42	3167.76	3179.01	15	5	38.9	105.00	.0041	-25.73	.0000	358128.3	1.47	3.43	-.0030	240.66	-.0023	-26.35	44.88
EXTM 51	3231.41	3242.66	15	6	42.5	358.67	.0042	-26.34	.0000	356511.2	1.12	88.66	.0034	117.09	.0725	-26.33	28.99
EXTM 61	3365.09	3376.34	15	8	56.2	.15	.0042	-27.19	.0000	369435.8	1.13	22.57	-.0000	180.15	.0041	-26.29	355.60
EXTM 72	3405.10	3416.35	15	9	36.2	.07	.0042	-26.59	.0000	368586.6	1.13	71.32	-.0000	180.21	.0114	-26.27	345.60
RISE 11	3541.76	3553.01	15	11	52.9	290.93	.0042	-26.85	-.0000	383908.1	.84	.00	.0028	123.55	.0024	-26.23	311.42
SET 51	3592.80	3604.05	15	12	43.9	90.00	.0042	-25.85	.0000	386269.3	1.56	10.91	-.0035	246.43	-.0015	-26.21	298.63
SET 61	3619.75	3631.00	15	13	10.9	64.60	.0042	-26.88	.0000	389397.4	1.49	-.00	-.0026	233.68	.0027	-26.20	291.87
IMPACT	3734.33	3745.58	15	15	5.5												
IMPC 42	3734.33	3745.58	15	15	5.5	245.27	.0043	-25.54	-.0000	399193.7	1.77	-3.43	.0029	124.82	-.0026	-26.15	262.96
IMPC 72	3734.33	3745.58	15	15	5.5	83.72	.0043	-26.08	.0000	397807.4	2.51	9.08	-.0039	244.70	-.0003	-26.15	262.96
IMPC 11	3734.33	3745.58	15	15	5.5	339.91	.0044	-26.94	.0000	396126.9	1.98	25.02	.0012	160.25	.0041	-26.15	262.96

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	13	0	51.121	6554.433	24.6756	307.5091	10.98932	-2.1998	104.3390	102.9059
SEPARATION	1.20	12.45	13	0	52.321	6547.730	22.7871	314.4857	10.99483	1.2355	107.2715	110.1833
RETRO	3.20	14.45	13	0	54.321	6641.251	18.9940	325.5144	10.91658	6.9016	111.3973	121.7133
EXIT SHA	19.00	30.25	13	1	10.125	10381.021	-8.4076	17.1898	8.71365	37.2806	117.1340	177.3509
IMPACT	3734.33	3745.58	15	15	5.455	398863.512	-26.1477	262.9572	2.23602	68.8327	277.4665	274.4927

SURVEYOR VIEW PERIODS

QHA	144.5528					EPS	127.5031							LOM	257.3630
SX	.070820	SY	-.894903	SZ	-.440605	DAO	-26.14251	RAO	274.52481	RM	400188.824	LAT	28.310600	LON	279.461800
C3	-.867599	ECC	.985755	SLR	12996.104	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.090334	NSY	-.892778	NSZ	-.441347	C3M	1.5557	VIM	2.6823	ZAE	142.194	B.T	.0000	B.R	-.0000
LATE	3.6581	LONE	5.3208	LATS	-1.5453	LONS	237.9600	LATI	-2.3376	LONI	327.9739	RSM	147.5468	TTAN	6.5625
LAUNCH DATE		FEB	13,1966		BASE AZM	93.0		TF	62.267			ARRIVAL	DATE FEB	15 1966	15 27 53.7

LNCH AZMTH	LNCH TIME	PS	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
93.00	0 59 44.8	28.0	23.47	307.34	-.07	107 72	106.54	1 10 59.8	6544.7	11.00	-.04

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LON
			PROBE IN EARTH'S SHADOW														
INJECTION	.00	11.25	13	1	11.0												
SEPARATION	1.20	12.45	13	1	12.2												
RETRO	3.20	14.45	13	1	14.2												
RISE 72	5.18	16.43	13	1	16.2	75.90	-.2891	60.34	.0762	2804.9	-6.45	-.00	.1163	331.31	.1130	12.94	334.24
RISE 51	11.33	22.58	13	1	22.3	72.20	-.1047	32.38	-.0300	5349.9	-3.17	.00	.0912	306.48	.0197	.67	356.56
RISE 61	10.47	21.72	13	1	21.5	4.44	-.1318	-49.68	.0059	4993.4	5.76	.00	.0110	182.87	-.0848	2.18	353.98
EXTM 72	11.53	22.78	13	1	22.5	318.67	-.0855	20.18	-.1360	2683.4	5.55	40.59	-.0000	54.71	.2079	.33	357.13
EXTM 61	14.82	26.07	13	1	25.8	339.88	-.0651	-46.79	.0121	6675.8	6.85	1.15	-.0000	166.38	-.0462	-4.62	9.49
EXIT SHA	18.20	29.45	13	1	29.2												
EXIT 72	18.20	29.45	13	1	29.2	301.63	-.0226	-7.18	-.0320	5451.3	7.32	32.18	-.0196	93.54	.0399	-8.65	12.38
EXIT 51	18.20	29.45	13	1	29.2	33.16	-.0767	13.75	-.0506	5091.9	1.83	39.00	.0863	316.87	.0329	-8.65	12.38
EXIT 61	18.20	29.45	13	1	29.2	329.39	-.0410	-44.57	.0095	9083.6	6.97	.84	-.0026	158.73	-.0306	-8.65	12.38
SET 61	22.75	34.00	13	1	33.7	320.64	-.0250	-42.42	.0065	9969.7	6.81	-.00	-.0033	152.08	-.0193	-12.74	19.61
EXTM 51	35.91	47.16	13	1	46.9	352.08	-.0170	-15.49	-.0113	9836.2	5.37	77.36	-.0000	37.34	.0911	-19.56	32.62
EXTM 72	65.91	77.16	13	2	16.9	286.53	-.0000	-25.85	-.0014	22471.0	4.90	18.27	-.0000	114.69	.0015	-25.05	43.76
EXTM 51	84.80	96.05	13	2	35.8	337.42	-.0001	-26.17	-.0011	24352.7	4.46	69.72	.0000	96.19	.0031	-26.37	45.62
RISE 61	132.40	143.65	13	3	23.4	305.91	.0023	-34.73	.0003	41764.2	3.78	-.00	.0014	138.27	.0013	-27.76	43.79
EXTM 51	239.80	251.05	13	5	10.8	359.99	.0034	-28.71	-.0000	58425.4	3.19	87.03	.0000	179.59	.0320	-28.41	27.70
EXTM 61	408.64	419.89	13	7	59.6	2.85	.0039	-32.05	.0001	91957.1	2.66	17.66	.0000	182.53	.0034	-28.36	353.07
EXTM 72	443.73	454.98	13	8	34.7	.37	.0040	-29.68	.0001	93630.4	2.57	68.23	.0000	180.87	.0093	-28.31	345.33
RISE 11	613.72	624.97	13	11	24.7	294.12	.0040	-30.08	-.0000	124077.3	2.00	.00	.0026	127.83	.0023	-28.09	306.55
SET 51	639.20	650.45	13	11	50.2	90.00	.0038	-26.98	.0001	126296.0	2.59	11.36	-.0032	245.36	-.0013	-28.06	300.61
SET 61	653.21	664.46	13	12	4.2	60.54	.0039	-30.17	.0001	129431.3	2.48	-.00	-.0022	228.83	.0026	-28.04	297.33
SET 72	835.47	846.72	13	15	6.5	94.14	.0039	-27.48	.0001	152702.1	2.42	-.00	-.0035	242.24	-.0005	-27.82	254.20
RISE 42	845.22	856.47	13	15	16.2	254.99	.0040	-26.38	-.0001	153464.2	1.71	3.83	.0028	119.86	-.0021	-27.81	251.87
EXTM 11	884.94	896.19	13	15	55.9	.82	.0041	-29.85	.0000	156006.1	1.99	24.93	-.0000	180.78	.0040	-27.77	242.37
SET 11	1153.16	1164.41	13	20	24.2	67.19	.0041	-28.78	.0001	188990.0	2.08	-.00	-.0026	233.90	.0024	-27.50	177.60
EXTM 42	1270.54	1281.79	13	22	21.5	359.96	.0042	-27.14	.0000	195145.5	1.72	81.92	.0000	.29	-.0236	-27.40	149.02
RISE 51	1405.82	1417.07	14	0	36.8	270.00	.0041	-26.64	-.0000	213802.9	1.29	11.22	.0034	114.32	-.0014	-27.29	115.97
RISE 72	1560.88	1572.13	14	3	11.9	265.95	.0041	-26.94	-.0000	230072.7	1.18	-.01	.0036	117.22	-.0009	-27.17	77.96
RISE 61	1643.99	1655.24	14	4	35.0	297.04	.0041	-28.24	-.0000	237871.1	1.27	.00	.0025	128.31	.0027	-27.11	57.54
SET 42	1693.71	1704.96	14	5	24.7	105.00	.0041	-26.17	.0000	242045.5	1.85	3.70	-.0029	240.31	-.0022	-27.08	45.31
EXTM 51	1761.23	1772.48	14	6	32.2	358.97	.0042	-27.07	.0000	242300.9	1.49	88.38	.0022	145.40	.1082	-27.04	28.69
EXTM 61	1896.22	1907.47	14	8	47.2	.33	.0042	-28.26	.0000	258237.7	1.45	21.50	.0000	180.31	.0040	-26.95	355.43
EXTM 72	1936.17	1947.42	14	9	27.2	.10	.0042	-27.39	.0000	258088.3	1.44	70.51	-.0000	180.28	.0111	-26.93	345.97
RISE 11	2079.13	2090.38	14	11	50.1	291.76	.0042	-27.71	-.0000	276202.9	1.09	.00	.0028	124.69	.0024	-26.85	310.27
SET 51	2124.72	2135.97	14	12	35.7	90.00	.0041	-26.32	.0000	278780.5	1.75	11.10	-.0034	245.98	-.0014	-26.82	299.00
SE. 61	2148.22	2159.47	14	12	59.2	63.55	.0042	-27.76	.0000	281951.3	1.65	-.00	-.0025	232.40	.0027	-26.81	293.19
SET 72	2310.41	2321.66	14	15	41.4	93.98	.0041	-26.54	.0000	295126.9	1.74	-.00	-.0036	243.18	-.0005	-26.73	253.06
RISE 42	2311.11	2322.36	14	15	42.1	255.00	.0041	-25.98	-.0000	294785.6	1.01	3.58	.0029	119.54	-.0022	-26.73	252.89
EXTM 11	2351.34	2362.59	14	16	22.3	.23	.0042	-27.80	.0000	295507.2	1.32	26.99	-.0000	180.22	.0042	-26.71	242.93
SET 11	2623.39	2634.64	14	20	54.4	68.62	.0042	-27.33	.0000	319409.3	1.57	-.00	-.0028	235.82	.0024	-26.58	175.51
EXTM 42	2730.26	2741.51	14	22	41.3	359.99	.0042	-26.36	.0000	321152.3	1.23	81.14	-.0000	.16	-.0128	-26.54	148.99
RISE 51	2860.78	2872.03	15	0	51.8	270.00	.0041	-26.06	-.0000	335718.4	.83	11.00	.0034	113.78	-.0015	-26.48	116.60
RISE 72	3014.26	3025.51	15	3	25.3	266.07	.0042	-26.26	-.0000	348060.3	.74	-.00	.0037	116.53	-.0005	-26.42	78.44
RISE 61	3091.18	3102.43	15	4	42.2	295.71	.0042	-27.14	-.0000	353323.8	.86	.00	.0026	126.70	.0027	-26.39	59.25
SET 42	3148.73	3159.98	15	5	39.7	105.00	.0041	-25.75	.0000	356859.7	1.47	3.44	-.0030	240.64	-.0023	-26.37	44.88
EXTM 51	3212.43	3223.68	15	6	43.4	358.69	.0042	-26.36	.0000	355244.5	1.12	88.67	.0034	118.00	.0749	-26.35	28.98
EXTM 61	3346.06	3357.31	15	8	57.1	.16	.0042	-27.21	.0000	368154.8	1.13	22.55	-.0000	180.15	.0041	-26.30	355.60
EXTM 72	3386.06	3397.31	15	9	37.1	.07	.0042	-26.60	.0000	367296.7	1.13	71.30	-.0000	180.22	.0114	-26.29	345.60
RISE 11	3522.79	3534.04	15	11	53.8	290.94	.0042	-26.86	-.0000	382577.8	.83	.00	.0028	123.58	.0024	-26.24	311.40
SET 51	3573.75	3585.00	15	12	44.7	90.00	.0042	-25.86	.0000	384897.1	1.54	10.92	-.0035	246.41	-.0015	-26.23	298.63
SET 61	3600.63	3611.88	15	13	11.6	64.58	.0042	-26.90	.0000	387992.4	1.47	-.00	-.0026	233.65	.0027	-26.22	291.90
IMPACT	3735.99	3747.24	15	15	27.0												
IMPC 42	3735.99	3747.24	15	15	27.0	250.43	.0043	-25.57	-.0000	398852.1	1.75	.12	.0030	121.79	-.0025	-26.16	257.76
IMPC 72	3735.99	3747.24	15	15	27.0	88.92	.0043	-26.05	.0000	398374.0	2.51	4.43	-.0038	244.28	-.0004	-26.16	257.76
IMPC 11	3735.99	3747.24	15	15	27.0	345.18	.0044	-26.95	.0000	396054.7	1.99	26.28	.0009	165.27	.0042	-26.16	257.76

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	13	1	10.996	6544.670	23.4716	307.3440	10.99750	-.0370	106.5417	107.7232
SEPARATION	1.20	12.45	13	1	12.196	6567.834	21.3451	314.1555	10.97783	3.3930	109.2564	114.8355
RETRO	3.20	14.45	13	1	14.196	6709.471	17.2756	324.7894	10.86050	8.9843	112.9514	125.9708
EXIT SHA	18.20	29.45	13	1	29.196	10364.906	-8.6481	12.3775	8.72046	37.2226	117.2012	177.3192
IMPACT	3735.99	3747.24	15	15	26.988	398916.816	-26.1553	257.7616	2.23342	68.5676	277.3867	274.6952

FEB 13, 1966
93 DEGREES

SURVEYOR VIEW PERIODS

GHA	144.5528					EPS	127.6525							LOM	252.6585
SX	.073668	SY	-.894621	SZ	-.440711	DAO	-26.14924	RAO	274.70745	RM	400232.965	LAT	28.310600	LON	279.461800
C3	-.869471	ECC	.985724	SLR	12995.906	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.093190	NSY	-.892441	NSZ	-.441434	C3M	1.5554	VIM	2.6823	ZAE	142.139	R.T	.0000	B.R	-.0000
LATE	3.6758	LONE	5.3059	LATS	-1.5454	LONS	237.7949	LATI	-2.4642	LONI	327.9260	RSM	147.5464	ITAN	6.5639

LAUNCH DATE FEB 13,1966 BASE AZM 96.0 TF 62.306 ARRIVAL DATE FEB 15 1966 15 47 23.5

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
96.00	1 15 5.1	28.1	22.30	307.04	3.23	111.25	108.69	1 26 18.1	6549.8	10.99	1.60

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PRORE IN EARTH'S SHADOW															
INJECTION	.00	11.25	13	1	26.3												
SEPARATION	1.20	12.45	13	1	27.5												
RETRO	3.20	14.45	13	1	29.5												
RISE 72	4.83	16.08	13	1	31.1	79.15	-.2321	53.62	.0556	2891.1	-6.92	-.00	.1211	324.37	.0860	11.95	331.44
RISE 51	11.21	22.46	13	1	37.5	74.75	-.0959	28.62	-.0324	5538.4	-2.95	-.00	.0892	302.12	.0135	-.79	353.94
EXTM 72	11.24	22.49	13	1	37.5	329.06	-.1103	17.58	-.1381	2499.6	5.23	50.20	-.0000	49.98	.2712	-.83	354.01
RISE 61	11.26	22.51	13	1	37.6	3.91	-.1116	-49.69	.0056	5565.7	5.92	.01	.0093	182.53	-.0718	-.88	354.09
EXTM 61	16.26	27.51	13	1	42.6	340.30	-.0540	-46.91	.0098	7504.2	6.76	1.11	-.0000	166.69	-.0382	-7.90	5.86
EXIT SHA	17.54	28.79	13	1	43.8												
EXIT 72	17.54	28.79	13	1	43.8	308.28	-.0284	-9.06	-.0328	5064.0	7.28	38.88	-.0263	95.29	.0439	-9.32	8.30
EXIT 51	17.54	28.79	13	1	43.8	41.11	-.0755	12.00	-.0480	5264.7	1.45	35.00	.0865	308.27	.0199	-9.32	8.30
EXIT 61	17.54	28.79	13	1	43.8	336.48	-.0459	-46.18	.0092	8024.2	6.79	1.07	-.0009	163.96	-.0331	-9.32	8.30
SET 61	26.05	37.30	13	2	52.4	321.19	-.0194	-42.64	.0050	11445.7	6.52	-.00	-.0024	152.55	-.0150	-16.13	20.54
EXTM 51	38.50	49.75	13	2	4.8	355.07	-.0148	-18.64	-.0087	10795.7	5.30	81.56	-.0000	33.67	.1128	-21.29	30.84
EXTM 72	67.42	78.67	13	2	33.7	290.50	.0001	-27.16	-.0012	22744.1	4.85	21.80	.0000	116.16	.0013	-25.88	40.41
EXTM 51	87.74	98.99	13	2	54.0	341.92	.0000	-27.23	-.0009	25173.5	4.40	73.76	.0000	99.29	.0032	-27.12	42.10
RISE 61	114.29	125.54	13	3	20.6	307.60	.0018	-35.80	.0004	37531.9	3.98	-.00	.0012	140.01	.0009	-27.94	41.57
EXTM 51	219.64	230.89	13	5	5.9	.00	.0033	-29.11	-.0000	54619.6	3.29	86.63	-.0000	180.29	.0099	-28.76	27.68
EXTM 61	393.7	404.72	13	7	59.8	3.19	.0038	-32.45	.0001	89655.8	2.69	17.26	.0000	182.82	.0034	-28.65	352.75
EXTM 72	427.63	438.88	13	8	33.9	.44	.0040	-30.01	.0001	91226.9	2.61	67.89	-.0000	181.01	.0091	-28.60	345.27
RISE 11	599.43	610.68	13	11	25.7	294.39	.0040	-30.34	-.0000	122181.1	2.02	.00	.0026	128.19	.0023	-28.32	306.23
SET 51	623.40	634.65	13	11	49.7	90.00	.0038	-27.19	.0001	124213.1	2.61	11.45	-.0032	245.16	-.0013	-28.29	300.66
SET 61	636.04	647.29	13	12	2.3	60.19	.0039	-30.43	.0001	127188.4	2.49	-.00	-.0022	228.43	.0026	-28.27	297.71
SET 72	820.23	831.48	13	15	6.5	94.18	.0039	-27.66	.0001	150895.7	2.43	-.00	-.0034	242.05	-.0004	-28.01	254.20
RISE 42	830.12	841.37	13	15	16.4	254.99	.0040	-26.55	-.0001	151671.7	1.72	3.93	.0028	119.99	-.0021	-27.99	251.84
EXTM 11	870.04	881.29	13	15	56.3	.88	.0041	-30.05	.0000	154299.1	2.00	24.73	-.0000	180.84	.0040	-27.94	242.30
SET 11	1137.49	1148.74	13	20	23.8	67.04	.0041	-28.93	.0001	187345.6	2.09	-.00	-.0026	233.69	.0024	-27.64	177.76
EXTM 42	1255.61	1266.86	13	22	21.9	359.96	.0042	-27.27	.0000	193635.7	1.73	82.05	.0000	.31	-.0244	-27.52	149.02
RISE 51	1391.80	1402.25	14	0	37.3	270.00	.0041	-26.75	-.0000	212358.5	1.29	11.27	.0034	114.42	-.0014	-27.40	115.95
RISE 72	1546.02	1557.27	14	3	12.3	265.93	.0041	-27.04	-.0000	228686.3	1.19	-.01	.0036	117.32	-.0005	-27.27	77.96
RISE 61	1629.71	1640.96	14	4	36.0	297.16	.0041	-28.35	-.0000	236565.1	1.28	.00	.0025	128.46	.0027	-27.21	57.41
SET 42	1678.87	1690.12	14	5	25.2	105.00	.0041	-26.25	.0000	240697.3	1.85	3.75	-.0029	240.24	-.0022	-27.17	45.32
EXTM 51	1745.96	1757.21	14	6	32.3	358.84	.0042	-27.16	.0000	240939.9	1.50	88.24	.0022	144.18	.0981	-27.12	28.81
EXTM 61	1881.52	1892.77	14	8	47.8	.35	.0042	-28.34	.0000	256973.9	1.46	21.42	.0000	180.33	.0040	-27.03	359.41
EXTM 72	1921.42	1932.67	14	9	27.7	.11	.0042	-27.47	.0000	256824.2	1.45	70.43	-.0000	180.29	.0110	-27.01	345.56
RISE 11	2064.68	2075.93	14	11	51.0	291.83	.0042	-27.79	-.0000	274994.6	1.09	.00	.0028	124.79	.0024	-26.92	310.19
SET 51	2109.94	2121.19	14	12	36.2	90.00	.0041	-26.39	.0000	277552.2	1.76	11.13	-.0034	245.92	-.0014	-26.89	299.01
SET 61	2133.11	2144.36	14	12	59.4	63.47	.0042	-27.83	.0000	280703.5	1.66	-.00	-.0025	232.30	.0027	-26.88	293.28
SET 72	2295.68	2306.93	14	15	42.0	93.99	.0041	-26.60	.0000	293943.9	1.74	-.00	-.0036	243.12	-.0005	-26.79	253.06
RISE 42	2296.40	2307.65	14	15	42.7	255.00	.0041	-26.03	-.0000	293599.6	1.01	3.62	.0029	119.58	-.0022	-26.79	252.88
EXTM 11	2336.66	2347.91	14	16	23.0	.24	.0042	-27.86	.0000	294341.4	1.32	26.93	-.0000	180.24	.0042	-26.76	242.92
SET 11	2608.43	2619.68	14	20	54.7	68.56	.0042	-27.37	.0000	318262.7	1.57	.01	-.0028	235.75	.0024	-26.63	175.57
EXTM 42	2715.54	2726.79	14	22	41.8	359.98	.0042	-26.40	.0000	320040.4	1.23	81.18	-.0000	.15	-.0145	-26.58	149.00
RISE 51	2846.09	2857.34	15	0	52.4	270.00	.0041	-26.10	-.0000	334625.9	.84	11.01	.0034	113.81	-.0015	-26.52	116.59
RISE 72	2999.55	3010.80	15	3	25.9	266.06	.0042	-26.29	-.0000	346990.4	.74	-.00	.0037	116.56	-.0005	-26.45	78.45
RISE 61	3076.63	3087.88	15	4	42.9	295.75	.0042	-27.17	-.0000	352265.6	.86	.00	.0026	126.74	.0027	-26.42	59.21
SET 42	3134.02	3145.27	15	5	40.3	105.00	.0041	-25.77	.0000	355788.5	1.46	3.46	-.0030	240.62	-.0023	-26.40	44.88
EXTM 51	3198.04	3209.29	15	6	44.3	358.76	.0042	-26.38	.0000	354195.7	1.12	88.71	.0033	120.42	.0841	-26.37	28.90
EXTM 61	3331.40	3342.65	15	8	57.7	.17	.0042	-27.24	.0000	367083.4	1.13	22.52	-.0000	180.16	.0041	-26.33	355.59
EXTM 72	3371.38	3382.63	15	9	37.7	.08	.0042	-26.63	.0000	366218.4	1.13	71.28	-.0000	180.22	.0114	-26.31	345.60
RISE 11	3508.21	3519.46	15	11	54.5	290.96	.0042	-26.88	-.0000	381476.6	.83	.00	.0028	123.60	.0024	-26.26	311.38
SET 51	3559.09	3570.34	15	12	45.4	90.00	.0042	-25.88	.0000	383767.2	1.53	10.92	-.0035	246.40	-.0015	-26.24	298.64
SET 61	3585.90	3597.15	15	13	12.2	64.56	.0042	-26.92	.0000	386840.6	1.46	-.00	-.0026	233.63	.0027	-26.23	291.92
RISE 42	3739.59	3750.84	15	15	45.9	255.00	.0043	-25.60	-.0000	398687.3	1.84	3.35	.0031	119.24	-.0024	-26.16	253.18
IMPACT	3738.38	3749.63	15	15	44.7												
IMPC 42	3738.38	3749.63	15	15	44.7	254.69	.0043	-25.60	-.0000	398559.0	1.74	3.13	.0031	119.41	-.0024	-26.16	253.49
IMPC 72	3738.38	3749.63	15	15	44.7	93.19	.0043	-26.03	.0000	398837.8	2.50	.62	-.0038	243.80	-.0005	-26.16	253.49
IMPC 11	3738.38	3749.63	15	15	44.7	349.51	.0044	-26.97	.0000	396020.6	2.01	27.04	.0007	169.50	.0043	-26.16	253.49
SET 72	3741.07	3752.32	15	15	47.4	93.89	.0043	-26.02	.0000	399258.9	2.78	.00	-.0039	243.71	-.0005	-26.16	252.79

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	13	1	26.301	6549.851	22.2952	307.0405	10.99304	1.6045	108.6910	111.2563
SEPARATION	1.20	12.45	13	1	27.501	6595.536	19.9458	313.6724	10.95450	5.0204	111.1923	118.1891
RETRO	3.20	14.45	13	1	29.501	6772.729	15.6194	323.9244	10.80920	10.5355	114.4875	128.9425
EXIT SHA	17.54	28.79	13	1	43.841	10337.917	-9.3210	8.3019	8.73186	37.1248	117.3556	176.9149
IMPACT	3738.38	3749.63	15	15	44.683	398957.875	-26.1616	253.4918	2.23222	68.5027	277.6120	274.8612

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SURVEYOR VIEW PERIODS

GHA	144.5528					EPS	127.7636							LOM	249.1613
SX	.075785	SY	-.894407	SZ	-.440787	DAO	-26.15409	RAO	274.84321	RM	400265.672	LAT	28.310600	LON	279.461800
C3	-.871364	ECC	.985693	SLR	12995.699	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.095317	NSY	-.892183	NSZ	-.441502	C3M	1.5562	VIM	2.6824	ZAE	142.060	B.T	.0000	B.R	-.0000
LATE	3.6854	LONE	5.2948	LATS	-1.5455	LONS	237.6722	LATI	-2 '54	LONI	327.8707	RSM	147.5461	TTAN	6.5654
LAUNCH DATE	FEB 13.1966			BASE AZM	99.0		TF 62.344					ARRIVAL DATE	FEB 15 1966 16 1 53.0		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
99.00	1 26 32.7	28.1	21.15	306.64	5.68	113.73	110.81	1 37 47.7	6560.7	10.98	2.82

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	L.
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	13	1	37.8												
SEPARATION	1.20	12.45	13	1	39.0												
RETRO	3.20	14.45	13	1	41.0												
RISE 72	4.58	15.83	13	1	42.4	81.19	-.2001	47.84	.0357	2960.3	-7.22	-.00	.1242	318.45	.0624	10.80	329.16
EXTM 72	11.04	22.29	13	1	48.8	338.41	-.1310	13.20	-.1351	2372.5	4.98	59.92	-.0000	45.62	.3706	-2.26	351.40
RISE 51	11.14	22.39	13	1	48.9	76.98	-.0890	25.05	-.0349	5685.2	-2.77	.00	.0875	298.04	.0081	-2.42	351.67
RISE 61	13.42	24.67	13	1	51.2	356.46	-.0806	-49.70	.0075	6638.0	6.31	.00	.0050	177.71	-.0524	-5.91	357.41
EXIT SHA	17.05	28.30	13	1	54.8												
EXIT 72	17.05	28.30	13	1	54.8	314.27	-.0346	-11.89	-.0323	4776.5	7.25	44.82	-.0342	98.94	.0450	-10.39	4.93
EXIT 51	17.05	28.30	13	1	54.8	47.36	-.0737	9.65	-.0465	5413.0	1.20	31.92	.0857	301.31	.0108	-10.39	4.93
EXIT 61	17.05	28.30	13	1	54.8	342.57	-.0501	-47.88	.0084	8056.9	6.64	.53	.0005	168.41	-.0347	-10.39	4.93
EXTM 61	17.84	29.09	13	1	55.6	340.29	-.0456	-47.49	.0082	8373.2	6.65	.54	-.0000	166.83	-.0319	-11.22	6.36
SET 61	25.34	36.59	13	2	3.1	326.13	-.0216	-44.46	.0053	11338.9	6.46	-.00	-.0018	156.56	-.0162	-17.11	17.03
EXTM 51	40.81	52.06	13	2	18.6	357.48	-.0134	-21.65	-.0069	11628.3	5.24	85.31	-.0000	29.96	.1735	-23.11	29.33
EXTM 72	68.72	79.97	13	2	46.5	293.59	.0001	-28.68	-.0009	22997.4	4.80	24.44	.0000	117.98	.0010	-26.96	37.78
RISE 61	104.46	115.71	13	3	22.3	309.66	.0015	-37.03	.0003	35172.0	4.11	-.00	.0011	142.08	.0006	-28.52	39.24
EXTM 51	203.78	215.03	13	5	1.6	.03	.0031	-29.76	.0000	51539.5	3.37	85.98	-.0000	180.49	.0335	-29 32	27.65
EXTM 61	382.81	394.06	13	8	.6	3.63	.0038	-32.96	.0002	88045.4	2.72	16.73	.0000	183.18	.0034	-29.08	352.35
EXTM 72	415.74	426.99	13	8	33.5	.54	.0040	-30.48	.0001	89439.5	2.63	67.42	-.0000	181.21	.0089	-29.01	345.17
RISE 11	589.49	600.74	13	11	27.3	294.77	.0040	-30.70	-.0000	120852.0	2.04	.00	.0025	128.67	.0023	-28.65	309.83
SET 51	611.56	622.81	13	11	49.4	90.00	.0038	-27.51	.0001	122629.7	2.63	11.57	-.0032	244.87	-.0013	-28.61	300.71
SET 61	622.25	633.50	13	12	.0	89.71	.0039	-30.79	.0001	125364.6	2.51	-.00	-.0021	227.88	.0026	-28.59	298.22
SET 72	808.93	820.18	13	15	6.7	94.22	.0039	-27.92	.0001	149543.8	2.44	-.00	-.0034	241.79	-.0004	-28.27	254.19
RISE 42	818.86	830.11	13	15	16.7	254.99	.0040	-26.79	-.0001	150313.9	1.73	4.08	.0028	120.19	-.0021	-28.25	251.82
EXTM 11	859.07	870.32	13	15	56.9	.97	.0041	-30.33	.0001	153043.7	2.01	24.46	-.0000	180.92	.0039	-28.19	242.21
SET 11	1125.39	1136.64	13	20	23.2	66.83	.0041	-29.14	.0001	186062.1	2.10	-.00	-.0026	233.42	.0024	-27.84	177.98
EXTM 42	1244.54	1255.79	13	22	22.3	359.98	.0042	-27.45	.0000	192503.9	1.73	82.23	-.0000	.20	-.0220	-27.70	149.00
RISE 51	1379.93	1391.18	14	0	37.7	270.00	.0041	-26.91	-.0000	211264.0	1.30	11.33	.0034	114.57	-.0014	-27.56	115.94
RISE 72	1534.87	1546.12	14	3	12.7	265.91	.0041	-27.18	-.0000	227632.8	1.19	-.01	.0036	117.46	-.0005	-27.41	77.98
RISE 61	1619.33	1630.58	14	4	37.1	297.33	.0041	-28.48	-.0000	235604.0	1.28	.00	.0025	128.66	.0027	-27.34	57.24
SET 42	1667.76	1679.01	14	5	25.6	105.00	.0041	-26.38	.0000	239671.0	1.86	3.83	-.0029	240.14	-.0022	-27.30	49.33
EXTM 51	1734.21	1745.46	14	6	32.0	358.67	.0042	-27.29	.0000	239879.9	1.50	88.05	.0023	142.77	.0867	-27.25	28.98
EXTM 61	1870.58	1881.83	14	8	48.4	.38	.0042	-28.46	.0000	256023.5	1.46	21.30	.0000	180.36	.0040	-27.14	355.38
EXTM 72	1910.39	1921.64	14	9	28.2	.12	.0042	-27.58	.0000	255866.4	1.45	70.32	-.0000	180.31	.0110	-27.11	345.56
RISE 11	2054.02	2065.27	14	11	51.8	291.92	.0042	-27.88	-.0000	274088.3	1.09	.00	.0028	124.92	.0024	-27.01	310.09
SET 51	2098.87	2110.12	14	12	36.7	90.00	.0041	-26.48	.0000	276614.3	1.76	11.16	-.0034	245.84	-.0014	-26.98	299.01
SET 61	2121.60	2132.85	14	12	59.4	63.36	.0042	-27.92	.0000	279736.4	1.66	-.00	-.0025	232.16	.0027	-26.97	293.39
SET 72	2284.67	2295.92	14	15	42.5	94.00	.0041	-26.68	.0000	293042.1	1.74	-.00	-.0036	243.05	-.0005	-26.86	253.05
RISE 42	2285.37	2296.62	14	15	43.2	255.00	.0041	-26.10	-.0000	298691.5	1.01	3.66	.0029	119.64	-.0022	-26.86	252.88
EXTM 11	2325.70	2336.95	14	16	23.5	.26	.0042	-27.94	.0000	293456.4	1.33	26.86	-.0000	180.26	.0042	-26.84	242.90
SET 11	2597.16	2608.41	14	20	55.0	68.50	.0042	-27.43	.0000	317379.6	1.57	.01	-.0028	235.67	.0024	-26.68	175.63
EXTM 42	2704.50	2715.75	14	22	42.3	359.98	.0042	-26.46	.0000	319185.4	1.24	81.24	-.0000	.16	-.0154	-26.63	149.00
RISE 51	2835.06	2846.31	15	0	52.9	270.00	.0041	-26.14	-.0000	333784.2	.84	11.03	.0034	113.85	-.0015	-26.56	116.59
RISE 72	2988.66	2999.91	15	3	26.5	266.06	.0042	-26.33	-.0000	346231.1	.74	.00	.0037	116.60	-.0005	-26.48	78.45
RISE 61	3065.90	3077.15	15	4	43.7	295.79	.0042	-27.21	-.0000	351513.4	.86	.00	.0026	126.79	.0027	-26.45	59.17
SET 42	3123.10	3134.35	15	5	40.9	105.00	.0041	-25.80	.0000	355018.2	1.46	3.48	-.0030	240.60	-.0023	-26.43	44.89
EXTM 51	3187.61	3198.86	15	6	45.4	358.89	.0042	-26.41	.0000	353456.4	1.12	88.80	.0032	124.29	.1003	-26.40	28.78
EXTM 61	3320.50	3331.75	15	8	58.3	.18	.0042	-27.26	.0000	366301.8	1.12	22.50	-.0000	180.17	.0041	-26.35	355.58
EXTM 72	3360.45	3371.70	15	9	38.2	.08	.0042	-26.65	.0000	369427.3	1.12	71.25	-.0000	180.23	.0115	-26.33	343.99
RISE 11	3497.34	3508.59	15	11	55.1	290.98	.0042	-26.90	-.0000	380659.4	.82	.00	.0028	123.63	.0024	-26.28	311.36
SET 51	3548.13	3559.38	15	12	45.9	90.00	.0042	-25.89	.0000	382924.3	1.53	10.93	-.0035	246.38	-.0015	-26.26	298.64
SET 61	3574.86	3586.11	15	13	12.7	64.54	.0042	-26.94	.0000	385979.3	1.45	-.00	-.0026	233.60	.0027	-26.25	291.94
RISE 42	3728.93	3740.18	15	15	46.7	255.00	.0042	-25.62	-.0000	397310.6	1.30	3.36	.0030	119.25	-.0023	-26.18	253.17
SET 72	3730.42	3741.67	15	15	48.2	93.89	.0042	-26.04	.0000	397831.3	2.09	.00	-.0038	243.69	-.0005	-26.17	252.79
IMPACT	3740.62	3751.87	15	15	58.4												
IMPC 42	3740.62	3751.87	15	15	58.4	257.99	.0043	-25.63	-.0000	398329.9	1.73	5.52	.0031	117.63	-.0023	-26.17	250.18
IMPC 72	3740.62	3751.87	15	15	58.4	96.50	.0043	-26.01	.0000	399199.5	2.50	-2.32	-.0038	243.34	-.0006	-26.17	250.18
IMPC 11	3740.62	3751.87	15	15	58.4	352.87	.0044	-26.97	.0000	396014.9	2.03	27.45	.0005	172.84	.0044	-26.17	250.18

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION	.00	11.25	13	1	37.794	6560.767	21.1423	306.6471	10.98376	2.8200	110.8112	113.7441
SEPARATION	1.20	12.45	13	1	38.994	6622.868	18.5846	313.0835	10.93162	6.2159	113.1034	120.4813
RETRO	3.20	14.45	13	1	40.994	6825.719	14.0068	322.9836	10.76676	11.6648	116.0317	130.8827
EXIT SHA	17.05	28.30	13	1	54.844	10317.245	-10.3942	4.9289	8.74089	37.0495	117.5781	176.3002
IMPACT	3740.62	3751.87	15	15	58.411	398992.742	-26.1666	250.1795	2.22985	68.2651	277.9302	274.9904

FEB 13, 1966
99 DEGREES

SURVEY OR VIEW PERIODS

GHA	144.5528					EPS	127.8628							LOM	246.0384
SX	.077674	SY	-.894212	SZ	-.440853	DAO	-26.15931	RAO	274.96443	RM	400294.797	LAT	28.310600	LON	279.461800
C3	-.875371	ECC	.985627	SLR	12995.265	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	575.00000	POL	-.0
NSX	.097238	NSY	-.891945	NSZ	-.441565	C3M	1.5560	VIM	2.6824	ZAE	141,930	B.T	.0000	B.R	-.0000
LATE	3.6957	LONE	5.4035	LATS	-1.5455	LONS	237.6811	LATI	-2.9455	LONI	327.8952	RSM	147.5458	TTAN	6.5668

-LAUNCH DATE FEB 13,1966 BASE AZM 102.0 TF 62.411 ARRIVAL DATE FEB 15 1966 16 14 49.5

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	1 35 15.6	28.1	20.02	306.17	7.51	115.45	112.91	1 46 30.6	6572.6	10.97	3.73

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW															
INJECTION		.00	11.25	13	1	46.5												
SEPARATION		1.20	12.45	13	1	47.7												
RETRO		3.20	14.45	13	1	49.7												
RISE	72	4.40	15.65	13	1	50.9	82.66	-.1787	42.65	.0168	3016.9	-7.39	-.01	.1260	313.16	.0411	9.52	327.23
EXTM	72	10.92	22.17	13	1	57.4	346.61	-.1462	7.34	-.1282	2298.2	4.81	69.74	-.0000	41.54	.5588	-3.90	349.21
RISE	51	11.10	22.35	13	1	57.6	78.98	-.0835	21.63	-.0373	5801.9	-2.62	.00	.0861	294.15	.0033	-4.19	349.68
EXIT	SHA	16.62	27.87	13	2	3.1												
EXIT	72	16.62	27.87	13	2	3.1	319.84	-.0415	-15.41	-.0308	4543.8	7.22	50.02	-.0430	104.59	.0410	-11.70	1.97
EXIT	51	16.62	27.87	13	2	3.1	52.70	-.0719	7.10	-.0458	5536.1	.99	29.21	.0847	295.26	.0036	-11.70	1.97
EXIT	61	16.62	27.87	13	2	3.1	348.04	-.0542	-49.68	.0074	8131.4	6.50	-.53	.0018	172.29	-.0358	-11.70	1.97
EXTM	51	40.99	52.24	13	2	27.5	.89	-.0138	-23.95	-.0062	11774.1	5.20	88.04	.0108	335.59	.2624	-24.58	27.11
EXTM	72	70.06	81.31	13	2	56.6	295.99	.0001	-30.37	-.0007	23299.3	4.77	26.36	.0000	120.06	.0008	-28.24	35.74
RISE	61	102.30	113.55	13	3	28.8	311.82	.0013	-38.24	.0006	34701.0	4.14	-.00	.0011	144.17	.0005	-29.48	37.16
EXTM	51	191.42	202.67	13	4	57.9	.10	.0030	-30.62	.0000	49083.4	3.44	85.11	-.0000	181.00	.0296	-30.06	27.60
EXTM	61	375.53	386.78	13	8	2.0	4.11	.0038	-33.56	.0002	86963.0	2.73	16.11	.0000	183.57	.0033	-29.62	351.90
EXTM	72	407.07	418.32	13	8	33.6	.67	.0039	-31.05	.0001	88128.8	2.65	66.84	-.0000	18..45	.0086	-29.52	345.06
RISE	11	582.83	594.08	13	11	29.3	295.23	.0040	-31.13	.0000	119951.1	2.05	.00	.0025	129.25	.0023	-29.06	305.35
SET	51	602.71	613.96	13	11	49.2	90.00	.0038	-27.90	.0001	121420.5	2.64	11.73	-.0031	244.50	-.0013	-29.01	300.75
SET	61	610.98	622.23	13	11	57.5	59.13	.0039	-31.23	.0001	123846.7	2.52	-.00	-.0021	227.21	.0026	-28.99	298.83
SET	72	800.59	811.84	13	15	7.1	94.28	.0039	-28.24	.0001	148524.8	2.45	-.01	-.0034	241.47	-.0004	-28.59	254.15
RISE	42	810.49	821.74	13	15	17.0	254.99	.0040	-27.11	-.0001	149273.6	1.74	4.27	.0028	120.43	-.0021	-28.57	251.80
EXTM	11	851.06	862.31	13	15	57.6	1.08	.0041	-30.65	.0001	152117.8	2.02	24.13	-.0000	181.02	.0039	-28.50	242.11
SET	11	1115.95	1127.20	13	20	22.5	66.58	.0041	-29.40	.0001	185029.3	2.10	-.00	-.0026	233.08	.0024	-28.08	178.25
EXTM	42	1236.17	1247.42	13	22	22.7	359.96	.0042	-27.68	.0000	191613.1	1.74	82.46	-.0000	.28	-.0249	-27.92	149.02
RISE	51	1371.66	1382.91	14	0	38.2	270.00	.0041	-27.10	-.0000	210406.1	1.30	11.41	.0034	114.75	-.0014	-27.76	115.93
RISE	72	1526.49	1537.74	14	3	13.0	265.88	.0041	-27.35	-.0000	226798.0	1.19	-.01	.0036	117.63	-.0005	-27.59	78.00
RISE	61	1611.89	1623.14	14	4	38.4	297.54	.0041	-28.65	-.0000	234869.0	1.28	.00	.0025	128.91	.0027	-27.50	57.03
SET	42	1659.45	1670.70	14	5	26.0	105.00	.0041	-26.53	.0000	238850.9	1.86	3.92	-.0029	240.02	-.0022	-27.45	45.33
EXTM	51	1725.49	1736.74	14	6	32.0	358.56	.0042	-27.44	.0000	239042.3	1.50	87.87	.0023	143.18	.0797	-27.39	29.08
EXTM	61	1862.44	1873.69	14	8	49.0	.42	.0042	-28.59	.0000	255266.4	1.46	21.17	.0000	180.39	.0040	-27.27	355.34
EXTM	72	1902.15	1913.40	14	9	28.7	.13	.0042	-27.71	.0000	255095.1	1.45	70.19	-.0000	180.34	.0109	-27.24	345.55
RISE	11	2046.22	2057.47	14	11	52.7	292.04	.0042	-28.00	-.0000	273361.0	1.10	.00	.0028	125.07	.0024	-27.12	309.98
SET	51	2090.57	2101.82	14	12	37.1	90.00	.0041	-26.58	.0000	275844.6	1.76	11.20	-.0034	245.74	-.0014	-27.09	296.02
SET	61	2112.77	2124.02	14	12	59.3	63.22	.0042	-28.03	.0000	27892..4	1.66	-.00	-.0025	232.00	.0027	-27.07	293.53
SET	72	2276.44	2287.69	14	15	43.0	94.02	.0041	-26.77	.0001	292295.0	1.74	-.00	-.0036	242.95	-.0005	-26.95	253.04
RISE	42	2277.11	2288.36	14	15	43.6	255.00	.0041	-26.20	-.0000	291935.8	1.01	3.72	.0029	119.71	-.0022	-26.95	252.88
EXTM	11	2317.51	2328.76	14	16	24.0	.28	.0042	-28.03	.0000	292724.6	1.33	26.76	-.0000	180.28	.0042	-26.93	242.87
SET	11	2588.60	2599.85	14	20	55.1	68.44	.0042	-27.51	.0000	316622.5	1.57	.00	-.0028	235.58	.0024	-26.75	175.69
EXTM	42	2696.21	2707.46	14	22	42.7	359.98	.0042	-26.52	.0000	318451.5	1.24	81.30	-.0000	.18	-.0156	-26.69	149.00
RISE	51	2826.79	2838.04	15	0	53.3	270.00	.0041	-26.19	-.0000	333053.8	.84	11.05	.0034	113.90	-.0015	-26.61	116.59
RISE	72	2980.35	2991.60	15	3	26.9	266.05	.0042	-26.37	-.0000	345506.7	.74	.00	.0037	116.64	-.0005	-26.53	78.45
RISE	61	3057.81	3069.06	15	4	44.3	295.84	.0042	-27.25	-.0000	350800.4	.86	.00	.0026	126.86	.0027	-26.49	59.11
SET	42	3114.80	3126.05	15	5	41.3	105.00	.0041	-25.84	.0000	354285.0	1.46	3.50	-.0030	240.57	-.0023	-26.46	44.89
EXTM	51	3179.90	3191.15	15	6	46.4	359.04	.0042	-26.45	.0000	352760.6	1.12	88.88	.0030	129.49	.1221	-26.44	28.63
EXTM	61	3312.28	3323.53	15	8	58.8	.19	.0042	-27.29	.0000	365563.0	1.12	22.47	-.0000	180.18	.0041	-26.38	355.56
EXTM	72	3352.19	3363.44	15	9	38.7	.08	.0042	-26.68	.0000	364679.0	1.12	71.23	-.0000	180.24	.0115	-26.36	345.59
RISE	11	3489.17	3500.42	15	11	55.7	291.00	.0042	-26.92	-.0000	379891.8	.82	.00	.0028	123.66	.0024	-26.30	311.33
SET	51	3539.87	3551.12	15	12	46.4	90.00	.0042	-25.91	.0000	382134.4	1.52	10.94	-.0035	246.37	-.0015	-26.28	298.64
SET	61	3566.52	3577.77	15	13	13.0	64.51	.0042	-26.96	.0000	385173.5	1.44	-.00	-.0026	233.57	.0027	-26.27	291.97
RISE	42	3720.86	3732.11	15	15	47.4	255.00	.0042	-25.63	-.0000	396227.4	1.14	3.37	.0030	119.26	-.0023	-26.19	253.17
SET	72	3722.33	3733.58	15	15	48.8	93.89	.0042	-26.05	.0000	396731.8	1.90	.00	-.0038	243.68	-.0005	-26.19	252.80
IMPACT		3744.64	3755.89	15	16	11.2												
IMPC	42	3744.64	3755.89	15	16	11.2	261.05	.0043	-25.65	-.0000	398111.9	1.72	7.76	.0032	116.01	-.0023	-26.17	247.10
IMPC	11	3744.64	3755.89	15	16	11.2	355.99	.0044	-26.98	.0000	396021.1	2.04	27.70	.0003	175.96	.0044	-26.17	247.10

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	13	1	46.510	6572.939	20.0105	306.1898	10.97357	3.7256	112.9152	115.4715
SEPARATION		1.20	12.45	13	1	47.710	6647.027	17.2527	312.4295	10.91141	7.1028	115.0079	122.0121
RETRO		3.20	14.45	13	1	49.710	6868.624	12.4233	322.0066	10.73264	12.4970	117.5974	132.0905
EXIT	SHA	16.62	27.87	13	2	3.134	10283.233	-11.6951	1.9653	8.75497	36.9246	117.8932	175.4148
IMPACT		3744.64	3755.89	15	16	11.153	399022.594	-26.1714	247.1049	2.22831	68.1884	278.4491	275.1099

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SURVEYOR VIEW PERIODS

GHA	144.5528						EPS 127.9309										LOM	243.2631	
SX	.079353	SY	-.894036	SZ	-.440910	DAO	-26.16198	RAO	275.07215	RM	400320.633	LAT	28.310600	LON	279.461800				
C3	-.880386	ECC	.985545	SLR	12994.732	RCA	6544.6650	LTA	-20.0000	GTA	20.00		TB	675.00000	POL	-.0			
NSX	.098959	NSY	-.891727	NSZ	-.441623	C3M	1.5557	VIM	2.6823	ZAE	141.766	B.T	.0000	B.R	-.0000				
LATE	3.7049	LONE	5.2764	LATS	-1.5456	LONS	237.4654	LATI	-3.2533	LONI	327.6568	RSM	147.5455	TTAN	6.5684				
LAUNCH DATE	FEB 13.1966			BASE AZM	105.0		TF 62.492					ARRIVAL DATE FEB 15 1966 16 26 19.5							

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	1 41 57.2	28.1	18.91	305.65	8.88	116.61	115.00	1 53 12.2	6583.9	10.96	4.41

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW															
INJECTION		.00	11.25	13	1	53.2												
SEPARATION		1.20	12.45	13	1	54.4												
RETRO		3.20	14.45	13	1	56.4												
RISE	72	4.69	15.54	13	1	57.5	83.81	-.1630	37.84	-.0011	3064.4	-7.46	.00	.1269	308.27	.0213	8.15	325.58
EXTM	72	10.89	22.14	13	2	4.1	353.65	-.1558	.38	-.1185	2278.2	4.73	79.58	-.0000	37.67	1.0821	-5.73	347.35
RISE	51	11.09	22.34	13	2	4.3	80.84	-.0788	18.28	-.0398	5898.5	-2.48	.00	.0847	290.38	-.0012	-6.07	347.88
EXIT	SHA	16.26	27.51	13	2	9.5												
EXIT	72	16.26	27.51	13	2	9.5	325.13	-.0489	-19.49	-.0285	4363.1	7.17	54.29	-.0517	112.58	.0282	-13.16	359.31
EXIT	51	16.26	27.51	13	2	9.5	57.39	-.0701	4.43	-.0458	5643.8	.81	26.77	.0836	289.83	-.0024	-13.16	359.31
EXIT	61	16.26	27.51	13	2	9.5	353.07	-.0580	-51.50	.0062	8238.9	6.38	-1.94	.0028	175.69	-.0366	-13.16	359.31
EXTM	51	44.94	56.19	13	2	38.1	.84	-.0114	-27.56	-.0042	13076.2	5.14	88.03	-.0000	202.20	-.3195	-26.96	27.12
EXTM	72	71.03	82.28	13	3	4.2	297.85	.0001	-32.15	-.0004	23525.1	4.74	27.71	.0000	122.28	.0005	-29.64	34.09
EXTM	51	95.03	106.28	13	3	28.2	350.19	.0002	-31.55	-.0003	27202.0	4.28	79.62	.0000	126.28	.0019	-30.50	35.55
RISE	61	105.95	117.20	13	3	39.2	313.91	.0014	-39.34	.0007	35688.4	4.08	-.00	.0012	146.14	.0005	-30.70	35.39
EXTM	51	182.23	193.48	13	4	55.4	.26	.0029	-31.65	.0001	47226.2	3.49	84.08	-.0000	182.12	.0235	-30.95	27.46
EXTM	61	370.82	382.07	13	8	4.0	4.65	.0038	-34.21	.0002	86288.1	2.74	15.42	.0000	183.98	.0033	-30.23	351.40
EXTM	72	400.82	412.07	13	8	34.0	.82	.0039	-31.70	.0001	87183.8	2.66	66.19	.0000	181.72	.0083	-30.11	344.92
RISE	11	578.66	589.91	13	11	31.9	295.75	.0040	-31.61	.0000	119378.8	2.05	.01	.0025	129.91	.0023	-29.52	304.82
SET	51	596.07	607.32	13	11	49.3	90.00	.0038	-28.35	.0001	120494.8	2.64	11.90	-.0031	244.07	-.0012	-29.46	300.79
SET	61	601.53	612.78	13	11	54.7	58.45	.0039	-31.73	.0002	122557.1	2.53	-.00	-.0020	226.46	.0026	-29.45	299.52
SET	72	794.43	805.68	13	15	7.6	94.35	.0039	-28.60	.0001	147757.3	2.45	-.01	-.0034	241.10	-.0004	-28.96	254.11
RISE	42	804.23	815.48	13	15	17.4	94.99	.0040	-27.46	-.0000	148473.4	1.75	4.49	.0028	120.72	-.0021	-28.94	251.78
EXTM	11	845.23	856.48	13	15	58.4	1.20	.0041	-31.02	.0001	151441.0	2.02	23.77	.0000	181.13	.0039	-28.85	248.00
SET	11	1108.46	1119.71	13	20	21.7	66.29	.0041	-29.68	.0001	184187.7	2.10	-.00	-.0026	232.70	.0024	-28.36	178.55
EXTM	42	1229.84	1241.09	13	22	23.0	359.94	.0042	-27.93	.0000	190913.7	1.74	82.71	.0000	.42	-.0273	-28.17	149.03
RISE	51	1365.46	1376.71	14	0	38.7	270.00	.0041	-27.32	-.0000	209730.1	1.30	11.49	.0034	114.95	-.0014	-27.98	119.92
RISE	72	1520.15	1531.40	14	3	13.3	265.84	.0041	-27.54	-.0000	226133.1	1.20	-.01	.0036	117.83	-.0005	-27.78	78.02
RISE	61	1606.59	1617.84	14	4	39.8	297.77	.0041	-28.83	-.0000	234309.3	1.29	.00	.0024	129.18	.0027	-27.68	56.80
SET	42	1653.18	1664.43	14	5	26.4	105.00	.0041	-26.70	.0001	238192.3	1.86	4.13	-.0029	239.89	-.0022	-27.63	45.34
EXTM	51	1719.10	1730.35	14	6	32.3	358.53	.0042	-27.61	.0000	238389.2	1.50	87.71	.0022	145.12	.0759	-27.56	29.12
EXTM	61	1856.36	1867.61	14	8	49.6	.46	.0042	-28.75	.0000	254662.6	1.46	21.02	.0000	180.43	.0039	-27.42	355.30
EXTM	72	1895.94	1907.19	14	9	29.1	.14	.0042	-27.86	.0000	254472.6	1.45	70.04	-.0000	180.36	.0108	-27.38	348.54
RISE	11	2040.48	2051.73	14	11	53.7	292.16	.0042	-28.13	-.0000	272777.8	1.10	.00	.0028	125.24	.0024	-27.25	309.85
SET	51	2084.30	2095.55	14	12	37.5	90.00	.0041	-26.71	.0001	275211.5	1.76	11.25	-.0034	245.62	-.0014	-27.21	299.02
SET	61	2105.89	2117.14	14	12	59.1	63.07	.0042	-28.16	.0000	278251.0	1.66	-.00	-.0025	231.82	.0027	-27.19	293.68
SET	72	2270.23	2281.48	14	15	43.4	94.03	.0041	-26.87	.0001	291676.1	1.74	-.00	-.0036	242.85	-.0005	-27.06	253.03
RISE	42	2270.86	2282.11	14	15	44.1	255.00	.0041	-26.30	-.0000	291306.5	1.01	3.78	.0029	119.79	-.0022	-27.06	252.87
EXTM	11	2311.35	2322.60	14	16	24.6	.31	.0042	-28.13	.0000	292120.3	1.33	26.66	-.0000	180.31	.0042	-27.03	248.85
SET	11	2582.01	2593.26	14	20	55.2	68.36	.0042	-27.59	.0000	315975.7	1.57	.00	-.0028	235.47	.0024	-26.83	178.77
EXTM	42	2689.92	2701.17	14	22	43.1	359.98	.0042	-26.59	.0000	317825.0	1.24	81.37	-.0010	.17	-.0181	-26.76	149.00
RISE	51	2820.51	2831.76	15	0	53.7	270.00	.0041	-26.25	-.0000	332424.8	.84	11.07	.0034	113.95	-.0015	-26.67	116.58
RISE	72	2974.01	2985.26	15	3	27.2	266.04	.0041	-26.42	-.0000	344642.5	.77	-.00	.0037	116.70	-.0005	-26.58	78.46
RISE	61	3051.75	3063.00	15	4	45.0	295.89	.0042	-27.29	-.0000	350188.5	.85	.00	.0025	126.92	.0027	-26.54	59.06
SET	42	3108.51	3119.76	15	5	41.7	105.00	.0041	-25.88	.0000	353649.5	1.46	3.52	-.0030	240.54	-.0023	-26.51	44.89
EXTM	51	3174.21	3185.46	15	6	47.4	359.19	.0042	-26.49	.0000	352161.8	1.12	80.95	.0027	135.77	.1477	-26.47	28.49
EXTM	61	3306.07	3317.32	15	8	59.3	.21	.0042	-27.33	.0000	364916.8	1.12	22.44	-.0000	180.20	.0041	-26.41	355.55
EXTM	72	3345.93	3357.18	15	9	39.1	.09	.0042	-26.71	.0000	364022.1	1.12	71.20	-.0000	180.25	.0114	-26.39	348.59
RISE	11	3483.00	3494.25	15	11	56.2	291.02	.0042	-26.95	-.0000	379213.3	.81	.00	.0028	123.69	.0024	-26.32	311.31
SET	51	3533.60	3544.85	15	12	46.8	90.00	.0042	-25.93	.0000	381433.6	1.52	10.95	-.0035	246.35	-.0015	-26.30	298.64
SET	61	3560.16	3571.41	15	13	13.4	64.49	.0042	-26.98	.0000	384457.4	1.43	-.00	-.0026	233.54	.0027	-26.29	291.99
RISE	42	3714.71	3725.96	15	15	47.9	255.00	.0042	-25.64	-.0000	395321.2	1.06	3.38	.0030	119.27	-.0023	-26.20	253.17
SET	72	3716.20	3727.45	15	15	49.4	93.90	.0042	-26.06	.0000	395820.6	1.81	-.00	-.0037	243.67	-.0005	-26.20	252.79
IMPACT		3749.51	3760.76	15	16	22.7												
IMPC	42	3749.51	3760.76	15	16	22.7	263.84	.0043	-25.67	-.0000	397913.0	1.72	9.83	.0032	114.57	-.0022	-26.18	244.31
IMPC	11	3749.51	3760.76	15	16	22.7	358.82	.0044	-26.99	.0000	396039.1	2.06	27.80	.0001	178.81	.0044	-26.18	244.31
EXTM	11	3750.68	3761.93	15	16	23.9	359.13	.0044	-26.98	.0000	396185.4	2.16	27.80	.0001	179.12	.0044	-26.17	244.01

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	13	1	53.204	6584.485	18.8988	305.6810	10.96387	4.4085	115.0100	116.6409
SEPARATION		1.20	12.45	13	1	54.404	6667.402	15.9467	311.7273	10.89437	7.7692	116.9139	122.9880
RETRO		3.20	14.45	13	1	56.404	6902.920	10.8637	321.0052	10.70550	13.1196	119.1885	132.7673
EXIT	SHA	16.26	27.51	13	2	9.459	10242.651	-13.1649	359.3079	8.77221	36.7743	118.2955	174.3489
IMPACT		3749.51	3760.76	15	16	22.715	399050.488	-26.1759	244.3150	2.22633	68.0644	279.0328	275.2185

SURVEYOR VIEW PERIODS

GHA	144.5528					EPS	128.0332							LOM	240.6693
SX	.080921	SY	-.893870	SZ	-.440963	DAO	-26.16534	RAO	275.17282	RM	400344.719	LAT	28.310600	LON	279.461800
C3	-.886271	ECC	.985448	SLR	12994.099	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.100578	NSY	-.891518	NSZ	-.441678	C3M	1.5555	VIM	2.6823	ZAE	141.569	B.T	.0000	B.R	-.0000
LATE	3.7135	LONE	5.3666	LATS	-1.5456	LONS	237.4728	LATI	-3.5841	LONI	327.6094	RSM	147.5453	TTAN	6.5700

LAUNCH DATE FEB 13,1966 BASE AZM 108.0 TF 62.586 ARRIVAL DATE FEB 15 1966 16 37 4.4

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	1 47 13.0	28.1	17.83	305.08	9.94	117.36	117.09	1 58 28.0	6593.8	10.96	4.93

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PRORE IN EARTH'S SHADOW														
INJECTION	.00	11.25	13	1	58.5												
SEPARATION	1.20	12.45	13	1	59.7												
RETRO	3.20	14.45	13	2	1.7												
RISE 72	4.21	15.46	13	2	2.7	84.77	-.1503	33.26	-.0183	3108.2	-7.44	.01	.1270	303.62	.0027	6.70	324.12
EXTM 72	10.43	21.68	13	2	8.9	4.72	-.1789	-3.82	-.1220	2183.7	3.99	83.78	.2146	310.81	.2407	-6.87	344.46
RISE 51	11.11	22.36	13	2	9.6	82.59	-.0747	14.98	-.0423	5983.8	-2.35	.00	.0835	286.68	-.0054	-8.03	346.23
EXIT SHA	15.91	27.16	13	2	14.4												
EXIT 72	15.91	27.16	13	2	14.4	330.39	-.0573	-23.95	-.0258	4219.9	7.10	57.44	-.0584	122.97	.0031	-14.72	356.82
EXIT 51	15.91	27.16	13	2	14.4	61.75	-.0684	1.78	-.0463	5743.6	.66	24.37	.0823	284.85	-.0075	-14.72	356.82
EXIT 61	15.91	27.16	13	2	14.4	357.89	-.0619	-53.31	.0047	8361.4	6.28	-3.57	.0037	178.74	-.0371	-14.72	356.82
EXTM 51	47.15	58.40	13	2	45.6	1.80	-.0106	-30.50	-.0031	13823.6	5.09	84.98	-.0000	198.04	-.1106	-29.00	26.47
EXTM 72	71.91	83.16	13	3	10.4	299.30	.0000	-34.01	-.0002	23748.5	4.72	28.60	.0000	124.58	.0002	-31.14	32.77
EXTM 51	95.46	106.71	13	3	33.9	351.82	.0001	-33.17	-.0001	23356.7	4.27	28.71	.0000	138.18	.0009	-31.81	34.23
RISE 61	113.03	124.28	13	3	51.5	315.92	.0016	-40.33	.0007	25520.7	3.98	-.00	.0013	147.97	.0007	-32.00	33.81
EXTM 51	175.54	186.79	13	4	54.0	.49	.0027	-32.81	.0002	27264.0	3.53	82.92	.0000	183.33	.0188	-31.94	27.26
EXTM 61	368.02	379.27	13	8	6.5	5.21	.0038	-34.91	.0002	28219.2	2.75	14.70	.0000	184.42	.0032	-30.89	350.87
EXTM 72	396.38	407.63	13	8	34.9	.99	.0039	-32.40	.0001	28517.9	2.67	65.49	.0000	182.02	.0080	-30.76	344.76
RISE 11	576.19	587.44	13	11	34.7	296.30	.0040	-32.12	.0000	119033.6	2.06	-.00	.0025	130.60	.0023	-30.01	304.26
SET 51	591.06	602.31	13	11	49.5	90.00	.0038	-28.85	.0001	119778.6	2.05	[illegible]	-.0031	243.61	-.0012	-29.96	300.82
SET 61	593.40	604.65	13	11	51.9	57.71	.0039	-32.26	.0002	121432.6	2.03	[illegible]	-.0020	225.63	.0026	-29.95	300.28
SET 72	789.85	801.10	13	15	8.3	94.42	.0039	-28.99	.0001	147172.8	2.49	-.01	-.0034	240.70	-.0004	-29.35	254.06
RISE 42	799.53	810.78	13	15	18.0	254.99	.0040	-27.85	-.0000	147848.4	1.75	4.73	.0028	121.03	-.0021	-29.33	251.76
EXTM 11	840.98	852.23	13	15	59.4	1.33	.0041	-31.40	.0001	150945.3	2.02	23.38	.0000	181.24	.0039	-29.22	241.87
SET 11	1102.38	1113.63	13	20	20.8	65.97	.0041	-29.99	.0001	183483.6	2.10	-.00	-.0026	232.29	.0024	-28.65	178.87
EXTM 42	1225.05	1236.30	13	22	23.5	359.94	.0042	-28.21	.0000	190359.1	1.74	82.99	.0000	.48	-.0287	-28.43	149.04
RISE 51	1360.73	1371.98	14	0	39.2	270.00	.0041	-27.56	-.0000	209184.1	1.31	11.59	.0033	115.18	-.0014	-28.21	115.92
RISE 72	1515.26	1526.51	14	3	13.7	265.81	.0041	-27.75	-.0000	225588.8	1.20	-.00	.0036	118.04	-.0005	-27.99	78.05
RISE 61	1602.83	1614.08	14	4	41.3	298.02	.0042	-29.03	-.0000	233873.8	1.29	.00	.0024	129.48	.0027	-27.88	56.55
SET 42	1648.38	1659.63	14	5	26.9	105.00	.0041	-26.89	.0001	237647.7	1.86	4.14	-.0029	239.74	-.0022	-27.82	45.35
EXTM 51	1720.22	1731.47	14	6	38.7	.02	.0042	-27.78	.0000	238395.0	1.51	87.96	.0000	180.65	.0720	-27.73	27.67
EXTM 61	1851.75	1863.00	14	8	50.2	.51	.0042	-28.91	.0000	254167.8	1.46	20.85	-.0000	180.48	.0039	-27.58	355.25
EXTM 72	1891.20	1902.45	14	9	29.7	.15	.0042	-28.02	.0000	253954.4	1.45	69.88	-.0000	180.39	.0108	-27.54	345.52
RISE 11	2036.24	2047.49	14	11	54.7	292.30	.0042	-28.27	-.0000	272295.0	1.10	.00	.0028	125.43	.0024	-27.39	309.71
SET 51	2079.47	2090.72	14	12	37.9	90.00	.0041	-26.84	.0001	274673.3	1.76	11.30	-.0034	245.50	-.0014	-27.34	299.03
SET 61	2100.40	2111.65	14	12	58.9	62.91	.0042	-28.29	.0001	277663.8	1.66	-.00	-.0024	231.62	.0027	-27.32	293.85
SET 72	2265.47	2276.72	14	15	43.9	94.05	.0041	-26.98	.0001	291145.5	1.74	-.00	-.0036	242.74	-.0005	-27.17	253.01
RISE 42	2266.05	2277.30	14	15	44.5	255.00	.0041	-26.41	-.0000	290764.3	1.01	3.85	.0029	119.88	-.0022	-27.17	252.87
EXTM 11	2306.64	2317.89	14	16	25.1	.34	.0042	-28.24	.0000	291603.6	1.33	26.55	-.0000	180.33	.0041	-27.14	242.82
SET 11	2576.83	2588.08	14	20	55.3	68.28	.0042	-27.67	.0000	315403.2	1.57	.00	-.0028	235.36	.0024	-26.91	178.85
EXTM 42	2685.06	2696.31	14	22	43.5	359.98	.0042	-26.66	.0000	317270.6	1.24	81.44	-.0000	.19	-.0188	-26.83	149.00
RISE 51	2815.66	2826.91	15	0	54.1	270.00	.0041	-26.32	-.0000	331863.2	.84	11.10	.0034	114.01	-.0015	-26.74	116.58
RISE 72	2969.11	2980.36	15	3	27.6	266.03	.0041	-26.48	-.0000	344072.1	.77	-.00	.0037	116.75	-.0005	-26.63	78.47
RISE 61	3047.24	3058.49	15	4	45.7	295.95	.0042	-27.34	-.0000	349693.8	.85	.00	.0025	126.99	.0027	-26.58	59.00
SET 42	3103.75	3115.00	15	5	42.2	105.00	.0041	-25.92	.0000	353126.2	1.46	3.55	-.0030	240.51	-.0023	-26.55	44.89
EXTM 51	3169.90	3181.15	15	6	48.4	359.30	.0042	-26.53	.0000	351661.0	1.12	88.99	.0024	141.60	.1683	-26.51	28.37
EXTM 61	3301.34	3312.59	15	8	59.8	.29	.0042	-27.36	.0000	364367.0	1.12	22.40	-.0000	180.21	.0041	-26.44	355.53
EXTM 72	3341.15	3352.40	15	9	39.6	.09	.0042	-26.74	.0000	363458.0	1.12	71.17	-.0000	180.26	.0115	-26.42	345.58
RISE 11	3478.28	3489.53	15	11	56.7	291.05	.0042	-26.97	-.0000	378616.9	.81	.00	.0028	123.72	.0024	-26.35	311.28
SET 51	3528.78	3540.03	15	12	47.2	90.00	.0042	-25.95	.0000	380811.2	1.51	10.95	-.0035	246.33	-.0015	-26.32	298.65
SET 61	3555.24	3566.49	15	13	13.7	64.46	.0042	-27.00	.0000	383818.0	1.42	-.00	-.0026	233.51	.0027	-26.31	292.02
RISE 42	3709.95	3721.20	15	15	48.4	255.00	.0042	-25.65	-.0000	394519.6	1.00	3.39	.0030	119.28	-.0023	-26.22	253.17
SET 72	3711.45	3722.70	15	15	49.9	93.90	.0042	-26.08	.0000	395015.2	1.75	-.00	-.0037	243.65	-.0005	-26.22	252.79
EXTM 11	3750.87	3762.12	15	16	29.3	.37	.0043	-27.00	.0000	395575.4	1.83	27.80	-.0000	180.37	.0044	-26.18	242.79
IMPACT	3755.16	3766.41	15	16	33.6												
IMPC 42	3755.16	3766.41	15	16	33.6	266.47	.0043	-25.69	-.0000	397727.6	1.71	11.81	.0032	113.23	-.0022	-26.18	241.68
IMPC 11	3755.16	3766.41	15	16	33.6	1.49	.0044	-26.99	.0000	396069.8	2.06	27.79	-.0001	181.50	.0044	-26.18	241.68

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	13	1	58.467	6594.807	17.8076	305.1275	10.95526	4.9345	117.0995	117.4068
SEPARATION	1.20	12.45	13	1	59.667	6684.359	14.6653	310.9847	10.88017	8.2813	118.8252	123.5648
RETRO	3.20	14.45	13	2	1.667	6930.473	9.3272	319.9811	10.68377	13.5960	120.8058	133.0625
EXIT SHA	15.91	27.16	13	2	14.374	10191.178	-14.7247	356.8160	8.79425	36.5816	118.7969	173.0849
IMPACT	3755.16	3766.41	15	16	33.630	399080.105	-26.1801	241.6819	2.22275	67.7501	279.5563	279.3216

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SURVEYOR VIEW PERIODS

GHA	144.5528					EPS	128.1134							LOM	238.1426
SX	.082449	SY	-.893706	SZ	-.441013	DAO	-26.16054	RAO	275.27089	RM	400368.137	LAT	28.310600	LON	279.461800
C3	-.892973	ECC	.985338	SLR	12993.376	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.102165	NSY	-.891311	NSZ	-.441732	CSM	1.5555	VIM	2.6823	ZAE	141.343	B.T	.0000	B.R	-.0000
LATE	3.7219	LONE	5.2606	LATS	-1.5457	LONS	237.2862	LATI	-3.9283	LONI	327.3395	RSM	147.5451	TTAN	6.5717
LAUNCH DATE	FEB 13,1966			BASE AZM	111.0		TF 62.693					ARRIVAL DATE	FEB 15 1966 16 47 32.6		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	1 51 27.7	28.1	16.77	304.48	10.78	117.82	119.17	2 2 42.7	6602.5	10.95	5.35

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	13	2	2.7												
SEPARATION	1.20	12.45	13	2	3.9												
RETRO	3.20	14.45	13	2	5.9												
RISE 72	4.17	15.42	13	2	6.9	85.62	-.1396	28.84	-.0346	3152.3	-7.33	-.00	.1262	299.14	-.0150	5.19	322.81
EXTM 72	11.07	22.32	13	2	13.6	4.44	-.1609	-15.21	-.0943	2414.8	4.79	81.50	.0000	210.39	-1.2293	-9.91	344.47
RISE 51	11.16	22.41	13	2	13.9	84.26	-.0709	11.72	-.0448	6064.0	-2.21	-.00	.0821	283.03	-.0093	-10.06	344.69
EXIT SHA	15.57	26.82	13	2	18.3												
EXIT 72	15.57	26.82	13	2	18.3	335.79	-.0668	-28.66	-.0231	4112.3	7.01	59.17	-.0606	135.41	-.0339	-16.34	354.43
EXIT 51	15.57	26.82	13	2	18.3	65.89	-.0666	-.79	-.0472	5842.1	.51	21.96	.0809	280.25	-.0119	-16.34	354.43
EXTM 51	49.80	61.05	13	2	52.5	2.23	-.0097	-33.43	-.0021	14699.3	5.03	82.07	-.0000	193.64	-.0607	-31.11	26.16
EXTM 72	72.52	83.77	13	3	15.2	300.41	-.0000	-35.92	.0001	23914.9	4.70	29.13	.0000	126.91	-.0001	-32.70	31.68
EXTM 51	94.23	105.48	13	3	36.9	353.12	-.0001	-34.88	.0001	27084.9	4.29	79.10	.0000	148.67	-.0004	-33.18	33.16
RISE 61	121.99	133.24	13	4	4.7	317.89	.0019	-41.24	.0007	39718.1	3.86	-.00	.0014	149.72	.0008	-33.27	38.30
EXTM 51	171.74	182.99	13	4	54.5	.91	.0027	-34.04	.0002	45097.8	3.56	81.67	.0000	185.21	.0153	-33.01	26.90
EXTM 61	366.74	377.99	13	8	9.5	5.83	.0038	-35.63	.0002	85797.3	2.75	13.94	-.0000	184.88	.0032	-31.59	350.30
EXTM 72	393.32	404.57	13	8	36.0	1.19	.0039	-33.13	.0002	86065.0	2.68	64.75	.0000	182.34	.0077	-31.43	344.58
RISE 11	575.08	586.33	13	11	37.8	296.89	.0040	-32.66	.0000	118869.8	2.06	.00	.0025	131.34	.0023	-30.53	303.66
SET 61	586.21	597.46	13	11	48.9	56.91	.0039	-32.83	.0002	120423.8	2.54	-.00	-.0020	224.75	.0026	-30.48	301.09
SET 51	587.25	598.50	13	11	50.0	° 00	.0038	-29.37	.0001	119217.7	2.65	12.30	-.0031	243.12	-.0012	-30.48	300.85
SET 72	786.45	797.70	13	15	9.2	49	.0039	-29.41	.0001	146722.8	2.45	-.00	-.0034	240.28	-.0004	-29.77	254.01
RISE 42	795.96	807.21	13	15	18.7	254.99	.0040	-28.26	-.0000	147352.0	1.76	4.98	.0028	121.35	-.0021	-29.74	251.74
EXTM 11	837.90	849.15	13	16	.6	1.47	.0041	-31.81	.0001	150582.2	2.02	22.97	.0000	181.36	.0038	-29.68	241.74
SET 11	1097.33	1108.58	13	20	20.0	65.64	.0041	-30.31	.0001	182878.6	2.10	-.00	-.0026	231.85	.0024	-28.97	170.?.
EXTM 42	1221.36	1232.61	13	22	24.1	359.93	.0042	-28.50	.0000	189904.8	1.74	83.28	.0000	.56	-.0299	-28.71	149.05
RISE 51	1357.08	1368.33	14	0	39.8	270.00	.0041	-27.81	-.0000	208730.8	1.31	11 69	.0033	115.41	-.0014	-28.46	118.91
RISE 72	1511.43	1522.68	14	3	14.1	265.77	.0041	-27.97	-.0000	225129.6	1.20	-.00	.0036	118.26	-.0005	-28.21	78.09
RISE 61	1600.23	1611.48	14	4	42.9	298.29	.0042	-29.24	-.0000	233528.4	1.29	.01	.0024	129.79	.0027	-28.08	56.27
SET 42	1644.65	1655.90	14	5	27.4	105.00	.0041	-27.09	.0001	237183.2	1.86	4.26	-.0029	239.58	-.0022	-28.02	49.35
EXTM 51	1716.51	1727.76	14	6	39.2	.02	.0042	-27.98	.0000	237945.2	1.51	87.76	-.0000	180.60	.0705	-27.92	27.67
EXTM 61	1848.20	1859.45	14	8	50.9	.55	.0042	-29.08	.0000	253745.9	1.46	20.68	-.0000	180.52	.0039	-27.75	359.21
EXTM 72	1887.51	1898.76	14	9	30.2	.16	.0042	-28.19	.0000	253507.8	1.45	69.72	-.0000	180.42	.0107	-27.70	348.51
RISE 11	2033.08	2044.33	14	11	55.8	292.44	.0042	-28.42	-.0000	271880.6	1.10	.00	.0028	125.62	.0024	-27.53	309.96
SET 51	2075.69	2086.94	14	12	38.4	90.00	.0041	-26.98	.0001	274199.5	1.76	11.36	-.0034	245.37	-.0014	-27.48	299.03
SET 61	2095.93	2107.18	14	12	58.6	62.73	.0042	-28.43	.0001	277137.4	1.66	-.00	-.0024	231.41	.0027	-27.46	294.03
SET 72	2261.76	2273.01	14	15	44.5	94.07	.0041	-27.10	.0001	290673.7	1.74	-.00	-.0036	242.62	-.0005	-27.29	258.99
RISE 42	2262.28	2273.53	14	15	45.0	255.00	.0041	-26.53	-.0000	290279.9	1.01	3.92	.0029	119.97	-.0022	-27.29	258.87
EXTM 11	2302.98	2314.23	14	16	25.7	.37	.0042	-28.36	.0000	291144.9	1.33	26.43	-.0000	180.36	.0041	-27.25	248.79
SET 11	2572.65	2583.90	14	20	55.4	68.19	.0042	-27.76	.0000	314876.7	1.57	.00	-.0028	235.24	.0024	-27.00	178.94
EXTM 42	2681.23	2692.48	14	22	43.9	359.98	.0042	-26.74	.0000	316761.7	1.23	81.53	-.0000	.19	-.0198	-26.91	149.80
RISE 51	2811.83	2823.08	15	0	54.5	270.00	.0041	-26.38	-.0000	331343.2	.84	11.12	.0034	114.08	-.0015	-26.81	116.98
RISE 72	2965.23	2976.48	15	3	27.9	266.02	.0041	-26.53	-.0000	343538.9	.77	-.00	.0037	116.81	-.0005	-26.69	78.47
RISE 61	3043.63	3054.88	15	4	46.3	296.01	.0042	-27.39	-.0000	349172.7	.85	.00	.0025	127.07	.0027	-26.63	58.94
SET 42	3099.89	3111.14	15	5	42.6	105.00	.0041	-25.97	.0000	352577.3	1.46	3.58	-.0030	240.47	-.0023	-25.60	44.89
EXTM 51	3166.28	3177.53	15	6	49.0	359.36	.0042	-26.57	.0000	351122.9	1.12	88.99	.0022	145.58	.1768	-26.59	28.31
EXTM 61	3297.56	3308.81	15	9	.3	.24	.0042	-27.40	.0000	363801.8	1.11	22.36	-.0000	180.23	.0041	-26.48	359.51
EXTM 72	3337.31	3348.56	15	9	40.0	.10	.0042	-26.77	.0000	362880.1	1.11	71.13	-.0000	180.27	.0115	-26.45	348.98
RISE 11	3474.54	3485.79	15	11	57.3	291.07	.0042	-27.00	-.0000	378015.4	.80	.00	.0028	123.75	.0024	-26.37	311.26
SET 51	3524.92	3536.17	15	12	47.6	90.00	.0042	-25.97	.0000	380186.9	1.50	10.96	-.0035	246.31	-.0015	-26.34	298.65
SET 61	3551.28	3562.53	15	13	14.0	64.44	.0042	-27.02	.0000	383178.5	1.42	-.00	-.0026	233.48	.0027	-26.33	298.05
RISE 42	3706.18	3717.43	15	15	48.9	255.00	.0042	-25.67	-.0000	393797.4	.96	3.39	.0030	119.29	-.0023	-26.23	253.17
SET 72	3707.67	3718.92	15	15	50.4	93.90	.0042	-26.09	.0000	394250.3	1.71	-.00	-.0037	243.64	-.0005	-26.23	252.79
EXTM 11	3746.89	3758.14	15	16	29.6	.29	.0043	-27.01	.0000	394564.7	1.57	27.78	.0000	180.29	.0043	-26.20	248.87
IMPACT	3761.59	3772.84	15	1'	4.3												
IMPC 42	3761.59	3772.84	15	1	4.3	269.04	.0043	-25.71	-.0000	397543.1	1.70	13.76	.0033	111.95	-.0022	-26.18	239.11
IMPC 11	3761.59	3772.84	15	1	4 3	4.10	.0044	-26.99	.0000	396106.6	2.08	27.68	-.0002	184.13	.0044	-26.18	239.11

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	13	2	2.712	6603.846	16.7375	304.5331	10.94769	5.3492	119.1867	117.8767
SEPARATION	1.20	12.45	13	2	3.912	6698.508	13.4088	310.2050	10.86828	8.6841	120.7444	123.8494
RETRO	3.20	14.45	13	2	5.912	6952.887	7.8148	318.9322	10.66608	13.9698	122.4494	133.0788
EXIT SHA	15.57	26.82	13	2	18.282	10130.971	-16.3351	354.4262	8.82026	36.3534	119.4021	171.6728
IMPACT	3761.59	3772.84	15	16	44.298	399106.391	-26.1842	239.1079	2.22033	67.5941	280.2093	279.4218

FEB 15, 1966
111 DEGREES

SURVEYOR VIEW PERIODS

GHA	144.5528				EPS 128.2213							LOM	234.7422
SX	.084504 SY	-.893481 SZ	-.441079 DAO	-26.17274 RAD	275.40285 RM	400399.578 LAT	28.310600 LON	279.461800					
C3	-.903254 ECC	.985169 SLR	12992.274 RCA	6544.6650 LTA	-20.0000 GTA	20.00	TB	675.00000 POL	-.0				
NSX	.104314 NSY	-.891027 NSZ	-.441803 C3M	1.5555 VIM	2.6823 ZAE	140.994 B.T	.0000 B.R	-.0000					
LATE	3.7330 LONE	5.3789 LATS	-1.5457 LONS	237.2959 LATI	-4.3973 LONI	327.1970 RSM	147.5447 TTAN	6.5739					
LAUNCH DATE	FEB 13,1966	BASE AZM	115.0	TF 62.856		ARRIVAL DATE FEB 15 1966 17 1 38.1							

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	1 56 1.3	28.1	15.39	303.61	11.65	118.10	121.95	2 7 16.3	6612.3	10.94	5.78

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
PROBE IN EARTH'S SHADOW																	
INJECTION	.00	11.25	13	2	7.3												
SEPARATION	1.20	12.45	13	2	8.5												
RETRO	3.20	14.45	13	2	10.5												
RISE 72	4.17	15.42	13	2	11.4	86.61	-.1272	23.09	-.0550	3214.7	-7.06	-.00	.1239	293.33	-.0369	3.08	321.22
RISE 51	11.26	22.51	13	2	18.5	86.42	-.0663	7.40	-.0479	6170.8	-1.99	-.01	.0801	278.22	-.0143	-12.85	342.77
EXTM 72	11.39	22.64	13	2	18.7	9.40	-.1573	-25.54	-.0773	2643.7	4.98	70.22	-.0000	205.82	-.4775	-13.08	343.10
EXIT SHA	15.14	26.39	13	2	22.4												
EXIT 72	15.14	26.39	13	2	22.4	343.43	-.0812	-35.08	-.0204	4028.1	6.82	38.86	-.0533	153.18	-.0861	-18.53	351.33
EXIT 51	15.14	26.39	13	2	22.4	71.15	-.0640	-4.06	-.0487	5979.9	.34	18.73	.0787	274.61	-.0169	-18.53	351.33
EXTM 51	54.94	66.19	13	3	2.2	1.74	-.0080	-37.21	-.0009	16327.1	4.93	78.44	-.0000	186.95	-.0320	-34.00	26.47
EXTM 72	72.76	84.01	13	3	20.0	301.50	-.0001	-38.52	.0004	24001.4	4.69	29.37	.0000	130.04	-.0005	-34.85	30.46
EXTM 51	88.46	99.71	13	3	35.7	354.63	-.0008	-37.37	.0003	25654.9	4.36	77.51	.0000	159.87	-.0031	-35.08	31.88
RISE 61	135.53	146.78	13	4	22.8	320.50	.0022	-42.36	.0007	42954.1	3.72	-.00	.0014	151.97	.0011	-34.87	30.27
EXTM 51	170.21	181.46	13	4	57.5	1.67	.0026	-35.73	.0003	44820.8	3.57	79.91	.0000	187.75	.0123	-34.49	26.24
EXTM 61	366.37	377.62	13	8	13.6	6.60	.0038	-36.61	.0003	85845.2	2.75	12.92	.0000	185.43	.0031	-32.55	349.58
EXTM 72	390.88	402.13	13	8	38.2	1.48	.0039	-34.13	.0002	85716.5	2.68	63.74	.0000	182.78	.0074	-32.37	344.31
RISE 11	575.12	586.37	13	11	42.4	297.72	.0040	-33.39	.0000	118852.6	2.06	.00	.0024	132.34	.0023	-31.24	302.84
SET 61	577.65	588.90	13	11	44.9	55.75	.0039	-33.62	.0002	119206.2	2.54	-.00	-.0019	223.50	.0027	-31.23	302.25
SET 51	583.55	594.80	13	11	50.8	90.00	.0038	-30.10	.0002	118648.7	2.65	12.58	-.0031	242.43	-.0011	-31.20	300.89
SET 72	783.23	794.48	13	15	10.5	94.60	.0039	-29.98	.0001	146273.6	2.45	-.00	-.0034	239.70	-.0004	-30.35	253.93
RISE 42	792.50	803.75	13	15	19.8	254.99	.0040	-28.83	-.0000	146835.1	1.76	5.32	.0028	121.80	-.0021	-30.31	251.72
EXTM 11	835.11	846.36	13	16	2.4	1.66	.0041	-32.37	.0001	150246.1	2.02	22.40	.0000	181.52	.0038	-30.16	241.55
SET 11	1091.74	1102.99	13	20	19.0	65.17	.0041	-30.76	.0001	182179.9	2.10	-.00	-.0025	231.25	.0024	-29.40	179.69
EXTM 42	1217.66	1228.91	13	22	24.9	359.92	.0042	-28.90	.0000	189407.0	1.74	83.68	.0000	.68	-.0321	-29.10	149.06
RISE 51	1353.44	1364.69	14	0	40.7	270.00	.0041	-28.16	-.0000	208224.9	1.31	11.82	.0033	115.74	-.0014	-28.81	118.90
RISE 72	1507.52	1518.77	14	3	14.8	265.71	.0041	-28.28	-.0000	224606.4	1.20	-.00	.0036	118.57	-.0005	-28.52	78.13
RISE 61	1597.95	1609.20	14	4	45.2	298.65	.0042	-29.53	-.0000	233152.9	1.29	.00	.0024	130.22	.0027	-28.36	55.91
SET 42	1640.86	1652.11	14	5	28.1	105.00	.0041	-27.36	.0001	236645.7	1.86	4.43	-.0029	239.37	-.0022	-28.29	45.36
EXTM 51	1712.75	1724.00	14	6	40.0	.02	.0042	-28.24	.0000	237425.2	1.51	87.50	-.0000	180.60	.0693	-28.18	27.66
EXTM 61	1844.65	1855.90	14	8	51.9	.62	.0042	-29.32	.0000	253257.0	1.46	20.44	-.0000	180.58	.0039	-27.98	355.15
EXTM 72	1883.77	1895.02	14	9	31.0	.18	.0042	-28.42	.0000	252983.3	1.45	69.48	-.0000	180.46	.0106	-27.93	345.49
RISE 11	2030.05	2041.30	14	11	57.3	292.65	.0042	-28.62	-.0000	271393.8	1.10	.00	.0027	125.89	.0024	-27.73	309.36
SET 51	2071.82	2083.07	14	12	39.1	90.00	.0041	-27.17	.0001	273628.6	1.76	11.44	-.0034	245.19	-.0014	-27.68	299.03
SET 61	2091.09	2102.34	14	12	58.4	62.49	.0042	-28.63	.0001	276492.5	1.65	-.00	-.0024	231.12	.0027	-27.65	294.27
SET 72	2257.97	2269.22	14	15	45.2	94.10	.0041	-27.27	.0001	290098.0	1.74	-.00	-.0036	242.45	-.0005	-27.46	252.97
RISE 42	2258.41	2269.66	14	15	45.7	255.00	.0041	-26.69	-.0000	289686.5	1.01	4.02	.0029	120.10	-.0022	-27.45	252.86
EXTM 11	2299.25	2310.50	14	16	26.5	.41	.0042	-28.52	.0000	290585.5	1.32	26.27	-.0000	180.10	.0041	-27.41	242.75
SET 11	2568.19	2579.44	14	20	55.5	68.07	.0042	-27.89	.0000	314211.4	1.56	.00	-.0028	235.07	.0024	-27.13	176.07
EXTM 42	2677.26	2688.51	14	22	44.5	359.97	.0042	-26.86	.0000	316118.2	1.23	81.64	-.0000	.21	-.0203	-27.02	149.01
RISE 51	2807.87	2819.12	15	0	55.1	270.00	.0041	-26.48	-.0000	330679.3	.83	11.16	.0034	114.17	-.0015	-26.90	116.58
RISE 72	2961.19	2972.44	15	3	28.5	266.01	.0041	-26.61	-.0000	342851.3	.77	-.00	.0037	116.89	-.0005	-26.77	78.48
RISE 61	3040.10	3051.35	15	4	47.4	296.09	.0042	-27.46	-.0000	348563.4	.85	.00	.0025	127.17	.0027	-26.70	58.85
SET 42	3095.99	3107.24	15	5	43.3	105.00	.0041	-26.03	.0000	351925.6	1.45	3.62	-.0030	240.42	-.0023	-26.66	44.89
EXTM 51	3162.33	3173.58	15	6	49.6	359.35	.0042	-26.63	.0000	350455.5	1.11	88.94	.0021	146.96	.1704	-26.61	28.32
EXTM 61	3293.71	3304.96	15	9	1.0	.27	.0042	-27.45	.0000	363110.2	1.11	22.31	-.0000	180.25	.0041	-26.52	355.49
EXTM 72	3333.40	3344.65	15	9	40.7	.10	.0042	-26.82	.0000	362168.1	1.11	71.08	-.0000	180.29	.0115	-26.50	348.57
RISE 11	3470.72	3481.97	15	11	58.0	291.11	.0042	-27.04	-.0000	377259.1	.80	.00	.0028	123.80	.0024	-26.41	311.22
SET 51	3520.94	3532.19	15	12	48.2	90.00	.0042	-26.00	.0000	379395.4	1.49	10.97	-.0035	246.28	-.0015	-26.37	298.65
SET 61	3547.15	3558.40	15	13	14.4	64.40	.0042	-27.05	.0000	382364.3	1.41	-.00	-.0025	233.43	.0027	-26.36	292.09
RISE 42	3702.26	3713.51	15	15	49.5	255.00	.0042	-25.69	-.0000	392784.6	.92	3.41	.0030	119.31	-.0023	-26.25	253.16
SET 72	3703.75	3715.00	15	15	51.0	93.91	.0042	-26.11	.0000	393275.0	1.67	-.00	-.0037	243.62	-.0005	-26.25	252.79
EXTM 11	3743.02	3754.27	15	16	30.3	.28	.0043	-27.03	.0000	393408.6	1.41	27.76	.0000	180.28	.0043	-26.22	242.88
IMPACT	3771.37	3782.62	15	16	58.6												
IMPC 42	3771.37	3782.62	15	16	58.6	272.50	.0043	-25.73	-.0000	397298.6	1.69	16.41	.0033	110.25	-.0021	-26.19	239.65
IMPC 11	3771.37	3782.62	15	16	58.6	7.62	.0044	-27.00	.0000	396174.8	2.09	27.38	-.0004	187.64	.0044	-26.19	239.65

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	13	2	7.272	6614.142	15.3454	303.6808	10.93909	5.7814	121.9692	118.1674
SEPARATION	1.20	12.45	13	2	8.472	6713.994	11.7734	309.1098	10.85517	9.1032	123.3179	123.8972
RETRO	3.20	14.45	13	2	10.472	6976.906	5.8389	317.4899	10.64708	14.3575	124.3321	132.7787
EXIT SHA	15.14	26.39	13	2	22.413	10044.434	-18.5308	351.3344	8.85803	36.0195	120.3689	169.6165
IMPACT	3771.37	3782.62	15	16	58.647	399145.488	-26.1896	235.6463	2.21526	67.1599	280.9466	279.5573

SURVEYOR VIEW PERIODS

GHA	145.5384				EPS 138.8024							LON	258.6567
SX	.283215	SY	-.853035	SZ	-.438315	DAO	-25.99643	RAO	288.36660	RM	403094.332	LAT	28.310600
C3	-.867588	ECC	.985755	SLR	12996.105	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000
NSX	.301691	NSY	-.847278	NSZ	-.437152	C3M	1.5520	VIM	2.6817	ZAE	142.551	B.T	.0000
LATE	4.7494	LONE	4.1353	LATS	-1.5526	LONS	225.3828	LATI	-.0998	LONI	326.9582	RSM	147.5190
LAUNCH DATE		FEB	14.1966		BASE AZM		87.0	TF	63.115			ARRIVAL DATE	

LNCH AZMTH	LNCH TIME		PB		INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME		INJ RAD	INJ VEL	INJ PTH
87.00	1	3 6.8		27.4	25.92	307.43	-11.14	109.64	102.03	1	14 21.8	6606.5	10.95	-5.53

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PRORE IN EARTH'S SHADOW															
INJECTION	.00	11.25	14	1	14.4												
SEPARATION	1.20	12.45	14	1	15.6												
RETRO	3.20	14.45	14	1	17.6												
RISE 72	6.50	17.75	14	1	20.9	44.63	-1.0416	78.96	.0604	2568.9	-4.34	-.00	.0954	352.27	.1852	13.84	348.70
RISE 51	11.87	23.12	14	1	26.2	65.05	-.1350	41.18	-.0249	4764.5	-3.84	.00	.0973	316.97	.0383	2.65	3.55
EXTM 72	12.51	23.76	14	1	26.9	295.53	-.0377	19.54	-.1161	3249.2	6.38	20.87	-.0000	65.52	.1304	1.48	9.56
EXIT SHA	17.45	28.70	14	1	31.8												
EXIT 72	17.45	28.70	14	1	31.8	288.06	-.0178	-1.29	-.0412	5377.0	7.50	18.06	-.0120	88.78	.0455	-6.01	18.29
EXIT 51	17.45	28.70	14	1	31.8	23.19	-.1011	24.27	-.0659	4307.8	1.18	35.19	.0994	333.94	.0666	-6.01	18.29
EXIT 61	17.45	28.70	14	1	31.8	316.96	-.0427	-43.83	.0122	7382.8	7.47	-2.57	-.0056	150.48	-.0327	-6.01	18.29
EXTM 51	29.84	41.09	14	1	44.2	343.22	-.0258	-8.24	-.0217	7436.9	5.56	66.31	-.0000	45.33	.0833	-16.47	37.12
EXTM 72	64.28	75.53	14	2	18.6	274.44	-.0002	-24.40	-.0017	22537.3	4.99	7.28	.0000	113.75	.0018	-24.91	54.54
EXTM 51	79.51	90.76	14	2	33.9	323.35	-.0002	-25.24	-.0014	22906.9	4.59	57.02	-.0000	97.27	.0026	-26.12	56.63
RISE 42	79.51	90.76	14	2	33.9	103.76	-.0030	-16.62	-.0024	27744.7	4.26	.00	.0037	246.99	-.0002	-26.12	56.63
EXTM 42	127.87	139.12	14	3	22.2	101.27	.0006	-22.59	-.0007	39758.1	4.00	4.25	-.0000	245.22	-.0009	-27.72	59.85
SET 42	174.44	185.69	14	4	8.8	105.00	.0019	-23.95	-.0003	50537.5	3.73	2.35	-.0012	242.07	-.0013	-28.20	60.38
RISE 61	196.36	207.61	14	4	30.7	304.01	.0031	-33.46	.0001	55429.8	3.25	-.00	.0018	136.25	.0019	-28.30	47.04
EXTM 51	301.22	312.47	14	6	15.6	.01	.0037	-28.63	.0000	69387.7	2.96	87.11	.0000	180.40	.0338	-28.38	27.67
EXTM 61	460.83	472.08	14	8	55.2	2.46	.0039	-31.59	.0001	99746.7	2.55	18.13	.0000	182.20	.0035	-28.19	353.42
EXTM 72	496.83	508.08	14	9	31.2	.37	.0040	-29.38	.0001	101360.3	2.47	68.52	-.0000	180.89	.0096	-28.13	349.32
RISE 11	662.93	674.18	14	12	17.3	293.81	.0040	-29.77	-.0000	130472.5	1.93	.00	.0026	127.42	.0023	-27.89	306.98
SET 51	690.71	701.96	14	12	45.1	90.00	.0039	-26.83	.0001	132906.1	2.54	11.30	-.0032	245.51	-.0013	-27.85	300.46
SET 61	706.19	717.44	14	13	.6	60.96	.0040	-29.84	.0001	136174.8	2.42	-.00	-.0022	229.32	.0026	-27.83	296.81
SET 72	885.60	896.85	14	15	60.0	94.10	.0039	-27.27	.0001	158518.5	2.38	-.00	-.0035	242.45	-.0005	-27.60	254.14
RISE 42	894.72	905.97	14	16	9.1	255.00	.0040	-26.21	-.0001	159191.2	1.67	3.72	.0029	119.72	-.0022	-27.59	251.95
EXTM 11	934.50	945.75	14	16	48.9	.78	.0042	-29.56	.0000	161599.8	1.95	25.23	-.0000	180.75	.0940	-27.55	248.40
SET 11	1203.46	1214.71	14	21	17.8	67.45	.0041	-28.51	.0001	194144.2	2.06	.00	-.0027	234.25	.0024	-27.27	177.29
EXTM 42	1319.41	1330.66	14	23	13.8	359.96	.0042	-26.91	.0000	199960.2	1.70	81.69	.0000	.29	-.0227	-27.16	149.02
RISE 51	1454.37	1465.62	15	1	28.7	270.00	.0041	-26.41	-.0000	218401.4	1.26	11.14	.0034	114.11	-.0014	-27.05	116.01
RISE 72	1609.45	1620.70	15	4	3.8	265.99	.0041	-26.70	-.0000	234470.7	1.16	-.01	.0036	116.98	-.0005	-26.93	77.95
RISE 61	1691.10	1702.35	15	5	25.5	296.72	.0041	-27.98	-.0000	242039.9	1.25	.00	.0025	127.92	.0027	-26.87	57 88
SET 42	1742.27	1753.52	15	6	16.6	105.00	.0041	-25.94	.0000	246309.2	1.83	3.56	-.0029	240.49	-.0022	-26.84	48.29
EXTM 51	1810.75	1822.00	15	7	25.1	359.25	.0042	-26.82	.0000	246562.9	1.48	88.73	.0020	148.18	.1429	-26.79	28.42
EXTM 61	1944.54	1955.79	15	9	38.9	.33	.0042	-27.99	.0000	262237.7	1.4[illegible]	21.77	-.0000	180.31	.0040	-26.71	355.43
EXTM 72	1984.47	1995.72	15	10	18.8	.10	.0042	-27.13	.0000	262068.4	1.43	70.77	-.0000	180.29	.0112	-26.68	348.57
RISE 11	2126.27	2137.52	15	12	40.6	291.51	.0042	-27.45	-.0000	279974.3	1.07	.00	.0028	124.35	.0024	-26.60	310.54
SET 51	2173.01	2184.26	15	13	27.4	90.00	.0041	-26.08	.0000	282621.3	1.74	11.00	-.0034	246.21	-.0015	-26.57	298.98
SET 61	2197.77	2209.02	15	13	52.1	63.87	.0042	-27.49	.0000	285865.4	1.64	-.00	-.0025	232.79	.0027	-26.56	298.86
SET 72	2358.45	2369.70	15	16	32.8	93.93	.0041	-26.29	.0000	298796.3	1.73	-.00	-.0037	243.43	-.0005	-26.48	253.09
RISE 42	2359.19	2370.44	15	16	33.6	255.00	.0041	-25.73	-.0000	298473.5	.99	3.44	.0029	119.34	-.0023	-26.48	258.90
EXTM 11	2399.46	2410.71	15	17	13.8	.23	.0042	-27.53	.0000	299127.3	1.31	27.26	-.0000	180.[illegible]3	.0042	-26.45	248.93
SET 11	2672.50	2683.7[illegible]	15	21	46.9	68.87	.0042	-27.06	.0000	322951.1	1.56	-.00	-.0028	236.17	.0024	-26.32	178.24
EXTM 42	2778.16	2789.41	15	23	32.5	359.96	.0042	-26.10	.0000	324543.4	1.22	80.88	.0000	.26	-.0211	-26.28	149.02
RISE 51	2908.71	2919.96	16	1	43.1	270.00	.0041	-25.81	-.0000	339044.1	.82	10.90	.0034	113.54	-.0015	-26.22	116.61
RISE 72	3062.34	3073.59	16	4	16.7	266.11	.0042	-26.01	-.0000	351297.6	.72	-.00	.0037	116.27	-.0005	-26.16	78.41
RISE 61	3137.90	3149.15	16	5	32.3	295.40	.0042	-26.88	-.0000	356404.0	.84	.00	.0026	126.32	.0027	-26.14	59.56
SET 42	3196.78	3208.03	16	6	31.1	105.00	.0041	-25.50	.0000	359997.7	1.45	3.29	-.0030	240.84	-.0023	-26.12	44.87
EXTM 51	3259.78	3271.03	16	7	34.1	358.52	.0042	-26.11	.0000	358267.9	1.11	88.61	.0037	105.82	.0410	-26.10	29.14
EXTM 61	3394.02	3405.27	16	9	48.4	.13	.0042	-26.97	.0000	371088.3	1.12	22.79	-.0000	180.13	.0041	-26.07	359.62
EXTM 72	3434.11	3445.36	16	10	28.5	.07	.0042	-26.36	.0000	370222.1	1.12	71.54	-.0000	180.20	.0116	-26.06	349.61
RISE 11	3570.04	3581.29	16	12	44.4	290.73	.0042	-26.64	-.0000	389355.1	.82	.00	.0029	123.28	.0024	-26.02	311.62
SET 51	3621.93	3633.18	16	13	36.3	90.00	.0042	-25.65	.0000	387710.0	1.53	10.83	-.0035	246.61	-.0015	-26.01	298.63
SET 61	3649.83	3661.08	16	14	4.2	64.83	.0042	-26.68	.0000	390847.5	1.46	-.00	-.0026	233.97	.0027	-26.01	291.64
IMPACT	3786.88	3798.13	16	16	21.2												
IMPC 42	3786.88	3798.13	16	16	21.2	251.11	.0043	-25.41	-.0000	401721.6	1.74	.49	.0030	121.28	-.0024	-25.99	257.09
IMPC 72	3786.88	3798.13	16	16	21.2	89.58	.0043	-25.88	.0000	401352.3	2.51	3.81	-.0038	244.38	-.0004	-25.99	257.09
IMPC 11	3786.88	3798.13	16	16	21.2	345.86	.0044	-26.78	-.0000	398934.3	1.99	26.59	.0009	165.88	.0043	-25.99	257.09

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	14	1	14.363	6608.037	25.9296	307.3520	10.94556	-5.5304	101.9941	109.5609
SEPARATION	1.20	12.45	14	1	15.563	6593.743	24.3007	314.4903	10.98971	-2.1252	105.1569	117.0000
RETRO	3.20	14.45	14	1	17.563	6570.719	20.8305	325.8990	10.97540	3.5974	109.7434	128.9100
EXIT SHA	17.45	28.70	14	1	31.813	9532.166	-6.0113	18.2948	9.09756	33.9048	117.8028	184.8782
IMPACT	3786.88	3798.13	16	16	21.243	401826.773	-25.9857	257.0892	2.22669	68.9852	269.1682	288.6094

SURVEYOR VIEW PERIODS

GHA	145.5384					EPS 138.9955								LOM	252.4757
SX	.286764	SY	-.851962	SZ	-.438095	DAO	-25.98239	RAO	288.60287	RM	403136.352	LAT	28.7310600	LON	279.461800
C3	-.863403	ECC	.985824	SLR	12976.554	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.309177	NSY	-.846159	NSZ	-.436900	C3M	1.5558	VIM	2.6824	ZAE	142.617	B.T	.0000	B.R	-.0000
LATE	4.7662	LONE	4.1142	LATS	-1.5527	LONS	225.1663	LATI	-.0058	LONI	326.9930	RSM	147.5186	TTAN	6.4843
LAUNCH DATE		FEB	14,1966		BASE AZM	90.0		TF	63.065			ARRIVAL DATE		FEB 16 1966	16 39 37.1

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
90.00	1 26 54.2	27.7	24.69	307.44	-5.83	115.62	104.31	1 38 9.2	6561.5	10.98	-2.89

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
				PROBE IN EARTH'S SHADOW														
INJECTION		.00	11.25	14	1	38.2												
SEPARATION		1.20	12.45	14	1	39.4												
RETRO		3.20	14.45	14	1	41.4												
RISE	72	5.78	17.03	14	1	43.9	68.32	-.4501	69.41	.0962	2650.9	-5.67	-.00	.1081	340.53	.1504	13.43	338.26
RISE	51	11.56	22.81	14	1	49.7	68.95	-.1188	36.49	-.0275	5024.9	-3.58	.00	.0950	311.55	.0285	1.65	.07
EXTM	72	11.88	23.13	14	1	50.0	306.14	-.0594	20.91	-.1318	2886.3	5.96	29.77	-.0000	60.36	.1648	1.07	1.07
EXIT	SHA	16.47	27.72	14	1	54.6												
EXIT	72	16.47	27.72	14	1	54.6	296.05	-.0238	-1.03	-.0463	4804.5	7.42	25.94	-.0168	87.28	.0548	-5.81	12.79
EXIT	51	16.47	27.72	14	1	54.6	35.54	-.0995	23.32	-.0576	4559.9	.49	30.07	.1012	321.91	.0437	-5.81	12.79
EXIT	61	16.47	27.72	14	1	54.6	326.49	-.0505	-45.30	.0127	7144.1	7.21	-.66	-.0035	157.15	-.0375	-5.81	12.79
EXTM	51	32.04	43.29	14	2	10.2	348.02	-.0222	-11.69	-.0164	8346.2	5.48	71.96	-.0000	41.05	.0879	-17.86	34.73
EXT		64.91	76.16	14	2	43.1	280.10	-.0001	-25.05	-.0016	22463.0	4.95	12.45	.0000	114.02	.0016	-24.93	49.41
EXT		82.05	93.30	14	3	.2	330.00	-.0002	-25.67	-.0012	23586.6	4.52	63.03	.0000	96.48	.0027	-26.20	51.43
RISE	61	166.49	177.94	14	4	24.8	304.65	.0028	-33.90	.0002	49320.6	3.46	-.00	.0016	136.93	.0017	-28.06	45.87
EXTM	51	272.64	283.89	14	6	10.8	.01	.0036	-20.57	.0000	64 [illegible]	3.06	87.17	.0000	180.33	.0278	-28.31	27.68
EXTM	61	436.03	447.28	14	8	54.2	2.64	.0039	-31.69	.0001	96[illegible]	2.60	18.03	.0000	182.36	.0035	-28.16	353.26
EXTM	72	471.62	482.87	14	9	29.8	.38	.0040	-29.40	.0001	97740 [illegible]	2.52	68.50	-.0000	180.92	.0095	-28.11	345.31
RISE	11	638.89	650.14	14	12	17.0	293.83	.0040	-29.79	-.0000	127390.6	1.97	.00	.0026	127.45	.0023	-27.87	306.90
SET	51	666.15	677.40	14	12	44.3	90.00	.0039	-26.78	.0001	129805.9	2.56	11.28	-.0032	245.55	-.001	-27.83	300.52
SET	61	681.62	692.87	14	12	59.8	60.93	.0040	-29.87	.0001	133098.7	2.44	-.00	-.0022	229.28	.0026	-27.81	296.89
SET	72	861.55	872.80	14	15	59.7	94.10	.0039	-27.24	.0001	155775.4	2.40	-.00	-.0035	242.47	-.0005	-27.58	254.18
RISE	42	871.03	882.28	14	16	9.2	254.99	.0040	-26.17	.0001	156506.8	1.69	3.70	.0029	119.69	-.0021	-27.57	251.92
EXTM	11	910.80	922.05	14	16	49.0	.80	.0042	-29.57	.0000	158960.8	1.97	25.22	-.0000	180.77	.0040	-27.53	248.38
SET	11	1179.91	1191.16	14	21	18.1	67.46	.0041	-28.51	.0001	191792.4	2.07	.00	-.0027	234.26	.0024	-27.25	177.31
EXTM	42	1296.00	1307.25	14	23	14.2	359.96	.0042	-26.88	.0000	197719.3	1.71	81.67	.0000	.28	-.0235	-27.14	149.02
RISE	51	1431.09	1442.34	15	1	29.2	270.00	.0041	-26.39	-.0000	216272.5	1.27	11.13	.0034	114.08	-.0014	-27.03	115.99
RISE	72	1586.25	1597.50	15	4	4.4	265.99	.0041	-26.68	-.0000	232448.7	1.17	-.01	.0036	116.96	-.0005	-26.91	77.94
RISE	61	1667.85	1679.10	15	5	26.0	296.71	.0041	-27.97	-.0000	240062.3	1.26	.00	.0025	127.91	.0027	-26.86	57.88
SET	42	1719.00	1730.25	15	6	17.1	105.00	.0041	-25.92	.0000	244360.6	1.84	3.55	-.0029	240.51	-.0022	-26.82	45.30
EXTM	51	1787.70	1798.95	15	7	25.9	359.29	.0042	-26.80	.0000	244670.6	1.49	88.76	.0020	149.13	.1483	-26.78	28.38
EXTM	61	1921.36	1932.61	15	9	39.5	.33	.0042	-27.98	.0000	260403.5	1.45	21.78	-.0000	180.32	.0040	-26.69	355.43
EXTM	72	1961.30	1972.55	15	10	19.5	.10	.0042	-27.12	.0000	260254.9	1.43	70.78	-.0000	180.29	.0112	-26.67	345.57
RISE	11	2103.12	2114.37	15	12	41.3	291.50	.0042	-27.44	-.0000	278229.7	1.08	.00	.0028	124.34	.0024	-26.59	310.54
SET	51	2149.85	2161.10	15	13	28.0	90.00	.0041	-26.06	.0000	280897.8	1.75	11.00	-.0034	246.23	-.0015	-26.56	298.99
SET	61	2174.66	2185.91	15	13	52.8	63.88	.0042	-27.48	.0000	284157.0	1.65	-.00	-.0025	232.80	.0027	-26.55	292.85
SET	72	2335.30	2346.55	15	16	33.5	93.93	.0041	-26.28	.0000	297153.5	1.73	-.00	-.0037	243.45	-.0005	-26.46	253.10
RISE	42	2336.11	2347.36	15	16	34.3	255.00	.0041	-25.71	-.0000	296837.5	1.00	3.42	.0029	119.33	-.0023	-26.46	252.90
EXTM	11	2376.36	2387.61	15	17	14.5	.23	.0042	-27.52	.0000	297504.4	1.32	27.27	-.0000	180.23	.0042	-26.44	242.93
SET	11	2649.46	2660.71	15	21	47.6	68.88	.0042	-27.05	.0000	321438.6	1.56	-.00	-.0028	236.18	.0024	-26.31	175.24
EXTM	42	2755.11	2766.36	15	23	33.3	359.96	.0042	-26.09	.0000	323069.1	1.23	80.87	.0000	.25	-.0216	-26.26	149.02
RISE	51	2885.68	2896.93	16	1	43.8	270.00	.0041	-25.79	-.0000	337617.6	.83	10.89	.0034	113.52	-.0015	-26.21	116.61
RISE	72	3039.33	3050.58	16	4	17.5	266.11	.0042	-25.99	-.0000	349927.3	.72	-.00	.0037	116.26	-.0005	-26.15	78.41
RISE	61	3114.83	3126.08	16	5	33.0	295.39	.0042	-26.87	-.0000	355043.8	.84	.00	.0026	126.31	.0027	-26.13	59.97
SET	42	3173.72	3184.97	16	6	31.9	105.00	.0041	-25.49	.0000	358649.3	1.45	3.29	-.0030	240.85	-.0023	-26.11	44.87
EXTM	51	3236.72	3247.97	16	7	34.9	358.51	.0042	-26.10	.0000	356928.1	1.11	88.61	.0037	105.34	.0397	-26.09	29.15
EXTM	61	3370.97	3382.22	16	9	49.1	.13	.0042	-26.96	.0000	369763.0	1.12	22.80	-.0000	180.13	.0041	-26.06	355.69
EXTM	72	3411.06	3422.31	16	10	29.2	.07	.0042	-26.36	.0000	368899.5	1.12	71.55	-.0000	180.20	.0115	-26.05	345.61
RISE	11	3546.98	3558.23	16	12	45.1	290.72	.0042	-26.63	-.0000	384021.8	.81	.00	.0029	123.27	.0024	-26.01	311.62
SET	51	3598.89	3610.14	16	13	37.0	90.00	.0042	-25.64	.0000	386360.1	1.52	10.83	-.0035	246.62	-.0015	-26.00	298.63
SET	61	3626.83	3638.08	16	14	5.0	64.84	.0042	-26.68	.0000	389483.6	1.45	-.00	-.0026	233.98	.0027	-26.00	291.63
RISE	42	3779.55	3790.80	16	16	37.7	255.00	.0043	-25.42	-.0000	400949.2	1.50	3.24	.0031	119.10	-.0023	-25.97	253.18
SET	72	3780.98	3792.23	16	16	39.1	93.85	.0043	-25.84	.0000	401468.4	2.33	.00	-.0038	243.90	-.0006	-25.97	252.82
IMPACT		3783.88	3795.13	16	16	42.0												
IMPC	42	3783.88	3795.13	16	16	42.0	256.11	.0043	-25.43	-.0000	401362.4	1.73	4.04	.0031	118.49	-.0023	-25.97	252.87
IMPC	72	3783.88	3795.13	16	16	42.0	94.60	.0043	-25.83	.0000	401885.0	2.50	-.66	-.0038	243.80	-.0006	-25.97	252.07
IMPC	11	3783.88	3795.13	16	16	42.0	350.95	.0044	-26.77	-.0000	398886.4	2.02	27.43	.0006	170.90	.0043	-25.97	252.07

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	14	1	38.153	6561.610	24.6933	307.4326	10.98346	-2.8923	104.3069	115.6052
SEPARATION		1.20	12.45	14	1	39.353	6545.253	22.8074	314.4149	10.99708	.5426	107.2440	122.8883
RETRO		3.20	14.45	14	1	41.353	6523.143	19.0052	325.4641	10.93175	6.2270	111.3879	134.4588
EXIT	SHA	16.47	27.72	14	1	54.621	9517.054	-5.8093	12.7876	9.10509	33.8385	117.7580	185.0888
IMPACT		3783.88	3795.13	16	16	42.030	401861.820	-25.9739	252.0702	2.22719	68.9142	268.9731	288.8014

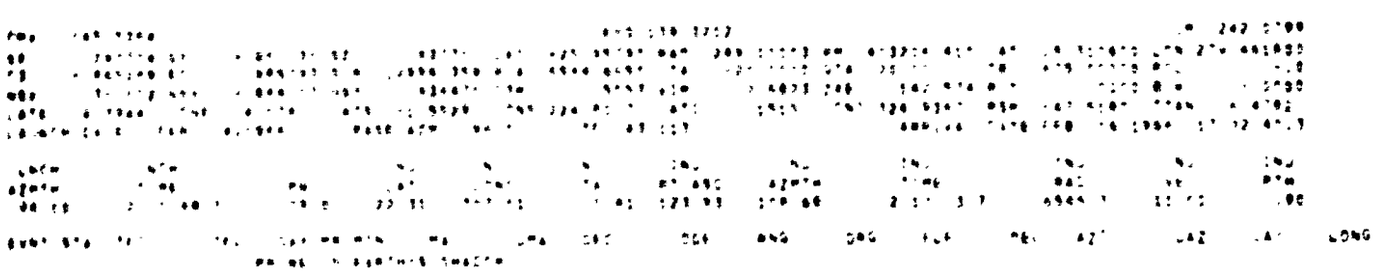
SURVEYOR VIEW PERIODS

GMA	145.5384					EPS	139.1766							LOM	246.6775
SX	.290090	SY	-.850945	SZ	-.437883	DAO	-25.96886	RAO	288.82442	RM	403175.912	LAT	28.310600	LON	279.461800
C3	-.863903	ECC	.985816	SLR	12996.499	RCA	3544.6650	LTA	-20.0000	GTA	20.00	TP	675.00000	POL	-.0
NSX	.308484	NSY	-.845083	NSZ	-.436660	C3L	1.5557	VIM	2.6823	ZAE	142.608	B.T	.0000	B.R	-.0000
LATE	4.7820	LONE	4.0943	LATS	-1.5525	LONS	224.9632	LATI	-.0270	LONI	326.9662	RSM	147.5183	TTAN	6.4807
LAUNCH DATE		FEB	14,1966		BASE AZM	93.0		TF	63.084			ARRIVAL DATE		FEB 16 1966 17 3 37.9	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPTH
93.00	1 46 26.6	27.9	23.49	307.29	-1.52	120.36	106.52	1 57 41.6	6545.8	11.00	-.76

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PRORE IN EARTH'S SHADOW															
INJECTION	.00	11.25	14	1	57.7												
SEPARATION	1.20	12.45	14	1	58.9												
RETRO	3.20	14.45	14	2	.9												
RISE 72	5.28	16.53	14	2	3.0	75.42	-.3002	61.11	.0802	2742.9	-6.48	.00	.1162	332.13	.1182	12.68	334.76
RISE 51	11.35	22.60	14	2	9.0	72.06	-.1068	32.57	-.0301	5251.0	-3.33	.00	.0927	306.70	.0206	.40	357.04
EXTM 72	11.42	22.67	14	2	9.1	317.16	-.0866	20.57	-.1423	2611.2	5.55	39.17	-.0000	55.20	.2113	.28	357.25
RISE 61	12.27	23.52	14	2	10.0	350.93	-.0996	-49.40	.0123	5641.0	6.46	.00	.0044	174.11	-.0658	-1.13	350.65
EXTM 61	14.61	25.86	14	2	12.3	339.31	-.0679	-47.58	.0128	6584.2	6.87	.28	-.0000	166.21	-.0476	-4.66	9.62
EXIT SHA	15.69	26.94	14	2	13.4												
EXIT 72	15.69	26.94	14	2	13.4	303.95	-.0319	-1.72	-.0506	4340.3	7.33	33.85	-.0242	86.75	.0659	-6.08	8.05
EXIT 51	15.69	26.94	14	2	13.4	45.15	-.0950	21.46	-.0519	4814.3	.03	25.62	.0993	312.97	.0284	-6.08	8.05
EXIT 61	15.69	26.94	14	2	13.4	335.28	-.0579	-46.78	.0121	7029.5	6.96	.24	-.0012	153.36	-.0414	-6.08	8.05
SET 61	17.69	28.94	14	2	15.4	329.21	-.0441	-45.42	.0104	7869.8	7.01	.01	-.0025	158.94	-.0325	-8.47	12.15
EXTM 51	34.41	45.66	14	2	32.1	351.63	-.0191	-15.04	-.0126	9278.4	5.41	76.85	-.0000	37.11	.0982	-19.44	22.67
EXTM 72	66.09	77.34	14	3	3.8	284.92	-.0000	-26.04	-.0014	22592.5	4.90	16.83	.0000	114.90	.0014	-25.38	48.19
EXTM 51	84.63	95.88	14	3	22.3	335.59	-.0001	-26.41	-.0010	24294.9	4.46	68.09	.0000	97.15	.0028	-26.41	47.07
RISE 61	142.80	154.05	14	4	20.5	305.74	.0025	-34.62	.0003	44130.2	3.67	-.00	.0015	138.09	.0014	-28.03	44.25
EXTM 51	248.36	259.61	14	6	6.1	.01	.0035	-28.73	.0000	60045.2	3.16	87.01	.0000	180.31	.0217	-28.44	27.68
EXTM 61	416.06	427.31	14	8	53.8	2.90	.0039	-31.93	.0001	93094.5	2.64	17.78	.0000	182.59	.0035	-28.28	353.02
EXTM 72	450.90	462.15	14	9	28.6	.40	.0040	-29.57	.0001	94702.4	2.56	68.34	-.0000	180.94	.0024	-28.23	348.30
RISE 11	619.73	630.98	14	12	17.4	293.97	.0040	-29.93	-.0000	124884.2	1.99	.00	.0026	127.64	.0023	-27.96	306.71
SET 51	646.01	657.26	14	12	43.7	90.00	.0038	-26.85	.0001	127203.8	2.59	11.31	-.0032	245.48	-.0013	-27.93	300.58
SET 61	660.84	672.09	14	12	58.5	60.75	.0040	-30.01	.0001	130437.4	2.47	-.00	-.0022	229.07	.0026	-27.90	297.11
SET 72	841.95	853.20	14	15	59.6	94.11	.0039	-27.31	.0001	153486.7	2.41	-.00	-.0035	242.40	-.0005	-27.66	254.21
RISE 42	851.68	862.93	14	16	9.4	254.99	.0040	-26.22	-.0001	154255.4	1.70	3.73	.0029	119.73	-.0021	-27.69	251.88
EXTM 11	891.54	902.79	14	16	49.2	.84	.0041	-29.67	.0000	155772.8	1.98	25.12	-.0000	180.81	.0040	-27.60	248.34
SET 11	1160.37	1171.62	14	21	18.1	67.39	.0041	-28.57	.0001	189777.9	2.08	.01	-.0017	234.17	.0024	-27.30	177.30
EXTM 42	1276.87	1288.12	14	23	14.6	299.96	.0042	-26.93	.0000	195822.1	1.72	81.71	.0000	.30	-.0234	-27.19	149.02
RISE 51	1412.09	1423.34	15	1	29.8	270.00	.0041	-26.42	-.0000	214461.5	1.28	11.14	.0034	114.12	-.0014	-27.07	118.98
RISE 72	1567.27	1578.52	15	4	5.0	265.99	.0041	-26.72	-.0000	230716.7	1.18	-.01	.0036	116.99	-.0005	-26.95	77.93
RISE 61	1649.05	1660.34	15	5	26.8	296.76	.0041	-28.01	-.0000	238386.2	1.27	.00	.0025	127.97	.0027	-26.89	57.83
SET 42	1699.98	1711.23	15	6	17.7	105.00	.0041	-25.94	.0000	242681.0	1.85	3.56	-.0029	240.49	-.0022	-26.85	48.31
EXTM 51	1768.54	1779.79	15	7	26.2	359.24	.0042	-26.83	.0000	243008.1	1.49	88.71	.0020	148.10	.1412	-26.80	28.43
EXTM 61	1902.48	1913.73	15	9	40.2	.34	.0042	-28.01	.0000	258816.9	1.45	21.75	-.0000	180.33	.0040	-26.71	359.41
EXTM 72	1942.39	1953.64	15	10	20.1	.11	.0042	-27.14	.0000	258677.9	1.44	70.76	-.0000	180.29	.0112	-26.69	348.97
RISE 11	2084.33	2095.58	15	12	42.0	291.92	.0042	-27.46	-.0000	276708.6	1.09	.00	.0028	124.37	.0024	-26.60	310.51
SET 51	2130.92	2142.17	15	13	28.6	90.00	.0041	-26.07	.0000	279379.1	1.75	11.00	-.0034	246.21	-.0015	-26.58	298.99
SET 61	2155.64	2166.89	15	13	53.3	63.86	.0042	-27.51	.0000	282638.8	1.65	-.00	-.0025	232.77	.0027	-26.56	294.88
SET 72	2316.41	2327.66	15	16	34.1	93.93	.0041	-26.29	.0000	295692.0	1.74	-.00	-.0037	243.44	-.0005	-26.47	253.10
RISE 42	2317.26	2328.51	15	16	35.0	295.00	.0041	-25.72	-.0000	295378.9	1.01	3.43	.0029	119.34	-.0023	-26.47	252.89
EXTM 11	2357.52	2368.77	15	17	15.2	.23	.0042	-27.54	.0000	296059.3	1.32	27.25	-.0000	180.23	.0042	-26.45	248.92
SET 11	2630.56	2641.81	15	21	48.3	68.87	.0042	-27.06	.0000	320056.3	1.57	-.00	-.0028	236.17	.0024	-26.32	198.25
EXTM 42	2736.27	2747.52	15	23	34.0	359.96	.0042	-26.09	.0000	321715.0	1.23	80.87	.0000	.27	-.0214	-26.27	149.02
RISE 51	2866.67	2878.12	16	1	44.6	270.00	.0041	-25.79	-.0000	336293.9	.83	10.89	.0034	113.52	-.0015	-2 .21	118.68
RISE 72	3020.65	3031.90	16	4	18.3	266.11	.0042	-25.99	-.0000	348715.2	.72	-.01	.0037	116.26	-.0009	-24 14	78.41
RISE 61	3096.13	3107.38	16	5	33.8	295.39	.0042	-26.87	-.0000	353830.9	.84	.00	.0026	126.31	.0027	-26.12	59.97
SET 42	3154.99	3166.24	16	6	32.7	105.00	.0041	-25.48	.0000	357434.6	1.45	3.28	-.0030	240.85	-.0023	-26.11	44.88
EXTM 51	3218.00	3229.25	16	7	35.7	358.51	.0042	-26.09	.0000	359712.1	1.11	58.62	.0037	105.16	.0393	-26.09	29.15
EXTM 61	3352.23	3363.48	16	9	49.9	.13	.0042	-26.96	.0000	368536.8	1.11	22.80	-.0000	180.13	.0041	-26.05	359.62
EXTM 72	3392.31	3403.56	16	10	30.0	.07	.0042	-26.35	.0000	367668.0	1.11	71.55	-.0000	180.20	.0117	-26.04	348.60
RISE 11	3528.22	3539.47	16	12	45.9	290.72	.0042	-26.42	-.0000	382758.1	.81	.00	.0029	123.26	.0024	-26.01	311.62
SET 51	3580.13	3591.38	16	13	37.8	90.00	.0042	-25.63	.0000	385073.1	1.51	10.83	-.0035	246.63	-.0019	-26.00	298.43
SET 61	3608.10	3619.35	16	14	5.8	64.85	.0042	-26.67	.0000	388180.3	1.43	-.00	-.0026	233.98	.0027	-25.99	291.63
RISE 42	3761.09	3772.34	16	16	38.8	295.00	.0042	-25.41	-.0000	399107.9	1.13	3.23	.0030	119.08	-.0023	-25.96	253.18
SET 72	3762.48	3773.73	16	16	40.2	93.85	.0042	-25.83	.0000	399589.3	1.90	.00	-.0038	243.91	-.0006	-25.96	252.83
IMPACT	3785.01	3796.26	16	17	2.7												
IMPC 42	3785.01	3796.26	16	17	2.7	261.09	.0043	-27.44	-.0000	400999.9	1.72	7.67	.0032	115.82	-.0023	-25.96	247.88
IMPC 11	3785.01	3796.26	16	17	2.7	356.02	.0044	-26.76	.0000	398877.3	2.05	27.91	.0003	175.97	.0044	-25.96	247.88

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPTH	AZ	RT ASC
INJECTION	.00	11.25	14	1	57.693	6545.815	23.4868	307.2912	10.99670	-.7563	106.5207	120.3683
SEPARATION	1.20	12.45	14	1	58.893	6559.885	21.3588	314.1134	10.98537	2.6782	109.2411	127.4883
RETRO	3.20	14.45	14	2	.893	6684.980	17.2698	324.8079	10.88075	8.2981	112.9557	138.6772
EXIT SHA	15.69	26.94	14	2	13.379	9506.007	-6.0838	8.0481	9.11041	33.7892	117.8376	169.0516
IMPACT	3785.01	3796.26	16	17	2.709	401899.781	-25.9621	247.0788	2.22474	68.6545	268.9472	288.9929



EVNT	STA	TFI	T+L	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	14	2	13.062	6546.299	22.3062	307.0055	10.99622	.9009	108.6777	123.9291
SEPARATION		1.20	12.45	14	2	14.262	6582.383	19.9513	313.6574	10.96571	4.3257	111.1871	130.8819
RETRO		3.20	14.45	14	2	16.262	6744.494	15.5968	323.9759	10.83217	9.8757	114.5014	141.7018
EXIT SHA		15.06	26.31	14	2	28.126	9493.250	-6.7728	4.0236	9.11651	33.7320	118.0419	184.7240
IMPACT		3786.78	3798.03	16	17	19.839	401932.008	-25.9523	242.9425	2.22197	68.3860	269.1199	289.1517

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION		.00	11.25	14	2	24.877	6554.070	21.1505	306.6242	10.98962	2.1988	110.8030	126.9088
SEPARATION		1.20	12.45	14	2	26.077	6607.278	18.5824	313.0889	10.94484	5.5665	113.1051	133.2793
RETRO		3.20	14.45	14	2	28.077	6796.250	13.9717	323.0576	10.79050	11.0527	116.3425	143.7484
EXIT SHA		14.61	25.86	14	2	39.483	9487.544	-7.8374	.6672	9.11924	33.7064	113.3510	184.2147
IMPACT		3787.88	3799.13	16	17	32.753	401953.133	-25.9452	239.8242	2.22156	68.3651	269.5216	289.2708

EVNT	STA	TFI	TFL	DAY	HR	MIN	MA	DMA	DEC	DDF	RNG	D/B	FPA	AZI	DAZ	LAT	LONG
							PROBE IN EARTH'S SHADOW										
INJECTION		.00	11.25	14	2	24.9											
SEPARATION		1.20	12.45	14	2	26.1											
RETRO		3.20	14.45	14	2	28.1											
RISE	72	4.65	15.90	14	2	29.5	81.70	-.2333	48.23	.0381	2497.1	-7.31	.00	.1246	318.89	.0492	10.98	329.80
EXTM	72	10.89	22.14	14	2	35.8	337.50	-.1374	11.83	-.1435	2278.8	4.95	98.84	-.0300	45.89	1.084	-2.26	301.49
RISE	51	11.13	22.38	14	2	36.0	78.92	-.0907	25.19	-.0342	5586.2	-2.93	.00	.0889	298.19	.0089	-7.87	308.12
EXIT SHA		14.61	25.86	14	2	39.5												
EXIT	72	14.61	25.86	14	2	39.5	318.62	-.0523	-6.46	-.0538	3701.3	7.19	48.94	-.0474	90.78	.0880	-7.84	.67
EXIT	51	14.61	25.86	14	2	39.5	58.37	-.0853	18.19	-.0471	5227.2	-.49	19.31	.0040	302.06	.0100	-7.84	.67
EXIT	61	14.61	25.86	14	2	39.5	340.85	-.0694	-49.78	.0089	7382.8	6.51	-.46	.0028	173.47	-.0497	-7.84	.67
EXTM	5	38.86	50.11	14	3	3.7	397.34	-.0152	-21.35	-.0077	10942.7	5.29	84.98	-.0000	29.99	.1841	-22.97	29.39
EXTM	72	68.58	79.83	14	3	33.5	292.00	.0001	-28.80	-.0009	23021.7	4.82	23.04	.0000	110.00	.0010	-27.20	39.11
RISE	61	115.70	126.95	14	4	20.6	309.17	.0018	-36.74	.0005	37929.2	3.96	-.00	.0013	141.99	.0009	-28.88	40.15
EXTM	51	212.71	223.96	14	5	57.6	.06	.0032	-29.75	.0000	53292.2	3.32	85.99	-.0000	180.77	.0379	-29.33	97.63
EXTM	61	389.83	401.08	14	8	54.7	3.66	.0038	-32.79	.0002	89145.4	2.70	16.89	.0000	183.22	.0034	-28.96	398.31
EXTM	72	422.57	433.82	14	9	27.4	.96	.0040	-30.33	.0001	90467.5	2.62	67.57	-.0000	181.27	.0090	-29.88	348.19
RISE	11	594.94	606.19	14	12	19.8	294.58	.0040	-30.52	-.0000	121600.6	2.03	.00	.0026	178.42	.0023	-28.40	300.04
SET	51	617.99	629.24	14	12	42.9	90.00	.0038	-27.34	.0001	123511.5	2.02	11.50	-.0032	249.03	-.0013	-28.43	308.68
SET	61	629.76	641.01	14	12	54.6	59.98	.0039	-30.59	.0001	126380.9	2.50	-.00	-.0021	228.19	.0024	-28.41	297.94
SET	72	814.98	826.23	14	15	59.9	94.19	.0039	-27.72	.0001	150297.8	2.44	-.00	-.0034	241.99	-.0004	-28.07	294.20
RISE	42	824.92	836.17	14	16	9.8	294.99	.0040	-26.60	-.0001	151079.3	1.73	5.96	.0028	120.03	-.0021	-28.35	291.83
EXTM	11	865.26	876.51	14	16	50.1	1.00	.0041	-30.10	.0001	153778.3	2.01	24.68	-.0000	180.95	.0039	-27.98	248.19
SET	11	1132.39	1143.64	14	21	17.3	67.08	.0041	-28.90	.0001	186851.8	2.10	-.00	-.0026	233.74	.0024	-27.60	177.73
EXTM	42	1250.74	1261.59	14	23	15.2	359.95	.0042	-27.21	.0000	193152.2	1.73	81.99	.0000	.37	-.0248	-27.46	149.03
RISE	51	1385.78	1397.03	15	1	30.7	270.00	.0041	-26.66	-.0000	211909.8	1.30	11.23	.0034	114.33	-.0014	-27.31	119.99
RISE	72	1540.87	1552.12	15	4	5.7	265.95	.0041	-26.92	-.0000	228269.3	1.19	-.01	.0036	117.20	-.0005	-27.16	77.94
RISE	61	1623.63	1635.08	15	5	28.7	297.01	.0041	-28.22	-.0000	236095.0	1.28	.00	.0025	128.27	.0027	-27.08	97.96
SET	42	1673.61	1684.86	15	6	18.5	105.00	.0041	-26.12	.0000	240303.1	1.86	3.67	-.0029	240.35	-.0022	-27.04	48.32
EXTM	51	1741.49	1752.74	15	7	26.4	359.04	.0042	-27.01	.0000	240618.5	1.50	88.47	.0021	146.22	.1158	-26.98	28.62
EXTM	61	1876.41	1887.66	15	9	41.3	.39	.0042	-28.18	.0000	256599.1	1.46	21.58	.0000	180.37	.0040	-26.87	358.37
EXTM	72	1916.18	1927.43	15	10	21.1	.12	.0042	-27.30	.0000	256455.8	1.45	70.60	-.0000	180.33	.0111	-26.84	348.95
RISE	11	2058.66	2069.91	15	12	43.5	231.65	.0042	-27.60	-.0000	274588.3	1.09	.00	.0028	124.55	.0024	-26.73	318.37
SET	51	2104.65	2115.90	15	13	29.5	90.00	.0041	-26.19	.0000	277221.5	1.76	11.05	-.0034	246.10	-.0014	-26.70	299.01
SET	61	2128.76	2140.01	15	13	53.6	63.70	.0042	-27.64	.0000	280445.8	1.66	-.00	-.0025	232.58	.0027	-26.68	293.05
SET	72	2290.23	2301.48	15	16	35.1	93.95	.0041	-26.39	.0000	293618.4	1.74	-.00	-.0036	243.34	-.0005	-26.58	293.10
RISE	42	2291.09	2302.34	15	16	36.0	255.00	.0041	-25.82	-.0000	293299.6	1.01	3.49	.0029	119.41	-.0023	-26.58	292.88
EXTM	11	2331.45	2342.70	15	17	16.3	.27	.0042	-27.64	.0000	294019.7	1.33	27.15	-.0000	180.26	.0042	-26.59	248.89
SET	11	2604.06	2615.31	15	21	48.9	68.80	.0042	-27.14	.0000	318062.2	1.57	-.00	-.0028	236.07	.0024	-26.39	178.33
EXTM	42	2710.17	2721.42	15	23	35.0	359.98	.0042	-26.15	.0000	319781.7	1.24	80.93	-.0000	.17	-.0175	-26.33	140.00
RISE	51	2840.72	2851.97	16	1	45.6	270.00	.0041	-25.84	-.0000	334391.5	.84	10.91	.0034	113.57	-.0015	-26.26	110.99
RISE	72	2994.49	3005.74	16	4	19.4	266.11	.0041	-26.03	-.0000	346615.9	.77	-.00	.0037	116.30	-.0005	-26.18	78.40
RISE	61	3070.27	3081.52	16	5	35.1	295.43	.0042	-26.90	-.0000	352079.8	.84	.00	.0026	126.35	.0027	-26.19	99.93
SET	42	3128.93	3140.18	16	6	33.8	105.00	.0041	-25.51	.0000	355667.7	1.45	3.30	-.0030	240.84	-.0023	-26.13	44.88
EXTM	51	3191.96	3203.21	16	7	36.8	358.51	.0042	-26.12	.0000	353945.3	1.11	88.61	.0037	106.03	.0415	-26.11	29.14
EXTM	61	3326.23	3337.48	16	9	51.1	.15	.0042	-26.98	.0000	366762.3	1.11	22.79	-.0000	180.14	.0041	-26.06	359.60
EXTM	72	3366.26	3377.51	16	10	31.1	.07	.0042	-26.36	.0000	365882.5	1.11	71.54	-.0000	180.21	.0117	-26.05	349.60
RISE	11	3502.19	3513.44	16	12	47.1	290.72	.0042	-26.63	-.0000	380934.4	.80	.00	.0029	123.27	.0024	-26.01	311.61
SET	51	3554.05	3565.30	16	13	38.9	90.00	.0042	-25.63	.0000	381617.8	1.50	10.83	-.0035	246.63	-.0015	-26.00	298.64
SET	61	3582.01	3593.26	16	14	6.9	64.84	.0042	-26.67	.0000	386303.8	1.42	-.00	-.0026	233.98	.0027	-25.99	291.63
RISE	42	3735.26	3746.51	16	16	40.1	255.00	.0042	-25.39	-.0000	396822.1	.97	3.23	.0030	119.07	-.0023	-25.99	253.17
SET	72	3736.63	3747.88	16	16	41.5	93.85	.0042	-25.81	.0000	397287.9	1.72	-.00	-.0037	243.92	-.0005	-25.99	252.83
EXTM	11	3775.19	3786.44	16	17	20.1	.08	.0043	-26.75	.0000	397569.8	1.61	28.04	-.0000	180.08	.0043	-25.99	243.07
IMPACT		3787.88	3799.13	16	17	32.8												
IMPC	42	3787.88	3799.13	16	17	32.8	268.33	.0043	-25.47	-.0000	400467.1	1.71	13.09	.0033	112.10	-.0026	-25.99	239.82
IMPC	11	3787.88	3799.13	16	17	32.8	3.38	.0044	-26.75	.0000	3989 5.8	2.09	27.96	-.0002	183.41	.0044	-25.99	239.82

FEB 14, 1966
99 DEGREES

SURVEYOR VIEW PERIODS

GHA	148.5384					EPS	139.5161						LON	235.8038	
SX	.2049316	SY	-.8490091	SZ	-.4374711	DAO	-25.94260	RAD	289.23967	RM	403248.336	LAT	28.310600	LON	279.461800
C3	-.8887747	FPC	.9959734	SLN	12995.983	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TH	275.00000	RCL	-.0
NSX	.2147121	NSY	-.8431139	NSZ	-.4362181	C3M	1.5559	VIM	2.6824	ZAE	142.445	B.T	.0000	B.R	-.0000
LATE	4.8114	LONE	4.0541	LATS	-1.5530	LONS	224.5815	LATI	-.6202	LONI	326.6560	RSM	147.5176	TTAN	6.4765
LAUNCH DATE		FEB	14.1966		BASE AZM	102.0		TF	63.178			ARRIVAL DATE		FEB 16 1966 17 48 39.8	

LNCH AZMTH	LNCH TIME	PH	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	2 22 44.7	28.1	20.02	306.16	6.27	128.33	112.91	2 33 59.7	6564.2	10.98	3.11

EVNT STA	TFI	TFL	DAY PHASE	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						EARTH'S SHADOW											
INJECTION	.00	11.25	14	2	33.0												
SEPARATION	1.20	12.45	14	2	35.2												
RETRO	3.20	14.45	14	2	37.2												
RISE 72	4.47	15.72	14	2	38.5	82.59	-.1808	42.90	.0183	2956.2	-7.49	.00	.1266	313.41	.0429	9.29	327.64
EXTM 72	10.78	22.03	14	2	44.8	346.06	-.1542	7.87	-.1361	2201.8	4.76	68.98	-.0000	41.70	.5704	-3.90	349.24
RISE 51	11.69	22.34	14	2	45.1	78.95	-.0849	21.68	-.0378	5707.4	-2.77	.00	.0874	294.21	.0034	-4.43	350.08
EXIT SHA	14.23	25.48	14	2	48.2												
EXIT 72	14.23	25.48	14	2	48.2	325.36	-.0637	-10.33	-.0524	3497.6	7.06	55.73	-.0636	96.76	.0909	-9.13	357.74
EXIT 51	14.23	25.48	14	2	48.2	63.16	-.0812	13.58	-.0467	5384.8	-.63	17.06	.0916	294.88	.0037	-9.13	357.74
EXIT 61	14.23	25.48	14	2	48.2	355.86	-.0739	-51.32	.0068	7198.2	6.34	-1.63	.0043	177.41	-.0465	-9.13	357.74
EXTM 51	40.85	52.10	14	3	14.8	359.29	-.0140	-24.39	-.0061	11663.5	5.24	88.51	-.0000	25.79	.5420	-24.87	28.15
EXTM 72	69.84	81.09	14	3	43.8	294.47	.0001	-30.44	-.0006	23296.5	4.78	29.04	.0000	119.99	.0007	-28.44	36.99
RISE 61	112.38	123.63	14	4	26.4	311.21	.0017	-37.90	.0006	37188.4	4.00	-.00	.0013	143.58	.0008	-29.76	38.13
EXTM 51	200.37	211.62	14	5	54.4	.15	.0031	-30.50	.0001	50877.2	3.39	85.16	-.0000	181.52	.0311	-30.04	27.55
EXTM 61	382.10	393.35	14	8	56.1	4.14	.0038	-33.36	.0002	87998.6	2.72	16.30	.0000	183.60	.0033	-29.47	351.87
EXTM .2	413.47	424.72	14	9	27.5	.68	.0040	-30.87	.0001	89120.5	2.64	67.02	-.0000	181.51	.0087	-29.37	345.04
RISE 11	587.75	599.00	14	12	21.7	295.01	.0040	-30.92	.0000	120636.4	2.04	.00	.0025	128.97	.0023	-28.87	305.59
SET 51	608.72	619.97	14	12	42.7	90.00	.0038	-27.71	.0001	122257.7	2.63	11.65	-.0031	244.68	-.0023	-28.81	300.72
SET 61	618.22	629.47	14	12	52.2	59.43	.0039	-31.01	.0001	124841.1	2.51	-.00	-.0021	227.56	.0026	-28.79	298.51
SET 72	806.20	817.45	14	16	.2	94.24	.0039	-28.02	.0001	149237.8	2.44	-.01	-.0034	241.69	-.0004	-28.37	254.18
RISE 42	816.12	827.37	14	16	10.1	254.99	.0040	-26.89	-.0000	150001.4	1.74	4.14	.0028	120.26	-.0021	-28.35	251.81
EXTM 11	856.81	868.06	14	16	50.8	1.10	.0041	-30.41	.0001	152811.2	2.01	24.37	-.0000	181.04	.0039	-28.27	242.09
SET 11	1122.61	1133.86	14	21	16.6	66.84	.0041	-29.13	.0001	185799.0	2.10	-.00	-.0026	233.43	.0024	-27.83	177.90
EXTM 42	1241.68	1252.93	14	23	15.7	359.97	.0042	-27.41	.0000	192249.0	1.74	82.19	-.0000	.25	-.0238	-27.66	149.01
RISE 51	1377.09	1388.34	15	1	31.1	270.00	.0041	-26.83	-.0000	211030.3	1.30	11.30	.0034	114.50	-.0014	-27.49	115.94
RISE 72	1532.07	1543.32	15	4	6.1	265.92	.0041	-27.08	-.0000	227417.9	1.19	-.01	.0036	117.36	-.0005	-27.31	77.96
RISE 61	1615.88	1627.13	15	5	29.9	297.19	.0041	-28.37	-.0000	235336.7	1.28	.00	.0025	128.49	.0027	-27.22	57.38
SET 42	1664.88	1676.13	15	6	18.9	105.00	.0041	-26.25	.0000	239470.1	1.86	3.75	-.0029	240.24	-.0022	-27.18	45.33
EXTM 51	1732.10	1743.35	15	7	26.1	358.87	.0042	-27.15	.0000	239746.9	1.50	88.27	.0022	144.57	.1002	-27.11	28.78
EXTM 61	1867.84	1879.09	15	9	41.8	.43	.0042	-28.30	.0000	255831.6	1.46	21.46	.0000	180.40	.0040	-26.99	355.33
EXTM 72	1907.51	1918.76	15	10	21.5	.13	.0042	-27.42	.0000	255676.6	1.45	70.49	-.0000	180.35	.0111	-26.95	345.54
RISE 11	2050.37	2061.62	15	12	44.4	291.75	.0042	-27.70	-.0000	273852.8	1.10	.00	.0028	124.68	.0024	-26.83	310.27
SET 51	2095.93	2107.18	15	13	29.9	90.00	.0041	-26.29	.0000	276450.3	1.76	11.09	-.0034	246.01	-.0014	-26.80	299.01
SET 61	2119.57	2130.82	15	13	53.6	63.59	.0042	-27.73	.0000	279642.6	1.66	-.00	-.0025	232.44	.0027	-26.78	293.16
SET 72	2281.56	2292.81	15	16	35.6	93.96	.0041	-26.47	.0001	292873.6	1.74	-.00	-.0036	243.26	-.0005	-26.66	253.09
RISE 42	2282.39	2293.64	15	16	36.4	255.00	.0041	-25.90	-.0000	292547.8	1.01	3.54	.0029	119.47	-.0023	-26.66	252.88
EXTM 11	2322.83	2334.08	15	17	16.8	.29	.0042	-27.72	.0000	293290.7	1.33	27.07	-.0000	180.29	.0042	-26.63	242.87
SET 11	2595.11	2606.36	15	21	49.1	68.74	.0042	-27.19	.0000	317320.2	1.57	-.00	-.0028	235.99	.0024	-26.45	175.39
EXTM 42	2701.44	2712.69	15	23	35.4	359.98	.0042	-26.20	.0000	319062.7	1.24	80.98	-.0000	.19	-.0184	-26.38	149.01
RISE 51	2832.02	2843.27	16	1	46.0	270.00	.0041	-25.88	-.0000	333680.3	.84	10.93	.0034	113.61	-.0015	-26.30	116.59
RISE 72	2985.76	2997.01	16	4	19.8	266.10	.0041	-26.06	-.0000	345912.2	.77	-.00	.0037	116.33	-.0005	-26.22	78.40
RISE 61	3061.70	3072.95	16	5	35.7	295.46	.0042	-26.93	-.0000	351390.6	.84	.00	.0026	126.40	.0027	-26.18	59.49
SET 42	3120.20	3131.45	16	6	34.2	105.00	.0041	-25.53	.0000	354965.1	1.45	3.31	-.0030	240.82	-.0023	-26.16	44.88
EXTM 51	3183.38	3194.63	16	7	37.4	358.55	.0042	-26.14	.0000	353252.8	1.11	88.64	.0036	107.34	.0457	-26.13	29.11
EXTM 61	3317.57	3328.82	16	9	51.6	.16	.0042	-26.99	.0000	366060.2	1.11	22.77	-.0000	180.16	.0041	-26.08	355.59
EXTM 72	3357.57	3368.82	16	10	31.6	.08	.0042	-26.38	.0000	365173.9	1.11	71.52	-.0000	180.22	.0116	-26.07	345.60
RISE 11	3493.54	3504.79	16	12	47.5	290.73	.0042	-26.64	-.0000	380213.3	.80	.00	.0029	123.29	.0024	-26.02	311.60
SET 51	3545.34	3556.59	16	13	39.3	90.00	.0042	-25.63	.0000	382483.6	1.50	10.83	-.0035	246.62	-.0015	-26.00	298.64
SET 61	3573.28	3584.53	16	14	7.3	64.83	.0042	-26.68	.0000	385561.0	1.42	-.00	-.0026	233.67	.0027	-26.00	291.64
RISE 42	3726.44	3737.69	16	16	40.6	255.00	.0042	-25.39	-.0000	395971.7	.94	3.23	.0030	119.07	-.0023	-25.95	253.17
SET 72	3728.00	3739.25	16	16	42.0	93.85	.0042	-25.81	.0000	396433.6	1.69	-.00	-.0037	243.92	-.0005	-25.95	252.83
EXTM 11	3766.59	3777.84	16	17	20.6	.06	.0043	-26.75	.0000	396553.6	1.46	28.04	.0000	180.06	.0043	-25.94	243.09
IMPACT	3790.65	3801.90	16	17	44.6												
IMPC 42	3790.65	3801.90	16	17	44.6	271.20	.0043	-25.47	-.0000	400246.6	1.71	15.28	.0033	110.67	-.0021	-25.94	236.95
IMPC 11	3790.65	3801.90	16	17	44.6	6.29	.0044	-26.74	.0000	398964.6	2.10	27.77	-.0004	186.35	.0044	-25.94	236.95

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	14	2	33.996	6564.323	20.0165	306.1746	10.98096	3.1130	112.9103	128.3461
SEPARATION	1.20	12.45	14	2	35.196	6630.336	17.2444	312.4481	10.92554	6.5034	115.0134	134.9203
RETRO	3.20	14.45	14	2	37.196	6839.294	12.3795	322.0923	10.75611	11.9353	117.6158	145.0660
EXIT SHA	14.23	25.48	14	2	48.229	9475.620	-9.1342	357.7384	9.12489	33.6524	118.7664	183.4780
IMPACT	3790.65	3801.90	16	17	44.650	401972.898	-25.9388	236.9517	2.22057	68.3243	270.0438	289.3806

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SURVEYOR VIEW PERIODS

GHA	145.5384					EPS	139.5999							LOM	233.2480
SX	.297777	SY	-.848549	SZ	-.437371	DAO	-25.93626	RAO	289.33722	RM	403765.336	LAT	28.310870	LON	279.461800
C3	-.872300	ECC	.985478	SLR	12995.600	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.316195	NSY	-.842510	NS7	-.436116	C3M	1.5556	VIM	2.6823	ZAE	142.331	B.T	.0000	B.R	-.0000
LATE	4.8182	LONE	4.1441	LATS	-1.5530	LONS	224.5898	LATI	-.9233	LONI	326.8767	RSM	147.5175	TTAN	6.4771
LAUNCH DATE		FEB	14,1966		BASE AZM	105.0		TF	63.236				ARRIVAL DATE	FEB	16 1966 17 59 14.9

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FTH
105.00	2 29 51.0	28.1	18.91	305.65	7.74	129.60	115.00	2 41 6.0	6574.4	10.97	3.84

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	14	2	41.1												
SEPARATION	1.20	12.45	14	2	42.3												
RETRO	3.20	14.45	14	2	44.3												
RISE 72	4.34	15.59	14	2	45.4	83.78	-.1642	37.96	-.0004	3007.5	-7.57	.00	.1276	308.39	.0222	7.93	328.95
EXTM 72	10.74	21.99	14	2	51.8	353.39	-.1645	.70	-.1254	2182.8	4.67	79.17	-.0000	37.74	1.1006	-5.72	347.37
RISE 51	11.08	22.33	14	2	52.2	80.83	-.0800	18.30	-.0404	5809.4	-2.62	.00	.0860	290.40	-.0012	-6.20	348.26
EXIT SHA	13.94	25.19	14	2	55.0												
EXIT 72	13.94	25.19	14	2	55.0	331.78	-.0754	-14.97	-.0493	3356.5	6.95	61.49	-.0810	106.90	.0717	-10.62	355.16
EXIT 51	13.94	25.19	14	2	55.0	67.23	-.0775	10.70	-.0470	5520.7	-.72	15.19	.0894	290.15	-.0018	-10.62	355.16
EXIT 61	13.94	25.19	14	2	55.0	1.24	-.0775	-52.94	.0046	7351.3	6.20	-3.09	.0054	180.75	-.0468	-10.62	355.16
EXTM 51	42.83	54.08	14	3	23.9	.76	-.0130	-27.42	-.0047	12360.5	5.19	88.19	.0000	201.89	-.3952	-26.85	27.19
EXTM 72	70.77	82.02	14	3	51.9	296.40	.0001	-32.19	-.0004	23504.6	4.75	26.49	.0000	122.12	.0004	-29.80	38.27
EXTM 51	93.94	105.19	14	4	15.0	348.60	.0002	-31.63	-.0002	26895.1	4.30	78.40	.0000	123.16	.0014	-30.58	36.81
RISE 61	114.25	125.50	14	4	35.3	313.25	.0017	-39.00	.0007	37712.1	3.97	-.00	.0013	145.53	.0007	-30.86	36.31
EXTM 51	190.88	202.13	14	5	52.0	.29	.0030	-31.56	.0001	48991.4	3.44	84.18	.0000	182.41	.0249	-30.89	27.43
EXTM 61	376.88	388.13	14	8	58.0	4.66	.0038	-34.00	.0002	87247.2	2.73	15.64	.0000	184.01	.0033	-30.06	351.39
EXTM 72	406.88	418.13	14	9	28.0	.86	.0039	-31.49	.0001	88131.1	2.65	66.40	-.0000	181.83	.0084	-29.93	344.88
RISE 11	582.99	594.24	14	12	24.1	295.49	.0040	-31.38	.0000	119991.8	2.05	.00	.0025	129.59	.0023	-29.30	308.09
SET 51	601.65	612.90	14	12	42.8	90.00	.0038	-28.14	.0001	121284.2	2.64	11.82	-.0031	244.28	-.0012	-29.25	300.76
SET 61	608.51	619.76	14	12	49.6	58.79	.0039	-31.48	.0002	123527.6	2.52	-.00	-.0021	226.84	.0026	-29.23	299.17
SET 72	799.59	810.84	14	16	.7	94.30	.0039	-28.36	.0001	148427.4	2.45	-.01	-.0034	241.34	-.0004	-28.72	254.14
RISE 42	809.43	820.68	14	16	10.5	254.99	.0040	-27.22	-.0000	149161.7	1.74	4.34	.0028	120.53	-.0021	-28.69	251.79
EXTM 11	850.53	861.78	14	16	51.6	1.22	.0041	-30.75	.0001	152091.3	2.02	24.03	-.0000	181.15	.0039	-28.60	241.98
SET 11	1114.76	1126.01	14	21	15.9	66.57	.0041	-29.40	.0001	184936.6	2.10	-.00	-.0026	233.07	.0024	-28.09	178.26
EXTM 42	1234.92	1246.17	14	23	16.0	359.95	.0042	-27.65	.0000	191524.9	1.74	82.43	-.0000	.37	-.0263	-27.89	149.03
RISE 51	1370.44	1381.69	15	1	31.5	270.00	.0041	-27.04	-.0000	210330.0	1.30	11.38	.0034	114.69	-.0014	-27.69	115.93
RISE 72	1525.30	1536.55	15	4	6.4	265.89	.0041	-27.26	-.0000	226736.9	1.19	-.01	.0036	117.54	-.0005	-27.49	77.98
RISE 61	1610.06	1621.31	15	5	31.2	297.40	.0041	-28.54	-.0000	234755.2	1.28	.00	.0025	128.75	.00	-27.39	57.16
SET 42	1658.17	1669.42	15	6	19.3	105.00	.0041	-26.41	.0001	238799.5	1.86	3.85	-.0029	240.12	-.0022	-27.34	45.33
EXTM 51	1724.57	1735.82	15	7	25.7	358.66	.0042	-27.30	.0000	239019.8	1.50	88.03	.0023	142.78	.0057	-27.26	28.99
EXTM 61	1861.30	1872.55	15	9	42.4	.47	.0042	-28.44	.0000	255219.1	1.46	21.32	.0000	180.44	.0040	-27.12	355.29
EXTM 72	1900.87	1912.12	15	10	22.0	.14	.0042	-27.55	.0000	255047.8	1.45	70.35	-.0000	180.37	.0111	-27.08	345.53
RISE 11	2044.15	2055.40	15	12	45.2	291.86	.0042	-27.82	-.0000	273264.0	1.10	.00	.0028	124.84	.0024	-26.95	310.15
SET 51	2089.21	2100.46	15	13	30.3	90.00	.0041	-26.40	.0001	275818.1	1.76	11.13	-.0034	245.91	-.0014	-26.91	299.01
SET 61	2112.32	2123.57	15	13	53.4	63.45	.0042	-27.84	.0000	278971.7	1.66	-.00	-.0025	232.28	.0027	-26.89	293.30
SET 72	2274.90	2286.15	15	16	36.0	93.98	.0041	-26.56	.0001	292260.1	1.75	-.00	-.0036	243.16	-.0005	-26.75	253.07
RISE 42	2275.70	2286.95	15	16	36.8	255.00	.0041	-25.99	-.0000	291925.2	1.01	3.59	.0029	119.55	-.0022	-26.75	252.88
EXTM 11	2316.23	2327.48	15	17	17.3	.31	.0042	-27.82	.0000	292692.1	1.33	26.98	-.0000	180.31	.0042	-26.72	242.84
SET 11	2588.07	2599.32	15	21	49.2	68.67	.0042	-27.26	.0000	316687.7	1.57	.01	-.0028	235.89	.0024	-26.91	179.46
EXTM 42	2694.71	2705.96	15	23	35.8	359.97	.0042	-26.26	.0000	318455.3	1.24	81.04	-.0000	.20	-.0194	-26.44	149.01
RISE 51	2825.29	2836.54	16	1	46.4	270.00	.0041	-25.93	-.0000	333074.8	.84	10.94	.0034	113.65	-.0015	-26.38	116.59
RISE 72	2979.00	2990.25	16	4	20.1	266.10	.0041	-26.10	-.0000	345308.1	.77	-.00	.0037	116.37	-.0005	-26.26	78.41
RISE 61	3055.24	3066.49	16	5	36.3	295.50	.0042	-26.96	-.0000	350877.4	.84	.00	.0026	126.44	.0027	-26.21	59.45
SET 42	3113.58	3124.83	16	6	34.7	105.00	.0041	-25.56	.0000	354432.3	1.45	3.33	-.0030	240.80	-.0023	-26.18	44.88
EXTM 51	3176.67	3187.92	16	7	37.8	358.53	.0042	-26.16	.0000	352708.5	1.11	88.61	.0036	108.09	.0468	-26.16	29.13
EXTM 61	3310.97	3322.22	16	9	52.1	.18	.0042	-27.01	.0000	365507.4	1.11	22.75	-.0000	180.17	.0041	-26.10	355.58
EXTM 72	3350.92	3362.17	16	10	32.0	.08	.0042	-26.40	.0000	364610.7	1.11	71.51	-.0000	180.23	.0117	-26.08	345.59
RISE 11	3486.91	3498.16	16	12	48.0	290.74	.0042	-26.65	-.0000	379624.2	.79	.00	.0029	123.30	.0024	-26.03	311.59
SET 51	3538.66	3549.91	16	13	39.8	90.00	.0042	-25.64	.0000	381876.5	1.50	10.83	-.0035	246.62	-.0015	-26.01	298.64
SET 61	3566.56	3577.81	16	14	7.7	64.82	.0042	-26.69	.0000	384942.7	1.41	-.00	-.0026	233.96	.0027	-26.00	291.66
RISE 42	3719.99	3731.24	16	16	41.1	255.00	.0042	-25.39	-.0000	395251.4	.91	3.22	.0030	119.07	-.0023	-25.95	253.17
SET 72	3721.34	3732.59	16	16	42.4	93.85	.0042	-25.81	.0000	395710.2	1.66	-.00	-.0037	243.92	-.0005	-25.95	252.83
EXTM 11	3760.12	3771.37	16	17	21.2	.10	.0043	-26.75	.0000	395739.7	1.38	28.04	.0000	180.10	.0043	-25.94	243.05
IMPACT	3794.14	3805.39	16	17	55.2												
IMPC 42	3794.14	3805.39	16	17	55.2	273.76	.0043	-25.48	-.0000	400058.7	1.70	17.25	.0033	109.41	-.0021	-25.93	234.40
IMPC 11	3794.14	3805.39	16	17	55.2	8.88	.0044	-26.73	.0000	399012.6	2.11	27.49	-.0005	188.94	.0044	-25.93	234.40

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FTH	AZ	RT ASC
INJECTION	.00	11.25	14	2	41.100	6574.788	18.9033	305.6709	10.97217	3.8436	115.0071	129.6234
SEPARATION	1.20	12.45	14	2	42.300	6650.417	15.9338	311.7538	10.90875	7.2182	116.9211	136.0071
RETRO	3.20	14.45	14	2	44.300	6874.445	10.8141	321.0997	10.72820	12.6053	119.2055	145.8504
EXIT SHA	13.94	25.19	14	2	55.040	9464.273	-10.6197	355.1572	9.13022	33.6008	119.2712	182.6042
IMPACT	3794.14	3805.39	16	17	55.236	401994.090	-25.9331	234.3962	2.21766	68.0695	270.5742	289.4789

SURVEYOR VIEW PERIODS

GHA	145.5384				EPS 139.6684							LOM	230.9241
SX	.299104	SY	-.848129	SZ	-.437280	DAO	-25,93043	RAO	289.42590	RM	403280.742	LAT	28.310600
CB	-.876541	ECC	.985408	SLR	12995.142	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000
NBX	.317553	NSY	-.842047	NSZ	-.436025	C3M	1.5555	VIM	2.6823	ZAE	142.189	B.T	.0000
LATE	4.8245	LONE	4.0400	LATS	-1.5531	LONS	224.4112	LATI	-1.2522	LONI	326.6837	RSM	147.5174
LAUNCH DATE	FEB 14.1966			BASE AZM	108.0		TF 63.304					ARRIVAL DATE	FEB 16 1966 18 8 52.3

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	2 35 29.2	28.1	17.83	305.09	8.89	130.45	117.09	2 46 44.2	6583.9	10.96	4.41

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PRDRE IN EARTH'S SHADOW														
INJECTION	.00	11.25	14	2	46.7												
SEPARATION	1.20	12.45	14	2	47.9												
RETRO	3.20	14.45	14	2	49.9												
RISE 72	4.26	15.51	14	2	51.0	84.77	-.1511	33.29	-.0182	3055.0	-7.54	.00	.1276	303.65	.0028	6.49	324.45
EXIT 72	10.60	21.85	14	2	57.3	1.54	-.1766	-5.86	-.1190	2170.9	4.39	87.45	.2003	323.21	1.5751	-7.39	345.28
RISE 51	11.09	22.34	14	2	57.8	82.59	-.0757	14.97	-.0429	5899.8	-2.47	.00	.0846	286.66	-.0055	-8.24	346.58
EXIT SHA	13.70	24.95	14	3	.4												
EXIT 72	13.70	24.95	14	3	.4	338.05	-.0873	-20.13	-.0453	3270.5	6.82	65.49	-.0936	122.20	.0085	-12.23	352.81
EXIT 51	13.70	24.95	14	3	.4	70.84	-.0740	7.80	-.0478	5643.9	-.79	13.53	.0873	285.73	-.0066	-12.23	352.81
EXIT 61	13.70	24.95	14	3	.4	6.20	-.0804	-54.35	.0022	7528.4	6.09	-4.73	.0061	183.62	-.0467	-12.23	352.81
EXTM 51	44.95	56.20	14	3	31.7	1.74	-.0121	-30.43	-.0035	13094.4	5.14	85.07	-.0006	197.78	-.1279	-28.89	26.53
EXTM 72	71.56	82.81	14	3	58.3	297.92	.0000	-34.01	-.0001	23697.0	4.73	27.47	.0000	124.36	.0002	-31.26	33.88
EXTM 51	94.42	105.67	14	4	21.2	350.32	.0001	-33.23	-.0001	27061.8	4.29	78.74	.0000	133.96	.0005	-31.87	35.41
RISE 61	119.64	130.89	14	4	46.4	315.25	.0019	-40.01	.0007	39079.4	3.90	-.00	.0014	147.37	.0008	-32.05	34.64
EXTM 51	184.16	195.41	14	5	50.9	.55	.0029	-32.65	.0002	47645.2	3.48	83.07	-.0000	183.82	.0201	-31.84	27.21
EXTM 61	373.58	384.83	14	9	.3	5.21	.0038	-34.67	.0002	86803.1	2.74	14.94	.0000	184.43	.0033	-30.70	350.88
EXTM 72	401.89	413.14	14	9	28.6	1.00	.0039	-32.16	.0001	87385.2	2.66	65.73	.0000	182.06	.0081	-30.55	344.75
RISE 11	580.08	591.33	14	12	26.8	296.04	.0040	-31.88	.0000	119593.8	2.05	.01	.0025	130.27	.0023	-29.78	304.53
SET 51	596.23	607.48	14	12	43.0	90.00	.0038	-28.61	.0001	120523.3	2.64	12.00	-.0031	243.83	-.0012	-29.72	300.79
SET 61	600.13	611.38	14	12	46.9	58.09	.0039	-31.99	.0002	122382.2	2.53	-.00	-.0020	226.05	.0026	-29.71	299.89
SET 72	794.60	805.85	14	16	1.3	94.37	.0039	-28.73	.0001	147804.2	2.45	-.01	-.0034	240.96	-.0004	-29.09	254.09
RISE 42	804.32	815.57	14	16	11.1	254.99	.0040	-27.59	-.0000	148501.2	1.75	4.57	.0028	120.82	-.0021	-29.07	251.78
EXTM 11	845.86	857.11	14	16	52.6	1.34	.0041	-31.13	.0001	151556.8	2.02	23.65	.0000	181.26	.0039	-28.96	241.86
SET 11	1108.35	1119.60	14	21	15.1	66.27	.0041	-29.69	.0001	184216.0	2.10	-.00	-.0026	232.68	.0024	-28.37	178.56
EXTM 42	1229.69	1240.94	14	23	16.4	359.93	.0042	-27.91	.0000	190945.0	1.74	82.69	.0000	.49	-.0280	-28.14	149.05
RISE 51	1365.30	1376.55	15	1	32.0	270.00	.0041	-27.26	-.0000	209770.7	1.31	11.47	.0034	114.90	-.0014	-27.92	115.93
RISE 72	1520.01	1531.26	15	4	6.7	265.86	.0041	-27.45	-.0000	226181.8	1.20	-.01	.0036	117.74	-.0005	-27.69	78.01
RISE 61	1605.82	1617.07	15	5	32.6	297.63	.0042	-28.73	-.0000	234303.9	1.29	.00	.0025	129.02	.0027	-27.57	56.93
SET 42	1652.96	1664.21	15	6	19.7	105.00	.0041	-26.58	.0001	238248.7	1.86	3.96	-.0029	239.98	-.0022	-27.51	45.34
EXTM 51	1718.96	1730.21	15	7	25.7	358.55	.0042	-27.47	.0000	238448.7	1.51	87.84	.0011	143.59	.0787	-27.43	29.09
EXTM 61	1856.27	1867.52	15	9	43.0	.51	.0042	-28.59	.0000	254720.4	1.47	21.17	.0000	180.48	.0040	-27.27	355.25
EXTM 72	1895.71	1906.96	15	10	22.4	.15	.0042	-27.70	.0000	254529.4	1.45	70.21	-.0000	180.40	.0110	-27.22	345.52
RISE 11	2039.44	2050.69	15	12	46.2	291.99	.0042	-27.95	-.0000	272782.4	1.10	.00	.0028	125.00	.0024	-27.07	310.03
SET 51	2083.97	2095.22	15	13	30.7	90.00	.0041	-26.52	.0001	275287.4	1.76	11.18	-.0034	245.80	-.0014	-27.03	299.02
SET 61	2106.49	2117.74	15	13	53.2	63.30	.0042	-27.97	.0001	278397.5	1.66	-.00	-.0025	232.10	.0027	-27.00	293.45
SET 72	2269.73	2280.98	15	16	36.5	94.00	.0041	-26.66	.0001	291742.0	1.75	-.00	-.0036	243.06	-.0005	-26.85	253.06
RISE 42	2270.48	2281.73	15	16	37.2	255.00	.0041	-26.09	-.0000	291396.8	1.01	3.65	.0029	119.63	-.0022	-26.85	252.87
EXTM 11	2311.10	2322.35	15	17	17.8	.34	.0042	-27.92	.0000	292188.4	1.33	26.87	-.0000	180.34	.0042	-26.81	242.82
SET 11	2582.52	2593.77	15	21	49.3	68.60	.0042	-27.34	.0000	316141.9	1.57	.01	-.0028	235.80	.0024	-26.59	175.54
EXTM 42	2689.43	2700.68	15	23	36.2	359.97	.0042	-26.33	.0000	317928.1	1.24	81.11	-.0000	.22	-.0198	-26.50	149.01
RISE 51	2820.03	2831.28	16	1	46.8	270.00	.0041	-25.98	-.0000	332545.5	.84	10.97	.0034	113.70	-.0015	-26.41	116.59
RISE 72	2973.69	2984.94	16	4	20.4	266.09	.0041	-26.14	-.0000	344775.4	.77	-.00	.0037	116.41	-.0005	-26.30	78.41
RISE 61	3050.14	3061.39	16	5	36.9	295.55	.0042	-27.00	-.0000	350358.3	.84	.00	.0026	126.50	.0027	-26.25	59.40
SET 42	3108.28	3119.53	16	6	35.0	105.00	.0041	-25.59	.0000	353893.7	1.45	3.35	-.0030	240.77	-.0023	-26.22	44.89
EXTM 51	3174.14	3185.39	16	7	40.9	359.23	.0042	-26.19	.0000	352351.9	1.11	89.17	.0032	123.56	.1441	-26.19	28.44
EXTM 61	3305.7	3317.01	16	9	52.5	.20	.0042	-27.04	.0000	364963.9	1.11	22.72	-.0000	180.19	.0041	-26.12	355.56
EXTM 72	3345.65	3356.90	16	10	32.4	.09	.0042	-26.42	.0000	364057.9	1.11	71.48	-.0000	180.25	.0116	-26.11	345.59
RISE 11	3481.69	3492.94	16	12	48.4	290.76	.0042	-26.67	-.0000	379056.7	.79	.00	.0029	123.32	.0024	-26.05	311.57
SET 51	3533.37	3544.62	16	13	40.1	90.00	.0042	-25.65	.0000	381294.6	1.49	10.84	-.0035	246.61	-.0015	-26.02	298.64
SET 61	3561.22	3572.47	16	14	8.0	64.81	.0042	-26.70	.0000	384351.6	1.41	-.00	-.0026	233.94	.0027	-26.01	291.67
RISE 42	3714.75	3726.00	16	16	41.5	255.00	.0042	-25.39	-.0000	394589.0	.89	3.23	.0030	119.07	-.0023	-25.95	253.37
SET 72	3716.09	3727.34	16	16	42.8	93.86	.0042	-25.82	.0000	395045.7	1.64	-.00	-.0037	243.92	-.0005	-25.95	252.83
EXTM 11	3755.01	3766.26	16	17	21.7	.12	.0043	-26.75	.0000	395014.0	1.33	28.04	.0000	180.12	.0043	-25.94	243.03
IMPACT	3798.26	3809.51	16	18	5.0												
IMPC 42	3798.26	3809.51	16	18	5.0	276.12	.0043	-25.49	-.0000	399883.4	1.70	19.08	.0034	108.26	-.0021	-25.93	232.04
IMPC 11	3798.26	3809.51	16	18	5.0	11.27	.0044	-26.72	.0000	399062.4	2.12	27.16	-.0007	191.32	.0043	-25.93	232.04

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	14	2	46.737	6584.547	17.8109	305.1207	10.96399	4.4120	117.0981	130.4863
SEPARATION	1.20	12.45	14	2	47.937	6667.510	14.6489	311.0156	10.89446	7.7728	118.8330	136.6821
RETRO	3.20	14.45	14	2	49.937	6903.113	9.2736	320.0722	10.70553	13.1232	120.8205	146.2401
EXIT SHA	13.70	24.95	14	3	.437	9451.949	-12.2309	352.8101	9.13600	33.5445	119.8609	181.6099
IMPACT	3798.26	3809.51	16	18	4.993	402010.922	-25.9280	232.0404	2.21620	67.9901	271.2289	289.5691

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SURVEYOR VIEW PERIODS

GHA	145.5384					EPS	139.7378							LON	228.7009
SX	.300374	SY	-.847724	SZ	-.437191	DAO	-25.92481	RAO	289.51073	RM	403295.453	LAT	28.310600	LON	279.461800
C3	-.881567	ECC	.985526	SLR	12994.607	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	679.00000	POL	-.0
N8X	.318860	NSY	-.841598	NSZ	-.435937	C3M	1.5554	VIM	2.6823	ZAE	142.018	B.T	.0000	B.R	-.0000
LATE	4.8305	LONE	4.1165	LATS	-1.5531	LONS	224.4175	LATI	-1.5975	LONI	326.6473	RSM	147.5172	TTAN	6.4811
LAUNCH DATE	FEB 14,1966			BASE AZM	111.0		TF 63.385					ARRIVAL DATE	FEB 16 1966 18 18 4.7		

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FTH
*11.00	2 40 3.5		28.1	16.76	304.49	9.80	131.00	119.18	2 51 18.5	6592.4	10.96	4.86

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW														
INJECTION	.00	11.25	14	2	51.3												
SEPARATION	1.20	12.45	14	2	52.5												
RETRO	3.20	14.45	14	2	54.5												
RISE 72	4.22	15.47	14	2	55.5	85.62	-.1401	28.78	-.0351	3101.6	-7.43	.01	.1268	299.08	-.0154	4.98	323.11
EXTM 72	10.93	22.18	14	3	2.2	4.52	-.1692	-15.35	-.0989	2326.2	4.75	81.33	.0000	210.31	-1.2663	-9.90	344.49
RISE 51	11.14	22.39	14	3	2.4	84.28	-.0718	11.68	-.0454	5984.5	-2.32	.00	.0832	282.99	-.0095	-10.26	349.02
EXIT SHA	13.48	24.73	14	3	4.8												
EXIT 72	13.48	24.73	14	3	4.8	344.38	-.0996	-25.50	-.0416	3228.3	6.65	66.95	-.0916	141.62	-.0957	-13.90	350.59
EXIT 51	13.48	24.73	14	3	4.8	74.22	-.0709	5.00	-.0489	5762.0	-.83	11.90	.0852	281.56	-.0108	-13.90	350.59
EXTM 51	47.46	58.71	14	3	38.8	2.20	-.0111	-33.40	-.0024	13936.7	5.09	82.10	-.0000	193.48	-.0694	-31.00	28.21
EXTM 72	72.15	83.40	14	4	3.5	299.09	-.0000	-35.89	.0001	23855.2	4.71	28.09	.0000	126.64	-.0001	-32.79	32.73
EXTM 51	93.33	104.58	14	4	24.6	351.70	-.0001	-34.92	.0001	26827.1	4.30	78.36	.0000	144.07	-.0007	-33.21	34.27
RISE 61	127.20	138.45	14	4	58.5	317.22	.0020	-40.94	.0007	40930.4	3.81	-.00	.0014	149.13	.0009	-33.24	33.06
EXTM 51	179.78	191.03	14	5	51.1	.91	.0028	-33.83	.0002	46772.2	3.51	81.87	-.0000	185.36	.0169	-32.86	26.89
EXTM 61	371.75	383.00	14	9	3.1	5.78	.0038	-35.36	.0002	86592.9	2.74	14.21	.0000	184.86	.0032	-31.37	350.34
EXTM 72	398.44	409.69	14	9	29.7	1.19	.0039	-32.87	.0002	86876.2	2.67	65.01	.0000	182.36	.0078	-31.20	344.38
RISE 11	578.46	589.71	14	12	29.8	296.59	.0040	-32.39	.0000	119368.6	2.06	.00	.0025	130.97	.0023	-30.28	303.97
SET 51	592.06	603.31	14	12	43.4	90.00	.0038	-29.11	.0001	119923.9	2.65	12.20	-.0031	243.36	-.0012	-30.22	300.82
SET 61	592.77	604.02	14	12	44.1	57.33	.0039	-32.54	.0002	121361.9	2.53	-.00	-.0020	225.20	.0027	-30.22	300.66
SET 72	790.82	802.07	14	16	2.1	94.44	.0039	-29.13	.0001	147320.6	2.45	-.01	-.0034	240.56	-.0004	-29.49	294.04
RISE 42	800.39	811.64	14	16	11.7	254.99	.0040	-27.99	-.0000	147974.4	1.75	4.81	.0028	121.13	-.0021	-29.46	291.76
EXTM 11	842.40	853.65	14	16	53.7	1.48	.0041	-31.52	.0001	151159.9	2.02	23.26	.0000	181.37	.0038	-29.33	241.73
SET 11	1103.02	1114.27	14	21	14.3	65.96	.0041	-30.00	.0001	183599.1	2.10	-.00	-.0026	232.27	.0024	-28.67	178.88
EXTM 42	1225.63	1236.88	14	23	16.9	359.93	.0042	-28.18	.0000	190474.0	1.74	82.96	.0000	.56	-.0291	-28.41	149.05
RISE 51	1361.29	1372.54	15	1	32.6	270.00	.0041	-27.50	-.0000	209305.5	1.31	11.56	.0033	115.12	-.0014	-28.15	119.92
RISE 72	1515.83	1527.08	15	4	7.1	265.82	.0041	-27.66	-.0000	225716.3	1.20	-.01	.0036	117.95	-.0005	-27.90	78.04
RISE 61	1602.74	1613.99	15	5	34.1	297.87	.0042	-28.92	-.0000	233944.4	1.29	.00	.0024	129.31	.0027	-27.76	56.69
SET 42	1648.86	1660.11	15	6	20.2	105.00	.0041	-26.77	.0001	237782.1	1.86	4.07	-.0029	239.83	-.0022	-27.70	49.34
EXTM 51	1714.76	1726.01	15	7	26.1	358.52	.0042	-27.65	.0000	237987.7	1.51	87.67	.0022	145.79	.0752	-27.60	28.12
EXTM 61	1852.35	1863.60	15	9	43.7	.55	.0042	-28.75	.0000	254300.3	1.47	21.01	.0000	180.52	.0039	-27.42	355.21
EXTM 72	1891.65	1902.90	15	10	23.0	.17	.0042	-27.85	.0000	254687.1	1.45	70.05	-.0000	180.43	.0109	-27.37	349.51
RISE 11	2035.86	2047.11	15	12	47.2	292.12	.0042	-28.08	-.0000	2723/3.6	1.10	.00	.0028	125.18	.0024	-27.20	309.89
SET 51	2079.83	2091.08	15	13	31.1	90.00	.0041	-26.65	.0001	274825.2	1.76	11.23	-.0034	245.68	-.0014	-27.15	299.02
SET 61	2101.72	2112.97	15	13	53.0	63.15	.0042	-28.10	.0001	277888.3	1.66	-.00	-.0025	231.91	.0027	-27.13	293.61
SET 72	2265.64	2276.89	15	16	36.9	94.02	.0041	-25.77	.0001	291287.0	1.74	-.00	-.0036	242.95	-.0005	-26.96	253.05
RISE 42	2266.34	2277.59	15	16	37.6	255.00	.0041	-26.20	-.0000	290930.5	1.01	3.72	.0029	119.71	-.0022	-26.96	252.87
EXTM 11	2307.06	2318.31	15	17	18.4	.37	.0042	-28.02	.0000	291747.0	1.33	26.77	-.0000	180.37	.0042	-26.98	248.79
SET 11	2578.04	2589.29	15	21	49.3	68.52	.0042	-27.42	.0000	315647.8	1.57	.00	-.0028	235.69	.0024	-26.66	175.61
EXTM 42	2685.23	2696.48	15	23	36.5	359.97	.0042	-26.40	.0000	317450.6	1.24	81.18	-.0000	.23	-.0205	-26.57	149.01
RISE 51	2815.83	2827.08	16	1	47.1	270.00	.0041	-26.04	-.0000	332061.9	.84	10.99	.0034	113.76	-.0015	-26.47	116.59
RISE 72	2969.45	2980.70	16	4	20.8	266.08	.0041	-26.19	-.0000	344284.1	.77	-.00	.0037	116.46	-.0005	-26.35	78.42
RISE 61	3046.12	3057.37	16	5	37.4	295.60	.0042	-27.05	-.0000	349879.4	.84	.00	.0026	126.56	.0027	-26.29	59.35
SET 42	3104.05	3115.30	16	6	35.4	105.00	.0041	-25.63	.0000	353393.3	1.45	3.37	-.0030	240.74	-.0023	-26.26	44.89
EXTM 51	3168.58	3179.83	16	7	39.9	358.90	.0042	-26.23	.0000	351760.7	1.11	78.89	.0034	116.49	.0899	-26.22	28.77
EXTM 61	3301.59	3312.84	16	9	52.9	.21	.0042	-27.07	.0000	364454.8	1.11	22.69	-.0000	180.21	.0041	-26.15	355.54
EXTM 72	3341.44	3352.69	16	10	32.8	.09	.0042	-26.44	.0000	363539.3	1.10	71.46	-.0000	180.26	.0117	-26.13	349.58
RISE 11	3477.53	3488.78	16	12	48.8	290.78	.0042	-26.69	-.0000	378522.0	.79	.00	.0029	123.35	.0024	-26.06	311.56
SET 51	3529.14	3540.39	16	13	40.4	90.00	.0042	-25.67	.0000	380744.6	1.49	10.84	-.0035	246.59	-.0019	-26.04	298.64
SET 61	3556.93	3568.18	16	14	8.2	64.79	.0042	-26.72	.0000	383791.9	1.40	-.00	-.0026	235.92	.002	-26.03	291.69
RISE 42	3710.56	3721.81	16	16	41.9	255.00	.0042	-25.39	-.0000	393964.6	.87	3.23	.0030	119.07	-.0023	-25.96	253.17
SET 72	3711.90	3723.15	16	16	43.2	93.86	.0042	-25.82	.0000	394419.7	1.62	-.00	-.0037	243.91	-.0005	-25.96	252.83
EXTM 11	3750.93	3762.18	16	17	22.2	.14	.0043	-26.75	.0000	394339.8	1.30	9.04	.0000	180.15	.0043	-25.94	243.01
IMPACT	3803.07	3814.32	16	18	14.4												
IMPC 42	3803.07	3814.32	16	18	14.4	278.39	.0043	-25.50	-.0000	399715.9	1.70	20.85	.0034	107.16	-.0021	-25.92	229.77
IMPC 11	3803.07	3814.32	16	18	14.4	13.57	.0044	-26.72	.0000	399118.1	2.13	26.76	-.0008	193.58	.0043	-25.92	229.77

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FTH	AZ	RT ASC
INJECTION	.00	11.25	14	2	51.308	6593.325	16.7400	304.5284	10.95667	4.8628	119.1861	131.0397
SEPARATION	1.20	12.45	14	2	52.508	6681.984	13.3896	310.2382	10.88233	8.2118	120.7520	137.0503
RETRO	3.20	14.45	14	2	54.508	6926.671	7.7583	319.0219	10.68694	13.5317	122.4616	146.3384
EXIT SHA	13.48	24.73	14	3	4.789	9433.96[illegible]	-13.9043	350.9858	9.14482	33.4621	120.5411	180.4766
IMPACT	3803.07	3814.32	16	18	14.382	402027.527	-25.9231	229.7735	2.21451	67.8853	271.9162	289.6559

FEB 14, 1966
111 DEGREES

SURVEYOR VIEW PERIODS

GHA	145.5384					EPS	139.8296							LOM	225.7566
SX	.302055	SY	-.847189	SZ	-.437073	DAO	-25.91729	RAO	289.62306	RM	403314.883	LAT	28.310600	LON	279.461800
C3	-.889454	FCC	.985396	SLR	12993.756	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.320601	NSY	-.840997	NSZ	-.435820	C3M	1.5555	VIM	2.6823	ZAE	141.747	B.T	.0000	B.R	-.0000
LATE	4.8384	LONE	4.0216	LATS	-1.5532	LONS	224.2296	LATI	-2.0724	LONI	326.3636	RSM	147.5171	TTAN	6.4855
LAUNCH DATE	FEB 14,1966			BASE AZM	115.0		TF 63.510					ARRIVAL DATE	FEB 16 1966 18 30 16.3		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	2 44 58.2	28.1	15.38	303.62	10.75	131.37	121.96	2 56 13.2	6602.1	10.95	5.33

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	14	2	56.2												
SEPARATION	1.20	12.45	14	2	57.4												
RETRO	3.20	14.45	14	2	59.4												
RISE 72	4.22	15.47	14	3	.4	86.63	-.1275	22.94	-.0561	3167.9	-7.14	-.00	.1245	293.17	-.0380	2.88	321.50
RISE 51	11.24	22.49	14	3	7.5	86.44	-.0671	7.33	-.0486	6096.2	-2.10	-.00	.0811	278.14	-.0146	-13.04	343.08
EXTM 72	11.26	22.51	14	3	7.5	9.57	-.1648	-25.92	-.0804	2560.5	4.95	69.82	-.0000	205.67	-.4887	-13.07	343.12
EXIT SHA	13.20	24.45	14	3	9.4												
EXIT 72	13.20	24.45	14	3	9.4	353.23	-.1165	-32.59	-.0385	3232.9	6.36	64.53	-.0637	166.65	-.1953	-16.17	347.71
EXIT 51	13.20	24.45	14	3	9.4	78.54	-.0668	1.45	-.0506	5920.2	4.88	9.66	.0823	276.35	-.0159	-16.17	347.71
EXTM 51	52.08	63.33	14	3	48.3	1.78	-.0093	-37.25	-.0010	15433.8	4.99	78.39	-.0000	187.07	-.0371	-33.90	26.47
EXTM 72	72.41	83.66	14	4	8.6	300.24	-.0001	-38.46	.0004	23942.8	4.70	28.43	.0000	129.71	-.0005	-34.91	31.46
EXTM 51	88.44	99.69	14	4	24.7	353.26	-.0007	-37.38	.0003	25621.3	4.37	77.03	.0000	155.46	-.0030	-35.10	32.94
RISE 61	139.26	150.51	14	5	15.5	319.81	.0023	-42.07	.0007	43790.0	3.68	-.00	.0015	151.38	.0011	-34.76	30.99
EXTM 51	177.28	188.53	14	5	53.5	1.57	.0027	-35.46	.0003	46298.3	3.52	80.19	.0000	187.52	.0132	-34.29	26.32
EXTM 61	371.00	382.25	14	9	7.2	6.56	.0038	-36.31	.0003	86584.0	2.74	13.22	.0000	185.42	.0032	-32.30	349.62
EXTM 72	395.54	406.79	14	9	31.8	1.47	.0039	-33.84	.0002	86462.6	2.67	64.03	.0000	182.79	.0075	-32.11	344.32
RISE 11	577.95	589.20	14	12	34.2	297.38	.0040	-33.10	.0000	119285.8	2.06	.00	.0025	131.94	.0023	-30.97	303.18
SET 61	584.06	595.31	14	12	40.3	56.23	.0039	-33.30	.0002	120139.1	2.54	-.00	-.0019	224.01	.0027	-30.93	301.76
SET 51	587.96	599.21	14	12	44.2	90.00	.0038	-29.81	.0002	119313.1	2.65	12.47	-.0031	242.70	-.0012	-30.91	300.86
SET 72	787.19	798.43	14	16	3.4	94.54	.0039	-29.68	.0001	144836.5	2.45	-.00	-.0074	240.00	-.0004	-30.05	253.97
RISE 42	796.52	807.77	14	16	12.7	254.99	.0040	-28.53	-.0000	1[illegible]96.3	1.76	5.14	.0028	121.57	-.0021	-30.01	251.74
EXTM 11	839.19	850.44	14	16	55.4	1.67	.0041	-32.05	.0001	15078 4	2.02	22.72	.0000	181.53	.0038	-29.86	241.55
SET 11	1097.14	1108.39	14	21	13.4	65.52	.0041	-30.43	.0001	18289[illegible]	2.10	-.00	-.0025	231.70	.0024	-29.08	179.33
EXTM 42	1221.53	1232.78	14	23	17.8	359.91	.0042	-28.56	.0000	189963.7	1.74	83.34	.0000	.66	-.0309	-28.78	149.06
RISE 51	1357.23	1368.48	15	1	33.5	270.00	.0041	-27.83	-.0000	208793.1	1.31	11.69	.0033	115.43	-.0014	-28.48	115.91
RISE 72	1511.52	1522.77	15	4	7.7	265.77	.0041	-27.95	-.0000	225193.9	1.20	-.00	.0036	118.24	-.0005	-28.19	78.08
RISE 61	1600.01	1611.26	15	5	36.2	298.23	.0042	-29.19	-.0000	233568.3	1.29	.01	.0024	129.72	.0027	-28.03	56.34
SET 42	1644.67	1655.92	15	6	20.9	105.00	.0041	-27.03	.0001	237251.5	1.86	4.23	-.0029	239.63	-.0022	-27.96	45.35
EXTM 51	1716.50	1727.75	15	7	32.7	.02	.0042	-27.90	.0000	238011.1	1.51	87.84	-.0000	180.71	.0785	-27.84	27.66
EXTM 61	1848.39	1859.64	15	9	44.6	.62	.0042	-28.97	.0000	253825.2	1.46	20.79	-.0000	180.58	.0039	-27.64	355.14
EXTM 72	1887.50	1898.75	15	10	23.7	.18	.0042	-28.07	.0000	253578.1	1.45	69.83	-.0000	180.47	.0108	-27.58	345.49
RISE 11	2032.36	2043.61	15	12	48.6	292.30	.0042	-28.27	-.0000	271904.4	1.10	.00	.0028	125.43	.0024	-27.39	309.70
SET 51	2075.55	2086.80	15	13	31.8	90.00	.0041	-26.83	.0001	274280.1	1.76	11.30	-.0034	245.51	-.0014	-27.33	299.03
SET 61	2096.55	2107.80	15	13	52.8	62.93	.0042	-28.28	.0001	277276.4	1.66	-.00	-.0024	231.64	.0027	-27.31	293.83
SET 72	2261.42	2272.67	15	16	37.6	94.04	.0041	-26.92	.0001	290744.1	1.74	-.00	-.0036	242.80	-.0005	-27.11	253.02
RISE 42	2262.05	2273.30	15	16	38.3	255.00	.0041	-26.35	-.0000	290371.5	1.01	3.81	.0029	119.83	-.0022	-27.11	252.87
EXTM 11	2302.92	2314.17	15	17	19.1	.41	.0042	-28.17	.0000	291221.3	1.33	26.62	-.0000	180.41	.0042	-27.06	242.75
SET 11	2573.25	2584.50	15	21	49.5	68.42	.0042	-27.53	.0000	315038.3	1.57	.00	-.0028	235.55	.0024	-26.77	175.72
EXTM 42	2680.84	2692.09	15	23	37.1	359.96	.0042	-26.50	.0000	316860.5	1.24	81.28	-.0000	.25	-.0216	-26.67	149.02
RISE 51	2811.45	2822.70	16	1	47.7	270.00	.0041	-26.12	-.0000	331458.4	.84	11.02	.0034	113.83	-.0015	-26.55	116.58
RISE 72	2965.00	2976.25	16	4	21.2	266.07	.0041	-26.25	-.0000	343664.6	.77	-.00	.0037	116.53	-.0005	-26.41	78.43
RISE 61	3042.04	3053.29	16	5	38.3	295.67	.0042	-27.11	-.0000	349073.1	.88	.00	.0026	126.65	.0027	-26.35	59.28
SET 42	3099.67	3110.92	16	6	35.9	105.00	.0041	-25.68	.0000	352800.4	1.45	3.40	-.0030	240.70	-.0023	-26.31	44.89
EXTM 51	3164.94	3176.19	16	7	41.2	359.08	.0042	-26.27	.0000	351207.5	1.10	89.02	.0032	123.15	.1191	-26.27	28.59
EXTM 61	3297.29	3308.54	16	9	53.5	.24	.0042	-27.11	.0000	363835.9	1.10	22.66	-.0000	180.23	.0041	-26.19	355.52
EXTM 72	3337.07	3348.32	16	10	33.3	.10	.0042	-26.48	.0000	362904.4	1.10	71.43	-.0000	180.27	.0118	-26.16	345.58
RISE 11	3473.22	3484.47	16	12	49.4	290.80	.0042	-26.71	-.0000	377855.1	.78	.00	.0029	123.38	.0024	-26.09	311.53
SET 51	3524.72	3535.97	16	13	40.9	90.00	.0042	-25.69	.0000	380053.4	1.48	10.85	-.0035	246.57	-.0015	-26.06	298.65
SET 61	3552.42	3563.67	16	14	8.6	64.77	.0042	-26.73	.0000	383085.7	1.39	-.00	-.0026	233.89	.0027	-26.04	291.71
RISE 42	3706.17	3717.42	16	16	42.4	255.00	.0042	-25.40	-.0000	393167.2	.85	3.23	.0030	119.08	-.0023	-25.96	253.17
SET 72	3707.49	3718.74	16	16	43.7	93.86	.0042	-25.83	.0000	393620.3	1.60	-.00	-.0037	243.91	-.0005	-25.96	252.83
EXTM 11	3746.65	3757.90	16	17	22.9	.17	.0043	-26.76	.0000	393484.3	1.26	28.03	.0000	180.17	.0043	-25.94	242.99
IMPACT	3810.61	3821.86	16	18	26.8												
IMPC 42	3810.61	3821.86	16	18	26.8	281.40	.0043	-25.51	-.0000	399498.0	1.70	23.21	.0034	105.71	-.0021	-25.92	226.77
IMPC 11	3810.61	3821.86	16	18	26.8	16.62	.0044	-26.70	.0000	399205.4	2.14	26.13	-.0010	196.53	.0042	-25.92	226.77

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	14	2	56.220	6603.487	15.3471	303.6780	10.94818	5.3335	121.9695	131.4207
SEPARATION	1.20	12.45	14	2	57.420	6697.958	11.7513	309.1442	10.86889	8.6691	123.3249	137.1877
RETRO	3.20	14.45	14	2	59.420	6952.037	5.7793	317.5764	10.66691	13.9560	124.6909	146.1214
EXIT SHA	13.20	24.45	14	3	9.424	9400.301	-16.1735	347.7089	9.16062	33.3071	121.5957	178.7616
IMPACT	3810.61	3821.86	16	18	26.828	402052.004	-25.9166	226.7691	2.21086	67.5952	272.7901	289.7714

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SURVEYOR VIEW PERIODS

GMA	146.5241					EPS	150.2725							LOM	248.5546
SX	.486216	SY	-.769143	SZ	-.414745	DAO	-24.50324	RAO	302.29914	RM	409150.211	LAT	28.310600	LON	279.461800
C3	-.873651	ECC	.985656	SLR	12995.453	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.502851	NSY	-.760003	NSZ	-.411748	C3M	1.5524	VIM	2.6817	ZAE	142.720	B.T	.0000	B.R	-.0000
LATE	5.6316	LONE	2.8213	LATS	-1.5586	LONS	212.4130	LATI	1.7677	LONI	325.6551	RSM	147.5037	TTAN	6.0950

LAUNCH DATE FEB 15,1966 BASE AZM 90.0 TF 63.818 ARRIVAL DATE FEB 17 1966 17 45 57.8

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FTH
90.00	1 48	4.2	27.3	24.79	307.01	-12.99	121 47	104.13	1 59 19.2	6628.9	10.93	-6.45

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	15	1	59.3												
SEPARATION	1.20	12.45	15	2	.5												
RETRO	3.20	14.45	15	2	2.5												
RISE 72	6.34	17.59	15	2	5.7	59.58	-.6965	74.67	.1046	2390.6	-9.39	-.00	.1028	346.83	.1851	12.11	340.98
EXTM 72	11.63	22.88	15	2	11.0	298.47	-.0550	21.10	-.1499	2673.5	6.12	23.82	-.0000	63.01	.1721	.63	1.95
RISE 51	11.77	23.02	15	2	11.1	67.94	-.1313	37.91	-.0268	4587.0	-4.28	.00	.1012	313.01	.0347	.36	2.40
EXIT SHA	15.34	26.59	15	2	14.7												
EXIT 72	15.34	26.59	15	2	14.7	290.36	-.0255	.09	-.0574	4264.5	7.68	20.14	-.0168	86.98	.0645	-5.67	12.80
EXIT 51	15.34	26.59	15	2	14.7	39.92	-.1266	28.22	-.0619	4015.0	-.93	24.02	.1182	322.13	.0525	-5.67	12.80
EXIT 61	15.34	26.59	15	2	14.7	323.84	-.0630	-48.84	.0168	6621.0	7.35	-4.63	-.0038	197.07	-.0447	-5.67	12.80
EXTM 51	27.64	38.89	15	2	27.0	346.13	-.0338	-9.30	-.0251	6532.3	5.59	68.94	-.0000	41.17	.1163	-17.54	35.02
EXTM 72	66.11	77.36	15	3	5.4	272.63	-.0001	-25.76	-.0013	23141.9	4.96	5.78	.0000	115.27	.0013	-26.37	56.41
RISE 42	72.53	83.78	15	3	11.8	103.86	-.0042	-18.74	-.0027	25661.8	4.28	.00	.0048	246.84	.0003	-26.80	57.49
EXTM 51	81.21	92.46	15	3	20.5	321.18	-.0001	-26.49	-.0010	23369.6	4.57	55.27	.0000	100.01	.0017	-27.23	58.43
EXTM 42	126.50	137.75	15	4	5.8	99.45	.0005	-23.08	-.0006	39167.6	4.01	5.89	-.0000	245.82	-.0008	-28.16	57.83
SET 42	189.89	201.14	15	5	9.2	105.00	.0021	-24.30	-.0001	53723.5	3.65	2.56	-.0015	241.79	-.0013	-28.30	50.01
RISE 61	205.71	216.96	15	5	25.0	303.72	.0032	-33.27	.0002	57276.7	3.19	.00	.0019	135.94	.0019	-28.28	47.46
EXTM 51	310.99	322.24	15	7	10.3	.06	.0037	-28.18	.0001	71040.7	2.93	87.56	.0000	181.21	.0734	-27.98	27.63
EXTM 61	470.95	482.20	15	9	50.3	2.85	.0040	-30.82	.0001	101137.8	2.52	18.89	.0000	182.59	.0036	-27.48	353.05
EXTM 72	505.57	516.82	15	10	24.9	.47	.0041	-28.57	.0001	102553.0	2.46	69.33	-.0000	181.18	.0101	-27.38	349.23
RISE 11	666.76	678.01	15	13	6.1	292.87	.0040	-28.84	-.0000	130907.4	1.92	.00	.0027	126.18	.0023	-26.99	307.93
SET 51	698.71	709.96	15	13	38.0	90.00	.0039	-25.89	.0001	133918.1	2.53	10.93	-.0032	246.39	-.0013	-26.92	300.41
SET 61	719.43	730.68	15	13	58.7	62.23	.0040	-28.84	.0001	137815.0	2.41	-.00	-.0023	230.81	.0027	-26.87	295.52
SET 72	892.51	903.76	15	16	51.8	93.92	.0040	-26.21	.0001	159256.3	2.37	-.00	-.0035	248.51	-.0005	-26.54	254.28
RISE 42	902.09	913.34	15	17	1.4	255.00	.0040	-25.15	-.0000	160052.4	1.66	3.07	.0029	118.88	-.0022	-26.53	251.98
EXTM 11	942.44	953.69	15	17	41.8	.90	.0042	-28.44	.0001	162328.1	1.94	26.35	-.0000	180.89	.0041	-26.46	242.28
SET 11	1215.64	1226.89	15	22	15.0	68.66	.0041	-27.28	.0001	195323.3	2.06	-.00	-.0027	235.87	.0024	-26.06	176.08
EXTM 42	1326.52	1337.77	16	0	5.8	389.96	.0042	-25.63	.0000	200590.3	1.69	80.41	-.0000	.25	-.0201	-25.93	149.02
RISE 51	1461.29	1472.54	16	2	20.6	270.00	.0041	-25.13	-.0000	219009.6	1.25	10.62	.0034	112.91	-.0015	-25.77	116.03
RISE 72	1617.20	1628.45	16	4	56.5	266.22	.0041	-25.39	-.0000	235060.5	1.15	-.01	.0037	115.65	-.0005	-25.62	77.75
RISE 61	1691.50	1702.75	16	6	10.8	295.12	.0041	-26.64	-.0000	241934.6	1.24	.00	.0026	125.97	.0027	-25.54	59.48
SET 42	1749.20	1760.45	16	7	8.5	105.00	.0041	-24.59	.0000	246880.8	1.83	2.74	-.0030	241.56	-.0022	-25.49	49.27
EXTM 51	1613.02	1824.27	16	8	12.3	358.09	.0042	-25.43	.0000	246614.1	1.47	88.25	.0037	80.16	-.0235	-25.44	29.54
EXTM 61	1951.49	1962.74	16	10	30.8	.38	.0042	-26.59	.0000	262530.4	1.44	23.17	.0000	180.37	.0041	-25.32	355.38
EXTM 72	1991.10	2002.35	16	11	10.4	.07	.0042	-25.71	.0000	262418.0	1.42	72.20	.0000	180.22	.0120	-25.29	345.60
RISE 11	2127.51	2138.76	16	13	26.8	290.16	.0042	-26.03	-.0000	279896.7	1.06	.00	.0029	122.48	.0024	-25.19	311.89
SET 51	2179.77	2191.02	16	14	19.1	90.00	.0041	-24.65	.0000	283052.9	1.74	10.43	-.0034	247.54	-.0015	-25.15	298.96
SET 61	2211.28	2222.53	16	14	50.6	65.56	.0042	-26.05	.0000	286779.8	1.64	.01	-.0026	234.88	.0027	-25.13	291.17
SET 72	2364.16	2375.41	16	17	23.5	93.69	.0041	-24.84	.0000	299045.1	1.73	-.00	-.0037	244.90	-.0005	-25.02	253.31
RISE 42	2365.76	2377.01	16	17	25.1	255.00	.0041	-24.28	-.0000	298888.7	.99	2.54	.0030	118.19	-.0023	-25.02	252.92
EXTM 11	2406.20	2417.45	16	18	5.5	.26	.0042	-26.06	.0000	299305.6	1.31	28.74	-.0000	180.26	.0043	-25.00	242.90
SET 11	2684.76	2696.01	16	22	44.1	70.28	.0042	-25.55	.0000	323629.8	1.56	-.00	-.0029	238.14	.0024	-24.83	173.82
EXTM 42	2784.71	2795.96	17	0	24.0	359.97	.0042	-24.57	.0000	324805.7	1.22	79.35	.0000	.18	-.0173	-24.77	149.01
RISE 51	2915.13	2926.38	17	2	34.4	270.00	.0041	-24.28	-.0000	339310.9	.81	10.28	.0035	112.11	-.0015	-24.70	116.62
RISE 72	3069.88	3081.13	17	5	9.2	266.37	.0042	-24.47	-.0000	351621.9	.71	-.01	.0037	114.72	-.0005	-24.62	78.17
RISE 61	3137.29	3148.54	17	6	16.6	293.62	.0042	-25.33	-.0000	356133.2	.82	.00	.0026	124.09	.0027	-24.60	61.39
SET 42	3203.35	3214.60	17	7	22.7	105.00	.0041	-23.96	.0000	360270.9	1.44	2.35	-.0030	242.06	-.0023	-24.58	44.86
EXTM 51	3268.03	3279.28	17	8	27.3	358.96	.0042	-24.54	.0000	358502.8	1.10	88.47	.0024	38.39	-.1142	-24.56	28.71
EXTM 61	3400.48	3411.73	17	10	39.8	.13	.0042	-25.41	.0000	370945.1	1.10	24.35	-.0000	180.13	.0042	-24.52	359.63
EXTM 72	3440.40	3451.65	17	11	19.7	.02	.0042	-24.80	.0000	370138.7	1.10	73.11	.0000	180.09	.0096	-24.51	345.65
RISE 11	3570.77	3582.02	17	13	30.1	289.29	.0042	-25.09	-.0000	384811.4	.79	.00	.0029	121.27	.0024	-24.48	313.05
SET 51	3628.46	3639.71	17	14	27.8	90.00	.0042	-24.10	.0000	387542.8	1.51	10.22	-.0035	248.05	-.0015	-24.47	298.62
SET 61	3663.40	3674.65	17	15	2.7	66.61	.0042	-25.14	.0000	391041.6	1.44	-.00	-.0026	236.19	.0027	-24.47	289.86
RISE 42	3809.26	3820.51	17	17	28.6	255.00	.0042	-23.91	-.0000	401564.9	1.16	2.32	.0031	117.90	-.0023	-24.46	253.19
SET 72	3809.79	3821.04	17	17	29.1	93.60	.0042	-24.33	.0000	401869.7	1.93	-.00	-.0038	245.42	-.0006	-24.47	253.06
IMPACT	3829.06	3840.31	17	17	48.4												
IMPC 42	3829.06	3840.31	17	17	48.4	260.04	.0043	-23.95	-.0000	403157.9	1.71	6.02	.0032	115.16	-.0023	-24.48	248.14
IMPC 72	3829.06	3840.31	17	17	48.4	98.50	.0043	-24.31	.0000	404316.6	2.49	-4.41	-.0038	244.69	-.0007	-24.48	248.14
IMPC 11	3829.06	3840.31	17	17	48.4	354.94	.0044	-25.26	-.0000	400715.8	2.03	29.34	.0003	174.75	.0045	-24.48	248.14

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FTH	AZ	RT ASC
INJECTION	.00	11.25	15	1	59.321	6631.773	24.8179	306.8980	10.92664	-6.4480	104.0777	121.3569
SEPARATION	1.20	12.45	15	2	.521	6563.497	22.9543	313.8980	10.98121	-3.0597	107.0431	128.6634
RETRO	3.20	14.45	15	2	2.521	6558.931	19.1587	329.0680	10.98505	2.6638	111.2514	140.3347
EXIT SHA	15.34	26.59	15	2	14.658	6809.256	-5.6697	12.8047	9.46693	30.3434	117.7846	191.1145
IMPACT	3829.06	3840.31	17	17	48.382	403876.406	-24.4753	248.1422	2.81543	68.6554	262.0199	302.4925

FEB 15, 1966
90 DEGREES

SURVEYOR VIEW PERIODS

OMA	146.9241					EPS	150.4290							LOM	243.4622
SX	.488854	SY	-.767722	SZ	-.414277	DAO	-24.47379	RAO	302.48731	RM	405172.168	LAT	28.310600	LON	279.461800
C3	-.870805	ECC	.985707	SLR	12995.762	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NBX	.505434	NSY	-.758551	NSZ	-.411263	CSM	1.5555	VIM	2.6823	ZAE	142.758	B.T	.0000	B.R	-.0000
LATE	5.6419	LONE	2.8033	LATS	-1.5586	LONS	212.2352	LATI	1.7937	LONI	325.6771	RSM	147.5036	TTAN	6.0858
LAUNCH DATE	FEB 15,1966			RASE AZM	93.0		TF 63.781					ARRIVAL DATE	FEB 17 1966 18 7 1.7		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
93.00	2 7 57.1	27.6	23.58	306.95	-8.52	126.40	106.38	2 19 12.1	6580.7	10.97	-4.23

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PRDRE IN EARTH'S SHADOW															
INJECTION	.00	11.25	15	2	19.2												
SEPARATION	1.20	12.45	15	2	20.4												
RETRO	3.20	14.45	15	2	22.4												
RISE 72	5.75	17.00	15	2	25.0	72.52	-.3717	65.20	.1013	2462.3	-6.55	-.00	.1141	336.42	.1469	11.46	337.22
SXTM 72	11.05	22.30	15	2	30.2	309.50	-.0882	22.05	-.1717	2330.1	5.63	32.16	-.0000	57.66	.2246	-.02	357.90
RISE 51	11.49	22.74	15	2	30.7	71.37	-.1174	33.53	-.0303	4799.2	-4.06	.00	.0993	307.82	.0252	-.85	359.32
EXIT SHA	14.50	25.75	15	2	33.7												
SXIT 72	14.50	25.75	15	2	33.7	298.19	-.0352	-.36	-.0646	7764.7	7.59	27.95	-.0249	86.19	.0784	-5.88	7.96
SXIT 51	14.50	25.75	15	2	33.7	49.83	-.1170	25.79	-.0543	4292.5	-1.45	19.52	.1140	313.11	.0343	-5.88	7.96
SXIT 61	14.50	25.75	15	2	33.7	333.37	-.0736	-50.55	.0159	6495.4	7.04	-3.74	-.0011	163.42	-.0495	-5.88	7.96
SXTM 51	29.07	40.32	15	2	48.3	350.48	-.0305	-12.96	-.0198	7165.9	5.50	74.39	-.0000	36.82	.1326	-19.04	32.91
SXTM 72	66.57	77.82	15	3	25.8	277.34	-.0001	-26.63	-.0011	23050.2	4.93	10.06	.0000	115.79	.0011	-26.68	52.02
SXTM 51	83.51	94.76	15	3	42.7	326.77	-.0001	-27.20	-.0008	23969.3	4.51	60.30	.0000	100.30	.0016	-27.55	54.05
RISE 42	90.46	101.71	15	3	49.7	105.00	-.0018	-20.93	-.0015	30819.2	4.22	.49	.0023	244.45	-.0002	-27.77	54.36
SXTM 42	126.21	137.46	15	4	25.4	103.93	.0005	-23.03	-.0006	39654.0	4.01	2.55	-.0000	243.40	-.0008	-28.32	53.21
SET 42	146.31	157.56	15	4	45.5	105.00	.0012	-23.61	-.0004	44415.5	3.89	2.13	-.0006	242.34	-.0010	-28.42	51.26
RISE 61	183.82	195.07	15	5	23.0	304.61	.0030	-33.87	.0003	52898.7	3.33	-.00	.0018	136.89	.0018	-28.43	46.24
SXTM 51	287.53	298.78	15	7	6.7	.06	.0036	-28.37	.0001	67014.9	3.01	87.37	.0000	181.23	.0680	-28.14	27.63
SXTM 61	450.78	462.03	15	9	50.0	3.10	.0039	-31.04	.0001	98211.8	2.56	10.67	.0000	182.80	.0036	-27.60	352.82
SXTM 72	484.49	495.74	15	10	23.7	.45	.0040	-28.73	.0001	99555.5	2.49	69.17	.0000	181.11	.0099	-27.50	345.25
RISE 11	647.16	658.41	15	13	6.4	292.99	.0040	-28.96	.0000	128405.2	1.95	.00	.0026	126.34	.0023	-27.07	307.76
SET 51	678.25	689.50	15	13	37.5	90.00	.0039	-25.95	.0001	131345.8	2.55	10.95	-.0032	246.33	-.0013	-27.00	300.47
SET 61	698.47	709.72	15	13	57.7	62.08	.0040	-28.96	.0001	135209.5	2.43	-.00	-.0022	230.64	.0027	-26.95	295.71
SET 72	872.51	883.76	15	16	51.7	93.93	.0039	-26.27	.0001	156982.8	2.39	-.00	-.0035	243.46	-.0004	-26.60	254.31
RISE 42	882.35	893.60	15	17	1.6	294.99	.0040	-25.19	-.0000	157817.0	1.67	3.10	.0029	118.91	-.0022	-26.58	251.95
SXTM 11	922.79	934.04	15	17	42.0	.95	.0042	-28.52	.0001	160154.2	1.96	26.27	-.0000	180.93	.0041	-26.51	242.24
SET 11	1195.79	1207.04	15	22	15.0	68.61	.0041	-27.33	.0001	193344.6	2.07	-.00	-.0027	235.81	.0024	-26.10	176.14
SXTM 42	1306.97	1318.22	16	0	6.2	359.96	.0042	-25.66	.0000	198718.3	1.70	80.44	-.0000	.25	-.0207	-25.95	149.02
RISE 51	1441.86	1453.11	16	2	21.1	270.00	.0041	-25.15	-.0000	217228.4	1.26	10.63	.0034	112.92	-.0015	-25.80	116.02
RISE 72	1397.81	1609.06	16	4	57.0	266.21	.0041	-25.40	-.0000	233366.1	1.16	-.01	.0037	115.66	-.0005	-25.63	77.74
RISE 61	1672.21	1683.46	16	6	11.4	295.14	.0041	-26.66	-.0000	240286.6	1.25	.00	.0026	126.00	.0027	-25.56	59.44
SET 42	1729.75	1741.00	16	7	9.0	105.00	.0041	-24.60	.0000	245245.4	1.84	2.74	-.0030	241.55	-.0023	-25.50	45.28
SXTM 51	1793.58	1804.83	16	8	12.8	358.08	.0042	-25.44	.0000	245008.3	1.48	88.24	.0037	80.54	-.0226	-25.45	29.56
SXTM 61	1932.16	1943.41	16	10	31.4	.39	.0042	-26.60	.0000	260994.7	1.44	23.16	.0000	180.38	.0041	-25.33	355.37
SXTM 72	1971.75	1983.00	16	11	10.9	.07	.0042	-25.71	.0000	260895.2	1.43	72.19	.0000	180.23	.0120	-25.29	345.60
RISE 11	2108.21	2119.46	16	13	27.4	290.16	.0042	-26.03	-.0000	278430.3	1.07	.00	.0029	122.49	.0024	-25.19	311.88
SET 51	2160.40	2171.65	16	14	19.6	90.00	.0041	-24.65	.0000	281600.5	1.75	10.43	-.0034	247.55	-.0015	-25.15	298.97
SET 61	2191.91	2203.16	16	14	51.1	65.56	.0042	-26.05	.0000	285338.1	1.65	.01	-.0026	234.87	.0027	-25.13	291.17
SET 72	2344.81	2356.06	16	17	24.0	93.69	.0041	-24.84	.0000	297658.4	1.73	-.00	-.0037	244.91	-.0005	-25.02	253.32
RISE 42	2346.46	2357.71	16	17	25.7	255.00	.0041	-24.27	-.0000	297506.8	.99	2.54	.0030	118.19	-.0023	-25.02	252.91
SXTM 11	2386.91	2398.16	16	18	6.1	.26	.0042	-26.05	.0000	297937.4	1.31	28.74	-.0000	180.27	.0043	-24.99	242.89
SET 11	2665.48	2676.73	16	22	44.7	70.29	.0042	-25.54	.0000	322348.8	1.56	-.00	-.0029	238.15	.0024	-24.82	173.82
SXTM 42	2765.42	2776.67	17	0	24.6	359.97	.0042	-24.55	.0000	323553.6	1.22	79.33	.0000	.19	-.0171	-24.76	149.01
RISE 51	2895.86	2907.11	17	2	35.1	270.00	.0041	-24.26	-.0000	338097.0	.82	10.28	.0035	112.10	-.0015	-24.69	116.62
RISE 72	3050.65	3061.90	17	5	9.8	266.38	.0041	-24.45	-.0000	350214.9	.75	-.00	.0037	114.70	-.0005	-24.61	78.16
RISE 61	3117.98	3129.23	17	6	17.2	293.60	.0042	-25.32	-.0000	354985.5	.82	.00	.0026	124.07	.0027	-24.58	61.36
SET 42	3184.08	3195.33	17	7	23.3	105.00	.0041	-23.94	.0000	359136.1	1.45	2.34	-.0030	242.07	-.0023	-24.56	44.86
SXTM 51	3248.71	3259.96	17	8	27.9	358.94	.0042	-24.52	.0000	357371.4	1.10	88.45	.0024	38.35	-.1126	-24.54	28.72
SXTM 61	3381.22	3392.47	17	10	40.4	.13	.0042	-25.40	.0000	369827.7	1.10	24.36	-.0000	180.13	.0042	-24.51	355.62
SXTM 72	3421.13	3432.38	17	11	20.3	.02	.0042	-24.78	.0000	369023.7	1.10	73.13	.0000	180.09	.0102	-24.49	345.65
RISE 11	3551.44	3562.69	17	13	30.6	289.28	.0042	-25.07	-.0000	383688.9	.79	.00	.0029	121.24	.0024	-24.46	313.07
SET 51	3609.19	3620.44	17	14	28.4	90.00	.0042	-24.08	.0000	386414.0	1.50	10.21	-.0035	248.07	-.0015	-24.45	298.62
SET 61	3644.24	3655.49	17	15	3.4	66.63	.0042	-25.12	.0000	389906.0	1.43	-.00	-.0026	236.22	.0027	-24.45	289.84
RISE 42	3790.18	3801.43	17	17	29.4	255.00	.0042	-23.88	-.0000	400151.5	1.03	2.30	.0030	117.88	-.0023	-24.44	253.19
SET 72	3790.67	3801.92	17	17	29.9	93.60	.0042	-24.30	.0000	400447.1	1.79	-.00	-.0038	245.45	-.0006	-24.44	253.07
IMPACT	3826.83	3838.08	17	18	6.0												
IMPC 42	3826.83	3838.08	17	18	6.0	264.30	.0043	-23.95	-.0000	402827.9	1.71	9.20	.0033	112.89	-.0022	-24.45	243.87
IMPC 11	3826.83	3838.08	17	18	6.0	359.27	.0044	-25.24	-.0000	400715.0	2.06	29.55	.0000	179.24	.0045	-24.45	243.87
SXTM 11	3828.64	3839.89	17	18	7.8	359.74	.0044	-25.24	-.0000	400944.4	2.23	29.55	.0000	179.73	.0046	-24.45	243.41

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	15	2	19.202	6581.274	23.5876	306.9157	10.96692	-4.2305	106.3701	126.3642
SEPARATION	1.20	12.45	15	2	20.402	6545.970	21.4729	313.7611	10.99613	-.8062	109.1124	133.5104
RETRO	3.20	14.45	15	2	22.402	6593.166	17.3356	324.6409	10.95642	4.9027	112.9072	144.8916
EXIT SHA	14.50	25.75	15	2	33.704	6795.756	-5.8800	7.9571	9.47441	30.2693	117.8780	191.0413
IMPACT	3826.83	3838.08	17	18	6.036	403895.798	-24.4505	243.1745	2.21564	68.5872	262.0399	302.6503

SURVEYOR VIEW PERIODS

GHA	146.5241					EPS 150.5775								LON	238.6277
SX	.491354	SY	-.766366	SZ	-.413829	DAO	-24.44562	RAO	302.66585	RM	405192.855	LAT	28.310600	LON	279.461800
C3	-.871518	ECC	.989691	SLR	12995.685	RCA	6944.6658	LTA	-20.0000	GTA	20.00	TB	679.00000	POL	-.0
NSX	.507911	NSY	-.797148	NSZ	-.410796	C3M	1.5554	VIM	2.6823	ZAE	142.740	B.T	.0000	B.R	-.0000
LATE	5.6515	LONE	2.7854	LATS	-1.5587	LONS	212.0655	LATI	1.6558	LONI	329.6946	RSM	147.5035	TTAN	6.0789
LAUNCH DATE		FEB	15,1966		BASE AZM	96.0		TF	63.797			ARRIVAL DATE		FEB 17 1966 18 27 1.5	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
96.00	2 24 39.7	27.8	22.38	306.76	-4.81	130.39	108.58	2 35 94.7	6596.2	10.99	-2.39

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
				PROBE IN EARTH'S SHADOW														
INJECTION		.00	11.25	15	2	35.9												
SEPARATION		1.20	12.45	15	2	37.1												
RETRO		3.20	14.45	15	2	39.1												
RISE	72	5.32	16.97	15	2	41.2	77.98	-.2685	5[illegible].13	.0771	2941.9	-7.26	.01	.12[illegible]4	327.99	.1115	10.55	334.16
EXTM	72	10.04	21.29	15	2	46.0	326.44	-.1672	27.88	-.2154	1912.4	4.08	41.70	.0380	40.88	.3461	.13	352.97
RISE	51	11.29	22.54	15	2	47.2	74.21	-.1067	29.44	-.0336	4988.5	-3.84	.00	.0973	303.07	.0172	-2.24	356.57
EXIT	SHA	13.85	25.10	15	2	49.8												
EXIT	72	13.85	25.10	15	2	49.8	306.21	-.0482	-1.96	-.0701	3366.4	7.48	36.12	-.0375	86.64	.0945	-6.48	3.77
EXIT	51	13.85	25.10	15	2	49.8	97.64	-.1075	22.96	-.0503	4554.2	-1.77	15.94	.1091	306.02	.0216	-6.48	3.77
EXIT	61	13.85	25.10	15	2	49.8	342.17	-.0828	-52.06	.0137	6475.1	6.75	-3.60	.0014	169.13	-.0528	-6.48	3.77
EXTM	51	30.63	41.88	15	3	6.5	353.95	-.0275	-16.56	-.0155	7824.3	5.46	79.23	-.0000	32.71	.1636	-20.71	31.11
EXTM	72	67.28	78.93	15	3	43.2	281.40	-.0000	-27.76	-.0009	23082.7	4.89	13.72	.0000	116.75	.0009	-27.29	48.33
EXTM	51	85.66	96.91	15	4	1.6	331.93	-.0000	-28.11	-.0006	24541.3	4.46	64.97	.0000	101.78	.0014	-28.11	50.30
RISE	61	166.86	178.11	15	9	22.8	305.81	.0028	-34.66	.0003	49389.8	3.49	-.00	.0017	138.16	.0016	-28.78	44.76
EXTM	51	267.55	278.80	15	7	3.5	.10	.0036	-28.73	.0001	63485.1	3.08	87.00	-.0000	181.64	.0586	-28.46	27.60
EXTM	61	434.29	445.54	15	9	50.2	3.41	.0039	-31.36	.0002	95789.3	2.60	18.33	.0000	183.07	.0035	-27.83	352.93
EXTM	72	467.39	478.64	15	10	23.3	.97	.0040	-28.99	.0001	97084.7	2.53	68.90	-.0000	181.38	.0098	-27.72	345.14
RISE	11	631.23	642.48	15	13	7.1	293.19	.0040	-29.17	.0000	126336.6	1.97	.00	.0026	126.62	.0023	-27.24	307.92
SET	51	661.13	672.38	15	13	37.0	90.00	.0039	-26.10	.0001	129147.8	2.97	11.01	-.0032	246.19	-.0013	-27.16	300.52
SET	61	680.38	691.63	15	13	56.3	61.83	.0040	-29.16	.0001	132914.7	2.49	-.00	-.0022	230.34	.0027	-27.11	296.00
SET	72	855.85	867.10	15	16	51.8	93.95	.0039	-26.39	.0001	155048.8	2.40	-.00	-.0035	243.33	-.0004	-26.73	254.32
RISE	42	865.87	877.12	15	17	1.8	284.99	.0040	-25.30	-.0000	155905.9	1.69	3.16	.0029	119.00	-.0022	-26.71	251.92
EXTM	11	906.48	917.73	15	17	42.4	1.01	.0042	-28.67	.0001	158318.0	1.97	26.12	-.0000	180.98	.0041	-26.63	242.18
SET	11	1178.96	1190.21	15	22	14.9	68.51	.0041	-27.43	.0001	191618.5	2.08	-.00	-.0027	235.68	.0024	-26.19	176.25
EXTM	42	1290.64	1301.89	16	0	6.6	359.96	.0042	-25.74	.0000	197102.7	1.71	80.52	-.0000	.26	-.0211	-26.03	140.02
RISE	51	1425.63	1436.88	16	2	21.5	270.00	.0041	-25.21	-.0000	215084.0	1.27	10.66	.0034	112.98	-.0015	-25.86	116.00
RISE	72	1581.58	1592.83	16	4	57.5	266.20	.0041	-25.46	-.0000	231887.3	1.16	-.01	.0037	115.72	-.0005	-25.69	77.74
RISE	61	1656.28	1667.53	16	6	12.2	295.21	.0041	-26.72	-.0000	238863.3	1.26	.00	.0026	126.08	.0027	-25.61	59.37
SET	42	1713.91	1724.76	16	7	9.4	105.00	.0041	-24.64	.0000	243809.7	1.85	2.77	-.0030	241.92	-.0022	-25.55	45.29
EXTM	51	1777.31	1788.56	16	8	13.2	358.06	.0042	-25.48	.0000	243599.1	1.48	88.24	.0038	82.04	-.0194	-25.49	20.57
EXTM	61	1916.05	1927.30	16	10	32.0	.40	.0042	-26.64	.0000	259642.3	1.45	23.12	.0000	180.39	.0041	-25.36	355.36
EXTM	72	1955.58	1966.83	16	11	11.5	.08	.0042	-25.75	.0000	259547.2	1.43	72.15	.0000	180.24	.0121	-25.33	348.59
RISE	11	2092.18	2103.43	16	13	28.1	290.19	.0042	-26.07	-.0000	277129.7	1.07	.00	.0029	122.53	.0024	-25.22	311.84
SET	51	2144.22	2155.47	16	14	20.1	90.00	.0041	-24.67	.0000	280299.2	1.75	10.44	-.0034	247.52	-.0015	-25.17	298.98
SET	61	2175.60	2186.85	16	14	51.5	65.93	.0042	-26.08	.0000	284036.1	1.69	.01	-.0026	234.83	.0027	-25.15	291.21
SET	72	2328.65	2339.90	16	17	24.6	93.69	.0041	-24.86	.0000	296404.9	1.74	-.00	-.0037	244.89	-.0005	-25.04	253.32
RISE	42	2330.33	2341.58	16	17	26.2	295.00	.0041	-24.29	-.0000	296259.1	1.00	2.55	.0030	118.20	-.0023	-25.04	252.91
EXTM	11	2370.81	2382.06	16	18	6.7	.27	.0042	-26.06	.0000	296700.1	1.32	28.72	-.0000	180.28	.0043	-25.01	242.88
SET	11	2649.30	2660.55	16	22	45.2	70.28	.0042	-25.55	.0000	321161.5	1.57	-.00	-.0029	238.14	.0024	-24.82	173.83
EXTM	42	2749.29	2760.54	17	0	25.2	359.97	.0042	-24.56	.0000	322388.6	1.23	79.34	.0000	.20	-.0179	-24.76	149.01
RISE	51	2879.75	2891.00	17	2	35.7	270.00	.0041	-24.26	-.0000	336957.1	.82	10.28	.0035	112.10	-.0019	-24.69	116.62
RISE	72	3034.55	3045.80	17	5	10.5	266.38	.0041	-24.45	-.0000	349101.2	.76	-.00	.0037	114.70	-.0005	-24.60	78.16
RISE	61	3101.94	3113.19	17	6	17.9	293.59	.0042	-25.31	-.0000	353959.8	.82	.00	.0026	124.06	.0027	-24.57	61.37
SET	42	3168.06	3179.31	17	7	24.0	105.00	.0041	-23.93	.0000	358111.9	1.45	2.33	-.0030	242.09	-.0023	-24.55	44.86
EXTM	51	3232.65	3243.90	17	8	28.6	358.93	.0042	-24.51	.0000	356341.2	1.10	88.43	.0024	38.29	-.1119	-24.53	28.73
EXTM	61	3365.20	3376.45	17	10	41.1	.13	.0042	-25.38	.0000	368790.1	1.10	24.38	-.0000	180.13	.0042	-24.49	355.62
EXTM	72	3405.09	3416.34	17	11	21.0	.02	.0042	-24.76	.0000	367981.9	1.10	73.14	.0000	180.09	.0101	-24.40	345.65
RISE	11	3535.34	3546.59	17	13	31.2	289.26	.0042	-25.05	-.0000	382620.7	.78	.00	.0029	121.22	.0024	-24.45	313.08
SET	51	3593.13	3604.38	17	14	29.0	90.00	.0042	-24.06	.0000	385331.4	1.50	10.20	-.0035	248.09	-.0015	-24.43	298.62
SET	61	3628.26	3639.51	17	15	4.2	66.65	.0042	-25.10	.0000	388812.7	1.42	-.00	-.0026	234.25	.0027	-24.43	289.82
RISE	42	3774.23	3785.48	17	17	30.1	295.00	.0042	-23.85	-.0000	398843.1	.99	2.28	.0030	117.86	-.0023	-24.41	253.19
SET	72	3774.69	3785.94	17	17	30.6	93.59	.0042	-24.28	.0000	399132.3	1.71	-.00	-.0038	245.48	-.0006	-24.41	253.07
EXTM	11	3813.73	3824.98	17	18	9.6	359.95	.0043	-25.21	-.0000	399259.7	1.58	29.59	-.0000	179.95	.0045	-24.42	243.20
IMPACT		3827.85	3839.10	17	18	23.8												
IMPC	42	3827.85	3839.10	17	18	23.8	268.58	.0043	-23.94	-.0000	402496.7	1.70	12.49	.0033	110.67	-.0022	-24.43	239.59
IMPC	11	3827.85	3839.10	17	18	23.8	3.61	.0044	-25.21	-.0000	400743.7	2.08	29.48	-.0002	183.75	.0045	-24.43	239.59

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION		.00	11.25	15	2	35.912	6556.287	22.3859	306.7499	10.98761	-2.3901	108.5805	130.3873
SEPARATION		1.20	12.45	15	2	37.112	6546.848	20.0332	313.4323	10.99536	1.0434	111.1102	137.3709
RETRO		3.20	14.45	15	2	39.112	6636.066	15.5886	323.9945	10.92066	6.7155	114.5064	148.4341
EXIT	SHA	13.85	25.10	15	2	49.762	8795.804	-6.4774	3.7764	9.47544	30.2584	118.1062	193.8801
IMPACT		3827.85	3839.10	17	18	23.759	403917.992	-24.4256	239.5965	2.21333	68.3503	262.1853	302.8092

FEB 15, 1966
96 DEGREES

SURVEYOR VIEW PERIODS

GHA	146.5241				EPS 150.6920							LOM	234.8989
SX	.493270	SY	-.769316	SZ	-.413482	DAO	-24.42375	RAO	302.80349	RM	405208.707	LAT	28.310600	LON	279.461800
CS	-.871553	ECC	.985690	SLR	12995.883	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	PCL	-.0
NBX	.509815	NSY	-.756061	NSZ	-.410439	C3M	1.5563	VIM	2.6825	ZAE	142.722	B.T	.0000	B.R	-.0000
LATE	5.6590	LONE	2.7723	LATS	-1.5587	LONS	211.9353	LATI	1.4886	LONI	325.6450	RSM	147.5035	TTAN	6.0734

LAUNCH DATE FEB 15,1966 BASE AZM 99.0 TF 63.803 ARRIVAL DATE FEB 17 1966 18 42 26.9

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99.00	2 38 25.3	27.9	21.21	306.45	-1.80	133.54	110.74	2 49 40.3	6546.3	11.00	-.89

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	15	2	49.7												
SEPARATION	1.20	12.45	15	2	50.9												
RETRO	3.20	14.45	15	2	52.9												
RISE 72	5.01	16.26	15	2	54.7	80.41	-.2191	50.20	.0510	2620.5	-7.70	-.00	.1260	32[illegible].86	.0800	9.48	331.59
EXTM 72	10.36	21.61	15	3	.0	332.76	-.1670	16.88	-.1870	1908.0	4.79	53.40	.0000	4 .26	.4125	-2.32	351.68
RISE 51	11.17	22.42	15	3	.8	76.64	-.0982	25.59	-.0368	5153.9	-3.62	.00	.0954	298.66	.0104	-3.79	354.12
EXIT SHA	13.32	24.57	15	3	3.0												
EXIT 72	13.32	24.57	15	3	3.0	314.40	-.0647	-4.67	-.0732	3049.3	7.36	44.59	-.0556	88.77	.1123	-7.35	.09
EXIT 51	13.32	24.57	15	3	3.0	63.84	-.0993	20.06	-.0484	4790.5	-1.97	12.95	.1044	300.11	.0122	-7.35	.09
EXIT 61	13.32	24.57	15	3	3.0	350.23	-.0904	-53.43	.0107	6524.8	6.48	-4.05	.0036	174.18	-.0549	-7.35	.09
EXTM 51	32.25	43.50	15	3	21.9	356.72	-.0250	-20.07	-.0122	8485.0	5.42	83.57	-.0000	28.75	.2361	-22.51	29.59
EXTM 72	68.17	79.42	15	3	57.8	284.82	.0000	-29.09	-.0007	23193.2	4.86	16.75	.0000	118.09	.0007	-28.14	45.26
EXTM 51	87.78	99.03	15	4	17.5	335.51	.0000	-29.22	-.0004	25120.2	4.42	68.04	.0000	104.68	.0011	-28.88	47.14
RISE 61	154.84	166.09	15	5	24.5	307.27	.0027	-35.59	.0004	46845.7	3.55	-.00	.0017	139.67	.0015	-29.32	43.09
EXTM 51	250.74	261.99	15	7	.4	.13	.0035	-29.27	.0001	60447.2	3.15	86.47	.0000	181.92	.0486	-28.93	27.56
EXTM 61	421.16	432.41	15	9	50.8	3.78	.0039	-31.78	.0002	93859.3	2.63	17.90	.0000	183.37	.0035	-28.17	352.19
EXTM 72	453.17	464.42	15	10	22.8	.63	.0040	-29.37	.0001	95011.7	2.55	68.53	-.0000	181.50	.0095	-28.04	343.08
RISE 11	618.66	629.91	15	13	8.3	293.48	.0040	-29.45	.0000	124695.1	1.99	.00	.0026	127.00	.0023	-27.49	307.20
SET 51	647.05	658.30	15	13	36.7	90.00	.0039	-26.33	.0001	127322.3	2.59	11.11	-.0032	245.97	-.0013	-27.41	300.57
SET 61	664.89	676.14	15	13	54.6	61.47	.0040	-29.44	.0001	130931.3	2.46	-.01	-.0022	229.92	.0027	-27.36	296.38
SET 72	842.23	853.48	15	16	51.9	93.99	.0039	-26.58	.0001	153460.2	2.42	-.00	-.0035	243.14	-.0004	-26.93	254.32
RISE 42	852.36	863.61	15	17	2.0	254.99	.0040	-25.48	-.0000	154325.7	1.70	3.27	.0029	119.14	-.0022	-26.90	251.90
EXTM 11	893.20	904.45	15	17	42.9	1.08	.0042	-28.87	.0001	156826.5	1.98	25.91	-.0000	181.05	.0040	-26.82	242.11
SET 11	1164.83	1176.08	15	22	14.5	68.36	.0041	-27.58	.0001	190165.1	2.08	.01	-.0027	235.47	.0024	-26.32	176.42
EXTM 42	1277.22	1288.47	16	0	6.9	359.95	.0042	-25.86	.0000	195774.4	1.72	80.64	-.0000	.28	-.0216	-26.15	149.03
RISE 51	1412.30	1423.55	16	2	22.0	270.00	.0041	-25.31	-.0000	214414.9	1.28	10.70	.0034	113.08	-.0015	-25.97	115.99
RISE 72	1568.20	1579.45	16	4	57.9	266.19	.0041	-25.55	-.0000	230672.6	1.17	-.01	.0037	115.81	-.0005	-25.78	77.74
RISE 61	1643.40	1654.65	16	6	13.1	295.32	.0041	-26.81	-.0000	237717.8	1.26	.00	.0025	126.22	.0027	-25.69	59.26
SET 42	1700.14	1711.39	16	7	9.8	105.00	.0041	-24.72	.0000	242631.3	1.85	2.81	-.0029	241.46	-.0022	-25.63	45.29
EXTM 51	1763.90	1775.15	16	8	13.6	358.05	.0042	-25.56	.0000	242437.3	1.49	88.23	.0038	84.62	-.0139	-25.57	29.59
EXTM 61	1902.82	1914.07	16	10	32.5	.43	.0042	-26.71	.0000	258544.2	1.45	23.05	.0000	180.42	.0041	-25.43	355.33
EXTM 72	1942.29	1953.54	16	11	12.0	.08	.0042	-25.82	.0000	258[illegible]3.2	1.44	72.09	.0000	180.25	.0121	-25.39	349.59
RISE 11	2079.10	2090.35	16	13	28.8	290.24	.0042	-26.12	-.0000	276078.9	1.08	.00	.0029	122.61	.0024	-25.27	311.79
SET 51	2130.89	2142.14	16	14	20.6	90.00	.0041	-24.72	.0000	279236.7	1.76	10.46	-.0034	247.48	-.0015	-25.22	298.98
SET 61	2162.04	2173.29	16	14	51.7	65.47	.0042	-26.13	.0000	282963.6	1.66	.00	-.0026	234.76	.0027	-25.20	291.27
SET 72	2315.36	2326.61	16	17	25.0	93.70	.0041	-24.90	.0000	295386.3	1.74	-.00	-.0037	244.85	-.0005	-25.08	253.32
RISE 42	2317.04	2328.29	16	17	26.7	255.00	.0041	-24.32	-.0000	295235.0	1.00	2.57	.0030	116.23	-.0023	-25.08	252.91
EXTM 11	2357.57	2368.82	16	18	7.2	.29	.0042	-26.12	.0000	295698.2	1.32	28.67	-.0000	180.30	.0043	-25.04	242.67
SET 11	2635.89	2647.14	16	22	45.6	70.26	.0042	-25.58	.0000	320193.6	1.57	-.00	-.0029	238.10	.0024	-24.85	173.86
EXTM 42	2735.98	2747.23	17	0	25.7	359.96	.0042	-24.58	.0000	321444.7	1.23	79.36	.0000	.20	-.0183	-24.78	149.02
RISE 51	2866.47	2877.72	17	2	36.1	270.00	.0041	-24.27	-.0000	336035.2	.82	10.28	.0035	112.11	-.0015	-24.70	116.61
RISE 72	3021.26	3032.51	17	5	10.9	266.38	.0041	-24.45	-.0000	348202.6	.76	-.00	.0037	114.70	-.0005	-24.41	78.15
RISE 61	3088.69	3099.94	17	6	18.4	293.60	.0042	-25.31	-.0000	353074.5	.83	.00	.0026	124.07	.0027	-24.57	61.36
SET 42	3154.75	3166.00	17	7	24.4	105.00	.0041	-23.93	.0000	357226.9	1.45	2.33	-.0030	242.08	-.0023	-24.55	44.87
EXTM 51	3219.35	3230.60	17	8	29.0	358.93	.0042	-24.51	.0000	355460.7	1.10	88.43	.0024	38.30	-.1115	-24.53	28.73
EXTM 61	3351.94	3363.19	17	10	41.6	.14	.0042	-25.38	.0000	367916.0	1.10	24.38	-.0000	180.14	.0042	-24.49	355.61
EXTM 72	3391.82	3403.07	17	11	21.5	.03	.0042	-24.76	.0000	367106.3	1.10	73.15	.0000	180.10	.0104	-24.47	345.69
RISE 11	3522.04	3533.29	17	13	31.7	289.25	.0042	-25.05	-.0000	381733.2	.78	.00	.0029	121.21	.0024	-24.44	313.09
SET 51	3579.65	3591.10	17	14	29.5	90.00	.0042	-24.02	.0000	384442.6	1.49	10.19	-.0035	248.10	-.0015	-24.42	298.62
SET 61	3615.03	3626.28	17	15	4.7	66.66	.0042	-25.09	.0000	387919.1	1.42	-.00	-.0026	236.26	.0027	-24.41	289.81
RISE 42	3761.04	3772.29	17	17	30.7	255.00	.0042	-23.83	-.0000	397834.2	.91	2.27	.0030	117.84	-.0023	-24.39	253.19
SET 72	3761.47	3772.72	17	17	31.1	93.59	.0042	-24.26	.0000	398119.0	1.67	-.00	-.0038	245.49	-.0005	-24.39	253.08
EXTM 11	3800.66	3811.91	17	18	10.3	359.96	.0043	-25.19	-.0000	398077.2	1.42	29.61	.0000	179.96	.0044	-24.39	243.19
IMPACT	3828.18	3839.43	17	18	37.8												
IMPC 42	3828.18	3839.43	17	18	37.8	271.99	.0043	-23.94	-.0000	402229.6	1.70	15.07	.0034	108.93	-.0021	-24.41	236.18
IMPC 11	3828.18	3839.43	17	18	37.8	7.07	.0044	-25.19	-.0000	400782.4	2.10	29.23	-.0005	187.33	.0045	-24.41	236.18

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	15	2	49.672	6546.267	21.2119	306.4506	10.99597	-.8918	110.7403	133.5374
SEPARATION	1.20	12.45	15	2	50.872	6557.648	18.6286	312.9747	10.98623	2.5412	113.0687	140.3623
RETRO	3.20	14.45	15	2	52.872	6680.445	13.9004	323.2079	10.88406	8.1666	116.0858	151.0969
EXIT SHA	13.32	24.57	15	3	2.989	8791.233	-7.3547	.0902	9.47683	30.2442	118.4700	190.9157
IMPACT	3828.18	3839.43	17	18	37.849	403932.586	-24.4059	236.1842	2.21316	68.3388	262.5116	302.9350

SURVEYOR VIEW PERIODS

GHA	146.9241					EPS	150.7947							LOM	231.9535
SX	.495004	SY	-.764371	SZ	-.413168	DAD	-24.40402	RAD	302.92693	RM	405222.852	LAT	28.310800	LON	279.461800
C3	-.873344	ECC	.985661	SL	12995.492	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	.0
NSX	.511535	NSY	-.755073	NSZ	-.410118	C3M	1 [illegible]	VIM	2.6824	ZAE	147.669	B.T	.0000	B.R	-.0000
LATE	5.6656	LONE	2.8868	LATS	-1.9587	LONS	211.9447	LATI	1.2691	LONI	329.7361	RSM	147.5034	TTAN	6.0697
LAUNCH DATE	FEB 15,1966			BASE AZM	102.0		TF 63.834					ARRIVAL DATE	FEB 17 1966 18 56 17.2		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FTH
102.00	2 49 41.8	28.0	20.06	306.06	.64	135.97	112.87	3 [illegible] 56.8	6544.9	11.00	.32

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW														
INJECTION	.00	11.25	15	3	.9												
SEPARATION	1.20	12.45	15	3	2.1												
RETRO	3.20	14.45	15	3	4.1												
RISE 72	4.77	16.02	15	3	5.7	82.28	-.1897	44.09	.0263	2693.4	-7.93	-.01	.1287	314.6[illegible]	.0519	8.28	329 [illegible]
EXTM 72	10.22	21.47	15	3	11.2	343.19	-.1947	10.50	-.1780	1816.4	4.54	65.13	-.0000	42.53	.6215	-3.88	349.35
RISE 51	11.09	22.34	15	3	12.0	78.81	-.0913	21.92	-.0399	5298.3	-3.42	.00	.0935	294.48	.0044	-5.47	351.93
EXIT SHA	12.88	24.13	15	3	13.8												
EXIT 72	12.88	24.13	15	3	13.8	322.72	-.0835	-8.50	-.0735	2807.6	7.20	53.11	-.0801	93.64	.1288	-8.45	356.83
EXIT 51	12.88	24.13	15	3	13.8	68.92	-.0923	17.18	-.0480	5000.3	-2.10	10.44	.1003	294.98	.0048	-8.49	356.83
EXIT 61	12.88	24.13	15	3	13.8	357.55	-.0962	-54.48	.0072	6626.2	6.25	-4.94	.0053	178.58	-.0560	-8.41	356.83
EXTM 51	33.92	45.17	15	3	34.9	358.87	-.0229	-23.50	-.0095	9143.8	5.39	87.54	-.0000	24.86	.5383	-24.42	28.35
EXTM 72	69.13	80.38	15	4	10.1	287.66	.0000	-30.58	-.0004	23356.5	4.82	19.18	.0000	119.70	.0009	-29.20	42.73
RISE 61	147.50	158.75	15	[illegible]	28.4	308.93	.0026	-36.60	.0003	45284.1	3.61	-.00	.0016	141.35	.0014	-30.03	31.34
EXTM 51	237.02	248.27	15	6	58.0	.22	.0034	-29.96	.0001	57917.1	3.21	85.77	-.0000	182.63	.0397	-29.54	27.49
EXTM 61	411.03	422.28	15	9	52.0	4.19	.0039	-32.28	.0002	92371.8	2.65	17.38	.0000	183.71	.0034	-28.59	351.80
EXTM 72	441.94	453.09	15	10	22.8	.73	.0040	-29.83	.0001	93348.4	2.58	68.07	-.0000	181.71	.0093	-28.45	344.99
RISE 11	609.01	620.26	15	13	10.0	293.84	.0040	-29.80	.0000	123422.5	2.00	.00	.0026	127.46	.0023	-27.81	306.82
SET 51	635.63	646.88	15	13	36.6	90.00	.0038	-26.64	.0001	129818.0	2.60	11.23	-.0032	245.68	-.0013	-27.72	300.61
SET 61	651.67	662.92	15	13	52.6	61.02	.0039	-29.79	.0002	129214.0	2.48	-.00	-.0022	229.3[illegible]	.0027	27.67	296.95
SET 72	831.24	842.49	15	16	52.2	94.03	.0039	-24.85	.0001	152161.6	2.42	-.00	-.0035	242.89	-.0004	-27.17	254.31
RISE 42	841.42	852.67	15	17	2.4	254.99	.0040	-2[illegible].71	-.0000	153022.5	1.71	3.42	.0029	119.33	-.0022	-27.15	251 88
EXTM 11	882.55	893.80	15	17	43.5	1.17	.0042	-29.13	.0001	155622.4	1.99	25.65	-.0000	181.14	.0040	-27.05	244.02
SET 11	1153.14	1164.39	15	22	14.1	68.18	.0041	-27.77	.0001	188939.7	2.09	.00	-.0027	235.23	.0024	-26.51	178.61
EXTM 42	1266.32	1277.57	16	0	7.3	359.95	.[illegible]2	-26.03	.0000	194670.4	1.72	80.81	-.0000	.31	-.0220	-26.32	149.03
RISE 51	1401.48	1412.73	16	2	22.4	270.00	.0041	-25.45	-.0000	213355.3	1.28	10.79	.0034	113.21	-.0015	-26.11	115.98
RISE 72	1557.31	1568.56	16	4	58.3	266 17	.0041	-25.67	-.0000	229552.4	1.17	-.01	.0037	115.93	-.0005	-25.90	77.76
RISE 61	1633.14	1644.39	16	6	14.1	295.46	.0041	-26.93	-.0000	236774.7	1.27	.00	.0025	126.39	.0027	-25.81	59.11
SET 42	1689.27	1700.52	16	7	10.2	105.00	.0041	-24.82	.0000	241636.7	1.85	2.88	-.0022	241.38	-.0022	-25.74	45.30
EXTM 51	1753.00	1764.25	16	8	13.9	358.03	.0042	-25.66	.0000	241460.4	1.49	88.22	.0038	88.03	-.0066	-25.67	29.61
EXTM 61	1892.10	1903.35	16	10	33.1	.46	.0042	-26.81	.0000	257619.6	1.45	22.95	.0000	180.44	.0041	-25.52	355.30
EXTM 72	1931.49	1942.74	16	11	12.4	.09	.0042	-25.91	.0000	257516.6	1.44	72.00	.0000	180.27	.0121	-25.48	345.58
RISE 11	2068.58	2079.83	16	13	29.5	290.32	.0042	-26.20	-.0000	275170.2	1.08	.00	.0028	122.71	.0024	-25.34	311.7
SET 51	2120.04	2131.29	16	14	21.0	90.00	.0042	-24.79	.0000	278329.7	1.76	10.49	-.0034	247.41	-.0015	-25.30	298.99
SET 61	2150.87	2162.12	16	14	51.8	65.39	.0042	-26.20	.0000	282034.1	1.66	.00	-.0026	234.66	.0027	-25.27	291.36
SET 72	2304.55	2315.80	16	17	25.5	93.71	.0041	-24.95	.0001	294508.0	1.74	-.00	-.0037	244.79	-.0005	-25.13	253.32
RISE 42	2306.23	2317.48	16	17	27.2	255.00	.0041	-24.38	-.0000	294352.7	1.00	2.60	.0030	118.27	-.0014	-25.13	252.90
EXTM 11	2346.81	2358.06	16	18	7.8	.31	.0042	-26.17	.0000	294839.9	1.32	28.62	-.0000	180.32	.0043	-25.10	242.85
SET 11	2624.90	2636.15	16	22	45.8	70.22	.0042	-25.62	.0000	319340.3	1.57	-.00	-.0029	238.05	.0024	-24.86	173.90
EXTM 42	2725.13	2736.38	17	0	26.1	359 96	.0042	-24.61	.0000	320612.1	1.23	79.39	.0000	.22	-.2186	-24.81	149.02
RISE 51	2855.64	2866.89	17	2	36 6	270.00	.0041	-24.30	-.0000	339216.3	.83	10.29	.0035	112.13	-.0015	-24.72	116.61
RISE 72	3010.42	3021.67	17	5	11.4	266.37	.0041	-24.47	-.0000	347397.6	.76	-.00	.0037	114.72	-.0005	-24.62	78.15
RISE 61	3078.02	3089.27	17	6	19.0	293.60	.0042	-25.32	-.0000	352365.4	.82	.00	.0026	124.08	.0027	-24.58	61.35
SET 42	3144.02	3155.27	17	7	25.0	105.00	.0041	-23.93	.0000	356509.0	1.49	2.33	-.0030	242.08	-.0013	-24.56	44.87
EXTM 51	3208.63	3219.88	17	8	29.6	358.94	.0042	-24.51	.0000	354738.9	1.10	88.44	.0024	38.32	-.1117	-24.53	28.73
EXTM 61	3341.23	3352.48	17	10	42.2	.15	.0042	-25.38	.0000	367181.8	1.10	24.38	-.0000	180.15	.0042	-24.48	355.60
EXTM 72	3381.07	3392.32	17	11	22.0	.03	.0042	-24.76	.0000	366365.2	1.10	73.15	.0000	180.11	.0107	-24.47	345.64
RISE 11	3511.26	3522.51	17	13	32.2	289.25	.0042	-25.04	-.0000	380973.9	.78	.00	.0029	121.20	.0024	-24.43	313.09
SET 51	3569.06	3580.31	17	14	30.0	90.00	.0042	-24.04	.0000	383644.2	1.49	10.19	-.0035	248.11	-.0015	-24.41	298.62
SET 61	3604.29	3615.54	17	15	5.2	66.67	.0042	-25.04	.0000	387131.5	1.41	-.00	-.0026	236.27	.0027	-24.41	289.81
RISE 42	3730.30	3741.55	17	17	31.2	255.00	.0042	-23.82	-.0000	396935.8	.89	2.[illegible]6	.0030	117.83	-.0023	-24.36	253.18
SET 72	3730.71	3741.96	17	17	31.7	93.59	.0042	-24.24	.0000	397216.9	1.64	-.00	-.0038	245.91	-.0005	-24.38	253.08
EXTM 11	3790.17	3801.42	17	18	11.1	.01	.0043	-25.17	.0000	397080.7	1.34	29.62	.0000	180.01	.0033	-24.38	243.14
IMPACT	3830.07	3841.32	17	18	51.0												
IMPC 42	3830.07	3841.32	17	18	51.0	275.17	.0043	-23.94	-.0000	401984.2	1.69	17.54	.0034	107.33	-.0021	-24.39	233.00
IMPC 11	3830.07	3841.32	17	18	51.0	10.29	.0044	-25.17	-.0000	490837.3	2.12	28.84	-.0007	190.64	.0044	-24.39	233.00

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FTH	AZ	RT ASC
INJECTION	.00	11.25	15	3	.947	6544.870	20.0038	306.0353	10.99707	.3162	112.8696	135.9686
SEPARATION	1.20	12.45	15	3	2.147	6572.930	17.2568	312.4204	10.97328	3.7464	115.0092	142.6345
RETRO	3.20	14.45	15	3	4.147	6722.347	12.2586	322 3286	10.84975	9.3223	117.6663	153.0440
EXIT SHA	12.88	24.13	15	3	13.826	[illegible]786.822	-8.4546	355.8300	9.47914	30.2195	118.9572	189.9720
IMPACT	3830.07	3841.32	17	18	51.012	[illegible]3949.758	-24.3876	233.0025	2.21067	68.119[illegible]	262.9931	303.0931

SURVEYOR VIEW PERIODS

GHA	146.5241					EPS	150.8834							LOM	228.6641
SX	.494492	SY	-.763553	SZ	-.412896	DAO	-24.38691	RAO	303.03351	RM	405235.012	LAT	28.310600	LON	279.461800
C3	-.875762	ECC	.985621	SLR	12995.228	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.313027	NSY	-.754211	NSZ	-.409840	C3M	1.5558	VIM	2.6824	ZAE	142.594	B.T	.0000	B.R	-.0000
LATE	5.6713	LONE	2.7492	LATS	-1.5588	LONS	211.7164	LATI	.9996	LONI	325.5599	RSM	147.5033	TTAN	6.0678

LAUNCH DATE FEB 15,1966 BASE AZM 105.0 TF 63.875 ARRIVAL DATE FEB 17 1966 19 8 14.2

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	2 58 56.2	28.0	18.94	305.59	2.60	137.82	114.98	3 10 11.2	6548.0	10.99	1.29

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	15	3	10.2												
SEPARATION	1.20	12.45	15	3	11.4												
RETRO	3.20	14.45	15	3	13.4												
RISE 72	4.61	15.86	15	3	14.8	83.65	-.1696	38.55	.0033	2761.0	-8.01	-.00	.1300	308.99	.0266	6.97	327.55
EXTN 72	10.18	21.43	15	3	20.4	352.07	-.2095	2.30	-.1618	1798.0	4.41	77.08	-.0000	38.09	1.1835	-5.67	347.42
RISE 51	11.05	22.30	15	3	21.2	80.79	-.0854	18.37	-.0428	5425.9	-3.22	.00	.0916	290.48	-.0010	-7.27	349.95
EXIT SHA	12.50	23.75	15	3	22.7												
EXIT 72	12.50	23.75	15	3	22.7	331.24	-.1047	-13.21	-.0715	2629.4	6.98	61.26	-.1106	103.10	.1190	-9.70	353.86
EXIT 51	12.50	23.75	15	3	22.7	73.32	-.0863	14.40	-.0484	5190.1	-2.20	8.19	.0966	290.38	-.0012	-9.70	353.86
EXTN 51	34.55	45.80	15	3	44.7	1.96	-.0227	-26.35	-.0082	9454.1	5.33	88.14	.0167	250.32	-.4400	-26.11	26.52
EXTN 72	69.92	81.17	15	4	20.1	289.98	.0000	-32.18	-.0002	23498.7	4.80	21.09	.0000	121.52	.0002	-30.39	40.61
RISE 61	144.24	155.49	15	5	34.4	310.71	.0025	-37.63	.0006	44617.7	3.64	-.00	.0016	143.11	.0013	-30.87	39.57
EXTN 51	225.91	237.16	15	6	56.1	.34	.0033	-30.78	.0002	55832.8	3.26	84.95	-.0000	183.37	.0322	-30.27	27.38
EXTN 61	403.38	414.63	15	9	53.6	4.65	.0039	-32.83	.0002	91261.0	2.67	16.80	.0000	184.08	.0034	-29.09	351.37
EXTN 72	432.67	444.12	15	10	23.1	.86	.0040	-30.36	.0001	92023.8	2.59	67.53	.0000	181.94	.0090	-28.94	344.88
RISE 11	601.77	613.02	15	13	12.0	294.25	.0040	-30.20	.0000	122459.8	2.01	.00	.0026	127.99	.0023	-28.19	306.39
SET 51	626.40	637.65	15	13	36.6	90.00	.0038	-27.00	.0001	124584.9	2.61	11.37	-.0032	245.34	-.0013	-28.09	300.65
SET 61	640.31	651.56	15	13	50.5	60.50	.0039	-30.19	.0002	127719.3	2.49	-.00	-.0021	228.79	.0027	-28.04	297.40
SET 72	822.44	833.69	15	16	52.6	94.08	.0039	-27.12	.0001	151109.5	2.43	-.00	-.0035	242.60	-.0004	-27.47	254.28
RISE 42	832.59	843.84	15	17	2.8	254.99	.0040	-25.99	-.0000	151952.7	1.72	3.59	.0028	119.55	-.0022	-27.44	251.86
EXTN 11	874.07	885.32	15	17	44.3	1.28	.0042	-29.42	.0001	154660.5	2.00	25.36	-.0000	181.23	.0040	-27.33	241.92
SET 11	1143.37	1154.62	15	22	13.6	67.96	.0041	-28.00	.0001	187899.3	2.09	.00	-.0027	234.93	.0024	-26.72	176.84
EXTN 42	1257.50	1268.75	16	0	7.7	359.95	.0042	-26.22	.0000	193759.6	1.73	81.00	-.0000	.33	-.0229	-26.51	149.03
RISE 51	1392.71	1403.96	16	2	22.9	270.00	.0041	-25.62	-.0000	212477.0	1.29	10.82	.0034	113.37	-.0015	-26.28	115.97
RISE 72	1548.44	1559.69	16	4	58.6	266.14	.0041	-25.82	-.0000	228802.6	1.18	-.01	.0037	116.08	-.0005	-26.05	77.77
RISE 61	1625.04	1636.29	16	6	15.2	295.62	.0041	-27.07	-.0000	236009.2	1.27	.00	.0025	126.59	.0027	-25.94	58.94
SET 42	1680.45	1691.70	16	7	10.6	105.00	.0041	-24.95	.0001	240805.0	1.86	2.95	-.0029	241.28	-.0022	-25.87	45.31
EXTN 51	1744.17	1755.42	16	8	14.4	358.02	.0042	-25.79	.0000	240647.1	1.49	88.22	.0038	92.10	.0020	-25.79	29.61
EXTN 61	1883.43	1894.68	16	10	33.6	.49	.0042	-26.92	.0000	256851.6	1.46	22.84	.0000	180.48	.0041	-25.62	355.27
EXTN 72	1922.71	1933.96	16	11	12.9	.10	.0042	-26.01	.0000	256737.1	1.44	71.89	.0000	180.30	.0121	-25.58	345.57
RISE 11	2060.14	2071.39	16	13	30.3	290.40	.0042	-26.29	-.0000	274451.1	1.08	.00	.0028	122.83	.0024	-25.43	311.62
SET 51	2111.21	2122.46	16	14	21.4	90.00	.0041	-24.87	.0001	277556.1	1.76	10.52	-.0034	247.34	-.0015	-25.38	298.99
SET 61	2141.65	2152.90	16	14	51.8	65.29	.0042	-26.29	.0000	281239.3	1.66	.00	-.0025	234.53	.0027	-25.35	291.46
SET 72	2295.76	307.01	16	17	25.9	93.72	.0041	-25.02	.0001	293764.4	1.74	-.00	-.0037	244.72	-.0005	-25.20	253.31
RISE 42	2297.42	2308.67	16	17	27.6	255.00	.0041	-24.45	-.0000	293603.0	1.00	2.65	.0030	118.33	-.0023	-25.20	252.90
EXTN 11	2338.08	2349.33	16	18	8.3	.33	.0042	-26.25	.0000	294106.9	1.32	28.55	-.0000	180.34	.0043	-25.17	242.83
S 11	2615.87	2627.12	16	22	46.1	70.18	.0042	-25.67	.0000	318604.6	1.57	-.00	-.0029	237.99	.0024	-24.93	173.95
EXTN 42	2716.28	2727.53	17	0	26.5	359.96	.0042	-24.65	.0000	319896.1	1.23	79.43	.0000	.23	-.0192	-24.85	149.02
RISE 51	2846.81	2858.06	17	2	37.0	270.00	.0041	-24.33	-.0000	334509.0	.83	10.31	.0035	112.16	-.0015	-24.76	116.61
RISE 72	3001.56	3012.81	17	5	11.8	266.37	.0041	-24.49	-.0000	346698.7	.76	-.00	.0037	114.74	-.0005	-24.65	78.16
RISE 61	3069.27	3080.52	17	6	19.5	293.63	.0042	-25.34	-.0000	351679.7	.82	.00	.0026	124.11	.0027	-24.60	61.32
SET 42	3135.16	3146.41	17	7	25.3	105.00	.0041	-23.95	.0000	355814.1	1.45	2.34	-.0030	242.07	-.0023	-24.57	44.87
EXTN 51	3199.81	3211.06	17	8	30.0	358.94	.0042	-24.52	.0000	354046.8	1.10	88.45	.0024	38.40	-.1128	-24.55	28.72
EXTN 61	3332.43	3343.68	17	10	42.6	.17	.0042	-25.39	.0000	366488.4	1.10	24.37	-.0000	180.16	.0042	-24.49	355.59
EXTN 72	3372.23	3383.48	17	11	22.4	.03	.0042	-24.76	.0000	365666.7	1.10	73.14	.0000	180.12	.0109	-24.48	345.64
RISE 11	3502.43	3513.68	17	13	32.6	289.25	.0042	-25.04	-.0000	380264.7	.77	.00	.0029	121.21	.0024	-24.43	313.09
SET 51	3560.22	3571.47	17	14	30.4	90.00	.0042	-24.04	.0000	382946.4	1.49	10.19	-.0035	248.11	-.0015	-24.41	298.63
SET 61	3595.46	3606.71	17	15	5.6	66.67	.0042	-25.08	.0000	386407.6	1.41	-.00	-.0026	236.27	.0027	-24.40	289.81
RISE 42	3741.52	3752.77	17	17	31.7	255.00	.0042	-23.80	-.0000	396140.5	.87	2.25	.0030	117.82	-.0023	-24.37	253.18
SET 72	3741.90	3753.15	17	17	32.1	93.59	.0042	-24.23	.0000	396418.8	1.62	-.00	-.0038	245.52	-.0005	-24.37	253.09
EXTN 11	3781.55	3792.80	17	18	11.7	.04	.0043	-25.16	.0000	396223.2	1.29	29.64	.0000	180.05	.0043	-24.36	243.11
IMPACT	3832.52	3843.77	17	19	2.7												
IMPC 42	3832.52	3843.77	17	19	2.7	278.00	.0043	-23.94	-.0000	401764.2	1.70	19.75	.0034	105.92	-.0021	-24.37	230.18
IMPC 11	3832.52	3843.77	17	19	2.7	13.16	.0044	-25.13	-.0000	400895.3	2.13	28.37	-.0008	193.55	.0044	-24.37	230.18

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	15	3	10.186	6548.013	18.9400	305.5876	10.99426	1.2897	114.9807	137.8171
SEPARATION	1.20	12.45	15	3	11.386	6589.406	15.9219	311.7782	10.95934	4.7094	116.9278	144.3085
RETRO	3.20	14.45	15	3	13.386	6759.853	10.6605	321.3751	10.81927	10.2400	119.2576	154.4067
EXIT SHA	12.50	23.75	15	3	22.686	8775.340	-9.6970	353.8558	9.48527	30.1554	119.5644	189.2188
IMPACT	3832.52	3843.77	17	19	2.702	403962.031	-24.3714	230.1764	2.20985	68.0896	263.4283	303.1575

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SURVEYOR VIEW PERIODS

GHA	146.5241					EPS	150.9622							LOM	226.0985
SX	.497812	SY	-.762824	SZ	-.412654	DAO	-24.37164	RAO	303.12811	RM	405245.770	LAT	28.310600	LON	279.461800
C3	-.878768	ECC	.985572	SLR	12994.902	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.514357	NSY	-.753439	NSZ	-.409594	C3H	1.5556	VIM	2.6823	ZAE	142.495	B.T	.0000	B.R	-.0000
LATE	5.6764	LONE	2.8369	LATS	-1.5588	LONS	211.7237	LATI	.7034	LONI	325.5917	RSM	147.5033	TTAN	6.0672
LAUNCH DATE		FEB	15,1966		BASE AZM	108.0		TF	63.925			ARRIVAL DATE		FEB 17 1966	19 18 51.0

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	3 6 33.6	28.1	17.84	305.06	4.19	139.20	117.08	3 17 48.6	6553.3	10.99	2.08

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	15	3	17.8												
SEPARATION	1.20	12.45	15	3	19.0												
RETRO	3.20	14.45	15	3	21.0												
RISE 72	4.50	15.75	15	3	22.3	84.75	-.1544	33.39	-.0180	2825.1	-7.97	.00	.1301	303.75	.0035	5.57	325.90
EXTM 72	9.67	20.92	15	3	27.5	7.17	-.2450	-1.50	-.1675	1719.3	3.16	80.41	.2940	311.51	.2395	-6.55	344.14
RISE 51	11.05	22.30	15	3	28.9	82.63	-.0803	14.90	-.0456	5541.5	-3.03	.00	.0898	286.59	-.0099	-9.15	348.13
EXIT SHA	12.22	23.47	15	3	30.0												
EXIT 72	12.22	23.47	15	3	30.0	339.60	-.1 [illegible]3	-18.81	-.0670	2537.3	6.71	67.39	-.1360	120.88	.0209	-11.14	351.25
EXIT 51	12.22	23.47	15	3	30.0	76.96	-.0811	11.56	-.0494	5357.1	-2.22	6.43	.0933	286.16	-.0064	-11.14	351.25
EXTM 51	37.56	48.81	15	3	55.4	1.57	-.0194	-30.18	-.0054	10518.7	5.31	85.35	-.0000	197.04	-.2168	-28.51	26.72
EXTM 72	70.50	81.75	15	4	28.3	291.88	-.0000	-33.87	.0000	23610.2	4.78	22.52	.0000	123.48	-.0000	-31.70	38.85
EXTM 51	91.13	102.38	15	4	48.9	343.68	-.0000	-33.35	.0001	26100.0	4.35	73.92	.0000	122.07	-.0004	-32.03	40.62
RISE 61	144.35	155.60	15	5	42.2	312.55	.0025	-38.63	.0006	44703.7	3.63	-.00	.0016	144.87	.0012	-31.80	37.84
EXTM 51	217.22	228.47	15	6	55.0	.53	.0032	-31.71	.0002	54185.2	3.30	84.01	-.0000	184.36	.0264	-31.09	27.21
EXTM 61	397.22	408.47	15	9	55.0	5.02	.0039	-33.44	.0002	90375.2	2.68	16.18	.0000	184.36	.0034	-29.65	351.03
EXTM 72	425.85	437.10	15	10	23.7	1.00	.0040	-30.95	.0002	90985.3	2.61	66.94	.0000	182.19	.0087	-29.47	344.75
RISE 11	596.47	607.72	15	13	14.3	294.70	.0040	-30.63	.0000	121751.5	2.02	.00	.0026	128.58	.0023	-28.60	309.92
SET 51	618.96	630.21	15	13	36.8	90.00	.0038	-27.41	.0001	123575.7	2.62	11.53	-.0032	244.96	-.0012	-28.51	300.68
SET 61	630.43	641.68	15	13	48.2	59.92	.0039	-30.64	.0002	126406.2	2.50	-.00	-.0021	228.11	.0027	-28.46	298.00
SET 72	815.40	826.65	15	16	53.2	94.14	.0039	-27.45	.0001	150257.9	2.44	-.00	-.0035	242.27	-.0004	-27.80	254.25
RISE 42	825.48	836.73	15	17	3.3	254.99	.0040	-26.31	-.0000	151074.3	1.73	3.78	.0028	119.80	-.0022	-27.76	251.84
EXTM 11	867.34	878.59	15	17	45.2	1.39	.0042	-29.75	.0001	153896.3	2.00	25.03	.0000	181.33	.0040	-27.64	241.81
SET 11	1135.20	1146.45	15	22	13.0	67.72	.0041	-28.25	.0001	187015.6	2.09	-.00	-.0027	234.60	.0024	-26.96	177.09
EXTM 42	1250.19	1261.44	16	0	9.0	359.91	.0042	-26.44	.0000	192988.9	1.73	81.22	.0000	.57	-.0240	-26.72	149.07
RISE 51	1385.59	1396.84	16	2	23.4	270.00	.0041	-25.81	-.0000	211745.8	1.29	10.90	.0034	113.54	-.0015	-26.47	115.96
RISE 72	1541.20	1552.45	16	4	59.0	266.11	.0041	-25.98	-.0000	228090.5	1.18	-.01	.0036	116.25	-.0005	-26.21	77.79
RISE 61	1618.65	1629.90	16	6	16.5	295.81	.0041	-27.23	-.0000	235386.8	1.27	.30	.0025	126.83	.0027	-26.10	58.75
SET 42	1673.26	1684.51	16	7	11.1	105.00	.0041	-25.10	.0001	240104.9	1.86	3.04	-.0029	241.16	-.0022	-26.02	45.31
EXTM 51	1737.02	1748.27	16	8	14.8	358.03	.0042	-25.93	.0000	239968.0	1.49	88.21	.0038	96.69	.0117	-25.93	29.61
EXTM 61	1876.40	1887.65	16	10	34.2	.53	.0042	-27.05	.0000	256209.2	1.46	22.71	.0000	180.51	.0041	-25.75	359.23
EXTM 72	1915.76	1927.01	16	11	13.6	.16	.0042	-26.13	.0000	256096.3	1.44	71.77	-.0079	180.46	.0120	-25.70	345.52
RISE 11	2053.36	2064.61	16	13	31.2	290.50	.0042	-26.40	-.0000	273831.6	1.09	.00	.0028	122.97	.0024	-25.54	311.52
SET 51	2103.99	2115.24	16	14	21.8	90.00	.0041	-24.97	.0001	276899.7	1.76	10.56	-.0034	247.24	-.0015	-25.48	298.99
SET 61	2133.99	2145.24	16	14	51.8	65.18	.0042	-26.39	.0001	280553.3	1.66	-.00	-.0025	234.39	.0027	-25.45	291.57
SET 72	2288.59	2299.84	16	17	26.4	93.73	.0041	-25.10	.0001	293128.3	1.75	-.00	-.0037	244.64	-.0005	-25.29	253.30
RISE 42	2290.22	2301.47	16	17	28.0	255.00	.0041	-24.53	-.0000	292959.1	1.00	2.70	.0030	118.39	-.0023	-25.28	252.89
EXTM 11	2330.97	2342.22	16	18	8.8	.36	.0042	-26.33	.0000	293485.2	1.32	28.46	-.0000	180.36	.0043	-25.24	242.80
SET 11	2608.42	2619.67	16	22	46.2	70.12	.0042	-25.73	.0000	317962.3	1.57	-.00	-.0028	237.91	.0024	-24.99	174.00
EXTM 42	2709.03	2720.28	17	0	26.8	359.95	.0042	-24.70	.0000	319272.1	1.23	79.48	.0000	.26	-.0189	-24.90	149.03
RISE 51	2839.57	2850.82	17	2	37.4	270.00	.0041	-24.37	-.0000	333889.7	.83	10.32	.0035	112.20	-.0015	-24.80	116.61
RISE 72	2994.30	3005.55	17	5	12.1	266.36	.0041	-24.52	-.0000	346083.1	.76	-.00	.0037	114.78	-.0006	-24.68	78.16
RISE 61	3062.16	3073.41	17	6	20.0	293.66	.0042	-25.37	-.0000	350842.6	.87	.00	.0026	124.15	.0027	-24.63	61.29
SET 42	3127.92	3139.17	17	7	25.7	105.00	.0041	-23.97	.0000	355220.8	1.45	2.35	-.0030	242.05	-.0023	-24.59	44.87
EXTM 51	3192.64	3203.89	17	8	30.4	358.96	.0042	-24.54	.0000	353455.5	1.10	88.48	.0024	38.42	-.1144	-24.56	28.71
EXTM 61	3325.25	3336.50	17	10	43.1	.18	.0042	-25.41	.0000	365889.4	1.10	24.36	-.0000	180.18	.0042	-24.50	355.57
EXTM 72	3365.01	3376.26	17	11	22.8	.03	.0042	-24.77	.0000	365060.7	1.10	73.13	.0000	180.12	.0117	-24.49	345.64
RISE 11	3495.21	3506.46	17	13	33.0	289.26	.0042	-25.05	-.0000	379644.6	.77	.00	.0029	121.21	.0024	-24.44	313.08
SET 51	3552.98	3564.23	17	14	30.8	90.00	.0042	-24.04	.0000	382315.1	1.48	10.19	-.0035	248.11	-.0015	-24.41	298.63
SET 61	3588.21	3599.46	17	15	6.0	66.67	.0042	-25.08	.0000	385769.1	1.40	-.00	-.0026	236.27	.0027	-24.40	289.81
RISE 42	3734.31	3745.56	17	17	32.1	255.00	.0042	-23.80	-.0000	395438.5	.85	2.25	.0030	117.81	-.0023	-24.36	253.18
SET 72	3734.68	3745.93	17	17	32.5	93.58	.0042	-24.22	.0000	395714.6	1.61	-.00	-.0038	245.53	-.0005	-24.36	253.09
EXTM 11	3774.45	3785.70	17	18	12.3	.07	.0043	-25.15	.0000	395474.0	1.26	29.64	.0000	180.07	.0044	-24.35	243.09
IMPACT	3835.48	3846.73	17	19	13.3												
IMPC 42	3835.48	3846.73	17	19	13.3	280.57	.0043	-23.94	-.0000	401567.5	1.70	21.77	.0034	104.65	-.0021	-24.36	227.62
IMPC 11	3835.48	3846.73	17	19	13.3	15.75	.0044	-25.13	-.0000	400958.7	2.14	27.85	-.0010	196.14	.0043	-24.36	227.62

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	15	3	17.810	6553.379	17.8397	305.0615	10.98962	2.0783	117.0810	139.2022
SEPARATION	1.20	12.45	15	3	19.010	6605.494	14.6181	311.0735	10.94576	5.4867	118.8477	145.5150
RETRO	3.20	14.45	15	3	21.010	6792.729	9.0972	320.3714	10.79272	10.9765	120.8683	155.3143
EXIT SHA	12.22	23.47	15	3	30.034	8774.958	-11.1383	351.2520	9.48532	30.1529	120.2514	188.4569
IMPACT	3835.48	3846.73	17	19	13.290	403974.254	-24.3569	227.6170	2.20840	67.9961	264.0044	303.2522

FEB 15,, 1966
108 DEGREES

SURVEYOR VIEW PERIODS

GHA	146.5241					EPS	151.0351							LOM	223.7202
SX	.499035	SY	-.762147	SZ	-.412428	DAO	-24.35745	KAO	303.21578	RM	405255.699	LAT	28.310600	LON	279.461800
C3	-.882463	ECC	.985511	SLR	12994.505	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.515596	NS	-.752716	NS7	-.409365	C3M	1.5554	VIM	2.6823	ZAE	142.372	B.T	.0000	B.R	-.0000
LATE	5.6811	LONF	2.7309	LATS	-1.5589	LONS	211.5430	LATI	.3850	LONI	325.4094	RSM	147.5032	TTAN	6.0682

LAUNCH DATE FEB 15.1966 BASE AZM 111.0 TF 63.984 ARRIVAL DATE FEB 17 1966 19 28 41.2

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	3 12 55.2	28.1	16.77	304.48	5.49	140.21	119.17	3 24 10.2	6559.6	10.98	2.72

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
PROBE IN EARTH'S SHADOW																	
INJECTION	.00	11.25	15	3	24.2												
SEPARATION	1.20	12.45	15	3	25.4												
RETRO	3.20	14.45	15	3	27.4												
RISE 72	4.43	15.68	15	3	28.6	85.68	-.1421	28.50	-.0376	2888.4	-7.83	-.01	.1292	298.79	-.0176	4.10	324.42
EXTM 72	9.72	20.97	15	3	33.9	13.98	-.2388	-10.61	-.1517	1815.3	3.18	75.94	.2051	257.83	-.7815	-8.55	342.60
RISE 51	11.09	22.34	15	3	35.3	84.37	-.0758	11.50	-.0483	5649.7	-2.83	.00	.0880	282.78	-.0104	-11.12	346.45
EXIT SHA	11.96	23.21	15	3	36.1												
EXIT 72	11.96	23.21	15	3	36.1	348.32	-.1461	-24.57	-.0638	2494.6	6.37	69.94	-.1294	147.53	-.2055	-12.62	348.75
EXIT 51	11.96	23.21	15	3	36.1	80.40	-.0764	8.91	-.0507	5517.2	-2.24	4.66	.0903	282.23	.0110	-12.62	348.75
EXTM 51	39.71	50.96	15	4	3.9	2.12	-.0177	-33.40	-.0037	11295.1	5.27	82.12	-.0000	193.02	-.1112	-30.64	26.37
EXTM 72	71.04	82.29	15	4	35.2	293.39	-.0000	-35.64	.0003	23732.0	4.76	23.56	.0000	125.53	-.0003	-33.10	37.38
EXTM 51	90.52	101.77	15	4	54.7	345.49	-.0002	-34.95	.0003	25984.7	4.35	74.49	.0000	129.84	-.0013	-33.28	39.13
RISE 61	147.06	158.31	15	5	51.2	314.41	.0025	-39.59	.0007	45368.3	3.61	-.00	.0016	146.60	.0013	-32.77	36.17
EXTM 51	210.60	221.85	15	6	54.8	.78	.0032	-32.72	.0	52919.4	3.33	82.98	.0000	185.37	.0219	-31.97	27.00
EXTM 51	393.77	405.02	15	9	57.9	5.66	.0039	-34.06	.	89913.5	2.69	15.52	.0000	184.86	.0033	-30.24	350.44
EXTM 72	420.40	431.65	15	10	24.6	1.16	.0040	-31.58	.	90182.8	2.62	66.30	.0000	182.46	.0084	-30.05	344.60
RISE 11	592.73	603.98	15	13	16.9	295.19	.0040	-31.10	.0000	121248.4	2.03	.00	.0026	129.21	.0023	-29.05	305.42
SET 51	612.94	624.19	15	13	37.1	90.00	.0038	-27.85	.0001	122747.8	2.63	11.71	-.0032	244.55	-.0012	-28.95	300.71
SET 61	621.71	632.96	15	13	45.9	59.27	.0039	-31.12	.0002	125232.7	2.50	.01	-.0021	227.38	.0027	-28.91	298.67
SET 72	809.76	821.01	15	16	53.9	94.20	.0039	-27.79	.0001	149556.1	2.44	-.00	-.0035	241.91	-.0004	-28.15	254.20
RISE 42	819.73	830.98	15	17	3.9	254.99	.0040	-26.65	-.0000	150348.9	1.73	3.99	.0028	120.08	-.0022	-28.11	251.82
EXTM 11	862.01	873.26	15	17	46.2	1.51	.0042	-30.10	.0001	153289.8	2.00	24.68	.0000	181.44	.0040	-27.97	241.70
SET 11	1128.26	1139.51	15	22	12.4	67.46	.0041	-28.52	.0001	186250.7	2.10	-.00	-.0026	234.25	.0024	-27.22	177.36
EXTM 42	1244.32	1255.57	16	0	8.5	359.90	.0042	-26.68	.0000	192354.5	1.73	81.46	.0000	.63	-.0248	-26.95	149.08
RISE 51	1379.79	1391.04	16	2	24.0	270.00	.0041	-26.02	-.0000	211129.0	1.29	10.98	.0034	113.73	-.0015	-26.68	115.96
RISE 72	1535.24	1546.49	16	4	59.4	266.08	.0041	-26.16	-.0000	227484.9	1.18	-.01	.0036	116.43	-.0005	-26.39	77.82
RISE 61	1613.62	1624.87	16	6	17.8	296.02	.0042	-27.40	-.0000	234874.3	1.27	.00	.0025	127.07	.0027	-26.26	58.55
SET 42	1667.37	1678.62	16	7	11.5	105.00	.0041	-25.25	.0001	239505.8	1.86	3.14	-.0029	241.04	-.0022	-26.18	45.32
EXTM 51	1731.23	1742.48	16	8	15.4	358.05	.0042	-26.09	.0000	239393.3	1.50	88.21	.0037	101.69	.0220	-26.08	29.59
EXTM 61	1870.67	1881.92	16	10	34.8	.57	.0042	-27.19	.0000	255662.3	1.46	22.57	.0000	180.55	.0040	-25.88	355.19
EXTM 72	1909.90	1921.15	16	11	14.1	.17	.0042	-26.27	.0000	255531.7	1.45	71.64	-.0000	180.49	.0120	-25.83	345.51
RISE 11	2047.89	2059.14	16	13	32.1	290.61	.0042	-26.51	-.0000	273301.9	1.09	.00	.0028	123.12	.0024	-25.65	311.41
SET 51	2098.06	2109.31	16	14	22.2	90.00	.0041	-25.08	.0001	276328.1	1.76	10.60	-.0034	247.14	-.0015	-25.59	299.00
SET 61	2127.53	2138.78	16	14	51.7	65.04	.0042	-26.50	.0001	279943.2	1.66	.00	-.0025	234.23	.0027	-25.55	291.71
SET 72	2282.70	2293.95	16	17	26.9	93.75	.0041	-25.19	.0001	292571.4	1.75	-.00	-.0037	244.55	-.0005	-25.38	253.29
RISE 42	2284.30	2295.55	16	17	28.5	255.00	.0041	-24.61	-.0000	292393.2	1.01	2.75	.0030	118.46	-.0023	-25.37	252.89
EXTM 11	2325.13	2336.38	16	18	9.3	.38	.0042	-26.42	.0000	292941.9	1.32	28.38	-.0000	180.39	.0043	-25.33	242.78
SET 11	2602.20	2613.45	16	22	46.4	70.06	.0042	-25.79	.0000	317386.9	1.57	-.00	-.0028	237.83	.0024	-25.05	174.06
EXTM 42	2703.04	2714.29	17	0	27.2	359.95	.0042	-24.75	.0000	318713.5	1.23	79.53	.0000	.27	-.0195	-24.96	149.03
RISE 51	2833.59	2844.84	17	2	37.8	270.00	.0041	-24.41	-.0000	333331.8	.83	10.34	.0035	112.24	-.0015	-24.84	116.60
RISE 72	2988.28	2999.53	17	5	12.4	266.36	.0041	-24.56	-.0000	345524.5	.76	-.00	.0037	114.81	-.0006	-24.71	78.16
RISE 61	3056.30	3067.55	17	6	20.5	293.70	.0042	-25.41	-.0000	350294.8	.87	.00	.0026	124.20	.0027	-24.66	61.25
SET 42	3122.04	3133.29	17	7	26.2	105.00	.0041	-23.98	.0000	354745.0	1.44	2.36	-.0030	242.04	-.0023	-24.61	44.87
EXTM 51	3186.80	3198.05	17	8	31.0	358.97	.0042	-24.56	.0000	352976.0	1.10	88.50	.0024	38.40	-.1161	-24.58	28.69
EXTM 61	3319.38	3330.63	17	10	43.5	.19	.0042	-25.42	.0000	365390.3	1.09	24.34	-.0000	180.19	.0042	-24.51	355.56
EXTM 72	3359.09	3370.34	17	11	23.3	.04	.0042	-24.78	.0000	364551.5	1.09	73.12	.0000	180.13	.0116	-24.50	345.64
RISE 11	3489.28	3500.53	17	13	33.5	289.26	.0042	-25.05	-.0000	379110.3	.77	.00	.0029	121.22	.0024	-24.44	313.08
SET 51	3547.01	3558.26	17	14	31.2	90.00	.0042	-24.04	.0000	381765.0	1.48	10.19	-.0035	248.11	-.0015	-24.41	298.63
SET 61	3582.25	3593.50	17	15	6.4	66.67	.0042	-25.08	.0000	385208.9	1.40	-.00	-.0026	236.27	.0027	-24.40	289.81
RISE 42	3728.35	3739.60	17	17	32.5	255.00	.0042	-23.79	-.0000	394808.5	.84	2.24	.0030	117.80	-.0023	-24.35	253.18
SET 72	3728.71	3739.96	17	17	32.9	93.58	.0042	-24.22	.0000	395082.6	1.59	-.00	-.0038	245.54	-.0005	-24.35	253.09
EXTM 11	3768.59	3779.84	17	18	12.8	.09	.0043	-25.14	.0000	394801.6	1.23	29.65	.0000	180.09	.0044	-24.34	243.07
IMPACT	3839.06	3850.31	17	19	23.2												
IMPC 42	3839.06	3850.31	17	19	23.2	282.98	.0043	-23.94	-.0000	401387.4	1.69	23.68	.0035	103.46	-.0021	-24.34	225.22
IMPC 11	3839.06	3850.31	17	19	23.2	18.19	.0044	-25.11	.0000	401029.5	2.15	27.27	-.0011	198.54	.0043	-24.34	225.22

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	15	3	24.170	6559.667	16.7628	304.4857	10.98419	2.7227	119.1754	140.2208
SEPARATION	1.20	12.45	15	3	25.370	6620.461	13.3441	310.3167	10.93312	6.1199	120.7702	146.3526
RETRO	3.20	14.45	15	3	27.370	6821.247	7.5662	319.3263	10.76980	11.5737	122.5022	155.8636
EXIT SHA	11.96	23.21	15	3	36.128	8763.427	-12.6175	348.7498	9.49143	30.0881	121.0500	187.4825
IMPACT	3839.06	3850.31	17	19	23.227	403988.684	-24.3432	225.2152	2.20539	2.7293	264.5647	303.3416

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SURVEYOR VIEW PERIODS

GHA	146.5241				EPS 151.1271							LOM	220.7228
SX	.500574	SY	-.761291	SZ	-.112142	DAO	-24.33948	RAO	303.32624	RM	405268.156	LAT	28.310600	LON	279.461800
C3	-.888284	ECC	.985415	SLR	12993.884	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.517166	NSY	-.751795	NSZ	-.409076	C3M	1.5556	VIM	2.6823	ZAE	142.168	B.T	.0000	B.R	-.0000
LATE	5.6869	LONE	2.8335	LATS	-1.5589	LONS	211.5515	LATI	-.0620	LONI	329.3786	RSM	147.5032	TTAN	6.0713
LAUNCH DATE	FEB 15,1966			BASE AZM	115.0		TF 64.078					ARRIVAL DATE FEB 17 1966 19 41 5.0			

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
115.00	3 19 54.1	28.1	15.37	303.64	6.87	141.12	121.96	3 31 9.1	6568.1	10.98	3.41

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
PROBE IN EARTH'S SHADOW																	
INJECTION	.00	11.25	15	3	31.2												
SEPARATION	1.20	12.45	15	3	32.4												
RETRO	3.20	14.45	15	3	34.4												
RISE 72	4.41	15.66	15	3	35.6	86.75	-.1284	22.24	-.0612	2973.5	-7.48	.00	.1266	292.46	-.0429	2.02	322.67
EXTM 72	10.74	21.99	15	3	41.9	10.35	-.2006	-27.73	-.0953	2234.4	4.80	67.89	-.0000	205.01	-.5356	-13.05	343.21
RISE 51	11.18	22.43	15	3	42.3	86.59	-.0703	7.02	-.0516	5789.0	-2.55	.00	.0854	277.80	-.0159	-13.85	344.38
EXIT SHA	11.74	22.99	15	3	42.9												
EXIT 72	11.74	22.99	15	3	42.9	359.36	-.1670	-32.37	-.0607	2556.9	5.90	65.57	-.0645	178.69	-.3369	-14.83	345.83
EXIT 51	11.74	22.99	15	3	42.9	84.22	-.0708	5.2	-.0529	5709.5	-2.18	2.89	.0866	277.26	-.0164	-14.83	345.83
EXTM 51	43.28	54.53	15	4	14.4	1.89	-.0153	-37.53	-.0018	12539.9	5.19	78.10	-.0000	187.27	-.0595	-33.56	26.49
EXTM 72	71.33	82.58	15	4	42.5	294.93	-.0001	-38.07	.0006	23801.0	4.75	24.42	.0000	128.37	-.0007	-35.07	35.75
EXTM 51	87.75	99.00	15	4	58.9	347.46	-.0006	-37.28	.0005	25321.7	4.39	74.30	.0000	140.34	-.0028	-35.08	37.45
RISE 61	153.58	164.83	15	6	4.7	316.87	.0026	-40.78	.0007	46889.9	3.54	-.00	.0016	148.82	.0013	-34.07	34.01
EXTM 51	204.96	216.21	15	6	56.1	1.26	.0031	-34.14	.0003	51849.1	3.36	81.52	-.0000	187.10	.0176	-33.23	26.57
EXTM 61	390.46	401.71	15	10	1.6	6.36	.0039	-34.93	.0003	89501.4	2.69	14.61	.0000	185.39	.0033	-31.07	349.78
EXTM 72	415.14	426.39	15	10	26.3	1.40	.0040	-32.46	.0002	89414.3	2.63	65.41	.0000	182.85	.0081	-30.86	344.38
RISE 11	589.66	600.91	15	13	20.8	295.88	.0040	-31.74	.0001	120829.4	2.03	.00	.0025	130.08	.0023	-29.67	304.72
SET 51	606.69	617.94	15	13	37.8	90.00	.0038	-28.48	.0002	121868.9	2.63	11.95	-.0032	243.96	-.0012	-29.57	300.75
SET 61	611.65	622.90	15	13	42.8	58.35	.0039	-31.80	.0002	123863.0	2.51	-.00	-.0020	226.34	.0027	-29.55	299.60
SET 72	803.95	815.20	15	16	55.1	94.29	.0039	-28.29	.0001	148839.2	2.44	-.01	-.0034	241.41	-.0004	-28.64	254.14
RISE 42	813.74	824.99	15	17	4.9	254.99	.0040	-27.14	-.0000	149569.8	1.74	4.29	.0028	120.46	-.0022	-28.60	251.80
EXTM 11	856.60	867.85	15	17	47.8	1.68	.0042	-30.58	.0001	152673.5	2.01	24.19	.0000	181.58	.0039	-28.44	241.54
SET 11	1120.54	1131.79	15	22	11.7	67.08	.0041	-28.90	.0001	185378.6	2.10	-.00	-.0026	233.74	.0024	-27.59	177.74
EXTM 42	1238.11	1249.36	16	0	9.3	359.89	.0042	-27.02	.0000	191657.9	1.73	81.80	.0000	.73	-.0258	-27.28	149.09
RISE 51	1373.63	1384.88	16	2	24.8	270.00	.0041	-26.31	-.0000	210445.1	1.30	11.09	.0034	114.01	-.0015	-26.97	115.95
RISE 72	1528.87	1540.12	16	5	.0	266.04	.0041	-26.41	-.0000	226805.7	1.19	-.01	.0036	115.69	-.0005	-26.65	77.85
RISE 61	1608.54	1619.79	16	6	19.7	296.30	.0042	-27.64	.0000	234322.3	1.28	.00	.0025	127.42	.0027	-26.50	58.26
SET 42	1661.08	1672.33	16	7	12.2	105.00	.0041	-25.48	.0001	238828.2	1.86	3.28	-.0029	240.86	-.0022	-26.40	45.32
EXTM 51	1725.14	1736.39	16	8	16.3	358.10	.0042	-26.31	.0000	238752.6	1.50	88.20	.0036	108.82	.0363	-26.29	29.54
EXTM 61	1864.58	1875.83	16	10	35.7	.63	.0042	-27.38	.0000	255046.6	1.46	22.38	.0000	180.60	.0040	-26.07	355.14
EXTM 72	1903.64	1914.89	16	11	14.8	.18	.0042	-26.46	.0000	254889.1	1.45	71.45	-.0000	180.52	.0118	-26.01	345.49
RISE 11	2042.18	2053.43	16	13	33.3	290.77	.0042	-26.68	-.0000	272701.8	1.09	.00	.0028	123.33	.0024	-25.81	311.25
SET 51	2091.69	2102.94	16	14	22.8	90.00	.0041	-25.23	.0001	275666.3	1.76	10.67	-.0034	247.00	-.0015	-25.74	299.00
SET 61	2120.41	2131.66	16	14	51.6	64.86	.0042	-26.65	.0001	279226.4	1.66	.01	-.0025	234.01	.0027	-25.70	291.89
SET 72	2276.39	2287.64	16	17	27.5	93.77	.0041	-25.32	.0001	291922.2	1.75	-.01	-.0037	244.42	-.0005	-25.50	253.27
RISE 42	2277.92	2289.17	16	17	29.1	255.00	.0041	-24.74	-.0000	291730.7	1.01	2.83	.0030	118.56	-.0023	-25.50	252.89
EXTM 11	2318.88	2330.13	16	18	10.0	.42	.0042	-26.54	.0000	292310.1	1.32	28.25	-.0000	180.43	.0043	-25.45	242.74
SET 11	2595.40	2606.65	16	22	46.6	69.98	.0042	-25.88	.0000	316697.8	1.57	-.00	-.0028	237.70	.0024	-25.14	174.15
EXTM 42	2696.56	2707.81	17	0	27.7	359.94	.0042	-24.83	.0000	318044.9	1.23	79.61	.0000	.30	-.0200	-25.04	149.04
RISE 51	2827.13	2838.38	17	2	38.3	270.00	.0041	-24.48	-.0000	332659.2	.83	10.37	.0035	112.30	-.0015	-24.91	116.60
RISE 72	2981.75	2993.00	17	5	12.9	266.35	.0041	-24.61	-.0000	344845.5	.76	-.00	.0037	114.86	-.0006	-24.76	78.17
RISE 61	3050.01	3061.26	17	6	21.2	293.75	.0042	-25.45	-.0000	349629.3	.87	.00	.0026	124.26	.0027	-24.70	61.20
SET 42	3115.51	3126.76	17	7	26.7	105.00	.0041	-24.02	.0000	354059.3	1.44	2.39	-.0030	242.01	-.0023	-24.69	44.87
EXTM 51	3180.43	3191.68	17	8	31.6	359.01	.0042	-24.59	.0000	352297.8	1.10	88.55	.0024	38.13	-.1205	-24.61	28.65
EXTM 61	3312.94	3324.19	17	10	44.1	.21	.0042	-25.44	.0000	364696.5	1.09	24.32	-.0000	180.21	.0042	-24.54	355.54
EXTM 72	3352.58	3363.83	17	11	23.7	.04	.0042	-24.81	.0000	363846.7	1.09	73.10	.0000	180.14	.0122	-24.52	345.63
RISE 11	3482.81	3494.06	17	13	34.0	289.27	.0042	-25.07	-.0000	378387.9	.77	.00	.0029	121.24	.0024	-24.45	313.06
SET 51	3540.48	3551.73	17	14	31.6	90.00	.0042	-24.05	.0000	381026.6	1.48	10.19	-.0035	248.10	-.0015	-24.48	298.63
SET 61	3575.68	3586.93	17	15	6.8	66.66	.0042	-25.09	.0000	384460.3	1.39	-.00	-.0026	236.26	.0027	-24.41	289.82
RISE 42	3721.86	3733.11	17	17	33.0	255.00	.0042	-23.78	-.0000	393997.0	.82	2.24	.0030	117.80	-.0023	-24.39	253.18
SET 72	3722.19	3733.44	17	17	33.3	93.58	.0042	-24.21	.0000	394269.2	1.58	-.00	-.0038	245.54	-.0005	-24.39	253.10
EXTM 11	3762.21	3773.46	17	18	13.4	.11	.0043	-25.13	.0000	393951.4	1.21	29.66	.0000	180.12	.0044	-24.33	243.04
IMPACT	3844.69	3855.94	17	19	35.8												
IMPC 42	3844.69	3855.94	17	19	35.8	286.04	.0043	-23.93	-.0000	401157.4	1.69	26.12	.0035	101.94	-.0021	-24.33	222.17
IMPC 11	3844.69	3855.94	17	19	35.8	21.28	.0044	-25.09	.0000	401127.0	2.17	26.43	-.0013	201.93	.0042	-24.33	222.17

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION	.00	11.25	15	3	31.152	6568.320	15.3641	303.6498	10.97675	3.4112	121.9642	141.1392
SEPARATION	1.20	12.45	15	3	32.352	6638.271	11.6913	309.2374	10.91806	6.7946	123.3439	147.0236
RETRO	3.20	14.45	15	3	34.352	6853.358	5.5733	317.8753	10.74407	12.2074	124.7204	156.1629
EXIT SHA	11.74	22.99	15	3	42.893	8770.183	-14.8290	345.8341	9.48743	30.1249	122.1949	186.2627
IMPACT	3844.69	3855.94	17	19	35.845	404003.051	-24.3260	222.1691	2.80349	67.6188	265.4521	303.4545

FEB 15, 1966
115 DEGREES

SURVEYOR VIEW PERIODS

GHA	147.5097					EPS	161.6207							LOM	234.6312
SX	.665960	SY	-.647357	SZ	-.370711	DAO	-21.75947	RAO	315.81156	RM	406333.391	LAT	28.310600	LON	279.461800
C3	-.887914	ECC	.985421	SLR	12993.920	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.680053	NSY	-.635243	NSZ	-.366051	C3M	1.5513	VIM	2.6815	ZAE	142.715	B.T	.0000	B.R	-.0000
LATE	6.2372	LONE	1.4516	LATS	-1.5626	LONS	199.3248	LATI	2.9688	LONI	324.1803	RSM	147.5039	TTAN	5.4008
LAUNCH DATE	FEB 16,1966			BASE AZM	99.0		TF 64.395					ARRIVAL DATE	FEB 18 1966 19 31 28.5		

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99.00	2 51 4.5		27.5	21.37	306.01	-10.70	137.25	110.58	3 2 19.5	6601.6	10.95	-5.31

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PRORE IN				EARTH'S SHADOW											
INJECTION	.00	11.25	16	3	2.3												
SEPARATION	1.20	12.45	16	3	3.5												
RETRO	3.20	14.45	16	3	5.5												
RISE 72	5.57	16.82	16	3	7.9	79.19	-.2468	53.51	.0761	2258.1	-8.10	-.00	.1252	324.26	.1080	7.77	334.32
EXTM 72	9.93	21.18	16	3	12.3	324.12	-.2052	21.41	-.2634	1523.0	4.63	44.18	.0000	49.54	.4537	-2.45	352.02
RISE 51	11.37	22.62	16	3	13.7	76.23	-.1090	26.28	-.0383	4589.5	-4.59	-.00	.1041	299.44	.0138	-5.38	356.95
EXIT SHA	12.83	24.08	16	3	15.2												
EXIT 72	12.83	24.08	16	3	15.2	304.31	-.0644	-5.86	-.0833	2709.5	7.91	34.71	-.0557	91.67	.1084	-8.06	1.53
EXIT 51	12.83	24.08	16	3	15.2	66.39	-.1151	22.39	-.0503	4239.0	-3.37	9.68	.1166	300.75	.0163	-8.06	1.53
EXTM 51	26.59	37.84	16	3	28.9	355.78	-.0435	-18.32	-.0211	6135.8	5.47	81.62	.0000	28.60	.3180	-22.11	29.81
EXTM 72	68.57	79.82	16	4	10.9	274.98	-.0000	-28.90	-.0003	23731.7	4.89	8.15	.0000	118.23	.0003	-29.04	54.24
RISE 42	78.98	90.23	16	4	21.3	105.00	-.0034	-21.70	-.0016	27502.4	4.29	.96	.0035	243.84	.0007	-29.25	55.72
EXTM 42	123.22	134.47	16	5	5.5	101.73	.0003	-23.91	-.0004	38594.7	4.04	4.69	-.0000	243.91	-.0004	-29.17	55.72
SET 42	170.43	181.68	16	5	52.8	105.00	.0018	-24.37	-.0000	49638.9	3.76	2.60	-.0013	241.73	-.0010	-28.69	50.52
RISE 61	195.18	206.43	16	6	17.5	304.24	.0031	-33.62	.0004	55179.4	3.24	.00	.0020	136.50	.0018	-28.42	46.79
EXTM 51	291.97	303.22	16	7	54.3	358.57	.0037	-27.67	.0002	67712.4	2.98	87.68	.0019	146.89	.0647	-27.51	28.99
EXTM 61	463.09	474.34	16	10	45.4	3.78	.0040	-29.71	.0002	99850.0	2.54	19.96	.0000	183.49	.0037	-26.36	352.17
EXTM 72	494.55	505.80	16	11	16.9	.65	.0041	-27.33	.0001	100888.1	2.47	70.57	-.0000	181.75	.0108	-26.19	349.06
RISE 11	648.95	660.20	16	13	51.3	291.43	.0040	-27.37	.0000	128509.0	1.93	.00	.0027	124.24	.0023	-25.51	309.33
SET 51	686.88	698.13	16	14	29.2	90.00	.0039	-24.31	.0001	132410.9	2.55	10.30	-.0033	247.86	-.0013	-25.36	300.41
SET 61	715.86	727.11	16	14	58.2	64.21	.0040	-27.20	.0001	137323.3	2.41	.00	-.0023	233.20	.0027	-25.26	293.56
SET 72	879.27	890.52	16	17	41.6	93.62	.0040	-24.42	.0001	157617.1	2.39	-.01	-.0036	245.33	-.0004	-24.75	254.97
RISE 42	890.01	901.26	16	17	52.3	254.99	.0040	-23.33	-.0000	158679.4	1.66	1.96	.0029	117.44	-.0022	-24.72	251.99
EXTM 11	931.36	942.61	16	18	33.7	1.15	.0042	-26.58	.0001	160785.0	1.95	28.21	-.0000	181.17	.0042	-24.61	242.04
SET 11	1211.39	1222.64	16	23	13.7	70.62	.0041	-25.19	.0001	194751.4	2.06	-.00	-.0028	238.61	.0024	-23.98	174.11
EXTM 42	1313.87	1325.12	17	0	56.2	359.90	.0042	-23.43	.0000	199203.4	1.69	78.21	.0000	.47	-.0184	-23.79	149.08
RISE 51	1448.71	1459.96	17	3	11.0	270.00	.0041	-22.91	-.0000	217705.0	1.25	9.73	.0035	110.84	-.0015	-23.56	116.05
RISE 72	1606.06	1617.31	17	5	48.4	266.60	.0041	-23.10	-.0000	233810.2	1.14	-.01	.0037	113.34	-.0005	-23.33	77.39
RISE 61	1668.23	1679.48	17	6	50.6	292.49	.0041	-24.33	-.0000	239574.0	1.24	.00	.0027	122.66	.0027	-23.24	62.09
SET 42	1736.58	1747.83	17	7	58.9	105.00	.0041	-22.24	.0000	245662.1	1.84	1.29	-.0030	243.41	-.0023	-23.15	45.25
EXTM 51	1807.75	1819.00	17	9	10.1	359.98	.0042	-22.99	.0000	245895.9	1.48	87.25	.0000	.50	-.0599	-23.06	27.70
EXTM 61	1939.05	1950.30	17	11	21.4	.47	.0042	-24.15	.0000	260930.6	1.44	25.61	-.0000	180.48	.0043	-22.90	355.29
EXTM 72	1978.31	1989.56	17	12	.6	.08	.0042	-23.22	.0000	260955.2	1.42	74.68	.0000	180.29	.0144	-22.86	345.59
RISE 11	2105.54	2116.79	17	14	7.9	287.91	.0042	-23.55	-.0000	277749.0	1.06	.00	.0030	119.28	.0024	-22.72	314.13
SET 51	2166.90	2178.15	17	15	9.2	90.00	.0041	-22.14	.0000	281769.7	1.75	9.42	-.0035	249.87	-.0015	-22.66	298.95
SET 61	2209.76	2221.01	17	15	52.1	68.39	.0041	-23.52	.0000	286308.9	1.65	-.00	-.0027	238.49	.0027	-22.62	288.34
SET 72	2349.53	2360.78	17	18	11.9	93.27	.0041	-22.30	.0000	297505.6	1.74	-.01	-.0038	247.47	-.0005	-22.48	253.71
RISE 42	2352.67	2363.92	17	18	15.0	255.00	.0041	-21.73	-.0000	297644.6	.98	.98	.0030	116.18	-.0023	-22.48	252.93
EXTM 11	2393.38	2404.63	17	18	55.7	.31	.0042	-23.48	.0000	297661.1	1.31	31.31	-.0000	180.34	.0045	-22.44	242.84
SET 11	2681.15	2692.40	17	23	43.5	72.65	.0042	-22.91	.0000	322893.9	1.57	-.00	-.0030	241.55	.0024	-22.20	171.45
EXTM 42	2771.47	2782.72	18	1	13.8	359.96	.0042	-21.87	.0000	323406.0	1.22	76.65	-.0000	.19	-.0152	-22.13	149.02
RISE 51	2901.81	2913.06	18	3	24.1	270.00	.0041	-21.60	-.0000	337949.4	.81	9.20	.0035	109.63	-.0016	-22.03	116.64
RISE 72	3058.30	3069.55	18	6	.6	266.82	.0041	-21.77	-.0000	350007.9	.74	-.01	.0038	111.99	-.0006	-21.92	77.74
RISE 61	3112.18	3123.43	18	6	54.5	290.63	.0042	-22.61	-.0000	353933.2	.80	.00	.0028	120.24	.0027	-21.88	64.32
SET 42	3190.19	3201.44	18	8	12.5	105.00	.0041	-21.23	.0000	359011.6	1.44	.67	-.0031	244.21	-.0024	-21.85	44.84
EXTM 51	3258.88	3270.13	18	9	21.2	360.00	.0042	-21.76	.0000	357294.8	1.10	86.02	-.0000	.22	-.0007	-21.83	27.69
EXTM 61	3387.23	3398.48	18	11	29.6	.14	.0042	-22.66	.0000	369093.5	1.09	27.10	-.0000	180.15	.0044	-21.78	355.61
EXTM 72	3427.08	3438.33	18	12	9.4	.02	.0042	-22.01	.0000	368444.3	1.09	75.89	.0000	180.11	.0116	-21.77	345.65
RISE 11	3547.68	3558.93	18	14	10.0	286.85	.0042	-22.33	-.0000	382435.3	.76	.00	.0030	117.72	.0024	-21.74	315.49
SET 51	3615.19	3626.44	18	15	17.5	90.00	.0042	-21.34	.0000	385853.3	1.49	9.09	-.0036	250.61	-.0016	-21.72	298.60
SET 61	3662.11	3673.36	18	16	4.4	69.62	.0042	-22.37	.0000	389965.0	1.42	-.00	-.0028	240.10	.0027	-21.71	286.85
SET 72	3795.06	3806.31	18	18	17.4	93.15	.0042	-21.57	.0000	399152.3	1.67	-.01	-.0039	248.21	-.0006	-21.70	253.49
RISE 42	3796.20	3807.45	18	18	18.5	255.00	.0042	-21.14	-.0000	399168.0	.90	.62	.0031	115.71	-.0024	-21.70	253.20
EXTM 11	3835.64	3846.89	18	18	58.0	359.89	.0043	-22.48	-.0000	398924.1	1.41	32.31	.0000	179.88	.0046	-21.71	243.26
IMPACT	3863.69	3874.94	18	19	26.0												
IMPC 42	3863.69	3874.94	18	19	26.0	272.07	.0043	-21.26	-.0000	403506.4	1.68	13.68	.0034	106.55	-.0022	-21.73	236.12
IMPC 11	3863.69	3874.94	18	19	26.0	7.13	.0044	-22.49	-.0000	401657.3	2.09	31.91	-.0005	187.76	.0047	-21.73	236.12

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	16	3	2.324	6602.927	21.3896	305.9444	10.94867	-5.3088	111.5546	137.1887
SEPARATION	1.20	12.45	16	3	3.524	6551.917	18.8200	312.4984	10.99033	-1.8998	112.9158	144.0435
RETRO	3.20	14.45	16	3	5.524	6574.047	14.0327	322.9290	10.97168	3.8194	116.8185	154.9755
EXIT SHA	12.83	24.08	16	3	15.156	8228.277	-8.0603	1.5297	9.79787	26.7870	148.2932	195.9910
IMPACT	3863.69	3874.94	18	19	26.011	405061.156	-21.7321	236.1207	2.20307	68.1282	256.7463	315.9306

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SURVEYOR VIEW PERIODS

GHA	147.5097					EPS	161.7042							LOM	231.8294
SX	.667190	SY	-.646318	SZ	-.370310	DAO	-21.73473	RAD	315.91037	RM	406339.086	LAT	28.310600	LON	279.461800
C3	-.884574	ECC	.985476	SLR	12994.278	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.681239	NSY	-.634200	NSZ	-.365655	C3M	1.5556	VIM	2.6823	ZAE	142.741	B.T	.0000	B.R	-.0000
LATE	6.2406	LONE	1.5472	LATS	-1.5626	LONS	199.3326	LATI	2.7862	LONI	324.3229	RSM	147.5040	TTAN	5.3917

LAUNCH DATE FEB 16,1966 BASE AZM 102.0 TF 64.345 ARRIVAL DATE FEB 18 1966 19 43 2.8

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	3 4 30.8	27.6	20.20	305.71	-7.71	140.32	112.75	3 15 45.8	6574.2	10.97	-3.83

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PRORE IN EARTH'S SHADOW															
INJECTION	.00	11.25	16	3	15.8												
SEPARATION	1.20	12.45	16	3	17.0												
RETRO	3.20	14.45	16	3	19.0												
RISE 72	5.27	16.52	16	3	21.0	81.70	-.2032	46.11	.0421	2337.9	-8.46	-.00	.1297	316.69	.0692	6.83	331.92
EXTM 72	9.10	20.35	16	3	24.9	348.85	-.3579	25.23	-.2921	1268.0	2.04	55.14	.1668	17.82	.7048	-2.59	347.38
RISE 51	11.23	22.48	16	3	27.0	78.60	-.1004	22.28	-.0425	4750.0	-4.35	.00	.1019	294.90	.0061	-6.99	354.59
EXIT SHA	12.26	23.51	16	3	28.0												
EXIT 72	12.26	23.51	16	3	28.0	313.55	-.0916	-9.49	-.0872	2383.3	7.75	44.08	-.0875	95.58	.1253	-8.89	357.79
EXIT 51	12.26	23.51	16	3	28.0	72.26	-.1042	19.43	-.0496	4595.2	-3.54	6.57	.1099	295.29	.0067	-8.89	357.79
EXTM 51	27.77	39.02	16	3	43.5	358.34	-.0400	-22.36	-.0163	6670.1	5.46	86.30	-.0000	24.50	.6255	-24.01	28.54
EXTM 72	68.95	80.20	16	4	24.7	278.13	.0000	-30.21	-.0001	23702.8	4.87	10.97	.0000	119.38	.0001	-29.90	51.23
RISE 42	104.44	115.69	16	5	.2	104.99	-.0008	-23.89	-.0006	34311.0	4.16	2.31	.0010	242.12	-.0000	-29.99	53.49
EXTM 42	122.44	133.69	16	5	18.2	104.75	.0003	-24.39	-.0003	38743.1	4.05	2.79	.0000	241.87	-.0004	-29.81	52.67
SET 42	131.46	142.71	16	5	27.2	105.00	.0007	-24.54	-.0002	40919.9	3.99	2.70	-.0003	241.60	-.0006	-29.70	51.96
RISE 61	184.58	195.83	16	6	20.3	305.56	.0031	-34.50	.0004	53074.1	3.31	-.00	.0019	137.90	.0017	-29.04	45.33
EXTM 51	283.48	294.73	16	7	59.2	.15	.0036	-28.19	.0002	66283.5	3.02	87.55	.0000	183.05	.0747	-27.97	27.55
EXTM 61	450.52	461.77	16	10	46.3	4.13	.0039	-30.14	.0002	98063.0	2.56	19.52	.0000	183.79	.0036	-26.72	351.84
EXTM 72	480.91	492.16	16	11	16.7	.73	.0040	-27.72	.0001	98957.3	2.50	70.18	-.0000	181.90	.0106	-26.54	344.99
RISE 11	636.77	648.02	16	13	52.5	291.71	.0040	-27.67	.0000	126954.2	1.95	.00	.0027	124.63	.0023	-25.77	309.02
SET 51	673.23	684.48	16	14	29.0	90.00	.0039	-24.56	.0001	130686.8	2.56	10.40	-.0033	247.63	-.0013	-25.62	300.45
SET 61	700.90	712.15	16	14	56.7	63.87	.0040	-27.49	.0002	135468.5	2.43	-.00	-.0023	232.79	.0027	-25.52	293.92
SET 72	866.01	877.26	16	17	41.8	93.66	.0040	-24.62	.0001	156115.9	2.40	-.01	-.0036	245.12	-.0004	-24.96	254.57
RISE 42	876.83	888.08	16	17	52.6	254.99	.0040	-23.52	-.0000	157187.2	1.67	2.07	.0029	117.59	-.0022	-24.92	251.97
EXTM 11	918.41	929.66	16	18	34.2	1.23	.0042	-26.79	.0001	159378.2	1.96	27.99	-.0000	181.24	.0042	-24.80	241.97
SET 11	1197.62	1208.87	16	23	13.4	70.48	.0041	-25.34	.0001	193394.0	2.07	-.00	-.0028	238.41	.0024	-24.13	174.26
EXTM 42	1300.85	1312.10	17	0	56.6	359.92	.0042	-23.56	.0000	197971.1	1.70	78.34	-.0000	.36	-.0182	-23.92	149.09
RISE 51	1435.64	1446.89	17	3	11.4	270.00	.0041	-23.01	-.0000	216522.4	1.26	9.77	.0035	110.94	-.0015	-23.68	116.04
RISE 72	1592.94	1604.19	17	5	48.7	266.58	.0041	-23.20	-.0000	232687.5	1.15	-.01	.0037	113.43	-.0005	-23.42	77.40
RISE 61	1655.58	1666.83	17	6	51.3	292.59	.0041	-24.42	-.0000	238517.0	1.24	.00	.0027	122.79	.0027	-23.33	61.98
SET 42	1723.46	1734.71	17	7	59.2	105.00	.0041	-22.32	.0000	244580.1	1.85	1.34	-.0030	243.35	-.0023	-23.23	45.26
EXTM 51	1794.65	1805.90	17	9	10.4	359.98	.0042	-23.07	.0000	244844.6	1.49	87.33	.0000	.[illegible]	-.0646	-23.14	27.71
EXTM 61	1926.06	1937.31	17	11	21.8	.49	.0042	-24.22	.0000	259936.5	1.44	25.54	-.0000	180.50	.0042	-22.97	355.27
EXTM 72	1965.25	1976.50	17	12	1.0	.09	.0042	-23.29	.0000	259961.4	1.43	74.62	.0000	180.31	.0144	-22.92	349.59
RISE 11	2092.68	2103.93	17	14	8.4	287.96	.0042	-23.61	-.0000	276806.2	1.06	.00	.0030	119.35	.0024	-22.78	314.08
SET 51	2153.80	2165.05	17	15	9.6	90.00	.0041	-22.19	.0000	280821.5	1.75	9.44	-.0035	249.82	-.0015	-22.71	298.95
SET 61	2196.44	2207.69	17	15	52.2	68.34	.0042	-23.57	.0000	285356.3	1.65	-.00	-.0027	238.41	.0027	-22.66	288.40
SET 72	2336.45	2347.70	17	18	12.2	93.28	.0041	-22.34	.0000	296609.4	1.74	-.01	-.0038	247.43	-.0005	-22.52	253.71
RISE 42	2339.61	2350.86	17	18	15.4	255.00	.0041	-21.77	-.0000	296747.2	.99	1.00	.0030	116.21	-.0023	-22.52	252.93
EXTM 11	2380.36	2391.61	17	18	56.1	.33	.0042	-23.52	.0000	296783.9	1.31	31.27	-.0000	180.35	.0045	-22.48	248.83
SET 11	2667.97	2679.22	17	23	43.7	72.63	.0042	-22.93	.0000	322068.7	1.57	-.00	-.0030	241.52	.0024	-22.22	171.47
EXTM 42	2758.38	2769.63	18	1	14.1	359.96	.0042	-21.89	.0000	322607.5	1.22	76.67	-.0000	.19	-.0156	-22.14	149.02
RISE 51	2888.73	2899.98	18	3	24.5	270.00	.0041	-21.61	-.0000	337179.7	.81	9.20	.0035	109.64	-.0016	-22.04	116.64
RISE 72	3045.21	3056.46	18	6	1.0	266.82	.0041	-21.77	-.0000	349271.0	.74	-.01	.0038	111.99	-.0006	-21.92	77.74
RISE 61	3099.18	3110.43	18	6	54.9	290.63	.0042	-22.61	-.0000	353024.0	.85	.00	.0027	120.24	.0027	-21.88	64.32
SET 42	3177.18	3188.43	18	8	12.9	105.00	.0041	-21.23	.0000	358363.3	1.44	.67	-.0031	244.22	-.0024	-21.85	44.84
EXTM 51	3245.86	3257.11	18	9	21.6	360.00	.0042	-21.75	.0000	356650.0	1.10	86.01	-.0000	.26	-.0020	-21.82	27.69
EXTM 61	3374.23	3385.48	18	11	30.0	.15	.0042	-22.65	.0000	368454.2	1.09	27.11	-.0000	180.15	.0044	-21.78	359.61
EXTM 72	3414.05	3425.30	18	12	9.8	.02	.0042	-22.00	.0000	367804.9	1.09	75.90	.0000	180.11	.0123	-21.76	349.65
RISE 11	3534.59	3545.84	18	14	10.4	286.84	.0042	-22.32	-.0000	381791.6	.76	.00	.0030	117.70	.0024	-21.72	315.50
SET 51	3602.13	3613.38	18	15	17.9	90.00	.0042	-21.33	.0000	385207.0	1.49	9.09	-.[illegible]36	250.62	-.0016	-21.71	298.60
SET 61	3649.11	3660.36	18	16	4.9	69.64	.0042	-22.35	.0000	389315.1	1.42	-.00	-.0028	240.12	.0027	-21.70	286.83
SET 72	3782.00	3793.25	18	18	17.8	93.15	.0042	-21.55	.0000	398428.7	1.64	-.01	-.0039	248.23	-.0006	-21.68	253.50
RISE 42	3783.17	3794.42	18	18	18.9	255.00	.0042	-21.12	-.0000	398446.1	.87	.61	.0031	115.70	-.0024	-21.68	253.20
EXTM 11	3822.86	3834.11	18	18	58.6	359.94	.0043	-22.45	-.0000	398130.5	1.34	32.34	.0000	179.94	.0046	-21.69	243.21
IMPACT	3860.68	3871.93	18	19	36.4												
IMPC 42	3860.68	3871.93	18	19	36.4	274.59	.0043	-21.25	-.0000	403301.5	1.68	15.66	.0034	105.23	-.0022	-21.71	233.60
IMPC 11	3860.68	3871.93	18	19	36.4	9.69	.0044	-22.47	-.0000	401693.5	2.11	31.60	-.0007	190.52	.0047	-21.71	233.60

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	16	3	15.764	6574.510	20.2108	305.6830	10.97186	-3.8260	112.7409	140.2963
SEPARATION	1.20	12.45	16	3	16.964	6544.986	17.4100	312.0755	10.99634	-.4005	114.9025	146.9897
RETRO	3.20	14.45	16	3	18.964	6601.457	12.3092	322.2297	10.94886	5.3026	117.6452	157.6452
EXIT SHA	12.26	23.51	16	3	28.028	8216.739	-8.8923	357.7865	9.80498	.7084	118.8362	195.4743
IMPACT	3860.68	3871.93	18	19	36.439	405068.395	-21.7101	233.5960	2.20270	67.9940	257.0899	316.0201

SURVEYOR VIEW PERIODS

GMA	147.5097					EPS	161.8013							LOM	228.5707
SX	.668619	SY	-.645109	SZ	-.369842	DAO	-21.70588	RAO	316.02525	RM	406345.641	LAT	28.310600	LON	279.461800
C3	-.885773	ECC	.989456	SLR	12994.154	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.682651	NSY	-.632954	NSZ	-.365181	C3M	1.5559	VIM	2.6824	ZAE	142.696	B.T	.0000	B.R	-.0000
LATE	6.2445	LONE	1.4291	LATS	-1.5626	LONS	199.1126	LATI	2.5601	LONI	324.1872	RSM	147.5041	TTAN	5.3860
LAUNCH DATE		FEB	16,1966		BASE AZM	105.0		TF	64.365			ARRIVAL	DATE FEB	18 1966	19 56 30.2

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	3 16	5.0	27.8	19.06	305.32	-5.19	142.83	114.89	3 27 20.0	6558.0	10.99	-2.57

EVNT STA	TFI	TFL	DAY HR MIN PRORF IN EARTH'S SHADOW	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
INJECTION	.00	11.25	16 3 27.3												
SEPARATION	1.20	12.45	16 3 28.5												
RETRO	3.20	14.45	16 3 30.5												
RISE 72	5.05	16.30	16 3 32.4	83.42	-.1765	39.54	.0108	2418.2	-8.60	-.00	.1320	309.99	.0349	5.57	329.83
EXTM 72	8.86	20.11	16 3 36.2	5.15	-.3900	17.07	-.2686	1219.1	1.07	64.51	.3398	348.50	.7186	-3.97	344.87
RISE 51	11.15	22.40	16 3 38.5	80.74	-.0932	18.46	-.0462	4898.8	-4.11	.00	.0997	290.58	-.0006	-8.71	352.44
EXIT SHA	11.86	23.11	16 3 39.2												
EXIT 72	11.86	23.11	16 3 39.2	323.19	-.1234	-14.82	-.0839	2176.7	7.53	53.30	-.1282	104.23	.1160	-10.04	354.63
EXIT 51	11.86	23.11	16 3 39.2	76.68	-.0955	16.38	-.0505	4733.6	-3.56	4.40	.1046	290.55	-.0007	-10.04	354.63
EXTM 51	28.26	39.51	16 3 55.6	2.14	-.0395	-25.60	-.0140	6968.0	5.39	88.06	.0366	273.53	-.3315	-25.67	26.57
EXTM 72	69.20	80.45	16 4 36.5	280.81	.0030	-31.65	.0001	23662.7	4.85	13.32	.0000	120.77	-.0001	-30.90	48.63
EXTM 51	87.06	98.31	16 4 54.4	331.02	-.0000	-31.62	.0002	24915.3	4.44	63.99	.0000	109.83	-.0005	-30.96	50.61
RISE 61	177.28	188.53	16 6 24.6	307.02	.0030	-35.43	.0005	51616.0	3.36	.00	.0019	139.42	.0016	-29.75	43.80
EXTM 51	270.48	281.73	16 7 57.8	.23	.0036	-28.87	.0002	63992.4	3.07	86.87	.0000	183.73	.0574	-28.58	27.47
EXTM 61	440.26	451.51	16 10 47.6	4.53	.0039	-30.62	.0002	96594.6	2.58	19.02	.0000	184.12	.0036	-27.13	351.48
EXTM 72	469.51	480.76	16 11 16.8	.82	.0040	-28.17	.0001	97318.4	2.52	69.72	.0000	182.08	.0103	-26.94	344.91
RISE 11	626.95	638.10	16 13 54.2	292.04	.0040	-28.00	.0000	125662.9	1.96	.00	.0027	125 08	.0023	-26.09	308.66
SET 51	661.67	672.92	16 14 29.0	90.00	.0039	-24.85	.0001	129190.8	2.57	10.52	-.0033	247.35	-.0013	-25.93	300.49
SET 61	687.74	698.99	16 14 55.1	63.47	.0040	-27.82	.0002	133797.6	2.44	-.00	-.0023	232.31	.0027	-25.82	294.34
SET 72	854.82	866.07	16 17 42.2	93.70	.0040	-24.86	.0001	154812.1	2.41	-.01	-.0036	244.88	-.0004	-25.20	254.55
RISE 42	865.67	876.92	16 17 53.0	254.99	.0040	-23.74	-.0000	155873.5	1.68	2.21	.0029	117.77	-.0022	-25.16	251.95
EXTM 11	907.54	918.79	16 18 34.9	1.32	.0042	-27.03	.0001	158164.9	1.97	27.75	-.0000	181.32	.0042	-25.07	241.88
SET 11	1185.75	1197.00	16 23 13.1	70.32	.0041	-25.52	.0001	192170.4	2 08	-.00	-.0028	238.18	.0024	-24.30	174.44
EXTM 42	1289.63	1300.88	17 0 57.0	359.90	.0042	-23.71	.0000	196850.3	1.71	78.49	-.0000	.45	-.0189	-24.07	149.07
RISE 51	1424.56	1435.81	17 3 11.9	270.00	.0041	-23.14	-.0000	215453.6	1.26	9.82	.0035	111.06	-.0015	-23.81	116.03
RISE 72	1581.78	1593.03	17 5 49.1	266.56	.0041	-23.31	-.0000	231659.8	1.15	-.01	.0037	113.55	-.0005	-23.54	77.41
RISE 61	1644.98	1656.23	17 6 52.3	292.72	.0041	-24.53	.0000	237556.3	1.25	.00	.0027	122.95	.0027	-23.44	61.85
SET 42	1712.32	1723.57	17 7 59.6	105.00	.0041	-22.42	.0001	243578.4	1.85	1.40	-.0030	243.28	-.0023	-23.33	45.27
EXTM 51	1783.53	1794.78	17 9 10.9	359.98	.0042	-23.16	.0000	243866.5	1.49	87.42	.0000	.61	-.0672	-23.23	27.71
EXTM 61	1915.06	1926.31	17 11 22.4	.52	.0042	-24.31	.0000	259004.1	1.44	25.45	-.0000	180.53	.0042	-23.05	355.24
EXTM 72	1954.15	1965.40	17 12 1.5	.09	.0042	-23.37	.0000	259022.9	1.43	74.54	.0000	180.33	.0143	-23.00	345.50
RISE 11	2081.82	2093.07	17 14 9.2	288.03	.0042	-23.68	-.0000	275907.5	1.06	.00	.0030	119.44	.0024	-22.84	314.01
SET 51	2142.66	2153.91	17 15 10.0	90.00	.0041	-22.25	.0000	279906.8	1.76	9.47	-.0035	249.77	-.0015	-22.77	298.96
SET 61	2185.03	2196.28	17 15 52.4	68.27	.0042	-23.63	.0000	284429.6	1.66	-.00	-.0027	238.33	.0027	-22.72	288.47
SET 72	2325.34	2336.59	17 18 12.7	93.29	.0041	-22.39	.0001	295728.0	1.74	-.01	-.0038	247.38	-.0005	-22.57	253.71
RISE 42	2328.49	2339.74	17 18 15.8	255.00	.0041	-21.81	-.0000	295863.1	.99	1.03	.0030	116.24	-.0023	-22.57	252.93
EXTM 11	2369.30	2380.55	17 18 56.6	.35	.0042	-23.57	.0000	295918.1	1.31	31.22	-.0000	180.37	.0045	-22.52	242.81
SET 11	2656.71	2667.96	17 23 44.0	72.60	.0042	-22.96	.0000	321220.8	1.57	-.00	-.0030	241.48	.0024	-22.25	171.50
EXTM 42	2747.23	2758.48	18 1 14.6	359.96	.0042	-21.91	.0000	321778.1	1.22	76.69	-.0000	.19	-.0153	-22.17	149.02
RISE 51	2877.59	2888.84	18 3 24.9	270.00	.0041	-21.62	-.0000	336365.2	.81	9.21	.0035	109.65	-.0016	-22.06	116.64
RISE 72	3034.06	3045.31	18 6 1.4	266.81	.0041	-21.78	-.0000	348472.4	.74	-.01	.0038	112.00	-.0006	-21.93	77.74
RISE 61	3088.06	3099.31	18 6 55.4	290.64	.0042	-22.62	-.0000	352232.9	.85	.00	.0027	120.25	.0027	-21.89	64.31
SET 42	3166.01	3177.26	18 8 13.3	105.00	.0041	-21.23	.0000	357575.0	1.44	.67	-.0031	244.22	-.0024	-21.85	44.85
EXTM 51	3234.70	3245.95	18 9 22.0	360.00	.0042	-22.75	.0000	355863.8	1.10	86.01	-.0000	.20	-.0053	-21.82	27.69
EXTM 61	3363.12	3374.37	18 11 30.4	.16	.0042	-22.65	.0000	367671.8	1.09	27.11	-.0000	180.16	.0044	-21.77	359.59
EXTM 72	3402.90	3414.15	18 12 10.2	.02	.0042	-21.99	.0000	367019.9	1.09	75.91	.0000	180.11	.0128	-21.76	345.65
RISE 11	3523.42	3534.67	18 14 10.7	286.84	.0042	-22.31	-.0000	380998.9	.75	.00	.0030	117.69	.0024	-21.71	315.51
SET 51	3590.97	3602.22	18 15 18.3	90.00	.0042	-21.31	.0000	384409.1	1.49	9.08	-.0036	250.64	-.0016	-21.69	298.60
SET 61	3638.03	3649.28	18 16 5.4	69.65	.0042	-22.34	.0000	388512.2	1.41	-.00	-.0028	240.14	.0027	-21.68	286.82
SET 72	3770.88	3782.13	18 18 18.2	93.15	.0042	-21.52	.0000	397548.7	1.62	-.01	-.0039	248.26	-.0006	-21.66	253.50
RISE 42	3772.09	3783.34	18 18 19.4	255.00	.0042	-21.09	-.0000	397568.4	.85	.59	.0031	115.68	-.0024	-21.66	253.20
EXTM 11	3811.98	3823.23	18 18 59.3	359.99	.0043	-22.43	-.0000	397183.9	1.29	32.36	.0000	179.98	.0036	-21.66	243.16
IMPACT	3861.91	3873.16	18 19 49.2												
IMPC 42	3861.91	3873.16	18 19 49.2	277.70	.0043	-21.24	-.0000	403048.4	1.68	18.11	.0034	103.63	-.0022	-21.68	230.50
IMPC 11	3861.91	3873.16	18 19 49.2	12.83	.0044	-22.44	-.0000	401748.1	2.12	31.08	-.0009	193.87	.0046	-21.68	230.50

EVNT STA	TFI	TFL	DAY HR MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	16 3 27.334	6558.063	19.0614	305.3114	10.98541	-2.5738	114.8907	142.8251
SEPARATION	1.20	12.45	16 3 28.534	6546.144	16.0368	311.5425	10.99530	.8595	116.8629	149.3570
RETRO	3.20	14.45	16 3 30.534	6631.182	10.6414	321.4097	10.92405	6.5348	119.2640	159.7256
EXIT SHA	11.86	23.11	16 3 39.197	8226.987	-10.0371	354.6252	9.79875	26.7784	119.4599	195.1129
IMPACT	3861.91	3873.16	18 19 49.240	405074.707	-21.6832	230.4965	2.20232	67.9882	257.5345	316.1295

SURVEYOR VIEW PERIODS

GHA	147.5097					EPS	161.8909							LOM	225.5653
SX	.669934	SY	-.643991	SZ	-.369409	DAO	-21.67919	RAO	316.13115	RM	406351.641	LAT	28.310600	LON	279.461800
CS	-.887940	ECC	.985421	SLR	12993.921	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.683959	NSY	-.631794	NSZ	-.364742	C3M	1.5558	VIM	2.6824	ZAE	142.627	B.T	.0000	B.R	-.0000
LATE	6.2481	LONE	1.5316	LATS	-1.5626	LONS	199.1210	LATI	2.3010	LONI	324.2522	RSM	147.5041	TTAN	5.3821
LAUNCH DATE	FEB	16,1966		BASE AZM	108.0		TF	64.401				ARRIVAL DATE	FEB 18 1966 20 8 54,9		

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FTH
108.00	3 26	1.6	27.9	17.94	304.86	-3.06	144.86	117.02	3 37 16.6	6549.3	10.99	-1.52

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	16	3	37.3												
SEPARATION	1.20	12.45	16	3	38.5												
RETRO	3.20	14.45	16	3	40.5												
RISE 72	4.90	16.15	16	3	42.2	84.71	-.1579	33.55	-.0171	2497.5	-8.57	.00	.1327	303.91	.0048	4.21	328.01
EXTM 72	9.45	20.70	16	3	46.7	2.67	-.3226	-3.65	-.2180	1340.6	3.33	84.98	.3551	327.87	1.8095	-7.17	345.20
RISE 51	11.11	22.36	16	3	48.4	82.70	-.0870	14.77	-.0497	5037.9	-3.86	.00	.0975	286.44	-.0066	-10.53	350.47
EXIT SHA	11.51	22.76	16	3	48.8												
EXIT 72	11.51	22.76	16	3	48.8	333.71	-.1601	-21.02	-.0784	2044.0	7.15	61.44	-.1683	120.15	.0262	-11.28	351.68
EXIT 51	11.51	22.76	16	3	48.8	80.58	-.0881	13.54	-.0517	4948.1	-3.56	2.39	.0999	286.28	-.0068	-11.28	351.68
EXTM 51	30.59	41.84	16	4	7.9	1.48	-.0337	-30.04	-.0090	7858.7	5.44	85.51	.0000	196.56	-.3896	-28.11	26.88
EXTM 72	69.64	80.89	16	4	46.9	283.08	.0000	-33.19	.0003	23702.3	4.83	15.24	.0000	122.35	-.0003	-32.04	46.45
EXTM 51	87.64	98.89	16	5	4.9	333.74	-.0001	-32.99	.0004	25089.8	4.42	66.07	.0000	113.82	-.0010	-31.98	48.40
RISE 61	172.90	184.15	16	6	30.2	308.57	.0029	-36.38	.0006	50753.1	3.39	.00	.0019	140.99	.0316	-30.54	42.23
EXTM 51	259.58	270.83	16	7	56.9	.35	.0035	-29.64	.0002	62045.4	3.11	86.09	.0000	184.44	.0451	-29.27	27.37
EXTM 61	431.99	443.24	16	10	49.3	4.95	.0039	-31.14	.0002	95416.3	2.60	18.47	.0000	184.46	.0035	-27.60	351.08
EXTM 72	460.02	471.27	16	11	17.3	.93	.0040	-28.67	.0002	95946.2	2.54	69.22	.0000	182.30	.0100	-27.40	344.31
RISE 11	618.86	630.11	16	13	56.1	292.41	.0040	-28.38	.0000	124615.1	1.98	.00	.0027	125.58	.0023	-26.44	308.27
SET 51	651.89	663.14	16	14	29.2	90.00	.0039	-25.19	.0001	127908.0	2.59	10.65	-.0033	247.04	-.0013	-26.28	300.53
SET 61	676.12	687.37	16	14	53.4	63.02	.0040	-28.20	.0002	132304.6	2.45	-.00	-.0023	231.76	.0027	-26.16	294.82
SET 72	845.39	856.64	16	17	42.7	93.74	.0039	-25.13	.0001	153700.3	2.42	-.01	-.0036	244.61	-.0004	-25.47	284.93
RISE 42	856.24	867.49	16	17	53.5	254.99	.0040	-24.00	-.0000	154748.9	1.69	2.37	.0029	117.98	-.0022	-25.43	291.93
EXTM 11	898.43	909.68	16	18	35.7	1.41	.0042	-27.31	.0001	157141.3	1.97	27.47	-.0000	181.41	.0042	-25.29	241.79
SET 11	1175.47	1186.72	16	23	12.7	70.13	.0041	-25.72	.0001	191093.5	2.08	-.00	-.0028	237.91	.0024	-24.48	174.64
EXTM 42	1280.08	1291.33	17	0	57.4	359.88	.0042	-23.89	.0000	195877.2	1.71	78.67	-.0000	.56	-.0192	-24.29	149.10
RISE 51	1415.14	1426.39	17	3	12.4	270.00	.0041	-23.30	-.0000	214524.2	1.27	9.89	.0035	111.20	-.0015	-23.96	116.02
RISE 72	1572.26	1583.51	17	5	49.5	266.54	.0041	-23.44	-.0000	230761.8	1.16	-.01	.0037	113.68	-.0005	-23.67	77.42
RISE 61	1636.11	1647.36	17	6	53.4	292.86	.0041	-24.66	.0000	236730.5	1.25	.00	.0027	123.13	.0027	-23.56	61.71
SET 42	1702.83	1714.08	17	8	.1	105.00	.0041	-22.53	.0001	242699.6	1.85	1.47	-.0030	243.19	-.0023	-23.45	48.27
EXTM 51	1774.09	1785.34	17	9	11.4	359.99	.0042	-23.27	.0000	243012.2	1.49	87.54	-.0000	.48	-.0571	-23.34	27.70
EXTM 61	1905.70	1916.95	17	11	23.0	.55	.0042	-24.41	.0000	258187.7	1.48	25.35	-.0000	180.56	.0042	-23.14	359.21
EXTM 72	1944.70	1955.95	17	12	2.0	.10	.0042	-23.46	.0000	258196.7	1.43	74.44	.0000	180.35	.0142	-23.09	348.97
RISE 11	2072.64	2083.89	17	14	9.9	288.10	.0042	-23.76	-.0000	275118.3	1.07	.00	.0030	119.95	.0024	-22.92	313.93
SET 51	2133.15	2144.40	17	15	10.4	90.00	.0041	-22.33	.0001	279094.5	1.76	9.50	-.0035	249.70	-.0015	-22.84	298.96
SET 61	2175.20	2186.45	17	15	52.5	68.19	.0042	-23.70	.0001	283999.4	1.66	-.00	-.0027	238.22	.0027	-22.79	288.55
SET 72	2315.86	2327.11	17	18	13.1	93.30	.0041	-22.45	.0001	294942.2	1.74	-.01	-.0038	247.32	-.0005	-22.63	253.70
RISE 42	2319.00	2330.25	17	18	16.3	285.00	.0041	-21.87	-.0000	295073.1	.99	1.07	.0030	116.29	-.0023	-22.63	252.92
EXTM 11	2359.88	2371.13	17	18	57.2	.37	.0042	-23.63	.0000	299147.0	1.31	31.16	-.0000	180.39	.0049	-22.58	248.79
SET 11	2647.04	2658.29	17	23	44.3	72.57	.0042	-23.00	.0000	320452.3	1.57	-.00	-.0030	241.43	.0024	-22.28	171.94
EXTM 42	2787.70	2798.95	18	1	15.0	359.96	.0042	-21.94	.0000	321086.9	1.22	78.72	-.0000	.20	-.0183	-22.20	149.88
RISE 51	2868.06	2879.31	18	3	25.3	270.00	.0041	-21.65	-.0000	339623.3	.81	9.22	.0035	109.67	-.0016	-22.08	116.63
RISE 72	3024.92	3036.17	18	6	1.8	266.31	.0041	-21.79	-.0000	347740.7	.74	-.01	.0038	112.01	-.0006	-21.95	77.74
RISE 61	3078.58	3089.83	18	6	55.9	290.66	.0042	-22.63	-.0000	351908.8	.85	.00	.0027	120.27	.0027	-21.90	64.29
SET 42	3196.57	3167.82	18	8	13.9	105.00	.0041	-21.22	.0000	356934.7	1.44	.67	-.0031	244.22	-.0024	-21.85	44.39
EXTM 51	3225.25	3236.50	18	9	22.5	360.00	.0042	-21.75	.0000	359217.0	1.10	86.01	-.0000	.26	-.0040	-21.82	27.69
EXTM 61	3353.69	3364.94	18	11	31.0	.17	.0042	-22.64	.0000	367012.3	1.09	27.12	-.0000	180.17	.0044	-21.76	359.59
EXTM 72	3393.44	3404.69	18	12	10.7	.03	.0042	-21.99	.0000	366353.7	1.09	75.92	.0000	180.11	.0138	-21.75	349.65
RISE 11	3513.90	3525.15	18	14	11.2	286.83	.0042	-22.30	-.0000	380310.6	.75	.00	.0030	117.67	.0024	-21.70	319.92
SET 51	3581.48	3592.73	18	15	18.8	90.00	.0042	-21.30	.0000	383708.1	1.48	9.07	-.0036	250.65	-.0016	-21.68	298.60
SET 61	3628.60	3639.85	18	16	5.9	69.67	.0042	-22.32	.0000	387801.1	1.41	-.00	-.0028	240.16	.0027	-21.66	286.81
SET 72	3761.38	3772.63	18	18	18.7	93.14	.0042	21.90	.0000	396754.9	1.60	-.01	-.0039	248.28	-.0005	-21.63	253.91
RISE 42	3762.61	3773.86	18	18	19.9	285.00	.0042	-21.07	-.0000	396776.7	.83	.58	.0031	115.66	-.0024	-21.63	253.20
EXTM 11	3802.63	3813.88	18	18	59.9	.02	.0043	-22.40	.0000	396333.2	1.25	32.39	.0000	180.02	.0041	-21.63	243.13
IMPACT	3864.05	3875.30	18	20	1.3												
IMPC 42	3864.05	3875.30	18	20	1.3	280.63	.0043	-21.22	-.0000	402814.8	1.68	20.44	.0035	102.11	-.0022	-21.66	227.97
IMPC 11	3864.05	3875.30	18	20	1.3	15.80	.0044	-22.41	-.0000	401816.2	2.14	30.47	-.0011	196.98	.0049	-21.66	227.97

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FTH	AZ	RT ASC
INJECTION	.00	11.25	16	3	37.277	6549.299	17.9404	304.8543	10.99261	-1.5167	117.0174	144.8686
SEPARATION	1.20	12.45	16	3	38.477	6552.064	14.6958	310.9279	10.99020	1.9192	118.8187	151.2347
RETRO	3.20	14.45	16	3	40.477	6666.938	9.0195	326.5030	10.89935	7.5639	120.8890	161.3115
EXIT SHA	11.51	22.76	16	3	48.788	8231.738	-11.2807	351.6796	9.79979	24.8106	120.2030	194.5717
IMPACT	3864.05	3875.30	18	20	1.330	405084.363	-21.6577	227.5697	2.19977	67.7980	297.9948	316.2334

FEB 16, 1966
108 DEGREES

SURVEYOR VIEW PERIODS

GMA	147.5097					EPS	161.9730							LOM	222.8075
SX	.671140	SY	-.642964	SZ	-.369011	DAO	-21.65465	RAO	316.22829	RM	406357.098	LAT	28.310600	LON	279.461800
CS	-.890720	ECC	.985375	SLR	12993.620	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.685162	NSY	-.630723	NSZ	-.364338	C3M	1.5556	VIM	2.6823	ZAE	142.535	B.T	.0000	B.R	-.0000
LATE	6.2514	LONF	1.4077	LATS	-1.5627	LONS	198.9108	LATI	2.0164	LONI	324.0737	RSM	147.5042	TTAN	5.3803
LAUNCH DATE		FEB 16,1966		BASE AZM	111.0		TF 34.446				ARRIVAL DATE		FEB 18 1966 20 20 18.2		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIM	INJ RAD	INJ VEL	INJ FPA
111.00	3 34 36.1	27.9	16.85	304.33	-1.26	146.48	119.13	3 4[illegible] 51.1	6545.4	11.00	-.62

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PRORE IN EARTH'S SHADOW														
INJECTION	.00	11.25	16	3	45.9												
SEPARATION	1.20	12.45	16	3	47.1												
RETRO	3.20	14.45	16	3	49.1												
RISE 72	4.80	16.05	16	3	50.6	85.78	-.1436	27.98	-.0420	2577.9	-8.39	-.01	.1318	298.27	-.0218	2.77	326.38
EXTM 72	9.27	20.52	16	3	55.1	15.63	-.3246	-11.77	-.2066	1410.3	2.56	74.13	.2648	254.64	-.9918	-8.65	342.89
RISE 51	11.11	22.36	16	3	57.0	84.54	-.0816	11.18	-.0528	5170.3	-3.60	-.01	.0951	282.42	-.0119	-12.43	348.64
EXIT SHA	11.20	22.45	16	3	57.1												
EXIT 72	11.20	22.45	16	3	57.1	345.09	-.1979	-27.52	-.0751	1987.4	6.61	65.83	-.1981	146.12	-.2211	-12.60	348.91
EXIT 51	11.20	22.45	16	3	57.1	84.10	-.0818	10.89	-.0532	5131.0	-3.54	.51	.0956	282.36	-.0120	-12.60	348.91
EXTM 51	32.28	43.53	16	4	18.1	2.12	-.0307	-33.65	-.0062	8536.5	5.42	81.88	-.0000	192.60	-.1864	-30.27	26.51
EXTM 72	69.86	81.11	16	4	55.7	284.98	-.0000	-34.82	.0005	23701.7	4.82	16.78	.0000	124.07	-.0006	-33.28	44.55
EXTM 51	87.42	98.67	16	5	13.3	336.04	-.0002	-34.48	.0006	25058.9	4.42	67.57	.0000	118.64	-.0017	-33.10	46.50
RISE 61	171.03	182.28	16	6	36.9	310.18	.0029	-37.32	.0006	50413.1	3.40	.00	.0019	142.59	.0015	-31.37	49.66
EXTM 51	250.68	261.93	16	7	54.5	.51	.0035	-30.48	.0003	60436.3	3.14	85.23	-.0000	185.35	.0364	-30.03	27.22
EXTM 61	425.43	436.68	16	10	51.3	5.39	.0039	-31.70	.0003	94490.6	2.61	17.89	.0000	184.82	.0035	-28.11	350.67
EXTM 72	452.18	463.43	16	11	18.0	1.05	.0040	-29.21	.0002	94809.7	2.55	68.67	.0000	182.53	.0097	-27.89	344.69
RISE 11	612.52	623.77	16	13	58.4	292.81	.0040	-28.79	.0001	123776.7	1.99	.00	.0027	126.11	.0027	-26.83	307.85
SET 51	643.63	654.88	16	14	29.5	90.00	.0039	-25.57	.0001	126811.0	2.59	10.80	-.0033	246.69	-.0013	-26.66	300.56
SET 61	665.82	677.07	16	14	51.7	62.52	.0040	-28.61	.0002	130966.0	2.46	-.00	-.0022	231.16	.0027	-26.54	295.34
SET 72	837.46	848.71	16	17	43.3	93.79	.0039	-25.43	.0001	152754.7	2.42	-.00	-.0035	244.31	-.0004	-25.77	254.50
RISE 42	848.27	859.52	16	17	54.1	254.99	.0040	-24.29	-.0000	153783.1	1.70	2.55	.0029	118.21	-.0022	-25.73	251.91
EXTM 11	890.80	902.05	16	18	36.7	1.52	.0042	-27.61	.0001	156281.6	1.98	27.17	-.0000	181.51	.0041	-25.57	241.69
SET 11	1166.54	1177.79	16	23	12.4	69.92	.0041	-25.95	.0001	190144.8	2.08	-.00	-.0028	237.62	.0024	-24.71	174.85
EXTM 42	1271.94	1283.19	17	0	57.8	359.85	.0042	-24.09	.0000	195032.9	1.72	78.87	.0000	.70	-.0196	-24.44	149.12
RISE 51	1407.12	1418.37	17	3	13.0	270.00	.0041	-23.46	-.0000	213716.6	1.27	9.95	.0034	111.36	-.0015	-24.13	116.01
RISE 72	1564.14	1575.39	17	5	50.0	266.52	.0041	-23.59	-.0000	229977.5	1.16	-.01	.0037	113.83	-.0005	-23.82	77.44
RISE 61	1628.70	1639.95	17	6	54.5	293.02	.0041	-24.80	.0000	236022.8	1.25	.00	.0026	123.33	.0027	-23.70	61.55
SET 42	1694.73	1705.98	17	8	.6	105.00	.0041	-22.66	.0001	241929.1	1.85	1.55	-.0030	243.09	-.0023	-23.58	48.28
EXTM 51	1766.02	1777.27	17	9	11.9	359.99	.0042	-23.40	.0000	242261.8	1.49	87.66	-.0000	.49	-.0524	-23.46	27.70
EXTM 61	1897.75	1909.00	17	11	23.6	.59	.0042	-24.52	.0000	257474.4	1.45	25.24	-.0000	180.59	.0042	-23.25	359.17
EXTM 72	1936.64	1947.89	17	12	2.3	.11	.0042	-23.57	.0000	257470.5	1.43	74.34	.0000	180.38	.0142	-23.19	345.96
RISE 11	2064.83	2076.13	17	14	10.7	288.18	.0042	-23.85	-.0000	274426.9	1.07	.00	.0029	119.67	.0024	-23.01	313.85
SET 51	2125.02	2136.27	17	15	10.9	90.00	.0041	-22.41	.0001	278374.4	1.76	9.53	-.0035	249.62	-.0015	-22.93	298.96
SET 61	2166.70	2177.95	17	15	52.6	68.10	.0042	-23.79	.0001	282856.7	1.66	-.00	-.0027	238.10	.0027	-22.87	288.64
SET 72	2307.76	2319.01	17	18	13.6	93.31	.0041	-22.52	.0001	294243.4	1.75	-.01	-.0038	247.25	-.0005	-22.70	253.70
RISE 42	2310.88	2322.13	17	18	16.7	255.00	.0041	-21.94	-.0000	294368.7	.99	1.11	.0030	116.34	-.0023	-22.69	252.92
EXTM 11	2351.63	2363.08	17	18	57.7	.39	.0042	-23.70	.0000	294462.3	1.31	31.10	-.0000	180.42	.0045	-22.65	242.77
SET 11	2638.71	2649.96	17	23	44.6	72.53	.0042	-23.05	.0000	319758.0	1.57	-.00	-.0030	241.37	.0021	-22.33	171.98
EXTM 42	2729.53	2740.78	18	1	15.4	359.96	.0042	-21.98	.0000	320348.2	1.23	76.76	-.0000	.20	-.0154	-22.24	149.02
RISE 51	2859.90	2871.15	18	3	25.7	270.00	.0041	-21.67	-.0000	334950.8	.81	9.23	.0035	109.70	-.0014	-22.11	116.63
RISE 72	3016.32	3027.57	18	6	2.2	266.81	.0041	-21.81	-.0000	347074.1	.74	-.01	.0038	112.04	-.0006	-21.97	77.74
RISE 61	3070.47	3081.72	18	6	54.3	290.68	.0042	-22.65	-.0000	350850.1	.85	.00	.0027	120.30	.0027	-21.92	64.27
SET 42	3148.37	3159.62	18	8	14.2	105.00	.0041	-21.24	.0000	356271.7	1.44	.68	-.0031	244.21	-.0024	-21.86	44.89
EXTM 51	3217.05	3228.30	18	9	22.9	360.00	.0042	-21.76	.0000	354553.6	1.10	86.02	-.0000	.25	-.0087	-21.83	27.69
EXTM 61	3345.54	3356.79	18	11	31.4	.18	.0042	-22.65	.0000	366348.9	1.09	27.12	-.0000	180.19	.0044	-21.77	355.57
EXTM 72	3385.26	3396.51	18	12	11.1	.03	.0042	-21.99	.0000	365685.3	1.09	75.92	.0000	180.13	.0137	-21.75	349.64
RISE 11	3505.70	3516.95	18	14	11.5	286.82	.0042	-22.30	-.0000	379632.3	.75	.00	.0030	117.67	.0024	-21.70	315.92
SET 51	3573.28	3584.53	18	15	19.1	90.00	.0042	-21.29	.0000	383022.1	1.48	9.07	-.0036	250.66	-.0016	-21.67	298.61
SET 61	3620.44	3631.69	18	16	6.3	69.68	.0042	-22.31	.0000	387109.0	1.40	-.00	-.0028	240.17	.0027	-21.65	286.80
SET 72	3753.20	3764.45	18	18	19.1	93.14	.0042	-21.48	.0000	396007.4	1.59	-.01	-.0038	248.30	-.0005	-21.62	253.51
RISE 42	3754.45	3765.70	18	18	20.3	255.00	.0042	-21.05	-.0000	396031.1	.82	.56	.0031	115.65	-.0024	-21.62	253.28
EXTM 11	3794.59	3805.84	18	19	.4	.04	.0043	-22.39	.0000	395547.6	1.22	32.41	.0000	180.05	.0045	-21.61	243.11
IMPACT	3866.76	3878.01	18	20	12.6												
IMPC 42	3866.76	3878.01	18	20	12.6	283.37	.0043	-21.21	-.0000	402595.6	1.68	22.63	.0035	100.69	-.0022	-21.63	224.84
IMPC 11	3866.76	3878.01	18	20	12.6	18.57	.0044	-22.38	-.0000	401837.6	2.15	29.78	-.0012	199.83	.0044	-21.63	224.84

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	FT ABC
INJECTION	.00	11.25	16	3	45.851	6545.447	16.8470	304.3282	10.99579	-.4230	119.1300	146.4839
SEPARATION	1.20	12.45	16	3	47.051	6560.532	13.3926	310.2329	10.98293	2.8086	120.7508	192.6895
RETRO	3.20	14.45	16	3	49.051	6589.215	7.4447	319.5186	10.87599	8.4218	122.5273	162.4765
EXIT SHA	11.20	22.45	16	3	57.051	8231.828	-12.5986	348.9075	9.79559	26.8109	121.0570	193.8710
INPACT	3866.76	3878.01	18	20	12.613	4[illegible]5098.203	-21.6340	294.8376	2.19891	67.7294	258.5579	316.[illegible]09

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SURVEYOR VIEW PERIODS

GHA	147.5097					EPS	162.0732							LOM	219.4302
SX	.672609	SY	-.641707	SZ	-.368524	DAO	-21.62460	RAO	316.34689	RM	406363.703	LAT	28.310600	LON	279.461800
CS	-.895131	ECC	.985303	SLR	12993.146	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00300	POL	-.0
NSX	.686636	NSY	-.629403	NSZ	-.363844	CSM	1.5557	VIM	2.6823	ZAE	142.781	B.T	.0000	B.R	-.0000
LATE	6.2553	LONE	1.5226	LATS	-1.5627	LONS	198.9203	LATI	1.6080	LONI	324.0899	RSM	147.5043	TTAN	3.3804

LAUNCH DATE FEB 16.1966 BASE AZM 115.0 TF 64.517 ARRIVAL DATE FEB 18 1966 20 34 12.8

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	3 44 17.8	28.0	15.43	303.54	.73	148.12	121.93	3 55 32.8	6544.9	11.00	.36

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW														
INJECTION	.00	11.25	16	3	55.5											
SEPARATION	1.20	12.45	16	3	56.7											
RETRO	3.20	14.45	16	3	58.7											
RISE 72	4.74	15.99	16	4	.3	86.94	-.1284	21.00	-.0707	2685.5	-7.96	.00	.1290 291.21	-.0523	.71	324.44
EXTM 72	10.14	21.39	16	4	5.7	11.90	-.2723	-31.21	-.1237	1808.6	4.54	64.18	-.0000 203.00	-.6055	-13.03	343.34
EXIT SHA	10.86	22.11	16	4	6.4											
EXIT 72	10.86	22.11	16	4	6.4	.82	-.2369	-35.58	-.0794	2033.6	5.74	62.32	-.0735 181.44	-.4197	-14.49	348.50
EXIT 51	10.86	22.11	16	4	6.4	88.25	-.0745	7.54	-.0554	5402.3	-3.46	-1.70	.0906 277.55	-.0179	-14.49	348.50
RISE 51	11.17	22.42	16	4	6.7	86.85	-.0751	6.49	-.0566	5339.9	-3.24	.00	.0919 277.21	-.0182	-15.09	346.40
EXTM 51	34.98	46.23	16	4	30.5	1.99	-.0269	-38.19	-.0031	9577.0	5.39	77.44	-.0000 187.20	-.0981	-33.22	26.96
EXTM 72	69.88	81.13	16	5	5.4	286.98	-.0001	-37.09	.0009	23659.3	4.81	18.28	.0000 126.54	-.0009	-35.06	42.43
EXTM 51	86.04	97.29	16	5	21.6	338.55	-.0005	-36.66	.0009	24743.8	4.43	68.73	.0000 126.06	-.0027	-34.74	44.37
RISE 61	171.71	182.96	16	6	47.3	312.36	.0029	-38.53	.0007	50630.9	3.39	.00	.0019 144.69	.0015	-32.51	38.60
EXTM 51	241.47	252.72	16	7	57.0	.80	.0034	-31.70	.0004	58760.2	3.18	84.00	-.0000 186.49	.0282	-31.11	26.97
EXTM 61	418.90	430.15	16	10	54.4	6.01	.0039	-32.48	.0003	93590.9	2.63	17.07	.0000 185.30	.0035	-28.84	350.09
EXTM 72	443.90	455.15	16	11	19.4	1.25	.0040	-29.90	.0002	93608.9	2.57	67.89	.0000 182.87	.0093	-28.60	344.91
RISE 11	606.19	617.44	16	14	1.7	293.39	.0040	-29.36	.0001	122935.9	1.99	.00	.0027 126.88	.0023	-27.38	307.29
SET 51	634.59	645.84	16	14	30.1	90.00	.0039	-26.11	.0002	129595.0	2.60	11.02	-.0032 246.18	-.0013	-27.20	300.60
SET 61	653.77	665.02	16	14	49.3	61.79	.0040	-29.19	.0002	129386.1	2.47	-.00	-.0022 230.29	.0027	-27.09	296.09
SET 72	828.81	840.06	16	17	44.4	93.86	.0039	-25.86	.0001	151712.9	2.43	-.00	-.0035 243.87	-.0004	-29.20	294.46
RISE 42	839.52	850.77	16	17	55.1	254.99	.0040	-24.71	-.0000	152706.2	1.71	2.81	.0029 118.54	-.0022	-26.16	291.89
EXTM 11	882.55	893.80	16	18	38.1	1.66	.0042	-28.03	.0001	155350.9	1.98	26.74	.0000 181.64	.0041	-25.97	241.95
SET 11	1156.39	1167.64	16	23	11.9	69.62	.0041	-26.27	.0001	189049.1	2.09	-.00	-.0027 237.20	.0024	-25.02	178.17
EXTM 42	1263.04	1274.29	17	0	58.6	359.85	.0042	-24.38	.0000	194092.3	1.72	79.16	-.0000 .72	-.0201	-24.72	149.12
RISE 51	1398.24	1409.49	17	3	13.8	270.00	.0041	-23.71	-.0000	212800.3	1.27	10.05	.0034 11.[illegible]	-.0015	-24.38	116.00
RISE 72	1555.07	1566.32	17	5	50.6	266.48	.0041	-23.80	-.0000	229092.1	1.16	-.01	.0037 114.[illegible]	-.0006	-24.03	77.46
RISE 61	1620.68	1631.93	17	6	56.2	293.25	.0042	-25.01	.0000	235234.1	1.26	.00	.0026 123.63	.0027	-23.90	61.31
SET 42	1685.72	1696.97	17	8	1.3	105.00	.0041	-22.85	.0001	241045.0	1.86	1.66	-.0030 242.94	-.0023	-23.77	48.28
EXTM 51	1757.01	1768.26	17	9	12.6	359.99	.0042	-23.58	.0000	241399.7	1.50	87.84	-.0000 .54	-.0658	-23.64	27.70
EXTM 61	1888.92	1900.17	17	11	24.5	.64	.0042	-24.68	.0000	256659.3	1.45	25.08	-.0000 180.64	.0049	-23.41	358.13
EXTM 72	1927.65	1938.90	17	12	3.2	.12	.0042	-23.72	.0000	256634.8	1.44	74.18	.0000 180.41	.0141	-23.34	349.95
RISE 11	2056.33	2067.58	17	14	11.9	288.30	.0042	-23.99	-.0000	273634.6	1.07	.00	.0029 119.84	.0024	-23.14	313.72
SET 51	2115.94	2127.19	17	15	11.5	90.00	.0041	-22.53	.0001	277537.1	1.76	9.58	-.0035 249.91	-.0015	-23.08	298.97
SET 61	2157.07	2168.32	17	15	52.6	67.96	.0042	-23.91	.0001	281983.3	1.66	-.00	-.0026 237.93	.0027	-23.00	288.78
SET 72	2298.71	2309.96	17	18	14.3	93.32	.0041	-22.62	.0001	293427.7	1.75	-.01	-.0038 247.15	-.0005	-22.80	253.68
RISE 42	2301.80	2313.05	17	18	17.4	255.00	.0041	-22.04	-.0000	293543.8	.99	1.17	.0030 116.42	-.0023	-22.80	252.92
EXTM 11	2342.85	2354.10	17	18	58.4	.42	.0042	-23.80	.0000	293664.3	1.32	30.99	-.0000 180.45	.0045	-22.74	242.74
SET 11	2629.31	2640.56	17	23	44.9	72.47	.0042	-23.12	.0000	318732.4	1.57	-.00	-.0029 241.28	.0024	-22.46	171.68
EXTM 42	2720.37	2731.62	18	1	15.9	359.95	.0042	-22.04	.0000	319542.7	1.23	76.82	-.0000 .20	-.0184	-22.29	140.03
RISE 51	2850.73	2861.98	18	3	46.3	270.00	.0041	-21.72	-.0000	334148.2	.81	9.25	.0035 109.74	-.0016	-22.16	116.63
RISE 72	3007.11	3018.36	18	6	[illegible].7	266.80	.0041	-21.85	-.0000	346274.0	.74	-.01	.0038 112.07	-.0006	-22.00	77.74
RISE 61	3061.40	3072.65	18	6	5[illegible].9	290.71	.0042	-22.68	-.0000	350060.8	.85	.00	.0027 120.34	.0027	-21.98	64.24
SET 42	3139.15	3150.40	18	8	14.7	105.00	.0041	-21.26	.0000	355472.0	1.44	.69	-.0031 244.19	-.0023	-21.89	44.88
EXTM 51	3207.83	3219.08	18	9	23.4	360.00	.0042	-21.78	.0000	353752.1	1.09	86.04	-.0000 .23	-.0132	-21.85	27.69
EXTM 61	3336.40	3347.65	18	11	31.9	.20	.0042	-22.66	.0000	365545.6	1.09	27.10	-.0000 180.21	.0044	-21.78	359.59
EXTM 72	3376.05	3387.30	18	12	11.6	.03	.0042	-22.00	.0000	364874.0	1.08	75.91	.0000 180.14	.0138	-21.76	348.64
RISE 11	3496.49	3507.74	18	14	12.0	286.82	.0042	-22.30	-.0000	378807.1	.75	.00	.0030 117.67	.0024	-21.78	315.93
SET 51	3564.05	3575.30	18	15	19.6	90.00	.0042	-21.28	.0000	382185.2	1.48	9.07	-.0036 250.66	-.0016	-21.67	298.61
SET 61	3611.25	3622.50	18	16	6.8	69.69	.0042	-22.31	.0000	386263.4	1.40	-.00	-.0028 240.18	.0027	-21.65	286.79
SET 72	3743.99	3755.24	18	18	19.5	93.14	.0042	-21.47	.0000	395098.3	1.58	-.01	-.0038 248.32	-.0005	-21.60	253.92
RISE 42	3745.27	3756.52	18	18	20.8	255.00	.0042	-21.03	-.0000	395124.1	.81	.55	.0031 115.63	-.0024	-21.60	253.20
EXTM 11	3785.54	3796.79	18	19	1.1	.07	.0043	-22.36	.0000	394599.4	1.20	32.43	.0000 180.08	.0046	-21.59	243.88
IMPACT	3871.03	3882.28	18	20	26.6											
IMPC 41	3871.03	3882.28	18	20	26.6	286.77	.0043	-21.20	-.0000	402328.1	1.68	25.36	.0035 98.93	-.0022	-21.60	221.46
IMPC 11	3871.03	3882.28	18	20	26.6	21.99	.0044	-22.35	-.0000	401991.0	2.17	28.79	-.0014 203.28	.0043	-21.60	221.46

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	16	3	55.547	6544.936	15.4312	303.5382	10.99597	.3621	121.9390	148.1246
SEPARATION	1.20	12.45	16	3	56.747	6573.614	11.7017	309.2212	10.97171	3.7909	123.3406	156.1084
RETRO	3.20	14.45	16	3	58.747	6723.980	5.4018	318.1250	10.84742	9.3635	124.7443	163.5136
EXIT SHA	10.86	22.11	16	4	6.411	8233.550	-14.4989	345.5089	9.99433	26.8221	122.3390	192.8100
IMPACT	3871.03	3882.28	18	20	26.580	405097.820	-21.6048	221.4598	2.19791	67.6440	259.3743	313.4494

SURVEYOR VIEW PERIODS

GHA 148.4954 EPS 171.9203 LOM 228.3804
SX .809873 SY -.497923 SZ -.310128 DAO -18.06696 RAO 328.41614 RM 406700.570 LAT 28.310600 LON 279.461800
C3 -.901610 ECC .985196 SLR 12992.451 RCA 6544.6650 LTA -20.0000 GTA 20.00 TB 675.00000 POL -.0
NSX .820846 NSY -.483469 NSZ -.304086 C3M 1.5559 VIM 2.6824 ZAE 142.664 B.T .0000 B.R -.0000
LATE 6.5288 LONE .1028 LATS -1.5642 LONS 186.5234 LATI 3.5749 LONI 322.7288 RSM 147.5205 TTAN 4.4657
LAUNCH DATE FEB 17,1966 BASE AZM 108.0 TF 64.722 ARRIVAL DATE FEB 19 1966 20 42 45,5

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	3 38 40.1	27.4	18.15	304.42	-11.90	148.58	116.88	3 49 55.1	6615.2	10.94	-2.91

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PRORE IN EARTH'S SHADOW															
INJECTION	.00	11.25	17	3	49.9												
SEPARATION	1.20	12.45	17	3	51.1												
RETRO	3.20	14.45	17	3	53.1												
RISE 72	5.44	16.69	17	3	55.4	84.68	-.1589	33.74	-.0153	2138.9	-9.18	.00	.1328	304.11	.0068	2.65	330.39
EXTM 72	8.25	19.50	17	3	58.2	29.78	-.5338	15.30	-.3088	929.7	-2.59	52.46	.5979	308.16	.0894	-5.08	342.08
EXIT SHA	11.28	22.53	17	4	1.2												
EXIT 72	11.28	22.53	17	4	1.2	321.43	-.1769	-25.37	-.0690	1740.5	8.06	49.34	-.1735	120.16	.0222	-12.04	353.07
EXIT 51	11.28	22.53	17	4	1.2	83.13	-.0941	14.74	-.0540	4502.5	-4.87	-.75	.1056	286.23	-.0076	-12.04	353.07
RISE 51	11.34	22.59	17	4	1.3	82.81	-.0945	14.56	-.0545	4485.8	-4.83	.00	.1062	286.20	-.0077	-12.15	353.27
EXTM 51	25.19	36.44	17	4	15.1	2.89	-.0602	-29.76	-.0166	5585.6	5.38	85.24	.0147	211.83	-.6367	-27.62	26.36
EXTM 72	69.46	80.71	17	4	59.4	273.20	.0001	-31.70	.0006	24064.9	4.88	6.85	.0000	121.18	-.0006	-31.86	55.62
RISE 42	75.00	86.25	17	5	4.9	105.00	-.0043	-23.93	-.0011	26162.6	4.34	2.33	.0038	242.09	.0015	-31.71	56.54
EXTM 51	84.20	95.45	17	5	14.1	322.17	-.0000	-31.73	.0008	24166.2	4.51	56.46	.0000	109.24	-.0014	-31.42	57.53
EXTM 42	110.31	129.56	17	5	48.2	100.40	.0000	-24.97	.0000	37161.0	4.10	6.30	-.0000	243.78	-.0000	-30.29	57.46
SET 42	181.40	192.65	17	6	51.3	105.00	.0020	-24.41	.0002	51938.2	3.72	2.62	-.0016	241.70	-.0010	-28.54	58.22
RISE 61	199.21	210.46	17	7	9.1	303.69	.0032	-33.24	.0006	55954.3	3.19	.00	.0021	135.90	.0017	-28.14	47.39
EXTM 61	469.21	480.46	17	11	39.1	4.47	.0040	-27.84	.0002	100515.6	2.52	21.80	.0000	184.26	.0038	-24.55	351.51
EXTM 72	497.95	509.20	17	12	7.9	.76	.0041	-25.34	.0002	101246.4	2.47	72.55	.0000	182.28	.0123	-24.32	344.96
RISE 11	642.46	653.71	17	14	32.4	289.38	.0040	-25.18	.0001	127538.1	1.93	.00	.0029	121.38	.0023	-23.34	311.37
SET 51	689.10	700.35	17	15	19.0	90.00	.0039	-22.00	.0001	132701.2	2.55	9.36	-.0034	250.00	-.0014	-23.08	300.36
SET 61	729.73	740.98	17	15	59.6	67.04	.0040	-24.75	.0002	139002.4	2.41	-.00	-.0024	236.74	.0027	-22.87	290.71
SET 72	879.04	890.29	17	18	29.0	93.20	.0040	-21.88	.0001	157459.4	2.40	-.00	-.0037	247.90	-.0004	-22.20	254.95
RISE 42	891.20	902.45	17	18	41.1	255.00	.0040	-20.75	.0000	158864.0	1.65	.38	.0030	115.41	-.0023	-22.15	252.02
EXTM 11	933.52	944.77	17	19	23.4	1.39	.0042	-23.90	.0001	160645.6	1.94	30.88	-.0000	181.48	.0044	-21.99	241.81
SET 11	1222.71	1233.96	18	3	12.6	73.23	.0041	-22.25	.0001	195754.3	2.07	-.00	-.0029	242.40	.0024	-21.08	171.49
EXTM 42	1314.10	1325.35	18	1	44.0	359.85	.0042	-20.38	.0000	199101.3	1.69	75.16	-.0000	.55	-.0152	-20.84	140.12
RISE 51	1448.78	1460.03	18	3	58.7	270.00	.0041	-19.85	-.0000	217622.4	1.24	8.48	.0035	108.02	-.0016	-20.53	116.08
RISE 72	1607.98	1619.23	18	6	37.9	267.11	.0041	-19.98	-.0000	233732.1	1.13	.00	.0038	110.18	-.0006	-20.20	76.92
RISE 61	1654.55	1665.80	18	7	24.5	289.13	.0041	-21.17	.0000	238048.3	1.22	.00	.0028	118.24	.0027	-20.11	65.44
SET 42	1732.90	1744.15	18	8	42.8	104.12	.0041	-19.06	.0001	245192.4	1.85	-.00	-.0031	246.44	-.0023	-19.96	46.12
EXTM 51	1807.37	1818.62	18	9	57.5	359.95	.0042	-19.68	.0000	245593.2	1.48	83.94	.0000	.49	-.0358	-19.84	27.74
EXTM 51	1939.01	1950.26	18	12	8.9	.56	.0042	-20.84	.0000	260278.9	1.43	28.92	-.0000	180.60	.0045	-19.62	355.20
EXTM 72	1977.87	1989.12	18	12	47.8	.08	.0042	-19.85	.0000	260499.4	1.42	78.06	.0000	180.38	.0188	-19.56	345.59
RISE 11	2093.44	2104.69	18	14	43.4	285.05	.0042	-20.21	.0000	276384.9	1.04	.00	.0031	115.01	.0024	-19.39	316.99
SET 51	2166.42	2177.67	18	15	56.3	90.00	.0041	-18.76	.0000	281508.8	1.75	8.03	-.0036	252.98	-.0016	-19.29	298.92
SET 61	2223.56	2234.81	18	16	53.5	71.97	.0041	-20.09	.0000	287041.9	1.66	-.00	-.0028	243.26	.0027	-19.21	284.76
SET 72	2346.67	2357.92	18	18	56.6	92.72	.0041	-18.88	.0000	296865.1	1.74	-.00	-.0039	250.93	-.0005	-19.06	254.23
RISE 42	2357.89	2369.14	18	19	7.8	256.50	.0041	-18.30	-.0000	297748.1	.96	.00	.0031	112.60	-.0024	-19.04	251.45
EXTM 11	2392.82	2404.07	18	19	42.7	.37	.0042	-20.00	.0000	296871.3	1.30	34.79	-.0000	180.42	.0048	-19.00	242.79
SET 11	2692.24	2703.49	19	0	42.2	75.65	.0042	-19.35	.0000	323220.1	1.57	.00	-.0031	246.07	.0024	-18.66	168.45
EXTM 42	2770.15	2781.40	19	2	.1	359.89	.0042	-18.26	.0000	322896.7	1.21	73.04	.0000	.37	-.0135	-18.58	149.09
RISE 51	2900.59	2911.84	19	4	10.5	270.00	.0041	-18.01	-.0000	337476.4	.79	7.71	.0036	106.32	-.0017	-18.45	116.66
RISE 72	3059.27	3070.52	19	6	49.2	267.30	.0041	-18.15	-.0000	349486.3	.72	-.01	.0039	108.33	-.0006	-18.30	77.20
RISE 61	3096.09	3107.34	19	7	26.0	286.92	.0042	-18.98	-.0000	352032.7	.83	.00	.0029	115.21	.0027	-18.27	68.04
SET 42	3180.83	3192.08	19	8	50.7	102.94	.0041	-17.59	.0000	357943.4	1.45	-.00	-.0032	248.28	-.0024	-18.21	46.90
EXTM 51	3257.68	3268.93	19	10	7.6	359.99	.0042	-18.04	.0000	356698.4	1.09	82.30	-.0000	.14	-.0080	-18.17	27.69
EXTM 61	3386.05	3397.30	19	12	16.0	.16	.0042	-18.96	.0000	368040.8	1.08	30.80	-.0000	180.17	.0047	-18.12	355.60
EXTM 72	3425.80	3437.05	19	12	55.7	.02	.0042	-18.28	.0000	367635.4	1.08	79.63	.0000	180.13	.0142	-18.10	345.66
RISE 11	3534.04	3545.29	19	14	44.0	283.77	.0042	-18.65	-.0000	380846.4	.73	.00	.0031	113.03	.0024	-18.06	318.58
SET 51	3613.93	3625.18	19	16	3.8	90.00	.0042	-17.65	.0000	385185.8	1.49	7.56	-.0036	254.01	-.0017	-18.03	298.58
SET 61	3675.80	3687.05	19	17	5.7	73.39	.0042	-18.66	.0000	390072.7	1.42	-.01	-.0029	245.22	.0027	-18.02	283.08
SET 72	3791.49	3802.74	19	19	1.4	92.57	.0042	-17.87	.0000	397905.8	1.62	-.00	-.0039	251.95	.0006	-18.00	254.06
RISE 42	3803.51	3814.76	19	19	13.4	257.18	.0042	-17.45	-.0000	398762.7	.85	.00	.0032	111.54	-.0024	-18.00	251.04
EXTM 11	3834.69	3845.94	19	19	44.6	359.97	.0043	-18.74	-.0000	397339.3	1.29	36.05	.0000	179.96	.0046	-18.01	243.18
IMPACT	3883.35	3894.60	19	20	33.3												
IMPC 42	3883.35	3894.60	19	20	33.3	277.37	.0043	-17.58	-.0001	403644.1	1.66	15.91	.0035	100.56	-.0023	-18.04	230.84
IMPC 11	3883.35	3894.60	19	20	33.3	12.48	.0044	-18.77	-.0000	401771.6	2.11	34.74	-.0009	194.41	.0049	-18.04	230.84

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	17	3	49.918	6617.274	18.1889	304.3400	10.93671	-5.9060	116.8544	148.5010
SEPARATION	1.20	12.45	17	3	51.118	6557.309	14.9552	310.4384	10.98515	-2.5078	118.6856	154.9002
RETRO	3.20	14.45	17	3	53.118	6565.457	9.2171	320.1681	10.97828	3.2144	120.8359	165.1313
EXIT SHA	11.28	22.53	17	4	1.198	7781.753	-12.0377	353.0728	10.07690	23.4047	119.9331	200.0615
IMPACT	3883.35	3894.60	19	20	33.266	405436.793	-18.0431	230.8431	2.19386	67.6847	253.2753	328.4983

SURVEYOR VIEW PERIODS

GHA	148.4954					EPS	171.9979							LOM	225.1848
SX	.810969	SY	-.496507	SZ	-.309531	DAO	-18.03099	RAO	328.52341	RM	406700.520	LAT	28.310600	LON	279.461800
C3	-.903817	ECC	.985160	SLR	12992.213	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.821925	NSY	-.482013	NSZ	-.303483	C3M	1.5558	VIM	2.6824	ZAE	142.593	B.T	.0000	B.R	-.0000
LATE	6.5300	LONE	.2117	LATS	-1.5641	LONS	186.5324	LATI	3.3186	LONI	322.7944	RSM	147.5207	TTAN	4.4605

LAUNCH DATE FEB 17,1966 BASE AZM 111.0 TF 64.758 ARRIVAL DATE FEB 19 1966 20 55 56.1

LNCH AZMTI	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	3 49 20.8	27.5	17.04	303.96	-9.61	150.80	19.02	4 0 35.8	6590.5	10.96	-4.77

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW														
INJECTION	.00	11.25	17	4	.6												
SEPARATION	1.20	12.45	17	4	1.8												
RETRO	3.20	14.45	17	4	3.8												
RISE 72	5.30	16.55	17	4	5.9	85.91	-.1424	27.19	-.0490	2229.3	-8.98	.00	.1327	297.48	-.0288	1.20	328.65
EXTM 72	9.04	20.29	17	4	9.6	16.12	-.4685	-15.46	-.2941	1031.9	2.14	72.51	.2948	242.95	-1.5013	-9.00	343.50
EXIT SHA	10.89	22.14	17	4	11.5												
EXIT 72	10.89	22.14	17	4	11.5	335.28	-.2491	-33.35	-.0613	1635.4	7.40	55.81	-.1947	141.57	-.1698	-13.19	349.99
EXIT 51	10.89	22.14	17	4	11.5	86.85	-.0859	12.07	-.0558	4746.6	-4.81	-2.43	.1000	282.23	-.0136	-13.19	349.99
RISE 51	11.29	22.54	17	4	11.9	84.77	-.0880	10.70	-.0585	4634.8	-4.52	.01	.1034	281.90	-.0143	-14.01	351.32
EXTM 51	26.85	38.10	17	4	27.4	2.23	-.0528	-34.29	-.0103	6286.5	5.47	81.24	-.0000	192.18	-.2942	-29.99	26.63
EXTM 72	69.17	80.42	17	5	9.8	275.40	.0001	-33.20	.0008	23890.6	4.87	8.82	.0000	122.54	-.0009	-32.97	53.28
EXTM 51	84.36	95.61	17	5	25.0	324.88	-.0001	-33.12	.0010	24208.1	4.50	58.69	.0000	112.01	-.0019	-32.42	55.26
RISE 42	85.65	96.90	17	5	26.2	105.00	-.0028	-25.36	-.0006	29151.2	4.30	3.21	.0023	240.95	.0011	-32.37	55.36
EXTM 42	117.56	128.81	17	5	58.2	102.66	-.0000	-25.71	.0001	37206.2	4.10	5.10	-.0000	241.95	.0101	-31.16	55.23
SET 42	160.85	172.10	17	6	41.4	105.00	.0016	-25.28	.0002	47504.8	3.83	3.16	-.0013	241.01	-.0007	-29.76	50.88
RISE 61	193.70	204.95	17	7	14.3	305.04	.0032	-34.16	.0006	54895.8	3.22	.00	.0021	137.35	.0017	-28.90	48.99
EXTM 51	292.52	303.77	17	8	53.1	.14	.0037	-27.11	.0003	67815.6	2.98	88.62	-.0000	185.09	.1368	-27.00	27.56
EXTM 61	460.82	472.07	17	11	41.4	4.98	.0040	-28.33	.0002	99347.9	2.54	21.28	.0000	184.71	.0038	-24.99	351.03
EXTM 72	487.80	499.05	17	12	8.4	.83	.0041	-25.81	.0002	99806.3	2.48	72.07	.0000	182.44	.0119	-24.75	344.89
RISE 11	633.69	644.94	17	14	34.3	289.71	.0040	-25.54	.0001	126399.1	1.94	.00	.0028	121.85	.0023	-23.68	311.02
SET 51	678.73	689.98	17	15	19.3	90.00	.0039	-22.32	.0001	131364.9	2.56	9.49	-.0034	249.70	-.0014	-23.41	300.39
SET 61	717.81	729.06	17	15	58.4	66.66	.0040	-25.09	.0002	137509.1	2.42	-.00	-.0024	236.25	.0027	-23.19	291.12
SET 72	868.96	880.21	17	18	29.6	93.24	.0040	-22.13	.0001	156285.6	2.40	-.00	-.0037	247.65	-.0004	-22.46	254.93
RISE 42	881.12	892.37	17	18	41.7	255.00	.0040	-21.00	.0000	157679.7	1.66	.53	.0029	115.60	-.0023	-22.41	252.01
EXTM 11	923.72	934.97	17	19	24.3	1.48	.0042	-24.16	.0001	159555.5	1.95	30.62	-.0000	181.57	.0044	-22.23	241.73
SET 11	1211.88	1223.13	18	0	12.5	73.06	.0041	-22.43	.0001	194636.2	2.07	-.00	-.0029	242.16	.0024	-21.25	171.66
EXTM 42	1303.97	1315.22	18	1	44.6	359.85	.0042	-20.55	.0000	198079.4	1.70	75.33	-.0000	.55	-.0154	-21.00	149.12
RISE 51	1438.67	1449.92	18	3	59.3	270.00	.0041	-19.99	-.0000	216636.3	1.24	8.53	.0035	108.14	-.0016	-20.67	116.07
RISE 72	1597.78	1609.03	18	6	38.4	267.09	.0041	-20.09	-.0000	232779.9	1.13	.00	.0038	110.29	-.0006	-20.32	76.93
RISE 61	1644.90	1656.15	18	7	25.5	289.25	.0041	-21.29	.0000	237156.3	1.23	.00	.0028	118.40	.0027	-20.22	65.31
SET 42	1723.05	1734.30	18	8	43.6	104.20	.0041	-19.16	.0001	244296.2	1.85	-.00	-.0031	246.31	-.0023	-20.07	46.04
EXTM 51	1797.18	1808.43	18	9	57.8	359.94	.0042	-19.78	.0000	244679.5	1.48	84.04	.0000	.54	-.0365	-19.93	27.74
EXTM 61	1928.94	1940.19	18	12	9.5	.59	.0042	-20.92	.0000	259407.2	1.43	28.84	-.0000	180.63	.0045	-19.70	355.18
EXTM 72	1967.71	1978.96	18	12	48.3	.09	.0042	-19.93	.0000	259619.2	1.42	77.98	.0000	180.40	.0187	-19.64	348.59
RISE 11	2083.50	2094.75	18	14	44.1	285.11	.0042	-20.28	.0000	275537.9	1.04	.00	.0031	115.10	.0024	-19.46	316.93
SET 51	2156.20	2167.45	18	15	56.8	90.00	.0041	-18.83	.0000	280645.9	1.76	8.05	-.0036	252.93	-.0016	-19.35	298.92
SET 61	2213.09	2224.34	18	16	53.7	71.91	.0041	-20.15	.0001	286169.0	1.66	-.00	-.0028	243.17	.0027	-19.27	284.82
SET 72	2336.47	2347.72	18	18	57.1	92.73	.0041	-18.93	.0000	296028.8	1.75	-.00	-.0039	250.88	-.0005	-19.11	254.23
RISE 42	2347.54	2358.79	18	19	8.1	256.46	.0041	-18.35	-.0000	296901.0	.97	.00	.0031	112.66	-.0024	-19.09	251.49
EXTM 11	2382.68	2393.93	18	19	43.3	.39	.0042	-20.05	.0000	296048.9	1.30	34.74	-.0000	180.44	.0048	-19.05	248.77
SET 11	2681.90	2693.15	19	0	42.5	75.62	.0042	-19.38	.0000	322407.9	1.57	.00	-.0031	246.03	.0024	-18.69	168.47
EXTM 42	2759.88	2771.13	19	2	.5	359.88	.0042	-18.28	.0000	322096.7	1.22	73.06	.0000	.38	-.0135	-18.60	149.10
RISE 51	2890.35	2901.60	19	4	10.9	270.00	.0041	-18.02	-.0000	336688.7	.79	7.72	.0036	106.33	-.0017	-18.46	116.66
RISE 72	3049.01	3060.26	19	6	49.6	267.38	.0041	-18.16	-.0000	348709.8	.72	-.01	.0039	108.34	-.0006	-18.31	77.19
RISE 61	3085.85	3097.10	19	7	26.4	286.92	.0042	-18.98	.0000	351260.1	.83	.00	.0029	115.22	.0027	-18.27	68.03
SET 42	3170.54	3181.79	19	8	51.1	102.93	.0041	-17.59	.0000	357173.4	1.45	-.00	-.0032	248.29	-.0024	-18.21	46.90
EXTM 51	3247.40	3258.65	19	10	8.0	359.99	.0042	-18.03	.0000	355928.8	1.09	82.29	-.0000	.12	-.0118	-18.17	27.69
EXTM 61	3375.83	3387.08	19	12	16.4	.17	.0042	-18.95	.0000	367271.7	1.08	30.81	-.0000	180.19	.0046	-18.11	359.59
EXTM 72	3415.54	3426.79	19	12	56.1	.02	.0042	-18.27	.0000	366862.9	1.08	79.64	.0000	180.13	.0158	-18.09	348.65
RISE 11	3523.73	3534.98	19	14	44.3	283.76	.0042	-18.63	-.0000	380064.3	.73	.00	.0031	113.02	.0024	-18.04	318.99
SET 51	3603.65	3614.90	19	16	4.3	90.00	.0042	-17.62	.0000	384397.4	1.48	7.55	-.0036	254.03	-.0017	-18.01	298.58
SET 61	3665.62	3676.87	19	17	6.2	73.41	.0042	-18.64	.0000	389276.3	1.42	.01	-.0029	245.25	.0027	-18.00	283.06
SET 72	3781.23	3792.48	19	19	1.8	92.56	.0042	-17.84	.0000	397043.4	1.61	-.00	-.0039	251.98	-.0006	-17.97	254.06
RISE 42	3793.39	3804.64	19	19	14.0	257.20	.0042	-17.42	-.0000	397896.6	.83	.00	.0032	111.50	-.0024	-17.97	251.01
EXTM 11	3824.63	3835.88	19	19	45.2	360.00	.0043	-18.71	-.0000	396420.3	1.25	36.08	-.0000	179.98	.0001	-17.97	248.19
IMPACT	3885.45	3896.70	19	20	46.0												
IMPC 42	3885.45	3896.70	19	20	46.0	280.48	.0043	-17.56	-.0001	403381.0	1.66	18.40	.0035	98.88	-.0023	-18.01	227.74
IMPC 11	3885.45	3896.70	19	20	46.0	15.62	.0044	-18.73	-.0000	401833.5	2.13	34.06	-.0011	197.92	.0048	-18.01	227.74

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	17	4	.596	6591.399	17.0625	303.9229	10.95721	-4.7674	119.0102	150.7607
SEPARATION	1.20	12.45	17	4	1.796	6548.332	13.6118	309.8534	10.99263	-1.3520	120.6622	156.9981
RETRO	3.20	14.45	17	4	3.796	6583.043	7.5663	319.3262	10.96339	4.3629	122.5021	166.9662
EXIT SHA	10.89	22.14	17	4	11.488	7785.451	-13.1877	349.9929	10.07438	23.4356	120.8321	199.5611
IMPACT	3885.45	3896.70	19	20	46.047	405436.961	-18.0088	227.7433	2.19315	67.6705	253.7618	328.6026

FEB 17, 1966
111 DEGREES

SURVEYOR VIEW PERIODS

GHA	148.4954					EPS	172.0914							LOM	221.3038
SX	.812297	SY	-.494785	SZ	-.308805	DAO	-17.98724	RAO	328.65363	RM	406700.379	LAT	28.310600	LON	279.461800
C3	-.907344	ECC	.985102	SLR	12991.835	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.823236	NSY	-.480235	NSZ	-.302749	C3M	1.5559	VIM	2.6824	ZAE	142.470	B.T	.0000	B.R	-.0000
LATE	6.5314	LONE	.0768	LATS	-1.5642	LONS	186.2763	LATI	2.9448	LONI	322.5798	RSM	147.5210	TTAN	4.4569
LAUNCH DATE		FEB 17,1966		BASE AZM	115.0		TF 64.814					ARRIVAL DATE		FEB 19 1966 21 11 56.1	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	4 1 45.2	27.7	15.60	303.25	-7.00	153.20	121.86	4 13 .2	6569.0	10.98	-3.48

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PRORE IN EARTH'S SHADOW															
INJECTION	.00	11.25	17	4	13.0												
SEPARATION	1.20	12.45	17	4	14.2												
RETRO	3.20	14.45	17	4	16.2												
RISE 72	5.19	16.44	17	4	18.2	87.23	-.1257	19.17	-.0859	2355.0	-8.47	-.00	.1300	289.37	-.0677	-.87	326.60
EXTM 72	8.96	20.21	17	4	22.0	31.53	-.3978	-27.72	-.2615	1273.2	1.68	54.23	.1908	232.36	-.6757	-11.38	341.04
EXIT SHA	10.41	21.66	17	4	23.4												
EXIT 72	10.41	21.66	17	4	23.4	357.81	-.3416	-42.43	-.0826	1633.5	6.01	55.42	-.0992	177.15	-.4336	-14.74	346.02
RISE 51	11.30	22.55	17	4	24.3	87.22	-.0805	5.74	-.0631	4828.9	-4.09	.00	.0996	276.38	-.0218	-16.60	348.92
EXTM 51	28.88	40.13	17	4	41.9	2.10	-.0463	-39.37	-.0050	7159.7	5.49	76.26	-.0000	186.84	-.1521	-32.96	26.66
EXTM 72	68.84	80.09	17	5	21.8	277.81	.0001	-35.32	.0012	23706.9	4.87	10.91	.0000	124.59	-.0012	-34.59	50.65
EXTM 51	83.57	94.82	17	5	36.6	327.93	-.0003	-35.17	.0013	24016.0	4.50	60.94	.0000	116.67	-.0026	-33.92	52.66
RISE 61	189.46	200.71	17	7	22.5	306.92	.0032	-35.37	.0007	54103.4	3.25	.00	.0021	139.31	.0016	-29.96	44.10
EXTM 51	280.22	291.47	17	8	53.2	.28	.0037	-28.16	.0003	65676.4	3.03	87.57	.0000	185.86	.0767	-27.94	27.43
EXTM 61	451.13	462.38	17	11	44.1	5.52	.0040	-29.03	.0003	97999.4	2.56	20.55	.0000	185.15	.0037	-25.63	350.53
EXTM 72	476.82	488.07	17	12	9.8	1.04	.0041	-26.49	.0002	98243.8	2.50	71.39	-.0000	182.92	.0114	-25.37	344.70
RISE 11	624.23	635.48	17	14	37.2	290.20	.0040	-26.06	.0001	125159.7	1.95	.01	.0028	122.53	.0023	-24.17	310.51
SET 51	666.94	678.19	17	15	19.9	90.00	.0039	-22.79	.0002	129827.0	2.57	9.68	-.0033	249.27	-.0013	-23.88	300.43
SET 61	703.74	714.99	17	15	56.7	66.09	.0040	-25.59	.0002	135725.5	2.43	-.00	-.0024	235.54	.0027	-23.65	291.71
SET 72	857.53	868.78	17	18	30.5	93.30	.0040	-22.50	.0001	154941.4	2.41	-.00	-.0036	247.27	-.0004	-22.83	254.90
RISE 42	869.64	880.89	17	18	42.6	255.00	.0040	-21.35	.0000	156312.1	1.67	.75	-.0029	115.88	-.0023	-22.78	251.98
EXTM 11	912.65	923.90	17	19	25.7	1.60	.0042	-24.53	.0001	158318.3	1.96	30.24	-.0000	181.69	.0044	-22.58	241.60
SET 11	1199.27	1210.52	18	0	12.3	72.83	.0041	-22.71	.0001	193317.1	2.08	-.00	-.0029	241.81	.0024	-21.52	171.91
EXTM 42	1292.14	1303.39	18	1	45.1	359.80	.0042	-20.79	.0000	196868.5	1.70	75.57	.0000	.76	-.0157	-21.24	149.18
RISE 51	1427.08	1438.33	18	4	.1	270.00	.0041	-20.19	-.0000	215485.5	1.25	8.62	.0035	108.33	-.0016	-20.87	116.06
RISE 72	1586.05	1597.30	18	6	39.0	267.06	.0041	-20.27	-.0000	231664.3	1.14	.00	.0038	110.47	-.0006	-20.49	76.94
RISE 61	1633.98	1645.23	18	7	27.0	289.43	.0041	-21.46	.0000	236126.8	1.23	.00	.0028	118.64	.0027	-20.39	65.13
SET 42	1711.86	1723.11	18	8	44.9	104.33	.0041	-19.31	.0001	243258.5	1.85	-.00	-.0031	246.12	-.0023	-20.22	45.92
EXTM 51	1785.45	1796.70	18	9	58.5	359.94	.0042	-19.93	.0000	243605.3	1.48	84.19	.0000	.63	-.0377	-20.08	27.75
EXTM 61	1917.39	1928.64	18	12	10.4	.63	.0042	-21.06	.0000	258385.5	1.44	28.70	-.0000	180.67	.0045	-19.83	355.14
EXTM 72	1956.02	1967.27	18	12	49.0	.09	.0042	-20.05	.0000	258582.3	1.42	77.85	.0000	180.43	.0186	-19.76	345.58
RISE 11	2072.14	2083.39	18	14	45.1	285.20	.0042	-20.39	.0000	274543.7	1.05	.00	.0031	115.24	.0024	-19.57	316.83
SET 51	2144.42	2155.67	18	15	57.4	90.00	.0041	-18.92	.0001	279622.8	1.76	8.09	-.0036	252.84	-.0016	-19.45	298.93
SET 61	2200.92	2212.17	18	16	53.9	71.81	.0042	-20.25	.0001	285126.1	1.66	-.00	-.0028	243.04	.0027	-19.37	284.92
SET 72	2294.72	2335.97	18	18	57.7	92.74	.0041	-19.01	.0001	295034.9	1.75	-.00	-.0039	250.80	-.0005	-19.18	254.22
RISE 42	2335.53	2346.78	18	19	8.5	256.40	.0041	-18.42	-.0000	295888.1	.97	.00	.0031	112.76	-.0024	-19.17	251.54
EXTM 11	2370.99	2382.24	18	19	44.0	.41	.0042	-20.12	.0000	295072.7	1.31	34.67	-.0000	180.47	.0048	-19.12	242.74
SET 11	2669.89	2681.14	19	0	42.9	75.58	.0042	-19.43	.0000	321430.2	1.58	.00	-.0031	245.97	.0024	-18.73	168.52
EXTM 42	2748.00	2759.25	19	2	1.0	359.88	.0042	-18.32	.0000	321134.2	1.22	73.10	.0000	.41	-.0136	-18.64	149.10
RISE 51	2878.50	2889.75	19	4	11.5	270.00	.0041	-18.05	-.0000	335738.2	.80	7.73	.0036	106.36	-.0017	-18.49	116.66
RISE 72	3037.13	3048.38	19	6	50.1	267.38	.0041	-18.17	-.0000	347769.2	.72	-.01	.0039	108.35	-.0006	-18.32	77.19
RISE 61	3074.03	3085.28	19	7	27.0	286.94	.0042	-19.00	.0000	350326.0	.83	.00	.0029	115.24	.0027	-18.28	68.01
SET 42	3158.74	3169.99	19	8	51.7	102.93	.0041	-17.59	.0000	356323.2	1.45	-.00	-.0032	248.29	-.0024	-18.20	46.91
EXTM 51	3235.61	3246.86	19	10	8.6	359.99	.0042	-18.02	.0000	355071.9	1.09	82.29	-.0000	.14	-.0129	-18.16	27.69
EXTM 61	3364.07	3375.32	19	12	17.1	.18	.0042	-18.94	.0000	366400.3	1.08	30.82	-.0000	180.20	.0046	-18.09	355.57
EXTM 72	3403.73	3414.98	19	12	56.7	.02	.0042	-18.25	.0000	365983.7	1.08	79.65	.0000	180.13	.0171	-18.07	345.65
RISE 11	3511.84	3523.09	19	14	44.8	283.75	.0042	-18.61	-.0000	379161.2	.73	.00	.0031	112.99	.0024	-18.02	318.60
SET 51	3591.80	3603.05	19	16	4.8	90.00	.0042	-17.60	.0000	383478.5	1.48	7.54	-.0036	254.05	-.0017	-17.99	298.58
SET 61	3653.88	3665.13	19	17	6.9	73.44	.0042	-18.61	.0000	388341.3	1.41	.01	-.0029	245.28	.0027	-17.97	283.04
SET 72	3769.37	3780.62	19	19	2.4	92.56	.0042	-17.81	.0000	396021.8	1.59	-.00	-.0039	252.02	-.0006	-17.94	254.07
RISE 42	3781.69	3792.94	19	19	14.7	257.23	.0042	-17.38	-.0000	396870.9	.81	.00	.0032	111.45	-.0024	-17.93	250.98
EXTM 11	3812.94	3824.19	19	19	45.9	.03	.0043	-18.67	.0000	395336.8	1.21	36.12	-.0000	180.04	.0046	-17.93	243.12
IMPACT	3888.82	3900.07	19	21	1.8												
IMPC 42	3888.82	3900.07	19	21	1.8	284.31	.0043	-17.53	-.0001	403063.8	1.66	21.49	.0035	96.79	-.0023	-17.97	223.92
IMPC 11	3888.82	3900.07	19	21	1.8	19.49	.0044	-18.68	-.0000	401933.0	2.15	33.02	-.0014	202.15	.0046	-17.97	223.92

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	17	4	13.002	6569.234	15.6103	303.2394	10.97516	-3.4754	121.8546	153.1873
SEPARATION	1.20	12.45	17	4	14.202	6544.669	11.8781	308.9470	10...357	-.0537	123.2846	159.1957
RETRO	3.20	14.45	17	4	16.202	6609.131	5.4453	318.0609	10.94141	5.6467	124.7382	168.8109
EXIT SHA	10.41	21.66	17	4	23.410	7778.700	-14.7399	346.0220	10.07861	23.3783	122.2322	198.5789
IMPACT	3888.82	3900.07	19	21	1.825	405440.988	-17.9663	223.9172	2.19026	67.4174	254.4622	328.7319

MAR 1966

MAR 1966

BLANK

SURVEYOR VIEW PERIODS

GHA	168.2083					EPS	57.8704							LOM	295.9703
SX	-.466787	SY	-.689452	SZ	-.282934	DAO	-16.43537	RAO	225.95738	RM	376796.922	LAT	28.310600	LON	279.461800
C3	-1.166329	ECC	.980850	SLR	12964.001	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.649113	NSY	-.702688	NSZ	-.291345	C3M	1.5345	VIM	2.6784	ZAE	134.235	B.T	.0000	B.R	-.0000
LATE	-1.0921	LONE	7.3353	LATS	-1.4035	LONS	309.5736	LATI	-12.2582	LONI	322.5596	RSM	148.8245	TTAN	3.8655
LAUNCH DATE		MAR	8,1966		BASE AZM	111.0		TF	60.122				ARRIVAL DATE MAR 11 1966		8 5 47.1

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	19 36 56.7	27.5	17.07	303.91	-10.63	47.02	119.01	19 48 11.7	6600.8	10.94	-5.26

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	8	19	48.2												
SEPARATION		1.20	12.45	8	19	49.4												
RETRO		3.20	14.45	8	19	51.4												
RISE	72	5.37	16.62	8	19	53.6	85.93	-.1417	27.08	-.0500	2188.6	-9.04	-.00	.1323	297.36	-.0299	1.01	328.91
EXTM	72	9.17	20.42	8	19	57.4	12.36	-.4837	-18.41	-.2871	1009.7	2.78	74.04	.1712	227.62	-1.8682	-9.36	344.05
RISE	51	11.34	22.59	8	19	59.5	84.80	-.0886	10.63	-.0592	4569.8	-4.63	.00	.1043	281.82	-.0146	-14.21	351.66
EXTM	51	26.34	37.59	8	20	14.5	2.25	-.0564	-34.40	-.0110	6041.1	5.45	81.12	.0000	192.13	-.3095	-29.96	28.64
EXTM	72	69.49	80.74	8	20	57.7	274.09	.0001	-32.91	.0009	23974.3	4.85	7.70	.0000	122.33	-.0009	-32.86	54.56
RISE	42	79.68	90.93	8	21	7.9	105.00	-.0036	-25.04	-.0007	27385.1	4.31	3.01	.0031	241.21	.0014	-32.46	56.08
EXTM	51	84.30	95.55	8	21	12.5	323.33	-.0001	-32.85	.0010	24114.1	4.48	57.41	.0000	111.33	-.0019	-32.27	56.50
EXTM	42	117.34	128.59	8	21	45.5	101.45	-.0001	-25.51	.0001	36882.5	4.08	5.86	-.0000	242.77	.0001	-30.92	56.92
SET	42	172.78	184.03	8	22	41.0	105.00	.0019	-24.81	.0003	49877.1	3.74	2.87	-.0015	241.39	-.0008	-29.09	50.91
RISE	61	197.00	208.25	8	23	5.2	304.28	.0032	-33.65	.0006	55267.5	3.17	.00	.0022	136.54	.0017	-28.46	46.76
EXTM	61	467.00	478.25	9	3	35.2	5.02	.0040	-27.73	.0003	99342.7	2.49	21.88	-.0000	184.79	.0038	-24.41	350.99
EXTM	72	493.94	505.19	9	4	2.1	.87	.0041	-25.19	.0002	99751.2	2.43	72.70	-.0000	182.65	.0124	-24.16	344.86
RISE	11	637.34	648.59	9	6	25.5	289.16	.0040	-24.94	.0001	125567.4	1.89	.00	.0029	121.07	.0023	-23.08	311.99
SET	51	684.64	695.89	9	7	12.8	90.00	.0039	-21.69	.0001	130716.4	2.51	9.23	-.0034	250.29	-.0014	-22.78	300.39
SET	61	726.77	738.02	9	7	55.0	67.39	.0040	-24.44	.0002	137087.3	2.36	-.00	-.0024	237.18	.0027	-22.54	290.39
SET	72	874.42	885.67	9	10	22.6	93.13	.0040	-21.47	.0001	154925.2	2.35	-.00	-.0037	248.31	-.0004	-21.80	259.09
RISE	42	887.09	898.34	9	10	35.3	255.00	.0040	-20.32	.0000	156383.8	1.60	.12	.0030	115.07	-.0023	-21.75	252.00
EXTM	11	929.75	941.00	9	11	17.9	1.49	.0042	-23.50	.0001	158011.4	1.89	31.28	-.0000	181.60	.0045	-21.56	241.71
SET	11	1220.37	1231.62	9	16	8.6	73.67	.0041	-21.72	.0001	192370.2	2.01	-.00	-.0029	243.06	.0024	-20.54	171.07
EXTM	42	1309.80	1321.05	9	17	38.0	359.78	.0042	-19.80	.0000	195222.7	1.63	74.58	.0000	.77	-.0148	-20.28	149.19
RISE	51	1444.90	1456.15	9	19	53.1	270.00	.0041	-19.24	-.0000	213310.4	1.18	8.22	.0035	107.45	-.0016	-19.93	116.06
RISE	72	1604.57	1615.82	9	22	32.8	267.21	.0041	-19.34	-.0000	228835.9	1.06	.00	.0038	109.53	-.0006	-19.56	76.79
RISE	61	1648.17	1659.42	9	23	16.4	288.50	.0041	-20.55	.0000	232708.3	1.16	.00	.0028	117.38	.0027	-19.47	66.05
SET	42	1726.68	1737.93	10	0	34.9	103.57	.0041	-18.38	.0001	239563.1	1.79	-.00	-.0031	247.29	-.0023	-19.31	46.69
EXTM	51	1803.54	1814.79	10	1	51.7	359.96	.0042	-18.98	.0000	239882.1	1.41	83.24	-.0000	.38	-.0308	-19.16	27.73
EXTM	61	1935.39	1946.64	10	4	3.6	.60	.0042	-20.15	.0000	253966.8	1.36	29.61	-.0000	180.65	.0045	-18.92	355.16
EXTM	72	1974.09	1985.34	10	4	42.3	.08	.0042	-19.12	.0000	254062.3	1.35	78.78	.0000	180.42	.0201	-18.89	349.99
RISE	11	2087.41	2098.66	10	6	35.6	284.47	.0042	-19.49	.0000	269292.1	.97	.00	.0031	114.11	.0024	-18.66	317.95
SET	51	2162.57	2173.82	10	7	50.8	90.00	.0041	-18.00	.0000	274305.2	1.68	7.71	-.0036	253.69	-.0016	-18.54	298.94
SET	61	2222.75	2234.00	10	8	50.9	72.71	.0041	-19.35	.0001	279782.5	1.58	.00	-.0028	244.28	.0027	-18.45	284.04
SET	72	2342.38	2353.63	10	10	50.6	92.60	.0041	-18.10	.0001	288788.0	1.67	-.00	-.0039	251.72	-.0005	-18.28	254.39
RISE	42	2356.91	2368.16	10	11	5.1	257.14	.0041	-17.50	-.0000	289865.6	.89	.00	.0031	111.60	-.0024	-18.26	250.79
EXTM	11	2389.28	2400.53	10	11	37.5	.40	.0042	-19.23	.0000	288571.5	1.23	35.96	-.0000	180.47	.0049	-18.21	242.76
SET	11	2691.24	2702.49	10	16	39.4	76.31	.0042	-18.54	.0000	313751.5	1.49	.00	-.0031	247.10	.0024	-17.83	167.81
EXTM	42	2766.65	2777.90	10	17	54.8	359.90	.0042	-17.39	.0000	312907.3	1.13	72.17	.0000	.33	-.0129	-17.74	149.08
RISE	51	2897.04	2908.29	10	20	5.2	270.00	.0042	-17.11	-.0000	327018.5	.71	7.34	.0036	108.50	-.0017	-17.57	116.68
RISE	72	3055.54	3066.79	10	22	43.7	267.53	.0042	-17.21	-.0000	338276.0	.68	-.01	.0039	107.38	-.0006	-17.36	77.02
RISE	61	3087.94	3099.19	10	23	16.1	286.01	.0042	-18.05	.0000	340391.4	.76	.00	.0029	113.94	.0027	-17.32	68.92
SET	42	3172.67	3183.92	11	0	40.9	102.13	.0042	-16.57	.0000	345899.7	1.44	-.00	-.0032	249.56	-.0024	-17.21	47.73
EXTM	51	3252.69	3263.94	11	2	.9	359.97	.0042	-16.94	.0000	344835.7	1.08	81.21	-.0000	.23	-.0226	-17.10	27.72
EXTM	61	3382.04	3393.29	11	4	10.2	.43	.0042	-17.79	.0000	356104.7	1.09	31.97	-.0000	180.48	.0048	-16.93	358.33
EXTM	72	3420.79	3432.04	11	4	49.0	.05	.0043	-17.03	.0000	355753.5	1.10	80.87	.0000	180.33	.0244	-16.87	348.62
RISE	11	3524.35	3535.60	11	6	32.5	282.70	.0042	-17.31	.0000	368963.9	.81	.00	.0032	111.35	.0024	-16.71	319.63
SET	51	3607.25	3618.50	11	7	55.4	89.95	.0043	-16.09	.0001	374784.4	2.32	6.95	-.0038	255.46	-.0017	-16.49	298.65
IMPACT		3607.33	3618.58	11	7	55.5												
IMPC	72	3607.33	3618.58	11	7	55.5	47.79	.0044	-16.55	.0001	371271.9	2.24	42.61	-.0042	254.75	.0006	-16.49	298.62
IMPC	51	3607.33	3618.58	11	7	55.5	89.98	.0043	-16.09	.0001	374796.7	2.33	6.93	-.0038	255.45	-.0017	-16.49	298.62
IMPC	11	3607.33	3618.58	11	7	55.5	303.84	.0043	-17.16	.0001	373883.0	1.59	15.35	.0030	124.62	.0030	-16.49	298.62
IMPC	61	3607.33	3618.58	11	7	55.5	57.78	.0043	-17.21	.0001	374308.7	2.19	11.40	-.0026	235.53	.0033	-16.49	298.62

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	8	19	48.194	6602.068	17.0992	303.8536	10.93665	-5.2641	118.9891	46.9668
SEPARATION		1.20	12.45	8	19	49.394	6551.677	13.6531	309.7817	10.97786	-1.8660	120.6453	53.1987
RETRO		3.20	14.45	8	19	51.394	6574.338	7.6116	319.2563	10.95874	3.8338	122.4927	63.1697
IMPACT		3607.33	3618.58	11	7	55.528	375619.668	-16.4916	298.6242	2.15745	62.1107	305.7150	226.0395

SURVEYOR VIEW PERIODS

GHA	168.2083					EPS	58.1355							LOM	288.6468
SX	-.663059	SY	-.692331	SZ	-.284658	DAO	-16.53842	RAO	226.23720	RM	376931.008	LAT	28.310600	LON	279.461800
C3	-1.180330	ECC	.980420	SLR	12962.500	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.645185	NSY	-.705568	NSZ	-.293104	C3M	1.5347	VIM	2.6784	ZAE	133.756	B.T	.0000	B.R	-.0000
LATE	-1.0595	LONE	7.3435	LATS	-1.4033	LONS	309.3175	LATI	-12.5063	LONI	322.1255	RSM	148.8240	TTAN	3.8530

LAUNCH DATE MAR 8,1966 BASE AZM 115.0 TF 60.382 ARRIVAL DATE MAR 11 1966 8 36 6,9

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	19 51 28.6	27.6	15.62	303.23	-7.55	49.99	121.85	20 2 43.6	6572.9	10.96	-3.74

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	8	20	2.7												
SEPARATION	1.20	12.45	8	20	3.9												
RETRO	3.20	14.45	8	20	5.9												
RISE 72	5.24	16.49	8	20	8.0	87.26	-.1252	19.02	-.0871	2331.8	-8.49	.00	.1298	289.21	-.0690	-.99	326.75
EXTM 72	9.65	20.90	8	20	12.4	14.81	-.4091	-37.40	-.1741	1374.1	4.19	57.59	.0000	202.26	-.6880	-13.06	343.50
RISE 51	11.33	22.58	8	20	14.1	87.25	-.0807	5.68	-.0635	4791.2	-4.15	-.00	.1000	276.31	-.0221	-16.72	349.11
EXTM 51	28.53	39.78	8	20	31.3	2.11	-.0482	-39.50	-.0052	6990.1	5.47	76.13	-.0000	186.81	-.1568	-32.94	26.66
EXTM 72	69.13	80.38	8	21	11.9	276.99	.0001	-35.11	.0012	23757.6	4.84	10.23	.0000	124.40	-.0012	-34.50	51.44
EXTM 51	83.67	94.92	8	21	26.4	326.95	-.0002	-34.98	.0013	23953.3	4.48	60.18	.0000	116.01	-.0026	-33.81	53.43
RISE 42	101.67	112.92	8	21	44.4	104.99	-.0012	-26.77	-.0000	33278.0	4.19	4.07	.0008	239.84	.0006	-32.94	54.04
EXTM 42	116.40	127.65	8	21	59.1	104.45	-.0001	-26.69	.0002	36933.7	4.09	4.41	-.0000	240.19	.0002	-32.27	53.56
SET 42	138.05	149.30	8	22	20.8	105.00	.0009	-26.41	.0003	42150.3	3.94	3.85	-.0008	240.12	-.0003	-31.39	51.84
RISE 61	191.36	202.61	8	23	14.1	306.38	.0032	-35.03	.0007	54205.7	3.20	.00	.0022	138.75	.0016	-29.65	44.64
EXTM 51	284.31	295.56	9	0	47.0	.23	.0037	-27.73	.0003	65939.0	2.98	88.00	-.0000	185.89	.0938	-27.55	27.47
EXTM 61	455.19	466.44	9	3	37.9	5.52	.0040	-28.60	.0003	97700.7	2.51	20.98	.0000	185.19	.0037	-25.20	350.53
EXTM 72	480.81	492.06	9	4	3.5	1.03	.0041	-26.03	.0002	97886.1	2.45	71.84	-.0000	182.97	.0118	-24.94	344.71
RISE 11	626.58	637.83	9	6	29.3	289.78	.0040	-25.62	.0001	124143.2	1.90	.00	.0028	121.95	.0023	-23.72	310.91
SET 51	670.97	682.22	9	7	13.7	90.00	.0039	-22.31	.0002	128918.8	2.52	9.49	-.0034	249.72	-.0013	-23.41	300.44
SET 61	710.09	721.34	9	7	52.8	66.64	.0040	-25.10	.0002	134971.6	2.38	-.00	-.0024	236.24	.0027	-23.16	291.17
SET 72	861.26	872.51	9	10	24.0	93.22	.0040	-22.00	.0001	153345.9	2.36	-.00	-.0037	247.78	-.0004	-22.33	255.00
RISE 42	873.85	885.10	9	10	36.6	255.00	.0040	-20.83	.0000	154766.5	1.61	.43	.0029	115.47	-.0023	-22.27	251.97
EXTM 11	916.91	928.16	9	11	19.6	1.62	.0042	-24.03	.0001	156548.1	1.90	30.74	-.0000	181.73	.0044	-22.07	241.58
SET 11	1205.44	1216.69	9	16	8.2	73.30	.0041	-22.16	.0001	190746.5	2.01	-.00	-.0029	242.51	.0024	-20.96	171.45
EXTM 42	1296.53	1307.78	9	17	39.3	359.80	.0042	-20.20	.0000	193778.8	1.64	74.98	-.0000	.72	-.0151	-20.68	149.17
RISE 51	1431.61	1442.86	9	19	54.3	270.00	.0041	-19.60	.0000	211885.9	1.18	8.37	.0035	107.78	-.0016	-20.29	116.04
RISE 72	1591.05	1602.30	9	22	33.8	267.16	.0041	-19.67	-.0000	227430.7	1.07	.00	.0038	109.86	-.0006	-19.89	76.82
RISE 61	1636.20	1647.45	9	23	18.9	288.84	.0041	-20.88	.0000	231445.3	1.16	.00	.0028	117.84	.0027	-19.79	65.70
SET 42	1714.27	1725.52	10	0	37.0	103.82	.0041	-18.69	.0001	238266.9	1.79	-.00	-.0031	246.91	-.0023	-19.62	46.46
EXTM 51	1790.11	1801.36	10	1	52.8	359.95	.0042	-19.29	.0000	238501.1	1.41	83.55	-.0000	.48	-.0335	-19.46	27.74
EXTM 61	1922.15	1933.40	10	4	4.9	.65	.0042	-20.44	.0000	252640.5	1.36	29.32	-.0000	180.70	.0045	-19.20	355.12
EXTM 72	1960.72	1971.97	10	4	43.4	.09	.0042	-19.41	.0000	252704.4	1.35	78.50	.0000	180.45	.0196	-19.13	345.58
RISE 11	2074.90	2086.15	10	6	37.6	284.68	.0042	-19.76	.0000	267997.4	.97	.00	.0031	114.44	.0024	-18.92	317.33
SET 51	2149.11	2160.36	10	7	51.8	90.00	.0041	-18.25	.0001	272924.6	1.68	7.81	-.0036	253.46	-.0016	-18.80	298.95
SET 61	2208.26	2219.51	10	8	51.0	72.46	.0041	-19.60	.0001	278333.9	1.58	.00	-.0028	243.93	.0027	-18.70	284.30
SET 72	2329.05	2340.30	10	10	51.8	92.64	.0041	-18.33	.0001	287424.8	1.67	-.00	-.0039	251.49	-.0005	-18.51	256.36
RISE 42	2342.76	2354.01	10	11	5.5	256.96	.0041	-17.73	-.0000	288441.0	.89	.00	.0031	111.88	-.0024	-18.49	250.96
EXTM 11	2375.95	2387.20	10	11	38.7	.43	.0042	-19.47	.0000	287227.2	1.22	35.33	-.0000	180.50	.0049	-18.44	242.73
SET 11	2677.08	2688.33	10	16	39.8	76.15	.0042	-18.74	.0000	312310.7	1.49	.00	-.0031	246.84	.0024	-18.03	167.98
EXTM 42	2753.11	2764.36	10	17	55.8	359.88	.0042	-17.58	.0000	311495.8	1.13	72.36	.0000	.37	-.0131	-17.93	149.09
RISE 51	2883.72	2894.97	10	20	6.4	270.00	.0042	-17.30	.0000	325601.4	.71	7.42	.0036	105.67	-.0017	-17.76	116.63
RISE 72	3042.09	3053.34	10	22	44.8	267.50	.0042	-17.38	-.0000	336813.7	.65	-.01	.0039	107.56	-.0006	-17.54	77.04
RISE 61	3075.27	3086.52	10	23	18.0	286.18	.0042	-18.23	.0000	338969.6	.76	.00	.0029	114.19	.0027	-17.49	68.74
SET 42	3159.79	3171.04	11	0	42.5	102.26	.0042	-16.74	.0000	344434.8	1.43	-.00	-.0032	249.36	-.0024	-17.38	47.61
EXTM 51	3239.29	3250.54	11	2	2.0	359.97	.0042	-17.11	.0000	343302.4	1.07	81.37	-.0000	.25	-.0232	-17.27	27.72
EXTM 61	3368.69	3379.94	11	4	11.4	.43	.0042	-17.95	.0000	354519.0	1.08	31.81	-.0000	180.49	.0047	-17.09	355.32
EXTM 72	3407.42	3418.67	11	4	50.2	.05	.0043	-17.20	.0000	354122.4	1.08	80.71	.0000	180.34	.0239	-17.03	345.62
RISE 11	3511.56	3522.81	11	6	34.3	282.83	.0042	-17.47	.0000	367216.4	.77	.00	.0032	111.56	.0024	-16.87	319.49
SET 51	3594.45	3605.70	11	7	57.2	90.00	.0042	-16.99	.0001	372370.8	1.74	7.00	-.0037	255.25	-.0017	-16.70	298.61
IMPACT	3622.94	3634.19	11	8	25.7												
IMPC 72	3622.94	3634.19	11	8	25.7	55.15	.0043	-16.63	.0001	372016.0	2.26	35.57	-.0042	255.18	.0003	-16.59	291.35
IMPC 51	3622.94	3634.19	11	8	25.7	97.24	.0043	-16.16	.0001	375633.0	2.31	.67	-.0037	252.34	-.0018	-16.59	291.35
IMPC 11	3622.94	3634.19	11	8	25.7	311.18	.0044	-17.29	.0001	373532.9	1.60	20.02	.0028	130.10	.0033	-16.59	291.35
IMPC 61	3622.94	3634.19	11	8	25.7	65.10	.0043	-17.29	.0001	374977.1	2.20	6.60	-.0028	240.68	.0031	-16.59	291.35

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	8	20	2.726	6573.208	15.6278	303.2102	10.95941	-3.7379	121.8465	49.9664
SEPARATION	1.20	12.45	8	20	3.926	6544.874	11.9001	308.9127	10.98298	-.3256	123.2775	55.9697
RETRO	3.20	14.45	8	20	5.926	6602.769	5.4696	318.0256	10.93425	5.3562	124.7349	65.5840
IMPACT	3622.94	3634.19	11	8	25.666	375762.145	-16.5949	291.3482	2.15083	61.5901	305.8378	226.3185

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SURVEYOR VIEW PERIODS

GMA	169.1940					EPS	70.4176							LOM	303.0151
SX	-.473479	SY	-.805611	SZ	-.356102	DAO	20.86099	RAO	239.55608	RM	383255.559	LAT	28.310600	LON	279.461800
C3	-1.032189	ECC	.983052	SLR	12978.417	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.453950	NSY	-.814082	NSZ	-.362216	C3M	1.5308	VIM	2.6777	ZAE	137.614	B.T	.0000	B.R	-.0000
LATE	.4697	LONE	7.4842	LATS	-1.3957	LONS	297.2245	LATI	-9.2954	LONI	326.0584	RSM	148.7941	TTAN	5.2634

LAUNCH DATE MAR 9.1966 BASE AZM 99.0 TF 59.882 ARRIVAL DATE MAR 12 1966 8 27 59.8

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99.00	20 18 19.9	27.4	21.38	305.97	-11.28	60.44	110.57	20 29 34.9	6608.0	10.94	-5.59

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	L.. G
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	9	20	29.6												
SEPARATION	1.20	12.45	9	20	30.8												
RETRO	3.20	14.45	9	20	32.8												
RISE 72	5.61	16.86	9	20	35.2	79.09	-.2487	53.75	.0781	2235.4	-8.11	-.01	.1249	324.51	.1101	7.87	334.49
EXTM 72	9.92	21.17	9	20	39.5	323.46	-.2073	21.72	-.2690	1501.8	4.62	43.50	-.0000	49.70	.4561	-2.46	352.04
RISE 51	11.40	22.65	9	20	41.0	76.20	-.1096	26.32	-.0384	4552.5	-4.66	-.00	.1045	299.49	.0140	-5.49	357.14
ENTER SHA	14.45	25.70	9	20	44.0												
ENTR 72	14.45	25.70	9	20	44.0	298.46	-.0434	-12.23	-.0490	3484.3	8.18	29.36	-.0404	99.63	.0581	-10.78	6.33
ENTR 51	14.45	25.70	9	20	44.0	55.04	-.1183	17.01	-.0623	3942.8	-1.86	21.50	.1277	302.61	.0209	-10.78	6.33
EXIT SHA	23.06	34.31	9	20	52.6												
EXIT 72	23.06	34.31	9	20	52.6	285.83	-.0146	-23.24	-.0091	7578.1	7.51	17.61	-.0133	111.96	.0099	-20.04	24.86
EXIT 51	23.06	34.31	9	20	52.6	6.16	-.0632	-12.71	-.0357	4996.4	4.74	75.74	.0570	334.88	.1736	-20.04	24.86
EXTM 51	26.30	37.55	9	20	55.9	355.71	-.0451	-18.19	-.0218	5999.5	5.46	81.47	-.0000	28.62	.3242	-22.09	29.82
EXTM 72	68.83	80.08	9	21	38.4	274.25	-.0000	-28.86	-.0003	23808.9	4.88	7.51	.0000	118.25	.0003	-29.09	54.96
RISE 42	76.17	87.42	9	21	45.8	105.00	-.0039	-21.46	-.0018	26651.9	4.29	.82	.0039	244.03	.0008	-29.24	56.08
EXTM 51	84.67	95.92	9	21	54.3	323.19	-.0000	-29.19	-.0001	24235.6	4.49	57.29	.0000	104.55	.0002	-29.31	56.89
EXTM 42	123.20	134.45	9	22	32.8	101.04	.0003	-23.89	-.0003	38426.8	4.03	5.19	-.0000	244.30	-.0004	-29.13	56.45
SET 42	176.91	188.16	9	23	26.5	105.00	.0019	-24.32	-.0000	50889.2	3.71	2.57	-.0014	241.77	-.0011	-28.54	50.35
RISE 61	198.15	209.40	9	23	47.7	303.98	.0032	-33.44	.0004	55622.0	3.20	.00	.0090	136.22	.0018	-28.30	47.08
EXTM 51	295.25	306.50	10	1	24.8	358.42	.0037	-27.50	.0002	68025.7	2.95	87.75	.0022	141.65	.0620	-27.35	29.12
EXTM 61	466.81	478.06	10	4	16.4	3.79	.0040	-29.51	.0002	99909.1	2.51	20.17	.0000	193.51	.0037	-26.16	352.16
EXTM 72	498.20	509.45	10	4	47.8	.66	.0041	-27.11	.0001	100894.4	2.44	76.78	-.0000	181.78	.0110	-25.99	345.06
RISE 11	651.71	662.96	10	7	21.3	291.22	.0040	-27.15	.0000	128129.9	1.90	.00	.0027	123.96	.0023	-25.29	309.53
SET 51	690.48	701.73	10	8	.1	90.00	.0039	-24.08	.0001	132086.8	2.52	10.20	-.0033	248.38	-.0013	-25.14	300.41
SET 61	720.65	731.90	10	8	30.2	64.49	.0040	-26.97	.0001	137088.7	2.38	.00	-.0023	233.85	.0027	-25.03	293.28
SET 72	882.71	893.96	10	11	12.3	93.58	.0040	-24.18	.0001	156909.3	2.36	-.01	-.0036	245.27	-.0004	-24.51	254.62
RISE 42	893.67	904.92	10	11	23.2	254.99	.0040	-23.08	-.0000	157994.4	1.63	1.20	.0029	117.25	-.0022	-24.48	251.99
EXTM 11	935.06	946.31	10	12	4.6	1.17	.0042	-26.33	.0001	159986.5	1.91	28.45	-.0000	191.19	.0042	-24.36	242.03
SET 11	1216.06	1227.31	10	16	45.6	70.86	.0041	-24.92	.0001	193522.4	2.03	-.00	-.0028	230.96	.0024	-23.71	173.88
EXTM 42	1317.58	1328.83	10	18	27.2	359.89	.0042	-23.14	.0000	197671.3	1.66	77.92	.0000	.49	-.0181	-23.52	149.09
RISE 51	1452.53	1463.78	10	20	42.1	270.00	.0041	-22.61	-.0000	215902.6	1.21	9.61	.0035	110.57	-.0015	-23.28	116.04
RISE 72	1610.12	1621.37	10	23	19.7	266.65	.0041	-22.81	-.0000	231672.5	1.10	-.01	.0037	113.04	-.0005	-23.03	77.33
RISE 61	1670.84	1682.09	11	0	20.4	292.18	.0041	-24.04	-.0000	237167.0	1.20	.00	.0027	122.25	.0027	-22.95	62.39
SET 42	1740.38	1751.63	11	1	30.0	105.00	.0041	-21.93	.0000	243228.3	1.80	1.10	-.0030	243.66	-.0023	-22.85	45.26
EXTM 51	1811.63	1822.88	11	2	41.2	359.98	.0042	-22.68	.0000	243286.4	1.44	86.94	-.0000	.42	-.0455	-22.76	27.70
EXTM 61	1942.99	1954.24	11	4	52.6	.48	.0042	-23.85	.0000	257986.0	1.40	25.91	-.0000	180.49	.0043	-22.59	355.28
EXTM 72	1982.22	1993.47	11	5	31.8	.08	.0042	-22.90	.0000	257935.9	1.38	75.00	.0000	180.31	.0147	-22.55	349.59
RISE 11	2108.44	2119.69	11	7	38.0	287.64	.0042	-23.24	-.0000	274348.1	1.01	.00	.0030	118.88	.0024	-22.40	314.39
SET 51	2170.81	2182.06	11	8	40.4	90.00	.0041	-21.81	.0000	278314.2	1.71	9.29	-.0035	250.17	-.0015	-22.34	298.96
SET 61	2215.05	2226.30	11	9	24.6	68.74	.0041	-23.20	.0000	282841.6	1.61	-.00	-.0027	238.93	.0027	-22.29	288.01
SET 72	2353.22	2364.47	11	11	42.8	93.21	.0041	-21.97	.0000	293560.4	1.70	-.00	-.0038	247.80	-.0005	-22.15	253.79
RISE 42	2356.72	2367.97	11	11	46.3	255.00	.0041	-21.39	-.0000	293742.1	.94	.77	.0030	115.91	-.0023	-22.15	252.92
EXTM 11	2397.43	2408.68	11	12	27.0	.32	.0042	-23.16	.0000	293601.3	1.26	31.63	-.0000	180.35	.0045	-22.11	242.83
SET 11	2686.35	2697.60	11	17	15.9	72.94	.0042	-22.57	.0000	318191.2	1.52	-.00	-.0030	241.98	.0024	-21.85	171.17
EXTM 42	2775.44	2786.69	11	18	45.0	359.92	.0042	-21.51	.0000	318381.6	1.17	76.29	.0000	.31	-.0159	-21.78	149.09
RISE 51	2905.68	2916.93	11	20	55.3	270.00	.0042	-21.22	-.0000	332743.9	.76	9.04	.0035	109.28	-.0016	-21.66	116.63
RISE 72	3061.73	3072.98	11	23	31.3	266.88	.0042	-21.36	-.0000	344409.9	.71	-.01	.0038	111.98	-.0006	-21.51	77.66
RISE 61	3113.46	3124.71	12	0	23.0	290.20	.0042	-22.20	-.0000	347916.9	.82	.00	.0028	119.67	.0027	-21.47	64.74
SET 42	3193.03	3204.28	12	1	42.6	105.00	.0041	-20.76	.0000	353251.0	1.47	.39	-.0031	244.58	-.0024	-21.40	44.85
EXTM 51	3261.65	3272.90	12	2	51.2	359.98	.0042	-21.25	.0000	351622.5	1.13	85.51	-.0000	.30	-.0324	-21.33	27.70
EXTM 61	3390.70	3401.95	12	5	.3	.35	.0042	-22.09	.0000	363725.0	1.14	27.67	-.0000	180.36	.0044	-21.21	355.41
EXTM 72	3429.83	3441.08	12	5	39.4	.06	.0043	-21.40	.0000	363213.3	1.16	76.50	.0000	180.27	.0163	-21.17	349.61
RISE 11	3547.34	3558.59	12	7	36.9	286.25	.0042	-21.62	.0000	377874.9	.98	.01	.0031	116.81	.0024	-21.02	316.09
IMPACT	3592.90	3604.15	12	8	22.5												
IMPC 72	3592.90	3604.15	12	8	22.5	41.82	.0044	-21.05	.0001	377299.0	2.30	47.58	-.0040	247.32	.0013	-20.92	304.53
IMPC 51	3592.90	3604.15	12	8	22.5	84.08	.0043	-20.56	.0001	380454.9	2.41	13.86	-.0038	253.58	-.0015	-20.92	304.53
IMPC 11	3592.90	3604.15	12	8	22.5	297.89	.0043	-21.56	.0001	381065.6	1.68	8.25	.0030	123.84	.0028	-20.92	304.53
IMPC 61	3592.90	3604.15	12	8	22.5	51.84	.0043	-21.66	.0001	380707.3	2.27	11.54	-.0024	228.23	.0033	-20.92	304.53

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	9	20	29.581	6609.612	21.4056	305.8985	10.93677	-5.5926	110.5374	60.3723
SEPARATION	1.20	12.45	9	20	30.781	6554.367	18.8401	312.4479	10.98169	-2.1960	112.8995	67.2286
RETRO	3.20	14.45	9	20	32.781	6569.574	14.0562	322.8794	10.96887	3.5192	116.0064	78.1594
ENTER SHA	14.45	25.70	9	20	44.034	6638.170	-10.7778	6.3291	9.95283	29.3526	117.4405	124.4264
EXIT SHA	23.06	34.31	9	20	52.637	11289.169	-20.0424	24.8593	8.34385	40.1905	111.8692	145.1131
IMPACT	3592.90	3604.15	12	8	22.478	382032.203	-20.9155	304.5291	2.80894	65.5067	299.2180	239.6817

SURVEYOR VIEW PERIODS

GHA	169.1940				EPS	70.5686					LOM	298.6893	
SX	-.470966	SY	-.806744	SZ	-.356868	DAO	-20.90800	RAO	239.72422	RM	383333.660	LAT	28.310600
C3	-1.033159	ECC	.983037	SLR	12978.315	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000
NSX	-.451402	NSY	-.815162	NSZ	-.362969	C3M	1.5347	VIM	2.6784	ZAE	137.499	B.T	.0000
LATE	.4886	LONE	7.4830	LATS	-1.3956	LONS	297.0730	LATI	-9.4352	LONI	325.9717	RSM	148.7937
LAUNCH DATE	MAR	9,1966		BASE AZM	102.0		TF 59.917				ARRIVAL DATE	MAR	12 1966

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	20 32 58.0	27.6	20.21	305.69	-8.03	63.83	112.74	20 44 13.0	6576.6	10.96	-3.98

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
					PROBE IN SUNLIGHT												
INJECTION	.00	11.25	9	20	44.2												
SEPARATION	1.20	12.45	9	20	45.4												
RETRO	3.20	14.45	9	20	47.4												
RISE 72	5.29	16.54	9	20	49.5	81.68	-.2036	46.20	.0428	2324.5	-8.48	-.00	.1296	316.78	.0699	6.77	332.01
EXTM 72	9.70	20.95	9	20	53.9	337.37	-.2686	15.31	-.2639	1367.8	4.19	57.72	.0000	44.02	.6926	-3.91	349.52
RISE 51	11.25	22.50	9	20	55.5	78.59	-.1007	22.30	-.0425	4728.0	-4.39	.00	.1022	294.91	.0062	-7.06	354.70
ENTER SHA	17.11	28.36	9	21	1.3												
ENTR 72	17.11	28.36	9	21	1.3	297.79	-.0316	-21.91	-.0200	4725.3	8.06	28.67	-.0303	110.70	.0211	-15.99	10.56
ENTR 51	17.11	28.36	9	21	1.3	41.53	-.1005	1.79	-.0639	4096.6	.98	41.33	.1187	298.05	.0134	-15.99	10.56
EXIT SHA	17.40	28.65	9	21	1.6												
EXIT 72	17.40	28.65	9	21	1.6	297.25	-.0303	-22.25	-.0188	4863.9	8.03	28.16	-.0289	111.05	.0197	-16.32	11.20
EXIT 51	17.40	28.65	9	21	1.6	39.81	-.0991	.70	-.0631	4115.6	1.23	43.36	.1170	298.29	.0141	-16.32	11.20
EXTM 51	27.58	38.83	9	21	11.8	358.32	-.0409	-22.31	-.0167	6577.4	5.45	86.24	.0000	24.48	.6309	-24.00	28.55
EXTM 72	69.02	80.27	9	21	53.2	277.46	-.0000	-30.18	-.0001	23708.6	4.86	10.56	.0000	119.37	.0001	-29.92	51.65
RISE 42	97.91	109.16	9	22	22.1	105.00	-.0013	-23.61	-.0008	32563.4	4.19	2.14	.0014	242.34	.0001	-30.02	53.99
EXTM 42	122.74	133.99	9	22	47.0	104.32	.0003	-24.37	-.0003	38684.2	4.03	3.09	-.0000	242.11	-.0004	-29.78	53.11
SET 42	140.21	151.46	9	23	4.4	105.00	.0010	-24.61	-.0002	42851.1	3.92	2.75	-.0006	241.55	-.0007	-29.56	51.60
RISE 61	186.50	197.75	9	23	50.7	305.38	.0031	-34.38	.0004	53323.8	3.28	-.00	.0019	137.71	.0017	-28.95	45.53
EXTM 51	286.14	297.39	10	1	30.4	.15	.0036	-28.05	.0002	66501.3	2.99	87.68	-.0000	183.31	.0790	-27.85	27.55
EXTM 61	453.08	464.33	10	4	17.3	4.15	.0039	-29.99	.0002	97967.8	2.53	19.66	.0000	183.82	.0036	-26.57	351.83
EXTM 72	483.34	494.59	10	4	47.6	.71	.0040	-29.56	.0001	98800.0	2.47	70.33	.0000	181.87	.0107	-26.39	349.01
RISE 11	638.67	649.92	10	7	22.9	291.56	.0040	-27.51	.0000	126466.4	1.92	.00	.0027	124.42	.0023	-25.61	309.16
SET 51	675.72	686.97	10	7	59.9	90.00	.0039	-24.38	.0001	130222.2	2.53	10.33	-.0033	247.79	-.0013	-25.46	300.46
SET 61	704.24	715.51	10	8	28.5	64.08	.0040	-27.32	.0002	135058.6	2.40	-.00	-.0023	233.04	.0027	-25.34	293.72
SET 72	868.41	879.66	10	11	12.6	93.62	.0040	-24.44	.0001	155283.1	2.37	-.01	-.0036	245.31	-.0004	-24.77	254.61
RISE 42	879.43	890.68	10	11	23.7	254.99	.0040	-23.32	-.0000	156366.6	1.64	1.95	.0029	117.44	-.0022	-24.74	251.96
EXTM 11	921.06	932.31	10	12	5.3	1.24	.0042	-26.61	.0001	158457.9	1.93	28.17	-.0000	181.25	.0042	-24.62	241.95
SET 11	1201.01	1212.26	10	16	45.2	70.67	.0041	-25.14	.0001	192015.3	2.04	-.00	-.0028	238.68	.0024	-23.92	174.09
EXTM 42	1303.40	1314.65	10	18	27.6	359.88	.0042	-23.34	.0000	196296.5	1.67	78.12	.0000	.52	-.0184	-23.71	149.09
RISE 51	1438.45	1449.70	10	20	42.7	270.00	.0041	-22.79	-.0000	214588.1	1.22	9.68	.0035	110.73	-.0015	-23.46	116.03
RISE 72	1595.95	1607.20	10	23	20.2	266.62	.0041	-22.97	-.0000	230412.9	1.11	-.01	.0037	113.20	-.0005	-23.19	77.35
RISE 61	1657.50	1668.75	11	0	21.7	292.36	.0041	-24.20	-.0000	236000.7	1.20	.01	.0027	122.48	.0027	-23.10	62.20
SET 42	1726.25	1737.50	11	1	30.5	105.00	.0041	-22.08	.0001	242003.5	1.81	1.19	-.0030	243.54	-.0023	-23.00	45.27
EXTM 51	1797.54	1808.79	11	2	41.8	359.99	.0042	-22.82	.0000	242095.3	1.45	87.08	-.0000	.36	-.0517	-22.90	27.70
EXTM 61	1929.01	1940.26	11	4	53.2	.51	.0042	-23.99	.0000	256852.7	1.40	25.77	-.0000	180.51	.0043	-22.73	355.26
EXTM 72	1968.16	1979.41	11	5	32.4	.09	.0042	-23.04	.0000	256796.9	1.39	74.87	.0000	180.32	.0146	-22.68	349.58
RISE 11	2094.82	2106.07	11	7	39.0	287.77	.0042	-23.37	-.0000	273271.0	1.02	.00	.0030	119.04	.0024	-22.52	314.28
SET 51	2156.71	2167.96	11	8	40.9	90.00	.0041	-21.93	.0000	277206.9	1.71	9.33	-.0035	250.07	-.0015	-22.45	298.96
SET 61	2200.45	2211.70	11	9	24.7	68.61	.0041	-23.32	.0000	281709.0	1.61	-.00	-.0027	238.76	.0027	-22.41	288.14
SET 72	2339.23	2350.48	11	11	43.4	93.24	.0041	-22.08	.0000	292505.4	1.70	-.01	-.0038	247.70	-.0005	-22.26	253.77
RISE 42	2342.67	2353.92	11	11	46.9	255.00	.0041	-21.49	-.0000	292675.7	.94	.83	.0030	115.99	-.0023	-22.26	252.92
EXTM 11	2383.42	2394.67	11	12	27.6	.34	.0042	-23.27	.0000	292563.4	1.27	31.53	-.0000	180.36	.0045	-22.21	242.82
SET 11	2671.95	2683.20	11	17	16.2	72.86	.0042	-22.66	.0000	317166.2	1.53	-.00	-.0030	241.86	.0024	-21.94	171.26
EXTM 42	2761.39	2772.64	11	18	45.6	359.93	.0042	-21.60	.0000	317394.7	1.18	76.38	.0000	.29	-.0159	-21.86	149.05
RISE 51	2891.78	2903.03	11	20	56.0	270.00	.0042	-21.30	-.0000	331782.2	.76	9.08	.0035	109.35	-.0016	-21.74	116.62
RISE 72	3047.75	3059.00	11	23	32.0	266.87	.0042	-21.44	-.0000	343450.3	.71	-.00	.0038	111.66	-.0006	-21.59	77.67
RISE 61	3099.84	3111.09	12	0	24.1	290.29	.0042	-22.28	-.0000	346981.7	.82	.00	.0028	119.78	.0027	-21.54	64.65
SET 42	3179.05	3190.30	12	1	43.3	105.00	.0041	-20.84	.0000	352283.8	1.47	.43	-.0031	244.53	-.0024	-21.47	44.86
EXTM 51	3247.67	3258.92	12	2	51.9	359.98	.0042	-21.33	.0000	350654.8	1.13	85.59	-.0000	.30	-.0331	-21.40	27.70
EXTM 61	3376.74	3387.99	12	5	1.0	.35	.0042	-22.16	.0000	362740.3	1.14	27.60	-.0000	180.37	.0044	-21.28	355.41
EXTM 72	3415.85	3427.10	12	5	40.1	.06	.0043	-21.47	.0000	362206.5	1.15	76.44	.0000	180.27	.0162	-21.24	349.61
RISE 11	3533.69	3544.94	12	7	37.9	286.31	.0042	-21.69	.0000	376743.6	.93	.01	.0031	116.90	.0024	-21.09	316.03
IMPACT	3595.04	3606.29	12	8	39.3												
IMPC 72	3595.04	3606.29	12	8	39.3	45.92	.0044	-21.08	.0001	377665.6	2.32	43.82	-.0040	248.29	.0011	-20.96	300.48
IMPC 51	3595.04	3606.29	12	8	39.3	88.13	.0043	-20.58	.0001	380909.2	2.41	10.38	-.0037	252.03	-.0016	-20.96	300.48
IMPC 11	3595.04	3606.29	12	8	39.3	301.96	.0043	-21.63	.0001	380850.0	1.69	10.93	.0029	126.56	.0029	-20.96	300.48
IMPC 61	3595.04	3606.29	12	8	39.3	55.92	.0043	-21.69	.0001	381046.3	2.28	9.14	-.0025	231.22	.0032	-20.96	300.48
SET 51	3602.13	3613.38	12	8	46.3	90.00	.0048	-20.53	.0003	382185.7	5.68	8.76	-.0042	251.36	-.0016	-20.92	298.61

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	9	20	44.217	6577.049	20.2186	305.6630	10.96295	-3.9802	112.7339	63.8059
SEPARATION	1.20	12.45	9	20	45.417	6545.295	17.4182	312.0569	10.98932	-.5605	114.8969	70.5006
RETRO	3.20	14.45	9	20	47.417	6597.952	12.3200	322.2088	10.94500	5.1341	117.6407	81.1538
ENTER SHA	17.11	28.36	9	21	1.327	9587.854	-15.9862	10.5554	9.86170	34.1221	115.8039	132.9877
EXIT SHA	17.40	28.65	9	21	1.614	9675.635	-16.3181	11.2011	9.81998	34.4999	115.6042	133.7055
IMPACT	3595.04	3606.29	12	8	39.255	382109.520	-20.9599	300.4773	2.20741	65.2520	299.2669	239.8397

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SURVEYOR VIEW PERIODS

GHA	169.1940					EPS	70.7405							LOM	293.7599
SX	-.468098	SY	-.808027	SZ	-.357738	DAO	-20.96134	RAO	239.91587	RM	383422.609	LAT	28.31[illegible]600	LON	279.461800
C3	-1.039351	ECC	.982935	SLR	12977.651	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.448446	NSY	-.816406	NSZ	-.363838	C3M	1.9350	VIM	2.6785	ZAE	137.281	B.T	.0000	B.R	-.0000
LATE	.5100	LONE	7.4812	LATS	-1.3955	LONS	296.9000	LATI	-9.6161	LONI	325.7865	RSM	148.7932	TTAN	5.2722
LAUNCH DATE		MAR	9,1966		BASE AZM	105.0		TF	60.033			ARRIVAL DATE		MAR 12 1966	9 6 21.1

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	20 45 48.3	27.8	19.06	305.32	-5.23	66.68	114.89	20 57 3.3	6558.2	10.98	-2.59

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	9	20	57.1												
SEPARATION		1.20	12.45	9	20	58.3												
RETRO		3.20	14.45	9	21	.3												
RISE	72	5.06	16.31	9	21	2.1	83.42	-.1764	39.54	.0109	2415.6	-8.60	.00	.1319	310.00	.0350	5.56	329.85
EXTM	72	8.87	20.12	9	21	5.9	5.19	-.3911	17.14	-.2691	1216.0	1.05	64.43	.3408	348.46	.7179	-3.97	344.87
RISE	51	11.16	22.41	9	21	8.2	80.73	-.0932	18.46	-.0462	4893.7	-4.11	.00	.0997	290.58	-.0006	-8.73	352.47
EXTM	51	28.19	39.44	9	21	25.2	2.20	-.0398	-25.58	-.0141	6930.9	5.37	88.01	.0370	274.15	-.3133	-25.66	26.54
EXTM	72	69.40	80.65	9	22	6.5	280.65	.0000	-31.64	.0001	23687.1	4.83	13.18	.0000	120.76	-.0001	-30.91	48.80
EXTM	51	87.19	98.44	9	22	24.2	330.82	-.0000	-31.61	.0002	24899.3	4.42	63.82	.0000	109.76	-.0006	-30.96	50.77
RISE	61	178.14	189.39	9	23	55.2	306.94	.0030	-35.38	.0005	51657.0	3.33	.00	.0019	139.34	.0016	-29.71	43.88
EXTM	51	271.68	282.93	10	1	28.7	.23	.0036	-28.80	.0002	63968.9	3.04	86.93	.0000	183.76	.0586	-28.58	27.48
EXTM	61	441.60	452.85	10	4	18.7	4.55	.0039	-30.55	.0002	96328.3	2.56	19.09	.0000	184.14	.0036	-27.05	351.46
EXTM	72	470.79	482.04	10	4	47.8	.82	.0040	-28.08	.0001	97002.4	2.49	69.81	.0000	182.10	.0103	-26.86	344.91
RISE	11	627.88	639.13	10	7	24.9	291.96	.0040	-27.92	.0000	125057.2	1.94	.00	.0027	124.96	.0023	-25.99	308.73
SET	51	662.98	674.23	10	8	.0	90.00	.0039	-24.75	.0001	128567.5	2.55	10.48	-.0033	247.45	-.0013	-25.83	300.50
SET	61	689.55	700.80	10	8	26.6	63.59	.0040	-27.73	.0002	133189.3	2.41	-.00	-.0023	232.44	.0027	-25.72	294.24
SET	72	856.13	867.38	10	11	13.2	93.68	.0040	-24.75	.0001	153838.5	2.38	-.01	-.0036	245.00	-.0004	-25.09	254.59
RISE	42	867.17	878.42	10	11	24.2	254.99	.0040	-23.62	-.0000	154910.1	1.69	2.14	.0029	117.68	-.0022	-25.05	251.94
EXTM	11	909.07	920.32	10	12	6.1	1.33	.0042	-26.93	.0001	157107.8	1.93	27.85	-.0000	181.34	.0042	-24.91	241.87
SET	11	1187.75	1199.00	10	16	44.8	70.43	.0041	-25.39	.0001	190618.6	2.04	-.00	-.0028	238.34	.0024	-24.16	174.34
EXTM	42	1291.27	1302.52	10	18	28.3	359.91	.0042	-23.57	.0000	195045.3	1.67	78.35	-.0000	.44	-.0185	-23.93	149.07
RISE	51	1426.30	1437.55	10	20	43.4	270.00	.0041	-22.99	-.0000	213367.4	1.22	9.76	.0035	110.92	-.0015	-23.66	116.01
RISE	72	1583.69	1594.94	10	23	20.7	266.59	.0041	-23.16	-.0000	229226.9	1.11	-.01	.0037	113.35	-.0005	-23.38	77.37
RISE	61	1646.15	1657.40	11	0	23.2	292.56	.0041	-24.39	.0000	234910.3	1.21	.00	.0027	122.75	.0027	-23.28	68.00
SET	42	1714.05	1725.30	11	1	31.1	105.00	.0041	-22.25	.0001	240836.0	1.81	1.30	-.0030	243.41	-.0023	-23.18	49.28
EXTM	51	1785.33	1796.58	11	2	42.4	359.98	.0042	-23.00	.0000	240951.2	1.49	87.26	.0000	.54	-.0655	-23.07	27.71
EXTM	61	1916.95	1928.20	11	4	54.0	.53	.0042	-24.16	.0000	255758.2	1.40	25.60	-.0000	180.54	.0043	-22.88	358.23
EXTM	72	1956.02	1967.27	11	5	33.1	.10	.0042	-23.20	.0000	255689.0	1.39	74.71	.0000	180.34	.0144	-22.83	349.58
RISE	11	2083.20	2094.45	11	7	40.3	287.88	.0042	-23.52	-.0000	272215.7	1.02	.00	.0030	119.23	.0024	-22.67	314.14
SET	51	2144.52	2155.77	11	8	41.6	90.00	.0041	-22.07	.0000	276105.9	1.71	9.39	-.0035	249.94	-.0015	-22.59	298.97
SET	61	2187.65	2198.90	11	9	24.7	68.45	.0041	-23.46	.0001	280570.4	1.61	-.00	-.0027	238.56	.0027	-22.54	288.30
SET	72	2327.12	2338.37	11	11	44.2	93.26	.0041	-22.20	.0001	291433.7	1.70	-.01	-.0038	247.57	-.0005	-22.39	253.76
RISE	42	2330.53	2341.78	11	11	47.6	255.00	.0041	-21.62	-.0000	291593.0	.94	.91	.0030	116.09	-.0023	-22.38	252.91
EXTM	11	2371.33	2382.58	11	12	28.4	.36	.0042	-23.39	.0000	291508.5	1.27	31.40	-.0000	180.38	.0045	-22.34	248.80
SET	11	2659.38	2670.63	11	17	16.4	72.77	.0042	-22.77	.0000	316082.2	1.53	-.00	-.0030	241.72	.0024	-22.08	171.36
EXTM	42	2749.38	2760.63	11	18	46.4	359.97	.0042	-21.70	.0000	316391.4	1.18	76.48	-.0000	.15	-.0141	-21.97	149.01
RISE	51	2879.62	2890.87	11	20	56.7	270.00	.0042	-21.40	-.0000	330732.0	.76	9.11	.0035	109.44	-.0016	-21.84	116.62
RISE	72	3035.95	3046.80	11	23	32.6	266.86	.0042	-21.53	-.0000	342380.0	.71	-.00	.0038	111.75	-.0006	-21.68	77.68
RISE	61	3088.07	3099.32	12	0	25.1	290.38	.0042	-22.37	-.0000	348932.2	.82	.00	.0028	119.90	.0027	-21.63	64.96
SET	42	3166.89	3178.14	12	1	43.9	105.00	.0041	-20.92	.0000	351187.6	1.47	.48	-.0031	244.46	-.0024	-21.55	44.86
EXTM	51	3235.53	3246.78	12	2	52.6	359.98	.0042	-21.41	.0000	349549.6	1.12	85.67	-.0000	.30	-.0340	-21.40	27.70
EXTM	61	3364.64	3375.89	12	5	1.7	.36	.0042	-22.24	.0000	361602.8	1.13	27.52	-.0000	180.37	.0044	-21.36	359.40
EXTM	72	3403.75	3415.00	12	5	40.8	.07	.0043	-21.55	.0000	361041.9	1.14	76.35	.0000	180.27	.0161	-21.32	349.61
RISE	11	3521.96	3533.21	12	7	39.0	286.38	.0042	-21.78	.0000	375460.6	.88	.00	.0031	117.01	.0024	-21.17	315.95
SET	51	3590.65	3601.90	12	8	47.7	90.00	.0042	-20.66	.0001	379985.7	2.00	8.81	-.0036	251.24	-.0016	-21.05	298.61
IMPACT		3601.99	3613.24	12	8	59.0												
IMPC	72	3601.99	3613.24	12	8	59.0	50.76	.0044	-21.11	.0001	378122.2	2.34	39.35	-.0040	249.13	.0008	-21.01	299.70
IMPC	51	3601.99	3613.24	12	8	59.0	92.91	.0043	-20.61	.0001	381443.8	2.41	6.32	-.0037	250.14	-.0016	-21.01	299.70
IMPC	11	3601.99	3613.24	12	8	59.0	306.78	.0043	-21.70	.0001	380610.4	1.70	13.97	.0028	129.93	.0030	-21.01	299.70
IMPC	61	3601.99	3613.24	12	8	59.0	60.73	.0043	-21.72	.0001	381460.1	2.29	6.18	-.0026	234.60	.0031	-21.01	299.70

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	9	20	57.055	6558.264	19.0623	305.3093	10.97821	-2.5911	114.8900	66.6786
SEPARATION		1.20	12.45	9	20	58.255	6546.073	16.0382	311.5397	10.98838	.8366	116.8622	73.2018
RETRO		3.20	14.45	9	21	.255	6630.417	10.6461	321.4011	10.91766	6.5817	119.2624	83.5646
IMPACT		3601.99	3613.24	12	8	59.047	382198.591	-21.0121	295.7017	2.20417	65.0812	299.5234	248.0287

SURVEYOR VIEW PERIODS

GMA	169.1940					EPS	70.9082							LSM	288.9519
SX	-.465297	SY	-.809270	SZ	-.358582	DAO	-21.01315	RAO	240.10288	RM	383509.320	LAT	28.310600	LON	279.461800
C3	-1.047350	ECC	.982804	SLR	12976.789	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.445540	NSY	-.817616	NSZ	-.364688	C3M	1.5349	VIM	2.6785	ZAE	137.012	B.T	.0000	B.R	-.0000
LATE	.5309	LONE	7.4795	LATS	-1.3954	LONS	296.7.14	LATI	-9.8248	LONI	325.5545	RSM	148.7928	TTAN	5.2707
LAUNCH DATE		MAR	9,1966		BASE AZM	108.0		TF	60.176			ARRIVAL	DATE MAR	12 1966	9 26 16,9

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	20 56 53.7	27.9	17.94	304.86	-2.85	69.00	117.02	21 8 8.7	6548.7	10.99	-1.41

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PRORE IN SUNLIGHT											
INJECTION	.00	11.25	9	21	8.1												
SEPARATION	1.20	12.45	9	21	9.3												
RETRO	3.20	14.45	9	21	11.3												
RISE 72	[illegible]	16.14	9	21	13.0	84.72	-.1577	33.54	-.0172	2506.0	-8.55	-.00	.1325	303.91	.0048	4.25	327.95
EXTM 72	9.30	20.55	9	21	17.4	6.09	-.3345	-1.36	-.2277	1318.2	2.74	81.08	.3940	316.87	.5914	-6.79	344.62
RISE 51	11.12	22.37	9	21	19.3	82.70	-.0868	14.77	-.0495	5048.9	-3.84	.00	.0972	286.44	-.0066	-10.50	350.42
EXTM 51	30.72	41.97	9	21	38.9	1.48	-.0333	-30.04	-.0090	7896.0	[illegible]	85.50	-.0000	196.56	-.3856	-28.12	26.88
EXTM 72	69.85	81.10	9	22	18.0	283.20	.0000	-33.20	.0003	23717.2	4.81	15.34	.0000	122.36	-.0003	-32.04	46.36
EXTM 51	87.85	99.10	9	22	36.0	333.86	-.0001	-33.00	.0004	[illegible]090.7	4.40	66.17	.0000	113.89	-.0010	-31.98	48.31
RISE 61	172.90	184.15	10	0	1.0	308.62	.0029	-36.41	.0006	50817.6	3.37	.00	.0019	141.04	.0015	-30.55	42.17
EXTM 51	259.50	270.75	10	1	27.6	.35	.0035	-29.64	.0003	[illegible]98.4	3.09	86.08	.0000	184.47	.0450	-29.28	27.37
EXTM 61	432.26	443.51	10	4	20.4	4.97	.0039	-31.15	.[illegible]	[illegible]795.8	2.58	18.47	.0000	184.49	.0035	-27.59	351.06
EXTM 72	460.22	471.47	10	4	48.4	.94	.0040	-28.66	.0002	99473.2	2.51	69.22	.0000	182.31	.0100	-27.38	344.80
RISE 11	619.18	630.43	10	7	27.3	292.40	.0040	-[illegible]	.0000	123902.7	1.95	.00	.0027	125.56	.0023	-26.42	308.27
SET 51	652.16	663.41	10	8	.3	90.00	.0039	-25.16	.0001	127135.0	2.56	18.54	-.0033	247.07	-.0013	-26.25	300.54
SET 61	676.50	687.75	10	8	24.6	63.04	.0040	-28.18	.0002	131503.6	2.42	-.00	-.0023	231.78	.0027	-26.13	294.81
SET 72	845.75	857.00	10	12	13.9	93.73	.0039	-25.09	.0001	152591.9	2.38	-.01	-.0036	244.65	-.0004	-25.43	254.56
RISE 42	856.77	868.02	10	11	24.9	294.99	.0040	-23.95	-.0000	153643.3	1.66	2.34	.0029	117.94	-.0022	-25.39	251.92
EXTM 11	898.98	910.23	10	12	7.1	1.43	.0042	-27.28	.0001	155953.0	1.94	27.50	-.0000	181.43	.0042	-25.25	241.77
SET 11	1176.22	1187.47	10	16	44.4	70.17	.0041	-25.68	.0001	189369.5	2.05	-.00	-.0028	237.97	.0024	-24.44	174.61
EXTM 42	1280.76	1292.01	10	18	28.9	359.86	.0042	-23.82	.0000	193922.8	1.68	78.60	-.0000	.57	-.0192	-24.18	149.10
RISE 51	1415.95	1427.20	10	20	44.1	270.00	.0041	-23.22	-.0000	212283.6	1.23	9.86	.[illegible]035	111.13	-.0015	-23.89	116.00
RISE 72	1573.20	1584.45	10	23	21.3	266.55	.0041	-23.36	-.0000	228165.4	1.12	-.01	.[illegible]027	113.60	-.0005	-23.50	77.39
RISE 61	1636.70	1647.95	11	0	24.8	292.79	.0041	-24.59	.0000	233950.9	1.21	.00	.[illegible]027	123.04	.0027	-23.48	61.77
SET 42	1703.62	1714.87	11	1	31.8	105.00	.[illegible]	-22.44	.0001	239784.1	1.81	1.41	-.[illegible]030	243.26	-.0023	-23.37	45.29
EXTM 51	1774.93	1786.18	11	2	43.1	359.97		23.19	.0000	239920.7	1.45	87.45	.[illegible]00	.63	-.0745	-23.25	27.71
EXTM 61	1906.69	1917.94	11	4	54.8	.57	.0042	-24.33	.0000	254769.2	1.40	25.43	-.[illegible]000	180.57	.0042	-23.09	355.20
EXTM 72	1945.66	1956.91	11	5	33.8	.10	.0042	-23.37	.0000	254682.2	1.39	74.53	-.[illegible]000	180.36	.0143	-23.00	345.57
RISE 11	2073.39	2084.64	11	7	41.5	288.02	.0042	-23.67	-.0000	271256.1	1.02	.00	.[illegible]030	119.44	.0024	-22.82	314.00
SET 51	2134.10	2145.35	11	8	42.2	90.00	.0041	-22.22	.0001	275093.0	1.71	7.45	-.[illegible]035	249.80	-.0019	-22.74	298.98
SET 61	2176.57	2187.82	11	9	24.7	68.29	.0041	-23.61	.0001	279514.0	1.61	-.03	-.[illegible]027	238.35	.0027	-22.69	288.47
SET 72	2316.78	2328.03	11	11	44.9	93.28	.0041	-23.34	.0001	290440.1	1.70	-.01	.[illegible]038	247.43	-.0005	-22.52	253.74
RISE 42	2320.14	2331.39	11	11	48.3	255.00	.0041	-23.75	-.0000	290387.0	.94	.99	.0030	116.20	-.0023	-22.52	252.91
EXTM 11	2361.01	2372.26	11	12	29.2	.38	.0042	-23.53	.0000	290530.1	1.27	[illegible]35	-.0000	180.40	.0045	-22.47	242.78
SET 11	2648.54	2659.79	11	17	16.7	72.67	.0042	-23.89	.0000	315054.8	1.53	-.[illegible]	-.0030	241.57	.0024	-22.16	171.46
EXTM 42	2738.87	2750.12	11	18	47.0	359.94	.0042	-21.81	.0000	315343.7	1.19	[illegible]65	-.0000	.24	-.0158	-22.07	149.04
RISE 51	2869.35	2880.60	11	20	57.5	269.99	.0042	-21.50	-.0000	329739.4	.[illegible]6	9.35	.0065	109.54	-.0016	-21.94	116.62
RISE 72	3025.20	3036.45	11	23	33.3	266.84	.0042	-21.[illegible]	-.0000	341363.7	.[illegible]0	-.00	.0038	111.84	-.0006	-21.78	77.69
RISE 61	3078.18	3089.43	12	0	26.3	290.48	.0042	-22.47	-.0000	344937.2	.82	.30	.0028	120.04	.0027	-21.72	64.49
SET 42	3156.57	3167.82	12	1	44.7	105.00	.0041	-21.01	.0000	350141.6	1.46	.53	-.0031	244.39	-.0023	-21.64	44.86
EXTM 51	3225.21	3236.46	12	2	53.4	359.98	.0042	-21.50	.0000	348493.1	1.12	85.76	-.0000	.32	-.0339	-21.57	27.70
EXTM 61	3354.35	3365.60	12	5	2.5	.36	.0042	-22.33	.0000	360513.2	1.12	27.43	-.0000	180.38	.0044	-21.44	355.39
EXTM 72	3393.43	3404.68	12	5	41.6	.07	.0043	-21.63	.0000	359924.7	1.15	76.27	.0000	180.28	.0160	-21.40	345.61
RISE 11	3511.97	3523.22	12	7	40.1	286.45	.0042	-21.86	.0000	374244.9	.[illegible]5	.00	.0031	117.12	.0024	-21.25	315.88
SET 51	3580.48	3591.73	12	8	48.6	89.99	.0042	-20.76	.0001	378435.5	1.78	8.86	-.0036	251.15	-.0016	-21.14	298.62
IMPACT	3610.55	3621.80	12	9	18.7												
IMPC 72	3610.55	3621.80	12	9	18.7	55.55	.0043	-21.14	.0001	378604.4	2.35	34.91	-.0040	249.69	.0006	-21.06	298.96
IMPC 51	3610.55	3621.80	12	9	18.7	97.64	.0043	-20.64	.0001	381975.6	2.39	2.35	-.0036	248.17	-.0017	-21.06	298.96
IMPC 11	3610.55	3621.80	12	9	18.7	311.56	.0044	-21.77	.0001	380396.1	1.71	16.84	.0026	133.45	.0032	-21.06	298.96
IMPC 61	3610.55	3621.80	12	9	18.7	65.50	.0043	-21.75	.0001	381889.1	2.29	3.13	-.0027	237.83	.0030	-21.06	298.96
SET 61	3630.29	3641.54	12	9	38.4	70.21	.0043	-21.81	.0001	381813.5	2.06	-.00	-.0028	240.88	.0028	-21.15	286.28

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	9	21	8.144	6548.691	17.9364	304.8625	10.98590	-1.4131	117.0199	69.0036
SEPARATION	1.20	12.45	9	21	[illegible] 344	6552.833	14.6950	310.9290	10.98230	2.0145	118.8111	75.3709
RETRO	3.20	14.45	9	21	11.344	6663.606	9.0266	320.4910	10.88983	7.6443	120.8871	85.4343
IMPACT	3610.55	3421.80	12	9	18.694	382290.176	-21.0638	290.9614	2.20008	64.7255	299.6463	240.2108

SURVEYOR VIEW PERIODS

GHA	169.1940				EPS	71.0714					LOM	284.2674	
SX	-.462565	SY	-.810472	SZ	-.359400	DAO	-21.06338	RAO	240.28506	RM	383593.699	LAT	28.310600
C3	-1.056662	ECC	.982451	SLR	12975.786	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000
NSX	-.442691	NSY	-.818793	NSZ	-.365518	C3M	1.5348	VIM	2.6784	ZAE	136.701	B.T	.0000
LATE	.5513	LONE	7.4787	LATS	-1.3993	LONS	296.5681	LATI	-10.0525	LONI	325.2844	RSM	148.7923
LAUNCH DATE		MAR	9,1966		BASE AZM	111.0	TF	60.338			ARRIVAL DATE	MAR	12 1966

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
111.00	21 6 29.6	27.9	16.84	304.34	-.83	70.89	119.13	21 17 44.6	6545.0	10.99	-.41

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	9	21	17.7												
SEPARATION		1.20	12.45	9	21	18.9												
RETRO		3.20	14.45	9	21	20.9												
RISE	72	4.78	16.03	9	21	22.5	85.77	-.1434	28.01	-.0417	2595.7	-8.35	-.01	.1316	298.30	-.0215	2.85	326.26
EXTM	72	9.27	20.52	9	21	27.0	15.98	-.3198	-11.41	-.2043	1427.5	2.51	73.87	.2682	256.18	-.9392	-8.51	342.79
RISE	51	11.12	22.37	9	21	28.9	84.52	-.0812	11.19	-.0525	5195.8	-3.56	.00	.0946	282.44	-.0118	-12.36	348.52
EXTM	51	32.61	43.86	9	21	50.3	2.12	-.0300	-33.64	-.0061	8647.8	5.41	81.89	-.0000	192.63	-.1822	-30.29	26.50
EXTM	72	70.12	81.37	9	22	27.9	285.35	-.0000	-34.96	.0005	23718.3	4.80	17.08	.0000	124.13	-.0006	-33.28	44.24
EXTM	51	87.74	98.99	9	22	45.5	336.45	-.0002	-34.51	.0006	25088.7	4.40	67.89	.0000	118.98	-.0016	-33.11	46.18
RISE	61	170.39	181.64	10	0	8.1	310.36	.0029	-37.43	.0006	50145.1	3.38	.00	.0019	142.76	.0015	-31.43	40.46
EXTM	51	249.46	260.71	10	1	27.2	.53	.0035	-30.57	.0003	59983.9	3.13	85.15	-.0000	185.40	.0355	-30.11	27.21
EXTM	61	424.78	436.03	10	4	22.5	5.43	.0039	-31.78	.0003	93936.1	2.59	17.81	.0000	184.85	.0035	-28.17	350.63
EXTM	72	451.45	462.70	10	4	49.2	1.07	.0040	-29.28	.0002	941[illegible].9	2.53	68.60	.0000	182.55	.0096	-27.95	344.68
RISE	11	612.27	623.52	10	7	30.0	292.88	.0040	-28.55	.0001	122971.8	1.96	.00	.0027	126.20	.0023	-26.87	307.77
SET	51	642.98	654.23	10	8	.7	90.00	.0039	-25.61	.0001	125899.2	2.57	10.82	-.0033	246.65	-.0013	-26.70	300.58
SET	61	664.88	676.13	10	8	22.6	62.44	.0040	-28.67	.0002	129979.9	2.43	-.00	-.0022	231.06	.0027	-26.59	295.43
SET	72	836.99	848.24	10	11	14.7	93.80	.0039	-25.46	.0001	151519.8	2.39	-.00	-.0035	244.27	-.0004	-25.81	294.52
RISE	42	847.96	859.21	10	11	25.7	254.99	.0040	-24.32	-.0000	152543.9	1.67	2.56	.0029	118.23	.0022	-25.76	291.89
EXTM	11	890.52	901.77	10	12	8.3	1.53	.0042	-27.66	.0001	154970.3	1.95	27.12	-.0000	181.53	.0041	-25.60	241.67
SET	11	1166.17	1177.42	10	16	43.9	69.89	.0041	-25.98	.0001	188251.8	2.05	-.00	-.0028	237.58	.0024	-24.73	174.98
EXTM	42	1271.78	1283.03	10	18	29.5	359.85	.0042	-24.10	.0000	192930.8	1.68	78.88	.0000	.73	-.0197	-24.45	149.13
RISE	51	1407.14	1418.39	10	20	44.9	270.00	.0041	-23.46	-.0000	211321.8	1.23	9.95	.0034	111.36	-.0015	-24.14	119.99
RISE	72	1564.24	1575.49	10	23	22.0	266.52	.0041	-23.58	-.0000	227215.9	1.12	-.01	.0037	113.82	-.0005	-23.81	77.42
RISE	61	1628.84	1640.09	11	0	26.6	293.03	.0041	-24.81	.0000	233106.5	1.21	.00	.0026	123.35	.0027	-23.69	61.52
SET	42	1694.73	1705.98	11	1	32.5	105.00	.0041	-22.64	.0001	238836.8	1.82	1.54	-.0030	243.10	-.0023	-23.57	45.29
EXTM	51	1766.08	1777.33	11	2	43.8	359.98	.0042	-23.39	.0000	238993.8	1.45	87.65	.0000	.65	-.0735	-23.45	27.71
EXTM	61	1897.95	1909.20	11	4	55.7	.60	.0042	-24.52	.0000	253876.5	1.40	25.24	-.0000	180.60	.0042	-23.24	359.16
EXTM	72	1936.82	1948.07	11	5	34.6	.11	.0042	-23.55	.0000	253768.2	1.39	74.35	.0000	180.39	.0141	-23.18	349.56
RISE	11	2065.13	2076.38	11	7	42.9	288.17	.0042	-23.84	-.0000	270384.8	1.02	.00	.0029	119.65	.0024	-22.99	313.84
SET	51	2125.19	2136.44	11	8	42.9	90.00	.0041	-22.38	.0001	274162.4	1.71	9.52	-.0035	249.65	-.0015	-22.90	298.98
SET	61	2166.96	2178.21	11	9	24.7	68.11	.0042	-23.77	.0001	278535.1	1.61	-.00	-.0027	238.12	.0027	-22.89	288.64
SET	72	2307.96	2319.21	11	11	15.7	93.30	.0041	-22.48	.0001	289520.8	1.70	-.01	-.0038	247.29	-.0005	-22.66	253.72
RISE	42	2311.26	2322.51	11	11	49.0	255.00	.0041	-21.89	-.0000	289654.1	.94	1.08	.0030	116.31	-.0023	-22.66	252.90
EXTM	11	2352.20	2363.45	11	12	29.9	.40	.0042	-23.68	.0000	289624.7	1.27	31.11	-.0000	180.43	.0045	-22.61	242.76
SET	11	2639.18	2650.43	11	17	16.9	72.56	.0042	-23.01	.0000	314084.8	1.52	-.00	-.0030	241.42	.0024	-22.28	171.52
EXTM	42	2729.97	2741.22	11	18	47.7	359.95	.0042	-21.92	.0000	314399.0	1.17	76.70	-.0000	.21	-.0159	-22.19	149.03
RISE	51	2860.47	2871.72	11	20	58.2	270.00	.0041	-21.61	-.0000	328608.7	.76	9.20	.0035	109.64	-.0016	-22.05	119.6
RISE	72	3016.27	3027.52	11	23	34.0	266.82	.0042	-21.72	-.0000	340385.4	.70	-.00	.0038	111.94	-.0006	-21.87	77.70
RISE	61	3069.71	3080.96	12	0	27.5	290.58	.0042	-22.56	-.0000	343978.5	.81	.00	.0028	120.17	.0027	-21.82	64.35
SET	42	3117.67	3128.92	12	1	45.4	105.00	.0041	-21.09	.0000	349129.7	1.46	.59	-.0031	244.32	-.0023	-21.73	44.87
EXTM	51	3216.33	3227.58	12	2	54.1	359.98	.0042	-21.59	.0000	347469.2	1.11	85.85	-.0000	.31	-.0356	-21.66	27.70
EXTM	61	3345.51	3356.76	12	5	3.3	.37	.0042	-22.42	.0000	359455.9	1.12	27.34	-.0000	180.39	.0044	-21.52	355.38
EXTM	72	3384.57	3395.82	12	5	42.3	.07	.0043	-21.72	.0000	358840.8	1.12	76.19	.0000	180.28	.0160	-21.48	345.60
RISE	11	3503.43	3514.68	12	7	41.2	286.52	.0042	-21.94	.0000	373080.1	.83	.00	.0031	117.22	.0024	-21.33	319.81
SET	51	3571.75	3583.00	12	8	49.5	90.00	.0042	-20.84	.0001	377065.5	1.69	8.89	-.0036	251.07	-.0016	-21.23	298.62
IMPACT		3620.31	3631.56	12	9	38.1												
IMPC	72	3620.31	3631.56	12	9	38.1	60.26	.0043	-21.16	.0001	379100.6	2.37	30.52	-.0040	250.05	.0004	-21.11	286.29
IMPC	51	3620.31	3631.56	12	9	38.1	102.30	.0043	-20.66	.0001	382493.4	2.38	-1.50	-.0036	246.14	-.0018	-21.11	286.29
IMPC	11	3620.31	3631.56	12	9	38.1	316.28	.0044	-21.84	.0001	380205.6	1.72	19.49	.025	137.11	.0034	-21.11	286.29
IMPC	61	3620.31	3631.56	12	9	38.1	70.19	.0043	-21.78	.0001	382323.0	2.29	.03	-.0028	240.89	.0029	-21.11	286.29
SET	61	3620.45	3631.70	12	9	38.2	70.23	.0043	-21.78	.0001	382341.9	2.30	.01	-.0028	240.91	.0029	-21.11	286.26

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION		.00	11.25	9	21	17.743	6545.010	16.8397	304.3419	10.9[illegible]59	-.4137	119.1339	70.8893
SEPARATION		1.20	12.45	9	21	18.943	6562.908	13.3890	310.2391	10.97337	3.0094	120.7523	77.0874
RETRO		3.20	14.45	9	21	20.943	6695.824	7.4530	319.5054	10.86294	8.6034	122.5256	85.8558
IMPACT		3620.31	3631.56	12	9	38.051	382379.230	-21.1146	286.2913	2.19578	64.4402	299.9031	240.3931

SURVEYOR VIEW PERIODS

GHA	169.1940					EPS	71.2872							LOM	278.0703
SX	-.458946	SY	-.812050	SZ	-.360477	DAO	-21.12952	RAD	240.52617	RM	383705.266	LAT	28.310600	LON	279.461800
C3	-1.070992	EJC	.982415	SLR	12974.246	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NBX	-.438894	NSY	-.820343	NSZ	-.366618	C3H	1.5345	VIM	2.6784	ZAE	136.227	B.T	.0000	B.R	-.0000
LATE	.5782	LONE	7.4761	LATS	-1.3952	LONS	296.3505	LATI	-10.3740	LONI	324.8656	RSM	148.7917	TTAN	5.2568
LAUNCH DATE	MAR	9,1966		BASE AZM	115.0		TF 60.587					ARRIVAL DATE MAR 12 1966 10 11 22.4			

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	21 17 25.2	28.0	15.42	303.55	1.40	72.84	121.94	21 28 40.2	6545.6	10.99	.69

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PRORE IN SUNLIGHT											
INJECTION	.00	11.25	9	21	28.7												
SEPARATION	1.20	12.45	9	21	29.9												
RETRO	3.20	14.45	9	21	31.9												
RISE 72	4.71	15.96	9	21	33.4	86.92	-.1284	21.14	-.0696	2714.9	-7.91	.00	.1287	291.35	-.0512	.84	324.28
EXTM 72	10.20	21.45	9	21	38.9	11.73	-.2638	-30.82	-.1205	1847.8	4.56	64.60	-.0000	204.02	-.5981	-13.03	343.32
RISE 51	11.18	22.43	9	21	39.8	86.83	-.0746	6.55	-.0560	5383.9	-3.17	.00	.0911	277.27	-.0180	-14.96	346.20
EXTM 51	35.64	46.89	9	22	4.3	1.99	-.0256	-38.12	-.0029	9802.8	5.36	77.51	-.0000	187.24	-.0942	-33.25	26.55
EXTM 72	70.23	81.48	9	22	38.9	287.67	-.0001	-37.19	.0008	23687.4	4.78	18.82	.0000	126.69	-.0009	-35.08	41.85
EXTM 51	86.40	97.65	9	22	55.1	339.34	-.0005	-36.73	.0009	24788.9	4.41	69.26	.0000	127.00	-.0027	-34.79	43.76
RISE 61	170.57	181.82	10	0	19.2	312.75	.0029	-38.73	.0007	50255.0	3.38	.00	.0019	145.05	.0015	-32.65	38.20
EXTM 51	238.89	250.14	10	1	27.6	.83	.0034	-31.90	.0004	58054.0	3.17	83.79	-.0000	186.57	.0270	-31.29	26.94
EXTM 61	417.22	428.47	10	4	25.9	6.08	.0039	-32.67	.0003	92869.6	2.60	16.88	.0000	185.34	.0034	-29.00	350.03
EXTM 72	442.11	453.36	10	4	50.8	1.27	.0040	-30.17	.0002	92822.5	2.54	67.71	.0000	182.90	.0092	-28.76	344.49
RISE 11	605.38	616.63	10	7	34.0	293.56	.0040	-29.53	.0001	122024.4	1.97	.00	.0027	127.10	.0023	-27.52	307.07
SET 51	632.90	644.15	10	8	1.6	90.00	.0039	-26.25	.0002	124510.3	2.57	11.07	-.0032	246.05	-.0012	-27.35	300.63
SET 61	651.19	662.44	10	8	19.9	61.57	.0040	-29.37	.0002	128157.3	2.44	-.00	-.0022	230.03	.0027	-27.24	296.33
SET 72	827.42	838.67	10	11	16.1	93.88	.0039	-25.99	.0001	150717.4	2.39	-.00	-.0035	243.74	-.0004	-26.34	254.47
RISE 42	838.26	849.51	10	11	26.9	254.99	.0040	-24.83	-.0000	151296.1	1.67	2.88	.0029	118.64	-.0022	-26.29	251.87
EXTM 11	881.32	892.57	10	12	10.0	1.69	.0042	-28.19	.0001	153883.3	1.95	26.58	.0010	181.66	.0041	-26.11	241.53
SET 11	1154.67	1165.92	10	16	43.3	69.49	.0041	-26.41	.0001	186930.0	2.05	-.00	-.0027	237.02	.0024	-25.14	175.31
EXTM 42	1252.00	1263.25	10	18	30.7	359.85	.0042	-24.49	.0000	191797.1	1.68	79.27	-.0000	.72	-.0203	-24.84	149.12
RISE 51	1397.37	1408.62	10	20	46.0	270.00	.0041	-23.81	-.0000	210195.2	1.23	10.09	.0034	111.68	-.0015	-24.49	115.98
RISE 72	1554.23	1565.48	10	23	22.9	266.47	.0041	-23.90	-.0000	226091.8	1.12	-.01	.0037	114.14	-.0006	-24.13	77.45
RISE 61	1620.40	1631.65	11	0	29.1	293.37	.0041	-25.14	.0000	232126.5	1.21	.00	.0026	123.78	.0027	-23.99	61.17
SET 42	1684.83	1696.08	11	1	33.5	105.00	.0041	-22.93	.0001	237705.8	1.81	1.71	-.0030	242.87	-.0023	-23.86	45.30
EXTM 51	1756.19	1767.44	11	2	44.9	359.98	.0042	-23.67	.0000	237883.5	1.45	87.93	.0000	.75	-.0888	-23.73	27.71
EXTM 61	1888.25	1899.50	11	4	56.9	.65	.0042	-24.79	.0000	252806.8	1.40	24.97	-.0000	180.65	.0042	-23.49	355.11
EXTM 72	1926.97	1938.22	11	5	35.6	.13	.0042	-23.81	.0000	252665.7	1.39	74.09	.0000	180.42	.0140	-23.43	345.55
RISE 11	2056.08	2067.33	11	7	44.8	288.38	.0042	-24.08	-.0000	269333.0	1.02	.00	.0029	119.96	.0024	-23.22	313.63
SET 51	2115.23	2126.48	11	8	43.9	90.00	.0041	22.60	.0001	273023.5	1.71	9.61	-.0035	249.45	-.0015	-23.13	298.99
SET 61	2156.01	2167.26	11	9	24.7	67.87	.0042	-24.00	.0001	277324.8	1.61	-.00	-.0026	237.80	.0027	-23.07	288.90
SET 72	2298.11	2309.36	11	11	46.8	93.33	.0041	-22.68	.0001	288385.4	1.70	-.01	-.0038	247.09	-.0005	-22.87	253.70
RISE 42	2301.34	2312.59	11	11	50.0	255.00	.0041	-22.09	-.0000	288498.9	.94	1.20	.0030	116.46	-.0023	-22.86	252.90
EXTM 11	2340.37	2351.62	11	12	31.0	.43	.0042	-23.88	.0000	286506.2	1.27	30.91	-.0000	180.46	.0045	-22.81	242.73
SET 11	2628.58	2639.83	11	17	17.2	72.41	.0042	-23.18	.0000	31285 .1	1.52	-.00	-.0029	241.20	.0024	-22.45	171.72
EXTM 42	2720.00	2731.25	11	18	48.7	359.96	.0042	-22.08	.0000	313202.4	1.17	76.86	-.0000	.19	-.0150	-22.34	149.02
RISE 51	2850.48	2861.73	11	20	59.1	270.00	.0041	-21.75	-.0000	327388.6	.76	9.26	.0035	109.77	-.0016	-22.20	116.61
RISE 72	3006.32	3017.57	11	23	35.0	266.80	.0042	-21.85	-.0000	339137.5	.70	-.00	.0038	112.08	-.0006	-22.01	77.72
RISE 61	3060.40	3071.65	12	0	29.1	290.73	.0042	-22.70	.0000	342756.4	.81	.00	.0028	120.36	.0027	-21.95	64.20
SET 42	3137.74	3148.99	12	1	46.4	105.00	.0041	-21.22	.0000	347831.7	1.45	.66	-.0031	244.22	-.0023	-21.86	44.87
EXTM 51	3206.41	3217.66	12	2	55.1	359.98	.0042	-21.71	.0000	346153.2	1.11	85.97	-.0000	.33	-.0356	-21.78	27.70
EXTM 61	3335.65	3346.90	12	5	4.3	.39	.0042	-22.53	.0000	358093.6	1.11	27.23	-.0000	180.40	.0044	-21.64	355.37
EXTM 72	3374.67	3385.92	12	5	43.3	.07	.0043	-21.83	.0000	357442.3	1.11	76.07	.0000	180.29	.0160	-21.59	345.60
RISE 11	3493.93	3505.18	12	7	42.6	286.62	.0042	-22.06	.0000	371586.6	.85	.00	.0031	117.36	.0024	-21.44	315.71
SET 51	3561.93	3573.18	12	8	50.6	90.00	.0042	-20.95	.0000	375372.0	1.61	8.93	-.0036	250.97	-.0016	-21.35	298.62
SET 61	3610.35	3621.60	12	9	39.0	70.09	.0042	-21.93	.0001	380090.7	1.72	-.00	-.0028	240.72	.0028	-21.26	286.40
IMPACT	3635.20	3646.45	12	10	3.9												
IMPC 72	3635.20	3646.45	12	10	3.9	66.54	.0043	-21.20	.0001	379794.3	2.37	24.67	-.0040	250.25	.0002	-21.18	280.06
IMPC 11	3635.20	3646.45	12	10	3.9	322.58	.0044	-21.92	.0001	379991.0	1.74	22.75	.0022	142.32	.0037	-21.18	280.06
IMPC 61	3635.20	3646.45	12	10	3.9	76.45	.0043	-21.82	.0001	382919.1	2.29	-4.25	-.0029	244.82	.0028	-21.18	280.06

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	9	21	28.670	6545.637	15.4210	303.5591	10.98743	.6949	121.9395	72.8417
SEPARATION	1.20	12.45	9	21	29.870	6578.809	11.6974	309.2279	10.95933	4.1131	123.3419	78.8193
RETRO	3.20	14.45	9	21	31.870	6735.976	5.4178	318.1006	10.82956	9.6587	124.7420	88.1894
IMPACT	3635.20	3646.45	12	10	3.871	382500.281	-21.1820	280.0622	2.18919	63.9286	300.1615	240.6366

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SURVEYOR VIEW PERIODS

GHA	170.1796					EPS	82.8417						LOH	300.6304	
SX	-.255330	SY	-.876109	SZ	-.408949	DAO	-24.13882	RAO	253.75197	RM	389555.477	LAT	28.310600	LON	279.461800
C3	-.942453	ECC	.984526	SLR	12988.058	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.23 983	NSY	-.879997	NSZ	-.412782	C3M	1.5308	VIM	2.6777	ZAE	139.936	B.T	.0000	B.R	-.0000
LATE	1.9976	LONE	7.1666	LATS	-1.3887	LONS	284.5293	LATI	-6.1626	LONI	327.8818	RSM	148.7572	TTAN	6.1524
LAUNCH DATE		MAR	10,1966		BASE AZM	90.0		TF	60.331			ARRIVAL DATE		MAR 13 1966	9 30 12.4

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
90.00	21 1 32.4	27.3	24.79	307.02	-12.78	73.31	104.13	21 12 47.4	6626.1	10.93	-6.34

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	D
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	10	21	12.8												
SEPARATION	1.20	12.45	10	21	14.0												
RETRO	3.20	14.45	10	21	16.0												
ENTER SHA	3.54	14.79	10	21	16.3												
RISE 72	6.33	17.58	10	21	19.1	59.91	-.6762	74.52	.1046	2397.2	-5.40	-.00	.1030	346.65	.1840	12.14	340.90
EXTM 72	11.64	22.89	10	21	24.4	298.68	-.0552	21.12	-.1494	2677.5	6.11	23.20	-.0000	62.92	.1720	.64	1.92
RISE 51	11.77	23.02	10	21	24.6	67.98	-.1309	37.88	-.0268	4598.4	-4.26	-.00	.1010	312.97	.0345	.40	2.34
EXTM 51	27.73	38.98	10	21	40.5	346.18	-.0335	-9.36	-.0249	6569.4	5.54	69.02	-.0000	41.16	.1156	-17.55	35.01
EXIT SHA	34.34	45.59	10	21	47.1												
EXIT 72	34.34	45.59	10	21	47.1	277.05	-.0056	-20.57	-.0058	12454.3	6.45	9.33	-.0047	109.68	.0043	-20.67	41.87
EXIT 51	34.34	45.59	10	21	47.1	336.27	-.0185	-16.34	-.0123	8832.8	5.77	65.99	-.0103	71.65	.0467	-20.67	41.87
EXTM 72	66.21	77.46	10	22	19.0	272.80	-.0001	-25.75	-.0013	23149.1	4.95	5.93	.0000	115.25	.0013	-26.35	56.27
RISE 42	73.02	84.27	10	22	25.8	103.89	-.0041	-18.78	-.0026	25794.4	4.28	.00	.0047	246.79	.0003	-26.80	57.39
EXTM 51	81.32	92.57	10	22	34.1	321.38	-.0001	-26.49	-.0010	23377.6	4.56	55.44	.0000	99.95	.0017	-27.21	58.28
EXTM 42	126.62	137.87	10	23	19.4	99 61	.0005	-23.06	-.0006	39179.2	4.01	5.76	-.0000	245.75	-.0008	-28.15	57.67
SET 42	188.75	200.00	11	0	21.5	105.00	.0021	-24.28	-.0002	53425.1	3.65	2.55	-.0014	241.80	-.0013	-28.31	50.04
RISE 61	205.13	216.38	11	0	37.9	303.75	.0032	-33.29	.0002	57090.4	3.19	.00	.0019	135.97	.0019	-28.28	47.41
EXTM 51	310.38	321.63	11	2	23.2	.06	.0037	-28.19	.0001	70811.3	2.92	87.55	.0000	181.21	.0726	-27.99	27.63
EXTM 61	470.50	481.75	11	5	3.3	2.85	.0040	-30.84	.0001	100852.4	2.51	18.87	.0000	182.59	.0036	-27.49	353.05
EXTM 72	505.13	516.38	11	5	37.9	.48	.0041	-28.59	.0001	102246.5	2.45	69.31	-.0000	181.18	.0101	-27.40	348.23
RISE 11	666.50	677.75	11	8	19.3	292.88	.0040	-28.86	-.0000	130518.2	1.91	.00	.0027	126.21	.0023	-27.00	307.90
SET 51	698.32	709.57	11	8	51.1	90.00	.0039	-25.90	.0001	133488.4	2.52	10.93	-.0032	246.38	-.0013	-26.93	300.42
SET 61	718.95	730.20	11	9	11.7	62.21	.0040	-28.86	.0001	137360.0	2.39	-.00	-.0023	230.78	.0027	-26.89	295.56
SET 72	892.20	903.45	11	12	5.0	93.93	.0040	-26.22	.0001	158689.7	2.36	-.00	-.0035	243.50	-.0005	-26.55	254.29
RISE 42	901.85	913.10	11	12	14.6	255.00	.0040	-25.15	-.0000	159485.3	1.64	3.08	.0029	118.89	-.0022	-26.54	251.97
EXTM 11	942.18	953.43	11	12	55.0	.91	.0042	-28.46	.0001	161729.9	1.93	26.33	-.0000	180.89	.0041	-26.47	242.28
SET 11	1215.36	1226.61	11	17	28.2	68.64	.0041	-27.30	.0001	194486.1	2.04	-.00	-.0027	235.85	.0024	-26.07	176.10
EXTM 42	1326.35	1337.60	11	19	19.1	359.96	.0042	-25.64	.0000	199663.1	1.68	80.42	-.0000	.25	-.0201	-25.93	149.02
RISE 51	1461.18	1472.43	11	21	34.0	270.00	.0041	-25.13	-.0000	217959.4	1.24	10.63	.0034	112.91	-.0015	-25.78	116.02
RISE 72	1617.13	1628.38	12	0	9.9	266.21	.0041	-25.39	-.0000	233858.6	1.13	-.01	.0037	115.65	-.0005	-25.62	77.74
RISE 61	1691.48	1702.73	12	1	24.3	295.13	.0041	-26.65	-.0000	240661.8	1.23	.00	.0026	125.99	.0027	-25.55	59.46
SET 42	1749.09	1760.34	12	2	21.9	105.00	.0041	-24.59	.0000	245539.9	1.82	2.74	-.0030	241.56	-.0022	-25.50	48.28
EXTM 51	1812.92	1824.17	12	3	25.7	358.08	.0042	-25.43	.0000	245206.6	1.45	88.24	.0037	80.33	-.0231	-25.44	29.55
EXTM 61	1951.46	1962.71	12	5	44.2	.38	.0042	-26.60	.0000	260981.0	1.42	23.16	.0000	180.27	.0041	-25.32	355.38
EXTM 72	1991.07	2002.32	12	6	23.9	.07	.0042	-25.71	.0000	260824.5	1.40	72.19	.0000	180.22	.0121	-25.29	349.60
RISE 11	2127.55	2138.80	12	8	40.3	290.16	.0042	-26.03	-.0000	278156.1	1.05	.00	.0029	122.49	.0024	-25.19	311.88
SET 51	2179.73	2190.98	12	9	32.5	90.00	.0041	-24.64	.0000	281246.9	1.72	10.43	-.0034	247.55	-.0015	-25.15	298.97
SET 61	2211.23	2222.48	12	10	4.0	65.56	.0042	-26.05	.0000	284936.5	1.62	.01	-.0026	234.87	.0027	-25.13	291.18
SET 72	2364.15	2375.40	12	12	36.9	93.69	.0041	-24.84	.0000	297026.8	1.71	-.00	-.0037	244.90	-.0005	-25.02	253.32
RISE 42	2365.81	2377.06	12	12	38.6	255.00	.0041	-24.27	-.0000	296874.1	.97	2.54	.0030	118.19	-.0023	-25.02	252.91
EXTM 11	2406.24	2417.49	12	13	19.0	.26	.0042	-26.06	.0000	297242.2	1.29	28.73	-.0000	180.27	.0043	-24.99	242.90
SET 11	2684.80	2696.05	12	17	57.6	70.28	.0042	-25.55	.0000	321226.4	1.54	-.00	-.0029	238.14	.0024	-24.82	173.83
EXTM 42	2784.80	2796.05	12	19	37.6	359.97	.0042	-24.56	.0000	322280.8	1.20	79.34	.0000	.18	-.0180	-24.77	149.01
RISE 51	2915.11	2926.36	12	21	47.9	270.00	.0042	-24.26	-.0000	336781.0	.79	10.28	.0035	112.10	-.0015	-24.69	116.62
RISE 72	3069.24	3080.49	13	0	22.0	266.38	.0042	-24.44	-.0000	348623.1	.74	-.00	.0037	114.69	-.0006	-24.59	78.15
RISE 61	3136.41	3147.66	13	1	29.2	293.57	.0042	-25.29	-.0000	353251.9	.86	.00	.0026	124.04	.0027	-24.55	61.38
SET 42	3202.56	3213.81	13	2	35.4	105.00	.0041	-23.89	.0000	357540.2	1.48	2.31	-.0030	242.11	-.0023	-24.51	44.86
EXTM 51	3267.03	3278.28	13	3	39.8	358.91	.0042	-24.45	.0000	355902.6	1.14	88.38	.0023	37.80	-.1086	-24.48	28.76
EXTM 61	3400.02	3411.27	13	5	52.8	.25	.0042	-25.29	.0000	368754.9	1.16	24.47	-.0000	180.25	.0042	-24.39	359.50
EXTM 72	3439.51	3450.76	13	6	32.3	.05	.0043	-24.65	.0000	368083.5	1.17	73.26	.0000	180.18	.0125	-24.37	348.62
RISE 11	3568.48	3579.73	13	8	41.3	289.09	.0042	-24.87	-.0000	383591.6	1.00	.00	.0030	120.98	.0024	-24.26	313.25
IMPACT	3619.84	3631.09	13	9	32.6												
IMPC 72	3619.84	3631.09	13	9	32.6	46.16	.0044	-24.34	.0001	383946.6	2.38	42.96	-.0039	243.94	.0013	-24.19	300.23
IMPC 51	3619.84	3631.09	13	9	32.6	88.39	.0043	-23.83	.0001	387005.0	2.47	11.46	-.0036	248.91	-.0015	-24.19	300.23
IMPC 11	3619.84	3631.09	13	9	32.6	302.21	.0043	-24.85	.0000	387296.4	1.77	8.79	.0028	129.03	.0028	-24.19	300.23
IMPC 61	3619.84	3631.09	13	9	32.6	96.18	.0043	-24.91	.0001	387548.2	2.34	6.51	-.0025	229.32	.0031	-24.19	300.23
SET 51	3626.00	3637.25	13	9	38.8	90.00	.0045	-23.80	.0001	388065.6	3.89	10.09	-.0038	248.34	-.0016	-24.17	298.61

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	10	21	12.791	6628.850	24.8131	306.9114	10.92572	-6.3412	104.0860	73.2089
SEPARATION	1.20	12.45	10	21	13.991	6562.210	22.9492	313.9160	10.97916	-2.9529	107.0501	80.5083
RETRO	3.20	14.45	10	21	15.991	6560.058	19.1534	325.0826	10.98097	2.7662	111.2562	92.1763
ENTER SHA	3.54	14.79	10	21	16.327	6572.585	18.4447	326.8924	10.97042	3.7225	111.8667	94.0705
EXIT SHA	34.34	45.59	10	21	47.130	14884.393	-20.6672	41.8654	7.25380	48.2088	109.7916	176.7656
IMPACT	3619.84	3631.09	13	9	32.626	388321.602	-24.1885	300.2270	2.23715	67.6913	290.6806	253.9543

SURVEYOR VIEW PERIODS

GHA	170.1796					EPS	83.0281							LOM	295.0952
SX	-.251913	SY	-.876805	SZ	-.409576	DAO	-24.17822	RAO	253.97023	RM	389646.805	LAT	28.310600	LON	279.461800
C3	-.939896	ECC	.984584	SLR	12988.441	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
N8X	-.231587	NSY	-.880620	NS7	-.413372	C3H	1.5340	VIM	2.6783	ZAE	139.982	B.T	.0000	B.R	-.0000
LATE	2.0199	LONE	7.1586	LATS	-1.3886	LONS	284.3354	LATI	-6.1503	LONI	327.9231	RSM	148.7566	TTAN	6.1634

LAUNCH DATE MAR 10,1966 BASE AZM 93.0 TF 60.305 ARRIVAL DATE MAR 13 1966 9 53 9.5

LNCH AZMTH	LNCH TIME	P8	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
93.00	21 22 37.1	27.6	23.57	306.98	-8.05	78.55	106.39	21 33 52.1	6576.8	10.97	-3.99

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	FLE	DEL	AZI	DAZ	LAT	LONG
					PRORE IN SUNLIGHT												
INJECTION	.00	11.25	10	21	33.9												
SEPARATION	1.20	12.45	10	21	35.1												
ENTER SHA	2.66	13.91	10	21	36.5												
RETRO	3.20	14.45	10	21	37.1												
RISE 72	5.72	16.97	10	21	39.6	72.75	-.3656	64.91	.0998	2480.0	-6.55	.00	.1143	336.11	.1447	11.54	337.06
EXTM 72	10.56	21.81	10	21	44.4	312.99	-.1086	27.51	-.1951	2185.2	4.89	32.38	.0176	50.19	.2567	.97	356.18
RISE 51	11.48	22.73	10	21	45.3	71.41	-.1167	33.46	-.0303	4827.3	-4.01	.01	.0989	307.74	.0248	-.77	359.17
EXTM 51	29.34	40.59	10	22	3.2	350.57	-.0297	-13.09	-.0192	7276.2	5.49	74.55	-.0000	36.80	.1304	-19.05	32.89
EXIT SHA	33.33	44.58	10	22	7.2												
EXIT 72	33.33	44.58	10	22	7.2	282.46	-.0062	-21.65	-.0056	11889.9	6.47	14.44	-.0055	110.42	.0060	-20.79	36.79
EXIT 51	33.33	44.58	10	22	7.2	344.57	-.0211	-16.84	-.0127	8611.4	5.63	73.12	-.0095	61.25	.0755	-20.79	36.79
EXTM 72	66.58	77.83	10	22	40.4	277.79	-.0001	-26.61	-.0011	23025.7	4.92	10.47	.0000	115.74	.0011	-26.61	51.61
EXTM 51	83.67	94.92	10	22	57.5	327.30	-.0001	-27.17	-.0008	23990.4	4.50	60.77	.0000	100.16	.0016	-27.50	53.63
RISE 42	94.75	106.00	10	23	8.6	105.00	-.0014	-21.23	-.0014	31934.8	4.19	.68	.0019	244.21	-.0003	-27.84	54.01
EXTM 42	126.46	137.71	10	23	40.3	104.36	.0005	-22.99	-.0006	39730.0	4.00	2.22	-.0000	243.18	-.0008	-28.30	52.75
SET 42	139.94	151.19	10	23	53.8	104.99	.0010	-23.42	-.0005	42932.2	3.92	2.02	-.0005	242.49	-.0009	-28.38	51.51
RISE 61	181.82	193.07	11	0	35.7	304.70	.0030	-33.93	.0003	52427.7	3.34	-.00	.0018	136.99	.0018	-28.44	46.11
EXTM 51	285.52	296.77	11	2	19.4	.07	.0036	-28.41	.0001	66550.4	3.00	87.33	-.0000	181.47	.0661	-28.17	27.62
EXTM 61	449.03	460.28	11	5	2.9	3.10	.0039	-31.10	.0001	97751.2	2.56	18.60	.0000	182.80	.0036	-27.65	352.82
EXTM 72	483.04	494.29	11	5	36.9	.51	.0040	-28.78	.0001	99120.1	2.49	69.11	-.0000	181.25	.0099	-27.55	345.20
RISE 11	645.90	657.15	11	8	19.8	293.05	.0040	-29.02	.0000	127904.4	1.94	.00	.0026	126.43	.0023	-27.12	307.69
SET 51	676.64	687.89	11	8	50.5	90.00	.0039	-26.00	.0001	130777.4	2.54	10.97	-.0032	246.28	-.0013	-27.05	300.48
SET 61	696.53	707.78	11	9	10.4	62.00	.0040	-29.03	.0001	134587.7	2.42	-.00	-.0022	230.54	.0027	-27.01	295.80
SET 72	871.05	882.30	11	12	4.9	93.94	.0039	-26.33	.0001	156305.0	2.38	-.00	-.0035	243.40	-.0004	-26.66	254.31
RISE 42	880.94	892.19	11	12	14.8	254.99	.0040	-25.24	-.0000	157135.1	1.66	3.13	.0029	118.96	-.0022	-26.64	251.94
EXTM 11	921.35	932.60	11	12	55.2	.95	.0042	-28.59	.0001	159450.1	1.94	26.20	-.0000	180.92	.0041	-26.57	242.24
SET 11	1194.15	1205.40	11	17	28.0	68.55	.0041	-27.40	.0001	192394.2	2.05	-.00	-.0027	235.72	.0024	-26.16	176.21
EXTM 42	1305.67	1316.92	11	19	19.5	359.96	.0042	-25.72	.0000	197707.2	1.69	80.50	-.0000	.25	-.0206	-26.02	149.02
RISE 51	1440.63	1451.88	11	21	34.5	270.00	.0041	-25.21	-.0000	216100.0	1.25	10.66	.0034	112.98	-.0015	-25.86	116.01
RISE 72	1590.58	1607.83	12	0	10.4	266.20	.0041	-25.46	-.0000	232092.1	1.14	-.01	.0037	115.73	-.0005	-25.69	77.74
RISE 61	1671.35	1682.60	12	1	25.2	295.22	.0041	-26.73	-.0000	238973.5	1.24	.00	.0026	126.10	.0027	-25.62	59.36
SET 42	1728.52	1739.77	12	2	22.4	105.00	.0041	-24.66	.0000	243837.1	1.82	2.78	-.0030	241.51	-.0022	-25.57	45.29
EXTM 51	1792.31	1803.56	12	3	26.2	358.06	.0042	-25.50	.0000	243536.6	1.46	88.24	.0038	82.69	-.0179	-25.51	29.58
EXTM 61	1931.01	1942.26	12	5	44.9	.39	.0042	-26.67	.0000	259395.9	1.42	23.09	.0000	180.38	.0041	-25.39	355.37
EXTM 72	1970.60	1981.85	12	6	24.5	.08	.0042	-25.78	.0000	259250.3	1.41	72.12	.0000	180.23	.0120	-25.36	345.60
RISE 11	2107.37	2118.62	12	8	41.2	290.23	.0042	-26.10	-.0000	276660.6	1.05	.00	.0029	122.58	.0024	-25.25	311.81
SET 51	2159.26	2170.51	12	9	33.1	90.00	.0041	-24.70	.0000	279745.3	1.73	10.46	-.0034	247.49	-.0015	-25.21	298.98
SET 61	2190.47	2201.72	12	10	4.3	65.48	.0042	-26.12	.0000	283426.8	1.63	.00	-.0026	234.78	.0027	-25.19	291.26
SET 72	2343.73	2354.98	12	12	37.6	93.70	.0041	-24.90	.0000	295603.5	1.71	-.00	-.0037	244.85	-.0005	-25.08	253.32
RISE 42	2345.41	2356.66	12	12	39.3	255.00	.0041	-24.33	-.0000	295448.5	.97	2.57	.0030	118.23	-.0023	-25.08	252.91
EXTM 11	2385.84	2397.09	12	13	19.7	.26	.0042	-26.12	.0000	295841.4	1.29	28.67	-.0000	180.27	.0043	-25.05	242.89
SET 11	2664.18	2675.43	12	17	58.0	70.23	.0042	-25.61	.0000	319898.6	1.54	-.00	-.0029	238.06	.0024	-24.88	173.89
EXTM 42	2764.41	2775.66	12	19	38.3	359.97	.0042	-24.61	.0000	321001.5	1.20	79.39	.0000	.19	-.0175	-24.82	149.01
RISE 51	2894.74	2905.99	12	21	48.6	270.00	.0042	-24.31	-.0000	335544.4	.79	10.30	.0035	112.14	-.0015	-24.74	116.61
RISE 72	3048.85	3060.10	13	0	22.7	266.37	.0042	-24.49	-.0000	347402.8	.74	-.00	.0037	114.74	-.0006	-24.64	78.16
RISE 61	3116.28	3127.53	13	1	30.1	293.63	.0042	-25.35	-.0000	352054.5	.86	.00	.0026	124.11	.0027	-24.60	61.32
SET 42	3182.17	3193.42	13	2	36.0	105.00	.0041	-23.94	.0000	356325.5	1.48	2.33	-.0030	242.08	-.0023	-24.56	44.87
EXTM 51	3246.74	3257.99	13	3	40.6	358.93	.0042	-24.50	.0000	354698.4	1.14	88.43	.0024	38.32	-.1112	-24.52	28.74
EXTM 61	3379.66	3390.91	13	5	53.5	.25	.0042	-25.34	.0000	367536.5	1.16	24.42	-.0000	180.25	.0042	-24.44	355.50
EXTM 72	3419.16	3430.41	13	6	33.0	.05	.0043	-24.70	.0000	366849.9	1.17	73.21	.0000	180.18	.0126	-24.41	345.62
RISE 11	3548.43	3559.68	13	8	42.3	289.14	.0042	-24.92	-.0000	382230.0	.95	.00	.0029	121.05	.0024	-24.32	313.20
SET 51	3606.17	3617.42	13	9	40.0	90.00	.0042	-23.87	.0001	385925.8	2.02	10.13	-.0036	248.26	-.0015	-24.25	298.62
IMPACT	3618.30	3629.55	13	9	52.2												
IMPC 72	3618.30	3629.55	13	9	52.2	50.95	.0044	-24.35	.0001	384380.6	2.40	38.70	-.0039	245.03	.0009	-24.22	295.51
IMPC 51	3618.30	3629.55	13	9	52.2	93.10	.0043	-23.83	.0001	387514.0	2.46	7.52	-.0036	247.12	-.0016	-24.22	295.51
IMPC 11	3618.30	3629.55	13	9	52.2	306.96	.0043	-24.91	.0000	387057.9	1.78	11.70	.0027	132.26	.0030	-24.22	295.51
IMPC 61	3618.30	3629.55	13	9	52.2	60.92	.0043	-24.92	.0001	387938.9	2.35	3.68	-.0026	232.58	.0030	-24.22	295.51

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	10	21	33.868	6577.236	23.5789	306.9480	10.96710	-3.9932	106.3831	78.5233
SEPARATION	1.20	12.45	10	21	35.068	6545.319	21.4648	313.7862	10.99359	-.5721	109.1216	85.6624
ENTER SHA	2.66	13.91	10	21	36.524	6570.593	18.5165	321.7738	10.97226	3.5877	111.9825	94.0148
RETRO	3.20	14.45	10	21	37.068	6597.819	17.3294	324.6564	10.94942	5.1296	112.9118	97.0339
EXIT SHA	33.33	44.58	10	22	7.200	14828.205	-20.7928	36.7860	7.26801	48.1145	109.8555	176.7174
IMPACT	3618.30	3629.55	13	9	52.170	388400.117	-24.2219	295.5137	2.23700	67.6358	290.6410	254.1404

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SURVEYOR VIEW PERIODS

GHA	170.1796					EPS	83.2146						LOM	289.5555	
SX	-.248491	SY	-.877490	SZ	-.410199	DAO	-24.21731	RAO	254.18871	RM	389738.027	LAT	28.310600	LON	279.461800
C3	-.940519	ECC	.984558	SLR	12988.268	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.228138	NSY	-.881239	NSZ	-.413970	C3M	1.5340	VIM	2.6783	ZAE	139.921	B.T	.0000	B.R	-.0000
LATE	2.0422	LONE	7.1499	LATS	-1.3885	LONS	284.1407	LATI	-6.2265	LONI	327.8718	RSM	148.7561	TTAN	6.1710
LAUNCH DATE	MAR 10,1966			BASE AZM	96.0		TF 60,354					ARRIVAL DATE	MAR 13 1966 10 16 7,7		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
96.00	21 40 26.0	27.8	22.37	306.79	-4.10	82.83	108.60	21 51 41.0	6553.0	10.99	-2.04

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	10	21	51.7												
SEPARATION	1.20	12.45	10	21	52.9												
ENTER SHA	1.94	13.19	10	21	53.6												
RETRO	3.20	14.45	10	21	54.9												
RISE 72	5.28	16.53	10	21	57.0	77.76	-.2646	56.79	.0750	2571.3	-7.24	-.00	.1214	327.64	.1090	10.68	333.92
EXTM 72	10.04	21.29	10	22	1.7	327.59	-.1684	28.06	-.2122	1930.5	4.01	42.31	.0410	39.76	.3459	.23	352.39
RISE 51	11.28	22.53	10	22	3.0	74.26	-.1057	29.37	-.0335	5033.6	-3.76	-.00	.0966	302.99	.0168	-2.12	356.34
EXTM 51	31.13	42.38	10	22	22.8	354.06	-.0263	-16.73	-.0149	8021.9	5.45	79.42	.0000	32.71	.1593	-20.74	31.09
EXIT SHA	32.21	43.46	10	22	23.9												
EXIT 72	32.21	43.46	10	22	23.9	287.48	-.0071	-23.07	-.0053	11304.3	6.51	19.12	-.0064	111.75	.0057	-21.18	32.09
EXIT 51	32.21	43.46	10	22	23.9	352.43	-.0241	-17.63	-.0133	8374.9	5.49	79.28	-.0044	42.42	.1406	-21.18	32.09
EXTM 72	67.47	78.72	10	22	59.2	282.13	-.0000	-27.74	-.0009	23088.7	4.88	14.37	.0000	116.72	.0009	-27.20	47.70
EXTM 51	85.93	97.10	10	23	17.6	332.38	-.0000	-28.07	-.0006	24594.2	4.45	65.31	.0000	101.65	.0015	-28.05	49.63
RISE 61	163.50	174.75	11	0	35.2	305.97	.0028	-34.77	.0003	48622.4	3.47	-.00	.0017	138.33	.0016	-28.78	44.52
EXTM 51	263.97	275.22	11	2	15.7	.08	.0035	-28.80	.0001	62741.5	3.08	86.94	.0000	181.34	.0566	-28.52	27.61
EXTM 61	431.34	442.59	11	5	3.0	3.41	.0039	-31.47	.0002	95158.1	2.59	18.22	.0000	183.06	.0035	-27.91	352.54
EXTM 72	464.43	475.68	11	5	36.1	.55	.0040	-29.10	.0001	96435.1	2.52	68.80	-.0000	181.32	.0097	-27.81	348.16
RISE 11	629.09	640.34	11	8	20.8	293.30	.0040	-29.28	.0000	125726.6	1.96	.00	.0026	126.76	.0023	-27.34	307.40
SET 51	658.41	669.66	11	8	50.1	90.00	.0039	-26.20	.0001	128440.8	2.56	11.05	-.0032	246.10	-.0013	-27.26	300.54
SET 61	677.07	688.32	11	9	8.8	61.68	.0040	-29.28	.0001	132123.6	2.44	-.00	-.0022	230.16	.0026	-27.22	296.16
SET 72	853.35	864.60	11	12	5.0	93.97	.0039	-26.50	.0001	154256.2	2.39	-.00	-.0035	243.23	-.0004	-26.84	254.32
RISE 42	863.42	874.67	11	12	15.1	254.99	.0040	-25.40	-.0000	155105.6	1.68	3.23	.0029	119.08	-.0022	-26.82	251.91
EXTM 11	903.98	915.23	11	12	55.7	1.00	.0042	-28.79	.0001	157503.7	1.96	26.00	-.0000	180.98	.0040	-26.74	242.18
SET 11	1176.07	1187.32	11	17	27.8	68.39	.0041	-27.56	.0001	190543.2	2.06	-.00	-.0027	235.51	.0024	-26.30	176.38
EXTM 42	1288.33	1299.58	11	19	20.0	359.96	.0042	-25.85	.0000	195994.3	1.70	80.63	-.0000	.26	-.0204	-26.15	149.02
RISE 51	1423.40	1434.65	11	21	35.1	270.00	.0041	-25.33	-.0000	214460.1	1.26	10.70	.0034	113.09	-.0015	-25.98	115.99
RISE 72	1579.31	1590.56	12	0	11.0	266.18	.0041	-25.57	-.0000	230519.9	1.15	-.01	.0037	115.84	-.0005	-25.6;	77.75
RISE 61	1654.70	1665.95	12	1	26.4	295.36	.0041	-26.84	-.0000	237486.6	1.24	.00	.0025	126.27	.0027	-25.73	59.22
SET 42	1711.27	1722.52	12	2	23.0	105.00	.0041	-24.76	.0000	242308.9	1.83	2.84	-.0029	241.43	-.0022	-25.67	45.30
EXTM 51	1775.01	1786.26	12	3	26.7	358.04	.0042	-25.61	.0000	242033.9	1.47	88.23	.0038	86.12	-.0106	-25.61	29.60
EXTM 61	1913.89	1925.14	12	5	45.6	.40	.0042	-26.77	.0000	257963.7	1.43	22.99	.0000	180.39	.0041	-25.48	355.35
EXTM 72	1953.63	1964.88	12	6	25.3	.13	.0042	-25.88	.0000	257835.1	1.42	72.03	-.0000	180.37	.0122	-25.45	349.55
RISE 11	2090.58	2101.83	12	8	42.3	290.31	.0042	-26.19	-.0000	275295.1	1.06	.00	.0028	122.70	.0024	-25.34	311.72
SET 51	2142.08	2153.33	12	9	33.8	90.00	.0041	-24.79	.0000	278357.5	1.73	10.49	-.0034	247.41	-.0015	-25.30	298.99
SET 61	2172.89	2184.14	12	10	4.6	65.38	.0042	-26.21	.0000	282018.8	1.63	.00	-.0026	234.65	.0027	-25.27	291.36
SET 72	2326.63	2337.88	12	12	38.3	93.71	.0041	-24.98	.0000	294270.5	1.72	-.00	-.0037	244.77	-.0005	-25.16	253.31
RISE 42	2328.30	2339.55	12	12	40.0	255.00	.0041	-24.40	-.0000	294110.5	.98	2.62	.0030	118.29	-.0023	-25.16	252.90
EXTM 11	2368.76	2380.01	12	13	20.4	.28	.0042	-26.21	.0000	294527.6	1.30	28.59	-.0000	180.28	.0043	-25.13	242.88
SET 11	2646.78	2658.03	12	17	58.5	70.16	.0042	-25.58	.0000	318612.0	1.55	-.00	-.0029	237.97	.0024	-24.95	173.96
EXTM 42	2747.30	2758.55	12	19	39.0	359.97	.0042	-24.68	.0000	319753.5	1.21	79.46	.0000	.20	-.0178	-24.88	149.01
RISE 51	2877.79	2889.04	12	21	49.5	269.99	.0042	-24.37	-.0000	334346.9	.79	10.32	.0035	112.20	-.0015	-24.80	116.61
RISE 72	3031.84	3043.09	13	0	23.5	266.36	.0042	-24.55	-.0000	346202.4	.74	-.00	.0037	114.80	-.0006	-24.70	78.16
RISE 61	3099.57	3110.82	13	1	31.2	293.70	.0042	-25.41	-.0000	350871.9	.86	.00	.0026	124.20	.0027	-24.66	61.25
SET 42	3165.16	3176.41	13	2	36.8	105.00	.0041	-23.99	.0000	355113.3	1.48	2.37	-.0030	242.03	-.0023	-24.62	44.87
EXTM 51	3229.90	3241.15	13	3	41.6	358.97	.0042	-24.56	.0000	353495.1	1.14	88.50	.0024	38.45	-.1160	-24.58	28.70
EXTM 61	3362.67	3373.92	13	5	54.3	.25	.0042	-25.40	.0000	366298.8	1.15	24.37	-.0000	180.25	.0042	-24.49	355.50
EXTM 72	3402.16	3413.41	13	6	33.8	.05	.0043	-24.75	.0000	365591.7	1.16	73.15	.0000	180.18	.0126	-24.47	349.62
RISE 11	3531.70	3542.95	13	8	43.4	289.19	.0042	-24.98	-.0000	380854.9	.92	.00	.0029	121.12	.0024	-24.37	313.15
SET 51	3589.36	3600.61	13	9	41.0	90.00	.0042	-23.94	.0000	384241.8	1.80	10.15	-.0035	248.20	-.0015	-24.31	298.62
IMPACT	3621.22	3632.47	13	10	12.9												
IMPC 72	3621.22	3632.47	13	10	12.9	56.00	.0043	-24.36	.0001	384871.0	2.42	34.14	-.0039	245.86	.0007	-24.26	290.51
IMPC 51	3621.22	3632.47	13	10	12.9	98.09	.0043	-23.84	.0001	388054.9	2.46	3.41	-.0035	245.12	-.0017	-24.26	290.51
IMPC 11	3621.22	3632.47	13	10	12.9	312.01	.0044	-24.97	.0000	386829.5	1.79	14.62	.0025	135.88	.0032	-24.26	290.51
IMPC 61	3621.22	3632.47	13	10	12.9	45.96	.0043	-24.93	.0001	388372.4	2.36	.56	-.0027	235.91	.0029	-24.26	290.51
SET 61	3624.65	3635.90	13	10	16.3	96.85	.0044	-24.92	.0001	388888.9	2.75	.00	-.0027	236.50	.0029	-24.25	289.62

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	10	21	51.683	6553.032	22.3748	306.7853	10.98712	-2.0361	108.5940	82.8265
SEPARATION	1.20	12.45	10	21	52.883	6549.582	20.0206	313.4668	10.99075	1.3961	111.1220	89.8088
ENTER SHA	1.94	13.19	10	21	53.620	6549.341	18.4440	317.4529	10.97324	3.5005	112.4966	93.9797
RETRO	3.20	14.45	10	21	54.883	6645.664	15.5838	324.0054	10.90955	7.0537	114.5093	100.8487
EXIT SHA	32.21	43.46	10	22	23.894	14687.058	-21.1778	32.0874	7.30335	47.8717	109.9613	176.2036
IMPACT	3621.22	3632.47	13	10	12.902	388486.672	-24.2573	290.5143	2.23490	67.3829	290.6094	254.3383

SURVEYOR VIEW PERIODS

GHA	170.1796					EPS	83.3693							LOM	284.9598
SX	-.245652	SY	-.878050	SZ	-.410711	DAO	-24.24950	RAO	254.36998	RM	389813.566	LAT	28.310600	LON	279.461800
C3	-.942865	ECC	.984519	SLR	12988.015	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.225267	NSY	-.881744	NSZ	-.414467	C3M	1.5351	VIM	2.6785	ZAE	139.818	B.T	.0000	B.R	-.0000
LATE	2.0607	LONE	7.1437	LATS	-1.3884	LONS	283.9802	LATI	-6.3755	LONI	327.7922	RSM	148.7556	TTAN	6.1763

LAUNCH DATE MAR 10 1966 BASE AZM 99.0 TF 60.408 ARRIVAL DATE MAR 13 1966 10 35 11.0

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99.00	21 54 57.2	27.9	21.20	306.48	-.93	86.16	110.75	22 6 12.2	6545.1	10.99	-.46

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PRDRF IN SUNLIGHT											
INJECTION	.00	11.25	10	22	6.2												
SEPARATION	1.20	12.45	10	22	7.4												
ENTER SHA	1.38	12.63	10	22	7.6												
RETRO	3.20	14.45	10	22	9.4												
RISE 72	4.96	16.21	10	22	11.2	80.51	-.2167	49.91	.0490	2657.6	-7.64	-.00	.1259	320.57	.0777	9.63	331.32
EXTM 72	10.32	21.57	10	22	16.5	334.53	-.1699	17.62	-.1856	1923.4	4.62	54.16	.0096	44.42	.4203	-2.11	351.32
RISE 51	11.16	22.41	10	22	17.4	76.68	-.0971	25.53	-.0366	5211.3	-3.53	.00	.0944	298.59	.0101	-3.64	353.85
EXIT SHA	30.99	42.24	10	22	37.2												
EXIT 72	30.99	42.24	10	22	37.2	292.06	-.0083	-24.83	-.0050	10706.6	6.57	23.29	-.0077	113.69	.0051	-21.80	27.77
EXIT 51	30.99	42.24	10	22	37.2	359.85	-.0275	-18.71	-.0141	8118.9	5.33	82.97	.0136	1.16	.2134	-21.80	27.77
EXIT 61	30.99	42.24	10	22	37.2	312.50	-.0141	-44.48	.0046	13540.2	6.25	-4.86	-.0019	148.14	-.0110	-21.80	27.77
EXTM 51	32.99	44.24	10	22	39.2	356.80	-.0235	-20.24	-.0115	8763.3	5.40	83.76	-.0000	28.80	.2289	-22.56	29.57
EXTM 72	66.29	79.54	10	23	14.5	285.75	.0000	-29.08	-.0007	23170.7	4.84	17.57	.0000	118.08	.0007	-28.04	44.44
EXTM 51	88.17	99.42	10	23	34.4	336.58	.0000	-29.18	-.0004	25206.7	4.40	68.97	.0000	104.73	.0012	-28.81	46.32
RISE 61	150.56	161.81	11	0	36.8	307.52	.0026	-35.75	.0004	45865.0	3.58	-.00	.0016	139.93	.0014	-29.33	42.74
EXTM 51	246.17	257.42	11	2	12.4	.13	.0034	-29.37	.0001	59511.5	3.16	86.37	.0000	181.84	.0468	-29.02	27.57
EXTM 61	417.43	428.68	11	5	3.6	3.77	.0039	-31.93	.0002	93109.0	2.62	17.74	.0000	183.36	.0035	-28.29	352.19
EXTM 72	449.50	460.75	11	5	35.7	.63	.0040	-29.51	.0001	94257.1	2.55	68.39	-.0000	181.48	.0095	-28.17	345.09
RISE 11	616.02	627.27	11	8	22.2	293.64	.0040	-29.60	.0000	124015.8	1.98	.01	.0026	127.20	.0023	-27.63	307.02
SET 51	643.60	654.85	11	8	49.8	90.00	.0038	-26.47	.0001	126513.9	2.58	11.16	-.0032	245.84	-.0013	-27.55	300.59
SET 61	660.60	671.85	11	9	6.8	61.26	.0040	-29.61	.0001	130009.3	2.45	-.00	-.0022	229.67	.0026	-27.50	296.60
SET 72	839.05	850.30	11	12	5.3	94.01	.0039	-26.73	.0001	152581.2	2.40	-.00	-.0035	242.99	-.0004	-27.08	254.32
RISE 42	849.22	860.47	11	12	15.4	254.99	.0040	-25.62	-.0000	153435.4	1.69	3.36	.0029	119.26	-.0022	-27.05	251.88
EXTM 11	890.01	901.26	11	12	56.2	1.08	.0042	-29.04	.0001	155928.9	1.97	25.74	-.0000	181.05	.0040	-26.97	242.11
SET 11	1161.09	1172.34	11	17	27.3	68.20	.0041	-27.75	.0001	188987.9	2.07	.00	-.0027	235.25	.0024	-26.49	176.59
EXTM 42	1274.26	1285.51	11	19	20.5	359.96	.0042	-26.03	.0000	194582.7	1.70	80.81	-.0000	.26	-.0212	-26.32	149.02
RISE 51	1409.42	1420.67	11	21	35.6	270.00	.0041	-25.48	-.0000	213106.0	1.26	10.76	.0034	113.23	-.0015	-26.13	115.98
RISE 72	1565.26	1576.51	12	0	11.5	266.16	.0041	-25.71	-.0000	229217.8	1.15	-.01	.0037	115.98	-.0035	-25.95	77.76
RISE 61	1641.40	1652.65	12	1	27.6	295.52	.0041	-26.98	-.0000	236276.4	1.25	.00	.0025	126.47	.0027	-25.86	59.05
SET 42	1697.25	1708.50	12	2	23.5	105.00	.0041	-24.88	.0000	241040.5	1.83	2.91	-.0029	241.33	-.0022	-25.80	45.30
EXTM 51	1760.97	1772.22	12	3	27.2	358.02	.0042	-25.73	.0000	240789.4	1.47	88.22	.0038	90.22	-.0019	-25.73	29.61
EXTM 61	1900.03	1911.28	12	5	46.2	.43	.0042	-26.89	.0000	256780.6	1.43	22.87	.0000	180.41	.0041	-25.60	355.33
EXTM 72	1939.70	1950.95	12	6	25.9	.13	.0042	-25.99	.0000	256647.3	1.42	71.91	-.0000	180.39	.0121	-25.56	345.54
RISE 11	2077.06	2088.31	12	8	43.3	290.41	.0042	-26.30	-.0000	274166.1	1.06	.00	.0028	122.84	.0024	-25.44	311.61
SET 51	2128.11	2139.36	12	9	34.3	90.00	.0041	-24.88	.0000	277198.1	1.74	10.53	-.0034	247.32	-.0015	-25.39	298.99
SET 61	2138.47	2169.72	12	10	4.7	65.26	.0042	-26.31	.0000	280832.9	1.64	.00	-.0025	234.50	.0027	-25.37	291.48
SET 72	2312.73	2323.98	12	12	38.9	93.73	.0041	-25.06	.0000	293155.3	1.72	-.00	-.0037	244.68	-.0005	-25.25	253.31
RISE 42	2314.39	2325.64	12	12	40.6	255.00	.0041	-24.49	-.0000	292988.3	.98	2.67	.0030	118.36	-.0023	-25.25	252.90
EXTM 11	2354.89	2366.14	12	13	21.1	.29	.0042	-26.30	.0000	293430.3	1.30	28.49	-.0000	180.30	.0043	-25.22	242.87
SET 11	2632.56	2643.81	12	17	58.8	70.09	.0042	-25.76	.0000	317522.4	1.55	-.00	-.0028	237.87	.0024	-25.02	174.03
EXTM 42	2733.38	2744.63	12	19	39.6	359.96	.0042	-24.75	.0000	318697.8	1.21	79.53	.0000	.21	-.0183	-24.95	149.02
RISE 51	2863.93	2875.18	12	21	50.1	270.00	.0041	-24.44	-.0000	333121.3	.80	10.35	.0035	112.27	-.0015	-24.87	116.60
RISE 72	3017.95	3029.20	13	0	24.2	266.35	.0042	-24.61	-.0000	345173.7	.74	-.00	.0037	114.86	-.0006	-24.76	78.17
RISE 61	3085.97	3097.22	13	1	32.2	293.77	.0042	-25.46	-.0000	349860.3	.86	.00	.0026	124.28	.0027	-24.72	61.18
SET 42	3151.27	3162.52	13	2	37.5	105.00	.0041	-24.05	.0000	354073.7	1.48	2.40	-.0030	241.99	-.0023	-24.67	44.87
EXTM 51	3216.29	3227.54	13	3	42.5	359.04	.0042	-24.61	.0000	352470.9	1.14	88.57	.0023	37.90	-.1232	-24.63	28.63
EXTM 61	3348.83	3360.08	13	5	55.0	.26	.0042	-25.45	.0000	365241.2	1.15	24.31	-.0000	180.26	.0042	-24.54	355.49
EXTM 72	3388.31	3399.56	13	6	34.5	.06	.0043	-24.80	.0000	364517.2	1.15	73.10	.0000	180.18	.0127	-24.52	345.62
RISE 11	3518.09	3529.34	13	8	44.3	289.24	.0042	-25.03	-.0000	379703.2	.89	.00	.0029	121.19	.0024	-24.42	313.10
SET 51	3575.63	3586.88	13	9	41.8	90.00	.0042	-23.99	.0000	382927.1	1.72	10.17	-.0035	248.16	-.0015	-24.36	298.63
SET 61	3610.89	3622.14	13	10	17.1	66.77	.0043	-24.99	.0001	387070.0	1.90	-.00	-.0027	236.40	.0028	-24.32	289.71
IMPACT	3624.49	3635.74	13	10	30.7												
IMPC 72	3624.49	3635.74	13	10	30.7	60.34	.0043	-24.36	.0001	385310.4	2.43	30.22	-.0039	246.35	.0005	-24.29	286.22
IMPC 51	3624.49	3635.74	13	10	30.7	102.37	.0043	-23.84	.0001	388513.3	2.45	-.05	-.0035	243.31	-.0018	-24.29	286.22
IMPC 11	3624.49	3635.74	13	10	30.7	316.35	.0044	-25.01	.0000	386651.7	1.81	16.97	.0024	139.15	.0033	-24.29	286.22
IMPC 61	3624.49	3635.74	13	10	30.7	70.27	.0043	-24.94	.0001	388754.0	2.37	-2.22	-.0028	236.66	.0028	-24.29	286.22

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	10	22	6.204	6545.096	21.2006	306.4825	10.99371	-.4623	110.7519	86.1640
SEPARATION	1.20	12.45	10	22	7.404	6562.384	18.6174	313.0023	10.97899	2.9672	113.0775	92.9846
ENTER SHA	1.38	12.63	10	22	7.582	6568.954	18.2153	313.9450	10.97346	3.4728	113.3894	93.9718
RETRO	3.20	14.45	10	22	9.404	6694.509	13.9044	323.1995	10.86926	8.5704	116.0838	103.6831
EXIT SHA	30.99	42.24	10	22	37.191	14467.541	-21.7996	27.7703	7.35936	47.4851	110.1186	175.2199
IMPACT	3624.49	3635.74	13	10	30.692	388559.645	-24.2877	286.2241	2.23256	67.2314	290.8040	254.5079

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SURVEYOR VIEW PERIODS

GHA	170.1796					EPS	83.5157							LOM	280.6069
SX	-.242962	SY	-.878573	SZ	-.411193	DAO	-24.27977	RAO	254.54169	RM	389885.008	LAT	28.310600	LON	279.461800
C3	-.948003	ECC	.984435	SLR	12987.468	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.222518	NSY	-.882218	NSZ	-.414942	C3M	1.5349	VIM	2.6785	ZAE	139.647	B.T	.0000	B.R	-.0000
LATE	2.0782	LONE	7.1366	LATS	-1.3883	LONS	283.8271	LATI	-6.5823	LONI	327.6539	RSM	148.7551	TTAN	6.1792

LAUNCH DATE MAR 10,1966 BASE AZM 102.0 TF 60,501 ARRIVAL DATE MAR 13 1966 13 53 13,9

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	22 6 49.0	28.0	20.05	306.08	1.62	88.74	112.88	22 18 4.0	6546.0	10,99	.80

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	10	22	18.1												
ENTER SHA	.94	12.19	10	22	19.0												
SEPARATION	1.20	12.45	10	22	19.3												
RETRO	3.20	14.45	10	22	21.3												
RISE 72	4.72	15.97	10	22	22.8	82.33	-.1882	43.88	.0248	2737.0	-7.86	.00	.1284	314.41	.0502	8.45	329.12
EXTM 72	10.31	21.56	10	22	28.4	343.73	-.1873	10.03	-.1701	1876.1	4.57	65.83	-.0000	42.37	.6129	-3.88	349.33
RISE 51	11.09	22.34	10	22	29.2	78.84	-.0901	21.88	-.0395	5365.5	-3.31	.00	.0924	294.44	.0042	-5.30	351.62
EXIT SHA	29.65	40.90	10	22	47.7												
EXIT 72	29.65	40.90	10	22	47.7	296.33	-.0099	-26.92	-.0045	10089.9	6.64	27.00	-.0092	116.25	.0042	-22.59	23.71
EXIT 51	29.65	40.90	10	22	47.7	7.08	-.0314	-19.96	-.0153	7839.7	5.15	81.29	.0320	310.10	.0585	-22.59	23.71
EXIT 61	29.65	40.90	10	22	47.7	317.51	-.0164	-46.47	.0051	13186.5	6.25	-4.62	-.0015	152.18	-.0123	-22.59	23.71
EXTM 51	34.89	46.14	10	22	53.0	358.94	-.0212	-23.64	-.0089	9500.0	5.36	87.69	-.0000	24.95	.5313	-24.49	28.32
EXTM 72	69.36	80.61	10	23	27.4	288.76	.0000	-30.58	-.0005	23359.5	4.81	20.13	.0000	119.75	.0005	-29.09	41.79
RISE 61	142.68	153.93	11	0	40.7	309.29	.0025	-36.81	.0005	44169.5	3.65	-.00	.0016	141.71	.0013	-30.06	40.87
EXTM 51	231.54	242.79	11	2	9.6	.22	.0033	-30.10	.0001	56797.6	3.22	85.64	-.0000	182.49	.0379	-29.66	27.49
EXTM 61	406.72	417.97	11	5	4.8	4.20	.0039	-32.47	.0002	91530.8	2.65	17.19	.0000	183.71	.0034	-28.75	351.80
EXTM 72	437.60	448.85	11	5	35.7	.73	.0040	-30.01	.0001	92501.1	2.57	67.88	-.0000	181.69	.0092	-28.62	344.99
RISE 11	606.00	617.25	11	8	24.1	294.03	.0040	-29.99	.0000	122685.2	1.99	.00	.0026	127.72	.0023	-27.99	306.61
SET 51	631.63	642.88	11	8	49.7	90.00	.0038	-26.82	.0001	124925.2	2.59	11.30	-.0032	245.52	-.0013	-27.91	300.63
SET 61	646.58	657.83	11	9	4.6	60.76	.0039	-30.00	.0002	128176.0	2.47	-.00	-.0022	229.08	.0027	-27.86	297.14
SET 72	827.59	838.84	11	12	5.7	94.06	.0039	-27.02	.0001	151210.1	2.41	-.00	-.0035	242.70	-.0004	-27.37	254.30
RISE 42	837.79	849.04	11	12	15.9	254.99	.0040	-25.90	-.0000	152054.7	1.70	3.53	.0028	119.48	-.0022	-27.34	251.86
EXTM 11	878.87	890.12	11	12	56.9	1.17	.0041	-29.34	.0001	154653.7	1.98	25.44	-.0000	181.13	.0040	-27.25	242.02
SET 11	1148.72	1159.97	11	17	26.8	67.97	.0041	-27.99	.0001	187664.9	2.07	.00	-.0027	234.94	.0024	-26.71	176.83
EXTM 42	1262.89	1274.14	11	19	21.0	359.96	.0042	-26.24	.0000	193399.0	1.71	81.02	-.0000	.27	-.0224	-26.52	149.02
RISE 51	1398.13	1409.38	11	21	36.2	270.00	.0041	-25.66	-.0000	211962.3	1.27	10.84	.0034	113.40	-.0015	-26.32	115.97
RISE 72	1553.87	1565.12	12	0	11.9	266.13	.0041	-25.88	-.0000	228108.1	1.16	-.01	.0036	116.15	-.0005	-26.11	77.78
RISE 61	1630.91	1642.16	12	1	29.0	295.72	.0041	-27.15	-.0000	235263.7	1.25	.00	.0025	126.71	.0027	-26.02	58.85
SET 42	1685.92	1697.17	12	2	24.0	105.00	.0041	-25.03	.0000	239950.9	1.84	3.00	-.0029	241.21	-.0022	-25.95	45.31
EXTM 51	1749.67	1760.92	12	3	27.7	358.02	.0042	-25.88	.0000	239723.4	1.47	88.21	.0038	95.05	.0083	-25.88	29.62
EXTM 61	1888.86	1900.11	12	5	46.9	.46	.0042	-27.03	.0000	255761.6	1.44	22.73	.0000	180.44	.0041	-25.73	355.30
EXTM 72	1928.44	1939.69	12	6	26.5	.14	.0042	-26.13	.0000	255616.7	1.42	71.78	-.0000	180.41	.0120	-25.69	348.53
RISE 11	2066.26	2077.51	12	8	44.3	290.53	.0042	-26.42	-.0000	273185.7	1.06	.00	.0028	123.00	.0024	-25.56	311.49
SET 51	2116.80	2128.05	12	9	34.9	90.00	.0041	-25.00	.0000	276176.3	1.74	10.57	-.0034	247.22	-.0015	-25.51	299.00
SET 61	2146.62	2157.87	12	10	4.7	65.13	.0042	-26.43	.0000	279775.4	1.64	.00	-.0025	234.33	.0027	-25.48	291.62
SET 72	2301.51	2312.76	12	12	39.6	93.75	.0041	-25.17	.0001	292162.5	1.72	-.00	-.0037	244.57	-.0005	-25.35	253.29
RISE 42	2303.13	2314.38	12	12	41.2	255.00	.0041	-24.59	-.0000	291986.4	.98	2.73	.0030	118.44	-.0023	-25.35	252.89
EXTM 11	2343.69	2354.94	12	13	21.8	.31	.0042	-26.40	.0000	292453.4	1.30	28.39	-.0000	180.32	.0043	-25.31	242.85
SET 11	2620.96	2632.21	12	17	59.0	70.02	.0042	-25.84	.0000	316523.7	1.55	-.00	-.0028	237.76	.0024	-25.10	174.11
EXTM 42	2722.09	2733.34	12	19	40.2	359.96	.0042	-24.83	.0000	317726.8	1.21	79.61	.0000	.22	-.0186	-25.03	149.02
RISE 51	2852.67	2863.92	12	21	50.7	270.00	.0041	-24.51	-.0000	332156.1	.80	10.38	.0035	112.33	-.0015	-24.94	116.60
RISE 72	3006.77	3018.02	13	0	24.8	266.34	.0042	-24.67	-.0000	344226.2	.74	-.00	.0037	114.92	-.0006	-24.83	78.18
RISE 61	3075.12	3086.37	13	1	33.2	293.84	.0042	-25.53	-.0000	348927.0	.85	.00	.0026	124.37	.0027	-24.78	61.11
SET 42	3140.10	3151.35	13	2	38.2	105.00	.0041	-24.10	.0000	353105.8	1.48	2.44	-.0030	241.95	-.0023	-24.73	44.88
EXTM 51	3205.48	3216.73	13	3	43.5	359.13	.0042	-24.67	.0000	351521.8	1.13	88.67	.0023	36.51	-.1345	-24.69	28.54
EXTM 61	3337.70	3348.95	13	5	55.8	.27	.0042	-25.50	.0000	364244.1	1.14	24.26	-.0000	180.27	.0042	-24.60	355.48
EXTM 72	3377.14	3388.39	13	6	35.2	.06	.0043	-24.86	.0000	363500.6	1.15	73.05	.0000	180.19	.0125	-24.57	345.61
RISE 11	3507.12	3518.37	13	8	45.2	289.29	.0042	-25.08	-.0000	378613.4	.87	.00	.0029	121.25	.0024	-24.47	313.05
SET 51	3564.51	3575.76	13	9	42.6	90.00	.0042	-24.04	.0000	381714.0	1.66	10.19	-.0035	248.11	-.0015	-24.41	298.63
SET 61	3599.62	3610.87	13	10	17.7	66.71	.0042	-25.05	.0000	385645.2	1.71	-.00	-.0027	236.32	.0028	-24.37	289.77
IMPACT	3630.08	3641.33	13	10	48.2												
IMPC 72	3630.08	3641.33	13	10	48.2	64.58	.0043	-24.37	.0001	385759.5	2.44	26.36	-.0039	246.67	.0003	-24.32	282.01
IMPC 51	3630.08	3641.33	13	10	48.2	106.56	.0043	-23.85	.0001	388959.3	2.43	-3.40	-.0034	241.43	-.0019	-24.32	282.01
IMPC 11	3630.08	3641.33	13	10	48.2	320.60	.0044	-25.06	.0000	386498.6	1.82	19.13	.0022	142.51	.0035	-24.32	282.01

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION	.00	11.25	10	22	18.067	6545.959	20.0530	306.0826	10.99274	.8012	112.8790	88.7379
ENTER SHA	.94	12.19	10	22	19.010	6569.261	17.8665	311.1006	10.97297	3.4943	114.5876	93.9923
SEPARATION	1.20	12.45	10	22	19.267	6580.640	17.2499	312.4357	10.96340	4.2235	115.0098	99.3619
RETRO	3.20	14.45	10	22	21.267	6740.397	12.2729	322.3006	10.83166	9.7726	117.6603	105.7581
EXIT SHA	29.65	40.90	10	22	47.713	14174.596	-22.5912	23.7051	7.43599	46.9508	110.3805	173.7925
IMPACT	3630.08	3641.33	13	10	48.152	388633.645	-24.3178	282.0141	2.22929	66.9391	290.9996	254.6747

SURVEYOR VIEW PERIODS

GHA	170.1796					EPS	83.6503							LOM	276.6050
SX	-.240487	SY	-.879048	SZ	-.411632	DAO	-24.30742	RAO	254.69957	RM	389950.586	LAT	28.310600	LON	279.461800
C3	-.954552	ECC	.984327	SLR	12986.764	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TR	675.00000	POL	-.0
NSX	-.219972	NSY	-.842650	NSZ	-.415382	C3M	1.5347	VIM	2.6784	ZAE	139.430	B.T	.0000	B.R	-.0000
LATE	2.0943	LONE	7.1303	LATS	-1.3883	LONS	283.6867	LATI	-6.8299	LONI	327.4781	RSM	148.7547	TTAN	6.1802

LAUNCH DATE MAR 10,1966 BASE AZM 105.0 TF 60.614 ARRIVAL DATE MAR 13 1966 11 9 49.6

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	22 16 28.8	28.1	18.93	305.61	3.65	90.69	114.99	22 27 43.8	6551.3	10.99	1.81

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	FLE	DEL	AZI	DAZ	LAT	LONG
						PRORE IN SUNLIGHT											
INJECTION	.00	11.25	10	22	27.7												
ENTER SHA	.61	11.86	10	22	28.3												
SEPARATION	1.20	12.45	10	22	28.9												
RETRO	3.20	14.45	10	22	30.9												
RISE 72	4.55	15.80	10	22	32.3	83.68	-.1685	38.42	.0025	2809.6	-7.92	.00	.1295	308.86	.0256	7.16	327.23
EXTM 72	10.29	21.54	10	22	38.0	352.36	-.1996	1.96	-.1537	1869.6	4.46	77.54	.0000	38.01	1.1068	-5.68	347.41
RISE 51	11.06	22.31	10	22	38.8	80.80	-.0843	18.35	-.0423	5500.4	-3.10	.00	.0905	290.46	-.0010	-7.07	349.61
EXIT SHA	28.19	39.44	10	22	55.9												
EXIT 72	28.19	39.44	10	22	55.9	300.43	-.0120	-29.33	-.0040	9449.6	6.72	30.31	-.0110	119.46	.0028	-23.49	19.77
EXIT 51	28.19	39.44	10	22	55.9	14.37	-.0359	-21.29	-.0169	7539.6	4.93	76.10	.0373	285.67	-.0147	-23.49	19.77
EXIT 61	28.19	39.44	10	22	55.9	322.45	-.0192	-28.67	.0056	12813.1	6.24	-4.90	-.0010	156.17	-.0139	-23.49	19.77
EXTM 51	35.59	46.84	10	23	3.3	2.08	-.0211	-26.42	-.0076	9836.5	5.31	88.01	.0152	249.41	-.3906	-26.16	26.43
EXTM 72	70.22	81.47	10	23	37.9	291.21	.0000	-32.21	-.0002	23517.7	4.78	22.12	.0000	121.63	.0002	-30.30	39.59
EXTM 51	91.21	102.46	10	23	58.9	342.86	.0000	-31.84	-.0001	26068.5	4.34	73.81	.0000	116.10	.0004	-30.83	41.32
RISE 61	139.30	150.55	11	0	47.0	311.19	.0024	-37.89	.0006	43467.7	3.66	-.00	.0016	143.57	.0012	-30.93	38.99
EXTM 51	219.67	230.92	11	2	7.4	.33	.0033	-30.97	.0002	54550.9	3.28	84.76	.0000	183.10	.0305	-30.42	27.39
EXTM 61	398.72	409.97	11	5	6.4	4.67	.0039	-33.07	.0002	90359.1	2.66	16.56	.0000	184.08	.0034	-29.29	351.36
EXTM 72	428.24	439.49	11	5	36.0	.86	.0040	-30.59	.0001	91109.9	2.59	67.30	.0000	181.92	.0089	-29.14	344.80
RISE 11	598.60	609.85	11	8	26.3	294.49	.0040	-30.43	.0000	121688.3	2.01	.00	.0026	128.31	.0023	-28.40	306.13
SET 51	622.03	633.28	11	8	49.8	90.00	.0038	-27.22	.0001	123427.0	2.60	11.46	-.0032	245.14	-.0013	-28.32	300.68
SET 61	634.58	645.83	11	9	2.3	60.17	.0039	-30.45	.0002	126581.4	2.48	-.00	-.0021	228.40	.0027	-28.27	297.75
SET 72	818.48	829.73	11	12	6.2	94.12	.0039	-27.35	.0001	150099.7	2.42	-.00	-.0035	242.36	-.0004	-27.70	254.26
RISE 42	828.64	839.89	11	12	16.4	254.99	.0040	-26.22	-.0000	150921.7	1.71	3.73	.0028	119.73	-.0022	-27.68	251.84
EXTM 11	870.07	881.32	11	12	57.8	1.27	.0041	-29.68	.0001	153634.6	1.98	25.10	-.0000	181.22	.0040	-27.57	241.92
SET 11	1138.47	1149.72	11	17	26.2	67.71	.0041	-28.26	.0001	186537.5	2.08	-.00	-.0027	234.59	.0024	-26.97	177.10
EXTM 42	1253.62	1264.87	11	19	21.4	359.92	.0042	-26.48	.0000	192399.4	1.71	81.26	.0000	.51	-.0241	-26.76	149.06
RISE 51	1389.08	1400.33	11	21	36.8	270.00	.0041	-25.87	-.0000	211004.4	1.27	10.92	.0034	113.60	-.0015	-26.53	115.96
RISE 72	1544.69	1555.94	12	0	12.4	266.10	.0041	-26.07	-.0000	227170.7	1.16	-.01	.0036	116.34	-.0005	-26.30	77.80
RISE 61	1622.73	1633.98	12	1	30.5	295.94	.0041	-27.33	-.0000	234428.0	1.25	.00	.0025	126.98	.0027	-26.20	58.62
SET 42	1676.81	1688.06	12	2	24.5	105.00	.0041	-25.20	.0001	239024.2	1.84	3.11	-.0029	241.08	-.0022	-26.13	45.32
EXTM 51	1740.65	1751.90	12	3	28.4	358.03	.0042	-26.05	.0000	238823.4	1.47	88.20	.0037	100.48	.0196	-26.05	29.60
EXTM 61	1879.91	1891.16	12	5	47.6	.49	.0042	-27.19	.0000	254895.4	1.44	22.57	.0000	180.47	.0040	-25.88	355.27
EXTM 72	1919.39	1930.64	12	6	27.1	.15	.0042	-26.28	.0000	254734.1	1.42	71.63	-.0000	180.43	.0119	-25.84	345.53
RISE 11	2057.71	2068.96	12	8	45.4	290.65	.0042	-26.56	-.0000	272347.1	1.06	.00	.0028	123.18	.0024	-25.69	311.36
SET 51	2107.70	2118.95	12	9	35.4	90.00	.0041	-25.13	.0001	275288.8	1.74	10.62	-.0034	247.10	-.0015	-25.64	299.00
SET 61	2136.89	2148.14	12	10	4.6	64.97	.0042	-26.56	.0001	278843.8	1.64	.00	-.0025	234.14	.0027	-25.61	291.78
SET 72	2292.47	2303.72	12	12	40.2	93.76	.0041	-25.28	.0001	291293.8	1.72	-.01	-.0037	244.46	-.0005	-25.46	253.28
RISE 42	2294.06	2305.31	12	12	41.8	255.00	.0041	-24.70	-.0000	291107.0	.98	2.80	.0030	118.52	-.0023	-25.46	252.89
EXTM 11	2334.69	2345.94	12	13	22.4	.33	.0042	-26.52	.0000	291599.3	1.30	28.28	-.0000	180.34	.0043	-25.42	242.82
SET 11	2611.51	2622.76	12	17	59.2	69.93	.0042	-25.94	.0000	315628.3	1.55	-.00	-.0028	237.64	.0024	-25.19	174.20
EXTM 42	2712.98	2724.23	12	19	40.7	359.96	.0042	-24.91	.0000	316855.1	1.21	79.69	.0000	.24	-.0191	-25.11	149.02
RISE 51	2843.58	2854.83	12	21	51.3	270.00	.0041	-24.58	-.0000	331283.1	.80	10.41	.0035	112.40	-.0015	-25.01	116.60
RISE 72	2997.64	3008.89	13	0	25.4	266.33	.0042	-24.74	-.0000	343341.7	.73	-.00	.0037	114.99	-.0006	-24.89	78.18
RISE 61	3066.33	3077.58	13	1	34.1	293.91	.0042	-25.59	-.0000	348055.9	.85	.00	.0026	124.47	.0027	-24.84	61.03
SET 42	3131.00	3142.25	13	2	38.7	105.00	.0041	-24.16	.0000	352199.2	1.47	2.47	-.0030	241.90	-.0023	-24.79	44.88
EXTM 51	3196.73	3207.98	13	3	44.5	359.21	.0042	-24.73	.0000	350631.1	1.13	88.76	.0022	35.22	-.1467	-24.75	28.46
EXTM 61	3328.67	3339.92	13	5	54.4	.28	.0042	-25.56	.0000	363309.3	1.14	24.20	-.0000	180.28	.0042	-24.65	355.47
EXTM 72	3368.09	3379.34	13	6	35.8	.06	.0043	-24.91	.0000	362547.6	1.14	73.00	.0000	180.20	.0126	-24.62	345.61
RISE 11	3498.29	3509.54	13	8	44.0	269.33	.0042	-25.13	-.0000	377401.3	.86	.00	.0029	121.32	.0024	-24.51	313.00
SET 51	3555.52	3566.77	13	9	43.2	90.00	.0042	-24.08	.0000	380409.8	1.63	10.21	-.0035	248.07	-.0015	-24.46	298.63
SET 61	3590.46	3601.71	13	10	18.2	66.65	.0042	-25.10	.0000	384417.0	1.63	-.00	-.0027	236.24	.0028	-24.42	289.84
IMPACT	3636.84	3648.09	13	11	4.6												
IMPC 72	3636.84	3648.09	13	11	4.6	68.57	.0043	-24.37	.0001	386191.7	2.45	22.73	-.0039	246.83	.0002	-24.35	278.06
IMPC 11	3636.84	3648.09	13	11	4.6	324.61	.0044	-25.10	.0000	386370.6	1.84	21.01	.0020	145.82	.0036	-24.35	278.06

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	10	22	27.730	6551.286	18.9301	305.6102	10.98792	1.8116	114.9880	90.6878
ENTER SHA	.61	11.86	10	22	28.342	6570.152	17.4156	308.7962	10.97192	3.5569	116.0299	94.0273
SEPARATION	1.20	12.45	10	22	28.930	6599.745	15.9194	311.7832	10.94709	5.2209	116.9292	97.1617
RETRO	3.20	14.45	10	22	30.930	6781.138	10.6854	321.3298	10.79850	10.7196	119.2492	107.2096
EXIT SHA	28.19	39.44	10	22	55.919	13813.629	-23.4925	19.7743	7.53373	46.2623	110.7941	171.9187
IMPACT	3636.84	3648.09	13	11	4.568	388701.008	-24.3455	278.0554	2.22638	66.7856	291.4077	254.8312

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SURVEYOR VIEW PERIODS

GHA	170.1796					EPS	83.7773							LOM	272.8274
SX	-.238151	SY	-.879490	SZ	-.412045	DAQ	-24,33337	RAQ	254.84862	RM	390012,395	LAT	28,310600	LON	279.461800
C3	-.962283	ECC	.984200	SLR	12985.934	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.217552	NSY	-.883053	NSZ	-.415798	C3M	1.5345	VIM	2.6784	ZAE	139,173	B.T	.0000	B.R	-.0000
LATE	2.1095	LONE	7.1247	LATS	-1.3882	LONS	283.5545	LATI	-7.1049	LONI	327.2683	RSM	148.7543	TTAN	6.1798
LAUNCH DATE		MAR	10,1966		BASE AZM	108.0		TF	60.743			ARRIVAL DATE		MAR 13 1966 11 25 29,4	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	22 24 25.3	28.1	17.83	305.07	5.29	92.14	117.08	22 35 40.3	6558.5	10.98	2.63

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PRORE IN SUNLIGHT											
INJECTION	.00	11.25	10	22	35.7												
ENTER SHA	.37	11.62	10	22	36.0												
SEPARATION	1.20	12.45	10	22	36.9												
RETRO	3.20	14.45	10	22	38.9												
RISE 72	4.44	15.69	10	22	40.1	84.75	-.1536	33.36	-.0180	2877.4	-7.87	.00	.1295	303.73	.0033	5.79	325.56
EXTM 72	9.76	21.01	10	22	45.4	7.16	-.2328	-1.64	-.1593	1791.5	3.25	80.51	.2798	310.96	.2132	-6.54	344.09
RISE 51	11.06	22.31	10	22	46.7	82.62	-.0792	14.92	-.0450	5621.7	-2.90	.00	.0886	286.61	-.0058	-8.94	347.77
EXIT SHA	26.61	37.86	10	23	2.3												
EXIT 72	26.61	37.86	10	23	2.3	304.55	-.0150	-32.07	-.0033	8782.0	6.81	33.30	-.0131	123.38	.0005	-24.44	15.85
EXIT 51	26.61	37.86	10	23	2.3	22.00	-.0410	-22.55	-.0194	7227.5	4.65	69.70	.0414	274.37	-.0289	-24.44	15.85
EXTM 51	38.99	50.24	10	23	14.7	1.60	-.0176	-30.22	-.0049	11020.4	5.27	85.30	-.0000	197.16	-.1950	-28.58	26.68
EXTM 72	70.94	82.19	10	23	46.6	293.20	.0000	-33.93	.0000	23665.2	4.75	23.61	.0000	123.66	-.0000	-31.62	37.76
EXTM 51	91.86	103.11	11	0	7.5	345.15	-.0000	-33.35	.0001	26278.3	4.33	75.03	.0000	124.02	-.0003	-32.01	39.47
RISE 61	139.58	150.83	11	0	55.2	313.14	.0024	-38.94	.0006	43592.5	3.67	-.00	.0016	145.42	.0012	-31.90	37.17
EXTM 51	210.45	221.70	11	2	6.1	.53	.0032	-31.95	.0002	52781.6	3.32	83.77	.0000	184.13	.0248	-31.28	27.22
EXTM 61	393.87	404.12	11	5	8.5	5.18	.0038	-33.72	.0002	89517.3	2.68	15.89	.0000	184.48	.0033	-29.89	350.89
EXTM 72	420.96	432.21	11	5	36.6	1.01	.0040	-31.23	.0002	90022.0	2.61	66.66	.0000	182.17	.0086	-29.72	344.74
RISE 11	593.28	604.53	11	8	29.0	294.99	.0040	-30.91	.0000	120960.1	2.01	.00	.0026	128.95	.0023	-28.86	305.61
SET 51	614.34	625.59	11	8	50.0	90.00	.0038	-27.67	.0001	122565.2	2.61	11.63	-.0032	244.72	-.0012	-28.77	300.71
SET 61	624.14	635.39	11	8	59.8	59.51	.0039	-30.94	.0002	125174.1	2.49	.00	-.0021	227.65	.0027	-28.73	298.43
SET 72	811.25	822.50	11	12	6.9	94.19	.0039	-27.72	.0001	149168.6	2.42	-.00	-.0035	241.99	-.0004	-28.07	254.22
RISE 42	821.33	832.58	11	12	17.0	254.99	.0040	-26.58	-.0000	149989.2	1.72	3.95	.0028	120.02	-.0022	-28.04	251.82
EXTM 11	863.15	874.40	11	12	58.8	1.39	.0041	-30.05	.0001	152822.2	1.99	24.73	.0000	181.32	.0040	-27.92	241.81
SET 11	1129.91	1141.16	11	17	25.6	67.42	.0041	-28.55	.0001	185568.1	2.08	-.00	-.0026	234.20	.0024	-27.25	177.40
EXTM 42	1246.25	1257.50	11	19	21.9	359.91	.0042	-26.74	.0000	191572.4	1.71	81.52	.0000	.58	-.0247	-27.01	149.07
RISE 51	1381.79	1393.04	11	21	37.5	270.00	.0041	-26.10	-.0000	210195.4	1.27	11.01	.0034	113.81	-.0015	-26.76	115.95
RISE 72	1537.25	1548.50	12	0	12.9	266.06	.0041	-26.27	-.0000	226371.1	1.16	-.01	.0036	116.54	-.0005	-26.51	77.82
RISE 61	1616.37	1627.62	12	1	32.0	296.17	.0041	-27.53	-.0000	233733.5	1.25	.00	.0025	127.27	.0027	-26.39	58.38
SET 42	1669.45	1680.70	12	2	25.1	105.00	.0041	-25.38	.0001	238227.5	1.84	3.22	-.0029	240.93	-.0022	-26.31	45.33
EXTM 51	1733.45	1744.70	12	3	29.1	358.07	.0042	-26.24	.0000	238057.1	1.48	88.19	.0036	106.40	.0315	-26.22	29.97
EXTM 61	1872.72	1883.97	12	5	48.4	.53	.0042	-27.36	.0000	254150.8	1.44	22.40	.0000	180.51	.0040	-26.04	355.23
EXTM 72	1912.09	1923.34	12	6	27.8	.16	.0042	-26.44	.0000	253969.2	1.42	71.46	-.0000	180.45	.0118	-25.99	345.52
RISE 11	2050.93	2062.18	12	8	46.6	290.79	.0042	-26.70	-.0000	271621.3	1.06	.00	.0028	123.37	.0024	-25.83	311.22
SET 51	2100.32	2111.57	12	9	36.0	90.00	.0041	-25.26	.0001	274507.9	1.74	10.68	-.0034	246.97	-.0015	-25.78	299.01
SET 61	2128.84	2140.09	12	10	4.5	64.80	.0042	-26.70	.0001	278013.6	1.64	.01	-.0025	233.94	.0027	-25.75	291.96
SET 72	2285.17	2296.42	12	12	40.8	93.79	.0041	-25.40	.0001	290523.3	1.72	-.01	-.0037	244.34	-.0005	-25.58	253.26
RISE 42	2286.71	2297.96	12	12	42.4	255.00	.0041	-24.82	-.0000	290324.6	.98	2.87	.0030	118.62	-.0023	-25.58	252.88
EXTM 11	2327.42	2338.67	12	13	23.1	.36	.0042	-26.64	.0000	290842.3	1.30	28.15	-.0000	180.36	.0043	-25.54	242.80
SET 11	2603.75	2615.00	12	17	59.4	69.84	.0042	-26.03	.0000	314814.1	1.55	-.00	-.0028	237.51	.0024	-25.29	174.30
EXTM 42	2705.58	2716.83	12	19	41.3	359.95	.0042	-25.00	.0000	316061.3	1.21	79.78	.0000	.25	-.0201	-25.20	149.03
RISE 51	2836.20	2847.45	12	21	51.9	270.00	.0041	-24.66	-.0000	330482.3	.80	10.44	.0035	112.47	-.0015	-25.09	116.59
RISE 72	2990.34	3001.59	13	0	26.0	266.32	.0042	-24.81	-.0000	342551.6	.73	-.00	.0037	115.06	-.0006	-24.96	78.19
RISE 61	3059.37	3070.62	13	1	35.0	293.99	.0042	-25.66	-.0000	347277.7	.85	.00	.0026	124.56	.0027	-24.91	60.95
SET 42	3123.70	3134.95	13	2	39.4	105.00	.0041	-24.22	.0000	351381.6	1.47	2.51	-.0030	241.85	-.0023	-24.86	44.88
EXTM 51	3189.71	3200.96	13	3	45.4	359.29	.0042	-24.79	.0000	349823.2	1.13	88.85	.0021	34.34	-.1593	-24.80	28.39
EXTM 61	3321.42	3332.67	13	5	57.1	.30	.0042	-25.61	.0000	362457.2	1.13	24.15	-.0000	180.29	.0042	-24.70	355.46
EXTM 72	3360.79	3372.04	13	6	36.5	.06	.0043	-24.96	.0000	361675.3	1.13	72.94	.0000	180.21	.0125	-24.67	345.61
RISE 11	3491.17	3502.42	13	8	46.8	289.38	.0042	-25.18	-.0000	376670.3	.84	.00	.0029	121.38	.0024	-24.56	312.95
SET 51	3548.22	3559.47	13	9	43.9	90.00	.0042	-24.13	.0000	379599.3	1.60	10.23	-.0035	248.03	-.0015	-24.51	298.64
SET 61	3582.98	3594.23	13	10	18.6	66.59	.0042	-25.15	.0000	383316.0	1.57	-.00	-.0026	236.17	.0028	-24.47	289.89
IMPACT	3644.61	3655.86	13	11	20.3												
IMPC 72	3644.61	3655.86	13	11	20.3	72.38	.0043	-24.37	.0001	386618.2	2.45	19.26	-.0039	246.87	.0001	-24.37	274.27
IMPC 11	3644.61	3655.86	13	11	20.3	328.44	.0044	-25.14	.0000	386268.9	1.85	22.67	.0019	149.11	.0038	-24.37	274.27

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	10	22	35.672	6558.621	17.8307	305.0800	10.98145	2.6255	117.0866	92.1486
ENTER SHA	.37	11.62	10	22	36.037	6571.747	16.8696	306.9327	10.97022	3.6660	117.6666	94.0928
SEPARATION	1.20	12.45	10	22	36.872	6618.068	14.6204	311.0690	10.93145	6.0212	118.8465	98.4384
RETRO	3.20	14.45	10	22	38.872	6816.616	9.1326	320.3115	10.76978	11.4751	120.8588	108.1822
EXIT SHA	26.61	37.86	10	23	2.285	13391.002	-24.4397	15.8512	7.65315	45.4102	111.4135	169.3914
IMPACT	3644.61	3655.86	13	11	20.281	388768.844	-24.3722	274.2667	2.22241	66.4385	291.7065	254.9815

SURVEYOR VIEW PERIODS

GHA	170.1796					EPS	83.9002							LOM	269.1697
SX	-.235888	SY	-.879914	SZ	-.412442	UAD	-24.35434	RAD	254.99295	RM	390072.172	LAT	28,310600	LON	279.461800
C3	-.971083	ECC	.9P4056	SLR	12984.983	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.215195	NSY	-.883440	NSZ	-.416203	C3M	1.5344	VIM	2,6784	ZAE	138,881	B.T	.0000	B.R	-.0000
LATE	2.1241	LONE	7.1195	LATS	-1.3881	LONS	283.4287	LATI	-7.3972	LONI	327.0266	RSM	148.7539	TTAN	6.1781
LAUNCH DATE		MAR	10,1966		BASE AZM	111.0		TF	60.889			ARRIVAL DATE		MAR 13 1966	11 40 39.4

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	22 31	2.3	28.1	16.76	304.49	6.63	93.21	119.18	22 42 17.3	6566.5	10.97	3.29

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN SUNLIGHT														
INJECTION	.00	11.25	10	22	42.3												
ENTER SHA	.19	11.44	10	22	42.5												
SEPARATION	1.20	12.45	10	22	43.5												
RETRO	3.20	14.45	10	22	45.5												
RISE 72	4.38	15.63	10	22	46.7	65.67	-.1416	28.57	-.0369	2943.4	-7.72	-.00	.1286	298.87	-.0170	4.33	324.08
EXTM 72	9.78	21.03	10	22	52.1	14.41	-.2283	-10.34	-.1460	1883.2	3.17	75.61	.2043	260.39	-.6981	-8.44	342.42
RISE 51	11.10	22.35	10	22	53.4	84.35	-.0747	11.55	-.0475	5734.6	-2.70	.00	.0867	282.84	-.0101	-10.90	346.08
EXIT SHA	24.92	36.17	10	23	7.2												
EXIT 72	24.92	36.17	10	23	7.2	308.96	-.0192	-35.15	-.0023	8085.1	6.91	36.04	-.0156	128.16	-.0032	-25.37	11.81
EXIT 51	24.92	36.17	10	23	7.2	30.21	-.0467	-23.54	-.0229	6917.1	4.29	62.51	.0463	268.04	-.0312	-25.37	11.81
EXTM 51	41.40	52.65	10	23	23.7	2.13	-.0159	-33.39	-.0034	11877.1	5.22	82.12	-.0000	193.11	-.1000	-30.73	26.33
EXTM 72	71.40	82.65	10	23	53.7	294.81	-.0000	-35.72	.0002	23761.2	4.74	24.69	.0000	129.80	-.0003	-33.04	36.22
EXTM 51	91.24	102.49	11	0	13.5	347.04	-.0002	-34.36	.0002	26162.6	4.33	75.53	.0000	132.67	-.0012	-33.27	37.92
RISE 61	142.66	153.91	11	1	4.9	315.10	.0024	-39.93	.0007	44347.9	3.64	-.00	.0016	147.23	.0012	-32.93	35.41
EXTM 51	203.62	214.87	11	2	5.9	.83	.0031	-33.02	.0003	51463.0	3.36	82.68	.0000	185.45	.0205	-32.22	26.95
EXTM 61	388.74	399.99	11	5	11.0	5.71	.0038	-34.40	.0003	88942.7	2.69	15.18	.0000	184.88	.0033	-30.53	350.40
EXTM 72	415.35	426.60	11	5	37.6	1.18	.0040	-31.90	.0002	89183.7	2.62	65.98	.0000	182.45	.0083	-30.34	344.59
RISE 11	589.61	600.86	11	8	51.9	295.53	.0040	-31.42	.0000	120446.2	2.02	.00	.0025	129.64	.0023	-29.34	305.06
SET 51	608.16	619.41	11	9	50.4	90.00	.0038	-28.16	.0001	121692.2	2.61	11.82	-.0032	244.26	-.0012	-29.26	300.75
SET 61	615.02	626.27	11	8	57.3	58.80	.0039	-31.47	.0002	123927.6	2.49	-.00	-.0021	226.85	.0027	-29.23	299.15
SET 72	805.50	816.75	11	12	7.8	94.26	.0039	-28.11	.0001	148462.8	2.42	-.01	-.0034	241.59	-.0004	-28.47	254.18
RISE 42	815.46	826.71	11	12	17.7	254.99	.0040	-26.96	-.0000	149215.1	1.72	4.18	.0028	120.32	-.0022	-28.43	251.80
EXTM 11	857.70	868.95	11	12	60.0	1.51	.0042	-30.44	.0001	152172.9	1.99	24.34	.0000	181.43	.0039	-28.29	241.70
SET 11	1122.66	1133.91	11	17	24.9	67.11	.0041	-28.86	.0001	184722.4	2.08	-.00	-.0026	233.79	.0024	-27.55	177.72
EXTM 42	1240.28	1251.53	11	19	22.6	359.90	.0042	-27.02	.0000	190870.5	1.71	81.80	.0000	.64	-.0255	-27.29	149.08
RISE 51	1375.88	1387.13	11	21	38.2	270.00	.0041	-26.35	-.0000	209501.7	1.28	11.11	.0034	114.04	-.0015	-27.01	115.94
RISE 72	1531.18	1542.43	12	0	13.5	266.03	.0041	-26.49	-.0000	225677.6	1.16	-.01	.0036	116.77	-.0005	-26.73	77.85
RISE 61	1611.45	1622.70	12	1	33.7	296.43	.0042	-27.74	-.0000	233147.8	1.26	.00	.0025	127.57	.0027	-26.59	58.13
SET 42	1463.45	1474.70	12	2	25.7	105.00	.0041	-25.58	.0001	237530.4	1.84	3.34	-.0029	240.78	-.0022	-26.51	45.33
EXTM 51	1727.66	1738.91	12	3	29.9	358.12	.0042	-26.43	.0000	237392.9	1.48	88.17	.0035	112.67	.0433	-26.41	29.52
EXTM 61	1866.90	1878.15	12	5	49.2	.57	.0042	-27.54	.0000	253498.7	1.44	22.22	.0000	180.55	.0040	-26.22	355.19
EXTM 72	1906.14	1917.39	12	6	28.4	.17	.0042	-26.61	.0000	253293.5	1.42	71.29	-.0000	180.48	.0117	-26.16	345.51
RISE 11	2045.53	2056.78	12	8	47.8	290.94	.0042	-26.96	-.0000	270980.6	1.06	.00	.0028	123.57	.0024	-25.98	311.07
SET 51	2094.29	2105.54	12	9	36.6	90.00	.0041	-25.41	.0001	273807.0	1.74	10.74	-.0034	246.83	-.0015	-25.92	299.01
SET 61	2122.16	2133.41	12	10	4.5	64.64	.0042	-26.85	.0001	277265.9	1.64	-.00	-.0025	233.73	.0027	-25.89	292.12
SET 72	2279.22	2290.47	12	12	41.5	93.81	.0041	-25.53	.0001	289825.7	1.72	-.01	-.0037	244.21	-.0005	-25.71	253.25
RISE 42	2280.71	2291.96	12	12	43.0	255.00	.0041	-24.94	-.0000	289613.9	.98	2.95	.0030	118.72	-.0023	-25.71	252.88
EXTM 11	2321.51	2332.76	12	13	23.8	.39	.0042	-26.76	.0000	290157.2	1.30	28.03	-.0000	180.39	.1043	-25.66	242.77
SET 11	2597.30	2608.55	12	17	59.6	69.74	.0042	-26.14	.0000	314058.3	1.55	-.00	-.0028	237.38	.0024	-25.39	174.39
EXTM 42	2699.51	2710.76	12	19	41.8	359.95	.0042	-25.09	.0000	315323.3	1.21	79.87	.0000	.78	-.0200	-25.29	149.03
RISE 51	2830.15	2841.40	12	21	52.4	270.00	.0041	-24.74	-.0000	329732.2	.80	10.47	.0035	112.55	-.0015	-25.18	116.59
RISE 72	2984.24	2995.49	13	0	26.5	266.30	.0042	-24.88	-.0000	341782.2	.73	-.00	.0037	115.13	-.0006	-25.03	78.20
RISE 61	3053.63	3064.88	13	1	35.9	294.07	.0042	-25.73	-.0000	346519.9	.85	.00	.0026	124.66	.0027	-24.98	60.87
SET 42	3117.62	3128.87	13	2	30.9	105.00	.0041	-24.29	.0000	350583.7	1.47	2.55	-.0030	241.80	-.0023	-24.92	44.89
EXTM 51	3183.89	3195.14	13	3	44.2	359.35	.0042	-24.85	.0000	349032.4	1.12	88.93	.0021	33.70	-.1728	-24.87	28.33
EXTM 61	3315.42	3326.67	13	5	57.7	.31	.0042	-25.67	.0000	361625.6	1.13	24.09	-.0000	180.31	.0042	-24.76	355.44
EXTM 72	3354.75	3366.00	13	6	37.0	.07	.0043	-25.02	.0000	360824.4	1.13	72.89	.0000	180.22	.0126	-24.72	345.60
RISE 11	3485.33	3496.58	13	8	47.6	289.42	.0042	-25.23	-.0000	375768.5	.83	.00	.0029	121.45	.0024	-24.61	312.91
SET 51	3542.22	3553.47	13	9	44.5	90.00	.0042	-24.18	.0000	378630.1	1.58	10.24	-.0035	247.98	-.0015	-24.55	298.64
SET 61	3576.78	3588.03	13	10	19.1	66.53	.0042	-25.20	.0000	382277.4	1.54	-.00	-.0026	236.10	.0028	-24.52	289.95
IMPACT	3453.32	3464.57	13	11	35.6												
IMPC 72	3453.32	3464.57	13	11	35.6	76.09	.0043	-24.38	.0001	387039.3	2.45	15.88	-.0039	246.81	-.0000	-24.40	270.57
IMPC 11	3453.32	3464.57	13	11	35.6	332.19	.0044	-25.18	.0000	386184.7	1.86	24.13	.0017	152.44	.0039	-24.40	270.57

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	10	22	42.288	6566.651	16.7547	304.5009	10.97436	3.2890	119.1795	93.2279
ENTER SHA	.19	11.44	10	22	42.473	6573.998	16.2429	305.4052	10.96793	3.8149	119.4499	94.1786
SEPARATION	1.20	12.45	10	22	43.488	6634.937	13.3515	310.3039	10.91704	6.6713	120.7673	99.3318
RETRO	3.20	14.45	10	22	45.488	6847.281	7.6117	319.2543	10.74503	12.0860	122.4927	108.7835
EXIT SHA	24.92	36.17	10	23	7.207	12919.609	-25.3667	11.8122	7.79535	44.3790	112.2962	166.7865
IMPACT	3453.32	3464.57	13	11	35.610	388839.715	-24.3982	270.5703	2.21882	66.2267	292.1798	255.1278

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SURVEYOR VIEW PERIODS

GHA	170.1796					EPS	84.0622						LOM	264.3462	
SX	-.232903	SY	-.880465	SZ	-.412962	DAO	-24.39106	RAO	255.1837	RM	390150.871	LAT	28.310600	LON	279.461800
CJ	-.984258	ECC	.983839	SLR	12983.567	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.212067	NSY	-.883945	NSZ	-.416736	C3M	1.5345	VIM	2.6784	ZAE	138.441	B.T	.0000	B.R	-.0000
LATE	2.1434	LONE	7.1117	LATS	-1.3880	LONS	283.2573	LATI	-7.8008	LONI	326.6567	RSM	148.7534	TTAN	6.1740

LAUNCH DATE MAR 10.1966 BASE AZM 115.0 TF 61.106 ARRIVAL DATE MAR 13 1966 12 0 39.4

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	22 38 18.9	28.1	15.37	303.64	8.06	94.19	121.96	22 49 33.9	6576.9	10.96	4.00

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	10	22	49.6												
ENTER SHA	.03	11.28	10	22	49.6												
SEPARATION	1.20	12.45	10	22	50.8												
RETRO	3.20	14.45	10	22	52.8												
RISE 72	4.35	15.60	10	22	53.9	86.71	-.1281	22.46	-.0596	3031.4	-7.38	.00	.1259	292.68	-.0413	2.28	322.32
EXTM 72	10.89	22.14	10	23	.5	10.11	-.1891	-27.15	-.0906	2327.4	4.84	68.50	-.0000	205.21	-.5214	-13.05	343.18
RISE 51	11.20	22.45	10	23	.8	86.55	-.0693	7.12	-.0507	5879.3	-2.41	.00	.0841	277.91	-.0155	-13.61	343.99
EXIT SHA	22.49	33.74	10	23	12.1												
EXIT 72	22.49	33.74	10	23	12.1	315.88	-.0280	-39.83	-.0008	7111.8	7.02	39.36	-.0195	136.25	-.0117	-26.44	6.04
EXIT 51	22.49	33.74	10	23	12.1	42.41	-.0541	-24.04	-.0297	6538.8	3.62	51.65	.0544	263.14	-.0307	-26.44	6.04
EXTM 51	45.48	56.73	10	23	35.0	1.85	-.0134	-37.44	-.0015	13270.1	5.14	78.20	-.0000	187.22	-.0527	-33.65	26.48
EXTM 72	71.78	83.03	11	0	1.3	296.45	-.0001	-38.20	.0006	23854.5	4.72	25.58	.0000	128.74	-.0006	-35.04	34.52
EXTM 51	88.11	99.36	11	0	17.7	349.13	-.0007	-37.33	.0005	25415.1	4.37	75.19	.0000	144.11	-.0028	-35.10	36.15
RISE 61	149.89	161.14	11	1	19.5	317.71	.0025	-41.16	.0007	46034.7	3.57	-.00	.0016	149.36	.0013	-34.29	33.15
EXTM 51	197.67	208.92	11	2	7.2	1.36	.0030	-34.54	.0003	50317.4	3.39	81.12	-.0000	187.26	.0163	-33.55	26.49
EXTM 61	385.35	396.60	11	5	14.9	6.44	.0038	-35.33	.0003	88505.1	2.69	14.20	.0000	185.42	.0032	-31.42	349.72
EXTM 72	409.95	421.20	11	5	39.5	1.43	.0040	-32.85	.0002	88377.8	2.63	65.02	.0000	182.85	.0079	-31.22	344.35
RISE 11	586.71	597.96	11	8	36.3	296.30	.0040	-32.12	.0001	120021.0	2.02	.00	.0025	130.60	.0023	-30.03	304.28
SET 51	601.73	612.98	11	8	51.3	90.00	.0038	-28.84	.0002	120758.9	2.62	12.09	-.0031	243.62	-.0012	-29.94	300.79
SET 61	604.28	615.53	11	8	53.8	57.77	.0039	-32.22	.0002	122435.2	2.50	-.00	-.0020	225.69	.0027	-29.93	300.20
SET 72	799.60	810.85	11	12	9.2	94.36	.0039	-28.66	.0001	147680.8	2.43	-.01	-.0034	241.04	-.0004	-29.02	254.11
RISE 42	809.36	820.61	11	12	18.9	254.99	.0040	-27.51	-.0000	148374.1	1.73	4.52	.0028	120.75	-.0021	-28.98	251.78
EXTM 11	852.20	863.45	11	13	1.8	1.69	.0042	-30.98	.0001	151503.2	1.99	23.79	.0000	181.58	.0039	-28.82	241.53
SET 11	1114.57	1125.82	11	17	24.1	66.67	.0041	-29.30	.0001	183741.3	2.08	-.00	-.0026	233.20	.0024	-27.98	178.17
EXTM 42	1234.07	1245.32	11	19	23.6	359.91	.0042	-27.42	.0000	190090.4	1 71	82.20	-.0000	.61	-.0268	-27.67	149.07
RISE 51	1369.65	1380.90	11	21	39.2	270.00	.0041	-26.69	-.0000	208712.6	1.28	11.25	.0034	114.37	-.0015	-27.36	118.93
RISE 72	1524.69	1535.94	12	0	14.3	265.97	.0041	-26.80	-.0000	224877.1	1.17	-.01	.0036	117.08	-.0005	-27.04	77.90
RISE 61	1606.58	1617.83	12	1	36.1	296.79	.0042	-28.04	.0000	232493.8	1.26	.00	.0025	128.01	.0027	-26.88	57.77
SET 42	1657.08	1668.33	12	2	26.6	105.00	.0041	-25.86	.0001	236716.8	1.84	3.51	-.0029	240.56	-.0022	-26.79	45.34
EXTM 51	1727.40	1738.65	12	3	37.0	359.66	.0042	-26.70	.0000	237136.5	1.48	88.99	.0012	162.20	.2034	-26.67	28.02
EXTM 61	1860.77	1872.02	12	5	50.3	.64	.0042	-27.78	.0000	252736.7	1.44	21.98	-.0000	180.61	.0040	-26.46	355.13
EXTM 72	1899.82	1911.07	12	6	29.4	.19	.0042	-26.86	.0000	252495.2	1.42	71.05	-.0000	180.52	.0116	-26.40	348.49
RISE 11	2039.97	2051.22	12	8	49.5	291.14	.0042	-27.07	-.0000	270223.2	1.06	.00	.0028	123.85	.0024	-26.20	310.86
SET 51	2087.85	2099.10	12	9	37.4	90.00	.0041	-25.61	.0001	272963.0	1.73	10.82	-.0034	246.64	-.0015	-26.13	299.02
SET 61	2114.74	2125.99	12	10	4.3	64.39	.0042	-27.05	.0001	276348.0	1.63	-.00	-.0025	233.43	.0027	-26.09	292.37
SET 72	2272.88	2284.13	12	12	42.4	93.84	.0041	-25.70	.0001	288977.1	1.72	-.01	-.0037	244.03	-.0005	-25.89	253.22
RISE 42	2274.28	2285.53	12	12	43.8	255.00	.0041	-25.12	-.0000	288746.7	.98	3.06	.0030	118.86	-.0023	-25.89	252.87
EXTM 11	2315.21	2326.46	12	13	24.8	.42	.0042	-26.94	.0000	289324.1	1.30	27.85	-.0000	180.43	.0042	-25.84	242.74
SET 11	2590.26	2601.51	12	17	59.8	69.61	.0042	-26.28	.0000	313113.5	1.54	-.00	-.0028	237.19	.0024	-25.53	174.53
EXTM 42	2692.98	2704.23	12	19	42.5	359.99	.0042	-25.22	.0000	314398.9	1.20	80.00	.0000	.31	-.0204	-25.42	149.03
RISE 51	2823.65	2834.90	12	21	53.2	270.00	.0041	-24.86	-.0000	328785.4	.80	10.52	.0035	112.65	-.0015	-25.29	116.58
RISE 72	2977.78	2989.03	13	0	27.3	266.29	.0042	-24.98	-.0000	340831.4	.72	-.00	.0037	115.24	-.0006	-25.14	78.21
RISE 61	3047.67	3058.92	13	1	37.2	294.18	.0042	-25.83	-.0000	345582.8	.84	.00	.0026	124.81	.0027	-25.07	60.76
SET 42	3111.18	3122.43	13	2	40.7	105.00	.0041	-24.38	.0000	349588.4	1.46	2.60	-.0030	241.73	-.0023	-25.01	44.89
EXTM 51	3177.41	3188.66	13	3	47.0	359.34	.0042	-24.94	.0000	348019.1	1.12	89.00	.0023	36.91	-.1772	-24.95	28.34
EXTM 61	3309.05	3320.30	13	5	58.6	.33	.0042	-25.75	.0000	360577.4	1.12	24.01	-.0000	180.33	.0042	-24.83	355.42
EXTM 72	3348.31	3359.56	13	6	37.9	.07	.0043	-25.09	.0000	359748.2	1.12	72.81	.0000	180.23	.0127	-24.80	349.60
RISE 11	3479.14	3490.39	13	8	48.7	289.48	.0042	-25.30	-.0000	374622.9	.82	.00	.0029	121.93	.0024	-24.67	312.84
SET 51	3535.76	3547.01	13	9	45.3	90.00	.0042	-24.24	.0000	377400.1	1.55	10.27	-.0035	247.92	-.0015	-24.62	298.64
SET 61	3570.06	3581.31	13	10	19.6	66.46	.0042	-25.27	.0000	380968.9	1.50	-.00	-.0026	236.00	.0027	-24.58	290.03
IMPACT	3666.33	3677.58	13	11	55.9												
IMPC 72	3666.33	3677.58	13	11	55.9	81.60	.0043	-24.38	.0001	387608.5	2.45	11.41	-.0039	246.60	-.0002	-24.43	265.68
IMPC 11	3666.33	3677.58	13	11	55.9	337.15	.0044	-25.22	.0000	386103.9	1.87	25.81	.0014	157.03	.0041	-24.43	265.68

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	10	22	49.565	6577.343	15.3571	303.6615	10.96497	3.9989	121.9669	94.2128
ENTER SHA	.03	11.28	10	22	49.596	6578.350	15.2770	303.7866	10.96367	4.0870	122.0028	94.3458
SEPARATION	1.20	12.45	10	22	50.765	6654.921	11.7054	309.2135	10.89989	7.3651	123.3394	100.0677
RETRO	3.20	14.45	10	22	52.765	6881.829	5.6319	317.7904	10.71718	12.7350	124.7121	109.1439
EXIT SHA	22.49	33.74	10	23	12.052	12198.053	-26.4438	6.0437	8.02315	42.6864	113.9854	162.2324
IMPACT	3666.33	3677.58	13	11	55.896	388920.785	-24.4325	265.6791	2.21283	65.7369	292.6543	255.3220

SURVEYOR VIEW PERIODS

GMA	171.1653					EPS	95.0024							LOM	293.9298
SX	-.027496	SY	-.890155	SZ	-.438819	DAD	-26.02456	RAD	268.24647	RM	395169.105	LAT	28.310600	LON	279.461800
C3	-.894111	ECC	.9965287	SLR	12993.042	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.007228	NSY	-.897243	NSZ	-.440461	C3M	1.5302	VIM	2.6776	ZAE	141.293	B.T	.0000	B.R	-.0000
LATE	3.393_	LONE	6.4494	LATS	-1.3826	LONS	271.6709	LATI	-3.3713	LONI	328.3155	RSM	148.7180	TTAN	6.5743
LAUNCH DATE		MAR	11,1966		BASE AZM	84.0		TF	61.242				ARRIVAL DATE MAR	14 1966	10 50 49.4

LNCH AZMTH	LNCH TIME	PH	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
84.00	21 38 12.8	27.1	27.14	307.30	-16.49	83.77	99.69	21 49 27.8	6681.0	10.88	-8.18

EVNT STA	TFI	TFL	DAY	HR	MIN	AA	DMA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PRORE IN SUNLIGHT											
INJECTION	.00	11.25	11	21	49.5												
SEPARATION	1.20	12.45	11	21	50.7												
ENTER SHA	1.42	13.07	11	21	51.3												
RETRO	3.20	14.45	11	21	52.7												
RISE 72	7.44	18.69	11	21	56.9	321.02	-.6631	79.88	-.1916	2564.1	-2.32	-.00	.0772	6.35	.2105	13.86	348.11
RISE 51	12.27	23.52	11	22	1.7	60.17	-.1550	45.89	-.0229	4534.3	-3.99	.00	.0986	322.85	.0494	3.57	7.16
EXTM 72	13.28	24.53	11	22	2.7	286.76	-.0241	17.53	-.1002	3696.0	6.71	13.35	-.0000	69.79	.1057	1.68	10.38
EXTM 51	28.44	39.69	11	22	17.9	337.59	-.0283	-5.16	-.0270	6812.8	5.63	60.28	-.0000	49.98	.0787	-15.38	39.83
EXIT SHA	32.40	43.65	11	22	21.9												
EXIT 72	32.40	43.65	11	22	21.9	273.51	-.0057	-16.42	-.0085	11907.3	6.57	5.57	-.0045	105.86	.0091	-17.59	44.06
EXIT 51	32.40	43.65	11	22	21.9	332.01	-.0195	-10.40	-.0179	8175.1	5.80	59.40	-.0060	65.06	.0902	-17.59	44.06
EXTM 72	64.10	75.35	11	22	53.6	268.98	-.0003	-24.01	-.0019	22730.8	5.02	2.28	.0000	113.93	.0019	-25.12	59.69
RISE 42	66.06	77.31	11	22	55.5	102.22	-.0054	-16.69	-.0037	23572.6	4.26	.00	.0064	249.41	.0002	-25.33	60.09
EXTM 51	77.50	88.75	11	23	7.0	316.81	-.0003	-25.01	-.0016	22388.2	4.65	51.15	.0000	98.61	.0025	-26.27	61.75
EXTM 42	128.19	139.44	11	23	57.7	95.95	.0006	-23.17	-.0007	39122.4	4.00	8.57	-.0009	247.62	-.0009	-28.04	61.34
SET 42	215.26	226.51	12	1	24.7	104.98	.0025	-24.98	-.0001	58722.8	3.53	2.99	-.0017	241.26	-.0015	-28.65	49.54
RISE 61	226.19	237.44	12	1	35.6	303.82	.0033	-33.33	.0001	61229.0	3.08	.00	.0019	136.04	.0021	-28.67	47.64
EXTM 51	329.19	340.44	12	3	18.6	.03	.0038	-28.90	.0000	74053.6	2.87	86.84	-.0000	180.65	.0509	-28.65	27.65
EXTM 61	485.83	497.08	12	5	55.3	2.32	.0040	-31.71	.0001	103298.6	2.49	18.02	.0000	182.08	.0035	-28.42	353.55
EXTM 72	522.11	533.36	12	6	31.6	.37	.0041	-29.58	.0001	104839.0	2.43	68.32	-.0000	180.88	.0095	-28.36	345.32
RISE 11	688.04	699.29	12	9	17.5	293.99	.0040	-29.95	-.0000	133517.5	1.90	.00	.0026	127.66	.0023	-28.11	306.85
SET 51	715.42	726.67	12	9	44.9	90.00	.0039	-27.07	.0001	135832.5	2.50	11.40	-.0032	245.28	-.0013	-28.07	300.40
SET 61	729.82	741.07	12	9	59.3	60.73	.0040	-30.02	.0001	138941.7	2.39	-.00	-.0022	229.05	.0026	-28.05	297.00
SET 72	910.01	921.26	12	12	59.5	94.14	.0040	-27.49	.0001	161077.5	2.35	-.00	-.0035	242.23	-.0005	-27.81	254.06
RISE 42	918.70	929.95	12	13	8.2	255.00	.0040	-26.44	-.0001	161669.8	1.64	3.87	.0029	119.91	-.0021	-27.80	251.98
EXTM 11	958.51	969.76	12	13	48.0	.77	.0042	-29.74	.0000	164056.8	1.92	25.05	-.0000	180.74	.0040	-27.76	242.40
SET 11	1226.58	1237.83	12	18	16.0	67.27	.0041	-28.70	.0001	196138.2	2.04	-.00	-.0027	234.00	.0024	-27.47	177.46
EXTM 42	1343.15	1354.40	12	20	12.6	359.96	.0042	-27.12	.0000	201883.0	1.68	81.90	.0000	.31	-.0234	-27.36	149.02
RISE 51	1478.02	1489.27	12	22	27.5	270.00	.0041	-26.62	-.0000	220166.4	1.25	11.22	.0034	114.30	-.0014	-27.25	116.02
RISE 72	1632.92	1644.17	13	1	2.4	265.96	.0041	-26.90	-.0000	236072.0	1.14	-.01	.0036	117.18	-.0005	-27.13	78.00
RISE 61	1715.62	1726.87	13	2	25.1	296.95	.0042	-28.17	-.0000	243658.5	1.24	.00	.0025	128.20	.0027	-27.07	57.66
SET 42	1765.91	1777.16	13	3	15.4	105.00	.0041	-26.14	.0000	247785.6	1.82	3.68	-.0029	240.33	-.0022	-27.03	45.28
EXTM 51	1833.47	1844.72	13	4	22.9	359.02	.0042	-27.02	.0000	247907.9	1.46	88.45	.0021	145.81	.1140	-26.99	28.64
EXTM 61	1968.13	1979.38	13	6	37.6	.33	.0042	-28.17	.0000	263557.7	1.42	21.59	-.0000	180.32	.0040	-26.90	355.42
EXTM 72	2008.05	2019.30	13	7	17.5	.11	.0042	-27.32	.0000	263339.5	1.41	70.58	-.0000	180.29	.0111	-26.87	345.57
RISE 11	2150.53	2161.78	13	9	40.0	291.68	.0042	-27.64	-.0000	281171.2	1.06	.00	.0028	124.59	.0024	-26.79	310.36
SET 51	2196.58	2207.83	13	10	26.0	90.00	.0041	-26.27	.0000	283712.5	1.73	11.08	-.0034	246.03	-.0015	-26.76	298.98
SET 61	2220.43	2231.68	13	10	49.9	63.65	.0042	-27.68	.0000	286871.0	1.63	-.00	-.0025	232.52	.0027	-26.75	293.08
SET 72	2382.12	2393.37	13	13	31.6	93.97	.0041	-26.48	.0000	299747.7	1.71	-.00	-.0036	243.25	-.0005	-26.66	253.05
RISE 42	2382.72	2393.97	13	13	32.2	255.00	.0041	-25.92	-.0000	299400.3	.98	3.55	.0029	119.49	-.0022	-26.66	252.91
EXTM 11	2423.01	2434.26	13	14	12.5	.23	.0042	-27.71	.0000	300052.4	1.30	27.08	-.0000	180.23	.0042	-26.64	242.93
SET 11	2695.33	2706.58	13	18	44.8	68.70	.0042	-27.24	.0000	323581.2	1.54	-.00	-.0028	235.93	.0024	-26.51	175.41
EXTM 42	2801.77	2813.02	13	20	31.2	359.98	.0042	-26.29	.0000	325142.5	1.21	81.07	-.0000	.15	-.0155	-26.46	149.00
RISE 51	2932.18	2943.43	13	22	41.6	270.00	.0042	-25.98	-.0000	339715.7	.79	10.97	.0034	113.70	-.0015	-26.40	116.61
RISE 72	3085.25	3096.50	14	1	14.7	266.08	.0042	-26.18	-.0000	351547.9	.74	-.00	.0037	116.45	-.0005	-26.33	78.44
RISE 61	3161.71	3172.96	14	2	31.2	295.60	.0042	-27.05	-.0000	356809.8	.86	.00	.0026	126.56	.0027	-26.30	59.37
SET 42	3219.81	3231.06	14	3	29.3	105.00	.0041	-25.46	.0000	360418.6	1.47	3.39	-.0030	240.71	-.0023	-26.28	44.87
EXTM 51	3285.26	3296.51	14	4	34.7	359.14	.0042	-26.26	.0000	358958.9	1.14	89.07	.0032	124.20	.1295	-26.25	28.53
EXTM 61	3417.19	3428.44	14	6	46.7	.18	.0042	-27.10	.0000	371888.2	1.15	22.66	-.0000	180.18	.0041	-26.20	355.57
EXTM 72	3457.19	3468.35	14	7	26.6	.08	.0042	-26.49	.0000	371101.7	1.16	71.41	-.0000	180.24	.0116	-26.18	345.59
RISE 11	3593.05	3604.30	14	9	42.5	290.82	.0042	-26.73	-.0000	386836.4	.94	.00	.0029	123.40	.0024	-26.12	311.53
SET 51	3644.30	3655.55	14	10	33.8	90.00	.0042	-25.73	.0000	389718.8	1.82	10.87	-.0035	246.54	-.0015	-26.09	298.63
SET 61	3671.57	3682.82	14	11	1.0	64.77	.0043	-26.74	.0000	393539.3	2.21	-.00	-.0026	233.89	.0028	-26.06	291.69
IMPACT	3674.51	3685.76	14	11	4.0												
IMPC 72	3674.51	3685.76	14	11	4.0	55.58	.0043	-26.18	.0000	390314.0	2.45	34.27	-.0038	243.62	.0008	-26.06	290.94
IMPC 51	3674.51	3685.76	14	11	4.0	97.67	.0043	-25.65	.0000	393382.3	2.48	4.57	-.0035	243.67	-.0017	-26.06	290.94
IMPC 11	3674.51	3685.76	14	11	4.0	311.58	.0044	-26.77	.0000	392461.6	1.83	12.98	.0024	136.74	.0031	-26.06	290.94
IMPC 61	3674.51	3685.76	14	11	4.0	65.53	.0043	-26.73	.0000	393941.5	2.39	-.47	-.0026	234.38	.0028	-26.06	290.94

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	11	21	49.463	6688.596	27.1717	307.0556	10.88251	-8.1834	99.5720	83.5258
SEPARATION	1.20	12.45	11	21	50.663	6591.905	25.8084	314.3832	10.95632	-4.8382	102.9827	91.1513
ENTER SHA	1.42	13.07	11	21	51.287	6563.566	24.9553	318.0645	10.98012	-3.0649	104.6297	94.9922
RETRO	3.20	14.45	11	21	52.663	6546.191	22.7234	326.0415	10.99480	.8718	107.9987	103.3140
EXIT SHA	32.40	43.65	11	22	21.865	14042.814	-17.5907	44.0597	7.47486	46.7175	113.0337	188.6530
IMPACT	3674.51	3685.76	14	11	3.976	393941.313	-26.0610	290.9382	2.24594	69.0448	281.5683	268.5514

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SURVEYOR VIEW PERIODS

GHA	171.1653					EPS	95.2374							LOM	286.7354
SX	-.023035	SY	-.898109	SZ	-.439169	DAO	-26.05090	RAO	268.53077	RM	395269.406	LAT	28.3106610	LON	279.461800
C3	-.888639	ECC	.985409	SLR	12993.849	RCA	6544.6650	LYA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.002843	NSY	-.897622	NSZ	-.440757	C3M	1.5346	VIM	2.6784	ZAE	141.450	B.T	.0000	B.R	.0000
LATE	3.4188	LONE	6.4315	LATS	-1.3825	LONS	271.4181	LATI	-3.1455	LONI	328.4236	RSM	148.7173	TTAN	6.5792
LAUNCH DATE		MAR	11,1966		BASE AZM	87.0		TF	61.163			ARRIVAL	DATE MAR	14 1.66	11 20 39,4

LNCH AZMTH	LNCH TIME			PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME			INJ RAD	INJ VEL	INJ PTH
87.00	22	6	53.4	27.5	25.90	307.50	-10.04	91.16	102.06	22	18	8.4	6594.8	10.95	-4.98

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	RLE	DEL	AZI	DAZ	LAT	L
				PRORE IN SUNLIGHT													
INJECTION	.00	11.25	11	22	18.1												
ENTER SHA	.64	11.89	11	22	18.8												
SEPARATION	1.20	12.45	11	22	19.3												
RETRO	3.20	14.45	11	22	21.3												
RISE 72	6.40	17.65	11	22	24.5	48.49	-.9381	78.17	.0687	2605.8	-4.42	-.00	.0965	351.17	.1799	14.06	342.24
RISE 51	11.83	23.08	11	22	30.0	65.26	-.1328	40.96	-.0250	4830.6	-3.74	.00	.0944	316.70	.0372	2.85	3.18
EXTM 72	12.55	23.80	11	22	30.7	296.61	-.0383	19.61	-.1147	3278.9	6.35	21.83	.0000	65.13	.1296	1.56	5.40
EXTM 51	30.52	41.77	11	22	48.7	343.57	-.0242	-8.62	-.0203	7710.9	5.54	66.83	-.0000	45.29	.0798	-16.52	37.06
EXIT SHA	31.32	42.57	11	22	49.5												
EXIT 72	31.32	42.57	11	22	49.5	280.31	-.0062	-16.59	-.0086	11272.8	6.58	12.08	-.0052	105.37	.0093	-16.93	37.89
EXIT 51	31.32	42.57	11	22	49.5	342.44	-.0226	-9.57	-.0198	7980.0	5.57	66.79	-.0017	49.01	.0738	-16.93	37.89
EXTM 72	64.21	75.46	11	23	22.3	275.55	-.0002	-24.26	-.0018	22461.6	4.99	8.27	.0000	113.92	.0018	-24.67	53.52
EXTM 51	79.62	90.87	11	23	37.8	324.66	-.0002	-25.07	-.0014	22927.6	4.58	58.17	.0000	96.62	.0028	-25.93	59.59
RISE 42	83.82	95.07	11	23	42.0	104.04	-.0024	-18.97	-.0021	28988.7	4.24	.00	.0031	246.56	-.0003	-26.18	59.87
EXTM 42	128.15	139.40	12	0	26.3	102.35	.0006	-22.44	-.0008	39957.2	3.99	3.36	-.0000	244.75	-.0010	-27.62	54.71
SET 42	164.40	175.65	12	1	2.5	105.00	.0017	-23.63	-.0004	48396.3	3.78	2.15	-.0010	242.32	-.0013	-28.06	50.65
RISE 61	190.28	201.53	12	1	28.4	304.08	.0031	-33.51	.0001	54184.1	3.29	-.00	.0017	136.32	.0019	-28.22	46.87
EXTM 51	295.56	306.81	12	3	13.7	.01	.0037	-28.64	.0000	68376.8	2.97	87.10	-.0000	180.34	.0427	-28.39	27.67
EXTM 61	455.59	466.84	12	5	53.7	2.42	.0039	-31.69	.0001	98916.9	2.55	18.04	.0000	182.17	.0035	-28.25	333.46
EXTM 72	491.47	502.72	12	6	29.6	.29	.0040	-29.47	.0001	100523.7	2.48	.43	.0000	180.69	.0095	-28.21	348.40
RISE 11	658.66	669.91	12	9	16.8	293.92	.0040	-29.88	-.0000	129819.5	1.94	.00	.0026	127.97	.0023	-27.99	306.86
SET 51	685.86	697.11	12	9	44.0	90.00	.0039	-26.92	.0001	132175.1	2.54	11.34	-.0032	245.42	-.0013	-27.95	300.47
SET 61	700.73	711.98	12	9	58.9	60.81	.0040	-29.96	.0001	133370.3	2.42	-.00	-.0022	229.14	.0026	-27.94	296.98
SET 72	880.98	892.23	12	12	59.1	94.13	.0039	-27.39	.0001	157828.9	2.38	-.00	-.0035	242.33	-.0005	-27.72	254.13
RISE 42	890.12	901.37	12	13	8.3	255.00	.0040	-26.33	-.0001	158496.3	1.67	3.80	.0029	119.82	-.0021	-27.71	251.94
EXTM 11	929.80	941.05	12	13	47.9	.76	.0042	-29.69	.0000	160914.1	1.95	25.10	-.0000	180.73	.0040	-27.67	248.41
SET 11	1198.28	1209.53	12	18	16.4	67.30	.0041	-28.66	.0001	193373.6	2.06	.01	-.0027	234.05	.0024	-27.41	177.45
EXTM 42	1314.92	1326.17	12	20	13.1	359.96	.0042	-27.06	.0000	199244.4	1.69	81.84	.0000	.28	-.0232	-27.31	149.02
RISE 51	1449.93	1461.18	12	22	28.1	270.00	.0041	-26.57	-.0000	217664.6	1.26	11.20	.0034	114.25	-.0014	-27.20	116.00
RISE 72	1604.94	1616.19	13	1	3.1	269.96	.0041	-26.86	-.0000	233703.3	1.16	-.01	.0036	117.14	-.0009	-27.09	77.97
RISE 61	1687.81	1698.76	13	2	25.6	296.92	.0041	-28.15	-.0000	241340.2	1.25	.00	.0025	128.17	.0027	-27.03	57.68
SET 42	1737.83	1749.08	13	3	16.0	105.00	.0041	-26.10	.0000	245509.9	1.83	3.66	-.0029	240.36	-.0022	-27.00	48.29
EXTM 51	1805.60	1816.85	13	4	23.7	359.06	.0042	-26.99	.0000	245696.1	1.47	88.49	.0021	146.17	.1177	-26.96	28.60
EXTM 61	1940.13	1951.38	13	6	38.3	.32	.0042	-28.16	.0000	261421.9	1.44	21.60	-.0000	180.31	.0040	-26.88	355.43
EXTM 72	1980.09	1991.34	13	7	18.2	.10	.0042	-27.31	.0000	261232.9	1.42	70.60	-.0000	180.28	.0111	-26.85	348.97
RISE 11	2122.62	2133.87	13	9	40.8	291.68	.0042	-27.63	-.0000	279155.6	1.07	.00	.0028	124.58	.0024	-26.77	316.36
SET 51	2168.64	2179.89	13	10	26.8	90.00	.0041	-26.25	.0000	281722.9	1.74	11.07	-.0034	246.05	-.0015	-26.75	298.99
SET 61	2192.54	2203.79	13	10	50.7	63.66	.0042	-27.67	.0000	284897.3	1.63	-.00	-.0025	232.53	.0027	-26.74	293.08
SET 72	2354.22	2365.47	13	13	32.4	93.96	.0041	-26.47	.0000	297863.4	1.72	-.00	-.0036	243.25	-.0005	-26.65	253.06
RISE 42	2354.88	2366.13	13	13	33.0	255.00	.0041	-25.91	-.0000	297522.3	.99	3.54	.0029	119.48	-.0022	-26.65	252.98
EXTM 11	2395.12	2406.37	13	14	13.3	.22	.0042	-27.71	.0000	298191.5	1.30	27.08	-.0000	180.22	.0042	-26.63	242.93
SET 11	2667.47	2678.72	13	18	45.6	68.69	.0042	-27.25	.0000	321060.9	1.59	-.00	-.0028	235.92	.0024	-26.51	175.42
EXTM 42	2773.98	2785.23	13	20	32.1	359.98	.0042	-26.29	.0000	323478.4	1.22	81.07	-.0300	.14	-.0152	-26.46	149.00
RISE 51	2904.42	2915.67	13	22	42.6	270.00	.0042	-25.99	-.0000	338123.5	.80	10.97	.0034	113.71	-.0015	-26.41	116.61
RISE 72	3057.47	3068.72	14	1	15.6	266.08	.0042	-26.19	-.0000	349989.2	.75	-.00	.0037	116.46	-.0005	-26.38	78.44
RISE 61	3134.01	3145.26	14	2	32.1	295.62	.0042	-27.06	-.0000	355271.3	.87	.00	.0026	126.59	.0027	-26.32	59.34
SET 42	3191.99	3203.24	14	3	30.1	105.00	.0041	-25.68	.0000	358880.5	1.48	3.40	-.0030	240.70	-.0023	-26.29	44.87
EXTM 51	3255.81	3267.06	14	4	33.9	358.72	.0042	-26.28	.0000	357318.4	1.14	88.73	.0034	115.42	.0717	-26.27	28.84
EXTM 61	3389.36	3400.61	14	6	47.5	.17	.0042	-27.12	.0000	370361.3	1.15	22.64	-.0000	180.17	.0041	-26.22	359.58
EXTM 72	3429.31	3440.56	14	7	27.4	.08	.0042	-26.51	.0000	369568.4	1.16	71.39	-.0000	180.23	.0116	-26.20	348.59
RISE 11	3565.45	3576.70	14	9	43.0	290.84	.0042	-26.76	-.0000	385209.1	.91	.00	.0029	123.44	.0024	-26.15	311.58
SET 51	3616.68	3627.93	14	10	34.8	90.00	.0042	-25.76	.0000	387906.3	1.71	10.88	-.0035	246.51	-.0015	-26.12	298.63
SET 61	3643.94	3655.19	14	11	2.1	64.72	.0042	-26.78	.0000	391379.1	1.77	-.00	-.0026	233.83	.0 28	-26.10	291.75
IMPACT	3669.81	3681.06	14	11	27.9												
IMPC 72	3669.81	3681.06	14	11	27.9	61.41	.0043	-26.16	.0001	390883.1	2.47	29.08	-.0039	244.40	.0005	-26.08	289.16
IMPC 51	3669.81	3681.06	14	11	27.9	103.43	.0043	-25.63	.0000	393976.0	2.48	-.04	-.0034	241.27	-.0018	-26.08	289.16
IMPC 11	3669.81	3681.06	14	11	27.9	317.42	.0044	-26.81	.0000	392210.1	1.86	16 08	.0022	141.06	.0033	-26.08	289.16
IMPC 61	3669.81	3681.06	14	11	27.9	71.34	.0043	-26.72	.0000	394431.9	2.40	-4.14	-.0028	238.09	.0027	-26.03	289.16

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	11	22	18.139	6595.820	25.9122	307.4432	10.95435	-4.9828	102.0744	91.1022
ENTER SHA	.64	11.89	11	22	18.775	6565.025	25.0904	311.2603	10.97924	-3.1885	103.7480	99.0788
SEPARATION	1.20	12.45	11	22	19.339	6549.602	24.2788	314.9822	10.99225	-1.5681	105.1947	98.5421
RETRO	3.20	14.45	11	22	21.339	6579.355	20.6047	329.9797	10.96719	4.1486	199.7707	110.4369
EXIT SHA	31.32	42.57	11	22	49.461	14065.624	-16.9271	37.8478	7.46920	46.7625	113.1423	189.3819
IMPACT	3669.81	3681.06	14	11	27.949	394022.594	-26.0781	289.1979	2.84658	68.9897	281.0991	268.7881

SURVEYOR VIEW PERIODS

GHA	171.1653					EPS	95.4758							LOM	279.4311
SX	-.018508	SY	-.898044	SZ	-.439516	DAO	-26.07301	RAO	268.81937	RM	395370.909	LAT	28.310600	LON	279.461800
C3	-.887257	ECC	.985432	SLR	12993.990	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.001667	NSY	-.897477	NSZ	-.441058	C3M	1.5347	VIM	2.6784	ZAE	141.496	B.T	.0000	B.R	-.0000
LATE	3.4446	LONE	6.4142	LATS	-1.3824	LONS	271.1624	LATI	-3.0315	LONI	328.4385	RSM	148.7165	TTAN	6.5831

LAUNCH DATE MAR 11,1966 BASE AZM 90.0 TF 61.172 ARRIVAL DATE MAR 14 1966 11 50 56.7

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
90.00	22 31 45.9	27.8	24.68	307.51	-4 51	97.40	104.34	22 43 .9	6554.6	10.99	-2.24

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PRDRE IN EARTH'S SHADOW															
INJECTION	.00	11.25	11	22	43.0												
SEPARATION	1.20	12.45	11	22	44.2												
RETRO	3.20	14.45	11	22	46.2												
RISE 72	5.69	16.94	11	22	48.7	69.33	-.4237	68.52	.0933	2701.5	-5.69	.00	.1087	339.97	.1448	13.67	337.77
RISE 61	10.86	22.11	11	22	53.9	355.35	-.1304	-49.66	.0126	4834.1	6.17	.01	.0073	176.99	-.0850	3.08	357.57
RISE 51	11.53	22.78	11	22	54.5	69.12	-.1166	36.47	-.0275	5109.0	-3.45	.00	.0938	311.29	.0274	1.88	359.64
EXTM 72	11.96	23.21	11	22	55.0	307.54	-.0598	20.81	-.1281	2935.6	5.93	31.02	-.0000	59.87	.1631	1.15	.91
EXTM 61	13.48	24.73	11	22	56.5	339.15	-.0805	-47.31	.0154	5873.2	6.94	.50	-.0000	166.03	-.0567	-1.33	5.13
SET 61	17.21	28.46	11	23	.2	325.63	-.0452	-44.29	.0114	7463.4	7.19	-.00	-.0037	156.17	-.0341	-6.42	13.77
EXIT SHA	30.34	41.59	11	23	13.3												
EXIT 72	30.34	41.59	11	23	13.3	286.75	-.0070	-17.19	-.0087	10687.6	6.59	18.26	-.0062	105.57	.0095	-16.68	32.22
EXIT 51	30.34	41.59	11	23	13.3	352.10	-.0255	-9.28	-.0195	7857.8	5.34	71.91	.0078	25.90	.0992	-16.68	32.22
EXIT 61	30.34	41.59	11	23	13.3	306.70	-.0128	-39.23	.0035	12888.3	6.48	-3.16	-.0033	141.53	-.0099	-16.68	32.22
EXTM 51	33.10	44.35	11	23	16.1	348.33	-.0203	-12.13	-.0151	8755.9	5.45	72.50	-.0000	41.13	.0828	-17.94	34.68
EXTM 72	64.89	76.14	11	23	47.9	281.47	-.0001	-24.88	-.0016	22391.6	4.94	13.69	.0000	113.79	.0017	-24.65	48.18
EXTM 51	82.13	93.38	12	0	5.1	331.61	-.0002	-25.45	-.0013	23604.8	4.51	64.45	.0000	95.60	.0030	-25.97	50.16
RISE 61	158.52	169.77	12	1	21.5	304.74	.0027	-33.96	.0002	47550.7	3.53	-.00	.0016	137.03	.0016	-27.90	45.60
EXTM 51	265.51	276.76	12	3	8.5	.00	.0035	-28.56	-.0000	63094.7	3.08	87.18	-.0000	180.32	.0132	-28.30	27.68
EXTM 61	430.51	441.76	12	5	53.5	2.80	.0039	-31.79	.0001	95204.0	2.61	17.93	-.0000	182.50	.0035	-28.22	353.11
EXTM 72	465.33	476.58	12	6	28.3	.34	.0040	-29.49	.0001	96747.5	2.53	68.41	-.0000	180.80	.0095	-28.18	345.36
RISE 11	533.47	544.92	12	9	16.7	293.96	.0040	-29.92	-.0000	126597.3	1.97	.00	.0026	127.62	.0023	-27.98	306.76
SET 51	668.26	671.51	12	9	43.3	90.00	.0039	-26.89	.0001	128922.5	2.57	11.33	-.0030	245.45	-.0013	-27.95	300.54
SET 61	675.04	686.29	12	9	58.0	60.75	.0040	-30.00	.0001	132130.9	2.45	-.00	-.0022	229.08	.0026	-27.93	297.08
SET 72	855.95	867.20	12	12	59.0	94.12	.0039	-27.38	.0001	154950.8	2.40	-.00	-.0035	242.33	-.0005	-27.72	254.18
RISE 42	865.46	876.71	12	13	8.5	254.99	.0040	-26.30	-.0001	155476.7	1.69	3.78	.0029	119.79	-.0021	-27.71	251.90
EXTM 11	905.10	916.35	12	13	48.1	.78	.0042	-29.72	.0000	158141.2	1.97	25.06	-.0000	180.75	.0040	-27.67	242.40
SET 11	1173.67	1184.92	12	18	16.7	67.28	.0041	-28.68	.0001	190881.7	2.07	.01	-.0027	234.02	.0024	-27.41	177.49
EXTM 42	1290.56	1301.81	12	20	13.6	359.96	.0042	-27.06	.0000	196876.5	1.71	81.84	.0000	.27	-.0238	-27.32	149.02
RISE 51	1425.72	1436.97	12	22	28.7	270.00	.0041	-26.57	-.0000	215408.1	1.27	11.20	.0034	114.25	-.0014	-27.21	115.98
RISE 72	1580.78	1592.03	13	1	3.8	265.96	.0041	-26.97	-.0000	231551.7	1.17	-.01	.0036	117.15	-.0005	-27.10	77.96
RISE 61	1663.47	1674.72	13	2	26.5	296.95	.0041	-28.17	-.0000	239247.4	1.26	.00	.0025	128.20	.0027	-27.05	57.64
SET 42	1713.62	1724.87	13	3	16.6	105.00	.0041	-26.10	.0000	243428.9	1.84	3.66	-.0029	240.36	-.0022	-27.01	45.30
EXTM 51	1781.41	1792.66	13	4	24.4	359.05	.0042	-27.00	.0000	243654.3	1.48	86.47	.0021	146.11	.1162	-26.97	28.62
EXTM 61	1916.02	1927.27	13	6	39.0	.32	.0042	-28.19	.0000	259456.1	1.44	21.57	-.0000	180.31	.0040	-26.89	355.43
EXTM 72	1955.99	1967.24	13	7	19.0	.10	.0042	-27.33	.0000	259285.8	1.43	70.58	-.0000	180.28	.0111	-26.87	345.57
RISE 11	2098.67	2109.92	13	9	41.7	291.70	.0042	-27.65	-.0000	277284.0	1.08	.00	.0028	124.61	.0024	-26.79	310.33
SET 51	2144.55	2155.80	13	10	27.6	90.00	.0041	-26.26	.0000	279858.1	1.74	11.08	-.0034	245.03	-.0015	-26.77	298.99
SET 61	2168.35	2179.60	13	10	51.4	63.63	.0042	-27.70	.0000	283035.5	1.64	-.00	-.0025	232.49	.0027	-26.75	293.11
SET 72	2330.18	2341.43	13	13	33.2	93.97	.0041	-26.49	.0000	296077.9	1.73	-.00	-.0036	243.24	-.0005	-26.67	253.07
RISE 42	2330.89	2342.14	13	13	33.9	255.00	.0041	-25.92	-.0000	295740.0	1.00	3.55	.0029	119.49	-.0022	-26.67	252.89
EXTM 11	2371.10	2382.35	13	14	14.1	.22	.0042	-27.74	.0000	296425.9	1.31	27.05	-.0000	180.22	.0042	-26.65	242.93
SET 11	2643.38	2654.63	13	18	44.4	68.67	.0042	-27.27	.0000	320183.1	1.56	-.00	-.0028	235.89	.0024	-26.53	175.45
EXTM 42	2750.02	2761.27	13	20	33.0	359.99	.0042	-26.31	.0000	321845.3	1.22	81.09	-.0000	.13	-.0152	-26.48	148.99
RISE 51	2880.53	2891.78	13	22	43.5	270.00	.0041	-26.01	-.0000	336333.8	.82	10.98	.0034	113.73	-.0015	-26.43	116.60
P SE 72	3033.66	3044.91	14	1	16.7	266.08	.0042	-26.21	-.0000	348474.2	.75	-.00	.0037	116.48	-.0005	-26.37	78.44
RISE 61	3110.31	3121.56	14	2	33.3	295.65	.0042	-27.09	-.0000	353765.9	.87	.00	.0026	126.62	.0027	-26.34	59.31
SET 42	3168.13	3179.38	14	3	31.1	105.00	.0041	-25.70	.0000	357361.9	1.48	3.41	-.0030	240.69	-.0023	-26.32	44.88
EXTM 51	3235.38	3246.63	14	4	38.4	359.59	.0042	-26.30	.0000	356032.6	1.14	89.33	.0021	147.00	2706	-26.29	28.09
EXTM 61	3365.48	3376.73	14	6	48.5	.17	.0042	-27.15	.0000	368822.9	1.15	22.61	-.0000	180.17	.0041	-26.24	355.58
EXTM 72	3405.42	3416.67	14	7	28.4	.08	.0042	-26.54	.0000	368015.4	1.15	71.36	-.0000	180.23	.0115	-26.23	345.59
RISE 11	3541.73	3552.98	14	9	44.7	290.87	.0042	-26.79	-.0000	383559.3	.89	.00	.0029	123.48	.0024	-26.17	311.47
SET 51	3592.87	3604.12	14	10	35.9	90.00	.0042	-25.78	.0000	386123.5	1.65	10.89	-.0035	246.48	-.0015	-26.15	298.63
SET 61	3620.04	3631.29	14	11	3.1	64.68	.0042	-26.81	.0000	389437.7	1.63	-.00	-.0026	233.78	.0028	-26.13	291.79
IMPACT	3670.34	3681.59	14	11	53.4												
IMPC 72	3670.34	3681.59	14	11	53.4	67.59	.0043	-26.14	.0001	391520.5	2.48	23.56	-.0039	244.87	.0033	-26.10	279.03
IMPC 51	3670.34	3681.59	14	11	53.4	109.53	.0043	-25.62	.0000	394595.9	2.46	-4.81	-.0033	238.52	-.0020	-26.10	279.03
IMPC .1	3670.34	3681.59	14	11	53.4	323.62	.0044	-26.85	.0000	391986.2	1.88	19.06	.0020	145.95	.0035	-26.10	279.03

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	11	22	43.014	6554.801	24.6765	307.5048	10.98804	-2.2406	104.3371	97.3996
SEPARATION	1.20	12.45	11	22	44.214	6547.521	22.7887	314.4801	10.99437	1.1935	107.2693	104.6757
RETRO	3.20	14.45	11	22	46.214	6640.139	18.9937	325.5152	10.91656	6.8615	111.3975	116.2122
EXIT SHA	30.34	41.59	11	23	13.349	14058.255	-16.6820	32.2239	7.47128	46.7490	113.2110	189.7235
IMPACT	3670.34	3681.59	14	11	53.356	394112.836	-26.0960	279.0312	2.24395	68.6695	280.7164	269.0232

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SURVEYOR VIEW PERIODS

GHA	171.1653					EPS	95.6752							LOM	273.3193
SX	-.014721	SY	-.897976	SZ	-.439799	DAD	-26.09105	RAD	269.06083	RM	395455.340	LAT	28.310600	LON	279.461800
C3	-.887813	ECC	.985423	SLR	12993.931	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.005454	NSY	-.897339	NSZ	-.441309	C3M	1.5343	VIM	2.6783	ZAE	141.485	B.T	.0000	B.R	-.0000
LATE	3.4661	LONE	6.3988	LATS	-1.3823	LONS	270.9475	LATI	-3.0417	LONI	328.4170	RSM	148.7159	TTAN	6.5862
LAUNCH DATE		MAR	11,1966		BASE AZM	93.0		TF	61.204			ARRIVAL DATE		MAR 14 1966	12 16 17.3

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
93.00	22 51 52.6	28.0	23.47	307.34	-.11	102.28	106.54	23 3 7.6	6544.7	11.00	-.05

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW														
INJECTION	.00	11.25	11	23	3.1												
SEPARATION	1.20	12.45	11	23	4.3												
RETRO	3.20	14.45	11	23	6.3												
RISE 72	5.19	16.44	11	23	8.3	75.89	-.2893	60.36	.0763	2803.3	-6.45	-.00	.1163	331.33	.1131	12.93	334.25
RISE 51	11.34	22.59	11	23	14.5	72.19	-.1047	32.39	-.0300	5347.1	-3.18	.00	.0913	306.49	.0198	.66	356.58
RISE 61	10.50	21.75	11	23	13.6	4.16	-.1312	-49.69	.0061	5004.1	5.78	.00	.0108	182.69	-.0844	2.12	354.09
EXTM 72	11.53	22.78	11	23	14.7	318.63	-.0855	20.20	-.1362	2681.3	5.54	40.55	.0000	54.72	.2080	.33	357.13
EXTM 61	14.81	26.06	11	23	17.9	339.87	-.0651	-46.81	.0121	6672.7	6.85	1.12	-.0000	166.37	-.0462	-4.62	5.50
SET 61	22.61	33.86	11	23	25.7	320.81	-.0254	-42.49	.0065	9911.3	6.82	.00	-.0033	152.23	-.0195	-12.65	19.44
EXIT SHA	29.43	40.68	11	23	32.6												
EXIT 72	29.43	40.68	11	23	32.6	292.52	-.0081	-18.31	-.0086	10166.4	6.60	23.79	-.0075	106.58	.0095	-16.89	27.35
EXIT 51	29.43	40.68	11	23	32.6	.59	-.0281	-9.64	-.0199	7775.2	5.13	73.89	.0208	357.91	.0974	-16.89	27.35
EXIT 61	29.43	40.68	11	23	32.6	313.03	-.0142	-40.42	.0039	12624.0	6.43	-1.28	-.0028	146.18	-.0111	-16.89	27.35
EXTM 51	35.87	47.12	11	23	39.0	352.08	-.0171	-15.47	-.0113	9817.4	5.37	77.35	-.0000	37.32	.0914	-19.55	32.62
EXTM 72	65.87	77.12	12	0	9.0	286.47	-.0000	-25.85	-.0014	22455.2	4.90	16.22	-.0000	114.70	.0015	-25.06	43.80
EXTM 51	94.82	96.07	12	0	27.9	337.36	-.0001	-26.18	-.0011	24352.8	4.45	69.67	.0000	96.23	.0031	-26.38	45.67
RISE 61	132.82	144.07	12	1	15.9	305.91	.0023	-34.73	.0003	41848.7	3.77	.00	.0014	138.27	.0013	-27.77	43.80
EXTM 51	240.13	251.38	12	3	3.3	359.99	.0034	-28.71	-.0000	58461.6	3.19	87.03	.0000	179.60	.0314	-28.42	27.70
EXTM 61	408.97	420.22	12	5	52.1	2.85	.0039	-32.05	.0001	91953.1	2.65	17.66	.0000	182.53	.0034	-28.35	353.07
EXTM 72	444.05	455.30	12	6	27.2	.37	.0040	-29.67	.0001	93616.5	2.57	68.23	.0000	180.87	.0093	-28.31	345.33
RISE 11	614.02	625.27	12	9	17.1	294.12	.0040	-30.07	-.0000	124022.9	2.00	.00	.0026	127.83	.0023	-28.09	306.55
SET 51	639.52	650.77	12	9	42.6	90.00	.0038	-26.98	.0001	126238.0	2.59	11.36	-.0032	245.37	-.0013	-28.06	300.61
SET 61	653.56	664.81	12	9	56.7	60.55	.0039	-30.16	.0001	129373.8	2.47	-.00	-.0022	228.84	.0026	-28.04	297.32
SET 72	835.79	847.04	12	12	58.9	94.14	.0039	-27.47	.0001	152596.6	2.41	-.00	-.0035	242.24	-.0005	-27.82	254.20
RISE 42	845.56	856.81	12	13	8.7	254.99	.0040	-26.37	-.0001	153359.1	1.70	3.82	.0028	119.85	-.0021	-27.80	251.87
EXTM 11	885.28	896.53	12	13	48.4	.82	.0041	-29.85	.0000	155890.3	1.98	24.94	-.0000	180.78	.0040	-27.76	242.36
SET 11	1153.54	1164.79	12	18	16.7	67.20	.0041	-28.77	.0001	188808.0	2.08	-.00	-.0026	233.91	.0024	-27.49	177.59
EXTM 42	1270.90	1282.15	12	20	14.0	359.96	.0042	-27.13	.0000	194928.4	1.72	81.91	.0000	.29	-.0237	-27.39	149.02
RISE 51	1406.19	1417.44	12	22	29.3	270.00	.0041	-26.63	-.0000	213548.7	1.28	11 22	.0034	114.30	-.0014	-27.28	115.97
RISE 72	1561.27	1572.52	13	1	4.4	265.95	.0041	-26.93	-.0000	229773.5	1.17	-.01	.0036	117.21	-.0005	-27.16	77.95
RISE 61	1644.32	1655.57	13	2	27.4	297.02	.0041	-28.23	-.0000	237540.4	1.27	.00	.0025	128.29	.0027	-27.10	57.55
SET 42	1694.08	1705.33	13	3	17.2	105.00	.0041	-26.15	.0000	241704.8	1.84	3.69	-.0029	240.32	-.0022	-27.07	45.31
EXTM 51	1761.69	1772.94	13	4	24.8	358.98	.0042	-27.06	.0000	241945.6	1.49	88.40	.0022	145.59	.1099	-27.02	28.68
EXTM 61	1896.61	1907.86	13	6	39.7	.33	.0042	-28.24	.0000	257832.2	1.45	21.52	.0000	180.32	.0040	-26.94	355.42
EXTM 72	1936.56	1947.81	13	7	19.7	.10	.0042	-27.38	.0000	257670.6	1.44	70.53	-.0000	180.28	.0111	-26.92	345.57
RISE 11	2079.48	2090.73	13	9	42.6	291.75	.0042	-27.70	-.0000	275734.8	1.08	.00	.0028	124.68	.0024	-26.83	310.28
SET 51	2125.11	2136.36	13	10	28.2	90.00	.0041	-26.31	.0000	278301.2	1.75	11.09	-.0034	245.99	-.0014	-26.81	299.00
SET 61	2148.68	2159.93	13	10	51.8	63.57	.0042	-27.75	.0000	281469.	1.65	-.00	-.0025	232.42	.0027	-26.80	293.17
SET 72	2310.79	2322.04	13	13	33.9	93.97	.0041	-26.53	.0000	294582.7	1.73	-.00	-.0036	243.20	-.0005	-26.71	253.07
RISE 42	2311.53	2322.78	13	13	34.7	255.00	.0041	-25.96	-.0000	294244.7	1.00	3.57	.0029	119.52	-.0022	-26.71	252.89
EXTM 11	2351.75	2363.00	13	14	14.9	23	.0042	-27.78	.0000	294949.4	1.32	27.01	-.0000	180.23	.0042	-26.69	242.93
SET 11	2623.86	2635.11	13	18	47.0	68.63	.0042	-27.31	.0000	318759.9	1.56	-.00	-.0028	235.84	.0024	-26.56	175.49
EXTM 42	2730.68	2741.93	13	20	33.8	359.99	.0042	-26.35	.0000	320460.0	1.23	81.13	-.0000	.15	-.0140	-26.52	148.99
RISE 51	2861.21	2872.46	13	22	44.3	270.00	.0041	-26.04	-.0000	334978.6	.83	10.99	.0034	113.76	-.0015	-26.46	116.59
RISE 72	3014.45	3025.70	14	1	17.6	266.07	.0042	-26.24	-.0000	347180.4	.75	-.00	.0037	116.51	-.0005	-26.40	78.44
RISE 61	3091.24	3102.49	14	2	34.4	295.69	.0042	-27.12	-.0000	352481.7	.87	.00	.0026	126.67	.0027	-26.37	59.27
SET 42	3146.88	3160.13	14	3	32.0	105.00	.0041	-25.72	.0000	356061.4	1.48	3.43	-.0030	240.67	-.0023	-26.35	44.88
EXTM 51	3212.66	3223.91	14	4	35.8	358.71	.0042	-26.33	.0000	354494.2	1.14	88.70	.0034	117.34	.0751	-26.32	28.95
EXTM 61	3346.23	3357.48	14	6	49.4	.17	.0042	-27.18	.0000	367504.6	1.14	22.58	-.0000	180.17	.0041	-26.27	355.58
EXTM 72	3386.16	3397.41	14	7	29.3	.08	.0042	-26.57	.0000	366685.1	1.15	71.34	-.0000	180.23	.0116	-26.25	345.59
RISE 11	3522.60	3533.85	14	9	45.7	290.90	.0042	-26.82	-.0000	382161.0	.87	.00	.0029	123.52	.0024	-26.20	311.44
SET 51	3573.65	3584.90	14	10	36.8	90.00	.0042	-25.81	.0000	384641.2	1.61	10.90	-.0035	246.46	-.0015	-26.18	298.64
SET 61	3600.72	3611.97	14	11	3.8	64.64	.0042	-26.85	.0000	387872.6	1.56	-.00	-.0026	233.73	.0027	-26.16	291.83
IMPACT	3672.26	3683.51	14	12	15.4												
IMPC 72	3672.26	3683.51	14	12	15.4	72.93	.0043	-26.12	.0001	392092.9	2.49	18.76	-.0039	245.02	.0001	-26.11	273.72
IMPC 11	3672.26	3683.51	14	12	15.4	329.00	.0044	-26.88	.0000	391826.6	1.90	21.34	.0018	150.45	.0037	-26.11	273.72

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	11	23	3.127	6544.672	23.4719	307.3429	10.99658	-.0537	106.5413	102.2795
SEPARATION	1.20	12.45	11	23	4.327	6567.607	21.3451	314.1557	10.97710	3.3762	109.2565	109.3932
RETRO	3.20	14.45	11	23	6.327	6708.832	17.2756	324.7804	10.86009	8.9664	112.9514	120.5282
EXIT SHA	29.43	40.68	11	23	32.558	14012.487	-16.8899	27.3484	7.48363	46.6622	113.2294	189.6634
IMPACT	3672.26	3683.51	14	12	15.382	394198.574	-26.1116	273.7204	2.24143	68.4494	280.6121	269.2338

SURVEYOR VIEW PERIODS

GHA	171.1653					EPS	95.8430							LOM	268.1727
SX	-.011533	SY	-.897908	SZ	-.440032	DAO	-26.10593	RAO	269.26413	RM	395526.277	LAT	28.310600	LON	279.461800
C3	-.891051	ECC	.9853/0	SLR	12993.587	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.008668	NSY	-.897209	NSZ	-.441522	C3M	1.5328	VIM	2.6781	ZAE	141,408	B.T	.0000	B.R	-.0000
LATE	3.4841	LONE	6.3860	LATS	-1.3822	LONS	270.7668	LATI	-3.1666	LONI	328.3501	RSM	148.7153	TTAN	6.5886

LAUNCH DATE MAR 11,1966 BASE AZM 96.0 TF 61.271 ARRIVAL DATE MAR 14 1966 12 37 37.8

LNCH AZMTH	LNCH TIME	PS	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
96.00	23 7 26.0	28.1	22.30	307.04	3.24	105.88	108.69	23 18 41.0	6549.9	10.99	1.61

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PRORE IN EARTH'S SHADOW															
INJECTION	.00	11.25	11	23	18.7												
SEPARATION	1.20	12.45	11	23	19.9												
RETRO	3.20	14.45	11	23	21.9												
RISE 72	4.83	16.08	11	23	23.5	79.15	-.2321	53.61	.0556	2891.6	-6.92	-.00	.1211	324.36	.0859	11.96	331.44
RISE 51	11.21	22.46	11	23	29.9	74.75	-.0958	28.61	-.0324	5539.0	-2.95	-.00	.0892	302.12	.0135	-.79	353.94
EXTM 72	11.24	22.49	11	23	29.9	329.07	-.1103	17.58	-.1380	2500.0	5.22	50.21	-.0000	49.97	.2711	-.83	354.01
RISE 61	11.26	22.51	11	23	29.9	3.98	-.1117	-49.69	.0056	5562.7	5.92	.01	.0094	182.57	-.0719	-.86	354.06
EXTM 61	16.26	27.51	11	23	34.9	340.32	-.0540	-46.91	.0098	7503.1	6.76	1.11	-.0000	166.70	-.0382	-7.89	5.85
SET 61	26.07	37.32	11	23	44.8	321.18	-.0194	-42.64	.0050	11450.4	6.52	-.00	-.0024	152.54	-.0149	-16.13	20.55
EXIT SHA	28.60	39.85	11	23	47.3												
EXIT 72	28.60	39.85	11	23	47.3	297.53	-.0094	-19.96	-.0083	9710.3	6.62	28.50	-.0091	108.47	.0091	-17.51	23.20
EXIT 51	28.60	39.85	11	23	47.3	7.88	-.0306	-10.65	-.0202	7706.2	4.93	73.16	.0311	332.27	.0642	-17.51	23.20
EXIT 61	28.60	39.85	11	23	47.3	318.52	-.0158	-41.94	.0042	12430.0	6.38	-.36	-.0023	150.48	-.0123	-17.51	23.20
EXTM 51	38.51	49.76	11	23	57.2	355.07	-.0148	-18.64	-.0087	10796.2	5.30	81.56	-.0000	33.68	.1128	-21.29	38.84
EXTM 72	67.45	78.70	12	0	26.1	290.49	.0001	-27.16	-.0012	22746.5	4.84	21.80	.0000	116.16	.0013	-25.88	40.41
EXTM 51	87.77	99.02	12	0	46.4	341.92	.0000	-27.23	-.0009	25173.4	4.40	73.76	.0000	99.29	.0032	-27.12	42.10
RISE 61	114.36	125.61	12	1	13.0	307.60	.0018	-35.80	.0004	37537.3	3.98	-.00	.0012	140.02	.0009	-27.94	41.57
EXTM 51	219.70	230.95	12	2	58.4	.00	.0033	-29.11	-.0000	54606.7	3.29	86.63	-.0000	180.30	.0098	-28.76	27.68
EXTM 61	393.57	404.82	12	5	52.3	3.20	.0038	-32.45	.0001	89615.6	2.69	17.26	.0000	182.82	.0034	-28.65	352.75
EXTM 72	427.72	438.97	12	6	26.4	.44	.0040	-30.01	.0001	91179.4	2.60	67.89	-.0000	181.01	.0091	-28.59	345.26
RISE 11	599.55	610.80	12	9	18.2	294.39	.0040	-30.34	-.0000	122098.7	2.02	.00	.0026	128.19	.0023	-28.32	306.23
SET 51	623.50	634.75	12	9	42.2	90.00	.0038	-27.19	.0001	124123.9	2.61	11.45	-.0032	245.17	-.0013	-28.28	300.66
SET 61	636.15	647.40	12	9	54.8	60.19	.0039	-30.43	.0001	127097.3	2.49	-.00	-.0022	228.43	.0026	-28.26	297.71
SET 72	820.35	831.60	12	12	59.0	94.18	.0039	-27.65	.0001	150760.5	2.43	-.00	-.0034	242.06	-.0004	-28.00	254.21
RISE 42	830.26	841.51	12	13	8.9	254.99	.0040	-26.54	-.0001	151536.9	1.72	3.93	.0028	119.99	-.0021	-27.99	251.84
EXTM 11	870.18	881.43	12	13	48.9	.88	.0041	-30.05	.0000	154153.6	2.00	24.73	-.0000	180.84	.0040	-27.94	242.30
SET 11	1137.66	1148.91	12	18	16.3	67.05	.0041	-28.93	.0001	187130.1	2.09	-.00	-.0026	233.70	.0024	-27.63	177.76
EXTM 42	1255.77	1267.02	12	20	14.5	359.96	.0042	-27.26	.0000	193386.3	1.72	82.05	.0000	.31	-.0245	-27.52	149.02
RISE 51	1391.18	1402.43	12	22	29.9	270.00	.0041	-26.74	-.0000	212070.5	1.29	11.27	.0034	114.41	-.0014	-27.40	115.95
RISE 72	1546.22	1557.47	13	1	4.9	265.93	.0041	-27.03	-.0000	228351.2	1.18	-.01	.0036	117.31	-.0005	-27.27	77.96
RISE 61	1629.87	1641.12	13	2	28.6	297.16	.0041	-28.34	-.0000	236200.5	1.27	.00	.0025	128.45	.0027	-27.20	57.41
SET 42	1679.05	1690.30	13	3	17.7	105.00	.0041	-26.25	.0000	240318.6	1.85	3.75	-.0029	240.25	-.0022	-27.17	45.32
EXTM 51	1746.20	1757.45	13	4	24.9	358.86	.0042	-27.15	.0000	240544.2	1.49	88.25	.0022	144.33	.0991	-27.12	28.80
EXTM 61	1881.73	1892.98	13	6	40.4	.35	.0042	-28.34	.0000	256528.5	1.45	21.42	.0000	180.33	.0040	-27.02	355.40
EXTM 72	1921.62	1932.87	13	7	20.3	.11	.0042	-27.46	.0000	256365.5	1.44	70.44	-.0000	180.29	.0110	-27.00	345.56
RISE 11	2064.86	2076.11	13	9	43.5	291.82	.0042	-27.78	-.0000	274484.9	1.09	.00	.0028	124.78	.0024	-26.91	310.20
SET 51	2110.14	2121.39	13	10	28.8	90.00	.0041	-26.38	.0000	277027.9	1.75	11.12	-.0034	245.93	-.0014	-26.88	299.01
SET 61	2133.35	2144.60	13	10	52.0	63.48	.0042	-27.82	.0000	280173.7	1.65	-.00	-.0025	232.31	.0027	-26.87	293.27
SET 72	2295.89	2307.14	13	13	34.6	93.99	.0041	-26.59	.0000	293352.0	1.73	-.00	-.0036	243.13	-.0005	-26.78	253.06
RISE 42	2296.63	2307.88	13	13	35.3	255.00	.0041	-26.02	-.0000	293010.2	1.00	3.61	.0029	119.57	-.0022	-26.78	252.88
EXTM 11	2336.88	2348.13	13	14	15.6	.24	.0042	-27.85	.0000	293735.4	1.32	26.94	-.0000	180.24	.0042	-26.75	242.92
SET 11	2608.69	2619.94	13	18	47.4	68.57	.0042	-27.36	.0000	317557.0	1.56	.01	-.0028	235.76	.0024	-26.62	175.56
EXTM 42	2715.78	2727.03	13	20	34.5	359.98	.0042	-26.39	.0000	319291.5	1.23	81.17	-.0000	.15	-.0144	-26.56	149.00
RISE 51	2846.34	2857.59	13	22	45.0	270.00	.0041	-26.08	-.0000	333826.5	.83	11.01	.0034	113.80	-.0015	-26.50	116.59
RISE 72	2999.55	3010.80	14	1	18.2	266.07	.0042	-26.28	-.0000	346038.7	.75	-.00	.0037	116.55	-.0005	-26.43	78.44
RISE 61	3076.55	3087.80	14	2	35.2	295.73	.0042	-27.16	-.0000	351350.0	.87	.00	.0026	126.72	.0027	-26.40	59.22
SET 42	3133.99	3145.24	14	3	32.7	105.00	.0041	-25.75	.0000	354910.1	1.47	3.45	-.0030	240.64	-.0023	-26.38	44.89
EXTM 51	3197.76	3209.01	14	4	36.4	358.70	.0042	-26.36	.0000	353338.6	1.13	88.68	.0034	118.45	.0767	-26.35	28.96
EXTM 61	3331.40	3342.65	14	6	50.1	.18	.0042	-27.21	.0000	366337.9	1.14	22.55	-.0000	180.18	.0041	-26.30	355.57
EXTM 72	3371.32	3382.57	14	7	30.0	.08	.0042	-26.60	.0000	365506.3	1.14	71.31	-.0000	180.24	.0114	-26.28	345.59
RISE 11	3507.91	3519.16	14	9	46.6	290.93	.0042	-26.85	-.0000	380931.7	.86	.00	.0029	123.55	.0024	-26.22	311.41
SET 51	3558.85	3570.10	14	10	37.5	90.00	.0042	-25.83	.0000	383532.3	1.59	10.91	-.0035	246.44	-.0015	-26.20	298.64
SET 61	3585.82	3597.07	14	11	4.5	64.61	.0042	-26.87	.0000	386530.7	1.53	-.00	-.0026	233.69	.0027	-26.19	291.87
IMPACT	3676.24	3687.49	14	12	34.9												
IMPC 72	3676.24	3687.49	14	12	34.9	77.66	.0043	-26.10	.0001	392610.5	2.50	14.51	-.0039	244.98	-.0001	-26.13	269.01
IMPC 11	3676.24	3687.49	14	12	34.9	333.77	.0044	-26.91	.0000	391711.5	1.56	23.12	.0015	154.63	.0039	-26.13	269.01

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	11	23	18.683	6549.891	22.2951	307.0407	10.99200	1.6105	108.6911	105.8772
SEPARATION	1.20	12.45	11	23	19.883	6595.650	19.9460	313.6719	10.95342	5.0253	111.1921	112.8092
RETRO	3.20	14.45	11	23	21.883	6772.918	15.6202	323.9297	10.80805	10.5388	114.4870	123.5612
EXIT SHA	28.60	39.85	11	23	47.284	13931.405	-17.5134	23.2026	7.50551	46.5066	113.2131	189.2089
IMPACT	3676.24	3687.49	14	12	34.924	394257.000	-26.1254	269.0079	2.23942	68.3190	280.8167	269.4202

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SURVEYOR VIEW PERIODS

GHA	171.1653					EPS	95.9530							LOM	264.8005
SX	-.009444	SY	-.897859	SZ	-.440182	DAO	-26.11552	RAO	269.39733	RM	395572.652	LAT	28.310600	LON	279.461800
C3	-.892077	ECC	.985353	SLR	12993.475	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TP	675.00000	POL	-.0
NSX	.010760	NSY	-.897116	NSZ	-.441663	C3M	1.5347	VIM	2.6784	ZAE	141.332	B.T	.0000	B.R	-.0000
LATE	3.4959	LONE	6.5056	LATS	-1.3820	LONS	270.7765	LATI	-3.3771	LONI	328.4306	RSM	148.7150	TTAN	6.5908
LAUNCH DATE		MAR	11,1966	BASE AZM		99.0	TF	61.299				ARRIVAL DATE		MAR 14 1966 12 51 36.8	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99.00	23 18 59.4	28.1	21.15	306.64	5.71	108.37	110.81	23 30 14.4	6560.8	10.98	2.83

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DFC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	11	23	30.2												
SEPARATION	1.20	12.45	11	23	31.4												
RETRO	3.20	14.45	11	23	33.4												
RISE 72	4.58	15.83	11	23	34.8	81.19	-.2000	47.83	.0356	2961.5	-7.21	-.00	.1241	318.44	.0624	10.80	329.15
EXTM 72	11.04	22.29	11	23	41.3	338.42	-.1309	13.19	-.1349	2374.0	4.98	59.93	-.0000	45.61	.3705	-2.26	351.40
RISE 51	11.14	22.39	11	23	41.4	76.98	-.0890	25.05	-.0348	5686.8	-2.77	.00	.0874	298.04	.0081	-2.42	351.67
RISE 61	13.38	24.63	11	23	43.6	356.66	-.0810	-49.71	.0074	6624.1	6.31	.00	.0051	177.84	-.0526	-5.86	357.31
EXTM 61	17.85	29.10	11	23	48.1	340.31	-.0456	-47.48	.0082	8373.4	6.65	.96	-.0000	166.84	-.0319	-11.22	6.35
SET 61	25.35	36.60	11	23	55.6	326.15	-.0216	-44.46	.0053	11338.3	6.46	.01	-.0018	156.57	-.0162	-17.11	17.01
EXIT SHA	27.33	39.08	11	23	58.1												
EXIT 72	27.83	39.08	11	23	58.1	301.81	-.0109	-22.11	-.0078	9310.1	6.65	32.37	-.0107	111.21	.0082	-18.48	19.68
EXIT 51	27.83	39.08	11	23	58.1	14.16	-.0330	-12.19	-.0205	7633.9	4.76	70.98	.0369	312.80	.0304	-18.48	19.68
EXIT 61	27.83	39.08	11	23	58.1	323.24	-.0176	-43.72	.0046	12291.3	6.34	-.26	-.0018	154.37	-.0134	-18.48	19.68
EXTM 51	40.84	52.09	12	0	11.1	357.48	-.0133	-21.66	-.0069	11636.1	5.24	85.31	-.0000	29.96	.1734	-23.11	29.33
EXTM 72	68.75	80.00	12	0	39.0	293.60	.0001	-28.68	-.0009	22999.7	4.80	24.45	.0000	117.98	.0010	-26.96	37.76
RISE 61	104.38	115.63	12	1	14.6	309.67	.0014	-37.03	.0005	35144.4	4.11	-.00	.0011	142.09	.0006	-28.51	39.23
EXTM 51	203.74	214.99	12	2	54.0	.03	.0031	-29.76	.0000	51509.9	3.37	85.98	-.0000	180.47	.0344	-29.32	27.65
EXTM 61	383.74	394.99	12	5	54.0	3.84	.0038	-32.95	.0002	88146.4	2.71	16.73	-.0000	183.36	.0034	-29.08	352.15
EXTM 72	415.76	427.01	12	6	26.0	.54	.0040	-30.48	.0001	89384.8	2.63	67.42	-.0000	181.21	.0089	-29.01	345.17
RISE 11	589.53	600.78	12	9	19.8	294.77	.0040	-30.70	-.0000	120766.6	2.03	.00	.0025	128.67	.0023	-28.65	305.83
SET 51	611.59	622.84	12	9	41.8	90.00	.0038	-27.51	.0001	122537.1	2.62	11.57	-.0032	244.87	-.0013	-28.61	300.71
SET 61	622.28	633.53	12	9	52.5	59.71	.0039	-30.80	.0001	125269.7	2.50	-.00	-.0021	227.88	.0026	-28.59	298.22
SET 72	808.97	820.22	12	12	59.2	94.22	.0039	-27.91	.0001	149408.6	2.44	-.00	-.0034	241.79	-.0004	-28.27	254.19
RISE 42	818.93	830.18	12	13	9.2	254.99	.0040	-26.79	-.0001	150179.0	1.73	4.08	.0028	120.18	-.0021	-28.25	251.82
EXTM 11	859.13	870.38	12	13	49.4	.97	.0041	-30.33	.0001	152898.9	2.01	24.46	-.0000	180.92	.0039	-28.19	242.21
SET 11	1125.47	1136.72	12	18	15.7	66.83	.0041	-29.14	.0001	185850.6	2.09	-.00	-.0026	233.42	.0024	-27.83	177.98
EXTM 42	1244.63	1255.88	12	20	14.9	359.98	.0042	-27.45	.0000	192260.7	1.73	82.23	-.0000	.20	-.0223	-27.70	149.00
RISE 51	1380.03	1391.28	12	22	30.3	270.00	.0041	-26.90	-.0000	210984.4	1.29	11.33	.0034	114.56	-.0014	-27.56	115.94
RISE 72	1534.99	1546.24	13	1	5.2	265.91	.0041	-27.17	-.0000	227308.3	1.18	-.01	.0036	117.46	-.0005	-27.41	77.97
RISE 61	1619.43	1630.68	13	2	29.7	297.33	.0041	-28.48	-.0000	235252.2	1.28	.00	.0025	128.66	.0027	-27.34	57.24
SET 42	1667.87	1679.12	13	3	18.1	105.00	.0041	-26.37	.0000	239304.9	1.85	3.82	-.0029	240.15	-.0022	-27.29	45.33
EXTM 51	1734.36	1745.61	13	4	24.6	358.68	.0042	-27.28	.0000	239496.1	1.50	88.06	.0023	142.81	.0071	-27.24	28.97
EXTM 61	1870.71	1881.96	13	6	40.9	.38	.0042	-28.45	.0000	255594.1	1.46	21.31	.0000	180.36	.0040	-27.13	355.38
EXTM 72	1910.52	1921.77	13	7	20.8	.12	.0042	-27.58	.0000	255424.2	1.44	70.33	-.0000	180.31	.0110	-27.11	345.56
RISE 11	2054.15	2065.40	13	9	44.4	291.92	.0042	-27.88	-.0000	273597.9	1.09	.00	.0028	124.91	.0024	-27.00	310.10
SET 51	2099.00	2110.25	13	10	29.2	90.00	.0041	-26.47	.0000	276109.4	1.75	11.16	-.0034	245.84	-.0014	-26.97	299.01
SET 61	2121.75	2133.00	13	10	52.0	63.36	.0042	-27.92	.0000	279225.6	1.65	-.00	-.0025	232.17	.0027	-26.96	293.39
SET 72	2284.81	2296.06	13	13	35.0	94.00	.0041	-26.67	.0000	292472.8	1.74	-.00	-.0036	243.05	-.0005	-26.85	253.06
RISE 42	2285.53	2296.78	13	13	35.8	255.00	.0041	-26.10	-.0000	292124.5	1.01	3.66	.0029	119.63	-.0022	-26.85	252.88
EXTM 11	2325.85	2337.10	13	14	16.1	.26	.0042	-27.93	.0000	292873.8	1.32	26.86	-.0000	180.26	.0042	-26.83	242.90
SET 11	2597.34	2608.59	13	18	47.6	68.51	.0042	-27.43	.0000	316700.9	1.56	.01	-.0028	235.68	.0024	-26.67	175.62
EXTM 42	2704.67	2715.92	13	20	34.9	359.98	.0042	-26.45	.0000	318465.9	1.23	81.23	-.0000	.15	-.0168	-26.62	140.00
RISE 51	2835.24	2846.49	13	22	45.5	270.00	.0041	-26.13	-.0000	333016.3	.83	11.02	.0034	113.84	-.0015	-26.55	116.59
RISE 72	2988.56	2999.81	14	1	18.8	266.06	.0042	-26.32	-.0000	345287.2	.75	-.00	.0037	116.59	-.0005	-26.47	78.44
RISE 61	3065.75	3077.00	14	2	36.0	295.78	.0042	-27.20	-.0000	350610.1	.87	.00	.0026	126.78	.0027	-26.44	59.18
SET 42	3122.98	3134.23	14	3	33.2	105.00	.0041	-25.79	.0000	354151.7	1.47	3.47	-.0030	240.61	-.0023	-26.41	44.89
EXTM 51	3187.17	3198.42	14	4	37.4	358.81	.0042	-26.40	.0000	352607.8	1.13	88.74	.0032	121.79	.0896	-26.38	28.86
EXTM 61	3320.42	3331.67	14	6	50.7	.19	.0042	-27.24	.0000	365572.1	1.14	22.52	-.0000	180.19	.0041	-26.33	355.56
EXTM 72	3360.30	3371.55	14	7	30.5	.08	.0042	-26.62	.0000	364736.5	1.14	71.28	-.0000	180.24	.0114	-26.31	345.59
RISE 11	3496.97	3508.22	14	9	47.2	290.95	.0042	-26.87	-.0000	380123.7	.85	.00	.0029	123.58	.0024	-26.25	311.39
SET 51	3547.82	3559.07	14	10	38.1	90.00	.0042	-25.85	.0000	382506.7	1.57	10.92	-.0035	246.42	-.0015	-26.22	298.64
SET 61	3574.70	3585.95	14	11	4.9	64.58	.0042	-26.89	.0000	385654.1	1.51	-.00	-.0026	233.66	.0027	-26.21	291.89
IMPACT	3677.91	3689.16	14	12	48.2												
IMPC 72	3677.91	3689.16	14	12	48.2	80.86	.0043	-26.09	.0001	392968.3	2.50	11.64	-.0039	244.87	-.0002	-26.13	265.82
IMPC 11	3677.91	3689.16	14	12	48.2	337.00	.0044	-26.93	.0000	391652.4	1.94	24.17	.0014	157.55	.0040	-26.13	265.82

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ARC
INJECTION	.00	11.25	11	23	30.239	6560.918	21.1422	306.6475	10.98273	2.8327	110.8113	108.3810
SEPARATION	1.20	12.45	11	23	31.439	6623.178	18.5849	313.0828	10.93041	6.2275	113.1031	115.1170
RETRO	3.20	14.45	11	23	33.439	6826.238	14.0082	322.9807	10.76538	11.6743	116.0310	125.5163
EXIT SHA	27.83	39.08	11	23	58.068	13818.497	-18.4820	19.6795	7.53652	46.2878	113.1838	188.3893
IMPACT	3677.91	3689.16	14	12	48.150	394304.566	-26.1349	265.8188	2.23752	68.0903	281.1216	269.5468

SURVEYOR VIEW PERIODS

GHA	171.1653					EPS	96.0589							LOM	261.5503
SX	-.007432	SY	-.897808	SZ	-.440325	DAO	-26.12465	RAO	269.52570	RM	395617.242	LAT	28.310600	LON	279.461800
C3	-.896412	ECC	.985282	SLR	12993.012	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.012810	NSY	-.897021	NSZ	-.441803	C3M	1.5346	VIM	2.6784	ZAE	141.188	B.T	.0000	B.R	-.0000
LATE	3.5073	LONE	6.3699	LATS	-1.3821	LONS	270.5349	LATI	-3.6481	LONI	328.1978	PSM	148.7146	TTAN	6.5927

LAUNCH DATE MAR 11.1966 BASE AZM 102.0 TF 61.373 ARRIVAL DATE MAR 14 1966 13 5 5.5

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	23 27 47.6	28.1	20.02	306.17	7.55	110.11	112.91	23 39 2.6	6572.9	10.97	3.75

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
				PRGE	IN	EARTH'S	SHADOW											
INJECTION		.00	11.25	11	23	39.0												
SEPARATION		1.20	12.45	11	23	40.2												
RETRO		3.20	14.45	11	23	42.2												
RISE	72	4.40	15.65	11	23	43.4	82.66	-.1787	42.64	.0168	3018.7	-7.38	-.00	.1260	313.15	.0410	9.53	327.22
EXTM	72	10.93	22.18	11	23	50.0	346.63	-.1460	7.33	-.1279	2301.1	4.81	69.76	-.0000	41.53	.5585	-3.90	349.21
RISE	51	11.10	22.35	11	23	50.1	78.98	-.0834	21.62	-.0373	5804.7	-2.62	.00	.0860	294.15	.0032	-4.19	349.66
EXIT	SHA	27.06	38.31	12	0	6.1												
EXIT	72	27.06	38.31	12	0	6.1	305.60	-.0127	-24.63	-.0070	8938.8	6.69	35.55	-.0125	114.71	.0066	-19.68	16.55
EXIT	51	27.06	38.31	12	0	6.1	19.85	-.0354	-14.06	-.0209	7548.5	4.60	68.03	.0401	298.30	.0072	-19.68	16.55
EXIT	61	27.06	38.31	12	0	6.1	327.49	-.0197	-45.71	.0048	12178.5	6.30	-.74	-.0012	157.95	-.0145	-19.68	16.55
EXTM	51	40.97	52.22	12	0	20.0	.95	-.0138	-23.93	-.0062	11767.9	5.20	87.99	.0110	334.31	.2501	-24.56	27.06
EXTM	72	70.09	81.34	12	0	49.1	296.03	.0001	-30.37	-.0007	23300.7	4.76	26.39	.0000	120.06	.0008	-28.24	35.71
RISE	61	102.09	113.34	12	1	21.1	311.83	.0013	-38.25	.0006	34640.5	4.14	-.00	.0011	144.19	.0005	-29.48	37.13
EXTM	51	191.26	202.51	12	2	50.3	.10	.0030	-30.62	.0000	49029.5	3.44	85.11	-.0000	180.99	.0295	-30.06	27.60
EXTM	61	375.46	386.71	12	5	57.5	4.11	.0038	-33.56	.0002	86901.6	2.73	16.10	.0000	183.57	.0033	-29.62	351.89
EXTM	72	407.01	418.26	12	6	26.0	.67	.0039	-31.05	.0001	88062.0	2.65	66.84	-.0000	181.45	.0086	-29.53	345.06
RISE	11	582.81	594.06	12	9	21.9	295.23	.0040	-31.13	.0000	119856.9	2.04	.00	.0025	129.26	.0023	-29.06	305.35
SET	51	602.66	613.91	12	9	41.7	90.00	.0038	-27.90	.0001	121317.8	2.63	11.73	-.0031	244.50	-.0013	-29.01	300.75
SET	61	610.91	622.16	12	9	50.0	59.12	.0039	-31.24	.0001	123740.3	2.52	-.00	-.0021	227.21	.0026	-28.99	298.84
SET	72	800.56	811.81	12	14	59.6	94.28	.0039	-28.24	.0001	148380.6	2.44	-.01	-.0034	241.47	-.0004	-28.59	254.16
RISE	42	810.48	821.73	12	15	9.5	254.99	.0040	-27.10	-.0001	149129.7	1.74	4.27	.0028	120.43	-.0021	-28.57	251.79
EXTM	11	851.05	862.30	12	15	50.1	1.08	.0041	-30.65	.0001	151964.3	2.01	24.13	-.0000	181.02	.0039	-28.50	242.11
SET	11	1115.95	1127.20	12	18	15.0	66.58	.0041	-29.40	.0001	184808.0	2.10	-.00	-.0026	233.08	.0024	-28.08	178.25
EXTM	42	1236.19	1247.44	12	20	15.2	359.97	.0042	-27.68	.0000	191361.8	1.73	82.46	-.0000	.27	-.0249	-27.92	149.01
RISE	51	1371.70	1382.95	12	22	30.7	270.00	.0041	-27.10	-.0000	210117.3	1.30	11.41	.0034	114.75	-.0014	-27.75	115.93
RISE	72	1526.55	1537.80	13	1	5.6	265.88	.0041	-27.35	-.0000	226464.2	1.19	-.01	.0036	117.63	-.0005	-27.58	78.00
RISE	61	1611.94	1623.19	13	2	31.0	297.54	.0041	-28.65	-.0000	234508.7	1.28	.00	.0025	128.91	.0027	-27.50	57.03
SET	42	1659.49	1670.74	13	3	18.5	105.00	.0041	-26.53	.0000	238475.0	1.85	3.92	-.0029	240.03	-.0022	-27.45	45.34
EXTM	51	1725.55	1736.80	13	4	24.6	358.56	.0042	-27.43	.0000	238646.6	1.50	87.87	.0023	143.14	.0797	-27.39	29.08
EXTM	61	1862.51	1873.76	13	6	41.5	.42	.0042	-28.59	.0000	254827.0	1.46	21.17	.0000	180.40	.0040	-27.27	355.34
EXTM	72	1902.21	1913.46	13	7	21.3	.13	.0042	-27.71	.0000	254642.7	1.44	70.19	-.0000	180.34	.0110	-27.24	345.55
RISE	11	2046.28	2057.53	13	9	45.3	292.03	.0042	-28.00	-.0000	272860.6	1.09	.00	.0028	125.07	.0024	-27.12	309.98
SET	51	2090.63	2101.88	13	10	29.7	90.00	.0041	-26.58	.0000	275328.5	1.75	11.20	-.0034	245.74	-.0014	-27.09	299.02
SET	61	2112.84	2124.09	13	10	51.9	63.22	.0042	-28.03	.0000	278405.7	1.65	-.00	-.0025	232.00	.0027	-27.07	293.53
SET	72	2276.51	2287.76	13	13	35.6	94.02	.0041	-26.76	.0001	291714.0	1.74	-.00	-.0036	242.96	-.0005	-26.95	253.04
RISE	42	2277.20	2288.45	13	13	36.2	255.00	.0041	-26.19	-.0000	291356.8	1.01	3.72	.0029	119.71	-.0022	-26.95	252.87
EXTM	11	2317.60	2328.85	13	14	16.6	.28	.0042	-28.03	.0000	292130.4	1.32	26.76	-.0000	180.28	.0042	-26.92	242.87
SET	11	2588.70	2599.95	13	18	47.7	68.44	.0042	-27.50	.0000	315930.0	1.56	.00	-.0028	235.58	.0024	-26.75	175.69
EXTM	42	2696.31	2707.56	13	20	35.4	359.98	.0042	-26.51	.0000	317718.5	1.23	81.29	-.0000	.16	-.0172	-26.68	149.00
RISE	51	2826.90	2838.15	13	22	45.9	270.00	.0041	-26.19	-.0000	332271.6	.83	11.05	.0034	113.89	-.0015	-26.61	116.58
RISE	72	2980.19	2991.44	14	1	19.2	266.05	.0042	-26.36	-.0000	344543.5	.74	-.00	.0037	116.64	-.0005	-26.52	78.45
RISE	61	3057.62	3068.87	14	2	36.7	295.83	.0042	-27.24	-.0000	349877.4	.86	.00	.0026	126.85	.0027	-26.48	59.12
SET	42	3114.62	3125.87	14	3	33.7	105.00	.0041	-25.83	.0000	353396.0	1.47	3.49	-.0030	240.58	-.0023	-26.45	44.89
EXTM	51	3179.47	3190.72	14	4	38.5	358.97	.0042	-26.43	.0000	351893.6	1.13	88.85	.0030	127.22	.1124	-26.42	28.69
EXTM	61	3312.14	3323.39	14	6	51.2	.21	.0042	-27.28	.0000	364804.8	1.14	22.49	-.0000	180.20	.0041	-26.36	355.55
EXTM	72	3351.99	3363.24	14	7	31.0	.09	.0042	-26.66	.0000	363951.5	1.15	71.25	-.0000	180.25	.0115	-26.34	345.58
RISE	11	3488.77	3500.02	14	9	47.8	290.97	.0042	-26.89	-.0000	379313.3	.84	.00	.0028	123.62	.0024	-26.27	311.36
SET	51	3539.52	3550.77	14	10	38.6	90.00	.0042	-25.87	.0000	381661.1	1.56	10.92	-.0035	246.40	-.0015	-26.24	298.64
SET	61	3566.31	3577.56	14	11	5.3	64.56	.0042	-26.92	.0000	384780.8	1.49	-.00	-.0026	233.63	.0027	-26.23	291.92
IMPACT		3682.39	3693.64	14	13	1.4												
IMPC	42	3682.39	3693.64	14	13	1.4	245.60	.0043	-25.53	-.0000	394655.4	1.75	-3.21	.0029	124.61	-.0026	-26.14	262.62
IMPC	72	3682.39	3693.64	14	13	1.4	84.07	.0043	-26.08	.0001	393328.1	2.50	8.76	-.0039	244.68	-.0003	-26.14	262.62
IMPC	11	3682.39	3693.64	14	13	1.4	340.25	.0044	-26.94	.0000	391604.1	1.95	25.11	.0012	160.57	.0041	-26.14	262.62

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	11	23	39.043	6573.263	20.0103	306.1902	10.97235	3.7460	112.9153	110.1306
SEPARATION		1.20	12.45	11	23	40.243	6647.603	17.2533	312.4281	10.90997	7.1217	115.0075	116.6694
RETRO		3.20	14.45	11	23	42.243	6869.565	12.4255	322.0022	10.73091	12.5134	117.5965	126.7448
EXIT	SHA	27.06	38.31	12	0	6.100	13670.801	-19.6759	16.5488	7.57747	45.9955	113.1993	187.2723
IMPACT		3682.39	3693.64	14	13	1.436	394349.953	-26.1446	262.6150	2.23569	67.9974	281.6295	269.6735

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SURVEYOR VIEW PERIODS

GHA	171.1653					EPS	96.1549							LOM	258.6032
SX	-.005608	SY	-.897758	SZ	-.440454	DAO	-26.13282	RAO	269.64209	RM	395657.621	LAT	28.310600	LON	279.461800
C3	-.901978	ECC	.085190	SLR	12992.410	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.014684	NSY	-.896928	NSZ	-.441932	C3M	1.5344	VIM	2.6784	ZAE	141.004	B,T	.0000	B,R	-.0000
LATE	3.5176	LONE	6.4744	LATS	-1.3820	LONS	270.5433	LATI	-3.9571	LONI	328.1735	RSM	146.7143	TTAN	6.5942
LAUNCH DATE	MAR 11,1966			BASE AZM	105.0	TF	61.465					ARRIVAL DATE	MAR 14 1966 13 17 18.7		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	23 34 33.6	28.1	18.91	305.65	8.94	111.28	115.00	23 45 48.6	6584.3	10.96	4.43

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	11	23	45.8												
SEPARATION	1.20	12.45	11	23	47.0												
RETRO	3.20	14.45	11	23	49.0												
RISE 72	4.28	15.53	11	23	50.1	83.81	-.1629	37.83	-.0011	3067.0	-7.46	.00	.1269	308.26	.0213	8.16	325.57
EXTM 72	10.90	22.15	11	23	56.7	353.67	-.1554	.36	-.1182	2282.4	4.73	79.60	.0000	37.66	1.0813	-5.74	347.35
RISE 51	11.09	22.34	11	23	56.9	80.84	-.0787	18.28	-.0398	5902.4	-2.48	.00	.0847	290.38	-.0012	-6.06	347.86
EXIT SHA	26.25	37.50	12	0	12.1												
EXIT 72	26.25	37.50	12	0	12.1	309.10	-.0149	-27.48	-.0062	8579.5	6.73	38.14	-.0142	118.90	.0041	-21.01	13.65
EXIT 51	26.25	37.50	12	0	12.1	25.26	-.0380	-16.12	-.0216	7447.7	4.43	64.58	.0423	287.25	-.0071	-21.01	13.65
EXIT 61	26.25	37.50	12	0	12.1	331.47	-.0220	-47.85	.0051	12072.8	6.26	-1.65	-.0007	161.30	-.0156	-21.01	13.65
EXTM 51	45.03	56.28	12	0	30.8		.84	-.0114	-27.57	-.0042	13104.5	5.14	88.02	-.0000	202.19	-.3167	-26.97	27.12
EXTM 72	71.07	82.32	12	0	56.9	297.90	.0001	-32.15	-.0004	23528.0	4.74	27.75	.0000	122.28	.0005	-29.64	34.05
EXTM 51	95.07	106.32	12	1	20.9	350.24	.0002	-31.54	-.0003	27204.3	4.28	79.66	.0000	126.41	.0019	-30.50	35.51
RISE 61	105.68	116.93	12	1	31.5	313.93	.0014	-39.35	.0007	35611.3	4.08	-.00	.0012	146.16	.0005	-30.69	35.35
EXTM 51	181.96	193.21	12	2	47.8		.25	.0029	-31.65	.0001	47151.0	3.49	84.08	-.0000	182.11	.0235	-30.95	27.46
EXTM 61	370.69	381.94	12	5	56.5		4.65	.0038	-34.22	.0002	86216.9	2.74	15.42	.0000	183.99	.0033	-30.23	351.40
EXTM 72	400.69	411.94	12	6	26.5		.82	.0039	-31.70	.0001	87107.0	2.66	66.19	.0000	181.72	.0083	-30.12	344.92
RISE 11	578.60	589.85	12	9	24.4	295.76	.0040	-31.62	.0000	119277.0	2.05	.01	.0025	129.92	.0023	-29.52	304.81
SET 51	595.97	607.22	12	9	41.8	90.00	.0038	-28.36	.0001	120383.1	2.64	11.90	-.0031	244.07	-.0012	-29.47	300.79
SET 61	601.39	612.64	12	9	47.2	58.44	.0039	-31.73	.0002	122440.0	2.52	-.00	-.0020	226.45	.0026	-29.45	299.53
SET 72	794.35	805.60	12	13	.2	94.35	.0039	-28.60	.0001	147604.4	2.44	-.01	-.0034	241.10	-.0004	-28.96	254.12
RISE 42	804.17	815.42	12	13	10.0	254.99	.0040	-27.46	-.0000	148320.7	1.74	4.49	.0028	120.72	-.0021	-28.94	251.78
EXTM 11	845.17	856.42	12	13	51.0	1.20	.0041	-31.02	.0001	151278.8	2.02	23.76	.0000	181.13	.0039	-28.85	241.99
SET 11	1108.40	1119.65	12	18	14.2	66.28	.0041	-29.68	.0001	183955.9	2.10	-.00	-.0026	232.69	.0024	-28.36	178.55
EXTM 42	1229.80	1241.05	12	20	15.6	359.94	.0042	-27.93	.0000	190651.7	1.74	82.71	.0000	.42	-.0275	-28.17	149.03
RISE 51	1365.44	1376.69	12	22	31.3	270.00	.0041	-27.32	-.0000	209430.5	1.30	11.49	.0034	114.95	-.0014	-27.98	115.92
RISE 72	1520.15	1531.40	13	1	6.0	265.84	.0041	-27.54	-.0000	225787.4	1.19	-.01	.0036	117.83	-.0005	-27.78	78.02
RISE 61	1606.60	1617.85	13	2	32.4	297.77	.0041	-28.84	-.0000	233937.7	1.28	.00	.0024	129.18	.0027	-27.68	56.79
SET 42	1653.17	1664.42	13	3	19.0	105.00	.0041	-26.70	.0001	237803.6	1.86	4.03	-.0029	239.89	-.0022	-27.63	45.34
EXTM 51	1719.10	1730.35	13	4	24.9	358.52	.0042	-27.61	.0000	237979.9	1.50	87.71	.0022	145.09	.0759	-27.56	29.12
EXTM 61	1856.37	1867.62	13	6	42.2		.46	.0042	-28.75	.0000	254209.6	1.46	21.01	.0000	180.43	.0039	-27.42	355.30
EXTM 72	1895.96	1907.21	13	7	21.8		.14	.0042	-27.86	.0000	254006.1	1.45	70.04	-.0000	180.36	.0108	-27.38	345.54
RISE 11	2040.51	2051.76	13	9	46.3	292.16	.0042	-28.13	-.0000	272262.8	1.09	.00	.0028	125.24	.0024	-27.25	309.85
SET 51	2084.31	2095.56	13	10	30.1	90.00	.0041	-26.70	.0001	274679.7	1.75	11.25	-.0034	245.62	-.0014	-27.21	299.02
SET 61	2105.90	2117.15	13	10	51.7	63.07	.0042	-28.16	.0000	277711.5	1.69	-.00	-.0025	231.82	.0027	-27.19	293.69
SET 72	2270.25	2281.50	13	13	36.1	94.03	.0041	-26.87	.0001	291078.1	1.74	-.00	-.0036	242.85	-.0005	-27.06	253.03
RISE 42	2270.90	2282.15	13	13	36.7	255.00	.0041	-26.30	-.0000	290710.3	1.01	3.78	.0029	119.79	-.0022	-27.06	252.87
EXTM 11	2311.39	2322.64	13	14	17.2		.31	.0042	-28.13	.0000	291508.9	1.32	26.66	-.0000	180.31	.0042	-27.02	242.85
SET 11	2582.05	2593.30	13	18	47.9	68.36	.0042	-27.58	.0000	315262.9	1.56	.00	-.0028	235.48	.0024	-26.83	175.77
EXTM 42	2689.97	2701.22	13	20	35.8	359.98	.0042	-26.58	.0000	317071.2	1.23	81.37	-.0000	.17	-.0180	-26.75	149.00
RISE 51	2820.58	2831.83	13	22	46.4	270.00	.0041	-26.25	-.0000	331620.7	.83	11.07	.0034	113.95	-.0015	-26.67	116.58
RISE 72	2973.96	2985.21	14	1	19.8	266.04	.0042	-26.41	-.0000	343933.6	.74	-.00	.0037	116.69	-.0005	-26.57	78.46
RISE 61	3051.64	3062.89	14	2	37.4	295.89	.0042	-27.29	-.0000	349274.2	.86	.00	.0026	126.92	.0027	-26.53	59.06
SET 42	3108.39	3119.64	14	3	34.2	105.00	.0041	-25.87	.0000	352764.6	1.47	3.52	-.0030	240.55	-.0023	-26.50	44.89
EXTM 51	3173.91	3185.16	14	4	39.7	359.14	.0042	-26.47	.0000	351300.5	1.13	88.94	.0028	133.93	.1405	-26.46	28.53
EXTM 61	3305.95	3317.20	14	6	51.8		.22	.0042	-27.31	.0000	364148.3	1.13	22.45	-.0000	180.21	.0041	-26.39	355.53
EXTM 72	3345.75	3357.00	14	7	31.6		.09	.0042	-26.69	.0000	363280.2	1.13	71.22	-.0000	180.26	.0116	-26.37	345.58
RISE 11	3482.61	3493.86	14	9	48.4	291.00	.0042	-26.92	-.0000	378602.5	.84	.00	.0028	123.65	.0024	-26.30	311.33
SET 51	3533.25	3544.50	14	10	39.1	90.00	.0042	-25.90	.0000	380914.4	1.55	10.93	-.0035	246.38	-.0015	-26.27	298.64
SET 61	3559.93	3571.18	14	11	5.7	64.93	.0042	-26.94	.0000	384007.5	1.48	-.00	-.0026	233.59	.0027	-26.25	291.95
IMPACT	3687.92	3699.17	14	13	13.7												
IMPC 42	3687.92	3699.17	14	13	13.7	248.54	.0043	-25.55	-.0000	394476.6	1.74	-1.19	.0029	122.88	-.0025	-26.15	259.65
IMPC 72	3687.92	3699.17	14	13	13.7	87.04	.0043	-26.06	.0001	393666.1	2.49	6.11	-.0039	244.45	-.0003	-26.15	259.65
IMPC 11	3687.92	3699.17	14	13	13.7	343.26	.0044	-26.96	.0000	391575.3	1.96	25.85	.0010	163.42	.0042	-26.15	259.65

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	11	23	45.811	6584.978	18.8986	305.6814	10.96252	4.4348	115.0101	111.3184
SEPARATION	1.20	12.45	11	23	47.011	6668.213	15.9477	311.7253	10.89271	7.7940	116.9133	117.6631
RETRO	3.20	14.45	11	23	49.011	6904.210	10.8669	320.9995	10.70349	13.1411	119.1874	127.4386
EXIT SHA	26.25	37.50	12	0	12.063	13486.615	-21.0129	13.6520	7.62948	45.6222	113.2993	185.8703
IMPACT	3687.92	3699.17	14	13	13.726	394399.488	-26.1535	259.6520	2.83235	67.6980	282.0992	269.7913

SURVEYOR VIEW PERIODS

GHA	171.1653					EPS	96.2454							LOM	255.8261
SX	-.003889	SY	-.897708	SZ	-.440573	DAO	-26.14044	RAO	269.75177	RM	395695.598	LAT	28.310600	LON	279.461800
C3	-.908538	ECC	.985083	SLR	12991.707	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.016463	NSY	-.896837	NSZ	-.442055	C3M	1.5343	VIM	2.6783	ZAE	140.785	B.T	.0000	B.R	-.0000
LATE	3.5273	LONE	6.3557	LATS	-1.3820	LONS	270.3340	LATI	-4.2892	LONI	327.8969	RSM	148.7140	TTAN	6.5958

LAUNCH DATE MAR 11 1966 BASE AZM 108.0 TF 61.571 ARRIVAL DATE MAR 14 1966 13 28 49.6

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	23 39 53.1	28.1	17.83	305.08	10.01	112.05	117.09	23 51 8.1	6594.4	10.95	4.97

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PRORE IN EARTH'S SHADOW															
INJECTION	.00	11.25	11	23	51.1												
SEPARATION	1.20	12.45	11	23	52.3												
RETRO	3.20	14.45	11	23	54.3												
RISE 72	4.21	15.46	11	23	55.3	84.77	-.1502	33.26	-.0183	3111.4	-7.43	.01	.1269	303.62	.0027	6.71	324.10
EXTM 72	10.43	21.68	12	0	1.6	4.82	-.1787	-3.75	-.1220	2186.2	3.98	83.65	.2145	310.62	.2295	-6.85	344.43
RISE 51	11.11	22.36	12	0	2.2	82.59	-.0746	14.98	-.0423	5988.5	-2.34	.00	.0834	286.68	-.0054	-8.02	346.21
EXIT SHA	25.41	36.66	12	0	16.5												
EXIT 72	25.41	36.66	12	0	16.5	312.46	-.0175	-30.60	-.0051	8229.5	6.77	40.21	-.0159	123.75	.0007	-22.44	10.88
EXIT 51	25.41	36.66	12	0	16.5	30.58	-.0408	-18.24	-.0226	7340.0	4.24	60.75	.0442	278.60	-.0159	-22.44	10.88
EXIT 61	25.41	36.66	12	0	16.5	335.36	-.0248	-50.09	.0052	11969.7	6.23	-2.88	-.0001	164.46	-.0168	-22.44	10.88
EXTM 51	47.27	58.52	12	0	38.4	1.81	-.0106	-30.51	-.0031	13860.6	5.09	84.97	-.0000	198.06	-.1097	-29.01	26.46
EXTM 72	71.95	83.20	12	1	3.1	299.36	.0000	-34.01	-.0002	23750.5	4.71	28.65	.0000	124.59	.0002	-31.14	32.72
EXTM 51	95.54	106.79	12	1	26.7	351.89	.0001	-33.17	-.0001	27370.1	4.27	79.76	.0000	138.40	.0009	-31.81	34.17
RISE 61	112.75	124.00	12	1	43.9	315.95	.0016	-40.34	.0007	37420.8	3.98	-.00	.0013	148.00	.0007	-31.99	33.77
EXTM 51	175.18	186.43	12	2	46.3	.49	.0017	-32.81	.0002	45769.9	3.53	82.92	.0000	183.33	.0187	-31.95	27.26
EXTM 61	367.84	379.09	12	5	59.0	5.22	.0038	-34.92	.0002	85840.0	2.75	14.69	.0000	184.42	.0032	-30.90	350.87
EXTM 72	396.21	407.46	12	6	27.3	.99	.0039	-32.40	.0001	86432.8	2.67	65.48	.0000	182.02	.0080	-30.76	344.76
RISE 11	576.09	587.34	12	9	27.2	296.31	.0040	-32.13	.0000	118925.4	2.05	.00	.0025	130.61	.0023	-30.02	304.25
SET 51	590.91	602.16	12	9	42.0	90.00	.0038	-28.85	.0001	119658.7	2.64	12.10	-.0031	243.60	-.0012	-29.97	300.82
SET 61	593.20	604.45	12	9	44.3	57.70	.0039	-32.27	.0002	121305.4	2.53	-.00	-.0020	225.62	.0026	-29.96	300.29
SET 72	789.73	800.98	12	13	.9	94.42	.0039	-29.00	.0001	147011.7	2.45	-.01	-.0034	240.69	-.0004	-29.36	254.07
RISE 42	799.43	810.68	12	13	10.6	254.99	.0040	-27.85	-.0000	147687.3	1.75	4.73	.0028	121.03	-.0021	-29.33	251.76
EXTM 11	840.88	852.13	12	13	52.0	1.33	.0041	-31.41	.0001	150774.9	2.02	23.37	.0000	181.24	.0039	-29.23	241.87
SET 11	1102.26	1113.51	12	18	13.4	65.96	.0041	-30.00	.0001	183240.9	2.10	-.00	-.0026	232.28	.0024	-28.66	178.88
EXTM 42	1224.98	1236.23	12	20	16.1	359.94	.0042	-28.21	.0000	190086.4	1.74	82.99	.0000	.49	-.0286	-28.44	149.04
RISE 51	1360.68	1371.93	12	22	31.8	270.00	.0041	-27.56	-.0000	208872.8	1.30	11.59	.0033	115.18	-.0014	-28.22	115.91
RISE 72	1515.22	1526.47	13	1	6.4	265.80	.0041	-27.75	-.0000	225230.2	1.19	-.00	.0036	118.04	-.0005	-27.99	78.05
RISE 61	1602.82	1614.07	13	2	34.0	298.02	.0042	-29.04	-.0000	233489.5	1.28	.00	.0024	129.48	.0027	-27.88	56.54
SET 42	1648.33	1659.58	13	3	19.5	105.00	.0041	-26.89	.0001	237244.9	1.86	4.14	-.0029	239.74	-.0022	-27.82	45.35
EXTM 51	1720.18	1731.43	13	4	31.3	.02	.0042	-27.79	.0000	237969.7	1.51	87.95	-.0000	180.60	.0777	-27.73	27.67
EXTM 61	1851.73	1862.98	13	6	42.9	.51	.0042	-28.91	.0000	253699.1	1.46	20.85	-.0000	180.48	.0039	-27.58	355.25
EXTM 72	1891.18	1902.43	13	7	22.3	.15	.0042	-28.02	.0000	253471.7	1.44	69.88	-.0000	180.39	.0108	-27.54	345.52
RISE 11	2036.24	2047.49	13	9	47.4	292.30	.0042	-28.27	-.0000	271763.0	1.09	.00	.0028	125.43	.0024	-27.39	309.70
SET 51	2079.45	2090.70	13	10	30.6	90.00	.0041	-26.84	.0001	274123.3	1.75	11.30	-.0034	245.50	-.0014	-27.35	299.03
SET 61	2100.37	2111.62	13	10	51.5	62.90	.0042	-28.29	.0001	277105.3	1.65	-.00	-.0024	231.62	.0027	-27.32	293.86
SET 72	2265.46	2276.71	13	13	36.6	94.05	.0041	-26.98	.0001	290527.6	1.74	-.00	-.0036	242.74	-.0005	-27.17	253.01
RISE 42	2266.05	2277.30	13	13	37.2	255.00	.0041	-26.41	-.0000	290148.0	1.01	3.85	.0029	119.88	-.0022	-27.17	252.87
EXTM 11	2306.64	2317.89	13	14	17.8	.34	.0042	-28.25	.0000	290971.9	1.32	26.54	-.0000	180.34	.0041	-27.14	242.82
SET 11	2576.83	2588.08	13	18	48.0	68.28	.0042	-27.67	.0000	314666.4	1.56	.00	-.0028	235.36	.0024	-26.91	179.86
EXTM 42	2685.07	2696.32	13	20	36.2	359.98	.0042	-26.66	.0000	316492.1	1.23	81.44	-.0000	.19	-.0187	-26.83	149.00
RISE 51	2815.69	2826.94	13	22	46.8	270.00	.0041	-26.31	-.0000	331032.8	.83	11.10	.0034	114.01	-.0015	-26.74	116.58
RISE 72	2969.02	2980.27	14	1	20.2	266.03	.0042	-26.47	-.0000	343335.8	.74	-.00	.0037	116.74	-.0005	-26.63	78.46
RISE 61	3046.98	3058.23	14	2	38.1	295.95	.0042	-27.34	-.0000	348685.6	.86	.00	.0025	126.99	.0027	-26.58	59.00
SET 42	3103.47	3114.72	14	3	34.6	105.00	.0041	-25.91	.0000	352147.4	1.47	3.55	-.0030	240.51	-.0023	-26.54	44.89
EXTM 51	3169.55	3180.80	14	4	40.7	359.28	.0042	-26.52	.0000	350714.4	1.13	88.99	.0024	140.56	.1649	-26.50	28.39
EXTM 61	3301.12	3312.37	14	6	52.3	.24	.0042	-27.35	.0000	363511.7	1.13	22.41	-.0000	180.23	.0041	-26.43	355.51
EXTM 72	3340.87	3352.12	14	7	32.0	.10	.0042	-26.72	.0000	362629.7	1.13	71.18	-.0000	180.27	.0116	-26.40	345.58
RISE 11	3477.84	3489.09	14	9	49.0	291.02	.0042	-26.95	-.0000	377920.0	.83	.00	.0028	123.69	.0024	-26.32	311.31
SET 51	3528.37	3539.62	14	10	39.5	90.00	.0042	-25.92	.0000	380200.4	1.54	10.94	-.0035	246.36	-.0015	-26.29	298.65
SET 61	3554.94	3566.19	14	11	6.1	64.90	.0042	-26.97	.0000	383270.8	1.46	-.00	-.0026	233.56	.0027	-26.27	291.98
IMPACT	3694.28	3705.53	14	13	25.4												
IMPC 42	3694.28	3705.53	14	13	25.4	251.35	.0043	-25.58	.0000	394299.9	1.73	.76	.0030	121.27	-.0025	-26.16	256.83
IMPC 72	3694.28	3705.53	14	13	25.4	89.86	.0043	-26.05	.0001	393986.0	2.49	3.59	-.0038	244.18	-.0004	-26.16	256.83
IMPC 11	3694.28	3705.53	14	13	25.4	346.12	.0044	-26.97	.0000	391556.8	1.97	26.45	.0009	166.18	.0042	-26.16	256.83

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	11	23	51.135	6595.465	17.8074	305.1279	10.95373	4.9655	117.0996	112.0995
SEPARATION	1.20	12.45	11	23	52.335	6685.387	14.6667	310.9821	10.87830	8.3105	118.8246	118.2546
RETRO	3.20	14.45	11	23	54.335	6932.061	9.3313	319.9742	10.68149	13.6216	120.8047	127.7480
EXIT SHA	25.41	36.66	12	0	16.550	13273.176	-22.4391	10.8815	7.69109	45.1768	113.5114	184.2244
IMPACT	3694.28	3705.53	14	13	25.414	394436.387	-26.1621	256.8334	2.22983	67.5484	282.7122	269.9029

GHA	171.1653					EPS	96.3339							LOM	253.1090
SX	-.002208	SY	-.897657	SZ	-.440688	DAO	-26,14781	RAO	269.85906	RM	395732,699	LAT	28.310600	LON	279.461800
C3	-.916012	ECC	.984960	SLR	12990.905	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.018215	NSY	-.896744	NSZ	-.442175	C3M	1.5342	VIM	2.6783	ZAE	140,535	B.T	.0000	B.R	-.0000
LATE	3.5368	LONE	6.4521	LATS	-1.3819	LONS	270.3419	LATI	-4.6344	LONI	327.8069	RSM	148.7137	TTAN	6.5971
LAUNCH DATE	MAR 11,1966			BASE AZM	111.0		TF 61,691					ARRIVAL DATE	MAR 14 1966 13 40 5.6		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	23 44 11.1	28.1	16.77	304.48	10.85	112.53	119.17	23 55 26.1	6603.3	10.95	5.38

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PRORE IN EARTH'S SHADOW															
INJECTION	.00	11.25	11	23	55.4												
SEPARATION	1.20	12.45	11	23	56.6												
RETRO	3.20	14.45	11	23	58.6												
RISE 72	4.17	15.42	11	23	59.6	85.62	-.1395	28.85	-.0346	3155.9	-7.33	-.00	.1261	299.15	-.0149	5.20	322.78
EXTM 72	11.08	22.33	12	0	6.5	4.44	-.1603	-15.20	-.0940	2421.0	4.79	81.51	.0000	210.40	-1.2266	-9.91	344.47
RISE 51	11.16	22.41	12	0	6.6	84.26	-.0708	11.72	-.0447	6069.5	-2.20	-.00	.0820	283.04	-.0093	-10.05	344.67
EXIT SHA	24.50	35.75	12	0	19.9												
EXIT 72	24.50	35.75	12	0	19.9	315.89	-.0209	-33.96	-.0040	7871.9	6.81	41.81	-.0175	129.23	-.0039	-23.89	8.11
EXIT 51	24.50	35.75	12	0	19.9	36.08	-.0437	-20.29	-.0242	7223.7	4.03	56.46	.0461	271.74	-.0212	-23.89	8.11
EXIT 61	24.50	35.75	12	0	19.9	339.37	-.0281	-52.39	.0052	11851.7	6.20	-4.35	.0004	167.55	-.0180	-23.89	8.11
EXTM 51	49.97	61.22	12	0	45.4	2.24	-.0096	-33.43	-.0021	14748.1	5.03	82.07	-.0000	193.65	-.0601	-31.11	26.16
EXTM 72	72.58	83.83	12	1	8.0	300.49	-.0000	-35.92	.0001	23921.5	4.70	29.19	.0000	126.93	-.0001	-32.70	31.62
EXTM 51	94.31	105.56	12	1	29.7	353.20	-.0001	-34.88	.0001	27099.6	4.28	79.14	.0000	148.96	-.0004	-33.17	33.09
RISE 61	121.72	132.97	12	1	57.2	317.93	.0019	-41.26	.0007	39641.8	3.87	-.00	.0014	149.75	.0008	-33.27	32.25
EXTM 51	171.31	182.56	12	2	46.7	.91	.0027	-34.05	.0002	44987.9	3.56	81.66	.0000	185.21	.0153	-33.02	26.90
EXTM 61	366.31	377.56	12	6	1.7	5.79	.0038	-35.65	.0002	85674.5	2.75	13.93	.0000	184.84	.0032	-31.60	350.34
EXTM 72	393.11	404.36	12	6	28.5	1.19	.0039	-33.14	.0002	88972.5	2.68	64.74	.0000	182.34	.0077	-31.44	344.58
RISE 11	574.97	586.22	12	9	30.4	296.90	.0040	-32.67	.0000	118756.1	2.06	.00	.0025	131.35	.0023	-30.54	303.65
SET 61	585.94	597.19	12	9	41.4	56.89	.0039	-32.85	.0002	120286.2	2.53	-.00	-.0020	224.73	.0026	-30.49	301.11
SET 51	587.06	598.31	12	9	42.5	90.00	.0038	-29.38	.0001	119089.8	2.65	12.30	-.0031	243.11	-.0012	-30.49	300.85
SET 72	786.29	797.54	12	13	1.7	94.50	.0039	-29.42	.0001	146553.5	2.45	-.00	-.0034	240.27	-.0004	-29.78	254.01
RISE 42	795.82	807.07	12	13	11.3	254.99	.0040	-28.27	-.0000	147182.4	1.75	4.98	.0028	121.36	-.0021	-29.75	251.74
EXTM 11	837.76	849.01	12	13	53.2	1.47	.0041	-31.82	.0001	150403.5	2.02	22.95	.0000	181.36	.0038	-29.63	241.74
SET 11	1097.16	1108.41	12	18	12.6	65.63	.0041	-30.32	.0001	182624.4	2.10	-.00	-.0026	231.84	.0024	-28.98	179.22
EXTM 42	1221.26	1232.51	12	20	16.7	359.93	.0042	-28.50	.0000	189620.6	1.74	83.28	.0000	.56	-.0301	-28.72	149.05
RISE 51	1357.01	1368.26	12	22	32.4	270.00	.0041	-27.81	-.0000	208406.8	1.30	11.69	.0033	115.42	-.0014	-28.47	115.90
RISE 72	1511.36	1522.61	13	1	6.8	265.77	.0041	-27.98	-.0000	224756.9	1.19	-.00	.0036	118.27	-.0005	-28.22	78.08
RISE 61	1600.20	1611.45	13	2	35.6	298.30	.0042	-29.25	-.0000	233130.0	1.28	.01	.0024	129.80	.0027	-28.09	56.26
SET 42	1644.57	1655.82	13	3	20.0	105.00	.0041	-27.09	.0001	236764.7	1.85	4.26	-.0029	239.58	-.0022	-28.02	45.35
EXTM 51	1716.44	1727.69	13	4	31.9	.02	.0042	-27.98	.0000	237503.8	1.51	87.76	-.0000	180.57	.0732	-27.92	27.67
EXTM 61	1848.15	1859.40	13	6	43.6	.56	.0042	-29.09	.0000	253259.9	1.46	20.67	-.0000	180.52	.0039	-27.75	355.21
EXTM 72	1887.46	1898.71	13	7	22.9	.17	.0042	-28.19	.0000	253007.2	1.44	69.71	-.0000	180.42	.0107	-27.70	345.51
RISE 11	2033.06	2044.31	13	9	48.5	292.45	.0042	-28.42	-.0000	271329.5	1.09	.00	.0028	125.63	.0024	-27.53	309.56
SET 51	2075.64	2086.89	13	10	31.1	90.00	.0041	-26.98	.0001	273629.1	1.75	11.36	-.0034	245.36	-.0014	-27.49	299.03
SET 61	2095.86	2107.11	13	10	51.3	62.73	.0042	-28.44	.0001	276557.6	1.65	-.00	-.0024	231.40	.0027	-27.47	294.03
SET 72	2261.72	2272.97	13	13	37.2	94.08	.0041	-27.11	.0001	290033.4	1.73	-.00	-.0036	242.61	-.0005	-27.29	253.00
RISE 42	2262.26	2273.51	13	13	37.7	255.00	.0041	-26.53	-.0000	289641.0	1.01	3.92	.0029	119.97	-.0022	-27.29	252.86
EXTM 11	2302.95	2314.20	13	14	18.4	.37	.0042	-28.37	.0000	290490.5	1.32	26.42	-.0000	180.37	.0041	-27.25	242.79
SET 11	2572.61	2583.86	13	18	48.0	68.19	.0042	-27.76	.0000	314112.8	1.56	.00	-.0028	235.24	.0024	-27.00	178.95
EXTM 42	2681.21	2692.46	13	20	36.6	359.98	.0042	-26.75	.0000	315955.1	1.23	81.53	-.0000	.19	-.0198	-26.91	149.00
RISE 51	2811.84	2823.09	13	22	47.3	270.00	.0041	-26.38	-.0000	330482.9	.83	11.12	.0034	114.08	-.0015	-26.81	116.58
RISE 72	2965.11	2976.36	14	1	20.5	266.02	.0042	-26.53	-.0000	342771.2	.74	-.00	.0037	116.80	-.0005	-26.69	78.47
RISE 61	3043.37	3054.62	14	2	38.8	296.01	.0042	-27.40	-.0000	348129.7	.86	.00	.0025	127.07	.0027	-26.63	58.93
SET 42	3099.59	3110.84	14	3	35.0	105.00	.0041	-25.96	.0000	351560.9	1.46	3.58	-.0030	240.47	-.0023	-26.59	44.90
EXTM 51	3165.97	3177.22	14	4	41.4	359.36	.0042	-26.56	.0000	350141.3	1.13	88.99	.0022	145.25	.1764	-26.55	28.32
EXTM 61	3297.31	3308.56	14	6	52.7	.26	.0042	-27.39	.0000	362902.8	1.13	22.37	-.0000	180.25	.0041	-26.46	355.90
EXTM 72	3337.01	3348.26	14	7	32.4	.10	.0042	-26.76	.0000	362006.2	1.13	71.14	-.0000	180.29	.0116	-26.44	345.57
RISE 11	3474.10	3485.35	14	9	49.5	291.05	.0042	-26.98	-.0000	377263.6	.82	.00	.0028	123.73	.0024	-26.35	311.28
SET 51	3524.51	3535.76	14	10	39.9	90.00	.0042	-25.95	.0000	379513.0	1.53	10.95	-.0035	246.33	-.0015	-26.32	298.65
SET 61	3550.96	3562.21	14	11	6.4	64.47	.0042	-26.99	.0000	382561.5	1.45	-.00	-.0026	233.52	.0027	-26.30	292.02
RISE 42	3704.89	3716.14	14	13	40.3	255.00	.0044	-25.60	.0000	394508.0	2.10	3.35	.0031	119.24	-.0024	-26.16	253.17
IMPACT	3701.45	3712.70	14	13	36.9												
IMPC 42	3701.45	3712.70	14	13	36.9	254.10	.0043	-25.60	.0000	394123.6	1.72	2.72	.0030	119.74	-.0024	-26.17	254.07
IMPC 72	3701.45	3712.70	14	13	36.9	92.63	.0043	-26.04	.0001	394300.3	2.48	1.12	-.0038	243.86	-.0005	-26.17	254.07
IMPC 11	3701.45	3712.70	14	13	36.9	348.92	.0044	-26.98	.0000	391549.8	1.99	26.93	.0007	168.93	.0043	-26.17	254.07
SET 72	3706.29	3717.54	14	13	41.7	93.88	.0044	-26.02	.0001	395093.4	3.21	.00	-.0039	243.71	-.0005	-26.16	252.81

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	11	23	55.435	6604,662	16.7374	304.5334	10,94604	5.3843	119.1867	112.5830
SEPARATION	1.20	12.45	11	23	56.635	6699,734	13.4106	310.2018	10,84622	8.7172	120.7436	118.5522
RETRO	3.20	14.45	11	23	58.635	6954,747	7.8199	318.9241	10,66356	13.9989	122.4483	127.7789
EXIT SHA	24.50	35.75	12	0	19.939	13023,018	-23.8902	8.1083	7,76525	44.6365	113.8838	182.3009
IMPACT	3701.45	3712.70	14	13	36.884	394476,977	-26.1705	254.0678	2,22702	67.3691	283.3476	270.0125

SURVEYOR VIEW PERIODS

GHA	171.1653					EPS	96.4550							LOM	249.3903
SX	.000092	SY	-.897584	SZ	-.440844	DAO	-26.15777	RAO	270.00591	RM	395783.371	LAT	28.310600	LON	279.461800
C3	-.927518	ECC	.984771	SLR	12989.669	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.020626	NSY	-.896611	NSZ	-.442339	C3M	1.5340	VIM	2.6783	ZAE	140.151	B.T	.0000	B.R	-.0000
LATE	3.5497	LONE	6.3394	LATS	-1.3819	LONS	270.1077	LATI	-5.1038	LONI	327.3998	RSM	148.7133	TTAN	6.5988

LAUNCH DATE MAR 11,1966 BASE AZM 115.0 TF 61.875 ARRIVAL DATE MAR 14 1966 13 55 30.8

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	23 48 49.3	28.1	15.39	303.61	11.73	112.82	121.95	24 0 4.3	6613.2	10.94	5.82

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	JEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PRORE IN EARTH'S SHADOW															
INJECTION	.00	11.25	12	0	.1												
SEPARATION	1.20	12.45	12	0	1.3												
RETRO	3.20	14.45	12	0	3.3												
RISE 72	4.17	15.42	12	0	4.2	86.61	-.1271	23.10	-.0549	3218.9	-7.05	-.00	.1238	293.34	-.0368	3.10	321.20
RISE 51	11.26	22.51	12	0	11.3	86.41	-.0662	7.41	-.0478	6177.3	-1.99	-.01	.0800	278.23	-.0142	-12.84	342.74
EXTM 72	11.41	22.66	12	0	11.5	9.39	-.1566	-25.50	-.0770	2651.0	4.98	70.26	-.0000	205.84	-.4765	-13.08	343.10
EXIT SHA	23.20	34.45	12	0	23.3												
EXIT 72	23.20	34.45	12	0	23.3	320.85	-.0269	-38.77	-.0023	7391.2	6.84	43.24	-.0192	137.50	-.0121	-25.81	4.31
EXIT 51	23.20	34.45	12	0	23.3	43.82	-.0476	-22.76	-.0271	7073.9	3.70	50.11	.0490	264.67	-.0252	-25.81	4.31
EXTM 51	55.22	66.47	12	0	55.3	1.73	-.0079	-37.21	-.0009	16410.1	4.92	78.44	-.0000	186.88	-.0315	-34.01	26.48
EXTM 72	72.84	84.09	12	1	12.9	301.59	-.0001	-38.52	.0004	24013.8	4.69	29.45	.0000	130.07	-.0005	-34.85	30.39
EXTM 51	88.48	99.73	12	1	28.6	354.73	-.0008	-37.37	.0003	25654.0	4.36	77.54	.0000	160.23	-.0031	-35.08	31.80
RISE 61	135.29	146.54	12	2	15.4	320.55	.0022	-42.38	.0007	42884.4	3.72	-.00	.0014	152.01	.0011	-34.88	30.21
EXTM 51	169.70	180.95	12	2	49.8	1.67	.0026	-35.75	.0003	44693.5	3.57	79.89	.0000	187.76	.0122	-34.50	26.24
EXTM 61	366.11	377.36	12	6	6.2	6.61	.0038	-36.63	.0003	85749.4	2.75	12.90	.0000	185.44	.0031	-32.57	349.58
EXTM 72	390.62	401.87	12	6	30.7	1.49	.0039	-34.15	.0002	85613.7	2.68	63.72	.0000	182.78	.0074	-32.38	344.31
RISE 11	574.99	586.24	12	9	35.1	297.74	.0040	-33.41	.0000	118731.3	2.06	.00	.0024	132.37	.0023	-31.26	302.82
SET 61	577.29	588.54	12	9	37.4	55.73	.0039	-33.64	.0002	119052.8	2.54	-.00	-.0019	223.47	.0027	-31.25	302.28
SET 51	583.31	594.56	12	9	43.4	90.00	.0038	-30.11	.0002	118509.4	2.65	12.58	-.0031	242.42	-.0011	-31.22	300.89
SET 72	783.03	794.28	12	13	3.1	94.60	.0039	-30.00	.0001	146092.2	2.45	-.00	-.0034	239.69	-.0004	-30.36	253.93
RISE 42	792.32	803.57	12	13	12.4	254.99	.0040	-28.84	-.0000	146653.0	1.76	5.33	.0028	121.81	-.0021	-30.33	251.72
EXTM 11	834.94	846.19	12	13	55.0	1.67	.0041	-32.39	.0001	150058.3	2.02	22.38	.0000	181.52	.0038	-30.18	241.55
SET 11	1091.52	1102.77	12	18	11.6	65.15	.0041	-30.77	.0001	181907.9	2.10	-.00	-.0025	231.23	.0024	-29.42	179.71
EXTM 42	1217.52	1228.77	12	20	17.6	359.92	.0042	-28.91	.0000	189105.3	1.74	83.69	.0000	.68	-.0323	-29.11	149.06
RISE 51	1353.32	1364.57	12	22	33.4	270.00	.0041	-28.17	-.0000	207881.4	1.30	11.83	.0033	115.75	-.0014	-28.82	115.89
RISE 72	1507.41	1518.66	13	1	7.5	265.71	.0041	-28.29	-.0000	224211.7	1.19	-.00	.0036	118.58	-.0005	-28.53	78.13
RISE 61	1597.91	1609.16	13	2	38.0	298.66	.0042	-29.54	-.0000	232733.1	1.28	.00	.0024	130.23	.0027	-28.37	55.90
SET 42	1640.75	1652.00	13	3	20.8	105.00	.0041	-27.37	.0001	236202.9	1.85	4.43	-.0029	239.36	-.0022	-28.30	45.36
EXTM 51	1712.65	1723.90	13	4	32.7	.02	.0042	-28.25	.0000	236958.5	1.50	87.49	-.0000	180.63	.0652	-28.19	27.66
EXTM 61	1844.57	1855.82	13	6	44.6	.62	.0042	-29.33	.0000	252743.8	1.46	20.43	-.0000	180.58	.0039	-27.99	355.14
EXTM 72	1883.68	1894.93	13	7	23.8	.18	.0042	-28.43	.0000	252454.5	1.44	69.47	-.0000	180.46	.0105	-27.93	345.49
RISE 11	2030.02	2041.27	13	9	50.1	292.65	.0042	-28.63	-.0000	270812.8	1.09	.00	.0027	125.90	.0024	-27.74	309.35
SET 51	2071.73	2082.98	13	10	31.8	90.00	.0041	-27.18	.0001	273026.1	1.75	11.44	-.0034	245.18	-.0014	-27.68	299.04
SET 61	2090.96	2102.21	13	10	51.0	62.48	.0042	-28.64	.0001	275879.2	1.65	-.00	-.0024	231.11	.0027	-27.66	294.28
SET 72	2257.89	2269.14	13	13	38.0	94.10	.0041	-27.27	.0001	289422.2	1.73	-.00	-.0036	242.44	-.0005	-27.46	252.97
RISE 42	2258.35	2269.60	13	13	38.4	255.00	.0041	-26.70	-.0000	289011.8	1.01	4.02	.0029	120.11	-.0022	-27.46	252.86
EXTM 11	2299.19	2310.44	13	14	19.3	.41	.0042	-28.53	.0000	289895.1	1.32	26.26	-.0000	180.41	.0041	-27.41	242.75
SET 11	2568.10	2579.35	13	18	48.2	68.06	.0042	-27.89	.0000	313404.5	1.56	.00	-.0028	235.06	.0024	-27.13	176.08
EXTM 42	2677.21	2688.46	13	20	37.3	359.97	.0042	-26.86	.0000	315267.3	1.23	81.64	-.0000	.21	-.0206	-27.03	149.01
RISE 51	2807.84	2819.09	13	22	47.9	270.00	.0041	-26.48	-.0000	329771.6	.83	11.16	.0034	114.17	-.0015	-26.91	116.57
RISE 72	2961.19	2972.44	14	1	21.3	266.01	.0042	-26.61	-.0000	342083.0	.73	.00	.0037	116.88	-.0006	-26.77	78.48
RISE 61	3039.82	3051.07	14	2	39.9	296.10	.0042	-27.47	-.0000	347447.0	.85	.00	.0025	127.18	.0027	-26.70	58.84
SET 42	3095.65	3106.90	14	3	35.7	105.00	.0041	-26.03	.0000	350832.2	1.46	3.62	-.0030	240.42	-.0023	-26.66	44.90
EXTM 51	3162.00	3173.25	14	4	42.1	359.35	.0042	-26.63	.0000	349396.5	1.12	88.94	.0021	146.97	.1704	-26.51	28.32
EXTM 61	3293.44	3304.69	14	6	53.5	.28	.0042	-27.44	.0000	362128.7	1.12	22.32	-.0000	180.27	.0041	-26.52	355.47
EXTM 72	3333.07	3344.32	14	7	33.1	.11	.0043	-26.81	.0000	361209.1	1.12	71.05	-.0000	180.30	.0115	-26.49	345.56
RISE 11	3470.27	3481.52	14	9	50.3	291.09	.0042	-27.02	-.0000	376411.8	.81	.00	.0028	123.78	.0024	-26.39	311.23
SET 51	3520.51	3531.76	14	10	40.6	90.00	.0042	-25.98	.0000	378616.0	1.52	10.97	-.0035	246.30	-.0015	-26.35	298.65
SET 61	3546.80	3558.05	14	11	6.9	64.42	.0042	-27.03	.0000	381633.5	1.44	-.00	-.0026	233.46	.0027	-26.33	292.06
RISE 42	3701.27	3712.52	14	13	41.3	255.00	.0042	-25.63	-.0000	392912.7	1.29	3.37	.0030	119.26	-.0023	-26.20	253.17
SET 72	3702.70	3713.95	14	13	42.8	93.89	.0042	-26.06	.0001	393426.9	2.08	.00	-.0038	243.67	-.0005	-26.20	252.80
IMPACT	3712.50	3723.75	14	13	52.6												
IMPC 42	3712.50	3723.75	14	13	52.6	257.87	.0043	-25.63	.0000	393881.4	1.70	5.44	.0031	117.70	-.0023	-26.18	250.29
IMPC 72	3712.50	3723.75	14	13	52.6	96.40	.0043	-26.03	.0001	394732.6	2.47	-2.23	-.0038	243.34	-.0006	-26.18	250.29
IMPC 11	3712.50	3723.75	14	13	52.6	352.76	.0044	-27.00	.0000	391561.3	2.00	27.42	.0005	172.73	.0044	-26.18	250.29

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	12	0	.072	6615.171	15.3453	303.6810	10.93713	5.8220	121.9692	112.8930
SEPARATION	1.20	12.45	12	0	1.272	6715.482	11.7760	309.1058	10.85284	9.1416	123.3171	118.6187
RETRO	3.20	14.45	12	0	3.272	6979.124	5.8454	317.4804	10.64423	14.3913	124.6811	127.4947
EXIT SHA	23.20	34.45	12	0	23.268	12645.078	-25.8113	4.3079	7.88145	43.7795	114.6716	179.3350
IMPACT	3712.50	3723.75	14	13	52.568	394536.074	-26.1818	250.2864	2.22157	66.9108	284.0507	270.1630

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SURVEYOR VIEW PERIODS

GHA 12.1509 EPS 107.1600 LOM 276.8205
SX .202244 SY -.872247 SZ -.445289 DAO -26.44183 RAO 283.05425 RM 399840.477 LAT 28.310600 LON 279.461800
C3 -.875988 ECC .985617 SLR 12995.201 RCA 6544.6650 LTA -20.0000 GTA 20.00 TB 675.00000 POL -.0
NSX .221545 NSY -.867796 NSZ -.444801 C3M 1.5301 VIM 2.6776 ZAE 142.144 B.T .0000 B.R -.0000
LATE 4.6133 LONE 5.4012 LATS -1.3770 LONS 258.4425 LATI -.7145 LONI 327.8859 RSM 148.6798 TTAN 6.5908
LAUNCH DATE MAR 12,1966 BASE AZM 84.0 TF 62.288 ARRIVAL DATE MAR 15 1966 12 54 12.7

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
84.00	22 39 4.7	27.2	27.12	307.40	-15.03	100.12	99.74	22 50 19.7	6657.8	10.90	-7.46

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	12	22	50.3												
SEPARATION	1.20	12.45	12	22	51.5												
RETRO	3.20	14.45	12	22	53.5												
RISE 72	7.28	18.53	12	22	57.6	331.09	-.9028	80.99	-.1679	2601.6	-2.56	-.00	.0797	4.34	.2045	14.22	347.36
RISE 51	12.21	23.46	12	23	2.5	60.56	-.1514	45.55	-.0232	4617.1	-3.87	.00	.0976	322.42	.0476	3.84	6.67
EXTM 72	13.32	24.57	12	23	3.7	288.01	-.0246	17.64	-.0985	3731.2	6.67	14.49	-.0000	69.40	.1046	1.78	10.18
EXIT SHA	27.68	38.93	12	23	18.0												
EXIT 72	27.68	38.93	12	23	18.0	276.66	-.0075	-13.16	-.0126	9973.0	6.90	8.23	-.00[illegible]	102.25	.0135	-14.49	38.01
EXIT 51	27.68	38.93	12	23	18.0	340.72	-.0304	-3.28	-.0294	6625.4	5.49	60.89	.0047	42.67	.0864	-14.49	38.01
EXTM 51	29.16	40.41	12	23	19.5	338.19	-.0262	-5.70	-.0250	7121.4	5.62	61.09	-.0000	49.86	.0748	-15.42	39.74
EXTM 72	63.65	74.90	12	23	54.0	270.42	-.0003	-23.79	-.0020	22535.9	5.03	3.56	.0000	113.54	.0020	-24.76	58.25
RISE 42	69.24	80.49	12	23	59.6	102.47	-.0047	-17.01	-.0034	24597.6	4.27	.00	.0056	249.02	.0000	-25.33	59.29
EXTM 51	77.40	88.65	13	0	7.7	318.56	-.0003	-24.77	-.0016	22355.0	4.69	52.56	.0000	97.75	.0027	-25.99	60.35
EXTM 42	128.39	139.64	13	0	58.7	97.41	.0006	-22.95	-.0008	39375.0	4.00	7.35	-.0000	247.03	-.0009	-27.89	59.82
SET 42	205.01	216.26	13	2	15.3	104.99	.0024	-24.78	-.0002	56739.5	3.58	2.86	-.0016	241.42	-.0015	-28.57	49.71
RISE 61	218.39	229.64	13	2	28.7	303.91	.0033	-33.40	.0001	59758.2	3.13	.00	.0018	136.14	.0021	-28.61	47.45
EXTM 51	321.50	332.75	13	4	11.8	.01	.0037	-28.94	.0000	72811.5	2.89	86.80	.0000	180.41	.0244	-28.68	27.68
EXTM 61	478.62	489.87	13	6	48.9	2.27	.0040	-31.84	.0001	102336.8	2.51	17.89	.0000	182.02	.0035	-28.52	353.60
EXTM 72	515.13	526.38	13	7	25.5	.35	.0041	-29.71	.0001	103937.8	2.44	68.20	-.0000	180.82	.0095	-28.47	345.34
RISE 11	682.09	693.34	13	10	12.4	294.15	.0040	-30.10	-.0000	132878.7	1.91	.00	.0026	127.87	.0023	-28.25	306.68
SET 51	708.69	719.94	13	10	39.0	90.00	.0039	-27.21	.0001	135102.2	2.51	11.45	-.0032	245.15	-.0013	-28.22	300.42
SET 61	722.21	733.46	13	10	52.5	60.91	.0040	-30.19	.0001	138114.1	2.40	-.00	-.0022	228.80	.0026	-28.20	297.23
SET 72	903.57	914.82	13	13	53.9	94.17	.0040	-27.66	.0001	160506.4	2.36	-.00	-.0035	242.05	-.0005	-27.99	254.04
RISE 42	912.22	923.47	13	14	2.5	255.00	.0040	-26.62	-.0001	161087.6	1.65	3.97	.0029	120.05	-.0021	-27.98	251.97
EXTM 11	951.90	963.15	13	14	42.2	.75	.0042	-29.93	.0000	163512.5	1.93	24.86	-.0000	180.72	.0040	-27.94	248.43
SET 11	1219.26	1230.51	13	19	9.6	67.06	.0041	-28.92	.0001	195638.4	2.04	-.00	-.0026	233.71	.0024	-27.68	177.68
EXTM 42	1336.77	1348.02	13	21	7.1	359.96	.0042	-27.34	.0000	201532.7	1.69	82.12	.0000	.29	-.0246	-27.58	149.02
RISE 51	1471.67	1482.92	13	23	22.0	270.00	.0041	-26.84	-.0000	219874.8	1.25	11.31	.0034	114.91	-.0014	-27.47	116.01
RISE 72	1626.43	1637.68	14	1	56.8	265.91	.0041	-27.13	-.0000	235846.0	1.15	-.00	.0036	117.41	-.0005	-27.36	78.03
RISE 61	1710.47	1721.72	14	3	20.8	297.24	.0042	-28.41	-.0000	243992.2	1.25	.00	.0025	128.55	.0027	-27.30	57.37
SET 42	1759.55	1770.80	14	4	9.9	105.00	.0041	-26.38	.0000	247615.8	1.82	3.83	-.0029	240.14	-.0022	-27.27	48.28
EXTM 51	1825.80	1837.05	14	5	16.1	358.69	.0042	-27.27	.0000	247669.0	1.47	88.07	.0023	142.71	.0877	-27.23	28.97
EXTM 61	1961.76	1973.01	14	7	32.1	.32	.0042	-28.43	.0000	263517.2	1.43	21.34	.0000	180.30	.0040	-27.15	359.44
EXTM 72	2001.72	2012.97	14	8	12.0	.10	.0042	-27.58	.0000	263303.1	1.42	70.32	-.0000	180.27	.0109	-27.12	345.97
RISE 11	2145.24	2156.49	14	10	35.6	291.93	.0042	-27.89	-.0000	281273.4	1.07	.00	.0028	124.93	.0024	-27.04	310.11
SET 51	2190.26	2201.51	14	11	20.6	90.00	.0041	-26.53	.0000	283739.3	1.73	11.18	-.0034	245.79	-.0014	-27.02	298.98
SET 61	2212.85	2224.10	14	11	43.2	63.33	.0042	-27.94	.0000	286816.2	1.63	-.00	-.0025	232.13	.0027	-27.01	293.39
SET 72	2376.00	2387.25	14	14	26.3	94.01	.0041	-26.74	.0000	299882.3	1.72	-.00	-.0034	242.98	-.0005	-26.93	253.01
RISE 42	2376.43	2387.68	14	14	26.8	255.00	.0041	-26.19	-.0000	299903.8	.99	3.71	.0029	119.70	-.0022	-26.92	252.90
EXTM 11	2416.68	2427.93	14	15	7.0	.22	.0042	-27.98	.0000	300214.9	1.30	26.81	-.0000	180.22	.0042	-26.91	242.93
SET 11	2687.95	2699.20	14	19	38.3	68.43	.0042	-27.52	.0000	323758.1	1.55	.00	-.0028	235.56	.0024	-26.78	179.69
EXTM 42	2795.52	2806.77	14	21	25.8	359.99	.0042	-26.57	.0000	325446.2	1.22	81.35	-.0000	.14	-.0114	-26.73	148.99
RISE 51	2925.95	2937.20	14	23	36.3	270.00	.0041	-26.27	-.0000	339880.1	.82	11.08	.0034	113.97	-.0015	-26.68	116.61
RISE 72	3078.96	3090.21	15	2	9.3	266.03	.0042	-26.47	-.0000	351923.4	.73	-.00	.0037	116.75	-.0005	-26.63	78.49
RISE 61	3157.06	3168.31	15	3	27.4	295.95	.0042	-27.35	-.0000	357250.9	.85	.00	.0025	127.00	.0027	-26.60	59.01
SET 42	3213.74	3224.99	15	4	24.1	105.00	.0041	-25.97	.0000	360703.9	1.46	3.58	-.0030	240.47	-.0023	-26.58	44.87
EXTM 51	3280.14	3291.39	15	5	30.5	359.37	.0042	-26.58	.0000	359280.1	1.13	88.99	.0021	146.18	.1772	-26.56	28.30
EXTM 61	3411.07	3422.32	15	7	41.4	.14	.0042	-27.43	.0000	372045.9	1.13	22.33	-.0000	180.14	.0040	-26.53	355.61
EXTM 72	3451.12	3462.37	15	8	21.5	.07	.0042	-26.83	.0000	371192.0	1.14	71.07	-.0000	180.20	.0111	-26.52	348.60
RISE 11	3588.71	3599.96	15	10	39.0	291.16	.0042	-27.09	-.0000	386664.6	.86	.00	.0028	123.87	.0024	-26.48	311.19
SET 51	3638.81	3650.06	15	11	29.1	90.00	.0042	-26.10	.0000	389045.7	1.60	11.01	-.0035	246.19	-.0015	-26.46	298.63
SET 61	3664.54	3675.79	15	11	54.9	64.30	.0042	-27.14	.0000	392179.9	1.56	-.00	-.0026	233.31	.0027	-26.46	292.17
IMPACT	3737.28	3748.53	15	13	7.6												
IMPC 72	3737.28	3748.53	15	13	7.6	72.87	.0043	-26.45	.0000	396489.9	2.50	18.81	-.0039	244.68	.0001	-26.44	273.77
IMPC 11	3737.28	3748.53	15	13	7.6	328.95	.0044	-27.20	-.0000	396259.7	1.92	21.04	.0017	150.56	.0037	-26.44	273.77

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION	.00	11.25	12	22	50.328	6662.999	27.1469	307.2202	10.90259	-7.4624	99.6487	99.9341
SEPARATION	1.20	12.45	12	22	51.528	6578.466	25.7771	314.9308	10.96891	-4.0958	103.0482	107.5495
RETRO	3.20	14.45	12	22	53.528	6549.992	22.6754	326.2012	10.99283	1.6229	108.0603	119.7173
EXIT SHA	27.68	38.93	12	23	18.004	12583.829	-14.4869	38.0131	7.90415	43.6482	115.0348	197.6693
IMPACT	3737.28	3748.53	15	13	7.609	3985[illegible]1.916	-26.4391	273.7662	2.24039	69.4155	272.1937	283.3577

MAR 12, 1966
84 DEGREES

SURVEYOR VIEW PERIODS

GHA	172.1509					EPS	107.3943							LOM	269.4628
SX	.206609	SY	-.871280	SZ	-.445179	DAO	-26.43476	RAO	283.34028	RM	399919.215	LAT	28.310600	LON	279.461800
C3	-.869877	ECC	.985717	SLR	12995.859	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	475.00000	POL	-.0
NSX	.225826	NSY	-.866772	NSZ	-.444645	C3M	1.5347	VIM	2.6784	ZAE	142.261	B.T	.0000	B.R	-.0000
LATE	4.6346	LONE	5.3782	LATS	-1.3769	LONS	258.1844	LATI	-.4923	LONI	327.9508	RSM	148.6791	TTAN	6.5858

LAUNCH DATE MAR 12,1966 BASE AZM 87.0 TF 62.222 ARRIVAL DATE MAR 15 1966 13 24 42.2

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ R'D	INJ VEL	INJ PTH
87.00	23 7 32.1	27.6	25.89	307.58	-8.65	107.43	102.10	23 18 47.1	6581.8	10.97	-4.29

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROPE	IN	EARTH'S	SHADOW												
INJECTION	.00	11.25	12	23	18.8												
SEPARATION	1.20	12.45	12	23	20.0												
RETRO	3.20	14.45	12	23	22.0												
RISE 72	6.28	17.53	12	23	25.1	52.57	-.8272	77.14	.0760	2653.8	-4.52	-.01	.0978	349.82	.1735	14.33	341.65
RISE 61	11.53	22.83	12	23	30.4	344.02	-.1164	-48.64	.0189	4836.1	6.72	.01	.0023	169.52	-.0792	3.48	2.08
RISE 51	11.79	23.04	12	23	30.6	65.51	-.1300	40.68	-.0252	4915.8	-3.61	.00	.0953	316.36	.0358	3.10	2.72
EXTM 61	12.41	23.66	12	23	31.2	338.73	-.0983	-47.70	.0191	5174.7	6.98	.06	-.0000	165.87	-.0688	2.01	4.61
EXTM 72	12.61	23.86	12	23	31.4	298.00	-.0390	19.66	-.1123	3320.2	6.31	23.06	-.0000	64.64	.1284	1.66	5.19
SET 61	13.24	24.49	12	23	32.0	334.20	-.0834	-46.76	.0183	5528.9	7.16	.01	-.0018	162.65	-.0600	.59	7.02
EXIT SHA	26.48	37.73	12	23	45.3												
EXIT 72	26.48	37.73	12	23	45.3	283.75	-.0085	-13.14	-.0132	9289.4	6.91	15.10	-.0071	101.55	.0144	-13.76	31.73
EXIT 51	26.48	37.73	12	23	45.3	352.37	-.0353	-1.94	-.0308	6490.9	5.10	65.09	.0195	18.36	.0110	-13.76	31.73
EXIT 61	26.48	37.73	12	23	45.3	304.96	-.0165	-39.08	.0044	11268.4	6.86	-3.88	-.0046	140.38	-.0128	-13.76	31.73
EXTM 51	31.45	42.70	12	23	50.2	344.00	-.0222	-9.13	-.0187	8088.1	5.52	67.49	-.0000	45.31	.0753	-16.59	37.00
EXTM 72	63.79	75.04	13	0	22.6	276.98	-.0002	-24.04	-.0019	22280.0	4.99	9.55	.0000	113.18	.0019	-24.32	52.15
EXTM 51	79.72	90.97	13	0	38.5	326.36	-.0002	-24.83	-.0015	22957.9	4.57	59.65	.0000	95.70	.0030	-25.68	54.24
RISE 42	90.80	102.05	13	0	49.6	104.47	-.0016	-19.49	-.0018	30957.6	4.21	.00	.0023	245.90	-.0005	-26.30	54.76
EXTM 42	128.34	139.59	13	1	27.1	103.72	.0007	-22.22	-.0008	40197.5	3.99	2.22	-.0000	244.15	-.0010	-27.46	53.26
SET 42	149.15	160.40	13	1	47.9	105.00	.0013	-23.04	-.0005	45096.7	3.86	1.78	-.0006	242.79	-.0012	-27.78	51.12
RISE 61	181.97	193.22	13	2	20.8	304.13	.0030	-33.55	.0001	52500.8	3.35	-.00	.0017	136.38	.0019	-28.09	46.67
EXTM 51	287.98	299.23	13	4	6.8	.00	.0036	-28.44	.0000	67093.4	3.00	87.10	.0000	180.29	.0009	-28.39	27.68
EXTM 61	448.57	459.82	13	6	47.4	2.36	.0039	-31.79	.0001	97944.9	2.57	17.94	.0000	182.11	.0035	-28.32	353.52
EXTM 72	484.69	495.94	13	7	23.5	.27	.0040	-29.56	.0001	99616.1	2.49	68.34	.0000	180.63	.0095	-28.28	345.42
RISE 11	652.81	664.06	13	10	11.6	294.05	.0040	-30.01	-.0000	129166.5	1.95	.00	.0026	127.74	.0023	-28.10	306.71
SET 51	679.36	690.61	13	10	38.1	90.00	.0039	-27.04	.0001	131446.7	2.55	11.39	-.0032	245.31	-.0013	-28.07	300.49
SET 61	693.51	704.76	13	10	52.3	60.63	.0040	-30.10	.0001	134562.6	2.43	-.00	-.0022	228.93	.0026	-28.06	297.17
SET 72	874.74	885.99	13	13	53.5	94.15	.0039	-27.54	.0001	157253.9	2.38	-.00	-.0030	242.18	-.0005	-27.87	254.11
RISE 42	883.86	895.11	13	14	2.6	255.00	.0040	-26.47	-.0001	157914.9	1.67	3.88	.0029	119.93	-.0021	-27.86	251.93
EXTM 11	923.42	934.67	13	14	42.2	.74	.0042	-29.85	.0000	160364.5	1.96	24.93	-.0300	180.71	.0040	-27.82	249.44
SET 11	1191.36	1202.61	13	19	10.1	67.13	.0041	-28.84	.0001	192883.6	2.06	-.00	-.0026	233.81	.0024	-27.59	177.63
EXTM 42	1308.76	1320.01	13	21	7.5	359.96	.0042	-27.25	.0000	198884.7	1.70	82.03	.0000	.27	-.0239	-27.50	149.02
RISE 51	1443.80	1455.05	13	23	22.6	270.00	.0041	-26.76	-.0000	217361.3	1.27	11.27	.0034	114.43	-.0014	-27.40	115.99
RISE 72	1598.69	1609.94	14	1	57.5	265.93	.0041	-27.06	-.0000	233462.4	1.16	-.01	.0036	117.35	-.0005	-27.29	78.00
RISE 61	1682.44	1693.69	14	3	21.2	297.18	.0041	-28.36	-.0000	241242.7	1.26	.00	.0025	126.48	.0027	-27.24	57.42
SET 42	1731.71	1742.96	14	4	10.5	105.00	.0041	-26.31	.0000	245322.1	1.84	3.79	-.0029	240.20	-.0022	-27.21	45.30
EXTM 51	1798.31	1809.56	14	5	17.1	358.76	.0042	-27.21	.0000	249448.1	1.48	88.16	.0023	143.20	.0924	-27.17	28.89
EXTM 61	1933.98	1945.23	14	7	32.8	.31	.0042	-28.39	.0000	261352.9	1.44	21.38	.0000	180.29	.0040	-27.10	355.45
EXTM 72	1973.98	1985.23	14	8	12.8	.10	.0042	-27.53	.0000	261169.3	1.43	70.37	-.0000	180.26	.0110	-27.07	345.58
RISE 11	2117.43	2128.68	14	10	36.2	291.90	.0042	-27.86	-.0000	279218.9	1.08	.00	.0028	124.88	.0024	-27.00	310.14
SET 51	2162.55	2173.80	14	11	21.3	90.00	.0041	-26.48	.0000	281719.4	1.74	11.16	-.0034	245.83	-.0014	-26.98	298.99
SET 61	2185.32	2196.57	14	11	44.1	63.38	.0042	-27.91	.0000	284821.9	1.64	-.00	-.0025	232.19	.0027	-26.97	293.36
SET 72	2348.30	2359.55	14	14	27.1	94.01	.0041	-26.71	.0000	297960.3	1.73	-.00	-.0036	243.02	-.0005	-26.89	252.02
RISE 42	2348.80	2360.07	14	14	27.6	255.00	.0041	-26.14	-.0000	297591.7	1.00	3.69	.0029	119.67	-.0022	-26.89	252.90
EXTM 11	2389.02	2400.27	14	15	7.8	.21	.0042	-27.95	.0000	298313.9	1.31	26.84	-.0000	180.21	.0042	-26.87	242.94
SET 11	2660.42	2671.67	14	19	39.2	68.45	.0042	-27.49	.0000	322000.5	1.56	.01	-.0028	235.59	.0024	-26.75	175.67
EXTM 42	2767.95	2779.20	14	21	26.7	359.99	.0042	-26.54	.0000	323734.7	1.22	81.32	-.0000	.14	-.0107	-26.71	148.99
RISE 51	2898.41	2909.66	14	23	37.2	270.00	.0041	-26.25	-.0000	338228.1	.83	11.07	.0034	113.95	-.0015	-26.66	116.60
RISE 72	3051.52	3062.77	15	2	10.3	266.04	.0042	-26.45	-.0000	350379.6	.74	-.00	.0037	116.73	-.0005	-26.61	78.48
RISE 61	3129.53	3140.78	15	3	28.3	295.94	.0042	-27.33	-.0000	355712.9	.86	.00	.0025	126.98	.0027	-26.59	59.02
SET 42	3186.23	3197.48	15	4	25.0	105.00	.0041	-25.95	.0000	359176.2	1.46	3.97	-.0030	240.48	-.0023	-26.57	44.88
EXTM 51	3252.61	3263.86	15	5	31.4	359.36	.0042	-26.57	.0000	357756.9	1.13	89.00	.0022	145.53	.1774	-26.55	28.31
EXTM 61	3383.52	3394.77	15	7	42.3	.14	.0042	-27.42	.0000	370523.4	1.13	22.34	-.0000	180.13	.0040	-26.52	355.62
EXTM 72	3423.59	3434.84	15	8	22.4	.07	.0042	-26.82	.0000	369667.7	1.14	71.08	-.0000	180.19	.0112	-26.51	345.61
RISE 11	3561.19	3572.44	15	10	40.0	291.16	.0042	-27.09	-.0000	385090.3	.85	.00	.0028	123.87	.0024	-26.47	311.19
SET 51	3611.30	3622.55	15	11	30.1	90.00	.0042	-26.10	.0000	387416.3	1.58	11.01	-.0035	246.19	-.0015	-26.46	298.63
SET 61	3627.06	3638.31	15	11	55.8	64.30	.0042	-27.13	.0000	390501.8	1.51	-.00	-.0026	233.31	.0027	-26.45	292.17
IMPACT	3733.29	3744.54	15	13	32.1												
IMPC 72	3733.29	3744.54	15	13	32.1	78.80	.0043	-26.40	.0000	397121.8	2.51	13.50	-.0039	244.64	-.0001	-26.43	267.86
IMPC 11	3733.29	3744.54	15	13	32.1	334.94	.0044	-27.21	-.0000	396101.6	1.95	23.24	.0015	155.79	.0039	-26.43	267.86

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	12	23	18.785	6589.412	25.8919	307.5490	10.96606	-4.2946	102.0811	107.3967
SEPARATION	1.20	12.45	12	23	19.985	6546.192	24.2538	314.6798	10.99598	-.8736	105.2348	114.8283
RETRO	3.20	14.45	12	23	21.985	6591.877	20.7785	326.0536	10.95754	4.8372	109.7983	126.7034
EXIT SHA	26.48	37.73	12	23	45.269	12563.633	-13.7591	31.7313	7.91098	43.6020	115.0846	198.2186
IMPACT	3733.29	3744.54	15	13	32.080	398658.782	-26.4325	267.8619	2.23957	69.1760	271.6719	283.5879

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SURVEYOR VIEW PERIODS

GMA	172.1509					EPS	107.6211							LOM	262.1800
SX	.210923	SY	-.870306	SZ	-.445060	DAD	-26.42720	RAD	283.62327	RM	399996.676	LAT	28.310600	LON	279.461800
CJ	-.869394	ECC	.985725	SLR	12995.916	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.230110	NSY	-.865727	NSZ	-.444485	CSM	1.9347	VIM	2.6784	ZAE	142.284	B.T	.0000	B.R	-.0000
LATE	4.6556	LONE	5.3550	LATS	-1.3768	LONS	257.9285	LATI	-.3880	LONI	327.9390	RSM	148.6784	TTAN	6.5820
LAUNCH DATE		MAR	12,1966		BASE AZM	90.0		TF	62.237			ARRIVAL	DATE MAR	15 1966	13 54 53.0

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FTH
90.00	23 31 49.9	27.8	24.66	307.57	-3.28	113.51	104.36	23 43 4.9	6550.0	10.99	-1.63

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW														
INJECTION	.00	11.25	12	23	43.1												
SEPARATION	1.20	12.45	12	23	44.3												
RETRO	3.20	14.45	12	23	46.3												
RISE 72	5.60	16.85	12	23	48.7	70.22	-.4014	67.69	.0906	2750.9	-5.70	-.00	.1092	339.07	.1396	13.69	337.29
RISE 61	9.72	20.97	12	23	52.8	5.91	-.1569	-49.61	.0052	4448.5	5.51	.00	.0132	183.82	-.1010	5.37	353.55
RISE 51	11.51	22.76	12	23	54.6	69.28	-.1145	36.27	-.0276	5190.6	-3.32	-.00	.0926	311.05	.0265	2 11	359.23
EXTM 72	12.03	23.28	12	23	55.1	308.87	-.0691	20.69	-.1245	2986.2	4.91	32.20	-.0000	59.41	.1614	1.22	.73
EXTM 61	13.62	24.87	12	23	56.7	339.58	-.0777	-46.62	.0147	5938.9	6.92	1.25	-.0000	166.13	-.0594	-1.31	5.05
SET 61	20.49	31.74	13	0	3.6	319.58	-.0302	-41.97	.0079	8869.4	7.07	.00	-.0043	151.18	-.0234	-9.58	19.15
EXIT SMA	25.47	36.72	13	0	8.6												
EXIT 72	25.47	36.72	13	0	8.6	290.47	-.0100	-13.67	-.0136	8694.7	6.92	21.66	-.0089	101.65	.0152	-13.52	26.16
EXIT 51	25.47	36.72	13	0	8.6	2.89	-.0393	-1.45	-.0313	6453.9	4.72	65.55	.0354	353.01	.0859	-13.52	26.16
EXIT 61	25.47	36.72	13	0	8.6	312.49	-.0187	-40.10	.0049	10939.0	6.78	-1.24	-.0040	145.65	-.0146	-13.52	26.16
EXTM 51	34.22	45.47	13	0	17.3	348.61	-.0185	-12.56	-.0139	9183.0	5.43	73.00	-.0000	41.27	.0779	-16.03	34.63
EXTM 72	64.73	75.98	13	0	47.8	282.81	-.0001	-24.70	-.0017	22290.7	4.94	14.89	.0000	113.55	.0017	-24.36	46.98
EXTM 51	82.10	93.35	13	1	5.2	333.17	-.0002	-25.22	-.0013	23610.2	4.51	65.81	.0000	94.64	.0033	-25.74	48.93
RISE 61	150.03	161.28	13	2	13.1	304.80	.0026	-34.00	.0002	49708.0	3.41	-.00	.0015	137.10	.0016	-27.69	45.34
EXTM 51	258.33	269.58	13	4	1.4	359.98	.0035	-28.53	-.0000	61823.9	3.12	87.21	.0000	179.52	.0485	-28.27	27.70
EXTM 61	423.33	434.58	13	6	46.4	2.57	.0039	-31.88	.0001	94170.9	2.62	17.85	-.0000	182.29	.0035	-28.27	353.33
EXTM 72	459.12	470.37	13	7	22.2	.31	.0040	-29.56	.0001	95896.4	2.54	68.34	.0000	180.74	.0094	-28.24	345.38
RISE 11	628.33	639.58	13	10	11.4	294.06	.0040	-30.02	-.0000	125988.0	1.98	.00	.0026	127.76	.0023	-28.07	306.64
SET 51	654.34	665.59	13	10	37.4	90.00	.0039	-26.98	.0001	128248.6	2.58	11.36	-.0032	245.36	-.0013	-28.04	300.56
SET 61	668.52	679.77	13	10	51.6	60.60	.0040	-30.12	.0001	131390.0	2.46	-.00	-.0022	228.90	.0026	-28.03	297.24
SET 72	850.27	861.52	13	13	53.4	94.15	.0039	-27.51	.0001	154421.3	2.40	-.00	-.0035	242.21	-.0005	-27.85	254.17
RISE 42	859.78	871.03	13	14	2.9	254.99	.0040	-26.42	-.0001	155143.4	1.70	3.85	.0029	119.89	-.0021	-27.84	251.89
EXTM 11	899.31	910.56	13	14	42.4	.75	.0041	-29.87	.0000	157635.5	1.98	24.92	-.0000	180.72	.0040	-27.80	242.42
SET 11	1167.41	1178.66	13	19	10.5	67.13	.0041	-28.84	.0001	190438.7	2.08	-.00	-.0026	233.82	.0024	-27.57	177.64
EXTM 42	1284.97	1296.22	13	21	8.1	359.96	.0042	-27.23	.0000	196551.0	1.71	82.01	.0000	.27	-.0229	-27.48	140.32
RISE 72	1420.16	1431.41	13	23	23.2	270.00	.0041	-26.74	-.0000	215135.7	1.28	11.26	.0034	114.41	-.0014	-27.38	12.10
RISE 72	1575.11	1586.36	14	1	58.2	265.93	.0041	-27.05	-.0000	231338.1	1.17	-.01	.0036	117.33	-.0005	-27.28	357.99
RISE 61	1658.84	1670.09	14	3	21.9	297.17	.0041	-28.35	-.0000	239162.5	1.27	.00	.0025	125.47	.0027	-27.23	57.41
SET 42	1708.06	1719.31	14	4	11.1	105.00	.0041	-26.29	.0000	243268.4	1.84	3.77	-.0029	240.21	-.0022	-27.20	45.31
EXTM 51	1774.83	1786.08	14	5	17.9	358.78	.0042	-27.20	.0000	243438.9	1.49	88.18	.0023	143.47	.0940	-27.16	28.87
EXTM 61	1910.44	1921.69	14	7	33.5	.31	.0042	-28.38	.0000	259402.3	1.45	21.38	.0000	180.29	.0040	-27.08	355.45
EXTM 72	1950.44	1961.69	14	8	13.5	.10	.0042	-27.53	.0000	259237.7	1.44	70.38	-.0000	180.26	.0119	-27.06	345.58
RISE 11	2093.94	2105.19	14	10	37.0	291.89	.0042	-27.85	-.0000	277351.4	1.00	.00	.0028	124.88	.0024	-26.99	310.14
SET 51	2139.02	2150.27	14	11	22.1	90.00	.0041	-26.47	.0000	279867.9	1.75	11.16	-.0034	245.84	-.0014	-26.97	299.00
SET 61	2161.83	2173.08	14	11	44.9	63.38	.0042	-27.90	.0000	282981.7	1.65	-.00	-.0025	232.19	.0027	-26.96	293.36
SET 72	2324.80	2336.05	14	14	27.9	94.00	.0041	-26.70	.0000	296160.5	1.73	-.00	-.0036	243.03	-.0005	-26.88	253.03
RISE 42	2325.38	2336.63	14	14	28.5	255.00	.0041	-26.13	-.0000	295815.3	1.00	3.68	.0029	119.66	-.0022	-26.88	252.89
EXTM 11	2365.56	2376.81	14	15	8.6	.21	.0042	-27.95	.0000	296591.9	1.32	26.84	-.0000	180.21	.0042	-26.86	242.94
SET 11	2637.00	2648.25	14	19	40.1	68.45	.0042	-27.49	.0000	320330.6	1.56	.01	-.0028	235.60	.0024	-26.75	175.67
EXTM 42	2744.54	2755.79	14	21	27.6	359.99	.0042	-26.54	.0000	322098.9	1 23	61.32	-.0000	.13	-.0110	-26.70	148.99
RISE 51	2875.04	2886.29	14	23	38.1	270.00	.0041	-26.24	-.0000	334632.0	.83	11.07	.0034	113.94	-.0015	-26.65	116.60
RISE 72	3028.27	3039.52	15	2	11.4	266.04	.0042	-26.44	-.0000	346878.7	.74	-.00	.0037	116.72	-.0005	-26.60	78.48
RISE 61	3106.23	3117.48	15	3	29.3	295.83	.0042	-27.33	-.0000	354211.0	.86	.00	.0025	126.97	.0027	-26.58	59.03
SET 42	3162.91	3174.16	15	4	26.0	105.90	.0041	-25.94	.0000	357674.1	1.46	3.58	-.0030	240.49	-.0023	-26.56	44.88
EXTM 51	3229.27	3240.52	15	5	32.4	359.36	.0042	-26.56	.0000	356252.1	1.13	89.00	.0022	145.10	.1769	-26.59	28.31
EXTM 61	3360.18	3371.43	15	7	43.3	.13	.0042	-27.42	.0000	369006.2	1.13	22.34	-.0000	180.13	.0041	-26.51	355.62
EXTM 72	3400.25	3411.50	15	8	23.3	.07	.0042	-26.82	.0000	368143.9	1.13	71.09	-.0000	180.19	.0114	-26.50	345.61
RISE 11	3537.86	3549.11	15	10	40.9	291.16	.0042	-27.09	-.0000	383510.6	.84	.00	.0028	125.87	.0024	-26.47	311.19
SET 51	3587.98	3599.23	15	11	31.1	90.00	.0042	-26.09	.0000	389788.3	1.56	11.01	-.0035	246.20	-.0015	-26.46	298.62
SET 61	3613.75	3625.00	15	11	56.8	64.30	.0042	-27.13	.0000	388036.3	1.48	-.00	-.0026	233.31	.0027	-26.45	292.17
IMPACT	3734.21	3745.46	15	13	57.3												
IMPC 42	3734.21	3745.46	15	13	57.3	246.44	.0043	-25.82	-.0000	398949.8	1.76	-2.45	.0029	124.33	-.0025	-26.43	261.78
IMPC 72	3734.21	3745.46	15	13	57.3	84.90	.0043	-26.35	.0000	397785.7	2.51	8.04	-.0038	244.34	.0003	-26.43	261.78
IMPC 11	3734.21	3745.46	15	13	57.3	341.10	.0044	-27.22	-.0000	395986.4	1.97	25.07	.0011	161.46	.0041	-26.43	261.78

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FTH	AZ	RT ASC
INJECTION	.00	11.25	12	23	43.082	6540.992	24.6623	307.5662	10.99292	-1.6260	104.3628	[illegible]
SEPARATION	1.20	12.45	12	23	44.282	6551.242	22.7717	314.5399	10.99174	1.8098	107.2923	120.7788
RETRO	3.20	14.45	12	23	46.282	6657.641	18.9881	329.5303	10.90292	7.4980	111.4025	132.2710
EXIT SMA	25.47	36.72	13	0	8.553	12538.473	-13.5213	26.1565	7.91905	43.5426	113.1126	198.4884
IMPACT	3734.21	3745.46	15	13	57.292	398728.070	-26.4256	261.7787	2.23700	68.8896	271.3803	283.8291

SURVEYOR VIEW PERIODS

GHA	172.1509					EPS	107.8135							LOM	256.2892
SX	.214409	SY	-.869506	SZ	-.444958	DAO	-26.42068	RAO	283.85205	RM	400053.973	LAT	28.310600	LON	279.461800
C3	-.870152	ECC	.985713	SLR	12995.828	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.233583	NSY	-.864864	NSZ	-.444354	C3M	1.5342	VIM	2.6783	ZAE	142.273	B.T	.0000	B.R	-.0000
LATE	4.6725	LONE	5.3372	LATS	-1.3767	LONS	257.7224	LATI	-.4125	LONI	327.9151	RSM	148.6778	TTAN	6.5793

LAUNCH DATE MAR 12,1966 BASE AZM 93.0 TF 62.266 ARRIVAL DATE MAR 15 1966 14 19 17.7

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
93.00	23 51 11.3	28.0	23.46	307.38	.95	118.17	106.55	24 2 26.3	6545.1	11.00	.47

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PRORE IN EARTH'S SHADOW															
INJECTION	.00	11.25	13	0	2.4												
SEPARATION	1.20	12.45	13	0	3.6												
RETRO	3.20	14.45	13	0	5.6												
RISE 72	5.12	16.37	13	0	7.6	76.21	-.2819	59.80	.0735	2849.3	-6.42	-.01	.1163	330.76	.1094	13.12	333.87
RISE 61	9.75	21.00	13	0	12.2	11.01	-.1447	-49.23	.0009	4767.3	5.35	.00	.0147	187.16	-.0933	3.63	351.46
RISE 51	11.33	22.58	13	0	13.8	72.29	-.1032	32.25	-.0299	5421.1	-3.06	-.00	.0902	306.33	.0191	.85	356.22
EXTM 72	11.61	22.86	13	0	14.1	319.71	-.0844	19.89	-.1316	2737.9	5.54	41.58	-.0000	54.36	.2055	.37	357.04
EXTM 61	14.96	26.21	13	0	17.4	340.31	-.0631	-46.22	.0116	6740.4	6.84	1.77	-.0000	166.52	-.0452	-4.58	5.38
EXIT SHA	24.65	35.90	13	0	27.1												
EXIT 72	24.65	35.90	13	0	27.1	296.49	-.0118	-14.89	-.0137	8210.1	6.92	27.54	-.0111	102.72	.0157	-13.81	21.44
EXIT 51	24.65	35.90	13	0	27.1	11.78	-.0421	-1.93	-.0312	6473.7	4.40	63.62	.0459	332.65	.0572	-13.81	21.44
EXIT 61	24.65	35.90	13	0	27.1	319.12	-.0209	-41.42	.0054	10732.8	6.69	.31	-.0032	150.61	-.0163	-13.81	21.44
SET 61	26.30	37.55	13	0	28.7	317.20	-.0182	-40.93	.0047	11389.6	6.60	-.00	-.0031	149.11	-.0142	-14.86	23.37
EXTM 51	37.98	48.33	13	0	39.5	352.26	-.0157	-15.81	-.0105	10264.0	5.35	77.72	-.0000	37.54	.0862	-19.65	32.58
EXTM 72	66.02	77.27	13	1	8.5	287.67	.0000	-25.73	-.0014	22455.7	4.89	19.30	.0000	114.56	.0015	-24.84	42.80
EXTM 51	84.85	96.10	13	1	27.3	338.72	-.0001	-25.98	-.0011	24379.3	4.45	70.87	.0000	95.41	.0035	-26.19	44.59
RISE 61	124.34	135.59	13	2	6.8	306.03	.0021	-34.80	.0003	39885.0	3.87	-.00	.0013	138.39	.0012	-27.50	43.42
EXTM 51	233.62	244.87	13	3	56.1	359.97	.0034	-28.67	-.0000	57268.4	3.22	87.07	.0000	179.38	.0514	-28.37	27.71
EXTM 61	403.33	414.58	13	6	45.8	2.80	.0039	-32.13	.0001	91140.6	2.67	17.59	.0000	182.49	.0034	-28.40	353.12
EXTM 72	438.62	449.87	13	7	21.1	.35	.0040	-29.74	.0001	92862.8	2.58	68.16	.0000	180.82	.0093	-28.36	345.35
RISE 11	609.39	620.64	13	10	11.8	294.21	.0040	-30.17	-.0000	123496.3	2.01	.00	.0026	127.96	.0023	-28.17	306.44
SET 51	634.36	645.61	13	10	36.8	90.00	.0038	-27.06	.0001	125651.1	2.60	11.40	-.0032	245.29	-.0013	-28.15	300.62
SET 61	647.85	659.10	13	10	50.3	60.41	.0039	-30.27	.0001	128724.4	2.48	-.00	-.0022	228.68	.0026	-28.13	297.47
SET 72	830.86	842.11	13	13	53.3	94.16	.0039	-27.58	.0001	152144.1	2.42	-.00	-.0035	242.13	-.0005	-27.93	254.19
RISE 42	840.62	851.87	13	14	3.1	254.99	.0040	-26.48	-.0001	152903.3	1.71	3.89	.0028	119.94	-.0021	-27.92	251.86
EXTM 11	880.24	891.49	13	14	42.7	.80	.0041	-29.97	.0000	155460.3	1.99	24.81	-.0000	180.76	.0040	-27.88	242.38
SET 11	1148.04	1159.29	13	19	10.5	67.06	.0041	-28.92	.0001	188432.9	2.09	-.00	-.0026	233.72	.0024	-27.63	177.74
EXTM 42	1266.05	1277.30	13	21	8.5	359.96	.0042	-27.28	.0000	194666.9	1.72	82.06	.0000	.28	-.0232	-27.53	149.02
RISE 51	1401.36	1412.61	13	23	23.8	270.00	.0041	-26.78	-.0000	213337.3	1.29	11.28	.0034	114.45	-.0014	-27.43	115.96
RISE 72	1556.34	1567.59	14	1	58.8	265.92	.0041	-27.09	-.0000	229618.0	1.18	-.01	.0036	117.37	-.0005	-27.32	77.98
RISE 61	1640.32	1651.57	14	3	22.8	297.23	.0041	-28.40	-.0000	237503.0	1.27	.00	.0025	128.54	.0027	-27.27	57.35
SET 42	1589.25	1700.50	14	4	11.7	105.00	.0041	-26.32	.0000	241597.2	1.85	3.79	-.0029	240.19	-.0022	-27.23	45.32
EXTM 51	1755.89	1767.14	14	5	18.3	358.74	.0042	-27.23	.0000	241788.1	1.49	88.13	.0023	143.10	.0908	-27.19	28.92
EXTM 61	1891.76	1903.01	14	7	34.2	.32	.0042	-28.42	.0000	257827.7	1.46	21.34	.0000	180.31	.0040	-27.11	355.43
EXTM 72	1931.74	1942.99	14	8	14.2	.10	.0042	-27.56	.0000	257671.9	1.44	70.35	-.0000	180.27	.0110	-27.09	345.57
RISE 11	2075.39	2086.64	14	10	37.8	291.92	.0042	-27.88	-.0000	275843.6	1.09	.00	.0028	124.91	.0024	-27.01	310.10
SET 51	2120.30	2131.55	14	11	22.7	90.00	.0041	-26.49	.0000	278359.0	1.75	11.17	-.0034	245.82	-.0014	-26.99	299.09
SET 61	2142.98	2154.23	14	11	45.4	63.35	.0042	-27.93	.0000	281469.8	1.65	-.00	-.0025	232.15	.0027	-26.98	293.40
SET 72	2306.12	2317.37	14	14	28.6	94.01	.0041	-26.71	.0000	294728.4	1.74	-.00	-.0036	243.01	-.0005	-26.90	253.04
RISE 42	2306.74	2317.99	14	14	29.2	255.00	.0041	-26.15	-.0000	294368.3	1.01	3.69	.0029	119.67	-.0022	-26.90	252.89
EXTM 11	2346.93	2358.18	14	15	9.4	.22	.0042	-27.97	.0000	295117.0	1.32	26.82	-.0000	180.22	.0042	-26.88	242.93
SET 11	2618.28	2629.53	14	19	40.7	68.43	.0042	-27.51	.0000	318953.4	1.57	.01	-.0028	235.58	.0024	-26.76	175.69
EXTM 42	2725.91	2737.16	14	21	28.4	359.99	.0042	-26.55	.0000	320752.2	1.23	81.33	-.0000	.14	-.0105	-26.71	148.99
RISE 51	2856.44	2867.69	14	23	38.9	270.00	.0041	-26.24	-.0000	335314.3	.83	11.07	.0034	113.95	-.0015	-26.66	118.59
RISE 72	3009.80	3021.05	15	2	12.2	266.04	.0042	-26.46	-.0000	347652.6	.74	-.00	.0037	116.72	-.0005	-26.60	78.47
RISE 61	3087.77	3099.02	15	3	30.2	295.94	.0042	-27.34	-.0000	352985.0	.86	.00	.0025	126.98	.0027	-26.58	59.02
SET 42	3144.39	3155.64	15	4	26.8	105.00	.0041	-25.94	.0000	356442.4	1.46	3.56	-.0030	240.49	-.0023	-26.57	44.88
EXTM 51	3210.75	3222.00	15	5	33.2	359.36	.0042	-26.56	.0000	355018.0	1.13	89.00	.0022	145.25	.1771	-26.55	28.31
EXTM 61	3341.65	3352.90	15	7	44.1	.14	.0042	-27.42	.0000	367759.0	1.13	22.34	-.0000	180.13	.0040	-26.51	355.62
EXTM 72	3381.71	3392.96	15	8	24.1	.07	.0042	-26.82	.0000	366888.6	1.13	71.08	-.0000	180.19	.0111	-26.50	345.61
RISE 11	3519.34	3530.59	15	10	41.8	291.16	.0042	-27.09	-.0000	382212.4	.83	.00	.0028	123.87	.0024	-26.47	311.18
SET 51	3569.43	3580.68	15	11	31.9	90.00	.0042	-26.09	.0000	384455.3	1.54	11.01	-.0035	246.20	-.0015	-26.46	298.64
SET 61	3595.21	3606.46	15	11	57.6	64.30	.0042	-27.14	.0000	387478.2	1.46	-.00	-.0026	233.31	.0027	-26.45	292.18
IMPACT	3735.96	3747.21	15	14	18.4												
IMPC 42	3735.96	3747.21	15	14	18.4	251.50	.0043	-25.84	-.0000	398619.8	1.75	1.04	.0030	121.39	-.0024	-26.42	256.69
IMPC 72	3735.96	3747.21	15	14	18.4	90.00	.0043	-26.31	.0000	398346.7	2.51	3.49	-.0038	243.91	-.0004	-26.42	256.69
IMPC 11	3735.96	3747.21	15	14	18.4	346.27	.0044	-27.22	.0000	395928.5	2.00	26.24	.0008	166.39	.0042	-26.42	256.69

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	13	0	2.438	6545.111	23.4627	307.3768	10.99701	.4707	106.5548	118.1675
SEPARATION	1.20	12.45	13	0	3.638	6575.295	21.3355	314.1852	10.97144	3.8995	109.2672	125.2768
RETRO	3.20	14.45	13	0	5.638	6728.078	17.2813	324.7754	10.84524	9.4691	112.9472	136.3683
EXIT SHA	24.65	35.90	13	0	27.090	12510.391	-13.8104	21.4414	7.92801	43.4757	115.1132	198.4122
IMPACT	3735.96	3747.21	15	14	18.402	398786.293	-20.4198	256.6854	2.23435	68.6242	271.3524	284.0237

SURVEYOR VIEW PERIODS

GHA	172.1509					EPS 107.9647								LOM	251.5366
SX	.217218	SY	-.868853	SZ	-.444872	DAO	-26.41516	RAO	284.03656	RM	400109.008	LAT	28.310600	LON	279.461800
C3	-.872849	ECC	.985669	SLR	12995.543	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.236401	NSY	-.864152	NSZ	-.444248	C3M	1.5327	VIM	2.6781	ZAE	142.217	B.T	.0000	B.R	-.0000
LATE	4.6861	LONE	5.3224	LATS	-1.3766	LONS	257.5558	LATI	-.5530	LONI	327.8664	RSM	148.6774	TTAN	6.5778
LAUNCH DATE		MAR	13,1966		BASE AZM	96.0		TF	62.320			ARRIVAL	DATE MAR	15 1966	14 38 59.4

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
96.00	0 5 55.3	28.1	22.29	307.06	4.11	121.54	108.70	0 17 10.3	6553.1	10.99	2.04

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW														
INJECTION	.00	11.25	13	0	17.2												
SEPARATION	1.20	12.45	13	0	18.4												
RETRO	3.20	14.45	13	0	20.4												
RISE 72	4.78	16.03	13	0	22.0	79.28	-.2288	53.27	.0536	2931.6	-6.87	-.00	.1209	324.01	.0836	12.11	331.13
RISE 61	10.52	21.77	13	0	27.7	9.73	-.1224	-49.15	.0020	5321.2	5.61	.00	.0123	186.32	-.0788	.54	351.70
RISE 51	11.21	22.46	13	0	28.4	74.81	-.0947	28.53	-.0322	5602.7	-2.85	.00	.0882	302.02	.0131	-.63	353.65
EXTM 72	11.32	22.57	13	0	28.5	329.82	-.1078	17.21	-.1333	2556.4	5.24	51.01	-.0000	49.74	.2677	-.81	353.96
EXTM 61	16.42	27.67	13	0	33.6	340.71	-.0526	-46.43	.0094	7571.5	6.74	1.64	-.0000	166.84	-.0375	-7.85	5.74
EXIT SHA	23.99	35.24	13	0	41.2												
EXIT 72	23.99	35.24	13	0	41.2	301.72	-.0139	-16.78	-.0133	7822.1	6.93	32.57	-.0136	104.91	.0154	-14.56	17.52
EXIT 51	23.99	35.24	13	0	41.2	19.14	-.0442	-3.23	-.0309	6509.8	4.13	60.94	.0514	317.63	.0335	-14.56	17.52
EXIT 61	23.99	35.24	13	0	41.2	324.81	-.0232	-43.02	.0057	10626.8	6.61	.88	-.0024	155.08	-.0177	-14.56	17.52
SET 61	30.31	41.56	13	0	47.5	317.99	-.0139	-41.29	.0037	13072.0	6.28	-.00	-.0021	149.81	-.0109	-18.07	24.15
EXTM 51	39.73	50.98	13	0	56.9	355.19	-.0137	-18.88	-.0081	11229.8	5.27	81.83	-.0000	33.90	.1074	-21.38	30.80
EXTM 72	67.39	78.64	13	1	24.6	291.52	.0001	-27.05	-.0012	22692.1	4.84	22.71	.0000	116.08	.0013	-25.69	39.53
EXTM 51	87.91	99.16	13	1	45.1	343.07	.0000	-27.09	-.0009	25233.2	4.39	74.78	.0000	98.83	.0035	-26.98	41.20
RISE 61	106.30	117.55	13	2	3.5	307.83	.0016	-35.94	.0004	35570.6	4.09	-.00	.0011	140.25	.0007	-27.63	41.03
EXTM 51	213.85	225.10	13	3	51.0	359.97	.0032	-29.08	-.0000	53499.2	3.32	86.66	.0000	179.44	.0418	-28.72	27.71
EXTM 61	388.82	400.07	13	6	46.0	3.16	.0038	-32.52	.0001	88927.4	2.70	17.18	.0000	182.79	.0034	-28.69	352.78
EXTM 72	423.13	434.38	13	7	20.3	.42	.0040	-30.08	.0001	90540.0	2.61	67.82	.0000	180.96	.0091	-28.65	345.28
RISE 11	595.71	606.96	13	10	12.9	294.49	.0040	-30.43	-.0000	121671.2	2.03	.00	.0025	128.31	.0023	-28.40	306.13
SET 51	619.16	630.41	13	10	36.3	90.00	.0038	-27.28	.0001	123636.4	2.62	11.48	-.0032	245.09	-.0013	-28.37	300.68
SET 61	631.27	642.52	13	10	48.4	60.06	.0039	-30.53	.0001	126546.5	2.50	-.00	-.0021	228.28	.0026	-28.35	297.86
SET 72	816.21	827.46	13	13	53.4	94.20	.0039	-27.76	.0001	150397.4	2.43	-.00	-.0034	241.95	-.0004	-28.11	254.20
RISE 42	826.12	837.37	13	14	3.3	254.99	.0040	-26.65	-.0001	151169.7	1.73	3.99	.0028	120.07	-.0021	-28.10	251.83
EXTM 11	865.94	877.19	13	14	43.1	.87	.0041	-30.17	.0000	153812.0	2.00	24.61	-.0000	180.82	.0039	-28.05	242.32
SET 11	1132.99	1144.24	13	19	10.2	66.91	.0041	-29.06	.0001	186838.5	2.09	-.00	-.0026	233.52	.0024	-27.77	177.90
EXTM 42	1251.82	1263.07	13	21	9.0	359.99	.0042	-27.41	.0000	193214.5	1.73	82.19	-.0000	.15	-.0131	-27.65	148.99
RISE 51	1387.12	1398.37	13	23	24.3	270.00	.0041	-26.88	-.0000	211934.1	1.29	11.32	.0034	114.55	-.0014	-27.54	115.95
RISE 72	1542.07	1553.32	14	1	59.2	265.91	.0041	-27.18	-.0000	228268.8	1.19	-.01	.0036	117.46	-.0005	-27.42	77.98
RISE 61	1626.59	1637.84	14	3	23.8	297.35	.0041	-28.49	-.0000	236229.1	1.28	.00	.0025	128.68	.0027	-27.35	57.23
SET 42	1674.99	1686.24	14	4	12.2	105.00	.0041	-26.40	.0000	240283.0	1.85	3.84	-.0029	240.13	-.0022	-27.32	45.32
EXTM 51	1741.30	1752.55	14	5	18.5	358.64	.0042	-27.31	.0000	240468.7	1.50	88.01	.0023	142.63	.0848	-27.27	29.01
EXTM 61	1877.66	1888.91	14	7	34.8	.35	.0042	-28.50	.0000	256592.2	1.46	21.26	.0000	180.33	.0040	-27.18	355.41
EXTM 72	1917.57	1928.82	14	8	14.7	.11	.0042	-27.63	.0000	256435.4	1.45	70.27	-.0000	180.28	.0109	-27.16	345.57
RISE 11	2061.48	2072.73	14	10	38.7	291.98	.0042	-27.95	-.0000	274657.0	1.09	.00	.0028	125.00	.0024	-27.07	310.04
SET 51	2106.11	2117.36	14	11	23.3	90.00	.0041	-26.54	.0000	277154.3	1.76	11.19	-.0034	245.77	-.0014	-27.05	299.01
SET 61	2128.50	2139.75	14	11	45.7	63.27	.0042	-27.99	.0000	280248.0	1.65	-.00	-.0025	232.06	.0027	-27.04	293.48
SET 72	2291.98	2303.23	14	14	29.1	94.01	.0041	-26.76	.0000	293564.1	1.74	-.00	-.0036	242.96	-.0005	-26.95	253.04
RISE 42	2292.60	2303.85	14	14	29.8	255.00	.0041	-26.19	-.0000	293201.9	1.01	3.72	.0029	119.71	-.0022	-26.95	252.88
EXTM 11	2332.84	2344.09	14	15	10.0	.24	.0042	-28.02	.0000	293968.7	1.32	26.77	-.0000	180.23	.0042	-26.93	242.92
SET 11	2603.99	2615.24	14	19	41.2	68.40	.0042	-27.54	.0000	317825.9	1.57	.00	-.0028	235.53	.0024	-26.79	175.73
EXTM 42	2711.78	2723.03	14	21	28.9	359.99	.0042	-26.58	.0000	319650.0	1.23	81.36	-.0000	.14	-.0117	-26.74	148.99
RISE 51	2842.32	2853.57	14	23	39.5	270.00	.0041	-26.27	-.0000	334229.1	.84	11.08	.0034	113.97	-.0015	-26.69	116.59
RISE 72	2995.68	3006.93	15	2	12.8	266.03	.0042	-26.47	-.0000	346586.6	.74	-.00	.0037	116.74	-.0005	-26.62	78.47
RISE 61	3073.75	3085.00	15	3	30.9	295.96	.0042	-27.35	-.0000	351925.1	.86	.00	.0025	127.01	.0027	-26.60	58.99
SET 42	3130.26	3141.51	15	4	27.4	105.00	.0041	-25.96	.0000	355372.9	1.46	3.57	-.0030	240.48	-.0023	-26.58	44.89
EXTM 51	3196.66	3207.91	15	5	33.8	359.37	.0042	-26.58	.0000	353949.8	1.13	88.99	.0021	145.93	.1771	-26.56	28.31
EXTM 61	3327.57	3338.82	15	7	44.7	.14	.0042	-27.44	.0000	366683.8	1.13	22.32	-.0000	180.14	.0040	-26.52	355.61
EXTM 72	3367.61	3378.86	15	8	24.8	.07	.0042	-26.83	.0000	365806.5	1.13	71.07	-.0000	180.20	.0112	-26.51	345.60
RISE 11	3505.29	3516.54	15	10	42.5	291.16	.0042	-27.10	-.0000	381102.1	.82	.00	.0028	123.88	.0024	-26.47	311.17
SET 51	3555.35	3566.60	15	11	32.5	90.00	.0042	-26.09	.0000	383319.9	1.53	11.01	-.0035	246.20	-.0015	-26.46	298.64
SET 61	3581.12	3592.37	15	11	58.3	64.29	.0042	-27.14	.0000	386325.3	1.45	-.00	-.0026	233.30	.0027	-26.45	292.18
RISE 42	3735.99	3747.24	15	14	33.2	255.00	.0043	-25.86	-.0000	398015.7	1.55	3.51	.0031	119.44	-.0023	-26.42	253.18
SET 72	3737.64	3748.89	15	14	34.8	93.93	.0043	-26.28	.0000	398594.6	2.40	.00	-.0038	243.45	-.0006	-26.42	252.75
IMPACT	3739.19	3750.44	15	14	36.4												
IMPC 42	3739.19	3750.44	15	14	36.4	255.82	.0043	-25.86	-.0000	398326.8	1.74	4.10	.0031	118.99	-.0023	-26.41	252.35
IMPC 72	3739.19	3750.44	15	14	36.4	94.33	.0043	-26.28	.0000	398821.4	2.50	-.35	-.0038	243.40	-.0006	-26.41	252.35
IMPC 11	3739.19	3750.44	15	14	36.4	350.66	.0044	-27.22	.0000	395904.6	2.02	26.95	.0006	170.69	.0043	-26.41	252.35

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	13	0	17.172	6553.080	22.2894	307.0592	10.99017	2.0423	108.6981	121.5436
SEPARATION	1.20	12.45	13	0	18.372	6604.712	19.9446	313.6758	10.94668	5.4515	111.1934	128.4610
RETRO	3.20	14.45	13	0	20.372	6791.200	15.6371	323.8841	10.79422	10.9436	114.4767	139.1707
EXIT SHA	23.99	35.24	13	0	41.162	12473.245	-14.5608	17.5182	7.93980	43.3863	115.1053	98.0169
IMPACT	3739.19	3750.44	15	14	36.362	398832.934	-26.4150	252.3515	2.23289	68.5603	271.6063	284.1921

SURVEYOR VIEW PERIODS

GHA	172.1509					EPS	108.0591							LOM	248.5679
SX	.218972	SY	-.868441	SZ	-.444816	DAO	-26.41159	RAD	284.15179	RM	400140.152	LAT	28.310600	LON	279.461800
C3	-.873055	ECC	.985665	SLR	12995.521	RCA	6544.6650	LTA	-20.0300	GTA	20.00	TB	675.00000	POL	-.0
NSX	.238147	NSY	-.863704	NSZ	-.444187	C3M	1.5344	VIM	2.6784	ZAE	142.175	B.T	.0000	B.R	-.0000
LATE	4.6945	LONE	5.4256	LATS	-1.3765	LONS	257.5642	LATI	-.7784	LONI	327.9619	RSM	148.6771	TTAN	6 5770
LAUNCH DATE		MAR	15, 1966		BASE AZM	99.0		TF	62.332			ARRIVAL DATE		MAR 15 1966 14 51 17.5	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99.00	0 16 48.0	28.1	21.14	306.64	6.43	123.86	110.81	0 28 3.0	6565.2	10.98	3.19

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PRORE IN EARTH'S SHADOW															
INJECTION	.00	11.25	13	0	28.1												
SEPARATION	1.20	12.45	13	0	29.3												
RETRO	3.20	14.45	13	0	31.3												
RISE 72	4.54	15.79	13	0	32.6	81.25	-.1983	47.62	.0344	2996.0	-7.16	.00	.1239	318.23	.0609	10.93	328.91
EXTM 72	11.13	22.38	13	0	39.2	338.90	-.1275	12.85	-.1306	2427.4	5.00	60.50	-.0000	45.47	.3662	-2.26	351.38
RISE 51	11.14	22.39	13	0	39.2	77.01	-.0881	25.00	-.0346	5741.7	-2.69	-.00	.0867	297.98	.0079	-2.28	351.42
RISE 61	12.33	23.58	13	0	40.4	2.81	-.0927	-49.72	.0053	6239.4	6.07	.00	.0075	181.81	-.0597	-4.15	354.48
EXTM 61	18.01	29.26	13	0	46.1	340.67	-.0445	-47.09	.0079	8440.6	6.64	.99	-.0000	166.97	-.0313	-11.18	6.23
EXIT SHA	23.48	34.73	13	0	51.5												
EXIT 72	23.48	34.73	13	0	51.5	306.18	-.0161	-19.30	-.0125	7526.5	6.94	36.68	-.0162	108.23	.0140	-15.70	14.28
EXIT 51	23.48	34.73	13	0	51.5	25.18	-.0458	-5.22	-.0306	6551.3	3.93	58.36	.0542	306.13	.0168	-15.70	14.28
EXIT 61	23.48	34.73	13	0	51.5	329.62	-.0254	-44.84	.0058	10608.9	6.52	.66	-.0016	158.98	-.0188	-15.70	14.28
SET 61	29.95	41.20	13	0	58.0	322.03	-.0150	-42.97	.0039	13085.6	6.22	-.00	-.0017	153.24	-.0115	-19.28	21.14
EXTM 51	42.02	53.27	13	1	10.1	357.56	-.0124	-21.83	-.0064	12047.3	5.21	85.50	-.0000	30.24	.1675	-23.19	29.30
EXTM 72	68.81	80.06	13	1	36.9	294.49	.0001	-28.61	-.0010	22989.4	4.80	25.23	.0000	117.97	.0011	-26.82	37.03
RISE 61	97.12	108.37	13	2	5.2	310.00	.0011	-37.22	.0006	33319.3	4.22	-.00	.0010	142.41	.0004	-28.22	38.59
EXTM 51	198.53	209.78	13	3	46.6	.00	.0031	-29.75	-.0000	50497.6	3.40	85.99	-.0000	180.25	.0022	-29.30	27.68
EXTM 61	378.52	389.78	13	6	46.6	3.54	.0038	-33.05	.0002	87372.7	2.73	16.64	.0000	183.09	.0033	-29.14	352.43
EXTM 72	411.86	423.11	13	7	19.9	.52	.0040	-30.56	.0001	88845.2	2.64	67.34	-.0000	181.17	.0088	-29.07	345.19
RISE 11	586.37	597.62	13	10	14.4	294.87	.0040	-30.80	-.0000	120428.2	2.04	.00	.0025	128.80	.0023	-28.74	305.72
SET 51	607.92	619.17	13	10	36.0	90.00	.0038	-27.59	.0001	122135.6	2.63	11.61	-.0031	244.79	-.0013	-28.70	300.72
SET 61	618.04	629.29	13	10	46.1	59.57	.0039	-30.90	.0001	124799.8	2.51	-.00	-.0021	227.72	.0026	-28.68	298.37
SET 72	805.50	816.75	13	13	53.5	94.24	.0039	-28.02	.0001	149124.2	2.44	-.01	-.0034	241.68	-.0004	-28.38	254.18
RISE 42	815.43	826.68	13	14	3.5	254.99	.0040	-26.90	-.0001	149889.1	1.74	4.14	.0028	120.27	-.0021	-28.36	251.81
EXTM 11	855.56	866.81	13	14	43.6	.96	.0041	-30.44	.0001	152635.4	2.01	24.34	-.0000	180.91	.0039	-28.30	242.23
SET 11	1121.45	1132.71	13	19	9.5	66.70	.0041	-29.27	.0001	185631.1	2.10	-.00	-.0026	233.24	.0024	-27.96	178.12
EXTM 42	1241.15	1252.40	13	21	9.2	359.97	.0042	-27.59	.0000	192141.9	1.74	82.37	-.0000	.26	-.0233	-27.83	149.01
RISE 51	1376.61	1387.86	13	23	24.7	270.00	.0041	-27.04	-.0000	210916.4	1.30	11.38	.0034	114.69	-.0014	-27.69	115.94
RISE 72	1531.47	1542.72	14	1	59.5	265.88	.0041	-27.32	-.0000	227293.4	1.19	-.01	.0036	117.60	-.0005	-27.55	78.00
RISE 61	1616.75	1628.00	14	3	24.8	297.51	.0041	-28.63	-.0000	235345.5	1.28	.00	.0025	128.88	.0027	-27.48	57.06
SET 42	1664.45	1675.70	14	4	12.5	105.00	.0041	-26.52	.0000	239336.9	1.86	3.92	-.0029	240.03	-.0022	-27.44	45.33
EXTM 51	1730.48	1741.73	14	5	18.5	358.56	.0042	-27.43	.0000	239521.8	1.50	87.87	.0023	143.14	.0798	-27.39	29.08
EXTM 61	1867.27	1878.52	14	7	35.3	.38	.0042	-28.61	.0000	255724.1	1.46	21.15	.0000	180.35	.0040	-27.29	355.38
EXTM 72	1907.10	1918.35	14	8	15.2	.12	.0042	-27.73	.0000	255560.5	1.45	70.17	-.0000	180.31	.0109	-27.26	345 36
RISE 11	2051.36	2062.61	14	10	39.4	292.07	.0042	-28.04	-.0000	273834.2	1.10	.00	.0028	125.12	.0024	-27.16	309.94
SET 51	2095.59	2106.84	14	11	23.6	90.00	.0041	-26.63	.0000	276303.0	1.76	11.22	-.0034	245.69	-.0014	-27.13	299.01
SET 61	2117.57	2128.82	14	11	45.6	63.17	.0042	-28.08	.0000	279369.6	1.66	-.00	-.0025	231.93	.0027	-27.12	293.58
SET 72	2281.52	2292.77	14	14	29.6	94.03	.0041	-26.83	.0000	292751.8	1.74	-.00	-.0036	242.89	-.0005	-27.02	253.03
RISE 42	2282.13	2293.38	14	14	30.2	255.00	.0041	-26.26	-.0000	292383.8	1.01	3,76	.0029	119.76	-.0022	-27.02	252.88
EXTM 11	2322.43	2333.68	14	15	10.5	.26	.0042	-28.09	.0000	293173.8	1.33	26,70	-.0000	180.25	.0042	-26.99	242.90
SET 11	2593.30	2604.55	14	19	41.3	68.35	.0042	-27.60	.0000	317041.1	1.57	.00	-.0028	235.46	.0024	-26.84	175.78
EXTM 42	2701.28	2712.53	14	21	29.3	359.99	.0042	-26.62	.0000	318894.0	1.24	81.40	-.0000	.14	-.0138	-26.79	148.99
RISE 51	2831.85	2843.10	14	23	39.9	270.00	.0041	-26.30	-.0000	333489.5	.84	11.09	.0034	114.00	-.0015	-26.72	116.59
RISE 72	2985.33	2996.58	15	2	13.4	266.03	.0042	-26.49	-.0000	345933.7	.74	.00	.0037	116.77	-.0005	-26.65	78.47
RISE 61	3063.51	3074.76	15	3	31.6	295.99	.0042	-27.38	-.0000	351278.6	.86	.00	.0025	127.05	.0027	-26.62	58.96
SET 42	3119.88	3131.13	15	4	27.9	105.00	.0041	-25.98	.0000	354714.1	1.46	3.58	-.0030	240.46	-.0023	-26.60	44.89
EXTM 51	3186.28	3197.53	15	5	34.3	359.37	.0042	-26.59	.0000	353290.3	1.13	88.97	.0021	146.58	.1758	-26.58	28.31
EXTM 61	3317.21	3328.46	15	7	45.3	.16	.0042	-27.45	.0000	366019.8	1.12	22.31	-.0000	180.15	.0040	-26.54	355.60
EXTM 72	3357.22	3368.47	15	8	25.3	.07	.0042	-26.84	.0000	365135.4	1.12	71.06	-.0000	180.21	.0111	-26.52	345.60
RISE 11	3494.92	3506.17	15	10	43.0	291.17	.0042	-27.11	-.0000	380410.3	.82	.00	.0028	123.89	.0024	-26.48	311.16
SET 51	3544.92	3556.17	15	11	33.0	90.00	.0042	-26.10	.0000	382610.1	1.53	11.01	-.0035	246.19	-.0015	-26.47	298.64
SET 61	3570.66	3581.91	15	11	58.7	64.28	.0042	-27.15	.0000	385603.2	1.44	-.00	-.0025	233.29	.0027	-26.46	292.19
RISE 42	3725.77	3737.02	15	14	33.8	255.00	.0042	-25.86	-.0000	396929.5	1.26	3.51	.0030	119.44	-.0023	-26.42	253.17
SET 72	3727.41	3738.66	15	14	35.5	93.93	.0042	-26.28	.0000	397476.5	2.04	.00	-.0038	243.45	-.0005	-26.42	252.76
IMPACT	3739.91	3751.16	15	14	48.0												
IMPC 42	3739.91	3751.16	15	14	48.0	258.61	.0043	-25.87	-.0000	398136.7	1.73	6.11	.0031	117.49	-.0023	-26.41	249.55
IMPC 72	3739.91	3751.16	15	14	48.0	97.12	.0043	-26.25	.0000	399129.6	2.50	-2.83	-.0038	243.00	-.0007	-26.41	249.55
IMPC 11	3739.91	3751.16	15	14	48.0	353.50	.0044	-27.22	.0000	395906.0	2.03	27.27	.0004	173.50	.0044	-26.41	249.55

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	A7	RT ASC
INJECTION	.00	11.25	13	0	28.050	6565.325	21.1385	306.6580	10.97992	3.1904	110.8150	123.8693
SEPARATION	1.20	12.45	13	0	29.250	6632.361	18.5877	313.0759	10.92366	6.5792	113.1010	130.5880
RETRO	3.20	14.45	13	0	31.250	6842.915	14.0294	322.9359	10.75304	12.0061	116.0202	140.9494
EXIT SHA	23.48	34.73	13	0	51.528	12437.174	-15.6991	14.2806	7.95145	43.2996	119.0934	197.3777
IMPACT	3739.91	3751.16	15	14	47.963	398865.695	-26.4121	249.5525	2.23112	68.3519	271.9966	284.3013

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SURVEYOR VIEW PERIODS

GHA	172.1509					EPS	108.147							LOM	245.7988
SX	.220607	SY	-.868054	SZ	-.444763	DAO	26.40818	RAO	284.25925	RM	400169.141	LAT	28.310600	LON	279.461800
C3	-.876060	ECC	.985616	SLR	12995.197	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.239801	NSY	-.863275	NSZ	-.444131	C3M	1.5343	VIM	2.6783	ZAE	142.077	B.T	.0000	B.R	-.0000
LATE	4.7025	LONE	5.3040	LATS	-1.3766	LONS	257.3542	LATI	-1.0632	LONI	327.7865	RSM	148.6768	TTAN	6.5775
LAUNCH DATE		MAR	13,1966		BASE AZM	102.0		TF	62.384			ARRIVAL DATE		MAR 15 1966 15	2 46.0

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	0 24 58.4	28.1	20.02	306.17	8.13	125.43	112.91	0 36 13.4	6577.5	10.97	4.04

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW														
INJECTION	.00	11.25	13	0	36.2												
SEPARATION	1.20	12.45	13	0	37.4												
RETRO	3.20	14.45	13	0	39.4												
RISE 72	4.37	15.62	13	0	40.6	82.68	-.1778	42.53	.0161	3047.3	-7.33	.00	.1257	313.04	.0403	9.63	327.03
EXTM 72	11.00	22.25	13	0	47.2	346.88	-.1423	7.08	-.1243	2349.1	4.84	70.11	-.0000	41.46	.5525	-3.91	349.20
RISE 51	11.11	22.36	13	0	47.3	79.00	-.0828	21.60	-.0371	5850.7	-2.55	.00	.0854	294.12	.0032	-4.08	349.47
EXIT SHA	23.01	34.26	13	0	59.2												
EXIT 72	23.01	34.26	13	0	59.2	310.13	-.0186	-22.27	-.0113	7274.7	6.95	40.01	-.0187	112.52	.0112	-17.07	11.45
EXIT 51	23.01	34.26	13	0	59.2	30.49	-.0472	-7.56	-.0305	6578.6	3.76	55.75	.0557	296.66	.0046	-17.07	11.45
EXIT 61	23.01	34.26	13	0	59.2	333.88	-.0277	-46.81	.0059	10627.7	6.45	-.11	-.0008	162.46	-.0198	-17.07	11.45
EXTM 51	41.50	52.75	13	1	17.7	1.34	-.0134	-23.88	-.0061	11968.4	5.18	87.78	.0118	326.46	.1782	-24.53	26.80
EXTM 72	70.20	81.45	13	1	46.4	296.77	.0001	-30.33	-.0007	23310.9	4.76	27.04	.0000	120.10	.0008	-28.14	35.10
RISE 61	96.48	107.73	13	2	12.7	312.19	.0011	-38.44	.0007	33228.4	4.22	-.00	.0010	144.52	.0003	-29.27	36.55
EXTM 51	186.74	197.99	13	3	43.0	.08	.0029	-30.63	.0000	48135.1	3.47	85.11	-.0000	180.80	.0288	-30.06	27.62
EXTM 61	372.13	383.38	13	6	48.3	4.10	.0038	-33.65	.0002	86429.8	2.74	16.02	.0000	183.55	.0033	-29.68	351.91
EXTM 72	403.76	415.01	13	7	20.0	.66	.0039	-31.14	.0001	87620.8	2.66	66.76	-.0000	181.42	.0086	-29.60	345.07
RISE 11	580.27	591.52	13	10	16.5	295.33	.0040	-31.23	-.0000	119604.5	2.05	.00	.0025	129.39	.0023	-29.15	305.24
SET 51	599.60	610.85	13	10	35.8	90.00	.0038	-27.99	.0001	121000.0	2.64	11.76	-.0031	244.41	-.0012	-29.10	300.76
SET 61	607.27	618.52	13	10	43.5	58.98	.0039	-31.34	.0001	123349.4	2.52	-.00	-.0021	227.05	.0026	-29.09	298.98
SET 72	797.68	808.93	13	13	53.9	94.30	.0039	-28.34	.0001	148173.6	2.45	-.01	-.0034	241.36	-.0004	-28.70	254.14
RISE 42	807.57	818.82	13	14	3.8	254.99	.0040	-27.21	-.0001	148915.7	1.75	4.34	.0028	120.52	-.0021	-28.68	251.79
EXTM 11	848.08	859.33	13	14	44.3	1.07	.0041	-30.77	.0001	151777.8	2.02	24.01	-.0000	181.01	.0039	-28.61	242.12
SET 11	1112.53	1123.78	13	19	8.8	66.45	.0041	-29.52	.0001	184661.8	2.10	-.00	-.0026	232.91	.0024	-28.20	178.38
EXTM 42	1233.28	1244.53	13	21	9.5	359.95	.0042	-27.81	.0000	191313.0	1.74	82.59	.0000	.35	-.0261	-28.05	149.03
RISE 51	1368.85	1380.10	13	23	25.1	270.00	.0041	-27.23	-.0000	210120.8	1.30	11.46	.0034	114.87	-.0014	-27.89	119.93
RISE 72	1523.61	1534.86	14	1	59.8	265.85	.0041	-27.48	-.0000	226521.0	1.19	-.01	.0036	117.77	-.0005	-27.72	78.02
RISE 61	1609.79	1621.04	14	3	26.0	297.71	.0041	-28.79	-.0000	234671.6	1.29	.00	.0024	129.11	.0027	-27.64	56.85
SET 42	1656.64	1667.89	14	4	12.9	105.00	.0041	-26.67	.0000	238579.8	1.86	4.01	-.0029	239.91	-.0022	-27.59	45.34
EXTM 51	1722.56	1733.81	14	5	18.8	358.53	.0042	-27.58	.0000	238773.8	1.50	87.74	.0022	144.78	.0764	-27.53	29.12
EXTM 61	1859.65	1870.90	14	7	35.9	.41	.0042	-28.74	.0000	255030.6	1.46	21.02	.0000	180.39	.0039	-27.41	358.35
EXTM 72	1899.37	1910.62	14	8	15.6	.13	.0042	-27.86	.0000	254853.0	1.45	70.04	-.0000	180.33	.0108	-27.38	349.55
RISE 11	2044.04	2055.29	14	10	40.3	292.18	.0042	-28.15	-.0000	273170.0	1.10	.00	.0028	125.27	.0024	-27.27	309.83
SET 51	2087.80	2099.05	14	11	24.0	90.00	.0041	-26.73	.0000	275598.5	1.76	11.26	-.0034	245.60	-.0014	-27.24	299.02
SET 61	2109.26	2120.51	14	11	45.5	63.04	.0042	-28.18	.0000	278628.8	1.66	-.00	-.0025	231.78	.0027	-27.22	293.71
SET 72	2273.78	2285.03	14	14	30.0	94.04	.0041	-26.92	.0001	292070.9	1.74	-.00	-.0036	242.80	-.0005	-27.10	253.02
RISE 42	2274.37	2285.62	14	14	30.6	255.00	.0041	-26.35	-.0000	291694.8	1.01	3.81	.0029	119.83	-.0022	-27.10	252.87
EXTM 11	2314.75	2326.00	14	15	11.0	.28	.0042	-28.18	.0000	292508.5	1.33	26.61	-.0000	180.28	.0042	-27.08	242.88
SET 11	2585.26	2596.51	14	19	41.5	68.29	.0042	-27.66	.0000	316355.9	1.57	.00	-.0028	235.37	.0024	-26.91	178.84
EXTM 42	2693.49	2704.74	14	21	29.7	359.99	.0042	-26.68	.0000	318231.0	1.24	81.46	-.0000	.15	-.0152	-26.84	149.00
RISE 51	2824.07	2835.32	14	23	40.3	270.00	.0041	-26.35	-.0000	332831.6	.84	11.11	.0034	114.05	-.0015	-26.77	116.58
RISE 72	2977.53	2988.78	15	2	13.7	266.03	.0042	-26.53	-.0000	345283.7	.74	.00	.0037	116.80	-.0005	-26.69	78.47
RISE 61	3055.89	3067.14	15	3	32.1	296.03	.0042	-27.41	-.0000	350638.7	.86	.00	.0025	127.10	.0027	-26.65	58.92
SET 42	3112.08	3123.33	15	4	28.3	105.00	.0041	-26.01	.0000	354057.9	1.46	3.60	-.0030	240.44	-.0023	-26.63	44.89
EXTM 51	3178.44	3189.69	15	5	34.7	359.35	.0042	-26.62	.0000	352630.4	1.12	88.94	.0021	146.88	.1714	-26.61	28.32
EXTM 61	3309.49	3320.74	15	7	45.7	.17	.0042	-27.48	.0000	365361.1	1.12	22.29	-.0000	180.16	.0040	-26.56	355.58
EXTM 72	3349.45	3360.70	15	8	25.7	.08	.0042	-26.86	.0000	364468.8	1.12	71.04	-.0000	180.22	.0113	-26.54	349.60
RISE 11	3487.21	3498.46	15	10	43.4	291.19	.0042	-27.12	-.0000	379726.7	.82	.00	.0028	123.91	.0024	-26.49	311.15
SET 51	3537.16	3548.41	15	11	33.4	90.00	.0042	-26.11	.0000	381909.5	1.52	11.02	-.0035	246.18	-.0015	-26.48	298.64
SET 61	3562.86	3574.11	15	11	59.1	64.27	.0042	-27.16	.0000	384891.3	1.44	-.00	-.0025	233.28	.0027	-26.47	292.21
RISE 42	3718.17	3729.42	15	14	34.4	255.00	.0042	-25.86	-.0000	395984.2	1.13	3.51	.0030	119.44	-.0023	-26.42	253.17
SET 72	3719.78	3731.03	15	14	36.0	93.93	.0042	-26.28	.0000	396516.0	1.90	.00	-.0037	243.45	-.0005	-26.42	252.76
IMPACT	3743.05	3754.30	15	14	59.3												
IMPC 42	3743.05	3754.30	15	14	59.3	261.33	.0043	-25.89	-.0000	397946.5	1.72	8.11	.0032	116.06	-.0022	-26.41	246.82
IMPC 11	3743.05	3754.30	15	14	59.3	356.27	.0044	-27.22	.0000	395915.4	2.05	27.47	.0002	176.27	.0044	-26.41	246.82

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	13	0	36.224	6577.954	20.0079	306.1961	10.96942	4.0373	112.9172	125.4565
SEPARATION	1.20	12.45	13	0	37.424	6656.097	17.2585	312.4165	10.90388	7.4073	115.0041	131.9777
RETRO	3.20	14.45	13	0	39.424	6884.077	12.4479	321.9584	10.72046	12.7818	117.5870	142.0209
EXIT SHA	23.01	34.26	13	0	59.230	12386.035	-17.0702	11.4513	7.96985	43.1605	115.1284	196.4790
IMPACT	3743.05	3754.30	15	14	59.275	398895.035	-26.4094	246.8230	2.22996	68.3004	272.5604	284.4074

SURVEYOR VIEW PERIODS

GHA	172.1509				EPS 108.2238							LOM	243.3876
SX	.222030	SY	-.867716	SZ	-.444716	DAO	-26.40514	RAO	284.35279	RM	400194.316	LAT	28.310600
LON	279.461800	C3	-.879908	ECC	.985553	SLR	12994.782	RCA	6544.6650	LTA	-20.0000	GTA	20.00
TB	675.00000	POL	-.0	NSX	.241251	NSY	-.862895	NSZ	-.444084	C3M	1.5342	VIM	2.6783
ZAE	141.949	B.T	.0000	B.R	-.0000	LATE	4.7093	LONE	5.3878	LATS	-1.3765	LONS	257.3610
LATI	-1.3853	LONI	327.7933	RSM	148.6766	TTAN	6.5788						

LAUNCH DATE MAR 13,1966 BASE AZM 105.0 TF 62.448 ARRIVAL DATE MAR 15 1966 15 12 45.5

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	0 31 12.0	28.1	18.91	305.64	9.41	126.47	115.00	0 42 27.0	6588.7	10.96	4.67

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PRORE IN EARTH'S SHADOW															
INJECTION	.00	11.25	13	0	42.4												
SEPARATION	1.20	12.45	13	0	43.6												
RETRO	3.20	14.45	13	0	45.6												
RISE 72	4.26	15.51	13	0	46.7	83.82	-.1623	37.78	-.0014	3091.2	-7.41	-.00	.1266	308.21	.0209	8.25	325.41
EXTM 72	10.96	22.21	13	0	53.4	353.77	-.1519	.23	-.1154	2324.0	4.75	79.77	-.0000	37.64	1.0735	-5.74	347.34
RISE 51	11.10	22.35	13	0	53.5	80.84	-.0792	18.27	-.0396	5940.6	-2.42	.00	.0841	290.37	-.0012	-5.97	347.70
EXIT SHA	22.58	33.83	13	1	5.0												
EXIT 72	22.58	33.83	13	1	5.0	313.71	-.0213	-25.40	-.0098	7066.1	6.96	42.58	-.0210	117.70	.0069	-18.62	8.92
EXIT 51	22.58	33.83	13	1	5.0	35.27	-.0485	-10.13	-.0306	6601.8	3.60	53.16	.0566	288.53	-.0047	-18.62	8.92
EXIT 61	22.58	33.83	13	1	5.0	337.75	-.0301	-48.89	.0058	10678.6	6.39	-1.27	-.0002	165.58	-.0206	-18.62	8.92
EXTM 51	46.01	57.26	13	1	28.5	.88	-.0107	-27.63	-.0040	13436.1	5.12	87.95	-.0000	202.39	-.2882	-27.02	27.09
EXTM 72	71.25	82.50	13	1	53.7	298.53	.0001	-32.13	-.0004	23563.3	4.73	28.28	.0000	122.35	.0005	-29.57	33.55
EXTM 51	95.46	106.71	13	2	17.9	350.93	.0002	-31.50	-.0003	27328.2	4.27	80.18	.0000	128.00	.0021	-30.46	34.96
RISE 61	101.73	112.98	13	2	24.2	314.25	.0012	-39.51	.0007	34638.1	4.14	-.00	.0011	146.45	.0004	-30.59	34.91
EXTM 51	177.92	189.17	13	3	40.4	.22	.0028	-31.68	.000.	46339.7	3.52	84.05	-.0000	181.84	.0229	-30.97	27.49
EXTM 61	367.94	379.19	13	6	50.4	4.64	.0038	-34.31	.0002	85840.4	2.75	15.33	.0000	183.97	.0033	-30.30	351.41
EXTM 72	397.94	409.19	13	7	20.4	.80	.0039	-31.79	.0001	86743.4	2.67	66.10	.0000	181.67	.0083	-30.19	344.94
RISE 11	576.52	587.77	13	10	19.0	295.85	.0040	-31.71	.0000	119095.0	2.06	.00	.0025	130.04	.0023	-29.61	304.71
SET 51	593.43	604.68	13	10	35.9	90.00	.0038	-28.45	.0001	120139.6	2.65	11.94	-.0031	243.98	-.0012	-29.56	300.80
SET 61	598.25	609.50	13	10	40.7	58.30	.0039	-31.84	.0002	122119.5	2.53	-.00	-.0020	226.28	.0026	-29.55	299.68
SET 72	791.97	803.22	13	13	54.4	94.37	.0039	-28.71	.0001	147467.0	2.45	-.01	-.0034	240.99	-.0004	-29.07	254.10
RISE 42	801.76	813.01	13	14	4.2	254.99	.0040	-27.57	-.0000	148175.3	1.75	4.56	.0028	120.80	-.0021	-29.05	251.77
EXTM 11	842.71	853.96	13	14	45.2	1.19	.0041	-31.13	.0001	151161.9	2.02	23.65	.0000	181.12	.0039	-28.96	242.00
SET 11	1105.49	1116.74	13	19	7.9	66.16	.0041	-29.81	.0001	183878.1	2.11	-.00	-.0026	232.53	.0024	-28.48	178.68
EXTM 42	1227.43	1238.68	13	21	9.9	359.95	.0042	-28.06	.0000	190676.3	1.74	82.84	.0000	.41	-.0277	-28.29	149.03
RISE 51	1363.08	1374.33	13	23	25.5	270.00	.0041	-27.45	-.0000	209502.4	1.31	11.54	.0034	115.08	-.0014	-28.11	115.92
RISE 72	1517.69	1528.94	14	2	.1	265.82	.0041	-27.67	-.0000	225914.4	1.20	-.00	.0036	117.96	-.0005	-27.91	78.04
RISE 61	1604.91	1616.16	14	3	27.4	297.94	.0041	-28.97	-.0000	234169.3	1.29	.00	.0024	129.38	.0027	-27.81	56.63
SET 42	1650.81	1662.06	14	4	13.3	105.00	.0041	-26.84	.0001	237980.6	1.86	4.11	-.0029	239.78	-.0022	-27.76	45.34
EXTM 51	1716.70	1727.95	14	5	19.2	358.52	.0042	-27.75	.0000	238189.3	1.50	87.59	.0021	146.90	.0736	-27.69	29.13
EXTM 61	1853.99	1865.24	14	7	36.4	.46	.0042	-28.89	.0000	254487.5	1.47	20.87	.0000	180.43	.0039	-27.56	355.30
EXTM 72	1893.59	1904.84	14	8	16.0	.14	.0042	-28.00	.0000	254291.5	1.45	69.90	-.0000	180.36	.0108	-27.52	345.54
RISE 11	2038.71	2049.96	14	10	41.2	292.30	.0042	-28.27	-.0000	272647.9	1.10	.00	.0028	125.43	.0024	-27.39	309.71
SET 51	2081.95	2093.20	14	11	24.4	90.00	.0041	-26.85	.0001	275028.8	1.76	11.31	-.0034	245.49	-.0014	-27.35	299.02
SET 61	2102.83	2114.08	14	11	45.3	62.89	.0042	-28.30	.0000	278316.5	1.66	-.00	-.0024	231.60	.0027	-27.34	293.86
SET 72	2268.00	2279.25	14	14	30.4	94.06	.0041	-27.02	.0001	291517.1	1.74	-.00	-.0036	242.70	-.0005	-27.20	253.00
RISE 42	2268.54	2279.79	14	14	31.0	255.00	.0041	-26.44	-.0000	291131.1	1.02	3.87	.0029	119.91	-.0022	-27 20	252.87
EXTM 11	2309.02	2320.27	14	15	11.5	.31	.0042	-28.28	.0000	291969.7	1.33	26.51	-.0000	180.30	.0041	-27.17	242.85
SET 11	2579.12	2590.37	14	19	41.6	68.22	.0042	-27.74	.0000	315780.0	1.57	.00	-.0028	235.28	.0024	-26.98	175.91
EXTM 42	2687.62	2698.87	14	21	30.1	359.98	.0042	-26.74	.0000	317675.8	1.24	81.52	-.0000	.16	-.0164	-26.91	149.00
RISE 51	2818.21	2829.46	14	23	40.7	270.00	.0041	-26.40	-.0000	332276.2	.84	11.13	.0034	114.09	-.0015	-26.82	116.58
RISE 72	2971.63	2982.88	15	2	14.1	266.02	.0042	-26.57	-.0000	344729.3	.74	.00	.0037	116.85	-.0005	-26.73	78.48
RISE 61	3050.20	3061.45	15	3	32.7	296.08	.0042	-27.45	-.0000	350094.4	.86	.00	.0025	127.15	.0027	-26.69	58.87
SET 42	3106.20	3117.45	15	4	28.6	105.00	.0041	-26.04	.0000	353494.4	1.46	3.62	-.0030	240.41	-.0023	-26.67	44.89
EXTM 51	3172.46	3183.71	15	5	34.9	359.33	.0042	-26.65	.0000	352058.2	1.12	88.90	.0021	146.75	.1649	-26.64	28.35
EXTM 61	3303.69	3314.94	15	7	46.1	.19	.0042	-27.50	.0000	364791.8	1.12	22.26	-.0000	180.18	.0041	-26.58	355.57
EXTM 72	3343.60	3354.85	15	8	26.1	.08	.0042	-26.89	.0000	363890.5	1.12	71.02	-.0000	180.23	.0113	-26.56	345.59
RISE 11	3481.42	3492.67	15	10	43.9	291.20	.0042	-27.13	-.0000	379130.7	.81	.00	.0028	123.93	.0024	-26.51	311.13
SET 51	3531.30	3542.55	15	11	33.7	90.00	.0042	-26.12	.0000	381296.5	1.52	11.02	-.0034	246.17	-.0015	-26.49	298.65
SET 61	3556.94	3568.19	15	11	59.4	84.26	.0042	-27.17	.0000	384267.3	1.43	-.00	-.0025	233.26	.0027	-26.48	292.22
RISE 42	3712.42	3723.67	15	14	34.9	255.00	.0042	-25.86	-.0000	395197.5	1.06	3.51	.0030	119.44	-.0023	-26.42	253.17
SET 72	3714.04	3725.29	15	14	36.5	93.93	.0042	-26.28	.0000	395723.3	1.82	-.00	-.0037	243.45	-.0035	-26.42	252.76
IMPACT	3746.89	3758.14	15	15	9.3												
IMPC 42	3746.89	3758.14	15	15	9.3	263.76	.0043	-25.90	-.0000	397776.3	1.72	9.90	.0032	114.80	-.0022	-26.41	244.39
IMPC 11	3746.89	3758.14	15	15	9.3	358.74	.0044	-27.22	.0000	395933.1	2.06	27.56	.0001	178.74	.0044	-26.41	244.39
EXTM 11	3752.44	3763.69	15	15	14.9	.21	.0045	-27.21	.0000	396728.9	3.08	27.58	.0000	180.21	.0045	-26.40	242.94

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	13	0	42.450	6589.475	18.8971	305.6848	10.95984	4.6710	115.0109	126.5099
SEPARATION	1.20	12.45	13	0	43.650	6675.725	15.9540	311.7124	10.88755	8.0250	116.9098	132.8343
RETRO	3.20	14.45	13	0	45.650	6916.553	10.8886	320.9599	10.69489	13.3579	119.1800	142.5832
EXIT SHA	22.58	33.83	13	1	5.027	12312.731	-18.6155	8.9234	7.99166	42.9949	115.2163	195.4046
IMPACT	3746.89	3758.14	15	15	9.342	398921.543	-28.4071	244.3938	2.22854	68.2254	273.2050	284.5019

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SURVEYOR VIEW PERIODS

GHA	172.1509					EPS 108.2956								LOM	241.1290
SX	.223362	SY	-.867397	SZ	-.444670	DAO	*26,40224	RAO	284.44040	RM	400217.855	LAT	28.310600	LON	279.461800
CS	-.884698	ECC	.985474	SLR	12994.266	RCA	6544.6650	LTA	*20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.242621	NSY	-.862533	NSZ	-.444040	CSM	1.5349	VIM	2,6783	ZAE	141,788	B.T	.0000	B.R	-.0000
LATE	4.7157	LONE	5.2894	LATS	-1.3765	LONS	257,1905	LATI	-1.7308	LONI	327.5916	RSM	148.6764	TTAN	6.5809
LAUNCH DATE		MAR	13,1966		BASE AZM	108.0		TF	62.526			ARRIVAL DATE		MAR 15 1966 15 22 7.0	

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	0 36	4.0	28.1	17.83	305.68	10.39	127.12	117.09	0 47 19.0	6598.4	10.95	5.16

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	13	0	47.3												
SEPARATION	1..0	12.45	13	0	48.5												
RETRO	3.20	14.45	13	0	50.5												
RISE 72	4.19	15.44	13	0	51.5	84.78	-.1499	33.25	-.0182	3131.5	-7.40	-.00	.1267	303.61	.0026	6.79	323.98
EXTM 72	10.43	21.68	13	0	57.7	5.34	-.1771	-3.44	-.1211	2207.0	3.93	83.06	.2132	309.77	.1821	-6.76	344.29
RISE 51	11.12	22.37	13	0	58.4	82.58	-.0742	14.99	-.0421	6020.0	-2.30	.00	.0829	286.69	-.0054	-7.94	346.08
EXIT SHA	22.13	33.38	13	1	9.4												
EXIT 72	22.13	33.38	13	1	9.4	317.12	-.0245	-29.19	-.0082	6875.0	6.97	44.48	-.0229	123.63	.0010	-20.25	6.53
EXIT 51	22.13	33.38	13	1	9.4	39.88	-.0498	-12.76	-.0310	6616.9	3.45	50.36	.0571	281.40	-.0117	-20.25	6.53
EXIT 61	22.13	33.38	13	1	9.4	341.47	-.0328	-51.02	.0056	10734.7	6.33	-2.69	.0005	168.46	-.0214	-20.25	6.53
EXTM 51	48.16	59.41	13	1	35.5	1.83	-.0100	-30.54	-.0030	14158.8	9.07	84.93	-.0000	198.17	-.1035	-29.05	26.4
EXTM 72	71.99	83.24	13	1	59.3	299.89	.0000	-34.01	-.0002	23751.6	4.71	29.09	.0000	124.67	.0002	-31.09	32.29
EXTM 51	95.99	107.24	13	2	23.3	352.46	.0002	-33.14	-.0001	27506.9	4.26	80.11	.0000	140.25	.0011	-31.79	33.72
RISE 61	110.00	121.25	13	2	37.3	316.22	.0015	-40.47	.0007	36767.0	4.02	-.00	.0012	148.24	.0006	-31.96	33.43
EXTM 51	171.84	183.09	13	3	39.2	,49	.0027	-32.86	.0001	45095.4	3.56	82.87	.0000	183.30	.0182	-31.98	27.26
EXTM 61	365.59	376.84	13	6	52.9	5.22	.0038	-35.01	.0002	85545.4	2.76	14.60	.0000	184.41	.0032	-30.98	350.87
EXTM 72	393.98	405.23	13	7	21.3	,99	.0039	-32.49	.0001	86153.3	2.68	65.39	.0000	182.01	.0080	-30.84	344.76
RISE 11	574.49	585.74	13	10	21.8	296.41	.0040	-32.23	.0000	118812.9	2.06	.00	.0025	130.75	.0023	-30.11	304.14
SET 51	588.81	600.06	13	10	36.1	90.00	.0038	-28.95	.0001	119479.4	2.65	12,13	-.0031	243.52	-.0012	-30.06	300.83
SET 61	590.49	601.74	13	10	37.8	57.55	.0039	-32.38	.0002	121046.1	2.54	-.00	-.0020	225.45	.0026	-30.05	300.44
SET 72	787.78	799.03	13	13	55.1	94.44	.0039	-29.10	.0001	146934.8	2.45	-.01	-.0034	240.59	-.0004	-29,46	254.05
RISE 42	797.43	808.68	13	14	4.7	254.99	.0040	-27.96	-.0000	147601.4	1.76	4,79	.0028	121.11	-.0021	-29,44	251.75
EXTM 11	838.84	850.09	13	14	46.2	1,33	.0041	-31.52	.0001	150718.3	2.02	23,26	.0000	181.23	.0038	-29,34	241.88
SET 11	1099.78	1111.03	13	19	7.1	65.84	.0041	-30.11	.0001	183224.2	2.11	-.00	-.0026	232.12	.0024	-28,78	179.00
EXTM 42	1223.01	1234.26	13	21	10.3	359.94	.0042	-28.33	.0000	190171.4	1.74	83,11	.0000	.48	-.0293	-28,56	149.04
RISE 51	1358.71	1369.96	13	23	26.0	270.00	.0041	-27.68	-.0000	209006.4	1.31	11,64	.0033	115.30	-.0014	-28,34	115.91
RISE 72	1513.16	1524.41	14	2	.5	265.78	.0041	-27.88	-.0000	225420.8	1.20	-.00	.0036	118.17	-.0005	-28,12	78.07
RISE 61	1601.50	1612.75	14	3	28.8	298.18	.0042	-29.17	-.0000	233783.4	1.29	.00	.0024	129.67	.0027	-28,01	56.38
SET 42	1646.37	1657.62	14	4	13.7	105.00	.0041	-27.02	.0001	237488.0	1.86	4,22	-.0029	239.63	-.0022	-27,95	49.35
EXTM 51	1718.22	1729.47	14	5	25.5	,02	.0042	-27.92	.0000	238251.3	1.51	87,82	-.0000	180.63	.0681	-27,86	27.67
EXTM 61	1849.75	1861.00	14	7	37.1	,50	.0042	-29.05	.0000	254045.7	1.47	20,71	-.0000	180.47	.0039	-27,71	359.26
EXTM 72	1889.21	1900.46	14	8	16.5	.15	.0042	-28.16	.0000	253826.8	1.45	69,75	-.0000	180.39	.0107	-27,67	345.52
RISE 11	2034.81	2046.06	14	10	42.1	292.44	.0042	-28.41	-.0000	272218.6	1.10	.00	.0028	125.61	.0024	-27,52	309.97
SET 51	2077.48	2088.73	14	11	24.8	90.00	.0041	-26.98	.0001	274546.6	1.76	11,36	-.0034	245.37	-.0014	-27,48	299.03
SET 61	2097.73	2108.98	14	11	45.0	62.73	.0042	-28.43	.0001	277487.0	1.66	-.00	-.0024	231.41	.0027	-27,46	294.02
SET 72	2263.59	2274.84	14	14	30.9	94.08	.0041	-27.12	.0001	291044.2	1.74	-.00	-.0036	242.59	-.0005	-27,31	258.99
RISE 42	2264.08	2275.33	14	14	31.4	255.00	.0041	-26.55	-.0000	290646.9	1.02	3,93	.0029	119.99	-.0022	-27,31	252.87
EXTM 11	2304.66	2315.91	14	15	12.0	,34	.0042	-28.39	.0000	291510.9	1.33	26,41	-.0000	180.33	.0041	-27,28	242.82
SET 11	2574.30	2585.55	14	19	41.6	68.14	.0042	-27.82	.0000	319269.5	1.57	.00	-.0028	235.17	.0024	-27,06	178.00
EXTM 42	2683.11	2694.36	14	21	30.4	359.98	.0042	-26.81	.0000	317185.1	1.24	81,59	-.0000	.17	-.0171	-26,98	149.00
RISE 51	2813.71	2824.96	14	23	41.0	270.00	.0041	-26.46	-.0000	331780.3	.84	11,16	.0034	114.15	-.0015	-26,88	116.58
RISE 72	2967.06	2978.31	15	2	14.4	266.01	.0041	-26.62	-.0000	343996.5	.77	-.01	.0037	116.90	-.0005	-26,78	78.49
RISE 61	3046.01	3057.26	15	3	33.3	296.13	.0042	-27.49	-.0000	349673.7	.85	.00	.0025	127.21	.0027	-26,73	50.82
SET 42	3101.80	3113.05	15	4	29.1	105.00	.0041	-26.07	.0000	353049.4	1.46	3,64	-.0030	240.39	-.0023	-26,70	44.89
EXTM 51	3167.93	3179.18	15	5	35.2	359.30	.0042	-26.69	.0000	351596.6	1.12	88,86	.0021	146.43	.1582	-26,67	28.38
EXTM 61	3299.32	3310.57	15	7	46.6	,20	.0042	-27.53	.0000	364321.6	1.12	22,24	-.0000	180.19	.0040	-26,61	359.55
EXTM 72	3339.18	3350.43	15	8	26.5	,09	.0042	-26.91	.0000	363407.5	1.12	71,00	-.0000	180.24	.0114	-26,59	349.59
RISE 11	3477.02	3488.27	15	10	44.3	291.22	.0042	-27.15	-.0000	378616.2	.81	.00	.0028	123.95	.0024	-26,52	311.11
SET 51	3526.83	3538.08	15	11	34.1	90.00	.0042	-26.13	.0000	380760.3	1.51	11,03	-.0035	246.16	-.0015	-26,50	298.65
SET 61	3552.41	3563.66	15	11	59.7	64.24	.0042	-27.18	.0000	383717.7	1.42	-.00	-.0025	233.24	.0027	-26,49	292.24
RISE 42	3707.99	3719.24	15	14	35.3	255.00	.0042	-25.86	-.0000	394499.0	1.01	3,51	.0030	119.45	-.0023	-26,42	253.17
SET 72	3709.62	3720.87	15	14	36.9	93.94	.0042	-26.29	.0000	395020.0	1.76	-.00	-.0037	243.44	-.0005	-26,42	252.76
EXTM 11	3748.42	3759.67	15	15	15.7	,25	.0043	-27.22	.0000	395595.2	1.88	27,57	-.0000	180.25	.0044	-26,41	242.90
IMPACT	3751.55	3762.80	15	15	18.9												
IMPC 42	3751.55	3762.80	15	15	18.9	266.05	.0043	-25.91	-.0000	397618.4	1.71	11,62	.0032	113.63	-.0022	-26,40	242.10
IMPC 11	3751.55	3762.80	15	15	18.9	1.07	.0044	-27.22	.0000	395961.6	2.07	27,57	-.0001	181.07	.0044	-26,40	242.10

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	13	0	47.317	6599.539	17.8065	305.1258	10.95154	5.1563	117.0999	127.1710
SEPARATION	1.20	12.45	13	0	48.517	6691.839	14.6733	310.9697	10.87411	8.4971	118.8214	133.3118
RETRO	3.20	14.45	13	0	50.517	6942.397	9.3513	319.9402	10.67459	13.7967	120.7992	142.7836
EXIT SHA	22.13	33.38	13	1	9.450	12223.036	-20.2474	6.5339	8.02103	42.7714	115.3948	194.1233
IMPACT	3751.55	3762.80	15	15	18.867	398950.586	-26.4050	242.0960	2.22517	67.9162	273.7930	284.9919

SURVEYOR VIEW PERIODS

GHA	172.1509					EPS	108.3658							LOM	238.9216
SX	.224663	SY	-.867084	SZ	-.444625	DAO	-26.39936	RAD	284.52602	RM	400240.813	LAT	28.310600	LON	279.461800
CJ	-.890313	ECC	.985382	SLR	12993.666	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.243968	NSY	-.862175	NSZ	-.443997	C3M	1.5340	VIM	2.6783	ZAE	141.597	B.T	.0000	B.R	-.0000
LATE	4.7220	LONE	5.3662	LATS	-1.3764	LONS	257.1968	LATI	-2.0902	LONI	327.5394	RSM	148.6762	TTAN	6.5836
LAUNCH DATE	MAR 13,1966			BASE AZM	111.0		TF 62.616					ARRIVAL DATE	MAR 15 1966 15 31 15.9		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	0 39 58.6	28.1	16.77	304.47	11.16	127.49	119.17	0 51 13.6	6606.6	10.94	5.54

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PRUBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	13	0	51.2												
SEPARATION	1.20	12.45	13	0	52.4												
RETRO	3.20	14.45	13	0	54.4												
RISE 72	4.15	15.40	13	0	55.4	85.61	-.1393	28.86	-.0344	3172.0	-7.30	-.00	.1259	299.17	-.0148	5.27	322.69
EXTM 72	11.13	22.38	13	1	2.4	4.41	-.1578	-15.15	-.0926	2450.1	4.81	81.56	.0000	210.42	-1.2150	-9.92	344.47
RISE 51	11.16	22.41	13	1	2.4	84.25	-.0706	11.74	-.0445	6095.1	-2.16	-.00	.0817	283.05	-.0093	-9.98	344.56
EXIT SHA	21.65	32.90	13	1	12.9												
EXIT 72	21.65	32.90	13	1	12.9	320.54	-.0283	-32.98	-.0064	6894.6	6.97	45.76	-.0242	130.17	-.0064	-21.92	4.19
EXIT 51	21.65	32.90	13	1	12.9	44.49	-.0511	-15.32	-.0319	6427.2	3.28	47.27	.0575	275.14	-.0170	-21.92	4.19
EXIT 61	21.65	32.90	13	1	12.9	345.22	-.0360	-53.18	.0053	10786.1	6.27	-4.29	.0010	171.18	-.0222	-21.92	4.19
EXTM 51	50.80	62.05	13	1	42.0	2.25	-.0092	-33.44	-.0020	15021.1	5.01	82.06	-.0000	193.69	-.0573	-31.15	26.14
EXTM 72	72.54	83.79	13	2	3.8	300.93	-.0000	-35.92	.0000	23904.3	4.70	89.54	.0000	127.02	-.0001	-32.66	31.26
EXTM 51	94.62	105.87	13	2	25.8	353.67	-.0001	-34.86	.0000	31198.7	4.28	79.37	.0000	150.64	-.0003	-33.16	32.72
RISE 61	119.85	131.10	13	2	51.1	318.16	.0018	-41.36	.0002	34218.3	3.89	-.00	.0013	149.95	.0008	-33.28	31.99
EXTM 51	168.49	179.74	13	3	39.7	.91	.0026	-34.11	.0002	35418.2	3.58	81.59	.0000	185.19	.0149	-33.06	26.89
EXTM 61	364.56	375.81	13	6	55.8	5.81	.0038	-35.73	.0002	35464.9	2.76	13.84	.0000	184.85	.0032	-31.68	350.32
EXTM 72	391.28	402.53	13	7	22.5	1.19	.0039	-33.23	.0002	35758.0	2.68	64.65	.0000	182.33	.0077	-31.52	344.58
RISE 11	573.71	584.96	13	10	24.9	297.01	.0040	-32.76	.0000	118698.5	2.04	.00	.0025	131.48	.0023	-30.63	303.54
SET 61	583.60	594.85	13	10	34.8	56.74	.0039	-32.95	.0002	120081.9	2.54	.00	-.0020	224.57	.0026	-30.59	301.26
SET 51	585.32	596.57	13	10	36.5	90.00	.0038	-29.47	.0001	118966.9	2.65	12.34	-.0031	243.02	-.0012	-30.58	300.86
SET 72	784.69	795.94	13	13	55.9	94.51	.0039	-29.52	.0001	146529.9	2.45	-.00	-.0034	240.17	-.0004	-29.88	254.00
RISE 42	794.17	805.42	13	14	5.4	254.99	.0040	-28.37	-.0000	147149.6	1.76	5.04	.0028	121.44	-.0021	-29.85	251.74
EXTM 11	836.08	847.33	13	14	47.3	1.47	.0041	-31.93	.0001	150400.3	2.03	22.85	.0000	181.35	.0038	-29.73	241.74
SET 11	1095.04	1106.29	13	19	6.3	65.51	.0041	-30.43	.0001	182663.6	2.11	-.00	-.0025	231.69	.0024	-29.09	179.34
EXTM 42	1219.63	1230.88	13	21	10.9	359.93	.0042	-28.62	.0000	189760.7	1.74	83.40	.0000	.57	-.0303	-28.83	149.05
RISE 51	1355.37	1366.62	13	23	26.6	270.00	.0041	-27.93	-.0000	208597.4	1.31	11.73	.0033	115.53	-.0014	-28.59	115.90
RISE 72	1509.64	1520.89	14	2	.9	265.74	.0041	-28.10	-.0000	225006.9	1.20	-.00	.0036	118.39	-.0005	-28.34	78.10
RISE 61	1599.16	1610.41	14	3	30.4	298.44	.0042	-29.37	-.0000	233480.4	1.29	.00	.0024	129.98	.0027	-28.21	56.12
SET 42	1642.94	1654.19	14	4	14.2	105.00	.0041	-27.21	.0001	237070.1	1.86	4.34	-.0029	233.48	-.0022	-28.14	45.35
EXTM 51	1714.78	1726.03	14	5	26.0	.01	.0042	-28.11	.0000	237845.7	1.51	87.63	.0000	180.49	.0504	-28.05	27.67
EXTM 61	1846.50	1857.75	14	7	37.7	.55	.0042	-29.21	.0000	253671.6	1.46	20.55	-.0000	180.51	.0039	-27.88	359.21
EXTM 72	1885.82	1897.07	14	8	17.0	.16	.0042	-28.32	.0000	253428.8	1.45	69.58	-.0000	180.42	.0106	-27.83	345.51
RISE 11	2031.92	2043.17	14	10	43.1	292.58	.0042	-28.55	-.0000	271852.6	1.10	.00	.0027	125.80	.0024	-27.66	309.43
SET 51	2074.00	2085.25	14	11	25.2	90.00	.0041	-27.11	.0001	274123.7	1.76	11.41	-.0034	245.24	-.0014	-27.62	299.03
SET 61	2093.58	2104.83	14	11	44.8	62.57	.0042	-28.57	.0001	277013.7	1.66	-.00	-.0024	231.21	.0027	-27.59	294.19
SET 72	2260.17	2271.42	14	14	31.4	94.10	.0041	-27.24	.0001	290625.2	1.74	-.00	-.0036	242.48	-.0005	-27.42	252.97
RISE 42	2260.61	2271.86	14	14	31.8	255.00	.0041	-26.66	-.0000	290215.9	1.02	4.00	.0029	120.08	-.0022	-27.42	252.86
EXTM 11	2301.30	2312.55	14	15	12.5	.37	.0042	-28.50	.0000	291105.4	1.33	26.29	-.0000	180.36	.0041	-27.38	242.79
SET 11	2570.43	2581.68	14	19	41.7	68.06	.0042	-27.90	.0000	314801.4	1.57	.00	-.0028	235.06	.0024	-27.14	176.08
EXTM 42	2679.58	2690.83	14	21	30.8	359.98	.0042	-26.88	.0000	316735.5	1.24	81.66	-.0000	.18	-.0180	-27.05	149.00
RISE 51	2810.18	2821.43	14	23	41.4	270.00	.0041	-26.52	-.0000	331321.7	.84	11.18	.0034	114.21	-.0015	-26.94	116.58
RISE 72	2963.48	2974.73	15	2	14.7	266.00	.0041	-26.67	-.0000	343527.3	.77	-.00	.0037	116.95	-.0005	-26.83	78.50
RISE 61	3042.67	3053.92	15	3	33.9	296.18	.0042	-27.54	-.0000	349215.4	.85	.00	.0025	127.28	.0027	-26.77	58.77
SET 42	3098.23	3109.48	15	4	29.5	105.00	.0041	-26.11	.0000	352567.1	1.46	3.67	-.0030	240.36	-.0023	-26.74	44.89
EXTM 51	3164.21	3175.46	15	5	35.4	359.26	.0042	-26.72	.0000	351099.6	1.12	88.81	.0021	145.99	.1505	-26.70	28.42
EXTM 61	3295.82	3307.07	15	7	47.1	.22	.0042	-27.56	.0000	363826.3	1.12	22.21	-.0000	180.21	.0040	-26.63	359.53
EXTM 72	3335.64	3346.89	15	8	26.9	.09	.0042	-26.94	.0000	362900.9	1.11	70.97	-.0000	180.25	.0114	-26.61	348.98
RISE 11	3473.54	3484.79	15	10	44.8	291.24	.0042	-27.17	-.0000	378088.1	.81	.00	.0028	123.98	.0024	-26.54	311.09
SET 51	3523.26	3534.51	15	11	34.5	90.00	.0042	-26.15	.0000	380213.7	1.50	11.03	-.0034	246.14	-.0015	-26.52	298.65
SET 61	3548.78	3560.03	15	12	.0	64.22	.0042	-27.20	.0000	383159.5	1.42	-.00	-.0025	233.22	.0027	-26.50	292.26
RISE 42	3704.50	3715.75	15	14	35.7	255.00	.0042	-25.87	-.0000	393828.3	.97	3.52	.0030	119.45	-.0023	-26.43	253.17
SET 72	3706.12	3717.37	15	14	37.3	93.94	.0042	-26.29	.0000	394345.8	1.72	-.00	-.0037	243.44	-.0005	-26.43	252.76
EXTM 11	3744.83	3756.08	15	15	16.1	.20	.0043	-27.22	.0000	394693.6	1.62	27.57	-.0000	180.20	.0043	-26.41	242.96
IMPACT	3756.98	3768.23	15	15	28.2												
IMPC 42	3756.98	3768.23	15	15	28.2	268.30	.0043	-25.92	-.0000	397460.1	1.71	13.32	.0033	112.50	-.0022	-26.40	239.84
IMPC 11	3756.98	3768.23	15	15	28.2	3.36	.0044	-27.21	.0000	395993.9	2.08	27.50	-.0002	183.37	.0044	-26.40	239.84

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	13	0	51.227	6608.209	16.7368	304.5344	10.94440	5.5371	119.1867	127.5557
SEPARATION	1.20	12.45	13	0	52.427	6705.147	13.4170	310.1908	10.86298	8.8668	120.7411	133.5130
RETRO	3.20	14.45	13	0	54.427	6963.267	7.8376	318.8960	10.65819	14.1393	122.4445	142.7194
EXIT SHA	21.65	32.90	13	1	12.877	12109.377	-21.9173	4.1881	8.05875	42.4833	115.6889	192.6371
IMPACT	3756.98	3768.23	15	15	28.203	398975.980	-26.4029	239.8433	2.22313	67.7893	274.4989	284.6796

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SURVEYOR VIEW PERIODS

GHA 172.1509 EPS 108.4609 LOM 235.9288
SX .226427 SY -.866657 SZ -.444563 DAO -26.39537 RAO 284.64207 RM 400271.879 LAT 28.310600 LON 279.461800
C3 -.899163 ECC .985237 SLR 12992.714 RCA 6544.6650 LTA -20.0000 GTA 20.00 TB 675.00000 POL -.0
NSX .245805 NSY -.861684 NSZ -.443937 C3M 1.5340 VIM 2.6783 ZAE 141.295 B.T .0000 B.R -.0000
LATE 4.7305 LONE 5.2731 LATS -1.3764 LONS 257.0083 LATI -2.5803 LONI 327.2322 RSM 148.6759 TTAN 6.5884
LAUNCH DATE MAR 13,1966 BASE AZM 115.0 TF 62.757 ARRIVAL DATE MAR 15 1966 15 43 39.9

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	0 44 9.6	28.1	15.39	303.61	11.95	127.68	121.95	0 55 24.6	6615.9	10.94	5 93

EVNT STA	TFI	TFL	DAY PRGRE	HR IN	MIN EARTH'S	HA SHADOW	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
INJECTION	.00	11.25	13	0	55.4												
SEPARATION	1.20	12.45	13	0	56.6												
RETRO	3.20	14.45	13	0	58.6												
RISE 72	4.16	15.41	13	0	59.6	86.60	-.1271	23.14	-.0546	3230.6	-7.03	-.00	.1237	293.38	-.0366	3.15	321.13
RISE 51	11.27	22.52	13	1	6.7	86.40	-.0661	7.42	-.0477	6196.1	-1.96	.00	.0798	278.25	-.0142	-12.79	342.67
EXTM 72	11.44	22.69	13	1	6.9	9.35	-.1548	-25.41	-.0762	2672.5	4.99	70.36	-.0000	205.88	-.4737	-13.08	343.09
EXIT SHA	20.98	32.23	13	1	16.4												
EXIT 72	20.98	32.23	13	1	16.4	325.29	-.0347	-38.28	-.0040	6476.6	6.95	46.42	-.0246	139.58	-.0179	-24.18	1.09
EXIT 51	20.98	32.23	13	1	16.4	50.68	-.0526	-18.60	-.0335	6649.9	3.05	42.81	.0579	267.94	-.0221	-24.18	1.09
EXTM 51	56.05	67.30	13	1	51.5	1.72	-.0075	-37.20	-.0008	16670.4	4.91	78.45	-.0000	186.85	-.0302	-34.04	26.49
EXTM 72	72.95	84.20	13	2	8.4	301.93	-.0001	-38.54	.0004	24042.9	4.69	29.70	.0000	130.16	-.0004	-34.83	30.13
EXTM 51	88.44	99.69	13	2	23.8	355.10	-.0008	-37.36	.0002	25660.5	4.36	77.65	.0000	161.47	-.0032	-35.07	31.51
RISE 61	134.19	145.44	13	3	9.6	320.74	.0022	-42.46	.0008	42656.9	3.73	-.00	.0014	152.17	.0010	-34.91	30.02
EXTM 51	167.62	178.87	13	3	43.0	1.69	.0026	-35.82	.0003	44281.9	3.58	79.82	.0000	187.79	.0119	-34.56	26.22
EXTM 61	364.71	375.96	13	7	.1	6.61	.0038	-36.71	.0003	85601.0	2.76	12.82	.0000	185.43	.0031	-32.64	349.58
EXTM 72	389.24	400.49	13	7	24.6	1.49	.0039	-34.23	.0002	85475.1	2.69	63.64	.0000	182.77	.0073	-32.44	344.31
RISE 11	574.11	585.36	13	10	29.5	83	.0040	-33.49	.0000	118735.7	2.06	.00	.0024	132.48	.0023	-31.34	302.72
SET 61	575.34	586.59	13	10	30.7	90.58	.0039	-33.74	.0002	118907.4	2.54	.01	-.0019	223.31	.0027	-31.33	302.44
SET 51	581.99	593.24	13	10	37.4	90.00	.0038	-30.20	.0002	118453.0	2.65	12.62	-.0031	242.34	-.0011	-31.30	300.90
SET 72	781.83	793.08	13	13	57.2	94.62	.0039	-30.09	.0001	146132.2	2.45	-.00	-.0034	239.59	-.0004	-30.45	253 9'
RISE 42	791.06	802.31	13	14	6.5	254.99	.0040	-28.93	-.0000	146683.6	1.76	5.39	.0028	121.89	-.0021	-30.42	251.72
EXTM 11	833.66	844.91	13	14	49.1	1.66	.0041	-32.48	.0001	150115.7	2.03	22.29	.0000	181.51	.0038	-30.27	241.56
SET 11	1089.82	1101.07	13	19	5.2	65.05	.0041	-30.88	.0001	182017.3	2.10	-.00	-.0025	231.09	.0024	-29.52	179.81
EXTM 42	1216.26	1227.51	13	21	11.7	359.92	.0042	-29.01	.0000	189313.8	1.74	83.79	.0000	.68	-.0330	-29.22	149.06
RISE 51	1352.06	1363.31	13	23	27.5	270.00	.0041	-28.27	-.0000	208143.6	1.31	11.87	.0033	115.85	-.0014	-28.93	115.90
RISE 72	1506.07	1517.32	14	2	1.5	265.69	.0041	-28.39	-.0000	224537.4	1.20	-.00	.0036	118.69	-.0005	-28.64	78.15
RISE 61	1597.22	1608.47	14	3	32.6	298.80	.0042	-29.65	-.0000	233159.8	1.29	.01	.0024	130.40	.0027	-28.48	55.76
SET 42	1639.49	1650.74	14	4	14.9	105.00	.0041	-27.48	.0001	236588.3	1.86	4.50	-.0029	239.27	-.0022	-28.41	45.36
EXTM 51	1711.35	1722.60	14	5	26.8	.02	.0042	-28.37	.0000	237381.1	1.51	87.37	.0000	180.47	.0509	-28.30	27.67
EXTM 61	1843.29	1854.54	14	7	38.7	.62	.0042	-29.44	.0000	253240.0	1.46	20.32	-.0000	180.57	.0039	-28.10	359.15
EXTM 72	1882.41	1893.66	14	8	17.8	.18	.0042	-28.55	.0000	252962.6	1.49	69.36	-.0000	180.46	.0105	-28.09	349.49
RISE 11	2029.20	2040.45	14	10	44.6	292.77	.0042	-28.74	-.0000	271424.0	1.10	.00	.0027	126.05	.0024	-27.85	309.24
SET 51	2070.46	2081.71	14	11	25.9	90.00	.0041	-27.29	.0001	273614.8	1.76	11.49	-.0034	245.07	-.0014	-27.80	299.04
SET 61	2089.11	2100.36	14	11	44.5	62.33	.0042	-28.75	.0001	276433.9	1.65	-.00	-.0024	230.94	.0027	-27.78	294.42
SET 72	2256.71	2267.96	14	14	32.1	94.13	.0041	-27.39	.0001	290113.9	1.74	-.00	-.0036	242.32	-.0005	-27.58	252.95
RISE 42	2257.07	2268.32	14	14	32.5	255.00	.0041	-26.82	-.0000	289687.7	1.01	4.10	.0029	120.20	-.0022	-27.58	252.86
EXTM 11	2297.90	2309.15	14	15	13.3	.41	.0042	-28.65	.0000	290610.8	1.33	26.14	-.0000	180.40	.0041	-27.53	242.75
SET 11	2566.33	2577.58	14	19	41.7	67.94	.0042	-28.02	.0000	314209.6	1.56	.01	-.0027	234.90	.0024	-27.25	176.20
EXTM 42	2675.94	2687.19	14	21	31.3	359.98	.0042	-26.99	.0000	316165.3	1.23	81.77	-.0000	.18	-.0203	-27.15	149.80
RISE 51	2806.54	2817.79	14	23	41.9	270.00	.0041	-26.61	-.0000	330734.0	.84	11.21	.0034	114.29	-.0015	-27.03	116.58
RISE 72	2959.77	2971.02	15	2	15.2	265.99	.0041	-26.74	-.0000	342919.5	.77	-.00	.0037	117.02	-.0005	-26.90	78.51
RISE 61	3039.29	3050.54	15	3	34.7	296.26	.0042	-27.60	-.0000	348620.4	.85	.00	.0025	127.37	.0027	-26.83	58.69
SET 42	3094.53	3105.78	15	4	29.9	105.00	.0041	-26.17	.0000	351937.3	1.45	3.70	-.0030	240.31	-.0023	-26.80	44.90
EXTM 51	3160.26	3171.51	15	5	35.7	359.19	.0042	-25.77	.0000	350446.0	1.11	88.74	.0022	145.20	.1401	-26.76	28.48
EXTM 61	3292.22	3303.47	15	7	47.6	.25	.0042	-27.60	.0000	363174.5	1.11	22.16	-.0000	180.24	.0040	-26.67	359.51
EXTM 72	3331.96	3343.21	15	8	27.4	.10	.0042	-26.97	.0000	362233.0	1.11	70.93	-.0000	180.27	.0114	-26.65	349.58
RISE 11	3469.95	3481.20	15	10	45.4	291.26	.0042	-27.20	-.0000	377388.5	.80	.00	.0028	124.02	.0024	-26.57	311.07
SET 51	3519.56	3530.81	15	11	35.0	90.00	.0042	-26.17	.0000	379488.0	1.50	11.04	-.0034	246.12	-.0015	-26.54	298.65
SET 61	3544.97	3556.22	15	12	.4	64.20	.0042	-27.22	.0000	382417.4	1.41	-.00	-.0025	233.19	.0027	-26.53	292.29
RISE 42	3700.87	3712.12	15	14	56.3	255.00	.0042	-25.87	-.0000	392951.8	.93	3.52	.0030	119.45	-.0023	-26.44	253.16
SET 72	3702.48	3713.73	15	15	7.9	93.94	.0042	-26.30	.0000	393465.9	1.68	-.00	-.0037	243.43	-.0005	-26.44	252.76
EXTM 11	3741.24	3752.49	15	15	8.7	.19	.0043	-27.23	.0000	393636.9	1.46	27.56	.0000	180.19	.0043	-26.42	242.97
IMPACT	3765.44	3776.69	15	15	40.8												
IMPC 42	3765.44	3776.69	15	15	40.8	271.35	.0043	-25.94	-.0000	397246.0	1.70	15.64	.0033	111.00	-.0021	-26.40	236.79
IMPC 11	3765.44	3776.69	15	15	40.8	6.45	.0044	-27.21	.0000	396049.6	2.09	27.29	-.0004	186.46	.0044	-26.40	236.79

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ARC
INJECTION	.00	11.25	13	0	55.410	6617.941	15.3491	303.6814	10.93628	5.9322	121.9690	127.7513
SEPARATION	1.20	12.45	13	0	56.610	6719.572	11.7814	309.0973	10.85082	9.2496	123.3154	133.4681
RETRO	3.20	14.45	13	0	58.610	6985.463	5.8599	317.4599	10.64069	14.4933	124.6791	142.3320
EXIT SHA	20.98	32.23	13	1	16.391	11936.416	-24.1804	1.0868	8.11718	42.0340	116.2678	190.4168
IMPACT	3765.44	3776.69	15	15	40.847	399010.934	-26.4001	236.7926	2.22000	67.5782	279.4506	284.7985

MAR 13, 1966
115 DEGREES

SURVEYOR VIEW PERIODS

GHA	173.1365					EPS	119.0655							LOM	259.3593
SX	.417222	SY	-.801466	SZ	-.428460	DAO	+25.36985	RAO	297.50027	RN	403239.707	LAT	28.310600	LON	279.481800
C3	-.876817	ECC	.985604	SLR	12995.118	RCA	6544.6650	LTA	+20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.434792	NSY	-.793395	NSZ	-.426004	C3M	1.5305	VIM	2.6776	ZAE	142.556	B.T	.0000	B.R	-.0000
LATE	5.5720	LONE	4.1426	LATS	-1.3716	LONS	245.2064	LATI	1.4872	LONI	326.8411	RSM	148.6472	TTAN	6.2444

LAUNCH DATE MAR 13,1966 BASE AZM 87.0 TF 63.296 ARRIVAL DATE MAR 16 1966 14 57 33.6

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
87.00	23 35 35.8	27.2	25.96	307.20	-14.51	115.06	101.93	23 46 50.8	6650.0	10.91	-7.20

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
				PRORE IN EARTH'S SHADOW														
INJECTION		.00	11.25	13	23	46.8												
SEPARATION		1.20	12.45	13	23	48.0												
RETRO		3.20	14.45	13	23	50.0												
RISE	72	6.81	18.06	13	23	53.7	27.64	-1.4293	81.09	.0116	2460.7	-4.02	-.00	.0914	355.88	.2019	13.14	344.15
RISE	51	11.99	23.24	13	23	58.8	64.39	-.1419	41.87	-.0243	4566.6	-4.14	.01	.1000	317.82	.0419	2.04	4.65
EXTM	72	12.42	23.67	13	23	59.3	292.26	-.0357	19.32	-.1217	3167.5	6.46	17.97	-.0000	66.66	.1328	1.23	6.04
EXIT	SHA	23.41	34.66	14	0	10.3												
EXIT	72	23.41	34.66	14	0	10.3	280.09	-.0107	-11.84	-.0174	8057.1	7.31	11.43	-.0087	100.56	.0188	-13.03	30.91
EXIT	51	23.41	34.66	14	0	10.3	353.22	-.0516	2.63	-.0453	5216.1	4.74	60.89	.0329	14.02	.1238	-13.03	30.91
EXTM	51	28.04	39.29	14	0	14.9	342.08	-.0310	-7.03	-.0261	6674.1	5.59	64.66	-.0000	45.51	.0943	-16.35	37.29
EXTM	72	65.20	76.45	14	0	52.0	271.03	-.0002	-24.83	-.0016	22956.3	4.99	4.24	.0000	114.51	.0016	-25.67	57.86
RISE	42	69.68	80.93	14	0	56.5	103.06	-.0047	-17.76	-.0031	24751.5	4.28	.00	.0055	248.08	.0002	-26.05	58.68
EXTM	51	79.42	90.67	14	1	6.3	319.27	-.0002	-25.69	-.0013	22896.8	4.61	53.45	.0000	99.08	.0021	-26.68	59.89
EXTM	42	127.42	138.67	14	1	54.3	97.93	.0005	-23.03	-.0007	39201.2	4.01	7.00	-.0000	246.68	-.0008	-28.02	59.34
SET	42	201.40	212.65	14	3	8.2	105.00	.0023	-24.55	-.0002	56034.7	3.60	2.71	-.0016	241.59	-.0014	-28.39	49.77
RISE	61	214.24	225.49	14	3	21.1	303.68	.0033	-33.24	.0002	58944.1	3.14	.00	.0019	135.89	.0020	-28.39	47.62
EXTM	51	318.85	330.10	14	5	5.7	.03	.0037	-28.48	.0000	72362.6	2.90	87.26	.0000	180.71	.0607	-28.26	27.65
EXTM	61	477.19	488.44	14	7	44.0	2.57	.0040	-31.23	.0001	102070.0	2.51	18.49	.0000	182.31	.0036	-27.91	353.32
EXTM	72	512.72	523.97	14	8	19.6	.42	.0041	-29.04	.0001	103569.2	2.44	68.86	-.0000	181.02	.0098	-27.83	345.28
RISE	11	676.17	687.42	14	11	3.0	293.39	.0040	-29.36	-.0000	1321.4.6	1.91	.00	.0026	126.88	.0023	-27.52	307.42
SET	51	705.98	717.23	14	11	32.8	90.00	.0039	-26.45	.0001	134189.6	2.52	11.15	-.0032	245.87	-.0013	-27.46	300.41
SET	61	723.72	734.97	14	11	50.6	61.52	.0040	-29.40	.0001	138315.2	2.40	-.00	-.0022	229.98	.0027	-27.43	296.22
SET	72	900.18	911.43	14	14	47.0	94.03	.0040	-26.83	.0001	160109.8	2.37	-.00	-.0035	242.90	-.0005	-27.16	254.18
RISE	42	909.33	920.58	14	14	56.2	255.00	.0040	-25.77	-.0000	140808.8	1.65	3.46	.0029	119.38	-.0022	-27.14	251.98
EXTM	11	949.39	960.64	14	15	36.2	.83	.0042	-29.07	.0000	143139.5	1.93	25.72	-.0000	180.81	.0040	-27.09	242.35
SET	11	1220.13	1231.38	14	20	7.0	67.98	.0041	-27.98	.0001	195728.8	2.05	.00	-.0027	234.96	.0024	-26.75	176.75
EXTM	42	1333.89	1345.14	14	22	.7	359.98	.0042	-26.36	.0000	201254.7	1.69	81.14	-.0000	.16	-.0146	-26.63	149.00
RISE	51	1468.60	1479.85	15	0	15.4	270.00	.0041	-25.86	-.0000	219615.3	1.25	10.92	.0034	113.59	-.0015	-26.50	116.02
RISE	72	1624.02	1635.27	15	2	50.9	266.09	.0041	-26.13	-.0000	235616.2	1.15	-.01	.0036	116.40	-.0005	-26.36	77.87
RISE	61	1702.41	1713.66	15	4	9.3	296.01	.0041	-27.39	-.0000	242850.0	1.24	.00	.0025	127.07	.0027	-26.30	58.59
SET	42	1756.50	1767.75	15	5	3.4	105.00	.0041	-25.36	.0000	247402.5	1.83	3.20	-.0029	240.95	-.0022	-26.25	45.28
EXTM	51	1820.45	1831.70	15	6	7.3	358.12	.0042	-26.21	.0000	247185.1	1.47	88.24	.0037	106.10	.0321	-26.20	29.52
EXTM	61	1958.74	1969.99	15	8	25.6	.35	.0042	-27.37	.0000	263139.6	1.43	22.39	.0000	180.34	.0040	-26.10	355.41
EXTM	72	1998.62	2009.87	15	9	5.5	.11	.0042	-26.51	.0000	262989.5	1.42	71.40	-.0000	180.32	.0117	-26.07	349.56
RISE	11	2137.91	2149.16	15	11	24.8	290.91	.0042	-26.83	-.0000	280654.8	1.06	.00	.0028	123.53	.0024	-25.98	311.14
SET	51	2187.13	2198.38	15	12	14.0	90.00	.0041	-25.45	.0000	283515.1	1.74	10.75	-.0034	246.79	-.0015	-25.95	298.97
SET	61	2214.90	2226.15	15	12	41.7	64.63	.0042	-26.86	.0000	286968.3	1.64	-.00	-.0025	233.72	.0027	-25.93	292.10
SET	72	2372.11	2383.36	15	15	19.0	93.83	.0041	-25.66	.0000	299558.7	1.72	-.01	-.0037	244.08	-.0005	-25.84	253.18
RISE	42	2373.18	2384.43	15	15	20.0	255.00	.0041	-25.10	-.0000	299304.8	.99	3.04	.0030	118.84	-.0023	-25.84	252.91
EXTM	11	2413.54	2424.79	15	16	.4	.24	.0042	-26.88	.0000	299844.0	1.30	27.91	-.0000	180.24	.0042	-25.81	242.91
SET	11	2689.63	2700.88	15	20	35.9	69.50	.0042	-26.39	.0000	323817.3	1.55	-.00	-.0028	237.04	.0024	-25.66	174.61
EXTM	42	2792.18	2803.43	15	22	19.0	359.97	.0042	-25.42	.0000	325198.7	1.22	80.21	.0000	.17	-.0179	-25.61	149.01
RISE	51	2922.61	2933.86	16	0	29.5	270.00	.0041	-25.13	-.0000	339665.2	.81	10.63	.0034	112.91	-.0015	-25.55	116.62
RISE	72	3076.58	3087.83	16	3	3.4	266.23	.0042	-25.33	-.0000	351796.0	.72	-.00	.0037	115.59	-.0005	-25.49	78.31
RISE	61	3148.54	3159.79	16	4	15.4	294.61	.0042	-26.20	-.0000	356643.9	.83	.00	.0026	125.34	.0027	-25.46	60.35
SET	42	3210.62	3221.87	16	5	17.5	105.00	.0041	-24.83	.0000	360485.6	1.45	2.88	-.0030	241.37	-.0023	-25.45	44.86
EXTM	51	3273.76	3285.01	16	6	20.6	358.56	.0042	-25.42	.0000	358705.0	1.11	88.66	.0037	76.66	-.0396	-25.43	29.11
EXTM	61	3407.82	3419.07	16	8	34.7	.13	.0042	-26.29	.0000	371417.7	1.11	23.47	-.0000	180.12	.0041	-25.39	359.63
EXTM	72	3447.94	3459.19	16	9	14.8	.07	.0042	-25.68	.0000	370591.2	1.11	72.22	-.0000	180.21	.0122	-25.38	349.60
RISE	11	3581.34	3592.59	16	11	28.2	290.10	.0042	-25.96	-.0000	385554.0	.81	.00	.0029	122.40	.0024	-25.35	312.25
SET	51	3635.78	3647.03	16	12	22.6	90.00	.0042	-24.98	.0000	388105.6	1.53	10.57	-.0035	247.24	-.0015	-25.34	298.62
SET	61	3666.73	3677.98	16	12	53.6	65.60	.0042	-26.01	.0000	391426.8	1.46	.00	-.0026	234.93	.0027	-25.34	290.86
IMPACT		3797.78	3809.03	16	15	4.6												
IMPC	42	3797.78	3809.03	16	15	4.6	250.38	.0043	-24.76	-.0000	401968.4	1.74	-.43	.0030	121.20	-.0025	-25.34	257.83
IMPC	72	3797.78	3809.03	16	15	4.6	88.84	.0043	-25.24	.0000	401431.0	2.51	4.40	-.0039	245.10	-.0004	-25.34	257.83
IMPC	11	3797.78	3809.03	16	15	4.6	345.11	.0044	-26.13	-.0000	399031.5	1.99	27.07	.0009	164.99	.0043	-25.34	257.83

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FTH	AZ	RT ASC
INJECTION		.00	11.25	13	23	46.847	6654.479	25.9903	307.0325	10.90900	-7.2023	101.8518	114.9005
SEPARATION		1.20	12.45	13	23	48.047	6574.209	24.3731	314.1956	10.97204	-3.8300	105.0354	122.3644
RETRO		3.20	14.45	13	23	50.047	6551.846	20.9254	325.6152	10.99089	1.8910	109.6423	134.2854
EXIT	SHA	23.41	34.66	14	0	10.254	11223.289	-13.0265	30.9077	8.37583	40.0380	115.4541	204.6438
IMPACT		3797.78	3809.03	16	15	4.622	401971.039	-25.3425	257.8275	2.22634	69.0360	264.0479	297.7381

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SURVEYOR VIEW PERIODS

GHA	173.1365					EPS	119.2559							IOM	253.2711
SX	.420516	SY	-.799985	SZ	-.428007	DAO	-25.34114	RAO	297.72886	RM	403283.777	LAT	28.310600	LON	279.461800
C3	-.872917	ECC	.985668	SLR	12995.535	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.438017	NSY	-.791878	NSZ	-.425524	C3M	1.5343	VIM	2.6784	ZAE	142.618	B.T	.0000	B.R	-.0000
LATE	5.5851	LONE	4.1217	LATS	-1.3716	LONS	244.9935	LATI	1.5691	LONI	326.8728	RSM	148.6468	TTAN	6.2340

LAUNCH DATE MAR 14,1966 BASE AZM 90.0 TF 63.250 ARRIVAL DATE MAR 16 1966 15 22 45.9

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
90.00	0 2 50.2	27.5	24.74	307.25	-9.27	120.96	104.23	0 14 5.2	6587.4	10.96	-4.60

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PRORE IN EARTH'S SHADOW															
INJECTION	.00	11.25	13	0	14.1												
SEPARATION	1.20	12.45	13	0	15.3												
RETRO	3.20	14.45	13	0	17.3												
RISE 72	6.04	17.29	13	0	20.1	64.93	-.5414	71.87	.1024	2522.0	-5.57	-.00	.1060	343.63	.1662	12.80	339.57
RISE 51	11.64	22.89	13	0	25.7	68.48	-.1247	37.26	-.0273	4809.8	-3.92	-.00	.0981	312.23	.0313	1.03	1.20
EXTM 72	11.74	22.99	13	0	25.8	302.44	-.0578	21.08	-.1410	2772.9	6.03	26.51	-.0000	61.64	.1687	.86	1.49
EXIT SHA	22.08	33.33	13	0	36.2												
EXIT 72	22.08	33.33	13	0	36.2	286.73	-.0129	-12.14	-.0189	7326.3	7.35	17.92	-.0111	100.26	.0208	-12.58	24.97
EXIT 51	22.08	33.33	13	0	36.2	5.77	-.0596	3.94	-.0470	5112.0	4.08	59.80	.0569	348.51	.0994	-12.58	24.97
EXIT 61	22.08	33.33	13	0	36.2	310.95	-.0261	-43.02	.0077	9574.5	7.11	-4.30	-.0047	146.38	-.0201	-12.58	24.97
EXTM 51	29.67	40.92	13	0	43.8	347.15	-.0275	-10.54	-.0203	7392.0	5.52	70.53	-.0000	41.01	.1015	-17.68	34.87
EXTM 72	65.41	76.66	13	1	19.5	276.48	-.0001	-25.44	-.0014	22768.0	4.96	9.20	.0000	114.64	.0014	-25.67	52.75
EXTM 51	81.81	93.06	13	1	35.9	325.74	-.0001	-26.15	-.0011	23516.9	4.54	59.28	.0000	98.41	.0021	-26.74	54.81
RISE 42	85.59	96.84	13	1	39.7	104.72	-.0023	-19.79	-.0019	29517.3	4.24	.00	.0028	245.51	-.0002	-26.92	55.04
EXTM 42	127.17	138.42	13	2	21.3	103.10	.0006	-22.70	-.0007	39811.8	4.00	2.92	-.0000	244.09	-.0009	-27.93	53.94
SET 42	155.84	167.09	13	2	49.9	105.00	.0015	-23.58	-.0004	46543.4	3.83	2.12	-.0008	242.36	-.0011	-28.18	50.92
RISE 61	186.63	197.88	13	3	20.7	304.29	.0031	-33.66	.0002	53462.2	3.31	-.00	.0018	136.55	.0018	-28.29	46.60
EXTM 51	291.50	302.75	13	5	5.6	.05	.0036	-28.47	.0000	67701.3	2.99	87.27	-.0000	180.95	.0035	-28.23	27.64
EXTM 61	453.08	464.33	13	7	47.2	2.76	.0039	-31.33	.0001	98567.2	2.56	18.38	.0000	182.48	.0035	-27.89	353.15
EXTM 72	487.89	499.14	13	8	22.0	.37	.0040	-29.07	.0001	100048.8	2.49	68.84	.0000	180.89	.0038	-27.82	345.33
RISE 11	652.67	663.92	13	11	6.8	293.42	.0040	-29.39	-.0000	129117.6	1.94	.00	.0026	126.91	.0023	-27.50	307.35
SET 51	681.97	693.22	13	11	36.1	90.00	.0039	-26.41	.0001	131788.7	2.55	11.14	-.0032	245.90	-.0013	-27.45	300.47
SET 61	699.70	710.95	13	11	53.8	61.49	.0040	-29.43	.0001	135340.9	2.42	-.00	-.0022	229.94	.0026	-27.42	296.30
SET 72	876.64	887.89	13	14	50.7	94.02	.0039	-26.80	.0001	157446.1	2.38	-.00	-.0035	242.92	-.0005	-27.13	254.22
RISE 42	886.14	897.39	13	15	.2	254.99	.0040	-25.73	-.0000	158200.7	1.67	3.43	.0029	119.34	-.0022	-27.12	251.95
EXTM 11	926.20	937.45	13	15	40.3	.85	.0042	-29.08	.0000	160576.9	1.95	25.71	-.0000	180.83	.0040	-27.06	242.33
SET 11	1197.08	1208.33	13	20	11.2	67.99	.0041	-27.97	.0001	193442.8	2.06	.00	-.0027	234.97	.0024	-26.73	176.76
EXTM 42	1310.95	1322.20	13	22	5.0	359.98	.0042	-26.33	.0000	199071.8	1.70	81.11	-.0000	.15	-.0160	-26.61	149.00
RISE 51	1445.80	1457.05	14	0	19.9	270.00	.0041	-25.83	-.0000	217540.4	1.26	10.90	.0034	113.56	-.0015	-26.47	116.01
RISE 72	1601.29	1612.54	14	2	55.4	266.09	.0041	-26.11	-.0000	233644.8	1.16	-.01	.0036	116.38	-.0005	-26.34	77.85
RISE 61	1679.59	1690.84	14	4	13.7	295.99	.0041	-27.38	-.0000	240915.5	1.25	.00	.0025	127.04	.0027	-26.27	58.60
SET 42	1733.70	1744.95	14	5	7.8	105.00	.0041	-25.32	.0000	245502.1	1.84	3.18	-.0029	240.98	-.0022	-26.23	49.28
EXTM 51	1797.63	1808.88	14	6	11.7	358.10	.0042	-26.19	.0000	245316.3	1.48	88.23	.0037	105.15	.0300	-26.18	29.54
EXTM 61	1936.04	1947.29	14	8	30.1	.35	.0042	-27.36	.0000	261348.5	1.44	22.41	.0000	180.34	.0040	-26.08	355.40
EXTM 72	1975.91	1987.16	14	9	10.0	.11	.0042	-26.48	.0000	261218.8	1.43	71.42	-.0000	180.32	.0117	-26.05	349.56
RISE 11	2115.18	2126.43	14	11	29.3	290.89	.0042	-26.81	-.0000	278946.3	1.07	.00	.0028	123.50	.0024	-25.96	311.15
SET 51	2164.42	2175.67	14	12	18.5	90.00	.0041	-25.42	.0000	281832.0	1.74	10.74	-.0034	246.82	-.0015	-25.92	298.98
SET 61	2192.30	2203.55	14	12	46.4	64.65	.0042	-26.84	.0000	285304.7	1.64	-.00	-.0025	233.75	.0027	-25.91	292.08
SET 72	2349.42	2360.67	14	15	23.5	93.83	.0041	-25.63	.0000	297952.5	1.73	-.01	-.0037	244.10	-.0005	-25.81	253.19
RISE 42	2350.56	2361.81	14	15	24.6	255.00	.0041	-25.07	-.0000	297706.3	.99	3.03	.0030	118.82	-.0023	-25.81	252.91
EXTM 11	2390.91	2402.16	14	16	5.0	.24	.0042	-26.86	.0000	298256.8	1.31	27.93	-.0000	180.24	.0043	-25.79	242.91
SET 11	2666.49	2677.74	14	20	40.6	69.52	.0042	-26.37	.0000	322342.0	1.56	-.00	-.0028	237.07	.0024	-25.64	174.59
EXTM 42	2769.58	2780.83	14	22	23.7	359.97	.0042	-25.40	.0000	323756.2	1.22	80.18	.0000	.18	-.0171	-25.59	149.01
RISE 51	2900.04	2911.29	15	0	34.1	270.00	.0041	-25.11	-.0000	338269.0	.82	10.62	.0034	112.98	-.0015	-25.52	116.61
RISE 72	3054.27	3065.52	15	3	8.8	266.23	.0041	-25.30	-.0000	350371.5	.75	-.00	.0037	115.56	-.0005	-25.45	78.30
RISE 61	3126.29	3137.54	15	4	20.4	294.56	.0042	-26.16	-.0000	355382.0	.87	.00	.0026	125.28	.0027	-25.42	60.40
SET 42	3188.77	3200.02	15	5	22.9	105.00	.0041	-24.78	.0000	359366.1	1.47	2.85	-.0030	241.41	-.0023	-25.30	44.87
EXTM 51	3251.97	3263.22	15	6	26.1	358.91	.0042	-25.36	.0000	357673.1	1.12	88.60	.0037	78.64	-.0433	-25.37	29.15
EXTM 61	3386.95	3398.20	15	8	41.0	.17	.0042	-26.21	.0000	370516.9	1.11	23.55	-.0000	180.17	.0041	-25.31	358.58
EXTM 72	3427.09	3438.34	15	9	21.2	.08	.0042	-25.59	.0000	369686.0	1.10	72.31	-.0000	180.25	.0123	-25.30	349.59
RISE 11	3560.68	3571.93	15	11	34.8	290.00	.0042	-25.85	-.0000	384452.6	.76	.00	.0029	122.26	.0024	-25.24	312.35
SET 51	3615.83	3627.08	15	12	29.9	90.00	.0041	-24.86	.0000	386849.2	1.45	10.52	-.0035	247.35	-.0015	-25.22	298.62
SET 61	3647.56	3658.81	15	13	1.6	65.75	.0042	-25.88	.0000	390044.5	1.35	.01	-.0026	235.11	.0027	-25.21	290.73
IMPACT	3795.02	3806.27	15	15	29.1												
IMPC 42	3795.02	3806.27	15	15	29.1	254.18	.0041	-24.59	-.0000	399143.1	.71	2.15	.0030	118.90	-.0023	-25.16	254.01
IMPC 72	3795.02	3806.27	15	15	29.1	92.66	.0041	-25.03	.0000	399276.4	1.46	.95	-.0037	244.86	-.0005	-25.16	254.01
IMPC 11	3795.02	3806.27	15	15	29.1	348.98	.0042	-25.95	.0000	396405.6	.98	27.96	.0007	168.78	.0042	-25.16	254.01

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	13	0	14.086	6588.104	24.7459	307.2051	10.96130	-4.6005	104.2111	120.9189
SEPARATION	1.20	12.45	13	0	15.286	6547.465	22.8696	314.1969	10.99477	-1.1810	107.1594	128.2085
RETRO	3.20	14.45	13	0	17.286	6586.077	19.0628	329.3306	10.96226	4.5317	111.3374	139.8435
EXIT SHA	22.08	33.33	13	0	36.170	11095.658	-12.5835	24.9733	8.42470	39.5910	115.5717	204.2203
IMPACT	3795.02	3806.27	15	15	29.106	399432.684	-25.1560	254.0107	1.05968	80 699	76.5654	299.0734

SURVEYOR VIEW PERIODS

GHA	173.1365				EPS 119.4384							LOM	247.4317
SX	.423669	SY	-.798555	SZ	-.427567	DAO	-25.31327	RAO	297.94795	RM	403325.730	LAT	28.310600
LON	279.461800	C3	-.873332	ECC	.985661	SLR	12995.486	RCA	6544.6650	LTA	-20.0000	GTA	20.00
TB	475.00000	POL	-.0	NSX	.441141	NSY	-.790393	NSZ	-.425057	C3M	1.5342	VIM	2.6783
ZAE	142.614	B.T	.0000	B.R	-.0000	LATE	5.5977	LONE	4.1011	LATS	-1.3715	LONS	244.7889
LATI	1.5493	LONI	326.8516	RSM	146.6463	TTAN	6.2261	LAUNCH DATE	MAR 14,1966		BASE AZM	93.0	TF 63.269
ARRIVAL DATE	MAR 16 1966 13 46 55.6												

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
93.00	0 18 34.2	27.8	23.53	307.14	-4.90	125.78	106.46	0 29 49.2	6556.6	10.99	-2.43

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PRORE IN EARTH'S SHADOW														
INJECTION	.00	11.25	14	0	29.8												
SEPARATION	1.20	12.45	14	0	31.0												
RETRO	3.20	14.45	14	0	33.0												
RISE 72	5.50	16.75	14	0	35.3	74.19	-.3300	63.01	.0901	2604.2	-6.54	-.00	.1155	334.11	.1312	12.09	335.95
EXTM 72	11.21	22.46	14	0	41.0	313.53	-.0883	21.37	-.1567	2462.2	5.58	35.82	-.0000	56.36	.2183	.14	357.56
RISE 51	11.40	22.65	14	0	41.2	71.74	-.1119	33.03	-.0303	5027.9	-3.69	-.00	.0959	307.23	.1227	-.20	358.14
EXIT SHA	21.59	32.84	14	0	51.4												
EXIT 72	21.59	32.84	14	0	51.4	292.54	-.0149	-13.80	-.0184	6973.3	7.33	23.68	-.0136	101.65	.0208	-13.13	20.73
EXIT 51	21.59	32.84	14	0	51.4	14.59	-.0611	2.50	-.0447	5240.9	3.73	58.42	.0667	331.27	.0662	-13.13	20.73
EXIT 61	21.59	32.84	14	0	51.4	317.44	-.0286	-44.39	.0081	9513.8	6.97	-2.87	-.0037	151.06	-.0217	-13.13	20.73
EXTM 5	31.51	42.76	14	1	1.3	351.20	-.0243	-14.03	-.0158	8156.5	5.46	75.67	-.0000	36.85	.1147	-19.22	32.78
EXT	66.19	77.44	14	1	36.0	281.22	-.0001	-26.38	-.0012	22776.6	4.92	13.52	.0000	115.34	.0013	-26.04	48.46
EXTM	84.19	95.44	14	1	54.0	331.31	-.0001	-26.86	-.0009	24152.9	4.48	64.31	.0000	98.91	.0021	-27.11	50.45
RISE 61	164.16	175.41	14	3	14.0	305.27	.0023	-34.31	.0003	4879	3.45	-.00	.0017	137.59	.0016	-28.38	48.22
EXTM 51	267.76	279.01	14	4	57.6	.05	.0036	-28.65	.0000	635	.08	87.09	.0000	180.85	.0572	-28.38	27.64
EXTM 61	432.76	444.01	14	7	42.6	2.93	.0039	-31.56	.0001	95962	.60	18.15	.0000	162.63	.0035	-28.01	352.99
EXTM 72	467.54	478.79	14	8	17.4	.47	.0040	-29.22	.0001	97107.6	.53	68.68	-.0000	181.14	.0096	-27.93	345.23
RISE 11	633.37	644.62	14	11	3.2	293.55	.0040	-29.51	-.0000	126615.9	1.97	.00	.0026	127.08	.0023	-27.58	307.17
SET 51	661.77	673.02	14	11	31.6	90.00	.0039	-26.47	.0001	129205.2	2.57	11.16	-.0032	245.84	-.0013	-27.53	300.53
SET 61	678.94	690.19	14	11	48.8	61.33	.0040	-29.55	.0001	132712.4	2.45	-.00	-.0022	229.75	.0026	-27.50	296.50
SET 72	856.92	868.17	14	14	46.7	94.03	.0039	-26.86	.0001	155162.9	2.40	-.00	-.0035	242.86	-.0004	-27.20	254.25
RISE 42	866.69	877.94	14	14	56.5	254.99	.0040	-25.77	-.0000	155956.2	1.69	3.45	.0029	119.38	-.0022	-27.18	251.92
EXTM 11	906.84	918.09	14	15	36.7	.90	.0042	-29.16	.0001	158393.6	1.97	25.62	-.0000	180.87	.0040	-27.12	242.29
SET 11	1177.50	1188.75	14	20	7.3	67.94	.0041	-28.02	.0001	191440.4	2.07	.00	-.0027	234.90	.0024	-26.77	176.83
EXTM 42	1291.70	1302.95	14	22	1.5	359.98	.0042	-26.36	.0000	197176.3	1.71	81.14	-.0000	.16	-.0195	-26.64	149.00
RISE 51	1426.67	1437.92	15	0	16.5	270.00	.0041	-25.85	-.0000	215730.2	1.27	10.91	.0034	113.58	-.0015	-26.50	115.99
RISE 72	1582.20	1593.45	15	2	52.0	266.09	.0041	-26.12	-.0000	231913.8	1.17	-.01	.0036	116.39	-.0005	-26.36	77.84
RISE 61	1660.63	1671.88	15	4	10.5	296.02	.0041	-27.40	-.0000	239231.4	1.26	.00	.0025	127.08	.0027	-26.29	58.56
SET 42	1714.56	1725.81	15	5	4.4	105.00	.0041	-25.33	.0000	243823.5	1.84	3.19	-.0029	240.97	-.0022	-26.24	45.29
EXTM 51	1778.51	1789.76	15	6	8.3	358.09	.0042	-26.20	.0000	243666.1	1.48	88.22	.0037	105.52	.0305	-26.19	29.55
EXTM 61	1917.02	1928.27	15	8	26.8	.36	.0042	-27.37	.0000	259760.1	1.45	22.39	.0000	180.35	.0040	-26.09	355.39
EXTM 72	1956.87	1968.12	15	9	6.7	.11	.0042	-26.50	.0000	259641.0	1.43	71.41	-.0000	180.33	.0117	-26.06	349.56
RISE 11	2096.21	2107.46	15	11	26.0	290.90	.0042	-26.61	-.0000	277419.7	1.08	.00	.0028	123.51	.0024	-25.96	311.14
SET 51	2145.37	2156.62	15	12	15.2	90.00	.0041	-25.42	.0000	280313.9	1.75	10.74	-.0034	246.82	-.0015	-25.93	298.98
SET 61	2173.23	2184.48	15	12	43.0	64.64	.0042	-26.84	.0000	283793.1	1.65	-.00	-.0025	233.73	.0027	-25.91	292.09
SET 72	2330.39	2341.64	15	15	20.2	93.83	.0041	-25.63	.0000	296490.1	1.73	-.01	-.0037	244.11	-.0005	-25.81	253.20
RISE 42	2331.58	2342.83	15	15	21.4	255.00	.0041	-25.06	-.0000	296248.6	1.00	3.02	.0030	118.81	-.0023	-25.81	252.90
EXTM 11	2371.94	2383.19	15	16	1.8	.25	.0042	-26.86	.0000	296810.9	1.31	27.93	-.0000	180.25	.0042	-25.79	242.91
SET 11	2647.52	2658.77	15	20	37.3	69.53	.0042	-26.37	.0000	320904.8	1.56	-.00	-.0028	237.07	.0024	-25.63	174.59
EXTM 42	2750.61	2761.86	15	22	20.4	359.97	.0042	-25.39	.0000	322403.4	1.23	80.17	.0000	.18	-.0173	-25.58	149.01
RISE 51	2881.10	2892.35	16	0	30.9	270.00	.0041	-25.09	-.0000	336946.8	.82	10.61	.0034	112.87	-.0015	-25.51	116.61
RISE 72	3035.37	3046.62	16	3	5.2	266.24	.0042	-25.28	-.0000	349313.0	.72	.00	.0037	115.54	-.0005	-25.44	78.29
RISE 61	3107.05	3118.30	16	4	16.9	294.56	.0042	-26.16	-.0000	354151.2	.84	.00	.0026	125.28	.0027	-25.42	60.40
SET 42	3169.25	3180.50	16	5	19.1	105.00	.0041	-24.78	.0000	358010.4	1.43	2.95	-.0030	241.41	-.0023	-25.40	44.87
EXTM 51	3232.24	3243.49	16	6	22.1	358.52	.0042	-25.38	.0000	358220.7	1.11	88.62	.0037	75.13	-.0425	-25.38	29.14
EXTM 61	3366.40	3377.65	16	8	36.2	.12	.0042	-26.25	.0000	368930.7	1.11	23.91	-.0000	180.12	.0041	-25.39	359.63
EXTM 72	3406.33	3417.58	16	9	16.2	.02	.0042	-25.64	.0000	368088.1	1.11	72.27	.0000	180.09	.0094	-25.34	349.65
RISE 11	3539.77	3551.02	16	11	29.6	290.06	.0042	-25.92	-.0000	383001.4	.80	.00	.0029	122.35	.0024	-25.31	312.28
SET 51	3594.33	3605.58	16	12	24.2	90.00	.0042	-24.93	.0000	385513.0	1.51	10.55	-.0035	247.28	-.0015	-25.30	298.43
SET 61	3625.48	3636.73	16	12	55.3	65.65	.0042	-25.97	.0000	388801.8	1.44	.00	-.0026	234.99	.0027	-25.29	290.82
RISE 42	3775.20	3786.45	16	15	25.0	255.00	.0042	-24.73	-.0000	399573.2	1.16	2.82	.0030	118.55	-.0023	-25.29	253.18
SET 72	3776.19	3787.44	16	15	26.0	93.74	.0042	-25.15	.0000	399975.6	1.93	-.00	-.0038	244.59	-.0006	-25.29	252.93
IMPACT	3796.14	3807.39	16	15	46.0												
IMPC 42	3796.14	3807.39	16	15	46.0	260.33	.0043	-24.77	-.0000	401255.9	1.72	6.72	.0032	115.67	-.0023	-25.29	247.84
IMPC 72	3796.14	3807.39	16	15	46.0	98.82	.0043	-25.13	.0000	402505.0	2.49	-4.53	-.0038	243.83	-.0007	-25.29	247.84
IMPC 11	3796.14	3807.39	16	15	46.0	355.24	.0043	-26.09	-.0000	398968.0	2.04	28.54	.0003	175.14	.0045	-25.29	247.84

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	14	0	29.820	6556.609	23.5280	307.1366	10.98718	-2.4313	106.4590	125.7772
SEPARATION	1.20	12.45	14	0	31.020	6344.678	21.4066	313.9641	10.99542	1.0020	109.1874	132.6075
RETRO	3.20	14.45	14	0	33.020	6634.968	17.2836	324.7696	10.92148	6.6754	112.9459	144.2184
EXIT SHA	21.59	32.84	14	0	51.407	11181.670	-13.1295	20.7275	8.39181	39.9134	115.4585	204.7861
IMPACT	3796.14	3807.39	16	15	45.964	402031.105	-25.2944	247.8398	2.22272	68.5336	263.8366	298.1143

SURVEYOR VIEW PERIODS

GHA	173.1365				EPS 119.5871							LOM	242.6756
SX	.426234	SY	-.797383	SZ	-.427265	DAO	-25.29034	RAO	298.12630	RM	403359.680	LAT	28.310600	LON	279.461800
C3	-.874378	ECC	.985644	SLR	12995.378	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.443688	NSY	-.789171	NSZ	-.424477	C3M	1.5339	VIM	2.6783	ZAE	142.592	B.T	.0000	B.R	-.0000
LATE	5.6078	LONE	4.0842	LATS	-1.3714	LONS	244.6221	LATI	1.4373	LONI	324.8277	RSM	148.6460	TTAN	6.2201
LAUNCH DATE		MAR	14,1966		BASE AZM	96.0		TF	63.295			ARRIVAL DATE		MAR	16 1966 16 0 36.6

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
96.00	0 34 36.3	27.9	22.34	306.90	-1.38	129.56	108.64	0 45 51.3	6545.6	11.00	-.68

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEL	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PRDRE IN EARTH'S SHADOW															
INJECTION	.00	11.25	14	0	45.9												
SEPARATION	1.20	12.45	14	0	47.1												
RETRO	3.20	14.45	14	0	49.1												
RISE 72	5.11	16 36	14	0	51.0	78.32	-.2514	55.55	.0672	2686.5	-7.14	-.00	.1216	326.36	.0998	11.15	333.01
EXTM 72	10.85	22.10	14	0	56.7	324.76	-.1219	19.47	-.1645	2237.7	5.16	45.80	-.0000	51.28	.2878	-.92	354.28
RISE 51	11.24	22.49	14	0	57.1	74.44	-.1021	25.08	-.0332	5215.6	-3.46	.00	.0939	302.66	.0155	-1.62	359.46
EXIT SHA	20.94	32.19	14	1	6.8												
EXIT 72	20.94	32.19	14	1	6.8	298.13	-.0178	-15.77	-.0180	6574.2	7.34	29.13	-.0170	103.70	.0207	-13.80	16.63
EXIT 51	20.94	32.19	14	1	6.8	23.00	-.0631	1.12	-.0435	5325.8	3.35	55.14	.0731	316.90	.0400	-13.85	16.63
EXIT 61	20.94	32.19	14	1	6.8	323.75	-.0319	-46.04	.0483	9417.0	6.85	-2.16	-.0026	155.75	-.0235	-13.80	16.63
EXTM 51	33.41	44.66	14	1	19.3	354.45	-.0217	-17.42	-.0123	8914.6	5.41	80.21	-.0000	32.90	.1417	-20.91	31.00
EXTM 72	67.22	78.47	14	1	53.1	285.22	-.0000	-27.58	-.0010	22899.2	4.88	17.11	.0000	116.50	.0011	-26.73	44.93
EXTM 51	86.64	97.89	14	2	12.5	335.94	.0000	-27.83	-.0007	24822.9	4.43	68.46	.0000	100.97	.0020	-27.74	46.82
RISE 61	147.37	158.62	14	3	13.2	306.60	.0026	-35.17	.0003	45173.6	3.62	-.00	.0016	138.99	.0014	-28.70	43.55
EXTM 51	247.88	259.13	14	4	53.7	.06	.0034	-29.03	.0001	59916.2	3.16	86.71	.0000	181.02	.0502	-28.71	27.63
EXTM 61	417.28	428.53	14	7	43.1	3.34	.0039	-31.90	.0002	93261.1	2.63	17.79	.0000	182.98	.0035	-28.26	352.60
EXTM 72	450.72	461.97	14	8	16.6	.51	.0040	-29.51	.0001	94644.5	2.56	68.39	-.0000	181.21	.0095	-28.17	349.19
RISE 11	618.19	629.44	14	11	4.0	293.77	.0040	-29.74	-.0000	124627.4	1.99	.00	.0026	127.38	.0023	-27.77	306.91
SET 51	645.29	656.54	14	11	31.1	90.00	.0038	-26.64	.0001	127068.1	2.59	11.23	-.0032	245.69	-.0013	-27.71	300.56
SET 61	661.37	672.62	14	11	47.2	61.04	.0040	-29.78	.0001	130457.0	2.47	-.00	-.0022	229.42	.0026	-27.68	296.81
SET 72	840.94	852.19	14	14	46.8	94.06	.0039	-27.00	.0001	153291.8	2.41	-.00	-.0035	242.72	-.0004	-27.34	254.26
RISE 42	850.88	862.13	14	14	56.7	254.99	.0040	-25.90	-.0000	154106.1	1.70	3.53	.0029	119.48	-.0022	-27.32	251.89
EXTM 11	891.21	902.46	14	15	37.1	.96	.0042	-29.32	.0001	156621.5	1.98	25.46	-.0000	180.93	.0040	-27.26	242.23
SET 11	1161.30	1172.55	14	20	7.2	67.83	.0041	-28.13	.0001	189764.1	2.08	.00	-.0027	234.75	.0024	-26.87	176.95
EXTM 42	1275.91	1287.16	14	22	1.8	359.94	.0042	-26.45	.0000	195600.9	1.72	81.23	.0000	.35	-.0226	-26.73	149.03
RISE 51	1411.12	1422.37	15	0	17.0	270.00	.0041	-25.93	-.0000	214237.8	1.28	10.94	.0034	113.65	-.0015	-26.58	115.98
RISE 72	1566.63	1577.88	15	2	52.5	266.08	.0041	-26.19	-.0000	230483.9	1.17	-.01	.0036	116.46	-.0005	-26.42	77.84
RISE 61	1645.43	1656.68	15	4	11.3	296.10	.0041	-27.47	-.0000	237863.0	1.27	.00	.0025	127.18	.0027	-25.35	58.48
SET 42	1698.99	1710.24	15	5	4.8	105.00	.0041	-25.39	.0000	242434.8	1.85	3.22	-.0029	240.93	-.0022	-26.30	48.30
EXTM 51	1763.00	1774.25	15	6	8.9	358.09	.0042	-26.26	.0000	242307.0	1.49	88.21	.0036	107.23	.0337	-26.24	20.54
EXTM 61	1901.59	1912.84	15	8	27.4	.38	.0042	-27.42	.0000	258453.9	1.45	22.34	.0000	180.37	.0040	-26.13	359.37
EXTM 72	1941.30	1952.63	15	9	7.2	.12	.0042	-26.54	.0000	258337.7	1.44	71.36	-.0000	180.34	.0117	-26.10	345.55
RISE 11	2080.89	2092.14	15	11	26.7	290.93	.0042	-26.85	-.0000	276164.8	1.08	.00	.0028	123.56	.0024	-26.00	311.10
SET 51	2129.86	2141.11	15	12	15.7	90.00	.0041	-25.46	.0000	279053.6	1.75	10.76	-.0034	246.79	-.0015	-25.96	298.99
SET 61	2157.55	2168.80	15	12	43.4	64.60	.0042	-26.88	.0000	282527.3	1.65	-.00	-.0025	233.68	.0027	-25.94	292.24
SET 72	2314.90	2326.15	15	15	20.8	93.83	.0041	-25.65	.0000	295276.0	1.74	-.01	-.0037	244.08	-.0005	-25.84	253.20
RISE 42	2316.12	2327.37	15	15	22.0	255.00	.0041	-25.08	-.0000	295035.2	1.00	3.04	.0030	118.83	-.0023	-25.84	252.90
EXTM 11	2356.51	2367.76	15	16	2.4	.26	.0042	-26.39	.0000	295613.0	1.32	27.90	-.0000	180.26	.0042	-25.81	248.89
SET 11	2632.99	2643.24	15	20	37.8	89.51	.0042	-26.38	.0000	319809.5	1.57	-.00	-.0028	237.05	.0024	-25.64	174.61
EXTM 42	2735.15	2746.40	15	22	21.0	359.97	.0042	-25.40	.0000	321271.6	1.23	80.18	.0000	.19	-.0182	-25.59	149.01
RISE 51	2865.67	2876.92	16	0	31.5	270.00	.0041	-25.10	-.0000	339838.2	.83	10.61	.0034	112.87	-.0015	-25.52	116.61
RISE 72	3019.94	3031.19	16	3	5.8	266.24	.0042	-25.28	-.0000	348233.9	.72	.00	.0037	115.54	-.0005	-25.44	78.28
RISE 61	3091.62	3102.87	16	4	17.5	294.96	.0042	-26.16	-.0000	353075.3	.84	.00	.0026	125.28	.0027	-25.42	60.39
SET 42	3153.79	3165.04	16	5	19.6	105.00	.0041	-24.77	.0000	356935.5	1.45	2.85	-.0030	241.42	-.0023	-25.40	44.87
EXTM 51	3216.80	3228.05	16	6	22.7	358.52	.0042	-25.37	.0000	355148.1	1.11	88.61	.0037	74.93	-.0430	-25.38	29.14
EXTM 61	3351.00	3362.25	16	8	36.8	.13	.0042	-26.24	.0000	367858.8	1.11	23.52	-.0000	180.13	.0041	-25.34	355.62
EXTM 72	3390.91	3402.16	16	9	16.8	.02	.0042	-25.63	.0000	367013.6	1.11	72.28	.0000	180.09	.0171	-25.33	349.65
RISE 11	3524.32	3535.57	16	11	30.2	290.05	.0042	-25.91	-.0000	381909.3	.80	.00	.0029	122.33	.0024	-25.30	318.29
SET 51	3578.91	3590.16	16	12	24.8	90.00	.0042	-24.92	.0000	384408.2	1.51	10.54	-.0035	247.29	-.0015	-25.29	298.63
SET 61	3610.13	3621.38	16	12	56.0	65.66	.0042	-25.96	.0000	387687.8	1.43	.01	-.0026	235.01	.0027	-25.28	290.81
RISE 42	3759.97	3771.22	16	15	25.8	255.00	.0042	-24.71	-.0000	398131.8	1.03	2.81	.0030	118.53	-.0021	-25.26	253.18
SET 72	3760.93	3772.18	16	15	26.8	93.73	.0042	-25.13	.0000	398572.0	1.79	-.00	-.0038	244.61	-.0006	-25.26	252.94
IMPACT	3797.69	3808.94	16	16	3.5												
IMPC 42	3797.69	3808.94	16	16	3.5	264.57	.0043	-24.77	-.0000	400940.5	1.71	9.87	.0032	113.44	-.0022	-25.27	248.99
IMPC 11	3797.69	3808.94	16	16	3.5	359.55	.0044	-26.07	-.0000	398981.3	2.07	28.72	.0000	179.54	.0045	-25.27	248.99
EXTM 11	3798.78	3810.03	16	16	4.6	359.84	.0044	-26.07	-.0000	399118.1	2.16	28.72	.0000	179.83	.0045	-25.27	243.31

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	14	0	45.854	6545.607	22.3383	306.9026	10.99640	-.6838	108.6387	129.5688
SEPARATION	1.20	12.45	14	0	47.054	6559.855	19.9828	313.5738	10.98425	2.7481	111.1582	136.5340
RETRO	3.20	14.45	14	0	49.054	6607.258	15.5752	324.0291	10.87834	8.3661	114.5146	147.4875
EXIT SHA	20.94	32.19	14	1	6.790	11168.325	-13.8014	16.6276	8.39682	39.8727	115.5112	204.9364
IMPACT	3797.69	3808.94	16	16	3.544	4020042.074	-25.2741	243.5922	2.22195	68.4904	264.0418	298.2737

MAR 14, 1966
96 DEGREES

[illegible]

[illegible header block]

ARRIVAL DATE MAR 16 1966 16 21 9.6

[illegible]	[illegible]	[illegible]	INJ LAT	INJ LONG	[illegible]	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99 [illegible]	[illegible]	[illegible]	21.17	306.56	[illegible]	132.43	110.79	0 58 39.9	6545.6	11.00	.70

EVNT STA	TFI	TFL	DAY HR MIN	HA	DHA	DEC	DDF	RNG	DRW	ELE	DEL	AZI	DAZ	LAT	LONG
			ON RE IN EARTH'S SHADOW												
INJECTION	[illegible]	11.25	14 0 58.7												
SEPARATION	[illegible]	12.45	14 0 59.9												
RETRO	[illegible]	14.45	14 1 1.9												
RISE 7[illegible]	[illegible]	[illegible]	14 1 [illegible]	6[illegible].77	-.2100	49.[illegible]9	.0410	2761.7	-7.51	-.00	.1255	319.79	.0719	10.04	330.57
EXTM 7[illegible]	[illegible]	[illegible]	14 1 [illegible]	335.35	-.1916	15.26	-.1033	2089.5	4.87	55.32	-.0000	46.53	.3953	-2.29	351.56
RISE 5[illegible]	[illegible]	[illegible]	14 1 [illegible]	76.79	-.0941	24.16	-.0360	5373.9	-3.26	.00	.0920	296.39	.0094	-3.21	353.08
EXIT SHA	[illegible]	31.65	14 1 19.1												
EXIT 7[illegible]	[illegible]	31.65	14 1 19.1	321.25	-.0211	-18.17	-.0170	6253.5	7.34	33.97	-.0208	106.87	.0193	-14.80	13.08
EXIT 5[illegible]	[illegible]	31.65	14 1 19.1	30.10	-.0639	-.84	-.0426	5422.3	3.04	51.77	.0758	305.86	.0204	-14.80	13.08
EXIT 6[illegible]	[illegible]	31.65	14 1 19.1	329.40	-.0391	-47.82	.0083	9395.7	6.73	-2.15	-.0015	160.00	-.0250	-14.80	13.08
EXTM 51	[illegible].20	46.53	14 1 33.9	357.04	-.0196	-20.72	-.0097	9640.2	5.34	84.29	-.0000	29.05	.2086	-22.72	29.49
EXTM 7[illegible]	[illegible].52	76.97	14 2 7.3	288.51	.0000	-28.98	-.0008	23083.2	4.84	19.98	.0000	118.04	.0008	-27.68	42.06
RISE 61	[illegible]	[illegible]	14 3 [illegible]	308.24	.0024	-34.19	.0004	42750.6	3.72	-.00	.0015	140.66	.0013	-29.26	41.70
EXTM 5[illegible]	231.67	242.92	14 4 50.3	.12	.0033	-29.50	.0001	56905.5	3.23	86.13	-.0000	181.52	.0427	-29.21	27.58
EXTM 61	405.17	416.42	14 7 41.8	3.73	.0039	-32.35	.0002	91462.0	2.66	17.33	.0000	183.30	.0034	-28.63	352.24
EXTM 72	437.52	448.77	14 8 16.2	.60	.0040	-29.91	.0001	92698.9	2.58	67.98	-.0000	181.39	.0092	-28.53	345.11
RISE 11	606.68	617.93	14 11 5.3	294.09	.0040	-30.04	.0000	123114.5	2.01	.00	.0026	127.79	.0023	-28.05	306.56
SET 51	632.15	643.40	14 11 30.8	90.00	.0038	-26.90	.0001	125347.0	2.60	11.33	-.0032	245.44	-.0013	-27.98	300.63
SET 61	646.63	657.88	14 11 45.3	6[illegible].65	.0039	-30.08	.0001	128949.1	2.48	-.00	-.0022	228.96	.0026	-27.95	297.24
SET 72	828.28	839.53	14 14 46.9	94.10	.0039	-27.[illegible]	.0001	151807.1	2.42	-.00	-.0035	242.51	-.0004	-27.56	254.26
RISE 42	838.29	849.54	14 14 57.0	254.99	.0040	-2[illegible].10	-.0000	152623.9	1.71	3.65	.0028	119.63	-.0022	-27.54	251.86
EXTM 11	878.89	890.14	14 15 37.6	1.04	.0041	-29.55	.0001	155232.7	1.99	25.23	-.0000	181.00	.0040	-27.46	242.15
SET 11	1148.04	1159.29	14 20 6.7	67.66	.0041	-28.30	.0001	168392.1	2.09	.00	-.0027	234.53	.0024	-27.02	177.13
EXTM 42	1263.41	1274.66	14 22 2.1	359.94	.0042	-26.59	.0000	194357.6	1.72	81.37	.0000	.39	-.0235	-26.87	149.04
RISE 51	1398.72	1409.97	15 0 17.4	270.00	.0041	-26.05	-.0000	213051.5	1.29	10.99	.0034	113.76	-.0015	-26.70	115.97
RISE 72	1554.18	1565.43	15 2 52.8	266.00	.0041	-26.29	-.0000	229348.1	1.18	-.01	.0036	116.57	-.0005	-26.53	77.85
RISE 61	1633.55	1644.80	15 4 12.2	293.22	.0041	-27.57	-.0000	236803.3	1.27	.00	.0025	127.33	.0027	-26.45	58.35
SET 42	1686.56	1697.81	15 5 5.2	105.00	.0041	-25.48	.0000	241332.9	1.85	3.28	-.0029	240.86	-.0022	-26.39	45.31
EXTM 51	1750.66	1761.91	15 6 9.3	358.11	.0042	-26.35	.0000	241237.4	1.49	88.20	.0036	110.10	.0391	-26.33	29.53
EXTM 61	1889.30	1900.55	15 8 28.0	.41	.0042	-27.51	.0000	257431.3	1.46	22.25	.0000	180.39	.0040	-26.21	355.35
EXTM 72	1929.02	1940.27	15 9 7.7	.13	.0042	-26.62	.0000	257312.3	1.44	71.29	-.0000	180.36	.0116	-26.17	345.55
RISE 11	2068.78	2080.03	15 11 27.4	291.00	.0042	-26.92	-.0000	275188.6	1.08	.00	.0028	123.65	.0024	-26.06	311.03
SET 51	2117.46	2128.71	15 12 16.1	90.00	.0041	-25.51	.0000	278060.4	1.76	10.78	-.0034	246.74	-.0015	-26.02	298.99
SET 61	2144.86	2156.11	15 12 43.5	64.53	.0042	-26.94	.0000	281518.5	1.66	-.00	-.0025	233.59	.0027	-26.00	292.22
SET 72	2302.55	2313.80	15 15 21.2	93.84	.0041	-25.70	.0000	294324.7	1.74	-.01	-.0037	244.03	-.0005	-25.88	253.20
RISE 42	2303.77	2315.02	15 15 22.4	255.00	.0041	-25.13	-.0000	294081.2	1.00	3.07	.0030	118.87	-.0023	-25.88	252.89
EXTM 11	2344.21	2355.46	15 16 2.9	.28	.0042	-26.94	.0000	294678.6	1.32	27.85	-.0000	180.28	.0042	-25.86	242.88
SET 11	2619.48	2630.73	15 20 38.1	69.48	.0042	-26.42	.0000	318901.0	1.57	-.00	-.0028	[illegible]7.01	.0024	-25.68	174.64
EXTM 42	2722.78	2734.03	15 22 21.4	359.97	.0042	-25.42	.0000	320388.4	1.23	80.20	.0000	.20	-.0184	-25.61	149.01
RISE 51	2853.31	2864.56	16 0 32.0	270.00	.0041	-25.12	-.0000	334975.2	.83	10.62	.0034	112.89	-.0015	-25.54	116.60
RISE 72	3107.[illegible]	[illegible]	16 3 6.2	266.23	.0041	-25.30	-.0000	347155.4	.76	-.00	.0037	115.56	-.0005	-25.45	78.29
RISE 61	3179.43	3190.68	16 4 18.1	294.57	.0042	-26.17	-.0000	352329.8	.84	.00	.0026	125.29	.0027	-25.42	60.38
SET 42	[illegible]41.55	[illegible]52.80	16 5 20.2	105.00	.0041	-24.78	.0000	356183.9	1.45	2.85	-.0030	241.41	-.0023	-25.40	44.87
EXTM 51	[illegible]04.56	3315.81	16 6 23.2	358.52	.0042	-25.37	.0000	354393.7	1.10	88.61	.0037	74.99	-.0429	-25.38	29.14
EXTM 61	3338.76	3350.01	16 8 37.4	.14	.0042	-26.24	.0000	367095.7	1.11	23.52	-.0000	180.14	.0041	-25.34	355.61
EXTM 72	3378.64	3389.89	16 9 17.3	.03	.0042	-25.63	.0000	366244.6	1.11	72.28	[illegible]000	180.10	.0099	-25.33	345.65
RISE 11	3512.[illegible]2	3523.27	16 11 30.7	290.05	.0042	-25.91	-.0000	381117.2	.79	.00	.[illegible]329	122.33	.0024	-25.29	312.29
SET 51	3566.61	3577.86	16 12 25.3	90.00	.0042	-24.91	.0000	383602.0	1.50	10.54	-.0035	247.30	-.[illegible]015	-25.28	298.63
SET 61	3597.86	3609.11	16 12 56.5	65.67	.0042	-25.95	.0000	386872.1	1.42	.01	-.0026	235.02	.0027	-25.27	290.80
RISE 42	3747.75	3759.00	16 15 26.4	255.00	.0042	-24.69	-.0000	397196.0	.97	2.80	.0030	118.52	-.0023	-25.25	253.18
SET 72	3748.68	3759.93	16 15 27.3	93.73	.0042	-25.11	.0000	397579.8	1.73	-.00	-.0038	244.63	-.0005	-25.25	252.94
EXTM 11	3786.91	3798.16	16 16 5.6	359.88	.0043	-26.05	-.0000	397784.1	1.63	28.74	.0000	179.88	.0044	-25.25	243.27
IMPACT	3798.31	3809.56	16 16 17.0												
IMPC 42	3798.31	3809.56	16 16 17.0	267.81	.0043	-24.77	-.0000	400701.3	1.71	12.32	.0033	111.77	-.0022	-25.26	240.35
IMPC 11	3798.31	3809.56	16 16 17.0	2.[illegible]	.0044	-26.05	-.0000	399012.3	2.08	28.68	-.0002	182.91	.0045	-25.26	240.35

EVNT STA	TFI	TFL	DAY HR MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	14 0 58.665	6545.640	21.1746	306.5559	10.99634	.6956	110.7784	132.4275
SEPARATION	1.20	12.45	14 0 59.865	6578.906	18.5926	313.0629	10.96820	4.1222	113.0971	139.2363
RETRO	3.20	14.45	14 1 1.865	6736.554	13.9135	323.1696	10.83816	9.6811	116.0766	149.8434
EXIT SHA	20.40	31.65	14 1 19.067	11151.863	-14.796[illegible]	13.0780	8.40308	39.8227	115.6125	204.0644
IMPACT	3798.31	3809.56	16 16 16.976	402109.027	-25.2586	240.347[illegible]	2.21972	68.2534	264.3634	298.3960

EVNT	STA	TFI	TFL	DAY	HR	MIN												
			PROBE	IN	PARTICLE	SHADOW												
INJECTION			11.25	14	1	8.9												
SEPARATION		1.2	12.45	14	1	10.1												
RETRO		3.2	14.45	14	1	12.1												
RISE	72	4.61	15.86	14	1	13.5	92.49	-.1451	47.49	.0219	2929.2	-7.71	.00	1274	111.97	.1489	8.80	128.30
EXTM	72	10.49	21.74	14	1	19.4	144.77	-.1728	9.08	-.1549	20071.9	6.46	67.22	-.0001	42.08	.9952	-1.80	349.29
RISE	51	11.08	22.33	14	1	20.0	74.88	-.0480	21.79	-.0348	9930.5	-3.08	.00	-.0001	294.14	.1139	-4.93	190.97
EXIT	SMA	19.97	31.22	14	1	28.8												
EXIT	72	19.97	31.22	14	1	28.8	327.93	-.0248	-21.51	-.0154	6002.1	7.14	38.09	-.0248	111.20	.0198	16.09	0.00
EXIT	51	19.97	31.22	14	1	28.8	36.18	-.0442	-3.21	-.0419	9520.9	2.80	48.82	-.0764	296.94	.1088	-16.09	0.00
EXIT	61	19.97	31.22	14	1	28.8	334.48	-.0383	-49.48	.0031	9433.8	6.42	-2.48	-.0006	141.85	-.0281	16.09	0.00
EXTM	51	35.27	46.52	14	1	44.2	1.22	-.0204	-23.03	-.0090	9744.0	5.30	87.97	-.0154	337.52	.2790	24.10	20.94
EXTM	72	69.38	80.63	14	2	18.3	291.17	.0000	-30.55	-.0005	23287.0	4.83	22.21	.0000	119.84	.0034	-28.82	30.72
RISE	61	130.80	142.05	14	3	19.7	313.88	.0022	-37.27	.0005	41529.8	1.78	-.00	.0015	142.48	.0011	-30.04	39.40
EXTM	51	218.66	229.91	14	4	47.5	.21	.0032	-30.35	.0001	54438.9	3.29	85.54	-.0000	182.24	.0147	-29.87	27.90
EXTM	61	396.21	407.46	14	7	45.1	4.18	.0039	-32.88	.0002	90134.5	2.68	16.78	.0000	183.66	.0034	-29.10	351.83
EXTM	72	427.28	438.53	14	8	16.2	.72	.0040	-30.41	.0001	91178.1	2.61	67.48	-.0000	181.81	.0090	-28.97	349.01
RISE	11	598.23	609.48	14	11	7.1	294.48	.0040	-30.42	.0000	124990.5	2.02	.20	.0026	120.29	.0023	-28.40	306.19
SET	51	621.78	633.03	14	11	30.7	90.00	.0038	-27.23	.0001	173964.7	2.62	11.46	-.0032	245.13	-.0015	-28.33	300.67
SET	61	634.25	645.50	14	11	43.1	60.15	.0039	-30.46	.0002	126919.0	2.49	-.00	-.0021	228.38	.0028	-28.29	297.74
SET	72	818.38	829.63	14	14	47.7	94.14	.0039	-27.48	.0001	150626.7	2.43	-.00	-.0035	242.23	-.0004	-27.83	254.23
RISE	42	828.40	839.65	14	14	57.3	254.99	.0040	-26.36	-.0000	151431.4	1.72	3.81	.0028	119.84	-.0021	-27.81	251.84
EXTM	11	869.32	880.57	14	15	38.2	1.14	.0041	-29.83	.0001	154144.8	2.00	24.95	-.0000	181.09	.0040	-27.72	242.05
SET	11	1137.31	1148.56	14	20	6.2	67.46	.0041	-28.51	.0001	187255.3	2.09	-.00	-.0026	234.25	.0024	-27.22	177.35
EXTM	42	1253.54	1264.79	14	22	2.4	359.93	.0042	-26.78	.0000	193347.3	1.73	81.96	.0000	.44	-.0246	-27.09	149.09
RISE	51	1388.94	1400.19	15	0	17.8	270.00	.0041	-26.20	-.0000	212082.9	1.29	11.05	.0034	113.91	-.0019	-26.86	118.96
RISE	72	1544.32	1555.57	15	2	53.2	266.04	.0041	-26.43	-.0000	228413.9	1.18	-.01	.0036	116.70	-.0009	-26.66	77.87
RISE	61	1424.42	1435.67	15	4	13.3	296.38	.0041	-27.71	-.0000	235952.9	1.27	.00	.0025	127.52	.0027	-26.57	98.18
SET	42	1676.73	1687.98	15	5	5.6	105.00	.0041	-25.59	.0000	240420.8	1.86	3.35	-.0029	240.77	-.0022	-26.51	48.32
EXTM	51	1740.97	1752.22	15	6	9.8	358.13	.0042	-26.46	.0000	240357.3	1.49	88.17	.0035	113.82	.0498	-26.45	29.90
EXTM	61	1879.64	1890.89	15	8	28.5	.44	.0042	-27.61	.0000	256587.9	1.46	22.15	.0000	180.42	.0040	-26.31	359.32
EXTM	72	1919.27	1930.52	15	9	8.1	.14	.0042	-26.72	.0000	256459.3	1.44	71.18	-.0000	180.38	.0116	-26.27	348.94
RISE	11	2059.34	2070.59	15	11	28.2	291.08	.0042	-27.01	-.0000	274378.8	1.09	.00	.0028	123.77	.0024	-26.14	310.94
SET	51	2107.65	2118.90	15	12	16.5	90.00	.0041	-25.59	.0000	277222.7	1.76	10.81	-.0034	246.66	-.0015	-26.10	299.00
SET	61	2134.67	2145.92	15	12	43.5	64.43	.0042	-27.03	.0000	280656.1	1.66	-.00	-.0025	233.47	.0027	-26.08	292.32
SET	72	2292.79	2304.04	15	15	21.7	93.85	.0041	-25.77	.0001	293517.2	1.74	-.01	-.0037	243.97	-.0005	-25.99	253.19
RISE	42	2293.99	2305.24	15	15	22.9	255.00	.0041	-25.19	-.0000	293268.4	1.01	3.10	.0030	118.92	-.0023	-25.98	252.89
EXTM	11	2334.51	2345.76	15	16	3.4	.30	.0042	-27.01	.0000	293886.7	1.32	27.78	-.0000	180.30	.0042	-25.98	242.86
SET	11	2609.50	2620.75	15	20	38.4	69.44	.0042	-26.46	.0000	318109.9	1.57	-.00	-.0028	236.95	.0024	-25.72	174.69
EXTM	42	2712.97	2724.22	15	22	21.8	359.97	.0042	-25.46	.0000	319618.6	1.23	80.24	.0000	.21	-.0190	-25.65	149.01
RISE	51	2843.52	2854.77	16	0	32.4	270.00	.0041	-25.14	-.0000	334216.7	.93	10.63	.0034	112.92	-.0019	-25.57	116.60
RISE	72	2997.75	3009.00	16	3	6.6	266.23	.0041	-25.32	-.0000	346408.3	.76	-.00	.0037	115.58	-.0005	-25.48	78.29
RISE	61	3069.73	3080.98	16	4	18.6	294.59	.0042	-26.19	-.0000	351595.2	.84	.00	.0026	125.32	.0027	-25.44	60.36
SET	42	3131.74	3142.99	16	5	20.6	105.00	.0041	-24.79	.0000	355440.9	1.45	2.86	-.0030	241.40	-.0023	-25.42	44.88
EXTM	51	3194.73	3205.98	16	6	23.6	358.51	.0042	-25.39	.0000	353650.0	1.10	88.61	.0037	75.60	-.0412	-25.30	29.15
EXTM	61	3329.01	3340.26	16	8	37.9	.15	.0042	-26.25	.0000	366354.4	1.11	23.51	-.0000	180.15	.0041	-25.19	359.60
EXTM	72	3368.86	3380.11	16	9	17.7	.03	.0042	-25.63	.0000	365498.3	1.11	72.27	.0000	180.10	.0104	-25.33	349.64
RISE	11	3502.25	3513.50	16	11	31.1	290.05	.0042	-25.91	-.0000	380358.6	.79	.00	.0029	122.33	.0024	-25.29	312.29
SET	51	3556.83	3568.08	16	12	25.7	90.00	.0042	-24.90	.0000	382832.8	1.50	10.94	-.0035	247.30	-.0015	-25.28	298.63
SET	61	3588.09	3599.34	16	12	57.0	65.67	.0042	-25.95	.0000	386095.8	1.42	.01	-.0026	235.02	.0027	-25.27	290.80
RISE	42	3738.05	3749.30	16	15	26.9	255.00	.0042	-24.68	-.0000	396304.8	.93	2.79	.0030	118.51	-.0023	-25.24	253.18
SET	72	3738.96	3750.21	16	15	27.8	93.73	.0042	-25.10	.0000	396684.0	1.69	-.00	-.0038	244.64	-.0005	-25.24	252.95
EXTM	11	3777.64	3788.89	16	16	6.5	359.97	.0043	-26.04	.0000	396747.7	1.47	28.75	.0000	179.97	.0042	-25.24	243.18
IMPACT		3800.54	3811.79	16	16	29.4												
IMPC	42	3800.54	3811.79	16	16	29.4	270.82	.0043	-24.78	-.0000	400475.7	1.70	14.61	.0033	110.25	-.0021	-25.24	237.34
IMPC	11	3800.54	3811.79	16	16	29.4	5.90	.0044	-26.04	-.0000	399171.2	2.10	28.50	-.0004	186.03	.0044	-25.24	237.34

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	MT ABC
INJECTION		.00	11.25	14	1	8.879	6551.032	20.0347	306.1287	10.99170	1.7771	112.8948	134.5609
SEPARATION		1.20	12.45	14	1	10.079	6599.061	17.2405	312.4569	10.95123	5.1903	115.0161	141.1899
RETRO		3.20	14.45	14	1	12.079	6779.916	12.3061	322.2359	10.80309	10.6961	117.6465	151.4702
EXIT	SMA	19.97	31.22	14	1	28.846	11133.100	-16.0513	9.9792	8.41013	39.7650	115.7692	203.4171
IMPACT		3800.54	3811.79	16	16	29.420	402130.613	-25.2445	237.3406	2.21892	68.2305	264.8494	298.5088

MAR 14, 1966
102 DEGREES

SURVEYOR VIEW PERIODS

GMA	123.1745					EPS	119.8703							LOM	233.3555
SX	.4812247	SY	-.795069	SZ	-.426486	DAO	+25.24479	RAD	298.47551	RM	403425.986	LAT	28.310600	LON	279.461800
CJ	-.877319	ECC	.995564	SLR	12994.444	RCA	6546.6650	LTA	+20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.4469.6	NSY	-.796712	NSZ	-.423939	CSM	1.5143	VIM	2.6783	ZAE	142.424	R.T	.0000	B.R	-.0000
LATE	2.6225	LONE	4.0511	LATS	-1.3713	LONS	244.2954	LATI	.7175	LONI	328.7264	RSM	148.6453	TTAN	6.2116
LAUNCH DATE		MAR	14.1966		BASE AZM	105.0		TF	63.389			ARRIVAL DATE	MAR 16 1966 16 45 10.9		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	[illegible] 48.3	28.1	18.92	305.63	5.30	136.11	115.00	1 17 3.3	6558.6	10.99	2.63

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DMA	DEC	DDE	RNG	DRG	ELE	DEL AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW													
INJECTION	.00	11.25	14	1	17.1											
SEPARATION	1.20	12.45	14	1	18.3											
RETRO	3.20	14.45	14	1	20.3											
RISE 72	4.47	15.72	14	1	21.5	81.72	-.1669	38.23	.0012	2888.0	-7.78	.00	.1288 308.67	.0242	7.47	326.72
EXTM 72	10.46	21.71	14	1	27.5	352.79	-.1848	1.43	-.1417	1990.4	4.55	78.22	.0000 37.89	1.1402	-5.70	347.39
RISE 61	11.06	22.31	14	1	28.1	80.81	-.0826	18.33	-.0415	5622.9	-2.91	.00	.0887 290.43	-.0011	-6.76	349.06
EXIT SHA	19.61	30.86	14	1	36.7											
EXIT 72	19.61	30.86	14	1	36.7	312.26	-.0288	-25.10	-.0132	5811.6	7.33	41.42	-.0283 116.66	.0099	-17.51	7.23
EXIT 61	19.61	30.86	14	1	36.7	41.49	-.0640	-5.86	-.0416	5619.6	2.61	45.69	.0760 289.36	-.0034	-17.51	7.23
EXIT 61	19.61	30.86	14	1	36.7	339.10	-.0415	-51.59	.0076	9517.2	6.52	-3.42	.0003 167.17	-.0269	-17.51	7.23
EXTM 51	35.97	47.22	14	1	53.0	3.97	-.0203	-25.90	-.0078	10064.8	5.26	86.42	.0180 266.50	-.1333	-25.85	25.26
EXTM 72	70.41	81.66	14	2	27.5	293.31	.0000	-32.22	-.0003	23514.0	4.77	23.88	.0000 121.82	.0003	-30.11	37.83
EXTM 51	92.26	103.51	14	2	49.3	345.19	.0001	-31.78	-.0002	26400.1	4.33	75.70	.0000 118.40	.0007	-30.74	39.49
RISE 61	129.78	141.03	14	3	26.8	312.00	.0022	-38.33	.0006	41358.4	3.78	-.00	.0015 144.34	.0011	-30.98	37.97
EXTM 51	208.39	219.64	14	4	45.4	.34	.0032	-31.25	.0001	52458.3	3.34	84.48	-.0000 183.03	.0280	-30.65	27.38
EXTM 61	389.77	401.02	14	7	46.8	4.67	.0038	-33.47	.0002	89204.9	2.70	16.16	.0000 184.05	.0033	-29.63	351.37
EXTM 72	419.43	430.68	14	8	16.5	.85	.0040	-30.99	.0001	90009.3	2.62	66.90	.0000 181.86	.0087	-29.49	344.83
RISE 11	592.20	603.45	14	11	9.3	294.92	.0040	-30.85	.0000	121184.5	2.03	.00	.0026 128.87	.0023	-28.80	305.68
SET 51	613.62	624.87	14	11	30.7	90.00	.0038	-27.63	.0001	122860.7	2.62	11.62	-.0032 244.76	-.0012	-28.73	300.71
SET 61	623.71	634.96	14	11	40.8	59.58	.0039	-30.90	.0002	125516.0	2.50	-.00	-.0021 227.73	.0026	-28.69	298.35
SET 72	810.67	821.92	14	14	47.7	94.20	.0039	-27.79	.0001	149695.7	2.44	-.00	-.0034 241.91	-.0004	-28.15	254.20
RISE 42	820.64	831.89	14	14	57.7	254.99	.0040	-26.66	-.0000	150477.2	1.73	4.00	.0028 120.08	-.0021	-28.12	251.82
EXTM 11	861.93	873.18	14	15	39.0	1.25	.0041	-30.15	.0001	153304.1	2.01	24.64	-.0000 181.19	.0039	-28.02	241.95
SET 11	1128.51	1139.76	14	20	5.6	67.22	.0041	-28.76	.0001	186307.0	2.10	-.00	-.0026 233.93	.0024	-27.46	177.63
EXTM 42	1245.75	1257.00	14	22	2.8	359.92	.0042	-26.99	.0000	192532.7	1.73	81.77	.0000 .50	-.0254	-27.25	149.06
RISE 51	1381.23	1392.48	15	0	18.3	270.00	.0041	-26.38	-.0000	211297.6	1.29	11.12	.0034 114.08	-.0015	-27.04	115.95
RISE 72	1536.49	1547.74	15	2	53.5	266.81	.0041	-26.59	-.0000	227651.7	1.19	-.01	.0036 116.87	-.0005	-26.83	77.88
RISE 61	1617.43	1628.68	15	4	14.5	296.57	.0041	-27.86	-.0000	235282.2	1.28	.00	.0025 127.75	.0027	-26.72	58.00
SET 42	1668.96	1680.21	15	5	6.0	105.00	.0041	-25.73	.0001	239673.9	1.86	3.44	-.0029 240.65	-.0022	-26.66	45.32
EXTM 51	1734.06	1745.31	15	6	11.1	358.35	.0042	-26.60	.0000	239707.2	1.50	88.29	.0033 120.60	.0622	-26.58	29.29
EXTM 61	1872.03	1883.28	15	8	29.1	.48	.0042	-27.74	.0000	255902.2	1.46	22.02	.0000 180.46	.0040	-26.43	355.28
EXTM 72	1911.55	1922.80	15	9	8.6	.15	.0042	-26.84	.0000	255760.3	1.45	71.07	-.0000 180.40	.0116	-26.39	345.53
RISE 11	2051.99	2063.24	15	11	29.0	291.18	.0042	-27.11	-.0000	273719.9	1.09	.00	.0028 123.90	.0024	-26.24	310.84
SET 51	2099.87	2111.12	15	12	16.9	90.00	.0041	-25.69	.0001	276527.9	1.76	10.85	-.0034 246.57	-.0015	-26.20	299.00
SET 61	2126.43	2137.68	15	12	43.5	64.31	.0042	-27.12	.0000	279929.7	1.66	-.00	-.0025 233.33	.0027	-26.17	292.44
SET 72	2285.02	2296.27	15	15	22.1	93.86	.0041	-25.85	.0001	292842.0	1.74	-.00	-.0037 243.89	-.0005	-26.03	253.19
RISE 42	2286.23	2297.48	15	15	23.3	255.00	.0041	-25.27	-.0000	292589.2	1.01	3.15	.0029 118.98	-.0023	-26.03	252.89
EXTM 11	2326.83	2338.08	15	16	3.9	.32	.0042	-27.09	.0000	293229.9	1.32	27.71	-.0000 180.33	.0042	-25.99	242.83
SET 11	2601.49	2612.74	15	20	38.5	69.38	.0042	-26.52	.0000	317436.3	1.57	-.00	-.0028 236.87	.0024	-25.78	174.75
EXTM 42	2705.17	2716.42	15	22	22.2	359.96	.0042	-25.51	.0000	318965.6	1.23	80.29	.0000 .23	-.0195	-25.70	149.02
RISE 51	2835.74	2846.99	16	0	32.8	270.00	.0041	-25.18	-.0000	333569.9	.83	10.65	.0034 112.96	-.0015	-25.61	116.60
RISE 72	2989.94	3001.19	16	3	7.0	266.22	.0041	-25.35	-.0000	345767.2	.76	-.00	.0037 115.61	-.0005	-25.51	78.29
RISE 61	3062.16	3073.41	16	4	19.2	294.62	.0042	-26.21	-.0000	351043.0	.83	.00	.0026 125.35	.0027	-25.46	60.33
SET 42	3124.05	3135.30	16	5	21.1	105.00	.0041	-24.81	.0000	354874.1	1.45	2.87	-.0030 241.39	-.0023	-25.43	44.88
EXTM 51	3187.07	3198.32	16	6	24.1	358.52	.0042	-25.40	.0000	353080.0	1.10	88.62	.0037 76.09	-.0403	-25.41	29.14
EXTM 61	3321.34	3332.59	16	8	38.4	.16	.0042	-26.26	.0000	365769.6	1.10	23.50	-.0000 180.16	.0041	-25.36	355.59
EXTM 72	3361.15	3372.40	16	9	18.2	.03	.0042	-25.64	.0000	364904.5	1.10	72.26	.0000 180.11	.0107	-25.34	345.64
RISE 11	3494.53	3505.78	16	11	31.6	290.05	.0042	-25.91	-.0000	379740.2	.79	.00	.0029 122.33	.0024	-25.29	312.29
SET 51	3549.08	3560.33	16	12	26.1	90.00	.0042	-24.90	.0000	382199.0	1.49	10.54	-.0035 247.30	-.0015	-25.28	298.63
SET 61	3580.34	3591.59	16	12	57.4	65.67	.0042	-25.95	.0000	385452.4	1.41	.01	-.0026 235.02	.0027	-25.27	290.81
RISE 42	3730.34	3741.59	16	15	27.4	255.00	.0042	-24.67	-.0000	395556.8	.91	2.78	.0030 118.50	-.0023	-25.23	253.17
SET 72	3731.23	3742.48	16	15	28.3	93.73	.0042	-25.09	.0000	395932.1	1.66	-.00	-.0038 244.65	-.0005	-25.23	252.95
EXTM 11	3770.20	3781.45	16	16	7.3	.03	.0043	-26.03	.0000	395906.6	1.38	28.76	.0000 180.03	.0045	-25.23	243.13
IMPACT	3803.34	3814.59	16	16	40.4											
IMPC 42	3803.34	3814.59	16	16	40.4	273.47	.0043	-24.78	-.0000	400280.5	1.70	16.66	.0034 108.92	-.0021	-25.23	234.69
IMPC 11	3803.34	3814.59	16	16	40.4	8.58	.0044	-26.02	-.0000	399099.8	2.11	28.23	-.0005 188.76	.0044	-25.23	234.69

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	14	1	17.055	6558.638	18.9172	305.6394	10.98523	2.6283	114.9974	136.1212
SEPARATION	1.20	12.45	14	1	18.255	6618.167	15.9190	311.7840	10.93516	6.0276	116.9294	142.5666
RETRO	3.20	14.45	14	1	20.255	6816.988	10.7271	321.2540	10.77333	11.4868	119.2351	152.5379
EXIT SHA	19.61	30.86	14	1	36.663	11113.084	-17.5056	7.2312	8.41763	39.7033	115.9718	202.6286
IMPACT	3803.34	3814.59	16	16	40.394	402153.184	-25.2320	234.6897	2.21627	67.9955	265.3581	298.6088

SURVEYOR VIEW PERIODS

GMA	173.1365					EPS	119.9537							LOM	250.9582
SX	.432536	SY	-.794470	SZ	-.426299	DAO	-25.23393	RAO	298.56534	RM	403442.422	LAT	28.5110600	LON	279.461800
C3	-.882695	ECC	.965507	SLR	12994.484	RPA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	PPL	-.0
NSX	.453071	NSY	-.786089	NSZ	-.423750	C3M	1.5340	VIM	2.6783	ZAE	142.314	B.T	.0000	B.R	-.0000
LATE	5.6520	LONE	4.1345	LATS	-1.3712	LONS	244.3021	LATI	.4011	LONI	328.7450	RSM	148.6451	TTAN	4.2119
LAUNCH DATE		MAR	14.1966		BASE AZM	108.0		TF	63.445			ARRIVAL	DATE MAR	16 1966	16 55 6.7

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FTH
108.00	1 12 25.5	28.1	17.83	305.08	6.46	137.23	117.09	1 23 40.5	6566.6	10.98	3.30

EVNT STA	TFI	TFL	DAY	HR	MIN	RA	DRA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PRORE IN			EARTH'S SHADOW												
INJECTION	.00	11.25	14	1	23.7												
SEPARATION	1.20	12.45	14	1	24.9												
RETRO	3.20	14.45	14	1	26.9												
RISE 72	4.37	15.62	14	1	28.0	84.77	-.1528	33.34	-.0181	2944.4	-7.75	-.00	.1289	303.70	.0031	6.09	329.14
EXTM 72	9.56	20.81	14	1	33.2	11.48	-.2330	1.17	-.1596	1829.4	2.64	75.39	.2816	307.92	.0817	-5.91	343.10
RISE 51	11.07	22.32	14	1	34.7	82.61	-.0779	14.94	-.0442	5726.3	-2.74	-.00	.0871	286.63	-.0097	-8.68	347.32
EXIT SHA	19.28	30.53	14	1	43.0												
EXIT 72	19.28	30.53	14	1	43.0	316.39	-.0333	-29.02	-.0108	5660.1	7.30	43.93	-.0311	123.12	.0014	-19.08	4.69
EXIT 51	19.28	30.53	14	1	43.0	46.38	-.0638	-8.60	-.0416	5715.1	2.44	42.79	.0751	282.72	-.0110	-19.08	4.69
EXIT 61	19.28	30.53	14	1	43.0	343.46	-.0448	-53.53	.0070	9622.5	6.43	-4.84	.0010	170.22	-.0276	-19.08	4.69
EXTM 51	41.03	52.28	14	2	4.7	1.65	-.0154	-30.29	-.0044	11751.6	5.23	85.22	-.0000	197.34	-.1678	-28.69	26.63
EXTM 72	71.03	82.28	14	2	34.7	295.01	.0000	-33.98	-.0001	23646.9	4.75	25.10	.0000	123.92	.0001	-31.49	36.25
EXTM 51	92.68	103.93	14	2	56.4	347.15	.0000	-33.32	.0000	26553.0	4.32	76.51	.0000	127.20	-.0000	-31.96	37.90
RISE 61	132.25	143.50	14	3	35.9	313.94	.0022	-39.35	.0007	41995.0	3.75	-.00	.0015	146.16	.0011	-32.01	36.23
EXTM 51	200.67	211.92	14	4	44.3	.56	.0031	-32.26	.0002	50955.0	3.38	83.46	-.0000	184.16	.0229	-31.53	27.19
EXTM 61	385.30	396.55	14	7	49.0	5.18	.0038	-34.11	.0002	88579.4	2.71	15.50	.0000	184.45	.0033	-30.23	350.89
EXTM 72	413.48	424.73	14	8	17.2	1.00	.0040	-31.61	.0001	89124.7	2.63	66.27	.0000	182.13	.0084	-30.07	344.74
RISE 11	588.08	599.33	14	11	11.8	295.41	.0040	-31.31	.0000	120628.8	2.04	.00	.0025	129.49	.0023	-29.24	305.18
SET 51	607.19	618.44	14	11	30.9	90.80	.0038	-28.07	.0001	121976.5	2.63	11.79	-.0032	244.35	-.0012	-29.17	300.74
SET 61	614.61	625.86	14	11	38.3	58.93	.0039	-31.38	.0002	124290.4	2.51	-.00	-.0021	227.00	.0027	-29.14	299.01
SET 72	804.65	815.90	14	14	48.3	94.27	.0039	-28.14	.0001	148959.9	2.44	-.01	-.0034	241.56	-.0004	-28.50	294.16
RISE 42	814.53	825.78	14	14	58.2	254.99	.0040	-27.00	-.0000	149709.6	1.74	4.21	.0028	120.35	-.0021	-28.47	251.81
EXTM 11	856.24	867.49	14	15	39.9	1.37	.0041	-30.49	.0001	152656.3	2.01	24.29	.0000	181.29	.0039	-28.35	241.83
SET 11	1121.22	1132.47	14	20	4.9	66.95	.0041	-29.03	.0001	185507.4	2.10	-.00	-.0026	233.57	.0024	-27.72	177.87
EXTM 42	1239.70	1250.95	14	22	3.4	359.95	.0042	-27.23	.0000	191883.5	1.73	82.01	-.0000	.36	-.0249	-27.49	149.03
RISE 51	1375.10	1386.35	15	0	16.8	270.00	.0041	-26.59	-.0000	210654.6	1.30	11.20	.0034	114.27	-.0015	-27.25	115.94
RISE 72	1530.23	1541.48	15	2	53.9	265.98	.0041	-26.77	-.0000	2270[illegible]4	1.19	-.01	.0036	117.05	-.0005	-27.00	77.91
RISE 61	1612.11	1623.36	15	4	15.8	296.78	.0041	-28.03	-.0000	234749.0	1.28	.00	.0025	128.00	.0027	-26.89	57.79
SET 42	1662.76	1674.01	15	5	6.4	105.00	.0041	-25.89	.0001	239053.3	1.86	3.53	-.0029	240.53	-.0022	-26.82	48.33
EXTM 51	1732.41	1743.66	15	6	16.1	359.49	.0042	-26.75	.0000	239512.1	1.50	88.89	.0016	155.90	.1765	-26.73	28.18
EXTM 61	1866.02	1877.27	15	8	29.7	.52	.0042	-27.87	.0000	255338.0	1.46	21.89	-.0000	180.50	.0040	-26.56	359.24
EXTM 72	1905.40	1916.65	15	9	9.1	.16	.0042	-26.97	.0000	255178.0	1.45	70.93	-.0000	180.43	.0115	-26.51	348.92
RISE 11	2046.25	2057.50	15	11	29.9	291.29	.0042	-27.23	-.0000	273174.9	1.09	.00	.0028	124.05	.0024	-26.36	310.73
SET 51	2093.65	2104.90	15	12	17.3	90.00	.0041	-25.80	.0001	275940.7	1.76	10.89	-.0034	246.47	-.0015	-26.31	299.01
SET 61	2119.69	2130.94	15	12	43.4	64.19	.0042	-27.23	.0001	279305.8	1.66	-.00	-.0025	233.17	.0027	-26.28	292.57
SET 72	2278.85	2290.10	15	15	22.5	93.87	.0041	-25.94	.0001	292271.8	1.74	-.00	-.0037	243.80	-.0005	-26.12	253.18
RISE 42	2280.03	2291.28	15	15	23.7	255.00	.0041	-25.36	-.0000	292010.2	1.01	3.21	.0029	119.05	-.0023	-26.12	252.88
EXTM 11	2320.71	2331.96	15	16	4.4	.35	.0042	-27.17	.0000	292674.2	1.32	27.62	-.0000	180.35	.0042	-26.08	242.81
SET 11	2594.99	2606.24	15	20	38.7	69.32	.0042	-26.59	.0000	316850.7	1.57	-.00	-.0028	236.79	.0024	-25.84	174.81
EXTM 42	2599.02	2710.27	15	22	22.7	359.99	.0042	-25.57	.0000	318407.3	1.23	80.35	-.0000	.13	-.0108	-25.75	148.99
RISE 51	2829.49	2840.74	16	0	33.2	270.00	.0041	-25.23	-.0000	333005.0	.83	10.67	.0034	113.00	-.0015	-25.65	116.60
RISE 72	2983.65	2994.90	16	3	7.3	266.22	.0041	-25.38	-.0000	345203.1	.76	-.00	.0037	115.65	-.0005	-25.54	78.29
RISE 61	3056.03	3067.28	16	4	19.7	294.65	.0042	-26.24	-.0000	350491.8	.83	.00	.0026	125.40	.0027	-25.49	60.30
SET 42	3117.77	3129.02	16	5	21.4	105.00	.0041	-24.83	.0000	354307.8	1.45	2.88	-.0030	241.37	-.0023	-25.46	44.88
EXTM 51	3180.95	3192.20	16	6	24.6	358.56	.0042	-25.42	.0000	352523.6	1.10	88.66	.0037	76.69	-.0398	-25.43	29.10
EXTM 61	3315.13	3326.38	16	8	38.8	.18	.0042	-26.28	.0000	365200.6	1.10	23.48	-.0000	180.18	.0041	-25.37	359.57
EXTM 72	3354.89	3366.14	16	9	18.6	.04	.0042	-25.66	.0000	364328.1	1.10	72.25	.0000	180.12	.0114	-25.35	348.64
RISE 11	3488.30	3499.55	16	11	32.0	290.06	.0042	-25.92	-.0000	379150.9	.78	.00	.0029	122.34	.0024	-25.30	312.28
SET 51	3542.81	3554.06	16	12	26.5	90.00	.0042	-24.91	.0000	381598.1	1.49	10.54	-.0035	247.30	-.0015	-25.28	298.64
SET 61	3574.06	3585.31	16	12	57.7	55.67	.0042	-25.95	.0000	384844.1	1.41	.01	-.0026	235.01	.0027	-25.27	290.81
RISE 42	3724.12	3735.37	16	15	27.8	255.00	.0042	-24.66	-.0000	394876.5	.89	2.78	.0030	118.80	-.0023	-25.23	253.18
SET 72	3725.00	3736.25	16	15	28.7	93.73	.0042	-25.09	.0000	395249.6	1.64	-.00	-.0038	244.65	-.0005	-25.23	252.95
EXTM 11	3764.15	3775.40	16	16	7.8	.06	.0043	-26.02	.0000	395163.1	1.33	28.77	.0000	180.06	.0044	-25.22	243.09
IMPACT	3806.71	3817.96	16	16	50.4												
IMPC 42	3806.71	3817.96	16	16	50.4	275.89	.0043	-24.78	-.0000	400100.3	1.70	18.53	.0034	107.73	-.0021	-25.22	232.28
IMPC 11	3806.71	3817.96	16	16	50.4	11.03	.0044	-26.01	.0000	399150.0	2.12	27.90	-.0007	191.22	.0044	-25.22	232.28

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FTH	AZ	RT ASC
INJECTION	.00	11.25	14	1	23.676	6566.849	17.8216	305.0988	10.97821	3.3047	117.0921	137.2403
SEPARATION	1.20	12.45	14	1	24.876	6635.392	14.6259	311.0587	10.92070	6.6906	118.8439	143.5010
RETRO	3.20	14.45	14	1	26.876	6848.291	9.1776	320.2351	10.74834	12.1101	120.8466	153.1788
EXIT SHA	19.28	30.53	14	1	42.951	11082.277	-19.0824	4.6937	8.42927	39.6078	116.2591	201.6676
IMPACT	3806.71	3817.96	16	16	50.388	402170.891	-29.2208	232.2751	2.21512	67.9457	265.9876	298.6995

MAR 14, 1966
108 DEGREES

SURVEYOR VIEW PERIODS

GHA	173.1365				EPS 120.0233						LOM	228.7130	
SX	.433749	SY	-.793907	SZ	-.426123	DAO	-25.22180	RAO	298.64931	RM	403458.117	LAT	28.310600	LON	279.461800
C3	-.886735	ECC	.985441	SLR	12994.052	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.451228	NSY	-.785481	NSZ	-.423572	C3M	1.5340	VIM	2.6783	ZAE	142.177	B.T	.0000	B.R	-.0000
LATE	9.6373	LONE	4.0343	LATS	-1.3712	LONS	244.1323	LATI	.0649	LONI	326.5610	RSM	148.6450	TTAN	6.2136

LAUNCH DATE MAR 14.1966 BASE AZM 111.0 TF 63.512 ARRIVAL DATE MAR 16 1966 17 4 23.7

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	1 17 52.2	28.1	16.76	304.49	7.76	138.00	119.18	1 29 7.2	6574.5	10.97	3.85

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PRURE IN EARTH'S SHADOW															
INJECTION	.00	11.25	14	1	29.1												
SEPARATION	1.20	12.45	14	1	30.3												
RETRO	3.20	14.45	14	1	32.3												
RISE 72	4.92	15.57	14	1	33.4	85.65	-.1411	28.65	-.0363	2999.1	-7.62	.00	.1280	298.95	-.0164	4.56	323.74
EXTM 72	10.66	21.91	14	1	39.8	4.70	-.1878	-15.69	-.1091	2151.1	4.64	80.95	.0000	210.15	-1.3428	-9.87	344.51
RISE 51	11.11	22.36	14	1	40.2	84.32	-.0737	11.60	-.0468	5822.8	-2.56	.00	.0855	282.89	-.0099	-10.67	345.70
EXIT SHA	18.95	30.20	14	1	48.1												
EXIT 72	18.95	30.20	14	1	48.1	320.46	-.0386	-33.18	-.0081	5539.0	7.26	45.61	-.0326	130.39	-.0095	-20.74	2.28
EXIT 51	18.95	30.20	14	1	48.1	51.03	-.0634	-11.31	-.0421	5809.3	2.28	39.85	.0739	276.82	-.0168	-20.74	2.28
EXTM 51	43.35	54.60	14	2	12.5	2.15	-.0141	-33.39	-.0030	12559.8	5.18	82.13	-.0000	193.22	-.0986	-30.82	26.30
EXTM 72	71.65	82.90	14	2	40.8	296.36	-.0000	-35.80	.0002	23800.7	4.73	25.92	.0000	126.09	-.0002	-32.96	34.95
EXTM 51	91.85	103.10	14	3	1.0	348.74	-.0002	-34.27	.0002	26384.4	4.33	76.62	.0000	136.25	-.0010	-33.26	36.59
RISE 61	137.22	148.47	14	3	46.3	315.87	.0023	-40.30	.0007	43197.0	3.70	-.00	.0015	147.92	.0011	-33.07	34.58
EXTM 51	195.20	206.45	14	4	44.3	.87	.0030	-33.34	.0003	49886.0	3.41	82.36	-.0000	185.45	.0190	-32.48	26.92
EXTM 61	382.40	393.65	14	7	51.5	5.73	.0038	-34.77	.0002	88201.2	2.71	14.81	.0000	184.86	.0033	-30.86	350.38
EXTM 72	409.05	420.30	14	8	18.2	1.18	.0040	-32.28	.0002	88471.0	2.64	65.60	.0000	182.42	.0081	-30.68	344.58
RISE 11	585.43	596.68	14	11	14.5	295.94	.0040	-31.79	.0000	120266.7	2.04	.00	.0025	130.15	.0023	-29.71	304.65
SET 51	602.12	613.37	14	11	31.2	90.00	.0038	-28.53	.0001	121265.7	2.64	11.97	-.0031	243.90	-.0012	-29.64	300.77
SET 61	606.62	617.87	14	11	35.7	58.24	.0039	-31.89	.0002	123200.9	2.52	-.00	-.0020	226.21	.0027	-29.62	299.72
SET 72	799.96	811.21	14	14	49.1	94.33	.0039	-28.51	.0001	148375.6	2.44	-.01	-.0034	241.19	-.0004	-28.87	254.11
RISE 42	809.71	820.96	14	14	58.8	254.99	.0040	-27.37	-.0000	149087.4	1.74	4.43	.0028	120.64	-.0021	-28.84	251.79
EXTM 11	851.86	863.11	14	15	41.0	1.50	.0041	-30.86	.0001	152158.3	2.01	23.92	.0000	181.41	.0039	-28.70	241.71
SET 11	1115.11	1126.36	14	20	4.2	66.66	.0041	-29.31	.0001	184822.2	2.10	-.00	-.0026	233.19	.0024	-28.00	178.17
EXTM 42	1234.70	1245.95	14	22	3.8	359.92	.0042	-27.48	.0000	191329.8	1.74	82.26	-.0000	.52	-.0266	-27.73	149.05
RISE 51	1370.21	1381.46	15	0	19.3	270.00	.0041	-26.81	-.0000	210119.5	1.30	11.29	.0034	114.48	-.0015	-27.47	115.94
RISE 72	1525.18	1536.43	15	2	54.3	265.94	.0041	-26.96	-.0000	226493.5	1.19	-.01	.0036	117.24	-.0005	-27.20	77.93
RISE 61	1408.07	1419.32	15	4	17.2	297.00	.0042	-28.21	-.0000	234319.0	1.28	.00	.0025	128.26	.0027	-27.06	57.56
SET 42	1657.79	1669.04	15	5	6.9	105.00	.0041	-26.06	.0001	238527.6	1.86	3.64	-.0029	240.40	-.0022	-26.99	45.33
EXTM 51	1726.07	1737.32	15	6	15.2	359.15	.0042	-26.92	.0000	238879.0	1.50	88.59	.0021	147.18	.1276	-26.89	28.52
EXTM 61	1861.20	1872.45	15	8	30.3	.56	.0042	-28.02	.0000	254861.9	1.46	21.74	.0000	180.54	.0040	-26.70	355.20
EXTM 72	1900.46	1911.71	15	9	9.6	.17	.0042	-27.11	.0000	254682.7	1.45	70.79	-.0000	180.46	.0114	-26.65	345.51
RISE 11	2041.73	2052.98	15	11	30.9	291.41	.0042	-27.35	-.0000	272713.9	1.09	.00	.0028	124.22	.0024	-26.48	310.61
SET 51	2088.62	2099.87	15	12	17.7	90.00	.0041	-25.91	.0001	275433.0	1.76	10.94	-.0034	246.36	-.0014	-26.42	299.01
SET 61	2114.11	2125.36	15	12	43.2	64.05	.0042	-27.35	.0001	278757.4	1.66	-.00	-.0025	233.00	.0027	-26.39	292.71
SET 72	2273.87	2285.12	15	15	23.0	93.89	.0041	-26.03	.0001	291775.7	1.74	-.00	-.0037	243.70	-.0005	-26.22	253.16
RISE 42	2275.01	2286.26	15	15	24.1	255.00	.0041	-25.46	-.0000	291504.2	1.01	3.27	.0029	119.12	-.0023	-26.22	252.88
EXTM 11	2315.79	2327.04	15	16	4.9	.38	.0042	-27.27	.0000	292192.0	1.32	27.52	-.0000	180.38	.0042	-26.17	242.78
SET 11	2589.65	2600.90	15	20	38.8	69.25	.0042	-26.66	.0000	316327.8	1.57	-.00	-.0028	236.70	.0024	-25.91	174.88
EXTM 42	2693.91	2705.16	15	22	23.0	359.98	.0042	-25.63	.0000	317899.7	1.23	80.41	-.0000	.17	-.0162	-25.82	149.00
RISE 51	2824.41	2835.66	16	0	33.5	270.00	.0041	-25.28	-.0000	332497.4	.83	10.69	.0034	113.04	-.0015	-25.70	116.59
RISE 72	2978.54	2989.79	16	3	7.7	266.21	.0041	-25.42	-.0000	344692.2	.76	-.00	.0037	115.69	-.0005	-25.58	79.30
RISE 61	3051.09	3062.34	16	4	20.2	294.70	.0042	-26.28	-.0000	349992.8	.83	.00	.0026	125.45	.0027	-25.52	60.25
SET 42	3112.65	3123.90	16	5	21.8	105.00	.0041	-24.86	.0000	353791.4	1.45	2.90	-.0030	241.35	-.0023	-25.49	44.88
EXTM 51	3176.16	3187.41	16	6	25.3	358.64	.0042	-25.45	.0000	352026.2	1.10	88.74	.0037	77.09	-.0410	-25.46	29.02
EXTM 61	3310.09	3321.34	16	8	39.2	.20	.0042	-26.30	.0000	364678.5	1.10	23.46	-.0000	180.19	.0041	-25.39	355.56
EXTM 72	3349.80	3361.05	16	9	18.9	.04	.0042	-25.67	.0000	367797.6	1.10	72.23	.0000	180.14	.0111	-25.37	345.63
RISE 11	3483.74	3494.49	16	11	32.4	290.07	.0042	-25.93	-.0000	378606.0	.78	.00	.0029	122.36	.0024	-25.31	312.27
SET 51	3537.70	3548.95	16	12	26.8	90.00	.0042	-24.92	.0000	381040.5	1.49	10.54	-.0035	247.29	-.0015	-25.29	298.64
SET 61	3568.92	3580.17	16	12	58.0	65.66	.0042	-25.96	.0000	384278.6	1.40	.01	-.0026	235.00	.0027	-25.28	290.82
RISE 42	3719.05	3730.30	16	15	28.2	255.00	.0042	-24.66	-.0000	394247.5	.87	2.78	.0030	118.49	-.0023	-25.22	253.17
SET 72	3719.92	3731.17	16	15	29.0	93.73	.0042	-25.09	.0000	394618.6	1.62	-.00	-.0037	244.66	-.0005	-25.22	252.96
EXTM 11	3759.22	3770.47	16	16	8.3	.09	.0043	-26.02	.0000	394484.9	1.30	28.77	.0000	180.09	.0043	-25.21	243.06
IMPACT	3810.70	3821.95	16	16	59.8												
IMPC 42	3810.70	3821.95	16	16	59.8	278.17	.0043	-24.78	-.0000	399931.4	1.70	20.32	.0034	106.60	-.0021	-25.21	230.00
IMPC 11	3810.70	3821.95	16	16	59.8	13.35	.0044	-26.00	.0000	399205.4	2.13	27.51	-.0008	193.53	.0043	-25.21	230.00

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	14	1	29.119	6574.880	16.7483	304.5130	10.97144	3.8491	119.1827	138.0191
SEPARATION	1.20	12.45	14	1	30.319	6650.574	13.3605	310.2884	10.90796	7.2228	120.7637	144.0954
RETRO	3.20	14.45	14	1	32.319	6874.673	7.6564	319.1834	10.72735	12.6087	122.4832	153.4917
EXIT SHA	18.95	30.20	14	1	48.070	11038.834	-20.7351	2.2818	8.44580	39.4724	116.6286	200.5387
IMPACT	3810.70	3821.95	16	16	59.822	402187.973	-25.2103	229.9957	2.21373	67.8719	266.6597	298.7851

SURVEYOR VIEW PERIODS

GHA	173.1365					EPS	120.1135							LOM	225.8251
SX	.4352?7	SY	-.793182	SZ	-.425896	DAO	+25.20740	RAO	298.75738	RM	403478.258	LAT	28.?10600	LON	279.461600
C3	-.893210	ECC	.986334	SLR	12993.356	RCA	6544.6650	LTA	+20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.452817	NSY	-.784690	NSZ	-.423343	C3M	1.5340	VIM	2.6783	ZAE	141.953	B.T	.0000	B.R	-.0000
LATE	5.6435	LONE	4.1335	LATS	-1.3711	LONS	244.1405	LATI	-.4030	LONI	326.5111	RSM	148.6447	TTAN	6.2177
LAUNCH DATE		MAR	14.1966		BASE AZM	115.0		TF	63.617			ARRIVAL DATE		MAR 16 1966	17 16 20.7

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
115.00	1 23 46.6	28.1	15.37	303.64	8.91	138.62	121.98	1 35 1.6	6584.1	10.96	4.42

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	14	1	35.0												
SEPARATION	1.20	12.45	14	1	36.2												
RETRO	3.20	14.45	14	1	38.2												
RISE 72	4.31	15.56	14	1	39.3	86.68	-.1280	22.61	-.0585	3074.5	-7.30	.00	.1255	292.84	-.0402	2.47	322.06
EXTM 72	11.00	22.25	14	1	46.0	9.92	-.1810	+26.74	-.0872	2399.9	4.88	68.94	+.0000	205.36	-.5111	-13.06	343.16
RISE 51	11.21	22.46	14	1	46.2	86.51	-.0687	7.19	-.0500	5948.2	+2.31	.00	.0831	277.98	-.0152	-13.43	343.69
EXIT SHA	18.52	29.77	14	1	53.5												
EXIT 72	18.52	29.77	14	1	53.5	326.01	-.0470	-38.96	+.0047	5421.0	7.18	46.48	+.0322	140.86	-.0261	-23.01	359.17
EXIT 51	18.52	29.77	14	1	53.5	57.03	-.0626	-14.80	+.0432	5939.1	2.08	35.80	.0721	269.89	-.0226	-23.01	359.17
EXTM 51	47.38	58.63	14	2	22.4	1.83	-.0120	-37.37	+.0014	13912.9	5.10	78.27	+.0000	187.17	-.0475	-33.72	26.48
EXTM 72	71.84	83.09	14	2	46.9	297.69	-.0001	-38.30	.0005	23857.5	4.73	26.52	.0000	129.05	-.0006	-35.00	33.50
EXTM 51	88.20	99.45	14	3	3.2	350.50	-.0007	-37.36	.0004	25496.1	4.37	75.85	.0000	147.53	-.0029	-35.11	35.09
RISE 61	146.41	157.66	14	4	1.4	318.40	.0025	+41.47	.0007	45350.5	3.61	-.00	.0016	150.17	.0012	-34.47	32.44
EXTM 51	191.04	202.29	14	4	46.1	1.42	.0029	+34.86	.0003	49089.4	3.44	80.80	.0000	187.31	.0152	-33.82	26.44
EXTM 61	380.40	391.65	14	7	55.4	6.47	.0038	+35.67	.0003	87993.2	2.72	13.86	.0000	185.41	.0032	-31.73	349.69
EXTM 72	405.01	416.26	14	8	20.0	1.44	.0040	+33.20	.0002	87884.2	2.65	64.67	.0000	182.32	.0078	-31.53	344.34
RISE 11	583.68	594.93	14	11	18.7	296.69	.0040	+32.47	.0001	120025.0	2.04	.00	.0025	131.08	.0023	-30.36	303.89
SET 51	596.97	608.22	14	11	32.0	90.00	.0038	+29.19	.0002	120526.3	2.64	12.23	+.0031	243.28	-.0012	-30.29	300.81
SET 61	597.24	608.49	14	11	32.3	57.23	.0039	+32.61	.0002	121907.0	2.52	.00	+.0020	225.10	.0027	-30.29	300.75
SET 72	795.26	806.51	14	14	50.3	94.43	.0039	+29.03	.0001	147775.7	2.45	-.01	+.0034	240.66	-.0004	-29.39	254.05
RISE 42	804.81	816.06	14	14	59.8	254.99	.0040	+27.88	-.0000	148429.7	1.75	4.75	.0028	121.05	-.0021	-29.36	251.77
EXTM 11	847.58	858.83	14	15	42.6	1.68	.0042	+31.37	.0001	151670.1	2.02	23.41	.0000	181.56	.0039	-29.20	241.54
SET 11	1108.35	1119.60	1	20	3.4	66.25	.0041	+29.71	.0001	184041.5	2.10	-.00	+.0026	232.66	.0024	-28.39	178.58
EXTM 42	1229.54	1240.79	14	22	4.6	359.91	.0042	+27.84	.0000	190730.1	1.74	82.62	.0000	.66	-.0283	-28.08	149.07
RISE 51	1365.13	1376.38	15	0	20.2	270.00	.0041	+27.12	-.0000	209529.3	1.30	11.41	.0034	114.76	-.0014	-27.77	115.93
RISE 72	1519.87	1531.12	15	2	54.9	265.90	.0041	+27.23	-.0000	225901.4	1.19	-.01	.0036	117.51	-.0005	-27.47	77.97
RISE 61	1604.16	1615.41	15	4	19.2	297.31	.0042	+28.46	.0000	233861.0	1.28	.00	.0025	128.63	.0027	-27.31	57.25
SET 42	1652.57	1663.82	15	5	7.6	105.00	.0041	+26.30	.0001	237932.9	1.86	3.78	+.0029	240.21	-.0022	-27.23	45.34
EXTM 51	1719.78	1731.03	15	6	14.8	358.87	.0042	+27.15	.0000	238206.1	1.50	88.26	.0022	144.71	.0999	-27.12	28.78
EXTM 61	1856.20	1867.45	15	8	31.2	.52	.0042	+28.23	.0000	254325.5	1.46	21.53	.0000	180.59	.0040	-26.90	355.14
EXTM 72	1895.28	1906.53	15	9	10.3	.18	.0042	+27.31	.0000	254117.2	1.45	70.59	+.0000	180.50	.0112	-26.85	348.49
RISE 11	2037.14	2048.39	15	11	32.2	291.57	.0042	+27.52	-.0000	272189.7	1.09	.00	.0028	124.44	.0024	-26.65	310.44
SET 51	2083.32	2094.57	15	12	18.4	90.00	.0041	+26.08	.0001	274841.2	1.76	11.00	+.0034	246.21	-.0014	-26.59	299.02
SET 61	2108.02	2119.27	15	12	43.0	63.85	.0042	+27.51	.0001	278106.9	1.66	-.00	+.0025	232.76	.0027	-26.55	292.91
SET 72	2268.63	2279.88	15	15	23.7	93.91	.0041	+26.17	.0001	291192.0	1.74	-.00	+.0037	243.56	-.0005	-26.35	253.14
RISE 42	2269.71	2280.96	15	15	24.7	255.00	.0041	+25.59	-.0000	290906.2	1.01	3.35	.0029	119.23	-.0023	-26.35	252.88
EXTM 11	2310.62	2321.87	15	16	5.6	.42	.0042	+27.41	.0000	291625.7	1.32	27.39	+.0000	180.42	.0042	-26.30	242.74
SET 11	2583.89	2595.14	15	20	38.9	69.16	.0042	+26.76	.0000	315692.8	1.57	-.00	+.0028	236.57	.0024	-26.01	174.97
EXTM 42	2688.46	2699.71	15	22	23.5	359.96	.0042	+25.71	.0000	317282.4	1.23	80.49	+.0000	.22	-.0205	-25.90	149.02
RISE 51	2819.01	2830.26	16	0	34.0	270.00	.0041	+25.35	+.0000	331875.2	.33	10.74	.0034	113.11	-.0015	-25.78	116.59
RISE 72	2973.08	2984.33	16	3	8.1	266.20	.0041	+25.48	-.0000	344059.8	.76	-.00	.0037	115.74	-.0006	-25.64	78.30
RISE 61	3045.89	3057.14	16	4	20.9	294.75	.0042	+26.33	-.0000	349374.6	.83	.00	.0026	125.52	.0027	-25.57	60.19
SET 42	3107.20	3118.45	16	5	22.2	105.00	.0041	+24.90	.0000	353147.0	1.45	2.93	-.0030	241.31	-.0023	-25.53	44.88
EXTM 51	3170.92	3182.17	16	6	25.9	358.70	.0042	+25.49	.0000	351392.3	1.10	88.80	.0037	78.39	-.0389	-25.50	28.97
EXTM 61	3304.73	3315.98	16	8	39.8	.22	.0042	+26.33	.0000	364022.9	1.10	23.43	+.0000	180.22	.0041	-25.42	355.53
EXTM 72	3344.37	3355.62	16	9	19.4	.05	.0042	+25.70	.0000	363129.7	1.10	72.20	.0000	180.15	.0115	-25.40	345.63
RISE 11	3477.85	3489.10	16	11	32.9	290.08	.0042	+25.95	-.0000	377917.0	.78	.00	.0029	122.38	.0024	-25.33	312.25
SET 51	3532.23	3543.48	16	12	27.3	90.00	.0042	+24.93	.0000	380333.3	1.48	10.55	+.0035	247.28	-.0015	-25.30	298.64
SET 61	3563.41	3574.66	16	12	58.4	65.65	.0042	+25.97	.0000	383560.0	1.40	.00	+.0026	234.99	.0027	-25.29	290.83
RISE 42	3713.63	3724.88	16	15	20.7	255.00	.0042	+24.66	-.0000	393451.8	.85	2.77	.0030	118.49	-.0023	-25.22	253.17
SET 72	3714.49	3725.74	16	15	29.5	93.73	.0042	+25.08	.0000	393820.7	1.60	-.00	+.0037	244.66	-.0005	-25.22	252.96
EXTM 11	3753.94	3765.19	16	16	9.0	.12	.0043	+26.01	.0000	393636.4	1.26	28.78	.0000	180.12	.0043	-25.21	243.03
IMPACT	3816.99	3828.24	16	17	12.0												
IMPC 42	3816.99	3828.24	16	17	12.0	281.13	.0043	+24.78	+.0000	399715.1	1.70	22.64	.0034	105.16	-.0021	-25.20	227.05
IMPC 11	3816.99	3828.24	16	17	12.0	16.33	.0044	+25.98	.0000	399288.3	2.15	20.89	+.0010	196.47	.0043	-25.20	227.05

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION	.00	11.25	14	1	35.027	6584.772	15.3531	303.6681	10.96307	4.4237	121.9683	138.6552
SEPARATION	1.20	12.45	14	1	36.227	6667.873	11.7162	309.1987	0.89339	7.7835	123.3360	144.4866
RETRO	3.20	14.45	14	1	38.227	6903.667	5.6724	317.7319	3.70432	13.1320	124.7063	153.5208
EXIT SHA	18.52	29.77	14	1	53.544	10964.190	+23.0097	359.1735	8.47448	39.2370	117.2813	198.8024
IMPACT	3816.99	3828.24	16	17	12.018	402210.578	+25.1968	227.0490	2.21155	67.7369	267.5942	298.8959

SURVEYOR VIEW PERIODS

GHA	174.1222					EPS	130.7417						LOM	243.5983	
SX	.607564	SY	-.691710	SZ	-.390388	DAO	+22.97866	RAO	311.29448	RM	405332.406	LAT	28.310600	LON	279.461800
C3	-.892135	ECC	.985352	SLR	12993.468	RCA	6544.6650	LTA	+20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.622744	NSY	-.680488	NSZ	-.386166	C3M	1.5300	VIM	2.6775	ZAE	142.666	B.T	.0000	B.R	-.0000
LATE	6.2341	LONE	2.7769	LATS	-1.3659	LONS	232.0437	LATI	3.0638	LONI	325.4454	RSM	148.6238	TTAN	5.5891
LAUNCH DATE		MAR	15,1966		BASE AZM	93.0		TF	64.137			ARRIVAL DATE	MAR 17 1966	16	51 31.6

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ FPA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
93.00	0 29 48.7	27.2	23.68	306.58	-14.30	129.02	106.24	0 41 3.7	6646.9	10.91	-7.10

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PRORE IN EARTH'S SHADOW															
INJECTION	.00	11.25	15	0	41.1												
SEPARATION	1.20	12.45	15	0	42.3												
RETRO	3.20	14.45	15	0	44.3												
RISE 72	6.19	17.44	15	0	47.2	68.75	-.4735	69.05	.1199	2251.5	-6.44	-.01	.1102	340.54	.1757	10.44	339.20
EXTM 72	10.90	22.15	15	0	52.0	302.92	-.0844	22.72	+.1933	2169.1	5.74	26.32	-.0000	59.76	.2325	-.30	358.45
RISE 51	11.69	22.94	15	0	52.8	70.75	-.1264	34.37	-.0298	4454.7	-4.64	-.00	.1044	308.81	.0296	-1.87	1.16
EXIT SHA	20.00	31.25	15	1	1.1												
EXIT 72	20.00	31.25	15	1	1.1	284.48	-.0165	-14.26	-.0211	6336.6	7.77	15.90	-.0143	102.65	.0231	-13.90	22.80
EXIT 51	20.00	31.25	15	1	1.1	11.63	-.0851	4.55	-.0611	4170.5	3.31	57.67	.0863	337.92	.1104	-13.90	22.10
EXTM 51	26.16	37.41	15	1	7.2	349.20	-.0420	-11.21	-.0274	5900.1	5.51	72.24	.0000	37.06	.1621	-18.83	33.11
EXTM 72	67.48	78.73	15	1	48.5	271.29	-.0001	+26.82	-.0009	23592.0	4.93	4.70	.0000	116.46	.0009	-27.51	57.78
RISE 42	68.21	79.46	15	1	49.3	104.14	-.0052	-19.09	-.0028	24326.9	4.29	.00	.0056	246.40	.0008	-27.55	57.92
EXTM 51	82.24	93.49	15	2	3.3	319.59	-.0001	+27.43	-.0006	23648.4	4.56	53.99	.0000	101.92	.0010	-28.06	59.74
EXTM 42	124.93	136.18	15	2	44.0	98.12	.0004	-23.39	-.0005	38593.1	4.03	7.07	-.0000	246.29	-.0006	-28.44	59.31
SET 42	200.00	211.25	15	4	1.1	105.00	.0023	+24.27	-.0000	55758.5	3.61	2.54	-.0016	241.82	-.0013	-28.13	49.78
RISE 61	210.85	222.10	15	4	11.9	303.26	.0033	+32.95	.0003	58250.4	3.15	.00	.0020	135.44	.0019	-28.06	47.98
EXTM 51	317.58	328.83	15	5	58.6	.06	.0037	+27.58	.0001	72115.2	2.90	88.16	.0000	181.82	.0981	-27.43	27.63
EXTM 61	478.02	489.27	15	8	39.1	3.17	.0040	+29.97	.0002	102021.7	2.51	19.73	.0000	182.92	.0037	-26.68	352.75
EXTM 72	511.46	522.71	15	9	12.5	.55	.0041	+27.68	.0001	103284.8	2.44	70.22	-.0000	181.43	.0106	-26.54	345.16
RISE 11	667.83	679.08	15	11	48.9	291.90	.0040	+27.86	.0000	130922.4	1.91	.00	.0027	124.88	.0023	-26.02	308.91
SET 51	704.03	715.28	15	12	25.1	90.00	.0039	+24.88	.0001	134521.2	2.52	10.53	-.0033	247.33	-.0013	-25.91	300.38
SET 61	730.15	741.40	15	12	51.2	63.54	.0040	+27.77	.0001	139057.7	2.40	-.00	-.0023	232.39	.0027	-25.84	294.20
SET 72	896.75	908.00	15	15	37.8	93.74	.0040	+25.11	.0001	159588.6	2.37	-.01	-.0036	244.64	-.0004	-25.43	254.44
RISE 42	906.89	918.14	15	15	47.9	254.99	.0040	+24.03	-.0001	160521.5	1.65	2.39	.0029	118.00	-.0022	-25.41	252.00
EXTM 11	947.70	958.95	15	16	28.8	1.01	.0042	+27.28	.0001	164544.1	1.93	27.51	-.0000	181.01	.0042	-25.32	242.18
SET 11	1225.19	1236.44	15	21	6.3	69.85	.0041	+26.02	.0001	19[illegible]2.0	2.05	-.00	-.0028	237.53	.0024	-24.82	174.87
EXTM 42	1330.86	1342.11	15	22	51.9	359.91	.0042	+24.32	.0000	200785.6	1.68	79.10	.0000	.46	-.0198	-24.66	149.07
RISE 51	1465.68	1476.93	16	1	6.7	270.00	.0041	+23.82	-.0000	219191.4	1.24	10.10	.0034	111.69	-.0015	-24.47	116.05
RISE 72	1622.44	1633.69	16	3	43.5	266.44	.0041	+24.05	-.0000	235204.3	1.14	-.01	.0037	114.30	-.0005	-24.27	77.55
RISE 61	1689.54	1700.79	16	4	50.6	293.56	.0041	+25.28	-.0000	241392.2	1.23	.00	.0026	124.02	.0027	-24.20	61.03
SET 42	1753.59	1764.84	16	5	54.7	105.00	.0041	+23.23	.0000	246990.6	1.83	1.90	-.0030	242.64	-.0023	-24.13	45.26
EXTM 51	1819.28	1830.53	16	7	.3	358.59	.0042	+24.01	.0000	246773.1	1.47	87.85	.0023	36.91	-.0830	-24.06	29.06
EXTM 61	1955.91	1967.16	16	9	17.0	.42	.0042	+25.17	.0000	262331.5	1.43	24.59	.0000	180.41	.0042	-23.92	359.34
EXTM 72	1995.36	2006.61	16	9	56.4	.08	.0042	+24.27	.0000	262287.0	1.42	73.64	.0000	180.25	.0133	-23.88	345.60
RISE 11	2126.40	2137.65	16	12	7.5	288.84	.0042	+24.60	-.0000	279317.3	1.05	.00	.0029	120.62	.0024	-23.76	313.20
SET 51	2184.00	2195.25	16	13	5.1	90.00	.0041	+23.21	.0000	282958.7	1.74	9.85	-.0035	248.88	-.0015	-23.71	298.95
SET 61	2222.16	2233.41	16	13	43.2	67.22	.0042	+24.59	.0000	287149.3	1.64	-.00	-.0026	236.97	.0027	-23.68	289.51
SET 72	2367.36	2378.61	16	16	8.4	93.45	.0041	+23.39	.0000	298737.6	1.73	-.00	-.0037	246.38	-.0005	-23.56	253.54
RISE 42	2369.85	2381.10	16	16	10.9	255.00	.0041	+27.82	-.0000	298749.4	.98	1.65	.0030	117.04	-.0023	-23.56	252.93
EXTM 11	2410.42	2421.67	16	16	51.5	.28	.0042	+24.57	.0000	298919.9	1.30	30.22	-.0000	180.30	.0044	-23.53	242.87
SET 11	2694.34	2705.59	16	21	35.4	71.65	.0042	+24.04	.0000	323676.6	1.56	-.00	-.0029	240.09	.0024	-23.33	172.45
EXTM 42	2788.71	2799.96	16	23	9.8	359.96	.0042	+23.03	.0000	324433.8	1.21	77.81	.0000	.19	-.0163	-23.26	149.02
RISE 51	2919.09	2930.34	17	1	20.1	270.00	.0041	+22.75	-.0000	338919.5	.80	9.67	.0035	110.70	-.0016	-23.18	116.63
RISE 72	3074.86	3086.11	17	3	55.9	266.63	.0042	+22.93	-.0000	351169.3	.69	.00	.0038	113.16	-.0005	-23.08	77.92
RISE 61	3134.42	3145.67	17	4	55.5	291.91	.0042	+23.79	-.0000	355131.5	.81	.00	.0027	121.90	.0027	-23.06	63.05
SET 42	3207.33	3218.58	17	6	8.4	105.00	.0041	+22.42	.0000	359801.1	1.44	1.40	-.0030	243.28	-.0023	-23.04	44.85
EXTM 51	3276.02	3287.27	17	7	7.1	359.99	.0042	+22.97	.0000	358167.2	1.10	87.23	.0000	.37	-.0441	-23.02	27.70
EXTM 61	3404.41	3415.66	17	9	25.5	.13	.0042	+23.86	.0000	370118.3	1.09	25.90	-.0000	180.13	.0043	-22.98	355.62
EXTM 72	3444.31	3455.56	17	10	5.4	.02	.0042	+23.23	.0000	369397.1	1.09	74.68	.0000	180.09	.0108	-22.97	345.65
RISE 11	3569.11	3580.36	17	12	10.2	287.90	.0042	+23.54	-.0000	383673.7	.77	.00	.0030	119.26	.0024	-22.94	314.45
SET 51	3632.40	3643.65	17	13	13.5	90.00	.0042	+22.55	.0000	386799.7	1.50	9.59	-.0035	249.49	-.0016	-22.93	298.61
SET 61	3674.17	3685.42	17	13	55.2	68.32	.0042	+23.58	.0000	390658.0	1.43	-.00	-.0027	238.40	.0027	-22.92	288.15
SET 72	3812.89	3824.14	17	16	14.0	93.35	.0042	+22.79	.0000	400596.5	1.79	-.00	-.0038	246.98	-.0006	-22.92	253.30
RISE 42	3813.30	3824.55	17	16	14.4	255.00	.0042	+22.36	-.0000	400477.0	1.02	1.37	.0031	116.68	-.0024	-22.92	253.20
IMPACT	3849.44	3860.69	17	16	50.5												
IMPC 42	3849.44	3860.69	17	16	50.5	264.17	.0043	+22.44	-.0000	403095.3	1.69	8.24	.0033	111.70	-.0023	-22.95	244.02
IMPC 11	3849.44	3860.69	17	16	50.5	359.12	.0044	+23.72	-.0000	400733.0	2.05	31.07	.0000	179.06	.0047	-22.95	244.02
EXTM 11	3851.18	3862.43	17	16	52.2	359.58	.0044	+23.72	-.0000	400952.8	2.21	31.07	.0000	179.55	.0047	-22.95	243.57

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	15	0	41.061	6651.166	23.7175	306.4298	10.91083	-7.0977	106.1710	128.8742
SEPARATION	1.20	12.45	15	0	42.261	6572.594	21.6203	313.3017	10.97273	-3.7242	108.9437	136.0468
RETRO	3.20	14.45	15	0	44.261	6550.661	17.5024	324.2260	10.98950	1.9953	112.7830	147.4726
EXIT SHA	20.00	31.25	15	1	1.064	10147.738	+13.8994	22.8024	8.81294	36.4171	115.0664	210.2615
IMPACT	3849.44	3860.69	17	16	50.498	404058.070	+22.9451	244.0158	2.20941	68.3872	257.7530	311.4535

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SURVEYOR VIEW PERIODS

GHA 174.1222 EPS 130.8616 LOM 239.7186
SX .609379 SY -.690392 SZ -.389892 DAO -22.94776 RAO 311.43342 RM 405347.504 LAT 28.310600 LON 279.461800
C3 -.887641 ECC .985426 SLR 12993.952 RCA 6544.6450 LTA -20.0000 GTA 20.00 TB 675.00000 POL -.0
NSX .624497 NSY -.679164 NSZ -.385667 C3M 1.5349 VIM 2.6785 ZAE 142.722 B.T .0000 B.R -.0000
LATE 6.2393 LONE 2.7620 LATS -1.3658 LONS 231.9074 LATI 2.9818 LONI 325.4966 RSM 148.6237 TTAN 5.5768
LAUNCH DATE MAR 15,1966 BASE AZM 96.0 TF 64.092 ARRIVAL DATE MAR 17 1966 17 7 33.4

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FTH
96.00	0 47 16.8	27.5	22.48	306.45	-10.36	133.28	108.47	0 58 31.8	6998.1	10.99	-5.14

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW														
INJECTION	.00	11.25	15	0	58.5												
SEPARATION	1.20	12.45	15	0	59.7												
RETRO	3.20	14.45	15	1	1.7												
RISE 72	5.69	16.94	15	1	4.2	76.14	-.3029	59.90	.0957	2323.4	-7.39	-.00	.1198	330.87	.1336	9.61	335.94
EXTM 72	10.40	21.65	15	1	8.9	315.08	-.1351	22.67	-.2194	1869.3	5.18	36.45	.0000	54.10	.3137	-1.17	354.85
RISE 51	11.44	22.69	15	1	10.0	73.80	-.1142	30.05	-.0339	4642.2	-4.42	.01	.1026	303.77	.0203	-3.23	358.34
EXIT SHA	19.27	30.52	15	1	17.8												
EXIT 72	19.27	30.52	15	1	17.8	290.05	-.0197	-16.27	-.0207	5889.6	7.80	21.38	-.0180	104.44	.0230	-14.43	18.42
EXIT 51	19.27	30.52	15	1	17.8	21.82	-.0878	3.26	-.0591	4257.4	2.72	54.12	.0985	320.72	.0651	-14.43	18.42
EXTM 51	27.28	38.53	15	1	25.8	353.10	-.0384	-15.16	-.0217	6423.5	5.49	77.61	-.0000	32.72	.2003	-20.47	31.27
EXTM 72	67.83	79.08	15	2	6.4	275.39	-.0001	-27.84	-.0007	23503.7	4.91	8.42	.0000	117.14	.0007	-28.02	53.88
RISE 42	79.83	91.08	15	2	18.4	105.00	-.0032	-20.93	-.0018	27811.0	4.28	.49	.0035	244.45	.0004	-28.43	55.52
EXTM 51	84.25	95.50	15	2	22.8	324.49	-.0000	-28.30	-.0004	24164.7	4.50	58.38	.0000	102.75	.0008	-28.53	55.87
EXTM 42	124.63	135.88	15	3	3.2	102.08	.0004	-23.53	-.0005	39003.4	4.03	4.21	-.0000	244.02	-.0006	-28.78	55.29
SET 42	167.17	178.42	15	3	45.7	105.00	.0017	-24.22	-.0001	48952.5	3.77	2.51	-.0012	241.85	-.0011	-28.59	50.61
RISE 61	193.44	204.69	15	4	12.0	304.29	.0031	-33.66	.0003	54832.0	3.26	-.00	.0019	136.55	.0018	-28.42	46.71
EXTM 51	297.35	308.60	15	5	55.9	.09	.0037	-27.92	.0001	68685.3	2.97	87.81	-.0000	182.22	.0839	-27.74	27.60
EXTM 61	460.71	471.96	15	8	39.2	3.46	.0039	-30.26	.0002	99550.6	2.54	19.43	.0000	183.17	.0036	-26.89	352.47
EXTM 72	493.10	504.35	15	9	11.6	.54	.0040	-27.92	.0001	100703.5	2.48	69.98	.0000	181.40	.0104	-26.75	345.16
RISE 11	650.96	662.21	15	11	49.5	292.08	.0040	-28.04	.0000	128787.7	1.94	.00	.0027	125.13	.0023	-26.17	308.68
SET 51	686.09	697.34	15	12	24.6	90.00	.0039	-25.01	.0001	132285.6	2.54	10.58	-.0033	247.21	-.0013	-26.06	300.43
SET 61	711.41	722.66	15	12	49.9	63.32	.0040	-27.95	.0001	136756.4	2.42	-.00	-.0023	232.12	.0027	-25.99	294.45
SET 72	879.23	890.48	13	15	37.8	93.76	.0040	-25.21	.0001	157621.8	2.39	-.01	-.0036	244.53	-.0004	-25.54	254.45
RISE 42	889.55	900.80	15	15	48.1	254.99	.0040	-24.13	-.0000	158579.5	1.66	2.45	.0029	118.07	-.0022	-25.52	251.98
EXTM 11	930.51	941.76	15	16	29.0	1.06	.0042	-27.41	.0001	160775.3	1.95	27.38	-.0000	181.06	.0042	-25.43	242.13
SET 11	1207.58	1218.83	15	21	6.1	69.77	.0041	-26.11	.0001	194359.8	2.06	-.00	-.0028	237.42	.0024	-24.89	174.97
EXTM 42	1313.62	1324.87	15	22	52.1	359.89	.0042	-24.39	.0000	199166.7	1.69	79.17	.0000	.52	-.0199	-24.72	149.08
RISE 51	1448.58	1459.83	16	1	7.1	270.00	.0041	-23.87	-.0000	217659.9	1.25	10.12	.0034	111.73	-.0015	-24.52	116.04
RISE 72	1605.34	1616.59	16	3	43.9	266.43	.0041	-24.09	-.0000	233752.9	1.15	-.01	.0037	114.34	-.0005	-24.32	77.54
RISE 61	1672.67	1683.92	16	4	51.2	293.61	.0041	-25.33	-.0000	239992.8	1.24	.00	.0026	124.08	.0027	-24.24	60.97
SET 42	1736.47	1747.72	16	5	55.0	105.00	.0041	-23.26	.0000	245593.7	1.84	1.92	-.0030	242.61	-.0023	-24.16	45.26
EXTM 51	1802.21	1813.46	16	7	.7	358.59	.0042	-24.05	.0000	245411.6	1.47	87.88	.0023	37.37	-.0836	-24.09	29.06
EXTM 61	1938.70	1950.15	16	9	17.4	.43	.0042	-25.20	.0000	261033.9	1.44	24.56	.0000	180.43	.0042	-23.95	359.33
EXTM 72	1978.31	1989.56	16	9	56.8	.08	.0042	-24.29	.0000	260998.7	1.42	73.61	.0000	180.27	.0133	-23.91	348.59
RISE 11	2109.45	2120.70	16	12	8.0	288.87	.0042	-24.62	-.0000	278084.9	1.06	.00	.0029	120.65	.0024	-23.78	313.18
SET 51	2165.93	2178.18	16	13	5.5	90.00	.0041	-23.22	.0000	281736.3	1.75	9.86	-.0035	248.87	-.0015	-23.73	298.96
SET 61	2205.01	2216.26	16	13	43.5	67.20	.0042	-24.61	.0000	285934.8	1.65	-.00	-.0026	236.95	.0027	-23.70	289.53
SET 72	2350.31	2361.56	16	16	8.8	93.45	.0041	-23.39	.0000	297579.8	1.73	-.00	-.0037	246.37	-.0005	-23.57	253.55
RISE 42	2352.83	2364.08	16	16	11.4	255.00	.0041	-22.82	-.0000	297594.6	.98	1.65	.0030	117.04	-.0023	-23.57	252.93
EXTM 11	2393.43	2404.68	16	16	52.0	.29	.0042	-24.59	.0000	297782.0	1.31	30.20	-.0000	180.31	.0044	-23.54	242.86
SET 11	2677.30	2688.55	16	21	35.8	71.65	.0042	-24.04	.0000	322621.8	1.56	-.00	-.0029	240.09	.0024	-23.32	172.45
EXTM 42	2771.68	2782.93	16	23	10.2	359.96	.0042	-23.02	.0000	323408.0	1.22	77.81	.0000	.20	-.0166	-23.26	149.02
RISE 51	2902.08	2913.33	17	1	20.6	270.00	.0041	-22.74	-.0000	337932.4	.81	9.66	.0035	110.69	-.0016	-23.17	116.63
RISE 72	3057.85	3069.10	17	3	56.4	266.63	.0041	-22.92	-.0000	349991.9	.74	-.00	.0038	113.15	-.0006	-23.07	77.92
RISE 61	3117.47	3128.72	17	4	56.0	291.89	.0042	-23.77	-.0000	354292.3	.81	.00	.0027	121.87	.0027	-23.04	63.07
SET 42	3190.44	3201.69	17	6	9.0	105.00	.0041	-22.40	.0000	358973.3	1.44	1.39	-.0030	243.29	-.0023	-23.02	44.85
EXTM 51	3259.12	3270.37	17	7	17.6	359.99	.0042	-22.95	.0000	357342.8	1.10	87.21	.0000	.40	-.0395	-23.00	27.70
EXTM 61	3367.49	3378.74	17	9	26.0	.13	.0042	-23.84	.0000	369296.9	1.09	25.92	-.0000	180.13	.0043	-22.96	355.62
EXTM 72	3427.37	3438.62	17	10	5.9	.02	.0042	-23.20	.0000	368576.6	1.09	74.70	.0000	180.09	.0107	-22.95	348.65
RISE 11	3552.08	3563.33	17	12	10.6	287.88	.0042	-23.52	-.0000	382842.8	.77	.00	.0030	119.23	.0024	-22.92	314.46
SET 51	3615.43	3626.68	17	13	14.0	90.00	.0042	-22.53	.0000	385963.8	1.50	9.58	-.0035	249.51	-.0016	-22.90	298.61
SET 61	3657.30	3668.55	17	13	55.8	68.35	.0042	-23.56	.0000	389815.9	1.42	-.00	-.0027	238.43	.0027	-22.90	288.12
SET 72	3795.96	3807.21	17	16	14.5	93.34	.0042	-22.76	.0000	399589.4	1.72	-.00	-.0038	247.01	-.0006	-22.89	253.31
RISE 42	3796.40	3807.65	17	16	14.9	255.00	.0042	-22.33	-.0000	399472.7	.96	1.35	.0031	116.66	-.0024	-22.89	253.20
EXTM 11	3835.11	3846.36	17	16	53.6	359.75	.0043	-23.68	-.0000	399628.9	1.64	31.11	.0000	179.73	.0046	-22.91	243.40
IMPACT	3845.51	3856.76	17	17	4.0												
IMPC 42	3845.51	3856.76	17	17	4.0	267.44	.0043	-22.43	-.0000	402838.9	1.69	10.74	.0033	109.97	-.0022	-22.92	240.74
IMPC 11	3845.51	3856.76	17	17	4.0	2.45	.0044	-23.69	-.0000	400750.6	2.07	31.05	-.0002	182.61	.0047	-22.92	240.74

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FTH	AZ	RT ASC
INJECTION	.00	11.25	15	0	58.530	6599.241	22.4955	306.3957	10.99166	-5.1426	108.4438	133.2190
SEPARATION	1.20	12.45	15	0	59.730	6550.687	20.1544	313.0969	10.99138	-1.7314	110.9950	140.2211
RETRO	3.20	14.45	15	1	1.730	6576.678	15.6908	323.7614	10.96948	3.9860	114.4435	151.3870
EXIT SHA	19.27	30.52	15	1	17.800	10136.930	-14.4346	18.4238	8.81794	36.3770	115.1749	210.0782
IMPACT	3845.51	3856.76	17	17	4.038	404074.430	-22.9198	240.7396	2.20860	68.1415	257.8927	311.9714

MAR 15, 1966
96 DEGREES

SURVEYOR VIEW PERIODS

GMA	174.1222					EPS	131.0017							LOM	235.1852
SX	.611495	SY	-.648848	SZ	-.389309	DAO	+22.91151	RAO	311.59568	RM	405364.984	LAT	28.310600	LON	279.461800
C3	-.889556	ECC	.965194	SLR	12993.746	RCA	6544.6650	LTA	+20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.626595	NSY	-.677571	NSZ	-.385068	C3M	1.5338	VIM	2.6783	ZAE	142.686	B.T	.0000	B.R	-.0000
LATE	6.2454	LONE	2.7453	LATS	-1.3637	LONS	231.7488	LATI	2.8332	LONI	325.4612	RSM	148.6234	TTAN	5.5684

LAUNCH DATE MAR 15,1966 RASE AZM 99.0 TF 64.127 ARRIVAL DATE MAR 17 1966 17 26 17.3

LNCH AZMTH	LNCH TIME	FB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FTH
99.00	1 2 14.8	27.7	21.30	306.21	-7.04	136.79	110.65	1 13 29.8	6569.2	10.98	-3.49

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	15	1	13.5												
SEPARATION	1.20	12.45	15	1	14.7												
RETRO	3.20	14.45	15	1	16.7												
RISE 72	5.33	16.58	15	1	18.8	79.73	-.2346	52.08	.0648	2401.3	-7.96	.00	.1260	322.79	.0954	8.58	333.23
EXTM 72	9.96	21.21	15	1	23.5	329.14	-.2008	21.01	-.2375	1633.8	4.44	48.11	.3114	45.82	.4528	-2.18	351.53
RISE 51	11.27	22.52	15	1	24.8	76.41	-.1046	25.99	-.0378	4813.6	-4.20	-.00	.1006	299.11	.0123	-4.73	355.80
EXIT SHA	18.65	29.90	15	1	32.2												
EXIT 72	18.65	29.90	15	1	32.2	295.44	-.0237	-18.90	-.0196	5514.4	7.81	26.56	-.0226	107.23	.0217	-15.25	14.50
EXIT 51	18.65	29.90	15	1	32.2	30.59	-.0879	1.38	-.0571	4380.0	2.24	49.89	.1027	307.85	.0328	-15.25	14.50
EXTM 51	28.54	39.79	15	1	42.0	356.18	-.0352	-19.04	-.0170	6979.4	5.47	82.43	-.0000	28.58	.2835	-22.25	29.73
EXTM 72	68.24	79.49	15	2	21.7	278.94	-.0000	-29.06	-.0005	23459.7	4.88	11.61	.0000	118.17	.0005	-28.74	50.54
EXTM 51	85.92	97.17	15	2	39.4	328.71	.0000	-29.33	-.0002	24600.2	4.46	62.10	.0000	104.56	.0005	-29.19	52.52
RISE 61	180.15	191.40	15	4	13.6	305.55	.0030	-34.49	.0004	52154.8	3.34	-.00	.0018	137.89	.0017	-28.93	45.27
EXTM 51	279.92	291.17	15	5	53.4	.12	.0036	-28.41	.0001	65652.2	3.03	87.33	.0000	182.36	.0675	-28.17	27.57
EXTM 61	446.40	457.65	15	8	39.9	3.80	.0039	-30.64	.0002	97480.1	2.57	19.03	.0000	183.46	.0036	-27.18	352.16
EXTM 72	478.04	489.29	15	9	11.5	.66	.0040	-28.25	.0001	98545.3	2.50	69.65	-.0000	181.68	.0102	-27.03	345.05
RISE 11	637.09	648.34	15	11	50.6	292.32	.0040	-28.29	.0000	126989.7	1.95	.00	.0027	125.46	.0023	-26.39	308.40
SET 51	670.90	682.15	15	12	24.4	90.00	.0039	-25.21	.0001	130338.3	2.96	10.66	-.0033	247.02	-.0013	-26.27	300.47
SET 61	695.06	706.31	15	12	48.6	63.02	.0040	-28.20	.0001	134693.8	2.43	-.00	-.0023	231.76	.0027	-26.20	294.78
SET 72	964.46	975.71	15	15	38.0	93.78	.0040	-25.38	.0001	155906.4	2.40	-.01	-.0035	244.36	-.0004	-25.71	254.46
RISE 42	874.90	886.15	15	15	48.4	254.99	.0040	-24.27	-.0000	156877.1	1.67	2.54	.0029	118.19	-.0022	-25.68	251.95
EXTM 11	916.08	927.33	15	16	29.6	1.13	.0042	-27.58	.0001	159153.8	1.96	27.20	-.0000	181.13	.0041	-25.58	242.06
SET 11	1192.48	1203.73	15	21	6.0	69.66	.0041	-26.23	.0001	192805.4	2.07	-.00	-.0028	237.25	.0024	-25.00	175.10
EXTM 42	1299.15	1310.40	15	22	52.7	359.91	.0042	-24.49	.0000	197726.1	1.70	79.27	-.0000	.43	-.0200	-24.82	149.06
RISE 51	1434.12	1445.37	16	1	7.6	270.00	.0041	-23.95	-.0000	216269.3	1.26	10.15	.0034	111.81	-.0015	-24.61	116.02
RISE 72	1590.85	1602.10	16	3	44.3	266.42	.0041	-24.16	-.0000	232417.1	1.15	-.01	.0037	114.41	-.0005	-24.39	77.54
RISE 61	1658.54	1669.79	16	4	52.0	293.69	.0041	-25.40	-.0000	238711.7	1.25	.00	.0026	124.19	.0027	-24.30	60.89
SET 42	1721.97	1733.22	16	5	55.5	105.00	.0041	-23.31	.0000	244293.2	1.84	1.95	-.0030	242.57	-.0023	-24.22	45.27
EXTM 51	1787.81	1799.06	16	7	1.3	358.61	.0042	-24.10	.0000	244142.4	1.48	87.93	.0023	37.97	-.0850	-24.14	29.04
EXTM 61	1924.54	1935.79	16	9	18.0	.45	.0042	-25.26	.0000	259807.6	1.44	24.50	.0000	180.45	.0042	-23.99	355.31
EXTM 72	1963.88	1975.13	16	9	57.4	.08	.0042	-24.34	.0000	259772.7	1.43	73.57	.0000	180.28	.0133	-23.95	345.59
RISE 11	2095.17	2106.42	16	12	8.7	288.90	.0042	-24.66	-.0000	276899.1	1.06	.00	.0029	120.70	.0024	-23.82	313.14
SET 51	2152.47	2163.72	16	13	6.0	90.00	.0041	-23.25	.0000	280546.3	1.75	9.87	-.0035	248.84	-.0015	-23.76	298.96
SET 61	2190.41	2201.66	16	13	43.9	67.16	.0042	-24.64	.0000	284742.2	1.65	-.00	-.0026	236.90	.0027	-23.73	289.57
SET 72	2335.87	2347.12	16	16	9.4	93.45	.0041	-23.42	.0000	296428.6	1.74	-.00	-.0037	246.35	-.0005	-23.60	253.55
RISE 42	2338.41	2349.66	16	16	11.9	255.00	.0041	-22.84	-.0000	296444.6	.99	1.66	.0030	117.06	-.0023	-23.59	252.92
EXTM 11	2379.05	2390.30	16	16	52.5	.31	.0042	-24.61	.0000	296646.0	1.31	30.18	-.0000	180.32	.0044	-23.56	242.85
SET 11	2662.83	2674.08	16	21	36.3	71.64	.0042	-24.05	.0000	321522.3	1.57	-.00	-.0029	240.08	.0024	-23.33	172.47
EXTM 42	2757.25	2768.50	16	23	10.7	359.96	.0042	-23.03	.0000	322325.3	1.22	77.81	.0000	.21	-.0168	-23.26	149.02
RISE 51	2887.67	2898.92	17	1	21.2	270.00	.0041	-22.74	-.0000	336869.2	.81	9.66	.0035	110.69	-.0016	-23.17	116.63
RISE 72	3043.45	3054.70	17	3	56.9	266.63	.0041	-22.91	-.0000	348948.6	.74	-.00	.0038	113.15	-.0006	-23.07	77.92
RISE 61	3103.03	3114.28	17	4	56.5	291.88	.0042	-23.76	-.0000	353255.6	.81	.00	.0027	121.86	.0027	-23.03	63.08
SET 42	3176.01	3187.26	17	6	9.5	105.00	.0041	-22.38	.0000	357939.8	1.44	1.38	-.0030	243.30	-.0023	-23.01	44.85
EXTM 51	3244.70	3255.95	17	7	18.2	359.99	.0042	-22.93	.0000	356309.9	1.10	87.19	.0000	.39	-.0405	-22.98	27.70
EXTM 61	3373.11	3384.36	17	9	26.6	.14	.0042	-23.82	.0000	368262.5	1.09	25.94	-.0000	180.14	.0043	-22.94	355.61
EXTM 72	3412.97	3424.22	17	10	6.5	.02	.0042	-23.19	.0000	367540.1	1.09	74.72	.0000	180.11	.0105	-22.93	345.65
RISE 11	3537.62	3548.87	17	12	11.1	287.87	.0042	-23.50	-.0000	381789.9	.76	.00	.0030	119.21	.0024	-22.89	314.48
SET 51	3601.03	3612.28	17	13	14.5	90.00	.0042	-22.50	.0000	384902.3	1.49	9.57	-.0035	249.54	-.0016	-22.88	298.61
SET 61	3643.01	3654.26	17	13	56.5	68.38	.0042	-23.53	.0000	388746.5	1.42	-.00	-.0027	238.46	.0027	-22.87	288.10
SET 72	3781.64	3792.89	17	16	15.1	93.34	.0042	-22.73	.0000	398360.7	1.67	-.01	-.0038	247.04	-.0006	-22.86	253.32
RISE 42	3782.11	3793.36	17	16	15.6	255.00	.0042	-22.30	-.0000	398248.9	.91	1.33	.0031	116.63	-.0024	-22.86	253.20
EXTM 11	3821.50	3832.75	17	16	55.0	359.89	.0043	-23.45	-.0000	398218.0	1.43	31.15	.0000	179.88	.0046	-22.87	243.26
IMPACT	3847.64	3858.89	17	17	21.1												
IMPC 42	3847.64	3858.89	17	17	21.1	271.58	.0043	-22.41	-.0000	402509.9	1.69	13.93	.0034	107.81	-.0022	-22.89	236.60
IMPC 11	3847.64	3858.89	17	17	21.1	6.64	.0044	-23.66	-.0000	400791.2	2.09	30.80	-.0005	187.09	.0046	-22.89	236.60

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION	.00	11.25	15	1	13.497	6569.496	21.3021	306.1943	10.97571	-3.4940	110.6470	136.7697
SEPARATION	1.20	12.45	15	1	14.697	6544.672	18.7235	312.7389	10.99638	-.0641	112.9932	143.6151
RETRO	3.20	14.45	15	1	16.697	6608.736	13.9452	323.1115	10.94256	5.6298	116.0626	154.4898
EXIT SHA	18.65	29.90	15	1	32.151	10126.326	-15.2500	14.5007	8.82258	36.3364	115.3573	209.7527
IMPACT	3847.64	3858.89	17	17	21.135	404090.918	-22.8862	23[illegible]3017	2.20768	68.1295	258.1668	311.7196

SURVEYOR VIEW PERIODS

GHA	174.1222				EPS 131.1077							LOM	231.7540
SX	.613094	SY	-.687474	SZ	-.388866	DAO	*22.88396	RAO	311.71842	RM	405378.098	LAT	28.310600
C3	-.889915	ECC	.985388	SLR	12993.702	RCA	6544.6650	LTA	*20.0000	GTA	20.00	TB	675.00000
NSX	.629171	NSY	-.676365	NSZ	-.384619	C3M	1.5346	VIM	2.6784	ZAE	142.662	B.T	.0000
LATE	6.2499	LONE	2.8623	LATS	-1.3656	LONS	231.7584	LATI	2.6331	LONI	325.5775	RSM	148.6233
LAUNCH DATE	MAR 15,1966			BASE AZM	102.0		TF 64.137					ARRIVAL DATE	MAR 17 1966 17 40 27.9

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPTH
102.00	1 14 54.3	27.8	20.14	305.87	-4.26	139.62	112.81	1 26 9.3	6553.7	10.99	-2.11

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DPG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROPE	IN	EARTH'S	SHADOW												
INJECTION	.00	11.25	15	1	26.2												
SEPARATION	1.20	12.45	15	1	27.4												
RETRO	3.20	14.45	15	1	29.4												
RISE 72	5.06	16.31	15	1	31.2	81.96	-.1976	45.24	.0349	2480.0	-8.26	-.00	.1297	315.79	.0614	7.42	330.91
EXTM 72	9.64	20.89	15	1	35.8	343.68	-.2606	16.39	-.2376	1487.0	3.69	60.83	.0523	33.59	.6994	-3.40	348.66
RISE 51	11.15	22.40	15	1	37.3	78.69	-.0967	22.13	-.0414	4969.1	-3.97	-.00	.0985	294.72	.0054	-6.37	353.50
EXIT SHA	18.16	29.41	15	1	44.3												
EXIT 72	18.16	29.41	15	1	44.3	300.62	-.0285	-22.15	-.0.78	5217.8	7.81	31.27	-.0276	111.17	.0181	-16.32	11.02
EXIT 51	18.16	29.41	15	1	44.3	38.02	-.0864	-.96	-.0536	4524.0	1.86	45.79	.1024	297.96	.0117	-16.32	11.02
EXTM 51	29.91	41.16	15	1	56.1	358.56	-.0322	-22.82	-.0132	7563.4	5.45	86.80	.0000	24.56	.5825	-24.16	28.48
EXTM 72	68.82	80.07	15	2	35.0	281.98	-.0000	-30.44	-.0003	23498.7	4.85	14.29	.0000	119.50	.0003	-29.67	47.71
RISE 61	170.72	181.97	15	4	16.9	306.99	.0029	-35.41	.0005	50233.0	3.41	-.00	.0018	139.38	.0016	-29.58	43.70
EXTM 51	265.17	276.42	15	5	51.3	.19	.0035	-29.02	.0002	63037.8	3.09	86.72	.0000	182.90	.0540	-28.72	27.51
EXTM 61	434.73	445.98	15	8	40.9	4.18	.0039	-31.09	.0002	95794.9	2.59	18.57	.0000	183.77	.0035	-27.56	351.81
EXTM 72	465.26	476.51	15	9	11.4	.74	.0040	-28.66	.0001	96704.3	2.53	69.23	-.0000	181.84	.0100	-27.40	344.98
RISE 11	625.85	637.10	15	11	52.0	292.63	.0040	-28.60	.0000	125529.6	1.97	.00	.0027	125.87	.0023	-26.67	308.07
SET 51	658.09	669.34	15	12	24.2	90.00	.0039	-25.48	.0001	128686.0	2.58	10.77	-.0032	246.77	-.0013	-26.59	300.52
SET 61	680.76	692.01	15	12	46.9	62.65	.0040	-28.50	.0002	132877.8	2.45	-.00	-.0022	231.31	.0027	-26.47	295.18
SET 72	852.05	863.30	15	15	38.2	93.82	.0039	-25.59	.0001	154467.1	2.41	-.00	-.0035	244.15	-.0004	-25.93	254.45
RISE 42	862.57	873.82	15	15	48.7	254.99	.0040	-24.48	-.0000	155439.3	1.69	2.66	.0029	118.35	-.0022	-25.90	251.93
EXTM 11	904.00	915.25	15	16	30.2	1.21	.0042	-27.81	.0001	157808.2	1.97	26.97	-.0000	181.20	.0041	-25.79	241.98
SET 11	1179.50	1190.75	15	21	5.7	69.50	.0041	-26.39	.0001	191477.3	2.08	-.00	-.0027	237.04	.0024	-25.16	179.26
EXTM 42	1286.86	1298.11	15	22	53.0	359.91	.0042	-24.63	.0000	196510.6	1.71	79.41	-.0000	.46	-.0203	-24.96	149.07
RISE 51	1421.91	1433.16	16	1	8.1	270.00	.0041	-24.07	-.0000	215107.4	1.27	10.20	.0034	111.92	-.0015	-24.73	116.01
RISE 72	1578.58	1589.83	16	3	44.7	266.41	.0041	-24.26	-.0000	231303.6	1.16	-.01	.0037	114.51	-.0005	-24.49	77.55
RISE 61	1646.79	1658.04	16	4	52.9	293.80	.0041	-25.50	-.0000	237665.1	1.25	.00	.0026	124.33	.0027	-24.40	60.77
SET 42	1709.71	1720.96	16	5	55.9	105.00	.0041	-23.40	.0000	243211.2	1.85	2.00	-.0030	242.50	-.0023	-24.31	45.28
EXTM 51	1775.79	1787.04	16	7	1.9	358.66	.0042	-24.19	.0000	243104.3	1.48	88.03	.0023	38.37	-.0887	-24.23	28.99
EXTM 61	1912.42	1923.67	16	9	18.6	.48	.0042	-25.33	.0000	258800.9	1.44	24.43	.0000	180.48	.0042	24.06	359.28
EXTM 72	1951.69	1962.94	16	9	57.8	.09	.0042	-24.41	.0000	258762.7	1.43	73.49	.0000	180.30	.0133	-24.02	345.58
RISE 11	2083.19	2094.44	16	12	9.3	288.96	.0042	-24.72	-.0000	275932.7	1.07	.00	.0029	120.78	.0024	-23.87	313.08
SET 51	2140.23	2151.48	16	13	6.4	90.00	.0041	-23.30	.0000	279567.9	1.75	9.89	-.0035	248.79	-.0015	-23.82	298.97
SET 61	2177.92	2189.17	16	13	44.1	67.10	.0042	-24.70	.0000	283753.1	1.65	-.00	-.0026	236.82	.0027	-23.78	289.64
SET 72	2323.66	2334.91	16	16	9.8	93.46	.0041	-23.46	.0000	295488.7	1.74	-.00	-.0037	246.30	-.0005	-23.64	253.55
RISE 42	2326.21	2337.46	16	16	12.4	255.00	.0041	-22.88	-.0000	295502.9	.99	1.69	.0030	117.09	-.0023	-23.64	252.92
EXTM 11	2366.90	2378.15	16	16	53.1	.32	.0042	-24.65	.0000	295722.9	1.31	30.14	-.0000	180.34	.0044	-23.60	242.83
SET 11	2650.50	2661.75	16	21	36.7	71.62	.0042	-24.08	.0000	320627.0	1.57	-.00	-.0029	240.05	.0024	-23.36	178.49
EXTM 42	2745.01	2756.26	16	23	11.2	359.95	.0042	-23.05	-.0000	321450.9	1.22	77.83	.0000	.23	-.0166	-23.28	149.03
RISE 51	2875.46	2886.71	17	1	21.6	270.00	.0041	-22.75	-.0000	336013.9	.81	9.67	.0035	110.70	-.0016	-23.18	116.63
RISE 72	3031.22	3042.47	17	3	57.4	266.63	.0041	-22.92	-.0000	348113.7	.74	-.00	.0038	113.15	-.0006	-23.07	77.91
RISE 61	3090.90	3102.15	17	4	57.1	291.88	.0042	-23.76	-.0000	352265.0	.85	.00	.0027	121.86	.0027	-23.03	63.08
SET 42	3163.89	3175.14	17	6	10.0	105.00	.0041	-22.38	.0000	357195.4	1.44	1.37	-.0030	243.31	-.0023	-23.00	44.85
EXTM 51	3232.57	3243.82	17	7	18.7	359.99	.0042	-22.92	.0000	355562.4	1.10	87.19	.0000	.39	-.0411	-22.97	27.70
EXTM 61	3360.99	3372.24	17	9	27.1	.15	.0042	-23.82	.0000	367507.7	1.09	25.95	-.0000	180.15	.0043	-22.93	358.61
EXTM 72	3400.82	3412.07	17	10	7.0	.02	.0042	-23.17	.0000	366781.2	1.09	74.73	.0000	180.10	.0118	-22.92	345.65
RISE 11	3525.41	3536.66	17	12	11.6	287.85	.0042	-23.48	-.0000	381011.9	.76	.00	.0030	119.19	.0024	-22.88	314.49
SET 51	3588.86	3600.11	17	13	15.0	90.00	.0042	-22.48	.0000	384114.4	1.49	9.96	-.0035	249.55	-.0016	-22.86	298.61
SET 61	3630.91	3642.16	17	13	57.1	68.39	.0042	-23.52	.0000	387950.5	1.41	-.00	-.0027	238.49	.0027	-22.85	288.08
SET 72	3769.47	3780.72	17	16	15.6	93.34	.0042	-22.70	.0000	397454.1	1.64	-.01	-.0038	247.07	-.0006	-22.83	253.32
RISE 42	3769.98	3781.23	17	16	16.1	255.00	.0042	-22.27	-.0000	397344.3	.88	1.31	.0031	116.61	-.0024	-22.83	253.19
EXTM 11	3809.68	3820.93	17	16	55.8	359.96	.0043	-23.62	-.0000	397217.3	1.34	31.17	.0000	179.95	.0044	-22.84	243.19
IMPACT	3848.19	3859.44	17	17	34.3												
IMPC 42	3848.19	3859.44	17	17	34.3	274.78	.0043	-22.40	-.0000	402258.9	1.68	16.42	.0034	106.16	-.0022	-22.86	233.40
IMPC 11	3848.19	3859.44	17	17	34.3	9.88	.0044	-23.63	-.0000	400842.7	2.11	30.42	-.0007	190.91	.0046	-22.86	233.40

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPTH	AZ	RT ASC
INJECTION	.00	11.25	15	1	26.155	6553.689	20.1372	305.8696	10.98889	-2.1148	112.8058	139.6182
SEPARATION	1.20	12.45	15	1	27.355	6548.160	17.3314	312.2529	10.99341	1.3193	114.9553	146.3819
RETRO	3.20	14.45	15	1	29.355	6643.590	12.2579	322.3299	10.91358	6.9833	117.6665	156.8807
EXIT SHA	18.16	29.41	15	1	44.313	10122.401	*16.3215	11.0176	8.82421	36.3214	115.6021	209.3185
IMPACT	3848.19	3859.44	17	17	34.347	404106.543	-22.8608	233.4047	2.20573	67.9236	238.5209	311.8347

SURVEYOR VIEW , ERIODS

GHA	174.1222					EPS 131.2058								LOM	228.5791
SX	.614571	SY	-.686590	SZ	-.388455	DAO	-22.85839	RAO	311.83194	RM	405390.133	LAT	28.310600	LON	279.461800
C3	-.891732	ECC	.9[illegible]359	SLR	12993.510	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.623639	NSY	-.675237	NSZ	-.384200	C3M	1.5345	VIM	2.6784	ZAE	142.607	B.T	.0000	B.R	-.0000
LATE	6.2541	LONE	2.7212	LATS	-1.3656	LONS	231.5180	LATI	2.3904	LONI	325.4109	RSM	148.6231	TTAN	5.5566
LAUNCH DATE		MAR	15,1966		BASE AZM	105.0		TF	64.168			ARRIVAL	DATE MAR	17 1966	17 53 35.0

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	1 29 36.4	27.9	19.00	305.45	-1.95	141.88	114.94	1 36 51.4	6546.6	10.99	-.97

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PRORE IN EARTH'S SHADOW															
INJECTION	.00	11.25	15	1	36.9												
SEPARATION	1.20	12.45	15	1	38.1												
RETRO	3.20	14.45	15	1	40.1												
RISE 72	4.86	16.11	15	1	41.7	83.52	-.1739	39.11	.0074	2556.2	-8.37	-.00	.1315	309.56	.0312	6.14	328.90
EXTM 72	9.42	20.67	15	1	46.3	357.33	-.2963	9.13	-.2247	1426.4	2.99	72.76	.1764	8.91	1.0928	-4.82	346.16
RISE 51	11.06	22.34	15	1	47.9	80.76	-.0900	18.42	-.0448	5110.8	-3.74	-.00	.0964	290.54	-.0008	-8.12	351.41
EXIT SHA	17.73	28.98	15	1	54.6												
EXIT 72	17.73	28.98	15	1	54.6	305.65	-.0341	-25.92	-.0146	4981.1	7.79	35.40	-.0326	116.28	.0117	-17.58	7.85
EXIT 51	17.73	28.98	15	1	54.6	44.51	-.0843	-3.50	-.0546	4675.0	1.57	41.89	.1003	289.96	-.0024	-17.58	7.85
EXTM 51	31.41	42.66	15	2	8.3	.32	-.0296	-26.50	-.0101	8177.1	5.43	89.19	-.0000	200.66	-1.9990	-26.17	27.51
EXTM 72	69.47	80.72	15	2	46.3	284.54	.0000	-31.94	-.0000	23582.5	4.83	16.48	.0000	121.06	.0000	-30.75	45.32
EXTM 51	88.48	99.73	15	3	5.3	335.31	-.0000	-31.80	.0001	25307.0	4.41	67.58	.0000	111.44	-.0003	-30.97	47.24
RISE 61	164.83	176.08	15	4	21.7	308.57	.0028	-36.38	.0005	49037.3	3.45	-.00	.0018	140.99	.0015	-30.33	42.07
EXTM 51	252.92	264.17	15	5	49.8	.29	.0035	-29.75	.0002	60827.6	3.13	85.98	.0000	183.66	.0432	-29.37	27.42
EXTM 61	425.44	436.69	15	8	42.3	4.59	.0039	-31.60	.0002	94455.3	2.61	18.04	.0000	184.11	.0035	-28.01	351.42
EXTM 72	454.75	466.00	15	9	11.6	.84	.0040	-29.14	.0001	95177.2	2.55	68.75	.0000	182.03	.0097	-27.83	344.89
RISE 11	416.93	428.18	15	11	53.8	292.99	.0040	-28.96	.0000	124358.7	1.98	.00	.0027	125.35	.0023	-27.01	307.68
SET 51	647.40	658.65	15	12	24.3	90.00	.0039	-25.80	.0001	127286.0	2.59	10.89	-.0032	246.47	-.0013	-26.88	300.55
SET 61	668.28	679.53	15	12	45.1	62.20	.0040	-28.86	.0002	131271.0	2.46	-.00	-.0022	230.78	.0027	-26.80	295.65
SET 72	841.75	853.00	15	15	38.6	93.86	.0039	-25.85	.0001	153254.6	2.42	-.00	-.0035	243.89	-.0004	-26.19	254.44
RISE 42	852.29	863.54	15	15	49.1	254.99	.0040	-24.72	-.0000	154218.2	1.69	2.81	-.0029	118.55	-.0022	-26.15	251.91
EXTM 11	894.03	905.28	15	16	30.9	1.31	.0042	-28.07	.0001	156687.0	1.98	26.71	-.0000	181.29	.0041	-26.03	241.89
SET 11	1168.42	1179.67	15	21	5.3	69.32	.0041	-26.59	.0001	190321.0	2.08	-.00	-.0027	236.78	.0024	-25.34	179.46
EXTM 42	1276.57	1287.82	15	22	53.4	359.90	.0042	-24.79	.0000	195469.5	1.71	79.57	-.0000	.50	-.0206	-25.12	149.47
RISE 51	1411.69	1422.94	16	1	8.5	270.00	.0041	-24.21	-.0000	214108.0	1.27	10.26	.0034	112.05	-.0015	-24.87	116.06
RISE 72	1568.28	1579.53	16	3	45.1	266.38	.0041	-24.39	-.0000	230340.2	1.16	-.01	.0037	114.64	-.0005	-24.62	77.56
RISE 61	1637.12	1648.37	16	4	54.0	293.94	.0041	-25.62	-.0000	236774.8	1.25	.00	.0026	124.50	.0027	-24.51	60.63
SET 42	1699.43	1710.68	16	5	56.3	105.00	.0041	-23.50	.0001	242270.7	1.85	2.07	-.0030	242.42	-.0023	-24.42	45.28
EXTM 51	1766.02	1777.27	16	7	2.9	358.78	.0042	-24.29	.0000	242229.1	1.49	88.18	.0023	37.63	-.0968	-24.33	28.87
EXTM 61	1902.29	1913.54	16	9	19.1	.51	.0042	-25.43	.0000	257927.2	1.45	24.33	.0000	180.51	.0042	-24.15	355.25
EXTM 72	1941.46	1952.71	16	9	58.3	.10	.0042	-24.50	.0000	257880.7	1.43	73.41	.0000	180.32	.0132	-24.10	345.58
RISE 11	2073.23	2084.48	16	12	10.1	269.03	.0042	-24.80	-.0000	275090.4	1.07	.00	.0029	120.88	.0024	-23.93	313.00
SET 51	2129.96	2141.21	16	13	6.8	90.00	.0041	-23.37	.0000	278703.8	1.75	9.92	-.0035	248.73	-.0015	-23.89	298.97
SET 61	2167.33	2178.58	16	13	44.2	67.02	.0042	-24.77	.0000	282872.2	1.66	-.00	-.0026	236.72	.0027	-23.85	289.72
SET 72	2313.42	2324.67	16	16	10.3	93.47	.0041	-23.51	.0001	294655.0	1.74	-.00	-.0037	246.25	-.0005	-23.69	253.54
RISE 42	2315.96	2327.21	16	16	12.8	255.00	.0041	-22.94	-.0000	294665.5	.99	1.72	.0030	117.13	-.0023	-23.69	252.91
EXTM 11	2356.71	2367.96	16	16	53.6	.34	.0042	-24.71	.0000	294904.1	1.31	30.08	-.0000	180.36	.0044	-23.65	242.81
SET 11	2940.08	2951.33	16	21	36.9	71.59	.0042	-24.11	.0000	319816.9	1.57	-.00	-.0029	240.00	.0024	-23.39	172.53
EXTM 42	2734.72	2745.97	16	23	11.6	359.95	.0042	-23.08	.0000	320658.3	1.22	77.86	.0000	.24	-.0170	-23.31	149.03
RISE 51	2865.18	2876.43	17	1	22.0	270.00	.0041	-22.77	-.0000	335234.5	.81	9.68	.0035	110.72	-.0016	-23.20	114.62
RISE 72	3020.94	3032.19	17	3	57.8	266.63	.0041	-22.93	-.0000	347347.0	.75	-.00	.0038	113.17	-.0006	-23.09	77.91
RISE 61	3080.67	3091.92	17	4	57.5	291.89	.0042	-23.78	-.0000	351506.7	.86	.00	.0027	121.88	-.0027	-23.04	63.06
SET 42	3153.59	3164.84	17	6	10.4	105.00	.0041	-22.38	.0000	356435.3	1.44	1.38	-.0030	243.31	-.0023	-23.01	44.86
EXTM 51	3222.28	3233.53	17	7	19.1	359.99	.0042	-22.93	.0000	354804.4	1.10	87.19	.0000	.40	-.0425	-22.98	27.70
EXTM 61	3350.75	3362.00	17	9	27.6	.16	.0042	-23.82	.0000	366751.9	1.09	25.95	-.0000	180.16	.0043	-22.93	355.59
EXTM 72	3390.55	3401.80	17	10	7.4	.03	.0042	-23.17	.0000	366021.2	1.09	74.73	.0000	180.11	.0118	-22.91	345.65
RISE 11	3515.11	3526.36	17	12	12.0	287.85	.0042	-23.48	-.0000	380242.2	.76	.00	.0030	119.18	.0024	-22.87	314.49
SET 51	3578.57	3589.82	17	13	15.4	90.00	.0042	-22.47	.0000	383337.8	1.48	9.55	-.0035	249.56	-.0016	-22.85	298.61
SET 61	3620.68	3631.93	17	13	57.5	68.41	.0042	-23.51	.0000	387168.5	1.41	-.00	-.0027	238.50	.0027	-22.84	288.07
SET 72	3759.23	3770.48	17	16	16.1	93.33	.0042	-22.68	.0000	396593.1	1.62	-.01	-.0038	247.09	-.0005	-22.81	256.33
RISE 42	3759.76	3771.01	17	16	16.6	255.00	.0042	-22.25	-.0000	396486.1	.86	1.30	.0031	116.59	-.0024	-22.81	253.19
EXTM 11	3799.66	3810.91	17	16	56.5	.00	.0043	-23.60	.0000	396291.4	1.29	31.20	.0000	180.01	.0000	-22.81	243.15
IMPACT	3850.11	3861.36	17	17	47.0												
IMPC 42	3850.11	3861.36	17	17	47.0	277.84	.0043	-22.40	-.0000	402617.1	1.68	18.83	.0034	104.60	-.0021	-22.84	238.35
IMPC 11	3850.11	3861.36	17	17	47.0	12.98	.0044	-23.60	-.0000	400902.6	2.13	29.92	-.0009	193.74	.0045	-22.84	238.35

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	15	1	36.856	6546.552	18.9998	305.4517	10.99481	-.9684	114.9365	141.8830
SEPARATION	1.20	12.45	15	1	38.056	6556.875	15.9734	311.6726	10.98597	2.4643	116.8988	148.4047
RETRO	3.20	14.45	15	1	40.056	6677.885	10.6223	321.4444	10.88523	8.0896	119.2704	158.6779
EXIT SHA	17.73	28.98	15	1	54.990	10114.555	-17.5763	7.8532	6.82797	36.2912	115.9260	208.7303
IMPACT	3850.11	3861.36	17	17	46.966	404118.309	-22.8368	239.3507	2.20509	67.9117	258.9937	311.9440

SURVEYOR VIEW PERIODS

GHA	174.1222					EPS	131.2935							LOM	225.7434
SX	.615888	SY	-.685617	SZ	-.388087	DAO	-22.83549	RAO	311.93330	RM	405400.813	LAT	28.310600	LON	279.461800
CS	-.894147	ECC	.985319	SLR	12993.249	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.630954	NSY	-.674221	NSZ	-.383827	CSM	1.9343	VIM	2.0783	ZAE	142.530	B.T	.0000	B.R	-.0000
LATE	6.2978	LONE	2.8178	LATS	-1.3659	LONS	231.5255	LATI	2.1150	LONI	329.4662	RSM	148.6230	TTAN	5.5536
LAUNCH DATE		MAR	15,1966		BASE AZM	108.0		TF	64.209			ARRIVAL	DATE MAR	17 1966	18 5 18.0

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
108.00	1 34 40.2	28.0	17.89	304.96	-.03	143.56	117.09	1 45 55.2	6544.7	11.00	-.02

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROGR	IN EARTH'S SHADOW														
INJECTION	.00	11.25	15	1	45.9												
SEPARATION	1.20	12.45	15	1	47.1												
RETRO	3.20	14.45	15	1	49.1												
RISE 72	4.73	15.98	15	1	50.6	84.73	-.1567	33.48	-.0175	2630.8	-8.33	-.00	.1318	303.84	.0042	4.77	327.4
EXTM 72	9.15	20.40	15	1	55.1	11.90	-.3129	1.96	-.2131	1429.1	2.02	74.87	.3759	310.24	.1659	-6.12	343.56
RISE 51	11.07	22.32	15	1	57.0	82.67	-.0843	14.83	-.0480	5241.7	-3.51	.00	.0943	286.50	-.0063	-9.96	349.56
EXIT SHA	17.36	28.61	15	2	3.3												
EXIT 72	17.36	28.61	15	2	3.3	310.59	-.0408	-30.11	-.0110	4797.3	7.75	38.79	-.0370	122.56	.0018	-18.97	4.93
EXIT 51	17.36	28.61	15	2	3.3	50.31	-.0818	-6.12	-.0542	4828.6	1.33	38.20	.0973	283.22	-.0121	-18.97	4.93
EXTM 51	33.06	44.31	15	2	19.0	1.90	-.0272	-30.07	-.0074	8832.4	5.40	85.47	.0000	196.73	-.3124	-28.29	26.83
EXTM 72	69.92	81.17	15	2	55.8	286.67	-.0000	-33.54	.0002	23635.6	4.81	18.23	.0000	122.79	-.0002	-31.99	43.29
EXTM 51	88.95	100.20	15	3	14.9	337.84	-.0001	-33.22	.0003	25457.3	4.39	69.36	.0000	116.45	-.0000	-32.04	45.19
RISE 61	162.04	173.29	15	4	28.0	310.23	.0028	-37.35	.0006	48494.4	3.47	-.00	.0018	142.64	.0015	-31.15	48.43
EXTM 51	242.87	254.12	15	5	48.8	.44	.0034	-30.58	.0002	58990.7	3.18	85.15	-.0000	184.50	.0390	-30.11	27.29
EXTM 61	418.17	429.42	15	8	44.1	5.04	.0039	-32.15	.0002	93417.2	2.63	17.46	.0000	184.47	.0035	-28.51	351.00
EXTM 72	446.19	457.44	15	9	12.1	.97	.0040	-29.67	.0002	93929.2	2.56	68.21	.0000	182.26	.0094	-28.31	344.77
RISE 11	609.96	621.21	15	11	55.9	293.39	.0040	-29.36	.0000	123438.3	1.99	.00	.0027	126.88	.0023	-27.38	307.26
SET 51	638.50	649.75	15	12	24.4	90.00	.0039	-26.14	.0001	126105.7	2.60	11.04	-.0032	246.17	-.0013	-27.25	300.59
SET 61	657.32	668.57	15	12	43.2	61.70	.0040	-29.20	.0002	129845.9	2.47	-.00	-.0022	230.19	.0027	-27.17	296.17
SET 72	833.22	844.47	15	15	39.1	93.91	.0039	-26.14	.0001	152240.0	2.42	-.00	-.0035	243.59	-.0004	-26.48	254.41
RISE 42	843.74	854.99	15	15	49.7	254.99	.0040	-25.00	-.0000	153186.7	1.70	2.98	.0029	116.77	-.0022	-26.44	253.89
EXTM 11	885.82	897.07	15	16	31.7	1.41	.0042	-28.37	.0001	155761.9	1.98	26.41	-.0000	181.38	.0041	-26.31	242.79
SET 11	1158.94	1170.19	15	21	4.9	69.11	.0041	-26.81	.0001	189317.3	2.08	-.00	-.0027	236.49	.0024	-25.56	175.67
EXTM 42	1267.96	1279.21	15	22	53.9	359.90	.0042	-24.99	.0000	194584.0	1.72	79.77	-.0000	.54	-.0210	-25.31	149.08
RISE 51	1403.14	1414.39	16	1	9.1	270.00	.0041	-24.38	-.0000	213255.0	1.27	10.32	.0034	112.20	-.0015	-25.04	116.00
RISE 72	1559.62	1570.87	16	3	45.5	266.36	.0041	-24.53	-.0000	229514.2	1.16	-.01	.0037	114.78	-.0005	-24.76	77.98
RISE 61	1629.19	1640.44	16	4	55.1	294.10	.0041	-25.76	.0000	236027.4	1.26	.00	.0027	124.70	.0177	-24.65	60.47
SET 42	1690.81	1702.06	16	5	56.7	105.00	.0041	-23.63	.0001	241441.3	1.85	2.14	-.0030	242.32	-.0022	-24.55	45.29
EXTM 51	1758.11	1769.36	16	7	4.0	358.99	.0042	-24.41	.0000	241501.6	1.49	88.37	.0022	35.76	-.0107	-24.49	28.70
EXTM 61	1893.82	1905.07	16	9	19.7	.99	.0042	-25.54	.0000	257178.9	1.45	24.22	.0000	180.54	.0042	-24.26	353.22
EXTM 72	1932.89	1944.14	16	9	58.8	.11	.0042	-24.60	.0000	257120.7	1.44	73.30	.0000	180.34	.0132	-24.20	349.57
RISE 11	2064.96	2076.21	16	12	10.9	269.11	.0042	-24.89	-.0000	274367.6	1.07	.00	.0029	121.06	.0024	-24.04	312.92
SET 51	2121.32	2132.57	16	13	7.2	90.00	.0041	-23.45	.0001	277953.2	1.76	9.95	-.0035	248.65	-.0015	-23.97	298.97
SET 61	2158.32	2169.57	16	13	44.2	66.93	.0042	-24.85	.0001	282098.9	1.64	-.00	-.0026	236.60	.0027	-23.93	289.82
SET 72	2304.81	2316.06	16	16	10.7	93.48	.0041	-23.58	.0001	293928.4	1.71	-.00	-.0037	246.18	-.0005	-24.76	253.94
RISE 42	2307.34	2318.59	16	16	13.3	259.00	.0041	-23.00	-.0000	293933.0	.99	1.76	.0030	117.18	-.0043	-23.76	253.51
EXTM 11	2345.16	2356.41	16	16	54.1	.37	.0042	-24.78	.0000	294192.3	1.31	30.01	-.0000	180.38	.0044	-23.71	248.79
SET 11	2631.25	2642.50	16	21	37.2	71.55	.0042	-24.16	.0000	319099.9	1.57	-.00	-.0029	239.94	.0024	-23.43	172.57
EXTM 42	2726.05	2737.30	16	23	12.0	359.99	.0042	-23.11	.0000	319997.8	1.23	77.89	.0000	.25	-.0174	-23.35	149.03
RISE 51	2856.53	2867.78	17	1	22.4	270.00	.0041	-22.80	-.0000	334542.7	.82	9.69	.0035	110.74	-.0016	-23.23	116.62
RISE 72	3012.25	3023.50	17	3	58.2	266.62	.0041	-22.95	-.0000	346663.1	.75	-.00	.0038	113.19	-.0006	-23.11	77.91
RISE 61	3072.07	3083.32	17	4	58.0	291.91	.0042	-23.79	-.0000	350831.6	.86	.00	.0027	121.91	.0027	-23.06	63.04
SET 42	3144.90	3156.15	17	6	10.8	105.00	.0041	-22.39	.0000	355756.4	1.44	1.39	-.0030	243.30	-.0023	-23.02	44.86
EXTM 51	3213.59	3224.84	17	7	19.5	359.99	.0042	-22.94	.0000	354124.0	1.10	87.20	.0000	.42	-.0434	-22.95	27.70
EXTM 61	3342.12	3353.37	17	9	28.0	.17	.0042	-23.82	.0000	366072.5	1.09	25.94	-.0000	180.18	.0043	-22.93	359.58
EXTM 72	3381.88	3393.13	17	10	7.8	.03	.0042	-23.17	.0000	369337.3	1.09	74.73	.0000	180.12	.0125	-22.91	345.54
RISE 11	3506.43	3517.68	17	12	12.4	287.84	.0042	-23.47	-.0000	379548.4	.76	.00	.0030	119.18	.0024	-22.87	314.90
SET 51	3569.89	3581.14	17	13	15.8	90.00	.0042	-22.47	.0000	382636.2	1.48	9.53	-.0035	249.57	-.0016	-22.84	298.62
SET 61	3612.04	3623.29	17	13	58.0	68.41	.0042	-23.50	.0000	386461.3	1.40	-.00	-.0027	238.51	.0027	-22.83	288.06
SET 72	3750.97	3761.82	17	16	16.8	93.33	.0042	-22.66	.0000	399821.9	1.40	-.01	-.0038	247.11	-.0005	-22.80	253.33
RISE 42	3791.13	3762.38	17	16	17.0	259.00	.0042	-22.23	-.0000	399714.8	.84	1.29	.0031	116.58	-.0024	-22.80	253.19
EXTM 11	3791.17	3802.42	17	16	57.1	.03	.0043	-23.58	.0000	399472.7	1.29	31.21	.0000	180.03	.0043	-22.80	242.12
IMPACT	3892.57	3863.82	17	17	58.5												
IMPC 42	3892.57	3863.82	17	17	58.5	280.63	.0043	-22.39	-.0000	401797.9	1.69	21.84	.0035	103.18	-.0021	-22.81	227.56
IMPC 11	3892.57	3863.82	17	17	58.5	15.81	.0044	-23.58	-.0000	408969.1	2.14	29.34	-.0010	196.64	.0044	-22.81	227.56

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION	.00	11.25	15	1	45.920	6544.666	17.8888	304.9607	10.99428	-.0171	117.0531	143.6640
SEPARATION	1.20	12.45	15	1	47.120	6568.093	14.6586	311.0124	10.97640	3.4113	118.8322	150.0165
RETRO	3.20	14.45	15	1	49.120	6710.084	9.8299	320.4861	10.89078	8.9998	123.8864	159.9916
EXIT SHA	17.36	28.41	15	2	3.279	18181.238	-18.9782	4.9348	8.83332	36.2309	110.3334	207.9883
INPACT	3892.57	3863.82	17	17	58.485	4044129.156	-22.8149	227.5629	2.20428	67.8865	259.5369	312.0439

MAR 15, 1966
108 DEGREES

SURVEYOR VIEW PERIODS

GHA	174.1222					EPS	131.3739							LOM	223.1391
SX	.617097	SY	-.684722	SZ	-.387747	DAO	-22.81440	RAO	312.02634	RM	405410.566	LAT	28.310600	LON	279.461800
C3	-.897175	ECC	.985269	SLR	12992.926	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	PDL	-.0
NSX	.632166	NSY	-.673281	NSZ	-.383483	C3M	1.5341	VIM	2.6783	ZAE	142.431	B.T	.0000	B.R	-.0000
LATE	6.2613	LONE	2.7007	LATS	-1.3655	LONS	231.3273	LATI	1.8148	LONI	325.2898	RSM	148.6229	TTAN	5.5527
LAUNCH DATE	MAR 15.1966			BASE AZM	111.0		TF 64.260					ARRIVAL	DATE MAR 17 1966 18 16 3.6		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	1 42 23.5	28.0	16.80	304.41	1.57	145.05	119.15	1 53 38.5	6545.9	11.00	.78

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
PROBE IN EARTH'S SHADOW																	
INJECTION	.00	11.25	15	1	53.6												
SEPARATION	1.20	12.45	15	1	54.8												
RETRO	3.20	14.45	15	1	56.8												
RISE 72	4.64	15.89	15	1	58.3	85.73	-.1432	28.21	-.0401	2704.4	-8.16	.00	.1309	298.50	-.0199	3.32	325.57
EXTM 72	10.02	21.27	15	2	3.7	5.40	-.2559	-16.97	-.1460	1694.7	4.31	79.52	-.0000	209.65	-1.5671	-9.81	344.57
RISE 51	11.09	22.34	15	2	4.7	84.46	-.0792	11.31	-.0509	5365.2	-3.28	.00	.0922	282.58	-.0112	-11.89	347.73
EXIT SHA	17.02	28.27	15	2	10.7												
EXIT 72	17.02	28.27	15	2	10.7	315.52	-.0486	-34.62	-.0072	4663.7	7.68	41.27	-.0397	129.90	-.0116	-20.47	2.21
EXIT 51	17.02	28.27	15	2	10.7	55.57	-.0791	-8.75	-.0543	4984.2	1.14	34.71	.0939	277.38	-.0190	-20.47	2.21
EXTM 51	34.93	46.18	15	2	28.6	2.11	-.0248	-33.52	-.0051	9550.7	5.37	82.01	-.0000	192.75	-.1535	-30.41	26.46
EXTM 72	70.24	81.49	15	3	3.9	288.43	-.0000	-35.22	.0004	23678.4	4.79	19.58	.0000	124.65	-.0005	-33.25	41.56
EXTM 51	88.60	99.85	15	3	22.2	339.95	-.0002	-34.75	.0005	25403.8	4.39	70.53	.0000	122.32	-.0015	-33.22	43.45
RISE 61	161.81	173.06	15	4	35.5	311.94	.0028	-38.30	.0006	48504.6	3.47	-.00	.0018	144.29	.0014	-32.03	38.81
EXTM 51	234.86	246.11	15	5	48.5	.64	.0034	-31.48	.0003	57515.7	3.21	84.23	-.0000	185.45	.0288	-30.91	27.11
EXTM 61	412.60	423.85	15	8	46.2	5.51	.0039	-32.73	.0003	92636.5	2.64	16.85	.0000	184.84	.0034	-29.05	350.56
EXTM 72	439.27	450.52	15	9	12.9	1.11	.0040	-30.25	.0002	92920.7	2.58	67.63	.0000	182.51	.0091	-28.84	344.65
RISE 11	604.61	615.86	15	11	58.3	293.83	.0040	-29.79	.0001	122729.3	2.00	.00	.0026	127.45	.0023	-27.79	306.81
SET 51	631.10	642.35	15	12	24.7	90.00	.0038	-26.56	.0001	125113.5	2.60	11.20	-.0032	245.76	-.0013	-27.65	300.62
SET 61	647.65	658.90	15	12	41.3	61.15	.0040	-29.70	.0002	128575.7	2.48	-.00	-.0022	229.54	.0027	-27.57	296.74
SET 72	826.16	837.41	15	15	39.8	93.96	.0039	-26.45	.0001	151392.9	2.47	-.00	-.0035	243.27	-.0004	-26.80	254.38
RISE 42	836.62	847.87	15	15	50.3	254.99	.0040	-25.31	-.0000	152315.8	1.71	3.17	.0029	119.01	-.0022	-26.76	251.87
EXTM 11	879.07	890.32	15	16	32.7	1.52	.0042	-28.68	.0001	155001.4	1.99	26.09	.0000	181.48	.0041	-26.61	241.69
SET 11	1150.75	1162.00	15	21	4.4	68.87	.0041	-27.05	.0001	188437.7	2.09	.01	-.0027	236.17	.0024	-25.79	175.92
EXTM 42	1260.75	1272.00	15	22	54.4	359.89	.0042	-25.20	.0000	193829.5	1.72	79.98	-.0000	.58	-.0214	-25.52	149.09
RISE 51	1395.98	1407.23	16	1	9.6	270.00	.0041	-24.56	-.0000	212524.5	1.28	10.39	.0034	112.37	-.0015	-25.22	115.99
RISE 72	1552.33	1563.58	16	3	46.0	266.33	.0041	-24.69	-.0000	228802.8	1.17	-.01	.0037	114.94	-.0005	-24.92	77.60
RISE 61	1622.69	1633.94	16	4	56.3	294.27	.0041	-25.91	.0000	235398.7	1.26	.00	.0026	124.92	.0027	-24.79	60.29
SET 42	1683.57	1694.82	16	5	57.2	105.00	.0041	-23.77	.0001	240761.0	1.85	2.23	-.0030	242.21	-.0022	-24.69	45.30
EXTM 51	1751.49	1762.74	16	7	5.1	359.11	.0042	-24.55	.0000	240874.7	1.49	88.56	.0021	34.27	-.1275	-24.58	28.55
EXTM 61	1886.72	1897.97	16	9	20.4	.58	.0042	-25.66	.0000	256534.9	1.45	24.10	.0000	180.58	.0041	-24.37	355.18
EXTM 72	1925.67	1936.92	16	9	59.3	.12	.0042	-24.72	.0000	256461.5	1.44	73.18	.0000	180.37	.0131	-24.32	345.56
RISE 11	2058.07	2069.32	16	12	11.7	289.20	.0042	-24.99	-.0000	273743.9	1.07	.00	.0029	121.13	.0024	-24.13	312.82
SET 51	2114.03	2125.28	16	13	7.7	90.00	.0041	-23.54	.0001	277295.5	1.76	9.99	-.0035	248.57	-.0015	-24.06	298.98
SET 61	2150.62	2161.87	16	13	44.3	66.82	.0042	-24.94	.0001	281413.4	1.66	-.00	-.0026	236.47	.0027	-24.02	289.92
SET 72	2297.56	2308.81	16	16	11.2	93.49	.0041	-23.66	.0001	293289.6	1.74	-.00	-.0037	246.10	-.0005	-23.84	253.53
RISE 42	2300.06	2311.31	16	16	13.7	255.00	.0041	-23.07	-.0000	293287.9	.99	1.81	.0030	117.24	-.0023	-23.83	252.91
EXTM 11	2340.96	2352.21	16	16	54.6	.39	.0042	-24.85	.0000	293567.7	1.32	29.94	-.0000	180.41	.0044	-23.79	242.77
SET 11	2623.74	2634.99	16	21	37.4	71.50	.0042	-24.21	.0000	318457.4	1.57	-.00	-.0029	239.87	.0024	-23.48	172.62
EXTM 42	2718.70	2729.95	16	23	12.3	359.94	.0042	-23.16	.0000	319331.4	1.23	77.94	.0000	.27	-.0175	-23.39	149.04
RISE 51	2849.20	2860.45	17	1	22.8	270.00	.0041	-22.84	-.0000	333921.1	.82	9.70	.0035	110.77	-.0016	-23.27	116.62
RISE 72	3004.90	3016.15	17	3	58.5	266.62	.0041	-22.98	-.0000	346049.2	.75	-.00	.0038	113.21	-.0006	-23.13	77.92
RISE 61	3064.82	3076.07	17	4	58.5	291.93	.0042	-23.82	-.0000	350222.5	.86	.00	.0027	121.94	.0027	-23.08	63.01
SET 42	3137.66	3148.91	17	6	11.3	105.00	.0041	-22.40	.0000	355223.1	1.44	1.39	-.0030	243.29	-.0023	-23.03	44.86
EXTM 51	3206.34	3217.59	17	7	20.0	359.99	.0042	-22.94	.0000	353583.5	1.10	87.21	.0000	.45	-.0430	-22.99	27.70
EXTM 61	3334.90	3346.15	17	9	28.5	.18	.0042	-23.82	.0000	365516.9	1.09	25.94	-.0000	180.19	.0043	-22.93	355.57
EXTM 72	3374.61	3385.86	17	10	8.3	.03	.0042	-23.17	.0000	364773.2	1.09	74.73	.0000	180.13	.0129	-22.91	345.64
RISE 11	3499.13	3510.38	17	12	12.8	287.84	.0042	-23.47	-.0000	378960.4	.75	.00	.0030	119.17	.0024	-22.86	314.50
SET 51	3562.59	3573.84	17	13	16.2	90.00	.0042	-22.46	.0000	382034.1	1.48	9.55	-.0035	249.58	-.0016	-22.84	298.62
SET 61	3604.76	3616.01	17	13	58.4	68.42	.0042	-23.49	.0000	385849.2	1.40	-.00	-.0027	238.52	.0027	-22.82	288.06
SET 72	3743.25	3754.50	17	16	16.9	93.33	.0042	-22.65	.0000	395136.6	1.59	-.01	-.0038	247.12	-.0005	-22.78	253.34
RISE 42	3743.83	3755.08	17	16	17.5	255.00	.0042	-22.22	-.0000	395033.9	.82	1.28	.0031	116.56	-.0024	-22.78	253.19
EXTM 11	3783.97	3795.22	17	16	57.6	.05	.0043	-23.56	.0000	394744.7	1.23	31.23	.0000	180.06	.0046	-22.78	243.10
IMPACT	3855.59	3866.84	17	18	9.2												
IMPC 42	3855.59	3866.84	17	18	9.2	283.24	.0043	-22.38	-.0000	401599.2	1.68	23.11	.0035	101.85	-.0021	-22.79	224.96
IMPC 11	3855.59	3866.84	17	18	9.2	18.44	.0044	-23.55	-.0000	401044.8	2.15	28.70	-.0012	199.30	.0044	-22.79	224.96

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	15	1	53.641	6545.893	16.8034	304.4098	10.99512	.7812	119.1536	145.0487
SEPARATION	1.20	12.45	15	1	54.841	6580.321	13.3539	310.2998	10.96598	4.2059	120.7663	151.2395
RETRO	3.20	14.45	15	1	56.841	6739.769	7.4682	319.4815	10.83451	9.7594	122.5225	160.9225
EXIT SHA	17.02	28.27	15	2	10.664	10083.544	-20.4732	2.2091	8.84098	36.1715	116.8242	207.1157
IMPACT	3855.59	3866.84	17	18	9.231	404143.027	-22.7944	224.9627	2.20144	67.6401	260.0714	312.1376

SURVEYOR V'EW PERIODS

GHA	174.1222					EPS	131.4729							LOM	219.9354
SX	.6.8581	SY	-.683619	SZ	-.387329	DAO	-22,78838	RAO	312.14076	RM	405422.484	LAT	28.310600	LON	279.461800
C3	-.901987	ECC	.985190	SLR	12992.411	RCA	6544.6650	LTA	-20,0000	GTA	20.00	TB	675.00000	POL	-.0
N$X	.633663	NSY	-.672114	NSZ	-.383058	C3H	1.5342	VIM	2,6783	ZAE	142.263	B.T	.0000	B.R	-.0000
LATE	6.2654	LONE	2.8099	LATS	-1.3654	LONS	231.3363	LATI	1.3874	LONI	325.2916	RSM	148.6227	TTAN	5,5539
LAUNCH DATE	MAR	15,1966		BASE AZM	115.0		TF 64.339					ARRIVAL DATE	MAR 17 1966	18 29 17,7	

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	1 51	1.5	28.1	15.40	303.60	3.32	146.40	121.95	2 2 16.5	6550.1	10.99	1.65

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW														
INJECTION	.00	11.25	15	2	2.3												
SEPARATION	1.20	12.45	15	2	3.5												
RETRO	3.20	14.45	15	2	5.5												
RISE 72	4.60	15.85	15	2	6.9	86.86	-.1286	21.55	-.0665	2804 1	-7.77	-.00	.1281	291.76	-.0481	1.26	323.72
EXTM 72	10.37	21.62	15	2	12.6	11.20	-.2396	-29.64	-.1110	1975.7	4.65	65.85	-.0000	204.37	-.5768	-13.04	343.28
RISE 51	11.17	22.42	15	2	13.4	86.74	-.0732	6.72	-.0545	5524.0	-2.95	.00	.0892	277.47	-.0172	-14.57	345.55
EXIT SHA	16.64	27.89	15	2	18.9												
EXIT 72	16.64	27.89	15	2	18.9	322.19	-.0610	-40.95	-.0021	4565.3	7.53	42.93	-.0394	140.77	-.0327	-22.62	358.83
EXIT 51	16.64	27.89	15	2	18.9	61.93	-.075	-12.23	-.0549	5196.5	.95	30.41	.0891	270.60	-.0255	-22.62	358.83
EXTM 51	37.94	49.19	15	2	40.2	1.95	-.0216	-37.88	-.0025	10669.3	5.32	77.75	-.0000	187.26	-.0813	-33.35	26.53
EXTM 72	70.32	81.57	15	3	12.6	290.26	-.0001	-37.56	.0008	23666.4	4.78	20.83	.0000	127.28	-.0008	-35.11	39.62
EXTM 51	86.80	98.05	15	3	29.1	342.26	-.0006	-36.99	.0007	24986.0	4.41	71.19	.0000	130.99	-.0027	-34.93	41.49
RISE 61	164.65	175.90	15	4	46.9	314.24	.0028	-39.50	.0007	49189.7	3.45	.00	.0018	146.44	.0014	-33.22	36.69
EXTM 51	226.84	238.09	15	5	49.1	.97	.0033	-32.77	.0004	56028.8	3.25	82.92	.0000	186.61	.0229	-32.06	26.82
EXTM 61	406.84	418.09	15	8	49.1	6.05	.0039	-33.55	.0003	91846.0	2.65	16.00	.0000	185.25	.0034	-29.82	350.06
EXTM 72	432.16	443.41	15	9	14.4	1.32	.0040	-31.06	.0002	91884.7	2.59	66.81	.0000	182.87	.0087	-29.59	344.45
RISE 11	599.55	610.80	15	12	1.8	294.45	.0040	-30.39	.0001	122051.0	2.01	.00	.0026	128.25	.0023	-28.37	306.18
SET 51	623.15	634.40	15	12	25.4	90.00	.0038	-27.13	.0002	124027.6	2.61	11.42	-.0032	245.22	-.0012	-28.23	300.66
SET 61	636.37	647.62	15	12	38.6	60.34	.0040	-30.32	.0002	127075.2	2.48	-.00	-.0021	228.61	.0027	-28.15	297.56
SET 72	818.62	829.87	15	15	40.9	94.04	.0039	-26.91	.0001	150474.5	2.43	-.00	-.0035	242.82	-.0004	-27.25	254.33
RISE 42	828.95	840.20	15	15	51.2	254.99	.0040	-25.76	-.0000	151354.8	1.72	3.45	.0028	119.36	-.0022	-27.21	251.85
EXTM 11	871.93	883.18	15	16	34.2	1.67	.0042	-29.13	.0001	154193.0	1.99	25.64	.0000	181.62	.0040	-27.03	241.54
SET 11	1141.57	1152.82	15	21	3.8	68.55	.0041	-27.40	.0001	187433.9	2.09	.00	-.0027	235.72	.0024	-26.12	176.25
EXTM 42	1252.89	1264.14	15	22	55.2	359.88	.0042	-25.51	.0000	192984.2	1.72	80.29	-.0000	.63	-.0221	-25.82	149.09
RISE 51	1388.16	1399.41	16	1	10.4	270.00	.0041	-24.82	-.0000	211700.2	1.28	10.50	.0034	112.62	-.0015	-25.49	115.98
RISE 72	1544.32	1555.57	16	3	46.6	266.30	.0041	-24.92	-.0000	227993.4	1.17	-.01	.0037	115.17	-.0005	-25.15	77.63
RISE 61	1615.81	1627.06	16	4	58.1	294.53	.0042	-26.13	.0000	234703.9	1.26	.00	.0026	125.23	.0027	-25.01	60.03
SET 42	1675.62	1686.87	16	5	57.9	105.00	.0041	-23.97	.0001	239959.4	1.86	2.35	-.0030	242.05	-.0022	-24.89	45.30
EXTM 51	1745.02	1756.27	16	7	7.3	359.48	.0042	-24.74	.0000	240225.6	1.50	88.90	.0016	25.41	-.1806	-24.77	28.19
EXTM 61	1878.96	1890.21	16	9	21.2	.63	.0042	-25.83	.0000	255800.0	1.45	23.93	-.0000	180.63	.0041	-24.54	355.13
EXTM 72	1917.75	1929.00	16	10	.0	.13	.0042	-24.89	.0000	255703.8	1.44	73.02	.0000	180.40	.0130	-24.48	345.55
RISE 11	2050.63	2061.88	16	12	12.9	289.33	.0042	-25.13	-.0000	273028.9	1.07	.00	.0029	121.32	.0024	-24.28	312.69
SET 51	2106.01	2117.26	16	13	8.3	90.00	.0041	-23.68	.0001	276529.9	1.76	10.04	-.0035	248.44	-.0015	-24.20	298.98
SET 61	2141.99	2153.24	16	13	44.3	66.67	.0042	-25.08	.0001	280605.5	1.66	-.00	-.0026	236.27	.0027	-24.15	290.08
SET 72	2289.57	2300.82	16	16	11.8	93.51	.0041	-23.77	.0001	292542.2	1.74	-.00	-.0037	245.99	-.0005	-23.95	253.51
RISE 42	2292.04	2303.29	16	16	14.3	255.00	.0041	-23.18	-.0000	292530.0	.99	1.87	.0030	117.56	-.0023	-23.95	252.90
EXTM 11	2333.05	2344.30	16	16	55.3	.42	.0042	-24.96	.0000	292838.2	1.32	29.83	-.0000	180.44	.0044	-23.89	242.74
SET 11	2615.36	2626.61	16	21	37.6	71.43	.0042	-24.29	.0000	317689.7	1.57	-.00	-.0029	239.77	.0024	-23.56	172.69
EXTM 42	2710.58	2721.83	16	23	12.8	359.94	.0042	-23.22	.0000	318583.0	1.23	78.00	.0000	.30	-.0178	-23.46	149.04
RISE 51	2841.09	2852.34	17	1	23.4	270.00	.0041	-22.89	-.0000	333174.3	.82	9.72	.0035	110.82	-.0016	-23.32	116.62
RISE 72	2996.74	3007.99	17	3	59.0	266.61	.0041	-23.02	-.0000	345297.9	.75	-.00	.0038	113.25	-.0006	-23.17	77.92
RISE 61	3056.84	3068.09	17	4	59.1	291.97	.0042	-23.85	-.0000	349487.2	.86	.00	.0027	121.99	.0027	-23.11	62.97
SET 42	3129.49	3140.74	17	6	11.8	105.00	.0041	-22.43	.0000	354473.8	1.44	1.41	-.0030	243.27	-.0023	-23.06	44.86
EXTM 51	3198.17	3209.42	17	7	20.4	359.99	.0042	-22.97	.0000	352832.0	1.10	87.23	.0000	.42	-.0510	-23.02	27.70
EXTM 61	3326.81	3338.06	17	9	29.1	.20	.0042	-23.84	.0000	364762.8	1.09	25.92	-.0000	180.21	.0043	-22.95	355.55
EXTM 72	3366.46	3377.71	17	10	8.7	.04	.0042	-23.19	.0000	364010.2	1.08	74.72	.0000	180.14	.0130	-22.93	345.64
RISE 11	3490.98	3502.23	17	12	13.3	287.85	.0042	-23.47	-.0000	378182.4	.75	.00	.0030	119.18	.0024	-22.87	314.49
SET 51	3554.41	3565.66	17	13	16.7	90.00	.0042	-22.46	.0000	381243.1	1.47	9.55	-.0035	249.58	-.0016	-22.84	298.62
SET 61	3596.60	3607.85	17	13	58.9	68.42	.0042	-23.49	.0000	385049.3	1.39	-.00	-.0027	238.53	.0027	-22.82	288.06
SET 72	3735.10	3746.35	17	16	17.4	93.33	.0042	-22.63	.0000	394272.9	1.57	-.01	-.0038	247.14	-.0005	-22.77	253.34
RISE 42	3735.70	3746.95	17	16	18.0	255.00	.0042	-22.70	-.0000	394172.4	.81	1.27	.0031	116.55	-.0024	-22.77	253.19
EXTM 11	3775.97	3787.22	17	16	58.2	.08	.0043	-23.55	.0000	393843.3	1.20	31.25	.0000	180.09	.0045	-22.76	243.07
IMPACT	3860.33	3871.58	17	18	22.6												
IMPC 42	3860.33	3871.58	17	18	22.6	286.49	.0043	-22.37	-.0000	401350.9	1.69	25.71	.0035	100.20	-.0022	-22.77	221.73
IMPC 11	3860.33	3871.58	17	18	22.6	21.72	.0044	-23.52	-.0000	401148.2	2.17	27.77	-.0014	202.55	.0042	-22.77	221.73

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	15	2	2.274	6550.142	15.3960	303.5967	10.99127	1.6485	121.9505	146.3998
SEPARATION	1.20	12.45	15	2	3.474	6596.410	11.6825	309.2510	10.95228	5.0624	123.3466	152.3550
RETRO	3.20	14.45	15	2	5.474	6774.464	5.4515	318.0519	10.80630	10.5730	124.7374	161.6573
EXIT SHA	16.64	27.89	15	2	18.918	10059.490	-22.6208	358.8304	8.85139	36.0780	117.5964	205.8060
IMPACT	3860.33	3871.58	17	18	22.603	404156.227	-22.7691	221.7267	2.19989	67.5642	260.9198	312.2536

MAR 15, 1966
115 DEGREES

SURVEYOR VIEW PERIODS

GHA	175.1078					EPS	142.3277					LOM	227.4336
SX	.766892	SY	-.548482	SZ	-.333233	DAO	-19.46510	RAO	324.42764	RM	406217.098	LAT	28.310600	LON	279.461800
C3	-.915344	ECC	.984971	SLR	12990.970	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSx	.779064	NSY	-.534616	NSZ	-.327484	C3M	1.5310	VIM	2.6777	ZAE	142.559	B.T	.0000	B.R	-.0000
LATE	6.5827	LONF	1.3716	LATS	-1.3589	LONS	218.8833	LATI	3.7047	LONI	323.8803	RSM	148.6122	TTAN	4.6671

LAUNCH DATE MAR 16,1966 BASE AZM 105.0 TF 64.793 ARRIVAL DATE MAR 18 1966 18 44 28.0

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	1 37 19.5	27.4	19.19	305.01	-11.04	145.37	114.79	1 48 34.5	6605.3	10.94	-5.48

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PRORE IN EARTH'S SHADOW															
INJECTION	.00	11.25	16	1	48.6												
SEPARATION	1.20	12.45	16	1	49.8												
RETRO	3.20	14.45	16	1	51.8												
RISE 72	5.41	16.66	16	1	54.0	83.23	-.1804	40.37	.0185	2183.2	-8.98	-.00	.1318	310.84	.0430	4.57	331.44
EXTM 72	9.21	20.46	16	1	57.8	350.89	-.4184	11.45	-.3296	1036.0	2.88	68.63	.1210	25.21	1.4051	-5.24	346.93
RISE 51	11.31	22.56	16	1	59.9	80.70	-.0987	18.52	-.0486	4535.9	-4.75	.01	.1055	290.65	-.0003	-9.77	354.29
EXIT SHA	16.71	27.96	16	2	5.3												
EXIT 72	16.71	27.96	16	2	5.3	295.84	-.0353	-27.10	-.0134	4508.9	8.30	26.55	-.0324	116.41	.0120	-18.35	9.79
EXIT 51	16.71	27.96	16	2	5.3	45.50	-.1103	-2.44	-.0707	3810.8	.54	40.49	.1309	290.45	-.0010	-18.35	9.79
EXTM 51	25.77	37.02	16	2	14.3	.59	-.0529	-25.73	-.0180	5815.5	5.42	89.46	.0480	270.97	-1.8105	-25.73	27.40
EXTM 72	69.27	80.52	16	2	57.8	274.33	.0000	-30.89	.0003	23955.2	4.88	7.74	.0000	120.28	-.0003	-30.97	54.67
RISE 42	78.23	89.48	16	3	6.8	105.00	-.0037	-23.31	-.0012	27158.8	4.31	1.95	.0034	242.57	.0011	-30.87	56.01
EXTM 42	120.23	131.48	16	3	48.8	101.31	.0001	-24.66	-.0001	37754.8	4.08	5.45	-.0000	243.53	-.0002	-29.98	56.39
SET 42	174.06	185.31	16	4	42.6	105.00	.0019	-24.56	.0001	50376.8	3.75	2.72	-.0014	241.58	-.0010	-28.81	50.43
RISE 61	196.88	208.13	16	5	5.5	304.14	.0032	-33.55	[illegible]	55490.5	3.21	.00	.0021	136.39	.0017	-28.39	46.91
EXTM 51	292.62	303.87	16	6	41.2	358.42	.0037	-27.09	[illegible]	67769.6	2.97	88.05	.0025	134.01	.0614	-26.27	29.13
EXTM 61	466.00	477.25	16	9	34.6	4.37	.0040	-28.64	[illegible]	100088.1	2.53	21.00	.0000	184.10	.0037	-25.32	351.61
EXTM 72	495.20	506.45	16	10	3.8	.74	.0041	-26.18	[illegible]	100840.5	2.47	71.71	.0000	182.10	.0116	-25.11	344.98
RISE 11	643.71	654.96	16	12	32.3	290.21	.0040	-26.08	.0001	127657.5	1.93	.00	.0028	122.55	.0023	-24.22	310.54
SET 51	686.78	698.03	16	13	15.4	90.00	.0039	-22.94	.0001	132301.6	2.55	9.74	-.0033	249.13	-.0014	-24.01	300.38
SET 61	722.78	734.03	16	13	51.4	65.91	.0040	-25.75	.0002	138049.5	2.41	-.00	-.0024	235.31	.0027	-23.84	291.85
SET 72	877.73	888.98	16	16	26.3	93.36	.0040	-22.89	.0001	157217.3	2.39	-.00	-.0036	246.88	-.0004	-23.22	254.81
RISE 42	889.37	900.62	16	16	37.9	255.00	.0040	-21.78	-.0000	158489.5	1.65	1.01	.0029	116.22	-.0023	-23.18	252.00
EXTM 11	931.38	942.63	16	17	20.0	1.32	.0042	-24.97	.0001	160401.8	1.94	29.81	-.0000	181.38	.0044	-23.03	241.88
SET 11	1216.98	1228.23	16	22	5.6	72.22	.0041	-23.40	.0001	195008.1	2.05	-.00	-.0029	240.92	.0024	-22.22	172.50
EXTM 42	1312.59	1323.84	16	23	41.2	359.85	.0042	-21.57	.0000	198752.4	1.69	76.35	.0000	.59	-.0164	-21.99	149.12
RISE 51	1447.42	1458.67	17	1	56.0	270.00	.0041	-21.04	-.0000	217245.9	1.24	8.96	.0035	109.11	-.0016	-21.71	116.07
RISE 72	1605.94	1617.19	17	4	34.5	266.92	.0041	-21.19	-.0000	233318.9	1.13	.00	.0038	111.40	-.0006	-21.41	77.09
RISE 61	1658.41	1669.66	17	5	27.0	290.40	.0041	-22.39	.0000	238169.4	1.22	.00	.0027	119.94	.0027	-21.32	64.17
SET 42	1735.20	1746.45	17	6	43.8	105.00	.0041	-20.28	.0001	245140.7	1.84	.09	-.0[illegible]0	244.96	-.0023	-21.19	45.24
EXTM 51	1806.23	1817.48	17	7	54.8	359.97	.0042	-20.96	.0000	245214.7	1.47	85.22	-.0000	.38	-.0407	-21.08	27.71
EXTM 61	1937.74	1948.99	17	10	6.3	.53	.0042	-22.11	.0000	259999.9	1.43	27.65	-.0000	180.56	.0044	-20.88	355.23
EXTM 72	1976.74	1987.99	17	10	45.3	.08	.0042	-21.14	.0000	260131.3	1.42	76.76	.0000	180.35	.0168	-20.83	345.59
RISE 11	2096.69	2107.94	17	12	45.3	286.13	.0042	-21.49	-.0000	276326.1	1.04	.00	.0030	116.64	.0024	-20.67	315.91
SET 51	2165.29	2176.54	17	13	53.9	90.00	.0041	-20.06	.0000	281013.2	1.75	8.56	-.0035	251.80	-.0016	-20.58	298.93
SET 61	2217.08	2228.33	17	14	45.7	70.63	.0041	-21.40	.0000	286161.4	1.65	-.00	-.0027	241.44	.0027	-20.52	286.10
SET 72	2346.45	2357.70	17	16	55.0	92.93	.0041	-20.19	.0000	296461.1	1.74	-.01	-.0038	249.61	-.0005	-20.36	254.04
RISE 42	2352.62	2363.87	17	17	1.2	255.43	.0041	-19.61	-.0000	296944.9	.97	.00	.0031	114.25	-.0024	-20.36	252.51
EXTM 11	2391.76	2403.01	17	17	40.3	.35	.0042	-21.33	.0000	296511.6	1.30	33.46	-.0000	180.40	.0047	-20.31	242.80
SET 11	2686.82	2698.07	17	22	35.4	74.53	.0042	-20.71	.0000	322349.4	1.57	-.00	-.0030	244.36	.0024	-20.01	169.57
EXTM 42	2769.44	2780.69	17	23	58.0	359.93	.0042	-19.63	.0000	322312.1	1.21	74.41	-.0000	.25	-.0140	-19.93	149.05
RISE 51	2899.79	2911.04	18	2	8.4	270.00	.0041	-19.37	-.0000	336832.4	.79	8.28	.0036	107.57	-.0016	-19.81	116.65
RISE 72	3057.65	3068.90	18	4	46.2	267.17	.0041	-19.52	-.0000	348808.4	.72	-.01	.0039	109.72	-.0006	-19.67	77.40
RISE 61	3100.83	3112.08	18	5	29.4	288.29	.0042	-20.35	-.0000	351782.3	.83	.00	.0028	117.10	.0027	-19.64	66.66
SET 42	3184.47	3195.72	18	6	53.0	104.04	.0041	-18.96	.0000	357591.0	1.44	-.00	-.0031	246.56	-.0024	-19.58	45.80
EXTM 51	3256.86	3268.11	18	8	5.4	359.97	.0042	-19.44	.0000	356019.3	1.08	83.70	.0000	.28	-.0295	-19.55	27.71
EXTM 61	3385.30	3396.55	18	10	13.9	.15	.0042	-20.36	.0000	367488.7	1.08	29.40	-.0000	180.16	.0045	-19.50	355.60
EXTM 72	3425.09	3436.34	18	10	53.7	.02	.0042	-19.69	.0000	366972.7	1.08	78.22	.0000	180.12	.0132	-19.49	345.65
RISE 11	3537.91	3549.16	18	12	46.5	284.91	.0042	-20.04	-.0000	380420.8	.73	.00	.0031	114.79	.0024	-19.45	317.43
SET 51	3613.20	3624.45	18	14	1.8	90.00	.0042	-19.04	.0000	384378.3	1.48	8.14	-.0036	252.73	-.0016	-19.43	298.59
SET 61	3669.58	3680.83	18	14	58.2	72.00	.0042	-20.06	.0000	388949.5	1.41	-.00	-.0028	243.30	.0027	-19.41	284.47
SET 72	3791.64	3802.89	18	17	.2	92.78	.0042	-19.27	.0000	397153.1	1.61	-.00	-.0039	250.54	-.0006	-19.40	253.85
RISE 42	3798.43	3809.68	18	17	7.0	256.06	.0042	-18.84	-.0000	397631.2	.83	.00	.0031	113.28	-.0024	-19.40	252.15
EXTM 11	3834.06	3845.31	18	17	42.6	359.97	.0043	-20.15	-.0000	396620.7	1.26	34.64	.0000	179.96	.0045	-19.40	243.18
IMPACT	3887.60	3898.85	18	18	36.2												
IMPC 42	3887.60	3898.85	18	18	36.2	278.60	.0043	-18.98	-.0001	402976.4	1.66	17.65	.0035	101.15	-.0022	-19.44	229.61
IMPC 11	3887.60	3898.85	18	18	36.2	13.73	.0044	-20.17	-.0000	401437.9	2.12	33.11	-.0010	195.42	.0047	-19.44	229.61

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	16	1	48.574	6606.836	19.2203	304.9479	10.94434	-5.4783	114.7692	145.3023
SEPARATION	1.20	12.45	16	1	49.774	6553.294	16.2033	311.1995	10.98791	-2.0726	116.7677	151.8548
RETRO	3.20	14.45	16	1	51.774	6571.448	10.7789	321.1598	10.97261	3.6466	119.2175	162.3164
EXIT SHA	16.71	27.96	16	2	5.284	9312.397	-18.3462	9.7940	9.20281	32.8946	115.4066	214.3376
IMPACT	3887.60	3898.85	18	18	36.169	404953.414	-19.4389	229.6078	2.19186	47.5763	253.8695	324.5213

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SURVEYOR VIEW PERIODS

GHA	175.1078					EPS	142.4766							LOM	224.8650
SX	.767857	SY	-.547404	SZ	-.332783	DAO	-19.43776	RAO	324.51502	RM	406219.285	LAT	28.310600	LON	279.461800
CS	-.913984	ECC	.984993	SLR	12991.119	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.779997	NSY	-.533526	NSZ	-.327039	CSM	1.5340	VIM	2.6783	ZAE	142.545	B.T	.0000	B.R	-.0000
LATE	6.5839	LONE	1.4590	LATS	-1.3588	LONS	218.8904	LATI	3.4653	LONI	323.9800	RSM	148.6121	TTAN	4.6592
LAUNCH DATE	MAR 16,1966			BASE AZM	108.0		TF 64,772					ARRIVAL DATE	MAR 18 1966 18 55 3,7		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	1 48 37.8	27.6	18.06	304.60	-8.57	147.79	116.94	1 59 52.8	6581.2	10.96	-4.25

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	16	1	59.9												
SEPARATION	1.20	12.45	16	2	1.1												
RETRO	3.20	14.45	16	2	3.1												
RISE 72	5.23	16.48	16	2	5.1	84.69	-.1590	33.67	-.0161	2268.8	-8.96	-.00	.1331	304.03	.0040	3.22	329.52
EXTM 72	8.95	20.20	16	2	8.8	9.34	-.4192	1.70	-.3047	1033.6	1.60	76.62	.5311	315.48	.4809	-6.58	344.36
RISE 51	11.23	22.48	16	2	11.1	82.77	-.0917	14.64	-.0527	4686.5	-4.47	-.00	.1030	286.30	-.0072	-11.55	352.22
EXIT SHA	16.26	27.51	16	2	16.1												
EXIT 72	16.26	27.51	16	2	16.1	301.06	-.0434	-31.61	-.0083	4276.4	8.26	30.48	-.0379	122.16	.0020	-19.57	6.51
EXIT 51	16.26	27.51	16	2	16.1	92.45	-.1040	-5.00	-.0694	4011.1	.20	35.78	.1241	283.19	-.0147	-19.57	6.51
EXTM 51	27.16	38.41	16	2	27.0	1.47	-.0477	-30.07	-.0126	6421.0	5.46	85.48	.0000	196.35	-.5481	-27.91	26.96
EXTM 72	69.31	80.56	16	3	9.2	276.80	.0000	-32.34	.0005	23861.7	4.86	9.94	.0000	121.60	-.0005	-32.00	52.17
EXTM 51	85.40	96.65	16	3	25.3	326.42	-.0001	-32.31	.0006	24470.7	4.48	60.04	.0000	110.59	-.0013	-31.69	54.15
RISE 42	93.28	104.53	16	3	33.2	105.00	-.0018	-24.9	-.0005	31283.8	4.24	2.92	.0017	241.32	.0006	-31.50	54.52
EXTM 42	119.56	130.81	16	3	59.4	103.77	.0001	-25.37	-.0001	37847.1	4.08	4.08	-.0000	241.65	-.0001	-30.79	53.93
SET 42	148.09	159.34	16	4	28.0	104.99	.0012	-25.31	.0001	44672.6	3.90	3.18	-.0009	240.99	-.0006	-30.06	51.33
RISE 61	190.18	201.43	16	5	10.1	305.52	.0031	-34.47	.0006	54190.7	3.25	.00	.0021	137.86	.0017	-29.12	48.47
EXTM 51	287.90	299.15	16	6	47.8	.17	.0037	-27.68	.0003	67001.8	3.00	88.05	.0000	184.35	.0957	-27.51	27.53
EXTM 61	456.14	467.39	16	9	36.0	4.75	.0040	-29.13	.0002	98709.3	2.55	20.50	.0000	184.43	.0037	-25.75	351.26
EXTM 72	484.17	495.42	16	10	4.1	.82	.0041	-26.64	.0002	99285.3	2.49	71.24	.0000	182.27	.0113	-25.53	344.91
RISE 11	634.08	645.33	16	12	34.0	290.53	.0040	-26.43	.0001	126425.9	1.94	.00	.0028	123.01	.0023	-24.55	310.19
SET 51	675.58	686.83	16	13	15.5	90.00	.0039	-23.25	.0001	130877.7	2.56	9.87	-.0033	248.85	-.0013	-24.33	300.42
SET 61	710.03	721.28	16	13	49.9	65.52	.0040	-26.09	.0002	136468.5	2.42	-.00	-.0024	234.83	.0027	-24.15	298.26
SET 72	866.85	878.10	16	16	26.7	93.41	.0040	-23.14	.0001	155979.1	2.40	-.00	-.0036	246.63	-.0004	-23.47	254.79
RISE 42	878.48	889.73	16	16	38.4	254.99	.0040	-22.01	-.0000	157240.6	1.66	1.15	.0029	116.40	-.0023	-23.42	251.99
EXTM 11	920.79	932.04	16	17	20.7	1.40	.0042	-25.22	.0001	159251.8	1.95	29.56	-.0000	181.46	.0043	-23.27	241.80
SET 11	1205.39	1216.64	16	22	5.3	72.06	.0041	-23.58	.0001	193854.3	2.07	-.00	-.0029	240.68	.0024	-22.39	172.67
EXTM 42	1301.67	1312.92	16	23	41.5	359.84	.0042	-21.73	.0000	197701.0	1.69	76.51	.0000	.63	-.0166	-22.15	149.13
RISE 51	1436.57	1447.82	17	1	56.5	270.00	.0041	-21.17	-.0000	216244.8	1.24	9.02	.0035	109.23	-.0016	-21.84	116.06
RISE 72	1595.00	1606.25	17	4	34.9	266.90	.0041	-21.30	-.0000	232363.3	1.13	.00	.0038	111.52	-.0006	-21.53	77.10
RISE 61	1648.03	1659.28	17	5	27.9	290.53	.0041	-22.51	.0000	237279.6	1.23	.00	.0027	120.10	.0027	-21.43	64.04
SET 42	1724.29	1735.54	17	6	44.2	105.00	.0041	-20.38	.0001	244214.5	1.84	.15	-.0030	244.88	-.0023	-21.29	48.24
EXTM 51	1795.33	1806.58	17	7	55.2	359.97	.0042	-21.06	.0000	244314.2	1.48	85.32	-.0000	.41	-.0411	-21.17	27.71
EXTM 61	1926.95	1938.20	17	10	6.8	.96	.0042	-22.20	.0000	259149.3	1.43	27.56	-.0000	180.58	.0044	-20.97	358.20
EXTM 72	1965.85	1977.10	17	10	45.7	.09	.0042	-21.23	.0000	259275.3	1.42	76.68	.0000	180.37	.0168	-20.91	348.98
RISE 11	2086.04	2097.29	17	12	45.9	286.19	.0042	-21.56	-.0000	275513.4	1.05	.00	.0030	116.73	.0024	-20.74	318.85
SET 51	2154.36	2165.61	17	13	54.2	90.00	.0041	-20.12	.0000	280188.1	1.75	8.59	-.0035	251.74	-.0016	-20.65	298.93
SET 61	2205.88	2217.13	17	14	45.8	70.56	.0041	-21.47	.0000	285328.0	1.65	-.00	-.0027	241.35	.0027	-20.58	286.17
SET 72	2335.54	2346.79	17	16	55.4	92.94	.0041	-20.24	.0000	295676.0	1.74	-.01	-.0038	249.56	-.0005	-20.42	254.03
RISE 42	2341.54	2352.79	17	17	1.4	255.39	.0041	-19.66	-.0000	296147.8	.97	.00	.0031	114.32	-.0024	-20.41	252.55
EXTM 11	2380.90	2392.15	17	17	40.8	.37	.0042	-21.38	.0000	295743.8	1.30	33.41	-.0000	180.41	.0047	-20.36	248.79
SET 11	2675.75	2687.00	17	22	35.6	74.50	.0042	-20.74	.0000	321612.4	1.57	-.00	-.0030	244.32	.0024	-20.04	169.60
EXTM 42	2758.47	2769.72	17	23	58.3	359.93	.0042	-19.65	.0000	321595.0	1.21	74.43	-.0000	.26	-.0141	-19.95	149.05
RISE 51	2888.83	2900.08	18	2	8.7	270.00	.0041	-19.39	-.0000	336136.9	.79	8.29	.0036	107.59	-.0016	-19.83	116.65
RISE 72	3046.68	3057.93	18	4	46.6	267.17	.0041	-19.53	-.0000	348136.1	.72	-.01	.0039	109.73	-.0006	-19.68	77.40
RISE 61	3089.90	3101.15	18	5	29.8	288.30	.0042	-20.36	-.0000	351119.2	.83	.00	.0028	117.12	.0027	-19.64	66.65
SET 42	3173.49	3184.74	18	6	53.4	104.04	.0041	-18.97	.0000	356937.1	1.44	-.00	-.0031	246.56	-.0024	-19.59	48.80
EXTM 51	3245.87	3257.12	18	8	5.8	359.97	.0042	-19.44	.0000	355370.2	1.09	83.70	.0000	.29	-.0299	-19.59	27.71
EXTM 61	3374.37	3385.62	18	10	14.2	.16	.0042	-20.36	.0000	366850.8	1.08	29.40	-.0000	180.17	.0045	-19.50	358.59
EXTM 72	3414.12	3425.37	18	10	54.0	.02	.0042	-19.68	.0000	366334.6	1.08	78.22	.0000	180.12	.0143	-19.48	348.65
RISE 11	3526.91	3538.16	18	12	46.8	284.91	.0042	-20.03	-.0000	379784.1	.73	.00	.0031	114.78	.0024	-19.44	317.44
SET 51	3602.22	3613.47	18	14	2.1	90.00	.0042	-19.03	.0000	383741.9	1.48	8.14	-.0036	252.74	-.0016	-19.41	298.59
SET 61	3658.65	3669.90	18	14	58.5	72.02	.0042	-20.05	.0000	388311.9	1.41	-.00	-.0028	243.32	.0027	-19.40	284.46
SET 72	3780.67	3791.92	18	17	.6	92.78	.0042	-19.24	.0000	396473.5	1.60	-.00	-.0039	250.56	-.0006	-19.38	253.86
RISE 42	3787.56	3798.81	18	17	7.4	256.08	.0042	-18.82	-.0000	396953.6	.82	.00	.0031	113.26	-.0024	-19.38	252.13
EXTM 11	3823.25	3834.50	18	17	43.1	360.00	.0043	-20.13	-.0000	395904.5	1.24	34.66	.0000	179.98	.0007	-19.38	243.15
IMPACT	3886.34	3897.59	18	18	46.2												
IMPC 42	3886.34	3897.59	18	18	46.2	281.04	.0043	-18.97	-.0001	402773.2	1.66	19.60	.0035	99.85	-.0022	-19.41	227.17
IMPC 11	3886.34	3897.59	18	18	46.2	16.20	.0044	-20.15	-.0000	401490.8	2.13	32.95	-.0011	198.10	.0047	-19.41	227.17

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	16	1	59.879	6581.701	18.0768	304.5725	10.96460	-4.2939	116.9293	147.7610
SEPARATION	1.20	12.45	16	2	1.079	6546.057	14.8399	310.6562	10.99409	-.8343	118.7416	154.1485
RETRO	3.20	14.45	16	2	3.079	6592.592	9.1090	320.3514	10.95493	4.8727	120.8681	164.3481
EXIT SHA	16.26	27.51	16	2	16.143	9308.216	-19.9726	6.5102	9.20497	32.8751	115.9038	213.7788
IMPACT	3886.34	3897.59	18	18	46.215	404955.012	-19.4135	227.1729	2.19235	67.5995	254.3464	324.6042

SURVEYOR VIEW PERIODS

GHA 175.1078 EPS 142.4972 LOM 221.9124

SX .748964 SY -.546163 SZ -.392265 DAO -19.40629 RAO 304.61542 RM 406221.734 LAT 28.310600 LON 279.461800
C3 -.915966 EOC .384961 SLR 12990.909 RCA 6544.6550 LTA -20.0000 GTA 20.00 TB 675.00000 POL -.0
NSX .781090 NSY -.532246 NSZ -.326916 C3M 1.5343 VIM 2.6783 ZAE 142.474 B.T .0000 W.R -.0000
LATE 6.5854 LONE 1.3502 LATS -1.3588 LONS 218.6895 LATI 3.1977 LONI 323.8305 RSM 148.6121 TTAN 4.6548
LAUNCH DATE MAR 16,1966 RASE AZM 111.0 TF 64.805 ARRIVAL DATE MAR 18 1966 19 7 14.4

LNCH AZMTH	LNCH TIME	PH	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	1 58 34.9	27.7	16.96	304.12	-6.45	149.80	119.07	2 9 49.9	6565.3	10.98	-3.20

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PRORE IN EARTH'S SHADOW															
INJECTION	.00	11.25	16	2	9.8												
SEPARATION	1.20	12.45	16	2	11.0												
RETRO	3.20	14.45	16	2	13.0												
RISE 72	5.10	16.35	16	2	14.9	85.85	-.1433	27.51	-.0461	2356.0	-8.77	.00	.1327	297.80	-.0259	1.78	327.81
EXTM 72	8.74	19.99	16	2	18.6	24.84	-.4160	-8.00	-.2839	1131.5	.61	65.40	4194	268.04	-.6555	-8.01	342.00
RISE 51	11.20	22.45	16	2	21.0	84.67	-.0857	10.89	-.0563	4830.3	-4.18	.00	.1004	282.11	-.0133	-13.42	350.31
EXIT SHA	15.86	27.11	16	2	25.7												
EXIT 72	15.86	27.11	16	2	25.7	306.44	-.0538	-36.56	-.0024	4099.0	8.18	33.68	-.0421	129.06	-.0122	-20.91	3.42
EXIT 51	15.86	27.11	16	2	25.7	58.62	-.0977	-7.49	-.0687	4217.0	-.06	31.44	.1171	277.19	-.0234	-20.91	3.42
EXTM 51	28.57	39.82	16	2	38.4	2.18	-.0436	-34.00	-.0086	7030.7	5.47	81.52	-.0000	192.34	-.2518	-30.08	26.59
EXTM 72	69.30	80.55	16	3	19.1	278.90	.0000	-33.88	.0007	23778.0	4.89	11.76	.0000	123.09	-.0008	-33.15	50.01
EXTM 51	85.54	96.79	16	3	35.4	329.00	-.0001	-33.73	.0008	24521.1	4.47	62.05	.0000	113.98	-.0018	-32.73	52.02
RISE 61	185.87	197.12	16	5	15.7	306.96	.0031	-35.40	.0006	53363.5	3.28	.00	.0020	139.36	.0016	-29.91	44.00
EXTM 51	277.53	288.78	16	6	47.4	.27	.0036	-28.44	.0003	65192.6	3.04	87.28	.0000	185.07	.0677	-28.20	27.44
EXTM 61	448.00	459.25	16	9	37.8	5.15	.0040	-29.64	.0003	97566.6	2.56	19.96	.0000	184.76	.0037	-26.22	350.88
EXTM 72	474.95	486.20	16	10	4.8	.94	.0041	-27.14	.0002	97969.4	2.50	70.74	.0000	182.54	.0110	-25.98	344.79
RISE 11	626.17	637.42	16	12	36.0	290.89	.0040	-26.80	.0001	125394.1	1.95	.00	.0028	123.50	.0023	-24.90	309.81
SET 51	665.92	677.17	16	13	15.8	90.00	.0039	-23.58	.0001	129624.3	2.57	10.01	-.0033	248.53	-.0013	-24.67	300.45
SET 61	698.67	709.92	16	13	48.5	65.10	.0040	-26.45	.0002	135030.0	2.43	-.00	-.0023	234.30	.0027	-24.49	292.71
SET 72	857.50	868.75	16	16	27.3	93.45	.0040	-23.41	.0001	154887.0	2.41	-.00	-.0036	246.35	-.0004	-23.74	254.77
RISE 42	869.11	880.36	16	16	38.9	254.99	.0040	-22.27	.0000	156134.3	1.67	1.31	.0029	116.61	-.0023	-23.69	251.97
EXTM 11	911.73	922.98	16	17	21.6	1.50	.0042	-25.49	.0001	158244.0	1.96	29.28	-.0000	181.55	.0043	-23.52	241.71
SET 11	1195.20	1206.45	16	22	5.0	71.88	.0041	-23.78	.0001	192799.5	2.07	-.00	-.0028	240.42	.0024	-22.58	172.86
EXTM 42	1292.20	1303.45	16	23	42.0	359.83	.0042	-21.91	.0000	196745.2	1.70	76.69	.0000	.68	-.0168	-22.32	149.14
RISE 51	1427.17	1438.42	17	1	57.0	270.00	.0041	-21.32	-.0000	215326.8	1.25	9.08	.0035	109.37	-.0016	-22.00	116.05
RISE 72	1585.51	1596.76	17	4	35.3	266.88	.0041	-21.43	-.0000	231476.8	1.14	.00	.0038	111.65	-.0006	-21.66	77.12
RISE 61	1639.14	1650.39	17	5	29.0	290.66	.0041	-22.63	.0000	236459.4	1.23	.00	.0027	120.27	.0027	-21.55	63.90
SET 42	1714.81	1726.06	17	6	44.6	105.00	.0041	-20.49	.0001	243346.7	1.85	.22	-.0030	244.80	-.0023	-21.41	45.25
EXTM 51	1785.86	1797.11	17	7	55.7	359.97	.0042	-21.16	.0000	243466.6	1.48	85.42	-.0000	.42	-.0432	-21.28	27.72
EXTM 61	1917.60	1928.85	17	10	7.4	.59	.0042	-22.30	.0000	258342.5	1.44	27.46	-.0000	180.62	.0044	-21.06	355.17
EXTM 72	1956.40	1967.65	17	10	46.2	.10	.0042	-21.32	.0000	258458.6	1.42	76.59	.0000	180.39	.0167	-21.00	345.58
RISE 11	2076.85	2088.10	17	12	46.7	286.26	.0042	-21.64	.0000	274732.0	1.05	.00	.0030	116.83	.0024	-20.81	315.78
SET 51	2144.85	2156.10	17	13	54.7	90.00	.0041	-20.19	.0001	279386.4	1.75	8.62	-.0035	251.67	-.0016	-20.72	298.94
SET 61	2196.08	2207.33	17	14	45.9	70.49	.0041	-21.54	.0001	284512.2	1.65	-.00	-.0027	241.25	.0027	-20.64	286.25
SET 72	2326.06	2337.31	17	16	55.9	92.95	.0041	-20.30	.0001	294900.6	1.74	-.01	-.0038	249.50	-.0005	-20.47	254.03
RISE 42	2331.87	2343.12	17	17	1.7	255.35	.0041	-19.71	-.0000	295358.1	.97	.00	.0031	114.38	-.0024	-20.47	252.59
EXTM 11	2371.47	2382.72	17	17	41.3	.39	.0042	-21.44	.0000	294982.5	1.30	33.35	-.0000	180.44	.0047	-20.41	242.77
SET 11	2666.09	2677.34	17	22	35.9	74.47	.0042	-20.77	.0000	320857.1	1.57	-.00	-.0030	244.27	.0024	-20.07	169.63
EXTM 42	2748.91	2760.16	17	23	58.7	359.92	.0042	-19.68	.0000	320853.4	1.21	74.46	-.0000	.28	-.0142	-19.98	149.06
RISE 51	2879.29	2890.54	18	2	9.1	270.00	.0041	-19.40	-.0000	335406.6	.80	8.29	.0036	107.61	-.0016	-19.85	116.65
RISE 72	3037.12	3048.37	18	4	47.0	267.17	.0041	-19.54	-.0000	347416.9	.73	-.01	.0039	109.74	-.0006	-19.69	77.40
RISE 61	3080.39	3091.64	18	5	30.2	288.31	.0042	-20.37	-.0000	350405.6	.83	.00	.0028	117.13	.0027	-19.65	66.63
SET 42	3163.93	3175.18	18	6	53.8	104.04	.0041	-18.97	.0000	356225.6	1.44	-.00	-.0031	246.55	-.0024	-19.59	45.80
EXTM 51	3236.30	3247.55	18	8	6.1	359.97	.0042	-19.44	.0000	354658.3	1.09	83.71	.0000	.30	-.0305	-19.56	27.71
EXTM 61	3364.84	3376.09	18	10	14.7	.17	.0042	-20.35	.0000	366140.7	1.08	29.41	-.0000	180.19	.0045	-19 49	355.58
EXTM 72	3404.56	3415.81	18	10	54.4	.02	.0042	-19.68	.0000	365621.0	1.08	78.23	.0000	180.13	.0146	-19.48	345.65
RISE 11	3517.31	3528.56	18	12	47.1	284.90	.0042	-20.02	-.0000	379062.6	.73	.00	.0031	114.77	.0024	-19.43	317.45
SET 51	3592.65	3603.90	18	14	2.5	90.00	.0042	-19.01	.0000	383015.0	1.48	8.13	-.0036	252.76	-.0016	-19.40	298.59
SET 61	3649.15	3660.40	18	14	59.0	72.03	.0042	-20.03	.0000	387579.4	1.41	-.00	-.0028	243.34	.0027	-19.38	284.44
SET 72	3771.12	3782.37	18	17	.9	92.78	.0042	-19.22	.0000	395687.3	1.58	-.00	-.0039	250.59	-.0006	-19.35	253.86
RISE 42	3778.12	3789.37	18	17	8.0	256.10	.0042	-18.79	-.0000	396169.6	.81	.00	.0031	113.22	-.0024	-19.35	252.11
EXTM 11	3813.84	3825.09	18	17	43.7	.02	.0043	-20.10	.0000	395078.9	1.21	34.89	-.0000	180.03	.0044	-19.35	243.13
IMPACT	3888.27	3899.52	18	18	58.1												
IMPC 42	3888.27	3899.52	18	18	58.1	283.93	.0043	-18.95	-.0001	402535.6	1.67	21.92	.0035	98.30	-.0022	-19.38	224.29
IMPC 11	3888.27	3899.52	18	18	58.1	19.12	.0044	-20.11	-.0000	401565.3	2.19	31.78	-.0013	201.21	.0046	-19.38	224.29

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	16	2	9.832	6565.453	16.9642	304.1080	10.97784	-3.1997	119.0656	149.7915
SEPARATION	1.20	12.45	16	2	11.032	6544.771	13.5101	310.0296	10.99509	.2338	120.7034	156.0140
RETRO	3.20	14.45	16	2	13.032	6615.552	7.4853	319.4544	10.93567	5.9191	122.5181	165.9400
EXIT SHA	15.86	27.11	16	2	25.695	9299.448	-20.9078	3.4236	9.20925	32.8334	116.4978	213.0839
IMPACT	3888.27	3899.52	18	18	58.107	404957.617	-19.3834	224.2896	2.19174	67.5859	254.8744	324.7025

SURVEYOR VIEW PERIODS

GHA	175.1078				EPS	142.6101					LOM	218.2372	
SX	.770339	SY	-.544616	SZ	-.331618	DAO	19.36704	RAO	324.74035	NM	406224.699	LAT	28.310600
LON	279.461800	C3	-.919620	ECC	.984901	SLR	12990.516	RCA	6544.6650	LTA	20.0000	GTA	20.00
TB	675.00000	POL	-.0	NSX	.782454	NSY	-.530641	NSZ	-.325863	C3M	1.5345	VIM	2.6784
ZAE	142.345	B.T	.0000	B.R	-.0000	LATE	6.5871	LONE	1.3369	LATS	-1.3587	LONS	218.5614
LATI	2.8092	LONI	323.7341	RSM	148.6120	TTAN	4.6522						

LAUNCH DATE MAR 16.1966 BASE AZM 115.0 TF 64.864 ARRIVAL DATE MAR 18 1966 19 22 23.9

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	2 10 2.8	27.8	15.53	303.78	-4.06	151.94	121.89	2 21 17.8	6552.8	10.99	-2.02

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PRORE IN EARTH'S SHADOW														
INJECTION	.00	11.25	16	2	21.3												
SEPARATION	1.20	12.45	16	2	22.5												
RETRO	3.20	14.45	16	2	24.5												
RISE 72	5.02	16.27	16	2	26.3	87.11	-.1271	19.91	-.0797	2476.3	-8.29	.00	.1299	290.11	-.0613	-.28	325.80
EXTM 72	9.59	20.84	16	2	30.9	18.04	-.3528	-32.40	-.1744	1487.4	3.74	60.33	.0477	211.88	-.6906	-12.55	342.71
RISE 51	11.23	22.48	16	2	32.5	87.07	-.0785	6.04	-.0605	5016.8	-3.77	.00	.0967	276.71	-.0204	-16.03	347.97
EXIT SHA	15.42	26.67	16	2	36.7												
EXIT 72	15.42	26.67	16	2	36.7	343.97	-.0717	-43.60	.0056	3959.8	7.98	36.36	-.0434	139.67	-.0361	-22.85	359.62
EXIT 51	15.42	26.67	16	2	36.7	65.78	-.0897	-10.76	-.0685	4495.5	-.29	26.36	.1081	270.44	-.0308	-22.85	359.62
EXTM 51	30.83	42.08	16	2	52.1	2.06	-.0382	-38.87	-.0042	7960.7	5.46	76.75	-.0000	187.02	-.1309	-33.04	26.61
EXTM 72	69.13	80.38	16	3	30.4	281.18	-.0000	-36.06	.0011	23652.6	4.85	13.66	.0000	125.30	-.0011	-34.83	47.55
EXTM 51	84.48	95.73	16	3	45.8	331.88	-.0004	-35.82	.0011	24269.4	4.47	63.94	.0000	119.55	-.0026	-34.29	49.57
RISE 61	183.27	194.52	16	5	24.6	308.95	.0031	-36.61	.0007	52899.1	3.29	.00	.0020	141.37	.0016	-30.98	42.05
EXTM 51	266.30	277.55	16	6	47.6	.47	.0036	-29.54	.0003	63210.7	3.08	86.17	-.0000	186.12	.0472	-29.20	27.26
EXTM 61	439.40	450.65	16	9	40.7	5.71	.0040	-30.37	.0003	96370.8	2.58	19.19	.0000	185.21	.0036	-26.88	350.36
EXTM 72	464.73	475.98	16	10	6.0	1.10	.0041	-27.85	.0002	96504.3	2.52	70.02	.0000	182.86	.0105	-26.64	344.64
RISE 11	617.74	628.99	16	12	39.0	291.40	.0040	-27.34	.0001	124286.8	1.96	.00	.0028	124.20	.0023	-25.41	309.28
SET 51	655.08	666.33	16	13	16.4	90.00	.0039	-24.08	.0002	128197.9	2.58	10.20	-.0033	248.08	-.0013	-25.17	300.49
SET 61	685.29	696.54	16	13	46.6	64.48	.0040	-26.98	.0002	133317.1	2.44	.00	-.0023	233.53	.0027	-24.98	293.35
SET 72	847.03	858.28	16	16	28.3	93.52	.0040	-23.80	.0001	153648.7	2.41	-.01	-.0036	245.96	-.0000	-24.13	254.73
RISE 42	858.58	869.83	16	16	39.9	254.99	.0040	-22.65	.0000	154868.5	1.68	1.54	.0029	116.91	-.0023	-24.08	251.95
EXTM 11	901.64	912.89	16	17	22.9	1.63	.0042	-25.88	.0001	157114.4	1.96	28.89	-.0000	181.68	.0043	-23.89	241.58
SET 11	1183.44	1194.69	16	22	4.7	71.62	.0041	-24.08	.0001	191560.3	2.08	-.00	-.0028	240.05	.0024	-22.86	173.13
EXTM 42	1281.47	1292.72	16	23	42.8	359.82	.0042	-22.17	.0000	195639.4	1.70	76.95	.0000	.75	-.0171	-22.57	149.16
RISE 51	1416.52	1427.77	17	1	57.8	270.00	.0041	-21.54	-.0000	214260.7	1.25	9.17	.0035	109.57	-.0016	-22.22	116.04
RISE 72	1574.70	1585.95	17	4	36.0	266.85	.0041	-21.62	-.0000	230441.4	1.14	.00	.0038	111.84	-.0006	-21.85	77.14
RISE 61	1529.22	1640.47	17	5	30.5	290.86	.0041	-22.82	.0000	235517.4	1.24	.00	.0027	120.53	.0027	-21.73	63.70
SET 42	1704.03	1715.28	17	6	45.3	105.00	.0041	-20.65	.0001	242328.6	1.85	.32	-.0030	244.67	-.0023	-21.58	45.26
EXTM 51	1775.10	1786.35	17	7	56.4	359.97	.0042	-21.32	.0000	242472.3	1.48	85.58	-.0000	.43	-.0460	-21.44	27.72
EXTM 61	1906.99	1918.24	17	10	8.3	.63	.0042	-22.44	.0000	257397.5	1.44	27.32	-.0000	180.66	.0044	-21.20	355.13
EXTM 72	1945.65	1956.90	17	10	46.9	.11	.0042	-21.45	.0000	257496.7	1.42	76.45	.0000	180.42	.0166	-21.13	348.57
RISE 11	2066.47	2077.72	17	12	47.8	286.36	.0042	-21.76	.0000	273813.8	1.05	.00	.0030	116.99	.0024	-20.93	315.67
SET 51	2134.00	2145.25	17	13	55.3	90.00	.0041	-20.30	.0001	278433.5	1.76	8.66	-.0035	251.57	-.0016	-20.82	298.94
SET 61	2184.79	2196.04	17	14	46.1	70.38	.0042	-21.64	.0001	283534.1	1.66	-.00	-.0027	241.11	.0027	-20.75	286.36
SET 72	2315.24	2326.49	17	16	56.5	92.96	.0041	-20.38	.0001	293975.0	1.74	-.01	-.0038	249.41	-.0005	-20.56	254.02
RISE 42	2320.75	2332.00	17	17	2.0	255.28	.0041	-19.79	-.0000	294409.4	.97	.00	.0031	114.49	-.0024	-20.55	252.65
EXTM 11	2360.72	2371.97	17	17	42.0	.42	.0042	-21.52	.0000	294074.7	1.30	33.27	-.0000	180.47	.0047	-20.50	242.74
SET 11	2654.99	2666.24	17	22	36.3	74.43	.0042	-20.83	.0000	319940.0	1.57	-.00	-.0030	244.20	.0024	-20.12	169.68
EXTM 42	2737.97	2749.22	17	23	59.3	359.92	.0042	-19.73	.0000	319953.1	1.22	74.51	-.0000	.30	-.0144	-20.03	149.06
RISE 51	2868.37	2879.62	18	2	9.7	270.00	.0041	-19.44	-.0000	334516.0	.80	8.31	.0036	107.64	-.0016	-19.88	116.64
RISE 72	3026.17	3037.42	18	4	47.5	267.17	.0041	-19.57	-.0000	346533.8	.73	-.01	.0039	109.76	-.0006	-19.72	77.40
RISE 61	3069.52	3080.77	18	5	30.8	288.34	.0042	-20.39	-.0000	349531.2	.83	.00	.0028	117.16	.0027	-19.67	66.61
SET 42	3153.08	3164.33	18	6	54.4	104.04	.0041	-18.97	.0000	355433.3	1.44	-.00	-.0031	246.55	-.0024	-19.59	45.80
EXTM 51	3225.43	3236.68	18	8	6.7	359.97	.0042	-19.44	.0000	3538?8.0	1.08	83.70	.0000	.31	-.0307	-19.55	27.72
EXTM 61	3354.02	3365.27	18	10	15.3	.19	.0042	-20.35	.0000	365?26.5	1.08	29.41	-.0000	180.20	.0045	-19.48	355.57
EXTM 72	3393.68	3404.93	18	10	55.0	.02	.0042	-19.67	.0000	364798.4	1.07	78.24	.0000	180.14	.0158	-19.46	348.65
RISE 11	3506.37	3517.62	18	12	47.7	284.89	.0042	-20.01	-.0000	376216.3	.73	.00	.0031	114.75	.0024	-19.41	317.46
SET 51	3581.72	3592.97	18	14	3.0	90.00	.0042	-18.99	.0000	382153.5	1.47	8.12	-.0036	252.78	-.0016	-19.38	298.59
SET 61	3638.31	3649.56	18	14	59.6	72.05	.0042	-20.01	.0000	386704.4	1.40	-.00	-.0028	243.37	.0027	-19.36	284.42
SET 72	3760.17	3771.42	18	17	1.5	92.77	.0042	-19.19	.0000	394734.6	1.57	-.00	-.0039	250.62	-.0006	-19.32	253.87
RISE 42	3767.32	3778.57	18	17	8.6	256.13	.0042	-18.76	-.0000	395219.4	.79	.00	.0031	113.18	-.0024	-19.32	252.08
EXTM 11	3803.05	3814.30	18	17	44.3	.05	.0043	-20.07	.0000	394078.9	1.18	34.72	-.0000	180.06	.0048	-19.32	243.10
IMPACT	3891.85	3903.10	18	19	13.2												
IMPC 42	3891.85	3903.10	18	19	13.2	287.59	.0043	-18.93	-.0000	402243.3	1.67	24.88	.0035	96.33	-.0023	-19.35	220.64
IMPC 11	3891.85	3903.10	18	19	13.2	22.81	.0044	-20.07	-.0000	401680.4	2.16	30.64	-.0015	205.04	.0044	-19.35	220.64

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	16	2	21.297	6552.861	15.5277	303.3774	10.98822	-2.0153	121.8920	151.9349
SEPARATION	1.20	12.45	16	2	22.497	6548.713	11.7930	309.0794	10.99159	1.4193	123.3117	157.9377
RETRO	3.20	14.45	16	2	24.497	6646.328	5.3966	318.1313	10.90996	7.0773	124.7449	167.4910
EXIT SHA	15.42	26.67	16	2	36.715	9298.358	-22.8521	359.6195	9.21360	32.7899	117.4102	212.0421
IMPACT	3891.85	3903.10	18	19	13.152	404964.789	-19.3492	220.6430	2.18879	67.3298	255.5807	324.8274

MAR 16, 1966
115 DEGREES

APR 1966

APR 1966

SURVEYOR VIEW PERIODS

GHA	195.8064				EPS	37.3209						LOM	297.6388
SX	-.569160	SY	-.754653	SZ	-.326429	DAO	-19.05218	RAD	232.97636	RM	376035.859	LAT	28.310600	LON	279.461800
C3	-1.189469	ECC	.980470	SLR	12961.515	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.549586	NSY	-.765782	NSZ	-.333964	C3M	1.4931	VIM	2.6706	ZAE	134.741	B.T	.0000	B.R	-.0000
LATE	-.0627	LONE	6.3175	LATS	-.9383	LONS	329.0991	LATI	-10.8028	LONI	322.0746	RSM	150.0982	TTAN	4.7813
LAUNCH DATE	APR	5,1966		BASE AZM	102.0		TF	60.276				ARRIVAL DATE	APR	8 1966	6 37 2.2

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	18 1 57.0	27.4	20.31	305.44	-12.29	52.34	112.66	18 13 12.0	6619.8	10.92	-6.09

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	5	18	13.2												
SEPARATION	1.20	12.45	5	18	14.4												
RETRO	3.20	14.45	5	18	16.4												
RISE 72	5.57	16.82	5	18	18.8	81.32	-.2104	47.38	.0533	2158.2	-8.69	.00	.1287	317.98	.0811	6.06	333.21
EXTM 72	8.74	19.99	5	18	21.9	353.27	-.4960	34.73	-.3339	1090.0	.23	46.89	.2598	8.11	.6709	-2.03	346.51
RISE 51	11.40	22.65	5	18	24.6	78.48	-.1051	22.49	-.0436	4468.6	-4.85	.00	.1062	295.13	.0072	-7.82	356.05
EXTM 51	25.53	36.78	5	18	38.7	358.05	-.0522	-21.74	-.0213	5651.6	5.42	85.62	-.0000	24.50	.6932	-23.86	28.62
EXTM 72	69.50	80.75	5	19	22.7	272.95	.0000	-29.43	.0000	24019.7	4.85	6.46	.0000	119.22	-.0000	-30.05	56.13
RISE 42	72.67	83.92	5	19	25.9	105.00	-.0046	-22.61	-.0018	25517.6	4.29	1.15	.0045	243.60	.0012	-30.06	56.68
EXTM 42	121.58	132.83	5	20	14.8	99.88	.0002	-24.18	-.0002	37792.1	4.04	6.22	-.0000	244.69	-.0003	-29.41	57.78
SET 42	186.64	197.89	5	21	19.8	105.00	.0021	-24.20	.0001	52767.5	3.65	2.49	-.0016	241.87	-.0011	-28.27	58.11
RISE 61	202.25	213.50	5	21	35.5	303.48	.0032	-23.09	.0004	56254.3	3.15	.00	.0021	135.67	.0018	-28.02	47.82
EXTM 61	472.25	483.50	6	2	5.5	3.92	.0040	-20.62	.0002	100088.6	2.47	21.05	.0000	183.68	.0037	-25.30	352.04
EXTM 72	503.16	514.41	6	2	36.4	.69	.0041	-26.17	.0001	100995.9	2.41	71.73	.0000	181.98	.0116	-25.10	345.03
RISE 11	652.21	663.46	6	5	5.4	290.26	.0040	-26.14	.0000	127368.7	1.87	.00	.0028	122.63	.0023	-24.28	310.48
SET 51	695.05	706.30	6	5	48.2	90.00	.0039	-23.01	.0001	131824.6	2.49	9.77	-.0033	249.07	-.0014	-24.08	300.39
SET 61	730.65	741.90	6	6	23.9	65.81	.0040	-25.85	.0002	137399.6	2.35	-.01	-.0024	235.18	.0027	-23.93	291.96
SET 72	886.21	897.46	6	8	59.4	93.38	.0040	-23.01	.0001	156080.1	2.33	-.00	-.0036	246.75	-.0004	-23.34	254.81
RISE 42	897.95	909.20	6	9	11.2	255.00	.0040	-21.49	-.0000	157313.4	1.59	1.08	.0029	116.31	-.0023	-23.30	251.99
EXTM 11	939.55	950.80	6	9	52.8	1.22	.0042	-25.12	.0001	159045.9	1.88	29.46	.0000	181.27	.0043	-23.17	241.97
SET 11	1225.05	1236.30	6	14	38.3	72.05	.0041	-23.59	.0001	192534.7	1.99	-.00	-.0029	240.67	.0024	-22.39	172.69
EXTM 42	1321.53	1332.78	6	16	14.7	359.85	.0042	-21.76	.0000	195977.3	1.62	76.54	.0000	.60	-.0166	-22.18	149.13
RISE 51	1456.61	1467.8	6	18	29.8	270.00	.0041	-21.22	-.0000	213933.7	1.17	9.04	.0035	109.28	-.0016	-21.90	116.04
RISE 72	1615.13	1626.38	6	21	8.3	266.88	.0041	-21.39	-.0000	229342.3	1.06	.00	.0038	111.60	-.0006	-21.61	77.09
RISE 61	1668.71	1679.96	6	22	1.9	290.65	.0041	-22.62	.0000	234062.5	1.15	.00	.0027	120.26	.0027	-21.52	63.91
SET 42	1744.42	1755.67	6	23	17.6	105.01	.0041	-20.48	.0001	240587.9	1.76	.20	-.0030	244.81	-.0023	-21.40	45.26
EXTM 51	1815.60	1826.85	7	0	28.8	359.97	.0042	-21.17	.0000	240371.1	1.40	85.44	-.0000	.37	-.0404	-21.29	27.71
EXTM 61	1947.26	1958.51	7	2	40.5	.54	.0042	-22.36	.0000	254594.9	1.35	27.40	-.0000	180.57	.0044	-21.10	355.22
EXTM 72	1986.36	1997.61	7	3	19.6	.12	.0042	-21.48	.0000	254537.8	1.34	76.53	-.0000	180.47	.0167	-21.05	345.56
RISE 11	2107.22	2118.47	7	5	20.4	286.34	.0042	-21.43	-.0000	270233.6	.96	.00	.0030	116.95	.0024	-20.89	315.68
SET 51	2174.81	2186.06	7	6	28.0	90.00	.0041	-20.27	.0000	274506.2	1.67	8.65	-.0035	251.60	-.0016	-20.81	298.96
SET 61	2225.62	2236.87	7	7	18.8	70.37	.0041	-21.65	.0000	279341.3	1.57	-.00	-.0027	241.10	.0027	-20.74	286.38
SET 72	2356.19	2367.44	7	9	29.4	92.96	.0041	-20.41	.0000	289098.6	1.65	-.00	-.0038	249.38	-.0005	-20.59	254.05
RISE 42	2361.81	2373.06	7	9	35.0	255.26	.0041	-19.42	-.0000	289512.4	.89	.00	.0031	114.52	-.0024	-20.59	252.65
EXTM 11	2401.39	2412.64	7	10	14.6	.31	.0042	-21.59	.0000	288941.7	1.21	33.21	.0000	180.35	.0047	-20.54	242.85
SET 11	2695.86	2707.11	7	15	9.1	74.32	.0042	-20.96	.0000	313214.9	1.48	-.00	-.0030	244.04	.0024	-20.24	169.81
EXTM 42	2779.42	2790.67	7	16	32.6	359.92	.0042	-19.85	.0000	312805.3	1.12	74.63	.0000	.30	-.0145	-20.16	149.06
RISE 51	2909.88	2921.13	7	18	43.1	270.00	.0042	-19.57	-.0000	326799.1	.71	8.36	.0036	107.75	-.0016	-20.02	116.62
RISE 72	3066.96	3078.21	7	21	20.2	267.15	.0042	-19.59	-.0000	337968.8	.65	.00	.0039	109.89	-.0006	-19.85	77.38
RISE 61	3110.76	3122.01	7	22	4.0	289.49	.0042	-21.54	.0000	340798.9	.76	.00	.0028	117.37	.0027	-19.80	66.44
SET 42	3193.55	3204.80	7	23	24.8	104.13	.0041	-19.17	.0000	346124.8	1.42	-.00	-.0031	246.43	-.0024	-19.71	45.74
EXTM 51	3265.67	3276.92	8	0	38.9	359.98	.0042	-19.42	.0000	344466.2	1.07	83.78	-.0000	.26	-.0303	-19.63	27.71
EXTM 61	3394.94	3406.19	8	2	48.1	.40	.0042	-20.37	.0000	355936.5	1.08	29.39	-.0000	180.43	.0046	-19.49	355.36
EXTM 72	3433.90	3445.15	8	3	27.1	.08	.0043	-19.65	.0000	355386.1	1.09	78.26	-.0000	180.37	.0191	-19.44	345.60
RISE 11	3545.70	3556.95	8	5	18.9	284.79	.0042	-19.49	.0000	369087.7	.83	.00	.0031	114.61	.0024	-19.28	317.53
IMPACT	3616.58	3627.83	8	6	29.8												
IMPC 72	3616.58	3627.83	8	6	29.8	46.84	.0044	-19.30	.0001	370468.9	2.23	43.24	-.0041	251.02	.0009	-19.11	299.57
IMPC 51	3616.58	3627.83	8	6	29.8	89.04	.0043	-19.72	.0001	373834.5	2.32	8.84	-.0038	253.41	-.0016	-19.11	299.57
IMPC 11	3616.58	3627.83	8	6	29.8	302.87	.0044	-19.79	.0001	373400.4	1.59	12.83	.0029	125.85	.0029	-19.11	299.57
IMPC 61	3616.58	3627.83	8	6	29.8	56.84	.0043	-19.44	.0001	373709.1	2.19	9.99	-.0026	233.09	.0032	-19.11	299.57
SET 51	3620.24	3631.49	8	6	34.4	89.99	.0044	-18.49	.0001	374376.8	2.72	8.01	-.0038	253.05	-.0016	-19.09	298.62

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	5	18	13.200	6622.154	20.3405	305.3520	10.91968	-6.0865	112.6233	52.2499
SEPARATION	1.20	12.45	5	18	14.400	6559.387	17.5503	311.7579	10.97029	-2.7020	114.8071	58.9566
RETRO	3.20	14.45	5	18	16.400	6562.801	12.4518	321.9507	10.96740	2.9988	117.5854	69.6507
IMPACT	3616.58	3627.83	8	6	29.776	374866.996	-19.1120	299.5736	2.14511	62.7225	302.2735	233.0902

BLANK

SURVEYOR VIEW PERIODS

GMA	195.8064					EPS	37.4837							LOM	293.1913
SX	-.566649	SY	-.756138	SZ	-.327375	DAO	-19.10955	RAO	233.15255	RM	376109.820	LAT	28.310600	LON	279.461800
C3	-1.192681	ECC	.980427	SLR	12961.235	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	.0
NSX	-.547003	NSY	-.767221	NSZ	-.334903	C3H	1.4969	VIM	2.6714	ZAE	134.569	B.T	.0000	B.R	-.0000
LATE	-.0421	LONE	6.3236	LATS	-.9380	LONS	328.9361	LATI	-10.9580	LONI	321.9392	RSM	150.0981	TTAN	4.7857
LAUNCH DATE	APR	5.1966		BASE AZM	105.0		TF 60.339					ARRIVAL DATE	APR	8 1966	6 55 28.9

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FTH
105.00	18 15 44.9	27.5	19.15	305.11	-9.74	55.48	114.83	18 27 1.9	6587.0	10.95	-4.57

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	5	18	27.0												
SEPARATION		1.20	12.45	5	18	28.2												
RETRO		3.20	14.45	5	18	30.2												
RISE	72	5.31	16.56	5	18	32.3	83.28	-.1791	40.11	.0159	2252.2	-8.86	.00	.1319	310.57	.2403	4.87	330.97
EXTM	72	9.09	20.34	5	18	36.1	356.12	-.4181	13.85	-.3142	1078.6	2.14	67.91	.2370	10.05	1.2109	-4.80	346.22
RISE	51	11.27	22.52	5	18	38.3	80.71	-.0969	18.50	-.0478	4641.1	-4.56	.01	.1036	290.63	-.0004	-9.46	353.74
EXTM	51	26.43	37.68	5	18	53.5	1.12	-.0489	-25.67	-.0168	611.7	5.69	88.98	.0452	273.83	-.7590	-25.71	27.13
EXTM	72	49.57	80.82	5	19	36.6	276.07	.0000	-31.13	.0002	23897.9	4.94	9.25	.0000	120.41	-.0002	-30.98	53.04
RISE	42	86.96	98.21	5	19	54.0	105.00	-.0025	-23.82	-.0009	29523.7	4.25	2.27	.0024	242.17	.0007	-30.82	55.07
EXTM	42	121.07	132.32	5	20	28.1	102.95	.0001	-24.76	-.0002	38003.0	4.04	4.32	-.0000	242.56	-.0002	-30.16	54.68
SET	42	158.55	169.80	5	21	5.6	104.99	.0015	-24.84	.0001	46811.4	3.80	2.89	-.0011	241.37	-.0008	-29.39	50.95
RISE	61	192.43	203.68	5	21	39.5	304.92	.0031	-34.07	.0005	54353.7	3.21	.00	.0020	137.22	.0017	-28.77	46.07
EXTM	51	293.08	304.33	5	23	20.1	.13	.0037	-27.48	.0002	67422.8	2.94	88.26	.0000	183.78	.1064	-27.33	27.97
EXTM	61	460.39	471.64	6	2	7.4	4.46	.0040	-29.15	.0002	98448.3	2.50	20.49	.0000	184.16	.0037	-25.76	351.53
EXTM	72	489.46	500.71	6	2	34.5	.77	.0041	-26.47	.0002	99090.6	2.43	71.22	.0000	182.13	.0113	-25.55	344.96
RISE	11	640.31	651.56	6	5	7.3	290.44	.0040	-26.54	.0001	125863.2	1.89	.00	.0028	123.16	.0023	-24.65	310.07
SET	51	681.27	692.52	6	5	48.3	90.00	.0039	-23.36	.0001	130099.5	2.50	9.92	-.0033	248.74	-.0013	-24.45	300.44
SET	61	715.04	726.29	6	6	22.1	65.34	.0040	-26.24	.0002	135491.2	2.36	-.00	-.0024	234.60	.0027	-24.29	292.46
SET	72	872.91	884.16	6	8	59.9	93.44	.0040	-23.42	.0001	154582.0	2.34	-.00	-.0036	246.45	-.0004	-23.65	254.79
RISE	42	884.63	895.88	6	9	11.7	254.99	.0040	-22.18	-.0000	155800.1	1.60	1.25	.0029	116.54	-.0023	-23.61	251.97
EXTM	11	926.68	937.93	6	9	53.7	1.35	.0042	-25.44	.0001	157660.0	1.89	29.34	-.0000	181.39	.0043	-23.46	241.85
SET	11	1210.80	1222.05	6	14	37.8	71.83	.0041	-23.85	.0001	191119.6	2.00	-.00	-.0028	240.34	.0024	-22.63	172.93
EXTM	42	1308.27	1319.52	6	16	15.3	359.85	.0042	-21.98	.0000	194698.0	1.63	76.76	.0000	.61	-.0169	-22.40	149.12
RISE	51	1443.40	1454.65	6	18	30.4	270.00	.0041	-21.43	-.0000	212703.7	1.18	9.12	.0031	109.47	-.0016	-22.11	116.03
RISE	72	1601.83	1613.08	6	21	8.9	266.85	.0041	-21.57	-.0000	228161.6	1.06	.00	.0000	111.79	-.0006	-21.90	77.11
RISE	61	1656.32	1667.57	6	22	3.4	290.85	.0041	-22.81	.0000	232976.8	1.16	.00	.0027	120.52	.0027	-21.71	63.70
SET	42	1731.16	1742.41	6	23	18.2	105.00	.0041	-20.65	.0001	239434.0	1.77	.31	-.0030	244.67	-.0023	-21.58	45.27
EXTM	51	1802.39	1813.64	7	0	29.4	359.98	.0042	-21.55	.0000	239250.7	1.40	85.61	-.0000	.36	-.0432	-21.46	27.71
EXTM	61	1934.07	1945.32	7	2	41.1	.55	.0042	-22.52	.0000	253523.9	1.36	27.24	-.0000	180.57	.0044	-21.26	355.21
EXTM	72	1973.05	1984.30	7	3	20.1	.09	.0042	-21.53	.0000	253453.0	1.34	76.57	.0000	180.36	.0165	-21.20	345.98
RISE	11	2094.56	2105.81	7	5	21.6	286.47	.0042	-21.98	-.0000	269220.1	.97	.00	.0030	117.14	.0024	-21.03	315.54
SET	51	2161.57	2172.82	7	6	28.6	90.00	.0041	-20.41	.0000	273453.9	1.67	8.71	-.0035	251.47	-.0016	-20.94	298.37
SET	61	2211.79	2223.04	7	7	18.8	70.22	.0041	-21.80	.0001	278259.3	1.57	-.00	-.0027	240.90	.0027	-20.88	286.94
SET	72	2343.07	2354.32	7	9	30.1	92.99	.0041	-20.54	.0001	288094.0	1.66	-.01	-.0038	249.25	-.0005	-20.72	254.02
RISE	42	2348.20	2359.45	7	9	35.2	255.16	.0041	-19.94	-.0000	288472.1	.89	.00	.0031	114.67	-.0024	-20.71	252.75
EXTM	11	2388.41	2399.66	7	10	15.4	.37	.0042	-21.72	.0000	287965.6	1.22	33.08	-.0000	180.41	.0047	-20.67	242.79
SET	11	2682.25	2693.50	7	15	9.3	74.23	.0042	-21.07	.0000	312224.7	1.48	-.00	-.0030	243.90	.0024	-20.35	169.91
EXTM	42	2766.26	2777.51	7	16	33.3	359.93	.0042	-19.94	.0000	311853.6	1.12	74.74	-.0000	.26	-.0145	-20.26	149.05
RISE	51	2896.67	2907.92	7	18	43.7	270.00	.0042	-19.46	-.0000	325838.4	.71	8.40	.0036	107.84	-.0016	-20.12	116.62
RISE	72	3053.68	3064.93	7	21	20.7	267.13	.0042	-19.78	-.0000	337023.2	.65	-.01	.0039	109.98	-.0006	-19.94	77.40
RISE	61	3097.92	3109.17	7	22	5.0	288.56	.0042	-20.43	.0000	339379.0	.76	.00	.0026	117.49	.0027	-19.89	66.34
SET	42	3180.62	3191.87	7	23	27.6	104.19	.0041	-19.16	.0000	349191.9	1.42	-.00	-.0031	246.32	-.0024	-19.80	45.68
EXTM	51	3252.45	3263.70	8	0	39.5	359.97	.0042	-19.61	.0000	343506.4	1.07	83.37	-.0000	.30	-.0331	-19.72	27.72
EXTM	61	3381.72	3392.97	8	2	48.7	.39	.0042	-20.46	.0000	354958.4	1.08	20.30	-.0000	180.42	.0046	-19.57	355.37
EXTM	72	3420.68	3431.93	8	3	27.7	.06	.0043	-19.73	.0000	354387.5	1.08	78.17	.0000	180.30	.0187	-19.52	345.61
RISE	11	3532.89	3544.14	8	5	19.9	284.86	.0042	-19.79	.0000	368017.2	.81	.00	.0031	114.72	.0024	-19.37	317.46
SET	51	3607.41	3618.66	8	6	34.4	89.97	.0042	-18.42	.0001	372721.2	1.90	8.07	-.0037	252.95	-.0016	-19.22	298.64
IMPACT		3620.34	3631.59	8	6	47.4												
IMPC	72	3620.34	3631.59	8	6	47.4	51.14	.0044	-19.24	.0001	370875.3	2.25	39.21	-.0041	251.57	.0006	-19.17	295.33
IMPC	51	3620.34	3631.59	8	6	47.4	93.28	.0043	-18.75	.0001	374307.1	2.31	5.21	-.0037	251.67	-.0017	-19.17	295.33
IMPC	11	3620.34	3631.59	8	6	47.4	307.15	.0044	-19.46	.0001	373180.5	1.60	19.56	.0028	128.91	.0031	-19.17	295.33
IMPC	61	3620.34	3631.59	8	6	47.4	61.11	.0043	-19.48	.0001	374076.4	2.20	7.31	-.0027	236.11	.0031	-19.17	295.33

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FTH	AZ	RT ASC
INJECTION		.00	11.25	5	18	27.031	6587.706	-9.1645	305.0760	10.94702	-4.5736	114.8125	55.4410
SEPARATION		1.20	12.45	5	18	28.231	6547.413	-8.1490	311.3117	10.98030	-1.1680	116.7990	61.9775
RETRO		3.20	14.45	5	18	30.231	6586.042	-8.7333	321.2426	10.94772	4.5238	119.2330	72.4098
IMPACT		3620.34	3631.59	8	6	47.368	374939.719	-19.1672	295.3317	2.14336	62.5855	302.4932	233.2585

SURVEYOR VIEW PERIODS

GHA	195.8764					EPS	37.6753							LOM	287.9559
SX	-.563469	SY	-.757875	SZ	-.326485	DAD	-19.17484	RAD	233.36002	RM	376196.984	LAT	28.310600	LON	279.461800
C3	-1.199498	ECC	.980302	SLW	12960.419	RCA	6544.6750	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.543910	NSY	-.768929	NSZ	-.336021	C3M	1.4973	VIM	2.6714	ZAE	134.290	B.T	.0000	B.R	-.0000
LATE	-.3178	LONE	6.3307	LATS	-.9377	LONS	328.7527	LATI	-11.1449	LONI	321.7002	RSM	150.0981	TTAN	4.7843
LAUNCH DATE	APR	5,1966		BASE AZM	108.0		TF 60.487					ARRIVAL	DATE APR	8 1966	7 17 11.6

LNCH AZMTH	LNCH TIME		PR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	18 28	0.9	27.7	18.01	304.70	-6.06	58.17	116.97	18 39 24.9	6565.9	10.96	-3.25

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.0	11.25	5	18	39.4												
SEPARATION	1.20	12.45	5	18	40.6												
RETRO	3.20	14.45	5	18	42.6												
RISE 72	5.11	16.36	5	18	44.5	84.70	-.1585	33.42	-.0165	2349.1	-8.81	.00	.1329	303.99	.0055	3.57	328.99
EXTM 72	8.83	20.08	5	18	48.2	13.83	-.4243	4.43	-.2851	1103.8	.93	71.50	.5055	311.30	.2170	-6.12	343.63
RISE 51	11.23	22.45	5	18	50.6	82.74	-.0899	14.58	-.0515	4807.7	-4.25	.00	.1009	286.35	-.0070	-11.19	351.60
EXTM 51	25.26	39.51	5	19	7.7	1.47	-.0425	-30.35	-.0113	6868.9	5.44	85.50	-.0000	196.39	-.4903	-27.98	26.94
EXTM 72	49.84	81.09	5	19	49.3	278.82	.0000	-32.64	.0005	23858.0	4.82	11.66	.0000	121.83	-.0005	-32.04	50.33
EXTM 51	66.54	97.78	5	20	5.9	328.79	-.0001	-32.56	.0006	24677.3	4.43	62.01	.0000	111.46	-.0012	-31.80	52.29
RISE 61	185.41	196.66	5	21	44.8	306.50	.0031	-35.10	.0006	52986.1	3.26	.00	.0020	138.88	.0016	-29.59	44.42
EXTM 51	279.69	290.94	5	23	19.1	.22	.0036	-28.40	.0003	65113.3	2.99	87.43	.0000	184.38	.0714	-28.07	27.48
EXTM 61	449.68	460.93	6	2	9.1	4.86	.0039	-29.75	.0002	96948.6	2.52	19.87	.0000	184.49	.0037	-26.30	351.15
EXTM 72	477.64	488.89	6	2	37.1	.88	.0040	-27.25	.0002	97419.0	2.45	70.64	.0000	182.36	.0109	-26.08	344.85
RISE 11	630.29	641.54	6	5	9.7	291.07	.0040	-27.10	.0001	124564.4	1.90	.00	.0028	123.75	.0023	-25.08	309.62
SET 51	669.19	680.44	6	5	48.6	90.00	.0039	-27.78	.0001	128542.9	2.51	10.08	-.0033	248.35	- 0013	-24.87	300.48
SET 61	700.79	712.04	6	6	20.2	64.81	.0040	-26.10	.0002	133703.2	2.38	.01	-.0023	233.94	.0027	-24.71	293.02
SET 72	861.28	872.53	6	9	.7	93.49	.0040	-23.57	.0001	153224.3	2.35	-.01	-.0036	246.09	-.0004	-24.00	254.76
RISE 42	872.98	884.23	6	9	12.4	254.99	.0040	-22.52	-.0000	154423.1	1.61	1.46	.0029	116.81	-.0023	-23.96	251.95
EXTM 11	915.31	926.56	6	9	54.7	1.44	.0042	-25.80	.0001	156395.1	1.90	28.98	-.0000	181.48	.0043	-23.80	241.76
SET 11	1198.03	1209.28	6	14	37.4	71.57	.0041	-24.14	.0001	189783.7	2.01	-.00	-.0028	239.97	.0024	-22.91	173.20
EXTM 42	1296.60	1307.85	6	16	16.0	359.84	.0042	-22.25	.0000	193495.4	1.63	77.03	.0000	.65	-.0172	-22.66	149.13
RISE 51	1431.82	1443.07	6	18	31.2	270.00	.0041	-21.66	-.0000	211538.4	1.18	9.22	.0035	109.69	-.0016	-22.35	116.02
RISE 72	1500.10	1601.35	6	21	9.5	266.82	.0041	-21.79	-.0000	227025.6	1.07	.00	.0038	112.01	-.0006	-22.02	77.14
RISE 61	1645.67	1656.92	6	22	5.1	291.08	.0041	-23.03	.0000	231944.2	1.16	.00	.0027	120.82	.0027	-21.92	63.46
SET 42	1719.50	1730.75	6	23	17.9	105.00	.0041	-20.45	.0001	238311.3	1.77	.44	-.0030	244.52	-.0023	-21.78	45.28
EXTM 51	1790.78	1802.03	7	0	30.2	359.98	.0042	-21.55	.0000	238153.7	1.41	85.81	-.0000	.37	-.0434	-21.66	27.71
EXTM 61	1922.57	1933.82	7	2	42.0	.58	.0042	-22.42	.0000	252472.1	1.36	27.04	-.0000	180.60	.0044	-21.44	355.18
EXTM 72	1961.45	1972.70	7	3	20.9	.10	.0042	-21.72	.0000	252384.0	1.34	76.18	.0000	180.38	.0162	-21.38	345.58
RISE 11	2083.57	2094.82	7	5	23.0	286.62	.0042	-22.05	-.0000	268204.0	.97	.01	.0030	117.36	.0024	-21.20	315.39
SET 51	2149.91	2161.16	7	6	29.3	90.00	.0041	-20.57	.0001	272384.1	1.67	8.78	-.0035	251.32	-.0016	-21.11	298.97
SET 61	2199.44	2210.69	7	7	18.9	70.05	.0041	-21.96	.0001	277147.3	1.57	-.00	-.0027	240.66	.0027	-21.04	286.72
SET 72	2331.48	2342.73	7	9	30.9	93.01	.0041	-20.69	.0001	287046.8	1.66	-.00	-.0038	249.10	-.0005	-20.87	254.01
RISE 42	2336.10	2347.35	7	9	35.5	255.04	.0041	-20.09	-.0000	287387.6	.89	.00	.0031	114.86	-.0024	-20.87	252.87
EXTM 11	2376.85	2388.10	7	10	16.3	.39	.0042	-21.47	.0000	286937.9	1.22	32.92	-.0000	180.43	.0047	-20.81	242.77
SET 11	2670.14	2681.39	7	15	9.6	74.11	.0042	-21.20	.0000	311153.0	1.48	-.00	-.0030	243.73	.0024	-20.47	170.02
EXTM 42	2754.61	2765.86	7	16	34.0	359.93	.0042	-20.38	.0000	310810.4	1.12	74.86	-.0000	.28	-.0145	-20.38	149.05
RISE 51	2885.21	2896.46	7	18	44.6	270.00	.0042	-19.79	-.0000	324825.4	.70	8.45	.0036	107.95	-.0016	-20.24	116.61
RISE 72	3042.11	3053.36	7	21	21.5	267.11	.0042	-19.90	-.0000	335968.4	.65	-.01	.0039	110.10	-.0006	-20.05	77.41
RISE 61	3086.88	3098.13	7	22	6.3	288.70	.0042	-20.75	.0000	338851.1	.76	.00	.0028	117.65	.0027	-20.00	66.22
SET 42	3169.42	3180.67	7	23	28.8	104.28	.0041	-19.26	.0000	344139.1	1.42	-.00	-.0031	246.18	-.0024	-19.91	45.59
EXTM 51	3240.91	3252.16	8	0	40.3	359.97	.0042	-19.71	.0000	342414.6	1.06	83.98	-.0000	.33	-.0325	-19.82	27.72
EXTM 61	3370.20	3381.45	8	2	49.6	.39	.0042	-20.56	.0000	353837.2	1.07	29.20	-.0000	180.42	.0045	-19.67	355.36
EXTM 72	3409.15	3420.40	8	3	28.6	.06	.0043	-19.43	.0000	353237.9	1.07	78.07	.0000	180.30	.0188	-19.62	345.61
RISE 11	3521.75	3533.00	8	5	21.2	284.95	.0042	-20.08	.0000	366783.6	.78	.00	.0031	114.85	.0024	-19.47	317.37
SET 51	3596.15	3607.40	8	6	35.6	90.00	.0042	-18.93	.0001	371164.8	1.70	8.10	-.0037	252.83	-.0016	-19.34	298.63
IMPACT	3629.21	3640.46	8	7	8.6												
IMPC 72	3629.21	3640.46	8	7	8.6	56.31	.0044	-19.29	.0001	371397.5	2.27	34.33	-.0041	252.00	.0004	-19.23	290.21
IMPC 51	3629.21	3640.46	8	7	8.6	98.40	.0043	-18.79	.0001	374879.4	2.30	.88	-.0037	249.50	-.0018	-19.23	290.21
IMPC 11	3629.21	3640.46	8	7	8.6	312.32	.0044	-19.95	.0001	372941.1	1.61	18.69	.0027	132.80	.0033	-19.23	290.21
IMPC 61	3629.21	3640.46	8	7	8.6	66.26	.0043	-19.93	.0001	374540.0	2.20	3.94	-.0028	239.61	.0030	-19.23	290.21
SET 61	3653.56	3664.81	8	7	33.0	72.02	.0043	-20.15	.0001	374175.9	1.86	-.00	-.0029	243.32	.0028	-19.38	284.49

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.0	11.25	5	18	39.415	6566.104	18.0201	304.6898	10.96442	-3.2450	116.9663	58.1592
SEPARATION	1.20	12.45	5	18	40.615	6544.725	14.7834	310.7627	10.98222	.1747	118.7688	64.5329
RETRO	3.21	14.45	5	18	42.615	6613.838	9.0735	320.4116	10.92412	5.8405	120.8746	74.6832
IMPACT	3629.21	3640.46	8	7	8.623	375031.555	-19.2336	290.2075	2.13939	62.2129	302.5588	233.4624

SURVEYOR VIEW PERIODS

GHA 195.8864 EPS 37.8671 LOM 282.7120
SX -.560887 SY -.759805 SZ -.329591 DAD -19.24498 RAD 233.56789 RM 376284.387 LAT 28.310600 LON 279.461800
C3 -1.209048 ECC .980749 SLR 12959.412 RCA 6544.6450 LTA -20.0000 GTA 20.00 T8 675.00000 POL -.0
NSX -.548788 NSY -.770638 NSZ -.337143 C3M 1.4772 VIM 2.6714 ZAE 133.960 B.T .0000 B.R -.0000
LATE .0065 LONE 6.3381 LATS -.9373 LONS 328.5643 LATI -11.3511 LONI 321.4123 RSM 150.1980 TTAN 4.7790
LAUNCH DATE APR 5.1966 BASE AZM 111.0 TF 60.664 ARRIVAL DATE APR 8 1966 7 38 56.5

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	18 39 4.6	27.8	16.91	304.22	-4.74	60.42	119.10	18 50 19.6	6553.5	10.97	-2.10

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
					PRORE IN SUNLIGHT												
INJECTION	.00	11.25	5	18	50.3												
SEPARATION	1.20	12.45	5	18	51.5												
RETRO	3.20	14.45	5	18	53.5												
RISE 72	4.98	16.23	5	18	55.3	85.82	-.1433	27.41	-.0443	2447.6	-8.60	-.01	.1322	298.00	-.0240	2.19	327.22
EXTM 72	9.61	20.86	5	18	59.9	6.31	-.3420	-18.62	-.1918	1345.6	3.96	77.65	.0000	209.16	-1.7607	-9.77	344.61
RISE 51	11.18	22.43	5	19	1.5	84.42	-.0838	11.01	-.0548	4967.6	-3.94	-.00	.0980	282.24	-.0127	-13.01	349.62
EXTM 51	29.96	41.21	5	19	20.3	2.15	-.0381	-33.95	-.0076	7581.5	5.43	81.67	-.0000	192.45	-.2247	-30.15	26.56
EXTM 72	69.94	81.19	5	20	.3	281.20	.0000	-34.96	.0007	23796.0	4.80	13.67	.0000	123.45	-.0007	-33.22	47.95
EXTM 51	86.61	97.86	5	20	16.9	331.68	-.0002	-34.05	.0008	24715.2	4.42	64.18	.0000	115.51	-.0018	-32.89	49.92
RISE 61	181.01	192.26	5	21	51.3	308.17	.0030	-36.14	.0006	52140.6	3.28	.00	.0020	140.59	.0016	-30.47	42.73
EXTM 51	268.28	279.53	5	23	18.6	.36	.0036	-29.20	.0003	63114.8	3.03	86.53	.0000	185.15	.0518	-28.88	27.36
EXTM 61	440.80	452.05	6	2	11.1	5.30	.0039	-30.39	.0003	95705.3	2.53	19.20	.0000	184.84	.0036	-26.88	350.75
EXTM 72	467.53	478.78	6	2	37.9	1.00	.0040	-27.87	.0002	95976.6	2.47	70.01	.0000	182.52	.0105	-26.64	344.74
RISE 11	622.08	633.33	6	5	12.4	291.54	.0040	-27.48	.0001	123482.3	1.91	.00	.0028	124.39	.0023	-25.54	309.13
SET 51	658.74	669.99	6	5	49.1	90.00	.0039	-24.23	.0001	127172.2	2.52	10.27	-.0033	247.94	-.0013	-25.33	300.52
SET 61	688.13	699.28	6	6	18.4	64.23	.0040	-27.19	.0002	132076.8	2.38	.00	-.0023	233.23	.0027	-25.16	293.61
SET 72	851.27	862.52	6	9	1.6	93.56	.0040	-24.14	.0001	152031.4	2.35	-.01	-.0036	245.71	-.0004	-24.38	254.72
RISE 42	862.91	874.16	6	9	13.2	254.99	.0040	-22.89	.0000	153203.8	1.62	1.69	.0029	117.10	-.0023	-24.34	251.93
EXTM 11	905.57	916.82	6	9	55.9	1.54	.0042	-26.19	.0001	155292.4	1.90	28.59	-.0000	181.57	.0043	-24.16	241.67
SET 11	1186.73	1197.98	6	14	37.1	71.28	.0041	-24.45	.0001	188567.6	2.01	-.00	-.0028	239.56	.0024	-23.22	173.50
EXTM 42	1286.47	1297.72	6	16	16.8	359.83	.0042	-22.54	.0000	192413.5	1.64	77.32	.0000	.70	-.0175	-22.94	149.14
RISE 51	1421.77	1433.02	6	18	32.1	270.00	.0041	-21.42	-.0000	210483.4	1.18	9.33	.0035	109.93	-.0016	-22.61	116.00
RISE 72	1579.90	1591.15	6	21	10.2	266.78	.0041	-22.03	-.0000	225988.9	1.07	.00	.0038	112.25	-.0006	-22.26	77.16
RISE 61	1636.61	1647.86	6	22	6.9	291.33	.0041	-23.26	.0000	231014.8	1.16	.00	.0027	121.15	.0027	-22.15	63.21
SET 42	1709.37	1720.62	6	23	19.7	105.00	.0041	-21.16	.0001	237279.7	1.77	.57	-.0030	244.34	-.0023	-22.00	45.29
EXTM 51	1780.63	1791.88	7	0	31.0	359.96	.0042	-21.77	.0000	237139.4	1.41	86.03	.0000	.54	-.0514	-21.87	27.72
EXTM 61	1912.59	1923.84	7	2	42.9	.61	.0042	-22.92	.0000	251502.1	1.36	26.84	-.0000	180.63	.0043	-21.64	355.15
EXTM 72	1951.37	1962.62	7	3	21.7	.11	.0042	-21.92	.0000	251392.8	1.34	75.98	.0000	180.41	.0159	-21.58	345.57
RISE 11	2074.08	2085.33	7	5	24.4	286.77	.0042	-22.24	.0000	267258.5	.97	.00	.0030	117.60	.0024	-21.39	315.23
SET 51	2139.77	2151.02	7	6	30.1	90.00	.0041	-20.75	.0001	271380.2	1.67	8.85	-.0035	251.16	-.0016	-21.29	298.98
SET 61	2188.55	2199.80	7	7	18.9	69.86	.0041	-22.14	.0001	276095.2	1.57	-.00	-.0027	240.41	.0027	-21.22	286.91
SET 72	2321.43	2332.68	7	9	31.8	93.03	.0041	-20.85	.0001	286059.1	1.66	-.00	-.0038	248.94	-.0005	-21.03	253.99
RISE 42	2325.83	2337.08	7	9	36.2	255.00	.0041	-20.25	-.0000	286376.5	.89	.07	.0030	115.01	-.0024	-21.03	252.90
EXTM 11	2366.81	2378.06	7	10	17.1	.41	.0042	-22.03	.0000	285965.4	1.22	32.76	-.0000	180.45	.0046	-20.97	242.75
SET 11	2659.50	2670.75	7	15	9.8	73.99	.0042	-21.34	.0000	310117.4	1.48	-.00	-.0030	243.55	.0024	-20.61	170.14
EXTM 42	2744.44	2755.69	7	16	34.8	359.92	.0042	-20.22	.0000	309800.1	1.12	75.00	-.0000	.29	-.0148	-20.52	149.06
RISE 51	2875.08	2886.33	7	18	45.4	270.00	.0041	-19.92	-.0000	323646.0	.70	8.51	.0036	108.08	-.0016	-20.37	116.61
RISE 72	3031.95	3043.20	7	21	22.3	267.10	.0042	-20.02	-.0000	334928.9	.64	-.01	.0039	110.22	-.0006	-20.17	77.43
RISE 61	3077.26	3088.51	7	22	7.6	288.82	.0042	-20.87	.0000	337836.9	.76	.00	.0028	117.81	.0027	-20.12	66.10
SET 42	3159.66	3170.91	7	23	30.0	104.37	.0041	-19.37	.0000	343096.1	1.41	-.00	-.0031	246.05	-.0024	-20.02	45.51
EXTM 51	3230.80	3242.05	8	0	41.1	359.97	.0042	-19.82	.0000	341329.5	1.06	84.09	-.0000	.33	-.0334	-19.93	27.72
EXTM 61	3360.14	3371.39	8	2	50.5	.40	.0042	-20.67	.0000	352720.0	1.06	29.09	-.0000	180.43	.0045	-19.78	355.35
EXTM 72	3399.67	3410.32	8	3	29.4	.07	.0043	-19.94	.0000	352092.6	1.06	77.97	.0000	180.31	.0185	-19.73	345.61
RISE 11	3512.07	3523.32	8	5	22.4	285.04	.0042	-20.19	.0000	365567.4	.76	.00	.0031	114.98	.0024	-19.57	317.28
SET 51	3586.22	3597.47	8	6	36.5	90.00	.0042	-19.05	.0001	369735.0	1.61	8.15	-.0036	252.73	-.0016	-19.45	298.63
IMPACT	3639.86	3651.11	8	7	30.2												
IMPC 72	3639.86	3651.11	8	7	30.2	61.56	.0043	-19.33	.0001	371953.1	2.28	29.38	-.0041	252.22	.0003	-19.30	285.01
IMPC 51	3639.86	3651.11	8	7	30.2	103.58	.0043	-18.94	.0001	375452.0	2.29	-3.44	-.0036	247.17	-.0019	-19.30	285.01
IMPC 11	3639.86	3651.11	8	7	30.2	317.57	.0044	-20.03	.0001	372724.5	1.63	21.66	.0025	137.00	.0035	-19.30	285.01
IMPC 61	3639.86	3651.11	8	7	30.2	71.49	.0043	-19.97	.0001	375024.1	2.20	.41	-.0029	243.03	.0029	-19.30	285.01
SET 61	3642.23	3653.48	8	7	32.6	72.11	.0044	-19.96	.0001	375347.7	2.41	-.00	-.0029	243.44	.0029	-19.29	284.39

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	5	18	50.327	6553.564	16.9079	304.2138	10.97443	-2.0973	119.0967	60.4187
SEPARATION	1.20	12.45	5	18	51.527	6548.199	13.4555	310.1243	10.97886	1.3246	120.7256	66.6300
RETRO	3.20	14.45	5	18	53.527	6643.253	7.4683	319.4812	10.89923	6.9619	122.5224	76.4883
IMPACT	3639.86	3651.11	8	7	30.186	375123.602	-19.3009	285.0088	2.13488	61.9049	302.7577	233.6691

SURVEYOR VIEW PERIODS

GMA	195.8664					EPS	38.1237					LOM	275.6925
SX	-.556685	SY	-.761984	SZ	-.331065	DAO	-19.33343	RAO	233.84626	RM	376401.539	LAT	28.310600	LON	279.461800
C3	-1.223663	ECC	.979969	SLR	12957.840	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.536574	NSY	-.772920	NSZ	-.338646	C3M	1.4969	VIM	2.6714	ZAE	133.452	B.T	.0000	B.R	-.0000
LATE	.0390	LONE	6.3476	LATS	-.9369	LONS	328.3245	LATI	-11.6445	LONI	320.9624	RSM	150.0980	TTAN	4.7667
LAUNCH DATE	APR	5,1966		BASE AZM	115.0		TF 60.940				ARRIVAL DATE	APR	8 1966	8	8 3.2

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	18 53 41.5	27.9	15.47	303.47	-1.42	62.84	121.92	19 2 56.5	6546.0	10.98	-.80

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	5	19	2.9												
SEPARATION		1.20	12.45	5	19	4.1												
RETRO		3.20	14.45	5	19	6.1												
RISE	72	4.86	16.13	5	19	7.8	87.03	-.1277	20.47	-.0749	2579.6	-8.12	.00	.1293	290.68	-.0565	.21	325.14
EXTM	72	9.40	20.65	5	19	12.3	23.67	-.3236	-27.19	-.1873	1538.2	2.89	60.43	.1211	226.36	-.6512	-11.76	341.52
RISE	51	11.22	22.47	5	19	14.2	86.97	-.0767	6.26	-.0585	5173.4	-3.51	.00	.0942	276.96	-.0193	-15.57	347.20
EXTM	51	32.70	43.95	5	19	35.6	2.03	-.0325	-38.54	-.0037	8672.3	5.41	77.09	-.0000	187.14	-.1149	-33.12	26.58
EXTM	72	69.91	81.16	5	20	12.9	283.82	-.0000	-36.55	.0010	23701.3	4.79	15.78	.0000	125.84	-.0010	-34.96	45.23
EXTM	51	85.51	96.76	5	20	28.5	334.93	-.0004	-36.24	.0010	24462.7	4.42	66.18	.0000	122.20	-.0027	-34.52	47.18
RISE	61	178.68	189.93	5	22	1.6	310.49	.0030	-37.50	.0007	51733.1	3.30	.00	.0020	142.88	.0016	-31.68	40.48
EXTM	51	255.92	267.17	5	23	18.9	.61	.0035	-30.50	.0004	60919.1	3.08	85.21	.0000	186.33	.0367	-30.05	27.13
EXTM	61	431.44	442.69	6	2	14.4	5.91	.0039	-31.28	.0003	94399.9	2.55	18.27	.0000	185.32	.0035	-27.70	350.18
EXTM	72	456.46	467.71	6	2	39.4	1.19	.0040	-28.75	.0002	94380.8	2.49	69.12	.0000	182.92	.0099	-27.46	344.57
RISE	11	613.52	624.77	6	5	16.5	292.21	.0040	-28.8	.0001	122333.0	1.92	.00	.0027	125.30	.0023	-26.20	308.43
SET	51	647.02	658.27	6	5	50.0	90.00	.0039	-24.88	.0002	125599.4	2.53	10.53	-.0033	247.33	-.0013	-25.98	300.57
SET	61	672.88	684.13	6	6	15.8	63.40	.0040	-27.89	.0002	130114.1	2.40	-.00	-.0023	232.21	.0027	-25.82	294.48
SET	72	840.09	851.34	6	9	3.0	93.65	.0040	-24.59	.0001	150665.1	2.36	-.01	-.0036	245.16	-.0004	-24.93	254.67
RISE	42	851.62	862.87	6	9	14.6	254.99	.0040	-23.42	.0000	151793.1	1.63	2.01	.0029	117.52	-.0023	-24.88	251.90
EXTM	11	894.75	906.00	6	9	57.7	1.68	.0042	-26.74	.0001	154042.8	1.91	28.04	-.0000	181.70	.0042	-24.69	241.53
SET	11	1173.61	1184.86	6	14	36.6	70.88	.0041	-24.90	.0001	187109.5	2.01	-.00	-.0028	238.98	.0024	-23.65	173.92
EXTM	42	1275.12	1286.27	6	16	18.0	359.82	.0042	-22.95	.0000	191136.0	1.64	77.73	.0000	.78	-.0181	-23.35	149.15
RISE	51	1410.42	1421.67	6	18	33.4	270.00	.0041	-22.29	-.0000	209227.4	1.19	9.48	.0035	110.27	-.0016	-22.98	115.99
RISE	72	1568.31	1579.55	6	21	11.2	266.73	.0041	-22.17	-.0000	224742.6	1.07	.00	.0038	112.59	-.0006	-22.60	77.20
RISE	61	1626.69	1637.94	6	22	9.6	291.70	.0041	-23.59	.0000	229919.0	1.16	.01	.0027	121.63	.0027	-22.47	62.83
SET	42	1697.89	1709.14	6	23	20.8	105.00	.0041	-21.37	.0001	236029.6	1.77	.76	-.0030	244.10	-.0023	-22.32	45.30
EXTM	51	1769.17	1780.42	7	0	32.1	359.96	.0042	-22.08	.0000	235912.8	1.41	86.34	.0000	.60	-.0571	-22.17	27.72
EXTM	61	1901.31	1912.56	7	2	44.3	.66	.0042	-23.21	.0000	250322.0	1.36	26.55	-.0000	180.68	.0043	-21.92	355.10
EXTM	72	1939.95	1951.20	7	3	22.9	.12	.0042	-22.21	.0000	250179.4	1.34	75.70	.0000	180.44	.0156	-21.85	345.56
RISE	11	2063.53	2074.78	7	5	24.5	287.00	.0042	-22.50	.0000	266102.9	.97	.00	.0030	117.93	.0024	-21.64	315.00
SET	51	2128.24	2139.49	7	6	31.2	90.00	.0041	-21.00	.0001	270134.0	1.67	8.95	-.0035	250.93	-.0015	-21.54	298.99
SET	61	2175.96	2187.21	7	7	18.9	69.59	.0041	-22.39	.0001	274777.0	1.57	-.00	-.0027	240.06	.0027	-21.46	287.18
SET	72	2310.03	2321.28	7	9	33.0	93.07	.0041	-21.48	.0001	284822.8	1.65	-.00	-.0038	248.71	-.0005	-21.26	253.97
RISE	42	2314.34	2325.59	7	9	37.3	255.00	.0041	-20.47	-.0000	285118.0	.89	.21	.0030	115.19	-.0024	-21.25	252.90
EXTM	11	2355.41	2366.66	7	10	18.3	.44	.0042	-22.26	.0000	284747.4	1.22	32.53	-.0000	180.48	.0046	-21.19	242.72
SET	11	2647.26	2658.51	7	15	10.2	73.83	.0042	-21.54	.0000	308790.6	1.48	-.00	-.0030	243.30	.0024	-20.80	170.32
EXTM	42	2732.85	2744.10	7	16	35.8	359.92	.0042	-20.40	.0000	308503.1	1.12	75.18	-.0000	.32	-.0150	-20.70	149.06
RISE	51	2863.52	2874.77	7	18	46.5	270.00	.0041	-20.09	-.0000	322331.1	.70	8.58	.0035	108.23	-.0016	-20.55	116.60
RISE	72	3020.42	3031.67	7	21	23.4	267.07	.0042	-20.18	-.0000	333584.2	.64	-.01	.0039	110.38	-.0006	-20.34	77.45
RISE	61	3066.50	3077.75	7	22	9.4	288.99	.0042	-21.03	.0000	336526.3	.75	.00	.0028	118.04	.0027	-20.28	65.93
SET	42	3148.68	3159.93	7	23	31.6	104.50	.0041	-19.52	.0000	341743.3	1.40	-.00	-.0031	245.85	-.0024	-20.17	45.39
EXTM	51	3219.34	3230.59	8	0	42.3	359.97	.0042	-19.98	.0000	339916.4	1.05	84.24	-.0000	.34	-.0352	-20.08	27.72
EXTM	61	3348.73	3359.98	8	2	51.7	.42	.0042	-20.82	.0000	351262.9	1.05	28.94	-.0000	180.44	.0045	-19.92	355.34
EXTM	72	3387.62	3398.87	8	3	30.6	.07	.0043	-20.09	.0000	350597.0	1.05	77.82	.0000	180.32	.0184	-19.87	345.60
RISE	11	3501.13	3512.38	8	5	24.1	285.16	.0042	-20.33	.0000	363989.4	.73	.00	.0031	115.17	.0024	-19.71	317.15
SET	51	3574.86	3586.11	8	6	37.8	90.00	.0042	-19.19	.0001	367947.2	1.54	8.21	-.0036	252.59	-.0016	-19.60	298.63
SET	61	3630.47	3641.72	8	7	33.4	71.91	.0042	-20.15	.0001	372876.1	1.64	-.00	-.0028	243.17	.0028	-19.48	284.60
IMPACT		3656.38	3667.63	8	7	59.3												
IMPC	72	3656.38	3667.63	8	7	59.3	68.64	.0043	-19.38	.0001	372742.5	2.29	22.70	-.0041	252.23	.0001	-19.39	277.99
IMPC	11	3656.38	3667.63	8	7	59.3	324.68	.0044	-20.14	.0001	372483.1	1.65	25.30	.0022	143.10	.0038	-19.39	277.99
IMPC	61	3656.38	3667.63	8	7	59.3	78.54	.0043	-20.03	.0001	375698.5	2.20	-4.52	-.0030	247.46	.0028	-19.39	277.99

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	5	19	2.942	6545.967	15.4731	303.4684	10.98016	-.8036	121.9164	62.8357
SEPARATION		1.20	12.45	5	19	4.142	6558.467	11.7446	309.1546	10.96950	2.6163	123.3271	68.8228
RETRO		3.20	14.45	5	19	6.142	6682.303	5.4041	318.1204	10.86634	8.2093	124.7439	78.2899
IMPACT		3656.38	3667.63	8	7	59.319	375250.488	-19.3914	277.9852	2.12803	61.3592	302.9419	233.9487

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SURVEYOR VIEW PERIODS

GHA	196.7921					EPS	50.1020						LOM	302.6876	
SX	-.356930	SY	-.848504	SZ	-.390696	DAO	-22.99778	RAO	247.18556	RM	382093.594	LAT	28.310600	LON	279.461800
C3	-1.067088	ECC	.982479	SLR	12974.665	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.335949	NSY	-.854686	NSZ	-.395791	C3M	1.4928	VIM	2.6706	ZAE	137.598	B.T	.0000	B.R	-.0000
LATE	1.5449	LONE	6.5809	LATS	-.9163	LONS	316.6467	LATI	-7.6421	LONI	325.0798	RSM	150.0886	TTAN	5.9358

LAUNCH DATE APR 6,1966 BASE AZM 93.0 TF 60.076 ARRIVAL DATE APR 9 1966 7 9 38.8

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
93.00	18 52 47.5	27.4	23.63	306.74	-11.45	67.37	106.30	19 4 2.5	6614.5	10.93	-5.87

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	6	19	4.0												
SEPARATION	1.20	12.45	6	19	5.2												
RETRO	3.20	14.45	6	19	7.2												
RISE 72	6.60	17.25	6	19	10.0	70.55	-.4231	67.67	.1120	2338.0	-6.50	-.00	.1120	338.73	.1628	10.87	338.37
EXTM 72	10.95	22.20	6	19	15.0	305.69	-.0866	22.52	-.1846	2228.8	5.68	28.76	-.0000	58.85	.2295	-.17	358.21
RISE 51	11.61	22.86	6	19	15.6	71.01	-.1225	34.01	-.0300	4595.7	-4.40	.01	.1022	308.38	.0276	-1.45	.39
EXTM 51	27.26	38.51	6	19	31.3	349.75	-.0370	-11.94	-.0240	6379.4	5.50	73.15	-.0000	36.91	.1498	-18.91	33.02
EXTM 72	67.33	78.58	6	20	11.4	273.71	-.0001	-26.79	-.0009	23397.8	4.91	6.84	.0000	116.21	.0009	-27.22	55.47
RISE 42	74.28	85.53	6	20	18.3	104.58	-.0040	-19.63	-.0023	26165.7	4.27	.00	.0044	245.72	.0005	-27.57	56.58
EXTM 51	82.96	94.21	6	20	27.0	322.47	-.0001	-27.38	-.0007	23772.4	4.52	56.51	.0000	101.34	.0012	-27.88	57.45
EXTM 42	125.69	136.94	6	21	9.7	100.47	.0004	-23.27	-.0005	38977.4	4.00	5.25	-.0000	245.12	-.0007	-28.42	56.87
SET 42	182.02	193.27	6	22	6.1	105.00	.0020	-24.21	-.0001	51928.8	3.67	2.50	-.0014	241.86	-.0012	-28.34	50.22
RISE 61	201.02	212.27	6	22	25.1	303.85	.0032	-33.36	.0003	56151.0	3.19	.00	.0019	136.08	.0019	-28.26	47.24
EXTM 51	306.29	317.54	7	0	10.3	.07	.0037	-27.93	.0001	69890.5	2.92	87.81	.0000	181.71	.0821	-27.75	27.62
EXTM 61	468.04	479.29	7	2	52.1	3.17	.0039	-30.42	.0002	100056.0	2.50	19.28	.0000	182.90	.0036	-27.06	352.75
EXTM 72	501.63	512.88	7	3	25.7	.54	.0040	-28.11	.0001	101291.6	2.43	69.79	-.0000	181.38	.0103	-26.93	345.16
RISE 11	660.57	671.82	7	6	4.6	292.34	.0040	-28.30	.0000	129106.6	1.89	.00	.0027	125.47	.0023	-26.43	308.43
SET 51	694.60	705.85	7	6	38.6	90.00	.0039	-25.29	.0001	132360.1	2.50	10.69	-.0033	246.94	-.0013	-26.34	300.43
SET 61	718.40	729.65	7	7	2.4	62.96	.0040	-28.25	.0001	136585.5	2.37	-.00	-.0023	231.68	.0027	-26.28	294.82
SET 72	888.05	899.30	7	9	52.1	93.81	.0040	-25.55	.0001	157254.4	2.34	-.01	-.0035	244.19	-.0004	-25.88	254.41
RISE 42	898.24	909.49	7	10	2.3	254.99	.0040	-24.46	-.0000	158147.4	1.62	2.65	.0029	118.34	-.0022	-25.86	251.97
EXTM 11	938.92	950.17	7	10	43.0	1.00	.0042	-27.47	.0001	160264.7	1.90	27.02	-.0000	180.99	.0041	-25.78	242.19
SET 11	1214.77	1226.02	7	15	18.8	69.38	.0041	-26.52	.0001	192964.6	2.02	-.00	-.0027	236.87	.0024	-25.29	175.37
EXTM 42	1322.67	1333.92	7	17	6.7	359.93	.0042	-24.81	.0000	197667.4	1.65	79.59	-.0000	.35	-.0201	-25.13	149.05
RISE 51	1457.65	1468.90	7	19	21.7	270.00	.0041	-24.29	-.0000	215776.1	1.21	10.29	.0034	112.13	-.0015	-24.95	116.02
RISE 72	1614.21	1625.46	7	21	58.2	266.36	.0041	-24.53	-.0000	231424.5	1.10	-.01	.0037	114.79	-.0005	-24.76	77.59
RISE 61	1683.97	1695.22	7	23	8.0	294.14	.0041	-25.79	-.0000	237685.8	1.19	.00	.0026	124.75	.0027	-24.68	60.44
SET 42	1745.54	1756.79	8	0	9.6	105.00	.0041	-23.70	.0000	242872.0	1.79	2.19	-.0030	242.26	-.0023	-24.62	45.28
EXTM 51	1813.34	1824.59	8	1	17.4	359.08	.0042	-24.51	.0000	242701.1	1.43	88.52	.0021	34.42	-.1233	-24.55	28.58
EXTM 61	1948.11	1959.36	8	3	32.2	.42	.0042	-25.69	.0000	257796.9	1.39	24.07	-.0000	180.41	.0041	-24.41	355.34
EXTM 72	1987.59	1998.84	8	4	11.6	.08	.0042	-24.78	.0000	257614.2	1.37	73.12	.0000	180.25	.0128	-24.38	345.59
RISE 11	2120.67	2131.92	8	6	24.7	289.31	.0042	-25.11	-.0000	274433.0	1.01	.00	.0029	121.29	.0024	-24.26	312.72
SET 51	2176.23	2187.48	8	7	20.3	90.00	.0041	-23.69	.0000	277729.1	1.69	10.05	-.0035	248.43	-.0015	-24.21	298.98
SET 61	2212.09	2223.34	8	7	56.1	66.64	.0041	-25.11	.0000	281654.9	1.59	-.00	-.0026	236.23	.0027	-24.18	290.11
SET 72	2360.00	2371.25	8	10	24.0	93.53	.0041	-23.48	.0000	293036.4	1.68	-.00	-.0037	245.88	-.0005	-24.06	253.50
RISE 42	2362.38	2373.63	8	10	26.4	255.00	.0041	-23.30	-.0000	293000.7	.93	1.94	.0030	117.42	-.0023	-24.06	252.91
EXTM 11	2402.89	2414.14	8	11	6.9	.28	.0042	-25.10	.0000	293130.4	1.25	29.69	-.0000	180.30	.0044	-24.03	242.87
SET 11	2684.99	2696.24	8	15	49.0	71.19	.0042	-24.56	.0000	316848.5	1.50	-.00	-.0029	239.42	.0024	-23.83	172.94
EXTM 42	2781.37	2792.62	8	17	25.4	359.96	.0042	-23.53	.0000	317442.7	1.16	78.31	.0000	.20	-.0170	-23.76	149.02
RISE 51	2911.60	2922.85	8	19	35.6	270.00	.0042	-23.23	-.0000	331657.1	.75	9.86	.0035	111.14	-.0016	-23.66	116.61
RISE 72	3066.42	3077.67	8	22	10.5	266.55	.0042	-23.39	-.0000	343203.7	.70	-.00	.0038	113.63	-.0006	-23.55	77.97
RISE 61	3128.24	3139.49	8	23	12.3	292.41	.0042	-24.25	-.0000	347344.2	.82	.00	.0027	122.55	.0027	-23.50	62.53
SET 42	3198.96	3210.21	9	0	23.0	105.00	.0041	-22.82	.0000	351881.0	1.45	1.65	-.0030	242.96	-.0023	-23.45	44.87
EXTM 51	3267.71	3278.96	9	1	31.8	360.00	.0042	-23.16	.0000	350332.8	1.11	87.62	-.0000	.42	-.0195	-23.40	27.69
EXTM 61	3396.59	3407.84	9	3	40.6	.30	.0042	-24.20	.0000	362537.5	1.13	25.56	-.0000	180.30	.0043	-23.30	355.46
EXTM 72	3435.90	3447.15	9	4	19.9	.06	.0043	-23.54	.0000	361854.4	1.14	74.37	.0000	180.22	.0138	-23.27	345.61
RISE 11	3560.80	3572.05	9	6	24.8	288.09	.0042	-23.75	.0000	376896.3	.98	.00	.0030	119.53	.0024	-23.14	314.24
IMPACT	3604.59	3615.84	9	7	8.6												
IMPC 72	3604.59	3615.84	9	7	8.6	43.26	.0044	-23.21	.0001	376288.8	2.30	45.82	-.0039	244.66	.0014	-23.05	303.12
IMPC 51	3604.59	3615.84	9	7	8.6	85.50	.0043	-22.70	.0001	379354.6	2.40	13.46	-.0037	251.03	-.0015	-23.05	303.12
IMPC 11	3604.59	3615.84	9	7	8.6	299.29	.0043	-23.72	.0000	379982.0	1.68	7.71	.0029	126.32	.0028	-23.05	303.12
IMPC 61	3604.59	3615.84	9	7	8.6	53.27	.0043	-23.80	.0001	379836.5	2.27	9.04	-.0024	227.95	.0032	-23.05	303.12

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	6	19	4.041	6616.478	23.6569	306.6574	10.92975	-5.8704	106.2649	67.2859
SEPARATION	1.20	12.45	6	19	5.241	6557.035	21.5546	313.5070	10.97785	-2.4789	109.0193	74.4363
RETRO	3.20	14.45	6	19	7.241	6565.696	17.4250	324.4189	10.97054	3.2305	112.8409	85.8496
IMPACT	3604.59	3615.84	9	7	8.631	380888.871	-23.0539	303.1181	2.19441	65.8200	294.6672	247.3607

SURVEYOR VIEW PERIODS

GHA	194.7921					EPS	50.2655							LOM	298.0686
SX	-.354152	SY	-.849394	SZ	-.391378	DAO	-23.04126	RAO	247.37221	RM	382173.355	LAT	28.310600	LON	279.461800
C3	-1.043859	ECC	.986533	SLR	12975.016	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.333184	NSY	-.855505	NSZ	-.396442	C3M	1.4973	VIM	2.6714	ZAE	137.606	R.T	.0000	B.R	-.0000
LATE	1.5651	LONE	6.5815	LATS	-.9160	LONS	316.4867	LATI	-7.6989	LONI	325.1043	RSM	150.0884	TTAN	5.9478
LAUNCH DATE		APR	6.1966		BASE AZM	96.0		TF	60.050				ARRIVAL DATE APR		9 1966 7 28 49.0

LNCH AZMTH	LNCH TIME		PH	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
96.00	19 11 7.9		27.6	22.43	306.60	-7.74	71.83	108.53	19 22 22.9	6574.3	10.96	-3.83

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
					PRORE IN SUNLIGHT													
INJECTION		.00	11.25	6	19	22.4												
SEPARATION		1.20	12.45	6	19	23.6												
RETRO		3.20	14.45	6	19	25.6												
RISE	72	5.52	16.77	6	19	27.9	76.87	-.2852	58.56	.0865	2423.9	-7.34	.00	.1207	329.47	.1226	10.05	335.11
EXTM	72	10.50	21.75	6	19	32.9	318.04	-.1330	21.86	-.2034	1958.1	5.16	39.23	-.0000	53.23	.3071	-1.09	354.67
RISE	51	11.37	22.62	6	19	33.8	73.99	-.1106	29.76	-.0338	4800.5	-4.15	.01	.1000	303.44	.0188	-2.77	357.52
EXTM	51	28.70	39.95	6	19	51.1	353.51	-.0331	-15.91	-.0187	7017.5	5.47	78.37	-.0000	32.66	.1833	-20.57	31.19
EXTM	72	67.83	79.08	6	20	30.2	278.07	-.0000	-27.85	-.0008	23341.5	4.88	10.79	.0000	116.98	.0008	-27.73	51.40
EXTM	51	85.10	96.35	6	20	47.5	327.65	-.0000	-28.26	-.0005	24328.8	4.46	61.15	.0000	102.37	.0010	-28.37	53.37
RISE	42	99.57	110.82	6	21	1.9	105.00	-.0011	-22.26	-.0010	33085.2	4.16	1.31	.0014	243.40	-.0002	-28.62	53.73
EXTM	42	125.50	136.75	6	21	27.9	104.61	.0004	-23.42	-.0005	39431.7	4.00	2.30	-.0000	242.70	-.0007	-28.78	52.59
SET	42	135.50	146.75	6	21	37.9	105.00	.0008	-23.70	-.0004	41809.5	3.93	2.19	-.0004	242.27	-.0008	-28.78	51.73
RISE	61	182.55	193.80	6	22	24.9	305.01	.0030	-34.14	.0003	52474.8	3.31	-.00	.0018	137.32	.0017	-28.64	45.81
EXTM	51	284.76	296.01	7	0	7.1	.11	.0036	-28.52	.0001	66213.8	2.99	87.42	-.0000	182.10	.0696	-28.10	27.59
EXTM	61	449.76	461.01	7	2	52.1	3.46	.0039	-30.78	.0002	97452.2	2.54	18.91	.0000	183.15	.0036	-27.32	352.48
EXTM	72	482.56	493.81	7	3	24.9	.59	.0040	-28.41	.0001	98618.1	2.47	69.48	-.0000	181.49	.0101	-27.19	345.12
RISE	11	643.12	654.37	7	6	5.5	292.58	.0040	-28.55	.0000	126913.2	1.92	.00	.0027	125.80	.0023	-26.64	308.15
SET	51	675.80	687.05	7	6	38.2	90.00	.0039	-25.48	.0001	130026.3	2.52	10.77	-.0032	246.77	-.0013	-26.55	300.49
SET	61	698.45	709.70	7	7	.8	62.65	.0040	-28.60	.0001	134144.8	2.40	-.00	-.0023	231.32	.0027	-26.48	295.15
SET	72	869.76	881.01	7	9	52.1	93.84	.0039	-25.72	.0001	155216.5	2.36	-.01	-.0035	244.02	-.0004	-26.05	254.42
RISE	42	880.11	891.36	7	10	2.5	254.99	.0040	-24.62	-.0000	156129.1	1.64	2.75	.0029	118.46	-.0022	-26.03	251.94
EXTM	11	920.94	932.19	7	10	43.3	1.05	.0042	-27.96	.0001	158330.6	1.92	26.82	-.0000	181.04	.0041	-25.94	242.14
SET	11	1196.12	1207.37	7	15	18.5	69.24	.0041	-26.57	.0001	191156.3	2.03	-.00	-.0027	236.68	.0024	-25.43	175.53
EXTM	42	1304.71	1315.96	7	17	7.1	359.93	.0042	-24.94	.0000	195997.4	1.66	79.72	-.0000	.37	-.0205	-25.26	149.05
RISE	51	1439.80	1451.05	7	19	22.2	270.00	.0041	-24.41	-.0000	214191.1	1.22	10.34	.0034	112.24	-.0015	-25.07	116.00
RISE	72	1596.32	1607.57	7	21	58.7	266.34	.0041	-24.54	-.0000	229921.3	1.11	-.01	.0037	114.89	-.0005	-24.87	77.60
RISE	61	1666.67	1677.92	7	23	9.1	294.26	.0041	-25.90	-.0000	236268.3	1.20	.00	.0026	124.91	.0027	-24.79	60.30
SET	42	1727.67	1738.92	8	0	10.1	105.00	.0041	-23.80	.0000	241424.5	1.79	2.25	-.0030	242.19	-.0022	-24.72	45.29
EXTM	51	1795.93	1807.18	8	1	18.3	359.19	.0042	-24.62	.0000	241330.2	1.43	88.66	.0021	33.44	-.1373	-24.64	28.48
EXTM	61	1930.37	1941.62	8	3	32.8	.43	.0042	-25.79	.0000	256462.6	1.39	23.97	-.0000	180.43	.0041	-24.51	355.33
EXTM	72	1969.81	1981.06	8	4	12.2	.08	.0042	-24.47	.0000	256285.0	1.38	73.03	.0000	180.26	.0128	-24.47	345.59
RISE	11	2103.24	2114.49	8	6	25.6	289.39	.0042	-25.20	-.0000	273179.1	1.01	.00	.0029	121.41	.0024	-24.34	312.63
SET	51	2158.42	2169.67	8	7	20.8	90.00	.0041	-23.78	.0000	276461.5	1.70	10.08	-.0035	248.35	-.0015	-24.29	298.98
SET	61	2193.90	2205.15	8	7	56.3	66.54	.0041	-25.20	.0000	280373.1	1.60	-.00	.0026	236.11	.0027	-24.26	290.21
SET	72	2342.26	2353.51	8	10	24.6	93.54	.0041	-23.96	.0000	291840.5	1.68	-.00	-.0037	245.80	-.0005	-24.14	253.49
RISE	42	2344.64	2355.89	8	10	27.0	255.00	.0041	-23.57	-.0000	291800.3	.93	1.99	.0030	117.48	-.0023	-24.14	252.90
EXTM	11	2385.17	2396.42	8	11	7.6	.29	.0042	-25.18	.0000	291957.7	1.26	29.61	-.0000	180.31	.0044	-24.10	242.86
SET	11	2666.97	2678.22	8	15	49.4	71.12	.0042	-24.63	.0000	315733.9	1.51	-.00	-.0029	239.33	.0024	-23.89	173.00
EXTM	42	2763.63	2774.88	8	17	26.0	359.96	.0042	-23.60	.0000	316374.1	1.17	78.38	.0000	.21	-.0170	-23.83	149.02
RISE	51	2894.02	2905.27	8	19	36.4	270.00	.0042	-23.29	-.0000	330635.2	.76	9.89	.0035	111.20	-.0016	-23.73	116.60
RISE	72	3048.77	3060.02	8	22	11.1	266.54	.0042	-23.45	-.0000	342199.5	.70	-.00	.0038	113.69	-.0006	-23.61	77.98
RISE	61	3110.89	3122.14	8	23	13.3	292.48	.0042	-24.51	-.0000	346365.9	.82	.00	.0027	122.64	.0027	-23.56	62.46
SET	42	3181.30	3192.55	9	0	23.7	105.00	.0041	-22.98	.0000	350883.4	1.45	1.68	-.0030	242.92	-.0023	-23.51	44.87
EXTM	51	3250.06	3261.31	9	1	32.4	360.00	.0042	-23.42	.0000	349341.4	1.11	87.68	-.0000	.36	-.0182	-23.46	27.69
EXTM	61	3378.94	3390.19	9	3	41.3	.30	.0042	-24.26	.0000	361540.6	1.13	25.50	-.0000	180.31	.0043	-23.36	355.45
EXTM	72	3418.24	3429.49	9	4	20.6	.06	.0043	-23.59	.0000	360841.6	1.14	74.31	.0000	180.22	.0138	-23.32	345.61
RISE	11	3543.44	3554.69	9	6	25.8	288.14	.0042	-23.81	.0000	375760.0	.93	.00	.0030	119.61	.0024	-23.20	314.19
IMPACT		3603.01	3614.26	9	7	25.4												
IMPC	72	3603.01	3614.26	9	7	25.4	47.35	.0044	-23.23	.0001	376653.2	2.32	42.14	-.0039	245.71	.0011	-23.09	299.08
IMPC	51	3603.01	3614.26	9	7	25.4	89.55	.0043	-22.71	.0001	379799.0	2.40	10.04	-.0037	249.51	-.0016	-23.09	299.08
IMPC	11	3603.01	3614.26	9	7	25.4	303.36	.0044	-23.77	.0000	379771.0	1.69	10.30	.0028	129.02	.0029	-23.09	299.08
IMPC	61	3603.01	3614.26	9	7	25.4	57.34	.0043	-23.42	.0001	380170.4	2.28	6.66	-.0025	230.84	.0031	-23.09	299.08

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	6	19	22.382	6574.681	22.4382	306.5811	10.96350	-3.8337	108.5157	71.8073
SEPARATION		1.20	12.45	6	19	23.582	6545.010	20.0913	313.2716	10.98817	-.4146	111.0550	78.7986
RETRO		3.20	14.45	6	19	25.582	6600.967	15.6341	323.8909	10.94108	5.2757	114.4785	89.9192
IMPACT		3603.01	3614.26	9	7	25.394	3A0961.836	-23.0911	299.0797	2.19418	65.6194	294.6129	247.5244

SURVEYOR VIEW PERIODS

GHA	196.7921					EPS	50.4478						LOM	292.9149	
SX	-.350839	SY	-.850378	SZ	-.392134	DAO	-23.08737	RAO	247.58049	RM	382262.332	LAT	28.310600	LON	279.461800
C3	-1.068819	EC	.982484	SLR	12974.699	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.329818	NSY	-.856427	NSZ	-.397181	C3M	1.4976	VIM	2.6715	ZAE	137.487	B.T	.0000	B.R	-.0000
LATE	1.5877	LONE	6.5822	LATS	-.9157	LONS	316.3042	LATI	-7.8273	LONI	325.0131	RSM	150.0882	TTAN	5.9549
LAUNCH DATE		APR	6,1966		RASE AZM	99.0		TF	60.119			ARRIVAL DATE		APR 9 1966	7 50 12.4

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99.00	19 26 53.2	27.8	21.25	306.35	-4.26	75.52	110.70	19 38 8.2	6553.7	10.98	-2.11

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PRORE IN SUNLIGHT												
INJECTION		.00	11.25	6	19	38.1												
SEPARATION		1.20	12.45	6	19	39.3												
RETRO		3.20	14.45	6	19	41.3												
RISE	72	5.16	16.41	6	19	43.3	80.12	-.2258	51.76	.0572	2515.0	-7.82	-.01	.1260	321.74	.0868	9.06	332.37
EXTM	72	9.76	21.01	6	19	47.9	335.99	-.2201	24.18	-.2318	1667.3	3.68	50.27	.0533	35.51	.4725	-1.44	350.26
RISE	51	11.22	22.47	6	19	49.4	76.53	-.1011	25.78	-.0373	4988.0	-3.90	.00	.0978	298.87	.0113	-4.25	354.93
EXTM	51	30.31	41.56	6	20	8.5	356.46	-.0297	-19.57	-.0144	7698.9	5.44	83.02	-.0000	28.61	.2589	-22.37	29.66
EXTM	72	68.40	79.65	6	20	46.5	281.88	-.0000	-29.11	-.0006	23337.4	4.85	14.19	.0000	118.14	.0006	-28.47	47.88
EXTM	51	87.06	98.31	6	21	5.2	332.13	.0000	-29.31	-.0003	24848.9	4.42	65.08	.0000	104.61	.0008	-29.06	49.82
RISE	61	168.45	179.70	6	22	26.6	306.44	.0029	-35.07	.0004	49588.4	3.41	-.00	.0018	138.82	.0016	-29.18	44.16
EXTM	51	266.03	277.28	7	0	4.2	.14	.0035	-28.87	.0001	62921.5	3.06	86.86	.0000	182.22	.0562	-28.58	27.56
EXTM	61	434.64	445.89	7	2	52.8	3.82	.0039	-31.23	.0002	95267.4	2.57	18.44	.0000	183.44	.0035	-27.68	352.15
EXTM	72	466.37	477.62	7	3	24.5	.65	.0040	-28.82	.0001	96302.4	2.50	69.08	-.0000	181.60	.0099	-27.54	345.07
RISE	11	628.81	640.06	7	6	4.9	292.90	.0040	-28.87	.0000	125070.4	1.94	.00	.0027	126.23	.0023	-26.93	307.79
SET	51	659.81	671.06	7	6	37.9	90.00	.0039	-25.75	.0001	127985.1	2.54	10.88	-.0032	246.51	-.0013	-26.83	300.54
SET	61	680.88	692.13	7	6	59.0	62.25	.0040	-28.42	.0001	131935.5	2.41	-.00	-.0022	230.84	.0027	-26.77	295.59
SET	72	854.28	865.53	7	9	52.4	93.88	.0039	-25.95	.0001	153435.7	2.37	-.00	-.0035	243.78	-.0004	-26.29	254.42
RISE	42	864.75	876.00	7	10	2.9	254.99	.0040	-24.44	-.0000	154354.3	1.65	2.88	.0029	118.64	-.0022	-26.27	251.91
EXTM	11	905.78	917.03	7	10	43.9	1.12	.0042	-28.22	.0001	156650.5	1.93	26.57	-.0000	181.11	.0041	-26.17	242.07
SET	11	1180.00	1191.25	7	15	18.1	69.05	.0041	-26.47	.0001	189514.5	2.03	-.00	-.0027	236.41	.0024	-25.62	175.73
EXTM	42	1289.47	1300.72	7	17	7.6	359.93	.0042	-25.12	.0000	194495.7	1.67	79.90	-.0000	.38	-.0208	-25.44	149.05
RISE	51	1424.66	1435.91	7	19	22.8	270.00	.0041	-24.57	-.0000	212751.0	1.22	10.40	.0034	112.38	-.0015	-25.23	115.99
RISE	72	1581.11	1592.36	7	21	59.3	266.32	.0041	-24.79	-.0000	228537.3	1.11	-.01	.0037	115.04	-.0005	-25.02	77.61
RISE	61	1652.25	1663.50	7	23	10.4	294.44	.0041	-26.05	-.0000	234977.3	1.21	.00	.0026	125.12	.0027	-24.93	60.13
SET	42	1712.50	1723.75	8	0	10.6	105.00	.0041	-23.93	.0000	240075.8	1.80	2.33	-.0030	242.08	-.0022	-24.86	45.30
EXTM	51	1782.19	1793.44	8	1	20.3	359.54	.0042	-24.75	.0000	246133.8	1.44	88.93	.0015	23.13	-.1882	-24.78	28.14
EXTM	61	1915.35	1926.60	8	3	33.5	.46	.0042	-25.93	.0000	253204.2	1.40	23.84	-.0000	180.45	.0041	-24.63	355.30
EXTM	72	1954.72	1965.97	8	4	12.9	.09	.0042	-25.10	.0000	255021.8	1.38	72.90	.0000	180.28	.0128	-24.59	345.59
RISE	11	2088.60	2099.85	8	6	26.7	289.50	.0042	-25.32	-.0000	271977.9	1.02	.00	.0029	121.56	.0024	-24.46	312.52
SET	51	2143.30	2154.55	8	7	21.4	90.00	.0041	-23.49	.0000	275228.7	1.70	10.13	-.0035	248.25	-.0015	-24.40	298.99
SET	61	2178.27	2189.52	8	7	56.4	66.41	.0041	-25.31	.0000	279112.2	1.60	-.00	-.0026	235.94	.0027	-24.37	290.34
SET	72	2327.22	2338.47	8	10	25.4	93.55	.0041	-24.06	.0000	290654.3	1.69	-.00	-.0037	245.70	-.0005	-24.24	253.48
RISE	42	2329.58	2340.83	8	10	27.7	255.00	.0041	-23.47	-.0000	290606.5	.94	2.05	.0030	117.56	-.0023	-24.24	252.90
EXTM	11	2370.15	2381.40	8	11	8.3	.31	.0042	-25.28	.0000	290790.8	1.26	29.51	-.0000	180.32	.0044	-24.20	242.85
SET	11	2651.56	2662.81	8	15	49.7	71.04	.0042	-24.72	.0000	314574.2	1.51	-.00	-.0029	239.21	.0024	-23.98	173.09
EXTM	42	2748.55	2759.80	8	17	26.7	359.96	.0042	-23.68	.0000	315250.6	1.17	78.46	.0000	.21	-.0177	-23.91	149.02
RISE	51	2878.98	2890.23	8	19	37.1	270.00	.0042	-23.47	-.0000	329529.5	.76	9.92	.0035	111.27	-.0016	-23.81	116.60
RISE	72	3033.68	3044.93	8	22	11.8	266.53	.0042	-23.53	-.0000	341086.8	.70	-.00	.0038	113.77	-.0006	-23.68	77.98
RISE	61	3096.18	3107.43	8	23	14.3	292.56	.0042	-24.49	-.0000	345273.4	.82	.00	.0027	122.74	.0027	-23.64	62.38
SET	42	3166.25	3177.50	9	0	24.4	105.00	.0041	-22.94	.0000	349756.2	1.45	1.72	-.0030	242.86	-.0023	-23.58	44.88
EXTM	51	3235.00	3246.25	9	1	33.1	359.99	.0042	-23.49	.0000	348208.3	1.11	87.75	.0000	.49	-.0521	-23.53	27.70
EXTM	61	3343.94	3375.19	9	3	42.1	.31	.0042	-24.33	.0000	360386.7	1.12	25.43	-.0000	180.31	.0043	-23.42	355.45
EXTM	72	3403.25	3414.50	9	4	21.4	.06	.0043	-23.66	.0000	359665.8	1.13	74.24	.0000	180.22	.0138	-23.39	345.61
RISE	11	3528.80	3540.05	9	6	26.9	288.21	.0042	-23.48	-.0000	374464.5	.89	.00	.0030	119.70	.0024	-23.27	314.12
SET	51	3590.18	3601.43	9	7	28.3	90.00	.0042	-22.79	.0001	378222.0	1.90	9.68	-.0036	249.26	-.0016	-23.18	298.63
IMPACT		3607.16	3618.41	9	7	45.3												
IMPC	72	3607.16	3618.41	9	7	45.3	52.20	.0044	-23.25	.0001	377109.3	2.34	37.74	-.0040	246.65	.0008	-23.14	294.29
IMPC	51	3607.16	3618.41	9	7	45.3	94.34	.0043	-22.73	.0001	380324.6	2.39	6.03	-.0036	247.64	-.0016	-23.14	294.29
IMPC	11	3607.16	3618.41	9	7	45.3	308.20	.0044	-23.44	.0000	379536.0	1.71	13.25	.0027	132.40	.0030	-23.14	294.29
IMPC	61	3607.16	3618.41	9	7	45.3	62.17	.0043	-23.84	.0001	380580.2	2.29	3.72	-.0026	234.15	.0030	-23.14	294.29

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	6	19	38.137	6553.685	21.2495	306.3439	10.98083	-2.1124	110.7016	75.5197
SEPARATION		1.20	12.45	6	19	39.337	6548.138	18.6695	312.8732	10.98538	1.3143	113.0362	82.3498
RETRO		3.20	14.45	6	19	41.337	6643.241	13.9149	323.1772	10.90577	6.9657	116.0784	93.1551
IMPACT		3607.16	3618.41	9	7	45.293	381046.547	-23.1353	294.2854	2.19203	65.5016	294.7909	247.7185

APR 6, 1966
99 DEGREES

SURVEYOR VIEW PERIODS

GHA	196.7921					EPS	50.6186					LOM	288.0817
SX	-.447824	SY	-.851291	SZ	-.392839	DAO	-23.13129	RAO	247.77587	RM	382345.781	LAT	28.310600	LON	279.461800
C3	-1.171985	ECC	.982499	SLR	12974.140	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.326729	NSY	-.857288	NSZ	-.397877	C3M	1.4974	VIM	2.6714	ZAE	137.305	B.T	.0000	B.R	-.0000
LATE	1.6088	LONE	6.5818	LATS	-.9154	LONS	316.1540	LATI	-8.0106	LONI	324.8663	RSM	150.0880	TTAN	5.9588
LAUNCH DATE		APR	6.1966		BASE AZM	102.0		TF	60.220			ARRIVAL DATE		APR	9 1966	8 10 16.0	

LNCH AZMTH	LNCH TIME	PH	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	19 4[illegible] 5.0	27.9	20.09	305.99	-1.40	78.47	112.85	19 51 20.0	6545.6	10.99	-.69

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	6	19	51.3												
SEPARATION	1.20	12.45	6	19	52.5												
RETRO	3.20	14.45	6	19	54.5												
RISE 72	4.98	16.15	6	19	56.2	82.13	-.1929	44.76	.0297	2601.3	-8.07	.01	.1291	315.11	.0556	7.91	330.06
EXTM 72	9.45	20.70	6	20	.8	350.96	-.2695	19.50	-.3242	1556.2	2.83	61.18	.1301	17.89	.6490	-2.63	347.37
RISE 51	11.12	22.37	6	20	2.5	78.76	-.0935	22.01	-.0405	5155.5	-3.66	.00	.0955	294.58	.0048	-5.86	352.60
EXTM 51	32.15	43.30	6	20	23.4	358.74	-.0267	-23.21	-.0110	8401.7	5.40	87.22	-.0000	24.70	.5541	-24.30	28.41
EXTM 72	69.29	80.54	6	21	.6	285.11	.0000	-30.65	-.0003	23456.6	4.81	17.00	.0000	119.62	.0004	-29.44	44.96
EXTM 51	88.80	100.05	6	21	20.1	335.90	.0000	-30.52	-.0002	25324.1	4.38	68.26	.0000	108.26	.0004	-29.92	46.83
RISE 61	158.80	170.05	6	22	30.1	308.08	.0027	-36.09	.0005	47582.9	3.49	-.00	.0017	140.50	.0015	-29.88	42.39
EXTM 51	250.33	261.58	7	0	1.7	.21	.0035	-29.57	.0002	60099.9	3.12	86.17	.0000	182.80	.0449	-29.20	27.49
EXTM 61	422.52	433.77	7	2	53.9	4.22	.0039	-31.76	.0002	93509.6	2.59	17.90	.0000	183.77	.0035	-28.13	351.78
EXTM 72	453.13	464.38	7	3	24.5	.75	.0040	-29.31	.0001	94386.0	2.52	68.58	-.0000	181.79	.0096	-27.98	344.98
RISE 11	617.47	628.72	7	6	8.8	293.29	.0040	-29.26	.0000	123588.7	1.95	.00	.0026	126.74	.0023	-27.28	307.37
SET 51	646.54	657.79	7	6	37.9	90.00	.0038	-26.19	.0001	126259.0	2.55	11.01	-.0032	246.20	-.0013	-27.18	300.58
SET 61	665.66	676.91	7	6	57.0	61.77	.0040	-29.21	.0002	129988.5	2.43	-.00	-.0022	230.27	.0027	-27.11	296.10
SET 72	841.51	852.76	7	9	52.8	93.95	.0039	-26.24	.0001	151937.7	2.38	-.00	-.0035	243.49	-.0004	-26.58	254.40
RISE 42	852.03	863.28	7	10	3.4	254.99	.0040	-25.11	-.0000	152850.3	1.66	3.05	.0029	118.85	-.0022	-26.55	251.88
EXTM 11	893.33	904.58	7	10	44.7	1.21	.0042	-28.52	.0001	155250.6	1.94	26.26	-.0000	181.19	.0041	-26.45	241.99
SET 11	1166.34	1177.59	7	15	17.7	68.82	.0041	-27.11	.0001	188086.6	2.04	-.00	-.0027	236.10	.0024	-25.85	175.97
EXTM 42	1276.83	1288.08	7	17	8.2	359.93	.0042	-25.53	.0000	193209.3	1.67	80.11	-.0000	.40	-.0215	-25.65	149.05
RISE 51	1412.11	1423.36	7	19	23.4	270.00	.0041	-24.16	-.0000	211510.5	1.23	10.47	.0034	112.56	-.0015	-25.42	115.98
RISE 72	1568.46	1579.71	7	21	59.8	266.29	.0041	-24.96	-.0000	227336.6	1.12	-.01	.0037	115.22	-.0005	-25.19	77.63
RISE 61	1646.51	1657.76	7	23	11.8	294.65	.0041	-26.22	-.0000	233874.7	1.21	.00	.0026	125.37	.0027	-25.09	59.92
SET 42	1699.90	1711.15	8	0	11.2	105.00	.0041	-24.19	.0001	238898.4	1.80	2.43	-.0030	241.96	-.0022	-25.02	45.31
EXTM 51	1767.28	1778.53	8	1	18.6	358.94	.0042	-24.91	.0000	238781.4	1.44	88.73	.0029	49.35	-.1145	-24.93	28.72
EXTM 61	1902.90	1914.15	8	3	34.2	.48	.0042	-26.17	.0000	254103.0	1.40	23.69	.0000	180.47	.0041	-24.77	355.28
EXTM 72	1942.20	1953.45	8	4	13.5	.09	.0042	-25.15	.0000	253910.6	1.38	72.76	.0000	180.30	.0126	-24.73	345.58
RISE 11	2076.57	2087.82	8	6	27.9	289.62	.0042	-25.45	-.0000	270921.1	1.02	.00	.0029	121.73	.0024	-24.59	312.39
SET 51	2130.74	2141.99	8	7	22.1	90.00	.0041	-24.11	.0000	274130.7	1.70	10.18	-.0035	248.14	-.0015	-24.53	299.00
SET 61	2165.13	2176.38	8	7	56.5	68.27	.0041	-25.44	.0000	277978.6	1.60	-.00	-.0026	235.76	.0027	-24.50	290.49
SET 72	2314.74	2325.99	8	10	26.1	93.57	.0041	-24.17	.0001	289589.3	1.69	-.00	-.0037	245.58	-.0005	-24.35	253.47
RISE 42	2417.07	2428.32	8	10	28.4	255.00	.0041	-23.58	-.0000	289532.2	.94	2.12	.0030	117.64	-.0023	-24.35	252.89
EXTM 11	2357.69	2368.94	8	11	9.0	.33	.0042	-25.40	.0000	289743.4	1.26	29.39	-.0000	180.34	.0044	-24.31	242.83
SET 11	2638.66	2649.91	8	15	50.0	70.95	.0042	-24.82	.0000	313508.4	1.51	-.00	-.0029	239.09	.0024	-24.08	173.18
EXTM 42	2736.61	2747.26	8	17	27.3	359.95	.0042	-23.77	.0000	314215.3	1.17	78.55	.0000	.23	-.0177	-24.00	149.03
RISE 51	2866.60	2877.85	8	19	37.9	269.99	.0042	-23.46	-.0000	328518.1	.76	9.95	.0035	111.35	-.0016	-23.89	116.60
RISE 72	3021.25	3032.50	8	22	12.6	266.52	.0042	-23.11	-.0000	340062.3	.70	-.00	.0038	113.85	-.0006	-23.76	77.99
RISE 61	3084.13	3095.38	8	23	15.5	292.65	.0042	-24.47	-.0000	344268.0	.82	.00	.0027	122.86	.0027	-23.71	62.29
SET 42	3153.81	3165.06	9	0	25.1	105.00	.0041	-23.02	.0000	348711.3	1.45	1.77	-.0030	242.80	-.0023	-23.65	44.88
EXTM 51	3222.57	3233.82	9	1	33.9	359.99	.0042	-23.56	.0000	347156.9	1.11	87.82	.0000	.48	-.0612	-23.60	27.70
EXTM 61	3351.54	3362.79	9	3	42.9	.31	.0042	-24.40	.0000	359310.3	1.11	25.36	-.0000	180.32	.0043	-23.49	355.44
EXTM 72	3390.83	3402.08	9	4	22.2	.06	.0043	-23.73	.0000	358566.4	1.12	74.18	.0000	180.23	.0137	-23.46	345.61
RISE 11	3516.67	3527.92	9	6	28.0	288.27	.0042	-23.95	-.0000	373267.0	.86	.00	.0030	119.79	.0024	-23.33	314.03
SET 51	3577.91	3589.16	9	7	29.2	90.00	.0042	-22.47	.0001	376764.1	1.74	9.72	-.0036	249.20	-.0016	-23.25	298.63
IMPACT	3613.22	3624.47	9	8	4.6												
IMPC 72	3613.22	3624.47	9	8	4.6	56.89	.0044	-23.26	.0001	377577.9	2.35	33.46	-.0040	247.28	.0006	-23.18	289.65
IMPC 51	3613.22	3624.47	9	8	4.6	98.97	.0043	-22.74	.0001	380833.7	2.38	2.20	-.0036	245.73	-.0017	-23.18	289.65
IMPC 11	3613.22	3624.47	9	8	4.6	312.88	.0044	-23.90	.0000	379331.9	1.72	15.95	.0025	135.83	.0032	-23.18	289.65
IMPC 61	3613.22	3624.47	9	8	4.6	66.84	.0043	-23.86	.0001	380993.9	2.29	.76	-.0027	237.23	.0029	-23.18	289.65
SFT 61	3617.83	3629.08	9	8	9.2	68.04	.0044	-23.44	.0001	381688.1	2.92	.00	-.0028	238.03	.0029	-23.16	288.44

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	6	19	51.334	6545.635	20.0903	305.9885	10.98737	-.6941	112.8467	78.4726
SEPARATION	1.20	12.45	6	19	52.534	6559.691	17.2848	312.3574	10.97539	2.7310	114.9866	85.1424
RETRO	3.20	14.45	6	19	54.534	6686.411	12.2551	322.3354	10.86995	8.3345	117.6677	95.6217
IMPACT	3613.22	3624.47	9	8	4.554	381131.832	-23.1779	289.6453	2.18882	65.1981	294.9087	247.9068

SURVEYOR VIEW PERIODS

GMA	196.7921					EPS	50.7782							LOM	283.5651
SX	-.345004	SY	-.852145	SZ	-.393494	DAO	-23.17209	RAO	247.95848	RM	382423.750	LAT	28.310600	LON	279.461800
C3	-1.874493	ECC	.982289	SLR	12973.420	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.323820	NSY	-.858087	NSZ	-.398531	C3M	1.4972	VIM	2.6714	ZAE	137.071	B.T	.0000	B.R	-.0000
LATE	1.6285	LONE	6.5823	LATS	-.9151	LONS	315.9748	LATI	-8.2349	LONI	324.6766	RSM	150.0878	TTAN	5.9600
LAUNCH DATE		APR	6.1966		BASE AZM	105.0		TF	60.344			ARRIVAL DATE		APR	9 1966 8 29 .7

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME		INJ RAD	INJ VEL	INJ PTH
105.00	19 51	4.0	28.0	18.96	305.55	.95	80.79	114.97	20	2 21.0	6545.1	10.99	.47

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	6	20	2.3												
SEPARATION		1.20	12.45	6	20	3.5												
RETRO		3.20	14.45	6	20	5.5												
RISE	72	4.70	15.95	6	20	7.1	83.60	-.1711	38.75	.0047	2684.0	-8.14	.00	.1305	309.19	.0281	6.66	328.05
EXTM	72	10.05	21.30	6	20	12.4	351.57	-.2263	2.89	-.1756	1686.1	4.32	76.32	-.0000	38.22	1.2101	-5.66	347.44
RISE	51	11.07	22.32	6	20	13.4	80.78	-.0870	18.39	-.0435	5305.5	-3.42	.00	.0933	290.50	-.0009	-7.59	350.50
EXTM	51	33.91	45.16	6	20	36.3	.42	-.0241	-26.72	-.0083	9128.8	5.37	88.94	.0000	200.84	-1.2533	-26.32	27.44
EXTM	72	69.91	81.16	6	21	12.3	287.82	.0000	-32.11	-.0001	23528.6	4.79	19.26	.0000	121.33	.0001	-30.56	42.47
RISE	61	153.26	164.51	6	22	35.6	309.87	.0026	-37.15	.0005	46439.7	3.53	-.00	.0017	142.28	.0014	-30.70	40.56
EXTM	51	237.40	248.65	6	23	59.8	.34	.0034	-30.39	.0002	57730.4	3.18	85.34	-.0000	183.58	.0359	-29.93	27.38
EXTM	61	413.05	424.30	7	2	55.4	4.66	.0039	-32.35	.0002	92140.0	2.61	17.29	.0000	184.13	.0034	-28.65	351.36
EXTM	72	442.40	453.65	7	3	24.7	.86	.0040	-29.87	.0001	92818.9	2.54	68.02	.0000	182.00	.0093	-28.49	344.87
RISE	11	608.69	619.94	7	6	11.0	293.73	.0040	-29.69	.0000	122427.3	1.97	.00	.0026	127.32	.0023	-27.69	306.91
SET	51	635.62	646.87	7	6	38.0	90.00	.0038	-26.49	.0001	124814.1	2.57	11.17	-.0032	245.83	-.0013	-27.58	300.63
SET	61	652.46	663.71	7	6	54.8	61.21	.0039	-29.65	.0002	128274.8	2.44	-.00	-.0022	229.61	.0027	-27.52	296.69
SET	72	831.08	842.33	7	9	53.4	93.98	.0039	-26.57	.0001	150691.4	2.39	-.00	-.0035	243.16	-.0004	-26.91	254.37
RISE	42	841.59	852.84	7	10	3.9	254.99	.0040	-25.43	-.0000	151567.5	1.67	3.25	.0029	119.11	-.0022	-26.88	251.86
EXTM	11	883.21	894.46	7	10	45.6	1.31	.0042	-28.85	.0001	154099.8	1.95	25.93	-.0000	181.27	.0040	-26.76	241.89
SET	11	1154.77	1166.02	7	15	17.1	68.55	.0041	-27.38	.0001	186846.3	2.04	.01	-.0027	235.74	.0024	-26.11	176.25
EXTM	42	1266.42	1277.67	7	17	8.8	359.92	.0042	-25.57	.0000	192116.5	1.68	80.35	-.0000	.43	-.0219	-25.88	149.06
RISE	51	1401.77	1413.02	7	19	24.1	270.00	.0041	-24.97	-.0000	210450.1	1.23	10.56	.0034	112.76	-.0015	-25.64	115.97
RISE	72	1558.00	1569.25	7	22	.3	266.26	.0041	-25.15	-.0000	226302.5	1.12	-.01	.0037	115.41	-.0005	-25.39	77.65
RISE	61	1631.05	1642.30	7	23	13.4	294.86	.0041	-26.41	-.0000	232942.9	1.21	.00	.0026	125.64	.0027	-25.28	59.70
SET	42	1689.50	1700.75	8	0	11.8	105.00	.0041	-24.26	.0001	237878.1	1.80	2.53	-.0030	241.82	-.0022	-25.20	45.32
EXTM	51	1753.66	1764.91	8	1	16.0	358.12	.0042	-25.09	.0000	237502.7	1.44	88.18	.0036	69.56	-.0442	-25.11	29.52
EXTM	61	1892.66	1903.91	8	3	35.0	.51	.0042	-26.24	.0000	253148.0	1.40	23.52	.0000	180.50	.0041	-24.93	355.25
EXTM	72	1931.87	1943.12	8	4	14.2	.10	.0042	-25.30	.0000	252940.9	1.39	72.60	.0000	180.32	.0126	-24.88	345.57
RISE	11	2066.77	2078.02	8	6	29.1	289.76	.0042	-25.59	-.0000	269999.5	1.02	.00	.0029	121.92	.0024	-24.73	312.25
SET	51	2120.35	2131.60	8	7	22.7	90.00	.0041	-24.15	.0001	273160.0	1.70	10.23	-.0035	248.01	-.0015	-24.67	299.00
SET	61	2154.11	2165.36	8	7	56.5	66.11	.0041	-25.58	.0001	276966.3	1.60	-.00	-.0026	235.56	.0027	-24.63	290.66
SET	72	2304.43	2315.68	8	10	26.8	93.59	.0041	-24.29	.0001	288641.5	1.69	-.00	-.0037	245.46	-.0005	-24.48	253.45
RISE	42	2306.72	2317.97	8	10	29.1	255.00	.0041	-23.70	-.0000	288573.3	.94	2.19	.0030	117.74	-.0023	-24.47	252.89
EXTM	11	2347.41	2358.66	8	11	9.8	.35	.0042	-25.52	.0000	288811.3	1.26	29.27	-.0000	180.36	.0044	-24.43	242.81
SET	11	2627.90	2639.15	8	15	50.2	70.86	.0042	-24.92	.0000	312537.8	1.51	-.00	-.0029	238.95	.0024	-24.18	173.28
EXTM	42	2725.63	2736.88	8	17	28.0	359.95	.0042	-23.97	.0000	313270.9	1.17	78.65	.0000	.25	-.0179	-24.09	149.03
RISE	51	2856.28	2867.53	8	19	38.6	270.00	.0041	-23.55	-.0000	327402.6	.76	9.99	.0035	111.43	-.0015	-23.99	116.59
RISE	72	3010.89	3022.14	8	22	13.2	266.50	.0042	-23.49	-.0000	339107.6	.70	-.00	.0038	113.93	-.0006	-23.84	78.00
RISE	61	3074.16	3085.41	8	23	16.5	292.73	.0042	-24.55	-.0000	343330.3	.81	.00	.0027	122.97	.0027	-23.79	62.20
SET	42	3143.48	3154.73	9	0	25.8	105.00	.0041	-23.09	.0000	347731.8	1.44	1.81	-.0030	242.75	-.0023	-23.73	44.88
EXTM	51	3212.25	3223.50	9	1	34.6	359.99	.0042	-23.63	.0000	346169.0	1.10	87.89	.0000	.54	-.0642	-23.67	27.70
EXTM	61	3341.27	3352.52	9	3	43.6	.32	.0042	-24.47	.0000	358296.9	1.11	25.29	-.0000	180.33	.0043	-23.56	355.43
EXTM	72	3380.54	3391.79	9	4	22.9	.07	.0043	-23.80	.0000	357530.8	1.11	74.11	.0000	180.23	.0137	-23.52	345.61
RISE	11	3506.66	3517.91	9	6	29.0	288.33	.0042	-24.02	-.0000	372152.6	.84	.00	.0030	119.88	.0024	-23.40	313.99
SET	51	3567.73	3578.98	9	7	30.1	90.00	.0042	-22.94	.0000	375484.6	1.66	9.74	-.0036	249.13	-.0015	-23.32	298.64
SET	61	3607.58	3618.83	9	8	9.9	67.94	.0043	-23.93	.0001	379827.9	1.85	-.00	-.0027	237.90	.0028	-23.25	288.55
IMPACT		3620.61	3631.86	9	8	23.0												
IMPC	72	3620.61	3631.86	9	8	23.0	61.37	.0043	-23.28	.0001	378044.2	2.30	29.36	-.0040	247.68	.0004	-23.22	285.21
IMPC	51	3620.61	3631.86	9	8	23.0	103.39	.0043	-22.76	.0001	381314.2	2.37	-1.39	-.0035	243.81	-.0018	-23.22	285.21
IMPC	11	3620.61	3631.86	9	8	23.0	317.36	.0044	-23.96	.0000	379155.9	1.73	18.37	.0024	139.29	.0034	-23.22	285.21
IMPC	61	3620.61	3631.86	9	8	23.0	71.29	.0043	-23.88	.0001	381399.0	2.29	-2.16	-.0028	240.08	.0028	-23.22	285.21

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	6	20	2.349	6545.108	18.9584	305.5458	10.98749	.4685	114.9671	80.7912
SEPARATION		1.20	12.45	6	20	3.549	6575.173	18.9357	311.7498	10.66203	3.8884	116.9000	87.2961
RETRO		3.20	14.45	6	20	5.549	6727.411	18.6417	321.4092	10.83616	9.4437	119.2639	97.4569
IMPACT		3620.61	3631.86	9	8	22.962	381212.297	-23.2185	285.2103	2.18541	64.9668	295.1849	248.0866

SURVEYOR VIEW PERIODS

GHA	196.7921					EPS	50.9306					LOM	279.2499
SX	-.3423017	SY	-.8624435	SZ	-.394116	DAO	-23.21 87	RAO	246.13298	RM	382498.227	LAT	28.310600	LON	279.461800
C3	-1.086734	ECC	.982157	SLR	12972.556	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.321 23	NSY	-.852847	NSZ	-.399158	C3M	1.4371	VIM	2.6714	ZAE	136.794	B.T	.0000	R.R	-.0000
LATE	1.6478	LONE	6.5622	LATS	-.9149	LONS	315.8242	LATI	-8.4879	LONI	324.4469	RSM	150.0876	ITAN	5.9588
LAUNCH DATE	APR	A.1966		BASE AZM	108.0		TF	60.487				ARRIVAL DATE	APR 9 1966		A 46 55.3

LNCH AZMTH	LNCH TIME		INJ	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	20	20.4	28.0	17.85	305.83	2.47	82.60	117.07	20 11 35.4	6548.7	10.98	1.42

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	FLE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	6	20	11.6												
SEPARATION	1.20	12.45	6	20	12.8												
RETRO	3.20	14.45	6	20	14.8												
RISE 72	4.57	15.82	6	20	16.2	84.75	-.1550	33.42	-.0178	2762.7	-8.08	-.01	.1305	303.78	.0037	5.32	326.29
EXTM 72	10.09	21.34	6	20	21.7	359.83	-.2299	-6.45	-.1533	1746.0	4.27	88.50	.0920	14.38	9.9244	-7.59	345.75
RISE 51	11.57	22.82	6	20	23.7	82.64	-.0815	14.98	-.0463	5442.4	-3.18	.00	.0912	286.56	-.0060	-9.42	348.57
EXTM 51	35.94	47.19	6	20	47.5	1.55	-.0218	-30.14	-.0060	9898.8	5.33	85.40	-.0000	196.91	-.2469	-28.42	26.76
EXTM 72	70.42	81.87	6	21	22.2	290.06	.0000	-33.68	.0001	23656.7	4.76	21.03	.0000	123.23	-.0001	-31.81	40.40
EXTM 51	90.58	101.93	6	21	42.2	341.66	-.0001	-33.33	.0002	25854.9	4.34	72.36	.0000	119.79	-.0006	-32.05	42.21
RISE 61	151.24	162.49	6	22	42.8	311.75	.0026	-38.20	.0006	46057.3	3.55	-.00	.0017	144.11	.0013	-31.61	38.74
EXTM 51	226.59	238.14	6	23	55.5	.51	.0033	-31.53	.0002	55773.7	3.23	84.39	-.0000	184.44	.0290	-30.76	27.23
EXTM 61	405.80	417.05	7	2	57.4	5.15	.0039	-32.18	.0002	91099.2	2.63	16.62	.0000	184.50	.0034	-29.23	350.91
EXTM 72	433.77	445.02	7	3	25.4	1.00	.0040	-30.49	.0002	91550.2	2.56	67.40	.0000	182.24	.0090	-29.05	344.75
RISE 11	602.14	613.29	7	6	13.6	294.21	.0040	-30.17	.0000	121532.8	1.98	.00	.0026	127.95	.0023	-28.14	306.40
SET 51	626.65	637.90	7	6	38.2	90.00	.0038	-26.93	.0001	123603.2	2.57	11.34	-.0032	245.41	-.0013	-28.03	300.67
SET 61	641.91	652.16	7	6	52.5	60.58	.0039	-30.13	.0002	126751.5	2.45	-.00	-.0021	228.88	.0027	-27.97	297.33
SET 72	822.57	833.82	7	9	54.2	94.05	.0039	-26.03	.0001	149654.5	2.39	-.00	-.0035	242.79	-.0004	-27.28	254.34
RISE 42	833.03	844.28	7	10	4.6	254.99	.0040	-25.78	-.0000	150523.4	1.68	3.46	.0028	119.39	-.0022	-27.25	251.84
EXTM 11	875.01	886.26	7	10	46.6	1.42	.0042	-29.42	.0001	153153.9	1.95	25.55	.0000	181.37	.0040	-27.11	241.79
SET 11	1145.11	1156.26	7	15	16.6	68.27	.0041	-27.68	.0001	185770.4	2.05	-.00	-.0027	235.35	.0024	-26.39	176.54
EXTM 42	1257.84	1269.09	7	17	9.4	359.92	.0042	-25.94	.0000	191181.1	1.68	80.62	-.0000	.46	-.0224	-26.14	149.06
RISE 51	1393.25	1404.50	7	19	24.8	270.00	.0041	-25.20	-.0000	209535.4	1.24	10.65	.0034	112.98	-.0015	-25.87	115.95
RISE 72	1549.33	1560.58	7	22	.9	266.22	.0041	-25.36	-.0000	225402.4	1.12	-.01	.0037	115.63	-.0005	-25.60	77.68
RISE 61	1623.49	1634.74	7	23	15.1	295.10	.0041	-26.42	-.0000	232148.7	1.22	.00	.0026	125.94	.0027	-25.48	59.45
SET 42	1680.91	1692.16	8	0	12.5	105.00	.0041	-24.65	.0001	236983.4	1.81	2.65	-.0030	241.67	-.0022	-25.39	45.32
EXTM 51	1744.88	1756.13	8	1	14.5	358.06	.0042	-25.28	.0000	236610.0	1.44	88.19	.0037	75.80	-.0321	-25.30	29.57
EXTM 61	1884.24	1895.49	8	3	35.8	.55	.0042	-26.42	.0000	252310.4	1.40	23.34	.0000	180.54	.0041	-25.10	355.21
EXTM 72	1923.34	1934.59	8	4	14.9	.41	.0042	-25.48	.0000	252083.8	1.39	72.43	.0000	180.34	.0125	-25.05	345.56
RISE 11	2058.79	2070.04	8	6	30.4	289.00	.0042	-25.75	-.0000	269185.2	1.02	.00	.0029	122.12	.0024	-24.88	312.10
SET 51	2111.75	2123.00	8	7	23.3	90.00	.0041	-24.29	.0001	272290.1	1.70	10.29	-.0035	247.87	-.0015	-24.81	299.01
SET 61	2144.83	2156.08	8	7	56.4	65.94	.0042	-25.13	.0001	276049.5	1.60	-.00	-.0026	235.34	.0027	-24.78	290.83
SET 72	2295.92	2307.17	8	10	27.5	93.62	.0041	-24.42	.0001	287785.8	1.69	-.00	-.0037	245.33	-.0005	-24.61	253.44
RISE 42	2298.16	2309.41	8	10	29.7	255.00	.0041	-23.83	-.0000	287704.7	.94	2.27	.0030	117.84	-.0023	-24.60	252.88
EXTM 11	2338.92	2350.17	8	11	10.5	.37	.0042	-25.46	.0000	287969.7	1.26	29.13	-.0000	180.38	.0043	-24.56	242.79
SET 11	2618.89	2630.14	8	15	50.5	70.76	.0042	-25.03	.0000	311640.3	1.51	-.00	-.0029	238.81	.0024	-24.28	173.38
EXTM 42	2717.01	2728.26	8	17	28.6	359.95	.0042	-23.37	.0000	312396.2	1.17	78.75	.0000	.26	-.0185	-24.19	149.03
RISE 51	2847.69	2858.94	8	19	39.3	270.00	.0041	-23.44	-.0000	326522.0	.76	10.03	.0035	111.52	-.0015	-24.08	116.99
RISE 72	3002.37	3013.62	8	22	14.0	266.49	.0042	-23.77	-.0000	338222.9	.70	-.00	.0038	114.01	-.0006	-23.93	78.01
RISE 61	3066.06	3077.31	8	23	17.6	292.83	.0042	-24.43	-.0000	342462.2	.81	.00	.0027	123.09	.0027	-23.87	62.10
SET 42	3134.97	3146.22	9	0	26.6	105.00	.0041	-23.16	.0000	346819.0	1.44	1.86	-.0030	242.69	-.0023	-23.81	44.89
EXTM 51	3203.73	3214.98	9	1	35.3	359.99	.0042	-23.71	.0000	345246.3	1.10	87.97	.0000	.64	-.0654	-23.74	27.70
EXTM 61	3332.81	3344.06	9	3	44.4	.34	.0042	-24.34	.0000	357347.7	1.10	25.22	-.0000	180.34	.0043	-23.63	355.42
EXTM 72	3372.03	3383.28	9	4	23.6	.07	.0043	-23.47	.0000	356558.9	1.11	74.04	.0000	180.24	.0138	-23.59	345.60
RISE 11	3498.41	3509.66	9	6	30.0	288.39	.0042	-24.09	-.0000	371110.3	.82	.00	.0030	119.96	.0024	-23.46	313.93
SET 51	3559.27	3570.52	9	7	30.9	90.00	.0042	-23.10	.0000	374316.9	1.61	9.77	-.0035	249.07	-.0015	-23.39	296.64
SET 61	3598.90	3610.15	9	8	10.5	67.85	.0042	-24.01	.0001	378428.6	1.67	-.00	-.0027	237.79	.0028	-23.33	288.64
IMPACT	3629.23	3640.48	9	8	40.8												
IMPC 72	3629.23	3640.48	9	8	40.8	65.70	.0043	-23.29	.0001	378514.9	2.37	25.39	-.0040	247.91	.0003	-23.26	280.91
IMPC 51	3629.23	3640.48	9	8	40.8	107.67	.0043	-22.78	.0001	381775.4	2.35	-4.82	-.0034	241.84	-.0019	-23.26	280.91
IMPC 11	3629.23	3640.48	9	8	40.8	321.71	.0044	-24.01	.0000	379008.1	1.74	20.56	.0022	142.81	.0036	-23.26	280.91

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	6	20	11.590	6548.756	-7.8524	305.0355	10.98407	1.4242	117.0731	82.5975
SEPARATION	1.20	12.45	6	20	12.790	6591.884	-14.6239	311.0624	10.94764	4.8333	118.8449	89.9253
RETRO	3.20	14.45	6	20	14.790	6764.696	-9.0729	320.4126	10.80561	10.3428	120.8748	98.7768
IMPACT	3629.23	3640.48	9	8	40.818	3A1299.789	-23.2578	280.9090	2.18138	64.6030	295.4001	248.2614

SURVEYOR VIEW PERIODS

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GHA   196.7921                                    EPS  51.0792                                                    LOM  275.0405
SX    -.339676 SY     -.853708 SZ     -.394720 DAO  -23.24949 RAO  248.30323 RM  382570.887 LAT  28.310600 LON 279.461800
C3   -1.095955 EPS     .982006 SLR  12971.348 RCA  6544.6650 LTA   -20.0000 GTA  20.00      TB   675.00000 POL       -.0
NSX   -.318276 NSY    -.859584 NSZ    -.399770 C3M     1.4970 VIM     2.6714 ZAE    136.476 B.T       .0000 B.R      -.0000
LATE   1.6656 LONE    6.5829 LATS    -.9146 LONS 315.6771 LATI  -8.7597 LONI 324.1813  RSM  150.0874  TTAN    5.9557
LAUNCH DATE   APR   6,1966       BASE AZM  111.0       TF  60.650                      ARRIVAL DATE APR   9 1966    9  4 23.5

 LNCH       LNCH                    INJ      INJ       INJ      INJ       INJ          INJ          INJ       INJ       INJ
AZMTH       TIME          PB        LAT      LONG      TA     RT ASC    AZMTH        TIME         RAD       VEL       PTH
111.00    20  8  9.9      28.1     16.77    304.47     4.47    83.99    119.17     20 19 24.9    6554.6     10.98      2.22

EVNT STA  TFI       TFL    DAY HR MIN     HA       DHA      DEC       DDE       RNG       DRG       ELE       DEL       AZI       DAZ       LAT      LONG
                                PROBE IN SUNLIGHT
INJECTION     .00    11.25    6 20 19.4
SEPARATION   1.20    12.45    6 20 20.6
RETRO        3.20    14.45    6 20 22.6
 RISE 72     4.49    15.74    6 20 23.9    85.69  -.1423   28.42   -.0382    2838.4    -7.91     .00     .1296   298.72    -.0181     3.89   324.73
 EXTM 72    10.29    21.54    6 20 29.7     5.05  -.2218  -16.53   -.1276    1892.5     4.46   80.23     .0000   209.88   -1.4632    -9.84   344.54
 RISE 51    11.10    22.35    6 20 30.5    84.40  -.0766   11.45   -.0489    5570.4    -2.95     .00     .0890   282.73    -.0106   -11.33   346.80
 EXTM 51    38.23    49.48    6 20 57.6     2.11  -.0196  -33.43   -.0041   10742.6     5.28   82.09    -.0000   192.93    -.1228   -30.57    26.40
 EXTM 72    70.97    82.22    6 21 30.4   291.91  -.0000  -35.53    .0003   23706.2     4.75   22.37     .0000   125.26    -.0004   -33.16    38.61
 EXTM 51    90.17   101.42    6 21 49.6   343.84  -.0002  -34.91    .0003   25792.1     4.34   73.34     .0000   127.23    -.0014   -33.27    40.42
 RISE 61   152.10   163.35    6 22 51.5   313.67   .0020  -39.22    .0007   46305.2     3.54    -.00     .0017   145.92     .0013   -32.57    36.96
 EXTM 51   218.65   229.90    6 23 58.1      .75   .0032  -32.55    .0003   54221.4     3.26   83.35    -.0000   185.51     .0237   -31.66    27.02
 EXTM 61   400.36   411.61    7  2 59.8     5.65   .0039  -33.85    .0003   90331.3     2.64   15.93     .0000   184.89     .0034   -29.86   350.44
 EXTM 72   426.91   438.16    7  3 24.3     1.16   .0040  -31.15    .0002   98535.9     2.57   66.72     .0000   182.51     .0086   -29.66   344.60
 RISE 11   597.13   608.38    7  6 14.5   294.74   .0040  -30.47    .0000  120860.6     1.98     .00     .0026   128.63     .0023   -28.62   305.86
 SET   51   619.27   630.52    7  6 38.7    90.00   .0038  -27.41    .0001  122587.2     2.58   11.53    -.0032   244.97    -.0012   -28.51   300.71
 SET   61   630.70   641.95    7  6 50.1    59.90   .0039  -30.66    .0002  125384.3     2.46    -.00    -.0021   228.09     .0027   -28.45   298.04
 SET   72   815.65   826.90    7  9 55.1    94.12   .0039  -27.32    .0001  148790.4     2.39    -.00    -.0035   242.39    -.0004   -27.67   254.29
 RISE 42    826.00   837.25    7 10  5.4   254.99   .0040  -26.17   -.0000  149623.5     1.68    3.70     .0028   119.69    -.0022   -27.64   251.82
 EXTM 11    868.38   879.63    7 10 47.8     1.54   .0042  -29.52    .0001  152377.1     1.96   25.16     .0000   181.47     .0040   -27.49   241.67
 SET   11  1136.63  1147.88    7 15 16.1    67.97   .0041  -27.99    .0001  184818.9     2.05    -.00    -.0027   234.94     .0024   -26.70   176.86
 EXTM 42  1250.75  1262.00    7 17 10.2   359.92   .0042  -26.13    .0000  190374.5     1.68   80.91    -.0000      .48    -.0230   -26.42   149.06
 RISE 51  1386.21  1397.46    7 19 25.6   270.00   .0041  -25.46   -.0000  208739.5     1.24   10.75     .0034   113.31    -.0015   -26.13   115.94
 RISE 72  1542.12  1553.37    7 22  1.5   266.18   .0041  -25.59   -.0000  224611.3     1.13    -.01     .0037   115.85    -.0005   -25.83    77.70
 RISE 61  1617.44  1628.69    7 23 16.9   295.35   .0041  -26.84    .0000  231466.4     1.22     .00     .0026   126.26     .0027   -25.69    59.19
 SET   42  1673.78  1685.03    8  0 13.2   105.00   .0041  -24.46    .0001  236190.8     1.81    2.78    -.0030   241.51    -.0022   -25.60    45.33
 EXTM 51  1737.59  1748.84    8  1 17.0   358.02   .0042  -25.49    .0000  235818.7     1.44   88.19     .0038    82.44    -.0185   -25.50    29.62
 EXTM 61  1877.27  1888.52    8  3 36.7      .59   .0042  -24.60    .0000  251566.9     1.40   23.16     .0000   180.57     .0041   -25.28   359.17
 EXTM 72  1916.26  1927.51    8  4 15.7      .12   .0042  -25.66    .0000  251317.5     1.39   72.24     .0000   180.37     .0123   -25.23   345.55
 RISE 11  2052.29  2063.54    8  6 31.7   290.05   .0042  -25.92   -.0000  268457.2     1.02     .00     .0029   122.34     .0024   -25.04   311.95
 SET   51  2104.59  2115.84    8  7 24.0    90.00   .0041  -24.45    .0001  271500.9     1.70   10.35    -.0035   247.73    -.0015   -24.97   299.01
 SET   61  2136.94  2148.19    8  7 56.4    65.75   .0042  -25.99    .0001  275208.7     1.60    -.00    -.0026   235.12     .0027   -24.93   291.01
 SET   72  2288.84  2300.09    8 10 28.3    93.64   .0041  -24.56    .0001  287003.0     1.69    -.00    -.0037   245.19    -.0005   -24.75   253.42
 RISE 42  2291.02  2302.27    8 10 30.4   255.00   .0041  -23.97   -.0000  286907.9      .94    2.35     .0030   117.95    -.0023   -24.74   252.88
 EXTM 11  2331.87  2343.12    8 11 11.3      .40   .0042  -25.80    .0000  287200.0     1.26   29.00    -.0000   180.41     .0043   -24.70   242.76
 SET   11  2611.28  2622.53    8 15 50.7    70.66   .0042  -25.15    .0000  310799.8     1.51    -.00    -.0029   238.66     .0024   -24.39   173.49
 EXTM 42  2709.81  2721.06    8 17 29.2   359.94   .0042  -24.07    .0000  311575.6     1.17   78.85     .0000      .28    -.0188   -24.30   149.04
 RISE 51  2840.51  2851.76    8 19 39.9   270.00   .0041  -23.73   -.0000  325690.1      .76   10.86     .0035   111.61    -.0015   -24.17   116.58
 RISE 72  2995.13  3006.38    8 22 14.5   266.48   .0042  -23.85   -.0000  337368.0      .69    -.00     .0038   114.10    -.0006   -24.01    78.02
 RISE 61  3059.25  3070.50    8 23 18.7   292.92   .0042  -24.71   -.0000  341621.9      .81     .00     .0027   123.21     .0027   -23.95    62.01
 SET   42  3127.77  3139.02    9  0 27.2   105.00   .0041  -23.94    .0000  345932.0     1.44    1.91    -.0030   242.63    -.0023   -23.89    44.89
 EXTM 51  3196.59  3207.84    9  1 36.0   359.99   .0042  -23.78    .0000  344350.6     1.10   88.04    -.0000      .41    -.0414   -23.82    27.69
 EXTM 61  3325.69  3336.94    9  3 45.1      .35   .0042  -24.62    .0000  356421.5     1.10   25.15    -.0000   180.35     .0043   -23.70   359.41
 EXTM 72  3364.89  3376.14    9  4 24.3      .07   .0043  -23.94    .0000  355610.2     1.10   73.97     .0000   180.25     .0137   -23.66   345.60
 RISE 11  3491.54  3502.79    9  6 31.0   288.45   .0042  -24.15   -.0000  370100.2      .80     .00     .0030   120.05     .0024   -23.53   313.87
 SET   51  3552.18  3563.43    9  7 31.6    90.00   .0042  -23.07    .0000  373206.5     1.57    9.80    -.0035   249.01    -.0015   -23.45   298.64
 SET   61  3591.58  3602.83    9  8 11.0    67.78   .0042  -24.08    .0000  377176.1     1.58    -.00    -.0027   237.68     .0028   -23.40   288.72
IMPACT   3638.98  3650.23    9  8 58.4
 IMPC 72  3638.98  3650.23    9  8 58.4    69.97   .0043  -23.31    .0001  378989.1     2.37   21.47    -.0040   248.00     .0001   -23.30   276.67
 IMPC 11  3638.98  3650.23    9  8 58.4   326.00   .0044  -24.07    .0001  378881.4     1.76   22.54     .0020   146.44     .0037   -23.30   276.67

EVNT STA  TFI       TFL    DAY HR MIN          RAD          LAT          LONG          VEL          PTH          AZ          RT ASC
INJECTION     .00    11.25    6 20 19.416     6554.598      16.7713     304.4698     10.97870      2.2160     119.1709     83.9935
SEPARATION   1.20    12.45    6 20 20.616     6608.461      13.3452     310.3149     10.93335      5.6129     120.7698     90.1394
RETRO        3.20    14.45    6 20 22.616     6798.066       7.5415     319.3655     10.77839     11.0806     122.5073     99.6914
IMPACT    3638.98  3650.23    9  8 58.393   381369.883     -23.2965     276.6748      2.17732     64.3665     295.7955     248.4331
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APR 6, 1966
111 DEGREES

SURVEYOR VIEW PERIODS

GHA	196.7921					EQS	51.2782									LUM	249.4009
SX	-.334147	SY	-.854732	SZ	-.395523	DAO	-23.29458	RAO	248.53137	RM	382668.195	LAT	28.310600	LON	279.461800		
C3	-1.111142	ECC	.991773	SLR	12970.043	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0		
NSX	-.314573	NSY	-.868555	NSZ	-.400390	C3M	1.4968	VIM	2.6713	ZAE	135.993	B.T	.0000	B.R	-.0000		
LATE	1.59 1	LONE	6.5824	LATS	-.9143	LONS	315.4747	LATI	-9.1386	LONI	323.7689	RSM	150.0871	TTAN	5.9486		
LAUNCH DATE	APR	6,1966		BASE AZM	115.0		TF 60.898					ARRIVAL DATE	APR	9 1966	9 27 48.0		

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPTH
115.00	20 16 54.9	23.1	15.38	303.63	6.21	85.35	121.96	20 28 9.9	6563.8	10.97	3.08

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELF	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	6	20	28.2												
SEPARATION	1.20	12.45	6	20	29.4												
RETRO	3.20	14.45	6	20	31.4												
RISE 72	4.45	15.70	6	20	32.6	86.77	-.1283	22.11	-.0621	2940.4	-7.53	-.01	.1267	292.33	-.0438	1.87	322.87
EXTM 72	10.67	21.92	6	20	38.8	10.52	-.2078	-28.10	-.0983	2179.3	4.76	67.58	-.0000	204.89	-.5434	-13.04	343.22
RISE 51	11.19	22.44	6	20	39.4	86.62	-.0708	6.46	-.0521	5734.1	-2.63	.00	.0860	277.73	-.0161	-13.99	344.61
EXTM 51	42.01	53.26	6	21	10.2	1.90	-.0166	-37.60	-.0019	12076.1	9.21	78.03	-.0000	187.28	-.0641	-33.51	26.50
EXTM 72	71.32	82.57	6	21	39.5	293.84	-.0001	-37.37	.0006	23774.4	4.73	23.60	.0000	128.11	-.0007	-35.09	36.65
EXTM 51	87.78	99.03	6	21	55.9	346.26	-.0006	-37.33	.0006	25233.5	4.37	73.63	.0000	137.87	-.0028	-35.05	38.38
RISE 61	156.68	167.93	6	23	4.8	316.26	.0027	-40.49	.0007	47177.6	3.49	.00	.0017	148.27	.0013	-33.88	34.64
EXTM 51	210.58	221.83	6	23	58.7	1.17	.0032	-33.82	.0004	58693.6	3.30	81.86	.0000	184.87	.0187	-32.95	26.65
EXTM 61	395.35	406.60	7	3	3.5	6.36	.0037	-34.58	.0003	82649.5	2.65	14.95	.0000	185.42	.0033	-30.74	349.78
EXTM 72	419.96	431.21	7	3	24.1	1.40	.0040	-32.04	.0002	89507.3	2.59	65.78	.0000	169.88	.0082	-30.52	344.38
RISE 11	592.75	604.00	7	6	20.9	295.49	.0040	-31.68	.0001	120240.4	1.99	.00	.0026	129.59	.0023	-29.30	309.10
SET 51	611.42	622.67	7	6	39.6	90.00	.0038	-28.09	.0002	121474.4	2.59	11.80	-.0032	244.32	-.0012	-29.19	300.75
SET 61	618.69	629.94	7	6	46.9	58.90	.0039	-31.40	.0002	123749.2	2.46	-.00	-.0020	226.96	.0027	-29.15	299.06
SET 72	808.34	819.59	7	9	56.5	94.22	.0039	-27.48	.0001	147847.7	2.40	-.01	-.0035	241.83	-.0004	-28.23	254.22
RISE 42	818.51	829.76	7	10	6.7	254.99	.0040	-26.71	-.0000	148624.2	1.69	4.03	.0028	120.12	-.0022	-28.19	251.79
EXTM 11	841.46	852.71	7	10	49.6	1.70	.0042	-30.17	.0001	151547.3	1.96	24.60	.0000	181.62	.0040	-28.02	241.91
SET 11	1127.17	1138.42	7	15	15.3	67.53	.0041	-28.44	.0001	183701.1	2.05	-.00	-.0026	234.34	.0024	-27.13	177.31
EXTM 42	1242.95	1254.20	7	17	11.1	359.88	.0042	-24.85	.0000	189436.5	1.68	81.31	.0000	.74	-.0246	-26.81	149.10
RISE 51	1378.41	1389.66	7	19	24.8	270.00	.0041	-25.81	-.0000	207817.9	1.24	10.90	.0034	113.54	-.0015	-26.48	115.93
RISE 72	1534.27	1545.52	7	22	2.4	266.13	.0041	-25.91	-.0000	223682.7	1.13	-.01	.0034	116.18	-.0005	-26.15	77.79
RISE 61	1611.26	1622.51	7	23	19.4	295.72	.0041	-27.15	.0000	230686.5	1.22	.00	.0029	126.71	.0027	-26.00	58.82
SET 42	1666.05	1677.30	8	0	14.2	105.00	.	-24.35	.0001	235250.3	1.80	2.96	-.0029	241.27	-.0022	-25.89	45.34
EXTM 51	1729.77	1741.02	8	1	17.9	357.99	.0042	-25.78	.0000	234888.0	1.44	88.19	.0000	91.67	.0008	-25.78	29.64
EXTM 61	1849.76	1861.01	8	3	37.9	.65	.0042	-26.87	.0000	250681.2	1.40	22.89	.0000	180.63	.0041	-25.54	355.12
EXTM 72	1908.58	1919.83	8	4	14.7	.14	.0042	-25.92	.0000	250396.8	1.39	71.99	.0000	180.41	.0122	-25.48	349.54
RISE 11	2045.43	2056.68	8	6	33.6	290.27	.0042	-26.15	-.0000	267581.3	1.02	.00	-.0029	122.64	.0024	-25.27	311.72
SET 51	2096.83	2108.05	8	7	25.0	90.00	.0041	-24.27	.0001	270535.4	1.70	10.46	-.0034	247.52	-.0015	-25.19	299.02
SET 61	2128.08	2139.33	8	7	56.2	65.49	.0042	-26.11	.0001	274164.7	1.60	-.01	-.0025	234.79	.0027	-25.15	291.28
SET 72	2281.16	2292.41	8	10	29.3	93.67	.0041	-24.76	.0001	286035.5	1.65	-.00	-.0037	244.99	-.0005	-24.94	253.39
RISE 42	2283.25	2294.50	8	10	31.4	255.00	.0041	-24.16	-.0000	285920.0	.94	2.37	.0030	118.10	-.0023	-24.94	252.87
EXTM 11	2304.21	2315.46	8	11	12.4	.43	.0042	-25.39	.0000	286248.2	1.26	58.89	-.0000	180.45	.0043	-24.89	242.72
SET 11	2602.83	2614.08	8	15	51.0	70.51	.0042	-25.11	.0000	309732.4	1.51	-.00	-.0029	238.45	.0024	-24.55	173.64
EXTM 42	2711.94	2723.19	8	17	30.1	359.94	.0042	-24.22	.0001	310531.0	1.16	72.05	.0000	.32	-.0191	-24.44	149.04
RISE 51	2832.67	2843.92	8	19	40.8	270.00	.0041	-23.46	-.0000	324622.5	.78	10.12	.0035	111.73	-.0015	-24.31	116.58
RISE 72	2987.33	2998.58	8	22	15.5	266.46	.0042	-23.96	-.0000	336279.5	.69	-.00	.0038	114.22	-.0006	-24.14	78.04
RISE 61	3052.04	3063.29	8	23	20.2	293.05	.0042	-24.43	-.0000	340552.8	.80	.00	-.0027	123.38	.0027	-24.07	61.87
SET 42	3119.99	3131.24	9	0	28.2	105.00	.0041	-23.35	.0000	344795.3	1.43	1.97	-.0030	242.54	-.0023	-24.00	44.89
EXTM 51	3188.79	3200.04	9	1	37.0	359.99	.0042	-23.49	.0000	343195.1	1.09	88.15	.0000	.59	-.0706	-23.93	27.70
EXTM 61	3317.98	3329.23	9	3	44.1	.37	.0042	-24.72	.0000	355226.9	1.09	25.04	-.0000	180.37	.0042	-23.79	355.39
EXTM 72	3357.12	3368.37	9	4	25.3	.08	.0043	-24.13	.0000	354383.7	1.09	73.87	.0000	180.26	.0136	-23.75	349.60
RISE 11	3484.11	3495.36	9	6	32.3	288.53	.0042	-24.24	-.0000	368794.1	.78	.00	.0030	120.17	.0024	-23.61	313.79
SET 51	3544.43	3555.68	9	7	32.6	90.00	.0042	-23.15	.0000	371782.9	1.54	9.83	-.0035	248.93	-.0015	-23.54	298.65
SET 61	3583.48	3594.73	9	8	11.6	67.67	.0042	-24.18	.0000	375615.4	1.91	-.00	-.0027	237.55	.0028	-23.49	290.83
IMPACT	3653.89	3665.14	9	9	22.1												
IMPC 72	3653.89	3665.14	9	9	22.1	75.70	.0043	-23.32	.0001	379647.8	2.37	16.21	-.0040	247.92	-.0000	-23.35	270.97
IMPC 11	3653.89	3665.14	9	9	22.1	331.77	.0044	-24.13	.0001	378749.3	1.77	24.91	.0018	151.58	.0040	-23.33	270.97

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPTH	AZ	RT ASC
INJECTION	.00	11.25	6	20	28.165	6563.904	15.3688	303.6420	10.97034	3.0769	121.9623	85.3590
SEPARATION	1.20	12.45	6	20	29.365	6629.298	11.6897	309.2399	10.91535	6.4576	123.3444	91.2577
RETRO	3.20	14.45	6	20	31.365	6836.885	5.5539	317.9035	10.74679	11.8756	124.7232	100.4227
IMPACT	3653.89	3665.14	9	9	22.059	3891477.285	-23.3482	270.9740	2.17086	63.8426	296.1679	248.6649

SURVEYOR VIEW PERIODS

GHA	197.7???					EPS	62.7861							LOM	297.8566
SX	-.125479	SY	-.893026	SZ	-.432157	DAO	-25.40452	RAO	262.00173	RM	388290.320	LAT	28.310600	LON	279.461800
C3	-.982168	ECC	.983873	SLR	12983.792	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	PCL	-.0
NSX	-.104225	NSY	-.894461	NSZ	-.434830	C3M	1.4931	VIM	2.6706	AAE	139.608	H.T	.0000	B.R	-.0000
LATE	3.0593	LONE	6.3957	LATS	-.8955	LONS	303.84 3	LATI	-4.4418	LONI	326.6749	RSM	150.0669	TTAN	6.5793
LAUNCH DATE		APR	7,1966		BASE AZM	87.0		TF	60.550			ARRIVAL DATE		APR 10 1966	24 5.4

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
87.00	19 4A 59.7	27.4	25.92	307.39	-11.49	82.59	102.01	19 5R 14.7	6612.7	10.94	-5.80

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PRORE IN SUNLIGHT											
INJECTION	.00	11.25	7	19	9A.2												
SEPARATION	1.20	12.45	7	19	99.4												
RETRO	3.20	14.45	7	20	1.4												
RISE 72	6.55	17.80	7	20	4.8	42.43	-1.0989	79.35	.0550	2550.5	-4.29	-.01	.0947	352.84	.1878	13.72	342.94
RISE 51	11.89	23.14	7	20	10.1	64.95	-.1360	41.29	- 0248	4730.5	-3.89	.00	.0977	317.10	.0389	2.55	3 3
EXTM 72	12.50	23.75	7	20	10.7	294.97	-.0374	19.53	-.1175	3233.0	6.38	20.37	-.0000	65.70	.1308	1.44	5.63
ENTER SHA	13.05	24.30	7	20	11.3												
ENTR 72	13.05	24.30	7	20	11.3	293.80	-.0332	15.89	-.1028	3450.0	6.70	20.30	-.0043	69.76	.1146	.47	7.70
ENTR 51	13.05	24.30	7	20	11.3	55.42	-.1374	39.14	-.0373	4493.1	-2.92	7.03	.1044	319.95	.0432	.47	7.30
ENTR 61	13.05	24.30	7	20	11.3	332.79	-.0892	-48.30	.0200	5421.2	7.20	-1.76	-.0020	162.28	-.0626	.47	7.30
EXTM 51	29.51	40.76	7	20	27.8	343.03	-.0267	-8.01	-.0224	7289.1	5.55	66.02	-.0000	45.32	.0853	-16.45	37.14
EXIT SHA	54.20	65.45	7	20	52.4												
EXIT 72	54.20	65.45	7	20	52.4	274.23	-.0012	-23.22	-.0025	19417.3	5.35	6.97	-.0009	112 59	.0026	-23.78	52.45
EXIT 51	54.20	65.45	7	20	52.4	325.58	-.0045	-21.48	-.0037	15466.6	5.21	58.36	-.0031	90.36	.0088	-23.78	52.45
EXTM 72	64.68	75.93	7	21	2.9	273.80	-.0002	-24.51	-.0017	22657.7	4.98	6.71	.0000	113.91	.0017	-25.08	55.18
RISE 42	77.44	88.69	7	21	15.7	103.62	-.0033	-18.45	-.0025	27097.9	4.25	.00	.0040	247.21	-.0001	-26.10	57.04
EXTM 51	79.70	90.95	7	21	17.9	322.59	-.0002	-25.54	-.0014	22926.8	4.58	26.35	.0000	97.66	.0025	-25.24	57.24
EXTM 42	127.70	138.95	7	22	5.9	100.65	.0006	-22.67	-.0007	39569.0	3.99	4.76	.0000	245.50	-.0009	-27.79	56.52
SET 42	180.08	191.33	7	22	58.3	105.00	.0020	-24.10	-.0003	51610.7	3.68	2.43	-.0013	241.65	-.0013	-28.26	56.25
RISE 61	200.16	211.41	7	23	18.4	303.97	.0032	-33.44	.0002	56071.9	3.22	-.00	.0018	136.21	.0019	-28.33	47.12
EXTM 51	304.91	316.16	8	1	3.2	.02	.0037	-28.61	.0000	69812.8	2.93	87.13	.0000	180.55	.0464	-28.37	37.66
EXTM 61	464.40	475.65	8	3	42.6	2.49	.0039	-31.54	.0001	9 900.6	2.52	18.19	.0000	182.24	.0035	-28.14	353.39
EXTM 72	500.29	511.54	8	4	18.5	.39	.0040	-29.32	.0001	1 1449.3	2.45	68.58	-.0000	180.92	.0096	-28.08	349.31
RISE 11	666.02	677.27	8	7	4.3	293.73	.0040	-29.70	-.0000	100271.6	1.91	.00	.0026	127.32	.0023	-27.82	307.05
SET 51	694.10	705.35	8	7	32.3	90.00	.0039	-28.74	.0001	132707.6	2.51	11.27	-.0032	245.59	-.0013	-27.77	300.46
SET 61	710.01	721.26	8	7	48.3	61.06	.0040	-29.76	.0001	136005.9	2.39	-.00	-.0022	229.44	.0026	-27.75	296.71
SET 72	888.94	900.19	8	10	47.2	94.09	.0039	-27.17	.0001	158019.1	2.35	-.00	-.0035	242.54	-.0005	-27.51	254.16
RISE 42	898.16	909.41	8	10	56.4	255.00	.0040	-28.11	-.0001	158698.6	1.64	3.66	.0029	119.14	-.0022	-27.50	251.95
EXTM 11	938.00	949.25	8	11	36.2	.80	.0042	-29.46	.0000	161036.6	1.92	25.33	-.0000	180.77	.0040	-27.45	242.38
SET 11	1207.39	1218.64	8	16	5.6	67.57	.0041	-28.40	.0001	193207.3	2.03	.00	-.0027	234.40	.0024	-27.15	177.19
EXTM 42	1322.92	1334.17	8	18	1.2	359.96	.0042	-26.78	.0000	198791.0	1.67	81.56	.0000	.29	-.0232	-27.04	149.02
RISE 51	1457.95	1469.20	8	20	16.2	270.00	.0041	-26.28	-.0000	217013.7	1.23	11.08	.0034	113.91	-.0014	-26.92	116.00
RISE 72	1613.18	1624.43	8	22	91.4	266.01	.0041	-26.57	-.0000	232818.5	1.13	-.01	.0036	116.84	-.0005	-26.80	77.92
RISE 61	1694.10	1705.35	9	0	12.3	296.56	.0041	-27.45	-.0000	240175.8	1.22	.00	.0025	127.73	.0027	-26.74	58.03
SET 42	1745.85	1757.10	9	1	4.1	105.00	.0041	-25.79	.0000	244414.9	1.80	3.47	-.0029	240.61	-.0022	-26.70	45.30
EXTM 51	1816.19	1827.44	9	2	14.4	359.70	.0042	-26.67	.0000	244694.9	1.45	89.03	.0010	164 13	.2133	-26.65	27.97
EXTM 61	1948.25	1959.50	9	4	26.5	.34	.0042	-27.85	.0000	259954.5	1.41	21.91	-.0000	180.33	.0040	-26.56	355.42
EXTM 72	1988.16	1999.41	9	5	6.4	.11	.0042	-26.98	.0000	259716.7	1.39	70.92	-.0000	180.30	.0114	-26.53	345.57
RISE 11	2129.44	2140 69	9	7	27.7	291.36	.0042	-27.31	-.0000	277312.5	1.04	.00	.0028	124.16	.0024	-26.45	310.67
SET 51	2176.69	2187.94	9	8	14.9	90.00	.0041	-25.92	.0000	279915.3	1.71	10.94	-.0034	246.36	-.0015	-26.42	298.99
SET 61	2202.17	2213.42	9	8	40.4	64.05	.0042	-27.34	.0000	283162.2	1.61	-.00	-.0025	233.01	.0027	-26.40	292.69
SET 72	2362.04	2373.29	9	11	20.3	93.91	.0041	-26.13	.0000	295707.0	1.69	-.00	-.0037	243.60	-.0005	-26.31	253.13
RISE 42	2362.98	2374.23	9	11	21.2	255.00	.0041	-25.56	-.0000	295409.9	.96	3.33	.0029	119.21	-.0023	-26.31	252.89
EXTM 11	2403.28	2414.51	9	12	1.5	.23	.0042	-27.48	.0000	295955.4	1.28	27.42	-.0000	180 23	.0042	-26.29	242.92
SET 11	2676.91	2688.16	9	16	35.2	69.03	.0042	-26.90	.0000	319270.0	1.52	-.00	-.0028	236.38	.0024	-26.15	179.10
EXTM 42	2782.07	2793.32	9	18	20.3	359.97	.0042	-25.92	.0000	320603.2	1.19	80.70	.0000	.19	-.0181	-26.10	149.01
RISE 51	2912.46	2923.71	9	20	30.7	270.00	.0042	-25.42	-.0000	334976.8	.78	10.82	.0034	113.36	-.0015	-26.04	119.60
RISE 72	3065.76	3077.01	9	23	4.0	266.15	.0042	-25.81	-.0000	346697.0	.73	- 00	.0037	116.08	-.0005	-25.97	78.37
RISE 61	3140.23	3151.48	10	0	18.5	295.17	.0042	-26.48	-.0000	351767.3	.85	.00	.0026	126.03	.0027	-25.93	59.78
SET 11	3199.94	3211.19	10	1	18.2	105.00	.0041	-25.28	.0000	355467.8	1.46	3.16	-.0030	241.02	-.0023	-25.90	44.88
EXTM 51	3263.66	3274.91	10	2	21.9	358.69	.0042	-25.48	.0000	353817.9	1.12	88.82	.0038	96.95	.0202	-25.87	28.97
EXTM 61	3397.39	3408.64	10	4	35.6	.21	.0042	-26.72	.0000	366740.2	1.14	23.04	-.0000	180.20	.0041	-25.81	355.55
EXTM 72	3437.22	3448.47	10	5	15.5	.09	.0043	-26.10	.0000	365951.7	1.15	71.81	-.0000	180.27	.0120	-25.79	349.98
RISE 11	3571.51	3582.76	10	7	29.8	290.44	.0042	-26.33	-.0000	381592.0	.97	.00	.0029	122.88	.0024	-25.71	311.90
SET 51	3623.99	3635.24	10	8	22.2	90.00	.0043	-25.29	.0000	384854.5	2.07	10.69	-.0035	246.94	-.0015	-25.66	298.63
IMPACT	3633.03	3644.28	10	8	31.3												
IMPC 72	3633.03	3644.28	10	8	31.3	50.16	.0044	-25.79	.0001	383020.0	2.39	39.14	-.0038	243.04	.0011	-25.65	296.31
IMPC 51	3633.03	3644.28	10	8	31.3	92.32	.0043	-25.26	.0001	386054.7	2.45	8.77	-.0036	246.11	-.0016	-25.65	296.31
IMPC 11	3633.03	3644.28	10	8	31.3	306.15	.0044	-26.34	.0000	385904.5	1.77	10.77	.0026	132.68	.0029	-25.65	296.31
IMPC 61	3633.03	3644.28	10	8	31.3	60.13	.0043	-26.15	.0001	386682.1	2.34	3.9.	-.0025	231.09	.0030	-25.65	296.31

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	7	19	9A.245	6614.566	25.9387	307.3043	10.93512	-5.7964	101.9730	82.5066
SEPARATION	1.20	12.45	7	19	99.445	6556.267	24.3129	314.4408	10.98136	-2.4014	105.1365	89.9439
RETRO	3.20	14.45	7	20	1.445	6566.800	20.8469	325.8498	10.97348	3.3151	109.7260	101.8543
ENTER SHA	13.05	24.30	7	20	11.297	8237.158	.4678	7.2987	9.78772	26.8360	118.3910	145.7731
EXIT SHA	54.20	65.45	7	20	52.449	21160.515	-23.7817	52.4541	6.05740	55.8575	185.9876	201.2448
IMPACT	3633.03	3644.28	10	8	31.275	387077.793	-25.6463	296.3124	2.22297	67.7928	285.2667	262.2582

APR 7, 1966
87 DEGREES

SURVEYOR VIEW PERIODS

GHA	197.7777					EQS	63.0004						LOM	291.5801	
SX	-.121464	SY	-.894542	SZ	-.432650	DAO	-25.4[illegible]87	RAO	262.25718	RM	388393.598	LAT	28.310600	LON	279.461800
C3	-.974964	EEC	.983971	SLR	12984.432	RCA	6544.6450	LTA	-20.0000	GTA	20.00	18	675.00000	POL	-.0
NSY	-.100263	NSY	-.894897	NSZ	-.435275	C3M	1.4468	VIM	2.6713	7AE	139.723	R.T	.0000	B.R	-.0000
LATE	3.0834	LONE	6.3899	LATS	-.8952	LONS	303.6213	LATI	-4.3232	LONI	326.7688	RSM	150.0664	TTAN	6.5877
LAUNCH DATE		APR	7.1966	BASE AZM	90.0	TF	60.493					ARRIVAL DATE	APR 10 1966		8 50 8.8

LNCH AZMTH	LNCH TIME	RH	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
90.00	7 11 43.8	27.7	24.69	307.43	-4.16	88.83	104.30	20 22 58.8	6563.5	10.98	-3.06

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DFC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PHORE IN SUNLIGHT											
INJECTION	.00	11.25	7	20	23.0												
SEPARATION	1.20	12.45	7	20	24.2												
RETRO	3.20	14.45	7	20	26.2												
RISE 72	5.81	17.06	7	20	28.8	68.01	-.4577	69.06	.0968	2637.3	-5.66	-.00	.1078	341.20	.1519	13.37	338.40
RISE 51	11.57	22.82	7	20	34.6	68.90	-.1193	34.74	-.0275	5001.7	-3 62	.00	.0953	311.62	.0287	1.58	.19
EXTM 72	11.87	23.12	7	20	34.9	305.76	-.0594	20.95	-.1328	2872.3	5.96	29.43	-.0000	60.47	.1653	1.05	1.10
ENTER SHA	11.89	23.14	7	20	34.9												
ENTR 72	11.89	23.14	7	20	34.9	305.67	-.0589	20.86	-.1320	2880.9	5.98	29.43	-.0004	60.71	.1643	1.01	1.17
ENTR 51	11.89	23.14	7	20	34.9	66.58	-.1199	34.78	-.0302	4933.8	-3.37	1.87	.0970	312.18	.0295	1.01	1.17
ENTR 61	11.89	23.14	7	20	34.9	344.75	-.1097	-49.92	.0160	5212.5	6.60	-.61	.0033	171.46	-.0728	1.01	1.17
EXTM 51	11.76	43.01	7	20	54.7	347.92	-.0227	-11.56	-.0168	8227.0	5.48	71.81	-.0000	41.02	.0894	-17.84	34.74
EXIT SHA	53.42	64.67	7	21	16.4												
EXIT 72	53.42	64.67	7	21	16.4	280.12	-.0013	-23.77	-.0024	18912.8	5.35	12.40	-.0011	112.71	.0025	-23.62	46.89
EXIT 51	53.42	64.67	7	21	16.4	333.12	-.0051	-22.16	-.0037	15261.0	5.18	65.19	-.0037	87.17	.0114	-23.62	46.89
EXTM 72	65.12	76.37	7	21	28.1	279.66	-.0001	-25.11	-.0015	22518.7	4.94	12.06	.0000	114.11	.0016	-25.04	49.82
EXTM 51	82.18	93.43	7	21	45.2	329.49	-.0002	-25.14	-.0012	23584.7	4.51	62.58	.0000	96.76	.0026	-26.28	51.84
RISE 61	169.54	180.79	7	23	12.5	304.62	.0029	-33.88	.0002	49832.5	3.43	-.00	.0017	136.91	.0017	-28.10	45.95
EXTM 51	275.26	286.51	8	0	58.2	.01	.0036	-28.56	.0000	64691.6	3.04	87.18	.0000	180.35	.0379	-28.31	27.67
EXTM 61	438.58	449.83	8	3	41.6	2.67	.0039	-31.66	.0001	96134.9	2.57	18.06	.0000	182.39	.0035	-28.13	353.23
EXTM 72	474.11	485.36	8	4	17.1	.39	.0040	-29.36	.0001	97730.5	2.50	68.54	-.0000	180.94	.0096	-28.07	345.30
RISE 11	641.15	652.40	8	7	4.1	293.78	.0040	-29.75	-.0000	127126.2	1.94	.00	.0026	127.39	.0023	-27.82	306.95
SET 51	668.58	679.83	8	7	31.6	90.00	.0039	-26.72	.0001	129530.0	2.54	11.26	-.0032	245.61	-.0013	-27.78	300.53
SET 61	684.34	695.59	8	7	47.3	60.99	.0040	-29.82	.0001	132836.6	2.42	-.00	-.0022	229.36	.0026	-27.76	296.83
SET 72	863.97	875.22	8	10	47.0	94.09	.0039	-27. 8	.0001	155220.3	2.37	-.00	-.0035	242.54	-.0005	-27.52	254.20
RISE 42	873.56	884.81	8	10	56.5	254.99	.0040	-26.69	-.0001	155955.8	1.66	3.65	.0029	119.63	-.0021	-27.51	251.91
EXTM 11	913.37	924.62	8	11	36.3	.81	.0042	-29.61	.0000	158346.0	1.94	25.28	-.0000	180.78	.0040	-27.46	242.37
SET 11	1182.79	1194.04	8	16	5.8	67.54	.0041	-28.43	.0001	190806.8	2.05	.00	-.0027	234.36	.0024	-27.17	177.24
EXTM 42	1298.61	1309.86	8	18	1.6	359.96	.0042	-26.79	.0000	196523.2	1.68	81.57	.0000	.30	-.0226	-27.06	149.02
RISE 51	1433.78	1445.03	8	20	16.8	270.00	.0041	-26.29	-.0000	214865.4	1.25	11.09	.0034	113.99	-.0014	-26.94	115.98
RISE 72	1589.06	1600.31	8	22	52.0	266.01	.0041	-26.58	-.0000	230785.4	1.14	-.01	.0036	116.86	-.0005	-26.62	77.91
RISE 61	1670.14	1681.39	9	0	13.1	296.59	.0041	-27.88	-.0000	238210.4	1.23	.00	.0025	127.78	.0027	-26.76	57.99
SET 42	1721.68	1732.93	9	1	4.7	105.00	.0041	-25.41	.0000	242462.3	1.81	3.48	-.0029	240.60	-.0022	-26.72	45.31
EXTM 51	1791.82	1803.07	9	2	14.8	359.63	.0042	-26.69	.0000	242768.3	1.46	88.99	.0012	161.10	.2014	-26.67	28.04
EXTM 61	1924.18	1935.43	9	4	27.2	.34	.0042	-27.88	.0000	258133.5	1.42	21.88	-.0000	180.33	.0040	-26.58	355.42
EXTM 72	1964.10	1975.35	9	5	7.1	.11	.0042	-27.32	.0000	257916.5	1.40	70.89	-.0000	180.29	.0114	-26.56	345.57
RISE 11	2105.56	2116.81	9	7	28.5	291.39	.0042	-27.33	-.0000	275599.9	1.05	.00	.0028	124.19	.0024	-26.47	310.63
SET 51	2152.63	2163.88	9	8	15.6	90.00	.0041	-25.44	.0000	278211.9	1.72	10.95	-.0034	246.34	-.0015	-26.44	299.00
SET 61	2177.98	2189.23	9	8	41.0	64.01	.0042	-27.38	.0000	281461.5	1.62	-.00	-.0025	232.96	.0027	-26.43	292.73
SET 72	2338.04	2349.29	9	11	21.0	93.91	.0041	-26.16	.0000	294098.2	1.70	-.00	-.0037	243.57	-.0005	-26.34	253.13
RISE 42	2339.02	2350.27	9	11	22.0	255.00	.0041	-25.59	-.0000	293803.0	.97	3.34	.0029	119.23	-.0023	-26.34	252.89
EXTM 11	2379.27	2390.52	9	12	2.3	.23	.0041	-27.41	.0000	294370.1	1.28	27.38	-.0000	180.23	.0042	-26.32	242.92
SET 11	2652.82	2664.07	9	16	35.8	69.00	.0042	-26.93	.0000	317793.9	1.53	-.00	-.0028	236.34	.0024	-26.18	175.13
EXTM 42	2758.12	2769.37	9	18	21.1	359.97	.0042	-25.95	.0000	319180.5	1.19	80.73	.0000	.21	-.0191	-26.13	149.01
RISE 51	2888.68	2899.93	9	20	31.7	270.00	.0042	-25.65	-.0000	333634.2	.78	10.83	.0034	113.39	-.0015	-26.07	116.60
RISE 72	3041.93	3053.18	9	23	4.9	266.14	.0042	-25.84	-.0000	345379.8	.73	-.00	.0037	116.11	-.0005	-26.00	78.37
RISE 61	3116.56	3127.81	10	0	19.5	295.21	.0042	-26.72	-.0000	350 72.0	.85	.00	.0026	126.09	.0027	-25.96	59.74
SET 42	3176.06	3187.31	10	1	19.0	105.00	.0041	-25.31	.0000	354163.6	1.47	3.18	-.0030	240.99	-.0023	-25.94	44.88
EXTM 51	3239.79	3251.04	10	2	22.8	358.69	.0042	-25.91	.0000	352520.6	1.12	88.81	.0038	98.53	.0251	-25.91	28.97
EXTM 61	3373.50	3384.75	10	4	36.5	.21	.0042	-26.26	.0000	365438.4	1.14	23.01	-.0000	180 20	.0041	-25.84	355.55
EXTM 72	3413.33	3424.58	10	5	16.3	.09	.0043	-26.13	.0000	364638.1	1.15	71 77	-.0000	180.27	.0119	-25.82	345.58
RISE 11	3547.86	3559.11	10	7	30.8	290.48	.0042	-26.37	-.0000	380158.7	.92	.00	.0029	122.93	.0024	-25.75	311.86
SET 51	3600.33	3611.58	10	8	23.3	90.00	.0042	-25.44	.0000	383094.9	1.81	10.71	-.0035	246.90	-.0015	-25.71	298.64
SET 61	3629.29	3640.54	10	8	52.3	65.22	.0043	-26.35	.0001	387078.4	2.33	-.00	-.0026	234.44	.0028	-25.67	291.26
IMPACT	3629.58	3640.83	10	8	52.6												
IMPC 72	3629.58	3640.83	10	8	52.6	55.34	.0044	-25.79	.0001	383513.0	2.41	34.54	-.0039	244.05	.0008	-25.67	291.19
IMPC 51	3629.58	3640.83	10	8	52.6	97.43	.0043	-25.26	.0001	386604.0	2.44	4.58	-.0035	244.12	-.0017	-25.67	291.19
IMPC 11	3629.58	3640.83	10	8	52.6	311.32	.0044	-26.39	.0000	385668.7	1.79	13.13	.0025	136.31	.0031	-25.67	291.19
IMPC 61	3629.58	3640.83	10	8	52.6	65.29	.0043	-26.35	.0001	387118.1	2.35	-.05	-.0027	234.49	.0028	-25.67	291.19

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	7	20	22.981	6563.629	24.6979	307.4128	10.97662	-3.0567	104.2986	88.8159
SEPARATION	1.20	12.45	7	20	24.181	6544.942	22.8146	314.3896	10.99221	.3709	107.2342	96.0935
RETRO	3.20	14.45	7	20	26.181	6618.830	19.0129	325.4634	10.93018	6.0518	111.3807	107.6686
ENTER SHA	11.89	23.14	7	20	34.876	8187.781	1.0089	1.1747	9.81779	26.4973	118.2955	145.5399
EXIT SHA	53.42	64.67	7	21	16.400	21217.479	-23.6161	46.8916	6.04053	55.9105	106.0855	201.6864
IMPACT	3629.58	3640.83	10	8	52.559	387165.441	-25.6714	291.1862	2.22270	67.5865	284.9270	262.4675

SURVEYOR VIEW PERIODS

GHA	197.7777					EPS	63.2093							LOM	285.4570
SX	-.117548	SY	-.893634	SZ	-.433124	DAO	-25.66601	RAO	262.50637	RM	388494.211	LAT	28.310600	LON	279.461800
C3	-.976009	ECC	.989975	SLR	12984.453	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.096344	NSY	-.894915	NSZ	-.435713	C3M	1.4967	VIM	2.6713	ZAE	139.721	B.T	.0000	B.R	-.0000
LATE	3.1074	LONE	5.4817	LATS	-.8948	LONS	303.4057	LATI	-4.3238	LONI	326.7642	RSM	150.0660	TTAN	6.5939
LAUNCH DATE	APR	7,1966		BASE AZM	93.0	TF	60.518					ARRIVAL DATE	APR 10 1966		9 15 33.9

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
93.00	20 32 19.2	27.9	23.49	307.29	-1.63	93.85	106.52	20 43 34.2	6546.0	10.99	-.81

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
					PROBE IN SUNLIGHT												
INJECTION	.00	11.25	7	20	43.6												
SEPARATION	1.20	12.45	7	20	44.8												
RETRO	3.20	14.45	7	20	46.8												
RISE 72	5.29	16.54	7	20	48.9	75.40	-.3008	61.18	.0805	2738.1	-6.48	-.01	.1161	332.19	.1185	12.66	334.80
ENTER SHA	10.98	22.23	7	20	54.6												
ENTR 72	10.98	22.23	7	20	54.6	319.47	-.1012	24.55	-.1589	2465.4	5.05	38.87	.0133	49.40	.2352	1.04	355.97
ENTR 51	10.98	22.23	7	20	54.6	74.45	-.1065	33.24	-.0276	5319.9	-3.60	-2.07	.0910	306.26	.0202	1.04	355.97
ENTR 61	10.98	22.23	7	20	54.6	359.46	-.1243	-50.33	.0090	5154.6	6.02	-.57	.0084	179.66	-.0794	1.04	355.97
RISE 51	11.36	22.61	7	20	54.9	72.05	-.1070	32.59	-.0301	5241.9	-3.34	-.00	.0927	306.72	.0207	.38	357.08
EXTM 72	11.42	22.67	7	20	55.0	317.02	-.0868	20.62	-.1428	2604.0	5.55	39.04	-.0000	55.23	.2116	.28	357.26
RISE 61	12.63	23.88	7	20	56.2	348.75	-.0939	-49.21	.0128	5778.4	6.55	.01	.0035	172.68	-.0626	-1.73	.67
EXTM 61	14.59	25.84	7	20	58.2	339.30	-.0683	-47.67	.0129	6570.9	6.87	.19	-.0000	166.23	-.0478	-4.65	5.61
SET 61	17.10	28.35	7	21	.7	330.69	-.0476	-45.86	.0109	7620.1	7.00	-.00	-.0023	160.07	-.0348	-7.83	11.06
EXTM 51	34.28	45.53	7	21	17.8	351.80	-.0194	-14.99	-.0127	9215.4	5.40	76.80	-.0000	37.08	.0990	-19.43	32.67
EXIT SHA	52.17	63.42	7	21	35.7												
EXIT 72	52.17	63.42	7	21	35.7	285.31	-.0015	-24.61	-.0022	18297.3	5.37	17.16	-.0014	113.40	.0024	-23.77	41.95
EXIT 51	52.17	63.42	7	21	35.7	339.85	-.0059	-22.54	-.0038	14939.6	5.15	71.36	-.0044	84.39	.0156	-23.77	41.95
EXIT 61	52.17	63.42	7	21	35.7	301.38	-.0032	-37.71	.0013	20614.8	5.34	-4.63	-.0007	137.34	-.0028	-23.77	41.95
EXTM 72	66.13	77.38	7	21	49.7	284.72	-.0000	-26.06	-.0013	22584.1	4.89	16.65	.0000	114.93	.0014	-25.41	45.36
EXTM 51	84.76	96.01	7	22	8.3	335.35	-.0001	-26.44	-.0010	24291.4	4.45	67.88	.0000	97.28	.0027	-26.65	47.26
RISE 61	144.38	155.63	7	23	8.0	305.73	.0025	-34.61	.0003	44410.1	3.64	-.00	.0015	138.08	.0015	-28.07	44.30
EXTM 51	249.78	261.03	8	0	93.4	.01	.0035	-28.73	.0000	60120.6	3.14	87.01	.0000	180.34	.0377	-28.44	27.67
EXTM 61	417.49	428.74	8	3	41.1	2.92	.0039	-31.91	.0001	92999.9	2.62	17.80	.0000	182.60	.0035	-28.26	353.00
EXTM 72	452.28	463.53	8	4	15.9	.40	.0040	-29.55	.0001	94560.9	2.54	68.35	-.0000	180.95	.0094	-28.21	345.30
RISE 11	621.07	632.32	8	7	4.6	293.94	.0040	-29.31	-.0000	124527.7	1.97	.00	.0026	127.60	.0023	-27.93	306.73
SET 51	647.39	658.64	8	7	31.0	90.00	.0038	-26.82	.0001	126822.8	2.57	11.30	-.0032	245.52	-.0013	-27.89	300.59
SET 61	662.39	673.64	8	7	46.0	60.78	.0039	-29.98	.0001	130057.0	2.45	-.00	-.0022	229.11	.0026	-27.87	297.08
SET 72	843.36	854.61	8	10	46.9	94.11	.0039	-27.27	.0001	152847.9	2.39	-.00	-.0035	242.44	-.0004	-27.62	254.23
RISE 42	853.21	864.46	8	10	56.8	254.99	.0040	-26.17	-.0001	153619.6	1.68	3.70	.0029	119.69	-.0021	-27.60	251.88
EXTM 11	893.09	904.34	8	11	36.7	.85	.0041	-29.63	.0000	156077.6	1.96	25.15	-.0000	180.82	.0040	-27.55	242.33
SET 11	1162.13	1173.38	8	16	5.7	67.44	.0041	-28.53	.0001	188715.5	2.06	.00	-.0027	234.23	.0024	-27.25	177.35
EXTM 42	1278.50	1289.75	8	18	2.1	359.95	.0042	-26.87	.0000	194568.5	1.69	81.65	.0000	.30	-.0235	-27.13	149.02
RISE 51	1413.81	1425.06	8	20	17.4	270.00	.0041	-26.36	-.0000	213002.8	1.26	11.11	.0034	114.05	-.0014	-27.01	115.97
RISE 72	1569.09	1580.34	8	22	52.7	266.00	.0041	-26.65	-.0000	229008.1	1.15	-.01	.0036	116.93	-.0005	-26.88	77.90
RISE 61	1650.58	1661.83	9	0	14.1	296.68	.0041	-27.95	-.0000	236509.4	1.24	.00	.0025	127.88	.0027	-26.82	57.89
SET 42	1701.70	1712.95	9	1	5.3	105.00	.0041	-25.86	.0000	240742.2	1.82	3.51	-.0029	240.55	-.0022	-26.78	45.32
EXTM 51	1771.16	1782.41	9	2	14.7	359.45	.0042	-26.76	.0000	241024.5	1.47	88.87	.0017	154.29	.1708	-26.73	28.22
EXTM 61	1904.31	1915.56	9	4	27.9	.35	.0042	-27.95	.0000	256520.0	1.42	21.81	-.0000	180.33	.0040	-26.64	355.41
EXTM 72	1944.21	1955.46	9	5	7.8	.11	.0042	-27.07	.0000	256312.2	1.41	70.83	-.0000	180.30	.0113	-26.62	345.56
RISE 11	2085.95	2097.20	9	7	29.5	291.45	.0042	-27.40	-.0000	274067.3	1.05	.00	.0028	124.27	.0024	-26.53	310.57
SET 51	2132.74	2143.99	9	8	16.3	90.00	.0041	-25.99	.0000	276670.0	1.72	10.97	-.0034	246.29	-.0015	-26.50	299.01
SET 61	2157.82	2169.07	9	8	41.4	63.94	.0042	-27.44	.0000	279908.2	1.62	-.00	-.0025	232.87	.0027	-26.48	292.81
SET 72	2318.21	2329.46	9	11	21.8	93.92	.0041	-26.21	.0000	292623.3	1.71	-.00	-.0037	243.52	-.0005	-26.39	253.13
RISE 42	2319.21	2330.46	9	11	22.8	255.00	.0041	-25.63	-.0000	292326.8	.97	3.37	.0029	119.26	-.0023	-26.39	252.88
EXTM 11	2359.46	2370.71	9	12	3.0	.24	.0042	-27.47	.0000	292915.3	1.29	27.33	-.0000	180.24	.0042	-26.37	242.92
SET 11	2632.81	2644.06	9	16	36.4	68.95	.0042	-26.98	.0000	316395.8	1.53	-.00	-.0028	236.27	.0024	-26.23	175.18
EXTM 42	2738.30	2749.55	9	18	21.9	359.96	.0042	-26.00	.0000	317823.1	1.20	80.78	.0000	.24	-.0207	-26.18	149.02
RISE 51	2868.92	2880.17	9	20	32.5	270.00	.0042	-25.69	-.0000	332318.4	.78	10.85	.0034	113.43	-.0015	-26.11	116.59
RISE 72	3022.14	3033.39	9	23	5.7	266.13	.0042	-25.88	-.0000	344069.8	.73	-.00	.0037	116.15	-.0005	-26.04	78.37
RISE 61	3096.99	3108.24	10	0	20.6	295.26	.0042	-26.76	-.0000	349177.9	.85	.00	.0026	126.15	.0027	-26.00	59.69
SET 42	3156.27	3167.52	10	1	19.8	105.00	.0041	-25.35	.0000	352850.6	1.46	3.20	-.0030	240.96	-.0023	-25.98	44.89
EXTM 51	3219.99	3231.24	10	2	23.6	358.69	.0042	-25.95	.0000	351207.1	1.12	88.80	.0038	100.38	.0307	-25.95	28.97
EXTM 61	3353.75	3365.00	10	4	37.3	.21	.0042	-26.90	.0000	364111.4	1.14	22.96	-.0000	180.20	.0041	-25.88	355.55
EXTM 72	3393.58	3404.83	10	5	17.2	.09	.0043	-26.17	.0000	363296.2	1.14	71.73	-.0000	180.27	.0119	-25.86	345.58
RISE 11	3528.36	3539.61	10	7	31.9	290.52	.0042	-26.41	-.0000	378717.0	.89	.00	.0029	122.98	.0024	-25.79	311.82
SET 51	3580.75	3592.00	10	8	24.3	90.00	.0042	-25.38	.0000	381467.0	1.70	10.73	-.0035	246.86	-.0015	-25.75	298.64
SET 61	3609.63	3620.88	10	8	53.2	65.14	.0043	-26.41	.0000	385050.0	1.78	.01	-.0026	234.35	.0028	-25.73	291.34
IMPACT	3631.07	3642.32	10	9	14.6												
IMPC 72	3631.07	3642.32	10	9	14.6	60.71	.0043	-25.78	.0001	384049.8	2.43	29.75	-.0039	244.76	.0005	-25.70	285.87
IMPC 51	3631.07	3642.32	10	9	14.6	102.74	.0043	-25.25	.0001	387166.0	2.43	.32	-.0034	241.91	-.0018	-25.70	285.87
IMPC 11	3631.07	3642.32	10	9	14.6	316.70	.0044	-26.43	.0000	385448.7	1.81	16.01	.0023	140.29	.0033	-25.70	285.87
IMPC 61	3631.07	3642.32	10	9	14.6	70.64	.0043	-26.35	.0001	387583.7	2.36	-3.43	-.0028	237.88	.0027	-25.70	285.87

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	7	20	43.570	6545.987	23.4872	307.2869	10.99145	-.8104	106.5190	93.8513
SEPARATION	1.20	12.45	7	20	44.770	6558.467	21.3615	314.1053	10.98079	2.6192	109.2382	100.9706
RETRO	3.20	14.45	7	20	46.770	6682.823	17.2730	324.7959	10.87731	8.2332	112.9533	112.1625
ENTER SHA	10.98	22.23	7	20	54.552	8154.743	1.0355	355.9670	9.83787	26.2662	118.4253	145.2845
EXIT SHA	52.17	63.42	7	21	35.745	21079.406	-23.7683	41.9468	6.06986	55.7870	106.0987	201.5909
IMPACT	3631.07	3642.32	10	9	14.636	387254.293	-25.6974	285.8686	2.22131	67.4934	284.8877	262.6842

SURVEYOR VIEW PERIODS

GHA	197.7777				EPS	63.3932					LOM	280.0662	
SX	-.1141	SY	-.893383	SZ	-.433536	DAO	-25.69218	RAO	262.72577	RM	388582.656	LAT	28.310600	LON	279.461800
C3	-.979	SCC	.9883925	SLR	12984.127	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.092863	NSY	-.895894	NSZ	-.436101	C3M	1.4453	VIM	2.6711	ZAE	139.639	B.T	.0000	B.R	-.0000
LATE	3.1282	LONE	6.5761	LATS	-.8945	LONS	303.2149	LATI	-4.4351	LONI	326.6983	RSM	150.0656	TTAN	6.5983
LAUNCH DATE	APR	7,1966		BASE AZM	96.0		TF 60.587					ARRIVAL DATE	APR 10 1966	9 3/ 56.7	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
96.00	20 48 49.0	28.0	22.41	307.01	1.90	97.67	108.68	20 59 54.0	6546.5	10.99	.94

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	7	20	49.9												
SEPARATION	1.20	12.45	7	21	1.1												
RETRO	3.20	14.45	7	21	3.1												
RISE 72	4.91	16.16	7	21	4.8	78.92	-.2373	54.16	.0588	2829.9	-6.99	.00	.1213	324.93	.0897	11.72	331.90
ENTER SHA	10.40	21.65	7	21	10.3												
ENTR 72	10.40	21.65	7	21	10.3	333.40	-.1474	24.42	-.1707	2214.0	4.20	48.18	.0386	37.52	.3200	.39	351.99
ENTR 51	10.40	21.65	7	21	10.3	79.45	-.0968	30.25	-.0281	5607.3	-3.64	-4.38	.0872	301.60	.0135	.39	351.99
ENTR 61	10.40	21.65	7	21	10.3	9.25	-.1295	-56.87	.0020	5247.4	5.60	-1.27	.0120	185.85	-.0812	.39	351.99
EXTM 72	11.11	22.36	7	21	11.0	327.85	-.1139	18.15	-.1456	2418.3	5.21	48.94	-.0000	50.34	.2762	-.85	354.08
RISE 51	11.22	22.47	7	21	11.1	74.66	-.0976	28.75	-.0327	5441.0	-3.10	.00	.0905	302.28	.0140	-1.04	354.39
RISE 61	13.23	24.48	7	21	13.1	351.30	-.0844	-49.43	.0103	6284.5	6.47	.00	.0039	174.35	-.0557	-4.22	359.72
EXTM 61	14.2	27.27	7	21	15.9	339.74	-.0565	-47.46	.0104	7395.3	6.77	.28	-.0000	166.51	-.0394	-7.94	6.00
SET 61	19.82	31.07	7	21	19.7	329.53	-.0355	-45.52	.0082	8947.9	6.80	.00	-.0020	159.19	-.0261	-11.92	12.96
EXTM 51	36.78	48.03	7	21	36.7	354.89	-.0168	-18.26	-.0097	10163.5	5.33	81.15	-.0000	33.34	.1215	-21.16	30.89
EXIT SHA	50.56	61.81	7	21	50.5												
EXIT 72	50.56	61.81	7	21	50.5	289.71	-.0019	-25.76	-.0021	17606.5	5.42	21.14	-.0018	114.63	.0022	-24.23	37.66
EXIT 51	50.56	61.81	7	21	50.5	345.74	-.0070	-23.37	-.0039	14518.2	5.15	76.82	-.0054	82.69	.0229	-24.23	37.66
EXIT 61	50.56	61.81	7	21	50.5	306.12	-.0038	-38.90	.0016	20132.6	5.36	-3.18	-.0006	140.98	-.0033	-24.23	37.66
EXTM 72	67.51	78.76	7	22	7.4	288.87	.0000	-27.42	-.0011	22804.4	4.84	20.35	.0000	116.28	.0012	-26.16	41.79
EXTM 51	87.58	98.83	7	22	27.5	340.09	.0000	-27.45	-.0008	25071.9	4.40	72.14	.0000	99.93	.0027	-27.33	43.55
RISE 61	125.88	137.13	7	23	5.8	307.29	.0021	-35.41	.0004	40229.5	3.83	-.00	.0014	139.70	.0011	-28.30	42.26
EXTM 51	228.75	240.00	8	0	48.7	.02	.0033	-29.13	.0000	56220.7	3.23	86.61	.0000	180.39	.0366	-28.78	27.67
EXTM 61	401.29	412.54	8	3	41.2	3.25	.0039	-32.31	.0001	90568.6	2.66	17.39	.0000	182.88	.0034	-28.55	352.69
EXTM 72	435.29	446.45	8	4	15.1	.47	.0040	-29.88	.0001	92039.8	2.57	68.02	-.0000	181.08	.0092	-28.48	345.24
RISE 11	606.83	617.08	8	7	5.7	294.22	.0040	-30.17	-.0000	122525.3	1.99	.00	.0026	127.96	.0023	-28.16	306.42
SET 51	630.63	641.88	8	7	30.5	90.00	.0038	-27.03	.0001	124636.1	2.59	11.38	-.0032	245.32	-.0013	-28.12	300.65
SET 61	644.25	655.50	8	7	44.2	60.43	.0039	-30.25	.0001	127714.8	2.47	-.00	-.0022	228.71	.0026	-28.10	297.47
SET 72	827.18	838.43	8	10	47.1	94.14	.0039	-27.46	.0001	150947.6	2.40	-.00	-.0035	242.26	-.0004	-27.81	254.23
RISE 42	827.18	838.43	8	10	57.1	254.99	.0040	-26.34	-.0001	151734.2	1.70	3.80	.0028	119.83	-.0021	-27.79	251.85
EXTM 11	877.23	888.48	8	11	37.1	.92	.0041	-29.44	.0001	154277.7	1.97	24.94	-.0000	180.88	.0040	-27.73	242.27
SET 11	1145.52	1156.77	8	16	5.4	67.28	.0041	-28.69	.0001	186989.2	2.07	-.00	-.0026	234.02	.0024	-27.40	177.52
EXTM 42	1262.63	1273.88	8	18	2.5	359.95	.0042	-27.01	.0000	192977.2	1.70	81.79	.0000	.34	-.0238	-27.27	149.03
RISE 51	1398.17	1409.32	8	20	18.0	270.00	.0041	-26.48	-.0000	211479.4	1.26	11.16	.0034	114.17	-.0014	-27.14	115.95
RISE 72	1553.31	1564.56	8	22	53.2	265.98	.0041	-26.76	-.0000	227544.5	1.15	-.01	.0036	117.04	-.0005	-27.00	77.91
RISE 61	1635.43	1646.68	9	0	15.3	296.82	.0041	-28.07	-.0000	235131.2	1.25	.00	.0025	128.05	.0027	-26.93	57.74
SET 42	1685.93	1697.18	9	1	5.8	105.00	.0041	-25.96	.0000	239317.2	1.83	3.57	-.0029	240.47	-.0022	-26.89	45.33
EXTM 51	1754.46	1765.71	9	2	14.4	359.70	.0042	-26.86	.0000	239544.9	1.47	88.67	.0020	147.58	.1356	-26.83	28.46
EXTM 61	1888.70	1899.95	9	4	28.6	.37	.0042	-28.05	.0000	255182.3	1.43	21.71	-.0000	180.35	.0040	-26.73	355.39
EXTM 72	1928.55	1939.80	9	5	8.4	.11	.0042	-27.17	.0000	254973.9	1.41	70.74	-.0000	180.31	.0113	-26.70	345.56
RISE 11	2070.65	2081.90	9	7	30.5	291.53	.0042	-27.48	-.0000	272788.4	1.06	.00	.0028	124.39	.0024	-26.61	310.48
SET 51	2117.35	2128.30	9	8	17.0	90.00	.0041	-26.07	.0000	275366.5	1.73	11.00	-.0034	246.22	-.0015	-26.58	299.01
SET 61	2141.73	2152.98	9	8	41.6	63.84	.0042	-27.52	.0000	278581.5	1.62	-.00	-.0025	232.75	.0027	-26.56	292.91
SET 72	2302.59	2313.84	9	11	22.5	93.93	.0041	-26.28	.0000	291366.5	1.71	-.00	-.0037	243.45	-.0005	-26.46	253.12
RISE 42	2303.59	2314.84	9	11	23.5	255.00	.0041	-25.70	-.0000	291065.5	.98	3.42	.0029	119.32	-.0023	-26.46	252.88
EXTM 11	2343.87	2355.12	9	12	3.8	.25	.0042	-27.54	.0000	291676.1	1.29	27.25	-.0000	180.25	.0042	-26.44	242.90
SET 11	2416.93	2428.18	9	16	36.8	68.89	.0042	-27.04	.0000	315173.3	1.53	-.00	-.0028	236.19	.0024	-26.29	175.25
EXTM 42	2722.65	2733.90	9	18	22.5	359.95	.0042	-26.05	.0000	316632.2	1.20	80.83	.0000	.28	-.0217	-26.23	149.03
RISE 51	2853.37	2864.62	9	20	33.3	270.00	.0041	-25.74	-.0000	330964.0	.80	10.87	.0034	113.48	-.0015	-26.17	116.58
RISE 72	3006.68	3017.93	9	23	6.6	266.13	.0042	-25.93	-.0000	342936.1	.73	-.00	.0037	116.20	-.0005	-26.09	78.37
RISE 61	3081.78	3093.03	10	0	21.7	295.32	.0042	-26.81	-.0000	348055.9	.85	.00	.0026	126.22	.0027	-26.05	59.63
SET 42	3140.79	3152.04	10	1	20.7	105.00	.0041	-25.39	.0000	351702.3	1.49	3.22	-.0030	240.93	-.0023	-26.02	44.89
EXTM 51	3204.51	3215.76	10	2	24.4	358.69	.0042	-25.99	.0000	350054.5	1.12	88.79	.0037	102.45	.0369	-25.99	28.97
EXTM 61	3338.27	3349.52	10	4	38.2	.21	.0042	-26.84	.0000	362936.3	1.13	22.92	-.0000	180.21	.0041	-25.92	355.54
EXTM 72	3378.09	3389.34	10	5	18.0	.09	.0043	-26.21	.0000	362103.5	1.14	71.69	-.0000	180.27	.0119	-25.90	345.58
RISE 11	3513.15	3524.30	10	7	33.0	290.55	.0042	-26.45	-.0000	377437.7	.87	.00	.0029	123.04	.0024	-25.83	311.78
SET 51	3565.32	3576.57	10	8	25.2	90.00	.0042	-25.42	.0000	380063.8	1.64	10.74	-.0035	246.82	-.0015	-25.79	298.64
SET 61	3594.07	3605.32	10	8	54.0	65.08	.0042	-26.46	.0000	383484.9	1.64	.01	-.0026	234.28	.0028	-25.77	291.40
IMPACT	3635.20	3646.45	10	9	35.1												
IMPC 72	3635.20	3646.45	10	9	35.1	65.68	.0043	-25.78	.0001	384573.1	2.43	25.29	-.0039	245.17	.0003	-25.72	280.94
IMPC 51	3635.20	3646.45	10	9	35.1	107.65	.0043	-25.24	.0001	387682.1	2.42	-3.54	-.0034	239.72	-.0019	-25.72	280.94
IMPC 11	3635.20	3646.45	10	9	35.1	321.68	.0044	-26.48	.0000	385275.1	1.82	18.47	.0021	144.19	.0035	-25.72	280.94

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	7	20	49.900	6546.454	22.3055	307.0078	10.99091	.9427	108.6796	97.6660
SEPARATION	1.20	12.45	7	21	1.100	6583.059	19.9520	313.6555	10.95995	4.3622	111.1865	104.6145
RETRO	3.20	14.45	7	21	3.100	6745.795	15.6012	323.9659	10.82586	9.9025	114.4987	115.4263
ENTER SHA	10.40	21.65	7	21	10.300	8162.781	.3923	351.9948	9.83283	26.3223	118.7811	145.2600
EXIT SHA	50.56	61.81	7	21	50.459	20774.676	-24.2349	37.6636	6.11483	55.5102	106.0231	200.9964
IMPACT	3635.20	3646.45	10	9	35.103	38734.629	-25.7215	280.9393	2.21813	67.1702	284.0079	262.8858

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SURVEYOR VIEW PERIODS

GHA	197.7777					EPS	63.5211							LOM	276.3137
SX	-.111701	SY	-.894049	SZ	-.433819	DAO	-25.71119	RAO	262.87847	RM	388644.141	LAT	28.310600	LON	279.461800
C3	-.980488	ECC	.983901	SLR	12983.977	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.090449	NSY	-.895209	NSZ	-.436372	C3M	1.4971	VIM	2.6714	ZAE	139.548	B.T	.0000	B.R	-.0000
LATE	3.1427	LONE	6.3720	LATS	-.8943	LONS	303.0854	LATI	-4.6317	LONI	326.6399	RSM	150.0653	TTAN	6.6018
LAUNCH DATE		APR	7.1966		BASE AZM	99.0		TF	60.625			ARRIVAL DATE		APR 10 1966	9 53 31.4

LNCH AZMTH	LNCH TIME			PR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME			INJ RAD	INJ VEL	INJ PTH
99.00	21	1	3.5	28.1	21.15	306.62	4.55	100.39	110.80	21	12	18.5	6554.9	10.98	2.26

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	FLE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	7	21	12.3												
SEPARATION	1.20	12.45	7	21	13.5												
RETRO	3.20	14.45	7	21	15.5												
RISE 72	4.64	15.89	7	21	17.0	31.08	-.2027	48.18	.0377	2906.4	-7.29	-.01	.1245	318.79	.0648	10.59	329.53
ENTER SHA	10.15	21.40	7	21	22.5												
ENTR 72	10.15	21.40	7	21	22.5	344.83	-.1768	20.93	-.1671	2088.2	3.73	57.54	.0666	27.09	.4199	-.91	349.23
ENTR 61	10.15	21.40	7	21	22.5	15.78	-.1277	-51.07	-.0030	5458.0	5.37	-2.35	.0137	189.85	-.0792	-.91	349.23
EXTM 72	10.92	22.17	7	21	21.2	337.63	-.1365	13.75	-.1423	2290.5	4.94	58.98	-.0000	45.84	.3774	-2.26	351.44
RISE 51	11.14	22.39	7	21	23.4	76.93	-.0904	25.14	-.0352	5599.1	-2.91	.00	.0887	298.14	.0084	-2.64	352.06
EXTM 51	39.09	50.34	7	21	51.4	357.36	-.0150	-21.39	-.0076	11011.6	5.27	85.02	-.0000	29.62	.1831	-22.99	29.38
EXIT SHA	48.47	59.72	7	22	.8												
EXIT 72	48.47	59.72	7	22	.8	293.39	-.0025	-27.20	-.0020	16800.6	5.50	24.37	-.0023	116.34	.0020	-24.95	33.90
EXIT 51	48.47	59.72	7	22	.8	350.98	-.0084	-24.50	-.0040	13952.4	5.15	81.74	-.0068	83.33	.0371	-24.95	33.90
EXIT 61	48.47	59.72	7	22	.8	310.20	-.0045	-40.43	.0018	19537.6	5.40	-2.51	-.0005	144.41	-.0039	-24.95	33.90
EXTM 72	68.72	79.97	7	22	21.0	292.15	.0001	-28.79	-.0009	23025.9	4.80	23.17	.0000	118.00	.0010	-27.16	38.98
RISE 61	114.94	126.19	7	23	7.3	309.22	.0018	-36.77	.0005	37689.0	3.96	-.00	.0013	141.64	.0009	-28.85	40.07
EXTM 51	212.15	223.40	8	0	44.5	.06	.0032	-29.76	.0000	53053.8	3.31	85.98	-.0000	180.76	.0371	-29.33	27.63
EXTM 61	389.63	400.88	8	3	41.9	3.67	.0038	-32.81	.0002	88825.1	2.68	16.87	.0000	183.22	.0034	-28.97	352.30
EXTM 72	422.37	433.62	8	4	14.7	.56	.0040	-30.34	.0001	90134.6	2.60	67.56	-.0000	181.27	.0090	-28.89	345.15
RISE 11	594.96	606.21	8	7	7.3	294.59	.0040	-30.53	-.0000	121090.8	2.01	.00	.0026	128.44	.0023	-28.49	306.02
SET 51	617.88	629.13	8	7	30.2	90.00	.0038	-27.34	.0001	122956.3	2.60	11.50	-.0032	245.03	-.0013	-28.44	300.70
SET 61	629.61	640.86	8	7	41.9	59.96	.0039	-30.61	.0001	125805.9	2.48	-.00	-.0021	228.17	.0026	-28.41	297.96
SET 72	814.98	826.23	8	10	47.3	94.19	.0039	-27.71	.0001	149511.7	2.41	-.00	-.0034	242.00	-.0004	-28.06	254.22
RISE 42	825.03	836.28	8	10	57.3	254.99	.0040	-26.59	-.0001	150294.6	1.71	3.95	.0028	120.02	-.0021	-28.05	251.82
EXTM 11	865.36	876.61	8	11	37.7	1.00	.0041	-30.11	.0001	152939.9	1.98	24.67	-.0000	180.95	.0039	-27.98	242.19
SET 11	1132.55	1143.80	8	16	4.9	67.08	.0041	-28.90	.0001	185640.2	2.07	-.00	-.0026	233.74	.0024	-27.60	177.74
EXTM 42	1250.59	1261.84	8	18	2.9	359.95	.0042	-27.19	.0000	191772.6	1.71	81.97	.0000	.36	-.0253	-27.45	149.03
RISE 51	1386.12	1397.37	8	20	18.4	270.00	.0041	-26.64	-.0000	210327.5	1.27	11.22	.0034	114.32	-.0014	-27.30	118.94
RISE 72	1541.28	1552.53	8	22	53.6	265.95	.0041	-26.90	-.0000	226439.0	1.16	-.01	.0036	117.18	-.0005	-27.14	77.92
RISE 61	1624.20	1635.45	9	0	16.5	297.00	.0041	-28.21	-.0000	234120.8	1.25	.00	.0025	128.26	.0027	-27.06	57.56
SET 42	1673.96	1685.21	9	1	6.3	105.00	.0041	-26.09	.0000	238242.5	1.83	3.65	-.0029	240.37	-.0022	-27.02	45.33
EXTM 51	1742.86	1753.25	9	2	14.3	359.07	.0042	-26.99	.0000	238453.6	1.47	88.50	.0021	146.48	.1184	-26.96	28.99
EXTM 61	1876.88	1888.13	9	4	29.2	.40	.0042	-28.17	.0000	254189.5	1.43	21.59	.0000	180.38	.0040	-26.85	355.36
EXTM 72	1916.65	1927.90	9	5	9.0	.12	.0042	-27.28	.0000	253974.8	1.42	70.62	-.0000	180.33	.0112	-26.81	345.85
RISE 11	2059.15	2070.40	9	7	31.5	291.63	.0042	-27.59	-.0000	271845.8	1.06	.00	.0028	124.52	.0024	-26.71	310.66
SET 51	2105.11	2116.36	9	8	17.4	90.00	.0041	-26.16	.0000	274392.2	1.73	11.04	-.0034	246.13	-.0014	-26.67	299.02
SET 61	2129.32	2140.57	9	8	41.6	63.72	.0042	-27.62	.0000	277577.6	1.63	-.00	-.0025	232.61	.0027	-26.66	293.04
SET 72	2290.72	2301.97	9	11	23.0	93.95	.0041	-26.36	-.0000	290433.3	1.71	-.00	-.0036	243.37	-.0005	-26.55	253.12
RISE 42	2291.70	2302.95	9	11	24.0	255.00	.0041	-25.78	-.0000	290125.4	.98	3.47	.0029	119.38	-.0023	-26.55	252.87
EXTM 11	2332.04	2343.29	9	12	4.4	.27	.0042	-27.63	.0000	290760.8	1.29	27.17	-.0000	180.27	.0042	-26.52	242.89
SET 11	2604.76	2616.01	9	16	37.1	68.82	.0042	-27.11	.0000	314263.6	1.54	-.00	-.0028	236.10	.0024	-26.35	175.31
EXTM 42	2710.84	2722.09	9	18	23.1	359.98	.0042	-26.11	.0000	315762.1	1.20	80.89	-.0000	.19	-.0165	-26.29	149.00
RISE 51	2841.48	2852.73	9	20	33.8	270.00	.0041	-25.80	-.0000	330102.9	.80	10.89	.0034	113.53	-.0015	-26.22	116.58
RISE 72	2994.77	3006.02	9	23	7.1	266.12	.0042	-25.98	-.0000	342083.4	.73	-.00	.0037	116.24	-.0005	-26.13	78.38
RISE 61	3070.11	3081.36	10	0	22.4	295.37	.0042	-26.86	-.0000	347218.5	.85	.00	.0026	126.29	.0027	-26.09	59.57
SET 42	3128.89	3140.14	10	1	21.2	105.00	.0041	-25.43	.0000	350844.6	1.46	3.25	-.0030	240.90	-.0023	-26.06	44.89
EXTM 51	3192.53	3203.78	10	2	24.8	358.66	.0042	-26.03	.0000	349190.4	1.12	88.76	.0037	104.05	.0407	-26.03	29.00
EXTM 61	3326.45	3337.70	10	4	38.8	.22	.0042	-26.88	.0000	362072.9	1.13	22.88	-.0000	180.22	.0041	-25.96	355.53
EXTM 72	3366.24	3377.49	10	5	18.6	.09	.0043	-26.25	.0000	361228.9	1.13	71.65	-.0000	180.27	.0119	-25.94	345.58
RISE 11	3501.36	3512.61	10	7	33.7	290.58	.0042	-26.48	-.0000	376519.5	.86	.00	.0029	123.08	.0024	-25.86	311.74
SET 51	3553.53	3564.78	10	8	25.8	90.00	.0042	-25.45	.0000	379079.3	1.61	10.76	-.0035	246.80	-.0015	-25.82	298.65
SET 61	3582.16	3593.41	10	8	54.5	65.04	.0042	-26.49	.0000	382426.2	1.59	.01	-.0026	234.24	.0028	-25.80	291.44
IMPACT	3637.50	3648.75	10	9	49.8												
IMPC 72	3637.50	3648.75	10	9	49.8	69.24	.0043	-25.77	.0001	384957.0	2.44	22.08	-.0039	245.33	.0002	-25.74	277.40
IMPC 11	3637.50	3648.75	10	9	49.8	325.27	.0044	-26.51	.0000	385164.4	1.84	20.09	.0020	147.12	.0036	-25.74	277.40

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	7	21	12.308	6554.972	21.1491	306.6280	10.98364	2.2582	110.8044	100.3967
SEPARATION	1.20	12.45	7	21	13.508	6609.464	18.5837	313.0857	10.93779	5.6593	113.1041	107.1582
RETRO	3.20	14.45	7	21	15.508	6800.246	13.9800	323.0402	10.78199	11.1325	116.0454	117.6111
ENTER SHA	10.15	21.40	7	21	22.454	8217.069	-.9149	349.2320	9.79989	26.6990	119.3145	145.5442
EXIT SHA	48.47	59.72	7	22	.779	20282.505	-24.9490	33.8983	6.19069	55.0441	105.9370	199.8182
IMPACT	3637.50	3648.75	10	9	49.806	387399.746	-25.7389	277.3978	2.21700	67.0966	285.2543	263.0300

APR 7, 1966
99 DEGREES

SURVEYOR VIEW PERIODS

GHA	197.7777					EPS	63.6452						LOM	272.6711	
SX	-.109471	SY	-.894205	SZ	-.434092	DAO	-25.72752	RAO	263.02670	RM	388703.777	LAT	28.310600	LON	279.461800
C3	-.985267	ECC	.985823	SLR	12983.461	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.089671	NSY	-.895315	NSZ	-.436640	C3M	1.4970	VIM	2.6714	ZAE	139.382	B.T	.0000	B.R	-.0000
LATE	3.1567	LONE	6.5862	LATS	-.8941	LONS	302.9567	LATI	-4.8906	LONI	326.5166	RSM	150.0650	TTAN	6.6041
LAUNCH DATE		APR	7,1966		BASE AZM	102.0		TF	60.712			ARRIVAL DATE		APR 10 1966 10 8 38.7	

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	21 1[illegible] 42.5	28.1	20.02	306.16	6.58	102.35	112.91	21 21 57.3	6566.1	1[illegible].97	3.26

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	7	21	22.0												
SEPARATION	1.20	12.45	7	21	23.2												
RETRO	3.20	14.45	7	21	25.2												
RISE 72	4.46	15.71	7	21	26.4	82.60	-.1802	42.44	.0180	2970.2	-7.46	.00	.1264	313.35	.0424	9.34	327.55
ENTER SHA	10.15	21.40	7	21	32.1												
ENTR 72	10.15	21.40	7	21	32.1	352.87	-.1853	13.49	-.1548	2053.7	3.70	67.46	.0887	18.36	.5748	-2.74	347.38
ENTR 51	10.15	21.40	7	21	32.1	83.74	-.0842	23.49	-.0339	5900.1	-3.33	-4.85	.0841	294.00	.0034	-2.74	347.38
ENTR 61	10.15	21.40	7	21	32.1	19.82	-.1223	-51.71	-.0060	5749.8	5.30	-3.55	.0139	192.16	-.0749	-2.74	347.38
EXTM 72	10.81	22.06	7	21	32.8	346.19	-.1524	7.75	-.1342	2222.8	4.77	69.15	-.0000	41.66	.5677	-3.90	349.23
RISE 51	11.10	22.35	7	21	33.1	78.96	-.0845	21.47	-.0377	5728.3	-2.74	.00	.0870	294.20	.0034	-4.38	349.99
EXTM 51	41.27	52.52	7	22	3.2	359.31	-.0137	-24.44	-.0059	11793.8	5.22	88.56	.0000	25.80	.5473	-24.90	28.13
EXIT SHA	45.53	56.78	7	22	7.5												
EXIT 72	45.53	56.78	7	22	7.5	296.70	-.0033	-28.34	-.0018	15733.6	5.62	27.14	-.0031	118.43	.0017	-25.75	30.21
EXIT 51	45.53	56.78	7	22	7.5	356.24	-.0106	-25.74	-.0044	13120.1	5.17	86.61	-.0094	90.87	.0763	-25.75	30.21
EXIT 61	45.53	56.78	7	22	7.5	314.05	-.0058	-42.32	.0022	18689.6	5.48	-2.43	-.0005	147.86	-.0048	-25.75	30.21
EXTM 72	69.98	81.23	7	22	31.9	294.75	.0001	-30.44	-.0006	23293.5	4.76	25.29	.0000	120.00	.0007	-28.40	36.76
RISE 61	110.87	122.12	7	23	12.8	311.32	.0016	-37.96	.0006	36766.7	4.01	-.00	.0012	143.69	.0007	-29.73	37.96
EXTM 51	199.10	210.25	8	0	41.0	.14	.0031	-30.59	.0001	50486.0	3.38	85.15	-.0000	181.40	.0309	-30.04	27.56
EXTM 61	381.37	392.62	8	3	43.3	4.15	.0038	-33.40	.0002	87599.5	2.70	16.26	.0000	183.61	.0033	-29.49	351.86
EXTM 72	412.76	424.01	8	4	14.7	.69	.0040	-30.90	.0001	88692.5	2.62	67.00	-.0000	181.51	.0087	-29.39	345.04
RISE 11	587.38	598.63	8	7	9.3	295.04	.0040	-30.65	.0000	120073.7	2.02	.00	.0025	129.01	.0023	-28.88	305.55
SET 51	608.12	619.37	8	7	30.1	90.00	.0038	-27.72	.0001	121638.5	2.61	11.66	-.0031	244.67	-.0013	-28.83	300.74
SET 61	617.47	628.72	8	7	39.4	59.39	.0039	-31.04	.0001	124190.9	2.49	-.00	-.0021	227.51	.0026	-28.81	298.57
SET 72	805.75	817.00	8	10	47.7	94.24	.0039	-28.03	.0001	148395.2	2.42	-.01	-.0034	241.68	-.0004	-28.39	254.19
RISE 42	816.78	827.03	8	10	57.7	254.99	.0040	-26.90	-.0000	149159.2	1.72	4.14	.0028	120.27	-.0021	-28.37	251.80
EXTM 11	856.46	867.71	8	11	38.4	1.11	.0041	-30.44	.0001	151917.6	1.99	24.35	-.0000	181.05	.0039	-28.29	242.09
SET 11	1122.23	1133.48	8	16	4.2	66.82	.0041	-29.16	.0001	184524.0	2.08	-.00	-.0026	233.40	.0024	-27.84	178.01
EXTM 42	1241.47	1252.72	8	18	3.4	359.96	.0042	-27.42	.0000	190811.7	1.71	82.20	-.0000	.27	-.0246	-27.67	149.02
RISE 51	1377.00	1388.25	8	20	19.0	270.00	.0041	-26.84	-.0000	209390.3	1.27	11.30	.0034	114.50	-.0014	-27.50	115.93
RISE 72	1532.05	1543.30	8	22	54.0	265.92	.0041	-27.08	-.0000	225527.5	1.16	-.01	.0036	117.36	-.0005	-27.32	77.95
RISE 61	1615.93	1627.18	9	0	17.9	297.21	.0041	-28.38	-.0000	233310.4	1.25	.00	.0025	128.51	.0027	-27.23	57.35
SET 42	1664.79	1676.04	9	1	6.7	105.00	.0041	-26.25	.0000	237346.7	1.83	3.75	-.0029	240.25	-.0022	-27.18	45.34
EXTM 51	1732.10	1743.35	9	2	14.1	358.68	.0042	-27.15	.0000	237513.6	1.47	88.27	.0022	144.68	.1003	-27.11	28.78
EXTM 61	1867.89	1879.14	9	4	29.8	.43	.0042	-28.31	.0000	253358.9	1.43	21.45	.0000	180.41	.0040	-26.98	355.33
EXTM 72	1907.56	1918.81	9	5	9.5	.13	.0042	-27.42	.0000	253130.4	1.42	70.48	-.0000	180.35	.0111	-26.95	345.54
RISE 11	2050.52	2061.77	9	7	32.5	291.75	.0042	-27.71	-.0000	271047.4	1.06	.00	.0028	124.69	.0024	-26.83	310.25
SET 51	2095.96	2107.21	9	8	17.9	90.00	.0041	-26.28	.0000	273549.9	1.73	11.08	-.0034	246.02	-.0014	-26.79	299.02
SET 61	2119.61	2130.86	9	8	41.6	63.58	.0042	-27.74	.0000	276696.2	1.63	-.00	-.0025	232.43	.0027	-26.77	293.18
SET 72	2281.64	2292.89	9	11	23.6	93.96	.0041	-26.46	.0001	289614.7	1.71	-.00	-.0036	243.27	-.0005	-26.65	253.10
RISE 42	2282.59	2293.84	9	11	24.5	255.00	.0041	-25.88	-.0000	289297.7	.98	3.53	.0029	119.46	-.0022	-26.65	252.87
EXTM 11	2323.01	2334.26	9	12	5.0	.29	.0042	-27.73	.0000	289958.0	1.29	27.06	-.0000	180.29	.0042	-26.62	242.86
SET 11	2595.31	2606.56	9	16	47.3	68.75	.0042	-27.19	.0000	313432.7	1.54	-.00	-.0028	236.00	.0024	-26.43	175.39
EXTM 42	2701.70	2712.95	9	18	23.7	359.97	.0042	-26.19	.0000	314956.4	1.20	80.97	-.0000	.18	-.0196	-26.36	149.01
RISE 51	2832.37	2843.62	9	20	34.3	270.00	.0041	-25.86	-.0000	329300.3	.80	10.92	.0034	113.59	-.0015	-26.28	116.58
RISE 72	2985.74	2996.99	9	23	7.7	266.11	.0042	-26.03	-.0000	341303.7	.73	-.00	.0037	116.30	-.0005	-26.19	78.38
RISE 61	3061.36	3072.61	10	0	23.3	295.44	.0042	-26.91	-.0000	346449.8	.85	.00	.0026	126.36	.0027	-26.14	59.51
SET 42	3119.87	3131.12	10	1	21.8	105.00	.0041	-25.48	.0000	350047.3	1.46	3.28	-.0030	240.06	-.0023	-26.11	44.90
EXTM 51	3183.00	3194.25	10	2	25.0	358.53	.0042	-26.08	.0000	348354.9	1.12	88.64	.0037	104.84	.0389	-26.07	29.12
EXTM 61	3317.46	3328.71	10	4	39.4	.24	.0042	-26.92	.0000	361253.0	1.13	22.84	-.0000	180.23	.0041	-26.00	355.52
EXTM 72	3357.22	3368.47	10	5	19.2	.10	.0043	-26.29	.0000	360393.5	1.13	71.62	-.0000	180.28	.0118	-25.97	345.58
RISE 11	3492.47	3503.72	10	7	34.4	290.62	.0042	-26.52	-.0000	375631.1	.85	.00	.0029	123.13	.0024	-25.89	311.71
SET 51	3544.51	3555.76	10	8	26.5	90.00	.0042	-25.48	.0000	378127.4	1.59	10.77	-.0035	246.77	-.0015	-25.86	298.65
SET 61	3573.05	3584.30	10	8	55.0	65.02	.0042	-26.53	.0000	381417.1	1.54	-.00	-.0026	234.19	.0028	-25.83	291.47
IMPACT	3642.70	3653.95	10	10	4.7												
IMPC 72	3642.70	3653.95	10	10	4.7	72.84	.0043	-25.76	.0001	385356.2	2.44	18.84	-.0039	245.40	.0001	-25.76	273.82
IMPC 11	3642.70	3653.95	10	10	4.7	328.89	.0044	-26.54	.0000	385071.3	1.85	21.61	.0018	150.18	.0037	-25.76	273.82

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	7	21	21.955	6566.277	20.0149	306.1787	10.97406	3.2609	112.9116	102.3687
SEPARATION	1.20	12.45	7	21	23.155	6634.182	17.2474	312.4414	10.91701	6.6434	115.0115	108.9292
RETRO	3.20	14.45	7	21	25.155	6845.910	12.3931	322.0657	10.74545	12.0587	117.6101	119.0549
ENTER SHA	10.15	21.40	7	21	32.108	8312.492	-2.7435	347.3824	9.74266	27.3403	119.9494	146.1146
EXIT SHA	45.53	56.78	7	22	7.481	19488.062	-25.7520	30.2145	6.31840	54.2508	106.0734	197.8145
IMPACT	3642.70	3653.95	10	10	4.657	387463.023	-25.7566	273.8211	2.21403	66.8132	285.5883	263.1763

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SURVEYOR VIEW PERIODS

GHA	197.7777					EPS	63.7592							LOM	269.3267
SX	-.107233	SY	-.894343	SZ	-.434340	DAO	-25.74430	RAO	263.16279	RM	388758.480	LAT	28.310600	LON	279.461800
C3	-.991434	ECC	.983722	SLR	12982.797	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.085869	NSY	-.895408	NSZ	-.436888	C3M	1.4968	VIM	2.6713	ZAE	139.172	B.T	.0000	B.R	-.0000
LATE	3.1695	LONE	6.4901	LATS	-.8939	LONS	302.9663	LATI	-5.1896	LONI	326.4849	RSM	150.0648	TTAN	6.6055
LAUNCH DATE		APR	7.1966		BASE AZM	105.0		TF	60.818			ARRIVAL DATE		APR 10 1966 10 22 31.8	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	21 18 14.2	28.1	18.91	305.65	8.12	103.72	115.00	21 29 29.2	6577.4	10.96	4.03

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
					PRORE IN SUNLIGHT												
INJECTION	.00	11.25	7	21	29.5												
SEPARATION	1.20	12.45	7	21	30.7												
RETRO	3.20	14.45	7	21	32.7												
RISE 72	4.33	15.58	7	21	33.8	83.79	-.1637	37.92	-.0006	3025.6	-7.53	.00	.1273	308.35	.0219	8.00	325.83
ENTER SHA	10.43	21.68	7	21	39.9												
ENTR 72	10.43	21.68	7	21	39.9	357.17	-.1776	3.40	-.1346	2115.6	4.13	78.35	.0877	14.12	1.0127	-5.10	346.38
ENTR 51	10.43	21.68	7	21	39.9	83.97	-.0795	19.83	-.0379	5946.4	-2.99	-3.34	.0838	290.43	-.0010	-5.10	346.38
ENTR 61	10.43	21.68	7	21	39.9	21.68	-.1147	-52.64	-.0071	6122.4	5.36	-4.76	.0129	193.00	-.0690	-5.10	346.38
EXTM 72	10.79	22.04	7	21	40.3	353.48	-.1617	.60	-.1232	2211.7	4.68	79.30	.0000	37.71	1.0946	-5.73	347.36
RISE 51	11.09	22.34	7	21	40.6	80.83	-.0796	18.29	-.0402	5836.7	-2.58	.00	.0856	290.39	-.0012	-6.22	348.14
EXIT SHA	42.91	54.16	7	22	12.4												
EXIT 72	42.91	54.16	7	22	12.4	299.62	-.0044	-30.82	-.0016	14790.1	5.74	29.40	-.0039	121.03	.0011	-26.78	26.91
EXIT 51	42.91	54.16	7	22	12.4	1.18	-.0130	-27.31	-.0048	12389.6	5.17	88.10	.0025	213.55	-.3689	-26.78	26.91
EXIT 61	42.91	54.16	7	22	12.4	317.54	-.0071	-44.39	.0026	17966.5	5.54	-2.84	-.0004	151.12	-.0057	-26.78	26.91
EXTM 51	43.43	54.68	7	22	12.9	.78	-.0126	-27.46	-.0046	12551.1	5.17	88.14	-.0000	201.90	-.3719	-26.88	27.17
EXTM 72	70.99	82.24	7	22	40.5	296.79	.0001	-32.19	-.0004	23521.9	4.74	26.81	.0000	122.17	.0004	-29.77	34.96
EXTM 51	94.33	105.58	7	23	3.8	349.02	.0002	-31.41	-.0003	26958.3	4.28	78.73	.0000	123.94	.0015	-30.57	36.47
RISE 61	112.33	123.58	7	23	21.8	313.42	.0016	-39.09	.0007	37193.8	3.98	-.00	.0013	145.68	.0007	-30.83	36.07
EXTM 51	188.88	200.13	8	0	38.4	.28	.0029	-31.58	.0001	48472.7	3.44	84.15	.0000	182.33	.0245	-30.90	27.44
EXTM 61	375.76	387.01	8	3	45.2	4.67	.0038	-34.05	.0002	86787.1	2.72	15.59	.0000	184.01	.0033	-30.09	351.38
EXTM 72	405.76	417.01	8	4	15.2	.86	.0039	-31.54	.0001	87641.2	2.64	66.35	-.0000	181.82	.0084	-29.97	344.88
RISE 11	582.35	593.60	8	7	11.8	295.55	.0040	-31.43	.0000	119387.5	2.03	.00	.0025	129.66	.0023	-29.34	305.02
SET 51	606.68	611.93	8	7	30.2	90.00	.0038	-28.17	.0001	120610.8	2.62	11.83	-.0031	244.25	-.0012	-29.28	300.78
SET 61	607.26	618.51	8	7	36.7	58.72	.0039	-31.53	.0002	122810.1	2.50	-.00	-.0021	226.76	.0026	-29.26	299.25
SET 72	798.80	810.05	8	10	48.3	94.31	.0039	-28.39	.0001	147535.4	2.42	-.01	-.0034	241.31	-.0004	-28.75	254.15
RISE 42	808.75	820.00	8	10	58.2	254.99	.0040	-27.25	-.0000	148268.9	1.72	4.36	.0028	120.55	-.0021	-28.73	251.78
EXTM 11	849.83	861.08	8	11	39.3	1.22	.0041	-30.80	.0001	151149.3	1.99	23.98	.0000	181.15	.0039	-28.63	241.97
SET 11	1113.96	1125.21	8	16	3.5	66.53	.0041	-29.44	.0001	183601.3	2.08	-.00	-.0026	233.01	.0024	-28.12	178.31
EXTM 42	1234.36	1245.61	8	18	3.8	359.94	.0042	-27.68	.0000	190030.4	1.71	82.46	.0000	.43	-.0267	-27.92	149.04
RISE 51	1370.03	1381.28	8	20	19.5	270.00	.0041	-27.06	-.0000	208635.4	1.28	11.39	.0034	114.71	-.0014	-27.72	115.92
RISE 72	1524.94	1536.19	8	22	54.4	265.89	.0041	-27.28	-.0000	224784.9	1.17	-.01	.0036	117.56	-.0005	-27.52	77.97
RISE 61	1609.89	1621.14	9	0	19.4	297.44	.0041	-28.57	-.0000	232673.7	1.26	.00	.0025	128.79	.0027	-27.41	57.11
SET 42	1657.76	1669.01	9	1	7.2	105.00	.0041	-26.42	.0001	236610.2	1.83	3.86	-.0029	240.11	-.0022	-27.36	45.35
EXTM 51	1724.15	1735.40	9	2	13.6	358.64	.0042	-27.32	.0000	236713.0	1.47	88.00	.0023	142.72	.0844	-27.28	29.01
EXTM 61	1861.04	1872.29	9	4	30.5	.47	.0042	-28.47	.0000	252677.8	1.43	21.29	.0000	180.45	.0040	-27.14	359.29
EXTM 72	1900.60	1911.85	9	5	10.1	.14	.0042	-27.57	.0000	252430.6	1.42	70.33	-.0000	180.38	.0110	-27.10	345.53
RISE 11	2044.06	2055.31	9	7	33.5	291.89	.0042	-27.95	-.0000	270387.7	1.06	.00	.0028	124.87	.0024	-26.96	310.12
SET 51	2088.93	2100.18	9	8	18.4	90.00	.0041	-26.41	.0001	272838.5	1.73	11.13	-.0034	245.90	-.0014	-26.92	299.03
SET 61	2111.94	2123.19	9	8	41.4	63.42	.0042	-27.87	.0000	275939.5	1.63	-.00	-.0025	232.24	.0027	-26.90	293.34
SET 72	2274.68	2285.93	9	11	24.2	93.98	.0041	-26.57	.0001	288917.1	1.71	-.00	-.0036	243.15	-.0005	-26.76	253.09
RISE 42	2275.59	2286.84	9	11	25.1	255.00	.0041	-25.99	-.0000	288589.2	.98	3.59	.0029	119.55	-.0022	-26.76	252.86
EXTM 11	2316.10	2327.35	9	12	5.6	.32	.0042	-27.84	.0000	289274.9	1.29	26.95	-.0000	180.32	.0042	-26.72	242.84
SET 11	2587.89	2599.14	9	16	37.4	68.65	.0042	-27.28	.0000	312698.2	1.54	.01	-.0028	235.88	.0024	-26.52	175.49
EXTM 42	2694.66	2705.91	9	18	24.1	359.97	.0042	-26.26	.0000	314247.2	1.20	81.04	-.0000	.20	-.0200	-26.44	149.01
RISE 51	2825.34	2836.59	9	20	34.8	270.00	.0041	-25.92	-.0000	328587.1	.80	10.94	.0034	113.65	-.0015	-26.35	116.57
RISE 72	2978.68	2989.93	9	23	8.2	266.10	.0042	-26.09	-.0000	340580.8	.73	-.00	.0037	116.36	-.0005	-26.25	78.39
RISE 61	3054.59	3065.84	10	0	24.1	295.50	.0042	-26.97	-.0000	345737.2	.85	.00	.0026	126.44	.0027	-26.20	59.44
SET 42	3112.82	3124.07	10	1	22.3	105.00	.0041	-25.53	.0000	349304.4	1.46	3.31	-.0030	240.82	-.0023	-26.16	44.90
EXTM 51	3175.88	3187.13	10	2	25.4	358.51	.0042	-26.13	.0000	347600.1	1.11	88.61	.0037	106.56	.0425	-26.12	29.15
EXTM 61	3310.50	3321.75	10	4	40.0	.25	.0042	-26.97	.0000	360487.1	1.12	22.80	.0000	180.24	.0041	-26.04	355.51
EXTM 72	3350.22	3361.47	10	5	19.7	.10	.0043	-26.33	.0000	359612.0	1.12	71.57	-.0000	180.29	.0118	-26.01	345.57
RISE 11	3485.63	3496.88	10	7	35.1	290.65	.0042	-26.55	-.0000	374804.1	.84	.00	.0029	123.17	.0024	-25.92	311.67
SET 51	3537.54	3548.79	10	8	27.0	90.00	.0042	-25.51	.0000	377247.8	1.57	10.78	-.0035	246.74	-.0015	-25.89	298.65
SET 61	3565.95	3577.20	10	8	55.4	64.98	.0042	-26.56	.0000	380490.5	1.51	-.00	-.0026	234.15	.0027	-25.87	291.51
IMPACT	3649.08	3660.33	10	10	18.6												
IMPC 72	3649.08	3660.33	10	10	18.6	76.21	.0043	-25.76	.0001	385734.1	2.45	15.81	-.0039	245.38	-.0000	-25.77	270.47
IMPC 11	3649.08	3660.33	10	10	18.6	332.28	.0044	-26.56	.0000	384996.2	1.86	22.90	.0016	153.15	.0039	-25.77	270.47

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	A/	RT ASC
INJECTION	.00	11.25	7	21	29.487	6577.842	18.9017	305.6746	10.96423	4.0286	115.0082	103.7497
SEPARATION	1.20	12.45	7	21	30.687	6655.800	15.9391	311.7429	10.89884	7.3939	116.9182	110.1189
RETRO	3.20	14.45	7	21	32.687	6883.298	10.8336	321.0601	10.71569	12.7614	119.1989	119.9375
ENTER SHA	10.43	21.68	7	21	39.917	8461.045	-5.0960	346.3797	9.65553	28.2912	120.5962	147.0695
EXIT SHA	42.91	54.16	7	22	12.400	18762.844	-26.7801	26.9103	6.44183	53.4747	106.1819	195.7434
IMPACT	3649.08	3660.33	10	10	18.571	387520.188	-25.7731	270.4697	2.21137	66.6666	286.1076	263.3129

SURVEYOR VIEW PERIODS

GHA	197.7777					EPS	63.8653							LOM	266.2103
SX	-.1[illegible]	SY	-.894469	SZ	-.434549	DAO	-25.75788	RAO	263.28960	RM	388809.406	LAT	28.310600	LON	279.461800
C3	-.99848[illegible]	FCC	.9[illegible]	SLR	12982.042	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.[illegible]	NSY	-.895490	NSZ	-.437121	C3M	1.4969	VIM	2.6714	ZAE	138.927	B.T	.0000	B.R	-.0000
LATE	3.1815	LONE	6.3595	LATS	-.8938	LONS	302.7200	LATI	-5.5135	LONI	326.1701	RSM	150.0645	TTAN	6.6065
LAUNCH DATE	APR 7,1966			BASE AZM	108.0	TF	60.937					ARRIVAL DATE	APR 10 1966 10 35 28.0		

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	21 24 13.1	28.1	17.83	305.09	9.33	104.66	117.09	21 35 28.1	6587.9	10.96	4.63

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEI	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	7	21	35.5												
SEPARATION	1.20	12.45	7	21	36.7												
RETRO	3.20	14.45	7	21	38.7												
RISE 72	4.24	15.49	7	21	39.7	84.77	-.1507	33.28	-.0182	3076.5	-7.50	-.00	.1273	303.64	.0028	6.58	324.32
EXTM 72	10.44	21.69	7	21	45.9	3.82	-.1812	-4.36	-.1232	2150.9	4.07	84.80	.2161	312.79	.3735	-7.01	344.70
ENTER SHA	11.06	22.31	7	21	46.5												
ENTR 72	11.06	22.31	7	21	46.5	357.55	-.1580	-8.56	-.1040	2318.6	4.95	87.49	-.1778	105.34	1.3693	-8.08	346.32
ENTR 51	11.06	22.31	7	21	46.5	82.80	-.0752	15.09	-.0425	5939.0	-2.45	-.24	.0840	286.68	-.0054	-8.08	346.32
RISE 51	11.11	22.36	7	21	46.6	82.59	-.0752	14.97	-.0427	5932.2	-2.43	.00	.0841	286.67	-.0054	-8.16	346.44
EXIT SHA	39.40	50.65	7	22	14.9												
EXIT 72	39.40	50.65	7	22	14.9	302.68	-.0068	-32.99	-.0013	13536.0	5.91	31.57	-.0052	124.05	.0003	-27.72	23.18
EXIT 51	39.40	50.65	7	22	14.9	7.09	-.0168	-28.77	-.0057	11383.4	5.15	83.01	.0111	242.73	-.0921	-27.72	23.18
EXIT 61	39.40	50.65	7	22	14.9	321.43	-.0094	-46.53	.0032	16949.6	5.65	-3.60	-.0003	154.70	-.0072	-27.72	23.18
EXTM 51	45.75	57.00	7	22	21.2	1.77	-.0116	-30.46	-.0034	13341.6	5.11	85.03	-.0000	197.88	-.1215	-28.93	26.51
EXTM 72	71.81	83.06	7	22	47.3	298.39	.0000	-34.02	-.0002	23719.5	4.71	27.86	.0000	124.44	.0002	-31.23	33.50
EXTM 51	94.90	106.15	7	23	10.4	350.84	.0001	-33.22	-.0001	27148.6	4.27	79.07	.0000	135.33	.0006	-31.85	35.00
RISE 61	117.68	128.93	7	23	33.1	315.48	.0018	-40.12	.0007	38552.7	3.91	-.00	.0013	147.58	.0008	-32.04	34.36
EXTM 51	181.53	192.83	8	0	37.0	.54	.0028	-32.71	.0002	47005.9	3.48	83.02	-.0000	183.72	.0196	-31.87	27.22
EXTM 61	372.18	383.43	8	3	47.6	5.23	.0038	-44.75	.0002	86296.4	2.72	14.86	.0000	184.44	.0032	-30.75	350.86
EXTM 72	400.47	411.72	8	4	15.9	1.00	.0039	-32.23	.0001	86847.8	2.65	65.66	.0000	182.06	.0081	-30.61	344.75
RISE 11	579.23	590.48	8	7	14.7	296.10	.0040	-31.94	.0000	118953.1	2.03	.00	.0025	130.36	.0023	-29.83	304.46
SET 51	594.97	606.22	8	7	30.4	90.00	.0038	-28.86	.0001	119804.6	2.62	12.02	-.0031	243.78	-.0012	-29.78	300.81
SET 61	598.47	609.72	8	7	33.9	57.98	.0039	-32.07	.0002	121605.3	2.51	-.00	-.0020	225.93	.0026	-29.76	300.00
SET 72	793.55	804.80	8	10	49.0	94.38	.0039	-28.79	.0001	146869.7	2.43	-.01	-.0034	240.91	-.0004	-29.15	254.10
RISE 42	803.38	814.63	8	10	58.8	254.99	.0040	-27.54	-.0000	147564.2	1.73	4.60	.0028	120.86	-.0021	-29.12	251.76
EXTM 11	844.91	856.16	8	11	40.4	1.35	.0041	-31.20	.0001	150573.1	2.00	23.58	.0000	181.26	.0039	-29.01	241.85
SET 11	1107.21	1118.46	8	16	2.7	66.21	.0041	-29.76	.0001	182824.8	2.08	-.00	-.0026	232.60	.0024	-28.42	178.64
EXTM 42	1229.92	1240.17	8	18	4.4	359.93	.0042	-27.96	.0000	189403.8	1.71	82.74	.0000	.49	-.0283	-28.19	149.05
RISE 51	1364.66	1375.91	8	20	20.1	270.00	.0041	-27.30	-.0000	208018.4	1.28	11.49	.0034	114.94	-.0014	-27.96	115.91
RISE 72	1519.40	1530.65	8	22	54.9	265.85	.0041	-27.49	-.0000	224170.3	1.17	-.01	.0036	117.78	-.0005	-27.73	78.00
RISE 61	1605.52	1616.77	9	0	21.0	297.70	.0041	-28.78	-.0000	232168.5	1.26	.00	.0025	129.10	.0027	-27.61	56.86
SET 42	1652.31	1663.56	9	1	7.8	105.00	.0041	-26.62	.0001	235994.8	1.83	3.97	-.0029	239.96	-.0022	-27.55	45.35
EXTM 51	1718.32	1729.57	9	2	13.8	358.53	.0042	-27.61	.0000	236078.7	1.47	87.79	.0023	143.90	.0775	-27.47	29.11
EXTM 61	1855.77	1867.02	9	4	31.2	.52	.0042	-28.64	.0000	252110.8	1.43	21.12	.0000	180.49	.0039	-27.30	355.25
EXTM 72	1895.21	1906.46	9	5	10.7	.35	.0042	-27.74	.0000	251841.3	1.42	70.16	-.0000	180.41	.0109	-27.26	349.52
RISE 11	2039.20	2050.45	9	7	34.7	292.03	.0042	-27.99	-.0000	269834.2	1.06	.00	.0028	125.06	.0024	-27.10	309.97
SET 51	2083.46	2094.71	9	8	18.9	90.00	.0041	-26.55	.0001	272227.9	1.73	11.19	-.0034	245.77	-.0014	-27.06	299.03
SET 61	2115.79	2117.04	9	8	41.3	63.25	.0042	-28.01	.0001	275278.8	1.63	-.00	-.0025	232.03	.0027	-27.04	293.52
SET 72	2269.28	2280.53	9	11	24.8	94.00	.0041	-26.69	.0001	288313.0	1.71	-.00	-.0036	243.03	-.0005	-26.38	253.07
RISE 42	2270.14	2281.39	9	11	25.6	255.00	.0041	-26.11	-.0000	287973.0	.98	3.67	.0029	119.64	-.0022	-26.88	252.86
EXTM 11	2310.74	2321.99	9	12	6.2	.35	.0042	-27.96	.0000	288684.5	1.29	26.83	-.0000	180.35	.0042	-26.84	242.81
SET 11	2582.15	2593.30	9	16	17.5	68.57	.0042	-27.67	.0000	312047.4	1.54	.01	-.0028	235.75	.0024	-26.61	175.58
EXTM 42	2689.16	2700.41	9	18	24.6	359.97	.0042	-26.35	.0000	313614.3	1.20	81.13	-.0000	.20	-.0212	-26.52	149.01
RISE 51	2819.85	2831.10	9	20	35.3	270.00	.0041	-26.00	-.0000	327945.3	.80	10.97	.0034	113.71	-.0015	-26.42	116.57
RISE 72	2973.14	2984.39	9	23	8.6	264.09	.0042	-26.15	-.0000	339924.7	.73	-.00	.0037	116.42	-.0005	-26.31	78.40
RISE 61	3049.37	3060.62	10	0	24.8	295.57	.0042	-27.02	-.0000	345091.1	.64	.00	.0026	126.53	.0027	-26.26	59.37
SET 42	3107.31	3118.56	10	1	22.8	105.00	.0041	-25.58	.0000	348626.0	1.45	3.34	-.0030	240.78	-.0023	-26.22	44.90
EXTM 51	3170.53	3181.78	10	2	26.0	358.55	.0042	-26.18	.0000	346924.8	1.11	88.62	.0036	108.95	.0493	-26.17	29.11
EXTM 61	3305.07	3316.32	10	4	40.5	.27	.0042	-27.01	.0000	359783.9	1.12	22.75	-.0000	180.26	.0041	-26.08	355.49
EXTM 72	3344.75	3356.00	10	5	20.2	.11	.0043	-26.37	.0000	358892.8	1.12	71.53	-.0000	180.30	.0118	-26.05	349.57
RISE 11	3480.30	3491.55	10	7	35.9	290.68	.0042	-26.59	-.0000	374042.1	.83	.00	.0029	123.22	.0024	-25.96	311.64
SET 51	3532.08	3543.33	10	8	27.6	90.00	.0042	-25.54	.0000	376439.1	1.55	10.79	-.0035	246.71	-.0015	-25.92	298.65
SET 61	3560.36	3571.61	10	8	55.8	64.94	.0042	-26.59	.0000	379642.5	1.49	-.00	-.0026	234.10	.0027	-25.90	291.55
IMPACT	3656.20	3667.45	10	10	31.7												
IMPC 72	3656.20	3667.45	10	10	31.7	79.38	.0043	-25.75	.0001	386094.6	2.45	12.96	-.0039	245.28	-.0001	-25.79	267.31
IMPC 11	3656.20	3667.45	10	10	31.7	335.48	.0044	-26.59	.0000	384939.2	1.88	24.00	.0015	156.03	.0040	-25.79	267.31

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	7	21	35.469	6588.642	17.8094	305.1238	10.95514	4.6258	117.0988	104.6985
SEPARATION	1.20	12.45	7	21	36.669	6674.240	14.6568	311.0007	10.88333	7.9759	118.8293	110.8762
RETRO	3.20	14.45	7	21	38.669	6913.837	9.2991	320.0290	10.69146	13.3041	120.8136	120.4038
ENTER SHA	11.06	22.31	7	21	44.528	8695.291	-8.0808	346.3227	9.52282	29.6869	121.1238	148.6699
EXIT SHA	39.40	50.65	7	22	14.866	17728.470	- 7.7244	23.1814	6.63092	52.2713	106.7492	192.6325
IMPACT	3656.20	3667.45	10	10	31.670	387574.586	-25.7887	267.3148	2.20849	66.4903	286.6700	263.4416

SURVEYOR VIEW PERIODS

GHA	197.7777					EPS	63.9713							LOM	263.0961
SX	-.103249	SY	-.894590	SZ	-.434796	UAO	-25.77234	RAO	263.41631	RM	388860.258	LAT	28.310600	LON	279.461800
C3	-1.006707	ECC	.983471	SLR	12981.459	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.081725	NSY	-.895568	NSZ	-.437364	C3M	1.4969	VIM	2.6714	ZAE	138.645	B.T	.0000	B.R	-.0000
LATE	3.1935	LONE	6.4741	LATS	-.8936	LONS	302.7389	LATI	-5.8517	LONI	326.0667	RSM	150.0643	TTAN	6.6067
LAUNCH DATE	APR	7,1966		BASE AZM	111.0		TF	61.074				ARRIVAL DATE	APR 10 1966 10 48 23.7		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	21 29 6.2	28.1	16.77	304.48	10.29	105.28	119.17	21 40 21.2	6597.3	10.95	5.10

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	7	21	40.4												
SEPARATION	1.20	12.45	7	21	41.6												
RETRO	3.20	14.45	7	21	43.6												
RISE 72	4.20	15.45	7	21	44.6	85.62	-.1397	28.81	-.0348	3126.3	-7.38	-.00	.1264	299.11	-.0152	5.08	322.96
EXTM 72	11.00	22.25	7	21	51.4	4.49	-.1652	-15.29	-.0967	2367.4	4.76	81.41	-.0000	210.34	-1.2478	-9.91	344.48
RISE 51	11.15	22.40	7	21	51.5	84.27	-.0714	11.70	-.0451	6021.7	-2.27	-.00	.0826	283.01	-.0094	-10.16	344.86
ENTER SHA	11.75	23.00	7	21	52.1												
ENTR 72	11.75	23.00	7	21	52.1	357.63	-.1423	-19.13	-.0759	2598.7	5.55	78.55	-.1019	168.65	-.5835	-11.15	346.33
ENTR 51	11.75	23.00	7	21	52.1	81.74	-.0713	10.07	-.0463	5947.5	-1.90	2.95	.0835	282.67	-.0097	-11.15	346.33
EXIT SHA	35.11	46.36	7	22	15.5												
EXIT 72	35.11	46.36	7	22	15.5	306.34	-.0087	-35.43	-.0010	11986.1	6.13	33.91	-.0071	127.73	-.0012	-28.46	18.69
EXIT 51	35.11	46.36	7	22	15.5	14.84	-.0228	-29.86	-.0079	10158.3	5.06	76.25	.0173	249.20	-.0520	-28.46	18.69
EXIT 61	35.11	46.36	7	22	15.5	326.28	-.0130	-49.67	.0039	15663.5	5.78	-4.68	-.0001	158.87	-.0093	-28.46	18.69
EXTM 51	48.49	59.74	7	22	28.8	2.21	-.0105	-33.42	-.0023	14253.6	5.06	82.08	-.0000	193.54	-.0656	-31.05	26.19
EXTM 72	72.49	83.74	7	22	52.8	299.65	-.0000	-35.91	.0001	23898.3	4.69	28.52	.0000	126.76	-.0001	-32.76	32.30
EXTM 51	93.83	105.08	7	23	14.2	352.29	-.0001	-34.91	.0001	26919.6	4.28	78.68	.0000	145.93	-.0006	-33.20	33.80
RISE 61	125.30	136.55	7	23	45.7	317.50	.0020	-41.07	.0007	40423.6	3.82	-.00	.0014	149.38	.0009	-33.25	32.74
EXTM 51	176.56	187.81	8	0	36.9	.88	.0027	-33.92	.0002	45996.9	3.51	81.79	.0000	185.14	.0160	-32.92	26.92
EXTM 61	370.12	381.37	8	3	30.5	5.81	.0038	-35.47	.0002	86047.0	2.73	14.11	.0000	184.88	.0032	-31.45	350.32
EXTM 72	396.77	408.02	8	4	17.1	1.20	.0039	-32.96	.0002	86295.7	2.65	64.92	.0000	182.37	.0078	-31.28	344.57
RISE 11	577.53	588.78	8	7	17.9	296.69	.0040	-32.48	.0000	118705.3	2.04	.00	.0025	131.09	.0023	-30.36	303.86
SET 51	590.56	601.81	8	7	30.9	90.00	.0038	-29.19	.0001	119161.6	2.63	12.23	-.0031	243.29	-.0012	-30.30	300.85
SET 61	590.68	601.93	8	7	31.0	57.18	.0039	-32.64	.0002	120521.9	2.51	-.00	-.0020	225.05	.0026	-30.30	300.82
SET 72	789.56	800.81	8	10	49.9	94.46	.0039	-29.21	.0001	146344.8	2.43	-.01	-.0034	240.48	-.0004	-29.57	254.05
RISE 42	799.23	810.48	8	10	59.6	254.99	.0040	-28.05	-.0000	146994.3	1.73	4.85	.0028	121.19	-.0021	-29.54	251.74
EXTM 11	841.24	852.49	8	11	41.6	1.49	.0041	-31.61	.0001	150135.7	2.00	23.17	.0000	181.38	.0038	-29.41	241.72
SET 11	1101.57	1112.82	8	16	1.9	65.87	.0041	-30.09	.0001	182150.0	2.08	-.00	-.0026	232.16	.0024	-28.74	178.98
EXTM 42	1224.66	1235.91	8	18	5.0	359.92	.0042	-28.25	.0000	188880.1	1.72	83.03	.0000	.57	-.0292	-28.48	149.05
RISE 51	1360.45	1371.70	8	20	20.8	270.00	.0041	-27.56	-.0000	207495.5	1.28	11.59	.0033	115.18	-.0014	-26.22	115.90
RISE 72	1515.02	1526.27	8	22	55.4	265.81	.0041	-27.72	-.0000	223641.2	1.17	-.01	.0036	118.01	-.0005	-27.96	78.03
RISE 61	1602.35	1613.60	9	0	22.7	297.97	.0042	-28.99	-.0000	231750.9	1.26	.00	.0024	129.42	.0027	-27.83	56.58
SET 42	1648.02	1659.27	9	1	8.4	105.00	.0041	-26.82	.0001	235458.5	1.83	4.10	-.0029	239.79	-.0022	-27.76	45.36
EXTM 51	1713.95	1725.20	9	2	14.3	358.51	.0042	-27.72	.0000	235548.9	1.47	87.62	.0021	146.41	.0739	-27.66	29.13
EXTM 61	1851.66	1862.91	9	4	32.0	.56	.0042	-28.82	.0000	251616.0	1.43	20.94	.0000	180.53	.0039	-27.48	355.20
EXTM 72	1890.96	1902.21	9	5	11.3	.17	.0042	-27.92	.0000	251321.2	1.42	69.99	-.0000	180.44	.0109	-27.43	345.91
RISE 11	2035.51	2046.76	9	7	35.9	292.18	.0042	-28.15	-.0000	269345.7	1.06	.00	.0028	125.27	.0024	-27.26	309.82
SET 51	2079.13	2090.38	9	8	19.5	90.00	.0041	-26.49	.0001	271677.3	1.73	11.25	-.0034	245.63	-.0014	-27.21	299.04
SET 61	2100.73	2111.98	9	8	41.1	63.07	.0042	-28.16	.0001	274674.3	1.62	-.00	-.0025	231.82	.0027	-27.18	293.70
SET 72	2265.02	2276.27	9	11	25.4	94.02	.0041	-26.82	.0001	287762.2	1.71	-.00	-.0036	242.91	-.0005	-27.01	253.05
RISE 42	2265.82	2277.07	9	11	26.2	255.00	.0041	-26.23	-.0000	287409.1	.98	3.74	.0029	119.74	-.0022	-27.00	252.86
EXTM 11	2306.52	2317.77	9	12	6.9	.38	.0042	-28.08	.0000	288146.5	1.29	26.71	-.0000	180.37	.0042	-26.96	242.78
SET 11	2577.30	2588.55	9	16	37.7	68.47	.0042	-27.47	.0000	311435.7	1.53	.00	-.0028	235.63	.0024	-26.71	175.68
EXTM 42	2684.77	2696.02	9	18	25.1	359.97	.0042	-26.44	.0000	313017.9	1.20	81.22	-.0000	.22	-.0216	-26.61	149.01
RISE 51	2815.48	2826.73	9	20	35.8	270.00	.0041	-26.17	-.0000	327334.9	.80	11.00	.0034	113.79	-.0015	-26.50	116.97
RISE 72	2968.85	2980.10	9	23	9.2	266.08	.0042	-26.21	-.0000	339324.5	.72	-.00	.0037	116.48	-.0006	-26.37	78.41
RISE 61	3045.40	3056.65	10	0	25.7	295.64	.0042	-27.09	-.0000	344498.4	.84	.00	.0026	126.62	.0027	-26.31	59.29
SET 42	3103.02	3114.27	10	1	23.4	105.00	.0041	-25.63	.0000	347997.1	1.45	3.37	-.0030	240.73	-.0023	-26.27	44.90
EXTM 51	3168.64	3179.89	10	2	29.0	359.16	.0042	-26.23	.0000	346446.7	1.11	89.10	.0032	123.32	.1309	-26.22	28.91
EXTM 61	3300.83	3312.08	10	4	41.2	.29	.0042	-27.06	.0000	359121.7	1.11	22.70	-.0000	180.28	.0041	-26.13	355.47
EXTM 72	3340.45	3351.70	10	5	20.8	.11	.0043	-26.42	.0000	358211.7	1.11	71.49	-.0000	180.32	.0118	-26.10	345.56
RISE 11	3476.12	3487.37	10	7	36.5	290.72	.0042	-26.63	-.0000	373312.4	.82	.00	.0029	123.27	.0024	-25.99	311.60
SET 51	3527.75	3539.00	10	8	28.1	90.00	.0042	-25.58	.0000	375661.8	1.54	10.81	-.0035	246.68	-.0015	-25.95	298.66
SET 61	3555.88	3567.13	10	8	56.2	64.90	.0042	-26.63	.0000	378827.7	1.47	-.00	-.0026	234.05	.0027	-25.93	291.59
IMPACT	3664.45	3675.70	10	10	44.8												
IMPC 42	3664.45	3675.70	10	10	44.8	244.06	.0043	-25.17	.0000	388078.2	1.70	-4.48	.0029	125.28	-.0026	-25.80	264.15
IMPC 72	3664.45	3675.70	10	10	44.8	82.55	.0043	-25.74	.0001	386462.7	2.44	10.10	-.0039	245.12	-.0002	-25.80	264.15
IMPC 11	3664.45	3675.70	10	10	44.8	338.69	.0044	-26.61	.0000	384898.5	1.88	24.98	.0013	158.99	.0041	-25.80	264.15

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	7	21	40.353	6598.412	16.7386	304.5310	10.94690	5.1017	119.1865	105.3301
SEPARATION	1.20	12.45	7	21	41.553	6689.950	13.4004	310.2196	10.87005	8.4388	120.7477	111.3195
RETRO	3.20	14.45	7	21	43.553	6939.082	7.7899	318.9718	10.67144	13.7341	122.4548	120.5731
ENTER SHA	11.75	23.00	7	21	52.099	8940.129	-11.1482	346.3344	9.38962	31.0286	121.5584	150.0780
EXIT SHA	35.11	46.36	7	22	15.463	16421.262	-28.4620	18.6924	6.89494	50.5567	108.0162	188.2933
IMPACT	3664.45	3675.70	10	10	44.806	387632.504	-25.8043	264.1515	2.20441	66.1170	287.1125	263.5713

APR 7, 1966
111 DEGREES

SURVEYOR VIEW PERIODS

GHA	197.7777					EPS	64.1171							TOM	258.8133
SX	-.100577	SY	-.894752	SZ	-.435106	DAO	-25.79203	RAO	263.59057	RM	388930.113	LAT	28.310600	LON	279.461800
C3	-1.6194	ECC	.983261	SLR	12979.784	RFA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.078850	NSY	-.895470	NSZ	-.437673	C3M	1.4966	VIM	2.6713	ZAE	138.214	R.T	.0000	B.R	-.0000
LATE	3.2799	LONE	6.4509	LATS	-.8934	LONS	302.4715	LATI	-6.3130	LONI	325.6011	RSM	150.0640	TTAN	6.6063
LAUNCH DATE		APR	7,1966		BASE AZM	115.0		TF	61.287			ARRIVAL DATE		APR 10 1966 11 6 10.5	

LNCH AZMTH	LNCH TIME	RR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	21 34 24.9	28.1	15.38	303.62	11.10	105.75	121.96	21 45 39.9	6608.2	10.94	5.60

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	7	21	45.7												
SEPARATION	1.20	12.45	7	21	46.9												
RETRO	3.20	14.45	7	21	48.9												
RISE 72	4.19	15.44	7	21	49.9	86.62	-.1272	23.03	-.0554	3195.7	-7.09	-.00	.1240	293.26	-.0373	3.00	321.33
RISE 51	11.26	22.51	7	21	56.9	86.43	-.0666	7.37	-.0482	6139.2	-2.04	-.00	.0805	278.19	-.0144	-12.93	342.90
EXTM 72	11.34	22.59	7	21	57.0	9.47	-.1603	-25.70	-.0786	2608.2	4.96	70.05	-.0000	205.76	-.4819	-13.08	343.11
ENTER SHA	15.13	26.38	7	22	.8												
ENTR 72	15.13	26.38	7	22	.8	342.89	-.0817	-35.36	-.0199	4008.9	6.84	58.39	-.0536	152.75	-.0845	-18.61	351.49
ENTR 51	15.13	26.38	7	22	.8	71.12	-.0645	-4.13	-.0491	5939.3	.30	18.78	.0793	274.56	-.0171	-18.61	351.49
EXIT SHA	27.66	38.91	7	22	13.3												
EXIT 72	27.66	38.91	7	22	13.3	314.29	-.0175	-39.26	-.0006	9183.4	6.57	38.51	-.0125	134.91	-.0066	-28.39	9.95
EXIT 51	27.66	38.91	7	22	13.3	31.95	-.0377	-28.81	-.0166	8133.1	4.51	61.53	.0334	256.50	-.0330	-28.39	9.95
EXTM 51	53.62	64.87	7	22	39.3	1.76	-.0086	-37.23	-.0010	15893.5	4.95	78.41	-.0000	187.01	-.0343	-33.95	26.47
EXTM 72	72.83	84.08	7	22	58.5	300.89	-.0001	-38.49	.0004	24006.8	4.68	28.92	.0000	129.88	-.0005	-34.88	30.95
EXTM 51	88.59	99.84	7	23	14.3	353.98	-.0008	-37.38	.0003	25630.9	4.35	77.29	.0000	157.73	-.0031	-35.09	32.38
RISE 61	137.58	148.83	8	0	3.2	320.17	.0022	-42.22	.0007	43335.3	3.68	-.00	.0015	151.68	.0011	-34.82	30.61
EXTM 51	173.98	185.23	8	0	39.6	1.64	.0027	-35.59	.0003	45504.7	3.53	80.05	.0000	187.72	.0127	-34.39	26.27
EXTM 61	368.98	380.23	8	3	54.6	6.58	.0038	-36.45	.0003	85969.3	2.73	13.07	.0000	185.43	.0031	-32.41	349.61
EXTM 72	393.59	404.84	8	4	19.3	1.49	.0039	-33.97	.0002	85829.3	2.66	63.90	.0000	182.80	.0074	-32.22	344.31
RISE 11	576.93	588.18	8	7	22.6	297.53	.0040	-33.22	.0000	118590.7	2.04	.00	.0025	132.11	.0023	-31.08	303.02
SET 61	581.41	592.66	8	7	27.1	56.02	.0039	-33.44	.0002	119211.2	2.52	-.00	-.0019	223.79	.0027	-31.05	301.99
SET 51	586.16	597.41	8	7	31.8	90.00	.0038	-29.92	.0002	118493.9	2.63	12.51	-.0031	242.60	-.0012	-31.03	300.89
SET 72	785.68	796.93	8	10	31.3	94.56	.0039	-29.79	.0001	145804.8	2.43	-.00	-.0034	239.89	-.0004	-30.16	253.97
RISE 42	795.12	806.37	8	11	.8	254.99	.0040	-28.63	-.0000	146387.3	1.74	5.20	.0028	121.65	-.0021	-30.12	251.72
EXTM 11	837.79	849.04	8	11	43.5	1.68	.0041	-32.18	.0001	149709.5	2.00	22.59	.0000	181.54	.0038	-29.97	241.54
SET 11	1095.30	1106.55	8	16	1.0	65.39	.0041	-30.55	.0001	181361.6	2.08	-.00	-.0025	231.54	.0024	-29.19	179.47
EXTM 42	1220.33	1231.58	8	18	6.0	359.91	.0042	-28.66	.0000	158293.9	1.71	83.44	.0000	.67	-.0316	-28.88	149.06
RISE 51	1356.17	1367.42	8	20	21.8	270.00	.0041	-27.92	-.0000	206899.3	1.28	11.73	.0033	115.52	-.0014	-28.58	115.89
RISE 72	1510.47	1521.72	8	22	56.1	265.75	.0041	-28.04	-.0000	223025.4	1.17	-.00	.0036	118.33	-.0005	-28.28	78.08
RISE 61	1599.55	1610.80	9	0	25.2	298.35	.0042	-29.30	-.0000	231287.9	1.26	.00	.0024	129.87	.0027	-28.12	56.20
SET 42	1643.60	1654.85	9	1	9.3	105.00	.0041	-27.11	.0001	234824.9	1.83	4.27	-.0029	239.57	-.0022	-28.05	45.37
EXTM 51	1715.52	1726.77	9	2	21.2	.02	.0042	-27.99	.0000	235460.3	1.48	87.75	-.0000	180.63	.0768	-27.93	27.66
EXTM 61	1847.50	1858.75	9	4	33.2	.63	.0042	-29.07	.0000	251029.6	1.43	20.69	-.0000	180.59	.0039	-27.73	355.13
EXTM 72	1886.59	1897.84	9	5	12.3	.19	.0042	-28.16	.0000	250696.1	1.42	69.74	-.0000	180.48	.0107	-27.67	345.49
RISE 11	2031.92	2043.17	9	7	37.6	292.39	.0042	-28.46	-.0000	268756.8	1.06	.00	.0028	125.55	.0024	-27.47	309.60
SET 51	2074.63	2085.88	9	8	20.3	90.00	.0041	-26.90	.0001	270999.6	1.72	11.33	-.0034	245.44	-.0014	-27.41	299.04
SET 61	2095.20	2106.45	9	8	40.9	62.81	.0042	-28.37	.0001	273919.5	1.62	-.00	-.0024	231.51	.0027	-27.39	293.96
SET 72	2260.41	2271.86	9	11	24.3	94.06	.0041	-26.99	.0001	287074.8	1.71	-.00	-.0036	242.73	-.0005	-27.18	253.03
RISE 42	2261.33	2272.58	9	11	27.0	255.00	.0041	-26.41	-.0000	286703.0	.98	3.85	.0029	119.88	-.0022	-27.18	252.85
EXTM 11	2302.17	2313.42	9	12	7.8	.42	.0042	-28.26	.0000	287474.8	1.29	26.53	-.0000	180.42	.0041	-27.13	242.74
SET 11	2572.17	2583.42	9	16	37.8	68.34	.0042	-27.41	.0000	310645.6	1.53	.00	-.0028	235.44	.0024	-26.84	175.82
EXTM 42	2680.18	2691.43	9	18	25.9	359.96	.0042	-26.56	.0000	312247.0	1.20	81.34	-.0000	.25	.0216	-26.73	149.02
RISE 51	2810.90	2822.15	9	20	36.6	270.00	.0041	-26.18	-.0000	326538.4	.80	11.04	.0034	113.89	-.0015	-26.61	116.57
RISE 72	2964.18	2975.43	9	23	9.8	266.06	.0042	-26.30	-.0000	338496.4	.72	-.00	.0037	116.58	-.0006	-26.47	78.42
RISE 61	3041.20	3052.45	10	0	26.9	295.75	.0042	-27.17	-.0000	343680.4	.84	.00	.0026	126.74	.0027	-26.40	59.19
SET 42	3098.39	3109.64	10	1	24.1	105.00	.0041	-25.71	.0000	347128.1	1.45	3.42	-.0030	240.67	-.0023	-26.35	44.91
EXTM 51	3163.50	3174.75	10	2	29.2	359.03	.0042	-26.31	.0000	345529.1	1.10	88.96	.0032	123.25	.1125	-26.30	28.64
EXTM 61	3296.31	3307.56	10	4	42.0	.31	.0042	-27.12	.0000	358206.4	1.11	22.64	-.0000	180.30	.0041	-26.19	355.45
EXTM 72	3335.86	3347.11	10	5	21.5	.12	.0043	-26.48	.0000	357271.5	1.11	71.43	-.0000	180.33	.0118	-26.16	345.56
RISE 11	3471.74	3482.99	10	7	37.4	290.77	.0042	-26.48	-.0000	372311.3	.81	.00	.0029	123.34	.0024	-26.05	311.55
SET 51	3523.16	3534.41	10	8	28.8	90.00	.0042	-25.82	.0000	374601.5	1.52	10.82	-.0035	246.63	-.0015	-26.00	298.66
SET 61	3551.38	3562.33	10	8	56.7	64.84	.0042	-26.48	.0000	377722.0	1.45	-.00	-.0026	233.98	.0027	-25.98	291.65
IMPACT	3677.20	3688.45	10	11	2.9												
IMPC 42	3677.20	3688.45	10	11	2.9	248.39	.0043	-25.22	.0000	387825.8	1.68	-1.52	.0029	122.71	-.0025	-25.83	259.80
IMPC 72	3677.20	3688.45	10	11	2.9	86.91	.0043	-25.73	.0001	386969.0	2.43	6.19	-.0039	244.79	-.0003	-25.83	259.80
IMPC 11	3677.20	3688.45	10	11	2.9	343.10	.0044	-26.44	.0000	384861.3	1.90	26.12	.0011	163.18	.0042	-25.83	259.80

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	7	21	45.665	6609.858	15.3460	303.6799	10.93713	5.6032	121.9694	105.8107
SEPARATION	1.20	12.45	7	21	46.865	6707.492	11.7662	309.1210	10.85512	8.9254	123.3202	111.5526
RETRO	3.20	14.45	7	21	48.865	6966.564	5.8194	317.5181	10.64959	14.1848	124.6850	120.4512
ENTER SHA	15.13	26.38	7	22	.792	10015.287	-18.6143	351.4886	8.86450	35.8857	120.3209	157.4114
EXIT SHA	27.66	38.91	7	22	13.321	14069.651	-28.3851	9.9498	7.45935	46.7360	111.5887	179.0138
IMPACT	3677.20	3688.45	10	11	2.869	387708.906	-25.8255	259.8010	2.19929	65.7869	287.8767	263.7490

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SURVEYOR VIEW PERIODS

GMA	199.7634					EPS	75.2218							LOM	287.5086
SX	.108979	SY	-.886954	SZ	-.448817	DAO	-26.66780	RAO	277.00474	RM	394035.348	LAT	28.310600	LON	279.461800
C3	-.934280	ECC	.984660	SLR	12988.937	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.022951	NSY	-.884002	NSZ	-.449186	C3M	1.4927	VIM	2.6706	ZAE	140.875	B.T	.0000	B.R	-.0000
LATE	4.3817	LONE	5.7954	LATS	-.8765	LONS	290.8341	LATI	-1.6007	LONI	327.1018	PSM	150.0362	TTAN	6.7543
LAUNCH DATE		APR	8,1966		BASE AZM	84.0		TF	61.473			ARRIVAL DATE		APR 11 1966 10 1 17.1	

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ HA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
84.00	2 35 19.0	27.3	27.10	307.53	-13.35	95.83	99.79	20 46 34.0	6633.6	10.92	-6.62

EVNT STA	TFI	TFL	DAY HR MIN	HA	DHA	DFC	DDE	RNG	DRG	ELF	DEL	AZI	DAZ	LAT	RNG
			PROBE IN SUNLIGHT												
INJECTION	.00	11.25	8 20 44.6												
SEPARATION	1.20	12.45	8 20 47.8												
RETRO	3.20	14.45	8 20 49.8												
ENTER SHA	5.63	16.88	8 20 52.2												
RISE 72	7.10	18.35	8 20 53.7	344.62	-1.1846	81.80	-.1313	2547.2	-2.80	.00	.0823	2.17	.1974	14.62	346.53
RISE 51	12.14	23.39	8 20 58.7	61.00	-.1474	45.16	-.0235	4713.8	-3.73	.00	.0963	321.92	.0455	4.15	6.12
EXTM 72	13.38	24.63	8 20 59.9	289.48	-.0252	17.79	-.0966	3772.0	6.63	15.81	-.0000	68.90	.1035	1.91	9.92
EXTM 51	30.67	41.32	8 21 16.6	338.86	-.0240	-6.31	-.0229	7495.7	5.59	61.98	-.0000	49.74	.0704	-15.48	39.64
EXIT SHA	46.90	58.15	8 21 33.5												
EXIT 72	46.90	58.15	8 21 33.5	273.14	-.0022	-20.77	-.0038	17112.7	5.67	5.71	-.0016	110.24	.0041	-21.62	51.43
EXIT 51	46.90	58.15	8 21 33.5	325.58	-.0068	-18.60	-.0062	13161.2	5.44	57.40	-.0041	84.26	.0148	-21.62	51.43
EXTM 72	63.37	74.62	8 21 49.9	272.05	-.0002	-23.54	-.0021	22372.6	5.02	5.01	.0000	113.11	.0021	-24.35	56.69
RISE 42	73.50	84.75	8 22 .1	102.78	-.0039	-17.41	-.0030	25905.6	4.26	.00	.0048	248.52	-.0002	-25.36	58.35
EXTM 51	77.54	88.79	8 22 4.1	320.51	-.0003	-24.50	-.0017	22367.8	4.63	54.36	.0000	96.75	.0030	-25.67	58.79
EXTM 42	128.71	139.96	8 22 55.3	99.03	.0006	-22.69	-.0008	39637.5	3.99	5.98	-.0000	246.37	-.0010	-27.70	58.13
SET 42	193.03	204.28	8 23 59.6	105.00	.0022	-24.47	-.0003	54294.5	3.62	2.66	-.0014	241.66	-.0014	-28.43	49.95
RISE 61	209.56	220.81	9 0 16.1	303.98	.0032	-33.45	.0001	57976.8	3.17	.00	.0018	136.22	.0020	-28.51	47.26
EXTM 51	313.14	324.39	9 1 59.7	360.00	.0037	-28.95	.0000	71296.1	2.91	86.79	.0000	179.67	.0032	-28.69	27.69
EXTM 61	470.85	482.10	9 4 37.4	2.21	.0039	-31.97	.0001	101031.3	2.52	17.76	.0000	181.97	.0035	-28.60	353.66
EXTM 72	507.62	518.87	9 5 14.2	.32	.0040	-29.92	.0000	102672.5	2.44	68.08	-.0000	180.76	.0094	-28.56	345.37
RISE 11	675.74	686.99	9 8 2.3	294.30	.0040	-30.25	-.0000	131767.8	1.91	.00	.0026	128.07	.0023	-28.38	306.31
SET 51	701.51	712.76	9 8 28.1	90.00	.0039	-27.34	.0001	133873.9	2.51	11.50	-.0032	245.03	-.0013	-28.35	300.45
SET 61	714.20	725.45	9 8 40.8	60.30	.0040	-30.15	.0001	136781.5	2.39	-.00	-.0022	228.55	.0026	-28.34	297.46
SET 72	896.73	907.98	9 11 43.3	94.20	.0039	-27.42	.0001	159277.0	2.35	-.00	-.0035	241.89	-.0005	-28.15	254.04
RISE 42	905.44	916.69	9 11 52.0	255.00	.0040	-26.77	-.0001	159851.3	1.64	4.07	.0028	120.17	-.0021	-28.15	251.95
EXTM 11	944.98	956.23	9 12 31.5	.72	.0042	-30.12	.0000	162273.5	1.93	24.67	-.0000	180.69	.0040	-28.11	242.45
SET 11	1211.71	1222.96	9 16 58.3	66.85	.0041	-29.12	.0001	194190.6	2.04	-.00	-.0026	233.44	.0024	-27.87	177.90
EXTM 42	1330.19	1341.44	9 18 54.8	359.96	.0042	-27.54	.0000	200116.9	1.68	82.33	.0000	.26	-.0253	-27.78	149.01
RISE 51	1465.18	1476.43	9 21 11.8	270.00	.0041	-27.05	-.0000	218377.4	1.24	11.39	.0034	114.70	-.0014	-27.68	116.00
RISE 72	1619.85	1631.10	9 23 46.4	265.88	.0041	-27.35	-.0000	234243.1	1.14	-.00	.0036	117.63	-.0005	-27.58	78.06
RISE 61	1705.20	1716.45	10 1 11.8	297.53	.0042	-28.44	-.0000	242047.1	1.23	.00	.0025	128.89	.0027	-27.53	57.07
SET 42	1753.87	1764.32	10 1 59.6	105.00	.0041	-26.50	.0000	245909.3	1.81	3.96	-.0029	239.97	-.0022	-27.50	45.30
EXTM 51	1818.89	1830.14	10 3 5.5	358.56	.0042	-27.50	.0000	245891.6	1.46	87.82	.0022	144.20	.0788	-27.46	29.09
EXTM 61	1955.34	1966.59	10 5 21.9	.31	.0042	-28.47	.0000	261699.0	1.42	21.09	.0000	180.29	.0039	-27.38	359.45
EXTM 72	1995.34	2006.59	10 6 1.9	.10	.0042	-27.92	.0000	261440.1	1.41	70.08	-.0000	180.26	.0107	-27.36	349.58
RISE 11	2139.91	2151.16	10 8 26.5	292.17	.0042	-28.14	-.0000	279367.0	1.05	.00	.0028	125.26	.0024	-27.28	309.86
SET 51	2183.89	2195.14	10 9 10.5	90.00	.0041	-26.77	.0000	281698.8	1.72	11.28	-.0034	245.57	-.0014	-27.26	298.99
SET 61	2205.27	2216.52	10 9 31.8	63.03	.0042	-28.19	.0000	284669.0	1.62	-.00	-.0025	230.77	.0027	-27.25	293.70
SET 72	2369.85	2381.10	10 12 16.4	94.05	.0041	-26.99	.0000	297703.9	1.70	-.00	-.0036	242.73	-.0005	-27.17	252.98
RISE 42	2370.20	2381.45	10 12 16.8	255.00	.0041	-26.43	-.0000	297302.7	.97	3.86	.0029	119.89	-.0022	-27.17	252.89
EXTM 11	2410.39	2421.64	10 12 57.0	.22	.0042	-28.24	.0000	298014.2	1.29	26.55	-.0000	180.21	.0041	-27.15	242.94
SET 11	2680.71	2691.96	10 17 27.3	68.18	.0042	-27.78	.0000	321205.9	1.53	.00	-.0028	235.22	.0024	-27.03	179.94
EXTM 42	2789.36	2800.61	10 19 15.9	360.00	.0042	-26.83	.0000	322863.0	1.20	81.61	-.0000	.12	-.0055	-26.99	148.98
RISE 51	2919.80	2931.05	10 21 26.4	270.00	.0042	-26.52	-.0000	337348.4	.78	11.18	.0034	114.21	-.0015	-26.94	116.80
RISE 72	3072.54	3083.79	10 23 59.1	265.99	.0042	-26.73	-.0000	349078.0	.73	-.00	.0037	117.01	-.0005	-26.88	78.92
RISE 61	3152.07	3163.32	11 1 18.6	296.27	.0042	-27.41	-.0000	354494.9	.85	.00	.0025	127.38	.0027	-26.86	58.69
SET 42	3207.42	3218.67	11 2 14.0	105.00	.0041	-26.22	.0000	357836.3	1.46	3.73	-.0030	240.27	-.0023	-26.84	44.88
EXTM 51	3272.74	3283.99	11 3 19.3	359.09	.0042	-26.84	.0000	356356.1	1.12	88.63	.0023	143.65	.1265	-26.82	28.58
EXTM 61	3404.80	3416.05	11 5 31.4	.15	.0042	-27.49	0000	369234.1	1.14	22.07	-.0000	180.15	.0040	-26.78	359.60
EXTM 72	3444.80	3456.05	11 6 11.4	.07	.0042	-27.09	.0000	368371.7	1.14	70.82	-.0000	180.20	.0111	-26.77	349.60
RISE 11	3583.24	3594.49	11 8 29.8	291.40	.0042	-27.34	-.0000	384028.4	.90	.00	.0028	124.20	.0024	-26.72	310.94
SET 51	3632.22	3643.47	11 9 18.8	90.00	.0042	-26.14	.0000	386477.2	1.69	11.11	-.0035	245.96	-.0015	-26.70	298.64
SET 61	3656.71	3667.96	11 9 43.3	64.01	.0042	-27.18	.0000	389692.1	1.71	-.00	-.0026	232.96	.0028	-26.70	292.46
IMPACT	3688.41	3699.66	11 10 15.0												
IMPC 72	3688.41	3699.66	11 10 15.0	82.19	.0043	-26.76	.0000	389750.3	2.46	28.33	-.0039	243.79	.0005	-26.68	284.39
IMPC 51	3688.41	3699.66	11 10 15.0	104.20	.0043	-26.23	.0000	392805.6	2.46	-.36	-.0034	240.42	-.0018	-26.68	284.39
IMPC 11	3688.41	3699.66	11 10 15.0	318.19	.0044	-27.42	-.0000	391016.2	1.85	15.97	.0022	142.01	.0033	-26.68	284.39

EVNT STA	TFI	TFL	DAY HR MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION	.00	11.25	8 20 44.567	6636.819	27.1202	307.3958	10.91992	-6.6226	99.7301	95.6972
SEPARATION	1.20	12.45	8 20 47.767	6565.808	25.7445	314.6864	10.97690	-3.2408	103.1158	103.2886
RETRO	3.20	14.45	8 20 49.767	6557.023	22.6282	326.3577	10.98391	2.4789	108.1206	115.4614
ENTER SHA	5.63	16.88	8 20 52.194	6720.354	17.8122	339.4117	10.84856	9.2686	112.8667	129.1238
EXIT SHA	46.90	58.15	8 21 33.471	18847.942	-21.6209	51.4290	6.43136	53.5875	109.3288	211.4887
IMPACT	3688.41	3699.66	11 10 14.975	392817.191	-26.6792	284.3937	2.23290	68.8501	275.6654	277.3211

APR 8, 1966
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SURVEYOR VIEW PERIODS

GHA	168.7434			EPS	75.4692					LOM	280.0267
SX	.113644	SY	-.388299	SZ	-.448898	DAO	-26.67298	RAO	277.30562	RM	394142.785	LAT	28.310600	LON	279.461800
C3	-.9271[illegible]	ECC	.994777	SLR	12989.703	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.134 79	NSY	-.[illegible]330	NSZ	-.449213	C3M	1.4972	VIM	2.6714	ZAE	141.020	B.T	.0000	B.R	-.0000
LATE	4.4159	LONE	5.7411	LATS	-.8761	LONS	290.5716	LATI	-1.3520	LONI	327.1977	RSM	150.0355	TTAN	6.7524
LAUNCH DATE		APR	8,1966		BASE AZM	87.0		TF	61.400			ARRIVAL	DATE APR	11 1966	10 32 22.2

LNCH AZMTH	LNCH TIME			PH	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
87.00	21	4	47.3	27.7	25.86	307.69	-6.41	103.34	102.14	21 15 52.3	6567.6	10.98	-3.38

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DFC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	A	21	15.9												
SEPARATION	1.20	12.45	A	21	17.1												
RETRO	3.20	14.45	A	21	19.1												
ENTER SHA	4.35	15.60	A	21	20.2												
RISE 72	6.14	17.39	A	21	22.0	56.82	-.7104	75.17	.0814	2719.0	-4.63	-.00	.0993	348.12	.1652	14.69	340.89
RISE 61	9.31	20.55	A	21	25.2	5.32	-.1806	-49.44	.0058	4013.2	5.36	.00	.0140	183.44	-.1162	8.07	352.90
RISE 51	11.74	22.99	A	21	27.6	65.84	-.1264	40.13	-.0254	5030.2	-3.44	-.00	.0937	315.93	.0341	3.44	2.11
EXTM 61	12.57	23.82	A	21	28.4	339.27	-.0934	-46.67	.0180	5254.6	6.97	1.15	-.0000	165.94	-.0666	2.01	4.56
EXTM 72	12.69	23.94	A	21	28.6	299.85	-.0399	19.73	-.1390	3378.7	6.26	24.69	-.0000	63.97	.1269	1.80	4.92
SET 61	17.93	29.18	A	21	33.8	319.75	-.0393	-42.04	.0105	7593.9	7.34	.00	-.0053	151.32	-.0305	-5.62	17.43
EXTM 51	32.84	44.08	A	21	48.7	344.54	-.0198	-9.79	-.0167	8622.2	5.49	68.34	-.0000	45.36	.0695	-16.70	36.92
EXIT SHA	45.83	57.08	B	22	1.7												
EXIT 72	45.83	57.08	B	22	1.7	280.00	-.0023	-20.46	-.0038	16475.3	5.67	12.10	-.0019	109.75	.0040	-20.94	45.00
EXIT 51	45.83	57.08	B	22	1.7	334.67	-.0078	-17.96	-.0065	12892.1	5.37	65.29	-.0043	76.78	.0212	-20.94	45.00
EXTM 72	63.57	74.82	A	22	19.4	274.85	-.0001	-23.75	-.0019	22119.2	4.98	11.23	.0000	112.77	.0020	-23.87	50.43
EXTM 51	79.69	90.94	A	22	35.6	328.56	-.0003	-24.48	-.0016	22937.1	4.56	61.57	.0000	94.34	.0033	-25.31	52.49
RISE 61	170.86	182.11	S	0	4.7	304.17	.0029	-33.37	.0001	50136.3	3.43	-.00	.0016	136.42	.0018	-27.85	46.41
EXTM 51	278.30	289.55	9	1	54.2	359.98	.0036	-28.59	-.0000	65303.4	3.03	87.15	.0000	179.53	.0053	-28.34	27.70
EXTM 61	439.77	451.02	9	4	35.6	2.29	.0039	-31.90	.0001	96471.7	2.58	17.83	.0000	182.04	.0035	-28.37	353.59
EXTM 72	476.49	487.74	9	5	12.4	.30	.0040	-29.55	.0000	98245.7	2.50	68.25	-.0000	180.71	.0094	-28.35	345.39
RISE 11	645.54	656.79	9	8	1.4	294.19	.0040	-30.14	-.0000	127945.0	1.95	.00	.0026	127.92	.0023	-28.22	306.55
SET 51	671.29	682.54	9	8	27.2	90.00	.0039	-27.15	.0001	130114.0	2.55	11.43	-.0032	245.20	-.0013	-28.20	300.52
SET 61	684.69	695.94	9	8	40.6	60.43	.0040	-30.25	.0001	133133.8	2.43	-.00	-.0022	228.71	.0026	-28.18	297.38
SET 72	867.05	878.30	9	11	42.9	94.18	.0039	-27.69	.0001	155941.3	2.38	-.00	-.0035	242.02	-.0005	-28.03	254.11
RISE 42	876.26	887.51	9	11	53.1	254.90	.0040	-26.42	-.0001	156599.5	1.67	3.97	.0029	120.05	-.0021	-28.02	251.91
EXTM 11	915.64	926.89	9	12	31.5	.71	.0042	-30.04	.0000	159045.1	1.95	24.75	-.0000	180.68	.0040	-27.99	242.47
SET 11	1182.99	1194.24	9	16	58.9	66.93	.0041	-29.05	.0001	191376.8	2.05	-.00	-.0026	233.54	.0024	-27.78	177.84
EXTM 42	1301.37	1312.62	9	18	57.2	359.97	.0042	-27.46	.0000	197417.3	1.69	82.24	.0000	.24	-.0244	-27.70	149.01
RISE 51	1436.51	1447.76	9	21	12.4	270.00	.0041	-26.97	-.0000	215819.3	1.26	11.35	.0034	114.63	-.0014	-27.61	115.98
RISE 72	1591.30	1602.55	9	23	47.2	265.89	.0041	-27.28	-.0000	231821.9	1.15	-.00	.0036	117.57	-.0005	-27.52	78.03
RISE 61	1676.37	1687.62	10	1	12.2	257.47	.0041	-28.59	-.0000	239666.3	1.25	.00	.0025	128.82	.0027	-27.47	57.12
SET 42	1724.41	1735.66	10	2	.3	105.00	.0041	-26.53	.0000	243583.6	1.82	3.92	-.0029	240.02	-.0022	-27.44	45.31
EXTM 51	1790.33	1801.58	10	3	6.2	358.57	.0042	-27.45	.0000	243617.7	1.47	87.86	.0023	143.44	.0798	-27.40	29.08
EXTM 61	1926.75	1938.00	10	5	22.6	.30	.0042	-28.63	.0000	259511.1	1.43	21.13	.0000	180.28	.0039	-27.33	355.46
EXTM 72	1946.79	1958.04	10	6	2.7	.09	.0042	-27.78	.0000	259284.5	1.42	70.12	-.0000	180.25	.0108	-27.31	345.58
RISE 11	2111.33	2122.58	10	8	27.2	292.14	.0042	-28.11	-.0000	277299.0	1.06	.00	.0028	125.21	.0024	-27.24	309.89
SET 51	2155.38	2166.63	10	9	11.2	90.00	.0041	-26.73	.0000	279664.2	1.73	11.26	-.0034	245.60	-.0014	-27.22	299.00
SET 61	2176.91	2188.16	10	9	32.8	63.06	.0042	-28.16	.0000	282657.9	1.63	-.00	-.0025	231.81	.0027	-27.21	293.68
SET 72	2341.35	2352.60	10	12	17.2	94.05	.0041	-26.96	.0000	295774.9	1.71	-.00	-.0036	242.76	-.0005	-27.14	252.99
RISE 42	2341.79	2353.04	10	12	17.7	255.00	.0041	-26.39	-.0000	295382.7	.98	3.84	.0029	119.87	-.0022	-27.14	252.89
EXTM 11	2381.93	2393.18	10	12	57.8	.21	.0042	-28.22	.0000	296107.5	1.30	26.58	-.0000	180.20	.0041	-27.12	242.95
SET 11	2452.35	2463.60	10	17	28.2	68.19	.0042	-27.76	.0000	319449.1	1.54	.00	-.0028	235.24	.0024	-27.02	175.93
EXTM 42	2760.99	2772.24	10	19	14.9	360.00	.0042	-26.91	.0000	321158.9	1.21	81.59	-.0000	.12	-.0038	-26.98	148.98
RISE 51	2891.50	2902.75	10	21	27.4	270.00	.0041	-26.51	-.0000	335520.5	.81	11.18	.0034	114.20	-.0015	-26.93	116.59
RISE 72	3044.33	3055.58	11	0	.2	265.99	.0042	-26.72	-.0000	347531.8	.74	-.00	.0037	117.00	-.0005	-26.88	78.52
RISE 61	3123.81	3135.06	11	1	19.7	296.27	.0042	-27.41	-.0000	352959.1	.86	.00	.0025	127.38	.0027	-26.85	58.69
SET 42	3179.13	3190.38	11	2	15.0	105.00	.0041	-26.21	.0000	356306.5	1.46	3.73	-.0030	240.27	-.0023	-26.84	44.88
EXTM 51	3244.47	3255.72	11	3	20.3	359.09	.0042	-26.84	.0000	354833.6	1.13	88.63	.0023	143.70	.1270	-26.82	28.58
EXTM 61	3376.45	3387.70	11	5	33.3	.14	.0042	-27.49	.0000	367706.8	1.14	22.07	-.0000	180.14	.0040	-26.78	355.61
EXTM 72	3416.47	3427.72	11	6	13.3	.07	.0042	-27.09	.0000	366939.0	1.14	70.81	-.0000	180.20	.0110	-26.77	345.60
RISE 11	3555.00	3566.25	11	8	30.9	291.41	.0042	-27.15	-.0000	382414.1	.88	.00	.0028	124.22	.0024	-26.73	310.93
SET 51	3403.97	3415.22	11	9	19.8	90.00	.0042	-26.35	.0000	384754.0	1.63	11.11	-.0035	245.96	-.0015	-26.71	298.64
SET 61	3628.46	3639.71	11	9	44.3	63.99	.0042	-27.49	.0000	387852.9	1.59	-.00	-.0026	232.94	.0027	-26.71	292.48
IMPACT	3684.00	3695.25	11	10	39.9												
IMPC 72	3684.00	3695.25	11	10	39.9	68.93	.0043	-26.72	.0000	390376.8	2.47	22.95	-.0039	244.26	.0002	-26.68	278.39
IMPC 51	3684.00	3695.25	11	10	39.9	110.17	.0043	-26.20	.0000	393410.9	2.44	-4.99	-.0033	237.72	-.0020	-26.68	278.39
IMPC 11	3684.00	3695.25	11	10	39.9	324.26	.0044	-27.44	-.0000	390804.0	1.87	18.84	.0020	146.79	.0035	-26.68	278.39

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	A	21	15.872	6567.841	25.8676	307.6749	10.97540	-3.3764	102.1363	103.3226
SEPARATION	1.20	12.45	A	21	17.072	6544.669	24.2246	314.7972	10.99467	.0519	105.2830	110.7457
RETRO	3.20	14.45	A	21	19.072	6611.341	20.7514	326.1342	10.93567	5.7415	109.8269	122.5841
ENTER SHA	4.35	15.60	A	21	20.223	6707.530	18.4564	332.2193	10.85934	8.9299	111.9678	128.0578
EXIT SHA	45.83	57.08	A	22	1.701	18872.851	-20.9374	45.0024	6.42758	53.6171	109.6294	212.1389
IMPACT	3684.00	3695.25	11	10	39.849	392907.598	-26.6823	278.3948	2.23212	68.5707	275.0701	277.5628

SURVEYOR VIEW PERIODS

GHA	168.7634				EPS	75.7134					LOM	272.6179	
SX	.118218	SY	-.885693	SZ	-.448968	DAO	-26.67747	RAO	277.60262	RM	394248.480	LAT	28.310600
LON	279.461800												
C3	-.926015	EPC	.984796	SLR	12989.832	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000
PCL	-.0												
NSX	.138432	NSY	-.882592	NSZ	-.449236	C3M	1.4972	VIM	2.6714	ZAE	141.057	B.T	.0000
B.R	-.0000												
LATE	4.4296	LONE	5.7448	LATS	-.8758	LONS	290.3153	LATI	-1.2320	LONI	327.2043	RSM	150.0
TTAN	6.7511												
LAUNCH DATE	APR	8.1966		BASE AZM	90.0	TF	61.413				ARRIVAL DATE	APR	11 1966 11 3 4.2

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
90.00	21 29 25.7	27.9	24.64	307.65	-1.35	109.52	104.40	21 40 40.7	6545.6	10.99	-.67

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	8	21	40.7												
SEPARATION	1.20	12.45	8	21	41.9												
RETRO	3.20	14.45	8	21	43.9												
ENTER SHA	3.31	14.56	8	21	44.0												
RISE 72	5.47	16.72	8	21	46.1	71.44	-.3715	66.45	.0861	2828.8	-5.71	-.00	.1098	337.75	.1319	14.24	336.56
RISE 61	8.70	19.95	8	21	49.4	17.12	-.1773	-48.48	-.0063	4158.1	4.69	.00	.0203	191.25	-.1160	7.57	349.57
RISE 51	11.49	22.74	8	21	52.2	69.52	-.1113	35.97	-.0275	5318.3	-3.12	.00	.0908	310.69	.0251	2.45	358.60
EXTM 72	12.16	23.41	8	21	52.8	310.89	-.0602	20.45	-.1188	3070.7	5.88	34.02	-.0000	58.71	.1586	1.32	.52
EXTM 61	13.83	25.08	8	21	54.5	340.37	-.0733	-45.56	.0137	6035.7	6.90	2.42	-.0000	166.38	-.0535	-1.24	4.87
SET 61	25.72	36.97	8	22	6.4	314.19	-.0182	-39.48	.0046	11014.4	6.73	-.00	-.0038	146.40	-.0143	-13.12	25.22
EXTM 51	36.15	47.40	8	22	16.8	349.03	-.0160	-13.22	-.0121	9895.9	5.38	73.78	-.0000	41.55	.0706	-18.19	34.56
EXIT SHA	44.78	56.03	8	22	25.5												
EXIT 72	44.78	56.03	8	22	25.5	286.18	-.0026	-21.36	-.0038	15876.3	5.68	17.89	-.0023	109.98	.0040	-20.70	39.35
EXIT 51	44.78	56.03	8	22	25.5	342.80	-.0089	-17.89	-.0067	12667.8	5.30	72.23	-.0041	67.23	.0327	-20.70	39.35
EXIT 61	44.78	56.03	8	22	25.5	305.02	-.0049	-36.62	.0014	18061.5	5.67	-2.95	-.0015	137.64	-.0039	-20.70	39.35
EXTM 72	64.69	75.94	8	22	45.4	284.85	-.0000	-24.41	-.0017	22178.7	4.53	16.73	.0000	113.20	.0018	-23.91	45.19
EXTM 51	82.07	93.32	8	23	2.8	335.52	-.0002	-24.83	-.0014	23601.0	4.50	67.87	.0000	92.97	.0038	-25.36	47.06
RISE 61	136.31	147.56	8	23	57.0	304.86	.0024	-34.04	.0002	42591.3	3.73	-.00	.0014	137.44	.0014	-27.26	44.90
EXTM 51	247.59	258.84	9	1	48.3	359.96	.0035	-28.43	-.0000	59785.1	2.93	87.31	.0000	179.11	.0592	-28.17	27.72
EXTM 61	413.73	424.98	9	4	34.4	2.45	.0039	-31.98	.0001	92560.3	2.04	17.75	.0000	182.18	.0035	-28.31	353.44
EXTM 72	450.03	461.28	9	5	10.7	.28	.0040	-29.54	.0000	94383.1	2.55	68.26	.0000	180.65	.0094	-28.29	349.42
RISE 11	620.52	631.77	9	8	1.2	294.20	.0040	-30.15	-.0000	124699.5	1.98	.00	.0026	127.94	.0023	-28.18	306.48
SET 51	645.74	656.99	9	8	26.4	90.00	.0038	-27.09	.0001	126849.4	2.58	11.41	-.0032	245.26	-.0013	-28.16	300.60
SET 61	659.17	670.42	9	8	39.9	60.41	.0039	-30.27	.0001	129897.0	2.46	-.00	-.0022	228.68	-.0026	-28.15	297.45
SET 72	842.08	853.33	9	11	42.8	94.18	.0039	-27.66	.0001	153059.7	2.40	-.00	-.0035	242.05	-.0005	-28.00	254.17
RISE 42	851.68	862.93	9	11	52.4	254.99	.0040	-26.57	-.0001	153781.4	1.69	3.94	.0028	120.01	-.0021	-27.99	251.87
EXTM 11	891.02	902.27	9	12	31.7	.72	.0041	-30.05	.0000	156269.4	1.97	24.74	-.0000	180.69	.0040	-27.95	242.46
SET 11	1158.55	1169.80	9	16	54.2	66.93	.0041	-29.65	.0001	188897.7	2.07	-.00	-.0026	233.54	.0024	-27.76	177.86
EXTM 42	1277.23	1288.48	9	18	57.9	.00	.0042	-27.44	.0000	195069.9	1.70	82.22	-.0000	359.86	-.0027	-27.68	148.98
RISE 51	1412.39	1423.64	9	21	13.1	270.00	.0041	-26.95	-.0000	213571.6	1.27	11.35	.0034	114.61	-.0014	-27.60	115.96
RISE 72	1567.25	1578.50	9	23	47.9	265.89	.0041	-27.27	-.0000	229680.1	1.16	-.01	.0036	117.55	-.0005	-27.51	78.01
RISE 61	1652.34	1663.59	10	1	13.0	297.47	.0041	-28.59	-.0000	237574.9	1.26	.00	.0025	128.82	.0027	-27.46	57.11
SET 42	1700.29	1711.54	10	2	1.0	105.00	.0041	-26.52	.0000	241513.2	1.83	3.91	-.0029	240.03	-.0022	-27.43	48.32
EXTM 51	1766.27	1777.52	10	3	6.9	358.56	.0042	-27.44	.0000	241387.1	1.48	87.87	.0023	143.26	.0797	-27.40	29.08
EXTM 61	1902.74	19 3.99	10	5	23.4	.30	.0042	-28.64	.0000	257553.2	1.44	21.12	.0000	180.28	.0039	-27.33	359.46
EXTM 72	1942.79	1954.04	10	6	3.5	.09	.0042	-27.78	.0000	257346.3	1.42	70.12	-.0000	180.25	.0108	-27.31	345.98
RISE 11	2087.40	2098.65	10	8	28.1	292.15	.0042	-28.11	-.0000	275431.7	1.07	.00	.0028	125.22	.0024	-27.24	309.88
SET 51	2131.38	2142.63	10	9	12.1	90.00	.0041	-26.72	.0000	277810.5	1.73	11.26	-.0034	245.61	-.0014	-27.22	299.01
SET 61	2152.91	2164.16	10	9	33.6	63.06	.0042	-28.17	.0000	280812.6	1.63	-.00	-.0025	231.80	.0027	-27.21	293.69
SET 72	2317.39	2328.64	10	12	18.1	94.05	.0041	-26.96	.0000	293998.3	1.72	-.00	-.0036	242.76	-.0005	-27.14	253.00
RISE 42	2317.89	2329.14	10	12	18.6	255.00	.0041	-26.39	-.0000	293611.4	.99	3.84	.0029	119.86	-.0022	-27.14	252.88
EXTM 11	2358.00	2369.25	10	12	58.7	.20	.0042	-28.22	.0000	294349.8	1.30	26.57	-.0000	180.20	.0041	-27.12	242.95
SET 11	2428.43	2439.68	10	17	29.1	68.19	.0042	-27.77	.0000	317786.1	1.55	.00	-.0028	235.23	.0024	-27.02	175.94
EXTM 42	2737.13	2748.38	10	19	17.8	360.00	.0042	-26.81	.0000	319535.6	1.21	81.59	-.0000	.12	-.0031	-26.98	148.98
RISE 51	2867.66	2878.91	10	21	28.3	270.00	.0041	-26.51	-.0000	333939.5	.81	11.18	.0034	114.20	-.0015	-26.93	116.59
RISE 72	3020.60	3031.85	11	0	1.3	265.99	.0042	-26.72	-.0000	346020.0	.74	-.00	.0037	117.00	-.0005	-26.88	78.91
RISE 61	3100.10	3111.35	11	1	20.8	296.28	.0042	-27.62	-.0000	351451.5	.86	.00	.0025	127.39	-.0027	-26.86	58.68
SET 42	3155.34	3166.59	11	2	16.0	105.00	.0041	-26.22	.0000	354794.4	1.46	3.73	-.0030	240.27	-.0023	-26.84	44.89
EXTM 51	3220.63	3231.88	11	3	21.3	359.08	.0042	-26.84	.0000	353317.5	1.13	88.62	.0023	143.44	.1256	-26.82	28.59
EXTM 61	3352.64	3363.89	11	5	33.3	.14	.0042	-27.70	.0000	366178.8	1.13	22.06	-.0000	180.14	.0040	-26.79	355.61
EXTM 72	3392.67	3403.92	11	6	13.3	.07	.0042	-27.10	.0000	365301.4	1.13	70.81	-.0000	180.19	.0110	-26.77	349.60
RISE 11	3531.27	3542.52	11	8	32.0	291.42	.0042	-27.36	-.0000	380799.4	.86	.00	.0028	124.23	.0024	-26.74	318.92
SET 51	3580.21	3591.46	11	9	20.9	90.00	.0042	-26.16	.0000	383057.8	1.59	11.12	-.0035	245.95	-.0015	-26.72	298.64
SET 61	3604.68	3615.93	11	9	45.4	63.98	.0042	-27.40	.0000	386084.5	1.53	-.00	-.0025	232.92	.0027	-26.71	292.58
IMPACT	3684.80	3696.05	11	11	5.5												
IMPC 72	3684.80	3696.05	11	11	5.5	74.44	.0043	-26.69	.0000	391045.2	2.48	17.41	-.0039	244.43	.0000	-26.69	272.22
IMPC 11	3684.80	3696.05	11	11	5.5	330.51	.0044	-27.47	.0000	390629.1	1.90	21.41	.0017	152.02	.0038	-26.69	272.22

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	/	RT ASC
INJECTION	.00	11.25	8	21	40.678	6545.974	24.6430	307.6489	10.99408	-.6711	104.3973	109.5152
SEPARATION	1.20	12.45	8	21	41.878	6559.983	22.7511	314.6112	10.98178	2.7495	107.3201	116.7784
RETRO	3.20	14.45	8	21	43.878	3687.552	-8.9866	325.5343	10.87572	8.3727	111.4038	128.2028
ENTER SHA	3.31	14.56	8	21	43.986	6697.87	-10.7706	326.0872	10.86728	8.6652	111.5914	126.7826
EXIT SHA	44.78	56.03	8	22	25.454	18839.954	-20.7018	39.3525	6.43340	53.5815	109.7552	212.4435
IMPACT	3684.80	3696.05	11	11	5.475	393000.426	-26.6854	272.2243	2.22975	68.2837	274.7401	277.8114

SURVEYOR VIEW PERIODS

GHA	198.7644					EPS	75.9079					LOM	266.7199
SX	.121872	SY	-.885173	SZ	-.449016	DAO	-26.68060	RAO	277.83926	RM	394332.461	LAT	28.310600	LON	279.461800
C3	-.992656	F&G	.9847AR	SLR	12989.777	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.142276	NSY	-.882003	NSZ	-.449252	C3M	1.4967	VIM	2.6713	ZAE	141.048	B.T	.0000	B.R	-.0000
LATE	4.4485	LONE	5.7524	LATS	-.8755	LONS	290.1065	LATI	-1.2568	LONI	327.1884	RSM	150.0343	TTAN	6.7504
LAUNCH DATE		APR	8,1966		BASE AZM	93.0	TF	61.445			ARRIVAL DATE	APR	11 1966	11	27 32.5

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
93.00	21 48 45.3	28.0	23.45	307.45	2.83	114.14	106.57	22 0 .3	6548.6	10.99	1.40

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
					PROBE IN SUNLIGHT												
INJECTION	.00	11.25	8	22	.0												
SEPARATION	1.20	12.45	8	22	1.2												
ENTER SHA	2.52	13.77	8	22	2.5												
RETRO	3.20	14.45	8	22	3.2												
RISE 72	5.11	16.36	8	22	5.0	76.72	-.2697	58.86	.0686	2931.8	-6.35	-.00	.1162	329.78	.1033	13.44	333.19
RISE 61	8.82	20.07	8	22	8.8	20.47	-.1545	-47.91	-.0081	4512.1	4.68	.00	.0206	193.56	-.1045	5.63	347.93
RISE 51	11.32	22.57	8	22	11.3	72.46	-.1004	32.01	-.0297	5553.8	-2.86	.00	.0883	306.05	.0181	1.19	355.60
EXTM 72	11.79	23.04	8	22	11.8	321.57	-.0823	19.34	-.1236	2844.5	5.53	43.36	-.0000	53.77	.2007	.43	356.88
EXTM 61	15.22	26.47	8	22	15.2	341.22	-.0600	-45.19	.0107	6852.1	6.80	2.92	-.0000	166.87	-.0437	-4.47	5.11
SET 61	34.38	45.63	8	22	34.4	312.71	-.0099	-38.72	.0026	14435.9	6.11	-.00	-.0022	145.02	-.0079	-18.15	29.25
EXTM 51	39.52	50.77	8	22	39.5	352.57	-.0137	-16.42	-.0090	11129.5	5.28	78.39	-.0000	38.07	.0772	-19.85	32.52
EXIT SHA	43.43	54.68	8	22	43.4												
EXIT 72	43.43	54.68	8	22	43.4	291.43	-.0030	-22.26	-.0037	15228.7	5.72	22.77	-.0028	110.89	.0039	-20.88	34.51
EXIT 51	43.43	54.68	8	22	43.4	349.84	-.0103	-18.28	-.0069	12365.6	5.25	77.99	-.0030	53.63	.0557	-20.88	34.51
EXIT 61	43.43	54.68	8	22	43.4	308.65	-.0055	-37.1	.0016	17633.2	5.67	-.95	-.0013	141.77	-.0045	-20.88	34.51
EXTM 72	66.11	77.36	8	23	6.1	289.75	.0000	-25.46	-.0015	22384.0	4.87	21.18	.0000	114.31	.0016	-24.42	41.02
EXTM 51	84.91	96.16	8	23	24.9	341.07	-.0001	-25.61	-.0012	24403.8	4.44	72.96	.0000	93.70	.0041	-25.84	42.73
RISE 61	107.67	118.92	8	23	47.7	304.26	.0016	-34.96	.0003	35833.1	4.07	-.00	.0011	138.64	.0009	-26.81	42.55
EXTM 51	222.33	233.58	9	1	42.3	359.94	.0033	-28.55	-.0001	55063.3	3.27	87.19	.0000	178.84	.0566	-28.26	27.74
EXTM 61	393.83	405.08	9	4	33.8	2.72	.0038	-32.24	.0001	89529.4	2.68	17.48	.0000	182.41	.0034	-28.44	353.20
EXTM 72	429.49	440.74	9	5	9.5	.31	.0040	-29.82	.0000	91332.0	2.59	68.08	.0000	180.72	.0092	-28.42	345.38
RISE 11	411.65	412.90	9	8	1.7	294.36	.0040	-30.51	-.0000	122216.0	2.01	.00	.0026	128.14	.0023	-28.29	306.27
SET 51	625.78	637.03	9	8	25.8	90.00	.0038	-27.18	.0001	124252.4	2.60	11.44	-.0032	245.18	-.0013	-28.27	300.66
SET 61	638.47	649.72	9	8	38.5	60.21	.0039	-30.42	.0001	127224.4	2.48	-.00	-.0022	228.45	.0026	-28.26	297.70
SET 72	822.79	833.95	9	11	42.7	94.19	.0039	-27.74	.0001	150791.9	2.42	-.00	-.0034	241.97	-.0005	-28.09	254.19
RISE 42	832.56	843.81	9	11	52.6	254.99	.0040	-26.63	-.0001	151550.6	1.71	3.96	.0028	120.06	-.0021	-28.08	251.84
EXTM 11	871.99	883.24	9	12	32.0	.76	.0041	-30.16	.0000	154105.1	1.99	24.62	-.0000	180.73	.0039	-28.05	242.42
SET 11	1139.18	1150.43	9	16	59.2	66.84	.0041	-29.13	.0001	186902.3	2.08	-.00	-.0026	233.43	.0024	-27.83	177.97
EXTM 42	1258.32	1269.57	9	18	58.3	359.99	.0042	-27.50	.0000	193199.6	1.71	82.28	-.0000	.13	-.0095	-27.75	148.99
RISE 51	1393.64	1404.89	9	21	13.7	270.00	.0041	-27.00	-.0000	211791.2	1.28	11.37	.0034	114.66	-.0014	-27.65	115.95
RISE 72	1548.52	1559.77	9	23	48.5	265.88	.0041	-27.32	-.0000	227979.3	1.17	-.01	.0036	117.60	-.0005	-27.56	78.00
RISE 61	1633.92	1645.17	10	1	13.9	297.54	.0041	-28.65	-.0000	235940.2	1.26	.00	.0025	128.91	.0027	-27.50	57.03
SET 42	1681.54	1692.79	10	2	1.5	105.00	.0041	-26.56	.0000	239865.4	1.84	3.94	-.0029	240.00	-.0022	-27.48	45.33
EXTM 51	1747.50	1758.75	10	3	7.5	358.55	.0042	-27.49	.0000	239968.1	1.48	87.82	-.0023	143.65	.0784	-27.44	29.10
EXTM 61	1884.11	1895.36	10	5	24.1	.31	.0042	-28.69	.0000	256002.5	1.44	21.08	.0000	180.29	.0039	-27.37	355.45
EXTM 72	1924.13	1935.38	10	6	4.1	.10	.0042	-27.82	.0000	255804.3	1.43	70.08	-.0000	180.26	.0108	-27.35	345.58
RISE 11	2068.94	2080.19	10	8	28.9	292.18	.0042	-28.15	-.0000	273951.8	1.08	.00	.0028	125.27	.0024	-27.27	309.83
SET 51	2112.72	2123.97	10	9	12.7	90.00	.0041	-26.75	.0000	276326.1	1.74	11.27	-.0034	245.58	-.0014	-27.25	299.02
SET 61	2134.07	2145.32	10	9	34.1	63.01	.0042	-28.21	.0000	279321.6	1.64	-.00	-.0025	231.75	.0027	-27.24	293.74
SET 72	2298.77	2310.02	10	12	18.8	94.05	.0041	-26.98	-.0000	292573.2	1.72	-.00	-.0036	242.74	-.0005	-27.17	253.00
RISE 42	2299.30	2310.55	10	12	19.3	255.00	.0041	-26.41	-.0000	292187.3	.99	3.85	.0029	119.88	-.0022	-27.17	252.87
EXTM 11	2339.42	2350.67	10	12	59.4	.21	.0042	-28.26	.0000	292942.6	1.31	26.54	-.0000	180.21	.0041	-27.15	242.94
SET 11	2609.73	2620.98	10	17	29.7	68.16	.0042	-27.80	.0000	316435.0	1.55	.00	-.0028	235.20	.0024	-27.04	175.97
EXTM 42	2718.55	2729.80	10	19	18.6	360.00	.0042	-26.83	.0000	318218.5	1.22	81.61	-.0000	.14	-.0029	-27.00	148.98
RISE 51	2849.12	2860.37	10	21	29.1	270.00	.0041	-26.53	-.0000	332652.2	.82	11.18	.0034	114.21	-.0015	-26.95	116.58
RISE 72	3002.05	3013.30	11	0	2.1	265.99	.0042	-26.74	-.0000	344756.7	.74	-.00	.0037	117.02	-.0005	-26.90	78.51
RISE 61	3081.63	3092.88	11	1	21.6	296.30	.0042	-27.63	-.0000	350195.7	.86	.00	.0025	127.42	.0027	-26.87	58.65
SET 42	3136.77	3148.02	11	2	16.8	105.10	.0041	-26.23	.0000	353530.7	1.46	3.74	-.0030	240.26	-.0023	-26.86	44.89
EXTM 51	3202.00	3213.25	11	3	22.0	359.06	.0042	-26.86	.0000	352049.5	1.12	88.60	.0023	143.22	.1234	-26.84	28.61
EXTM 61	3334.11	3345.36	11	5	34.1	.15	.0042	-27.72	.0000	364908.0	1.13	22.04	-.0000	180.14	.0040	-26.80	355.61
EXTM 72	3374.13	3385.38	11	6	14.1	.07	.0042	-27.11	.0000	364022.6	1.13	70.79	-.0000	180.19	.0111	-26.79	345.60
RISE 11	3512.82	3524.07	11	8	32.8	291.43	.0042	-27.37	-.0000	379472.2	.85	.00	.0028	124.25	.0024	-26.75	310.90
SET 51	3561.72	3572.97	11	9	21.7	90.00	.0042	-26.36	.0000	381680.1	1.57	11.12	-.0034	245.94	-.0015	-26.73	298.65
SET 61	3586.15	3597.40	11	9	46.2	63.96	.0042	-27.42	.0000	384666.0	1.50	-.00	-.0025	232.90	.0027	-26.72	292.52
IMPACT	3686.67	3697.92	11	11	26.7												
IMPC 72	3686.67	3697.92	11	11	26.7	79.57	.0043	-26.45	.0000	391609.8	2.49	12.82	-.0039	244.35	-.0001	-26.69	267.11
IMPC 11	3686.67	3697.92	11	11	26.7	335.69	.0044	-27.48	.0000	390517.2	1.92	23.24	.0014	156.58	.0039	-26.69	267.11

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	8	22	.006	6548.640	23.4487	307.4284	10.99146	1.4047	106.5752	114.1394
SEPARATION	1.20	12.45	8	22	1.206	6591.576	21.3271	314.2111	10.95521	4.8208	109.2766	121.2233
ENTER SHA	2.52	13.77	8	22	2.526	6691.945	18.7218	321.2685	10.87210	8.4986	111.8103	128.6117
RETRO	3.20	14.45	8	22	3.206	6764.361	17.3068	324.7122	10.81329	10.3422	112.9284	132.2258
EXIT SHA	43.43	54.68	8	22	43.440	18648.814	-20.8807	34.5148	6.46698	53.3698	109.7626	212.1147
IMPACT	3686.67	3697.92	11	11	26.676	393074.648	-26.6880	267.1148	2.22834	68.1896	274.7584	278.0166

SURVEYOR VIEW PERIODS

GHA	198.7634					EPS	76.0451							LOM	262.5596
SX	.124447	SY	-.884799	SZ	-.449047	DAO	-26.68257	RAD	278.00613	RM	394391.543	LAT	28.310600	LON	279.461800
C3	-.927043	ECC	.984779	SLR	12989.718	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.144845	NSY	-.881578	NSZ	-.449267	C3M	1.4974	VIM	2.6715	ZAE	141.013	B.T	.0000	B.R	-.0000
LATE	4.4617	LONE	5.7430	LATS	-.8753	LONS	289.9599	LATI	-1.4093	LONI	327.1692	RSM	150.0339	TTAN	6.7504
LAUNCH DATE		APR	8,1966		BASE AZM	96.0		TF	61.469				ARRIVAL DATE APR 11 1966 11 44 48.2		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
96.00	22 2 57.0	28.1	22.28	307.08	5.86	117.35	108.71	22 14 12.0	6561.7	10.98	2.91

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	8	22	14.2												
SEPARATION	1.20	12.45	8	22	15.4												
ENTER SHA	1.97	13.22	8	22	16.2												
RETRO	3.20	14.45	8	22	17.4												
RISE 72	4.69	15.94	8	22	18.9	79.54	-.2225	52.59	.0497	3012.9	-6.77	.00	.1204	323.32	.0790	12.41	330.53
RISE 61	9.50	20.75	8	22	23.7	18.75	-.1359	-48.21	-.0050	5018.5	5.05	.00	.0174	192.37	-.0890	2.64	348.13
RISE 51	11.22	22.47	8	22	25.4	74.92	-.0923	28.36	-.0319	5731.9	-2.66	-.01	.0864	301.82	.0124	-.31	353.07
EXTM 72	11.52	22.77	8	22	25.7	331.28	-.1029	16.48	-.1241	2674.7	5.25	52.56	-.0000	49.28	.2608	-.78	353.86
EXTM 61	16.73	27.98	8	22	30.9	341.59	-.0499	-45.48	.0087	7700.4	6.70	2.71	-.0000	167.20	-.0361	-7.74	5.44
SET 61	42.34	53.59	8	22	56.5	313.16	-.0062	-38.95	.0019	17340.3	5.67	-.00	-.0011	14[illegible]44	-.0051	-21.55	30.67
EXTM 51	42.48	53.73	8	22	56.7	355.42	-.0114	-19.39	-.0069	12176.0	5.20	82.38	-.0000	34.57	.0967	-21.59	30.74
EXIT SHA	42.81	54.06	8	22	57.0												
EXIT 72	42.81	54.06	8	22	57.0	295.54	-.0034	-23.77	-.0034	14877.0	5.73	26.50	-.0033	112.68	.0036	-21.67	30.90
EXIT 51	42.81	54.06	8	22	57.0	355.19	-.0112	-19.53	-.0068	12281.3	5.20	82.37	-.0004	36.51	.0945	-21.67	30.90
EXIT 61	42.81	54.06	8	22	57.0	312.99	-.0060	-38.90	.0018	17499.7	5.65	-.03	-.0011	145.30	-.0049	-21.67	30.90
EXTM 72	67.68	78.93	8	23	21.9	293.53	.0001	-26.84	-.0013	22685.0	4.82	24.51	.0000	115.96	.0014	-25.33	37.87
RISE 61	86.43	97.68	8	23	40.6	308.51	.0006	-36.35	.0005	30440.6	4.41	-.00	.0007	140.93	.0001	-26.60	39.38
EXTM 51	202.51	213.76	9	1	36.7	359.92	.0031	-28.97	-.0001	51223.5	3.37	86.77	.0000	178.76	.0473	-28.61	27.75
EXTM 61	379.84	391.09	9	4	34.0	3.09	.0038	-32.66	.0001	87394.0	2.71	17.05	.0000	182.72	.0034	-28.76	352.85
EXTM 72	414.48	425.73	9	5	8.7	.38	.0040	-30.19	.0001	89078.3	2.63	67.72	.0000	180.87	.0090	-28.73	345.32
RISE 11	588.54	599.79	9	8	2.7	294.66	.0040	-30.59	-.0000	120476.4	2.03	.00	.0025	128.52	.0023	-28.54	305.94
SET 51	611.07	622.32	9	8	25.3	90.00	.0038	-27.41	.0001	122309.4	2.62	11.53	-.0031	244.97	-.0013	-28.51	300.71
SET 61	622.26	633.51	9	8	36.5	59.83	.0039	-30.71	.0001	125102.7	2.50	-.00	-.0021	228.01	.0026	-28.50	298.11
SET 72	808.56	819.81	9	11	42.8	94.23	.0039	-27.94	.0001	149121.9	2.43	-.00	-.0034	241.77	-.0004	-28.29	254.19
RISE 42	818.55	829.80	9	11	52.7	254.99	.0040	-26.82	-.0001	149891.0	1.72	4.09	.0028	120.20	-.0021	-28.28	251.81
EXTM 11	858.19	869.44	9	12	32.4	.84	.0041	-30.38	.0000	152535.3	2.00	24.41	-.0000	180.79	.0039	-28.24	242.35
SET 11	1124.55	1135.80	9	16	58.8	66.68	.0041	-29.29	.0001	185381.0	2.09	-.00	-.0026	233.21	.0024	-27.98	178.14
EXTM 42	1244.33	1255.58	9	18	58.5	359.96	.0042	-27.64	.0000	191803.1	1.72	82.42	.0000	.31	-.0257	-27.88	149 02
RISE 51	1379.89	1391.14	9	21	14.1	270.00	.0041	-27.12	-.0000	210471.8	1.29	11.41	.0034	114.77	-.0014	-27.77	115.93
RISE 72	1534.73	1545.98	9	23	48.9	265.86	.0041	-27.42	-.0000	226717.0	1.18	-.01	.0036	117.71	-.0005	-27.66	78.01
RISE 61	1620.73	1631.98	10	1	14.9	297.67	.0041	-28.75	-.0000	234762.2	1.27	.00	.0024	129.06	.0027	-27.60	56.90
SET 42	1667.76	1679.01	10	2	2.0	105.00	.0041	-26.65	.0000	238641.7	1.84	3.99	-.0029	239.93	-.0022	-27.57	45.34
EXTM 51	1733.69	1744.94	10	3	7.9	358.53	.0042	-27.58	.0000	238767.7	1.49	87.74	.0022	144.70	.0764	-27.53	29.12
EXTM 61	1870.49	1881.74	10	5	24.7	.33	.0042	-28.77	.0000	254864.9	1.45	20.99	.0000	180.31	.0039	-27.45	359.42
EXTM 72	1910.45	1921.70	10	6	4.7	.10	.0042	-27.90	.0000	254665.8	1.43	70.00	-.0000	180.27	.0107	-27.42	345.57
RISE 11	2055.56	2066.81	10	8	29.8	292.26	.0042	-28.22	-.0000	272869.9	1.08	.00	.0028	125.37	.0024	-27.34	309.76
SET 51	2099.01	2110.26	10	9	13.2	90.00	.0041	-26.81	.0000	275224.0	1.74	11.30	-.0034	245.52	-.0014	-27.32	299.02
SET 61	2120.03	2131.28	10	9	34.2	62.93	.0042	-28.28	.0000	278199.5	1.64	-.00	-.0025	231.64	.0027	-27.31	293.83
SET 72	2285.12	2296.37	10	12	19.3	94.06	.0041	-27.04	.0000	291518.2	1.73	-.00	-.0036	242.68	-.0005	-27.23	253.00
RISE 42	2285.65	2296.90	10	12	19.8	255.00	.0041	-26.47	-.0000	291128.9	1.00	3.88	.0029	119.92	-.0022	-27.23	252.87
EXTM 11	2325.82	2337.07	10	13	.0	.23	.0042	-28.31	.0000	291905.3	1.31	26.48	-.0000	180.22	.0041	-27.21	242.93
SET 11	2595.90	2607.15	10	17	30.1	68.12	.0042	-27.84	.0000	315424.3	1.55	.00	-.0028	235.14	.0024	-27.08	176.02
EXTM 42	2704.90	2716.15	10	19	19.1	360.00	.0042	-26.87	.0000	317239.2	1.22	81.65	-.0000	.13	-.0042	-27.03	148.98
RISE 51	2835.49	2846.74	10	21	29.7	270.00	.0041	-26.56	-.0000	331694.0	.82	11.19	.0034	114.24	-.0015	-26.98	116.58
RISE 72	2988.53	2999.78	11	0	2.7	265.98	.0042	-26.76	-.0000	343860.8	.74	-.00	.0037	117.04	-.0005	-26.92	78.51
RISE 61	3068.23	3079.48	11	1	22.4	296.33	.0042	-27.66	-.0000	349307.6	.86	.00	.0025	127.45	.0027	-26.89	58.62
SET 42	3123.22	3134.47	11	2	17.4	105.00	.0041	-26.25	.0000	352630.4	1.46	3.75	-.0030	240.25	-.0023	-26.88	44.89
EXTM 51	3188.34	3199.59	11	3	22.5	359.03	.0042	-26.88	.0000	351141.1	1.12	88.57	.0023	142.89	.1202	-26.85	28.63
EXTM 61	3320.58	3331.83	11	5	34.8	.15	.0042	-27.74	.0000	364000.0	1.13	22.03	-.0000	180.15	.0040	-26.81	359.60
EXTM 72	3360.57	3371.82	11	6	14.8	.07	.0042	-27.13	.0000	363106.1	1.13	70.78	-.0000	180.20	.0111	-26.80	345.60
RISE 11	3499.31	3510.56	11	8	33.5	291.44	.0042	-27.39	-.0000	378519.7	.84	.00	.0028	124.26	.0024	-26.76	310.89
SET 51	3548.15	3559.40	11	9	22.4	90.00	.0042	-26.37	.0000	380692.9	1.55	11.12	-.0034	245.93	-.0015	-26.74	298.65
SET 61	3572.54	3583.79	11	9	46.7	63.95	.0042	-27.43	.0000	383653.0	1.48	-.00	-.0025	232.88	.0027	-26.73	292.93
IMPACT	3688.14	3699.39	11	11	42.3												
IMPC 42	3688.14	3699.39	11	11	42.3	244.87	.0043	-26.07	-.0000	393451.0	1.75	-3.33	.0029	125.45	-.0026	-26.69	263.34
IMPC 72	3688.14	3699.39	11	11	42.3	83.36	.0043	-26.63	.0000	392035.0	2.49	9.44	-.0039	244.18	-.0002	-26.69	263.34
IMPC 11	3688.14	3699.39	11	11	42.3	339.51	.0044	-27.49	.0000	390458.7	1.94	24.38	.0012	160.07	.0040	-26.69	263.34

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	8	22	14.199	6561.809	22.2797	307.0900	10.98041	2.9083	108.7096	117.3596
SEPARATION	1.20	12.45	8	22	15.399	6625.061	19.9476	313.6676	10.92725	6.3002	111.1906	124.2380
ENTER SHA	1.97	13.22	8	22	16.166	6689.370	18.3506	317.6826	10.87419	8.4249	112.5714	128.4453
RETRO	3.20	14.45	8	22	17.399	6829.608	15.6816	323.7825	10.76108	11.7403	114.4492	134.8542
EXIT SHA	42.81	54.06	8	22	57.014	18619.627	-21.6672	30.8980	6.47212	53.3370	109.4248	211.9006
IMPACT	3688.14	3699.39	11	11	42.344	393131.922	-26.6901	263.3393	2.22642	67.9674	274.9802	278.1687

APR 8/1966
96 DEGREES

SURVEYOR VIEW PERIODS

GHA	198.7634					EPS	76.1559							LOM	259.1967
SX	.126527	SY	-.844493	SZ	-.449070	DAO	-26.68402	RAO	278.14098	RM	394439.207	LAT	28.310600	LON	279.461800
C3	-.929646	ECC	.984736	SLR	12989.435	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.144942	NSY	-.881223	NSZ	-.449282	C3M	1.4972	VIM	2.6714	ZAE	140.927	B.T	.0000	B.R	-.0000
LATE	4.4724	LONE	5.8634	LATS	-.8750	LONS	289.9695	LATI	-1.6543	LONI	327.2431	RSM	150.0336	TTAN	6.7509
LAUNCH DATE		APR	8,1966		BASE AZM	99.0		TF	61.521			ARRIVAL DATE		APR 11 1966 11 58 45.3	

LNCH AZMTH	LNCH TIME	PH	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99.00	22 13 13.9	28.1	21.14	306.65	8.02	119.50	110.81	22 24 28.9	6576.6	10.97	3.98

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	8	22	24.5												
SEPARATION	1.20	12.45	8	22	25.7												
ENTER SHA	1.59	12.84	8	22	26.1												
RETRO	3.20	14.45	8	22	27.7												
RISE 72	4.46	15.71	8	22	28.9	81.39	-.1946	47.17	.0317	3073.4	-7.04	-.00	.1231	317.77	.0578	11.21	328.37
RISE 51	11.16	22.41	8	22	35.6	77.07	-.0861	24.49	-.0341	5863.4	-2.50	.00	.0849	297.85	.0074	-1.99	350.90
RISE 61	10.89	22.14	8	22	35.4	12.81	-.1094	-49.05	.0000	5753.7	5.59	.00	.0121	188.35	-.0707	-1.54	350.16
EXTM 72	11.33	22.58	8	22	35.8	339.90	-.1202	12.11	-.1213	2549.5	5.04	61.72	-.0000	45.16	.3564	-2.25	351.32
EXTM 61	18.35	29.60	8	22	42.8	341.52	-.0423	-46.25	.0073	8580.2	6.60	1.95	-.0000	167.34	-.0302	-11.06	5.91
EXIT SHA	41.82	53.07	8	23	6.3												
EXIT 72	41.82	53.07	8	23	6.3	298.89	-.0040	-25.58	-.0031	14435.7	5.77	29.41	-.0039	114.97	.0031	-22.70	27.79
EXIT 51	41.82	53.07	8	23	6.3	359.84	-.0125	-21.10	-.0068	12063.6	5.17	85.35	.0064	1.82	.1454	-22.70	27.79
EXIT 61	41.82	53.07	8	23	6.3	316.63	-.0068	-40.52	.0021	17275.9	5.65	.12	-.0009	148.54	-.0055	-22.70	27.79
SET 61	44.26	55.51	8	23	8.7	315.71	-.0058	-40.23	.0019	18096.9	5.55	-.00	-.0008	147.78	-.0048	-23.25	28.94
EXTM 51	44.90	56.15	8	23	9.4	357.74	-.0103	-22.23	-.0055	13018.4	5.14	85.92	-.0000	30.92	.1554	-23.38	29.22
EXTM 72	69.17	80.42	8	23	33.7	296.38	.0001	-28.46	-.0010	23007.3	4.78	26.90	.0000	117.97	.0011	-26.52	35.48
RISE 61	76.37	87.62	8	23	40.8	311.21	-.0002	-37.91	.0008	27779.1	4.60	-.00	.0006	143.59	-.0006	-27.03	36.26
EXTM 51	187.37	198.62	9	1	31.8	359.95	.0029	-29.68	-.0000	48202.0	3.46	86.06	-.0000	179.30	.0354	-29.22	27.73
EXTM 61	370.53	381.78	9	4	35.0	3.55	.0038	-33.20	.0002	85986.1	2.74	16.49	.0000	183.09	.0033	-29.23	352.43
EXTM 72	403.88	415.13	9	5	8.4	.49	.0039	-30.69	.0001	87473.2	2.65	67.20	.0000	181.09	.0087	-29.18	345.22
RISE 11	579.97	591.22	9	8	4.5	295.06	.0040	-30.98	-.0000	119325.9	2.04	.00	.0025	129.05	.0023	-28.90	305.50
SET 51	600.47	611.72	9	8	25.0	90.00	.0038	-27.75	.0001	120881.9	2.63	11.67	-.0031	244.64	-.0013	-28.86	300.76
SET 61	609.53	620.78	9	8	34.0	59.31	.0039	-31.10	.0001	123407.1	2.51	-.00	-.0021	227.42	.0026	-28.85	298.66
SET 72	798.51	809.76	9	11	43.0	94.28	.0039	-28.22	.0001	147914.1	2.44	-.01	-.0034	241.49	-.0004	-28.57	254.17
RISE 42	808.51	819.76	9	11	53.0	254.99	.0040	-27.09	-.0001	148672.0	1.73	4.26	.0028	120.42	-.0021	-28.56	251.79
EXTM 11	848.48	859.73	9	12	33.0	.93	.0041	-30.67	.0001	151423.5	2.01	24.12	-.0000	180.88	.0039	-28.51	242.25
SET 11	1113.60	1124.85	9	16	58.1	66.45	.0041	-29.52	.0001	184212.5	2.09	-.00	-.0026	232.91	.0024	-28.20	178.38
EXTM 42	1234.43	1245.68	9	18	58.9	359.96	.0042	-27.83	.0000	190783.2	1.73	82.61	.0000	.28	-.0251	-28.07	149.02
RISE 51	1370.04	1381.29	9	21	14.5	270.00	.0041	-27.29	-.0000	209488.4	1.29	11.48	.0034	114.92	-.0014	-27.95	115.92
RISE 72	1524.79	1536.04	9	23	49.3	265.84	.0041	-27.67	-.0000	225768.2	1.18	-.01	.0036	117.86	-.0005	-27.81	78.03
RISE 61	1611.61	1622.86	10	1	16.1	297.85	.0041	-28.90	-.0000	233908.1	1.27	.00	.0024	129.28	.0027	-27.74	56.71
SET 42	1657.88	1669.13	10	2	2.4	105.00	.0041	-26.78	.0000	237715.8	1.85	4.07	-.0029	239.83	-.0022	-27.71	45.34
EXTM 51	1723.78	1735.03	10	3	8.3	358.51	.0042	-27.71	.0000	237862.1	1.49	87.62	.0021	146.34	.0741	-27.66	29.13
EXTM 61	1860.78	1872.03	10	5	25.3	.37	.0042	-28.89	.0000	254010.1	1.45	20.87	.0000	180.34	.0039	-27.56	355.39
EXTM 72	1900.65	1911.90	10	6	5.1	.11	.0042	-28.02	.0000	253801.1	1.44	69.89	-.0000	180.29	.0107	-27.54	345.56
RISE 11	2046.14	2057.39	10	8	30.6	292.35	.0042	-28.32	-.0000	272053.3	1.08	.00	.0028	125.50	.0024	-27.44	309.65
SET 51	2089.15	2100.40	10	9	13.6	90.00	.0041	-26.91	.0000	274372.8	1.74	11.33	-.0034	245.[illegible]	-.0014	-27.41	299.03
SET 61	2109.79	2120.95	10	9	34.2	62.81	.0042	-28.37	.0000	277316.5	1.64	-.00	-.0024	231.5[illegible]	.0027	-27.40	293.95
SET 72	2275.32	2286.57	10	12	19.8	94.08	.0041	-27.12	.0000	290697.9	1.73	-.00	-.0036	242.60	-.0005	-27.30	252.99
RISE 42	2275.83	2287.08	10	12	20.3	255.00	.0041	-26.54	-.0000	290301.9	1.00	3.93	.0029	119.93	-.0022	-27.30	252.87
EXTM 11	2316.17	2327.32	10	13	.6	.25	.0042	-28.39	.0000	291101.4	1.31	26.40	-.0000	180.25	.0041	-27.28	242.91
SET 11	2585.82	2597.07	10	17	30.3	68.06	.0042	-27.90	.0000	314612.4	1.55	.00	-.0028	235.06	.0024	-27.14	176.08
EXTM 42	2695.17	2706.32	10	19	19.6	360.00	.0042	-26.92	.0000	316454.2	1.22	81.70	-.0000	.13	-.0054	-27.09	148.99
RISE 51	2825.68	2836.93	10	21	30.2	270.00	.0041	-26.60	-.0000	330918.7	.82	11.21	.0034	114.28	-.0015	-27.02	116.58
RISE 72	2978.69	2989.94	11	0	3.2	265.98	.0042	-26.80	-.0000	343094.1	.74	-.00	.0037	117.08	-.0005	-26.96	78.52
RISE 61	3058.58	3069.83	11	1	23.1	296.37	.0042	-27.49	-.0000	348550.7	.86	.00	.0025	127.50	.0027	-26.93	58.58
SET 42	3113.40	3124.65	11	2	17.9	105.00	.0041	-26.28	.0000	351857.2	1.46	3.77	-.0030	240.23	-.0023	-26.91	44.90
EXTM 51	3178.39	3189.64	11	3	22.9	359.00	.0042	-26.90	.0000	350357.9	1.12	88.53	.0023	142.56	.1162	-26.88	28.67
EXTM 61	3310.83	3322.08	11	5	35.3	.17	.0042	-27.76	.0000	363221.1	1.13	22.00	-.0000	180.16	.0040	-26.83	355.59
EXTM 72	3350.79	3362.04	11	6	15.3	.08	.0042	-27.15	.0000	362318.3	1.13	70.76	-.0000	180.21	.0111	-26.82	345.60
RISE 11	3489.61	3500.86	11	8	34.1	291.46	.0042	-27.40	-.0000	377704.7	.83	.00	.0028	124.28	.0024	-26.77	310.87
SET 51	3538.38	3549.63	11	9	22.9	90.00	.0042	-26.38	.0000	379850.6	1.54	11.13	-.0034	245.92	-.0015	-26.75	298.65
SET 61	3562.72	3573.97	11	9	47.2	63.93	.0042	-27.44	.0000	382791.0	1.47	-.00	-.0025	232.87	.0027	-26.75	292.55
IMPACT	3691.25	3702.50	11	11	55.7												
IMPC 42	3691.25	3702.50	11	11	55.7	248.08	.0043	-26.09	-.0000	393256.1	1.74	-1.16	.0029	123.55	-.0025	-26.69	260.11
IMPC 72	3691.25	3702.50	11	11	55.7	86.59	.0043	-26.41	.0000	392398.5	2.49	6.56	-.0038	243.95	-.0003	-26.69	260.11
IMPC 11	3691.25	3702.50	11	11	55.7	342.79	.0044	-27.50	.0000	390421.6	1.96	25.22	.0010	163.14	.0041	-26.69	260.11

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	8	22	24.481	6577.012	21.1319	306.6767	10.96771	3.9798	110.8214	119.5237
SEPARATION	1.20	12.45	8	22	25.681	6654.376	18.5994	313.0468	10.90285	7.3489	113.0917	126.1946
ENTER SHA	1.59	12.84	8	22	26.072	6689.375	17.7371	315.0442	10.87407	8.4251	113.7451	128.2899
RETRO	3.20	14.45	8	22	27.681	6881.041	14.0863	322.8156	10.73034	12.7235	115.9909	136.4648
EXIT SHA	41.82	53.07	8	23	6.297	18425.338	-22.7007	[illegible] 7891	6.50670	53.1165	109.0834	211.1190
IMPACT	3691.25	3702.50	11	11	55.734	3931[illegible]8.563	-26.6920	260.1122	2.22510	67.9084	275.4452	278.2982

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SURVEYOR VIEW PERIODS

GHA	198.7434					EPS	76.2485							LOM	256.3881
SX	.128264	SY	-.884234	SZ	-.449087	DAO	-26.68514	RAO	278.25357	RM	394478.949	LAT	28.310600	LON	279.461800
C3	-.933491	ECC	.984473	SLR	12989.024	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.148709	NSY	-.880919	NSZ	-.449297	C3M	1.4968	VIM	2.6713	ZAE	140.802	B.T	.0000	B.R	-.0000
LATE	4.4813	LONE	5.7298	LATS	-.8750	LONS	289.7435	LATI	-1.9586	LONI	327.0344	RSM	150.0334	TTAN	6.7523
LAUNCH DATE	APR	8,1966		BASE AZM	102.0		TF 61.589				ARRIV	DATE	APR 11 1966	12 10 24.5	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	22 20 44.5	28.1	20.02	306.16	9.57	120.89	112.91	22 31 59.5	6590.2	10.96	4.75

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LO
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	8	22	32.0												
SEPARATION	1.20	12.45	8	22	33.2												
ENTER SHA	1.34	12.59	8	22	33.3												
RETRO	3.20	14.45	8	22	35.2												
RISE 72	4.30	15.55	8	22	36.3	82.75	-.1754	42.25	.0145	3119.4	-7.21	-.00	.1249	312.75	.0383	9.90	326.56
RISE 51	11.13	22.38	8	22	43.1	79.04	-.0811	21.54	-.0365	5963.6	-2.38	-.00	.0837	294.05	.0029	-3.81	348.99
EXTM 72	11.20	22.45	8	22	43.2	347.48	-.1335	6.50	-.1158	2469.3	4.89	70.94	-.0000	41.27	.5392	-3.92	349.16
RISE 61	13.76	25.01	8	22	45.8	1.15	-.0751	-49.75	.0049	7054.5	6.19	.00	.0057	180.74	-.0484	-7.68	355.19
EXTM 61	20.15	31.40	8	22	52.1	340.98	-.0362	-47.31	.0063	9517.0	6.49	.83	-.0000	167.24	-.0253	-14.47	6.61
SET 61	34.92	46.17	8	23	6.9	322.96	-.0111	-43.33	.0031	15035.2	5.91	-.00	-.0010	154.01	-.0086	-22.32	21.61
EXIT SHA	40.35	51.60	8	23	12.3												
EXIT 72	40.35	51.60	8	23	12.3	301.77	-.0049	-27.62	-.0027	13863.5	5.84	31.73	-.0047	117.67	.0025	-23.87	24.91
EXIT 51	40.35	51.60	8	23	12.3	4.25	-.0142	-22.82	-.0067	11691.4	5.14	85.15	.0146	306.06	.0306	-23.87	24.91
EXIT 61	40.35	51.60	8	23	12.3	319.90	-.0079	-42.44	.0024	16922.2	5.67	-.28	-.0007	151.62	-.0063	-23.87	24.91
EXTM 51	46.95	58.20	8	23	18.9	359.59	-.0096	-25.02	-.0044	13720.3	5.09	89.19	-.0000	27.09	.6914	-25.25	27.96
EXTM 72	70.48	81.73	8	23	42.5	298.54	.0001	-30.22	-.0007	23314.2	4.74	28.56	.0000	120.19	.0009	-27.90	33.66
RISE 61	80.37	91.62	8	23	52.4	313.37	.0001	-39.07	.0008	28963.1	4.51	-.01	.0007	145.64	-.0004	-28.47	34.59
EXTM 51	175.64	186.89	9	1	27.6	359.98	.0028	-30.61	-.0000	45805.7	3.53	85.13	.0000	179.70	.0189	-30.02	27.70
EXTM 61	364.65	375.90	9	4	36.6	4.06	.0038	-33.84	.0002	85121.3	2.75	15.83	.0000	183.51	.0033	-29.81	351.95
EXTM 72	396.50	407.75	9	5	8.5	.63	.0039	-31.31	.0001	86355.2	2.67	66.59	-.0000	181.35	.0085	-29.73	345.09
RISE 11	574.68	585.93	9	8	6.7	295.95	.0040	-31.44	-.0000	118608.8	2.05	.00	.0025	129.67	.0023	-29.33	305.00
SET 51	592.85	604.10	9	8	24.8	90.00	.0038	-28.18	.0001	119833.4	2.64	11.83	-.0031	244.24	-.0012	-29.29	300.80
SET 61	599.28	610.53	9	8	31.3	58.68	.0039	-31.57	.0001	122019.7	2.52	-.00	-.0021	226.71	.0026	-29.28	299.31
SET 72	791.40	802.65	9	11	43.4	94.34	.0039	-28.56	.0001	147043.9	2.44	-.01	-.0034	241.14	- 0004	-28.92	254.13
RISE 42	801.34	812.59	9	11	53.3	254.99	.0040	-27.42	-.0001	147774.8	1.74	4.46	.0028	120.69	-.0021	-28.90	251.77
EXTM 11	841.71	852.96	9	12	33.7	1.05	.0041	-31.02	.0001	150646.3	2.01	23.77	-.0000	180.98	.0039	-28.84	242.14
SET 11	1105.29	1116.54	9	16	57.3	66.18	.0041	-29.79	.0001	183301.2	2.09	-.00	-.0026	232.55	.0024	-28.45	178.67
EXTM 42	1227.27	1238.52	9	18	59.3	359.96	.0042	-28.07	.0000	190019.6	1.73	82.85	.0000	.34	-.0269	-28.30	149.02
RISE 51	1362.97	1374.22	9	21	15.0	270.00	.0041	-27.49	-.0000	208750.3	1.29	11.56	.0033	115.12	-.0014	-28.15	115.91
RISE 72	1517.59	1528.84	9	23	49.6	265.80	.0041	-27.75	-.0000	225048.7	1.18	-.00	.0036	118.04	-.0005	-27.99	78.05
RISE 61	1605.41	1616.66	10	1	17.4	298.07	.0041	-29.07	-.0000	233291.4	1.28	.00	.0024	129.54	.0027	-27.91	56.49
SET 42	1650.75	1662.00	10	2	2.7	105.00	.0041	-26.94	.0000	237008.2	1.85	4.17	-.0029	239.70	-.0022	-27.87	45.35
EXTM 51	1722.59	1733.84	10	3	14.6	.00	.0042	-27.86	.0000	237704.8	1.50	87.88	.0000	180.49	.0228	-27.81	27.68
EXTM 61	1853.86	1865.11	10	5	25.8	.41	.0042	-29.03	.0000	253364.7	1.45	20.73	-.0000	180.38	.0039	-27.70	355.35
EXTM 72	1893.60	1904.85	10	6	5.6	.12	.0042	-28.16	.0000	253138.4	1.44	69.75	-.0000	180.32	.0106	-27.67	345.55
RISE 11	2039.53	2050.78	10	8	31.5	292.47	.0042	-28.44	-.0000	271432.6	1.08	.00	.0027	125.66	.0024	-27.56	309.53
SET 51	2082.04	2093.29	10	9	14.0	90.00	.0041	-27.02	.0000	273707.4	1.75	11.38	-.0034	245.33	-.0014	-27.53	299.03
SET 61	2102.03	2113.28	10	9	34.0	62.67	.0042	-28.49	.0000	276610.8	1.64	-.00	-.0024	231.33	.0027	-27.51	294.09
SET 72	2268.28	2279.53	10	12	20.3	94.09	.0041	-27.21	.0001	290052.5	1.73	-.00	-.0036	242.50	-.0005	-27.40	252.98
RISE 42	2268.75	2280.00	10	12	20.7	255.00	.0041	-26.64	-.0000	289647.3	1.00	3.99	.0029	120.06	-.0022	-27.40	252.86
EXTM 11	2309.08	2320.33	10	13	1.1	.28	.0042	-28.49	.0000	290471.4	1.31	26.30	-.0000	180.27	.0041	-27.37	242.88
SET 11	2578.41	2589.66	10	17	30.4	67.99	.0042	-27.97	.0000	313950.8	1.55	.00	-.0028	234.96	.0024	-27.21	176.16
EXTM 42	2687.96	2699.21	10	19	20.0	359.99	.0042	-26.77	.0000	315816.6	1.22	81.77	-.0000	.13	-.0073	-27.15	148.99
RISE 51	2818.58	2829.83	10	21	30.6	270.00	.0041	-26.65	-.0000	330282.9	.82	11.23	.0034	114.33	-.0015	-27.08	116.57
RISE 72	2971.70	2982.95	11	0	3.7	265.97	.0042	-26.84	-.0000	342504.5	.74	-.00	.0037	117.12	-.0005	-27.00	78.52
RISE 61	3051.78	3063.03	11	1	23.8	296.41	.0042	-27.73	-.0000	347967.2	.86	.00	.0025	127.56	.0027	-26.98	58.53
SET 42	3106.39	3117.64	11	2	18.4	105.00	.0041	-26.31	.0000	351252.3	1.46	3.79	-.0030	240.20	-.0023	-26.94	44.90
EXTM 51	3171.25	3182.50	11	3	23.2	358.96	.0042	-26.93	.0000	349738.8	1.12	88.49	.0023	142.35	.1125	-26.91	28.70
EXTM 61	3303.86	3315.11	11	5	35.9	.18	.0042	-27.79	.0000	362598.4	1.12	21.98	-.0000	180.17	.0040	-26.86	355.57
EXTM 72	3343.78	3355.03	11	6	15.8	.08	.0042	-27.17	.0000	361683.8	1.12	70.73	-.0000	180.22	.0111	-26.84	345.59
RISE 11	3482.64	3493.89	11	8	34.6	291.47	.0042	-27.42	-.0000	377036.6	.83	.00	.0028	124.30	.0024	-26.79	310.85
SET 51	3531.34	3542.59	11	9	23.3	90.00	.0042	-26.40	.0000	379155.1	1.53	11.13	-.0034	245.91	-.0015	-26.77	298.65
SET 61	3555.62	3566.87	11	9	47.6	63.92	.0042	-27.46	.0000	382077.1	1.46	-.00	-.0025	232.84	.0027	-26.76	292.57
IMPACT	3695.32	3706.57	11	12	7.3												
IMPC 42	3695.32	3706.57	11	12	7.3	250.86	.0043	-26.11	-.0000	393086.5	1.72	.76	.0030	121.96	-.0024	-26.69	257.32
IMPC 72	3695.32	3706.57	11	12	7.3	89.38	.0043	-26.59	.0000	392717.0	2.48	4.08	-.0038	243.70	-.0004	-26.69	257.32
IMPC 11	3695.32	3706.57	11	12	7.3	345.62	.0044	-27.51	.0000	390404.2	1.97	25.83	.0009	165.83	.0042	-26.69	257.32

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	8	22	31.992	6591.051	20.0034	306.2076	10.95612	4.7494	112.9205	120.9375
SEPARATION	1.20	12.45	8	22	33.192	6678.251	17.2764	312.3763	10.88301	8.0992	114.9921	127.4070
ENTER SHA	1.34	12.59	8	22	33.336	6691.822	16.9381	313.0958	10.87189	8.4948	115.2144	128.1626
RETRO	3.20	14.45	8	22	35.192	6920.518	12.5120	321.8327	10.68930	13.4233	117.5599	137.3648
EXIT SHA	40.35	51.60	8	23	12.346	18052.170	-23.8655	24.9109	6.57478	52.6815	108.8457	209.7571
IMPACT	3695.32	3706.57	11	12	7.312	393222.242	-26.6938	257.3222	2.22238	67.6547	275.9537	278.4108

SURVEYOR VIEW PERIODS

GHA	198.7634					EPS	76.3300						LOM	253.9151	
SX	.129793	SY	-.984003	SZ	-.449101	DAO	-26.68405	RAO	276.35270	RM	394513.891	LAT	28.310600	LON	279.461800
C3	-.938173	E22	.984594	SLR	12988.518	RCA	6544.6450	ITA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.151278	NSY	-.848645	NSZ	-.449312	C3M	1.4966	VIM	2.6713	ZAE	140.645	B.T	.0000	B.R	-.0000
LATE	4.4491	LONE	5.4183	LATS	-.8748	LONS	289.7505	LATI	-2.2985	LONI	327.0225	RSM	150.0331	TTAN	6.7541
LAUNCH DATE	APR	8,1966		BASE AZM	105.0	TF	61.668				ARRIVAL DATE	APR	11 1966	12 20 40.1	

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	22 26 22.1	28.1	18.92	305.63	10.71	121.77	115.00	22 37 37.1	6601.8	10.95	5.32

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	8	22	37.6												
ENTER SHA	1.19	12.44	8	22	38.8												
SEPARATION	1.20	12.45	8	22	38.8												
RETRO	3.20	14.45	8	22	40.8												
RISE 72	4.20	15.45	8	22	41.8	83.85	-.1608	37.45	-.0021	3157.5	-7.29	-.00	.1257	308.07	.0200	8.50	324.99
RISE 51	11.13	22.38	8	22	48.7	80.85	-.0768	18.25	-.0389	6044.7	-2.27	-.00	.0827	290.34	-.0013	-5.72	347.27
EXTM 72	11.15	22.40	8	22	48.8	354.05	-.1426	-.12	-.1080	2439.5	4.81	80.21	-.0000	37.56	1.0526	-5.76	347.33
EXIT SHA	49.43	50.68	8	23	17.0												
EXIT 72	39.43	50.68	8	23	17.0	304.11	-.0056	-29.99	-.0023	13501.1	5.88	33.35	-.0052	120.85	.0015	-25.33	22.62
EXIT 51	39.43	50.68	8	23	17.0	7.87	-.0157	-25.93	-.0068	11479.1	5.11	82.86	.0150	274.00	-.0395	-25.33	22.62
EXIT 61	39.43	50.68	8	23	17.0	322.56	-.0088	-44.43	.0027	16769.7	5.67	-1.11	-.0005	154.27	-.0068	-25.33	22.62
EXTM 51	48.91	60.16	8	23	26.5	1.00	-.0091	-27.82	-.0035	14378.8	5.05	87.74	-.0000	202.94	-.2218	-27.18	27.00
EXTM 72	71.65	82.90	8	23	49.3	300.18	.0001	-32.07	-.0005	23606.7	4.71	29.66	.0000	122.54	.0006	-29.39	32.24
RISE 61	90.31	101.56	9	0	7.9	315.21	.0006	-39.99	.0008	31700.7	4.31	-.00	.0010	147.34	-.0000	-30.19	33.50
EXTM 51	97.20	108.45	9	0	14.8	352.72	.0003	-31.39	-.0003	27786.1	4.24	81.47	.0000	133.19	.0029	-30.37	33.54
EXTM 51	167.10	178.35	9	1	24.7	.12	.0026	-31.73	.0000	44033.0	3.58	84.01	.0000	181.01	.0212	-30.97	27.58
EXTM 61	361.21	372.46	9	4	38.8	4.63	.0038	-34.83	.0002	84649.9	2.76	15.11	.0000	183.95	.0032	-30.46	351.42
EXTM 72	391.21	402.46	9	5	8.8	.74	.0039	-32.00	.0001	85555.6	2.68	65.90	.0000	181.55	.0081	-30.36	344.99
RISE 11	571.69	582.94	9	8	9.3	296.10	.0040	-31.94	.0000	118198.1	2.06	.00	.0025	130.36	.0023	-29.82	304.44
SET 51	587.31	598.56	9	8	24.9	90.00	.0038	-28.46	.0001	119053.2	2.64	12.02	-.0031	243.79	-.0012	-29.78	300.83
SET 61	590.72	601.97	9	8	28.3	57.95	.0039	-32.09	.0002	120845.4	2.53	-.00	-.0020	225.90	.0026	-29.77	300.04
SET 72	786.34	797.59	9	11	44.0	94.41	.0039	-28.95	.0001	146410.5	2.44	-.01	-.0034	240.75	-.0004	-29.31	254.09
RISE 42	796.16	807.41	9	11	53.8	254.99	.0040	-27.80	-.0000	147103.6	1.75	4.70	.0028	120.99	-.0021	-29.29	251.75
EXTM 11	836.98	848.23	9	12	34.6	1.18	.0041	-31.40	.0001	150103.8	2.02	23.38	.0000	181.09	.0039	-29.20	242.02
SET 11	1098.79	1110.04	9	16	56.4	65.87	.0041	-30.09	.0001	182569.1	2.10	-.00	-.0026	232.15	.0024	-28.75	178.98
EXTM 42	1222.05	1233.30	9	18	59.7	359.95	.0042	-28.34	.0000	189438.4	1.73	83.12	.0000	.40	-.0286	-28.56	149.03
RISE 51	1357.81	1369.06	9	21	15.4	270.00	.0041	-27.72	-.0000	208183.1	1.30	11.65	.0033	115.33	-.0014	-28.38	115.90
RISE 72	1512.28	1523.53	9	23	49.9	265.77	.0041	-27.96	-.0000	224488.7	1.19	-.00	.0036	118.25	-.0005	-28.20	78.08
RISE 61	1601.24	1612.49	10	1	18.9	298.32	.0041	-29.27	-.0000	232841.9	1.28	.00	.0024	129.83	.0027	-28.10	56.24
SET 42	1645.54	1656.79	10	2	3.2	105.00	.0041	-27.12	.0001	236452.2	1.85	4.28	-.0029	239.56	-.0022	-28.05	45.36
EXTM 51	1717.40	1728.65	10	3	15.0	.01	.0042	-28.04	.0000	237168.0	1.50	87.70	.0000	180.46	.0300	-27.98	27.68
EXTM 61	1848.83	1860.08	10	5	26.4	.45	.0042	-29.19	.0000	252862.1	1.45	20.57	-.0000	180.42	.0039	-27.85	355.31
EXTM 72	1888.45	1899.70	10	6	6.1	.14	.0042	-28.31	.0000	252615.5	1.44	69.59	-.0000	180.35	.0106	-27.82	345.54
RISE 11	2034.87	2046.12	10	8	32.5	292.61	.0042	-28.58	-.0000	270947.6	1.09	.00	.0027	125.84	.0024	-27.69	309.40
SET 51	2076.81	2088.06	10	9	14.4	90.00	.0041	-27.45	.0001	273170.8	1.74	11.43	-.0034	245.21	-.0014	-27.65	299.04
SET 61	2096.17	2107.42	10	9	33.8	62.51	.0042	-28.41	.0000	276028.0	1.64	-.00	-.0024	231.14	.0027	-27.64	294.25
SET 72	2263.12	2274.37	10	12	20.7	94.11	.0041	-27.42	.0001	289528.3	1.73	-.00	-.0036	242.40	-.0005	-27.51	252.96
RISE 42	2263.54	2274.79	10	12	21.2	255.00	.0041	-26.74	-.0000	289112.2	1.00	4.05	.0029	120.14	-.0022	-27.51	252.86
EXTM 11	2303.98	2315.23	10	13	1.6	.31	.0042	-28.59	.0000	289961.8	1.31	26.20	-.0000	180.30	.0041	-27.48	242.85
SET 11	2572.84	2584.09	10	17	30.5	67.91	.0042	-28.05	.0000	313393.6	1.55	.01	-.0027	234.86	.0024	-27.29	176.24
EXTM 42	2682.72	2693.97	10	19	20.3	359.99	.0042	-27.06	.0000	315281.1	1.22	81.84	-.0000	.15	-.0079	-27.22	148.99
RISE 51	2813.34	2824.59	10	21	31.0	270.00	.0041	-26.71	-.0000	329743.8	.82	11.26	.0034	114.38	-.0015	-27.14	116.57
RISE 72	2966.42	2977.67	11	0	4.0	265.96	.0042	-26.48	-.0000	341961.6	.73	-.00	.0037	117.16	-.0005	-27.04	78.53
RISE 61	3046.74	3057.99	11	1	24.4	296.47	.0042	-27.47	-.0000	347433.5	.85	.00	.0025	127.62	.0027	-27.00	58.48
SET 42	3101.13	3112.38	11	2	18.8	105.00	.0041	-26.35	.0000	350695.8	1.46	3.81	-.0030	240.17	-.0023	-26.98	44.90
EXTM 51	3165.87	3177.12	11	3	23.5	358.93	.0042	-26.97	.0000	349170.7	1.12	88.44	.0023	142.35	.1091	-26.95	28.73
EXTM 61	3298.68	3309.93	11	5	36.3	.20	.0042	-27.81	.0000	362029.9	1.12	21.95	-.0000	180.19	.0040	-26.89	355.56
EXTM 72	3338.56	3349.81	11	6	16.2	.08	.0042	-27.20	.0000	361104.2	1.12	70.71	-.0000	180.23	.0111	-26.87	345.59
RISE 11	3477.49	3488.74	11	8	55.1	291.49	.0042	-27.44	-.0000	376431.0	.82	.00	.0028	124.33	.0024	-26.81	310.83
SET 51	3526.11	3537.36	11	9	23.7	90.00	.0042	-26.41	.0000	378526.3	1.53	11.14	-.0034	245.90	-.0015	-26.78	298.65
SET 61	3550.32	3561.57	11	9	47.9	63.90	.0042	-27.47	.0000	381432.8	1.45	-.00	-.0025	232.82	.0027	-26.77	292.59
IMPACT	3700.08	3711.33	11	12	17.7												
IMPC 42	3700.08	3711.33	11	12	17.7	253.35	.0043	-26.12	-.0000	392929.2	1.72	2.51	.0030	120.57	-.0024	-26.70	254.82
IMPC 72	3700.08	3711.33	11	12	17.7	91.88	.0043	-26.57	.0000	393000.6	2.48	1.86	-.0038	243.43	-.0005	-26.70	254.82
IMPC 11	3700.08	3711.33	11	12	17.7	348.16	.0044	-27.51	.0000	390395.6	1.98	26.29	.0007	168.29	.0043	-26.70	254.82

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	A7	RT ASC
INJECTION	.00	11.25	8	22	37.618	6603.096	18.8940	305.6919	10.94623	5.3151	115.0123	121.8320
ENTER SHA	1.19	12.44	8	22	38.809	6696.447	15.9980	311.6243	10.86788	8.6252	116.8849	128.0630
SEPARATION	1.20	12.45	8	22	38.818	6697.309	15.9761	311.6670	10.86718	8.6491	116.8973	128.1079
RETRO	3.20	14.45	8	22	40.818	6950.886	10.9567	320.8357	10.66551	13.9342	119.1564	137.7779
EXIT SHA	49.43	50.68	8	23	17.043	17822.771	-25.3310	22.6152	6.61751	52.4054	108.4540	208.6388
IMPACT	3700.08	3711.33	11	12	17.693	393259.195	-26.6956	254.8205	2.22052	67.5525	276.6086	278.5113

SURVEYOR VIEW PERIODS

GHA	198.7634					EPS	76.4070						LOM	251.5762	
SX	.131238	SY	-.883784	SZ	-.449114	DAO	-26.68684	RAO	278.44643	RM	394546.910	LAT	28.310600	LON	279.461800
C3	-.943761	ECC	.984504	SLR	12987.923	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.151772	NSY	-.880380	NSZ	-.449328	C3M	1.4965	VIM	2.6713	ZAE	140.454	B.T	.0000	B.R	-.0000
LATE	4.4965	LONE	5.7194	LATS	-.8748	LONS	289.5746	LATI	-2.6597	LONI	326.7957	RSM	150.0329	TTAN	6.7565
LAUNCH DATE		APR	8.1966		BASE AZM	108.0		TF	61.760			ARRIVAL DATE	APR 11 1966	12 30 22.4	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	22 30 43.2	28.1	17.84	305.06	11.58	122.29	117.08	22 41 58.2	6611.4	10.94	5.74

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT
						PROBE IN SUNLIGHT										
INJECTION	.00	11.25	8	22	42.0											
ENTER SHA	1.11	12.36	8	22	43.1											
SEPARATION	1.20	12.45	8	22	43.2											
RETRO	3.20	14.45	8	22	45.2											
RISE 72	4.13	15.38	8	22	46.1	84.78	-.1489	33.23	-.0183	3192.9	-7.28	-.00	.1258	303.59	.0025	7.03 323.60
EXTM 72	10.54	21.79	8	22	52.5	5.68	-.1684	-3.33	-.1153	2298.5	3.96	82.73	.2032	308.67	.1343	-6.70 344.16
RISE 51	11.15	22.40	8	22	53.1	82.58	-.0730	15.00	-.0414	6116.3	-2.16	.00	.0816	286.70	-.0053	-7.71 345.68
EXIT SHA	37.93	49.18	8	23	19.9											
EXIT 72	37.93	49.18	8	23	19.9	306.38	-.0068	-32.49	-.0018	12956.7	5.95	34.71	-.0060	124.30	.0004	-26.77 20.17
EXIT 51	37.93	49.18	8	23	19.9	11.88	-.0180	-27.19	-.0070	11093.1	5.08	79.27	.0153	259.61	-.0453	-26.77 20.17
EXIT 61	37.93	49.18	8	23	19.9	325.32	-.0102	-46.64	.0031	16438.2	5.69	-2.22	-.0003	156.99	-.0077	-26.77 20.17
EXTM 51	51.09	62.34	8	23	33.1	1.93	-.0085	-30.65	-.0026	15096.3	5.00	84.81	-.0000	198.63	-.0859	-29.19 26.35
EXTM 72	72.40	83.65	8	23	54.4	301.43	.0001	-33.98	-.0002	23800.5	4.69	30.34	.0000	124.93	.0003	-30.94 31.07
EXTM 51	97.88	109.13	9	0	19.9	354.13	.0003	-33.07	-.0002	28002.0	4.23	81.07	.0000	146.50	.0018	-31.73 32.40
RISE 61	101.72	112.97	9	0	23.7	317.05	.0012	-40.86	.0008	34704.1	4.13	-.00	.0011	148.98	.0003	-31.79 32.36
EXTM 51	161.72	172.97	9	1	23.7	.45	.0025	-32.97	.0001	42911.8	3.62	82.75	-.0000	182.98	.0167	-32.04 27.30
EXTM 61	359.50	370.75	9	4	41.5	5.22	.0038	-35.26	.0002	84458.4	2.76	14.35	.0000	184.40	.0032	-31.17 350.87
EXTM 72	387.99	399.24	9	5	10.0	.98	.0039	-32.73	.0001	85079.8	2.68	65.16	.0000	181.97	.0079	-31.04 344.77
RISE 11	570.32	581.57	9	8	12.3	296.69	.0040	-32.48	.0000	118003.2	2.06	.00	.0025	131.09	.0023	-30.34 303.85
SET 51	583.23	594.48	9	8	25.2	90 00	.0038	-29.18	.0001	118462.2	2.65	12.22	-.0031	243.30	-.0012	-30.30 300.86
SET 61	583.31	594.56	9	8	25.3	57 .6	.0039	-32.65	.0002	119814.9	2.53	.00	-.0020	225.03	.0026	-30.30 300.85
SET 72	782.70	793.95	9	11	44.7	94.49	.0039	-29.36	.0001	145941.4	2.44	-.01	-.0034	240.33	-.0004	-29.72 254.03
RISE 42	792.36	803.61	9	11	54.3	254.99	.0040	-28.21	-.0000	146589.4	1.75	4.95	.0028	121.31	-.0021	-29.70 251.73
EXTM 11	833.68	844.93	9	12	35.7	1.32	.0041	-31.80	.0001	149723.7	2.02	22.98	.0000	181.21	.0038	-29.60 241.89
SET 11	1093.54	1104.79	9	16	55.5	65.54	.0041	-30.41	.0001	181958.4	2.10	-.00	-.0026	231.72	.0024	-29.06 179.32
EXTM 42	1218.17	1229.42	9	19	.1	359.94	.0042	-28.63	.0000	188980.2	1.73	83.41	.0000	.48	-.0301	-28.84 149.04
RISE 51	1353.99	1365.24	9	21	16.0	270.00	.0041	-27.97	-.0000	207730.1	1.30	11.75	.0033	115.57	-.0014	-28.63 115.90
RISE 72	1508.29	1519.54	9	23	50.3	265.73	.0041	-28.17	-.0000	224034.0	1.19	-.00	.0036	118.47	-.0005	-28.42 78.11
RISE 61	1598.40	1609.65	10	1	20.4	298.57	.0042	-29.47	-.0000	232496.3	1.28	.00	.0024	130.13	.0027	-28.30 55.99
SET 42	1641.64	1652.89	10	2	3.6	105.00	.0041	-27.31	.0001	235995.4	1.85	4.40	-.0029	239.40	-.0022	-28.25 45.36
EXTM 51	1713.57	1724.82	10	3	15.5	.02	.0042	-28.23	.0000	236731.4	1.50	87.51	-.0000	180.55	.0610	-28.16 27.67
EXTM 61	1845.12	1856.37	10	5	27.1	.50	.0042	-29.16	.0000	252452.2	1.45	20.40	-.0000	180.47	.0039	-28.02 355.26
EXTM 72	1884.60	1895.85	10	6	6.6	.15	.0042	-28.47	.0000	252182.3	1.44	69.43	-.0000	180.38	.0105	-27.98 345.53
RISE 11	2031.54	2042.79	10	8	33.5	292.75	.0042	-28.72	-.0000	270548.4	1.09	.00	.0027	126.02	.0024	-27.83 309.26
SET 51	2072.88	2084.13	10	9	14.8	90.00	.0041	-27.28	.0001	272714.9	1.74	11.48	-.0034	245.08	-.0014	-27.79 299.04
SET 61	2091.56	2102.81	10	9	33.5	62.34	.0042	-28.75	.0001	275521.6	1.64	-.00	-.0024	230.94	.0027	-27.77 294.42
SET 72	2259.25	2270.50	10	12	21.2	94.13	.0041	-27.43	.0001	289078.3	1.73	-.00	-.0036	242.28	-.0005	-27.62 252.95
RISE 42	2259.62	2270.87	10	12	21.6	255.00	.0041	-26.85	-.0000	288650.2	1.00	4.12	.0029	120.23	-.0022	-27.62 252.86
EXTM 11	2300.16	2311.41	10	13	2.1	.34	.0042	-28.71	.0000	289525.7	1.31	26.08	-.0000	180.33	.0041	-27.59 242.82
SET 11	2568.57	2579.82	10	17	30.5	67.83	.0042	-28.14	.0000	312901.2	1.55	-.00	-.0027	234.75	.0024	-27.37 176.32
EXTM 42	2678.75	2690.00	10	19	20.7	359.99	.0042	-27.13	.0000	314804.2	1.22	81.91	-.0000	.14	-.0105	-27.29 148.99
RISE 51	2809.38	2820.63	10	21	31.3	270.00	.0041	-26.77	-.0000	329258.6	.82	11.28	.0034	114.44	-.0015	-27.20 116.57
RISE 72	2962.41	2973.66	11	0	4.4	265.95	.0042	-26.93	-.0000	341467.5	.73	-.00	.0037	117.21	-.0005	-27.09 78.53
RISE 61	3042.99	3054.24	11	1	25.0	296.52	.0042	-27.82	-.0000	346948.1	.85	.00	.0025	127.69	.0027	-27.05 58.42
SET 42	3097.14	3108.39	11	2	19.1	105.00	.0041	-26.39	.0000	350185.3	1.46	3.84	-.0030	240.14	-.0022	-27.02 44.90
EXTM 51	3161.79	3173.04	11	3	23.8	358.91	.0042	-27.01	.0000	348649.2	1.12	88.40	.0023	142.59	.1064	-26.99 28.76
EXTM 61	3294.77	3306.02	11	5	36.7	.22	.0042	-27.85	.0000	361504.6	1.12	21.92	-.0000	180.21	.0040	-26.92 355.54
EXTM 72	3334.59	3345.84	11	6	16.6	.09	.0042	-27.23	.0000	360566.6	1.12	70.68	-.0000	180.25	.0111	-26.90 345.58
RISE 11	3473.60	3484.85	11	8	35.6	291.51	.0042	-27.46	-.0000	375866.6	.82	.00	.0028	124.36	.0024	-26.83 310.81
SET 51	3522.14	3533.39	11	9	24.1	90.00	.0042	-26.43	.0000	377938.8	1.52	11.14	-.0034	245.88	-.0015	-26.80 298.66
SET 61	3546.28	3557.53	11	9	48.2	63.88	.0042	-27.49	.0000	380830.2	1.44	-.00	-.0025	232.80	.0027	-26.79 292.61
RISE 42	3702.80	3714.05	11	12	24.8	255.00	.0043	-26.13	-.0000	392507.1	1.55	3.68	.0030	119.66	-.0023	-26.70 253.16
SET 72	3704.51	3715.76	11	12	26.5	93.98	.0043	-26.56	.0000	393112.3	2.40	.00	-.0038	243.17	-.0005	-26.70 252.72
IMPACT	3705.61	3716.86	11	12	27.6											
IMPC 42	3705.61	3716.86	11	12	27.6	255.72	.0043	-26.14	-.0000	392777.5	1.71	4.19	.0031	119.27	-.0023	-26.70 252.44
IMPC 72	3705.61	3716.86	11	12	27.6	94.26	.0043	-26.56	.0000	393270.9	2.47	-.25	-.0038	243.13	-.0006	-26.70 252.44
IMPC 11	3705.61	3716.86	11	12	27.6	350.57	.0044	-27.52	.0000	390396.0	1.99	26.65	.0006	170.65	.0043	-26.70 252.44

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	8	22	41.970	6613.227	17.8044	305.1341	10.93793	5.7434	117.1001	122.3684
ENTER SHA	1.11	12.36	8	22	43.082	6.03.631	14.9325	310.5035	10.86175	8.8235	118.6966	128.0134
SEPARATION	1.20	12.45	8	22	43.170	6712.595	14.6985	310.9224	10.85444	9.0647	118.8094	128.4545
RETRO	3.20	14.45	8	22	45.170	6974.646	9.4218	319.8202	10.64692	14.3190	120.7796	137.8537
EXIT SHA	37.93	49.18	8	23	19.898	17397.728	-26.7748	20.1719	6.69916	51.8775	108.3162	206.9114
IMPACT	3705.61	3716.86	11	12	27.578	393294.883	-26.6973	252.4381	2.21837	67.4211	277.3034	278.6071

SURVEYOR VIEW PERIODS

GHA	198.7634				EPS	76.4835					LOM	249.2541	
SX	.132672	SY	-.883564	SZ	-.449125	DAO	-26.68757	RAO	278.53948	RM	394579.648	LAT	28.310600	LON	279.461800
C3	-.950194	ECC	.984399	SLR	12987.227	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TH	675.00000	POL	-.0
NSX	.153265	NSY	-.880114	NSZ	-.449343	C3M	1.4965	VIM	2.6713	ZAE	140.232	B.T	.0000	B.R	-.0000
LATE	4.5039	LONE	5.4825	LATS	-.8746	LONS	289.5813	LATI	-3.0324	LONI	326.7234	RSM	150.0327	TTAN	6.7593
LAUNCH DATE		APR	8,1966		BASE AZM	111.0		TF	61.866			ARRIVAL DATE	APR 11 1966 12 40 .4		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	22 34 12.1	28.1	16.78	304.45	12.25	122.56	119.17	22 45 27.1	6619.4	10.93	6.08

EVNT STA	TFI	TFL	DAY HR MIN	HA	DHA	DEC	DDE	RNG	DRG	FLE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN SUNLIGHT												
INJECTION	.00	11.25	8 22 45.5												
ENTER SHA	1.09	12.34	8 22 46.5												
SEPARATION	1.20	12.45	8 22 46.7												
RETRO	3.20	14.45	8 22 48.7												
RISE 72	4.10	15.35	8 22 49.6	85.60	-.1386	28.93	-.0338	3229.0	-7.19	-.00	.1251	299.23	-.0143	5.50	322.34
RISE 51	11.19	22.44	8 22 56.6	84.24	-.0695	11.78	-.0438	6185.0	-2.03	-.01	.0804	283.10	-.0091	-9.76	344.20
EXTM 72	11.30	22.55	8 22 56.7	4.53	-.1492	-15.00	-.0879	2553.3	4.86	81.73	.0000	210.51	-1.1736	-9.94	344.45
EXIT SHA	36.36	47.61	8 23 21.8												
EXIT 72	36.36	47.61	8 23 21.8	308.59	-.0082	-35.19	-.0012	12400.0	6.03	35.74	-.0067	128.10	-.0011	-28.28	17.74
EXIT 51	36.36	47.61	8 23 21.8	16.05	-.0207	-29.44	-.0075	10692.1	5.03	75.31	.0163	251.78	-.0422	-28.28	17.74
EXIT 61	36.36	47.61	8 23 21.8	328.08	-.0120	-48.97	.0034	16092.2	5.72	-3.55	-.0000	159.65	-.0086	-28.28	17.74
EXTM 51	53.89	65.14	8 23 39.3	2.31	-.0078	-33.48	-.0018	15990.2	4.94	82.00	-.0000	193.98	-.0483	-31.28	26.07
EXTM 72	73.06	84.31	8 23 58.5	302.38	.0000	-35.94	.0000	23988.6	4.68	30.68	.0000	127.34	.0000	-32.56	30.12
EXTM 51	96.01	107.26	9 0 21.5	355.22	.0000	-34.91	-.0000	27568.9	4.25	80.04	.0000	156.69	.0001	-33.12	31.50
RISE 61	113.71	124.96	9 0 39.2	318.93	.0016	-41.70	.0008	37733.2	3.96	-.00	.0013	150.62	.0006	-33.26	31.09
EXTM 51	158.85	170.10	9 1 24.3	.89	.0024	-34.30	.0002	42324.4	3.64	81.41	.0000	184.95	.0135	-33.18	26.92
EXTM 61	359.05	370.30	9 4 44.5	5.84	.0038	-36.00	.0002	84471.6	2.76	13.57	.0000	184.85	.0031	-31.90	350.30
EXTM 72	385.80	397.05	9 5 11.2	1.19	.0039	-33.49	.0002	84763.2	2.69	64.39	.0000	182.30	.0076	-31.75	344.58
RISE 11	570.15	581.40	9 8 15.6	297.32	.0040	-33.03	.0000	117968.6	2.06	.01	.0024	131.85	.0023	-30.88	303.22
SET 61	576.71	587.96	9 8 22.2	56.32	.0039	-33.24	.0002	118885.6	2.54	-.00	-.0019	224.10	.0026	-30.85	301.70
SET 51	580.21	591.46	9 8 25.7	90.00	.0038	-29.72	.0001	118008.3	2.65	12.44	-.0031	242.78	-.0012	-30.84	300.89
SET 72	780.09	791.34	9 11 45.5	94.56	.0039	-29.79	.0001	145589.3	2.44	-.00	-.0034	239.90	-.0004	-30.15	253.97
RISE 42	789.57	800.82	9 11 55.0	254.99	.0040	-28.64	-.0000	146187.1	1.75	5.21	.0028	121.65	-.0021	-30.13	251.72
EXTM 11	831.40	842.65	9 12 36.9	1.46	.0041	-32.93	.0001	149459.1	2.02	22.55	.0000	181.34	.0038	-30.01	241.75
SET 11	1089.19	1100.44	9 16 54.6	65.19	.0041	-30.74	.0001	181432.2	2.09	-.00	-.0025	231.27	.0024	-29.38	179.68
EXTM 42	1215.23	1226.48	9 19 .7	359.93	.0042	-28.93	.0000	188607.4	1.73	83.71	.0000	.58	-.0319	-29.13	149.05
RISE 51	1351.10	1362.35	9 21 16.6	270.00	.0041	-28.23	-.0000	207355.5	1.30	11.85	.0033	115.81	-.0014	-28.89	115.89
RISE 72	1505.22	1516.47	9 23 50.7	265.69	.0041	-28.40	-.0000	223650.8	1.19	-.00	.0036	118.70	-.0005	-28.64	78.14
RISE 61	1596.40	1607.85	10 1 22.1	298.85	.0042	-29.68	-.0000	232229.3	1.28	.01	.0024	130.45	.0027	-28.51	55.70
SET 42	1638.66	1649.91	10 2 4.1	105.00	.0041	-27.52	.0001	235605.1	1.85	4.53	-.0029	239.24	-.0022	-28.45	45.37
EXTM 51	1710.58	1721.83	10 3 16.0	.01	.0042	-28.43	.0000	236352.7	1.50	87.31	.0000	180.43	.0468	-28.35	27.67
EXTM 61	1842.34	1853.59	10 5 27.8	.55	.0042	-29.54	.0000	252103.3	1.45	20.22	-.0000	180.51	.0039	-28.19	355.21
EXTM 72	1881.67	1892.92	10 6 7.1	.16	.0042	-28.64	.0000	251807.8	1.44	69.26	-.0000	180.41	.0104	-28.14	345.51
RISE 11	2029.14	2040.39	10 8 34.6	292.89	.0042	-28.87	-.0000	270204.4	1.09	.00	.0027	126.22	.0024	-27.97	309.11
SET 51	2069.86	2081.11	10 9 15.3	90.00	.0041	-27.42	.0001	272310.6	1.74	11.54	-.0034	244.95	-.0014	-27.93	299.04
SET 61	2087.82	2099.07	10 9 33.3	62.16	.0042	-28.89	.0001	275063.8	1.64	-.00	-.0024	230.73	.0027	-27.91	294.60
SET 72	2256.38	2267.55	10 12 21.7	94.15	.0041	-27.55	.0001	287674.6	1.72	-.00	-.0036	242.16	-.0005	-27.74	252.93
RISE 42	2256.61	2267.86	10 12 22.1	255.00	.0041	-26.97	-.0000	288233.7	1.00	4.19	.0029	120.33	-.0022	-27.74	252.85
EXTM 11	2297.26	2308.51	10 13 2.7	.37	.0042	-28.83	.0000	289135.3	1.31	25.97	-.0000	180.36	.0041	-27.70	242.79
SET 11	2565.15	2576.40	10 17 30.6	67.74	.0042	-28.73	.0000	312441.4	1.55	-.00	-.0027	234.63	.0024	-27.46	176.41
EXTM 42	2675.67	2686.92	10 19 21.1	359.99	.0042	-27.21	.0000	314360.9	1.22	81.99	-.0000	.14	-.0115	-27.37	148.99
RISE 51	2806.30	2817.55	10 21 31.8	270.00	.0041	-26.94	-.0000	328803.2	.82	11.31	.0034	114.50	-.0015	-27.26	116.57
RISE 72	2959.44	2970.69	11 0 4.9	265.95	.0042	-26.99	-.0000	341046.5	.73	.00	.0037	117.27	-.0005	-27.15	78.54
RISE 61	3040.24	3051.49	11 1 25.7	296.58	.0042	-27.87	-.0000	346530.2	.85	.00	.0025	127.76	.0027	-27.10	58.36
SET 42	3094.15	3105.40	11 2 19.6	105.00	.0041	-26.43	.0000	349739.2	1.45	3.86	-.0030	240.10	-.0022	-27.06	44.90
EXTM 51	3158.72	3169.97	11 3 24.2	358.89	.0042	-27.05	.0000	348190.4	1.11	88.36	.0023	143.02	.1044	-27.02	28.77
EXTM 61	3291.82	3303.07	11 5 37.3	.24	.0042	-27.88	.0000	361030.9	1.11	21.88	-.0000	180.23	.0040	-26.95	355.52
EXTM 72	3331.58	3342.83	11 6 17.0	.09	.0042	-27.25	.0000	360078.3	1.11	70.65	-.0000	180.26	.0112	-26.92	345.58
RISE 11	3470.64	3481.89	11 8 36.1	291.53	.0042	-27.48	-.0000	375342.1	.81	.00	.0028	124.39	.0024	-26.85	310.79
SET 51	3519.08	3530.33	11 9 24.5	90.00	.0042	-26.45	.0000	377388.1	1.51	11.15	-.0034	245.86	-.0015	-26.82	298.66
SET 61	3543.13	3554.38	11 9 48.6	63.86	.0042	-27.51	.0000	380262.8	1.43	-.00	-.0025	232.77	.0027	-26.81	292.63
RISE 42	3699.91	3711.16	11 12 25.4	255.00	.0042	-26.14	-.0000	391599.4	1.27	3.69	.0030	119.67	-.0023	-26.71	253.16
SET 72	3705.63	3712.88	11 12 27.1	93.98	.0042	-26.97	.0000	392175.2	2.06	.00	-.0038	243.16	-.0005	-26.71	252.72
IMPACT	3711.95	3723.20	11 12 37.4												
IMPC 42	3711.95	3723.20	11 12 37.4	258.08	.0043	-26.15	-.0000	392628.3	1.70	5.90	.0031	118.00	-.0023	-26.70	250.07
IMPC 72	3711.95	3723.20	11 12 37.4	96.62	.0043	-26.54	.0000	393542.1	2.46	-2.34	-.0038	242.80	-.0006	-26.70	250.07
IMPC 11	3711.95	3723.20	11 12 37.4	352.98	.0044	-27.52	.0000	390407.8	2.00	26.92	.0005	173.01	.0043	-26.70	250.07

EVNT STA	TFI	TFL	DAY HR MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	8 22 45.452	6621.741	16.7354	304.5370	10.93097	6.0774	119.1861	122.6409
ENTER SHA	1.09	12.34	8 22 46.541	6713.477	13.7532	309.6354	10.85343	9.0879	120.6041	128.0124
SEPARATION	1.20	12.45	8 22 46.652	6725.024	13.4444	310.1433	10.84403	9.3881	120.7300	128.5481
RETRO	3.20	14.45	8 22 48.652	6993.622	7.9096	318.7815	10.63204	14.6178	122.4288	137.6877
EXIT SHA	36.36	47.61	8 23 21.808	16936.566	-28.2785	17.7441	6.79117	51.2778	108.3183	204.9624
IMPACT	3711.95	3723.20	11 12 37.402	393333.805	-26.6990	250.0713	2.21480	67.0855	277.9045	278.7028

SURVEYOR VIEW PERIODS

GHA	198.7634					EPS	76.5813							LOM	246.2813
SX	.134507	SY	-.883279	SZ	-.449138	DAO	-26.68842	RAO	278.65857	RM	394621.492	LAT	28.310600	LON	279.461800
C3	-.959251	ECC	.984250	SLR	12986.258	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.155184	NSY	-.879768	NSZ	-.449361	C3M	1.4974	VIM	2.6715	ZAE	139.900	B.T	.0000	B.R	-.0000
LATE	4.5133	LONE	5.7078	LATS	-.8745	LONS	289.3887	LATI	-3.5360	LONI	326.3897	RSM	150.0324	TTAN	6.7637
LAUNCH DATE		APR	8,1966		BASE AZM	115.0		TF	62.014			ARRIVAL DATE		APR 11 1966	12 52 20.5

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	22 37 53.4	28.0	15.40	303.59	12.95	122.62	121.95	22 49 8.4	6628.2	10.92	6.42

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	
					PROBE IN SUNLIGHT												
INJECTION	.00	11.25	8	22	49.1												
ENTER SHA	1.14	12.39	8	22	50.3												
SEPARATION	1.20	12.45	8	22	50.3												
RETRO	3.20	14.45	8	22	52.3												
RISE 72	4.11	15.36	8	22	53.3	86.57	-.1267	23.31	-.0535	3282.6	-6.93	-.00	.1230	293.54	-.0355	3.37	320.82
RISE 51	11.30	22.55	8	23	.4	86.36	-.0652	7.49	-.0469	6278.6	-1.84	.00	.0786	278.33	-.0139	-12.59	342.34
EXTM 72	11.60	22.85	8	23	.7	9.18	-.1471	-25.02	-.0729	2767.2	5.02	70.77	-.0000	206.04	-.4614	-13.09	343.07
EXIT SHA	33.84	45.09	8	23	23.0												
EXIT 72	33.84	45.09	8	23	23.0	311.82	-.0109	-39.09	-.0003	11520.2	6.16	36.82	-.0079	133.74	-.0038	-30.23	14.16
EXIT 51	33.84	45.09	8	23	23.0	22.63	-.0254	-32.31	-.0087	10051.0	4.92	69.20	.0191	246.30	-.0372	-30.23	14.16
EXTM 51	59.92	71.17	8	23	49.1	1.67	-.0061	-37.16	-.0007	17836.8	4.82	78.49	-.0000	186.68	-.0248	-34.16	26.50
EXTM 72	73.40	84.65	9	0	2.5	303.28	-.0001	-38.59	.0003	24114.9	4.67	30.71	.0000	130.53	-.0004	-34.76	29.07
EXTM 51	88.26	99.51	9	0	17.4	356.57	-.0009	-37.33	.0002	25629.5	4.36	78.05	.0000	166.70	-.0034	-35.04	30.36
RISE 61	130.02	141.27	9	0	59.2	321.49	.0020	-42.76	.0008	41681.0	3.77	-.00	.0014	152.80	.0010	-35.00	29.23
EXTM 51	159.47	170.72	9	1	28.6	1.80	.0024	-36.98	.0003	42510.0	3.63	79.54	.0000	188.05	.0108	-34.74	26.14
EXTM 61	359.85	371.10	9	4	49.0	6.66	.0038	-37.01	.0003	84716.5	2.76	12.51	.0000	185.44	.0031	-32.89	349.54
EXTM 72	384.35	395.60	9	5	13.5	1.50	.0039	-34.53	.0002	84574.1	2.69	63.34	.0000	182.75	.0072	-32.71	344.30
RISE 11	571.21	582.46	9	8	20.4	298.18	.0040	-33.78	.0000	118095.3	2.06	.01	.0024	132.89	.0023	-31.61	302.36
SET 61	568.76	580.01	9	8	17.9	55.10	.0039	-34.06	.0002	117753.3	2.54	.00	-.0019	222.80	.0026	-31.62	302.93
SET 51	577.41	588.66	9	8	24.5	90.00	.0038	-30.47	.0002	117564.1	2.65	12.72	-.0031	242.07	-.0011	-31.58	300.93
SET 72	777.76	789.01	9	11	46.9	94.57	.0039	-30.38	.0001	145255.9	2.44	-.00	-.0033	239.30	-.0004	-30.75	253.89
RISE 42	786.97	798.22	9	11	56.1	254.99	.0040	-29.22	-.0000	145781.8	1.76	5.56	.0028	122.12	-.0021	-30.71	251.70
EXTM 11	829.52	840.77	9	12	38.7	1.66	.0041	-32.80	.0001	149239.8	2.02	21.97	.0000	181.51	.0038	-30.57	241.56
SET 11	1084.39	1095.64	9	16	53.5	64.70	.0041	-31.20	.0001	180831.0	2.09	-.00	-.0025	230.65	.0024	-29.83	180.17
EXTM 42	1212.38	1223.63	9	19	1.5	359.92	.0042	-29.34	.0000	188211.2	1.73	84.11	.0000	.73	-.0346	-29.53	149.06
RISE 51	1348.30	1359.55	9	21	17.4	270.00	.0041	-28.59	-.0000	206949.8	1.30	11.99	.0033	116.14	-.0014	-29.24	115.88
RISE 72	1502.14	1513.39	9	23	51.3	265.63	.0041	-28.71	-.0000	223226.4	1.19	-.00	.0036	119.01	-.0005	-28.95	78.19
RISE 61	1595.18	1606.43	10	1	24.3	299.21	.0042	-28.97	-.0000	231953.1	1.28	.00	.0024	130.88	.0027	-28.80	55.34
SET 42	1635.72	1646.97	10	2	4.9	105.00	.0041	-27.79	.0001	235166.4	1.85	4.70	-.0029	239.02	-.0022	-28.73	45.37
EXTM 51	1707.71	1718.96	10	3	16.9	.03	.0042	-28.70	.0000	235935.7	1.50	87.04	-.0000	180.59	.0601	-28.62	27.66
EXTM 61	1839.64	1850.89	10	5	28.8	.62	.0042	-29.78	.0000	251714.4	1.45	19.98	-.0000	180.57	.0039	-28.42	355.15
EXTM 72	1878.78	1890.03	10	6	7.9	.18	.0042	-28.88	.0000	251382.8	1.44	69.03	-.0000	180.45	.0103	-28.37	345.49
RISE 11	2027.00	2038.25	10	8	36.1	293.11	.0042	-29.07	-.0000	269819.5	1.08	.01	.0027	126.50	.0024	-28.17	308.89
SET 51	2066.82	2078.07	10	9	16.0	90.00	.0041	-27.62	.0001	271839.3	1.74	11.61	-.0034	244.77	-.0014	-28.12	299.05
SET 61	2083.80	2095.05	10	9	32.9	61.92	.0042	-29.09	.0001	274518.2	1.64	-.00	-.0024	230.44	-.0027	-28.10	294.85
SET 72	2253.34	2264.59	10	12	22.5	94.18	.0041	-27.71	.0001	288199.3	1.72	-.00	-.0036	242.00	-.0005	-27.90	252.91
RISE 42	2253.57	2264.82	10	12	22.7	255.00	.0041	-27.14	-.0000	287740.6	1.00	4.29	.0029	120.46	-.0022	-27.90	252.85
EXTM 11	2294.37	2305.62	10	13	3.5	.41	.0042	-28.99	.0000	288677.1	1.31	25.80	-.0000	180.40	.0041	-27.86	242.75
SET 11	2561.54	2572.79	10	17	30.7	67.62	.0042	-28.35	.0000	311882.0	1.55	-.00	-.0027	234.46	.0024	-27.98	176.53
EXTM 42	2672.40	2683.65	10	19	21.5	359.96	.0042	-27.32	.0000	313812.3	1.22	82.10	.0000	.31	-.0244	-27.48	149.02
RISE 51	2803.16	2814.41	10	21	32.3	270.00	.0041	-26.93	-.0000	328244.8	.82	11.34	.0034	114.59	-.0015	-27.36	116.56
RISE 72	2956.22	2967.47	11	0	5.4	265.93	.0042	-27.06	-.0000	340468.1	.73	.00	.0037	117.34	-.0005	-27.22	78.55
RISE 61	3037.39	3048.64	11	1	26.5	296.66	.0042	-27.93	-.0000	345962.2	.85	.00	.0025	127.86	.0027	-27.16	58.28
SET 42	3090.95	3102.20	11	2	20.1	105.00	.0041	-26.49	.0000	349133.5	1.45	3.90	-.0030	240.06	-.0022	-27.12	44.91
EXTM 51	3155.47	3166.72	11	3	24.6	358.88	.0042	-27.10	.0000	347572.7	1.11	88.30	.0023	143.82	.1020	-27.08	28.79
EXTM 61	3288.73	3299.98	11	5	37.9	.26	.0042	-27.92	.0000	360399.4	1.11	21.84	-.0000	180.25	.0040	-26.99	359.49
EXTM 72	3328.41	3339.66	11	6	17.6	.10	.0043	-27.30	.0000	359428.9	1.11	70.61	-.0000	180.28	.0112	-26.97	348.57
RISE 11	3467.57	3478.82	11	8	36.7	291.56	.0042	-27.51	-.0000	374654.9	.81	.00	.0028	124.43	.0024	-26.88	310.76
SET 51	3515.88	3527.13	11	9	25.0	90.00	.0042	-26.47	.0000	376670.1	1.50	11.15	-.0034	245.84	-.0015	-26.85	298.66
SET 61	3539.81	3551.06	11	9	49.0	63.83	.0042	-27.53	.0000	375525.2	1.42	-.00	-.0025	232.73	.0027	-26.83	292.66
RISE 42	3696.89	3708.14	11	12	26.0	255.00	.0042	-26.16	-.0000	390572.8	1.12	3.69	.0030	119.68	-.0023	-26.72	253.16
SET 72	3698.80	3709.85	11	12	27.7	93.98	.0042	-26.58	.0000	391130.6	1.88	.00	-.0037	243.14	-.0005	-26.72	252.72
IMPACT	3720.83	3732.08	11	12	50.0												
IMPC 42	3720.83	3732.08	11	12	50.0	261.10	.0043	-26.17	-.0000	392431.8	1.69	8.10	.0032	116.41	-.0023	-26.70	247.04
IMPC 72	3720.83	3732.08	11	12	50.0	99.64	.0043	-26.52	.0000	393884.2	2.45	-4.99	-.0038	242.31	-.0007	-26.70	247.04
IMPC 11	3720.83	3732.08	11	12	50.0	356.05	.0044	-27.53	.0000	390431.2	2.01	27.16	.0003	176.06	.0044	-26.70	247.04

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	8	22	49.141	6631.085	15.3444	303.6824	10.92322	6.4209	121.9678	122.7112
ENTER SHA	1.14	12.39	8	22	50.284	6732.162	11.9794	308.8033	10.83782	9.5682	123.2520	126.1187
SEPARATION	1.20	12.45	8	22	50.341	6733.290	11.8111	309.0513	10.83285	9.7204	123.3060	126.3808
RETRO	3.20	14.45	8	22	52.341	7013.570	5.9327	317.3535	10.61635	14.9240	124.6681	137.1844
EXIT SHA	33.84	45.09	8	23	22.977	16176.185	-30.2310	14.1551	6.95282	50.2130	108.7696	201.6664
IMPACT	3720.83	3732.08	11	12	49.966	393380.297	-26.7012	247.0435	2.21137	66.8404	278.8493	278.8247

SURVEYOR VIEW PERIODS

GMA	169.7490					EPS	87.3679							LOM	274.4117
SX	.332490	SY	-.833511	SZ	-.441108	DAO	-26.17459	RAO	291.75908	RM	398844.879	LAT	28.310600	LON	279.461800
C3	-.914 50	ECC	.984992	SLR	12991.111	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.351631	NSY	-.826636	NSZ	-.439351	C3M	1.4928	VIM	2.6706	ZAE	141.652	B.T	.0000	B.R	-.0000
LATE	5.4457	LONE	4.8699	LATS	-.8593	LONS	277.7392	LATI	.7757	LONI	326.7286	RSM	150.0006	TTAN	6.5226

LAUNCH DATE APR 9.1966 BASE AZM 84.0 TF 62.563 ARRIVAL DATE APR 12 1966 11 48 27.2

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
84.00	21 16 41.1	27.1	27.14	307.28	-16.65	106.90	99.68	21 27 46.1	6683.7	10.88	-8.26

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	9	21	27.8												
SEPARATION	1.20	12.45	9	21	29.0												
ENTER SHA	3.07	14.32	9	21	30.8												
RETRO	3.20	14.45	9	21	31.0												
RISE 72	7.46	18.71	9	21	35.2	320.00	-.6385	79.73	-.1938	2560.0	-2.29	-.00	.0769	6.58	.2112	13.82	348.19
RISE 51	12.28	23.53	9	21	40.0	60.13	-.1554	45.93	-.0229	4525.1	-4.00	.00	.0987	322.90	.0496	3.54	7.21
EXTM 72	13.28	24.53	9	21	41.0	286.62	-.0240	17.53	-.1004	3691.4	6.71	13.22	-.0000	69.82	.1058	1.67	10.40
EXTM 51	28.37	39.62	9	21	56.1	337.53	-.0285	-5.10	-.0273	6778.1	5.43	60.19	.0000	49.98	.0792	-15.38	39.84
EXIT SHA	38.71	49.96	9	22	6.5												
EXIT 72	38.71	49.96	9	22	6.5	271.55	-.0039	-19.08	-.0056	14314.5	6.15	4.03	-.0030	108.72	.0061	-20.22	49.37
EXIT 51	38.71	49.96	9	22	6.5	326.03	-.0118	-15.61	-.0103	10358.6	5.74	56.76	-.0064	79.01	.0255	-20.22	49.37
EXTM 72	64.28	75.53	9	22	32.1	268.81	-.0003	-24.05	-.0019	22787.9	5.02	2.13	.0000	113.99	.0019	-25.18	59.88
RISE 42	65.73	76.98	9	22	33.5	102.19	-.0055	-16.66	-.0038	23458.5	4.26	.00	.0065	249.46	.0002	-25.33	60.18
EXTM 51	77.50	88.75	9	22	45.3	316.60	-.0003	-25.03	-.0016	22382.8	4.65	50.97	.0000	98.70	.0025	-26.30	61.91
EXTM 42	128.19	139.44	9	23	36.0	95.79	.0005	-23.19	-.0007	39088.3	4.00	8.71	-.0000	247.69	-.0009	-28.05	61.52
SET 42	216.48	227.73	10	1	4.2	104.98	.0025	-25.00	-.0001	58939.8	3.52	3.00	-.0017	241.25	-.0015	-28.66	49.52
RISE 61	227.13	238.38	10	1	14.9	303.81	.0033	-33.43	.0001	61387.2	3.07	.00	.0019	136.03	.0021	-28.67	47.66
EXTM 51	330.13	341.38	10	2	57.9	.04	.0038	-28.89	.0000	74174.1	2.86	86.85	-.0000	180.64	.0534	-28.64	27.65
EXTM 61	486.74	497.99	10	5	34.5	2.33	.0040	-31.69	.0001	103367.9	2.49	18.04	.0000	182.09	.0035	-28.40	353.54
EXTM 72	523.00	534.25	10	6	10.8	.37	.0041	-29.56	.0001	104895.1	2.42	68.34	-.0000	180.88	.0096	-28.35	345.32
RISE 11	688.81	700.06	10	8	54.6	293.97	.0040	-29.93	-.0000	133517.7	1.90	.00	.0026	127.63	.0023	-28.09	306.87
SET 51	716.28	727.53	10	9	24.1	90.00	.0039	-27.04	.0001	135837.6	2.50	11.39	-.0032	245.30	-.0013	-28.05	300.40
SET 61	730.80	742.05	10	9	38.6	60.76	.0040	-30.00	.0001	138957.8	2.38	-.00	-.0022	229.08	.0026	-28.03	296.98
SET 72	910.55	922.10	10	12	38.6	94.14	.0040	-27.46	.0001	161029.9	2.35	-.00	-.0035	242.25	-.0005	-27.79	254.07
RISE 42	919.56	930.81	10	12	47.3	255.00	.0040	-26.42	-.0001	161624.0	1.64	3.85	.0029	119.89	-.0022	-27.78	251.98
EXTM 11	959.38	970.63	10	13	27.2	.78	.0042	-29.71	.0000	163998.5	1.92	25.07	-.0000	180.75	.0040	-27.73	242.40
SET 11	1227.56	1238.81	10	17	55.3	67.30	.0041	-28.68	.0001	196022.9	2.03	-.00	-.0027	234.04	.0024	-27.44	177.43
EXTM 42	1344.02	1355.27	10	19	51.8	359.96	.0042	-27.09	.0000	201725.0	1.67	81.87	.0000	.30	-.0244	-27.33	149.02
RISE 51	1478.89	1490.14	10	22	6.7	270.00	.0041	-26.59	-.0000	219972.9	1.24	11.20	.0034	114.27	-.0014	-27.22	116.02
RISE 72	1633.83	1645.08	11	0	41.6	265.96	.0041	-26.87	-.0000	235836.1	1.14	-.01	.0036	117.15	-.0005	-27.09	77.99
RISE 61	1716.34	1727.59	11	2	4.1	296.91	.0042	-28.14	-.0000	243381.9	1.23	.00	.0025	128.15	.0027	-27.03	57.70
SET 42	1766.78	1778.03	11	2	54.5	105.00	.0041	-26.10	.0000	247510.9	1.81	3.66	-.0029	240.36	-.0022	-27.00	45.28
EXTM 51	1834.51	1845.76	11	4	2.3	359.07	.0042	-26.98	.0000	247626.1	1.46	88.50	.0021	146.20	.1185	-26.95	28.60
EXTM 61	1969.02	1980.27	11	6	16.8	.34	.0042	-28.14	.0000	263218.5	1.42	21.62	-.0000	180.32	.0040	-26.86	355.42
EXTM 72	2008.94	2020.19	11	6	56.7	.11	.0042	-27.29	.0000	262990.0	1.41	70.62	-.0000	180.29	.0112	-26.84	345.57
RISE 11	2151.28	2162.53	11	9	19.0	291.65	.0042	-27.60	-.0000	280768.1	1.05	.00	.0028	124.54	.0024	-26.75	310.40
SET 51	2197.46	2208.71	11	10	5.2	90.00	.0041	-26.23	.0000	283307.6	1.72	11.06	-.0034	246.07	-.0015	-26.72	298.98
SET 61	2221.50	2232.75	11	10	29.3	63.69	.0042	-27.64	.0000	286471.6	1.62	-.00	-.0025	232.57	.0027	-26.71	293.03
SET 72	2382.98	2394.23	11	13	10.8	93.94	.0041	-26.44	.0000	299280.3	1.71	-.00	-.0036	243.29	-.0005	-26.62	253.06
RISE 42	2383.62	2394.87	11	13	11.4	255.00	.0041	-25.98	-.0000	298938.6	.97	3.52	.0029	119.46	-.0022	-26.62	252.90
EXTM 11	2423.91	2435.16	11	13	51.7	.23	.0042	-27.67	.0000	299571.3	1.29	27.12	-.0000	180.23	.0042	-26.60	242.92
SET 11	2696.38	2707.63	11	18	24.2	68.74	.0042	-27.20	.0000	323024.9	1.54	-.00	-.0028	235.98	.0024	-26.46	175.37
EXTM 42	2802.68	2813.93	11	20	10.4	359.98	.0042	-26.24	.0000	324540.0	1.20	81.02	-.0000	.15	-.0165	-26.41	149.00
RISE 51	2933.13	2944.38	11	22	20.9	270.00	.0041	-25.94	-.0000	338881.2	.80	10.95	.0034	113.66	-.0015	-26.36	116.61
RISE 72	3086.37	3097.62	12	0	54.1	266.09	.0042	-26.15	-.0000	350810.1	.72	-.00	.0037	116.42	-.0005	-26.30	78.43
RISE 61	3162.73	3173.98	12	2	10.5	295.57	.0042	-27.03	-.0000	359966.2	.84	.00	.0026	126.53	.0027	-26.28	59.39
SET 42	3220.93	3232.18	12	3	8.7	105.00	.0041	-25.65	.0000	359503.6	1.45	3.38	-.0030	240.73	-.0023	-26.26	44.87
EXTM 51	3287.22	3298.47	12	4	15.0	359.34	.0042	-26.25	.0000	358003.7	1.11	89.22	.0029	131.18	.1819	-26.24	28.33
EXTM 61	3418.22	3429.47	12	6	26.0	.13	.0042	-27.11	.0000	370644.2	1.12	22.65	-.0000	180.13	.0041	-26.21	355.62
EXTM 72	3458.31	3469.56	12	7	6.1	.07	.0042	-26.51	.0000	369782.2	1.12	71.40	-.0000	180.20	.0114	-26.20	345.61
RISE 11	3594.75	3606.00	12	9	22.5	290.87	.0042	-26.78	-.0000	385062.0	.84	.00	.0029	123.47	.0024	-26.17	311.48
SET 51	3646.02	3657.27	12	10	13.8	90.00	.0042	-25.79	.0000	387476.7	1.58	10.89	-.0035	246.47	-.0015	-26.16	298.63
SET 61	3673.18	3684.43	12	10	40.9	64.66	.0042	-26.83	.0000	390662.2	1.53	-.00	-.0026	233.75	.0027	-26.15	291.81
IMPACT	3753.78	3765.03	12	12	1.6												
IMPC 72	3753.78	3765.03	12	12	1.6	75.22	.0043	-26.14	.0000	395725.9	2.49	16.70	-.0039	244.99	-.0000	-26.15	271.43
IMPC 11	3753.78	3765.03	12	12	1.6	331.32	.0044	-26.92	-.0000	395153.2	1.91	22.21	.0016	152.47	.0038	-26.15	271.43

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION	.00	11.25	9	21	27.768	6691.569	27.1745	307.0367	10.87952	-8.2615	99.5632	106.6522
SEPARATION	1.20	12.45	9	21	28.968	6593.467	25.8108	314.3684	10.95419	-4.9168	102.9776	114.2848
ENTER SHA	3.07	14.32	9	21	30.843	6545.033	22.9507	325.3070	10.99496	.4303	107.7015	125.6934
RETRO	3.20	14.45	9	21	30.968	6545.911	22.7287	326.0237	10.99421	.7896	107.9918	126.4414
EXIT SHA	38.71	49.96	9	22	6.478	16075.274	-20.2178	49.3719	6.97656	50.0883	110.7973	218.6918
IMPACT	3753.78	3765.03	12	12	1.550	397606.043	-26.1519	271.4309	2.22882	69.0142	267.0390	292.0607

SURVEYOR VIEW PERIODS

GHA	199.7490					EPS	87.6001						LOM	267.1791	
SX	.336836	SY	-.832045	SZ	-.440729	DAO	-26.15042	RAO	292.03956	RM	398926.273	LAT	28.310600	LON	279.461800
C3	-.908828	ECC	.985081	SLR	12991.699	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.355687	NSY	-.825122	NSZ	-.438931	C3M	1.4971	VIM	2.6714	ZAE	141.753	B.T	.0000	B.R	-.0000
LATE	5.4635	LONE	4.8391	LATS	-.8590	LONS	277.4854	LATI	.9814	LONI	326.7830	RSM	149.9999	TTAN	6.5121
LAUNCH DATE		APR	9,1966		BASE AZM	87.0		TF	62.506			ARRIVAL DATE		APR 12 1966 12 18 25.4	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPTH
87.00	21 44 5.7	27.5	25.91	307.47	-10.45	114.00	102.05	21 55 20.7	6599.0	10.95	-5.19

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	9	21	55.3												
SEPARATION	1.20	12.45	9	21	56.5												
ENTER SHA	1.92	13.17	9	21	57.3												
RETRO	3.20	14.45	9	21	58.5												
RISE 72	6.44	17.69	9	22	1.9	47.11	-.9753	78.47	.0659	2591.8	-4.39	-.00	.0961	351.58	.1819	13.97	342.42
RISE 51	11.85	23.10	9	22	7.6	65.18	-.1336	41.04	-.0250	4805.4	-3.78	.00	.0968	316.80	.0376	2.78	3.32
EXTM 72	12.54	23.79	9	22	7.9	296.20	-.0381	19.59	-.1154	3267.1	6.36	21.46	-.0000	65.27	.1299	1.53	5.46
EXTM 51	30.25	41.50	9	22	25.6	343.44	-.0248	-8.47	-.0208	7602.2	5.54	66.63	-.0000	45.29	.0812	-16.50	37.08
EXIT SHA	37.49	48.74	9	22	32.8												
EXIT 72	37.49	48.74	9	22	32.8	278.01	-.0042	-19.27	-.0057	13638.7	6.17	10.12	-.0035	108.28	.0061	-19.59	43.20
EXIT 51	37.49	48.74	9	22	32.8	335.37	-.0138	-15.05	-.0109	10044.6	5.63	64.62	-.0064	69.90	.0373	-19.59	43.20
EXTM 72	64.20	75.45	9	22	59.5	275.11	-.0002	-24.31	-.0018	22473.2	4.99	7.88	.0000	113.61	.0018	-24.76	93.91
EXTM 51	79.64	90.89	9	23	15.0	324.15	-.0002	-25.14	-.0014	22928.2	4.58	57.72	.0000	96.89	.0027	-26.01	56.00
RISE 42	82.07	93.32	9	23	17.4	103.92	-.0026	-18.83	-.0022	28477.8	4.25	.00	.0033	246.73	-.0003	-26.16	56.18
EXTM 42	128.04	139.29	10	0	3.4	101.93	.0006	-22.50	-.0008	39862.5	3.99	3.71	-.0000	244.94	-.0009	-27.66	55.16
SET 42	168.48	179.73	10	0	43.8	105.00	.0018	-23.77	-.0004	49249.0	3.75	2.23	-.0011	242.22	-.0013	-28.12	50.54
RISE 61	192.77	204.02	10	1	8.1	304.05	.0031	-33.50	.0001	54668.5	3.27	-.00	.0018	136.30	.0019	-28.26	46.93
EXTM 51	297.93	309.18	10	2	53.3	.03	.0037	-28.64	.0000	68751.4	2.96	87.10	-.0000	180.57	.0514	-28.39	27.66
EXTM 61	457.77	469.02	10	5	33.1	2.44	.0039	-31.65	.0001	99173.6	2.55	18.07	.0000	182.18	.0035	-28.23	353.44
EXTM 72	493.59	504.84	10	6	8.9	.30	.0040	-29.44	.0001	100756.3	2.47	68.47	.0000	180.71	.0096	-28.18	345.39
RISE 11	660.49	671.74	10	8	55.8	293.87	.0040	-29.84	-.0000	129950.4	1.93	.00	.0026	127.51	.0023	-27.95	306.90
SET 51	687.90	699.15	10	9	23.2	90.00	.0039	-26.88	.0001	132325.9	2.53	11.32	-.0032	245.46	-.0013	-27.91	300.47
SET 61	703.01	714.26	10	9	38.4	60.87	.0040	-29.91	.0001	135545.6	2.41	-.00	-.0022	229.21	.0026	-27.89	296.91
SET 72	882.95	894.20	10	12	38.3	94.12	.0039	-27.34	.0001	157901.7	2.37	-.00	-.0035	242.38	-.0005	-27.67	254.14
RISE 42	892.10	903.35	10	12	47.4	255.00	.0040	-26.28	-.0001	158571.9	1.66	3.76	.0029	119.78	-.0021	-27.66	251.94
EXTM 11	931.82	943.07	10	13	27.2	.77	.0042	-29.64	.0000	160972.0	1.94	25.15	-.0000	180.74	.0040	-27.62	242.41
SET 11	1200.52	1211.77	10	17	55.9	67.37	.0041	-28.60	.0001	193369.8	2.05	.01	-.0027	234.13	.0024	-27.35	177.39
EXTM 42	1316.89	1328.14	10	19	52.2	359.96	.0042	-26.99	.0000	199175.3	1.69	81.77	.0000	.28	-.0236	-27.25	149.02
RISE 51	1451.90	1463.15	10	22	7.3	270.00	.0041	-26.50	-.0000	217552.5	1.25	11.17	.0034	114.19	-.0014	-27.14	116.00
RISE 72	1606.96	1618.21	11	0	42.3	265.97	.0041	-26.79	-.0000	233540.4	1.15	-.01	.0036	117.07	-.0005	-27.02	77.9
RISE 61	1689.14	1700.39	11	2	4.5	296.83	.0041	-28.08	-.0000	241113.0	1.24	.00	.0025	128.06	.0027	-26.96	57.76
SET 42	1739.80	1751.05	11	2	55.2	105.00	.0041	-26.03	.0000	245301.6	1.82	3.61	-.0029	240.42	-.0022	-26.93	49.29
EXTM 51	1807.89	1819.14	11	4	3.2	359.14	.0042	-26.91	.0000	245487.3	1.47	88.59	.0021	146.85	.1273	-26.88	28.53
EXTM 61	1942.12	1953.37	11	6	17.5	.37	.0042	-28.09	.0000	261131.7	1.43	21.67	-.0000	180.31	.0040	-26.80	355.43
EXTM 72	1982.07	1993.32	11	6	57.4	.10	.0042	-27.23	.0000	260932.3	1.42	70.67	-.0000	180.28	.0111	-26.78	345.97
RISE 11	2124.30	2135.55	11	9	19.6	291.60	.0042	-27.55	-.0000	278782.5	1.06	.00	.0028	124.48	.0024	-26.70	310.44
SET 51	2170.62	2181.87	11	10	6.0	90.00	.0041	-26.17	.0000	281360.3	1.73	11.04	-.0034	246.12	-.0015	-26.67	298.99
SET 61	2194.89	2206.14	11	10	30.2	63.75	.0042	-27.60	.0000	284553.7	1.63	-.00	-.0025	232.64	.0027	-26.66	292.98
SET 72	2356.14	2367.39	11	13	11.5	93.95	.0041	-26.39	.0000	297425.3	1.72	-.00	-.0036	243.34	-.0005	-26.57	253.08
RISE 42	2356.87	2368.12	11	13	12.2	255.00	.0041	-25.83	-.0000	297094.5	.98	3.49	.0029	119.42	-.0023	-26.57	252.90
EXTM 11	2397.12	2408.37	11	13	52.5	.22	.0042	-27.63	.0000	297736.0	1.30	27.16	-.0000	180.22	.0042	-26.55	242.93
SET 11	2669.78	2681.03	11	18	25.1	68.77	.0042	-27.16	.0000	321332.5	1.54	-.00	-.0028	236.03	.0024	-26.42	178.35
EXTM 42	2775.97	2787.22	11	20	11.3	359.98	.0042	-26.20	.0000	322886.8	1.21	80.98	-.0000	.15	-.0191	-26.38	149.00
RISE 51	2906.45	2917.70	11	22	21.9	270.00	.0041	-25.90	-.0000	337285.1	.81	10.94	.0034	113.63	-.0015	-26.32	116.60
RISE 72	3059.81	3071.06	12	0	55.2	266.09	.0042	-26.11	-.0000	349315.7	.72	-.00	.0037	116.38	-.0005	-26.27	78.42
RISE 61	3135.99	3147.24	12	2	11.3	295.54	.0042	-27.00	-.0000	354471.1	.84	.00	.0026	126.49	.0027	-26.25	59.42
SET 42	3194.28	3205.53	12	3	9.6	105.00	.0041	-25.61	.0000	358024.5	1.45	3.36	-.0030	240.75	-.0023	-26.23	44.88
EXTM 51	3258.73	3269.98	12	4	14.1	358.88	.0042	-26.22	.0000	356406.0	1.11	88.88	.0034	115.87	.0830	-26.22	28.79
EXTM 61	3391.53	3402.78	12	6	26.9	.12	.0042	-27.09	.0000	369166.6	1.12	22.67	-.0000	180.12	.0041	-26.18	355.63
EXTM 72	3431.63	3442.88	12	7	7.0	.06	.0042	-26.49	.0000	368304.2	1.12	71.42	-.0000	180.19	.0115	-26.17	349.61
RISE 11	3568.03	3579.28	12	9	23.4	290.85	.0042	-26.76	-.0000	383535.7	.83	.00	.0029	123.44	.0024	-26.15	311.49
SET 51	3619.37	3630.62	12	10	14.7	90.00	.0042	-25.77	.0000	385905.8	1.56	10.88	-.0035	246.50	-.0015	-26.14	298.63
SET 61	3646.63	3657.88	12	10	42.0	64.68	.0042	-26.81	.0000	389051.9	1.49	-.00	-.0026	233.78	.0027	-26.13	291.79
IMPACT	3750.33	3761.58	12	12	25.7												
IMPC 72	3750.33	3761.58	12	12	25.7	81.06	.0043	-26.08	.0000	396359.3	2.50	11.46	-.0039	244.86	-.0002	-26.13	265.61
IMPC 11	3750.33	3761.58	12	12	25.7	337.22	.0044	-26.92	-.0000	395015.8	1.94	24.25	.0013	157.75	.0040	-26.13	265.61

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPTH	AZ	RT ASC
INJECTION	.00	11.25	9	21	55.346	6600.216	25.9186	307.4098	10.94989	-5.1865	102.0197	113.9386
SEPARATION	1.20	12.45	9	21	56.546	6551.017	24.2875	314.5438	10.99014	-1.7782	105.1789	121.3738
ENTER SHA	1.92	13.17	9	21	57.270	6544.840	23.1313	318.7462	10.99537	.2980	106.9425	129.7579
RETRO	3.20	14.45	9	21	58.546	6575.938	20.8156	325.9434	10.96914	3.9395	109.7592	133.2744
EXIT SHA	37.49	48.74	9	22	32.838	16039.285	-19.5874	43.2043	6.98532	50.0371	110.9764	219.1321
IMPACT	3750.33	3761.58	12	12	25.681	397675.352	-26.1315	265.6081	2.22786	68.7670	266.5774	292.2870

APR 9, 1966
87 DEGREES

SURVEYOR VIEW PERIODS

GHA	159.7490					EPS	87.8301							LOM	260.0155
SX	.340935	SY	-.830577	SZ	-.440346	DAO	-26.12596	RAO	292.31713	RM	399006.422	LAT	28.310600	LON	279.461800
C3	-.908267	ECC	.985087	SLR	12991.732	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.359745	NSY	-.823587	NSZ	-.438507	C3M	1.4971	VIM	2.6714	ZAE	141.771	B.T	.0000	B.R	-.0000
LATE	5.4819	LONE	4.8182	LATS	-.8586	LONS	277.2348	LATI	1.0750	LONI	326.7700	RSM	149.9992	TTAN	6.5038
LAUNCH DATE		APR	9,1966		BASE AZM	90.0		TF	62.524			ARRIVAL DATE		APR 12 1966 12 48 6.4	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
90.00	22 7 51.4	27.8	24.68	307.48	-5.17	119.96	104.33	22 19 6.4	6357.9	10.98	-2.57

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL AZ	DAZ	LAT	LONG
						PROBE IN SUNLIGHT										
INJECTION	.00	11.25	9	22	19.1											
ENTER SHA	.96	12.21	9	22	20.1											
SEPARATION	1.20	12.45	9	22	20.3											
RETRO	3.20	14.45	9	22	22.3											
RISE 72	5.74	16.99	9	22	24.8	68.81	-.4368	68.98	.0947	2675.5	-5.68	.00	.1084	340.46	.1476	13.55	338.02
RISE 51	11.54	22.79	9	22	30.7	69.04	-.1177	36.58	-.0275	5066.1	-3.51	-.00	.0944	311.42	.0280	1.76	359.86
EXTM 72	11.92	23.17	9	22	31.0	306.83	-.0597	20.47	-.1300	2909.9	5.94	30.39	-.0000	60.11	.1640	1.11	.98
RISE 61	12.11	23.36	9	22	31.2	346.13	-.1040	-48.92	.0157	5308.3	6.65	.00	.0029	170.94	-.0701	.78	1.54
EXTM 61	13.41	24.66	9	22	32.5	338.93	-.0821	-47.68	.0158	5837.8	6.94	.11	-.0000	166.00	-.0574	-1.34	5.15
SET 61	14.91	26.16	9	22	34.0	332.42	-.0637	-46.32	.0144	6471.5	7.12	.00	-.0021	161.35	-.0463	-3.57	8.95
EXTM 51	32.55	43.80	9	22	51.7	348.17	-.0212	-11.90	-.0158	8540.5	5.46	72.22	-.0000	41.08	.0854	-17.90	34.70
EXIT SHA	36.40	47.65	9	22	55.5												
EXIT 72	36.40	47.65	9	22	55.5	283.98	-.0047	-19.88	-.0056	13024.8	6.19	15.77	-.0041	108.51	.1060	-19.39	37.70
EXIT 51	36.40	47.65	9	22	55.5	343.94	-.0158	-14.99	-.0114	9808.8	5.51	71.53	-.0050	57.53	.0579	-19.39	37.70
EXIT 61	36.40	47.65	9	22	55.5	302.22	-.0084	-38.34	.0024	15188.1	6.12	-4.67	-.0025	138.26	-.0066	-19.39	37.70
EXTM 72	65.00	76.25	9	23	24.1	280.76	-.0001	-24.98	-.0016	22450.6	4.94	13.04	.0000	113.92	.0016	-24.81	48.83
EXTM 51	82.14	93.39	9	23	41.2	330.78	-.0002	-25.57	-.0012	23598.5	4.51	63.71	.0000	96.08	.0026	-26.09	50.82
RISE 61	162.92	174.17	10	1	2.0	304.70	.0028	-33.93	.0002	48481.0	3.49	-.00	.0016	136.99	.0017	-27.99	45.74
EXTM 51	269.31	280.56	10	2	48.4	.00	.0036	-28.57	.0000	63741.3	3.07	87.17	.0000	180.31	.0062	-28.31	27.66
EXTM 61	433.10	444.35	10	5	32.2	2.62	.0039	-31.74	.0001	95523.0	2.60	17.98	.0000	182.34	.0035	-28.19	353.28
EXTM 72	468.69	479.94	10	6	7.8	.35	.0040	-29.44	.0001	97169.0	2.52	68.46	.0000	180.83	.0095	-28.14	345.35
RISE 11	638.57	647.82	10	8	55.7	293.89	.0040	-29.85	-.0000	126870.3	1.96	.00	.0026	127.53	.0023	-27.92	306.83
SET 51	663.48	674.73	10	9	22.6	90.00	.0039	-26.83	.0001	129229.6	2.56	11.30	-.0032	245.51	-.0013	-27.88	300.54
SET 61	678.62	689.87	10	9	37.7	60.84	.0040	-29.93	.0001	132476.3	2.44	-.00	-.0022	229.18	.0026	-27.86	296.98
SET 72	859.04	870.29	10	12	38.1	94.11	.0039	-27.31	.0001	155195.2	2.39	-.00	-.0035	242.41	-.0005	-27.65	254.19
RISE 42	868.57	879.82	10	12	47.7	254.99	.0040	-26.22	-.0001	155884.3	1.68	3.73	.0029	119.74	-.0021	-27.64	251.91
EXTM 11	908.28	919.53	10	13	27.4	.79	.0042	-29.44	.0000	158327.2	1.96	25.14	-.0000	180.76	.0040	-27.59	242.39
SET 11	1177.15	1188.40	10	17	54.3	67.38	.0041	-28.59	.0001	191002.9	2.06	.00	-.0027	234.15	.0024	-27.32	177.39
EXTM 42	1293.64	1304.89	10	19	52.7	359.96	.0042	-26.96	.0000	196911.1	1.70	81.74	.0000	.27	-.0240	-27.22	149.02
RISE 51	1428.79	1440.04	10	22	7.9	270.00	.0041	-26.47	-.0000	215393.7	1.26	11.16	.0034	114.16	-.0014	-27.11	115.98
RISE 72	1583.92	1595.17	11	0	43.0	265.98	.0041	-26.76	-.0000	231480.4	1.16	-.01	.0036	117.04	-.0005	-27.00	77.94
RISE 61	1666.01	1677.26	11	2	5.1	296.81	.0041	-28.06	-.0000	239089.5	1.25	.00	.0025	128.04	.0027	-26.94	57.77
SET 42	1716.69	1727.94	11	2	55.8	105.00	.0041	-26.00	.0000	243307.6	1.83	3.59	-.0029	240.45	-.0022	-26.90	45.30
EXTM 51	1784.95	1796.20	11	4	4.1	359.16	.0042	-26.89	.0000	243540.5	1.48	88.63	.0021	147.10	.1309	-26.86	28.50
EXTM 61	1919.11	1930.36	11	6	19.2	.33	.0042	-28.07	.0000	259239.2	1.44	21.69	-.0000	180.31	.0040	-26.78	355.43
EXTM 72	1959.06	1970.31	11	6	58.2	.10	.0042	-27.21	.0000	259059.2	1.42	70.69	-.0000	180.28	.0112	-26.75	345.57
RISE 11	2101.28	2112.53	11	9	20.4	291.58	.0042	-27.53	-.0000	276967.1	1.07	.00	.0028	124.46	.0024	-26.67	310.45
SET 51	2147.61	2158.86	11	10	6.7	90.00	.0041	-26.15	.0000	279565.7	1.74	11.03	-.0034	246.15	-.0015	-26.65	298.99
SET 61	2171.99	2183.24	11	10	31.1	63.77	.0042	-27.58	.0000	282775.4	1.64	-.00	-.0025	232.67	.0027	-26.63	292.97
SET 72	2333.16	2344.41	11	13	12.3	93.95	.0041	-26.37	.0000	295699.1	1.72	-.00	-.0036	243.36	-.0005	-26.55	253.09
RISE 42	2333.95	2345.20	11	13	13.1	295.00	.0041	-25.80	-.0000	295376.2	.99	3.48	.0029	119.40	-.0023	-26.55	252.89
EXTM 11	2374.18	2385.43	11	13	53.3	.22	.0042	-27.62	.0000	298026.8	1.30	27.18	-.0000	180.22	.0042	-26.53	242.93
SET 11	2444.93	2456.18	11	15	24.0	68.79	.0042	-27.15	.0000	319718.8	1.55	-.00	-.0028	236.05	.0024	-26.40	175.33
EXTM 42	2753.08	2764.33	11	20	12.2	359.98	.0042	-26.18	.0000	321302.0	1.22	80.96	-.0000	.16	-.0146	-26.36	149.00
RISE 51	2883.60	2894.85	11	22	22.7	270.00	.0041	-25.88	-.0000	335739.4	.82	10.93	.0034	113.61	-.0015	-26.30	116.60
RISE 72	3043.08	3054.33	12	0	54.2	266.10	.0042	-26.09	-.0000	347860.2	.72	-.00	.0037	116.36	-.0005	-26.25	78.42
RISE 61	3113.13	3124.38	12	2	12.2	295.51	.0042	-26.98	-.0000	353009.0	.84	-.00	.0026	126.46	.0027	-26.22	59.44
SET 42	3171.48	3182.73	12	3	10.6	105.00	.0041	-25.59	.0000	356568.6	1.45	3.35	-.0030	240.77	-.0023	-26.21	44.88
EXTM 51	3234.61	3245.86	12	4	13.7	358.54	.0042	-26.20	.0000	354859.9	1.11	88.61	.0036	109.73	.0510	-26.19	29.12
EXTM 61	3368.70	3379.95	12	6	27.8	.12	.0042	-27.07	.0000	367693.7	1.12	22.69	-.0000	180.12	.0041	-26.16	355.63
EXTM 72	3408.81	3420.06	12	7	7.9	.06	.0042	-26.47	.0000	366826.2	1.12	71.44	-.0000	180.19	.0114	-26.15	349.61
RISE 11	3545.16	3556.41	12	9	24.3	290.83	.0042	-26.75	-.0000	382003.8	.82	.00	.0029	123.42	.0024	-26.13	311.51
SET 51	3594.56	3607.81	12	10	15.7	90.00	.0042	-25.75	.0000	384334.7	1.54	10.87	-.0035	246.52	-.0015	-26.12	298.64
SET 61	3423.92	3435.17	12	10	43.0	64.70	.0042	-26.80	.0000	387450.2	1.47	-.00	-.0026	233.80	.0027	-26.11	291.78
IMPACT	3751.41	3762.66	12	12	50.5												
IMPC 42	3751.41	3762.66	12	12	50.5	248.59	.0043	-25.52	-.0000	397827.9	1.74	-1.19	.0030	122.82	-.0025	-26.11	259.61
IMPC 72	3751.41	3762.66	12	12	50.5	87.07	.0043	-26.02	.0000	397021.4	2.50	6.08	-.0039	244.49	-.0004	-26.11	259.61
IMPC 11	3751.41	3762.66	12	12	50.5	343.30	.0044	-26.91	-.0000	394921.5	1.97	25.91	.0010	163.45	.0042	-26.11	259.61

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION	.00	11.25	9	22	19.106	6557.997	24.6848	307.4695	10.98444	-2.5674	104.3224	119.9547
ENTER SHA	.96	12.21	9	22	20.065	6544.725	23.2051	313.0592	10.99548	.1757	106.6906	125.7849
SEPARATION	1.20	12.45	9	22	20.306	6546.167	22.7978	314.4484	10.99426	.8671	107.2570	127.2344
RETRO	3.20	14.45	9	22	22.306	6631.335	19.0000	325.4982	10.92290	6.5398	111.3921	136.7857
EXIT SHA	36.40	47.65	9	22	55.504	15984.113	-19.3892	37.6969	6.99762	49.9559	111.0430	219.3066
IMPACT	3751.41	3762.66	12	12	50.519	397747.027	-26.1104	259.6145	2.22533	68.4805	266.3322	292.5199

SURVEYOR VIEW PERIOD.

GHA	199.7490					EPS	88.0174							LOM	254.1761
SX	.344269	SY	-.829370	SZ	-.440027	DAO	-26.10563	R40	292.54322	RM	399071.410	LAT	28.310600	LON	279.46180
C3	-.9	ECC	.9	SLR	12991.688	RCA	6544.645	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.363	NSY	-.822	NSZ	-.438160	C3H	1.4968	VIM	2.6713	ZAE	141.767	B.T	.0000	B.R	-.0000
LA	5.4951	LONE	4.8015	LATS	-.8584	LONS	277.0292	LATI	1.0501	LONI	326.7540	RSM	149.9986	TTAN	6.4973
LAUNCH DATE		APR	9.1966		BASE AZM	93.0		TF	62.549			ARRIVAL DATE		APR 12 1966 13 12 18.2	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
93.00	22 27 12.0	27.9	23.48	307.31	-.93	124.65	106.53	22 38 27.0	6545.1	11.00	-.46

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	9	22	38.5												
ENTER SHA	.19	11.44	9	22	38.6												
SEPARATION	1.20	12.45	9	22	39.7												
RETRO	3.20	14.45	9	22	41.7												
RISE 72	5.24	16.49	9	22	43.7	75.63	-.2954	60.79	.0786	2768.2	-6.47	-.01	.1162	331.79	.1140	12.79	334.54
RISE 51	11.34	22.59	9	22	49.8	72.12	-.1059	32.50	-.0301	5290.6	-3.27	-.00	.0921	306.61	.0202	.51	356.85
RISE 61	11.34	22.59	9	22	49.8	357.34	-.1156	-49.73	.0100	5296.5	6.15	.00	.0074	178.28	-.0750	.51	356.85
EXTM 72	11.47	22.72	9	22	49.9	317.77	-.0862	20.42	-.1398	2639.4	5.55	39.74	-.0000	55.00	.2099	.30	357.20
EXTM 61	14.69	25.94	9	22	53.1	339.56	-.0668	-47.27	.0125	6618.8	6.86	.63	-.0000	166.29	-.0470	-4.44	9.56
SET 61	19.83	31.08	9	22	58.3	324.83	-.0340	-44.1	.0085	8766.0	6.95	.00	-.0031	155.53	-.0257	-10.50	15.00
EXTM 51	34.99	46.24	9	23	13.4	351.93	-.0183	-15.22	-.0121	9491.4	5.39	77.06	-.0000	37.19	.0954	-19.48	32.61
EXIT SHA	35.50	46.75	9	23	13.9												
EXIT 72	35.50	46.75	9	23	13.9	289.23	-.0053	-20.99	-.0054	12515.8	6.21	20.73	-.0049	109.92	.0058	-19.66	33.01
EXIT 51	35.50	46.75	9	23	13.9	351.39	-.0176	-15.57	-.0116	9654.7	5.40	77.04	-.0010	40.01	.0915	-19.66	33.01
EXIT 61	35.50	46.75	9	23	13.9	307.93	-.0093	-39.45	.0027	14913.0	6.09	-2.76	-.0022	142.43	-.0074	-19.66	33.01
EXTM 72	66.10	77.35	9	23	44.6	285.55	-.0000	-25.98	-.0014	22557.1	4.89	17.39	.0000	114.83	.0014	-25.26	44.64
EXTM 51	84.76	96.01	10	0	3.2	336.30	-.0001	-26.32	-.0011	24319.5	4.46	68.73	.0000	96.80	.0029	-26.52	46.51
RISE 61	138.98	150.23	10	0	57.4	305.81	.0024	-34.66	.0003	43241.0	3.70	-.00	.0015	138.17	.0014	-27.94	44.07
EXTM 51	245.16	256.41	10	2	43.6	360.00	.0034	-28.72	.0000	59363.8	3.17	87.02	.0020	97.68	.0059	-28.43	27.69
EXTM 61	413.36	424.61	10	5	31.8	2.88	.0039	-31.98	.0001	92583.1	2.64	17.73	.0009	182.57	.0035	-28.31	353.00
EXTM 72	448.29	459.54	10	6	6.7	.39	.0040	-29.61	.0001	94180.6	2.56	68.29	.0000	180.91	.0094	-28.26	348.31
RISE 11	617.42	628.67	10	8	56.1	294.03	.0040	-29.99	-.0000	124397.0	2.99	.00	.0026	127.71	.0023	-28.01	306.64
SET 51	643.56	654.81	10	9	22.0	90.10	.0038	-26.90	.0001	126661.2	2.58	11.33	-.0032	245.44	-.0013	-27.98	300.60
SET 61	658.07	669.32	10	9	36.5	60.67	.0039	-30.07	.0001	129850.0	2.46	-.00	-.0022	228.98	.0021	-27.96	297.20
SET 72	839.49	850.90	10	12	38.1	94.12	.0039	-27.37	.0001	152899.5	2.41	-.00	-.0035	242.34	-.0015	-27.72	25.21
RISE 42	849.44	860.69	10	12	47.9	254.99	.0040	-26.78	-.0001	153666.0	1.70	3.76	.0029	119.76	-.0021	-27.71	251.88
EXTM 11	889.24	900.49	10	13	27.7	.83	.0041	-29.74	.0000	156172.0	1.98	29.05	-.0000	180.80	.0040	-27.66	242.35
SET 11	1157.85	1169.10	10	17	56.3	67.31	.0041	-28.47	.0001	189022.3	2.07	.01	-.0027	234.06	.0024	-27.37	177.48
EXTM 42	1274.72	1285.97	10	19	53.2	359.96	.0042	-27.00	.0000	195045.8	1.71	81.78	.0000	.29	-.0244	-27.24	49.02
EXTM 51	1410.00	1421.25	10	22	8.5	270.00	.0041	-26.50	-.0000	213614.5	1.27	11.17	.0034	114.18	-.0014	-27.1	115.97
RISE 72	1565.16	1576.41	11	0	43.6	265.97	.0041	-26.79	-.0000	229780.3	1.17	-.01	.0036	117.07	-.0005	-27.04	77.93
RISE 61	1647.44	1658.69	11	2	5.9	296.80	.0041	-28.09	-.0000	237442.7	1.26	.00	.0025	128.09	.0027	-26.96	57.72
SET 42	1697.89	1709.14	11	2	56.3	105.00	.0041	-26.01	.0000	241659.9	1.84	3.61	-.0029	240.43	-.0022	-26.93	49.31
EXTM 51	1766.12	1777.37	11	4	4.6	359.14	.0042	-26.91	.0000	241910.3	1.46	88.60	.0021	146.96	.1279	-26.88	28.52
EXTM 61	1900.44	1911.69	11	6	18.9	.34	.0042	-28.10	.0000	257683.7	1.44	21.66	-.0000	180.32	.0040	-26.79	353.42
EXTM 72	1940.36	1951.61	11	6	58.8	.11	.0042	-27.23	.0000	257513.6	1.43	70.68	-.0000	180.29	.0112	-26.77	349.97
RISE 11	2082.68	2093.93	11	9	21.1	291.60	.0042	-27.55	-.0000	275475.8	1.07	.00	.0028	124.48	.0024	-26.68	310.42
SET 51	2128.90	2140.15	11	10	7.4	90.00	.0041	-26.15	.0000	278079.0	1.74	11.03	-.0034	246.14	-.0015	-26.66	299.00
SET 61	2153.21	2164.46	11	10	31.7	63.75	.0042	-27.59	.0000	281291.0	1.64	-.00	-.0025	232.64	.0027	-26.64	292.99
SET 72	2314.47	2325.72	11	13	12.9	93.95	.0041	-26.37	.0000	274269.0	1.73	-.00	-.0036	243.35	-.0005	-26.56	293.10
RISE 42	2315.32	2326.57	11	13	13.8	255.00	.0041	-25.80	-.0000	293949.6	.99	3.48	.0029	119.40	-.0022	-26.56	252.89
EXTM 11	2355.56	2366.81	11	13	54.0	.23	.0042	-27.63	.0000	294613.5	1.31	27.16	-.0000	180.23	.0042	-26.54	248.99
SET 11	2428.27	2439.52	11	15	26.7	68.79	.0042	-27.15	.0000	318370.2	1.55	-.00	-.0028	236.05	.0024	-26.40	175.34
EXTM 42	2734.45	2745.70	11	20	12.9	359.98	.0042	-26.18	.0000	319980.5	1.22	80.96	-.0000	.15	-.0165	-26.35	149.00
RISE 51	2865.00	2876.25	11	22	23.5	270.00	.0041	-25.88	-.0000	334448.3	.82	10.92	.0034	113.60	-.0019	-26.30	116.59
RISE 72	3018.62	3029.87	12	0	57.1	266.10	.0042	-26.08	-.0000	346657.8	.72	-.00	.0037	116.35	-.0005	-26.24	78.41
RISE 61	3094.60	3105.85	12	2	13.1	295.50	.0042	-26.97	-.0000	351802.7	.84	.00	.0026	126.45	.0027	-26.21	59.45
SET 42	3152.96	3164.21	12	3	11.4	105.00	.0041	-25.57	.0000	355363.0	1.45	3.34	-.0030	240.78	-.0023	-26.20	44.88
EXTM 51	3221.86	3233.11	12	4	20.3	.00	.0042	-26.19	.0000	354036.1	1.12	89.55	-.0000	181.82	.1248	-26.18	27.68
EXTM 61	3350.18	3361.43	12	6	28.6	.13	.0042	-27.06	.0000	366474.6	1.11	22.70	-.0000	180.12	.0041	-26.15	355.63
EXTM 72	3390.27	3401.52	12	7	8.7	.07	.0042	-26.45	.0000	365400.6	1.12	71.65	-.0000	180.19	.0114	-26.14	347.61
RISE 11	3526.58	3537.83	12	9	25.0	290.82	.0042	-26.73	-.0000	380737.2	.81	.00	.0029	123.41	.0024	-26.11	311.52
SET 51	3578.01	3589.26	12	10	14.5	90.00	.0042	-25.73	.0000	383040.3	1.53	10.87	-.0035	246.53	-.0015	-26.10	296.64
SET 61	3605.44	3616.69	12	10	43.9	64.71	.0042	-26.78	.0000	386135.9	1.45	-.00	-.0026	233.82	.0027	-26.10	291.76
IMPACT	3752.93	3764.18	12	13	11.4												
IMPC 42	3752.93	3764.18	12	13	11.4	253.60	.0043	-25.53	-.0000	397499.1	1.72	2.31	.0031	119.96	-.0024	-26.09	254.58
IMPC 72	3752.93	3764.18	12	13	11.4	92.10	.0043	-25.97	.0000	397580.7	2.49	1.58	-.0038	244.00	-.0005	26.09	254.58
IMPC 11	3752.93	3764.18	12	13	11.4	348.40	.0044	-26.90	-.0000	394880.3	1.99	26.93	.0007	168.40	.0043	-25.89	254.58

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION	.00	11.25	9	22	38.450	6545.093	23.4798	307.3138	10.99524	-.46.0	106.52°	124.0483
ENTER SHA	.19	11.44	9	22	38.641	6544.675	23.1651	308.4046	10.99550	.0887	106.9805	125.7868
SEPARATION	1.20	12.45	9	22	39.650	6562.410	21.3534	314.1302	10.98053	2.9696	109.2472	131.7654
RETRO	3.20	14.45	9	22	41.650	6694.620	17.2730	324.7959	10.87073	8.5750	112.9533	142.9325
EXIT SHA	35.50	46.75	9	23	13.950	15932.087	-19.6632	33.0092	7.00922	49.8787	110.9738	219.2431
IMPACT	3752.93	3764.18	12	13	11.383	397807.293	-26.0927	254.5799	2.22289	68.2218	266.3266	292.7156

APR 9, 1966
93 DEGREES

SURVEYOR VIEW PERIODS

GHA 169.7491 EPS 88.1728 LOM 249.3308
SX .347732 SY -.824360 SZ -.439759 DAO -26.08850 RAD 292.73070 RM 399125.082 LAT 28.310600 LON 279.461800
CJ -.911725 ECC .985042 SLR 12991.438 RCA 6544.6450 LTA -20.0000 GTA 20.00 TB 675.00000 POL -.0
NSX .355815 NSY -.821249 NSZ -.437870 C3M 1.4952 VIM 2.6710 ZAE 141.725 B.T .0000 B.R -.0000
LATE 5.5047 LONE 4.7469 LATS -.8582 LONS 276.8597 LATI .9169 LONI 326.7155 RSM 149.9981 TTAN 6.4929
LAUNCH DATE APR 9,1966 BASE AZM 96.0 TF 62.600 ARRIVAL DATE APR 12 1966 13 32 22.8

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
96.00	22 42 21.5	28.0	22.30	307.02	2.35	128.15	108.68	22 53 36.5	6547.4	10.99	1.17

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PRORE IN EARTH'S SHADOW															
INJECTION	.00	11.25	9	22	53.6												
SEPARATION	1.20	12.45	9	22	54.8												
RETRO	3.20	14.45	9	22	56.8												
RISE 72	4.86	16.11	9	22	58.5	78.99	-.2356	53.98	.0577	2850.4	-6.96	.00	.1212	324.74	.0885	11.80	331.75
EXTM 72	11.15	22.40	9	23	4.8	328.27	-.1127	17.96	-.1430	2444.3	5.21	49.38	-.0000	50.22	.2745	-.84	354.06
RISE 51	11.22	22.47	9	23	4.8	74.69	-.0970	28.70	-.0326	5474.1	-3.05	.00	.0901	302.22	.0138	-.95	354.24
RISE 61	12.34	23.59	9	23	6.0	356.50	-.0960	-49.70	.0069	5950.1	5.27	.01	.0060	177.73	-.0625	-2.78	357.30
EXTM 61	16.19	27.35	9	23	9.7	339.91	-.0556	-47.39	.0102	7435.6	6.77	.57	-.0000	166.55	-.0390	-7.93	5.97
SET 61	22.10	33.35	9	23	15.7	325.71	-.0279	-44.42	.0068	9879.8	6.72	-.01	-.0024	156.23	-.0210	-13.72	16.16
EXIT SHA	34.76	46.01	9	23	28.4												
EXIT 72	34.76	46.01	9	23	28.4	293.70	-.0060	-22.56	-.0050	12105.2	6.23	24.86	-.0057	111.28	.0054	-20.36	29.10
EXIT 51	34.76	46.01	9	23	28.4	357.69	-.0193	-16.77	-.0116	9552.7	5.30	80.78	.0071	13.94	.1287	-20.36	29.10
EXIT 61	34.76	46.01	9	23	28.4	312.77	-.0102	-40.85	.0030	14739.6	6.06	-1.74	-.0018	146.25	-.0081	-20.36	29.10
EXTM 51	37.35	48.60	9	23	31.0	354.95	-.0161	-18.39	-.0094	10376.6	5.32	81.29	-.0000	33.45	.1184	-21.20	30.87
EXTM 72	67.35	78.60	10	0	1.0	289.44	.0000	-27.26	-.0011	22754.6	4.85	20.86	.0000	116.23	.0012	-26.05	41.29
EXTM 51	87.60	98.85	10	0	21.2	340.73	.0000	-27.36	-.0008	25109.0	4.40	72.71	.0000	99.71	.0029	-27.26	43.04
RISE 61	121.91	133.16	10	0	55.5	307.40	.0020	-35.67	.0004	39334.2	3.89	-.00	.0013	139.80	.0011	-28.19	42.04
EXTM 51	225.49	236.74	10	2	39.1	.01	.0033	-29.13	.0000	55686.0	3.25	86.61	.0000	180.35	.0214	-28.78	27.68
EXTM 61	398.45	409.68	10	5	32.0	3.23	.0039	-32.36	.0001	90311.3	2.67	17.34	.0000	182.86	.0034	-28.59	352.71
EXTM 72	432.43	443.68	10	6	6.0	.46	.0040	-29.93	.0001	91826.8	2.59	67.97	-.0000	181.06	.0092	-28.53	345.25
RISE 11	603.46	614.71	10	8	57.1	294.29	.0040	-30.24	-.0000	122524.9	2.01	.00	.0026	128.05	.0023	-28.22	306.35
SET 51	627.96	639.21	10	9	21.6	90.00	.0038	-27.09	.0001	124616.1	2.60	11.41	-.0032	245.26	-.0013	-28.18	300.65
SET 61	641.22	652.47	10	9	34.8	60.34	.0039	-30.32	.0001	127659.8	2.48	-.00	-.0022	228.60	.0026	-28.16	297.56
SET 72	824.59	835.84	10	12	38.2	94.15	.0039	-27.53	.0001	151121.3	2.42	-.00	-.0035	242.18	-.0004	-27.88	254.22
RISE 42	834.53	845.78	10	12	48.1	254.99	.0040	-26.42	-.0001	151903.3	1.71	3.85	.0028	119.89	-.0021	-27.87	251.85
EXTM 11	874.53	885.78	10	13	28.1	.90	.0041	-29.92	.0001	154491.5	1.99	24.86	-.0000	180.86	.0040	-27.81	242.28
SET 11	1142.49	1153.74	10	17	56.1	67.19	.0041	-28.78	.0001	187416.4	2.08	-.00	-.0026	233.89	.0024	-27.49	177.61
EXTM 42	1259.96	1271.21	10	19	53.6	359.95	.0042	-27.11	.0000	193557.6	1.72	81.89	.0000	.32	-.0242	-27.37	149.03
RISE 51	1395.35	1406.60	10	22	9.0	270.00	.0041	-26.59	-.0000	212190.5	1.28	11.20	.0034	114.27	-.0014	-27.24	115.96
RISE 72	1550.50	1561.75	11	0	44.1	265.96	.0041	-26.87	-.0000	228413.0	1.17	-.01	.0036	117.15	-.0005	-27.11	77.94
RISE 61	1633.22	1644.47	11	2	0.8	296.95	.0041	-28.18	-.0000	236143.2	1.26	.00	.0025	128.21	.0027	-27.04	57.62
SET 42	1683.22	1694.47	11	2	50.8	105.00	.0041	-26.08	.0000	240329.6	1.84	3.65	-.0029	240.38	-.0022	-27.00	45.32
EXTM 51	1751.23	1762.48	11	4	4.8	359.08	.0042	-26.98	.0000	240593.7	1.49	88.51	.0021	146.47	.1194	-26.95	28.59
EXTM 61	1885.92	1897.17	11	6	19.5	.36	.0042	-28.16	.0000	256432.0	1.45	21.60	-.0000	180.34	.0040	-26.85	355.40
EXTM 72	1925.78	1937.03	11	6	59.4	.11	.0042	-27.29	.0000	256262.4	1.43	70.62	-.0000	180.30	.0112	-26.82	345.56
RISE 11	2068.32	2079.57	11	9	21.9	291.65	.0042	-27.60	-.0000	274272.2	1.08	.00	.0028	124.55	.0024	-26.73	310.37
SET 51	2114.30	2125.55	11	10	7.9	90.00	.0041	-26.20	.0000	276863.4	1.74	11.05	-.0034	246.10	-.0015	-26.70	299.01
SET 61	2138.38	2149.63	11	10	32.0	63.70	.0042	-27.64	.0000	280064.1	1.64	-.00	-.0025	232.57	.0027	-26.69	293.05
SET 72	2299.90	2311.15	11	13	13.5	93.95	.0041	-26.41	.0000	293094.7	1.73	-.00	-.0036	243.32	-.0005	-26.59	253.10
RISE 42	2300.77	2312.02	11	13	14.4	255.00	.0041	-25.83	-.0000	292774.8	1.00	3.50	.0029	119.42	-.0022	-26.59	252.88
EXTM 11	2341.05	2352.30	11	13	54.7	.25	.0042	-27.67	.0000	293455.0	1.31	27.13	-.0000	180.25	.0042	-26.57	242.91
SET 11	2613.61	2624.86	11	18	27.2	68.76	.0042	-27.17	.0000	317241.0	1.56	-.00	-.0028	236.02	.0024	-26.42	175.37
EXTM 42	2719.90	2731.15	11	20	13.5	359.98	.0042	-26.20	.0000	319874.5	1.22	80.98	-.0000	.16	-.0166	-26.37	149.00
RISE 51	2850.48	2861.73	11	22	24.1	270.00	.0041	-25.89	-.0000	333361.1	.82	10.93	.0034	113.61	-.0015	-26.31	116.59
RISE 72	3004.09	3015.34	12	0	57.7	266.10	.0042	-26.09	-.0000	345591.6	.72	-.00	.0037	116.35	-.0005	-26.24	78.41
RISE 61	3080.11	3091.36	12	2	13.7	295.51	.0042	-26.98	-.0000	350738.6	.84	.00	.0026	126.46	.0027	-26.22	59.44
SET 42	3138.42	3149.67	12	3	12.0	105.00	.0041	-25.58	.0000	354294.2	1.45	3.34	-.0030	240.78	-.0023	-26.20	44.89
EXTM 51	3201.58	3212.83	12	4	15.2	358.54	.0042	-26.19	.0000	352583.9	1.11	88.62	.0036	109.41	.0505	-26.18	29.11
EXTM 61	3335.68	3346.93	12	6	29.3	.13	.0042	-27.06	.0000	365398.3	1.11	22.70	-.0000	180.13	.0041	-26.15	355.62
EXTM 72	3375.76	3387.01	12	7	9.4	.07	.0042	-26.45	.0000	364519.2	1.11	71.45	-.0000	180.20	.0114	-26.14	345.61
RISE 11	3512.07	3523.32	12	9	25.7	290.82	.0042	-26.73	-.0000	379627.3	.81	.00	.0029	123.40	.0024	-26.11	311.52
SET 51	3563.51	3574.76	12	10	17.1	90.00	.0042	-25.73	.0000	381909.9	1.52	10.86	-.0035	246.54	-.0015	-26.10	298.64
SET 61	3590.99	3602.24	12	10	44.6	64.72	.0042	-26.78	.0000	384991.5	1.44	-.00	-.0026	233.83	.0027	-26.09	291.76
RISE 42	3744.33	3755.58	12	13	17.9	255.00	.0042	-25.51	-.0000	396191.7	1.29	3.30	.0030	119.17	-.0023	-26.07	253.17
SET 72	3745.74	3756.99	12	13	19.3	93.87	.0042	-25.94	.0000	396696.6	2.08	.00	-.0038	243.80	-.0006	-26.07	252.81
IMPACT	3755.97	3767.22	12	13	29.6												
IMPC 42	3755.97	3767.22	12	13	29.6	257.98	.0043	-25.53	-.0000	397200.8	1.72	5.45	.0031	117.56	-.0023	-26.08	250.19
IMPC 72	3755.97	3767.22	12	13	29.6	96.49	.0043	-25.92	.0000	398064.7	2.49	-2.33	-.0038	243.43	-.0006	-26.08	250.19
IMPC 11	3755.97	3767.22	12	13	29.6	352.86	.0044	-26.89	-.0000	394870.6	2.02	27.54	.0004	172.82	.0044	-26.08	250.19

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION	.00	11.25	9	22	53.608	6547.397	22.3018	307.0193	10.99316	1.1651	108.6830	128.1536
SEPARATION	1.20	12.45	9	22	54.808	6587.073	19.9492	313.6632	10.95969	4.5849	111.1891	135.0983
RETRO	3.20	14.45	9	22	56.808	6754.761	15.6057	323.9556	10.82175	10.1192	114.4959	145.8921
EXIT SHA	34.76	46.01	9	23	28.373	15878.733	-20.3640	29.1041	7.02103	49.7984	110.7923	218.9537
IMPACT	3755.97	3767.22	12	13	29.579	397856.953	-26.0774	250.1884	2.22144	68.1600	266.5630	292.8857

SURVEYOR VIEW PERIODS

GHA	199.7490					EPS	88.2699						LOM	246.3006	
SX	.348758	SY	-.827725	SZ	-.439589	DAO	-26.07767	RAO	292.84789	RM	399156.551	LAT	28.310600	LON	279.461800
C3	-.910521	ECC	.985050	SLR	12991.490	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.367523	NSY	-.820579	NSZ	-.437695	C3M	1.4969	VIM	2.6714	ZAE	141.707	B.T	.0000	B.R	-.0000
LATE	5.5140	LONE	4.8929	LATS	-.8580	LONS	276.8672	LATI	.7020	LONI	326.8335	RSM	149.9978	TTAN	6.4895
LAUNCH DATE	APR 9,1966			BASE AZM	99.0	TF	62.602					ARRIVAL DATE	APR 12 1966 13 44 56.1		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99.00	22 53 55.5	28.1	21.15	306.63	4.82	130.66	110.80	23 5 10.5	6556.2	10.99	2.39

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	9	23	5.2												
SEPARATION	1.20	12.45	9	23	6.4												
RETRO	3.20	14.45	9	23	8.4												
RISE 72	4.63	15.88	9	23	9.8	81.11	-.2021	48.09	.0372	2919.5	-7.28	-.00	.1244	318.71	.0642	10.64	329.44
EXTM 72	10.94	22.19	9	23	16.1	337.83	-.1351	13.61	-.1405	2310.7	4.96	59.22	-.0000	45.79	.3758	-2.26	351.43
RISE 51	11.14	22.39	9	23	16.3	76.94	-.0901	25.12	-.0351	5620.5	-2.87	.00	.0884	298.11	.0083	-2.58	351.96
RISE 61	16.63	27.88	9	23	21.8	342.96	-.0532	-48.49	.0088	7882.9	6.64	.00	.0007	168.80	-.0364	-10.16	4.58
EXTM 61	17.65	28.90	9	23	22.8	339.89	-.0470	-47.95	.0085	8291.7	6.67	.03	-.0000	166.69	-.0326	-11.26	6.48
SET 61	18.71	29.96	9	23	23.9	337.08	-.0415	-47.42	.0081	8717.0	6.68	.01	-.0006	164.72	-.0292	-12.32	8.33
EXIT SHA	34.11	45.36	9	23	39.3												
EXIT 72	34.11	45.36	9	23	39.3	297.46	-.0068	-24.57	-.0045	11758.9	6.25	28.20	-.0065	113.70	.0046	-21.40	25.82
EXIT 51	34.11	45.36	9	23	39.3	3.06	-.0209	-18.46	-.0115	9466.3	5.21	82.19	.0177	338.12	.1069	-21.40	25.82
EXIT 61	34.11	45.36	9	23	39.3	316.88	-.0112	-42.49	.0033	14629.1	6.03	-1.46	-.0015	149.72	-.0088	-21.40	25.82
EXTM 51	39.51	50.76	9	23	44.7	357.39	-.0146	-21.45	-.0074	11167.2	5.27	85.09	-.0000	29.71	.1805	-23.02	29.37
EXTM 72	68.73	79.98	10	0	13.9	292.53	.0001	-28.77	-.0009	23033.4	4.81	23.51	.0000	118.00	.0010	-27.12	38.67
RISE 61	112.21	123.46	10	0	57.4	30°.33	.0017	-36.83	.0005	37061.5	4.00	-.00	.0012	141.75	.0008	-28.78	39.87
EXTM 51	209.83	221.08	10	2	35.0	.05	.0032	-29.76	.0000	52681.3	3.33	85.98	.0000	180.62	.0360	-29.33	27.64
EXTM 61	387.66	398.91	10	5	32.8	3.66	.0038	-32.85	.0002	88699.0	2.70	16.84	.0000	183.21	.0034	-29.00	352.32
EXTM 72	420.46	431.71	10	6	5.6	.56	.0040	-30.38	.0001	90044.0	2.62	67.52	-.0000	181.25	.0089	-28.92	345.16
RISE 11	593.32	604.57	10	8	58.5	294.64	.0040	-30.58	-.0000	121188.2	2.02	-.00	.0026	128.50	.0023	-28.54	305.97
SET 51	616.03	627.28	10	9	21.2	90.00	.0038	-27.79	.0001	123041.3	2.62	11.52	-.0032	244.98	-.0013	-28.49	300.69
SET 61	627.45	638.70	10	9	32.6	59.89	.0039	-30.46	.0001	125862.1	2.50	-.00	-.0021	228.09	.0026	-28.47	298.03
SET 72	813.17	824.42	10	12	38.4	94.20	.0039	-27.78	.0001	149779.6	2.43	-.00	-.0034	241.93	-.0004	-28.13	254.20
RISE 42	823.15	834.40	10	12	48.3	254.99	.0040	-26.65	-.0001	150558.0	1.72	3.99	.0028	120.08	-.0021	-28.11	251.82
EXTM 11	863.45	874.70	10	13	28.6	.99	.0041	-30.17	.0001	153246.4	2.00	24.61	-.0000	180.94	.0039	-28.05	242.20
SET 11	1130.35	1141.60	10	17	55.5	67.00	.0041	-28.97	.0001	186163.2	2.09	-.00	-.0026	233.64	.0024	-27.67	177.81
EXTM 42	1248.67	1259.92	10	19	53.8	359.95	.0042	-27.28	.0000	192440.6	1.72	82.06	.0000	.37	-.0247	-27.53	149.03
RISE 51	1384.16	1395.41	10	22	9.3	270.00	.0041	-26.73	-.0000	211126.2	1.29	11.26	.0034	114.40	-.0014	-27.38	115.94
RISE 72	1539.23	1550.48	11	0	44.4	265.94	.0041	-26.99	-.0000	227395.8	1.18	-.01	.0036	117.27	-.0005	-27.23	77.95
RISE 61	1622.63	1633.88	11	2	7.8	297.10	.0041	-28.30	-.0000	235211.8	1.27	.00	.0025	123.39	.0027	-27.15	57.46
SET 42	1671.99	1683.24	11	2	57.2	105.00	.0041	-26.19	.0000	239344.9	1.85	3.71	-.0029	240.30	-.0022	-27.11	45.33
EXTM 51	1739.55	1750.80	11	4	4.7	358.95	.0042	-27.09	.0000	239593.9	1.49	88.36	.0022	145.40	.1069	-27.05	28.70
EXTM 61	1874.85	1886.10	11	6	20.0	.39	.0042	-28.26	.0000	255527.8	1.45	21.50	.0000	180.37	.0040	-26.94	355.37
EXTM 72	1914.63	1925.88	11	6	59.8	.12	.0042	-27.38	.0000	255353.6	1.44	70.53	-.0000	180.32	.0111	-26.91	345.55
RISE 11	2057.47	2068.72	11	9	22.6	291.73	.0042	-27.68	-.0000	273415.4	1.08	.00	.0028	124.65	.0024	-26.81	310.29
SET 51	2103.10	2114.35	11	10	8.3	90.00	.0041	-26.27	.0000	275983.9	1.75	11.08	-.0034	246.03	-.0014	-26.78	299.01
SET 61	2126.82	2138.07	11	10	32.0	63.60	.0042	-27.72	.0000	279162 9	1.65	-.00	-.0025	232.46	.0027	-26.76	293.15
SET 72	2288.75	2300.00	11	13	13.9	93.96	.0041	-26.47	.0000	292257.4	1.73	-.00	-.0036	243.26	-.0005	-26.65	253.09
RISE 42	2289.61	2300.86	11	13	14.8	255.00	.0041	-25.89	-.0000	291933.1	1.00	3.53	.0029	119.47	-.0022	-26.65	252.88
EXTM 11	2329.95	2341.20	11	13	55.1	.27	.0042	-27.73	.0000	292635.3	1.31	27.07	-.0000	180.26	.0042	-26.63	242.89
SET 11	2602.26	2613.51	11	18	27.4	68.72	.0042	-27.22	.0000	316441.4	1.56	-.00	-.0028	235.96	.0024	-26.47	175.41
EXTM 42	2708.72	2719.97	11	20	13.9	359.98	.0042	-26.23	.0000	318103.4	1.22	81.01	-.0000	.17	-.0171	-26.41	149.00
RISE 51	2839.32	2850.57	11	22	24.5	270.00	.0041	-25.91	-.0000	332609.7	.82	10.94	.0034	113.64	-.0015	-26.34	116.59
RISE 72	2993.08	3004.33	12	0	58.3	266.10	.0042	-26.10	-.0000	344926.4	.72	.00	.0037	116.37	-.0005	-26.26	78.40
RISE 61	3069.14	3080.39	12	2	14.3	295.53	.0042	-26.99	-.0000	350078.0	.84	.00	.0026	126.48	.0027	-26.23	59.42
SET 42	3127.35	3138.60	12	3	12.5	105.00	.0041	-25.59	.0000	353626.4	1.45	3.35	-.0030	240.77	-.0023	-26.21	44.89
EXTM 51	3190.52	3201.77	12	4	15.7	358.55	.0042	-26.20	.0000	351916.4	1.11	88.61	.0036	109.84	.0515	-26.19	29.11
EXTM 61	3324.63	3335.88	12	6	29.8	.14	.0042	-27.07	.0000	364728.2	1.11	22.69	-.0000	180.14	.0041	-26.15	359.61
EXTM 72	3364.68	3375.93	12	7	9.9	.07	.0042	-26.46	.0000	363843.8	1.11	71.45	-.0000	180.21	.0114	-26.14	349.60
RISE 11	3500.98	3512.23	12	9	26.2	290.82	.0042	-26.73	-.0000	378933.8	.81	.00	.0029	123.40	.0024	-26.11	311.52
SET 51	3552.40	3563.65	12	10	17.6	90.00	.0042	-25.72	.0000	381202.3	1.51	10.86	-.0035	246.54	-.0015	-26.09	298.64
SET 61	3579.88	3591.13	12	10	45.1	64.72	.0042	-26.78	.0000	384274.6	1.43	-.00	-.0026	233.83	.0027	-26.09	291.76
SET 42	3733.36	3744.61	12	13	18.5	255.00	.0042	-25.50	-.0000	395209.0	1.14	3.22	.0030	119.16	-.0023	-26.06	253.17
SET 72	3734.74	3745.99	12	13	19.9	93.87	.0042	-25.93	.0000	395696.0	1.91	.00	-.0038	243.81	-.0006	-26.06	252.82
IMPACT	3756.10	3767.35	12	13	41.3												
IMPC 42	3756.10	3767.35	12	13	41.3	260.79	.0043	-25.54	-.0000	397008.4	1.71	7.51	.0032	116.06	-.0023	-26.07	247.37
IMPC 72	3756.10	3767.35	12	13	41.3	99.31	.0043	-25.89	.0000	398376.5	2.48	-4.82	-.0038	242.99	-.0007	-26.07	247.37
IMPC 11	3756.10	3767.35	12	13	41.3	355.72	.0044	-26.98	-.0000	394881.2	2.03	27.78	.0003	175.69	.0044	-26.07	247.37

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	9	23	5.176	6556.247	21.1474	306.6329	10.98578	2.3940	110.8061	130.6670
SEPARATION	1.20	12.45	9	23	6.376	6612.608	18.5832	313.0871	10.93837	5.7959	113.1045	137.4220
RETRO	3.20	14.45	9	23	8.376	6804.428	13.9847	323.0302	10.78030	11.2662	116.0430	147.8665
EXIT SHA	34.11	45.36	9	23	39.286	15806.420	-21.3971	25.8192	7.03741	49.6899	110.5486	218.4045
IMPACT	3756.10	3767.35	12	13	41.277	397891.270	-26.0677	247.3656	2.21997	67.9679	266.9466	292.9954

SURVEYOR VIEW PERIODS

GHA	199.7490					EPS	88.3602					LOM	243.4843
SX	.350341	SY	-.827136	SZ	-.439430	DAO	-26.06752	RAO	292.95677	RM	399189.566	LAT	28.310600	LON	279.461800
C3	-.912498	ECC	.985014	SLR	12991.258	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.369133	NSY	-.819944	NSZ	-.437531	C3M	1.4968	VIM	2.6713	ZAE	141.636	B.T	.0000	B.R	-.0000
LATE	5.5208	LONE	4.7704	LATS	-.8579	LONS	276.6540	LATI	.4263	LONI	326.6798	RSM	149.9976	TTAN	6.4881

LAUNCH DATE APR 9,1966 BASE AZM 102.0 TF 62.643 ARRIVAL DATE APR 12 1966 13 56 36.2

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	2[illegible] 2 49.5	28.1	20.02	306.17	6.70	132.43	112.91	23 14 4.5	6566.9	10.98	3.32

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	9	23	14.1												
SEPARATION	1.20	12.45	9	23	15.3												
RETRO	3.20	14.45	9	23	17.3												
RISE 72	4.45	15.70	9	23	18.5	82.62	-.1800	42.81	.0178	2976.9	-7.46	-.01	.1264	313.32	.0422	9.37	327.50
EXTM 72	10.83	22.08	9	23	24.9	346.25	-.1515	7.69	-.1334	2233.6	4.78	69.24	-.0000	41.64	.5665	-3.90	349.23
RISE 51	11. 9	22.34	9	23	25.2	78.96	-.0844	21.66	-.0376	5738.8	-2.72	.00	.0869	294.19	.0034	-4.35	349.95
EXIT SHA	33.47	44.72	9	23	47.5												
EXIT 72	33.47	44.72	9	23	47.5	300.67	-.0077	-26.88	-.0039	11447.6	6.28	30.85	-.0073	116.66	.0036	-22.67	22.98
EXIT 51	33.47	44.72	9	23	47.5	7.79	-.0226	-20.51	-.0113	9374.2	5.14	81.13	.0237	304.57	.0258	-22.67	22.98
EXIT 61	33.47	44.72	9	23	47.5	320.43	-.0123	-44.33	.0036	14549.7	6.00	-1.75	-.0011	152.88	-.0095	-22.67	22.98
EXTM 51	41.51	52.76	9	23	55.6	359.32	-.0134	-24.47	-.0059	11884.6	5.22	88.59	-.0000	25.90	.5493	-24.91	28.13
EXTM 72	70.[illegible]	81.25	10	0	24.1	294.95	.0001	-30.43	-.0006	23310.6	4.77	25.47	.0000	120.01	.0007	-28.38	36.59
RISE 61	109.37	120.62	10	1	3.4	311.39	.0016	-38.01	.0006	36435.1	4.03	-.00	.0012	143.76	.0007	-29.69	37.84
EXTM 51	197.62	208.87	10	2	31.7	.13	.0030	-30.59	.0001	50286.9	3.40	85.14	-.0000	181.33	.0307	-30.05	27.57
EXTM 61	380.17	391.42	10	5	34.2	4.14	.0038	-33.43	.0002	87592.9	2.72	16.24	.0000	183.59	.0033	-29.52	351.87
EXTM 72	411.59	422.84	10	6	5.7	.68	.0040	-30.93	.0001	88715.1	2.63	66.97	-.0000	181.49	.0087	-29.42	345.04
RISE 11	586.38	597.63	10	9	.5	295.07	.0040	-30.99	.0000	120260.1	2.03	.00	.0025	129.06	.0023	-28.92	305.51
SET 51	606.98	618.23	10	9	21.1	90.00	.0038	-27.77	.0001	121821.7	2.63	11.67	-.0031	244.63	-.0013	-28.87	300.74
SET 61	616.19	627.35	10	9	30.2	59.33	.0039	-31.08	.0001	124353.2	2.51	-.00	-.0021	227.45	.0026	-28.85	298.61
SET 72	804.62	815.87	10	12	38.7	94.25	.0039	-28.08	.0001	148752.5	2.44	-.01	-.0034	241.63	-.0004	-28.43	254.18
RISE 42	814.57	825.82	10	12	48.6	254.99	.0040	-26.95	-.0000	149512.3	1.73	4.17	.0028	120.31	-.0021	-28.41	251.80
EXTM 11	855.22	866.47	10	13	29.3	1.10	.0041	-30.48	.0001	152312.5	2.00	24.30	-.0000	181.04	.0039	-28.34	242.10
SET 11	1120.78	1132.03	10	17	54.9	66.76	.0041	-29.21	.0001	185142.3	2.09	-.00	-.0026	233.33	.0024	-27.90	178.06
EXTM 42	1240.19	1251.44	10	19	54.3	359.96	.0042	-27.48	.0000	191566.6	1.73	82.26	-.0000	.29	-.0241	-27.73	149.02
RISE 51	1375.68	1386.93	10	22	9.8	270.00	.0041	-26.90	-.0000	210278.9	1.29	11.33	.0034	114.56	-.0014	-27.56	115.94
RISE 72	1530.65	1541.90	11	0	44.7	265.91	.0041	-27.15	-.0000	226577.0	1.18	-.01	.0036	117.43	-.0005	-27.39	77.96
RISE 61	1614.89	1626.14	11	2	9.0	297.29	.0041	-28.45	-.0000	234485.7	1.27	.00	.0025	128.61	.0027	-27.30	57.28
SET 42	1663.47	1674.72	11	2	57.5	105.00	.0041	-26.52	.0000	238545.1	1.85	3.79	-.0029	240.19	-.0022	-27.25	45.33
EXTM 51	1730.29	1741.54	11	4	4.4	358.76	.0042	-27.22	.0000	238748.9	1.49	88.15	.0023	143.47	.0922	-27.18	28.89
EXTM 61	1866.49	1877.74	11	6	20.6	.43	.0042	-28.38	.0000	254794.3	1.45	21.38	.0000	180.40	.0040	-27.06	355.33
EXTM 72	1906.17	1917.42	11	7	.2	.13	.0042	-27.49	.0000	254608.5	1.44	70.41	-.0000	180.35	.0111	-27.02	345.54
RISE 11	2049.38	2060.63	11	9	23.5	291.82	.0042	-27.78	-.0000	272714.0	1.08	.00	.0028	124.78	.0024	-26.91	310.19
SET 51	2094.58	2105.83	11	10	8.7	90.00	.0041	-26.36	.0000	275248.0	1.75	11.12	-.0034	245.94	-.0014	-26.87	299.02
SET 61	2117.85	2129.10	11	10	31.9	63.49	.0042	-27.81	.0000	278396.1	1.65	-.00	-.0025	232.32	.0027	-26.85	293.26
SET 72	2280.29	2291.54	11	13	14.4	93.98	.0041	-26.54	.0001	291548.6	1.73	-.00	-.0036	243.18	-.0005	-26.73	253.08
RISE 42	2281.12	2292.37	11	13	15.2	255.00	.0041	-25.97	-.0000	291217.6	1.00	3.58	.0029	119.53	-.0022	-26.73	252.88
EXTM 11	2321.55	2332.80	11	13	55.6	.29	.0042	-27.90	.0000	291942.6	1.32	26.99	-.0000	180.29	.0042	-26.70	242.87
SET 11	2593.53	2604.78	11	18	27.6	68.67	.0042	-27.27	.0000	315738.8	1.56	-.00	-.0028	235.89	.0024	-26.52	175.47
EXTM 42	2700.21	2711.46	11	20	14.3	359.98	.0042	-26.98	.0000	317423.7	1.22	81.06	-.0000	.18	-.0181	-26.45	149.00
RISE 51	2830.82	2842.07	11	22	24.9	270.00	.0041	-25.95	-.0000	331938.7	.82	10.95	.0034	113.67	-.0015	-26.38	116.59
RISE 72	2984.55	2995.80	12	0	58.6	266.09	.0042	-26.13	-.0000	344267.1	.72	.00	.0037	116.40	-.0005	-26.29	78.41
RISE 61	3060.76	3072.01	12	2	14.8	295.56	.0042	-27.02	-.0000	349427.3	.84	.00	.0026	126.52	.0027	-26.26	59.38
SET 42	3118.83	3130.08	12	3	12.9	105.00	.0041	-25.61	.0000	352963.6	1.45	3.36	-.0030	240.[illegible]	-.0023	-26.24	44.89
EXTM 51	3184.54	3195.79	12	4	18.6	359.19	.0042	-26.22	.0000	351422.1	1.11	89.13	.0032	123.66	.1365	-26.21	28.48
EXTM 61	3316.19	3327.44	12	6	30.3	.16	.0042	-27.09	.0000	364065.7	1.11	22.68	-.0000	180.15	.0041	-26.17	355.60
EXTM 72	3356.20	3367.45	12	7	10.3	.07	.0042	-26.47	.0000	363174.4	1.11	71.43	-.0000	180.22	.0115	-26.15	345.60
RISE 11	3492.52	3503.77	12	9	26.6	290.82	.0042	-26.74	-.0000	378249.2	.80	.00	.0029	123.41	.0024	-26.11	311.51
SET 51	3543.91	3555.16	12	10	18.0	90.00	.0042	-25.73	.0000	380504.3	1.51	10.86	-.0035	246.54	-.0015	-26.10	298.64
SET 61	3571.39	3582.64	12	10	45.5	64.72	.0042	-26.78	.0000	383567.8	1.42	-.00	-.0026	233.83	.0027	-26.09	291.76
RISE 42	3725.[illegible]	3736.25	12	13	19.1	255.00	.0042	-25.49	-.0000	394317.7	1.05	3.29	.0030	119.15	-.0023	-26.06	253.17
SET 72	3726.38	3737.63	12	13	20.5	93.87	.0042	-25.92	.0000	394797.7	1.81	-.00	-.0037	243.81	-.0005	-26.06	252.82
IMPACT	3758.59	3769.84	12	13	52.7												
IMPC 42	3758.59	3769.84	12	13	52.7	263.54	.0043	-25.55	-.0000	396816.5	1.70	9.54	.0032	114.62	-.0022	-26.06	244.62
IMPC 11	3758.59	3769.84	12	13	52.7	358.51	.0044	-26.87	-.0000	394899.8	2.05	27.91	.0001	178.50	.0044	-26.06	244.62
EXTM 11	3763.32	3774.57	12	13	57.4	359.76	.0045	-26.97	-.0000	395550.0	2.74	27.92	.0000	179.76	.0045	-26.06	243.38

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	9	23	14.076	6567.094	20.0142	306.1802	10.97668	3.3224	112.9121	132.4455
SEPARATION	1.20	12.45	9	23	15.276	6635.855	17.2473	312.4416	10.91895	6.7965	115.0115	139.0077
RETRO	3.20	14.45	9	23	17.276	6849.042	12.3951	322.0618	10.74635	12.1231	117.6093	149.1293
EXIT SHA	33.47	44.72	9	23	47.544	15704.255	-22.6694	22.9755	7.06053	49.5341	110.2925	217.6311
IMPACT	3758.59	3769.84	12	13	52.670	397922.035	-26.0585	244.6161	2.21905	67.9355	267.4868	293.1018

SURVEYOR VIEW PERIODS

GHA	199.7496					EPS	88.4378							LOM	241.0632
SX	.351737	SY	-.826622	SZ	-.439292	DAO	-26.05873	RAO	293.05033	RM	399216.176	LAT	28.310600	LON	279.461800
C3	-.915628	ECC	.984966	SLR	12990.947	RCA	6544.6650	LTS	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.370526	NSY	-.819383	NSZ	-.437392	C3M	1.4967	VI	2.6713	ZAE	141.537	B.T	.0000	B.R	-.0000
LATE	5.5265	LONE	4.8550	LATS	-.8577	LONS	276.6609	LATI	.1103	LONI	326.7131	RSM	149.9973	TTAN	6.4880
LAUNCH DATE		APR	9,1966		BASE AZM	105.0		TF	62,695			ARRIVAL DATE		APR 12 1966 14 6 38.1	

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	23 9 44.3	28.1	18.91	305.65	8.12	133.65	115.00	23 20 59.3	6577.4	10.97	4.03

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PRORE IN EARTH'S SHADOW															
INJECTION	.00	11.25	9	23	21.0												
SEPARATION	1.20	12.45	9	23	22.2												
RETRO	3.20	14.45	9	23	24.2												
RISE 72	4.32	15.57	9	23	25.3	83.79	-.1638	37.92	-.0006	3026.1	-7.53	.00	.1273	308.35	.0219	8.00	325.83
EXTM 72	10.79	22.04	9	23	31.8	353.48	-.1616	.59	-.1231	2213.3	4.69	79.30	-.0000	37.71	1.0945	-5.73	347.36
RISE 51	11.08	22.33	9	23	32.1	80.83	-.0796	18.29	-.0402	5838.2	-2.58	.00	.0856	290.39	-.0012	-6.22	348.13
EXIT SHA	32.85	44.10	9	23	53.8												
EXIT 72	32.85	44.10	9	23	53.8	303.46	-.0088	-29.45	-.0032	11171.7	6.30	32.90	-.0081	120.09	.0021	-24.13	20.46
EXIT 51	32.85	44.10	9	23	53.8	12.06	-.0244	-22.82	-.0112	9283.7	5.07	78.63	.0248	282.30	-.0204	-24.13	20.46
EXIT 61	32.85	44.10	9	23	53.8	323.57	-.0135	-46.31	.0039	14499.3	5.98	-2.46	-.0008	155.76	-.0101	-24.13	20.46
EXTM 51	43.48	54.73	10	0	4.5	.78	-.0125	-27.46	-.0046	12576.8	5.17	88.14	.0000	202.00	-.3697	-26.88	27.17
EXTM 72	70.90	82.15	10	0	31.9	296.85	.0001	-32.18	-.0004	23514.8	4.74	26.86	.0000	122.17	.0005	-29.76	34.91
EXTM 51	94.28	105.53	10	0	55.3	349.09	.0002	-31.61	-.0003	26974.2	4.29	78.78	.0000	124.05	.0015	-30.56	36.42
RISE 61	111.87	123.12	10	1	12.9	313.45	.0016	-39.10	.0007	37118.7	3.99	-.00	.0013	145.71	.0007	-30.82	36.03
EXTM 51	188.32	199.57	10	2	29.3	.28	.0029	-31.59	.0001	48433.2	3.45	84.15	.0000	182.31	.0245	-30.91	27.44
EXTM 61	375.18	386.43	10	5	36.2	4.66	.0038	-34.06	.0002	86880.0	2.73	15.57	.0000	184.00	.0033	-30.11	351.39
EXTM 72	405.18	416.43	10	6	6.2	.85	.0039	-31.55	.0001	87756.0	2.65	66.34	-.0000	181.80	.0084	-29.99	344.89
RISE 11	581.82	593.07	10	9	2.8	295.57	.0040	-31.45	.0000	119648.0	2.04	.00	.0025	129.69	.0023	-29.36	305.01
SET 51	600.10	611.35	10	9	21.1	90.00	.0038	-28.20	.0001	120878.8	2.63	11.84	-.0031	244.22	-.0012	-29.31	300.77
SET 61	606.55	617.80	10	9	27.5	58.69	.0039	-31.55	.0002	123067.0	2.52	-.00	-.0021	226.72	.0026	-29.29	299.27
SET 72	798.20	809.45	10	12	39.2	94.32	.0039	-28.42	.0001	147971.7	2.44	-.01	-.0034	241.28	-.0004	-28.78	254.14
RISE 42	808.07	819.32	10	12	49.1	254.99	.0040	-27.99	-.0000	148701.7	1.74	4.38	.0028	120.58	-.0021	-28.76	251.78
EXTM 11	849.14	860.39	10	13	30.1	1.22	.0041	-30.83	.0001	151622.6	2.01	23.95	-.0000	181.14	.0039	-28.67	241.98
SET 11	1113.12	1124.37	10	17	54.1	66.49	.0041	-29.48	.0001	184309.1	2.09	-.00	-.0026	232.97	.0024	-28.16	178.34
EXTM 42	1233.60	1244.85	10	19	54.6	359.94	.0042	-27.72	.0000	190870.4	1.73	82.50	.0000	.43	-.0267	-27.96	149.04
RISE 51	1369.22	1380.47	10	22	10.2	270.00	.0041	-27.11	-.0000	209611.4	1.29	11.41	.0034	114.76	-.0014	-27.77	115.93
RISE 72	1524.06	1535.31	11	0	45.0	265.88	.0041	-27.33	-.0000	225926.7	1.18	-.01	.0036	117.61	-.0005	-27.56	77.99
RISE 61	1609.25	1620.50	11	2	10.2	297.50	.0041	-28.62	-.0000	233934.5	1.28	.00	.0025	128.86	.0027	-27.46	57.06
SET 42	1656.94	1668.19	11	2	57.9	105.00	.0041	-26.48	.0001	237906.0	1.85	3.89	-.0029	240.06	-.0022	-27.41	45.34
EXTM 51	1723.13	1734.38	11	4	4.1	358.59	.0042	-27.38	.0000	238070.6	1.49	87.93	.0023	142.80	.0817	-27.33	29.05
EXTM 61	1860.14	1871.39	11	6	21.1	.47	.0042	-28.52	.0000	254214.4	1.45	21.24	.0000	180.44	.0040	-27.19	355.29
EXTM 72	1899.70	1910.95	11	7	.7	.14	.0042	-27.63	.0000	254012.6	1.44	70.28	-.0000	180.37	.0110	-27.15	345.53
RISE 11	2043.33	2054.58	11	9	24.3	291.94	.0042	-27.90	-.0000	272158.2	1.09	.00	.0028	124.94	.0024	-27.02	310.07
SET 51	2088.05	2099.30	11	10	9.0	90.00	.0041	-26.47	.0001	274650.1	1.75	11.16	-.0034	245.84	-.0014	-26.98	299.02
SET 61	2110.79	2122.04	11	10	31.8	63.36	.0042	-27.92	.0000	277760.5	1.65	-.00	-.0025	232.16	.0027	-26.96	293.40
SET 72	2273.81	2285.06	11	13	14.8	93.99	.0041	-26.63	.0001	290970.8	1.73	-.00	-.0036	243.09	-.0005	-26.82	253.07
RISE 42	2274.61	2285.86	11	13	15.6	255.00	.0041	-26.06	-.0000	290630.8	1.00	3.63	.0029	119.60	-.0022	-26.82	252.87
EXTM 11	2315.12	2326.37	11	13	56.1	.32	.0042	-27.89	.0000	291379.8	1.32	26.90	-.0000	180.31	.0042	-26.79	242.84
SET 11	2586.69	2597.94	11	18	27.7	68.60	.0042	-27.34	.0000	315146.0	1.56	.01	-.0028	235.80	.0024	-26.58	175.54
EXTM 42	2693.65	2704.90	11	20	14.6	359.97	.0042	-26.33	.0000	316855.5	1.23	81.12	-.0000	.20	-.0184	-26.51	149.01
RISE 51	2824.27	2835.52	11	22	25.3	270.00	.0041	-26.00	-.0000	331373.8	.82	10.97	.0034	113.72	-.0015	-26.42	116.58
RISE 72	2977.95	2989.20	12	0	58.9	266.08	.0041	-26.17	-.0000	343485.5	.76	-.00	.0037	116.44	-.0005	-26.33	78.41
RISE 61	3054.37	3065.62	12	2	15.4	295.60	.0042	-27.05	-.0000	348883.8	.84	.00	.0026	126.57	.0027	-26.29	59.35
SET 42	3112.28	3123.53	12	3	13.3	105.00	.0041	-25.63	.0000	352404.4	1.45	3.38	-.0030	240.73	-.0023	-26.26	44.89
EXTM 51	3177.47	3188.72	12	4	18.5	359.06	.0042	-26.25	.0000	350826.8	1.11	89.01	.0033	121.07	.1119	-26.24	28.61
EXTM 61	3309.71	3320.96	12	6	30.7	.17	.0042	-27.11	.0000	363501.9	1.11	22.66	-.0000	180.17	.0041	-26.18	355.58
EXTM 72	3349.67	3360.92	12	7	10.7	.08	.0042	-26.49	.0000	362602.8	1.11	71.42	-.0000	180.23	.0116	-26.17	345.59
RISE 11	3486.02	3497.27	12	9	27.0	290.83	.0042	-26.75	-.0000	377660.8	.80	.00	.0029	123.42	.0024	-26.12	311.50
SET 51	3537.37	3548.62	12	10	18.4	90.00	.0042	-25.73	.0000	379901.8	1.50	10.87	-.0035	246.53	-.0015	-26.10	298.65
SET 61	3564.82	3576.07	12	10	45.8	64.71	.0042	-26.79	.0000	382956.4	1.42	-.00	-.0026	233.82	.0027	-26.09	291.77
RISE 42	3718.55	3729.80	12	13	19.5	255.00	.0042	-25.49	-.0000	393571.5	1.00	3.29	.0030	119.15	-.0023	-26.05	253.17
SET 72	3719.92	3731.17	12	13	20.9	93.87	.0042	-25.91	.0000	394046.4	1.76	-.00	-.0037	243.82	-.0005	-26.05	252.82
EXTM 11	3758.45	3769.70	12	13	59.4	.12	.0043	-26.86	.0000	394544.8	1.87	27.93	-.0000	180.12	.0044	-26.05	243.04
IMPACT	3761.72	3772.97	12	14	2.7												
IMPC 42	3761.72	3772.97	12	14	2.7	265.96	.0043	-25.55	-.0000	396646.9	1.70	11.35	.0033	113.38	-.0022	-26.05	242.19
IMPC 11	3761.72	3772.97	12	14	2.7	.97	.0044	-26.86	.0000	394926.0	2.06	27.92	-.0001	180.98	.0044	-26.05	242.19

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	9	23	20.988	6577.859	18.9017	305.6746	10.96765	4.0309	115.0082	133.6726
SEPARATION	1.20	12.45	9	23	22.188	6655.895	15.9382	311.7448	10.90224	7.3993	116.9107	140.0436
RETRO	3.20	14.45	9	23	24.188	6883.638	10.8313	321.0644	10.71896	12.7716	119.1996	149.8646
EXIT SHA	32.85	44.10	9	23	53.838	15584.873	-24.1252	20.4635	7.08780	49.3496	110.0441	216.6967
IMPACT	3761.72	3772.97	12	14	2.712	397949.828	-26.0505	242.1926	2.21773	67.8619	268.1072	293.1958

SURVEYOR VIEW PERIODS

GHA	199.7490					EPS	88.5092							LOM	238.8353
SX	.353013	SY	-.826150	SZ	-.439165	DAO	-26.05059	RAO	293.13642	RM	399240.609	LAT	28.310600	LON	279.461800
C3	-.919443	ECC	.984904	SLR	12990.534	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.371817	NSY	-.818873	NSZ	-.437264	C3M	1.4965	VIM	2.6713	ZAE	141.408	B.T	.0000	B.R	-.0000
LATE	5.5319	LONE	4.7568	LATS	-.8577	LONS	276.4911	LATI	-.2324	LONI	326.5393	RSM	149.9971	TTAN	6.4894
LAUNCH DATE		APR	9,1966		BASE AZM	108.0		TF	62.760				ARRIVAL DATE APR 12 1966 14 15 51.9		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	23 15 12.8	28.1	17.83	305.09	9.23	134.46	117.09	23 26 27.8	6587.0	10.96	4.58

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PRORE IN EARTH'S SHADOW															
INJECTION	.00	11.25	9	23	26.5												
SEPARATION	1.20	12.45	9	23	27.7												
RETRO	3.20	14.45	9	23	29.7												
RISE 72	4.24	15.49	9	23	30.7	84.77	-.1508	33.28	-.0182	3072.2	-7.51	-.00	.1274	303.64	.0028	6.56	324.35
EXTM 72	10.46	21.71	9	23	36.9	3.46	-.1807	-4.60	-.1227	2152.9	4.13	85.23	.2147	313.70	.4466	-7.07	344.79
RISE 51	11.10	22.35	9	23	37.6	82.59	-.0754	14.97	-.0427	5926.2	-2.43	.00	.0842	286.67	-.0054	-8.17	346.47
EXIT SHA	32.15	43.40	9	23	58.6												
EXIT 72	32.15	43.40	9	23	58.6	305.99	-.0100	-32.22	-.0024	10889.0	6.33	34.45	-.0088	123.89	.0004	-25.68	18.10
EXIT 51	42.15	43.40	9	23	58.6	16.20	-.0265	-25.26	-.0113	9168.5	5.00	75.38	.0249	268.29	-.0356	-25.68	18.10
EXIT 61	32.15	43.40	9	23	58.6	326.52	-.0150	-48.42	.0042	14436.2	5.96	-3.48	-.0004	158.48	-.0108	-25.68	18.10
EXTM 51	45.61	56.86	10	0	12.1	1.76	-.0116	-30.45	-.0034	13307.8	5.12	85.04	-.0000	197.87	-.1224	-28.93	26.51
EXTM 72	71.69	82.94	10	0	38.2	298.33	.0000	-34.02	-.0002	23710.3	4.72	27.81	.0000	124.42	.0002	-31.23	33.55
EXTM 51	94.76	106.01	10	1	1.2	350.77	.0001	-33.22	-.0001	27142.4	4.28	79.04	.0000	135.15	.0006	-31.85	35.05
RISE 61	117.79	129.04	10	1	24.3	315.45	.0018	-40.10	.0007	38619.8	3.91	-.00	.0013	147.55	.0008	-32.04	34.40
EXTM 51	181.77	193.02	10	2	28.2	.54	.0028	-32.70	.0002	47118.9	3.49	83.02	-.0000	183.76	.0197	-31.87	27.21
EXTM 61	372.08	383.33	10	5	38.5	5.21	.0038	-34.74	.0002	86469.7	2.73	14.87	.0000	184.43	.0032	-30.75	350.87
EXTM 72	400.40	411.65	10	6	6.9	1.00	.0039	-32.23	.0001	87044.4	2.66	65.66	.0000	182.05	.0081	-30.61	344.75
RISE 11	579.06	590.31	10	9	5.5	296.10	.0040	-31.95	.0000	119272.8	2.05	.00	.0025	130.36	.0023	-29.84	304.46
SET 51	594.85	606.10	10	9	21.3	90.00	.0038	-28.67	.0001	120144.0	2.64	12.03	-.0031	243.77	-.0012	-29.78	300.80
SET 61	598.33	609.58	10	9	24.8	57.98	.0039	-32.07	.0002	121945.5	2.52	-.00	-.0020	225.93	.0026	-29.77	300.00
SET 72	793.37	804.62	10	12	39.8	94.38	.0039	-28.80	.0001	147373.1	2.44	-.01	-.0034	240.90	-.0004	-29.16	254.09
RISE 42	803.12	814.37	10	12	49.6	254.99	.0040	-27.66	-.0000	148065.2	1.74	4.61	.0028	120.87	-.0021	-29.13	251.77
EXTM 11	844.64	855.89	10	13	31.1	1.35	.0041	-31.20	.0001	151112.9	2.01	23.58	.0000	181.26	.0039	-29.03	241.86
SET 11	1106.86	1118.11	10	17	53.3	66.20	.0041	-29.77	.0001	183612.4	2.10	-.00	-.0026	232.58	.0024	-28.44	178.64
EXTM 42	1228.57	1239.82	10	19	55.0	359.93	.0042	-27.98	.0000	190318.3	1.73	82.76	.0000	.49	-.0281	-28.21	149.05
RISE 51	1364.24	1375.49	10	22	10.7	270.00	.0041	-27.33	-.0000	209073.0	1.30	11.50	.0034	114.97	-.0014	-27.99	115.92
RISE 72	1518.93	1530.18	11	0	46.4	265.85	.0041	-27.52	-.0000	225395.9	1.19	-.01	.0036	117.81	-.0005	-27.76	78.02
RISE 61	1605.17	1616.42	11	2	11.6	297.72	.0041	-28.80	-.0000	233506.8	1.28	.00	.0025	129.13	.0027	-27.64	56.83
SET 42	1651.89	1663.14	11	2	58.4	105.00	.0041	-26.65	.0001	237379.9	1.85	4.00	-.0029	239.93	-.0022	-27.58	45.34
EXTM 51	1717.85	1729.10	11	4	4.3	358.53	.0042	-27.55	.0000	237540.3	1.49	87.77	.0022	144.37	.0770	-27.50	29.11
EXTM 61	1855.26	1866.51	11	6	21.7	.51	.0042	-28.67	.0000	253741.1	1.45	21.09	.0000	180.48	.0039	-27.34	355.25
EXTM 72	1894.70	1905.95	11	7	1.2	.15	.0042	-27.77	.0000	253519.8	1.44	70.13	-.0000	180.40	.0109	-27.29	345.52
RISE 11	2038.77	2050.02	11	9	25.2	292.06	.0042	-28.02	-.0000	271701.9	1.09	.00	.0028	125.10	.0024	-27.14	309.95
SET 51	2082.97	2094.22	11	10	9.4	90.00	.0041	-26.59	.0001	274145.9	1.75	11.21	-.0034	245.73	-.0014	-27.10	299.02
SET 61	2105.12	2116.37	11	10	31.6	63.21	.0042	-28.04	.0001	277213.9	1.65	-.00	-.0025	231.99	.0027	-27.07	293.55
SET 72	2268.79	2280.04	11	13	15.3	94.01	.0041	-26.73	.0001	290479.9	1.73	-.00	-.0036	242.99	-.0005	-26.92	253.06
RISE 42	2269.54	2280.79	11	13	16.0	255.00	.0041	-26.16	-.0000	290129.7	1.00	3.69	.0029	119.68	-.0022	-26.92	252.87
EXTM 11	2310.15	2321.40	11	13	56.6	.34	.0042	-27.99	.0000	290903.4	1.32	26.80	-.0000	180.34	.0042	-26.88	242.81
SET 11	2581.31	2592.56	11	18	27.8	68.53	.0042	-27.41	.0000	314630.2	1.56	.00	-.0028	235.70	.0024	-26.65	175.61
EXTM 42	2688.53	2699.78	11	20	15.0	359.97	.0042	-26.40	.0000	316358.0	1.23	81.18	-.0000	.21	-.0198	-26.57	149.01
RISE 51	2819.16	2830.41	11	22	25.6	270.00	.0041	-26.05	-.0000	330874.9	.83	10.99	.0034	113.77	-.0015	-26.47	116.58
RISE 72	2972.81	2984.05	12	0	59.3	266.08	.0041	-26.21	-.0000	342984.3	.76	-.00	.0037	116.48	-.0005	-26.37	78.42
RISE 61	3049.52	3060.77	12	2	14.0	295.64	.0042	-27.08	-.0000	348452.5	.84	.00	.0026	126.61	.0027	-26.32	59.31
SET 42	3107.25	3118.50	12	3	13.7	105.00	.0041	-25.66	.0000	351953.4	1.45	3.39	-.0030	240.71	-.0023	-26.29	44.89
EXTM 51	3173.43	3184.68	12	4	19.9	359.31	.0042	-26.27	.0000	350435.9	1.11	89.18	.0029	130.74	.1725	-26.26	28.36
EXTM 61	3304.71	3315.96	12	6	31.2	.19	.0042	-27.12	.0000	363031.4	1.11	22.64	-.0000	180.18	.0041	-26.20	355.56
EXTM 72	3344.62	3355.87	12	7	11.1	.08	.0042	-26.50	.0000	362121.3	1.11	71.40	-.0000	180.24	.0117	-26.19	345.59
RISE 11	3480.98	3492.23	12	9	27.4	290.84	.0042	-26.76	-.0000	377152.5	.80	.00	.0029	123.44	.0024	-26.13	311.49
SET 51	3532.28	3543.53	12	10	18.7	90.00	.0042	-25.74	.0000	379375.8	1.50	10.87	-.0035	246.53	-.0015	-26.11	298.65
SET 61	3559.70	3570.95	12	10	46.2	64.70	.0042	-26.79	.0000	382419.6	1.41	-.00	-.0026	233.81	.0027	-26.10	291.78
RISE 42	3713.50	3724.75	12	13	20.0	255.00	.0042	-25.48	-.0000	392911.4	.96	3.28	.0030	119.15	-.0023	-26.05	253.17
SET 72	3714.86	3726.11	12	13	21.3	93.87	.0042	-25.91	.0000	393382.1	1.72	-.00	-.0037	243.82	-.0005	-26.05	252.82
EXTM 11	3753.35	3764.60	12	13	59.8	.08	.0043	-26.96	.0000	393655.4	1.61	27.94	-.0000	180.08	.0043	-26.04	243.08
IMPACT	3765.62	3776.87	12	14	12.1												
IMPC 42	3765.62	3776.87	12	14	12.1	268.21	.0043	-25.56	-.0000	396491.5	1.69	13.05	.0033	112.24	-.0022	-26.04	239.93
IMPC 11	3765.62	3776.87	12	14	12.1	3.27	.0044	-26.85	.0000	394961.1	2.07	27.86	-.0002	183.30	.0044	-26.04	239.93

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	9	23	26.463	6587.744	17.8097	305.1231	10.95947	4.5810	117.0986	134.4936
SEPARATION	1.20	12.45	9	23	27.663	6672.827	14.6544	311.0053	10.88811	7.9357	118.8304	140.6767
RETRO	3.20	14.45	9	23	29.663	6911.732	9.2918	320.0414	10.69680	13.2720	120.8156	150.2140
EXIT SHA	32.15	43.40	9	23	58.615	15421.743	-25.6827	18.1038	7.12560	49.0932	109.8707	215.5345
IMPACT	3765.62	3776.87	12	14	12.079	3979?8.938	-26.0429	239.9326	2.21490	67.6013	268.7171	293.2839

SURVEYOR VIEW PERIODS

GHA	169.7490					EPS	88.5778						LOM	236.6929	
SX	.354220	SY	-.825694	SZ	-.439041	DAO	-26.04271	RAO	293.21917	RM	399264.070	LAT	28.310600	LON	279.461800
C3	-.924064	ECC	.984828	SLR	12990.040	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.373067	NSY	-.818370	NSZ	-.437141	C3M	1.4965	VIM	2.6713	ZAE	141.250	B.T	.0000	B.R	-.0000
LATE	5.5370	LONE	4.8318	LATS	-.8576	LONS	276.4971	LATI	-.5922	LONI	326.5135	RSM	149.9969	TTAN	6.4919
LAUNCH DATE	APR	9,1966		BASE AZM	111.0	TF	62.837					ARRIVAL DATE	APR 12 1966	14 24 44.5	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	23 19 38.7	28.1	16.76	304.48	10.11	134.96	119.17	23 30 53.7	6595.5	10.95	5.02

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PRORE IN EARTH'S SHADOW															
INJECTION	.00	11.25	9	23	30.9												
SEPARATION	1.20	12.45	9	23	32.1												
RETRO	3.20	14.45	9	23	34.1												
RISE 72	4.20	15.45	9	23	35.1	85.62	-.1399	28.80	-.0350	3117.4	-7.40	.01	.1266	299.10	-.0153	5.05	323.02
EXTM 72	10.97	22.22	9	23	41.9	4.50	-.1666	-15.31	-.0975	2353.2	4.76	81.39	-.0000	210.33	-1.2545	-9.90	344.48
RISE 51	11.15	22.40	9	23	42.0	84.27	-.0715	11.69	-.0452	6008.8	-2.29	.00	.0828	283.00	-.0095	-10.20	344.92
EXIT SHA	31.39	42.64	10	0	2.3												
EXIT 72	31.39	42.64	10	0	2.3	308.36	-.0115	-35.18	-.0015	10601.8	6.37	35.57	-.0094	128.01	-.0017	-27.31	15.82
EXIT 51	31.39	42.64	10	0	2.3	20.35	-.0288	-27.81	-.0115	9037.5	4.92	71.73	.0251	258.95	-.0392	-27.31	15.82
EXIT 61	31.39	42.64	10	0	2.3	329.37	-.0167	-50.61	.0044	14361.6	5.95	-4.73	-.0001	161.07	-.0115	-27.31	15.82
EXTM 51	48.14	59.39	10	0	19.0	2.21	-.0106	-33.41	-.0023	14154.6	5.07	82.09	-.0000	193.51	-.0668	-31.04	26.20
EXTM 72	72.14	83.39	10	0	43.0	299.48	-.0000	-35.90	.0001	23829.0	4.71	28.39	-.0000	126.72	-.0001	-32.76	32.40
EXTM 51	93.62	104.87	10	1	4.5	352.11	-.0001	-34.91	.0001	26894.3	4.29	78.59	.0000	145.35	-.0006	-33.20	33.94
RISE 61	125.79	137.04	10	1	36.7	317.4[illegible]	.0020	-41.03	.0007	40582.1	3.82	-.00	.0014	149.30	.0009	-33.25	32.84
EXTM 51	177.36	188.61	10	2	28.3	.88	.0028	-33.89	.0002	46234.5	3.52	81.81	.0000	185.12	.0161	-32.91	26.92
EXTM 61	370.42	381.67	10	5	41.3	5.79	.0038	-35.44	.0002	86289.1	2.74	14.13	.0000	184.86	.0032	-31.43	350.33
EXTM 72	397.10	408.35	10	6	8.0	1.19	.0039	-32.94	.0002	88561.6	2.67	64.94	.0000	182.36	.0078	-31.26	344.57
RISE 11	577.64	588.89	10	9	8.5	296.67	.0040	-32.46	.0000	119075.7	2.05	.00	.0025	131.07	.0023	-30.34	303.89
SET 51	590.82	602.07	10	9	21.7	90.00	.0038	-29.18	.0001	119566.2	2.64	12.22	-.0031	243.30	-.0012	-30.29	300.83
SET 61	591.07	602.32	10	9	22.0	57.21	.0039	-32.62	.0002	120942.6	2.53	-.00	-.0020	225.08	.0026	-30.29	300.78
SET 72	789.73	800.98	10	12	40.6	94.46	.0039	-29.20	.0001	146910.5	2.44	-.01	-.0034	240.49	-.0004	-29.56	254.04
RISE 42	799.32	810.57	10	12	50.2	254.99	.0040	-28.05	-.0000	147559.0	1.75	4.85	.0028	121.19	-.0021	-29.53	251.75
EXTM 11	841.32	852.57	10	13	32.2	1.48	.0041	-31.59	.0001	150737.3	2.01	23.18	.0000	181.37	.0038	-29.40	241.73
SET 11	1101.66	1112.91	10	17	52.6	65.88	.0041	-30.08	.0001	183016.0	2.10	-.00	-.0026	232.17	.0024	-28.74	178.97
EXTM 42	1224.65	1235.90	10	19	55.5	359.93	.0042	-28.25	.0000	189867.7	1.73	83.03	.0000	.55	-.0297	-28.48	149.05
RISE 51	1360.36	1371.61	10	22	11.3	270.00	.0041	-27.57	-.0000	208628.2	1.30	11.59	.0033	115.19	-.0014	-28.23	115.91
RISE 72	1514.88	1526.13	11	0	45.8	265.81	.0041	-27.73	-.0000	224951.2	1.19	-.01	.0036	118.02	-.0005	-27.97	78.04
RISE 61	1602.22	1613.47	11	2	13.1	297.97	.0042	-29.00	-.0000	233167.4	1.28	.00	.0024	129.42	.0027	-27.83	56.59
SET 42	1647.93	1659.18	11	2	58.8	105.00	.0041	-26.84	.0001	236934.5	1.85	4.11	-.0029	239.78	-.0022	-27.77	45.35
EXTM 51	1713.84	1725.09	11	4	4.7	356.52	.0042	-27.73	.0000	237105.1	1.49	87.61	.002	146.65	.0739	-27.67	29.13
EXTM 61	1851.48	1862.73	11	6	22.4	.56	.0042	-28.83	.0000	253342.7	1.45	20.93	.0000	180.52	.0039	-27.49	355.21
EXTM 72	1890.78	1902.03	11	7	1.7	.17	.0042	-27.93	.0000	253099.4	1.44	69.98	-.0000	180.43	.0108	-27.44	345.51
RISE 11	2035.32	2046.57	11	9	26.2	292.19	.0042	-28.16	-.0000	271314.6	1.09	.00	.0028	125.28	.0024	-27.27	309.82
SET 51	2078.96	2090.21	11	10	9.9	90.00	.0041	-26.71	.0001	273706.5	1.75	11.26	-.0034	245.61	-.0014	-27.22	299.03
SET 61	2100.49	2111.74	11	10	31.4	63.06	.0042	-28.17	.0001	276728.5	1.65	-.00	-.0025	231.80	.0027	-27.20	293.70
SET 72	2264.83	2276.08	11	13	15.7	94.03	.0041	-26.84	.0001	290048.2	1.73	-.00	-.0036	242.88	-.0005	-27.03	253.04
RISE 42	2265.54	2276.79	11	13	16.4	255.00	.0041	-26.26	-.0000	289686.9	1.00	3.76	.0029	119.76	-.0022	-27.02	252.87
EXTM 11	2306.25	2317.50	11	13	57.1	.37	.0042	-28.10	.0000	290485.5	1.32	26.70	-.0000	180.37	.0042	-26.98	242.78
SET 11	2576.96	2588.21	11	18	27.9	68.46	.0042	-27.49	.0000	314162.1	1.56	.00	-.0028	235.60	.0024	-26.73	175.68
EXTM 42	2684.46	2695.71	11	20	15.4	359.97	.0042	-26.47	.0000	315906.1	1.22	81.25	-.0000	.22	-.0211	-26.64	149.01
RISE 51	2815.09	2826.34	11	22	26.0	270.00	.0041	-26.11	-.0000	330417.7	.82	11.01	.0034	113.82	-.0015	-26.53	116.58
RISE 72	2968.69	2979.94	12	0	59.6	266.07	.0041	-26.25	-.0000	342520.2	.76	-.00	.0037	116.52	-.0005	-26.41	78.42
RISE 61	3045.62	3056.87	12	2	16.5	295.69	.0042	-27.12	-.0000	347999.2	.84	.00	.0026	126.67	.0027	-26.36	59.26
SET 42	3103.15	3114.40	12	3	14.0	105.00	.0041	-25.70	.0000	351479.6	1.45	3.41	-.0030	240.69	-.0023	-26.33	44.89
EXTM 51	3172.06	3183.31	12	4	23.0	.00	.0042	-26.30	.0000	350139.6	1.11	89.44	-.0000	181.65	.0375	-26.29	27.68
EXTM 61	3300.69	3311.94	12	6	31.6	.21	.0042	-27.15	.0000	362548.5	1.11	22.61	-.0000	180.20	.0041	-26.23	355.[illegible]5
EXTM 72	3340.54	3351.79	12	7	11.4	.09	.0042	-26.52	.0000	361628.3	1.10	71.38	-.0000	180.25	.0117	-26.21	345.59
RISE 11	3476.95	3488.20	12	9	27.8	290.85	.0042	-26.77	-.0000	376641.0	.79	.00	.0029	123.45	.0024	-26.14	311.47
SET 51	3528.18	3539.43	12	10	19.1	90.00	.0042	-25.75	.0000	378849.0	1.49	10.87	-.0035	246.52	-.0015	-26.12	298.65
SET 61	3555.56	3566.81	12	10	46.5	64.69	.0042	-26.80	.0000	381883.3	1.41	-.00	-.0026	233.80	.0027	-26.11	291.79
RISE 42	3709.46	3720.71	12	13	20.4	255.00	.0042	-25.48	-.0000	392281.6	.94	3.28	.0030	119.15	-.0023	-26.05	253.16
SET 72	3710.81	3722.06	12	13	21.7	93.87	.0042	-25.91	.0000	392749.1	1.69	-.00	-.0037	243.82	-.0005	-26.05	252.82
EXTM 11	3749.28	3760.53	12	14	.2	.05	.0043	-26.85	.0000	392885.5	1.48	27.94	.0000	180.05	.0044	-26.04	243.10
IMPACT	3770.24	3781.49	12	14	21.1												
IMPC 42	3770.24	3781.49	12	14	21.1	270.40	.0043	-25.56	-.0000	396338.3	1.69	14.71	.0033	111.14	-.0021	-26.04	237.75
IMPC 11	3770.24	3781.49	12	14	21.1	5.48	.0044	-26.84	.0000	394999.4	2.08	27.73	-.0003	185.53	.0044	-26.04	237.75

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	9	23	30.896	6596.547	16.7391	304.5301	10.95215	5.0165	119.1864	135.0118
SEPARATION	1.20	12.45	9	23	32.096	6687.092	13.3958	310.2274	10.87619	8.3595	120.7495	141.0099
RETRO	3.20	14.45	9	23	34.096	6934.744	7.7771	318.9921	10.67868	13.6661	122.4575	150.2760
EXIT SHA	31.39	42.64	10	0	2.282	15223.449	-27.3110	15.8249	7.17237	48.7747	109.7946	214.1749
IMPACT	3770.24	3781.49	12	14	21.136	398004.379	-26.0358	237.7470	2.21322	67.5038	269.4251	293.3687

APR 9, 1966
111 DEGREES

SURVEYOR VIEW PERIODS

GHA	199.7490					EPS	88.6665							LOM	233.8620
SX	.359827	SY	-.825091	SZ	-.438877	DAO	-26.03223	RAO	293.32848	RM	399295.004	LAT	28.510600	LON	279.461800
CS	-.931351	ECC	.984708	SLR	12989.254	HCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.374728	NSY	-.817699	NSZ	-.436976	CSM	1.4966	VIM	2.6713	ZAE	140.993	B.T	.0000	B.R	-.0000
LATE	5.9457	LONE	4.7418	LATS	-.8575	LONS	276.3161	LATI	-1.0870	LONI	326.2509	RSM	149.9966	ITAN	6.4972
LAUNCH DATE		APR	9,1966		BASE AZM	115.0		IF	62.958			ARRIVAL DATE		APR 12 1966 14 36 28.2	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	23 23 24.2	28.1	15.58	303.62	11.03	135 29	121.96	23 35 39.2	6605.2	10.94	5.47

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN EARTH'S SHADOW														
INJECTION	.00	11.25	9	23	35.7												
SEPARATION	1.20	12.45	9	23	36.9												
RETRO	3.20	14.45	9	23	38.9												
RISE 72	4.20	15.45	9	23	39.9	86.62	-.1274	22.98	-.0558	3182.0	-7.11	-.00	.1243	293.22	-.0376	2.94	321.42
RISE 51	11.25	22.50	9	23	46.9	86.44	-.0669	7.35	-.0484	6118.3	-2.07	-.00	.0808	278.17	-.0145	-12.99	342.99
EXTM 72	11.30	22.55	9	23	47.0	9.52	-.1625	-25.80	-.0795	2585.0	4.95	69.95	-.0000	205.72	-.4853	-13.08	343.11
EXIT SHA	30.22	41.47	10	0	5.9												
EXIT 72	30.22	41.47	10	0	5.9	311.50	-.0140	-39.36	-.0002	10192.3	6.42	36.49	-.0101	133.93	-.0090	-29.53	12.76
EXIT 51	30.22	41.47	10	0	5.9	26.21	-.0325	-31.18	-.0125	8583.4	4.79	66.38	.0262	250.61	-.0386	-29.53	12.76
EXTM 51	52.88	64.13	10	0	28.5	1.77	-.0089	-37.24	-.0010	15676.2	4.97	78.40	-.0000	187.03	-.0356	-33.92	26.47
EXTM 72	72.62	83.87	10	0	48.3	300.59	-.0001	-38.48	.0004	23980.9	4.70	28.70	.0000	129.80	-.0005	-34.89	31.19
EXTM 51	88.42	99.67	10	1	4.1	353.65	-.0008	-37.38	.0003	25610.2	4.36	77.17	.0000	156.68	-.0031	-35.10	32.64
RISE 61	158.31	169.56	10	1	54.0	320.00	.0023	-42.15	.0007	43552.3	3.69	-.00	.0015	151.54	.0011	-34.79	30.79
EXTM 51	175.47	186.72	10	2	31.1	1.60	.0027	-35.53	.0003	49887.5	3.53	80.11	.0000	187.62	.0130	-34.34	26.29
EXTM 61	369.79	381.04	10	5	45.4	6.56	.0038	-36.39	.0007	56300.5	2.74	13.13	.0000	185.42	.0032	-32.36	349.62
EXTM 72	394.20	405.51	10	6	9.9	1.45	.0039	-33.92	.0001	61.58.3	2.67	68.95	.0000	182.74	.0075	-32.17	344.34
RISE 11	577.30	588.55	10	9	15.0	297.47	.0040	-33.17	.0006	9020.2	2.05	.00	.0025	132.04	.0023	-31.03	303.09
SET 61	582.48	593.73	10	9	18.1	56.11	.0039	-33.38	.0002	19741.5	2.03	-.00	-.0019	226.88	.0027	-31.01	301.89
SET 51	586.87	598.12	10	9	22.5	90.00	.0038	-29.86	.0002	31897.1	2.64	12.50	-.0031	242.64	-.0012	-30.98	300.87
SET 72	786.23	797.48	10	12	41.9	94.55	.0039	-29.75	.0001	146448.3	2.44	-.00	-.0034	239.93	-.0004	-30.12	253.97
RISE 42	795.63	806.88	10	12	51.3	255.00	.0040	-28.60	-.0000	147037.3	1.47	3.49	.0028	121.62	-.0021	-30.08	251.73
EXTM 11	838.12	849.37	10	13	33.8	1.65	.0041	-32.13	.0001	150371.6	2.02	22.64	.0000	181.50	.0038	-29.93	241.58
SET 11	1095.94	1107.19	10	17	51.6	65.44	.0041	-30.50	.0001	182356.3	2.10	-.00	-.0025	231.59	.0024	-29.15	179.41
EXTM 42	1220.70	1231.95	10	19	56.4	359.92	.0042	-28.63	.0000	189381.7	1.73	83.41	.0000	.66	-.0312	-28.85	149.06
RISE 51	1356.47	1367.72	10	22	12.1	270.00	.0041	-27.89	-.0000	208141.7	1.30	11.72	.0033	115.49	-.0014	-28.55	115.90
RISE 72	1510.74	1521.99	11	0	46.4	265.76	.0041	-28.01	-.0000	224455.7	1.19	.00	.0036	118.31	-.0005	-28.25	78.08
RISE 61	1599.62	1610.87	11	2	15.3	298.31	.0042	-29.26	-.0000	232814.1	1.28	.00	.0024	129.82	.0027	-28.10	56.24
SET 42	1643.90	1655.15	11	2	59.6	105.01	.0041	-27.09	.0001	236432.0	1.85	4.26	-.0029	239.58	-.0022	-28.02	45.35
EXTM 51	1715.76	1727.01	11	4	11.4	.02	.0042	-27.97	.0000	23/153.8	1.50	87.77	-.0000	180.67	.0797	-27.91	27.66
EXTM 61	1847.74	1858.99	11	6	23.4	.64	.0042	-29.05	.0000	252900.0	1.45	20.71	-.0000	180.60	.0039	-27.71	355.12
EXTM 72	1886.58	1897.83	11	7	2.2	.14	.0042	-28.14	.0000	252600.9	1.44	69.76	.0000	190.35	.0107	-27.65	345.54
RISE 11	2031.95	2043.20	11	9	27.6	292.37	.0042	-28.14	-.0000	2708/1.9	1.09	.00	.0028	125.52	.0024	-27.45	309.63
SET 51	2074.84	2086.09	11	10	10.5	90.01	.0041	-26.89	.0001	273191.6	1.75	11.32	-.0034	245.45	-.0014	-27.40	299.03
SET 61	2095.48	2106.73	11	10	31.1	62.84	.0042	-28.35	.0001	276146.2	1.65	-.00	-.0024	231.54	.0027	-27.37	293.92
SET 72	2260 76	22/2.01	11	13	16.4	94.05	.0041	-26.99	.0001	289534.7	1.73	-.01	-.0036	242.73	-.0005	-27.17	253.02
RISE 42	2261.39	22/2.64	11	13	17.0	255.00	.0041	-26.41	-.0000	289157.7	1.00	3.85	.0029	119.88	.0022	-27.17	252.86
EXTM 11	2302.11	2313.36	11	13	57.8	.38	.0042	-28.24	.0000	289978.2	1.32	26.55	.0000	180.37	.0041	-27.13	242.78
EXTM 11	2302.12	2313.37	11	13	57.8	.38	.0042	-28.24	.0000	289978.6	1.32	26.55	.0000	180.38	.0041	-27.13	242.78
SET 11	2572.35	2583.60	11	18	28.0	68.36	.0042	-27.60	.0000	313588.1	1.56	-.00	-.0028	235.46	.0024	-26.84	175.78
EXTM 42	2680.26	2691.51	11	20	19.9	359.98	.0042	-26.56	.0000	315352.5	1.22	81.34	-.0000	.18	-.0188	-26.73	149.00
RISE 51	2810.84	2822.09	11	22	26.5	269.99	.0041	-26.18	-.0000	329847.4	.82	11.04	.0034	113.89	-.0015	-26.61	116.58
RISE 72	2964.39	2975.64	12	1	.0	266.06	.0041	-26.31	-.0000	341936.8	.76	.00	.0037	116.59	-.0005	-26.47	78.43
RISE 61	3041.61	3052.86	12	2	17.3	295.76	.0042	-27.18	-.0000	347428.2	.84	.00	.0026	126.75	.0027	-26.41	59.19
SET 42	3098.85	3110.10	12	3	14.5	105.00	.0041	-25.74	.0000	350878.3	1.45	3.44	-.0030	240.65	-.0023	-26.38	44.89
EXTM 51	3162.29	3173.54	12	4	17.9	358.61	.0042	-26.35	.0000	349169.8	1.10	88.61	.0034	116.31	.0676	-26.34	29.05
EXTM 61	3296.57	3307.82	12	6	32.2	.25	.0042	-27.18	.0000	361934.8	1.10	22.58	-.0000	180.24	.0041	-26.26	355.50
EXTM 72	3336.04	3347.29	12	7	11.7	.04	.0042	-26.55	.0000	360980.2	1.10	71.35	.0000	180.12	.0104	-26.24	345.64
RISE 11	3472.73	3483.98	12	9	28.4	290.88	.0042	-26.79	-.0000	375980.7	.79	.00	.0029	123.48	.0024	-26.16	311.45
SET 51	3523.88	3535.13	12	10	19.5	90.00	.0042	-25.76	.0000	378167.6	1.49	10.88	-.0035	246.50	-.0015	-26.14	298.65
SET 61	3551.21	3562.46	12	10	46.9	64.68	.0042	-26.82	.0000	381189.9	1.40	-.00	-.0026	233.78	.0027	-26.12	291.80
SET 72	3706.54	3717.79	12	13	22.2	93.87	.0042	-25.91	.0000	391936.0	1.65	-.00	-.0037	243.82	-.0005	-26.05	252.83
RISE 42	3705.22	3716.47	12	13	20.9	255.00	.0042	-25.48	-.0000	3914/3.6	.90	3.28	.0030	119.14	-.0023	-26.05	253.16
EXTM 11	3745.03	3756.28	12	14	.7	.03	.0043	-26.85	.0000	391947.6	1.38	27.94	.0000	180.03	.0042	-26.03	243.12
EXTM 11	3745.04	3756.29	12	14	.7	.04	.0043	-26.85	.0000	391948.6	1.38	27.94	.0000	180.04	.0043	-26.03	243.12
IMPACT	3777.46	3788.71	12	14	33.1												
IMPC 42	3777.46	3788.71	12	14	33.1	273.29	.0043	-25.57	-.0000	396136.3	1.69	16.93	.0033	109.72	-.0021	-26.03	234.86
IMPC 11	3777.46	3788.71	12	14	33.1	8.42	.0044	-26.83	.0000	395061.0	2.09	27.45	-.0005	186.46	.0044	-26.03	234.86

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	9	23	35.654	6606.659	15.5465	303.6790	10.94373	5.4702	121.9695	135.3535
SEPARATION	1.20	12.45	9	23	36.854	6702.759	11.7583	309.1332	10.86304	6.8001	123.5227	141.1085
RETRO	3.20	14.45	9	23	38.854	6959.439	5.7985	317.5485	10.65922	14.0747	124.6881	150.0252
EXIT SHA	30.22	41.47	10	0	5.869	14895.511	-29.5298	12.7595	7.25180	48.2306	109.9172	212.0088
IMPACT	3777.46	3788.71	12	14	33.112	398058.633	-26.0264	234.8568	2.21057	67.3325	270.3933	293.4808

SURVEYOR VIEW PERIODS

GHA	200.7347				EPS	99.4939					LOM	252.6000	
SX	.538781	SY	-.739923	SZ	-.410039	DAO	-24,20730	RAO	306.20846	RM	402455.012	LAT	28.310600	LON	279.461800
C3	-.914413	ECC	.984986	SLR	12991.073	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.559353	NSY	-.725986	NSZ	-.406336	C3H	1.4935	VIM	2.6707	ZAE	142.105	B.T	.0000	B.R	-.0000
LATE	0.2235	LONE	3.6559	LATS	-.8432	LONS	264.3499	LATI	2.7757	LONI	325.7907	RSM	149.9633	TTAN	5.9291
LAUNCH DATE	APR	10,1966		BASE AZM	90.0		TF 63.638				ARRIVAL DATE APR		13 1966 14		9 10.2

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
90.00	22 22	5.1	27.2	24.81	306.92	-14.23	123.96	104.09	22 33 20.1	6645.8	10.91	-7.06

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
				PROBE IN SUNLIGHT													
INJECTION	.00	11.25	10	22	33.3												
ENTER SHA	.82	12.07	10	22	34.2												
SEPARATION	1.20	12.45	10	22	34.5												
RETRO	3.20	14.45	10	22	36.5												
RISE 72	6.45	17.70	10	22	39.8	57.20	-.7690	75.64	.1034	2348.6	-5.32	-.01	.1015	347.96	.1918	11.87	341.45
EXTM 72	11.61	22.86	10	22	44.9	297.16	-.0540	21.08	-.1526	2644.6	6.15	21.87	-.0000	63.45	.1732	.55	2.10
RISE 51	11.82	23.07	10	22	45.2	67.76	-.1336	38.14	-.0265	4514.6	-4.39	.00	.1022	313.28	.0359	.14	2.81
EXTM 51	27.06	38.31	10	23	.4	345.77	-.0362	-8.87	-.0269	6273.5	5.55	68.38	.0000	41.25	.1213	-17.50	35.07
EXIT SHA	31.25	42.50	10	23	4.6												
EXIT 72	31.25	42.50	10	23	4.6	276.83	-.0068	-19.60	-.0072	11272.4	6.70	9.04	-.0058	108.72	.0078	-19.74	39.96
EXIT 51	31.25	42.50	10	23	4.6	338.33	-.0241	-14.19	-.0165	7709.8	5.81	66.64	-.0106	64.55	.0670	-19.74	39.96
EXTM 72	66.44	77.69	10	23	39.8	271.34	-.0001	-25.84	-.0012	23288.8	4.95	4.64	.0000	115.48	.0012	-26.59	57.67
RISE 42	69.39	80.64	10	23	42.7	103.62	-.0049	-18.45	-.0029	24670.4	4.28	.00	.0054	247.21	.0005	-26.79	58.21
EXTM 51	81.10	92.35	10	23	54.4	319.64	-.0001	-26.58	-.0009	23356.8	4.57	56.91	.0000	100.49	.0015	-27.37	59.67
EXTM 42	126.30	137.55	11	0	39.6	98.19	.0005	-23.19	-.0006	38932.3	4.01	6.90	-.0000	246.42	-.0007	-28.21	59.16
SET 42	199.62	210.87	11	1	53.0	105.00	.0023	-24.39	-.0001	55650.6	3.60	2.61	-.0016	241.72	-.0014	-28.26	49.80
RISE 61	211.84	223.09	11	2	5.2	303.49	.0033	-33.11	.0002	58428.9	3.15	.00	.0019	135.68	.0020	-28.23	47.77
EXTM 51	317.60	328.85	11	3	50.9	.06	.0037	-28.04	.0001	72079.0	2.90	87.70	.0000	181.35	.0774	-27.85	27.63
EXTM 61	477.08	488.33	11	6	30.4	2.87	.0040	-30.62	.0001	101874.1	2.51	19.09	.0000	182.62	.0036	-27.31	353.03
EXTM 72	511.58	522.83	11	7	4.9	.49	.0041	-28.37	.0001	103246.7	2.44	69.53	-.0000	181.23	.0102	-27.20	345.22
RISE 11	671.57	682.82	11	9	44.9	292.65	.0040	-28.62	.0000	131303.1	1.91	.00	.0027	125.90	.0023	-26.78	308.15
SET 51	704.52	715.77	11	10	17.9	90.00	.0039	-25.67	.0001	134427.5	2.52	10.84	-.0033	246.59	-.0013	-26.70	300.40
SET 61	726.42	737.67	11	10	39.8	62.52	.0040	-28.61	.0001	138449.1	2.39	-.00	-.0023	231.16	.0027	-26.65	295.23
SET 72	898.03	909.28	11	13	3.	93.89	.0040	-25.98	.0001	159567.7	2.36	-.01	-.0035	243.75	-.0005	-26.31	254.31
RISE 42	907.70	918.95	11	13	41.0	255.00	.0040	-24.91	-.0000	160382.7	1.64	2.93	.0029	118.70	-.0022	-26.29	251.99
EXTM 11	948.14	959.39	11	14	21.5	.92	.0042	-28.19	.0001	162598.1	1.93	26.60	-.0000	180.91	.0041	-26.22	249.26
SET 11	1222.27	1233.52	11	18	55.6	88.91	.0041	-27.02	.0001	195512.2	2.04	-.00	-.0027	236.22	.0024	-25.80	1[illegible]82
EXTM 42	1332.04	1343.29	11	20	45.4	359.95	.0042	-25.35	.0000	200588.3	1.68	80.13	-.0000	.28	-.0208	-25.66	[illegible].03
RISE 51	1466.82	1478.07	11	23	.2	270.00	.0041	-24.85	-.0000	218917.9	1.24	10.51	.0034	112.65	-.0015	-25.50	116.03
RISE 72	1622.92	1634.17	12	1	36.6	266.26	.0041	-25.10	-.0000	234860.5	1.1[illegible]	-.01	.0037	115.36	-.0005	-25.33	77.71
RISE 61	1695.67	1706.92	12	2	49.0	294.78	.0041	-26.35	-.0000	241539.8	1.23	.00	.0026	125.56	.0027	-25.26	59.81
SET 42	1754.72	1765.97	12	3	48.1	105.00	.0041	-24.30	.0000	246586.3	1.82	2.56	-.0030	241.79	-.0022	-25.20	45.27
EXTM 51	1818.79	1830.04	12	4	52.1	358.16	.0042	-25.16	.0000	246273.6	1.46	88.23	.0036	70.24	-.0437	-25.14	29.48
EXTM 61	1957.04	1968.29	12	7	10.4	.38	.0042	-26.29	.0000	262057.7	1.42	23.47	.0000	180.38	.0041	-25.02	355.37
EXTM 72	1996.62	2007.87	12	7	50.0	.07	.0042	-25.40	.0000	261913.0	1.41	72.50	.0000	180.23	.0123	-24.99	345.60
RISE 11	2131.89	2143.14	12	10	5.2	289.88	.0042	-25.72	-.0000	279204.8	1.05	.00	.0029	122.09	.0024	-24.88	312.17
SET 51	2185.28	2196.53	12	10	58.6	90.00	.0041	-24.34	.0000	282427.4	1.73	10.31	-.0035	247.83	-.0015	-24.84	298.96
SET 61	2218.25	2229.50	12	11	31.6	65.93	.0042	-25.74	.0000	286235.4	1.63	-.00	-.0026	235.33	.0027	-24.82	290.80
SET 72	2369.45	2380.70	12	14	2.8	93.63	.0041	-24.53	.0000	298246.1	1.72	-.00	-.0037	245.22	-.0005	-24.71	253.37
RISE 42	2371.27	2382.52	12	14	4.6	255.00	.0041	-23.96	-.0000	298127.3	.97	2.35	.0030	117.94	-.0023	-24.71	252.92
EXTM 11	2411.73	2422.98	12	14	45.1	.26	.0042	-25.74	.0000	298462.9	1.29	29.05	-.0000	180.27	.0043	-24.68	242.89
SET 11	2691.45	2702.70	12	19	24.8	70.58	.0042	-25.23	.0000	322681.2	1.55	-.00	-.0029	238.56	.0024	-24.51	173.53
EXTM 42	2790.22	2801.47	12	21	3.6	359.97	.0042	-24.24	.0000	323695.7	1.21	79.02	.0000	.18	-.0174	-24.45	149.01
RISE 51	2920.65	2931.90	12	23	14.0	270.00	.0041	-23.95	-.0000	338102.1	.80	10.15	.0035	111.81	-.0015	-24.37	116.62
RISE 72	3075.51	3086.76	13	1	48.8	266.43	.0042	-24.14	-.0000	350195.0	.70	-.00	.0038	114.39	-.0005	-24.30	78.11
RISE 61	3141.25	3152.50	13	2	54.6	293.25	.0042	-25.01	-.0000	354579.3	.82	.00	.0027	123.63	.0027	-24.28	61.71
SET 42	3208.75	3220.00	13	4	2.1	105.00	.0041	-23.63	.0000	358818.7	1.44	2.15	-.0030	242.32	-.0023	-24.25	44.86
EXTM 51	3273.11	3284.36	13	5	6.4	358.88	.0042	-24.21	.0000	356992.9	1.09	88.16	.0021	33.88	-.1006	-24.24	28.79
EXTM 61	3405.86	3417.11	13	7	19.2	.12	.0042	-25.09	.0000	369390.7	1.10	24.67	-.0000	180.12	.0042	-24.20	355.63
EXTM 72	3445.79	3457.04	13	7	59.1	.02	.0042	-24.47	.0000	368598.6	1.10	73.43	.0000	180.08	.0107	-24.19	345.65
RISE 11	3575.00	3586.25	13	10	8.3	289.00	.0042	-24.77	-.0000	383186.4	.79	.00	.0029	120.85	.0824	-24.16	313.34
SET 51	3633.82	3645.07	13	11	7.2	90.00	.0042	-23.78	.0000	386008.7	1.51	10.09	-.0035	248.35	-.0015	-24.15	298.62
SET 61	3670.17	3681.42	13	11	43.5	66.96	.0042	-24.82	.0000	389596.7	1.44	-.00	-.0027	236.64	.0027	-24.15	289.51
RISE 42	3814.35	3825.60	13	14	7.7	255.00	.0043	-23.61	-.0000	400452.8	1.49	2.13	.0031	117.67	-.0024	-24.17	253.19
SET 72	3814.67	3825.92	13	14	8.0	93.55	.0043	-24.03	.0000	400725.9	2.28	-.00	-.0039	245.72	-.0006	-24.17	253.11
IMPACT	3818.25	3829.50	13	14	11.6												
IMPC 42	3818.25	3829.50	13	14	11.6	256.00	.0043	-23.62	-.0000	400822.2	1.71	2.87	.0031	117.11	-.0024	-24.17	252.19
IMPC 72	3818.25	3829.50	13	14	11.6	94.47	.0043	-24.03	.0000	401233.2	2.49	-.83	-.0039	245.59	-.0006	-24.17	252.19
IMPC 11	3818.25	3829.50	13	14	11.6	350.85	.0044	-24.96	-.0000	398043.2	2.00	29.21	.0006	170.48	.0045	-24.17	252.19

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	10	22	33.336	6649.999	24.8449	306.7715	10.91071	-7.0599	104.0259	123.8094
ENTER SHA	.82	12.07	10	22	34.155	6590.481	23.6049	311.6139	10.95668	-4.7647	106.1025	128.8572
SEPARATION	1.20	12.45	10	22	34.536	6572.027	22.9854	313.7878	10.97217	-3.6859	107.0001	131.1266
RETRO	3.20	14.45	10	22	36.536	6552.971	19.1990	324.9583	10.98823	2.0331	111.2154	142.7985
EXIT SHA	31.25	42.50	10	23	4.584	13796.362	-19.7373	39.9561	7.54118	46.2388	110.7188	224.8277
IMPACT	3818.25	3829.50	13	14	11.590	401191.477	-24.1725	252.1884	2.21310	68.3039	259.6342	306.4029

SURVEYOR VIEW PERIODS

GHA	200.7347					EPS	99.0554							LOM	247.4646
SX	.541358	SY	-.734446	SZ	-.409474	DAO	-24.1177	RAO	306.39754	RM	402495.711	LAT	28.310600	LON	279.461800
CS	-.911449	ECC	.948035	SLR	12991.391	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.55/808	NSY	-.723701	NSZ	-.405753	CSM	1.4966	VIM	2.6713	ZAE	142.149	R.T	.0000	B.R	-.0000
LATE	6.2317	LONE	3.0342	LATS	-.8430	LONS	264.1697	LATI	2.7612	LONI	325.8198	RSM	149.9628	TTAN	5.9165
LAUNCH DATE	APR	10,1965		BASE AZM	93.0	TF	63.603					ARRIVAL DATE	APR	13 1966	14 30 24.6

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
93.00	22 41 59.4	27.5	25.68	306.88	-9.75	128.90	106.35	22 53 14.4	6591.9	10.96	-4.84

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	10	22	53.2												
ENTER SHA	.00	11.25	10	22	53.2												
SEPARATION	1.20	12.45	10	22	54.4												
RETRO	3.20	14.45	10	22	56.4												
RISE 72	5.84	17.09	10	22	59.1	71.85	-.3890	65.98	.1053	2415.7	-6.54	-.00	.1134	337.25	.1526	11.24	337.64
EXTM 72	11.00	22.25	10	23	4.2	308.10	-.0878	22.24	-.1765	2290.8	5.65	30.91	-.0000	58.10	.2265	-.07	358.01
RISE 51	11.53	22.78	10	23	4.8	71.24	-.1193	33.70	-.0302	4723.5	-4.18	.00	.1004	308.02	.0260	-1.07	359.71
EXTM 51	28.36	39.61	10	23	21.6	350.22	-.0328	-12.59	-.0212	6864.3	5.51	73.95	-.0000	36.83	.1389	-18.98	32.95
EXIT SHA	30.37	41.62	10	23	23.6												
EXIT 72	30.37	41.62	10	23	23.6	281.96	-.0075	-20.83	-.0069	10762.4	6.73	13.93	-.0066	109.60	.0075	-19.98	35.18
EXIT 51	30.37	41.62	10	23	23.6	346.61	-.0272	-14.88	-.0169	7537.5	5.63	73.42	-.0077	51.66	.1063	-19.98	35.18
EXTM 72	66.76	78.01	10	23	60.0	276.01	-.0001	-26.70	-.0010	23164.0	4.93	8.89	.0000	115.94	.0010	-26.88	53.26
RISE 42	81.99	93.24	11	0	15.2	105.00	-.0028	-20.27	-.0019	28480.1	4.26	.08	.0032	244.98	.0001	-27.63	55.19
EXTM 51	83.32	94.57	11	0	16.6	325.21	-.0001	-27.28	-.0007	23906.4	4.52	58.93	.0000	100.71	.0014	-27.68	55.29
EXTM 42	126.00	137.25	11	0	59.2	102.68	.0005	-23.12	-.0006	39419.4	4.01	5.53	-.0000	244.02	-.0007	-28.37	54.53
SET 42	161.19	172.44	11	1	34.4	105.00	.0016	-23.95	-.0003	47659.3	3.80	2.35	-.0010	242.07	-.0011	-28.44	50.78
RISE 61	190.18	201.43	11	2	3.4	304.35	.0031	-33.70	.0003	54150.7	3.28	-.00	.0018	136.62	.0018	-28.39	46.60
EXTM 51	294.30	305.55	11	3	47.5	.06	.0037	-28.23	.0001	68118.9	2.98	87.51	.0000	181.34	.0715	-28.02	27.63
EXTM 61	456.95	468.20	11	6	30.2	3.12	.0039	-30.83	.0001	989/5.4	2.55	18.87	.0000	182.84	.0036	-27.42	352.80
EXTM 72	490.52	501.77	11	7	3.4	.46	.0040	-28.52	.0001	100274.8	2.48	69.38	.0000	181.15	.0101	-27.31	345.24
RISE 11	651.95	663.20	11	9	45.2	292.77	.0040	-28.74	.0000	128813.3	1.93	.00	.0027	126.05	.0023	-26.86	307.99
SET 51	684.07	695.32	11	10	17.3	90.00	.0039	-25.73	.0001	131873.8	2.54	10.87	-.0032	246.53	-.0013	-26.78	300.45
SET 61	705.49	716.74	11	10	38.7	62138	.0040	-28.72	.0001	135868.2	2.41	-.00	-.0023	230.99	.0027	-26.73	295.40
SET 72	878.02	889.27	11	13	31.3	93.89	.0040	-26.03	.0001	157309.2	2.38	-.00	-.0035	243.70	-.0004	-26.36	254.34
RISE 42	887.95	899.20	11	13	41.2	254.99	.0040	-24.95	-.0000	158162.3	1.66	2.95	-.0029	118.72	-.0022	-26.34	251.96
EXTM 11	928.48	939.73	11	14	21.7	.96	.0042	-28.27	.0001	160438.5	1.94	26.52	-.0000	180.95	.0041	-26.27	242.22
SET 11	1202.42	1213.67	11	18	55.7	68.87	.0041	-27.06	.0001	193591.2	2.06	-.00	-.0027	236.17	.0024	-25.83	175.87
EXTM 42	1312.47	1323.72	11	20	45.7	359.95	.0042	-25.38	.0000	198730.5	1.69	80.16	-.0000	.29	-.0204	-25.68	149.03
RISE 51	1447.37	1458.62	11	23	.6	270.00	.0041	-24.86	-.0000	217191.4	1.25	10.52	.0034	112.66	-.0015	-25.51	116.02
RISE 72	1603.50	1614.75	12	1	36.7	266.26	.0041	-25.11	-.0000	233181.3	1.14	-.01	.0037	115.37	-.0005	-25.34	77.70
RISE 61	1676.34	1687.59	12	2	49.6	294.80	.0041	-26.37	-.0000	239903.5	1.24	.00	.0026	125.58	.0027	-25.27	59.78
SET 42	1735.26	1746.51	12	3	48.5	105.00	.0041	-24.30	.0000	244966.5	1.83	2.56	-.0030	241.79	-.0022	-25.21	45.28
EXTM 51	1799.33	1810.58	12	4	52.6	358.15	.0042	-25.13	.0000	244684.2	1.47	88.22	.0036	70.47	-.0431	-25.15	29.49
EXTM 61	1937.69	1948.94	12	7	10.9	.40	.0042	-26.30	.0000	260517.1	1.43	23.47	.0000	180.39	.0041	-25.02	355.36
EXTM 72	1977.25	1988.50	12	7	50.5	.08	.0042	-25.40	.0000	260405.8	1.42	72.50	.0000	180.23	.0123	-24.99	345.60
RISE 11	2112.55	2123.80	12	10	5.8	289.88	.0042	-25.72	-.0000	277752.5	1.06	.00	.0029	238.57	.0024	-24.49	173.52
SET 51	2165.90	2177.15	12	10	59.1	90.00	.0041	-24.33	.0000	280991.9	1.74	10.31	-.0035	247.84	-.0015	-24.84	298.97
SET 61	2198.89	2210.14	12	11	32.1	65.93	.0042	-25.73	.0000	284813.2	1.64	-.00	-.0026	235.33	.0027	-24.81	290.81
SET 72	2350.08	2361.33	12	14	3.3	93.63	.0041	-24.52	.0000	296876.3	1.72	-.00	-.0037	245.23	-.0005	-24.70	253.38
RISE 42	2351.95	2363.20	12	14	5.2	255.00	.0041	-23.95	-.0000	296763.1	.98	2.34	.0030	117.93	-.0023	-24.70	252.91
EXTM 11	2392.42	2403.67	12	14	45.7	.27	.0042	-25.74	.0000	297111.5	1.30	29.06	-.0000	180.28	.0043	-24.67	242.89
SET 11	2672.17	2683.42	12	19	25.4	70.59	.0042	-25.22	.0000	321420.6	1.55	-.00	-.0029	238.57	.0024	-24.49	173.52
EXTM 42	2770.91	2782.16	12	21	4.1	359.97	.0042	-24.22	.0000	322462.6	1.21	79.00	.0000	.19	-.0175	-24.43	149.01
RISE 51	2901.36	2912.61	12	23	14.6	270.00	.0041	-23.93	-.0000	336908.1	.80	10.14	.0035	111.79	-.0015	-24.35	116.62
RISE 72	3056.40	3067.65	13	1	49.6	266.44	.0042	-24.11	-.0000	349117.0	.70	.00	.0038	114.36	-.0005	-24.27	78.10
RISE 61	3121.96	3133.21	13	2	55.2	293.22	.0042	-24.99	-.0000	353496.4	.82	.00	.0027	123.60	.0027	-24.25	61.73
SET 42	3189.54	3200.79	13	4	2.8	105.00	.0041	-23.60	.0000	357748.7	1.44	2.13	-.0030	242.34	-.0023	-24.23	44.86
EXTM 51	3258.33	3269.58	13	5	11.6	.00	.0042	-24.18	.0000	356216.0	1.10	88.44	-.0006	359.47	-.0206	-24.21	27.68
EXTM 61	3386.64	3397.89	13	7	19.9	.13	.0042	-25.07	.0000	368322.5	1.10	24.69	-.0000	180.13	.0042	-24.17	355.63
EXTM 72	3426.56	3437.81	13	7	59.8	.02	.0042	-24.44	.0000	367530.1	1.10	73.46	.0000	180.09	.0097	-24.16	345.65
RISE 11	3555.67	3566.92	13	10	8.9	288.98	.0042	-24.74	-.0000	382097.1	.78	.00	.0029	122.82	.0024	-24.14	313.36
SET 51	3614.57	3625.82	13	11	7.8	90.00	.0042	-23.75	.0000	384907.5	1.50	10.07	-.0035	248.38	-.0015	-24.13	298.62
SET 61	3651.04	3662.29	13	11	44.3	66.99	.0042	-24.79	.0000	388483.9	1.43	-.00	-.0027	236.68	.0027	-24.12	289.48
RISE 42	3795.36	3806.61	13	14	8.6	255.00	.0042	-23.57	-.0000	398858.5	1.14	2.11	.0031	117.63	-.0023	-24.13	253.19
SET 72	3795.64	3806.89	13	14	8.9	93.54	.0042	-23.99	.0000	399117.4	1.91	-.00	-.0038	245.76	-.0006	-24.13	253.12
IMPACT	3816.17	3827.42	13	14	29.4												
IMPC 42	3816.17	3827.42	13	14	29.4	260.30	.0043	-23.61	-.0000	400509.4	1.70	6.02	.0032	114.75	-.0023	-24.14	247.88
IMPC 72	3816.17	3827.42	13	14	29.4	98.77	.0043	-23.98	.0000	401700.6	2.48	-4.71	-.0039	244.97	-.0007	-24.14	247.88
IMPC 11	3816.17	3827.42	13	14	29.4	355.20	.0044	-24.93	-.0000	398033.2	2.02	29.69	.0003	174.99	.0045	-24.14	247.88

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	10	22	53.241	6592.807	23.6115	306.8269	10.95575	-4.8370	106.3341	128.8547
ENTER SHA	.00	11.25	10	22	53.243	6591.780	23.5953	306.8864	10.95573	-4.8315	106.3592	128.9149
SEPARATION	1.20	12.45	10	22	54.441	6548.728	21.5014	313.6727	10.99195	-1.4229	109.0801	136.0013
RETRO	3.20	14.45	10	22	56.441	6581.808	17.3634	324.5720	10.96409	4.2920	112.8866	147.4020
EXIT SHA	30.37	41.62	10	23	23.610	13/68.611	-19.9782	35.1757	7.54909	46.1852	110.6753	224.8169
IMPACT	3816.17	3827.42	13	14	29.409	401227.488	-24.1425	247.8808	2.21196	68.0810	259.6375	306.5621

SURVEYOR VIEW PERIODS

GHA	200.7347					EPS	99.8105							LOM	242.5330
SX	.943826	SY	-.732824	SZ	-.408927	DAO	-24.13744	RAO	306.57898	RM	402530.617	LAT	28.310600	LON	279.461800
C3	-.912027	ECC	.985025	SLR	12991.332	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.560350	NSY	-.722412	NSZ	-.405187	C3M	1.4965	VIM	2.6713	ZAE	142.138	B.T	.0000	B.R	-.0000
LATE	6.2396	LONE	3.6215	LATS	-.8428	LONS	263.9969	LATI	2.6638	LONI	325.8044	RSM	149.9823	TTAN	5.9068
LAUNCH DATE	APR 10.1966			BASE AZM	96.0		TF 63.623					ARRIVAL DATE	APR 13 1966 14 50 48.4		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
96.00	22 58 52.0	27.7	22.40	306.70	-6.00	132.96	108.56	23 10 7.0	6562.5	10.98	-2.9[illegible]

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	10	23	10.1												
SEPARATION	1.20	12.45	10	23	11.3												
RETRO	3.20	14.45	10	23	13.3												
RISE 72	5.40	16.65	10	23	15.5	77.31	-.2749	57.69	.0808	2493.9	-7.30	.00	.1212	328.57	.1159	10.35	334.54
EXTM 72	10.16	21.41	10	23	20.3	323.49	-.1571	26.23	-.2151	1909.3	4.41	40.79	.0254	44.82	.3381	-.24	353.21
RISE 51	11.32	22.57	10	23	21.4	74.12	-.1083	29 57	-.0337	4912.1	-3.96	.00	.0984	303.22	.0178	-2.45	356.95
EXIT SHA	29.62	40.87	10	23	39.7												
EXIT 72	29.62	40.87	10	23	39.7	286.65	-.0084	-22.48	-.0064	10325.6	6.75	18.35	-.0077	111.14	.0069	-20.56	30.95
EXIT 51	29.62	40.87	10	23	39.7	354.10	-.0302	-16.07	-.0171	7428.3	5.46	78.88	.0011	30.78	.1743	-20.56	30.95
EXTM 51	29.81	41.06	10	23	39.9	353.78	-.0297	-16.26	-.0167	7488.2	5.47	78.89	-.0000	32.65	.1714	-20.65	31.14
EXTM 72	67.51	78.76	11	0	17.6	280.07	-.0000	-27.81	-.0008	23197.2	4.89	12.55	.0000	116.85	.0009	-27.47	49.55
EXTM 51	85.36	96.61	11	0	35.5	329.99	-.0000	-28.18	-.0006	24446.8	4.47	63.21	.0000	102.03	.0012	-28.22	91.51
RISE 61	173.19	184.44	11	2	3.3	305.50	.0029	-34.46	.0003	50682.6	3.40	-.00	.0018	137.84	.0017	-28.74	45.18
EXTM 51	274.32	285.57	11	3	44.4	.10	.0036	-28.59	.0001	64628.8	3.05	87.15	-.0000	181.77	.0020	-28.33	27.60
EXTM 61	440.31	451.56	11	6	30.4	3.45	.0039	-31.14	.0002	96550.0	2.58	18.55	.0000	183.10	.0035	-27.64	352.51
EXTM 72	473.28	484.53	11	7	3.4	.58	.0040	-28.78	.0001	97802.6	2.51	69.12	-.0000	181.42	.0099	-27.52	345.13
RISE 11	635.84	647.09	11	9	46.0	292.96	.0040	-28.94	.0000	126734.0	1.96	.00	.0026	126.31	.0023	-27.02	307.76
SET 51	666.80	678.05	11	10	16.9	90.00	.0039	-25.87	.0001	129673.0	2.56	10.92	-.0032	246.40	-.0013	-26.94	300.50
SET 61	687.32	698.57	11	10	37.4	62.14	.0040	-28.91	.0001	133580.3	2.43	-.00	-.0022	230.70	.0027	-26.88	295.68
SET 72	861.21	872.46	11	13	31.3	93.91	.0039	-26.15	.0001	155371.0	2.39	-.00	-.0035	243.58	-.0004	-26.48	254.35
RISE 02	871.32	882.57	11	13	41.4	254.99	.0040	-25.05	-.0000	156247.8	1.67	3.01	.0029	118.81	-.0022	-26.46	251.93
EXTM 11	912.01	923.26	11	14	22.1	1.02	.0042	-28.40	.0001	158597.5	1.96	26.38	-.0000	181.00	.0041	-26.38	242.17
SET 11	1185.48	1196.73	11	18	55.6	68.78	.0041	-27.15	.0001	191827.0	2.06	-.00	-.0027	236.05	.0024	-25.91	175.98
EXTM 42	1295.99	1307.24	11	20	46.1	359.95	.0042	-25.45	.0000	197113.0	1.70	80.23	-.0000	.31	-.0205	-25.75	149.03
RISE 51	1430.99	1442.24	11	23	1.1	270.00	.0041	-24.92	-.0000	219606.1	1.26	10.54	.0034	112.71	-.0015	-25.57	116.01
RISE 72	1587.12	1598.37	12	1	37.2	266.25	.0041	-25.16	-.0000	231702.8	1.15	-.01	.0037	115.42	-.0005	-25.39	77.69
RISE 61	1660.22	1671.47	12	2	50.3	294.86	.0041	-26.42	-.0000	238476.7	1.24	.00	.0026	125.65	.0027	-25.31	59.72
SET 42	1718.86	1730.11	12	3	49.0	105.00	.0041	-24.34	.0000	243531.9	1.84	2.58	-.0030	241.76	-.0022	-25.25	45.29
EXTM 51	1782.90	1794.15	12	4	53.0	358.15	.0042	-25.17	.0000	243272.0	1.47	88.22	.0036	71.76	-.0404	-25.18	29.51
EXTM 61	1921.42	1932.67	12	7	11.5	.41	.0042	-26.33	.0000	259165.6	1.43	23.43	.0000	180.40	.0041	-25.05	355.35
EXTM 72	1960.92	1972.17	12	7	51.0	.08	.0042	-25.43	.0000	259059.6	1.42	72.47	.0000	180.25	.0123	-25.02	345.59
RISE 11	2096.34	2107.59	12	10	6.5	289.90	.0042	-25.75	-.0000	276452.2	1.06	.00	.0029	122.12	.0024	-24.90	312.13
SET 51	2149.55	2160.80	12	10	59.7	90.00	.0041	-24.35	.0000	279694.0	1.74	10.31	-.0035	247.82	-.0015	-24.86	298.97
SET 61	2182.45	2193.70	12	11	32.6	65.90	.0042	-25.76	.0000	283517.2	1.64	-.00	-.0026	235.30	.0027	-24.83	290.84
SET 72	2333.75	2345.00	12	14	3.9	93.63	.0041	-24.53	.0000	295626.6	1.73	-.00	-.0037	245.22	-.0005	-24.71	253.38
RISE 42	2335.66	2346.91	12	14	5.8	255.00	.0041	-23.96	-.0000	295515.9	.98	2.35	.0030	117.94	-.0023	-24.71	252.91
EXTM 11	2376.16	2387.41	12	14	46.3	.28	.0042	-25.75	.0000	295877.9	1.30	29.04	-.0000	180.29	.0043	-24.68	242.88
SET 11	2655.86	2667.11	12	19	26.0	70.59	.0042	-25.22	.0000	320241.3	1.56	-.00	-.0029	238.57	.0024	-24.49	173.53
EXTM 42	2754.61	2765.86	12	21	4.7	359.96	.0042	-24.21	.0000	321304.2	1.21	78.99	.0000	.20	-.0176	-24.43	149.02
RISE 51	2885.09	2896.34	12	23	15.2	270.00	.0041	-23.92	-.0000	335775.6	.81	10.14	.0035	111.78	-.0015	-24.35	116.62
RISE 72	3040.14	3051.39	13	1	50.3	266.44	.0042	-24.10	-.0000	348017.1	.70	.00	.0038	114.35	-.0005	-24.26	78.09
RISE 61	3105.65	3116.90	13	2	55.8	293.21	.0042	-24.97	-.0000	352396.0	.82	.00	.0027	123.58	.0027	-24.23	61.74
SET 42	3173.25	3184.50	13	4	3.4	105.00	.0041	-23.59	.0000	356854.4	1.44	2.12	-.0030	242.35	-.0023	-24.21	44.86
EXTM 51	3242.05	3253.30	13	5	12.2	.00	.0042	-24.16	.0000	355123.6	1.10	88.42	-.0000	359.45	-.0132	-24.19	27.68
EXTM 61	3370.40	3381.65	13	7	20.5	.15	.0042	-25.05	.0000	367230.6	1.10	24.71	-.0000	180.13	.0042	-24.15	355.62
EXTM 72	3410.29	3421.54	13	8	.4	.02	.0042	-24.42	.0000	366436.7	1.10	73.48	.0000	180.09	.0105	-24.14	345.65
RISE 11	3539.04	3550.59	13	10	9.5	288.96	.0042	-24.72	-.0000	380985.4	.78	.00	.0029	120.79	.0024	-24.11	313.38
SET 51	3598.31	3609.56	13	11	8.4	90.00	.0042	-23.73	.0000	383785.2	1.50	10.06	-.0035	248.40	-.0015	-24.10	298.62
SET 61	3634.90	3646.15	13	11	45.0	67.02	.0042	-24.77	.0000	387352.4	1.42	-.00	-.0027	236.71	.0027	-24.10	289.46
RISE 42	3779.30	3790.55	13	14	9.4	255.00	.0042	-23.53	-.0000	397443.6	1.01	2.09	.0031	117.60	-.0023	-24.09	253.19
SET 72	3779.54	3790.79	13	14	9.7	93.54	.0042	-23.96	.0000	397695.0	1.78	-.00	-.0038	245.80	-.0006	-24.09	253.13
EXTM 11	3817.36	3828.61	13	14	47.5	359.63	.0044	-24.90	-.0000	398047.4	2.05	29.89	.0000	179.62	.0046	-24.11	243.51
IMPACT	3817.36	3828.61	13	14	47.5												
IMPC 42	3817.36	3828.61	13	14	47.5	264.66	.0043	-23.61	-.0000	480184.2	1.69	9.28	.0033	112.42	-.0022	-24.11	243.51
IMPC 11	3817.36	3828.61	13	14	47.5	359.63	.0044	-24.90	-.0000	398047.4	2.05	29.89	.0000	179.62	.0046	-24.11	243.51
EXTM 11	3817.65	3828.90	13	14	47.8	359.71	.0044	-24.90	-.0000	398083.2	2.07	29.89	.0000	179.70	.0046	-24.11	243.44

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION	.00	11.25	10	23	10.117	6562.610	22.4056	306.6862	10.98041	-2.9750	108.5561	132.9446
SEPARATION	1.20	12.45	10	23	11.317	6545.080	20.0557	313.3701	10.99501	.4548	111.0888	139.9293
RETRO	3.20	14.45	10	23	13.317	6620.940	15.6031	323.9615	10.95136	6.1383	114.4975	151.0221
EXIT SHA	29.62	40.87	10	23	39.741	13739.286	-20.5620	30.9522	7.55724	46.1273	110.5967	224.6372
IMPACT	3817.36	3828.61	13	14	47.474	401260.813	-24.1122	243.5129	2.21125	68.0392	259.8101	306.7229

OMA	200.7347					EPS	99.9304					LOM	238.7177		
SX	.945733	SY	-.731643	SZ	-.408501	DAO	-24.11073	RAO	306.71926	RM	402559.004	LAT	28.310600	LON	279.461800
CS	-.911820	ECC	.985029	SLR	12991.353	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.962185	NSY	-.721196	NSZ	-.404752	USM	1.4475	VIM	2.6715	ZAE	142.130	B.T	.0000	B.R	-.0000
LATE	6.2496	LONE	5.6090	LATS	-.8426	LONS	295.8636	LATI	2.4976	LONI	325.8037	RSM	149.9620	TTAN	5.8988
LAUNCH DATE		APR	10,1966		BASE AZM	99.0		TF	63.628			ARRIVAL DATE		APR 13 1966 15	0 35.1

LNCH AZMTH	LNCH TIME	PH	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99.00	23 12 54.5	27.9	21.25	306.41	-2.91	136.18	110.72	23 24 9.3	6548.9	10.99	-1.44

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
				PROBE IN EARTH'S SHADOW														
INJECTION		.00	11.25	10	23	24.2												
SEPARATION		1.20	12.45	10	23	25.4												
RETRO		3.20	14.45	10	23	27.4												
RISE	72	5.07	16.32	10	23	29.2	80.27	-.2222	50.58	.0537	2572.3	-7.76	.00	.1261	321.26	.0830	9.29	331.95
EXTM	72	9.75	21.00	10	23	33.9	358.08	-.2181	24.25	-.2227	1714.5	3.57	51.38	.0616	33.04	.4681	-1.27	349.97
RISE	51	11.18	22.43	10	23	35.3	76.60	-.0996	25.68	-.0370	5079.3	-3.75	.00	.0965	298.75	.0108	-3.99	354.48
EXIT	SHA	29.00	40.25	10	23	53.2												
EXIT	72	29.00	40.25	10	23	53.2	290.87	-.0095	-24.53	-.0057	9961.5	6.76	22.21	-.0087	115.33	.0059	-21.45	27.25
EXIT	51	29.00	40.25	10	23	53.2	.80	-.0328	-17.73	-.0171	7367.7	5.29	81.96	.0198	354.57	.2114	-21.45	27.25
EXTM	51	31.34	42.59	10	23	55.5	356.60	-.0270	-19.85	-.0131	8124.7	5.43	83.33	-.0000	28.69	.2461	-22.45	29.63
EXTM	72	68.20	79.45	11	0	32.4	283.53	-.0000	-29.11	-.0006	25246.8	4.86	15.62	.0000	118.11	.0006	-28.29	46.40
E	51	87.40	98.65	11	0	51.6	334.03	.0000	-29.27	-.0004	29300.0	4.42	66.74	.0000	104.64	.0010	-28.96	48.33
RI	51	160.86	172.11	11	2	5.0	306.91	.0028	-29.37	.0004	48111.2	3.49	-.00	.0017	139.31	.0015	-29.28	43.57
EXTM	51	257.40	268.65	11	3	41.6	.14	.0035	-29.11	.0001	61403.7	3.11	86.65	.0000	182.10	.0515	-28.80	27.56
EXTM	61	426.91	438.16	11	6	31.1	3.79	.0039	-31.55	.0002	9[illegible]	2.61	18.12	.0000	183.40	.0035	-27.97	352.18
EXTM	72	458.80	470.05	11	7	3.0	.64	.0040	-29.14	.0001	95[illegible]	2.54	68.75	-.0000	181.54	.0097	-27.84	345.08
RISE	11	622.96	634.21	11	9	47.1	293.24	.0040	-29.21	.0000	125062.	1.97	.00	.0026	126.68	.0023	-27.26	307.45
SET	51	652.46	663.71	11	10	16.6	90.00	.0039	-26.10	.0001	127827.2	2.58	11.01	-.0032	246.19	-.0013	-27.17	300.55
SET	61	671.63	682.88	11	10	35.8	61.79	.0040	-29.19	.0001	131587.4	2.45	-.00	-.0022	230.30	.0007	-27.12	296.05
SET	72	847.31	858.56	11	13	31.5	93.94	.0039	-26.33	.0001	155762.7	2.40	-.00	-.0035	243.40	-.0004	-26.67	254.35
RISE	42	857.54	868.79	11	13	41.7	254.99	.0040	-25.22	-.0000	154649.2	1.69	3.12	.0029	118.94	-.0022	-26.65	251.91
EXTM	11	898.46	909.71	11	14	22.6	1.10	.0042	-28.60	.0001	157086.0	1.97	26.18	-.0000	181.07	.0041	-26.56	242.09
SET	11	1171.15	1182.40	11	18	55.5	68.65	.0041	-27.29	.0001	190368.1	2.07	-.00	-.0027	239.86	.0024	-26.04	176.13
EXTM	42	1282.29	1293.54	11	20	46.4	359.94	.0042	-25.56	.0000	195770.8	1.71	80.34	-.0000	.33	-.0211	-25.87	149.04
RISE	51	1417.38	1428.63	11	23	1.5	270.00	.0041	-25.02	-.0000	214324.9	1.26	10.58	.0034	112.80	-.0015	-25.67	116.00
RISE	72	1573.48	1584.73	12	1	37.6	266.24	.0041	-25.24	-.0000	230478.0	1.16	-.01	.0037	115.51	-.0005	-25.48	77.70
RISE	61	1647.03	1658.28	12	2	51.2	294.96	.0041	-26.50	-.0000	237317.5	1.25	.00	.0026	125.77	.0027	-25.39	59.61
SET	42	1705.22	1716.47	12	3	49.4	105.00	.0041	-24.41	.0000	242344.7	1.84	2.62	-.0031	241.71	-.0022	-25.32	45.29
EXTM	51	1769.21	1780.46	12	4	53.4	358.10	.0042	-25.24	.0000	242103.9	1.48	88.22	.0036	74.16	-.0356	-25.25	29.53
EXTM	61	1907.92	1919.17	12	7	12.1	.44	.0042	-26.40	.0000	258059.4	1.44	23.36	.0000	180.43	.0041	-25.11	355.32
EXTM	72	1947.36	1958.61	12	7	51.5	.09	.0042	-25.49	.0000	257953.3	1.43	72.41	.0000	180.26	.0123	-25.07	345.59
RISE	11	2082.97	2094.22	12	10	7.1	289.95	.0042	-25.80	-.0000	275393.4	1.07	.00	.0029	122.19	.0024	-24.95	312.08
SET	51	2135.95	2147.20	12	11	.1	90.00	.0041	-24.39	.0000	278626.7	1.74	10.33	-.0035	247.78	-.0015	-24.90	298.98
SET	61	2168.65	2179.90	12	11	32.8	65.85	.0042	-25.80	.0000	282442.3	1.64	-.00	-.0026	235.24	.0027	-24.87	290.89
SET	72	2320.18	2331.43	12	14	4.3	93.64	.0041	-24.57	.0000	294604.1	1.73	-.00	-.0037	245.18	-.0005	-24.75	253.38
RISE	42	2322.10	2333.35	12	14	6.3	255.00	.0041	-23.99	-.0000	294492.7	.99	2.37	.0030	117.97	- 0023	-24.75	252.91
EXTM	11	2362.69	2373.90	12	14	46.6	.30	.0042	-25.79	.0000	294872.3	1.31	29.01	-.0000	180.31	.0043	-24.71	242.86
SET	11	2642.20	2653.45	12	19	26.4	70.57	.0042	-25.24	.0000	319274.7	1.56	-.00	-.0029	238.54	.0024	-24.51	173.55
EXTM	42	2741.04	2752.29	12	21	5.2	359.96	.0042	-24.23	.0000	320360.6	1.22	79.01	.0000	.21	-.0178	-24.44	149.02
RISE	51	2811.54	2822.79	12	23	15.7	270.00	.0041	-23.93	-.0000	334855.4	.81	10.14	.0035	111.79	-.0015	-24.36	116.61
RISE	72	3026.57	3037.82	13	1	50.7	266.44	.0041	-24.11	-.0000	346898.2	.74	-.00	.0037	114.35	-.0005	-24.26	78.10
RISE	61	3092.21	3103.46	13	2	59.4	293.20	.0042	-24.97	-.0000	351588.4	.82	.00	.0027	125.57	.0027	-24.23	61.75
SET	42	3159.81	3171.06	13	4	4.0	105.00	.0041	-23.58	.0000	355846.7	1.44	2.11	-.0030	242.36	-.0023	-24.20	44.87
EXTM	51	3228.60	3239.85	13	5	12.8	.00	.0042	-24.15	.0000	354313.1	1.10	88.41	-.0000	359.45	-.0084	-24.18	27.68
EXTM	61	3356.96	3368.21	13	7	21.1	.14	.0042	-25.04	.0000	366412.6	1.10	24.72	-.0000	180.14	.0042	-24.14	355.62
EXTM	72	3396.83	3408.08	13	8	1.0	.02	.0042	-24.41	.0000	365614.6	1.10	73.49	.0000	180.09	.0109	-24.13	345.45
RISE	11	3525.81	3537.06	13	10	10.0	288.95	.0042	-24.71	-.0000	380140.9	.77	.00	.0029	120.77	.0024	-24.10	313.39
SET	51	3584.81	3596.06	13	11	9.0	90.00	.0042	-23.71	.0000	382928.8	1.49	10.06	-.0035	248.42	-.0015	-24.08	298.62
SET	61	3621.48	3632.73	13	11	45.6	67.04	.0042	-24.75	.0000	386484.8	1.42	-.00	-.0027	236.74	.0027	-24.08	289.44
RISE	42	3765.88	3777.13	13	14	10.0	255.00	.0042	-23.50	-.0000	396401.9	.95	2.07	.0030	117.58	-.0023	-24.07	253.19
SET	72	3766.09	3777.34	13	14	10.2	93.54	.0042	-23.93	.0000	396648.3	1.71	-.00	-.0038	245.82	-.0006	-24.07	253.13
EXTM	11	3805.16	3816.41	13	14	49.3	359.90	.0043	-24.87	-.0000	396753.3	1.60	29.92	-.0000	179.90	.0045	-24.08	243.25
IMPACT		3817.69	3828.94	13	15	1.8												
IMPC	42	3817.69	3828.94	13	15	1.8	268.15	.0043	-23.60	-.0000	399926.9	1.69	21.91	.0033	110.60	-.0022	-24.09	240.04
IMPC	11	3817.69	3828.94	13	15	1.8	3.16	.0044	-24.88	-.0000	398081.8	2.07	29.84	-.0002	183.30	.0046	-24.09	240.04

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	10	23	24.155	6548.859	21.2278	306.4054	10.99194	-1.4431	110.7239	136.1829
SEPARATION		1.20	12.45	10	23	25.355	6552.646	18.6431	312.9387	10.98863	1.9923	113.0572	143.0170
RETRO		3.20	14.45	10	23	27.355	6563.123	13.9012	325.2061	10.89645	7.6334	116.0854	158.7857
EXIT	SHA	29.00	40.25	10	23	53.151	13709.596	-21.4481	27.2475	7.56556	46.0686	110.4952	224.2941
IMPACT		3817.69	3828.94	13	15	1.843	401290.598	-24.0881	240.0393	2.20919	67.8010	260.0926	306.8513

SURVEYOR VIEW PERIODS

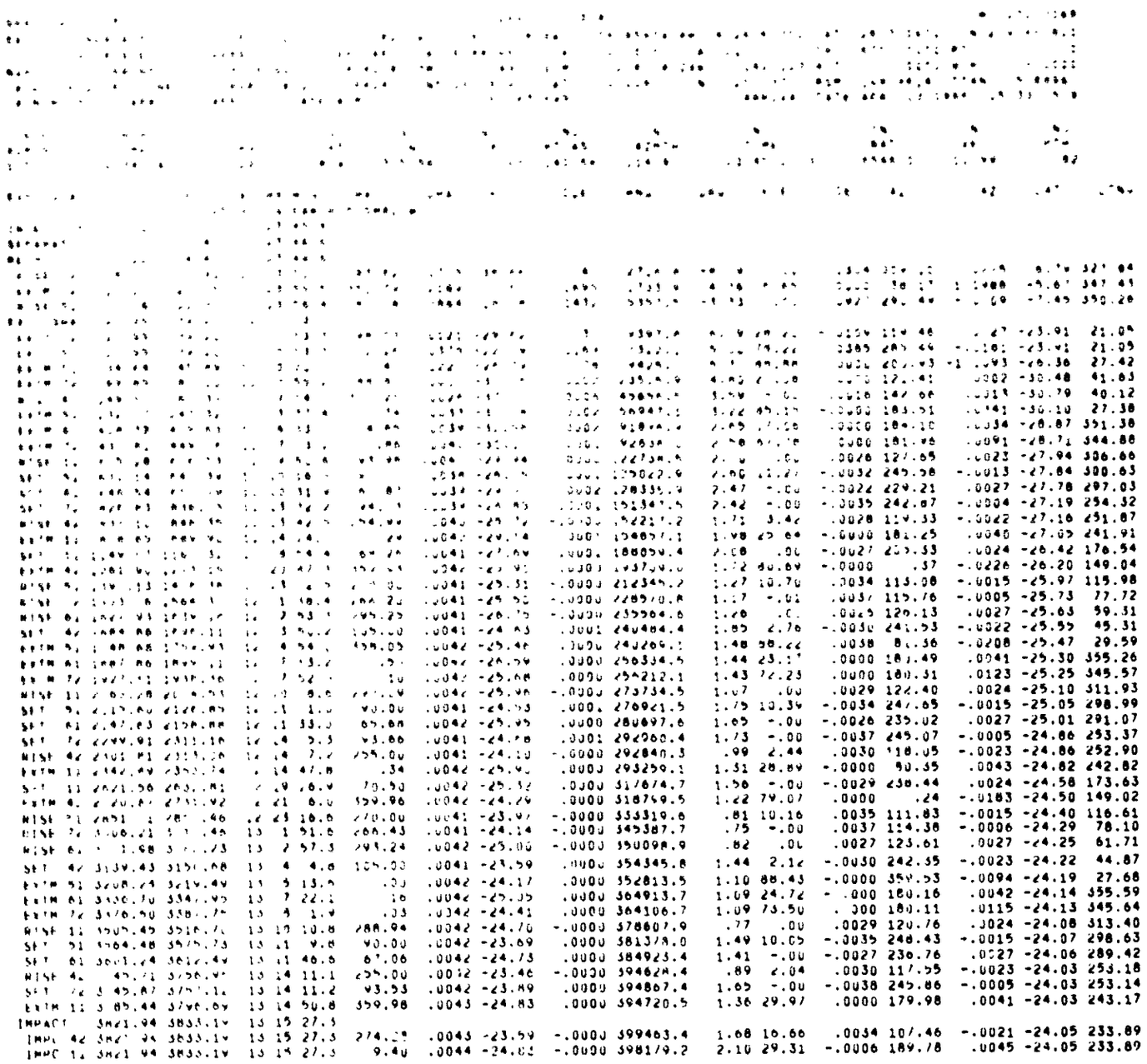
GHA	200.7347				SPS 100.0385						LOM	235.2779	
SX	.547449	SY	-.730576	SZ	-.408116	DAO	-24.08655	RAO	306.84566	RM	402584.461	LAT	28.310600
C3	-.913342	ECC	.985004	SLR	12991.190	HCA	6344.8650	LTA	-20.0000	GTA	20.00	TB	675.00000
*SX	.563891	NSY	-.720085	NSZ	-.404358	C3M	1.4973	VIM	2.6714	ZAM	142.087	B.T	.0000
LATE	6.2510	LONE	3.7274	LATS	-.8424	LONS	263.8733	LATI	2.2744	LONI	325.9072	RSM	149.9616
LAUNCH DATE		APR	10.1966		BASE AZM	102.0		TF	65.659			ARRIVAL DATE	APR 13 1966 15 20 48.7

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	23 24 30.7	28.0	20.08	306.02	-.40	138.71	112.86	23 35 45.7	6544.7	11.00	-.20

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
				PROBE IN EARTH'S SHADOW														
INJECTION		.00	11.25	10	23	35.8												
SEPARATION		1.20	12.45	10	23	37.0												
RETRO		3.20	14.45	10	23	39.0												
RISE	72	4.85	16.08	10	23	40.6	82.21	-.1914	44.32	.6280	2646.8	-8.00	.00	.1290	314.86	.0538	5.09	329.74
EXTM	72	9.45	20.70	10	23	45.2	352.24	-.2633	19.47	-.2161	1600.9	3.77	61.58	.1376	15.51	.6280	-2.52	347.16
RISE	51	11.10	22.35	10	23	46.9	78.79	-.0924	21.97	-.0402	5226.5	-3.54	-.00	.0945	294.53	.0046	-5.67	352.26
EXIT	SHA	28.46	39.71	11	0	4.2												
EXIT	72	28.46	39.71	11	0	4.2	294.63	-.0107	-26.93	-.0048	9659.4	6.78	25.49	-.0095	116.13	.0045	-22.58	23.98
EXIT	51	28.46	39.71	11	0	4.2	6.78	-.0352	-19.78	-.0170	7338.6	5.14	81.37	.0354	312.28	.0756	-22.58	23.98
EXTM	51	32.95	44.20	11	0	8.7	358.80	-.0247	-23.35	-.0102	8767.1	5.40	87.38	.0000	24.75	.5443	-24.34	28.38
EXTM	72	69.14	80.39	11	0	44.9	286.41	.0000	-30.57	-.0064	23398.4	4.83	18.11	.0000	119.66	.0004	-29.32	43.81
RISE	61	153.01	164.26	11	2	8.8	308.52	.0026	-36.35	.0005	46458.4	3.56	-.00	.0017	140.94	.0014	-29.97	41.86
EXTM	51	243.40	254.65	11	3	39.2	.22	.0034	-29.78	.0001	59048.7	3.17	85.95	.0000	182.67	.0420	-29.39	27.49
EXTM	61	416.41	427.66	11	6	32.2	4.20	.0039	-32.04	.0002	83059.0	2.63	17.62	.0000	183.73	.0035	-28.38	351.80
EXTM	72	447.14	458.39	11	7	2.9	.74	.0040	-29.59	.0001	94004.2	2.56	68.30	-.0000	181.74	.0094	-28.24	344.96
RISE	11	612.93	624.18	11	9	48.7	293.58	.0040	-29.55	.0000	123746.7	1.99	.00	.0026	127.13	.0023	-27.57	307.08
SET	51	640.72	651.97	11	10	16.5	90.00	.0038	-26.40	.0001	126290.4	2.59	11.13	-.0032	245.91	-.0013	-27.48	300.59
SET	61	658.17	669.42	11	10	33.9	61.37	.0040	-29.52	.0002	129850.9	2.46	-.00	-.0022	229.80	.0027	-27.42	296.50
SET	72	835.99	847.24	11	13	31.8	93.98	.0039	-26.57	.0001	152433.3	2.41	-.00	-.0035	243.16	-.0004	-26.91	254.34
RISE	42	846.27	857.52	11	13	42.0	254.99	.0040	-25.45	-.0000	153316.9	1.70	3.26	.0029	119.12	-.0022	-26.88	251.89
EXTM	11	887.48	898.73	11	14	23.2	1.19	.0042	-28.85	.0001	155850.9	1.98	25.93	-.0000	181.16	.0040	-26.78	242.01
SET	11	1139.11	1150.36	11	18	54.9	68.46	.0041	-27.48	.0001	189115.4	2.08	.01	-.0027	239.61	.0024	-26.21	176.32
EXTM	42	1271.07	1282.32	11	20	46.8	359.94	.0042	-25.72	.0000	194643.5	1.71	80.50	-.0000	.35	-.0218	-26.02	149.04
RISE	51	1406.24	1417.49	11	23	2.0	270.00	.0041	-25.15	-.0000	213244.1	1.27	10.63	.0034	112.93	-.0015	-23.81	115.99
RISE	72	1562.27	1573.52	12	1	38.0	266.22	.0041	-25.36	-.0000	229438.8	1.16	-.01	.0037	115.62	-.0005	-25.59	77.71
RISE	61	1636.42	1647.67	12	2	52.2	295.09	.0041	-26.62	-.0000	236351.7	1.25	.00	.0026	125.94	.0027	-25.50	59.48
SET	42	1694.03	1705.28	12	3	49.8	105.00	.0041	-24.51	.0000	241332.6	1.84	2.68	-.0030	241.63	-.0022	-25.42	45.30
EXTM	51	1757.94	1769.19	12	4	53.7	358.08	.0042	-25.34	.0000	241105.7	1.48	88.22	.0037	77.41	-.0290	-25.35	29.56
EXTM	61	1896.88	1908.13	12	7	12.6	.47	.0042	-26.49	.0000	257118.1	1.44	23.28	.0000	180.45	.0041	-25.19	355.29
EXTM	72	1936.23	1947.48	12	7	52.0	.09	.0042	-25.57	.0000	257006.0	1.43	72.33	.0000	180.28	.0123	-25.15	345.58
RISE	11	2072.09	2083.34	12	10	7.9	290.01	.0042	-25.87	-.0000	274488.4	1.07	.00	.0029	122.28	.0024	-25.02	312.11
SET	51	2124.78	2136.03	12	11	.5	90.00	.0041	-24.45	.0000	277702.7	1.75	10.35	-.0035	247.72	-.0015	-24.96	298.99
SET	61	2157.17	2168.42	12	11	32.9	65.78	.0042	-25.87	.0000	281502.0	1.65	-.00	-.0026	235.14	.0027	-24.93	290.97
SET	72	2309.05	2320.30	12	14	4.8	93.65	.0041	-24.62	.0001	293714.1	1.73	-.00	-.0037	245.13	-.0005	-24.80	253.38
RISE	42	2310.96	2322.21	12	14	6.7	255.00	.0041	-24.04	-.0000	293599.4	.99	2.40	.0030	118.00	-.0023	-24.80	252.90
EXTM	11	2351.57	2362.82	12	14	47.3	.32	.0042	-25.84	.0000	293997.8	1.31	28.95	-.0000	180.32	.0043	-24.76	242.84
SET	11	2630.91	2642.16	12	19	26.7	70.54	.0042	-25.27	.0000	318414.9	1.56	-.00	-.0029	238.50	.0024	-24.54	173.58
EXTM	42	2729.87	2741.12	12	21	5.6	359.96	.0042	-24.25	.0000	319520.9	1.22	79.03	.0000	.22	-.0183	-24.47	149.02
RISE	51	2860.39	2871.64	12	23	16.2	270.00	.0041	-23.95	-.0000	334030.7	.81	10.15	.0035	111.40	-.0015	-24.37	116.61
RISE	72	3015.40	3026.65	13	1	51.2	266.43	.0041	-24.12	-.0000	346088.8	.74	-.00	.0037	114.36	-.0005	-24.27	78.09
RISE	61	3081.09	3092.34	13	2	56.9	293.22	.0042	-24.98	-.0000	350789.4	.82	.00	.0027	123.58	.0027	-24.23	61.73
SET	42	3148.64	3159.89	13	4	4.4	105.00	.0041	-23.58	.0000	355044.1	1.44	2.12	-.0030	242.36	-.0023	-24.21	44.87
EXTM	51	3217.44	3228.69	13	5	13.2	.00	.0042	-24.16	.0000	353911.6	1.10	88.42	-.0000	359.38	-.0035	-24.18	27.68
EXTM	61	3345.84	3357.09	13	7	21.6	.15	.0042	-25.04	.0000	365612.1	1.10	24.72	-.0000	180.15	.0042	-24.14	355.60
EXTM	72	3385.68	3396.93	13	8	1.4	.03	.0042	-24.41	.0000	364810.2	1.09	73.50	.0000	180.10	.0114	-24.13	349.65
RISE	11	3514.64	3525.89	13	10	10.4	288.94	.0042	-24.70	-.0000	379323.9	.77	.00	.0029	120.76	.0024	-24.09	313.40
SET	51	3573.66	3584.91	13	11	9.4	90.00	.0042	-23.70	.0000	382183.2	1.49	10.05	-.0035	248.43	-.0015	-24.07	298.63
SET	61	3610.39	3621.64	13	11	46.2	67.05	.0042	-24.74	.0000	385694.9	1.41	-.00	-.0027	236.76	.0027	-24.06	289.43
RISE	42	3754.82	3766.07	13	14	10.6	255.00	.0042	-23.48	-.0000	395450.2	.91	2.06	.0030	117.56	-.0023	-24.05	253.18
SET	72	3755.00	3766.25	13	14	10.8	93.53	.0042	-23.91	.0000	395692.5	1.67	-.00	-.0038	245.85	-.0006	-24.05	253.14
EXTM	11	3794.24	3805.49	13	14	50.0	359.91	.0043	-24.84	-.0000	395627.4	1.43	29.95	.0000	179.91	.0044	-24.05	243.24
IMPACT		3819.56	3830.81	13	15	15.3												
IMPC	42	3819.56	3830.81	13	15	15.3	271.39	.0043	-23.59	-.0000	397681.2	1.68	14.42	.0034	108.93	-.0022	-24.07	236.78
IMPC	11	3819.56	3830.81	13	15	15.3	6.46	.0044	-24.85	-.0000	398126.5	2.09	29.63	-.0004	186.75	.0045	-24.07	236.78

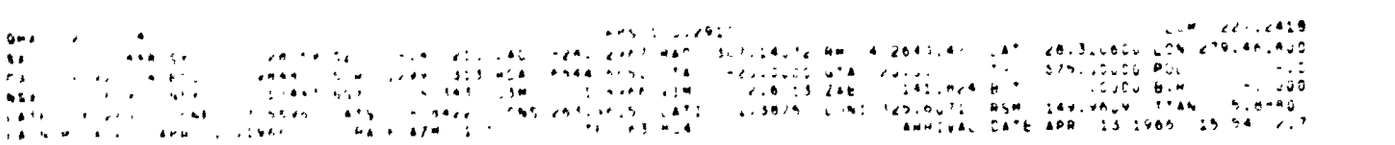
EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	10	23	35.762	6544.745	20.0765	306.0232	10.99530	-.1961	112.8586	138.7106
SEPARATION		1.20	12.45	10	23	36.962	6565.710	17.2702	312.3903	10.97753	3.2334	114.9963	145.3785
RETRO		3.20	14.45	10	23	38.962	6703.763	12.2540	322.3375	10.86305	8.8283	117.6682	155.8271
EXIT	SHA	28.46	39.71	11	0	4.220	13675.417	-22.5847	23.9843	7.57906	46.0004	110.3878	223.8057
IMPACT		3819.56	3830.81	13	15	15.322	401314.953	-24.0657	236.7802	2.20848	67.7864	260.5132	306.9712

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102 DECREES



EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.65	10	23	45.354	6546.011	18.9502	305.9645	10.99414	.8172	114.9732	140.6564
SEPARATION		1.20	12.85	10	23	46.554	6580.923	19.9280	311.7656	10.96464	4.2408	116.9244	147.1584
RETRO		5.20	16.85	10	23	48.554	6741.106	10.6455	321.4020	10.83259	9.7912	119.2626	157.2961
EXIT SMA		27.95	39.60	11	0	19.304	13625.704	-23.9082	21.0456	7.58894	45.9005	110.3073	223.1440
IMPACT		3821.94	3833.19	13	15	27.290	401336.633	-24.0459	233.8864	2.20760	67.7634	261.0363	307.0777

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	10	23	53.324	6550.110	17.8479	305.0447	10.99060	1.6438	117.0759	142.1348
SEPARATION		1.20	12.45	10	23	54.524	6596.307	14.6201	311.0697	10.95163	5.0570	118.8467	148.4604
RETRO		3.20	14.45	10	23	56.524	6774.221	9.0767	320.4061	10.80575	10.5668	120.8738	158.2982
EXIT	SMA	27.45	38.70	11	0	20.779	13557.706	-25.3725	18.3408	7.60807	45.7628	110.2760	222.3133
IMPACT		3824.80	3836.05	13	15	38.120	401359.727	-24.0279	231.2684	2.20504	67.5316	261.5688	107.1746



EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	11	0	.010	6555.569	16.7695	304.4733	10.96584	2.3230	119.1718	143.2392
SEPARATION		1.20	12.45	11	0	1.210	6610.967	13.3428	310.3189	10.93924	5.7255	120.7707	149.3856
RETRO		5.20	16.45	11	0	5.210	6803.262	7.5415	319.3654	10.78232	11.1991	122.5073	158.9334
EXIT	SHA	26.96	38.21	11	0	26.974	13474.684	-26.9467	15.8119	7.63163	45.5929	110.3061	221.3375
IMPACT		3828.24	3839.49	13	15	48.248	4013/8.414	-24.0113	228.8197	2.20388	67.4818	262.2010	307.2647

SURVEY & VIEW PERIODS

BMA	2[illegible]				EPS	[illegible]								IM	224.1901
SX	.[illegible]	SY	-.27114	SZ	-.4[illegible]	VBO	-24.[illegible]	HAO	[illegible]	HM	4.[illegible]	LAT	28.[illegible]	LON	[illegible]
CJ	-.[illegible]	ECC	.[illegible]	SLR	12[illegible]	RCA	6544.[illegible]	VTA	-2[illegible]	VA	[illegible]	TM	[illegible]	PCL	- 0
NSX	.[illegible]	NSY	-.[illegible]	NSZ	-.[illegible]	VJM	1.[illegible]	HIM	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	B R	- .0000
LATE	0.[illegible]	LONE	[illegible]	LATS	-.8419	LONS	263.[illegible]	LATI	[illegible]	LONI	12[illegible]	RSM	[illegible]	TTAN	[illegible]
LAUNCH DATE APR 11.1966				BASE AZM 115.0			TF 63.[illegible]						ANNIVAL DATE APR 11 1966		

LNCH AZMTH	LNCH TIME		PR	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	IN TIME		INJ RAD	INJ VEL	INJ PT
115.00	23 57 12.2		28.1	15.38	303.63	0.15	144.25	121.98	24	3 27 2	6563.4	10.98	1 09

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA PROBE IN EARTHS SHADOW	DHA	DEC	DDE	RNG	DRG	FLE	DEL	AZI	DAZ	LAT	LONG
INJECTION		.00	11.25	12	0	3.5												
SEPARATION		1.20	12.45	12	0	4.7												
RETRO		3.20	14.45	12	0	6.7												
RISE	72	4.45	15.71	12	0	7.9	86.77	-.1284	22.11	-.0622	2958.6	-1.54	-.01	.1289	292.53	-.0436	1.87	322.88
EXTM	72	10.66	21.91	12	0	14.1	10.52	-.2081	-28.10	-.0984	2178.3	4.76	67.49	-.0000	204.88	-.5441	-11.04	343.22
RISE	51	11.18	22.43	12	0	14.6	86.62	-.0709	6.96	-.0522	5733.2	-2.63	.00	.0841	277.73	-.0181	-14.00	344.62
EXIT	SHA	26.67	37.92	12	0	30.1												
EXIT	72	26.67	37.92	12	0	30.1	307.22	-.0178	-40.15	.0008	8871.0	6.78	33.13	-.0126	133.38	-.0063	-29.34	13.07
EXIT	51	26.67	37.92	12	0	30.1	27.82	-.0445	-31.10	-.0172	7411.1	4.61	65.02	.0363	251.14	-.0490	-29.34	13.07
EXTM	51	42.02	53.27	12	0	45.5	1.90	-.0166	-37.59	-.0019	12101.7	5.22	78.04	-.0000	187.29	-.0639	-33.51	26.90
EXTM	72	71.12	82.37	12	1	14.6	293.93	-.0001	-37.98	.0006	23763.2	4.75	23.66	.0000	128.13	-.0007	-35.09	36.97
EXTM	51	87.60	98.85	12	1	31.1	346.36	-.0006	-37.23	.0006	25250.3	4.39	73.68	.0000	138.07	-.0028	-35.06	38.31
RISE	61	106.12	117.37	12	2	39.6	316.31	.0027	-40.52	.0007	47397.3	3.52	.00	.0017	148.52	.0013	-33.91	34.58
EXTM	51	209.71	220.96	12	3	33.2	1.17	.0032	-33.87	.0004	52729.6	3.33	81.81	.0000	186.84	.0186	-32.99	26.65
EXTM	61	394.24	405.49	12	6	37.7	6.33	.0039	-34.64	.0003	89958.7	2.68	14.90	.0000	185.39	.0033	-30.81	349.81
EXTM	72	418.93	430.18	12	7	2.4	1.39	.0040	-32.16	.0002	89869.6	2.62	65.71	.0000	182.86	.0082	-30.59	344.35
RISE	11	591.93	603.18	12	9	55.4	295.57	.0040	-31.45	.0001	120953.2	2.02	.00	.0026	129.69	.0023	-29.35	305.03
SET	51	610.35	621.60	12	10	13.8	90.00	.0038	-28.19	.0002	122186.4	2.62	11.84	-.0032	244.23	-.0012	-29.29	100.74
SET	61	617.12	628.37	12	10	20.6	98.78	.0039	-31.49	.0002	124411.1	2.50	-.00	-.0020	220.83	.0027	-29.25	299.16
SET	72	807.25	818.50	12	13	30.7	94.24	.0039	-27.99	.0001	148968.1	2.43	-.01	-.0034	241.72	-.0004	-28.34	254.19
RISE	42	817.19	828.44	12	13	40.6	254.99	.0040	-26.84	-.0000	149731.0	1.73	4.11	.0028	120.22	-.0022	-28.30	251.81
EXTM	11	860.09	871.34	12	14	23.5	1.68	.0042	-30.27	.0001	152760.6	2.00	24.50	.0000	181.60	.0039	-28.13	241.53
SET	11	1125.29	1136.54	12	18	48.7	67.40	.0041	-28.57	.0001	185467.7	2.09	-.00	-.0026	234.18	.0024	-27.27	177.42
EXTM	42	1241.48	1252.73	12	20	44.9	359.88	.0042	-26.68	.0000	191550.1	1.72	81.46	.0000	.73	-.0249	-26.96	149.10
RISE	51	1376.99	1388.24	12	23	.4	270.00	.0041	-25.97	-.0000	21 .40.5	1.28	10.96	.0034	113.70	-.0015	-26.64	115.95
RISE	72	1532.45	1543.70	13	1	35.9	266.10	.0041	-26.08	-.0000	226509.1	1.17	-.01	.0036	116.35	-.0005	-26.31	77.80
RISE	61	1610.28	1621.53	13	2	53.7	295.90	.0042	-27.30	.0000	233802.6	1.26	.00	.0025	126.93	.027	-26.16	58.65
SET	42	1664.44	1675.69	13	3	47.9	105.00	.0041	-25.14	.0001	238447.8	1.85	3.07	-.0029	241.13	-.0022	-26.07	45.32
EXTM	51	1728.21	1739.46	13	4	51.7	358.03	.0042	-25.96	.0000	238281.6	1.49	88.21	.0038	97.47	.0131	-25.95	29.61
EXTM	61	1867.94	1879.19	13	7	11.4	.63	.0042	-27.03	.0000	254473.8	1.45	22.73	.0000	180.61	.0041	-25.72	355.13
EXTM	72	1905.80	1918.05	13	7	50.3	.14	.0042	-26.10	.0000	254295.2	1.43	71.80	.0000	180.39	.0121	-25.66	345.94
RISE	11	2044.21	2055.46	13	10	7.7	290.44	.0042	-26.33	-.0000	271932.4	1.07	.00	.0029	122.88	.0024	-25.46	311.57
SET	51	2095.03	2106.28	13	10	58.5	90.00	.0041	-24.88	.0001	274988.3	1.75	10.52	-.0034	247.33	-.0015	-25.39	299.00
SET	61	2125.44	2136.69	13	11	28.9	65.28	.0042	-26.30	.0001	278652.0	1.65	.00	-.0025	234.52	.0027	-25.35	291.48
SET	72	2279.48	2290.73	13	14	2.9	93.71	.0041	-24.96	.0001	291079.8	1.73	-.00	-.0037	244.78	-.0005	-25.15	253.33
RISE	42	2281.26	2292.51	13	14	4.7	255.00	.0041	-24.38	-.0000	290931.6	.99	2.61	.0030	118.28	-.0023	-25.15	252.89
EXTM	11	2322.23	2333.48	13	14	45.7	.42	.0042	-26.18	.0000	291424.2	1.31	28.61	-.0000	180.43	.0043	-25.10	242.74
SET	11	2600.09	2611.34	13	19	23.5	70.31	.0042	-25.52	.0000	315746.7	1.56	-.00	-.0029	238.18	.0024	-24.78	173.82
EXTM	42	2699.89	2711.14	13	21	3.3	359.94	.0042	-24.46	.0000	316925.6	1.22	79.24	.0000	.30	-.0194	-24.67	149.04
RISE	51	2830.47	2841.72	13	23	13.9	270.00	.0041	-24.11	-.0000	331451.9	.81	10.22	.0035	111.96	-.0015	-24.54	116.60
RISE	72	2985.35	2996.60	14	1	48.8	266.41	.0041	-24.24	-.0000	343521.9	.75	-.00	.0037	114.49	-.0006	-24.39	78.11
RISE	61	3050.49	3061.74	14	2	53.9	293.42	.0039	-25.16	.0000	348509.3	.66	.00	.0025	123.84	.0025	-24.41	61.53
SET	42	3122.09	3133.34	14	4	5.5	105.00	.0039	-23.49	.0001	352375.8	1.29	2.06	-.0028	242.43	-.0021	-24.12	44.87
EXTM	51	3188.92	3200.17	14	5	12.4	358.35	.0040	-23.82	.0001	350229.8	.99	87.56	.0022	30.26	-.0685	-23.85	29.30
EXTM	61	3338.92	3350.17	14	7	42.4	1.52	.0040	-24.14	.0001	363048.9	1.06	25.61	-.0000	181.54	.0040	-23.24	354.25
EXTM	72	3376.79	3388.04	14	8	20.2	.30	.0040	-23.34	.0001	362121.7	1.08	74.56	.0000	181.04	.0137	-23.08	345.38
RISE	11	3507.11	3518.36	14	10	30.6	287.55	.0039	-23.14	.0001	376872.0	.83	.00	.0029	118.75	.0022	-22.53	314.78
SET	51	3575.80	3587.05	14	11	39.3	90.00	.0039	-21.86	.0001	380618.2	1.55	9.30	-.0034	250.13	-.0014	-22.24	298.62
SET	61	3624.20	3635.45	14	12	27.7	69.27	.0039	-22.70	.0001	385122.5	1.50	-.00	-.0025	239.63	.0026	-22.04	287.21
SET	72	3766.95	3778.20	14	14	50.4	93.10	.0039	-21.28	.0001	396247.7	1.84	-.00	-.0036	248.50	-.0004	-21.42	253.55
RISE	42	3768.42	3779.67	14	14	51.9	255.00	.0039	-20.85	.0001	396325.2	1.13	.44	.0029	115.48	-.0023	-21.41	253.20
EXTM	11	3817.24	3828.49	14	15	40.7	1.47	.0040	-21.95	.0001	397545.9	1.81	32.83	-.0000	181.62	.0044	-21.18	241.71
IMPACT		3833.68	3844.93	14	15	57.1												
IMPC	42	3833.68	3844.93	14	15	57.1	270.33	.0039	-20.61	.000_	401671.1	2.12	11.97	.0030	106.91	-.0021	-21.10	237.86
IMPC	11	3833.68	3844.93	14	15	57.1	5.37	.0039	-21.86	.0001	399562.0	2.47	32.71	-.0002	185.92	.0043	-21.10	237.86

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	12	0	3.453	6563.565	15.3692	303.6413	10.97894	3.0523	121.9621	144.2560
SEPARATION		1.20	12.45	12	0	4.653	6628.734	11.6866	309.2447	10.92421	6.4414	123.3454	150.1602
RETRO		3.20	14.45	12	0	6.653	6836.283	5.5448	317.9167	10.75579	11.8730	124.7244	159.3335
EXIT	SHA	26.67	37.92	12	0	30.124	13462.146	-29.3447	13.0663	7.63489	45.5658	110.2031	220.3673
IMPACT		3833.68	3844.93	14	15	57.138	403040.914	-21.0975	237.8588	3.23757	49.0560	71.1708	319.5179

APR 11, 1966
115 DEGREES

GHA [illegible] EPS 111.5213 LOM 233.9432
SX [illegible] SZ [illegible] VAO -21.[illegible] RAD 314.76146 RM 40458[illegible] LAT 28.310600 LON 279.461800
CS [illegible] EPS [illegible] S.R [illegible] RCA [illegible] ITA -20.0000 GTA 20.00 TB 675.00000 POL -.0
NSX [illegible] NSY [illegible] NSZ [illegible] VSM 1.4925 VIM 2.6705 ZAE 142.223 M.T 0000 B.R -.0000
LATE 0.0000 LONE 2.5107 LATS -.0781 LONS 251.0898 LATI 5.8874 LONI 324.4716 RSM 149.9292 TTAN 5.0477
LAUNCH DATE APR 11 1966 BASE AZM 99.0 TF 84.262 ARRIVAL DATE APR 14 1966 16 13 43.5

LNCH A/MTH	LNCH TIME	PH	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ A/MTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99 00	23 27 54.1	27.5	21.47	305.87	-12.83	138.89	110.55	23 33 9.1	6626.8	10.95	-6.37

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROJE	IN	EARTH'S	SHADOW												
INJECTION	.00	11.25	11	23	33.2												
SEPARATION	1.20	12.45	11	23	34.4												
RETRO	3.20	14.45	11	23	36.4												
RISE 72	5.71	16.96	11	23	38.9	78.82	-.2547	54.40	.0835	21773.3	-8.16	-.00	.1243	325.18	.1161	7.62	334.94
EXTM 72	9.82	20.87	11	23	42.8	525.39	-.2486	27.07	-.3071	13866.5	3.80	41.50	.0355	42.59	.3031	-1.91	351.15
RISE 51	11.43	22.49	11	23	44.5	76.12	-.1115	26.45	-.0386	4462.8	-4.82	-.00	.1060	299.64	.0147	-5.76	357.62
EXTM 51	25.62	36.67	11	23	58.4	555.54	-.0490	-17.88	-.0237	5697.6	5 46	81.12	-.0000	28.66	.3389	-22.05	29.85
EXIT SHA	25.91	37.16	11	23	59.1												
EXIT 72	25.91	37.16	11	23	59.1	282.01	-.0115	-24 70	-.0062	8875.4	7.26	14.17	-.0102	113.59	.0068	-22.21	30.28
EXIT 51	25.91	37.16	11	23	59.1	554.70	-.0475	-18.29	-.0227	5792.5	5.50	81.08	-.0050	34.41	.5239	-22.21	30.28
EXTM 72	68.82	80.07	12	0	42.0	272.69	-.0000	-28.75	- 0003	23898.3	4.89	6.13	.0000	118.26	.0003	-29.17	56.44
RISE 42	70.84	82.09	12	0	44.0	105.00	-.0049	-20.99	-.0021	25104.3	4.31	.53	.0049	244.40	.0011	-29.21	56.80
EXTM 51	84.19	95.44	12	0	57.3	521.33	.0000	-29.10	-.0000	24147.2	4.51	55.66	.0000	104.56	.0001	-29.33	58.37
EXTM 42	122.66	133.91	12	1	35.8	99.54	.0002	-23.87	-.0001	38166.1	4.05	6.29	-.0000	245.13	-.0004	-29.05	58.02
SET 42	189.08	200.33	12	2	42.2	105.00	.0021	-24.19	.0000	53507.0	3.66	2.49	-.0016	241.87	-.0012	-28.21	50.03
RISE 61	203.45	214.70	12	2	56.6	503.42	.0032	-33.06	.0004	56755.7	3.18	.00	.0020	135.61	.0018	-28.04	47.71
EXTM 51	309.83	321.08	12	4	45.0	.07	.0037	-27.07	.0002	70727.3	2.92	68.67	.0000	182.82	.1392	-26.96	27.62
EXTM 61	472.94	484.19	12	7	26.1	3.76	.0040	-29.11	.0002	101074.9	2.51	20.57	.0000	183.51	.0037	-25.81	352.19
EXTM 72	504.31	515.56	12	7	57.5	.65	.0041	-26.72	.0001	102090.8	2.45	71.17	-.0000	181.79	.0112	-25.63	345.07
RISE 11	655.91	667.16	12	10	29.1	290.86	.0040	-26.77	.0000	129156.6	1.91	.01	.0028	123.45	.0023	-24.92	309.91
SET 51	696.38	707.63	12	11	9.5	90.00	.0039	-23.71	.0001	133380.5	2.53	10.06	-.0033	248.42	-.0014	-24.76	300.38
SET 61	728.49	739.74	12	11	41.6	84.98	.0040	-26.56	.0001	138535.6	2.40	-.00	-.0024	234.15	.0027	-24.65	292.78
SET 72	888.08	899.33	12	14	21.2	93.52	.0040	-23.80	.0001	158271.8	2.38	-.01	-.0036	245.96	-.0004	-24.13	254.65
RISE 42	899.08	910.33	12	14	32.2	254.99	.0040	-22.70	-.0000	159396.7	1.64	1.57	.0029	116.95	-.0023	-24.09	252.01
EXTM 11	940.52	951.77	12	15	13.7	1.16	.0042	-25.92	.0001	161367.2	1.93	28.86	-.0000	181.19	.0043	-23.98	242.03
SET 11	1222.91	1234.16	12	19	56.1	71.24	.0041	-24.51	.0001	195379.1	2.05	-.00	-.0028	239.49	.0024	-23.31	173.49
EXTM 42	1322.76	1334.01	12	21	35.9	359.89	.0042	-22.74	.0000	199480.8	1.68	77.52	.0000	.49	-.0176	-23.12	149.09
RISE 51	1457.57	1468.82	12	23	58.7	270.00	.0041	-22.22	-.0000	217874.3	1.23	9.45	.0035	110.20	-.0016	-22.88	116.06
RISE 72	1615.34	1626.59	13	2	28.5	296.71	.0041	-22.41	-.0000	233850.0	1.13	-.01	.0038	112.64	-.0005	-22.66	77.29
RISE 61	1674.01	1685.26	13	3	27.2	291.74	.0041	-23.63	-.0000	239239.4	1.22	.00	.0027	121.68	.0027	-22.55	62.84
SET 42	1745.43	1756.68	13	4	38.5	105.00	.0041	-21.54	.0000	245595.8	1.83	.86	-.0030	243.97	-.0023	-22.45	45.25
EXTM 51	1816.54	1827.79	13	5	49.7	359.97	.0042	-22.27	.0000	245717.4	1.47	86.53	.0000	.49	-.0540	-22.36	27.71
EXTM 61	1947.89	1959.14	13	8	1.0	.48	.0042	-23.43	.0000	260564.4	1.42	26.33	-.0000	180.49	.0043	-22.19	355.28
EXTM 72	1987.10	1998.35	13	8	40.3	.08	.0042	-22.49	.0000	260601.1	1.41	75.41	.0000	180.30	.0152	-22.15	345.59
RISE 11	2111.78	2123.03	13	10	44.9	287.28	.0042	-22.83	-.0000	277091.9	1.04	.00	.0030	118.35	.0024	-22.00	314.76
SET 51	2175.70	2186.95	13	11	48.9	90.00	.0041	-21.42	.0000	281300.6	1.74	9.12	-.0035	250.54	-.0015	-21.93	298.94
SET 61	2221.71	2232.96	13	12	34.9	69.18	.0041	-22.78	.0000	286021.5	1.64	-.00	-.0027	239.52	.0027	-21.89	287.55
SET 72	2357.80	2369.05	13	14	51.0	93.15	.0041	-21.57	.0000	296797.0	1.72	-.00	-.0038	248.21	-.0005	-21.75	253.84
RISE 42	2361.43	2372.68	13	14	54.6	255.00	.0041	-21.00	-.0000	297021.3	.96	.53	.0030	115.60	-.0024	-21.75	252.94
EXTM 11	2402.17	2413.42	13	15	35.3	.32	.0042	-22.74	.0000	296884.0	1.29	82.05	-.0000	180.35	.0046	-21.71	242.84
SET 11	2692.50	2703.75	13	20	25.7	73.30	.0042	-22.16	.0000	322108.2	1.55	-.00	-.0030	242.91	.0024	-21.45	170.80
EXTM 42	2780.18	2791.43	13	21	53.3	359.95	.0042	-21.11	.0000	322361.8	1.20	75.89	-.0000	.21	-.0148	-21.38	149.03
RISE 51	2910.54	2921.79	14	0	3.7	270.00	.0041	-20.84	-.0000	336797.5	.79	8.89	.0035	108.93	-.0016	-21.28	116.64
RISE 72	3067.51	3078.76	14	2	40.7	266.94	.0041	-21.01	-.0000	348705.3	.72	-.01	.0038	111.22	-.0006	-21.16	77.62
RISE 61	3117.74	3128.99	14	3	30.9	289.83	.0042	-21.85	-.0000	352326.6	.79	.00	.0028	119.18	.0027	-21.13	65.12
SET 42	3198.92	3210.17	14	4	52.1	105.00	.0041	-20.47	.0000	357617.2	1.43	.21	- 0031	244.81	-.0024	-21.10	44.84
EXTM 51	3267.59	3278.84	14	6	.7	360.00	.0042	-20.99	.0000	358809.6	1.08	85.25	-.0000	.20	-.0126	-21.07	27.69
EXTM 61	3395.94	3407.19	14	8	9.1	.14	.0042	-21.90	.0000	367442.8	1.08	27.86	-.0000	180.14	.0044	-21.03	355.62
EXTM 72	3435.79	3447.04	14	8	48.9	.02	.0042	-21.24	.0000	366821.5	1.08	76.66	.0000	180.10	.0128	-21.01	345.65
RISE 11	3553.83	3565.08	14	10	47.0	286.21	.0042	-21.58	-.0000	380583.3	.74	.01	.0030	110.76	.0024	-20.98	316.13
SET 51	3623.90	3635.15	14	11	57.0	90.00	.0042	-20.56	.0000	384152.8	1.48	8.76	-.0036	251.31	-.0016	-20.97	298.60
SET 61	3673.97	3685.22	14	12	47.1	70.41	.0042	-21.61	.0000	388402.9	1.41	-.00	-.0028	241.15	.0027	-20.96	283.06
SET 72	3803.27	3814.52	14	14	56.4	93.03	.0042	-20.82	.0000	397236.9	1.65	-.01	-.0039	248.97	-.0006	-20.95	253.61
RISE 42	3804.90	3816.15	14	14	58.1	255.00	.0042	-20.39	-.0000	397337.9	.88	.16	.0031	115.12	-.0024	-20.95	253.20
EXTM 11	3844.29	3855.54	14	15	37.4	359.88	.0043	-21.73	-.0000	396917.9	1.38	83.07	.0000	179.86	.0047	-20.96	243.27
IMPACT	3874.93	3886.18	14	16	8.1												
IMPC 42	3874.93	3886.18	14	16	8.1	272.71	.0043	-20.52	-.0001	401753.5	1.66	13.79	.0034	105.57	-.0022	-20.99	235.48
IMPC 11	3874.93	3886.18	14	16	8.1	7.78	.0044	-21.75	-.0000	399853.7	2.08	82.57	-.0006	188.58	.0048	-20.99	235.48

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	11	23	33.151	6629.577	21.4510	305.7683	10.92560	-6.3677	110.4883	138.7867
SEPARATION	1.20	12.45	11	23	34.351	6562.520	18.8857	312.3339	10.97931	-2.9787	112.8626	145.6531
RETRO	3.20	14.45	11	23	36.351	6559.789	14.1037	322.7788	10.98161	2.7420	115.9820	156.5993
EXIT SHA	25.91	37.16	11	23	59.064	12131.233	-22.2134	30.2758	8.04871	42.5293	109.6563	229.7905
IMPACT	3874.93	3886.18	14	16	8.085	40 319.629	-20.9903	235.4760	2.19503	67.6614	254.6075	319.8796

SURVEYOR (TPM PERIOD)

OMA	201.7203				EPS	111.4105							LOM	231.0719	
SX	.713740	SY	-.6018500	SZ	-.358262	DAD	-20.99347	RAD	319.86127	RM	4045995.973	LAT	28.510600	LON	279.46:800
CS	-.926980	ECC	.984734	SLR	12989.420	HCA	6544.6650	LTA	-20.0000	GTA	20.00	TH	679.00000	FOL	-.0
NSX	.762317	NSY	-.[illegible]	NSZ	-.352892	U3M	1.4968	VIM	2.0713	ZAE	142.260	H.T	.0000	B.R	-.0000
LATE	8.6676	LONE	2.4147	LATS	-.8279	LONS	251.0978	LATI	5.7072	LONI	324 6256	RSM	149.9290	TTAN	9.0397
LAUNCH DATE		APR	11.1966	BASE AZM	102.0	TF	64.528					ARRIVAL DATE	APR	14 1966	16 25 34.8

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	23 35 47.3	27.9	20.25	305.5v	-9.73	142.09	112.71	23 47 2.3	6591.8	10.95	-4.83

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	11	23	47.0												
SEPARATION	1.20	12.45	11	23	48.2												
RETRO	3.20	14.45	11	23	50.2												
RISE 72	5.40	16.65	11	23	52.4	81.54	-.2065	46.66	.0468	2257.1	-8.57	.00	.1295	317.24	.0742	6.49	332.50
EXTM 72	9.24	20.49	11	23	56.3	343.41	-.3510	23.36	-.3116	1218.0	2.66	54.78	.1135	27.04	.7520	-3.05	348.15
RISE 51	11.29	22.54	11	23	58.3	78.55	-.1024	22.37	-.0430	4625.1	-4.57	-.00	.1039	29[illegible].00	.0066	-7.35	355.23
EXIT SHA	25.31	36.56	12	0	12.3												
EXIT 72	25.31	36.56	12	0	12.3	286.04	-.0129	-27.17	-.0050	8528.8	7.28	17.83	-.0115	116.07	.0052	-23.19	26.59
EXIT 51	25.31	36.56	12	0	12.3	2.26	-.0517	-20.37	-.0229	5753.3	5.24	84.24	.0386	338.35	.3704	-23.19	26.59
EXTM 51	25.99	37.24	12	0	13.0	.23	-.0483	-21.25	-.0206	5968.7	5.36	85.50	.0227	357.22	.5604	-23.57	27.57
EXTM 72	68.95	80.20	12	0	56.0	275.88	-.0000	-30.03	-.0001	23790.6	4.87	9.02	.0000	119.31	.0001	-29.98	53.31
RISE 42	84.39	95.64	12	1	11.4	105.00	-.0027	-22.90	-.0012	28956.2	4.27	1.70	.0027	242.90	.0006	-30.06	55.21
EXTM 42	121.13	133.38	12	1	49.2	102.66	.0002	-24.33	-.0003	38394.7	4.05	4.27	-.0000	243.07	-.0003	-29.66	54.86
SET 42	161.29	172.54	12	2	28.3	104.99	.0016	-24.60	-.0000	47622.2	3.81	2.75	-.0011	241.56	-.0009	-29.08	50.82
RISE 61	192.25	203.50	12	2	59.3	304.68	.0031	-33.92	.0004	54564.1	3.25	-.00	.0020	136.97	.0017	-28.64	46.31
EXTM 51	294.09	305.34	12	4	41.1	.11	.0037	-27.62	.0002	68046.9	2.97	88.12	.0000	183.10	.0983	-27.46	27.98
EXTM 61	459.09	470.34	12	7	26.1	3.92	.0040	-29.53	.0002	99113.8	2.54	20.14	.0000	183.63	.0037	-26.16	352.04
EXTM 72	490.12	501.37	12	7	57.2	.69	.0041	-27.10	.0001	100100.8	2.47	70.80	.0000	181.86	.0110	-25.97	345.03
RISE 11	643.19	654.44	12	10	30.2	291.12	.0040	-27.05	.0000	127547.0	1.93	.00	.0028	123.83	.0023	-25.18	309.62
SET 51	682.29	693.54	12	11	9.3	90.00	.0039	-23.95	.0001	131618.8	2.55	10.15	-.0035	248.20	-.0013	-25.01	300.42
SET 61	713.12	724.37	12	11	40.2	64.65	.0040	-26.83	.0002	136750.3	2.41	.00	-.0023	233.74	.0027	-24.89	293.13
SET 72	874.37	885.62	12	14	21.4	93.55	.0040	-23.99	.0001	156734.4	2.39	-.01	-.0036	245.76	-.0004	-24.32	254.65
RISE 42	885.45	896.70	12	14	32.5	254.99	.0040	-22.88	-.0000	157864.8	1.65	1.68	.0029	117.09	-.0022	-24.29	251.99
EXTM 11	927.12	938.37	12	15	14.2	1.24	.0042	-26.13	.0001	159923.7	1.94	28.66	-.0000	181.27	.0043	-24.16	241.96
SET 11	1208.73	1219.98	12	19	55.8	71.11	.0041	-24.65	.0001	193998.2	2.06	-.00	-.0028	239.30	.0024	-23.45	173.63
EXTM 42	1309.15	1320.40	12	21	36.2	359.88	.0042	-22.86	.0000	198206.6	1.69	77.64	.0000	.53	-.0178	-23.24	149.10
RISE 51	1444.05	1455.30	12	23	51.1	270.00	.0041	-22.32	-.0000	216666.3	1.24	9.49	.0035	110.30	-.0016	-22.99	116.05
RISE 72	1601.78	1613.03	13	2	28.8	266.70	.0041	-22.50	-.0000	232704.7	1.13	-.01	.0038	112.73	-.0005	-22.72	77.29
RISE 61	1660.88	1672.13	13	3	27.9	291.83	.0041	-23.72	.0000	238155.1	1.23	.00	.0027	121.80	.0027	-22.63	62.74
SET 42	1731.87	1743.12	13	4	38.9	105.00	.0041	-21.62	.0000	244492.9	1.83	.91	-.0030	243.91	-.0023	-22.53	45.25
EXTM 51	1803.00	1814.25	13	5	50.0	359.97	.0042	-22.34	.0000	244645.6	1.47	86.60	.0000	.53	-.0561	-22.43	27.71
EXTM 61	1934.45	1945.70	13	8	1.5	.50	.0042	-23.50	.0000	259550.9	1.43	26.26	-.0000	180.51	.0043	-22.25	359.26
EXTM 72	1973.59	1984.84	13	8	40.6	.09	.0042	-22.55	.0000	259588.9	1.41	75.35	.0000	180.32	.0150	-22.20	349.59
RISE 11	2098.46	2109.71	13	10	45.5	287.33	.0042	-22.88	-.0000	276130.3	1.04	.00	.0030	118.42	.0024	-22.05	314.71
SET 51	2162.16	2173.41	13	11	49.2	90.00	.0041	-21.46	.0000	280337.1	1.74	9.14	-.0035	250.50	-.0015	-21.98	298.99
SET 61	2207.97	2219.22	13	12	35.0	69.15	.0041	-22.83	.0000	285057.2	1.64	-.00	-.0027	239.45	.0027	-21.93	287.60
SET 72	2344.28	2355.53	13	14	51.3	93.15	.0041	-21.61	.0000	295887.2	1.73	-.00	-.0038	248.17	-.0005	-21.79	253.83
RISE 42	2347.91	2359.16	13	14	55.0	255.00	.0041	-21.03	-.0000	295111.0	.97	.55	.0030	115.63	-.0024	-21.78	252.93
EXTM 11	2388.70	2399.95	13	15	35.7	.33	.0042	-22.77	.0000	295993.5	1.29	32.09	-.0000	180.36	.0046	-21.74	242.82
SET 11	2678.89	2690.14	13	20	25.9	73.28	.0042	-22.18	.0000	321275.7	1.51	-.00	-.0030	242.48	.0024	-21.47	170.82
EXTM 42	2766.63	2777.88	13	21	53.7	359.95	.0042	-21.12	.0000	321554.6	1.21	75.90	-.0000	.22	-.0152	-21.39	149.03
RISE 51	2897.01	2908.26	14	0	4.1	270.00	.0041	-20.85	-.0000	336021.4	.79	8.89	.0035	108.93	-.0016	-21.28	116.64
RISE 72	3053.98	3065.23	14	2	41.0	266.94	.0041	-21.01	-.0000	347963.9	.72	-.01	.0038	111.22	-.0006	-21.16	77.62
RISE 61	3104.21	3115.46	14	3	31.2	289.84	.0042	-21.85	-.0000	351599.4	.79	.00	.0028	119.18	.0027	-21.13	65.11
SET 42	3185.37	3196.62	14	4	52.4	105.00	.0041	-20.47	.0000	356900.0	1.43	.20	-.0031	244.82	-.0024	-21.09	44.84
EXTM 51	3254.04	3265.29	14	6	1.1	359.99	.0042	-20.98	.0000	355101.6	1.0.	85.24	-.0000	.23	-.0131	-21.07	27.69
EXTM 61	3382.43	3393.68	14	8	9.5	.15	.0042	-21.89	.0000	366751.7	1.08	27.87	-.0000	180.15	.0044	-21.02	355.61
EXTM 72	3422.26	3433.51	14	8	49.3	.02	.0042	-21.23	.0000	366133.0	1.08	76.67	.0000	180.10	.0133	-21.01	349.65
RISE 11	3540.26	3551.51	14	10	47.3	286.20	.0042	-21.57	-.0000	379900.8	.74	.01	.0030	116.74	.0024	-20.97	316.14
SET 51	3610.35	3621.60	14	11	57.4	90.00	.0042	-20.57	.0000	383473.7	1.48	8.77	-.0036	251.33	-.0.16	-20.95	298.60
SET 61	3660.50	3671.75	14	12	47.3	70.43	.0042	-21.59	.0000	387724.5	1.41	-.00	-.0028	241.18	.0027	-20.94	286.04
SET 72	3789.76	3801.01	14	14	56.8	93.03	.0042	-20.79	.0000	396500.4	1.63	-.01	-.0039	249.00	-.0006	-20.93	253.62
RISE 42	3791.41	3802.66	14	14	58.5	255.00	.0042	-20.36	-.0000	396603.1	.96	.14	.0031	115.10	-.0024	-20.93	253.20
EXTM 11	3831.06	3842.31	14	15	38.1	359.93	.0043	-21.70	-.0000	396120.6	1.02	33.09	.0000	179.92	.0047	-20.93	243.22
IMPACT	3871.65	3882.90	14	16	18.7												
IMPC 42	3871.65	3882.90	14	16	18.7	275.29	.0043	-20.50	-.0001	401545.6	1.67	15.81	.0034	104.22	-.0022	-20.97	232.91
IMPC 11	3871.65	3882.90	14	16	18.7	10.39	.0044	-21.72	-.0000	399894.4	2.10	32.23	-.0007	191.42	.0047	-20.97	232.91

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	11	23	47.038	6592.672	20.2634	305.5489	10.95502	-4.8299	112.6937	142.0486
SEPARATION	1.20	12.45	11	23	48.238	6548.697	17.4673	311.9460	10.99114	-1.4167	114.8637	148.7465
RETRO	3.20	14.45	11	23	50.238	6581.865	12.3619	322.1267	10.96320	4.2951	117.6232	159.4285
EXIT SHA	25.31	36.56	12	0	12.349	12113.516	-23.1946	26.5882	8.05490	42.4851	109.6816	229.4333
IMPACT	3871.65	3882.90	14	16	18.689	403328.336	-20.9655	232.9071	2.19618	67.6687	254.9668	319.9689

APR 11 . 1966
102 DEGREES

SURVEYOR VIEW PERIODS

GHA	201.7205					EPS	111.5160							LOM	227.6750
SX	.7155138	SY	-.6805515	SZ	-.1577716	DAO	-20.96000	RAO	319.97928	RM	4046UB.363	LAT	28.310600	LON	279.461800
CS	-.1936418	EC	.9847.7	SLR	12989.311	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.7246893	NSY	-.6967251	NSZ	-.1502341	CSM	1.4971	VIM	2.6714	ZAE	142.223	B.T	.0000	B.R	-.0000
LATE	6.9760	LONE	2.2733	LATS	-.8275	LONS	230.8700	LATI	3.4831	LONI	324.4921	RSM	149.9287	TTAN	5.0279
LAUNCH DATE		APR	11.1966		BASE AZM	105.0		TF	64.548			ARRIVAL	DATE APR	14	1966 16 39 35.9

LNCH AZMTH	LNCH TIME			PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME			INJ RAD	INJ VEL	INJ PTH
105.00	23	47	50.9	27.7	19.10	305.23	-7.09	144.75	114.86	23	59	5.9	6569.6	10.97	-3.52

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	11	23	59.1												
SEPARATION	1.20	12.45	12	0	.3												
RETRO	3.20	14.45	12	0	2.3												
RISE 72	5.17	16.42	12	0	4.3	83.37	-.1778	39.80	.0131	2339.5	-8.73	-.01	.1321	310.26	.0374	5.24	330.37
EXTM 72	8.97	20.22	12	0	8.1	1.08	-.4047	15.66	-.2903	1149.5	1.54	66.41	.3082	357.39	.9386	-4.37	345.51
RISE 51	11.19	22.44	12	0	10.3	80.72	-.0950	38.48	-.0470	4777.1	-4.32	.00	.1016	290.60	-.0005	-9.06	353.05
EXIT SMA	24.76	36.01	12	0	23.9												
EXIT 72	24.76	36.01	12	0	23.9	289.78	-.0146	-29.96	-.0035	8227.6	7.29	21.05	-.0128	119.13	.0031	-24.36	23.21
EXIT 51	24.76	36.01	12	0	23.9	9.33	-.0554	-22.68	-.0233	5748.0	4.99	80.96	.0561	287.80	-.0175	-24.36	23.21
EXTM 51	27.83	39.08	12	0	26.9	.45	-.0418	-26.05	-.0141	6713.5	5.44	89.49	.0210	232.11	-.8469	-25.90	27.46
EXTM 72	69.35	80.60	12	1	8.4	278.63	.0000	-31.43	.0002	23787.4	4.85	21.45	.0000	120.60	-.0002	-30.95	50.65
RISE 61	184.22	195.47	12	3	5.3	306.08	.0031	-34.83	.0005	52976.8	3.30	.00	.0020	138.44	.0017	-29.34	44.83
EXTM 51	280.66	291.91	12	4	39.8	.19	.0036	-28.28	.0002	65715.7	3.02	87.46	.0000	183.72	.0720	-28.05	27.52
EXTM 61	449.10	460.3	12	7	28.2	4.48	.0039	-29.99	.0002	97704.1	2.56	19.65	.0000	184.12	.0036	-26.55	351.51
EXTM 72	478.30	489.	12	7	57.4	.79	.0040	-27.53	.0001	98418.8	2.50	70.36	.0000	182.09	.0107	-26.36	344.93
RISE 11	652.72	663.	12	10	51.8	291.44	.0040	-27.38	.0000	126194.4	1.95	.00	.0027	124.26	.0023	-25.48	309.28
SET 51	670.25	681.50	12	11	9.5	90.00	.0039	-24.23	.0001	130076.2	2.56	10.27	-.0033	247.93	-.0013	-25.31	300.46
SET 61	699.58	710.83	12	11	38.7	64.27	.0040	-27.15	.0002	135051.3	2.42	.00	-.0023	233.28	.0027	-25.18	293.53
SET 72	862.69	873.94	12	14	21.8	93.59	.0040	-24.22	.0001	156386.3	2.40	-.01	-.0036	245.53	-.0004	-24.55	254.64
RISE 42	873.81	885.06	12	14	32.9	294.99	.0040	-23.10	-.0000	156513.6	1.66	1.82	.0029	117.26	-.0022	-24.51	251.97
EXTM 11	915.76	927.01	12	15	14.9	1.32	.0042	-26.36	.0001	1586 .5	1.95	28.42	-.0000	181.35	.0042	-24.38	241.88
SET 11	1196.42	1207.67	12	19	55.9	70.95	.0041	-24.82	.0001	1927 .0	2.06	-.00	-.0028	239.08	.0024	-23.61	173.80
EXTM 42	1297.50	1308.75	12	21	36.6	359.87	.0042	-23.01	.0000	197055.5	1.69	77.78	.0000	.57	-.0181	-23.38	149.11
RISE 51	1432.46	1443.73	12	23	51.6	270.00	.0041	-22.44	-.0000	215564.8	1.25	9.54	.0035	110.41	-.0016	-23.11	116.04
RISE 72	1590.14	1601.39	13	2	29.2	266.66	.0041	-22.60	-.0000	231647.0	1.14	-.01	.0038	112.83	-.0005	-22.83	77.30
RISE 61	1649.75	1661.00	13	3	28.8	291.94	.0041	-23.82	.0000	237159.3	1.23	.00	.0027	121.95	.0027	-22.73	62.63
SET 42	1720.24	1731.49	13	4	39.3	105.00	.0041	-21.70	.0001	243462.9	1.84	.96	-.0030	243.84	-.0023	-22.62	45.26
EXTM 51	1791.39	1802.64	13	5	50.9	359.97	.0042	-22.43	.0000	249639.5	1.47	86.69	.0000	.96	-.0593	-22.51	27.72
EXTM 61	1922.96	1934.21	13	8	2.1	.53	.0042	-23.58	.0000	256591.2	1.43	28.18	-.0000	180.54	.0043	-22.33	355.23
EXTM 72	1962.01	1973.26	13	8	41.1	.09	.0042	-22.62	.0000	258624.2	1.42	75.28	.0000	180.34	.0151	-22.27	345.58
R.SE 11	2087.09	2098.34	13	10	46.2	287.38	.0042	-22.95	-.0000	275204.7	1.05	.00	.0030	118.50	.0024	-22.11	314.65
SET 51	2150.53	2161.78	13	11	49.6	90.00	.0041	-21.52	.0000	279399.2	1.74	9.16	-.0035	250.45	-.0015	-22.04	298.95
SET 61	2196.11	2207.36	13	12	35.2	69.07	.0041	-22.89	.0000	284110.6	1.65	-.00	-.0027	239.37	.0027	-21.98	287.67
SET 72	2332.68	2343.93	13	14	51.8	93.16	.0041	-21.65	.0000	294984.0	1.73	-.00	-.0038	248.13	-.0005	-21.83	253.83
RISE 42	2336.32	2347.57	13	14	55.4	255.00	.0041	-21.07	-.0000	295206.0	.97	.57	.0030	115.66	-.0024	-21.82	252.93
EXTM 11	2377.16	2388.41	13	15	36.3	.35	.0042	-22.82	.0000	295105.9	1.30	51.97	-.0000	180.38	.0046	-21.78	242.81
SET 11	2667.17	2678.42	13	20	26.3	73.26	.0042	-22.20	.0000	320411.9	1.56	-.00	-.0030	242.45	.0024	-21.49	170.85
EXTM 42	2754.99	2766.24	13	21	54.1	359.94	.0042	-21.14	.0000	320707.5	1.21	75.92	-.0000	.24	-.0151	-21.41	149.04
RISE 51	2885.39	2896.64	14	0	4.5	270.00	.0041	-20.86	-.0000	335191.4	.79	8.89	.0035	108.94	-.0016	-21.30	116.64
RISE 72	3042.35	3053.60	14	2	41.5	266.94	.0041	-21.01	-.0000	347151.4	.72	-.01	.0038	111.23	-.0006	-21.17	77.62
RISE 61	3092.64	3103.89	14	3	31.7	289.84	.0042	-21.85	-.0000	350606.6	.83	.00	.0028	119.18	.0027	-21.13	65.11
SET 42	3173.81	3185.06	14	4	52.9	105.00	.0041	-20.46	.0000	356147.4	1.43	.20	-.0031	244.82	-.0024	-21.09	44.85
EXTM 51	3242.47	3253.72	14	6	1.6	359.99	.0042	-20.97	.0000	354346.9	1.09	85.23	-.0000	.20	-.0170	-21.06	27.69
EXTM 61	3370.89	3382.14	14	8	10.0	.15	.0042	-21.88	.0000	365992.0	1.08	27.88	-.0000	180.16	.0044	-21.00	355.60
EXTM 72	3410.68	3421.93	14	8	49.8	.02	.0042	-21.22	.0000	365369.8	1.08	76.69	.0000	180.12	.0125	-20.99	345.65
RISE 11	3528.61	3539.86	14	10	47.7	286.19	.0042	-21.55	-.0000	379121.9	.74	.01	.0030	116.72	.0024	-20.95	316.15
SET 51	3598.75	3610.00	14	11	57.9	90.00	.0042	-20.54	.0000	382686.8	1.48	8.76	-.0036	251.35	-.0016	-20.93	298.60
SET 61	3648.99	3660.24	14	12	48.1	70.45	.0042	-21.57	.0000	386929.6	1.40	-.00	-.0028	241.21	.0027	-20.92	286.02
SET 72	3778.17	3789.42	14	14	57.3	93.02	.0042	-20.76	.0000	395618.0	1.61	-.01	-.0039	249.03	-.0006	-20.90	253.63
RISE 42	3779.85	3791.10	14	14	59.0	255.00	.0042	-20.33	-.0000	395722.8	.83	.12	.0031	115.08	-.0024	-20.90	253.20
EXTM 11	3819.70	3830.95	14	15	38.8	359.97	.0043	-21.67	-.0000	395168.7	1.27	53.12	.0000	179.97	.0042	-20.90	243.18
IMPACT	3872.85	3884.10	14	16	32.0												
IMPC 42	3872.85	3884.10	14	16	32.0	278.50	.0043	-20.49	-.0001	401290.0	1.64	18.36	.0035	102.54	-.0022	-20.93	229.69
IMPC 11	3872.85	3884.10	14	16	32.0	13.64	.0044	-21.68	-.0000	399962.0	2.12	51.65	-.0009	194.92	.0046	-20.93	229.69

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	11	23	59.098	6569.871	19.1062	305.2093	10.97357	-3.5194	114.8570	144.7323
SEPARATION	1.20	12.45	12	0	.298	6544.680	16.0827	311.4482	10.99450	-.0946	116.8369	151.2719
RETRO	3.20	14.45	12	0	2.298	6608.093	10.6732	321.3520	10.94121	5.6009	119.2533	161.6771
EXIT SMA	24.76	36.01	12	0	23.963	12085.902	-24.3617	23.2068	8.06417	42.4144	109.7499	228.9381
IMPACT	3872.85	3884.10	14	16	31.952	403342.422	-20.9342	229.6943	2.19462	67.5272	255.3752	320.0810

GHA	201.7203					EPS	111.6137							LOM	224.9294
SX	.716431	SY	-.599273	SZ	-.357210	DAO	-20.92894	RAO	320.08851	RM	404619.742	LAT	28.310600	LON	279.461800
CJ	-.932809	ECC	.984684	SLR	12989.102	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.729971	NSY	-.585969	NSZ	-.351827	CJM	1.4970	VIM	2.6714	ZAE	142.161	B.T	.0000	B.R	-.0000
LATE	6.6722	LONE	2.4007	LATS	-.8276	LONS	250.8787	LATI	3.2252	LONI	324.5672	RSM	149.9285	TTAN	5.0224
LAUNCH DATE		APR	12,1966		BASE AZM	108.0		TF	64.583			ARRIVAL DATE		APR	19 1966 16 52 35.0

LNCH AZMTH	LNCH TIME	RB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FTH
108.00	23 54 22.0	27.8	17.98	304.78	-4.84	146.92	116.99	24 5 37.0	6556.3	10.98	-2.40

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	19	0	5.6												
SEPARATION	1.20	12.45	19	0	6.9												
RETRO	3.20	14.45	19	0	8.9												
RISE 72	5.00	16.25	19	0	10.6	84.72	-.1584	33.59	-.0168	2421.8	-8.70	-.00	.1329	303.95	.0052	3.89	328.51
EXTM 72	8.60	19.85	19	0	14.2	20.06	-.4070	8.31	-.2651	1173.1	-.08	64.26	.4801	308.60	.1002	-5.45	342.60
RISE 51	11.14	22.39	19	0	16.8	82.71	-.0886	14.73	-.0506	4920.4	-4.06	.00	.0993	286.40	-.0068	-10.86	351.04
EXIT SHA	24.64	35.89	19	0	30.3												
EXIT 72	24.64	35.89	19	0	30.3	292.92	-.0160	-33.08	-.0017	8132.5	7.26	23.47	-.0135	122.71	.0003	-25.89	20.65
EXIT 51	24.64	35.89	19	0	30.3	14.68	-.0569	-25.68	-.0223	5877.3	4.83	76.78	.0526	267.06	-.0840	-25.89	20.65
EXTM 51	29.34	40.59	19	0	35.0	1.47	-.0379	-30.04	-.0101	7345.2	5.45	85.51	.0000	196.49	-.4389	-28.04	26.91
EXTM 72	69.58	80.83	19	1	15.2	280.98	.0000	-32.94	.0004	25760.5	4.84	13.48	.0000	122.09	-.0004	-32.05	48.34
EXTM 51	86.90	98.15	19	1	32.2	331.30	-.0001	-32.80	.0005	24869.4	4.44	64.08	.0000	112.58	-.0011	-31.91	90.31
RISE 61	179.00	190.25	19	3	4.6	307.57	.0030	-35.77	.0006	51952.0	3.33	.00	.0019	139.98	.0016	-30.11	43.30
EXTM 51	269.32	280.57	19	4	34.9	.29	.0036	-29.02	.0003	63717.3	3.06	86.71	.0000	184.47	.0547	-28.72	27.42
EXTM 61	440.27	451.52	19	7	25.9	4.89	.0039	-30.50	.0002	96452.9	2.58	19.12	.0000	184.46	.0036	-27.01	351.13
EXTM 72	468.30	479.55	19	7	53.9	.90	.0040	-28.02	.0002	96986.3	2.51	69.87	.0000	182.31	.0104	-26.80	344.83
RISE 11	624.16	635.41	19	10	29.8	291.79	.0040	-27.75	.0001	125079.3	1.96	.00	.0027	124.74	.0023	-25.83	308.90
SET 51	659.97	671.22	19	11	5.6	90.00	.0039	-24.56	.0001	128741.0	2.57	10.40	-.0033	247.63	-.0013	-25.64	300.49
SET 61	687.60	698.85	19	11	33.2	63.85	.0040	-27.51	.0002	133529.3	2.43	-.00	-.0023	232.76	.0027	-25.51	293.98
SET 72	852.75	864.00	19	14	18.4	93.63	.0040	-24.48	.0001	154225.2	2.40	-.01	-.0036	245.27	-.0004	-24.82	254.62
RISE 42	863.88	875.13	19	14	29.5	254.99	.0040	-23.35	-.0000	155341.5	1.67	1.97	.0029	117.46	-.0022	-24.77	291.95
EXTM 11	906.12	917.37	19	15	11.7	1.42	.0042	-26.63	.0001	157592.1	1.96	28.15	-.0000	181.44	.0042	-24.62	241.79
SET 11	1185.69	1196.94	19	19	51.3	70.77	.0041	-25.02	.0001	191632.5	2.07	-.00	-.0028	238.83	.0024	-23.80	173.98
EXTM 42	1287.50	1298.75	19	21	33.1	359.86	.0042	-23.18	.0000	196049.2	1.70	77.96	.0000	.62	-.0103	-23.55	149.12
RISE 51	1422.56	1433.81	19	23	48.2	270.00	.0041	-22.59	-.0000	214599.0	1.25	9.60	.0035	110.54	-.0016	-23.26	116.03
RISE 72	1580.13	1591.38	14	2	25.7	266.66	.0041	-22.73	-.0000	230715.4	1.14	-.01	.0037	112.96	-.0006	-22.99	77.31
RISE 61	1640.34	1651.59	14	3	26.0	292.07	.0041	-23.94	.0000	236295.4	1.23	.00	.0027	122.12	.0027	-22.85	62.49
SET 42	1710.25	1721.50	14	4	35.9	105.00	.0041	-21.81	.0001	242552.1	1.84	1.03	-.0030	243.76	-.0023	-22.73	45.27
EXTM 51	1781.46	1792.71	14	5	47.1	359.98	.0042	-22.53	.0000	242753.9	1.48	86.79	-.0000	.46	-.0544	-22.61	27.71
EXTM 61	1913.10	1924.35	14	7	58.7	.56	.0042	-23.67	.0000	257744.0	1.43	26.09	-.0000	180.57	.0043	-22.41	355.20
EXTM 72	1952.06	1963.31	14	8	37.7	.10	.0042	-22.71	.0000	257768.3	1.42	75.19	.0000	180.36	.0150	-22.36	345.57
RISE 11	2077.39	2088.64	14	10	43.0	287.45	.0042	-23.02	-.0000	274385.3	1.05	.00	.0030	118.60	.0024	-22.19	314.58
SET 51	2140.56	2151.78	14	11	46.1	90.00	.0041	-21.58	.0001	278560.3	1.75	9.19	-.0035	250.39	-.0015	-22.10	298.95
SET 61	2185.81	2197.06	14	12	31.4	69.00	.0042	-22.95	.0001	283257.2	1.65	-.00	-.0027	239.28	.0027	-22.05	287.74
SET 72	2322.70	2333.95	14	14	48.3	93.17	.0041	-21.70	.0001	294173.1	1.73	-.00	-.0038	248.08	-.0005	-21.88	253.83
RISE 42	2326.33	2337.58	14	14	51.9	255.00	.0041	-21.12	-.0000	294391.5	.97	.61	.0030	115.70	-.0024	-21.88	252.93
EXTM 11	2367.23	2378.48	14	15	32.8	.37	.0042	-22.87	.0000	294309.6	1.30	51.92	-.0000	180.40	.0046	-21.83	242.79
SET 11	2657.02	2668.27	14	20	22.6	73.23	.0042	-22.24	.0000	319623.8	1.56	-.00	-.0030	242.41	.0024	-21.52	170.88
EXTM 42	2744.95	2756.20	14	21	50.6	359.94	.0042	-21.17	.0000	319934.6	1.21	75.95	-.0000	.25	-.0153	-21.44	149.04
RISE 51	2875.37	2886.62	15	0	1.0	270.00	.0041	-20.88	-.0000	334430.6	.79	8.90	.0035	108.96	-.0016	-21.31	116.63
RISE 72	3032.32	3043.57	15	2	37.9	266.94	.0041	-21.02	-.0000	346402.4	.73	-.01	.0038	111.24	-.0006	-21.18	77.62
RISE 61	3082.30	3093.55	15	3	27.9	289.89	.0039	-21.90	.0001	350128.9	.62	.01	.0027	119.25	.0025	-21.17	65.05
SET 42	3168.54	3179.79	15	4	54.2	104.98	.0039	-20.11	.0001	354925.7	1.27	-.00	-.0029	245.12	-.0022	-20.74	44.87
EXTM 51	3240.26	3252.51	15	6	6.9	359.86	.0040	-20.27	.0001	352814.6	.97	84.53	-.0000	1.35	-.0389	-20.37	27.82
EXTM 61	3384.06	3395.31	15	8	29.7	1.53	.0040	-20.52	.0001	364579.5	1.03	29.23	.0000	181.64	.0043	-19.65	354.24
EXTM 72	3421.55	3432.80	15	9	7.2	.27	.0040	-19.67	.0001	363817.8	1.05	78.24	.0000	181.24	.0184	-19.46	345.41
RISE 11	3538.18	3549.43	15	11	3.8	284.46	.0040	-19.47	.0001	377505.1	.77	.01	.0030	114.09	.0022	-18.88	317.88
SET 51	3619.77	3631.02	15	12	25.4	90.00	.0039	-18.08	.0001	382139.3	1.53	7.75	-.0034	253.61	-.0015	-18.47	298.59
SET 61	3684.72	3695.97	15	13	30.3	73.26	.0040	-18.80	.0001	387557.4	1.50	-.00	-.0027	245.04	.0026	-18.15	283.21
SET 72	3807.45	3818.70	15	15	33.1	92.50	.0039	-17.40	.0001	396960.5	1.82	-.00	-.0037	252.42	-.0004	-17.53	254.13
RISE 42	3822.34	3833.59	15	15	48.0	257.61	.0039	-16.91	.0001	398238.6	1.14	.00	.0030	110.85	-.0023	-17.46	250.60
EXTM 11	3860.08	3871.33	15	16	25.7	1.49	.0040	-17.98	.0001	398055.7	1.82	56.79	-.0000	181.77	.0047	-17.25	241.68
IMPACT	3874.98	3886.23	15	16	40.6												
IMPC 42	3874.98	3886.23	15	16	40.6	270.03	.0039	-16.67	.0001	402621.8	2.10	9.54	.0030	103.73	-.0022	-17.16	238.18
IMPC 11	3874.98	3886.23	15	16	40.6	5.04	.0039	-17.89	.0001	399887.6	2.45	56.69	-.0002	185.99	.0047	-17.16	238.18

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FTH	AZ	RT ASC
INJECTION	.00	11.25	19	0	5.617	6556.346	17.9783	304.7761	10.98468	-2.4036	116.9930	146.9189
SEPARATION	1.20	12.45	19	0	6.817	6546.791	14.7363	310.8513	10.99262	1.0283	118.7914	153.2948
RETRO	3.20	14.45	19	0	8.817	6635.615	9.0359	320.4753	10.91822	6.6972	120.8847	163.4202
EXIT SHA	24.64	35.89	19	0	30.253	121/1.498	-25.8950	20.6454	8.03523	42.6312	109.5846	228.9642
IMPACT	3874.98	3886.23	19	16	40.600	403727.137	-17.1639	238.1775	3.18856	49.7496	68.0256	331.7178

APR 12, 1966
108 DEGREES

SURVEYOR VIEW PERIODS

GHA 201.7203 RPS 111.7031 LOM 221.6509
SX .711611 SY -.523156 SZ -.456745 DAD -20.90845 RAD 320.18843 RM 404630.051 LAT 28.310600 LON 279.461800
CS -.435556 ECC .984643 SLR 12988.828 HCA 6544.6650 LTA -20.0000 GTA 20.00 TB 675.00000 POL -.0
NSX .731144 NSY -.484788 NSZ -.491556 C3M 1.4968 VIM 2.6713 ZAE 142.079 B.T .0000 B.R -.0000
LATE 6.6743 LONE 2.2713 LATS -.8275 LONS 230.6591 LATI 2.9407 LONI 324.3895 RSM 149.9283 TTAN 5.0192
LAUNCH DATE APR 12,1966 BASE AZM 111.0 TF 64.627 ARRIVAL DATE APR 14 1966 17 4 27.8

LNCH AZMTH	LNCH TIME	PH	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	0 7 22.5	27.9	15.88	304.27	-2.93	148.69	119.11	0 18 37.5	6548.9	10.99	-1.45

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DUE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PRIME IN EARTH'S SHADOW															
INJECTION	.00	11.25	12	0	18.6												
SEPARATION	1.20	12.45	12	0	19.8												
RETRO	3.20	14.45	12	0	21.8												
RISE 72	4.90	16.15	12	0	23.5	85.80	-.1456	27.85	-.0433	5504.5	-8.51	-.00	.1322	298.12	-.0230	2.44	326.85
EXTM 72	9.35	20.60	12	0	28.0	12.65	-.3415	-14.31	-.2098	1650.0	2.99	76.04	.2057	241.59	-1.3821	-9.05	343.51
RISE 51	11.14	22.39	12	0	29.8	84.54	-.0829	11.09	-.0539	5057.4	-3.79	-.00	.0968	282.32	-.0124	-12.75	349.19
EXIT SHA	23.85	35.08	12	0	42.0												
EXIT 72	23.85	35.08	12	0	42.0	296.54	-.0188	-36.37	.0001	7768.8	7.28	25.97	-.0149	126.75	-.0030	-27.15	17.22
EXIT 51	23.85	35.08	12	0	42.0	22.14	-.0615	-27.79	-.0244	5824.8	4.52	70.16	.0541	259.11	-.0743	-27.15	17.22
EXTM 51	30.94	42.19	12	0	49.6	2.14	-.0346	-33.75	-.0070	8001.1	5.44	81.78	-.0000	192.52	-.2070	-30.20	26.54
EXTM 72	69.73	80.98	12	1	28.4	282.95	.0000	-34.54	.0006	23732.7	4.82	15.12	.0000	123.74	-.0006	-33.26	46.35
EXTM 51	86.83	98.08	12	1	45.5	333.71	-.0002	-34.27	.0007	24873.9	4.43	65.77	.0000	116.87	-.0017	-33.00	48.33
RISE 61	176.23	187.48	12	3	14.9	309.12	.0030	-36.71	.0006	51430.3	3.35	.00	.0019	141.54	.0016	-30.92	41.76
EXTM 51	259.87	271.12	12	4	38.5	.44	.0035	-29.84	.0003	52033.4	3.10	85.89	-.0000	185.28	.0430	-29.45	27.29
EXTM 61	433.14	444.39	12	7	31.4	5.32	.0039	-31.04	.0003	95450.1	2.59	38.55	.0000	184.81	.0036	-27.50	350.73
EXTM 72	459.93	471.18	12	7	58.2	1.02	.0040	-28.54	.0002	99781.3	2.53	69.34	.0000	182.54	.0101	-27.28	344.72
RISE 11	617.23	628.50	12	10	35.9	292.18	.0040	-28.15	.0001	124172.7	1.97	.00	.0027	125.26	.0023	-26.20	308.50
SET 51	651.21	662.46	12	11	9.8	90.00	.0039	-24.92	.0001	127590.0	2.58	10.54	-.0033	247.29	-.0013	-26.01	300.53
SET 61	676.91	688.16	12	11	35.5	63.38	.0040	-27.91	.0002	132157.2	2.44	-.00	-.0023	232.19	.0027	-25.87	294.47
SET 72	844.31	855.56	12	14	22.9	93.68	.0040	-24.77	.0001	153229.2	2.41	-.01	-.0036	244.98	-.0004	-25.11	254.59
RISE 42	855.41	866.66	12	14	34.1	254.99	.0040	-23.63	-.0000	154327.8	1.68	2.14	.0029	117.68	-.0022	-25.06	251.93
EXTM 11	897.98	909.23	12	15	16.8	1.52	.0042	-26.92	.0001	156681.7	1.96	27.86	-.0000	181.53	.0042	-24.90	241.69
SET 11	1176.31	1187.56	12	19	54.9	70.58	.0041	-25.23	.0001	190648.8	2.07	-.00	-.0028	238.55	.0024	-24.01	174.19
EXTM 42	1278.93	1290.18	12	21	37.5	359.85	.0042	-23.37	.0000	195172.4	1.70	78.15	.0000	.67	-.0186	-23.74	149.12
RISE 51	1414.65	1425.90	12	23	52.7	270.00	.0041	-22.75	-.0000	213754.8	1.25	9.66	.0035	110.69	-.0015	-23.42	116.02
RISE 72	1571.51	1582.76	13	2	30.1	266.64	.0041	-22.87	-.0000	229897.6	1.14	-.01	.0037	113.10	-.0006	-23.10	77.33
RISE 61	1632.41	1643.66	13	3	31.0	292.23	.0041	-24.08	.0000	235551.5	1.24	.00	.0027	122.31	.0027	-22.98	62.34
SET 42	1701.66	1712.91	13	4	40.3	105.00	.0041	-21.93	.0001	241749.9	1.84	1.10	-.0030	243.66	-.0023	-22.85	45.27
EXTM 51	1772.88	1784.13	13	5	51.5	359.98	.0042	-22.65	.0000	2419?1.4	1.48	86.91	-.0000	.48	-.0555	-22.73	27.71
EXTM 61	1904.64	1915.89	13	8	3.3	.59	.0042	-23.78	.0000	25?000.3	1.43	25.98	-.0000	180.60	.0043	-22.52	355.17
EXTM 72	1943.50	1954.75	13	8	42.1	.11	.0042	-22.81	.0000	25?012.9	1.42	75.09	.0000	180.39	.0149	-22.46	345.57
RISE 11	2069.11	2080.36	13	10	47.7	287.53	.0042	-23.11	-.0000	273664.6	1.05	.00	.0030	118.71	.0024	-22.27	314.50
SET 51	2131.90	2143.15	13	11	50.5	90.00	.0041	-21.66	.0001	277814.3	1.75	9.22	-.0035	250.32	-.0015	-22.18	298.96
SET 61	2176.84	2188.09	13	12	35.5	68.91	.0042	-23.03	.0001	282492.0	1.65	-.00	-.0027	239.17	.0027	-22.12	287.83
SET 72	2314.10	2325.35	13	14	52.7	93.18	.0041	-21.77	.0001	293450.2	1.73	-.00	-.0038	248.01	-.0005	-21.95	253.82
RISE 42	2317.72	2328.97	13	14	56.3	255.00	.0041	-21.18	-.0000	293663.6	.97	.64	.0030	115.75	-.0024	-21.94	252.92
EXTM 11	2358.68	2369.93	13	15	37.3	.39	.0042	-22.94	.0000	293600.8	1.30	31.85	-.0000	180.43	.0046	-21.89	242.77
SET 11	2648.21	2659.46	13	20	26.8	73.20	.0042	-22.28	.0000	318911.2	1.56	-.00	-.0030	242.36	.0024	-21.56	170.92
EXTM 42	2736.27	2747.52	13	21	54.9	359.93	.0042	-21.20	.0000	319236.2	1.21	75.98	-.0000	.27	-.0154	-21.47	149.05
RISE 51	2866.71	2877.96	14	0	5.3	270.00	.0041	-20.90	-.0000	333740.8	.80	8.91	.0035	108.98	-.0016	-21.34	116.63
RISE 72	3020.63	3031.88	14	2	42.3	266.93	.0041	-21.04	-.0000	345720.2	.73	-.01	.0038	111.25	-.0006	-21.19	77.62
RISE 61	3074.02	3085.27	14	3	32.6	289.86	.0042	-21.88	-.0000	349188.6	.83	.00	.0028	119.22	.0027	-21.15	65.03
SET 42	3155.17	3166.42	14	4	53.8	105.00	.0041	-20.46	.0000	354803.3	1.43	.20	-.0031	244.82	-.0024	-21.09	44.85
EXTM 51	3223.83	3235.08	14	6	2.5	359.99	.0042	-20.97	.0000	352996.6	1.08	85.23	-.0000	.22	-.0195	-21.05	27.69
EXTM 61	3352.32	3363.57	14	8	10.9	.18	.0042	-21.87	.0000	364630.2	1.08	27.89	-.0000	180.19	.0044	-20.99	355.58
EXTM 72	3392.04	3403.29	14	8	50.7	.03	.0042	-21.20	.0000	363997.6	1.07	76.70	.0000	180.13	.0140	-20.97	345.65
RISE 11	3509.88	3521.13	14	10	48.5	286.17	.0042	-21.53	-.0000	377719.1	.73	.01	.0031	116.69	.0024	-20.93	315.17
SET 51	3580.07	3591.32	14	11	58.7	90.00	.0042	-20.51	.0000	381265.6	1.47	8.75	-.0036	251.37	-.0016	-20.90	298.61
SET 61	3630.44	3641.69	14	12	49.1	70.49	.0042	-21.54	.0000	385492.9	1.40	-.00	-.0028	241.25	.0027	-20.88	285.99
SET 72	3759.49	3770.74	14	14	58.1	93.02	.0042	-20.72	.0000	394045.2	1.58	-.01	-.0039	249.07	-.0005	-20.85	253.64
RISE 42	3761.23	3772.48	14	14	59.9	255.00	.0042	-20.28	-.0000	394154.1	.80	.09	.0031	115.04	-.0024	-20.85	253.20
EXTM 11	3801.33	3812.58	14	15	40.0	.03	.0043	-21.62	.0000	393503.2	1.20	33.17	.0000	180.04	.0044	-20.85	243.12
IMPACT	3877.62	3888.87	14	16	56.2												
IMPC 42	3877.62	3888.87	14	16	56.2	284.40	.0043	-20.45	-.0000	400827.7	1.66	23.08	.0035	99.45	-.0022	-20.88	223.81
IMPC 11	3877.62	3888.87	14	16	56.2	10.61	.0044	-21.62	-.0000	400124.2	2.15	30.21	-.0013	201.16	.0044	-20.88	223.81

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	12	0	18.625	6548.919	16.8792	304.2678	10.99078	-1.4531	119.1124	148.6858
SEPARATION	1.20	12.45	12	0	19.825	6552.539	13.4241	310.1785	10.98764	1.9792	120.7382	154.8973
RETRO	3.20	14.45	12	0	21.625	6662.701	7.4464	319.5158	10.89572	7.6192	122.5269	164.7360
EXIT SHA	23.85	35.08	12	0	42.459	12018.157	-27.1518	17.2235	8.08691	42.2391	110.0209	227.6167
IMPACT	3877.62	3888.87	14	16	56.245	403367.725	-20.8772	22?.8099	2.19133	67.2813	256.3787	320.2863

SURVEYOR VIEW PERIODS

GHA	201.7203					EPS	111.8125							LOM	218.1273
SX	.719	SY	-.590743	SZ	-.356179	DAO	-20.86550	RAO	320.31067	RM	404642.566	LAT	28.310600	LON	279.461800
CS	-.693460	ECC	.984975	SLR	.2988.381	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.732983	NSY	-.583532	NSZ	-.350779	C3M	1.4969	VIM	2.6714	ZAE	141.936	B.T	.0000	B.R	-.0000
LATE	6.6767	LONE	2.2946	LATS	-.8274	LONS	250.5362	LATI	2.5307	LONI	324.2859	RSM	149.9279	TTAN	5.0181
LAUNCH DATE		APR	12, 1966		BASE AZM	115.0		TF	64.697			ARRIVAL	DATE APR	14 1966	17 19 .9

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	0 17 42.7	27.9	15.46	303.49	-.80	150.50	121.92	0 28 57.7	6545.0	10.99	-.40

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DFC	DDE	RNG	DRG	ELE	D&L	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	12	0	29.0												
SEPARATION	1.20	12.45	12	0	30.2												
RETRO	3.20	14.45	12	0	32.2												
RISE 72	4.83	16.08	12	0	33.8	87.00	-.1281	20.67	-.0734	2617.4	-8.07	-.01	.1293	290.88	-.0550	.59	324.89
EXTM 72	9.39	20.64	12	0	38.5	24.05	-.3128	-26.17	-.1837	1575.2	2.84	60.74	.1283	228.45	-.6543	-11.64	341.34
RISE 51	11.19	22.44	12	0	40.2	86.92	-.0762	6.35	-.0578	5253.7	-3.42	-.00	.0934	277.06	-.0189	-15.39	346.91
EXIT SHA	23.23	34.48	12	0	52.2												
EXIT 72	23.23	34.48	12	0	52.2	300.71	-.0228	-41.15	.0029	7527.2	7.26	28.12	-.0157	132.77	-.0082	-29.22	13.55
EXIT 51	23.23	34.48	12	0	52.2	50.25	-.0650	-31.22	-.1261	5906.5	4.22	62.94	.0536	251.28	-.0657	-29.22	13.55
EXTM 51	33.49	44.74	12	1	2.5	2.02	-.8303	-38.39	-.7034	9003.9	5.41	77.23	-.0000	187.17	-.1085	-33.16	26.57
EXTM 72	69.69	80.94	12	1	38.7	285.06	-.0000	-36.78	.0009	23662.0	4.81	16.77	.0000	126.12	-.0010	-35.01	44.11
EXTM 51	85.63	96.88	12	1	54.6	336.36	-.0005	-36.42	.0010	24598.0	4.44	67.20	.0000	123.62	-.0026	-34.62	46.08
RISE 61	175.73	186.98	12	3	24.7	311.24	.0030	-37.92	.0007	51397.1	3.35	.00	.0019	143.61	.0015	-32.03	39.73
EXTM 51	249.92	261.17	12	4	38.9	.69	.0035	-31.01	.0004	60243.6	3.14	64.69	-.0000	186.38	.0327	-30.51	27.07
EXTM 61	425.87	437.12	12	7	34.8	5.92	.0039	-31.80	.0003	94444.7	2.61	17.75	.0000	185.28	.0035	-28.21	350.17
EXTM 72	450.96	462.21	12	7	59.9	1.20	.0040	-29.30	.0002	94486.2	2.55	68.58	.0000	182.88	.0096	-27.97	344.55
RISE 11	610.18	621.43	12	10	39.1	292.73	.0040	-28.71	.0001	123238.8	1.98	.00	.0027	126.01	.0023	-26.74	307.92
SET 51	641.52	652.77	12	11	10.5	90.00	.0039	-25.45	.0002	126299.5	2.59	10.75	-.0033	246.80	-.0013	-26.54	300.57
SET 61	664.39	675.64	12	11	33.4	62.68	.0040	-28.47	.0002	130551.8	2.45	-.00	-.0022	231.36	.0027	-26.40	295.18
SET 72	835.00	846.25	12	14	24.0	93.75	.0040	-25.18	.0001	152118.9	2.42	-.00	-.0036	244.56	-.0004	-25.52	254.55
RISE 42	846.02	857.27	12	14	35.0	254.94	.0040	-24.03	.0000	153185.2	1.69	2.39	.0029	118.00	-.0022	-25.48	251.91
EXTM 11	889.08	900.33	12	15	18.0	1.66	.0042	-27.33	.0001	155681.9	1.97	27.44	.0000	181.66	.0042	-25.29	241.55
SET 11	1165.57	1176.82	12	19	54.5	70.29	.0041	-25.55	.0001	189504.7	2.08	-.00	-.0028	238.14	.0024	-24.31	174.49
EXTM 42	1269.44	1230.69	12	21	38.4	359.86	.0042	-23.64	.0000	194181.3	1.71	78.42	-.0000	.64	-.0185	24.01	149.12
RISE 51	1404.53	1415.78	12	23	53.5	270.00	.0041	-22.99	-.0000	212787.7	1.26	9.76	.0035	110.91	-.0015	-23.66	116.01
RISE 72	1561.83	1573.08	13	2	30.8	266.60	.0041	-23.07	-.0000	228955.3	1.15	-.01	.0037	113.51	-.0006	-23.30	77.35
RISE 61	1623.69	1634.94	13	3	32.6	292.44	.0041	-24.28	.0000	234709.1	1.24	.00	.0027	122.59	.0027	-23.17	62.12
SET 42	1692.02	1703.27	13	4	41.0	105.00	.0041	-22.11	.0001	240821.1	1.85	1.21	-.0030	245.52	-.0023	-23.04	45.28
EXTM 51	1765.26	1774.51	13	5	52.2	359.98	.0042	-22.83	.0000	241066.4	1.48	87.09	-.0000	.50	-.0573	-22.90	27.71
EXTM 61	1895.18	1906.43	13	8	4.1	.64	.0042	-23.93	.0000	256142.3	1.44	25.83	-.0000	180.65	.0043	-22.67	355.12
EXTM 72	1933.88	1945.13	13	8	42.8	.12	.0042	-22.96	.0000	256135.6	1.42	74.94	.0000	180.42	.0148	-22.60	345.56
RISE 11	2059.90	2071.15	13	10	48.9	287.64	.0042	-23.24	.0000	272830.6	1.05	.00	.0030	118.88	.0024	-22.40	314.38
SET 51	2122.18	2133.43	13	11	51.1	90.00	.0041	-21.78	.0001	276939.3	1.75	9.27	-.0035	250.21	-.0015	-22.30	298.96
SET 61	2166.62	2177.87	13	12	35.6	68.79	.0042	-23.15	.0001	281585.2	1.65	-.00	-.0027	239.00	.0027	-22.24	287.96
SET 72	2304.45	2315.70	13	14	53.4	93.20	.0041	-21.86	.0001	292602.4	1.74	-.01	-.0038	247.91	-.0005	-22.04	253.80
RISE 42	2306.01	2319.26	13	14	57.0	255.00	.0041	-21.28	-.0000	292804.2	.98	.70	.0030	115.82	-.0024	-22.04	252.92
EXTM 11	2349.07	2360.32	13	15	38.0	.42	.0042	-23.03	.0000	292767.5	1.50	51.76	-.0000	180.46	.0046	-21.98	242.74
SET 11	2638.20	2649.45	13	20	27.2	73.14	.0042	-22.34	.0000	318057.4	1.56	-.00	-.0030	242.27	.0024	-21.62	170.98
EXTM 42	2726.28	2737.53	13	21	55.2	359.88	.0042	-21.25	.0000	318387.3	1.21	76.03	.0000	.46	-.0160	-21.52	149.10
RISE 51	2856.91	2868.16	14	0	5.9	270.00	.0041	-20.94	-.0000	332911.1	.80	8.93	.0035	109.02	-.0016	-21.38	116.63
RISE 72	3013.80	3025.05	14	2	42.8	266.93	.0041	-21.07	-.0000	344895.1	.73	-.01	.0038	111.28	-.0006	-21.22	77.62
RISE 61	3064.31	3075.56	14	3	33.5	289.89	.0042	-21.90	-.0000	348373.2	.83	.00	.0028	119.25	.0027	-21.17	65.05
SET 42	3145.32	3156.57	14	4	54.3	105.00	.0041	-20.48	.0000	353980.0	1.43	.21	-.0031	244.81	-.0024	-21.11	44.85
EXTM 51	3213.98	3225.23	14	6	2.9	359.99	.0042	-20.98	.0000	352171.5	1.08	85.24	-.0000	.22	-.0234	-21.07	27.69
EXTM 61	3342.55	3353.80	14	8	11.5	.20	.0042	-21.88	.0000	363803.7	1.08	27.88	-.0000	180.21	.0044	-21.00	355.56
EXTM 72	3382.20	3393.45	14	8	51.2	.03	.0042	-21.20	.0000	363163.7	1.07	76.70	.0000	180.14	.0148	-20.98	345.64
RISE 11	3500.03	3511.28	14	10	49.0	286.17	.0042	-21.52	-.0000	376871.4	.73	.01	.0031	116.68	.0024	-20.92	316.17
SET 51	3570.21	3581.46	14	11	59.2	90.00	.0042	-20.50	.0000	380407.3	1.47	8.75	-.0036	251.38	-.0016	-20.89	298.61
SET 61	3620.64	3631.89	14	12	49.6	70.50	.0042	-21.53	.0000	384626.2	1.39	-.00	-.0028	241.27	.0027	-20.87	285.98
SET 72	3749.65	3760.90	14	14	58.6	93.01	.0042	-20.69	.0000	393115.6	1.56	-.01	-.0039	249.10	-.0005	-20.83	253.64
RISE 42	3751.42	3762.67	14	15	.4	255.00	.0042	-20.26	-.0000	393226.8	.79	.08	.0031	115.02	-.0024	-20.83	253.20
EXTM 11	3791.65	3802.90	14	15	40.6	.06	.0043	-21.59	.0000	392565.5	1.18	33.20	.0000	180.07	.0047	-20.82	243.09
IMPACT	3881.83	3893.08	14	17	10.8												
IMPC 42	3881.83	3893.08	14	17	10.8	287.94	.0043	-20.44	-.0000	400554.9	1.67	25.92	.0035	97.59	-.0022	-20.84	220.29
IMPC 11	3881.83	3893.08	14	17	10.8	23.18	.0044	-21.58	-.0000	400243.1	2.16	29.11	-.0015	204.76	.0043	-20.84	220.29

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	12	0	28.962	6544.984	15.4573	303.4947	10.99396	-.3977	121.9234	150.5039
SEPARATION	1.20	12.45	12	0	30.162	6563.141	11.7289	309.1789	10.97851	-.0298	123.3320	156.4890
RETRO	3.20	14.45	12	0	32.162	6696.644	5.3945	318.1344	10.86766	8.6306	124.7452	165.9459
EXIT SHA	23.23	34.48	12	0	52.194	11941.588	-29.2228	13.5505	8.11291	42.0387	110.3880	226.3839
IMPACT	3881.83	3893.08	14	17	10.787	403381.094	-20.8432	220.2869	2.18996	67.2265	257.1814	320.4093

APR 12, 1966
115 DEGREES

SURVEYOR VIEW PERIODS

RMA	202.7360													LOM	220.0748
SX	.9998[illegible]	SY	-.0[illegible]	SZ	-.2[illegible]	RAD	[illegible]6.9[illegible]	RAO	32.41359	RM	405275.320	LAT	28.310600	LON	279.461800
CS	-.2[illegible]	RCS	.9[illegible]	SLR	2[illegible]	RCA	0[illegible]	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSY	.0[illegible]	NSY	-.4[illegible]	NSZ	-.2[illegible]	GSM	[illegible]	VIM	2.6714	ZAE	142.094	B.T	.0000	B.R	-.0000
LATE	6.7712	LONE	.7[illegible]	LAIS	-.4131	LONS	245.1[illegible]	LATI	4.1150	LONI	322.9478	RSM	149.9019	TTAN	3.9471
LAUNCH DATE	APR	13[illegible]		BASE AZM	1 1.0		TF	65.233				ARRIVAL DATE	APR 15 1966	17 59	35.2

LNCH AZMTH	LNCH TIME		INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
111.00	[illegible]	[illegible]	17[illegible]	305.[illegible]	-.1.90	152.38	116.99	0 51 9.2	6615.1	10.93	-5.90

EVNT	STA	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PHASE IN EARTH'S SHADOW														
INJECTION		.00	13	0	31.2												
SEPARATION		1.20	13	0	32.4												
RETRO		5.20	13	0	34.4												
RISE	7Z	9.44	13	0	36.6	85.95	-.1412	26.95	-.0513	2140.7	-9.12	.00	.1323	297.23	-.0312	.79	9.23
EXTM	7Z	9.46	13	0	39.6	33.51	-.4989	-5.15	-.3625	931.5	-1.30	56.80	.5351	272.68	-.5533	-7.69	341.56
RISE	51	11.37	13	0	42.5	84.84	-.0896	10.58	-.0601	4497.1	-4.77	.00	.1056	281.74	-.0150	-14.43	352.04
EXIT	SHA	21.80	13	0	52.9												
EXIT	7Z	21.80	13	0	52.9	287.27	-.0264	-36.66	.0022	6979.2	7.76	18.54	-.0162	126.10	-.0035	-27.71	19.49
EXIT	51	21.80	13	0	52.9	19.94	-.0887	-29.80	-.0324	4806.6	4.36	71.91	.0723	253.13	-.1359	-27.71	19.49
EXTM	51	23.09	13	0	56.9	2.27	-.0503	-34.53	-.0117	5802.0	5.46	61.00	-.0000	192.06	-.3263	-29.93	26.65
EXTM	7Z	89.24	13	1	40.4	272.89	.0001	-32.64	.0009	24004.3	4.88	6.67	.0000	122.15	-.0009	-32.77	55.70
RISE	4Z	94.26	13	1	46.4	105.00	-.0044	-24.77	.0009	26076.3	4.35	2.84	.0037	241.42	.0018	-32.53	36.67
EXTM	51	93.57	13	1	54.7	321.91	-.0000	-32.61	.0011	23988.5	4.52	56.22	.0000	110.81	-.0019	-33.14	57.62
EXTM	4Z	110.70	13	2	27.9	100.51	-.0001	-25.35	.0001	36701.3	4.11	6.59	-.0000	243.51	.0001	-30.72	57.69
SET	4Z	181.86	13	3	33.8	105.00	.0021	-24.42	.0003	51979.3	3.72	2.63	-.0017	241.69	-.0009	-28.55	50.22
RISE	61	199.19	13	3	50.9	303.63	.0033	-33.21	.0006	55887.6	3.18	.00	.0022	135.84	.0017	-28.10	47.44
EXTM	61	470.28	13	8	21.4	4.87	.0040	-27.30	.0002	100432.8	2.51	22.31	-.0000	184.68	.0038	-24.03	351.13
EXTM	7Z	497.41	13	8	48.6	.79	.0041	-24.77	.0002	100941.3	2.46	73.12	.0000	182.46	.0128	-23.78	344.93
RISE	11	634.23	13	12	10.4	288.81	.0040	-24.56	.0001	126813.9	1.92	.00	.0029	120.57	.0023	-22.71	311.93
SET	51	688.22	13	13	04.4	90.00	.0039	-21.32	.0001	132295.4	2.54	9.09	-.0034	250.63	-.0014	-22.41	300.35
SET	61	732.13	13	13	48.3	67.84	.0040	-24.03	.0002	138961.5	2.40	-.00	-.0025	237.76	.0027	-22.16	289.92
SET	7Z	877.50	13	15	33.7	93.08	.0040	-21.12	.0001	156830.6	2.39	-.00	-.0037	248.67	-.0004	-21.44	255.07
RISE	4Z	890.63	13	15	21.8	255.13	.0040	-19.98	.0000	158385.4	1.64	.00	.0030	114.73	-.0023	-21.39	251.90
EXTM	11	952.72	13	16	23.9	1.46	.0042	-23.11	.0001	159997.1	1.93	31.67	-.0000	181.58	.0045	-21.21	241.74
SET	11	1224.54	13	20	55.7	73.98	.0041	-21.36	.0001	195245.7	2.05	-.00	-.0029	243.52	.0024	-20.20	170 74
EXTM	4Z	1342.46	13	22	28.6	359.76	.0042	-19.47	.0000	198192.4	1.68	74.24	.0000	.83	-.0145	-19.95	149.71
RISE	51	1447.44	14	0	38.6	270.00	.0041	-18.92	-.0000	216655.0	1.22	8.09	.0035	107.16	-.0016	-19.61	118.[illegible]
RISE	7Z	1607.19	14	3	18.5	267.26	.0041	-19.02	-.0000	232644.7	1.11	.00	.0038	109.21	-.0006	-19.25	76.[illegible]
RISE	61	1649.26	14	4	.4	288.16	.0041	-20.22	.0000	236509.3	1.21	.00	.0028	116.93	.0027	-19.16	66.40
SET	4Z	1728.30	14	5	19.5	103.34	.0041	-18.09	.0001	243656.6	1.84	-.00	-.0031	247.66	-.0023	-19.00	46.90
EXTM	51	1805.89	14	6	37.0	359.94	.0042	-18.67	.0000	244285.4	1.46	82.93	.0000	.50	-.0312	-18.85	27.75
EXTM	61	1937.67	14	8	48.8	.59	.0042	-19.84	.0000	258756.0	1.42	29.93	-.0000	180.64	.0046	-18.62	355.18
EXTM	7Z	1976.40	14	9	27.6	.06	.0042	-18.82	.0000	259004.6	1.40	79.09	.0000	180.40	.0207	-18.55	345.59
RISE	11	2088.58	14	11	19.7	284.22	.0042	-19.19	.0000	271528.1	1.02	.00	.0031	113.72	.0024	-18.37	317.83
SET	51	2164.92	14	12	38.1	90.00	.0041	-17.72	.0000	279906.1	1.74	7.60	-.0036	253.94	-.0016	-18.26	298.92
SET	61	2226.64	14	13	37.4	73.01	.0041	-19.04	.0000	285669.6	1.64	.00	-.0028	244.69	.0027	-18.17	283.72
SET	7Z	2344.41	14	15	35.6	92.56	.0041	-17.83	.0000	294986.9	1.73	-.00	-.0039	251.99	-.0005	-18.00	254.40
RISE	4Z	2359.78	14	15	50.9	257.35	.0041	-17.24	-.0000	296176.2	.94	.00	.0031	111.27	-.0024	-17.98	250.60
EXTM	11	2391.34	14	16	22.3	.39	.0042	-18.93	.0000	294908.0	1.29	35.86	-.0000	180.45	.0049	-17.94	242.77
SET	11	2694.26	14	21	25.4	76.53	.0042	-18.26	.0000	321296.6	1.56	.01	-.0031	247.45	.0024	-17.57	167.57
EXTM	4Z	2708.64	14	22	39.8	359.91	.0042	-17.14	0000	320776.9	1.20	71.92	-.0000	.29	-.0126	-17.48	149.07
RISE	51	2899.00	15	0	50.[illegible]	270.00	.0041	-18.89	-.0000	335124.9	.77	7.25	.0036	105.30	-.0017	-17.34	116.66
RISE	7Z	3058.35	15	3	29.5	267.56	.0041	-17.03	-.0000	346956.3	.70	-.01	.0039	107.20	-.0006	-17.18	77.02
RISE	61	3090.12	15	4	1.5	285.83	.0042	-17.86	.0000	349118.2	.81	.01	.0029	113.69	.0027	-17.15	69.12
SET	4Z	3179.69	15	5	26.8	102.03	.0042	-16.45	.0000	355060.8	1.43	-.00	-.0032	249.71	-.0024	-17.07	47.81
EXTM	51	3256.20	15	6	47.4	.01	.0042	-16.87	.0000	353994.2	1.07	61.13	-.0000	359.89	-.0077	-17.03	27.68
EXTM	61	3384.54	15	8	55.7	.16	.0042	-17.81	.0000	3650/3.1	1.06	31.95	-.0000	180.18	.0047	-16.97	355.59
EXTM	7Z	3424.25	15	9	35.4	.01	.0042	-17.11	.0000	364708.2	1.06	80.80	.0000	180.13	.0140	-16.95	345.66
RISE	11	3526.83	15	11	20 0	282.85	.0042	-17.49	-.0000	377580.3	.71	.00	.0032	111.59	.0024	-16.91	319.50
SET	51	3612.38	15	12	43.5	90.00	.0042	-16.48	.0000	382098.8	1.47	7.08	-.0036	255.08	-.0017	-16.88	298.58
SET	61	3678.80	15	13	49.9	74.53	.0042	-17.50	.0000	387128.0	1.40	-.00	-.0029	246.80	.0027	-16.86	281.95
SET	7Z	3789.30	15	15	40.5	92.39	.0042	-16.71	.0000	394361.5	1.57	-.00	-.0040	253.13	-.0006	-16.84	254.24
RISE	4Z	3805.74	15	15	56.9	258.10	.0042	-16.28	-.0000	395475.0	.78	.00	.0032	110.07	-.0024	-16.84	250.11
EXTM	11	3833.43	15	16	24.5	.00	.0043	-17.57	.0000	393559.8	1.18	37.22	.0000	180.01	.0012	-16.84	243.15
IMPACT		3913.96	15	17	45.1												
IMPC	4Z	3913.96	15	17	45.1	285.46	.0043	-16.44	-.0001	401607.9	1.64	21.85	.0035	95.18	-.0023	-16.88	222.78
IMPC	11	3913.96	15	17	45.1	20.65	.0044	-17.59	-.0000	400453.2	2.14	33.68	-.0015	203.83	.0047	-16.88	222.78

EVNT	STA	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION		.00	13	0	31.153	6617.169	17.1478	303.7618	10.93408	-5.9003	118.9607	152.3060
SEPARATION		1.20	13	0	32.353	6557.300	15.7024	309.6960	10.98249	-2.5062	120.6251	158.5411
RETRO		5.20	13	0	34.353	6565.442	7.6944	319.1865	10.97563	-.2119	122.4837	168.5330
EXIT	SHA	21.80	13	0	52.953	10649.097	-27.7076	19.4912	8.51593	38.8559	109.2115	233.4999
IMPACT		3913.96	15	17	45.116	404022.059	-16.8824	222.7758	2.17826	67.0126	251.8968	332.4892

SURVEYOR VIEW PERIODS

GHA	202.7060					EPS	123.0342							LOM	216.0152
SX	.849263	SY	-.441205	SZ	-.289982	DAO	16.85688	RAO	332.5474	RM	405275.441	LAT	28.310600	LON	279.461800
CS	-.963365	ECC	.9841/9	SLR	12985.791	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.859409	NSY	-.425671	NSZ	-.283232	C3M	1.4970	VIM	2.6714	ZAE	141.980	B.T	.0000	B.R	-.0000
LATE	6.7705	LONE	.9260	LATS	-.8130	LONS	237.8724	LATI	3.7402	LONI	322.8561	RSM	149.9016	TTAN	3.9419
LAUNCH DATE		APR	13,1966		BASE AZM	115.0		TF	65.288			ARRIVAL DATE		APR 15 1966 18 12 18.9	

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FTH
115.00	0 33	1.4	27.6	15.66	303.15	-9.13	154.99	121.83	0 44 16.4	6586.1	10.96	-4.53

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN EARTH'S SHADOW															
INJECTION	.00	11.25	13	0	44.3												
SEPARATION	1.20	12.45	13	0	45.5												
RETRO	3.20	14.45	13	0	47.5												
RISE 72	5.33	16.58	13	0	49.6	87.32	-.1243	18.61	-.0909	2269.8	+6.59	-.00	.1297	288.79	-.0728	-1.29	327.16
EXTM 72	9.18	20.43	13	0	53.5	26.07	-.4426	-33.53	-.2504	1227.3	2.65	54.85	.1151	219.52	-.7482	-12.10	342.12
RISE 51	11.36	22.61	13	0	55.6	87.33	-.0818	5.52	-.0649	4696.7	+4.31	.00	.1015	276.13	-.0229	-17.01	349.61
EXIT SHA	21.21	32.46	13	1	5.5												
EXIT 72	21.21	32.46	13	1	5.5	291.52	-.0245	-41.74	.0062	6723.1	7.71	21.26	-.0171	131.[illegible]	-.0095	-29.66	1[illegible]45
EXIT 51	21.21	32.46	13	1	5.5	30.07	-.0921	-33.01	-.0356	4742.8	3.89	62.9[illegible]	.0718	247.31	-.1001	-29.66	1 .45
EXTM 51	27.67	38.92	13	1	11.9	2.13	-.0529	-39.77	-.0056	6639.4	5.49	75.86	-.0000	186.71	-.1680	-32.90	26.68
EXTM 72	68.92	80.17	13	1	53.2	275.41	.0001	-34.72	.0012	23814.2	4.87	8.92	.0000	124.07	-.0013	-34.35	52.94
EXTM 51	82.98	94.23	13	2	7 .5	325.09	-.0002	-34.62	.0014	23857.9	4.51	58.72	.0000	114.91	-.0026	-33.61	54.90
RISE 42	87.97	99 22	13	2	12.2	105.00	-.0025	-26.50	-.0002	29707.9	4.30	3.91	.0019	240.05	.0012	-33.34	55.25
EXTM 42	115.56	126.81	13	2	39.8	103.00	-.0002	-26.46	.0002	36678.4	4.12	5.31	-.0000	241.17	.0002	-31.77	55.08
SET 42	157.22	168.47	13	3	21.5	105.00	.0015	-25.75	.0003	46640.1	3.85	3.45	-.0013	240.64	-.0006	-30.30	51.03
RISE 61	193.81	205.06	13	3	58.1	305.44	.0032	-34.42	.0007	54874.4	3.21	.00	.0022	137.77	.0017	-29.14	49.60
EXTM 51	290.22	301.47	13	5	34.5	.15	.0037	-27.08	.0003	67314.3	2.98	88.65	-.0000	185.84	.1497	-26.97	27.54
EXTM 61	459.79	471.04	13	8	24.1	5.38	.0040	-27.98	.0003	98980.8	2.53	21.59	.0000	189.11	.0038	-24.65	350.65
EXTM 72	485.55	496.80	13	8	49.8	.95	.0041	-25.43	.0002	99267.6	2.48	72.45	-.0000	182.86	.0122	-24.39	344.78
RISE 11	628.94	640.19	13	11	13.2	289.27	.0040	-25.06	.0001	125476.6	1.93	.00	.0029	121.23	.0023	-23.19	311.44
SET 51	675.72	686.97	13	11	60.0	90.00	.0039	-21.78	.0002	130683.4	2.56	9.27	-.0034	250.21	-.0014	-22.87	300.39
SET 61	717.48	728.73	13	12	41.8	67.31	.0040	-24.51	.0002	137150.5	2.41	-.00	-.0024	237.08	.0027	-22.61	290.47
SET 72	865.33	876.58	13	15	9.6	93.13	.0040	-21.48	.0001	155415.0	2.40	-.00	-.0037	248.10	-.0004	-21.81	255.04
RISE 42	877.92	889.17	13	15	22.2	255.00	.0040	-20.33	.0000	156900.2	1.65	.12	.0030	119.07	-.0023	-21.75	252.00
EXTM 11	920.92	932.17	13	16	5.2	1.58	.0042	[illegible].47	.0001	158690.3	1.94	31.30	-.0000	181.70	.0045	-21.55	241.62
SET 11	1211.27	1222.52	13	20	55.5	73.75	.0041	-21.63	.0001	193877.5	2.06	-.00	-.0029	243.19	.0024	-20.45	1 .97
EXTM 42	1300.13	1311.38	13	22	24.4	359.76	.0042	-19.70	.0000	196347.5	1.68	74.48	.0000	.65	-.0147	-20.18	49.21
RISE 51	1435.14	1446.39	14	0	39.4	270.00	.0041	-19.12	.0000	215453.0	1.23	8.17	.0035	107.34	-.0016	-19.81	116.07
RISE 72	1594.76	1606.01	14	3	19.0	267.23	.0041	-19.19	-.0000	231482.0	1.12	.00	.0038	109.39	-.0006	-19.42	76.79
RISE 61	1657.59	1668.84	14	4	1.9	288.33	.0041	-20.39	.0000	235427.6	1.21	.00	.0028	117.16	.0027	-19.32	66.23
SET 42	1716.36	1727.61	14	5	20.6	103.45	.0041	-18.24	.0001	242566.9	1.84	-.00	-.0031	247.47	-.0023	-19.15	46.79
EXTM 51	1793.56	1804.81	14	6	37.8	359.95	.0042	-18.81	.0000	243175.6	1.47	83.08	-.0000	.40	-. 302	-18.99	27.73
EXTM 61	1925.40	1936.65	14	8	49.7	.63	.0042	-19.95	.0000	257691.5	1.42	29.81	-.0000	180.68	.0046	-18.74	355.14
EXTM 72	1964.00	1975.25	14	9	28.3	.09	.0042	-18.93	.0000	257926.2	1.41	78.97	.0009	180.43	.0206	-18.67	345.59
RISE 11	2076.50	2087.75	14	11	20.8	284.30	.0042	-19.29	.0000	272692.0	1.03	.00	.0031	143.85	.0024	-18.48	317.74
SET 51	2152.44	2163.69	14	12	36.7	90.00	.0041	-17.81	.0001	278845.5	1.74	7.63	-.0015	255.86	-.0016	-18.35	298 .2
SET 61	2213.39	2224.64	14	13	37.7	72.92	.0041	-19.13	.0001	284593.9	1.65	.00	-.0028	244.57	.0027	-18.25	283.81
SET 72	2332.02	2343.27	14	15	36.3	92.57	.0041	-17.90	.0001	293957.3	1.73	-.00	-.0039	251.92	-.0005	-18.08	254.39
RISE 42	2347.09	2358.34	14	15	51.4	257.29	.0041	-17.31	-.0000	295150.9	.95	.00	.0031	111.36	-.0024	-18.05	250.65
EXTM 11	2378.95	2390.20	14	16	23.2	.41	.0042	-19.00	.0000	293896.7	1.29	35.79	-.0000	180.48	.[illegible]49	-18.01	242.75
SET 11	2681.52	2692.77	14	21	25.8	76.49	.0042	-18.30	.0000	320291.4	1.56	.01	-.0031	247.39	-.024	-17.61	167.61
EXTM 42	2756.07	2767.32	14	22	40.3	359.90	.0042	-17.17	.0000	319685.7	1.20	71.95	-.0000	.31	-.0127	-17.52	149.08
RISE 51	2886.45	2897.70	15	0	50.7	270.00	.0041	-16.91	-.0000	334147.5	.77	7.26	.0036	105.32	-.0017	-17.37	116.66
RISE 72	3045.78	3057.03	15	3	30.0	267.55	.0041	-17.04	-.0000	345990.7	.70	-.01	.0039	107.21	-.0006	-17.19	77.02
RISE 61	3077.59	3088.84	15	4	1.9	285.84	.0042	-17.87	.0000	348158.0	.81	.01	.0029	113.71	.0027	-17.16	69.11
SET 42	3163.09	3174.34	15	5	27.4	102.03	.0042	-16.46	.0000	354104.3	1.43	-.00	-.0032	249.71	-.0024	-17.07	47.81
EXTM 51	3243.59	3254.84	15	6	47.9	.00	.0042	-16.87	.0000	353036.3	1.07	81.13	-.0000	359.89	-.0036	-17.03	27.68
EXTM 61	3372.01	3383.26	15	8	56.3	.18	.0042	-17.80	.0000	364115.4	1.06	31.90	-.0000	180.20	.0047	-16.96	355.97
EXTM 72	3411.66	3422.91	15	9	35.9	.01	.0042	-17.10	.0000	363745.5	1.06	80.81	.0000	180.19	.0160	-16.[illegible]	345.66
RISE 11	3516.19	3527.44	15	11	20.5	282.84	.0042	-17.48	-.0000	376606.2	.70	.00	.0032	111.57	.0024	-16.89	319.51
SET 51	3599.78	3611.03	15	12	44.0	90.00	.0042	-16.46	.0000	381117.1	1.46	7.07	-.0036	255.10	-.0017	-16.85	296.58
SET 61	3666.31	3677.56	15	13	50.6	74.55	.0042	-17.47	.0000	386137.4	1.39	-.00	-.0029	246.84	.0027	-16.83	281.92
SET 72	3776.71	3787.96	15	15	41.0	92.39	.0042	-16.67	.0000	393310.2	1.55	-.00	-.0040	253.17	-.0009	-16.80	254.24
RISE 42	3793.32	3804.57	15	15	57.6	258.13	.0042	-16.24	-.0000	394420.1	.77	.00	.0032	110.02	-.0024	-16.80	250.08
EXTM 11	3821.00	3832.25	15	16	25.3	.03	.0042	-17.53	.0000	392466.8	1.16	37.28	.0000	180.04	.0048	-16.79	243.12
IMPACT	3917.26	3928.51	15	18	1.5												
IMPC 42	3917.26	3928.51	15	18	1.5	289.46	.0043	-16.41	-.0001	401288.0	1.65	25.09	.0036	92.94	-.0024	-16.84	248.79
IMPC 11	3917.26	3928.51	15	18	1.5	24.68	.0044	-17.53	-.0000	400582.6	2.16	32.29	-.0017	238.10	.0045	-16.84	218.79

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FTH	AZ	RT ASC
INJECTION	.00	11.25	13	0	44.273	6586.796	15.6824	303.1189	10.95825	-4.[illegible]284	121.8212	154.9920
SEPARATION	1.20	12.45	13	0	45.473	6547.155	11.9545	308.8285	10.99691	-1.1136	123.2600	160.9020
RETRO	3.20	14.45	13	0	47.473	6587.238	5.5074	317.9708	10.[illegible]716	4.5927	124.7296	170.6861
EXIT SHA	21.21	32.46	13	1	5.479	10815.868	-29.6636	19.4451	8.92898	38.7474	109.7062	232.5947
IMPACT	3917.26	3928.51	15	18	1.529	4040[illegible]22.652	-16.8350	2.8.7930	2.17716	66.9847	252.6246	332.6209

APR 13, 1966
115 DEGREES

MAY 1966

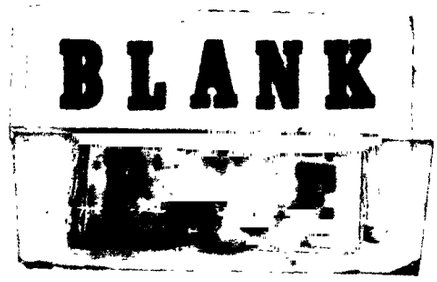
SURVEYOR VIEW PERIODS

GHA	222.4189					EPS	4.7453							LOM	278.3651
SX	-.656000	SY	-.696416	SZ	-.290980	DAO	-16.91663	RAO	226.71173	RM	373772.313	LAT	28.310600	LON	279.461800
C3	-1.295862	ECC	.976723	SLR	12950.085	HCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.637421	NSY	-.709852	NSZ	-.299674	C3M	1.4924	VIM	2.6705	ZAE	132.821	B.T	.0000	B.R	-.0000
LATE	-.7291	LONE	4.7642	LATS	-.2751	LONS	.0522	LATI	-12.2169	LONI	318.6133	RSM	151.2568	TTAN	4.1768
LAUNCH DATE		MAY	2,1966		BASE AZM	108.0		TF	61.415			ARRIVAL DATE		MAY 5 1966	5 42 46.3

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	15 57 2.1	27.4	16.13	304.46	-11.26	46.65	116.89	16 6 17.1	6607.6	10.92	-5.57

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	2	16	8.3												
SEPARATION	1.20	12.45	2	16	9.5												
RETRO	3.20	14.45	2	16	11.5												
RISE 72	5.41	16.66	2	16	13.7	84.69	-.1585	33.72	-.0154	2162.4	-9.13	-.00	.1326	304.09	.0066	2.75	330.23
EXTM 72	9.18	20.43	2	16	17.5	1.49	-.4779	-3.18	-.3192	956.8	2.83	89.05	.4458	342.49	4.1266	-7.29	345.47
RISE 51	11.34	22.59	2	16	19.6	82.80	-.0938	14.56	-.0541	4518.4	-4.77	.01	.1054	286.21	-.0076	-12.06	353.09
EXTM 51	25.85	37.10	2	16	34.1	1.46	-.0562	-30.13	-.0148	5807.6	5.42	89.42	-.0000	196.23	-.6358	-27.84	26.99
EXTM 72	69.82	81.07	2	17	18.1	273.59	.0001	-31.77	.0006	24055.6	4.83	7.19	.0000	121.22	-.0006	-31.87	55.26
RISE 42	76.75	88.00	2	17	25.0	105.00	-.0041	-24.01	-.0011	26558.8	4.30	2.38	.0036	242.02	.0014	-31.69	56.36
EXTM 51	84.80	96.05	2	17	33.1	322.62	-.0000	-31.79	.0008	24200.1	4.47	56.84	.0000	109.54	-.0014	-31.44	57.17
EXTM 42	118.84	130.09	2	18	7.1	100.78	.0000	-24.98	-.0000	3/133.4	4.05	6.06	-.0000	243.57	-.0000	-30.33	57.10
SET 42	179.05	190.30	2	19	7.3	105.00	.0020	-24.46	.0002	51093.6	3.69	2.66	-.0015	241.67	-.0009	-28.65	50.33
RISE 61	199.00	210.25	2	19	27.3	303.85	.0032	-33.35	.0006	55516.8	3.15	.00	.0021	136.07	.0017	-28.20	47.20
EXTM 61	470.04	481.29	2	23	58.3	4.69	.0040	-27.87	.0002	99364.4	2.46	21.75	.0003	184.46	.0038	-24.55	351.31
EXTM 72	497.99	509.24	3	0	26.3	.76	.0041	-25.35	.0002	99867.7	2.40	72.54	.0000	182.30	.0123	-24.32	344.96
RISE 11	642.91	654.16	3	2	51.2	289.38	.0040	-25.18	.0001	125635.4	1.86	.00	.0028	121.38	.0023	-23.31	311.34
SET 51	689.32	700.57	3	3	37.6	90.00	.0039	-21.95	.0001	130572.9	2.48	9.34	-.0034	250.05	-.0014	-23.04	300.40
SET 61	730.12	741.37	3	4	18.4	67.06	.0040	-24.74	.0002	136717.6	2.33	-.00	-.0024	236.76	.0027	-22.82	290.73
SET 72	879.49	890.74	3	6	47.8	93.18	.0040	-21.80	.0001	154503.3	2.32	-.00	-.0037	247.98	-.0004	-22.13	255.01
RISE 42	892.06	903.31	3	7	.3	255.00	.0040	-20.65	.0000	155904.4	1.57	.32	.0029	115.33	-.0023	-22.08	251.99
EXTM 11	934.45	945.70	3	7	42.7	1.43	.0042	-23.86	.0001	157481.1	1.86	30.92	-.0000	181.52	.0044	-21.91	241.77
SET 11	1224.04	1235.29	3	12	32.3	73.31	.0041	-22.15	.0001	191161.6	1.98	-.00	-.0029	242.52	.0024	-20.95	171.44
EXTM 42	1315.29	1326.54	3	14	3.6	359.84	.0042	-20.23	.0000	194005.5	1.60	75.01	-.0000	.60	-.0151	-20.70	149.14
RISE 51	1450.34	1461.59	3	16	18.6	270.00	.0041	-19.68	-.0000	211808.5	1.14	6.41	.0035	107.86	-.0016	-20.37	116.04
RISE 72	1609.84	1621.09	3	18	58.1	267.14	.0041	-19.79	-.0000	22/007.6	1.03	.00	.0038	109.99	-.0006	-20.02	76.84
RISE 61	1655.68	1666.93	3	19	44.0	288.98	.0041	-21.03	.0000	230981.6	1.12	.00	.0028	118.04	.0027	-19.93	65.56
SET 42	1733.71	1744.96	3	21	2.0	103.94	.0041	-18.84	.0001	237623.3	1.75	-.00	-.0031	246.71	-.0023	-19.78	46.33
EXTM 51	1809.13	1820.38	3	22	17.4	359.95	.0042	-19.47	.0000	237649.0	1.37	83.73	-.0000	.44	-.0344	-19.64	27.73
EXTM 61	1941.00	1952.25	4	0	29.3	.59	.0042	-20.66	.0000	251498.2	1.33	29.10	-.0000	180.63	.0045	-19.41	355.17
EXTM 72	1979.79	1991.04	4	1	8.1	.09	.0042	-19.63	.0000	251476.7	1.31	78.27	.0000	180.40	.0192	-19.34	345.59
RISE 11	2094.92	2106.17	4	3	3.2	284.89	.0042	-20.00	.0000	266574.5	.93	.00	.0031	114.75	.0024	-19.16	317.12
SET 51	2168.30	2179.55	4	4	16.6	90.00	.0041	-18.50	.0000	271254.0	1.64	7.92	-.0036	253.22	-.0016	-19.05	298.96
SET 61	2226.36	2237.61	4	5	14.6	72.18	.0041	-19.88	.0001	276456.1	1.54	.01	-.0028	243.55	.0027	-18.97	284.59
SET 72	2348.52	2359.77	4	7	16.8	92.68	.0041	-18.62	.0001	285363.4	1.63	-.00	-.0039	251.20	-.0005	-18.80	254.33
RISE 42	2361.23	2372.48	4	7	29.5	256.73	.0041	-18.01	-.0000	286275.4	.85	.00	.0031	112.24	-.0024	-18.78	251.18
EXTM 11	2395.17	2406.42	4	8	3.5	.39	.0042	-19.77	.0000	285063.6	1.18	35.02	-.0000	180.45	.0048	-18.73	242.76
SET 11	2695.46	2706.71	4	13	3.7	75.87	.0042	-19.08	.0000	309335.4	1.45	.00	-.0031	246.41	.0024	-18.36	168.27
EXTM 42	2772.69	2783.94	4	14	21.0	359.89	.0042	-17.93	.0000	308401.5	1.09	72.71	.0000	.37	-.0133	-18.27	149.09
RISE 51	2903.44	2914.69	4	16	31.7	270.00	.0041	-17.67	-.0000	322018.6	.67	7.57	.0036	106.01	-.0017	-18.13	116.62
RISE 72	3061.84	3073.09	4	19	10.1	267.44	.0042	-17.77	-.0000	332960.2	.60	-.01	.0039	107.95	-.0006	-17.92	77.09
RISE 61	3096.81	3108.06	4	19	45.1	286.57	.0042	-18.62	.0000	335130.3	.71	.00	.0029	114.73	.0027	-17.88	68.35
SET 42	3180.94	3192.19	4	21	9.2	102.57	.0042	-17.13	.0000	340321.6	1.38	-.00	-.0032	248.87	-.0024	-17.77	47.31
EXTM 51	3259.31	3270.56	4	22	27.6	359.97	.0042	-17.52	.0000	338873.0	1.02	61.78	-.0000	.23	-.0256	-17.67	27.72
EXTM 61	3388.65	3399.90	5	0	36.9	.40	.0042	-18.39	.0000	349718.3	1.02	31.37	-.0000	180.45	.0047	-17.51	355.35
EXTM 72	3427.52	3438.77	5	1	15.8	.05	.0043	-17.63	.0000	349162.9	1.02	80.27	.0000	180.31	.0233	-17.46	345.62
RISE 11	3533.25	3544.50	5	3	1.5	283.19	.0042	-17.92	.0000	361925.8	.70	.00	.0032	112.12	.0024	-17.31	319.12
SET 51	3614.82	3626.07	5	4	23.1	90.00	.0042	-16.76	.0001	366392.7	1.53	7.19	-.0037	254.82	-.0017	-17.17	298.62
SET 61	3679.93	3691.18	5	5	28.2	74.36	.0043	-17.67	.0001	372091.0	1.93	.00	-.0029	246.58	.0028	-17.00	282.14
IMPACT	3684.88	3696.13	5	5	33.2												
IMPC 72	3684.88	3696.13	5	5	33.2	65.73	.0043	-16.97	.0001	369861.2	2.24	25.44	-.0042	254.92	.0001	-16.98	280.87
IMPC 11	3684.88	3696.13	5	5	33.2	321.77	.0044	-17.71	.0001	369822.8	1.58	25.85	.0024	139.07	.0038	-16.98	280.87
IMPC 61	3684.88	3696.13	5	5	33.2	75.64	.0043	-17.64	.0001	372688.5	2.15	-.88	-.0030	247.42	.0029	-16.98	280.87

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	2	16	8.284	6609.248	18.1655	304.3885	10.92499	-5.5708	116.8702	46.5843
SEPARATION	1.20	12.45	2	16	9.484	6554.277	14.9360	310.4747	10.96976	-2.1830	118.6950	52.9713
RETRO	3.20	14.45	2	16	11.484	6569.546	9.2072	320.1850	10.95687	3.5091	120.8386	63.1830
IMPACT	3684.88	3696.13	5	5	33.162	372645.457	-16.9763	280.8670	2.09556	60.4744	305.1245	226.8038


BLANK

SURVEYOR VIEW PERIODS

GHA	222.4189				EPS	4.9061					LOM	273.9679	
SX	-.653679	SY	-.698152	SZ	-.292040	DAO	-16.98013	RAO	226.88428	RM	373823.582	LAT	28.310600
LON	279.461800	C3	-1.300681	ECC	.978644	SLR	12949.564	RCA	6544.6650	LTA	-20.0000	GTA	20.00
TB	675.00000	POL	-.0	NSX	-.635006	NSY	-.711563	NSZ	-.300742	C3M	1.4970	VIM	2.6714
ZAE	132.565	B.T	.0000	B.R	-.0000	LATE	-.7082	LONE	4.7726	LATS	-.2747	LONS	359.8976
LATI	-12.3897	LONI	318.3940	RSM	151.2573	TTAN	4.1735						

LAUNCH DATE MAY 2,1966 BASE AZM 111.0 TF 61.515 ARRIVAL DATE MAY 5 1966 6 1 .1

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
111.00	16 8 52.9	27.6	17.02	304.01	-8.70	49.18	119.04	16 20 7.9	6582.1	10.95	-4.30

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT												
INJECTION		.00	11.25	2	16	20.1												
SEPARATION		1.20	12.45	2	16	21.3												
RETRO		3.20	14.45	2	16	23.3												
RISE	72	5.25	16.50	2	16	25.4	85.90	-.1423	27.28	-.0481	2264.0	-8.91	-.00	.1324	297.56	-.0279	1.36	328.42
EXTM	72	9.04	20.29	2	16	29.2	16.92	-.4519	-14.49	-.2871	1061.4	2.01	72.15	.3143	246.87	-1.3651	-8.89	343.32
RISE	51	11.29	22.54	2	16	31.4	84.74	-.0872	0.75	-.0578	4684.7	-4.43	.01	.1024	281.95	-.0140	-13.86	351.06
EXTM	51	27.28	38.53	2	16	47.4	2.22	-.0505	-.22	-.0099	6447.4	5.44	81.30	-.0000	192.23	-.2836	-30.01	26.62
EXTM	72	69.68	80.93	2	17	29.8	276.08	.0001	-33.33	.0008	23911.6	4.82	9.40	.0000	122.64	-.0008	-33.00	52.66
EXTM	51	84.98	96.23	2	17	45.1	325.69	-.0001	-33.24	.0009	24247.1	4.45	59.36	.0000	112.34	-.0019	-32.48	54.62
RISE	42	90.27	101.52	2	17	50.4	105.00	-.0022	-25.51	-.0004	30281.5	4.24	3.30	.0019	240.83	.0009	-32.28	54.93
EXTM	42	118.20	129.45	2	18	18.3	103.31	-.0000	-25.76	.0000	37232.3	4.06	4.66	-.0000	241.56	.0000	-31.25	54.58
SET	42	154.49	165.73	2	18	54.6	105.00	.0014	-25.45	.0002	45805.5	3.82	3.26	-.0011	240.88	-.0006	-30.08	51.14
RISE	61	192.88	204.13	2	19	33.0	305.38	.0032	-34.38	.0006	54355.4	3.19	.00	.0021	137.71	.0017	-29.06	45.62
EXTM	51	290.67	301.92	2	21	10.8	.16	.0037	-27.29	.0003	66823.3	2.94	88.44	-.0000	185.20	.1206	-27.15	27.54
EXTM	61	460.02	471.27	3	0	.2	5.09	.0040	-28.49	.0003	97995.4	2.48	21.11	.0000	184.79	.0037	-25.10	350.94
EXTM	72	487.02	498.27	3	0	27.1	.92	.0041	-25.94	.0002	98347.1	2.42	71.94	-.0000	182.66	.0118	-24.86	344.82
RISE	11	633.51	644.76	3	2	53.6	289.81	.0040	-25.65	.0001	124440.4	1.87	.00	.0028	121.99	.0023	-23.75	310.88
SET	51	677.85	689.10	3	3	38.0	90.00	.0039	-22.38	.0001	129126.5	2.49	9.52	-.0033	249.65	-.0013	-23.48	300.44
SET	61	716.58	727.83	3	4	16.7	66.54	.0040	-25.20	.0002	135061.8	2.35	-.00	-.0024	236.10	.0027	-23.25	291.27
SET	72	868.44	879.69	3	6	48.6	93.24	.0040	-22.16	.0001	153247.8	2.33	-.00	-.0036	247.61	-.0004	-22.50	254.98
RISE	42	880.96	892.21	3	7	1.1	255.00	.0040	-21.00	.0000	154626.9	1.58	.53	.0029	115.61	-.0023	-22.44	251.97
EXTM	11	923.65	934.90	3	7	43.8	1.52	.0042	-24.23	.0001	156316.9	1.87	30.55	-.0000	181.61	.0044	-22.26	241.68
SET	11	1211.81	1223.06	3	12	31.9	73.05	.0041	-22.45	.0001	189932.4	1.98	-.00	-.0029	242.14	.0024	-21.24	171.71
EXTM	42	1304.19	1315.44	3	14	4.3	359.84	.0042	-20.51	.0000	192910.1	1.60	75.29	-.0000	.58	-.0153	-20.97	149.13
RISE	51	1439.25	1450.50	3	16	19.4	270.00	.0041	-19.92	-.0000	210746.6	1.15	8.51	.0035	108.08	-.0016	-20.62	116.03
RISE	72	1598.60	1609.85	3	18	58.7	267.10	.0041	-20.02	-.0000	225979.7	1.03	.00	.0038	110.22	-.0006	-20.25	76.87
RISE	61	1645.50	1656.75	3	19	45.6	289.21	.0041	-21.25	.0000	230054.1	1.13	.00	.0028	118.34	.0027	-20.15	65.32
SET	42	1723.21	1734.46	3	21	3.3	104.11	.0041	-19.05	.0001	236682.8	1.75	-.00	-.0031	246.45	-.0023	-19.98	46.17
EXTM	51	1798.02	1809.27	3	22	18.2	359.96	.0042	-19.68	.0000	236667.9	1.38	83.94	-.0000	.38	-.0336	-19.84	27.72
EXTM	61	1929.97	1941.22	4	0	30.1	.62	.0042	-20.85	.0000	250564.6	1.33	28.90	-.0000	180.66	.0045	-19.60	355.14
EXTM	72	1968.66	1979.91	4	1	8.8	.09	.0042	-19.82	.0000	250526.5	1.31	78.08	.0000	180.43	.0189	-19.53	345.58
RISE	11	2084.37	2095.62	4	3	4.5	285.03	.0042	-20.18	.0000	265879.0	.93	.00	.0031	114.98	.0024	-19.33	316.97
SET	51	2157.11	2168.36	4	4	17.2	90.00	.0041	-18.67	.0001	270311.0	1.64	7.99	-.0036	253.07	-.0016	-19.22	298.97
SET	61	2214.54	2225.79	4	5	14.7	72.02	.0041	-20.04	.0001	275480.8	1.55	-.00	-.0028	243.32	.0027	-19.13	284.75
SET	72	2337.42	2348.67	4	7	17.5	92.71	.0041	-18.77	.0001	284453.2	1.63	-.00	-.0039	251.05	-.0005	-18.95	254 31
RISE	42	2349.59	2360.84	4	7	29.7	256.61	.0041	-18.16	-.0000	285327.2	.85	.00	.0031	112.42	-.0024	-18.93	251.29
EXTM	11	2384.07	2395.32	4	8	.2	.41	.0042	-19.92	.0000	284171.7	1.19	34.87	-.0000	180.47	.0048	-18.88	248.74
SET	11	2683.82	2695.07	4	13	3.9	75.76	.0042	-19.22	.0000	308415.3	1.45	.00	-.0031	246.24	.0024	-18.49	186.38
EXTM	42	2761.45	2772.70	4	14	21.6	359.88	.0042	-18.05	.0000	307509.3	1.09	72.83	.0000	.40	-.0134	-18.40	149.10
RISE	51	2892.24	2903.49	4	16	32.4	270.00	.0041	-17.78	-.0000	321134.4	.67	7.62	.0036	106.11	-.0017	-18.25	116.61
RISE	72	3050.71	3061.96	4	19	10.8	267.43	.0042	-17.88	-.0000	332080.6	.60	-.01	.0039	108.06	-.0006	-18.04	77.10
RISE	61	3086.19	3097.44	4	19	46.3	286.68	.0042	-18.74	.0000	334280.0	.71	.00	.0029	114.89	.0027	-17.99	68.23
SET	42	3170.17	3181.42	4	21	10.3	102.65	.0042	-17.23	.0000	339455.7	1.38	-.00	-.0032	248.74	-.0024	-17.88	47.23
EXTM	51	3248.19	3259.44	4	22	28.3	359.97	.0042	-17.63	.0000	337976.4	1.02	81.89	-.0000	.26	-.0250	-17.78	27.72
EXTM	61	3377.57	3388.82	5	0	37.7	.41	.0042	-18.49	.0000	348814.2	1.02	31.27	-.0000	180.46	.0047	-17.61	355.34
EXTM	72	3416.40	3427.65	5	1	16.5	.05	.0043	-17.73	.0000	348239.3	1.02	80.17	.0000	180.32	.0225	-17.56	345.62
RISE	11	3522.45	3533.70	5	3	2.6	283.27	.0042	-18.02	.0000	360975.7	.69	.00	.0032	112.25	.0024	-17.40	319.04
SET	51	3603.73	3614.98	5	4	23.9	90.00	.0042	-16.86	.0000	365332.5	1.50	7.23	-.0037	254.73	-.0016	-17.27	298.63
SET	61	3668.56	3679.81	5	5	28.7	74.24	.0042	-17.79	.0001	370673.3	1.64	-.00	-.0029	246.40	.0028	-17.12	282.27
IMPACT		3690.90	3702.15	5	5	51.0												
IMPC	72	3690.90	3702.15	5	5	51.0	70.07	.0043	-17.01	.0001	370338.4	2.24	21.29	-.0041	254.76	-.0000	-17.04	276.56
IMPC	11	3690.90	3702.15	5	5	51.0	326.13	.0044	-17.78	.0001	369665.0	1.60	28.03	.0022	143.04	.0040	-17.04	276.56
IMPC	61	3690.90	3702.15	5	5	51.0	79.96	.0043	-17.68	.0001	373090.1	2.15	-3.98	-.0030	250.13	.0028	-17.04	276.56

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION		.00	11.25	2	16	20.131	6582.723	17.0321	303.9802	10.94611	-4.3039	119.0275	49.1457
SEPARATION		1.20	12.45	2	16	21.331	6546.288	13.5840	309.9016	10.97630	-.8979	120.6735	55.3679
RETRO		3.20	14.45	2	16	23.331	6590.964	7.5537	319.3462	10.93863	4.7819	122.5048	65.3139
IMPACT		3690.90	3702.15	5	5	51.029	372701.816	-17.0391	276.5579	2.09312	60.1179	305.1718	226.9736

SURVEYOR VIEW PERIODS

QHA	222.4189					EPS	5.1846					LOM	266.3633
SX	-.649651	SY	-.701159	SZ	-.293866	DAO	-17.08956	RAD	227.18285	RM	373912.586	LAT	28.310600	LON	279.461800
C3	-1.317125	ECC	.976407	SLR	12948.012	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.630753	NSY	-.714549	NSZ	-.302606	C3M	1.4970	VIM	2.6714	ZAE	132.045	B.T	.0000	B.R	-.0000
LATE	-.6722	LONE	4.7875	LATS	-.2740	LONS	359.6308	LATI	-12.6495	LONI	317.9274	RSM	151.2580	TTAN	4.1592
LAUNCH DATE	MAY	2,1966		BASE AZM	115.0		TF 61.799					ARRIVAL DATE	MAY 5 1966	6 32 31.7	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	16 23 11.8	27.7	15.27	303.31	-5.69	52.07	121.87	16 34 26.8	6560.6	10.96	-2.81

EVNT	STA	TFI	TFL	DAY	HR	MIN	Ha	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	2	16	34.4												
SEPARATION		1.20	12.45	2	16	35.6												
RETRO		3.20	14.45	2	16	37.6												
RISE	72	5.13	16.38	2	16	39.6	87.18	-.1261	19.50	-.0830	2407.2	-8.38	-.00	.1297	289.69	-.0648	-.62	326.25
EXTM	72	9.73	20.98	2	16	44.2	14.35	-.3744	-35.76	-.1631	1454.3	4.23	59.20	.0026	203.14	-.6734	-13.02	343.43
RISE	51	11.29	22.54	2	16	45.7	87.16	-.0795	5.87	-.0619	4906.3	-3.96	-.00	.0981	276.51	-.0211	-16.37	348.52
EXTM	51	29.66	40.91	2	17	4.1	2.09	-.0430	-39.18	-.0047	7449.5	5.45	76.44	-.0000	186.93	-.1436	-32.99	26.64
EXTM	72	69.43	80.68	2	17	43.9	278.98	.0000	-35.57	.0011	23729.8	4.81	11.87	.0000	124.81	-.0012	-34.67	49.59
EXTM	51	84.36	95.61	2	17	58.8	329.30	-.0003	-35.39	.0012	24099.1	4.45	62.00	.0000	117.56	-.0026	-34.04	51.59
RISE	61	188.00	199.25	2	19	42.4	307.58	.0031	-35.78	.0007	53442.1	3.21	.00	.0021	139.99	.0016	-30.27	43.42
EXTM	51	276.49	287.74	2	21	10.9	.35	.0036	-28.55	.0003	64377.2	2.99	87.17	-.0000	186.17	.0652	-28.30	27.37
EXTM	61	448.80	460.05	3	0	3.2	5.66	.0040	-29.38	.0003	96447.6	2.50	20.18	.0000	185.25	.0037	-25.93	350.40
EXTM	72	474.08	485.33	3	0	28.5	1.06	.0041	-26.82	.0002	96516.1	2.44	71.05	.0000	182.91	.0112	-25.67	344.69
RISE	11	623.20	634.45	3	2	57.6	290.46	.0040	-26.35	.0001	123083.2	1.88	.00	.0028	122.91	.0023	-24.42	310.20
SET	51	664.45	675.70	3	3	38.9	90.00	.0039	-23.03	.0002	127572.3	2.50	9.78	-.0033	249.05	-.0013	-24.14	300.49
SET	61	699.95	711.20	3	4	14.4	65.74	.0040	-25.90	.0002	132961.4	2.36	-.00	-.0024	235.10	.0027	-23.91	292.09
SET	72	855.59	866.84	3	6	50.0	93.34	.0040	-22.71	.0001	151717.5	2.33	-.00	-.0036	247.05	-.0004	-23.05	254.92
RISE	42	868.01	879.26	3	7	2.5	255.00	.0040	-21.54	.0000	153053.3	1.59	.87	.0029	116.03	-.0023	-22.99	251.94
EXTM	11	911.12	922.37	3	7	45.6	1.66	.0042	-24.79	.0001	154903.3	1.88	29.98	-.0000	181.74	.0044	-22.79	241.55
SET	11	1197.07	1208.32	3	12	31.5	72.65	.0041	-22.91	.0001	188342.1	1.98	-.00	-.0029	241.55	.0024	-21.69	172.12
EXTM	42	1290.91	1302.16	3	14	5.4	359.79	.0042	-20.93	.0000	191479.8	1.61	75.71	.0000	.80	-.0158	-21.39	149.19
RISE	51	1426.26	1437.51	3	16	20.7	270.00	.0041	-20.31	.0000	209362.7	1.15	8.66	.0035	108.43	-.0016	-21.00	116.01
RISE	72	1585.36	1596.61	3	18	59.8	267.04	.0041	-20.37	-.0000	224613.8	1.04	.00	.0038	110.58	-.0006	-20.60	76.91
RISE	61	1633.93	1645.18	3	19	48.4	289.58	.0041	-21.60	.0000	228837.8	1.13	.00	.0028	118.83	.0027	-20.49	64.95
SET	42	1711.19	1722.44	3	21	5.6	104.38	.0041	-19.37	.0001	235433.1	1.75	-.00	-.0031	246.04	-.0023	-20.32	45.91
EXTM	51	1784.81	1796.06	3	22	19.3	359.93	.0042	-20.01	.0000	239319.4	1.38	84.27	.0000	.66	-.0386	-20.16	27.75
EXTM	61	1917.04	1928.29	4	0	31.5	.66	.0042	-21.17	.0000	249278.0	1.33	28.59	-.0000	180.71	.0045	-19.90	355.10
EXTM	72	1955.59	1966.84	4	1	10.0	.10	.0042	-20.13	.0000	249206.6	1.31	77.78	.0000	180.46	.0186	-19.82	345.57
RISE	11	2072.23	2083.48	4	3	6.7	285.27	.0042	-20.47	.0000	264423.9	.93	.00	.0031	115.34	.0024	-19.61	316.73
SET	51	2143.95	2155.20	4	4	18.4	90.00	.0041	-18.94	.0001	268964.7	1.64	8.10	-.0036	252.82	-.0016	-19.49	298.98
SET	61	2200.26	2211.51	4	5	14.7	71.74	.0041	-20.32	.0001	274063.7	1.54	-.00	-.0028	242.95	.0027	-19.40	285.03
SET	72	2324.39	2335.64	4	7	18.8	92.75	.0041	-19.02	.0001	283123.9	1.63	-.00	-.0039	250.79	-.0005	-19.20	254.28
RISE	42	2335.66	2346.91	4	7	30.1	256.42	.0041	-18.40	-.0000	283932.6	.85	.00	.0031	112.73	-.0024	-19.18	251.48
EXTM	11	2371.03	2382.28	4	8	5.5	.44	.0042	-20.18	.0000	282862.2	1.19	34.61	-.0000	180.51	.0048	-19.13	242.72
SET	11	2669.87	2681.12	4	13	4.3	75.58	.0042	-19.44	.0000	306999.4	1.45	.00	-.0031	245.96	.0024	-18.71	168.57
EXTM	42	2748.20	2759.45	4	14	22.6	359.86	.0042	-18.26	.0000	306126.2	1.09	73.04	.0000	.45	-.0136	-18.61	149.12
RISE	51	2879.05	2890.30	4	16	33.5	270.00	.0041	-17.97	-.0000	319738.7	.66	7.70	.0036	106.29	-.0017	-18.44	116.61
RISE	72	3037.56	3048.81	4	19	12.0	267.40	.0042	-18.07	-.0000	330661.2	.60	-.01	.0039	108.25	-.0006	-18.23	77.12
RISE	61	3073.90	3085.15	4	19	48.3	286.87	.0042	-18.93	.0000	332902.7	.71	.00	.0029	115.15	.0027	-18.18	68.04
EXTM	51	3235.09	3246.34	4	22	29.5	359.96	.0042	-17.81	.0000	336491.8	1.01	82.07	-.0000	.29	-.0262	-17.96	27.72
EXTM	61	3364.53	3375.78	5	0	39.0	.43	.0042	-18.67	.0000	347294.5	1.01	31.09	-.0000	180.47	.0047	-17.78	355.33
EXTM	72	3403.33	3414.58	5	1	17.8	.06	.0043	-17.90	.0000	346682.0	1.01	80.00	.0000	180.33	.0224	-17.72	345.61
RISE	11	3509.94	3521.19	5	3	4.4	283.41	.0042	-18.19	.0000	359364.9	.67	.00	.0032	112.46	.0024	-17.57	318.90
SET	51	3590.70	3601.95	5	4	25.1	90.00	.0042	-17.03	.0000	363554.8	1.46	7.30	-.0037	254.58	-.0016	-17.44	298.63
SET	61	3654.94	3666.19	5	5	29.4	74.05	.0042	-17.99	.0001	368567.3	1.48	-.00	-.0029	246.14	.0028	-17.31	282.46
IMPACT		3707.97	3719.22	5	6	22.4												
IMPC	72	3707.97	3719.22	5	6	22.4	77.68	.0043	-17.08	.0001	371202.4	2.24	14.03	-.0041	254.28	-.0002	-17.15	268.99
IMPC	11	3707.97	3719.22	5	6	22.4	333.79	.0044	-17.91	.0001	369445.4	1.63	31.35	.0018	150.52	.0044	-17.15	268.99

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	2	16	34.446	6560.750	15.5710	303.3051	10.96356	-2.8132	121.8725	52.0592
SEPARATION		1.20	12.45	2	16	35.646	6545.392	11.8440	309.0000	10.97640	.6023	123.2955	58.0550
RETRO		3.20	14.45	2	16	37.646	6624.109	5.4357	318.0748	10.91027	6.2528	124.7796	67.6311
IMPACT		3707.97	3719.22	5	6	22.412	372800.418	-17.1490	268.9888	2.08625	59.5547	305.2972	227.2719

SURVEYOR VIEW PERIODS

QHA	223.4046					EPS	17.2891							LOM	297.1591
SX	-.461403	SY	-.809269	SZ	-.363581	DAO	-21,32027	RAO	240.31045	RM	378125.047	LAT	28,310600	LON	279.461800
C3	-1.164258	ECC	.980884	SLR	12964.228	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.440799	NSY	-.817839	NSZ	-.369915	C3M	1.4933	VIM	2.6707	ZAE	135.953	B.T	.0000	B.R	-.0000
LATE	.8777	LONE	5.2940	LATS	-.2436	LONS	348.0834	LATI	-9.1794	LONI	322.2358	RSM	151.2812	TTAN	5.5431
LAUNCH DATE		MAY	3,1966		BASE AZM	96.0		TF	60.463			ARRIVAL DATE		MAY 6 1966	5 18 7.0

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
96.00	16 35 25.9	27.3	22.53	306.30	-12.85	59.10	138.41	16 46 40.9	6626.9	10.91	-6.36

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	3	16	46.7												
SEPARATION		1.20	12.45	3	16	47.9												
RETRO		3.20	14.45	3	16	49.9												
RISE	72	5.88	17.13	3	16	52.6	75.33	-.3223	61.28	.1050	2229.7	-7.40	-.00	.1184	332.29	.1449	9.18	336.73
EXTM	72	10.35	21.60	3	16	57.0	312.11	-.1358	23.41	-.2347	1792.4	5.18	33.70	.0000	54.91	.3193	-1.26	355.01
RISE	51	11.54	22.79	3	16	58.2	73.61	-.1175	30.34	-.0339	4490.9	-4.68	.00	.1047	304.11	.0218	-3.68	359.14
EXTM	51	26.10	37.35	3	17	12.8	352.67	-.0443	-14.49	-.0250	5878.1	5.47	76.83	-.0000	32.80	.2179	-20.38	31.33
EXTM	72	68.53	79.78	3	17	55.2	272.57	-.0001	-27.80	-.0006	23770.9	4.88	5.94	.0000	117.32	.0006	-28.29	56.60
RISE	42	70.20	81.45	3	17	56.9	104.92	-.0049	-20.04	-.0024	24910.9	4.28	.00	.0051	245.20	.0009	-28.35	56.90
EXTM	51	83.88	95.13	3	18	10.6	321.14	-.0000	-28.27	-.0003	23993.9	4.50	55.43	.0000	103.12	.0005	-28.66	58.53
EXTM	42	124.27	135.52	3	18	51.0	99.38	.0003	-23.58	-.0004	38429.7	4.01	6.24	-.0000	245.45	-.0005	-28.73	58.09
SET	42	190.91	202.16	3	19	57.6	105.00	.0022	-24.20	-.0000	53659.:	3.62	2.49	-.0015	241.87	-.0012	-28.20	50.01
RISE	61	205.35	216.60	3	20	12.0	303.46	.0032	-33.09	.0003	56889.5	3.15	-.00	.0020	135.66	.0019	-28.08	47.68
EXTM	51	311.80	323.05	3	21	58.5	.07	.0037	-27.37	.0001	70833.4	2.88	88.37	.0000	182.31	.1123	-27.24	27.62
EXTM	61	474.20	485.45	4	0	40.9	3.50	.0040	-29.61	.0002	100545.6	2.47	20.08	.0000	183.24	.0037	-26.28	352.44
EXTM	72	506.58	517.83	4	1	13.3	.61	.0041	-27.25	.0001	101603.5	2.41	70.65	-.0000	181.63	.0109	-26.13	345.10
RISE	11	661.08	672.33	4	3	47.8	291.42	.0040	-27.36	.0000	128643.8	1.87	.00	.0027	124.23	.0023	-25.50	309.34
SET	51	699.05	710.30	4	4	25.7	90.00	.0039	-24.31	.0001	132407.2	2.48	10.30	-.0033	247.86	-.0013	-25.37	300.41
SET	61	727.96	739.21	4	4	54.6	64.19	.0040	-27.22	.0001	137199.2	2.35	.01	-.0023	233.18	.0027	-25.27	293.58
SET	72	891.52	902.77	4	7	38.2	93.63	.0040	-24.47	.0001	156879.2	2.32	-.01	-.0036	245.28	-.0004	-24.80	254.58
RISE	42	902.33	913.58	4	7	49.0	254.99	.0040	-23.37	-.0000	157905.0	1.59	1.98	.0029	117.48	-.0022	-24.77	251.98
EXTM	11	943.46	954.71	4	8	30.1	1.10	.0042	-26.64	.0001	159833.5	1.88	28.14	-.0000	181.12	.0042	-24.67	242.09
SET	11	1223.44	1234.69	4	13	10.1	70.53	.0041	-25.29	.0001	192666.6	1.99	-.00	-.0028	238.48	.0024	-24.07	174.22
EXTM	42	1326.61	1337.86	4	14	53.3	359.94	.0042	-23.52	.0000	196760.6	1.62	78.30	-.0000	.30	-.0178	-23.89	149.04
RISE	51	1461.49	1472.74	4	17	8.2	270.00	.0041	-23.00	-.0000	214688.9	1.18	9.77	.0035	110.93	-.0015	-23.67	116.02
RISE	72	1618.90	1630.15	4	19	45.6	266.58	.0041	-23.21	-.0000	230116.5	1.07	-.01	.0037	113.45	-.0005	-23.44	77.38
RISE	61	1681.73	1692.98	4	20	48.4	292.63	.0041	-24.46	-.0000	235661.5	1.16	.00	.0027	122 34	.0027	-23.35	61.93
SET	42	1749.37	1760.62	4	21	56.1	105.00	.0041	-22.34	.0000	241372.9	1.76	1.35	-.0030	243.34	-.0023	-23.27	45.28
EXTM	51	1820.68	1831.93	4	23	7.4	359.98	.0042	-23.11	.0000	241302.0	1.40	87.37	.0000	.53	-.0646	-23.18	27.71
EXTM	61	1952.06	1963.31	5	1	18.7	.46	.0042	-24.30	.0000	255746.7	1.36	25.46	-.0000	180.47	.0042	-23.02	355.30
EXTM	72	1991.37	2002.62	5	1	58.1	.08	.0042	-23.35	.0000	255581.1	1.34	74.55	.0000	180.29	.0143	-22.98	345.59
RISE	11	2119.29	2130.54	5	4	6.0	288.04	.0042	-23.69	-.0000	271816.1	.98	.00	.0029	119.46	.0024	-22.84	313.98
SET	51	2179.97	2191.22	5	5	6.7	90.00	.0041	-22.25	.0000	275481.3	1.67	9.47	-.0035	249.77	-.0015	-22.78	298.98
SET	61	2222.25	2233.50	5	5	48.9	68.24	.0041	-23.66	.0000	279771.6	1.57	-.00	-.0027	238.28	.0027	-22.74	288.52
SET	72	2362.78	2374.03	5	8	9.5	93.29	.0041	-22.42	.0000	290333.2	1.65	-.01	-.0038	247.35	-.0005	-22.60	253.73
RISE	42	2366.09	2377.34	5	8	12.8	255.00	.0041	-21.83	-.0000	290461.8	.90	1.04	.0030	116.26	-.0023	-22.60	252.91
EXTM	11	2406.72	2417.97	5	8	53.4	.31	.0042	-23.63	.0000	290288.9	1.22	31.16	-.0000	180.34	.0045	-22.56	242.84
SET	11	2694.05	2705.30	5	13	40.7	72.53	.0042	-23.05	.0000	313993.4	1.48	-.00	-.0030	241.36	.0024	-22.32	171.60
EXTM	42	2785.11	2796.36	5	15	11.8	359.98	.0042	-21.99	.0000	314076.7	1.13	76.77	-.0000	.13	-.0127	-22.25	149.00
RISE	51	2915.42	2926.67	5	17	22.1	270.00	.0042	-21.69	-.0000	328078.5	.72	9.24	.0035	109.71	-.0016	-22.14	116.61
RISE	72	3071.20	3082.45	5	19	57.9	266.80	.0042	-21.84	-.0000	339314.1	.66	-.00	.0038	112.06	-.0006	-22.00	77.72
RISE	61	3125.31	3136.56	5	20	52.0	290.73	.0042	-22.70	-.0000	342828.6	.78	.00	.0028	120.36	.0027	-21.95	64.20
SET	42	3202.69	3213.94	5	22	9.4	105.00	.0041	-21.24	.0000	347758.2	1.42	.68	-.0031	244.21	-.0023	-21.88	44.87
EXTM	51	3271.41	3282.66	5	23	18.1	359.99	.0042	-21.75	.0000	345962.1	1.08	86.01	-.0000	.30	-.0273	-21.82	27.70
EXTM	61	3400.44	3411.69	6	1	27.1	.34	.0042	-22.60	.0000	357707.3	1.09	27.16	-.0000	180.35	.0044	-21.70	355.42
EXTM	72	3439.62	3450.87	6	2	6.3	.06	.0043	-21.90	.0000	357025.4	1.10	76.00	.0000	180.26	.0157	-21.66	349.61
RISE	11	3559.05	3570.30	6	4	5.7	286.68	.0042	-22.14	.0000	371250.7	.86	.00	.0031	117.46	.0024	-21.52	315.64
SET	51	3626.24	3637.49	6	5	12.9	90.00	.0043	-21.00	.0001	375726.5	2.25	8.95	-.0037	250.93	-.0016	-21.39	298.62
IMPACT		3627.80	3639.05	6	5	14.5												
IMPC	72	3627.80	3639.05	6	5	14.5	48.22	.0044	-21.49	.0001	372678.1	2.27	41.64	-.0040	248.19	.0009	-21.38	298.22
IMPC	51	3627.80	3639.05	6	5	14.5	90.40	.0043	-20.99	.0001	375939.4	2.34	8.61	-.0037	250.78	-.0016	-21.38	298.22
IMPC	11	3627.80	3639.05	6	5	14.5	304.23	.0044	-22.07	.0001	375961.1	1.63	12.08	.0028	128.41	.0029	-21.38	298.22
IMPC	61	3627.80	3639.05	6	5	14.5	58.20	.0043	-22.11	.0001	376068.3	2.22	7.44	-.0026	232.57	.0031	-21.38	298.22

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	3	16	46.682	6629.628	22.5592	306.1884	10.91498	-6.3629	108.3624	58.9994
SEPARATION		1.20	12.45	3	16	47.882	6562.572	20.2236	312.9043	10.96874	-2.9801	110.9285	66.0122
RETRO		3.20	14.45	3	16	49.882	6559.568	15.7752	323.5683	10.97128	2.7188	114.3912	77.1775
IMPACT		3627.80	3639.05	6	5	14.479	376946.289	-21.3812	298.2219	2.15283	1.0841	298.5422	240.4607

SURVEYOR VIEW PERIODS

QHA	223.4046					EPS	17.4555							LOM	292.5975
SX	-.458654	SY	-.810468	SZ	-.364412	DAO	-21 37139	RAO	240.49501	RM	378187.680	LAT	28.310600	LON	279.461800
C3	-1.163667	ECC	.980894	SLR	2964.290	RCA	6540.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.438005	NSY	-.818974	NSZ	-.370721	C3M	1.4971	VIM	2.6714	ZAE	135.888	B.T	.0000	B.R	-.0000
LATE	.8986	LONE	5.2992	LATS	-.2432	LONS	347.9236	LATI	-9.2802	LONI	322.1985	RSM	151.2814	TTAN	5.5537
LAUNCH DATE		MAY	3.1966		BASE AZM	99.0		TF	60.471			ARRIVAL DATE		MAY 6 1966	5 3/ 2.9

LNCH AZMTH	LNCH TIME		PH	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99.00	16 52	7.1	27.6	21.34	306.10	-9.11	63.09	110.61	17 3 22.1	6585.8	10.95	-4.51

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	3	17	3.4												
SEPARATION	1.20	12.45	3	17	4.6												
RETRO	3.20	14.45	3	17	6.6												
RISE 72	5.47	16.72	3	17	8.8	79.42	-.2411	52.89	.0710	2317.9	-8.03	.00	.1254	323.62	.1023	8.23	333.86
EXTM 72	9.99	21.24	3	17	13.4	325.77	-.1995	20.66	-.2491	1577.7	4.64	45.87	-.0000	49.11	.4471	-2.42	351.96
RISE 51	11.34	22.59	3	17	14.7	76.30	-.1070	26.15	-.0381	4681.4	-4.43	.00	.1024	299.30	.0131	-5.12	356.47
EXTM 51	27.36	38.61	3	17	30.7	355.95	-.0400	-18.62	-.0194	6454.7	5.45	81.95	-.0000	28.57	.3040	-22.17	29.78
EXTM 72	68.71	79.96	3	18	12.2	276.48	-.0000	-28.98	-.0004	23641.4	4.86	9.46	.0000	118.22	.0004	-28.95	52.84
EXTM 51	85.59	96.84	3	18	29.0	325.81	.0000	-29.28	-.0002	24428.2	4.45	59.56	.0000	104.56	.0003	-29.27	54.81
RISE 42	86.92	98.17	3	18	30.3	105.00	-.0024	-29.25	-.0013	29635.5	4.23	1.30	.0025	243.41	.0003	-29.28	54.89
EXTM 42	123.91	135.16	3	19	7.3	103.15	.0003	-29.90	-.0004	38783.2	4.01	3.65	-.0000	243.14	-.0005	-29.23	54.24
SET 42	156.39	167.64	3	19	39.8	104.99	.0015	-24.35	-.0001	46394.6	3.81	2.59	-.0010	241.75	-.0009	-28.95	50.99
RISE 61	190.31	201.56	3	20	13.7	304.74	.0031	-33.96	.0004	53948.4	3.24	-.00	.0019	137.03	.0018	-28.62	46.20
EXTM 51	292.60	303.85	3	21	56.0	.11	.0037	-27.90	.0002	67392.3	2.95	87.84	.0000	182.59	.0844	-27.71	27.59
EXTM 61	457.60	468.85	4	0	41.0	3.72	.0039	-30.05	.0002	98212.2	2.50	19.65	.0000	183.42	.0036	-26.63	352.23
EXTM 72	489.32	500.57	4	1	12.7	.63	.0040	-27.64	.0001	99205.7	2.44	70.26	.0000	181.64	.0106	-26.47	345.09
RISE 11	645.69	656.94	4	3	49.1	291.72	.0040	-27.67	.0000	126718.0	1.89	.00	.0027	124.64	.0023	-25.78	309.01
SET 51	682.10	693.35	4	4	25.5	90.00	.0039	-24.57	.0001	130310.5	2.50	10.40	-.0033	247.62	-.0013	-25.64	300.46
SET 61	709.61	720.86	4	4	53.0	63.85	.0040	-27.53	.0001	134972.5	2.37	-.00	-.0023	232.74	.0027	-25.54	293.97
SET 72	875.05	886.30	4	7	38.4	93.67	.0040	-24.69	.0001	155050.3	2.34	-.01	-.0036	245.05	-.0004	-25.03	254.57
RISE 42	885.97	897.22	4	7	49.3	254.99	.0040	-23.58	-.0000	156083.7	1.61	2.11	.0029	117.64	-.0022	-25.00	251.95
EXTM 11	927.29	938.54	4	8	30.7	1.17	.0042	-26.89	.0001	158105.9	1.89	27.89	-.0000	181.18	.0042	-24.89	242.02
SET 11	1206.38	1217.63	4	13	9.8	70.35	.0041	-25.48	.0001	191011.6	2.00	-.00	-.0028	238.23	.0024	-24.25	174.41
EXTM 42	1310.31	1321.56	4	14	53.7	359.92	.0042	-23.69	.0000	195236.0	1.63	78.47	-.0000	.38	-.0187	-24.06	149.06
RISE 51	1445.35	1456.60	4	17	8.7	270.00	.0041	-23.15	-.0000	213242.7	1.19	9.83	.0035	111.07	-.0015	-23.82	116.01
RISE 72	1602.70	1613.95	4	19	46.1	266.56	.0041	-23.35	-.0000	228739.2	1.08	-.01	.0037	115.59	-.0005	-23.58	77.39
RISE 61	1666.26	1677.51	4	20	49.6	292.80	.0041	-24.60	-.0000	234374.1	1.17	.00	.0027	126.05	.0027	-23.49	61.76
SET 42	1733.20	1744.45	4	21	56.6	105.00	.0041	-22.47	.0000	240040.5	1.77	1.43	-.0030	243 23	-.0023	-23.40	45.29
EXTM 51	1804.59	1815.84	4	23	8.0	359.99	.0042	-23.24	.0000	240010.7	1.41	87.50	-.0000	.47	-.0469	-23.31	27.70
EXTM 61	1936.02	1947.27	5	1	19.4	.48	.0042	-24.43	.0000	254518.1	1.36	25.33	-.0000	180.49	.0042	-23.14	355.28
EXTM 72	1975.27	1986.52	5	1	58.6	.09	.0042	-23.47	.0000	254351.5	1.35	74.43	.0000	180.30	.0142	-23.10	345.59
RISE 11	2103.62	2114.87	5	4	7.0	288.14	.0042	-23.81	-.0000	270655.5	.98	.00	.0029	119.61	.0024	-22.95	313.87
SET 51	2163.85	2175.10	5	5	7.2	90.00	.0041	-22.36	.0000	274297.6	1.67	9.51	-.0035	249.67	-.0015	-22.89	298.98
SET 61	2205.64	2216.89	5	5	49.0	68.11	.0041	-23.77	.0000	278567.8	1.57	-.00	-.0027	238.12	.0027	-22.55	288.64
SET 72	2346.73	2357.98	5	8	10.1	93.31	.0041	-22.52	.0000	289210.3	1.66	-.01	-.0038	247.25	-.0005	-22.71	253.72
RISE 42	2350.03	2361.28	5	8	13.4	255.00	.0041	-21.93	-.0000	289331.7	.90	1.10	.0030	116.54	-.0023	-22.70	252.90
EXTM 11	2390.68	2401.93	5	8	54.0	.33	.0042	-23.73	.0000	289188.2	1.23	31.06	-.0000	180.35	.0045	-22.66	242.83
SET 11	2677.64	2688.89	5	13	41.0	72.45	.0042	-23.14	.0000	312926.1	1.48	-.00	-.0029	241.25	.0024	-22.41	171.69
EXTM 42	2769.06	2780.31	5	15	12.4	359.98	.0042	-22.07	.0000	313052.9	1.13	76.85	-.0000	.11	-.0111	-22.33	149.00
RISE 51	2899.52	2910.77	5	17	22.9	270.00	.0042	-21.78	-.0000	327089.9	.72	9.27	.0035	109.79	-.0016	-22.22	116.60
RISE 72	3055.21	3066.46	5	19	58.6	266.79	.0042	-21 92	-.0000	338336.0	.66	-.00	.0038	112.14	-.0006	-22.08	77.73
RISE 61	3109.69	3120.94	5	20	53.1	290.81	.0042	-22.78	-.0000	341877.5	.78	.00	.0028	120.47	.0027	-22.03	64.12
SET 42	3186.71	3197.96	5	22	10.1	105.00	.0041	-21.31	.0000	346780.6	1.42	.72	-.0031	244.15	-.0023	-21.96	44.87
EXTM 51	3255.43	3266.68	5	23	18.8	359.99	.0042	-21.82	.0000	344989.0	1.08	86.08	-.0000	.30	-.0277	-21.89	27.70
EXTM 61	3384.47	3395.72	6	1	27.8	.34	.0042	-22.67	.0000	356728.7	1.08	27.09	-.0000	180.35	.0044	-21.77	355.42
EXTM 72	3423.64	3434.89	6	2	7.0	.06	.0043	-21.98	.0000	356030.3	1.09	75.93	.0000	180.25	.0159	-21.73	345.61
RISE 11	3543.36	3554.61	6	4	6.7	286.75	.0042	-22.21	.0000	370178.3	.83	.00	.0031	117.56	.0024	-21.59	315.58
SET 51	3610.43	3621.68	6	5	13.8	89.98	.0042	-21.09	.0001	374234.6	1.84	9.01	-.0036	250.61	-.0016	-21.48	298.65
IMPACT	3628.29	3639.54	6	5	31.7												
IMPC 72	3628.29	3639.54	6	5	31.7	52.40	.0044	-21.52	.0001	373066.0	2.28	37.78	-.0040	248.84	.0007	-21.43	294.08
IMPC 51	3628.29	3639.54	6	5	31.7	94.54	.0043	-21.01	.0001	376384.8	2.34	5.12	-.0037	249.12	-.0017	-21.43	294.08
IMPC 11	3628.29	3639.54	6	5	31.7	308.40	.0044	-22.13	.0001	375345.0	1.64	14.65	.0027	131.38	.0031	-21.43	294.08
IMPC 61	3628.29	3639.54	6	5	31.7	62.37	.0043	-22.14	.0001	376415.4	2.23	4.85	-.0027	235.45	.0030	-21.43	294.08

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	3	17	3.369	6586.538	21.3491	306.0603	10.94928	-4.5129	110.5977	63.0506
SEPARATION	1.20	12.45	3	17	4.569	6547.120	18.7781	312.6029	10.98183	-1.1048	112.9494	69.8940
RETRO	3.20	14.45	3	17	6.569	6587.244	13.9965	325.0054	10.94802	4.5891	116.0370	80.7979
IMPACT	3628.29	3639.54	6	5	31.655	377007.070	-21.4278	294.0841	2.15198	63.8442	298.5282	240.6287

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SURVEYOR VIEW PERIODS

GHA	223.4046					EPS	17.6435							LOM	287.4398
SX	-.455499	SY	-.811814	SZ	-.365347	DAO	-21.42893	RAO	240.70378	RM	378258.617	LAT	28.310600	LON	279.461800
C3	-1.168383	ECC	.980816	SLR	12963.782	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.434785	NSY	-.820268	NSZ	-.371647	C3M	1.4973	VIM	2.6714	ZAS	135.706	B.T	.0000	B.R	-.0000
LATE	.9227	LONE	5.3043	LATS	-.2428	LONS	347.7422	LATI	-9.4344	LONI	322.0523	RSM	151.2816	TTAN	5.5588
LAUNCH DATE		MAY	3,1966		BASE AZM	102.0		TF	60.567				ARRIVAL DATE MAY		6 1966 5 58 27.4

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	17 6 43.9	27.7	20.17	305.80	-5.90	66.45	112.78	17 17 58.9	6561.9	10.97	-2.92

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	3	17	18.0												
SEPARATION		1.20	12.45	3	17	19.2												
RETRO		3.20	14.45	3	17	21.2												
RISE	72	5.17	16.42	3	17	23.1	81.84	-.2000	45.65	.0382	2410.5	-8.35	-.00	.1295	316.22	.0649	7.13	331.40
EXTM	72	9.80	21.05	3	17	27.8	338.97	-.2495	14.07	-.2403	1462.0	4.26	59.70	.0000	43.62	.6760	-3.90	349.48
RISE	51	11.20	22.45	3	17	29.2	78.65	-.0983	22.20	-.0419	4859.8	-4.16	.00	.1000	294.80	.0057	-6.68	354.04
EXTM	51	28.81	40.06	3	17	46.8	358.45	-.0360	-22.59	-.0147	7085.9	5.44	86.55	-.0000	24.52	.6043	-24.08	28.51
EXTM	72	69.17	80.42	3	18	27.1	279.92	-.0000	-30.34	-.0002	23617.2	4.83	12.52	.0000	119.44	.0002	-29.81	49.59
EXTM	51	87.02	98.27	3	18	45.0	329.90	.0000	-30.44	.0000	24803.5	4.42	63.12	.0000	107.04	-.0000	-30.05	51.55
RISE	61	178.91	190.16	3	20	16.9	306.23	.0030	-34.93	.0005	51675.8	3.32	-.00	.0019	138.60	.0016	-29.29	44.56
EXTM	51	275.89	287.14	3	21	53.9	.18	.0036	-23.56	.0002	64503.1	3.01	87.18	-.0000	183.28	.0639	-28.30	27.52
EXTM	61	444.44	455.69	4	0	42.4	4.20	.0039	-30.56	.0002	96348.9	2.53	19.10	.0000	183.82	.0036	-27.07	351.79
EXTM	72	474.80	486.05	4	1	12.8	.74	.0040	-28.11	.0001	97153.4	2.47	69.78	-.0000	181.90	.0103	-26.89	344.98
RISE	11	632.89	644.14	4	3	50.9	292.09	.0040	-28.05	.0000	125077.2	1.91	.00	.0027	125.14	.0023	-26.13	308.60
SET	51	667.44	678.69	4	4	25.4	90.00	.0039	-24.90	.0001	128448.4	2.52	10.54	-.0033	247.31	-.0013	-25.98	300.51
SET	61	693.15	704.40	4	4	51.1	63.38	.0040	-27.91	.0002	132921.3	2.38	-.00	-.0023	232.19	.0027	-25.88	294.45
SET	72	860.89	872.14	4	7	38.9	93.71	.0039	-24.98	.0001	153426.6	2.35	-.01	-.0036	244.77	-.0004	-25.32	254.56
RISE	42	871.87	883.12	4	7	49.8	254.99	.0040	-23.85	-.0000	154455.8	1.62	2.28	.0029	117.86	-.0029	-25.28	251.93
EXTM	11	913.43	924.68	4	8	31.4	1.25	.0042	-27.19	.0001	156980.6	1.90	27.59	-.0000	181.25	.0042	-25.16	241.95
SET	11	1191.37	1202.62	4	13	9.4	70.13	.0041	-25.72	.0001	189484.4	2.01	-.00	-.0028	237.92	.0024	-24.48	174.65
EXTM	42	1296.20	1307.45	4	14	54.2	359.89	.0042	-23.91	.0000	193839.5	1.64	78.69	-.0000	.50	-.0192	-24.27	149.08
RISE	51	1431.42	1442.67	4	17	9.4	270.00	.0041	-23.34	-.0000	211907.0	1.19	9.91	.0034	111.25	-.0015	-24.02	116.00
RISE	72	1588.67	1599.92	4	19	46.6	266.53	.0041	-23.53	-.0000	227450.6	1.08	-.01	.0037	113.77	-.0005	-23.76	77.41
RISE	61	1653.15	1664.40	4	20	51.1	293.00	.0041	-24.78	-.0000	233183.3	1.17	.00	.0026	123.30	.0027	-23.66	61.55
SET	42	1719.22	1730.47	4	21	57.2	105.00	.0041	-22.64	.0001	238779.3	1.77	1.53	-.0030	243.11	-.0023	-23.97	45.29
EXTM	51	1790.62	1801.87	4	23	8.6	359.98	.0042	-23.41	.0000	238778.2	1.41	87.67	.0000	.60	-.0687	-23.47	27.70
EXTM	61	1922.20	1933.45	5	1	20.2	.51	.0042	-24.58	.0000	253341.3	1.37	25.18	-.0000	180.51	.0142	-23.30	355.25
EXTM	72	1961.37	1972.62	5	1	59.4	.09	.0042	-23.63	.0000	253165.4	1.35	74.28	.0000	180.32	.0141	-23.29	345.58
RISE	11	2090.24	2101.49	5	4	8.2	288.27	.0042	-23.95	-.0000	269928.5	.98	.00	.0029	119.79	.0024	-23.09	313.74
SET	51	2149.90	2161.15	5	5	7.9	90.00	.0041	-22.50	.0000	273130.6	1.67	9.56	-.0035	249.54	-.0015	-23.02	298.99
SET	61	2191.10	2202.35	5	5	49.1	67.56	.0041	-23.91	.0000	277367.5	1.57	-.00	-.0026	237.93	.0027	-22.98	288.80
SET	72	2332.87	2344.12	5	8	10.9	93.33	.0041	-22.65	.0001	288083.0	1.66	-.01	-.0038	247.12	-.0005	-22.83	253.70
RISE	42	2336.14	2347.39	5	8	14.1	255.00	.0041	-22.05	-.0000	288194.2	.90	1.18	.0030	116.43	-.0023	-22.83	252.90
EXTM	11	2376.84	2388.09	5	8	54.8	.34	.0042	-23.86	.0000	288079.8	1.23	30.93	-.0000	180.37	.0045	-22.78	248.82
SET	11	2663.33	2674.58	5	13	41.3	72.35	.0042	-23.25	.0000	311806.1	1.48	-.00	-.0029	241.11	.0024	-22.51	171.79
EXTM	42	2755.02	2766.27	5	15	13.0	359.94	.0042	-22.18	.0000	311957.3	1.13	76.96	.0000	.24	-.0162	-22.43	149.03
RISE	51	2885.61	2896.86	5	17	23.6	269.99	.0042	-21.87	-.0000	326018.5	.72	9.30	.0035	109.88	-.0016	-22.32	116.60
RISE	72	3041.28	3052.53	5	19	59.3	266.78	.0042	-22.01	-.0000	337252.9	.66	-.00	.0038	112.23	-.0006	-22.17	77.74
RISE	61	3096.21	3107.46	5	20	54.2	291.91	.0042	-22.67	-.0000	340817.1	.78	.00	.0028	120.60	.0027	-22.11	64.02
SET	42	3172.81	3184.06	5	22	10.8	105.00	.0041	-21.40	.0000	345678.0	1.42	.77	-.0031	244.08	-.0023	-22.04	44.88
EXTM	51	3241.56	3252.81	5	23	19.5	359.99	.0042	-21.91	.0000	343881.6	1.07	86.17	-.0008	.26	-.0306	-21.98	27.70
EXTM	61	3370.64	3381.89	6	1	28.6	.35	.0042	-22.76	.0000	355598.9	1.08	27.00	-.0000	180.36	.0044	-21.85	359.41
EXTM	72	3409.80	3421.05	6	2	7.8	.07	.0043	-22.06	.0000	354878.1	1.08	75.84	.0000	180.26	.0156	-21.81	345.61
RISE	11	3529.89	3541.14	6	4	7.9	286.82	.0042	-22.30	.0000	368944.5	.80	.00	.0030	117.67	.0024	-21.68	319.50
SET	51	3596.87	3608.12	6	5	14.9	90.00	.0042	-21.18	.0001	372744.9	1.69	9.03	-.0036	250.76	-.0016	-21.58	298.64
IMPACT		3634.01	3645.26	6	5	52.0												
IMPC	72	3634.01	3645.26	6	5	52.0	97.36	.0044	-21.55	.0001	373947.4	2.30	33.19	-.0040	249.37	.0005	-21.48	289.18
IMPC	51	3634.01	3645.26	6	5	52.0	99.43	.0043	-21.04	.0001	376907.0	2.33	1.04	-.0036	247.05	-.0018	-21.48	289.18
IMPC	11	3634.01	3645.26	6	5	52.0	313.35	.0044	-22.21	.0001	375107.8	1.66	17.54	.0026	135.08	.0033	-21.48	289.18
IMPC	61	3634.01	3645.26	6	5	52.0	67.30	.0043	-22.17	.0001	376838.3	2.23	1.66	-.0028	238.72	.0029	-21.48	289.18
SET	61	3644.18	3655.43	6	6	2.2	69.86	.0044	-22.15	.0001	377650.5	2.88	-.00	-.0028	240.41	.0030	-21.47	286.64

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	3	17	17.981	6561.984	20.1697	305.7873	10.96924	-2.9201	112.7773	66.4486
SEPARATION		1.20	12.45	3	17	19.181	6545.169	17.3682	312.1698	10.98327	.5019	114.9307	73.1239
RETRO		3.20	14.45	3	17	21.181	6621.724	12.2881	322.2711	10.91898	6.1628	117.6540	83.7866
IMPACT		3634.01	3645.26	6	5	51.994	377077.043	-21.4829	289.1640	2.14919	63.6915	298.7341	240.8874

SURVEYOR VIEW PERIODS

GHA	225.4046				EPS	17.8254					LOM	282.4492	
SX	-.452460	SY	-.813107	SZ	-.366247	DAQ	-21.48434	RAQ	240.90586	RM	378327.375	LAT	28.310600
C3	-1.175056	ECC	.980707	SLR	12963.064	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000
NSX	-.431644	NSY	-.821518	NSZ	-.372547	C3M	1.4973	VIM	2.6714	ZAE	135.464	B.T	.0000
LATE	.9498	LONE	5.3092	LATS	-.2423	LONS	347.5668	LATI	-9.6275	LONI	321.8527	PSM	151.2819
LAUNCH DATE		MAY	3,1966		BASE AZM	105.0		TF	60.694			ARRIV.L DATE	MAY 6 1966 6 19 10.2

LNCH AZMTH	LNCH TIME		PB		INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME			INJ RAD		INJ VEL	INJ PTH	
105.00	17 19 16.7		27.8		19.02	305.40	-3.18	69.20	114.92	17 30 31.7			6549.7		10.98	-1.58	
EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DBL	AZI	DAZ	LAT	LONG
				PROBE IN SUNLIGHT														
INJECTION		.00	11.25	3	17	30.5												
SEPARATION		1.20	12.45	3	17	31.7												
RETRO		3.20	14.45	3	17	33.7												
RISE	72	4.94	16.19	3	17	35.5	83.48	-.1746	39.27	.0087	2501.6	-8.45	.00	.1315	309.72	.0325	5.92	329.27
EXTM	72	9.41	20.66	3	17	39.9	356.18	-.3090	9.13	-.2357	1367.3	3.02	72.55	.1629	12.66	1.1652	-4.92	346.34
RISE	51	11.13	22.38	3	17	41.7	80.75	-.0911	18.44	-.0453	5024.6	-3.89	-.00	.0976	290.25	-.0007	-8.36	351.83
EXTM	51	29.83	40.88	3	18	.2	1.90	-.0347	-25.84	-.0123	7500.3	5.37	88.29	.0305	266.07	-.4657	-25.80	26.66
EXTM	72	69.79	81.04	3	18	40.3	282.88	.0000	-31.83	.0000	23671.1	4.80	15.08	.0000	120.93	-.0000	-30.83	46.82
EXTM	51	88.17	99.42	3	18	58.7	333.40	-.0000	-31.74	.0002	25119.5	4.39	65.99	.0000	110.66	-.0004	-30.98	48.74
RISE	61	171.12	182.37	3	20	21.7	307.88	.0029	-35.96	.0005	50111.4	3.37	-.00	.0018	140.29	.0016	-30.07	42.83
EXTM	51	261.65	272.90	3	21	52.2	.28	.0035	-29.34	.0002	61949.3	3.06	86.39	-.0000	183.92	.0489	-29.00	27.43
EXTM	61	433.32	444.57	4	0	43.8	4.61	.0039	-31.13	.0002	94765.4	2.55	18.50	.0000	184.16	.0035	-27.57	351.40
EXTM	72	462.49	473.74	4	1	13.0	.84	.0040	-28.66	.0001	95393.1	2.49	69.23	.0000	182.09	.0100	-27.38	344.89
RISE	11	622.51	633.76	4	3	53.0	292.51	.0040	-28.48	.0000	123728.7	1.92	.00	.0027	125.70	.0023	-26.52	308.16
SET	51	655.01	666.26	4	4	25.5	90.00	.0039	-25.29	.0001	126839.2	2.53	10.69	-.0033	246.95	-.0013	-26.38	300.55
SET	61	678.61	689.86	4	4	49.1	62.85	.0040	-28.33	.0002	131079.3	2.40	-.00	-.0022	231.56	.0027	-26.28	295.00
SET	72	848.94	860.19	4	7	39.5	93.77	.0039	-25.30	.0001	152029.7	2.36	-.00	-.0035	244.44	-.0004	-25.64	254.54
RISE	42	859.93	871.18	4	7	50.5	254.99	.0040	-24.16	-.0000	153045.2	1.63	2.47	.0029	118.10	-.0022	-25.61	251.90
EXTM	11	901.78	913.03	4	8	32.3	1.34	.0042	-27.53	.0001	155279.8	1.91	27.25	-.0000	181.34	.0041	-25.48	241.86
SET	11	1178.38	1189.63	4	13	8.9	69.88	.0041	-25.99	.0001	188126.1	2.01	-.00	-.0028	237.56	.0024	-24.74	174.91
EXTM	42	1284.19	1295.44	4	14	54.7	359.86	.0042	-24.16	.0000	192611.8	1.64	78.94	.0000	.65	-.0197	-24.51	149.11
RISE	51	1419.60	1430.85	4	17	10.1	270.00	.0041	-23.56	-.0000	210728.5	1.20	9.99	.0034	111.45	-.0015	-24.24	115.99
RISE	72	1576.72	1587.97	4	19	47.3	266.49	.0041	-23.73	-.0000	226305.2	1.09	-.01	.0037	113.97	-.0009	-23.96	77.43
RISE	61	1642.23	1653.48	4	20	52.8	293.22	.0041	-24.98	.0000	232140.3	1.18	.00	.0026	123.59	.0027	-23.86	61.33
SET	42	1707.34	1718.59	4	21	57.9	105.00	.0041	-22.82	.0001	237651.1	1.78	1.65	-.0030	242.96	-.0023	-23.75	45.30
EXTM	51	1778.82	1790.07	4	23	9.3	359.99	.0042	-23.59	.0000	237680.1	1.42	87.85	-.0000	.50	-.0463	-23.65	27.69
EXTM	61	1910.48	1921.73	5	1	21.0	.54	.0042	-24.76	.0000	252286.3	1.37	25.00	-.0000	180.54	.0042	-23.46	355.22
EXTM	72	1949.57	1960.82	5	2	.1	.10	.0042	-23.80	.0000	252695.9	1.35	74.11	.0000	180.34	.0139	-23.41	345.57
RISE	11	2078.99	2090.24	5	4	9.5	288.41	.0042	-24.11	-.0000	268511.8	.99	.00	.0029	119.99	.0024	-23.24	313.60
SET	51	2138.04	2149.29	5	5	8.6	90.00	.0041	-22.64	.0001	272065.4	1.68	9.62	-.0035	249.41	-.0015	-23.17	299.00
SET	61	2178.58	2189.83	5	5	49.1	67.80	.0041	-24.06	.0001	276262.1	1.58	-.00	-.0026	237.72	.0027	-23.13	288.97
SET	72	2321.10	2332.35	5	8	11.6	93.35	.0041	-22.78	.0001	287045.8	1.66	-.01	-.0038	246.99	-.0005	-22.93	253.69
RISE	42	2324.32	2335.57	5	8	14.9	255.00	.0041	-22.18	-.0000	287145.3	.91	1.26	.0030	116.54	-.0023	-22.96	252.89
EXTM	11	2365.08	2376.33	5	8	55.6	.36	.0042	-24.00	.0000	287059.8	1.23	30.79	-.0000	180.38	.0045	-22.92	242.80
SET	11	2651.06	2662.31	5	13	41.6	72.25	.0042	-23.37	.0000	310751.9	1.48	-.00	-.0029	240.96	.0024	-22.63	171.89
EXTM	42	2743.16	2754.41	5	15	13.7	359.94	.0042	-22.29	.0000	310932.1	1.13	77.07	.0000	.26	-.0162	-22.54	149.04
RISE	51	2873.83	2885.08	5	17	24.4	270.00	.0041	-21.98	-.0000	324829.2	.72	9.35	.0035	109.98	-.0016	-22.43	116.60
RISE	72	3029.45	3040.70	5	19	60.0	266.76	.0042	-22.10	-.0000	336220.7	.66	-.00	.0038	112.33	-.0006	-22.26	77.75
RISE	61	3084.83	3096.08	5	20	55.4	291.01	.0042	-22.96	-.0000	339806.9	.77	.00	.0027	120.74	.0027	-22.21	63.91
SET	42	3161.01	3172.26	5	22	11.5	105.00	.0041	-21.48	.0001	344621.2	1.41	.83	-.0031	244.01	-.0023	-22.13	44.88
EXTM	51	3229.78	3241.03	5	23	20.3	359.99	.0042	-22.00	.0000	342818.0	1.07	86.26	-.0000	.29	-.0273	-22.06	27.69
EXTM	61	3358.89	3370.14	6	1	29.4	.35	.0042	-22.85	.0000	354510.9	1.07	26.91	-.0000	180.36	.0044	-21.94	355.40
EXTM	72	3398.04	3409.29	6	2	8.6	.07	.0043	-22.15	.0000	353766.9	1.08	75.76	.0000	180.26	.0154	-21.90	345.61
RISE	11	3518.48	3529.73	6	4	9.0	286.89	.0042	-22.38	.0000	367763.8	.78	.00	.0030	117.78	.0024	-21.76	315.42
SET	51	3585.24	3596.49	6	5	15.8	90.00	.0042	-21.27	.0000	371387.3	1.61	9.07	-.0036	250.68	-.0016	-21.67	298.64
SET	61	3632.19	3643.44	6	6	2.7	69.75	.0043	-22.25	.0001	376135.0	1.88	-.00	-.0028	240.27	.0028	-21.57	286.75
IMPACT		3641.62	3652.87	6	6	12.1												
IMPC	72	3641.62	3652.87	6	6	12.1	62.25	.0043	-21.58	.0001	374849.0	2.31	28.64	-.0040	249.68	.0003	-21.54	284.33
IMPC	51	3641.62	3652.87	6	6	12.1	104.27	.0043	-21.07	.0001	377419.5	2.31	-2.92	-.0039	244.90	-.0019	-21.54	284.33
IMPC	11	3641.62	3652.87	6	6	12.1	318.26	.0044	-22.28	.0001	374898.8	1.67	20.22	.0024	138.96	.0035	-21.54	284.33
IMPC	61	3641.62	3652.87	6	6	12.1	72.18	.0043	-22.20	.0001	377271.3	2.24	-1.59	-.0028	241.86	.0028	-21.54	284.33

EVNT	STA	TFI	TFL	DAY	HR	MIN	PAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	3	17	30.529	6549.677	19.0213	305.4029	10.97925	-1.5757	114.9206	69.2018
SEPARATION		1.20	12.45	3	17	31.729	6551.540	15.9969	311.6245	10.97757	1.8478	116.8856	75.7242
RETRO		3.20	14.45	3	17	33.729	6698.384	10.6349	321.4215	10.88828	7.4725	119.2662	86.0226
IMPACT		3641.62	3652.87	6	6	12.145	377148.090	-21.5374	284.3297	2.14571	63.4477	298.9362	241.02

SURVEYOR VIEW PERIODS

GHA	223.4046					EPS	18.0015							LOM	277.6146
SX	-.449513	SY	-.814349	SZ	-.367114	DAO	-21.53777	RAO	241.10171	RM	378394.094	LAT	28.310600	LON	279.461800
C3	-1.183206	ECC	.980573	SLR	12962.189	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.428579	NSY	-.822725	NSZ	-.373421	C3H	1.4972	VIM	2.6714	ZAE	135.175	B.T	.0000	B.R	-.0000
LATE	.9681	LONE	5.3145	LATS	-.2419	LONS	347.3973	LATI	-9.8490	LONI	321.6093	RSM	151.2821	TTAN	5.5582
LAUNCH DATE		MAY	3,1966		BASE AZM	108.0		TF	60.845			ARRIVAL DATE		MAY 6 1966	6 39 14.2

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	17 30 3.1	27.9	17.90	304.93	-.90	71.43	117.04	17 41 18.1	6545.1	10.98	-.44

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZ	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	3	17	41.3												
SEPARATION		1.20	12.45	3	17	42.5												
RETRO		3.20	14.45	3	17	44.5												
RISE	72	4.78	16.03	3	17	46.1	84.73	-.1568	33.50	-.0174	2590.9	-8.39	-.00	.1318	303.86	.0044	4.61	327.40
EXTM	72	9.21	20.46	3	17	50.5	9.81	-.3197	.92	-.2180	1391.1	2.24	76.83	.3832	311.61	.2338	-6.34	343.98
RISE	51	11.10	22.35	3	17	52.4	82.68	-.0850	14.81	-.0484	5177.7	-3.62	.00	.0951	286.48	-.0064	-10.14	349.80
EXTM	51	32.24	43.49	3	18	13.5	1.49	-.0292	-30.06	-.0979	8487.7	5.39	85.48	-.0000	196.65	-.3364	-28.21	26.85
EXTM	72	70.19	81.44	3	18	51.5	285.39	-.0000	-33.43	.0002	23691.3	4.78	17.17	.0000	122.63	-.0003	-31.99	44.42
EXTM	51	88.78	100.03	3	19	10.1	336.38	-.0001	-33.15	.0003	25303.2	4.37	68.20	.0000	115.42	-.0009	-32.03	46.33
RISE	61	166.60	177.85	3	20	27.9	309.63	.0028	-37.01	.0006	49216.1	3.40	-.00	.0018	142.05	.0015	-30.93	41.07
EXTM	51	249.71	260.96	3	21	51.0	.42	.0035	-30.22	.0002	59845.2	3.11	85.51	-.0000	184.63	.0383	-29.79	27.31
EXTM	61	424.38	435.63	4	0	45.7	5.06	.0039	-31.75	.0002	93495.3	2.57	17.86	.0000	184.52	.0035	-28.13	350.98
EXTM	72	452.29	463.54	4	1	13.6	.97	.0040	-29.26	.0002	93920.1	2.51	68.63	.0000	182.31	.0096	-27.93	344.77
RISE	11	614.26	625.51	4	3	55.6	292.97	.0040	-28.95	.0000	122639.8	1.93	.00	.0027	126.33	.0023	-26.96	307.67
SET	51	644.52	655.77	4	4	25.8	90.00	.0039	-25.72	.0001	125457.1	2.54	10.86	-.0032	246.55	-.0013	-26.81	300.59
SET	61	665.74	676.99	4	4	47.0	62.27	.0040	-28.81	.0002	129423.4	2.41	-.00	-.0022	230.86	.0027	-26.71	295.61
SET	72	838.92	850.17	4	7	40.2	93.83	.0039	-25.66	.0001	150834.9	2.36	-.00	-.0035	244.07	-.0004	-26.01	254.59
RISE	42	849.88	861.13	4	7	51.2	254.99	.0040	-24.51	-.0000	151828.1	1.64	2.68	.0029	118.38	-.0022	-25.97	251.88
EXTM	11	892.06	903.31	4	8	33.4	1.44	.0042	-27.89	.0001	154178.5	1.92	26.88	-.0000	180.83	.0041	-25.82	241.76
SET	11	1167.13	1178.38	4	13	8.4	69.60	.0041	-26.29	.0001	186219.3	2.02	-.00	-.0027	23[illegible].7	.0024	-25.03	175.20
EXTM	42	1274.20	1285.45	4	14	55.5	359.88	.0042	-24.42	.0000	191553.7	1.65	79.20	-.0000	.60	-.0201	-24.77	149.10
RISE	51	1409.61	1420.86	4	17	10.9	270.00	.0041	-23.80	-.0000	209691.1	1.20	10.09	.0034	111.67	-.0015	-24.48	115.97
RISE	72	1566.58	1577.83	4	19	47.9	266.46	.0041	-23.95	-.0000	225289.0	1.09	-.01	.0037	114.19	-.0005	-24.18	77.46
RISE	61	1633.19	1644.44	4	20	54.5	293.46	.0041	-25.20	.0000	231230.4	1.18	.00	.0026	123.90	-.0027	-24.06	61.88
SET	42	1697.27	1708.52	4	21	58.6	105.00	.0041	-23.02	.0001	236643.6	1.78	1.77	-.0030	242.80	-.0023	-23.96	45.31
EXTM	51	1763.01	1774.26	4	23	4.3	358.53	.0042	-23.80	.0000	236206.2	1.41	87.65	.0021	34.82	-.0780	-23.85	29.12
EXTM	61	1900.55	1911.80	5	1	21.9	.97	.0042	-24.95	.0000	251341.2	1.37	24.81	.0000	180.57	.0042	-23.64	355.19
EXTM	72	1939.56	1950.81	5	2	.9	.11	.0042	-23.98	.0000	251133.5	1.36	73.92	.0000	180.37	.0137	-23.59	345.56
RISE	11	2069.57	2080.82	5	4	10.9	288.56	.0042	-24.28	-.0000	267597.1	.99	.00	.0029	120.21	.0024	-23.41	313.44
SET	51	2127.97	2139.22	5	5	9.3	90.00	.0041	-22.80	.0001	271095.0	1.68	9.69	-.0035	249.26	-.0015	-23.33	299.80
SET	61	2167.81	2179.06	5	5	49.1	67.62	.0041	-24.22	.0001	275245.8	1.58	-.00	-.0026	237.49	.0027	-23.28	289.19
SET	72	2311.12	2322.37	5	8	12.4	93.37	.0041	-22.92	.0001	283894.0	1.66	-.01	-.0038	244.84	-.0005	-23.11	253.67
RISE	42	2314.29	2325.54	5	8	15.6	255.00	.0041	-22.33	-.0000	286180.3	.91	1.35	.0030	116.65	-.0023	-23.10	252.39
EXTM	11	2355.12	2366.37	5	8	56.4	.38	.0042	-24.14	.0000	286123.7	1.23	30.65	-.0000	180.41	.0045	-23.06	242.77
SET	11	2640.55	2651.80	5	13	1.9	72.14	.0042	-23.49	.0000	309763.2	1.48	-.00	-.0029	240.80	.0024	-22.79	172.01
EXTM	42	2733.08	2744.33	5	15	4.4	359.94	.0042	-22.40	.0000	309969.1	1.13	77.18	.0000	.28	-.0164	-22.66	149.84
RISE	51	2863.78	2875.03	5	17	25.1	270.00	.0041	-22.88	-.0000	323862.4	.72	9.39	.0035	110.08	-.0016	-22.53	116.59
RISE	72	3019.46	3030.71	5	20	.8	266.75	.0042	-22.21	-.0000	335247.8	.66	-.00	.0038	112.43	-.0006	-22.36	77.76
RISE	61	3075.33	3086.58	5	20	56.6	291.12	.0042	-23.06	-.0000	338856.0	.77	.00	.0027	120.88	.0027	-22.31	63.88
SET	42	3151.04	3162.29	5	22	12.3	105.00	.0041	-21.58	.0000	343620.0	1.41	.89	-.0031	243.94	-.0023	-22.23	44.88
EXTM	51	3219.82	3231.07	5	23	21.1	359.99	.0042	-22.09	.0000	341808.4	1.07	86.35	-.0000	.27	-.0284	-22.16	27.69
EXTM	61	3348.97	3360.22	6	1	30.3	.36	.0042	-22.94	.0000	353475.4	1.07	26.82	-.0000	180.37	.0044	-22.02	355.39
EXTM	72	3388.08	3399.33	6	2	9.4	.07	.0043	-22.23	.0000	352707.4	1.07	75.67	.0000	180.27	.0195	-21.98	345.60
RISE	11	3508.84	3520.09	6	4	10.1	286.97	.0042	-22.47	.0000	366642.1	.77	.00	.0038	117.89	.0024	-21.84	315.34
SET	51	3575.33	3586.58	6	5	16.6	90.00	.0042	-21.36	.0000	370136.0	1.56	9.10	-.0036	250.60	-.0016	-21.75	290.64
SET	61	3622.01	3633.26	6	6	3.3	69.64	.0042	-22.35	.0001	374977.2	1.64	-.00	-.0028	240.12	.0028	-21.67	286.86
IMPACT		3650.69	3661.94	6	6	32.0												
IMPC	72	3650.69	3661.94	6	6	32.0	67.87	.0043	-21.61	.0001	374964.5	2.32	24.17	-.0040	249.81	.0082	-21.59	279.55
IMPC	11	3650.69	3661.94	6	6	32.0	323.89	.0044	-22.35	.0001	374721.4	1.69	22.65	.0022	143.00	.0037	-21.59	279.55
IMPC	61	3650.69	3661.94	6	6	32.0	76.98	.0043	-22.23	.0001	377709.8	2.23	-4.89	-.0029	244.84	.0027	-21.59	279.55

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	3	17	41.301	6545.062	17.9020	304.9334	10.98279	-.4437	117.0417	71.4328
SEPARATION		1.20	12.45	3	17	42.501	6562.520	14.6636	310.9879	10.96793	2.9755	118.8260	77.7882
RETRO		3.20	14.45	3	17	44.501	6694.394	9.0346	320.4774	10.85829	8.5585	120.4950	87.7720
IMPACT		3650.69	3661.94	6	6	31.989	377220.682	-21.5988	279.5496	2.14157	63.0697	299.0693	241.2190

SURVEYOR VIEW PERIODS

QHA	223.4046					EPS	18.1741							LOM	272.8768
SX	-.446621	SY	-.815558	SZ	-.367960	DAO	-21.58988	RAO	241.29370	RM	378459.578	LAT	28,310600	LON	279.461800
C3	-1.192629	ECC	.980418	SLR	12961.176	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.425556	NSY	-.823804	NSZ	-.374279	C3M	1.4971	VIM	2.6714	ZAE	134.842	B.T	.0000	B.R	-.0000
LATE	.9900	LONE	5.3191	LATS	-.2415	LONS	347.2608	LATI	-10.0898	LONI	321.3250	RSM	151.2823	TTAN	5.5534
LAUNCH DATE		MAY	3.1966		BASE AZM	111.0		TF	61.018			ARRIVAL DATE		MAY 6 1966	6 58 54.2

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	17 39 20.6	28.0	16.81	304.40	1.03	73.22	119.15	17 50 35.6	6545.2	10.98	.51

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELF	DEL	AZI	DAZ	LAT	LONG
			PROBE IN SUNLIGHT														
INJECTION	.00	11.25	3	17	50.6												
SEPARATION	1.20	12.45	3	17	51.8												
RETRO	3.20	14.45	3	17	53.8												
RISE 72	4.68	15.93	3	17	55.3	85.74	-.1431	28.16	-.0404	2678.3	-8.20	.00	.1309	298.45	-.0202	3.21	325.74
EXTM 72	9.98	21.23	3	18	.6	5.48	-.2634	-17.12	-.1500	1655.3	4.27	79.34	-.0000	209.60	-1.5849	-9.81	344.57
RISE 51	11.11	22.36	3	18	1.7	84.48	-.0796	11.28	-.0512	5322.3	-3.35	.00	.0926	282.54	-.0114	-12.01	347.93
EXTM 51	34.30	45.55	3	18	24.9	2.11	-.0262	-33.55	-.0054	9284.6	5.36	81.97	-.0000	192.73	-.1610	-30.38	26.47
EXTM 72	70.30	81.55	3	19	.9	287.51	-.0000	-35.13	.0005	23654.5	4.77	18.84	-.0000	124.50	-.0005	-33.26	42.33
EXTM 51	88.63	99.88	3	19	19.2	338.91	-.0002	-34.69	.0005	25297.1	4.37	69.75	.0000	121.23	-.0016	-33.19	44.26
RISE 61	164.91	176.16	3	20	35.5	311.46	.0028	-38.04	.0006	48914.3	3.41	-.00	.0018	143.83	.0014	-31.85	39.30
EXTM 51	239.95	251.20	3	21	50.5	.62	.0034	-31.18	.0003	58070.0	3.15	84.53	-.0000	185.57	.0307	-30.65	27.13
EXTM 61	417.32	428.57	4	0	47.9	5.53	.0039	-32.41	.0003	92499.9	2.59	17.17	.0000	184.89	.0035	-28.73	350.54
EXTM 72	443.88	455.13	4	1	14.5	1.11	.0040	-29.91	.0002	92700.1	2.52	67.97	.0000	182.56	.0093	-28.52	344.64
RISE 11	607.81	619.06	4	3	58.4	293.48	.0040	-29.45	.0001	121776.6	1.94	.00	.0027	126.99	.0023	-27.44	307.15
SET 51	635.69	646.94	4	4	26.3	90.00	.0038	-29.15	.0001	124272.7	2.55	11.05	-.0032	246.11	-.0013	-27.29	300.63
SET 61	654.28	665.53	4	4	44.9	61.63	.0040	-29.32	.0002	127927.2	2.42	-.00	-.0022	230.10	.0027	-27.19	296.28
SET 72	830.52	841.77	4	7	41.1	93.80	.0039	-26.05	.0001	149814.8	2.37	-.00	-.0035	243.68	-.0004	-26.40	254.47
RISE 42	841.42	852.67	4	7	52.0	254.99	.0040	-24.89	-.0000	150778.5	1.65	2.92	.0029	118.68	-.0022	-26.36	251.86
EXTM 11	883.96	895.21	4	8	34.6	1.55	.0042	-28.29	.0001	153249.6	1.92	26.49	.0000	181.53	.0041	-26.19	241.66
SET 11	1157.35	1168.60	4	13	7.9	69.30	.0041	-26.61	.0001	185842.8	2.02	-.00	-.0027	236.76	.0024	-25.33	175.51
EXTM 42	1269.68	1276.93	4	14	56.3	359.87	.0042	-24.72	.0000	190319.4	1.65	79.49	-.0000	.64	-.0207	-25.05	149.10
RISE 51	1401.15	1412.40	4	17	11.7	270.00	.0041	-24.06	-.0000	208775.1	1.20	10.19	.0034	111.91	-.0015	-24.74	115.96
RISE 72	1557.96	1569.21	4	19	48.6	266.42	.0041	-24.18	-.0000	224384.0	1.09	-.01	.0037	114.43	-.0005	-24.42	77.48
RISE 61	1625.75	1637.00	4	20	56.3	293.72	.0041	-25.42	.0000	230434.8	1.18	.00	.0026	124.22	.0027	-24.29	60.82
SET 42	1688.73	1699.98	4	21	59.3	105.00	.0041	-23.23	.0001	235740.0	1.78	1.90	-.0030	242.64	-.0023	-24.17	45.32
EXTM 51	1754.58	1765.83	4	23	5.2	358.55	.0042	-24.01	.0000	235329.6	1.41	87.83	.0023	37.55	-.0818	-24.06	29.09
EXTM 61	1892.18	1903.43	5	1	22.8	.61	.0042	-25.14	.0000	250493.1	1.37	24.61	.0000	180.60	.0042	-23.83	355.16
EXTM 72	1931.07	1942.32	5	2	1.7	.12	.0042	-24.17	.0000	250263.1	1.36	73.73	.0000	180.39	.0136	-23.77	345.96
RISE 11	2061.70	2072.95	5	4	12.3	288.72	.0042	-24.45	-.0000	266769.8	.99	.00	.0029	120.44	.0024	-23.58	313.28
SET 51	2119.41	2130.66	5	5	10.0	90.00	.0041	-27.97	.0001	270206.0	1.68	9.76	-.0035	249.10	-.0015	-23.50	299.01
SET 61	2158.49	2169.74	5	5	49.1	67.43	.0041	-24.39	.0001	274305.8	1.57	-.03	-.0026	237.25	.0027	-23.45	289.34
SET 72	2302.64	2313.89	5	8	13.2	93.40	.0041	-23.07	.0001	285215.5	1.66	-.00	-.0038	246.69	-.0005	-23.26	253.65
RISE 42	2305.76	2317.01	5	8	16.4	255.00	.0041	-22.47	-.0000	285287.3	.91	1.44	.0030	116.77	-.0023	-23.26	252.88
EXTM 11	2346.66	2357.91	5	8	57.3	.41	.0042	-24.29	.0000	285259.7	1.23	30.50	-.0000	180.43	.0045	-23.20	242.75
SET 11	2631.51	2642.76	5	13	42.1	72.03	.0042	-23.62	.0000	308830.6	1.48	-.00	-.0029	240.63	.0024	-22.87	172.12
EXTM 42	2724.49	2735.74	5	15	19.1	359.93	.0042	-22.52	.0000	309059.5	1.13	77.30	.0000	.29	-.0170	-22.78	149.05
RISE 51	2855.21	2866.46	5	17	25.8	270.00	.0041	-22.19	-.0000	322943.0	72	9.44	.0035	110.18	-.0016	-22.64	116.59
RISE 72	3010.96	3022.21	5	20	1.6	266.73	.0042	-22.31	-.0000	334317.8	.66	-.00	.0038	112.54	-.0006	-22.47	77.77
RISE 61	3067.33	3078.58	5	20	57.9	291.23	.0042	-23.17	-.0000	337947.1	.77	.00	.0027	121.02	.0027	-22.41	63.69
SET 42	3142.57	3153.82	5	22	13.2	105.00	.0041	-21.67	.0000	342657.9	1.41	.94	-.0031	243.86	-.0023	-22.33	44.89
EXTM 51	3211.30	3222.55	5	23	21.9	359.98	.0042	-22.19	.0000	340833.3	1.06	88.45	.0000	.41	-.0462	-22.25	27.71
EXTM 61	3340.53	3351.78	6	1	31.1	.38	.0042	-23.03	.0000	352476.1	1.06	26.73	-.0000	180.39	.0044	-22.11	355.38
EXTM 72	3379.60	3390.85	6	2	10.2	.07	.0043	-22.32	.0000	351683.7	1.06	75.28	.0000	180.27	.0154	-22.07	345.60
RISE 11	3500.68	3511.93	6	4	11.3	287.04	.0042	-22.55	.0000	365562.2	.75	.00	.0030	118.00	.0024	-21.93	315.27
SET 51	3566.88	3578.13	6	5	17.5	90.00	.0042	-21.44	.0000	368939.0	1.53	9.13	-.0036	250.52	-.0016	-21.84	298.64
SET 61	3613.25	3624.50	6	6	3.8	69.54	.0042	-22.45	.0001	373210.0	1.54	-.00	-.0028	239.99	.0028	-21.76	286.97
IMPACT	3661.05	3672.30	6	6	51.6												
IMPC 72	3661.05	3672.30	6	6	51.6	71.84	.0043	-21.63	.0001	375091.5	2.32	19.74	-.0040	249.78	.0000	-21.64	274.81
IMPC 11	3661.05	3672.30	6	6	51.6	327.88	.0044	-22.42	.0001	374573.2	1.70	24.83	.0020	147.21	.0039	-21.64	274.81

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	3	17	50.593	6545.194	16.8107	304.3961	10.98224	.5124	119.1496	73.2249
SEPARATION	1.20	12.45	3	17	51.793	6575.813	13.3631	310.2839	10.95630	3.9271	120.7626	79.4135
RETRO	3.20	14.45	3	17	53.793	6728.732	7.4711	319.4768	10.82983	9.4726	122.5218	89.1077
IMPACT	3661.05	3672.30	6	6	51.647	377293.203	-21.6436	274.8145	2.13703	62.6578	299.2195	241.4118

SURVEYOR VIEW PERIODS

GHA	223.4046					EPS	18.4049							LUM	266.5375
SX	-.442746	SY	-.817161	SZ	-.369086	DAO	-21,65924	RAO	241.55071	RM	378547.355	LAT	28.310 0	LON	279.461800
C3	-1.207117	ECC	.980180	SLR	12959.619	RCA	6544.6650	LTA	20.0000	GTA	20.00	TB	675.00.30	POL	-.0
NSX	-.421483	NSY	-.825474	NSZ	-.375427	C3M	1.4968	VIM	2.6713	ZAE	134.336	B.T	.0000	B.R	-.0000
LATE	1.0192	LONE	5.3257	LATS	-.2409	LONS	347.0086	LATI	-10.4289	LONI	320.8861	RSM	151.2826	TTAN	5.5432
LAUNCH DATE		MAY	3.1966	BASE AZM		115.0	TF	61.283				ARRIVAL DATE		MAY 6 1966	7 25 12.9

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	17 49 54.0	28.1	15.40	303.59	3.17	75.07	121.95	18 1 9.0	6549.6	10.98	1.57

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT												
INJECTION		.00	11.25	3	18	1.1												
SEPARATION		1.20	12.45	3	18	2.3												
RETRO		3.20	14.45	3	18	4.3												
RISE	72	4.61	15.86	3	18	5.8	86.87	-.1284	21.51	-.0667	2795.5	-7.77	-.00	.1280	291.72	-.0483	1.22	323.77
EXTN	72	10.36	21.61	3	18	11.5	11.27	-.2419	-29.78	-.1120	1960.5	4.63	65.70	-.0000	204.35	-.5784	-13.04	343.29
RISE	51	11.18	22.43	3	18	12.3	86.75	-.0732	6.70	-.0546	5507.4	-2.98	.00	.0892	277.44	-.0173	-14.62	345.63
EXTN	51	37.63	48.88	3	18	38.8	1.96	-.0222	-37.92	-.0026	10918.4	5.30	77.71	-.0000	187.28	-.0832	-33.33	26.53
EXTN	72	70.63	81.88	3	19	11.8	289.79	-.0001	-37.50	.0008	23691.9	4.75	20.47	.0000	127.17	-.0008	-35.10	40.03
EXTN	51	87.04	98.29	3	19	28.2	341.73	-.0006	-36.94	.0008	24938.5	4.38	70.85	.0000	130.20	-.0027	-34.90	41.90
RISE	61	166.23	177.48	3	20	47.4	313.95	.0028	-39.36	.0007	49269.2	3.40	.00	.0018	146.18	.0014	-33.10	36.97
EXTN	51	229.67	240.92	3	21	50.8	.94	.0033	-32.58	.0004	56179.7	3.20	83.11	.0000	186.59	.0236	-31.88	26.85
EXTN	61	409.67	420.92	4	0	50.8	6.06	.0039	-33.34	.0003	91427.8	2.60	16.21	.0000	185.27	.0034	-29.60	350.06
EXTN	72	435.02	446.27	4	1	16.2	1.32	.0040	-30.83	.0002	91403.6	2.54	67.04	.0000	182.92	.0088	-29.36	344.45
RISE	11	601.55	612.80	4	4	2.7	294.20	.0040	-30.15	.0001	120916.8	1.95	.00	.0026	127.94	.0023	-28.11	306.40
SET	51	626.04	637.29	4	4	27.2	90.00	.0038	-26.86	.0002	122944.4	2.56	11.31	-.0032	245.48	-.0012	-27.96	300.68
SET	61	640.74	651.99	4	4	41.9	60.69	.0040	-30.05	.0002	126129.6	2.43	-.00	-.0021	229.00	.0027	-27.88	297.24
SET	72	821.41	832.66	4	7	42.6	93.99	.0039	-26.60	.0001	148674.7	2.37	-.00	-.0035	243.12	-.0004	-26.96	254.41
RISE	42	832.17	843.42	4	7	53.3	254.99	.0040	-25.44	-.0000	149568.6	1.66	3.25	.0028	119.11	-.0022	-26.91	251.83
EXTN	11	875.23	886.48	4	8	36.4	1.71	.0042	-28.84	.0001	152226.5	1.93	25.93	.0000	181.66	.0041	-26.73	241.91
SET	11	1146.15	1157.40	4	13	7.3	68.86	.0041	-27.06	.0001	184563.6	2.02	.00	-.0027	236.16	.0024	-25.77	175.96
EXTN	42	1256.28	1267.53	4	14	57.4	359.87	.0042	-25.13	.0000	189934.8	1.65	79.91	-.0000	.69	-.0214	-25.46	149.11
RISE	51	1391.82	1403.07	4	17	13.0	270.00	.0041	-24.43	-.0000	207700.2	1.21	10.34	.0034	112.25	-.0015	-25.11	115.85
RISE	72	1548.38	1559.63	4	19	49.5	266.36	.0041	-24.51	-.0000	223309.8	1.09	-.01	.0037	114.76	-.0006	-24.75	77.53
RISE	61	1617.85	1629.10	4	20	59.0	294.09	.0041	-25.75	.0000	229910.9	1.18	.00	.0026	124.69	.0027	-24.60	60.44
SET	42	1679.26	1690.51	4	22	.4	105.00	.0041	-23.53	.0001	234657.1	1.78	2.09	-.0030	242.40	-.0022	-24.48	49.33
EXTN	51	1746.21	1757.46	4	23	7.4	358.82	.0042	-24.31	.0000	234358.6	1.41	88.22	.0023	37.12	-.0999	-24.35	28.83
EXTN	61	1882.93	1894.18	5	1	24.1	.66	.0042	-25.43	.0000	249673.2	1.37	24.33	.0000	180.65	.0042	-24.11	355.11
EXTN	72	1921.66	1932.91	5	2	2.8	.13	.0042	-24.45	.0000	249208.6	1.35	73.46	.0000	180.43	.0134	-24.04	345.94
RISE	11	2053.15	2064.40	5	4	14.3	288.94	.0042	-24.70	-.0000	265766.7	.99	.00	.0029	120.76	.0024	-23.83	313.05
SET	51	2109.90	2121.15	5	5	11.0	90.00	.0041	-23.21	.0001	269111.7	1.67	9.85	-.0035	248.88	-.0015	-23.74	299.01
SET	61	2147.90	2159.15	5	5	49.1	67.17	.0042	-24.64	.0001	273136.4	1.57	-.00	-.0026	236.90	.0027	-23.68	280.61
SET	72	2293.24	2304.49	5	8	14.4	93.43	.0041	-23.29	.0001	284123.9	1.66	-.00	-.0037	246.47	-.0005	-23.47	253.63
RISE	42	2296.27	2307.52	5	8	17.4	255.00	.0041	-22.69	-.0000	284174.8	.90	1.57	.0030	116.93	-.0023	-23.47	252.88
EXTN	11	2337.28	2348.53	5	8	58.4	.44	.0042	-24.51	.0000	284185.9	1.23	30.28	-.0000	180.47	.0044	-23.41	248.72
SET	11	2621.29	2632.54	5	13	42.4	71.86	.0042	-23.80	.0000	307642.5	1.48	-.00	-.0029	240.40	.0024	-23.05	178.29
EXTN	42	2714.90	2726.15	5	15	16.1	359.93	.0042	-22.69	.0000	307898.1	1.13	77.47	.0000	.32	-.0172	-22.94	149.05
RISE	51	2845.65	2856.90	5	17	26.8	270.00	.0041	-22.35	-.0000	321760.5	.72	9.50	.0035	110.32	-.0016	-22.80	116.58
RISE	72	3001.45	3012.70	5	20	2.6	266.71	.0042	-22.45	-.0000	333111.3	.65	-.01	.0038	112.68	-.0006	-22.61	77.79
RISE	61	3058.51	3069.76	5	20	59.7	291.39	.0042	-23.31	-.0000	336767.4	.76	.00	.0027	121.22	.0027	-22.55	63.53
SET	42	3133.09	3144.34	5	22	14.2	105.00	.0041	-21.81	.0000	341402.1	1.40	1.03	-.0031	243.76	-.0023	-22.46	44.89
EXTN	51	3201.82	3213.07	5	23	23.0	359.98	.0042	-22.32	.0000	339961.4	1.06	86.58	.0000	.43	-.0495	-22.38	27.71
EXTN	61	3331.12	3342.37	6	1	32.3	.30	.0042	-23.15	.0000	351165.2	1.05	26.61	-.0000	180.40	.0044	-22.23	359.36
EXTN	72	3370.14	3381.39	6	2	11.3	.08	.0043	-22.44	.0000	350339.3	1.05	75.46	.0000	180.29	.0153	-22.19	349.60
RISE	11	3491.64	3502.89	6	4	12.8	287.15	.0042	-22.67	.0000	364148.5	.73	.01	.0030	118.15	.0024	-22.04	315.16
SET	51	3557.44	3568.69	6	5	18.6	90.00	.0042	-21.55	.0000	367398.2	1.49	9.18	-.0036	250.41	-.0016	-21.95	298.65
SET	61	3603.35	3614.60	6	6	4.5	69.41	.0042	-22.57	.0000	371908.1	1.46	-.00	-.0027	239.81	.0028	-21.88	287.10
IMPACT		3676.99	3688.24	6	7	18.1												
IMPC	72	3676.99	3688.24	6	7	18.1	78.25	.0043	-21.67	.0001	375820.6	2.32	13.78	-.0040	249.53	-.0001	-21.71	268.43
IMPC	11	3676.99	3688.24	6	7	18.1	334.35	.0044	-22.50	.0001	374418.8	1.72	27.37	.0017	153.23	.0041	-21.71	268.43

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	3	18	1.149	6549.636	15.3978	303.5937	10.97784	1.5691	121.9497	75.0687
SEPARATION		1.20	12.45	3	18	2.349	6594.679	11.6877	309.2429	10.93980	4.9709	123.3450	81.0187
RETRO		3.20	14.45	3	18	4.349	6770.287	5.4593	318.0405	10.79554	10.4651	124.7363	90.3176
IMPACT		3676.99	3688.24	6	7	18.138	377391.098	-21.7144	268.4335	2.13036	62.1117	299.4859	241.6717

SURVEYOR VIEW PERIODS

GHA	224.3902					EPS	29.9540							LOM	305.2365
SX	-.239658	SY	-.877158	SZ	-.416123	DAQ	-24.59007	RAC	254.71853	RM	383180.016	LAT	28.310600	LON	279.461800
C3	-1.064934	ECC	.982515	SLR	12974.900	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.218121	NSY	-.880904	NSZ	-.420038	C3M	1.4932	VIM	2.6707	ZAE	138.133	B.T	.0000	B.R	-.0000
LATE	2.4481	LONE	5.4944	LATS	-.2131	LONS	335.7231	LATI	-6.0405	LONI	324.4382	RSM	151.2890	TTAN	6.4107

LAUNCH DATE MAY 4,1966 BASE AZM 87.0 TF 60.347 ARRIVAL DATE MAY 7 1966 5 39 26.3

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
87.00	17 14 21.4	27.1	25.98	307.11	-15.75	70.66	101.89	17 25 36.4	6668.7	10.88	-7.80

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDB	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	4	17	25.6												
SEPARATION	1.20	12.45	4	17	26.8												
RETRO	3.20	14.45	4	17	28.8												
RISE 72	6.93	18.18	4	17	32.5	18.88	-1.5563	81.66	-.0181	2422.7	-3.88	-.00	.0895	357.31	.2081	12.87	344.69
RISE 51	12.06	23.31	4	17	37.7	64.13	-.1445	42.14	-.0240	4493.8	-4.25	.00	.1009	318.14	.0433	1.81	5.07
EXTM 72	12.40	23.65	4	17	38.0	291.06	-.0350	19.27	-.1236	3137.8	6.48	16.90	-.0000	67.03	.1337	1.15	6.20
EXTM 51	27.45	38.70	4	17	53.1	341.62	-.0331	-6.55	-.0280	6405.2	5.58	64.00	-.0000	45.61	.0985	-16.32	37.35
EXTM 72	65.80	77.05	4	18	31.4	269.66	-.0002	-24.99	-.0015	23152.4	4.96	3.03	.0000	114.81	.0015	-25.97	59.22
RISE 42	66.77	78.02	4	18	32.4	102.83	-.0054	-17.46	-.0034	23777.4	4.26	.00	.0062	248.45	.0004	-26.05	59.42
EXTM 51	79.62	90.87	4	18	45.2	317.62	-.0002	-25.85	-.0012	22908.6	4.59	52.02	.0000	99.74	.0020	-26.89	61.21
EXTM 42	127.31	138.56	4	19	32.9	96.57	.0005	-23.18	-.0006	38889.5	3.99	8.11	-.0000	247.29	-.0008	-28.12	60.78
SET 42	211.53	222.78	4	20	57.1	105.00	.0024	-24.67	-.0001	57832.1	3.53	2.78	-.0017	241.50	-.0014	-28.39	49.59
RISE 61	221.57	232.82	4	21	7.2	303.51	.0033	-33.12	.0002	60138.7	3.08	.00	.0019	135.71	.0020	-28.38	47.87
EXTM 51	326.52	337.77	4	22	52.1	.05	.0037	-28.37	.0001	73274.1	2.85	87.37	-.0000	181.09	.0683	-28.16	27.64
EXTM 61	484.56	495.81	5	1	30.2	2.62	.0040	-31.05	.0001	102485.3	2.47	18.67	.0000	182.37	.0036	-27.75	353.27
EXTM 72	519.90	531.15	5	2	5.5	.44	.0041	-28.85	.0001	103875.0	2.40	69.05	-.0000	181.08	.0099	-27.66	345.26
RISE 11	682.30	693.55	5	4	47.9	293.18	.0040	-29.15	-.0000	131867.5	1.87	.00	.0026	126.60	.0023	-27.31	307.63
SET 51	713.00	724.25	5	5	18.6	90.00	.0039	-26.23	.0001	134602.5	2.48	11.96	-.0032	246.07	-.0013	-27.25	300.41
SET 61	731.92	743.17	5	5	37.5	61.81	.0040	-29.18	.0001	138224.6	2.36	-.00	-.0022	230.31	.0027	-27.21	295.94
SET 72	906.99	918.24	5	8	32.6	93.99	.0040	-26.58	.0001	159399.6	2.32	-.00	-.0035	243.15	-.0005	-26.91	254.22
RISE 42	916.37	927.62	5	8	42.0	255.00	.0040	-25.51	-.0000	160114.0	1.61	3.30	.0029	119.17	-.0022	-26.89	251.97
EXTM 11	956.54	967.79	5	9	22.1	.86	.0042	-28.82	.0000	162311.5	1.89	25.97	-.0000	180.84	.0041	-26.83	242.32
SET 11	1228.29	1239.54	5	13	53.9	68.25	.0041	-27.69	.0001	194303.4	2.00	.01	-.0027	235.33	.0024	-26.46	176.49
EXTM 42	1340.97	1352.22	5	15	46.6	359.97	.0042	-26.05	.0000	199409.6	1.64	80.83	-.0000	.20	-.0189	-26.33	149.01
RISE 51	1475.82	1487.07	5	18	1.4	270.00	.0041	-25.54	-.0000	217408.1	1.20	10.79	.0034	113.29	-.0015	-26.19	116.01
RISE 72	1631.53	1642.78	5	20	37.1	266.14	.0041	-25.80	-.0000	232966.3	1.10	-.01	.0037	116.07	-.0005	-26.03	77.80
RISE 61	1708.17	1719.42	5	21	53.8	295.63	.0041	-27.07	-.0000	239810.3	1.19	.00	.0025	126.60	.0027	-25.96	58.96
SET 42	1763.72	1774.97	5	22	49.3	105.00	.0041	-25.01	.0000	244351.2	1.78	2.99	-.0029	241.23	-.0022	-25.92	45.29
EXTM 51	1827.45	1838.70	5	23	53.1	358.05	.0042	-25.86	.0000	243897.8	1.41	88.24	.0038	94.51	.0074	-25.86	29.59
EXTM 61	1966.15	1977.40	6	2	11.8	.37	.0042	-27.04	.0000	259420.1	1.38	22.73	.0000	180.36	.0041	-25.75	355.39
EXTM 72	2005.98	2017.23	6	2	51.6	.12	.0042	-26.15	.0000	259163.5	1.37	71.75	-.0000	180.34	.0119	-25.72	345.56
RISE 11	2144.02	2155.27	6	5	9.6	290.97	.0042	-26.47	-.0000	276293.0	1.01	.00	.0028	123.07	.0024	-25.62	311.46
SET 51	2194.47	2205.72	6	6	.1	90.00	.0041	-25.08	.0000	279106.5	1.68	10.60	-.0034	247.14	-.0015	-25.58	298.98
SET 61	2223.93	2235.18	6	6	29.5	65.04	.0042	-26.50	.0000	282983.6	1.58	.00	-.0025	234.23	.0027	-25.56	291.70
SET 72	2379.23	2390.48	6	9	4.8	93.76	.0041	-25.28	.0000	294502.4	1.67	-.01	-.0037	244.46	-.0005	-25.46	253.26
RISE 42	2380.71	2391.96	6	9	6.3	255.00	.0041	-24.70	-.0000	294302.0	.93	2.80	.0030	118.53	-.0023	-25.46	252.90
EXTM 11	2421.08	2432.33	6	9	46.7	.26	.0042	-26.51	.0000	294643.5	1.25	28.28	-.0000	180.26	.0043	-25.43	242.90
SET 11	2697.99	2709.24	6	14	23.6	69.86	.0042	-26.01	.0000	317797.3	1.50	-.00	-.0028	237.54	.0024	-25.27	174.26
EXTM 42	2799.77	2811.02	6	16	5.4	359.97	.0042	-25.01	.0000	318723.7	1.16	79.79	.0000	.19	-.0175	-25.21	149.01
RISE 51	2930.04	2941.29	6	18	15.6	270.00	.0042	-24.70	-.0000	332880.4	.75	10.46	.0035	112.51	-.0015	-25.13	116.60
RISE 72	3083.95	3095.20	6	20	49.6	266.30	.0042	-24.89	-.0000	344401.8	.70	-.00	.0037	115.14	-.0005	-25.04	78.21
RISE 61	3153.50	3164.75	6	21	59.1	294.09	.0042	-25.75	-.0000	349847.8	.82	.00	.0026	124.69	.0027	-25.00	60.85
SET 42	3217.49	3228.74	6	23	3.1	105.00	.0041	-24.33	.0000	353022.7	1.45	2.58	-.0030	241.76	-.0023	-24.96	44.88
EXTM 51	3283.83	3295.08	7	0	9.4	359.37	.0042	-24.91	.0000	351404.9	1.11	88.99	.0022	34.84	-.1802	-24.93	28.31
EXTM 61	3415.07	3426.32	7	2	20.7	.25	.0042	-25.75	.0000	363919.4	1.13	24.01	-.0000	180.25	.0042	-24.84	355.50
EXTM 72	3454.55	3465.80	7	3	.2	.06	.0043	-25.11	.0000	363141.9	1.14	72.79	.0000	180.18	.0124	-24.82	345.62
RISE 11	3585.11	3596.36	7	5	10.7	289.91	.0042	-25.32	-.0000	378623.9	1.03	.00	.0029	121.57	.0024	-24.71	312.83
IMPACT	3620.83	3632.08	7	5	46.4												
IMPC 72	3620.83	3632.08	7	5	46.4	42.64	.0044	-24.82	.0001	377375.8	2.31	45.98	-.0038	242.21	.0016	-24.65	303.74
IMPC 51	3620.83	3632.08	7	5	46.4	84.89	.0043	-24.30	.0001	380332.3	2.41	14.59	-.0037	249.72	-.0015	-24.65	303.74
IMPC 11	3620.83	3632.08	7	5	46.4	298.66	.0043	-25.31	.0000	381248.9	1.70	6.19	.0029	127.07	.0027	-24.65	303.74
IMPC 61	3620.83	3632.08	7	5	46.4	52.65	.0043	-25.40	.0001	381035.7	2.27	8.13	-.0024	226.50	.0032	-24.65	303.74
SET 51	3642.51	3653.76	7	6	8.1	90.00	.0043	-24.34	.0001	380164.8	2.09	10.31	-.0036	247.83	-.0015	-24.71	298.63

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	4	17	25.607	6674.970	26.0154	306.8994	10.88495	-7.8034	101.7920	70.4501
SEPARATION	1.20	12.45	4	17	26.807	6584.696	24.4026	314.0751	10.95466	-4.4522	104.9857	77.9266
RETRO	3.20	14.45	4	17	28.807	6547.798	20.9710	325.4780	10.98576	1.2481	109.5932	89.8308
IMPACT	3620.83	3632.08	7	5	46.433	381988.039	-24.6485	303.7412	2.19394	66.7365	290.1247	254.9761

SURVEYOR VIEW PERIODS

DHA	224.3902						EPS	30.1696							LOM	299.1560	
SX	-.235726	SY	-.877891	SZ	-.416821	DAO	-24,63406	RAO	254.96983	RM	383270.129	LAT	28,310600	LON	279.461800		
C3	-1.058932	ECC	.982613	SLR	12975.542	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0		
NSX	-.214230	NSY	-.881950	NSZ	-.420684	C3H	1.4964	VIN	2.6713	ZAS	138.253	B.T	.0000	B.R	-.0000		
LATE	2.4739	LONE	5.4950	LATS	-.2126	LONS	335,9098	LATI	-5.9293	LONI	324.5456	RSN	151.2890	TTAN	6.4241		
LAUNCH DATE		MAY	4,1966		BASE AZM	90.0		TF	60.282				ARRIVAL DATE	MAY	7 1966	6	4 41.8

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
90.00	17 38 56.8	27.5	24.75	307.19	-10.21	76.90	104.21	17 50 11.8	6596.4	10.95	-5.06

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	D&L	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	4	17	50.2												
SEPARATION		1.20	12.45	4	17	51.4												
RETRO		3.20	14.45	4	17	53.4												
RISE	72	6.12	17.37	4	17	56.3	63.73	-.5742	72.58	.1034	2487.1	-5.53	.00	.1052	344.43	.1708	12.62	339.94
RISE	51	11.68	22.93	4	18	1.9	68.35	-.1263	37.43	-.0271	4750.3	-4.02	-.01	.0988	312.43	.0321	.85	1.91
EXTM	72	11.71	22.96	4	18	1.9	301.40	-.0572	21.13	-.1435	2742.8	6.05	25.58	-.0000	61.96	.1697	.80	1.60
EXTM	51	29.09	40.34	4	18	18.3	346.88	-.0292	-10.20	-.0216	7137.8	5.52	70.11	-.0000	41.02	.1055	-17.64	34.90
EXTM	72	65.87	77.12	4	18	56.1	275.37	-.0001	-25.56	-.0014	22909.4	4.94	8.22	.0000	114.84	.0014	-25.89	53.82
RISE	42	81.24	92.49	4	19	11.4	104.44	-.0028	-19.46	-.0081	28208.3	4.24	.00	.0034	245.94	-.0000	-26.87	55.81
EXTM	51	81.85	93.10	4	19	12.0	324.43	-.0001	-26.27	-.0010	23473.7	4.53	58.13	.0000	98.93	.0020	-26.90	55.86
EXTM	42	127.28	138.53	4	19	57.5	102.10	.0005	-22.82	-.0007	39893.2	3.98	3.77	-.0000	244.58	-.0008	-28.01	55.06
SET	42	167.20	178.45	4	20	37.4	105.00	.0017	-23.88	-.0003	48843.4	3.75	2.30	-.0011	242.13	-.0012	-28.27	50.61
RISE	61	192.88	204.13	4	21	3.1	304.16	.0031	-33.57	.0002	54546.1	3.25	-.00	.0018	136.41	.0019	-28.31	46.82
EXTM	51	297.75	309.00	4	22	48.0	.06	.0037	-28.40	.0001	68457.8	2.94	87.34	-.0000	181.12	.0658	-28.17	27.63
EXTM	61	459.09	470.34	5	1	29.3	2.80	.0039	-31.20	.0001	98856.4	2.52	18.52	.0000	182.53	.0036	-27.77	353.10
EXTM	72	493.73	504.98	5	2	3.9	.39	.0040	-28.92	.0001	100237.8	2.45	68.98	.0000	180.94	.0098	-27.69	345.31
RISE	11	657.72	668.97	5	4	47.9	293.25	.0040	-29.23	-.0000	128812.0	1.90	.00	.0026	126.70	.0023	-27.34	307.50
SET	51	687.69	698.94	5	5	17.9	90.00	.0039	-26.23	.0001	131908.4	2.51	11.07	-.0032	246.06	-.0013	-27.28	300.47
SET	61	706.34	717.59	5	5	36.5	61.71	.0040	-29.26	.0001	139129.2	2.38	-.00	-.0022	230.20	.0026	-27.24	296.08
SET	72	882.22	893.47	5	8	32.4	93.99	.0039	-26.60	.0001	156668.0	2.34	-.00	-.0035	243.12	-.0005	-26.94	254.26
RISE	42	891.92	903.17	5	8	42.1	254.99	.0040	-25.52	-.0000	157436.9	1.63	3.30	.0029	119.18	-.0022	-26.92	251.94
EXTM	11	932.08	943.33	5	9	22.3	.88	.0042	-28.88	.0001	159690.6	1.91	25.91	-.0000	180.86	.0040	-26.86	242.30
SET	11	1203.77	1215.02	5	13	54.0	68.21	.0041	-27.74	.0001	191958.3	2.02	.01	-.0027	235.26	.0024	-26.49	176.56
EXTM	42	1316.80	1328.05	5	15	47.0	359.97	.0042	-26.08	.0000	197199.8	1.65	80.86	-.0000	.19	-.0188	-26.36	149.01
RISE	51	1451.79	1463.04	5	18	2.0	270.00	.0041	-25.57	-.0000	215315.4	1.22	10.80	.0034	113.32	-.0015	-26.22	116.00
RISE	72	1607.54	1618.79	5	20	37.7	266.14	.0041	-25.84	-.0000	230988.0	1.11	-.01	.0036	116.11	-.0005	-26.07	77.79
RISE	61	1684.43	1695.68	5	21	54.6	295.68	.0041	-27.12	-.0000	237904.2	1.20	.00	.0025	126.67	.0027	-26.00	58.89
SET	42	1739.69	1750.94	5	22	49.9	105.00	.0041	-25.04	.0000	242452.8	1.79	3.01	-.0029	241.21	-.0022	-25.95	45.30
EXTM	51	1803.44	1814.69	5	23	53.6	358.03	.0042	-25.90	.0000	242842.2	1.42	88.22	.0038	95.73	.0100	-25.90	29.60
EXTM	61	1942.22	1953.47	6	2	12.4	.37	.0042	-27.08	.0000	257656.1	1.39	22.68	.0000	180.36	.0041	-25.79	355.39
EXTM	72	1982.06	1993.31	6	2	52.3	.12	.0042	-26.19	.0000	257418.9	1.38	71.71	-.0000	180.34	.0119	-25.76	349.56
RISE	11	2120.33	2131.58	6	5	10.5	290.62	.0042	-26.52	-.0000	274438.0	1.02	.00	.0028	123.13	.0024	-25.66	311.41
SET	51	2170.55	2181.80	6	6	.7	90.00	.0041	-25.11	.0000	277457.7	1.69	10.62	-.0034	247.11	-.0015	-25.62	298.99
SET	61	2199.80	2211.05	6	6	30.0	64.99	.0042	-26.55	.0000	280034.5	1.59	.00	-.0025	234.16	.0027	-25.60	291.76
SET	72	2355.38	2366.63	6	9	5.6	93.77	.0041	-25.32	.0000	292949.8	1.68	-.01	-.0037	244.42	-.0005	-25.50	253.27
RISE	42	2356.88	2368.13	6	9	7.1	255.00	.0041	-24.74	-.0000	292749.4	.94	2.83	.0030	118.56	-.0023	-25.50	252.89
EXTM	11	2397.23	2408.48	6	9	47.4	.25	.0042	-26.56	.0000	293115.4	1.25	28.23	-.0000	180.26	.0043	-25.48	242.90
SET	11	2673.98	2685.23	6	14	24.2	69.82	.0042	-26.06	.0000	316375.7	1.50	-.00	-.0028	237.48	.0024	-25.31	174.31
EXTM	42	2775.97	2787.22	6	16	6.2	359.97	.0042	-25.06	.0000	317358.9	1.16	79.84	.0000	.19	-.0174	-25.26	149.01
RISE	51	2906.39	2917.64	6	18	16.6	270.00	.0042	-24.75	-.0000	331979.5	.76	10.47	.0035	112.55	-.0015	-25.18	116.60
RISE	72	3060.24	3071.49	6	20	50.4	266.30	.0042	-24.93	-.0000	343128.5	.71	-.00	.0037	115.19	-.0005	-25.09	78.21
RISE	61	3130.02	3141.27	6	22	.2	294.15	.0042	-25.80	-.0000	347801.2	.83	.00	.0026	124.76	.0027	-25.05	60.79
SET	42	3193.75	3205.00	6	23	3.9	105.00	.0041	-24.38	.0000	351763.5	1.45	2.60	-.0030	241.73	-.0023	-25.01	44.88
EXTM	51	3259.82	3271.07	7	0	10.0	359.29	.0042	-24.96	.0000	350135.5	1.11	88.99	.0024	39.37	-.1698	-24.97	28.38
EXTM	61	3391.31	3402.56	7	2	21.5	.25	.0042	-25.80	.0000	362662.4	1.13	23.96	-.0000	180.25	.0042	-24.89	355.50
EXTM	72	3430.81	3442.06	7	3	1.0	.06	.0043	-25.16	.0000	361869.6	1.14	72.74	.0000	180.18	.0122	-24.87	349.62
RISE	11	3561.70	3572.95	7	5	11.9	289.96	.0042	-25.38	-.0000	377173.0	.95	.00	.0029	121.64	.0024	-24.76	312.77
IMPACT		3616.92	3628.17	7	6	7.1												
IMPC	72	3616.92	3628.17	7	6	7.1	47.68	.0044	-24.83	.0001	377806.4	2.33	41.53	-.0039	243.68	.0012	-24.68	298.76
IMPC	51	3616.92	3628.17	7	6	7.1	89.67	.0043	-24.31	.0001	380861.8	2.41	10.41	-.0036	247.91	-.0015	-24.68	298.76
IMPC	11	3616.92	3628.17	7	6	7.1	303.67	.0044	-25.37	.0000	380978.9	1.71	9.34	.0027	130.35	.0029	-24.68	298.76
IMPC	61	3616.92	3628.17	7	6	7.1	57.67	.0043	-25.41	.0001	381428.7	2.29	9.26	-.0025	230.03	.0030	-24.68	298.76
SET	51	3617.42	3628.67	7	6	7.6	90.00	.0043	-24.31	.0001	380934.5	2.45	10.30	-.0036	247.86	-.0015	-24.68	298.63

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	4	17	50.197	6597.512	24.7624	307.1328	10.94519	-5.0588	104.1805	76.8479
SEPARATION		1.20	12.45	4	17	51.397	6550.159	22.8906	314.1230	10.98403	-1.6531	107.1307	84.1389
RETRO		3.20	14.45	4	17	53.397	6577.799	19.0870	325.2629	10.96073	4.0521	111.3153	95.7802
IMPACT		3616.92	3628.17	7	6	7.113	382064.910	-24.6848	298.7634	2.19407	66.5464	289.7869	259.1885

SURVEYOR VIEW PERIODS

GHA 224.3902 30,3880 LOM 292.9951
SX -.231740 SY -.878620 SZ -.417521 DAO -24 o18 RAD 255.22450 RM 383361,480 LAT 28,310600 LON 279.461800
C3 -1.058368 ECC .982623 SLR 12975.605 RCA 6544.6650 LTA -20.0000 GTA 20.00 TB 675.00000 POL -.0
NSX -.210230 NSY -.882197 NSZ -.421346 C3M 1.4966 VIM 2.6713 ZAE 138.254 B.T .0000 B.R -.0000
LATE 2.5000 LONE 5.4954 LATS -.2121 LONS 335.2934 LATI -5.9198 LONI 324.5506 RSM 151.2889 TTAN 6.4341
LAUNCH DATE MAY 4,1966 BASE AZM 93.0 TF 60.299 ARRIVAL DATE MAY 7 1966 6 30 17.3

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
93.00	18 0 8.2	27.7	23.53	307.11	-5.49	82.14	106.45	18 11 23.2	6559.6	10.98	-2.72

EVNT STA	TFI	TFL	DAY HR MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN SUNLIGHT												
INJECTION	.00	11.25	4 18 11.4												
SEPARATION	1.20	12.45	4 18 12.6												
RETRO	3.20	14.45	4 18 14.6												
RISE 72	5.55	16.80	4 18 16.9	73.93	-.3360	63.37	.0919	2979.4	-6.54	-.00	.1152	334.49	.1336	11.98	336.17
EXTM 72	11.19	22.44	4 18 22.6	312.85	-.0885	21.52	-.1594	2436.1	5.58	35.18	-.0000	56.56	.2194	.12	357.61
RISE 51	11.43	22.68	4 18 22.8	71.67	-.1127	33.11	-.0303	4986.7	-3.75	.00	.0964	307.33	.0231	-.32	358.35
EXTM 51	31.03	42.28	4 18 42.4	351.08	-.0254	-13.83	-.0165	7952.3	5.46	75.44	-.0000	36.81	.1180	-19.18	32.80
EXTM 72	66.55	77.80	4 19 17.9	280.44	-.0001	-26.45	-.0012	22873.0	4.90	12.85	.0000	115.45	.0012	-26.19	49.20
EXTM 51	84.25	95.50	4 19 35.6	330.40	-.0001	-26.95	-.0009	24107.0	4.47	63.51	.0000	99.24	.0020	-27.21	51.17
RISE 61	168.81	180.06	4 21 .2	305.16	.0029	-34.24	.0003	49627.3	3.42	-.00	.0017	137.48	.0017	-28.41	45.41
EXTM 51	272.34	283.59	4 22 43.7	.06	.0036	-28.60	.0001	64048.5	3.04	87.14	-.0000	181.03	.0595	-28.34	27.63
EXTM 61	437.34	448.59	5 1 28.7	3.02	.0039	-31.46	.0001	95696.2	2.56	18.24	.0000	182.71	.0035	-27.92	352.90
EXTM 72	471.79	483.04	5 2 3.2	.49	.0040	-29.12	.0001	97120.6	2.49	68.78	-.0000	181.18	.0097	-27.84	345.22
RISE 11	637.09	648.34	5 4 48.5	293.43	.0040	-29.40	-.0000	126190.3	1.93	.00	.0026	126.93	.0023	-27.46	307.28
SET 51	665.94	677.19	5 5 17.3	90.00	.0039	-26.34	.0001	128781.7	2.53	11.11	-.0032	245.97	-.0013	-27.40	300.53
SET 61	683.80	695.05	5 5 35.2	61.49	.0040	-29.43	.0001	132333.2	2.41	-.00	-.0022	229.94	.0026	-27.37	296.34
SET 72	861.03	872.28	5 8 32.4	94.01	.0039	-26.71	.0001	154272.7	2.36	-.00	-.0035	243.02	-.0004	-27.05	294.29
RISE 42	870.99	882.24	5 8 42.4	254.99	.0040	-25.61	-.0000	155076.8	1.65	3.36	.0029	119.25	-.0022	-27.03	291.91
EXTM 11	911.22	922.47	5 9 22.6	.92	.0042	-29.02	.0001	157400.9	1.93	25.77	-.0000	180.89	.0040	-26.97	242.26
SET 11	1182.51	1193.76	5 13 53.9	68.10	.0041	-27.85	.0001	189849.8	2.03	.00	-.0027	235.12	.0024	-26.59	176.68
EXTM 42	1296.12	1307.37	5 15 47.5	359.97	.0042	-26.17	.0000	195228.8	1.66	80.95	-.0000	.18	-.0190	-26.45	149.00
RISE 51	1431.23	1442.48	5 18 2.6	270.00	.0041	-25.65	-.0000	213437.4	1.23	10.83	.0034	113.39	-.0015	-26.30	115.98
RISE 72	1586.97	1598.22	5 20 38.4	266.13	.0041	-25.92	-.0000	229198.2	1.12	-.01	.0036	116.18	-.0005	-26.15	77.79
RISE 61	1664.33	1675.58	5 21 55.7	295.78	.0041	-27.20	-.0000	236194.4	1.21	.00	.0025	126.79	.0027	-26.08	58.78
SET 42	1719.12	1730.37	5 22 50.5	105.00	.0041	-25.11	.0000	240722.2	1.80	3.05	-.0029	241.15	-.0022	-26.03	45.31
EXTM 51	1782.91	1794.16	5 23 54.3	358.03	.0042	-25.98	.0000	240349.5	1.43	88.21	.0038	98.15	.0150	-25.97	29.61
EXTM 61	1921.77	1933.02	6 2 13.2	.38	.0042	-27.16	.0000	256037.5	1.40	22.60	.0000	180.37	.0040	-25.86	355.38
EXTM 72	1961.59	1972.84	6 2 53.0	.12	.0042	-26.27	.0000	255809.3	1.38	71.63	-.0000	180.34	.0119	-25.83	345.56
RISE 11	2100.19	2111.44	6 5 11.6	290.69	.0042	-26.59	-.0000	273104.2	1.02	.00	.0028	123.22	.0024	-25.73	311.33
SET 51	2150.08	2161.33	6 6 1.5	90.00	.0041	-25.18	.0000	275912.9	1.70	10.65	-.0034	247.05	-.0015	-25.69	299.00
SET 61	2178.99	2190.24	6 6 30.4	64.90	.0042	-26.62	.0000	279376.0	1.60	.01	-.0025	234.06	.0027	-25.67	291.85
SET 72	2334.97	2346.22	6 9 6.4	93.78	.0041	-25.38	.0000	291476.3	1.68	-.01	-.0037	244.36	-.0005	-25.57	253.26
RISE 42	2336.49	2347.74	6 9 7.9	255.00	.0041	-24.80	-.0000	291273.2	.94	2.86	.0030	118.61	-.0023	-25.56	252.89
EXTM 11	2376.84	2388.09	6 9 48.2	.26	.0042	-26.63	.0000	291663.2	1.26	28.16	-.0000	180.26	.0043	-25.54	242.90
SET 11	2653.34	2664.59	6 14 24.7	69.76	.0042	-26.12	.0000	314981.3	1.51	-.00	-.0028	237.40	.0024	-25.37	174.38
EXTM 42	2755.60	2766.85	6 16 7.0	359.97	.0042	-25.12	.0000	316010.5	1.17	79.90	.0000	.18	-.0183	-25.31	149.01
RISE 51	2886.05	2897.30	6 18 17.4	270.00	.0042	-24.80	-.0000	330267.1	.76	10.50	.0035	112.60	-.0015	-25.24	116.59
RISE 72	3039.86	3051.11	6 20 51.2	266.29	.0042	-24.99	-.0000	341823.0	.71	-.00	.0037	115.24	-.0005	-25.14	78.22
RISE 61	3109.93	3121.18	6 22 1.3	294.22	.0042	-25.86	-.0000	346516.3	.83	.00	.0026	124.85	.0027	-25.10	60.73
SET 42	3173.37	3184.62	6 23 4.8	105.00	.0041	-24.43	.0000	350454.9	1.45	2.64	-.0030	241.69	-.0023	-25.06	44.89
EXTM 51	3238.77	3250.02	7 0 10.2	359.12	.0042	-25.01	.0000	348782.3	1.11	88.92	.0028	47.80	-.1385	-25.03	28.55
EXTM 61	3370.97	3382.22	7 2 22.4	.25	.0042	-25.86	.0000	361337.6	1.12	23.90	-.0000	180.25	.0042	-24.94	355.51
EXTM 72	3410.48	3421.73	7 3 1.9	.05	.0043	-25.22	.0000	360526.3	1.13	72.69	.0000	180.17	.0123	-24.92	345.62
RISE 11	3541.72	3552.97	7 5 13.1	289.62	.0042	-25.44	-.0000	375690.8	.90	.00	.0029	121.72	.0024	-24.82	312.71
SET 51	3597.48	3608.73	7 6 8.9	90.00	.0042	-24.38	.0000	378930.3	1.86	10.33	-.0035	247.79	-.0015	-24.76	298.64
IMPACT	3617.93	3629.18	7 6 29.3												
IMPC 72	3617.93	3629.18	7 6 29.3	53.09	.0044	-24.84	.0001	378299.7	2.35	36.70	-.0039	244.81	.0009	-24.72	293.42
IMPC 51	3617.93	3629.18	7 6 29.3	95.21	.0043	-24.31	.0001	381428.4	2.40	5.98	-.0036	245.85	-.0016	-24.72	293.42
IMPC 11	3617.93	3629.18	7 6 29.3	309.07	.0044	-25.43	.0000	380709.6	1.73	12.56	.0026	134.08	.0030	-24.72	293.42
IMPC 61	3617.93	3629.18	7 6 29.3	63.05	.0043	-25.42	.0001	381868.6	2.30	2.02	-.0026	233.67	.0029	-24.72	293.42

EVNT STA	TFI	TFL	DAY HR MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	4 18 11.387	6559.692	23.5367	307.1044	10.97620	-2.7227	106.4460	82.1314
SEPARATION	1.20	12.45	4 18 12.587	6545.657	21.4174	313.9328	10.98787	.7021	109.1752	89.2607
RETRO	3.20	14.45	4 18 14.587	6626.943	17.2950	324.7416	10.91968	6.3694	112.9372	100.5708
IMPACT	3617.93	3629.18	7 6 29.317	382145.707	-24.7221	293.4184	2.19280	66.4525	289.7251	255.4038

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SURVEYOR VIEW PERIODS

GHA	224.6902						EPS	30.5684						LOM	287.9022
SX	-.228443	SY	-.879211	SZ	-.418094	DAO	-24.71432	RAO	255.43505	RM	383437.039	LAT	28.310600	LON	279.461800
C3	-1.058780	ECC	.982616	SLR	12975.560	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	ROL	-.0
NSX	-.206915	NSY	-.882719	NSZ	-.421892	C3M	1.4976	VIM	2.6715	ZAS	138.204	B.T	.0000	B.R	-.0000
LATE	2.5216	LONE	5.4952	LATS	-.2117	LONS	335.1142	LATI	-6.0050	LONI	324.5204	RSM	151.2889	TTAN	6.4415
LAUNCH DATE		MAY	4,1966		BASE AZM	96.0		TF	60.326			ARRIVAL	DATE MAY	7 1966	6 51 26.7

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
96.00	18 17 30.1	27.9	22.34	306.89	-1.68	86.27	108.63	18 28 45.1	6546.1	10.99	-.83

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	4	18	28.8												
SEPARATION		1.20	12.45	4	18	30.0												
RETRO		3.20	14.45	4	18	32.0												
RISE	72	5.13	16.38	4	18	33.9	78.26	-.2527	55.70	.0680	2672.6	-7.15	.00	.1215	326.51	.1007	11.09	333.12
EXTM	72	10.83	22.08	4	18	39.6	324.43	-.1227	19.62	-.1664	2219.8	5.17	45.46	-.0000	51.36	.2889	-.93	354.29
RISE	51	11.26	22.51	4	18	40.0	74.42	-.1024	29.12	-.0332	5192.3	-3.50	.00	.0941	302.70	.0157	-1.69	355.97
EXTM	51	33.09	44.34	4	19	1.8	354.40	-.0223	-17.32	-.0127	8776.0	5.40	80.10	-.0000	32.85	.1442	-20.88	31.01
EXTM	72	67.45	78.70	4	19	36.2	284.74	-.0000	-27.62	-.0010	22944.0	4.86	16.68	.0000	116.55	.0010	-26.82	45.37
EXTM	51	86.76	98.01	4	19	55.5	335.39	.0000	-27.88	-.0007	24789.0	4.41	67.97	.0000	101.11	.0019	-27.80	47.26
RISE	61	150.43	161.68	4	20	59.2	306.52	.0026	-35.12	.0003	45718.6	3.57	-.00	.0016	138.90	.0015	-28.73	43.69
EXTM	51	250.92	262.17	4	22	39.7	.07	.0035	-29.00	.0001	60215.7	3.12	86.74	.0000	181.16	.0513	-28.68	27.62
EXTM	61	420.22	431.47	5	1	29.0	3.37	.0039	-31.84	.0002	93185.9	2.60	17.85	.0000	183.01	.0035	-28.20	352.58
EXTM	72	453.58	464.83	5	2	2.3	.52	.0040	-29.44	.0001	94492.7	2.52	68.46	-.0000	181.24	.0095	-28.10	345.18
RISE	11	620.74	631.99	5	4	49.5	293.69	.0040	-29.66	-.0000	124085.9	1.95	.00	.0026	127.27	.0023	-27.68	306.98
SET	51	648.13	659.38	5	5	16.9	90.00	.0038	-26.54	.0001	126511.1	2.55	11.19	-.0032	245.78	-.0013	-27.62	300.59
SET	61	664.70	675.95	5	5	33.5	61.16	.0040	-29.69	.0001	129926.3	2.43	-.00	-.0022	229.55	.0026	-27.58	296.71
SET	72	843.76	855.01	5	8	32.5	94.04	.0039	-26.89	.0001	152295.8	2.38	-.00	-.0035	242.84	-.0004	-27.23	254.30
RISE	42	853.90	865.15	5	8	42.6	254.99	.0040	-25.77	-.0000	153118.6	1.66	3.46	.0029	119.38	-.0022	-27.21	251.88
EXTM	11	894.28	905.53	5	9	23.0	.98	.0041	-29.22	.0001	155927.8	1.94	25.56	-.0000	180.95	.0040	-27.14	248.21
SET	11	1164.86	1176.11	5	13	53.6	67.95	.0041	-28.01	.0001	188075.1	2.04	.00	-.0027	234.92	.0024	-26.73	176.84
EXTM	42	1279.20	1290.45	5	15	48.0	359.97	.0042	-26.30	.0000	193994.0	1.67	81.08	-.0000	.19	-.0188	-26.59	149.01
RISE	51	1414.43	1425.68	5	18	3.2	270.00	.0041	-25.77	-.0000	211877.8	1.23	10.88	.0034	113.50	-.0015	-26.43	115.97
RISE	72	1570.13	1581.38	5	20	38.9	266.11	.0041	-26.03	-.0000	227708.7	1.13	-.01	.0036	116.30	-.0005	-26.26	77.80
RISE	61	1648.12	1659.37	5	21	56.9	295.92	.0041	-27.32	-.0000	234792.6	1.22	.00	.0025	126.96	.0027	-26.19	58.64
SET	42	1702.29	1713.54	5	22	51.0	105.00	.0041	-25.21	.0000	239279.5	1.80	3.11	-.0029	241.07	-.0022	-26.13	45.32
EXTM	51	1766.16	1777.41	5	23	54.9	358.03	.0042	-26.08	.0000	238943.9	1.44	88.20	.0037	101.47	.0217	-26.08	29.60
EXTM	61	1905.09	1916.34	6	2	13.8	.40	.0042	-27.27	.0000	254694.5	1.40	22.49	.0000	180.38	.0040	-25.96	355.36
EXTM	72	1944.86	1956.11	6	2	53.6	.12	.0042	-26.37	.0000	254468.2	1.39	71.54	-.0000	180.35	.0118	-25.92	345.95
RISE	11	2083.83	2095.08	6	5	12.6	290.77	.0042	-26.68	-.0000	271831.0	1.03	.00	.0028	123.34	.0024	-25.81	311.24
SET	51	2133.32	2144.57	6	6	2.1	90.00	.0041	-25.26	.0000	274618.7	1.70	10.68	-.0034	246.97	-.0015	-25.78	299.01
SET	61	2161.86	2173.11	6	6	30.6	64.80	.0041	-26.71	.0000	278064.6	1.60	-.00	-.0025	233.93	.0027	-25.75	291.95
SET	72	2318.29	2329.54	6	9	7.0	93.80	.0041	-25.46	.0000	290240.6	1.68	-.01	-.0037	244.28	-.0005	-25.64	253.25
RISE	42	2319.81	2331.06	6	9	8.6	255.00	.0041	-24.88	-.0000	290032.5	.95	2.91	.0030	118.67	-.0023	-25.64	252.88
EXTM	11	2360.18	2371.43	6	9	48.9	.27	.0042	-26.71	.0000	290447.5	1.26	28.08	-.0000	180.28	.0043	-25.61	242.88
SET	11	2636.38	2647.63	6	14	25.1	69.69	.0042	-26.19	.0000	313799.6	1.51	-.00	-.0028	237.31	.0024	-25.44	174.44
EXTM	42	2738.91	2750.16	6	16	7.7	359.97	.0042	-25.18	.0000	314869.2	1.17	79.96	.0000	.20	-.0179	-25.38	149.01
RISE	51	2869.52	2880.77	6	18	18.3	269.99	.0042	-24.87	-.0000	329172.7	.76	10.52	.0035	112.66	-.0015	-25.30	116.59
RISE	72	3023.28	3034.53	6	20	52.0	266.28	.0042	-25.04	-.0000	340733.1	.71	-.00	.0037	115.30	-.0005	-25.20	78.22
RISE	61	3093.64	3104.89	6	22	2.4	294.28	.0042	-25.92	-.0000	345446.2	.83	.00	.0026	124.93	.0027	-25.16	60.66
SET	42	3156.78	3168.03	6	23	5.5	105.00	.0041	-24.48	.0000	349360.4	1.45	2.67	-.0030	241.65	-.0023	-25.12	44.89
EXTM	51	3221.31	3232.56	7	0	10.1	358.90	.0042	-25.07	.0000	347631.1	1.10	88.80	.0032	56.20	-.1035	-25.08	28.77
EXTM	61	3354.39	3365.64	7	2	23.1	.25	.0042	-25.91	.0000	360230.5	1.12	23.85	-.0000	180.25	.0042	-24.99	355.90
EXTM	72	3393.90	3405.15	7	3	2.6	.06	.0043	-25.27	.0000	359403.1	1.12	72.64	.0000	180.18	.0122	-24.97	345.62
RISE	11	3525.38	3536.63	7	5	14.1	289.66	.0042	-25.50	-.0000	374475.0	.87	.00	.0029	121.79	.0024	-24.87	312.66
SET	51	3581.05	3592.30	7	6	9.8	90.00	.0042	-24.44	.0000	377498.6	1.72	10.35	-.0035	247.74	-.0015	-24.82	298.64
SET	61	3614.15	3625.40	7	6	42.9	66.25	.0043	-25.45	.0001	381564.2	2.04	.00	-.0027	235.74	.0028	-24.77	290.24
IMPACT		3619.58	3630.83	7	6	48.3												
IMPC	72	3619.58	3630.83	7	6	48.3	57.71	.0044	-24.85	.0001	378748.9	2.37	32.54	-.0039	245.50	.0006	-24.75	288.84
IMPC	51	3619.58	3630.83	7	6	48.3	99.78	.0043	-24.32	.0001	381913.1	2.40	2.26	-.0035	243.99	-.0017	-24.75	288.84
IMPC	11	3619.58	3630.83	7	6	48.3	313.69	.0044	-25.49	.0000	380502.6	1.74	15.15	.0024	137.45	.0032	-24.75	288.84
IMPC	61	3619.58	3630.83	7	6	48.3	67.65	.0043	-25.43	.0001	382261.9	2.31	-.88	-.0027	236.65	.0028	-24.75	288.84

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	4	18	28.751	6546.061	22.3419	306.8911	10.98761	-.8325	108.6342	86.2711
SEPARATION		1.20	12.45	4	18	29.951	6558.225	19.9856	313.5631	10.97722	2.5948	111.1550	93.2440
RETRO		3.20	14.45	4	18	31.951	6681.945	15.5789	324.0166	10.87422	8.2045	114.5123	104.1988
IMPACT		3619.58	3630.83	7	6	48.333	382217.613	-24.7547	288.8415	2.19107	66.2116	289.7223	255.5937

SURVEYOR VIEW PERIODS

QHA	224.3902				EPS	30./352					LOM	283.1902	
SX	-.2253?2	SY	-.879748	SZ	-.418620	DAO	-24.74747	RAO	255.62990	RM	383506.957	LAT	28.310600
C3	-1.062301	ECC	.982558	SLR	12975.181	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000
NSX	-.203815	NSY	-.883196	NSZ	-.422403	C3M	1.4974	VIM	2.6715	ZAE	138.075	B.T	.0000
LATE	2.5415	LONE	5.4950	LATS	-.2113	LONS	334.9484	LATI	-6.1708	LONI	324.4241	RSM	151.2889
LAUNCH DATE		MAY	4,1966	BASE AZM		99.0	TF	60.399				ARRIVAL DATE	MAY / 1966 7 11 1,1

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99.00	18 31 34.1	28.0	21.18	306.55	1.36	89.46	110.78	18 42 49.1	6545.6	10.99	.67

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
					PROBE IN SUNLIGHT													
INJECTION		.00	11.25	4	18	42.8												
SEPARATION		1.20	12.45	4	18	44.0												
RETRO		3.20	14.45	4	18	46.0												
RISE	72	4.82	16.07	4	18	47.6	80.76	-.2106	49.17	.0440	2758.8	-7.50	-.00	.1253	319.80	.0720	10.03	330.59
EXTM	72	10.61	21.86	4	18	53.4	335.29	-.1520	15.32	-.1638	2083.0	4.86	56.25	-.0000	46.53	.3956	-2.29	351.56
RISE	51	11.15	22.40	4	18	54.0	76.79	-.0943	25.37	-.0360	3367.6	-3.27	.00	.0920	298.40	.0094	-3.23	353.11
EXTM	51	35.18	46.43	4	19	18.0	357.03	-.0198	-20.69	-.0098	9583.0	5.35	84.26	-.0000	29.02	.2099	-22.71	29.50
EXTM	72	68.55	79.80	4	19	51.4	288.31	.0000	-29.00	-.0008	23111.5	4.82	19.81	.0000	118.05	.0008	-27.72	42.24
RISE	61	137.88	149.13	4	21	.7	308.20	.0024	-36.16	.0004	42974.5	3.69	-.00	.0015	140.62	.0013	-29.27	41.76
EXTM	51	233.23	244.48	4	22	36.0	.12	.0033	-29.58	.0001	56961.2	3.20	86.15	-.0000	181.63	.0430	-29.20	27.57
EXTM	61	406.83	418.08	5	1	29.6	3.75	.0039	-32.32	.0002	91210.3	2.63	17.36	.0000	183.32	.0034	-28.59	332.32
EXTM	72	439.13	450.38	5	2	1.9	.61	.0040	-29.87	.0001	92379.7	2.55	68.02	-.0000	181.42	.0092	-28.48	345.10
RISE	11	608.21	619.46	5	4	51.0	294.04	.0040	-30.00	.0000	122448.4	1.97	.00	.0026	127.73	.0023	-27.99	306.60
SET	51	633.79	645.04	5	5	16.6	90.00	.0038	-26.83	.0001	124646.5	2.57	11.30	-.0032	245.51	-.0013	-27.92	300.64
SET	61	648.59	659.84	5	5	31.4	60.71	.0039	-30.03	.0001	127857.1	2.45	-.00	-.0022	229.03	.0026	-27.89	297.18
SET	72	829.97	841.22	5	8	32.8	94.08	.0039	-27.13	.0001	150684.5	2.39	-.00	-.0035	242.59	-.0004	-27.48	254.29
RISE	42	840.19	851.44	5	8	43.0	254.99	.0040	-26.01	-.0000	151508.5	1.68	3.60	.0028	119.56	-.0022	-27.46	251.85
EXTM	11	880.82	892.07	5	9	23.6	1.06	.0041	-29.49	.0001	154016.0	1.95	25.30	-.0000	181.02	.0040	-27.38	242.13
SET	11	1150.35	1161.60	5	13	53.2	67.75	.0041	-28.22	.0001	186572.1	2.05	.00	-.0027	234.64	.0024	-26.93	177.06
EXTM	42	1265.48	1276.73	5	15	48.3	359.94	.0042	-26.49	.0000	192220.0	1.68	81.27	.0000	.40	-.0236	-26.77	149.04
RISE	51	1400.94	1412.19	5	18	3.8	270.00	.0041	-25.93	-.0000	210572.9	1.24	10.94	.0034	113.65	-.0015	-26.59	115.95
RISE	72	1556.58	1567.83	5	20	39.4	266.08	.0041	-26.17	-.0000	226452.4	1.13	-.01	.0036	116.45	-.0005	-26.41	77.81
RISE	61	1635.37	1646.62	5	21	58.2	296.10	.0041	-27.47	-.0000	233630.8	1.22	.00	.0025	127.17	.0027	-26.33	58.46
SET	42	1688.78	1700.03	5	22	51.6	105.00	.0041	-25.54	.0000	238054.0	1.81	3.19	-.0029	240.97	-.0022	-26.27	45.33
EXTM	51	1752.77	1764.02	5	23	55.6	358.06	.0042	-26.22	.0000	237754.6	1.44	88.19	.0037	105.76	.0303	-26.21	29.58
EXTM	61	1891.73	1902.98	6	2	14.5	.42	.0042	-27.39	.0000	253551.6	1.40	22.37	.0000	180.41	.0040	-26.08	355.34
EXTM	72	1931.43	1942.68	6	2	54.3	.13	.0042	-26.49	.0000	253319.0	1.39	71.41	-.0000	180.37	.0118	-26.04	345.54
RISE	11	2070.83	2082.08	6	5	13.7	290.88	.0042	-26.80	-.0000	270739.1	1.03	.00	.0028	123.49	.0024	-25.92	311.13
SET	51	2119.86	2131.11	6	6	2.7	90.00	.0041	-25.36	.0000	273493.0	1.70	10.72	-.0034	246.87	-.0015	-25.88	299.01
SET	61	2147.89	2159.14	6	6	30.7	64.68	.0041	-26.82	.0000	276908.5	1.60	-.00	-.0025	233.78	.0027	-25.86	292.08
SET	72	2304.90	2316.15	6	9	7.7	93.81	.0041	-25.55	.0001	289155.4	1.69	-.01	-.0037	244.15	-.0005	-25.74	253.24
RISE	42	2306.40	2317.65	6	9	9.2	255.00	.0041	-24.97	-.0000	288939.7	.95	2.97	.0030	118.74	-.0023	-25.74	252.88
EXTM	11	2346.82	2358.07	6	9	49.6	.29	.0042	-26.81	.0000	289380.0	1.27	27.98	-.0000	180.29	.0043	-25.71	242.87
SET	11	2622.64	2633.89	6	14	25.5	69.62	.0042	-26.27	.0000	312731.3	1.51	-.00	-.0028	237.20	.0024	-25.52	174.52
EXTM	42	2725.49	2736.74	6	16	8.3	359.97	.0042	-25.25	.0000	313833.7	1.17	80.03	.0000	.21	-.0187	-25 45	149.01
RISE	51	2856.17	2867.42	6	18	19.0	270.00	.0041	-24.94	-.0000	32/974.7	.77	10.55	.0034	112.73	-.0015	-25.37	116.58
RISE	72	3009.89	3021.14	6	20	52.7	266.27	.0042	-25.10	-.0000	339715.0	.71	-.00	.0037	115.36	-.0006	-25.26	78.23
RISE	61	3080.57	3091.82	6	22	3.4	294.35	.0042	-25.98	-.0000	344444.1	.83	.00	.0026	125.02	.0027	-25.22	60.58
SET	42	3143.40	3154.65	6	23	6.2	105.00	.0041	-24.54	.0000	348328.2	1.44	2.70	-.0030	241.60	-.0023	-25.18	44.89
EXTM	51	3207.13	3218.38	7	0	9.9	358.69	.0042	-25.12	.0000	346541.4	1.10	88.66	.0034	62.83	-.0770	-25.13	28.98
EXTM	61	3341.07	3352.32	7	2	23.9	.26	.0042	-25.97	.0000	3591/6.7	1.11	23.79	-.0000	180.26	.0042	-25.05	355.49
EXTM	72	3380.56	3391.81	7	3	3.4	.06	.0043	-25.32	.0000	358332.0	1.12	72.58	.0000	180.18	.0122	-25.02	345.62
RISE	11	3512.29	3523.54	7	5	15.1	289.71	.0042	-25.55	-.0000	373326.7	.85	.00	.0029	121.86	.0024	-24.92	312.[illegible]
SET	51	3567.82	3579.07	7	6	10.6	90.00	.0042	-24.49	.0000	376208.1	1.65	10.37	-.0035	247.69	-.0015	-24.87	298.35
SET	61	3600.80	3612.05	7	6	43.6	66.17	.0042	-25.52	.0000	379988.4	1.73	-.00	-.0026	235.64	.0028	-24.83	290.32
IMPACT		3623.95	3635.20	7	7	6.8												
IMPC	72	3623.95	3635.20	7	7	6.8	62.19	.0043	-24.86	.0001	379202.1	2.38	28.50	-.0039	245.95	.0004	-24.79	284.40
IMPC	51	3623.95	3635.20	7	7	6.8	104.20	.0043	-24.32	.0001	382376.6	2.68	-1.29	-.0035	242.08	-.0018	-24.79	284.40
IMPC	11	3623.95	3635.20	7	7	6.8	318.17	.0044	-25.53	.0000	380321.0	1.76	17.51	.0023	140.88	.0034	-24.79	284.40
IMPC	61	3623.95	3635.20	7	7	6.8	72.11	.0043	-25.44	.0001	382652.3	2.31	-3.77	-.0028	239.46	.0027	-24.79	284.40

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	4	18	42.818	6545.579	21.1751	306.5547	10.98785	.6734	110.7780	89.4611
SEPARATION		1.20	12.45	4	18	44.018	6578.460	18.5949	313.0580	10.96002	4.0920	113.0953	96.2652
RETRO		3.20	14.45	4	18	46.018	6735.178	13.9237	323.1588	10.83061	9.6393	116.0740	106.8673
IMPACT		3623.95	3635.20	7	7	6.768	382286.340	-24.7863	284.4041	2.18868	66.0390	289.9295	255.7777

SURVEYOR VIEW PERIODS

OHA	224.3902					EPS	30.8848							LOM	278.9659
SX	-.222655	SY	-.880222	SZ	-.419087	DAO	-24.7697	RAO	255.80460	RM	383569.684	LAT	28.310600	LON	279.461800
C3	-1.067544	ECC	.982472	SLR	12974.619	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.201014	NSY	-.883618	NSZ	-.422863	C3M	1.4971	VIM	2.6714	ZAE	137.892	B.T	.0000	B.R	-.0000
LATE	2.5593	LONE	5.4955	LATS	-.2109	LONS	334.8005	LATI	-6.3967	LONI	324.2840	RSM	151.2809	TTAN	6.4489

LAUNCH DATE MAY 4,1966 BASE AZM 102.0 TF 60.496 ARRIVAL DATE MAY 7 1966 7 28 34.0

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	18 42 49.9	28.1	20.03	306.13	3.75	91.86	112.90	18 54 4.9	6551.6	10.98	1.86

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DUE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	4	18	54.1												
SEPARATION		1.20	12.45	4	18	55.3												
RETRO		3.20	14.45	4	18	57.3												
RISE	72	4.61	15.86	4	18	58.7	82.45	-.1846	43.42	.0217	2834.9	-7.69	-.00	.1276	313.94	.0467	8.83	328.46
EXTM	72	10.51	21.76	4	19	4.6	344.83	-.1718	9.02	-.1539	2015.3	4.65	67.31	-.0000	42.05	.5938	-3.89	349.29
RISE	51	11.09	22.34	4	19	5.2	78.89	-.0877	21.79	-.0387	5516.3	-3.07	.00	.0901	294.33	.0039	-4.91	350.93
EXTM	51	35.40	46.65	4	19	29.5	1.22	-.0203	-23.04	-.0089	9771.3	5.28	87.08	.0153	337.31	.2735	-24.11	26.94
EXTM	72	69.75	81.00	4	20	3.8	291.22	.0001	-30.54	-.0005	23343.8	4.78	22.25	.0000	119.85	.0006	-28.84	39.71
RISE	61	130.98	142.23	4	21	5.1	310.10	.0022	-37.28	.0005	41459.9	3.76	-.00	.0015	142.51	.0011	-30.04	39.77
EXTM	51	218.86	230.11	4	22	32.9	.20	.0032	-30.35	.0001	54253.7	3.27	85.38	-.0000	182.21	.0346	-29.87	27.90
EXTM	61	396.81	408.06	5	1	30.9	4.20	.0038	-32.88	.0002	89735.5	2.65	16.78	.0000	183.68	.0034	-29.08	351.80
EXTM	72	427.85	439.10	5	2	1.9	.72	.0040	-30.40	.0001	90714.0	2.58	67.49	-.0000	181.63	.0090	-28.96	349.00
RISE	11	598.93	610.18	5	4	56.0	294.46	.0040	-30.40	.0000	121219.4	1.99	.00	.0026	128.27	.0023	-28.37	306.19
SET	51	622.43	633.68	5	5	16.5	90.00	.0038	-27.20	.0001	123139.9	2.58	11.45	-.0032	245.16	-.0013	-28.30	300.69
SET	61	635.02	646.27	5	5	29.1	60.17	.0039	-30.45	.0002	126084.0	2.46	-.00	-.0021	228.41	.0026	-28.26	297.75
SET	72	819.15	830.40	5	8	33.2	94.14	.0039	-27.44	.0001	149395.4	2.39	-.00	-.0035	242.28	-.0004	-27.79	254.26
RISE	42	829.37	840.62	5	8	43.5	254.99	.0040	-26.30	-.0000	150205.3	1.69	3.78	.0028	119.80	-.0021	-27.77	291.83
EXTM	11	870.31	881.56	5	9	24.4	1.15	.0041	-29.80	.0001	152821.9	1.96	24.98	-.0000	181.11	.0040	-27.67	242.04
SET	11	1138.53	1149.78	5	13	52.6	67.50	.0041	-28.47	.0001	185315.1	2.05	-.00	-.0026	234.31	.0024	-27.17	177.32
EXTM	42	1254.71	1265.96	5	15	48.8	359.93	.0042	-26.71	.0000	191105.4	1.68	81.49	.0000	.45	-.0243	-26.98	149.05
RISE	51	1390.28	1401.53	5	18	4.4	270.00	.0041	-26.12	-.0000	209498.2	1.25	11.02	.0034	113.83	-.0015	-26.79	115.94
RISE	72	1545.80	1557.05	5	20	39.9	266.05	.0041	-26.35	-.0000	225409.6	1.13	-.01	.0036	116.62	-.0005	-26.59	77.83
RISE	61	1625.54	1636.79	5	21	59.6	296.31	.0041	-27.64	-.0000	232688.2	1.23	.00	.0025	127.43	.0027	-26.49	58.25
SET	42	1678.06	1689.31	5	22	52.1	105.00	.0041	-25.50	.0001	237029.9	1.81	3.29	-.0029	240.84	-.0022	-26.43	45.33
EXTM	51	1742.23	1753.48	5	23	56.3	358.09	.0042	-26.38	.0000	236767.2	1.45	88.17	.0036	110.82	.0399	-26.36	29.94
EXTM	61	1881.19	1892.44	6	2	15.3	.45	.0042	-27.54	.0000	252597.8	1.41	22.22	.0000	180.44	.0040	-26.22	355.31
EXTM	72	1920.79	1932.04	6	2	54.9	.14	.0042	-26.63	.0000	252352.6	1.39	71.27	-.0000	180.39	.0117	-26.18	345.54
RISE	11	2060.68	2071.93	6	5	14.8	291.00	.0042	-26.92	-.0000	269822.3	1.03	.00	.0028	123.66	.0024	-26.04	311.00
SET	51	2109.17	2120.42	6	6	3.2	90.00	.0041	-25.48	.0000	272532.9	1.71	10.77	-.0034	246.76	-.0015	-26.00	299.02
SET	61	2136.63	2147.88	6	6	30.7	64.53	.0042	-26.94	.0000	275910.4	1.60	-.00	-.0025	233.60	.0027	-25.98	292.23
SET	72	2294.29	2305.54	6	9	8.4	93.83	.0041	-25.66	.0001	288223.0	1.69	-.01	-.0037	244.08	-.0005	-25.84	253.23
RISE	42	2295.75	2307.00	6	9	9.8	255.00	.0041	-25.07	-.0000	287997.7	.95	3.03	.0030	118.82	-.0023	-25.84	252.87
EXTM	11	2336.24	2347.49	6	9	50.3	.31	.0042	-26.92	.0000	288463.7	1.27	27.87	-.0000	180.31	.0042	-25.81	242.85
SET	11	2611.63	2622.88	6	14	25.7	69.54	.0042	-26.36	.0000	311789.9	1.51	-.00	-.0028	237.09	.0024	-25.60	174.61
EXTM	42	2714.81	2726.06	6	16	8.9	359.96	.0042	-25.33	.0000	312919.7	1.17	80.11	.0000	.22	-.0196	-25.53	149.02
RISE	51	2845.52	2856.77	6	18	19.6	270.00	.0041	-25.01	-.0000	327065.4	.77	10.58	.0034	112.79	-.0015	-25.44	116.58
RISE	72	2999.33	3010.58	6	20	53.4	266.26	.0042	-25.17	-.0000	338817.2	.71	-.00	.0037	115.43	-.0006	-25.33	78.24
RISE	61	3070.34	3081.59	6	22	4.4	294.43	.0042	-26.04	-.0000	343961.1	.82	.00	.0026	129.11	.0027	-25.28	60.51
SET	42	3132.85	3144.10	6	23	6.9	105.00	.0041	-24.60	.0000	347411.7	1.44	2.74	-.0030	241.56	-.0023	-25.24	44.90
EXTM	51	3201.73	3212.98	7	0	15.8	360.00	.0042	-25.18	.0000	345959.9	1.11	89.44	-.0000	1.72	-.0150	-25.19	27.69
EXTM	61	3330.56	3341.81	7	2	24.6	.27	.0042	-26.02	.0000	358235.8	1.11	23.74	-.0000	180.27	.0042	-25.10	355.48
EXTM	72	3370.00	3381.25	7	3	4.1	.06	.0043	-25.37	.0000	357371.9	1.11	72.53	.0000	180.19	.0122	-25.07	345.61
RISE	11	3501.94	3513.19	7	5	16.0	289.76	.0042	-25.60	-.0000	372299.8	.83	.00	.0029	121.92	.0024	-24.97	312.96
SET	51	3557.31	3568.56	7	6	11.4	90.00	.0042	-24.54	.0000	375077.0	1.61	10.39	-.0035	247.65	-.0015	-24.92	298.65
SET	61	3590.12	3601.37	7	6	44.2	66.11	.0042	-25.57	.0000	378711.0	1.62	-.00	-.0026	235.56	.0028	-24.88	290.38
IMPACT		3629.76	3641.01	7	7	23.8												
IMPC	72	3629.76	3641.01	7	7	23.8	66.33	.0043	-24.86	.0001	379638.5	2.39	24.75	-.0039	246.21	.0003	-24.82	280.30
IMPC	51	3629.76	3641.01	7	7	23.8	108.89	.0043	-24.33	.0001	382801.2	2.37	-4.91	-.0034	240.21	-.0020	-24.82	280.30
IMPC	11	3629.76	3641.01	7	7	23.8	322.33	.0044	-25.58	.0000	380174.2	1.77	19.54	.0021	144.21	.0035	-24.82	280.30

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	4	18	54.082	6551.635	20.0333	306.1321	10.98248	1.8580	112.8959	91.8621
SEPARATION		1.20	12.45	4	18	55.282	6600.670	17.2425	312.4525	10.94116	5.2617	115.0148	98.4833
RETRO		3.20	14.45	4	18	57.282	6782.768	12.3158	322.2169	10.79196	10.7504	117.6425	108.7491
IMPACT		3629.76	3641.01	7	7	23.838	382352.375	-24.8155	280.2956	2.18558	69.7397	290.1568	255.9483

SURVEYOR VIEW PERIODS

OHA	224.3902				EPS	31.0224					LOM	275.0771	
SX	-.220135	SY	-.880652	SZ	-.419515	DAO	-24.80394	RAD	255.96545	RM	383627.445	LAT	28.310600
CJ	-1.074132	ECC	.982364	SLR	12973.910	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000
NSX	-.198416	NSY	-.884001	NSZ	-.423290	C3M	1.4969	VIM	2.6714	ZAE	137.662	B.T	.0000
LATE	2.5757	LONE	5.4953	LATS	-.2106	LONS	334.6636	LATI	-6.6645	LONI	324.1047	RSM	151.2889
LAUNCH DATE		MAY	4,1966		BASE AZM	105.0		TF	60.613			ARRIVAL DATE	MAY

LON	279.461800												
POL	-.0												
B.R	-.0000												
TTAN	6.4500												
	7 1966	7	44	43.2									

LNCH AZMTH	LNCH TIME			PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME			INJ RAD	INJ VEL	INJ PTH
105.00	18	51	53.5	28.1	18.92	305.64	5.64	93.64	115.00	19	3	8.5	6560.4	10.97	2.79

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	4	19	3.1												
SEPARATION		1.20	12.45	4	19	4.3												
RETRO		3.20	14.45	4	19	6.3												
RISE	72	4.45	15.70	4	19	7.6	83.73	-.1663	38.20	.0010	2903.2	-7.75	.00	.1285	308.63	.0239	7.53	326.62
EXTM	72	10.50	21.75	4	19	13.6	352.87	-.1821	1.34	-.1395	2012.4	4.56	78.34	-.0000	37.87	1.1350	-5.70	347.39
RISE	51	11.07	22.32	4	19	14.2	80.81	-.0822	18.32	-.0414	5644.6	-2.87	.00	.0883	290.43	-.0011	-6.70	348.97
EXTM	51	36.36	47.61	4	19	39.5	3.91	-.0198	-25.96	-.0076	10183.7	5.24	86.48	.0174	265.51	-.1371	-25.89	25.28
EXTM	72	70.71	81.96	4	20	13.9	293.57	.0000	-32.23	-.0003	23537.3	4.75	24.10	.0000	121.85	.0003	-30.10	37.63
EXTM	51	92.63	103.88	4	20	35.8	345.48	.0001	-31.77	-.0002	26429.4	4.30	75.93	.0000	118.74	.0008	-30.73	39.26
RISE	61	128.99	140.24	4	21	12.1	312.11	.0021	-28.39	.0006	41064.2	3.77	-.00	.0014	144.45	.0010	-30.98	37.83
EXTM	51	207.45	218.70	4	22	30.6	.34	.0031	-31.27	.0001	52061.5	3.33	84.46	-.0000	153.02	.0278	-30.67	27.38
EXTM	61	389.52	400.77	5	1	32.7	4.69	.0038	-33.51	.0002	88673.6	2.67	16.12	.0000	184.07	.0033	-29.65	351.35
EXTM	72	419.15	430.40	5	2	2.3	.86	.0040	-31.01	.0001	89421.1	2.59	66.88	.0000	181.87	.0087	-29.50	344.88
RISE	11	592.28	603.53	5	4	55.4	294.94	.0040	-30.86	.0000	120325.5	2.00	.00	.0026	128.89	.0023	-28.80	305.65
SET	51	613.46	624.71	5	5	16.6	90.00	.0038	-27.62	.0001	121926.8	2.59	11.62	-.0032	244.76	-.0012	-28.73	300.73
SET	61	623.48	634.73	5	5	26.6	59.55	.0039	-30.92	.0002	124551.8	2.47	-.00	-.0021	227.69	.0026	-28.70	298.40
SET	72	810.69	821.94	5	8	33.8	94.20	.0039	-27.79	.0001	148367.3	2.40	-.00	-.0034	241.92	-.0004	-28.14	254.23
RISE	42	820.86	832.11	5	8	44.0	254.99	.0040	-26.64	-.0000	149151.6	1.69	3.99	.0028	120.07	-.0021	-28.11	251.80
EXTM	11	862.26	873.41	5	9	25.3	1.26	.0041	-30.16	.0001	151886.1	1.97	24.62	-.0000	181.20	.0039	-28.01	241.93
SET	11	1128.83	1140.08	5	13	52.0	67.22	.0041	-28.75	.0001	184294.7	2.05	-.00	-.0026	233.94	.0024	-27.44	177.61
EXTM	42	1246.19	1257.44	5	15	49.3	359.92	.0042	-26.96	.0000	190191.0	1.69	81.74	.0000	.50	-.0254	-27.23	149.06
RISE	51	1381.84	1393.09	5	18	5.0	270.00	.0041	-26.34	-.0000	208609.9	1.25	11.11	.0034	114.04	-.0015	-27.01	115.93
RISE	72	1537.23	1548.48	5	20	40.4	266.02	.0041	-26.55	-.0000	224539.5	1.14	-.01	.0036	116.82	-.0005	-26.79	77.85
RISE	61	1616.03	1629.28	5	22	1.2	296.54	.0041	-27.83	-.0000	231923.2	1.23	.00	.0025	127.71	.0027	-26.68	58.01
SET	42	1669.57	1680.82	5	22	52.7	105.00	.0041	-25.68	.0001	236169.1	1.81	3.40	-.0029	240.70	-.0022	-26.61	45.34
EXTM	51	1736.12	1747.37	5	23	59.3	358.69	.0042	-26.55	.0000	236151.7	1.45	88.57	.0031	124.84	.0842	-26.53	28.97
EXTM	61	1872.88	1884.13	6	2	16.0	.49	.0042	-27.70	.0000	251797.6	1.41	22.06	.0000	180.47	.0040	-26.37	355.27
EXTM	72	1912.37	1923.62	6	2	55.5	.65	.0042	-26.79	.0000	251534.4	1.39	71.11	-.0000	180.41	.0116	-26.33	345.93
RISE	11	2052.77	2064.02	6	5	15.9	291.14	.0042	-27.07	-.0000	269047.7	1.04	.00	.0028	123.84	.0024	-26.18	310.86
SET	51	2100.68	2111.93	6	6	3.8	90.00	.0041	-25.62	.0001	271707.3	1.71	19.82	-.0034	246.64	-.0015	-26.14	299.03
SET	61	2127.50	2138.75	6	6	30.6	64.37	.0042	-27.08	.0001	275040.6	1.60	-.00	-.0025	233.40	.0027	-26.11	292.40
SET	72	2285.89	2297.14	6	9	9.0	93.85	.0041	-25.77	.0001	287414.9	1.69	-.01	-.0037	243.96	-.0005	-25.96	253.22
RISE	42	2287.30	2298.55	6	9	10.4	255.00	.0041	-25.19	-.0000	287178.4	.95	3.10	.0030	118.91	-.0023	-25.96	252.87
EXTM	11	2327.87	2339.12	6	9	51.0	.33	.0042	-27.03	.0000	287670.5	1.27	27.76	-.0000	180.34	.0042	-25.92	242.82
SET	11	2602.78	2614.03	6	14	25.9	69.45	.0042	-26.45	.0000	310951.9	1.51	-.00	-.0028	236.96	.0024	-25.69	174.70
EXTM	42	2706.32	2717.57	6	16	9.5	359.96	.0042	-25.42	.0000	312105.1	1.17	80.20	.0000	.23	-.0202	-25.61	149.02
RISE	51	2837.05	2848.30	6	18	20.2	270.00	.0041	-25.08	-.0000	326248.4	.77	10.61	.0034	112.86	-.0015	-25.52	116.57
RISE	72	2990.81	3002.06	6	20	54.0	266.24	.0042	-25.24	-.0000	337987.8	.70	-.00	.0037	115.50	-.0006	-25.40	78.24
RISE	61	3062.18	3073.43	6	22	5.3	294.50	.0042	-26.11	-.0000	342744.5	.82	.00	.0026	125.21	.0027	-25.34	60.43
SET	42	3124.36	3135.61	6	23	7.5	105.00	.0041	-24.66	.0000	346559.7	1.44	2.77	-.0030	241.51	-.0023	-25.30	44.90
EXTM	51	3189.25	3200.50	7	0	12.4	358.98	.0042	-25.24	.0000	344836.9	1.10	88.95	.0034	61.82	-.1009	-25.25	28.69
EXTM	61	3322.15	3333.40	7	2	25.3	.28	.0042	-26.06	.0000	357355.9	1.10	23.68	-.0000	180.28	.0041	-25.15	355.47
EXTM	72	3361.57	3372.82	7	3	4.7	.06	.0043	-25.43	.0000	356474.7	1.10	72.48	.0000	180.20	.0123	-25.12	345.61
RISE	11	3493.72	3504.97	7	5	16.9	289.80	.0042	-25.65	-.0000	371346.4	.82	.00	.0029	121.99	.0024	-25.02	312.51
SET	51	3548.94	3560.19	7	6	12.1	90.00	.0042	-24.58	.0000	374043.2	1.58	10.41	-.0035	247.60	-.0015	-24.97	298.65
SET	61	3581.56	3592.81	7	6	44.7	66.05	.0042	-25.62	.0000	377582.7	1.56	-.00	-.0026	235.49	.0028	-24.93	290.44
IMPACT		3636.75	3648.00	7	7	39.9												
IMPC	72	3636.75	3648.00	7	7	39.9	70.22	.0043	-24.86	.0001	380057.9	2.39	21.22	-.0039	246.33	.0002	-24.84	276.43
IMPC	11	3636.75	3648.00	7	7	39.9	326.24	.0044	-25.62	.0000	380052.0	1.79	21.30	.0020	147.47	.0037	-24.84	276.43

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	4	19	3.141	6560.480	18.9149	305.6446	10.97479	2.7925	114.9991	93.6456
SEPARATION		1.20	12.45	4	19	4.341	6622.104	15.9225	311.7769	10.92298	6.1803	116.9275	100.0787
RETRO		3.20	14.45	4	19	6.341	6823.859	10.7438	321.2235	10.75881	11.6173	119.2294	110.0267
IMPACT		3636.75	3648.00	7	7	39.895	382412.520	-24.8430	276.4305	2.18257	65.5726	290.5845	256.1085

SURVEYOR VIEW PERIODS

BHA	224.3902					EPS	31.1512						LOM	271.4365	
BX	-.217776	SY	-.881049	SZ	-.419912	DAO	-24.82903	RAO	256.11604	RM	383681.527	LAT	28.310600	LON	279.461800
C3	-1.081666	ECC	.982240	SLR	12973.100	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NBX	-.195968	NSY	-.884354	NSZ	-.423691	C3M	1.4971	VIM	2.6714	ZAG	137.395	B.T	.0000	B.R	-.0000
LATE	2.5910	LONE	5.4932	LATS	-.2103	LONS	334.5358	LATI	-6.9594	LONI	323.8935	RSM	151.2889	TTAN	6.4498
LAUNCH DATE		MAY	4,1966		BASE AZM	108.0		TF	60.744			ARRIVAL DATE		MAY 7 1966	7 59 50.6

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	18 59 15.3	28.1	17.83	305.09	7.14	94.93	117.09	19 10 30.3	6569.9	10.97	3.54

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	4	19	10.5												
SEPARATION		1.20	12.45	4	19	11.7												
RETRO		3.20	14.45	4	19	13.7												
RISE	72	4.35	15.60	4	19	14.9	84.76	-.1523	33.32	-.0181	2966.4	-7.70	.00	.1285	303.69	.0031	6.14	325.00
EXTM	72	10.46	21.71	4	19	21.0	.72	-.1899	-6.22	-.1273	2042.4	4.38	88.17	.1905	337.10	3.9019	-7.50	345.50
RISE	51	11.08	22.33	4	19	21.6	82.61	-.0774	14.94	-.0439	5759.0	-2.69	.00	.0865	286.63	-.0056	-8.59	347.18
EXTM	51	41.69	52.94	4	19	52.2	1.66	-.0148	-30.32	-.0042	11954.2	5.20	85.19	-.0000	197.40	-.1606	-28.73	26.62
EXTM	72	71.38	82.63	4	20	21.9	295.46	.0000	-33.99	-.0001	23677.9	4.73	25.46	.0000	123.99	.0001	-31.47	35.89
EXTM	51	93.17	104.42	4	20	43.7	347.64	.0000	-33.32	.0000	26611.8	4.29	76.86	.0000	128.10	.0000	-31.95	37.52
RISE	61	130.84	142.09	4	21	21.3	314.14	.0022	-39.45	.0007	41956.2	3.75	-.00	.0015	146.35	.0010	-32.02	35.99
EXTM	51	198.72	209.97	4	22	29.2	.96	.0030	-32.31	.0002	50363.1	3.37	83.41	-.0000	184.16	.0224	-31.58	27.19
EXTM	61	384.36	395.61	5	1	34.9	5.22	.0038	-34.18	.0002	87943.2	2.68	15.42	.0000	184.48	.0033	-30.27	350.86
EXTM	72	412.50	423.75	5	2	3.0	1.01	.0040	-31.67	.0001	88431.9	2.61	66.21	.0000	182.14	.0084	-30.11	344.74
RISE	11	587.69	598.94	5	4	58.2	295.47	.0040	-31.36	.0000	119698.0	2.00	.00	.0025	129.57	.0023	-29.28	305.10
SET	51	606.37	617.62	5	5	16.9	90.00	.0038	-28.10	.0001	120948.2	2.60	11.80	-.0031	244.32	-.0012	-29.20	300.77
SET	61	613.49	624.74	5	5	24.0	58.85	.0039	-31.44	.0000	123207.0	2.48	-.00	-.0021	226.90	.0027	-29.18	299.11
SET	72	804.07	815.32	5	8	34.6	94.27	.0039	-28.17	.0001	147546.1	2.40	-.01	-.0034	241.54	-.0004	-28.53	254.18
RISE	42	814.14	825.39	5	8	44.6	254.99	.0040	-27.02	-.0000	148895.9	1.70	4.22	.0028	120.37	-.0021	-28.50	251.78
EXTM	11	855.86	867.11	5	9	26.4	1.39	.0041	-30.54	.0001	151155.0	1.97	24.24	.0000	181.31	.0039	-28.38	241.82
SET	11	1120.79	1132.04	5	13	51.3	66.92	.0041	-29.06	.0001	183350.8	2.06	-.00	-.0026	233.53	.0024	-27.73	177.92
EXTM	42	1239.54	1250.79	5	15	50.0	359.94	.0042	-27.24	.0000	189447.1	1.69	82.02	-.0000	.39	-.0253	-27.50	149.04
RISE	51	1375.15	1386.40	5	18	5.7	270.00	.0041	-26.58	-.0000	207869.1	1.25	11.20	.0034	114.27	-.0015	-27.25	115.92
RISE	72	1530.38	1541.63	5	20	40.9	265.98	.0041	-26.76	-.0000	223606.3	1.14	-.01	.0036	117.04	-.0005	-27.00	77.88
RISE	61	1612.33	1623.58	5	22	2.8	296.79	.0041	-28.04	-.0000	231298.5	1.23	.00	.0025	128.01	.0027	-26.88	57.76
SET	42	1662.80	1674.05	5	22	53.3	105.00	.0041	-25.87	.0001	235437.7	1.81	3.52	-.0029	240.55	-.0022	-26.81	45.35
EXTM	51	1732.85	1744.10	6	0	3.4	359.56	.0042	-26.74	.0000	235721.5	1.45	88.93	.0014	158.74	.1863	-26.71	28.11
EXTM	61	1866.30	1877.55	6	2	16.8	.94	.0042	-27.88	.0000	251119.3	1.41	21.88	-.0000	180.51	.0040	-26.54	355.23
EXTM	72	1905.66	1916.91	6	2	56.2	.16	.0042	-26.96	.0000	250834.0	1.39	70.94	-.0000	180.44	.0115	-26.49	345.52
RISE	11	2046.61	2057.86	6	5	17.1	291.28	.0042	-27.22	-.0000	268386.2	1.04	.00	.0028	124.04	.0024	-26.33	310.72
SET	51	2093.89	2105.14	6	6	4.4	90.00	.0041	-25.76	.0001	270989.0	1.71	10.88	-.0034	246.50	-.0015	-26.28	299.03
SET	61	2120.02	2131.27	6	6	30.5	64.20	.0042	-27.22	.0001	274273.3	1.60	-.00	-.0025	233.19	.0027	-26.25	292.97
SET	72	2279.15	2290.40	6	9	9.7	93.87	.0041	-25.90	.0001	286702.9	1.69	-.00	-.0037	243.83	-.0005	-26.09	253.21
RISE	42	2280.54	2291.79	6	9	11.0	255.00	.0041	-25.31	-.0000	286457.2	.95	3.18	.0029	119.01	-.0023	-26.09	252.86
EXTM	11	2321.20	2332.45	6	9	51.7	.36	.0042	-27.16	.0000	286975.8	1.27	27.63	-.0000	180.36	.0042	-26.05	242.80
SET	11	2595.59	2606.84	6	14	26.1	69.35	.0042	-26.56	.0000	310197.5	1.51	-.00	-.0028	236.83	.0024	-25.79	174.80
EXTM	42	2699.62	2710.87	6	16	10.1	359.99	.0042	-25.51	.0000	311379.3	1.17	80.29	-.0000	.12	-.0141	-25.70	148.99
RISE	51	2830.26	2841.51	6	18	20.8	270.00	.0041	-25.16	-.0000	329506.8	.77	10.64	.0034	112.94	-.0015	-25.60	116.57
RISE	72	2984.10	2995.35	6	20	54.6	266.23	.0042	-25.31	-.0000	337249.9	.70	-.00	.0037	115.57	-.0006	-25.47	78.25
RISE	61	3055.82	3067.07	6	22	6.3	294.59	.0042	-26.18	-.0000	342819.0	.82	.00	.0026	125.31	.0027	-25.41	60.35
SET	42	3117.65	3128.90	6	23	8.2	105.00	.0041	-24.72	.0000	349796.0	1.44	2.81	-.0030	241.46	-.0023	-25.36	44.90
EXTM	51	3180.85	3192.10	7	0	11.4	358.55	.0042	-25.38	.0000	343955.2	1.09	88.62	.0036	71.93	-.0515	-25.31	29.11
EXTM	61	3315.48	3326.73	7	2	26.0	.30	.0042	-26.14	.0000	356961.0	1.10	23.62	.0000	180.29	.0041	-25.21	359.46
EXTM	72	3334.86	3366.11	7	3	5.4	.07	.0043	-25.48	.0000	355660.8	1.10	72.42	.0000	180.21	.0124	-25.17	349.61
RISE	11	3487.19	3498.44	7	5	17.7	289.85	.0042	-25.70	-.0000	370478.0	.81	.00	.0029	122.05	.0024	-25.06	312.47
SET	51	3542.23	3553.48	7	6	12.7	90.00	.0042	-24.63	.0000	373104.6	1.55	10.43	-.0035	247.56	-.0015	-25.01	298.66
SET	61	3574.67	3585.92	7	6	45.2	66.00	.0042	-25.67	.0000	376572.1	1.91	-.00	-.0026	235.42	.0028	-24.98	290.50
IMPACT		3644.61	3655.86	7	7	59.1												
IMPC	72	3644.61	3655.86	7	7	59.1	73.91	.0043	-24.86	.0001	380467.0	2.39	17.87	-.0039	246.34	.0000	-24.87	272.77
IMPC	11	3644.61	3655.86	7	7	59.1	329.95	.0044	-25.66	.0000	379956.3	1.80	22.82	.0018	150.68	.0038	-24.87	272.77

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	4	19	10.504	6570.193	17.8189	309.1044	10.96643	3.5365	117.0937	94.9512
SEPARATION		1.20	12.45	4	19	11.704	6641.638	14.6322	311.0470	10.90641	6.9091	110.8410	101.1946
RETRO		3.20	14.45	4	19	13.704	6858.886	9.2028	320.1923	10.73076	12.3013	120.0398	110.8413
IMPACT		3644.61	3655.86	7	7	59.116	302472.977	-24.8698	272.7670	2.17078	69.2191	298.9147	256.2489

SURVEYOR VIEW PERIODS

QHA	224.5902					EPS	31.2817					LOM	267.7453
SX	-.215383	SY	-.881446	SZ	-.420312	DAO	-24.85430	RAO	256.26875	RM	383736.375	LAT	28.310600	LON	279.461800
CJ	-1.090794	ECC	.982090	SLR	12972.122	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.193468	NSY	-.884710	NSZ	-.424098	C3M	1.4968	VIM	2.6713	ZAE	137.082	B.T	.0000	B.R	-.0000
LATE	2.6065	LONE	5.4946	LATS	-.2100	LONS	334.4656	LATI	-7.2717	LONI	323.6401	RSM	151.2888	TTAN	6.4483
LAUNCH DATE		MAY	4,1966		BASe AZM	111.0		TF	60.900			ARRIVAL DATE	MAY 7 1966		8 15 10.6

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	19 5 23.0	28.1	16.76	304.49	8.36	95.87	119.18	19 16 38.0	6579.3	10.96	4.14

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
				PROBE IN SUNLIGHT													
INJECTION	.00	11.25	4	19	16.6												
SEPARATION	1.20	12.45	4	19	17.8												
RETRO	3.20	14.45	4	19	19.8												
RISE 72	4.29	15.54	4	19	20.9	85.64	-.1407	28.68	-.0359	3027.7	-7.56	.00	.1275	298.99	-.0161	4.68	323.56
EXTM 72	10.74	21.99	4	19	27.4	4.66	-.1824	-15.60	-.1062	2196.9	4.66	81.05	-.0000	210.19	-1.3202	-9.88	344.50
RISE 51	11.13	22.38	4	19	27.8	84.31	-.0731	11.62	-.0464	5865.7	-2.50	.00	.0848	282.92	-.0098	-10.56	345.52
EXTM 51	44.33	55.58	4	20	1.0	2.16	-.0133	-33.39	-.0028	12861.9	9.14	82.12	-.0000	193.27	-.0838	-30.86	26.28
EXTM 72	71.91	83.16	4	20	28.5	296.98	-.0000	-35.83	.0002	23800.7	4.71	26.41	.0000	120.22	-.0002	-32.93	34.44
EXTM 51	92.40	103.65	4	20	49.0	349.41	-.0002	-34.96	.0002	26461.9	4.30	77.03	.0000	137.84	-.0010	-33.25	36.06
RISE 61	135.46	146.71	4	21	32.1	316.17	.0022	-40.45	.0007	42678.5	3.70	-.00	.0015	148.20	.0011	-33.11	34.23
EXTM 51	192.46	203.71	4	22	29.1	.91	.0030	-33.45	.0034	49438.7	3.41	82.25	-.0000	185.63	.0184	-32.56	26.89
EXTM 61	380.88	392.13	5	1	37.5	5.77	.0033	-34.89	.0002	87471.5	2.69	14.69	.0000	184.89	.0033	-30.94	350.34
EXTM 72	407.47	418.72	5	2	4.1	1.19	.0040	-32.38	.0002	87682.1	2.62	65.50	.0000	182.43	.0081	-30.76	344.57
RISE 11	584.68	595.93	5	5	1.3	296.84	.0040	-21.89	.0000	119273.9	2.01	.00	.0025	130.28	.0023	-29.79	304.52
SET 51	600.72	611.97	5	5	17.4	90.00	.0038	-28.60	.0001	120146.1	2.60	12.30	-.0031	245.84	-.0012	-29.71	300.80
SET 61	604.64	615.89	5	5	21.3	58.09	.0039	-31.99	.0002	121996.8	2.48	-.00	-.0020	226.05	.0027	-29.70	299.89
SET 72	798.86	810.11	5	8	35.5	94.34	.0039	-28.58	.0001	146877.3	2.41	-.01	-.0034	241.12	-.0004	-28.94	254.13
RISE 42	808.80	820.05	5	8	45.4	254.99	.0040	-27.42	-.0000	147585.8	1.71	4.47	.0028	120.69	-.0021	-28.91	251.77
EXTM 11	850.96	862.21	5	9	27.6	1.91	.0041	-30.95	.0001	150574.2	1.97	23.83	.0000	181.42	.0039	-28.77	241.69
SET 11	1113.99	1125.24	5	13	50.6	66.59	.0041	-29.39	.0001	182555.4	2.06	-.00	-.0026	235.09	.0024	-28.05	178.26
EXTM 42	1233.99	1245.24	5	15	50.6	359.91	.0042	-27.53	.0000	188789.4	1.69	82.31	.0000	.63	-.0272	-27.78	149.07
RISE 51	1369.77	1381.02	5	18	6.4	270.00	.0041	-26.84	-.0000	207227.8	1.25	11.31	.0014	114.51	-.0014	-27.51	115.91
RISE 72	1524.82	1536.07	5	20	41.5	265.94	.0041	-26.99	-.0000	223162.5	1.14	-.01	.0019	117.27	-.0005	-27.23	77.91
RISE 61	1607.99	1619.24	5	22	4.6	297.06	.0041	-26.26	-.0000	230765.9	1.23	.00	.0029	128.34	.0027	-27.10	57.48
SET 42	1657.33	1668.58	5	22	54.0	105.00	.0041	-26.08	.0001	234788.0	1.81	3.64	-.0079	240.38	-.0022	-27.02	45.35
EXTM 51	1725.64	1736.89	6	0	3.3	359.12	.0042	-26.95	.0000	234934.4	1.45	88.56	.0041	147.08	.1242	-26.92	28.54
EXTM 61	1861.00	1872.25	6	2	17.6	.58	.0042	-28.06	.0000	250913.2	1.41	21.70	.0040	180.55	.0040	-26.72	355.18
EXTM 72	1900.24	1911.49	6	2	56.9	.17	.0042	-27.14	.0000	250203.4	1.39	70.76	-.0000	180.47	.0113	-26.67	345.50
RISE 11	2044.77	2056.02	6	5	18.4	291.44	.0042	-27.38	-.0000	267789.6	1.04	.00	.0028	124.25	.0024	-26.49	310.56
SET 51	2088.39	2099.64	6	6	5.0	90.00	.0041	-25.91	.0001	270329.4	1.70	10.93	-.0034	246.36	-.0014	-26.43	299.04
SET 61	2113.77	2125.02	6	6	30.4	64.01	.0042	-27.48	.0001	273559.8	1.60	-.00	-.0025	232.96	.0027	-26.40	292.76
SET 72	2273.72	2284.97	6	9	10.4	93.89	.0041	-28.03	.0001	286044.4	1.69	-.00	-.0037	243.70	-.0005	-26.22	253.19
RISE 42	2275.06	2286.31	6	9	11.7	255.00	.0041	-25.44	-.0000	285785.2	.95	5.28	.0029	119.11	-.0023	-26.22	252.86
EXTM 11	2315.81	2327.06	6	9	52.4	.39	.0042	-27.29	.0000	286350.3	1.27	77.00	-.0000	180.39	.0042	-26.18	242.77
SET 11	2589.65	2600.90	6	14	26.3	69.25	.0042	-26.06	.0000	309475.7	1.25	.01	-.0028	236.69	.0024	-25.90	174.91
EXTM 42	2694.03	2705.28	6	16	10.7	359.97	.0042	-25.61	.0000	318671.9	1.17	82.82	-.0000	.18	-.0192	-25.80	149.01
RISE 51	2824.73	2835.98	6	18	21.4	270.00	.0041	-25.95	-.0000	324788.1	.77	11.67	.0034	113.02	-.0015	-25.68	116.57
RISE 72	2978.51	2989.76	6	20	55.1	266.22	.0042	-25.36	-.0000	336509.8	.70	-.00	.0037	115.64	-.0006	-25.54	78.26
RISE 61	3050.62	3061.87	6	22	7.2	294.67	.0042	-26.25	-.0000	341289.6	.82	.00	.0026	125.41	.0027	-25.48	60.26
SET 42	3112.10	3123.35	6	23	8.7	105.00	.0041	-24.78	.0000	345025.4	1.43	2.85	-.0030	241.41	-.0023	-25.43	44.90
EXTM 51	3175.13	3186.38	7	0	11.8	358.50	.0042	-25.37	.0000	343163.5	1.08	88.60	.0037	75.02	-.0427	-25.38	29.16
EXTM 61	3310.01	3321.26	7	2	26.6	.31	.0042	-26.20	.0000	355755.0	1.09	23.57	.0000	180.31	.0041	-25.26	355.44
EXTM 72	3349.35	3360.60	7	3	6.0	.07	.0043	-25.54	.0000	354835.1	1.09	72.37	.0000	180.22	.0122	-25.23	345.60
RISE 11	3481.89	3493.14	7	5	18.5	289.90	.0042	-25.75	-.0000	369600.3	.80	.00	.0029	122.12	.0024	-25.11	312.42
SET 51	3536.74	3547.99	7	6	13.4	90.00	.0042	-24.68	.0000	372163.5	1.53	10.45	-.0035	247.52	-.0015	-25.06	298.66
SET 61	3568.98	3580.23	7	6	45.6	65.94	.0042	-25.72	.0000	375571.0	1.48	-.00	-.0026	235.35	.0028	-25.02	290.56
IMPACT	3654.01	3665.26	7	8	10.6												
IMPC 72	3654.01	3665.26	7	8	10.6	77.66	.0043	-24.86	.0001	386888.7	2.39	14.47	-.0039	246.26	-.0001	-24.90	269.03
IMPC 11	3654.01	3665.26	7	8	10.6	333.74	.0044	-25.70	.0000	379873.8	1.81	24.22	.0016	194.08	.0040	-24.90	269.03

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	4	19	16.633	6579.782	16.7454	304.5184	10.95813	4.1409	119.1840	95.9016
SEPARATION	1.20	12.45	4	19	17.833	6659.129	13.3704	310.2713	10.85153	7.4992	120.7597	101.9954
RETRO	3.20	14.45	4	19	19.833	6888.651	7.6912	319.1282	10.70685	12.8538	122.4759	111.3137
IMPACT	3654.01	3665.26	7	8	10.639	382532.391	-24.8954	269.0309	2.17493	64.9813	291.4027	256.4159

SURVEYOR VIEW PERIODS

BHA	224.3902					EPS	31.4945						LON	262.8560	
BX	-.212212	SY	-.881964	SZ	-.420838	DAO	-24.88752	RAD	256.47105	RM	3.3809.063	LAT	28.310600	LON	279.461800
C3	-1.104271	ECC	.981869	SLR	12970.673	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NBX	-.190139	NSY	-.8851/3	NSZ	-.424636	C3M	1.4967	VIM	2.6713	ZAB	136.416	B.T	.0000	B.R	-.0000
LATE	2.6270	LONE	5.4944	LATS	-.2098	LONS	334.2339	LATI	-/.7997	LONI	323.2563	RSM	151.2888	TTAN	6.4446
LAUNCH DATE	MAY	4.1966		BASE AZM	115.0		TF 61.132					ARRIVAL DATE	MAY 7 1966		8 39 29.3

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	19 12 5.9	28.1	15.37	303.63	9.66	96.70	121.96	19 23 20.8	6590.9	10.95	4.78

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT												
INJECTION		.00	11.25	4	19	23.3												
SEPARATION		1.20	12.45	4	19	24.5												
RETRO		3.20	14.45	4	19	26.5												
RISE	72	4.27	15.52	4	19	27.6	86.66	-.1276	22.74	-.0575	3110.7	-7.23	-.00	.1250	292.97	-.0393	2.83	321.84
EXTN	72	11.11	22.36	4	19	34.5	9.79	-.1746	-26.43	-.0846	2458.7	4.89	69.27	-.0000	205.49	-.5022	-13.06	343.14
RISE	51	11.23	22.48	4	19	34.6	86.49	-.0686	7.24	-.0494	6803.3	-2.23	-.01	.0823	278.04	-.0149	-13.28	343.44
EXTN	51	48.93	60.18	4	20	12.3	1.82	-.0111	-37.33	-.0013	14384.4	5.05	78.31	-.0000	187.16	-.0439	-33.78	26.47
EXTN	72	72.32	83.57	4	20	35.7	298.52	-.0001	-38.36	.0005	23911.8	4.69	27.14	.0000	129.26	-.0006	-34.98	32.84
EXTN	51	88.52	99.77	4	20	51.9	351.40	-.0007	-37.37	.0004	25977.7	4.35	76.26	.0000	149.97	-.0029	-35.11	34.39
RISE	61	144.56	155.81	4	21	47.9	318.86	.0024	-41.67	.0007	44797.5	3.61	-.00	.0015	150.56	.0012	-34.56	31.97
EXTN	51	187.04	198.29	4	22	30.4	1.45	.0029	-35.05	.0003	46183.1	3.44	80.61	.0000	187.29	.0146	-33.96	26.48
EXTN	61	378.27	389.52	5	1	41.6	6.54	.0038	-35.86	.0003	87161.0	2.69	13.67	.0000	165.45	.0032	-31.88	349.63
EXTN	72	402.77	414.02	5	2	6.1	1.47	.0039	-33.37	.0002	88985.8	2.63	64.50	.0000	182.84	.0077	-31.68	344.32
RISE	11	582.59	593.84	5	5	5.9	296.85	.0040	-32.62	.0001	118958.5	2.01	.00	.0025	131.29	.0023	-30.50	303.71
SET	61	594.21	605.46	5	5	17.6	56.98	.0039	-32.78	.0002	120548.7	2.49	-.00	-.0020	224.83	.0027	-30.43	301.01
SET	51	594.93	606.18	5	5	18.3	90.00	.0038	-29.32	.0002	119297.5	2.61	12.28	-.0031	243.16	-.0012	-30.43	300.85
SET	72	793.61	804.86	5	8	37.0	94.45	.0039	-29.16	.0001	146175.1	2.41	-.00	-.0034	240.53	-.0004	-29.32	254.86
RISE	42	803.33	814.58	5	8	46.7	254.99	.0040	-27.99	-.0000	146820.7	1.71	4.81	.0028	121.14	-.0021	-29.48	251.74
EXTN	11	846.13	857.38	5	9	29.5	1.70	.0041	-31.52	.0001	149986.3	1.98	23.25	.0000	181.57	.0039	-29.32	241.52
SET	11	1106.40	1117.65	5	13	49.8	66.12	.0041	-29.85	.0001	181632.8	2.06	-.00	-.0026	232.48	.0024	-28.50	178.74
EXTN	42	1228.34	1239.59	5	15	51.7	359.90	.0042	-27.95	.0000	188070.2	1.69	82.73	.0000	.68	-.0287	-28.18	149.07
RISE	51	1364.16	1375.41	5	18	7.5	270.00	.0041	-27.21	-.0000	206500.8	1.25	11.45	.0034	114.85	-.0014	-27.87	119.90
RISE	72	1518.95	1530.20	5	20	42.3	265.88	.0041	-27.31	-.0000	222420.7	1.14	-.01	.0036	117.60	-.0005	-27.56	77.96
RISE	61	1603.84	1615.09	5	22	7.2	297.44	.0042	-28.57	.0000	230175.4	1.23	.00	.0025	128.79	.0027	-27.40	57.10
SET	42	1651.58	1662.83	5	22	54.9	105.00	.0041	-26.37	.0001	234030.5	1.81	3.82	-.0039	240.15	-.0022	-27.31	49.36
EXTN	51	1718.47	1729.72	6	0	1.8	358.76	.0042	-27.24	.0000	234069.0	1.45	88.13	.0021	143.66	.0915	-27.20	28.98
EXTN	61	1855.49	1866.74	6	2	18.8	.64	.0042	-28.33	.0000	249805.0	1.41	21.43	.0000	180.60	.0040	-26.98	355.13
EXTN	72	1894.55	1905.80	6	2	57.9	.19	.0042	-27.40	.0000	249458.9	1.39	70.51	-.0000	180.51	.0112	-26.92	345.49
RISE	11	2036.88	2048.13	6	5	20.2	291.65	.0042	-27.61	-.0000	267084.9	1.03	.00	.0028	124.55	.0024	-26.71	310.33
SET	51	2082.57	2093.82	6	6	5.9	90.00	.0041	-26.13	.0001	269934.7	1.70	11.02	-.0034	246.16	-.0014	-26.65	299.84
SET	61	2106.90	2118.15	6	6	30.2	63.75	.0042	-27.60	.0001	272688.1	1.60	-.00	-.0025	232.44	.0027	-26.62	293.03
SET	72	2268.00	2279.25	6	9	11.3	93.92	.0041	-26.22	.0001	285242.6	1.68	-.00	-.0037	243.91	-.0005	-26.41	253.16
RISE	42	2269.25	2280.50	6	9	12.6	255.00	.0041	-25.63	-.0000	284963.9	.95	3.37	.0029	119.26	-.0023	-26.41	252.85
EXTN	11	2310.14	2321.39	6	9	53.5	.43	.0042	-27.48	.0000	285944.5	1.26	27.31	-.0000	180.43	.0042	-26.36	242.73
SET	11	2583.18	2594.43	6	14	26.5	69.10	.0042	-26.81	.0001	308571.6	1.51	-.00	-.0028	236.49	.0024	-26.05	175.95
EXTN	42	2688.07	2699.32	6	16	11.4	359.95	.0042	-25.75	.0000	309783.6	1.17	80.53	-.0000	.29	-.0208	-25.94	140.83
RISE	51	2818.63	2830.08	6	18	22.2	270.00	.0041	-25.37	-.0000	323879.2	.77	10.72	.0034	113.13	-.0015	-25.81	116.56
RISE	72	2972.67	2983.92	6	20	56.0	266.20	.0042	-25.49	-.0000	335986.8	.69	-.00	.0037	115.75	-.0006	-25.65	78.28
RISE	61	3045.30	3056.55	6	22	8.6	294.79	.0042	-26.36	-.0000	340380.1	.81	.00	.0026	125.56	.0027	-25.58	60.14
SET	42	3106.27	3117.52	6	23	9.6	105.00	.0041	-24.88	.0000	344057.1	1.43	2.91	-.0030	241.33	-.0023	-25.52	44.61
EXTN	51	3170.00	3181.25	7	0	13.3	358.68	.0042	-25.46	.0000	342225.9	1.08	88.78	.0037	77.11	-.0424	-25.47	28.98
EXTN	61	3304.20	3315.51	7	2	27.6	.34	.0042	-26.28	.0000	354734.3	1.08	23.48	-.0000	180.33	.0041	-25.34	355.42
EXTN	72	3343.53	3354.78	7	3	6.9	.08	.0043	-25.61	.0000	353756.0	1.08	72.29	.0000	180.24	.0122	-25.31	349.60
RISE	11	3476.32	3487.57	7	5	19.7	269.96	.0042	-25.82	-.0000	366481.2	.78	.00	.0029	122.21	.0024	-25.18	312.39
SET	51	3530.90	3542.15	7	6	14.2	90.00	.0042	-24.74	.0000	370065.0	1.51	10.47	-.0035	247.46	-.0015	-25.12	298.66
SET	61	3562.85	3574.10	7	6	46.2	69.86	.0042	-25.79	.0000	374303.3	1.45	-.00	-.0026	235.25	.0027	-25.09	298.64
IMPACT		3667.90	3679.15	7	8	31.2												
IMPC	72	3667.90	3679.15	7	8	31.2	82.64	.0043	-24.87	.0301	381459.8	2.39	9.96	-.0039	246.01	-.0002	-24.93	284.87
IMPC	11	3667.90	3679.15	7	8	31.2	338.77	.0044	-25.74	.0000	379796.1	1.82	25.82	.0013	158.75	.0041	-24.93	284.87

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	4	19	23.347	6591.815	15.3502	303.6729	10.94775	4.7839	121.9690	96.7392
SEPARATION		1.20	12.45	4	19	24.547	6679.332	11.7328	309.1742	10.87428	8.1295	123.3311	102.9414
RETRO		3.20	14.45	4	19	26.547	6921.831	5.7218	317.6611	10.68028	13.4360	124.6993	111.9296
IMPACT		3667.90	3679.15	7	8	31.248	382614.930	-24.9383	264.0708	2.16882	64.4636	291.9060	256.6224

SURVEYOR VIEW PERIODS

DHA	225.3759				EPS	42.7512						LOM	298.6664
SX	-.001490	SY	-.895357	SZ	-.445347	DAO	-26.44552	RAO	269.90466	RM	388627.375	LAT	28.310600	LON	279.461800
CS	-.991652	ECC	.983718	SLR	12982.771	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.019833	NSY	-.894403	NSZ	-.446822	C3H	1.4931	VIM	2.6706	ZAE	139.724	B.T	.0000	B.R	-.0000
LATE	3.9004	LONE	5.3268	LATS	-.1839	LONS	322.7390	LATI	-2.9407	LONI	325.6105	RSM	151.2805	TTAN	6.8059
LAUNCH DATE	MAY	5.1966		BASE AZM	84.0		TF 60.784					ARRIVAL DATE	MAY 8 1966	7	2 17.6

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
84.00	18 17 32.3	27.3	27.11	307.48	-14.03	87.85	99.77	18 28 47.3	6643.0	10.91	-6.96

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	5	18	28.8												
SEPARATION	1.20	12.45	5	18	30.0												
RETRO	3.20	14.45	5	18	32.0												
RISE 72	7.17	18.42	5	18	36.8	338.86	-1.0737	81.54	-.1474	2628.1	-2.71	-.00	.0812	3.04	.2003	14.46	346.87
RISE 51	12.17	23.42	5	18	41.8	60.82	-.1490	45.32	-.0233	4673.2	-3.79	.00	.0968	322.13	.0463	4.02	6.35
EXTM 72	13.36	24.61	5	18	42.1	288.87	-.0250	17.74	-.0974	3753.4	6.64	15.26	-.0000	69.10	.1040	1.86	10.02
EXTM 51	29.68	40.93	5	18	58.5	338.58	-.0250	-6.04	-.0238	7329.7	5.60	61.60	-.0000	49.77	.0723	-15.45	39.68
ENTER SHA	40.95	52.20	5	19	9.7												
ENTR 72	40.95	52.20	5	19	9.7	273.43	-.0033	-19.31	-.0051	15048.8	5.98	5.82	-.0025	108.75	.0055	-20.23	48.85
ENTR 51	40.95	52.20	5	19	9.7	327.70	-.0102	-16.04	-.0090	11167.0	5.61	58.40	-.0054	78.56	.0232	-20.23	48.85
EXTM 72	63.63	74.88	5	19	32.4	271.33	-.0003	-23.66	-.0020	22469.2	5.01	4.38	.0000	113.31	.0020	-24.54	57.39
RISE 42	71.59	82.84	5	19	40.4	102.64	-.0042	-17.23	-.0032	25303.4	4.26	.00	.0051	248.74	-.0001	-25.34	58.77
EXTM 51	77.59	88.84	5	19	46.4	319.65	-.0003	-24.63	-.0017	22375.9	4.63	53.61	.0000	97.22	.0029	-25.82	59.48
EXIT SHA	98.73	109.98	5	20	7.5												
EXIT 42	98.73	109.98	5	20	7.5	98.61	-.0011	-20.84	-.0015	32180.0	4.16	5.22	.0017	248.11	-.0006	-26.95	60.34
EXIT 72	98.73	109.98	5	20	7.5	273.09	.0016	-26.38	-.0008	32065.5	4.19	6.25	.0015	115.85	.0007	-26.95	60.34
EXIT 51	98.73	109.98	5	20	7.5	320.26	.0011	-26.21	-.0009	27976.6	4.24	54.41	.0011	99.72	.0013	-26.95	60.34
EXTM 42	128.73	139.98	5	20	37.5	98.32	.0006	-22.81	-.0008	39512.3	3.98	6.58	-.0000	246.66	-.0010	-27.79	58.87
SET 42	198.60	209.85	5	21	47.4	105.00	.0023	-24.62	-.0002	55350.6	3.59	2.75	-.0015	241.54	-.0014	-28.50	49.84
RISE 61	213.77	225.02	5	22	2.6	303.97	.0033	-33.43	.0001	58734.6	3.14	.00	.0018	136.20	.0020	-28.56	47.33
EXTM 51	317.11	328.36	5	23	45.9	.00	.0037	-28.95	.0000	71853.8	2.89	86.79	.0000	180.32	.0136	-28.69	27.68
EXTM 61	474.65	485.90	6	2	23.4	2.24	.0039	-31.92	.0001	101388.5	2.50	17.81	.0000	182.00	.0035	-28.56	353.63
EXTM 72	511.31	522.56	6	3	.1	.34	.0041	-29.77	.0001	102982.5	2.43	68.13	-.0000	180.79	.0094	-28.52	345.35
RISE 11	679.00	690.25	6	5	47.8	294.23	.0040	-30.19	-.0000	131873.1	1.90	.00	.0026	127.98	.0023	-28.32	306.58
SET 51	705.08	716.33	6	6	13.9	90.00	.0039	-27.27	.0001	134000.0	2.50	11.48	-.0032	245.09	-.0013	-28.29	300.45
SET 61	718.15	729.40	6	6	26.9	60.39	.0040	-30.28	.0001	136942.6	2.38	-.00	-.0022	228.66	.0026	-28.27	297.37
SET 72	900.21	911.46	6	9	29.0	94.19	.0040	-27.74	.0001	159221.3	2.34	-.00	-.0035	241.97	-.0005	-28.07	254.05
RISE 42	908.97	920.22	6	9	37.8	255.00	.0040	-26.69	-.0001	159800.2	1.63	4.02	.0029	120.10	-.0021	-28.06	251.95
EXTM 11	948.57	959.82	6	10	17.4	.74	.0042	-30.03	.0000	162181.9	1.91	24.76	-.0000	180.71	.0040	-28.02	242.44
SET 11	1215.64	1226.89	6	14	44.4	66.95	.0041	-29.02	.0001	193910.2	2.02	-.00	-.0026	233.57	.0024	-27.77	177.80
EXTM 42	1333.72	1344.97	6	16	42.5	359.96	.0042	-27.44	.0000	195690.6	1.66	82.22	.0000	.28	-.0243	-27.68	149.02
RISE 51	1468.74	1479.99	6	18	57.5	270.00	.0041	-26.94	-.0000	217834.7	1.23	11.34	.0034	114.60	-.0014	-27.57	116.00
RISE 72	1623.50	1634.75	6	21	32.3	265.90	.0041	-27.23	-.0000	233561.4	1.12	-.00	.0036	117.51	-.0005	-27.46	78.03
RISE 61	1708.19	1719.44	6	22	57.0	297.38	.0041	-28.52	-.0000	241225.4	1.22	.00	.0025	128.72	.0027	-27.41	57.22
SET 42	1756.62	1767.87	6	23	45.4	105.00	.0041	-26.47	.0000	245101.1	1.79	3.89	-.0029	240.07	-.0022	-27.37	45.30
EXTM 51	1822.62	1833.87	7	0	51.4	358.60	.0042	-27.37	.0000	245026.6	1.44	67.94	.0023	142.89	.0822	-27.33	29.05
EXTM 61	1958.95	1970.20	7	3	7.7	.32	.0042	-28.55	.0000	260678.4	1.40	21.22	.0000	180.30	.0040	-27.25	355.44
EXTM 72	1998.93	2010.18	7	3	47.7	.10	.0042	-27.69	.0000	260386.4	1.39	70.21	-.0000	180.27	.0109	-27.23	345.57
RISE 11	2143.01	2154.26	7	6	11.8	292.05	.0042	-28.01	-.0000	278133.0	1.04	.00	.0028	125.08	.0024	-27.15	309.99
SET 51	2187.48	2198.73	7	6	56.3	90.00	.0041	-26.63	.0000	280465.1	1.70	11.22	-.0034	245.69	-.0014	-27.13	299.00
SET 61	2209.51	2220.76	7	7	18.3	63.19	.0042	-28.06	.0000	283459.7	1.60	-.00	-.0025	231.96	.0027	-27.11	293.55
SET 72	2373.35	2384.60	7	10	2.1	94.03	.0041	-26.85	.0000	296265.5	1.69	-.00	-.0036	242.87	-.0005	-27.03	253.01
RISE 42	2373.83	2385.08	7	10	2.6	255.00	.0041	-26.28	-.0000	295884.1	.96	3.77	.0029	119.78	-.0022	-27.03	252.89
EXTM 11	2414.04	2425.29	7	10	42.8	.22	.0042	-28.10	.0000	296531.2	1.27	20.69	-.0000	180.22	.0042	-27.01	242.93
SET 11	2684.89	2696.14	7	15	13.7	68.31	.0042	-27.63	.0000	319484.2	1.51	.00	-.0028	235.41	.0024	-26.89	175.81
EXTM 42	2793.00	2804.25	7	17	1.8	359.99	.0042	-26.68	.0000	320985.9	1.18	81.46	-.0000	.12	-.0104	-26.84	148.99
RISE 51	2923.36	2934.61	7	19	12.2	270.00	.0042	-26.37	-.0000	339296.0	.78	11.12	.0034	114.06	-.0015	-26.78	116.59
RISE 72	3076.21	3087.46	7	21	45.0	266.02	.0042	-26.57	-.0000	346963.2	.73	-.00	.0037	116.84	-.0005	-26.72	78.49
RISE 61	3154.84	3166.09	7	23	3.6	296.08	.0042	-27.45	-.0000	352289.3	.85	.00	.0025	127.15	.0027	-26.69	58.88
SET 42	3210.92	3222.17	7	23	59.7	105.00	.0041	-26.05	.0000	355672.5	1.46	3.63	-.0030	240.41	-.0023	-26.67	44.89
EXTM 51	3277.14	3288.39	8	1	5.9	359.32	.0042	-26.66	.0000	354222.0	1.12	88.89	.0021	146.63	.1625	-26.65	28.36
EXTM 61	3408.36	3419.61	8	3	17.2	.18	.0042	-27.51	.0000	367012.1	1.14	22.25	-.0000	180.17	.0040	-26.60	355.57
EXTM 72	3448.27	3459.52	8	3	57.1	.08	.0043	-26.90	.0000	366163.6	1.15	71.00	-.0000	180.22	.0113	-26.58	345.59
RISE 11	3585.73	3596.98	8	6	14.5	291.21	.0042	-27.14	-.0000	381963.1	.97	.00	.0029	123.94	.0024	-26.52	311.13
SET 51	3635.17	3646.42	8	7	4.0	90.00	.0042	-26.12	.0000	384887.9	2.01	11.02	-.0035	246.17	-.0015	-26.49	298.64
IMPACT	3647.03	3658.28	8	7	15.8												
IMPC 72	3647.03	3658.28	8	7	15.8	50.88	.0044	-26.63	.0000	383438.1	2.39	38.34	-.0038	242.16	.0011	-26.48	295.60
IMPC 51	3647.03	3658.28	8	7	15.8	93.03	.0043	-26.09	.0000	386430.7	2.45	8.52	-.0035	245.07	-.0016	-26.48	295.60
IMPC 11	3647.03	3658.28	8	7	15.8	306.86	.0044	-27.17	.0000	386274.8	1.78	9.95	.0026	133.73	.0029	-26.48	295.60
IMPC 61	3647.03	3658.28	8	7	15.8	60.85	.0043	-27.18	.0000	387147.1	2.34	2.05	-.0025	231.03	.0029	-26.48	295.60
SET 61	3661.03	3672.28	8	7	29.8	64.26	.0043	-27.17	.0000	387540.1	2.43	-.00	-.0026	233.26	.0028	-26.48	292.21

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	5	18	28.788	6646.935	27.1308	307.3264	10.90955	-6.9588	99.6980	87.7013
SEPARATION	1.20	12.45	5	18	29.988	6570.561	25.7573	314.6251	10.96988	-3.5847	103.0892	95.3008
RETRO	3.20	14.45	5	18	31.988	6553.781	22.6478	326.2929	10.98403	2.1289	108.0956	107.4700
ENTER SHA	40.95	52.20	5	19	9.737	16930.137	-20.2306	48.8466	6.78943	51.2565	110.7849	199.4869
EXIT SHA	98.73	109.98	5	20	7.515	33368.149	-26.9522	60.3365	4.78535	63.2233	100.2199	225.4610
IMPACT	3647.03	3658.28	8	7	15.819	38726.727	-26.4753	295.5991	2.21823	68.2660	280.2665	270.2274

SURVEYOR VIEW PERIODS

GHA	225.3759					EPS	43.0358							LOM	290.3797
SX	.003864	SY	-.895170	SZ	-.445707	DAO	-26.46860	RAO	270.24733	RM	388749.008	LAT	28.310600	LCN	279.461800
C3	-.967864	ECC	.983780	SLR	12983.181	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TH	675.00000	PCL	-.0
NSX	.025147	NSY	-.894121	NSZ	-.447120	C3M	1.4933	VIM	2.6707	ZAE	139.832	B.T	.0000	B.R	-.0000
LATE	3.9305	LONE	5.1184	LATS	-.1832	LONS	322.5474	LATI	-2.6905	LONI	325.6755	RSM	151.2801	TTAN	6.8090
LAUNCH DATE	MAY	5,1966		BASE AZM	87.0		TF 60.763					ARRIVAL DATE	MAY 8 1966 7 36 43.8		

LNCH AZMTH	LNCH TIME	P8	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
87.00	18 47 8.9	27.6	25.87	307.66	-7.43	95.45	102.13	18 58 23.9	6572.0	10.97	-3.68

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PRORE IN SUNLIGHT											
INJECTION	.00	11.25	5	18	58.4												
SEPARATION	1.20	12.45	5	18	59.6												
RETRO	3.20	14.45	5	19	1.6												
RISE 72	6.19	17.44	5	19	4.6	55,48	-.7468	76,24	,0800	2696,4	-4.59	-.00	.0987	348.70	.1679	14.57	341.15
RISE 61	9.77	21.02	5	19	8.2	,13	-.1670	-49.76	,0107	4161,9	5.73	.00	.0109	180.08	-.1076	7.08	355.70
RISE 51	11.77	23.02	5	19	10.2	65,72	-.1276	40.45	-.0253	4989,9	-3.50	.00	.0942	316.08	.0346	3.32	2.33
EXTM 61	12.51	23.76	5	19	10.9	339,11	-.0952	-47.03	,0183	5224,1	6.97	,77	-.0000	165.94	-.0674	2.02	4.56
EXTM 72	12.66	23.91	5	19	11.1	299,21	- 0396	19.73	-.1102	3356,4	6.27	24.12	-.0000	64.18	.1275	1.76	5.01
SET 61	16.57	27.82	5	19	15.0	322,68	-.0475	-43.21	,0125	6992,2	7.37	,01	-.0049	153.78	-.0365	-4.08	14.86
EXTM 51	32.32	43.57	5	19	30.7	344,36	-.0207	-9.55	-.0174	8420,8	5.49	68.04	-.0000	45.31	.0716	-16.66	36.94
ENTER SHA	37.90	49.15	5	19	36.3												
ENTR 72	37.90	49.15	5	19	36.3	280,81	-.0040	-18.77	-.0057	13695,7	6.10	12,72	-.0034	107.56	.0061	-18.88	41.18
ENTR 51	37.90	49.15	5	19	36.3	338,77	-.0134	-14.18	-.0110	10272,0	5.53	66,99	-.0048	63.93	.0418	-18.88	41.18
EXTM 72	63.86	75.11	5	20	2.3	278,16	-.0001	-23.88	-.0019	22223,7	4.98	10,61	.0000	112.94	.0019	-24.05	51.09
EXTM 51	79.82	91.07	5	20	18.2	327,75	-.0003	-24.62	-.0015	22952,1	4.56	60,87	.0000	94.88	.0032	-25.46	53.14
EXIT SHA	99.71	110.96	5	20	38.1												
EXIT 42	99.71	110.96	5	20	38.1	104,87	-.0009	-20.12	-.0015	33303,9	4.15	,08	.0016	245.17	-.0007	-26.49	53.65
EXIT 72	99.71	110.96	5	20	38.1	280,20	.0017	-26.49	-.0008	31948,2	4.15	12,61	.0016	115.49	.0007	-26.49	53.65
EXIT 51	99.71	110.96	5	20	38.1	328,34	.0011	-26.02	-.0009	28173,8	4.21	61,58	.0011	97.61	.0016	-26.49	53.65
RISE 61	175.30	186.55	5	21	53.7	304,17	.0029	-33.58	,0001	51015,4	3.39	-.00	.0017	136.42	.0018	-27.95	48.49
EXTM 51	282.14	293.39	5	23	40.5	359,99	.0036	-28.62	-.0000	65879,4	3.01	87,12	.0000	179.65	.0344	-28.36	27.69
EXTM 61	443.38	454.63	6	2	21.8	2,32	.0039	-31.87	,0001	96825,2	2.56	17,86	.0000	182.07	.0035	-28.36	353.56
EXTM 72	479.98	491.23	6	2	58.4	,32	.0040	-29.62	,0000	98546,1	2.48	68,28	-.0000	180.74	.0094	-28.33	345.38
* RISE 11	648.69	659.94	6	5	47.1	294,14	.0040	-30.09	-.0000	128043,9	1.93	,00	.0026	127.86	.0023	-28.17	306.60
SET 51	674.66	685.91	6	6	13.1	90,00	.0039	-27.10	,0001	130222,4	2.53	11,41	-.0032	245.25	-.0013	-28.15	300.52
SET 61	688.34	699.59	6	6	26.7	60,50	.0040	-30.20	,0001	133264,9	2.41	-.00	-.0022	228.79	.0026	-28.13	297.31
SET 72	870.34	881.59	6	9	28.7	94,17	.0039	-27.62	,0001	155864,6	2.36	-.00	-.0035	242.09	-.0005	-27.96	254.12
EXTM 11	919.04	930.29	6	10	17.4	,72	.0042	-29.97	,0000	158932,2	1.94	24,82	-.0000	180.69	.0040	-27.92	242.45
SET 11	1186,66	1197.91	6	14	45.1	67,01	.0041	-28.97	,0001	191057,1	2.04	-.00	-.0026	233.65	.0024	-27.70	177.76
EXTM 42	1304.71	1315.96	6	16	43.1	359,97	.0042	-27.36	,0000	196955,4	1.68	82,14	.0000	.26	-.0236	-27.61	149.01
RISE 51	1439,89	1451.14	6	18	58.3	270,00	.0041	-26.87	-.0000	215236,0	1,24	11,32	.0034	114.54	-.0014	-27.52	115.98
RISE 72	1594.77	1606.02	6	21	33.2	265,91	.0041	-27.18	-.0000	231093,3	1.14	-.01	.0036	117.47	-.0005	-27.42	78.01
RISE 61	1679.28	1690.53	6	22	57.7	297,34	.0041	-28.49	-.0000	238803,6	1.23	,00	.0025	128.68	.0027	-27.36	57.24
SET 42	1727.79	1739.04	6	23	46.2	105,00	.0041	-26.43	,0000	242722,6	1.81	3,86	-.0029	240.11	-.0022	-27.34	45.31
EXTM 51	1793,94	1805.19	7	0	52.3	358,62	.0042	-27.34	,0000	242703,3	1.45	87,98	.0023	142.64	.0835	-27.30	29.03
EXTM 61	1930.19	1941.44	7	3	8.6	,31	.0042	-28.53	,0000	258432,6	1.41	21,23	.0000	180.29	.0040	-27.22	355.45
EXTM 72	1970.22	1981.47	7	3	48.6	,10	.0042	-27.67	,0000	258169,9	1.40	70,23	-.0000	180.26	.0109	-27.20	345.58
RISE 11	2114.34	2125.59	7	6	12.7	292,03	.0042	-28.00	-.0000	276002,9	1.05	,00	.0028	125.07	.0024	-27.13	309.99
SET 51	2158.79	2170.04	7	6	57.2	90,00	.0041	-26.61	,0000	278359,2	1.71	11,21	-.0034	245.71	-.0014	-27.11	299.00
SET 61	2180.89	2192.14	7	7	19.3	63,20	.0042	-28.05	,0000	281369,6	1.61	-.00	-.0025	231.97	.0027	-27.10	293.54
SET 72	2344.70	2355.95	7	10	3.1	94,03	.0041	-26.84	,0000	294258,0	1.69	-.00	-.0036	242.88	-.0005	-27.02	253.02
RISE 42	2345.26	2356.51	7	10	3.7	255,00	.0041	-26.27	-.0000	293883,6	.96	3,76	.0029	119.77	-.0022	-27.02	252.88
EXTM 11	2385.40	2396.65	7	10	43.8	,21	.0042	-28.10	,0000	294545,1	1.28	26,69	-.0000	180.21	.0042	-27.00	242.94
SET 11	2656,29	2667.54	7	15	14.7	68,31	.0042	-27.64	,0000	317626,7	1.52	,00	-.0028	235.40	.0024	-26.89	175.82
EXTM 42	2764.47	2775.72	7	17	2.9	359,99	.0042	-26.68	,0000	319180,6	1.19	81,46	-.0000	.13	-.0077	-26.85	148.99
RISE 51	2894,99	2906.24	7	19	13.4	270,00	.0042	-26.37	-.0000	333575,0	.78	11,12	.0034	114.07	-.0015	-26.79	116.59
RISE 72	3047.79	3059.04	7	21	46.2	266,01	.0042	-26.58	-.0000	345260,2	.73	-.00	.0037	116.85	-.0005	-26.74	78.49
RISE 61	3126.49	3137.74	7	23	4.9	296,10	.0042	-27.47	-.0000	350597,9	.85	.00	.0025	127.18	.0027	-26.71	58.85
SET 42	3182.44	3193.69	8	0	.8	105,00	.0041	-26.06	,0000	353974,2	1.46	3,64	-.0030	240.40	-.0023	-26.69	44.89
EXTM 51	3248.60	3259.85	8	1	7.0	359,30	.0042	-26.68	,0000	352520,3	1.12	88,87	.0021	146.44	.1587	-26.67	28.37
EXTM 61	3379.85	3391.10	8	3	18.2	,17	.0042	-27.54	,0000	365294,0	1.13	22,22	-.0000	180.16	.0040	-26.62	355.58
EXTM 72	3419.79	3431.04	8	3	58.2	,08	.0043	-26.93	,0000	364429,5	1.14	70,98	-.0000	180.22	.0113	-26.60	345.60
RISE 11	3557.49	3568.74	8	6	15.9	291,24	.0042	-27.17	-.0000	380057,4	.91	,00	.0028	123.98	.0024	-26.55	311.10
SET 51	3606.95	3618.20	8	7	5.3	90,00	.0042	-26.16	,0000	382633,7	1.74	11,04	-.0035	246.14	-.0015	-26.52	298.65
SET 61	3632.21	3643.46	8	7	30.6	64,23	.0043	-27.19	,0000	386050,8	1.88	-.00	-.0026	233.23	.0028	-26.51	292.25
IMPACT	3645,76	3657.01	8	7	44.2												
IMPC 72	3645.76	3657.01	8	7	44.2	57,78	.0044	-26.60	,0000	384088,7	2.41	32,26	-.0038	243.45	.0007	-26.49	288.78
IMPC 51	3645.76	3657.01	8	7	44.2	99,84	.0043	-26.06	,0000	387144,1	2.44	3,01	-.0035	242.41	-.0017	-26.49	288.78
IMPC 11	3645.76	3657.01	8	7	44.2	313,75	.0044	-27.22	,0000	385960,6	1.80	13,81	.0024	138.59	.0032	-26.49	288.78
IMPC 61	3645.76	3657.01	8	7	44.2	67,72	.0043	-27.16	,0000	387716,6	2.35	-2.14	-.0027	235.47	.0028	-26.49	288.78

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	5	18	58.398	6572,343	25.8754	307.6342	10.96893	-3.6847	102.1185	95.4319
SEPARATION	1.20	12.45	5	18	59.598	6544,801	24.2336	314.7610	10.99180	-.2650	105.2681	102.8595
RETRO	3.20	14.45	5	19	1.598	6604,312	20.7608	326.1062	10.94176	5.4311	109.8170	114.7061
ENTER SHA	37.90	49.15	5	19	36.303	16351,475	-18.8814	41.1825	6.91565	50.4356	111.6085	198.4826
EXIT SHA	99.71	110.96	5	20	38.104	33917,082	-26.4899	53.6483	4.74518	63.4498	100.6160	226.4408
IMPACT	3645.76	3657.01	8	7	44.156	387531,125	-26.4932	288.7784	2.21658	68.0068	279.6487	270.5103

* An additional line of data should appear here. See Errata

SURVEYOR VIEW PERIODS

SHA	225.3759				EPS	43.2543					LOM	284.0103	
SX	.007977	SY	-.895010	SZ	-.445976	DAO	-26.48578	RAO	270.51065	RM	388842.395	LAT	28.310600
C3	-.982151	ECC	.983874	SLR	12983.797	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000
NSX	.029198	NSY	-.893887	NSZ	-.447341	C3M	1.4971	VIM	2.6714	ZAE	139.938	B.T	.0000
LATE	3.9536	LONE	5.3121	LATS	-.1828	LONS	322.3235	LATI	-2.5628	LONI	325.7588	RSM	151.2798
LAUNCH DATE		MAY	5.1966	BASE AZM		90.0	TF	60.705			ARRIVAL DATE	MAY	8 1966 8 3 10.5

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
90.00	19 12 2.4	27.9	24.65	307.63	-1.94	101.66	104.39	19 23 17.4	6546.5	10.99	-.96

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	AEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	5	19	23.3												
SEPARATION	1.20	12.45	5	19	24.5												
RETRO	3.20	14.45	5	19	26.5												
RISE 72	5.51	16.76	5	19	28.8	71.07	-.3802	66.83	.0874	2804.4	-5.70	-.00	.1096	138.15	.1342	14.13	336.79
RISE 61	8.98	20.23	5	19	32.3	13.95	-.1724	-48.91	-.0028	4230.5	4.93	.01	.0181	189.12	-.1119	6.96	350.68
RISE 51	11.50	22.75	5	19	34.8	69.44	-.1123	36.06	-.0275	5277.7	-3.19	.00	.0913	310.80	.0255	2.34	358.80
EXTM 72	12.12	23.37	5	19	35.4	310.26	-.0602	20.54	-.1206	3042.6	5.88	33.45	-.0000	58.92	.1595	1.29	.59
EXTM 61	13.75	25.00	5	19	37.0	340.15	-.0751	-45.90	.0140	6001.8	6.90	2.05	-.0000	166.32	-.0541	-1.26	4.91
SET 61	23.96	35.21	5	19	47.3	315.65	-.0213	-40.20	.0055	10301.3	6.84	-.00	-.0041	147.73	-.0167	-12.08	23.42
EXTM 51	35.51	46.76	5	19	58.8	348.90	-.0168	-13.01	-.0126	9654.2	5.39	73.53	-.0000	41.45	.0729	-18.14	34.58
ENTER SHA	35.97	47.22	5	19	59.3												
ENTR 72	35.97	47.22	5	19	59.3	287.42	-.0048	-18.99	-.0060	12764.3	6.16	18.97	-.0043	107.44	.0065	-18.31	34.90
ENTR 51	35.97	47.22	5	19	59.3	348.45	-.0162	-13.34	-.0122	9800.9	5.40	73.52	-.0006	43.39	.0704	-18.31	34.90
ENTR 61	35.97	47.22	5	19	59.3	305.82	-.0086	-37.68	.0022	14961.0	6.11	-2.37	-.0025	140.04	-.0067	-18.31	34.90
EXTM 72	64.75	76.00	5	20	28.0	284.17	-.0000	-24.51	-.0017	22212.3	4.93	16.12	.0000	113.32	.0018	-24.06	45.77
EXTM 51	82.19	93.44	5	20	45.5	334.74	-.0002	-24.97	-.0014	23609.3	4.49	67.19	.0000	93.58	.0036	-25.49	47.68
EXIT SHA	99.04	110.29	5	21	2.3												
EXIT 42	99.04	110.29	5	21	2.3	110.24	-.0008	-19.69	-.0015	33850.5	4.14	-4.12	.0015	242.33	-.0007	-26.34	47.96
EXIT 72	99.04	110.29	5	21	2.3	286.22	.0018	-26.82	-.0007	31475.5	4.15	18.00	.0016	115.71	.0008	-26.34	47.96
EXIT 51	99.04	110.29	5	21	2.3	335.19	.0010	-26.08	-.0009	28006.9	4.22	67.71	.0009	96.34	.0021	-26.34	47.96
EXIT 61	99.04	110.29	5	21	2.3	299.83	.0013	-34.67	.0003	33743.1	4.21	-3.16	.0010	134.39	.0006	-26.34	47.96
RISE 61	141.24	152.49	5	21	44.5	304.86	.0025	-34.04	.0002	43672.7	3.68	-.00	.0014	137.15	.0015	-27.43	45.05
EXTM 51	251.42	262.67	5	23	34.7	359.97	.0035	-28.47	-.0000	60408.1	3.13	87.27	-.0000	179.42	.0523	-28.21	27.71
EXTM 61	416.42	427.67	6	2	19.7	2.31	.0039	-31.96	.0001	92808.6	2.62	17.77	.0000	182.06	.0035	-28.30	353.58
EXTM 72	453.35	464.60	6	2	56.6	.29	.0040	-29.62	.0000	94699.1	2.54	68.28	.0000	180.68	.0094	-28.28	345.40
RISE 11	623.52	634.77	6	5	46.8	294.16	.0040	-30.11	-.0000	124823.0	1.97	.00	.0026	127.88	.0023	-28.14	306.52
SET 51	648.94	660.19	6	6	12.2	90.00	.0038	-27.05	.0001	126980.4	2.56	11.39	-.0032	245.30	-.0013	-28.12	300.59
SET 61	662.61	673.86	6	6	25.9	60.47	.0039	-30.22	.0001	130046.6	2.44	-.00	-.0022	228.75	.0026	-28.11	297.39
SET 72	845.19	856.44	6	9	28.5	94.17	.0039	-27.60	.0001	153017.4	2.39	-.00	-.0035	242.11	-.0005	-27.95	254.18
RISE 42	854.83	866.08	6	9	38.1	254.99	.0040	-26.51	-.0001	153739.7	1.68	3.91	.0028	119.96	-.0021	-27.94	251.87
EXTM 11	894.26	905.48	6	10	17.5	.74	.0041	-29.99	.0000	156193.8	1.96	24.80	-.0000	180.70	.0040	-27.90	242.44
SET 11	1162.00	1173.25	6	14	42.3	67.00	.0041	-28.97	.0001	188628.6	2.05	-.00	-.0026	233.64	.0024	-27.69	177.79
EXTM 42	1280.26	1291.51	6	16	43.6	359.97	.0042	-27.36	.0000	194656.8	1.69	82.14	.0000	.25	-.0228	-27.60	149.01
RISE 51	1415.58	1426.83	6	18	58.9	270.00	.0041	-26.86	-.0000	213059.3	1.25	11.31	.0034	114.53	-.0014	-27.51	115.96
RISE 72	1570.52	1581.77	6	21	33.8	265.91	.0041	-27.18	-.0000	229033.7	1.15	-.01	.0036	117.46	-.0005	-27.42	77.99
RISE 61	1655.10	1666.35	6	22	58.4	297.36	.0041	-28.50	-.0000	236805.4	1.24	.00	.0025	128.69	.0027	-27.37	57.22
SET 42	1703.48	1714.73	6	23	46.8	105.00	.0041	-26.42	.0000	240744.6	1.82	3.85	-.0029	240.11	-.0022	-27.34	45.32
EXTM 51	1769.68	1780.93	7	0	53.0	358.62	.0042	-27.34	.0000	240770.6	1.46	87.97	.0023	142.61	.0833	-27.30	29.03
EXTM 61	1905.99	1917.24	7	3	9.3	.31	.0042	-28.54	.0000	256984.2	1.42	21.22	.0000	180.29	.0040	-27.23	355.45
EXTM 72	1946.02	1957.27	7	3	49.3	.10	.0042	-27.68	.0000	256343.9	1.41	70.22	-.0000	180.26	.0108	-27.21	345.58
RISE 11	2090.25	2101.50	7	6	13.5	292.05	.0042	-28.01	-.0000	274262.0	1.05	.00	.0028	125.08	.0024	-27.14	309.97
SET 51	2134.61	2145.86	7	6	57.9	90.00	.0041	-26.61	.0000	276632.4	1.72	11.22	-.0034	245.71	-.0014	-27.12	299.01
SET 61	2156.65	2167.90	7	7	19.9	63.18	.0042	-28.06	.0000	279649.7	1.62	-.00	-.0025	231.95	.0027	-27.11	293.57
SET 72	2320.55	2331.80	7	10	3.8	94.03	.0041	-26.85	.0000	292624.9	1.70	-.00	-.0036	242.88	-.0005	-27.03	253.03
RISE 42	2321.16	2332.41	7	10	4.5	255.00	.0041	-26.27	-.0000	292254.2	.97	3.77	.0029	119.77	-.0022	-27.03	252.88
EXTM 11	2361.28	2372.53	7	10	44.6	.21	.0042	-28.12	.0000	292934.5	1.29	26.68	-.0000	180.21	.0041	-27.01	242.94
SET 11	2632.13	2643.38	7	15	15.4	68.29	.0042	-27.66	.0000	316130.7	1.53	.00	-.0028	235.38	.0024	-26.90	175.84
EXTM 42	2740.41	2751.66	7	17	3.7	359.99	.0042	-26.69	.0000	317736.5	1.20	81.47	-.0000	.13	-.0069	-26.86	148.99
RISE 51	2870.99	2882.24	7	19	14.3	270.00	.0041	-26.39	-.0000	332005.5	.80	11.13	.0034	114.08	-.0015	-26.81	118.58
RISE 72	3023.77	3035.02	7	21	47.1	266.01	.0042	-26.59	-.0000	343915.5	.73	-.00	.0037	116.87	-.0005	-26.75	78.48
RISE 61	3102.56	3113.81	7	23	5.8	296.12	.0042	-27.49	-.0000	349271.4	.85	.00	.0025	127.20	.0027	-26.72	58.83
SET 42	3158.39	3169.64	8	0	1.7	105.00	.0041	-26.08	.0000	352645.7	1.46	3.62	-.0030	240.38	-.0023	-26.71	44.89
EXTM 51	3224.48	3235.73	8	1	7.8	359.28	.0042	-26.70	.0000	351195.0	1.12	88.84	.0021	146.25	.1552	-26.68	28.39
EXTM 61	3355.79	3367.04	8	3	19.1	.17	.0042	-27.56	.0000	363974.6	1.13	22.20	-.0000	180.16	.0040	-26.64	355.59
EXTM 72	3395.74	3406.99	8	3	59.0	.08	.0043	-26.94	.0000	363103.5	1.14	70.96	-.0000	180.21	.0113	-26.62	345.60
RISE 11	3533.60	3544.85	8	6	16.9	291.26	.0042	-27.20	-.0000	378652.8	.89	.00	.0028	124.01	.0024	-26.57	311.07
SET 51	3583.03	3594.28	8	7	6.3	90.00	.0042	-26.18	.0000	381094.5	1.67	11.05	-.0035	246.12	-.0015	-26.55	298.65
SET 61	3608.25	3619.50	8	7	31.5	64.19	.0042	-27.22	.0000	384324.1	1.68	-.00	-.0026	233.18	.0028	-26.53	292.29
IMPACT	3642.29	3653.54	8	8	5.6												
IMPC 72	3642.29	3653.54	8	8	5.6	62.98	.0043	-26.58	.0000	384608.3	2.43	27.64	-.0039	244.07	.0004	-26.51	283.62
IMPC 51	3642.29	3653.54	8	8	5.6	104.98	.0043	-26.05	.00	387674.3	2.43	-1.06	-.0034	240.23	-.0019	-26.51	283.62
IMPC 11	3642.29	3653.54	8	8	5.6	318.97	.0044	-27.1	.00	385751.8	1.82	16.49	.0022	142.51	.0034	-26.51	283.62

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	5	19	23.291	6546.524	24.6485	307.6253	10.99072	-.9606	104.3875	101.6631
SEPARATION	1.20	12.45	5	19	24.491	6556.927	22.7572	314.5899	10.98180	2.4688	107.3118	108.9285
RETRO	3.20	14.45	5	19	26.491	6677.956	18.9874	325.5322	10.88102	8.0887	111.4031	120.3723
ENTER SHA	35.97	47.22	5	19	59.257	16016.935	-18.3053	34.8997	6.98502	49.9827	111.9818	197.9541
EXIT SHA	99.04	110.29	5	21	2.326	33992.134	-26.3351	47.9607	4.74031	63.4830	100.7870	226.8255
IMPACT	3642.29	3653.54	8	8	5.582	387608.652	-26.5065	283.6208	2.21671	67.8811	279.3619	270.7239

SURVEYOR VIEW PERIODS

GHA	225.3759					EPS	43.4584							LOM	278.0607
SX	.011817	SY	-.894846	SZ	-.446219	DAO	-26.50138	HAO	270.75655	RM	388929.551	LAT	28.310600	LON	279.461800
CJ	-.982552	ECC	.983871	SLR	12983.770	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.033035	NSY	-.893649	NSZ	-.447550	C3M	1.4967	VIM	2.6713	ZAE	139.928	B.T	.0000	B.R	-.0000
LATE	3.9750	LONE	5.3062	LATS	-.1823	LONS	322.1145	LATI	-2.5787	LONI	325.7489	RSM	151.2796	TTAN	6.8141
LAUNCH DATE		MAY	5,1966		BASE AZM	93.0		TF	60.732			ARRIVAL DATE		MAY 8 1966	8 27 53.4

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPTH
93.00	19 51 49.2	28.0	23.45	307.42	2.35	106.41	106.57	19 43 4.2	6547.4	10.99	1.17

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	5	19	43.1												
SEPARATION	1.20	12.45	5	19	44.3												
RETRO	3.20	14.45	5	19	46.3												
RISE 72	5.04	16.29	5	19	48.1	76.60	-.2726	59.10	.0699	2910.2	-6.37	-.00	.1162	330.03	.1048	13.36	333 36
RISE 61	9.04	20.29	5	19	52.1	18.21	-.1557	-48.30	-.0058	4566.5	4.85	.00	.0191	192.00	-.1019	5.16	348.77
RISE 51	11.33	22.58	5	19	54.4	72.41	-.1011	32.07	-.0297	5518.2	-2.91	.00	.0888	306.12	.0184	1.10	355.77
EXTM 72	11.74	22.99	5	19	54.8	321.09	-.0829	19.50	-.1297	2814.9	5.53	42.89	-.0000	53.92	.2020	.42	356.92
EXTM 61	15.14	26.39	5	19	58.2	341.02	-.0609	-45.48	.0110	6817.2	6.81	2.61	-.0000	166.80	-.0441	-4.48	5.16
SET 61	31.84	43.09	5	20	14.9	313.81	-.0119	-39.29	.0031	13499.2	6.25	-.00	-.0025	146.04	-.0093	-17.28	27.69
ENTER SHA	34.85	46.10	5	20	17.9												
ENTR 72	34.85	46.10	5	20	17.9	293.01	-.0055	-19.98	-.0060	12175.9	6.19	24.26	-.0052	108.41	.0065	-18.47	29.98
ENTR 51	34.85	46.10	5	20	17.9	356.30	-.0183	-13.65	-.0127	9614.7	5.27	77.42	.0074	16.76	.0942	-18.47	29.98
ENTR 61	34.85	46.10	5	20	17.9	311.88	-.0096	-38.78	.0025	14612.8	6.09	-.42	-.0022	144.52	-.0076	-18.47	29.98
EXTM 51	38.82	50.07	5	20	21.9	352.49	-.0139	-16.25	-.0094	10875.5	5.30	78.21	-.0000	37.88	.0797	-19.79	32.53
EXTM 72	66.07	77.32	5	20	49.1	289.16	.0000	-25.53	-.0015	22381.9	4.87	20.65	.0000	114.38	.0016	-24.54	41.51
EXTM 51	85.01	96.26	5	21	8.1	340.41	-.0001	-25.73	-.0012	24404.6	4.43	72.37	.0000	94.25	.0039	-25.95	43.25
EXIT SHA	96.94	108.19	5	21	20.0												
EXIT 72	96.94	108.19	5	21	20.0	290.97	.0017	-27.42	-.0007	30713.6	4.19	22.21	.0015	116.45	.0008	-26.51	43.40
EXIT 51	96.94	108.19	5	21	20.0	340.67	.0008	-26.45	-.0008	27908.1	4.25	72.64	.0007	96.59	.0028	-26.51	43.40
EXIT 61	96.94	108.19	5	21	20.0	304.72	.0012	-35.25	.0004	33151.7	4.23	-1.02	.0009	137.83	.0005	-26.51	43.40
RISE 61	112.93	124.18	5	21	36.0	306.20	.0018	-34.91	.0003	37096.9	4.00	-.00	.0012	138.57	.0010	-27.05	42.83
EXTM 51	225.74	236.99	5	23	28.8	359.95	.0033	-28.59	-.0000	55643.8	3.24	87.15	.0000	179.05	.0548	-28.30	27.73
EXTM 61	396.81	408.06	6	2	19.9	2.75	.0039	-32.21	.0001	89845.2	2.67	17.50	.0000	182.44	.0034	-28.43	353.17
EXTM 72	432.36	443.61	6	2	55.4	.32	.0040	-29.80	.0001	91599.6	2.58	68.10	.0000	180.75	.0092	-28.41	345.37
RISE 11	604.22	615.47	6	5	47.3	294.32	.0040	-30.27	-.0000	122299.7	2.00	.00	.0026	128.09	.0023	-28.26	306.31
SET 51	628.53	639.78	6	6	11.6	90.00	.0038	-27.14	.0001	124342.7	2.59	11.43	-.0032	245.21	-.0013	-28.23	300.66
SET 61	641.43	652.68	6	6	24.5	60.26	.0039	-30.38	.0001	127332.2	2.47	-.00	-.0022	228.51	.0026	-28.22	297.65
SET 72	825.38	836.63	6	9	28.4	94.18	.0039	-27.69	.0001	150716.2	2.40	-.00	-.0034	242.02	-.0005	-28.04	294.20
RISE 42	835.28	846.53	6	9	38.4	254.99	.0040	-26.58	-.0001	151475.4	1.70	3.95	.0028	120.02	-.0021	-28.03	291.84
EXTM 11	874.76	886.01	6	10	17.8	.78	.0041	-30.11	.0000	153996.4	1.97	24.68	-.0000	180.74	.0039	-28.00	242.40
SET 11	1142.17	1153.42	6	14	45.2	66.91	.0041	-29.07	.0001	186605.1	2.07	-.00	-.0026	233.52	.0024	-27.77	177.90
EXTM 42	1261.07	1272.32	6	16	44.1	360.00	.0042	-27.43	.0000	192778.2	1.70	82.21	-.0000	.14	-.0063	-27.67	148.99
RISE 51	1390.41	1407.66	6	18	59.5	270.00	.0041	-26.92	-.0000	211258.5	1.26	11.34	.0034	114.58	-.0014	-27.58	115.94
RISE 72	1551.36	1562.61	6	21	34.4	269.90	.0041	-27.24	-.0000	227315.1	1.16	-.01	.0036	117.52	-.0005	-27.47	77.99
RISE 61	1636.30	1647.55	6	22	59.4	297.44	.0041	-28.57	-.0000	235159.2	1.25	.00	.0025	128.79	.0027	-27.42	57.13
SET 42	1684.30	1695.55	6	23	47.4	105.00	.0041	-26.47	.0000	239081.3	1.82	3.88	-.0029	240.07	-.0022	-27.39	45.33
EXTM 51	1750.41	1761.66	7	0	53.5	358.58	.0042	-27.40	.0000	239131.1	1.47	87.91	.0023	142.81	.0809	-27.35	29.07
EXTM 61	1886.93	1898.18	7	3	10.0	.32	.0042	-28.60	.0000	255022.6	1.43	21.16	.0000	180.30	.0039	-27.28	355.44
EXTM 72	1926.94	1938.19	7	3	50.0	.10	.0042	-27.73	.0000	254791.2	1.41	70.17	-.0000	180.26	.0108	-27.26	345.57
RISE 11	2071.41	2082.66	7	6	14.5	292.10	.0042	-28.06	-.0000	272776.2	1.06	.00	.0028	125.15	.0024	-27.18	309.92
SET 51	2115.52	2126.77	7	6	58.6	90.00	.0041	-26.65	.0000	275139.3	1.72	11.23	-.0034	245.67	-.0014	-27.16	299.02
SET 61	2137.33	2148.58	7	7	20.4	63.12	.0042	-28.11	.0000	278147.2	1.62	-.00	-.0025	231.88	.0027	-27.15	293.63
SET 72	2301.52	2312.77	7	10	4.6	94.04	.0041	-26.88	.0000	291194.9	1.71	-.00	-.0036	242.84	-.0005	-27.07	253.03
RISE 42	2302.15	2313.40	7	10	5.2	255.00	.0041	-26.31	-.0000	290824.0	.98	3.79	.0029	119.80	-.0022	-27.07	252.87
EXTM 11	2342.28	2353.53	7	10	45.4	.22	.0042	-28.16	.0000	291523.3	1.29	26.63	-.0000	180.21	.0041	-27.05	242.94
SET 11	2612.97	2624.22	7	15	16.0	68.26	.0042	-27.69	.0000	314775.7	1.53	.00	-.0028	235.33	.0024	-26.93	175.88
EXTM 42	2721.42	2732.67	7	17	4.5	359.99	.0042	-26.72	.0000	316419.6	1.20	81.50	-.0000	.13	-.0067	-26.89	148.99
RISE 51	2852.03	2863.28	7	19	15.1	270.00	.0041	-26.42	-.0000	330719.7	.80	11.14	.0034	114.11	-.0015	-26.84	116.58
RISE 72	3004.90	3016.15	7	21	48.0	266.01	.0042	-26.62	-.0000	342673.5	.73	-.00	.0037	116.90	-.0005	-26.78	78.48
RISE 61	3083.83	3095.08	7	23	6.9	296.16	.0042	-27.52	-.0000	348039.2	.85	.00	.0025	127.25	.0027	-26.75	58.79
SET 42	3139.48	3150.73	8	0	2.6	105.00	.0041	-26.10	.0000	351399.4	1.46	3.66	-.0030	240.37	-.0023	-26.73	44.90
EXTM 51	3205.47	3216.72	8	1	8.5	359.25	.0042	-26.72	.0000	349940.5	1.12	88.81	.0021	145.94	.1501	-26.71	28.42
EXTM 61	3336.89	3348.14	8	3	20.0	.17	.0042	-27.59	.0000	362712.6	1.13	22.18	-.0000	180.16	.0040	-26.66	355.58
EXTM 72	3376.83	3388.08	8	3	59.9	.08	.0043	-26.97	.0000	361829.0	1.13	70.93	-.0000	180.22	.0112	-26.64	345.60
RISE 11	3514.82	3526.07	8	6	17.9	291.28	.0042	-27.22	-.0000	377299.2	.87	.00	.0028	124.05	.0024	-26.59	311.04
SET 51	3564.18	3575.43	8	7	7.3	90.00	.0042	-26.20	.0000	379641.1	1.62	11.05	-.0035	246.10	-.0015	-26.57	298.69
SET 61	3589.32	3600.57	8	7	32.4	64.16	.0042	-27.25	.0000	382766.2	1.58	-.00	-.0026	233.14	.0028	-26.56	292.32
IMPACT	3643.94	3655.19	8	8	27.0												
IMPC 72	3643.94	3655.19	8	8	27.0	68.18	.0043	-26.56	.0000	385151.2	2.44	23.01	-.0039	244.44	.0002	-26.52	278.46
IMPC 11	3643.94	3655.19	8	8	27.0	324.19	.0044	-27.29	.0000	385574.0	1.84	18.93	.0020	146.65	.0035	-26.52	278.46

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPTH	AZ	RT ASC
INJECTION	.00	11.25	5	19	43.070	6547.398	23.4520	307.4160	10.98993	1.1653	106.5704	106.4123
SEPARATION	1.20	12.45	5	19	44.270	6587.043	21.3292	314.2044	10.95646	4.5822	109.2742	113.5015
RETRO	3.20	14.45	5	19	46.270	6754.562	17.3011	324.7265	10.81862	10.1114	112.9327	124.5250
ENTER SHA	34.85	46.10	5	20	17.922	15897.895	-18.4747	29.9794	7.01164	49.8063	112.0170	197.7186
EXIT SHA	96.94	108.19	5	21	20.007	33647.006	-26.5121	43.3984	4.76559	63.3429	100.6993	226.6954
IMPACT	3643.94	3655.19	8	8	27.014	387686.504	-26.5199	278.4623	2.21450	67.6233	279.2811	270.9379

SURVEYOR VIEW PERIODS

GHA	225.3759				EPS	43.6065					LOM	273.7404	
SX	.014003	SY	-.924718	SZ	-.446592	DAO	-26.51244	RAO	270.93509	RM	388992.777	LAT	28.310600
CS	-.983000	ECC	.983860	SLR	12983.701	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000
NSX	.035824	NSY	-.893464	NSZ	-.447703	C3M	1.4974	VIM	2.6715	ZAE	139.882	B.T	.0000
LATE	5.9906	LONE	5.3020	LATS	-.1820	LONS	321.9628	LATI	-2.7221	LONI	325.7244	RSM	151.2794
LAUNCH DATE		MAY	5,1966		BASE AZM	96.0		TF	60.760			ARRIVAL DATE	MAY 8 1966

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
96.00	19 46 29.5	28.1	22.28	307.08	5.48	109.75	108.70	19 57 44.5	6559.6	10.98	2.72

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DFC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	5	19	57.7												
SEPARATION	1.20	12.45	5	19	58.9												
RETRO	5.20	14.45	5	20	.9												
RISE 72	4.71	15.96	5	20	2.4	79.48	-.2258	52.74	.0505	2994.8	-6.79	.00	.1205	323.47	.0800	12.34	330.66
RISE 61	9.71	20.96	5	20	7.5	16.89	-.1334	-48.51	-.0034	5074.6	5.17	.00	.0162	191.10	-.0869	2.21	348.86
RISE 51	11.22	22.47	5	20	9.0	74.89	-.0928	28.39	-.0319	5702.3	-2.70	-.00	.0868	301.86	.0125	-.38	353.20
EXTM 72	11.48	22.73	5	20	9.2	330.96	-.1040	16.64	-.1261	2646.9	5.25	52.22	-.0000	49.38	.2623	-.79	353.88
EXTM 61	16.65	27.90	5	20	14.4	341.43	-.0506	-45.71	.0089	7665.7	6.71	2.46	-.0000	167.14	-.0364	-7.75	5.49
ENTER SHA	35.03	46.28	5	20	32.8												
ENTR 72	35.03	46.28	5	20	32.8	297.20	-.0059	-21.90	-.0053	12111.7	6.15	28.13	-.0058	110.66	.0057	-19.54	26.77
ENTR 51	35.03	46.28	5	20	32.8	1.46	-.0187	-15.52	-.0118	9818.2	5.19	79.69	.0140	352.10	.0912	-19.54	26.77
ENTR 61	35.03	46.28	5	20	32.8	316.18	-.0100	-40.04	.0027	14781.6	6.01	.35	-.0017	147.99	-.0079	-19.54	26.77
SET 61	38.69	49.94	5	20	36.4	314.23	-.0079	-39.50	.0022	16079.8	5.83	-.00	-.0014	146.44	-.0063	-20.70	29.08
EXTM 51	41.80	53.05	5	20	39.5	355.37	-.0119	-19.27	-.0072	11936.4	5.22	82.25	-.0000	34.38	.0992	-21.54	30.75
EXTM 72	67.[illegible]	78.87	5	21	5.4	293.04	.0001	-26.90	-.0012	22671.3	4.82	24.08	.0000	115.99	.0014	-25.42	38.26
EXTM 51	88.26	99.51	5	21	26.0	344.76	.0000	-26.86	-.0010	25311.4	4.37	76.30	.0000	98.06	.0041	-26.77	39.85
RISE 61	92.35	103.58	5	21	30.1	308.29	.0010	-36.22	.0005	31973.6	4.30	-.00	.0009	140.71	.0003	-26.95	39.91
EXIT SHA	92.52	103.77	5	21	30.3												
EXIT 72	92.52	103.77	5	21	30.3	294.35	.0015	-28.24	-.0007	29425.9	4.26	25.14	.0013	117.55	.0008	-26.96	39.91
EXIT 51	92.52	103.77	5	21	30.3	344.81	.0004	-27.09	-.0009	26420.6	4.31	76.34	.0003	99.05	.0036	-26.96	39.91
EXIT 61	92.52	103.77	5	21	30.3	308.30	.0010	-36.21	.0005	32021.9	4.30	.01	.0009	140.72	.0003	-26.96	39.91
EXTM 51	205.47	216.72	5	23	23.2	359.93	.0031	-29.01	-.0000	51745.5	3.35	86.73	.0000	178.97	.0472	-28.65	27.74
EXTM 61	382.30	393.55	6	2	20.0	3.11	.0038	-32.63	.0001	87641.1	2.70	17.07	.0000	182.74	.0034	-28.74	352.83
EXTM 72	416.86	428.11	6	2	54.6	.39	.0040	-30.16	.0001	89284.2	2.61	67.74	.0000	180.90	.0090	-28.71	345.31
RISE 11	590.64	601.89	6	5	48.4	294.62	.0040	-30.55	-.0000	120507.5	2.02	.00	.0025	128.48	.0023	-28.50	305.98
SET 51	613.34	624.59	6	6	11.1	90.00	.0038	-27.37	.0001	122349.0	2.61	11.52	-.0031	245.00	-.0013	-28.47	300.71
SET 61	624.76	636.01	6	6	22.5	59.88	.0039	-30.67	.0001	125152.1	2.49	-.00	-.0021	228.08	.0026	-28.46	298.06
SET 72	810.78	822.03	6	9	28.5	94.22	.0039	-27.89	.0001	149002.1	2.42	-.00	-.0034	241.82	-.0004	-28.24	254.20
RISE 42	820.81	832.06	6	9	38.6	254.99	.0040	-26.76	-.0001	149722.6	1.71	4.06	.0028	120.16	-.0021	-28.23	251.81
EXTM 11	860.50	871.75	6	10	18.2	.85	.0041	-30.33	.0000	152383.3	1.99	24.46	-.0000	180.80	.0039	-28.19	242.34
SET 11	1127.08	1138.33	6	14	44.8	66.74	.0041	-29.23	.0001	185046.5	2.07	-.00	-.0026	233.30	.0024	-27.92	178.08
EXTM 42	1246.70	1257.95	6	16	44.4	359.98	.0042	-27.57	.0000	191355.1	1.71	82.35	-.0000	.20	-.0209	-27.81	149.00
RISE 51	1382.21	1393.46	6	18	60.0	270.00	.0041	-27.04	-.0000	209906.7	1.27	11.38	.0034	114.70	-.0014	-27.70	115.93
RISE 72	1537.12	1548.37	6	21	34.9	265.88	.0041	-27.35	-.0000	226022.5	1.16	-.01	.0036	117.63	-.0005	-27.59	77.99
RISE 61	1622.69	1633.94	6	23	.4	297.57	.0041	-28.68	-.0000	233952.9	1.25	.00	.0024	128.95	.0027	-27.53	56.99
SET 42	1670.08	1681.33	6	23	47.8	105.00	.0041	-26.56	.0000	237828.4	1.83	3.94	-.0029	240.00	-.0022	-27.49	45.34
EXTM 51	1736.01	1747.33	7	0	53.8	358.54	.0042	-27.50	.0000	237895.9	1.47	87.81	.0023	145.65	.0780	-27.45	29.11
EXTM 61	1872.87	1884.12	7	3	10.6	.34	.0042	-28.69	.0000	253858.6	1.43	21.07	.0000	180.32	.0039	-27.36	355.42
EXTM 72	1912.82	1924.07	7	3	50.6	.11	.0042	-27.82	.0000	253626.5	1.42	70.09	-.0000	180.28	.0108	-27.34	345.57
RISE 11	2057.61	2068.86	7	6	15.4	292.17	.0042	-28.14	-.0000	271670.9	1.06	.00	.0028	125.25	.0024	-27.26	309.83
SET 51	2101.36	2112.61	7	6	59.1	90.00	.0041	-26.72	.0000	274012.3	1.73	11.26	-.0034	245.60	-.0014	-27.23	299.03
SET 61	2122.81	2134.06	7	7	20.6	63.03	.0042	-28.19	.0000	276998.6	1.63	-.00	-.0025	231.77	.0027	-27.22	293.73
SET 72	2287.42	2298.67	7	10	5.2	94.05	.0041	-26.95	.0000	290116.8	1.71	-.00	-.0036	242.77	-.0005	-27.13	253.02
RISE 42	2288.06	2299.31	7	10	5.8	255.00	.0041	-26.37	-.0000	289741.9	.98	3.82	.0029	119.85	-.0022	-27.13	252.87
EXTM 11	2328.23	2339.48	7	10	46.0	.23	.0042	-28.23	.0000	290463.5	1.29	26.57	-.0000	180.23	.0041	-27.11	242.92
SET 11	2598.67	2609.92	7	15	16.4	68.21	.0042	-27.74	.0000	313742.0	1.53	.00	-.0028	235.26	.0024	-26.98	175.93
EXTM 42	2707.32	2718.57	7	17	5.1	359.99	.0042	-26.77	.0000	319419.6	1.20	81.55	-.0000	.13	-.0079	-26.93	148.99
RISE 51	2837.96	2849.21	7	19	15.7	270.00	.0041	-26.45	-.0000	329741.4	.80	11.15	.0034	114.14	-.0015	-26.88	116.57
RISE 72	2990.94	3002.19	7	21	48.7	266.00	.0042	-26.65	-.0000	341738.1	.73	-.00	.0037	116.93	-.0005	-26.81	78.49
RISE 61	3070.03	3081.28	7	23	7.8	296.20	.0042	-27.55	-.0000	347115.3	.85	.00	.0025	127.29	.0027	-26.78	58.75
SET 42	3125.49	3136.74	8	0	3.2	105.00	.0041	-26.13	.0000	350460.0	1.46	3.68	-.0030	240.34	-.0023	-26.76	44.90
EXTM 51	3191.35	3202.60	8	1	9.1	359.22	.0042	-26.75	.0000	348992.2	1.12	88.77	.0022	145.54	.1445	-26.73	28.45
EXTM 61	3322.92	3334.17	8	3	20.7	.18	.0042	-27.61	.0000	361764.8	1.13	22.15	-.0000	180.17	.0040	-26.68	355.58
EXTM 72	3362.84	3374.09	8	4	.6	.08	.0043	-26.99	.0000	360870.6	1.13	70.91	-.0000	180.22	.0112	-26.67	345.59
RISE 11	3500.93	3512.18	8	6	18.7	291.31	.0042	-27.24	-.0000	376290.4	.85	.00	.0028	124.07	.0024	-26.61	311.02
SET 51	3550.21	3561.46	8	7	7.9	90.00	.0042	-26.22	.0000	378572.2	1.59	11.06	-.0035	246.08	-.0015	-26.59	298.65
SET 61	3575.27	3586.52	8	7	33.0	64.13	.0042	-27.27	.0000	381642.3	1.54	-.00	-.0026	233.11	.0027	-26.58	292.35
IMPACT	3645.58	3656.83	8	8	43.3												
IMPC 72	3645.58	3656.83	8	8	43.3	72.13	.0043	-26.55	.0001	385576.6	2.45	19.48	-.0039	244.57	.0001	-26.53	274.54
IMPC 11	3645.58	3656.83	8	8	43.3	328.16	.0044	-27.31	.0000	385459.8	1.86	20.62	.0018	149.95	.0037	-26.53	274.54

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	5	19	57.742	6559.649	22.2816	307.0841	10.97961	2.7199	108.7074	109.7583
SEPARATION	1.20	12.45	5	19	58.942	6620.350	19.9470	313.6691	10.92861	6.1131	111.1911	116.6442
RETRO	5.20	14.45	5	20	.942	6820.822	15.6729	325.8024	10.76546	11.5601	114.4546	127.2788
ENTER SHA	35.03	46.28	5	20	32.776	10131.101	-19.5401	26.7748	6.95970	50.1493	111.5642	198.2318
EXIT SHA	92.52	103.77	5	21	30.258	32650.365	-26.9587	39.9128	4.84081	62.9248	100.4870	225.7797
IMPACT	3645.58	3656.83	8	8	43.321	387749.766	-26.5302	274.5372	2.21270	67.3910	279.4541	271.1007

SURVEYOR VIEW PERIODS

GHA	225.5759					EPS	43.7312							LOM	270.1007
SX	.016950	SY	-.894606	SZ	-.446535	DAO	-26.52158	RAO	271.08547	RM	389046.016	LAT	28.310600	LON	279.461800
C3	-.986244	ECC	.983807	SLR	12983.354	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.038198	NSY	-.893299	NSZ	-.447837	C3M	1.4970	VIM	2.6714	ZAE	139.773	B.T	.0000	B.R	-.0000
LATE	4.0036	LONE	5.2982	LATS	-.1817	LONS	321.8348	LATI	-2.9596	LONI	325.6519	RSM	151.2792	TTAN	6.8179
LAUNCH DATE		MAY	5,1966		BASE AZM	99.0		TF	60.822			ARRIVAL DATE		MAY 8 1966	9 0 57.3

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99.00	19 57 14.6	28.1	21.14	306.65	7.74	112.02	110.81	20 8 29.6	6574.4	10.97	3.84

EVNT STA	TFI	TFL	DAY	HR	MIN	HA PROBE IN SUNLIGHT	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
INJECTION	.00	11.25	5	20	8.5												
SEPARATION	1.20	12.45	5	20	9.7												
RETRO	3.20	14.45	5	20	11.7												
RISE 72	4.48	15.73	5	20	13.0	81.36	-.1952	47.25	.0322	3059.2	-7.06	.00	.1232	317.85	.0583	11.16	328.46
RISE 51	11.16	22.41	5	20	19.7	77.07	-.0864	24.91	-.0342	5840.7	-2.54	-.01	.0852	297.88	.0075	-2.04	350.99
RISE 61	11.11	22.36	5	20	19.6	11.15	-.1069	-49.22	.0010	5824.8	5.68	.00	.0113	187.25	-.0689	-1.96	390.86
EXTM 72	11.29	22.54	5	20	19.8	339.72	-.1215	12.25	-.1230	2526.0	5.03	61.50	-.0000	45.21	.3582	-2.25	391.33
EXTM 61	18.28	29.53	5	20	26.8	341.40	-.0428	-46.42	.0074	8546.8	6.60	1.76	-.0000	167.29	-.0304	-11.07	5.95
ENTER SHA	36.03	47.28	5	20	44.5												
ENTR 72	36.03	47.28	5	20	44.5	300.24	-.0060	-24.40	-.0043	12382.0	6.08	30.74	-.0059	113.74	.0044	-21.19	24.75
ENTR 51	36.03	47.28	5	20	44.5	4.67	-.0181	-18.34	-.0102	10243.3	5.15	81.43	.0173	328.78	.0663	-21.19	24.75
ENTR 61	36.03	47.28	5	20	44.5	319.12	-.0098	-41.44	.0028	15269.4	5.90	.29	-.0013	150.62	-.0078	-21.19	24.75
SET 61	40.28	51.53	5	20	48.8	316.93	-.0075	-40.80	.0023	16748.7	5.71	-.00	-.0010	148.87	-.0060	-22.41	27.26
EXTM 51	44.31	55.56	5	20	52.8	357.71	-.0107	-22.15	-.0057	12811.7	5.15	85.84	-.0000	30.75	.1579	-23.34	29.23
EXTM 72	69.20	80.45	5	21	17.7	296.00	.0001	-28.50	-.0010	23014.1	4.77	26.56	.0000	117.98	.0011	-26.59	35.80
RISE 61	81.99	93.24	5	21	30.5	310.84	.0003	-37.70	.0007	29302.4	4.48	-.00	.0007	143.23	-.0002	-27.41	36.97
EXIT SHA	88.57	99.82	5	21	37.1												
EXIT 72	88.57	99.82	5	21	37.1	296.88	.0013	-29.38	-.0006	28295.1	4.34	27.24	.0011	119.05	.0008	-27.72	37.21
EXIT 51	88.57	99.82	5	21	37.1	348.04	-.0001	-28.11	-.0008	25442.4	4.37	79.08	-.0002	105.21	.0042	-27.72	37.21
EXIT 61	88.57	99.82	5	21	37.1	311.03	.0007	-37.43	.0006	31045.9	4.36	.30	.0008	143.20	.0001	-27.72	37.21
EXTM 51	189.85	201.10	5	23	18.3	359.96	.0030	-29.70	-.0000	48648.2	3.43	86.04	-.0000	179.43	.0328	-29.24	27.72
EXTM 61	372.50	383.75	6	2	21.0	3.56	.0038	-33.18	.0002	86160.6	2.72	16.51	.0000	183.11	.0033	-29.21	358.41
EXTM 72	405.78	417.03	6	2	54.3	.50	.0039	-30.67	.0001	87612.6	2.64	67.23	.0000	181.11	.0088	-29.16	345.21
RISE 11	581.62	592.87	6	5	50.1	295.02	.0040	-30.94	-.0000	119300.0	2.03	.00	.0025	129.00	-.0023	-28.86	305.54
SET 51	602.30	613.55	6	6	10.8	90.00	.0038	-27.71	.0001	120866.4	2.62	11.65	-.0031	244.68	-.0013	-28.83	300.76
SET 61	611.58	622.83	6	6	20.1	59.36	.0039	-31.06	.0001	123414.7	2.50	-.00	-.0021	227.48	.0026	-28.81	298.60
SET 72	800.29	811.54	6	9	28.8	94.27	.0039	-28.17	.0001	147745.0	2.42	-.01	-.0034	241.54	-.0004	-28.53	254.18
RISE 42	810.34	821.59	6	9	38.8	254.99	.0040	-27.04	-.0001	148905.3	1.72	4.23	.0028	120.38	-.0021	-28.51	251.79
EXTM 11	850.35	861.60	6	10	18.8	.94	.0041	-30.62	.0001	151222.8	1.99	24.17	-.0000	180.89	.0039	-28.46	242.24
SET 11	1115.69	1126.94	6	14	44.2	66.51	.0041	-29.46	.0001	183834.0	2.08	-.00	-.0026	232.99	.0024	-28.13	178.33
EXTM 42	1236.29	1247.54	6	16	44.8	359.96	.0042	-27.77	.0000	190283.7	1.71	82.55	.0000	.28	-.0256	-28.01	149.02
RISE 51	1371.93	1383.18	6	19	.4	270.00	.0041	-27.22	-.0000	208881.7	1.28	11.45	.0034	114.86	-.0014	-27.88	115.92
RISE 72	1526.75	1538.00	6	21	35.2	265.85	.0041	-27.50	-.0000	225032.8	1.17	-.01	.0036	117.79	-.0005	-27.74	78.01
RISE 61	1613.17	1624.42	6	23	1.7	297.76	.0041	-28.83	-.0000	233059.4	1.26	.00	.0024	129.17	.0027	-27.67	56.80
SET 42	1659.77	1671.02	6	23	48.3	105.00	.0041	-26.70	.0000	236861.7	1.83	4.03	-.0029	239.89	-.0022	-27.63	45.35
EXTM 51	1725.70	1736.95	7	0	54.2	358.51	.0042	-27.63	.0000	236946.2	1.47	87.69	.0022	145.27	.0753	-27.58	29.13
EXTM 61	1862.73	1873.98	7	3	11.2	.37	.0042	-28.82	.0000	252963.8	1.43	20.94	.0000	180.35	.0039	-27.48	355.39
EXTM 72	1902.59	1913.84	7	3	51.1	.11	.0042	-27.94	.0000	252721.7	1.42	69.97	-.0000	180.30	.0108	-27.45	345.56
RISE 11	2047.79	2059.04	7	6	16.3	292.28	.0042	-28.24	-.0000	270815.3	1.07	.00	.0028	125.39	.0024	-27.36	309.73
SET 51	2091.08	2102.33	7	6	59.6	90.00	.0041	-26.82	.0000	273120.4	1.73	11.30	-.0034	245.51	-.0014	-27.33	299.03
SET 61	2112.04	2123.29	7	7	20.5	62.91	.0042	-28.29	.0000	276073.7	1.63	-.00	-.0025	231.62	.0027	-27.32	293.85
SET 72	2277.21	2288.46	7	10	5.7	94.06	.0041	-27.03	.0000	289256.0	1.71	-.00	-.0036	242.69	-.0005	-27.22	253.01
RISE 42	2277.82	2289.07	7	10	6.3	255.00	.0041	-26.45	-.0000	288873.9	.98	3.87	.0029	119.91	-.0022	-27.22	252.86
EXTM 11	2318.07	2329.32	7	10	46.6	.25	.0042	-28.31	.0000	289619.0	1.30	26.48	-.0000	180.25	.0041	-27.19	248.90
SET 11	2588.16	2599.41	7	15	16.7	68.15	.0042	-27.81	.0000	312888.0	1.54	.00	-.0028	235.18	.0024	-27.05	176.00
EXTM 42	2697.08	2708.33	7	17	5.6	359.99	.0042	-26.83	.0000	314992.1	1.20	81.61	-.0000	.14	-.0083	-26.99	148.99
RISE 51	2827.73	2838.98	7	19	16.2	270.00	.0041	-26.50	-.0000	328922.7	.80	11.17	.0034	114.19	-.0015	-26.93	116.97
RISE 72	2980.68	2991.93	7	21	49.2	265.99	.0042	-26.69	-.0000	340923.3	.73	-.00	.0037	116.97	-.0005	-26.85	78.49
RISE 61	3059.99	3071.24	7	23	8.5	296.25	.0042	-27.59	-.0000	346310.8	.85	.00	.0025	127.35	.0027	-26.82	58.70
SET 42	3115.25	3126.50	8	0	3.7	105.00	.0041	-26.16	.0000	349635.0	1.46	3.70	-.0030	240.32	-.0023	-26.80	44.90
EXTM 51	3180.96	3192.21	8	1	9.5	359.18	.0042	-26.79	.0000	348153.5	1.12	88.72	.0022	144.98	.1377	-26.77	28.49
EXTM 61	3312.76	3324.01	8	3	21.2	.19	.0042	-27.64	.0000	360927.5	1.12	22.12	-.0000	180.18	.0040	-26.71	359.56
EXTM 72	3352.64	3363.89	8	4	1.1	.08	.0043	-27.02	.0000	360821.7	1.13	70.88	-.0000	180.23	.0111	-26.69	345.99
RISE 11	3490.85	3502.10	8	6	19.3	291.33	.0042	-27.27	-.0000	375399.4	.84	.00	.0028	124.11	.0024	-26.63	311.00
SET 51	3540.05	3551.30	8	7	8.5	90.00	.0042	-26.24	.0000	377634.5	1.57	11.07	-.0035	246.06	-.0015	-26.61	298.66
SET 61	3565.03	3576.28	8	7	33.5	64.11	.0042	-27.30	.0000	380665.4	1.51	-.00	-.0025	233.08	.0027	-26.60	292.38
IMPACT	3649.35	3660.60	8	8	57.8												
IMPC 72	3649.35	3660.60	8	8	57.8	75.64	.0043	-26.53	.0001	385960.2	2.45	16.33	-.0039	244.58	-.0000	-26.54	271.04
IMPC 11	3649.35	3660.60	8	8	57.8	331.70	.0044	-27.33	.0000	385371.7	1.87	21.99	.0016	152.99	.0038	-26.54	271.04

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	5	20	8.493	6574.750	21.1329	306.6739	10.96698	3.8394	110.8204	112.0432
SEPARATION	1.20	12.45	5	20	9.693	6650.256	18.5976	313.0513	10.90366	7.2092	113.0931	118.7214
RETRO	3.20	14.45	5	20	11.693	6873.895	14.0775	322.8343	10.72332	12.5891	115.9995	129.0058
ENTER SHA	36.03	47.28	5	20	44.522	16574.823	-21.1901	24.7490	6.86376	50.7768	110.7626	199.1505
EXIT SHA	88.57	99.82	5	21	37.064	31725.490	-27.7192	37.2147	4.91345	62.5163	99.9831	224.7877
IMPACT	3649.35	3660.60	8	8	57.841	387802.168	-26.5395	271.0418	2.21098	67.3102	279.8829	271.2483

SURVEYOR VIEW PERIODS

QHA	225.3759					EPS	43.8344							LOM	267.0882
SX	.018892	SY	-.894509	SZ	-.446651	DAO	-26.52903	RAO	271.20992	RM	389090.051	LAT	28.310600	LON	279.461800
C3	-.990514	ECC	.983737	SLR	12982.897	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.040179	NSY	-.893155	NSZ	-.447950	C3M	1.4969	VIM	2.6714	ZAE	139.624	B.T	.0000	B.R	-.0000
LATE	4.0144	LONE	5.4095	LATS	-.1815	LONS	321.8434	LATI	-3.2575	LONI	325.6664	RSM	151.2791	TTAN	6.8197
LAUNCH DATE		MAY	5.1966		BASE AZM	102.0		TF	60.898			ARRIVAL DATE		MAY 8 1966	9 15 28.1

LNCH AZMTH	LNCH TIME			PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME		INJ RAD	INJ VEL	INJ PTH
102.00	20	5	8.3	28.1	20.02	306.17	9.37	113.51	112.91	20	16 23.3	6588.3	10.96	4.65

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	5	20	16.4												
SEPARATION	1.20	12.45	5	20	17.6												
RETRO	3.20	14.45	5	20	19.6												
RISE 72	4.31	15.56	5	20	20.7	82.74	-.1757	42.29	.0147	3108.9	-7.22	-.00	.1249	312.79	.0386	9.86	326.63
RISE 51	11.13	22.38	5	20	27.5	79.03	-.0813	21.55	-.0366	5946.3	-2.41	-.00	.0839	294.06	.0030	-3.85	349.06
EXTM 72	11.17	22.42	5	20	27.6	347.39	-.1348	6.58	-.1170	2450.6	4.88	70.82	-.0000	41.30	.5412	-3.92	349.17
RISE 61	14.13	25.38	5	20	30.5	359.34	-.0719	-49.76	.0054	7188.0	6.24	.00	.0050	179.57	-.0465	-8.21	356.08
EXTM 61	20.09	31.34	5	20	36.5	340.89	-.0365	-47.44	.0064	9487.3	6.49	.69	-.0000	167.20	-.0255	-14.48	6.63
SET 61	32.55	43.80	5	20	48.9	324.40	-.0131	-43.86	.0034	14186.9	6.01	-.00	-.0011	155.18	-.0100	-21.56	20.07
ENTER SHA	37.91	49.16	5	20	54.3												
ENTR 72	37.91	49.16	5	20	54.3	302.26	-.0058	-27.23	-.0032	12997.6	5.97	32.21	-.0055	117.30	.0028	-23.29	23.72
ENTR 51	37.91	49.16	5	20	54.3	6.21	-.0166	-21.81	-.0083	10916.4	5.13	85.10	.0173	303.34	.0194	-23.29	23.72
ENTR 61	37.91	49.16	5	20	54.3	320.87	-.0092	-42.87	.0027	16079.5	5.77	-.32	-.0009	152.45	-.0072	-23.29	23.72
EXTM 51	45.15	56.40	5	21	1.5	.38	-.0107	-24.60	-.0049	13148.3	5.11	88.81	.0075	343.01	.3791	-24.97	27.43
EXTM 72	70.57	81.82	5	21	27.0	298.24	.0001	-30.24	-.0007	23333.7	4.74	28.30	.0000	120.18	.0008	-27.95	33.91
EXIT SHA	81.82	93.07	5	21	38.2												
EXIT 72	81.82	93.07	5	21	38.2	298.59	.0009	-30.66	-.0005	26439.8	4.47	28.55	.0007	120.70	.0007	-28.58	34.93
EXIT 51	81.82	93.07	5	21	38.2	350.75	-.0009	-29.28	-.0008	23701.1	4.47	81.07	-.0010	115.43	.0033	-28.58	34.93
EXIT 61	81.82	93.07	5	21	38.2	313.08	.0002	-39.02	.0008	29342.5	4.47	-.09	.0008	145.43	-.0004	-28.58	34.93
RISE 61	83.76	95.01	5	21	40.2	313.11	.0003	-38.93	.0008	29861.2	4.43	-.00	.0008	145.39	-.0003	-28.67	35.03
EXTM 51	177.76	189.01	5	23	14.2	.00	.0028	-30.62	.0000	46194.1	3.51	85.12	-.0000	180.19	.0062	-30.03	27.68
EXTM 61	366.20	377.45	6	2	22.6	4.08	.0038	-33.81	.0002	85232.0	2.74	15.86	.0000	183.52	.0033	-29.79	351.94
EXTM 72	398.00	409.25	6	2	54.4	.64	.0039	-31.28	.0001	86437.1	2.65	66.62	-.0000	181.37	.0085	-29.71	345.08
RISE 11	575.96	587.21	6	5	52.3	295.51	.0040	-31.40	-.0000	118534.3	2.04	.00	.0025	129.62	.0023	-29.29	305.04
SET 51	594.30	605.55	6	6	10.7	90.00	.0038	-28.14	.0001	119771.2	2.63	11.82	-.0031	244.28	-.0012	-29.25	300.80
SET 61	600.96	612.21	6	6	17.3	58.73	.0039	-31.53	.0001	121983.8	2.51	-.00	-.0021	226.77	.0026	-29.24	299.25
SET 72	792.81	804.06	6	9	29.2	94.33	.0039	-28.51	.0001	146833.3	2.43	-.01	-.0034	241.19	-.0004	-28.87	254.14
RISE 42	802.81	814.06	6	9	39.2	254.99	.0040	-27.37	-.0001	147567.6	1.73	4.43	.0028	120.64	-.0021	-28.85	251.77
EXTM 11	843.21	854.46	6	10	19.6	1.06	.0041	-30.97	.0001	150404.8	2.00	23.82	-.0000	180.99	.0039	-28.79	242.13
SET 11	1107.00	1118.25	6	14	43.4	66.24	.0041	-29.73	.0001	182886.5	2.08	-.00	-.0026	232.63	.0024	-28.40	178.61
EXTM 42	1228.77	1240.02	6	16	45.2	359.96	.0042	-28.01	.0000	189485.0	1.72	82.79	.0000	.34	-.0269	-28.24	149.02
RISE 51	1364.50	1375.75	6	19	.9	270.00	.0041	-27.42	-.0000	208109.6	1.28	11.53	.0034	115.05	-.0014	-28.09	115.91
RISE 72	1519.20	1530.45	6	21	35.6	265.82	.0041	-27.68	-.0000	224280.2	1.17	-.01	.0036	117.97	-.0005	-27.93	78.03
RISE 61	1606.63	1617.88	6	23	3.0	297.98	.0041	-29.01	-.0000	232410.6	1.26	.00	.0024	129.44	.0027	-27.84	56.57
SET 42	1652.29	1663.54	6	23	48.7	105.00	.0041	-26.86	.0000	236121.1	1.83	4.13	-.0029	239.76	-.0022	-27.80	45.35
EXTM 51	1724.19	1735.44	7	1	.6	.01	.0042	-27.79	.0000	236754.2	1.48	87.95	-.0000	180.56	.0682	-27.73	27.67
EXTM 61	1855.46	1866.71	7	3	11.8	.42	.0042	-28.96	.0000	252286.3	1.44	20.80	-.0000	180.39	.0039	-27.62	355.34
EXTM 72	1895.19	1906.44	7	3	51.6	.13	.0042	-28.08	.0000	252026.9	1.42	69.82	-.0000	180.32	.0107	-27.59	345.55
RISE 11	2040.85	2052.10	7	6	17.2	292.40	.0042	-28.37	-.0000	270163.5	1.07	.00	.0028	125.56	.0024	-27.48	309.60
SET 51	2083.62	2094.87	7	7	.0	90.00	.0041	-26.94	.0000	272422.9	1.73	11.34	-.0034	245.40	-.0014	-27.45	299.04
SET 61	2104.00	2115.25	7	7	20.4	62.76	.0042	-28.41	.0000	275335.0	1.63	-.00	-.0024	231.45	.0027	-27.43	294.00
SET 72	2269.82	2281.07	7	10	6.2	94.08	.0041	-27.13	.0001	288578.7	1.71	-.00	-.0036	242.59	-.0005	-27.32	253.00
RISE 42	2270.39	2281.64	7	10	6.8	255.00	.0041	-26.55	-.0000	288187.1	.98	3.93	.0029	119.99	-.0022	-27.32	252.86
EXTM 11	2310.73	2321.98	7	10	47.1	.28	.0042	-28.41	.0000	288957.2	1.30	26.38	-.0000	180.27	.0041	-27.29	242.88
SET 11	2580.39	2591.64	7	15	16.8	68.07	.0042	-27.89	.0000	312193.3	1.54	.00	-.0028	235.08	.0024	-27.12	176.08
EXTM 42	2689.62	2700.87	7	17	6.0	359.99	.0042	-26.89	.0000	313921.7	1.20	81.67	-.0000	.13	-.0112	-27.06	148.99
RISE 51	2820.29	2831.54	7	19	16.7	270.00	.0041	-26.56	-.0000	328253.7	.80	11.19	.0034	114.24	-.0015	-26.99	116.57
RISE 72	2973.21	2984.46	7	21	49.6	265.99	.0042	-26.74	-.0000	340251.4	.73	-.00	.0037	117.02	-.0005	-26.90	78.50
RISE 61	3052.76	3064.01	7	23	9.2	296.30	.0042	-27.64	-.0000	345648.9	.85	.00	.0025	127.42	.0027	-26.86	58.64
SET 42	3107.80	3119.05	8	0	4.2	105.00	.0041	-26.20	.0000	348950.0	1.45	3.72	-.0030	240.29	-.0023	-26.84	44.90
EXTM 51	3173.30	3184.55	8	1	9.7	359.12	.0042	-26.82	.0000	347451.0	1.12	88.66	.0022	144.24	.1304	-26.80	28.55
EXTM 61	3305.38	3316.63	8	3	21.8	.21	.0042	-27.67	.0000	360228.8	1.12	22.09	-.0000	180.20	.0040	-26.74	355.55
EXTM 72	3345.23	3356.48	8	4	1.6	.09	.0043	-27.05	.0000	359310.9	1.12	70.85	-.0000	180.24	.0112	-26.72	345.59
RISE 11	3483.55	3494.80	8	6	19.9	291.35	.0042	-27.29	-.0000	374652.0	.84	.00	.0028	124.14	.0024	-26.66	310.97
SET 51	3532.65	3543.90	8	7	9.0	90.00	.0042	-26.26	.0000	376849.3	1.56	11.08	-.0035	246.04	-.0015	-26.63	298.66
SET 61	3557.56	3568.81	8	7	33.9	64.08	.0042	-27.32	.0000	379850.4	1.49	-.00	-.0025	233.05	.0027	-26.62	292.41
IMPACT	3653.87	3665.12	8	9	10.3												
IMPC 72	3653.87	3665.12	8	9	10.3	78.64	.0043	-26.52	.0001	386293.1	2.45	13.65	-.0039	244.52	-.0001	-26.55	268.05
IMPC 11	3653.87	3665.12	8	9	10.3	334.73	.0044	-27.35	.0000	385309.0	1.89	23.04	.0015	155.67	.0039	-26.55	268.05

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	5	20	16.389	6589.065	20.0039	306.2063	10.95514	4.6477	112.9201	113.5551
SEPARATION	1.20	12.45	5	20	17.589	6674.945	17.2743	312.3811	10.88311	7.9977	114.9936	120.0307
RETRO	3.20	14.45	5	20	19.589	6915.006	12.5044	321.8476	10.69092	13.3248	117.5631	129.9986
ENTER SHA	37.91	49.16	5	20	54.299	17262.639	-23.2896	25.7200	6.72239	51.6908	109.5672	200.5724
EXIT SHA	81.82	93.07	5	21	38.212	30015.659	-28.5819	34.9271	5.05660	61.7078	99.7410	222.7879
IMPACT	3653.87	3665.12	8	9	10.264	38847.457	-26.5476	268.0513	2.20908	67.2096	280.4348	271.3691

SURVEYOR VIEW PERIODS

GHA	225.3759					EPS	43.9284							LOM	264.3439
SX	.020661	SY	-.894417	SZ	-.446756	DAO	-26,53571	RAO	271.32328	RM	389130.148	LAT	28,310600	LON	279.461800
C3	-.995996	ECC	.983647	SLR	12982.306	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.042000	NSY	-.893018	NSZ	-.448056	C3M	1.4967	VIM	2.6713	ZAE	139.436	B.T	.0000	B.R	-.0000
LATE	4.0242	LONE	5.2922	LATS	-.1813	LONS	321.6326	LATI	-3.5922	LONI	325.4200	RSM	151.2789	TTAN	6.8217
LAUNCH DATE		MAY	5.1966		BASE AZM	105.0		TF	60.991			ARRIVAL DATE		MAY 8 1966	9 24 52.1

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	20 11 5.8	28.1	18.92	305.63	10.58	114.48	115.00	20 22 20.8	6600.3	10.94	5.25

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
					PROBE IN SUNLIGHT												
INJECTION	.00	11.25	5	20	22.3												
SEPARATION	1.20	12.45	5	20	23.5												
RETRO	3.20	14.45	5	20	25.5												
RISE 72	4.21	15.46	5	20	26.6	83.85	-.1609	37.64	-.0021	3150.2	-7.30	-.00	.1258	308.09	.0201	8.47	325.04
RISE 51	11.13	22.38	5	20	33.5	80.85	-.0769	18.25	-.0390	6032.4	-2.29	-.00	.0828	290.35	-.0013	-5.75	347.32
EXTM 72	11.13	22.38	5	20	33.5	354.02	-.1436	-.08	-.1088	2425.7	4.80	80.16	-.0000	37.57	1.0549	-5.76	347.33
ENTER SHA	42.67	53.92	5	21	5.0												
ENTR 72	42.67	53.92	5	21	5.0	302.91	-.0045	-30.41	-.0018	14625.5	5.72	32.26	-.0042	121.11	.0013	-26.11	24.47
ENTR 51	42.67	53.92	5	21	5.0	4.87	-.0130	-26.27	-.0053	12456.1	5.11	85.59	.0111	262.07	-.0041	-26.11	24.47
ENTR 61	42.67	53.92	5	21	5.0	320.80	-.0072	-43.97	.0024	17853.7	5.54	-1.30	-.0004	152.94	-.0057	-26.11	24.47
EXTM 51	48.53	59.78	5	21	10.9	.98	-.0093	-27.80	-.0035	14246.2	5.05	87.76	-.0000	202.82	-.2295	-27.16	27.01
EXTM 72	71.63	82.88	5	21	34.0	299.95	.0001	-32.08	-.0005	23592.8	4.71	29.47	.0000	122.51	.0006	-29.42	32.41
EXIT SHA	72.26	83.51	5	21	34.6												
EXIT 72	72.26	83.51	5	21	34.6	299.96	.0002	-32.10	-.0005	23769.1	4.69	29.48	.0000	122.54	.0006	-29.45	32.49
EXIT 51	72.26	83.51	5	21	34.6	353.68	-.0023	-30.53	-.0010	21139.2	4.63	82.65	-.0022	132.18	-.0039	-29.45	32.49
EXIT 61	72.26	83.51	5	21	34.6	315.00	-.0008	-41.05	.0011	26835.4	4.66	-.98	.0006	147.77	-.0011	-29.45	32.49
RISE 61	92.12	103.37	5	21	54.5	315.06	.0007	-39.92	.0008	32148.7	4.28	-.00	.0010	147.20	.0000	-30.26	33.72
EXTM 51	97.04	108.29	5	21	59.4	352.48	.0003	-31.41	-.0003	27718.5	4.24	81.30	.0000	132.40	.0028	-30.39	33.74
EXTM 51	169.04	180.29	5	23	11.4	.18	.0027	-31.73	.0001	44394.0	3.56	84.01	-.0000	181.48	.0216	-30.98	27.53
EXTM 61	362.40	373.65	6	2	24.8	4.64	.0038	-34.50	.0002	84704.9	2.75	15.14	.0000	183.96	.0032	-30.44	351.41
EXTM 72	392.40	403.65	6	2	54.8	.76	.0039	-31.96	.0001	85591.8	2.67	65.93	.0000	181.58	.0082	-30.34	344.97
RISE 11	572.66	583.91	6	5	55.0	296.06	.0040	-31.91	.0000	118080.7	2.05	.00	.0025	130.31	.0023	-29.78	304.48
SET 51	588.44	599.69	6	6	10.8	90.00	.0038	-28.62	.0001	118948.8	2.63	12.01	-.0031	243.83	-.0012	-29.74	300.83
SET 61	592.08	603.33	6	6	14.4	58.01	.0039	-32.05	.0002	120769.3	2.52	-.00	-.0020	225.96	.0026	-29.73	299.99
SET 72	787.44	798.69	6	9	29.8	94.40	.0039	-28.90	.0001	146161.5	2.43	-.01	-.0034	240.80	-.0004	-29.26	254.10
RISE 42	797.32	808.57	6	9	39.7	254.99	.0040	-27.75	-.0000	146858.8	1.73	4.67	.0028	120.95	-.0021	-29.24	251.75
EXTM 11	838.17	849.42	6	10	20.5	1.18	.0041	-31.35	.0001	149824.4	2.00	23.43	.0000	181.10	.0039	-29.16	242.01
SET 11	1100.19	1111.44	6	14	42.5	65.92	.0041	-30.03	.0001	182118.5	2.08	-.00	-.0026	232.22	.0024	-28.69	178.93
EXTM 42	1223.25	1234.50	6	16	45.6	359.95	.0042	-28.28	.0000	188868.6	1.72	83.06	.0000	.41	-.0283	-28.50	149.03
RISE 51	1359.06	1370.31	6	19	1.4	270.00	.0041	-27.66	-.0000	207507.2	1.28	11.63	.0033	115.27	-.0014	-28.32	115.90
RISE 72	1513.60	1524.85	6	21	35.9	265.78	.0041	-27.89	-.0000	223684.8	1.17	-.00	.0036	118.18	-.0005	-28.13	78.06
RISE 61	1602.20	1613.45	6	23	4.5	298.24	.0041	-29.20	-.0000	231927.0	1.26	.01	.0024	129.73	.0027	-28.03	56.31
SET 42	1646.78	1658.03	6	23	49.1	105.00	.0041	-27.05	.0001	235528.9	1.83	4.24	-.0029	239.61	-.0022	-27.98	45.36
EXTM 51	1718.71	1729.96	7	1	1.1	.02	.0042	-27.97	.0000	236180.9	1.48	87.77	-.0000	180.52	.0674	-27.91	37.67
EXTM 61	1850.14	1861.39	7	3	12.5	.46	.0042	-29.13	.0000	251747.0	1.44	20.64	-.0000	180.43	.0039	-27.78	359.30
EXTM 72	1889.74	1900.99	7	3	52.1	.14	.0042	-28.24	.0000	251467.0	1.42	69.67	-.0000	180.35	.0106	-27.74	345.54
RISE 11	2035.91	2047.16	7	6	18.3	292.53	.0042	-28.51	-.0000	269641.2	1.07	.00	.0027	125.74	.0024	-27.61	309.46
SET 51	2078.10	2089.35	7	7	.4	90.00	.0041	-27.07	.0001	271847.6	1.73	11.40	-.0034	245.28	-.0014	-27.98	299.04
SET 61	2097.83	2109.08	7	7	20.2	62.60	.0042	-28.54	.0000	274712.6	1.63	-.00	-.0024	231.25	.0027	-27.96	294.17
SET 72	2264.37	2275.62	7	10	6.7	94.10	.0041	-27.24	.0001	288014.6	1.71	-.00	-.0036	242.48	-.0005	-27.43	252.98
RISE 42	2264.90	2276.15	7	10	7.2	255.00	.0041	-26.66	-.0000	287611.8	.98	4.00	.0029	120.08	-.0022	-27.43	292.89
EXTM 11	2305.33	2316.58	7	10	47.7	.31	.0042	-28.52	.0000	288407.7	1.30	26.27	-.0000	180.30	.0041	-27.40	242.85
SET 11	2574.52	2585.77	7	15	16.9	67.99	.0042	-27.97	.0000	311992.3	1.53	.00	-.0028	234.96	.0024	-27.20	176.16
EXTM 42	2684.09	2695.34	7	17	6.4	359.99	.0042	-26.97	.0000	313342.3	1.20	81.75	-.0000	.15	-.0109	-27.13	148.99
RISE 51	2814.76	2826.01	7	19	17.1	270.00	.0041	-26.62	-.0000	327669.1	.80	11.22	.0034	114.30	-.0015	-27.05	116.96
RISE 72	2967.78	2979.03	7	21	50.1	265.98	.0042	-26.79	-.0000	339689.6	.73	-.00	.0037	117.07	-.0005	-26.95	78.50
RISE 61	3047.58	3058.83	7	23	9.9	296.36	.0042	-27.68	-.0000	345094.5	.85	.00	.0025	127.49	.0027	-26.91	58.58
SET 42	3102.36	3113.61	8	0	4.7	105.00	.0041	-26.24	.0000	348368.6	1.45	3.75	-.0030	240.25	-.0023	-26.88	44.91
EXTM 51	3167.60	3178.85	8	1	9.9	359.06	.0042	-26.86	.0000	346845.7	1.11	88.59	.0023	143.25	.1224	-26.84	28.61
EXTM 61	3299.99	3311.24	8	3	22.3	.22	.0042	-27.71	.0000	359624.7	1.12	22.05	-.0000	180.21	.0040	-26.77	359.53
EXTM 72	3339.79	3351.04	8	4	2.1	.09	.0043	-27.08	.0000	358692.3	1.12	70.82	-.0000	180.26	.0112	-26.75	345.98
RISE 11	3478.18	3489.43	8	6	20.5	291.37	.0042	-27.32	-.0000	373991.9	.83	.00	.0028	124.17	.0024	-26.68	310.95
SET 51	3527.18	3538.43	8	7	9.5	90.00	.0042	-26.28	.0000	376152.1	1.55	11.08	-.0035	246.02	-.0015	-26.65	298.66
SET 61	3551.99	3563.24	8	7	34.3	64.06	.0042	-27.34	.0000	379126.0	1.47	-.00	-.0025	233.01	.0027	-26.64	292.43
IMPACT	3659.43	3670.68	8	9	21.8												
IMPC 42	3659.43	3670.68	8	9	21.8	242.94	.0043	-25.92	-.0000	388365.1	1.72	-4.72	.0028	126.52	-.0026	-26.56	269.28
IMPC 72	3659.43	3670.68	8	9	21.8	81.42	.0043	-26.51	.0001	386607.9	2.45	11.16	-.0039	244.41	-.0002	-26.56	269.28
IMPC 11	3659.43	3670.68	8	9	21.8	337.54	.0044	-27.36	.0000	385264.6	1.89	23.93	.0013	158.21	.0040	-26.56	269.28

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	5	20	22.347	6601.566	18.8943	305.6913	10.94482	5.2456	115.0122	114.5337
SEPARATION	1.20	12.45	5	20	23.547	6694.884	15.9744	311.6706	10.86650	8.5792	116.8983	120.8139
RETRO	3.20	14.45	5	20	25.547	6946.919	10.9511	320.8458	10.66587	13.8653	119.1583	130.4904
ENTER SHA	42.67	53.92	5	21	5.013	18819.137	-26.1062	24.4704	6.43160	58.5351	107.2961	204.0088
EXIT SHA	72.26	83.51	5	21	34.605	27474.470	-29.4513	32.4887	5.29342	60.3546	100.0645	219.4493
IMPACT	3659.43	3670.68	8	9	21.781	387892.910	-26.5552	269.2793	2.20600	66.9111	280.9556	271.4843

MAY 5, 1966
105 DEGREES

SURVEYOR VIEW PERIODS

GHA	225.3759					EPS	44.0182							LOM	261.7224
SX	.022350	SY	-.894328	SZ	-.446854	DAO	-26.54202	RAO	271.43156	RM	389168.445	LAT	28.310600	LON	279.461800
CS	-1.002463	ECC	.983541	SLR	12981.615	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.043753	NSY	-.892883	NSZ	-.448158	CSM	1.4966	VIM	2.6713	ZAE	159.213	B.T	.0000	B.R	-.0000
LATE	4.0336	LONE	5.3891	LATS	-.1811	LONS	321.6400	LATI	-3.9483	LONI	325.3579	RSM	151.2788	TTAN	6.8235
LAUNCH DATE		MAY	5.1966	BASE AZM	108.0		TF	61.098				ARRIVAL DATE		MAY 8 1966	9 35 45.4

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	20 15 43.9	28.1	17.84	305.06	11.50	115.07	117.08	20 26 58.9	6610.4	10.94	5.70

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	5	20	27.0												
SEPARATION		1.20	12.45	5	20	28.2												
RETRO		3.20	14.45	5	20	30.2												
RISE	72	4.14	15.39	5	20	31.1	84.78	-.1489	33.23	-.0183	3188.2	-7.29	-.00	.1258	303.59	.0025	7.01	323.63
EXTM	72	10.55	21.80	5	20	37.5	5.54	-.1687	-3.42	-.1154	2293.6	3.97	82.90	.2034	308.84	.1426	-6.72	344.20
RISE	51	11.19	22.40	5	20	38.1	82.58	-.0731	15.00	-.0414	6108.3	-2.17	.00	.0817	286.70	-.0053	-7.73	345.72
EXTM	51	50.81	62.06	5	21	17.8	1.92	-.0087	-30.64	-.0026	14994.6	5.00	84.82	-.0000	198.59	-.0876	-29.18	26.36
EXTM	72	72.44	83.69	5	21	39.4	301.27	.0001	-33.99	-.0002	26801.1	4.69	80.21	.0000	124.91	.0003	-30.96	31.20
EXTM	51	97.73	108.98	5	22	4.7	353.96	.0003	-33.08	-.0002	27935.7	4.23	80.97	.0000	145.78	.0017	-31.74	32.54
RISE	61	102.78	114.03	5	22	9.8	316.96	.0012	-40.82	.0008	34942.2	4.10	-.00	.0012	148.90	.0004	-31.82	32.48
EXTM	61	162.78	174.03	5	23	9.8	.43	.0025	-32.97	.0001	43089.6	3.61	82.76	.0000	182.84	.0169	-32.04	27.32
EXTM	61	360.40	371.65	6	2	27.4	5.23	.0038	-35.23	.0002	84466.3	2.75	14.38	.0000	184.41	.0032	-31.14	350.85
EXTM	72	388.87	400.12	6	2	55.9	.99	.0039	-32.70	.0001	85066.8	2.67	65.19	.0000	181.98	.0077	-31.01	344.77
RISE	11	571.04	582.29	6	5	58.0	296.65	.0040	-32.44	.0000	117849.8	2.05	.00	.0025	131.04	.0023	-30.30	303.88
SET	51	584.10	595.35	6	6	11.1	90.00	.0038	-29.14	.0001	118321.2	2.64	12.21	-.0031	243.33	-.0012	-30.26	300.87
SET	61	584.38	595.63	6	6	11.4	57.21	.0039	-32.61	.0002	119701.7	2.52	.00	-.0020	225.08	.0026	-30.26	300.80
SET	72	783.55	794.80	6	9	30.5	94.48	.0039	-29.51	.0001	145659.0	2.43	-.01	-.0034	240.38	-.0004	-29.68	254.04
RISE	42	793.28	804.53	6	9	40.3	254.99	.0040	-28.16	-.0000	146311.6	1.74	4.92	.0028	121.27	-.0021	-29.65	251.73
EXTM	11	834.62	845.87	6	10	21.6	1.32	.0041	-31.76	.0001	149411.3	2.01	23.02	.0000	181.22	.0038	-29.55	241.88
SET	11	1094.69	1105.94	6	14	41.7	65.59	.0041	-30.36	.0001	181475.2	2.08	-.00	-.0026	231.79	.0024	-29.00	179.27
EXTM	42	1219.13	1230.38	6	16	46.1	359.94	.0042	-28.57	.0000	188378.5	1.72	85.35	.0000	.49	-.0300	-28.79	149.04
RISE	51	1354.99	1366.24	6	19	2.0	270.00	.0041	-27.91	-.0000	207021.8	1.28	11.73	.0033	115.51	-.0014	-28.57	115.89
RISE	72	1509.36	1520.61	6	21	36.3	265.74	.0041	-28.11	-.0000	223197.0	1.17	-.00	.0036	118.41	-.0005	-28.35	78.09
RISE	61	1599.13	1610.38	6	23	6.1	298.49	.0041	-29.41	-.0000	231548.4	1.26	.00	.0024	130.04	.0027	-28.24	56.06
SET	42	1642.64	1653.89	6	23	49.6	105.00	.0041	-27.25	.0001	235037.9	1.83	4.36	-.0029	239.46	-.0022	-28.18	45.37
EXTM	51	1714.61	1725.86	7	1	1.6	.02	.0042	-28.16	.0000	235707.1	1.48	87.58	-.0000	180.54	.0698	-28.10	27.67
EXTM	61	1846.19	1857.44	7	3	13.2	.51	.0042	-29.30	.0000	251302.0	1.44	20.46	-.0000	180.47	.0039	-27.95	355.26
EXTM	72	1885.66	1896.91	7	3	52.6	.15	.0042	-28.41	.0000	250998.2	1.42	69.50	-.0000	180.38	.0105	-27.91	345.52
RISE	11	2032.36	2043.61	7	6	19.3	292.68	.0042	-28.65	-.0000	269205.9	1.07	.00	.0027	125.94	.0024	-27.76	309.32
SET	51	2073.93	2085.18	7	7	.9	90.00	.0041	-27.21	.0001	271354.0	1.73	11.45	-.0034	245.15	-.0014	-27.72	299.05
SET	61	2092.96	2104.21	7	7	19.9	62.42	.0042	-28.68	.0001	274167.4	1.63	-.00	-.0024	231.04	.0027	-27.70	294.34
SET	72	2260.27	2271.52	7	10	7.5	94.12	.0041	-27.36	.0001	287525.3	1.71	-.00	-.0036	242.36	-.0005	-27.55	252.97
RISE	42	2260.74	2271.99	7	10	7.7	255.00	.0041	-26.78	-.0000	287110.2	.98	4.07	.0029	120.17	-.0022	-27.55	252.85
EXTM	11	2301.28	2312.53	7	10	48.5	.34	.0042	-28.64	.0000	28/932.1	1.30	26.15	-.0000	180.33	.0041	-27.51	242.82
SET	11	2569.95	2581.20	7	15	16.9	67.89	.0042	-28.06	.0000	311051.8	1.53	.01	-.0027	234.84	.0024	-27.29	176.26
EXTM	42	2679.88	2691.13	7	17	6.9	359.99	.0042	-27.05	.0000	312820.9	1.20	81.83	-.0000	.13	-.0144	-27.21	148.99
RISE	51	2810.56	2821.81	7	19	17.5	270.00	.0041	-26.69	-.0000	327137.7	.80	11.25	.0034	114.36	-.0015	-27.12	116.56
RISE	72	2963.53	2974.78	7	21	50.5	265.97	.0042	-26.85	-.0000	339145.5	.73	-.00	.0037	117.13	-.0005	-27.01	78.51
RISE	61	3043.62	3054.87	7	23	10.6	296.42	.0042	-27.73	-.0000	344558.5	.84	.00	.0025	127.56	.0027	-26.96	58.52
SET	42	3098.14	3109.39	8	0	5.1	105.00	.0041	-26.29	.0000	347804.0	1.45	3.78	-.0030	240.22	-.0022	-26.93	44.91
EXTM	51	3163.15	3174.40	8	1	10.1	359.00	.0042	-26.91	.0000	346259.4	1.11	88.52	.0023	142.63	.1158	-26.89	28.67
EXTM	61	3295.85	3307.10	8	3	22.8	.24	.0042	-27.75	.0000	359038.7	1.11	22.02	-.0000	180.23	.0040	-26.81	355.51
EXTM	72	3335.60	3346.85	8	4	2.6	.10	.0043	-27.12	.0000	358091.9	1.11	70.79	-.0000	180.27	.0113	-26.79	345.58
RISE	11	3474.09	3485.34	8	6	21.1	291.40	.0042	-27.54	-.0000	373395.0	.82	.00	.0028	124.20	.0024	-26.70	310.92
SET	51	3523.00	3534.25	8	7	10.0	90.00	.0042	-26.30	.0000	375482.0	1.53	11.09	-.0035	246.00	-.0015	-26.67	298.66
SET	61	3547.71	3558.96	8	7	34.7	64.03	.0042	-27.36	.0000	378432.0	1.46	-.00	-.0025	232.98	.0027	-26.66	292.46
IMPACT		3665.88	3677.13	8	9	32.9												
IMPC	42	3665.88	3677.13	8	9	32.9	245.59	.0043	-25.94	-.0000	388209.8	1.70	-2.95	.0029	124.92	-.0026	-26.56	262.61
IMPC	72	3665.88	3677.13	8	9	32.9	84.10	.0043	-26.49	.0001	386910.3	2.45	8.77	-.0039	244.26	-.0003	-26.56	262.61
IMPC	11	3665.88	3677.13	8	9	32.9	340.25	.0044	-27.38	.0000	385229.4	1.90	24.69	.0012	160.71	.0041	-26.56	262.61

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	5	20	26.982	6612.204	17.8045	305.1339	10.93610	5.7003	117.1001	115.1381
SEPARATION		1.20	12.45	5	20	28.182	6711.014	14.6974	310.9244	10.85303	9.0203	118.8100	121.2295
RETRO		3.20	14.45	5	20	30.182	6972.049	9.4187	319.8256	10.64016	14.2739	120.7805	130.6320
IMPACT		3665.88	3677.13	8	9	32.858	387934.418	-26.5625	262.6129	2.20339	66.7505	281.6090	271.5948

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SURVEYOR VIEW PERIODS

GHA 225.5759 EPS 44.1079 LOM 259.1018
SX .024038 SY -.894235 SZ -.446951 DAO -26.54823 RAO 271.53979 RM 389206.699 LAT 28.310600 LON 279.461800
C3 -1.009882 ECC .983419 SLR 12980.815 RCA 6544.6650 LTA -20.0000 GTA 20.00 TB 675.00000 POL -.0
NSX .049515 NSY -.892744 NSZ -.448259 C3M 1.4966 VIM 2.6713 ZAE 138.956 B.T .0000 B.R -.0000
LATE 4.0429 LONE 5.2864 LATS -.1809 LONS 321.4481 LATI -4.3159 LONI 325.0664 RSM 151.2787 TTAN 6.8256
LAUNCH DATE MAY 5,1966 BASE AZM 111.0 TF 61.221 ARRIVAL DATE MAY 8 1966 9 46 38.6

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	20 19 27.4	28.1	16.78	304.45	12.22	115.39	119.17	20 30 42.4	6619.0	10.93	6.06

EVNT STA	TFI	TFL	DAY HR MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN SUNLIGHT												
INJECTION	.00	11.25	5 20 30.7												
SEPARATION	1.20	12.45	5 20 31.9												
RETRO	3.20	14.45	5 20 33.9												
RISE 72	4.11	15.36	5 20 34.8	85.60	-.1386	28.93	-.0338	3226.6	-7.19	-.00	.1251	299.23	-.0144	5.49	322.36
RISE 51	11.20	22.45	5 20 41.9	84.24	-.0695	11.78	-.0438	6180.6	-2.04	-.00	.0804	283.09	-.0091	-9.77	344.22
EXTN 72	11.29	22.54	5 20 42.0	4.34	-.1495	-15.01	-.0881	2948.2	4.85	81.72	.0000	210.91	-1.1751	-9.94	344.49
EXTN 51	53.69	64.94	5 21 24.4	2.31	-.0079	-33.48	-.0018	15916.2	4.94	82.00	-.0000	193.98	-.0489	-31.27	26.07
EXTN 72	73.12	84.37	5 21 43.8	302.28	.0000	-35.94	.0000	23994.2	4.67	30.60	.0000	127.32	-.0000	-32.57	30.21
EXTN 51	95.97	107.22	5 22 6.7	355.11	.0000	-34.81	.0000	27532.0	4.25	80.00	.0000	156.23	.0000	-33.12	31.59
RISE 61	114.30	125.55	5 22 25.0	318.87	.0016	-41.67	.0008	37844.3	3.95	-.00	.0013	150.58	.0007	-33.26	31.16
EXTN 51	159.72	170.97	5 23 10.4	.90	.0024	-34.28	.0002	42464.8	3.63	81.42	.0000	184.98	.0136	-33.17	28.91
EXTN 61	359.70	370.95	6 2 30.4	5.84	.0038	-35.98	.0002	84436.8	2.75	13.59	.0000	184.86	.0031	-31.87	350.30
EXTN 72	386.44	397.69	6 2 57.1	1.19	.0039	-33.46	.0002	84712.1	2.68	64.42	.0000	182.31	.0076	-31.72	344.98
RISE 11	570.67	581.92	6 6 1.4	297.29	.0040	-33.00	.0000	117784.4	2.05	.01	.0024	131.81	.0023	-30.85	303.25
SET 61	577.55	588.80	6 6 8.3	56.36	.0039	-33.21	.0002	118740.9	2.53	-.00	-.0019	224.15	.0026	-30.82	301.66
SET 51	580.85	592.10	6 6 11.6	90.00	.0038	-29.69	.0001	117834.9	2.64	12.42	-.0031	242.82	-.0012	-30.81	300.90
SET 72	780.72	791.97	6 9 31.4	94.56	.0039	-29.75	.0001	145277.1	2.43	-.00	-.0034	239.94	-.0004	-30.12	293.99
RISE 42	790.28	801.53	6 9 41.0	254.99	.0040	-28.59	-.0000	145879.7	1.74	5.18	.0028	121.62	-.0021	-30.09	291.71
EXTN 11	832.13	843.38	6 10 22.8	1.47	.0041	-32.19	.0001	149117.0	2.01	22.59	.0000	181.34	.0038	-29.67	241.74
SET 11	1090.11	1101.36	6 14 40.8	65.23	.0041	-30.70	.0001	180918.4	2.08	-.00	-.0025	231.33	.0024	-29.33	179.63
EXTN 42	1215.99	1227.24	6 16 46.7	359.93	.0042	-28.87	.0000	187975.8	1.72	83.65	.0000	.57	-.0322	-29.08	149.05
RISE 51	1351.91	1363.16	6 19 2.6	270.00	.0041	-28.17	-.0000	206616.4	1.28	11.83	.0033	115.76	-.0014	-28.83	119.88
RISE 72	1506.09	1517.34	6 21 36.8	265.70	.0041	-28.34	-.0000	222781.8	1.17	-.00	.0036	118.64	-.0005	-28.59	78.13
RISE 61	1597.15	1608.40	6 23 7.9	298.78	.0042	-29.63	-.0000	231249.1	1.26	.01	.0024	130.37	.0027	-28.45	55.77
SET 42	1639.47	1650.72	6 23 50.2	105.00	.0041	-27.45	.0001	234614.1	1.83	4.49	-.0029	239.29	-.0022	-28.39	45.37
EXTN 51	1711.41	1722.66	7 1 2.1	.01	.0042	-28.36	.0000	239293.7	1.48	87.38	.0000	180.40	.0479	-28.29	27.67
EXTN 61	1843.21	1854.46	7 3 13.9	.56	.0042	-29.48	.0000	250918.3	1.43	20.28	-.0000	180.52	.0039	-28.13	359.21
EXTN 72	1882.53	1893.78	7 3 53.2	.17	.0042	-28.58	.0000	250988.2	1.42	69.32	-.0000	180.41	.0105	-28.08	345.51
RISE 11	2029.79	2041.04	7 6 20.5	292.83	.0042	-28.81	-.0000	268825.8	1.07	.00	.0027	126.14	.0024	-27.91	309.16
SET 51	2070.71	2081.96	7 7 1.4	90.00	.0041	-27.35	.0001	270911.6	1.73	11.91	-.0034	245.01	-.0014	-27.86	299.05
SET 61	2089.00	2100.25	7 7 19.7	62.24	.0042	-28.83	.0001	273670.2	1.62	-.00	-.0024	230.82	.0027	-27.84	294.53
SET 72	2257.12	2268.37	7 10 7.8	94.14	.0041	-27.48	.0001	287081.5	1.71	-.00	-.0036	242.23	-.0005	-27.67	292.95
RISE 42	2257.53	2268.78	7 10 8.2	255.00	.0041	-26.90	-.0000	286653.2	.98	4.15	.0029	120.27	-.0022	-27.67	292.85
EXTN 11	2298.18	2309.43	7 10 48.9	.37	.0042	-28.76	.0000	287901.3	1.29	26.03	-.0000	180.36	.0041	-27.63	248.79
SET 11	2566.35	2577.60	7 15 17.1	67.81	.0042	-28.16	.0000	310549.6	1.53	-.00	-.0027	234.72	.0024	-27.39	176.34
EXTN 42	2676.61	2687.86	7 17 7.3	359.99	.0042	-27.13	.0000	312331.1	1.20	81.91	-.0000	.15	-.0141	-27.29	148.99
RISE 51	2807.29	2818.54	7 19 18.0	270.00	.0041	-26.76	-.0000	326633.7	.80	11.27	.0034	114.43	-.0015	-27.19	116.56
RISE 72	2960.21	2971.46	7 21 50.9	265.96	.0042	-26.91	-.0000	338624.3	.72	-.00	.0037	117.19	-.0005	-27.07	78.52
RISE 61	3040.59	3051.84	7 23 11.3	296.49	.0042	-27.79	-.0000	344044.4	.84	.00	.0025	127.64	.0027	-27.01	58.45
SET 42	3094.84	3106.09	8 0 5.5	105.00	.0041	-26.34	.0000	347259.0	1.45	3.80	-.0030	240.18	-.0022	-26.98	44.91
EXTN 51	3159.66	3170.91	8 1 10.4	358.95	.0042	-26.95	.0000	345694.0	1.11	88.46	.0023	142.39	.1105	-26.93	28.72
EXTN 61	3292.64	3303.89	8 3 23.3	.26	.0042	-27.78	.0000	358468.5	1.11	21.98	-.0000	180.29	.0040	-26.85	359.50
EXTN 72	3332.33	3343.58	8 4 3.0	.10	.0043	-27.15	.0000	357506.3	1.11	70.75	-.0000	180.28	.0113	-26.82	345.97
RISE 11	3470.92	3482.17	8 6 21.6	291.43	.0042	-27.37	-.0000	372731.1	.81	.00	.0028	124.24	.0024	-26.73	310.89
SET 51	3519.72	3530.97	8 7 10.4	90.00	.0042	-26.32	.0000	374825.1	1.52	11.10	-.0035	245.98	-.0015	-26.70	298.66
SET 61	3544.33	3555.58	8 7 35.0	64.00	.0042	-27.39	.0000	377752.2	1.45	-.00	-.0025	232.95	.0027	-26.68	292.49
IMPACT	3673.23	3684.48	8 9 43.9												
IMPC 42	3673.23	3684.48	8 9 43.9	248.24	.0043	-25.96	.0000	388050.9	1.69	-1.14	.0029	123.36	-.0025	-26.57	259.95
IMPC 72	3673.23	3684.48	8 9 43.9	86.77	.0043	-26.48	.0001	387214.8	2.44	6.39	-.0039	244.06	-.0003	-26.57	259.95
IMPC 11	3673.23	3684.48	8 9 43.9	342.95	.0044	-27.39	.0000	389204.2	1.91	25.36	.0011	163.26	.0041	-26.57	259.95

EVNT STA	TFI	TFL	DAY HR MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	5 20 30.707	6621.233	16.7355	304.5369	10.92865	6.0564	119.1062	115.4750
SEPARATION	1.20	12.45	5 20 31.907	6724.222	13.4442	310.1437	10.84193	9.3653	128.7381	121.3886
RETRO	3.20	14.45	5 20 33.907	6992.243	7.9091	318.7824	10.63029	14.5926	122.4289	130.9227
IMPACT	3673.23	3684.48	8 9 43.942	387976.488	-26.5698	259.9450	2.20042	66.5566	282.2753	271.7054

SURVEYOR VIEW PERIODS

GHA	225.3759					EPS	44.2228						LOM	255.7444	
SX	.036200	SY	-.894113	SZ	-.447073	DAO	-26,55608	HAO	271.67843	RM	389255.691	LAT	28.310600	LON	279.461800
C3	-1.020228	ECC	.983249	SLP	12979.705	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.047782	NSY	-.892560	NSZ	-.448389	C3M	1.4976	VIM	2.6715	ZAE	138.578	B.T	.0000	B.R	-.0000
LATE	4.0549	LONE	5.4104	LATS	-.1806	LONS	321.4577	LATI	-4.8119	LONI	324.9068	RSM	151.2785	TTAN	6.8283
LAUNCH DATE		MAY	5,1966		BASE AZM	115.0		TF	61.391			ARRIVAL DATE		MAY 8 1966 10 0 35,3	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	20 23 25.0	28.0	15.40	303.59	12.56	115.52	121.95	20 34 40.0	6628.3	10.92	6.42

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DMA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	5	20	34.7												
SEPARATION		1.20	12.45	5	20	35.9												
RETRO		3.20	14.45	5	20	37.9												
RISE	72	4.11	15.36	5	20	38.8	86.57	-.1266	23.31	-.0535	3282.8	-6.93	-.00	.1230	293.54	-.0354	3.37	320.82
RISE	51	11.30	22.55	5	20	46.0	86.36	-.0652	7.49	-.0469	6278.2	-1.84	.00	.0786	278.32	-.0139	-12.59	342.34
EXTM	72	11.61	22.86	5	20	46.3	9.18	.1471	-25.02	-.0729	2766.7	5.02	70.77	-.0000	206.04	-.4613	-13.09	343.07
EXTM	51	59.87	71.12	5	21	34.5	1.66	-.0062	-37.17	-.0007	17810.3	4.82	78.49	-.0000	186.64	-.0249	-34.16	26.50
EXTM	72	73.48	84.73	5	21	48.1	303.24	-.0001	-38.58	.0003	24119.7	4.66	30.68	.0000	130.52	-.0004	-34.77	29.11
EXTM	51	88.33	99.58	5	22	3.0	356.52	-.0009	-37.33	.0002	25624.0	4.35	78.04	.0000	168.55	-.0034	-35.04	30.40
RISE	61	130.33	141.58	5	22	45.0	321.48	.0021	-42.75	.0008	41714.7	3.76	.00	.0014	152.78	.0010	-35.00	29.25
EXTM	51	159.88	171.13	5	23	14.5	1.80	.0024	-36.07	.0003	42550.1	3.63	79.55	.0000	188.06	.0109	-34.73	26.14
EXTM	61	360.27	371.52	6	2	34.9	6.67	.0038	-36.99	.0003	84641.1	2.75	12.53	.0000	185.45	.0031	-32.87	349.53
EXTM	72	384.74	395.99	6	2	59.4	1.50	.0039	-34.51	.0002	84481.3	2.68	63.36	.0000	182.76	.0072	-32.69	344.29
RISE	11	571.54	582.79	6	6	6.2	298.15	.0040	-33.76	.0000	117878.7	2.05	.01	.0024	132.86	.0023	-31.59	302.30
SET	61	569.32	580.57	6	6	4.0	55.14	.0039	-34.04	.0002	117569.8	2.53	.00	-.0019	222.44	.0026	-31.60	302.89
SET	51	577.81	589.06	6	6	12.5	90.00	.0038	-30.45	.0002	117394.4	2.64	12.71	-.0031	242.10	-.0011	-31.56	300.93
SET	72	778.17	789.42	6	9	32.8	94.66	.0039	-30.35	.0001	144910.1	2.43	-.00	-.0033	239.33	-.0004	-30.72	293.90
RISE	42	787.46	798.71	6	9	42.1	254.99	.0040	-29.19	-.0000	145440.6	1.75	5.54	.0028	122.09	-.0021	-30.68	291.69
EXTM	11	830.12	841.27	6	10	24.7	1.67	.0041	-32.77	.0001	148864.7	2.01	22.00	.0000	181.51	.0038	-30.53	241.55
SET	11	1085.06	1096.31	6	14	39.7	64.74	.0041	-31.16	.0001	180280.9	2.08	-.00	-.0025	230.70	.0024	-29.79	180.14
EXTM	42	1212.92	1224.17	6	16	47.6	359.92	.0042	-29.29	.0000	187544.5	1.72	64.07	.0000	.73	-.0343	-29.48	149.06
RISE	51	1348.89	1360.14	6	19	3.6	270.00	.0041	-28.54	-.0000	206174.3	1.28	11.97	.0033	116.10	-.0014	-29.20	115.87
RISE	72	1502.79	1514.04	6	21	37.5	265.64	.0041	-28.66	-.0000	222319.3	1.17	-.00	.0036	118.96	-.0005	-28.91	78.17
RISE	61	1595.56	1606.81	6	23	10.2	299.15	.0042	-29.93	-.0000	230936.7	1.24	.00	.0024	130.81	.0027	-28.75	55.40
SET	42	1636.31	1647.56	6	23	51.0	105.00	.0041	-27.74	.0001	234135.1	1.83	4.66	-.0029	239.06	-.0022	-28.68	45.38
EXTM	51	1708.33	1719.58	7	1	3.0	.03	.0042	-28.64	.0000	234836.6	1.48	87.10	-.0000	180.62	.0615	-28.56	27.66
EXTM	61	1840.30	1851.55	7	3	15.0	.62	.0042	-29.73	.0000	250487.3	1.43	20.03	-.0000	180.58	.0039	-28.37	355.14
EXTM	72	1879.43	1890.68	7	3	54.1	.19	.0042	-28.82	.0000	250120.1	1.42	69.08	-.0000	180.46	.0103	-28.31	345.49
RISE	11	2027.43	2038.68	7	6	22.1	293.04	.0042	-29.02	-.0000	268394.0	1.07	.00	.0027	126.42	.0024	-28.12	308.95
SET	51	2067.46	2078.71	7	7	2.1	90.00	.0041	-27.55	.0001	270393.5	1.72	11.59	-.0034	244.83	-.0014	-28.07	299.06
SET	61	2084.74	2095.99	7	7	19.4	61.98	.0042	-29.03	.0001	273075.9	1.62	-.00	-.0024	230.52	.0027	-28.04	294.79
SET	72	2253.96	2265.21	7	10	8.6	94.17	.0041	-27.65	.0001	286596.6	1.70	-.00	-.0036	242.06	-.0005	-27.84	252.92
RISE	42	2254.28	2265.53	7	10	9.0	255.00	.0041	-27.07	-.0000	286109.9	.98	4.25	.0029	120.40	-.0022	-27.84	252.84
EXTM	11	2295.09	2306.34	7	10	49.8	.42	.0042	-28.93	.0000	286993.0	1.29	25.86	-.0000	180.41	.0041	-27.80	242.74
SET	11	2562.50	2573.75	7	15	17.2	67.88	.0042	-28.29	.0001	309932.7	1.53	-.00	-.0027	234.55	.0024	-27.51	176.47
EXTM	42	2673.15	2684.40	7	17	7.8	359.96	.0042	-27.25	.0000	311725.0	1.20	82.03	.0000	.32	-.0242	-27.41	149.02
RISE	51	2803.95	2815.20	7	19	16.6	270.00	.0041	-26.86	-.0000	326013.9	.80	11.31	.0034	114.52	-.0015	-27.28	116.56
RISE	72	2956.92	2968.17	7	21	51.6	265.94	.0042	-26.98	-.0000	338010.7	.72	-.00	.0037	117.27	-.0005	-27.15	78.53
RISE	61	3037.69	3048.94	7	23	12.4	296.57	.0042	-27.86	-.0000	343438.6	.84	.00	.0025	127.75	.0027	-27.08	58.36
SET	42	3091.55	3102.80	8	0	6.2	105.00	.0041	-26.40	.0000	346610.4	1.44	3.85	-.0030	240.12	-.0022	-27.04	44.91
EXTM	51	3156.20	3167.45	8	1	10.5	358.90	.0042	-27.02	.0000	345022.5	1.10	88.39	.0023	142.69	.1059	-26.99	28.76
EXTM	61	3289.42	3300.67	8	3	24.1	.29	.0042	-27.84	.0000	357780.8	1.10	21.92	-.0000	180.27	.0040	-26.90	355.47
EXTM	72	3329.03	3340.28	8	4	3.7	.11	.0043	-27.20	.0000	356796.9	1.10	70.70	-.0000	180.30	.0113	-26.87	345.56
RISE	11	3467.73	3478.98	8	6	22.4	291.46	.0042	-27.41	-.0000	371968.1	.80	.00	.0028	124.29	.0024	-26.77	310.85
SET	51	3516.37	3527.62	8	7	11.0	90.00	.0042	-26.36	.0000	374018.7	1.51	11.11	-.0035	245.95	-.0015	-26.73	298.67
SET	61	3540.82	3552.07	8	7	35.5	63.96	.0042	-27.42	.0000	376916.1	1.43	-.00	-.0025	232.90	.0027	-26.71	292.53
IMPACT		3683.47	3694.72	8	9	58.1												
IMPC	42	3683.47	3694.72	8	9	58.1	251.64	.0043	-25.99	.0000	387845.6	1.67	1.22	.0030	121.43	-.0024	-26.58	256.53
IMPC	72	3683.47	3694.72	8	9	58.1	90.18	.0043	-26.47	.0001	387608.9	2.43	3.35	-.0038	243.73	-.0004	-26.58	256.53
IMPC	11	3683.47	3694.72	8	9	58.1	346.42	.0044	-27.40	.0000	385189.7	1.92	26.09	.0009	166.58	.0042	-26.58	256.53

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	5	20	34.667	6631.211	15.3444	303.6824	10.92835	6.4237	121.9678	115.6131
SEPARATION		1.20	12.45	5	20	35.867	6738.391	11.8123	309.0494	10.82995	9.7205	123.3056	121.2889
RETRO		3.20	14.45	5	20	37.867	7013.554	5.9356	317.3494	10.61350	14.9198	124.6677	130.8822
IMPACT		3683.47	3694.72	8	9	58.132	388033.828	-26.5791	256.5299	2.19958	66.1023	283.0349	271.8476

GHA	226.3615					EPS	55.3422							LOM	286.1387
SX	.233493	SY	-.862526	SZ	-.448921	DAL	-26,6/448	RAO	285.14738	RM	393871.574	LAT	28,[illegible]600	LON	279.461800
CS	-.945381	ECC	.984478	SLR	12987.744	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.2[illegible]547	NSY	- 85/281	NSZ	-.448088	C3M	1.4929	VIM	2.6706	ZAE	140.827	B.T	.0000	B.R	-.0000
LATE	9.1157	LONE	4.7882	LATS	-.1571	LONS	309.7453	LATI	-.1572	LONI	325.9197	RSM	151.2576	TTAN	6.7463
LAUNCH DATE		MAY	6,1966	BASE AZM		84.0	TF	61.590				ARRIVAL DATE		MAY 9 1966	8 49 8.4

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VE'	INJ PTH
84.00	19 16 5.4	27.3	27.10	307.50	-13.69	103.94	99.78	19 27 20.4	6638.2	10.92	-6.79

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	6	19	27.3												
SEPARATION	1.20	12.45	6	19	28.5												
RETRO	3.20	14.45	6	19	30.5												
RISE 72	7.14	18.39	6	19	34.5	341.75	-1.1313	81.68	-.1394	2637.8	-2.76	.00	.0818	2.60	.1989	14.54	346.70
RISE 51	12.16	23.41	6	19	39.5	60.91	-.1482	45.24	-.0234	4693.9	-3.76	.00	.0966	322.02	.0459	4.09	6.23
EXTM 72	13.37	24.62	6	19	40.7	289.18	-.0251	17.76	-.0970	3763.4	6.64	19.54	-.0000	69.01	.1037	1.89	9.98
ENTER SHA	18.05	29.30	6	19	45.4												
ENTR 72	18.05	29.30	6	19	45.4	283.67	-.0147	.13	-.0398	5788.6	7.43	13.71	-.0089	87.92	.0427	-5.17	21.78
ENTR 51	18.05	29.30	6	19	45.4	14.69	-.0974	26.21	-.0699	4313.2	1.63	36.15	.0917	343.63	.0793	-5.17	21.78
ENTR 61	18.05	29.30	6	19	45.4	311.54	-.0376	-41.69	.0110	7485.8	7.62	-2.96	-.0071	145.96	-.0293	-5.17	21.78
EXTM 51	29.88	41.13	6	19	57.2	338.73	-.0245	-6.18	-.0233	7419.0	5.60	61.80	-.0000	49.75	.0713	-15.47	39.66
EXTM 72	63.50	74.75	6	20	30.8	271.71	-.0002	-23.60	-.0020	22421.7	5.02	4.71	.0000	113.21	.0020	-24.44	97.03
RISE 42	72.56	83.81	6	20	39.9	102.71	-.0040	-17.32	-.0031	25813.9	4.26	.00	.0049	248.63	-.0001	-25.35	98.56
EXIT SHA	75.64	86.89	6	20	43.0												
EXIT 42	75.64	86.89	6	20	43.0	102.01	-.0036	-17.87	-.0028	26401.4	4.26	.87	.0044	248.60	-.0002	-25.60	98.92
EXIT 72	75.64	86.89	6	20	43.0	271.86	.0006	-24.84	-.0014	25947.3	4.67	4.99	.0007	114.43	.0014	-25.60	98.92
EXIT 51	75.64	86.89	6	20	43.0	320.15	-.0005	-24.36	-.0018	21835.7	4.67	54.01	-.0001	96.63	.0031	-25.60	98.92
EXTM 51	77.56	88.81	6	20	44.9	320.10	-.0003	-24.56	-.0017	22372.5	4.63	54.00	.0000	96.98	.0029	-25.74	99.12
EXTM 42	128.68	139.93	6	21	36.0	98.69	.0006	-22.75	-.0008	39576.8	3.99	6.26	-.0000	246.51	-.0010	-27.74	98.49
SET 42	195.68	206.93	6	22	43.0	105.00	.0022	-24.54	-.0062	54615.1	3.61	2.71	-.0015	241.60	-.0014	-28.46	46.90
RISE 61	211.53	222.78	6	22	58.9	303.97	.0032	-33.44	.0001	58348.9	3.16	.00	.0018	136.21	.0020	-28.54	47.29
EXTM 51	314.98	326.23	7	0	42.3	.00	.0037	-28.95	.0000	71589.6	2.96	86.79	.0000	180.32	.0043	-28.69	27.68
EXTM 61	472.60	483.85	7	3	19.9	2.22	.0039	-31.95	.0001	101246.8	2.51	17.79	.0000	181.98	.0035	-28.58	393.65
EXTM 72	509.31	520.56	7	3	56.6	.33	.0040	-29.80	.0000	102869.8	2.44	68.11	-.0000	180.[illegible]	.0094	-28.54	349.36
RISE 11	677.21	688.46	7	6	44.5	294.27	.0040	-30.22	-.0000	131894.6	1 [illegible]	.00	.0026	128.04	.0023	-28.35	306.94
SET 51	703.14	714.39	7	7	10.5	90.00	.0039	-27.31	.0001	134016.0	2.91	11.79	-.0032	245.05	-.0013	-28.33	300.45
SET 61	716.00	727.25	7	7	23.3	60.34	.0040	-30.32	.0001	136941.8	2.39	-.00	-.0022	228.60	.0026	-28.31	297.42
SET 72	898.30	909.55	7	10	29.6	94.20	.0040	-27.79	.0001	159368.1	2.35	-.00	-.0035	241.92	-.0005	-28.12	294.04
RISE 42	907.02	918.27	7	10	34.4	255.00	.0040	-26.74	-.0001	159944.2	1.64	4.05	.0028	120.14	-.0021	-27.11	291.95
EXTM 11	946.59	957.84	7	11	13.9	.73	.0042	-30.08	.0000	162355.6	1.92	24.71	-.0000	180.70	.0040	-28.07	248.45
SET 11	1213.47	1224.72	7	15	40.8	66.90	.0041	-29.08	.0001	194237.0	2.03	-.00	-.0026	233.50	.0024	-27.83	177.85
EXTM 42	1331.75	1343.00	7	17	39.1	359.96	.0042	-27.50	.0000	200120.0	1.67	82.28	.0000	.28	-.0236	-27.74	149.02
RISE 51	1466.75	1478.00	7	19	54.1	270.00	.0041	-27.00	-.0000	210354.9	1.24	11.37	.0034	114.66	-.0014	-27.63	116.00
RISE 72	1621.45	1632.70	7	22	28.8	265.89	.0041	-27.30	-.0000	234190.7	1.14	-.00	.0036	117.58	-.0005	-27.53	78.05
RISE 61	1706.50	1717.75	7	23	53.8	297.46	.0042	-28.59	-.0000	241950.9	1.23	.00	.0025	128.82	.0027	-27.47	97.14
SET 42	1754.63	1765.88	8	0	42.0	105.00	.0041	-26.54	.0000	245830.4	1.81	3.93	-.0029	240.01	-.0022	-27.44	49.30
EXTM 51	1820.50	1831.75	8	1	47.8	358.97	.0042	-27.45	.0000	245799.7	1.45	87.87	.0023	143.56	.0081	-27.40	29.97
EXTM 61	1956.91	1968.16	8	4	4.3	.31	.0042	-28.61	.0000	261970.4	1.41	21.15	.0000	180.30	.0040	-27.32	355.44
EXTM 72	1996.90	2008.15	8	4	44.2	.10	.0042	-27.77	.0000	261306.0	1.40	70.14	-.0000	180.26	.0108	-27.30	345.87
RISE 11	2141.25	2152.50	8	7	8.6	292.12	.0042	-28.08	-.0000	279186.3	1.05	.00	.0028	129.18	.0024	-27.23	309.92
SET 51	2185.45	2196.70	8	7	52.8	90.00	.0041	-26.71	.0000	281529.5	1.71	11.25	-.0034	245.62	-.0014	-27.20	298.99
SET 61	2207.12	2218.37	8	8	14.5	63.10	.0042	-28.13	.0000	284515.5	1.61	-.00	-.0025	231.85	.0027	-27.19	293.63
SET 72	2371.37	2382.62	8	10	58.7	94.04	.0041	-26.93	.0000	297489.3	1.70	-.00	-.0036	242.79	-.0005	-27.11	252.99
RISE 42	2371.76	2383.01	8	10	59.1	255.00	.0041	-26.37	-.0000	297895.4	.97	3.82	.0029	119.84	-.0022	-27.11	252.89
EXTM 11	2411.96	2423.21	8	11	39.3	.22	.0042	-28.18	.0000	297789.1	1.28	26.61	-.0000	180.21	.0041	-27.09	248.94
SET 11	2682.51	2693.76	8	16	9.8	68.24	.0042	-27.72	.0000	320944.0	1.53	.00	-.0028	239.30	.0024	-26.97	179.88
EXTM 42	2790.92	2802.17	8	17	58.3	359.99	.0042	-26.76	.0000	322560.4	1.20	81.34	-.0000	.13	-.0075	-26.93	148.99
RISE 51	2921.36	2932.61	8	20	8.7	270.00	.0042	-26.46	-.0000	337020.3	.78	11.16	.0034	114.19	-.0015	-26.87	116.60
RISE 72	3074.15	3085.40	8	22	41.5	266.00	.0042	-26.67	-.0000	348711.9	.73	-.00	.0037	116.95	-.0005	-26.83	78.51
RISE 61	3153.38	3164.63	9	0	.7	296.20	.0042	-27.56	-.0000	354088.0	.85	.00	.0025	127.30	.0027	-26.80	98.76
SET 42	3209.00	3220.25	9	0	56.3	105.00	.0041	-26.17	.0000	357436.8	1.46	3.70	-.0030	240.31	-.0023	-26.79	44.88
EXTM 51	3274.65	3285.90	9	2	2.0	359.17	.0042	-26.79	.0000	359597.4	1.12	86.72	.0022	144.83	.1372	-26.77	28.50
EXTM 61	3406.33	3417.58	9	4	13.7	.14	.0042	-27.64	.0000	368768.0	1.13	22.12	-.0000	180.13	.0040	-26.73	355.62
EXTM 72	3446.38	3457.63	9	4	53.7	.07	.0042	-27.04	.0000	367899.3	1.14	70.86	-.0000	180.19	.0110	-26.72	349.61
RISE 11	3584.74	3595.99	9	7	12.1	291.37	.0042	-27.31	-.0000	383492.0	.89	.00	.0028	124.16	.0024	-26.69	310.97
SET 51	3633.86	3645.11	9	8	1.2	90.00	.0042	-26.31	.0000	385010.6	1.67	11.10	-.0035	245.99	-.0015	-26.68	298.64
SET 61	3658.47	3669.72	9	8	25.8	64.04	.0042	-27.36	.0000	389095.0	1.67	-.00	-.0026	232.99	.0028	-26.67	292.43
IMPACT	3695.41	3706.66	9	9	2.8												
IMPC 72	3695.41	3706.66	9	9	2.8	63.95	.0043	-26.74	.0000	389701.3	2.46	27.12	-.0039	243.94	.0004	-26.67	283.04
IMPC 51	3695.41	3706.66	9	9	2.8	105.95	.0043	-26.21	.0000	392756.4	2.45	-1.42	-.0034	239.84	-.0019	-26.67	283.04
IMPC 11	3695.41	3706.66	9	9	2.8	319.96	.0044	-27.41	-.0000	390776.2	1.85	16.65	.0021	143.05	.0034	-26.67	283.04

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	6	19	27.339	6541.758	27.1254	307.3618	10.91559	-6.7898	99.7144	103.4002
SEPARATION	1.20	12.45	6	19	28.539	6568.092	25.7506	314.6574	10.97407	-3.4108	103.1033	110.9966
RETRO	3.20	14.45	6	19	30.539	6595.372	22.6371	326.3283	10.98479	2.3076	106.1093	123.1689
ENTER SHA	18.05	29.30	6	19	45.393	9575.724	-5.1747	21.7770	9.07235	34.0836	118.2570	182.3414
EXIT SHA	75.64	86.89	6	20	43.978	27252.943	-25.5996	58.9234	5.32041	60.2494	103.4113	233.9236
IMPACT	3695.41	3706.66	9	9	2.751	302649.938	-25.6661	283.0436	2.22726	68.8794	270.6646	289.4638

MAY 6, 1966
84 DEGREES

SURVEYOR VIEW PERIODS

GHA	226.3615					EPS	55.6218					LOM	277.7313
SX	.258615	SY	-.861232	SZ	-.448711	DAO	-26.66104	RAO	285.48605	RM	393982.879	LAT	28.310600	LON	279.461800
CS	-.943058	ECC	.984516	SLR	12987.998	RCA	6544.6630	LTA	-20.0000	GTA	20.00	TB	675.00000	PCL	-.0
NSX	.258614	NSY	-.855905	NSZ	-.447822	CSM	1.4933	VIM	2.6707	ZAE	140.892	B.T	.0000	B.R	-.0000
LATE	5.1397	LONE	4.7721	LATS	-.1565	LONS	309.4499	LATI	.0782	LONI	325.9382	RLM	151.2569	TTAN	6.7393
LAUNCH DATE		MAY	6.1966		BASE AZM	87.0		TF	61.588			ARRIVAL DATE		MAY	9 1966	9 24 1.7

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
87.00	19 44 57.2	27.7	25.87	307.67	-7.26	110.94	102.13	19 56 12.2	6570.8	10.97	-3.60

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PRORE IN SUNLIGHT											
INJECTION	.00	11.25	6	19	56.2												
SEPARATION	1.20	12.45	6	19	57.4												
RETRO	3.20	14.45	6	19	59.4												
RISE 72	6.17	17.42	6	20	2.4	55,89	-.7361	76.11	.0805	2702.8	-4.60	-.01	.0989	348.53	.1672	14.60	341.07
RISE 61	9.62	20.87	6	20	5.8	1,70	-.1713	-49.75	.0093	4114.2	5.62	.00	.0118	181.10	-.1105	7.39	355.15
RISE 51	11.75	23.00	6	20	8.0	65,76	-.1273	40.42	-.0253	5001.5	-3.48	-.00	.0940	316.04	.0345	3.35	2.27
EXTM 61	12.53	23.78	6	20	8.7	339,14	-.0946	-46.93	.0182	5233.9	6.97	.88	-.0000	165.92	-.0672	2.01	4.57
EXTM 72	12.67	23.92	6	20	8.9	299,39	-.0397	19.72	-.1099	3363.1	6.27	24.28	-.0000	64.13	.1273	1.77	4.98
ENTER SHA	16.53	27.78	6	20	12.7												
ENTR 72	16.53	27.78	6	20	12.7	292,88	-.0206	2.55	-.0491	4970.9	7.30	22.25	-.0121	83.95	.0500	-3.98	14.69
ENTR 51	16.53	27.78	6	20	12.7	31,61	-.1024	27.56	-.0589	4566.6	.50	28.63	.0985	328.04	.0511	-3.98	14.69
ENTR 61	16.53	27.78	6	20	12.7	322,98	-.0478	-43.18	.0125	6972.1	7.37	.14	-.0049	153.96	-.0367	-3.98	14.69
SET 61	16.98	28.23	6	20	13.2	321,72	-.0448	-42.85	.0119	7172.7	7.37	.00	-.0051	152.99	-.0345	-4.56	15.67
EXTM 51	32.47	43.72	6	20	28.7	344,41	-.0204	-9.62	-.0172	8481.3	5.49	68.13	-.0000	45.34	.0710	-16.67	36.94
EXTM 72	63.77	75.02	6	20	60.0	278,37	-.0001	-23.84	-.0019	22197.1	4.98	10.80	.0000	112.89	.0019	-24.00	50.89
EXIT SHA	75.10	86.35	6	21	11.3												
EXIT 42	75.10	86.35	6	21	11.3	107,95	-.0033	-17 03	-.0028	27128.6	4.26	-4.12	.0042	245.78	-.0002	-25.07	52.54
EXIT 72	75.10	86.35	6	21	11.3	278,56	.0007	-24.94	-.0014	25470.5	4.66	11.05	.0007	114.00	.0014	-25.07	52.54
EXIT 51	75.10	86.35	6	21	11.3	328,14	-.0007	-24.11	-.0018	21661.3	4.65	61.13	-.0004	93.72	.0039	-25.07	52.54
EXTM 51	79.72	90.97	6	21	15.9	328,00	-.0003	-24.57	-.0015	22939.7	4.56	61.08	.0000	94.71	.0032	-25.41	52.94
RISE 61	173.88	185.13	6	22	50.1	304,17	.0029	-33.57	.0001	50756.4	3.40	-.00	.0016	136.42	.0018	-27.92	46.47
EXTM 51	280,89	292.14	7	0	37.1	359,99	.0036	-28.41	-.0000	65733.4	3.02	87.13	.0000	179.59	.0367	-28.35	27.70
EXTM 61	442,17	453.42	7	3	18.4	2,31	.0039	-31,87	.0001	96780.1	2.57	17.86	.0000	182.06	.0035	-28.36	353.57
EXTM 72	478.80	490.05	7	3	55.0	,31	.0040	-29.63	.0000	98526.4	2.49	68.27	-.0000	180.73	.0094	-28.34	345.38
RISE 11	647,59	658.84	7	6	43.8	294,15	.0040	-30,11	-.0000	128128.2	1.94	.00	.0026	127.88	.0023	-28.19	306.59
SET 51	673.51	684.76	7	7	9.7	90,00	.0039	-27.12	.0001	130313.0	2.54	11.42	-.0032	245.23	-.0013	-28.17	300.52
SET 61	687.09	698.34	7	7	23.3	60,48	.0040	-30,21	.0001	133351.7	2.42	-.00	-.0022	228.76	.0026	-28.15	297.33
* SET 72	869.19	880.44	7	10	25.4	94,17	.0039	-27.65	.0001	156068.9	2.37	-.00	-.0035	242.06	-.0005	-27.99	254.12
EXTM 11	917.84	929.09	7	11	14.0	,72	.0042	-29,99	.0000	159160.0	1.95	24.80	-.0000	180.69	.0040	-27.94	242.46
SET 11	1185.35	1196.60	7	15	41.6	66,98	.0041	-28.99	.0001	191436.0	2.05	-.00	-.0026	233.61	.0024	-27.73	177.79
EXTM 42	1303.49	1314.74	7	17	39.7	359,97	.0042	-27.40	.0000	197419.3	1.69	82.18	.0000	.25	-.0236	-27.64	149.01
RISE 51	1438.64	1449.89	7	19	54.8	270,00	.0041	-26.91	-.0000	215784.9	1.25	11.33	.0034	114.57	-.0014	-27.55	115.98
RISE 72	1593.47	1604.72	7	22	29.7	265,90	.0041	-27.22	-.0000	231745.0	1.15	-.00	.0036	117.50	-.0005	-27.45	78.02
RISE 61	1678.19	1689.44	7	23	54.4	297,39	.0041	-28.53	-.0000	239532.4	1.24	.00	.0025	128.73	.0027	-27.40	57.20
SET 42	1726.54	1737.79	8	0	42.7	105,00	.0041	-26.47	.0000	243469.0	1.82	3.88	-.0029	240.07	-.0022	-27.38	45.31
EXTM 51	1792.57	1803.82	8	1	48.8	358,59	.0042	-27.38	.0000	243488.9	1.46	87.93	.0023	142.85	.0818	-27.34	29.05
EXTM 61	1928.90	1940.15	8	4	5.1	,30	.0042	-28.57	.0000	259327.9	1.42	21.20	.0000	180.29	.0040	-27.27	355.45
EXTM 72	1968,93	1980.18	8	4	45.1	,10	.0042	-27.71	.0000	259092.8	1.41	70.19	-.0000	180.25	.0109	-27.25	345.58
RISE 11	2113.18	2124.43	8	7	9.4	292,07	.0042	-28.04	-.0000	277644.1	1.06	.00	.0028	125.12	.0024	-27.17	309.95
SET 51	2157.51	2168.76	8	7	53.7	90,00	.0041	-26.65	.0000	279421.7	1.72	11.23	-.0034	245.67	-.0014	-27.15	299.00
SET 61	2179.39	2190.64	8	8	15.6	63,15	.0042	-28.09	.0000	282434.1	1.62	-.00	-.0025	231.91	.0027	-27.14	293.59
SET 72	2343.43	2354.68	8	10	59.6	94,04	.0041	-26.88	.0000	295469.1	1.71	-.00	-.0036	242.84	-.0005	-27.07	253.01
RISE 42	2343.92	2355.17	8	11	.1	255,00	.0041	-26.32	-.0000	295086.1	.98	3.79	.0029	119.81	-.0022	-27.07	252.89
EXTM 11	2384.07	2395.32	8	11	40.3	,21	.0042	-28.14	.0000	295787.3	1.29	26.65	-.0000	180.21	.0042	-27.05	242.95
SET 11	2654.78	2666.03	8	16	11.0	68,26	.0042	-27.69	.0000	319072.5	1.53	.00	-.0028	235.34	.0024	-26.94	175.86
EXTM 42	2763.12	2774.37	8	17	59.3	359,99	.0042	-26.73	.0000	320727.5	1.20	81.51	-.0000	.13	-.0062	-26.90	148.99
RISE 51	2893.64	2904.89	8	20	9.8	270,00	.0041	-26.43	-.0000	335050.3	.80	11.14	.0034	114.12	-.0015	-26.85	116.59
RISE 72	3046.53	3057.78	8	22	42.7	266,00	.0042	-26.64	-.0000	347009.9	.73	-.00	.0037	116.92	-.0005	-26.80	78.50
RISE 61	3125.62	3136.87	9	0	1.8	296,18	.0042	-27.54	-.0000	352381.3	.85	.00	.0025	127.27	.0027	-26.78	58.78
SET 42	3181.28	3192.53	9	0	57.5	105,00	.0041	-26.14	.0000	355736.2	1.46	3.69	-.0030	240.33	-.0023	-26.77	44.89
EXTM 51	3247.04	3258.29	9	2	3.2	35,20	.0042	-26.77	.0000	354261.7	1.12	88.75	.0022	145.21	.1412	-26.75	28.47
EXTM 61	3378.56	3389.81	9	4	14.8	,13	.0042	-27.63	.0000	367043.3	1.13	22.13	-.0000	180.12	.0040	-26.72	355.62
EXTM 72	3418.64	3429.89	9	4	54.8	,06	.0042	-27.03	.0000	366164.9	1.13	70.88	-.0000	180.18	.0110	-26.71	345.61
RISE 11	3557.02	3568.27	9	7	13.2	291,36	.0042	-27.30	-.0000	381650.3	.86	.00	.0028	124.15	.0024	-26.68	310.98
SET 51	3606.19	3617.44	9	8	2.4	90,00	.0042	-26.30	.0000	383957.5	1.61	11.09	-.0035	246.00	-.0015	-26.67	298.64
SET 61	3630.90	3642.15	9	8	27.1	64,04	.0042	-27.35	.0000	387032.4	1.56	-.00	-.0026	233.00	.0027	-26.66	292.43
IMPACT	3695.28	3706.53	9	9	31.5												
IMPC 72	3695.28	3706.53	9	9	31.5	70,52	.0043	-26.68	.0000	390426.0	2.47	20,91	-.0039	244.39	.0001	-26.65	276.12
IMPC 11	3695.28	3706.53	9	9	31.5	326,56	.0044	-27.42	-.0000	390536.9	1.88	19,86	.0018	148.67	.0036	-26.65	276.12

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	6	19	56.203	6571.065	25.8732	307.6456	10.97198	-3.6004	102.1235	110.9196
SEPARATION	1.20	12.45	6	19	57.403	6544.725	24.2299	314.7760	10.99390	-.1754	105.2743	118.3509
RETRO	3.20	14.45	6	19	59.403	6606.281	20.7566	326.1186	10.94216	5.5204	109.8214	130.1948
ENTER SHA	16.53	27.78	6	20	12.728	9455.386	-3.9786	14.6856	9.13868	33.5493	118.1374	182.1025
EXIT SHA	75.10	86.35	6	21	11.302	27417.716	-25.0705	52.5366	5.30408	80.3457	103.7860	234.6370
IMPACT	3695.28	3706.53	9	9	31.487	392747.178	-26.6543	276.1197	2.22467	68.5347	270.0919	285.7436

* An additional line of data should appear here. See Errata

SURVEYOR VIEW PERIODS

GHA	226.3615					EPS	55.8333					LOM	271.3651
SX	.242487	SY	-.860237	SZ	-.448544	DAO	-26.65033	RAO	285.74230	RM	394066.902	LAT	28.310600
C3	-.938255	ECC	.984595	SLR	12988.513	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000
NSX	.262414	NSY	-.854856	NSZ	-.447617	C3M	1.4971	VIM	2.6714	ZAE	140.973	B.T	.0000
LATE	9.1578	LONE	4.7603	LATS	-.1561	LONS	309.2267	LATI	.1905	LONI	325.9950	RSM	151.2564
LAUNCH DATE		MAY	6,1966		BASE AZM	90.0		TF	61.541			ARRIVAL DATE	MAY 9 1966

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
90.00	20 9 9.6	27.9	24.65	307.63	-1.92	116.97	104.39	20 20 24.6	6546.5	10.99	-.95

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	6	20	20.4												
SEPARATION	1.20	12.45	6	20	21.6												
RETRO	3.20	14.45	6	20	23.6												
RISE 72	5.51	16.76	6	20	25.9	71.10	-.3797	66.81	.0874	2805.6	-5.71	-.01	.1096	338.13	.1341	14.14	336.77
RISE 61	8.96	20.21	6	20	29.4	14.11	-.1727	-48.89	-.0029	4226.8	4.92	.01	.0183	189.22	-.1121	6.99	390.63
RISE 51	11.49	22.74	6	20	31.9	69.45	-.1122	36.05	-.0275	5279.8	-3.18	.00	.0913	310.80	.0255	2.35	358.79
EXTM 72	12.12	23.37	6	20	32.5	310.29	-.0602	20.53	-.1205	3044.5	5.88	33.48	-.0000	58.92	.1595	1.29	.59
EXTM 61	13.76	25.01	6	20	34.2	340.14	-.0749	-45.88	.0140	6005.7	6.90	2.07	-.0000	166.31	-.0541	-1.26	4.93
ENTER SHA	15.33	26.58	6	20	35.7												
ENTR 72	15.33	26.58	6	20	35.7	302.20	-.0300	4.12	-.0587	4326.7	7.11	31.10	-.0173	80.31	.0743	-3.46	8.64
ENTR 51	15.33	26.58	6	20	35.7	44.54	-.0994	26.83	-.0500	4879.7	-.24	22.15	.0971	317.49	.0332	-3.46	8.64
ENTR 61	15.33	26.58	6	20	35.7	333.90	-.0583	-44.62	.0126	6665.2	7.06	1.96	-.0021	161.74	-.0434	-3.46	8.64
SET 61	24.06	35.31	6	20	44.5	315.54	-.0211	-40.15	.0054	10346.3	6.84	-.00	-.0040	147.63	-.0165	-12.15	23.54
EXTM 51	35.54	46.79	6	20	56.0	348.91	-.0167	-13.02	-.0126	9669.6	5.39	73.55	-.0000	94.43	.0728	-18.14	34.58
EXTM 72	64.69	75.94	6	21	25.1	284.23	-.0000	-24.50	-.0017	22204.3	4.93	16.17	.0000	113.31	.0018	-24.04	45.72
EXIT SHA	73.93	85.18	6	21	34.3												
EXIT 72	73.93	85.18	6	21	34.3	284.40	.0006	-25.33	-.0013	24864.2	4.67	16.35	.0006	114.17	.0014	-24.90	46.99
EXIT 51	73.93	85.18	6	21	34.3	335.10	-.0011	-24.18	-.0018	21356.9	4.65	67.40	-.0007	91.43	.0050	-24.90	46.99
EXIT 61	73.93	85.18	6	21	34.3	298.87	-.0002	-35.28	.0005	27064.4	4.71	-4.14	.0003	134.21	-.0004	-24.90	46.99
EXTM 51	82.21	93.46	6	21	42.6	334.80	-.0002	-24.96	-.0014	23628.8	4.50	67.25	.0000	93.54	.0036	-25.48	47.64
RISE 61	140.74	151.99	6	22	41.1	304.85	.0025	-34.03	.0002	43587.4	3.69	-.00	.0014	137.15	.0015	-27.41	45.04
EXTM 51	251.01	262.26	7	0	31.4	359.97	.0035	-28.47	-.0000	60394.8	3.14	87.27	-.0000	179.38	.0522	-28.21	27.71
EXTM 61	416.01	427.26	7	3	16.4	2.31	.0039	-31.96	.0001	92867.7	2.63	17.77	.0000	182.06	.0035	-28.30	353.58
EXTM 72	452.92	464.17	7	3	53.3	.29	.0040	-29.62	.0000	94771.9	2.54	68.28	.0000	180.68	.0094	-28.28	345.40
RISE 11	623.07	634.32	7	6	43.5	294.16	.0040	-30.12	-.0000	124974.3	1.98	.00	.0026	127.89	.0023	-28.15	306.52
SET 51	648.50	659.75	7	7	8.9	90.00	.0038	-27.06	.0001	127145.6	2.57	11.39	-.0032	245.29	-.0013	-28.13	300.59
SET 61	662.15	673.40	7	7	22.6	60.45	.0039	-30.23	.0001	130215.1	2.45	-.00	-.0022	228.74	.0026	-28.11	297.40
SET 72	844.74	855.99	7	10	25.1	94.17	.0039	-27.61	.0001	153280.9	2.40	-.00	-.0035	242.10	-.0005	-27.95	254.17
RISE 42	854.34	865.59	7	10	34.7	254.99	.0040	-26.52	-.0001	154002.6	1.69	3.91	.0028	119.97	-.0021	-27.95	251.88
EXT 11	893.73	904.98	7	11	14.1	.73	.0041	-29.99	.0000	156478.1	1.97	24.79	-.0000	180.70	.0040	-27.91	242.45
SET 11	1161.45	1172.70	7	15	41.9	66.99	.0041	-28.98	.0001	189059.9	2.06	-.00	-.0026	233.63	.0024	-27.70	177.80
EXT 42	1279.72	1290.97	7	17	40.1	359.97	.0042	-27.37	.0000	195160.1	1.76	82.15	.0000	.25	-.0230	-27.62	14 .01
RISE 11	1415.01	1426.26	7	19	55.4	270.00	.0041	-26.88	-.0000	213643.0	1.27	11.32	.0034	114.54	-.0014	-27.53	115.96
RISE 72	1569.91	1581.16	7	22	30.3	265.90	.0041	-27.20	-.0000	229715.1	1.16	-.01	.0036	117.48	-.0005	-27.43	78.00
RISE 61	1654.57	1665.82	7	23	55.0	297.37	.0041	-28.52	-.0000	237550.1	1.25	.00	.0025	128.71	.0027	-27.38	57.20
SET 42	1702.91	1714.16	8	0	43.3	105.00	.0041	-26.44	.0000	241516.6	1.83	3.87	-.0029	240.09	-.0022	-27.36	45.32
EXTM 51	1769.03	1780.28	8	1	49.4	358.60	.0042	-27.36	.0000	241582.3	1.47	87.95	.0023	142.69	.0824	-27.32	29.05
EXTM 61	1905.36	1916.61	8	4	5.8	.30	.0042	-28.56	.0000	257495.0	1.43	21.20	.0000	180.29	.0040	-27.25	355.45
EXTM 72	1945.40	1956.65	8	4	45.8	.10	.0042	-27.70	.0000	257282.3	1.42	70.21	-.0000	180.25	.0109	-27.23	345.58
RISE 11	2089.67	2100.92	8	7	10.1	292.06	.0042	-28.03	-.0000	275307.5	1.07	.00	.0028	125.11	.0024	-27.16	309.96
SET 51	2133.99	2145.24	8	7	54.4	90.00	.0041	-26.63	.0000	277706.4	1.73	11.22	-.0034	245.69	-.0014	-27.14	299.01
SET 61	2155.93	2167.18	8	8	16.3	63.16	.0042	-28.08	.0000	280733.4	1.63	-.00	-.0025	231.93	.0027	-27.13	293.58
SET 72	2319.93	2331.18	8	11	.3	94.03	.0041	-26.87	.0000	293839.4	1.71	-.00	-.0036	242.85	-.0005	-27.05	253.02
RISE 42	2320.49	2331.74	8	11	.9	255.00	.0041	-26.30	-.0000	293903.1	.98	3.78	.0029	119.79	-.0022	-27.05	252.88
EXTM 11	2360.62	2371.87	8	11	42.0	.21	.0042	-28.13	.0000	294178.0	1.30	26.66	-.0000	180.21	.0042	-27.04	242.95
SET 11	2631.38	2642.63	8	16	11.8	68.27	.0042	-27.68	.0000	317579.3	1.54	.00	-.0028	235.35	.0024	-26.93	175.86
EXTM 42	2739.71	2750.96	8	18	.1	359.99	.0042	-26.72	.0000	319276.2	1.21	81.50	-.0000	.13	-.0059	-26.88	148.99
RISE 51	2870.26	2881.51	8	20	10.7	270.00	.0041	-26.42	-.0000	333649.7	.81	11.14	.0034	114.11	-.0015	-26.84	116.59
RISE 72	3023.27	3034.52	8	22	43.7	266.00	.0042	-26.63	-.0000	345691.3	.73	-.00	.0037	116.91	-.0005	-26.79	78.50
RISE 61	3102.28	3113.53	9	0	2.7	296.17	.0042	-27.53	-.0000	351068.5	.85	.00	.0025	127.26	.0027	-26.77	58.78
SET 42	3157.95	3169.20	9	0	58.4	105.00	.0041	-26.13	.0000	354431.1	1.46	3.68	-.0030	240.34	-.0023	-26.75	44.89
EXTM 51	3223.76	3235.01	9	2	4.2	359.21	.0042	-26.76	.0000	352965.2	1.12	88.76	.0022	145.39	.1434	-26.74	28.46
EXTM 61	3355.20	3366.45	9	4	15.6	.13	.0042	-27.63	.0000	365742.3	1.13	22.14	-.0000	180.12	.0040	-26.71	355.63
EXTM 72	3395.28	3406.53	9	4	55.7	.06	.0042	-27.02	.0000	364861.0	1.13	70.88	-.0000	180.18	.0110	-26.70	345.61
RISE 11	3533.66	3544.91	9	7	14.1	291.35	.0042	-27.29	-.0000	380296.0	.85	.00	.0028	124.14	.0024	-26.67	310.98
SET 51	3582.86	3594.11	9	8	3.3	90.00	.0042	-26.29	.0000	382549.6	1.58	11.09	-.0035	246.01	-.0015	-26.66	298.64
SET 61	3607.61	3618.86	9	8	28.0	64.05	.0042	-27.35	.0000	385977.6	1.52	-.00	-.0025	233.01	.0027	-26.66	292.43
IMPACT	3692.44	3703.69	9	9	52.9												
IMPC 72	3692.44	3703.69	9	9	52.9	75.70	.0043	-26.64	.0000	390983.1	2.48	16.28	-.0039	244.47	-.0000	-26.64	270.97
IMPC 11	3692.44	3703.69	9	9	52.9	331.78	.0044	-27.43	-.0000	390395.1	1.90	21.93	.0016	153.10	.0038	-26.64	270.97

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	6	20	20.411	6546.488	24.6484	307.6261	10.99274	-.9513	104.3878	116.9687
SEPARATION	1.20	12.45	6	20	21.611	6557.032	22.7569	314.5910	10.98372	2.4792	107.3122	124.2344
RETRO	3.20	14.45	6	20	23.611	6678.359	18.9866	325.5345	10.88271	8.1021	111.4039	135.6793
ENTER SHA	15.33	26.58	6	20	35.746	9376.189	-3.4642	8.6376	9.16986	33.1883	118.1166	181.8247
EXIT SHA	73.93	85.18	6	21	34.343	27352.870	-24.8990	46.9943	5.31103	60.3104	103.9293	234.8709
IMPACT	3692.44	3703.69	9	9	52.853	392818.992	-26.6447	270.9717	2.22388	68.2889	269.8255	289.9514

SURVEYOR VIEW PERIODS

QHA	226.3615					EPS	56.0254							LOM	265.5838
SX	.245999	SY	-.859322	SZ	-.448387	DAO	-26.64022	RAO	285.97486	RM	394143.012	LAT	28.310600	LON	279.461800
CS	-.938585	ECC	.984569	SLR	12988.474	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.265907	NSY	-.853875	NSZ	-.447428	C3M	1.4966	VIM	2.6713	ZAE	140.968	B.T	.0000	B.R	-.0000
LATE	5.1741	LONE	4.7491	LATS	-.1557	LONS	309.0235	LATI	.1615	LONI	325.9835	RSM	151.2559	TTAN	6.7290
LAUNCH DATE		MAY	6,1966		BASE AZM	93.0		TF	61.568			ARRIVAL DATE		MAY 9 1966 10 14 26,2	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
93.00	20 28 15.3	28.0	23.45	307.41	2.22	121.54	106.57	20 39 30.3	6547.1	10.99	1.10

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	6	20	39.5												
SEPARATION	1.20	12.45	6	20	40.7												
RETRO	3.20	14.45	6	20	42.7												
RISE 72	5.04	16.29	6	20	44.5	76.56	-.2735	59.16	.0702	2904.8	-6.38	-.00	.1162	330.09	.1052	13.34	333.41
RISE 61	9.09	20.34	6	20	48.6	17.65	-.1550	-48.39	-.0052	4580.5	4.89	.00	.0187	191.61	-.1013	5.04	348.98
RISE 51	11.33	22.58	6	20	50.8	72.40	-.1013	32.09	-.0297	5509.9	-2.93	.00	.0889	306.14	.0184	1.08	355.80
EXTM 72	11.75	22.98	6	20	51.2	3[illegible]97	-.0830	19.53	-.1262	2808.3	5.53	42.78	-.0000	53.97	.2023	.41	356.93
ENTER SHA	14.48	25.73	6	20	54.0												
ENTR 72	14.48	25.73	6	20	54.0	311.26	-.0421	4.20	-.0664	3859.7	6.90	39.89	-.0248	77.73	.0972	-3.65	3.77
ENTR 51	14.48	25.73	6	20	54.0	53.71	-.0938	24.89	-.0449	5166.5	-.67	17.51	.0939	309.94	.0220	-3.65	3.77
ENTR 61	14.48	25.73	6	20	54.0	343.42	-.0671	-45.97	.0113	6549.9	6.75	2.53	.0008	168.55	-.0480	-3.65	3.77
EXTM 61	15.14	26.39	6	20	54.6	340.92	-.0610	-45.53	.0110	6815.4	6.81	2.54	-.0000	166.75	-.0442	-4.51	5.20
SET 61	31.35	42.60	6	21	10.9	314.04	-.0123	-39.40	.0032	13320.2	6.28	-.00	-.0025	140.26	-.0097	-17.10	27.37
EXTM 51	38.67	49.92	6	21	18.2	352.47	-.0140	-16.22	-.0095	10826.7	5.30	78.17	-.0000	37.85	.0802	-19.78	32.54
EXTM 72	66.01	77.26	6	21	45.5	289.05	.0000	-25.55	-.0015	22380.5	4.88	20.55	.0000	114.39	.0016	-24.56	41.60
EXIT SHA	72.55	83.80	6	21	52.1												
EXIT 72	72.55	83.80	6	21	52.1	289.16	.0005	-26.08	-.0012	24256.9	4.70	20.64	.0004	114.96	.0013	-25.14	42.47
EXIT 51	72.55	83.80	6	21	52.1	340.81	-.0014	-24.67	-.0018	21017.2	4.66	72.62	-.0011	90.62	.0064	-25.14	42.47
EXIT 61	72.55	83.80	6	21	52.1	303.83	-.0003	-35.99	.0006	26640.0	4.72	-2.05	.0003	137.73	-.0006	-25.14	42.47
EXTM 51	84.92	96.17	6	22	4.4	340.29	-.0001	-25.74	-.0012	24392.5	4.44	72.26	.0000	94.32	.0039	-25.96	43.35
RISE 61	113.76	125.01	6	22	33.3	306.18	.0018	-34.20	.0003	37319.6	3.99	-.00	.0012	138.55	.0010	-27.09	42.88
EXTM 51	226.26	237.51	7	0	25.8	359.96	.0033	-28.60	-.0000	55796.1	3.25	87.14	-.0000	179.16	.0543	-28.30	27.72
EXTM 61	397.15	408.40	7	3	16.7	2.75	.0039	-32.20	.0001	90011.3	2.67	17.51	.0000	182.44	.0034	-28.43	353.17
EXTM 72	432.68	443.93	7	3	52.2	.32	.0040	-29.80	.0001	91775.2	2.58	68.10	.0000	180.76	.0092	-28.41	345.37
RISE 11	604.42	615.67	7	6	43.9	294.31	.0040	-30.26	-.0000	122526.9	2.00	.00	.0026	128.08	.0023	-28.25	306.32
SET 51	628.80	640.05	7	7	8.3	90.00	.0038	-27.14	.0001	124590.0	2.59	11.43	-.0032	245.22	-.0013	-28.23	300.65
SET 61	641.74	652.99	7	7	21.2	60.27	.0039	-30.37	.0001	127589.7	2.48	-.00	-.0022	228.52	.0026	-28.22	297.63
SET 72	825.60	836.85	7	10	25.1	94.18	.0039	-27.69	.0001	151048.0	2.41	-.00	-.0034	242.02	-.0005	-28.04	254.20
RISE 42	835.46	846.71	7	10	35.0	254.99	.0040	-26.58	-.0001	151806.7	1.70	3.95	.0028	120.02	-.0021	-28.03	251.84
EXTM 11	874.95	886.20	7	11	14.5	.78	.0041	-30.10	.0000	154347.7	1.98	24.68	-.0000	180.74	.0039	-27.99	242.40
SE. 11	1142.36	1153.61	7	15	41.9	66.92	.0041	-29.06	.0001	187099.9	2.07	-.00	-.0026	233.53	.0024	-27.76	177.89
EXTM 42	1261.19	1272.44	7	17	40.7	360.00	.0042	-27.42	.0000	193334.5	1.71	82.20	-.0000	.13	-.0053	-27.67	148.98
RISE 51	1396.49	1407.74	7	19	56.0	270.00	.0041	-26.92	-.0000	211891.4	1.27	11.34	.0034	114.58	-.0014	-27.57	115.95
RISE 72	1551.41	1562.66	7	22	30.9	265.90	.0041	-27.24	-.0000	228042.6	1.17	-.01	.0036	117.52	-.0005	-27.47	77.99
RISE 61	1636.32	1647.57	7	23	55.8	297.43	.0041	-28.56	-.0000	235938.2	1.26	.00	.0025	128.78	.0027	-27.42	57.14
SET 42	1684.38	1695.63	8	0	43.9	105.00	.0041	-26.47	.0000	239896.9	1.83	3.89	-.0029	240.07	-.0022	-27.39	45.33
EXTM 51	1750.47	1761.72	8	1	50.0	358.58	.0042	-27.39	.0000	239988.8	1.48	87.91	.0023	142.83	.0810	-27.35	29.07
EXTM 61	1886.96	1898.21	8	4	6.5	.32	.0042	-28.59	.0000	255970.0	1.44	21.17	.0000	180.30	.0039	-27.28	355.44
EXTM 72	1926.97	1938.22	8	4	46.5	.10	.0042	-27.73	.0000	255766.4	1.43	70.18	-.0000	180.26	.0108	-27.25	345.58
RISE 11	2071.39	2082.64	8	7	10.9	292.09	.0042	-28.06	-.0000	273849.7	1.07	.00	.0028	125.14	.0024	-27.18	309.93
SET 51	2115.55	2126.80	8	7	55.1	90.00	.0041	-26.65	.0000	276248.7	1.74	11.23	-.0034	245.67	-.0014	-27.16	299.02
SET 61	2137.37	2148.62	8	8	16.9	63.13	.0042	-28.11	.0000	279273.5	1.63	-.00	-.0025	231.89	.0027	-27.15	293.62
SET 72	2301.53	2312.78	8	11	1.0	94.04	.0041	-26.88	.0000	292439.7	1.72	-.00	-.0036	242.84	-.0005	-27.07	253.02
RISE 42	2302.12	2313.37	8	11	1.6	255.00	.0041	-26.31	-.0000	292065.6	.99	3.79	.0029	119.80	-.0022	-27.07	252.87
EXTM 11	2342.26	2353.51	8	11	41.8	.22	.0042	-28.16	.0000	292795.7	1.30	26.64	-.0000	180.21	.0041	-27.05	242.94
SET 11	2612.95	2624.20	8	16	12.5	68.26	.0042	-27.69	.0000	316257.7	1.55	.00	-.0028	235.33	.0024	-26.94	175.87
EXTM 42	2721.36	2732.61	8	18	.9	359.99	.0042	-26.73	.0000	317985.0	1.21	81.51	-.0000	.14	-.0062	-26.89	148.99
RISE 51	2851.94	2863.19	8	20	11.4	270.00	.0041	-26.42	-.0000	332388.7	.81	11.14	.0034	114.11	-.0015	-26.84	116.58
RISE 72	3005.07	3016.32	8	22	44.6	266.00	.0042	-26.63	-.0000	344495.9	.73	-.00	.0037	116.91	-.0005	-26.79	78.49
RISE 61	3084.07	3095.32	9	0	3.6	296.17	.0042	-27.53	-.0000	349873.0	.85	.00	.0025	127.27	.0027	-26.77	58.78
SET 42	3139.70	3150.95	9	0	59.2	105.00	.0041	-26.13	.0000	353231.9	1.46	3.68	-.0030	240.34	-.0023	-26.75	44.89
EXTM 51	3205.52	3216.77	9	2	5.0	359.21	.0042	-26.76	.0000	351764.1	1.12	88.76	.0022	145.42	.1437	-26.74	28.46
EXTM 61	3336.94	3348.19	9	4	16.5	.13	.0042	-27.63	.0000	364527.5	1.12	22.14	-.0000	180.12	.0040	-26.70	355.62
EXTM 72	3377.01	3388.26	9	4	56.5	.06	.0042	-27.02	.0000	363638.1	1.13	70.88	-.0000	180.18	.0112	-26.70	345.61
RISE 11	3515.40	3526.65	9	7	14.9	291.35	.0042	-27.29	-.0000	379018.6	.84	.00	.0028	124.14	.0024	-26.67	310.98
SET 51	3564.60	3575.85	9	8	4.1	90.00	.0042	-26.29	.0000	381226.7	1.56	11.09	-.0035	246.01	-.0015	-26.66	298.65
SET 61	3589.39	3600.64	9	8	28.9	64.05	.0042	-27.34	.0000	384219.7	1.49	-.00	-.0025	233.01	.0027	-26.65	292.43
IMPACT	3694.05	3705.30	9	10	13.6												
IMPC 72	3694.05	3705.30	9	10	13.6	80.71	.0043	-26.59	.0000	391534.5	2.48	11.81	-.0039	244.36	-.0002	-26.64	265.98
IMPC 11	3694.05	3705.30	9	10	13.6	336.84	.0044	-27.43	-.0000	390289.9	1.92	23.65	.0014	157.60	.0040	-26.64	265.98

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	6	20	39.505	6547.111	23.4529	307.4127	10.99219	1.1024	106.5691	121.5421
SEPARATION	1.20	12.45	6	20	40.705	6585.919	21.3293	314.2041	10.95940	4.5217	109.2741	128.6343
RETRO	3.20	14.45	6	20	42.705	6752.192	17.2981	324.7338	10.82255	10.0573	112.9349	139.6653
ENTER SHA	14.48	25.73	6	20	53.988	9335.873	-3.6501	3.7650	9.18984	33.0010	118.2269	181.5252
EXIT SHA	72.55	83.80	6	21	52.053	27168.572	-25.1362	42.4[illegible]97	5.32958	60.2033	103.7665	234.7859
IMPACT	3694.05	3705.30	9	10	13.559	392889.027	-26.6358	265.[illegible]822	2.22152	68.0245	269.8173	286.1529

SURVEYOR VIEW PERIODS

GHA	226.3615					EPS	56.1581							LON	261.5856
SX	.248424	SY	-.858683	SZ	-.448274	DAO	-26.63300	RAO	286.13561	RM	394195.531	LAT	28.310600	LON	279.461800
C3	-.938376	ECC	.984593	SLR	12988.501	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.268316	NSY	-.853188	NSZ	-.447300	C3M	1.4976	VIM	2.6715	ZAE	140.952	B.T	.0000	B.R	-.0000
LATE	5.1854	LONE	4.7410	LATS	-.1554	LONS	308.8829	LATI	.0100	LONI	325.9830	RSM	151.2556	TTAN	6.7263
LAUNCH DATE		MAY	6.1966	BASE AZM		96.0	TF	61.580				ARRIVAL DATE		MAY 9 1966 10 31 1.6	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
96.00	20 42 28.4	28.1	22.29	307.07	5.27	124.77	108.70	20 53 [illegible].4	6558.4	10.98	2.61

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DWA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	6	20	53.7												
SEPARATION	1.20	12.45	6	20	54.9												
RETRO	3.20	14.45	6	20	56.9												
RISE 72	4.72	15.97	6	20	58.4	79.45	-.2246	52.82	.0510	2984.7	-6.80	.00	.1206	323.55	.0806	12.31	330.74
RISE 61	9.82	21.07	6	21	3.5	15.86	-.1320	-48.66	-.0026	5107.0	5.23	.01	.0157	190.40	-.0858	1.97	349.26
RISE 51	11.22	22.47	6	21	4.9	74.88	-.0931	28.41	-.0320	5686.8	-2.72	.00	.0870	301.89	.0126	-.42	353.27
EXTM 72	11.45	22.70	6	21	5.2	330.79	-.1046	16.73	-.1272	2632.7	5.25	52.03	-.0000	49.44	.2632	-.79	353.89
ENTER SHA	13.96	25.21	6	21	7.7												
ENTR 72	13.96	25.21	6	21	7.7	319.42	-.0547	2.33	-.0698	3956.6	6.74	48.25	-.0353	77.45	.1221	-4.50	.05
ENTR 51	13.96	25.21	6	21	7.7	59.89	-.0880	22.20	-.0428	5390.5	-.86	14.73	.0910	304.08	.0142	-4.50	.05
ENTR 61	13.96	25.21	6	21	7.7	351.03	-.0749	-47.29	.0092	6996.5	6.49	2.11	.0032	173.92	-.0502	-4.50	.05
EXTM 61	16.62	27.87	6	21	10.3	341.30	-.0508	-45.82	.0089	7653.0	6.71	2.33	-.0000	167.08	-.0366	-7.77	5.53
SET 61	37.19	48.44	6	21	30.9	314.74	-.0087	-39.76	.0024	15559.7	5.91	-.00	-.0016	146.91	-.0069	-20.31	28.35
EXTM 51	41.47	52.72	6	21	35.2	355.34	-.0122	-19.21	-.0073	11827.7	5.23	82.18	-.0000	34.31	.1004	-21.51	30.76
EXTM 72	67.68	78.93	6	22	1.4	292.82	.0001	-26.93	-.0012	22707.9	4.82	23.88	.0000	116.01	.0014	-25.47	38.46
EXIT SHA	71.12	82.37	6	22	4.8												
EXIT 72	71.12	82.37	6	22	4.8	292.86	.0004	-27.17	-.0011	23693.9	4.73	23.90	.0002	116.28	.0012	-25.76	38.91
EXIT 51	71.12	82.37	6	22	4.8	345.33	-.0018	-25.59	-.0017	20671.3	4.68	76.79	-.0015	92.54	.0079	-25.76	38.91
EXIT 61	71.12	82.37	6	22	4.8	307.71	-.0006	-37.03	.0008	26256.6	4.74	-.93	.0003	140.82	-.0008	-25.76	38.91
EXTM 51	88.17	99.42	6	22	21.9	344.51	.0000	-26.89	-.0010	25300.2	4.38	76.08	.0000	98.18	.0040	-26.80	40.05
RISE 61	94.57	105.82	6	22	28.3	308.21	.0011	-36.16	.0005	32970.6	4.27	-.00	.0009	140.63	.0004	-27.07	40.11
EXTM 51	206.66	217.91	7	0	20.4	359.94	.0032	-29.02	-.0000	52026.1	3.35	86.72	.0000	179.08	.0461	-28.66	27.74
EXTM 61	383.15	394.40	7	3	16.9	3.12	.0038	-32.61	.0001	87882.4	2.70	17.09	.0000	182.75	.0034	-28.74	352.83
EXTM 72	417.67	428.92	7	3	51.4	.40	.0040	-30.15	.0001	89930.2	2.62	67.75	.0000	180.91	.0090	-28.70	345.30
RISE 11	591.24	602.49	7	6	45.0	294.60	.0040	-30.54	-.0000	120785.7	2.02	.00	.0025	128.45	.0023	-28.49	306.00
SET 51	614.07	625.32	7	7	7.8	90.00	.0038	-27.36	.0001	122653.8	2.61	11.51	-.0032	245.01	-.0013	-28.46	300.70
SET 61	625.57	636.82	7	7	19.3	59.91	.0039	-30.65	.0001	125483.1	2.49	-.00	-.0021	228.10	.0026	-28.45	298.03
SET 72	811.43	822.68	7	10	25.2	94.22	.0039	-27.87	.0001	149383.4	2.42	-.00	-.0034	241.84	-.0004	-28.23	294.20
RISE 42	821.41	832.66	7	10	35.1	254.99	.0040	-26.75	-.0001	150153.6	1.72	4.06	.0028	120.16	-.0021	-28.21	251.82
EXTM 11	861.12	872.37	7	11	14.8	.85	.0041	-30.31	.0000	152783.0	1.99	24.48	-.0000	180.81	.0039	-28.17	242.33
SET 11	1127.74	1138.99	7	15	41.5	66.76	.0041	-29.21	.0001	185991.6	2.08	-.00	-.0026	233.32	.0024	-27.90	178.06
EXTM 42	1247.25	1258.50	7	17	41.0	359.98	.0042	-27.55	.0000	191055.6	1.72	82.33	-.0000	.20	-.0184	-27.80	149.00
RISE 51	1382.70	1393.95	7	19	56.4	270.00	.0041	-27.03	-.0000	210582.8	1.28	11.38	.0034	114.68	-.0014	-27.69	115.94
RISE 72	1537.59	1548.84	7	22	31.3	265.88	.0041	-27.33	-.0000	226793.1	1.17	-.01	.0036	117.62	-.0005	-27.57	78.00
RISE 61	1623.05	1634.30	7	23	56.8	297.55	.0041	-28.66	-.0000	234767.8	1.27	.00	.0025	128.92	.0027	-27.51	97.02
SET 42	1670.57	1681.82	8	0	44.3	105.00	.0041	-26.55	.0000	238687.6	1.84	3.94	-.0029	240.01	-.0022	-27.48	45.34
EXTM 51	1736.56	1747.81	8	1	50.3	358.54	.0042	-27.48	.0000	238797.5	1.48	87.83	.0023	143.52	.0785	-27.43	29.10
EXTM 61	1873.31	1884.56	8	4	7.0	.34	.0042	-28.67	.0000	254847.3	1.44	21.09	.0000	180.32	.0039	-27.35	355.42
EXTM 72	1913.25	1924.50	8	4	47.0	.10	.0042	-27.80	.0000	254644.0	1.43	70.10	-.0000	180.28	.0108	-27.32	345.97
RISE 11	2057.93	2069.18	8	7	11.7	292.15	.0042	-28.12	-.0000	272782.8	1.08	.00	.0028	125.23	.0024	-27.24	309.86
SET 51	2101.80	2113.05	8	7	55.5	90.00	.0041	-26.71	.0000	275165.9	1.74	11.25	-.0034	245.62	-.0014	-27.22	299.02
SET 61	2123.34	2134.59	8	8	17.1	63.06	.0042	-28.17	.0000	278174.7	1.64	-.00	-.0025	231.80	.0027	-27.20	293.70
SET 72	2287.83	2299.08	8	11	1.5	94.04	.0041	-26.93	.0000	291405.4	1.72	-.00	-.0036	242.79	-.0005	-27.12	253.02
RISE 42	2288.42	2299.67	8	11	2.1	255.00	.0041	-26.36	-.0000	291029.0	.99	3.82	.0029	119.84	-.0022	-27.12	252.87
EXTM 11	2328.61	2339.86	8	11	42.3	.23	.0042	-28.21	.0000	291779.2	1.31	26.59	-.0000	180.23	.0041	-27.10	242.92
SET 11	2599.11	2610.36	8	16	12.8	68.23	.0042	-27.3	.0000	315275.2	1.55	.00	-.0028	235.29	.0024	-26.97	175.91
EXTM 42	2707.66	2718.91	8	18	1.4	359.99	.0042	-26.75	.0000	317032.6	1.22	81.53	-.0000	.14	-.0071	-26.92	148.99
RISE 51	2838.26	2849.51	8	20	12.0	270.00	.0041	-26.44	-.0000	331459.7	.82	11.15	.0034	114.13	-.0015	-26.87	116.58
RISE 72	2991.38	3002.63	8	22	45.1	266.00	.0042	-26.65	-.0000	343890.4	.73	-.00	.0037	116.92	-.0005	-26.81	78.49
RISE 61	3070.48	3081.73	9	0	4.2	296.19	.0042	-27.55	-.0000	348976.3	.85	.00	.0025	127.29	.0027	-26.78	58.76
SET 42	3126.00	3137.25	9	0	59.7	105.00	.0041	-26.14	.0000	352329.3	1.46	3.68	-.0030	240.34	-.0023	-26.77	44.89
EXTM 51	3191.79	3203.04	9	2	5.5	359.20	.0042	-26.77	.0000	350860.4	1.12	88.75	.0022	145.26	.1415	-26.75	28.47
EXTM 61	3323.31	3334.56	9	4	17.0	.14	.0042	-27.64	.0000	363627.7	1.12	22.13	-.0000	180.13	.0040	-26.71	355.62
EXTM 72	3363.35	3374.60	9	4	57.1	.07	.0042	-27.03	.0000	362733.1	1.12	70.88	-.0000	180.19	.0110	-26.70	345.61
RISE 11	3501.78	3513.03	9	7	15.5	291.36	.0042	-27.30	-.0000	378087.8	.83	.00	.0028	124.14	.0024	-26.67	310.97
SET 51	3550.96	3562.21	9	8	4.7	90.00	.0042	-26.29	.0000	380870.5	1.55	11.09	-.0034	246.01	-.0015	-26.66	298.65
SET 61	3575.75	3587.00	9	8	29.5	64.05	.0042	-27.34	.0000	383244.6	1.47	-.00	-.0025	233.01	.0027	-26.65	292.43
IMPACT	3694.77	3706.02	9	10	28.5												
IMPC 42	3694.77	3706.02	9	10	28.5	245.82	.0043	-26.01	-.0000	393189.5	1.74	-2.74	.0029	124.83	-.0026	-26.63	262.38
IMPC 72	3694.77	3706.02	9	10	28.5	84.31	.0043	-26.56	.0000	391934.2	2.48	8.58	-.0039	244.18	-.0003	-26.63	262.38
IMPC 11	3694.77	3706.02	9	10	28.5	340.49	.0044	-27.44	-.0000	390231.5	1.94	24.70	.0012	160.95	.0041	-26.63	262.38

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	6	20	53.723	6558.477	22.2827	307.0804	10.98267	2.6123	108.7060	124.7738
SEPARATION	1.20	12.45	6	20	54.923	6617.758	19.9461	313.6717	10.93280	6.0093	111.1920	131.6659
RETRO	3.20	14.45	6	20	56.923	6816.093	15.6660	323.8181	10.77130	11.4655	114.4589	142.3137
ENTER SHA	13.96	25.21	6	21	7.682	9337.168	-4.4982	.0493	9.18921	33.0071	118.4597	181.2423
EXIT SHA	71.12	82.37	6	22	4.839	26917.493	-25.7556	38.9129	5.35521	60.0556	103.3191	234.4343
IMPACT	3694.77	3706.02	9	10	28.49	392936.855	-26.6296	262.3824	2.22094	67.9865	270.1046	286.2977

SURVEYOR VIEW PERIODS

GHA	226.3615					EPS	56.2677							LOM	258.2844
SX	.250425	SY	-.858151	SZ	-.448179	DAO	-26,62691	RAO	286.26828	RM	394238.836	LAT	28.310600	LON	279.461800
CS	-.940520	ECC	.984558	SLR	12988.267	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.270526	NSY	-.852607	NSZ	-.447197	C3M	1.4971	VIM	2.6714	ZAE	140.887	B.T	.0000	B.R	-.0000
LATE	5.1946	LONE	4.8599	LATS	-.1552	LONS	308.8922	LATI	-.2326	LONI	326.0725	RSM	151.2554	TTAN	6.7250
LAUNCH DATE		MAY	6,1966		BASE AZM	99.0		TF	61.623			ARRIVAL DATE		MAY 9 1966 10 44 43.5	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99.00	20 52 55.0	28.1	21.14	306.65	7.46	126.96	110.81	21 4 10.0	6572.3	10.97	3.70

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	6	21	4.2												
SEPARATION	1.20	12.45	6	21	5.4												
RETRO	3.20	14.45	6	21	7.4												
RISE 72	4.49	15.74	6	21	8.7	81.34	-.1959	47.33	.0326	3045.9	-7.08	.00	.1234	317.93	.0589	11.11	328.56
RISE 51	11.16	22.41	6	21	15.3	77.06	-.0868	24.93	-.0343	5820.1	-2.57	-.01	.0855	297.90	.0076	-2.09	351.08
EXTM 72	11.25	22.50	6	21	15.4	339.56	-.1228	12.37	-.1245	2505.3	5.02	61.29	-.0000	45.26	.5599	-2.25	351.34
RISE 61	11.32	22.57	6	21	15.5	9.63	-.1045	-49.36	.0019	5892.2	5.76	.00	.0106	186.25	-.0673	-2.35	351.50
ENTER SHA	13.69	24.94	6	21	17.9												
ENTR 72	13.69	24.94	6	21	17.9	326.39	-.0657	-1.37	-.0683	3382.2	6.64	55.89	-.0499	80.68	.1437	-5.87	357.25
ENTR 51	13.69	24.94	6	21	17.9	64.07	-.0828	19.03	-.0425	5554.7	-.90	13.34	.0887	299.10	.0082	-5.87	357.25
ENTR 61	13.69	24.94	6	21	17.9	356.86	-.0759	-48.65	.0070	6757.4	6.31	1.07	.0049	177.93	-.0504	-5.87	357.25
EXTM 61	18.22	29.47	6	21	22.4	341.24	-.0431	-46.56	.0075	8526.0	6.61	1.61	-.0000	167.22	-.0306	-11.10	6.01
SET 61	37.70	48.95	6	21	41.9	317.87	-.0088	-41.23	.0026	15867.2	5.83	-.00	-.0012	149.70	-.0070	-21.78	26.02
EXTM 51	43.81	55.06	6	21	48.0	357.68	-.0111	-22.08	-.0058	12651.2	5.17	85.77	-.0000	30.63	.1598	-23.31	29.24
EXTM 72	69.03	80.28	6	22	13.2	295.70	.0001	-28.52	-.0010	22991.1	4.78	26.30	.0000	117.97	.0011	-26.63	36.04
EXIT SHA	69.49	80.74	6	22	13.7												
EXIT 72	69.49	80.74	6	22	13.7	295.70	.0001	-28.54	-.0010	23122.2	4.77	26.30	.0000	118.00	.0011	-26.67	36.10
EXIT 51	69.49	80.74	6	22	13.7	348.92	-.0023	-26.86	-.0016	20268.7	4.70	80.01	-.0022	98.85	.0083	-26.67	36.10
EXIT 61	69.49	80.74	6	22	13.7	310.72	-.0008	-38.34	.0009	25859.6	4.76	-.58	.0004	143.52	-.0011	-26.67	36.10
RISE 61	85.46	96.71	6	22	29.6	310.62	.0005	-37.58	.0007	30249.7	4.42	-.00	.0008	143.02	-.0001	-27.62	37.39
EXTM 51	191.56	202.81	7	0	15.7	359.97	.0050	-29.71	-.0000	49036.3	3.43	86.03	-.0000	179.54	.0319	-29.25	27.71
EXTM 61	373.68	384.93	7	3	17.8	3.57	.0038	-33.15	.0002	86453.3	2.73	16.54	.0000	183.12	.0033	-29.20	352.40
EXTM 72	406.91	418.16	7	3	51.1	.50	.0039	-30.65	.0001	87907.2	2.64	67.25	-.0000	181.12	.0088	-29.14	345.21
RISE 11	582.46	593.71	7	6	46.6	295.00	.0040	-30.91	-.0000	119611.3	2.04	.00	.0025	128.96	.0023	-28.84	305.58
SET 51	603.32	614.57	7	7	7.5	90.00	.0038	-27.69	.0001	121211.6	2.62	11.64	-.0031	244.70	-.0013	-28.80	300.75
SET 61	612.76	624.01	7	7	16.9	59.40	.0039	-31.03	.0001	123783.5	2.51	-.00	-.0021	227.53	.0026	-28.79	298.56
SET 72	801.21	812.46	7	10	25.4	94.27	.0039	-28.14	.0001	148161.4	2.43	-.01	-.0034	241.56	-.0004	-28.50	254.18
RISE 42	811.22	822.47	7	10	35.4	254.99	.0040	-27.01	-.0001	148922.0	1.73	4.22	.0028	120.36	-.0021	-28.49	251.79
EXTM 11	851.25	862.50	7	11	15.4	.94	.0041	-30.59	.0001	151656.8	2.00	24.20	-.0000	180.89	.0039	-28.43	242.24
SET 11	1116.67	1127.92	7	15	40.8	66.55	.0041	-29.43	.0001	184418.5	2.09	-.00	-.0026	233.04	.0024	-28.11	178.29
EXTM 42	1237.09	1248.34	7	17	41.3	359.96	.0042	-27.74	.0000	190917.2	1.72	82.52	.0000	.28	-.0262	-27.98	149.02
RISE 51	1372.68	1383.93	7	19	56.8	270.00	.0041	-27.19	-.0000	209592.6	1.29	11.44	.0034	114.83	-.0014	-27.85	115.92
RISE 72	1527.49	1538.74	7	22	31.7	265.85	.0041	-27.47	-.0000	225839.4	1.18	-.01	.0036	117.76	-.0005	-27.71	78.01
RISE 61	1613.72	1624.97	7	23	57.9	297.72	.0041	-28.80	-.0000	233904.4	1.27	.00	.0024	129.12	.0027	-27.64	56.84
SET 42	1660.51	1671.76	8	0	44.7	105.00	.0041	-26.67	.0000	237758.1	1.84	4.01	-.0029	239.91	-.0022	-27.60	45.34
EXTM 51	1726.45	1737.70	8	1	50.6	358.52	.0042	-27.60	.0000	237884.3	1.49	87.72	.0022	144.94	.0759	-27.55	29.13
EXTM 61	1863.43	1874.68	8	4	7.6	.37	.0042	-28.78	.0000	253989.4	1.45	20.98	.0000	180.35	.0039	-27.45	355.39
EXTM 72	1903.28	1914.53	8	4	47.4	.11	.0042	-27.91	.0000	253777.3	1.43	70.00	-.0000	180.30	.0108	-27.43	345.56
RISE 11	2048.31	2059.56	8	7	12.5	292.24	.0042	-28.21	-.0000	271963.0	1.08	.00	.0028	125.35	.0024	-27.33	309.76
SET 51	2091.77	2103.02	8	7	55.9	90.00	.0041	-26.79	.0000	274315.4	1.74	11.29	-.0034	245.54	-.0014	-27.30	299.03
SET 61	2112.89	2124.14	8	8	17.1	62.95	.0042	-28.26	.0000	277295.9	1.64	-.00	-.0025	231.67	.0027	-27.29	293.81
SET 72	2277.86	2289.11	8	11	2.0	94.06	.0041	-27.00	.0000	290586.9	1.72	-.00	-.0036	242.72	-.0005	-27.19	253.01
RISE 42	2278.44	2289.69	8	11	2.6	255.00	.0041	-26.43	-.0000	290204.7	1.00	3.86	.0029	119.89	-.0022	-27.19	252.87
EXTM 11	2318.70	2329.95	8	11	42.9	.25	.0042	-28.28	.0000	290976.9	1.31	26.51	-.0000	180.25	.0041	-27.17	242.90
SET 11	2588.91	2600.16	8	16	13.1	68.18	.0042	-27.78	.0000	314472.4	1.55	.00	-.0028	235.22	.0024	-27.02	175.96
EXTM 42	2697.67	2708.92	8	18	1.8	359.99	.0042	-26.80	.0000	316254.1	1.22	81.58	-.0000	.13	-.0099	-26.96	148.99
RISE 51	2828.28	2839.53	8	20	12.4	270.00	.0041	-26.48	-.0000	330692.5	.82	11.16	.0034	114.17	-.0015	-26.90	116.58
RISE 72	2981.38	2992.63	8	22	45.6	266.00	.0042	-26.67	-.0000	342833.5	.73	-.00	.0037	116.95	-.0005	-26.83	78.49
RISE 61	3060.62	3071.87	9	0	4.8	296.22	.0042	-27.57	-.0000	348227.2	.85	.00	.0025	127.33	.0027	-26.81	58.72
SET 42	3116.01	3127.26	9	1	.2	105.00	.0041	-26.16	.0000	351567.9	1.46	3.69	-.0030	240.32	-.0023	-26.79	44.90
EXTM 51	3181.71	3192.96	9	2	5.9	359.18	.0042	-24.79	.0000	350092.0	1.12	88.72	.0022	144.94	.1378	-26.77	28.49
EXTM 61	3313.39	3324.64	9	4	17.6	.15	.0042	-27.65	.0000	362862.1	1.12	22.11	-.0000	180.14	.0040	-26.73	355.60
EXTM 72	3353.40	3364.65	9	4	57.6	.07	.0042	-27.04	.0000	361959.7	1.12	70.87	-.0000	180.20	.0111	-26.71	345.60
RISE 11	3491.86	3503.11	9	7	16.0	291.36	.0042	-27.30	-.0000	377288.3	.83	.00	.0028	124.15	.0024	-26.67	310.96
SET 51	3541.02	3552.27	9	8	5.2	90.00	.0042	-26.29	.0000	379448.1	1.54	11.09	-.0034	246.01	-.0015	-26.66	298.65
SET 61	3565.80	3577.05	9	8	30.0	64.05	.0042	-27.35	.0000	382406.1	1.46	-.00	-.0025	233.00	.0027	-26.65	292.44
IMPACT	3697.40	3708.65	9	10	41.6												
IMPC 42	3697.40	3708.65	9	10	41.6	248.96	.0043	-26.03	-.0000	392994.4	1.73	-.60	.0030	123.00	-.0025	-26.62	259.23
IMPC 72	3697.40	3708.65	9	10	41.6	87.47	.0043	-26.53	.0000	392286.2	2.48	5.77	-.0038	243.94	-.0004	-26.62	259.23
IMPC 11	3697.40	3708.65	9	10	41.6	343.68	.0044	-27.44	-.0000	390194.8	1.96	25.49	.0010	163.96	.0042	-26.62	259.23

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	6	21	4.167	6572.616	21.1339	306.6708	10,97083	3.7034	110.8194	126.9824
SEPARATION	1.20	12.45	6	21	5.367	6646.372	18.5949	313.0579	10,90896	7.0783	113.0952	133.6704
RETRO	3.20	14.45	6	21	7.367	6867.344	14.0662	322.8582	10,73061	12.4696	116.0013	143.9719
ENTER SHA	13.69	24.94	6	21	17.861	9372.537	-5.8662	357.2515	9,17154	33.1711	118.7860	180.9998
EXIT SHA	69.49	80.74	6	22	13.659	26570.504	-26.6670	36.0998	5,39100	59.8467	102.6804	233.8321
IMPACT	3697.40	3708.65	9	10	41.571	392978.871	-26.6244	259.2318	2,21980	67.9421	270.5724	286.4244

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SURVEYOR VIEW PERIODS

GHA	226.3615					EPS	56.3562							LOM	255.6185
SX	.252040	SY	-.857719	SZ	-.448101	DAO	-26.62191	RAO	284.37539	RM	394273.758	LAT	28.310600	LON	279.461800
C3	-.943487	ECC	.984509	SLR	12987.954	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.271960	NSY	-.852130	NSZ	-.447115	C3M	1.4967	VIM	2.6713	ZAB	140.791	B.T	.0000	B.R	-.0000
LATE	5.2021	LONE	4.7291	LATS	-.1550	LONS	308.6730	LATI	-.5346	LONI	325.8922	RSM	151.2552	TTAN	6.7252
LAUNCH DATE	MAY	6,1966		BASE AZM	102.0		TF 61.677					ARRIVAL DATE	MAY 9 1966 10 55 47.2		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	21 0 3/.5	28.1	20.02	306.17	9.06	128.41	112.91	21 11 52.5	6585.4	10.96	4.50

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
				PROBE IN SUNLIGHT													
INJECTION	.00	11.25	6	21	11.9												
SEPARATION	1.20	12.45	6	21	13.1												
RETRO	3.20	14.45	6	21	15.1												
RISE 72	4.33	15.58	6	21	16.2	82.73	-.1762	42.35	.0150	3093.4	-7.25	.00	.1252	312.85	.0390	9.80	326.73
RISE 51	11.12	22.37	6	21	23.0	79.02	-.0817	21.56	-.0367	5922.6	-2.44	-.00	.0843	294.07	.0030	-3.90	349.16
EXTM 72	11.13	22.38	6	21	23.0	347.27	-.1366	6.70	-.1188	2425.2	4.87	70.64	-.0000	41.34	.5441	-3.91	349.18
ENTER SHA	13.66	24.91	6	21	25.5												
ENTR 72	13.66	24.91	6	21	25.5	331.98	-.0734	-6.63	-.0622	3324.9	6.62	62.18	-.0680	89.24	.1448	-7.67	355.21
ENTR 51	13.66	24.91	6	21	25.5	66.79	-.0782	15.41	-.0433	5673.8	-.81	13.11	.0869	294.53	.0030	-7.67	355.21
ENTR 61	13.66	24.91	6	21	25.5	1.12	-.0766	-50.07	.0050	7011.0	6.19	-.31	.0057	180.72	-.0491	-7.67	355.21
RISE 61	14.72	25.97	6	21	26.6	356.55	-.0671	-49.71	.0061	7410.0	6.32	.00	.0041	177.77	-.0436	-9.05	357.46
EXTM 61	20.01	31.26	6	21	31.9	340.70	-.0368	-47.58	.0065	9460.0	6.50	.52	-.0000	167.12	-.0257	-14.51	6.72
SET 61	29.85	41.10	6	21	41.7	326.36	-.0158	-44.53	.0040	13208.3	6.14	-.00	-.0012	156.74	-.0119	-20.56	18.07
EXTM 51	45.85	57.10	6	21	57.7	359.94	-.0103	-24.91	-.0047	13352.0	5.12	89.07	-.0000	26.82	.6450	-25.18	28.00
EXIT SHA	67.47	78.72	6	22	19.3												
EXIT 72	67.47	78.72	6	22	19.3	297.89	-.0001	-30.13	-.0008	22468.9	4.82	28.02	-.0002	120.01	.0009	-27.78	33.78
EXIT 51	67.47	78.72	6	22	19.3	351.89	-.0029	-28.38	-.0015	19747.8	4.73	82.32	-.0029	111.90	.0045	-27.78	33.78
EXIT 61	67.47	78.72	6	22	19.3	313.12	-.0012	-39.87	.0011	25377.3	4.79	-.78	.0004	145.93	-.0014	-27.78	33.78
EXTM 72	70.35	81.60	6	22	22.2	297.89	.0001	-30.26	-.0007	23296.2	4.75	28.00	.0000	120.16	.0008	-27.99	34.18
RISE 61	87.17	98.42	6	22	39.0	312.84	.0005	-38.79	.0008	30782.7	4.38	-.00	.0009	145.14	-.0001	-28.85	35.47
EXTM 51	179.84	191.09	7	0	11.7	.01	.0028	-30.63	.0000	46663.8	3.50	85.11	.0000	180.20	.0127	-30.04	27.68
EXTM 61	367.55	378.80	7	3	19.4	4.0	.0038	-33.77	.0002	85553.9	2.74	15.89	.0000	183.53	.0033	-29.76	351.93
EXTM 72	399.32	410.57	7	3	51.2	.64	.0039	-31.25	.0001	86761.5	2.66	66.65	-.0000	181.38	.0085	-29.68	345.08
RISE 11	576.91	588.16	7	6	48.8	295.47	.0040	-31.36	-.0000	118863.7	2.05	.00	.0025	129.56	.0023	-29.26	305.09
SET 51	595.49	606.74	7	7	7.4	90.00	.0038	-28.11	.0001	120142.6	2.63	11.81	-.0031	244.31	-.0012	-29.22	300.79
SET 61	602.38	613.63	7	7	14.3	58.79	.0039	-31.48	.0001	122387.5	2.52	-.00	-.0021	226.83	.0026	-29.21	299.19
SET 72	793.89	805.14	7	10	25.8	94.33	.0039	-28.48	.0001	147273.1	2.44	-.01	-.0034	241.22	-.0004	-28.84	254.14
RISE 42	803.84	815.09	7	10	35.7	254.99	.0040	-27.34	-.0001	148008.7	1.74	4.41	.0028	120.62	-.0021	-28.82	251.77
EXTM 11	844.26	855.51	7	11	16.1	1.06	.0041	-30.92	.0001	150861.7	2.01	23.86	-.0000	180.99	.0039	-28.75	242.13
SET 11	1108.19	1119.44	7	15	40.1	66.28	.0041	-29.69	.0001	183801.2	2.09	-.00	-.0026	232.69	.0024	-28.36	178.56
EXTM 42	1229.72	1240.97	7	17	41.6	359.96	.0042	-27.97	.0000	190144.9	1.73	82.75	.0000	.34	-.0269	-28.20	149.02
RISE 51	1365.39	1376.64	7	19	57.3	270.00	.0041	-27.39	-.0000	208848.4	1.29	11.52	.0034	115.02	-.0014	-28.05	115.92
RISE 72	1520.09	1531.34	7	22	32.0	265.82	.0041	-27.64	-.0000	225116.7	1.18	-.01	.0036	117.93	-.0005	-27.88	78.03
RISE 61	1607.26	1618.51	7	23	59.1	297.92	.0041	-28.96	-.0000	233281.2	1.27	.00	.0024	129.37	.0027	-27.80	56.63
SET 42	1653.18	1664.43	8	0	45.1	105.00	.0041	-26.83	.0000	237049.8	1.84	4.10	-.0029	239.79	-.0022	-27.76	45.35
EXTM 51	1719.10	1730.35	8	1	51.0	358.51	.0042	-27.75	.0000	237193.4	1.49	87.59	.0021	146.84	.0734	-27.70	29.14
EXTM 61	1856.27	1867.52	8	4	8.1	.41	.0042	-28.92	.0000	253343.7	1.45	20.84	.0000	180.39	.0039	-27.58	355.35
EXTM 72	1896.02	1907.27	8	4	47.9	.12	.0042	-28.04	.0000	253117.0	1.43	69.87	-.0000	180.32	.0107	-27.55	345.55
RISE 11	2041.46	2052.71	8	7	13.3	292.35	.0042	-28.32	-.0000	271345.0	1.08	.00	.0028	125.50	.0024	-27.44	309.65
SET 51	2084.45	2095.70	8	7	56.3	90.00	.0041	-26.90	.0000	273656.6	1.74	11.33	-.0034	245.44	-.0014	-27.41	299.03
SET 61	2105.04	2116.29	8	8	16.9	62.82	.0042	-28.36	.0000	276400.3	1.64	-.00	-.0026	231.51	-.0027	-27.39	283.84
SET 72	2270.00	2281.25	8	11	0.5	24.07	.0041	-27.09	.0001	288520.7	1.02	3.91	-.0029	116.98	-.0022	-27.28	252.88
RISE 42	2271.15	2282.40	8	11	3.0	255.00	.0041	-26.51	-.0000	289580.1	1.00	3.91	-.0029	116.98	-.0022	-27.28	252.88
EXTM 11	2311.50	2322.75	8	11	43.4	.28	.0042	-28.36	.0000	290356.3	1.31	26.43	-.0000	180.27	.0041	-27.25	242.88
SET 11	2581.33	2592.58	8	16	13.2	68.12	.0042	-27.84	.0000	313829.3	1.55	.00	-.0028	235.14	.0024	-27.08	176.03
EXTM 42	2690.34	2701.59	8	18	2.2	359.99	.0042	-26.85	.0000	315633.7	1.22	81.63	-.0000	.14	-.0114	-27.02	148.99
RISE 51	2820.97	2832.22	8	20	12.8	270.00	.0041	-26.52	-.0000	330076.6	.82	11.18	.0034	114.21	-.0015	-26.95	116.97
RISE 72	2974.18	2985.43	8	22	46.1	265.99	.0042	-26.71	-.0000	342266.7	.73	-.00	.0037	116.98	-.0005	-26.87	78.50
RISE 61	3053.56	3064.81	9	0	5.4	296.26	.0042	-27.60	-.0000	347665.1	.85	.00	.0025	127.37	.0027	-26.84	58.69
SET 42	3108.79	3120.04	9	1	.7	105.00	.0041	-26.18	.0000	350988.5	1.46	3.71	-.0030	240.30	-.0023	-26.81	44.90
EXTM 51	3174.35	3185.60	9	2	6.2	359.14	.0042	-26.81	.0000	349499.6	1.12	88.68	.0022	144.47	.1331	-26.79	28.93
EXTM 61	3306.20	3317.45	9	4	18.1	.17	.0042	-27.67	.0000	362267.8	1.12	22.09	-.0000	180.16	.0040	-26.74	355.59
EXTM 72	3346.17	3357.42	9	4	58.0	.07	.0042	-27.05	.0000	361355.2	1.12	70.85	-.0000	180.21	.0113	-26.73	345.60
RISE 11	3484.65	3495.90	9	7	16.5	291.37	.0042	-27.31	-.0000	376653.0	.82	.00	.0028	124.17	.0024	-26.68	310.95
SET 51	3533.76	3545.01	9	8	5.6	90.00	.0042	-26.30	.0000	378789.9	1.53	11.09	-.0034	246.01	-.0015	-26.67	298.65
SET 61	3558.51	3569.76	9	8	30.4	64.04	.0042	-27.36	.0000	381732.9	1.45	-.00	-.0025	232.99	.0027	-26.66	292.45
IMPACT	3700.64	3711.89	9	10	52.5												
IMPC 42	3700.64	3711.89	9	10	52.5	251.98	.0043	-26.04	-.0000	392830.5	1.72	1.22	.0030	121.50	-.0024	-26.62	256.59
IMPC 72	3700.64	3711.89	9	10	52.5	90.11	.0043	-26.51	.0000	392584.8	2.48	3.42	-.0038	243.70	-.0004	-26.62	256.59
IMPC 11	3700.64	3711.89	9	10	52.5	346.36	.0044	-27.44	.0000	390177.8	1.97	26.04	.0008	166.53	.0042	-26.62	256.59

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	6	21	11.874	6586.134	20.0048	306.2040	10.95966	4.4957	112.9195	128.4478
SEPARATION	1.20	12.45	6	21	13.074	6670.118	17.2697	312.3913	10.88924	7.8515	114.9966	134.9389
RETRO	3.20	14.45	6	21	15.074	6907.238	12.4891	321.8775	10.69919	13.1919	117.5696	144.9234
ENTER SHA	13.66	24.91	6	21	25.536	9447.208	-7.6710	355.2098	9.13465	33.5122	119.1569	180.8783
EXIT SHA	67.47	78.72	6	22	19.342	26080.023	-27.7786	33.7790	5.44281	59.5434	101.9838	232.9360
IMPACT	3700.64	3711.89	9	10	52.517	393017.258	-26.6201	256.5944	2.21741	67.7105	271.1070	286.5311

SURVEYOR VIEW PERIODS

QHA	226.3615					EPS	56.4326						LOM	253.3137	
SX	.253435	SY	-.85/343	SZ	-.448032	DAO	-26.61752	RAO	286.46796	RM	394303.918	LAT	28.310600	LON	279.461800
C3	-.94/208	ECC	.984448	SLR	12987.549	HCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.273384	NSY	-.851/10	NSZ	-.447047	C3M	1.4964	VIM	2.6713	ZAE	140.666	B.T	.0000	B.R	-.0000
LATE	5.2085	LONE	4.8121	LATS	-.1546	LONS	306.6/96	LATI	-.8738	LONI	325.9034	RSM	151.2590	TTAN	6.7263
LAUNCH DATE		MAY	6,1966		BASE AZM	105.0		TF	61.741			ARRIVAL DATE		MAY 9 1966	11 5 21.0

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	21 6 26.4	28.1	18.92	305.64	10.25	129.34	115.00	21 17 41.4	6596.9	10.95	5.08

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PRORE IN SUNLIGHT											
INJECTION	.00	11.25	6	21	17.7												
SEPARATION	1.20	12.45	6	21	18.9												
RETRO	3.20	14.45	6	21	20.9												
RISE 72	4.22	15.47	6	21	21.9	83.84	-.1613	37.69	-.0019	5133.4	-7.33	-.00	.1260	308.12	.0203	8.41	325.14
EXTM 72	11.08	22.33	6	21	28.8	353.95	-.1459	.01	-.1106	2396.7	4.79	80.05	.0000	37.59	1.0602	-5.75	347.33
RISE 51	11.12	22.37	6	21	28.8	80.85	-.0773	18.26	-.0592	6006.5	-2.33	-.00	.0832	290.35	-.0013	-5.81	347.43
ENTER SHA	13.85	25.10	6	21	31.5												
ENTR 72	13.85	25.10	6	21	31.5	336.16	-.0774	-12.98	-.0526	5381.5	6.66	66.02	-.0833	104.24	.0956	-9.85	353.79
ENTR 51	13.85	25.10	6	21	31.5	68.39	-.0740	11.32	-.0446	5765.5	-.61	13.89	.0852	290.10	-.0018	-9.85	353.79
ENTR 61	13.85	25.10	6	21	31.5	4.04	-.0754	-51.54	.0035	7345.8	6.12	-1.84	.0060	182.51	-.0467	-9.85	353.79
EXTM 51	47.80	59.05	6	22	5.5	.95	-.0097	-27.75	-.0037	14014.1	5.07	87.82	-.0000	202.67	-.2449	-27.12	27.04
EXIT SHA	64.93	76.18	6	22	22.6												
EXIT 72	64.93	76.18	6	22	22.6	299.64	-.0005	-31.89	-.0006	21689.0	4.90	29.24	-.0005	122.24	.0006	-29.02	31.73
EXIT 51	64.93	76.18	6	22	22.6	354.54	-.0037	-30.09	-.0014	19076.8	4.77	83.51	-.0033	133.34	-.0092	-29.02	31.73
EXIT 61	64.93	76.18	6	22	22.6	315.14	-.0017	-41.62	.0013	24767.0	4.84	-1.40	.0004	148.16	-.0018	-29.02	31.73
EXTM 72	71.48	82.73	6	22	29.2	299.56	.0001	-32.10	-.0005	23576.0	4.72	29.14	.0000	122.47	.0006	-29.46	32.72
RISE 61	94.93	106.18	6	22	52.6	314.82	.0009	-39.79	.0008	32889.3	4.24	-.00	.0010	146.97	.0002	-30.37	34.08
EXTM 51	96.60	107.85	6	22	54.3	352.05	.0003	-31.44	-.0003	27615.4	4.25	81.00	.0000	131.07	.0026	-30.41	34.08
EXTM 51	171.32	182.57	7	0	9.0	.16	.0027	-31.72	.0001	44909.6	3.55	84.02	.0000	181.32	.0219	-30.98	27.54
EXTM 61	363.88	375.13	7	3	21.6	4.64	.0038	-34.45	.0002	85048.4	2.75	15.19	.0000	183.96	.0032	-30.40	351.41
EXTM 72	393.88	405.13	7	3	51.6	.77	.0039	-31.92	.0001	85944.2	2.67	65.97	.0000	181.61	.0082	-30.30	344.96
RISE 11	573.65	584.90	7	6	51.3	296.01	.0040	-31.86	.0000	118422.3	2.05	.00	.0025	130.24	.0023	-29.74	304.54
SET 51	589.74	600.99	7	7	7.4	90.00	.0038	-28.58	.0001	119341.4	2.64	11.99	-.0031	243.87	-.0012	-29.69	300.82
SET 61	593.69	604.94	7	7	11.4	58.09	.0039	-31.99	.0002	121204.3	2.52	-.00	-.0020	226.05	.0026	-29.68	299.91
SET 72	788.61	799.86	7	10	26.3	94.39	.0039	-28.85	.0001	146621.7	2.44	-.01	-.0034	240.85	-.0004	-29.21	254.10
RISE 42	798.45	809.70	7	10	36.1	254.99	.0040	-27.71	-.0000	147321.3	1.74	4.64	.0028	120.91	-.0021	-29.19	251.76
EXTM 11	859.32	870.57	7	11	17.0	1.19	.0041	-31.30	.0001	150301.3	2.01	23.49	.0000	181.11	.0039	-29.11	242.01
SET 11	1101.52	1112.77	7	15	39.2	65.98	.0041	-29.98	.0001	182763.5	2.09	-.00	-.0026	232.30	.0024	-28.64	178.87
EXTM 42	1224.29	1235.54	7	17	42.0	359.95	.0042	-28.23	.0000	189555.5	1.73	83.01	.0000	.40	-.0285	-28.45	149.03
RISE 51	1360.03	1371.28	7	19	57.7	270.00	.0041	-27.61	-.0000	208275.8	1.29	11.61	.0033	115.23	-.0014	-28.27	115.91
RISE 72	1514.58	1525.83	7	22	32.3	265.79	.0041	-27.84	-.0000	224554.4	1.18	-.00	.0036	118.13	-.0005	-28.08	78.06
RISE 61	1602.81	1614.06	8	0	.5	298.16	.0041	-29.15	-.0000	232623.9	1.27	.00	.0024	129.64	.0027	-27.98	56.40
SET 42	1647.76	1659.01	8	0	45.4	105.00	.0041	-27.00	.0001	236494.1	1.85	4.21	-.0029	239.65	-.0022	-27.93	45.35
EXTM 51	1719.66	1730.91	8	1	57.3	.02	.0042	-27.91	.0000	237190.6	1.50	87.82	-.0000	180.59	.0677	-27.86	27.67
EXTM 61	1851.05	1862.30	8	4	8.7	.46	.0042	-29.07	.0000	252845.0	1.45	20.69	-.0000	180.43	.0039	-27.73	355.30
EXTM 72	1890.65	1901.90	8	4	48.3	.14	.0042	-28.18	.0000	252598.1	1.43	69.72	-.0000	180.35	.0106	-27.69	345.54
RISE 11	2036.56	2047.81	8	7	14.2	292.48	.0042	-28.45	-.0000	270864.4	1.08	.00	.0027	125.67	.0024	-27.56	309.52
SET 51	2079.01	2090.26	8	7	56.7	90.00	.0041	-27.02	.0001	273128.2	1.74	11.38	-.0034	245.33	-.0014	-27.53	299.04
SET 61	2099.01	2110.26	8	8	16.7	62.67	.0042	-28.48	.0000	276029.0	1.64	-.00	-.0024	231.34	.0027	-27.51	294.09
SET 72	2265.22	2276.47	8	11	2.9	94.09	.0041	-27.19	.0001	289437.5	1.72	-.00	-.0036	242.53	-.0005	-27.38	252.99
RISE 42	2265.73	2276.98	8	11	3.4	255.00	.0041	-26.61	-.0000	289036.8	1.00	3.97	.0029	120.04	-.0022	-27.38	252.86
EXTM 11	2306.18	2317.43	8	11	43.9	.31	.0042	-28.46	.0000	289858.1	1.31	26.33	-.0000	180.30	.0041	-27.35	242.85
SET 11	2575.58	2586.83	8	16	13.3	68.04	.0042	-27.92	.0000	313291.7	1.55	.00	-.0028	235.04	.0024	-27.15	176.10
EXTM 42	2684.88	2696.13	8	18	2.6	359.99	.0042	-26.92	.0000	315117.9	1.22	81.70	-.0000	.15	-.0129	-27.08	148.99
RISE 51	2815.52	2826.77	8	20	13.2	270.00	.0041	-26.57	-.0000	329560.1	.82	11.20	.0034	114.26	-.0015	-27.00	116.57
RISE 72	2968.69	2979.94	8	22	46.4	265.98	.0042	-26.75	-.0000	341749.5	.73	-.00	.0037	117.03	-.0005	-26.91	78.50
RISE 61	3048.28	3059.53	9	0	6.0	296.31	.0042	-27.64	-.0000	347156.5	.85	.00	.0025	127.43	.0027	-26.87	58.64
SET 42	3103.32	3114.57	9	1	1.0	105.00	.0041	-26.21	.0000	350460.7	1.45	3.73	-.0030	240.27	-.0023	-26.85	44.90
EXTM 51	3168.71	3179.96	9	2	6.4	359.10	.0042	-26.84	.0000	348957.7	1.12	88.64	.0023	143.86	.1274	-26.82	28.57
EXTM 61	3300.81	3312.06	9	4	18.5	.18	.0042	-27.69	.0000	361731.5	1.12	22.07	-.0000	180.17	.0040	-26.76	355.57
EXTM 72	3340.73	3351.98	9	4	58.4	.08	.0042	-27.07	.0000	360809.2	1.12	70.83	-.0000	180.22	.0112	-26.75	345.59
RISE 11	3479.26	3490.51	9	7	17.0	291.38	.0042	-27.33	-.0000	376084.2	.82	.00	.0028	124.18	.0024	-26.69	310.94
SET 51	3528.31	3539.56	9	8	6.0	90.00	.0042	-26.30	.0000	378202.0	1.52	11.09	-.0034	246.00	-.0015	-26.68	298.65
SET 61	3553.03	3564.28	9	8	30.7	64.03	.0042	-27.36	.0000	381132.6	1.44	-.00	-.0025	232.98	.0027	-26.67	292.46
RISE 42	3708.72	3719.97	9	11	6.4	255.00	.0044	-26.05	-.0000	393165.3	2.25	3.63	.0031	119.60	-.0024	-26.62	253.16
IMPACT	3704.49	3715.74	9	11	2.2												
IMPC 42	3704.49	3715.74	9	11	2.2	253.90	.0043	-26.05	-.0000	392680.9	1.71	2.85	.0031	120.20	-.0024	-26.62	254.27
IMPC 72	3704.49	3715.74	9	11	2.2	92.43	.0043	-26.49	.0000	392846.1	2.47	1.36	-.0038	243.44	-.0005	-26.62	254.27
IMPC 11	3704.49	3715.74	9	11	2.2	348.72	.0044	-27.43	.0000	390168.6	1.98	26.46	.0007	168.82	.0043	-26.62	254.27
SET 72	3710.31	3721.56	9	11	8.0	93.96	.0045	-26.48	.0000	393835.8	3.64	.01	-.0040	243.25	-.0006	-26.62	252.74

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	6	21	17.590	6597.976	18.8950	305.6897	10.94995	5.0829	115.0120	129.3913
SEPARATION	1.20	12.45	6	21	18.890	6689.325	15.9679	311.6838	10.87329	8.4231	116.9019	135.6862
RETRO	3.20	14.45	6	21	20.890	6938.246	10.9323	320.8802	10.67488	13.7236	119.1649	145.3840
ENTER SHA	13.85	25.10	6	21	31.539	9567.164	-9.8517	353.7945	9.07635	34.0459	119.5174	180.9679
EXIT SHA	64.93	76.18	6	22	22.624	25421.575	-29.0241	31.7332	5.51473	59.1211	101.3304	231.7130
IMPACT	3704.49	3715.74	9	11	2.177	393048.902	-26.6165	254.2665	2.21590	67.6344	271.7755	286.6248

)

SURVEYOR VIEW PERIODS

GHA 226.3615 EPS 56.5028 LGM 251.1991
SX .254715 SY -.856997 SZ -.447969 DAO -26.61343 HAO 286.55287 RM 394331.563 LAT 28.310600 LON 279.461800
C3 -.951627 ECC .984375 SLR 12987.074 RCA 6544.6650 LTA -20.0000 GTA 20.00 TB 675.00000 POL -.0
NSX .274698 NSY -.851320 NSZ -.446985 C3M 1.4965 VIM 2.6713 ZAG 140.511 B.T .0000 B.R -.0000
LATE 5.2145 LONE 4.7201 LATS -.1547 LONS 308.5174 LATI -1.2360 LONI 325.7161 RSM 151.2548 TTAN 6.7286
LAUNCH DATE MAY 6,1966 BASE AZM 108.0 TF 61.815 ARRIVAL DATE MAY 9 1966 11 14 7.4

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	21 10 57.1	28.1	17.84	305.07	11.15	129.90	117.08	21 22 12.1	6606.5	10.94	5.93

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	6	21	22.2												
SEPARATION	1.20	12.45	6	21	23.4												
RETRO	3.20	14.45	6	21	25.4												
RISE 72	4.15	15.40	6	21	26.4	84.78	-.1492	33.24	-.0183	3170.3	-7.32	-.00	.1261	303.60	.0025	6.94	323.74
EXTM 72	10.57	21.82	6	21	32.8	4.90	-.1694	-3.82	-.1157	2279.7	4.04	83.64	.2037	309.70	.1869	-6.83	344.37
RISE 51	11.14	22.39	6	21	33.3	82.58	-.0734	15.00	-.0416	6080.5	-2.21	.00	.0821	286.69	-.0053	-7.80	345.83
ENTER SHA	14.27	25.52	6	21	36.5												
ENTR 72	14.27	25.52	6	21	36.5	338.90	-.0777	-19.92	-.0409	3560.0	6.74	66.30	-.0837	122.65	.0064	-12.39	352.94
ENTR 51	14.27	25.52	6	21	36.5	69.04	-.0701	6.67	-.0459	5847.2	-.27	15.64	.0831	285.59	-.0065	-12.39	352.94
ENTR 61	14.27	25.52	6	21	36.5	5.73	-.0727	-53.06	.0024	7763.5	6.11	-3.43	.0057	183.45	-.0435	-12.39	352.94
EXTM 51	49.95	61.20	6	22	12.2	1.89	-.0091	-30.61	-.0027	14728.8	5.02	84.86	-.0000	198.43	-.0924	-29.14	26.39
EXIT SHA	61.87	73.12	6	22	24.1												
EXIT 72	61.87	73.12	6	22	24.1	301.12	-.0010	-33.81	-.0004	20762.3	4.99	30.12	-.0009	124.07	.0003	-30.36	29.79
EXIT 51	61.87	73.12	6	22	24.1	357.12	-.0047	-31.97	-.0013	18247.1	4.81	83.28	-.0027	158.63	-.0273	-30.36	29.79
EXIT 61	61.87	73.12	6	22	24.1	316.97	-.0023	-43.55	.0016	24011.1	4.90	-2.33	.0005	150.33	-.0023	-30.36	29.79
EXTM 72	72.39	83.64	6	22	34.6	300.84	.0001	-34.00	-.0002	23815.4	4.70	29.86	.0000	124.83	.0003	-31.01	31.55
EXTM 51	97.11	108.36	6	22	59.3	353.50	.0002	-33.10	-.0001	27787.5	4.24	80.72	.0000	143.96	.0015	-31.75	32.90
RISE 61	105.05	116.30	6	23	7.2	316.72	.0013	-40.71	.0008	35824.9	4.08	-.00	.0012	148.69	.0004	-31.87	32.79
EXTM 51	165.69	176.94	7	0	7.9	.46	.0026	-32.94	.0001	43746.9	3.59	82.79	.0000	183.06	.0173	-32.02	27.29
EXTM 61	361.94	373.19	7	3	24.1	5.22	.0038	-35.17	.0002	64822.3	2.76	14.44	.0000	184.41	.0032	-31.09	350.87
EXTM 72	390.39	401.64	7	3	52.6	.99	.0039	-32.64	.0001	85429.9	2.68	65.25	.0000	181.98	.0079	-30.96	344.76
RISE 11	572.04	583.29	7	6	54.2	296.58	.0040	-32.38	.0000	118200.3	2.06	.00	.0025	130.95	.0023	-30.25	303.96
SET 51	585.48	596.73	7	7	7.7	90.00	.0038	-29.09	.0001	118732.9	2.64	12.19	-.0031	243.39	-.0012	-30.20	300.85
SET 61	586.19	597.41	7	7	8.4	57.31	.0039	-32.55	.0002	120164.8	2.53	.00	-.0020	225.19	.0026	-30.20	300.70
SET 72	784.78	796.03	7	10	27.0	94.47	.0039	-29.25	.0001	146138.4	2.44	-.01	-.0034	240.44	-.0004	-29.62	254.04
RISE 42	794.47	805.72	7	10	36.7	254.99	.0040	-28.10	-.0000	146794.5	1.75	4.88	.0028	121.23	-.0021	-29.59	251.74
EXTM 11	835.83	847.08	7	11	18.0	1.32	.0041	-31.69	.0001	149907.1	2.01	23.09	.0000	181.22	.0038	-29.49	241.88
SET 11	1096.14	1107.39	7	15	38.3	65.66	.0041	-30.29	.0001	182151.2	2.09	-.00	-.0026	231.88	.0024	-29.94	179.19
EXTM 42	1220.22	1231.47	7	17	42.4	359.94	.0042	-28.50	.0000	189093.6	1.73	83.28	.0000	.49	-.0296	-28.72	149.04
RISE 51	1356.02	1367.27	7	19	58.2	270.00	.0041	-27.85	-.0000	207821.9	1.29	11.70	.0033	115.45	-.0014	-28.51	115.90
RISE 72	1510.40	1521.65	7	22	32.6	265.75	.0041	-28.05	-.0000	224102.5	1.18	-.00	.0036	118.34	-.0005	-28.29	78.09
RISE 61	1599.79	1611.04	8	0	2.0	298.41	.0041	-29.34	-.0000	232482.0	1.27	.00	.0024	129.94	.0027	-28.17	56.15
SET 42	1643.67	1654.92	8	0	45.9	105.00	.0041	-27.19	.0001	236042.8	1.85	4.32	-.0029	239.50	-.0022	-28.12	45.36
EXTM 51	1715.56	1726.81	8	1	57.8	.01	.0042	-28.10	.0000	236753.5	1.50	87.64	.0000	180.46	.0437	-28.03	27.68
EXTM 61	1847.16	1858.41	8	4	9.4	.50	.0042	-29.23	.0000	252443.5	1.45	20.53	-.0000	180.47	.0039	-27.89	355.26
EXTM 72	1886.62	1897.87	8	4	48.8	.15	.0042	-28.34	.0000	252174.7	1.44	69.57	-.0000	180.38	.0106	-27.84	345.52
RISE 11	2033.01	2044.26	8	7	15.2	292.61	.0042	-28.59	-.0000	270476.1	1.08	.00	.0027	125.85	.0024	-27.70	309.39
SET 51	2074.90	2086.15	8	7	57.1	90.00	.0041	-27.15	.0001	272887.0	1.74	11.43	-.0034	245.21	-.0014	-27.65	299.04
SET 61	2094.25	2105.50	8	8	16.5	62.51	.0042	-28.61	.0001	275940.6	1.64	-.00	-.0024	231.14	.0027	-27.64	294.25
SET 72	2261.17	2272.42	8	11	3.4	94.11	.0041	-27.30	.0001	289005.7	1.72	-.00	-.0036	242.42	-.0005	-27.48	252.97
RISE 42	2261.62	2272.87	8	11	3.8	255.00	.0041	-26.72	-.0000	288593.7	1.00	4.04	.0029	120.12	-.0022	-27.48	252.86
EXTM 11	2302.18	2313.43	8	11	44.4	.34	.0042	-28.57	.0000	289440.7	1.31	26.22	-.0000	180.33	.0041	-27.45	242.62
SET 11	2571.10	2582.35	8	16	13.3	67.96	.0042	-28.00	.0000	312822.8	1.55	.00	-.0028	234.93	.0024	-27.23	176.19
EXTM 42	2680.72	2691.97	8	18	2.9	359.99	.0042	-26.99	.0000	314669.1	1.22	81.77	-.0000	.15	-.0144	-27.15	148.99
RISE 51	2811.37	2822.62	8	20	13.6	270.00	.0041	-26.63	-.0000	329106.3	.82	11.22	.0034	114.31	-.0015	-27.06	116.97
RISE 72	2964.50	2975.75	8	22	46.7	265.98	.0042	-26.79	-.0000	341290.5	.73	-.00	.0037	117.07	-.0005	-26.95	78.51
RISE 61	3044.31	3055.56	9	0	6.5	296.36	.0042	-27.68	-.0000	346705.9	.85	.00	.0025	127.49	.0027	-26.91	58.59
SET 42	3099.14	3110.39	9	1	1.3	105.00	.0041	-26.25	.0000	349988.8	1.45	3.75	-.0030	240.25	-.0023	-26.88	44.90
EXTM 51	3164.32	3175.57	9	2	6.5	359.04	.0042	-26.87	.0000	348468.3	1.11	88.58	.0023	143.08	.1211	-26.85	28.62
EXTM 61	3296.71	3307.96	9	4	18.9	.20	.0042	-27.72	.0000	361249.1	1.11	22.04	-.0000	180.19	.0040	-26.79	355.55
EXTM 72	3336.58	3347.83	9	4	58.8	.08	.0042	-27.10	.0000	360316.2	1.12	70.81	-.0000	180.24	.0112	-26.77	345.59
RISE 11	3475.16	3486.41	9	7	17.4	291.40	.0042	-27.34	-.0000	375568.1	.81	.00	.0028	124.20	.0024	-26.71	310.92
SET 51	3524.15	3535.40	9	8	6.3	90.00	.0042	-26.31	.0000	377667.0	1.52	11.10	-.0034	245.99	-.0015	-26.69	298.66
SET 61	3548.82	3560.07	9	8	31.0	64.01	.0042	-27.38	.0000	380985.6	1.44	-.00	-.0025	232.96	.0027	-26.68	292.47
RISE 42	3704.84	3716.09	9	11	7.0	255.00	.0043	-26.05	-.0000	392156.7	1.49	3.63	.0030	119.59	-.0023	-26.61	253.16
SET 72	3706.50	3717.75	9	11	8.7	93.96	.0043	-26.47	.0000	392743.4	2.32	.00	-.0038	243.25	-.0006	-26.61	252.74
IMPACT	3708.92	3720.17	9	11	11.1												
IMPC 42	3708.92	3720.17	9	11	11.1	256.05	.0043	-26.05	-.0000	392541.0	1.70	4.38	.0031	119.02	-.0023	-26.61	252.11
IMPC 72	3708.92	3720.17	9	11	11.1	94.59	.0043	-26.47	.0000	393088.3	2.47	-.55	-.0038	243.17	-.0006	-26.61	252.11
IMPC 11	3708.92	3720.17	9	11	11.1	350.91	.0044	-27.43	.0000	390167.3	1.99	26.77	.0006	170.96	.0043	-26.61	252.11

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	6	21	22.202	6608.057	17.8050	305.1328	10.94171	5.5292	117.1002	129.9686
SEPARATION	1.20	12.45	6	21	23.402	6704.854	14.6892	310.9399	10.86039	8.8566	116.8139	136.0735
RETRO	3.20	14.45	6	21	25.402	6962.649	9.3964	319.8635	10.65579	14.1257	120.7867	145.4985
ENTER SHA	14.27	25.52	6	21	36.470	9743.659	-12.3858	352.9441	8.99257	34.8004	119.8019	181.3534
EXIT SHA	61.87	73.12	6	22	24.070	24590.104	-30.3604	29.7854	5.60965	58.5610	100.8098	230.1277
IMPACT	3708.92	3720.17	9	11	11.123	393078.660	-26.6133	252.1109	2.21418	67.9328	272.4915	286.7117

CASE NUMBER 59
SURVEYOR VIEW PERIODS

GHA	226.3615					EPS	56.5729							LOM	249.0855
SX	.259993	SY	-.856650	SZ	-.447904	DAO	-26.60930	RAO	286.63772	RM	394359.164	LAT	28.310600	LON	279.461800
C3	-.957030	ECC	.984287	SLR	12986.495	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.276022	NSY	-.850924	NSZ	-.446925	C3M	1.4965	VIM	2.6713	ZAE	140.323	B.T	.0000	B.R	-.0000
LATE	5.2203	LONE	4.7962	LATS	-.1546	LONS	308.5234	LATI	-1.6117	LONI	325.6683	RSM	151.2546	TTAN	6.7316
LAUNCH DATE		MAY	6.1966		BASE AZM	111.0		TF	61.904			ARRIVAL DATE		MAY 9 1966 11 22 53.6	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	21 14 34.1	28.1	16.78	304.46	11.85	130.20	119.17	21 25 49.1	6614.6	10.93	5.88

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	6	21	25.8												
SEPARATION	1.20	12.45	6	21	27.0												
RETRO	3.20	14.45	6	21	29.0												
RISE 72	4.12	15.37	6	21	29.9	85.61	-.1389	28.91	-.0340	3207.8	-7.23	-.00	.1254	299.21	-.0145	5.41	322.47
RISE 51	11.18	22.43	6	21	37.0	84.24	-.0699	11.76	-.0441	6151.2	-2.08	-.00	.0809	283.08	-.0091	-9.85	344.34
EXTM 72	11.23	22.48	6	21	37.1	4.36	-.1523	-15.05	-.0896	2514.2	4.84	81.67	.0000	210.48	-1.1888	-9.93	344.46
ENTER SHA	14.97	26.22	6	21	40.8												
ENTR 72	14.97	26.22	6	21	40.8	340.09	-.0742	-26.97	-.0287	3885.8	6.82	63.17	-.0685	137.74	-.0498	-15.30	352.69
ENTR 51	14.97	26.22	6	21	40.8	68.67	-.0662	1.25	-.0467	5939.5	.21	18.55	.0803	280.79	-.0111	-15.30	352.69
EXTM 51	52.66	63.91	6	22	18.5	2.29	-.0083	-33.46	-.0019	15601.6	4.97	82.02	-.0000	193.88	-.0517	-31.23	26.10
EXIT SHA	57.63	68.88	6	22	23.5												
EXIT 72	57.63	68.88	6	22	23.5	302.55	-.0018	-35.89	-.0001	19480.5	5.12	30.82	-.0014	127.32	-.0002	-31.70	27.60
EXIT 51	57.63	68.88	6	22	23.5	.11	-.0064	-33.93	-.0013	17070.6	4.88	81.81	-.0012	180.67	-.0367	-31.70	27.60
EXIT 61	57.63	68.88	6	22	23.5	318.91	-.0033	-45.76	.0019	22909.1	5.00	-3.52	.0005	152.65	-.0030	-31.70	27.60
EXTM 72	72.84	84.09	6	22	38.7	301.82	-.0000	-35.93	.0000	23943.6	4.68	30.24	.0000	127.22	-.0000	-32.60	30.55
EXTM 51	95.46	106.71	6	23	1.3	354.62	-.0000	-34.83	.0000	27410.6	4.26	79.80	.0000	154.26	-.0001	-33.14	31.97
RISE 61	116.18	127.43	6	23	22.0	318.63	.0017	-41.57	.0008	38318.2	3.93	-.00	.0013	150.36	.0007	-33.27	31.44
EXTM 51	162.74	173.99	7	0	8.6	.91	.0025	-34.23	.0002	43150.5	3.61	81.48	.0000	185.06	.0140	-33.14	26.90
EXTM 61	361.29	372.54	7	3	27.1	5.83	.0038	-35.90	.0002	84804.1	2.76	13.67	.0009	184.86	.0032	-31.81	350.31
EXTM 72	388.03	399.28	7	3	53.8	1.19	.0039	-33.39	.0002	85089.7	2.68	64.49	.0000	182.31	.0076	-31.66	344.58
RISE 11	571.63	582.88	7	6	57.4	297.19	.0040	-32.92	.0000	118136.7	2.06	.00	.0025	131.70	.0023	-30.78	303.35
SET 61	579.52	590.77	7	7	5.3	56.49	.0039	-33.12	.0002	119237.6	2.53	-.00	-.0019	224.29	.0026	-30.74	301.53
SET 51	582.31	593.56	7	7	8.1	90.00	.0038	-29.62	.0001	118264.4	2.65	12.39	-.0031	242.88	-.0012	-30.73	300.88
SET 72	782.01	793.26	7	10	27.8	94.54	.0039	-29.67	.0001	145773.9	2.44	-.00	-.0034	240.01	-.0004	-30.04	293.99
RISE 42	791.52	802.77	7	10	37.3	254.99	.0040	-28.52	-.0000	146381.5	1.75	5.14	.0028	121.56	-.0021	-30.01	291.72
EXTM 11	833.39	844.64	7	11	19.2	1.47	.0041	-32.10	.0001	149630.1	2.02	22.67	.0000	181.35	.0038	-29.89	241.74
SET 11	1091.68	1102.93	7	15	37.5	65.32	.0041	-30.61	.0001	181624.3	2.09	-.00	-.0025	231.45	.0024	-29.26	179.54
EXTM 42	1217.13	1228.38	7	17	42.9	359.93	.0042	-28.79	.0000	188717.7	1.73	83.57	.0000	.57	-.0313	-29.00	149.05
RISE 51	1352.98	1364.23	7	19	58.8	270.00	.0041	-28.10	-.0000	207446.8	1.30	11.80	.0033	115.69	-.0014	-28.76	115.89
RISE 72	1507.18	1518.43	7	22	33.0	265.71	.0041	-28.27	-.0000	223721.8	1.19	-.00	.0036	118.56	-.0005	-28.51	78.12
RISE 61	1597.75	1609.00	8	0	3.6	298.67	.0042	-29.55	-.0000	232211.5	1.27	.00	.0024	130.25	.0027	-28.38	55.88
SET 42	1640.54	1651.79	8	0	46.4	105.00	.0041	-27.38	.0001	235657.6	1.85	4.44	-.0029	239.35	-.0022	-28.32	45.36
EXTM 51	1712.43	1723.68	8	1	58.3	.01	.0042	-28.29	.0000	236382.5	1.50	87.45	.0000	180.42	.0394	-28.22	27.68
EXTM 61	1844.21	1855.46	8	4	10.0	.55	.0042	-29.40	.0000	252102.0	1.45	20.36	-.0000	180.51	.0039	-28.05	355.21
EXTM 72	1883.53	1894.78	8	4	49.3	.16	.0042	-28.50	.0000	251808.9	1.43	69.40	-.0000	180.41	.0105	-28.00	345.51
RISE 11	2030.42	2041.67	8	7	16.2	292.75	.0042	-28.73	-.0000	270141.7	1.08	.00	.0027	126.03	.0024	-27.83	309.25
SET 61	2090.40	2101.65	8	8	16.2	62.34	.0042	-28.75	.0001	275099.1	1.64	-.00	-.0024	230.94	.0027	-27.77	294.42
SET 72	2258.04	2269.29	8	11	3.9	94.13	.0041	-27.41	.0001	288618.1	1.72	-.00	-.0036	242.31	-.0005	-27.60	252.95
RISE 42	2258.45	2269.70	8	11	4.3	255.00	.0041	-26.83	-.0000	288194.1	1.00	4.11	.0029	120.21	-.0022	-27.60	252.85
EXTM 11	2299.11	2310.36	8	11	44.9	.37	.0042	-28.68	.0000	289066.7	1.31	26.11	-.0000	180.36	.0041	-27.56	242.79
SET 11	2567.53	2578.78	8	16	13.3	67.87	.0042	-28.08	.0000	312386.4	1.55	.01	-.0027	234.82	.0024	-27.31	176.27
EXTM 42	2677.48	2688.73	8	18	3.3	359.99	.0042	-27.06	.0000	314250.6	1.22	81.84	-.0000	.16	-.0158	-27.22	149.00
RISE 51	2808.13	2819.38	8	20	13.9	270.00	.0041	-26.69	-.0000	326678.7	.82	11.25	.0034	114.37	-.0015	-27.12	116.57
RISE 72	2961.37	2972.62	8	22	47.2	265.97	.0042	-26.84	-.0000	340900.2	.73	.00	.0037	117.11	-.0005	-27.00	78.51
RISE 61	3041.36	3052.61	9	0	7.2	296.40	.0042	-27.72	-.0000	346318.1	.85	.00	.0025	127.54	.0027	-26.95	58.54
SET 42	3095.98	3107.23	9	1	1.8	105.00	.0041	-26.28	.0000	349576.9	1.45	3.77	-.0030	240.22	-.0023	-26.92	44.90
EXTM 51	3160.98	3172.23	9	2	6.8	359.00	.0042	-26.90	.0000	348037.4	1.11	88.53	.0023	142.62	.1162	-26.88	28.67
EXTM 61	3293.59	3304.84	9	4	19.4	.22	.0042	-27.74	.0000	360813.4	1.11	22.02	-.0000	180.21	.0040	-26.81	355.54
EXTM 72	3333.39	3344.64	9	4	59.2	.09	.0042	-27.12	.0000	359867.4	1.11	70.78	-.0000	180.25	.0113	-26.79	345.58
RISE 11	3472.00	3483.25	9	7	17.8	291.41	.0042	-27.36	-.0000	375086.6	.81	.00	.0028	124.22	.0024	-26.72	310.91
SET 51	3520.92	3532.17	9	8	6.7	90.00	.0042	-26.33	.0000	377163.4	1.51	11.10	-.0034	245.98	-.0015	-26.70	298.66
SET 61	3545.53	3556.78	9	8	31.4	64.00	.0042	-27.39	.0000	380068.3	1.43	-.00	-.0025	232.95	.0027	-26.69	292.49
RISE 42	3701.76	3713.01	9	11	7.6	255.00	.0042	-26.05	-.0000	391341.0	1.26	3.63	.0030	119.59	-.0023	-26.62	253.16
SET 72	3703.41	3714.66	9	11	9.2	93.96	.0042	-26.47	.0000	391903.1	2.05	.00	-.0038	243.25	-.0005	-26.61	252.74
IMPACT	3714.26	3725.51	9	11	20.1												
IMPC 42	3714.26	3725.51	9	11	20.1	258.20	.0043	-26.06	-.0000	392402.8	1.69	5.93	.0031	117.87	-.0023	-26.61	249.95
IMPC 72	3714.26	3725.51	9	11	20.1	96.74	.0043	-26.45	.0000	393333.5	2.46	-2.46	-.0038	242.87	-.0006	-26.61	249.95
IMPC 11	3714.26	3725.51	9	11	20.1	353.10	.0044	-27.43	.0000	390176.0	2.00	27.02	.0004	173.12	.0043	-26.61	249.95

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	6	21	25.818	6616.601	16.7358	304.5363	10.93469	5.8780	119.1864	130.2754
SEPARATION	1.20	12.45	6	21	27.018	6717.551	13.4343	310.1609	10.84980	9.1947	120.7341	136.2009
RETRO	3.20	14.45	6	21	29.018	6982.216	7.8835	318.8231	10.64047	14.4384	122.4345	145.3645
ENTER SHA	14.97	26.22	6	21	40.791	10000.723	-15.3044	352.6945	8.87456	35.8397	119.9150	182.1872
EXIT SHA	57.63	68.88	6	22	23.450	23398.722	-31.7030	27.6045	5.75443	57.7005	100.6866	227.7915
IMPACT	3714.26	3725.51	9	11	20.078	393111.895	-26.6100	249.9534	2.21102	67.2264	273.1368	286.7992

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SURVEYOR VIEW PERIODS

GHA	226.3615							EPS	56.6619									LOM	246.4012
SX	.257615	SY	.856207	SZ	-.447821	DAO	-26.60399	RAO	286.74545	RM	394394.184	LAT	28.310600	LON	279.461800				
C3	-.964678	ECC	.984161	SLR	12985.676	RCA	6544.6650	LTA	-20.0000	GTA	20.00		TB	675.00000	POL	-.0			
NSX	.277709	NSY	-.850417	NSZ	-.446843	C3M	1.4974	VIM	2.6715	ZAE	140.037		B.T	.0000	B.R	-.0000			
LATE	5.2278	LONE	4.7110	LATS	-.1544	LONS	308.3493	LATI	-2.1220	LONI	325.3874		RSM	151.2544	TTAN	6.7371			
LAUNCH DATE		MAY	6,1966		BASE AZM	115.0		TF	62.030				ARRIVAL DATE		MAY	9 1966	11	34	1.9

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
115.00	21 18 24.1	28.1	15.40	303.60	12.58	130.30	121.95	21 29 39.1	6623.5	10.93	6.24

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	6	21	29.7												
SEPARATION	1.20	12.45	6	21	30.9												
RETRO	3.20	14.45	6	21	32.9												
RISE 72	4.13	15.38	6	21	33.8	86.59	-.1268	23.25	-.0539	3263.0	-6.97	-.00	.1233	293.48	-.0359	3.29	320.94
RISE 51	11.29	22.54	6	21	40.9	86.38	-.0655	7.47	-.0472	6247.0	-1.89	.00	.0791	278.30	-.0140	-12.66	342.46
EXTM 72	11.54	22.79	6	21	41.2	9.24	-.1500	-25.17	-.0741	2730.7	5.01	70.62	-.0000	205.98	-.4660	-13.09	343.08
ENTER SHA	16.49	27.74	6	21	46.1												
ENTR 72	16.49	27.74	6	21	46.	339.15	-.0647	-35.80	-.0144	4602.4	6.90	56.22	-.0444	148.72	-.0566	-19.83	353.39
ENTR 51	16.49	27.74	6	21	46.1	66.44	-.0609	-7.50	-.0455	6135.9	1.11	24.44	.0739	273.44	-.0174	-19.83	353.39
EXIT SHA	52.10	63.35	6	22	21.8												
EXIT 72	52.10	63.35	6	22	21.8	304.50	-.0031	-38.99	.0003	17781.3	5.31	31.51	-.0022	131.30	-.0012	-33.60	24.51
EXIT 51	52.10	63.35	6	22	21.8	4.64	-.0093	-36.79	-.0014	15922.8	4.98	78.26	.0014	198.58	-.0365	-33.60	24.51
EXTM 51	58.29	69.54	6	22	27.9	1.70	-.0067	-37.17	-.0007	17345.3	4.86	78.47	-.0000	186.81	-.0269	-34.11	26.48
EXTM 72	73.16	84.41	6	22	42.8	302.75	-.0001	-38.57	.0003	24060.9	4.67	30.31	.0000	130.39	-.0004	-34.79	29.48
EXTM 51	88.39	99.64	6	22	58.0	355.99	-.0008	-37.35	.0002	25647.0	4.36	77.90	.0000	164.60	-.0033	-35.05	30.82
RISE 61	131.75	143.00	6	23	41.4	321.20	.0021	-42.64	.0008	42067.5	3.75	-.00	.0014	152.55	.0010	-34.97	29.54
EXTM 51	162.82	174.07	7	0	12.5	1.76	.0025	-35.98	.0003	43216.5	3.61	79.65	.0000	187.95	.0113	-34.67	26.17
EXTM 61	361.89	373.14	7	3	31.5	6.65	.0038	-36.89	.0003	85017.7	2.75	12.63	.0000	185.44	.0031	-32.79	349.59
EXTM 72	386.39	397.64	7	3	56.0	1.90	.0039	-34.41	.0002	84873.4	2.68	63.46	.0000	182.76	.0073	-32.61	344.30
RISE 11	572.44	583.69	7	7	2.1	298.03	.0040	-33.66	.0000	118235.5	2.06	.00	.0024	132.72	.0023	-31.50	302.51
SET 61	571.51	582.76	7	7	1.2	55.30	.0039	-33.93	.0002	118105.4	2.54	.00	-.0019	223.01	.0027	-31.50	302.73
SET 51	579.34	590.59	7	7	9.0	90.00	.0038	-30.36	.0002	117804.3	2.65	12.68	-.0031	242.19	-.0011	-31.46	300.92
SET 72	779.49	790.74	7	10	29.1	94.65	.0039	-30.25	.0001	145428.1	2.44	-.00	-.0034	239.43	-.0004	-30.62	253.91
RISE 42	788.75	800.00	7	10	38.4	254.99	.0040	-29.10	-.0000	145965.7	1.75	5.49	.0028	122.02	-.0021	-30.59	291.70
EXTM 11	831.32	842.57	7	11	21.0	1.66	.0041	-32.67	.0001	149398.3	2.02	22.11	.0000	181.51	.0038	-30.44	241.55
SET 11	1086.76	1098.01	7	15	36.4	64.85	.0041	-31.06	.0001	181025.7	2.09	-.00	-.0025	230.84	.0024	-29.69	180.02
EXTM 42	1214.10	1225.35	7	17	43.8	359.92	.0042	-29.19	.0000	188321.0	1.73	83.97	.0000	.71	-.0337	-29.39	149.06
RISE 51	1350.00	1361.25	7	19	59.7	270.00	.0041	-28.44	-.0000	207843.9	1.30	11.93	.0033	116.01	-.0014	-29.10	115.88
RISE 72	1503.93	1515.18	7	22	33.6	265.66	.0041	-28.57	-.0000	223304.3	1.19	-.00	.0036	118.87	-.0005	-28.81	78.17
RISE 61	1596.12	1607.37	8	0	5.8	299.03	.0042	-29.83	-.0000	231940.6	1.27	.00	.0024	130.67	.0027	-28.65	55.53
SET 42	1637.42	1648.67	8	0	47.1	105.00	.0041	-27.65	.0001	235229.1	1.84	4.61	-.0029	239.14	-.0022	-28.59	45.37
EXTM 51	1709.40	1720.65	8	1	59.1	.03	.0042	-28.55	.0000	235978.4	1.50	87.19	-.0000	180.63	.0662	-28.47	27.66
EXTM 61	1841.33	1852.58	8	4	11.0	.62	.0042	-29.63	.0000	251726.4	1.45	20.13	-.0000	180.57	.0039	-28.28	355.14
EXTM 72	1880.46	1891.71	8	4	50.1	.18	.0042	-28.73	.0000	251898.9	1.43	69.18	-.0000	180.46	.0104	-28.22	345.49
RISE 11	2028.03	2039.28	8	7	17.7	292.95	.0042	-28.92	-.0000	269770.2	1.08	.00	.0027	126.29	.0024	-28.03	309.05
SET 51	2068.50	2079.75	8	7	58.2	90.00	.0041	-27.47	.0001	271845.3	1.74	11.55	-.0034	244.91	-.0014	-27.98	299.09
SET 61	2086.24	2097.49	8	8	15.9	62.11	.0042	-28.94	.0001	274578.3	1.64	-.00	-.0024	230.67	.0027	-27.95	294.66
SET 72	2254.90	2266.15	8	11	4.6	94.16	.0041	-27.56	.0001	288167.6	1.72	-.00	-.0036	242.15	-.0005	-27.75	252.93
RISE 42	2255.23	2266.48	8	11	4.9	255.00	.0041	-26.98	-.0000	287726.7	1.00	4.20	.0029	120.34	-.0022	-27.75	252.85
EXTM 11	2296.04	2307.29	8	11	45.7	.41	.0042	-28.83	.0000	288633.6	1.31	25.98	-.0000	180.40	.0041	-27.71	248.74
SET 11	2563.81	2575.06	8	16	13.5	67.77	.0042	-28.20	.0000	311867.0	1.55	-.00	-.0027	234.67	.0024	-27.43	176.38
EXTM 42	2674.16	2685.41	8	18	3.8	359.98	.0042	-27.16	.0000	313747.9	1.21	81.94	-.0000	.18	-.0157	-27.32	149.80
RISE 51	2804.80	2816.05	8	20	14.5	270.00	.0041	-26.77	-.0000	328160.7	.82	11.28	.0034	114.44	-.0015	-27.20	116.56
RISE 72	2957.97	2969.22	8	22	47.6	265.96	.0042	-26.90	-.0000	340366.6	.73	.00	.0037	117.18	-.0005	-27.06	78.52
RISE 61	3038.29	3049.54	9	0	7.9	296.48	.0042	-27.78	-.0000	345794.3	.84	.00	.0025	127.63	.0027	-27.01	58.47
SET 42	3092.60	3103.85	9	1	2.3	105.00	.0041	-26.34	.0000	349020.0	1.45	3.81	-.0030	240.[illegible]	-.0022	-26.97	44.90
EXTM 51	3157.40	3168.65	9	2	7.1	358.95	.0042	-26.95	.0000	347460.0	1.11	88.46	.0023	142.[illegible]	.1106	-26.93	28.72
EXTM 61	3290.31	3301.56	9	4	20.0	.25	.0042	-27.78	.0000	360235.3	1.11	21.98	-.0000	180.23	.0040	-26.85	355.91
EXTM 72	3330.04	3341.29	9	4	59.7	.10	.0043	-27.15	.0000	359273.3	1.11	70.75	-.0000	180.27	.0112	-26.83	345.98
RISE 11	3468.71	3479.96	9	7	18.4	291.44	.0042	-27.38	-.0000	374458.6	.80	.00	.0028	124.25	.0024	-26.74	310.89
SET 51	3517.53	3528.78	9	8	7.2	90.00	.0042	-26.34	.0000	376509.3	1.50	11.11	-.0034	245.96	-.0015	-26.72	298.66
SET 61	3542.07	3553.32	9	8	31.7	63.98	.0042	-27.40	.0000	379398.1	1.42	-.00	-.0025	232.92	.0027	-26.70	292.51
RISE 42	3698.53	3709.78	9	11	8.2	255.00	.0042	-26.05	-.0000	390409.8	1.12	3.63	.0030	119.59	-.0023	-26.62	253.16
SET 72	3700.16	3711.41	9	11	9.8	93.96	.0042	-26.48	.0000	390054.8	1.89	.00	-.0037	243.25	-.0005	-26.62	252.74
IMPACT	3721.80	3733.05	9	11	31.4												
IMPC 42	3721.80	3733.05	9	11	31.4	260.93	.0043	-26.07	-.0000	392222.2	1.69	7.92	.0032	116.42	-.0023	-26.61	247.21
IMPC 72	3721.80	3733.05	9	11	31.4	99.47	.0043	-26.43	.0000	393640.3	2.45	-4.86	-.0038	242.43	-.0007	-26.61	247.21
IMPC 11	3721.80	3733.05	9	11	31.4	355.88	.0044	-27.43	.0000	396193.3	2.01	27.24	.0003	175.88	.0044	-26.61	247.21

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION	.00	11.25	6	21	29.652	6626.025	15.3446	303.6822	10.92694	6.2372	121.9684	130.3024
SEPARATION	1.20	12.45	6	21	30.852	6731.136	11.8000	309.0685	10.83840	9.5424	123.3095	136.0695
RETRO	3.20	14.45	6	21	32.852	7002.821	5.9057	317.3928	10.62431	14.7593	124.6722	144.8951
ENTER SHA	16.49	27.74	6	21	46.145	10519.678	-19.8342	353.3874	8.64972	37.7514	119.5827	184.2224
EXIT SHA	52.10	63.35	6	22	21.754	21803.574	-33.6005	24.5086	5.96644	56.4230	100.8394	224.2704
IMPACT	3721.80	3733.05	9	11	31.447	393150.875	-26.6058	247.2139	2.20810	67.0282	274.1212	286.9897

SURVEYOR VIEW PERIODS

GHA	227.3471				EPS	67.6565					LOM	270.4880	
SX	.421123	SY	-.784194	SZ	-.427696	DAO	-25.33412	RAO	299.94212	RM	398402.645	LAT	28.310600
CJ	-.923527	ECC	.984840	SLR	12990.114	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000
NSX	.469043	NSY	-.774204	NSZ	-.424979	CJM	1.4931	VIM	2.6707	ZAE	141.561	B.T	.0000
LATE	6.0307	LONE	5.9246	LATS	-.1331	LONS	296.5551	LATI	2.0889	LONI	325.5811	RSM	151.2234
LAUNCH DATE		MAY	7, 1966		BASE AZM	87.0		TF	62.573			ARRIVAL DATE	MAY 10 1966 10 46 39.5

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
87.00	20 8 4.7	27.2	25.96	307.18	-14.64	117.24	101.92	20 19 19.7	6652.6	10.90	-7.29

EVNT STA	TFI	TFL	DAY HR MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROME IN SUNLIGHT												
INJECTION	.00	11.25	/ 20 19.3												
SEPARATION	1.20	12.45	/ 20 20.5												
RETRO	5.20	14.45	/ 20 22.5												
RISE 72	6.83	16.08	/ 20 24.2	26.47	-1.4499	81.19	.0078	2455.1	-4.00	-.00	.0911	356.08	.2028	13.10	344.23
ENTER SHA	9.17	20.42	/ 20 28.5												
ENTR 72	9.17	20.42	/ 20 28.5	304.63	-.1294	54.70	-.2371	2279.8	1.65	12.30	.0684	29.12	.2447	7.83	354.39
ENTR 61	9.17	20.42	/ 20 28.5	4.24	-.2129	-53.82	.0041	3879.6	5.30	-4.12	.0112	182.51	-.1256	7.83	354.39
RISE 51	12.00	23.25	/ 20 31.3	64.36	-.1423	41.91	-.0242	4556.0	-4.16	.00	.1001	317.86	.0421	2.01	4.71
EXTM 72	12.42	23.67	/ 20 31.7	292.08	-.0356	19.32	-.1220	5162.5	6.46	17.81	.0000	66.71	.1329	1.22	6.06
EXTM 51	27.95	39.20	/ 20 47.3	342.01	-.0313	-6.95	-.0264	6632.0	5.59	64.56	-.0000	45.52	.0949	-16.35	37.30
EXIT SHA	57.26	68.51	/ 21 16.6												
EXIT 72	57.26	68.51	/ 21 16.6	271.09	-.0010	-23.98	-.0021	20517.6	5.26	4.20	-.0006	113.66	.0023	-24.86	56.07
EXIT 51	57.26	68.51	/ 21 16.6	321.20	-.0036	-23.14	-.0030	16412.2	5.16	54.70	-.0026	94.24	.00	-24.86	56.07
EXTM 72	65.31	76.56	/ 21 24.6	270.82	-.0002	-24.86	-.0016	22988.0	4.98	4.05	.0000	114.56	.0016	-25.72	58.07
RISE 42	69.22	80.47	/ 21 28.5	103.02	-.0048	-17.71	-.0032	24593.7	4.27	.00	.0056	248.14	.0003	-26.05	58.79
EXTM 51	79.58	90.83	/ 21 38.9	319.01	-.0002	-25.73	-.0012	22929.6	4.60	58.23	.0000	99.20	.0021	-26.72	60.10
EXTM 42	127.32	138.57	/ 22 26.7	97.72	.0005	-23.05	-.0007	39123.7	4.00	7.17	-.0000	246.78	-.0008	-28.03	59.57
SET 42	203.03	214.28	/ 23 42.4	105.00	.0023	-24.57	-.0001	56311.4	3.58	2.72	-.0016	241.58	-.0014	-28.39	49.74
RISE 61	215.44	226.69	/ 23 54.8	303.66	.0033	-33.22	.0002	59124.7	3.13	.00	.0019	135.87	.0020	-28.39	47.66
EXTM 51	320.09	331.34	8 1 39.4	.04	.0037	-28.46	.0000	72481.3	2.89	87.28	.0000	180.75	.0611	-28.24	27.65
EXTM 61	478.41	489.66	8 4 17.7	2.58	.0040	-31.20	.0001	102090.9	2.50	18.52	.0000	182.52	.0036	-27.89	353.31
EXTM 72	513.91	525.16	8 4 53.2	.42	.0041	-29.01	.0001	103567.1	2.43	68.89	-.0000	181.03	.0098	-27.81	345.28
RISE 11	677.22	688.47	8 7 36.5	293.36	.0040	-29.33	-.0000	131989.7	1.90	.00	.0026	126.84	.0023	-27.48	307.46
SET 51	707.15	718.40	8 8 6.5	90.00	.0039	-26.41	.0001	134675.8	2.51	11.14	-.0032	245.90	-.0013	-27.43	300.41
SET 61	725.07	736.32	8 8 24.4	61.56	.0040	-29.37	.0001	138214.2	2.39	-.00	-.0022	230.03	.0027	-27.40	296.18
SET 72	901.33	912.58	8 11 20.7	94.02	.0040	-26.79	.0001	159876.6	2.36	-.00	-.0035	242.94	-.0005	-27.11	254.18
RISE 42	910.53	921.78	8 11 29.9	255.00	.0040	-25.73	-.0000	160579.0	1.64	3.43	.0029	119.34	-.0022	-27.10	251.98
EXTM 11	950.61	961.86	8 12 9.9	.84	.0042	-29.03	.0000	162880.5	1.92	25.76	-.0000	180.81	.0040	-27.04	242.34
SET 11	1221.52	1232.77	8 16 40.8	68.03	.0041	-27.93	.0001	195318.8	2.04	.00	-.0027	235.02	.0024	-26.70	176.71
EXTM 42	1335.11	1346.36	8 18 34.4	359.98	.0042	-26.31	.0000	200753.1	1.68	81.09	-.0000	.15	-.0169	-26.58	149.00
RISE 51	1469.86	1481.11	8 20 49.2	270.00	.0041	-25.81	-.0000	219026.4	1.24	10.89	.0034	113.54	-.0015	-26.45	116.02
RISE 72	1625.34	1636.59	8 23 24.7	266.10	.0041	-26.08	-.0000	234920.5	1.14	-.01	.0036	116.35	-.0005	-26.31	77.86
RISE 61	1703.44	1714.69	9 0 42.8	295.95	.0041	-27.54	-.0000	242071.2	1.23	.00	.0025	126.99	.0027	-26.24	58.65
SET 42	1757.76	1769.01	9 1 37.1	105.00	.0041	-25.30	.0000	246609.4	1.82	3.17	-.0029	241.00	-.0022	-26.20	45.28
EXTM 51	1821.66	1832.91	9 2 41.0	358.10	.0042	-26.16	.0000	248336.9	1.45	88.24	.0037	104.10	.0279	-26.15	29.54
EXTM 61	1960.05	1971.30	9 4 59.4	.35	.0042	-27.32	.0000	262189.4	1.42	22.44	.0000	180.34	.0040	-26.04	355.40
EXTM 72	1999.91	2011.16	9 5 39.2	.11	.0042	-26.45	.0000	262011.9	1.41	71.46	-.0000	180.32	.0117	-26.01	345.56
RISE 11	2139.01	2150.26	9 7 58.3	290.85	.0042	-26.77	-.0000	279554.1	1.05	.00	.0028	123.45	.0024	-25.92	311.19
SET 51	2188.42	2199.67	9 8 47.7	90.00	.0041	-25.39	.0000	282394.4	1.72	10.73	-.0034	246.85	-.0015	-25.89	298.97
SET 61	2216.48	2227.73	9 9 15.8	64.70	.0042	-26.80	.0000	285846.3	1.62	-.00	-.0025	233.80	.0027	-25.87	292.03
SET 72	2373.37	2384.62	9 11 52.7	93.82	.0041	-25.59	.0000	293283.6	1.71	-.01	-.0037	244.14	-.0005	-25.77	253.20
RISE 42	2374.53	2385.78	9 11 53.9	255.00	.0041	-25.03	-.0000	298039.8	.97	3.00	.0030	118.78	-.0023	-25.77	252.91
EXTM 11	2414.89	2426.14	9 12 34.2	.24	.0042	-26.82	.0000	298535.3	1.29	27.97	-.0000	180.25	.0043	-25.75	242.91
SET 11	2690.62	2701.87	9 17 9.9	69.56	.0042	-26.33	.0000	322300.7	1.54	-.00	-.0028	237.13	.0024	-25.60	174.55
EXTM 42	2793.54	2804.79	9 18 52.9	359.97	.0042	-25.35	.0000	325577.9	1.20	80.13	.0000	.17	-.0181	-25.54	149.01
RISE 51	2924.01	2935.26	9 21 3.3	270.00	.0041	-25.06	-.0000	337933.6	.80	10.60	.0034	112.84	-.0015	-25.48	116.61
RISE 72	3077.91	3089.16	9 23 37.2	266.24	.0042	-25.26	-.0000	349902.6	.72	-.00	.0037	115.92	-.0005	-25.42	78.29
RISE 61	3149.53	3160.78	10 0 48.9	294.54	.0042	-26.14	-.0000	354730.0	.83	.00	.0026	125.25	.0027	-25.40	60.42
SET 42	3211.89	3223.10	10 1 51.2	105.00	.0041	-24.76	.0000	358596.9	1.45	2.84	-.0030	241.43	-.0023	-25.38	44.87
EXTM 51	3274.97	3286.22	10 2 54.3	358.55	.0042	-25.36	.0000	358815.8	1.11	88.64	.0037	74.01	-.0461	-25.36	29.11
EXTM 61	3409.01	3420.26	10 5 8.3	.12	.0042	-26.23	.0000	369542.8	1.12	23.53	-.0000	180.12	.0041	-25.33	355.63
EXTM 72	3449.13	3460.38	10 5 48.5	.07	.0042	-25.62	.0000	368732.6	1.12	72.29	-.0000	180.21	.0120	-25.32	345.61
RISE 11	3582.27	3593.52	10 8 1.6	290.05	.0042	-25.91	-.0000	383763.4	.83	.00	.0029	122.33	.0024	-25.30	312.30
SET 51	3636.83	3648.08	10 8 56.2	90.00	.0042	-24.92	.0000	386406.2	1.57	10.54	-.0035	247.29	-.0015	-25.29	298.62
SET 61	3667.96	3679.21	10 9 27.3	65.66	.0042	-25.96	.0000	389814.9	1.52	.00	-.0026	235.00	.0027	-25.29	290.81
IMPACT	3754.38	3765.63	10 10 53.7												
IMPC 72	3754.38	3765.63	10 10 53.7	77.69	.0043	-25.27	.0000	395513.6	2.49	14.46	-.0039	245.84	-.0001	-25.30	268.96
IMPC 11	3754.38	3765.63	10 10 53.7	333.82	.0044	-26.07	-.0000	394529.2	1.92	23.90	.0015	154.31	.0040	-25.30	268.96

EVNT STA	TFI	TFL	DAY HR MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	/ 20 19.328	6657.306	25.9939	307.0137	10.90472	-7.2884	101.8433	117.0705
SEPARATION	1.20	12.45	/ 20 20.528	6575.633	24.3776	314.1771	10.96873	-3.9202	105.0278	124.5348
RETRO	5.20	14.45	/ 20 22.528	6551.149	20.9326	325.5936	10.98937	1.7959	109.6346	136.1526
ENTER SHA	9.17	20.42	/ 20 28.501	7216.275	7.8337	354.3921	10.46661	17.6923	117.3794	166.7484
EXIT SHA	57.26	68.51	/ 21 16.587	21927.307	-24.8577	56.0660	5.95260	56.5440	104.1837	240.4775
IMPACT	3754.38	3765.63	10 10 53.707	39/153.965	-25.3013	268.9645	2.22275	68.6031	262.5336	300.1853

SURVEYOR VIEW PERIODS

GHA	227.3471					EPS	67.8534					LOM	264.3959
SX	.454438	SY	-.781565	SZ	-.427367	DAO	-25.30056	RAO	360.1750	RM	3984.7.656	LAT	28.310600
C3	-.919167	ECC	.984908	SLR	12990.566	HCA	6544.6650	LT/	-20.0000	ATA	20.00	TB	675.00000
NSX	.472281	NSY	-.772539	NSZ	-.424423	C3H	1.4968	V14	2.6713	ZAE	141.629	B.T	.0000
LATE	0.0428	LONE	3.9084	LATS	-.1327	LONS	296.3414	LATI	2.1719	LONI	325.6239	RSM	151.2227
LAUNCH DATE	MAY	7.1966		BASE AZM	90.0	TF	62.529					ARRIVAL DATE	MAY 10 1966 11 11 53.5

LNCH AZMTH	LNCH TIME	PW	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
90.00	20 31 18.2	27.5	24.74	307.24	-9.47	123.11	104.22	20 42 33.2	6589.2	10.96	-4.70

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	7	20	42.6												
SEPARATION	1.20	12.45	7	20	43.8												
RETRO	3.20	14.45	7	20	45.8												
RISE 72	6.06	17.31	7	20	48.6	64.70	-.9479	72.02	.1026	2514.6	-5.54	-.01	.1058	343.79	.1672	12.76	339.5
ENTER SHA	8.13	19.38	7	20	50.7												
ENTR 72	8.13	19.38	7	20	50.7	335.31	-.4186	65.22	-.2123	2086.8	-.95	14.61	.1160	10.42	.2572	8.13	348.61
ENTR 61	8.13	19.38	7	20	50.7	21.88	-.2185	-52.52	-.0190	3903.0	4.15	-4.68	.0197	193.15	-.1333	8.13	348.61
RISE 51	11.65	22.90	7	20	54.2	68.45	-.1251	37.30	-.0272	4796.5	-3.94	.00	.0982	312.28	.0315	.99	1.27
EXTM 72	11.73	22.98	7	20	54.3	302.21	-.0576	21.10	-.1416	2765.7	6.04	26.30	.0000	61.70	.1689	.85	1.51
EXTM 51	29.54	40.79	7	21	12.1	347.09	-.0278	-10.47	-.0206	7335.1	5.52	70.44	-.0000	41.01	.1023	-17.67	34.87
EXIT SHA	56.04	67.29	7	21	38.6												
EXIT 72	56.04	67.29	7	21	38.6	276.55	-.0011	-24.[illegible]	-.0020	19894.1	5.28	9.20	-.0008	113.75	.0021	-24.72	90 68
EXIT 51	56.04	67.29	7	21	38.6	328.25	-.0042	-23.37	-.0030	16041.6	5.15	61.09	-.0032	92.18	.0077	-24.72	90.68
EXTM 72	65.49	76.74	7	21	48.0	276.23	-.0001	-25.47	-.0014	22791.1	4.95	8.99	.0000	11[illegible].68	.0014	-25.71	92.28
EXTM 51	81.85	93.10	7	22	4.4	325.45	-.0001	-26.18	-.0011	23512.6	4.54	59.03	.0000	98.53	.0021	-26.78	95.05
RISE 42	84.56	95.81	7	22	7.1	104.65	-.0024	-19.72	-.0019	29208.7	4.24	.00	.0030	245.61	-.0002	-26.91	95.22
EXTM 42	127.19	138.44	7	22	49.7	102.93	.0006	-22.72	-.0007	39760.9	4.00	3.11	-.0000	244.20	-.0009	-27.95	94.19
SET 42	158.50	169.75	7	23	21.1	105.00	.0016	-23.66	-.0004	47088.1	3.81	2.17	-.0009	242.[illegible]0	-.0012	-28.20	90.85
RISE 61	188.04	199.29	7	23	50.6	304.26	.0031	-33.64	.0002	53704.9	3.30	-.00	.0018	136.52	.0018	-28.29	46 65
EXTM 51	292.90	304.15	8	1	35.5	.05	.0036	-28.45	.0000	67865.2	2.98	87.29	-.0000	180 99	.0647	-28.22	27.64
EXTM 61	454.43	465.68	8	4	17.0	2.77	.0039	-31.30	.0001	98620.6	2.55	18.41	.0000	182.49	.0035	-27.87	353.13
EXTM 72	489.20	500.45	8	4	51.8	.37	.0040	-29.04	.0001	100878.2	2.48	68.87	.0000	180.91	.0098	-27.79	345.32
RISE 11	653.82	665.07	8	7	36.4	293.38	.0040	-29.35	-.0000	129029.8	1.93	.00	.0026	126.87	.0023	-27.46	307.38
SET 51	683.26	694.51	8	8	5.8	90.00	.0039	-26.37	.0001	131704.4	2.54	11.12	-.0032	245.94	-.0013	-27.41	300.47
SET 61	701.18	712.43	8	8	23.7	61.57	.0040	-29.39	.0001	135270.6	2.42	-.00	-.0022	229.99	.0026	-27.38	296.25
SET 72	877.90	889.15	8	11	20.5	94.02	.0039	-26.76	.0001	157241.2	2.38	-.00	-.0035	242.97	-.0005	-27.09	294.83
RISE 42	887.45	898.70	8	11	30.0	254.99	.0040	-25.68	-.0000	157999.0	1.66	3.40	.0029	119.31	-.0022	-27.08	291.24
EXTM 11	927.53	938.78	8	12	10.1	.86	.0042	-29.03	.0000	160345.8	1.94	25.75	-.0000	180.84	.0040	-27.02	242.32
SET 11	1198.59	1209.84	8	16	41.1	68.04	.0041	-27.92	.0001	193062.8	2.05	.00	-.0027	234.03	.0024	-26.68	176.72
EXTM 72	1312.28	1323.53	8	18	34.8	359.98	.0042	-26.27	.0000	198598.9	1.69	81.06	-.0000	.16	-.0167	-26.55	149.00
RISE 51	1447.16	1458.41	8	20	49.7	270.00	.0041	-25.77	-.0000	216980.7	1.25	10.88	.0034	113.91	-.0015	-26.42	[illegible].01
[illegible] 72	1602.71	1613.96	8	23	25.3	266.10	.0041	-26.05	-.0000	232979.0	1.15	-.01	.0036	116.32	-.0005	-26.28	97.84
[illegible] 61	1680.70	1691.95	9	0	43.3	295.92	.0041	-27.32	-.0000	240165.0	1.24	.00	.0025	126.96	.0027	-26.21	98.67
[illegible] 42	1735.06	1746.31	9	1	37.6	105.00	.0041	-25.26	.0000	244739.6	1.82	3.15	-.0029	241.03	-.0022	-26.17	45.29
EXTM 51	1798.94	1810.19	9	2	41.5	358.06	.0042	-26.13	.0000	244[illegible]98.4	1.46	88.23	.0037	103.04	.0295	-26.12	29.55
EXTM 61	1937.45	1948.70	9	4	60.0	.36	.0042	-27.30	.0000	260429.1	1.43	22.47	.0000	180.34	.0040	-26.01	355.40
EXTM 72	1977.31	1988.56	9	5	39.9	.11	.0042	-26.42	.0000	260272.6	1.41	71.48	-.0000	180.32	.0118	-25.98	349.56
RISE 11	2116.36	2127.61	9	7	58.9	290.83	.0042	-26.74	-.0000	277876.6	1.00	.00	.0028	123.42	.0024	-25.89	311.21
SET 51	2165.82	2177.07	9	8	48.4	90.00	.0041	-25.35	.0000	280744.0	1.73	10.72	-.0034	246.88	-.0015	-25.86	298.98
SET 61	2194.01	2205.26	9	9	16.6	64.73	.0042	-26.77	.0000	284217.0	1.63	-.00	-.0025	233.84	.0027	-25.84	292.01
SET 72	2350.78	2362.03	9	11	53.3	93.31	.0041	-25.56	.0000	296710.7	1.72	-.01	-.0037	244.17	-.0005	-25.74	293.21
RISE 42	2352.01	2363.26	9	11	54.6	255.00	.0041	-24.99	-.0000	296475.2	.98	2.98	.0030	118.74	-.0023	-25.74	292.90
EXTM 11	2392.35	2403.60	9	12	34.9	.25	.0042	-26.79	.0000	296981.5	1.30	28.00	-.0000	180.25	.0043	-25.72	242.91
SET 11	2668.20	2679.45	9	17	10.7	69.59	.0042	-26.30	.0000	320362.1	1.55	-.00	-.0028	237.16	.0024	-25.57	174.53
EXTM 42	2771.04	2782.29	9	18	53.6	359.97	.0042	-25.32	.0000	322171.6	1.21	80.10	.0000	.18	-.0178	-25.91	149.01
RISE 51	2901.54	2912.79	9	21	4.1	270.00	.0041	-25.03	-.0000	336974.7	.81	10.58	.0034	112.81	-.0015	-25.45	116.61
RISE 72	3055.58	3066.83	9	23	38.1	266.24	.0042	-25.23	-.0000	348669.1	.72	-.00	.0037	115.49	-.0005	-25.39	78.28
RISE 61	3127.92	3138.27	10	0	49.6	294.90	.0042	-26.11	-.0000	353463.0	.84	.00	.0026	125.21	.0027	-25.37	60.45
SET 42	3189.44	3200.69	10	1	52.0	105.00	.0041	-24.73	.0000	357345.2	1.49	2.82	-.0030	241.45	-.0023	-25.39	44.87
EXTM 51	3252.56	3263.81	10	2	55.1	358.35	.0042	-25.32	.0000	355966.5	1.11	88.62	.0036	72.78	-.0490	-25.53	29.11
EXTM 61	3386.57	3397.82	10	5	9.1	.12	.0042	-26.20	.0000	368290.8	1.12	23.56	-.0000	180.12	.0041	-25.30	355.64
EXTM 72	3426.51	3437.76	10	5	49.1	.02	.0042	-25.59	.0000	367467.7	1.12	72.32	.0000	180.04	.0092	-25.29	345.65
RISE 11	3559.74	3570.99	10	8	2.3	290.02	.0042	-25.88	-.0000	382470.9	.82	.00	.0029	122.29	.0024	-25.27	312.32
SET 51	3614.40	3625.65	10	9	57.0	90.00	.0042	-24.89	.0000	385080.6	1.95	10.53	-.0035	247.32	-.0015	-25.24	298.63
SET 61	3645.66	3656.91	10	10	28.2	65.69	.0042	-25.93	.0000	388496.7	1.49	.01	-.0026	235.04	.0027	-25.26	290.78
IMPACT	3751.75	3763.00	10	11	14.3												
IMPC 42	3751.75	3763.00	10	11	14.3	244.24	.0043	-24.66	-.0000	397682.9	1.74	-4.71	.0029	124.79	-.0026	-25.27	263.99
IMPC 72	3751.75	3763.00	10	11	14.3	82.68	.0043	-25.21	.0000	396059.2	2.49	9.95	-.0030	245.65	-.0003	-25.27	263.99
IMPC 11	3751.75	3763.00	10	11	14.3	338.86	.0044	-26.06	-.0000	394420.7	1.94	25.55	.0013	158.95	-.0041	-25.27	263.99

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	7	20	42.553	6590.058	24.7494	307.1898	10.95758	-4.6997	104.2047	[illegible]3.0488
SEPARATION	1.20	12.45	7	20	43.753	6547.982	22.8752	314.1771	10.99223	-1.2854	107.1517	130.3569
RETRO	3.20	14.45	7	20	45.753	6584.194	19.0677	325.3152	10.96173	4.4272	111.3323	141.9964
ENTER SHA	8.13	19.38	7	20	50.685	7194.031	8.1317	348.6185	10.48312	17.4193	117.2121	166.5283
EXIT SHA	56.04	67.29	7	21	38.596	21841.149	-24.7160	90.6765	5.96498	56.4729	104.2660	240.6048
IMPACT	3751.75	3763.00	10	11	14.307	397210.871	-25.2734	264.9916	2.22174	68.3582	262.3423	300.3765

SURVEYOR VIEW PERIODS

QHA	227.3471					EPS	65.0420					LOM	258.5597
SX	.457607	SY	-.779995	SZ	-.426854	DAO	-25.26807	RAO	300.39926	RM	328529.660	LAT	28.310600	LON	279.461800
CJ	-.919252	ECC	.984907	SLR	12990.557	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.475413	NSY	-.770913	NSZ	-.423882	C3M	1.4968	VIM	2.6713	ZAE	141.632	B.T	.0000	B.R	-.0000
LATE	8.3043	LONE	3.8928	LATS	-.1324	LONS	296.1367	LATI	2.1518	LONI	325.6141	PSM	151.2221	TTAN	6.2639
LAUNCH DATE		MAY	7,1966		BASE AZM	93.0		TF	62.549			ARRIVAL DATE	MAY 10 1966 11 36 3.8		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
93.00	20 50 56.2	27.8	23.55	307.13	-5.11	127.93	106.46	21 2 11.2	6557.6	10.98	-2.54

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	7	21	2.2												
SEPARATION	1.20	12.45	7	21	3.4												
RETRO	3.20	14.45	7	21	5.4												
RISE 72	5.52	16.77	7	21	7.7	74.09	-.3323	63.14	.0907	2595.1	-6.54	.00	.1154	334.25	.1321	12.05	336.03
ENTER SH*	7.28	18.53	7	21	9.5												
ENTR 72	7.28	18.53	7	21	9.5	18.12	-.6320	66.41	-.0780	2058.5	-3.28	14.52	.1544	352.61	.2221	8.08	343.60
EXTM 72	11.20	22.45	7	21	13.4	313.29	-.0884	21.43	-.1577	2452.9	5.58	35.59	-.0000	56.43	.2187	.13	357.58
RISE 51	11.41	22.66	7	21	13.6	71.71	-.1122	33.05	-.0303	5013.1	-3.71	.00	.0961	307.27	.0228	-.24	358.22
EXTM 51	31.34	42.59	7	21	33.5	351.16	-.0247	-13.96	-.0160	8084.9	5.46	75.59	-.0000	36.83	.1158	-19.20	32.79
EXIT SHA	54.99	66.24	7	21	57.2												
EXIT 72	54.99	66.24	7	21	57.2	281.36	-.0012	-25.39	-.0018	19351.5	5.30	13.60	-.0010	114.31	.0019	-27.94	46.01
EXIT 51	54.99	66.24	7	21	57.2	334.46	-.0049	-24.00	-.0030	15748.1	5.14	66.80	-.0039	91.22	.0093	-24.94	46.01
EXTM 72	66.32	77.57	7	22	8.5	280.96	-.0000	-26.48	-.0012	22815.0	4.91	13.28	.0000	115.37	.0013	-26.09	48.72
EXTM 51	84.14	95.39	7	22	26.3	331.00	-.0001	-26.89	-.0009	24124.3	4.48	64.04	.0000	99.02	.0021	-27.14	50.70
RISE 61	165.71	176.96	7	23	47.9	305.23	.0028	-34.28	.0003	49086.6	3.46	-.00	.0017	137.55	.0017	-28.39	45.29
EXTM 51	269.27	280.52	8	1	31.5	.09	.0036	-28.63	.0000	63719.1	3.07	87.11	.0000	180.88	.0587	-28.37	27.64
EXTM 61	434.27	445.52	8	4	16.5	2.96	.0039	-31.53	.0001	95652.9	2.59	18.18	.0000	182.66	.0035	-27.98	352.96
EXTM 72	468.92	480.17	8	4	51.1	.48	.0040	-29.19	.0001	97159.6	2.52	68.71	-.0000	181.15	.0097	-27.90	345.23
RISE 11	634.56	645.81	8	7	36.7	293.51	.0040	-29.48	-.0000	126546.4	1.96	.00	.0026	127.03	.0023	-27.55	307.21
SET 51	663.11	674.36	8	8	5.3	90.00	.0039	-26.43	.0001	129142.1	2.56	11.14	-.0032	245.88	-.0013	-27.49	300.53
SET 61	680.50	691.75	8	8	22.7	61.38	.0040	-29.51	.0001	132666.4	2.44	-.00	-.0022	229.81	.0026	-27.46	296.45
SET 72	858.23	869.48	8	11	20.4	94.03	.0039	-26.81	.0001	154978.6	2.39	-.00	-.0035	242.91	-.0004	-27.15	254.26
RISE 42	868.05	879.30	8	11	30.2	254.99	.0040	-25.72	-.0000	155775.2	1.68	3.42	.0029	119.34	-.0022	-27.13	251.91
EXTM 11	908.23	919.48	8	12	10.4	.90	.0042	-29.12	.0001	158182.9	1.96	25.67	-.0000	180.88	.0040	-27.07	242.28
SET 11	1179.08	1190.33	8	16	41.3	67.99	.0041	-27.97	.0001	191084.1	2.06	.00	-.0027	234.97	.0024	-26.71	176.78
EXTM 42	1293.08	1304.33	8	18	35.3	359.98	.0042	-26.30	.0000	196725.5	1.70	81.08	-.0000	.16	-.0172	-26.58	149.00
RISE 51	1428.08	1439.33	8	20	50.3	270.00	.0041	-25.79	-.0000	215193.4	1.26	10.89	.0034	116.52	-.0015	-26.44	115.99
RISE 72	1583.67	1594.92	8	23	25.9	266.10	.0041	-26.06	-.0000	231271.9	1.15	-.01	.0036	116.33	-.0005	-26.29	77.83
RISE 61	1661.77	1673.02	9	0	44.0	295.95	.0041	-27.34	-.0000	238502.9	1.25	.00	.0025	126.99	.0027	-26.22	58.63
SET 42	1715.98	1727.23	9	1	38.2	105.00	.0041	-25.27	.0000	243085.8	1.83	3.15	-.0029	241.03	-.0022	-26.18	45.30
EXTM 51	1779.87	1791.12	9	2	42.1	358.07	.0042	-26.13	.0000	242872.7	1.47	88.22	.0037	103.28	.0259	-26.13	29.56
EXTM 61	1918.48	1929.73	9	5	.7	.37	.0042	-27.31	.0000	258866.2	1.43	22.45	.0000	180.35	.0040	-26.02	355.39
EXTM 72	1958.32	1969.57	9	5	40.5	.12	.0042	-26.43	.0000	256720.7	1.42	71.48	-.0000	180.33	.0118	-25.99	345.56
RISE 11	2097.42	2108.67	9	7	59.6	290.83	.0042	-26.75	-.0000	276375.4	1.06	.00	.0028	123.42	.0024	-25.89	311.20
SET 51	2146.82	2158.07	9	8	49.0	90.00	.0041	-25.35	.0000	279253.6	1.74	10.71	-.0034	246.89	-.0015	-25.86	298.99
SET 61	2175.00	2186.25	9	9	17.2	64.72	.0042	-26.77	.0000	282734.8	1.64	-.00	-.0025	233.83	.0027	-25.84	292.02
SET 72	2331.79	2343.04	9	11	54.0	93.81	.0041	-25.56	.0000	295276.8	1.72	-.01	-.0037	244.18	-.0005	-25.74	253.22
RISE 42	2333.07	2344.32	9	11	55.3	255.00	.0041	-24.98	-.0000	295046.4	.98	2.98	.0030	116.75	-.0023	-25.74	252.90
EXTM 11	2373.45	2384.68	9	12	35.6	.25	.0042	-26.79	.0000	295564.1	1.30	28.00	-.0000	180.26	.0043	-25.71	242.90
SET 11	2649.29	2660.54	9	17	11.5	69.60	.0042	-26.29	.0000	319517.3	1.55	-.00	-.0028	237.17	.0024	-25.55	174.52
EXTM 42	2752.12	2763.37	9	18	54.3	359.97	.0042	-25.31	.0000	320850.7	1.21	80.09	.0000	.18	-.0179	-25.50	149.01
RISE 51	2882.64	2893.89	9	21	4.8	270.00	.0041	-25.01	-.0000	335285.5	.81	10.58	.0034	112.79	-.0015	-25.43	116.60
RISE 72	3036.70	3047.95	9	23	38.9	266.25	.0042	-25.21	-.0000	347381.3	.72	-.00	.0037	115.47	-.0005	-25.37	78.27
RISE 61	3108.05	3119.30	10	0	50.2	294.49	.0042	-26.09	-.0000	352202.4	.84	.00	.0026	125.18	.0027	-25.35	60.47
SET 42	3170.52	3181.77	10	1	52.7	105.00	.0041	-24.70	.0000	356091.7	1.45	2.81	-.0030	241.47	-.0023	-25.33	44.87
EXTM 51	3233.64	3244.89	10	2	55.8	358.54	.0042	-25.30	.0000	354312.9	1.11	88.62	.0036	72.00	-.0508	-25.31	29.12
EXTM 61	3367.68	3378.93	10	5	9.9	.12	.0042	-26.18	.0000	367032.6	1.11	23.58	-.0000	180.12	.0041	-25.28	355.63
EXTM 72	3407.62	3418.87	10	5	49.8	.02	.0042	-25.57	.0000	366206.1	1.12	72.34	.0000	180.08	.0092	-25.27	345.65
RISE 11	3540.80	3552.05	10	8	3.0	290.00	.0042	-25.86	-.0000	381172.3	.81	.00	.0029	122.26	.0024	-25.24	312.34
SET 51	3595.53	3606.78	10	8	57.7	90.00	.0042	-24.86	.0000	383754.8	1.54	10.52	-.0035	247.34	-.0015	-25.24	298.63
SET 61	3626.92	3638.17	10	9	29.1	65.72	.0042	-25.91	.0000	387106.7	1.47	.01	-.0026	235.07	.0027	-25.23	290.76
IMPACT	3752.91	3764.16	10	11	35.1												
IMPC 42	3752.91	3764.16	10	11	35.1	249.23	.0043	-24.65	-.0000	397358.9	1.73	-1.30	.0030	121.79	-.0025	-25.25	258.97
IMPC 72	3752.91	3764.16	10	11	35.1	87.71	.0043	-25.15	.0000	396613.0	2.49	5.41	-.0039	245.30	-.0004	-25.25	258.97
IMPC 11	3752.91	3764.16	10	11	35.1	343.95	.0044	-26.04	-.0000	394341.9	1.97	26.90	.0010	163.83	.0043	-25.25	258.97

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	7	21	2.186	6557.685	23.5311	307.1252	10.98419	-2.5372	106.4544	127.9258
SEPARATION	1.20	12.45	7	21	3.386	6546.276	21.4093	313.9578	10.99367	.8957	109.1843	135.0392
RETRO	3.20	14.45	7	21	5.386	6632.076	17.2867	324.7622	10.92178	6.5673	112.9433	146.3650
ENTER SHA	7.28	18.53	7	21	9.463	7176.692	8.0848	343.6044	10.49587	17.1953	117.3618	166.2293
EXIT SHA	54.99	66.24	7	21	57.174	21753.521	-24.9428	46.0121	5.97729	56.3984	104.1303	240.5977
IMPACT	3752.91	3764.16	10	11	35.099	397265.449	-25.2453	258.9719	2.22070	68.2769	262.3612	300.9689

SURVEYOR VIEW PERIODS

GHA	227.3471					EPS	68.1956							LOM	253.8043
SX	.460183	SY	-.778708	SZ	-.426432	DAO	-25.24137	RAO	300.58128	RM	398579.973	LAT	28.310600	LON	279.461800
C3	-.919941	ECC	.984895	SLR	12990.478	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.477967	NSY	-.769575	NSZ	-.423440	C3H	1.4964	VIM	2.6713	ZAE	141.617	B.T	.0000	B.R	-.0000
LATE	6.0636	LONE	3.8801	LATS	-.1321	LONS	295.9699	LATI	2.0384	LONI	325.6013	RSM	151.2217	TTAN	6.2561

LAUNCH DATE MAY 7,1966 BASE AZM 96.0 TF 62.574 ARRIVAL DATE MAY 10 1966 11 55 45.6

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
96.00	21 6 59.7	27.9	22.34	306.89	-1.59	131.72	108.64	21 18 14.7	6545.9	10.99	-.79

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	7	21	18.2												
SEPARATION		1.20	12.45	7	21	19.4												
RETRO		3.20	14.45	7	21	21.4												
RISE	72	5.12	16.37	7	21	23.4	78.27	-.2524	55.65	.0678	2677.0	-7.15	.00	.1216	326.47	.1005	11.11	333.09
ENTER	SHA	6.61	17.86	7	21	24.8												
ENTR	72	6.61	17.86	7	21	24.8	46.35	-.4685	59.74	.0023	2128.2	-4.95	13.05	.1721	338.02	.1659	7.71	339.40
EXTM	72	10.83	22.08	7	21	29.1	324.54	-.1224	19.56	-.1658	2226.3	5.18	45.58	-.0000	51.34	.2885	-.93	354.29
RISE	51	11.24	22.49	7	21	29.5	74.43	-.1023	29.11	-.0332	5200.6	-3.49	-.00	.0941	302.68	.0156	-1.66	355.53
EXTM	51	33.20	44.45	7	21	51.4	354.41	-.0220	-17.36	-.0126	8832.2	5.41	80.15	-.0000	32.88	.1432	-20.89	31.01
EXIT	SHA	54.03	65.28	7	22	12.3												
EXIT	72	54.03	65.28	7	22	12.3	285.46	-.0014	-26.58	-.0016	18876.1	5.32	17.32	-.0013	115.46	.0017	-25.51	42.05
EXIT	51	54.03	65.28	7	22	12.3	339.82	-.0056	-25.01	-.0028	19501.6	5.12	71.77	-.0047	92.09	.0109	-25.51	42.05
EXTM	72	67.37	78.62	7	22	25.6	284.95	.0000	-27.60	-.0010	22944.5	4.87	16.87	.0000	116.53	.0010	-26.79	45.19
EXTM	51	86.66	97.88	7	22	44.9	335.63	.0000	-27.86	-.0007	24801.8	4.43	68.18	.0000	101.04	.0019	-27.77	47.07
RISE	61	148.97	160.22	7	23	47.2	306.55	.0026	-35.14	.0003	45495.1	3.60	-.00	.0016	138.94	.0015	-28.71	43.63
EXTM	51	249.44	260.69	8	1	27.7	.07	.0035	-29.01	.0001	60139.4	3.15	86.73	.0000	181.06	.0511	-28.70	27.62
EXTM	61	418.70	429.95	8	4	16.9	3.35	.0039	-31.87	.0002	93347.3	2.62	17.83	.0000	182.99	.0035	-28.23	352.59
EXTM	72	452.10	463.35	8	4	50.3	.52	.0040	-29.47	.0001	94707.2	2.55	68.42	-.0000	181.23	.0095	-28.14	345.19
RISE	11	619.36	630.61	8	7	37.6	293.73	.0040	-29.70	-.0000	124565.1	1.98	.00	.0026	127.32	.0023	-27.73	306.95
SET	51	646.64	657.89	8	8	4.9	90.00	.0038	-26.59	.0001	127015.8	2.58	11.21	-.0032	245.73	-.0013	-27.67	300.58
SET	61	662.95	674.20	8	8	21.2	61.10	.0040	-29.73	.0001	130425.5	2.46	-.00	-.0022	229.48	.0026	-27.63	296.76
SET	72	842.24	853.49	8	11	20.5	94.05	.0039	-26.95	.0001	153118.3	2.40	-.00	-.0035	242.77	-.0004	-27.29	254.28
RISE	42	852.23	863.48	8	11	30.5	254.99	.0040	-25.84	-.0000	153936.1	1.69	3.50	.0029	119.43	-.0022	-27.27	251.89
EXTM	11	892.59	903.84	8	12	10.8	.97	.0042	-29.27	.0001	156421.6	1.97	25.51	-.0000	180.93	.0040	-27.21	242.22
SET	11	1162.89	1174.14	8	16	41.1	67.89	.0041	-28.08	.0001	189422.7	2.07	.00	-.0027	234.83	.0024	-26.81	176.90
EXTM	42	1277.28	1288.53	8	18	35.5	359.94	.0042	-26.39	.0000	195164.2	1.71	81.17	.0000	.35	-.0228	-26.67	149.04
RISE	51	1412.52	1423.77	8	20	50.8	270.00	.0041	-25.86	-.0000	213715.3	1.27	10.92	.0034	113.59	-.0015	-26.51	115.98
RISE	72	1568.10	1579.35	8	23	26.3	266.09	.0041	-26.12	-.0000	229857.6	1.16	-.01	.0036	116.39	-.0005	-26.35	77.83
RISE	61	1646.55	1657.80	9	0	44.8	296.02	.0041	-27.40	-.0000	237148.3	1.25	.00	.0025	127.08	.0027	-26.28	58.55
SET	42	1700.39	1711.64	9	1	38.6	105.00	.0041	-25.31	.0000	241713.7	1.84	3.18	-.0029	240.99	-.0022	-26.23	45.31
EXTM	51	1764.34	1775.59	9	2	42.6	358.07	.0042	-26.19	.0000	241529.6	1.47	88.21	.0037	104.85	.0289	-26.17	29.56
EXTM	61	1903.04	1914.29	9	5	1.3	.39	.0042	-27.36	.0000	257577.1	1.44	22.41	.0000	180.37	.0040	-26.06	355.37
EXTM	72	1942.82	1954.07	9	5	41.1	.12	.0042	-26.47	.0000	257435.2	1.43	71.44	-.0000	180.34	.0118	-26.03	345.55
RISE	11	2082.08	2093.33	9	8	.3	290.87	.0042	-26.78	-.0000	275137.9	1.07	.00	.0028	123.47	.0024	-25.92	311.16
SET	51	2131.29	2142.54	9	8	49.5	90.00	.0041	-25.38	.0000	278012.8	1.74	10.72	-.0034	246.86	-.0015	-25.89	298.99
SET	61	2159.34	2170.59	9	9	17.6	64.69	.0042	-26.81	.0000	281490.5	1.64	-.00	-.0025	233.79	.0027	-25.87	292.06
SET	72	2316.30	2327.55	9	11	54.5	93.82	.0041	-25.58	.0000	294083.3	1.72	-.01	-.0037	244.16	-.0005	-25.76	253.22
RISE	42	2317.61	2328.86	9	11	55.9	255.00	.0041	-25.00	-.0000	293854.0	.99	2.99	.0030	118.77	-.0023	-25.76	252.89
EXTM	11	2358.00	2369.25	9	12	36.2	.26	.0042	-26.82	.0000	294386.8	1.30	27.98	-.0000	180.27	.0043	-25.73	242.89
SET	11	2633.76	2645.01	9	17	12.0	69.59	.0042	-26.30	.0000	318386.6	1.55	-.00	-.0028	237.16	.0024	-25.56	174.54
EXTM	42	2736.65	2747.90	9	18	54.9	359.97	.0042	-25.31	.0000	319742.9	1.22	80.09	.0000	.19	-.0179	-25.50	149.01
RISE	51	2867.20	2878.45	9	21	5.4	270.00	.0041	-25.01	-.0000	334202.0	.81	10.58	.0034	112.79	-.0015	-25.43	116.60
RISE	72	3021.39	3032.64	9	23	39.6	266.25	.0042	-25.20	-.0000	346377.8	.72	-.00	.0037	115.46	-.0005	-25.36	78.27
RISE	61	3092.67	3103.92	10	0	50.9	294.48	.0042	-26.09	-.0000	351194.4	.84	.00	.0026	125.17	.0027	-25.34	60.48
SET	42	3155.16	3166.41	10	1	53.4	105.00	.0041	-24.69	.0000	355084.1	1.45	2.80	-.0030	241.48	-.0023	-25.32	44.88
EXTM	51	3218.47	3229.72	10	2	56.7	358.59	.0042	-25.29	.0000	353315.0	1.11	88.65	.0036	70.89	-.0552	-25.30	29.07
EXTM	61	3352.32	3363.57	10	5	10.6	.13	.0042	-26.17	.0000	366011.0	1.11	23.59	-.0000	180.12	.0041	-25.26	355.63
EXTM	72	3392.24	3403.49	10	5	50.5	.02	.0042	-25.55	.0000	365178.8	1.11	72.35	.0000	180.09	.0004	-25.25	345.65
RISE	11	3525.36	3536.61	10	8	3.0	289.99	.0042	-25.84	-.0000	380108.9	.81	.00	.0029	122.24	.0024	-25.23	312.35
SET	51	3580.14	3591.39	10	8	58.4	90.00	.0042	-24.84	.0000	382668.4	1.33	10.51	-.0035	247.36	-.0015	-25.22	298.63
SET	61	3611.62	3622.87	10	9	29.9	65.74	.0042	-25.89	.0000	386001.9	1.45	.01	-.0026	235.10	.0027	-25.21	290.74
RISE	42	3760.35	3771.60	10	11	58.6	255.00	.0045	-24.67	-.0001	397814.8	2.92	2.78	.0033	118.50	-.0024	-25.23	253.18
IMPACT		3754.43	3765.68	10	11	52.7												
IMPC	42	3754.43	3765.68	10	11	52.7	253.46	.0043	-24.65	-.0000	397077.4	1.72	1.67	.0031	119.36	-.0024	-25.22	254.73
IMPC	72	3754.43	3765.68	10	11	52.7	91.95	.0043	-25.10	.0000	397085.4	2.49	1.59	-.0039	244.88	-.0005	-25.22	254.73
IMPC	11	3754.43	3765.68	10	11	52.7	348.25	.0044	-26.02	-.0000	394305.1	1.99	27.77	.0007	168.07	.0044	-25.22	254.73
SET	72	3761.22	3772.47	10	11	59.5	93.73	.0046	-25.10	-.0000	398311.1	4.74	-.00	-.0041	244.65	-.0007	-25.23	252.95

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	7	21	18.244	6545.918	22.3408	306.8945	10.99402	-.7892	108.6356	131.7207
SEPARATION		1.20	12.45	7	21	19.444	6558.711	19.9841	313.5672	10.98313	2.6426	111.1563	138.6942
RETRO		3.20	14.45	7	21	21.444	6683.660	15.5764	324.0224	10.87920	8.2597	114.5139	149.6508
ENTER	SHA	6.61	17.86	7	21	24.850	7163.303	7.7085	339.3967	10.50425	17.0488	117.8177	165.8788
EXIT	SHA	54.03	65.28	7	22	12.273	21649.105	-25.5058	42.0482	5.99200	56.3088	103.8119	240.4187
IMPACT		3754.43	3765.68	10	11	52.673	397314.082	-25.2215	254.7293	2.21851	68.0504	262.5402	300.7319

MAY 7, 1966
96 DEGREES

SURVEYOR VIEW PERIODS

GHA	227.5471				EPS	68.3101					LOM	250.2560	
SX	.462103	SY	-.777744	SZ	-.426116	DAO	-25.22130	RAO	300.71700	RM	398617.398	LAT	28.310600
CO	-.919940	ECC	.984496	SLR	12990.479	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000
NSX	.479866	NSY	-.766572	NSZ	-.423114	C3M	1.4972	VIM	2.6714	ZAE	141.601	B.T	.0000
LATE	0.0706	LONE	3.8707	LATS	-.1319	LONS	295.8456	LATI	1.8486	LONI	325.6009	RSM	151.2213
LAUNCH DATE	MAY 7,1966			BASE AZM	99.0		TF 62.585				ARRIVAL DATE	MAY 14 1966	12 10 27.3

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99.00	21 19 52.4	28.0	21.18	306.55	1.20	134.61	110.78	21 31 7.4	6545.4	10.99	.60

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN SUNLIGHT														
INJECTION	.00	11.25	/	21	31.1												
SEPARATION	1.20	12.45	/	21	32.3												
RETRO	3.20	14.45	/	21	34.3												
RISE 72	4.85	16.08	/	21	36.0	80.75	-.2111	49.21	.0444	2752.5	-7.52	-.01	.1255	319.85	.0724	10.01	330.63
ENTER SHA	6.09	17.34	/	21	37.2												
ENTR 72	6.09	17.34	/	21	37.2	60.26	-.3348	51.72	.0128	2234.4	-5.99	11.33	.1758	326.73	.1131	7.03	335.93
EXTM 72	10.60	21.85	/	21	41.7	335.19	-.1526	15.38	-.1648	2075.7	4.86	56.14	-.0000	46.57	.3965	-2.29	351.57
RISE 51	11.14	22.39	/	21	42.3	76.78	-.0945	25.38	-.0361	5359.0	-3.29	.00	.0922	298.41	.0094	-3.25	353.15
EXTM 51	35.06	46.31	/	22	6.2	357.02	-.0200	-20.67	-.0099	9551.6	5.36	84.24	-.0000	29.03	.2105	-22.71	29.50
EXIT SHA	53.01	64.26	/	22	24.1												
EXIT 72	53.01	64.26	/	22	24.1	288.93	-.0017	-28.04	-.0014	18421.2	5.54	20.38	-.0015	117.04	.0014	-26.34	38.67
EXIT 51	53.01	64.26	/	22	24.1	344.43	-.0064	-26.35	-.0027	15249.0	5.12	76.00	-.0057	95.91	.0115	-26.34	38.67
EXIT 61	53.01	64.26	/	22	24.1	305.17	-.0034	-40.39	.0018	21065.0	5.26	-4.80	-.0003	141.34	-.0032	-26.34	38.67
EXTM 72	68.37	79.62	/	22	39.5	288.24	.0000	-29.00	-.0008	23095.7	4.83	19.74	.0000	118.04	.0008	-27.72	42.29
RISE 61	137.92	149.17	/	23	49.0	308.17	.0024	-36.15	.0004	43073.1	3.70	-.00	.0015	140.59	.0013	-29.27	41.80
EXTM 51	233.23	244.48	8	1	24.4	.12	.0034	-29.58	.0001	57142.0	3.22	86.15	-.0000	181.62	.0431	-29.20	27.57
EXTM 61	406.53	417.78	8	4	17.7	3.74	.0039	-32.31	.0002	91547.0	2.65	17.37	.0000	183.31	.0034	-28.60	352.23
EXTM 72	438.85	450.10	8	4	50.0	.61	.0040	-29.88	.0001	92761.9	2.57	68.02	-.0000	181.41	.0092	-28.49	345.11
RISE 11	607.78	619.03	8	7	38.9	294.04	.0040	-30.00	.0000	123050.1	2.00	.00	.0026	127.73	.0023	-28.00	306.60
SET 51	633.44	644.69	8	8	4.6	90.00	.0038	-26.85	.0001	125295.4	2.59	11.31	-.0032	245.49	-.0013	-27.94	300.63
SET 61	648.19	659.44	8	8	19.3	60.71	.0039	-30.04	.0001	128523.6	2.47	-.00	-.0022	229.03	.0026	-27.90	297.18
SET 72	829.52	840.77	8	11	20.6	94.09	.0039	-27.16	.0001	151635.2	2.41	-.00	-.0035	242.56	-.0004	-27.50	254.27
RISE 42	839.60	850.85	8	11	30.7	254.99	.0040	-26.04	-.0000	152456.5	1.70	3.62	.0028	119.59	-.0022	-27.48	251.86
EXTM 11	880.21	891.46	8	12	11.3	1.05	.0041	-29.50	.0001	155034.9	1.98	25.29	-.0000	181.01	.0040	-27.41	242.14
SET 11	1149.60	1160.85	8	16	40.7	67.72	.0041	-28.24	.0001	188058.7	2.08	.00	-.0027	234.61	.0024	-26.96	177.07
EXTM 42	1264.73	1275.98	8	18	35.9	359.94	.0042	-26.53	.0000	193925.8	1.71	81.31	.0000	.39	-.0235	-26.80	149.04
RISE 51	1400.07	1411.32	8	20	51.2	270.00	.0041	-25.98	-.0000	212534.8	1.27	10.96	.0034	113.70	-.0015	-26.63	115.97
RISE 72	1555.60	1566.85	8	23	26.7	266.07	.0041	-26.22	-.0000	228728.5	1.17	-.01	.0036	116.49	-.0005	-26.46	77.84
RISE 61	1634.59	1645.84	9	0	45.7	296.14	.0041	-27.50	-.0000	236093.3	1.26	.00	.0025	127.23	.0027	-26.37	58.43
SET 42	1687.91	1699.16	9	1	39.0	105.00	.0041	-25.40	.0000	240619.3	1.84	3.23	-.0029	240.92	-.0022	-26.32	45.31
EXTM 51	1751.94	1763.19	9	2	43.1	358.09	.0042	-26.27	.0000	240466.6	1.48	88.20	.0036	107.61	.0342	-26.26	29.55
EXTM 61	1890.70	1901.95	9	5	1.8	.41	.0042	-27.43	.0000	256562.4	1.44	22.33	.0000	180.40	.0040	-26.13	355.34
EXTM 72	1930.41	1941.66	9	5	41.5	.13	.0042	-26.54	.0000	256418.2	1.43	71.36	-.0000	180.36	.0117	-26.10	345.55
RISE 11	2069.90	2081.15	9	8	1.0	290.93	.0042	-26.85	-.0000	274169.4	1.07	.00	.0028	123.55	.0024	-25.98	311.10
SET 51	2118.84	2130.09	9	8	50.8	90.00	.0041	-25.43	.0000	277029.3	1.74	10.75	-.0034	246.81	-.0015	-25.94	299.00
SET 61	2146.61	2157.86	9	9	17.7	64.62	.0042	-26.87	.0000	280493.0	1.64	-.00	-.0025	233.70	.0027	-25.92	292.13
SET 72	2303.88	2315.13	9	11	55.0	93.82	.0041	-25.62	.0000	293142.2	1.73	-.01	-.0037	244.12	-.0005	-25.80	253.21
RISE 42	2305.20	2316.45	9	11	56.3	255.00	.0041	-25.04	-.0000	292910.7	.99	3.01	.0030	118.80	-.0023	-25.80	252.89
EXTM 11	2345.64	2356.89	9	12	36.8	.28	.0042	-26.86	.0000	293462.7	1.31	27.93	-.0000	180.29	.0042	-25.77	242.87
SET 11	2621.22	2632.47	9	17	12.3	69.56	.0042	-26.33	.0000	317491.6	1.56	-.00	-.0028	237.12	.0024	-25.59	174.57
EXTM 42	2724.22	2735.47	9	18	55.3	359.97	.0042	-25.33	.0000	318872.6	1.22	80.11	.0000	.20	-.0183	-25.53	149.01
RISE 51	2854.79	2866.04	9	21	5.9	270.00	.0041	-25.02	-.0000	333352.6	.81	10.58	.0034	112.81	-.0015	-25.45	116.60
RISE 72	3008.98	3020.23	9	23	40.1	266.25	.0042	-25.21	-.0000	349591.9	.72	-.00	.0037	115.47	-.0005	-25.37	78.27
RISE 61	3080.30	3091.55	10	0	51.4	294.49	.0042	-26.09	-.0000	350374.1	.84	.00	.0026	125.18	.0027	-25.34	60.46
SET 42	3142.73	3153.98	10	1	53.9	105.00	.0041	-24.69	.0000	354261.6	1.45	2.80	-.0030	241.48	-.0023	-25.32	44.88
EXTM 51	3209.16	3220.41	10	3	.3	359.38	.0042	-25.29	.0000	352700.9	1.11	89.29	.0030	51.17	-.1929	-25.30	28.29
EXTM 61	3339.96	3351.21	10	5	11.1	.14	.0042	-26.17	.0000	365193.1	1.11	23.59	-.0000	180.14	.0041	-25.26	355.61
EXTM 72	3379.84	3391.09	10	5	51.0	.02	.0042	-25.55	.0000	364356.8	1.11	72.35	.0000	180.10	.0096	-25.25	345.65
RISE 11	3512.95	3524.20	10	8	4.1	289.98	.0042	-25.84	-.0000	3792/0.5	.80	.00	.0029	122.23	.0024	-25.22	312.36
SET 51	3567.75	3579.00	10	8	58.9	90.00	.0042	-24.83	.0000	381816.8	1.52	10.51	-.0035	247.37	-.0015	-25.21	298.63
SET 61	3599.29	3610.54	10	9	30.4	65.75	.0042	-25.88	.0000	385140.0	1.45	.01	-.0026	235.11	.0027	-25.20	290.73
RISE 42	3748.40	3759.65	10	11	59.5	255.00	.0043	-24.64	-.0000	396240.8	1.40	2.76	.0031	118.48	-.0023	-25.20	253.18
SET 72	3749.29	3760.54	10	12	.4	93.73	.0043	-25.06	.0000	396641.4	2.20	-.00	-.0038	244.68	-.0006	-25.20	252.95
IMPACT	3755.10	3766.35	10	12	6.2												
IMPC 42	3755.10	3766.35	10	12	6.2	256.72	.0043	-24.65	-.0000	396852.2	1.71	4.01	.0031	117.54	-.0023	-25.20	251.46
IMPC 72	3755.10	3766.35	10	12	6.2	95.22	.0043	-25.06	.0000	39/446.6	2.49	-1.34	-.0038	244.47	-.0006	-25.20	251.46
IMPC 11	3755.10	3766.35	10	12	6.2	351.57	.0044	-26.01	-.0000	394291.2	2.01	28.27	.0005	171.40	.0044	-25.20	251.46

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	7	21	31.124	6545.380	21.1766	306.5503	10.99451	.5960	110.7764	134.6053
SEPARATION	1.20	12.45	/	21	32.324	6577.260	18.5944	313.0592	10.96751	4.0218	113.0956	141.4150
RETRO	3.20	14.45	7	21	34.324	6732.646	13.9175	323.1719	10.93924	9.5820	116.0771	152.0290
ENTER SHA	6.09	17.34	7	21	37.219	7160.654	7.0334	335.9328	10.50769	16.9886	118.5447	165.5157
EXIT SHA	53.01	64.26	/	22	24.137	21490.542	-26.3432	38.6674	6.01463	56.1716	103.3781	240.0121
IMPACT	3755.10	3766.35	10	12	6.229	39/348.820	-25.2034	251.4564	2.21807	68.0338	262.9072	300.8572

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SURVEYOR VIEW PERIODS

GHA	227.3471					EPS	68.4099					LOM	247.1672
SX	.463772	SY	-.776903	SZ	-.425838	DAO	-25.20373	RAO	300.83508	RM	398649.887	LAT	28.310600	LON	279.461800
C3	-.921509	ECC	.984870	SLR	12990.311	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.481531	NSY	-.767687	NSZ	-.422830	C3M	1.4971	VIM	2.6714	ZAE	141.551	B.T	.0000	B.R	-.0000
LATE	6.0765	LONE	3.9794	LATS	-.1316	LONS	295.8543	LATI	1.5993	LONI	325.6928	RSM	151.2210	TTAN	6.2460
LAUNCH DATE		MAY	7,1966	BASE AZM	102.0		TF 62.618					ARRIVAL DATE	MAY 10 1966 12 23 14,9		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	21 30 10.3	28.1	20.04	306.12	3.40	136.76	112.89	21 41 25.3	6550.4	10.99	1.69

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	7	21	41.4												
SEPARATION	1.20	12.45	7	21	42.6												
RETRO	3.20	14.45	7	21	44.6												
RISE 72	4.62	15.87	7	21	46.0	82.44	-.1853	43.49	.0222	2819.5	-7.72	-.00	.1278	314.01	.0472	8.77	328.56
ENTER SHA	5.72	16.97	7	21	47.1												
ENTR 72	5.72	16.97	7	21	47.1	67.82	-.2610	44.38	.0004	2344.2	-6.58	9.85	.1735	317.80	.0695	6.11	333.09
EXTM 72	10.47	21.72	7	21	51.9	344.67	-.1742	9.17	-.1563	1993.7	4.65	67.09	-.0000	42.11	.5969	-3.89	349.29
RISE 51	11.08	22.33	7	21	52.5	78.88	-.0882	21.80	-.0389	5493.4	-3.10	.00	.0905	294.35	.0039	-4.97	351.04
EXTM 51	35.21	46.46	7	22	16.6	1.02	-.0206	-23.07	-.0090	9708.3	5.30	87.18	.0147	340.54	.3033	-24.13	27.06
EXIT SHA	52.10	63.35	7	22	33.5												
EXIT 72	52.10	63.35	7	22	33.5	291.81	-.0020	-29.75	-.0011	18030.5	5.37	22.81	-.0018	119.02	.0011	-27.42	35.82
EXIT 51	52.10	63.35	7	22	33.5	348.36	-.0071	-27.99	-.0025	15030.9	5.11	79.38	-.0066	104.85	.0075	-27.42	35.82
EXIT 61	52.10	63.35	7	22	33.5	308.31	-.0038	-41.91	.0020	20867.8	5.26	-4.55	-.0001	144.14	-.0035	-27.42	35.82
EXTM 72	69.47	80.72	7	22	50.9	290.91	.0000	-30.55	-.0005	23310.6	4.80	21.99	.0000	119.83	.0006	-28.86	39.95
RISE 61	132.20	143.45	7	23	53.6	309.99	.0022	-37.22	.0005	41825.6	3.76	-.00	.0015	142.40	.0011	-30.05	39.92
EXTM 51	220.17	231.42	8	1	21.6	.21	.0033	-30.33	.0001	54674.9	3.28	85.41	-.0000	182.31	.0350	-29.85	27.49
EXTM 61	397.49	408.74	8	4	18.9	4.18	.0039	-32.84	.0002	90216.4	2.67	16.82	.0000	183.67	.0034	-29.06	351.82
EXTM 72	428.54	439.79	8	4	50.0	.72	.0040	-30.37	.0001	91236.2	2.60	67.52	-.0000	181.62	.0090	-28.93	345.00
RISE 11	599.23	610.48	8	7	40.7	294.43	.0040	-30.37	.0000	121920.0	2.01	.00	.0026	128.23	.0023	-28.35	306.20
SET 51	623.00	634.25	8	8	4.4	90.00	.0038	-27.18	.0001	123912.2	2.61	11.44	-.0032	245.18	-.0013	-28.28	300.67
SET 61	635.75	647.00	8	8	17.2	60.22	.0039	-30.41	.0002	126896.3	2.48	-.00	-.0021	228.46	.0026	-28.24	297.69
SET 72	819.55	830.80	8	11	21.0	94.13	.0039	-27.42	.0001	150454.1	2.42	-.00	-.0035	242.29	-.0004	-27.77	294.25
RISE 42	829.63	840.88	8	11	31.0	254.99	.0040	-26.30	-.0000	151264.0	1.71	3.78	.0028	119.79	-.0022	-27.75	291.84
EXTM 11	870.57	881.82	8	12	12.0	1.15	.0041	-29.77	.0001	153946.5	1.99	25.01	-.0000	181.10	.0040	-27.66	292.05
SET 11	1138.80	1150.05	8	16	40.2	67.52	.0041	-28.45	.0001	186926.1	2.08	-.00	-.0027	234.34	.0024	-27.16	177.28
EXTM 42	1254.78	1266.03	8	18	36.2	359.93	.0042	-26.71	.0000	192919.4	1.72	81.49	.0000	.44	-.0243	-26.98	149.05
RISE 51	1390.22	1401.47	8	20	51.6	270.00	.0041	-26.13	-.0000	211571.1	1.28	11.02	.0034	113.84	-.0015	-26.79	115.96
RISE 72	1545.66	1556.91	8	23	27.1	266.05	.0041	-26.35	-.0000	227800.8	1.17	-.01	.0036	116.63	-.0005	-26.59	77.85
RISE 61	1625.36	1636.61	9	0	46.8	296.30	.0041	-27.63	-.0000	235248.0	1.26	.00	.0025	127.42	.0027	-26.50	58.27
SET 42	1678.01	1689.26	9	1	39.4	105.00	.0041	-25.51	.0000	239715.4	1.84	3.30	-.0029	240.83	-.0022	-26.44	45.32
EXTM 51	1742.16	1753.41	9	2	43.6	358.11	.0042	-26.39	.0000	239594.3	1.48	88.18	.0035	111.25	.0411	-26.37	29.53
EXTM 61	1880.96	1892.21	9	5	2.4	.45	.0042	-27.54	.0000	255727.9	1.45	22.22	.0000	180.43	.0040	-26.23	355.31
EXTM 72	1920.57	1931.82	9	5	42.0	.14	.0042	-26.64	.0000	255575.2	1.43	71.27	-.0000	180.38	.0117	-26.19	345.54
RISE 11	2060.37	2071.62	9	8	1.8	291.01	.0042	-26.93	-.0000	273369.8	1.07	.00	.0028	123.66	.0024	-26.06	311.01
SET 51	2108.95	2120.20	9	8	50.4	90.00	.0041	-25.51	.0000	276203.9	1.75	10.78	-.0034	246.74	-.0015	-26.02	299.00
SET 61	2136.36	2147.61	9	9	17.8	64.52	.0042	-26.94	.0000	279644.8	1.64	-.00	-.0025	233.59	.0027	-26.00	292.23
SET 72	2294.04	2305.29	9	11	55.5	93.84	.0041	-25.68	.0001	292348.4	1.73	-.01	-.0037	244.05	-.0005	-25.87	253.21
RISE 42	2295.34	2306.59	9	11	56.8	255.00	.0041	-25.10	-.0000	292111.9	.99	3.05	.0030	118.85	-.0023	-25.86	252.89
EXTM 11	2335.86	2347.11	9	12	37.3	.30	.0042	-26.92	.0000	292684.6	1.31	27.87	-.0000	180.31	.0042	-25.83	242.85
SET 11	2611.17	2622.42	9	17	12.6	69.52	.0042	-26.38	.0000	316718.2	1.56	-.00	-.0028	237.06	.0024	-25.63	174.61
EXTM 42	2714.33	2725.58	9	18	55.8	359.96	.0042	-25.37	.0000	318120.7	1.22	80.15	.0000	.22	-.0188	-25.56	149.01
RISE 51	2844.92	2856.17	9	21	6.3	270.00	.0041	-25.05	-.0000	332613.5	.82	10.59	.0034	112.83	-.0015	-25.48	116.60
RISE 72	2999.25	3010.50	9	23	40.7	266.25	.0042	-25.22	-.0000	344887.0	.72	.00	.0037	115.48	-.0005	-25.38	78.26
RISE 61	3070.60	3081.85	10	0	52.0	294.50	.0042	-26.11	-.0000	349708.6	.84	.00	.0026	125.20	.0027	-25.35	60.45
SET 42	3132.95	3144.20	10	1	54.4	105.00	.0041	-24.70	.0000	353987.6	1.45	2.80	-.0030	241.47	-.0023	-25.33	44.88
EXTM 51	3196.13	3207.38	10	2	57.6	358.56	.0042	-25.30	.0000	351808.2	1.11	88.63	.0036	71.64	-.0522	-25.31	29.10
EXTM 61	3330.20	3341.45	10	5	11.6	.15	.0042	-26.17	.0000	364505.8	1.11	23.59	-.0000	180.15	.0041	-25.26	355.61
EXTM 72	3370.05	3381.30	10	5	51.5	.03	.0042	-25.55	.0000	363662.7	1.11	72.35	.0000	180.10	.0105	-25.25	345.64
RISE 11	3503.12	3514.37	10	8	4.5	289.97	.0042	-25.83	-.0000	378550.3	.80	.00	.0029	122.23	.0024	-25.21	312.36
SET 51	3557.93	3569.18	10	8	59.3	90.00	.0042	-24.82	.0000	381080.0	1.51	10.50	-.0035	247.38	-.0015	-25.20	298.64
SET 61	3589.50	3600.75	10	9	30.9	65.76	.0042	-25.87	.0000	384391.5	1.44	.01	-.0026	235.13	.0027	-25.19	290.72
RISE 42	3738.76	3750.01	10	12	.2	255.00	.0042	-24.62	-.0000	395160.1	1.18	2.75	.0030	118.46	-.0023	-25.18	253.18
SET 72	3739.62	3750.87	10	12	1.0	93.72	.0042	-25.04	.0000	395544.1	1.95	-.00	-.0038	244.70	-.0006	-25.18	252.96
IMPACT	3757.10	3768.35	10	12	18.5												
IMPC 42	3757.10	3768.35	10	12	18.5	259.68	.0043	-24.65	-.0000	396648.2	1.70	6.17	.0032	115.93	-.0023	-25.19	248.49
IMPC 72	3757.10	3768.35	10	12	18.5	98.18	.0043	-25.02	.0000	397775.9	2.48	-3.99	-.0038	244.04	-.0007	-25.19	248.49
IMPC 11	3757.10	3768.35	10	12	18.5	354.58	.0044	-25.99	-.0000	394295.1	2.02	28.59	.0003	174.45	.0045	-25.19	248.49

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	7	21	41.422	6550.391	20.0368	306.1248	10.99017	1.6856	112.8935	136.7614
SEPARATION	1.20	12.45	7	21	42.622	6597.156	17.2414	312.4548	10.95077	5.0980	115.0154	143.3922
RETRO	3.20	14.45	7	21	44.622	6775.948	12.3035	322.2408	10.80420	10.6056	117.6476	153.6796
ENTER SHA	5.72	16.97	7	21	47.144	7162.044	6.1103	333.0863	10.50659	17.0065	119.4927	165.1572
EXIT SHA	52.10	63.35	7	22	33.519	21329.60-	-27.4246	35.8163	6.03772	56.0300	102.8251	239.5130
IMPACT	3757.10	3768.35	10	12	18.518	397383.488	-25.1871	248.4897	2.21595	67.8260	263.3537	300.9713

SURVEYOR VIEW PERIODS

GHA	227.3471					EPS	68.4960					LOM	244.4967
SX	.465213	SY	-.776173	SZ	-.425597	DAO	-25.18847	RAO	300.93713	RM	398677.918	LAT	28.310600	LON	279.461800
C3	-.923914	ECC	.984430	S	12990.055	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.482978	NSY	-.766912	NSZ	-.422565	C3M	1.4968	VIM	2.6713	ZAE	141.474	B.T	.0000	B.R	-.0000
LATE	6.0817	LONE	3.8546	LATS	-.1315	LONS	295.6430	LATI	1.3069	LONI	325.5319	RSM	151.2207	TTAN	6.2441
LAUNCH DATE		MAY	7,1966		BASE AZM	105.0		TF	62.663			ARRIVAL DATE		MAY 10 1966 12 34 18.5	

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME		INJ RAD	INJ VEL	INJ PTH
105.00	21 3[illegible] 26.4		28.1	18.92	305.65	5.13	138.34	114.99	21 49 41.4		6557.7	10.98	2.55

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN SUNLIGHT														
INJECTION	.00	11.25	7	21	49.7												
SEPARATION	1.20	12.45	7	21	50.9												
RETRO	3.20	14.45	7	21	52.9												
RISE 72	4.48	15.73	7	21	54.2	83.72	-.1670	38.25	.0014	2879.8	-7.80	.00	.1289	308.69	.0243	7.44	326.77
ENTER SHA	5.46	16.71	7	21	55.[illegible]												
ENTR 72	5.46	16.71	7	21	55.2	72.38	-.2177	37.83	-.0182	2443.7	-6.87	8.77	.1696	310.39	.0339	4.97	330.75
EXTM 72	10.44	21.69	7	22	.1	352.75	-.1863	1.48	-.1429	1977.3	4.54	78.15	-.0000	37.91	1.1429	-5.69	347.40
RISE 51	11.06	22.31	7	22	.7	80.81	-.0828	18.33	-.0416	5609.7	-2.93	.00	.0889	290.44	-.0011	-6.79	349.12
EXTM 51	35.83	47.08	7	22	25.[illegible]	3.89	-.0205	-25.92	-.0078	10006.2	5.26	86.50	.0182	266.26	-.1387	-25.86	25.31
EXIT SHA	51.02	62.27	7	22	40.7												
EXIT 72	51.02	62.27	7	22	40.7	294.24	-.0024	-31.05	-.0008	17617.5	5.41	24.73	-.0021	121.29	.0006	-28.67	33.30
EXIT 51	51.02	62.27	7	22	40.7	351.87	-.0081	-29.86	-.0022	14767.6	5.11	81.71	-.0072	121.69	-.0090	-28.67	33.30
EXIT 61	51.02	62.27	7	22	40.7	311.02	-.0044	-43.60	.0022	20645.2	5.27	-4.74	.0000	146.75	-.0039	-28.67	33.30
EXTM 72	70.42	81.67	7	23	.1	293.07	.0000	-32.22	-.0003	23512.0	4.77	23.68	.0000	121.80	.0003	-30.14	38.04
EXTM 51	92.19	103.44	7	23	21.9	344.92	.0001	-31.79	-.0002	26362.7	4.33	75.48	.0000	118.10	.0007	-30.75	39.70
RISE 61	131.00	142.25	8	0	.7	311.90	.0022	-38.28	.0006	41611.2	3.77	-.00	.0015	144.25	.0011	-30.98	38.09
EXTM 51	209.81	221.06	8	1	19.5	.34	.0032	-31.22	.0002	52685.9	3.33	84.51	-.0000	183.06	.0283	-30.63	27.38
EXTM 61	390.97	402.22	8	4	20.7	4.67	.0038	-33.43	.0002	89272.6	2.69	16.21	.0000	184.06	.0033	-29.59	351.36
EXTM 72	420.60	431.85	8	4	50.3	.85	.0040	-30.94	.0001	90059.0	2.61	66.95	.0000	181.87	.0087	-29.45	344.88
RISE 11	593.10	604.35	8	7	42.8	294.87	.0040	-30.79	.0000	121104.7	2.02	.00	.0026	128.80	.0023	-28.75	305.74
SET 51	614.75	626.00	8	8	4.4	90.00	.0038	-27.57	.0001	122803.1	2.62	11.60	-.0032	244.81	-.0012	-28.67	300.71
SET 61	625.16	636.41	8	8	14.8	59.65	.0039	-30.84	.0002	125493.2	2.49	-.00	-.0021	227.81	.0026	-28.64	298.28
SET 72	811.75	823.00	8	11	21.4	94.19	.0039	-27.73	.0001	149519.3	2.43	-.00	-.0034	241.98	-.0004	-28.09	254.21
RISE 42	821.78	833.03	8	11	31.5	254.99	.0040	-26.60	-.0000	150306.6	1.72	3.96	.0028	120.03	-.0021	-28.06	251.82
EXTM 11	863.09	874.34	8	12	12.8	1.26	.0041	-30.09	.0001	153102.0	2.00	24.70	-.0000	181.20	.0040	-27.96	241.94
SET 11	1129.93	1141.18	8	16	39.6	67.29	.0041	-28.69	.0001	185979.5	2.09	-.00	-.0026	234.02	.0024	-27.39	177.53
EXTM 42	1246.91	1258.16	8	18	36.6	359.92	.0042	-26.92	.0000	192104.9	1.72	81.70	.0000	.51	-.0249	-27.18	149.06
RISE 51	1382.41	1393.66	8	20	52.1	270.00	.0041	-26.31	-.0000	210787.4	1.28	11.09	.0034	114.01	-.0015	-26.97	115.95
RISE 72	1537.75	1549.00	8	23	27.4	266.02	.0041	-26.51	-.0000	227041.6	1.17	-.01	.0036	116.79	-.0005	-26.75	77.87
RISE 61	1618.27	1629.52	9	0	48.0	296.48	.0041	-27.78	-.0000	234578.2	1.26	.00	.0025	127.64	.0027	-26.64	58.08
SET 42	1670.14	1681.39	9	1	39.8	105.00	.0041	-25.65	.0001	238972.0	1.85	3.38	-.0029	240.72	-.0022	-26.58	45.32
EXTM 51	1737.88	1749.13	9	2	47.6	359.01	.0042	-26.52	.0000	239189.0	1.49	88.82	.0029	131.40	.1192	-26.50	28.65
EXTM 61	1873.27	1884.52	9	5	3.0	.49	.0042	-27.66	.0000	255047.6	1.45	22.10	.0000	180.46	.0040	-26.34	355.28
EXTM 72	1912.77	1924.02	9	5	42.5	.15	.0042	-26.75	.0000	254881.1	1.43	71.15	-.0000	180.41	.0116	-26.30	345.53
RISE 11	2052.92	2064.17	9	8	2.6	291.10	.0042	-27.03	-.0000	272715.6	1.08	.00	.0028	123.79	.0024	-26.16	310.91
SET 51	2101.09	2112.34	9	8	50.8	90.00	.0041	-25.60	.0001	275515.7	1.75	10.81	-.0034	246.65	-.0015	-26.11	299.01
SET 61	2128.05	2139.30	9	9	17.7	64.41	.0042	-27.04	.0000	278926.9	1.65	-.00	-.0025	233.45	.0027	-26.09	292.34
SET 72	2286.22	2297.47	9	11	55.9	93.85	.0041	-25.76	.0001	291684.2	1.73	-.01	-.0037	243.98	-.0005	-25.94	253.20
RISE 42	2287.49	2298.74	9	11	57.2	255.00	.0041	-25.18	-.0000	291440.8	.99	3.10	.0030	118.91	-.0023	-25.94	252.88
EXTM 11	2328.09	2339.34	9	12	37.8	.33	.0042	-27.00	.0000	292035.6	1.31	27.79	-.0000	180.33	.0042	-25.91	242.83
SET 11	2603.08	2614.33	9	17	12.8	69.47	.0042	-26.43	.0000	316056.4	1.56	-.00	-.0028	236.99	.0024	-25.68	174.66
EXTM 42	2706.44	2717.69	9	18	56.1	359.96	.0042	-25.41	.0000	317478.7	1.22	80.19	.0000	.23	-.0198	-25.61	149.02
RISE 51	2837.04	2848.29	9	21	6.7	270.00	.0041	-25.09	-.0000	331978.8	.82	10.61	.0034	112.87	-.0015	-25.51	116.59
RISE 72	2991.34	3002.59	9	23	41.0	266.25	.0042	-25.25	-.0000	344261.8	.72	.00	.0037	115.51	-.0005	-25.41	78.26
RISE 61	3062.82	3074.07	10	0	52.5	294.53	.0042	-26.13	-.0000	349090.0	.84	.00	.0026	125.23	.0027	-25.38	60.42
SET 42	3125.05	3136.30	10	1	54.7	105.00	.0041	-24.72	.0000	352957.8	1.45	2.81	-.0030	241.46	-.0023	-25.35	44.88
EXTM 51	3193.90	3205.15	10	3	3.6	360.00	.0042	-25.31	.0000	351553.9	1.11	89.57	.0000	2.40	-.0681	-25.32	27.69
EXTM 61	3322.39	3333.64	10	5	12.1	.17	.0042	-26.18	.0000	363874.4	1.11	23.58	-.0000	180.16	.0041	-25.27	355.59
EXTM 72	3362.18	3373.43	10	5	51.9	.03	.0042	-25.56	.0000	363023.8	1.11	72.35	.0000	180.11	.0111	-25.26	345.64
RISE 11	3495.26	3506.51	10	8	4.9	289.98	.0042	-25.83	-.0000	377894.9	.80	.00	.0029	122.23	.0024	-25.21	312.36
SET 51	3550.05	3561.30	10	8	59.7	90.00	.0042	-24.82	.0000	380411.6	1.51	10.50	-.0035	247.38	-.0015	-25.20	298.64
SET 61	3581.65	3592.90	10	9	31.3	65.76	.0042	-25.87	.0000	383714.1	1.43	.01	-.0026	235.13	.0027	-25.19	290.72
RISE 42	3731.02	3742.27	10	12	.7	255.00	.0042	-24.60	-.0000	394283.4	1.08	2.74	.0030	118.45	-.0023	-25.16	253.17
SET 72	3731.84	3743.09	10	12	1.5	93.72	.0042	-25.03	.0000	394657.7	1.84	.00	-.0038	244.72	-.0006	-25.16	252.97
IMPACT	3759.75	3771.00	10	12	29.4												
IMPC 42	3759.75	3771.00	10	12	29.4	262.31	.0043	-24.65	-.0000	396462.2	1.70	8.11	.0032	114.52	-.0022	-25.17	245.85
IMPC 11	3759.75	3771.00	10	12	29.4	357.26	.0044	-25.98	-.0000	394306.6	2.03	28.76	.0002	177.19	.0045	-25.17	245.85

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	7	21	49.690	6557.772	18.9183	305.6368	10.98389	2.5455	114.9966	138.3459
SEPARATION	1.20	12.45	7	21	50.890	6616.164	15.9192	311.7837	10.93479	5.9443	116.9293	144.7936
RETRO	3.20	14.45	7	21	52.890	6813.133	10.7236	321.2604	10.77433	11.4052	119.2363	154.7717
ENTER SHA	5.46	16.71	7	21	55.153	7169.759	4.9740	330.7461	10.50077	17.1059	120.6143	164.8246
EXIT SHA	51.02	62.27	7	22	40.712	21096.495	-28.6729	33.3004	6.07163	55.8215	102.2570	238.8004
IMPACT	3759.75	3771.00	10	12	29.442	397411.656	-25.1727	245.8524	2.21497	67.7942	263.9280	301.0723

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SURVEYOR VIEW PERIODS

GHA	227.3471					EPS	68.5732							LOM	242.1057
SX	.466502	SY	-.775517	SZ	-.425380	DAO	-25,17475	RAO	501.02847	RM	398702.965	LAT	28,310600	LON	279.461800
C3	-.926980	ECC.	.984780	SLR	12989.722	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.484280	NSY	-.766212	NSZ	-.422365	C3M	1.4966	VIM	2.6713	ZAE	141.372	B.T	.0000	B.R	-.0000
LATE	6.0863	LONE	3.9388	LATS	-.1313	LONS	295.6497	LATI	.9844	LONI	325.5604	RSM	151.2204	TTAN	6.2437
LAUNCH DATE		MAY	7,1966	BASE AZM	108.0		TF 62.717					ARRIVAL DATE	MAY 10 1966 12 44 12,6		

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	21 45	9.0	28.1	17.83	305.08	6.51	139.48	117.09	21 56 24.0	6565.7	10.98	3.23

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	7	21	56,4												
SEPARATION	1,20	12.45	7	21	57,6												
RETRO	3,20	14.45	7	21	59,6												
RISE 72	4.38	15,63	7	22	.8	84,76	-,1528	33,34	-,0181	2936,9	-7.76	-,00	.1289	303,70	.0032	6.02	325.19
ENTER SHA	5,31	16,56	7	22	1.7												
ENTR 72	5,31	16.56	7	22	1.7	75,26	-,1899	31,82	-,0381	2526,6	-6,92	8,14	.1658	303,89	.0039	3.63	328.84
EXTM 72	10,03	21,28	7	22	6,4	5,01	-,2122	-3,24	-,1447	1910,8	3,69	83,17	.2534	312,81	.3363	-6,83	344,91
RISE 51	11,07	22,32	7	22	7,5	82,61	-,0781	14,94	-,0443	5714,1	-2,76	,00	.0873	286,63	-,0057	-8,71	347,37
EXTM 51	40,78	52,03	7	22	37,2	1,64	-,0156	-30,28	-,0044	11656,8	5,23	85,23	-,0000	197,34	-,1710	-28,68	26,64
EXIT SHA	49,72	60,97	7	22	46,1												
EXIT 72	49,72	60,97	7	22	46,1	296,33	-,0029	-33,72	-,0004	17153,1	5,45	26,22	-,0024	123,81	.0001	-30,04	30,99
EXIT 51	49,72	60,97	7	22	46,1	355,15	-,0092	-31,91	-,0020	14436,6	5,11	82,51	-,0062	146,61	-,0396	-30,04	30,99
EXTM 72	71,04	82,29	7	23	7,4	294,79	,0000	-33,97	-,0000	23644,9	4,75	24,91	,0000	123,89	,0001	-31,51	36,43
EXTM 51	92,61	103,86	7	23	29,0	346,90	-,0000	-33,33	,0000	26514,8	4,32	76,33	,0000	126,76	-,0001	-31,97	38,10
RISE 61	133,27	144,52	8	0	9,7	313,84	,0022	-39,30	,0007	42200,2	3,74	-,00	,0015	146,07	,0011	-32,00	36,35
EXTM 51	202,02	213,27	8	1	18,4	,56	,0031	-32,22	,0002	511?5,2	3,37	83,50	-,0000	184,19	,0231	-31,50	27,19
EXTM 61	386,40	397,65	8	4	22,8	5,19	,0038	-34,06	,0002	88635,5	2,70	15,55	,0000	184,46	,0033	-30,18	350,88
EXTM 72	414,56	425,81	8	4	51,0	1,01	,0040	-31,56	,0001	89164,8	2,63	66,32	,0000	182,14	,0084	-30,02	344,74
RISE 11	588,88	600,13	8	7	45,3	295,36	,0040	-31,25	,0000	120538,9	2,03	,00	,0025	129,42	,0023	-29,19	305,24
SET 51	608,24	619,49	8	8	4,6	90,00	,0038	-28,01	,0001	121912,8	2,62	11,77	-,0032	244,40	-,0012	-29,11	300,74
SET 61	616,00	627,25	8	8	12,4	59,01	,0039	-31,32	,0002	124266,8	2,50	-,00	-,0021	227,09	,0027	-29,08	298,93
SET 72	805,65	816,90	8	11	22,0	94,25	,0039	-28,08	,0001	148778,6	2,43	-,01	-,0034	241,63	-,0004	-28,43	294,17
RISE 42	815,59	826,84	8	11	32,0	254,99	,0040	-26,94	-,0000	149534,8	1,73	4,17	,0028	120,30	-,0021	-28,40	251,80
EXTM 11	857,31	868,56	8	12	13,7	1,38	,0041	-30,43	,0001	152449,5	2,00	24,35	,0000	181,30	,0039	-28,29	241,83
SET 11	1122,57	1133,82	8	16	39,.	67,02	,0041	-28,95	,0001	185180,5	2,09	-,00	-,0026	233,67	,0024	-27,65	177,80
EXTM 42	1240,64	1251,89	8	18	37,0	359,91	,0042	-27,15	,0000	191441,1	1,72	81,93	,0000	,56	-,0260	-27,41	149,06
RISE 51	1376,21	1387,46	8	20	52,6	270,00	,0041	-26,51	-,0000	210144,6	1,29	11,17	,0034	114,20	-,0015	-27,17	115,94
RISE 72	1531,40	1542,65	8	23	27,8	265,99	,0041	-26,69	-,0000	226413,9	1,18	-,01	,0036	116,96	-,0005	-26,92	77,89
RISE 61	1612,85	1624,10	9	0	49,3	296,68	,0041	-27,95	-,0000	234044,6	1,27	,00	,0025	127,88	,0027	-26,81	57,88
SET 42	1663,87	1675,12	9	1	40,3	105,00	,0041	-25,81	,0001	238353,9	1,85	3,48	-,0029	240,60	-,0022	-26,73	45,33
EXTM 51	1734,54	1745,79	9	2	50,9	359,75	,0042	-26,66	,0000	238851,5	1,49	89,05	,0009	166,38	,2195	-26,64	27,93
EXTM 61	1867,16	1878,41	9	5	3,6	,53	,0042	-27,79	,0000	254486,3	1,45	21,97	-,0000	180,50	,0040	-26,47	355,23
EXTM 72	1906,54	1917,79	9	5	42,9	,16	,0042	-26,88	,0000	254302,7	1,44	71,02	-,0000	180,43	,0115	-26,43	345,52
RISE 11	2047,08	2058,33	9	8	3,5	291,31	,0042	-27,14	-,0000	272174,1	1,08	,00	,0028	123,94	,0024	-26,27	310,80
SET 51	2094,78	2106,03	9	8	51,2	90,00	,0041	-25,71	,0001	274934,1	1,75	10,86	-,0034	246,56	-,0015	-26,22	299,01
SET 61	2121,24	2132,49	9	9	17,6	64,29	,0042	-27,14	,0001	278310,4	1,65	-,00	-,0025	233,30	,0027	-26,19	292,47
SET 72	2279,93	2291,18	9	11	56,3	93,86	,0041	-25,84	,0001	291117,2	1,73	-,00	-,0037	243,89	-,0005	-26,03	253,20
RISE 42	2281,20	2292,45	9	11	57,6	255,00	,0041	-25,26	-,0000	290868,7	1,00	3,15	,0029	118,97	-,0023	-26,03	252,88
EXTM 11	2321,89	2333,14	9	12	38,3	,35	,0042	-27,09	,0000	291486,4	1,31	27,70	-,0000	180,36	,0042	-25,99	242,80
SET 11	2596,51	2607,76	9	17	12,9	69,41	,0042	-26,49	,0000	315481,0	1,56	-,00	-,0028	236,91	,0024	-25,74	174,72
EXTM 42	2700,09	2711,34	9	18	56,5	359,96	,0042	-25,47	,0000	316921,6	1,22	80,25	,0000	,24	-,0207	-25,66	149,02
RISE 51	2830,71	2841,96	9	21	7,1	270,00	,0041	-25,13	-,0000	331424,6	,82	10,62	,0034	112,90	-,0015	-25,56	116,59
RISE 72	2984,97	2996,22	9	23	41,4	266,24	,0042	-25,28	-,0000	343711,8	,72	,00	,0037	115,54	-,0005	-25,44	78,27
RISE 61	3056,60	3067,85	10	0	53,0	294,56	,0042	-26,16	-,0000	348547,0	,84	,00	,0026	125,28	,0027	-25,40	60,39
SET 42	3118,69	3129,94	10	1	55,1	105,00	,0041	-24,74	,0000	352400,4	1,45	2,83	-,0030	241,44	-,0023	-25,37	44,88
EXTM 51	3182,00	3193,25	10	2	58,4	358,59	,0042	-25,34	,0000	350627,0	1,10	88,66	,0036	72,75	-,0506	-25,34	29,07
EXTM 61	3316,08	3327,33	10	5	12,5	,18	,0042	-26,20	,0000	363311,3	1,11	23,56	-,0000	180,18	,0041	-25,28	355,57
EXTM 72	3355,84	3367,09	10	5	52,2	,04	,0042	-25,57	,0000	362453,7	1,11	72,34	,0000	180,12	,0109	-25,27	345,64
RISE 11	3488,93	3500,18	10	8	5,3	289,98	,0042	-25,84	-,0000	377307,8	,79	,00	,0029	122,24	,0024	-25,22	312,35
SET 51	3543,70	3554,95	10	9	,1	90,00	,0042	-24,82	,0000	379811,2	1,50	10,50	-,0035	247,38	-,0015	-25,20	298,64
SET 61	3575,30	3586,55	10	9	31,7	65,76	,0042	-25,87	,0000	383104,9	1,42	,01	-,0026	235,13	,0027	-25,19	290,72
RISE 42	3724,77	3736,02	10	12	1,2	255,00	,0042	-24,59	-,0000	393528,1	1,02	2,73	,0030	118,44	-,0023	-25,15	253,17
SET 72	3725,57	3736,82	10	12	2,0	93,71	,0042	-25,02	,0000	393897,2	1,78	-,00	-,0038	244,73	-,0005	-25,15	252,97
IMPACT	3763,00	3774,25	10	12	39,4												
IMPC 42	3763,00	3774,25	10	12	39,4	264,71	,0043	-24,65	-,0000	396291,8	1,69	9,91	,0033	113,27	-,0022	-25,16	243,45
IMPC 11	3763,00	3774,25	10	12	39,4	359,70	,0044	-25,96	-,0000	394326,1	2,05	28,83	,0000	179,69	,0045	-25,16	243,45
EXTM 11	3763,61	3774,86	10	12	40,0	359,86	,0044	-25,96	-,0000	394400,9	2,10	28,83	,0000	179,85	,0045	-25,16	243,29

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	7	21	56.401	6565,855	17,8225	305,0970	10,97705	3,2302	117.0916	139,4884
SEPARATION	1,20	12,45	7	21	57,601	6633,388	14,6256	311,0594	10,92034	6,6156	118,8441	145,7517
RETRO	3,20	14,45	7	21	59,601	6844,628	9,1735	320,2421	10,74918	12,0368	120,8478	155,4357
ENTER SHA	5,31	16,56	7	22	1,708	7185,438	3,6321	328,8412	10,48906	17,3062	121,8689	164,5631
EXIT SHA	49,72	60,97	7	22	46,118	20774,297	-30,0427	30,9878	6,11945	55,5269	101,7372	237,8429
IMPACT	3763,00	3774,25	10	12	39,399	397437,629	-25,1597	243,4482	2,21376	67,7423	264,5691	301,1644

SURVEYOR VIEW PERIODS

GHA	227.3471					EPS	68.6453						LOM	239.8720	
SX	.467706	SY	-.774904	SZ	-.425177	DAO	-25.16188	RAO	301.11376	RM	398726.320	LAT	28.310600	LON	279.461800
CJ	-.930774	ECC	.984718	SLR	12989.319	RCA	6644.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.483904	NSY	-.765550	VSZ	-.422160	C3M	1.4965	VIM	2.6713	ZAE	141.242	B.T	.0000	B.R	-.0000
LATE	6.0907	LONE	3.8420	LATS	-.1313	LONS	295.4807	LATI	.6408	LONI	325.3857	RSM	151.2202	TTAN	6.2451
LAUNCH DATE		MAY	7,1966		BASE AZM	111.0		TF	62.781			ARRIVAL DATE		MAY 10 1966	12 53 27.6

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	21 50 40.7	28.1	16.76	304.49	7.62	140.27	119.18	22 1 55.7	6573.5	10.97	3.78

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	7	22	1.9												
SEPARATION		1.20	12.45	7	22	3.1												
RETRO		3.20	14.45	7	22	5.1												
RISE	72	4.33	15.58	7	22	6.3	85.65	-.1412	28.64	-.0363	2992.2	+7.63	.00	.1281	298.94	-.0165	4.53	323.78
ENTER	SHA	5.21	16.46	7	22	7.1												
ENTR	72	5.21	16.46	7	22	7.1	77.47	-.1694	26.21	-.0571	2609.1	+6.83	7.59	.1608	297.92	-.0224	2.19	327.16
EXTM	72	10.64	21.89	7	22	12.6	4.72	-.1891	-15.72	-.1098	2139.4	4.64	60.99	-.0000	210.13	-1.3477	-9.87	344.51
RISE	51	11.11	22.36	7	22	13.0	84.36	-.0738	11.59	-.0469	5811.7	+2.58	.00	.0856	282.89	-.0099	-10.70	345.75
EXTM	51	43.09	54.34	7	22	45.0	2.15	-.0143	-33.39	-.0030	12464.3	5.18	82.13	-.0000	193.21	-.0901	-30.81	26.30
EXIT	SHA	47.81	59.06	7	22	49.7												
EXIT	72	47.81	59.06	7	22	49.7	298.26	-.0035	-35.96	-.0000	15567.8	5.53	27.41	-.0028	126.57	-.0006	-31.46	28.62
EXIT	51	47.81	59.06	7	22	49.7	358.61	-.0109	-34.07	-.0019	14923.8	5.12	81.58	-.0032	172.09	-.0589	-31.46	28.62
EXTM	72	71.55	82.80	7	23	13.5	296.15	-.0000	-35.79	.0002	16770.0	4.73	25.75	.0000	126.05	-.0002	-32.97	35.11
EXTM	51	91.81	103.06	7	23	33.7	348.51	-.0002	-34.97	.0002	16351.2	4.32	78.47	.0000	135.73	-.0011	-33.26	36.77
RISE	61	138.05	149.30	8	0	20.0	315.76	.0023	-40.25	.0007	46354.3	3.69	-.00	.0015	147.83	.0011	-33.05	34.69
EXTM	51	196.45	207.70	8	1	18.4	.86	.0030	-33.30	.000	13092.1	3.40	82.40	-.0000	185.46	.0192	-32.45	26.93
EXTM	61	383.41	394.66	8	4	25.3	5.75	.0038	-34.71	.000	18245.1	2.70	14.86	.0000	184.87	.0033	-30.81	330.38
EXTM	72	410.04	421.29	8	4	52.0	1.18	.0040	-32.22	.0002	38501.0	2.63	65.66	.0000	182.43	.0081	-30.63	344.58
RISE	11	586.13	597.38	8	7	48.1	295.88	.0040	-31.74	.0000	120168.1	2.03	.00	.0025	130.08	.0023	-29.65	304.71
SET	51	603.08	614.33	8	8	5.0	90.00	.0038	-28.47	.0001	121195.2	2.63	11.95	-.0031	243.96	-.0012	-29.58	300.77
SET	61	607.95	619.20	8	8	9.9	58.32	.0039	-31.82	.0002	123175.9	2.[illegible]	[illegible]	-.0020	226.31	.0027	-29.55	299.64
SET	72	800.87	812.12	8	11	22.8	94.32	.0039	-28.45	.0001	148188.8	2.[illegible]	.01	-.0034	241.25	-.0004	-28.80	254.13
RISE	42	810.68	821.93	8	11	32.6	254.99	.0040	-27.30	-.0000	148907.6	1.73	4.39	.0028	120.59	-.0021	-28.77	251.79
EXTM	11	852.86	864.11	8	12	14.8	1.50	.0041	-30.79	.0001	151946.0	2.00	23.98	.0000	181.41	.0039	-28.64	241.71
SET	11	1116.40	1127.65	8	16	38.5	66.74	.0041	-29.24	.0001	184494.7	2.09	-.00	-.0026	233.29	.0024	-27.92	178.09
EXTM	42	1235.71	1246.96	8	18	37.6	359.93	.0042	-27.40	.0000	190900.9	1.73	82.18	-.0000	.48	-.0266	-27.66	149.05
RISE	51	1371.23	1382.48	8	20	53.2	270.00	.0041	-26.73	-.0000	209608.3	1.29	11.26	.0034	114.40	-.0015	-27.39	115.93
RISE	72	1526.28	1537.53	8	23	28.2	265.96	.0041	-26.88	-.0000	225884.9	1.18	-.01	.0036	117.15	-.0005	-27.11	77.92
RISE	61	1608.71	1619.96	9	0	50.6	296.90	.0042	-28.16	-.0000	233612.6	1.27	.00	.0025	128.14	.0027	-26.98	57.66
SET	42	1658.81	1670.06	9	1	40.7	105.00	.0041	-25.97	.0001	237828.9	1.85	3.58	-.0029	240.47	-.0022	-26.90	45.33
EXTM	51	1727.55	1738.80	9	2	49.5	359.26	.0042	-26.83	.0000	238168.9	1.49	88.72	.0020	148.75	.1432	-26.80	28.41
EXTM	61	1862.26	1873.51	9	5	4.2	.57	.0042	-27.94	.0000	254011.2	1.45	21.82	-.0000	180.54	.0040	-26.61	355.19
EXTM	72	1901.51	1912.76	9	5	43.4	.17	.0042	-27.[illegible]	.0000	253808.9	1.44	70.88	-.0000	180.46	.0114	-26.56	345.51
RISE	11	2042.47	2053.72	9	8	4.4	291.32	.0042	-27.26	-.0000	271714.3	1.08	.00	.0028	124.10	.0024	-26.39	310.69
SET	51	2089.68	2100.93	9	8	51.6	90.00	.0041	-25.82	.0001	274429.4	1.75	10.90	-.0034	246.45	-.0015	-26.33	299.01
SET	61	2115.60	2126.85	9	9	17.5	64.15	.0042	-27.26	.0001	277766.8	1.65	-.00	-.0025	233.13	.0027	-26.30	292.60
SET	72	2274.87	2286.12	9	11	56.8	93.87	.0041	-25.94	.0001	290624.8	1.73	-.00	-.0037	243.80	-.0005	-26.12	253.18
RISE	42	2276.10	2287.35	9	11	58.0	255.00	.0041	-25.36	-.0000	290366.9	1.00	3.21	.0029	119.05	-.0023	-26.12	252.88
EXTM	11	2316.88	2328.13	9	12	38.8	.38	.0042	-27.18	.0000	291008.0	1.31	27.61	-.0000	180.38	.0042	-26.08	242.78
SET	11	2591.11	2602.36	9	17	13.0	69.35	.0042	-26.56	.0000	314964.9	1.56	-.00	-.0028	236.82	.0024	-25.81	174.79
EXTM	42	2695.05	2706.30	9	18	57.0	359.99	.0042	-25.52	.0000	316431.3	1.22	80.30	-.0000	.13	-.0133	-25.71	148.99
RISE	51	2825.55	2836.80	9	21	7.5	270.00	.0041	-25.17	-.0000	330924.1	.82	10.84	.0034	112.95	-.0015	-25.60	116.59
RISE	72	2979.76	2991.01	9	23	41.7	266.23	.0041	-25.32	-.0000	342991.2	.75	-.00	.0037	115.58	-.0005	-25.48	78.28
RISE	61	3051.68	3062.93	10	0	53.6	294.59	.0042	-26.18	-.0000	348116.4	.83	.00	.0026	125.31	.0027	-25.43	60.36
SET	42	3113.63	3124.88	10	1	55.6	105.00	.0041	-24.76	.0000	351952.5	1.45	2.84	-.0030	241.43	-.0023	-25.39	44.89
EXTM	51	3176.75	3188.00	10	2	58.7	358.54	.0042	-25.35	.0000	350160.3	1.10	88.63	.0037	74.00	-.0461	-25.36	29.12
EXTM	61	3311.04	3322.29	10	5	13.0	.19	.0042	-26.21	.0000	362841.2	1.10	23.55	-.0000	180.19	.0041	-25.30	355.56
EXTM	72	3350.75	3362.00	10	5	52.7	.04	.0042	-25.58	.0000	361973.3	1.10	72.33	.0000	180.13	.0113	-25.28	345.63
RISE	11	3483.83	3495.08	10	8	5.8	289.99	.0042	-25.84	-.0000	376799.4	.79	.00	.0029	122.24	.0024	-25.22	312.34
SET	51	3538.56	3549.81	10	9	.5	90.00	.0042	-24.82	.0000	379285.3	1.50	10.50	-.0035	247.38	-.0015	-25.20	298.64
SET	61	3570.16	3581.41	10	9	32.1	65.76	.0042	-25.87	.0000	382567.8	1.42	.01	-.0026	235.13	.0027	-25.19	290.73
RISE	42	3719.67	3730.92	10	12	1.6	255.00	.0042	-24.58	-.0000	392856.6	.98	2.73	.0030	118.43	-.0023	-25.14	253.17
SET	72	3720.46	3731.71	10	12	2.4	93.71	.0042	-25.01	.0000	393221.5	1.73	-.00	-.0038	244.74	-.0005	-25.14	252.97
EXTM	11	3759.16	3770.41	10	12	41.1	359.99	.0043	-25.95	-.0000	393507.3	1.70	28.84	-.0000	179.99	.0025	-25.14	243.16
IMPACT		3766.87	3778.12	10	12	48.8												
IMPC	42	3766.87	3778.12	10	12	48.8	266.97	.0043	-24.65	-.0000	396134.3	1.69	11.61	.0033	112.09	-.0022	-25.15	241.18
IMPC	11	3766.87	3778.12	10	12	48.8	2.00	.0044	-25.95	-.0000	394356.1	2.05	28.81	-.0001	182.05	.0045	-25.15	241.18

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	7	22	1.929	6573.837	16.7490	304.5117	10.97028	3.7823	119.1824	140.2889
SEPARATION		1.20	12.45	7	22	3.129	6648.631	13.3597	310.2898	10.90754	7.1558	120.7640	146.3679
RETRO		3.20	14.45	7	22	5.129	6871.246	7.6520	319.1904	10.72799	12.5429	122.4842	155.7698
ENTER	SHA	5.21	16.46	7	22	7.135	7203.031	2.1896	327.1602	10.47596	17.5273	123.2131	164.2427
EXIT	SHA	47.81	59.06	7	22	49.735	20252.115	-31.4610	28.6154	6.19946	55.0325	101.4472	236.3773
IMPACT		3766.87	3778.12	10	12	48.795	39/466.090	-25.1473	241.1805	2.21082	67.4565	265.1724	301.2519

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SURVEYOR VIEW PERIODS

GHA	227.3471				EPS	68.7386					LOM	236.9796	
SX	.469262	SY	-.774107	SZ	-.424913	DAO	-25,14515	RAO	301.22416	RM	398756.496	LAT	28,310600
C3	-.936959	ECC	.984616	SLR	12988.653	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000
NSX	.487097	NSY	-.764685	NSZ	-.421892	C3M	1.4966	VIM	2.6713	ZAE	141.026	B.T	.0000
LATE	6.0962	LONE	3.9437	LATS	-.1310	LONS	295,4888	LATI	.1620	LONI	325,3467	RSM	151.2199
LAUNCH DATE		MAY	7,1966		BASE AZM	115.0	TF	62.885				ARRIVAL DATE	MAY 10 1966 13 5 26.3

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	21 56 41.3	28.1	15.37	303.64	8.80	140.92	121.96	22 7 56.3	6583.1	10.96	4.37

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
					PROBE IN SUNLIGHT												
INJECTION	.00	11.25	7	22	7,9												
SEPARATION	1.20	12.45	7	22	9,1												
RETRO	3.20	14.45	7	22	11.1												
RISE 72	4.31	15.56	7	22	12.3	86,69	-.1280	22,59	-.0586	3088,5	-7.31	.00	.1256	292,82	-.0404	2.44	322.10
ENTER SHA	5.28	16.53	7	22	13,2												
ENTR 72	5.28	16,53	7	22	13,2	78,59	-.1518	18,50	-.0837	2670,5	-6.35	8,17	.1575	290,10	-.0547	-.23	325,67
EXTM 72	10.99	22.24	7	22	18,9	9,95	-.1821	-26,30	-.0877	2389,4	4,87	68,88	-.0000	205,34	-.5125	-13.06	343,16
RISE 51	11.21	22.46	7	22	19,1	86,52	-.0687	7,18	-.0501	5938,3	-2,33	.00	.0833	277,97	-.0152	-13.45	343.74
EXIT SHA	45.64	56,89	7	22	53,6												
EXIT 72	45.64	56.89	7	22	53,6	300,48	-.0046	-39,19	.0006	15796,6	5,61	28,44	-.0033	130,57	-.0016	-33.54	25,78
EXIT 51	45.64	56.89	7	22	53,6	2,94	-.0133	-37,25	-.0017	13367,2	5,12	78,23	.0007	191,54	-.0524	-33,54	25.78
EXTM 51	47.08	58.33	7	22	55,0	1,84	-.0123	-37,38	-.0014	13807,1	5,10	78,26	-.0000	187,20	-.0483	-33,71	26.48
EXTM 72	71.88	83,13	7	23	19,8	297,50	-.0001	-38,29	.0005	23862,3	4,72	26,37	.0000	129,00	-.0006	-35,01	33,66
EXTM 51	88.22	99,47	7	23	36,2	350,28	-.0007	-37,36	.0004	29481,7	4,37	75,75	.0000	146,97	-.0029	-35,11	35,26
RISE 61	147.03	158.28	8	0	35,0	318,29	.0025	-41,42	.0007	45452,8	3,60	-.00	.0016	150,07	.0012	-34,44	32,55
EXTM 51	192,03	203.28	8	1	20,0	1,39	.0030	-34,81	.0003	49243,0	3,43	80,85	.0000	187,18	.0154	-33,78	26,47
EXTM 61	381,31	392,56	8	4	29,2	6,47	.0038	-35,61	.0003	88021,8	2,71	13,91	.0000	185,41	.0032	-31,68	349,69
EXTM 72	405,90	417.15	8	4	53,8	1,44	.0040	-33,14	.0002	87901,2	2,64	64,73	.0000	182,83	.0078	-31,48	344,34
RISE 11	584,28	595,53	8	7	52,2	296,62	.0040	-32,41	.0001	119911,6	2,04	.01	.0025	130,99	.0023	-30,30	303,96
SET 51	597,84	609,09	8	8	5,8	90,00	.0038	-29,13	.0002	120447,2	2,63	12,20	-.0031	243,35	-.0012	-30,23	300,81
SET 61	598,50	609,75	8	8	6,4	57,32	.0039	-32,54	.0002	121878,2	2,51	.00	-.0020	225,20	.0027	-30,23	300,66
SET 72	796,08	807,33	8	11	24,	94,41	.0039	-28,96	.0001	147581,6	2,44	-.01	-.0034	240,73	-.0004	-29,32	294,06
RISE 42	805,69	816,94	8	11	33,6	254,99	.0040	-27,81	-.0000	148243,5	1,74	4,70	.0028	120,99	-.0021	-29,29	291,77
EXTM 11	848,48	859,73	8	12	16,4	1,68	.0042	-31,30	.0001	151450,6	2,01	23,48	.0000	181,57	.0039	-29,12	241 54
SET 11	1109,56	1120,81	8	16	37,5	66,33	.0041	-29,63	.0001	183713,1	2,09	-.00	-.0026	232,76	.0024	-28,31	27 0
EXTM 42	1230,44	1241,69	8	18	38,4	359,90	.0042	-27,76	.0000	190295,9	1,73	82,54	.0000	.67	-.0279	-28,00	149,07
RISE 51	1366,06	1377,31	8	20	54,0	270,00	.0041	-27,03	-.0000	209016,0	1,29	11,38	.0034	114,68	-.0014	-27,69	115,92
RISE 72	1520,87	1532,12	8	23	28,8	265,91	.0041	-27,14	-.0000	225292,0	1,18	-.01	.0036	117,42	-.0005	-27,38	77,95
RISE 61	1604,68	1615,93	9	0	52,6	297,20	.0042	-28,38	.0000	233151,2	1,27	.00	.0025	128,51	.0027	-27,22	57,35
SET 42	1653,50	1664,75	9	1	41,4	105,00	.0041	-26,21	.0001	237234,2	1,85	3,72	-.0029	240,28	-.0022	-27,14	45,34
EXTM 51	1721,22	1732,47	9	2	49,2	359,00	.0042	-27,06	.0000	237501,8	1,49	88,40	.0021	146,02	.1107	-27,02	28,66
EXTM 61	1857,17	1868,42	9	5	5,1	,63	.0042	-28,14	.0000	253475,4	1,45	21,62	.0000	180,60	.0040	-26,81	355,14
EXTM 72	1896,24	1907,49	9	5	44,2	,19	.0042	-27,22	.0000	253244,6	1,44	70,68	-.0000	180,50	.0113	-26,75	345,49
RISE 11	2037,77	2049,02	9	8	5,7	291,48	.0042	-27,43	-.0000	271190,4	1,08	.00	.0028	124,32	.0024	-26,55	310,52
SET 51	2084,28	2095,53	9	8	52,2	90,00	.0041	-25,98	.0001	273840,4	1,75	10,96	-.0034	246,30	-.0014	-26,49	299,02
SET 61	2109,43	2120,68	9	9	17,4	63,96	.0042	-27,42	.0001	277121,4	1,65	-.00	-.0025	232,90	.0027	-26,46	292,80
SET 72	2269,53	2280,78	9	11	57,5	93,89	.0041	-26,07	.0001	290044,6	1,73	-.00	-.0037	243,66	-.0005	-26,26	253,16
RISE 42	2270,70	2281,95	9	11	58,6	255,30	.0041	-25,49	-.0000	289772,8	1,00	3,29	.0029	119,15	-.0023	-26,25	252,87
EXTM 11	2311,61	2322,86	9	12	39,6	,42	.0042	-27,31	.0000	290445,2	1,31	27,48	-.0000	180,42	.0042	-26,21	242,74
SET 11	2585,27	2596,52	9	17	13,2	69,26	.0042	-26,65	.0000	314337,4	1,56	-.00	-.0028	236,70	.0024	-25,90	174,88
EXTM 42	2689,51	2700,76	9	18	57,4	359,97	.0042	-25,61	.0000	315820,8	1,22	80,39	-.0000	,19	-.0182	-25,80	149,01
RISE 51	2820,05	2831,30	9	21	8,0	270,00	.0041	-25,24	-.0000	330309,4	,82	10,67	.0034	113,01	-.0015	-25,67	116,59
RISE 72	2974,20	2985,45	9	23	42,1	266,22	.0041	-25,37	-.0000	342367,3	,75	-.00	.0037	115,63	-.0006	-25,53	78,28
RISE 61	3046,36	3057,61	10	0	54,3	294,64	.0042	-26,23	-.0000	347504,5	,83	.00	.0026	125,38	.0027	-25,47	60,30
SET 42	3108,08	3119,33	10	1	56,0	105,00	.0041	-24,80	.0000	351315,3	1,45	2,86	-.0030	241,39	-.0023	-25,43	44,89
EXTM 51	3171,09	3182,34	10	2	59,0	358,51	.0042	-25,39	.0000	349510,7	1,10	88,61	.0037	75,72	-.0411	-25,40	29,15
EXTM 61	3305,58	3316,83	10	5	13,5	,22	.0042	-26,24	.0000	362189,3	1,10	23,52	-.0000	180,21	.0041	-25,32	355,94
EXTM 72	3345,22	3356,47	10	5	53,2	,05	.0042	-25,60	.0000	361308,6	1,10	72,30	.0000	180,15	.0115	-25,30	345,63
RISE 11	3478,33	3489,58	10	8	6,3	290,00	.0042	-25,86	-.0000	376108,6	,78	.00	.0029	122,26	.0024	-25,23	312,33
SET 51	3533,01	3544,26	10	9	,9	90,00	.0042	-24,83	.0000	378574,8	1,49	10,51	-.0035	247,37	-.0015	-25,21	298,64
SET 61	3564,58	3575,83	10	9	32,5	65,75	.0042	-25,88	.0000	381844,7	1,41	.01	-.0026	235,12	.0027	-25,19	290,73
RISE 42	3714,20	3725,45	10	12	2,1	255,00	.0042	-24,57	-.0000	392000,4	,93	2,72	.0030	118,42	-.0023	-25,14	253,17
SET 72	3714,97	3726,22	10	12	2,9	93,71	.0042	-25,00	.0000	392361,1	1,69	-.00	-.0038	244,75	-.0005	-25,13	252,98
EXTM 11	3753,71	3764,96	10	12	41,6	359,97	.0043	-25,94	.0000	392438,9	1,49	28,86	.0000	179,97	.0043	-25,13	243,18
IMPACT	3773,08	3784,33		13	1,0												
IMPC 42	3773,08	3784,33		13	1,0	269,92	.0043	-24,65	-.0000	395924,5	1,68	13,86	.0033	110,59	-.0022	-25,13	238,23
IMPC 11	3773,08	3784,33		13	1,0	4,99	.0044	-25,93	-.0000	394402,0	2,07	28,68	-.0003	185,12	.0045	-25,13	238,23

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11,25	7	22	7,939	6583,725	15,3535	303,6673	10,96191	4,3658	121,9681	140,9512
SEPARATION	1.20	12,45	7	22	9,139	6666,056	11,7151	309,2005	10,89288	7,7251	123,3364	146,7852
RETRO	3.20	14,45	7	22	11,139	6900,559	5,6679	317,7381	10,70471	13,0745	124,7070	155,8242
ENTER SHA	5.28	16,53	7	22	13,218	7256,502	-,2343	325,6655	10,43666	18,1790	125,1087	164,2727
EXIT SHA	45,64	56,89	7	22	53,582	19691,692	-33,5439	25,7762	6,29522	54,4353	101,0340	234,9023
IMPACT	3773,08	3784,33	10	13	1,015	397498,926	-25,1314	238,2303	2,20854	67,3252	266,1131	301,3650

SURVEYOR VIEW PERIODS

GHA	228.3328					EPS	79.8586							LOM	248.6082
SX	.643041	SY	-.662526	SZ	-.384131	DAO	-22.58979	RAO	314.14494	RM	401849.949	LAT	28.310600	LON	279.461800
CS	-.922558	ECC	.984853	SLR	12990.199	HCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.658104	NSY	-.650359	NSZ	-.379385	CSM	1.4932	VIM	2.6707	ZAE	142.011	B.T	.0000	B.R	-.0000
LATE	6.6179	LONE	2.7927	LATS	-.1114	LONS	285.1669	LATI	5.5912	LONI	324.7635	RSM	151.1811	TTAN	5.4792
LAUNCH DATE		MAY	8,1966		BASE AZM	96.0		TF	63.582			ARRIVAL DATE		MAY 11 1966 13 6 59.7	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
96.00	21 16 55.1	27.4	22.50	306.38	-11.58	134.68	108.44	21 28 10.1	6611.4	10.94	-5.75

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	8	21	28.2												
SEPARATION	1.20	12.45	8	21	29.4												
RETRO	3.20	14.45	8	21	31.4												
ENTER SHA	3.83	15.08	8	21	32.0												
RISE 72	5.78	17.03	8	21	34.0	75.76	-.3122	60.56	.1002	2277.4	-7.40	-.00	.1193	331.55	.1391	9.40	336.33
EXTM 72	10.37	21.62	8	21	38.5	313.65	-.1356	23.03	-.2269	1831.1	5.18	35.13	.0000	54.50	.3166	-1.21	354.93
RISE 51	11.48	22.73	8	21	39.6	73.71	-.1159	30.19	-.0339	4568.9	-4.55	.01	.1037	303.94	.0210	-3.45	358.73
EXTM 51	26.68	37.93	8	21	54.9	352.90	-.0412	-14.85	-.0232	6158.2	5.49	77.24	.0000	32.75	.2086	-20.42	31.30
EXIT SHA	43.67	54.92	8	22	11.8												
EXIT 72	43.67	54.92	8	22	11.8	276.18	-.0034	-26.15	-.0020	15796.3	5.89	9.00	-.0029	115.38	.0023	-25.92	46.57
EXIT 51	43.67	54.92	8	22	11.8	331.25	-.0103	-25.03	-.0039	11984.8	5.59	64.07	-.0087	94.75	.0117	-25.92	46.57
EXTM 72	67.93	79.18	8	22	36.1	274.08	-.0001	-27.83	-.0006	23583.8	4.01	7.27	.0000	117.22	.0006	-28.14	55.12
RISE 42	74.56	85.81	8	22	42.7	105.00	-.0040	-20.47	-.0021	26280.7	4.29	.20	.0043	244.82	.0007	-28.38	56.17
EXTM 51	83.84	95.09	8	22	52.0	322.94	-.0000	-28.29	-.0004	24050.0	4.51	57.01	.0000	102.92	.0007	-28.59	57.09
EXTM 42	124.35	135.60	8	23	32.5	100.83	.0004	-23.56	-.0004	38759.8	4.03	5.16	-.0000	244.68	-.0005	-28.76	56.57
SET 42	178.62	189.87	9	0	26.8	105.00	.0020	-24.26	-.0001	51348.0	3.71	2.53	-.0014	241.83	-.0012	-28.43	50.29
RISE 61	198.84	210.09	9	0	47.0	305.92	.0032	-33.40	.0003	55867.6	3.22	.00	.0019	136.15	.0018	-28.28	47.16
EXTM 51	303.83	315.08	9	2	32.0	.09	.0037	-27.69	.0001	69731.6	2.94	88.05	-.0000	152.38	.0941	-27.53	27.60
EXTM 61	466.57	477.82	9	5	14.7	3.47	.0040	-29.98	.0002	100268.3	2.53	19.71	.0000	183.19	.0036	-26.63	352.47
EXTM 72	499.09	510.34	9	5	47.3	.60	.0041	-27.63	.0001	101425.1	2.46	70.26	-.0000	181.57	.0106	-26.49	345.11
RISE 11	655.28	666.53	9	8	23.5	291.80	.0040	-27.75	.0000	129158.6	1.92	.00	.0027	124.74	.0023	-25.89	308.97
SET 51	691.69	702.94	9	8	59.9	90.00	.0039	-24.72	.0001	132812.6	2.53	10.46	-.0033	247.47	-.0013	-25.77	300.41
SET 61	718.53	729.78	9	9	26.7	63.70	.0040	-27.64	.0001	137448.7	2.40	-.00	-.0023	232.58	.0027	-25.69	294.07
SET 72	884.48	895.73	9	12	12.6	93.70	.0040	-24.91	.0001	157954.5	2.38	-.01	-.0036	244.83	-.0004	-25.24	254.49
RISE 42	894.92	906.17	9	12	23.1	254.99	.0040	-23.82	-.0000	158940.5	1.65	2.26	.0029	117.83	-.0022	-25.21	251.99
EXTM 11	935.95	947.20	9	13	4.1	1.07	.0042	-27.09	.0001	161064.9	1.94	27.70	-.0000	181.08	.0042	-25.12	242.12
SET 11	1214.19	1225.44	9	17	42.4	70.08	.0041	-25.77	.0001	194621.3	2.05	-.00	-.0028	237.85	.0024	-24.56	174.65
EXTM 42	1319.00	1330.25	9	19	27.2	359.92	.0042	-24.04	.0000	199239.0	1.68	78.82	-.0000	.41	-.0191	-24.39	149.06
RISE 51	1453.85	1465.10	9	21	42.0	270.00	.0041	-23.53	-.0000	217641.5	1.24	9.98	.0074	111.41	-.0015	-24.18	116.04
RISE 72	1610.82	1622.07	10	0	19.0	266.49	.0041	-23.74	-.0000	233640.0	1.13	-.01	.0037	113.99	-.0005	-23.97	77.49
RISE 61	1676.33	1687.58	10	1	24.5	293.21	.0041	-24.98	-.0000	239670.2	1.23	.00	.0026	123.58	.0027	-23.89	61.37
SET 42	1741.73	1752.98	10	2	29.9	105.00	.0041	-22.90	.0000	245401.0	1.83	1.70	-.0030	242.89	-.0023	-23.81	45.26
EXTM 51	1812.97	1824.22	10	3	41.1	359.98	.0042	-23.67	.0000	245636.9	1.47	87.93	.0000	.59	-.0741	-23.73	27.70
EXTM 61	1944.19	1955.44	10	5	52.4	.44	.0042	-24.84	.0000	260651.3	1.42	24.92	-.0000	180.44	.0042	-23.58	355.32
EXTM 72	1983.55	1994.80	10	6	31.7	.08	.0042	-23.92	.0000	260611.6	1.41	73.98	.0000	180.27	.0137	-23.54	345.59
RISE 11	2113.36	2124.61	10	8	41.5	288.54	.0042	-24.25	-.0000	277513.1	1.05	.00	.0029	120.18	.0024	-23.42	313.51
SET 51	2172.17	2183.42	10	9	40.3	90.00	.0041	-22.85	.0000	281252.2	1.74	9.71	-.0035	249.22	-.0015	-23.36	298.95
SET 61	2211.90	2223.15	10	10	20.1	67.61	.0042	-24.23	.0000	285542.4	1.64	-.00	-.0026	237.47	.0027	-23.32	289.12
SET 72	2355.30	2366.55	10	12	43.5	93.39	.0041	-23.02	.0000	296937.1	1.72	-.01	-.0038	246.74	-.0005	-23.20	253.61
RISE 42	2358.05	2369.30	10	12	46.2	255.00	.0041	-22.45	-.0000	296994.2	.97	1.42	.0030	116.74	-.0023	-23.20	252.93
EXTM 11	2398.67	2409.92	10	13	26.8	.30	.0042	-24.21	.0000	297094.4	1.29	30.58	-.0000	180.32	.0045	-23.16	242.86
SET 11	2683.89	2695.14	10	18	12.1	71.99	.0042	-23.66	.0000	321873.7	1.55	-.00	-.0029	240.59	.0024	-22.94	172.11
EXTM 42	2776.90	2788.15	10	19	45.1	359.96	.0042	-22.63	.0000	322501.7	1.21	77.41	.0000	.20	-.0163	-22.87	149.02
RISE 51	2907.31	2918.56	10	21	55.5	270.00	.0041	-22.35	-.0000	336942.4	.80	9.50	.0035	110.33	-.0016	-22.78	116.63
RISE 72	3063.20	3074.45	11	0	31.4	266.69	.0042	-22.54	-.0000	349036.3	.70	-.00	.0038	112.77	-.0005	-22.69	77.86
RISE 61	3120.81	3132.06	11	1	29.0	291.48	.0042	-23.40	-.0000	352881.3	.81	.00	.0027	121.35	.0027	-22.67	63.48
SET 42	3195.40	3206.65	11	2	43.6	105.00	.0041	-22.02	.0000	357704.9	1.45	1.16	-.0030	243.59	-.0023	-22.64	44.85
EXTM 51	3264.10	3275.35	11	3	52.3	359.99	.0042	-22.56	.0000	358061.9	1.10	86.83	.0000	.34	-.0266	-22.62	27.69
EXTM 61	3392.47	3403.72	11	6	.6	.13	.0042	-23.46	.0000	367999.0	1.10	26.30	-.0000	180.13	.0043	-22.58	355.62
EXTM 72	3432.35	3443.60	11	6	40.5	.02	.0042	-22.82	.0000	367315.1	1.10	75.08	.0000	180.09	.0111	-22.57	345.65
RISE 11	3555.75	3567.00	11	8	43.9	287.55	.0042	-23.14	-.0000	381551.6	.77	.00	.0030	118.75	.0024	-22.54	314.79
SET 51	3620.38	3631.63	11	9	48.6	90.00	.0042	-22.15	.0000	384817.2	1.51	9.42	-.0035	249.66	-.0016	-22.53	298.61
SET 61	3663.82	3675.07	11	10	32.0	68.75	.0042	-23.19	.0000	388803.3	1.45	-.00	-.0027	238.95	.0027	-22.52	287.72
SET 72	3800.32	3811.57	11	12	48.5	93.28	.0042	-22.41	.0000	399009.7	1.99	.00	-.0039	247.36	-.0006	-22.54	253.38
RISE 42	3801.01	3812.26	11	12	49.2	255.00	.0042	-21.98	-.0000	398949.0	1.23	1.14	.0031	116.58	-.0024	-22.54	253.20
IMPACT	3814.92	3826.17	11	13	3.1												
IMPC 42	3814.92	3826.17	11	13	3.1	258.55	.0043	-22.02	-.0001	400110.3	1.69	3.77	.0032	114.41	-.0023	-22.56	249.64
IMPC 72	3814.92	3826.17	11	13	3.1	97.00	.0043	-22.40	-.0000	400907.1	2.48	-3.39	-.0039	246.82	-.0007	-22.56	249.64
IMPC 11	3814.92	3826.17	11	13	3.1	353.42	.0044	-23.33	-.0000	397249.1	2.01	31.13	.0004	172.94	.0047	-22.56	249.64

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	8	21	28.169	6613.262	22.5255	306.2982	10.93890	-5.7454	108.4057	134.5980
SEPARATION	1.20	12.45	8	21	29.369	6595.715	20.1873	313.0056	10.98554	-2.3447	110.9635	141.6062
RETRO	3.20	14.45	8	21	31.369	6567.587	15.7266	323.6796	10.97554	3.3739	114.4214	152.7816
ENTER SHA	3.83	15.08	8	21	31.994	6558.143	14.2254	326.8765	10.94989	5.1456	115.2883	156.1353
EXIT SHA	43.67	54.92	8	22	11.835	17936.405	-25.9195	46.5740	6.59725	52.5473	102.9753	245.8205
IMPACT	3814.92	3826.17	11	13	3.092	400580.190	-22.5577	249.6424	2.21027	68.0553	256.4888	314.2836

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SURVEYOR VIEW PERIODS

SMA	228.3328					EPS	79,9660							LOM	245.2121
SX	.644593	SY	-.661296	SZ	-.383650	DAO	-22,55997	RAO	314.26719	RM	401874.504	LAT	28,310600	LON	279.461800
C3	-.919091	ECC	.984909	SLR	12990.574	RCA	6544,6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.659602	NSY	-.649120	NSZ	-.378905	C3M	1.4972	VIM	2.6714	ZAM	142,052	B.T	.0000	B.R	-.0000
LATE	6.6215	LONE	2.9101	LATS	-.1112	LONS	283,1764	LATI	3.4467	LONI	324,9381	RSM	151.1807	TTAN	5.4668

LAUNCH DATE MAY 8,1966 BASE AZM 99,0 TF 63.535 ARRIVAL DATE MAY 11 1966 13 20 41,8

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99.00	21 32 3.9	27.6	21.32	306.15	-8.19	135.25	110.63	21 43 18.9	6578.0	10.97	-4.07

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DMA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	8	2	43.3												
SEPARATION		1.20	12.45	8	21	44.5												
RETRO		3.20	14.45	8	21	46.5												
ENTER SHA		3.20	14.45	8	21	46.5												
RISE	72	5.40	16.65	8	21	48.7	79.57	-.2382	52.52	.0682	2355.2	-8.00	.00	.1258	323.24	.0992	8.39	333.58
EXTM	72	10.02	21.27	8	21	53.3	326.76	-.1957	20.16	-.2406	1615.2	4.67	46.91	-.0000	48.87	.4432	-2.41	351.92
RISE	51	11.30	22.55	8	21	54.6	76.35	-.1059	26.08	-.0380	4741.3	-4.32	.00	.1017	299.21	.0127	-4.94	356.17
EXTM	51	27.87	39.12	8	22	11.2	356.05	-.0377	-18.81	-.0182	6694.6	5.47	82.17	-.0000	28.58	.2944	-22.20	29.76
EXIT	SHA	42.82	54.07	8	22	26.1												
EXIT	72	42.82	54.07	8	22	26.1	280.00	-.0037	-27.68	-.0017	15359.3	5.91	12.48	-.0032	116.72	.0019	-26.66	42.73
EXIT	51	42.82	54.07	8	22	26.1	336.81	-.0116	-26.49	-.0036	11755.1	5.55	69.19	-.0102	97.20	.0118	-26.66	42.73
EXTM	72	68.44	79.69	8	22	51.8	277.66	-.0000	-29.03	-.0004	23568.4	4.88	10.49	.0000	118.19	.0004	-28.86	51.74
EXTM	51	85.61	96.86	8	23	8.9	327.20	.0000	-29.31	-.0002	24810.4	4.47	60.79	.0000	104.95	.0004	-29.24	53.71
RISE	42	95.97	107.22	8	23	19.3	105.00	-.0014	-22.80	-.0010	32150.2	4.20	1.64	.0016	242.98	.0000	-29.31	54.06
EXTM	42	123.97	135.22	8	23	47.3	104.25	.0004	-23.90	-.0004	37067.0	4.03	2.86	-.0000	242.52	-.0005	-29.27	53.07
SET	42	141.41	152.66	9	0	4.7	105.00	.0010	-24.24	-.0002	43223.2	3.92	2.52	-.0006	241.84	-.0008	-29.15	51.51
RISE	61	185.23	196.48	9	0	48.5	305.14	.0031	-34.22	.0004	56161.9	3.30	-.00	.0019	137.45	.0017	-28.79	45.75
EXTM	51	286.27	297.52	9	2	29.6	.13	.0036	-28.16	.0001	66714.3	3.00	87.57	-.0000	182.74	.0793	-27.95	27.57
EXTM	61	451.27	462.52	9	5	14.6	3.64	.0039	-30.36	.0002	98077.5	2.56	19.32	.0000	183.32	.0036	-26.93	352.31
EXTM	72	483.35	494.60	9	5	46.7	.62	.0040	-27.96	.0001	99200.4	2.49	69.94	.0000	181.59	.0104	-26.77	345.09
RISE	11	641.11	652.36	9	8	24.4	292.04	.0040	-28.00	.0000	127357.3	1.94	.00	.0027	125.07	.0023	-26.11	308.70
SE	51	676.21	687.46	9	8	59.5	90.00	.0039	-24.92	.0001	130870.0	2.55	10.54	-.0033	247.29	-.0013	-25.98	300.46
SE	61	701.94	713.19	9	9	25.3	63.41	.0040	-27.88	.0001	135399.1	2.42	-.00	-.0023	232.22	.0027	-25.90	294.39
SET	72	869.41	880.66	9	12	12.7	93.73	.0040	-25.07	.0001	156255.9	2.39	-.01	-.0036	244.67	-.0004	-25.40	254.50
RISE	42	879.98	891.23	9	12	23.3	254.99	.0040	-23.97	-.0000	157255.2	1.66	2.35	.0029	117.95	-.0022	-25.37	251.96
EXTM	11	921.22	932.47	9	13	4.5	1.14	.0042	-27.26	.0001	159462.7	1.65	27.52	-.0000	181.14	.0042	-25.27	242.05
SET	11	1198.80	1210.05	9	17	42.1	69.97	.0041	-25.89	.0001	193110.3	2.06	-.00	-.0028	237.69	.0024	-24.67	174.78
EXTM	42	1304.10	1315.35	9	19	27.4	359.90	.0042	-24.14	.0000	197833.0	1.69	78.92	.0000	.48	-.0196	-24.48	149.08
RISE	51	1439.08	1450.33	9	21	42.4	270.00	.0041	-23.61	-.0000	216311.7	1.25	10.01	.0034	111.49	-.0015	-24.27	116.03
RISE	72	1596.03	1607.28	10	0	19.3	266.48	.0041	-23.81	-.0000	232378.3	1.14	-.01	.0037	114.06	-.0005	-24.04	77.49
RISE	61	1661.90	1673.15	10	1	25.2	293.29	.0041	-25.05	-.0000	238467.8	1.24	.00	.0026	123.68	.0027	-23.95	61.28
SET	42	1726.93	1738.18	10	2	30.2	105.00	.0041	-22.96	.0000	244185.9	1.83	1.73	-.0030	242.85	-.0023	-23.87	45.27
EXTM	51	1798.24	1809.49	10	3	41.6	359.99	.0042	-23.73	.0000	244458.2	1.48	87.99	-.0000	.53	-.0364	-23.78	27.69
EXTM	61	1929.52	1940.77	10	5	52.8	.46	.0042	-24.89	.0000	259527.9	1.43	24.87	-.0000	180.46	.0042	-23.63	355.30
EXTM	72	1968.82	1980.07	10	6	32.1	.08	.0042	-23.97	.0000	259492.4	1.42	73.94	.0000	180.29	.0137	-23.59	345.59
RISE	11	2098.77	2110.02	10	8	42.1	288.57	.0042	-24.29	-.0000	276445.9	1.05	.00	.0029	120.23	.0024	-23.45	313.46
SET	51	2157.41	2168.66	10	9	40.7	90.00	.0041	-22.88	.0000	280186.6	1.74	9.72	-.0035	249.19	-.0015	-23.39	298.96
SET	61	2196.99	2208.24	10	10	20.3	67.57	.0042	-24.27	.0000	284478.0	1.64	-.00	-.0026	237.42	.0027	-23.36	289.16
SET	72	2340.56	2351.81	10	12	43.9	93.39	.0041	-23.04	.0000	295927.9	1.73	-.00	-.0038	246.72	-.0005	-23.22	253.61
RISE	42	2343.33	2354.58	10	12	48.6	255.00	.0041	-22.47	-.0000	295985.9	.97	1.43	.0030	116.76	-.0023	-23.22	252.92
EXTM	11	2383.99	2395.24	10	13	27.3	.31	.0042	-24.24	.0000	296104.3	1.30	30.56	-.0000	180.33	.0045	-23.19	242.85
SET	11	2669.10	2680.35	10	18	12.4	71.98	.0042	-23.67	.0000	320948.2	1.56	-.00	-.0029	240.57	.0024	-22.95	172.13
EXTM	42	2762.15	2773.40	10	19	49.5	359.95	.0042	-22.64	.0000	321402.7	1.21	77.42	.0000	.21	-.0164	-22.88	149.03
RISE	51	2892.58	2903.83	10	21	59.9	270.00	.0041	-22.35	-.0000	336076.2	.80	9.51	.0035	110.53	-.0016	-22.79	116.63
RISE	72	3048.63	3059.88	11	0	31.9	266.70	.0042	-22.53	-.0000	348276.7	.70	.00	.0038	112.75	-.0005	-22.68	77.85
RISE	61	3106.15	3117.40	11	1	29.5	291.47	.0042	-23.39	-.0000	352120.9	.81	.00	.0027	121.33	.0027	-22.66	63.49
SET	42	3180.76	3192.01	11	2	44.1	105.00	.0041	-22.00	.0000	356953.0	1.45	1.15	-.0030	243.60	-.0023	-22.63	44.89
EXTM	51	3249.46	3260.71	11	3	52.8	359.99	.0042	-22.55	.0000	355313.3	1.10	86.81	.0000	.32	-.0283	-22.60	27.69
EXTM	61	3377.82	3389.07	11	6	1.1	.14	.0042	-23.45	.0000	367253.7	1.10	26.31	-.0000	180.14	.0043	-22.56	355.62
EXTM	72	3417.68	3428.93	11	6	41.0	.02	.0042	-22.80	.0000	366970.0	1.10	75.10	.0000	180.09	.0114	-22.55	345.65
RISE	11	3541.00	3552.25	11	8	44.3	287.94	.0042	-23.12	-.0000	380795.6	.77	.00	.0030	118.73	.0024	-22.42	314.81
SET	51	3605.69	3616.94	11	9	49.0	90.00	.0042	-22.13	.0000	384054.3	1.51	9.41	-.0035	249.88	-.0016	-22.51	298.61
SET	61	3649.22	3660.47	11	10	32.5	68.77	.0042	-23.16	.0000	388031.6	1.44	-.00	-.0027	238.98	.0027	-22.50	287.70
SET	72	3785.74	3796.99	11	12	49.1	93.28	.0042	-22.38	.0000	397991.2	1.86	-.00	-.0039	247.40	-.0006	-22.51	253.38
RISE	42	3786.45	3797.70	11	12	49.8	255.00	.0042	-21.95	-.0000	397927.6	1.09	1.11	.0031	116.35	-.0024	-22.51	253.20
IMPACT		3812.12	3823.37	11	13	19.4												
IMPC	42	3812.12	3823.37	11	13	19.4	261.53	.0043	-22.01	-.0001	399888.5	1.69	6.00	.0033	112.77	-.0023	-22.53	246.66
IMPC	11	3812.12	3823.37	11	13	19.4	356.45	.0044	-23.31	-.0000	397248.9	2.03	31.39	.0002	176.18	.0047	-22.53	246.66

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FTH	AZ	RT ASC
INJECTION		.00	11.25	8	21	43.313	6578.446	21.3274	306,1221	10,96704	-4.0657	110.6205	138.2189
SEPARATION		1.20	12.45	8	21	44.513	6549.497	18.7525	312,6666	10,99434	-.6437	112.9699	145.0643
RETRO		3.20	14.45	8	21	46.513	6596.353	13.9704	323,0604	10,95155	5.0590	116 0503	155.9994
ENTER SHA		3.20	14.45	8	21	46.518	6596.510	13.9636	323,0740	10,95142	5.0669	116.0537	155.9737
EXIT SHA		42.82	54.07	8	22	26.139	17858.900	-26.6560	42,7508	6,61212	52 4592	102.7048	245.5630
IMPACT		3812.12	3823.37	11	13	19.436	400604.477	-22.5317	240,6561	2,20972	6 8868	256.7540	314.3916

MAY 8, 1966
99 DEGREES

SURVEYOR VIEW PERIODS

GHA	228.3328					EPS	80.0817					LOM	241.5503
SX	.646265	SY	-.659906	SZ	-.383150	DAO	-22.52771	RAO	314.39893	RM	401900.848	LAT	28.310600
LON	279.461800	CS	-.919811	ECC	.968498	SLR	12990.492	RCA	6544.6650	LTA	-20.0000	GTA	20.00
TB	675.00000	POL	-.0	NSX	.661248	NSY	-.647752	NSZ	-.378376	C3M	1.4974	WIM	2.6714
ZAE	142.027	R.T	.0000	B.R	-.0000	LATE	8.6254	LONE	2.7698	LATS	-.1110	LONS	282.9196
LATI	3.2470	LONI	324.7955	RSM	151.1803	TTAN	5.4582						
LAUNCH DATE	MAY 8,1966			BASE AZM	102.0	TF	63.555					ARRIVAL DATE	MAY 11 1966 13 35 49.8

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FTH
102.00	21 44 59.9	27.8	20.16	305.82	-5.35	141.16	112.79	21 56 14.9	6558.9	10.98	-2.66

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	8	21	56.2												
SEPARATION		1.20	12.45	8	21	57.4												
ENTER SHA		2.69	13.94	8	21	58.9												
RETRO		3.20	14.45	8	21	59.4												
RISE	72	5.13	16.38	8	22	1.4	61.87	-.1994	45.51	.0370	2433.9	-8.33	.00	.1297	315.07	.0637	7.23	331.23
EXTM	72	9.64	20.89	8	22	5.9	342.21	-.2658	16.38	-.2465	1445.8	3.77	60.00	.0418	35.90	.7045	-3.51	348.85
RISE	51	11.17	22.42	8	22	7.4	78.67	-.0978	22.18	-.0418	4898.3	-4.09	-.00	.0996	294.78	-.0156	-6.57	353.85
EXTM	51	29.18	40.43	8	22	25.4	358.49	-.0346	-22.67	-.0142	7260.6	5.45	86.64	-.0000	24.54	.0456	-24.11	28.50
EXIT	SHA	42.13	53.38	8	22	38.4												
EXIT	72	42.13	53.38	8	22	38.4	283.34	-.0040	-29.46	-.0012	15000.0	5.93	15.46	-.0035	118.48	.0013	-27.64	39.38
EXIT	51	42.13	53.38	8	22	38.4	341.76	-.0129	-28.25	-.0033	11589.5	5.51	73.57	-.0116	102.88	.0085	-27.64	39.38
EXTM	72	68.85	80.10	8	23	5.1	280.72	-.0000	-30.38	-.0002	25551.3	4.86	13.21	.0000	119.46	.0002	-29.75	48.84
EXTM	51	86.85	98.10	8	23	23.1	330.84	-.0000	-30.47	-.0000	24841.6	4.44	63.92	-.0000	107.19	.0000	-30.04	50.80
RISE	61	175.44	186.69	9	0	51.7	306.53	.0030	-35.13	.0005	51183.9	3.37	-.00	.0018	133.92	.0016	-29.42	44.23
EXTM	51	271.30	282.55	9	2	27.6	.18	.0036	-28.76	.0002	6408.7	3.04	86.97	.0000	183.03	.0592	-28.49	24.52
EXTM	61	440.03	451.28	9	5	16.3	4.17	.0039	-30.79	.0002	9646.7	58	18.87	.0000	183.79	.0036	-27.29	351.81
EXTM	72	470.50	481.75	9	5	46.7	.74	.0040	-28.36	.0001	97359.[illegible]	51	69.53	-.0000	181.86	.0102	-27.12	344.98
RISE	11	629.57	640.82	9	8	25.8	292.33	.0040	-28.30	.0000	125864.0	1.96	.00	.0027	125.47	.0023	-26.38	304.37
SET	51	663.16	674.41	9	8	59.4	90.00	.0039	-25.18	.0001	129193.8	2.57	10.65	-.0033	247.05	-.0013	-26.25	300.50
SET	61	687.46	698.71	9	9	23.7	65.04	.0040	-28.18	.0002	133570.9	2.43	-.00	-.0023	231.79	.0027	-26.16	294.78
SET	72	856.76	868.01	9	12	13.0	93.76	.0039	-25.27	.0001	154792.3	2.40	-.01	-.0035	244.46	-.0004	-25.61	254.49
RISE	42	867.40	878.65	9	12	23.6	294.99	.0040	-24.16	-.0000	155794.4	1.67	2.47	.0029	116.10	-.0022	-25.58	251.94
EXTM	11	908.89	920.14	9	13	5.1	1.22	.0042	-27.48	.0001	158092.1	1.96	27.30	-.0000	131.22	.0042	-25.47	241.97
SET	11	1185.61	1196.86	9	17	41.9	69.82	.0041	-26.05	.0001	191764.5	2.07	-.00	-.0028	237.49	.0024	-24.82	174.93
EXTM	42	1291.49	1302.74	9	19	27.7	359.88	.0042	-24.27	.0000	196589.6	1.70	79.05	.0000	.59	-.0199	-24.61	149.10
RISE	51	1426.62	1437.87	9	21	42.9	270.00	.0041	-23.72	-.0000	215128.3	1.25	10.06	.0034	111.59	-.0015	-24.38	116.02
RISE	72	1583.52	1594.77	10	0	19.8	266.46	.0041	-23.91	-.0000	231243.7	1.15	-.01	.0037	114.15	-.0005	-24.13	77.49
RISE	61	1649.87	1661.12	10	1	26.1	293.40	.0041	-25.14	-.0000	237395.9	1.24	.00	.0026	125.82	.0027	-24.04	61.17
SET	42	1714.43	1725.68	10	2	30.7	105.00	.0041	-23.04	.0000	243082.7	1.64	1.78	-.0030	242.79	-.0023	-23.95	45.27
EXTM	51	1780.08	1791.33	10	3	36.3	358.56	.0042	-23.82	.0000	242878.3	1.47	87.67	.0021	34.59	-.0790	-23.87	29.09
EXTM	61	1917.13	1928.38	10	5	53.4	.49	.0042	-24.96	.0000	258497.3	1.43	24.80	.0000	180.49	.0042	-23.70	355.27
EXTM	72	1956.37	1967.62	10	6	32.6	.09	.0042	-24.03	.0000	258460.4	1.42	73.87	.0000	180.30	.0136	-23.65	345.58
RISE	11	2086.52	2097.77	10	8	42.8	288.52	.0042	-24.35	-.0000	275455.5	1.06	.00	.0029	120.30	.0024	-23.50	313.41
SET	51	2144.92	2156.17	10	9	41.2	90.00	.0041	-22.93	.0000	279186.2	1.74	9.74	-.0035	249.14	-.0015	-23.44	298.96
SET	61	2184.29	2195.54	10	10	20.5	67.52	.0042	-24.32	.0000	283469.9	1.64	-.00	-.0026	237.35	.0027	-23.40	289.22
SET	72	2328.09	2339.34	1	12	44.3	93.40	.0041	-23.08	.0000	294965.5	1.73	-.00	-.0038	246.68	-.0005	-23.26	253.61
RISE	42	2330.88	2342.13	10	12	47.1	255.00	.0041	-22.50	-.0000	295022.5	.98	1.45	.0030	116.79	-.0023	-23.26	252.92
EXTM	11	2371.59	2382.84	10	13	27.8	.33	.0042	-24.27	.0000	295157.9	1.30	30.52	-.0000	180.35	.0045	-23.22	242.83
SET	11	2656.55	2667.80	10	18	12.8	71.96	.0042	-23.69	.0000	320031.9	1.56	-.00	-.0029	240.54	.0024	-22.97	172.15
EXTM	42	2749.67	2760.92	10	19	45.9	359.95	.0042	-22.65	.0000	320704.9	1.21	77.43	.0000	.23	-.0165	-22.89	149.03
RISE	51	2880.12	2891.37	10	21	56.4	270.00	.0041	-22.36	-.0000	335197.6	.80	9.51	.0035	110.33	-.0016	-22.79	116.63
RISE	72	3036.16	3047.41	11	0	32.4	266.70	.0042	-22.53	-.0000	347422.0	.70	.00	.0038	112.75	-.0005	-22.68	77.34
RISE	61	3093.68	3104.93	11	1	29.9	291.47	.0042	-23.39	-.0000	351267.8	.81	.00	.0027	121.33	.0027	-22.65	63.48
SET	42	3168.28	3179.53	11	2	44.5	105.00	.0041	-22.00	.0000	356101.1	1.45	1.14	-.0030	243.61	-.0023	-22.62	44.85
EXTM	51	3236.98	3248.23	11	3	53.2	359.99	.0042	-22.24	.0000	354462.6	1.10	86.90	.0000	.31	-.0319	-22.60	27.69
EXTM	61	3365.39	3376.64	11	6	1.6	.15	.0042	-23.44	.0000	366404.0	1.08	26.32	-.0000	180.15	.0043	-22.55	355.61
EXTM	72	3405.22	3416.47	11	6	41.5	.02	.0042	-22.79	.0000	365717.4	1.10	75.11	.0000	180.11	.0110	-22.54	345.65
RISE	11	3528.49	3539.74	11	8	44.7	287.52	.0042	-23.11	-.0000	379928.6	.77	.00	.0030	118.71	.0024	-22.50	314.82
SET	51	3593.23	3604.48	11	9	49.5	90.00	.0042	-22.11	.0000	383178.2	1.50	9.41	-.0035	249.90	-.0016	-22.49	298.61
SET	61	3636.86	3648.11	11	10	33.1	66.80	.0042	-23.14	.0000	387146.1	1.43	-.00	-.0027	239.01	.0027	-22.48	287.68
SET	72	3773.39	3784.64	11	12	49.5	93.28	.0042	-22.34	.0000	396903.0	1.77	-.00	-.0038	247.43	-.0006	-22.48	253.38
RISE	42	3774.13	3785.38	11	12	50.4	255.00	.0042	-21.91	-.0000	396840.1	1.00	1.09	.0031	116.32	-.0024	-22.48	253.20
EXTM	11	3812.38	3823.63	11	13	28.6	359.67	.0044	-23.28	-.0000	397153.1	1.98	31.51	.0000	179.64	.0047	-22.50	243.48
IMPACT		3813.29	3824.54	11	13	29.5												
IMPC	42	3813.29	3824.54	11	13	29.5	264.94	.0043	-21.99	-.0001	399629.7	1.88	8.57	.0033	110.92	-.0023	-22.50	243.24
IMPC	11	3813.29	3824.54	11	13	29.5	359.91	.0044	-23.28	-.0000	397261.8	2.05	31.51	-.0000	179.90	.0047	-22.50	243.24

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FTH	AZ	RT ASC
INJECTION		.00	11.25	8	21	56.249	6558.936	20.1584	305.8159	10.98309	-2.6555	112.7872	141.1950
SEPARATION		1.20	12.45	8	21	57.449	6545.877	17.3527	312.2046	10.99398	.7790	114.9411	147.8445
ENTER SHA		2.69	13.94	8	21	58.935	6525.297	13.6089	319.7816	10.95240	5.0077	117.0672	155.7939
RETRO		3.20	14.45	8	21	59.449	6629.024	12.2700	322.3064	10.92429	6.4527	117.6615	158.4477
EXIT SHA		42.13	53.38	8	22	38.377	17796.183	-27.6354	39.3803	6.62395	52.3790	102.3329	245.2865
IMPACT		3813.29	3824.54	11	13	29.540	400629.195	-22.5021	243.2431	2.20916	67.8748	257.1366	314.5145

)

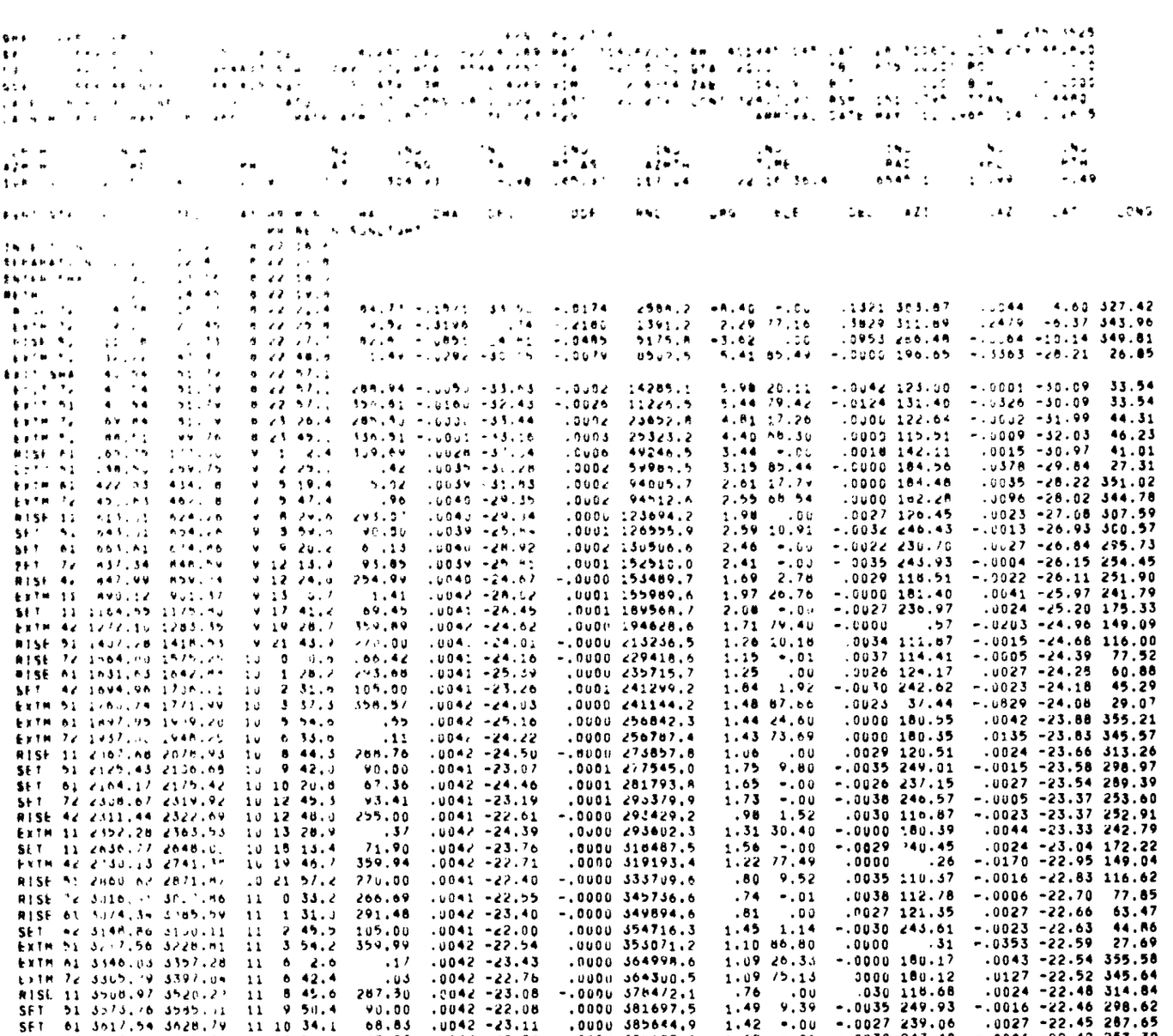
SURVEYOR VIEW PERIODS

GHA	228.3328					EPS	80.1854							LOM	238.2698
SX	.647756	SY	-.658773	SZ	-.382663	DAP	-22.49873	RAO	314.51688	RM	401924.340	LAT	28.310600	LON	279.461800
C3	-.921506	ECC	.984870	SLR	12990.712	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00300	POL	-.0
NSX	.662727	NSY	-.646516	NSZ	-.377901	J3M	1.4971	VIM	2.6714	ZAS	141.978	B.T	.0030	B.R	-.0000
LATE	6.6288	LONE	2.8682	LATS	-.1108	LONS	282.9288	LATI	3.0043	LONI	324.8883	RSM	151.1799	TTAN	5.4519
LAUNCH DATE		MAY	8,1966		BASE AZM	105.0		TF	63.588				ARRIVAL DATE	MAY 11 1966	13 49 23.2

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
105.00	21 55 59.7	27.9	19.02	305.41	-2.97	143.51	114.92	22 7 14.7	6549.0	10.99	-1.48

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	8	22	7,2												
SEPARATION	1.20	12.45	8	22	8,4												
ENTER SHA	2.26	13.51	8	22	9,5												
RETRO	3.20	14.45	8	22	10,4												
RISE 72	4.92	16.17	8	22	12.2	83.49	-.1747	39.24	.0084	2911.7	-8.44	.00	.1317	309.69	.0323	5.96	329.20
EXTM 72	9.40	20.65	8	22	16,6	356.41	-.3066	9.13	-.2337	1379.1	3.02	72.59	.1659	11.91	1.1517	-4.90	346.31
RISE 51	11.11	22.36	8	22	18,4	80.75	-.0910	18.44	-.0483	5042.2	-3.86	.00	.0975	290.55	-.0007	-8.31	351.74
EXTM 51	30.61	41.86	8	22	37,9	.31	-.0318	-26.41	-.0108	7855.3	8.43	89.27	.0010	202.57	-2.3846	-26.11	27.91
EXIT SHA	41.30	52.55	8	22	48,5												
EXIT 72	41.30	52.55	8	22	48,5	286.33	-.0045	-31.45	-.0008	14416.6	5.96	18.02	-.0039	120.58	.0007	-28.78	36.29
EXIT 51	41.30	52.55	8	22	48,5	346.39	-.0144	-30.23	-.0030	11390.1	5.48	77.18	-.0128	113.59	-.0037	-28.78	36.29
EXTM 72	69.48	80.73	8	23	16,7	283.32	.0000	-31.86	.0000	23629.0	4.83	15.45	.0000	120.96	-.0000	-30.81	46.41
EXTM 51	88.03	99.28	8	23	35,3	333.92	-.0000	-31.76	.0002	25171.8	4.41	66.42	.0000	110.86	-.0004	-30.98	48.34
RISE 61	169.08	180.33	9	0	56,3	308.07	.0029	-36.08	.0005	49899.6	3.42	-.00	.0018	140.49	.0019	-30.14	62.63
EXTM 51	298.83	270.08	9	2	26,1	.28	.0035	-29.47	.0002	61855.2	3.11	86.26	-.0000	183.79	.0470	-29.12	27.43
EXTM 61	430.4	441.68	9	5	17,7	4.58	.0039	-31.28	.0002	99087.8	2.60	18.35	.0000	184.12	.0035	-27.73	351.43
EXTM 72	459.70	470.95	9	5	46,9	.84	.0040	-28.83	.0001	93799.1	2.53	89.06	.0000	182.05	.0099	-27.54	344.89
RISE 11	620.32	631.57	9	8	27,6	292.68	.0040	-28.65	.0000	124655.3	1.97	.00	.0027	125.94	.0023	-26.71	308.00
SET 51	652.19	663.44	9	8	59,4	90.00	.0039	-25.49	.0001	127765.9	2.58	10.77	-.0032	246.76	-.0013	-26.57	300.54
SET 61	674.77	686.02	9	9	22,0	62.62	.0040	-28.53	.0002	131949.2	2.45	-.00	-.0022	231.28	.0027	-26.48	295.23
SET 72	846.17	857.42	9	12	13,4	93.81	.0039	-25.52	.0001	153953.2	2.41	-.00	-.0035	244.21	-.0004	-25.83	294.48
RISE 42	856.84	868.09	9	12	24,1	294.99	.0040	-24.40	-.0000	154948.2	1.68	2.61	.0029	118.29	-.0042	-25.83	291.92
EXTM 11	898.63	909.88	9	13	5,9	1.31	.0042	-27.73	.0001	156843.9	1.97	27.05	-.0000	181.31	.0041	-25.70	241.88
SET 11	1174.29	1185.54	9	17	41,3	69.65	.0041	-26.24	.0001	190590.9	2.07	-.00	-.0027	237.24	.0024	-25.00	179.12
EXTM 42	1281.00	1292.25	9	19	28,3	359.89	.0042	-24.43	.0000	195936.3	1.70	79.21	-.0000	.52	-.0200	-24.77	149.08
RISE 51	1416.12	1427.37	9	21	43,4	270.00	.0041	-23.85	-.0000	214109.7	1.26	10.11	.0034	111.72	-.0015	-24.52	116.01
RISE 72	1572.94	1584.19	10	0	20,2	266.44	.0041	-24.02	-.0000	230263.0	1.15	-.01	.0037	114.27	-.0005	-24.25	77.51
RISE 61	1639.88	1651.13	10	1	27,1	293.53	.0041	-25.26	-.0000	236484.6	1.24	.00	.0026	123.98	.0027	-24.15	61.04
SET 42	1703.87	1715.12	10	2	31,1	105.00	.0041	-23.14	.0001	242125.8	1.84	1.84	-.0030	242.71	-.0023	-24.06	45.28
EXTM 51	1769.56	1780.81	10	3	36,8	358.56	.0042	-23.92	.0000	241944.7	1.48	87.76	.0022	35.95	-.0806	-23.96	29.09
EXTM 61	1906.72	1917.97	10	5	54,0	.52	.0042	-25.05	.0000	257607.4	1.44	24.71	.0000	180.51	.0042	-23.78	355.25
EXTM 72	1945.8	1957.12	10	6	33,1	.10	.0042	-24.12	.0000	257963.2	1.42	73.79	.0000	180.53	.0136	-23.73	349.58
RISE 11	2076.26	2087.51	10	8	43,5	289.69	.0042	-24.42	.0000	274997.0	1.06	.00	.0029	120.40	.0024	-23.57	313.34
SET 51	2134.36	2145.61	10	9	41,6	90.00	.0041	-22.99	.0000	278309.2	1.75	9.76	-.0035	249.08	-.0015	-23.51	298.07
SET 61	2173.44	2184.69	10	10	20,7	67.45	.0042	-24.38	.0000	282978.4	1.65	-.00	-.0026	237.26	.0027	-23.46	289.30
SET 72	2317.56	2328.81	10	12	44,8	93.40	.0041	-23.13	.0001	294119.2	1.73	-.00	-.0038	246.63	-.0005	-23.31	293.60
RISE 42	2320.34	2331.59	10	12	47,6	255.00	.0041	-22.55	-.0000	294173.2	.98	1.48	.0030	116.83	-.0023	-23.31	292.91
EXTM 11	2361.12	2372.37	10	13	28,4	.35	.0042	-24.32	.0000	294326.8	1.30	30.47	-.0000	180.37	.0044	-23.27	242.81
SET 11	2645.87	2657.12	10	18	14,1	71.94	.0042	-23.72	.0000	319213.3	1.56	-.00	-.0029	240.50	.0024	-23.00	172.18
EXTM 42	2739.10	2750.35	10	19	46,3	359.95	.0042	-22.67	.0000	319903.2	1.21	77.45	.0000	.24	-.0165	-22.92	149.03
RISE 51	2869.57	2880.82	10	21	56,8	270.00	.0041	-22.38	-.0000	334409.7	.80	9.51	.0035	110.35	-.0016	-22.81	116.62
RISE 72	3025.58	3036.83	11	0	32,8	266.69	.0041	-22.53	-.0000	346427.5	.73	-.01	.0038	112.76	-.0004	-22.69	77.85
RISE 61	3083.25	3094.50	11	1	30,5	291.46	.0042	-23.38	-.0000	350576.8	.81	.00	.0027	121.33	.0027	-22.65	63.49
SET 42	3157.83	3169.08	11	2	45,1	105.00	.0041	-21.99	.0000	355405.1	1.45	1.14	-.0030	243.62	-.0023	-22.62	44.86
EXTM 51	3226.53	3237.78	11	3	56,8	359.99	.0042	-22.53	.0000	353760.6	1.10	86.79	.0000	.32	-.0318	-22.59	27.69
EXTM 61	3354.95	3366.20	11	6	2,2	.15	.0042	-23.43	.0000	365689.0	1.09	26.33	-.0000	180.16	.0013	-22.34	355.60
EXTM 72	3394.75	3406.00	11	6	42,0	.02	.0042	-22.78	.0000	364996.1	1.00	75.13	.0000	180.11	.0116	-22.53	345.65
RISE 11	3517.94	3529.19	11	8	45,2	287.51	.0042	-23.09	-.0000	379181.2	.77	.00	.0030	118.69	.0024	-22.49	314.83
SET 51	3582.72	3593.97	11	9	50,0	90.00	.0042	-22.09	.0000	382416.1	1.50	9.40	-.0035	249.92	-.0016	-22.47	298.61
SET 61	3626.44	3637.69	11	10	33,7	68.82	.0042	-23.12	.0000	386371.4	1.43	-.00	-.0027	239.04	.0027	-22.46	287.66
SET 72	3762.92	3774.17	11	12	50,2	93.27	.0042	-22.31	.0000	395964.0	1.71	-.01	-.0034	247.46	-.0006	-22.45	253.19
RISE 42	3763.69	3774.94	11	12	50,9	255.00	.0042	-21.88	-.0000	395903.0	.95	1.07	.0031	116.30	-.0024	-22.45	253.19
EXTM 11	3802.85	3814.10	11	13	30,1	359.87	.0043	-23.24	-.0000	395075.3	1.59	31.55	-.0000	179.85	.0046	-22.46	243.38
IMPACT	3815.30	3826.55	11	13	42,5												
IMPC 42	3815.30	3826.55	11	13	42,5	268.88	.0043	-21.98	-.0000	399393.6	1.68	10.98	.0033	109.25	-.0022	-22.47	240.10
IMPC 11	3815.30	3826.55	11	13	42,5	3.10	.0044	-23.25	-.0000	397292.8	2.06	31.47	-.0002	183.34	.0047	-22.47	240.10

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION	.00	11.25	8	22	7,245	6549.051	19.0175	305.4116	10.99133	-1.4756	114.9235	143.5372
SEPARATION	1.20	12.45	8	22	8,445	6552.360	19.9916	311.6354	10.98842	1.9568	116.8886	150.0319
ENTER SHA	2.26	13.51	8	22	9,505	6594.944	13.1762	316.9318	10.89295	4.9765	118.2900	155.5941
RETRO	3.20	14.45	8	22	10,445	6662.832	10.6247	321.4401	10.89691	7.5981	119.2696	160.3379
EXIT SHA	41.30	52.55	8	22	48,541	17663.360	-28.7767	36.2901	6.64920	52.2161	101.9921	214.7381
IMPACT	3815.30	3826.55	11	13	42,543	480655.941	-22.4747	240.0975	2.20661	67.6229	237.5610	314.6284



EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	8	22	16.607	6545.147	17.9035	304.9305	10.99451	-.4887	117.0408	145.3729
SEPARATION		1.20	12.45	8	22	17.807	6562.096	14.6601	310.9945	10.98011	2.9430	118.8277	151.7378
ENTER SHA		1.91	13.16	8	22	18.518	6594.305	12.6742	314.4631	10.95305	4.9584	119.6898	155.3845
RETRO		3.20	14.45	8	22	19.807	6693.689	9.0220	320.5005	10.87080	8.5481	120.8886	161.7452
EXIT SHA		40.54	51.79	8	22	57.144	17532.665	-30.0870	33.5366	6.67428	52.0534	101.6132	244.1415
IMPACT		3817.75	3829.00	11	13	54.358	400676.048	-22.4500	237.2385	2.20573	67.6026	258.0983	314.7314

SMA 220.3320 EPS 80.3610

SX -.89.290 SY -.898736 SZ -.381884 DAC -22.44422 RAD 314.71748 SM 401964.014 LAT 28.512600 LON 279.441830

CS -.926388 ECC .884787 RLB 12888.784 RCA 6944 6850 LTA -28.8888 GMA 28 .0 78 879 00000 PSI -.8

WSX .885259 WSY -.844390 WSZ -.377092 CSN 1.4987 VIN 2.8713 ZAB 141 819 0 ' 0000 0 M - .0000

LATS 8.8347 LONP 2.8422 LATS -.1109 LONS 287.7183 LATI 2.4259 LONI 324.7581 RSM 191 1792 774N 9.44A0

LALNCH DATE MAY 8.1966 BASE AZM 111.0 TF 83.879 ARM.VAL DATE MAY 11 1966 14 12 27.0

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	22 13 24 1	20.0	16.82	304.39	.68	146.84	119.15	22 24 37.1	6944.9	10 99	34

EVNT STA	TFI	TFL	DAY HR MIN PROBE IN SUNLIGHT	MA	DMA	DEC	ODE	RNG	DRG	ELB	DEL	AZI	DAZ	LAT	LONG
INJECTION	.00	11.25	8 22 24.6												
SEPARATION	1.20	12.45	8 22 25.8												
ENTER SMA	1.63	12.88	8 22 26.2												
RETRO	3.20	14.45	8 22 27.8												
RISE 72	4.69	15.94	8 22 29.3	85.74	-.1434	28.14	-.0407	2663.8	-8.23	.00	.1312	298.43	-.0204	3.14	329.83
EXTM 72	9.18	20.43	8 22 33.8	18.70	-.3055	-9.08	-.1906	1487.9	2.12	71.47	.2937	265.01	-.0449	-8.19	342.17
RISE 51	11.10	22.35	8 22 35.7	84.49	-.0729	11.27	-.0915	9302.4	-3.38	.30	.0931	282.53	-.0119	-12.06	348.02
EXTM 51	34.02	45.27	8 22 58.6	2.11	-.0267	-33.55	-.0094	9206.4	5.30	81.97	-.0000	192.72	-.1838	-30.36	26.48
EXIT SMA	39.53	50.78	8 23 4.2												
EXIT 72	39.53	50.78	8 23 4.2	291.32	-.0057	-35.99	.0004	13889.1	6.02	21.89	-.0046	125.70	-.0010	-31.49	30.89
EXIT 51	39.53	50.78	8 23 4.2	354.82	-.0181	-34.78	-.0024	10993.7	5.40	79.92	-.0090	194.94	-.0090	-31.49	30.89
EXTM 72	70.11	81.36	8 23 34.7	287.30	-.0000	-35.10	.0005	23675.7	4.80	18.67	.0000	124.46	-.0009	-33.27	42.92
EXTM .	88.11	99.36	8 23 52.7	338.68	-.0002	-34.68	.0005	25251.4	4.40	69.98	-.0000	121.03	-.0016	-31 19	44.43
RISE 61	164.96	176.21	9 1 9.6	311.37	.0028	-27.99	.0006	49135.6	3.44	-.00	.0018	143.74	.0015	-31.83	39.41
EXTM 51	240.21	251.46	9 2 24.8	.61	.0034	-31.16	.0003	58469.3	3.18	34.55	-.0000	185.51	.0309	-30.65	27.14
EXTM 61	416.93	428.18	9 5 21.5	5.48	.0039	-32.40	.0003	93179.4	2.63	17.19	.0000	184.84	.0035	-28.75	358.59
EXTM 72	443.61	454.86	9 5 48.2	1.09	.0040	-29.91	.0002	93463.9	2.56	67.97	.0000	182.92	.0093	-28.53	344.66
RISE 11	607.33	618.58	9 8 31.9	293.49	.0040	-29.46	.0001	122944.6	1.99	.00	.0027	127.01	.0023	-27.48	307.19
SET 51	635.32	646.57	9 8 59.9	90.00	.0039	-26.23	.0001	129331.6	2.60	11.07	-.0032	246.06	-.0013	-27.33	300.60
SET 61	653.74	664.99	9 9 18.4	61.60	.0040	-29.34	.0002	129218.8	2.46	-.00	-.0022	230.07	.0027	-27.23	296.28
SET 72	829.99	841.24	9 12 14.6	93.90	.0039	-26.11	.0001	151833.7	2.42	-.00	-.0035	243.62	-.0004	-26.46	254.42
RISE 42	840.59	851.84	9 12 25.2	254.99	.0040	-24.97	-.0000	152991.2	1.70	2.97	.0029	118.74	-.0022	-26.42	251.88
EXTM 11	883.08	894.33	9 13 7.7	1.92	.0042	-28.33	.0001	155200.1	1.98	26.45	-.0000	181.50	.0041	-26.26	241.68
SET 11	1156.15	1167.40	9 17 40.8	69.23	.0041	-26.68	.0001	188675.0	2.08	-.00	-.0027	236.66	.0024	-25.43	175.96
EXTM 42	1264.60	1275.85	9 19 29.2	359.88	.0042	-24.83	.0000	193851.4	1.71	79.61	-.0000	.61	-.0208	-25.16	149.10
RISE 51	1399.84	1411.09	9 21 44.5	270.00	.0041	-24.19	-.0000	212485.7	1.27	10.25	.0034	112.03	-.0015	-24.86	115.99
RISE 72	1556.43	1567.68	10 0 21.0	266.40	.0041	-24.31	-.0000	228688.7	1.16	-.01	.0037	114.56	-.0009	-24.55	77.94
RISE 61	1624.81	1636.06	10 1 29.4	293.85	.0041	-25.54	.0000	235065.2	1.25	.00	.0026	124.38	.0027	-24.42	60.71
SET 42	1687.43	1698.68	10 2 32.0	105.00	.0041	-23.39	.0001	240981.7	1.85	2.00	-.0030	242.51	-.0023	-24.31	45.29
EXTM 51	1753.45	1764.70	10 3 38.1	358.63	.0042	-24.16	.0000	240465.6	1.48	87.99	.0023	38.44	-.0873	-24.20	29.02
EXTM 61	1890.56	1901.81	10 5 55.2	.98	.0042	-25.27	.0000	256181.1	1.44	24.49	.0000	180.58	.0042	-23.99	355.18
EXTM 72	1929.50	1940.75	10 6 34.1	.11	.0042	-24.33	.0000	256112.4	1.43	73.58	.0000	180.37	.0134	-23.93	345.56
RISE 11	2060.49	2071.74	10 8 45.1	288.85	.0042	-24.60	-.0000	273817.4	1.06	.00	.0029	120.63	.0024	-23.75	313.17
SET 51	2117.87	2129.12	10 9 42.5	90.00	.0041	-23.15	.0001	276873.8	1.75	9.83	-.0035	248.93	-.0015	-23.67	298.98
SET 61	2156.21	2167.46	10 10 20.8	67.26	.0042	-24.55	.0001	281097.7	1.65	-.00	-.0026	237.03	.0027	-23.62	289.49
SET 72	2301.13	2312.38	10 12 45.7	93.43	.0041	-23.26	.0001	292728.6	1.74	-.00	-.0037	246.50	-.0005	-23.44	293.99
RISE 42	2303.88	2315.13	10 12 48.5	255.00	.0041	-22.68	-.0000	292771.8	.98	1.56	.0030	116.93	-.0023	-23.44	292.91
EXTM 11	2344.79	2356.04	10 13 29.4	.39	.0042	-24.46	.0000	292965.0	1.31	30.33	-.0000	180.41	.0044	-23.39	242.77
SET 11	2628.99	2640.24	10 18 13.6	71.86	.0042	-23.81	.0000	317837.2	1.56	-.00	-.0029	240.39	.0024	-23.08	172.26
EXTM 42	2722.50	2733.75	10 19 47.1	359.94	.0042	-22.75	.0000	318958.1	1.22	77.53	.0000	.28	-.0169	-22.99	149.04
RISE 51	2853.01	2864.26	10 21 57.6	270.00	.0041	-22.43	-.0000	333080.2	.81	9.54	.0035	110.40	-.0016	-22.87	116.62
RISE 72	3008.97	3020.22	11 0 33.6	266.69	.0041	-22.57	-.0000	345112.0	.74	-.01	.0038	112.80	-.0006	-22.72	77.85
RISE 61	3066.79	3078.04	11 1 31.4	291.50	.0042	-23.42	-.0000	349878.8	.81	.00	.0027	121.37	.0027	-22.68	63.45
SET 42	3141.21	3152.46	11 2 45.8	105.00	.0041	-22.01	.0000	354091.0	1.45	1.15	-.0031	243.60	-.0023	-22.64	44.86
EXTM 51	3209.91	3221.16	11 3 54.5	359.99	.0042	-22.55	.0000	352444.3	1.10	86.81	.0000	.35	-.0350	-22.60	27.70
EXTM 61	3338.46	3349.71	11 6 3.1	.18	.0042	-23.43	.0000	364369.5	1.09	26.33	-.0000	180.19	.0043	-22.54	355.97
EXTM 72	3378.17	3389.42	11 6 42.8	.03	.0042	-22.78	.0000	363665.3	1.09	75.13	.0000	180.13	.0132	-22.53	345.64
RISE 11	3501.33	3512.58	11 8 45.9	287.50	.0042	-23.08	-.0000	377823.1	.76	.00	.0030	118.67	.0024	-22.47	314.84
SET 51	3566.13	3577.38	11 9 50.7	90.00	.0042	-22.07	.0000	381038.3	1.49	9.39	-.0035	249.94	-.0016	-22.45	298.62
SET 61	3609.95	3621.20	11 10 34.6	68.84	.0042	-23.10	.0000	384077.7	1.42	-.00	-.0027	239.07	.0027	-22.44	287.64
SET 72	3746.41	3757.66	11 12 51.0	93.27	.0042	-22.27	.0000	394372.0	1.65	-.01	-.0038	247.50	-.0006	-22.41	253.40
RISE 42	3747.23	3758.48	11 12 51.8	255.00	.0042	-21.84	-.0000	394314.9	.88	1.05	.0031	116.27	-.0024	-22.41	293.19
EXTM 11	3786.88	3798.13	11 13 31.5	359.96	.0043	-23.19	-.0000	394149.	1.37	31.60	.0000	179.99	.0045	-22.41	243.19
IMPACT	3820.71	3831.96	11 14 5.3												
IMPC 42	3820.71	3831.96	11 14 5.3	273.59	.0043	-21.96	-.0000	398972.2	1.67	15.26	.0034	106.37	-.0022	-22.43	234.98
IMPC 11	3820.71	3831.96	11 14 5.3	8.69	.0044	-23.20	-.0000	397[illegible].7	2.09	31.01	-.0006	189.32	.0046	-22.43	234.98

EVNT STA	TFI	TFL	DAY HR MIN	RAD	LAT	LONG	VBL	FPA	AZ	RT ASC
INJECTION	.00	11.25	8 22 24.618	6544.896	16.8157	304.3868	10.99463	.3391	119.1469	146.8374
SEPARATION	1.20	12.45	8 22 25.818	6573.249	13.3629	319.2843	10.97059	3.7669	120.7627	153.0358
ENTER SMA	1.63	12.88	8 22 26.243	6594.552	12.1131	312.3101	10.95272	4.9706	121.2330	155.1681
RETRO	3.20	14.45	8 22 27.818	6723.036	7.4567	319.4996	10.84673	9.3382	122.9248	162.7525
EXIT SMA	39.53	50.78	8 23 4.150	17306.781	-31.4887	30.8510	6.71838	51.7673	101.3629	243.2121
IMPACT	3820.71	3831.96	11 14 5.330	400696.082	-22.4271	234.5836	2.20468	67.5662	258.6924	314.8270

SURVEYOR (ITEM PERIOD)

QMA	228.5568				EPS	80.4655					LOM	229.4058	
SX	.851776 SY	-.666959 SZ	-.381393 VAD	-22.42301 MAD	314.63524 RM	401987.281 LAT	28.310600 LON	279.461800					
CS	.731 83 RCC	.996715 SCR	129M9.276 MCA	0544.6650 LTA	-20.0000 GTA	20.00	TB	675.00000 POL	-.0				
NSX	.859748 NSY	-.643529 NSZ	-.37A614 CSM	1.496M VIM	2.6713 ZAE	141.658 R.T	.0000 B.R	-.0000					
LATE	6.6581 LONE	2.7394 LATS	-.1104 LONS	282.4942 LATI	1.9944 LONI	324.9471 RSM	151.1788 TTAN	5.4465					
LAUNCH DATE	MAY	8.1966	BASE AZM	115.0	TF	63.756	ARRIVAL DATE	MAY 11 1966	14 26	.9			

LNCH AZMTH	LNCH TIME	PH	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	22 22 21.8	28.0	15.41	303.58	2.51	148.29	121.95	22 33 36.8	6547.8	10.99	1.24

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	8	22	33.6												
SEPARATION	1.20	12.45	8	22	34.8												
ENTER SHA	1.33	12.58	8	22	34.9												
RETRO	3.20	14.45	8	22	36.8												
RISE 72	4.64	15.89	8	22	38.3	86.89	-.1285	21.38	-.0677	2766.7	-7.83	-.01	.1284	291.60	-.0493	1.08	323.95
EXTM 72	10.29	21.54	8	22	43.9	11.42	-.2495	-30.12	-.1149	1921.0	4.61	65.34	-.0000	204.23	-.5859	-13.03	343.30
RISE 51	11.17	22.42	8	22	44.8	86.78	-.0738	6.65	-.0551	5464.9	-3.05	.01	.0900	277.39	-.0175	-14.73	345.82
EXTM 51	36.93	48.18	8	23	10.5	1.96	-.0253	-37.97	-.0027	10295.0	5.34	77.65	-.0000	187.26	-.0866	-33.30	26.53
EXIT SHA	38.36	49.61	8	23	12.0												
EXIT 72	38.36	49.61	8	23	12.0	294.04	-.0068	-39.39	.0014	13452.9	6.06	93.53	-.0049	129.67	-.0024	-33.55	27.65
EXIT 51	38.36	49.61	8	23	12.0	.06	-.0211	-38.17	-.0020	10752.8	5.34	77.57	-.0019	180.24	-.0744	-33.55	27.65
EXTM 72	70.18	81.43	8	23	43.8	289.19	-.0001	-37.42	.0008	23656.2	4.79	20.01	.0000	127.04	-.0008	-35.10	40.52
EXTM 51	86.59	97.84	9	0	.2	341.06	-.0005	-36.89	.0008	24906.0	4.42	70.41	.0000	129.26	-.0027	-34.88	42.42
RISE 61	167.06	178.31	9	1	20.7	313.63	.0029	-39.19	.0007	49659.3	3.42	.00	.0018	145.88	.0015	-33.00	37.31
EXTM 51	231.80	243.05	9	2	25.4	.92	.0034	-32.43	.0004	56922.0	3.22	83.26	-.0000	186.66	.0244	-31.76	26.86
EXTM 61	411.80	423.05	9	5	25.4	6.25	.0039	-33.19	.0003	92494.0	2.64	16.35	-.0000	185.45	.0034	-29.49	349.87
EXTM 72	436.12	447.37	9	5	49.7	1.30	.0040	-30.71	.0002	92375.2	2.58	67.16	.0000	182.88	.0089	-29.27	344.47
RISE 11	601.83	613.08	9	8	35.4	294.10	.0040	-30.05	.0001	122213.0	2.00	.00	.0026	127.80	.0023	-28.04	306.53
SET 51	627.00	638.25	9	9	.6	90.00	.0038	-26.79	.0002	124405.2	2.60	11.29	-.0032	245.54	-.0012	-27.89	300.65
SET 61	642.21	653.46	9	9	15.8	60.82	.0040	-29.95	.0002	127697.3	2.47	-.00	-.0021	229.16	.0027	-27.80	297.08
SET 72	822.07	833.32	9	12	15.7	93.98	.0039	-26.56	.0001	150675.7	2.42	-.00	-.0035	243.17	-.0004	-26.90	254.38
RISE 42	832.57	843.82	9	12	26.2	294.99	.0040	-25.41	-.0000	151595.0	1.71	3.23	.0028	119.09	-.0022	-26.86	251.86
EXTM 11	875.57	886.82	9	13	9.2	1.67	.0042	-28.77	.0001	154354.0	1.98	26.00	.0000	181.63	.0041	-26.68	241.54
SET 11	1146.61	1157.86	9	17	40.2	68.90	.0041	-27.02	.0001	187640.9	2.08	.00	-.0027	236.22	.0024	-25.75	175.80
EXTM 42	1256.39	1267.64	9	19	30.0	359.87	.0042	-25.13	.0000	192977.4	1.71	79.91	-.0000	.67	-.0214	-25.45	149.10
RISE 51	1391.66	1402.91	9	21	45.3	270.00	.0041	-24.44	-.0000	211635.6	1.27	10.35	.0034	112.27	-.0015	-25.11	115.98
RISE 72	1548.07	1559.32	10	0	21.7	266.36	.0041	-24.53	-.0000	227856.2	1.16	-.01	.0037	114.79	-.0006	-24.77	77.57
RISE 61	1617.54	1628.79	10	1	51.2	294.09	.0042	-25.75	.0000	234343.1	1.25	.00	.0026	124.69	.0027	-24.63	60.47
SET 42	1679.12	1690.37	10	2	32.7	105.00	.0041	-23.58	.0001	239758.5	1.85	2.12	-.0030	242.36	-.0022	-24.51	45.30
EXTM 51	1746.06	1757.31	10	3	39.7	358.86	.0042	-24.35	.0000	239744.5	1.48	88.27	.0023	36.83	-.1031	-24.39	28.79
EXTM 61	1882.45	1893.70	10	5	56.1	.64	.0042	-25.44	.0000	255425.8	1.44	24.32	.0000	180.63	.0042	-24.15	355.13
EXTM 72	1921.22	1932.47	10	6	34.8	.13	.0042	-24.49	.0000	255335.0	1.43	73.42	.0000	180.41	.0134	-24.09	345.55
RISE 11	2052.67	2063.92	10	8	46.3	288.98	.0042	-24.74	-.0000	272482.7	1.06	.00	.0029	120.81	.0024	-23.89	313.04
SET 51	2109.49	2120.74	10	9	43.1	90.00	.0041	-23.28	.0001	276091.5	1.75	9.88	-.0035	248.81	-.0015	-23.80	298.98
SET 61	2147.26	2158.51	10	10	20.9	67.12	.0042	-24.68	.0001	280276.6	1.65	-.00	-.0026	236.84	.0027	-23.75	289.63
SET 72	2292.78	2304.03	10	12	46.4	93.44	.0041	-23.37	.0001	291965.9	1.74	-.00	-.0037	246.39	-.0005	-23.55	253.58
RISE 42	2295.50	2306.75	10	12	49.1	255.00	.0041	-22.78	-.0000	291999.4	.98	1.63	.0030	117.01	-.0023	-23.55	252.91
EXTM 11	2336.52	2347.77	10	13	30.1	.42	.0042	-24.56	.0000	292220.2	1.31	30.23	-.0000	180.45	.0044	-23.49	242.74
SET 11	2620.28	2631.53	10	18	13.9	71.79	.0042	-23.88	.0000	317059.9	1.56	-.00	-.0029	240.30	.0024	-23.15	172.33
EXTM 42	2714.02	2725.27	10	19	47.6	359.93	.0042	-22.81	.0000	317799.2	1.22	77.59	.0000	.30	-.0174	-23.05	149.05
RISE 51	2844.54	2855.79	10	21	58.2	270.00	.0041	-22.48	-.0000	332324.4	.81	9.56	.0035	110.44	-.0016	-22.91	116.62
RISE 72	3000.46	3011.71	11	0	34.1	266.68	.0041	-22.60	-.0000	344357.2	.74	-.01	.0038	112.83	-.0006	-22.76	77.85
RISE 61	3058.55	3069.80	11	1	32.2	291.54	.0042	-23.44	-.0000	348371.5	.84	.01	.0027	121.42	.0027	-22.70	63.41
SET 42	3132.80	3144.05	11	2	46.4	105.00	.0041	-22.02	.0000	353393.9	1.44	1.16	-.0031	243.59	-.0023	-22.65	44.86
EXTM 51	3201.49	3212.74	11	3	55.1	359.99	.0042	-22.56	.0000	351739.2	1.10	86.82	.0000	.33	-.0397	-22.62	27.70
EXTM 61	3330.08	3341.33	11	6	3.7	.20	.0042	-23.44	.0000	363650.0	1.09	26.32	-.0000	180.21	.0043	-22.55	355.55
EXTM 72	3369.73	3380.98	11	6	43.3	.03	.0042	-22.78	.0000	362934.9	1.09	75.12	.0000	180.14	.0132	-22.53	345.64
RISE 11	3492.85	3504.10	11	8	48.5	287.90	.0042	-23.08	-.0000	377664.7	.76	.00	.0030	118.67	.0024	-22.47	314.84
SET 51	3557.65	3568.90	11	9	51.3	90.00	.0042	-22.06	.0000	380851.6	1.48	9.39	-.0035	249.95	-.0016	-22.44	298.62
SET 61	3601.51	3612.76	11	10	35.1	68.85	.0042	-23.09	.0000	384187.3	1.41	-.00	-.0027	239.08	.0027	-22.42	297.63
SET 72	3737.94	3749.19	11	12	51.5	93.26	.0042	-22.25	.0000	393470.3	1.62	-.01	-.0038	247.53	-.0005	-22.38	263.40
RISE 42	3738.78	3750.03	11	12	52.4	255.00	.0042	-21.82	-.0000	393415.5	.86	1.03	.0031	116.25	-.0024	-22.38	253.19
EXTM 11	3778.69	3789.94	11	13	32.3	.01	.0043	-23.16	.0000	393164.6	1.30	31.63	.0000	180.02	.0037	-22.38	243.14
IMPACT	3825.38	3836.63	11	14	19.0												
IMPC 42	3825.38	3836.63	11	14	19.0	276.90	.0043	-21.95	-.0000	398724.1	1.67	17.86	.0034	104.67	-.0022	-22.40	231.28
IMPC 11	3825.38	3836.63	11	14	19.0	12.04	.0044	-23.17	-.0000	397450.4	2.11	30.52	-.0008	192.86	.0046	-22.40	231.28

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	8	22	33.613	6547.785	15.4059	303.5892	10.99194	1.2445	121.9462	148.2859
SEPARATION	1.20	12.45	8	22	34.813	6588.534	11.6867	309.2445	10.95755	4.6626	123.3453	154.2509
ENTER SHA	1.33	12.58	8	22	34.944	6595.813	11.2768	309.8470	10.95145	5.0327	123.4718	154.8863
RETRO	3.20	14.45	8	22	36.813	6757.879	5.4333	318.0782	10.81831	10.1915	124.7399	163.5860
EXIT SHA	38.36	49.61	8	23	11.972	17034.209	-33.5511	27.6465	6.77268	91.4127	101.0095	241.9685
IMPACT	3825.38	3836.63	11	14	18.996	400723.750	-22.3986	231.2775	2.20163	67.3068	259.4811	314.9466

SURVEYOR VIEW PERIODS

GHA	229.3184					EPS	91,6808							LON	233.8772
SX	.795854	SY	-.512492	SZ	-.322442	DAO	-18,81069	RAO	327.28038	RM	403852.402	LAT	28.310600	LON	279.461800
C3	-.939905	ECC	.984568	SLR	12988.337	RCA	0544.6650	LTA	-20,0000	GTA	20.00	TB	679.00000	POL	-.0
NSX	.807577	NSY	-.497835	NSZ	-.316198	C3N	1,4934	VIM	2,8707	ZAS	142,176	B.T	.0000	B.R	-.0000
LATE	6.8506	LONE	1.9187	LATS	-.0922	LONS	270.0514	LATI	6.2939	LONI	323.5916	RSM	191.1360	TTAN	6.4240
LAUNCH DATE		MAY	9.1966		BASE AZM	105.0	TF	64.462				ARRIVAL DATE		MAY 12 1966	14 53 39.1

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	22 6 7.7	27.3	19.23	304.91	-12.69	146.84	114.76	22 17 22.7	6624.9	10.93	-6.29

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDS	RNG	DRG	ELE	D&L	AZI	DAZ	LAT	LONG
			PROBE IN SUNLIGHT														
INJECTION	.00	11.25	9	22	17,4												
SEPARATION	1.20	12.45	9	22	18,6												
ENTER SHA	1.70	12.95	9	22	19.1												
RETRO	3.20	14.45	9	22	20,6												
RISE 72	5.52	16.77	9	22	22,9	83.16	-.1812	40.63	.0210	2120.1	-9.08	.00	.1315	311.10	.0496	4.29	331.88
EXTM 72	8.54	19.79	9	22	25,9	9.80	-.5732	26.11	-.3382	938.1	-1.01	54.68	.4678	344.67	.6840	-3.72	344.92
RISE 51	11.37	22.62	9	22	28.7	80.70	-.1002	18.54	-.0492	4438.4	-4.93	.00	.1070	290.67	-.0002	-10.07	354.80
EXTM 51	24.95	36.20	9	22	42.3	.99	-.0587	-25.49	-.0201	9451.3	5.38	89.07	.0565	285.53	-.2951	-25.62	27.23
EXIT SHA	35.13	46.38	9	22	52,5												
EXIT 72	35.13	46.38	9	22	52,5	277.40	-.0065	-30.97	-.0004	12637.2	6.49	10.37	-.0056	120.18	.0007	-29.16	40.00
EXIT 51	35.13	46.38	9	22	52.5	338.54	-.0221	-30.87	-.0030	8087.2	5.88	70.46	-.0192	110.17	-.0010	-29.16	40.00
EXTM 72	69.38	80.63	9	23	26,8	272,95	.0000	-30.62	.0004	24062.2	4.88	6.20	.0000	120.15	-.0004	-30.93	96.38
RISE 42	72.05	83.30	9	23	29,4	105.00	-.0048	-22.84	-.0015	25334.9	4.33	1,66	.0045	242.95	.0015	-30.90	96.85
EXTM 42	119.61	130.86	10	0	17.0	99.62	.0001	-24.51	-.0001	37391.7	4.08	6.60	-.0000	244.57	-.0001	-29.77	98.16
SET 42	187.92	199.17	10	1	25.3	105.00	.0021	-24.17	.0002	53264.7	3.68	2.47	-.0016	241.90	-.0011	-28.20	90.05
RISE 61	201.88	213.13	10	1	39.3	303.31	.0032	-32.98	.0005	56433.0	3.18	.00	.0021	135.49	.0018	-27.94	47.79
EXTM 51	308.13	319.38	10	3	25.5	.05	.0037	-26.40	.0002	70418.8	2.93	89.34	-.0000	184.10	.2724	-26.34	27.64
EXTM 61	473.13	484.38	10	6	10.5	4.33	.0040	-28.03	.0002	100978.9	2.51	21.61	-.0000	184.11	.0038	-24.76	351.69
EXTM 72	502.29	513.54	10	6	39.7	.71	.0041	-25.57	.0002	101736.7	2.45	72.32	.0000	182.11	.0121	-24.55	349.01
RISE 11	648.23	659.48	10	9	5.6	289.66	.0040	-25.49	.0001	128102.6	1.92	.00	.0028	121.78	.0023	-23.65	311.10
SET 51	693.75	705.00	10	9	51.1	90.00	.0049	-22.35	.0001	133064.8	2.54	9.50	-.0033	249.68	-.0014	-23.42	310.34
SET 61	732.67	743.92	10	10	30,0	66,63	.0040	-25,12	.0002	139133,6	2.40	-.00	-.0024	236,21	.0027	-23.24	291,12
SET 72	884.07	895.32	10	13	1,4	93,26	.0040	-22,29	.0001	157749,1	2.38	-.00	-.0036	247.48	-.0004	-22.62	254.89
RISE 42	895.98	907.23	10	13	13,4	255.00	.0040	-21,18	-.0000	159086,8	1.64	.64	.0029	115.74	-.0023	-22.57	252.02
EXTM 11	938.02	949.27	10	13	55.4	1,32	.0042	-24,34	.0001	160876,8	1.93	30.44	-.0000	181.39	.0044	-22.42	241.88
SET 11	1225.83	1237.08	10	18	43.2	72.78	.0041	-22,76	.0001	195608.0	2.05	-.00	-.0029	241.74	.0024	-21.58	171.93
EXTM 42	1319.05	1330.30	10	20	16,4	359,84	.0042	-20,92	.0000	199068,9	1.68	75.70	.0000	.60	-.0157	-21.36	149.13
RISE 51	1453.84	1465.09	10	22	31,2	270.00	.0041	-20,40	-.0000	21780[illegible]2	1.23	8,70	.0035	108.52	-.0016	-21.07	116.08
RISE 72	1612.74	1623.99	11	1	10,1	267.02	.0041	-20,54	-.0000	233498,1	1.12	.00	.0038	110.75	-.0006	-20.76	77.00
RISE 61	1662.07	1673.32	11	1	59.5	289,73	.0041	-21,75	.0000	238034,2	1.21	.00	.0028	119.03	.0027	-20.68	64.85
SET 42	1739.95	1751.20	11	3	17,3	104,59	.0041	-19,64	.0001	245078,3	1.83	-.00	-.0031	245.71	-.0033	-20.54	45.65
EXTM 51	1812.59	1823.84	11	4	30,0	359,96	.0042	-20,29	.0000	249256,7	1.47	84.55	-.0000	.40	-.0383	-20.43	27.72
EXTM 61	1944.13	1955.38	11	6	41,5	.93	.0042	-21,45	.0000	259905,9	1.42	28.31	-.0000	180.56	.0044	-20.23	355.23
EXTM 72	1983.10	1994.35	11	7	20,5	.08	.0042	-20,47	.0000	260063,1	1.41	77.43	.0000	180.36	.0178	-20.17	345.59
RISE 11	2100.83	2112.08	11	9	18,2	285.58	.0042	-20,83	-.0000	276029,5	1.03	.01	.0031	115.80	.0024	-20.01	316.46
SET 51	2171.66	2182.91	11	10	29,0	90,00	.0041	-19,39	.0000	280896,4	1.74	8,29	-.0036	252.41	-.0016	-19.92	298.92
SET 61	2226.22	2237.47	11	11	23,6	71,32	.0041	-20,73	.0000	286209,6	1.64	-.00	-.0028	242.37	.0027	-19.85	285.41
SET 72	2352.38	2363.63	11	13	29,8	92,83	.0041	-19,52	.0000	296185,7	1.73	-.00	-.0039	250.28	-.0005	-19.70	254.14
RISE 42	2361.16	2372.41	11	13	38,5	255,98	.0041	-18,94	-.0000	296870,0	.95	.00	.0031	113.41	-.0024	-19.69	251.96
EXTM 11	2398.10	2409.35	11	14	15.5	.36	.0042	-20,65	.0000	296183,9	1.29	34.14	-.0000	180.40	.0048	-19.64	242.80
SET 11	2695.42	2706.67	11	19	12.8	75,10	.0042	-20,03	.0000	322094,7	1.56	-.00	-.0031	245.22	.0024	-19.33	169.00
EXTM 42	2775.53	2786.78	11	20	32.9	359,88	.0042	-18,94	.0000	321851,1	1.20	73.72	.0000	.42	-.0140	-19.25	149.10
RISE 51	2906.08	2917.33	11	22	43.5	270.00	.0041	-18,68	-.0000	336327,5	.78	7.99	.0016	106.94	-.0016	-19.13	116.65
RISE 72	3064.37	3075.62	12	1	21.7	267,28	.0041	-18,84	-.0000	348216,6	.71	-.01	.0039	109.03	-.0006	-18.99	77.29
RISE 61	3104.34	3115.59	12	2	1.7	287,60	.0042	-19,67	-.0000	351158,9	.78	.00	.0029	116.16	.0027	-18.95	67.35
SET 42	3188.41	3199.66	12	3	25.8	103,90	.0041	-18,29	.0000	356670,4	1.44	-.00	-.0031	247.40	-.0024	-18.91	46.34
EXTM 51	3263.02	3274.27	12	4	40,4	359,98	.0042	-18,76	.0000	355257,5	1.09	83.02	.0000	.18	-.0212	-18.88	27.70
EXTM 61	3391.42	3402.67	12	6	48.8	.15	.0042	-19,68	.0000	366662,3	1.08	30.08	-.0000	180.16	.0046	-18.83	355.61
EXTM 72	3431.21	3442.46	12	7	28.6	.02	.0042	-19,00	.0000	366200,9	1.08	78.90	.0000	180.11	.0139	-18.82	345.66
RISE 11	3541.82	3553.07	12	9	19.2	284.36	.0042	-19,37	-.0000	379841,5	.73	.00	.0031	113.95	.0024	-18.78	317.99
SET 51	3619.31	3630.56	12	10	36.7	90.00	.0042	-18,37	.0000	383695,0	1.49	7.86	-.0036	293.35	-.0016	-18.76	298.59
SET 61	3678.31	3689.56	12	11	35.7	72,67	.0042	-19,39	.0000	388437,5	1.43	.00	-.0029	244.22	.0027	-18.74	283.81
SET 72	3797.24	3808.49	12	13	34.6	92,68	.0042	-18,61	.0000	396894,6	1.66	-.00	-.0039	291.21	-.0006	-18.74	253.95
RISE 42	3806.52	3817.77	12	13	43,9	256,99	.0042	-18,18	-.0000	397877,7	.89	.00	.0032	112.46	-.0024	-18.74	251.62
EXTM 11	3839.54	3850.79	12	14	16.9	359,86	.0043	-19,50	-.0000	396188,7	1.39	35.29	.0000	179.84	.0049	-18.75	243.29
IMPACT	3867.71	3878.96	12	14	45,1												
IMPC 42	3867.71	3878.96	12	14	45,1	272,08	.0043	-18,30	-.0001	401205,2	1.65	12.08	.0034	104.00	-.0023	-18.78	236.12
IMPC 11	3867.71	3878.96	12	14	45,1	7,13	.0044	-19,52	-.0000	398911,2	2.08	34.85	-.0005	188.20	.0050	-18.78	236.12

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11,25	9	22	17,378	6627,573	19,2771	304,8174	10,92688	-6,2948	114,7243	146,4388
SEPARATION	1,20	12.45	9	22	18,578	6561,696	16,2639	311,0744	10,97974	-2,9058	116,7327	152,9967
ENTER SHA	1,70	12.95	9	22	19,076	6549,093	14,9590	313,5981	10,99035	-2,4848	117,4456	155,6491
RETRO	3,20	14,45	9	22	20,578	6560,610	10,8417	321,0454	10,98063	2,8145	119,1961	163,4691
EXIT SHA	35,13	46,38	9	22	52,509	15146,372	-29,1613	40,0019	7,18982	48,6449	100,9427	250,4303
IMPACT	3867,71	3878,96	12	14	45,092	402586,648	-18,7829	236,1155	2,19446	67,4956	252,6096	327,3121

SURVEYOR VIEW PERIODS

GHA	229.5184					EPS	91.7023						LOM	231.2676	
SX	.796782	SY	-.511355	SZ	-.321455	DAO	-18.78117	RAD	327.30866	RM	403861.234	LAT	28.310600	LON	279.461800
C3	-.956161	ECC	.984596	SLR	129988.522	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.508469	NSY	-.495584	NSZ	-.315718	C3M	1.4966	VIM	2.6713	ZAE	142.172	B.T	.0000	B.R	-.0000
LATE	0.6510	LONE	1.6040	LATS	-.0920	LONS	270.0585	LATI	4.0550	LONI	323.7017	RSM	151.1357	TTAN	4.4143
LAUNCH DATE		MAY	9.1966		BASE AZM	108.0		TF	64.437			ARRIVAL DATE	MAY 12 1966	15	4 24.8

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	22 17 47.3	27.5	18.10	304.52	-10.14	149.06	116.91	22 29 2.3	6595.7	10.95	-5.03

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DRC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	9	22	29.0												
SEPARATION	1.20	12.45	9	22	30.2												
ENTER SHA	1.24	12.49	9	22	30.3												
RETRO	3.20	14.45	9	22	32.2												
RISE 72	5.31	16.57	9	22	34.4	84.69	-.1590	33.70	-.0157	2206.9	-9.07	.00	.1330	304.07	.0064	2.95	329.93
EXTM 72	9.18	20.43	9	22	38.2	2.02	-.4506	-3.00	-.3039	1003.4	2.84	84.70	.4518	337.53	3.2619	-7.24	345.39
RISE 51	11.28	22.53	9	22	40.3	82.78	-.0930	14.60	-.0535	4590.8	-4.64	.00	.1045	286.25	-.0074	-11.83	352.71
EXTM 51	26.38	37.63	9	22	55.4	1.47	-.0523	-30.10	-.0138	6074.1	5.45	85.45	-.0000	196.27	-.5968	-27.87	26.98
EXIT SHA	34.45	45.70	9	23	3.5												
EXIT 72	34.45	45.70	9	23	3.5	280.31	-.0071	-33.25	.0004	12303.0	6.51	12.93	-.0059	122.42	-.0003	-30.38	36.80
EXIT 51	34.45	45.70	9	23	3.5	343.81	-.0248	-33.31	-.0024	8839.6	5.80	74.04	-.0199	122.09	-.0226	-30.38	36.80
EXTM 72	69.34	80.59	9	23	38.4	275.07	.0000	-32.05	.0006	23939.6	4.87	8.46	.0000	121.40	-.0006	-31.95	53.81
RISE 42	82.63	93.88	9	23	51.7	105.00	-.0031	-24.41	-.0008	28348.4	4.30	2.62	.0028	241.71	.0011	-31.63	55.59
EXTM 51	84.85	96.10	9	23	53.9	324.38	-.0000	-32.05	.0007	24320.5	4.49	58.33	.0000	109.90	-.0013	-31.57	55.77
EXTM 42	118.99	130.24	10	0	28.0	102.16	.0000	-25.17	-.0000	37510.3	4.09	5.13	-.0000	242.66	-.0001	-30.56	55.62
SET 42	166.05	177.30	10	1	15.1	105.00	.0017	-24.92	.0002	48626.4	3.80	2.94	-.0013	241.31	-.0008	-29.30	50.69
RISE 61	194.64	205.89	10	1	43.7	304.64	.0032	-33.89	.0006	55036.0	3.22	.00	.0021	136.93	.0017	-28.66	46.39
EXTM 51	289.73	300.98	10	3	18.8	358.82	.0037	-27.16	.0003	67239.8	2.98	88.23	.0022	145.63	.0799	-27.04	28.76
EXTM 61	462.82	474.07	10	6	11.9	4.68	.0040	-28.51	.0002	95544.8	2.53	21.11	.0000	184.41	.0037	-25.18	351.31
EXTM 72	490.89	502.14	10	6	39.9	.79	.0041	-26.02	.0002	100140.5	2.47	71.87	.0000	182.27	.0118	-24.95	344.94
RISE 11	638.27	649.52	10	9	7.3	289.98	.0040	-25.83	.0001	126833.5	1.93	.01	.0028	122.23	.0023	-23.97	310.75
SET 51	682.19	693.44	10	9	51.2	90.00	.0039	-22.65	.0001	131608.4	2.55	9.63	-.0033	249.40	-.0014	-23.73	300.39
SET 61	719.64	730.89	10	10	28.7	86.26	.0040	-25.45	.0002	137533.3	2.41	-.00	-.0024	235.75	.0027	-23.54	291.51
SET 72	872.83	884.08	10	13	1.9	93.30	.0040	-22.53	.0001	156479.7	2.39	-.00	-.0036	247.24	-.0004	-22.86	254.87
RISE 42	884.76	896.01	10	13	13.8	255.00	.0040	-21.40	.0000	157811.0	1.65	.78	.0029	115.92	-.0023	-22.81	252.00
EXTM 11	927.07	938.32	10	13	56.1	1.40	.0042	-24.59	.0001	159695.2	1.94	30.19	-.0000	181.47	.0044	-22.65	241.80
SET 11	1213.91	1225.16	10	18	42.9	72.63	.0041	-22.93	.0001	194434.1	2.06	-.00	-.0029	241.52	.0024	-21.75	172.10
EXTM 42	1307.77	1319.02	10	20	16.8	359.83	.0042	-21.07	.0000	197994.1	1.69	75.85	.0000	.64	-.0159	-21.51	149.14
RISE 51	1442.64	1453.89	10	22	31.7	270.00	.0041	-20.53	-.0000	216478.0	1.23	8.75	.0035	108.64	-.0016	-21.20	116.07
RISE 72	1601.46	1612.71	11	1	10.5	267.00	.0041	-20.65	-.0000	232523.9	1.12	.00	.0038	110.86	-.0006	-20.88	77.01
RISE 61	1651.31	1662.56	11	2	.4	289.84	.0041	-21.86	.0000	237122.7	1.22	.00	.0028	119.19	.0027	-20.78	64.73
SET 42	1729.00	1740.25	11	3	18.0	104.67	.0041	-19.73	.0001	244169.5	1.84	-.00	-.0031	245.59	-.0023	-20.64	45.57
EXTM 51	1801.33	1812.58	11	4	30.4	359.96	.0042	-20.38	.0000	244339.6	1.47	84.64	-.0000	.43	-.0383	-20.52	27.72
EXTM 61	1932.97	1944.22	11	6	42.0	.56	.0042	-21.53	.0000	256039.8	1.42	28.23	-.0000	180.59	.0044	-20.31	355.20
EXTM 72	1971.85	1983.10	11	7	20.9	.09	.0042	-20.55	.0000	259192.7	1.41	77.36	.0000	180.38	.0178	-20.25	345.59
RISE 11	2089.80	2101.05	11	9	18.8	285.64	.0042	-20.90	.0000	275202.0	1.04	.01	.0031	115.89	.0024	-20.07	316.40
SET 51	2160.37	2171.62	11	10	29.4	90.00	.0041	-19.45	.0000	280059.8	1.74	8.31	-.0036	252.35	-.0016	-19.98	298.93
SET 61	2214.68	2225.93	11	11	23.7	71.26	.0041	-20.79	.0000	285367.6	1.65	-.00	-.0028	242.29	.0027	-19.90	285.47
SET 72	2341.11	2352.36	11	13	30.1	92.83	.0041	-19.57	.0000	295390.9	1.73	-.00	-.0038	250.24	-.0005	-19.74	254.14
RISE 42	2349.74	2360.99	11	13	38.8	255.94	.0041	-18.98	-.0000	296065.2	.96	.00	.0031	113.47	-.0024	-19.73	252.00
EXTM 11	2386.88	2398.13	11	14	15.9	.37	.0042	-20.70	.0000	295406.6	1.29	34.09	-.0000	180.42	.0048	-19.69	242.78
SET 11	2684.01	2695.26	11	19	13.1	75.07	.0042	-20.05	.0000	321353.8	1.56	-.00	-.0031	245.19	.0024	-19.35	189.03
EXTM 42	2764.20	2775.45	11	20	33.2	359.87	.0042	-18.96	.0000	321129.5	1.20	73.74	.0000	.44	-.0140	-19.27	149.11
RISE 51	2894.77	2906.02	11	22	43.8	270.00	.0041	-18.70	-.0000	335629.2	.78	8.00	.0036	106.96	-.0016	-19.14	116.65
RISE 72	3053.04	3064.29	12	1	22.1	267.28	.0041	-18.84	-.0000	347943.5	.71	-.01	.0039	109.03	-.0006	-18.99	77.29
RISE 61	3093.04	3104.29	12	2	2.1	287.61	.0042	-19.67	-.0000	350496.8	.78	.00	.0029	116.17	.0027	-18.96	67.34
SET 42	3177.08	3188.33	12	3	26.1	103.50	.0041	-18.29	.0000	356013.1	1.44	-.00	-.0031	247.40	-.0024	-18.92	46.34
EXTM 51	3251.68	3262.93	12	4	40.7	359.98	.0042	-18.76	.0000	354606.1	1.09	83.02	.0000	.19	-.0217	-18.88	27.79
EXTM 61	33 0.13	3391.38	12	6	49.2	.16	.0042	-19.68	.0000	366022.0	1.08	30.08	-.0000	180.17	.0046	-18.82	355.59
EXTM 72	3419.88	3431.13	12	7	28.9	.02	.0042	-19.00	.0000	365560.5	1.08	78.91	.0000	180.13	.0138	-18.81	345.65
RISE 11	3530.46	3541.71	12	9	19.5	284.35	.0042	-19.36	-.0000	378901.3	.73	.00	.0031	113.93	.0024	-18.77	317.99
SET 51	3607.97	3619.22	12	10	37.0	90.00	.0042	-18.35	.0000	383054.7	1.49	7.86	-.0036	253.36	-.0016	-18.74	298.59
SET 61	3667.06	3678.31	12	11	36.1	72.69	.0042	-19.37	.0000	387794.4	1.42	.00	-.0029	244.24	.0027	-18.73	283.79
SET 72	3785.93	3797.18	12	13	35.0	92.68	.0042	-18.58	.0000	395890.5	1.64	-.00	-.0039	251.23	-.0006	-18.71	253.96
RISE 42	3795.33	3806.58	12	13	44.4	256.61	.0042	-18.16	-.0000	396570.6	.87	.00	.0032	112.42	-.0024	-18.71	251.59
EXTM 11	3828.54	3839.79	12	14	17.6	359.92	.0043	-19.47	-.0000	395420.6	1.33	35.32	.0000	179.91	.0049	-18.72	243.23
IMPACT	3866.20	3877.45	12	14	55.2												
IMPC 42	3866.20	3877.45	12	14	55.2	274.55	.0043	-18.28	-.0001	401002.7	1.66	14.03	.0035	102.67	-.0022	-18.76	233.66
IMPC 11	3866.20	3877.45	12	14	55.2	9.63	.0044	-19.49	-.0000	398947.3	2.09	34.54	-.0007	191.03	.0049	-18.76	233.66

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	9	22	29.037	6596.814	18.1265	304.4695	10.95129	-5.0287	116.8964	149.0138
SEPARATION	1.20	12.45	9	22	30.237	6549.920	14.8905	310.5606	10.98973	-1.6177	118.7171	155.4057
ENTER SHA	1.24	12.49	9	22	30.273	6549.287	14.7932	310.7354	10.99026	-1.5173	118.7641	155.5892
RETRO	3.20	14.45	9	22	32.237	6578.507	9.1538	320.2755	10.96564	4.0970	120.8531	165.6220
EXIT SHA	34.45	45.70	9	23	3.485	15071.597	-30.3832	36.7983	7.20808	48.5226	100.7394	249.9784
IMPACT	3866.20	3877.45	12	14	59.239	402594.461	-18.7557	233.6550	2.19501	67.5213	253.0846	327.3954

SURVEYOR VIEW PERIODS

GMA	229.3184					EPS	91.7974					LOM	228.2177
SX	.797864	SY	-.510024	SZ	-.321384	DAO	-18,74667	RAO	327.41179	RM	403871.457	LAT	28.310600	LON	279.461800
C3	-.939962	ECC	.984567	SLR	12988.331	RCA	6544.6650	LTA	-20.0000	QTA	20.00	TB	675.00000	POL	-.0
NSX	.809532	NSY	-.495321	NSZ	-.315143	C3M	1.4969	VIM	2.6714	ZAE	142.108	B.T	.0000	B.R	-.0000
LATE	6.8515	LONE	1.4983	LATS	-.0919	LONS	269,8535	LATI	5.7872	LONI	323.5563	RSM	151.1353	TTAN	4.4086
LAUNCH DATE		MAY	9,1966		BASE AZM	111.0		TF	64.469			ARRIVAL DATE		MAY 12 1966 15 16 59.5	

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME		INJ RAD	INJ VEL	INJ PTH
111.00	22 28	5.9	27.6	17.00	304.05	-7.93	151.18	119.05	22 39	20.9	6579.9	10.97	-3.93

EVNT STA	TFI	TFL	DAY	HR	MIN	HA PROBE IN SUNLIGHT	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
INJECTION	.00	11.25	9	22	39.3												
ENTER SHA	.84	12.09	9	22	40.2												
SEPARATION	1.20	12.45	9	22	40.5												
RETRO	3.20	14.45	9	22	42.5												
RISE 72	5.19	16.44	9	22	44.5	85.88	-.1429	27.37	-.0474	2296.3	-8.87	-.00	.1327	297.65	-.0272	1.51	328.20
EXTM 72	8.93	20.18	9	22	48.3	19.68	-.4398	-12.23	-.2882	1083.9	1.54	70.15	.3688	255.81	-1.0692	-8.59	342.88
RISE 51	11.24	22.49	9	22	50.6	84.72	-.0868	10.81	-.0573	4737.6	-4.34	-.00	.1018	282.01	-.0137	-13.69	350.78
EXTM 51	27.72	38.97	9	23	7.1	2.20	-.0478	-34.13	-.0094	6665.4	5.47	81.39	-.0000	192.27	-.2716	-30.03	26.61
EXIT SHA	33.75	45.00	9	23	13.1												
EXIT 72	33.75	45.00	9	23	13.1	282.95	-.0078	-35.73	.0013	11982.6	6.53	15.10	-.0063	124.97	-.0014	-31.74	33.80
EXIT 51	33.75	45.00	9	23	13.1	348.91	-.0278	-35.92	-.0020	8702.7	5.71	76.08	-.0176	139.65	-.0591	-31.74	33.80
EXTM 72	69.26	80.51	9	23	48.6	277.22	.0000	-33.57	.0008	23829.6	4.86	10.35	.0000	122.83	-.0008	-33.07	91.57
EXTM 51	84.91	96.16	10	0	4.3	327.03	-.0001	-33.46	.0009	24342.9	4.48	60.45	.0000	112.99	-.0018	-32.59	93.56
RISE 42	99.74	110.99	10	0	19.1	105.00	-.0013	-25.81	-.0003	32936.5	4.21	3.49	.0011	240.59	.0005	-32.08	94.06
EXTM 42	118.19	129.44	10	0	37.5	104.34	-.0000	-25.93	.0000	37929.5	4.09	4.03	-.0000	240.86	.0000	-31.45	93.47
SET 42	139.54	150.79	10	0	58.9	105.00	.0010	-25.83	.0001	42680.2	3.95	3.50	-.0008	240.58	-.0004	-30.77	91.70
RISE 61	189.73	200.98	10	1	49.1	306.04	.0032	-34.81	.0006	54093.8	3.25	.00	.0021	138.42	.0017	-29.43	44.95
EXTM 51	284.84	296.09	10	3	24.2	.21	.0037	-27.81	.0003	66427.9	3.01	87.92	-.0000	185.08	.0895	-27.63	27.50
EXTM 61	454.28	465.53	10	6	13.6	5.08	.0040	-29.02	.0003	98351.2	2.55	20.59	.0000	184.74	.0037	-25.63	350.95
EXTM 72	481.16	492.41	10	6	40.5	.88	.0041	-26.51	.0002	98759.3	2.49	71.38	.0000	182.45	.0114	-25.40	344.83
RISE 11	629.90	641.15	10	9	9.2	290.32	.0040	-26.20	.0001	125748.5	1.94	.00	.0028	122.71	.0023	-24.32	310.39
SET 51	672.18	683.43	10	9	51.5	90.00	.0039	-22.98	.0001	130318.3	2.56	9.76	-.0033	249.10	-.0013	-24.06	300.42
SET 61	708.01	719.26	10	10	27.4	65.85	.0040	-25.80	.0002	136072.8	2.42	-.00	-.0024	235.24	.0027	-23.86	291.94
SET 72	863.12	874.37	10	13	2.5	93.35	.0040	-22.79	.0001	155352.7	2.40	-.00	-.0036	246.98	-.0004	-23.12	254.85
RISE 42	875.04	886.29	10	13	14.4	255.00	.0040	-21.65	.0000	156671.5	1.66	.93	.0029	116.12	-.0023	-23.07	251.98
EXTM 11	917.65	928.90	10	13	57.0	1.49	.0042	-24.85	.0001	158652.0	1.95	29.93	-.0000	181.56	.0044	-22.90	241.71
SET 11	1203.41	1214.66	10	18	42.8	72.46	.0041	-23.13	.0001	193355.4	2.06	-.00	-.0029	241.27	.0024	-21.94	172.28
EXTM 42	1297.95	1309.20	10	20	17.3	359.82	.0042	-21.24	.0000	197010.6	1.69	76.02	.0000	.69	-.0161	-21.68	149.15
RISE 51	1432.89	1444.14	10	22	32.2	270.00	.0041	-20.67	-.0000	215934.3	1.24	8.81	.0035	108.77	-.0016	-21.35	116.06
RISE 72	1591.62	1602.87	11	1	11.0	266.98	.0041	-20.78	-.0000	231613.9	1.13	.00	.0038	110.98	-.0006	-21.00	77.02
RISE 61	1642.04	1653.29	11	2	1.4	289.97	.0041	-21.98	.0000	236275.5	1.22	.00	.0028	119.36	.0027	-20.90	64.60
SET 42	1719.51	1730.76	11	3	18.9	104.75	.0041	-19.83	.0001	243317.3	1.84	-.00	-.0031	245.46	-.0023	-20.75	45.49
EXTM 51	1791.51	1802.76	11	4	30.9	359.96	.0042	-20.48	.0000	243469.7	1.47	84.74	-.0000	.45	-.0389	-20.62	27.72
EXTM 61	1923.27	1934.52	11	6	42.6	.59	.0042	-21.62	.0000	258211.4	1.43	28.14	-.0000	180.62	.0044	-20.39	355.17
EXTM 72	1962.05	1973.30	11	7	21.4	.09	.0042	-20.63	.0000	258355.4	1.41	77.27	.0000	180.40	.0177	-20.33	345.98
RISE 11	2080.23	2091.48	11	9	19.6	285.70	.0042	-20.97	.0000	274398.9	1.94	.00	.0031	115.98	.0024	-20.15	316.34
SET 51	2150.51	2161.76	11	10	29.9	90.00	.0041	-19.51	.0000	279239.8	1.75	8.34	-.0036	292.29	-.0016	-20.04	298.93
SET 61	2204.56	2215.81	11	11	23.9	71.19	.0041	-20.86	.0001	284836.1	1.65	-.00	-.0028	242.20	.0027	-19.97	285.54
SET 72	2331.27	2342.52	11	13	30.6	92.84	.0041	-19.62	.0001	294998.3	1.73	-.01	-.0038	250.18	-.0005	-19.80	254.13
RISE 42	2339.73	2350.98	11	13	39.1	255.90	.0041	-19.03	-.0000	295260.4	.96	.00	.0031	113.53	-.0024	-19.78	252.03
EXTM 11	2377.10	2388.35	11	14	16.4	.39	.0042	-20.75	.0000	294628.2	1.29	34.04	-.0000	180.44	.0048	-19.74	242.77
SET 11	2674.02	2685.27	11	19	13.4	75.05	.0042	-20.08	.0000	320585.8	1.56	-.00	-.0031	245.15	.0024	-19.38	169.06
EXTM 42	2754.49	2765.74	11	20	36.8	359.92	.0042	-18.98	.0000	320389.2	1.21	73.76	-.0000	.29	-.0138	-19.29	149.06
RISE 51	2884.88	2896.13	11	22	44.2	270.00	.0041	-18.71	-.0000	334886.8	.79	8.01	.0036	106.97	-.0016	-19.16	116.69
RISE 72	3043.14	3054.39	12	1	22.5	267.28	.0041	-18.85	-.0000	346813.0	.71	-.01	.0039	109.04	-.0006	-19.00	77.29
RISE 61	3083.18	3094.43	12	2	2.5	287.62	.0042	-19.68	-.0000	349959.3	.82	.00	.0029	116.18	.0027	-18.96	67.33
SET 42	3167.18	3178.43	12	3	26.5	103.49	.0041	-18.29	.0000	355310.3	1.44	-.00	-.0031	247.41	-.0024	-18.91	46.35
EXTM 51	3241.79	3253.04	12	4	41.1	359.98	.0042	-18.75	.0000	353902.3	1.09	83.01	.0000	.20	-.0223	-18.87	27.70
EXTM 61	3370.28	3381.53	12	6	49.6	.17	.0042	-19.67	.0000	365314.9	1.08	30.09	-.0000	180.19	.0046	-18.81	355.98
EXTM 72	3409.99	3421.24	12	7	29.3	.02	.0042	-18.98	.0000	364849.3	1.08	78.92	.0000	180.12	.0159	-18.80	345.65
RISE 11	3520.51	3531.76	12	9	19.9	284.34	.0042	-19.34	-.0000	378176.9	.73	.00	.0031	113.91	.0024	-18.75	318.00
SET 51	3598.07	3609.32	12	10	37.4	90.00	.0042	-18.33	.0000	382321.9	1.48	7.85	-.0036	253.38	-.0016	-18.72	298.99
SET 61	3657.24	3668.49	12	11	36.6	72.71	.0042	-19.35	.0000	387052.0	1.42	.00	-.0029	244.27	.0027	-18.70	283.77
SET 72	3776.04	3787.29	12	13	35.4	92.67	.0042	-18.55	.0000	395069.6	1.62	-.00	-.0039	251.26	-.0006	-18.68	253.07
RISE 42	3785.58	3796.83	12	13	44.9	256.64	.0042	-18.13	-.0000	395746.9	.84	.00	.0032	112.38	-.0024	-18.68	251.97
EXTM 11	3818.89	3830.14	12	14	18.2	359.97	.0043	-19.44	-.0000	394830.9	1.[illegible]	35.36	.0000	179.96	.0046	-18.69	243.18
IMPACT	3868.13	3879.38	12	15	7.5												
IMPC 42	3868.13	3879.38	12	15	7.5	277.52	.0043	-18.26	-.0001	400761.4	1.66	16.39	.0035	101.08	-.0022	-18.72	230.69
IMPC 11	3868.13	3879.38	12	15	7.5	12.63	.0044	-19.46	-.0000	399004.7	2.11	34.04	-.0009	194.41	.0048	-18.72	230.69

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	9	22	39.349	6576.258	17.0076	304.0264	10.96790	-3.9337	119.0414	151.1956
ENTER SHA	.84	12.09	9	22	40.188	6549.467	14.6134	308.1871	10.99003	-1.5460	120.2338	155.5266
SEPARATION	1.20	12.45	9	22	40.549	6545.189	13.5580	309.9502	10.99365	-.5120	120.6849	157.3802
RETRO	3.20	14.45	9	22	42.549	6599.048	7.5218	319.3966	10.94834	5.1882	122.5114	167.3280
EXIT SHA	33.75	45.00	9	23	13.097	14969.763	-31.7355	33.7956	7.23287	48.3530	100.5795	249.3852
IMPACT	3868.13	3879.38	12	15	7.477	402605.762	-18.7227	230.6880	2.19380	67.4395	253.5946	327.4962

MAY 9, 1966
111 DEGREES

SURVEYOR VIEW PERIODS

GHA	229.3184					EPS	91.9164						LOM	224.4051	
SX	.799213	SY	-.598359	SZ	-.320670	DAO	-18.70345	RAD	327.54063	RM	403884.090	LAT	28.310600	LON	279.461800
CS	-.943476	ECC	.986209	SLR	12987.948	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.810865	NSY	-.473597	NSZ	-.314421	C3M	1.4971	VIM	2.6714	ZAE	141.986	B.T	.0000	B.R	-.0000
LATE	6.8521	LONE	1.4847	LATS	-.0917	LONS	269.7197	LATI	3.3973	LONI	323.464	RSM	151.1349	TTAN	4.4048
LAUNCH DATE		MAY	9.1966	BASE AZM	115.0		TF 64.529				ARRIVAL DATE	MAY	12 1966	15 32 42.9	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	22 40 2.0	27.7	13.56	303.32	-5.44	153.44	121.88	22 51 17.0	6559.3	10.98	-2.70

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	9	22	51.3												
ENTER SHA	.39	11.64	9	22	51.7												
SEPARATION	1.20	12.45	9	22	52.5												
RETRO	3.20	14.45	9	22	54.5												
RISE 72	5.10	16.35	9	22	56.4	87.17	-.1265	19.57	-.0825	2418.9	-8.37	.00	.1300	289.77	-.0642	-.56	326.18
EXTM 72	9.70	20.95	9	23	1.0	14.91	-.3702	-35.23	-.1642	1462.9	4.18	59.48	.0085	204.28	-.6775	-12.96	343.33
RISE 51	11.26	22.51	9	23	2.5	87.14	-.0794	5.90	-.0617	4927.7	-3.92	.00	.0980	276.56	-.0210	-16.30	348.41
EXTM 51	29.87	41.12	9	23	21.1	2.08	-.0419	-39.10	-.0046	7567.6	5.47	76.52	-.0000	186.94	-.1408	-33.00	26.63
EXIT SHA	32.79	44.04	9	23	24.1												
EXIT 72	32.79	44.04	9	23	24.1	286.09	-.0090	-39.31	.0026	11581.6	6.55	17.43	-.0067	128.81	-.0033	-33.71	30.04
EXIT 51	32.79	44.04	9	23	24.1	355.58	-.0325	-39.62	-.0016	8539.9	5.58	75.64	-.0085	166.17	-.0953	-33.71	30.04
EXTM 72	69.02	80.27	10	0	.3	279.56	.0000	-35.72	.0011	23677.7	4.85	12.35	.0000	124.96	-.0011	-34.72	49.02
EXTM 51	84.08	95.33	10	0	15.4	329.99	-.0003	-35.52	.0012	24147.0	4.48	62.52	.0000	118.10	-.0026	-34.12	51.04
RISE 61	186.32	197.57	10	1	57.6	307.98	.0031	-36.02	.0007	53468.0	3.27	.00	.0021	140.39	.0016	-30.50	43.03
EXTM 51	273.03	284.28	10	3	24.3	.37	.0036	-28.89	.0003	64361.0	3.05	86.84	.0000	185.84	.0580	-28.60	27.35
EXTM 61	445.15	456.40	10	6	16.4	5.62	.0040	-26.73	.0003	97082.9	2.56	19.84	.0000	185.19	.0037	-26.29	350.43
EXTM 72	470.57	481.82	10	6	41.9	1.06	.0041	-27.9	.0002	97249.8	2.51	70.68	.0000	182.85	.0109	-26.03	344.68
RISE 11	620.94	632 9	10	9	12.2	290.81	.0040	-26.73	.0001	124576.6	1.95	.00	.0028	123.40	.0023	-24.81	309.87
SET 51	660.87	672 2	10	9	52.2	90.00	.0039	-23.46	.0002	128840.6	2.57	9.95	-.0033	248.65	-.0013	-24.55	300.47
SET 61	694.30	705.55	10	10	25.6	65.26	.0040	-26.31	.0002	134330.8	2.43	-.00	-.0023	234.50	.0027	-24.34	292.55
SET 72	852.18	863.43	10	13	3.5	93.41	.0040	-23.17	.0001	154066.2	2.41	-.00	-.0036	246.59	-.0004	-23.50	254.82
RISE 42	864.01	875.26	10	13	15.3	254.99	.0040	-22.02	.0000	55356.7	1.67	1.15	.0029	116.41	-.0023	-23.45	251.97
EXTM 11	907.07	918.32	10	13	58.4	1.62	.0042	-25.23	.0001	163473.6	1.95	29.54	-.0000	181.69	.0043	-23.26	241.59
SET 11	1191.23	1202.48	10	18	42.5	72.21	.0041	-23.41	.0001	192 [illegible]9.6	2.07	-.00	-.0029	240.91	.0024	-22.21	172.53
EXTM 42	1286.75	1298.00	10	20	18.0	359.81	.0042	-21.49	.0000	195866.0	1.70	76.27	.0000	.76	-.0164	-21.92	149.17
RISE 51	1421.77	1433.02	10	22	33.1	270.00	.0041	-20.88	-.0000	214431.9	1.24	8.90	.0035	108.96	-.0016	-21.56	116.05
RISE 72	1580.35	1591.60	11	1	11.6	266.95	.0041	-20.96	-.0000	230544.9	1.13	.00	.0038	111.17	-.0006	-21.18	77.04
RISE 61	1631.63	1642.88	11	2	2.9	290.16	.0041	-22.16	.0000	235295.4	1.23	.00	.0028	119.61	.0027	-21.07	64.40
SET 42	1708.79	1720.04	11	3	20.1	104.88	.0041	-19.99	.0001	242324.3	1.84	-.00	-.0031	245.26	-.0023	-20.91	45.37
EXTM 51	1780.28	1791.53	11	4	31.6	359.96	.0042	-20.64	.0000	242443.1	1.48	84.90	-.0000	.48	-.0407	-20.77	27.73
EXTM 61	1912.19	1923.44	11	6	43.5	.63	.0042	-21.76	.0000	257235.0	1.43	28.00	-.0000	180.67	.0044	-20.52	355.13
EXTM 72	1950.83	1962.08	11	7	22.1	.10	.0042	-20.76	.0000	257363.1	1.42	77.14	.0000	180.43	.0176	-20.45	345.57
RISE 11	2069.35	2080.60	11	9	20.6	285.79	.0042	-21.08	.0000	273448.9	1.04	.00	.0031	116.13	.0024	-20.26	316.24
SET 51	2139.21	2150.46	11	10	30.5	90.00	.0041	-19.61	.0001	278259.3	1.75	8.38	-.0036	252.20	-.0016	-20.14	298.94
SET 61	2192.84	2204.09	11	11	24.1	71.09	.0042	-20.96	.0001	283534.0	1.65	-.00	-.0028	242.06	.0027	-20.06	285.65
SET 72	2319.99	2331.24	11	13	31.3	92.85	.0041	-19.70	.0001	293646.4	1.74	-.01	-.0038	250.10	-.0005	-19.88	254.13
RISE 42	2328.17	2339.42	11	13	39.5	255.84	.0041	-19.11	-.0000	294288.0	.96	.00	.0031	113.63	-.0024	-19.87	252.09
EXTM 11	2365.88	2377.13	11	14	17.2	.42	.0042	-20.83	.0000	293693.9	1.30	33.96	-.0000	180.47	.0047	-19.81	242.74
SET 11	2662.48	2673.73	11	19	13.8	75.01	.0042	-20.13	.0000	319647.8	1.56	-.00	-.0031	245.08	.0024	-19.43	169.10
EXTM 42	2743.09	2754.34	11	20	34.4	359.91	.0042	-19.02	.0000	319466.8	1.21	73.80	-.0000	.31	-.0139	-19.33	149.07
RISE 51	2873.50	2884.75	11	22	44.8	270.00	.0041	-18.74	-.0000	333975.3	.79	8.02	.0036	107.00	-.0016	-19.19	116.65
RISE 72	3031.73	3042.98	12	1	23.0	267.27	.0041	-18.87	-.0000	345910.7	.72	-.01	.0039	109.06	-.0006	-19.02	77.29
RISE 61	3071.84	3083.09	12	2	3.1	287.63	.0042	-19.70	.0000	348663.8	.82	.00	.0029	116.20	.0027	-18.98	67.31
SET 42	3155.85	3167.10	12	3	27.1	103.49	.0041	-18.29	.0000	354482.0	1.44	-.00	-.0031	247.41	-.0024	-18.91	46.36
EXTM 51	3230.47	3241.72	12	4	41.7	359.98	.0042	-18.74	.0000	353067.6	1.08	83.00	.0000	.20	-.0247	-18.87	27.70
EXTM 61	3358.99	3370.24	12	6	50.3	.18	.0042	-19.66	.0000	364466.8	1.08	30.10	-.0000	180.20	.0046	-18.80	355.57
EXTM 72	3398.65	3409.90	12	7	29.9	.02	.0042	-18.97	.0000	363993.4	1.07	78.93	.0000	180.14	.0155	-18.78	345.65
RISE 11	3509.09	3520.34	12	9	20.4	284.32	.0042	-19.32	-.0000	377296.7	.73	.00	.0031	113.89	.0024	-18.73	318.02
SET 51	3586.59	3597.94	12	10	38.0	90.00	.0042	-18.31	.0000	381425.9	1.48	7.84	-.0036	253.41	-.0016	-18.70	298.59
SET 61	3645.97	3657.22	12	11	37.3	72.73	.0042	-19.32	.0000	386140.6	1.41	.00	-.0029	244.31	.0027	-18.68	283.74
SET 72	3764.65	3775.90	12	13	35.9	92.67	.0042	-18.52	.0000	394061.5	1.59	-.00	-.0039	251.30	-.0006	-18.65	253.97
RISE 42	3774.35	3785.60	12	13	45.6	256.67	.0042	-18.09	-.0000	394736.6	.82	.00	.0032	112.34	-.0024	-18.65	251.53
EXTM 11	3807.72	3818.97	12	14	19.0	.01	.0043	-19.40	.0000	393450.4	1.23	35.40	.0000	180.02	.0037	-18.65	243.14
IMPACT	3871.75	3883.00	12	15	23.0												
IMPC 42	3871.75	3883.00	12	15	23.0	281.30	.0043	-18.23	-.0001	400459.4	1.65	19.42	.0035	99.05	-.0022	-18.68	226.92
IMPC 11	3871.75	3883.00	12	15	23.0	16.46	.0044	-19.41	-.0000	399098.6	2.13	33.19	-.0012	198.62	.0047	-18.68	226.92

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	9	22	51.283	6559.393	15.5640	303.3169	10,98163	-2.6971	121.8757	153.4378
ENTER SHA	.39	11.64	9	22	51.677	6549.650	14.3562	305.2083	10,98972	-1.5753	122.3867	155.4279
SEPARATION	1.20	12.45	9	22	52.483	6545.742	11.8322	309.0184	10,99302	.7340	123.2992	159.4401
RETRO	3.20	14.45	9	22	54.483	6627.884	5.4160	318.1033	10,92415	6.4086	124.7423	169.0263
EXIT SHA	32.79	44.04	9	23	24.077	14800.899	-33.7090	30.0423	7,27451	48.0667	100.4552	248.3843
IMPACT	3871.75	3883.00	12	15	23.031	402622.365	-18.6807	226,9173	2.19099	67.1938	254.3035	327.6245

MAY/JUN 1966

BLANK

SURVEYOR VIEW PERIODS

GMA	249.0314					EPS -26.7652								LON	263.3031
SX	-.729145	SY	-.639031	SZ	-.256522	DAO	-14.86380	RAO	221.38801	RM	375813.750	LAT	28.310600	LON	279.461800
C3	-1.320504	ECC	.978319	SLR	12947.437	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	PDL	-.0
NSX	-.708180	NSY	-.654051	NSZ	-.265891	C3M	1.4972	VIM	2.6714	ZAE	132.405	B.T	.0000	B.R	-.0000
LATE	-1.3405	LONE	4.1432	LATS	.4381	LONS	30.7872	LATI	-12.9665	LONI	317.5219	RSM	152.0328	TTAN	3.6184
LAUNCH DATE		MAY	29.1966	BASE AZM	111.0		TF	62.466				ARRIVAL DATE		JUN 1 1966	4 39 27.6

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RI ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	13 45 14.7	27.3	17.14	303.77	-13.03	39.54	118.97	13 56 29.7	6629.1	10.91	-0.44

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	29	13	56.5												
SEPARATION	1.20	12.45	29	13	57.7												
RETRO	3.20	14.45	29	13	59.7												
RISE 72	5.53	16.78	29	14	2.0	85.98	-.1402	26.81	-.0524	2097.1	-9.18	.00	.1317	297.09	-.0325	.59	329.53
EXTM 72	8.46	19.71	29	14	5.0	34.57	-.5158	-5.03	-.3795	894.4	-1.59	55.54	.5942	272.62	-.5612	-7.70	341.97
RISE 51	11.44	22.69	29	14	7.9	84.88	-.0902	10.48	-.0608	4426.0	-4.89	.00	.1064	281.65	-.0154	-14.66	352.42
EXTM 51	25.29	36.54	29	14	21.8	2.30	-.0648	-34.68	-.0125	5550.6	5.43	80.84	-.0000	191.99	-.3438	-29.90	26.66
EXTM 72	69.72	80.97	29	15	6.2	271.43	.0001	-32.28	.0010	24119.8	4.84	5.41	.0000	121.90	-.0010	-32.62	57.16
RISE 42	70.71	81.96	29	15	7.2	105.00	-.0053	-24.42	-.0011	24711.8	4.32	2.63	.0045	241.70	.0021	-32.57	57.35
EXTM 51	83.62	94.87	29	15	20.1	320.15	.0000	-32.25	.0011	23898.4	4.49	54.74	.0000	110.14	-.0019	-31.94	59.04
EXTM 42	116.50	127.75	29	15	53.0	98.93	-.0001	-25.09	.0002	36317.9	4.08	7.45	-.0000	244.46	.0002	-30.42	59.16
SET 42	192.98	204.23	29	17	9.5	105.00	.0022	-23.81	.0003	53946.5	3.62	2.26	-.0018	242.17	-.0010	-27.81	49.96
RISE 61	202.87	214.12	29	17	19.4	302.75	.0033	-32.59	.0006	56210.0	3.11	.00	.0022	134.88	.0017	-27.55	48.32
EXTM 51	309.10	320.35	29	19	5.6	359.66	.0038	-25.36	.0003	69864.1	2.87	89.51	.0019	36.87	-.3347	-25.39	27.69
EXTM 61	477.23	488.48	29	21	53.7	4.86	.0040	-26.57	.0003	100163.7	2.44	23.04	-.0000	184.72	.0039	-23.31	351.14
EXTM 72	504.43	515.68	29	22	20.9	.79	.0041	-24.00	.0002	106617.8	2.39	73.88	-.0000	182.62	.0134	-23.05	344.93
RISE 11	643.48	654.73	30	0	40.0	288.15	.0040	-23.82	.0001	125944.4	1.65	.00	.0029	119.62	.0023	-21.97	312.97
SET 51	695.15	706.40	30	1	31.6	90.00	.0039	-20.53	.0001	131196.8	2.47	8.76	-.0034	251.36	-.0014	-21.63	300.36
SET 61	742.72	753.97	30	2	19.2	68.71	.0040	-23.22	.0002	138083.5	2.32	-.00	-.0025	238.90	.0027	-21.35	289.06
SET 72	883.93	895.18	30	4	40.4	92.95	.0040	-20.30	.0001	154784.2	2.31	-.00	-.0037	249.50	-.0004	-20.63	255.22
RISE 42	900.62	911.87	30	4	57.1	255.82	.0040	-19.14	.0000	156681.2	1.55	.00	.0030	113.66	-.0023	-20.55	251.19
EXTM 11	939.90	951.15	30	5	36.4	1.49	.0042	-22.29	.0001	157700.7	1.85	32.49	-.0000	181.63	.0046	-20.38	241.71
SET 11	1234.72	1245.97	30	10	31.2	74.72	.0041	-20.48	.0001	191884.4	1.97	-.00	-.0030	244.64	.0024	-19.31	170.02
EXTM 42	1319.83	1331.08	30	11	56.3	359.78	.0042	-18.53	.0000	194128.7	1.59	73.31	-.0000	.74	-.0138	-19.05	149.20
RISE 51	1454.95	1466.20	30	14	11.4	270.00	.0041	-17.98	.0000	211898.8	1.13	7.70	.0035	106.30	-.0016	-18.08	116.04
RISE 72	1615.42	1626.67	30	16	51.9	267.40	.0041	-18.07	.0000	227027.5	1.02	.00	.0039	108.25	-.0006	-18.30	76.99
RISE 61	1653.16	1664.41	30	17	29.7	287.24	.0041	-19.30	.0000	230283.4	1.11	.00	.0029	115.66	.0027	-18.21	67.30
SET 42	1732.59	1743.84	30	18	49.1	102.56	.0041	-17.12	.0001	237018.7	1.75	-.00	-.0031	248.88	-.0023	-18.04	47.71
EXTM 51	1813.46	1824.71	30	20	10.0	359.92	.0042	-17.67	.0000	237488.2	1.36	81.93	.0000	.55	-.0279	-17.88	27.76
EXTM 61	1945.48	1956.73	30	22	22.0	.61	.0042	-18.86	.0000	251088.9	1.32	30.90	-.0000	180.68	.0046	-17.63	355.15
EXTM 72	1984.12	1995.37	30	23	.6	.08	.0042	-17.80	.0000	251170.2	1.30	80.10	.0000	180.43	.0228	-17.56	345.60
RISE 11	2093.30	2104.55	31	0	49.8	283.42	.0042	-18.20	.0000	265795.8	.92	.00	.0031	112.48	.0024	-17.37	318.99
SET 51	2172.64	2183.89	31	2	9.1	90.00	.0041	-16.68	.0000	270974.6	1.64	7.16	-.0036	254.89	-.0016	-17.23	298.95
SET 61	2238.04	2249.29	31	3	14.5	74.01	.0041	-18.03	.0001	278603.6	1.54	-.00	-.0029	246.08	.0027	-17.13	282.75
SET 72	2351.66	2362.91	31	5	8.2	92.40	.0041	-16.78	.0001	284823.6	1.63	-.00	-.0039	253.06	-.0005	-16.96	254.99
RISE 42	2371.31	2382.56	31	5	27.8	258.19	.0041	-16.17	.0000	286222.6	.83	.00	.0032	109.93	-.0024	-16.93	249.72
EXTM 11	2399.39	2410.64	31	5	55.9	.40	.0042	-17.90	.0000	284411.5	1.18	36.89	.0000	180.47	.0058	-16.89	242.76
SET 11	2705.72	2716.97	31	11	2.2	77.39	.0042	-17.19	.0000	309890.0	1.45	-.00	-.0031	248.80	.0024	-16.47	166.74
EXTM 42	2776.90	2788.15	31	12	13.4	359.92	.0042	-16.00	.0000	307782.4	1.08	70.78	-.0000	.25	-.0119	-16.39	149.06
RISE 51	2907.45	2918.70	31	14	23.9	270.00	.0041	-15.76	-.0000	321339.2	.65	6.77	.0036	104.24	-.0017	-16.23	116.62
RISE 72	3067.29	3078.54	31	17	3.8	267.73	.0042	-15.86	.0000	332176.4	.59	-.01	.0040	106.02	-.0006	-16.02	76.81
RISE 61	3093.78	3105.03	31	17	30.3	284.73	.0042	-16.72	.0000	333801.5	.69	.00	.0030	112.14	.0027	-15.98	70.18
SET 42	3179.30	3190.55	31	18	55.8	101.08	.0042	-15.22	.0000	339017.8	1.38	-.00	-.0032	251.25	-.0024	-15.86	48.80
EXTM 51	3263.58	3274.83	31	20	20.1	359.96	.0042	-15.56	.0000	337898.8	1.01	79.82	-.0000	.22	-.0213	-15.75	27.72
EXTM 61	3392.97	3404.22	31	22	29.5	.41	.0042	-16.44	.0000	348404.8	1.00	33.32	-.0000	180.47	.0049	-15.57	355.35
EXTM 72	3431.77	3443.02	31	23	8.3	.04	.0043	-15.66	.0000	347947.0	1.00	82.25	.0000	180.30	.0270	-15.52	345.63
RISE 11	3531.52	3542.77	1	0	48.0	281.66	.0042	-15.99	.0000	360205.0	.65	.00	.0032	109.70	.0024	-15.38	320.65
SET 51	3619.34	3630.59	1	2	15.8	90.00	.0042	-14.82	.0000	364873.6	1.45	6.38	-.0037	256.59	-.0017	-15.24	298.62
SET 61	3692.07	3703.32	1	3	28.6	76.18	.0042	-15.76	.0001	370278.7	1.47	-.00	-.0030	249.14	.0028	-15.10	280.32
IMPACT	3747.99	3759.24	1	4	24.5												
IMPC 72	3747.99	3759.24	1	4	24.5	80.92	.0043	-14.84	.0001	373417.0	2.25	11.12	-.0042	286.34	-.0003	-14.92	266.13
IMPC 11	3747.99	3759.24	1	4	24.5	336.69	.0044	-15.66	.0001	371050.2	1.64	34.53	.0017	152.45	.0047	-14.92	266.13

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	29	13	56.494	6632.051	17.1948	303.6729	10.90594	-6.4448	118.9329	39.4435
SEPARATION	1.20	12.45	29	13	57.694	6563.752	13.7524	309.6091	10.96063	-3.0742	120.6044	49.6805
RETRO	3.20	14.45	29	13	59.694	6558.497	7.7164	319.0884	10.96506	2.6188	122.4705	55.6611
IMPACT	3747.99	3759.24	1	4	24.482	374699.297	-14.9220	266.1731	2.08422	59.7111	307.0816	221.4693

MAY 29, 1966
111 DEGREES

SURVEYOR VIEW PERIODS

GHA	249.0514					EPS	-26.4725							LOM	255.3680
SX	-.721571	SY	-.642475	SZ	-.258554	DAO	-14.98426	RAD	221.68924	RM	375877.641	LAT	28.310600	LON	279.461800
CS	-1.334601	ECC	.976087	SLR	12945.921	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.704182	NSY	-.555512	NSZ	-.267967	C3M	1.4975	VIM	2.6715	ZAE	131.891	B.T	.0000	B.R	-.0000
LATE	-1.3059	LONE	4.1262	LATS	.4389	LONS	30.5097	LATI	-13.1998	LONI	317.0527	RSM	152.0342	TTAN	3.6032
LAUNCH DATE		MAY	29.1966		BASE AZM	115.0		TF	62.749			ARRIVAL DATE		JUN 1 1966	5 8 18.9

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	14 0 51.7	27.5	15.68	303.12	-9.70	42.81	121.82	14 12 6.7	6591.3	10.94	-4.80

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PRORE IN SUNLIGHT											
INJECTION	.00	11.25	29	14	12.1												
SEPARATION	1.20	12.45	29	14	13.3												
RETRO	3.20	14.45	29	14	15.3												
RISE 72	5.38	16.63	29	14	17.5	87.35	-.1235	18.44	-.0922	2246.7	-8.60	-.01	.1293	288.62	-.0742	1.41	327.31
EXTM 72	9.57	20.82	29	14	21.7	15.76	-.4547	-39.33	-.1902	1283.4	4.11	55.54	-.0000	201.80	-.7066	-13.08	343.55
RISE 51	11.40	22.65	29	14	23.5	87.36	-.0819	5.44	-.0654	4656.9	-4.38	.00	.1019	276.05	-.0232	-17.14	349.82
EXTM 51	27.35	38.60	29	14	39.5	2.14	-.0553	-39.92	-.0058	6471.2	5.47	75.70	.0000	186.67	-.1732	-32.89	26.69
EXTM 72	69.22	80.47	29	15	21.3	274.50	.0001	-34.47	.0013	23847.2	4.84	8.16	.0000	123.87	-.0013	-34.24	53.81
EXTM 51	83.18	94.43	29	15	35.3	324.01	-.0002	-34.38	.0014	23774.9	4.48	57.86	.0000	114.26	-.0026	-33.46	55.76
RISE 42	83.49	94.74	29	15	35.6	105.00	-.0032	-26.30	-.0003	28337.2	4.29	3.78	.0024	240.21	.0015	-33.44	55.79
EXTM 42	115.53	126.78	29	16	7.6	102.17	-.0002	-26.27	.0002	36398.7	4.09	5.78	-.0000	241.77	.0003	-31.76	55.97
SET 42	166.11	177.36	29	16	58.2	104.99	.0017	-25.30	.0003	48297.0	3.76	3.18	-.0015	241.00	-.0007	-29.71	50.76
RISE 61	195.95	207.20	29	17	28.1	304.83	.0032	-34.01	.0007	54911.5	3.15	.00	.0022	137.12	.0017	-23.77	46.20
EXTM 51	289.52	300.77	29	19	1.6	358.90	.0037	-26.67	.0003	66531.0	2.93	28.65	.0017	133.60	.0054	-26.59	28.69
EXTM 61	464.54	475.79	29	21	56.7	5.40	.0040	-27.46	.0003	98428.5	2.46	22.11	.0000	185.17	.0038	-24.12	350.64
EXTM 72	490.30	501.55	29	22	22.4	.96	.0041	-24.87	.0002	98645.5	2.41	73.01	-.0000	182.99	.0127	-23.86	344.77
RISE 11	631.74	642.99	30	0	43.8	288.78	.0040	-24.52	.0001	124017.4	1.86	.00	.0029	120.53	.0023	-22.64	311.91
SET 51	680.44	691.69	30	1	32.6	90.00	.0039	-21.18	.0002	129302.0	2.49	9.03	-.0034	250.76	-.0014	-22.29	300.41
SET 61	725.00	736.25	30	2	17.1	67.97	.0040	-23.91	.0002	135885.9	2.34	-.00	-.0025	237.93	.0027	-22.00	289.83
SET 72	869.75	881.00	30	4	41.9	93.03	.0040	-20.85	.0001	153120.0	2.52	-.00	-.0037	248.94	-.0004	-21.19	255.1-
RISE 42	884.52	895.77	30	4	56.6	255.38	.0040	-19.68	.0001	154804.0	1.57	.00	.0030	114.35	-.0023	-21.11	251.-
EXTM 11	926.03	937.28	30	5	38.1	1.62	.0042	-22.85	.0001	156155.2	1.86	31.92	-.0000	181.76	.0045	-20.91	241.59
SET 11	1218.71	1229.96	30	10	30.8	74.33	.0041	-20.95	.0001	190191.0	1.97	-.00	-.0029	244.05	.0024	-19.75	170.43
EXTM 42	1305.21	1316.46	30	11	57.3	359.71	.0042	-18.96	.0000	192585.3	1.60	73.74	.0000	.98	-.0141	-19.47	149.26
RISE 51	1440.65	1451.90	30	14	12.8	270.00	.0041	-18.37	.0000	210412.0	1.14	7.86	.0035	106.66	-.0016	-19.08	116.04
RISE 72	1600.88	1612.13	30	16	53.0	267.35	.0041	-18.43	.0000	225565.5	1.32	.00	.0039	108.32	-.0006	-18.66	76.63
RISE 61	1640.27	1651.52	30	17	32.4	287.60	.0041	-19.66	.0000	228969.4	1.11	.00	.0029	116.15	.0027	-18.57	66.93
SET 42	1719.25	1730.50	30	18	51.4	102.82	.0041	-17.45	.0001	235673.0	1.75	-.00	-.0031	248.46	-.0023	-18.38	47.46
EXTM 51	1799.06	1810.31	30	20	11.2	359.92	.0042	-18.01	.0000	236057.5	1.37	82.27	.0000	.59	-.0290	-18.21	27.76
EXTM 61	1931 24	1942.49	30	22	23.4	.66	.0042	-19.18	.0000	249716.1	1.32	30.58	-.0000	180.72	.0046	-17.94	355.11
EXTM 72	1969.75	1981.00	30	23	1.9	.08	.0042	-18.11	.0000	249764.4	1.30	79.79	.0000	180.46	.0223	-17.86	345.59
RISE 11	2079.87	2091.12	31	0	52.0	283.66	.0042	-18.50	.0000	264459.5	.92	.00	.0071	112.85	.0024	-17.66	318.35
SET 51	2158.17	2169.42	31	2	10.5	90.00	.0041	-16.96	.0001	269548.4	1.64	7.28	-.0036	254.64	-.0016	-17.52	298.96
SET 61	2222.47	2233.72	31	3	14.6	73.74	.0041	-18.31	.0001	275109.3	1.54	-.00	-.0028	245.69	.0027	-17.41	283.03
SET 72	2337.33	2348.58	31	5	9.4	92.44	.0041	-17.04	.0001	283419.6	1.62	-.00	-.0039	252.79	-.0005	-17.22	254.56
RISE 42	2356.07	2367.32	31	5	28.2	257.99	.0041	-16.42	.0000	284753.4	.83	.00	.0032	110.25	-.002	-17.19	249.92
EXTM 11	2385.06	2396.31	31	5	57.2	.43	.0042	-18.17	.0000	283028.9	1.18	36.62	.0000	180.51	.0050	-17.15	242.73
SET 11	2690.47	2701.72	31	11	2.6	77.21	.0042	-17.42	.0000	307608.0	1.44	-.00	-.0031	248.50	.0024	-16.70	166.93
EXTM 42	2762.36	2773.61	31	12	14.5	359.91	.0042	-16.23	.0000	306334.4	1.08	71.01	-.0000	.29	-.0121	-16.61	149.07
RISE 51	2892.98	2904.23	31	14	25.1	270.00	.0041	-15.97	-.0000	319881.3	.65	6.86	.0036	104.45	-.0017	-16.44	116.62
RISE 72	3052.84	3064.09	31	17	4.9	267.70	.0042	-16.07	.0000	330699.8	.58	-.01	.0040	106.23	-.0006	-16.22	76.83
RISE 61	3080.26	3091.51	31	17	32.4	284.93	.0042	-16.93	.0000	332373.5	.69	.01	.0030	112.43	.0027	-16.18	69.97
SET 42	3165.50	3176.75	31	18	57.6	101.23	.0042	-15.42	.0000	337548.2	1.37	-.00	-.0032	251.01	-.0024	-16.06	48.66
EXTM 51	3249.19	3260.44	31	20	21.3	359.96	.0042	-15.76	.0000	336361.7	1.00	80.02	-.0000	.24	-.0211	-15.94	27.72
EXTM 61	3378.63	3389.88	31	22	30.7	.42	.0042	-16.63	.0000	346839.4	.99	33.13	-.0000	180.45	.0048	-15.76	355.33
EXTM 72	3417.39	3428.64	31	23	9.5	.04	.0043	-15.85	.0000	340345.3	.98	82.06	.0000	180.31	.0271	-15.70	345.63
RISE 11	3517.73	3528.98	1	0	49.8	281.81	.0042	-16.11	.0000	358570.7	.64	.00	.0032	109.93	.0024	-15.56	320.50
SET 51	3604.97	3616.22	1	2	17.1	90.00	.0042	-15.00	.0000	363100.8	1.42	6.45	-.0037	256.43	-.0017	-15.42	298.62
SET 61	3677.06	3688.31	1	3	29.2	76.00	.0042	-15.98	.0001	368297.1	1.40	-.00	-.0030	248.89	.0028	-15.29	280.51
IMPACT	3764.92	3776.17	1	4	57.0												
IMPC 72	3764.92	3776.17	1	4	57.0	88.40	.0043	-14.92	.0001	374322.0	2.24	3.56	-.0041	255.41	-.0004	-15.04	258.27
IMPC 11	3764.92	3776.17	1	4	57.0	344.66	.0044	-15.79	.0001	370906.4	1.68	36.96	.0012	161.42	.0050	-15.04	258.27

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	29	14	12.112	6592.163	15.7036	303.0834	10.93695	-4.7963	121.8112	42.7692
SEPARATION	1.20	12.45	29	14	13.312	6548.608	11.9799	308.7884	10.97279	-1.3989	123.2518	48.7750
RETRO	3.20	14.45	29	14	15.312	6581.019	5.5389	317.9252	10.94476	4.2850	124.7253	58.4131
IMPACT	3764.92	3776.17	1	4	57.031	374772.563	-15.0423	258.2730	2.07740	59.1505	307.1769	221.7648

SURVEYOR VIEW PERIODS

SMA	250.0170					EPS	-14.3045							LOM	282.7334
SX	-.546274	SY	-.767476	SZ	-.335507	DAO	-19,60337	RAO	234.55747	RM	378853.328	LAT	28,310600	LON	279.461800
C3	-1.211186	ECC	.980114	SLR	12959.183	RCA	6544.0650	LTA	-20.0000	GTA	20.00	TB	679.00000	POL	-.0
NSX	-.526647	NSY	-.777934	NSZ	-.342726	C3M	1.4935	VIM	2.6707	ZAE	135.235	B.T	.0000	B.R	-.0000
LATE	.2418	LONE	4.5749	LATS	.4727	LONS	10.8426	LATI	-10.2935	LONI	320.8270	RSM	152.0868	TTAN	5.0843
LAUNCH DATE		MAY	30.1966		BASE AZM	99.0		TF	61.440				ARRIVAL DATE	JUN	2 1966 4 6 33.2

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME		INJ RAD	INJ VEL	INJ FPA
99.00	14 23	7.1	27.3	21.44	305.80	-13.91	52.05	110.51	14 34	22.1	6641.1	10.90	-6.89

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	30	14	34.4												
SEPARATION	1.20	12.45	30	14	35.6												
RETRO	3.20	14.45	30	14	37.6												
RISE 72	5.80	17.05	30	14	40.2	78.63	-.2586	54.87	.0874	2137.1	-8.18	-.01	.1230	325.66	.1204	7.44	335.26
EXTM 72	9.76	21.01	30	14	44.1	321.82	-.2296	24.88	-.3045	1390.1	4.27	40.43	.3154	47.44	.4843	-2.28	351.76
RISE 51	11.51	22.76	30	14	45.9	76.07	-.1127	28.54	-.0386	4395.9	-4.93	-.00	.1069	299.74	.0152	-5.96	357.98
EXTM 51	25.18	36.43	30	14	59.5	355.41	-.0521	-17.64	-.0253	5470.4	5.43	80.85	-.0000	28.68	.3506	-22.02	29.87
RISE 42	67.42	78.67	30	15	41.8	105.00	-.0056	-20.63	-.0024	23994.1	4.28	.30	.0056	244.69	.0014	-29.2	57.38
EXTM 72	69.37	80.62	30	15	43.7	271.38	-.0000	-28.65	-.0002	24052.6	4.86	4.96	.0000	118.29	.0002	-29.23	57.77
EXTM 51	84.16	95.41	30	15	58.5	319.74	.0000	-29.00	.0000	24064.7	4.50	54.27	.0000	104.57	-.0000	-29.33	59.64
EXTM 42	122.61	133.86	30	16	37.0	98.26	.0002	-23.82	-.0003	37851.3	4.03	7.21	-.0000	245.86	-.0002	-28.96	59.37
SET 42	199.24	210.49	30	17	53.6	105.00	.0023	-23.99	.0001	55297.6	3.58	2.37	-.0017	242.04	-.0012	-27.89	49.82
RISE 61	208.67	219.92	30	18	3.0	302.92	.0032	-32.71	.0004	57465.8	3.11	.00	.0026	135.06	.0019	-27.77	48.26
EXTM 51	316.88	328.13	30	19	51.3	.05	.0037	-26.68	.0002	71385.2	2.86	89.05	.0000	182.99	.1888	-26.61	27.64
EXTM 61	479.76	491.01	30	22	34.1	3.78	.0040	-28.69	.0002	101090.2	2.45	20.98	.0000	183.55	.0037	-25.41	352.16
EXTM 72	511.01	522.26	30	23	5.4	.65	.0041	-26.29	.0001	102009.8	2.39	71.60	-.0000	181.84	.0115	-25.22	345.87
RISE 11	660.86	672.11	31	1	35.2	290.44	.0040	-26.33	.0000	128346.3	1.86	.00	.0028	122.61	.0023	-24.49	310.32
SET 51	703.03	714.28	31	2	17.4	90.00	.0039	-25.25	.0001	132669.8	2.47	9.87	-.0033	248.85	-.0014	-24.31	300.38
SET 61	737.42	748.67	31	2	51.8	65.52	.0040	-25.09	.0001	135075.4	2.34	-.00	-.0024	236.82	.0027	-24.18	292.24
SET 72	894.41	905.66	31	5	28.8	93.43	.0040	-23.31	.0001	156821.6	2.02	-.00	-.0030	246.45	-.0004	-23.64	254.75
RISE 42	905.85	917.10	31	5	40.2	254.99	.0040	-22.20	-.0000	157991.8	1.58	1.27	.0029	116.55	-.0023	-23.61	252.00
EXTM 11	947.37	958.62	31	6	21.7	1.19	.0042	-25.44	.0001	159738.9	1.87	29.35	-.0000	181.23	.0043	-23.48	242.00
SET 11	1231.66	1242.91	31	11	6.0	71.71	.0041	-23.98	.0001	192904.4	1.58	-.00	-.0028	240.18	.0024	-22.77	173.03
EXTM 42	1329.64	1340.89	31	12	44.0	359.87	.0042	-22.17	.0000	196433.5	1.61	76.94	.0000	.52	-.0170	-22.57	149.10
RISE 51	1464.65	1475.90	31	14	59.0	270.00	.0041	-21.64	-.0000	214300.6	1.16	9.21	.0035	109.67	-.0016	-22.32	116.04
RISE 72	1622.94	1634.19	31	17	37.3	266.81	.0041	-21.83	-.0000	229622.1	1.05	.00	.0035	112.05	-.0035	-22.05	77.16
RISE 61	1678.71	1689.96	31	18	33.1	291.12	.0041	-23.06	.0000	234504.5	1.15	.00	.0027	120.87	.0027	-21.97	63.44
SET 42	1752.50	1763.75	31	19	46.9	105.00	.0041	-20.93	.0000	240792.5	1.75	.49	-.0030	244.45	-.0023	-21.85	45.27
EXTM 51	1823.77	1835.02	31	20	58.1	359.98	.0042	-21.65	.0000	240572.9	1.39	85.61	-.0000	.29	-.0387	-21.75	27.70
EXTM 61	1955.23	1966.48	31	23	9.6	.50	.0042	-22.84	.0000	254763.3	1.34	26.92	-.0000	180.52	.0043	-21.58	359.27
EXTM 72	1994.38	2005.63	31	23	48.7	.08	.0042	-21.86	.0000	254659.8	1.33	76.04	.0000	180.32	.0159	-21.53	349.59
RISE 11	2117.09	2128.34	1	1	51.5	286.75	.0042	-22.22	-.0000	270420.0	.96	.00	.0030	117.57	.0024	-21.38	315.26
SET 51	2182.97	2194.22	1	2	57.3	90.00	.0041	-20.77	.0000	274503.3	1.66	8.86	-.0035	291.14	-.0016	-21.30	298.97
SET 61	2231.68	2242.93	1	3	46.0	69.84	.0041	-22.16	.0000	279175.3	1.54	-.00	-.0027	240.39	.0017	-21.24	286.91
SET 72	2364.72	2375.97	1	5	59.1	93.04	.0041	-20.92	.0000	289091.5	1.64	-.00	-.0038	248.87	-.0005	-21.10	253.97
RISE 42	2363.98	2380.23	1	6	3.4	255.00	.0041	-20.32	-.0000	289350.2	.88	.12	.0031	115.07	-.0024	-21.09	252.91
EXTM 11	2409.72	2420.97	1	6	44.1	.34	.0042	-22.10	.0000	288904.1	1.21	32.69	-.0000	180.37	.0046	-21.05	242.82
SET 11	2702.30	2713.55	1	11	36.7	73.87	.0042	-21.49	.0000	312647.8	1.47	-.00	-.0030	243.36	.0024	-20.77	170.26
EXTM 42	2787.82	2799.07	1	13	2.2	359.94	.0042	-20.40	.0000	312911.5	1.11	75.16	-.0000	.23	-.0146	-20.69	149.04
RISE 51	2918.39	2929.64	1	15	12.8	270.00	.0041	-20.13	-.0000	326270.9	.70	8.59	.0035	108.27	-.0016	-20.58	116.61
RISE 72	3075.31	3086.56	1	17	49.7	267.06	.0042	-20.26	-.0000	337486.7	.64	-.01	.0039	110.47	-.0036	-20.42	77.47
RISE 61	3121.82	3133.07	1	18	36.2	289.07	.0042	-21.12	-.0000	340450.3	.75	.00	.0028	118.16	.0027	-20.37	65.05
SET 42	3204.18	3215.43	1	19	58.6	104.60	.0041	-19.64	.0000	345671.1	1.40	-.00	-.0031	245.70	-.0024	-20.29	45.27
EXTM 51	3274.44	3285.69	1	21	8.8	359.98	.0042	-20.12	.0000	343813.9	1.05	84.38	-.0000	.29	-.0332	-20.22	27.71
EXTM 61	3403.59	3414.84	1	23	18.0	.35	.0042	-20.98	.0000	355174.3	1.05	28.78	-.0000	180.37	.0045	-20.08	359.41
EXTM 72	3442.70	3453.95	1	23	57.1	.06	.0043	-20.26	.0000	354921.6	1.06	77.64	.0000	180.27	.0178	-20.04	349.61
RISE 11	3556.87	3568.12	2	1	51.2	289.32	.0042	-20.52	.0000	368024.2	.79	.00	.0031	119.41	.0024	-19.91	317.00
SET 51	3629.98	3641.23	2	3	4.4	90.00	.0042	-19.49	.0000	372076.2	1.60	8.83	-.0036	252.40	-.0016	-19.83	298.62
SET 61	3684.60	3695.85	2	3	59.0	71.72	.0043	-20.34	.0001	377436.3	2.11	-.00	-.0029	243.91	.0028	-19.67	284.78
IMPACT	3686.41	3697.66	2	4	.8												
IMPC 72	3686.41	3697.66	2	4	.8	62.26	.0043	-19.69	.0001	374583.6	2.29	28.71	-.0041	291.83	.0003	-19.67	284.31
IMPC 51	3686.41	3697.66	2	4	.8	104.27	.0043	-19.20	.0001	378062.0	2.30	-3.84	-.0036	244.53	-.0019	-19.67	284.31
IMPC 11	3686.41	3697.66	2	4	.8	310.29	.0044	-20.39	.0001	375280.0	1.65	21.76	.0024	137.81	.0035	-19.67	284.31
IMPC 61	3686.41	3697.66	2	4	.8	72.19	.0043	-20.33	.0001	377670.0	2.22	-.31	-.0029	243.22	.0029	-19.67	284.31

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION	.00	11.25	30	14	34.368	6644.915	21.4848	305.6708	10,90100	-6.8868	110.4942	51.9214
SEPARATION	1.20	12.45	30	14	35.568	6569.668	18.9237	312.2386	10,96062	-3.5192	112.8317	56.7900
RETRO	3.20	14.45	30	14	37.568	6554.229	14.1547	322.6708	10,97365	2.1786	119.9556	69.7236
IMPACT	3686.41	3697.66	2	4	.781	3978.898	-19.6658	284.3082	2,13031	62.9351	301.1645	234.6847

SURVEYOR VIEW PERIODS

GHA	250.0170					EPS -14.1381								LOM	278.1370
SX	-.543651	SY	-.768925	SZ	-.336449	DAO	-19.66069	RAO	234.73866	RM	378898.328	LAT	28.310600	LON	279.461800
CS	-1.217695	ECC	.980089	SLR	12959.023	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.923971	NSY	-.779330	NSZ	-.343655	C3M	1.4971	VIM	2.6714	ZAE	135.107	B.T	.0000	B.R	-.0000
LATE	.2631	LONE	4.5792	LATS	.4732	LONS	18.6812	LATI	-13.4212	LONI	320.7290	RSM	152.0866	TTAN	5.0917
LAUNCH DATE		MAY	30.1966	BASE AZM		102.0	TF	61.479				ARRIVAL DATE		JUN 2 1966	4 25 36.7

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	14 38 33.5	27.5	20.26	305.55	-10.46	55.67	112.70	14 49 48.5	6599.0	10.94	-5.18

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT												
INJECTION		.00	11.25	30	14	49.8												
SEPARATION		1.20	12.45	30	14	51.0												
RETRO		3.20	14.45	30	14	53.0												
RISE	72	5.46	16.71	30	14	55.3	81.48	-.2973	46.86	.0485	2228.1	-8.60	-.00	.1291	317.45	.0761	6.36	332.70
EXTM	72	9.25	20.50	30	14	59.1	342.60	-.3966	23.75	-.3207	1191.4	2.65	54.07	.1111	27.81	.7589	-3.09	348.21
RISE	51	11.33	22.58	30	15	1.1	78.53	-.1032	22.40	-.0431	4577.2	-4.66	.00	.1045	295.03	.0067	-7.50	355.48
EXTM	51	26.35	37.60	30	15	16.2	358.16	-.0472	-21.98	-.0192	6019.6	5.43	85.89	-.0000	24.49	.6663	-23.92	28.59
EXTM	72	69.36	80.61	30	15	59.2	274.89	-.0000	-29.94	-.0000	23886.5	4.85	8.15	.0000	119.28	.0000	-30.02	54.28
RISE	42	79.86	91.11	30	16	9.7	105.00	-.0034	-22.57	-.0014	27592.7	4.27	1.50	.0033	243.16	.0008	-30.06	55.75
EXTM	42	121.86	133.11	30	16	51.7	101.72	.0002	-24.27	-.0002	38065.6	4.03	4.92	.0000	243.63	-.0003	-29.58	55.87
SET	42	170.99	182.24	30	17	40.8	105.00	.0018	-24.48	.0000	49480.2	3.73	2.67	-.0013	241.65	-.0010	-28.80	50.55
RISE	61	196.14	207.39	30	18	5.9	304.27	.0032	-33.64	.0004	55049.5	3.19	.00	.0020	136.53	.0018	-28.43	46.75
EXTM	51	292.35	303.60	30	19	42.2	358.51	.0037	-27.39	.0002	67221.1	2.94	87.88	.0022	141.44	.0649	-27.25	29.04
EXTM	61	465.21	476.46	30	22	35.0	4.15	.0040	-29.19	.0002	99071.8	2.48	20.47	.0000	183.85	.0037	-25.82	351.84
EXTM	72	495.43	506.68	30	23	5.2	.71	.0041	-26.74	.0001	99859.1	2.42	71.15	-.0000	181.97	.0112	-25.63	345.01
RISE	11	647.08	658.33	31	1	36.9	290.79	.0040	-26.70	.0000	126619.8	1.88	.01	.0028	123.36	.0023	-24.82	309.93
SET	51	687.49	698.74	31	2	17.3	90.00	.0039	-23.56	.0001	130747.4	2.49	10.00	-.0033	248.55	-.0013	-24.64	300.43
SET	61	720.25	731.50	31	2	50.1	65.10	.0040	-26.45	.0002	135999.1	2.35	-.00	-.0024	234.31	.0027	-24.50	292.69
SET	72	879.34	890.59	31	5	29.1	93.48	.0040	-23.58	.0001	155144.2	2.33	-.01	-.0036	246.18	-.0004	-23.91	254.74
RISE	42	890.84	902.09	31	5	40.7	254.99	.0040	-22.46	-.0000	156312.4	1.59	1.42	.0029	116.76	-.0023	-23.88	251.97
EXTM	11	932.59	943.84	31	6	22.4	1.26	.0042	-25.72	.0001	158159.9	1.88	29.06	-.0000	181.30	.0043	-23.74	241.93
SET	11	1215.81	1227.06	31	11	5.6	71.51	.0041	-24.21	.0001	191357.3	1.99	-.00	-.0028	239.88	.0024	-22.99	173.25
EXTM	42	1314.69	1325.94	31	12	44.5	359.87	.0042	-22.37	.0000	195018.7	1.62	77.15	.0000	.56	-.0172	-22.77	149.11
RISE	51	1449.81	1461.06	31	14	59.6	270.00	.0041	-21.83	-.0000	212949.0	1.17	9 29	.0035	109.84	-.0016	-22.51	116.03
RISE	72	1608.00	1619.25	31	17	37.8	266.79	.0041	-22.00	-.0000	228329.0	1.06	.00	.0038	112.22	-.0005	-22.22	77.18
RISE	61	1664.62	1675.87	31	18	34.4	291.30	.0041	-23.23	.0000	233304.2	1.15	.00	.0027	121.12	.0027	-22.13	63.25
SET	42	1737.61	1748.86	31	19	47.4	105.00	.0041	-21.08	.0001	239535.2	1.76	.58	-.0030	244.33	-.0023	-22.02	45.27
EXTM	51	1808.86	1820.11	31	20	58.7	359.97	.0042	-21.81	.0000	239345.8	1.40	86.07	.0000	.48	-.0484	-21.91	27.71
EXTM	61	1940.48	1951.73	31	23	10.3	.52	.0042	-22.99	.0000	253602.1	1.35	26.77	-.0000	180.54	.0043	-21.72	355.24
EXTM	72	1979.56	1990.81	31	23	49.4	.09	.0042	-22.01	.0000	253488.4	1.33	75.89	.0000	180.34	.0157	-21.67	345.59
RISE	11	2102.75	2114.00	1	1	52.6	286.87	.0042	-22.36	-.0000	269317.0	.96	.00	.0030	117.75	.0024	-21.51	315.14
SET	51	2168.12	2179.37	1	2	57.9	90.00	.0041	-20.89	.0000	273369.2	1.66	8.91	-.0035	251.02	-.0016	-21.43	298.97
SET	61	2216.27	2227.52	1	3	46.1	69.70	.0041	-22.29	.0000	278016.3	1.56	-.00	-.0027	240.21	.0027	-21.37	287.06
	72	2349.95	2361.20	1	5	59.8	93.06	.0041	-21.04	.0001	287969.3	1.65	-.00	-.0038	248.75	-.0005	-21.22	253.96
RISE	42	2354.18	2365.43	1	6	4.0	255.00	.0041	-20.44	-.0000	288258.5	.88	.19	.0030	115.16	-.0024	-21.21	252.91
EXTM	11	2394.95	2406.20	1	6	44.8	.35	.0042	-22.23	.0000	287843.1	1.21	32.56	-.0000	180.39	.0046	-21.17	242.81
SET	11	2687.10	2698.35	1	11	35.9	73.78	.0042	-21.60	.0000	311799.9	1.47	-.00	-.0030	243.22	.0024	-20.87	170.36
EXTM	42	2772.98	2784.23	1	13	2.8	359.94	.0042	-20.50	.0000	311500.5	1.12	75.28	-.0000	.24	-.0147	-21.79	149.04
RISE	51	2903.58	2914.83	1	15	13.4	270.00	.0041	-20.22	-.0000	325280.9	.70	8.63	.0035	108.36	-.0016	-20.67	116.61
RISE	72	3060.45	3071.70	1	17	50.3	267.04	.0042	-20.35	-.0000	336508.5	.64	-.01	.0039	110.56	-.0006	-20.51	77.48
RISE	61	3107.38	3118.63	1	18	37.2	289.17	.0042	-21.20	-.0000	339497.8	.75	.00	.0028	118.28	.0027	-20.46	65.76
SET	42	3189.63	3200.88	1	19	59.4	104.67	.0041	-19.73	.0000	344708.6	1.40	-.00	-.0031	245.60	-.0024	-20.37	45.21
EXTM	51	3259.63	3270.88	1	21	9.4	359.98	.0042	-20.20	.0000	342830.9	1.05	84.46	-.0000	.29	-.0346	-20.30	27.71
EXTM	61	3388.81	3400.06	1	23	18.6	.36	.0042	-21.06	.0000	354187.0	1.05	28.70	-.0000	180.38	.0045	-20.16	355.40
EXTM	72	3427.92	3439.17	1	23	57.7	.06	.0043	-20.34	.0000	353519.5	1.05	77.56	.0000	180.27	.0178	-20.12	345.61
RISE	11	3542.40	3553.65	2	1	52.2	285.38	.0042	-20.60	.0000	366990.8	.74	.00	.0031	115.51	.0024	-19.99	316.93
SET	51	3615.29	3626.54	2	3	9.1	90.00	.0042	-19.49	.0000	370927.7	1.56	8.33	-.0036	252.32	-.0016	-19.89	298.63
SET	61	3669.68	3680.93	2	3	59.5	71.61	.0042	-20.45	.0001	375894.5	1.71	-.00	-.0028	242.76	.0028	-19.78	284.89
IMPACT		3688.73	3699.98	2	4	18.5												
IMPC	72	3688.73	3699.98	2	4	18.5	66.58	.0043	-19.72	.0001	375028.3	2.30	24.65	-.0041	251.87	.0001	-19.72	280.03
IMPC	11	3688.73	3699.98	2	4	18.5	322.62	.0044	-20.46	.0001	375096.2	1.66	24.00	.0023	141.49	.0037	-19.72	280.03
IMPC	61	3688.73	3699.98	2	4	18.5	76.49	.0043	-20.37	.0001	378045.8	2.22	-3.30	-.0029	245.93	.0028	-19.72	280.03

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	30	14	49.808	6600.190	20.2841	305.4962	10.93604	-5.1785	112.6750	55.6174
SEPARATION		1.20	12.45	30	14	51.008	6551.031	17.4887	311.8976	10.97629	-1.7774	114.8491	62.3196
RETRO		3.20	14.45	30	14	53.008	6575.646	12.3898	322.0722	10.95552	3.9160	117.6115	72.9955
IMPACT		3688.73	3699.98	2	4	18.533	377732.668	-19.7188	280.0269	2.12887	62.8172	301.5451	234.8536

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SURVEYOR VIEW PERIODS

GHA	250.0170					EPS	-13.9472							LOM	272.8619
SX	-.548634	SY	-.770579	SZ	+.337526	DAO	-19.72623	RAO	234.94671	RM	378950.098	LAT	28.310600	LON	279.461800
C3	-1.219049	ECC	.979984	SLR	12958.340	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.520845	NSY	-.780947	NSZ	-.344734	C3M	1.4973	VIM	2.6714	ZAE	134.869	B.T	.0000	B.R	+.0000
LATE	.2875	LONE	4.5849	LATS	.4737	LONS	18.4967	LATI	-10.5890	LONI	320.5281	RSM	152.0873	TTAN	5.0932
LAUNCH DATE	MAY 30,1966			BASE AZM	105.0		TF 61.601					ARRIVAL DATE	JUN 2 1966	4 47 29.0	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	14 52 17.6	27.6	19.11	305.21	-7.45	58.77	114.86	15 3 32.6	6572.1	10.96	-3.69

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	30	15	3.5												
SEPARATION		1.20	12.45	30	15	4.7												
RETRO		3.20	14.45	30	15	6.7												
RISE	72	5.20	16.45	30	15	8.7	83.35	-.1779	39.85	.0136	2323.8	-8.75	-.00	.1319	310.31	.0378	5.17	330.48
EXTM	72	8.98	20.23	30	15	12.5	.64	-.4096	15.46	-.2947	1133.9	1.56	66.43	.3054	358.46	.9651	-4.41	345.58
RISE	51	11.22	22.47	30	15	14.8	80.72	-.0952	18.48	-.0471	4751.1	-4.36	.00	.1019	290.61	-.0005	-9.14	393.18
EXTM	51	27.72	38.97	30	15	31.3	.16	-.0425	-26.12	-.0143	6632.4	5.44	89.59	.0000	200.58	-5.6962	-25.93	27.60
EXTM	72	69.59	80.84	30	16	13.1	278.02	.0000	-31.36	.0002	23810.9	4.83	10.93	.0000	120.56	-.0002	-30.96	51.22
RISE	42	105.92	117.17	30	16	49.5	105.00	-.0008	-24.57	-.0005	34496.5	4.12	2.73	.0008	241.58	.0001	-30.62	53.49
EXTM	42	121.72	132.97	30	17	5.3	104.76	.0002	-24.88	-.0002	38358.8	4.02	3.09	-.0000	241.47	-.0003	-30.34	52.78
SET	42	131.49	142.74	30	17	15.0	105.00	.0006	-24.98	-.0001	40696.6	3.96	2.97	-.0004	241.25	-.0005	-30.16	52.03
RISE	61	186.69	197.94	30	18	10.2	305.79	.0031	-34.65	.0005	53203.4	3.25	.00	.0020	138.14	.0017	-29.19	45.12
EXTM	51	284.34	295.59	30	19	47.9	.18	.0036	-28.05	.0002	65883.1	2.97	87.68	-.0000	183.98	.0792	-27.85	27.92
EXTM	61	452.81	464.06	30	22	36.4	4.51	.0039	-29.75	.0002	97335.0	2.51	19.89	.0000	184.17	.0036	-26.31	351.48
EXTM	72	481.92	493.17	30	23	5.5	.80	.0040	-27.27	.0002	97960.8	2.44	70.62	.0000	182.15	.0108	-26.11	344.92
RISE	11	635.41	646.66	31	1	39.0	291.19	.0040	-27.12	.0000	125124.7	1.89	.00	.0028	123.91	.0023	-25.21	309.51
SET	51	673.88	685.13	31	2	17.4	90.00	.0039	-23.94	.0001	129018.0	2.50	10.15	-.0033	248.20	+.0013	-25.03	300.47
SET	61	704.66	715.91	31	2	48.2	64.61	.0040	-26.87	.0002	134064.2	2.37	.00	-.0023	233.69	.0027	-24.88	293.21
SET	72	866.21	877.46	31	5	29.7	93.53	.0040	-23.90	.0001	153634.6	2.34	+.01	-.0036	245.85	-.0004	-24.24	254.71
RISE	42	877.73	888.98	31	5	41.3	254.99	.0040	-22.77	-.0000	154790.6	1.60	1.61	.0029	117.00	+.0023	-24.20	251.95
EXTM	11	919.74	930.99	31	6	23.3	1.35	.0042	-26.06	.0001	156746.1	1.89	28.72	-.0000	181.38	.0043	-24.06	241.85
SET	11	1201.67	1212.92	31	11	5.2	71.26	.0041	-24.48	.0001	189909.0	2.00	+.00	-.0028	239.53	.0024	-23.25	173.51
EXTM	42	1301.59	1312.84	31	12	45.1	359.86	.0042	-22.62	.0000	193705.6	1.62	77.40	.0000	.60	+.0176	-23.02	149.12
RISE	51	1436.81	1448.06	31	15	.4	270.00	.0041	-22.05	-.0000	211682.1	1.17	9.38	.0035	110.04	+.0016	-22.73	116.01
RISE	72	1594.89	1606.14	31	17	38.4	266.75	.0041	-22.20	-.0000	227101.0	1.06	.00	.0038	112.42	+.0005	-22.43	77.20
RISE	61	1652.52	1663.77	31	18	36.1	291.52	.0041	-23.44	.0000	232177.5	1.16	.00	.0027	121.41	.0027	-22.33	63.02
SET	42	1724.56	1735.81	31	19	48.1	105.00	.0041	-21.27	.0001	238327.7	1.76	.70	-.0030	244.18	+.0023	-22.21	45.28
EXTM	51	1795.84	1807.09	31	20	59.4	359.97	.0042	-22.00	.0000	238166.3	1.40	86.26	.0000	.51	+.0526	-22.09	27.72
EXTM	61	1927.58	1938.83	31	23	11.1	.55	.0042	-23.17	.0000	252473.5	1.35	26.59	-.0000	180.57	.0043	-21.90	355.21
EXTM	72	1966.58	1977.83	31	23	50.1	.09	.0042	-22.19	.0000	252346.2	1.34	75.72	.0000	180.36	.0156	-21.84	345.98
RISE	11	2090.34	2101.59	1	1	53.9	287.01	.0042	-22.52	-.0000	268231.2	.96	.00	.0030	117.96	.0024	-21.67	314.99
SET	51	2155.08	2166.33	1	2	58.6	90.00	.0041	-21.05	.0001	272236.2	1.66	8.97	-.0035	250.88	+.0015	-21.59	298.98
SET	61	2202.57	2213.82	1	3	46.1	69.54	.0041	-22.45	.0001	276845.5	1.56	+.00	-.0027	239.98	.0027	-21.53	287.23
SET	72	2337.01	2348.26	1	6	.0	93.08	.0041	-21.18	.0001	286869.6	1.65	+.00	-.0038	248.61	+.0005	-21.36	293.94
RISE	42	2341.19	2352.44	1	6	4.7	255.00	.0041	-20.58	-.0000	287146.3	.88	.27	.0030	115.27	+.0024	-21.36	292.90
EXTM	11	2382.02	2393.27	1	6	45.6	.37	.0042	-22.37	.0000	286761.5	1.21	32.42	-.0000	180.40	.0046	-21.31	242.79
SET	11	2673.64	2684.89	1	11	37.2	73.67	.0042	-21.73	.0000	310689.6	1.47	+.00	+.0030	243.06	.0024	-21.00	170.47
EXTM	42	2759.96	2771.21	1	13	3.5	359.94	.0042	-20.62	.0000	310421.4	1.12	75.40	-.0000	.25	+.0151	-20.91	149.04
RISE	51	2890.59	2901.84	1	15	14.1	270.00	.0041	-20.33	-.0000	324807.6	.70	8.68	.0035	108.46	+.0016	-20.79	116.61
RISE	72	3047.53	3058.78	1	17	51.1	267.02	.0042	-20.46	-.0000	339436.3	.64	+.01	.0039	110.67	+.0006	-20.62	77.49
RISE	61	3094.97	3106.22	1	18	38.5	289.28	.0042	-21.31	.0000	338453.1	.75	.00	.0028	118.44	.0027	-20.56	65.64
SET	42	3177.06	3188.31	1	20	.6	104.75	.0041	-19.83	.0000	343643.3	1.40	+.00	-.0031	245.47	+.0024	-20.48	45.13
EXTM	51	3246.73	3257.98	1	21	10.3	359.97	.0042	-20.30	.0000	341733.1	1.05	84.56	-.0000	.31	+.0338	-20.40	27.71
EXTM	61	3375.94	3387.19	1	23	19.5	.36	.0042	-21.16	.0000	353072.7	1.05	28.60	-.0000	180.39	.0045	-20.26	355.39
EXTM	72	3415.03	3426.28	1	23	58.6	.06	.0043	-20.44	.0000	352383.4	1.05	77.46	.0000	180.28	.0176	-20.22	345.61
RISE	11	3529.84	3541.09	2	1	53.4	285.46	.0042	-20.70	.0000	365812.1	.73	.00	.0031	115.63	.0024	-20.08	316.85
SET	51	3602.43	3613.68	2	3	6.0	90.00	.0042	-19.58	.0000	369629.8	1.52	8.37	-.0036	292.23	-.0016	-19.98	298.63
SET	61	3656.49	3667.74	2	4	.0	71.49	.0042	-20.57	.0001	374350.0	1.57	+.00	-.0028	242.60	.0028	-19.89	285.01
IMPACT		3696.08	3707.33	2	4	39.6												
IMPC	72	3696.08	3707.33	2	4	39.6	71.70	.0043	-19.76	.0001	375977.3	2.31	19.83	+.0041	251.77	+.0000	-19.78	274.94
IMPC	11	3696.08	3707.33	2	4	39.6	327.76	.0044	-20.54	.0001	374910.6	1.68	26.42	.0021	146.10	.0040	-19.78	274.94

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	30	15	3.543	6572.413	19.1152	305.1888	10.95831	-3.6856	114.8502	58.7530
SEPARATION		1.20	12.45	30	15	4.743	6544.813	16.0952	311.4224	10.98127	+.2707	116.8297	65.2875
RETRO		3.20	14.45	30	15	6.743	6603.840	10.6904	321.3207	10.93158	5.4041	119.2475	75.6871
IMPACT		3696.08	3707.33	2	4	39.627	377788.633	-19.7825	274.9405	2.12537	62.4677	301.5882	235.0950

SURVEYOR VIEW PERIODS

GHA	250.0170				EPS -13.7583							LOM	267.6410
SX	-.537641	SY	-.772205	SZ	-.338588	DAO	-19.79084	RAO	235.15275	RM	379001.469	LAT	28.310600
C3	-1.227179	ECC	.979851	SLR	12957.463	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000
NSX	-.517727	NSY	-.782546	NSZ	-.345805	C3M	1.4973	VIM	2.6714	ZAE	134.576	B.T	.0000
LATE	.3117	LONE	4.5892	LATS	.4742	LONS	18.3129	LATI	-10.7840	LONI	320.2748	RSM	152.0879

LON 279.461800 POL -.0
B.R -.0000 TTAN 5.0908
LAUNCH DATE MAY 30.1966 BASE AZM 108.0 TF 61.755 ARRIVAL DATE JUN 2 1966 5 9 8.0

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	15 4 18.7	27.8	17.98	304.78	-4.85	61.36	116.99	15 15 33.7	6556.3	10.97	-2.40

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	30	15	15.6												
SEPARATION		1.20	12.45	30	15	16.8												
RETRO		3.20	14.45	30	15	18.8												
RISE	72	5.01	16.26	30	15	20.6	84.71	-.1581	33.58	-.0168	2420.0	+8.69	-.00	.1327	303.95	.0052	3.88	328.52
EXTM	72	8.61	19.86	30	15	24.2	20.13	-.4075	8.35	-.2653	1170.3	-.10	64.17	.4807	308.58	.0996	-5.45	342.59
RISE	51	11.16	22.41	30	15	26.7	82.72	-.0885	14.72	-.05[illegible]	4915.5	+4.07	.00	.0992	286.39	-.0068	-10.88	351.07
EXTM	51	29.30	40.55	30	15	44.9	1.47	-.0382	-30.04	-.01	7303.9	5.43	85.50	-.0000	196.46	-.4419	-28.04	26.91
EXTM	72	69.93	81.18	30	16	25.5	280.73	.0000	-32.91	.0[illegible]	3796.3	4.81	13.27	.0000	122.06	-.0004	-32.05	48.59
EXTM	51	87.18	98.43	30	16	42.7	331.01	-.0001	-32.77	.00[illegible]	24843.2	4.41	63.84	.0000	112.43	-.0012	-31.89	50.54
RISE	61	180.27	191.52	30	18	15.8	307.43	.0030	-35.69	.0006	51944.8	3.29	.00	.0019	139.84	.0016	-30.03	43.43
EXTM	51	271.21	282.49	30	19	46.8	.28	.0036	-28.89	.0003	63601.5	3.02	86.84	.0000	184.53	.0570	-28.61	27.43
EXTM	61	442.51	453.76	30	22	38.1	4.93	.0039	-30.36	.0002	95887.3	2.53	19.25	.0000	184.51	.0036	-26.86	351.09
EXTM	72	470.43	481.68	30	23	6.0	.91	.0040	-27.86	.0002	96328.5	2.46	70.03	.0000	182.35	.0105	-26.64	344.82
RISE	11	625.83	637.08	31	1	41.4	291.63	.0040	-27.59	.0001	123878.2	1.90	.00	.0027	124.52	.0023	-25.65	309.04
SET	51	662.16	673.41	31	2	17.7	90.00	.0039	-24.36	.0001	127500.2	2.52	10.32	-.0033	247.81	-.0013	-25.46	300.52
SET	61	690.75	702.00	31	2	46.3	64.07	.0040	-27.33	.0002	132310.1	2.38	-.00	-.0023	233.03	.0027	-25.31	293.78
SET	72	854.94	866.19	31	5	30.5	93.59	.0040	-24.26	.0001	152314.1	2.34	-.01	-.0036	245.49	-.0004	-24.60	254.68
RISE	42	866.44	877.69	31	5	42.0	254.99	.0040	-23.11	-.0000	153449.6	1.61	1.83	.0029	117.27	-.0022	-24.56	251.93
EXTM	11	908.75	920.00	31	6	24.3	1.44	.0042	-26.43	.0001	155918.9	1.90	28.35	-.0000	181.47	.0042	-24.40	241.76
SET	11	1189.23	1200.48	31	11	4.8	70.99	.0041	-24.78	.0001	188599.7	2.00	-.00	-.0028	239.14	.0024	-23.54	173.79
EXTM	42	1290.28	1301.53	31	12	45.8	359.85	.0042	-22.89	.0000	192533.0	1.63	77.67	.0000	.65	-.0179	-23.28	149.12
RISE	51	1425.59	1436.84	31	15	1.2	270.00	.0041	-22.29	-.0000	210544.2	1.18	9.48	.0035	110.27	-.0016	-22.98	116.00
RISE	72	1583.52	1594.77	31	17	39.1	266.72	.0041	-22.42	-.0000	225989.9	1.07	.00	.0038	112.65	-.0006	-22.65	77.22
RISE	61	1642.29	1653.54	31	18	37.8	291.77	.0041	-23.66	.0000	231173.9	1.16	.00	.0027	121.72	.0027	-22.54	62.77
SET	42	1713.27	1724.52	31	19	48.8	105.00	.0041	-21.48	.0001	237228.2	1.76	.82	-.0030	244.02	-.0023	-22.42	45.29
EXTM	51	1784.57	1795.82	31	21	.1	359.97	.0042	-22.20	.0000	237090.8	1.40	86.46	.0000	.56	-.0564	-22.30	27.72
EXTM	61	1916.44	1927.69	31	23	12.0	.58	.0042	-23.37	.0000	251443.0	1.35	26.39	-.0000	180.60	.0043	-22.08	355.18
EXTM	72	1955.35	1966.60	31	23	50.9	.10	.0042	-22.38	.0000	251297.6	1.34	75.52	.0000	180.38	.0154	-22.02	345.57
RISE	11	2079.72	2090.97	1	1	55.3	287.17	.0042	-22.70	-.0000	267234.1	.97	.00	.0030	118.19	.0024	-21.84	314.83
SET	51	2143.79	2155.04	1	2	59.4	90.00	.0041	-21.22	.0001	271183.8	1.66	9.04	-.0035	250.73	-.0015	-21.75	298.99
SET	61	2190.56	2201.81	1	3	46.1	69.35	.0041	-22.62	.0001	275748.7	1.56	-.00	-.0027	239.75	.0027	-21.69	287.41
SET	72	2325.82	2337.07	1	6	1.4	93.11	.0041	-21.33	.0001	285840.4	1.65	-.00	-.0038	248.45	-.0005	-21.52	253.92
RISE	42	2329.95	2341.20	1	6	5.5	255.00	.0041	-20.73	-.0000	286103.0	.88	.37	.0030	115.39	-.0024	-21.51	252.90
EXTM	11	2370.83	2382.08	1	6	46.4	.39	.0042	-22.53	.0000	285748.8	1.21	32.26	-.0000	180.43	.0046	-21.46	242.77
SET	11	2661.89	2673.14	1	11	37.4	73.55	.0042	-21.86	.0000	309627.7	1.47	-.00	-.0030	242.89	.0024	-21.13	170.59
EXTM	42	2748.67	2759.92	1	13	4.2	359.93	.0042	-20.75	.0000	309387.4	1.12	75.53	-.0000	.27	-.0151	-21.04	149.05
RISE	51	2879.32	2890.57	1	15	14.9	270.00	.0041	-20.45	-.0000	323171.9	.70	8.72	.0035	108.57	-.0016	-20.90	116.60
RISE	72	3036.19	3047.44	1	17	51.8	267.01	.0042	-20.57	-.0000	334389.3	.63	-.01	.0039	110.78	-.0006	-20.73	77.51
RISE	61	3084.16	3095.41	1	18	39.7	289.39	.0042	-21.43	.0000	337430.5	.75	.00	.0028	118.59	.0027	-20.67	65.52
SET	42	3166.11	3177.36	1	20	1.7	104.83	.0041	-19.93	.0000	342595.3	1.39	-.00	-.0031	245.34	-.0024	-20.58	45.05
EXTM	51	3235.46	3246.71	1	21	11.0	359.97	.0042	-20.41	.0000	340649.0	1.04	84.67	-.0000	.33	-.0338	-20.50	27.71
EXTM	61	3364.73	3375.98	1	23	20.3	.37	.0042	-21.26	.0000	351966.6	1.04	28.50	-.0000	180.39	.0045	-20.36	355.38
EXTM	72	3403.79	3415.04	1	23	59.4	.06	.0043	-20.54	.0000	351254.8	1.04	77.36	.0000	180.28	.0176	-20.32	345.61
RISE	11	3518.98	3530.23	2	1	54.5	285.55	.0042	-20.80	.0000	364643.5	.72	.00	.0031	115.76	.0024	-20.18	316.76
SET	51	3591.25	3602.50	2	3	6.8	90.00	.0042	-19.68	.0000	368359.7	1.49	8.41	-.0036	252.14	-.0016	-20.08	298.63
SET	61	3644.96	3656.21	2	4	.5	71.38	.0042	-20.68	.0001	372920.6	1.49	-.00	-.0028	242.45	.0028	-20.00	285.13
IMPACT		3705.32	3716.57	2	5	.9												
IMPC	72	3705.32	3716.57	2	5	.9	76.85	.0043	-19.80	.0001	376143.0	2.31	14.99	-.0041	251.53	-.0001	-19.85	269.82
IMPC	11	3705.32	3716.57	2	5	.9	332.95	.0044	-20.62	.0001	374755.0	1.70	28.56	.0018	151.02	.0042	-19.85	269.82

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	30	15	15.561	6556.363	17.9786	304.7756	10.97125	-2.4027	116.9930	61.3527
SEPARATION		1.20	12.45	30	15	16.761	6546.750	14.7395	310.8453	10.97926	1.0181	118.7898	67.7231
RETRO		3.20	14.45	30	15	18.761	6634.891	9.0496	320.4520	10.90534	4.6625	120.8810	77.8312
IMPACT		3705.32	3716.57	2	5	.878	377842.941	-19.8465	269.8199	2.12131	6[illegible].2429	301.8402	235.2577

SURVEYOR VIEW PERIODS

GHA 250.0170 EPS -13,5723 LOM 262.4957
SX -.534686 SY -.773798 SZ -.339629 DAO -19,85427 RAO 235.35591 RM 379052,215 LAT 28,310600 LON 279.461800
C3 -1.236621 ECC .979696 SLR 12956.449 RCA 6544.6650 LTA -20.0000 GTA 20.00 TB 675.00000 POL -.0
NSX -.514632 NSY -.784117 NSZ -.346862 C3M 1.4972 VIM 2.6714 ZAE 134,239 B.T .0000 B.R -.0000
LATE .3355 LONE 4.5945 LATS .4747 LONS 18.1329 LATI -10.9978 LONI 319,9804 RSM 152.0886 TTAN 5.0850
LAUNCH DATE MAY 30,1966 BASE AZM 111.0 TF 61.933 ARRIVAL DATE JUN 2 1966 5 30 28,1

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	15 14 50.0	27.9	16.87	304.28	-2.63	63.50	119.12	15 26 5.0	6548.1	10.98	-1.30

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	30	15	26,1												
SEPARATION		1.20	12,45	30	15	27,3												
RETRO		3.20	14.45	30	15	29,3												
RISE	72	4.89	16.14	30	15	31,0	85.79	-.1434	27,85	-.0430	2515.8	-8.48	.00	.1319	298,14	-.0228	2.49	326.78
EXTM	72	9.36	20.61	30	15	35,4	12,95	-.3383	-14.04	-.2086	1359.3	2.94	75,89	.2126	243.11	-1.3357	-9.01	343.44
RISE	51	11,15	22.40	30	15	37,2	84,57	-.0826	11.09	-.0537	5072.4	-3.76	.00	.0964	282.33	-.0123	-12.71	349.11
EXTM	51	31,12	42.37	30	15	57,2	2,14	-.0342	-33.75	-.0059	8045.1	5.42	81.78	-.0000	192.53	-.2048	-30.21	26.53
EXTM	72	70.11	81.36	30	16	36.2	283.06	.0000	-34.55	.0006	25762.3	4.79	15.20	.0000	123.75	-.0006	-33.26	46.28
EXTM	51	87.23	98.48	30	16	53.3	333.82	-.0002	-34.27	.0007	24876.8	4.40	65.86	.0000	116.93	-.0017	-33.00	48.24
RISE	61	176,54	187.79	30	18	22.6	309.15	.0030	-36.73	.0006	51230.3	3.32	.00	.0019	141.57	.0016	-.0.91	41.71
EXTM	51	260.21	271.46	30	19	46,3	.44	.0035	-29.82	.0003	61652.1	3.06	85.91	-.0000	185.35	.0432	-29.43	27.29
EXTM	61	434.07	445.32	30	22	40,2	5.38	.0039	-31.01	.0003	94703.8	2.54	18.58	.0000	184.86	.0036	-27.45	350.68
EXTM	72	460.73	471.98	30	23	6,8	1.04	.0040	-28.49	.0002	94939.4	2.48	69.39	.0000	182.59	.0101	-27.22	344.71
RISE	11	618.06	629.31	31	1	44,1	292.12	.0040	-28.08	.0001	122852.4	1.91	.00	.0027	125.18	.0023	-26.12	308.53
SET	51	652.09	663.34	31	2	18,2	90.00	.0039	-24.82	.0001	126174.4	2.53	10.50	-.0033	247.38	-.0013	-25.92	300.56
SET	61	678.24	689.49	31	2	44,3	63.47	.0040	-27.83	.0002	130709.4	2.39	-.00	-.0023	232.29	.0027	-25.78	294.40
SET	72	845.32	856.57	31	5	31.4	93.66	.0039	-24.65	.0001	151164.2	2.35	-.01	-.0036	245.10	-.0004	-24.99	254.65
RISE	42	856.76	868.01	31	5	42.8	254.99	.0040	-23.49	-.0000	152272.3	1.62	2.06	.0029	117.57	-.0022	-24.94	251.90
EXTM	11	899.40	910.65	31	6	25,5	1.55	.0042	-26.82	.0001	154460.1	1.90	27.96	-.0000	181.56	.0042	-24.77	241.66
SET	11	1178.27	1189.52	31	11	4,4	70.70	.0041	-25.10	.0001	187417.3	2.00	-.00	-.0028	238.73	.0024	-23.85	174.09
EXTM	42	1280.54	1291.79	31	12	46,6	359.84	.0042	-23.18	.0000	191488.4	1.63	77.96	.0000	.70	-.0183	-23.57	149.13
RISE	51	1415.93	1427.18	31	15	2.0	270.00	.0041	-22.55	-.0000	209524.5	1.18	9.58	.0035	110.51	-.0016	-23.24	115.99
RISE	72	1573.70	1584.95	31	17	39,8	266.68	.0041	-22.66	-.0000	224986.7	1.07	.00	.0037	112.89	-.0006	-22.90	77.25
RISE	61	1633.62	1644.87	31	18	39,7	292.02	.0041	-23.90	.0000	230278.4	1.16	.00	.0027	122.08	.0027	-22.78	62.51
SET	42	1703.52	1714.77	31	19	49,6	105.00	.0041	-21.70	.0001	236229.1	1.77	.96	-.0030	243.84	-.0023	-22.64	45.30
EXTM	51	1774.84	1786.09	31	21	,9	359.96	.0042	-22.42	.0000	236112.4	1.40	86.68	.0000	.64	-.0609	-22.51	27.72
EXTM	61	1906.85	1918.10	31	23	12,9	.62	.0042	-23.58	.0000	250504.8	1.35	26.18	-.0000	180.63	.0043	-22.28	355.15
EXTM	72	1945.66	1956.91	31	23	51,7	.11	.0042	-22.58	.0000	250337.7	1.34	75.32	.0000	180.41	.0152	-22.22	345.56
RISE	11	2070.66	2081.91	1	1	56,7	287.33	.0042	-22.89	-.0000	266321.5	.97	.00	.0030	118.43	.0024	-22.03	314.67
SET	51	2134.03	2145.28	1	3	.1	90.00	.0041	-21.39	.0001	270209.1	1.66	9.11	-.0035	250.56	-.0015	-21.93	298.99
SET	61	2180.03	2191.28	1	3	46,1	69.16	.0041	-22.80	.0001	274724.3	1.56	-.00	-.0027	239.49	.0027	-21.87	287.61
SET	72	2316.15	2327.40	1	6	2,2	93.13	.0041	-21.50	.0001	284880.9	1.65	-.00	-.0038	248.29	-.0005	-21.68	253.90
RISE	42	2320.22	2331.47	1	6	6,3	255.00	.0041	-20.89	-.0000	285128.1	.89	.47	.0030	115.52	-.0024	-21.67	252.89
EXTM	11	2361.17	2372.42	1	6	47,3	.49	.0042	-22.69	.0000	284804.5	1.21	32.10	-.0000	180.45	.0046	-21.62	242.75
SET	11	2651.62	2662.87	1	11	37,7	73.43	.0042	-22.00	.0000	308617.7	1.47	-.00	-.0030	242.71	.0024	-21.27	170.71
EXTM	42	2738.88	2750.13	1	13	5.0	359.93	.0042	-20.88	.0000	308402.5	1.12	75.66	-.0000	.29	-.0153	-21.17	149.05
RISE	51	2869.56	2880.81	1	15	15,6	270.00	.0041	-20.57	-.0000	322179.4	.70	8.78	.0035	108.68	-.0016	-21.03	116.60
RISE	72	3026.50	3037.75	1	17	52.6	266.99	.0042	-20.69	-.0000	333389.2	.63	-.01	.0039	110.90	-.0006	-20.85	77.52
RISE	61	3075.02	3086.27	1	18	41,1	289.52	.0042	-21.54	.0000	336456.5	.74	.00	.0028	118.75	.0027	-20.79	65.40
SET	42	3156.80	3168.05	1	20	2,9	104.92	.0041	-20.04	.0000	341594.1	1.39	-.00	-.0031	245.20	-.0024	-20.69	44.96
EXTM	51	3225.79	3237.04	1	21	11,9	359.97	.0042	-20.52	.0000	339609.0	1.04	84.78	-.0000	.33	-.0358	-20.61	27.71
EXTM	61	3355.10	3366.35	1	23	21.2	.38	.0042	-21.37	.0000	350904.3	1.04	28.39	-.0000	180.41	.0045	-20.46	355.37
EXTM	72	3394.12	3405.37	2	0	,2	.07	.0043	-20.64	.0000	350168.7	1.04	77.26	.0000	180.29	.0173	-20.42	345.61
RISE	11	3509.65	3520.90	2	1	55.7	285.63	.0042	-20.90	.0000	363519.0	.71	.00	.0031	115.89	.0024	-20.28	316.68
SET	51	3581.58	3592.83	2	3	7,7	90.00	.0042	-19.78	.0000	367143.6	1.47	8.45	-.0036	252.05	-.0016	-20.18	298.64
SET	61	3634.91	3646.16	2	4	1,0	71.27	.0042	-20.78	.0000	371584.4	1.44	-.00	-.0028	242.30	.0028	-20.10	285.24
IMPACT		3715,99	3727,24	2	5	22,1												
IMPC	72	3715,99	3727,24	2	5	22,1	81,98	.0043	-19,83	.0001	376721,2	2.31	10,18	-.0041	251,18	-.0002	-19.91	264.70
IMPC	11	3715.99	3727.24	2	5	22.1	338.13	.0044	-20.69	.0001	374638,5	1.72	30.38	.0015	156,18	.0044	-19.91	264.70

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11,25	30	15	26,084	6548.086	16,8731	304,2793	10,97778	-1.3019	119,1158	63.4942
SEPARATION		1,20	12,45	30	15	27,284	6553,719	13,4201	310,1854	10,97293	2.1192	120,7398	69,7012
RETRO		3,20	14,45	30	15	29,284	6666,463	7,4609	319,4936	10,87878	7,7282	122,5240	79,5108
IMPACT		3715,99	3727,24	2	5	22,075	377900,609	-19,9102	264,7049	2,11671	61,8270	301,9372	239,4604

MAY 30, 1966
111 DEGREES

SURVEYOR VIEW PERIODS

QHA	250.0170				EPS -13.3262							LOM	255.6875
SX	-.530767	SY	-.775890	SZ	-.341000	DAO	-19.93783	RAO	235.62492	RM	379119.547	LAT	28.310600	LON	279.461800
CJ	-1.250937	ECC	.979461	SLR	12954.911	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.510507	NSY	-.786191	NSZ	-.348262	C3M	1.4972	VIM	2.6714	ZAE	133.729	B.T	.0000	B.R	-.0000
LATE	.3671	LONE	4.6001	LATS	.4754	LONS	17.8933	LATI	-11.3008	LONI	319.5275	RSM	152.0895	TTAN	5.0725

LAUNCH DATE MAY 30,1966 BASE AZM 115.0 TF 62.203 ARRIVAL DATE JUN 2 1966 5 58 42.0

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	15 26 55.7	28.0	15.45	303.51	-.14	65.76	121.93	15 38 10.7	6544.7	10.98	-.07

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	30	15	38.2												
SEPARATION		1.20	12.45	30	15	39.4												
RETRO		3.20	14.45	30	15	41.4												
RISE	72	4.80	16.05	30	15	43.0	86.97	-.1280	20.80	-.0722	2644.5	-8.02	.01	.1290	291.01	-.0538	.51	324.72
EXTM	72	9.40	20.65	30	15	47.6	24.34	-.3050	-25.49	-.1810	1600.9	2.78	60.90	.1327	229.90	-.6201	-11.56	341.21
RISE	51	11.20	22.45	30	15	49.4	86.90	-.0757	6.40	-.0572	5273.7	-3.35	.00	.0926	277.11	-.0186	-15.28	346.72
EXTM	51	34.04	45.29	30	16	12.2	2.01	-.0291	-38.33	-.0033	9181.1	5.38	77.29	-.0000	187.19	-.1049	-33.18	26.57
EXTM	72	70.04	81.29	30	16	48.2	285.61	-.0001	-36.87	.0009	23661.7	4.78	17.20	-.0000	126.24	-.0010	-35.02	43.63
EXTM	51	86.11	97.36	30	17	4.3	336.98	-.0005	-36.48	.0009	24628.4	4.40	67.64	.0000	124.26	-.0027	-34.65	45.59
RISE	61	175.16	186.41	30	18	33.3	311.53	.0030	-38.08	.0007	51017.4	3.32	.00	.0019	143.89	.0015	-32.14	39.43
EXTM	51	248.38	259.63	30	19	46.6	.72	.0035	-31.15	.0004	59533.4	3.11	84.56	-.0000	186.51	.0316	-30.62	27.04
EXTM	61	425.30	436.55	30	22	43.5	6.01	.0039	-31.92	.0003	93483.7	2.56	17.63	.0000	185.35	.0035	-28.29	350.09
EXTM	72	450.21	461.46	30	23	8.4	1.23	.0040	-29.39	.0002	93420.2	2.50	68.48	.0000	182.92	.0096	-28.05	344.53
RISE	11	610.10	621.35	31	1	48.3	292.81	.0040	-28.78	.0001	121780.4	1.93	.00	.0027	126.10	.0023	-26.79	307.82
SET	51	640.88	652.13	31	2	19.1	90.00	.0039	-25.48	.0002	124665.3	2.54	10.77	-.0033	246.77	-.0013	-26.59	300.61
SET	61	663.44	674.69	31	2	41.6	62.59	.0040	-28.55	.0002	128783.6	2.40	-.00	-.0022	231.24	.0027	-26.45	295.30
SET	72	834.66	845.91	31	5	32.8	93.75	.0039	-25.20	.0001	149859.1	2.36	-.00	-.0036	244.54	-.0004	-25.55	254.59
RISE	42	845.98	857.23	31	5	44.2	254.99	.0040	-24.03	.0000	150921.2	1.63	2.39	.0029	118.00	-.0022	-25.49	251.88
EXTM	11	889.10	900.35	31	6	27.3	1.70	.0042	-27.38	.0001	153272.9	1.91	27.40	.0000	181.70	.0042	-25.30	241.52
SET	11	1165.62	1176.87	31	11	3.8	70.28	.0041	-25.55	.0001	186009.4	2.01	-.00	-.0028	238.14	.0024	-24.29	174.52
EXTM	42	1269.67	1280.92	31	12	47.9	359.85	.0042	-23.60	.0000	190273.0	1.63	78.38	-.0000	.69	-.0189	-23.98	149.13
RISE	51	1405.09	1416.34	31	15	3.3	270.00	.0041	-22.92	-.0000	208321.5	1.18	9.74	.0035	110.86	-.0015	-23.61	115.97
RISE	72	1562.60	1573.85	31	17	40.8	266.62	.0041	-23.00	-.0000	223792.0	1.07	.00	.0037	113.24	-.0006	-23.24	77.29
RISE	61	1624.24	1635.49	31	18	42.4	292.40	.0041	-24.23	.0000	229237.1	1.16	.01	.0027	122.53	.0027	-23.10	62.13
SET	42	1692.54	1703.79	31	19	50.7	105.00	.0041	-22.01	.0001	235029.8	1.77	1.15	-.0030	243.60	-.0023	-22.96	45.31
EXTM	51	1763.95	1775.20	31	21	2.1	359.98	.0042	-22.74	.0000	234941.8	1.40	87.00	-.0000	.53	-.0579	-22.82	27.71
EXTM	61	1896.09	1907.34	31	23	14.3	.67	.0042	-23.87	.0000	249375.6	1.35	25.89	-.0000	180.68	.0043	-22.57	355.10
EXTM	72	1934.74	1945.99	31	23	52.9	.12	.0042	-22.87	.0000	249174.8	1.34	75.03	.0000	180.44	.0150	-22.50	345.55
RISE	11	2060.63	2071.88	1	1	58.8	287.56	.0042	-23.15	.0000	265216.1	.97	.00	.0030	118.76	.0024	-22.29	314.43
SET	51	2123.00	2134.25	1	3	1.2	90.00	.0041	-21.64	.0001	269012.2	1.66	9.22	-.0035	250.33	-.0015	-22.18	299.00
SET	61	2167.92	2179.17	1	3	46.1	68.89	.0041	-23.05	.0001	273453.9	1.56	-.00	-.0027	239.14	.0027	-22.11	287.88
SET	72	2305.25	2316.50	1	6	3.4	93.17	.0041	-21.72	.0001	283693.4	1.64	-.00	-.0038	248.06	-.0005	-21.91	253.87
RISE	42	2309.23	2320.48	1	6	7.4	255.00	.0041	-21.12	-.0000	283918.2	.88	.60	.0030	115.70	-.0024	-21.90	252.89
EXTM	11	2350.28	2361.53	1	6	48.5	.44	.0042	-22.92	.0000	283635.5	1.21	31.87	-.0000	180.48	.0046	-21.84	242.72
SET	11	2639.87	2651.12	1	11	38.0	73.26	.0042	-22.20	.0000	307338.8	1.47	-.00	-.0030	242.45	.0024	-21.46	170.89
EXTM	42	2727.79	2739.04	1	13	6.0	359.92	.0042	-21.07	.0000	307153.6	1.11	75.85	-.0000	.32	-.0156	-21.35	149.06
RISE	51	2858.51	2869.76	1	15	16.7	270.00	.0041	-20.74	-.0000	320912.5	.70	8.85	.0035	108.84	-.0016	-21.20	116.59
RISE	72	3015.48	3026.73	1	17	53.7	266.96	.0042	-20.85	-.0000	332103.9	.63	-.01	.0039	111.06	-.0006	-21.01	77.54
RISE	61	3064.76	3076.01	1	18	42.9	289.69	.0042	-21.71	.0000	335204.6	.74	.00	.0028	118.98	.0027	-20.95	65.23
SET	42	3146.14	3157.39	1	20	4.3	105.00	.0041	-20.19	.0000	340287.6	1.39	.03	-.0031	245.04	-.0024	-20.85	44.88
EXTM	51	3214.82	3226.07	1	21	13.0	359.97	.0042	-20.67	.0000	338261.9	1.03	84.93	-.0000	.35	-.0367	-20.76	27.71
EXTM	61	3344.18	3355.43	1	23	22.4	.40	.0042	-21.52	.0000	349524.5	1.03	28.24	-.0000	180.42	.0045	-20.61	355.36
EXTM	72	3383.16	3394.41	2	0	1.3	.07	.0043	-20.79	.0000	348756.2	1.03	77.12	.0000	180.30	.0172	-20.56	345.60
RISE	11	3499.15	3510.40	2	1	57.3	285.75	.0042	-21.04	.0000	362057.9	.69	.00	.0031	116.06	.0024	-20.41	316.56
SET	51	3570.61	3581.86	2	3	8.8	90.00	.0042	-19.91	.0000	365572.3	1.45	8.50	-.0036	251.93	-.0016	-20.31	298.64
SET	61	3623.42	3634.67	2	4	1.6	71.13	.0042	-20.92	.0000	369887.9	1.40	-.00	-.0028	242.11	.0028	-20.24	285.38
IMPACT		3732.19	3743.44	2	5	50.4												
IMPC	42	3732.19	3743.44	2	5	50.4	250.31	.0043	-19.38	.0001	378359.3	1.51	-3.92	.0031	117.10	-.0026	-19.99	257.88
IMPC	72	3732.19	3743.44	2	5	50.4	88.81	.0043	-19.88	.0001	377502.3	2.30	3.79	-.0040	250.44	-.0004	-19.99	257.88
IMPC	11	3732.19	3743.44	2	5	50.4	345.05	.0044	-20.79	.0001	374540.3	1.75	32.24	.0011	163.44	.0047	-19.99	257.88

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	30	15	38.178	6544.676	15.4455	303.5143	10.98004	-.0689	121.9287	65.7612
SEPARATION		1.20	12.45	30	15	39.378	6567.264	11.7212	309.1909	10.96084	3.3456	123.5344	71.7385
RETRO		3.20	14.45	30	15	41.378	6707.136	5.4147	318.1052	10.84474	8.9070	124.7424	81.1542
IMPACT		3732.19	3743.44	2	5	50.370	3779/7.711	-19.9950	257.8824	2.11003	61.2781	302.1361	235.7311

SURVEYOR VIEW PERIODS

GHA	251.0027						EPS	-2.2268									LOM	293.4903	
SX	-.535378	SY	-.854537	SZ	-.396595	DAO	-23.36550	RAO	248.57158	RM	382533.082	LAT	28.310600	LON	279.461800				
C3	-1.118292	ECC	.981659	SLR	12969.164	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0				
NSX	-.314212	NSY	-.860274	NSZ	-.401496	C3M	1.4936	VIM	2.6707	ZAE	137.385	B.T	.0000	B.R	-.0000				
LATE	1.8268	LONE	4.7908	LATS	.5068	LONS	6.5777	LATI	-7.2718	LONI	323.0644	RSM	152.1230	TTAN	6.1054				
LAUNCH DATE		MAY	31.1966		BASE AZM	90.0		TF	60.988			ARRIVAL DATE		JUN	3 1966	4 15 36.9			

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FTH
90.00	15 7 31.9	27.2	24.82	306.88	-14.87	65.25	104.07	15 18 46.9	6655.1	10.89	-7.37

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN	SUNLIGHT											
INJECTION		.00	11.25	31	15	18.8												
SEPARATION		1.20	12.45	31	15	20.0												
RETRO		3.20	14.45	31	15	22.0												
RISE	72	6.51	17.76	31	15	25.3	55.75	-.8129	76.15	.1020	2326.5	-5.27	-.00	.1007	348.59	.1952	11.74	341.70
EXTM	72	11.61	22.86	31	15	30.4	96.46	-.0535	21.10	-.1541	2628.0	6.16	21.24	.0000	65.64	.1738	.51	2.17
RISE	51	11.86	23.11	31	15	30.6	67.65	-.1347	38.26	-.0264	4475.0	-4.46	.00	.1027	313.43	.0365	.02	3.03
EXTM	51	26.76	38.01	31	15	45.5	345.56	-.0375	-8.63	-.0279	6128.0	5.54	68.06	-.0000	41.30	.1242	-17.48	35.10
EXTM	72	66.84	78.09	31	16	25.6	270.55	-.0002	-25.89	-.0012	23396.3	4.93	3.93	.0000	115.62	.0012	-26.73	58.46
RISE	42	67.76	79.01	31	16	26.5	103.49	-.0053	-16.29	-.0031	24102.9	4.26	.00	.0058	247.42	.0006	-26.79	58.64
EXTM	51	81.33	92.58	31	16	40.1	318.68	-.0001	-26.64	-.0009	26344.8	4.56	53.07	.0000	100.79	.0015	-27.47	60.44
EXTM	42	126.40	137.65	31	17	25.2	97.40	.0004	-23.25	-.0006	38741.9	3.99	7.52	-.0000	246.79	-.0007	-28.24	59.98
SET	42	205.75	217.00	31	18	44.5	105.00	.0024	-24.41	-.0001	56657.2	3.55	2.62	-.0016	241.70	-.0014	-28.21	49.69
RISE	61	216.06	227.31	31	18	54.8	303.34	.0033	-33.00	.0002	59014.3	3.10	.00	.0019	135.52	.0020	-28.18	47.96
EXTM	51	322.24	333.49	31	20	41.0	.06	.0037	-27.93	.0001	72460.7	2.86	87.81	.0000	181.44	.0814	-27.75	27.63
EXTM	61	481.69	492.94	31	23	20.5	2.91	.0040	-30.47	.0001	101843.2	2.47	19.24	.0000	182.66	.0036	-27.17	352.99
EXTM	72	516.08	527.33	31	23	54.9	.50	.0041	-28.22	.0001	103124.7	2.40	69.68	-.0000	181.27	.0103	-27.05	345.21
RISE	11	675.39	686.64	1	2	34.2	292.49	.0040	-28.46	.0000	130702.3	1.87	.00	.0027	125.68	.0023	-26.61	308.31
SET	51	708.97	720.22	1	3	7.7	90.00	.0039	-25.49	.0001	133834.0	2.48	10.77	-.0033	246.76	-.0013	-26.52	300.41
SET	61	731.79	743.04	1	3	30.6	62.74	.0040	-28.43	.0001	137910.2	2.35	-.00	-.0023	231.42	.0027	-26.47	295.02
SET	72	902.38	913.63	1	6	21.2	93.85	.0040	-25.78	.0001	158455.7	2.32	-.01	-.0035	243.96	-.0004	-26.11	254.36
RISE	42	912.30	923.55	1	6	31.1	254.99	.0040	-24.70	-.0000	159287.8	1.60	2.80	.0029	118.53	-.0022	-26.09	251.98
EXTM	11	952.80	964.05	1	7	11.6	.94	.0042	-28.00	.0001	161369.3	1.88	26.79	-.0000	180.93	.0041	-26.01	242.24
SET	11	1227.77	1239.02	1	11	46.6	69.13	.0041	-26.79	.0001	193623.3	2.00	-.00	-.0027	236.52	.0024	-25.57	175.62
EXTM	42	1336.75	1348.00	1	13	35.5	359.94	.0042	-25.10	.0000	198303.5	1.63	79.88	-.0000	.32	-.0204	-25.42	149.04
RISE	51	1471.69	1482.94	1	15	50.5	270.00	.0041	-24.59	-.0000	216248.5	1.19	10.41	.0034	112.41	-.0015	-25.25	116.02
RISE	72	1628.05	1639.30	1	18	26.8	266.31	.0041	-24.84	-.0000	231717.6	1.08	-.01	.0037	115.09	-.0005	-25.07	77.64
RISE	61	1699.46	1710.71	1	19	38.2	294.49	.0041	-26.10	-.0000	238046.6	1.18	.00	.0026	125.19	.0027	-24.99	60.08
SET	42	1759.58	1770.83	1	20	38.4	105.00	.0041	-24.02	.0000	243016.3	1.77	2.38	-.0030	242.01	-.0022	-24.93	45.29
EXTM	51	1828.68	1839.93	1	21	47.5	359.40	.0042	-24.84	.0000	242900.7	1.41	88.95	.0019	31.13	-.1798	-24.86	28.27
EXTM	61	1962.13	1973.38	2	0	.9	.40	.0042	-26.02	.0000	257770.3	1.37	23.74	-.0000	180.40	.0041	-24.74	355.36
EXTM	72	2001.66	2012.91	2	0	40.4	.08	.0042	-25.12	.0000	257526.0	1.35	72.79	.0000	180.24	.0126	-24.71	345.60
RISE	11	2136.01	2147.26	2	2	54.8	289.62	.0042	-25.44	-.0000	274287.3	.99	.00	.0029	121.72	.0024	-24.59	312.41
SET	51	2190.31	2201.56	2	3	49.1	90.00	.0041	-24.03	.0000	277407.6	1.67	10.19	-.0035	248.12	-.0015	-24.55	298.98
SET	61	2224.62	2235.87	2	4	23.4	66.25	.0041	-25.45	.0000	281188.7	1.57	-.00	-.0026	235.74	.0027	-24.52	290.50
SET	72	2374.32	2385.57	2	6	53.1	93.58	.0041	-24.22	.0000	292543.1	1.66	-.00	-.0037	245.53	-.0005	-24.41	253.45
RISE	42	2376.52	2387.77	2	6	55.3	255.00	.0041	-23.64	-.0000	292468.0	.91	2.15	.0030	117.69	-.0023	-24.40	252.90
EXTM	11	2416.98	2428.23	2	7	35.8	.28	.0042	-25.45	.0000	292605.7	1.23	29.34	-.0000	180.29	.0044	-24.37	242.88
SET	11	2697.82	2709.07	2	12	16.6	70.86	.0042	-24.92	.0000	315883.8	1.48	-.00	-.0029	238.96	.0024	-24.18	173.27
EXTM	42	2795.55	2806.80	2	13	54.3	359.96	.0042	-23.90	.0000	316454.4	1.14	78.68	.0000	.20	-.0169	-24.12	149.02
RISE	51	2926.09	2937.34	2	16	4.9	269.99	.0042	-23.60	-.0000	330932.2	.73	10.01	.0035	111.48	-.0015	-24.03	116.60
RISE	72	3080.70	3091.95	2	18	39.5	266.49	.0042	-23.77	-.0000	341865.7	.68	-.00	.0038	114.01	-.0006	-23.92	78.03
RISE	61	3144.45	3155.70	2	19	43.2	292.83	.0042	-24.63	-.0000	346044.0	.80	.00	.0027	123.09	.0027	-23.88	62.11
SET	42	3213.46	3224.71	2	20	52.2	105.00	.0041	-23.20	.0000	350338.2	1.43	1.88	-.0030	242.66	-.0023	-23.83	44.88
EXTM	51	3282.26	3293.51	2	22	1.0	360.00	.0042	-23.75	.0000	348710.2	1.09	88.01	-.0000	.43	-.0260	-23.79	27.69
EXTM	61	3411.11	3422.36	3	0	9.9	.28	.0042	-24.60	.0000	360722.9	1.10	25.16	-.0000	180.28	.0042	-23.69	355.48
EXTM	72	3450.52	3461.77	3	0	49.3	.06	.0043	-23.94	.0000	359931.4	1.10	73.96	.0000	180.20	.0135	-23.66	345.61
RISE	11	3577.16	3588.41	3	2	55.9	288.46	.0042	-24.17	-.0000	374598.0	.86	.00	.0030	120.08	.0024	-23.55	313.86
SET	51	3637.56	3648.81	3	3	56.3	90.00	.0042	-23.09	.0001	378115.5	1.82	9.81	-.0036	248.99	-.0015	-23.48	298.63
IMPACT		3659.25	3670.50	3	4	18.0												
IMPC	72	3659.25	3670.50	3	4	18.0	53.41	.0044	-23.53	.0001	377504.1	2.32	36.60	-.0039	246.48	.0008	-23.43	293.09
IMPC	51	3659.25	3670.50	3	4	18.0	95.53	.0043	-23.01	.0001	380715.3	2.37	5.16	-.0036	246.90	-.0017	-23.43	293.09
IMPC	11	3659.25	3670.50	3	4	18.0	309.40	.0044	-24.14	.0000	379777.8	1.69	13.74	.0026	133.45	.0031	-23.43	293.09
IMPC	61	3659.25	3670.50	3	4	18.0	63.37	.0043	-24.13	.0001	380981.1	2.27	2.77	-.0026	234.76	.0029	-23.43	293.09

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FTH	AZ	RT ASC
INJECTION		.00	11.25	31	15	18.781	6660.079	24.8598	306.7055	10.89368	-7.3644	103.9974	65.0754
SEPARATION		1.20	12.45	31	15	19.981	6576.988	22.9996	313.7373	10.95870	-4.0015	106.9803	72.4080
RETRO		3.20	14.45	31	15	21.981	6550.444	19.2262	324.8839	10.98109	1.6944	11.1909	84.0960
IMPACT		3659.25	3670.50	3	4	18.035	381341.504	-23.4270	293.0944	2.16814	69.5704	29.7072	248.7819

SURVEYOR VIEW PERIODS

OHA	291.0027					EPS	-2.0958					LOM	288.3005
SX	-.332103	SY	-.855472	SZ	-.397336	DAO	-23,41176	RAO	248.78527	RM	382591.316	LAT	28,310600
C3	-1.113866	ECC	.981711	SLR	12969.642	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675,00000
NSX	-.310958	NSY	-.861129	NSZ	-.402196	C3M	1.4976	VIM	2.6715	ZAE	137.445	B.T	.0000
LATE	1.8496	LONE	4.7925	LATS	.0073	LONS	6.3955	LATI	-7.2543	LONI	323.1299	RSM	152.1234
LAUNCH DATE		MAY	31,1966		BASE AZM		93.0	TF	60.935			ARRIVAL DATE	JUN

LON	279.461800												
POL	-.0												
B.R	-.0000												
TTAN	6.1193												
	3 1966	4	37	9.7									

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME		INJ RAD	INJ VEL	INJ PTH
93.00	15	28 49.5	27.5	23.60	306.86	-10.07	70.56	106.35	15	40 4.5	6595.0	10.94	-4.99

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT												
INJECTION		.00	11.25	31	15	40.1												
SEPARATION		1.20	12.45	31	15	41.3												
RETRO		3.20	14.45	31	15	43.3												
RISE	72	5.87	17.12	31	15	45.9	71.65	-.3936	66.20	.1093	2403.0	-6.53	.00	.1131	337.48	.1541	11.18	337.76
EXTM	72	11.00	22.25	31	15	51.1	307.71	-.0877	22.31	-.1779	2278.7	5.65	30.55	-.0000	58.19	.2271	-.09	358.04
RISE	51	11.55	22.80	31	15	51.6	71.21	-.1197	33.75	-.0301	4701.7	-4.22	-.00	.1006	308.08	.0263	-1.13	359.83
EXTM	51	28.17	39.42	31	16	8.2	350.14	-.0335	-12.47	-.0217	6766.8	5.49	73.80	-.0000	36.82	.1409	-18.97	32.96
EXTM	72	67.17	78.42	31	16	47.2	275.53	-.0001	-26.74	-.0010	23258.1	4.90	8.46	.0000	116.01	.0010	-26.97	53.75
RISE	42	80.01	91.26	31	17	.1	104.96	-.0031	-20.09	-.0020	27855.0	4.25	-.00	.0035	245.14	.0002	-27.61	55.47
EXTM	51	83.39	94.64	31	17	3.5	324.63	-.0001	-27.31	-.0007	23864.2	4.50	58.42	.0000	100.86	.0014	-27.73	55.74
EXTM	42	126.15	137.40	31	17	46.2	102.22	.0005	-23.15	-.0006	39285.5	3.99	3.89	-.0000	244.25	-.0007	-28.38	55.03
SET	42	166.18	177.43	31	18	26.3	104.99	.0017	-24.02	-.0002	48571.7	3.75	2.39	-.0011	242.01	-.0011	-28.43	50.65
RISE	61	192.97	204.22	31	18	53.0	304.26	.0031	-33.63	.0003	54514.4	3.24	-.00	.0018	136.52	.0018	-28.37	46.72
EXTM	51	297.34	308.59	31	20	37.4	.06	.0037	-28.16	.0001	68289.1	2.94	87.58	.0000	181.41	.0731	-27.96	27.63
EXTM	61	460.04	471.29	31	23	20.1	3.15	.0039	-30.74	.0002	98782.7	2.51	18.96	.0000	182.87	.0036	-27.33	352.77
EXTM	72	493.53	504.78	31	23	53.6	.47	.0040	-28.42	.0001	100000.1	2.44	69.48	.0000	181.18	.0101	-27.21	345.23
RISE	11	654.58	665.83	1	2	34.7	292.66	.0040	-28.63	.0000	128118.5	1.89	.00	.0027	125.90	.0023	-26.74	308.09
SET	51	687.07	698.32	1	3	7.1	90.00	.0039	-25.60	.0001	131157.7	2.50	10.82	-.0032	246.65	-.0013	-26.66	300.46
SET	61	709.14	720.39	1	3	29.2	62.53	.0040	-28.60	.0001	135176.3	2.37	-.00	-.0023	231.17	.0027	-26.60	295.27
SET	72	881.01	892.26	1	6	21.1	93.87	.0039	-25.88	.0001	156107.5	2.34	-.00	-.0035	243.85	-.0004	-26.22	254.38
RISE	42	891.17	902.42	1	6	31.2	254.99	.0040	-24.79	-.0000	156972.5	1.62	2.86	.0029	118.60	-.0022	-26.20	251.95
EXTM	11	931.74	942.99	1	7	11.8	.98	.0042	-28.13	.0001	159126.5	1.90	26.65	-.0000	180.97	.0041	-26.12	242.20
SET	11	1206.31	1217.56	1	11	46.4	69.02	.0041	-26.90	.0001	191575.3	2.01	-.00	-.0027	236.38	.0024	-25.66	175.74
EXTM	42	1315.83	1327.08	1	13	35.9	359.94	.0042	-25.19	.0000	196393.0	1.64	79.97	-.0000	.32	-.0206	-25.51	149.04
RISE	51	1450.90	1462.15	1	15	51.0	270.00	.0041	-24.67	-.0000	214438.0	1.20	10.44	.0034	112.48	-.0015	-25.33	116.00
RISE	72	1607.26	1618.51	1	18	27.3	266.30	.0041	-24.92	-.0000	230004.7	1.09	-.01	.0037	115.17	-.0005	-25.15	77.64
RISE	61	1679.11	1690.36	1	19	39.2	294.59	.0041	-26.19	-.0000	236413.6	1.19	.00	.0026	125.32	.0027	-25.07	59.98
SET	42	1738.78	1750.03	1	20	38.9	105.00	.0041	-24.09	.0000	241370.4	1.78	2.43	-.0030	241.94	-.0022	-25.01	45.30
EXTM	51	1805.30	1816.55	1	21	45.4	358.74	.0042	-24.92	.0000	241077.8	1.41	88.60	.0031	51.55	-.0922	-24.94	28.91
EXTM	61	1941.44	1952.69	2	0	1.5	.41	.0042	-26.10	.0000	256248.2	1.37	23.66	.0000	180.40	.0041	-24.81	355.35
EXTM	72	1980.96	1992.21	2	0	41.0	.08	.0042	-25.19	.0000	256016.1	1.36	72.71	.0000	180.24	.0126	-24.78	345.59
RISE	11	2115.62	2126.87	2	2	55.7	289.69	.0042	-25.52	-.0000	272859.6	1.00	.00	.0029	121.82	.0024	-24.64	312.33
SET	51	2169.60	2180.85	2	3	49.7	90.00	.0041	-24.10	.0000	275975.4	1.68	10.21	-.0035	248.06	-.0015	-24.61	298.99
SET	61	2203.59	2214.84	2	4	23.7	66.17	.0041	-25.52	.0000	279749.1	1.58	-.00	-.0026	235.64	.0027	-24.59	290.58
SET	72	2353.68	2364.93	2	6	53.8	93.59	.0041	-24.29	.0000	291194.5	1.66	-.00	-.0037	245.46	-.0005	-24.47	253.44
RISE	42	2355.89	2367.14	2	6	56.0	255.00	.0041	-23.70	-.0000	291116.8	.92	2.19	.0030	117.74	-.0023	-24.47	252.90
EXTM	11	2396.35	2407.60	2	7	36.4	.28	.0042	-25.52	.0000	291281.6	1.24	29.27	-.0000	180.29	.0044	-24.44	242.88
SET	11	2676.94	2688.19	2	12	17.0	70.80	.0042	-24.98	.0000	314640.4	1.49	-.00	-.0029	238.87	.0024	-24.24	173.33
EXTM	42	2774.93	2786.18	2	13	55.0	359.96	.0042	-23.96	.0000	315262.2	1.15	78.74	.0000	.21	-.0165	-24.18	149.02
RISE	51	2905.49	2916.74	2	16	5.6	269.99	.0042	-23.65	-.0000	329391.9	.73	10.03	.0035	111.53	-.0015	-24.09	116.60
RISE	72	3060.06	3071.31	2	18	40.1	266.48	.0042	-23.82	-.0000	340748.4	.68	-.00	.0038	114.07	-.0006	-23.98	78.03
RISE	61	3124.10	3135.35	2	19	44.2	292.89	.0042	-24.69	-.0000	344953.4	.80	.00	.0027	123.18	.0027	-23.94	62.04
SET	42	3192.83	3204.08	2	20	52.9	105.00	.0041	-23.25	.0000	349233.0	1.43	1.91	-.0030	242.62	-.0023	-23.89	44.88
EXTM	51	3261.65	3272.90	2	22	1.7	360.00	.0042	-23.81	.0000	347614.8	1.09	88.07	-.0000	.50	-.0169	-23.84	27.69
EXTM	61	3390.51	3401.76	3	0	10.6	.28	.0042	-24.66	.0000	359631.8	1.09	25.10	-.0000	180.28	.0042	-23.78	355.48
EXTM	72	3429.93	3441.18	3	0	50.0	.06	.0043	-24.00	.0000	358830.8	1.10	73.91	.0000	180.20	.0133	-23.72	349.61
RISE	11	3556.84	3568.09	3	2	56.9	288.52	.0042	-24.23	-.0000	373438.7	.84	.00	.0030	120.15	.0024	-23.61	313.81
SET	51	3617.13	3628.38	3	3	57.2	90.00	.0042	-23.16	.0000	376757.8	1.70	9.83	-.0036	248.93	-.0015	-23.54	298.64
SET	61	3655.88	3667.13	3	4	36.0	67.71	.0043	-24.15	.0001	381314.9	2.26	.00	-.0027	237.60	.0029	-23.47	288.78
IMPACT		3656.08	3667.33	3	4	36.2												
IMPC	72	3656.08	3667.33	3	4	36.2	57.82	.0043	-23.55	.0001	377918.0	2.34	32.59	-.0040	247.05	.0006	-23.47	288.73
IMPC	51	3656.08	3667.33	3	4	36.2	99.88	.0043	-23.03	.0001	381161.8	2.37	1.58	-.0035	245.09	-.0018	-23.47	288.73
IMPC	11	3656.08	3667.33	3	4	36.2	313.81	.0044	-24.19	.0000	379560.1	1.71	16.24	.0025	136.71	.0032	-23.47	288.73
IMPC	61	3656.08	3667.33	3	4	36.2	67.76	.0043	-24.14	.0001	381341.4	2.28	-.03	-.0027	237.63	.0029	-23.47	288.73

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	31	15	40.074	6596.017	23.6181	306.8025	10.94391	-4.9873	106.3242	70.5103
SEPARATION		1.20	12.45	31	15	41.274	6549.717	21.5112	313.6422	10.98191	-1.5841	109.0689	77.6508
RETRO		3.20	14.45	31	15	43.274	6578.893	17.3777	324.9364	10.95730	4.1178	112.8760	89.0463
IMPACT		3656.08	3667.33	3	4	36.155	381391.090	-23.4657	288.7303	2.16855	65.9247	293.6627	248.9601

SURVEYOR VIEW PERIODS

GHA	251.0027					EPS	-1.9577							LOM	282.3983
SX	-.328374	SY	-.856521	SZ	-.398173	DAO	-23.46400	RAO	249.02412	RM	382657.652	LAT	28.310680	LON	279.461800
C3	-1.116504	ECC	.981668	SLR	12969.360	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
HSX	-.307173	NSY	-.862108	NSZ	-.403007	C3M	1.4964	VIM	2.6713	ZAE	137.360	B.T	.0000	B.R	-.0000
LATE	1.8755	LONE	4.7937	LATS	.5079	LONS	6.1879	LATI	-7.3218	LONI	323.0623	RSM	152.1238	TTAN	6.1282
LAUNCH DATE		MAY	31,1966		BASE AZM		96.0	TF	60.995			ARRIVAL DATE		JUN 3 1966 5 1 40.0	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
96.00	15 47 20.6	27.7	22.40	306.70	-5.95	75.05	108.56	15 58 35.6	6562.2	10.97	-2.95

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	31	15	58.6												
SEPARATION		1.20	12.45	31	15	59.8												
RETRO		3.20	14.45	31	16	1.8												
RISE	72	5.40	16.65	31	16	4.0	77.33	-.2743	57.67	.0807	2495.2	-7.29	-.00	.1210	328.55	.1157	10.36	334.53
EXTM	72	10.58	21.83	31	16	9.2	319.99	-.1307	21.24	-.1924	2026.5	5.15	41.09	-.0000	52.67	.3022	-1.04	354.56
RISE	51	11.33	22.58	31	16	9.9	74.12	-.1082	29.57	-.0337	4911.9	-3.96	.00	.0983	303.22	.0178	-2.46	356.95
EXTM	51	29.81	41.06	31	16	28.4	353.78	-.0298	-16.25	-.0168	7471.9	5.45	78.88	-.0000	32.66	.1717	-20.64	31.14
EXTM	72	67.79	79.04	31	17	6.4	279.97	-.0000	-27.82	-.0008	23234.8	4.87	12.46	.0000	116.86	.0008	-27.50	49.66
EXTM	51	85.60	96.85	31	17	24.2	329.86	-.0000	-28.19	-.0005	24443.7	4.45	63.10	.0000	102.06	.0012	-28.23	51.61
RISE	61	174.20	185.45	31	18	52.8	305.49	.0029	-34.45	.0003	50719.5	3.37	-.00	.0018	137.82	.0017	-28.74	45.20
EXTM	51	275.46	286.71	31	20	34.1	.10	.0036	-28.56	.0001	64507.3	3.02	87.17	-.0000	181.80	.0631	-28.31	27.59
EXTM	61	441.68	452.93	31	23	20.3	3.46	.0039	-31.12	.0002	96140.1	2.55	18.57	.0000	183.12	.0035	-27.60	352.49
EXTM	72	474.61	485.86	31	23	53.2	.59	.0040	-28.74	.0001	97319.7	2.47	69.16	-.0000	181.44	.0099	-27.48	345.13
RISE	11	637.14	648.39	1	2	35.7	292.92	.0040	-28.89	.0000	125897.5	1.92	.00	.0026	126.25	.0023	-26.96	307.79
SET	51	668.19	679.44	1	3	6.8	90.00	.0039	-25.81	.0001	128779.9	2.52	10.90	-.0032	246.46	-.0013	-26.88	300.52
SET	61	689.00	700.25	1	3	27.6	62.20	.0040	-28.86	.0001	132675.4	2.39	-.00	-.0033	230.78	.0027	-26.82	295.63
SET	72	862.67	873.92	1	6	21.3	93.90	.0039	-26.07	.0001	154022.5	2.35	-.00	-.0035	240.66	-.0004	-26.41	254.39
RISE	42	873.00	884.25	1	6	31.6	254.99	.0040	-24.96	-.0000	154905.9	1.63	2.96	.0029	118.74	-.0022	-26.39	251.92
EXTM	11	913.72	924.97	1	7	12.3	1.04	.0042	-28.34	.0001	157144.5	1.91	26.44	-.0000	187.02	.0041	-25.30	242.15
SET	11	1187.54	1198.79	1	11	46.1	68.86	.0041	-27.07	.0001	189693.1	2.02	-.00	-.0027	236.16	.0024	-25.81	175.92
EXTM	42	1297.85	1309.10	1	13	36.4	359.94	.0042	-25.34	.0000	194650.8	1.65	80.12	-.0000	.33	-.0206	-25.65	149.04
RISE	51	1433.03	1444.28	1	15	51.6	270.00	.0041	-24.80	-.0000	212770.5	1.21	10.49	.0034	112.60	-.0015	-25.46	115.99
RISE	72	1589.34	1600.59	1	18	27.9	266.27	.0041	-25.04	-.0000	228406.5	1.10	-.01	.0037	115.30	-.0005	-25.27	77.65
RISE	61	1661.88	1673.13	1	19	40.5	294.74	.0041	-26.31	-.0000	234903.9	1.19	.00	.0026	125.50	.0027	-25.19	59.82
SET	42	1720.89	1732.14	1	20	39.5	105.00	.0041	-24.20	.0000	239816.7	1.78	2.90	-.0030	241.87	-.0022	-25.13	45.30
EXTM	51	1785.09	1796.34	1	21	43.7	358.14	.0042	-25.04	.0000	239357.5	1.42	88.18	.0035	67.81	-.0474	-25.06	29.50
EXTM	61	1923.68	1934.93	2	0	2.3	.43	.0042	-26.22	.0000	254792.7	1.38	23.54	.0000	180.42	.0041	-24.92	355.33
EXTM	72	1963.17	1974.42	2	0	41.8	.08	.0042	-25.30	.0000	254561.6	1.37	72.60	.0000	180.26	.0125	-24.88	345.59
RISE	11	2098.25	2109.50	2	2	56.8	289.78	.0042	-25.62	-.0000	271472.9	1.00	.00	.0029	121.96	.0024	-24.76	312.23
SET	51	2151.78	2163.03	2	3	50.4	90.00	.0041	-24.19	.0000	274563.7	1.68	10.25	-.0035	247.97	-.0015	-24.71	299.00
SET	61	2185.31	2196.56	2	4	23.9	66.05	.0041	-25.63	.0000	278314.4	1.58	-.00	-.0026	235.49	.0027	-24.68	290.71
SET	72	2335.95	2347.20	2	6	54.5	93.61	.0041	-24.38	.0000	289838.8	1.67	-.00	-.0037	245.37	-.0005	-24.56	253.43
RISE	42	2338.15	2349.40	2	6	56.7	255.00	.0041	-23.79	-.0000	289754.6	.92	2.25	.0030	117.81	-.0023	-24.56	252.89
EXTM	11	2378.63	2389.88	2	7	37.2	.29	.0042	-25.62	.0000	289945.7	1.24	29.17	-.0000	180.30	.0043	-24.53	242.87
SET	11	2658.86	2670.11	2	12	17.5	70.73	.0042	-25.07	.0000	313327.8	1.49	-.00	-.0029	238.76	.0024	-24.33	173.41
EXTM	42	2757.19	2768.44	2	13	55.8	359.96	.0042	-24.04	.0000	313989.5	1.15	78.82	.0000	.20	-.0178	-24.26	149.02
RISE	51	2887.83	2899.08	2	16	6.4	270.00	.0041	-23.74	-.0000	327969.9	.74	10.07	.0035	111.61	-.0015	-24.17	116.59
RISE	72	3042.47	3053.72	2	18	41.1	266.27	.0042	-23.90	-.0000	339521.0	.68	-.00	.0038	114.14	-.0006	-24.06	78.04
RISE	61	3106.89	3118.14	2	19	45.5	292.68	.0042	-24.77	-.0000	343749.1	.80	.00	.0027	123.29	.0027	-24.01	61.95
SET	42	3175.23	3186.48	2	20	53.8	105.00	.0041	-23.32	.0000	347995.1	1.43	1.96	-.0030	242.56	-.0023	-23.96	44.88
EXTM	51	3244.03	3255.28	2	22	2.6	359.99	.0042	-23.88	.0000	346374.2	1.09	88.14	.0000	.54	-.0582	-23.91	27.69
EXTM	61	3372.91	3384.16	3	0	11.5	.28	.0042	-24.73	.0000	358376.7	1.09	25.03	-.0000	180.28	.0042	-23.82	355.47
EXTM	72	3412.32	3423.57	3	0	50.9	.06	.0043	-24.07	.0000	357556.7	1.09	73.84	.0000	180.28	.0133	-23.79	345.61
RISE	11	3539.53	3550.78	3	2	58.1	288.98	.0042	-24.30	-.0000	372086.3	.81	.00	.0030	120.24	.0024	-23.68	313.74
SET	51	3599.61	3610.86	3	3	58.2	90.00	.0042	-23.23	.0000	375232.5	1.62	9.86	-.0035	248.86	-.0015	-23.62	298.64
SET	61	3638.19	3649.44	3	4	36.8	67.60	.0042	-24.24	.0001	379337.9	1.73	-.00	-.0027	237.46	.0028	-23.56	288.89
IMPACT		3659.72	3670.97	3	4	58.3												
IMPC	72	3659.72	3670.97	3	4	58.3	63.20	.0043	-23.57	.0001	378453.3	2.35	27.67	-.0040	247.48	.0004	-23.51	283.40
IMPC	51	3659.72	3670.97	3	4	58.3	105.20	.0043	-23.04	.0001	381705.3	2.35	-2.71	-.0035	242.75	-.0019	-23.51	283.40
IMPC	11	3659.72	3670.97	3	4	58.3	319.20	.0044	-24.26	.0000	379325.6	1.73	19.09	.0023	140.92	.0035	-23.51	283.40
IMPC	61	3659.72	3670.97	3	4	58.3	73.12	.0043	-24.17	.0001	381799.9	2.28	-3.57	-.0028	241.01	.0028	-23.51	283.40

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VBL	PTH	AZ	RT ASC
INJECTION		.00	11.25	31	15	58.593	6562.318	22.4049	306.6887	10.97131	-2.9483	108.5570	75.0388
SEPARATION		1.20	12.45	31	15	59.7 3	6545.118	20.0552	313.3715	10.98568	.4746	111.0893	82.0224
RETRO		3.20	14.45	31	16	1.793	6621.151	15.6089	323.9483	10.92183	6.1414	114.4940	93.1006
IMPACT		3659.72	3670.97	3	4	58.310	381456.785	-23.5130	83.3951	2.16582	65.1902	293.5366	249.1788

SURVEYOR VIEW PERIODS

@HA	251.0027					EPS	-1.8550					LON	277.5735
SX	-.325323	SY	-.857369	SZ	-.398852	DAO	-23.50641	RAO	249.22109	RM	387711.969	LAT	28.710600
LON	279.461800	C3	-1.118999	ECC	.981627	SLR	12969.092	RCA	6544.6650	LTA	-20.0000	GTA	20.00
TB	675.00000	POL	-.0	NSX	-.304075	NSY	-.862896	NSZ	-.403669	CSM	1.4973	VIH	2.6714
ZAE	137.243	2.T	.0000	B.R	-.0000	LATE	1.8966	LONE	4.7948	LATS	.5083	LONS	6.0183
LATI	-7.4579	LONI	322.9753	RSM	152.1242	TTAN	6.1349						

LAUNCH DATE MAY 31.1966 BASE AZM 99.0 TF 61.050 ARRIVAL DATE JUN 3 1966 5 21 42.0

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99.00	16 2 40.8	27.9	21.22	306.42	-2.59	78.61	110.73	16 13 55.8	6548.0	10.98	-1.28

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
					PROBE IN SUNLIGHT													
INJECTION		.00	11.25	31	16	13.9												
SEPARATION		1.20	12.45	31	16	15.1												
RETRO		3.20	14.45	31	16	17.1												
RISE	72	5.06	16.31	31	16	19.0	80.32	-.2211	50.47	.0530	2585.4	-7.73	-.00	.1259	321.15	.0821	9.34	331.85
EXTM	72	9.65	20.90	31	16	23.6	340.02	-.2287	25.77	-.2249	1701.2	3.26	51.12	.0783	29.36	.4696	-1.01	349.53
RISE	51	11.19	22.44	31	16	25.1	76.61	-.0991	25.66	-.0369	5097.5	-3.72	-.00	.0961	298.73	.0107	-3.95	354.39
EXTM	51	31.56	42.81	31	16	45.5	356.63	-.0266	-19.90	-.0129	8191.5	5.42	83.38	-.0000	28.68	.2442	-27.46	29.62
EXTM	72	68.48	79.73	31	17	22.4	283.73	-.0000	-29.11	-.0006	23266.2	4.83	15.80	.0000	110.11	.0006	-28.28	46.23
EXTM	51	87.74	98.99	31	17	41.7	334.26	.0000	-29.27	-.0004	29017.9	4.40	66.95	.0000	104.67	.0010	-28.95	48.15
RISE	61	160.45	171.70	31	18	54.4	306.98	.0027	-35.41	.0004	47863.6	3.47	-.00	.0017	139.37	.0015	-29.28	43.48
EXTM	51	256.96	268.21	31	20	30.9	.14	.0035	-29.12	.0001	61224.3	3.09	86.61	.0000	182.11	.0512	-28.81	27.96
EXTM	61	426.93	438.18	31	23	20.9	3.81	.0039	-31.58	.0002	94005.2	2.58	18.10	.0000	183.42	.0035	-27.97	352.15
EXTM	72	458.80	470.05	31	23	52.7	.65	.0040	-29.15	.0001	95053.7	2.50	68.74	-.0000	181.56	.0097	-27.84	345.07
RISE	11	623.25	634.50	1	2	37.2	293.25	.0040	-29.22	.0000	124111.3	1.94	.00	.0026	126.69	.0023	-27.26	307.42
SET	51	652.57	663.82	1	3	6.5	90.00	.0039	-26.08	.0001	126788.7	2.54	11.01	-.0032	246.21	-.0013	-27.17	300.57
SET	61	671.75	683.00	1	3	25.7	61.79	.0040	-29.19	.0001	130507.0	2.41	-.00	-.0022	230.29	.0027	-27.11	296.08
SET	72	847.58	858.83	1	6	21.5	93.94	.0039	-26.31	.0001	152292.5	2.36	-.00	-.0035	243.42	-.0004	-26.65	254.38
RISE	42	858.02	869.27	1	6	31.9	254.99	.0040	-25.19	-.0000	153181.2	1.65	3.10	.0029	118.91	-.0022	-26.63	251.89
EXTM	11	898.95	910.20	1	7	12.9	1.11	.0042	-28.60	.0001	155515.9	1.93	26.18	-.0000	181.09	.0041	-26.53	242.08
SET	11	1171.79	1183.04	1	11	45.7	68.67	.0041	-27.27	.0001	188099.3	2.03	-.00	-.0027	235.89	.0024	-26.01	176.13
EXTM	42	1283.00	1294.25	1	13	36.9	359.94	.0042	-25.52	.0000	193199.4	1.66	80.30	-.0000	.34	-.0213	-25.83	149.04
RISE	51	1418.28	1429.53	1	15	52.2	270.00	.0041	-24.96	-.0000	211380.4	1.22	10.56	.0034	112.75	-.0015	-25.63	115.97
RISE	72	1574.52	1585.77	1	18	28.4	266.25	.0041	-25.19	-.0000	227072.7	1.11	-.01	.0037	115.45	-.0005	-25.42	77.66
RISE	61	1647.85	1659.10	1	19	41.8	294.91	.0041	-26.46	-.0000	233664.0	1.20	.00	.0026	125.72	.0027	-25.33	59.64
SET	42	1706.11	1717.36	1	20	40.0	105.00	.0041	-24.33	.0000	238918.7	1.79	2.58	-.0030	241.76	-.0022	-25.26	45.31
EXTM	51	1770.18	1781.43	1	21	44.1	358.10	.0042	-25.18	.0000	238076.8	1.42	88.19	.0036	72.27	-.0389	-25.19	29.54
EXTM	61	1909.04	1920.29	2	0	3.0	.45	.0042	-26.35	.0000	253585.2	1.38	23.41	.0000	180.44	.0041	-25.04	359.31
EXTM	72	1948.47	1959.72	2	0	42.4	.09	.0042	-25.43	.0000	253349.8	1.37	72.48	.0000	180.27	.0124	-25.00	345.59
RISE	11	2083.99	2095.24	2	2	57.9	289.89	.0042	-25.74	-.0000	270323.4	1.01	.00	.0029	122.11	.0024	-24.87	312.12
SET	51	2137.05	2148.30	2	3	51.0	90.00	.0041	-24.30	.0000	273383.0	1.69	10.29	-.0035	247.87	-.0015	-24.82	299.00
SET	61	2170.06	2181.31	2	4	24.0	65.92	.0041	-25.74	.0000	277105.8	1.59	-.00	-.0026	235.32	.0027	-24.79	290.84
SET	72	2321.29	2332.54	2	6	55.2	93.63	.0041	-24.48	.0001	288706.0	1.67	-.00	-.0037	245.27	-.0005	-24.66	253.42
RISE	42	2323.47	2334.72	2	6	57.4	255.00	.0041	-23.89	-.0000	288613.9	.93	2.30	.0030	117.89	-.0023	-24.66	252.88
EXTM	11	2363.99	2375.24	2	7	37.9	.31	.0042	-25.72	.0000	288831.9	1.25	29.07	-.0000	180.32	.0043	-24.63	242.85
SET	11	2643.84	2655.09	2	12	17.8	70.65	.0042	-25.16	.0000	312223.3	1.49	-.00	-.0029	238.69	.0024	-24.41	173.49
EXTM	42	2742.50	2753.75	2	13	56.4	359.96	.0042	-24.12	.0000	312921.4	1.15	78.90	.0000	.21	-.0182	-24.34	149.02
RISE	51	2873.17	2884.42	2	16	7.1	270.00	.0041	-23.81	-.0000	326919.9	.74	10.10	.0035	111.68	-.0015	-24.25	116.59
RISE	72	3027.77	3039.02	2	18	41.7	266.46	.0042	-23.97	-.0000	338478.9	.68	-.00	.0038	114.21	-.0006	-24.13	78.05
RISE	61	3092.55	3103.80	2	19	46.5	293.06	.0042	-24.84	-.0000	342727.6	.80	.00	.0027	123.39	.0027	-24.08	61.87
SET	42	3160.55	3171.80	2	20	54.5	105.00	.0041	-23.36	.0000	346943.6	1.42	1.99	-.0030	242.51	-.0023	-24.03	44.89
EXTM	51	3229.37	3240.62	2	22	3.3	359.99	.0042	-23.94	.0000	345321.9	1.08	88.20	.0000	.62	-.0625	-23.98	27.70
EXTM	61	3358.30	3369.55	3	0	12.2	.29	.0042	-24.80	.0000	357314.7	1.09	24.96	-.0000	180.29	.0042	-23.88	359.47
EXTM	72	3397.69	3408.94	3	0	51.6	.06	.0043	-24.13	.0000	356479.8	1.09	73.78	.0000	180.20	.0133	-23.85	345.61
RISE	11	3525.17	3536.42	3	2	59.1	288.64	.0042	-24.36	-.0000	370960.3	.80	.00	.0030	120.32	.0024	-23.74	313.68
SET	51	3585.06	3596.31	3	3	59.0	90.00	.0042	-23.29	.0000	374002.1	1.58	9.89	-.0035	248.80	-.0015	-23.68	298.64
SET	61	3623.44	3634.69	3	4	37.4	67.92	.0042	-24.32	.0000	377934.3	1.60	-.00	-.0027	237.36	.0028	-23.63	288.97
IMPACT		3663.00	3674.25	3	5	16.9												
IMPC	72	3663.00	3674.25	3	5	16.9	67.72	.0043	-23.58	.0001	378918.0	2.37	23.53	-.0040	247.67	.0002	-23.55	278.91
IMPC	11	3663.00	3674.25	3	5	16.9	323.74	.0044	-24.32	.0000	379150.1	1.75	21.28	.0021	144.66	.0036	-23.55	278.91

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION		.00	11.25	31	16	13.929	6547.975	21.2238	306.4190	10.98321	-1.2888	110.7289	78.6137
SEPARATION		1.20	12.45	31	16	15.129	6593.922	18.6416	312.9424	10.97811	-.1440	113.0583	85.4379
RETRO		3.20	14.45	31	16	17.129	6667.472	13.9097	323.1843	10.88336	7.7636	116.0811	96.1852
IMPACT		3663.00	3674.25	3	5	16.931	381509.055	-23.9528	278.9105	2.16399	69.0802	293.7324	249.3621

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SURVEYOR VIEW PERIODS

OHA	291.0027					EPS	-1.7662							LOM	272.9166
SX	-.322375	SY	-.858179	SZ	-.399503	DAO	-23.54710	RAO	249.41128	RM	382764.465	LAT	28.310600	LON	279.461830
C3	-1.124166	ECC	.981542	SLR	12968.532	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.301054	NSY	-.863654	NSZ	-.404313	C3H	1.4972	VIM	2.6714	ZAE	137.055	B.T	.0000	B.R	-.0000
LATE	1.9170	LONE	4.7958	LATS	.5087	LONS	5.8547	LATI	-7.6507	LONI	322.8260	RSM	152.1246	TTAN	6.1376
LAUNCH DATE	MAY 31,1966			BASE AZM	102.0		TF 61.147					ARRIVAL DATE	JUN 3 1966 5 41 2.1		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FTH
102.00	16 15 27.1	28.0	20.07	306.04	.17	81.44	112.86	16 26 42.1	6544.7	10.99	.08

EVNT STA	TFI	TFL	DAY HR MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL AZI	DAZ	LAT	LONG
			PROBE IN SUNLIGHT											
INJECTION	.00	11.25	31 16 26.7											
SEPARATION	1.20	12.45	31 16 27.9											
RETRO	3.20	14.45	31 16 29.9											
RISE 72	4.81	16.06	31 16 31.5	82.24	-.1903	44.20	.0270	2670.9	-7.96	-.00	.1287 314.74	.0527	8.19	329.58
EXTM 72	10.19	21.44	31 16 36.9	342.90	-.1987	10.77	-.1822	1784.4	4.51	64.74	-.0000 42.60	.6256	-3.88	349.36
RISE 51	11.11	22.36	31 16 37.8	78.80	-.0917	21.94	-.0400	5261.6	-3.48	.00	.0939 294.51	.0045	-5.57	352.10
EXTM 51	33.42	44.67	31 17 .1	358.84	-.0239	-23.43	-.0099	8926.5	5.38	87.46	-.0000 24.82	.5416	-24.35	28.37
EXTM 72	69.45	80.70	31 17 36.2	286.91	.0000	-30.58	-.0064	23414.9	4.80	18.54	.0000 119.68	.0004	-29.28	43.40
EXTM 51	89.54	100.79	31 17 56.2	337.94	.0000	-30.50	-.0002	25515.8	4.36	70.01	.0000 108.84	.0006	-29.85	45.23
RISE 61	151.37	162.62	31 18 58.1	308.69	.0026	-36.45	.0005	45953.9	3.55	-.00	.0016 141.11	.0014	-29.99	41.64
EXTM 51	241.51	252.76	31 20 28.2	.22	.0034	-29.84	.0001	58419.1	3.15	85.89	-.0000 182.70	.0412	-29.44	27.49
EXTM 61	415.27	426.52	31 23 22.0	4.23	.0039	-32.12	.0002	92311.7	2.60	17.54	.0000 183.75	.0035	-28.43	351.77
EXTM 72	445.98	457.23	31 23 52.7	.75	.0040	-29.65	.0001	93194.7	2.53	68.24	-.0000 181.75	.0094	-28.23	344.98
RISE 11	612.37	623.62	1 2 39.1	293.65	.0040	-29.61	.0000	122692.4	1.95	.00	.0026 127.21	.0023	-27.62	306.99
SET 51	639.71	650.96	1 3 6.4	90.00	.0038	-26.43	.0001	125115.8	2.55	11.15	-.0032 245.88	-.0013	-27.52	300.62
SET 61	656.86	668.11	1 3 23.6	61.28	.0039	-29.59	.0002	128600.2	2.43	-.00	-.0022 229.70	.0027	-27.47	296.61
SET 72	835.24	846.49	1 6 21.9	93.99	.0039	-26.60	.0001	150846.8	2.37	-.00	-.0035 243.13	-.0004	-26.95	254.57
RISE 42	845.71	856.96	1 6 32.4	254.99	.0040	-25.47	-.0000	151728.3	1.66	3.27	.0029 119.14	-.0022	-26.92	251.86
EXTM 11	886.93	898.18	1 7 13.6	1.20	.0042	-28.91	.0001	154169.0	1.94	25.87	-.0000 181.[illegible]	.0040	-26.82	241.99
SET 11	1158.49	1169.74	1 11 45.2	68.42	.0041	-27.52	.0001	186711.7	2.03	.01	-.0027 235.[illegible]	.0024	-26.24	176.38
EXTM 42	1270.77	1282.02	1 13 37.5	359.94	.0042	-25.74	.0000	191960.8	1.66	80.52	-.0000 .36	-.0217	-26.04	149.04
RISE 51	1406.14	1417.39	1 15 52.8	270.00	.0041	-25.15	-.0000	210185.9	1.22	10.63	.0034 112.93	-.0015	-25.82	115.96
RISE 72	1562.28	1573.53	1 18 29.0	266.22	.0041	-25.36	-.0000	229916.7	1.11	-.01	.0037 115.62	-.0005	-25.60	77.68
RISE 61	1636.54	1647.79	1 19 43.2	295.12	.0041	-26.64	-.0000	232607.9	1.20	.00	.0026 125.97	.0027	-25.50	59.43
SET 42	1693.92	1705.17	1 20 40.6	105.00	.0041	-24.49	.0001	237385.6	1.79	2.67	-.0030 241.64	-.0022	-25.43	45.32
EXTM 51	1757.85	1769.10	1 21 44.5	358.05	.0042	-25.34	.0000	236954.7	1.42	88.19	.0037 77.56	-.0283	-25.35	29.59
EXTM 61	1897.02	1908.27	2 0 3.7	.48	.0042	-26.50	.0000	252528.2	1.39	23.26	.0000 180.47	.0041	-25.19	355.28
EXTM 72	1936.36	1947.61	2 0 43.1	.10	.0042	-25.57	.0000	252281.8	1.37	72.33	.0000 180.29	.0123	-25.14	345.58
RISE 11	2072.38	2083.63	2 2 59.1	290.01	.0042	-25.88	-.0000	269309.4	1.01	.00	.0029 122.28	.0024	-25.00	311.99
SET 51	2124.89	2136.14	2 3 51.6	90.00	.0041	-24.43	.0000	272326.7	1.69	10.34	-.0034 247.75	-.0015	-24.95	299.01
SET 61	2157.32	2168.57	2 4 24.0	65.77	.0041	-25.87	.0000	276013.0	1.59	-.00	-.0026 235.14	.0027	-24.92	290.99
SET 72	2309.23	2320.48	2 6 55.9	93.65	.0041	-24.59	.0001	287682.7	1.67	-.00	-.0037 245.16	-.0005	-24.78	253.41
RISE 42	2311.37	2322.62	2 6 58.1	255.00	.0041	-24.00	-.0000	287980.5	.93	2.37	.0030 117.97	-.0023	-24.77	252.88
EXTM 11	2351.94	2363.19	2 7 39.6	.33	.0042	-25.84	.0000	287825.6	1.25	28.96	-.0000 180.33	.0043	-24.74	242.83
SET 11	2631.35	2642.60	2 12 18.1	70.56	.0042	-25.26	.0000	311197.0	1.50	-.00	-.0029 238.52	.0024	-24.50	173.59
EXTM 42	2730.37	2741.62	2 13 57.1	359.96	.0042	-24.21	.0000	311925.5	1.15	78.99	.0000 .23	-.0181	-24.43	149.02
RISE 51	2861.07	2872.32	2 16 7.8	270.00	.0041	-23.89	-.0000	325931.3	.75	10.13	.0035 111.75	-.0015	-24.33	116.58
RISE 72	3015.75	3027.00	2 18 42.5	266.44	.0042	-24.05	-.0000	337502.4	.68	-.00	.0038 114.29	-.0006	-24.21	78.05
RISE 61	3080.91	3092.16	2 19 47.6	293.15	.0042	-24.92	-.0000	341770.4	.80	.00	.0027 123.50	.0027	-24.15	61.76
SET 42	3148.54	3159.79	2 20 55.2	105.00	.0041	-23.46	.0000	349949.2	1.42	2.04	-.0030 242.46	-.0023	-24.10	44.89
EXTM 51	3217.39	3228.64	2 22 4.1	360.00	.0042	-24.01	.0000	344325.3	1.08	88.28	-.0000 .56	-.0208	-24.05	27.69
EXTM 61	3346.32	3357.57	3 0 13.0	.30	.0042	-24.87	.0000	356299.7	1.08	24.90	-.0000 180.38	.0042	-23.94	355.46
EXTM 72	3385.68	3396.93	3 0 52.4	.06	.0043	-24.19	.0000	355446.8	1.08	73.71	.0000 180.21	.0133	-23.91	345.61
RISE 11	3513.41	3524.66	3 3 .1	288.69	.0042	-24.43	-.0000	369876.5	.79	.00	.0030 120.41	.0024	-23.80	313.62
SET 51	3573.08	3584.33	3 3 59.8	90.00	.0042	-23.35	.0000	372827.9	1.55	9.91	-.0035 248.79	-.0015	-23.74	298.65
SET 61	3611.21	3622.46	3 4 37.9	67.44	.0042	-24.39	.0000	376641.7	1.53	-.00	-.0027 237.26	.0028	-23.70	289.05
IMPACT	3668.84	3680.09	3 5 35.5											
IMPC 72	3668.84	3680.09	3 5 35.5	72.23	.0043	-23.59	.0001	379399.3	2.37	19.40	-.0040 247.70	.0001	-23.59	274.43
IMPC 11	3668.84	3680.09	3 5 35.5	328.27	.0044	-24.37	.0000	379002.0	1.76	23.28	.0019 148.57	.0038	-23.59	274.43

EVNT STA	TFI	TFL	DAY HR MIN	RAD	LAT	LONG	VEL	FTH	AZ	RT ASC
INJECTION	.00	11.25	31 16 26.702	6544.680	20.0694	306.0412	10.98578	.0836	112.8648	81.4378
SEPARATION	1.20	12.45	31 16 27.902	6569.445	17.2643	312.4036	10.96478	3.5043	115.0002	88.1818
RETRO	3.20	14.45	31 16 29.902	6713.197	12.2624	322.3212	10.84564	9.0738	117.6647	98.9288
IMPACT	3668.84	3680.09	3 5 35.543	381564.867	-23.5924	274.4284	2.16084	64.7685	293.8672	249.5459

SURVEYOR VIEW PERIODS

DHA	251.0027					EPS	-1.6934					LOM	268.5403
BX	-.319604	SY	-.858932	SZ	-.400111	DAO	-23.58513	RAO	249.59007	RM	382813.859	LAT	28.310600	LON	279.461800
C3	-1.13[illegible]897	ECC	.981432	SLR	12967.808	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.298192	NSY	-.864362	NSZ	-.404920	C3H	1.4971	VIM	2.6714	ZAE	136.816	B.T	.0000	B.R	-.0000
LATE	1.9362	LONE	4.7974	LATS	.5092	LONS	5.7015	LATI	-7.8849	LONI	322.6331	RSM	152.1249	TTAN	6.1384
LAUNCH DATE	MAY 31,1966			BASE AZM	105.0		TF 61.269				ARRIVAL DATE JUN 3 1966 5 59 12.3				

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	16 26 2.3	28.0	18.94	305.58	2.41	83.63	114.98	16 37 17.3	6547.5	10.98	1.19

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT												
INJECTION		.00	11.25	31	16	37.3												
SEPARATION		1.20	12.45	31	16	38.5												
RETRO		3.20	14.45	31	16	40.5												
RISE	72	4.63	15.88	31	16	41.9	83.65	-.1696	38.57	.0035	2751.0	-8.02	-.01	.1299	309.01	.0267	6.93	327.61
EXTM	72	10.17	21.42	31	16	47.5	352.00	-.2117	2.38	-.1636	1781.1	4.39	76.98	-.0000	38.10	1.1869	-5.67	347.43
RISE	51	11.07	22.32	31	16	48.4	80.79	-.0855	18.37	-.0428	5407.8	-3.25	.00	.0918	290.48	-.0010	-7.32	350.03
EXTM	51	35.39	46.64	31	17	12.7	.48	-.0216	-26.85	-.0074	9680.5	5.34	88.81	.0000	200.97	-.9920	-26.41	27.40
EXTM	72	70.24	81.49	31	17	47.5	289.54	.0000	-32.18	-.0002	23541.5	4.77	20.71	.0000	121.49	.0002	-30.44	41.01
RISE	61	146.59	157.84	31	19	3.9	310.55	.0025	-37.53	.0006	44961.9	3.59	-.00	.0016	142.94	.0013	-30.84	39.77
EXTM	51	228.84	240.09	31	20	26.1	.35	.0033	-30.69	.0002	56071.2	3.21	85.04	-.0000	183.46	.0330	-30.19	27.37
EXTM	61	406.28	417.53	31	23	23.6	4.69	.0039	-32.72	.0002	91011.1	2.62	16.91	.0000	184.12	.0034	-28.97	351.34
EXTM	72	435.68	446.93	31	23	53.0	.87	.0040	-30.23	.0001	91687.7	2.55	67.66	.0000	181.97	.0091	-28.81	344.87
RISE	11	604.08	615.33	1	2	41.4	294.10	.0040	-30.06	.0000	121594.7	1.97	.00	.0026	127.81	.0023	-28.04	306.52
SET	51	629.22	640.47	1	3	6.5	90.00	.0038	-26.84	.0001	123723.3	2.56	11.31	-.0032	245.50	-.0013	-27.94	300.66
SET	61	643.98	655.23	1	3	21.3	60.70	.0039	-30.04	.0001	126923.1	2.44	-.00	-.0021	229.02	.0027	-27.88	297.22
SET	72	825.24	836.49	1	6	22.5	94.05	.0039	-26.94	.0001	149652.8	2.38	-.00	-.0035	242.78	-.0004	-27.29	254.34
RISE	42	835.70	846.95	1	6	33.0	254.99	.0040	-25.80	-.0000	150514.6	1.67	3.47	.0028	119.40	-.0022	-27.26	251.84
EXTM	11	877.24	888.49	1	7	14.5	1.30	.0041	-29.25	.0001	153069.5	1.94	25.53	-.0000	181.26	.0040	-27.14	241.90
SET	11	1147.37	1158.62	1	11	44.7	68.16	.0041	-27.80	.0001	189521.0	2.03	.00	-.0027	235.20	.0024	-26.50	176.66
EXTM	42	1260.78	1272.03	1	13	38.1	359.94	.0042	-25.98	.0000	190912.4	1.67	80.77	-.0000	.38	-.0225	-26.28	149.04
RISE	51	1396.22	1407.47	1	15	53.5	270.00	.0041	-25.37	-.0000	209167.9	1.22	10.72	.0034	113.13	-.0015	-26.04	115.95
RISE	72	1552.23	1563.48	1	18	29.5	266.19	.0041	-25.56	-.0000	224923.4	1.11	-.01	.0037	115.82	-.0005	-25.80	77.70
RISE	61	1627.54	1638.79	1	19	44.8	295.35	.0041	-26.83	-.0000	231719.1	1.20	.00	.0025	126.25	.0027	-25.69	59.20
SET	42	1683.95	1695.20	1	20	41.2	105.00	.0041	-24.67	.0001	236405.1	1.79	2.78	-.0030	241.50	-.0022	-25.61	45.33
EXTM	51	1747.74	1758.99	1	21	45.0	358.01	.0042	-25.52	.0000	239983.1	1.43	88.19	.0038	83.42	-.0162	-25.52	29.63
EXTM	61	1887.21	1898.46	2	0	4.5	.51	.0042	-26.67	.0000	251613.3	1.39	23.09	.0000	180.50	.0041	-25.35	355.25
EXTM	72	1926.45	1937.70	2	0	43.7	.10	.0042	-25.74	.0000	251350.8	1.37	72.17	.0000	180.31	.0123	-25.30	345.57
RISE	11	2063.02	2074.27	2	3	.3	290.15	.0042	-26.02	-.0000	268426.2	1.01	.00	.0029	122.48	.0024	-25.15	311.85
SET	51	2114.93	2126.18	2	3	52.2	90.00	.0041	-24.57	.0001	271393.2	1.69	10.40	-.0034	247.62	-.0015	-25.09	299.02
SET	61	2146.70	2157.95	2	4	24.0	65.61	.0041	-26.01	.0001	275036.5	1.59	-.00	-.0026	234.93	.0027	-25.06	291.16
SET	72	2299.35	2310.60	2	6	56.6	93.67	.0041	-24.71	.0001	286771.4	1.67	-.00	-.0037	245.03	-.0005	-24.90	253.39
RISE	42	2301.44	2312.69	2	6	58.7	255.00	.0041	-24.12	-.0000	286657.3	.93	2.45	.0030	118.07	-.0023	-24.90	252.87
EXTM	11	2342.09	2353.34	2	7	39.4	.35	.0042	-25.96	.0000	286929.7	1.25	28.83	-.0000	180.36	.0043	-24.86	242.81
SET	11	2621.00	2632.25	2	12	18.3	70.46	.0042	-25.36	.0000	310260.3	1.50	-.00	-.0029	238.38	.0024	-24.61	173.69
EXTM	42	2720.40	2731.65	2	13	57.7	359.95	.0042	-24.31	.0000	311014.9	1.15	79.09	.0000	.24	-.0190	-24.52	149.03
RISE	51	2851.13	2862.38	2	16	8.4	270.00	.0041	-23.98	-.0000	325020.4	.75	10.16	.0035	111.83	-.0015	-24.42	116.58
RISE	72	3005.76	3017.01	2	18	45.1	266.43	.0042	-24.13	-.0000	336583.7	.8	-.00	.0038	114.37	-.0006	-24.28	78.06
RISE	61	3071.33	3082.58	2	19	48.6	293.23	.0042	-24.99	-.0000	340868.1	.79	.00	.0027	123.61	.0027	-24.23	61.69
SET	42	3138.59	3149.84	2	20	55.9	105.00	.0041	-23.53	.0000	345007.4	1.42	2.08	-.0030	242.40	-.0023	-24.17	44.89
EXTM	51	3207.43	3218.68	2	22	4.7	359.99	.0042	-24.09	.0000	343375.4	1.08	88.35	.0000	.67	-.0652	-24.12	27.70
EXTM	61	3336.44	3347.69	3	0	13.7	.31	.0042	-24.93	.0000	355332.9	1.08	24.83	-.0000	180.31	.0042	-24.01	355.45
EXTM	72	3375.77	3387.02	3	0	53.1	.06	.0043	-24.26	.0000	354461.9	1.08	73.64	.0000	180.22	.0131	-23.98	345.61
RISE	11	3503.76	3515.01	3	3	1.1	288.75	.0042	-24.49	-.0000	368846.7	.77	.00	.0030	120.49	.0024	-23.86	313.56
SET	51	3563.22	3574.47	3	4	.5	90.00	.0042	-23.41	.0000	371723.7	1.53	9.94	-.0035	248.69	-.0015	-23.80	298.65
SET	61	3601.11	3612.36	3	4	38.4	67.37	.0042	-24.45	.0000	375452.8	1.49	-.00	-.0027	237.17	.0028	-23.76	289.13
IMPACT		3676.15	3687.40	3	5	53.4												
IMPC	72	3676.15	3687.40	3	5	53.4	70.56	.0043	-23.60	.0001	379870.1	2.37	15.43	-.0040	247.60	-.0001	-23.63	270.12
IMPC	11	3676.15	3687.40	3	5	53.4	332.64	.0044	-24.42	.0001	378881.3	1.78	24.99	.0017	152.91	.0040	-23.63	270.12

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	31	16	37.288	6547.534	18.9419	305.5832	10.98309	1.1932	114.9793	83.6336
SEPARATION		1.20	12.45	31	16	38.488	6587.492	15.9260	311.7697	10.94930	4.6032	116.9255	90.1209
RETRO		3.20	14.45	31	16	40.488	6755.248	10.6654	321.3660	10.81120	10.1212	119.2559	100.2186
IMPACT		3676.15	3687.40	3	5	53.438	381616.453	-23.6304	270.1189	2.15763	64.5919	294.2145	249.7224

SURVEYOR VIEW PERIODS

GHA	251.0027					EPS	-1.6355							LOM	264.4160
SX	-.316989	SY	-.859635	SZ	-.400681	DAO	-23.62076	RAO	249.7561	RM	382860.473	LAT	28,310600	LON	279.461800
C3	-1.138653	ECC	.981304	SLR	12966.976	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	VOL	-.0
NSX	-.295478	NSY	-.869024	NSZ	-.405495	C3H	1.4972	VIM	2.6714	ZAE	136.537	B.T	.0000	..R	-.0000
LATE	1.9542	LONE	4.7982	LATS	.5096	LONS	5.5564	LATI	-8.1472	LONI	322.4045	RSM	152.1252	TAN	6.1371
LAUNCH DATE		MAY	31.1966	BASE AZM		108.0	TF	61.408				ARRIVAL DATE		JUN 3 1966 6 16 19.8	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	16 34 50.8	28.1	17.84	305.06	4.24	85.32	117.08	16 46 5.8	6553.5	10.98	2.10

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	31	16	46.1												
SEPARATION		1.20	12.45	31	16	47.3												
RETRO		3.20	14.45	31	16	49.3												
RISE	72	4.50	15.75	31	16	50.6	84.75	-.1542	33.39	-.0179	2826.0	-7.96	.00	.1299	303.75	.0035	5.58	325.89
EXTM	72	9.68	20.93	31	16	55.8	7.16	-.2447	-1.52	-.1673	1718.8	3.15	80.43	.2937	311.49	.2390	-6.56	344.14
RISE	51	11.07	22.32	31	16	57.2	82.63	-.0802	14.90	-.0455	5540.3	-3.03	.00	.0097	286.58	-.0059	-9.16	348.13
EXTM	51	37.53	48.78	31	17	23.6	1.58	-.0195	-30.18	-.0054	10475.3	5.29	85.34	-.0000	197.05	-.2182	-28.50	26.72
EXTM	72	70.82	82.07	31	17	56.9	291.72	-.0000	-33.87	.0000	23637.4	4.75	22.39	.0000	123.46	-.0001	-31.72	38.99
EXTM	51	91.38	102.63	31	18	17.5	343.50	-.0001	-33.35	.0001	26066.1	4.32	73.78	.0000	121.85	-.0005	-32.03	40.76
RISE	61	145.48	156.73	31	19	11.6	312.48	.0025	-38.59	.0006	44776.2	3.60	-.00	.0016	144.80	.0013	-31.78	37.91
EXTM	51	218.71	229.96	31	20	24.8	.54	.0032	-31.66	.0002	54166.2	3.26	84.06	-.0000	184.42	.0267	-31.04	27.21
EXTM	61	398.71	409.96	31	23	24.8	5.00	.0039	-33.38	.0002	89916.7	2.64	16.24	.0000	184.34	.0084	-29.57	351.06
EXTM	72	427.51	438.76	31	23	53.6	1.01	.0040	-30.87	.0002	90486.0	2.57	67.02	.0000	182.22	.0088	-29.39	344.74
RISE	11	597.93	609.18	1	2	44.0	294.60	.0040	-30.54	.0000	120768.4	1.97	.00	.0026	128.46	.0023	-28.50	305.99
SET	51	620.68	631.93	1	3	6.8	90.00	.0038	-27.29	.0001	122569.0	2.57	11.49	-.0032	245.07	-.0012	-28.40	300.70
SET	61	632.74	643.99	1	3	18.8	60.05	.0039	-30.54	.0002	125439.7	2.45	-.00	-.0021	228.26	.0027	-28.34	297.89
SET	72	817.18	828.43	1	6	23.3	94.11	.0039	-27.31	.0001	148671.9	2.38	-.00	-.0035	242.41	-.0004	-27.66	254.30
RISE	42	827.56	838.81	1	6	33.7	254.99	.0040	-26.16	-.0000	149503.3	1.67	3.69	.0028	119.68	-.0022	-27.63	251.82
EXTM	11	869.48	880.73	1	7	15.6	1.41	.0041	-29.63	.0001	152179.1	1.95	25.15	.0000	181.36	.0040	-27.50	241.79
SET	11	1137.92	1149.17	1	11	44.0	67.86	.0041	-28.10	.0001	184482.0	2.04	.01	-.0027	234.79	.0024	-26.80	176.97
EXTM	42	1252.63	1263.88	1	13	38.7	359.93	.0042	-26.26	.0000	190026.0	1.67	81.04	-.0000	.40	-.0233	-26.55	149.05
RISE	51	1388.12	1399.37	1	15	54.2	270.00	.0041	-25.61	-.0000	208300.9	1.23	10.82	.0034	113.36	-.0015	-26.28	115.94
RISE	72	1543.98	1555.23	1	18	30.1	266.15	.0041	-25.78	-.0000	224070.0	1.12	-.01	.0036	116.04	-.0005	-26.02	77.73
RISE	61	1620.43	1631.68	1	19	46.5	295.59	.0041	-27.04	-.0000	230973.8	1.21	.00	.0025	126.56	.0027	-25.89	58.95
SET	42	1675.78	1687.03	1	20	41.9	105.00	.0041	-24.87	.0001	235556.7	1.79	2.90	-.0029	241.34	-.0022	-25.81	45.34
EXTM	51	1739.50	1750.75	1	21	45.6	357.98	.0042	-25.71	.0000	239146.5	1.43	88.18	.0038	89.66	-.0033	-25.72	29.65
EXTM	61	1879.21	1890.46	2	0	5.3	.55	.0042	-26.85	.0000	250822.3	1.39	22.91	.0000	180.53	.0041	-25.52	355.21
EXTM	72	1918.34	1929.59	2	0	44.4	.12	.0042	-25.91	.0000	250539.8	1.37	71.99	.0000	180.34	.0121	-25.47	345.56
RISE	11	2055.47	2066.72	2	3	1.6	290.30	.0042	-26.18	-.0000	267658.1	1.01	.00	.0029	122.68	.0024	-25.30	311.69
SET	51	2106.75	2118.00	2	3	52.8	90.00	.0041	-24.72	.0001	270568.5	1.69	10.46	-.0034	247.48	-.0015	-25.24	299.02
SET	61	2137.79	2149.04	2	4	23.9	65.43	.0042	-26.17	.0001	274161.0	1.59	.00	-.0025	234.71	.0027	-25.20	291.35
SET	72	2291.26	2302.51	2	6	57.4	93.69	.0041	-24.85	.0001	285960.8	1.67	-.00	-.0037	244.90	-.0005	-25.03	253.38
RISE	42	2293.29	2304.54	2	6	59.4	255.00	.0041	-24.25	-.0000	285833.6	.93	2.53	.0030	118.17	-.0023	-25.03	252.87
EXTM	11	2334.02	2345.27	2	7	40.1	.37	.0042	-26.10	.0000	286133.5	1.25	28.69	-.0000	180.38	.0043	-24.99	242.79
SET	11	2612.40	2623.65	2	12	18.5	70.36	.0042	-25.47	.0000	309407.4	1.49	-.00	-.0029	238.24	.0024	-24.71	173.79
EXTM	42	2712.20	2723.45	2	13	58.3	359.95	.0042	-24.41	.0000	310185.1	1.15	79.19	.0000	.26	-.0191	-24.62	149.03
RISE	51	2842.95	2854.20	2	16	9.0	270.00	.0041	-24.07	-.0000	324184.7	.75	10.20	.0035	111.92	-.0015	-24.51	116.58
RISE	72	2997.67	3008.92	2	18	43.8	266.42	.0042	-24.21	-.0000	335751.5	.68	-.00	.0038	114.46	-.0006	-24.37	78.07
RISE	61	3063.64	3074.89	2	19	49.7	293.33	.0042	-25.08	-.0000	340052.8	.79	.00	.0027	123.73	.0027	-24.31	61.60
SET	42	3130.50	3141.75	2	20	56.6	105.00	.0041	-23.60	.0000	344149.7	1.42	2.13	-.0030	242.34	-.0023	-24.25	44.90
EXTM	51	3199.37	3210.62	2	22	5.5	360.00	.0042	-24.16	.0000	342512.1	1.08	88.42	-.0000	.62	-.0181	-24.19	27.69
EXTM	61	3328.40	3339.65	3	0	14.5	.32	.0042	-25.00	.0000	354447.7	1.07	24.76	-.0000	180.32	.0042	-24.08	355.43
EXTM	72	3367.69	3378.94	3	0	53.8	.07	.0043	-24.33	.0000	353557.4	1.07	73.58	.0000	180.23	.0134	-24.04	345.60
RISE	11	3495.90	3507.15	3	3	2.0	288.81	.0042	-24.55	-.0000	367898.4	.76	.00	.0030	120.57	.0024	-23.92	313.51
SET	51	3555.12	3566.37	3	4	1.2	90.00	.0042	-23.47	.0000	370708.6	1.51	9.96	-.0035	248.64	-.0015	-23.86	298.65
SET	61	3592.76	3604.01	3	4	38.9	67.30	.0042	-24.51	.0000	374369.5	1.45	-.00	-.0027	237.08	.0028	-23.82	289.20
IMPACT		3684.45	3695.70	3	6	10.5												
IMPC	72	3684.45	3695.70	3	6	10.5	80.69	.0043	-23.61	.0001	380330.8	2.37	11.64	-.0040	247.40	-.0002	-23.67	266.00
IMPC	11	3684.45	3695.70	3	6	10.5	336.82	.0044	-24.47	.0001	378792.0	1.79	26.41	.0015	156.42	.0041	-23.67	266.00

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	31	16	46.097	6553.565	17.8393	305.0624	10.97766	2.0980	117.0813	85.3210
SEPARATION		1.20	12.45	31	16	47.297	6605.814	14.6215	311.0670	10.93361	5.4950	118.8460	91.6265
RETRO		3.20	14.45	31	16	49.297	6792.819	9.1074	320.3541	10.78061	10.9662	120.8656	101.4149
IMPACT		3684.45	3695.70	3	6	10.550	381669.270	-23.6667	265.9985	2.15375	64.2241	294.4511	249.8916

SURVEYOR VIEW PERIODS

BHA	251.0027					EPS	-1.5893					LOM	260.3055
SX	-.314382	SY	-.860329	SZ	-.401246	DAO	-23.65609	RAO	249.92664	RM	382906.980	LAT	28.310600
C3	-1.147818	ECC	.981154	SLR	12965.994	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000
NSX	-.292754	NSY	-.865681	NSZ	-.406068	C3M	1.4972	VIM	2.6714	ZAE	136.214	B.T	.0000
LATE	1.9721	LONE	4.7992	LATS	.5099	LONS	5.4121	LATI	-8.4283	LONI	322.1357	RSM	152.1255
LAUNCH DATE	MAY 31,1966			BASE AZM	111.0		TF 61.570				ARRIVAL DATE	JUN	3 1966 6 33 23.8

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	16 42 17.4	28.1	16.77	304.48	5.74	86.61	119.17	16 53 32.4	6561.0	10.97	2.85

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	31	16	53.5												
SEPARATION		1.20	12.45	31	16	54.7												
RETRO		3.20	14.45	31	16	56.7												
RISE	72	4.43	15.68	31	16	58.0	85.68	-.1418	28.51	-.0374	2899.3	-7.80	-.00	.1289	298.81	-.0174	4.15	324.35
EXTM	72	10.43	21.68	31	17	4.0	4.92	-.2082	-16.08	-.1203	1986.5	4.53	80.52	-.0000	209.98	-1.4167	-9.85	344.53
RISE	51	11.10	22.35	31	17	4.6	84.37	-.0755	11.50	-.0481	5664.0	-2.81	.00	.0876	282.79	-.0103	-11.08	346.39
EXTM	51	39.96	51.21	31	17	33.5	2.15	-.0175	-33.41	-.0037	11350.7	5.24	82.11	-.0000	193.04	-.1098	-30.66	26.36
EXTM	72	71.41	82.66	31	18	5.0	293.50	-.0000	-35.64	.0003	23762.2	4.73	23.64	.0000	125.55	-.0003	-33.10	37.31
EXTM	51	90.88	102.13	31	18	24.4	345.60	-.0002	-34.95	.0003	25981.9	4.32	74.56	.0000	130.03	-.0013	-33.28	39.04
RISE	61	147.26	158.51	31	19	20.8	314.46	.0025	-39.61	.0007	45230.8	3.58	-.00	.0016	146.64	.0013	-32.77	36.11
EXTM	51	210.75	222.00	31	20	24.3	.79	.0032	-32.72	.0003	52653.0	3.30	82.98	.0000	185.43	.0219	-31.97	26.99
EXTM	61	394.52	405.77	31	23	28.1	5.71	.0039	-34.05	.0003	89345.8	2.65	15.52	.0000	184.90	.0033	-30.21	350.40
EXTM	72	421.06	432.31	31	23	54.6	1.17	.0040	-31.55	.0002	89562.6	2.58	66.33	.0000	182.49	.0084	-30.01	344.59
RISE	11	593.50	604.75	1	2	47.0	295.15	.0040	-31.06	.0000	120159.7	1.98	.00	.0026	129.15	.0023	-28.99	305.44
SET	51	613.69	624.94	1	3	7.2	90.00	.0038	-27.78	.0001	121603.9	2.58	11.68	-.0032	244.61	-.0012	-28.89	300.74
SET	61	622.79	634.04	1	3	16.3	59.33	.0039	-31.08	.0002	124105.3	2.45	-.00	-.0021	227.45	.0027	-28.85	298.62
SET	72	810.65	821.90	1	6	24.2	94.19	.0039	-27.71	.0001	147856.5	2.39	-.00	-.0035	242.00	-.0004	-28.07	254.25
RISE	42	820.92	832.17	1	6	34.5	254.99	.0040	-26.55	-.0000	148650.2	1.68	3.93	.0028	120.00	-.0022	-28.03	251.80
EXTM	11	863.25	874.50	1	7	16.8	1.54	.0042	-30.03	.0001	151451.8	1.95	24.74	.0000	181.46	.0040	-27.88	241.67
SET	11	1129.92	1141.17	1	11	43.5	67.55	.0041	-28.42	.0001	183573.6	2.04	-.00	-.0026	234.37	.0024	-27.11	177.29
EXTM	42	1245.77	1257.02	1	13	39.3	359.89	.0042	-26.55	.0000	189245.8	1.67	81.33	.0000	.66	-.0244	-26.83	149.09
RISE	51	1381.46	1392.71	1	15	55.0	270.00	.0041	-25.87	-.0000	207545.3	1.23	10.92	.0034	113.60	-.0015	-26.54	115.93
RISE	72	1537.15	1548.40	1	18	30.7	266.11	.0041	-26.01	-.0000	223317.7	1.12	-.01	.0036	116.28	-.0005	-26.25	77.76
RISE	61	1614.81	1626.06	1	19	48.4	295.86	.0041	-27.27	.0000	230333.0	1.21	.00	.0025	126.88	.0027	-26.11	58.68
SET	42	1669.03	1680.28	1	20	42.6	105.00	.0041	-25.06	.0001	234801.9	1.79	3.03	-.0029	241.17	-.0022	-26.02	45.34
EXTM	51	1732.79	1744.04	1	21	46.3	357.99	.0042	-25.92	.0000	234410.7	1.43	88.18	.0038	96.28	.0104	-25.92	29.65
EXTM	61	1872.64	1883.89	2	0	6.2	.59	.0042	-27.04	.0000	250116.7	1.39	22.72	.0000	180.57	.0041	-25.71	355.17
EXTM	72	1911.65	1922.90	2	0	45.2	.13	.0042	-26.10	.0000	249810.6	1.37	71.80	.0000	180.37	.0120	-25.65	345.55
RISE	11	2049.38	2060.63	2	3	2.9	290.46	.0042	-26.35	-.0000	266967.1	1.01	.00	.0028	122.91	.0024	-25.47	311.53
SET	51	2099.97	2111.22	2	3	53.5	90.00	.0041	-24.88	.0001	269814.7	1.69	10.52	-.0034	247.33	-.0015	-25.40	299.03
SET	61	2150.28	2161.53	2	4	23.8	65.24	.0042	-26.33	.0001	273356.0	1.59	.00	-.0025	234.48	.0027	-25.36	291.53
SET	72	2284.57	2295.82	2	6	58.1	93.71	.0041	-24.99	.0001	285212.8	1.67	-.00	-.0037	244.75	-.0005	-25.18	253.36
RISE	42	2286.54	2297.79	2	7	.1	255.00	.0041	-24.39	-.0000	285071.2	.93	2.61	.0030	118.28	-.0023	-25.17	252.87
EXTM	11	2327.36	2338.61	2	7	40.9	.40	.0042	-26.24	.0000	285398.9	1.25	28.55	-.0000	180.41	.0043	-25.13	242.76
SET	11	2605.16	2616.41	2	12	18.7	70.25	.0042	-25.59	.0000	308599.6	1.49	-.00	-.0029	238.09	.0024	-24.83	173.90
EXTM	42	2705.39	2716.64	2	13	58.9	359.94	.0042	-24.52	.0000	309397.4	1.15	79.30	.0000	.29	-.0194	-24.73	149.03
RISE	51	2836.16	2847.41	2	16	9.7	270.00	.0041	-24.16	-.0000	323385.0	.74	10.24	.0035	112.01	-.0015	-24.61	116.57
RISE	72	2990.81	3002.06	2	18	44.4	266.40	.0042	-24.30	-.0000	334934.4	.67	-.00	.0038	114.54	-.0006	-24.46	78.08
RISE	61	3057.22	3068.47	2	19	50.8	293.42	.0042	-25.16	-.0000	339250.3	.79	.00	.0027	123.85	.0027	-24.39	61.50
SET	42	3123.68	3134.93	2	20	57.2	105.00	.0041	-23.68	.0000	343301.8	1.41	2.18	-.0030	242.28	-.0023	-24.33	44.90
EXTM	51	3188.10	3199.35	2	22	1.6	358.86	.0042	-24.24	.0000	341369.0	1.06	88.18	.0022	34.85	-.1008	-24.27	28.80
EXTM	61	3321.65	3332.90	3	0	15.2	.33	.0042	-25.08	.0000	353566.0	1.07	24.68	-.0000	180.33	.0042	-24.15	355.42
EXTM	72	3360.91	3372.16	3	0	54.4	.07	.0043	-24.40	.0000	352656.4	1.07	73.51	.0000	180.24	.0132	-24.11	345.60
RISE	11	3489.37	3500.62	3	3	2.9	288.87	.0042	-24.62	-.0000	366954.9	.75	.00	.0029	120.65	.0024	-23.99	313.44
SET	51	3548.37	3559.62	3	4	1.9	90.00	.0042	-23.53	.0000	369703.5	1.49	9.99	-.0035	248.58	-.0015	-23.92	298.66
SET	61	3585.75	3597.00	3	4	39.3	67.23	.0042	-24.58	.0000	373306.3	1.43	-.00	-.0027	236.99	.0027	-23.88	289.27
IMPACT		3694.21	3705.46	3	6	27.7												
IMPC	42	3694.21	3705.46	3	6	27.7	246.34	.0043	-23.07	.0000	382148.8	1.61	-4.33	.0029	122.32	-.0026	-23.70	261.86
IMPC	72	3694.21	3705.46	3	6	27.7	84.85	.0043	-23.62	.0001	380796.5	2.37	7.85	-.0039	247.10	-.0003	-23.70	261.86
IMPC	11	3694.21	3705.46	3	6	27.7	341.02	.0044	-24.51	.0001	378723.1	1.81	27.63	.0012	160.48	.0043	-23.70	261.86

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	31	16	53.540	6561.098	16.7609	304.4894	10.97095	2.8451	119.1764	86.6139
SEPARATION		1.20	12.45	31	16	54.740	6623.384	13.3489	310.3085	10.91854	6.2287	120.7683	92.7338
RETRO		3.20	14.45	31	16	56.740	6826.050	7.5845	319.2973	10.75365	11.6577	122.4983	102.2239
IMPACT		3694.21	3705.46	3	6	27.748	381720.203	-23.7031	261.8570	2.14971	63.9825	294.8623	250.0614

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SURVEYOR VIEW PERIODS

GHA	251.0027					EPS	-1.5470							LOM	254.7600
SX	-.310862	SY	-.861254	SZ	-.402003	DAO	-23,70345	RAO	250.15342	RM	382969.805	LAT	28,310600	LON	279.461800
C3	-1.161910	ECC	.980923	SLR	12964.480	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.289056	NSY	-.866560	NSZ	-.406842	C3M	1.4969	VIM	2.6714	ZAE	135,724	B.T	.0000	B.R	-.0000
LATE	1.9963	LONE	4.8002	LATS	.5105	LONS	5,2172	LATI	-8.8191	LONI	321,7197	RSM	152.1259	TTAN	6.1272
LAUNCH DATE		MAY	31,1966		BASE AZM	115.0		TF	61.820			ARRIVAL DATE		JUN 3 1966	6 56 25.4

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPTH
115.00	16 50 35.2	28.1	15.37	303.64	7.38	87.84	121.96	17 1 50.2	6571.6	10.96	3.65

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN.	SUNLIGHT											
INJECTION		.00	11.25	31	17	1.8												
SEPARATION		1.20	12.45	31	17	3.0												
RETRO		3.20	14.45	31	17	5.0												
RISE	72	4.39	15.64	31	17	6.2	86.73	-.1281	22.33	-.0605	2996.7	-7.43	-.00	.1262	292.55	-.0422	2.13	322.53
EXTM	72	10.81	22.06	31	17	12.6	10.27	-.1960	-27.51	-.0935	2268.8	4.80	68,12	-.0000	205.09	-.5296	-13.05	343.20
RISE	51	11.20	22.45	31	17	13.0	86.58	-.0699	7.06	-.0512	5822.5	-2.50	.00	.0848	277.84	-.0157	-13.76	344.23
EXTM	51	44.02	55.27	31	17	45.9	1.88	-.0147	-37.50	-.0017	12754.0	5.16	78,13	-.0000	187.26	-.0573	-33.59	26.49
EXTM	72	71.64	82.89	31	18	13.5	295.36	-.0001	-38.11	.0006	23801.7	4.72	24,75	.0000	128.47	-.0007	-35.06	35.39
EXTM	51	88.12	99.37	31	18	30.0	347.94	-.0007	-37.30	.0005	25332.0	4.36	74,56	.0000	141.36	-.0028	-35.08	37.08
RISE	61	153.02	164.27	31	19	34.9	317.10	.0026	-40.88	.0007	46572.4	3.52	-.00	.0016	149.03	.0013	-34.12	33.77
EXTM	51	203.53	214.78	31	20	25.4	1.30	.0031	-34.23	.0004	51278.8	3.34	81,43	-.0000	187.22	.0173	-33.29	26.54
EXTM	61	390.08	401.33	31	23	31.9	6.43	.0038	-35.00	.0003	88753.4	2.65	14,53	.0000	185.44	.0033	-31.11	349.72
EXTM	72	414.63	425.88	31	23	56.5	1.42	.0040	-32.51	.0002	88582.4	2.59	65,36	.0000	182.88	.0080	-30.90	344.36
RISE	11	589.70	600.95	1	2	51.5	295.92	.0040	-31.78	.0001	119618.2	1.99	.00	.0025	130.14	.0023	-29.69	304.65
SET	51	606.31	617.56	1	3	8.1	90.00	.0038	-28.48	.0002	120553.3	2.58	11,95	-.0032	243.95	-.0012	-29.59	300.79
SET	61	611.05	622.30	1	3	12.9	58.29	.0039	-31.85	.0002	122504.1	2.46	-.00	-.0020	226.27	.0027	-29.57	299.68
SET	72	803.83	815.08	1	6	25.7	94.29	.0039	-28.28	.0001	146972.8	2.39	-.01	-.0034	241.42	-.0004	-28.64	254.18
RISE	42	813.90	825.15	1	6	35.7	254.99	.0040	-27.12	-.0000	147707.6	1.69	4,28	.0028	120.44	-.0022	-28.60	251.77
EXTM	11	856.82	868.07	1	7	18.7	1.71	.0042	-30.60	.0001	150682.5	1.95	24,17	.0000	181.61	.0039	-28.43	241.91
SET	11	1120.85	1132.10	1	11	42.7	67.09	.0041	-28.88	.0001	182501.1	2.04	-.00	-.0026	233.76	.0024	-27.56	177.76
EXTM	42	1238.56	1249.81	1	13	40.4	359.88	.0042	-26.97	.0000	188371.1	1.67	81,75	.0000	.75	-.0257	-27.24	149.10
RISE	51	1374.33	1385.58	1	15	56.2	270.00	.0041	-26.24	-.0000	206672.3	1.23	11,07	.0034	113.94	-.0015	-26.91	115.91
RISE	72	1529.75	1541.00	1	18	31.6	266.05	.0041	-26.34	-.0000	222435.9	1.12	-.01	.0036	116.61	-.0005	-26.58	77.80
RISE	61	1609.14	1620.39	1	19	51.0	296.24	.0042	-27.59	.0000	229603.4	1.21	.00	.0025	127.35	.0027	-26.42	58.29
SET	42	1661.76	1673.01	1	20	43.6	105.00	.0041	-25.38	.0001	233907.0	1.79	3.22	-.0029	240.94	-.0022	-26.32	45.35
EXTM	51	1725.76	1737.01	1	21	47.6	358.04	.0042	-26.22	.0000	233553.9	1.43	88,17	.0037	105.76	.0297	-26.21	29.59
EXTM	61	1865.60	1876.85	2	0	7.4	.65	.0042	-27.31	.0000	249276.8	1.39	22,45	.0000	180.62	.0040	-25.97	355.12
EXTM	72	1904.63	1915.88	2	0	46.5	.19	.0042	-26.37	.0000	248990.4	1.37	71,54	-.0000	180.54	.0119	-25.91	345.49
RISE	11	2043.01	2054.26	2	3	4.8	290.68	.0042	-26.59	-.0000	266136.0	1.01	.00	.0028	123.22	.0024	-25.70	311.30
SET	51	2092.64	2103.89	2	3	54.5	90.00	.0041	-25.10	.0001	268891.9	1.69	10.62	-.0034	247.12	-.0015	-25.63	299.03
SET	61	2121.86	2133.11	2	4	23.7	64.97	.0042	-26.56	.0001	272354.3	1.58	.00	-.0025	234.14	.0027	-25.59	291.81
SET	72	2277.35	2288.60	2	6	59.2	93.75	.0041	-25.19	.0001	284207.0	1.67	-.01	-.0037	244.55	-.0005	-25.38	253.33
RISE	42	2279.23	2290.48	2	7	1.1	255.00	.0041	-24.59	-.0000	284124.6	.93	2,74	.0030	118.44	-.0023	-25.38	252.86
EXTM	11	2320.17	2331.42	2	7	42.0	.44	.0042	-26.44	.0000	284489.4	1.24	28,35	-.0000	180.45	.0043	-25.32	242.72
SET	11	2597.14	2608.39	2	12	19.0	70.10	.0042	-25.76	.0001	307571.4	1.49	-.00	-.0028	237.87	.0024	-24.99	174.06
EXTM	42	2697.97	2709.22	2	13	59.8	359.94	.0042	-24.67	.0000	308392.3	1.15	79,45	.0000	.32	-.0198	-24.88	149.04
RISE	51	2828.77	2840.02	2	16	10.6	270.00	.0041	-24.30	-.0000	322355.9	.74	10.29	.0035	112.13	-.0015	-24.74	116.57
RISE	72	2983.47	2994.72	2	18	45.3	266.38	.0042	-24.42	-.0000	333891.2	.67	-.00	.0037	114.67	-.0006	-24.58	78.10
RISE	61	3050.48	3061.73	2	19	52.3	293.56	.0042	-25.28	-.0000	338226.5	.78	.00	.0027	124.02	.0027	-24.51	61.36
SET	42	3116.36	3127.61	2	20	58.2	105.00	.0041	-23.79	.0000	342211.9	1.41	2,24	-.0030	242.19	-.0023	-24.44	44.90
EXTM	51	3180.82	3192.07	2	22	2.7	358.87	.0042	-24.35	.0000	340267.7	1.06	88,28	.0023	36.69	-.1040	-24.38	28.80
EXTM	61	3314.40	3325.65	3	0	16.2	.36	.0042	-25.18	.0000	352425.9	1.06	24,58	-.0000	180.35	.0042	-24.24	355.40
EXTM	72	3353.59	3364.84	3	0	55.4	.08	.0043	-24.50	.0000	351487.3	1.06	73,41	.0000	180.25	.0132	-24.20	345.60
RISE	11	3482.38	3493.63	3	3	4.2	288.95	.0042	-24.71	-.0000	365726.8	.74	.00	.0029	120.77	.0024	-24.07	313.36
SET	51	3541.03	3552.28	3	4	2.9	90.00	.0042	-23.62	.0000	368395.3	1.47	10.02	-.0035	248.50	-.0015	-24.01	298.66
SET	61	3578.04	3589.29	3	4	39.9	67.13	.0042	-24.67	.0000	371927.4	1.40	-.00	-.0027	236.86	.0027	-23.97	289.37
IMPACT		3709.21	3720.46	3	6	51.0												
IMPC	42	3709.21	3720.46	3	6	51.0	251.92	.0043	-23.15	.0000	381780.1	1.58	-.36	.0031	119.06	-.0025	-23.75	256.25
IMPC	72	3709.21	3720.46	3	6	51.0	90.46	.0043	-23.63	.0001	381434.7	2.35	2,74	-.0039	246.51	-.0004	-23.75	256.25
IMPC	11	3709.21	3720.46	3	6	51.0	346.71	.0044	-24.57	.0001	378671.6	1.83	28,91	.0009	166.18	.0044	-23.75	256.25
SET	72	3721.57	3732.82	3	7	3.4	93.48	.0043	-23.62	.0001	382074.2	2.59	-.00	-.0040	246.14	-.0005	-23.76	253.22

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPTH	AZ	RT ASC
INJECTION		.00	11.25	31	17	1.836	6571,923	15.3609	303,6551	10,96130	3,6543	121.9655	87.8593
SEPARATION		1.20	12.45	31	17	3,036	6644,904	11,7001	309,2237	10,90003	7,0208	123,3411	93,7287
RETRO		3.20	14.45	31	17	5,036	6864,284	5,6057	317,8283	10,72270	12,4004	124,7158	102,8346
IMPACT		3709,21	3720,46	3	6	51,049	381792,930	-23,7521	256,2464	2,14330	63,4477	295,2571	250,2920

SURVEYOR VIEW PERIODS

GHA	251.9883					EPS	11.0787					LOM	297.1581
SX	-.105615	SY	-.893945	SZ	-.435555	OBQ	-25.8264	RAO	263.26202	RM	386700.781	LAT	28.310600
LON	279.461800	C3	-1.047083	ECC	.982808	SLR	12976.819	RCA	6544.6450	LTA	-20.0000	GTA	20.00
TB	675.00000	POL	-.0	NSX	-.084126	NSY	-.895000	NSZ	-.438080	CXM	1.4929	VIM	2.6706
ZAE	138.883	B.T	.0000	B.R	-.0000	LATE	3.3128	LONE	4.7549	LATS	.5394	LONS	354.65 8
LATI	-4.3028	LONI	324.3175	RSM	152.1421	TTAN	6.6675						
LAUNCH DATE	JUN	1 1966		BASE AZM	84.0		TF	61.071				ARRIVAL DATE	JUN 4 1966 4 55 39.2

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
84.00	15 53 11.6	27.1	27.14	307.28	-16.47	78.08	99.68	16 4 26.6	6683.9	10.87	-8.26

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
				PRORE IN SUNLIGHT														
INJECTION		.00	11.25	1	16	4.4												
SEPARATION		1.20	12.45	1	16	5.6												
RETRO		3.20	14.45	1	16	7.6												
RISE	72	7.47	18.72	1	16	11.9	319.78	-.6332	29.70	-.1941	2559.1	-2.29	-.00	.0768	6.63	.2113	13.81	348.21
RISE	51	12.29	23.54	1	16	16.7	80.12	-.1554	45.94	-.0228	4522.3	-4.01	-.00	.0987	322.92	.0497	3.53	7.23
EXTM	72	13.28	24.53	1	16	17.7	286.58	-.0240	17.96	-.1006	3687.9	6.70	13.18	-.0000	69.80	.1059	1.67	10.39
EXTM	51	28.35	39.60	1	16	32.8	337.50	-.0286	-5.07	-.0274	6759.9	5.62	60.15	-.0000	49.98	.0794	-15.38	39.84
EXTM	72	64.35	75.60	1	17	8.8	268.70	-.0003	-24.87	-.0019	22783.9	5.01	2.03	-.0000	114.02	.0019	-25.20	59.97
RISE	42	65.60	76.85	1	17	10.0	102.18	-.0056	-16.54	-.0038	23384.5	4.25	.00	.0066	249.48	.0002	-25.33	60.23
EXTM	51	77.60	88.85	1	17	22.0	316.47	-.0003	-25.16	-.0016	22375.5	4.64	50.85	-.0000	98.77	.0025	-26.32	62.02
EXTM	42	128.27	139.52	1	18	12.7	95.67	.0005	-23.21	-.0007	39015.5	3.98	8.80	-.0000	247.74	-.0009	-28.07	61.65
SET	42	217.64	228.89	1	19	42.1	104.99	.0025	-25.11	-.0001	59015.2	3.50	3.00	-.0017	241.23	-.0015	-28.66	49.50
RISE	61	228.21	239.46	1	19	52.7	303.82	.0033	-33.33	.0001	61430.5	3.05	.01	.0019	136.04	.0021	-28.68	47.65
EXTM	51	331.12	342.37	1	21	35.6	.03	.0038	-28.48	.0000	74071.5	2.84	86.86	.0000	180.56	.0493	-28.63	27.66
EXTM	61	487.91	499.16	2	0	12.4	2.35	.0040	-31.68	.0001	103082.0	2.47	18.04	.0000	182.10	.0035	-28.39	353.53
EXTM	72	524.08	535.33	2	0	48.5	.37	.0041	-29.65	.0001	104547.3	2.40	68.36	-.0000	180.86	.0096	-28.33	345.33
RISE	11	689.98	701.23	2	3	54.4	293.95	.0040	-29.41	-.0000	132939.0	1.87	.00	.0026	127.61	.0023	-28.06	306.88
SET	51	717.47	728.72	2	4	1.9	90.00	.0039	-27.01	.0001	135222.4	2.47	11.37	-.0032	245.34	-.0013	-28.02	300.41
SET	61	732.12	743.37	2	4	16.6	60.79	.0040	-29.98	.0001	138335.3	2.36	-.00	-.0022	229.12	.0026	-28.00	296.95
SET	72	912.08	923.33	2	7	16.5	94.13	.0040	-27.42	.0001	160108.2	2.32	-.00	-.0035	242.29	-.0005	-27.75	254.09
RISE	42	920.94	932.19	2	7	25.4	255.00	.0040	-26.37	-.0001	160708.6	1.61	3.83	.0029	119.85	-.0022	-27.74	251.96
EXTM	11	960.61	971.86	2	8	5.1	.75	.0042	-29.68	.0000	162993.8	1.89	25.10	.0000	180.72	.0040	-27.69	242.43
SET	11	1229.14	1240.39	2	12	33.6	67.35	.0041	-28.43	.0001	194589.8	2.00	-.00	-.0027	234.09	.0024	-27.39	177.40
EXTM	42	1317.18	1328.43	2	14	1.6	352.84	.0042	-27.35	.0000	197299.7	1.62	79.79	.0021	38.80	-.0172	-27.31	155.94
RISE	51	1480.50	1491.75	2	16	44.9	270.00	.0041	-26.42	-.0000	218069.1	1.21	11.18	.0034	114.21	-.0014	-27.16	116.00
RISE	72	1635.55	1646.80	2	19	20.0	265.98	.0041	-26.10	-.0000	233631.9	1.10	.00	.0036	117.08	-.0005	-27.03	77.96
RISE	61	1717.76	1729.01	2	20	42.2	296.84	.0041	-28.38	-.0000	240982.2	1.20	.00	.0025	128.08	.0027	-26.97	57.75
SET	42	1768.38	1779.63	2	21	32.8	105.00	.0041	-26.03	.0000	245028.4	1.78	3.61	-.0029	240.42	-.0022	-26.93	45.29
EXTM	51	1833.01	1844.26	2	22	37.5	358.26	.0042	-26.91	.0000	244732.5	1.42	88.05	.0030	127.46	.0657	-26.88	29.38
EXTM	61	1970.85	1982.10	3	0	55.3	.37	.0042	-28.18	.0000	260314.0	1.38	21.68	-.0000	180.35	.0040	-26.79	355.39
EXTM	72	2010.64	2021.89	3	1	35.1	.10	.0042	-27.42	.0000	259991.9	1.37	70.69	-.0000	180.28	.0112	-26.76	345.57
RISE	11	2152.84	2164.09	3	3	57.3	291.58	.0042	-27.53	-.0000	277444.8	1.02	.00	.0028	124.46	.0024	-26.67	310.45
SET	51	2199.19	2210.44	3	4	43.6	90.01	.0041	-26.15	.0000	279898.1	1.68	11.03	-.0034	246.14	-.0015	-26.65	298.99
SET	61	2223.56	2234.81	3	5	8.0	63.78	.0042	-27.68	.0000	283029.4	1.58	-.00	-.0025	232.67	.0027	-26.63	292.96
SET	72	2384.69	2395.94	3	7	49.1	93.94	.0041	-26.46	.0000	295438.0	1.67	-.00	-.0036	243.37	-.0005	-26.54	253.09
RISE	42	2385.51	2396.76	3	7	49.9	255.00	.0041	-25.79	-.0000	295114.4	.94	3.47	.0029	119.39	-.0023	-26.54	252.89
EXTM	11	2425.64	2436.89	3	8	30.1	.20	.0042	-27.60	.0000	295627.8	1.25	27.19	.0000	180.20	.0042	-26.52	242.95
EXTM	11	2425.64	2436.89	3	8	30.1	.20	.0042	-27.60	.0000	2.5628.3	1.25	27.19	.0000	180.20	.0042	-26.52	242.95
SET	11	2698.58	2709.83	3	13	3.0	68.82	.0042	-27.12	.0000	318465.8	1.50	-.00	-.0028	236.09	.0024	-26.38	175.31
EXTM	42	2804.55	2815.80	3	14	49.0	359.96	.0042	-26.15	.0000	319696.6	1.16	80.93	.0000	.25	-.0205	-26.32	149.02
RISE	51	2935.01	2946.26	3	16	59.5	269.99	.0042	-25.44	-.0000	333874.2	.76	10.90	.0034	113.57	-.0015	-26.26	116.60
RISE	72	3088.26	3099.51	3	19	32.7	266.11	.0042	-26.13	-.0000	345378.8	.71	.00	.0037	116.30	-.0005	-26.19	78.39
RISE	61	3163.94	3175.19	3	20	48.4	295.44	.0042	-26.21	-.0000	350422.7	.83	.00	.0026	126.36	.0027	-26.15	59.52
SET	42	3222.58	3233.83	3	21	47.0	105.00	.0041	-25.50	.0000	353950.8	1.44	3.29	-.0030	240.84	-.0023	-26.12	44.89
EXTM	51	3291.49	3302.74	3	22	55.9	.00	.0042	-26.10	.0000	352565.3	1.11	89.64	-.0000	182.66	.0451	-26.09	27.68
EXTM	61	3420.19	3431.44	4	1	4.6	.22	.0042	-26.95	.0000	364976.5	1.12	22.81	-.0000	180.21	.0041	-26.03	355.53
EXTM	72	3459.75	3471.00	4	1	44.2	.03	.0043	-26.42	.0000	364091.7	1.13	71.58	.0000	180.11	.0104	-26.01	345.64
RISE	11	3595.24	3606.49	4	3	59.7	290.65	.0042	-26.56	-.0000	379551.5	.92	.00	.0029	123.18	.0024	-25.93	311.68
SET	51	3646.92	3658.17	4	4	51.4	90.00	.0042	-25.92	.0000	382502.9	1.90	10.78	-.0035	246.73	-.0015	-25.89	298.64
IMPACT		3664.24	3675.49	4	5	8.7												
IMPC	72	3664.24	3675.49	4	5	8.7	52.29	.0044	-26.10	.0001	381612.3	2.37	37.22	-.0038	243.23	.0009	-25.87	294.21
IMPC	51	3664.24	3675.49	4	5	8.7	94.42	.0043	-25.47	.0001	384660.8	2.42	7.13	-.0035	245.11	-.0016	-25.87	294.21
IMPC	11	3664.24	3675.49	4	5	8.7	308.27	.0044	-26.07	.0000	384212.5	1.75	11.23	.0026	134.28	.0030	-25.87	294.21
IMPC	61	3664.24	3675.49	4	5	8.7	62.25	.0043	-26.07	.0001	385266.4	2.32	1.66	-.0026	232.36	.0029	-25.87	294.21
SET	61	3675.25	3686.50	4	5	19.7	64.99	.0044	-26.55	.0001	385992.9	2.80	-.00	-.0027	234.16	.0029	-25.87	291.48

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	1	16	4.443	6691.822	27.1749	307.0341	10.87323	-8.2630	99.5620	77.8365
SEPARATION		1.20	12.45	1	16	5.643	6593.699	25.8127	314.3593	10.94793	-4.9256	102.9736	85.4625
RETRO		3.20	14.45	1	16	7.643	6545.862	22.7325	326.0109	10.98821	.7722	107.9869	97.6155
IMPACT		3664.24	3675.49	4	5	8.687	385503.656	-25.8673	294.2102	2.19578	67.5715	284.7142	263.5808

SURVEYOR VIEW PERIODS

GHA	251.9883				EPS	11.3174					LOM	290.2564	
SX	-.101115	SY	-.994215	SZ	-.436069	DAO	-25.85432	RAD	263.54860	RM	386784.023	LAT	28.310600	LON	279.461800
C3	-1.039182	ECC	.982938	SLR	12977.670	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.079597	NSY	-.895183	NSZ	-.438533	C3M	1.4468	VIM	2.6713	ZAE	139.058	B.T	.0000	B.R	-.0000
LATE	3.3397	LONE	4.7910	LATS	.5400	LONS	353.8074	LATI	-4.0716	LONI	324.4561	RSM	152.1423	TTAN	6.6758
LAUNCH DATE	JUN	1 1966		BASE AZM	87.0		TF 60.974				ARRIVAL DATE	JUN	4 1966	5 24 19.6	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
87.00	16 21 52.6	27.5	25.90	307.49	-10.22	85.48	102.05	16 33 7.6	6596.6	10.95	-5.07

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	1	16	33.1												
SEPARATION		1.20	12.45	1	16	34.3												
RETRO		3.20	14.45	1	16	36.3												
RISE	72	6.42	17.67	1	16	39.5	47.82	-.9553	78.42	.0673	2598.9	-4.41	-.00	.0962	351.37	.1808	14.02	342.33
RISE	51	11.85	23.10	1	16	45.0	65.22	-.1331	41.10	-.0250	4817.4	-3.76	.00	.0965	316.75	.0374	2.81	3.26
EXTM	72	12.55	23.80	1	16	45.7	296.41	-.0382	19.3	-.1151	3270.9	6.34	21.64	-.0000	65.17	.1298	1.55	5.42
EXTM	51	30.38	41.63	1	17	3.5	343.50	-.0246	-8.53	-.0206	7642.6	5.53	66.71	-.0000	45.27	.0807	-16.51	37.07
EXTM	72	64.46	75.71	1	17	37.6	275.25	-.0002	-24.72	-.0018	22518.9	4.97	8.01	.0300	113.60	.0018	-24.75	53.81
EXTM	51	79.81	91.06	1	17	52.9	324.31	-.0002	-25.3	-.0014	22935.8	4.56	57.87	.0000	96.82	.0027	-26.00	55.87
RISE	42	82.76	94.01	1	17	55.9	103.97	-.0026	-18.48	-.0022	28633.5	4.23	.00	.0033	246.67	-.0003	-26.17	56.08
EXTM	42	128.31	139.56	1	18	41.4	102.07	.0006	-22.8	-.0008	39872.1	3.97	3.59	-.0000	244.87	-.0009	-27.65	55.01
SET	42	167.36	178.61	1	19	20.5	104.99	.0018	-23.72	-.0004	48905.1	3.74	2.21	-.0010	242.25	-.0013	-28.11	50.59
RISE	61	192.39	203.64	1	19	45.5	304.07	.0031	-33.21	.0001	54464.3	3.26	-.00	.0017	136.32	.0019	-28.25	46.89
EXTM	51	297.56	308.81	1	21	30.7	.02	.0037	-28.14	.0000	68458.9	2.95	87.10	.0000	180.41	.0433	-28.39	27.67
EXTM	61	457.67	468.92	2	0	10.8	2.44	.0039	-31.47	.0001	98751.7	2.53	18.06	.0000	182.19	.0035	-28.23	353.44
EXTM	72	493.50	504.75	2	0	46.6	.30	.0040	-29.44	.0001	100292.1	2.45	68.46	.0000	180.71	.0096	-28.18	345.39
RISE	11	660.61	671.86	2	3	33.7	293.84	.0040	-29.85	-.0000	129295.5	1.91	.00	.0026	127.52	.0023	-27.95	306.88
SET	51	687.89	699.14	2	4	1.0	90.00	.0039	-26.28	.0001	131615.4	2.51	11.32	-.0032	245.46	-.0013	-27.91	300.49
SET	61	702.98	714.23	2	4	16.1	60.85	.0040	-29.42	.0001	134810.0	2.39	-.00	-.0022	229.20	.0026	-27.89	296.94
SET	72	883.05	894.30	2	7	16.2	94.12	.0039	-27.53	.0001	156916.8	2.34	-.00	-.0035	242.38	-.0005	-27.67	254.15
RISE	42	892.33	903.58	2	7	25.5	254.99	.0040	-26.26	-.0001	157588.8	1.63	3.76	.0029	119.77	-.0021	-27.66	251.93
EXTM	11	932.05	943.30	2	8	5.2	.78	.0042	-29.54	.0000	159925.5	1.92	25.14	-.0000	180.75	.0040	-27.61	242.40
SET	11	1200.80	1212.05	2	12	33.9	67.37	.0041	-28.10	.0001	191882.8	2.02	.01	-.0027	234.13	.0024	-27.34	177.40
EXTM	42	1317.27	1328.52	2	14	30.4	359.96	.0042	-26.38	.0000	197493.0	1.66	81.76	.0000	.30	-.0227	-27.23	149.02
RISE	51	1452.40	1463.65	2	16	45.5	270.00	.0041	-26.48	-.0000	215633.7	1.22	11.16	.0034	114.17	-.0014	-27.12	115.98
RISE	72	1607.54	1618.79	2	19	20.7	265.98	.0041	-26.77	-.0000	231331.9	1.12	-.01	.0036	117.05	-.0005	-27.00	77.94
RISE	61	1689.67	1700.92	2	20	42.8	296.82	.0041	-28.47	-.0000	238739.2	1.21	.00	.0025	128.05	.0027	-26.94	57.76
SET	42	1740.30	1751.55	2	21	33.4	105.00	.0041	-26.00	.0000	242824.9	1.79	3.60	-.0029	240.45	-.0022	-26.91	45.31
EXTM	51	1868.56	1879.81	2	22	41.7	359.16	.0042	-26.49	.0000	242886.7	1.44	88.62	.0021	147.09	.1304	-26.86	28.50
EXTM	61	1942.76	1954.01	3	0	55.9	.33	.0042	-28.08	.0000	258249.2	1.39	21.68	-.0000	180.32	.0040	-26.78	355.42
EXTM	72	1982.70	1993.95	3	1	35.8	.10	.0042	-27.21	.0000	257967.0	1.38	70.69	-.0000	180.29	.0112	-26.75	345.57
RISE	11	2124.96	2136.21	3	3	58.1	291.59	.0042	-27.54	-.0000	275514.0	1.03	.00	.0028	124.46	.0024	-26.67	310.44
SET	51	2171.24	2182.49	3	4	44.4	90.00	.0041	-26.14	.0000	277989.3	1.69	11.03	-.0034	246.15	-.0015	-26.64	299.00
SET	61	2195.62	2206.87	3	5	8.7	63.77	.0042	-27.58	.0000	281136.1	1.59	-.00	-.0025	232.67	.0027	-26.63	292.97
SET	72	2356.80	2368.05	3	7	49.9	93.94	.0041	-26.36	.0000	293641.2	1.68	-.00	-.0036	243.37	-.0005	-26.54	253.10
RISE	42	2357.67	2368.92	3	7	50.8	255.00	.0041	-25.79	-.0000	293322.8	.94	3.47	.0029	119.39	-.0022	-26.54	252.88
EXTM	11	2397.89	2409.14	3	8	31.0	.23	.0042	-27.52	.0000	293866.4	1.26	27.18	-.0000	180.23	.0042	-26.52	242.93
SET	11	2670.66	2681.91	3	13	3.8	68.80	.0042	-27.14	.0000	316834.7	1.50	-.00	-.0028	236.06	.0024	-26.39	175.33
EXTM	42	2776.84	2788.09	3	14	50.0	359.98	.0042	-26.16	.0000	318133.3	1.17	80.94	-.0000	.15	-.0163	-26.34	149.00
RISE	51	2907.39	2918.64	3	17	.5	270.00	.0042	-25.85	-.0000	332395.8	.76	10.91	.0034	113.58	-.0015	-26.28	116.59
RISE	72	3060.55	3071.80	3	19	33.7	266.10	.0042	-26.05	-.0000	343935.0	.71	-.00	.0037	116.32	-.0005	-26.21	78.40
RISE	61	3136.36	3147.61	3	20	49.5	295.47	.0042	-26.94	-.0000	349003.4	.83	.00	.0026	126.40	.0027	-26.18	59.48
SET	42	3194.83	3206.08	3	21	48.0	105.00	.0041	-25.92	.0000	352529.6	1.44	3.30	-.0030	240.83	-.0023	-26.15	44.89
EXTM	51	3257.90	3269.15	3	22	51.0	358.51	.0042	-26.13	.0000	350769.0	1.10	88.61	.0037	106.57	.0427	-26.12	29.15
EXTM	61	3392.34	3403.59	4	1	5.5	.20	.0042	-26.48	.0000	363565.0	1.12	22.78	.0000	180.19	.0041	-26.06	355.56
EXTM	72	3432.21	3443.46	4	1	45.3	.09	.0043	-26.46	.0000	362691.9	1.12	71.55	-.0000	180.26	.0117	-26.04	345.59
RISE	11	3567.71	3578.96	4	4	.8	290.69	.0042	-26.00	-.0000	378031.5	.89	.00	.0029	123.23	.0024	-25.97	311.64
SET	51	3619.34	3630.59	4	4	52.5	90.00	.0042	-25.96	.0000	380729.8	1.72	10.80	-.0035	246.69	-.0015	-25.94	298.65
SET	61	3647.35	3658.60	4	5	20.5	64.93	.0043	-26.50	.0000	384345.3	1.91	-.00	-.0026	234.09	.0028	-25.91	291.55
IMPACT		3658.45	3669.70	4	5	31.6												
IMPC	72	3658.45	3669.70	4	5	31.6	57.85	.0044	-26.00	.0001	382129.5	2.39	32.27	-.0039	244.17	.0007	-25.89	288.70
IMPC	51	3658.45	3669.70	4	5	31.6	99.92	.0043	-25.46	.0001	385223.4	2.41	2.67	-.0035	242.92	-.0017	-25.89	288.70
IMPC	11	3658.45	3669.70	4	5	31.6	313.83	.0044	-26.62	.0000	383946.7	1.77	14.33	.0024	138.27	.0032	-25.89	288.70
IMPC	61	3658.45	3669.70	4	5	31.6	67.79	.0043	-26.56	.0001	385716.8	2.33	-1.77	-.0027	235.94	.0028	-25.89	288.70

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	1	16	33.126	6597.688	25.9150	307.4284	10.94598	-5.0673	102.0279	85.4211
SEPARATION		1.20	12.45	1	16	34.326	6550.218	24.2832	314.5611	10.98488	-1.6610	105.1860	92.8546
RETRO		3.20	14.45	1	16	36.326	6577.695	20.8128	325.9516	10.96172	4.0460	109.7622	104.7464
IMPACT		3658.45	3669.70	4	5	31.576	385573.102	-25.8924	288.7015	2.19622	67.3866	284.1602	263.8103

SURVEYOR VIEW PERIODS

GHA	251.9883					EPS	11.5617							LOM	283.1938
SX	-.096509	SY	-.894472	SZ	-.436585	DAO	-25.88417	RAO	263.84190	RM	386869.281	LAT	28.310600	LON	279.461800
C3	-1.036979	ECC	.982974	SLR	12977.904	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.075004	NSY	-.895352	NSZ	-.438999	C3M	1.4969	VIM	2.6714	7AE	139.115	B.T	.0000	B.R	-.0000
LATE	3.3672	LONE	4.7482	LATS	.5407	LONS	353.5598	LATI	-3.9515	LONI	324.4955	RSM	152.1425	TTAN	6.6823
LAUNCH DATE	JUN	1 1966		BASE AZM	90.0		TF 60.965					ARRIVAL DATE	JUN 4 1966		5 53 40.3

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
90.00	1A 46 35.3	27.8	24.68	307.50	-4.96	91.77	104.34	16 58 10.3	6555.4	10.98	-2.31

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	1	16	58.2												
SEPARATION	1.20	12.45	1	16	59.4												
RETRO	3.20	14.45	1	17	1.4												
RISE 72	5.71	16.96	1	17	3.9	69.22	-.4264	68.43	.0937	2695.2	-5.68	-.00	.1085	340.08	.1454	13.64	337.83
RISE 51	11.54	22.79	1	17	9.7	69.10	-.1168	36.50	-.0275	5097.0	-3.47	.00	.0939	311.33	.0276	1.85	359.71
RISE 61	11.12	22.37	1	17	9.3	353.29	-.1246	-49.66	.0165	4926.7	6.28	.01	.0063	175.65	-.0817	2.60	358.41
EXTM 72	11.93	23.20	1	17	10.1	307.36	-.0599	20.45	-.1283	2927.1	5.93	30.84	-.0000	59.91	.1634	1.14	.92
EXTM 61	13.45	24.70	1	17	11.6	339.15	-.0811	-47.43	.0155	5857.5	6.93	.39	-.0000	166.07	-.0570	-1.31	5.10
SET 61	16.62	27.87	1	17	14.8	327.15	-.0492	-44.79	.0121	7202.7	7.18	.00	-.0034	157.36	-.0368	-5.73	12.59
EXTM 51	32.95	44.20	1	17	31.1	348.28	-.0206	-12.06	-.0153	8682.1	5.45	72.41	-.0000	41.11	.0837	-17.93	34.68
EXTM 72	65.08	76.33	1	18	3.3	281.21	-.0001	-24.93	-.0016	22426.0	4.93	13.45	.0000	113.85	.0017	-24.72	48.43
EXTM 51	82.31	93.56	1	18	20.5	331.30	-.0002	-25.01	-.0013	23607.3	4.50	64.17	.0000	95.81	.0029	-26.03	50.41
RISE 61	160.59	171.84	1	19	38.8	304.74	.0028	-33.96	.0002	47881.0	3.50	-.00	.0016	137.03	.0017	-27.94	45.64
EXTM 51	267.36	278.61	1	21	25.5	.01	.0035	-28.96	.0000	63198.1	3.06	87.17	-.0000	180.34	.0247	-28.31	27.68
EXTM 61	432.36	443.61	2	0	10.5	2.81	.0039	-31.78	.0001	95045.6	2.58	17.94	-.0000	182.51	.0035	-28.20	353.10
EXTM 72	467.18	478.43	2	0	45.4	.35	.0040	-29.87	.0001	96536.0	2.50	68.43	-.0000	180.82	.0095	-28.16	345.35
RISE 11	635.49	646.74	2	3	33.7	293.93	.0040	-29.89	-.0000	126101.6	1.94	.00	.0026	127.58	.0023	-27.94	306.78
SET 51	662.12	673.37	2	4	.3	90.00	.0039	-26.85	.0001	128388.9	2.54	11 31	-.0032	245.49	-.0013	-27.91	300.56
SET 61	677.08	688.33	2	4	15.2	60.79	.0040	-29.97	.0001	131593.2	2.42	-.00	-.0022	229.12	.0026	-27.89	297.05
SET 72	857.86	869.11	2	7	16.0	94.12	.0039	-27.33	.0001	154072.0	2.37	-.00	-.0035	242.38	-.0005	-27.67	254.20
RISE 42	867.51	878.76	2	7	25.7	254.99	.0040	-26.24	-.0001	154801.3	1.66	3.74	.0029	119.75	-.0021	-27.66	251.89
EXTM 11	907.18	918.43	2	8	5.4	.79	.0041	-29.89	.0000	157187.1	1.94	25.10	-.0000	180.76	.0040	-27.62	242.39
SET 11	1175.99	1187.24	2	12	34.2	67.34	.0041	-28.53	.0001	189430.0	2.04	.01	-.0027	234.10	.0024	-27.35	177.45
EXTM 42	1292.75	1304.00	2	14	30.9	359.96	.0042	-26.29	.0000	195170.3	1.67	81.77	.0000	.28	-.0234	-27.25	149.02
RISE 51	1428.03	1439.28	2	16	46.2	270.00	.0041	-26.49	-.0000	213426.0	1.23	11.16	.0034	114.18	-.0014	-27.14	115.97
RISE 72	1583.22	1594.47	2	19	21.4	265.97	.0041	-26.79	-.0000	229233.4	1.13	-.01	.0036	117.07	-.0005	-27.02	77.93
RISE 61	1665.52	1676.77	2	20	43.7	296.86	.0041	-28.10	-.0000	236705.5	1.22	.00	.0025	128.10	.0027	-26.96	57.71
SET 42	1715.93	1727.18	2	21	34.1	105.00	.0041	-26.01	.0000	240800.7	1.80	3.60	-.0029	240.43	-.0022	-26.93	45.32
EXTM 51	1784.17	1795.42	2	22	42.3	359.14	.0042	-26.92	.0000	240901.3	1.44	88.59	.0021	146.95	.1275	-26.89	28.52
EXTM 61	1918.49	1929.74	3	0	56.7	.33	.0042	-28.11	.0000	256347.5	1.40	21.65	-.0000	180.32	.0040	-26.80	355.43
EXTM 72	1958.45	1969.70	3	1	36.6	.10	.0042	-27.24	.0000	256084.2	1.39	70.67	-.0000	180.28	.0112	-26.78	345.57
RISE 11	2100.90	2112.15	3	3	59.1	291.62	.0042	-27.67	-.0000	273712.5	1.03	.00	.0028	124.50	.0024	-26.69	310.40
SET 51	2147.00	2158.25	3	4	45.2	90.00	.0041	-26.16	.0000	276193.6	1.70	11.04	-.0034	246.13	-.0015	-26.67	299.01
SET 61	2171.23	2182.48	3	5	9.4	63.73	.0042	-27.01	.0000	279340.9	1.60	-.00	-.0025	232.62	.0027	-26.66	293.02
SET 72	2332.61	2343.86	3	7	50.8	93.95	.0041	-26.48	.0000	291930.1	1.68	-.00	-.0036	243.34	-.0005	-26.57	253.10
RISE 42	2333.52	2344.77	3	7	51.7	255.00	.0041	-25.41	-.0000	291613.8	.95	3.48	.0029	119.40	-.0022	-26.57	252.88
EXTM 11	2373.72	2384.97	3	8	31.9	.23	.0042	-27.05	.0000	292176.8	1.27	27.14	-.0000	180.23	.0042	-26.55	242.93
SET 11	2646.38	2657.63	3	13	4.6	68.76	.0042	-27.17	.0000	315237.5	1.51	-.00	-.0028	236.02	.0024	-26.42	175.37
EXTM 42	2752.72	2763.97	3	14	50.9	359.98	.0042	-26.19	.0000	316585.5	1.18	80.97	-.0000	.14	-.0163	-26.37	149.00
RISE 51	2883.35	2894.60	3	17	1.5	270.00	.0041	-25.49	-.0000	330716.5	.77	10.93	.0034	113.61	-.0015	-26.31	116.58
RISE 72	3036.47	3047.72	3	19	34.6	266.10	.0042	-26.08	-.0000	342464.8	.71	-.00	.0037	116.35	-.0005	-26.24	78.40
RISE 61	3112.47	3123.72	3	20	50.6	295.51	.0042	-26.97	-.0000	347551.0	.83	.00	.0026	126.45	.0027	-26.21	59.44
SET 42	3170.73	3181.98	3	21	48.9	105.00	.0041	-25.85	.0000	351064.0	1.44	3.32	-.0030	240.80	-.0023	-26.18	44.89
EXTM 51	3233.83	3245.08	3	22	52.0	358.52	.0042	-26.16	.0000	349308.7	1.10	88.60	.0036	107.99	.0462	-26.16	29.14
EXTM 61	3368.25	3379.50	4	1	6.4	.19	.0042	-27.02	.0000	362093.7	1.11	22.74	.0000	180.19	.0041	-26.10	355.[illegible]
EXTM 72	3408.13	3419.38	4	1	46.3	.09	.0043	-26.89	.0000	361208.5	1.12	71.51	-.0000	180.25	.0118	-26.08	345.59
RISE 11	3543.86	3555.11	4	4	2.0	290.73	.0042	-26.64	-.0000	376456.3	.86	.00	.0029	123.28	.0024	-26.01	311.60
SET 51	3595.40	3606.65	4	4	53.6	90.00	.0042	-25.91	.0000	378995.1	1.64	10.82	-.0035	246.65	-.0013	-25.98	298.65
SET 61	3623.30	3634.55	4	5	21.5	64.87	.0042	-26.05	.0000	382365.7	1.65	-.00	-.0026	234.02	.0028	-25.96	291.61
IMPACT	3657.91	3669.16	4	5	56.1												
IMPC 72	3657.91	3669.16	4	5	56.1	63.80	.0043	-25.99	.0001	382713.8	2.41	26.96	-.0039	244.81	.0004	-25.92	282.80
IMPC 51	3657.91	3669.16	4	5	56.1	105.79	.0043	-25.45	.0001	385815.9	2.40	-1.99	-.0034	240.39	-.0019	-25.92	282.80
IMPC 11	3657.91	3669.16	4	5	56.1	319.79	.0044	-26.47	.0000	383695.1	1.79	17.38	.0022	142.81	.0034	-25.92	282.80

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	1	16	58.172	6555.470	24.6784	307.4970	10.98065	-2.3113	104.3339	91.7684
SEPARATION	1.20	12.45	1	16	59.372	6547.171	22.7917	314.4696	10.98756	1.1161	107.2652	99.0418
RETRO	3.20	14.45	1	17	1.372	6637.851	18.9992	325.5005	10.91160	6.7752	111.3928	110.5741
IMPACT	3657.91	3669.16	4	5	56.082	385646.922	-25.9193	282.8039	2.19505	67.2295	283.8545	264.0558

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SURVEYOR VIEW PERIODS

GHA	251.9883				EPS	11.7701					LOM	277.1675	
SX	-.092579	SY	-.894676	SZ	-.437017	DAO	-25.91271	RAO	264.09217	RM	386942.074	LAT	28.310600
C3	-1.037133	ECC	.982973	SLR	12977.900	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000
NSX	-.071167	NSY	-.895478	NSZ	-.439395	C3M	1.4966	VIM	2.6713	ZAE	139.105	B.T	.0000
LATE	3.3906	LONE	4.7450	LATS	.5412	LONS	353.3477	LATI	-3.9560	LONI	324.4865	RSM	152.1427
LAUNCH DATE	JUN	1 1966		BASE AZM	93.0		TF	60.987			ARRIVAL DATE	JUN	4 1966

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
93.00	17 7 20.8	28.0	23.47	307.34	-.19	96.73	106.54	17 18 35.8	6544.7	10.99	-.10

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PRORE IN SUNLIGHT											
INJECTION	.00	11.25	1	17	18.6												
SEPARATION	1.20	12.45	1	17	19.8												
RETRO	3.20	14.45	1	17	21.8												
RISE 72	5.20	16.45	1	17	23.8	75.85	-.2899	60.41	.0765	2798.4	-6.45	-.00	.1162	331.39	.1134	12.91	334.29
RISE 51	11.35	22.60	1	17	29.9	72.18	-.1048	32.40	-.0300	5338.9	-3.19	-.00	.0913	306.51	.0198	.64	356.61
RISE 61	10.61	21.86	1	17	29.2	3.27	-.1292	-49.71	.0067	5039.1	5.82	.00	.0103	182.11	-.0832	1.91	354.44
EXTM 72	11.53	22.78	1	17	30.1	318.51	-.0856	20.24	-.1367	2674.4	5.54	40.43	-.0000	54.75	.2083	.33	357.13
EXTM 61	14.78	26.03	1	17	33.4	339.92	-.0656	-46.40	.0122	6654.0	6.85	1.04	-.0000	166.43	-.0465	-4.59	5.45
SET 61	22.14	33.39	1	17	40.7	321.42	-.0266	-42.73	.0068	9710.9	6.84	.00	-.0033	152.74	-.0204	-12.30	18.83
EXTM 51	35.73	46.98	1	17	54.3	352.05	-.0173	-15.83	-.0115	9751.4	5.37	77.29	-.0000	37.30	.0921	-19.54	32.62
EXTM 72	66.19	77.44	1	18	24.8	286.27	-.0000	-25.90	-.0014	22524.0	4.88	18.04	.0000	114.75	.0015	-25.12	44.01
EXTM 51	84.99	96.24	1	18	43.6	337.13	-.0001	-26.22	-.0011	24346.7	4.44	69.46	.0000	96.39	.0031	-26.42	45.86
RISE 61	134.58	145.83	1	19	33.2	305.90	.0023	-34.72	.0003	42160.8	3.74	-.00	.0014	138.26	.0013	-27.82	43.85
EXTM 51	241.65	252.90	1	21	20.2	359.99	.0034	-28.71	-.0000	58544.3	3.16	87.02	.0000	179.66	.0262	-28.42	27.69
EXTM 61	410.54	421.79	2	0	9.1	2.87	.0039	-32.14	.0001	91789.9	2.63	17.67	.0000	182.55	.0034	-28.34	353.05
EXTM 72	445.58	456.83	2	0	44.2	.38	.0040	-29.96	.0001	93392.6	2.54	68.24	.0000	180.89	.0094	-28.29	345.32
RISE 11	615.56	626.81	2	3	34.2	294.09	.0040	-30.05	-.0000	123525.4	1.97	.00	.0026	127.80	.0023	-28.06	306.56
SET 51	641.08	652.33	2	3	59.7	90.00	.0038	-26.34	.0001	125701.7	2.56	11.35	-.0032	245.40	-.0013	-28.02	300.62
SET 61	655.27	666.52	2	4	13.9	60.58	.0039	-30.14	.0001	128831.9	2.44	-.00	-.0022	228.88	.0026	-28.01	297.30
SET 72	837.41	848.66	2	7	16.0	94.13	.0039	-27.43	.0001	151723.3	2.38	-.00	-.0035	242.29	-.0005	-27.77	254.22
RISE 42	847.32	858.57	2	7	25.9	254.99	.0040	-26.52	-.0001	152488.8	1.67	3.79	.0028	119.81	-.0021	-27.76	251.86
EXTM 11	887.07	898.32	2	8	5.7	.83	.0041	-29.41	.0000	154942.8	1.95	24.97	-.0000	180.80	.0040	-27.72	242.35
SET 11	1155.49	1166.74	2	12	34.1	67.24	.0041	-28.72	.0001	187362.6	2.05	.01	-.0026	233.96	.0024	-27.43	177.56
EXTM 42	1272.80	1284.05	2	14	31.4	359.96	.0042	-27.47	.0000	193240.1	1.68	81.85	.0000	.30	-.0234	-27.33	149.02
RISE 51	1406.22	1419.47	2	16	46.8	270.00	.0041	-26.95	-.0000	211587.6	1.24	11.19	.0034	114.24	-.0014	-27.21	115.95
RISE 72	1563.41	1574.66	2	19	22.0	265.96	.0041	-26.85	-.0000	227480.1	1.14	-.01	.0036	117.13	-.0005	-27.09	77.93
RISE 61	1646.12	1657.37	2	20	44.7	296.95	.0041	-28.17	-.0000	235028.3	1.23	.00	.0025	128.20	.0027	-27.03	57.62
SET 42	1696.11	1707.36	2	21	34.7	105.00	.0041	-26.07	.0000	239104.5	1.81	3.64	-.0029	240.39	-.0022	-26.99	45.33
EXTM 51	1744.17	1755.42	2	22	42.8	359.08	.0042	-26.08	.0000	239223.1	1.45	88.51	.0021	146.51	.1196	-26.95	28.58
EXTM 61	1898.80	1910.05	3	0	57.4	.34	.0042	-28.18	.0000	254757.4	1.41	21.58	-.0000	180.32	.0040	-26.86	355.42
EXTM 72	1938.73	1949.98	3	1	37.3	.11	.0042	-27.40	.0000	254503.1	1.40	70.60	-.0000	180.29	.0111	-26.83	345.57
RISE 11	2081.45	2092.70	3	4	.0	291.67	.0042	-27.92	-.0000	272202.4	1.04	.00	.0028	124.58	.0024	-26.75	310.34
SET 51	2127.27	2138.52	3	4	45.9	90.00	.0041	-26.21	.0000	274674.3	1.71	11.06	-.0034	246.08	-.0015	-26.72	299.02
SET 61	2151.24	2162.49	3	5	9.8	63.66	.0042	-27.67	.0000	277810.4	1.60	-.00	-.0025	232.53	.0027	-26.71	293.10
SET 72	2312.94	2324.19	3	7	51.5	93.96	.0041	-26.43	.0000	290477.4	1.69	-.00	-.0036	243.29	-.0005	-26.62	253.10
RISE 42	2313.88	2325.13	3	7	52.5	255.00	.0041	-25.46	-.0000	290159.8	.96	3.51	.0029	119.44	-.0022	-26.62	252.87
EXTM 11	2354.08	2365.33	3	8	32.7	.23	.0042	-27.70	.0000	290743.9	1.27	27.09	-.0000	180.23	.0042	-26.60	242.92
SET 11	2626.54	2637.79	3	13	5.1	68.72	.0042	-27.22	.0000	313860.8	1.51	-.00	-.0028	235.96	.0024	-26.46	175.42
EXTM 42	2733.10	2744.35	3	14	51.7	359.98	.0042	-26.24	.0000	315250.7	1.18	81.02	-.0000	.14	-.0168	-26.41	149.00
RISE 51	2863.75	2875.00	3	17	2.3	270.00	.0041	-25.43	-.0000	329414.2	.78	10.94	.0034	113.65	-.0015	-26.36	116.58
RISE 72	3016.97	3028.22	3	19	35.6	266.09	.0042	-26.12	-.0000	341204.3	.71	-.00	.0037	116.39	-.0005	-26.28	78.40
RISE 61	3093.16	3104.41	3	20	51.8	295.56	.0042	-27.31	-.0000	346306.1	.83	.00	.0026	126.51	.0027	-26.25	59.38
SET 42	3151.20	3162.45	3	21	49.8	105.00	.0041	-25.69	.0000	349801.5	1.44	3.35	-.0030	240.77	-.0023	-26.22	44.90
EXTM 51	3214.34	3225.59	3	22	52.9	358.53	.0042	-26.20	.0000	348050.4	1.10	88.60	.0036	109.58	.0502	-26.19	29.13
EXTM 61	3348.71	3359.96	4	1	7.3	.20	.0042	-27.16	.0000	360821.8	1.11	22.70	-.0000	180.19	.0041	-26.13	355.56
EXTM 72	3388.59	3399.84	4	1	47.2	.09	.0043	-26.43	.0000	359924.3	1.11	71.47	-.0000	180.25	.0117	-26.11	345.59
RISE 11	3524.50	3535.75	4	4	3.1	290.77	.0042	-26.68	-.0000	375103.8	.84	.00	.0029	123.33	.0024	-26.05	311.56
SET 51	3575.92	3587.17	4	4	54.5	90.00	.0042	-25.64	.0000	377542.3	1.59	10.83	-.0035	246.62	-.0015	-26.02	298.65
SET 61	3403.68	3414.93	4	5	22.3	64.82	.0042	-26.59	.0000	380799.0	1.56	-.00	-.0026	233.95	.0028	-26.00	291.67
IMPACT	3659.20	3670.45	4	6	17.8												
IMPC 72	3659.20	3670.45	4	6	17.8	69.07	.0043	-25.98	.0001	383255.8	2.42	22.23	-.0039	245.10	.0002	-25.94	277.58
IMPC 11	3659.20	3670.45	4	6	17.8	325.08	.0044	-26.72	.0000	383506.1	1.81	19.83	.0020	147.07	.0036	-25.94	277.58

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	1	17	18.597	6544.686	23.4727	307.3400	10.98975	-.0954	106.5401	96.7315
SEPARATION	1.20	12.45	1	17	19.797	6566.976	21.3481	314.1465	10.97083	3.3271	109.2532	103.8389
RETRO	3.20	14.45	1	17	21.797	6706.946	17.2795	324.7798	10.85476	8.9099	112.9485	114.9735
IMPACT	3659.20	3670.45	4	6	17.793	385714.270	-25.9430	277.5791	2.19308	66.9764	283.7267	264.2736

SURVEYOR VIEW PERIODS

GHA	251.9883					EPS	11.9301							LOM	272.5383
SX	-.089561	SY	-.894823	SZ	-.437345	DAO	-25.93457	RAD	264.28445	RM	386998.016	LAT	28.310600	LON	279.461800
C3	-1.037727	ECC	.982962	SLR	12977.826	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.068039	NSY	-.895564	NSZ	-.439700	C3M	1.4975	VIM	2.6715	ZAE	139.052	B.T	.0000	B.R	-.0000
LATE	3.4085	LONE	4.7424	LATS	.5416	LONS	353.1848	LATI	-4.0751	LONI	324.4543	RSM	152.1428	TTAN	6.6913
LAUNCH DATE	JUN	1 1966		BASE AZM	96.0	TF	61.013					ARRIVAL DATE	JUN 4 1966 6 37 56.5		

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
96.00	17 23 9.2	28.1	22.30	307.04	3.22	100.39	108.69	17 34 24.2	6549.8	10.99	1.59

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DFC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PRORE IN SUNLIGHT											
INJECTION		.00	11.25	1	17	34.4												
SEPARATION		1.20	12.45	1	17	35.6												
RETRO		3.20	14.45	1	17	37.6												
RISE	72	4.84	16.09	1	17	39.2	79.14	-.2320	53.63	.0556	2889.5	-6.92	-.00	.1210	324.38	.0860	11.95	331.45
RISE	51	11.22	22.47	1	17	45.6	74.75	-.0958	28.62	-.0324	5934.3	-2.96	-.00	.0891	302.12	.0135	-.80	353.96
EXTM	72	11.24	22.49	1	17	45.6	329.02	-.1104	17.91	-.1383	2495.6	5.22	50.16	-.0000	49.97	.2713	-.83	354.01
RISE	61	11.32	22.57	1	17	45.7	3.56	-.1108	-49.71	.0057	5581.5	5.93	.00	.0091	182.30	-.0713	-.96	354.23
EXTM	61	16.23	27.48	1	17	50.6	340.37	-.0543	-46.96	.0098	7486.5	6.75	1.06	-.0000	166.75	-.0384	-7.86	5.81
SET	61	25.66	36.91	1	18	.1	321.59	-.0201	-42.80	.0052	11281.6	6.53	-.00	-.0025	152.88	-.0155	-15.91	20.13
EXTM	51	38.41	49.66	1	18	12.8	355.06	-.0150	-18.61	-.0088	10743.5	5.29	81.54	-.0000	33.64	.1135	-21.28	30.84
EXTM	72	67.61	78.86	1	18	42.0	290.35	.0001	-27.19	-.0012	22763.0	4.83	21.67	.0000	116.18	.0013	-25.91	40.54
EXTM	51	87.93	99.18	1	19	2.3	341.75	.0006	-27.26	-.0009	25164.5	4.38	73.61	.0000	99.39	.0031	-27.15	42.23
RISE	61	115.80	127.05	1	19	30.2	307.58	.0019	-35.79	.0004	37810.6	3.95	-.00	.0012	140.00	.0010	-27.99	41.63
EXTM	51	220.80	232.05	1	21	15.2	359.99	.0033	-29.12	-.0000	54641.8	3.26	86.62	.0000	179.71	.0234	-28.76	27.69
EXTM	61	394.83	406.08	2	0	9.2	3.21	.0038	-32.44	.0001	89433.0	2.66	17.26	.0000	182.84	.0034	-28.63	352.73
EXTM	72	428.96	440.21	2	0	43.4	.45	.0040	-30.90	.0001	90941.7	2.58	67.90	-.0000	181.03	.0091	-28.58	345.26
RISE	11	600.80	612.05	2	3	35.2	294.37	.0040	-30.42	-.0000	121598.7	1.99	-.00	.0026	128.16	.0023	-28.29	306.24
SET	51	624.77	636.02	2	3	59.2	90.00	.0038	-27.16	.0001	123587.4	2.58	11.43	-.0032	245.20	-.0013	-28.25	300.67
SET	61	637.55	648.80	2	4	12.0	60.22	.0039	-30.41	.0001	126556.9	2.46	-.00	-.0022	228.46	.0026	-28.23	297.70
SET	72	821.68	832.93	2	7	16.1	94.17	.0039	-27.91	.0001	149897.9	2.40	-.00	-.0034	242.10	-.0004	-27.96	254.23
RISE	42	831.74	842.99	2	7	26.1	254.99	.0040	-26.49	-.0001	150677.5	1.69	3.90	.0028	119.95	-.0021	-27.95	251.83
EXTM	11	871.67	882.92	2	8	6.1	.90	.0041	-30.02	.0001	153219.3	1.97	24.76	-.0000	180.85	.0040	-27.90	242.29
SET	11	1139.35	1150.60	2	12	33.8	67.09	.0041	-28.89	.0001	185717.9	2.06	-.00	-.0026	233.76	.0024	-27.58	177.73
EXTM	42	1257.39	1268.64	2	14	31.8	359.95	.0042	-27.20	.0000	191731.7	1.69	81.98	.0000	.32	-.0244	-27.46	149.02
RISE	51	1392.92	1404.17	2	16	47.3	270.00	.0041	-26.67	-.0000	210149.7	1.25	11.24	.0034	114.35	-.0014	-27.33	115.94
RISE	72	1548.08	1559.33	2	19	22.5	265.94	.0041	-26.96	-.0000	226106.0	1.14	-.01	.0036	117.24	-.0005	-27.20	77.93
RISE	61	1631.41	1642.66	2	20	45.8	297.09	.0041	-28.28	-.0000	233741.6	1.23	.00	.0025	128.37	.0027	-27.13	57.47
SET	42	1680.79	1692.04	2	21	35.2	105.00	.0041	-26.17	.0000	237773.2	1.81	3.70	-.0029	240.31	-.0022	-27.09	45.34
EXTM	51	1748.45	1759.70	2	22	42.9	358.96	.0042	-27.08	.0000	237886.8	1.46	88.37	.0022	145.54	.1079	-27.04	28.69
EXTM	61	1883.63	1894.88	3	0	58.0	.36	.0042	-28.27	.0000	253519.4	1.41	21.49	.0000	180.34	.0040	-26.95	355.40
EXTM	72	1923.51	1934.76	3	1	37.9	.11	.0042	-27.69	.0000	253265.7	1.40	70.51	-.0000	180.30	.0111	-26.92	345.56
RISE	11	2066.58	2077.83	3	4	1.0	291.75	.0042	-27.71	-.0000	271028.1	1.04	.00	.0028	124.69	.0024	-26.83	310.25
SET	51	2112.03	2123.28	3	4	46.4	90.00	.0041	-26.29	.0000	273478.4	1.71	11.09	-.0034	246.01	-.0014	-26.80	299.02
SET	61	2135.61	2146.86	3	5	10.0	63.56	.0042	-27.75	.0000	276593.0	1.61	-.00	-.0025	232.41	.0027	-26.78	293.20
SET	72	2297.76	2309.01	3	7	52.2	93.97	.0041	-26.50	.0000	289334.2	1.69	-.00	-.0036	243.23	-.0005	-26.69	253.10
RISE	42	2298.70	2309.95	3	7	53.1	295.00	.0041	-25.92	-.0000	289012.3	.96	3.55	.0029	119.49	-.0022	-26.69	252.87
EXTM	11	2338.93	2350.18	3	8	33.3	.25	.0042	-27.78	.0000	289619.6	1.28	27.02	-.0000	180.25	.0042	-26.66	242.91
SET	11	2611.12	2622.37	3	13	5.5	68.66	.0042	-27.28	.0000	312765.2	1.52	-.00	-.0028	235.88	.0024	-26.52	175.48
EXTM	42	2717.91	2729.16	3	14	52.3	359.98	.0042	-26.29	.0000	314192.1	1.18	81.07	-.0000	.16	-.0159	-26.47	149.00
RISE	51	2848.59	2859.84	3	17	3.0	270.00	.0041	-25.97	-.0000	328379.0	.78	10.96	.0034	113.69	-.0015	-26.40	116.57
RISE	72	3001.91	3013.16	3	19	36.3	266.09	.0042	-26.17	-.0000	340209.2	.71	-.00	.0037	116.44	-.0005	-26.33	78.40
RISE	61	3078.32	3089.57	3	20	52.7	295.61	.0042	-27.06	-.0000	345326.3	.83	.00	.0026	126.58	.0027	-26.29	59.33
SET	42	3136.12	3147.37	3	21	50.5	105.00	.0041	-25.62	.0000	348803.0	1.44	3.37	-.0030	240.74	-.0023	-26.26	44.90
EXTM	51	3201.25	3212.50	3	22	55.7	359.03	.0042	-26.24	.0000	347183.6	1.10	89.00	.0033	120.12	.1074	-26.23	28.63
EXTM	61	3333.66	3344.91	4	1	8.1	.21	.0042	-27.10	.0000	359817.8	1.11	22.66	-.0000	180.20	.0041	-26.17	355.55
EXTM	72	3373.51	3384.76	4	1	47.9	.09	.0043	-26.47	.0000	358909.0	1.11	71.44	-.0000	180.26	.0117	-26.15	345.58
RISE	11	3509.56	3520.81	4	4	4.0	290.80	.0042	-26.71	-.0000	374042.4	.83	.00	.0029	123.38	.0024	-26.08	311.52
SET	51	3560.85	3572.10	4	4	55.3	90.00	.0042	-25.87	.0000	376416.6	1.57	10.84	-.0035	246.59	-.0015	-26.05	298.66
SET	61	3588.48	3599.73	4	5	22.9	64.78	.0042	-26.73	.0000	379609.9	1.52	-.00	-.0026	233.90	.0027	-26.03	291.71
IMPACT		3660.78	3672.03	4	6	35.2												
IMPC	72	3660.78	3672.03	4	6	35.2	73.28	.0043	-25.97	.0001	383703.1	2.42	18.45	-.0039	245.19	.0001	-25.96	273.39
IMPC	11	3660.78	3672.03	4	6	35.2	329.32	.0044	-26.75	.0000	383378.4	1.83	21.59	.0018	150.66	.0037	-25.96	273.39

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION		.00	11.25	1	17	34.403	6549.797	22.2953	307.0401	10.98541	1.5950	108.6908	100.3940
SEPARATION		1.20	12.45	1	17	35.603	6595.274	19.9476	313.6677	10.94704	5.0037	111.1906	107.3223
RETRO		3.20	14.45	1	17	37.603	6771.850	15.6238	323.9143	10.80212	10.5080	114.4848	118.0704
IMPACT		3660.78	3672.03	4	6	35.187	385768.844	-25.9621	273.3931	2.19128	66.7348	283.8206	264.4481

SURVEYOR VIEW PERIODS

GHA	251.9883					EPS	12.0709							LOM	268.4677
SX	-.086906	SY	-.896946	SZ	-.437629	DAO	-25.95270	RAO	264.45352	RM	387047.223	LAT	28.310600	LON	279.461800
C3	-1.041245	FCC	.982904	SLR	12977.442	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.865347	NSY	-.996630	NSZ	-.439973	C3M	1.4471	VIM	2.6714	ZAE	138.928	B.T	.0000	B.R	-.0000
LATE	3.4242	LONE	4.7197	LATS	.5420	LONS	353.04 2	LATI	-4.2842	LONI	324.3656	RSM	152.1429	TTAN	6.6941
LAUNCH DATE	JUN	1.1966		BASE AZM	99.0		TF 61.080					ARRIVAL DATE	JUN 4 1966	6 54 51.2	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99.00	17 35 4.0	28.1	21.15	306.64	5.78	103.02	110.81	17 46 29.0	6561.2	10.98	2.86

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN SUNLIGHT														
INJECTION	.00	11.25	1	17	46.5												
SEPARATION	1.20	12.45	1	17	47.7												
RETRO	3.20	14.45	1	17	49.7												
RISE 72	4.58	15.83	1	17	51.1	81.19	-.1997	47.42	.0355	2963.9	-7.21	-.00	.1240	318.42	.0622	10.81	329.13
EXTM 72	11.05	22.30	1	17	57.5	338.45	-.1307	13. 7	-.1346	2376.1	4.97	59.96	-.0000	45.59	.3702	-2.26	351.40
RISE 61	11.15	22.40	1	17	57.6	76.98	-.0889	25.85	-.0348	5689.2	-2.77	.00	.0873	298.04	.0081	-2.41	351.66
RISE 61	13.35	24.60	1	17	59.8	356.91	-.0814	-49.72	.0073	6607.3	6.29	.00	.0051	178.00	-.0529	-5.79	357.19
EXTM 61	17.83	29.08	1	18	4.3	340.43	-.0457	-47.49	.0082	8359.8	6.64	.56	-.0000	166.92	-.0320	-11.18	6.28
SET 61	25.44	36.69	1	18	11.9	326.07	-.0215	-44.44	.0053	11365.1	6.44	.00	-.0018	156.51	-.0161	-17.15	17.09
EXTM 51	40.87	52.12	1	18	27.4	357.49	-.0133	-21.86	-.0069	11628.0	5.23	85.32	-.0000	29.95	.1736	-23.11	29.33
EXTM 72	68.94	80.19	1	18	55.4	293.57	.0001	-28.70	-.0009	23017.4	4.79	24.42	.0000	117.99	.0010	-26.97	37.80
RISE 61	104.94	116.19	1	19	31.4	309.66	.0015	-31.53	.0005	35216.4	4.09	-.00	.0011	142.08	.0006	-28.53	39.25
EXTM 51	204.30	215.55	1	21	10.8	.04	.0031	-29.76	.0000	51460.6	3.35	85.97	-.0000	180.51	.0342	-29.32	27.65
EXTM 61	384.30	395.55	2	0	10.8	3.81	.0038	-32.95	.0002	87861.3	2.69	16.73	-.0000	183.34	.0034	-29.07	352.18
EXTM 72	416.50	427.75	2	0	43.0	.54	.0040	-30.47	.0001	89083.4	2.60	67.43	-.0000	181.22	.0089	-29.00	345.17
RISE 11	590.37	601.62	2	3	36.9	294.76	.0040	-30.49	-.0000	120215.5	2.01	.00	.0025	128.66	.0023	-28.63	305.83
SET 51	612.39	623.64	2	3	58.9	90.00	.0038	-27.48	.0001	121946.7	2.60	11.56	-.0031	244.90	-.0013	-28.59	300.72
SET 61	623.17	634.42	2	4	9.7	59.75	.0039	-30.78	.0001	124673.7	2.48	-.00	-.0021	227.90	.0026	-28.56	298.22
SET 72	809.86	821.11	2	7	16.3	94.22	.0039	-27.48	.0001	148496.6	2.41	-.00	-.0034	241.83	-.0004	-28.24	254.21
RISE 42	819.97	831.22	2	7	26.5	254.99	.0040	-26.75	-.0001	149270.5	1.70	4.05	.0028	120.15	-.0021	-28.22	251.80
EXTM 11	860.19	871.44	2	8	6.7	.99	.0041	-30.31	.0001	151915.7	1.98	24.48	-.0000	180.93	.0039	-28.16	242.20
SET 11	1126.71	1137.96	2	12	33.2	66.87	.0041	-29.11	.0001	184386.6	2.06	-.00	-.0026	233.46	.0024	-27.79	177.96
EXTM 42	1245.82	1257.07	2	14	32.3	359.97	.0042	-27.40	.0000	190555.6	1.70	82.18	-.0000	.22	-.0211	-27.65	149.01
RISE 51	1381.36	1392.61	2	16	47.8	270.00	.0041	-26.44	-.0000	209011.2	1.26	11.31	.0034	114.51	-.0014	-27.50	115.93
RISE 72	1536.43	1547.68	2	19	22.9	265.92	.0041	-27. 1	-.0000	225008.1	1.15	-.01	.0036	117.40	-.0005	-27.35	77.95
RISE 61	1620.61	1631.86	2	20	47.1	297.27	.0041	-28.43	-.0000	232739.6	1.24	.00	.0025	128.59	.0027	-27.28	57.28
SET 42	1669.19	1680.44	2	21	35.7	105.00	.0041	-24.70	.0000	236701.2	1.82	3.78	-.0029	240.21	-.0022	-27.23	45.34
EXTM 51	1736.14	1747.39	2	22	42.6	358.77	.0042	-27.42	.0000	236775.9	1.46	88.16	.0023	143.62	.0931	-27.18	28.88
EXTM 61	1872.20	1883.45	3	0	58.7	.39	.0042	-28.10	.0000	252523.3	1.42	21.36	.0000	180.37	.0040	-27.07	355.37
EXTM 72	1912.00	1923.25	3	1	38.5	.12	.0042	-27.11	.0000	252261.3	1.40	70.39	-.0000	180.32	.0110	-27.04	345.55
RISE 11	2055.49	2066.74	3	4	2.0	291.86	.0042	-27.42	-.0000	270076.1	1.05	.00	.0028	124.83	.0024	-26.93	310.14
SET 51	2100.47	2111.72	3	4	47.0	90.00	.0041	-26.69	.0000	272490.8	1.71	11.13	-.0034	245.92	-.0014	-26.90	299.03
SET 61	2123.55	2134.80	3	5	10.0	63.44	.0042	-27.46	.0000	275573.0	1.61	-.00	-.0025	232.26	.0027	-26.88	293.33
SET 72	2286.28	2297.53	3	7	52.8	93.98	.0041	-26.69	.0001	288381.1	1.69	-.00	-.0036	243.14	-.0005	-26.78	253.09
RISE 42	2287.19	2298.44	3	7	53.7	255.00	.0041	-26.01	-.0000	288051.8	.96	3.60	.0029	119.56	-.0022	-26.78	252.86
EXTM 11	2327.49	2338.74	3	8	34.0	.27	.0042	-27.47	.0000	288683.4	1.28	26.92	-.0000	180.26	.0042	-26.75	242.89
SET 11	2599.27	2610.52	3	13	5.8	68.58	.0042	-27.35	.0000	311818.0	1.52	.01	-.0028	235.78	.0024	-26.59	175.57
EXTM 42	2706.40	2717.65	3	14	52.9	359.98	.0042	-26.45	.0000	313278.0	1.18	81.13	-.0000	.16	-.0174	-26.53	149.00
RISE 51	2837.10	2848.35	3	17	3.6	270.00	.0041	-26. 3	-.0000	327475.3	.78	10.98	.0034	113.75	-.0015	-26.46	116.57
RISE 72	2990.38	3001.63	3	19	36.9	266.08	.0042	-26.21	-.0000	339310.6	.71	-.00	.0037	116.49	-.0005	-26 57	78.41
RISE 61	3067.06	3078.31	3	20	53.5	295.67	.0042	-27.11	-.0000	344440.5	.83	.00	.0026	126.65	.0027	-26.33	59.27
SET 42	3124.61	3135.86	3	21	51.1	105.00	.0041	-25.67	.0000	347893.6	1.44	3.39	-.0030	240.71	-.0023	-26.31	44.90
EXTM 51	3190.77	3202.02	3	22	57.3	359.29	.0042	-26.28	.0000	346338.9	1.10	89.16	.0029	130.53	.1677	-26.27	28.38
EXTM 61	3322.22	3333.47	4	1	8.7	.22	.0042	-27.14	.0000	358896.5	1.10	22.62	-.0000	180.21	.0041	-26.20	355.54
EXTM 72	3362.05	3373.30	4	1	48.5	.09	.0043	-26.90	.0000	357975.2	1.11	71.40	-.0000	180.26	.0117	-26.18	345.58
RISE 11	3498.26	3509.51	4	4	4.7	290.83	.0042	-26.74	-.0000	373068.0	.82	.00	.0029	123.42	.0024	-26.11	311.49
SET 51	3549.43	3560.68	4	4	55.9	90.00	.0042	-25. 0	.0000	375390.3	1.55	10.86	-.0035	246.56	-.0015	-26.08	298.66
SET 61	3576.93	3588.18	4	5	23.4	64.74	.0042	-26.76	.0000	378537.0	1.49	-.00	-.0026	233.85	.0027	-26.06	291.75
IMPACT	3664.82	3676.07	4	6	51.3												
IMPC 72	3664.82	3676.07	4	6	51.3	77.18	.0043	-25.96	.0001	384123.3	2.43	14.94	-.0039	245.15	-.0001	-25.98	269.51
IMPC 11	3664.82	3676.07	4	6	51.3	333.25	.0044	-26.78	.0000	383277.4	1.85	23.06	.0016	154.11	.0039	-25.98	269.91

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	1	17	46.483	6561.304	21.1418	306.6486	10.97559	2.8643	110.8117	103.0308
SEPARATION	1.20	12.45	1	17	47.683	6623.905	8.5868	313.0782	10.92299	6.2521	113.1017	109.7612
RETRO	3.20	14.45	1	17	49.683	6827.244	14.0145	322.9674	10.75765	11.6871	116.0278	120.1518
IMPACT	3664.82	3676.07	4	6	51.305	385817.305	-25.9798	269.5139	2.18938	66.6374	284.1741	264.6094

SURVEYOR VIEW PERIODS

GHA	251.9883				E S	12.1909						LOM	264.9969
SX	-.0084643	SY	-.8992345	SZ	-.437869	RAD	-25.96 00	RAD	264.59770	RM	3A7089.195	LAT	28.310600 LON 279.461800
C3	-1.045940	ECC	.9828827	SLR	12976.942	RCA	6544.6 50	LTA	-20.0000	GTA	20.00	TB	675.00003 POL -.0
NSX	-.0A3 34	NSY	-.895AAA0	NSZ	-.440208	C3M	1.4 71	VIM	2.6714	ZAE	138.760	B.T	.0000 B.R -.0000
LATE	3.4376	LONE	4.7179	LATS	.5423	LONS	352.91 1	LATI	-4.5547	LONI	324.2447	RSM	152.1430 TTAN 6.6961
LAUNCH DATE	JUL	1.19AA		BASE AZM	102.0		TF	61.164			ARRIVAL	DATE	JUN 4 1966 7 9 16.5

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	17 44 24.8	28.1	20.02	358.17	7.59	104.85	112.91	17 55 39.8	6574.0	10.96	3.81

EVNT STA	TFI	TFL	DAY	HR	MIN	RA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PHASE IN SUNLIGHT											
INJECTION	.00	11.25	1	17	55.7												
SEPARATION	1.20	12.45	1	17	56.9												
RETRO	5.20	14.45	1	17	58.9												
RISE 72	4.40	15.65	1	18	.1	82.67	-.1783	42.2	.0166	3024.7	-7.37	-.00	.1258	313.13	.0408	9.55	327.18
EXTM 72	10.95	22.20	1	18	6.6	346.68	-.1453	7.8	-.1272	2309.3	4.81	69.82	-.0000	41.51	.5573	-3.90	349.20
RISE 51	11.11	22.36	1	18	6.8	78.99	-.0832	21.2	-.0372	5812.8	-2.61	.00	.0858	294.14	.0032	-4.17	349.63
EXTM 51	41.35	52.60	1	18	42.0	.77	-.0135	-24.3	-.0061	11871.5	5.18	88.15	.0103	337.63	.2846	-24.63	27.18
EXTM 72	70.30	81.55	1	19	8.0	296.08	.0001	-30.8	-.0007	23320.6	4.75	26.44	.0000	120.07	.0008	-28.24	35.67
RISE 61	102.03	113.28	1	19	37.7	311.87	.0013	-38.7	.0006	34567.0	4.12	-.00	.0011	144.22	.0005	-29.47	37.09
EXTM 51	191.28	202.53	1	21	8.9	.10	.0030	-30.5	.0001	70827.8	3.42	85.11	-.0000	180.98	.0295	-30.06	27.60
EXTM 61	375.84	387.09	2	0	11.5	4.13	.0038	-33.7	.0012	88597.4	2.71	16.10	.0000	183.58	.0033	-29.61	351.88
EXTM 72	4 7.37	416.62	2	0	41.0	.67	.0039	-31.5	.0001	87714.0	2.62	66.84	-.0000	181.46	.0086	-29.52	345.05
RISE 11	583.34	594.59	2	3	39.6	295.22	.0141	-31.3	.0000	119272.1	2.02	.00	.0025	129.25	.0023	-29.04	305.34
SET 51	603.10	614.35	2	3	58.8	90.00	.0038	-27.6	.0001	120491.9	2.61	11.72	-.0031	244.52	-.0012	-28.99	300.77
SET 61	611.40	622.65	2	4	7.1	59.13	.0059	-31.3	.0001	123107.6	2.49	-.00	-.0021	227.22	.0026	-28.97	298.84
SET 72	A 1.11	A12.46	2	7	16.8	94.28	.0039	-28.1	.0001	147440.1	2.41	-.01	-.0034	241.49	-.0004	-28.57	254.18
RISE 42	A11.18	A22.43	2	7	26.8	254.99	.0040	-27.7	-.0000	148192.8	1.71	4.25	.0028	120.41	-.0021	-28.55	251.78
EXTM 11	A61.76	AA3.01	2	A	7.4	1.09	.0041	-30.4	.0001	150953.9	1.98	24.14	-.0000	181.03	.0039	-28.47	242.10
SET 11	1116.81	1128.06	2	12	32.5	86.60	.0041	-29.7	.0001	163320.0	2.06	-.00	-.0026	233.11	.0024	-28.04	178.24
EXTM 42	1237.05	1248.30	2	14	32.7	359.96	.0042	-27.3	.0000	189635.6	1.70	82.41	-.0000	.27	-.0254	-27.88	149.02
RISE 51	1372.70	1383.95	2	16	48.4	270.00	.0041	-27.5	-.0000	208124.4	1.26	11.39	.0034	114.70	-.0014	-27.71	115.91
RISE 72	1527.65	1538.90	2	19	23.3	265.89	.0041	-27.9	-.0000	224145.5	1.15	-.01	.0035	117.58	-.0005	-27.54	77.97
RISE 61	1612.82	1624.07	2	20	44.5	297.49	.0041	-28.1	-.0000	231980.1	1.24	.00	.0025	128.85	.0027	-27.45	57.06
SET 42	1566.48	1671.73	2	21	34.1	105.00	.00	.6	.0000	235553.3	1.82	3.88	-.0009	240.08	-.0022	-27.40	45.35
EXTM 51	1726.73	1737.98	2	22	42.4	358.59	.00	-27.8	.0000	235887.2	1.46	87.93	.0021	142.71	.0815	-27.33	29.06
EXTM 61	1863.67	1874.92	3	0	59.3	.43	.0042	-28.5	.0000	251740.4	1.42	21.21	.0001	180.40	.0040	-27.21	355.33
EXTM 72	1903.37	1914.62	3	1	39.0	.13	.0042	-27.85	.0000	254463.8	1.40	70.25	-.0000	180.34	.0110	-27.17	345.54
RISE 11	2047.53	2058.58	3	4	1.0	291.98	.0042	-27.4	-.0000	269324.4	1.05	.00	.0028	125.00	.0024	-27.05	310.02
SET 51	2091.78	2103.03	3	4	47.4	90.00	.0041	-28.1	.0000	271693.9	1.71	11.17	.0034	245.81	-.0014	-27.02	299.04
SET 61	2114.27	2125.52	3	5	9.9	63.29	.0042	-27.9	.0000	274735.8	1.61	-.00	-.0029	232.08	.0027	-27.00	293.48
SET 72	2277.66	2288.91	3	7	53.3	94.00	.0041	-28.1	.0001	287607.3	1.69	-.00	-.0036	243.03	-.0005	-26.88	253.08
RISE 42	2278.54	2289.79	3	7	54.2	255.00	.0041	-28.1	-.0000	287268.5	.96	6.41	.0029	119.64	-.0022	-26.88	252.86
EXTM 11	2318.92	2330.17	3	A	34.6	.29	.0042	-27.7	.0000	287925.4	1.28	26.98	-.0000	180.19	.0042	-26.85	242.87
SET 11	2590.28	2601.53	3	13	5.9	68.51	.0042	-27.93	.0000	311030.9	1.56	.01	-.0028	235.67	.0024	-26.67	175.64
EXTM 42	2697.72	2708.97	3	14	53.4	359.98	.0042	-28.3	-.0000	312515.4	1.18	81.21	-.0000	.18	-.0168	-26.60	149.00
RISE 51	2828.44	2839.69	3	17	4.1	270.00	.0041	-28.9	-.0000	326719.2	.78	11.91	.0034	113.81	-.0015	-26.52	116.57
RISE 72	2981.82	2993.07	3	19	37.5	266.07	.0042	-28.27	-.0000	338574.5	.71	-.00	.0037	116.54	-.0005	-26.43	78.41
RISE 61	3058.77	3070.02	3	20	54.4	295.74	.0042	-27.16	-.0000	343715.7	.63	.00	.0031	126.72	.0027	-26.39	59.21
SET 42	3118.04	3129.29	3	22	51.7	105.00	.0041	-25.1	.0000	347141.4	1.44	3.42	-.0030	240.67	-.0023	-26.35	44.91
EXTM 51	3184.97	3196.22	3	23	.6	359.99	.0042	-28.43	.0000	345764.6	1.19	89.41	.0000	178.22	.1029	-26.31	27.69
EXTM 61	3313.70	3324.95	4	1	9.4	.23	.0042	-27.8	.0000	358126.6	1.20	32.58	-.0000	180.22	.0041	-26.24	359.52
EXTM 72	3353.48	3364.73	4	1	49.1	.10	.0043	-28.4	.0000	357190.8	1.10	71.36	-.0000	180.27	.0117	-26.22	345.58
RISE 11	3489.81	3501.06	4	4	5.5	290.86	.0042	-28.78	-.0000	372243.1	.81	.00	.0029	123.46	.0024	-26.14	311.46
SET 51	3540.85	3552.10	4	4	56.5	90.00	.0042	-25.73	.0000	374520.0	1.53	10.87	-.0035	246.53	-.0015	-26.11	298.66
SET 61	3568.21	3579.46	4	5	21.9	64.70	.0042	-26.79	.0000	377629.3	1.47	-.00	-.0026	233.81	.0027	-26.09	291.79
IMPACT	3669.85	3681.10	4	7	5.5												
IMPC 72	3669.65	3681.10	4	7	5.5	80.61	.0043	-25.95	.0001	384501.9	2.43	11.86	-.0039	245.02	-.0002	-26.00	266.10
IMPC 11	3669.85	3681.10	4	7	5.5	336.72	.0044	-26.00	.0000	383207.7	1.86	24.20	.0014	157.24	.0040	-26.00	266.10

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	1	17	55.663	6574.333	20.0097	306.1917	10.96460	3.8120	112.9158	104.8752
SEPARATION	1.20	12.45	1	17	56.863	6649.445	17.2562	312.4216	10.90159	7.1799	115.0056	111.4059
RETRO	5.20	14.45	1	17	58.8.3	6A72.367	2.4353	321.9830	10.72174	12.5575	117.5926	121.4686
IMPACT	3669.85	3681.10	4	7	5.[illegible]	385A63.391	-25.9955	266.0951	2.18653	66.3516	284.5358	264.7522

SURVEYOR VIEW PERIODS

GHA	251.9883					EPS	12.3017							LOM	261.7909
SX	-.082552	SY	-.895133	SZ	-.438089	DAD	-25.98401	RAD	264.73087	RM	387127.980	LAT	28.310600	LON	279.461800
C3	-1.052123	ECC	.982727	SLR	12976.286	RCA	6544.6450	LTA	-20.0000	GTA	20.0	TB	675.00000	POL	-.0
NSX	-.660879	NSY	-.895721	NSZ	-.440428	C3M	1.4769	VIM	2.4713	ZAE	138.548	B.T	.0000	B.R	-.0000
LATE	3.4499	LONE	4.8581	LATS	5425	LONS	352.9243	LATI	-4.8645	LONI	324.2092	RSM	152.1430	TTAN	6.6975
LAUNCH DATE	JUN	1 1966		BASE AZM	105.0		TF 61.269					ARRIVAL DATE	JUN 4 1966		7 22 35.7

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
105.00	17 51 31.1	28.1	18.91	305.65	9. 4	106.11	115.00	18 2 45.1	6586.1	10.95	4.53

EVNT	STA	TFI	TF	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	1	18	2.8												
SEPARATION		1.20	12.45	1	18	4.0												
RETRO		3.20	14.45	1	18	6.0												
RISE	72	4.28	15.53	1	18	7.0	83.82	-.1625	37. 1	-.0012	3076.4	-7.43	-.00	.1266	308.24	.0211	8.19	325.51
EXTM	72	11.93	22.18	1	18	14.7	353.71	-.1241	.91	-.1171	2294.7	4.73	79.61	.0000	37.65	1.0783	-5.74	347.35
RISE	51	11.10	22.35	1	18	13.9	80.84	-.0785	18. 7	-.0397	5915.6	-2.46	.00	.0844	290.37	-.0012	-6.03	347.81
EXTM	51	45.33	56.58	1	18	48.1	.86	-.0112	-27. 9	-.0041	13181.5	5.12	88.00	.0000	202.30	- 3084	-26.99	27.11
EXTM	72	71.42	82.67	1	19	14.2	298.04	.0001	-32. 6	-.0004	23583.9	4.72	27.87	.0000	122.31	.0005	-29.64	33.96
EXTM	51	95.42	106.67	1	19	38.2	350.39	.0002	-41. 4	-.0003	27239.7	4.26	79.77	.0000	126.77	.0019	-30.50	35.39
RISE	61	105.18	116.41	1	19	47.9	314.00	.0014	-39. 9	.0007	35415.3	4.07	-.00	.0012	146.22	.0005	-30.68	35.26
EXTM	51	181.42	192.67	1	21	4.2	.25	.0028	-31. 6	.0001	46903.4	3.48	84.07	-.0000	182.04	.0233	-30.95	27.47
EXTM	61	370.73	381.98	2	0	13.5	4.47	.0038	-34. 4	.0002	8[illegible].4	2.72	15.40	.0000	184.00	.0033	-30.23	351.38
EXTM	72	400.73	411.98	2	0	43.5	.83	.0039	-31. 1	.0001	86716.0	2.64	66.18	-.0000	181.74	.0083	-30.12	344.91
RISE	11	578.81	590.06	2	3	41.6	295.75	.0040	-31. 2	.0000	118655.8	2.02	.00	.0025	129.92	.0023	-29.51	304.80
SET	51	594.19	605.34	2	3	58.9	90.00	.0038	-28. 4	.0001	119722.6	2.61	11.90	-.0031	344.08	-.0012	-29.46	300.81
SET	61	611.51	622.76	2	4	4.3	58.44	.0039	-31. 4	.0002	121769.8	2.50	-.00	-.0020	226.44	.0026	-29.45	299.55
SET	72	794.68	805.85	2	7	17.4	94.35	.0039	-28. 9	.0001	146635.5	2.42	-.01	-.0034	241.11	.0004	-28.95	254.14
RISE	42	814.58	825.83	2	7	37.3	254.99	.0040	-27. 4	-.0000	147355.4	1.72	4.47	.0028	120.70	-.0021	-28.52	251.76
EXTM	11	845.58	856.83	2	8	8.3	1.21	.0041	-31. 2	.0001	150241.3	1.99	23.76	.0000	181.14	.0039	-28.83	241.98
SET	11	11 8.93	1120.18	2	12	31.7	66.30	.0041	-29. 7	.0001	182441.9	2.07	-.00	-.0026	232.71	.0024	-28.33	178.55
EXTM	42	1230.38	1241.63	2	14	33.1	359.94	.0042	-27. 0	.0000	188902.5	1.70	82.68	.0000	.43	-.0274	-28.14	149.04
RISE	51	1366.15	1377.40	2	16	48.9	270.00	.0041	-27. 8	-.0000	207415.1	1.26	11.48	.0034	114.92	-.0014	-27.94	115.91
RISE	72	1592.96	1604.21	2	19	23.7	265.85	.0041	-27. 0	-.0000	223447.1	1.15	-.01	.0036	117.79	-.0005	-27.74	78.00
RISE	61	1607.25	1618.50	2	20	50.0	297.73	.0041	-28. 1	-.0000	231389.8	1.24	.00	.0024	129.14	.0027	-27.64	56.82
SET	42	1653.88	1665.13	2	21	36.6	105.00	.0041	-26. 5	.0001	235159.9	1.82	3.99	-.0029	239.93	.0022	-27.58	45.36
EXTM	51	1719.88	1731.13	2	22	42.6	358.52	.0042	-27. 6	.0000	235189.3	1.46	87.75	.0022	144.33	.0764	-27.51	29.13
EXTM	61	1857.25	1868.50	3	1	.0	.47	.0042	-28. 1	.0000	251102.5	1.42	21.05	.0000	180.44	.0039	-27.37	355.29
EXTM	72	1896.83	1908.08	3	1	39.6	.14	.0042	-27. 1	.0000	250806.3	1.41	70.09	-.0000	180.37	.0109	-27.33	345.53
RISE	11	2041.31	2052.56	3	4	4.1	292.12	.0042	-28. 9	-.0000	268706.8	1.05	.00	.0028	125.18	.0024	-27.19	309.88
SET	51	2085.17	2096.42	3	4	47.9	90.00	.0041	-28. 4	.0001	271023.3	1.71	11.23	-.0034	245.68	-.0014	-27.15	299.04
SET	61	2107.01	2118.26	3	5	9.8	61.12	.0042	-28. 1	.0001	274018.5	1.61	-.00	-.0025	231.88	.0027	-27.13	293.61
SET	72	2271.13	2282.38	3	7	53.9	94.02	.0041	-26. 1	.0001	286949.7	1.69	-.00	-.0036	242.92	-.0005	-26.99	253.06
RISE	42	2271.96	2283.21	3	7	54.7	255.00	.0041	-28. 2	-.0000	286599.6	.97	3.73	.0029	119.77	-.0022	-26.99	252.85
EXTM	11	2312.43	2323.68	3	8	35.2	.32	.0042	-26. 8	.0000	287282.5	1.28	26.71	-.0001	180.32	.0042	-26.96	242.84
SET	11	2583.32	2594.57	3	13	4.1	68.42	.0042	-27. 2	.0000	310339.3	1.52	.00	-.0028	235.55	.0024	-26.76	175.73
EXTM	42	2691.10	2702.35	3	14	51.9	359.98	.0042	-28. 1	.0000	311844.4	1.18	81.29	-.0000	.19	-.0176	-26.68	149.07
RISE	51	2821.83	2833.09	3	17	4.6	270.00	.0041	-26. 6	-.0000	326039.6	.78	11.04	.0034	113.87	-.0015	-26.52	116.56
RISE	72	2975.17	2986.42	3	19	47.9	264.06	.0042	-28. 3	-.0000	337891.3	.71	-.00	.0037	116.60	-.0005	-26.49	78.42
RISE	61	3052.42	3063.67	3	20	55.2	295.80	.0042	-27. 2	-.0000	343043.0	.83	.00	.0026	126.81	.0027	-26.44	59.14
SET	42	3119.42	3130.67	3	21	59.2	105.00	.0041	-25. 6	.0000	346438.9	1.44	3.45	-.0030	240.63	-.0023	-26.40	44.91
EXTM	51	3174.13	3185.38	3	22	54.9	358.91	.0042	-26. 8	.0000	344776.6	1.09	88.83	.0032	123.32	.1007	-26.37	28.75
EXTM	61	3307.15	3318.40	4	1	9.9	.25	.0042	-27. 2	.0000	357403.3	1.10	22.54	-.0000	180.24	.0041	-26.28	355.51
EXTM	72	3346.89	3358.14	4	1	49.7	.10	.0043	-26. 8	.0000	356453.8	1.10	71.32	-.0000	180.28	.0117	-26.26	349.57
RISE	11	3483.37	3494.62	4	4	4.1	290.89	.00 2	-24. 1	-.0000	371469.4	.80	.00	.0029	123.51	.0024	-26.18	315.42
SET	51	3534.28	3545.53	4	4	57.1	90.00	.0042	-25. 6	.0000	373706.5	1.52	10.88	-.0035	246.50	-.0015	-26.14	298.66
SET	61	3551.51	3562.76	4	5	24.3	64.67	.0042	-26. 2	.0000	376784.4	1.45	-.00	-.0026	233.76	.0027	-26.12	291.83
IMPACT		3676.13	3687.38	4	7	18.9												
IMPC	42	3676.13	3687.38	4	7	18.9	245.32	.0043	-25. 8	.0000	386240.6	1.68	-3.49	.0029	124.66	-.0026	-26.01	262.87
IMPC	72	3676.13	3687.38	4	7	18.9	83.85	.0043	-25. 4	.0001	384859.5	2.42	8.96	-.0039	244.84	-.0002	-26.01	262.87
IMPC	11	3676.13	3687.38	4	7	18.9	339.98	.0044	-26. 3	.0000	383154.1	1.87	25.15	.0012	160.28	.0041	-26.01	262.87

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION		.00	11.25	1	18	2.769	6586.438	18.8980	305.6829	10.95316	4.5309	115.0105	106.1477
SEPARATION		1.20	12.45	1	18	4.969	6671.197	5.9522	311.7161	10.88536	7.8813	116.9108	112.4816
RETRO		3.20	14.45	1	18	6.969	6908.736	0.8809	320.9740	10.69284	13.2121	119.1826	122.2409
IMPACT		3676.13	3687.38	4	7	18.895	3859[illegible]4.766	-26.0103	262.8745	2.18391	66.2024	265.0751	264.8863

JUN 1, 1966
105 DEGREES

SURVEYOR IEM PERIODS

GHA	251.9483					E-S	12.4073						LOM	258.7344	
SX	-.109549	SY	-.[illegible]	SZ	-.434296	RAD	-25.99 24	RAD	264.85784	RM	387164.965	LAT	28.310600	LON	279.461800
CJ	-1.069142	ECC	.98[illegible]	SLR	19375.525	RCA	6544.6 50	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.058809	NSY	-.894758	NSZ	-.440639	C3M	1.4468	VIM	2.6713	ZAE	138.299	B.T	.0000	B.R	-.0000
LATE	3.4617	LONE	4.7349	LATS	.5428	LONS	352.4979	LATI	-5.1990	LONI	323.8983	RSM	152.1431	TTAN	6.6986
LAUNCH DATE	JUN	1.1966		BASE AZM	108.0		TF 61.390					ARRIVAL DATE	JUN 4 1966	7 35 17.6	

LNCH AZMTH	LNCH TIME		RR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME		INJ RAD	INJ VEL	INJ PTH
108.00	17 57	8.1	28.1	17.83	305.28	10.26	106.95	117.09	18	8 23.4	6597.0	10.94	5.09

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	1	1R	8.4												
SEPARATION		1.20	12.45	1	1R	9.6												
RETRO		3.2	14.45	1	1R	11.6												
RISE	72	4.20	15.45	1	1R	12.6	84.78	-.1499	33. 6	-.0182	3123.9	-7.41	-.00	.1266	303.62	.0026	6.76	324.03
EXTM	72	10.43	21.66	1	1R	18.8	5.22	-.0780	-3.1	-.1216	2195.8	3.93	83.20	.2141	309.97	.1931	-6.78	344.33
RISE	51	11.13	22.36	1	1R	19.5	82.59	-.0743	14.08	-.0421	6006.1	-2.32	.00	.0830	286.68	-.0054	-7.98	346.14
EXTM	51	47.72	58.97	1	1R	56.1	1.82	-.0103	-30. 3	-.0031	13985.1	5.06	84.95	-.0000	198.12	-.1068	-29.03	26.45
EXTM	72	72.17	83.42	1	1Y	20.6	299.57	.0000	-34. 2	-.0002	23765.4	4.70	28.82	.0000	124.63	.0002	-31.13	32.56
EXTM	51	95.97	107.15	1	1Y	44.3	352.12	.0001	-33. 7	-.0001	27407.4	4.25	79.90	.0000	139.14	.0010	-31.80	33.99
RISE	61	111.99	123.24	1	2D	.4	316.06	.0016	-30. 0	.0007	37165.8	3.97	-.00	.0013	148.10	.0006	-31.98	33.64
EXTM	51	174.21	185.46	1	2I	2.6	.49	.0027	-32.3	.0001	45436.6	3.52	82.90	.0000	183.32	.0185	-31.96	27.26
EXTM	61	367.61	378.86	2	0	14.0	5.24	.0038	-34.5	.0002	85452.0	2.73	14.66	.0000	184.44	.0032	-30.91	350.85
EXTM	72	395.95	407.20	2	0	44.3	1.00	.0039	-32. 2	.0001	86002.0	2.65	65.46	.0000	182.03	.0080	-30.77	344.75
RISE	11	576.14	587.39	2	3	44.5	296.33	.0040	-32. 5	.0000	118283.1	2.03	.00	.0025	130.64	.0023	-30.02	304.22
SET	51	591.76	603.01	2	3	59.1	90.00	.0038	-28.5	.0001	118966.8	2.62	12.10	-.0031	243.61	-.0012	-29.97	300.84
SET	61	592.97	604.22	2	4	1.4	57.67	.0039	-32.2	.0002	120598.6	2.50	-.00	-.0020	225.59	.0026	-29.96	300.33
SET	72	789.73	800.98	2	7	18.1	94.62	.0039	-28.9	.0001	146016.9	2.42	-.01	-.0034	240.70	-.0004	-29.36	254.09
RISE	42	799.58	810.83	2	7	28.0	254.04	.0040	-27.4	-.0000	146695.7	1.72	4.72	.0028	121.02	-.0021	-29.33	251.74
EXTM	11	841. 4	852.29	2	8	9.4	1.35	.0041	-31.42	.0001	149712.8	1.99	23.36	.0000	181.25	.0039	-29.22	241.86
SET	11	1102.50	1113.75	2	12	30.9	65.97	.0041	-29.9	.0001	181701.6	2.07	-.00	-.0026	232.28	.0024	-28.64	178.89
EXTM	42	1225.31	1236.56	2	14	34.7	359.93	.0042	-28. 9	.0000	188315.0	1.70	82.97	.0000	.49	-.0289	-28.42	149.04
RISE	51	1361.13	1372.40	2	16	49.5	270.00	.0041	-27.3	-.0000	200835.3	1.27	11.58	.0033	115.15	-.0014	-28.19	115.90
RISE	72	1515.79	1527.04	2	19	24.2	265.81	.0041	-27. 2	-.0000	222868.0	1.15	-.01	.0036	118.01	-.0005	-27.96	78.03
RISE	61	1603.28	1614.53	2	20	51.7	296.00	.0041	-29.2	-.0000	230922.3	1.24	.00	.0024	129.45	.0027	-27.84	56.55
SET	42	1648.80	1660.05	2	21	37.2	105.00	.0041	-28.5	.0001	234578.9	1.82	4.11	-.0029	239.77	-.0022	-27.79	45.36
EXTM	51	1714.75	1726.00	2	22	43.1	358.50	.0042	-27. 6	.0000	234619.2	1.46	87.53	.0021	146.80	.0731	-27.70	29.14
EXTM	61	1852.36	1863.61	3	1	.8	.51	.0042	-28.9	.0000	250569.4	1.42	20.87	.0000	180.48	.0039	-27.54	355.25
EXTM	72	1891.81	1903.06	3	1	40.2	.15	.0042	-27.9	.0000	250250.0	1.41	69.92	-.0000	180.40	.0108	-27.50	345.52
RISE	11	2036.84	2048.09	3	4	6.2	292.27	.0042	-28.4	-.0000	268185.9	1.05	.00	.0028	125.38	.0024	-27.34	309.72
SET	51	2081.07	2092.32	3	4	48.5	90.00	.0041	-26.8	.0001	270443.6	1.71	11.28	-.0034	245.55	-.0014	-27.30	299.05
SET	61	2101.19	2112.44	3	5	9.6	62.95	.0042	-28.6	.0001	273387.3	1.61	-.00	-.0024	231.67	.0027	-27.28	293.83
SET	72	2266.10	2277.35	3	7	54.5	94.04	.0041	-26.3	.0001	286375.7	1.69	-.00	-.0036	242.79	-.0005	-27.12	253.04
RISE	42	2266.88	2278.13	3	7	55.3	255.00	.0041	-26.4	-.0000	286013.0	.96	3.81	.0029	119.83	-.0022	-27.12	252.85
EXTM	11	2307.45	2318.70	3	8	35.8	.35	.0042	-28.1	.0000	285722.4	1.28	26.58	-.0000	180.34	.0041	-27.08	242.81
SET	11	2577.83	2589.08	3	13	6.2	68.33	.0042	-27.2	.0000	309 15.8	1.52	.00	-.0028	235.43	.0024	-26.85	175.82
EXTM	42	2685.96	2697.21	3	14	54.4	359.97	.0042	-26.9	.0000	311238.7	1.18	81.37	-.0000	.20	-.0190	-26.76	149.01
RISE	51	2816.71	2827.96	3	17	5.1	270.00	.0041	-26.4	-.0000	325423.9	.78	11.07	.0034	113.94	-.0015	-26.67	116.56
RISE	72	2970.14	2981.39	3	19	38.5	266.05	.0042	-26.39	-.0000	337288.5	.71	-.00	.0037	116.65	-.0005	-26.55	78.43
RISE	61	3047.70	3058.95	3	20	56.1	295.87	.0042	-27.7	-.0000	342449.1	.82	.00	.0026	126.89	.0027	-26.50	59.07
SET	42	3103.39	3114.64	3	21	52.8	105.00	.0041	-25.2	.0000	345812.0	1.43	3.49	-.0030	240.59	-.0023	-26.46	44.91
EXTM	51	3169.16	3180.41	3	22	57.5	358.93	.0042	-26.3	.0000	344148.4	1.09	88.82	.0031	125.98	.1068	-26.42	28.73
EXTM	61	3302.17	3313.42	4	1	10.6	.26	.0042	-27.7	.0000	356749.9	1.09	22.50	-.0000	180.25	.0041	-26.33	355.49
EXTM	72	3341.85	3353.10	4	1	50.2	.10	.0043	-26.3	.0000	355783.9	1.09	71.28	-.0000	180.30	.0116	-26.30	345.57
RISE	11	3478.44	3489.69	4	4	6.8	290.93	.0042	-26.5	-.0000	370758.8	.79	.00	.0029	123.56	.0024	-26.21	311.39
SET	51	3529.21	3540.46	4	4	57.6	90.00	.0042	-25. 9	.0000	372956.3	1.51	10.89	-.0035	246.47	-.0015	-26.17	298.66
SET	61	3556.29	3567.54	4	5	24.7	64.63	.0042	-26.6	.0000	376004.4	1.43	-.00	-.0026	233.71	.0027	-26.15	291.87
IMPACT		3683.38	3694.63	4	7	31.8												
IMPC	42	3683.38	3694.63	4	7	31.8	248.40	.0043	-25.1	.0000	386049.1	1.66	-1.38	.0029	122.85	-.0025	-26.02	259.78
IMPC	72	3683.38	3694.63	4	7	31.8	86.94	.0043	-25.43	.0001	385208.8	2.42	6.18	-.0039	244.59	-.0003	-26.02	259.78
IMPC	11	3683.38	3694.63	4	7	31.8	343.12	.0044	-26.45	.0000	383119.3	1.88	25.93	.0011	163.26	.0042	-26.02	259.78

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	1	1R	8.390	6598.124	7.8068	305.1292	10.94470	5.0872	117.0998	107.0032
SEPARATION		1.20	12.45	1	1R	9.590	6689.448	4.6732	310.9700	10.86805	8.4223	118.8215	113.1448
RETRO		3.20	14.45	1	1R	11.590	6938.149	9.3498	319.9427	10.66971	13.7154	120.7996	122.6189
IMPACT		3683.38	3694.63	4	7	31.768	3859[illegible].066	-26.0246	259.7769	2.18030	65.8532	285.5281	265.0158

SURVEYOR VIEW PERIODS

GHA	251.9883				EPS	12.5122					LOM	255.6993	
SX	-.078581	SY	-.895289	SZ	-.438501	DAO	-26.00427	RAO	264.98393	RM	387201.703	LAT	28.310600
LON	279.461800	C3	-1.067278	ECC	.982476	SLR	12974.648	RCA	6544.6650	LTA	-20.0000	GTA	20.00
TB	675.00000	POL	-.0	NSX	-.056742	NSY	-.895786	NSZ	-.440849	C3M	1.4467	VIM	2.6713
ZAE	138.014	B.T	.0000	B.R	-.0000	LATE	3.4733	LONE	4.8482	LATS	.5430	LONS	352.7076
LATI	-5.5466	LONI	323.7928	RSM	152.1432	TTAN	6.6991						
LAUNCH DATE	JUN	1 1966		BASE AZM	111.0		TF	61.527			ARRIVAL DATE	JUN	4 1966 7 47 54.3

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	18 1 42.5	28.1	16.77	304.47	11.16	107.49	119.17	18 12 57.5	6606.5	10.94	5.53

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	1	18	12.0												
SEPARATION		1.20	12.45	1	18	14.2												
RETRO		3.20	14.45	1	18	16.2												
RISE	72	4.16	15.41	1	18	17.1	85.61	-.1392	28.46	-.0344	3170.6	-7.30	-.00	.1258	299.17	-.0148	5.26	322.69
EXTM	72	11.13	22.38	1	18	24.1	4.42	-.1581	-15.16	-.0928	2445.5	4.80	81.55	.0000	210.42	-1.2152	-9.92	344.47
RISE	51	11.17	22.42	1	18	24.1	84.26	-.0705	11.73	-.0445	6091.1	-2.17	-.00	.0816	283.04	-.0093	-9.99	344.58
EXTM	51	51.60	61.85	1	19	3.6	2.25	-.0093	-33.44	-.0021	14924.9	5.00	82.05	-.0000	193.70	-.0582	-31.14	26.15
EXTM	72	72.86	84.11	1	19	25.8	300.77	-.0000	-35.43	.0001	23949.8	4.68	29.41	.0000	127.00	-.0001	-32.69	31.41
EXTM	51	94.70	105.95	1	19	47.7	353.50	-.0001	-34.57	.0000	27145.9	4.26	79.28	.0000	150.02	-.0004	-33.17	32.86
RISE	61	120.88	132.13	1	20	13.8	318.08	.0018	-41.12	.0007	39366.8	3.86	-.00	.0013	149.88	.0008	-33.28	32.08
EXTM	51	169.93	181.18	1	21	2.9	.92	.0026	-34.8	.0002	44571.8	3.55	81.62	.0000	185.24	.0150	-33.04	26.89
EXTM	61	365.95	377.20	2	0	18.9	5.84	.0038	-35.49	.0002	65267.8	2.73	13.88	.0000	184.88	.0032	-31.63	350.30
EXTI	72	392.61	403.86	2	0	45.6	1.20	.0039	-33.7	.0002	85507.1	2.65	64.71	.0000	182.35	.0077	-31.46	344.57
RISE	11	574.86	586.11	2	3	47.8	296.94	.0040	-32.70	.0000	118091.4	2.03	.00	.0025	131.39	.0023	-30.56	303.60
SET	61	585.38	596.63	2	3	58.3	56.84	.0039	-32.68	.0002	119543.0	2.51	-.00	-.0020	224.67	.0026	-30.51	301.17
SET	51	586.67	597.92	2	3	59.6	90.00	.0038	-29.49	.0001	118368.9	2.62	12.31	-.0031	243.10	-.0012	-30.51	300.87
SET	72	786.18	797.33	2	7	19.0	94.59	.0039	-29.42	.0001	145534.5	2.42	-.00	-.0034	240.27	-.0004	-29.79	254.03
RISE	42	795.76	807.01	2	7	28.7	254.99	.0040	-28.26	-.0000	146166.1	1.7.	4.98	.0028	121.36	-.0021	-29.76	251.73
EXTM	11	837.72	848.97	2	8	10.7	1.49	.0041	-31.15	.0001	149318.6	1.99	22.93	.0000	181.37	.0038	-29.63	241.72
SET	11	1097.13	1108.38	2	12	30.1	65.62	.0041	-30.13	.0001	181059.6	2.07	-.00	-.0026	231.83	.0024	-28.97	179.25
EXTM	42	1225.37	1232.62	2	14	34.3	359.93	.0042	-28.49	.0000	187827.1	1.70	83.27	.0000	.57	-.0302	-28.71	149.05
RISE	51	1357.27	1368.52	2	16	50.2	270.00	.0041	-27.79	-.0000	206346.9	1.27	11.68	.0033	115.40	-.0014	-28.46	115.89
RISE	72	1511.72	1522.97	2	19	24.7	265.77	.0041	-27.46	-.0000	222372.1	1.16	-.00	.0036	118.25	-.0005	-28.20	78.06
RISE	61	1600.51	1611.76	2	20	53.5	298.28	.0042	-29.24	-.0000	230542.9	1.24	.01	.0024	129.79	.0027	-28.06	56.26
SET	42	1644.83	1656.08	2	21	37.8	105.00	.0041	-27.16	.0001	234075.1	1.82	4.24	-.0029	239.61	-.0022	-28.00	45.37
EXTM	51	1716.80	1728.05	2	22	49.8	.02	.0042	-27.95	.0000	234656.5	1.47	87.78	-.0000	180.64	.0722	-27.90	27.66
EXTM	61	1848.60	1859.85	3	1	1.6	.57	.0042	-29.17	.0000	250108.6	1.42	20.69	-.0000	180.53	.0039	-27.72	355.20
EXTM	72	1887.89	1899.14	3	1	40.8	.17	.0042	-28.7	.0000	249761.8	1.40	69.74	-.0000	180.43	.0107	-27.67	345.51
RISE	11	2033.49	2044.74	3	4	6.5	292.42	.0042	-28.40	-.0000	267729.3	1.05	.00	.0028	125.59	.0024	-27.50	309.57
SET	51	2076.05	2087.30	3	4	49.0	90.00	.0041	-26.23	.0001	269923.6	1.71	11.34	-.0034	245.41	-.0014	-27.45	299.05
SET	61	2096.43	2107.68	3	5	9.4	62.76	.0042	-28.41	.0001	272812.0	1.61	-.00	-.0024	231.44	.0027	-27.43	294.02
SET	72	2262.16	2273.41	3	7	55.1	94.07	.0041	-27.16	.0001	285854.9	1.69	-.00	-.0036	242.66	-.0005	-27.25	253.02
RISE	42	2262.88	2274.13	3	7	55.8	255.00	.0041	-26.47	-.0000	285478.7	.96	3.89	.0029	119.93	-.0022	-27.25	252.85
EXTM	11	2303.55	2314.80	3	8	36.5	.38	.0042	-28.44	.0000	286214.6	1.28	26.45	-.0000	180.37	.0041	-27.21	242.78
SET	11	2573.38	2584.63	3	13	6.3	68.23	.0042	-27.2	.0000	309131.8	1.51	.00	-.0028	235.30	.0024	-26.95	175.92
EXTM	42	2681.90	2693.15	3	14	54.9	359.97	.0042	-26.28	.0000	310670.9	1.18	81.46	-.0000	.20	-.0204	-26.85	149.01
RISE	51	2812.65	2823.90	3	17	5.6	270.00	.0041	-26.31	-.0000	324841.5	.78	11.10	.0034	114.01	-.0015	-26.74	116.56
RISE	72	2966.03	2977.28	3	19	39.0	266.03	.0042	-26.46	-.0000	336689.5	.70	-.00	.0037	116.73	-.0005	-26.62	78.44
RISE	61	3043.92	3055.17	3	20	56.9	295.94	.0042	-27.14	-.0000	341858.7	.82	.00	.0026	126.98	.0027	-26.56	58.99
SET	42	3100.30	3111.55	3	21	53.3	105.00	.0041	-25.87	.0000	345186.7	1.43	3.52	-.0030	240.54	-.0023	-26.52	44.91
EXTM	51	3165.93	3177.18	3	22	58.9	359.15	.0042	-26.48	.0000	343570.5	1.09	88.94	.0027	134.44	.1417	-26.47	28.52
EXTM	61	3298.17	3309.42	4	1	11.1	.28	.0042	-27.41	.0000	356096.9	1.09	22.45	-.0000	180.27	.0041	-26.37	355.47
EXTM	72	3337.86	3349.05	4	1	50.8	.11	.0043	-26.87	.0000	355114.1	1.09	71.23	-.0000	180.31	.0116	-26.34	345.56
RISE	11	3474.54	3485.79	4	4	7.5	290.96	.0042	-26.48	-.0000	370050.7	.79	.00	.0029	123.60	.0024	-26.24	311.35
SET	51	3525.15	3536.40	4	4	58.1	90.00	.0042	-25.83	.0000	372210.8	1.50	10.90	-.0035	246.44	-.0015	-26.21	298.67
SET	61	3552.09	3563.34	4	5	25.1	64.59	.0042	-26.49	.0000	375231.6	1.42	-.00	-.0026	233.67	.0027	-26.18	291.91
IMPACT		3691.63	3702.88	4	7	44.6												
IMPC	42	3691.63	3702.88	4	7	44.6	251.47	.0043	-25.44	.0000	385851.1	1.65	.77	.0030	121.10	-.0025	-26.04	256.69
IMPC	72	3691.63	3702.88	4	7	44.6	90.02	.0043	-25.43	.0001	385555.2	2.41	3.43	-.0039	244.29	-.0004	-26.04	256.69
IMPC	11	3691.63	3702.88	4	7	44.6	346.26	.0044	-26.46	.0000	383095.4	1.90	26.58	.0009	166.29	.0043	-26.04	256.69

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	1	18	12.959	6608.098	16.7368	304.5344	10.93640	5.5281	119.1867	107.5536
SEPARATION		1.20	12.45	1	18	14.159	6704.796	13.4192	310.1869	10.85512	8.8505	120.7402	113.5069
RETRO		3.20	14.45	1	18	16.159	6962.247	7.8431	318.8873	10.65067	14.1121	122.4433	122.7086
IMPACT		3691.63	3702.88	4	7	44.588	385988.871	-26.0387	256.6918	2.17695	65.6411	286.1188	265.1444

JUN 1, 1966
111 DEGREES

SURVEYOR VIEW PERIODS

GHA	251.9883							EPS	12.6569					LOM	251.5148
SX	-.075862	SY	-.895398	SZ	-.438780	DAO	-26.02404	RAO	265.15776	RM	387252.367	LAT	28.310600	LON	279.461800
C3	-1.079785	ECC	.982271	SLR	12973.307	RCA	6544.6750	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.053876	NSY	-.895822	NSZ	-.441136	C3M	1.4965	VIM	2.6713	ZAE	137.581	B.T	.0000	B.R	-.0000
LATE	3.4894	LONE	4.7306	LATS	.5434	LONS	352.4463	LATI	-6.0195	LONI	323.3323	RSM	152.1433	TTAN	6.6993
LAUNCH DATE		JUN	1 1966		BASE AZM	115.0		TF	61.739			ARRIVAL DATE		JUN 4 1966 8 5 17.4	

LNCH AZMTH	LNCH TIME	PH	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	18 6 40.1	28.1	15.39	303.60	12.19	107.87	121.95	18 17 55.1	6617.4	10.93	5.99

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	1	18	17.9												
SEPARATION		1.20	12.45	1	18	19.1												
RETRO		3.20	14.45	1	18	21.1												
RISE	72	4.16	15.41	1	18	22.1	86.60	-.1269	23.16	-.0545	3236.5	-7.01	-.00	.1235	293.40	-.0364	3.17	321.09
RISE	51	11.28	22.53	1	18	29.2	86.40	-.0659	7.43	-.0475	6203.5	-1.95	.00	.0796	278.25	-.0141	-12.77	342.64
EXTM	72	11.47	22.72	1	18	29.4	9.34	-.1540	-25.58	-.0759	2680.9	4.99	70.39	-.0000	205.90	-.4722	-13.09	343.09
EXTM	51	56.24	67.49	1	19	14.2	1.72	-.0075	-37.90	-.0008	16693.6	4.89	78.45	-.0000	186.87	-.0300	-34.04	26.48
EXTM	72	73.19	84.44	1	19	31.1	301.95	-.0001	-38.54	.0004	24058.7	4.67	29.71	.0000	130.17	-.0004	-34.83	30.12
EXTM	51	88.61	99.86	1	19	44.5	355.12	-.0008	-37.46	.0002	25641.5	4.34	77.66	.0000	161.57	-.0032	-35.07	31.49
RISE	61	134.48	145.73	1	20	32.4	320.75	.0022	-42.16	.0008	42610.9	3.71	-.00	.0014	152.18	.0010	-34.90	30.00
EXTM	51	167.91	179.16	1	21	5.8	1.70	.0026	-35.81	.0003	44193.9	3.56	79.82	.0000	187.84	.0119	-34.55	26.22
EXTM	61	365.40	376.65	2	0	23.3	6.65	.0038	-36.59	.0003	85286.4	2.73	12.83	.0000	185.46	.0031	-32.61	349.55
EXTM	72	389.85	401.10	2	0	47.8	1.50	.0039	-34.21	.0002	85108.6	2.66	63.66	.0000	182.79	.0073	-32.43	344.30
RISE	11	574.73	585.98	2	3	52.7	297.79	.0040	-33.46	.0000	118042.6	2.03	.00	.0024	132.43	.0023	-31.29	302.74
SET	61	576.31	587.56	2	3	54.2	55.64	.0039	-33.70	.0002	118260.6	2.51	-.00	-.0019	223.38	.0027	-31.29	302.38
SET	51	582.66	593.91	2	4	.6	90.00	.0038	-30.14	.0002	117753.1	2.62	12.60	-.0031	242.39	-.0011	-31.25	300.91
SET	72	782.58	793.83	2	7	20.5	94.60	.0039	-30.92	.0001	145043.8	2.42	-.00	-.0034	239.66	-.0004	-30.39	253.95
RISE	42	792.02	803.27	2	7	29.9	254.99	.0040	-28.56	-.0000	145605.9	1.73	5.34	.0028	121.83	-.0021	-30.35	251.70
EXTM	11	834.66	845.91	2	8	12.6	1.68	.0041	-32.43	.0001	148942.7	1.99	22.34	.0000	181.53	.0038	-30.20	241.54
SET	11	1091.16	1102.41	2	12	29.1	65.12	.0041	-30.80	.0001	180309.1	2.07	-.00	-.0025	231.19	.0024	-29.43	179.75
EXTM	42	1217.40	1228.65	2	14	35.3	359.91	.0042	-28.91	.0000	187282.8	1.70	83.69	.0000	.69	-.0326	-29.12	149.06
RISE	51	1353.36	1364.61	2	16	51.3	270.00	.0041	-28.16	-.0000	205791.6	1.27	11.82	.0033	115.75	-.0014	-28.83	115.88
RISE	72	1507.53	1518.78	2	19	25.4	265.71	.0041	-28.28	-.0000	221796.0	1.16	-.00	.0036	118.58	-.0005	-28.53	78.11
RISE	61	1598.07	1609.32	2	20	56.0	298.67	.0042	-29.55	-.0000	230119.3	1.24	.00	.0024	130.25	.0027	-28.37	55.87
SET	42	1640.77	1652.02	2	21	38.7	105.00	.0041	-27.45	.0001	233480.5	1.81	4.42	-.0029	239.37	-.0022	-28.29	45.38
EXTM	51	1712.77	1724.02	2	22	50.7	.03	.0042	-28.24	.0000	234079.0	1.47	87.50	-.0000	180.65	.0664	-28.18	27.66
EXTM	61	1844.79	1856.04	3	1	2.7	.63	.0042	-29.33	.0000	249560.4	1.42	20.43	-.0000	180.59	.0039	-27.97	355.13
EXTM	72	1883.89	1895.14	3	1	41.8	.19	.0042	-28.42	.0000	249175.7	1.40	69.48	-.0000	180.47	.0106	-27.92	345.49
RISE	11	2030.29	2041.54	3	4	8.2	292.64	.0042	-28.62	-.0000	267179.5	1.05	.00	.0027	125.89	.0024	-27.71	309.34
SET	51	2071.92	2083.17	3	4	49.8	90.00	.0041	-27.15	.0001	269283.5	1.71	11.43	-.0034	245.21	-.0014	-27.66	299.06
SET	61	2091.23	2102.48	3	5	9.1	62.49	.0042	-28.03	.0001	272093.4	1.60	-.00	-.0024	231.13	.0027	-27.64	294.28
SET	72	2258.12	2269.37	3	7	56.0	94.10	.0041	-27.24	.0001	285205.0	1.69	-.00	-.0036	242.48	-.0005	-27.43	253.00
RISE	42	2258.75	2270.00	3	7	56.7	255.00	.0041	-28.05	-.0000	284809.6	.96	4.00	.0029	120.07	-.0022	-27.43	252.84
EXTM	11	2299.57	2310.82	3	8	37.5	.42	.0042	-28.52	.0000	285580.9	1.27	26.27	-.0000	180.42	.0041	-27.38	242.74
SET	11	2568.59	2579.84	3	13	6.5	68.09	.0042	-27.87	.0001	308377.0	1.51	.00	-.0028	235.10	.0024	-27.09	176.07
EXTM	42	2677.68	2688.93	3	14	55.6	359.97	.0042	-26.81	.0000	309936.9	1.18	81.59	-.0000	.23	-.0198	-26.98	149.01
RISE	51	2808.43	2819.68	3	17	6.3	270.00	.0041	-26.42	-.0000	324081.4	.78	11.14	.0034	114.11	-.0015	-26.86	116.55
RISE	72	2961.71	2972.96	3	19	39.6	266.02	.0042	-26.55	-.0000	335900.0	.70	-.00	.0037	116.82	-.0006	-26.71	78.45
RISE	61	3040.09	3051.34	3	20	58.0	296.85	.0042	-27.43	-.0000	341079.3	.82	.00	.0025	127.11	.0027	-26.64	58.88
SET	42	3096.03	3107.28	3	21	53.9	105.00	.0041	-25.95	.0000	344356.7	1.42	3.57	-.0030	240.48	-.0023	-26.60	44.91
EXTM	51	3162.42	3173.67	3	23	.3	359.34	.0042	-26.56	.0000	342776.1	1.09	88.99	.0022	144.36	.1738	-26.54	28.33
EXTM	61	3294.01	3305.26	4	1	11.9	.31	.0042	-27.68	.0000	355223.6	1.08	22.38	-.0000	180.30	.0041	-26.44	355.45
EXTM	72	3333.57	3344.82	4	1	51.5	.12	.0043	-26.73	.0000	354216.7	1.08	71.17	-.0000	180.32	.0117	-26.41	345.56
RISE	11	3470.50	3481.75	4	4	8.4	291.01	.0042	-26.94	-.0000	369099.2	.78	.00	.0029	123.67	.0024	-26.30	311.30
SET	51	3520.91	3532.16	4	4	58.8	90.00	.0042	-25.47	.0000	371208.7	1.48	10.92	-.0035	246.40	-.0015	-26.25	298.67
SET	61	3547.63	3558.88	4	5	25.5	64.53	.0042	-26.94	.0000	374193.5	1.40	-.00	-.0026	233.59	.0027	-26.23	291.97
RISE	42	3701.59	3712.84	4	7	59.5	255.00	.0043	-25.49	.0000	385319.7	1.48	3.28	.0031	119.15	-.0024	-26.06	253.15
SET	72	3702.77	3714.02	4	8	.7	93.87	.0043	-25.92	.0001	385814.7	2.30	.00	-.0038	243.81	-.0005	-26.06	252.84
IMPACT		3704.33	3715.58	4	8	2.3												
IMPC	42	3704.33	3715.58	4	8	2.3	255.71	.0043	-25.49	.0000	385572.5	1.63	3.79	.0031	118.76	-.0024	-26.06	252.44
IMPC	72	3704.33	3715.58	4	8	2.3	94.27	.0043	-25.91	.0001	386033.0	2.40	-.36	-.0038	243.76	-.0005	-26.06	252.44
IMPC	11	3704.33	3715.58	4	8	2.3	350.57	.0044	-26.89	.0000	383085.1	1.91	27.27	.0006	170.54	.0043	-26.06	252.44

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	1	18	17.918	6619.585	15.3449	303.6816	10.92670	5.9912	121.9689	107.9440
SEPARATION		1.20	12.45	1	18	19.118	6721.760	11.7877	309.0876	10.84071	9.2991	123.3134	113.6508
RETRO		3.20	14.45	1	18	21.118	6988.307	5.8750	317.4374	10.63002	14.5266	124.6768	122.5020
IMPACT		3704.33	3715.58	4	8	2.250	386045.867	-26.0581	252.4414	2.17187	65.3049	286.9030	265.3217

GHA 252.9749 EMS 23.7845 LOM 286.8908
SX .133467 SY -.882871 SZ -.450191 DAU -26.75393 R.O 278.60921 RM 391196.535 LAT 28.310600 LON 279.461800
C3 -.989739 ECC .983749 SLR 12982.981 RCA 6544.6-50 LTA -20.0000 GTA 20.00 TB 675.00000 POL -.0
NSX .154503 NSY -.879799 NSZ -.450319 C3M 1.4939 VIM 2.6706 ZAE 140.079 B.T .0000 B.R -.0000
LATE 4.6342 LONE 4.4326 LATS .5704 LONS 341.0227 LATI -1.2729 LONI 324.9160 RSM 152.1430 TTAN 6.7887
LAUNCH DATE JUN 2,1966 BASE AZM 84.0 TF 61.486 ARRIVAL DATE JUN 5 1966 6 33 54.0

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
84.00	17 7 15.9	27.3	27.09	307.57	-12.72	97.93	99.81	17 18 30.9	6625.3	10.92	-6.31

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PRDRE IN SUNLIGHT											
INJECTION	.00	11.25	2	17	18.5												
SEPARATION	1.20	12.45	2	17	19.7												
RETRO	3.20	14.45	2	17	21.7												
RISE 72	7.04	18.29	2	17	25.6	350.11	-1.2740	81.-8	-.1151	2665.1	-2.89	-.00	.0832	1.37	.1947	14.77	346.2
RISE 51	12.12	23.37	2	17	30.6	61.15	-.1459	45.02	-.0235	4750.0	-3.68	.00	.0958	321.74	.0448	4.26	5.91
EXTM 72	13.41	24.66	2	17	31.9	290.04	-.0254	17.45	-.0959	3787.6	6.61	16.31	-.0000	68.71	.1030	1.96	9.82
EXTM 51	30.44	41.69	2	17	49.0	339.10	-.0232	-6.53	-.0221	7640.0	5.58	62.31	-.0000	49.70	.0688	-15.50	39.60
EXTM 72	43.17	74.42	2	18	21.7	272.64	-.0002	-23.42	-.0021	22274.4	5.02	5.54	.0000	112.94	.0021	-24.19	56.10
RISE 42	75.27	86.52	2	18	33.8	102.91	-.0036	-17.57	-.0029	26428.6	4.26	.00	.0044	248.32	-.0002	-25.38	57.99
EXTM 51	77.58	88.83	2	18	36.1	321.22	-.0003	-24.49	-.0017	22359.5	4.62	54.97	.0000	96.36	.0031	-25.55	58.23
EXTM 42	128.87	140.12	2	19	27.4	99.62	.0006	-22.09	-.0008	39723.4	3.98	5.48	-.0000	246.13	-.0010	-27.63	57.52
ENTER SHA	168.19	179.44	2	20	6.7												
ENTR 42	168.19	179.44	2	20	6.7	102.64	.0018	-23.42	-.0004	48827.8	3.75	4.06	-.0011	243.42	-.0013	-28.20	53.03
ENTR 72	168.19	179.44	2	20	6.7	284.61	.0030	-28.42	-.0003	47490.7	3.36	16.57	.0026	117.38	.0003	-28.20	53.03
ENTR 51	168.19	179.44	2	20	6.7	331.03	.0029	-28.46	-.0003	43874.1	3.50	64.10	.0025	101.93	.0004	-28.20	53.03
ENTR 61	168.19	179.44	2	20	6.7	297.04	.0028	-33.40	.0001	49723.6	3.44	-4.00	.0017	132.03	.0017	-28.20	53.03
SET 42	188.53	199.78	2	20	27.0	105.90	.0021	-24.53	-.0003	53332.2	3.64	2.58	-.0014	241.77	-.0014	-28.36	50.05
RISE 61	206.38	217.63	2	20	44.9	304.00	.0032	-33.46	.0001	57294.1	3.18	-.00	.0018	136.24	.0020	-28.46	47.19
EXIT SHA	207.57	218.82	2	20	46.1												
EXIT 42	207.57	218.82	2	20	46.1	107.59	.0024	-24.41	-.0002	57435.6	3.55	.90	-.0016	240.09	-.0015	-28.47	46.99
EXIT 72	207.57	218.82	2	20	46.1	292.08	.0033	-29.41	-.0002	55087.6	3.09	23.09	.0029	118.23	.0004	-28.47	46.99
EXIT 51	207.57	218.82	2	20	46.1	338.31	.0033	-28.41	-.0001	51838.1	3.26	70.52	.0028	103.37	.0009	-28.47	46.99
EXIT 61	207.57	218.82	2	20	46.1	304.23	.0032	-33.45	.0001	57521.9	3.18	.13	.0018	136.38	.0020	-28.47	46.99
EXTM 51	310.21	321.46	2	22	28.7	359.99	.0037	-28.95	.0000	70698.8	2.91	86.79	.0000	179.70	.0162	-28.68	27.69
EXTM 61	468.18	479.43	3	1	6.7	2.19	.0039	-32.31	.0001	100467.3	2.51	17.72	.0000	181.95	.0035	-28.62	353.68
EXTM 72	505.04	516.29	3	1	43.6	.32	.0040	-29.85	.0000	102112.5	2.44	68.05	-.0000	180.73	.0094	-28.59	345.38
RISE 11	673.60	684.85	3	4	32.1	294 35	.0040	-30.40	-.0000	131205.5	1.90	.00	.0026	128.13	.0023	-28.42	306.45
SET 51	699.08	710.33	3	4	57.6	90.00	.0039	-27.48	.0001	133260.3	2.50	11.52	-.0032	244.99	-.0013	-28.39	300.46
SET 61	711.50	722.75	3	5	10.0	60.23	.0040	-30.40	.0001	136130.0	2.39	-.00	-.0022	228.47	.0026	-28.38	297.54
SET 72	894.44	905.69	3	8	13.0	94.21	.0039	-27.47	.0001	158587.5	2.34	-.00	-.0035	241.84	-.0005	-28.20	254.04
RISE 42	903.21	914.46	3	8	21.7	255.00	.0040	-26.32	-.0001	159160.9	1.64	4.09	.0028	120.20	-.0021	-28.19	251.94
EXTM 11	942.69	953.94	3	9	1.2	.72	.0042	-30.18	.0000	161563.8	1.92	24.61	-.0000	180.68	.0040	-28.16	242.46
SET 11	1209.24	1220.49	3	13	27.8	66.79	.0041	-29.19	.0001	193292.8	2.02	-.00	-.0026	233.35	.0024	-27.93	177.97
EXTM 42	1328.19	1339.44	3	15	26.7	360.00	.0042	-27.41	.0000	199185.6	1.66	82.39	-.0000	.14	-.0046	-27.84	148.98
RISE 51	1463.12	1474.37	3	17	41.6	270.00	.0041	-27.11	-.0000	217341.5	1.23	11.41	.0034	114.76	-.0014	-27.75	115.99
RISE 72	1617.78	1629.03	3	20	16.3	265.87	.0041	-27.41	-.0000	233092.3	1.13	-.00	.0036	117.70	-.0005	-27.64	78.06
RISE 61	1703.54	1714.79	3	21	42.1	297.61	.0041	-28.71	-.0000	240866.3	1.22	.00	.0024	129.00	.0027	-27.59	56.98
SET 42	1751.00	1762.25	3	22	29.5	105.00	.0041	-26.46	.0000	244649.6	1.80	4.00	-.0029	239.92	-.0022	-27.56	45.30
EXTM 51	1816.82	1828.07	3	23	35.3	358.55	.0042	-27.47	.0000	244582.4	1.44	87.76	.0022	145.00	.0773	-27.52	29.10
EXTM 61	1953.34	1964.59	4	1	51.9	.31	.0042	-28.75	.0000	260289.5	1.40	21.02	.0000	180.29	.0039	-27.45	355.45
EXTM 72	1993.35	2004.60	4	2	31.9	.10	.0042	-27.90	.0000	259992.6	1.39	70.01	-.0000	180.26	.0107	-27.43	345.58
RISE 11	2138.28	2149.53	4	4	56.8	292.25	.0042	-28.22	-.0000	277818.9	1.04	.00	.0028	125.36	.0024	-27.35	309.78
SET 51	2181.91	2193.16	4	5	40.4	90.00	.0041	-26.83	.0000	280080.3	1.70	11.30	-.0034	245.50	-.0014	-27.33	299.00
SET 61	2202.92	2214.17	4	6	1.4	62.93	.0042	-28.27	.0000	283005.2	1.60	-.00	-.0025	231.65	.0027	-27.32	293.80
SET 72	2367.94	2379.19	4	8	46.5	94.07	.0041	-27.16	.0000	295924.7	1.69	-.00	-.0036	242.66	-.0005	-27.24	252.98
RISE 42	2368.31	2379.56	4	8	46.8	255.00	.0041	-26.49	-.0000	295519.9	.96	3.90	.0029	119.95	-.0022	-27.24	252.89
EXTM 11	2408.48	2419.73	4	9	27.0	.21	.0042	-28.32	.0000	296204.2	1.27	26.48	-.0000	180.21	.0041	-27.22	242.94
SET 11	2678.48	2689.73	4	13	57.0	68.09	.0042	-27.86	.0000	319104.2	1.51	.01	-.0028	235.11	.0024	-27.11	176.03
EXTM 42	2787.52	2798.77	4	15	46.0	360.00	.0042	-26.90	.0000	320681.2	1.18	81.68	-.0000	.13	-.0024	-27.06	148.98
RISE 51	2917.99	2929.24	4	17	56.5	270.00	.0042	-26.59	-.0000	335032.0	.77	11.21	.0034	114.27	-.0015	-27.01	116.59
RISE 72	3070.70	3081.95	4	20	29.2	265.98	.0042	-26.80	-.0000	346635.6	.72	-.00	.0037	117.08	-.0005	-26.96	78.53
RISE 61	3150.67	3161.92	4	21	49.2	296.37	.0042	-27.69	-.0000	352015.1	.84	.00	.0025	127.50	.0027	-26.93	58.59
SET 42	3205.09	3216.84	4	22	44.1	105.00	.0041	-26.29	.0000	355275.5	1.45	3.78	-.0030	240.21	-.0023	-26.92	44.89
EXTM 51	3270.51	3281.76	4	23	49.0	358.98	.0042	-26.92	.0000	353718.2	1.11	88.51	.0023	142.41	.1141	-26.90	28.69
EXTM 61	3403.00	3414.25	5	2	1.5	.15	.0042	-27.77	.0000	366516.9	1.12	21.99	-.0000	180.14	.0040	-26.86	355.60
EXTM 72	3443.02	3454.27	5	2	41.5	.07	.0042	-27.17	.0000	365613.3	1.13	70.74	-.0000	180.20	.0110	-26.84	345.60
RISE 11	3581.83	3593.08	5	5	.4	297.48	.0042	-27.43	-.0000	381154.4	.88	.00	.0028	124.32	.0024	-26.80	310.85
SET 51	3630.44	3641.69	5	5	49.0	90.00	.0042	-26.42	.0000	383510.1	1.66	11.14	-.0035	245.89	-.0015	-26.79	298.64
SET 61	3654.53	3665.78	5	6	13.0	63.90	.0042	-27.47	.0000	386652.6	1.67	-.00	-.0026	232.83	.0028	-26.78	292.57
IMPACT	3689.16	3700.41	5	6	47.7												
IMPC 72	3689.16	3700.41	5	6	47.7	62.83	.0043	-26.84	.0000	386971.9	2.43	27.75	-.0039	243.76	.0104	-26.76	283.76
IMPC 51	3689.16	3700.41	5	6	47.7	104.84	.0043	-26.51	.0000	390021.6	2.43	-.82	-.0034	240.07	-.0019	-26.76	283.76
IMPC 11	3689.16	3700.41	5	6	47.7	318.83	.0044	-27.21	-.0000	388155.6	1.83	16.21	.0022	142.55	.0033	-26.76	283.76

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	2	17	18.516	6627.921	27.1108	307.4575	10.92432	-6.3061	99.7586	97.8142
SEPARATION	1.20	12.45	2	17	19.716	6561.835	25.7329	314.7418	10.97732	-2.9203	103.1399	105.3994
RETRO	3.20	14.45	2	17	21.716	6560.401	22.6128	326.4087	10.97853	2.7959	108.1402	117.5676
ENTER SHA	168.19	179.44	2	20	6.710	49687.516	-28.1950	53.0325	3.88003	68.0904	95.5300	245.5534
EXIT SHA	207.57	218.82	2	20	46.087	57887.530	-28.4674	46.9884	3.57518	69.6597	93.7133	249.3804
IMPACT	3689.16	3700.41	5	6	47.674	389982.441	-26.7634	283.7624	2.21165	68.4586	274.5818	278.9333

SURVEYOR VIEW PERIODS

GHA	252.9740					EQS	24.0388						LOM	279.3964	
SX	.138416	SY	-.882125	SZ	-.450219	DAO	-26.75775	RAO	278.91769	RM	391286.922	LAT	28.310600	LON	279.461800
C3	-.983009	ECC	.983540	SLR	12983.702	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.159167	NSY	-.874548	NSZ	-.450292	C3M	1.4271	VIM	2.6714	ZAE	140.214	B.T	.0000	B.R	-.0000
LATE	4.6582	LONE	4.4232	LATS	.5710	LONS	340.7663	LATI	-1.0202	LONI	325.0080	RSM	152.1428	TTAN	6.7854
LAUNCH DATE		JUN	2,1966		BASE AZM	87.0		TF	61.411			ARRIVAL DATE		JUN 5 1966 7 5 1.5	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
87.00	17 36 40.0	27.7	25.86	307.73	-6.17	105.45	102.16	17 47 55.0	6563.5	10.98	-3.06

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDF	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PHASE IN SUNLIGHT											
INJECTION	.00	11.25	2	17	47.9												
SEPARATION	1.20	12.45	2	17	49.1												
RETRO	3.20	14.45	2	17	51.1												
RISE 72	6.09	17.34	2	17	54.0	58.09	-.6763	75.49	.0825	2742.1	-4.66	-.00	.0997	347.55	.1623	14.81	340.62
RISE 61	8.93	20.18	2	17	56.8	9.69	-.1904	-49.65	.0009	3905.5	5.03	.00	.0168	186.29	-.1229	8.87	352.43
RISE 51	11.74	22.99	2	17	59.7	65.95	-.1252	40.71	-.0254	5069.9	-3.38	-.00	.0931	315.78	.0335	3.55	1.91
EXTM 61	12.62	23.87	2	18	.5	339.50	-.0919	-46.42	.0176	5280.5	6.96	1.53	-.0000	166.00	-.0659	2.02	4.52
EXTM 72	12.73	23.98	2	18	.6	300.49	-.0402	19.75	-.1078	3399.6	6.24	25.25	-.0000	63.73	.1263	1.85	4.82
SET 61	19.21	30.46	2	18	7.1	317.56	-.0334	-41.19	.0089	8152.3	7.28	.00	-.0054	149.43	-.0262	-6.90	19.56
EXTM 5_	33.34	44.59	2	18	21.3	344.72	-.0190	-10.2	-.0160	8815.1	5.47	68.63	-.0000	45.40	.0675	-16.74	36.89
EXTM 72	63.52	74.77	2	18	51.4	279.47	-.0001	-23.65	-.0020	22065.7	4.98	11.80	.0000	112.63	.0020	-23.71	49.86
EXTM 51	79.71	90.96	2	19	7.6	329.30	-.0003	-24.65	-.0016	22926.8	4.55	62.21	.0000	93.85	.0035	-25.19	51.91
ENTER SHA	148.42	159.67	2	20	16.3												
ENTR 42	148.42	159.67	2	20	16.3	107.31	.0013	-22.5	-.0006	45160.3	3.85	-.13	-.0006	241.77	-.0012	-27.52	48.73
ENTR 72	148.42	159.67	2	20	16.3	288.42	.0028	-27.88	-.0004	43022.6	3.53	19.93	.0024	116.97	.0005	-27.52	48.73
ENTR 51	148.42	159.67	2	20	16.3	335.59	.0026	-27.50	-.0003	39613.9	3.67	68.15	.0023	100.09	.0008	-27.52	48.73
ENTR 61	148.42	159.67	2	20	16.3	301.11	.0026	-33.3	.0001	45341.4	3.61	-1.76	.0015	134.57	.0015	-27.52	48.73
RISE 61	167.10	178.35	2	20	35.0	304.17	.0029	-33.88	.0001	49294.5	3.45	-.00	.0016	136.43	.0018	-27.76	46.33
EXIT SHA	221.52	232.77	2	21	31.4												
EXIT 72	223.52	234.77	2	21	31.4	302.69	.0035	-29.11	-.0002	57642.9	3.01	32.30	.0029	119.56	.0008	-28.16	37.33
EXIT 51	223.52	234.77	2	21	31.4	349.21	.0033	-28.49	-.0001	54999.1	3.21	80.04	.0028	107.85	.0043	-28.16	37.33
EXIT 61	223.52	234.77	2	21	31.4	314.75	.0033	-33.19	.0001	60347.1	3.10	5.52	.0016	143.34	.0023	-28.16	37.33
EXIT 51	275.15	286.40	2	22	23.1	359.97	.0036	-28.57	-.0000	64660.1	3.04	87.17	.0000	179.45	.0534	-28.31	27.71
EXTM 61	436.97	448.22	3	1	4.9	2.26	.0039	-31.43	.0001	95892.5	2.58	17.80	.0000	182.02	.0035	-28.38	353.62
EXTM 72	473.80	485.05	3	1	41.7	.29	.0040	-29.68	.0000	97674.9	2.50	68.23	-.0000	180.68	.0094	-28.37	345.40
RISE 11	643.29	654.54	3	4	31.2	294.23	.0040	-30.8	-.0000	127377.3	1.94	.00	.0026	127.97	.0023	-28.25	306.50
SET 51	668.77	680.02	3	4	56.7	90.00	.0039	-27.8	.0001	129499.6	2.54	11.44	-.0032	245.18	-.0013	-28.23	300.54
SET 61	681.95	693.20	3	5	9.9	60.37	.0040	-30.09	.0001	132486.9	2.42	-.00	-.0022	228.64	.0026	-28.22	297.45
SET 72	864.67	875.92	3	8	12.6	94.19	.0039	-27.73	.0001	155253.6	2.37	-.00	-.0035	241.98	-.0005	-28.07	254.12
RISE 42	873.95	885.20	3	8	21.9	254.99	.0040	-26.45	-.0001	155912.4	1.66	3.99	.0028	120.07	-.0021	-28.06	251.90
EXTM 11	913.27	924.52	3	9	1.2	.70	.0042	-30.09	.0000	158337.8	1.94	24.70	-.0000	180.67	.0040	-28.03	242.48
SET 11	1180.48	1191.73	3	13	28.4	66.87	.0041	-29.11	.0001	190487.4	2.04	-.00	-.0026	233.46	.0024	-27.83	177.91
EXTM 42	1299.29	1310.54	3	15	27.2	.00	.0042	-27.51	.0000	196493.4	1.68	82.29	-.0000	359.86	-.0014	-27.75	148.98
RISE 51	1434.38	1445.63	3	17	42.3	270.00	.0041	-27.02	-.0000	214791.1	1.25	11.38	.0034	114.68	-.0014	-27.67	115.97
RISE 72	1589.17	1600.42	3	20	17.1	265.88	.0041	-27.14	-.0000	230679.5	1.14	-.00	.0036	117.63	-.0005	-27.57	78.03
RISE 61	1674.62	1685.87	3	21	42.5	297.55	.0041	-28.46	-.0000	238491.9	1.23	.00	.0024	128.92	.0027	-27.53	57.03
SET 42	1722.28	1733.53	3	22	30.2	105.00	.0041	-26.59	.0000	242332.9	1.81	3.96	-.0029	239.98	-.0022	-27.50	45.32
EXTM 51	1788.17	1799.42	3	23	36.1	358.55	.0042	-27.51	.0000	242315.3	1.45	87.80	.0022	144.09	.0782	-27.47	29.10
EXTM 61	1924.68	1935.93	4	1	52.6	.30	.0042	-28.10	.0000	258109.9	1.42	21.06	.0000	180.28	.0039	-27.40	355.46
EXTM 72	1964.73	1975.98	4	2	32.6	.09	.0042	-27.45	.0000	257845.9	1.40	70.05	-.0000	180.25	.0107	-27.38	345.58
RISE 11	2109.60	2120.85	4	4	57.5	292.21	.0042	-28.18	-.0000	275758.9	1.05	.00	.0028	125.31	.0024	-27.31	309.81
SET 51	2153.32	2164.57	4	5	41.2	90.00	.0041	-26.79	.0000	278055.2	1.71	11.29	-.0034	245.54	-.0014	-27.29	299.01
SET 61	2174.52	2185.77	4	6	2.4	62.97	.0042	-28.24	.0000	281004.9	1.61	-.00	-.0025	231.70	.0027	-27.28	293.77
SET 72	2339.38	2350.63	4	8	47.3	94.06	.0041	-27.42	.0000	294004.8	1.70	-.00	-.0036	242.70	-.0005	-27.21	252.99
RISE 42	2339.83	2351.08	4	8	47.7	255.00	.0041	-26.45	-.0000	293609.5	.97	3.88	.0029	119.92	-.0022	-27.21	252.88
EXTM 11	2379.94	2391.19	4	9	27.9	.20	.0042	-28.29	.0000	294306.3	1.28	26.50	-.0000	180.20	.0041	-27.19	242.95
SET 11	2650.11	2661.36	4	13	58.0	68.12	.0042	-27.84	.0000	317361.1	1.52	.00	-.0028	235.14	.0024	-27.08	176.01
EXTM 42	2759.08	2770.33	4	15	47.0	360.00	.0042	-26.88	.0000	318986.2	1.19	81.66	-.0000	.12	-.0012	-27.04	148.98
RISE 51	2889.63	2900.88	4	17	57.5	270.00	.0041	-26.18	-.0000	333216.0	.79	11.20	.0034	114.26	-.0015	-27.00	116.58
RISE 72	3042.43	3053.68	4	20	30.3	265.98	.0042	-26.79	-.0000	345091.6	.72	-.00	.0037	117.07	-.0005	-26.95	78.52
RISE 61	3122.32	3133.57	4	21	50.2	296.36	.0042	-27.69	-.0000	350481.2	.84	.00	.0025	127.49	.0027	-26.92	58.59
SET 42	3177.23	3188.48	4	22	45.1	105.00	.0041	-26.28	.0000	353749.9	1.45	3.77	-.0030	240.22	-.0023	-26.91	44.89
EXTM 51	3242.18	3253.43	4	23	56.1	358.99	.0042	-26.91	.0000	352201.5	1.11	88.52	.0023	142.45	.1149	-26.89	28.68
EXTM 61	3374.58	3385.83	5	2	2.5	.14	.0042	-27.78	.0000	364996.5	1.12	21.99	-.0000	180.13	.0040	-26.85	355.61
EXTM 72	3414.62	3425.87	5	2	42.5	.07	.0042	-27.17	.0000	364088.8	1.12	70.74	-.0000	180.19	.0111	-26.84	345.61
RISE 11	3553.50	3564.75	5	5	1.4	291.49	.0042	-27.43	-.0000	379552.7	.86	.00	.0028	124.32	.0024	-26.81	310.85
SET 51	3602.11	3613.36	5	5	50.0	90.00	.0042	-26.42	.0000	381808.0	1.61	11.14	-.0035	245.89	-.0015	-26.79	298.65
SET 61	3626.21	3637.46	5	6	14.1	63.89	.0042	-27.48	.0000	384846.9	1.57	-.00	-.0025	232.81	.0027	-26.78	292.59
IMPACT	3684.64	3695.89	5	7	12.6												
IMPC 72	3684.64	3695.89	5	7	12.6	68.87	.0043	-26.40	.0000	387586.3	2.45	22.38	-.0039	244.20	.0002	-26.76	277.77
IMPC 11	3684.64	3695.89	5	7	12.6	324.89	.0044	-27.23	-.0000	387934.4	1.85	19.04	.0019	147.35	.0036	-26.76	277.77

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	2	17	47.916	6563.645	25.8599	307.7146	10.97632	-3.0580	102.1537	105.4416
SEPARATION	1.20	12.45	2	17	49.116	6544.934	24.2157	314.8329	10.99191	.3690	105.2976	112.8607
RETRO	3.20	14.45	2	17	51.116	6618.761	20.7450	326.1532	10.92993	6.0488	109.8336	124.6823
ENTER SHA	148.42	159.67	2	20	16.340	45592.978	-27.5154	48.7265	4.06230	67.1439	97.3019	243.6614
EXIT SHA	223.52	234.77	2	21	31.439	61288.460	-28.1566	37.3319	3.46763	70.2145	93.8280	251.0928
IMPACT	3684.64	3695.89	5	7	12.557	3900?9.285	-6.7638	277.7719	2.21105	68.1722	273.9843	279.1807

SURVEYOR VIEW PERIODS

GHA	252.9740					EPS	24.2855							LOM	272.1215
SX	.143021	SY	-.881381	SZ	-.450237	DAD	-26.75487	RAD	279.21700	RM	391374.586	LAT	28.310600	LON	279.461800
C3	-.981673	ECC	.985862	SLR	12983.848	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.163742	NSY	-.877755	NSZ	-.450261	C3M	1.4470	VIM	2.6714	ZAE	140.249	B.T	.0000	B.R	-.0000
LATE	4.6812	LONE	4.4137	LATS	.5716	LONS	340.6043	LATI	-.8992	LONI	325.0185	RSM	152.1426	TTAN	6.7829
LAUNCH DATE	JUN	2,1966		BASE AZM	90.0		TF 61.416					ARRIVAL DATE		JUN 5 1966	7 35 14.4

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
90.00	18 1 26.4	27.9	24.64	307.67	-.74	111.61	104.41	18 12 41.4	6544.9	10.99	-.36

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	2	18	12.7												
SEPARATION	1.20	12.45	2	18	13.9												
RETRO	3.20	14.45	2	18	15.9												
RISE 72	5.43	16.68	2	18	18.1	71.79	-.3630	66.7	.0847	2854.2	-5.70	-.01	.1099	337.33	.1295	14.35	336.32
RISE 61	8.45	19.70	2	18	21.1	20.01	-.1810	-47.49	-.0097	4098.4	4.45	.00	.0223	193.24	-.1194	8.12	348.56
RISE 51	11.48	22.73	2	18	24.2	69.60	-.1103	35.87	-.0275	5359.6	-3.06	-.00	.0902	310.58	.0247	2.56	358.39
EXTM 72	12.21	23.46	2	18	24.9	311.53	-.0601	20.38	-.1169	3098.8	5.86	34.59	-.0000	58.48	.1577	1.36	.45
EXTM 61	13.89	25.14	2	18	26.6	340.65	-.0726	-45.22	.0134	6064.9	6.88	2.79	-.0000	166.48	-.0530	-1.21	4.80
SET 61	27.58	38.83	2	18	40.3	312.94	-.0156	-38.84	.0039	11746.6	6.60	-.00	-.0036	145.23	-.0122	-14.08	26.87
EXTM 51	36.83	48.08	2	18	49.5	349.16	-.0152	-13.43	-.0116	10137.2	5.36	74.03	-.0000	41.67	.0693	-18.25	34.54
EXTM 72	64.59	75.84	2	19	17.3	285.48	-.0000	-24.30	-.0018	22111.7	4.92	17.31	.0000	113.08	.0019	-23.75	44.62
EXTM 51	82.07	93.32	2	19	34.8	336.24	-.0002	-24.70	-.0014	23589.8	4.49	68.51	.0000	92.39	.0040	-25.24	46.49
RISE 61	131.81	143.06	2	20	24.5	304.88	.0023	-34.15	.0002	41525.2	3.78	-.00	.0014	137.18	.0014	-27.10	44.75
ENTER SHA	140.72	151.97	2	20	33.4												
ENTR 42	140.72	151.97	2	20	33.4	112.21	.0012	-22.02	-.0007	44048.4	3.88	-4.02	-.0004	259.37	-.0012	-27.27	43.84
ENTR 72	140.72	151.97	2	20	33.4	293.31	.0027	-28.65	-.0004	41058.7	3.61	24.24	.0024	117.27	.0006	-27.27	43.84
ENTR 51	140.72	151.97	2	20	33.4	341.12	.0024	-27.44	-.0004	37925.0	3.75	73.05	.0021	99.62	.0014	-27.27	43.84
ENTR 61	140.72	151.97	2	20	33.4	306.15	.0025	-33.95	.0002	43518.1	3.68	.74	.0014	137.94	.0015	-27.27	43.84
EXIT SHA	224.72	235.97	2	21	57.4												
EXIT 72	224.72	235.97	2	21	57.4	309.22	.0035	-29.26	-.0001	57588.7	3.02	37.85	.0029	121.13	.0011	-28.05	31.29
EXIT 51	224.72	235.97	2	21	57.4	355.97	.0033	-28.51	-.0001	55350.1	3.23	85.58	.0024	126.56	.0225	-28.05	31.29
EXIT 61	224.72	235.97	2	21	57.4	321.26	.0034	-33.23	.0001	60468.3	3.11	8.28	.0015	148.06	.0024	-28.05	31.29
EXTM 51	244.33	255.58	2	22	17.0	359.95	.0034	-28.39	-.0000	59110.9	3.16	87.35	.0000	178.96	.0619	-28.13	27.73
EXTM 61	410.95	422.20	3	1	3.6	2.43	.0039	-32.01	.0001	91986.2	2.63	17.72	.0000	182.16	.0034	-28.31	353.47
EXTM 72	447.36	458.61	3	1	40.1	.26	.0040	-29.66	.0000	93820.0	2.55	68.24	.0000	180.62	.0093	-28.30	345.43
RISE 11	618.28	629.53	3	4	31.0	294.24	.0040	-30.19	-.0000	124144.7	1.98	.00	.0026	127.98	.0023	-28.21	306.43
SET 51	643.26	654.51	3	4	55.9	90.00	.0038	-27.11	.0001	126250.4	2.57	11.41	-.0032	245.24	-.0013	-28.19	300.61
SET 61	656.50	667.75	3	5	9.2	60.36	.0039	-30.51	.0001	129268.2	2.45	-.00	-.0022	228.62	.0026	-28.18	297.52
SET 72	839.74	850.99	3	8	12.4	94.13	.0039	-27.69	.0001	152389.9	2.39	-.00	-.0034	242.02	-.0005	-28.04	254.17
RISE 42	849.41	860.66	3	8	22.1	254.99	.0040	-26.60	-.0001	153112.9	1.68	3.96	.0028	120.03	-.0021	-28.03	251.86
EXTM 11	888.69	899.94	3	9	1.4	.71	.0041	-30.10	.0000	155580.0	1.96	24.69	-.0000	180.68	.0039	-28.00	242.47
SET 11	1156.09	1167.34	3	13	28.8	66.87	.0041	-29.10	.0001	188031.3	2.06	-.00	-.0026	233.47	.0024	-27.81	177.93
EXTM 42	1275.06	1286.31	3	15	27.7	360.00	.0042	-27.49	.0000	194154.1	1.69	82.27	-.0000	.14	-.0010	-27.73	148.98
RISE 51	1410.31	1421.56	3	17	43.0	270.00	.0041	-27.30	-.0000	212567.1	1.26	11.37	.0034	114.66	-.0014	-27.65	119.95
RISE 72	1565.17	1576.42	3	20	17.9	265.88	.0041	-27.33	-.0000	228562.6	1.15	-.01	.0036	117.61	-.0005	-27.56	78.01
RISE 61	1650.61	1661.86	3	21	43.3	297.55	.0041	-28.56	-.0000	236424.3	1.24	.00	.0024	128.92	.0027	-27.51	57.03
SET 42	1698.20	1709.45	3	22	30.9	105.00	.0041	-26.97	.0000	240288.4	1.82	3.95	-.0029	239.99	-.0022	-27.49	45.33
EXTM 51	1764.14	1775.39	3	23	36.8	358.54	.0042	-27.50	.0000	240310.4	1.46	87.81	.0022	143.83	.0781	-27.46	29.10
EXTM 61	1900.71	1911.96	4	1	53.4	.30	.0042	-28.71	.0000	256178.7	1.42	21.06	.0000	180.28	.0039	-27.39	355.46
EXTM 72	1940.77	1952.02	4	2	33.5	.09	.0042	-27.44	.0000	255935.0	1.41	70.06	-.0000	180.25	.0108	-27.37	345.58
RISE 11	2085.71	2096.96	4	4	58.4	292.21	.0042	-28.18	-.0000	273918.9	1.06	.00	.0028	125.31	.0024	-27.30	309.81
SET 51	2129.37	2140.62	4	5	42.1	90.00	.0041	-26.78	.0000	276230.5	1.72	11.28	-.0034	245.55	-.0014	-27.28	299.02
SET 61	2150.58	2161.83	4	6	3.3	62.97	.0042	-28.24	.0000	279189.9	1.62	-.00	-.0025	231.70	.0027	-27.27	293.78
SET 72	2315.46	2326.71	4	8	48.1	94.06	.0041	-27.32	.0000	292258.1	1.70	-.00	-.0036	242.70	-.0005	-27.20	253.00
RISE 42	2315.97	2327.22	4	8	48.7	255.00	.0041	-26.45	-.0000	291868.5	.97	3.87	.0029	119.91	-.0022	-27.20	252.87
EXTM 11	2356.06	2367.31	4	9	28.7	.20	.0042	-28.29	.0000	292578.5	1.29	26.50	-.0000	180.20	.0041	-27.19	242.95
SET 11	2626.24	2637.49	4	13	58.9	68.12	.0042	-27.64	.0000	315731.3	1.53	.00	-.0028	235.14	.0024	-27.08	176.02
EXTM 42	2735.26	2746.51	4	15	47.9	360.00	.0042	-26.88	.0000	317396.0	1.20	81.66	-.0000	.14	-.0004	-27.04	148.98
RISE 51	2865.84	2877.09	4	17	58.5	270.00	.0041	-26.58	-.0000	331669.1	.80	11.20	.0034	114.26	-.0015	-27.00	116.58
RISE 72	3018.75	3030.00	4	20	31.4	265.98	.0042	-26.49	-.0000	343608.9	.72	-.00	.0037	117.07	-.0005	-26.95	78.52
RISE 61	3098.64	3109.89	4	21	51.3	296.37	.0042	-27.69	-.0000	349002.8	.84	.00	.0025	127.50	.0027	-26.92	58.58
SET 42	3153.48	3164.73	4	22	46.2	105.00	.0041	-26.28	.0000	352269.6	1.45	3.77	-.0030	240.22	-.0023	-26.91	44.90
EXTM 51	3218.43	3229.68	4	23	51.1	358.99	.0042	-26.91	.0000	350721.3	1.11	88.52	.0023	142.44	.1148	-26.89	28.68
EXTM 61	3350.81	3362.06	5	2	3.5	.14	.0042	-27.78	.0000	363504.3	1.12	21.98	-.0000	180.13	.0040	-26.86	355.62
EXTM 72	3390.86	3402.11	5	2	43.5	.07	.0042	-27.57	.0000	362588.3	1.12	70.73	-.0000	180.19	.0110	-26.85	345.61
RISE 11	3529.80	3541.05	5	5	2.5	291.49	.0042	-27.44	-.0000	377980.9	.84	.00	.0028	124.33	.0024	-26.81	310.84
SET 51	3578.39	3589.64	5	5	51.1	90.00	.0042	-26.43	.0000	380161.8	1.57	11.14	-.0034	245.88	-.0015	-26.80	298.65
SET 61	3602.48	3613.73	5	6	15.2	63.88	.0042	-27.49	.0000	383136.6	1.51	-.00	-.0025	232.80	.0027	-26.79	292.60
IMPACT	3684.96	3696.21	5	7	37.6												
IMPC 72	3684.96	3696.21	5	7	37.6	74.94	.0043	-26.76	.0000	388228.7	2.46	16.96	-.0039	244.35	.0000	-26.76	271.73
IMPC 11	3684.96	3696.21	5	7	37.6	331.00	.0044	-27.55	-.0000	387753.8	1.88	21.53	.0017	152.48	.0038	-26.76	271.73

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	2	18	12.689	6544.935	24.6376	307.6724	10.99207	-.3648	104.4071	11.6096
SEPARATION	1.20	12.45	2	18	13.889	6563.541	22.7458	314.6295	10.97625	3.0618	107.3271	118.8676
RETRO	3.20	14.45	2	18	15.889	6697.724	18.9900	325.5251	10.86484	8.6592	111.4008	130.2646
ENTER SHA	140.72	151.97	2	20	33.405	44062.889	-27.2672	43.8421	4.13652	66.7529	97.9304	243.0549
EXIT SHA	224.72	235.97	2	21	57.410	61708.631	-28.0544	31.2903	3.45503	70.2800	93.9754	251.5619
IMPACT	3684.96	3696.21	5	7	37.644	390136.848	-26.7641	271.7323	2.20894	67.8820	273.6594	279.4300

SURVEYOR VIEW PERIODS

GHA	252.9740				EPS	24.4806						LOM	266.3685
SX	.146658	SY	-.880779	SZ	-.450244	DAO	-26.75431	RAO	279.45358	RM	391443.863	LAT	28.310600	LON	279.461800
C3	-.981961	ECC	.983977	SLR	12983.817	HCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.167569	NSY	-.877084	NSZ	-.450235	C3M	1.4466	VIM	2.6713	ZAE	140.239	B.T	.0000	B.R	-.0000
LATE	4.6994	LONE	4.4061	LATS	.5720	LONS	340.3049	LATI	-.9268	LONI	325.0067	RSM	152.1425	TTAN	6.7814
LAUNCH DATE		JUN	2,1966		BASE AZM	93.0		TF	61.440			ARRIVAL	DATE JUN 5 1966 7 59 8.0		

LNCH AZMTH	LNCH TIME		PR	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
93.00	18 20 47.7		28 1	23.45	307.44	3.41	116.19	106.58	18 31 52.7	6550.4	10.99	1.69

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	2	18	31.9												
SEPARATION	1.20	12.45	2	18	33.1												
RETRO	3.20	14.45	2	18	35.1												
RISE 72	4.97	16.22	2	18	36.9	76.87	-.2662	58.07	.0672	2957.5	-6.33	-.00	.1161	329.48	.1014	13.54	332.98
RISE 61	8.69	19.95	2	18	40.5	22.88	-.1609	-47.43	-.0106	4458.4	4.49	.00	.0222	195.25	-.1071	6.14	347.03
RISE 51	11.33	22.58	2	18	43.2	72.51	-.0995	31.04	-.0296	5594.4	-2.80	.00	.0877	305.97	.0178	1.29	355.41
EXTM 72	11.85	23.10	2	18	43.7	322.12	-.0816	19.07	-.1212	2878.2	5.53	43.89	-.0000	53.59	.1993	.45	356.83
EXTM 61	15.31	26.55	2	18	47.2	341.50	-.0591	-44.48	.0105	5886.0	6.79	3.27	-.0000	166.99	-.0432	-4.43	5.01
SET 61	37.54	48.79	2	19	9.4	311.63	-.0080	-38.4	.0021	15564.9	5.94	-.00	-.0019	143.99	-.0064	-19.08	30.90
EXTM 51	40.34	51.59	2	19	12.2	352.66	-.0125	-16.71	-.0086	11407.2	5.26	78.60	-.0000	38.24	.0746	-19.91	32.50
EXTM 72	66.19	77.44	2	19	38.1	290.36	.0001	-25.18	-.0015	22369.4	4.86	21.73	.0000	114.24	.0017	-24.30	40.51
EXTM 51	84.94	96.19	2	19	56.8	341.76	-.0001	-25.10	-.0012	24402.5	4.43	73.57	.0000	93.13	.0044	-25.73	42.18
RISE 61	102.01	113.26	2	20	13.9	306.36	.0014	-35.12	.0003	34396.2	4.15	-.00	.0010	138.73	.0007	-26.53	42.20
ENTER SHA	139.98	151.23	2	20	51.9												
ENTR 72	139.98	151.23	2	20	51.9	298.06	.0027	-28.09	-.0003	40672.2	3.62	28.35	.0023	118.29	.0007	-27.49	39.41
ENTR 51	139.98	151.23	2	20	51.9	346.27	.0023	-27.89	-.0003	37812.3	3.76	77.59	.0020	102.08	.0025	-27.49	39.41
ENTR 61	139.98	151.23	2	20	51.9	310.94	.0025	-34.49	.0002	43292.8	3.69	2.75	.0014	141.39	.0015	-27.49	39.41
EXIT SHA	217.97	229.22	2	22	9.8												
EXIT 72	217.97	229.22	2	22	9.8	312.74	.0035	-29.58	-.0001	56170.9	3.07	40.73	.0028	122.56	.0013	-28.21	27.94
EXIT 51	217.97	229.22	2	22	9.8	359.71	.0033	-28.30	-.0001	54157.0	3.28	87.23	.0002	174.75	.0590	-28.21	27.94
EXIT 61	217.97	229.22	2	22	9.8	324.80	.0033	-33.98	.0001	59164.1	3.15	9.35	.0014	150.87	.0024	-28.21	27.94
EXTM 51	219.08	230.33	2	22	11.0	359.96	.0033	-28.50	-.0001	54375.9	3.28	87.24	.0000	178.69	.0579	-28.21	27.75
EXTM 61	391.18	402.43	3	1	3.1	2.69	.0038	-32.26	.0001	88978.3	2.68	17.46	.0000	182.39	.0034	-28.44	353.22
EXTM 72	426.96	438.21	3	1	38.8	.30	.0040	-29.44	.0000	90793.2	2.59	68.06	.0000	180.69	.0092	-28.43	345.39
RISE 11	599.55	610.80	3	4	41.4	294.40	.0040	-30.54	-.0000	121687.7	2.00	.00	.0025	128.19	.0023	-28.32	306.22
SET 51	623.43	634.68	3	4	55.3	90.00	.0038	-27.20	.0001	123679.7	2.59	11.45	-.0032	245.16	-.0013	-28.30	300.67
SET 61	635.93	647.18	3	5	7.8	60.15	.0039	-30.46	.0001	126621.4	2.48	-.00	-.0022	228.39	.0026	-28.29	297.76
SET 72	820.50	831.75	3	8	12.4	94.20	.0039	-27.78	.0001	150149.6	2.41	-.00	-.0034	241.93	-.0005	-28.13	254.20
RISE 42	830.44	841.69	3	8	22.3	254.99	.0040	-26.47	-.0001	150909.4	1.70	4.00	.0028	120.09	-.0021	-28.12	251.83
EXTM 11	869.81	881.06	3	9	1.7	.75	.0041	-30.1	.0000	153443.3	1.98	24.57	-.0000	180.72	.0039	-28.09	242.43
SET 11	1136.87	1148.12	3	13	28.7	66.79	.0041	-29.9	.0001	186064.5	2.07	-.00	-.0026	233.36	.0024	-27.88	178.03
EXTM 42	1256.29	1267.54	3	15	28.2	359.99	.0042	-27.35	.0000	192312.0	1.70	82.33	-.0000	.14	-.0137	-27.80	148.99
RISE 51	1391.70	1402.95	3	17	43.6	270.00	.0041	-27.35	-.0000	210815.7	1.27	11.39	.0034	114.70	-.0014	-27.71	115.94
RISE 72	1546.57	1557.82	3	20	18.5	265.87	.0041	-27.37	-.0000	226891.4	1.16	-.01	.0036	117.66	-.0005	-27.61	78.00
RISE 61	1632.32	1643.57	3	21	44.2	297.61	.0041	-28.71	-.0000	234819.6	1.25	.00	.0024	129.00	.0027	-27.56	56.95
SET 42	1679.59	1690.84	3	22	31.5	105.00	.0041	-26.61	.0000	238670.8	1.83	3.97	-.0029	239.96	-.0022	-27.53	45.34
EXTM 51	1745.53	1756.78	3	23	37.4	358.53	.0042	-27.54	.0000	238723.3	1.47	87.77	.0022	144.26	.0770	-27.50	29.12
EXTM 61	1882.22	1893.47	4	1	54.1	.31	.0042	-28.75	.0000	254658.8	1.43	21.01	.0000	180.29	.0039	-27.43	355.45
EXTM 72	1922.26	1933.51	4	2	34.1	.10	.0042	-27.48	.0000	254423.9	1.42	70.02	-.0000	180.25	.0108	-27.41	345.58
RISE 11	2067.38	2078.63	4	4	59.3	292.25	.0042	-28.42	-.0000	272469.9	1.06	.00	.0028	125.36	.0024	-27.33	309.76
SET 51	2110.85	2122.10	4	5	42.7	90.00	.0041	-26.41	.0000	274777.9	1.72	11.29	-.0034	245.53	-.0014	-27.31	299.02
SET 61	2131.89	2143.14	4	6	3.8	62.93	.0042	-28.7	.0000	277731.5	1.62	-.00	-.0025	231.65	.0027	-27.30	293.83
SET 72	2296.98	2308.23	4	8	48.9	94.06	.0041	-27.14	.0000	290865.5	1.71	-.00	-.0036	242.68	-.0005	-27.23	253.00
RISE 42	2297.52	2308.77	4	8	49.4	255.00	.0041	-26.47	-.0000	290477.1	.98	3.89	.0029	119.93	-.0022	-27.23	252.87
EXTM 11	2337.62	2348.87	4	9	29.5	.21	.0042	-28.32	.0000	291203.9	1.29	26.47	-.0000	180.21	.0041	-27.21	242.94
SET 11	2607.69	2618.94	4	13	59.6	68.10	.0042	-27.46	.0000	314414.9	1.53	.00	-.0028	235.11	.0024	-27.10	176.04
EXTM 42	2716.82	2728.07	4	15	48.7	360.00	.0042	-26.90	.0000	316113.4	1.20	81.68	-.0000	.13	-.0006	-27.06	148.98
RISE 51	2847.43	2858.68	4	17	59.3	270.00	.0041	-26.59	-.0000	330416.9	.80	11.21	.0034	114.27	-.0015	-27.01	116.57
RISE 72	3000.46	3011.71	4	20	32.3	265.98	.0042	-26.80	-.0000	342416.0	.72	-.00	.0037	117.08	-.0005	-26.96	78.51
RISE 61	3080.40	3091.65	4	21	52.3	296.38	.0042	-27.20	-.0000	347814.8	.84	.00	.0025	127.52	.0027	-26.94	58.56
SET 42	3135.15	3146.40	4	22	47.0	105.00	.0041	-26.29	.0000	351074.4	1.45	3.77	-.0030	240.22	-.0023	-26.92	44.90
EXTM 51	3200.06	3211.31	4	23	51.9	358.97	.0042	-26.92	.0000	349522.5	1.11	88.50	.0023	142.37	.1136	-26.90	28.69
EXTM 61	3332.48	3343.73	5	2	4.4	.14	.0042	-27.79	.0000	362297.9	1.12	21.97	-.0000	180.13	.0040	-26.86	355.61
EXTM 72	3372.51	3383.76	5	2	44.4	.07	.0042	-27.18	.0000	361373.5	1.12	70.72	-.0000	180.19	.0111	-26.85	345.61
RISE 11	3511.51	3522.76	5	5	3.4	291.50	.0042	-27.45	-.0000	376714.9	.83	.00	.0028	124.34	.0024	-26.82	310.82
SET 51	3560.05	3571.30	5	5	51.9	90.00	.0042	-26.43	.0000	378847.1	1.55	11.15	-.0034	245.88	-.0015	-26.80	298.65
SET 61	3584.12	3595.37	5	6	16.0	63.87	.0042	-27.29	.0000	381784.0	1.48	-.00	-.0025	232.79	.0027	-26.80	292.61
IMPACT	3686.40	3697.65	5	7	58.3												
IMPC 72	3686.40	3697.65	5	7	58.3	79.93	.0043	-26.13	.0000	388770.1	2.46	12.51	-.0039	244.26	-.0001	-26.76	266.77
IMPC 11	3686.40	3697.65	5	7	58.3	336.04	.0044	-27.57	.0000	387639.7	1.90	23.27	.0014	156.93	.0039	-26.76	266.77

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	2	18	31.878	6550.418	23.4450	307.4415	10.98743	1.6890	106.5805	116.1890
SEPARATION	1.20	12.45	2	18	33.078	6597.201	21.3262	314.2137	10.94797	5.0988	109.2776	123.2621
RETRO	3.20	14.45	2	18	35.078	6775.917	17.3180	324.6846	10.80143	10.6021	112.9202	134.2343
ENTER SHA	139.98	151.23	2	20	51.861	44060.190	-27.4899	39.4133	4.13662	66.7520	97.6024	243.2526
EXIT SHA	217.97	229.22	2	22	9.844	60525.880	-28.2056	27.9413	3.49133	70.0964	93.8243	251.3299
IMPACT	3686.40	3697.65	5	7	58.274	390201.047	-26.7643	266.7659	2.20676	67.6166	273.6303	279.6350

SURVEYOR VIEW PERIODS

GHA	252.9740					EPS	24.6151							LOM	262.3966
SX	.149168	SY	-.880357	SZ	-.450245	DAO	-26.75439	RAO	279.61687	RM	391491.668	LAT	28.310600	LON	279.461800
C3	-.983875	ECC	.983875	SLR	12983.801	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.169578	NSY	-.876618	NSZ	-.450220	C3M	1.4975	VIM	2.6715	ZAE	140.209	B.T	.0000	B.R	-.0000
LATE	4.7119	LONE	4.4007	LATS	.5723	LONS	340.1670	LATI	-1.0844	LONI	324.9969	RSM	152.1424	TTAN	6.7807
LAUNCH DATE		JUN	2,1966		BASE AZM	96.0		TF	61.456			ARRIVAL	DATE	JUN	5 1966 8 15 37.7

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
96.00	18 34 37.2	28.1	22.28	307.08	6.58	119.34	108.71	18 45 52.2	6564.9	10.98	3.17

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	2	18	45.9												
SEPARATION	1.20	12.45	2	18	47.1												
RETRO	3.20	14.45	2	18	49.1												
RISE 72	4.66	15.91	2	18	50.5	79.61	-.2206	52.40	.0486	3037.5	-6.73	.00	.1202	323.12	.0777	12.50	330.34
RISE 61	9.26	20.51	2	18	55.1	21.03	-.1385	-47.81	-.0070	4954.0	4.89	.00	.0188	193.95	-.0914	3.16	347.23
RISE 51	11.23	22.48	2	18	57.1	74.95	-.0916	28.30	-.0317	5770.3	-2.60	.00	.0858	301.76	.0122	-.22	352.90
EXTM 72	11.58	22.83	2	18	57.5	331.70	-.1014	16.26	-.1215	2711.1	5.26	53.01	-.0000	49.15	.2586	-.78	353.83
EXTM 61	16.81	28.06	2	19	2.7	341.88	-.0492	-45.21	.0085	7735.2	6.69	3.02	-.0000	167.33	-.0357	-7.69	5.33
EXTM 51	43.38	54.63	2	19	29.2	355.49	-.0108	-19.55	-.0066	12473.7	5.18	82.54	-.0000	34.80	.0936	-21.65	30.71
SET 61	48.55	59.80	2	19	34.4	311.82	-.0042	-38.24	.0014	19384.5	5.41	-.00	-.0007	144.17	-.0035	-22.73	32.83
EXTM 72	67.79	79.04	2	19	53.7	294.10	.0001	-26.78	-.0013	22679.9	4.81	25.03	.0000	115.92	.0014	-25.23	37.39
RISE 61	77.89	89.14	2	20	3.8	308.90	.0000	-36.59	.0006	28105.9	4.58	-.01	.0005	141.33	-.0003	-26.01	38.44
EXTM 51	88.33	99.58	2	20	14.2	345.94	.0000	-26.88	-.0010	25350.4	4.37	77.35	.0000	97.38	.0046	-26.61	38.92
ENTER SHA	147.46	158.71	2	21	13.3												
ENTR 72	147.46	158.71	2	21	13.3	302.92	.0028	-29.52	-.0003	42131.0	3.55	32.42	.0024	120.08	.0008	-28.15	35.22
ENTR 51	147.46	158.71	2	21	13.3	351.23	.0024	-28.50	-.0002	39549.7	3.71	81.72	.0019	111.41	.0060	-28.15	35.22
ENTR 61	147.46	158.71	2	21	13.3	315.72	.0026	-34.97	.0003	44931.8	3.62	4.45	.0013	144.98	.0017	-28.15	35.22
EXTM 51	199.32	210.57	2	22	5.2	359.91	.0031	-28.93	-.0001	50535.5	3.38	86.81	-.0000	178.62	.0474	-28.57	27.76
EXIT SHA	201.77	213.02	2	22	7.6												
EXIT 72	201.77	213.02	2	22	7.6	313.06	.0033	-30.09	-.0001	53024.1	3.17	40.85	.0027	123.31	.0013	-28.58	27.36
EXIT 51	201.77	213.02	2	22	7.6	.37	.0031	-28.94	-.0001	51032.6	3.37	86.78	-.0003	185.80	.0480	-28.58	27.36
EXIT 61	201.77	213.02	2	22	7.6	325.24	.0032	-34.28	.0002	56069.2	3.24	8.89	.0013	151.52	.0023	-28.58	27.36
EXTM 61	377.41	388.66	3	1	3.3	3.07	.0038	-32.49	.0001	86880.0	2.71	17.02	.0000	182.70	.0034	-28.77	352.87
EXTM 72	412.15	423.40	3	1	38.0	.37	.0040	-30.21	.0001	88573.3	2.62	67.69	.0000	180.85	.0090	-28.74	345.33
RISE 11	586.36	597.91	3	4	32.5	294.70	.0040	-30.63	-.0000	119983.9	2.02	.00	.0025	128.58	.0023	-28.57	305.88
SET 51	608.92	620.17	3	4	54.8	90.00	.0038	-27.43	.0001	121769.8	2.61	11.54	-.0031	244.94	-.0013	-28.54	300.73
SET 61	619.89	631.14	3	5	5.8	59.77	.0039	-30.75	.0001	124529.5	2.49	-.00	-.0021	227.95	.0026	-28.53	298.18
SET 72	806.57	817.82	3	8	12.4	94.23	.0039	-27.98	.0001	148512.9	2.42	-.00	-.0034	241.73	-.0004	-28.33	254.20
RISE 42	816.62	827.87	3	8	22.5	254.99	.0040	-26.95	-.0001	149282.4	1.71	4.12	.0028	120.23	-.0021	-28.32	251.80
EXTM 11	856.21	867.46	3	9	2.1	.83	.0041	-30.43	.0000	151907.2	1.99	24.36	-.0000	180.78	.0039	-28.28	242.35
SET 11	1122.43	1133.68	3	13	28.3	66.62	.0041	-29.35	.0001	184575.6	2.08	-.00	-.0026	233.14	.0024	-28.03	178.21
EXTM 42	1242.61	1253.86	3	15	28.5	359.98	.0042	-27.49	.0000	190960.7	1.71	82.47	-.0000	.19	-.0181	-27.93	149.00
RISE 51	1378.14	1389.39	3	17	44.0	270.00	.0041	-27.17	-.0000	209530.0	1.27	11.43	.0034	114.81	-.0014	-27.83	115.92
RISE 72	1532.98	1544.23	3	20	16.8	265.85	.0041	-27.48	-.0000	225663.4	1.17	-.01	.0036	117.77	-.0005	-27.72	78.01
RISE 61	1619.33	1630.58	3	21	45.2	297.74	.0041	-28.42	-.0000	233675.7	1.26	.00	.0024	129.16	.0027	-27.66	56.81
SET 42	1666.01	1677.26	3	22	31.9	105.00	.0041	-26.70	.0000	237482.1	1.83	4.03	-.0029	239.89	-.0022	-27.63	45.34
EXTM 51	1731.94	1743.19	3	23	37.8	358.51	.0042	-27.64	.0000	237560.2	1.47	87.68	.0022	145.38	.0752	-27.59	29.13
EXTM 61	1868.81	1880.06	4	1	54.7	.33	.0042	-28.84	.0000	253557.3	1.43	20.92	.0000	180.31	.0039	-27.51	355.43
EXTM 72	1908.78	1920.03	4	2	34.6	.10	.0042	-27.97	.0000	253321.6	1.42	69.94	-.0000	180.27	.0107	-27.48	345.57
RISE 11	2054.19	2065.44	4	5	.1	292.32	.0042	-28.29	-.0000	271424.8	1.07	.00	.0028	125.45	.0024	-27.40	309.69
SET 51	2097.33	2108.58	4	5	43.2	90.00	.0041	-26.87	.0000	273713.1	1.73	11.32	-.0034	245.46	-.0014	-27.38	299.03
SET 61	2118.04	2129.29	4	6	3.9	62.84	.0042	-28.34	.0000	276647.0	1.63	-.00	-.0024	231.55	.0027	-27.37	293.92
SET 72	2283.51	2294.76	4	8	49.4	94.07	.0041	-27.10	.0000	289848.8	1.71	-.00	-.0036	242.62	-.0005	-27.29	253.00
RISE 42	2284.06	2295.31	4	8	49.9	255.00	.0041	-26.62	-.0000	289456.9	.98	3.92	.0029	119.97	-.0022	-27.29	252.86
EXTM 11	2324.21	2335.46	4	9	30.1	.23	.0042	-28.18	.0000	290205.2	1.30	26.41	-.0000	180.22	.0041	-27.27	242.93
SET 11	2594.04	2605.29	4	13	59.9	68.05	.0042	-27.91	.0000	313444.1	1.54	.00	-.0028	235.05	.0024	-27.14	176.09
EXTM 42	2703.36	2714.61	4	15	49.2	360.00	.0042	-26.93	.0000	315175.2	1.20	81.71	-.0000	.13	-.0015	-27.10	148.98
RISE 51	2833.99	2845.24	4	17	59.9	270.00	.0041	-26.42	-.0000	329500.8	.80	11.22	.0034	114.30	-.0015	-27.04	116.57
RISE 72	2987.01	2998.26	4	20	32.9	265.97	.0042	-26.42	-.0000	341522.2	.72	-.00	.0037	117.10	-.0005	-26.98	78.51
RISE 61	3067.08	3078.33	4	21	52.9	296.41	.0042	-27.73	-.0000	346931.9	.85	.00	.0025	127.55	.0027	-26.96	58.93
SET 42	3121.69	3132.94	4	22	47.6	105.00	.0041	-26.41	.0000	350182.1	1.45	3.79	-.0030	240.20	-.0023	-26.94	44.90
EXTM 51	3186.54	3197.79	4	23	52.4	358.96	.0042	-26.94	.0000	348627.6	1.11	88.48	.0023	142.31	.1116	-26.92	28.71
EXTM 61	3319.08	3330.33	5	2	4.9	.15	.0042	-27.81	.0000	361407.8	1.11	21.95	-.0000	180.14	.0040	-26.88	355.60
EXTM 72	3359.09	3370.34	5	2	45.0	.07	.0042	-27.20	.0000	360477.4	1.12	70.71	-.0000	180.20	.0110	-26.87	345.60
RISE 11	3498.15	3509.40	5	5	4.0	291.51	.0042	-27.46	-.0000	375792.8	.83	.00	.0028	124.36	.0024	-26.83	310.81
SET 51	3546.65	3557.90	5	5	52.5	90.00	.0042	-26.44	.0000	377896.6	1.54	11.15	-.0034	245.87	-.0015	-26.81	298.66
SET 61	3570.69	3581.94	5	6	16.6	63.86	.0042	-27.50	.0000	380812.0	1.46	-.00	-.0025	232.77	.0027	-26.80	292.63
IMPACT	3687.34	3698.59	5	8	13.2												
IMPC 42	3687.34	3698.59	5	8	13.2	245.03	.0043	-26.14	-.0000	390546.5	1.72	-3.18	.0029	125.40	-.0026	-26.76	263.17
IMPC 72	3687.34	3698.59	5	8	13.2	83.53	.0043	-26.70	.0000	389164.5	2.46	9.29	-.0039	244.09	-.0002	-26.76	263.17
IMPC 11	3687.34	3698.59	5	8	13.2	339.68	.0044	-27.57	.0000	387574.6	1.92	24.35	.0012	160.26	.0040	-26.76	263.17

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	2	18	45.869	6565.029	22.2773	307.0977	10.97522	3.1665	108.7125	119.3527
SEPARATION	1.20	12.45	2	18	47.069	6631.685	19.9502	313.6605	10.91923	6.5509	111.1882	126.2163
RETRO	3.20	14.45	2	18	49.069	6843.463	15.6981	323.7448	10.74912	11.9721	114.4390	136.8020
ENTER SHA	147.46	158.71	2	21	13.334	45867.959	-28.1474	35.2162	4.04949	67.2126	96.2807	244.4384
EXIT SHA	201.77	213.02	2	22	7.649	57399.194	-28.5830	27.3564	3.59259	69.5821	93.5450	250.1930
IMPACT	3687.34	3698.59	5	8	13.206	390245.027	-26.7647	263.1706	2.20604	57.5684	273.9219	279.7829

SURVEYOR VIEW PERIODS

GHA	252.3740			E-S	24.7264							LOM	259.1126		
SX	.1514[illegible]	SY	[illegible]		-.450243	DAD	-26.75431	RAD	279.75184	RM	391531.168	LAT	28.310600	LON	279.461800
C3	-.9[illegible]	EDC	.[illegible]	SLR	12983.524	RCA	8544.6450	LTA	-20.0000	GTA	20.00	TH	675.00000	POL	-.0
NSX	.1719[illegible]	NSY	-.[illegible]	NSZ	-.450211	C3M	1.4470	VIM	2.6714	ZAE	140.123	B.T	.0000	B.R	-.0000
LATE	4.7222	LONE	4.5222	LATS	.5728	LONS	340.17	LATI	-1.3358	LONI	325.0706	RSM	152.1423	TTAN	6.7809
LAUNCH DATE	JUN	2,1966		BASE AZM	99.0	TF	61.506					ARRIVAL DATE	JUN 5 1966		8 29 16.0

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ PT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99.00	18 44 42.4	28.[illegible]	21.14	306.85	8.50	121.45	110.81	18 55 57.4	6580.5	10.96	4.21

EVNT STA	TFI	TFL	DAY	HR	MIN	RA	DRA	DEC	DDE	RNG	DRG	ELE	REL AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT										
INJECTION	.00	11.25	2	18	55.0											
SEPARATION	1.20	12.45	2	18	57.2											
RETRO	3.20	14.45	2	18	59.2											
RISE 72	4.44	15.69	2	19	.4	81.42	-.1935	47.4	.0309	3096.2	-7.00	.01	.1229 317.63	.0569	11.30	328.21
RISE 51	11.17	22.42	2	19	7.1	77.09	-.0855	24.6	-.0340	5899.6	-2.45	.00	.0844 297.82	.0073	-1.91	350.74
RISE 61	10.58	21.83	2	19	6.5	15.22	-.1129	-48.5	-.0016	5656.8	5.46	.00	.0134 189.97	-.0732	-.93	349.15
EXTM 72	11.39	22.64	2	19	7.3	340.19	-.1181	11.0	-.1187	2586.6	5.05	62.06	-.0000 45.07	.3535	-2.25	351.30
EXTM 61	18.44	29.69	2	19	14.4	341.82	-.0418	-46.2	.0071	8515.3	6.59	2.23	-.0000 167.47	-.0299	-11.01	5.79
EXTM 51	45.83	57.08	2	19	41.8	357.79	-.0098	-22.4	-.0053	13320.2	5.12	86.05	-.0000 31.14	.1522	-23.45	29.19
SET 61	55.25	66.50	2	19	51.2	313.46	-.0029	-39.1	.0013	21601.4	5.15	-.00	-.0002 145.72	-.0026	-24.98	32.33
RISE 61	64.30	75.55	2	20	.3	312.30	-.0015	-38.9	.0010	24322.0	4.89	.00	.0002 144.63	-.0015	-26.00	34.29
EXTM 72	69.33	80.58	2	20	5.3	294.92	.0001	-28.1	-.0010	23017.6	4.77	27.38	.0000 117.97	.0012	-26.44	35.05
EXTM 51	184.09	195.34	2	22	.0	359.91	.0029	-29.4	-.0001	47484.0	3.47	86.09	-.0000 178.88	.0364	-29.18	27.76
EXTM 61	368.32	379.57	3	1	4.3	3.53	.0038	-33.5	.0002	85508.5	2.74	16.44	.0000 183.08	.0033	-29.25	352.44
EXTM 72	401.76	413.01	3	1	37.7	.48	.0039	-30.3	.0001	87002.0	2.65	67.17	.0000 181.07	.0087	-29.20	345.23
RISE 11	578.33	589.58	3	4	44.3	295.11	.0040	-31.2	-.0000	118867.8	2.04	.00	.0025 129.11	.0023	-28.93	305.44
SET 51	598.53	609.78	3	6	54.5	90.00	.0038	-27.8	.0001	120372.5	2.62	11.68	-.0031 244.61	-.0013	-28.90	300.77
SET 61	607.32	618.57	3	7	.3	59.24	.0039	-31.5	.0001	122859.1	2.51	-.00	-.0021 227.34	.0026	-28.89	298.73
SET 72	796.72	807.97	3	8	19.7	94.29	.0039	-28.2	.0001	147334.2	2.43	-.01	-.0034 241.44	-.0004	-28.62	254.17
RISE 42	806.79	818.04	3	8	29.7	254.99	.0040	-27.3	-.0001	148091.5	1.73	4.28	.0028 120.45	-.0021	-28.61	251.78
EXTM 11	846.71	857.96	3	9	9.7	.93	.0041	-30.3	.0001	150824.7	2.00	24.06	-.0000 180.87	.0039	-28.56	242.26
SET 11	1111.66	1122.91	3	13	27.6	66.39	.0041	-29.8	.0001	183432.4	2.08	-.00	-.0026 232.83	.0024	-28.25	178.45
EXTM 42	1232.81	1244.06	3	15	28.8	359.96	.0042	-27.9	.0000	189957.0	1.72	82.67	.0000 .28	-.0253	-28.13	149.01
RISE 51	1368.49	1379.74	3	17	44.4	270.00	.0041	-27.4	-.0000	208571.9	1.28	11.50	.0034 114.98	-.0014	-28.00	115.91
RISE 72	1523.23	1534.48	3	20	19.2	265.83	.0041	-27.3	-.0000	224739.3	1.17	-.01	.0036 117.92	-.0005	-27.87	78.03
RISE 61	1610.43	1621.68	3	21	46.4	297.93	.0041	-28.6	-.0000	232846.7	1.26	.00	.0024 129.37	.0027	-27.80	56.63
SET 42	1656.32	1667.57	3	22	32.3	105.00	.0041	-26.3	.0000	236580.5	1.83	4.11	-.0029 239.78	-.0022	-27.77	45.35
EXTM 51	1722.25	1733.50	3	23	38.2	358.51	.0042	-27.7	.0000	236680.0	1.48	87.57	.0021 147.03	.0730	-27.72	29.14
EXTM 61	1859.29	1870.54	4	1	55.2	.37	.0042	-28.96	.0000	252726.7	1.44	20.80	.0000 180.34	.0039	-27.62	355.39
EXTM 72	1899.17	1910.42	4	2	35.1	.11	.0042	-28.08	.0000	252480.9	1.42	69.82	-.0000 180.29	.0106	-27.60	345.56
RISE 11	2044.97	2056.22	4	5	.9	292.42	.0042	-28.49	-.0000	270631.7	1.07	.00	.0027 125.59	.0024	-27.50	309.58
SET 51	2087.67	2098.92	4	5	43.6	90.00	.0041	-26.97	.0000	272885.3	1.73	11.36	-.0034 245.38	-.0014	-27.48	299.04
SET 61	2107.90	2119.15	4	6	3.9	62.72	.0042	-28.44	.0000	275787.3	1.63	-.00	-.0024 231.40	.0027	-27.46	294.04
SET 72	2273.92	2285.17	4	8	49.9	94.09	.0041	-27.8	.0000	289051.6	1.71	-.00	-.0036 242.54	-.0005	-27.37	252.99
RISE 42	2274.45	2285.70	4	8	50.4	255.00	.0041	-26.50	-.0000	288652.8	.98	3.97	.0029 120.03	-.0022	-27.37	252.86
EXTM 11	2314.67	2325.92	4	9	30.6	.25	.0042	-28.46	.0000	289424.3	1.30	26.33	-.0000 180.24	.0041	-27.34	242.91
SET 11	2584.16	2595.41	4	14	.1	67.99	.0042	-27.97	.0000	312654.5	1.54	.00	-.0028 234.97	.0024	-27.20	176.15
EXTM 42	2693.73	2704.98	4	15	49.7	360.00	.0042	-26.99	.0000	314412.5	1.20	81.77	-.0000 .11	-.0035	-27.15	148.98
RISE 51	2824.38	2835.63	4	18	.3	270.00	.0041	-26.66	-.0000	328747.5	.81	11.24	.0034 114.34	-.0015	-27.09	116.57
RISE 72	2977.37	2988.62	4	20	33.3	265.96	.0042	-26.86	-.0000	340777.3	.72	-.00	.0037 117.14	-.0005	-27.02	78.52
RISE 61	3057.62	3068.87	4	21	53.6	296.45	.0042	-27.26	-.0000	346196.4	.84	.00	.0025 127.60	.0027	-26.99	58.49
SET 42	3112.07	3123.32	4	22	48.0	105.00	.0041	-26.43	.0000	349430.7	1.45	3.80	-.0030 240.18	-.0023	-26.97	44.90
EXTM 51	3176.83	3188.08	4	23	52.8	358.93	.0042	-26.97	.0000	347869.6	1.11	88.44	.0023 142.32	.1092	-26.95	28.73
EXTM 61	3309.53	3320.78	5	2	5.5	.16	.0042	-27.83	.0000	360651.0	1.11	21.93	-.0000 180.16	.0040	-26.90	359.59
EXTM 72	3349.50	3360.75	5	2	45.5	.07	.0042	-27.92	.0000	359711.8	1.11	70.69	-.0000 180.21	.0111	-26.89	345.60
RISE 11	3488.83	3499.88	5	5	4.6	291.53	.0042	-27.67	-.0000	375000.4	.82	.00	.0028 124.38	.0024	-26.84	310.80
SET 51	3537.08	3548.33	5	5	53.0	90.00	.0042	-26.95	.0000	377078.4	1.53	11.15	-.0034 245.86	-.0015	-26.82	298.66
SET 61	3561.07	3572.32	5	8	17.0	63.85	.0042	-27.52	.0000	379975.6	1.45	-.00	-.0025 232.76	.0027	-26.81	292.64
IMPACT	3690.35	3701.60	5	8	26.3											
IMPC 42	3690.35	3701.60	5	8	26.3	248.17	.0043	-26.16	-.0000	390349.3	1.71	-1.06	.0029 123.55	-.0025	-26.77	260.02
IMPC 72	3690.35	3701.60	5	8	26.3	86.69	.0043	-26.58	.0000	389512.9	2.46	6.48	-.0038 243.87	-.0003	-26.77	260.02
IMPC 11	3690.35	3701.60	5	8	26.3	342.88	.0044	-27.48	.0000	387532.0	1.93	25.16	.0010 163.25	.0041	-26.77	260.02

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	2	18	55.956	6581.015	21.1303	306.6812	10.96197	4.2137	110.8228	121.4649
SEPARATION	1.20	12.45	2	18	57.156	6661.367	8.6046	313.0341	10.89456	7.5748	113.0876	128.1186
RETRO	3.20	14.45	2	18	59.156	6892.652	-4.1062	322.7735	10.70867	12.9308	115.9807	138.3594
IMPACT	3690.35	3701.60	5	8	26.304	390283.906	-26.7652	260.0162	2.20471	67.5086	274.3969	279.9127

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SURVEYOR IEM PERIODS

GHA	252.9740					EPS	24.8178							LOM	256.4152
SX	.152944	SY	-.677711	SZ	-.450241	DAD	-26.75-15	RAD	279.86268	RM	39'563.598	LAT	28.310600	LON	279.461800
C3	-.988279	ESC	.983775	SLR	12983.138	RCA	6544.6 50	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.173693	NSY	-.825868	NSZ	-.450206	C3M	1.4367	VIM	2.6713	ZAE	140.002	B.T	.0000	B.R	-.0000
LATE	4.73 7	LONE	4.3933	LATS	.5728	LONS	349.95 1	LATI	-1.6462	LONI	324.8716	RSM	152.1422	TTAN	6.7821
LAUNCH DATE		JUN	2,1966		BASE AZM	102.0		TF	61.569			ARRIVAL DATE		JUN 5 1966	8 40 28.1

LNCH AZMTH	LNCH TIME		RR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME		INJ RAD	INJ VEL	INJ PTH
102.00	1M 52	2.2	24.1	20.02	306.16	10. 1	122.78	112.91	19	3 17.2	6594.4	10.95	4.96

EVNT	STA	TFI	TFL	DAY	HR	MIN	RA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PRIOR IN SUNLIGHT											
INJECTION		.00	11.25	2	19	3.3												
SEPARATION		1.20	12.45	2	19	4.5												
RETRO		3.20	14.45	2	19	6.5												
RISE	72	4.28	15.53	2	19	7.6	82.78	-.1746	42. 7	.0140	3141.0	-7.17	-.00	.1246	312.67	.0378	9.98	326.41
RISE	51	11.14	22.39	2	19	14.4	79.05	-.0806	41.2	-.0363	5997.3	-2.33	-.01	.0832	294.03	.0029	-3.73	348.84
EXTM	72	11.26	22.51	2	19	14.5	347.65	-.1310	6.3	-.1134	2505.9	4.90	71.17	-.0000	41.22	.5351	-3.92	349.16
RISE	61	13.17	24.42	2	19	16.5	4.33	-.0803	-49.8	.0039	6839.1	6.08	.00	.0069	182.80	-.0517	-6.76	353.69
EXTM	61	20.26	31.51	2	19	23.5	341.24	-.0357	-47. 1	.0061	9557.7	6.48	1.07	-.0000	167.36	-.0251	-14.43	6.50
SET	61	39.93	51.18	2	19	43.2	320.62	-.0081	-42.41	.0024	16767.0	5.68	-.00	-.0007	152.06	-.0064	-23.64	24.31
EXTM	51	47.89	59.14	2	19	51.2	359.64	-.0091	-25.10	-.0042	14019.2	5.07	89.29	-.0000	27.33	.7444	-25.30	27.93
EXTM	72	70.70	81.95	2	20	14.0	299.04	.0001	-30. 9	-.0008	23342.6	4.73	29.00	.0000	120.23	.0009	-27.83	33.26
RISE	61	74.02	85.27	2	20	17.3	313.95	-.0005	-39.47	.0009	27199.6	4.63	-.01	.0006	146.18	-.0008	-28.05	33.64
EXTM	51	172.41	183.66	2	21	55.7	359.95	.0027	-30. 0	-.0000	45087.3	3.54	85.14	.0000	179.43	.0260	-30.00	27.73
EXTM	61	362.66	373.91	3	1	5.9	4.06	.0038	-33.49	.0002	84681.8	2.75	15.78	.0000	183.50	.0033	-29.84	351.96
EXTM	72	394.57	405.82	3	1	37.9	.42	.0039	-31.65	.0001	85916.6	2.66	66.55	-.0000	181.34	.0084	-29.77	345.10
RISE	11	573.25	584.50	3	4	36.5	295.61	.0040	-31.49	-.0000	118183.3	2.04	.00	.0025	129.74	.0023	-29.38	304.93
SET	51	591.09	602.34	3	4	54.4	90.00	.0038	-28. 2	.0001	119352.4	2.63	11.85	-.0031	244.20	-.0012	-29.34	300.81
SET	61	597.20	608.45	3	5	.5	58.60	.0039	-31.12	.0001	121494.6	2.52	-.00	-.0021	226.62	.0026	-29.33	299.40
SET	72	789.80	801.05	3	8	13.1	94.35	.0039	-25.51	.0001	146491.6	2.43	-.01	-.0034	241.09	-.0004	-28.97	254.14
RISE	42	799.79	811.04	3	8	23.1	254.99	.0040	-27.47	-.0001	147220.8	1.73	4.49	.0028	120.72	-.0021	-28.96	251.76
EXTM	11	840.13	851.38	3	9	3.4	1.04	.0041	-31. 8	.0001	150075.4	2.00	23.71	-.0000	180.98	.0039	-28.89	242.15
SET	11	1103.51	1114.76	3	13	26.8	66.11	.0041	-29.85	.0001	182545.7	2.08	-.00	-.0026	232.47	.0024	-28.51	178.74
EXTM	42	1225.84	1237.09	3	15	29.1	359.96	.0042	-28.13	.0000	189219.0	1.72	82.91	.0000	.34	-.0271	-28.36	149.02
RISE	51	1361.59	1372.84	3	17	44.9	270.00	.0041	-27.65	-.0000	207859.3	1.28	11.58	.0033	115.17	-.0014	-28.21	115.90
RISE	72	1516.21	1527.46	3	20	19.5	265.79	.0041	-27.81	-.0000	224045.3	1.17	-.00	.0036	118.11	-.0005	-28.06	78.05
RISE	61	1604.42	1615.67	3	21	47.7	299.15	.0041	-29.14	-.0000	232256.2	1.26	.00	.0024	129.64	.0027	-27.97	56.40
SET	42	1649.38	1660.63	3	22	32.7	105.00	.0041	-27.10	.0000	235898.4	1.83	4.21	-.0029	239.65	-.0022	-27.93	45.36
EXTM	51	1721.30	1732.55	3	23	44.6	.02	.0042	-27.53	.0000	236550.1	1.49	87.81	-.0000	180.54	.0047	-27.87	27.67
EXTM	61	1852.55	1863.80	4	1	55.8	.41	.0042	-29.10	.0000	252107.4	1.44	20.66	-.0000	180.38	.0039	-27.76	355.35
EXTM	72	1892.30	1903.55	4	2	35.6	.12	.0042	-28.52	.0000	251844.2	1.42	69.68	-.0000	180.32	.0106	-27.73	345.55
RISE	11	2038.56	2049.81	4	5	1.8	292.54	.0042	-28. 1	-.0000	270037.2	1.07	.00	.0027	125.75	.0024	-27.62	309.46
SET	51	2080.74	2091.99	4	5	44.0	90.00	.0041	-27.08	.0000	272246.1	1.73	11.40	-.0034	245.27	-.0014	-27.59	299.04
SET	61	2100.40	2111.65	4	6	3.7	62.58	.0042	-28.56	.0000	275107.7	1.63	-.00	-.0024	231.23	.0027	-27.58	294.19
SET	72	2267.05	2278.30	4	8	50.3	94.10	.0041	-27.27	.0001	288432.8	1.71	-.00	-.0036	242.44	-.0005	-27.46	252.98
RISE	42	2267.54	2278.79	4	8	50.8	255.00	.0041	-26.89	-.0000	288024.8	.99	4.02	.0029	120.11	-.0022	-27.46	252.86
EXTM	11	2307.86	2319.11	4	9	31.1	.28	.0042	-28.56	.0000	288821.2	1.30	26.23	-.0000	180.27	.0041	-27.44	242.88
SET	11	2576.93	2588.18	4	14	.2	67.92	.0042	-28. 4	.0000	312020.5	1.54	.00	-.0028	234.87	.0024	-27.27	176.23
EXTM	42	2686.80	2698.05	4	15	50.1	360.00	.0042	-27.05	.0000	313802.7	1.20	81.83	-.0000	.13	-.0046	-27.21	148.98
RISE	51	2817.46	2828.71	4	18	.7	270.00	.0041	-26.71	-.0000	328139.9	.81	11.26	.0034	114.39	-.0015	-27.14	116.57
RISE	72	2970.56	2981.81	4	20	33.8	265.96	.0042	-26.90	-.0000	340208.8	.72	-.00	.0037	117.18	-.0005	-27.06	78.52
RISE	61	3051.00	3062.25	4	21	54.3	296.50	.0042	-27.80	-.0000	345634.5	.84	.00	.0025	127.66	.0027	-27.02	58.45
SET	42	3105.24	3116.49	4	22	48.5	105.00	.0041	-26.67	.0000	348848.4	1.45	3.82	-.0030	240.15	-.0023	-27.00	54.91
EXTM	51	3149.92	3161.17	4	23	53.2	358.91	.0042	-27.10	.0000	347277.8	1.11	88.41	.0023	142.47	.1070	-26.98	28.75
EXTM	61	3302.74	3313.99	5	2	6.0	.18	.0042	-27.86	.0000	360053.5	1.11	21.91	-.0000	180.17	.0040	-26.92	355.57
EXTM	72	3342.67	3353.92	5	2	46.0	.08	.0042	-27.24	.0000	359103.2	1.11	70.67	-.0000	180.22	.0111	-26.91	345.59
RISE	11	3481.84	3493.09	5	5	5.1	291.54	.0042	-27.69	-.0000	374360.4	.81	.00	.0028	124.40	.0024	-26.85	310.78
SET	51	3530.21	3541.46	5	5	53.5	90.00	.0042	-26.46	.0000	376413.0	1.52	11.16	-.0034	245.85	-.0015	-26.83	298.66
SET	61	3554.15	3565.40	5	6	17.4	63.83	.0042	-27.43	.0000	379293.3	1.44	-.00	-.0025	232.74	.0027	-26.83	292.66
IMPACT		3694.16	3705.41	5	8	37.4												
IMPC	42	3694.16	3705.41	5	8	37.4	250.84	.0043	-26.17	-.0000	390180.8	1.70	.79	.0030	122.02	-.0024	-26.77	257.33
IMPC	72	3694.16	3705.41	5	8	37.4	89.38	.0043	-26.66	.0000	389813.4	2.46	4.09	-.0038	243.63	-.0004	-26.77	257.33
IMPC	11	3694.16	3705.41	5	8	37.4	345.60	.0044	-27.09	.0000	387509.8	1.94	25.75	.0009	165.84	.0042	-26.77	257.33

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	2	19	3.286	6595.424	20.0023	306.2102	10.95013	4.9618	112.9211	122.8313
SEPARATION		1.20	12.45	2	19	4.486	6685.244	17.2833	312.3607	10.87476	8.3036	114.9875	129.2826
RETRO		3.20	14.45	2	19	6.486	6931.627	12.5339	321.7896	10.67809	13.6097	117.5505	139.2128
IMPACT		3694.16	3705.41	5	8	37.448	390320.297	-26.7657	257.3342	2.20220	67.2585	274.9227	280.0236

JUN 2, 1966
102 DEGREES

SURVEYOR VIEW PERIODS

GHA	252.9740					EPS	24.8985					LOM	254.0308
SX	.154448	SY	-.979450	SZ	-.450238	DAO	-26.75-93	RAO	279.96064	RM	391592.266	LAT	28.310600	LON	279.461800
C3	-.992743	ECC	.983700	SLR	12982.660	HCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
HSx	.175237	HSY	-.875562	HSZ	-.450204	C3M	1.4265	VIM	2.6713	ZAE	139.848	B.T	.0000	B.R	-.0000
LATE	4.7382	LONE	6.4608	LATS	.5730	LONS	339.964	LATI	-1.9923	LONI	324.8622	RSM	152.1422	TTAN	6.7838
LAUNCH DATE	JUN	2,1966		BASE AZM	105.0		TF	61.645				ARRIVAL DATE	JUN	5 1966	8 50 22.3

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ FA	INJ PT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	18 57 30.0	28.1	18.92	305.63	11.11	123.62	114.99	19 8 45.6	6606.3	10.94	5.51

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN SUNLIGHT														
INJECTION	.00	11.25	2	19	8.8												
SEPARATION	1.20	12.45	2	19	10.0												
RETRO	3.20	14.45	2	19	12.0												
RISE 72	4.18	15.43	2	19	12.9	83.86	-.1603	37.41	-.0024	3177.8	-7.25	-.00	.1254	308.03	.0197	8.57	324.86
RISE 51	11.14	22.39	2	19	19.9	80.86	-.0763	18.25	-.0387	6076.2	-2.22	-.00	.0822	290.34	-.0013	-5.65	347.14
EXTM 72	11.21	22.46	2	19	20.0	354.13	-.1099	-.22	-.1059	2475.0	4.82	80.34	-.0000	37.54	1.0463	-5.76	347.32
EXTM 51	49.85	61.10	2	19	58.6	1.04	-.0086	-27.48	-.0033	14673.8	5.02	87.67	-.0000	203.14	-.2046	-27.23	26.97
EXTM 72	71.72	82.97	2	20	20.5	300.65	.0001	-32.5	-.0005	23594.0	4.71	30.06	.0000	122.59	.0006	-29.33	31.85
RISE 61	86.54	97.79	2	20	35.3	315.56	.0004	-40.6	.0009	30692.5	4.37	-.00	.0009	147.65	-.0002	-30.02	32.98
EXTM 51	97.83	109.08	2	20	46.6	353.24	.0004	-31.46	-.0003	27936.3	4.23	81.83	.0000	135.02	.0032	-30.35	33.13
EXTM 51	163.83	175.08	2	21	52.6	.08	.0026	-31.3	.0000	43296.0	3.60	84.01	.0000	180.67	.0204	-30.97	27.62
EXTM 61	359.42	370.67	3	1	8.2	4.63	.0038	-34.59	.0002	84244.1	2.76	15.05	.0000	183.94	.0032	-30.50	351.42
EXTM 72	389.42	400.67	3	1	38.2	.73	.0039	-32.5	.0001	85140.6	2.67	65.85	.0000	181.52	.0081	-30.41	345.00
RISE 11	570.45	581.70	3	4	39.2	296.17	.0040	-32.10	.0000	117800.6	2.05	-.00	.0025	130.44	.0023	-29.87	304.37
SET 51	585.71	596.96	3	4	54.5	90.00	.0038	-28.71	.0001	118595.9	2.64	12.04	-.0031	243.74	-.0012	-29.83	300.85
SET 61	588.75	600.00	3	4	57.5	57.86	.0039	-32.5	.0002	120338.0	2.52	-.00	-.0020	225.80	.0026	-29.82	300.14
SET 72	784.90	796.15	3	8	11.7	94.42	.0039	-29.30	.0001	145881.1	2.43	-.01	-.0034	240.69	-.0004	-29.37	254.09
RISE 42	794.77	806.02	3	8	21.5	254.99	.0040	-27.45	-.0001	146571.6	1.74	4.73	.0028	121.03	-.0021	-29.34	251.74
EXTM 11	835.56	846.81	3	9	4.3	1.18	.0041	-31.47	.0001	149556.3	2.01	23.32	.0000	181.09	.0038	-29.26	242.02
SET 11	1097.14	1108.39	3	13	25.9	65.80	.0041	-30.6	.0001	181833.6	2.08	-.00	-.0026	232.06	.0024	-28.81	179.06
EXTM 42	1220.76	1232.01	3	15	24.5	359.95	.0042	-28.40	.0000	188658.9	1.72	83.18	.0000	.41	-.0288	-28.63	149.03
RISE 51	1356.59	1367.84	3	17	45.4	270.00	.0041	-27.19	-.0000	207312.9	1.28	11.68	.0033	115.39	-.0014	-28.45	115.90
RISE 72	1511.06	1522.31	3	20	19.8	265.76	.0041	-28.12	-.0000	223506.1	1.17	-.00	.0036	118.31	-.0005	-28.26	78.08
RISE 61	1600.41	1611.66	3	21	49.2	298.40	.0041	-29.43	-.0000	231827.3	1.26	.00	.0024	129.93	.0027	-28.16	56.15
SET 42	1644.32	1655.57	3	22	33.1	105.00	.0041	-27.18	.0001	235363.3	1.83	4.32	-.0029	239.51	-.0022	-28.12	45.36
EXTM 51	1716.23	1727.48	3	23	45.0	.01	.0042	-28.11	.0000	236031.1	1.49	87.63	.0000	180.45	.0363	-28.04	27.68
EXTM 61	1847.48	1858.93	4	1	56.4	.46	.0042	-29.26	.0000	251626.2	1.44	20.50	-.0000	180.42	.0039	-27.92	355.31
EXTM 72	1887.30	1898.55	4	2	36.1	.14	.0042	-28.58	.0000	251342.6	1.42	69.53	-.0000	180.35	.0105	-27.88	345.54
RISE 11	2034.05	2045.30	4	5	2.8	292.67	.0042	-28.65	-.0000	269573.6	1.07	.00	.0027	125.93	.0024	-27.75	309.32
SET 51	2075.67	2086.92	4	5	44.4	90.00	.0041	-27.11	.0001	271730.8	1.73	11.45	-.0034	247.25	-.0014	-27.72	299.04
SET 61	2094.69	2105.94	4	6	3.4	62.42	.0042	-28.48	.0000	274546.1	1.63	-.00	-.0024	231.04	.0027	-27.70	294.34
SET 72	2262.05	2273.30	4	8	50.8	94.12	.0041	-27.48	.0001	287930.2	1.71	-.00	-.0036	242.33	-.0005	-27.57	252.96
RISE 42	2262.49	2273.74	4	8	51.2	255.00	.0041	-26.40	-.0000	287511.1	.99	4.09	.0029	120.19	-.0022	-27.57	252.85
EXTM 11	2302.90	2314.15	4	9	31.7	.31	.0042	-28.47	.0000	288333.4	1.30	26.13	-.0000	180.30	.0041	-27.54	242.85
SET 11	2571.51	2582.76	4	14	.3	67.84	.0042	-28.12	.0000	311485.5	1.54	.01	-.0027	234.77	.0024	-27.35	176.31
EXTM 42	2681.70	2692.95	4	15	50.5	360.00	.0042	-27.2	.0000	313289.6	1.20	81.90	-.0000	.10	-.0078	-27.28	148.99
RISE 51	2812.37	2823.62	4	18	1.1	270.00	.0041	-24.17	-.0000	327623.4	.81	11.28	.0034	114.44	-.0015	-27.20	116.56
RISE 72	2965.43	2976.68	4	20	14.2	265.95	.0042	-26.94	-.0000	339685.9	.72	-.00	.0037	117.23	-.0005	-27.11	78.53
RISE 61	3044.11	3055.36	4	21	54.9	296.55	.0042	-27.44	-.0000	345123.6	.84	.00	.0025	127.72	.0027	-27.07	58.39
SET 42	3100.13	3111.38	4	22	48.9	105.00	.0041	-26.40	.0000	348315.1	1.44	3.85	-.0030	240.12	-.0022	-27.04	44.91
EXTM 51	3164.75	3176.00	4	23	53.5	358.89	.0042	-27.03	.0000	346736.6	1.11	88.37	.0023	142.79	.1049	-27.01	28.77
EXTM 61	3297.71	3308.96	5	2	4.5	.20	.0042	-27.49	.0000	359508.8	1.11	21.88	-.0000	180.19	.0040	-26.95	355.56
EXTM 72	3337.59	3348.84	5	2	44.4	.08	.0042	-27.26	.0000	358547.4	1.11	70.64	-.0000	180.23	.0110	-26.93	345.59
RISE 11	3476.83	3488.08	5	5	5.6	291.56	.0042	-27.51	-.0000	373779.3	.81	.00	.0028	124.42	.0024	-26.87	310.76
SET 51	3525.13	3536.38	5	5	54.9	90.00	.0042	-26.48	.0000	375809.9	1.51	11.16	-.0034	245.84	-.0015	-26.85	298.66
SET 61	3549.61	3560.26	5	6	17.8	63.81	.0042	-27.14	.0000	378675.8	1.43	-.00	-.0025	232.72	.0027	-26.84	292.68
IMPACT	3698.71	3709.96	5	8	47.5												
IMPC 42	3698.71	3709.96	5	8	47.5	253.24	.0043	-24.19	-.0000	390024.2	1.69	2.47	.0030	120.68	-.0024	-26.77	254.92
IMPC 72	3698.71	3709.96	5	8	47.5	91.79	.0043	-26.64	.0000	390081.9	2.45	1.95	-.0038	243.37	-.0005	-26.77	254.92
IMPC 11	3698.71	3709.96	5	8	47.5	348.05	.0044	-27.39	.0000	387496.2	1.95	26.20	.0007	168.20	.0042	-26.77	254.92

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION	.00	11.25	2	19	8.760	6607.429	18.8933	305.6934	10.94012	5.5100	115.0125	123.6867
SEPARATION	1.20	12.45	2	19	9.960	6704.163	15.9844	311.6501	10.85906	8.8362	116.8926	129.9442
RETRO	3.20	14.45	2	19	11.960	6961.464	10.9800	320.7931	10.65478	14.1039	119.1483	139.5885
IMPACT	3698.71	3709.96	5	8	47.474	390350.926	-26.7664	254.9201	2.20037	67.1568	275.5885	280.1230

SURVEYOR VIEW PERIODS

GMA	252.9740					EPS	24.9648						LOM	252.0728	
SX	.155883	SY	-.879234	SZ	-.450234	RAD	-26.75871	RAD	280.04108	RM	391615.801	LAT	28.310600	LON	279.461800
C3	-.996840	ECC	.983833	SLH	12982.215	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.174508	NSY	-.879306	NSZ	-.450205	C3M	1.4476	VIM	2.6715	ZAE	139.680	B.T	.0000	B.R	-.0000
LATE	4.7443	LONE	4.3877	LATS	.5732	LONS	339.8046	LATI	-2.3582	LONI	324.6631	RSM	152.1421	TTAN	6.7862
LAUNCH DATE		JUN	2,1966		BASE AZM	108.0		TF	61.714			ARRIVAL DATE		JUN 5 1966	8 58 30.2

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	19 1 41.2	28.1	17.84	305.06	11.94	124.10	117.08	19 12 56.2	6615.7	10.93	5.92

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT												
INJECTION		.00	11.25	2	19	12.9												
SEPARATION		1.20	12.45	2	19	14.1												
RETRO		3.20	14.45	2	19	16.1												
RISE	72	4.12	15.37	2	19	17.1	84.78	-.1485	33.22	-.0183	3211.6	-7.24	-.00	.1255	303.58	.0024	7.10	323.49
EXTM	72	10.53	21.78	2	19	23.5	6.33	-.1677	-2.92	-.1150	2313.6	3.88	81.97	.2027	307.99	.1041	-6.59	343.98
RISE	51	11.16	22.41	2	19	24.1	82.57	-.0726	15.01	-.0412	6145.4	-2.11	.00	.0812	286.70	-.0052	-7.64	345.57
EXTM	51	52.05	63.30	2	20	5.0	1.95	-.0081	-30.49	-.0025	15391.7	4.97	84.76	-.0000	198.74	-.0810	-29.24	26.32
EXTM	72	72.57	83.82	2	20	25.5	301.87	.0001	-33.97	-.0003	23819.4	4.68	30.70	.0000	125.01	.0003	-30.90	30.72
EXTM	51	98.60	109.85	2	20	51.5	354.61	.0003	-33.05	-.0002	28174.5	4.22	81.32	.0000	148.57	.0020	-31.72	32.02
RISE	61	99.24	110.49	2	20	52.2	317.31	.0010	-40.48	.0008	34061.8	4.16	-.00	.0011	149.21	.0003	-31.73	32.01
EXTM	51	158.47	169.72	2	21	51.4	.40	.0024	-33.00	.0001	42174.5	3.64	82.73	.0000	182.64	.0102	-32.05	27.34
EXTM	61	357.90	369.15	3	1	10.8	5.23	.0038	-35.53	.0002	44088.4	2.76	14.28	.0000	184.40	.0032	-31.21	350.87
EXTM	72	386.40	397.65	3	1	39.3	.98	.0039	-32.79	.0001	44700.1	2.68	25.10	.0000	181.96	.0078	-31.09	344.77
RISE	11	569.29	580.54	3	4	42.2	296.77	.0040	-32.54	.0000	117640.5	2.05	.00	.0025	131.18	.0023	-30.40	303.76
SE	61	581.45	592.70	3	4	54.4	57.06	.0039	-32.72	.0002	119331.9	2.53	-.00	-.0020	224.92	.0026	-30.36	300.95
SET	51	581.78	593.03	3	4	54.7	90.00	.0038	-29.23	.0001	118032.9	2.64	12.25	-.0031	243.25	-.0012	-30.35	300.88
SET	72	781.41	792.66	3	8	14.3	94.50	.0039	-29.42	.0001	145441.6	2.44	-.01	-.0034	240.27	-.0004	-29.78	254.03
RISE	42	791.12	802.37	3	8	24.1	254.99	.0040	-28.27	-.0000	146086.1	1.74	4.98	.0028	121.36	-.0021	-29.76	251.72
EXTM	11	832.41	843.66	3	9	5.4	1.32	.0041	-31.88	.0001	149206.8	2.01	22.90	.0000	181.21	.0038	-29.66	241.89
SET	11	1092.03	1103.28	3	13	25.0	65.46	.0041	-30.48	.0001	181254.6	2.08	-.00	-.0025	231.63	.0024	-29.12	179.40
EXTM	42	1217.02	1228.27	3	15	36.0	359.94	.0042	-28.69	.0000	188234.9	1.72	83.47	.0000	.48	-.0307	-28.91	149.04
RISE	51	1352.91	1364.16	3	17	45.8	270.00	.0041	-28.04	-.0000	206896.1	1.29	11.77	.0033	115.63	-.0014	-28.70	115.89
RISE	72	1507.20	1518.45	3	20	20.1	265.72	.0041	-28.24	-.0000	223090.3	1.18	-.00	.0035	118.53	-.0005	-28.48	78.11
RISE	61	1597.74	1608.99	3	21	50.7	298.66	.0041	-29.54	-.0000	231524.6	1.26	.00	.0024	130.24	.0027	-28.37	55.89
SET	42	1640.56	1651.81	3	22	33.5	105.00	.0041	-27.48	.0001	234947.9	1.83	4.44	-.0029	239.35	-.0022	-28.31	45.37
EXTM	51	1712.49	1723.74	3	23	45.4	.01	.0042	-28.30	.0000	235632.8	1.49	87.44	.0000	180.42	.0315	-28.23	27.68
EXTM	61	1844.11	1855.36	4	1	57.1	.50	.0042	-29.43	.0000	251262.1	1.44	20.33	-.0000	180.47	.0039	-28.08	355.26
EXTM	72	1883.59	1894.84	4	2	36.5	.15	.0042	-28.54	.0000	250955.8	1.42	69.36	-.0000	180.38	.0104	-28.04	349.53
RISE	11	2030.86	2042.11	4	5	3.8	292.82	.0042	-28.79	-.0000	269223.5	1.07	.00	.0027	126.12	.0024	-27.89	309.18
SET	51	2071.87	2083.12	4	5	44.8	90.00	.0041	-27.44	.0001	271325.2	1.73	11.50	-.0034	245.01	-.0014	-27.85	299.05
SET	61	2090.21	2101.46	4	6	3.1	62.25	.0042	-28.82	.0001	274090.8	1.63	-.00	-.0024	230.84	.0027	-27.74	294.52
SET	72	2258.32	2269.57	4	8	51.3	94.14	.0041	-27.49	.0001	287534.7	1.71	-.00	-.0036	242.22	-.0005	-27.68	252.95
RISE	42	2258.70	2269.95	4	8	51.6	255.00	.0041	-26.91	-.0000	287103.5	.99	4.16	.0029	120.28	-.0022	-27.68	252.85
EXTM	11	2299.23	2310.48	4	9	32.2	.34	.0042	-28.78	.0000	287952.9	1.30	26.01	-.0000	180.33	.0041	-27.65	242.82
SET	11	2567.38	2578.63	4	14	.3	67.76	.0042	-28.21	.0000	311056.0	1.53	-.00	-.0027	234.66	.0024	-27.43	176.39
EXTM	42	2677.87	2689.12	4	15	50.8	359.99	.0042	-27.19	.0000	312877.3	1.20	81.97	-.0000	.13	-.0079	-27.35	148.99
RISE	51	2808.54	2819.79	4	18	1.5	270.00	.0041	-26.93	-.0000	327206.1	.81	11.30	.0034	114.90	-.0015	-27.26	118.56
RISE	72	2941.55	2952.80	4	20	34.5	265.94	.0042	-26.99	-.0000	339266.7	.72	-.00	.0037	117.28	-.0005	-27.16	78.53
RISE	61	3042.48	3053.73	4	21	55.4	296.60	.0042	-27.89	-.0000	344712.0	.84	.00	.0025	127.79	.0027	-27.11	58.34
SET	42	3096.27	3107.52	4	22	49.2	105.00	.0041	-26.44	.0000	347880.8	1.44	3.87	-.0030	240.09	-.0022	-27.08	44.91
EXTM	51	3160.80	3172.09	4	23	53.8	358.88	.0042	-27.07	.0000	346296.3	1.10	88.33	.0023	143.25	.1031	-27.05	28.79
EXTM	61	3293.93	3305.18	5	2	6.9	.22	.0042	-27.92	.0000	359066.2	1.11	21.85	-.0000	180.21	.0043	-26.98	355.54
EXTM	72	3333.76	3345.01	5	2	46.7	.09	.0042	-27.29	.0000	358094.2	1.11	70.61	-.0000	180.24	.0111	-26.96	345.58
RISE	11	3473.06	3484.31	5	5	6.0	291.58	.0042	-27.53	-.0000	373305.3	.80	.00	.0028	124.45	.0024	-26.89	310.74
SET	51	3521.28	3532.53	5	5	54.2	90.00	.0042	-26.49	.0000	375316.8	1.51	11.17	-.0034	245.82	-.0015	-26.86	298.66
SET	61	3545.09	3556.34	5	6	18.0	63.80	.0042	-27.56	-.0000	378170.1	1.42	-.00	-.0025	232.70	.0027	-26.85	292.70
RISE	42	3701.93	3713.18	5	8	54.9	255.00	.0043	-26.20	-.0000	389802.5	1.62	3.72	.0031	119.71	-.0024	-26.77	253.16
IMPACT		3702.85	3714.10	5	8	55.8												
IMPC	42	3702.85	3714.10	5	8	55.8	255.93	.0043	-26.20	-.0000	389893.0	1.68	3.89	.0031	119.58	-.0024	-26.77	252.92
IMPC	72	3702.85	3714.10	5	8	55.8	93.79	.0043	-26.43	.0000	390304.7	2.45	.18	-.0038	243.12	-.0005	-26.77	252.92
IMPC	11	3702.85	3714.10	5	8	55.8	350.69	.0044	-27.59	.0000	387491.5	1.96	26.50	.0006	170.18	.0043	-26.77	252.92
SET	72	3703.63	3714.88	5	8	56.6	93.99	.0043	-26.43	.0000	390419.5	2.51	.00	-.0038	243.10	-.0005	-26.77	252.72

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	2	19	12.937	6617.727	17.8040	305.1349	10.93195	5.9213	117.0999	124.1754
SEPARATION		1.20	12.45	2	19	14.137	6719.152	14.7078	310.9053	10.84666	9.2349	118.8051	130.2466
RETRO		3.20	14.45	2	19	16.137	6984.559	9.4457	319.7795	10.63680	14.4729	120.7729	139.6222
IMPACT		3702.85	3714.10	5	8	55.787	390376.746	-26.7671	252.9187	2.19875	67.0407	276.3014	280.2755

JUN 2, 1966
108 DEGREES

SURVEYOR VIEW PERIODS

GHA	252.9740					EPS	25.0506						LOM	249.5389	
SX	.[illegible]	SY	-.678952	SZ	-.450229	DAO	-26.75[illegible]35	RAO	280.14515	RM	391646.238	LAT	28.310600	LON	279.461800
C3	-1.[illegible]4207	ECC	.983512	SLR	1298[illegible].424	RCA	6544.6[illegible]50	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.178[illegible]74	NSY	-.874971	NSZ	-.450200	C3M	1.4465	VIM	2.6713	ZAE	139.444	B.T	.0000	B.R	-.0000
LATS	4.7592	LONS	4.4[illegible]06	LATS	.5734	LONS	339.81[illegible]8	LATI	-2.7378	LONI	324.5871	RSM	152.1421	TTAN	5.7892
LAUNCH DATE	JUN	2.1966		BASE AZM	111.0		TF 61.836					ARRIVAL DATE	JUN 5 1966	9 9 1.6	

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	19 5 [illegible] R	28.1	16.78	304.45	12.40	124.35	119.16	19 16 21.8	6623.7	10.92	6.25

EVNT	STA	TFI	TFL	DAY	HR	MIN	RA	DRA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	2	19	14.4												
SEPARATION		1.23	12.45	2	19	17.6												
RETRO		3.21	14.45	2	19	19.6												
RISE	72	4.6	15.34	2	19	20.5	85.60	-.1384	28.[illegible]5	-.0336	3247.1	-7.15	-.00	.1248	299.25	-.0142	5.57	322.24
RISE	51	17.21	28.46	2	19	27.6	84.23	-.0692	11.[illegible]9	-.0436	6212.8	-1.99	.00	.0800	283.11	-.0090	-9.70	344.09
EXTM	72	1.[illegible]38	22.61	2	19	27.7	4.31	-.1466	-14.[illegible]6	-.0864	2585.9	4.87	81.78	-.0000	210.53	-1.1606	-9.94	344.45
EXTM	51	54.42	66.17	2	20	11.3	2.34	-.0074	-33.[illegible]0	-.0017	16300.0	4.91	81.98	-.0000	194.10	-.0457	-31.32	26.04
EXTM	72	73.17	84.92	2	20	29.5	302.81	.0000	-35.[illegible]4	-.0000	23991.4	4.67	31.02	.0000	127.44	.0000	-32.52	29.78
EXTM	51	96.54	107.79	2	20	52.9	355.68	.0000	-34. [illegible]	-.0000	27694.6	4.24	80.21	.0000	158.63	.0002	-33.11	31.14
RISE	61	111.85	123.10	2	21	8.2	319.16	.0015	-41.[illegible]0	.0008	37262.2	3.98	-.00	.0013	150.83	.0006	-33.24	30.81
EXTM	51	155.90	167.15	2	21	52.3	.89	.0024	-34.[illegible]5	.0002	41651.4	3.66	81.36	.0000	184.89	.0031	-33.21	26.92
EXTM	61	357.55	368.80	3	1	13.9	5.85	.0038	-36. 8	.0002	84116.3	2.76	13.49	.0000	184.86	.0031	-31.95	350.29
EXTM	72	384.31	395.55	3	1	40.7	1.19	.0039	-33.[illegible]6	.0002	84398.2	2.68	64.32	.0000	182.29	.0075	-31.80	344.58
RISE	11	569.23	580.48	3	4	48.6	297.40	.0040	-33.[illegible]0	.0000	117616.5	2.05	.01	.0024	131.95	.0023	-30.94	303.13
SET	61	574.87	586.12	3	4	54.2	56.20	.0039	-33.[illegible]2	.0002	118403.0	2.53	-.00	-.0019	223.98	.0026	-30.92	301.83
SET	51	578.85	590.10	3	4	58.2	90.00	.0038	-29. 9	.0001	117588.0	2.64	12.46	-.0031	242.72	-.0012	-30.90	300.91
SET	72	778.89	790.14	3	8	18.3	94.57	.0039	-29.[illegible]5	.0001	145096.2	2.44	-.00	-.0034	239.83	-.0004	-30.22	253.97
RISE	42	788.42	799.67	3	8	28.8	254.99	.0040	-28.[illegible]0	-.0000	145683.8	1.75	5.24	.0028	121.70	-.0021	-30.19	251.71
EXTM	11	830.23	841.48	3	9	4.6	1.46	.0041	-32.[illegible]0	.0001	148948.8	2.01	22.48	.0000	181.34	.0038	-30.08	241.75
SET	11	1087.74	1098.99	3	13	24.1	65.11	.0041	-30.[illegible]2	.0001	180728.5	2.08	-.00	-.0025	231.17	.0024	-29.45	179.76
EXTM	42	1214.18	1225.43	3	15	30.5	359.93	.0042	-29.[illegible]0	.0000	187861.9	1.72	83.78	.0000	.59	-.0323	-29.20	149.05
RISE	51	1[illegible]0.12	1341.37	3	17	44.5	270.00	.0041	-28.[illegible]0	-.0000	206519.3	1.29	11.88	.0033	115.87	-.0014	-28.96	115.88
RISE	72	1504.22	1515.47	3	20	20.6	265.68	.0041	-28.47	-.0000	222702.5	1.18	-.00	.0036	118.77	-.0005	-28.71	78.15
RISE	61	1595.99	1607.24	3	21	52.4	298.93	.0042	-29. [illegible]	-.0000	231247.8	1.26	.00	.0024	130.56	.0027	-28.58	55.62
SET	42	1637.68	1648.93	3	22	34.0	105.00	.0041	-27.[illegible]8	.0001	234550.9	1.83	4.56	-.0029	239.19	-.0022	-28.52	45.37
EXTM	51	1709.65	1720.90	3	23	45.0	.02	.0042	-28.[illegible]0	.0000	235251.0	1.49	87.24	.0000	180.40	.0541	-28.42	27.67
EXTM	61	1841.43	1852.68	4	1	57.8	.55	.0042	-29.[illegible]1	.0000	250903.7	1.44	20.15	-.0000	180.51	.0039	-28.26	355.21
EXTM	72	1881.74	1892.61	4	2	37.1	.16	.0042	-28. 2	.0000	250571.0	1.42	69.19	-.0000	180.41	.0104	-28.21	345.51
RISE	11	2028.56	2039.81	4	5	4.9	292.97	.0042	-28.[illegible]4	-.0000	268866.9	1.07	.00	.0027	126.32	.0024	-28.04	309.03
SET	51	2068.94	2080.19	4	5	45.3	90.00	.0041	-27.[illegible]9	.0001	270907.2	1.73	11.56	-.0034	244.89	-.0014	-28.00	299.05
SET	61	2086.56	2097.81	4	6	2.9	62.07	.0042	-28.97	.0001	273618.7	1.62	-.00	-.0024	230.62	.0027	-27.98	294.70
SET	72	2255.46	2266.71	4	8	51.8	94.17	.0041	-27.[illegible]2	.0001	287114.3	1.71	-.00	-.0036	242.10	-.0005	-27.81	252.93
RISE	42	2256.78	2267.03	4	8	52.1	256.00	.0041	-27.[illegible]3	-.0000	286670.2	.99	4.23	.0029	120.38	-.0022	-27.81	252.85
EXTM	11	2296.42	2307.67	4	9	32.8	.37	.0042	-28.[illegible]0	.0000	289545.2	1.30	25.89	-.0000	180.36	.0041	-27.77	242.79
SET	11	2564.04	2575.29	4	14	.4	67.67	.0042	-28.30	.0000	310573.9	1.53	-.00	-.0027	234.54	.0024	-27.52	176.48
EXTM	42	2674.76	2686.01	4	15	51.1	359.96	.0042	-27.[illegible]7	.0000	312400.7	1.20	82.05	.0000	.29	-.0232	-27.43	149.02
RISE	51	2805.55	2816.80	4	18	1.9	270.00	.0041	-26.[illegible]0	-.0000	326723.9	.80	11.33	.0034	114.56	-.0015	-27.33	116.56
RISE	72	2958.67	2969.92	4	20	35.0	265.94	.0042	-27. 5	-.0000	338807.6	.72	.00	.0037	117.33	-.0005	-27.21	78.54
RISE	61	3039.83	3051.08	4	21	54.2	296.46	.0042	-27.[illegible]3	-.0000	344254.9	.84	.00	.0025	127.86	.0027	-27.16	58.28
SET	42	3093.37	3104.62	4	22	49.7	105.00	.0041	-26.[illegible]9	.0000	347394.7	1.44	3.90	-.0030	240.06	-.0022	-27.12	44.91
EXTM	51	3157.90	3169.15	4	23	54.3	358.87	.0042	-27.[illegible]1	.0000	345798.6	1.10	88.30	.0023	143.84	.1017	-27.09	29.79
EXTM	61	3291.[illegible]8	3302.33	5	2	7.4	.24	.0042	-27.[illegible]5	.0000	358549.5	1.10	21.81	-.0000	180.22	.0040	-27.01	355.52
EXTM	72	3330.84	3342.09	5	2	47.2	.09	.0043	-27.[illegible]2	.0000	357562.1	1.10	70.58	-.0000	180.26	.0112	-26.99	345.58
RISE	11	3470.19	3481.44	5	5	4.6	291.40	.0042	-27.[illegible]5	-.0000	372733.6	.80	.00	.0028	124.47	.0024	-26.91	310.72
SET	51	3518.32	3529.57	5	5	54.7	90.00	.0042	-26.[illegible]1	.0000	374717.6	1.50	11.17	-.0034	245.81	-.0015	-26.88	298.67
SET	61	3542.[illegible]5	3553.30	5	6	18.4	63.77	.0042	-27.[illegible]8	.0000	377553.8	1.42	-.00	-.0025	232.67	.0027	-26.87	292.72
RISE	42	3699.[illegible]8	3710.43	5	8	55.5	255.00	.0042	-26.[illegible]1	-.0000	388793.5	1.27	3.72	.0030	119.72	-.0023	-26.78	253.15
SET	72	3700.[illegible]8	3712.14	5	8	57.2	93.99	.0043	-26.[illegible]3	.0000	389372.4	2.06	.00	-.0038	243.09	-.0005	-26.78	252.72
IMPACT		3710.13	3721.38	5	9	4.5												
IMPC	42	3710.13	3721.38	5	9	4.5	257.80	.0043	-26.[illegible]1	-.0000	389725.3	1.67	5.73	.0031	118.20	-.0023	-26.77	250.34
IMPC	72	3710.13	3721.38	5	9	4.5	96.36	.0043	-26.[illegible]1	.0000	390594.5	2.44	-2.09	-.0038	242.77	-.0006	-26.77	250.34
IMPC	11	3710.13	3721.38	5	9	4.5	352.70	.0044	-27.[illegible]0	.0000	387497.2	1.97	26.82	.0005	172.75	.0043	-26.77	250.34

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	2	19	14.363	6624.300	16.7352	304.5374	10.92493	6.2463	119.1858	124.4366
SEPARATION		1.23	12.45	2	19	17.563	6731.482	13.4545	310.1260	10.83629	9.5494	120.7260	130.3261
RETRO		3.20	14.45	2	19	19.563	7003.235	7.9347	318.7417	10.62214	14.7631	122.4233	139.4431
IMPACT		3710.13	3721.38	5	9	4.496	390413.461	-26.7676	250.3410	2.19494	66.6954	276.9129	280.3124

SURVEYOR VIEW PERIODS

GHA	252.9740				EPS	25.1492						LOM	246.6268		
SX	.159115	SY	-.878626	SZ	-.450221	DAO	-26.7584	RAO	280.26473	RM	391681.211	LAT	28.310600	LON	279.461800
C3	-1.013027	ECC	.983367	SLR	12980.476	RCA	6544.6-50	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.180092	NSY	-.876580	NSZ	-.450197	C3M	1.4975	VIM	2.6715	ZAE	139.115	B.T	.0000	B.R	-.0000
LATE	4.7613	LONE	4.5799	LATS	.5736	LONS	339.6126	LATI	-3.2492	LONI	324.2510	RSM	152.1420	TTAN	6.7940
LAUNCH DATE	JUN	2,1966		BASE AZM	115.0		TF	61.981				ARRIVAL DATE	JUN	5 1966	9 21 7.2

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	19 8 41.8	28.0	15.41	303.58	13.27	124.38	121.95	19 19 56.8	6632.4	10.92	6.58

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DFC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PRORE IN	SUNLIGHT											
INJECTION		.00	11.25	2	19	19.9												
SEPARATION		1.20	12.45	2	19	21.1												
RETRO		3.20	14.45	2	19	23.1												
RISE	72	4.10	15.35	2	19	24.0	86.57	-.1265	23.46	-.0531	3299.4	-6.90	-.00	.1228	293.60	-.0351	3.44	320.72
RISE	51	11.31	22.56	2	19	31.3	85.35	-.0649	7.42	-.0466	6304.9	-1.81	.00	.0783	278.35	-.0138	-12.52	342.23
EXTM	72	11.66	22.91	2	19	31.6	9.13	-.1447	-24.90	-.0719	2797.8	5.03	70.90	-.0000	206.10	-.4574	-13.10	343.06
EXTM	51	61.34	72.59	2	20	21.3	1.64	-.0057	-37.16	-.0006	18250.6	4.79	78.50	-.0000	186.55	-.0230	-34.21	26.51
EXTM	72	73.34	84.59	2	20	33.3	303.70	-.0001	-38.60	.0003	24070.8	4.66	31.01	-.0000	130.66	-.0004	-34.73	28.72
EXTM	51	88.17	99.42	2	20	48.1	357.01	-.0009	-37.72	.0002	25597.2	4.35	78.14	.0000	168.37	-.0035	-35.02	30.01
RISE	61	128.78	140.03	2	21	28.7	321.72	.0020	-42.45	.0008	41368.2	3.78	-.00	.0014	152.99	.0009	-35.02	28.98
EXTM	51	156.90	168.15	2	21	56.8	1.83	.0023	-36.76	.0003	41919.4	3.65	79.46	.0000	188.10	.0105	-34.79	26.12
EXTM	61	358.53	369.78	3	1	18.5	6.68	.0038	-37.09	.0003	84391.0	2.76	12.43	.0000	185.45	.0031	-32.96	349.52
EXTM	72	382.99	394.24	3	1	42.9	1.51	.0039	-34.61	.0002	84232.4	2.69	63.26	.0000	182.75	.0072	-32.78	344.29
RISE	11	570.45	581.70	3	4	50.4	298.27	.0040	-33.86	.0000	117765.7	2.05	.01	.0024	133.00	.0023	-31.68	302.26
SET	61	566.96	578.21	3	4	46.9	54.97	.0039	-34.15	.0002	117278.8	2.53	.00	-.0019	222.66	.0026	-31.70	303.07
SET	51	576.16	587.41	3	4	56.1	90.00	.0038	-30.65	.0002	117161.6	2.64	12.75	-.0031	242.01	-.0011	-31.66	300.94
SET	72	776.69	787.94	3	8	16.6	94.68	.0039	-30.45	.0001	144780.2	2.43	-.00	-.0033	239.22	-.0004	-30.82	253.89
RISE	42	785.94	797.19	3	8	25.9	254.99	.0040	-29.29	-.0000	145300.9	1.75	5.61	.0028	122.17	-.0021	-30.79	251.69
EXTM	11	828.47	839.72	3	9	8.4	1.66	.0041	-32.58	.0001	148747.6	2.01	21.89	.0000	181.51	.0038	-30.64	241.55
SET	11	1083.04	1094.29	3	13	23.0	64.61	.0041	-31.28	.0001	180141.7	2.08	-.00	-.0025	230.54	.0024	-29.91	180.26
EXTM	42	1211.44	1222.69	3	15	31.4	359.92	.0042	-29.41	.0000	187481.6	1.72	84.19	.0000	.74	-.0350	-29.60	149.06
RISE	51	1347.43	1358.68	3	17	47.4	270.00	.0041	-28.66	-.0000	206129.4	1.29	12.02	.0033	116.21	-.0014	-29.32	115.87
RISE	72	1501.25	1512.50	3	20	21.2	265.62	.0041	-28.78	-.0000	222294.0	1.18	-.00	.0035	119.08	-.0005	-29.03	78.19
RISE	61	1594.75	1606.00	3	21	54.7	299.31	.0042	-30.05	-.0000	230991.7	1.26	.00	.0024	131.00	.0027	-28.87	55.24
SET	42	1634.85	1646.10	3	22	34.8	105.00	.0041	-27.86	.0001	234128.0	1.83	4.74	-.0029	238.97	-.0022	-28.80	45.38
EXTM	51	1706.88	1718.13	3	23	46.8	.03	.0042	-28.17	.0000	234849.4	1.48	86.97	-.0000	180.56	.0606	-28.69	27.66
EXTM	61	1838.84	1850.09	4	1	58.8	.62	.0042	-29.85	.0000	250531.3	1.44	19.91	-.0000	180.57	.0039	-28.49	355.14
EXTM	72	1877.98	1889.23	4	2	37.9	.19	.0042	-28.95	.0000	250162.3	1.42	68.95	-.0000	180.45	.0103	-28.44	345.49
RISE	11	2026.54	2037.79	4	5	6.5	293.18	.0042	-29.15	-.0000	268497.9	1.07	.01	.0027	126.59	.0024	-28.24	308.81
SET	51	2066.02	2077.27	4	5	46.0	90.00	.0041	-27.68	.0001	270452.3	1.73	11.64	-.0034	244.70	-.0014	-28.19	299.06
SET	61	2082.64	2093.89	4	6	2.6	61.82	.0042	-29.16	.0001	273089.5	1.62	-.00	-.0024	230.33	.0027	-28.17	294.95
SET	72	2252.61	2263.86	4	8	52.6	94.19	.0041	-27.78	.0001	286655.7	1.71	-.00	-.0036	241.93	-.0005	-27.97	252.90
RISE	42	2252.85	2264.10	4	8	52.8	255.00	.0041	-27.20	-.0000	286193.7	.98	4.33	.0029	120.51	-.0022	-27.97	252.84
EXTM	11	2293.65	2304.90	4	9	33.6	.42	.0042	-29.06	.0000	287103.9	1.29	25.73	-.0000	180.40	.0041	-27.93	242.74
SET	11	2560.54	2571.79	4	14	.5	67.55	.0042	-28.42	.0001	310031.9	1.53	-.00	-.0027	234.37	.0024	-27.65	176.60
EXTM	42	2671.72	2682.97	4	15	51.7	359.96	.0042	-27.38	.0000	311877.8	1.20	82.16	.0000	.32	-.0249	-27.54	149.02
RISE	51	2802.53	2813.78	4	18	2.5	270.00	.0041	-26.99	-.0000	326183.2	.80	11.37	.0034	114.65	-.0015	-27.42	116.56
RISE	72	2955.56	2966.81	4	20	35.5	265.92	.0042	-27.12	-.0000	338247.4	.72	.00	.0037	117.40	-.0005	-27.28	78.55
RISE	61	3037.09	3048.34	4	21	57.0	296.74	.0042	-28.00	-.0000	343704.5	.83	.00	.0025	127.95	.0027	-27.22	58.19
SET	42	3090.29	3101.54	4	22	50.2	105.00	.0041	-26.55	.0000	346807.2	1.44	3.93	-.0030	240.01	-.0022	-27.19	44.91
EXTM	51	3154.79	3166.04	4	23	54.7	358.86	.0042	-27.17	.0000	345200.9	1.10	88.25	.0022	144.75	.0994	-27.14	28.80
EXTM	61	3288.10	3299.35	5	2	8.0	.26	.0042	-27.99	.0000	357936.3	1.10	21.77	-.0000	180.25	.0040	-27.05	355.49
EXTM	72	3327.79	3339.04	5	2	47.7	.10	.0043	-27.16	.0000	356930.9	1.10	70.54	-.0000	180.28	.0111	-27.03	345.57
RISE	11	3467.23	3478.48	5	5	7.2	291.63	.0042	-27.58	-.0000	372064.6	.79	.00	.0028	124.51	.0024	-26.94	310.69
SET	51	3515.23	3526.48	5	5	55.2	90.00	.0042	-26.53	.0000	374018.6	1.49	11.18	-.0034	245.78	-.0015	-26.91	298.67
SET	61	3538.85	3550.10	5	6	18.8	63.74	.0042	-27.60	.0000	376836.0	1.41	-.00	-.0025	232.63	.0027	-26.89	292.75
RISE	42	3696.28	3707.53	5	8	56.2	255.00	.0042	-26.22	-.0000	387785.0	1.11	3.73	.0030	119.73	-.0023	-26.79	253.15
SET	72	3697.96	3709.21	5	8	57.9	93.99	.0042	-26.65	.0000	388344.6	1.88	.00	-.0037	243.08	-.0005	-26.79	252.72
IMPACT		3718.87	3730.12	5	9	18.8												
IMPC	42	3718.87	3730.12	5	9	18.8	260.76	.0043	-26.23	-.0000	389527.3	1.66	7.89	.0032	116.64	-.0023	-26.77	247.38
IMPC	72	3718.87	3730.12	5	9	18.8	99.32	.0043	-26.59	.0000	390923.6	2.43	-4.70	-.0038	242.30	-.0007	-26.77	247.38
IMPC	11	3718.87	3730.12	5	9	18.8	355.71	.0044	-27.40	.0000	387512.7	1.98	27.06	.0003	175.73	.0044	-26.77	247.38

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	2	19	19.947	6635.593	15.3444	303.6825	10.91730	6.5779	121.9673	124.4801
SEPARATION		1.20	12.45	2	19	21.147	6744.504	11.8220	309.0343	10.82533	9.8699	123.3025	130.1328
RETRO		3.20	14.45	2	19	23.147	7022.682	5.9587	317.3158	10.60687	15.0583	124.6642	138.9156
IMPACT		3718.87	3730.12	5	9	18.815	390452.988	-26.7685	247.3752	2.19153	66.4495	277.8676	280.4347

SURVEYOR VIEW PERIODS

GHA	253.9598					F&S	36.3233							LOM	272.5875
SX	.662 69 SY	-.822149 SZ		-.439217 B&O	-28.05496	RAD	293.76734	RM	395556.938	LAT	28.310600	LON	279.461800		
C3	-.952579 ECC	.958360 SLR		12986.970 RCA	6544.6650	LTA	-20.0000	GTA	20.00		TB	675.00000	POL	-.0	
NSX	.381 47 NSY	-.814454 NSZ		-.437120 C3M	1.4432	VIM	2.6707	ZAE	140.906	B.T	.0000	B.R	-.0000		
LATE	5.4775 LONE	3.8125	LATS	.5962	LONS	327.8730	LATI	1.2721	LONI	324.8890	RSM	152.1258	TTAN	6.4861	
LAUNCH DATE	JUN 3 1966		BASE AZM	87.0		TF	62.184				ARRIVAL DATE	JUN 6 1966		8 27 29.5	

LNCH AZMTH	LNCH TIME	RR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
87.00	18 12 24.2	27.4	25.91	307.44	-10.41	115.11	102.04	18 23 39.2	6603.8	10.94	-5.41

EVNT STA	T I	TFL	DAY HR MIN	HA	DHA	DEC	DDE	RNG	DRG	FLE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN SUNLIGHT												
INJECTION	.00	11.25	3 18 23.7												
SEPARATION	1.20	12.45	3 18 24.9												
RETRO	3.20	14.45	3 18 26.9												
RISE 72	6.48	17.73	3 18 30.1	45.50	-.0185	78.40	.0624	2576.5	-4.36	-.00	.0956	352.04	.1840	13.88	342.61
RISE 51	11.87	23.12	3 18 35.5	65.09	-.1145	41.3	-.0249	4777.6	-3.82	.00	.0971	316.91	.0380	2.69	3.47
EXTM 72	12.52	24.77	3 18 36.2	295.74	-.0378	19.57	-.1162	3254.3	6.37	21.06	-.0000	65.43	.1302	1.50	5.52
EXTM 51	29.97	41.22	3 18 53.6	343.29	-.0255	-8.40	-.0214	7482.9	5.55	66.40	-.0000	45.30	.0827	-16.48	37.10
ENTER SHA	52.18	63.67	3 19 15.7												
ENTR 72	52.18	63.33	3 19 15.7	275.20	-.0015	-22.78	-.0027	18704.3	5.43	7.81	-.0011	112.06	.0029	-23.25	51.03
ENTR 51	52.18	63.33	3 19 15.7	327.18	-.0052	-21.18	-.0042	14811.6	5.27	59.63	-.0035	88.31	.0106	-23.25	51.03
EXTM 72	64.37	75.82	3 19 28.0	274.62	-.0002	-24.49	-.0017	22537.2	4.98	7.44	.0000	113.72	.0018	-24.88	54.38
EXTM 51	79.71	90.96	3 19 43.4	323.56	-.0002	-25.42	-.0014	22935.8	4.58	57.21	.0000	97.19	.0026	-26.10	56.47
RISE 42	90.24	91.49	3 19 43.9	103.80	-.0029	-18.68	-.0024	27931.5	4.25	.00	.0036	246.92	-.0002	-26.14	56.51
EXTM 42	126.11	139.26	3 20 31.7	101.45	.0006	-22.67	-.0007	39767.2	3.99	4.10	-.0000	245.15	-.0009	-27.71	55.66
EXIT SHA	144.94	156.19	3 20 48.6												
EXIT 42	144.94	156.19	3 20 48.6	102.38	.0012	-23.21	-.0005	43764.0	3.88	3.80	-.0006	244.12	-.0011	-27.95	54.01
EXIT 72	144.94	156.19	3 20 48.6	282.67	.0027	-28.08	-.0003	42578.5	3.57	14.86	.0024	117.06	.0003	-27.95	54.01
EXIT 51	144.94	156.19	3 20 48.6	329.43	.0025	-27.83	-.0003	38880.4	3.69	62.70	.0022	101.30	.0004	-27.95	54.01
SET 42	172.99	184.24	3 21 16.6	105.00	.0019	-23.30	-.0003	50162.2	3.72	2.32	-.0012	242.11	-.0013	-28.18	50.43
RISE 61	195.64	206.89	3 21 39.3	304.03	.0031	-33.48	.0001	55201.0	3.25	-.00	.0018	136.27	.0019	-28.29	47.00
EXTM 51	300.57	311.82	3 23 24.2	.02	.0037	-28.53	.0000	69126.3	2.95	87.11	.0000	180.44	.0401	-28.39	27.67
EXTM 61	446.34	471.59	4 2 4.0	2.46	.0039	-31.11	.0001	99408.8	2.53	18.12	.0000	182.20	.0035	-28.20	353.42
EXTM 72	496.36	507.61	4 2 40.0	.37	.0040	-29.69	.0001	100998.1	2.46	68.51	-.0000	180.89	.0096	-28.14	345.32
RISE 11	662.66	673.91	4 5 26.3	293.82	.0040	-29.78	-.0000	130000.7	1.92	.00	.0026	127.44	.0023	-27.90	306.96
SET 51	690.31	701.56	4 5 54.0	90.00	.0039	-26.53	.0001	132392.1	2.52	11.30	-.0032	245.51	-.0013	-27.86	300.47
SET 61	705.72	716.97	4 6 9.4	60.94	.0040	-29.86	.0001	135638.4	2.40	-.00	-.0022	229.29	.0026	-27.84	296.84
SET 72	885.29	896.54	4 9 8.9	94.11	.0039	-27.28	.0001	157633.2	2.36	-.00	-.0035	242.44	-.0005	-27.61	254.15
RISE 42	894.49	905.74	4 9 18.1	255.00	.0040	-26.21	-.0001	158506.8	1.65	3.73	.0029	119.73	-.0021	-27.60	251.94
EXTM 11	934.25	945.50	4 9 57.9	.78	.0042	-29.67	.0000	160875.9	1.93	25.22	-.0000	180.75	.0040	-27.55	242.40
SET 11	1213.22	1224.47	4 14 26.9	67.44	.0041	-28.52	.0001	193133.0	2.04	.00	-.0027	234.23	.0024	-27.27	177.31
EXTM 42	1319.28	1330.53	4 16 22.9	359.96	.0042	-26.21	.0000	198830.0	1.68	81.69	.0000	.29	-.0235	-27.17	149.02
RISE 51	1454.32	1465.57	4 18 38.0	270.00	.0041	-24.41	-.0000	217119.5	1.24	11.14	.0034	114.11	-.0014	-27.05	116.00
RISE 72	1609.45	1620.70	4 21 13.1	265.99	.0041	-26.20	-.0000	233002.5	1.14	-.01	.0036	116.98	-.0005	-26.93	77.94
RISE 61	1691.14	1702.39	4 22 34.8	296.73	.0041	-27.39	-.0000	240472.7	1.23	.00	.0025	127.94	.0027	-26.87	57.86
SET 42	1742.21	1753.46	4 23 25.9	105.00	.0041	-25.93	.0000	244668.2	1.81	3.56	-.0029	240.50	-.0022	-26.84	45.30
EXTM 51	1810.77	1822.02	5 0 34.4	359.95	.0042	-26.42	.0000	244838.8	1.46	88.73	.0020	148.31	.1433	-26.79	28.41
EXTM 61	1944.58	1955.83	5 2 48.2	.35	.0042	-28.10	.0000	260338.2	1.42	21.76	-.0000	180.32	.0040	-26.71	355.42
EXTM 72	1984.51	1995.76	5 3 28.2	.11	.0042	-27.13	.0000	260114.5	1.40	70.77	-.0000	180.29	.0112	-26.68	345.57
RISE 11	2126.39	2137.64	5 5 50.0	291.51	.0042	-27.46	-.0000	277830.5	1.05	.00	.0028	124.35	.0024	-26.60	310.53
SET 51	2173.05	2184.30	5 6 36.7	90.00	.0041	-24.37	.0000	280405.6	1.72	11.00	-.0034	246.21	-.0015	-26.57	298.99
SET 61	2197.80	2209.05	5 7 1.5	63.87	.0042	-27.50	.0000	283614.1	1.62	-.00	-.0025	232.78	.0027	-26.56	292.87
SET 72	2358.51	2369.76	5 9 42.2	93.93	.0041	-26.39	.0000	296316.3	1.70	-.00	-.0037	243.44	-.0005	-26.47	253.10
RISE 42	2359.34	2370.59	5 9 43.0	255.00	.0041	-25.72	-.0000	296000.0	.97	3.43	.0029	119.33	-.0023	-26.47	252.90
EXTM 11	2389.59	2400.84	5 10 21.2	.25	.0042	-27.53	.0000	296593.0	1.29	27.26	-.0000	180.23	.0042	-26.45	242.93
SET 11	2672.65	2683.90	5 14 54.3	68.87	.0042	-27.16	.0000	320006.4	1.53	-.00	-.0028	236.17	.0024	-26.32	175.25
EXTM 42	2778.35	2789.60	5 16 42.0	359.96	.0042	-26.19	.0000	321438.8	1.20	80.87	.0000	.27	-.0215	-26.27	149.02
RISE 51	2918.97	2930.22	5 18 52.6	270.00	.0041	-25.79	-.0000	335738.5	.80	10.89	.0034	113.52	-.0015	-26.21	116.60
RISE 72	3062.40	3073.65	5 21 24.1	266.11	.0042	-26.10	-.0000	347668.3	.72	-.00	.0037	116.27	-.0005	-26.16	78.40
RISE 61	3137.98	3149.23	5 22 41.6	295.41	.0042	-26.49	-.0000	352756.7	.84	.00	.0026	126.33	.0027	-26.14	59.55
SET 42	3196.75	3208.00	5 23 40.4	105.00	.0041	-25.50	.0000	356330.4	1.45	3.29	-.0030	240.84	-.0023	-26.12	44.88
EXTM 51	3259.77	3271.02	6 0 43.4	359.91	.0042	-26.11	.0000	354588.5	1.11	88.61	.0037	105.82	.0408	-26.10	29.15
EXTM 61	3393.97	3405.22	6 2 57.6	.12	.0042	-26.98	.0000	367393.7	1.12	22.78	-.0000	180.12	.0041	-26.07	355.63
EXTM 72	3434.08	3445.33	6 3 37.7	.06	.0042	-26.67	.0000	366530.1	1.12	71.53	-.0000	180.19	.0115	-26.06	345.61
RISE 11	3570.04	3581.29	6 5 53.7	290.75	.0042	-26.56	-.0000	381731.5	.84	.00	.0029	123.30	.0024	-26.04	311.59
SET 51	3621.72	3632.97	6 6 45.4	90.00	.0042	-25.56	.0000	384154.4	1.57	10.84	-.0035	246.60	-.0015	-26.03	298.64
SET 61	3649.44	3660.69	6 7 13.1	64.80	.0042	-26.71	.0000	387359.0	1.52	-.00	-.0026	233.93	.0027	-26.03	291.67
IMPACT	3731.06	3742.31	6 8 34.7												
IMPC 72	3731.06	3742.31	6 8 34.7	75.63	.0043	-26.02	.0000	392477.5	2.47	16.33	-.0039	245.11	-.0000	-26.03	271.03
IMPC 11	3731.06	3742.31	6 8 34.7	331.72	.0044	-26.41	-.0000	391839.3	1.89	22.47	.0016	152.77	.0038	-26.03	271.03

EVNT STA	TFI	TFL	DAY HR MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	3 18 23.653	6605.261	25.9258	307.3721	10.94385	-5.4095	102.0030	115.0435
SEPARATION	1.20	12.45	3 18 24.853	6552.754	24.2965	314.5072	10.98668	-2.0060	105.1639	122.4795
RETRO	3.20	14.45	3 18 26.853	6572.389	20.8273	325.9083	10.97013	3.7092	109.7468	134.3820
ENTER SHA	52.18	63.33	3 19 15.733	20566.248	-3.2530	51.0252	6.14901	55.3239	106.7704	231.7525
EXIT SHA	144.94	156.19	3 20 48.598	44641.513	-27.9450	54.0.0	4.11162	66.9217	95.2485	258.0170
IMPACT	3731.06	3742.31	6 8 34.715	394318.594	-26.0312	271.0293	2.21508	68.3473	265.5748	294.0194

SURVEYOR VIEW PERIODS

GHA	253.9596					EPS	36.5275							LOM	266.4090
SX	.365656	SY	-.820806	SZ	-.438831	DAO	-26.02933	RAO	294.01223	RM	395625.203	LAT	28.310600	LON	279.461800
C3	-.948187	ECC	.984432	SLR	12987.443	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.384650	NSY	-.813226	NSZ	-.436701	C3M	1.4968	VIM	2.6713	ZAE	140.978	B.T	.0000	B.R	-.0000
LATE	5.6918	LONE	3.8040	LATS	.5987	LONS	327.6544	LATI	1.3666	LONI	324.9381	RSM	152.1254	TTAN	6.4758
LAUNCH DATE		JUN	3, 1966		BASE AZM	90.0		TF	62.138			ARRIVAL DATE		JUN 6 1966	8 53 6.9

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
90.00	18 36	.0	27.7	24.69	307.45	-5.65	121.04	104.32	18 47 15.0	6560.5	10.98	-2.80

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DFC	DUE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	3	18	47.3												
SEPARATION	1.20	12.45	3	18	48.5												
RETRO	3.20	14.45	3	18	50.5												
RISE 72	5.77	17.02	3	18	53.0	68.46	-.4463	69.40	.0958	2657.4	-5.67	-.00	.1081	340.80	.1496	13.46	338.20
RISE 51	11.55	22.80	3	18	58.8	98.97	-.1185	36.56	-.0275	5034.9	-3.56	.00	.0948	311.52	.0283	1.67	.02
EXTM 72	11.89	23.14	3	18	59.1	306.32	-.0595	20.42	-.1314	2891.3	5.95	29.92	.0000	60.28	.1646	1.08	1.04
EXTM 51	32.17	43.42	3	19	19.4	348.05	-.0219	-11.74	-.0163	8386.6	5.47	72.02	-.0000	41.05	.0874	-17.87	34.72
ENTER SHA	50.26	61.51	3	19	37.5												
ENTR 72	50.26	61.51	3	19	37.5	280.96	-.0017	-23.21	-.0027	17869.3	5.48	13.14	-.0014	112.10	.0029	-22.97	45.32
ENTR 51	50.26	61.51	3	19	37.5	334.86	-.0062	-21.13	-.0045	14285.9	5.25	66.52	-.0043	83.96	.0149	-22.97	45.32
EXTM 72	65.00	76.25	3	19	52.2	260.23	-.0001	-25.04	-.0016	22463.7	4.94	12.56	.0000	114.00	.0016	-24.91	49.30
EXTM 51	82.17	93.42	3	20	9.4	330.15	-.0002	-25.65	-.0012	23591.5	4.51	63.16	.0000	96.41	.0027	-26.18	51.32
EXIT SHA	143.27	154.52	3	21	10.5												
EXIT 42	143.27	154.52	3	21	10.5	107.54	.0012	-22.44	-.0006	44035.4	3.88	-.18	-.0005	241.49	-.0011	-27.84	48.69
EXIT 72	143.27	154.52	3	21	10.5	288.21	.0027	-28.33	-.0003	41913.3	3.59	19.74	.0024	117.33	.0004	-27.84	48.69
EXIT 51	143.27	154.52	3	21	10.5	335.53	.0024	-27.87	-.0003	38495.5	3.72	68.09	.0022	101.08	.0007	-27.84	48.69
EXIT 61	143.27	154.52	3	21	10.5	300.98	.0025	-34.21	.0002	44259.6	3.66	-2.19	.0015	134.80	.0014	-27.84	48.69
RISE 61	166.19	177.44	3	21	33.4	304.66	.0028	-33.91	.0002	49146.4	3.46	-.00	.0016	136.95	.0017	-28.05	45.84
EXTM 51	272.23	283.48	3	23	19.5	.01	.0036	-28.57	.0000	64198.6	3.05	87.17	.0000	180.33	.0254	-28.31	27.68
EXTM 61	435.79	447.04	4	2	3.0	2.64	.0039	-31.70	.0001	95806.0	2.58	18.02	.0000	182.37	.0035	-28.16	353.26
EXTM 72	471.40	482.65	4	2	38.7	.38	.0040	-29.40	.0001	97433.2	2.51	68.50	-.0000	180.92	.0095	-28.11	345.31
RISE 11	638.84	650.09	4	5	26.1	293.84	.0040	-29.40	-.0000	126966.9	1.95	.00	.0026	127.47	.0023	-27.87	306.88
SET 51	665.99	677.24	4	5	53.2	90.00	.0039	-26.78	.0001	129344.6	2.55	11.28	-.0032	245.55	-.0013	-27.83	300.53
SET 61	681.43	692.68	4	6	8.7	60.91	.0040	-29.48	.0001	132618.9	2.43	-.00	-.0022	229.27	.0026	-27.81	296.91
SET 72	861.47	872.72	4	9	8.7	94.10	.0039	-27.24	.0001	155141.1	2.38	-.00	-.0035	242.47	-.0005	-27.58	254.20
RISE 42	871.04	882.29	4	9	18.3	254.99	.0040	-26.16	-.0001	155873.4	1.67	3.69	.0029	119.69	-.0021	-27.57	251.91
EXTM 11	910.79	922.04	4	9	58.0	.80	.0042	-29.58	.0000	158287.3	1.95	25.21	-.0000	180.77	.0040	-27.53	242.38
SET 11	1179.93	1191.18	4	14	27.2	67.46	.0041	-28.51	.0001	190835.5	2.05	.00	-.0027	234.25	.0024	-27.25	177.32
EXTM 42	1296.10	1307.35	4	16	23.4	359.96	.0042	-26.48	.0000	196640.3	1.69	81.66	.0000	.29	-.0231	-27.14	149.02
RISE 51	1431.27	1442.52	4	18	38.5	270.00	.0041	-26.38	-.0000	215042.3	1.25	11.12	.0034	114.08	-.0014	-27.03	115.98
RISE 72	1586.48	1597.73	4	21	13.7	265.99	.0041	-26.68	-.0000	231032.9	1.15	-.01	.0036	116.95	-.0005	-26.91	77.92
RISE 61	1668.07	1679.32	4	22	35.3	296.71	.0041	-27.97	-.0000	238543.7	1.24	.00	.0025	127.91	.0027	-26.85	57.87
SET 42	1719.17	1730.42	4	23	26.4	105.00	.0041	-25.90	.0000	242773.0	1.82	3.54	-.0029	240.52	-.0022	-26.81	45.31
EXTM 51	1788.04	1799.29	5	0	35.3	359.32	.0042	-26.79	.0000	243008.1	1.47	88.78	.0019	149.95	.1521	-26.77	28.35
EXTM 61	1921.63	1932.88	5	2	48.9	.34	.0042	-27.98	.0000	258556.9	1.43	21.78	-.0000	180.32	.0040	-26.68	355.42
EXTM 72	1961.57	1972.82	5	3	28.8	.11	.0042	-27.11	.0000	258354.6	1.41	70.79	-.0000	180.29	.0113	-26.66	345.57
RISE 11	2103.42	2114.67	5	5	50.7	291.49	.0042	-27.44	-.0000	276137.6	1.06	.00	.0028	124.33	.0024	-26.57	310.54
SET 51	2150.11	2161.36	5	6	37.4	90.00	.0041	-26.94	.0000	278737.5	1.72	10.99	-.0034	246.24	-.0015	-26.55	299.00
SET 61	2174.97	2186.22	5	7	2.2	63.89	.0042	-27.48	.0000	281964.3	1.62	-.00	-.0025	232.81	.0027	-26.53	292.85
SET 72	2335.59	2346.84	5	9	42.8	93.93	.0041	-26.26	.0000	294729.3	1.71	-.00	-.0037	243.47	-.0005	-26.45	253.11
RISE 42	2336.49	2347.74	5	9	43.7	255.00	.0041	-25.69	-.0000	294420.5	.98	3.41	.0029	119.31	-.0023	-26.45	252.89
EXTM 11	2376.72	2387.97	5	10	24.0	.23	.0042	-27.51	.0000	295025.5	1.29	27.28	-.0000	180.23	.0042	-26.43	242.93
SET 11	2649.87	2661.12	5	14	57.1	68.89	.0042	-27.94	.0000	318554.8	1.54	-.00	-.0028	236.19	.0024	-26.29	175.23
EXTM 42	2755.53	2766.78	5	16	42.8	359.96	.0042	-26.07	.0000	320023.8	1.20	80.85	.0000	.26	-.0217	-26.25	149.02
RISE 51	2886.17	2897.42	5	18	53.4	270.00	.0041	-25.77	-.0000	334372.0	.80	10.88	.0034	113.50	-.0015	-26.19	116.60
RISE 72	3039.61	3050.86	5	21	26.9	266.12	.0042	-25.98	-.0000	346347.9	.72	-.00	.0037	116.25	-.0005	-26.14	78.39
RISE 61	3115.08	3126.33	5	22	42.3	295.39	.0042	-26.87	-.0000	351440.6	.84	.00	.0026	126.30	.0027	-26.12	59.56
SET 42	3173.91	3185.16	5	23	41.2	105.00	.0041	-25.47	.0000	355027.8	1.45	3.28	-.0030	240.86	-.0023	-26.10	44.88
EXTM 51	3236.97	3248.22	6	0	44.2	358.52	.0042	-26.09	.0000	353294.7	1.11	88.62	.0037	105.07	.0392	-26.08	29.14
EXTM 61	3371.14	3382.39	6	2	58.4	.12	.0042	-26.97	.0000	366102.9	1.12	22.80	-.0000	180.12	.0041	-26.05	355.63
EXTM 72	3411.25	3422.50	6	3	38.5	.06	.0042	-26.36	.0000	365239.7	1.12	71.55	-.0000	180.19	.0115	-26.04	345.61
RISE 11	3547.18	3558.43	6	5	54.4	290.73	.0042	-26.54	-.0000	380407.2	.83	.00	.0029	123.28	.0024	-26.02	311.61
SET 51	3598.93	3610.18	6	6	46.2	90.00	.0042	-25.44	.0000	382795.7	1.55	10.83	-.0035	246.62	-.0015	-26.01	298.64
SET 61	3626.76	3638.01	6	7	14.0	64.82	.0042	-26.69	.0000	385968.7	1.49	-.00	-.0026	233.95	.0027	-26.01	291.66
IMPACT	3728.28	3739.53	6	8	55.5												
IMPC 72	3728.28	3739.53	6	8	55.5	80.67	.0043	-25.96	.0000	393020.7	2.48	11.81	-.0039	245.00	-.0002	-26.01	266.01
IMPC 11	3728.28	3739.53	6	8	55.5	336.81	.0044	-26.80	-.0000	391717.3	1.92	24.23	.0014	157.33	.0040	-26.01	266.01

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	3	18	47.250	6560.573	24.6910	307.4428	10.98047	-2.8022	104.3112	121.0296
SEPARATION	1.20	12.45	3	18	48.450	6545.453	22.8064	314.4185	10.99305	.6276	107.2454	128.3061
RETRO	3.20	14.45	3	18	50.450	6625.187	19.0064	325.4809	10.92618	6.3047	111.3864	139.8699
ENTER SHA	50.26	61.51	3	19	37.508	20293.003	-22.9710	45.3214	6.19166	55.0657	107.0200	231.5072
EXIT SHA	143.27	154.52	3	21	10.525	44474.283	-27.8356	48.6851	4.12031	66.8812	95.3921	258.1889
IMPACT	3728.28	3739.53	6	8	55.527	394375.227	-26.0108	266.0111	2.21527	68.2620	265.3822	294.2184

SURVEYOR VIEW PERIODS

GHA	253.9596				EPS	36.7170					LOM	260.6741	
SX	.3489R0	SY	-.819512	SZ	-.438467	DAO	-26.00511	RAO	294.23936	RM	395686.418	LAT	28.310600
C3	-.948154	EOC	.964432	SLR	12987.448	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000
NSX	.387945	NSY	-.811871	NSZ	-.436307	C3N	1.4967	VIM	2.6713	ZAE	140.978	R.T	.0000
LATE	5.7052	LONE	3.7948	LATS	.5991	LONS	327.4547	LATI	1.3424	LONI	324.9307	RSM	152.1250
LAUNCH DATE	JUN	3,1966		BASE AZM	93.0		TF 62.156				ARRIVAL DATE	JUN	6 1966 9 16 53.9

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
93.00	18 55 22.1	27.9	23.48	307.30	-1.40	125.74	106.52	19 6 37.1	6545.6	10.99	-.69

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DUE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PRORF IN SUNLIGHT											
INJECTION	.00	11.25	3	19	6.6												
SEPARATION	1.20	12.45	3	19	7.8												
RETRO	3.20	14.45	3	19	9.8												
RISE 72	5.27	16.52	3	19	11.9	75.48	-.2990	61.15	.0799	2748.2	-6.48	-.01	.1161	332.05	.1177	12.71	334.71
RISE 51	11.35	22.60	3	19	18.0	72.07	-.1066	32.26	-.0301	5258.1	-3.32	.00	.0925	306.69	.0205	.42	357.01
EXTM 72	11.43	22.68	3	19	18.0	317.28	-.0866	20.25	-.1418	2615.9	5.55	39.28	-.0000	55.15	.2110	.28	357.24
RISE 61	12.66	23.91	3	19	18.7	352.29	-.1031	-49.20	.0119	5561.1	6.40	.00	.0050	175.00	-.0678	-.77	359.04
EXTM 61	14.62	25.87	3	19	21.2	339.40	-.0678	-47.23	.0128	6586.1	6.87	.34	-.0000	166.26	-.0475	-4.64	5.59
SET 61	18.09	29.34	3	19	24.7	328.29	-.0419	-45.15	.0100	8035.1	7.00	.01	-.0027	158.24	-.0311	-8.87	12.85
EXTM 51	44.52	45.77	3	19	41.1	351.85	-.0190	-15.17	-.0125	9308.5	5.40	76.89	-.0000	37.12	.0978	-19.45	32.66
ENTER SHA	49.13	50.38	3	19	55.7												
ENTR 72	49.13	50.38	3	19	55.7	285.91	-.0020	-24.13	-.0026	17296.7	5.50	17.70	-.0018	112.89	.0027	-23.20	40.63
ENTR 51	49.13	50.38	3	19	55.7	341.38	-.0072	-21.71	-.0045	14001.0	5.23	72.50	-.0051	80.60	.0208	-23.20	40.63
ENTR 61	49.13	50.38	3	19	55.7	302.31	-.0039	-37.13	.0015	19625.4	5.46	-4.31	-.0009	138.04	-.0033	-23.20	40.63
EXTM 72	66.17	77.42	3	20	12.8	285.00	-.0000	-26.14	-.0014	22591.1	4.89	16.90	.0000	114.90	.0014	-25.37	45.12
EXTM 51	84.75	96.00	3	20	31.4	335.67	-.0001	-26.40	-.0010	24300.0	4.45	68.17	.0000	97.12	.0028	-26.60	47.00
EXIT SHA	140.78	152.03	3	21	27.4												
EXIT 42	140.78	152.03	3	21	27.4	111.70	.0011	-22.78	-.0006	43965.3	3.89	-3.17	-.0004	239.09	-.0011	-28.01	44.42
EXIT 72	140.78	152.03	3	21	27.4	292.64	.0027	-28.81	-.0005	41132.0	3.61	23.60	.0023	118.05	.0005	-28.01	44.42
EXIT 51	140.78	152.03	3	21	27.4	340.44	.0024	-28.19	-.0003	37955.1	3.75	72.41	.0021	102.38	.0012	-28.01	44.42
EXIT 61	140.78	152.03	3	21	27.4	305.50	.0025	-34.66	.0003	43629.4	3.68	-.16	.0015	137.96	.0014	-28.01	44.42
RISE 61	142.54	153.79	3	21	29.2	305.76	.0025	-34.63	.0003	44016.6	3.66	-.00	.0015	138.11	.0014	-28.03	44.23
EXTM 51	248.18	259.43	3	23	14.8	.01	.0034	-28.73	.0000	59866.6	3.15	87.01	.0000	180.32	.0190	-28.44	27.68
EXTM 61	416.69	427.31	4	2	2.7	2.91	.0039	-31.44	.0001	92862.0	2.63	17.77	.0000	182.59	.0035	-28.28	353.01
EXTM 72	450.90	462.15	4	2	37.5	.40	.0040	-29.67	.0001	94443.9	2.55	68.33	-.0000	180.94	.0094	-28.23	345.30
RISE 11	619.87	631.12	4	5	26.5	293.97	.0040	-29.93	-.0000	124503.5	1.98	.00	.0026	127.64	.0023	-27.96	306.70
SET 51	646.66	657.51	4	5	52.7	90.00	.0038	-26.45	.0001	126789.8	2.57	11.31	-.0032	245.49	-.0013	-27.92	300.59
SET 61	660.89	672.14	4	6	7.5	60.74	.0039	-30.01	.0001	130008.7	2.45	-.00	-.0022	229.07	.0026	-27.90	297.12
SET 72	842.07	854.32	4	9	2.7	94.11	.0039	-27.51	.0001	152898.3	2.40	-.00	-.0035	242.41	-.0005	-27.65	254.22
RISE 42	851.89	863.14	4	9	14.5	254.99	.0040	-26.21	-.0001	153668.1	1.69	3.72	.0029	119.72	-.0021	-27.64	251.88
EXTM 11	891.74	902.99	4	9	58.4	.85	.0041	-29.57	.0000	156145.0	1.97	25.12	-.0000	180.81	.0040	-27.59	242.34
SET 11	1160.63	1171.88	4	14	27.2	67.39	.0041	-28.57	.0001	188871.4	2.06	.00	-.0027	234.17	.0024	-27.29	177.40
EXTM 42	1277.17	1288.42	4	16	23.8	359.96	.0042	-26.42	.0000	194790.5	1.70	81.70	.0000	.30	-.0238	-27.18	149.02
RISE 51	1412.47	1423.72	4	18	39.1	270.00	.0041	-26.41	-.0000	213279.6	1.26	11.13	.0034	114.10	-.0014	-27.06	115.97
RISE 72	1567.70	1578.95	4	21	14.3	265.99	.0041	-26.70	-.0000	229350.5	1.16	-.01	.0036	116.98	-.0005	-26.93	77.92
RISE 61	1649.47	1660.72	4	22	36.1	296.75	.0041	-28.00	-.0000	236913.7	1.25	.00	.0025	127.96	.0027	-26.87	57.83
SET 42	1700.36	1711.61	4	23	27.0	105.00	.0041	-25.72	.0000	241144.4	1.83	3.55	-.0029	240.51	-.0022	-26.83	45.31
EXTM 51	1769.11	1780.36	5	0	35.7	359.27	.0042	-26.41	.0000	241399.4	1.47	88.74	.0020	148.94	.1461	-26.79	28.39
EXTM 61	1902.94	1914.19	5	2	49.6	.35	.0042	-28.10	.0000	257021.6	1.43	21.76	-.0000	180.33	.0040	-26.70	355.41
EXTM 72	1942.85	1954.10	5	3	29.5	.11	.0042	-27.13	.0000	256829.8	1.42	70.78	-.0000	180.30	.0113	-26.67	345.57
RISE 11	2084.80	2096.05	5	5	51.4	291.50	.0042	-27.35	-.0000	274667.4	1.06	.00	.0028	124.35	.0024	-26.58	310.52
SET 51	2131.39	2142.64	5	6	38.0	90.00	.0041	-26.05	.0000	277273.5	1.73	10.99	-.0034	246.23	-.0015	-26.56	299.00
SET 61	2156.19	2167.44	5	7	2.8	63.87	.0042	-27.69	.0000	280504.3	1.63	-.00	-.0025	232.79	.0027	-26.54	292.87
SET 72	2316.89	2328.14	5	9	43.5	93.93	.0041	-26.27	.0000	293323.4	1.71	-.00	-.0037	243.46	-.0005	-26.45	253.12
RISE 42	2317.83	2329.08	5	9	44.4	255.00	.0041	-25.99	-.0000	293018.4	.98	3.41	.0029	119.31	-.0023	-26.45	252.88
EXTM 11	2358.08	2369.33	5	10	24.7	.24	.0042	-27.92	.0000	293636.7	1.30	27.27	-.0000	180.24	.0042	-26.43	242.92
SET 11	2631.20	2642.45	5	14	57.8	68.89	.0042	-27.14	.0000	317234.6	1.54	-.00	-.0028	236.19	.0024	-26.29	175.24
EXTM 42	2736.88	2748.13	5	16	43.5	359.96	.0042	-26.16	.0000	318730.7	1.21	80.84	.0000	.27	-.0213	-26.24	149.02
RISE 51	2867.55	2878.80	5	18	54.2	270.00	.0041	-25.76	-.0000	333110.8	.81	10.88	.0034	113.49	-.0015	-26.18	116.59
RISE 72	3021.13	3032.38	5	21	27.7	266.12	.0042	-25.97	-.0000	345159.8	.72	-.00	.0037	116.23	-.0005	-26.12	78.39
RISE 61	3096.51	3107.76	5	22	43.1	295.38	.0042	-26.96	-.0000	350248.8	.84	.00	.0026	126.29	.0027	-26.10	59.58
SET 42	3155.36	3166.61	5	23	42.0	105.00	.0041	-25.46	.0000	353838.6	1.45	3.27	-.0030	240.87	-.0023	-26.09	44.89
EXTM 51	3218.51	3229.76	6	0	45.1	358.54	.0042	-26.18	.0000	352109.2	1.11	88.64	.0037	104.68	.0389	-26.07	29.12
EXTM 61	3352.58	3363.83	6	2	59.2	.12	.0042	-26.35	.0000	364900.5	1.11	22.81	-.0000	180.12	.0041	-26.04	355.63
EXTM 72	3392.69	3403.94	6	3	39.3	.06	.0042	-26.14	.0000	364031.6	1.11	71.56	-.0000	180.19	.0115	-26.03	345.61
RISE 11	3528.57	3539.82	6	5	55.2	290.72	.0042	-26.52	-.0000	379153.5	.82	.00	.0029	123.26	.0024	-26.00	311.62
SET 51	3580.36	3591.61	6	6	47.0	90.00	.0042	-25.42	.0000	381508.7	1.54	10.82	-.0035	246.63	-.0015	-25.99	298.64
SET 61	3608.28	3619.53	6	7	14.9	64.84	.0042	-26.68	.0000	384655.3	1.47	-.00	-.0026	233.98	.0027	-25.99	291.64
IMPACT	3729.35	3740.60	6	9	16.0												
IMPC 42	3729.35	3740.60	6	9	16.0	247.12	.0043	-25.18	-.0000	394635.2	1.73	-2.27	.0029	123.59	-.0025	-25.99	261.08
IMPC 72	3729.35	3740.60	6	9	16.0	85.61	.0043	-25.91	.0000	393564.5	2.48	7.37	-.0039	244.73	-.0003	-25.99	261.08
IMPC 11	3729.35	3740.60	6	9	16.0	341.81	.0044	-26.79	-.0000	391632.7	1.94	25.66	.0011	161.99	.0042	-25.99	261.08

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	3	19	6.619	6545.631	23.4847	307.2962	10.99298	-.6927	106.5227	125.7384
SEPARATION	1.20	12.45	3	19	7.819	6559.730	21.3594	314.1117	10.98099	2.7363	109.2405	132.8547
RETRO	3.20	14.45	3	19	9.819	6686.784	17.2722	324.7978	10.87534	8.3497	112.9539	144.0423
ENTER SHA	49.13	50.38	3	19	55.744	20172.667	-23.2030	40.6325	6.21055	54.9494	106.9272	231.3899
EXIT SHA	140.78	152.03	3	21	27.402	44074.666	-28.0060	44.4157	4.13999	66.7767	95.1786	258.1502
IMPACT	3729.35	3740.60	6	9	15.970	394433.715	-25.9906	261.0822	2.21314	68.0094	265.3799	294.4142

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SURVEYOR VIEW PERIODS

GHA	253.9596					EPS	36.8560							LOM	256.4662
SX	.871415	SY	-.818656	SZ	-.438196	DAO	-25.98486	RAO	294.40590	RM	395734.719	LAT	28.310600	LON	279.461800
C3	-.947590	ECC	.984442	SLR	12987.511	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.390354	NSY	-.810870	NSZ	-.436020	C3M	1.4476	VIM	2.6715	ZAE	140.975	B.T	.0000	B.R	-.0000
LATE	5.7150	LONE	3.7869	LATS	.5993	LONS	327.3073	LATI	1.2128	LONI	324.9375	RSM	152.1247	TTAN	6.4624
LAUNCH DATE		JUN	3,1966		BASE AZM	96.0		TF	62.161				ARRIVAL DATE	JUN	6 1966 9 34 20 9

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
96.00	19 10 36.6	28.0	22.31	307.01	1.91	129.27	108.68	19 21 51.6	6546.5	10.99	.95

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	3	19	21.9												
SEPARATION	1.20	12.45	3	19	23.1												
RETRO	3.20	14.45	3	19	25.1												
RISE 72	4.91	16.16	3	19	26.8	78.92	-.2373	54.16	.0587	2830.5	-6.99	.00	.1213	324.93	.0897	11.72	331.90
EXTM 72	11.11	22.36	3	19	33.0	327.86	-.1139	18.14	-.1455	2417.4	5.21	48.96	-.0000	50.34	.2762	-.85	354.08
RISE 51	11.22	22.47	3	19	33.1	74.66	-.0976	28.75	-.0327	5442.2	-3.10	.00	.0905	302.27	.0140	-1.03	354.38
RISE 61	13.18	24.43	3	19	35.0	351.56	-.0850	-49.45	.0102	6266.2	6.46	.00	.0040	174.52	-.0560	-4.15	359.60
EXTM 61	16.62	27.87	3	19	37.9	339.74	-.0564	-47.84	.0104	7398.4	6.78	.30	.0000	166.51	-.0394	-7.94	6.01
SET 61	19.93	31.18	3	19	41.8	329.31	-.0350	-45.46	.0081	8994.4	6.80	.00	-.0021	159.02	-.0258	-12.02	13.13
EXTM 51	36.81	48.06	3	19	58.7	354.89	-.0168	-18.27	-.0097	10175.2	5.33	81.16	-.0000	33.34	.1213	-21.16	30.89
ENTER SHA	48.63	59.88	3	20	10.5												
ENTR 72	48.63	59.88	3	20	10.5	289.98	-.0022	-25.00	-.0023	16979.7	5.51	21.39	-.0021	114.36	.0024	-23.91	36.93
ENTR 51	48.63	59.88	3	20	10.5	346.63	-.0079	-22.90	-.0043	13927.2	5.19	77.49	-.0058	79.69	.0283	-23.91	36.93
ENTR 61	48.63	59.88	3	20	10.5	306.61	-.0043	-39.18	.0017	19513.8	5.44	-3.08	-.0007	141.39	-.0036	-23.91	36.93
EXTM 72	67.43	78.68	3	20	29.3	288.91	.0000	-27.51	-.0011	22790.0	4.85	20.38	.0000	116.27	.0012	-26.15	41.76
EXTM 51	87.55	98.80	3	20	49.4	340.13	.0000	-27.44	-.0008	25074.5	4.40	72.17	.0000	99.91	.0027	-27.33	43.52
RISE 61	125.57	136.82	3	21	27.4	307.30	.0021	-35.01	.0004	40174.7	3.84	-.00	.0014	139.70	.0011	-28.29	42.25
EXIT SHA	137.50	148.75	3	21	39.4												
EXIT 72	137.50	148.75	3	21	39.4	295.97	.0026	-29.50	-.0002	40239.3	3.65	26.44	.0023	119.09	.0005	-28.44	41.15
EXIT 51	137.50	148.75	3	21	39.4	344.19	.0022	-28.76	-.0002	37251.3	3.79	75.63	.0019	105.70	.0020	-28.44	41.15
EXIT 61	137.50	148.75	3	21	39.4	308.92	.0024	-35.65	.0003	42876.3	3.71	1.00	.0014	140.60	.0014	-28.44	41.15
EXTM 51	228.46	239.73	3	23	10.3	.02	.0033	-29.13	.0000	56207.8	3.24	86.61	.0000	180.38	.0358	-28.78	27.67
EXTM 61	401.90	412.25	4	2	2.9	3.25	.0039	-32.71	.0001	90607.0	2.66	17.39	.0000	180.88	.0034	-28.55	352.69
EXTM 72	434.92	446.17	4	2	36.8	.47	.0040	-29.88	.0001	92090.1	2.58	68.02	-.0000	181.08	.0092	-28.49	345.24
RISE 11	605.55	616.80	4	5	27.4	294.23	.0040	-30.18	-.0000	122632.8	2.00	.00	.0026	127.97	.0023	-28.17	306.41
SET 51	630.34	641.59	4	5	52.2	90.00	.0038	-27.64	.0001	124751.0	2.59	11.39	-.0032	245.31	-.0013	-28.13	300.64
SET 61	643.93	655.18	4	6	5.8	60.43	.0039	-30.25	.0001	127829.9	2.47	-.00	-.0022	228.70	.0026	-28.10	297.47
SET 72	826.87	838.12	4	9	8.7	94.14	.0039	-27.47	.0001	151133.0	2.41	-.00	-.0035	242.25	-.0004	-27.82	254.23
RISE 42	836.84	848.09	4	9	18.7	254.99	.0040	-26.35	-.0001	151918.7	1.70	3.81	.0028	119.84	-.0021	-27.80	251.85
EXTM 11	876.89	888.14	4	9	58.8	.91	.0041	-29.85	.0001	154478.7	1.98	24.94	-.0000	180.87	.0040	-27.74	242.27
SET 11	1145.14	1156.39	4	14	27.0	67.27	.0041	-28.70	.0001	187292.6	2.07	-.00	-.0026	234.00	.0024	-27.41	177.53
EXTM 42	1262.27	1273.52	4	16	24.1	359.95	.0042	-27.02	.0000	193333.0	1.71	81.80	.0000	.32	-.0246	-27.28	149.03
RISE 51	1397.68	1408.93	4	18	59.5	270.00	.0041	-26.50	-.0000	211892.4	1.27	11.17	.0034	114.18	-.0014	-27.15	115.95
RISE 72	1552.89	1564.14	4	21	14.8	265.98	.0041	-26.78	-.0000	228027.3	1.16	-.01	.0036	117.05	-.0005	-27.01	77.92
RISE 61	1635.09	1646.34	4	22	37.0	296.84	.0041	-28.88	-.0000	235660.2	1.25	.00	.0025	128.07	.0027	-26.94	57.73
SET 42	1685.55	1696.80	4	23	27.4	105.00	.0041	-25.98	.0000	239864.5	1.83	3.59	-.0029	240.46	-.0022	-26.90	45.32
EXTM 51	1753.97	1765.22	5	0	35.8	359.18	.0042	-26.88	.0000	240117.8	1.48	88.64	.0021	147.32	.1327	-26.85	28.49
EXTM 61	1888.28	1899.53	5	2	50.1	.37	.0042	-28.06	.0000	255829.5	1.44	21.70	-.0000	180.35	.0040	-26.75	355.39
EXTM 72	1928.13	1939.38	5	3	30.0	.11	.0042	-27.18	.0000	255640.4	1.42	70.72	-.0000	180.31	.0112	-26.72	345.56
RISE 11	2070.27	2081.52	5	5	52.1	291.55	.0042	-27.50	-.0000	273531.7	1.07	.00	.0028	124.41	.0024	-26.63	310.47
SET 51	2116.63	2127.88	5	6	38.5	90.00	.0041	-26.89	.0000	276129.6	1.73	11.01	-.0034	246.20	-.0015	-26.60	299.01
SET 61	2141.22	2152.47	5	7	3.1	63.82	.0042	-27.34	.0000	279351.4	1.63	-.00	-.0025	232.73	.0027	-26.58	292.93
SET 72	2302.17	2313.42	5	9	44.0	93.93	.0041	-26.40	.0000	292230.2	1.72	-.00	-.0037	243.43	-.0005	-26.48	253.12
RISE 42	2303.13	2314.38	5	9	45.0	255.00	.0041	-25.72	-.0000	291924.8	.99	3.43	.0029	119.34	-.0023	-26.48	252.88
EXTM 11	2343.42	2354.67	5	10	25.3	.25	.0042	-27.56	.0000	292561.0	1.30	27.23	-.0000	180.25	.0042	-26.46	242.91
SET 11	2616.40	2627.65	5	14	58.3	68.87	.0042	-27.06	.0000	316204.2	1.54	-.00	-.0028	236.16	.0024	-26.31	175.26
EXTM 42	2722.17	2733.42	5	16	44.0	359.95	.0042	-26.08	.0000	317727.6	1.21	80.86	.0000	.30	-.0217	-26.26	149.03
RISE 51	2852.87	2864.12	5	18	54.7	270.00	.0041	-25.77	-.0000	332134.7	.81	10.88	.0034	113.50	-.0015	-26.19	116.59
RISE 72	3006.58	3017.83	5	21	28.4	266.12	.0042	-25.97	-.0000	344257.0	.72	-.00	.0037	116.24	-.0005	-26.12	78.38
RISE 61	3081.96	3093.21	5	22	43.8	295.38	.0042	-26.46	-.0000	349347.5	.84	.00	.0026	126.29	.0027	-26.10	59.57
SET 42	3140.77	3152.02	5	23	42.6	105.00	.0041	-25.46	.0000	352935.8	1.45	3.27	-.0030	240.88	-.0023	-26.09	44.89
EXTM 51	3203.93	3215.18	6	0	45.8	358.54	.0042	-26.17	.0000	351207.4	1.11	88.65	.0037	104.61	.0388	-26.07	29.12
EXTM 61	3338.00	3349.25	6	2	59.9	.13	.0042	-26.95	.0000	363992.5	1.11	22.81	-.0000	180.12	.0041	-26.03	355.62
EXTM 72	3378.08	3389.33	6	3	39.9	.07	.0042	-26.34	.0000	363118.7	1.11	71.57	-.0000	180.20	.0116	-26.02	345.61
RISE 11	3513.93	3525.18	6	5	55.8	290.71	.0042	-26.42	-.0000	378211.1	.81	.00	.0029	123.25	.0024	-25.99	311.62
SET 51	3565.74	3576.99	6	6	47.6	90.00	.0042	-25.61	.0000	380544.6	1.53	10.82	-.0035	246.65	-.0015	-25.98	298.64
SET 61	3593.70	3604.95	6	7	15.6	64.85	.0042	-26.47	.0000	383675.0	1.45	-.00	-.0026	233.99	.0027	-25.98	291.63
IMPACT	3729.64	3740.89	6	9	31.5												
IMPC 42	3729.64	3740.89	6	9	31.5	250.85	.0043	-25.49	-.0000	394394.1	1.71	.30	.0030	121.41	-.0024	-25.98	257.34
IMPC 72	3729.64	3740.89	6	9	31.5	89.36	.0043	-25.87	.0000	393980.4	2.48	4.02	-.0039	244.42	-.0004	-25.98	257.34
IMPC 11	3729.64	3740.89	6	9	31.5	345.61	.0044	-26.18	-.0000	391590.7	1.96	26.53	.0009	165.64	.0043	-25.98	257.34

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	3	19	21.860	6546.474	22.3054	307.0080	10.99231	.9477	108.6787	129.2710
SEPARATION	1.20	12.45	3	19	23.060	6583.161	19.9516	313.6565	10.96130	4.3684	111.1868	136.2203
RETRO	3.20	14.45	3	19	25.060	6746.082	15.6004	323.9676	10.82708	9.9107	114.4992	147.0328
ENTER SHA	48.63	59.88	3	20	10.495	20198.661	-23.9117	36.9332	6.20650	54.9748	106.5178	231.3884
EXIT SHA	137.50	148.75	3	21	39.363	43456.229	-28.4370	41.1494	4.17103	66.6122	94.6517	257.8824
IMPACT	3729.64	3740.89	6	9	31.504	394478.418	-25.9754	257.3370	2.21155	67.7959	265.5903	294.5631

SURVEYOR VIEW PERIODS

GHA	253.9994					EPS	36.9729							LOM	252.9237
SX	.373463	SY	-.81774R	SZ	-.437966	DAO	-25.97318	RAD	294.54602	RM	395773.645	LAT	28.310600	LON	279.461800
C3	-.949139	ESC	.9R6418	LM	12987.352	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.392499	NSY	-.81.013	NSZ	-.435779	C3M	1.4772	VIM	2.6714	ZAE	140.931	B.T	.0000	B.R	-.0000
LATE	5.7242	LONE	3.7787	LATS	.5996	LONS	327.18 0	LATI	.9989	LONI	324.9158	RSM	152.1245	TTAN	6.4587
LAUNCH DATE	JUN	3.1966		BASE AZM	99.0	TF	62.194				ARRIVAL	DATE	JUN 6 1966	9 49	2.3

LNCH AZMTH	LNCH TIME	RH	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99.00	19 22 24.6	28.1	21.15	306.82	4.13	131.84	110.80	19 33 39.6	6554.4	10.99	2.20

EVNT STA	TEI	TEL	DAY	HR	MIN	HA	DHA	DEC	DUE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	3	19	33.7												
SEPARATION	1.20	12.45	3	19	34.9												
RETRO	3.20	14.45	3	19	36.9												
RISE 72	4.85	16.00	3	19	38.3	81.07	-.2030	48.21	.0380	2900.9	-7.30	-.01	.1245	318.83	.0650	10.57	329.57
EXTM 72	11.91	23.15	3	19	44.6	337.55	-.1370	13.81	-.1430	2282.6	4.94	58.89	-.0000	45.87	.3781	-2.26	351.45
RISE 51	11.14	22.39	3	19	44.8	76.92	-.0906	25.4	-.0352	5590.6	-2.92	.00	.0848	298.14	.0084	-2.66	352.10
EXTM 51	38.94	50.19	3	20	12.6	357.35	-.0151	-21.46	-.0077	10960.1	5.28	84.99	-.0000	29.61	.1839	-22.98	29.38
ENTER SHA	49.19	60.35	3	20	22.8												
ENTR 72	49.19	60.35	3	20	22.8	293.18	-.0023	-27.28	-.0019	17017.7	5.47	24.17	-.0022	116.42	.0019	-25.08	34.24
ENTR 51	49.19	60.35	3	20	22.8	350.52	-.0081	-24.9	-.0038	14148.4	5.15	81.36	-.0067	85.05	.0328	-25.08	34.24
ENTR 61	49.19	60.35	3	20	22.8	309.90	-.0044	-46.37	.0018	19748.9	5.38	-2.60	-.0005	144.19	-.0038	-25.08	34.24
EXTM 72	68.79	80.04	3	20	42.4	292.63	.0001	-28.1	-.0009	23057.9	4.80	23.07	.0000	118.01	.0010	-27.20	39.10
RISE 61	115.69	126.94	3	21	29.3	309.18	.0018	-36.5	.0005	37883.6	3.95	-.00	.0013	141.60	.0009	-28.88	40.13
EXIT SHA	133.23	144.48	3	21	46.9												
EXIT 72	133.23	144.48	3	21	46.9	298.32	.0026	-30.40	-.0002	39170.2	3.70	28.35	.0022	120.37	.0005	-29.09	38.76
EXIT 51	133.23	144.48	3	21	46.9	346.93	.0021	-29.68	-.0002	36317.4	3.83	77.81	.0017	111.32	.0030	-29.09	38.76
EXIT 61	133.23	144.48	3	21	46.9	311.36	.0023	-36.27	.0004	41935.4	3.75	1.40	.0014	142.75	.0013	-29.09	38.76
EXTM 51	212.75	224.00	3	23	4.4	.06	.0032	-29.75	.0000	53206.2	3.31	85.98	-.0000	180.79	.0378	-29.32	27.63
EXTM 61	390.64	401.89	4	2	43.7	5.67	.38	-32.79	.0002	88967.1	2.69	16.89	-.0000	183.22	.0034	-28.96	352.30
EXTM 72	422.77	434.02	4	7	16.4	.56	.0040	-30.53	.0001	90282.9	2.60	67.57	-.0000	181.28	.0090	-28.88	345.15
RISE 11	595.22	606.47	4	5	28.9	294.57	.0040	-30.51	-.0000	121266.9	2.01	.00	.0026	128.42	.0023	-28.48	306.03
SET 51	618.23	629.48	4	5	51.9	90.00	.0038	-27.33	.0001	123151.7	2.61	11.50	-.0032	245.04	-.0013	-28.43	300.69
SET 61	630.03	641.28	4	6	3.7	59.98	.0039	-30.59	.0001	126013.7	2.49	-.00	-.0021	228.19	.0026	-28.40	297.94
SET 72	815.28	826.53	4	9	48.9	94.19	.0039	-27.0	.0001	149763.7	2.42	-.00	-.0034	242.01	-.0004	-28.05	254.22
RISE 42	825.30	836.55	4	9	59.0	254.99	.0040	-26.58	-.0001	150546.9	1.71	3.95	-.0028	120.02	-.0021	-28.04	251.83
EXTM 11	865.64	876.89	4	9	59.3	1.00	.0041	-30.10	.0001	153205.2	1.99	24.69	-.0000	180.95	.0039	-27.97	242.19
SET 11	1139.86	1149.11	4	14	26.5	67.09	.0041	-28.59	.0001	186010.5	2.08	-.00	-.0026	233.75	.0024	-27.59	177.73
EXTM 42	1256.82	1262.07	4	16	24.5	359.95	.0042	-27.18	.0000	192182.1	1.71	81.96	.0000	.37	-.0250	-27.44	149.03
RISE 51	1386.32	1397.57	4	18	40.0	270.00	.0041	-26.63	-.0000	210791.8	1.28	11.22	.0034	114.31	-.0014	-27.29	115.94
RISE 72	1541.47	1552.72	4	21	15.1	265.96	.0041	-26.59	-.0000	226970.7	1.17	-.01	.0036	117.17	-.0005	-27.13	77.93
RISE 61	1624.32	1635.57	4	22	38.0	296.98	.0041	-28.20	-.0000	234684.5	1.26	.00	.0025	128.24	.0027	-27.05	57.58
SET 42	1674.16	1685.41	4	23	27.8	105.00	.0041	-26.48	.0000	238837.1	1.84	3.65	-.0029	240.38	-.0022	-27.01	45.33
EXTM 51	1742.21	1753.46	5	0	35.9	359.08	.0042	-26.28	.0000	239080.8	1.48	88.51	.0021	146.54	.1194	-26.95	28.58
EXTM 61	1877.04	1888.29	5	2	50.7	.40	.0042	-28.16	.0000	254876.7	1.44	21.60	.0000	180.38	.0040	-26.84	355.36
EXTM 72	1916.81	1928.06	5	3	30.5	.12	.0042	-27.27	.0000	254682.3	1.43	70.63	-.0000	180.33	.0112	-26.81	345.55
RISE 11	2059.25	2070.50	5	5	52.9	291.62	.0042	-27.58	-.0000	272620.3	1.07	.00	.0028	124.51	.0024	-26.70	310.39
SET 51	2115.28	2126.53	5	6	38.9	90.00	.0041	-26.16	.0000	275195.9	1.74	11.04	-.0034	246.13	-.0014	-26.67	299.01
SET 61	2129.53	2140.78	5	7	3.2	63.73	.0042	-27.61	.0000	278397.2	1.64	-.00	-.0025	232.62	.0027	-26.65	293.02
SET 72	2290.86	2302.11	5	9	44.5	93.94	.0041	-26.35	.0000	291332.9	1.72	-.00	-.0036	243.37	-.0005	-26.54	253.11
RISE 42	2291.82	2303.07	5	9	45.5	255.00	.0041	-25.78	-.0000	291023.7	.99	3.46	.0029	119.38	-.0023	-26.54	252.88
EXTM 11	2332.17	2343.42	5	10	25.8	.27	.0042	-27.52	.0000	291680.1	1.30	27.18	-.0000	180.27	.0042	-26.51	242.89
SET 11	2804.91	2816.16	5	14	58.6	68.83	.0042	-27.10	.0000	315336.7	1.55	-.00	-.0028	236.11	.0024	-26.35	175.30
EXTM 42	2719.81	2729.06	5	16	44.5	359.95	.0042	-26.1	.0000	316882.5	1.21	80.89	.0000	.34	-.0220	-26.29	149.03
RISE 51	2841.56	2852.81	5	18	55.2	270.00	.0041	-25.79	-.0000	331306.7	.81	10.89	.0034	113.52	-.0015	-26.22	116.58
RISE 72	2999.25	3010.50	5	21	28.9	266.12	.0042	-25.98	-.0000	343446.5	.72	-.00	.0037	116.25	-.0005	-26.14	78.38
RISE 61	3070.72	3081.97	5	22	44.4	295.40	.0042	-26.46	-.0000	348542.5	.84	.00	.0026	126.31	.0027	-26.12	59.55
SET 42	3129.44	3140.69	5	23	43.1	105.00	.0041	-25.47	.0000	352123.5	1.45	3.27	-.0030	240.87	-.0023	-26.10	44.89
EXTM 51	3192.56	3203.81	6	0	46.2	358.53	.0042	-26.18	.0000	350391.8	1.11	88.63	.0037	104.88	.0391	-26.08	29.13
EXTM 61	3326.73	3337.98	6	3	.4	.14	.0042	-26.46	.0000	363178.2	1.11	22.81	-.0000	180.14	.0041	-26.04	355.61
EXTM 72	3366.78	3378.03	6	3	40.4	.07	.0042	-26.54	.0000	362298.5	1.11	71.57	-.0000	180.20	.0117	-26.03	345.60
RISE 11	3502.64	3513.89	6	5	54.3	290.71	.0042	-26.42	-.0000	377368.6	.81	.00	.0029	123.25	.0024	-25.99	311.62
SET 51	3554.45	3565.70	6	6	48.1	90.00	.0042	-25.81	.0000	379684.5	1.52	10.82	-.0035	246.65	-.0015	-25.98	298.65
SET 61	3567.45	3578.70	6	7	16.1	64.86	.0042	-26.16	.0000	382802.4	1.44	-.00	-.0026	234.00	.0027	-25.97	291.63
IMPACT	3731.63	3742.88	6	9	45.3												
IMPC 42	3731.63	3742.88	6	9	45.3	254.16	.0043	-25.49	-.0000	394171.8	1.70	2.63	.0031	119.54	-.0024	-25.96	254.01
IMPC 72	3731.63	3742.88	6	9	45.3	92.68	.0043	-25.83	.0000	394347.5	2.47	1.05	-.0038	244.06	-.0005	-25.96	254.01
IMPC 11	3731.63	3742.88	6	9	45.3	348.98	.0044	-26.17	-.0000	391567.1	1.98	27.15	.0007	168.94	.0043	-25.96	254.01

EVNT STA	TEI	TEL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	3	19	33.660	6554.420	21.1499	306.6258	10.98553	2.1978	110.8035	131.8469
SEPARATION	1.20	12.45	3	19	34.860	6608.112	18.5833	313.0867	10.94035	5.6014	113.1044	138.6086
RETRO	3.20	14.45	3	19	36.860	6797.701	13.9761	323.0484	10.78549	11.0798	116.0474	149.0717
ENTER SHA	49.19	60.35	3	20	22.763	20473.898	-25.0782	34.2428	6.16349	55.2380	105.7245	231.7734
EXIT SHA	133.23	144.48	3	21	46.891	42570.436	-29.0894	38.7571	4.21636	66.3685	93.9041	257.3772
IMPACT	3731.63	3742.88	6	9	45.294	394515.465	-25.9621	254.0116	2.21061	67.7630	265.9967	294.6947

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SURVEYOR VIEW PERIODS

GHA	253.9596					EPS	37.0670							LOM	250.0745
SX	.375108	SY	-.817094	SZ	-.437779	DAO	-25.96229	RAO	294.65868	RM	395804.906	LAT	28.310600	LON	279.461800
C3	-.951096	ECC	.984384	SLR	12987.130	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.394050	NSY	-.809314	NSZ	-.435586	C3M	1.4469	VIM	2.6714	ZAE	140.863	B.T	.0000	B.R	-.0000
LATE	5.7297	LONE	3.8410	LATS	.5998	LONS	327.1911	LATI	.7249	LONI	324.9890	RSM	152.1243	TTAN	6.4566
LAUNCH DATE	JUN	3.1966		BASE AZM	102.0		TF 62.234					ARRIVAL DATE	JUN 6 1966 10 0 51.2		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	19 31 31.2	28.1	20.02	306.16	6.35	133.67	112.91	19 42 46.2	6564.6	10.98	3.15

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN SUNLIGHT														
INJECTION	.00	11.25	3	19	42.8												
SEPARATION	1.20	12.45	3	19	44.0												
RETRO	3.20	14.45	3	19	46.0												
RISE 72	4.47	15.72	3	19	47.2	82.59	-.1806	42.88	.0182	2959.3	-7.48	.00	.1265	313.40	.0428	9.30	327.62
EXTM 72	10.79	22.04	3	19	53.6	346.09	-.1538	7.85	-.1357	2205.9	4.76	69.01	-.0000	41.69	.5698	-3.90	349.23
RISE 51	11.09	22.34	3	19	53.9	78.95	-.0848	21.58	-.0378	5711.5	-2.76	.00	.0873	294.21	.0034	-4.42	350.07
EXTM 51	40.93	52.18	3	20	23.7	359.29	-.0139	-24.40	-.0061	11678.5	5.23	88.52	.0000	25.77	.5434	-24.87	28.14
ENTER SHA	50.34	61.59	3	20	33.1												
ENTR 72	50.34	61.59	3	20	33.1	295.62	-.0023	-29.33	-.0014	17340.5	5.42	26.15	-.0022	118.87	.0013	-26.57	32.35
ENTR 51	50.34	61.59	3	20	33.1	353.28	-.0080	-26.99	-.0032	14599.4	5.10	83.87	-.0075	102.31	.0185	-26.57	32.35
ENTR 61	50.34	61.59	3	20	33.1	312.34	-.0043	-41.75	.0019	20255.8	5.31	-2.66	-.0002	146.49	-.0037	-26.57	32.35
EXTM 72	69.98	81.23	3	20	52.7	294.49	.0001	-30.45	-.0006	23312.7	4.77	25.07	.0000	119.99	.0007	-28.44	36.98
RISE 61	112.41	123.66	3	21	35.2	311.22	.0017	-37.91	.0006	37155.9	3.99	-.00	.0013	143.60	.0008	-29.76	38.11
EXIT SHA	127.64	138.89	3	21	50.4												
EXIT 72	127.64	138.89	3	21	50.4	299.80	.0024	-31.46	-.0001	37832.5	3.77	29.45	.0020	121.78	.0005	-29.92	37.07
EXIT 51	127.64	138.89	3	21	50.4	348.83	.0019	-30.61	-.0001	35066.2	3.89	79.03	.0014	118.88	.0038	-29.92	37.07
EXIT 61	127.64	138.89	3	21	50.4	312.98	.0021	-37.41	.0005	40716.4	3.81	1.20	.0014	144.46	.0011	-29.92	37.07
EXTM 51	200.41	211.66	3	23	3.2	.15	.0031	-30.68	.0001	50800.9	3.38	85.16	-.0000	181.50	.0311	-30.04	27.56
EXTM 61	382.33	393.58	4	2	5.1	4.15	.0038	-33.47	.0002	87831.6	2.70	16.30	.0000	183.61	.0033	-29.47	351.86
EXTM 72	413.69	424.94	4	2	36.5	.69	.0040	-30.87	.0001	88928.0	2.62	67.03	-.0000	181.51	.0087	-29.37	345.04
RISE 11	588.05	599.30	4	5	30.8	295.00	.0040	-30.92	.0000	120312.6	2.03	.00	.0025	128.97	.0023	-28.86	305.59
SET 51	608.98	620.23	4	5	51.8	90.00	.0038	-27.70	.0001	121911.5	2.62	11.65	-.0031	244.69	-.0013	-28.80	300.73
SET 61	618.52	629.77	4	6	1.3	59.43	.0039	-31.00	.0001	124491.2	2.50	-.00	-.0021	227.56	.0026	-28.78	298.51
SET 72	806.52	817.77	4	9	9.3	94.24	.0039	-28.00	.0001	148718.1	2.43	-.01	-.0034	241.71	-.0004	-28.35	254.19
RISE 42	816.52	827.77	4	9	19.3	254.99	.0040	-26.47	-.0000	149483.8	1.72	4.13	.0028	120.25	-.0021	-28.33	251.80
EXTM 11	857.22	868.47	4	9	60.0	1.11	.0041	-30.40	.0001	152252.8	2.00	24.38	-.0000	181.05	.0039	-28.26	242.09
SET 11	1123.11	1134.36	4	14	25.9	66.86	.0041	-29.12	.0001	184977.9	2.08	-.00	-.0026	233.45	.0024	-27.81	177.97
EXTM 42	1242.16	1253.41	4	16	24.9	359.97	.0042	-27.49	.0000	191297.3	1.72	82.17	-.0000	.27	-.0228	-27.64	149.01
RISE 51	1377.65	1388.90	4	18	40.4	270.00	.0041	-26.80	-.0000	209932.5	1.28	11.29	.0034	114.47	-.0014	-27.46	115.93
RISE 72	1532.70	1543.95	4	21	15.5	265.93	.0041	-27.05	-.0000	226141.2	1.17	-.01	.0036	117.33	-.0005	-27.23	77.95
RISE 61	1616.36	1627.61	4	22	39.1	297.16	.0041	-28.34	-.0000	233945.7	1.26	.00	.0025	128.46	.0027	-27.19	57.40
SET 42	1665.43	1676.68	4	23	28.2	105.00	.0041	-26.22	.0000	238027.4	1.84	3.73	-.0029	240.27	-.0022	-27.14	45.34
EXTM 51	1732.90	1744.15	5	0	35.7	358.92	.0042	-27.11	.0000	238240.1	1.48	88.32	.0022	145.15	.1041	-27.08	28.73
EXTM 61	1868.49	1879.74	5	2	51.3	.43	.0042	-28.27	.0000	254133.9	1.44	21.49	.0000	180.41	.0040	-26.95	355.33
EXTM 72	1908.16	1919.41	5	3	30.9	.13	.0042	-27.58	.0000	253928.5	1.43	70.52	-.0000	180.35	.0111	-26.92	345.54
RISE 11	2050.95	2062.20	5	5	53.7	291.72	.0042	-27.67	-.0000	271909.9	1.07	.00	.0028	124.64	.0024	-26.79	310.29
SET 51	2096.56	2107.81	5	6	39.3	90.00	.0041	-26.25	.0000	274452.9	1.74	11.07	-.0034	246.05	-.0014	-26.76	299.02
SET 61	2120.38	2131.63	5	7	3.1	63.62	.0042	-27.70	.0000	277624.8	1.64	-.00	-.0025	232.49	.0027	-26.74	293.13
SET 72	2282.20	2293.45	5	9	45.0	93.96	.0041	-26.43	.0001	290617.8	1.72	-.00	-.0036	243.30	-.0005	-26.61	253.10
RISE 42	2283.14	2294.39	5	9	45.9	255.00	.0041	-25.85	-.0000	290302.2	.99	3.51	.0029	119.44	-.0023	-26.61	252.87
EXTM 11	2323.57	2334.82	5	10	26.3	.29	.0042	-27.49	.0000	290980.9	1.30	27.10	-.0000	180.29	.0042	-26.58	242.86
SET 11	2596.00	2607.25	5	14	58.8	68.78	.0042	-27.15	.0000	314630.5	1.55	-.00	-.0028	236.04	.0024	-26.40	175.36
EXTM 42	2702.22	2713.47	5	16	45.0	359.97	.0042	-26.15	.0000	316207.8	1.21	80.93	-.0000	.20	-.0183	-26.33	149.01
RISE 51	2832.86	2844.11	5	18	55.6	270.00	.0041	-25.83	-.0000	330632.4	.81	10.90	.0034	113.56	-.0015	-26.25	116.58
RISE 72	2986.53	2997.78	5	21	29.3	266.11	.0042	-26.01	-.0000	342782.7	.72	-.00	.0037	116.28	-.0005	-26.17	78.39
RISE 61	3062.13	3073.38	5	22	44.9	295.43	.0042	-26.90	-.0000	347886.1	.84	.00	.0026	126.35	.0027	-26.14	59.52
SET 42	3120.73	3131.98	5	23	43.5	105.00	.0041	-25.49	.0000	351455.9	1.45	3.28	-.0030	240.85	-.0023	-26.12	44.89
EXTM 51	3183.78	3195.03	6	0	46.5	356.51	.0042	-26.10	.0000	349719.0	1.11	88.61	.0037	105.39	.0398	-26.09	29.15
EXTM 61	3318.09	3329.34	6	3	.9	.16	.0042	-26.97	.0000	362508.7	1.11	22.79	-.0000	180.15	.0041	-26.05	355.60
EXTM 72	3358.10	3369.35	6	3	40.9	.07	.0042	-26.35	.0000	361622.3	1.11	71.56	-.0000	180.22	.0117	-26.03	345.60
RISE 11	3493.98	3505.23	6	5	56.7	290.71	.0042	-26.62	-.0000	376673.8	.80	.00	.0029	123.26	.0024	-25.99	311.62
SET 51	3545.77	3557.02	6	6	48.5	90.00	.0042	-25.60	.0000	378974.3	1.51	10.82	-.0035	246.65	-.0015	-25.98	298.65
SET 61	3573.78	3585.03	6	7	16.5	64.86	.0042	-26.46	.0000	382081.8	1.44	-.00	-.0026	234.00	.0027	-25.97	291.63
RISE 42	3726.52	3737.77	6	9	49.3	255.00	.0043	-25.98	-.0000	393308.9	1.37	3.22	.0031	119.07	-.0023	-25.95	253.17
SET 72	3727.79	3739.04	6	9	50.6	93.85	.0043	-25.41	.0000	393798.2	2.17	.00	-.0038	243.92	-.0006	-25.95	252.84
IMPACT	3734.03	3745.28	6	9	56.8												
IMPC 42	3734.03	3745.28	6	9	56.8	256.93	.0043	-25.40	-.0000	393983.0	1.70	4.61	.0031	118.02	-.0023	-25.95	251.24
IMPC 72	3734.03	3745.28	6	9	56.8	95.45	.0043	-25.80	.0000	394653.4	2.47	-1.42	-.0038	243.70	-.0006	-25.95	251.24
IMPC 11	3734.03	3745.28	6	9	56.8	351.79	.0044	-26.76	-.0000	391559.4	2.00	27.54	.0005	171.74	.0044	-25.95	251.24

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	3	19	42.769	6564.784	20.0161	306.1756	10.97681	3.1480	112.9106	133.6802
SEPARATION	1.20	12.45	3	19	43.969	6631.213	17.2458	312.4451	10.92104	6.5342	115.0126	140.2504
RETRO	3.20	14.45	3	19	45.969	6840.686	12.3844	322.0827	10.75117	11.9586	117.6138	150.3895
ENTER SHA	50.34	61.59	3	20	33.111	20949.548	-26.5744	32.3473	6.09118	55.6787	104.6004	232.4719
EXIT SHA	127.64	138.89	3	21	50.409	41342.969	-29.9220	37.0731	4.28155	66.0170	93.0554	256.5753
IMPACT	3734.03	3745.28	6	9	56.801	394546.430	-25.9512	251.2369	2.20965	67.7288	266.5324	294.8046

SURVEYOR VIEW PERIODS

GHA	253.9536			EMS	37.1480						LOM	247.6202	
SX	.376024	SY	-.210530	S7	-.457615	DAU	-25.9598	RAD	294.75569	RM	395831.813	LAT	28.310600
C3	-.963919	P2C	.981458	SL2	12986.826	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000
NSX	.495021	NSY	-.868704	NS7	-.435422	C3M	1.4766	VIM	2.6713	ZAE	140.768	B.T	.0000
LATE	5.7354	LONE	5.7072	LATS	.6000	LONS	326.9952	LATI	.4097	LONI	324.8201	RSM	152.1241
LAUNCH DATE	JUN	3 1966		BASE AZM	105.0	TF	62.285				ARRIVAL DATE	JUN	6 1966

LNCH AZMTH	LNCH TIME	FM	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	19 38 47.2	28.1	18.91	305.65	7.52	134.94	115.00	19 49 52.9	6575.0	10.97	3.88

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	3	19	49.9												
SEPARATION		1.20	12.45	3	19	51.1												
RETRO		3.20	14.45	3	19	53.1												
RISE	72	4.34	15.59	3	19	54.2	83.78	-.1641	37.95	-.0004	3010.6	-7.56	.00	.1275	308.38	.0221	7.94	325.93
EXTM	72	10.75	22.00	3	20	.6	353.41	-.1641	.68	-.1250	2187.0	4.67	79.19	-.0000	37.73	1.0996	-5.72	347.36
RISE	51	11.18	22.35	3	20	1.0	80.83	-.0799	18.29	-.0403	5813.4	-2.61	.00	.0859	290.39	-.0012	-6.28	348.24
EXTM	51	42.90	54.15	3	20	42.8	.76	-.0130	-27.42	-.0047	12375.9	5.18	88.18	.0000	201.89	-.3925	-26.85	27.18
ENTER SHA		52.66	63.91	3	20	42.5												
ENTR	72	52.66	63.91	3	20	42.5	297.41	-.0021	-31.54	-.0009	18034.7	5.32	27.42	-.0019	121.53	.0007	-28.34	31.20
ENTR	51	52.66	63.91	3	20	42.5	354.97	-.0074	-29.49	-.0024	15370.0	5.03	84.24	-.0065	130.47	-.0211	-28.34	31.20
ENTR	61	52.66	63.91	3	20	42.5	314.00	-.0040	-33.10	.0020	21115.3	5.20	-3.10	.0001	148.27	-.0035	-28.34	31.20
EXTM	72	70.89	82.14	3	21	.8	296.43	.0001	-32.89	-.0004	23516.7	4.74	26.51	.0000	122.13	.0004	-29.80	35.26
EXTM	51	94.96	105.31	3	21	23.9	348.62	.0002	-31.63	-.0002	26895.1	4.29	78.42	.0000	123.22	.0014	-30.58	36.79
RISE	61	114.29	125.54	3	21	44.2	313.26	.0017	-34.11	.0007	37682.9	3.96	-.00	.0013	145.54	.0007	-30.86	36.29
EXIT SHA		120.27	131.52	3	21	50.2												
EXIT	72	120.27	131.52	3	21	50.2	300.54	.0023	-32.58	-.0000	36093.8	3.86	29.86	.0019	123.29	.0004	-30.90	35.93
EXIT	51	120.27	131.52	3	21	50.2	350.09	.0015	-31.43	-.0000	33373.2	3.97	79.41	.0011	127.34	.0040	-30.90	35.93
EXIT	61	120.27	131.52	3	21	50.2	313.91	.0019	-34.8	.0006	39090.3	3.89	.47	.0013	145.83	.0009	-30.90	35.93
EXTM	51	191.93	202.18	3	23	.8	.29	.0030	-31.36	.0001	48922.7	3.43	84.18	.0000	182.42	.0249	-30.89	27.43
EXTM	61	377.12	388.37	4	2	7.0	4.67	.0038	-34.10	.0002	87086.7	2.72	15.64	.0000	184.02	.0033	-30.05	351.38
EXTM	72	417.12	428.37	4	2	37.0	.85	.0039	-33.59	.0001	87948.1	2.64	66.41	-.0000	181.84	.0044	-29.93	344.87
RISE	11	583.28	594.53	4	5	33.2	295.49	.0040	-31.48	.0000	119673.9	2.03	.00	.0025	129.59	.0023	-29.29	305.09
SET	51	611.91	623.16	4	5	51.8	90.00	.0038	-28.13	.0001	120947.3	2.62	11.81	-.0031	244.29	-.0012	-29.23	300.77
SET	61	618.82	630.07	4	5	58.7	58.80	.0039	-31.47	.0002	123190.9	2.51	-.00	-.0021	226.85	.0026	-29.21	299.16
SET	72	799.91	811.16	4	9	9.8	94.30	.0039	-28.14	.0001	147918.2	2.43	-.01	-.0034	241.36	-.0004	-28.70	254.15
RISE	42	809.83	821.08	4	9	19.7	254.99	.0040	-27.20	-.0000	148655.1	1.73	4.33	.0028	120.51	-.0021	-28.68	251.79
EXTM	11	850.93	862.18	4	10	.8	1.22	.0041	-30.74	.0001	151543.9	2.00	24.04	-.0000	181.15	.0039	-28.58	241.97
SET	11	1115.27	1126.52	4	14	25.2	66.59	.0041	-29.58	.0001	184132.4	2.09	-.00	-.0026	233.09	.0024	-28.06	178.25
EXTM	42	1235.27	1246.52	4	16	25.2	359.92	.0042	-27.52	.0000	190575.1	1.72	82.40	.0000	.58	-.0274	-27.87	149.06
RISE	51	1370.99	1382.24	4	18	40.9	270.00	.0041	-27.10	-.0000	209252.2	1.28	11.37	.0034	114.66	-.0014	-27.66	115.93
RISE	72	1525.91	1537.16	4	21	15.8	265.90	.0041	-27.42	-.0000	225479.3	1.17	-.01	.0036	117.50	-.0005	-27.46	77.97
RISE	61	1610.52	1621.77	4	22	40.4	297.37	.0041	-28.01	-.0000	233381.0	1.26	.00	.0025	128.70	.0027	-27.36	57.19
SET	42	1658.72	1669.97	4	23	28.6	105.00	.0041	-28.47	.0001	237377.5	1.84	3.82	-.0029	240.15	-.0022	-27.30	45.64
EXTM	51	1725.35	1736.60	5	0	35.2	358.70	.0042	-27.27	.0000	237533.4	1.48	88.08	.0023	143.06	.0885	-27.23	28.95
EXTM	61	1861.95	1873.20	5	2	51.8	.47	.0042	-28.41	.0000	253543.7	1.44	21.35	.0000	180.45	.0040	-27.08	355.29
EXTM	72	1901.50	1912.75	5	3	31.4	.14	.0042	-27.51	.0000	253322.8	1.43	70.39	-.0000	180.38	.0111	-27.04	345.53
RISE	11	2044.70	2055.95	5	5	54.6	291.83	.0042	-27.79	-.0000	271344.1	1.07	.00	.0028	124.79	.0024	-26.90	310.18
SET	51	2089.84	2101.09	5	6	39.7	90.00	.0041	-26.45	.0001	273846.6	1.74	11.11	-.0034	245.95	-.0014	-26.86	299.02
SET	61	2113.14	2124.39	5	7	3.0	63.49	.0042	-27.81	.0000	276982.7	1.64	-.00	-.0025	232.33	.0027	-26.84	293.26
SET	72	2275.53	2286.78	5	9	45.4	93.97	.0041	-26.52	.0001	290032.2	1.72	-.00	-.0036	243.21	-.0005	-26.70	253.09
RISE	42	2276.43	2287.68	5	9	46.3	255.00	.0041	-25.94	-.0000	289708.1	.99	3.56	.0029	119.51	-.0023	-26.70	252.87
EXTM	11	2316.95	2328.20	5	10	26.8	.32	.0042	-27.8	.0000	290410.5	1.31	27.01	-.0000	180.32	.0042	-26.67	242.84
SET	11	2589.61	2600.86	5	14	59.9	68.72	.0042	-27.12	.0000	314036.3	1.55	-.00	-.0028	235.96	.0024	-26.46	175.42
EXTM	42	2695.48	2706.73	5	16	45.4	359.97	.0042	-26.21	.0000	315634.2	1.21	80.99	-.0000	.20	-.0195	-26.39	149.01
RISE	51	2826.13	2837.38	5	18	54.0	270.00	.0041	-25.47	-.0000	330062.9	.81	10.92	.0034	113.60	-.0015	-26.30	116.58
RISE	72	2979.93	2991.18	5	21	29.8	266.11	.0042	-26.14	-.0000	342269.2	.72	.00	.0037	116.31	-.0005	-26.20	78.38
RISE	61	3065.63	3076.88	5	22	45.5	295.46	.0042	-26.43	-.0000	347374.8	.84	.00	.0026	126.39	.0027	-26.16	59.49
SET	42	3114.08	3125.33	5	23	44.0	105.00	.0041	-25.01	.0000	350929.1	1.45	3.30	-.0030	240.84	-.0023	-26.14	44.89
EXTM	51	3177.12	3188.37	6	0	47.0	358.51	.0042	-26.2	.0000	349187.0	1.10	88.60	.0037	106.10	.0414	-26.11	29.15
EXTM	61	3311.48	3322.73	6	3	1.4	.17	.0042	-26.48	.0000	361967.1	1.11	22.78	-.0000	180.16	.0041	-26.06	355.58
EXTM	72	3351.44	3362.69	6	3	41.3	.08	.0042	-26.46	.0000	361071.4	1.11	71.54	-.0000	180.23	.0117	-26.04	345.59
RISE	11	3487.31	3498.56	6	5	57.2	290.72	.0042	-26.42	-.0000	376096.5	.80	.00	.0029	123.26	.0024	-26.00	311.61
SET	51	3539.07	3550.32	6	6	49.0	90.00	.0042	-25.11	.0000	378379.2	1.51	10.82	-.0035	246.65	-.0015	-25.98	298.65
SET	61	3567.67	3578.92	6	7	17.0	64.85	.0042	-26.46	.0000	381475.3	1.43	-.00	-.0026	233.99	.0027	-25.97	291.63
RISE	42	3719.97	3731.22	6	9	49.8	255.00	.0042	-25.37	-.0000	392422.9	1.19	3.21	.0030	119.06	-.0023	-25.94	253.17
SET	72	3721.25	3732.50	6	9	51.1	93.85	.0042	-25.90	.0000	392897.8	1.96	-.00	-.0038	243.93	-.0006	-25.94	252.84
IMPACT		3737.09	3748.34	6	10	7.0												
IMPC	42	3737.09	3748.34	6	10	7.0	259.37	.0043	-25.40	-.0000	393817.5	1.69	6.39	.0032	116.70	-.0023	-25.94	248.79
IMPC	72	3737.09	3748.34	6	10	7.0	97.90	.0043	-25.78	.0000	394926.0	2.46	-3.60	-.0038	243.35	-.0007	-25.94	248.79
IMPC	11	3737.09	3748.34	6	10	7.0	354.28	.0044	-26.16	-.0000	391565.0	2.00	27.80	.0004	174.23	.0044	-25.94	248.79

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	3	19	49.882	6575.343	18.9030	305.6716	10.96802	3.8770	115.0073	134.9592
SEPARATION		1.20	12.45	3	19	51.082	6651.360	15.9355	311.7503	10.90423	7.2473	116.9202	141.3387
RETRO		3.20	14.45	3	19	53.082	6875.855	10.8196	321.0857	10.72329	12.6270	119.2037	151.1755
ENTER SHA		52.66	63.91	3	20	42.544	21722.768	-28.3403	31.2042	5.97873	56.3592	103.0613	233.6937
EXIT SHA		120.27	131.52	3	21	50.154	39657.307	-30.9033	35.9269	4.37590	65.5057	92.2497	255.3650
IMPACT		3737.09	3748.34	6	10	6.970	394577.141	-25.9416	248.7854	2.20729	67.4978	267.0993	294.9022

SURVEYOR VIEW PERIODS

GHA	253.9596					EPS	37.2215							LOM	245.3911
SX	.377809	SY	.015	SZ	-.437470	DAO	-25.94255	RAO	294.84376	RM	395856.223	LAT	28.310600	LON	279.461800
C3	-.857521	ECC	.04278	SLR	12986.440	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.396789	NSY	.8143	NSZ	-.435273	C3M	1.4365	VIM	2.6713	ZAE	140.644	B.T	.0000	B.R	-.0000
LATE	5.7405	LONE	7.8472	LATS	.6001	LONS	327.0024	LATI	.0670	LONI	324.8344	RSM	152.1239	TTAN	6.4572
LAUNCH DATE		JUN	3,1966		BASE AZM	108.0		TF	62.347			ARRIVAL DATE		JUN 6 1966 10 20 16.4	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	19 44 17.1	28.1	17.83	305.09	8.36	135.79	117.09	19 55 32.1	6584.5	10.96	4.45

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	3	19	55.5												
SEPARATION	1.20	12.45	3	19	56.7												
RETRO	3.20	14.45	3	19	58.7												
RISE 72	4.26	15.51	3	19	59.8	84.77	-.1510	33.28	-.0182	3058.2	-7.53	.00	.1275	303.65	.0028	6.50	324.43
EXTM 72	10.43	21.68	3	20	6.0	3.44	-.1831	-4.08	-.1243	2130.2	4.11	85.23	.2174	313.99	.4656	-7.07	344.80
RISE 51	11.10	22.35	3	20	6.6	82.59	-.0756	14.97	-.0429	5903.8	-2.47	.00	.0845	286.66	-.0055	-8.23	346.56
EXTM 51	45.94	56.29	3	20	40.6	1.74	-.0120	-30.43	-.0035	13112.6	5.13	85.06	-.0000	197.75	-.1273	-28.90	26.53
ENTER SHA	56.61	67.86	3	20	52.1												
ENTR 72	56.61	67.86	3	20	52.1	298.61	-.0017	-33.79	-.0004	19248.2	5.17	28.08	-.0014	124.22	.0002	-30.31	30.80
ENTR 51	56.61	67.86	3	20	52.1	355.61	-.0063	-32.14	-.0015	16613.6	4.94	82.62	-.0041	149.66	-.0288	-30.31	30.80
ENTR 61	56.61	67.86	3	20	52.1	314.94	-.0033	-44.32	.0019	22470.1	5.05	-3.75	.0004	149.50	-.0030	-30.31	30.80
EXTM 72	71.67	82.92	3	21	7.2	297.94	.0000	-34.12	-.0001	23706.0	4.72	27.49	.0000	124.36	.0002	-31.26	33.86
EXTM 51	94.53	105.78	3	21	30.1	350.35	.0001	-33.23	-.0001	27061.0	4.28	78.75	.0000	134.04	.0005	-31.87	35.39
EXIT SHA	110.33	121.58	3	21	45.9												
EXIT 72	110.33	121.58	3	21	45.9	300.65	.0020	-34.17	.0000	33724.9	3.99	29.69	.001	124.89	.0003	-32.01	35.12
EXIT 51	110.33	121.58	3	21	45.9	350.92	.0011	-33.24	.0000	31018.0	4.08	79.11	.0007	135.68	.0029	-32.01	35.12
EXIT 61	110.33	121.58	3	21	45.9	314.31	.0015	-40.43	.0008	36833.1	4.00	-.75	.0013	146.99	.0006	-32.01	35.12
RISE 61	119.69	130.94	3	21	55.2	315.27	.0019	-40.02	.0007	39047.7	3.89	-.00	.0014	147.38	.0008	-32.05	34.63
EXTM 51	184.20	195.45	3	22	59.7	.55	.0029	-32.55	.0002	47578.5	3.47	83.07	-.0000	183.83	.0200	-31.84	27.21
EXTM 61	373.82	385.07	4	2	9.4	5.22	.0038	-34.67	.0002	86646.0	2.72	14.94	.0000	184.44	.0032	-30.69	350.87
EXTM 72	402.11	413.36	4	2	37.6	1.00	.0039	-32.16	.0001	87203.7	2.65	65.73	.0000	182.07	.0081	-30.54	344.75
RISE 11	580.35	591.60	4	5	35.9	296.03	.0040	-31.47	.0000	119278.2	2.04	.01	.0025	130.26	.0023	-29.77	304.54
SET 51	596.48	607.73	4	5	52.0	90.00	.0038	-28.60	.0001	120192.3	2.63	12.00	-.0031	243.85	-.0012	-29.71	300.80
SET 61	600.44	611.69	4	5	56.0	58.10	.0039	-31.99	.0002	122055.3	2.51	-.00	-.0020	226.06	.0026	-29.69	299.88
SET 72	794.90	806.15	4	9	10.4	94.37	.0039	-28.71	.0001	147302.1	2.43	-.01	-.0034	240.98	-.0004	-29.07	254.10
RISE 42	804.71	815.96	4	9	20.2	254.99	.0040	-27.67	-.0000	148002.2	1.73	4.55	.0028	120.80	-.0021	-29.05	251.77
EXTM 11	846.26	857.51	4	10	1.8	1.35	.0041	-31.11	.0001	151016.9	2.00	23.67	.0000	181.26	.0039	-28.94	241.85
SET 11	1108.86	1120.11	4	14	24.4	66.30	.0041	-29.67	.0001	183425.0	2.09	-.00	-.0026	232.71	.0024	-28.34	178.55
EXTM 42	1230.16	1241.41	4	16	25.7	359.93	.0042	-27.48	-.0000	190020.5	1.72	82.66	.0000	.49	-.0280	-28.11	149.05
RISE 51	1365.84	1377.09	4	18	41.4	270.00	.0041	-27.22	-.0000	208732.8	1.29	11.46	.0034	114.87	-.0014	-27.89	115.92
RISE 72	1520.62	1531.87	4	21	16.2	265.86	.0041	-27.41	-.0000	224939.0	1.18	-.01	.0036	117.70	-.0005	-27.65	77.99
RISE 61	1606.25	1617.50	4	22	41.8	297.59	.0041	-28.49	-.0000	232942.0	1.27	.00	.0025	128.97	.0027	-27.53	56.96
SET 42	1653.50	1664.75	4	23	29.0	105.00	.0041	-26.54	.0001	236842.8	1.84	3.93	-.0029	240.02	-.0022	-27.47	45.35
EXTM 51	1719.59	1730.84	5	0	35.1	358.56	.0042	-27.43	.0000	236967.3	1.48	87.87	.0023	143.14	.0797	-27.39	29.08
EXTM 61	1866.90	1868.15	5	2	52.4	.51	.0042	-28.56	.0000	253062.5	1.44	21.20	.0000	180.49	.0040	-27.22	355.25
EXTM 72	1896.33	1907.58	5	3	31.9	.15	.0042	-27.06	.0000	252822.7	1.43	70.25	-.0000	180.41	.0110	-27.18	345.52
RISE 11	2039.96	2051.21	5	5	55.5	291.95	.0042	-27.41	-.0000	270880.4	1.08	.00	.0028	124.95	.0024	-27.02	310.06
SET 51	2084.59	2095.84	5	6	40.1	90.00	.0041	-26.47	.0001	273336.7	1.74	11.16	-.0034	245.84	-.0014	-26.98	299.03
SET 61	2107.32	2118.57	5	7	2.9	63.35	.0042	-27.43	.0001	276432.0	1.64	-.00	-.0025	232.16	.0027	-26.96	293.41
SET 72	2270.33	2281.58	5	9	45.9	93.99	.0041	-26.61	.0001	289536.4	1.72	-.00	-.0036	243.11	-.0005	-26.80	253.08
RISE 42	2271.19	2282.44	5	9	46.7	255.00	.0041	-26.13	-.0000	289202.6	.99	3.62	.0029	119.58	-.0022	-26.80	252.87
EXTM 11	2311.81	2323.06	5	10	27.3	.35	.0042	-27.87	.0000	289929.4	1.31	26.92	-.0000	180.34	.0042	-26.76	242.81
SET 11	2583.42	2594.67	5	14	59.0	68.64	.0042	-27.29	.0000	313514.5	1.55	.01	-.0028	235.86	.0024	-26.53	175.50
EXTM 42	2690.18	2701.43	5	16	45.7	359.97	.0042	-26.27	.0000	315134.7	1.21	81.05	-.0000	.22	-.0201	-26.45	149.01
RISE 51	2820.84	2832.09	5	18	54.4	270.00	.0041	-25.92	-.0000	329562.8	.81	10.94	.0034	113.64	-.0015	-26.35	116.58
RISE 72	2974.60	2985.85	5	21	30.1	266.10	.0042	-26.08	-.0000	341769.7	.72	.00	.0037	116.34	-.0005	-26.23	78.39
RISE 61	3050.49	3061.74	5	22	46.0	295.50	.0042	-26.96	-.0000	346883.1	.84	.00	.0026	126.44	.0027	-26.20	59.45
SET 42	3108.77	3120.02	5	23	44.3	105.00	.0041	-25.53	.0000	350419.9	1.45	3.31	-.0030	240.81	-.0023	-26.17	44.90
EXTM 51	3171.95	3183.20	6	0	47.5	358.54	.0042	-26.15	.0000	348684.9	1.10	88.63	.0036	107.52	.0458	-26.14	29.12
EXTM 61	3306.24	3317.49	6	3	1.8	.19	.0042	-27.00	.0000	361450.6	1.11	22.76	-.0000	180.18	.0041	-26.08	355.57
EXTM 72	3346.16	3357.41	6	3	41.7	.08	.0042	-26.18	.0000	360545.9	1.11	71.53	-.0000	180.24	.0118	-26.06	345.59
RISE 11	3482.05	3493.30	6	5	57.6	290.73	.0042	-26.63	-.0000	375551.8	.80	.00	.0029	123.28	.0024	-26.01	311.60
SET 51	3533.77	3545.02	6	6	49.3	90.00	.0042	-25.81	.0000	377819.3	1.50	10.82	-.0035	246.64	-.0015	-25.99	298.65
SET 61	3561.75	3573.00	6	7	17.3	64.85	.0042	-26.47	.0000	380905.6	1.42	-.00	-.0026	233.99	.0027	-25.98	291.64
RISE 42	3714.79	3726.04	6	9	50.3	255.00	.0042	-25.57	-.0000	391669.4	1.09	3.21	.0030	119.05	-.0023	-25.93	253.16
SET 72	3716.03	3727.28	6	9	51.6	93.85	.0042	-25.79	.0000	392131.8	1.86	.00	-.0038	243.94	-.0003	-25.93	252.85
IMPACT	3740.80	3752.05	6	10	16.3												
IMPC 42	3740.80	3752.05	6	10	16.3	261.62	.0043	-25.41	-.0000	393661.0	1.69	8.04	.0032	115.51	-.0022	-25.93	246.53
IMPC 11	3740.80	3752.05	6	10	16.3	356.58	.0044	-26.75	-.0000	391575.4	2.02	27.96	.0002	176.54	.0044	-25.93	246.53

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION	.00	11.25	3	19	55.536	6585.191	17.8107	305.1212	10.95973	4.4452	117.0982	135.8262
SEPARATION	1.20	12.45	3	19	56.736	6668.523	14.6509	311.0118	10.88990	7.8018	118.8321	142.0176
RETRO	3.20	14.45	3	19	58.736	6904.582	9.2797	320.0319	10.70060	13.1445	120.8189	151.5691
ENTER SHA	56.61	67.86	3	20	52.148	22950.927	-30.3106	30.8033	5.81186	57.3581	100.9612	235.7002
EXIT SHA	110.33	121.58	3	21	45.866	37298.131	-32.0131	35.1219	4.51845	64.7282	91.7027	253.4853
IMPACT	3740.80	3752.05	6	10	16.339	394609.992	-25.9329	246.5261	2.20587	67.4267	267.7750	294.9918

JUN 3, 1966
108 DEGREES

SURVEYOR VIEW PERIODS

GMA	251.9598					EPS	37.2921						LOM	243.2529	
SX	.379240	SY	-.815520	SZ	-.417327	RAD	-25.93747	RM	395879.625	LAT	28.310600	LON	279.451800		
C3	-.941949	RCC	.984220	SLR	12985.949	RCA	6544.6750	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.399 52	NSY	-.880480	NSZ	-.435370	C3M	1.4364	VIM	2.5713	ZAE	140.491	B.T	.0000	B.R	-.0000
LATE	5.7484	LONE	5.7585	LATS	.0003	LONS	326.8408	LATI	-.2936	LONI	324.6488	RSM	152.1238	TTAN	6.4596
LAUNCH DATE	JUN	[illegible]	BASE AZM	111.0	TF	62.421					ARRIVAL DATE	JUN	6 1966	10 29	8.4

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
111.00	19 48 52.4	28.1	16.76	304.49	9.47	136.34	119.18	20 0 7.6	6593.1	10.95	4.90

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DUE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.0	11.25	3	20	.1												
SEPARATION		1.2	12.45	3	20	1.3												
RETRO		3.2	14.45	3	20	3.3												
RISE	72	4.2	15.47	3	20	4.3	85.62	-.1400	28.78	-.0351	3104.8	-7.42	.01	.1267	299.09	-.0154	5.00	323.09
EXTM	72	10.94	22.19	3	20	11.1	4.52	-.1667	-15.55	-.0986	2330.9	4.74	81.34	.0000	210.32	-1.2636	-9.90	344.49
RISE	51	11 14	22.39	3	20	11.3	84.28	-.0718	11. 8	-.0454	5988.7	-2.32	.00	.0831	282.99	-.0095	-10.25	345.00
EXTM	51	47.55	58.80	3	20	47.7	2.20	-.0110	-33.41	-.0024	13955.0	5.08	82.10	-.0000	193.50	-.0691	-31.01	26.21
ENTER	SHA	64.97	76.22	3	21	5.1												
ENTR	72	64.97	76.22	3	21	5.1	299.28	-.0007	-35.43	.0001	21764.4	4.90	28.23	-.0006	126.71	-.0002	-32.49	31.49
ENTR	51	64.97	76.22	3	21	5.1	354.80	-.0042	-34.71	-.0005	19107.9	4.77	79.98	-.0021	154.66	-.0161	-32.49	31.49
ENTR	61	64.97	76.22	3	21	5.1	315.03	-.0020	-45.17	.0018	25087.6	4.81	-4.36	.0007	149.97	-.0021	-32.49	31.49
EXTM	72	72.3	83.55	3	21	12.4	299.12	-.0000	-35.49	.0001	23875.7	4.70	28.11	.0000	126.65	-.0001	-32.79	32.72
EXTM	51	93.39	104.64	3	21	33.5	351.73	-.0001	-34.12	.0001	26812.1	4.29	78.38	.0000	144.17	-.0007	-33.21	34.24
EXIT	SHA	95.25	106.50	3	21	35.4												
EXIT	72	95.25	106.50	3	21	35.4	300.18	.0014	-45.41	.0002	30002.2	4.25	28.99	.0011	126.63	.0001	-33.22	34.27
EXIT	51	95.25	106.50	3	21	35.4	351.72	.0000	-34.41	.0001	27290.7	4.27	78.38	.0001	144.11	-.0003	-33.22	34.27
EXIT	61	95.25	106.50	3	21	35.4	314.36	.0008	-42.52	.0011	33235.2	4.21	-2.55	.0012	148.22	-.0001	-33.22	34.27
RISE	61	127.26	138.51	3	22	7.4	317.24	.0020	-40.44	.0007	40898.1	3.80	-.00	.0014	149.14	.0009	-33.24	33.04
EXTM	51	170.81	181.06	3	22	50.9	.91	.0028	-33.43	.0002	46705.7	3.50	81.87	-.0000	185.37	.0165	-32.86	26.89
EXTM	61	171.96	184.23	4	2	12.1	5.79	.0038	-35.46	.0002	86437.7	2.73	14.21	.0000	184.87	.0032	-31.36	350.33
EXTM	72	398.64	409.89	4	2	38.8	1.19	.0039	-32.46	.0002	86697.1	2.66	65.02	.0000	182.37	.0076	-31.19	344.57
RISE	11	578.71	589.96	4	5	38.8	296.58	.0040	-32.48	.0000	119054.2	2.04	.00	.0025	130.95	.0023	-30.26	303.98
SET	51	592.36	603.65	4	5	52.4	90.00	.0038	-29. 0	.0001	119597.2	2.63	12.19	-.0031	243.38	-.0012	-30.20	300.83
SET	61	593. 7	604.92	4	5	53.2	57.34	.0039	-12. 3	.0002	121043.4	2.52	-.00	-.0020	225.22	.0026	-30.20	300.65
SET	72	791.11	802.35	4	9	11.2	94.44	.0039	-29. 1	.0001	146824.0	2.43	-.01	-.0034	240.58	-.0004	-29.47	254.05
RISE	42	800.76	812.01	4	9	20.9	254.99	.0040	-27.36	-.0000	147481.4	1.74	4.79	.0028	121.11	-.0021	-29.44	251.75
EXTM	11	842.79	854.04	4	10	2.9	1.49	.0041	-31.20	.0001	150625.8	2.01	23.28	.0000	181.38	.0038	-29.31	241.72
SET	11	1113.52	1124.77	4	14	33.6	65.98	.0041	-29.48	.0001	182819.3	2.09	-.00	-.0026	232.30	.0024	-28.64	178.86
EXTM	42	1226.9	1237.84	4	16	26.2	359.92	.0042	-28. 5	.0000	189559.2	1.72	82.93	.0000	.57	-.0289	-28.38	149.05
RISE	51	1361.82	1373.07	4	18	41.9	270.00	.0041	-27.46	-.0000	208248.5	1.29	11.55	.0033	115.08	-.0014	-28.12	115.91
RISE	72	1516.42	1527.67	4	21	16.5	265.83	.0041	-27.42	-.0000	224486.2	1.18	-.01	.0036	117.91	-.0005	-27.86	78.02
RISE	61	1603.14	1614.39	4	22	43.3	297.85	.0042	-28.39	-.0000	232592.8	1.27	.00	.0025	129.26	.0027	-27.72	56.[illegible]
SET	42	1949.38	1960.63	4	28	29.5	105.00	.0041	-26.42	.0001	236390.2	1.84	4.64	-.0029	239.87	-.0022	-27.65	45.35
EXTM	51	1715.32	1726.57	5	0	35.4	358.52	.0042	-27.51	.0000	236516.0	1.48	87.71	.0022	145.12	.0758	-27.56	29.12
EXTM	61	1852.96	1864.21	5	2	53.1	.56	.0042	-28.71	.0000	252657.5	1.44	21.05	.0000	180.53	.0039	-27.38	355.20
EXTM	72	1892.26	1903.51	5	3	32.4	.17	.0042	-27.41	.0000	262396.2	1.43	70.10	-.0000	180.44	.0109	-27.33	345.51
RISE	11	2036.34	2047.59	5	5	58.5	292.08	.0042	-28.14	-.0000	270486.9	1.08	.00	.0028	125.12	.0024	-27.15	309.93
SET	51	2080.43	2091.68	5	6	40.6	90.00	.0041	-28.59	.0001	272892.7	1.74	11.21	-.0034	245.73	-.0014	-27.10	299.03
SET	61	2102.55	2113.80	5	7	2.7	63.20	.0042	-28.15	.0001	275943.6	1.64	-.00	-.0025	231.98	.0027	-27.08	293.56
SET	72	2266.22	2277.47	5	9	44.3	94.01	.0041	-28.42	.0001	289101.0	1.72	-.00	-.0036	243.01	-.0005	-26.90	253.06
RISE	42	2267.03	2278.28	5	9	47.2	255.00	.0041	-26.14	-.0000	283756.4	.99	3.68	.0029	119.66	-.0022	-26.90	252.86
EXTM	11	2307.75	2319.00	5	10	27.9	.38	.0042	-27.47	.0000	289507.8	1.31	26.82	-.0000	180.37	.0042	-26.86	242.78
SET	11	2578.93	2590.18	5	14	59.1	68.57	.0042	-27.36	.0000	313045.5	1.55	.00	-.0028	235.76	.0024	-26.60	175.57
EXTM	42	2685.94	2697.21	5	16	44.1	359.97	.0042	-28.53	.0000	314681.7	1.21	81.11	-.0000	.24	-.0207	-26.51	149.01
RISE	51	2816.62	2827.87	5	18	54.8	270.00	.0041	-25.47	-.0000	329105.3	.81	10.96	.0034	113.69	-.0015	-26.40	116.58
RISE	72	2976.34	2987.59	5	21	30.5	266.10	.0042	-28. 2	-.0000	341308.0	.72	.00	.0037	116.39	-.0005	-26.28	78.39
RISE	61	3048.42	3059.67	5	22	44.5	295.54	.0042	-27.10	-.0000	346428.7	.84	.00	.0026	126.49	.0027	-26.23	59.40
SET	42	31 4.52	3115.77	5	23	44.6	105.00	.0041	-25.17	.0000	349945.7	1.45	3.33	-.0030	240.79	-.0023	-26.20	44.90
EXTM	51	3167.63	3178.88	6	0	47.8	358.52	.0042	-26.17	.0000	348202.5	1.10	88.60	.0036	108.47	.0474	-26.17	29.14
EXTM	61	3302.67	3313.92	6	2	9.2	.21	.0042	-27.32	.0000	360966.1	1.10	22.74	-.0000	180.20	.0041	-26.10	355.55
EXTM	72	3341.93	3353.18	6	3	48.1	.09	.0042	-26.40	.0000	360051.4	1.10	71.51	-.0000	180.25	.0117	-26.08	345.59
RISE	11	3477.86	3489.11	6	5	58.0	290.74	.0042	-28.15	-.0000	375036.8	.79	.00	.0029	123.29	.0024	-26.02	311.59
SET	51	3529.53	3540.78	6	6	49.7	90.00	.0042	-25.52	.0000	377288.3	1.50	10.82	-.0035	246.64	-.0015	-25.99	298.65
SET	61	3557.48	3568.73	6	7	17.6	64.84	.0042	-26.08	.0000	380364.5	1.42	-.00	-.0026	233.98	.0027	-25.98	291.65
RISE	42	3711.64	3722.89	6	9	50.8	255.00	.0042	-25.36	-.0000	390981.6	1.03	3.21	.0030	119.05	-.0023	-25.93	253.16
SET	72	3711.87	3723.12	6	9	52.0	93.85	.0042	-25.79	.0000	391439.1	1.79	-.00	-.0037	243.95	-.0005	-25.93	252.85
IMPACT		3745.26	3756.51	6	10	25.4												
IMPC	42	3745.26	3756.51	6	10	25.4	263.80	.0043	-25.11	-.0000	393509.4	1.68	9.66	.0032	114.37	-.0022	-25.92	244.35
IMPC	11	3745.26	3756.51	6	10	25.4	358.79	.0044	-26. 4	.0000	391592.8	2.03	28.04	.0001	178.77	.0044	-25.92	244.35
EXTM	11	3749.42	3760.67	6	10	29.5	359.88	.0045	-26.74	-.0000	392144.4	2.56	28.05	.0000	179.88	.0045	-25.93	243.27

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION		.0	11.25	3	20	.126	6594.044	6.7398	304.5289	10.95245	4.8962	119.1862	136.3846
SEPARATION		1.2	12.45	3	20	1.326	6681.066	3.3919	310.2341	10.87775	8.2407	120.7511	142.3906
RETRO		3.2	14.45	3	20	3.326	6928.204	7.7649	319.0113	10.68198	13.5531	122.4401	151.6692
ENTER	SHA	64.97	76.22	3	21	5.100	25410.330	-2.4865	31.4929	5.51465	59.1076	97.6408	239.6369
EXIT	SHA	95.25	106.50	3	21	35.378	33560.138	-3.2235	34.2735	4.77416	63.3178	92.0036	250.0076
IMPACT		3745.26	3756.51	6	10	25.383	20962M.167	-25.9245	244.3454	2.20418	67.3296	268.4865	295.0783

SURVEYOR VIEW PERIODS

GHA	253.9496					EPS	37.3788					LOM	240.6230		
SX	.380554	SY	-.514910	SZ	-.437151	DAO	-25.92722	RAO	295.03207	RM	395908.379	LAT	28.310600	LON	279.461800
C3	-.968186	ECC	.948103	SLR	12985.297	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TH	675.00000	POL	-.0
NSX	.399811	NSY	-.880924	NSZ	-.434953	C3M	1.4773	VIM	2.6714	ZAE	140.252	R.T	.0000	S.R	-.0000
LATE	5.7514	LONE	5.8528	LATS	.6006	LONS	326.8502	LATI	-.7898	LONI	324.5866	RSM	152.1236	TTAN	6.4645
LAUNCH DATE	JUN	5	1966		BASE AZM	115.0		TF	62.525			ARRIVAL DATE	JUN	6	1966 10 41 2.7

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
115.00	19 53 47.5	28.1	15.58	303.42	10.02	136.71	121.96	20 5 2.5	6602.9	10.94	5.37

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	3	20	5.0												
SEPARATION		1.20	12.45	3	20	6.2												
RETRO		3.20	14.45	3	20	8.2												
RISE	72	4.21	15.46	3	20	9.3	84.63	-.1274	22.45	-.0560	3171.1	-7.13	-.00	.1244	293.38	-.0379	2.89	321.48
RISE	51	11.25	22.50	3	20	16.3	84.44	-.0670	7.43	-.0485	6100.5	-2.09	-.00	.0810	278.15	-.0145	-13.03	343.06
EXTM	72	11.27	22.52	3	20	16.3	9.56	-.1643	-25.90	-.0802	2565.2	4.94	69.84	-.0000	205.68	-.4878	-13.07	343.12
EXTM	51	52.21	63.46	3	20	57.3	1.78	-.0092	-37.45	-.0010	15460.1	4.98	78.39	-.0000	187.04	-.0369	-33.90	26.47
EXTM	72	72.52	83.77	3	21	17.6	300.27	-.0001	-38.46	.0004	23951.0	4.70	28.45	.0000	129.72	-.0005	-34.91	31.44
EXTM	51	88.52	99.77	3	21	33.6	353.30	-.0007	-37.68	.0003	25615.3	4.36	77.04	.0000	155.56	-.0030	-35.10	32.92
RISE	61	139.33	150.58	3	22	24.4	319.82	.0023	-42.08	.0007	43755.5	3.67	-.00	.0015	151.39	.0011	-34.76	30.97
EXTM	51	177.31	188.56	3	23	2.4	1.57	.0027	-35.46	.0003	46235.3	3.51	80.19	.0000	187.5	.0132	-34.29	26.32
EXTM	61	371.23	382.48	4	2	14.3	6.57	.0038	-36.41	.0003	86432.8	2.73	13.22	.0000	185.44	.0032	-32.29	349.60
EXTM	72	395.74	407.99	4	2	40.8	1.48	.0039	-33.43	.0002	86288.4	2.66	64.04	.0000	182.80	.0075	-32.10	344.31
RISE	11	578.17	589.42	4	5	43.2	297.37	.0041	-33.19	.0000	118975.3	2.04	.00	.0025	131.92	.0023	-30.95	303.19
SET	61	584.36	595.61	4	5	49.4	56.25	.0039	-33.39	.0002	119835.0	2.52	-.00	-.0019	224.03	.0027	-30.92	301.75
SET	51	588.18	599.43	4	5	53.2	90.00	.0038	-29.79	.0002	118995.2	2.64	12.46	-.0031	242.72	-.0012	-30.90	300.87
SET	72	787.45	798.70	4	9	12.5	94.54	.0039	-29.46	.0001	146351.5	2.44	-.00	-.0034	240.03	-.0004	-30.02	253.91
RISE	42	794.87	808.12	4	9	21.9	254.99	.0040	-28.50	-.0000	146945.5	1.74	5.12	.0028	121.54	-.0021	-29.99	251.73
EXTM	11	839.56	850.81	4	10	4.6	1.68	.0041	-32.43	.0001	150266.8	2.01	22.74	.0000	181.54	.0038	-29.83	241.54
SET	11	1097.64	1108.89	4	14	22.7	65.55	.0041	-30.40	.0001	182136.3	2.09	-.00	-.0025	231.73	.0024	-29.05	170.31
EXTM	42	1221.96	1233.21	4	16	27.0	359.91	.0042	-28.52	.0000	189069.9	1.73	83.30	.0000	.67	-.0306	-28.74	149.06
P[illegible]	51	1357.73	1368.98	4	18	42.8	270.00	.0041	-27.78	-.0000	207760.3	1.29	11.68	.0033	115.39	-.0014	-28.44	1 90
"	2	1512.09	1523.34	4	21	17.1	265.78	.0041	-27.30	-.0000	223991.9	1.18	-.00	.0036	118.19	-.0005	-28.14	8.06
[illegible]	01	1600.31	1611.56	4	22	45.4	298.16	.0042	-29.15	-.0000	232239.0	1.27	.00	.0024	129.65	.0027	-27.98	56.39
SET	42	1645.16	1656.41	4	23	30.2	105.00	.0041	-26.97	.0001	235890.9	1.84	4.19	-.0029	239.67	-.0022	-27.91	45.36
EXTM	51	1716.99	1728.24	5	0	42.0	.01	.0042	-27.45	.0000	236561.0	1.49	87.89	.0000	180.53	.0544	-27.79	27.67
EXTM	61	1848.98	1860.23	5	2	54.0	.63	.0042	-28.43	.0000	252217.7	1.44	20.83	-.0000	180.59	.0039	-27.59	355.14
EXTM	72	1888.07	1899.32	5	3	33.1	.19	.0042	-28.02	.0000	251923.9	1.43	69.88	-.0000	180.48	.0108	-27.53	345.49
RISE	11	2032.79	2044.04	5	5	57.8	292.25	.0042	-28.22	-.0000	270055.5	1.08	.00	.0028	125.36	.0064	-27.33	309.75
SET	51	2076.11	2087.36	5	6	41.2	90.00	.0041	-26.76	.0001	272389.8	1.74	11.28	-.0034	245.57	-.0014	-27.28	299.04
SET	61	2097.38	2108.63	5	7	2.4	62.99	.0042	-28.42	.0001	275377.9	1.64	-.00	-.0024	231.72	.0027	-27.25	293.78
SET	72	2261.98	2273.23	5	9	47.0	94.03	.0041	-26.96	.0001	288624.7	1.72	-.00	-.0036	242.86	-.0005	-27.05	253.04
RISE	42	2262.72	2273.97	5	9	47.8	255.00	.0041	-26.98	-.0000	288244.7	.99	3.77	.0029	119.78	-.0022	-27.05	252.86
EXTM	11	2303.58	2314.83	5	10	28.6	.42	.0042	-28.12	.0000	289899.4	1.30	26.67	-.0000	180.41	.0042	-27.00	242.74
SET	11	2574.13	2585.38	5	14	59.2	88.48	.0042	-27.47	.0000	312494.2	1.55	.00	-.0028	235.63	.0024	-26.71	175.67
EXTM	42	2681.53	2692.78	5	16	46.6	359.96	.0042	-26.43	.0000	314150.3	1.21	81.21	-.0000	.25	-.0224	-26.60	149.02
RISE	51	2812.20	2823.45	5	18	57.2	270.00	.0041	-26.05	-.0000	328564.5	.81	10.99	.0034	113.76	-.0015	-26.48	116.57
RISE	72	2965.83	2977.08	5	21	30.9	266.08	.0041	-26.18	-.0000	341545.1	.74	-.00	.0037	116.45	-.0005	-26.34	78.41
RISE	61	3042.33	3053.58	5	22	47.4	295.60	.0042	-27.15	-.0000	345941.0	.83	.00	.0026	126.56	.0027	-26.28	59.35
SET	42	3100.18	3111.43	5	23	45.2	105.00	.0041	-25.61	.0000	349429.8	1.44	3.36	-.0030	240.76	-.0023	-26.24	44.90
EXTM	51	3169.11	3180.36	6	0	54.2	.01	.0042	-26.21	.0000	348063.9	1.11	89.53	-.0000	182.07	.1968	-26.20	27.68
EXTM	61	3297.78	3309.03	6	3	2.8	.23	.0042	-27.05	.0000	360425.1	1.10	22.71	-.0000	180.22	.0041	-26.12	355.52
EXTM	72	3337.56	3348.81	6	3	42.6	.09	.0042	-26.62	.0000	359494.5	1.10	71.48	-.0000	180.27	.0118	-26.10	345.58
RISE	11	3473.50	3484.75	6	5	58.5	290.75	.0042	-26.46	-.0000	374444.7	.79	.00	.0029	123.31	.0024	-26.03	311.57
SET	51	3525.09	3536.34	6	6	50.1	90.00	.0042	-25.83	.0000	376672.5	1.49	10.83	-.0035	246.63	-.0015	-26.00	298.65
SET	61	3553.00	3564.25	6	7	18.0	64.83	.0042	-26.49	.0000	379734.0	1.41	-.00	-.0026	233.96	.0027	-25.99	291.66
RISE	42	3706.25	3717.50	6	9	51.3	255.00	.0042	-25.65	-.0000	390183.9	.98	3.20	.0030	119.04	-.0023	-25.92	253.16
SET	72	3707.48	3718.73	6	9	52.5	93.85	.0042	-25.78	.0000	390636.2	1.73	-.00	-.0037	243.93	-.0005	-25.92	252.85
EXTM	11	3746.16	3757.41	6	10	31.2	.12	.0043	-26.73	.0000	391030.5	1.76	28.06	-.0000	180.12	.0044	-25.91	243.03
IMPACT		3751.50	3762.75	6	10	36.5												
IMPC	42	3751.50	3762.75	6	10	36.5	266.49	.0043	-25.41	-.0000	393325.5	1.67	11.67	.0033	112.99	-.0022	-25.91	241.66
IMPC	11	3751.50	3762.75	6	10	36.5	1.52	.0043	-26.73	.0000	391627.7	2.03	28.04	-.0001	181.54	.0044	-25.91	241.66

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	PT AZ
INJECTION		.00	11.25	3	20	5.041	6604.276	15.3469	303.6793	10.94397	5.3662	12.9695	136.7660
SEPARATION		1.20	12.45	3	20	6.241	6699.087	11.7541	309.1399	10.86435	8.6974	123.3241	142.9284
RETRO		3.20	14.45	3	20	8.241	6953.598	5.7865	317.5659	10.66200	13.9770	124.6898	151.4558
IMPACT		3751.50	3762.75	6	10	36.537	394663.680	-25.9141	241.6567	2.20056	66.9683	269.3616	295.1856

GHA	254.9453					E/S	48.5720							LOM	257.3536
SX	.5[illegible]947	SY	-.716294	SZ	-.404674	UAD	-23.47 47	RAD	305.23473	RM	399359.816	LAT	28.310600	LON	279.461800
C3	-.934[illegible]	FPC	.[illegible]	SLR	12988.918	HCA	6544.6 50	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSZ	.582[illegible]	RSY	-.76[illegible]	RSZ	-.400[illegible]	C3M	1.4[illegible]	VIM	2.6706	ZAE	141.485	B.T	.0000	B.R	-.0000
LATE	6.[illegible]	LONE	2.9368	LATS	.6224	LONS	314.70-3	LATI	3.0461	LONI	324.4264	RSM	152.0930	TTAN	5.8149
LAUNCH DATE	JUN	[illegible],1966		BASE AZM	93.0	TF	63.025					ARRIVAL DATE	JUN 7 1966 10 22 2.4		

LNCH AZMTH	LNCH TIME	FR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
93.00	19 [illegible] 16.4	27.4	23.62	306.60	-10.[illegible]	129.46	106.33	19 19 31.4	6604.2	10.94	-5.43

EVNT	STA	TFI	TFL	DAY	HR	MIN	RA	DRA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	4	19	19.5												
SEPARATION		1.20	12.45	4	19	20.7												
RETRO		3.20	14.45	4	19	22.7												
RISE	72	5.93	17.18	4	19	25.5	71.12	-.4078	66.[illegible]	.1091	2371.2	-6.52	.00	.1127	338.08	.1584	11.03	338.06
EXTM	72	[illegible].97	22.22	4	19	30.5	306.75	-.0871	22.40	-.1812	2255.2	5.67	29.70	-.0000	58.53	.2283	-.13	358.12
RISE	51	11.56	22.81	4	19	31.1	71.12	-.1711	33.[illegible]	-.0301	4651.4	-4.31	.00	.1015	308.23	.0269	-1.28	.10
ENTER SHA		25.[illegible]	36.33	4	19	44.6												
ENTR	72	25.[illegible]	36.33	4	19	44.6	283.65	-.0109	-16.26	-.0112	8577.4	7.20	15.37	-.0097	106.86	.0123	-17.33	29.52
ENTR	51	25.[illegible]	36.33	4	19	44.6	356.32	-.0459	-7.[illegible]	-.0316	5744.3	5.13	71.89	.0226	11.81	.1626	-17.33	29.52
EXTM	51	27.72	38.97	4	19	47.2	349.96	-.0351	-12.[illegible]	-.0228	6589.7	5.51	73.51	-.0000	36.88	.1449	-18.94	32.99
EXTM	72	66.94	78.19	4	20	26.5	274.74	-.0001	-26.[illegible]	-.0015	23268.9	4.93	7.76	.0000	116.08	.0010	-27.06	54.46
RISE	42	77.24	88.49	4	20	36.8	104.79	-.0035	-19.[illegible]	-.0022	27094.2	4.28	.00	.0039	245.40	.0003	-27.58	55.96
EXTM	51	83.[illegible]	94.27	4	20	42.5	323.70	-.0001	-27.[illegible]	-.0007	23823.7	4.52	57.60	.0000	101 06	.0013	-27.79	56.47
EXIT	SHA	94.54	105.79	4	20	54.1												
EXIT	42	94.54	105.79	4	20	54.1	102.26	-.0015	-21.[illegible]	- 0013	31496.9	4.20	2.93	.0019	245.46	-.0002	-28.08	56.95
EXIT	72	94.54	105.79	4	20	54.1	276.05	.0015	-27.[illegible]	-.0004	30836.7	4.27	9.00	.0013	117.08	.0003	-28.08	56.95
EXIT	51	94.54	105.79	4	20	54.1	323.96	.0008	-27.[illegible]	-.0005	26875.7	4.31	57.86	.0007	101.75	.0007	-28.08	56.95
EXTM	42	125.77	137.02	4	21	25.3	101.47	.0004	-23.[illegible]	-.0006	39198.3	4.01	4.48	-.0000	244.62	-.0007	-28.[illegible]	55.81
SET	42	173.04	184.29	4	22	12.6	105.00	.0019	-24. 3	-.0002	50172.4	3.73	2.46	-.0012	241.92	-.0012	-28.41	50.44
RISE	61	196.95	207.30	4	22	45.6	304.08	.0031	-33.[illegible]	.0003	55302.4	3.24	.00	.0019	136.33	.0019	-28.33	46.95
EXTM	51	301.70	311.95	5	0	20.2	.07	.0037	-28.[illegible]	.0001	69178.5	2.95	87.66	.0000	181.45	.0772	-27.88	27.63
EXTM	61	462.77	474.02	5	3	2.3	3.15	.0039	-30.62	.0002	99735.1	2.53	19.09	.0000	182.86	.0036	-27.24	352.77
EXTM	72	496.48	50[illegible].73	5	3	36.0	.53	.0040	-28.31	.0001	101037.7	2.46	69.59	-.0000	181.34	.0102	-27.12	345.17
RISE	11	656.42	66[illegible].67	5	6	15.9	292.54	.0040	-28.[illegible]	.0000	129264.1	1.92	.00	.0027	125.75	.0023	-26.64	308.23
SET	51	689.57	700.82	5	6	49.1	90.00	.0039	-25.[illegible]	.0001	132450.6	2.53	10.78	-.0032	246.74	-.0013	-26.56	300.44
SET	61	712.21	723.46	5	7	11.7	82.68	.0040	-28.[illegible]	.0001	136578.7	2.40	-.00	-.0023	231.35	.0027	-26.50	295.10
SET	72	883.22	894.47	5	10	2.7	93.85	.0040	-25. 9	.0001	157726.3	2.37	-.01	-.0035	243.94	-.0004	-26.12	254.37
RISE	42	893.22	904.47	5	10	12.7	254.99	.0040	-24.[illegible]	-.0000	158599.1	1.65	2.80	.0029	118.53	-.0022	-26.10	251.[illegible]7
EXTM	11	933.83	945.08	5	10	53.4	.98	.0042	-28.[illegible]	.0001	160822.4	1.94	26.77	-.0000	180.97	.0041	-26.02	242.[illegible]1
SET	11	1208.71	1219.96	5	15	28.2	89.18	.0041	-26.[illegible]	.0001	193919.0	2.05	-.00	-.0027	236.52	.0024	-25.56	175.61
EXTM	42	1317.63	1328.88	5	17	17.2	359.94	.0042	-25.[illegible]	-.0000	198933.3	1.68	79.88	-.0000	.33	-.0203	-25.41	149.04
RISE	51	1452.52	1463.77	5	19	32.0	270.00	.0041	-24.[illegible]	-.0000	217297.1	1.24	10.41	.0034	112.40	-.0015	-25.24	116.02
RISE	72	1608.84	1620.09	5	22	8.4	266.31	.0041	-24.43	-.0000	233258.9	1.14	-.01	.0037	115.09	-.0005	-25.06	77.65
RISE	61	1680.13	1691.38	5	23	19.7	294.47	.0041	-26.[illegible]	-.0000	239807.8	1.23	.00	.0026	125.16	.0027	-24.98	60.12
SET	42	1740.41	1751.66	6	0	19.9	105.00	.0041	-24.[illegible]	.0000	244986.4	1.82	2.38	-.0030	242.02	-.0022	-24.92	45.28
EXTM	51	1810.69	1821.94	6	1	30.2	359.72	.0042	-24.43	.0000	245199.0	1.47	89.05	.0010	15.70	-.2226	-24.85	27.96
EXTM	61	1942.87	1954.12	6	3	42.4	.41	.0042	-26.00	.0000	260395.3	1.42	23.76	-.0000	180.40	.0041	-24.73	355.35
EXTM	72	1982.37	1993.62	6	4	21.9	.08	.0042	-25.[illegible]	.0000	260282.0	1.41	72.81	.0000	180.24	.0126	-24.69	345.60
RISE	11	2116.54	2127.79	6	6	36.1	289.60	.0042	-25.42	-.0000	277482.5	1.05	.00	.0029	121.70	.0024	-24.58	312.44
SET	51	2171.02	2182.27	6	7	30.5	90.00	.0041	-24.[illegible]	.0000	280803.1	1.73	10.18	-.0035	248.12	-.0015	-24.53	298.97
SET	61	2205.41	2216.66	6	8	4.9	66.28	.0042	-25.43	.0000	284708.4	1.63	-.00	-.0026	235.77	.0027	-24.51	290.46
SET	72	2354.98	2366.23	6	10	34.5	93.58	.0041	-24.21	.0000	296570.3	1.72	-.00	-.0037	245.54	-.0005	-24.39	253.43
RISE	42	2357.05	2368.30	6	10	36.6	255.00	.0041	-23. 4	-.0000	296492.8	.97	2.15	.0030	117.69	-.0023	-24.39	252.92
EXTM	11	2397.55	2408.80	6	11	17.1	.27	.0042	-25.42	.0000	296773.1	1.29	29.37	-.0000	180.28	.0044	-24.36	242.88
SET	11	2678.43	2689.68	6	15	58.0	70.88	.0042	-24.20	.0000	321062.0	1.54	-.00	-.0029	238.98	.0024	-24.17	173.23
EXTM	42	2776.00	2787.25	6	17	35.5	359.96	.0042	-23.[illegible]	.0000	321976.7	1.20	78.67	.0000	.19	-.0172	-24.11	149.02
RISE	51	2906.45	2917.70	6	19	46.0	270.00	.0041	-23.[illegible]	-.0000	336365.8	.80	10.01	.0035	111.49	-.0015	-24.03	116.62
RISE	72	3041.42	3052.67	6	22	20.9	266.48	.0042	-23.[illegible]	-.0000	348374.0	.70	-.00	.0038	114.05	-.0005	-23.96	78.05
RISE	61	3125.43	3136.68	6	23	25.0	292.88	.0042	-24.[illegible]	-.0000	352662.8	.82	.00	.0027	123.15	.0027	-23.94	62.08
SET	42	3194.39	3205.64	7	0	33.9	105.00	.0041	-23.29	.0000	357045.7	1.45	1.94	-.0030	242.59	-.0023	-23.91	44.86
EXTM	51	3263.19	3274.44	7	1	42.7	.00	.0042	-23.46	.0000	355511.3	1.11	88.12	-.0000	359.46	-.0146	-23.89	27.68
EXTM	61	3391.50	3402.75	7	3	51.0	.13	.0042	-24.[illegible]	.0000	367628.0	1.10	25.01	-.0000	180.13	.0042	-23.86	355.63
EXTM	72	3431.41	3442.66	7	4	30.9	.02	.0042	-24.[illegible]	.0000	366874.0	1.11	73.78	.0000	180.09	.0094	-23.85	345.65
RISE	11	3569.37	3580.62	7	6	38.9	288.70	.0042	-24.43	-.0000	381454.1	.79	.00	.0029	120.41	.0024	-23.82	313.65
SET	51	3619.37	3630.62	7	7	38.9	90.00	.0042	-23.44	.0000	384415.5	1.53	9.95	-.0035	248.67	-.0015	-23.81	298.62
SET	61	3657.19	3668.44	7	8	16.7	67.34	.0042	-24.[illegible]	.0000	388130.4	1.47	-.00	-.0027	237.12	.0027	-23.81	289.14
RISE	42	3800.76	3812.01	7	10	40.3	255.00	.0043	-23.23	-.0000	397400.8	1.47	1.90	.0031	117.36	-.0024	-23.79	253.19
IMPACT		3781.51	3792.76	7	10	21.0												
IMPC	42	3781.51	3792.76	7	10	21.0	250.44	.0043	-23.[illegible]	-.0000	398198.1	1.71	-1.35	.0031	120.01	-.0025	-23.81	257.77
IMPC	72	3781.51	3792.76	7	10	21.0	88.89	.0043	-23.23	.0000	397582.9	2.49	4.18	-.0039	246.59	-.0005	-23.84	257.77
IMPC	11	3781.51	3792.76	7	10	21.0	345.17	.0044	-24.[illegible]	-.0000	395014.4	1.96	28.54	.0009	164.64	.0044	-23.84	257.77
SET	72	3800.82	3812.07	7	10	40.3	93.49	.0043	-23.[illegible]	.0000	397605.8	2.24	-.00	-.0039	246.10	-.0006	-23.79	253.17

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	4	19	19.523	6605.693	23.6366	306.7332	10.94434	-5.4285	106.2959	129.3959
SEPARATION		1.20	12.45	4	19	20.723	6552.911	21.5314	313.5792	10.98737	-2.0253	109.0458	136.5428
RETRO		3.20	14.45	4	19	22.723	6572.128	17.3961	324.4907	10.97117	3.6919	112.8624	147.9557
ENTER SHA		25.08	36.33	4	19	44.605	11969.118	[illegible]7.3294	29.5181	8.10375	42.1118	112.9118	218.4689
EXIT SHA		94.54	105.79	4	20	54.059	32452.103	+28.0779	56.9480	4.86119	62.8635	94.7372	263.3097
IMPACT		3781.51	3792.76	7	10	21.031	39809[illegible].500	+23.8386	257.7729	2.21171	68.0993	258.7590	308.4004

SURVEYOR VIEW PERIODS

GHA	254.9453					EPS	48.6948							LOM	253.5453
SX	.567856	SY	-.717046	SZ	-.404210	DAO	-23.84161	RAO	306.37705	RM	399394.238	LAT	28.310600	LON	279.461800
C3	-.929906	ECC	.984732	SLR	12989.408	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.584279	NSY	-.700643	NSZ	-.400152	C3M	1.4974	VIM	2.6715	ZAE	141.546	B.T	.0000	B.R	-.0000
LATE	6.3965	LONE	2.9269	LATS	.6227	LONS	314.5721	LATI	2.9546	LONI	324.4889	RSM	152.0925	TTAN	5.8023
LAUNCH DATE	JUN	4.1966		BASE AZM	96.0		TF 62.965					ARRIVAL DATE	JUN 7 1966	10 37 48.0	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
96.00	19 25 17.0	27.7	22.42	306.64	-7.14	133.56	108.54	19 36 32.0	6569.9	10.97	-3.54

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	4	19	36.5												
SEPARATION	1.20	12.45	4	19	37.7												
RETRO	3.20	14.45	4	19	39.7												
RISE 72	5.48	16.73	4	19	42.0	77.04	-.2815	58.25	.0845	2448.5	-7.33	-.00	.1209	329.15	.1202	10.16	334.91
EXTM 72	10.52	21.77	4	19	47.0	318.73	-.1322	21.64	-.1996	1982.0	5.16	39.89	.0000	53.05	.3055	-1.08	354.64
RISE 51	11.35	22.60	4	19	47.9	74.04	-.1098	29.69	-.0338	4840.0	-4.09	.00	.0995	303.36	.0184	-2.66	357.32
ENTER SHA	24.36	35.61	4	20	.9												
ENTR 72	24.36	35.61	4	20	.9	288.67	-.0125	-20.10	-.0106	8142.5	7.22	20.19	-.0115	108.58	.0116	-17.91	25.24
ENTR 51	24.36	35.61	4	20	.9	4.93	-.0498	-9.73	-.0319	5711.9	4.81	72.74	.0436	343.37	.1320	-17.91	25.24
EXTM 51	29.07	40.32	4	20	5.6	353.61	-.0319	-15.97	-.0180	7185.0	5.48	78.56	.0000	32.65	.1790	-20.59	31.18
EXTM 72	67.57	78.82	4	20	44.1	278.82	-.0000	-27.83	-.0008	23264.3	4.89	11.45	.0000	116.92	.0008	-27.63	50.69
EXTM 51	85.10	96.35	4	21	1.6	328.53	-.0000	-28.23	-.0005	24370.6	4.47	61.92	.0000	102.24	.0011	-28.31	52.67
EXIT SHA	92.95	104.20	4	21	9.5												
EXIT 42	92.95	104.20	4	21	9.5	106.18	-.0016	-21.73	-.0013	31566.5	4.21	.12	.0020	243.14	-.0001	-28.48	52.97
EXIT 72	92.95	104.20	4	21	9.5	280.01	.0014	-28.54	-.0003	30224.5	4.29	12.53	.0013	117.70	.0003	-28.48	52.97
EXIT 51	92.95	104.20	4	21	9.5	328.66	.0006	-28.44	-.0004	26445.5	4.34	62.05	.0005	102.67	.0008	-28.48	52.97
RISE 61	178.91	190.16	4	22	35.4	305.20	.0030	-34.26	.0003	51850.2	3.35	-.00	.0018	137.52	.0017	-28.69	45.58
EXTM 51	280.64	291.89	5	0	17.2	.10	.0036	-28.43	.0001	65712.7	3.02	87.30	-.0000	181.94	.0666	-28.20	27.59
EXTM 61	445.64	456.89	5	3	2.2	3.38	.0039	-30.93	.0002	97264.6	2.57	18.76	.0000	183.07	.0036	-27.46	352.55
EXTM 72	478.77	490.02	5	3	35.3	.59	.0040	-28.96	.0001	98528.7	2.50	69.33	-.0000	181.46	.0100	-27.33	345.12
RISE 11	640.06	651.31	5	6	16.6	292.74	.0040	-28.71	.0000	127187.0	1.95	.00	.0027	126.01	.0023	-26.80	307.99
SET 51	672.08	683.33	5	6	48.6	90.00	.0039	-25.85	.0001	130259.6	2.55	10.84	-.0032	246.61	-.0013	-26.71	300.49
SET 61	693.83	705.08	5	7	10.4	62.44	.0040	-28.67	.0001	134307.0	2.42	-.00	-.0023	231.06	.0027	-26.65	295.37
SET 72	866.17	877.42	5	10	2.7	93.87	.0039	-25.90	.0001	155808.7	2.39	-.00	-.0035	243.83	-.0004	-26.24	254.38
RISE 42	876.35	887.60	5	10	12.9	254.99	.0040	-24.41	-.0000	156705.4	1.67	2.87	.0029	118.62	-.0022	-26.22	251.94
EXTM 11	917.12	928.37	5	10	53.7	1.04	.0042	-28.15	.0001	159004.0	1.95	26.64	-.0000	181.02	.0041	-26.13	242.15
SET 11	1191.53	1202.78	5	15	28.1	69.04	.0041	-26.88	.0001	192239.5	2.06	-.00	-.0027	236.40	.0024	-25.64	175.71
EXTM 42	1300.90	1312.15	5	17	17.4	359.94	.0042	-25.17	.0000	197366.6	1.69	79.95	-.0000	.34	-.0205	-25.48	149.04
RISE 51	1435.89	1447.14	5	19	32.4	270.00	.0041	-24.64	-.0000	215812.8	1.25	10.43	.0034	112.45	-.0015	-25.30	116.01
RISE 72	1592.20	1603.45	5	22	8.7	266.30	.0041	-24.98	-.0000	231853.8	1.14	-.01	.0037	115.13	-.0005	-25.11	77.65
RISE 61	1663.76	1675.01	5	23	20.3	294.53	.0041	-26.13	-.0000	238459.4	1.24	.00	.0026	125.24	.0027	-25.03	60.05
SET 42	1723.76	1735.01	6	0	20.3	105.00	.0041	-24.95	.0000	243636.7	1.83	2.40	-.0030	241.99	-.0022	-24.96	45.28
EXTM 51	1789.77	1801.02	6	1	26.3	358.63	.0042	-24.87	.0000	243505.6	1.47	88.49	.0031	55.21	-.0843	-24.89	29.02
EXTM 61	1926.32	1937.57	6	3	42.9	.42	.0042	-26.93	.0000	259144.0	1.43	23.73	.0000	180.41	.0041	-24.76	355.34
EXTM 72	1965.79	1977.04	6	4	22.3	.08	.0042	-25.13	.0000	259040.4	1.42	72.78	.0000	180.25	.0126	-24.72	345.59
RISE 11	2100.07	2111.32	6	6	36.6	289.62	.0042	-25.45	-.0000	276298.5	1.05	.00	.0029	121.73	.0024	-24.60	312.41
SET 51	2154.42	2165.67	6	7	31.0	90.00	.0041	-24.04	.0000	279626.7	1.74	10.19	-.0035	248.11	-.0015	-24.55	298.97
SET 61	2188.72	2199.97	6	8	5.3	66.25	.0042	-25.45	.0000	283537.1	1.64	-.00	-.0026	235.74	.0027	-24.53	290.49
SET 72	2338.40	2349.65	6	10	34.9	93.58	.0041	-24.23	.0000	295458.8	1.72	-.00	-.0037	245.53	-.0005	-24.41	253.43
RISE 42	2340.50	2351.75	6	10	37.0	255.00	.0041	-23.65	-.0000	295383.7	.98	2.16	.0030	117.70	-.0023	-24.41	252.91
EXTM 11	2381.03	2392.28	6	11	17.6	.29	.0042	-25.44	.0000	295681.5	1.30	29.35	-.0000	180.30	.0044	-24.37	242.87
SET 11	2661.85	2673.10	6	15	58.4	70.88	.0042	-24.90	.0000	320051.2	1.55	-.00	-.0029	238.98	.0024	-24.17	173.24
EXTM 42	2759.44	2770.69	6	17	36.0	359.96	.0042	-23.89	.0000	320996.4	1.21	78.67	.0000	.20	-.0171	-24.11	149.02
RISE 51	2889.91	2901.16	6	19	46.4	270.00	.0041	-23.60	-.0000	335424.2	.80	10.01	.0035	111.48	-.0015	-24.03	116.62
RISE 72	3045.02	3056.27	6	22	21.6	266.49	.0042	-23.79	-.0000	347530.9	.71	-.00	.0038	114.03	-.0005	-23.94	78.05
RISE 61	3108.93	3120.18	6	23	25.5	292.86	.0042	-24.56	-.0000	351821.4	.82	.00	.0027	123.13	.0027	-23.92	62.09
SET 42	3177.94	3189.19	7	0	34.5	105.00	.0041	-23.27	.0000	356215.5	1.45	1.93	-.0030	242.60	-.0023	-23.90	44.86
EXTM 51	3246.72	3257.97	7	1	43.3	.00	.0042	-23.44	.0000	354686.2	1.11	88.10	-.0000	359.57	-.0130	-23.88	27.68
EXTM 61	3375.03	3386.28	7	3	51.6	.13	.0042	-24.74	.0000	366808.8	1.10	25.03	-.0000	180.13	.0042	-23.84	355.62
EXTM 72	3414.93	3426.18	7	4	31.5	.02	.0042	-24.10	.0000	366055.7	1.11	73.80	.0000	180.09	.0107	-23.83	345.65
RISE 11	3542.81	3554.06	7	6	39.3	288.68	.0042	-24.41	-.0000	380623.2	.79	.00	.0029	120.39	.0024	-23.80	313.66
SET 51	3602.87	3614.12	7	7	39.4	90.00	.0042	-23.42	.0000	383574.4	1.52	9.94	-.0035	248.69	-.0015	-23.79	298.62
SET 61	3640.79	3652.04	7	8	17.3	67.36	.0042	-24.66	.0000	387277.4	1.46	.00	-.0027	237.15	.0027	-23.79	289.11
RISE 42	3783.05	3794.30	7	10	39.6	255.00	.0044	-23.26	-.0001	398588.6	2.53	1.92	.0032	117.39	-.0024	-23.82	253.19
IMPACT	3777.88	3789.13	7	10	34.4												
IMPC 42	3777.88	3789.13	7	10	34.4	253.66	.0043	-23.25	-.0000	397975.0	1.70	.94	.0031	118.14	-.0024	-23.81	254.54
IMPC 72	3777.88	3789.13	7	10	34.4	92.13	.0043	-23.69	.0000	397941.5	2.48	1.24	-.0039	246.25	-.0006	-23.81	254.54
IMPC 11	3777.88	3789.13	7	10	34.4	348.45	.0044	-24.50	-.0000	394983.0	1.98	29.20	.0007	167.96	.0045	-23.81	254.54
SET 72	3783.12	3794.37	7	10	39.7	93.49	.0044	-23.69	-.0000	398813.4	3.36	.00	-.0040	246.07	-.0006	-23.82	253.17

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	4	19	36.533	6570.172	22.4265	306.6189	10.97333	-3.5401	108.5303	133.5459
SEPARATION	1.20	12.45	4	19	37.733	6544.688	20.0771	313.3109	10.99453	-.1183	111.0685	140.5387
RETRO	3.20	14.45	4	19	39.733	6607.614	15.6207	323.9213	10.94165	5.5797	114.4867	151.6505
ENTER SHA	24.36	35.61	4	20	.892	11951.027	-17.9088	25.2405	8.11025	42.0656	112.9165	218.2741
EXIT SHA	92.95	104.20	4	21	9.486	32216.130	-28.4820	52.9682	4.88013	62.7626	94.3416	263.1973
IMPACT	3777.88	3789.13	7	10	34.413	398130.434	-23.8142	254.5395	2.21151	67.9263	258.9240	308.5217

SURVEYOR VIEW PERIODS

GHA	254.9453					EPS	48.8264							LOM	249.4615
SX	.569869	SY	-.715703	SZ	-.403713	DAO	-23.81053	RAO	308.52956	RM	399431.031	LAT	28.310600	LON	279.461800
C3	-.939467	ECC	.984724	SLR	12989.360	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.584297	NSY	-.704657	NSZ	-.399642	C3M	1.4475	VIM	2.6715	ZAE	141.529	R.T	.0000	B.R	-.0000
LATE	6.4024	LONE	3.9154	LATS	.6229	LONS	314.4283	LATI	2.7916	LONI	324.4796	RSM	152.0921	TTAN	5.7935
LAUNCH DATE	JUN	4.1966		BASE AZM	99.0		TF 62.983					ARRIVAL DATE	JUN 7 1966 10 54 41.9		

LNCH AZMTH	LNCH TIME	PH	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99.00	19 39 35.2	27.8	21.24	306.36	-3.39	136.87	110.71	19 50 50.2	6552.5	10.99	-1.98

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
		PROBE IN SUNLIGHT															
INJECTION	.00	11.25	4	19	50.8												
SEPARATION	1.20	12.45	4	19	52.0												
RETRO	3.20	14.45	4	19	54.0												
RISE 72	5.14	16.39	4	19	55.0	80.14	-.2253	50.96	.0565	2526.5	-7.81	.00	.1262	321.65	.0861	9.10	332.29
EXTM 72	9.75	21.00	4	20	.6	336.45	-.2198	24.20	-.2299	1677.4	3.66	50.52	.0552	34.97	.4719	-1.40	350.20
RISE 51	11.20	22.45	4	20	2.0	76.55	-.1009	25.76	-.0373	5008.2	-3.87	.00	.0975	298.83	.0112	-4.39	354.83
ENTER SHA	23.85	35.10	4	20	14.7												
ENTR 72	23.85	35.10	4	20	14.7	293.22	-.0142	-22.47	-.0096	7824.6	7.23	24.42	-.0134	111.14	.0101	-18.86	21.61
ENTR 51	23.85	35.10	4	20	14.7	12.26	-.0524	-11.41	-.0315	5751.3	4.54	71.26	.0559	319.54	.0702	-18.86	21.61
EXTM 51	30.53	41.78	4	20	21.4	356.49	-.0290	-19.03	-.0141	7798.3	5.44	83.09	-.0000	28.63	.2558	-22.39	29.65
EXTM 72	68.23	79.48	4	20	59.1	282.30	-.0000	-29.01	-.0006	23301.0	4.86	14.55	.0000	118.12	.0006	-28.42	47.50
EXTM 51	87.01	98.26	4	21	17.8	332.61	.0000	-29.50	-.0003	24883.1	4.43	65.50	.0000	104.61	.0008	-29.03	49.45
EXIT SHA	91.08	102.33	4	21	21.9												
EXIT 42	91.08	102.33	4	21	21.9	109.53	-.0017	-22.98	-.0013	31457.8	4.22	-2.08	.0021	240.91	.0000	-29.11	49.60
EXIT 72	91.08	102.33	4	21	21.9	283.32	.0014	-29.44	-.0003	29571.9	4.32	15.45	.0012	118.66	.0003	-29.11	49.60
EXIT 51	91.08	102.33	4	21	21.9	332.65	.0003	-29.58	-.0003	25956.5	4.36	65.54	.0003	104.80	.0007	-29.11	49.60
RISE 61	166.33	177.58	4	22	37.2	306.56	.0028	-35.14	.0004	49255.8	3.45	-.00	.0017	138.95	.0016	-29.21	44.02
EXTM 51	263.59	274.84	5	0	14.4	.14	.0035	-28.94	.0001	62690.6	3.09	86.79	.0000	182.18	.0549	-28.65	27.56
EXTM 61	432.27	443.52	5	3	3.1	3.80	.0039	-31.62	.0002	95320.7	2.59	18.35	.0000	183.42	.0035	-27.77	352.17
EXTM 72	464.06	475.31	5	3	34.9	.64	.0040	-28.92	.0001	96408.0	2.52	68.98	-.0000	181.57	.0098	-27.64	345.07
RISE 11	628.91	638.16	5	6	17.7	293.00	.0040	-28.98	.0000	125483.8	1.96	.00	.0026	126.37	.0023	-27.04	307.69
SET 51	657.52	668.77	5	6	48.4	90.00	.0039	-25.47	.0001	128390.5	2.57	10.92	-.0032	246.40	-.0013	-26.94	300.53
SET 61	677.99	689.24	5	7	8.8	62.11	.0040	-28.93	.0001	132301.4	2.44	-.00	-.0022	230.67	.0027	-26.88	295.72
SET 72	852.04	863.29	5	10	2.9	93.90	.0039	-24.08	.0001	154175.0	2.40	-.00	-.0035	243.65	-.0004	-26.42	254.38
RISE 42	862.34	873.59	5	10	13.2	254.99	.0040	-24.97	-.0000	155082.6	1.68	2.97	.0029	118.74	-.0021	-26.39	251.92
EXTM 11	903.34	914.59	5	10	54.2	1.11	.0042	-28.54	.0001	157466.4	1.96	26.44	-.0000	181.09	.0041	-26.30	242.08
SET 11	1177.61	1188.86	5	15	27.8	68.91	.0041	-27.02	.0001	190759.4	2.07	-.00	-.0027	236.23	.0024	-25.77	175.86
EXTM 42	1286.98	1298.23	5	17	17.8	359.93	.0042	-25.28	.0000	195998.4	1.70	80.06	-.0000	.36	-.0213	-25.59	149.04
RISE 51	1422.06	1433.31	5	19	32.9	270.00	.0041	-24.73	-.0000	214505.5	1.26	10.47	.0034	112.54	-.0015	-25.39	116.00
RISE 72	1578.34	1589.59	5	22	9.2	266.29	.0041	-24.96	-.0000	230602.5	1.15	-.01	.0037	115.21	-.0005	-25.19	77.65
RISE 61	1650.32	1661.57	5	23	21.2	294.62	.0041	-24.21	-.0000	237269.2	1.24	.00	.0026	125.35	.0027	-25.10	59.95
SET 42	1709.90	1721.15	6	0	20.7	105.00	.0041	-24.11	.0000	242421.6	1.83	2.44	-.0030	241.94	-.0022	-25.03	45.29
EXTM 51	1774.21	1785.46	6	1	25.0	358.19	.0042	-24.94	.0000	242164.9	1.47	88.18	.0034	64.22	-.0542	-24.96	29.45
EXTM 61	1912.60	1923.85	6	3	43.4	.44	.0042	-26.19	.0000	258007.5	1.43	23.67	.0000	180.43	.0041	-24.81	355.32
EXTM 72	1952.00	1963.25	6	4	22.8	.09	.0042	-25.18	.0000	257904.5	1.42	72.72	.0000	180.27	.0126	-24.77	345.59
RISE 11	2086.46	2097.71	6	6	37.3	289.66	.0042	-25.49	-.0000	275207.2	1.06	.00	.0029	121.79	.0024	-24.64	312.37
SET 51	2140.59	2151.84	6	7	31.4	90.00	.0041	-24.08	.0000	278528.9	1.74	10.21	-.0035	248.07	-.0015	-24.59	298.98
SET 61	2174.71	2185.96	6	8	5.6	66.21	.0042	-25.49	.0000	282434.0	1.64	-.00	-.0026	235.68	.0027	-24.56	290.54
SET 72	2324.60	2335.85	6	10	35.4	93.59	.0041	-24.25	.0000	294403.6	1.72	-.00	-.0037	245.50	-.0005	-24.44	253.43
RISE 42	2326.72	2337.97	6	10	37.6	255.00	.0041	-23.68	-.0000	294328.6	.98	2.17	.0030	117.72	-.0023	-24.43	252.91
EXTM 11	2367.29	2378.54	6	11	18.1	.30	.0042	-25.47	.0000	294642.6	1.30	29.32	-.0000	180.31	.0044	-24.40	242.86
SET 11	2647.99	2659.24	6	15	58.8	70.86	.0042	-24.92	.0000	319051.3	1.55	-.00	-.0029	238.96	.0024	-24.19	173.26
EXTM 42	2745.64	2756.89	6	17	36.5	359.96	.0042	-23.90	.0000	320017.0	1.21	78.68	.0000	.21	-.0176	-24.12	149.02
RISE 51	2876.14	2887.39	6	19	47.0	270.00	.0041	-23.80	-.0000	334466.8	.80	10.01	.0035	111.48	-.0015	-24.03	116.61
RISE 72	3031.24	3042.49	6	22	22.1	266.49	.0042	-23.78	-.0000	346598.1	.71	-.00	.0038	114.03	-.0005	-23.94	78.04
RISE 61	3095.14	3106.39	6	23	26.0	292.86	.0042	-24.56	-.0000	350889.6	.82	.00	.0027	123.13	.0027	-23.92	62.09
SET 42	3164.14	3175.39	7	0	35.0	105.00	.0041	-23.76	.0000	355285.7	1.45	1.92	-.0030	242.61	-.0023	-23.89	44.87
EXTM 51	3232.94	3244.19	7	1	43.8	.00	.0042	-23.83	.0000	353757.4	1.11	88.09	-.0000	359.55	-.0100	-23.87	27.68
EXTM 61	3361.29	3372.54	7	3	52.1	.14	.0042	-24.72	.0000	365879.4	1.10	25.04	-.0000	180.14	.0042	-23.83	355.61
EXTM 72	3401.16	3412.41	7	4	32.0	.02	.0042	-24.19	.0000	365123.2	1.10	73.81	.0000	180.10	.0102	-23.82	345.65
RISE 11	3529.00	3540.25	7	6	39.8	288.66	.0042	-24.39	-.0000	379670.7	.79	.00	.0029	120.36	.0024	-23.78	313.67
SET 51	3589.11	3600.36	7	7	39.9	90.00	.0042	-23.40	.0000	382608.2	1.52	9.93	-.0035	248.71	-.0015	-23.77	298.62
SET 61	3627.14	3638.39	7	8	18.0	67.39	.0042	-24.44	.0000	386298.1	1.45	-.00	-.0027	237.18	.0027	-23.77	289.09
RISE 42	3769.74	3780.99	7	10	40.6	255.00	.0042	-23.22	-.0000	396897.7	1.32	1.89	.0031	117.35	-.0024	-23.78	253.19
SET 72	3769.74	3780.99	7	10	40.6	93.48	.0042	-23.44	.0000	397107.5	2.10	.00	-.0038	246.12	-.0006	-23.78	253.19
IMPACT	3779.00	3790.25	7	10	49.8												
IMPC 42	3779.00	3790.25	7	10	49.8	257.37	.0043	-23.24	-.0000	397709.6	1.70	3.64	.0032	116.04	-.0023	-23.79	250.81
IMPC 72	3779.00	3790.25	7	10	49.8	95.85	.0043	-23.64	.0000	398351.4	2.48	-2.14	-.0039	245.78	-.0007	-23.79	250.81
IMPC 11	3779.00	3790.25	7	10	49.8	352.23	.0044	-24.58	-.0000	394962.6	2.00	29.76	.0005	171.86	.0045	-23.79	250.81

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	4	19	50.836	6552.562	21.2449	306.3571	10.98798	-1.9780	110.7064	136.8695
SEPARATION	1.20	12.45	4	19	52.036	6548.911	18.6639	312.8872	10.99093	1.4536	113.0407	143.7005
RETRO	3.20	14.45	4	19	54.036	6647.302	13.9097	323.1882	10.90866	7.1103	116.0811	154.5028
ENTER SHA	23.85	35.10	4	20	14.691	11965.331	-18.8567	21.6057	8.10530	42.1029	112.8861	218.0985
EXIT SHA	91.08	102.33	4	21	21.913	31869.317	-29.1053	49.5962	4.90759	62.6084	93.7719	262.9404
IMPACT	3779.00	3790.25	7	10	49.838	398164.387	-23.7861	250.8120	2.21087	67.9017	259.2304	308.6610

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SURVEYOR VIEW PERIODS

GHA	254.9453					EPS	48.9386							LOM	245.9810
SX	.571637	SY	-.714555	SZ	-.403289	DAO	-23.78493	RAO	308.65945	RM	399462.305	LAT	28.310600	LON	279.461800
C3	-.931638	ECC	.984703	SLR	12989.226	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.588.21	NSY	-.703466	NSZ	-.399208	C3M	1.4973	VIA	2.6714	ZAE	141.492	B.T	.0000	B.R	-.0000
LATE	6.4072	LONE	3.0478	LATS	.6232	LONS	314.43-1	LATI	3.5725	LONI	324.5913	RSM	152.0917	TTAN	5.7868
LAUNCH DATE		JUN	4,1966		BASE AZM	102.0		TF	63.011			ARRIVAL DATE		JUN 7 1966 11 9 6.1	

LNCH AZMTH	LNCH TIME	PE	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	19 51 29.6	27.9	20.09	305.99	-1.40	139.49	112.85	20 2 44.6	6545.6	10.99	-.70

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DUE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	4	20	2.7												
SEPARATION	1.20	12.45	4	20	3.9												
RETRO	3.20	14.45	4	20	5.9												
RISE 72	4.89	16.14	4	20	7.6	82.15	-.1929	44.55	.0297	2602.7	-8.07	-.01	.1292	315.10	.0556	7.92	330.05
EXTM 72	9.44	20.69	4	20	12.2	350.92	-.2691	19.45	-.2240	1558.1	2.84	61.22	.1295	18.01	.6495	-2.64	347.38
RISE 51	11.11	22.36	4	20	13.9	78.76	-.0935	22.11	-.0405	5157.6	-3.65	.00	.0956	294.58	.0048	-5.85	352.59
ENTER SHA	23.60	34.85	4	20	26.3												
ENTR 72	23.60	34.85	4	20	26.3	297.21	-.0160	-25.42	-.0080	7639.1	7.22	27.92	-.0150	114.53	.0077	-20.16	18.62
ENTR 51	23.60	34.85	4	20	26.3	18.22	-.0535	-13.09	-.0304	5856.4	4.36	69.02	.0597	301.93	.0228	-20.16	18.62
EXTM 51	32.07	43.32	4	20	34.8	358.74	-.0266	-23.21	-.0110	8424.5	5.41	87.22	.0000	24.70	.5531	-24.30	23.41
EXTM 72	68.99	80.24	4	21	11.7	285.22	.0000	-30.55	-.0004	23400.3	4.83	17.09	.0000	119.61	.0004	-29.42	44.83
EXIT SHA	88.92	100.17	4	21	31.7												
EXIT 42	88.92	100.17	4	21	31.7	112.41	-.0019	-22.62	-.0013	31190.2	4.23	-3.77	.0022	238.78	.0001	-29.92	46.74
EXIT 72	88.92	100.17	4	21	31.7	286.05	.0012	-30.82	-.0001	28880.2	4.36	17.79	.0011	119.91	.0002	-29.92	46.74
EXIT 51	88.92	100.17	4	21	31.7	336.03	.0001	-30.52	-.0002	25407.2	4.39	68.37	.0000	108.29	.0004	-29.92	46.74
RISE 61	158.03	169.28	4	22	40.8	308.12	.0027	-36.11	.0005	47525.6	3.51	-.00	.0017	140.54	.0015	-29.89	42.35
EXTM 51	249.41	260.66	5	0	12.2	.21	.0035	-29.60	.0002	60126.2	3.14	86.14	.0000	182.76	.0446	-29.23	27.49
EXTM 61	421.46	432.71	5	3	4.2	4.20	.0039	-31.80	.0002	93748.4	2.62	17.86	.0000	183.75	.0035	-28.18	351.79
EXTM 72	452.11	463.36	5	3	34.9	.74	.0040	-29.45	.0001	94672.4	2.55	68.54	-.0000	181.77	.0096	-28.02	344.98
RISE 11	616.55	627.80	5	6	19.3	293.33	.0040	-29.31	.0000	124130.4	1.98	.00	.0026	126.80	.0023	-27.34	307.34
SET 51	645.48	656.73	5	6	48.2	90.00	.0039	-26.16	.0001	126825.4	2.58	11.04	-.0032	246.14	-.0013	-27.24	300.57
SET 61	664.31	675.56	5	7	7.1	61.70	.0040	-29.26	.0002	130548.1	2.45	-.00	-.0022	230.19	.0027	-27.17	296.16
SET 72	840.43	851.68	5	10	3.2	93.94	.0039	-26.41	.0001	152818.8	2.41	-.00	-.0035	243.42	-.0004	-26.65	254.37
RISE 42	850.79	862.04	5	10	13.5	254.99	.0040	-25.19	-.0000	153725.0	1.69	3.10	.0029	118.92	-.0022	-26.62	251.90
EXTM 11	892.07	903.32	5	10	54.8	1.20	.0042	-28.08	.0001	156204.3	1.97	26.20	-.0000	181.17	.0041	-26.52	242.00
SET 11	1164.76	1176.01	5	15	27.5	68.75	.0041	-27.19	.0001	189494.3	2.07	-.00	-.0027	235.99	.0024	-25.93	176.04
EXTM 42	1275.47	1286.72	5	17	18.2	359.93	.0042	-25.43	.0000	194850.8	1.70	80.21	-.0000	.39	-.0215	-25.74	149.05
RISE 51	1410.63	1421.88	5	19	33.4	270.00	.0041	-24.86	-.0000	213406.4	1.26	10.52	.0034	112.65	-.0015	-25.52	115.99
RISE 72	1566.85	1578.10	5	22	9.6	266.27	.0041	-25.06	-.0000	229546.9	1.15	-.01	.0037	115.32	-.0005	-25.30	77.66
RISE 61	1639.39	1650.64	5	23	22.1	294.74	.0041	-26.32	-.0000	236284.1	1.25	.00	.0026	125.50	.0027	-25.20	59.82
SET 42	1698.42	1709.67	6	0	21.2	105.00	.0041	-24.20	.0001	241394.4	1.84	2.50	-.0030	241.87	-.0022	-25.12	45.30
EXTM 51	1762.61	1773.86	6	1	25.4	358.15	.0042	-25.03	.0000	241148.6	1.47	88.19	.0035	67.30	-.0486	-25.05	29.48
EXTM 61	1901.26	1912.51	6	3	44.0	.47	.0042	-26.18	.0000	257052.0	1.44	23.58	.0000	180.46	.0041	-24.89	355.29
EXTM 72	1940.59	1951.84	6	4	23.3	.09	.0042	-25.26	.0000	256943.9	1.42	72.64	.0000	180.29	.0126	-24.84	345.58
RISE 11	2075.28	2086.53	6	6	38.0	289.72	.0042	-25.56	-.0000	274288.6	1.06	.00	.0029	121.87	.0024	-24.71	312.30
SET 51	2129.13	2140.38	6	7	31.9	90.00	.0041	-24.14	.0000	277594.0	1.74	10.23	-.0035	248.02	-.0015	-24.65	298.98
SET 61	2162.98	2174.23	6	8	5.7	66.14	.0042	-25.55	.0000	281485.3	1.64	-.00	-.0026	235.60	.0027	-24.62	290.61
SET 72	2313.17	2324.42	6	10	35.9	93.59	.0041	-24.30	.0001	293503.8	1.73	-.00	-.0037	245.45	-.0005	-24.48	253.43
RISE 42	2315.29	2326.54	6	10	38.0	255.00	.0041	-23.72	-.0000	293426.3	.98	2.20	.0030	117.75	-.0023	-24.48	252.90
EXTM 11	2355.92	2367.17	6	11	18.7	.32	.0042	-25.52	.0000	293758.6	1.30	29.27	-.0000	180.33	.0044	-24.44	242.84
SET 11	2636.43	2647.68	6	15	59.2	70.84	.0042	-24.95	.0000	318186.6	1.55	-.00	-.0029	238.92	.0024	-24.21	173.28
EXTM 42	2734.18	2745.43	6	17	36.9	359.96	.0042	-23.92	.0000	319171.8	1.21	78.70	.0000	.22	-.0178	-24.14	149.02
RISE 51	2864.70	2875.95	6	19	47.4	270.00	.0041	-23.52	-.0000	333638.0	.80	10.02	.0035	111.50	-.0015	-24.05	116.61
RISE 72	3019.95	3031.20	6	22	22.7	266.49	.0042	-23.78	-.0000	345848.4	.71	.00	.0038	114.03	-.0005	-23.94	78.04
RISE 61	3083.81	3095.06	6	23	26.6	292.86	.0042	-24.66	-.0000	350136.0	.82	.00	.0027	123.13	.0027	-23.91	62.09
SET 42	3152.79	3164.04	7	0	35.5	105.00	.0041	-23.26	.0000	354528.6	1.45	1.92	-.0030	242.61	-.0023	-23.89	44.87
EXTM 51	3221.58	3232.83	7	1	44.3	.00	.0042	-23.83	.0000	352996.4	1.11	88.09	-.0000	359.45	-.0055	-23.86	27.68
EXTM 61	3349.96	3361.21	7	3	52.7	.15	.0042	-24.72	.0000	365109.0	1.10	25.05	-.0000	180.15	.0042	-23.82	355.61
EXTM 72	3389.79	3401.04	7	4	32.5	.02	.0042	-24.08	.0000	364347.0	1.10	73.82	.0000	180.10	.0112	-23.80	345.65
RISE 11	3517.57	3528.82	7	6	40.3	288.65	.0042	-24.38	-.0000	378868.2	.78	.00	.0029	120.35	.0024	-23.77	313.69
SET 51	3577.71	3588.96	7	7	40.5	90.00	.0042	-23.38	.0000	381789.9	1.51	9.92	-.0035	248.73	-.0015	-23.75	298.62
SET 61	3615.82	3627.07	7	8	18.6	67.40	.0042	-24.42	.0000	385466.7	1.44	-.00	-.0027	237.21	.0027	-23.75	289.08
RISE 42	3758.51	3769.76	7	10	41.3	255.00	.0042	-23.18	-.0000	395739.4	1.13	1.87	.0031	117.33	-.0024	-23.75	253.19
SET 72	3758.51	3769.76	7	10	41.3	93.48	.0042	-23.61	.0000	395947.2	1.89	-.00	-.0038	246.15	-.0006	-23.75	253.19
IMPACT	3780.69	3791.94	7	11	3.4												
IMPC 42	3780.69	3791.94	7	11	3.4	260.65	.0043	-23.23	-.0000	397475.0	1.69	6.05	.0032	114.25	-.0023	-23.76	247.53
IMPC 11	3780.69	3791.94	7	11	3.4	355.56	.0044	-24.55	-.0000	394964.3	2.02	30.09	.0003	175.33	.0046	-23.76	247.53

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	4	20	2.743	6545.643	20.0903	305.9884	10.99371	-.6962	112.8467	139.4857
SEPARATION	1.20	12.45	4	20	3.943	6559.710	17.2836	312.3601	10.98176	2.7346	114.9874	146.1583
RETRO	3.20	14.45	4	20	5.943	6686.681	12.2514	322.3427	10.87618	8.3471	117.6693	156.6422
ENTER SHA	23.60	34.85	4	20	26.342	12027.849	-20.1553	18.6172	8.08384	42.2650	112.7901	218.0306
EXIT SHA	88.92	100.17	4	21	31.667	31421.721	-29.9203	46.7433	4.94364	62.4050	93.0731	262.5326
IMPACT	3780.69	3791.94	7	11	3.432	398197.328	-23.7614	247.5275	2.20881	67.6962	259.6181	308.7842

SURVEYOR VIEW PERIODS

GMA	254.9453					EPS	49.0359							LOM	242.9615
SX	.573143	SY	-.713557	SZ	-.402919	DAO	23.76476	RAD	308.77208	RM	399489.371	LAT	28.310600	LON	279.461800
C3	-.933530	ECC	.984672	SLR	12989.018	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.589520	NSY	-.702424	[illegible]	-.398831	C3M	1.4470	VIM	2.6714	ZAE	141.433	B.T	.0000	B.R	-.0000
LATE	6.4115	LONE	2.8079	LAT	.6233	LONS	314.2084	LATI	2.3097	LONI	324.4255	RSM	152.0914	TTAN	5.7824
LAUNCH DATE	JUN	4,1966		BASE AZM	105.0		TF 63.049					ARRIVAL DATE	JUN 7 1966 11 21 35.7		

LNCH AZMTH	LNCH TIME	RH	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	2[illegible] 1 23.8	28.0	18.96	305.54	.71	141.52	114.96	20 12 38.8	6544.9	10.99	.35

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	FLP	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	4	20	12.6												
SEPARATION	1.20	12.45	4	20	13.8												
RETRO	3.20	14.45	4	20	15.8												
RISE 72	4.71	15.96	4	20	17.4	83.60	-.1714	58.47	.0049	2674.2	-8.16	.00	.1307	309.22	.0284	6.62	328.12
EXTM 72	10.02	21.27	4	20	22.7	351.51	-.2285	2.97	-.1775	1673.3	4.31	76.22	.0000	38.24	1.2137	-5.66	347.44
RISE 51	11.[illegible]7	22.32	4	20	23.[illegible]	80.77	-.0873	18.59	-.0436	5291.7	-3.44	.00	.0936	290.50	-.0009	-7.62	350.56
ENTER SHA	23.60	34.85	4	20	36.2												
ENTR 72	23.60	34.85	4	20	36.2	300.61	-.0175	-28.56	-.0060	7592.4	7.18	30.58	-.0161	118.59	.0044	-21.77	16.25
ENTR 51	23.62	34.85	4	20	36.2	22.82	-.0535	-16.17	-.0288	6022.9	4.26	66.96	.0587	288.37	-.0068	-21.77	16.25
EXTM 51	33.12	44.37	4	20	45.8	1.30	-.0255	-26.40	-.0090	8880.3	5.37	88.66	.0156	240.18	-.8121	-26.13	26.93
EXTM 72	69.74	80.99	4	21	22.4	287.46	.0000	-52.1	-.0001	23523.3	4.81	19.12	.0000	121.32	.0001	-30.56	42.61
EXIT SHA	86.31	97.56	4	21	39.0												
EXIT 72	86.31	97.56	4	21	39.0	288.25	.0011	-32.6	-.0000	28096.9	4.41	19.62	.0009	121.40	.0001	-30.90	44.31
EXIT 51	86.31	97.56	4	21	39.0	338.89	-.0003	-41.6	-.0000	24745.0	4.43	70.55	-.0003	113.26	-.0001	-30.90	44.31
RISE 61	153.56	164.81	4	22	46.2	309.81	.0026	-37.1	.0005	46609.8	3.55	-.00	.0017	142.22	.0014	-30.69	40.64
EXTM 51	237.84	249.09	5	0	10.5	.34	.0034	-30.58	.0002	57999.9	3.19	85.35	-.0000	183.59	.0361	-29.92	27.38
EXTM 61	413.98	424.53	5	3	5.7	4.64	.0039	-32.43	.0002	92539.9	2.63	17.31	.0000	184.11	.0034	-28.65	351.38
EXTM 72	442.46	453.71	5	3	35.1	.86	.0040	-29.46	.0001	93264.4	2.57	68.03	.0000	181.99	.0093	-28.48	344.88
RISE 11	608.54	619.79	5	6	21.2	293.72	.0040	-29.39	.0000	123079.7	1.99	.00	.0026	127.31	.0023	-27.69	306.93
SET 51	635.61	646.86	5	6	48.3	90.00	.0038	-26.50	.0001	125525.3	2.59	11.17	-.0032	245.82	-.0013	-27.59	300.61
SET 61	652.46	663.71	5	7	5.1	61.22	.0040	-29.54	.0002	129013.4	2.46	-.00	-.0022	229.62	.0027	-27.52	296.66
SET 72	830.95	842.20	5	10	3.6	93.98	.0039	-26.58	.0001	151702.0	2.41	-.00	-.0035	243.14	-.0004	-26.93	254.35
RISE 42	841.31	852.56	5	10	14.0	254.99	.0040	-25.85	-.0000	152596.3	1.70	3.26	.0029	119.12	-.0022	-26.90	251.88
EXTM 11	882.92	894.17	5	10	55.6	1.30	.0042	-28.46	.0001	155179.6	1.98	25.92	-.0000	181.26	.0040	-26.78	241.90
SET 11	1154.38	1165.63	5	15	27.0	68.54	.0041	-27.40	.0001	188410.1	2.08	.01	-.0027	235.71	.0024	-26.13	176.25
EXTM 42	1265.99	1277.24	5	17	18.6	359.93	.0042	-25.51	.0000	193892.4	1.71	80.39	-.0000	.42	-.0218	-25.91	149.05
RISE 51	1401.21	1412.46	5	19	33.9	270.00	.0041	-25.1	-.0000	212485.7	1.27	10.58	.0034	112.80	-.0015	-25.68	115.98
RISE 72	1557.34	1568.59	5	22	10.0	266.25	.0041	-25.20	-.0000	228659.0	1.16	-.01	.0037	115.46	-.0005	-25.43	77.67
RISE 61	1630.57	1641.82	5	23	23.2	294.89	.0041	-26.45	-.0000	235473.9	1.25	.00	.0026	125.69	.0027	-25.32	59.67
SET 42	1988.95	1700.20	6	0	21.6	105.00	.0041	-24.42	.0001	240527.6	1.84	2.57	-.0030	241.77	-.0022	-25.24	45.30
EXTM 51	1753.03	1764.28	6	1	25.7	358.12	.0042	-25.14	.0000	240291.9	1.48	88.20	.0036	71.02	-.0418	-25.16	29.52
EXTM 61	1891.94	1903.19	6	3	44.6	.50	.0042	-26.28	.0000	256250.5	1.44	23.48	.0000	180.49	.0041	-24.98	355.26
EXTM 72	1931.17	1942.42	6	4	23.8	.10	.0042	-25.46	.0000	256133.0	1.43	72.55	.0000	180.31	.0126	-24.94	345.57
RISE 11	2066.14	2077.39	6	6	38.8	289.80	.0042	-25.64	-.0000	273517.3	1.06	.00	.0029	121.98	.0024	-24.79	312.22
SET 51	2119.65	2130.90	6	7	32.3	90.00	.0041	-24.21	.0001	276798.1	1.74	10.26	-.0035	247.95	-.0015	-24.73	298.99
SET 61	2153.16	2164.41	6	8	5.8	66.05	.0042	-25.63	.0001	280668.7	1.64	-.00	-.0026	235.49	.0027	-24.69	290.70
SET 72	2303.73	2314.98	6	10	36.4	93.60	.0041	-24.16	.0001	292736.4	1.73	-.00	-.0037	245.39	-.0005	-24.54	253.42
RISE 42	2305.84	2317.09	6	10	38.5	255.00	.0041	-23.78	-.0000	292654.1	.98	2.24	.0030	117.80	-.0023	-24.54	252.90
EXTM 11	2346.54	2357.79	6	11	19.2	.34	.0042	-25.58	.0000	293006.2	1.30	29.21	-.0000	180.35	.0043	-24.50	242.82
SET 11	2626.79	2638.04	6	15	59.4	70.80	.0042	-24.99	.0000	317437.1	1.56	-.00	-.0029	238.87	.0024	-24.25	173.32
EXTM 42	2724.68	2735.93	6	17	37.3	359.95	.0042	-23.95	.0000	318440.6	1.21	78.73	.0000	.24	-.0178	-24.17	149.03
RISE 51	2855.22	2866.47	6	19	47.9	270.00	.0041	-23.54	-.0000	332918.3	.81	10.03	.0035	111.52	-.0015	-24.07	116.61
RISE 72	3010.46	3021.71	6	22	23.1	266.49	.0042	-23.80	-.0000	345143.0	.71	.00	.0038	114.04	-.0005	-23.95	78.04
RISE 61	3074.38	3085.63	6	23	27.0	292.87	.0042	-24.67	-.0000	349434.6	.82	.00	.0027	123.15	.0027	-23.93	62.08
SET 42	3143.29	3154.54	7	0	35.9	105.00	.0041	-23.27	.0000	353820.5	1.45	1.92	-.0030	242.61	-.0023	-23.90	44.87
EXTM 51	3212.09	3223.34	7	1	44.7	.00	.0042	-23.53	.0000	352287.7	1.11	88.09	-.0000	359.51	-.0047	-23.87	27.68
EXTM 61	3340.52	3351.77	7	3	53.2	.16	.0042	-24.72	.0000	364398.7	1.10	25.04	-.0000	180.16	.0042	-23.82	355.59
EXTM 72	3380.31	3391.56	7	4	33.0	.03	.0042	-24.08	.0000	363631.1	1.10	73.83	.0000	180.11	.0116	-23.80	345.64
RISE 11	3508.07	3519.32	7	6	40.7	288.65	.0042	-24.37	-.0000	378135.9	.78	.00	.0029	120.34	.0024	-23.76	313.69
SET 51	3568.24	3579.49	7	7	40.9	90.00	.0042	-23.37	.0000	381045.9	1.50	9.92	-.0035	248.74	-.0015	-23.74	298.63
SET 61	3606.40	3617.65	7	8	19.0	67.42	.0042	-24.41	.0000	384713.3	1.43	-.00	-.0027	237.22	.0027	-23.74	289.06
SET 72	3749.14	3760.39	7	10	41.8	93.48	.0042	-23.59	.0000	394995.0	1.80	-.00	-.0038	246.17	-.0006	-23.72	253.19
RISE 42	3749.17	3760.42	7	10	41.8	255.00	.0042	-23.16	-.0000	394791.1	1.03	1.86	.0031	117.31	-.0024	-23.72	253.18
IMPACT	3782.91	3794.16	7	11	15.6												
IMPC 42	3782.91	3794.16	7	11	15.6	263.57	.0043	-23.22	-.0000	397260.7	1.68	8.24	.0033	112.67	-.0022	-23.74	244.60
IMPC 11	3782.91	3794.16	7	11	15.6	358.53	.0044	-24.03	-.0000	394976.4	2.04	30.24	.0001	178.46	.0046	-23.74	244.60
EXTM 11	3786.93	3798.18	7	11	19.6	359.59	.0044	-24.14	-.0000	395512.6	2.55	30.25	-.0000	179.57	.0047	-23.75	243.55

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	4	20	12.647	6544.916	18.9613	305.5392	10.99426	.3526	114.9650	141.5193
SEPARATION	1.20	12.45	4	20	13.847	6573.453	15.9360	311.7492	10.97010	3.7799	116.9199	148.0302
RETRO	3.20	14.45	4	20	15.847	6723.518	10.6340	321.4231	10.84603	9.3502	119.2665	158.2055
ENTER SHA	23.60	34.85	4	20	36.250	12148.925	-21.7749	16.2493	8.04276	42.5741	112.5942	218.1465
EXIT SHA	86.31	97.56	4	21	38.962	30829.984	-30.8989	44.3096	4.99246	62.1286	92.3163	261.9278
IMPACT	3782.91	3794.16	7	11	15.559	398223.953	-23.7395	244.5970	2.20791	67.6731	260.1278	308.8937

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SURVEYOR VIEW PERIODS

GHA	254.9453					EPS	49.1222							LOM	240.2828
SX	.574476	SY	-.712670	SZ	-.402589	DAO	-23.74115	RAO	308.87194	RM	399513.340	LAT	28.310600	LON	279.461800
C3	-.936006	ECC	.984632	SLR	129988.751	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.590855	NSY	-.701491	NSZ	-.398497	C3M	1.4967	VIM	2.6713	ZAE	141.351	B.T	.0000	B.R	-.0000
LATE	6.4152	LONE	2.9921	LATS	.6235	LONS	314.2079	LATI	2.0142	LONI	324.4771	RSM	152.0911	TTAN	5.7799
LAUNCH DATE		JUN	4.1966		BASE AZM	108.0		TF	63.094			ARRIVAL DATE		JUN 7 1966	11 32 40.8

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	20 9 40.4	28.0	17.86	305.06	2.45	143.08	117.07	20 20 55.4	6547.6	10.99	1.21

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	4	20	20.9												
SEPARATION	1.20	12.45	4	20	22.1												
RETRO	3.20	14.45	4	20	24.1												
RISE 72	4.59	15.84	4	20	25.5	84.74	-.1554	33.43	-.0178	2743.3	-8.12	-.00	.1308	303.79	.0038	5.24	326.42
EXTM 72	9.90	21.15	4	20	30.8	1.70	-.2436	-5.41	-.1640	1683.3	3.92	86.65	.2638	329.65	2.1830	-7.30	345.32
RISE 51	11.06	22.31	4	20	32.0	82.64	-.0820	14.37	-.0466	5414.4	-3.23	.00	.0917	286.55	-.0060	-9.49	348.70
ENTER SHA	23.89	35.14	4	20	44.8												
ENTR 72	23.89	35.14	4	20	44.8	303.35	-.0187	-32.94	-.0038	7692.4	7.12	32.31	-.0163	123.09	.0006	-23.69	14.48
ENTR 51	23.89	35.14	4	20	44.8	26.14	-.0526	-20.49	-.0266	6254.9	4.26	65.44	.0549	276.89	-.0258	-23.69	14.48
EXTM 51	35.51	46.76	4	20	56.4	1.54	-.0225	-30.12	-.0062	9756.0	5.35	85.41	-.0000	196.89	-.2550	-28.39	26.77
EXTM 72	70.36	81.61	4	21	31.3	289.66	-.0000	-33.46	.0001	23637.4	4.78	20.70	.0000	123.18	-.0001	-31.83	40.73
EXIT SHA	83.16	94.41	4	21	44.1												
EXIT 72	83.16	94.41	4	21	44.1	290.02	.0009	-33.45	.0002	27186.9	4.47	21.01	.0008	123.09	-.0001	-32.02	42.18
EXIT 51	83.16	94.41	4	21	44.1	341.37	-.0006	-33.39	.0001	23937.6	4.48	72.12	-.0005	119.71	-.0011	-32.02	42.18
EXTM 51	90.18	101.43	4	21	51.1	341.21	-.0001	-33.42	.0002	25799.7	4.36	72.01	.0000	119.34	-.0006	-32.05	42.56
RISE 61	152.31	163.56	4	22	53.2	311.57	.0026	-38.10	.0006	46396.0	3.55	-.00	.0017	143.93	.0013	-31.57	38.95
EXTM 51	228.51	239.76	5	0	9.4	.50	.0033	-31.26	.0002	56262.5	3.24	84.46	-.0000	184.43	.0295	-30.70	27.24
EXTM 61	406.73	417.98	5	3	7.7	5.11	.0039	-32.90	.0002	91637.0	2.65	16.71	.0000	184.48	.0034	-29.18	350.94
EXTM 72	434.75	446.00	5	3	35.7	.99	.0040	-30.42	.0002	92134.8	2.58	67.46	.0000	182.23	.0090	-28.99	344.75
RISE 11	602.49	613.74	5	6	23.4	294.15	.0040	-30.10	.0000	122279.3	2.00	.00	.0026	127.87	.0023	-28.09	306.48
SET 51	627.51	638.76	5	6	48.4	90.00	.0038	-26.48	.0001	124444.5	2.60	11.33	-.0032	245.45	-.0013	-27.98	300.65
SET 61	642.12	653.37	5	7	3.0	60.67	.0039	-30.06	.0002	127658.0	2.47	-.00	-.0021	228.98	.0027	-27.92	297.23
SET 72	823.24	834.49	5	10	4.2	94.04	.0039	-26.89	.0001	150782.8	2.42	-.00	-.0035	242.83	-.0004	-27.24	254.32
RISE 42	833.56	844.81	5	10	14.5	254.99	.0040	-25.75	-.0000	151655.3	1.71	3.44	.0028	119.36	-.0022	-27.20	251.86
EXTM 11	875.53	886.78	5	10	56.5	1.40	.0042	-29.17	.0001	154349.1	1.98	25.61	-.0000	181.36	.0040	-27.07	241.80
SET 11	1145.65	1156.90	5	15	26.6	68.32	.0041	-27.64	.0001	187484.3	2.08	.00	-.0027	235.41	.0024	-26.36	176.48
EXTM 42	1258.18	1269.43	5	17	19.1	359.92	.0042	-25.42	.0000	193087.3	1.71	80.60	-.0000	.45	-.0224	-26.12	149.06
RISE 51	1393.46	1404.71	5	19	34.4	270.00	.0041	-25.19	-.0000	211708.7	1.27	10.65	.0034	112.96	-.0015	-25.85	115.97
RISE 72	1549.47	1560.72	5	22	10.4	266.22	.0041	-25.35	-.0000	227905.6	1.16	-.01	.0037	115.61	-.0005	-25.58	77.69
RISE 61	1623.47	1634.72	5	23	24.4	295.06	.0041	-26.59	-.0000	234803.7	1.25	.00	.0026	125.90	.0027	-25.47	59.50
SET 42	1681.12	1692.37	6	0	22.0	105.00	.0041	-24.45	.0001	239789.0	1.84	2.65	-.0030	241.67	-.0022	-25.38	45.31
EXTM 51	1745.09	1756.34	6	1	26.0	358.09	.0042	-25.27	.0000	239560.7	1.48	88.21	.0037	75.32	-.0334	-25.29	29.55
EXTM 61	1884.26	1895.51	6	3	45.2	.54	.0042	-26.19	.0000	255571.5	1.44	23.37	.0000	180.53	.0041	-25.10	355.22
EXTM 72	1923.38	1934.63	6	4	24.3	.11	.0042	-25.47	.0000	255441.1	1.43	72.44	.0000	180.33	.0125	-25.05	345.56
RISE 11	2058.68	2069.93	6	6	39.6	280.89	.0042	-25.74	-.0000	272862.4	1.06	.00	.0029	122.11	.0024	-24.88	312.13
SET 51	2111.80	2123.05	6	7	32.7	90.00	.0041	-24.30	.0001	276112.0	1.75	10.29	-.0035	247.87	-.0015	-24.82	298.99
SET 61	2144.90	2156.15	6	8	5.8	65.95	.0042	-25.72	.0001	279956.5	1.64	-.00	-.0026	235.36	.0027	-24.78	290.80
SET 72	2295.92	2307.17	6	10	36.8	93.62	.0041	-24.43	.0001	292073.1	1.73	-.00	-.0037	245.32	-.0005	-24.61	253.41
RISE 42	2298.00	2309.25	6	10	38.9	255.00	.0041	-23.85	-.0000	291984.4	.99	2.28	.0030	117.85	-.0023	-24.61	252.90
EXTM 11	2338.78	2350.03	6	11	19.7	.36	.0042	-25.65	.0000	292357.4	1.31	29.14	-.0000	180.38	.0043	-24.57	242.79
SET 11	2618.73	2629.98	6	15	59.7	70.76	.0042	-25.04	.0000	316777.4	1.56	-.00	-.0029	238.81	.0024	-24.30	173.37
EXTM 42	2716.79	2728.04	6	17	37.7	359.95	.0042	-23.99	.0000	317798.1	1.21	78.77	.0000	.26	-.0181	-24.21	149.03
RISE 51	2847.34	2858.59	6	19	48.3	270.00	.0041	-23.67	-.0000	332283.0	.81	10.04	.0035	111.55	-.0015	-24.10	116.61
RISE 72	3002.53	3013.78	6	22	23.5	266.48	.0041	-23.42	-.0000	344298.3	.74	-.00	.0037	114.07	-.0006	-23.98	78.04
RISE 61	3066.60	3077.85	6	23	27.5	292.89	.0042	-24.69	-.0000	348823.4	.82	.00	.0027	123.17	.0027	-23.94	62.05
SET 42	3135.40	3146.65	7	0	36.3	105.00	.0041	-23.98	.0000	353199.5	1.45	1.93	-.0030	242.60	-.0023	-23.91	44.87
EXTM 51	3204.20	3215.45	7	1	45.1	.00	.0042	-23.84	.0000	351664.8	1.11	88.10	-.0000	359.52	-.0037	-23.88	27.69
EXTM 61	3332.69	3343.94	7	3	53.6	.18	.0042	-24.72	.0000	363772.2	1.10	25.04	-.0000	180.18	.0042	-23.82	355.58
EXTM 72	3372.44	3383.69	7	4	33.4	.03	.0042	-24.08	.0000	362998.1	1.10	73.82	.0000	180.12	.0121	-23.81	345.64
RISE 11	3500.19	3511.44	7	6	41.1	288.64	.0042	-24.37	-.0000	377485.9	.78	.00	.0029	120.33	.0024	-23.76	313.69
SET 51	3560.35	3571.60	7	7	41.3	90.00	.0042	-23.46	.0000	380383.7	1.50	9.91	-.0035	248.74	-.0015	-23.74	298.63
SET 61	3598.56	3609.81	7	8	19.5	67.43	.0042	-24.40	.0000	384042.0	1.43	-.00	-.0027	237.23	.0027	-23.73	289.06
SET 72	3741.33	3752.58	7	10	42.2	93.48	.0042	-23.97	.0000	394178.1	1.74	-.00	-.0038	246.19	-.0006	-23.70	253.20
RISE 42	3741.38	3752.63	7	10	42.3	255.00	.0042	-23.14	-.0000	393977.2	.98	1.84	.0031	117.29	-.0023	-23.70	253.18
EXTM 11	3780.66	3791.91	7	11	21.6	359.93	.0043	-24.51	-.0000	394437.1	1.79	30.28	-.0000	179.93	.0045	-23.72	243.22
IMPACT	3785.62	3796.87	7	11	26.5												
IMPC 42	3785.62	3796.87	7	11	26.5	266.22	.0043	-23.22	-.0000	397066.0	1.68	10.25	.0033	111.27	-.0022	-23.72	241.94
IMPC 11	3785.62	3796.87	7	11	26.5	1.23	.0044	-24.51	-.0000	394998.8	2.05	30.27	-.0001	181.29	.0046	-23.72	241.94

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	4	20	20.923	6547.626	17.8570	305.0260	10.99188	1.2130	117.0702	143.0809
SEPARATION	1.20	12.45	4	20	22.123	6587.946	14.6240	311.0624	10.95782	4.6312	118.8449	149.4181
RETRO	3.20	14.45	4	20	24.123	6756.599	9.0590	320.4362	10.81911	10.1615	120.8785	159.2932
ENTER SHA	23.89	35.14	4	20	44.815	12341.412	-23.6893	14.4821	7.97872	43.0525	112.2500	218.5265
EXIT SHA	83.16	94.41	4	21	44.081	30068.985	-32.0192	42.1844	5.05733	61.7600	91.5698	261.0858
IMPACT	3785.62	3796.87	7	11	26.543	398248.762	-23.7198	241.9427	2.20669	67.6070	260.7010	308.9930

JUN 4, 1966
108 DEGREES

SURVEYOR VIEW PERIODS

GHA	254.9453				EPS	49.2016						LOM	237.8186
SX	.575712	SY	-.711852	SZ	-.402245	DAO	-23.7213	RAD	308.96377	RM	399535.336	LAT	28.310600	LON	279.461800
C3	-.939116	ECC	.9845841	SLR	12988.420	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.592088	NSY	-.700426	NSZ	-.398189	C3M	1.4466	VIM	2.6713	ZAE	141.246	B.T	.0000	B.R	-.0000
LATE	6.4187	LONE	2.8842	LATS	.6256	LONS	314.0212	LATI	1.6944	LONI	324.3071	RSM	152.0909	TTAN	5.7795
LAUNCH DATE		JUN	4,1966		BASE AZM	111.0		TF	63.146			ARRIVAL DATE		JUN 7 1966 11 42 52.5	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	20 16 58.2	28.1	16.78	304.46	3.58	144.26	119.17	20 27 53.9	6552.1	10.99	1.92

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DFC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	4	20	27.9												
SEPARATION	1.20	12.45	4	20	29.1												
RETRO	3.20	14.45	4	20	31.1												
RISE 72	4.52	15.77	4	20	32.4	85.70	-.1426	28.48	-.0386	2811.1	-7.97	.00	.1299	298.68	-.0185	3.78	324.90
EXTM 72	10.23	21.48	4	20	38.1	5.11	-.2283	-16.45	-.1311	1852.1	4.44	80.10	-.0000	209.83	-1.4850	-9.83	344.55
RISE 51	11.79	22.34	4	20	39.0	84.41	-.0772	11.42	-.0494	5529.7	-3.02	.00	.0897	282.70	-.0107	-11.44	346.98
ENTER SHA	24.56	35.75	4	20	52.4												
ENTR 72	24.56	35.75	4	20	52.4	305.39	-.0193	-35.42	-.0016	7949.6	7.03	33.12	.0155	127.70	-.0031	-25.87	13.31
ENTR 51	24.56	35.75	4	20	52.4	28.21	-.0508	-24.46	-.0237	6564.3	4.33	64.50	.0492	266.27	-.0387	-25.87	13.31
EXTM 51	37.56	48.78	4	21	5.4	2.11	-.0206	-33.44	-.0043	10508.3	5.31	82.08	-.0000	192.89	-.1283	-30.54	26.41
EXTM 72	70.66	81.91	4	21	38.6	291.28	-.0000	-35.48	.0003	23683.4	4.77	21.87	.0000	125.15	-.0004	-33.18	39.13
EXIT SHA	79.34	90.59	4	21	47.2												
EXIT 72	79.34	90.59	4	21	47.2	291.44	.0006	-35.30	.0003	26109.4	4.56	22.02	.0005	124.98	-.0003	-33.27	40.25
EXIT 51	79.34	90.59	4	21	47.2	343.62	-.0014	-35.11	.0003	22948.8	4.54	73.09	-.0008	127.52	-.0028	-33.27	40.25
EXTM 51	89.78	101.03	4	21	57.7	343.15	-.0002	-34.49	.0004	25735.8	4.36	72.85	.0000	126.24	-.0014	-33.27	40.96
RISE 61	153.67	164.92	4	23	1.6	313.37	.0026	-39.16	.0007	46 52.6	3.54	-.00	.0017	145.63	.0013	-32.49	37.29
EXTM 51	221.30	232.55	5	0	9.2	.73	.0033	-32.32	.0003	5 219.8	3.27	83.49	-.0000	185.46	.0245	-31.55	27.04
EXTM 61	401.30	412.55	5	3	9.2	5.44	.0039	-33.52	.0003	9.6	2.66	16.07	.0000	184.72	.0034	-29.75	350.64
EXTM 72	428.66	439.91	5	3	36.6	1.14	.0040	-31. 2	.0002	43.3	2 59	66.86	.0000	182.49	.0087	-29.55	344.61
RISE 11	598.03	609.28	5	6	25.9	294.61	.0040	-30.35	.0000	124686.0	. 01	.00	.0026	128.47	.0023	-28.52	306.01
SET 51	626.88	632.13	5	6	48.8	90.00	.0038	-27.71	.0001	123546.8	2.61	11.39	-.0032	245.06	-.0012	-28.40	300.68
SET 61	633.00	644.25	5	7	.9	60.07	.0039	-30.52	.0002	126450.3	2.49	- .	-.0021	228.29	.0027	-28.34	297.85
SET 72	816.97	828.22	5	10	4.9	94.10	.0039	-27.22	.0001	150027.2	2.42	.	-.0035	242.49	-.0004	-27.57	254.29
RISE 42	827.20	838.45	5	10	15.1	254.99	.0040	-26. 8	-.0000	150869.6	1.71	3.64	.0028	119.62	-.0022	-27.54	251.84
EXTM 11	869.67	880.82	5	10	57.5	1.52	.0042	-29.50	.0001	153678.5	1.99	25.28	.0000	181.46	.0040	-27.39	241.69
SET 11	1138.15	1149.40	5	15	26.0	68.06	.0041	-27.69	.0001	186673.4	2.08	.01	-.0027	235.07	.0024	-26.60	176.75
EXTM 42	1251.73	1262.98	5	17	19.6	359.92	.0042	-26.04	.0000	192407.4	1.72	80.82	-.0000	.48	-.0228	-26.33	149.06
RISE 51	1387.04	1398.29	5	19	34.9	270.00	.0041	-25.68	-.0000	211048.4	1.27	10.72	.0034	113.14	-.0015	-26.05	115.96
RISE 72	1542.92	1554.17	5	22	10.8	266.19	.0041	-25.52	-.0000	227261.0	1.16	-.01	.0037	115.78	-.0005	-25.75	77.71
RISE 61	1617.77	1629.02	5	23	25.7	295.25	.0041	-26.15	.0000	234245.9	1.26	.00	.0026	126.14	.0027	-25.62	59.31
SET 42	1674.62	1685.87	6	0	22.5	105.00	.0041	-24. 0	.0001	239153.6	1.84	2.74	-.0030	241.55	-.0022	-25.53	45.31
EXTM 51	1738.47	1749.72	6	1	26.4	358.05	.0042	-25.42	.0000	238931.3	1.48	88.21	.0037	60.04	-.0237	-25.43	29.58
EXTM 61	1877.92	1889.17	6	3	45.8	.58	.0042	-26.52	.0000	254990.2	1.44	23.24	.0000	180.55	.0041	-25.22	355.18
EXTM 72	1916.92	1928.17	6	4	24.8	.12	.0042	-25.59	.0000	254843.9	1.43	72.31	.0000	180.36	.0124	-25.16	345.55
RISE 11	2052.57	2063.82	6	6	40.5	289.99	.0042	-25.85	-.0000	272299.8	1.07	.00	.0029	122.25	.0024	-24.98	312.03
SET 51	2105.27	2116.52	6	7	33.2	90.00	.0041	-24.40	.0001	275512.9	1.75	10.33	-.0035	247.78	-.0015	-24.92	298.99
SET 61	2137.91	2149.16	6	8	5.8	65.84	.0042	-25.82	.0001	279326.7	1.64	-.00	-.0026	235.22	.0027	-24.87	290.92
SET 72	2289.42	2300.67	6	10	37.3	90.63	.0041	-24.31	.0001	291491.4	1.73	-.00	-.0037	245.24	-.0005	-24.70	253.40
RISE 42	2291.47	2302.72	6	10	39.4	255.00	.0041	-23.93	-.0000	291394.9	.99	2.33	.0030	117.92	-.0023	-24.69	252.89
EXTM 11	2332.33	2343.58	6	11	20.2	.39	.0042	-25.73	.0000	291789.5	1.31	29.06	-.0000	180.40	.0043	-24.65	242.77
SET 11	2611.95	2623.20	6	15	59.8	70.71	.0042	-25.19	.0000	316186.8	1.56	-.00	-.0029	238.73	.0024	-24.35	173.42
EXTM 42	2710.19	2721.44	6	17	38.1	359.95	.0042	-24.04	.0000	317223.4	1.21	78.82	.0000	.27	-.0188	-24.26	149.03
RISE 51	2840.76	2852.01	6	19	48.7	270.00	.0041	-23.71	-.0000	331711.6	.81	10.05	.0035	111.58	-.0015	-24.14	116.60
RISE 72	2995.92	3007.17	6	22	23.8	266.48	.0041	-23.95	-.0000	343729.1	.74	-.00	.0037	114.09	-.0006	-24.01	78.04
RISE 61	3060.19	3071.44	6	23	28.1	292.91	.0042	-24.10	-.0000	348319.5	.82	.00	.0027	123.20	.0027	-23.96	62.03
SET 42	3128.90	3140.15	7	0	36.8	105.00	.0041	-23.29	.0000	352682.4	1.45	1.94	-.0030	242.59	-.0023	-23.92	44.87
EXTM 51	3197.69	3208.94	7	1	46.6	.00	.0042	-23.85	.0000	351141.4	1.10	88.11	-.0000	359.59	-.0027	-23.89	27.69
EXTM 61	3326.21	3337.46	7	3	54.1	.19	.0042	-24.73	.0000	363236.3	1.10	25.03	-.0000	180.19	.0042	-23.83	355.57
EXTM 72	3365.92	3377.17	7	4	33.8	.03	.0042	-24.18	.0000	362453.5	1.10	73.82	.0000	180.13	.0121	-23.81	345.64
RISE 11	3493.62	3504.87	7	6	41.5	288.64	.0042	-24.47	-.0000	376916.5	.77	.00	.0029	120.33	.0024	-23.75	313.69
SET 51	3553.79	3565.04	7	7	41.7	90.00	.0042	-23.45	.0000	379799.0	1.50	9.91	-.0035	248.75	-.0015	-23.73	298.63
SET 61	3592.02	3603.27	7	8	19.9	67.45	.0042	-24.00	.0000	383446.2	1.42	-.00	-.0027	237.24	.0027	-23.72	289.05
SET 72	3734.78	3746.03	7	10	42.7	93.47	.0042	-23.75	.0000	393454.6	1.70	-.00	-.0038	246.21	-.0006	-23.69	253.20
RISE 42	3734.86	3746.11	7	10	42.8	255.00	.0042	-23.12	-.0000	393256.3	.94	1.83	.0031	117.28	-.0023	-23.69	253.18
EXTM 11	3774.30	3785.55	7	11	22.2	359.95	.0043	-24.49	-.0000	393513.5	1.55	30.31	-.0000	179.94	.0045	-23.69	243.20
IMPACT	3788.89	3800.14	7	11	36.8												
IMPC 42	3788.89	3800.14	7	11	36.8	268.70	.0043	-23.21	-.0000	396886.7	1.67	12.13	.0033	109.98	-.0022	-23.70	239.47
IMPC 11	3788.89	3800.14	7	11	36.8	3.74	.0044	-24.49	-.0000	395032.0	2.06	30.19	-.0003	183.94	.0046	-23.70	239.47

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	4	20	27.898	6552.127	16.7770	304.4593	10.98791	1.9232	119.1678	144.2625
SEPARATION	1.20	12.45	4	20	29.098	6602.111	13.3433	310.3182	10.94582	5.3315	120.7705	150.4222
RETRO	3.20	14.45	4	20	31.098	6785.912	7.5191	319.4009	10.79539	10.8254	122.5119	160.0063
ENTER SHA	24.56	35.75	4	20	52.397	12620.947	-25.8733	13.3085	7.88836	43.7205	111.6947	219.2535
EXIT SHA	79.34	90.59	4	21	47.237	29107.784	-43.2658	40.2485	5.14286	61.2717	90.9148	259.9410
IMPACT	3788.89	3800.14	7	11	36.791	398274.863	-23.7013	239.4667	2.20415	67.3665	261.2722	309.0661

SURVEYOR VIEW PERIODS

GHA	254.9453					EPS	49.3014							LOM	234.7180
SX	.577242	SY	-.710821	SZ	-.401902	DAD	-23.69 13	RAD	309.07926	RM	399562.961	LAT	28.310600	LON	279.461800
C3	-.944272	ECC	.984496	SLR	12987.865	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.593648	NSY	-.699527	NSZ	-.397799	C3M	1.4966	VIM	2.6713	ZAE	141.064	B.T	.0000	B.R	-.0000
LATE	6.4230	LONE	2.9932	LATS	.6238	LONS	314.0249	LATI	1.2419	LON.	324.3005	RSM	152.0905	TTAN	5.7815
LAUNCH DATE	JUN	4,1966		BASE AZM	115.0		TF 63.236					ARRIVAL DATE	JUN 7 1966 11 55 42.3		

LNCH AZMTH	LNCH TIME	PH	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	20 24 22.4	24.1	15.38	303.62	5.42	145.36	121.96	20 35 37.4	6559.2	10.98	2.69

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	4	20	35.6												
SEPARATION	1.20	12.45	4	20	36.8												
RETRO	3.20	14.45	4	20	38.8												
RISE 72	4.49	15.74	4	20	40.1	86.79	-.1285	21.96	-.0633	2902.9	-7.60	.00	.1272	292.18	-.0449	1.71	323.10
EXTM 72	10.58	21.83	4	20	46.2	10.69	-.2159	-28.49	-.1015	2123.3	4.73	67.08	-.0000	204.75	-.5526	-13.04	343.24
RISE 51	11.17	22.42	4	20	46.8	86.65	-.0715	6.90	-.0528	5677.8	-2.72	.00	.0869	277.67	-.0164	-14.15	344.86
ENTER SHA	26.02	37.27	4	21	1.6												
ENTR 72	26.02	37.27	4	21	1.6	306.79	-.0188	-40.28	.0009	8612.9	6.85	32.78	-.0132	133.39	-.0067	-29.22	12.84
ENTR 51	26.02	37.27	4	21	1.6	28.68	-.0471	-30.87	-.0186	7166.7	4.53	64.30	.0389	251.84	-.0497	-29.22	12.84
EXTM 51	46.84	58.09	4	21	16.5	1.92	-.0178	-37.06	-.0021	11691.3	5.25	77.97	-.0000	187.30	-.0684	-33.47	26.50
EXTM 72	70.84	82.09	4	21	46.5	292.95	-.0001	-37.48	.0007	23713.0	4.76	22.91	-.0000	127.90	-.0007	-35.10	37.36
EXIT SHA	72.89	84.14	4	21	48.5												
EXIT 72	72.89	84.14	4	21	48.5	292.95	.0001	-37.40	.0007	24294.3	4.71	22.92	.0001	127.81	-.0007	-35.11	37.69
EXIT 51	72.89	84.14	4	21	48.5	346.59	-.0026	-37.43	.0006	21242.4	4.65	73.49	-.0011	139.80	-.0065	-35.11	37.69
EXTM 51	87.45	98.70	4	22	3.1	345.27	-.0006	-37.18	.0006	25186.7	4.39	73.05	.0000	135.98	-.0027	-35.03	39.16
RISE 61	198.52	209.77	4	23	14.1	315.76	.0027	-40.25	.0007	47887.3	3.50	.00	.0017	147.83	.0014	-33.73	35.15
EXTM 51	214.59	225.84	5	0	10.2	1.14	.0032	-33.58	.0004	53650.6	3.30	82.10	-.0000	186.94	.0196	-32.75	26.67
EXTM 61	397.86	409.11	5	3	13.5	6.29	.0039	-34.35	.0003	90442.6	2.67	15.19	.0000	185.38	.0033	-30.55	349.84
EXTM 72	422.58	433.83	5	3	38.2	1.37	.0040	-31.87	.0002	90358.5	2.61	66.00	.0000	182.87	.0083	-30.33	344.40
RISE 11	594.07	605.32	5	6	29.7	295.27	.0040	-31.17	.0001	121153.4	2.01	.00	.0026	129.31	.0023	-29.12	305.34
SET 51	613.88	625.13	5	6	49.5	90.00	.0038	-27.90	.0002	122580.4	2.61	11.73	-.0032	244.50	-.0012	-29.00	300.72
SET 61	622.39	633.64	5	6	58.0	59.21	.0039	-31.17	.0002	125027.2	2.49	-.00	-.0021	227.30	.0027	-28.95	298.73
SET 72	810.40	821.65	5	10	6.0	94.18	.0039	-27.70	.0001	149220.7	2.43	-.00	-.0035	242.01	-.0004	-28.05	254.23
RISE 42	820.47	831.72	5	10	16.1	[illegible]	.0040	-26.84	-.0000	150015.0	1.72	3.93	.0028	119.99	-.0022	-28.01	251.82
EXTM 11	863.48	874.65	5	10	59.0	1.68	.0042	-29.96	.0001	152981.7	1.99	24.81	.0000	181.61	.0040	-27.84	241.53
SET 11	1129.82	1141.07	5	15	25.4	67.72	.0041	-28.25	.0001	185754.9	2.08	-.00	-.0027	234.60	.0024	-26.95	177.10
EXTM 42	1244.67	1255.92	5	17	20.3	359.88	.0042	-26.36	.0000	191638.8	1.72	81.14	.0000	.73	-.0240	-26.65	149.10
RISE 51	1380.15	1391.40	5	19	35.8	270.00	.0041	-25.96	-.0000	210309.5	1.28	10.83	.0034	113.40	-.0015	-26.32	115.95
RISE 72	1535.82	1547.07	5	22	11.4	266.15	.0041	-25.76	-.0000	226532.2	1.17	-.01	.0037	116.02	-.0005	-25.99	77.74
RISE 61	1611.83	1623.13	5	23	27.5	295.52	.0042	-26.48	.0000	233636.4	1.26	.00	.0026	126.47	.0027	-25.84	59.04
SET 42	1667.62	1678.85	6	0	23.2	105.00	.0041	-24.81	.0001	238429.7	1.85	2.87	-.0030	241.39	-.0022	-25.74	45.32
EXTM 51	1731.34	1742.59	6	1	27.0	358.02	.0042	-25.62	.0000	238217.2	1.48	88.21	.0038	86.72	-.0097	-25.63	29.61
EXTM 61	1871.09	1882.34	6	3	46.7	.63	.0042	-26.70	.0000	254330.3	1.44	23.06	.0000	180.61	.004	-25.39	355.13
EXTM 72	1909.92	1921.17	6	4	25.5	.13	.0042	-25.96	.0000	254159.4	1.43	72.14	.0000	180.40	.0123	-25.33	345.54
RISE 11	2046.18	2057.33	6	6	41.7	290.13	.0042	-26. 0	-.0000	271657.1	1.07	.00	.0029	122.44	.0024	-25.13	311.88
SET 51	2098.16	2109.41	6	7	33.8	90.00	.0041	-24.54	.0001	274815.4	1.75	10.39	-.0035	247.64	-.0015	-25.06	299.00
SET 61	2130.15	2141.40	6	8	5.8	65.67	.0042	-25.96	.0001	278583.2	1.64	-.00	-.0026	235.01	.0027	-25.01	291.08
SET 72	2282.36	2293.61	6	10	38.0	93.65	.0041	-24.53	.0001	290809.6	1.73	-.00	-.0037	245.12	-.0005	-24.81	253.39
RISE 42	2284.36	2295.61	6	10	40.0	255.00	.0041	-24.54	-.0000	290701.3	.99	2.40	.0030	118.01	-.0023	-24.81	252.89
EXTM 11	2325.34	2336.59	6	11	21.0	.42	.0042	-25.44	.0000	291124.9	1.31	28.95	-.0000	180.44	.0043	-24.76	242.74
SET 11	2404.46	2415.71	6	16	.1	70.63	.0042	-25.17	.0000	315476.7	1.56	-.00	-.0029	238.63	.0024	-24.43	173.50
EXTM 42	2702.97	2714.22	6	17	38.6	359.94	.0042	-24.11	.0000	316532.0	1.21	78.89	.0000	.30	-.0190	-24.33	149.04
RISE 51	2833.56	2844.81	6	19	49.2	270.00	.0041	-23.76	-.0000	331019.4	.81	10.08	.0035	111.63	-.0015	-24.20	116.60
RISE 72	2986.67	2999.92	6	22	24.3	266.47	.0041	-23.89	-.0000	343033.9	.74	-.00	.0037	114.14	-.0006	-24.05	78.03
RISE 61	3053.12	3064.37	6	23	28.7	292.95	.0042	-24.24	-.0000	347635.9	.82	.00	.0027	123.25	.0027	-23.99	61.99
SET 42	3121.64	3132.89	7	0	37.3	105.00	.0041	-23.32	.0000	351978.7	1.44	1.95	-.0030	242.57	-.0023	-23.95	44.87
EXTM 51	3190.41	3201.66	7	1	44.0	359.99	.0042	-23.58	.0000	350431.5	1.10	88.14	.0000	.54	-.0478	-23.91	27.69
EXTM 61	3319.05	3330.30	7	3	54.7	.21	.0042	-24.25	.0000	362521.6	1.10	25.02	-.0000	180.21	.0042	-23.84	355.54
EXTM 72	3358.68	3369.93	7	4	34.3	.04	.0042	-24.10	.0000	361727.0	1.09	73.81	.0000	180.15	.0121	-23.82	345.63
RISE 11	3486.40	3497.65	7	6	42.0	288.64	.0042	-24.37	-.0000	376168.3	.77	.00	.0029	120.34	.0024	-23.76	313.69
SET 51	3546.53	3557.78	7	7	42.2	90.00	.0042	-23.35	.0000	379033.6	1.49	9.91	-.0035	248.75	-.0015	-23.73	298.63
SET 61	3584.78	3596.03	7	8	20.4	67.44	.0042	-24.39	.0000	382468.9	1.41	-.00	-.0027	237.25	.0027	-23.71	289.05
SET 72	3727.58	3738.83	7	10	43.2	93.47	.0042	-23.53	.0000	392552.8	1.67	-.00	-.0038	246.23	-.0005	-23.67	253.21
RISE 42	3727.68	3738.93	7	10	43.3	255.00	.0042	-23.10	-.0000	392357.4	.90	1.82	.0031	117.26	-.0023	-23.67	253.18
EXTM 11	3767.29	3778.54	7	11	22.9	359.97	.0043	-24.46	.0000	392460.0	1.41	30.33	.0000	179.97	.0045	-23.67	243.18
IMPACT	3794.18	3805.43	7	11	49.8												
IMPC 42	3794.18	3805.43	7	11	9.8	271.84	.0043	-23.20	-.0000	396655.0	1.67	14.56	.0034	108.36	-.0022	-23.68	236.32
IMPC 11	3794.18	3805.43	7	11	.8	6.93	.0044	-24.47	-.0000	395083.5	2.08	29.97	-.0005	187 28	.0046	-23.68	236.32

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	4	20	35.624	6559.304	15.3751	303.6315	10.98169	2.6890	121.9596	145.3715
SEPARATION	1.20	12.45	4	20	36.824	6619.613	11.6833	309.2498	10.93099	6.0842	123.3464	151.2906
RETRO	3.20	14.45	4	20	38.824	6819.536	5.5177	317.9559	10.76829	11.5358	124.7282	160.4980
ENTER SHA	26.02	37.27	4	21	1.639	13204.312	-29.2184	12.8392	7.70911	45.0219	110.3946	221.1010
EXIT SHA	72.89	84.14	4	21	48.512	27414.942	-35.1074	37.6899	5.30424	60.3435	90.3989	257.7021
IMPACT	3794.18	3805.43	7	11	49.806	398304.387	-23.6780	236.3218	2.20224	67.2693	262.1618	309.2037

SURVEYOR VIEW PERIODS

GHA	255.9309					EPS	60.5366						LOM	242.4140	
SX	.7351?2	SY	-.579409	SZ	-.349872	DAD	-20.47249	RAD	321.79336	RM	402237.813	LAT	28.310600	LON	279.461800
C3	-.932321	RFC	.9864?2	SLR	12989.089	HCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.749396	NSY	-.566447	NSZ	-.344182	C3M	1.4933	VIM	2.6707	ZAE	141.882	B.T	.0000	B.R	-.0000
LATE	6.7575	LONE	1.8347	LATS	.6431	LONS	301.5723	LATI	3.9976	LONI	323.6385	RSM	152.0475	TTAN	4.8420
LAUNCH DATE		JUN	5.1966	BASE AZM	102.0		TF 63.861				ARRIVAL DATE	JUN	8 1966	12 11 47.4	

LNCH AZMTH	LNCH TIME	Pg	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	2 1 49.1	27.4	20.28	305.51	-11.26	142.58	112.68	20 13 4.1	6607.7	10.94	-5.58

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	5	20	13.1												
SEPARATION	1.20	12.45	5	20	14.3												
RETRO	3.20	14.45	5	20	16.3												
RISE 72	5.5?	16.75	5	20	18.6	81.42	-.2089	47.18	.0506	2198.7	-8.65	-.00	.1291	317.67	.0782	6.24	332.92
EXTM 72	9.37	20.62	5	20	22.4	338.84	-.3385	21.40	-.3225	1191.6	3.24	54.08	.0635	34.96	.7606	-3.44	348.79
RISE 51	11.34	22.59	5	20	24.4	78.51	-.1041	22.44	-.0434	4533.5	-4.74	.00	.1053	295.08	.0069	-7.62	355.71
ENTER SHA	13.32	24.57	5	20	26.4												
ENTR 72	13.32	24.57	5	20	26.4	303.78	-.0638	-15.18	-.0560	2848.7	8.30	34.57	-.0623	103.03	.0669	-11.23	1.91
ENTR 51	13.32	24.57	5	20	26.4	65.55	-.1132	16.45	-.0589	4068.5	-3.02	13.62	.1232	296.01	.0089	-11.23	1.91
EXTM 51	25.99	37.24	5	20	39.1	358.12	-.0491	-21.89	-.0200	5881.5	5.45	85.73	-.0000	24.50	.6758	-23.89	28.60
EXIT SHA	66.22	77.47	5	21	19.3												
EXIT 42	66.22	77.47	5	21	19.3	108.05	-.0056	-21.15	-.0024	24066.7	4.31	-1.60	.0057	242.51	.0015	-29.99	54.29
EXIT 72	66.22	77.47	5	21	19.3	274.27	-.0002	-29.47	-.0000	23056.7	4.97	7.61	-.0002	119.25	.0000	-29.99	54.29
EXIT 51	66.22	77.47	5	21	19.3	524.41	-.0024	-30.20	-.0000	19066.9	4.92	58.38	-.0021	106.38	.0001	-29.99	54.29
EXTM 72	69.14	80.39	5	21	22.1	274.25	.0000	-29.87	.0000	23890.0	4.88	7.59	.0000	119.26	-.0000	-30.03	54.86
RISE 42	76.95	88.20	5	21	30.0	105.00	-.0036	-22.48	-.0015	26844.3	4.31	1.38	.0037	243.31	.0010	-30.06	56.07
EXTM 42	121.67	132.92	5	22	14.7	101.11	.0002	-24.26	-.0002	38097.1	4.06	5.36	-.0000	243.96	-.0003	-29.54	56.48
SET 42	175.97	187.22	5	23	9.0	105.00	.0019	-24.43	.0001	50772.0	3.73	2.64	-.0014	241.69	-.0010	-28.65	50.37
RISE 61	197.58	208.83	5	23	30.7	304.02	.0032	-33.47	.0004	55609.6	3.21	.00	.0020	136.26	.0018	-28.32	47.03
EXTM 51	244.13	255.38	6	1	7.2	358.42	.0037	-27.27	.0002	68002.2	2.97	87.92	.0024	137.51	.0621	-27.14	29.13
EXTM 61	466.56	477.81	6	3	50.6	4.07	.0040	-29.05	.0002	100149.9	2.52	20.61	.0000	183.81	.0037	-25.72	351.89
EXTM 72	496.87	508.12	6	4	29.9	.70	.0041	-26.02	.0001	101034.5	2.46	71.27	-.0000	181.95	.0113	-25.53	345.02
RISE 11	647.71	658.96	6	7	.8	290.69	.0040	-26.09	.0000	128101.0	1.92	.00	.0028	123.22	.0023	-24.74	310.07
SET 51	688.77	700.02	6	7	41.8	90.00	.0039	-23.49	.0001	132436.3	2.54	9.97	-.0033	248.62	-.0014	-24.55	300.39
SET 61	721.99	733.24	6	8	15.1	65.23	.0040	-26.64	.0002	137839.7	2.40	-.00	-.0024	234.47	.0027	-24.42	292.53
SET 72	880.31	891.56	6	10	53.4	93.47	.0040	-23.52	.0001	157386.9	2.38	-.01	-.0036	246.24	-.0004	-23.85	254.71
RISE 42	891.57	902.82	6	11	4.6	254.99	.0040	-22.61	-.0000	158566.6	1.65	1.39	.0029	116.72	-.0023	-23.81	252.00
EXTM 11	933.29	944.54	6	11	46.4	1.24	.0042	-25.63	.0001	160537.4	1.94	29.15	-.0000	181.28	.0043	-23.68	241.95
SET 11	1216.67	1227.92	6	16	29.7	71.56	.0041	-24.14	.0001	194763.2	2.05	-.00	-.0028	239.96	.0024	-22.95	173.16
EXTM 42	1315.12	1326.37	6	18	8.2	359.87	.0042	-22.44	.0000	198754.1	1.68	77.12	.0000	.54	-.0172	-22.74	149.10
RISE 51	1449.97	1461.22	6	20	23.0	270.00	.0041	-21.81	-.0000	217190.6	1.24	9.28	.0035	109.83	-.0016	-22.48	116.06
RISE 72	1608.03	1619.28	6	23	1.1	266.79	.0041	-21.49	-.0000	233205.6	1.13	.00	.0038	112.21	-.0005	-22.21	77.21
RISE 61	1664.49	1675.74	6	23	57.6	291.27	.0041	-23.20	.0000	238405.0	1.22	.00	.0027	121.07	.0027	-22.12	63.31
SET 42	1737.79	1749.04	7	1	10.9	105.00	.0041	-21.10	.0000	244975.8	1.83	.59	-.0030	244.32	-.0023	-22.01	45.25
EXTM 51	1808.88	1820.13	7	2	21.9	359.97	.0042	-21.41	.0000	245080.9	1.47	86.07	.0000	.47	-.0477	-21.91	27.71
EXTM 61	1940.32	1951.57	7	4	33.4	.50	.0042	-22.97	.0000	259907.8	1.42	26.79	-.0000	180.52	.0043	-21.73	355.26
EXTM 72	1974.44	1985.69	7	5	12.5	.08	.0042	-22.01	.0000	259975.0	1.41	75.89	.0000	180.33	.0157	-21.68	345.59
RISE 11	2102.43	2113.68	7	7	15.5	286.87	.0042	-22.45	-.0000	276357.6	1.04	.00	.0030	117.74	.0024	-21.53	315.17
SET 51	2168.11	2179.26	7	8	21.1	90.00	.0041	-20.33	.0000	280733.7	1.74	8.92	-.0035	250.99	-.0016	-21.45	298.94
SET 61	2216.10	2227.35	7	9	9.2	69.70	.0041	-22.29	.0000	285606.5	1.64	-.00	-.0027	240.20	.0027	-21.40	287.03
SET 72	2349.76	2361.01	7	11	22.8	93.07	.0041	-21.08	.0000	296204.8	1.73	-.00	-.0038	248.71	-.0005	-21.25	253.91
RISE 42	2353.70	2364.95	7	11	26.8	255.00	.0041	-20.90	-.0000	296487.9	.96	.22	.0030	115.20	-.0024	-21.25	252.94
EXTM 11	2394.51	2405.76	7	12	7.6	.34	.0042	-22.23	.0000	296279.6	1.29	32.56	-.0000	180.37	.0046	-21.21	242.82
SET 11	2686.55	2697.80	7	16	59.6	71.75	.0042	-21.63	.0000	321709.3	1.56	-.00	-.0030	243.18	.0024	-20.93	170.35
EXTM 42	2772.39	2783.64	7	18	25.5	359.94	.0042	-20.37	.0000	321851.9	1.20	75.35	-.0000	.22	-.0146	-20.85	149.04
RISE 51	2902.75	2914.00	7	20	34.8	270.00	.0041	-20.10	-.0000	336310.6	.79	8.66	.0035	108.43	-.0016	-20.74	116.64
RISE 72	3060.07	3071.32	7	23	13.1	267.03	.0042	-20.46	-.0000	348447.0	.68	.00	.0039	110.67	-.0006	-20.61	77.53
RISE 61	3107.56	3118.81	8	0	.6	289.28	.0042	-21.41	-.0000	351603.2	.80	.00	.0028	118.44	.0027	-20.59	65.67
SET 42	3190.30	3201.55	8	1	23.4	104.84	.0041	-19.93	.0000	357071.5	1.45	-.00	-.0031	245.33	-.0024	-20.56	45.01
EXTM 51	3259.60	3270.85	8	2	32.7	359.99	.0042	-20.44	.0000	355333.2	1.10	84.70	-.0000	.19	-.0159	-20.53	27.69
EXTM 61	3387.97	3399.22	8	4	41.0	.14	.0042	-21.15	.0000	366997.6	1.09	28.41	-.0000	180.13	.0045	-20.48	355.61
EXTM 72	3427.79	3439.04	8	5	20.9	.02	.0042	-20.59	.0000	366443.7	1.09	77.22	.0000	180.11	.0123	-20.47	345.65
RISE 11	3543.92	3555.17	8	7	17.0	285.74	.0042	-21.13	-.0000	380195.3	.75	.00	.0031	116.06	.0024	-20.44	316.60
SET 51	3615.84	3627.09	8	8	28.9	90.00	.0042	-20.04	.0000	383986.4	1.50	8.56	-.0036	251.81	-.0016	-20.42	298.60
SET 61	3668.13	3679.38	8	9	21.2	70.98	.0042	-21.06	.0000	388430.8	1.44	-.00	-.0028	241.91	.0027	-20.41	285.49
SET 72	3794.65	3805.90	8	11	27.7	92.94	.0042	-20.29	.0000	397494.0	1.78	-.00	-.0039	249.51	-.0006	-20.42	253.70
RISE 42	3797.49	3808.74	8	11	30.6	255.23	.0042	-19.46	-.0000	397724.4	1.02	.00	.0031	114.57	-.0024	-20.42	252.98
IMPACT	3831.65	3842.90	8	12	4.7												
IMPC 42	3831.65	3842.90	8	12	4.7	263.90	.0043	-19.93	-.0001	400187.5	1.67	6.60	.0033	109.78	-.0023	-20.45	244.29
IMPC 11	3831.65	3842.90	8	12	4.7	358.84	.0044	-21.21	-.0000	397411.2	2.03	33.57	.0001	178.71	.0049	-20.45	244.29
EXTM 11	3833.80	3845.05	8	12	6.9	359.40	.0044	-21.21	-.0000	397682.1	2.24	33.58	.0000	179.33	.0049	-20.45	243.74

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	5	20	13.069	6609.357	20.3078	305.4358	10.94153	-5.5843	112.6534	142.5073
SEPARATION	1.20	12.45	5	20	14.269	6554.246	17.5150	311.8378	10.98631	-2.1827	114.8312	149.2102
RETRO	3.20	14.45	5	20	16.269	6569.839	12.4085	322.0355	10.97316	3.5354	117.6037	159.9093
ENTER SHA	13.32	24.57	5	20	26.391	8331.827	-11.2345	1.9085	9.73391	27.4739	118.0690	202.3199
EXIT SHA	66.22	77.47	5	21	19.290	24729.998	-29.9937	54.2933	5.59577	58.6601	92.1449	267.9656
IMPACT	3831.65	3842.90	8	12	4.723	4009?0.074	-20.4503	244.2926	2.20241	67.6040	254.1416	321.8996

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SURVEYOR VIEW PERIODS

GHA	255.9319					EPS	60.6225							LOM	239.6962
SX	.737217	SY	-.578374	SZ	-.349410	DAO	+20.45 20	RAD	321.88835	RM	402254.570	LAT	28.310600	LON	279.461800
C3	-.930553	F*C	.986721	SLR	12989.340	HCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.750651	NSY	-.594515	NSZ	-.343725	C3M	1.4467	VIM	2.6713	ZAE	141.894	R.T	.0000	B.R	-.0000
LATE	6.7589	LONE	1.9287	LATS	.6433	LONS	301.5718	LATI	3.7790	LONI	323.7679	RSM	152.0471	TTAN	4.8315
LAUNCH DATE	JUN	5,1966		BASE AZM	105.0		TF 63.829					ARRIVAL DATE JUN		8 1966	12 23 .6

LNCH AZMTH	LNCH TIME		PH	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME		INJ RAD	INJ VEL	INJ FTH
105.00	2 14	9.9	27.6	19.13	305.15	-8.13	145.32	114.84	20 25	24.9	6580.8	10.96	-4.23

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PHORE IN SUNLIGHT											
INJECTION	.00	11.25	5	20	25.4												
SEPARATION	1.20	12.45	5	20	26.6												
RETRO	3.20	14.45	5	20	28.6												
RISE 72	5.26	16.51	5	20	30.7	83.30	-.1789	40.11	.0150	2280.9	-8.83	.00	.1321	310.47	.0394	4.99	330.77
EXTM 72	9.09	20.34	5	20	34.5	356.60	-.4062	13.07	-.3048	1108.2	2.16	68.27	.2382	8.96	1.1836	-4.77	346.17
RISE 51	11.23	22.48	5	20	36.6	80.72	-.0964	18.50	-.0476	4687.7	-4.48	.00	.1030	290.62	-.0004	-9.32	353.50
ENTER SHA	12.89	24.14	5	20	38.3												
ENTR 72	12.89	24.14	5	20	38.3	311.67	-.0856	-20.46	-.0501	2609.7	8.21	41.70	-.0862	110.32	.0521	-12.36	358.62
ENTR 51	12.89	24.14	5	20	38.3	70.75	-.1030	13.19	-.0586	4307.6	-3.10	10.95	.1162	290.57	-.0007	-12.36	358.62
EXTM 51	26.66	37.91	5	20	52.1	1.50	-.0472	-25.59	-.0164	6249.2	5.39	88.64	.0442	276.13	-.4744	-25.67	26.94
EXIT SHA	64.83	76.08	5	21	36.2												
EXIT 42	64.83	76.08	5	21	36.2	111.16	-.0059	-21.77	-.0024	24003.4	4.32	-3.44	.0058	240.18	.0017	-30.94	51.20
EXIT 72	64.83	76.08	5	21	36.2	277.09	-.0004	-31.40	.0002	22521.6	5.00	10.13	-.0003	120.53	-.0002	-30.94	51.20
EXIT 51	64.83	76.08	5	21	36.2	328.19	-.0029	-31.10	.0002	18666.7	4.93	61.58	-.0025	109.57	-.0008	-30.94	51.20
EXTM 72	69.33	80.58	5	21	34.7	277.04	.0000	-31.25	.0002	23851.5	4.86	10.09	.0000	120.48	-.0002	-30.97	52.13
RISE 42	93.52	104.77	5	21	58.9	105.00	-.0018	-24.16	-.0007	31390.7	4.23	2.47	.0017	241.90	.0004	-30.77	54.42
EXTM 42	121.10	132.35	5	22	26.5	103.85	.0002	-24.84	-.0002	38254.5	4.06	3.72	-.0000	242.00	-.0003	-30.26	53.72
SET 42	147.23	158.48	5	22	52.6	105.00	.0012	-24.98	-.0000	44488.8	3.89	2.98	-.0009	241.25	-.0007	-29.75	51.33
RISE 61	189.03	200.28	5	23	34.4	305.37	.0031	-34.18	.0005	53935.1	3.27	.00	.0020	137.70	.0017	-29.01	45.59
EXTM 51	287.97	299.22	6	1	13.4	.16	.0037	-27.42	.0002	66988.7	3.00	87.92	-.0000	183.93	.0887	-27.64	27.54
EXTM 61	455.40	466.65	6	4	.8	4.44	.0040	-29.50	.0002	98580.9	2.55	20.14	.0000	184.12	.0037	-26.12	351.54
EXTM 72	484.57	495.82	6	4	30.0	.77	.0041	-27.05	.0001	99302.5	2.48	70.84	.0000	182.09	.0110	-25.91	344.95
RISE 11	636.83	648.08	6	7	2.2	290.99	.0040	-26.91	.0000	126716.4	1.94	.00	.0028	123.64	.0023	-25.03	309.74
SET 51	676.39	687.64	6	7	41.8	90.00	.0039	-23.77	.0001	130873.9	2.55	10.08	-.0033	248.36	-.0013	-24.84	300.43
SET 61	708.16	719.41	6	8	13.6	64.87	.0040	-26.65	.0002	136132.9	2.42	-.00	-.0023	234.02	.0027	-24.70	292.92
SET 72	868.28	879.53	6	10	53.7	93.51	.0040	-23.74	.0001	156027.3	2.39	-.01	-.0036	246.02	-.0004	-24.07	254.70
RISE 42	879.58	890.83	6	11	5.0	254.99	.0040	-22.62	-.0000	157205.0	1.66	1.52	.0029	116.89	-.0023	-24.03	251.98
EXTM 11	921.56	932.81	6	11	47.0	1.32	.0042	-25.46	.0001	159269.0	1.95	28.92	-.0000	181.36	.0043	-23.89	241.87
SET 11	1204.02	1215.27	6	16	29.4	71.41	.0041	-24.51	.0001	193518.7	2.06	-.00	-.0028	239.75	.0024	-23.11	173.32
EXTM 42	1303.11	1314.36	6	18	8.5	359.86	.0042	-22.49	.0000	197614.7	1.69	77.27	.0000	.58	-.0174	-22.88	149.11
RISE 51	1438.04	1449.29	6	20	23.5	270.00	.0041	-21.03	-.0000	216108.2	1.24	9.33	.0035	109.94	-.0016	-22.60	116.05
RISE 72	1596.03	1607.28	6	23	1.4	266.77	.0041	-22.09	-.0000	232176.1	1.13	.00	.0038	112.31	-.0006	-22.31	77.22
RISE 61	1653.00	1664.25	6	23	58.4	291.38	.0041	-23.10	.0000	237439.6	1.23	.00	.0027	121.21	.0027	-22.22	63.19
SET 42	1725.81	1737.06	7	1	11.2	105.00	.0041	-21.19	.0001	243981.5	1.84	.65	-.0030	244.25	-.0023	-22.10	45.25
EXTM 51	1796.91	1808.16	7	2	22.3	359.97	.0042	-21.89	.0000	244114.6	1.47	86.15	.0000	.49	-.0495	-21.99	27.71
EXTM 61	1928.46	1939.71	7	4	33.9	.53	.0042	-23.05	.0000	258994.9	1.43	26.71	-.0000	180.55	.0043	-21.80	355.23
EXTM 72	1967.50	1978.75	7	5	12.9	.09	.0042	-22.09	.0000	259059.8	1.41	75.82	.0000	180.34	.0157	-21.75	345.58
RISE 11	2090.70	2101.95	7	7	16.1	286.92	.0042	-22.42	-.0000	275488.4	1.04	.00	.0030	117.82	.0024	-21.59	315.11
SET 51	2156.03	2167.28	7	8	21.4	90.00	.0041	-20.98	.0000	279857.0	1.74	8.95	-.0035	250.94	-.0016	-21.51	298.94
SET 61	2203.88	2215.13	7	9	9.3	69.64	.0041	-22.45	.0000	284774.8	1.65	-.00	-.0027	240.13	.0027	-21.45	287.09
SET 72	2337.80	2349.05	7	11	23.2	93.07	.0041	-21.12	.0000	295374.1	1.73	-.00	-.0038	248.67	-.0005	-21.30	253.91
RISE 42	2341.74	2352.99	7	11	27.2	255.00	.0041	-20.94	-.0000	295655.3	.97	.25	.0030	115.24	-.0024	-21.29	252.94
EXTM 11	2382.60	2393.85	7	12	8.0	.35	.0042	-22.28	.0000	295467.0	1.30	32.51	-.0000	180.39	.0046	-21.25	242.80
SET 11	2674.46	2685.71	7	16	59.9	73.73	.0042	-21.66	.0000	320939.6	1.56	-.00	-.0030	243.15	.0024	-20.95	170.38
EXTM 42	2760.38	2771.63	7	18	35.8	359.94	.0042	-20.99	.0000	321104.2	1.21	75.37	-.0000	.23	-.0149	-20.87	149.04
RISE 51	2890.76	2902.01	7	20	36.2	270.00	.0041	-20.41	-.0000	335588.6	.79	8.47	.0035	108.44	-.0016	-20.75	116.64
RISE 72	3048.06	3059.31	7	23	13.5	267.02	.0041	-20.47	-.0000	347538.5	.72	-.01	.0031	110.68	-.0006	-20.62	77.54
RISE 61	3095.61	3106.86	8	0	1.0	289.28	.0042	-21.32	-.0000	350934.6	.80	.00	.0028	118.44	.0027	-20.59	65.67
SET 42	3178.30	3189.55	8	1	23.7	104.83	.0041	-19.93	.0000	356407.4	1.45	-.00	-.0031	245.34	-.0024	-20.56	45.01
EXTM 51	3247.62	3258.87	8	2	33.0	359.99	.0042	-20.43	.0000	354675.3	1.10	84.69	-.0000	.21	-.0161	-20.53	27.69
EXTM 61	3376.02	3387.27	8	4	41.4	.15	.0042	-21.65	.0000	366348.9	1.09	28.42	-.0000	180.16	.0045	-20.48	355.60
EXTM 72	3415.81	3427.06	8	5	21.2	.02	.0042	-20.68	.0000	365794.9	1.09	77.23	.0000	180.11	.0131	-20.46	345.65
RISE 11	3531.90	3543.15	8	7	17.3	285.73	.0042	-21.02	-.0000	379543.8	.75	.00	.0031	116.04	.0024	-20.42	316.61
SET 51	3603.85	3615.10	8	8	29.3	90.00	.0042	-20.12	.0000	383332.3	1.50	8.55	-.0036	251.93	-.0016	-20.40	298.60
SET 61	3656.21	3667.46	8	9	21.6	71.00	.0042	-21.85	.0000	387771.3	1.44	-.00	-.0028	241.94	.0027	-20.39	285.48
SET 72	3782.70	3793.95	8	11	28.1	92.94	.0042	-20.26	.0000	396718.7	1.74	-.00	-.0039	249.54	-.0006	-20.39	253.70
RISE 42	3785.67	3796.92	8	11	31.1	255.25	.0042	-19.43	-.0000	396950.6	.97	.00	.0031	114.53	-.0024	-20.39	252.95
EXTM 11	3823.64	3834.89	8	12	9.0	359.82	.0043	-21.17	-.0000	396746.4	1.74	33.62	-.0000	179.79	.0048	-20.42	243.33
IMPACT	3829.71	3840.96	8	12	15.1												
IMPC 42	3829.71	3840.96	8	12	15.1	266.42	.0043	-19.92	-.0001	399990.5	1.67	8.54	.0034	108.40	-.0023	-20.42	241.77
IMPC 11	3829.71	3840.96	8	12	15.1	1.40	.0044	-21.18	-.0000	397425.1	2.05	33.59	-.0001	181.57	.0049	-20.42	241.77

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FTH	AZ	RT ASC
INJECTION	.00	11.25	5	20	25.415	6581.352	19.1443	305.1220	10.96417	-4.2339	114.8279	145.2885
SEPARATION	1.20	12.45	5	20	26.615	6545.993	16.1243	311.3625	10.99340	-.8134	116.8131	151.8298
RETRO	3.20	14.45	5	20	28.615	6502.981	10.7057	321.2929	10.95385	4.8920	119.2424	162.2616
ENTER SHA	12.89	24.14	5	20	38.307	8345.081	-12.3576	358.6243	9.72623	27.5608	118.6327	202.0227
EXIT SHA	64.83	76.08	5	21	30.249	24462.778	-30.9424	51.1979	5.62654	58.4813	91.5437	267.6176
IMPACT	3829.71	3840.96	8	12	15.126	400985.820	-20.4246	241.7728	2.20276	67.6444	254.5691	321.9878

SURVEYOR VIEW PERIODS

OMA	255.9[illegible]						FPS	60.7209						TOM	236.5817
SX	.7[illegible]	SY	-.577015	SZ	-.349878	DAO	-20.41[illegible]	RAD	321.99715	RM	402[illegible]3.680	LAT	28.310600	LON	279.461800
C3	-9.[illegible]1923	ECC	.9R4499	SLP	12989.191	HCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	[illegible]75.00000	POL	-.0
NSX	.751[illegible]	NSY	-.5[illegible]3199	NSZ	-.3431H9	C3M	1.4970	VIM	2.6714	ZAE	141.844	B.T	.0000	B.R	-.0000
LATE	6.7[illegible]	LONE	1.[illegible]	LATS	.6434	LONS	401.3641	LATI	3.5247	LONI	323.6326	RSM	152.0467	TTAN	4.8249
LAUNCH DATE	JUN	5.1966		BASE AZM	108.0		TF	63.856				ARRIVAL DATE	JUN 8 1966 12 35 52.1		

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	20 24 56.0	27.7	18.01	304.72	-A.21	147.59	116.98	20 36 11.0	6563.8	10.98	-3.08

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	5	20	36.2												
SEPARATION	1.20	12.45	5	20	37.4												
RETRO	3.20	14.45	5	20	39.4												
RISE 72	5.09	16.34	5	20	41.3	84.70	-.1587	33.61	-.0166	2364.5	-8.80	.00	.1331	303.98	.0055	3.64	328.88
EXTM 72	8.59	19.84	5	20	44.8	19.86	-.4299	8.47	-.2796	1115.2	-.19	64.38	.5066	308.99	.1145	-5.54	342.75
RISE 51	11.17	22.42	5	20	47.4	82.73	-.0897	14. 0	-.0514	4833.5	-4.21	.00	.1006	280.36	-.0069	-11.12	351.48
ENTER SHA	12.56	23.81	5	20	48.7												
ENTR 72	12.56	23.81	5	20	48.7	320.03	-.1118	-26.33	-.0409	2459.6	8.02	47.78	-.1079	121.21	.0098	-13.66	355.69
ENTR 51	12.56	23.81	5	20	48.7	76.05	-.0947	10.08	-.0593	4528.0	-3.11	8.79	.1102	285.74	-.0081	-13.66	355.69
EXTM 51	28.49	39.74	5	21	4.7	1.46	-.0413	-30.14	-.0110	6988.0	5.46	85.51	-.0000	196.41	-.4777	-27.99	26.93
EXIT SHA	63.27	74.52	5	21	39.4												
EXIT 42	63.27	74.52	5	21	39.4	114.01	-.0062	-22.62	-.0025	23826.3	4.32	-4.95	.0059	237.88	.0020	-32.04	48.41
EXIT 72	63.27	74.52	5	21	39.4	279.52	-.0006	-32.49	.0004	21953.9	5.04	12.26	-.0005	122.67	-.0004	-32.04	48.41
EXIT 51	63.27	74.52	5	21	39.4	331.60	-.0035	-33.40	.0005	18225.7	4.95	64.23	-.0028	114.01	-.0023	-32.04	48.41
EXTM 72	69.27	80.52	5	21	45.4	279.43	.0000	-32.74	.0004	23733.4	4.85	12.17	-.0000	121.91	-.0004	-32.05	49.71
EXTM 51	86.38	97.63	5	22	2.6	329.50	-.0001	-32.64	.0006	24727.5	4.45	62.60	.0000	111.77	-.0012	-31.84	51.73
RISE 61	183.27	194.52	5	23	39.5	304.62	.0031	-35.40	.0006	42807.5	3.30	.00	.0020	139.21	.0016	-29.76	54.10
EXTM 51	224.28	247.53	6	1	12.5	.25	.0036	-28.54	.0003	64947.5	3.04	87.19	.0000	184.41	.0049	-28.29	27.46
EXTM 61	446.20	457.45	6	4	2.4	4.84	.0039	-30.10	.0002	97283.2	2.56	19.62	.0000	184.45	.0026	-26.56	351.17
EXTM 72	474.26	485.51	6	4	30.4	.88	.0040	-27.02	.0002	[illegible]	2.50	70.37	.0000	182.32	.0107	-26.36	344.85
RISE 11	627.90	639.15	6	7	4.1	291.33	.0040	-27.17	.0001	12[illegible]	1.95	.00	.0028	124.11	.0023	-25.37	309.37
SET 51	665.28	677.03	6	7	42.0	90.00	.0039	-24. 8	.0001	1295. [illegible]	2.57	10.21	-.0033	248.07	-.0013	-25.17	300.47
SET 61	695.91	707.16	6	8	12.1	64.46	.0040	-27.00	.0002	134588.0	2.43	.00	-.0023	233.51	.0027	-25.02	293.35
SET 72	858.11	869.36	6	10	54.2	93.55	.0040	-23.29	.0001	154835.8	2.40	-.01	-.0036	245.76	-.0004	-24.33	254.68
RISE 42	869.32	880.57	6	11	5.5	254.99	.0040	-22.86	-.0000	156004.0	1.67	1.67	.0029	117.08	-.0023	-24.28	251.96
EXTM 11	911.80	922.85	6	11	47.8	1.41	.0042	-26.12	.0001	158164.9	1.95	28.66	-.0000	181.45	.0043	-24.13	241.79
SET 11	1193.00	1204.25	6	16	29.2	71.25	.0041	-24.10	.0001	192388.5	2.07	-.00	-.0028	239.50	.0024	-23 29	173.50
EXTM 42	1292.79	1304.04	6	18	9.0	359.85	.0042	-22.15	.0000	196586.4	1.70	77.43	.0000	.62	-.0177	-23.04	149.12
RISE 51	1427.79	1439.04	6	20	24.0	270.00	.0041	-22. 7	-.0000	215123.0	1.25	9.39	.0035	110.07	-.0016	-22.74	116.04
RISE 72	1585.70	1596.95	6	23	1.9	266.75	.0041	-22.11	-.0000	231227.8	1.14	.00	.0038	112.43	-.0006	-22.43	77.23
RISE 61	1643.24	1654.49	6	23	59.4	291.50	.0041	-23.42	.0000	236556.4	1.23	.00	.0027	121.38	.0027	-22.33	63.06
SET 42	1715.50	1726.75	7	1	11.7	105.00	.0041	-21.29	.0001	243056.1	1.84	.71	-.0030	244.17	-.0023	-22.20	45.26
EXTM 51	1786.61	1797.86	7	2	22.8	359.97	.0042	-21.49	.0000	243211.0	1.48	86.23	.0010	.52	-.0526	-22.09	27.72
EXTM 61	1918.28	1929.53	7	4	34.5	.56	.0042	-23. 4	.0000	258135.0	1.43	26.62	-.0000	180 58	.0043	-21.89	355.20
EXTM 72	1957.22	1968.47	7	5	13.4	.10	.0042	-22. 7	.0000	258192.2	1.42	75.73	.0000	180.37	.0156	-21.83	345.58
RISE 11	2080.65	2091.90	7	7	16.8	286.99	.0042	-22.69	-.0000	274657.6	1.05	.00	.0030	117.91	.0024	-21.66	315.05
SET 51	2145.79	156.95	7	8	21.9	90.00	.0041	-21. 5	.0000	279009.9	1.75	8.97	-.0035	250.88	-.0016	-21.57	298.95
SET 61	2193.29	2204.54	7	9	9.5	69.58	.0041	-22.41	.0001	283866.0	1.65	-.00	-.0027	240.04	.0027	-21.51	287.16
SET 72	2327.49	2338.74	7	11	23.7	93.06	.0041	-21. 7	.0001	294557.2	1.73	-.00	-.0038	248.62	-.0005	-21.35	253.91
RISE 42	2331.43	2342.68	7	11	27.6	255.00	.0041	-20.58	-.0000	294835.5	.97	.28	.0030	115.27	-.0024	-21.34	252.93
EXTM 11	2372.35	2383.6.	7	12	8.5	.37	.0042	-22.43	.0000	294665.0	1.30	32.46	-.0000	180.41	.0046	-21.29	242.79
SET 11	2664.81	2676.26	7	17	.2	73.70	.0042	-21.49	.0000	320152.2	1.56	-.00	-.0030	243.11	.0024	-20.98	170.41
EXTM 42	2750.42	2761.67	7	18	24.2	359.94	.0042	-20.51	.0000	320332.1	1.21	75.39	-.0000	.25	-.0150	-20.89	149.04
RISE 51	2880.42	2891.67	7	20	36.6	270.00	.0041	-20.33	-.0000	334830.6	.79	8.68	.0035	108.46	-.0016	-20.77	116.64
RISE 72	3037.76	3048.95	7	23	13.9	267.02	.0041	-20.48	-.0000	346794.6	.72	-.01	.0038	110.68	-.0006	-20.63	77.54
RISE 61	3085.35	3096.60	8	0	1.5	289.28	.0042	-21.41	-.0000	350260.9	.80	.00	.0028	118.43	.0027	-20.59	65.67
SET 42	3168.01	3179.26	8	1	24.2	104.83	.0041	-19.92	.0000	355727.7	1.45	-.00	-.0031	245.35	-.0024	-20.55	45.02
EXTM 51	3237.35	3248.60	8	2	33.5	359.99	.0042	-20.42	.0000	353993.6	1.10	84.68	-.0000	.23	-.0163	-20.52	27.69
EXTM 61	3345.76	3357.01	8	4	41.9	.16	.0042	-21.43	.0000	365657.3	1.09	28.43	-.0000	180.17	.0045	-20.46	355.59
EXTM 72	3405.52	3416.77	8	5	21.7	.02	.0042	-20.06	.0000	365098.2	1.09	77.24	.0000	180.11	.0[illegible]	-20.45	345.65
RISE 11	3521.53	3532.78	8	7	17.7	285.72	.0042	-21.10	-.0000	378826.0	.75	.00	.0031	116.02	.0024	-20.40	316.63
SET 51	3494.53	3494.78	8	8	29.7	90.00	.0042	-20.00	.0000	382401.6	1.50	8.54	-.0036	251.85	-.0016	-20.38	298.60
SET 61	3645.99	3657.24	8	9	22.2	71.02	.0042	-21.12	.0000	387027.2	1.43	-.00	-.0028	241.97	.0027	-20.37	285.46
SET 72	3772.41	3783.66	8	11	28.6	92.94	.0042	-20.23	.0000	395840.1	1.39	-.00	-.0039	249.57	-.0006	-20.36	253.71
RISE 42	3776.52	3787.77	8	11	31.7	255.28	.0042	-19.40	-.0000	396074.8	.92	.00	.0031	114.49	-.0024	-20.36	252.92
EXTM 11	3813.67	3824.92	8	12	9.9	359.87	.0043	-21.14	-.0000	395656.2	1.51	33.66	-.0000	179.85	.0048	-20.37	243.28
IMPACT	3831.34	3842.59	8	12	27.5												
IMPC 42	3831.34	3842.59	8	12	27.5	269.42	.0043	-19.20	-.0001	399757.9	1.66	10.86	.0034	106.78	-.0022	-20.39	238.27
IMPC 11	3831.34	3842.59	8	12	27.5	4.44	.0044	-21. 5	-.0000	397457.1	2.06	33.48	-.0003	184.97	.0049	-20.39	238.77

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	5	20	36.183	6563.915	18.0112	304.7083	10.97839	-3.0801	116.9721	147.5742
SEPARATION	1.20	12.45	5	20	37.383	6544.908	14.7717	310.7848	10.99425	.3491	118.7744	153.9515
RETRO	3.20	14.45	5	20	39.383	6618.352	9.0567	320.4401	10.93261	0.0335	120.8791	164.1062
ENTER SHA	12.56	23.81	5	20	48.743	9364.720	-13.6635	355.6858	9.71462	27.6880	119.2804	201.7002
EXIT SHA	63.27	74.52	5	21	39.449	24126.977	-12.0420	48.4098	5.66659	58.2439	90.9127	267.1358
IMPACT	3831.34	3842.59	8	12	27.527	401007.754	-20.3937	238.7697	2.20068	67.4350	255.0229	322.0935

SURVEYOR VIEW PERIODS

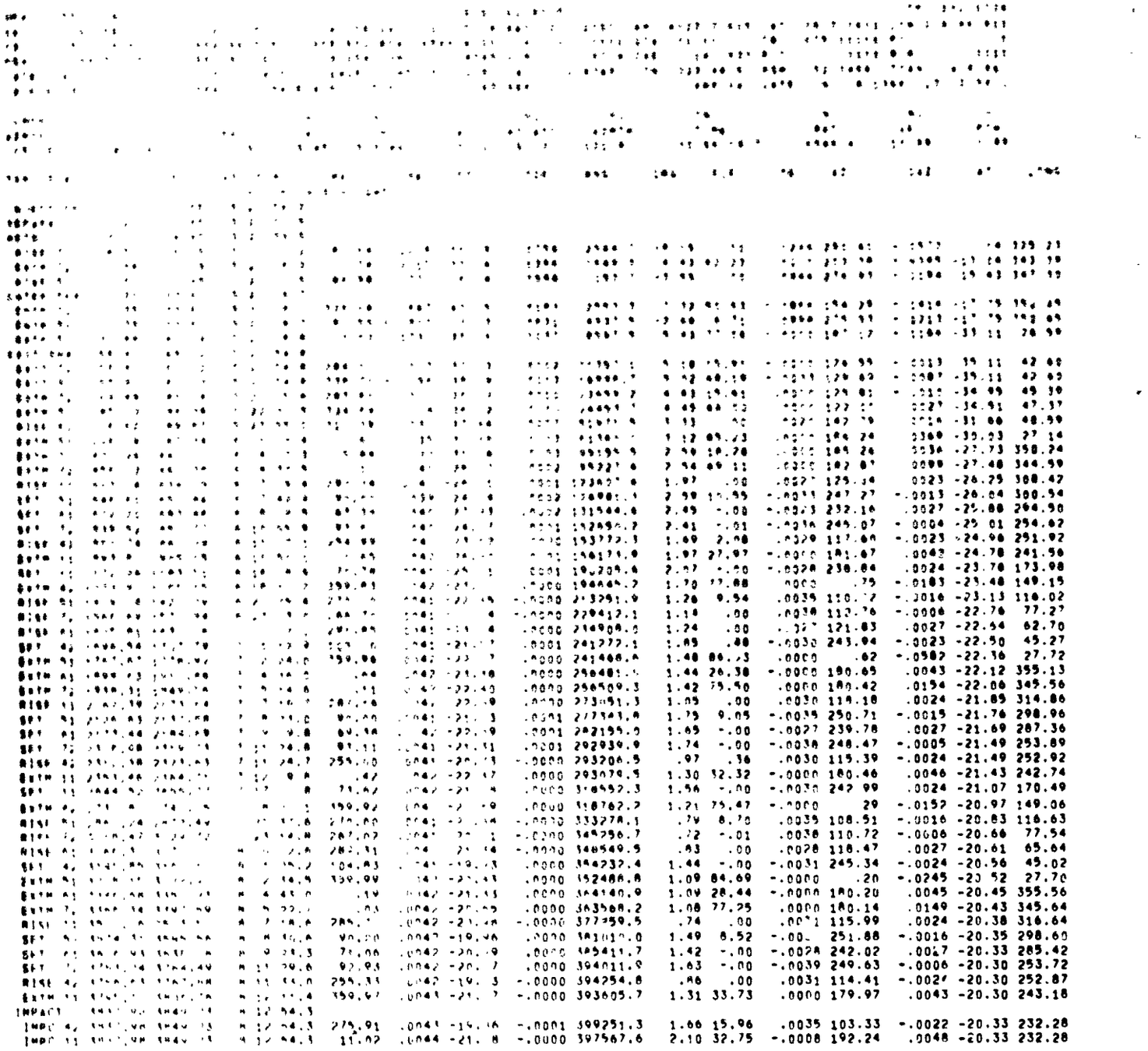
GHA	255.9309				EPS	60.8138					LOM	233.6425	
SX	.739650	SY	-.575806	SZ	-.348376	DAO	-20.38402	RAO	322.09978	RM	402291.645	LAT	28.310600
C3	-.934247	ECC	.984[illegible]	SLR	12988.943	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000
NSX	.752852	NSY	-.541946	NSZ	-.34268[illegible]	C3M	1.4969	VIM	2.6713	ZAE	141.767	B.T	.0000
LATE	6.7619	LONE	1.9178	LATS	.6436	LONS	301.3743	LATI	3.2435	LONI	323.6900	PSM	152.0463
LAUNCH DATE	JUN	5,1966		BASE AZM	111.[illegible]		TF	63.898			ARRIVAL DATE	JUN	8 1966 12 48 .2

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
111.00	20 34 19.8	27.8	16.91	304.22	-4.22	149.44	119.10	20 45 34.8	6553.5	10.99	-2.09

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	[illegible]	ELE	DE[illegible]	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	5	20	45.6												
SEPARATION	1.20	12.45	5	20	46.8												
RETRO	3.20	14.45	5	20	48.8												
RISE 72	4.97	16.22	5	20	50.5	85.82	-.1436	27.72	-.0443	2449.6	-8.61	-.01	.1324	298.01	-.0240	2.20	327.20
EXTM 72	9.61	20.86	5	20	55.2	6.29	-.3411	-18.59	-.1913	1349.6	3.97	77.69	-.0000	209.16	-[illegible].7618	-9.77	344.61
RISE 51	11.16	22.41	5	20	56.7	84.62	-.0839	11.02	-.0548	4973.0	-3.93	-.00	.0981	282.25	-.0127	-13.00	349.60
ENTER SHA	12.43	23.68	5	20	58.0												
ENTR 72	12.43	23.68	5	20	58.0	327.83	-.1358	-33.41	-.0291	2450.9	7.76	50.86	-.1107	135.24	-.0602	-15.33	353.38
ENTR 51	12.43	23.68	5	20	58.0	76.08	-.0879	6.61	-.0609	4710.5	-2.95	7.75	.1055	281.22	-.0144	-15.33	353.38
EXTM 51	30.01	41.26	5	21	15.6	2.15	-.0378	-33.84	-.0075	7624.7	5.45	81.69	-.0000	192.45	-.2282	-30.15	20.56
EXIT SHA	61.39	72.64	5	21	47.0												
EXIT 72	61.39	72.64	5	21	47.0	281.63	-.0008	-34.65	.0007	21315.1	5.09	14.03	-.0007	123.84	-.0007	-33.28	45.83
EXIT 51	61.39	72.64	5	21	47.0	334.75	-.0043	-35.28	.0008	17706.2	4.98	66.33	-.0031	119.82	-.0044	-33.28	45.83
EXTM 72	69.61	80.86	5	21	55.2	281.44	.0000	-34.31	.0007	23759.8	4.63	13.88	.0000	123.49	-.0007	-33.23	47.71
EXTM 51	86.36	97.61	5	22	11.9	331.96	-.0002	-34.09	.0007	24741.0	4.44	64.40	.0000	119.70	-.0017	-32.91	49.69
RISE 61	179.92	191.17	5	23	45.5	308.33	.0030	-36.23	.0006	52169.8	3.32	.00	.0020	140.74	.0016	-30.56	42.59
EXTM 51	266.49	277.74	6	1	12.1	.37	.0036	-29.33	.0003	63716.2	3.07	86.39	.0000	185.12	.0498	-29.01	27.35
EXTM 61	438.71	449.96	6	4	4.3	5.26	.0039	-30.53	.0003	96229.8	2.58	19.06	.0000	184.79	.0036	-27.04	350.78
EXTM 72	465.55	476.80	6	4	31.1	.99	.0040	-28.04	.0002	96583.5	2.52	69.85	.0000	182.55	.0104	-26.81	344.75
RISE 11	420.61	431.86	6	7	4.2	291.70	.0040	-27.46	.0001	124604.0	1.96	.00	.0027	124.62	.0023	-25.73	308.98
SET 51	456.70	467.95	6	7	42.3	90.00	.0039	-24.44	.0001	128319.8	2.57	10.35	-.0033	247.74	-.0013	-25.52	300.50
SET 61	485.01	496.26	6	8	10.6	64.01	.0040	-27.38	.0002	133196.3	2.44	-.00	-.0023	232.96	.0027	-25.37	293.82
SET 72	849.25	860.50	6	10	54.8	93.60	.0040	-24.27	.0001	153805.9	2.41	-.01	-.0036	245.48	-.0004	-24.61	254.66
RISE 42	860.53	871.78	6	11	6.1	254.99	.0040	-23.13	-.0000	154958.0	1.68	1.84	.0029	117.29	-.0023	-24.56	251.95
EXTM 11	903.13	914.38	6	11	48.7	1.51	.0042	-26.40	.0001	157220.0	1.96	28.38	-.0000	181.54	.0042	-24.39	241.69
SET 11	1183.35	1194.60	6	16	28.9	71.06	.0041	-24.70	.0001	191381.3	2.07	-.00	-.0038	239.24	.0024	-23.49	172.70
EXTM 42	1283.90	1295.15	6	18	9.5	359.84	.0042	-22.83	.0000	195682.1	1.70	77.61	.0000	.68	-.0179	-23.22	149.13
RISE 51	1418.97	1430.22	6	20	24.5	270.00	.0041	-22.23	-.0000	214253.4	1.25	9.45	.0035	110.21	-.0016	-22.90	116.03
RISE 72	1576.77	1588.02	6	23	2.4	266.73	.0041	-22.34	-.0000	230386.5	1.14	.00	.0038	112.57	-.0006	-22.57	77.24
RISE 61	1634.98	1646.23	7	0	.6	291.65	.0041	-23.55	-.0000	235786.7	1.23	.01	.0027	121.57	.0027	-22.45	62.91
SET 42	1706.59	1717.84	7	1	12.2	105.00	.0041	-21.40	.0001	242231.5	1.84	.78	-.0030	244.08	-.0023	-22.32	45.26
EXTM 51	1777.71	1788.96	7	2	23.3	359.97	.0042	-22.10	.0000	242405.6	1.48	86.36	.0000	.55	-.0555	-22.20	27.72
EXTM 61	1909.50	1920.75	7	4	34.1	.59	.0042	-23.23	.0000	257369.4	1.43	26.52	-.0000	180.61	.0043	-21.98	355.17
EXTM 72	1948.34	1959.59	7	5	13.9	.10	.0042	-22.26	.0000	257415.8	1.42	75.64	.0000	180.39	.0155	-21.92	345.57
RISE 11	2072.03	2083.28	7	7	17.6	287.06	.0042	-22.57	-.0000	273915.3	1.05	.00	.0030	116.02	.0024	-21.74	314.97
SET 51	2136.76	2148.01	7	8	[illegible].3	90.00	.0041	-21.12	.0001	278245.1	1.75	9.00	-.0035	250.82	-.0015	-21.64	298.95
SET 61	2184.03	2195.28	7	9	9.6	69.50	.0042	-22.48	.0001	283084.6	1.65	-.00	-.0027	239.94	.0027	-21.58	287.25
SET 72	2318.58	2329.83	7	11	24.2	93.09	.0041	-21.23	.0001	293816.3	1.74	-.00	-.0038	248.56	-.0005	-21.40	253.90
RISE 42	2322.50	2333.75	7	11	28.1	255.00	.0041	-20.64	-.0000	294090.4	.97	.31	.0030	115.32	-.0024	-21.40	252.93
EXTM 11	2363.48	2374.73	7	12	9.1	.39	.0042	-22.16	.0000	293938.3	1.30	32.41	-.0030	180.43	.0046	-21.35	242.77
SET 11	2454.91	2466.16	7	17	.5	73.67	.0042	-21.72	.0000	319426.1	1.56	-.00	-.0030	243.06	.0024	-21.01	170.44
EXTM 42	2741.02	2752.27	7	18	24.6	359.93	.0042	-20.64	.0000	319619.5	1.21	75.42	-.0000	.27	-.0149	-20.92	149.05
RISE 51	2871.44	2882.69	7	20	37.0	270.00	.0041	-20.55	-.0000	334127.7	.79	8.68	.0035	108.47	-.0016	-20.79	116.64
RISE 72	3028.70	3039.95	7	23	14.3	267.02	.0041	-20.49	-.0000	346100.4	.72	-.01	.0038	110.69	-.0006	-20.64	77.53
RISE 61	3076.40	3087.65	8	0	2.0	289.29	.0042	-21.32	-.0000	349574.3	.60	.00	.0028	118.45	.0027	-20.60	65.66
SET 42	3159.01	3170.26	8	1	24.6	104.83	.0041	-19.92	.0000	355036.6	1.45	-.00	-.0031	245.34	-.0024	-20.55	45.02
EXTM 51	3228.34	3239.59	8	2	33.9	359.99	.0042	-20.42	.0000	353300.3	1.10	84.68	-.0000	.20	-.0215	-20.52	27.70
EXTM 61	3356.81	3368.06	8	4	42.4	.17	.0042	-21.33	.0000	364962.3	1.09	28.43	-.0000	180.18	.0045	-20.46	355.58
EXTM 72	3396.53	3407.78	8	5	22.1	.02	.0042	-20.66	.0000	364398.2	1.09	77.25	.0000	180.12	.0150	-20.44	345.65
RISE 11	3512.50	3523.75	8	7	10.1	285.71	.0042	-20.99	-.0000	378112.7	.79	.00	.0031	116.00	.0024	-20.39	316.63
SET 51	3584.53	3595.78	8	8	30.1	90.00	.0042	-19.98	.0000	381879.0	1.49	8.53	-.0036	251.87	-.0016	-20.37	298.60
SET 61	3637.07	3648.32	8	9	22.6	71.04	.0042	-21.01	.0000	386295.1	1.42	-.00	-.0028	241.99	.0027	-20.35	285.44
SET 72	3763.45	3774.70	8	11	29.0	92.93	.0042	-20.70	.0000	395009.1	1.66	-.00	-.0039	249.60	-.0006	-20.33	253.72
RISE 42	3766.69	3777.94	8	11	32.3	275.30	.0042	-19.77	-.0000	395247.4	.89	.00	.0031	114.46	-.0024	-20.33	252.90
EXTM 11	3804.91	3816.16	8	12	10.5	359.89	.0043	-21.10	-.0000	394698.2	1.39	33.69	.0000	179.88	.0048	-20.34	243.26
IMPACT	3833.87	3845.12	8	12	39.5												
IMPC 42	3833.87	3845.12	8	12	39.5	272.31	.0043	-19.88	-.0001	399531.0	1.66	13.12	.0034	105.24	-.0022	-20.36	235.88
IMPC 11	3833.87	3845.12	8	12	39.5	7.37	.0044	-21.12	-.0000	397497.6	2.08	33.24	-.0005	188.23	.0048	-20.36	235.88

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION	.00	11.25	5	20	45.580	6553.509	16.5075	304.2146	10.98700	-2.0931	119.0969	149.4361
SEPARATION	1.20	12.45	5	20	46.780	6548.268	13.4528	310.1289	10.99130	1.3392	120.7267	153.6513
RETRO	3.20	14.45	5	20	48.780	6644.076	7.4553	319.5018	10.91115	6.9987	122.5251	158.5255
ENTER SHA	12.43	23.68	5	20	58.006	6422.705	-15.3297	353.3786	9.68079	28.0570	119.9030	201.7151
EXIT SHA	61.39	72.64	5	21	46.974	23684.149	-33.2756	45.3302	5.72063	57.9219	90.3204	266.4427
IMPACT	3833.87	3845.12	8	12	39.451	401025.770	-20.3642	235.8817	2.19978	67.4116	255.5708	322.1946

JUN 5, 1966
111 DEGREES



EVNT STA	TFL	LAT	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	17.28	N	20	56.328	6546.647	15.4808	303.4556	10.99261	-.9922	121.9130	151.3715
SEPARATIO	14.45	N	20	57.528	6554.633	11.7488	309.1481	10.98406	2.4395	123.3257	157.3648
RETRO	14.45	N	20	59.528	6677.010	5.3904	318.1404	10.88382	8.0617	124.7457	166.8584
ENTER SHA	25.80	N	21	8.680	8507.831	-17.7511	350.6453	9.63143	28.5868	120.8011	201.6577
EXIT SHA	49.12	N	21	54.797	22948.560	-15.1079	42.5989	5.81488	57.3576	89.6544	265.1724
IMPACT	3944.23	N	22	54.309	401050.504	-20.3274	232.2835	2.19748	67.2394	256.3331	322.3209

JUN/JUL 1966

BLANK

S NWEXPW TFW PCH S

GHA 224.6296 E-S -44.47 LCM 248.1798
SX -.6 9449 SY -.729470 SZ -.312512 DAU 21.67 RAP 237.19865 RM 381991.984 LAT 28.310600 LON 279.461800
C3 -1.215622 ETC 98.041 SLM 12958.704 HCA 544.6850 UTA -2.0000 UTA 23 TB 675.00000 PCL -.0
NSX -.593414 NSY -.741292 NSZ -.120320 CTM 1.4-26 TIM 2.6776 ZAE 134.853 H.T 1070 B R .0000
DATE -.18 5 LONE 6.1461 LATS 1.0776 LONS 49.37 3 LATI -11.1214 LONI 120.9685 RSM 192.3529 TTAN 4.6974
LAUNCH DATE JUN 26,1966 HASE AZM 105.0 TF 62.133 ARRIVAL DATE JUN 29 1966 2 2 56.6

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	12 33 15.4	27.4	19.22	305.00	-11. 8	50.33	114.79	12 44 30 4	6606	10.93	-5.53

EVNT STA	TFI	TFL	DAY HR MIN	HA	HA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN SUNLIGHT												
INJECTION	.	11.25	26 12 44.5												
SEPARATION	1.20	12.45	26 12 45.7												
RETRO	3.20	14.45	26 12 47.7												
RISE 72	5.43	16.68	26 12 49.9	83.21	-.1802	40.40	.0187	2176.3	-8.98	.00	.1316	310.87	.0432	4.54	331.49
EXTM 72	8.77	20.02	26 12 53.3	3.33	-.5061	20. 3	-.3387	983.3	.43	61.18	.3927	353.53	.8910	-4.18	345.29
RISE 51	11.33	22.58	26 12 55.8	80.70	-.0987	18.52	-.0486	4523.7	-4.77	.01	.1055	290.65	-.0003	-9.81	354.35
EXTM 51	24.19	35.44	26 13 8.7	5.85	-.0626	-23.41	-.0242	5284.3	5.10	84.35	.0621	288.71	-.0194	-24.89	25.01
EXTM 72	69.72	80.97	26 13 54.2	273.95	.0000	-30.83	.0003	24630.0	4.84	7.42	.0000	120.25	-.0003	-30.96	55.06
RISE 42	77.07	88.32	26 14 1.6	105.00	-.0039	-23.21	-.0013	26732.8	4.29	1.89	.0036	242.66	.0012	-30.88	56.20
EXTM 42	120.35	131.60	26 14 44.9	100.96	.0001	-24.61	-.0001	37586.4	4.04	5.68	-.0000	243.77	-.0002	-29.93	56.77
SET 42	177.63	188.88	26 15 42.1	105.00	.0019	-24.45	.0001	50872.3	3.70	2.65	-.0015	241.67	-.0010	-28.66	50.36
RISE 61	198.58	209.83	26 16 3.1	303.95	.0032	-37.42	.0005	55519.5	3.17	.01	.0021	136.18	.0017	-28.26	47.10
EXTM 61	468.58	479.83	26 20 33.1	4.35	.0040	-28. 5	.0002	99471.8	2.48	21.19	.0000	184.10	.0037	-25.12	351.63
EXTM 72	497.91	509.16	26 21 2.4	.74	.0041	-25.97	.0002	100163.5	2.41	71.92	.0000	182.15	.0118	-24.90	344.98
RISE 11	645.74	656.99	26 23 30.2	290.00	.0040	-25.86	.0001	126413.0	1.87	.00	.0028	122.27	.0023	-23.99	310.72
SET 51	689.55	700.80	27 0 14.1	90.00	.0039	-22.68	.0001	131016.5	2.49	9.64	-.0033	249.37	-.0014	-23.77	300.40
SET 61	726.76	738.01	27 0 51.3	66.19	.0040	-25.31	.0002	136781.7	2.35	-.01	-.0024	235.66	.0027	-23.59	291.59
SET 72	880.42	891.67	27 3 24.9	93.32	.0040	-22.62	.0001	155231.9	2.33	-.00	-.0036	247.15	-.0004	-22.95	254.88
RISE 42	892.48	903.73	27 3 37.0	255.00	.0040	-21.49	-.0000	156528	1.59	.83	.0029	115.99	-.0023	-22.91	251.98
EXTM 11	934.37	945.62	27 4 18.9	1.30	.0042	-24.71	.0001	158226.3	1.88	30.07	.0000	181.37	.0044	-22.76	241.89
SET 11	1221.25	1232.50	27 9 5.8	72.49	.0041	-23.10	.0001	191856.0	1.99	-.00	-.0029	241.30	.0020	-21.90	172.26
EXTM 42	1316.03	1327.28	27 10 40.5	359.87	.0042	-21.23	.0000	195125.5	1.62	76.01	-.0000	.50	-.0160	-21.67	149.10
RISE 51	1451.00	1462.25	27 12 55.5	270.00	.0041	-20.08	-.0000	213054.3	1.16	8.82	.0035	108.78	-.0016	-21.37	116.03
RISE 72	1609.86	1621.11	27 15 34.4	266.97	.0041	-20.93	-.0000	228430.3	1.05	.00	.0038	111.04	-.0006	-21.05	77.00
RISE 61	1660.68	1671.93	27 16 25.2	290.05	.0041	-22.16	.0000	232895.2	1.15	.00	.0028	119.47	.0027	-20.96	64.49
SET 42	1737.93	1749.18	27 17 42.4	104.80	.0041	-19.49	.0001	239559.0	1.76	-.00	-.0031	245.38	-.0023	-20.82	45.46
EXTM 51	1809.92	1821.17	27 18 54.4	359.97	.0042	-20.57	.0000	239373.7	1.39	84.83	-.0000	.36	-.0373	-20.70	27.71
EXTM 61	1941.69	1952.94	27 21 6.2	.57	.0042	-21.75	.0000	253501.5	1.35	28.01	-.0000	180.60	.0044	-20.50	355.19
EXTM 72	1980.48	1991.73	27 21 45.0	.07	.0042	-20.75	.0000	253451.1	1.33	77.15	.0000	180.30	.0173	-20.44	345.60
RISE 11	2099.40	2110.65	27 23 43.9	285.81	.0042	-21.11	-.0000	268971.5	.96	.00	.0030	116.16	.0024	-20.27	316.20
SET 51	2169.09	2180.34	28 0 53.6	90.01	.0041	-19.53	.0000	273413.4	1.66	8.39	-.0036	252.18	-.0016	-20.17	298.96
SET 61	2222.56	2233.81	28 1 47.1	71.03	.0041	-21.31	.0001	278401.4	1.56	-.00	-.0028	241.99	.0027	-20.10	285.72
EXTM 11	2395.79	2407.04	28 4 40.3	.35	.0042	-20.93	.0000	287685.5	1.21	33.86	.0000	180.39	.0047	-19.89	242.81
RISE 42	2395.82	2407.07	28 4 40.3	265.09	.0041	-19.18	-.0000	290430.9	.86	7.09	.003	108.51	-.0022	-19.89	242.80
SET 11	2692.37	2703.62	28 9 35.9	74.89	.0042	-20.28	.0000	312044.5	1.47	-.00	-.0030	244.90	.0024	-19.55	169.24
EXTM 42	2773.61	2784.86	28 10 58.1	359.91	.0042	-19. 5	.0000	311462.5	1.11	73.93	.0000	.32	-.0140	-19.47	149.07
RISE 51	2904.72	2915.97	28 13 9.2	270.00	.0042	-18.89	-.0000	325462.6	.69	8.08	.0036	107.14	-.0016	-19.35	116.62
RISE 72	3062.20	3073.45	28 15 46.7	267.26	.0042	-19.01	-.0000	336467.7	.63	.00	.0039	109.20	-.0006	-19.17	77.28
RISE 61	3102.83	3114.08	28 16 27.3	287.80	.0042	-19.86	.0000	339048.8	.74	.00	.0029	116.43	.0027	-19.12	67.12
SET 42	3186.13	3197.38	28 17 50.6	103.57	.0041	-18.38	.0000	344308.9	1.40	-.00	-.0031	247.29	-.0024	-19.03	46.30
EXTM 51	3260.50	3271.75	28 19 5.0	359.97	.0042	-18.82	.0000	342703.0	1.05	83.08	-.0000	.25	-.0269	-18.94	27.71
EXTM 61	3389.79	3401.04	28 21 14.3	.39	.0042	-19.68	.0000	353865.7	1.04	30.08	-.0000	180.42	.0046	-18.80	355.37
EXTM 72	3428.86	3440.11	28 21 53.4	.08	.0043	-18.94	.0000	353275.5	1.04	78.96	-.0000	180.42	.0204	-18.75	345.59
RISE 11	3538.74	3549.99	28 23 43.3	284.25	.0042	-19.23	.0000	366380.3	.71	.00	.0031	113.77	.0024	-18.62	318.07
SET 51	3616.28	3627.53	29 1 .8	90.00	.0042	-18.11	.000	370517.7	1.50	7.75	-.0036	253.59	-.0016	-18.51	298.62
SET 61	3676.28	3687.53	29 2 .8	72.98	.0042	-19.08	.0001	375473.8	1.52	.01	-.0029	244.65	.0028	-18.41	283.52
IMPACT	3727.97	3739.22	29 2 52.5												
IMPC 72	3727.97	3739.22	29 2 52.5	76.24	.0043	-18.22	.0001	379039.4	2.32	15.47	-.0041	253.20	-.0001	-18.27	270.40
IMPC 11	3727.97	3739.22	29 2 52.5	332.37	.0044	-19.02	.0001	376586.7	1.70	29.77	.0019	149.66	.0042	-18.27	270.40

EVNT STA	TFI	TFL	DAY HR MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	26 12 44.507	6608.312	19.2249	304.9373	10.92944	-5.5335	114.7656	50.2601
SEPARATION	1.20	12.45	26 12 45.707	6553.910	16.2121	311.1814	10.97372	-2.1413	116.7627	56.8049
RETRO	3.20	14.45	26 12 47.707	6570.207	10.7944	321.1315	10.95997	3.5566	119.2122	67.2564
IMPACT	3727.97	3739.22	29 2 52.477	379790.344	-18.2683	270.4024	2.12745	62.2029	303.5135	230.2685

GMA	276.4295			EPS	-44.2700							LOM	263.9472	
SX	-.6 [illegible]	SY	-.73 [illegible]	SZ	-.31[illegible]	DAD	+18.26+22	RAD	230.33023	RM	380991.195	LAT	28.310600	LON 279.461800
CJ	-1.21[illegible]	ECC	.0[illegible]	SLR	12958.316	HCA	6544.6+50	LTA	-20.0000	GTA	20.00	TB	675.00000	POL -.0
NSY	-.6[illegible]	NSY	-.742[illegible]	NSZ	-.321241	DAN	1.4771	VIM	2.6714	ZAE	134.642	B.T	.0000	B.R -.0000
LATE	-.1414	LONE	5.[illegible]	LATS	1.0780	LONS	49.22[illegible]	LATI	-11.2894	LONI	320.7896	RSM	152.3536	TTAN 4.6975
LAUNCH DATE	JUN 26,1966			BASE AZM	108.0		42.207					ARRIVAL DATE	JUN 29 1966	3 18 28.3

LNCH AZMTH	LNCH TIME	FM	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FTH
108.00	12 45 28.5	A	28.06	304.41	-8.3	53.08	116.94	12 57 3.5	6579.9	10.95	-4.17

EVNT	STA	TET	TFL	DAY	HR	MIN	RA	DRA	DEC	DDE	RNG	DRG	FLE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	26	12	57.1												
SEPARATION		1.20	12.45	26	12	58.3												
RETRO		3.20	14.45	26	13	.3												
RISE	72	5.27	16.48	26	13	2.4	84.69	-.1587	33.56	-.0161	2273.1	-8.94	.00	.1329	304.03	.0059	3.24	329.49
EXTM	72	8.97	20.22	26	13	6.0	9.04	-.4457	1.17	-.3024	1038.4	1.66	76.99	.5266	315.72	.5002	-6.61	344.40
RISE	51	11.25	22.50	26	13	8.3	82.76	-.0915	14.4	-.0525	4690.7	-4.46	.00	.1027	286.30	-.0072	-11.54	352.20
EXTM	51	27.22	38.47	26	13	24.3	1.47	-.0425	-30.7	-.0126	6420.8	5.44	85.48	.0000	196.34	-.5465	-27.92	26.96
EXTM	72	49.49	60.74	26	14	7.8	276.72	.0000	-32.42	.0005	23902.0	4.83	9.87	.0000	121.59	-.0005	-32.00	52.27
EXTM	51	85.74	96.99	26	14	43.5	326.32	-.0001	-32.29	.0007	24463.5	4.45	59.96	.0000	110.54	-.0013	-31.68	54.23
RISE	42	93.71	104.96	26	14	50.1	105.00	-.0019	-24.46	-.0006	31096.7	4.22	2.90	.0017	241.35	.0006	-31.50	54.58
EXTM	42	119.95	131.20	26	14	58.9	104.70	.0001	-24.31	-.0001	37752.7	4.05	4.10	-.0000	241.71	-.0001	-30.76	54.02
SET	42	149.54	160.79	26	15	28.8	105.00	.0014	-25.26	.0001	44786.4	3.86	3.15	-.0010	241.03	-.0006	-30.00	51.30
RISE	61	190.97	202.22	26	16	8.1	305.45	.0031	-34.43	.0006	54053.7	3.21	.00	.0021	137.78	.0017	-29.07	45.52
EXTM	51	289.12	300.37	26	17	46.2	.17	.0037	-27.09	.0003	66700.4	2.95	88.14	-.0000	184.56	.1003	-27.43	27.53
EXTM	61	457.79	469.04	26	20	44.8	4.79	.0045	-29.73	.0002	97983.3	2.50	20.59	.0000	184.48	.0037	-25.63	351.21
EXTM	72	485.83	497.08	26	21	2.9	.86	.0041	-26.62	.0002	98481.5	2.44	71.37	-.0000	182.40	.0114	-25.40	344.87
RISE	11	635.35	646.60	26	23	42.4	290.41	.0040	-24.50	.0001	125092.8	1.89	.00	.0028	122.84	.0023	-24.40	310.29
SET	51	677.18	688.43	27	0	24.2	90.00	.0039	-23.68	.0001	129456.7	2.50	9.80	-.0033	249.00	-.0013	-24.17	300.45
SET	61	712.40	723.65	27	0	49.5	85.69	.0040	-25.94	.0002	135018.4	2.36	-.00	-.0024	235.03	.0027	-23.99	292.12
SET	72	868.51	879.76	27	3	25.6	91.38	.0040	-22.95	.0001	153880.2	2.34	-.00	-.0036	246.81	-.0004	-23.29	254.85
RISE	42	888.53	899.78	27	3	37.6	255.00	.0040	-21.41	-.0000	155158.3	1.60	1.03	.0029	116.24	-.0023	-23.24	251.96
EXTM	11	922.68	933.93	27	4	19.9	1.43	.0042	-25.25	.0001	156985.4	1.89	29.72	-.0000	181.50	.0043	-23.08	241.77
SET	11	1208.25	1219.50	27	9	5.3	72.24	.0041	-23.18	.0001	190552.9	2.00	-.00	-.0029	240.95	.0024	-22.16	172.52
EXTM	42	1303.92	1315.17	27	10	41.0	359.83	.0042	-21.48	.0000	193941.0	1.62	76.26	.0000	.67	-.0163	-21.91	149.14
RISE	51	1439.09	1450.34	27	12	56.2	270.00	.0041	-20.91	-.0000	211927.1	1.17	8.91	.0035	108.99	-.0016	-21.59	116.03
RISE	72	1597.83	1609.08	27	15	34.9	266.94	.0041	-21.03	-.0000	227344.4	1.06	.00	.0038	111.24	-.0006	-21.26	77.03
RISE	61	1649.63	1660.88	27	16	26.7	290.27	.0041	-22.26	.0000	231906.8	1.15	.00	.0028	119.75	.0027	-21.16	64.28
SET	42	1726.59	1737.84	27	17	43.6	104.95	.0041	-20.18	.0001	238560.9	1.77	-.00	-.0031	245.15	-.0023	-21.01	45.32
EXTM	51	1797.96	1809.21	27	18	55.0	359.96	.0042	-20.76	.0000	238336.6	1.40	85.02	-.0000	.43	-.0413	-20.89	27.72
EXTM	61	1929.78	1941.03	27	21	4.8	.58	.0042	-21.93	.0000	252513.0	1.35	27.83	-.0000	180.61	.0044	-20.67	355.18
EXTM	72	1968.64	1979.89	27	21	45.7	.09	.0042	-20.92	.0000	252460.9	1.34	76.98	.0000	180.39	.0172	-20.61	345.58
RISE	11	2088.3	2099.28	27	23	45.1	285.95	.0042	-21.27	.0000	268033.1	.96	.00	.0030	116.36	.0024	-20.42	316.06
SET	51	2157.12	2168.37	28	0	54.2	90.00	.0041	-19.78	.0001	272431.5	1.67	8.45	-.0036	252.05	-.0016	-20.33	298.97
SET	61	2209.95	2221.20	28	1	47.0	70.87	.0041	-21.17	.0001	277386.7	1.57	-.00	-.0028	241.77	.0027	-20.25	285.89
SET	72	2338.18	2349.43	28	3	55.2	92.89	.0041	-19.90	.0001	286938.5	1.65	-.01	-.0038	249.90	-.0005	-20.08	254.13
R SE	42	2345.86	2357.11	28	4	2.9	255.69	.0041	-19.30	-.0000	287501.3	.88	.00	.0031	113.86	-.0024	-20.07	252.22
EXTM	11	2384.01	2395.26	28	4	41.1	.39	.0042	-21.07	.0000	288768.2	1.21	33.72	-.0000	180.44	.0047	-20.02	242.77
SET	11	2479.99	2491.24	28	6	37.1	74.79	.0042	-20.40	.0000	311104.7	1.47	-.00	-.0030	244.75	.0024	-19.67	169.34
EXTM	42	2761.69	2772.94	28	10	58.7	359.92	.0042	-19.27	.0000	310558.0	1.12	74.05	-.0000	.29	-.0140	-19.58	149.06
RISE	51	2892.30	2903.55	28	13	9.4	270.00	.0041	-18.49	-.0000	324362.3	.70	8.12	.0036	107.22	-.0016	-19.44	116.62
RISE	72	3050.21	3061.46	28	15	47.3	267.24	.0042	-19.11	-.0000	335578.8	.63	-.01	.0039	109.30	-.0006	-19.27	77.29
RISE	61	3091.51	3102.76	28	16	28.4	287.90	.0042	-19.96	.0000	338186.8	.74	.00	.0029	116.56	.0027	-19.22	67.02
SET	42	3174.49	3185.74	28	17	51.5	103.64	.0041	-18.47	.0000	343434.4	1.40	-.00	-.0031	247.18	-.0024	-19.12	46.23
EXTM	51	3248.52	3259.75	28	19	5.6	359.96	.0042	-18.41	.0000	341799.3	1.04	83.17	.0000	.36	-.0315	-19.03	27.73
EXTM	61	3377.83	3389.08	28	21	14.9	.38	.0042	-19.27	.0000	352958.0	1.04	29.99	-.0000	180.41	.0046	-18.88	355.38
EXTM	72	3416.84	3428.09	28	21	53.9	.06	.0043	-19.03	.0000	352350.2	1.04	78.87	.0000	180.29	.0200	-18.83	345.62
RISE	11	3527.11	3538.36	29	23	44.2	284.32	.0042	-19.11	.0000	365445.1	.70	.00	.0031	113.87	.0024	-18.70	318.00
SET	51	3604.38	3615.63	29	1	1.4	90.00	.0042	-18.19	.0000	369512.1	1.49	7.79	-.0036	253.51	-.0016	-18.59	298.62
SET	61	3664.12	3675.37	29	2	1.2	72.89	.0042	-19.17	.0000	374360.5	1.48	.00	-.0029	244.53	.0028	-18.50	283.61
IMPACT		3732.40	3743.65	29	3	9.5												
IMPC	72	3732.4	3743.65	29	3	9.5	80.36	.0043	-18.25	.0001	378500.9	2.32	11.57	-.0041	252.89	-.0002	-18.32	266.30
IMPC	11	3732.40	3743.65	29	3	9.5	336.52	.0044	-19.18	.0001	376481.1	1.72	31.31	.0016	153.85	.0044	-18.32	266.30

EVNT	STA	TET	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	26	12	57.058	6580.382	28.0726	304.5813	10.95178	-4.1734	116.9321	53.0503
SEPARATION		1.20	12.45	26	12	58.258	6545.815	4.8302	310.6744	10.98041	-.7561	118.7462	59.4443
RETRO		3.20	14.45	26	13	.258	6593.670	9.1145	320.3422	10.94009	4.9206	120.8637	69.6135
IMPACT		3732.40	3743.65	29	3	9.454	3798[illegible]31.906	-18.3227	266.3033	2.12539	61.9877	303.6884	230.4253

GHA 224.4295 EMS -44.0097 LOM 298.6096
SX -.4033347 SY -.732807 SZ .5145490 DAO -18.33407 RAD 231.53411 RM 381041.68 LAT -28.317000 LON 279.461800
CJ -1.228373 ECC .979831 SLR 12957.334 RCA 6544.6450 LTA -20.0000 GTA 20.00 TH 275.00000 PCL -.0
NSX -.584583 NSY -.744583 NSZ -.322417 CTM -.4474 VIM 2.6714 ZAE 134.413 R.T .0000 H R -.0000
ATE -.1374 LONE 5.0689 LATS 1.0785 LONS 49.034 LATI -11.4837 LONI 320.4985 RSM 352.3548 TTAN 4.6916
LAUNCH DATE JUN 26,1966 BASE AZM 111.0 TF 62.381 ARRIVAL DATE JUN 29 1966 1 40 34.6

LNCH AZMTH	LNCH TIME	RR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	12 57 12.4	27.7	16.95	304.14	-5.49	55.47	119.08	13 4 27 4	6562 4	10.97	-2.96

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELP	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	26	13	8.5												
SEPARATION		1.2.	12.45	26	13	9.7												
RETRO		3.20	14.45	26	13	11.7												
RISE	72	5.08	16.33	26	13	13.5	85.85	-.1431	27. 5	-.0457	2374.1	-8.73	-.00	.1324	297.84	-.0255	1.86	127.69
EXTM	72	8.75	20.00	26	13	17.2	24.98	-.4088	-7.12	-.2791	1148.0	.60	65.26	.4153	268.71	-.6300	-7.97	341.93
RISE	51	11.21	22.46	26	13	19.7	84.66	-.0852	10.91	-.0560	4854.7	-4.13	.01	.0998	282.13	-.0132	-13.35	350.19
EXTM	51	28.82	40.07	26	13	37.3	2.18	-.0427	-33.49	-.0085	7109.3	5.44	81.54	-.0000	192.36	-.2472	-30.09	26.58
EXTM	72	69.71	80.96	26	14	18.2	279.17	.0000	-33.42	.0007	23806.8	4.82	11.99	.0000	123.13	-.0007	-33.16	49.78
EXTM	51	86.10	97.25	26	14	34.5	329.32	-.0001	-33.76	.0008	24540.9	4.43	62.30	.0000	114.13	-.0018	-32.74	51.77
RISE	61	185.80	197.05	26	16	14.3	307.08	.0031	-35.47	.0006	53062.1	3.25	.00	.0020	139.48	.0016	-29.94	43.86
EXTM	51	277.19	288.44	26	17	45.6	.28	.0036	-28.48	.0003	64635.5	3.00	87.25	.0000	185.16	.0067	-28.23	27.43
EXTM	61	448.36	459.61	26	20	36.8	5.21	.0039	-29.16	.0003	96668.4	2.51	19.93	.0000	184.82	.0037	-26.21	350.82
EXTM	72	475.15	486.40	26	21	3.6	.96	.0041	-27.14	.0002	96967.8	2.45	70.74	.0000	182.59	.0109	-25.97	344.78
RISE	11	626.62	637.87	26	23	35.1	290.88	.0040	-26.79	.0001	123950.0	1.90	.30	.0028	123.48	.0023	-24.87	309.80
SET	51	666.23	677.48	27	0	14.7	90.00	.0039	-23.93	.0001	128031.8	2.51	9.98	-.0033	248.59	-.0013	-24.63	300.49
SET	61	699.17	710.42	27	0	47.6	65.13	.0040	-24.83	.0002	133348.6	2.37	-.00	-.0023	254.33	.0027	-24.44	292.70
SET	72	857.99	869.24	27	3	24.4	93.44	.0040	-23.73	.0001	152637.7	2.35	-.00	-.0036	246.43	-.0004	-23.67	254.82
RISE	42	869.94	881.19	27	3	36.4	254.99	.0040	-22.18	.0000	153886.9	1.61	1.25	.0029	116.54	-.0023	-23.62	251.95
EXTM	11	912.62	923.87	27	4	21.1	1.53	.0042	-25.44	.0001	155833.1	1.89	29.33	-.0000	181.59	.0043	-23.44	241.67
SET	11	1196.45	1207.70	27	9	4.9	71.96	.0041	-23.69	.0001	189297.2	2.00	-.00	-.0028	240.54	.0024	-22.47	172.81
EXTM	42	1293.29	1304.54	27	10	41.7	359.82	.0042	-21.77	.0000	192818.4	1.63	76.55	.0000	.71	-.0167	-22.20	149.15
RISE	51	1428.55	1439.80	27	12	57.0	270.00	.0041	-21.17	-.0000	210834.0	1.17	9.02	.0035	109.23	-.0016	-21.86	116.02
RISE	72	1587.13	1598.38	27	15	35.6	266.90	.0041	-22.17	-.0000	226272.3	1.06	.00	.0038	111.48	-.0006	-21.50	77.05
RISE	61	1640.08	1651.33	27	16	28.5	290.52	.0041	-22.50	.0000	230942.4	1.15	.00	.0027	120.09	.0027	-21.39	64.02
SET	42	1716.15	1727.40	27	17	44.6	105.00	.0041	-20.30	.0001	237515.0	1.77	.10	-.0031	244.95	-.0023	-21.24	45.28
EXTM	51	1787.36	1798.61	27	18	55.8	359.96	.0042	-20.98	.0000	237293.8	1.40	85.24	-.0000	.45	-.0425	-21.10	27.72
EXTM	61	1919.31	1930.56	27	21	7.8	.62	.0042	-22.14	.0000	251512.2	1.35	27.62	-.0000	180.64	.0044	-20.87	355.15
EXTM	72	1958.06	1969.31	27	21	46.5	.10	.0042	-21.13	.0000	251439.0	1.34	76.77	.0000	180.42	.0170	-20.81	345.57
RISE	11	2078.06	2089.31	27	23	46.5	286.10	.0042	-21.46	.0000	267059.7	.93	-.00	.0030	116.60	.0024	-20.61	315.90
SET	51	2146.48	2157.73	28	0	54.9	90.00	.0041	-19.96	.0001	271399.2	1.67	8.53	-.0035	251.88	-.0016	-20.51	298.97
SET	61	2198.56	2209.81	28	1	47.0	70.69	.0041	-21.35	.0001	276306.8	1.57	-.00	-.0027	241.52	.0027	-20.43	286.08
SET	72	2327.64	2338.89	28	3	56.1	92.91	.0041	-20.07	.0001	285925.1	1.65	-.01	-.0038	249.73	-.0005	-20.25	254.11
RISE	42	2334.71	2345.96	28	4	3.2	255.55	.0041	-19.46	-.0000	286443.6	.88	.00	.0031	114.07	-.0024	-20.24	252.35
EXTM	11	2373.46	2384.71	28	4	41.9	.41	.0042	-21.24	.0000	285770.3	1.21	33.55	-.0000	180.46	.0047	-20.19	242.75
SET	11	2668.84	2680.09	28	9	37.3	74.67	.0042	-20.54	.0000	310046.0	1.47	-.00	-.0030	244.57	.0024	-19.81	169.47
EXTM	42	2751.03	2762.28	28	10	59.5	359.92	.0042	-19.40	.0000	309525.9	1.12	74.18	-.0000	.30	-.0142	-19.72	149.06
RISE	51	2881.67	2892.92	28	13	10.1	270.00	.0041	-19.12	-.0000	323324.8	.70	8.17	.0036	107.34	-.0016	-19.57	116.61
RISE	72	3039.64	3050.89	28	15	48.1	267.22	.0042	-19.24	-.0000	334533.6	.63	-.01	.0039	109.43	-.0006	-19.39	77.31
RISE	61	3081.31	3092.56	28	16	29.8	288.03	.0042	-20.19	.0000	337171.0	.74	.00	.0029	116.74	.0027	-19.34	66.89
SET	42	3164.33	3175.58	28	17	52.8	103.74	.0041	-18.69	.0000	342392.6	1.40	-.00	-.0031	247.03	-.0024	-19.24	46.14
EXTM	51	3237.95	3249.20	28	19	6.4	359.95	.0042	-19.03	.0000	340716.4	1.04	83.29	.0000	.39	-.0325	-19.15	27.73
EXTM	61	3367.32	3378.57	28	21	15.8	.39	.0042	-19.88	.0000	351856.8	1.03	29.88	-.0000	180.42	.0046	18.99	355.37
EXTM	72	3406.30	3417.55	28	21	54.8	.06	.0043	-19.14	.0000	351225.4	1.03	78.76	.0000	180.30	.0198	-18.94	345.61
RISE	11	3516.92	3528.17	28	23	45.4	284.40	.0042	-19.42	.0000	364290.4	.70	.00	.0031	114.01	.0024	-18.80	317.91
SET	51	3593.83	3605.08	29	1	2.3	90.00	.0042	-18.29	.0000	368268.0	1.47	7.83	-.0036	253.42	-.0016	-18.70	298.63
SET	61	3653.16	3664.41	29	2	1.6	72.78	.0042	-19.08	.0000	372997.2	1.44	.00	-.0029	244.37	.0028	-18.61	283.72
IMPACT		3742.85	3754.10	29	3	31.3												
IMPC	72	3742.85	3754.10	29	3	31.3	85.64	.0043	-18.29	.0001	379104.3	2.32	6.58	-.0041	252.36	-.0003	-18.39	261.03
IMPC	11	3742.85	3754.10	29	3	31.3	341.87	.0044	-19.16	.0001	376382.5	1.74	32.97	.0013	159.49	.0047	-18.39	261.03

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	26	13	8.456	6562.528	16.9517	304.1315	10.96606	-2.9645	119.0726	55.4578
SEPARATION		1.20	12.45	26	13	9.656	6545.077	13.5017	310.0442	10.98062	.4542	120.7069	61.6713
RETRO		3.20	14.45	26	13	11.656	6620.526	7.4910	319.4453	10.91723	6.1136	122.5178	71.5739
IMPACT		3742.85	3754.10	29	3	31.304	379888.000	-18.3923	261.0283	2.12093	61.5779	303.7497	230.6277

SUBROUTINE IBM PERTURB

GHA	274.4205			E'S	-43.8227						LOM	251.4031	
SX	-.5[illegible]	-.7[illegible]	-.316146	GAD	-15.43 01	RAD	230.80958	RM	381107.559	LAT	28.310600	LON	279.461800
C3	-11.2[illegible]	.77[illegible]	12956.779	RCM	7544.6750	ITA	-20.000	GTA	20.00	IR	675.00000	POL	-.0
NSX	-.58 837	-.74[illegible]	-.324000	R3M	1.4272	VIM	9.6714	ZAE	133.805	R.T	.0000	B.R	-.0000
LATE	-.[illegible]	[illegible]	5. [illegible]	LATS	1.0791	LONS	48.78 2	LATI	-11.7597	LONI	320.0356	RSM	182.3559	TTAN	4.6784
LAUNCH DATE	JUN [illegible]		BASE A/M	115.0		TF	82.656			ARRIVAL DATE	JUN 29 1966		4 10 25.3		

LNCH AZMTH	LNCH TIME	RM	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPTH
115.00	[illegible]	27.0	15.51	303.41	-3.22	58.06	121.90	13 21 43.2	6549.8	10.98	-1.59

EVNT STA	TEI	TEL	DAY HR MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN SUNLIGHT												
INJECTION	.0	11.25	26 13 21.7												
SEPARATION	1.2	12.45	26 13 [illegible]												
RETRO	3.2	14.45	26 13 24.9												
RISE 72	[illegible]	[illegible]	26 13 [illegible]	87.08	-.1272	28. 6	-.0779	2510.8	-8.23	.00	.1296	290.30	-.0596	-.12	325.58
EXTM 72	4.5	[illegible]	26 13 [illegible]	27.69	-.3435	-36.12	-.1830	1494.8	3.35	60.38	.0806	218.09	-.6859	-12.21	342.20
RISE 51	[illegible].24	22.49	26 13 [illegible]	87.04	-.0278	6. 1	-.0598	5067.1	-3.69	.00	.0957	276.79	-.0200	-15.89	347.72
EXTM 51	41.41	42.66	26 13 53.1	2.06	-.0364	-38.17	-.0041	5163.8	5.43	76.85	-.0000	187.06	-.1259	-33.07	26.60
EXTM 72	89.65	90.85	26 14 [illegible]	281.91	-.0000	-36. 9	.0010	23680.8	4.80	14.25	.0000	125.44	-.0011	-34.86	46.92
EXTM 51	95.15	96.40	26 14 48.8	332.72	-.0004	-35.43	.0011	24318.4	4.43	64.56	.0000	120.21	-.0026	-34.35	48.91
RISE 61	[illegible]	[illegible]	26 16 24.1	309.35	-.0031	-36.44	.0007	52443.3	3.27	.00	.0020	141.76	.0016	-31.15	41.63
EXTM 51	264.18	275.13	26 17 45.8	.50	.0038	-29.76	.0004	62331.5	3.04	85.96	-.0000	186.22	.0443	-29.39	27.23
EXTM 61	449.25	449. 0	26 20 30.0	5.81	.0039	-30.56	.0003	95262.2	2.53	19.00	.0000	185.29	.0036	-27.03	350.27
EXTM 72	468.47	47 .2	26 21 5.1	1.14	.0041	-28. 2	.0002	95280.0	2.48	69.85	.0000	182.91	.0104	-26.78	344.61
RISE 11	517.42	62 .57	26 23 39.0	291.53	.0040	-27.46	.0001	122710.9	1.91	.00	.0028	124.39	.0023	-25.53	309.11
SET 51	555.83	555.28	27 0 15.6	90.00	.0039	-24. 8	.0002	126383.3	2.53	10.25	-.0033	247.98	-.0013	-25.28	300.54
SET 61	883.40	894.65	27 6 46.1	64.30	.0040	-27.13	.0002	131322.5	2.38	.00	-.0023	233.32	.0027	-25.10	293.56
SET 72	946.14	957.49	27 8 27.9	93.53	.0040	-23.68	.000	51202.9	2.39	-.01	.0036	245.88	-.0004	-24.22	254.76
RISE 42	957.97	969.22	27 8 39.7	254.99	.0040	-22. 1	.0002	15 408.1	1.62	1.56	.0029	116.96	-.0023	-24.16	251.92
EXTM 11	911.11	912.36	27 4 22.8	1.67	.0042	-26.00	.0001	15 15.0	1.90	28.77	-.0000	181.72	.0043	-23.97	241.54
SET 11	1182.69	1193.94	27 9 4.4	71.56	.0041	-24.15	.0001	187782.9	2.00	-.00	-.0028	239.96	.0024	-22.91	173.23
EXTM 42	1281.18	1292.43	27 10 42.9	359.81	.0042	-22. 9	.0000	191483.6	1.63	76.97	.0000	79	-.0172	-22.61	149.17
RISE 51	1416.54	1427.79	27 12 56.3	270.00	.0041	-21.54	-.0000	209524.2	1.18	9.17	.0035	109.58	-.0016	-22.23	116.00
RISE 72	1574.88	1586.14	27 15 34.8	268.85	.0041	-21.61	-.0000	224975.5	1.06	.00	.0038	111.83	-.0006	-21.85	77.09
RISE 61	1629.48	1640.73	27 16 31.2	290.88	.0041	-22.14	.0000	229795.0	1.10	.00	.0027	120.56	.0027	-21.72	63.65
SET 42	1714.01	1725.26	27 17 46.7	105.00	.0041	-20.62	.0001	238217.0	1.77	.29	-.0030	244.70	-.0023	-21.56	45.29
EXTM 51	1775.26	1786.51	27 18 57.0	359.97	.0042	-21.30	.0000	236020.7	1.40	85.56	-.0000	.48	-.0441	-21.41	27.72
EXTM 61	1907.37	1918.62	27 21 9.1	.66	.0042	-22. 4	.0000	250287.2	1.35	27.32	-.0000	180.69	.0044	-21.16	355.10
EXTM 72	1945.98	1957.23	27 21 47.7	.11	.0042	-21.62	.0000	250180.7	1.34	76.48	.0000	180.45	.0167	-21.09	345.56
RISE 11	2066.91	2078.16	27 23 48.6	286.34	.0042	-21.73	.0000	265864.5	.96	.00	.0030	116.95	.0024	-20.88	315.66
SET 51	2134.29	2145.54	28 0 56.0	90.00	.0041	-20.22	.0001	270110.7	1.66	8.63	-.0035	251.64	-.0016	-20.77	298.98
SET 61	2185.29	2196.54	28 1 47.0	70.42	.0041	-21.51	.0001	274946.1	1.56	-.00	-.0027	241.15	.0027	-20.68	286.36
SET 72	2315.59	2326.84	28 3 57.3	92.95	.0041	-20.30	.0001	284649.6	1.65	-.01	-.0038	249.49	-.0005	-20.49	254.08
RISE 42	2321.79	2333.04	28 4 3.5	255.36	.0041	-19.69	-.0000	285103.9	.88	.00	.0031	114.36	-.0024	-20.48	252.54
EXTM 11	2361.41	2372.66	28 4 43.1	.44	.0042	-21.48	.0000	284513.4	1.21	33.31	-.0000	180.62	.0047	-20.42	242.72
SET 11	2655.92	2667.17	28 9 37.6	74.49	.0042	-20.75	.0000	308681.7	1.47	-.00	-.0030	244.30	.0024	-20.02	169.65
EXTM 42	2738.79	2750.04	28 11 .8	359.91	.0042	-19.40	.0000	308193.5	1.11	74.38	-.0000	.32	-.0144	-19.91	149.07
RISE 51	2869.46	2880.71	28 13 11.2	270.00	.0041	-19.30	-.0000	321975.9	.69	8.25	.0036	107.51	-.0016	-19.76	116.61
RISE 72	3027.50	3038.75	28 15 49.2	267.20	.0042	-19.41	-.0000	333167.3	.62	.00	.0039	109.60	-.0006	-19.57	77.32
RISE 61	3069.94	3081.19	28 16 31.7	288.20	.0042	-20.26	.0000	335841.9	.73	.00	.0029	116.98	.0027	-19.51	66.71
SET 42	3152.74	3163.99	28 17 54.5	103.87	.0041	-18.75	.0000	341023.5	1.39	-.00	-.0031	246.82	-.0024	-19.40	46.01
EXTM 51	3225.82	3237.07	28 19 7.5	359.95	.0042	-19.19	.0000	339287.3	1.03	83.45	.0000	.44	-.0332	-19.31	27.73
EXTM 61	3356.26	3367.51	28 21 17.0	.41	.0042	-20.04	.0000	350397.6	1.03	29.72	-.0000	180.44	.0046	-19.15	355.35
EXTM 72	3394.18	3405.43	28 21 55.9	.06	.0043	-19.30	.0000	349732.9	1.03	78.60	.0000	180.31	.0197	-19.10	345.61
RISE 11	3505.31	3516.56	28 23 47.0	284.53	.0042	-19.57	.0000	362757.6	.68	.00	.0031	114.20	.0024	-18.95	317.78
SET 51	3581.71	3592.96	29 1 3.4	90.00	.0042	-18.44	.0000	366623.4	1.45	7.89	-.0036	253.28	-.0016	-18.85	298.63
SET 61	3640.46	3651.71	29 2 2.2	72.62	.0042	-19.43	.0000	371222.9	1.40	.00	-.0029	244.16	.0027	-18.76	283.88
SET 72	3758.58	3769.83	29 4 .3	92.63	.0043	-18.65	.0001	379823.5	2.25	.01	-.0041	251.46	-.0005	-18.49	254.04
IMPACT	3759.38	3770.63	29 4 1.1												
IMPC 42	3759.38	3770.63	29 4 1.1	254.35	.0043	-17.90	.0001	380118.1	1.50	-1.86	.0032	113.53	-.0026	-18.49	253.83
IMPC 72	3759.38	3770.63	29 4 1.1	92.84	.0043	-18.65	.0001	379931.9	2.30	-.19	-.0041	251.44	-.0005	-18.49	253.83
IMPC 11	3759.38	3770.63	29 4 1.1	349.16	.0044	-19.26	.0001	376313.1	1.77	34.56	.0009	167.55	.0049	-18.49	253.83
RISE 42	3769.38	3780.55	29 4 11.0	256.83	.0044	-17.49	.0001	380543.2	2.17	.01	.0033	112.09	-.0026	-18.47	251.34

EVNT STA	TEI	TEL	DAY HR MIN	RAD	LAT	LONG	VEL	FPTH	AZ	RT ASC
INJECTION	.00	11.25	26 13 21.719	6549.786	15.5075	303.4112	10.97607	-1.5921	121.9011	58.0623
SEPARATION	1.20	12.45	26 13 22.919	6551.409	11.7772	309.1040	10.97460	1.8295	123.3167	64.0559
RETRO	3.20	14.45	26 13 24.919	6657.699	5.4075	316.1157	10.88573	7.4481	124.7434	73.5690
IMPACT	3759.38	3770.63	29 4 1.103	379964.383	-18.4871	253.8342	2.11415	61.0328	303.9067	230.9038

GHA 277.4152 EPS -32.1986 LOM 282.5771
SX -.411359 SY -.829256 SZ -.378310 DAD -22.22403 RAD 243.61590 RM 384232.813 LAT 28.310600 LON 279.461800
C3 -1.125088 ECC .961527 SLR 12988.432 RCA 6544.6450 LTA -20.0000 GTA 20.00 TH 673.00000 POL -.0
NSX -.390908 NSY -.838546 NSZ -.383904 CTM 1.4927 VIM 2.6706 ZAE 137.268 R.T .0000 B.R -.0000
LATE 1.3559 LONE 5.1081 LATS 1.1077 LONS 37.2345 LATI -8.0952 LONI 323.3102 RSM 152.4089 TTAN 5.7963
LAUNCH DATE JUN 27.1966 BASE AZM 93.0 TF 61.586 ARRIVAL DATE JUN 30 1966 2 53 13.2

LNCH AZMTH	LNCH TIME	PH	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
93.00	14 5 46.0	27.2	23.67	306.59	-14.11	61.05	106.24	13 17 1.0	6644.0	10.90	-6.99

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELF	DEL	AZI	DAZ	LAT	LONG
						PRCRF IN SUNLIGHT											
INJECTION	.00	11.25	27	13	17.0												
SEPARATION	1.20	12.45	27	13	18.2												
RETRO	3.20	14.45	27	13	20.2												
RISE 72	6.18	17.43	27	13	23.2	68.87	-.4693	68.94	.1192	2257.0	-6.44	-.00	.1102	340.41	.1747	10.47	339.14
EXTM 72	10.91	22.16	27	13	27.9	303.10	-.0846	22.74	-.1928	2171.2	5.72	26.47	-.0000	59.66	.2323	-.29	358.42
RISE 51	11.70	22.95	27	13	28.7	70.76	-.1260	34.14	-.0297	4462.5	-4.62	.00	.1041	308.78	.0295	-1.85	1.12
EXTM 51	26.23	37.48	27	13	43.2	349.23	-.0418	-11.24	-.0272	5915.6	5.50	72.28	-.0000	37.04	.1615	-18.84	33.10
EXTM 72	67.79	79.04	27	14	24.8	271.32	-.0001	-26.53	-.0008	23627.9	4.91	4.73	.0000	116.47	.0009	-27.52	57.78
RISE 42	68.45	79.70	27	14	25.5	104.15	-.0052	-19.10	-.0028	24343.6	4.27	.00	.0056	246.39	.0008	-27.56	57.91
EXTM 51	82.54	93.79	27	14	39.6	319.62	-.0001	-27.44	-.0006	23659.3	4.53	54.01	.0000	101.93	.0010	-28.06	59.72
EXTM 42	125.22	136.47	27	15	22.2	98.15	.0004	-23.38	-.0005	38540.2	4.00	7.04	-.0000	246.28	-.0006	-28.44	59.29
SET 42	200.27	211.52	27	16	37.3	105.00	.0023	-24.25	-.0000	55573.4	3.58	2.52	-.0016	241.83	-.0013	-28.12	49.80
RISE 61	211.36	222.61	27	16	48.4	303.27	.0032	-32.95	.0003	58095.7	3.12	.00	.0019	135.44	.0019	-28.05	47.96
EXTM 51	318.19	329.44	27	18	35.2	.06	.0037	-27.56	.0001	71773.9	2.87	88.18	.0000	181.80	.1010	-27.41	27.63
EXTM 61	478.98	490.23	27	21	16.0	3.20	.0040	-29.95	.0002	101386.8	2.47	19.75	.0000	182.95	.0036	-26.64	352.72
EXTM 72	512.36	523.61	27	21	49.4	.55	.0041	-27.44	.0001	102563.3	2.40	70.25	-.0000	181.45	.0106	-26.51	345.15
RISE 11	668.81	680.06	28	0	25.8	291.86	.0040	-27.42	.0000	129828.7	1.87	.00	.0027	124.83	.0023	-25.97	308.92
SET 51	705.01	716.26	28	1	2.0	90.00	.0039	-24.82	.0001	133337.2	2.48	10.50	-.0033	247.39	-.0013	-25.86	300.40
SET 61	731.37	742.62	28	1	28.4	63.59	.0040	-27.73	.0001	137833.5	2.35	-.00	-.0023	232.44	.0027	-25.79	294.17
SET 72	897.85	909.10	28	4	14.9	93.73	.0040	-25.04	.0001	157893.0	2.32	-.01	-.0036	244.71	-.0004	-25.37	254.48
RISE 42	908.23	919.48	28	4	25.2	254.99	.0040	-23.95	-.0000	158831.2	1.60	2.34	.0029	117.94	-.0022	-25.34	251.98
EXTM 11	949.06	960.31	28	5	6.1	1.02	.0042	-27.23	.0002	160829.0	1.88	27.56	-.0000	181.03	.0042	-25.25	242.16
SET 11	1226.89	1238.14	28	9	43.9	69.92	.0041	-25.95	.0001	193465.3	2.00	-.00	-.0028	237.62	.0024	-24.73	174.83
EXTM 42	1332.43	1343.68	28	11	29.4	359.91	.0042	-24.22	.0000	197820.0	1.63	79.00	.0000	.46	-.0196	-24.56	149.07
RISE 51	1467.45	1478.70	28	13	44.5	270.00	.0041	23.71	-.0000	215797.4	1.19	10.05	.0034	111.58	-.0015	-24.37	116.02
RISE 72	1624.38	1635.63	28	16	21.4	266.46	.0041	-23.94	-.0000	231280.7	1.08	-.01	.0037	114.18	-.0005	-24.16	77.50
RISE 61	1690.98	1702.23	28	17	28.0	293.45	.0041	-25.19	-.0000	237186.4	1.17	.00	.0026	123.88	.0027	-24.08	61.12
SET 42	1755.34	1766.59	28	18	32.4	105.00	.0041	-23.09	.0000	242590.2	1.77	1.82	-.0030	242.74	-.0023	-24.01	45.28
EXTM 51	1821.04	1832.29	28	19	38.1	358.56	.0042	-23.89	.0000	242126.7	1.40	87.73	.0022	35.60	-.0800	-23.94	29.09
EXTM 61	1957.92	1969.17	28	21	54.9	.43	.0042	-25.07	.0000	257183.9	1.37	24.69	.0000	180.43	.0042	-23.79	355.33
EXTM 72	1997.35	2008.60	28	22	34.4	.08	.0042	-24.74	.0000	256995.6	1.35	73.76	.0000	180.27	.0134	-23.75	345.59
RISE 11	2128.10	2139.35	29	0	45.1	288.74	.0042	-24.48	-.0000	273499.9	.99	.00	.0029	120.47	.0024	-23.63	313.29
SET 51	2185.98	2197.23	29	1	43.0	90.00	.0041	-23.15	.0000	276942.4	1.67	9.79	-.0035	249.02	-.0015	-23.57	298.98
SET 61	2224.72	2235.97	29	2	21.7	67.36	.0041	-24.46	.0000	281020.4	1.58	-.00	-.0026	237.15	.0027	-23.54	289.39
SET 72	2369.32	2380.57	29	4	46.3	93.42	.0041	-23.23	.0000	291976.4	1.66	-.00	-.0037	246.53	-.0005	-23.42	253.60
RISE 42	2372.11	2383.36	29	4	49.1	255.00	.0041	-22.65	-.0000	292012.5	.91	1.55	.0030	116.91	-.0023	-23.41	252.91
EXTM 11	2412.66	2423.91	29	5	29.7	.29	.0042	-24.45	.0000	291991.5	1.23	30.34	-.0006	180.31	.0044	-23.38	242.86
SET 11	2697.10	2708.35	29	10	14.1	71.78	.0042	-23.49	.0000	315598.9	1.49	-.00	-.0029	240.28	.0024	-23.16	172.34
EXTM 42	2791.08	2802.33	29	11	48.1	359.96	.0042	-22.85	.0000	315924.2	1.14	77.63	.0000	.20	-.0164	-23.09	149.02
RISE 51	2921.64	2932.89	29	13	58.7	270.00	.0041	-22.67	-.0000	329848.5	.73	9.59	.0035	110.52	-.0016	-23.01	116.61
RISE 72	3077.04	3088.29	29	16	34.1	266.66	.0042	-22.73	-.0000	341317.7	.67	-.00	.0038	112.96	-.0006	-22.88	77.86
RISE 61	3135.55	3146.80	29	17	32.6	291.69	.0042	-23.58	-.0000	345131.0	.78	.01	.0027	121.61	.0027	-22.84	63.25
SET 42	3209.14	3220.39	29	18	46.2	105.00	.0041	-22.14	.0000	349767.7	1.42	1.23	-.0031	243.50	-.0023	-22.78	44.87
EXTM 51	3277.87	3289.12	29	19	54.9	359.98	.0042	-22.47	.0000	348035.3	1.08	86.93	.0000	.41	-.0477	-22.73	27.70
EXTM 61	3406.82	3418.07	29	22	3.8	.29	.0042	-23.53	.0000	359858.1	1.08	26.24	-.0000	180.30	.0043	-22.62	355.46
EXTM 72	3446.18	3457.43	29	22	43.2	.06	.0043	-22.85	.0000	359101.1	1.09	75.06	.0000	180.22	.0143	-22.59	345.62
RISE 11	3569.12	3580.37	30	0	46.1	287.51	.0042	-23.19	-.0000	373317.8	.80	.00	.0030	118.69	.0024	-22.48	314.82
SET 51	3633.55	3644.80	30	1	50.6	90.00	.0042	-22.12	.0000	376779.4	1.61	9.37	-.0036	249.98	-.0016	-22.41	298.63
SET 61	3677.41	3688.66	30	2	34.4	68.94	.0043	-23.01	.0001	381249.6	1.77	-.00	-.0027	239.20	.0028	-22.34	287.55
IMPACT	3695.17	3706.42	30	2	52.2												
IMPC 72	3695.17	3706.42	30	2	52.2	63.58	.0043	-22.43	.0001	380061.9	2.35	27.38	-.0040	248.89	.0003	-22.29	283.01
IMPC 51	3695.17	3706.42	30	2	52.2	105.57	.0043	-21.82	.0001	383386.6	2.35	-3.61	-.0035	243.64	-.0019	-22.29	283.01
IMPC 11	3695.17	3706.42	30	2	52.2	319.60	.0044	-23.03	.0001	380779.3	1.72	20.31	.0023	140.50	.0035	-22.29	283.01
IMPC 61	3695.17	3706.42	30	2	52.2	73.50	.0043	-22.94	.0001	383316.3	2.28	-2.98	-.0029	242.15	.0028	-22.29	283.01

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	27	13	17.016	6648.051	23.7126	306.4484	10.90253	-6.9907	106.1787	60.9061
SEPARATION	1.20	12.45	27	13	18.216	6571.064	21.6121	313.3272	10.96336	-3.6172	108.9531	68.0858
RETRO	3.20	14.45	27	13	20.216	6553.373	17.5010	324.2294	10.97830	2.0796	112.7840	79.4893
IMPACT	3695.17	3706.42	30	2	52.189	383037.508	-22.2896	283.0087	2.16286	65.0110	296.4151	243.7884

SURVEYOR VIEW PERIODS

GMA	277.6152					EPS	-32.0368							LOM	277.9574
SX	-.408572	SY	-.830293	SZ	-.379054	DAO	-22.27512	RAO	243.79904	RM	384277.668	LAT	28.310600	LON	279.461800
C3	-1.122185	ECC	.981575	SLR	12948.750	HCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.388126	NSY	-.837513	NSZ	-.384617	C3M	1.4973	VIM	2.6714	ZAE	137.271	B.T	.0000	B.R	-.0000
LATF	1.3745	LONF	5.1074	LATS	1.1081	LONS	37.0742	LATI	-8.1450	LONI	323.3278	RSM	152.4095	TTAN	5.8082
LAUNCH DATE		JUN	27,1966		BASE AZM	96.0		TF	61.552			ARRIVAL DATE		JUN 30 1966	3 12 22.8

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
96.00	13 24 28.1	27.5	22.47	306.48	-9.40	65.63	108.48	13 35 43.1	6593.3	10.94	-4.90

EVNT	STA	TET	TFL	DAY	HR	MIN	HA	DHA	DEC	DUE	RNG	DRG	FLE	DEL	AZI	DAZ	LAT	LONG
						PHASE IN SUNLIGHT												
INJECTION		.00	11.25	27	13	35.7												
SEPARATION		1.20	12.45	27	13	36.9												
RETRO		3.20	14.45	27	13	38.9												
RISE	72	5.67	16.92	27	13	41.4	76.28	-.2993	59.67	.0940	2340.3	-7.38	-.00	.1199	330.62	.1316	9.68	335.80
EXTM	72	10.42	21.67	27	13	46.1	315.58	-.1349	22.56	-.2167	1882.3	5.16	36.91	-.0000	53.94	.3126	-1.16	354.81
RISE	51	11.44	22.69	27	13	47.2	73.84	-.1135	40.10	-.0339	4667.5	-4.38	-.00	.1020	303.72	.0200	-3.15	358.21
EXTM	51	27.50	38.75	27	14	3.2	353.17	-.0376	-15.26	-.0212	6501.8	5.47	77.73	.0000	32.68	.1978	-20.48	31.25
EXTM	72	68.11	79.35	27	14	43.8	276.71	-.0000	-27.46	-.0007	23513.1	4.88	8.71	.0000	117.13	.0007	-27.99	53.60
RISE	42	81.61	92.84	27	14	57.3	105.00	-.0030	-21.16	-.0017	28240.1	4.25	.57	.0032	244.35	.0003	-28.45	55.35
EXTM	51	84.51	95.76	27	15	.2	324.87	-.0000	-28.30	-.0004	24159.0	4.48	58.71	.0000	102.71	.0008	-28.51	55.56
EXTM	42	124.99	136.24	27	15	40.7	102.39	.0004	-23.51	-.0005	39000.1	4.00	3.98	-.0000	243.87	-.0006	-28.78	54.94
SET	42	144.48	155.73	27	16	20.2	104.99	.0017	-24.18	-.0002	48190.0	3.76	2.49	-.0011	241.89	-.0010	-28.62	50.72
RISE	61	192.72	203.97	27	16	48.4	304.38	.0031	-33.72	.0003	54460.5	3.23	.00	.0019	136.65	.0018	-28.44	46.59
EXTM	51	296.45	307.70	27	18	32.2	.08	.0037	-27.95	.0001	68122.1	2.94	87.78	.0000	181.98	.0816	-27.77	27.61
EXTM	61	460.36	471.61	27	21	16.1	3.49	.0039	-30.11	.0002	98765.7	2.51	19.38	.0000	183.19	.0036	-26.90	352.45
EXTM	72	492.7	503.98	27	21	48.4	.55	.0040	-27.95	.0001	99840.6	2.44	69.95	.0000	181.42	.0104	-26.76	345.16
RISE	11	650.99	662.24	28	0	28.7	292.10	.0040	-28.07	.0000	127607.9	1.89	.00	.0027	125.16	.0023	-26.18	308.64
SET	51	685.84	697.09	28	1	1.6	90.00	.0039	-25.11	.0001	130982.8	2.50	10.58	-.0033	247.21	-.0013	-26.07	300.45
SET	61	711.08	722.33	28	1	26.8	63.29	.0040	-27.48	.0001	135380.0	2.37	-.00	-.0023	232.08	.0027	-25.99	294.50
SET	72	829.18	840.43	28	4	14.9	93.75	.0040	-25.21	.0001	155833.6	2.34	-.01	-.0035	244.53	-.0004	-25.54	254.48
RISE	42	889.73	900.98	28	4	25.4	254.99	.0040	-24.11	-.0000	156791.0	1.61	2.43	.0029	118.06	-.0022	-25.52	251.95
EXTM	11	930.70	941.95	28	5	6.4	1.08	.0042	-27.42	.0001	158873.0	1.90	27.36	-.0000	181.08	.0042	-25.42	242.11
SET	11	1207.86	1219.11	28	9	43.6	69.78	.0041	-24.10	.0001	191639.5	2.01	-.00	-.0028	237.42	.0024	-24.87	174.98
EXTM	42	1314.03	1325.28	28	11	29.7	359.89	.0042	-24.45	.0000	196124.5	1.64	79.13	.0000	.55	-.0199	-24.69	149.09
RISE	51	1449.22	1460.47	28	13	44.9	270.00	.0041	-23.42	-.0000	214193.9	1.20	10.10	.0034	111.69	-.0015	-24.49	116.01
RISE	72	1606.12	1617.37	28	16	21.8	266.44	.0041	-24.15	-.0000	229760.2	1.09	-.01	.0037	114.29	-.0005	-24.28	77.51
RISE	61	1673.32	1684.57	28	17	29.0	293.58	.0041	-25.50	-.0000	235750.7	1.18	.00	.0026	124.05	.0027	-24.19	60.98
SET	42	1747.09	1758.34	28	18	32.8	105.00	.0041	-23.19	.0000	241125.7	1.78	1.88	-.0030	242.67	-.0023	-24.11	45.29
EXTM	51	1802.87	1814.12	28	19	38.6	358.56	.0042	-23.99	.0000	240705.1	1.41	87.82	.0023	37.02	-.0818	-24.04	29.08
EXTM	61	1939.80	1951.05	28	21	55.5	.45	.0042	-25.17	.0000	255833.7	1.37	24.59	.0000	180.44	.0042	-23.89	355.31
EXTM	72	1979.19	1990.44	28	22	34.9	.08	.0042	-24.24	.0000	255650.5	1.36	73.66	.0000	180.28	.0133	-23.85	345.59
RISE	11	2110.31	2121.56	29	0	44.0	288.82	.0042	-24.57	-.0000	272230.3	.99	.00	.0029	120.59	.0024	-23.72	313.20
SET	51	2167.80	2179.05	29	1	43.5	90.00	.0041	-23.14	.0000	275459.5	1.68	9.83	-.0035	248.94	-.0015	-23.66	298.98
SET	61	2206.14	2217.39	29	2	21.9	67.25	.0041	-24.46	.0000	279724.2	1.58	-.00	-.0026	237.02	.0027	-23.63	289.50
SET	72	2351.21	2362.46	29	4	46.9	93.43	.0041	-23.32	.0000	290765.9	1.67	-.00	-.0037	246.45	-.0005	-23.50	253.59
RISE	42	2354.00	2365.25	29	4	49.7	255.00	.0041	-22.43	-.0000	290797.2	.91	1.59	.0030	116.97	-.0023	-23.50	252.90
EXTM	11	2394.56	2405.81	29	5	30.3	.30	.0042	-24.53	.0000	290804.6	1.24	30.26	-.0000	180.32	.0044	-23.46	242.85
SET	11	2678.70	2689.95	29	10	14.4	71.72	.0042	-23.97	.0000	314470.5	1.49	-.00	-.0029	240.18	.0024	-23.23	172.41
EXTM	42	2772.96	2784.21	29	11	48.7	359.96	.0042	-22.92	.0000	314841.7	1.14	77.70	.0000	.21	-.0165	-23.17	149.02
RISE	51	2903.55	2914.80	29	13	59.3	270.00	.0041	-22.63	-.0000	328803.1	.73	9.62	.0035	110.58	-.0016	-23.07	116.60
RISE	72	3058.91	3070.16	29	16	34.6	266.65	.0042	-22.79	-.0000	340302.6	.67	-.00	.0038	113.02	-.0006	-22.94	77.87
RISE	61	3117.73	3128.98	29	17	33.4	291.75	.0042	-23.45	-.0000	344141.9	.79	.00	.0027	121.70	.0027	-22.90	63.18
SET	42	3191.32	3202.57	29	18	46.7	105.00	.0041	-22.20	.0000	348761.5	1.42	1.27	-.0030	243.45	-.0023	-22.84	44.87
EXTM	51	3259.76	3271.01	29	19	55.5	359.98	.0042	-22.73	.0000	347037.7	1.08	86.99	.0000	.41	-.0506	-22.78	27.70
EXTM	61	3388.74	3399.99	29	22	4.5	.30	.0042	-23.59	.0000	358868.2	1.08	26.17	-.0000	180.30	.0043	-22.68	355.46
EXTM	72	3428.09	3439.34	29	22	43.8	.06	.0043	-22.91	.0000	358103.1	1.08	75.00	.0000	180.22	.0144	-22.65	345.61
RISE	11	3551.29	3562.54	30	0	47.0	287.56	.0042	-23.15	-.0000	372295.5	.79	.00	.0030	118.77	.0024	-22.54	314.76
SET	51	3615.54	3626.79	30	1	51.3	90.00	.0042	-22.08	.0000	37566[illegible].0	1.58	9.40	-.0036	249.93	-.0016	-22.47	298.63
SET	61	3659.20	3670.45	30	2	34.9	68.86	.0042	-23.08	.0000	37995[illegible].5	1.63	-.00	-.0027	239.10	.0028	-22.41	287.63
IMPACT		3693.13	3704.38	30	3	8.9												
IMPC	72	3693.13	3704.38	30	3	8.9	67.62	.0043	-22.35	.0001	380474.8	2.37	23.64	-.0040	249.01	.0002	-22.33	278.99
IMPC	11	3693.13	3704.38	30	3	8.9	323.66	.0044	-23.08	.0001	380614.0	1.74	22.30	.0021	143.90	.0037	-22.33	278.99

EVNT	STA	TET	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION		.00	11.25	27	13	35.718	6594.240	22.4846	306.4309	10.94495	-4.9022	108.4576	65.5769
SEPARATION		1.20	12.45	27	13	36.918	6549.178	20.1444	313.1245	10.98198	-1.4974	111.0045	72.5713
RETRO		3.20	14.45	27	13	38.918	6580.326	15.6848	323.7751	10.95572	4.2022	114.4472	83.7233
IMPACT		3693.13	3704.38	30	3	8.851	383077.219	-22.3298	278.9913	2.16297	64.9586	296.4896	243.9478

SURVEYOR VIEW PERIODS

GMA 277.6552 EPS -31.8521 LOM 272.6805
SX -.4053R4 SY -.83146P SZ -.379900 DAO +22.32750 RAD 244.00836 RM 384328.930 LAT 28.310600 LON 279.461800
C3 -1.125321 ECC .981523 SLR 12968.407 HCA 6544.6650 LTA -20.0000 GTA 20.00 TB 675.00000 POL -.0
NSX -.384876 NSY -.83R630 NSZ -.385447 C3M 1.4976 VIM 2.4715 ZAE 137.146 R.T .0000 B.R -.0000
LATE 1.3989 LONE 5.1065 LATS 1.1086 LONS 36.8848 LATI -8.2819 LONI 323.2264 RSM 152.4103 TTAN 5.8151
LAUNCH DATE JUN 27.1966 BASE AZM 99.0 TF 61.618 ARRIVAL DATE JUN 30 1966 3 14 15.9

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99.00	13 40 46.8	27.7	21.28	306.25	27	69.49	110.67	13 52 1.8	6564.1	10.97	-3.11

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	27	13	52.0												
SEPARATION		1.20	12.45	27	13	53.2												
RETRO		3.20	14.45	27	13	55.2												
RISE	72	5.29	16.54	27	13	57.3	79.85	-.2318	51.79	.0626	2431.7	-7.92	-.00	.1259	322.50	.0929	8.71	333.00
EXTM	72	10.11	21.36	27	14	2.1	328.65	-.1873	19.21	-.2139	1691.8	4.69	48.90	.0000	48.36	.4345	-2.38	351.85
RISE	51	11.26	22.51	27	14	3.3	76.43	-.1036	25.93	-.0377	4858.1	-4.12	.01	.0997	299.05	.0120	-4.61	355.58
EXTM	51	28.98	40.23	27	14	21.0	356.25	-.0338	-19.17	-.0163	7144.7	5.45	82.58	-.0000	28.57	.2774	-22.28	29.71
EXTM	72	68.65	79.90	27	15	.7	279.60	-.0000	-29.09	-.0005	23493.7	4.85	12.19	.0000	118.17	.0005	-28.70	49.97
EXTM	51	86.41	97.66	27	15	18.4	329.48	.0000	-29.53	-.0003	24653.2	4.43	62.77	.0000	104.58	.0006	-29.17	51.91
RISE	61	178.06	189.31	27	16	50.1	305.76	.0030	-34.63	.0004	51522.1	3.33	-.00	.0018	138.10	.0017	-28.99	45.01
EXTM	51	277.40	288.65	27	18	29.4	.13	.0036	-28.50	.0001	64833.8	3.01	87.24	.0000	182.41	.0649	-28.25	27.57
EXTM	61	444.63	455.88	27	21	16.7	3.83	.0039	-30.76	.0002	96518.8	2.54	18.91	.0000	183.48	.0036	-27.27	352.13
EXTM	72	476.25	487.50	27	21	48.3	.67	.0040	-28.35	.0001	97510.7	2.47	69.55	-.0000	181.69	.0102	-27.12	345.09
RISE	11	636.10	647.35	28	0	28.1	292.42	.0040	-28.39	.0000	125707.9	1.91	.00	.0027	125.59	.0023	-26.47	308.28
SET	51	669.29	680.54	28	1	1.3	90.00	.0039	-25.28	.0001	128892.1	2.52	10.69	-.0032	246.96	-.0013	-26.35	300.51
SET	61	692.98	704.23	28	1	25.0	62.89	.0040	-28.30	.0001	133131.4	2.39	-.00	-.0023	231.61	.0027	-26.28	294.93
SET	72	863.14	874.39	28	4	15.2	93.79	.0039	-25.44	.0001	154006.0	2.35	-.01	-.0035	244.29	-.0004	-25.78	254.48
RISE	42	873.80	885.05	28	4	25.8	254.99	.0040	-24.53	-.0000	154969.5	1.63	2.57	.0029	118.23	-.0022	-25.75	251.93
EXTM	11	914.97	926.22	28	5	7.0	1.15	.0042	-27.68	.0001	157146.2	1.91	27.10	-.0000	181.14	.0041	-25.65	242.05
SET	11	1191.18	1202.43	28	9	43.2	69.58	.0041	-26.51	.0001	189958.9	2.02	-.00	-.0027	237.15	.0024	-25.06	175.19
EXTM	42	1298.34	1309.59	28	11	30.4	359.91	.0042	-24.54	.0000	194594.0	1.65	79.32	-.0000	.44	-.0199	-24.87	149.06
RISE	51	1433.53	1444.78	28	13	45.6	270.00	.0041	-23.99	-.0000	212716.2	1.20	10.17	.0034	111.84	-.0015	-24.66	116.00
RISE	72	1590.36	1601.61	28	16	22.4	266.42	.0041	-24.20	-.0000	228340.8	1.09	-.01	.0037	114.45	-.0005	-24.43	77.52
RISE	61	1658.35	1669.60	28	17	30.4	293.76	.0041	-25.46	-.0000	234424.5	1.19	.00	.0026	124.27	.0027	-24.34	60.80
SET	42	1721.36	1732.61	28	18	33.4	105.00	.0041	-23.33	.0000	239742.4	1.78	1.96	-.0030	242.56	-.0023	-24.26	45.30
EXTM	51	1787.39	1798.64	28	19	39.4	358.62	.0042	-24.13	.0000	239372.2	1.42	87.96	.0023	38.32	-.0859	-24.18	29.03
EXTM	61	1924.22	1935.47	28	21	56.2	.47	.0042	-25.31	.0000	254542.9	1.38	24.45	.0000	180.46	.0042	-24.02	355.29
EXTM	72	1963.55	1974.80	28	22	35.6	.09	.0042	-24.37	.0000	254355.3	1.36	73.53	.0000	180.29	.0133	-23.97	345.59
RISE	11	2095.14	2106.39	29	0	47.2	288.93	.0042	-24.69	-.0000	270998.7	1.00	.00	.0029	120.75	.0024	-23.84	313.08
SET	51	2152.12	2163.37	29	1	44.2	90.00	.0041	-23.26	.0000	274396.0	1.68	9.87	-.0035	248.84	-.0015	-23.78	298.99
SET	61	2189.94	2201.19	29	2	22.0	67.12	.0041	-24.48	.0000	278432.9	1.58	-.00	-.0026	236.84	.0027	-23.74	289.64
SET	72	2335.62	2346.87	29	4	47.6	93.45	.0041	-23.42	.0001	289550.8	1.67	-.00	-.0037	246.34	-.0005	-23.61	253.58
RISE	42	2338.38	2349.63	29	4	50.4	255.00	.0041	-22.83	-.0000	289574.0	.92	1.66	.0030	117.05	-.0023	-23.60	252.90
EXTM	11	2378.99	2390.24	29	5	31.0	.32	.0042	-24.64	.0000	289609.2	1.24	30.15	-.0000	180.33	.0044	-23.57	242.84
SET	11	2662.71	2673.96	29	10	14.7	71.63	.0042	-24.07	.0000	313283.1	1.49	-.00	-.0029	240.06	.0024	-23.33	172.51
EXTM	42	2757.33	2768.58	29	11	49.4	359.95	.0042	-23.01	.0000	313691.3	1.15	77.79	.0000	.22	-.0165	-23.25	149.03
RISE	51	2887.95	2899.20	29	13	60.0	270.00	.0041	-22.72	-.0000	327670.5	.74	9.65	.0035	110.66	-.0016	-23.16	116.60
RISE	72	3043.40	3054.65	29	16	35.4	266.64	.0042	-22.87	-.0000	339191.0	.67	-.00	.0038	113.10	-.0006	-23.03	77.88
RISE	61	3102.61	3113.86	29	17	34.6	291.84	.0042	-23.73	-.0000	343054.2	.79	.00	.0027	121.82	.0027	-22.98	63.09
SET	42	3175.51	3186.76	29	18	47.5	105.00	.0041	-22.28	.0000	347639.1	1.42	1.31	-.0030	243.39	-.0023	-22.92	44.88
EXTM	51	3244.25	3255.50	29	19	56.3	359.98	.0042	-22.81	.0000	345914.9	1.08	97.07	.0000	.44	-.0520	-22.86	27.70
EXTM	61	3373.26	3384.51	29	22	5.3	.30	.0042	-23.66	.0000	357735.6	1.08	26.10	-.0000	180.31	.0043	-22.75	355.45
EXTM	72	3412.58	3423.83	29	22	44.6	.08	.0043	-22.98	.0000	356954.1	1.08	74.92	.0000	180.22	.0144	-22.72	345.61
RISE	11	3536.06	3547.31	30	0	48.1	287.63	.0042	-23.23	-.0000	371104.0	.77	.00	.0030	118.86	.0024	-22.61	314.69
SET	51	3600.06	3611.31	30	1	52.1	90.00	.0042	-22.15	.0000	374378.0	1.55	9.42	-.0036	249.86	-.0016	-22.54	298.63
SET	61	3643.44	3654.69	30	2	35.5	68.77	.0042	-23.17	.0000	378511.1	1.54	-.00	-.0027	238.98	.0028	-22.49	287.72
IMPACT		3697.09	3708.34	30	3	29.1												
IMPC	72	3697.09	3708.34	30	3	29.1	72.54	.0043	-22.17	.0001	380995.4	2.37	19.10	-.0040	248.99	.0000	-22.38	274.11
IMPC	11	3697.09	3708.34	30	3	29.1	328.61	.0044	-23.15	.0001	380443.1	1.76	24.90	.0019	148.24	.0039	-22.38	274.11

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	27	13	52.030	6564.330	21.2865	306.2388	10.96930	-3.1080	110.6633	69.4740
SEPARATION		1.20	12.45	27	13	53.230	6544.860	18.7098	312.7730	10.98549	.3154	113.0041	76.3090
RETRO		3.20	14.45	27	13	55.230	6617.270	13.9406	323.1232	10.92466	5.9846	116.0654	87.1604
IMPACT		3697.09	3708.34	30	3	29.118	383129.49	-22.3786	274.1052	2.16044	64.6750	296.4896	244.1423

JUN 27, 1966
99 DEGREES

SURVEYOR VIEW PERIODS

GHA	277.6152					EPS	-31.6764							LOM	267.6624
SX	-.402349	SY	-.832574	SZ	-.388700	DAO	-22.37705	RAD	244.20750	RM	384377.707	LAT	28.310600	LON	279.461800
C3	-1.130451	ECC	.998434	SLR	12967.835	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.381759	NSY	-.839490	NSZ	-.386240	C3M	1.4474	VIM	2.6715	ZAE	136.956	B.T	.0000	B.R	-.0000
LATE	1.427	LONE	5.1054	LATS	1.1090	LONS	36.7194	LATI	-8.4309	LONI	323.0688	RSM	152.4110	TTAN	5.8186
LAUNCH DATE		JUN	27,1966		BASE AZM	102.0		TF	61.719			ARRIVAL	DATE JUN	30 1966	3 55 4.6

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME		INJ RAD	INJ VEL	INJ PTH
102.00	14 54 38.6		27.8	20.12	305.92	-3.24	72.63	112.82	14	5 53.6	6[illegible]49.9	10.98	-1.61

EVNT STA	TEI	TFL	DAY	HR	MIN	MA	DMA	DFC	DUE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
					PHOBE IN SUNLIGHT												
INJECTION	.00	11.25	27	14	5.9												
SEPARATION	1.20	12.45	27	14	7.1												
RETRO	3.20	14.45	27	14	9.1												
RISE 72	5.61	14.86	27	14	10.9	82.02	-.1958	45.00	.0330	2521.8	-8.19	.00	.1294	315.55	.0592	7.59	330.61
EXTM 72	9.95	21.20	27	14	15.8	340.80	-.2265	12.56	-.2132	1593.6	4.37	62.02	-.0000	43.16	.6546	-3.89	349.43
RISE 51	11.15	22.40	27	14	17.0	78.72	-.0955	22.09	-.0411	5031.8	-3.86	.00	.0474	294.67	.0052	-6.20	355.19
EXTM 51	40.80	41.85	27	14	36.5	358.62	-.0304	-22.45	-.0125	7822.0	5.42	86.94	-.0000	24.61	.5731	-24.20	28.45
EXTM 72	69.29	80.54	27	15	15.2	282.95	.0000	-30.49	-.0003	23531.1	4.82	15.13	.0000	119.54	.0003	-29.61	46.28
EXTM 51	88.06	99.31	27	15	34.0	333.41	.0000	-30.32	-.0001	25097.2	4.40	66.13	.0000	107.68	.0002	-29.99	48.79
RISE 61	167.56	178.81	27	16	53.5	307.33	.0028	-35.43	.0005	49381.0	3.41	-.00	.0010	139.74	.0016	-29.68	43.29
EXTM 51	261.21	272.46	27	18	27.1	.21	.0035	-29.18	.0002	61973.1	3.07	66.55	-.0000	183.08	.0510	-28.86	27.49
EXTM 61	431.79	443.04	27	21	17.7	4.22	.0039	-31.28	.0002	94673.8	2.56	18.37	.0000	183.80	.0035	-27.71	351.77
EXTM 72	462.27	473.52	27	21	48.2	.75	.0040	-28.84	.0001	95508.4	2.50	69.36	-.0000	181.84	.0099	-27.55	344.97
RISE 11	424.06	435.31	28	0	30.0	292.80	.0040	-28.78	.0000	124148.9	1.93	.00	.0027	126.10	.0023	-26.82	307.87
SET 51	455.34	466.59	28	1	1.2	90.00	.0039	-25.62	.0001	127097.3	2.54	10.82	-.0032	246.64	-.0013	-26.70	300.55
SET 61	477.14	488.39	28	1	23.0	62.42	.0040	-28.49	.0002	131128.3	2.41	-.00	-.0022	231.04	.0027	-26.62	295.44
SET 72	849.71	860.96	28	4	15.6	93.84	.0039	-25.73	.0001	152444.9	2.26	-.00	-.0035	244.00	-.0004	-26.07	254.47
RISE 42	860.42	871.67	28	4	26.3	254.99	.0040	-24.60	-.0000	153403.3	1.64	2.74	.0029	118.45	-.0022	-26.04	251.96
EXTM 11	901.84	913.09	28	5	7.7	1.23	.0042	-27.98	.0001	155683.5	1.92	26.80	-.0000	181.22	.0041	-25.93	241.97
SET 11	1140.86	1152.11	28	9	42.8	69.35	.0041	-26.55	.0001	188478.4	2.02	-.00	-.0027	236.84	.0024	-25.29	175.43
EXTM 42	1285.23	1296.28	28	11	36.9	359.91	.0042	-24.75	.0000	193254.5	1.65	79.53	-.0000	.46	-.0205	-25.09	149.07
RISE 51	1420.32	1431.57	28	13	46.2	270.00	.0041	-24.18	-.0000	211425.5	1.21	10.24	.0034	112.02	-.0015	-24.85	115.98
RISE 72	1577.04	1588.29	28	16	22.9	266.39	.0041	-24.37	-.0000	227092.6	1.10	-.01	.0037	114.62	-.0005	-24.61	77.54
RISE 61	1645.97	1657.22	28	17	31.9	293.96	.0041	-25.43	-.0000	233275.2	1.19	.00	.0026	124.52	.0027	-24.51	60.59
SET 42	1708.16	1719.35	28	18	34.0	105.00	.0041	-23.49	.0001	238518.8	1.79	2.06	-.0030	242.43	-.0023	-24.42	45.30
EXTM 51	1774.90	1786.15	28	19	40.8	358.80	.0042	-24.30	.0000	238238.8	1.42	88.19	.0023	37.30	-.0980	-24.34	28.86
EXTM 61	1911.12	1922.37	28	21	57.0	.49	.0042	-25.47	.0000	253399.3	1.38	24.29	.0000	180.49	.0042	-24.17	355.27
EXTM 72	1950.37	1961.62	28	22	36.3	.89	.0042	-24.52	.0000	253201.2	1.37	73.38	.0000	180.31	.0132	-24.12	345.58
RISE 11	2082.47	2093.72	29	0	48.4	289.86	.0042	-24.83	-.0000	269901.1	1.00	.00	.0029	120.93	.0024	-23.97	312.95
SET 51	2138.90	2150.15	29	1	44.8	90.00	.0041	-23.39	.0000	273256.7	1.69	9.92	-.0035	248.72	-.0015	-23.91	299.00
SET 61	2176.12	2187.37	29	2	22.0	66.97	.0041	-24.61	-.0000	277258.0	1.59	-.00	-.0026	236.65	.0027	-23.87	289.79
SET 72	2322.48	2333.73	29	4	48.4	93.47	.0041	-23.54	.0001	288446.7	1.67	-.00	-.0037	246.22	-.0005	-23.73	253.57
RISE 42	2325.21	2336.46	29	4	51.1	255.00	.0041	-22.95	-.0000	288460.0	.92	1.73	.0030	117.14	-.0023	23.72	252.89
EXTM 11	2365.87	2377.12	29	5	31.8	.33	.0042	-24.47	.0000	288523.2	1.24	30.02	-.0000	180.35	.0044	-23.68	242.82
SET 11	2449.13	2460.38	29	10	15.0	71.54	.0042	-24.17	.0000	312179.3	1.49	-.00	-.0029	239.92	.0024	-23.43	172.60
EXTM 42	2744.14	2755.39	29	11	50.0	359.95	.0042	-23.41	.0000	312619.5	1.15	77.89	.0000	.23	-.0172	-23.35	149.03
RISE 51	2874.79	2886.04	29	14	.7	270.00	.0041	-22.81	-.0000	326607.3	.74	9.69	.0035	110.75	-.0016	-23.25	116.59
RISE 72	3030.18	3041.43	29	16	36.1	266.62	.0042	-22.95	-.0000	338128.8	.67	-.00	.0038	113.19	-.0006	-23.11	77.89
RISE 61	3089.81	3101.06	29	17	35.7	291.93	.0042	-23.42	-.0000	342012.6	.78	-.00	.0027	121.94	.0027	-23.06	63.00
SET 42	3142.33	3153.58	29	18	48.2	105.00	.0041	-22.15	.0000	346558.6	1.42	1.36	-.0030	243.33	-.0023	-23.00	44.88
EXTM 51	3231.09	3242.34	29	19	57.0	359.98	.0042	-22.49	.0000	344830.6	1.07	87.15	.0000	.46	-.0555	-22.94	27.70
EXTM 61	3380.14	3391.39	29	22	6.0	.31	.0042	-23.74	.0000	356636.9	1.07	26.02	-.0000	180.32	.0043	-22.83	355.44
EXTM 72	3399.45	3410.70	29	22	45.3	.06	.0043	-23.06	.0000	355838.2	1.07	74.85	.0000	180.22	.0145	-22.79	345.61
RISE 11	3523.23	3534.48	30	0	49.1	287.49	.0042	-23.10	-.0000	349949.6	.76	.00	.0030	118.96	.0024	-22.68	314.63
SET 51	3586.98	3598.23	30	1	52.9	90.00	.0042	-22.22	.0000	373141.8	1.52	9.45	-.0036	249.79	-.0016	-22.61	298.64
SET 61	3638.17	3649.42	30	2	36.0	68.69	.0042	-23.34	.0000	377170.0	1.49	-.00	-.0027	238.87	.0028	-22.56	287.81
IMPACT	3703.11	3714.36	30	3	49.0												
IMPC 72	3703.11	3714.36	30	3	49.0	77.36	.0043	-22.19	.0001	381516.4	2.38	14.64	-.0040	248.83	-.0001	-22.43	269.31
IMPC 11	3703.11	3714.36	30	3	49.0	333.46	.0044	-23.21	.0001	380302.7	1.78	26.40	.0017	152.71	.0041	-22.43	269.31

EVNT STA	TEI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	27	14	5.894	6549.876	20.1192	305.9154	10.98114	-1.6068	112.8216	72.6262
SEPARATION	1.20	12.45	27	14	7.094	6551.324	17.3138	312.2923	10.97978	1.8194	114.9672	79.3039
RETRO	3.20	14.45	27	14	9.094	6657.571	12.2609	322.3242	10.89099	7.4475	117.6653	89.8372
IMPACT	3703.11	3714.36	30	3	49.004	3931?8.664	-22.4264	269.3107	2.15756	64.5224	296.7252	244.3329

SURVEYOR VIEW PERIODS

GHA 277.6152 EPS -31.5105 LOM 262.9215
SX -.399477 SY -.833614 SZ -.381452 DAD -22.42363 RAD 244.39573 RM 384423.816 LAT 28.310600 LNG 279.461800
C3 -1.137477 ECC .0021324 SLR 12967.105 RCA 6544.6450 LTA -20.0000 GTA 20.00 TB 675.00000 POL -.0
NSX -.378792 NSY -.840687 NSZ -.386992 C3M 1.4473 VIM 2.6714 ZAE 136.15 B.T .0000 B.R -.0000
LATE 1.4413 LONE 5.1043 LATS 1.1094 LONS 36.5456 LATI -8.6392 LONI 322.8667 RSM 152.4116 TTAN 5.8192
LAUNCH DATE JUN 27,1966 BASE AZM 105.0 TF 61.843 ARRIVAL DATE JUN 30 1966 4 14 44.3

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	14 6 22.1	27.9	18.98	305.49	-.73	75.14	114.95	14 17 37.1	6544.9	[illegible]98	-.36

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	27	14	17.6												
SEPARATION		1.20	12.45	27	14	18.8												
RETRO		3.20	14.45	27	14	20.8												
RISE	72	4.80	16.05	27	14	22.4	83.56	-.1725	38.95	.0062	2609.3	-8.27	-.01	.1309	309.40	.0298	6.36	28.55
EXTM	72	9.32	20.57	27	14	26.9	.67	-.2965	10.46	-.2194	1460.3	2.53	71.22	.2297	357 95	.8789	-4.44	345.55
RISE	51	11.09	22.34	27	14	28.7	80.77	-.0887	18.41	-.0442	5189.5	-3.61	-.00	.0951	290.52	-.0008	-7.90	351.04
EXTM	51	31.37	43.62	27	15	00.0	.36	-.0274	-26.59	-.0093	8533.0	5.39	89.09	-.0000	200.71	-1.6495	-26.23	27.48
EXTM	72	69.91	81.16	27	15	27.5	285.78	.0000	-32.02	-.0001	23595.5	4.79	17.54	.0000	121.17	.0001	-30.69	44.26
EXTM	51	89.28	100.53	27	15	44.9	336.73	-.0000	-31.84	.0001	25439.9	4.37	68.76	.0000	112.10	-.0002	-30.96	46.13
RISE	61	160.95	172.20	27	16	58.6	309.06	.0028	-36.68	.0005	48030.9	3.46	-.00	.0017	141.48	.0015	-30.48	41.50
EXTM	51	247.61	258.86	27	18	25.2	.32	.0034	-29.99	.0002	59520.2	3.13	85.74	-.0000	183.72	.0402	-29.56	27.40
EXTM	61	421.53	432.76	27	21	19.2	4.65	.0039	-31.87	.0002	93200.4	2.59	17.77	.0000	184.14	.0035	-28.23	351.37
EXTM	72	450.79	462.04	27	21	48.4	.86	.0040	-29.39	.0001	93847.9	2.52	68.50	.0000	182.04	.0095	-28.05	344.87
RISE	11	614.54	625.79	28	0	32.2	293.24	.0040	-29.[illegible]	.0000	122899.2	1.94	.00	.0026	126.67	.0023	-27.23	307.41
SET	51	643.71	654.96	28	1	1.3	90.00	.0038	-26.11	.0001	125572.7	2.55	10.98	-.0032	246.27	-.0013	-27.10	300.60
SET	61	663.29	674.54	28	1	20.9	61.87	.0040	-29.12	.0002	129349.0	2.42	-.00	-.0022	230.39	.0027	-27.02	296 [illegible]
SET	72	838.56	849.81	28	4	16.2	93.90	.0039	-26.06	.0001	151126.2	2.37	-.00	-.0035	243.67	-.0004	-26.40	254.34
RISE	42	849.27	860.52	28	4	26.9	254.99	.00[illegible]	-24.92	-.0000	152069.2	1.65	2.93	.0029	110.70	-.0022	-26.37	251.88
EXTM	11	891.00	902.25	28	5	8.6	1.32	.0042	-28.32	.0001	154460.8	1.93	26.46	-.0000	191.30	.0041	-26.25	241.88
SET	11	1164.63	1175.88	28	9	42.2	69.10	.0041	-26.[illegible]2	.0001	187182.0	2.03	-.00	-.0027	236.48	.0024	-25.55	175.70
EXTM	42	1273.91	1285.16	28	11	31.5	359.90	.0042	-25.00	.0000	198100.7	1.66	79.78	-.0000	.50	-.0209	-25.33	149.07
RISE	51	1409.28	1420.53	28	13	46.9	270.00	.0041	-24.40	-.0000	210307.6	1.21	10.33	.0014	312.22	-.0019	-25.07	115.97
RISE	72	1565.88	1577.13	28	16	23.5	266.35	.0041	-24.57	-.0000	226033.9	1.10	-.01	.0037	114.83	-.0005	-24.81	77.56
RISE	61	1635.84	1647.09	28	17	33.5	294.18	.0041	-25.83	-.0000	232290.0	1.19	.00	.0026	1.4.81	.0027	-24.70	60.36
SET	42	1697.01	1708.26	28	18	34.6	105.00	.0041	-23.47	.0001	237445.1	1.79	2.17	-.0019	242.29	-.0022	-24.61	45.31
EXTM	51	1764.80	1776.05	28	19	42.4	359.64	.0042	-24.48	.0000	237272.0	1.42	88.47	.6021	34.74	-.1191	-24.51	28.62
EXTM	61	1900.19	1911.44	28	21	57.8	.53	.0042	-25.44	.0000	252395.[illegible]	1.38	24.12	.0000	180.52	.0041	-24.33	355.24
EXTM	72	1939.34	1950.59	28	22	37.0	.10	.0042	-24.69	.0000	252182.1	1.37	73.21	.0000	180.33	.0131	-24.28	345.57
RISE	11	2071.99	2083.24	29	0	49.6	289.20	.0042	-24.99	-.0000	266032.6	1.00	.00	.0029	121.13	.0024	-24.[illegible]2	312.80
SET	51	2127.82	2139.07	29	1	45.4	90.00	.0041	-23.53	.0001	272238.5	1.69	9.98	-.0033	248.58	-.0011	-24.36	299.00
SET	61	2144.38	2155.63	29	2	22.0	66.81	.0041	-24.96	.0001	276198.[illegible]	1.59	-.00	-.0026	236.44	.0027	-24.01	289.96
SET	72	2311.48	2322.73	29	4	49.1	93.49	.0041	-23.67	.0001	297453.4	1.67	-.00	-.0037	246.09	-.0005	-23.86	253.55
RISE	42	2314.17	2325.42	29	4	51.8	255.00	.0041	-23.08	-.0000	287455.0	.92	1.81	.0030	117.24	-.0033	-23.85	252.89
EXTM	11	2354.89	2366.14	29	5	32.5	.36	.0042	-24.90	.0000	287546.6	1.24	29.89	-.0000	180.37	.0044	-23.81	242.80
SET	11	2637.66	2648.91	29	10	15.3	71.44	.0042	-24.28	.0000	311164.8	1.19	-.00	-.0029	239.78	.0024	-23.54	172.71
EXTM	42	2733.07	2744.32	29	11	50.7	359.95	.0042	-23.22	.0000	311633.0	1.15	78.00	.0000	.25	-.0172	-23.46	149.03
RISE	51	2863.74	2874.99	29	14	1.4	270.00	.0041	-22.70	-.0000	325622.0	.74	9.73	.0035	110.83	-.0016	-23.34	116.59
RISE	72	3019.21	3030.46	29	16	36.8	266.61	.0042	-23.05	-.0000	337153.2	.67	-.00	.0038	113.28	-.0006	-23.20	77.90
RISE	61	3079.27	3090.52	29	17	36.9	292.03	.0042	-23.91	-.0000	341057.8	.78	.00	.0027	122.06	.0027	-23.15	62.90
SET	42	3151.38	3162.63	29	18	49.0	105.00	.0041	-22.44	.0000	345560.7	1.42	1.41	-.0030	243.26	-.0023	-23.08	44.88
EXTM	51	3220.13	3231.38	29	19	57.8	359.98	.0042	-22.97	.0000	343827.1	1.07	87.23	.0000	.50	-.0581	-23.02	27.70
EXTM	61	3349.22	3360.47	29	22	6.8	.32	.0042	-23.82	.0000	355617.0	1.07	25.94	-.0000	180.33	.0043	-22.91	355.43
EXTM	72	3388.50	3399.75	29	22	46.1	.06	.0043	-23.14	.0000	354799.4	1.07	74.77	.0000	180.23	.0143	-22.87	345.61
RISE	11	3512.54	3523.79	30	0	50.2	287.76	.0042	-23.38	-.0000	349872.6	.75	.00	.0030	119.05	.0024	-22.75	314.56
SET	51	3576.02	3587.27	30	1	53.6	90.00	.0042	-22.30	.0000	3[illegible]991.5	1.50	9.48	-.0035	249.73	-.0016	-22.69	298.64
SET	61	3618.83	3630.08	30	2	36.4	68.61	.0042	-23.32	.0000	37[illegible]937.5	1.48	-.00	-.0027	238.76	.0027	-22.64	287.89
IMPACT		3710.61	3721.86	30	4	8.2												
IMPC	72	3710.61	3721.86	30	4	8.2	82.01	.0043	-22.40	.0001	382031.7	2.37	10.36	-.0040	248.34	-.0002	-22.47	264.68
IMPC	11	3710.61	3721.86	30	4	8.2	338.16	.0044	-23.26	.0001	380199.4	1.80	27.97	.0014	157.23	.0042	-22.47	264.68

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	27	14	17.619	6544.928	18.9808	305.3949	10.98498	-.3598	114.9506	75.1449
SEPARATION		1.20	12.45	27	14	18.819	6563.561	15.9573	311.7356	10.96913	3.0612	116.9079	81.6565
RETRO		3.20	14.45	27	14	20.819	6697.423	10.6343	321.7226	10.85791	8.6450	119.2664	91.8749
IMPACT		3710.61	3721.86	30	4	8.226	383[illegible]29.982	-22.4724	264.6769	2.15389	64.1803	296.8419	244.5177

SURVEYOR VIEW PERIODS

GMA	277.4152					EPS	-31.3537					LOM	268.4393		
SX	-.396760	SY	-.834588	SZ	-.382159	DAO	-22.46745	RAO	244.57378	RM	384467.430	LAT	28.310600	LON	279.461800
C3	-1.145338	ECC	.981195	SLR	12966.257	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.375968	NSY	-.841625	NSZ	-.387705	C3M	1.4974	VIM	2.6715	ZAE	136.433	B.T	.0000	B.R	-.0000
LATE	1.467	LONE	5.1039	LATS	1.1998	LONS	36.3845	LATI	-8.8753	LONI	322.6292	RSM	152.4123	TTAN	5.8175
LAUNCH DATE		JUN 27,1966		BASE	ZM 108.0		TF 61.986					ARRIVAL DATE		JUN 30 1966	4 33 19.7

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	14 16 17.6	26.0	17.87	305.00	1.36	77.14	117.06	14 27 32.6	6545.6	10.98	.68

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT												
INJECTION		.00	1.25	27	14	27.5												
SEPARATION		1.20	12.45	27	14	28.7												
RETRO		3.20	14.45	27	14	30.7												
RISE	72	4.66	15.91	27	14	32.2	84.74	-.1558	53.45	-.0177	2692.4	-8.21	.00	.1311	303.81	.0040	5.03	326.74
EXTM	72	9.99	21.24	27	14	37.5	359.12	-.2457	-6.41	-.1634	1651.1	4.24	88.44	-.0000	33.91	10.7694	-7.64	345.85
RISE	51	11.07	22.32	27	14	38.6	82.65	-.0829	14.15	-.0472	5334.2	-3.36	.00	.0928	286.53	-.0061	-9.71	349.07
EXTM	51	34.32	45.57	27	15	1.9	1.52	-.0247	-30.10	-.0067	9289.9	5.36	85.44	-.0000	196.80	-.2816	-28.33	26.80
EXTM	72	70.32	81.57	27	15	37.9	288.15	-.0000	-33.66	.0002	23630.6	4.77	19.46	-.0000	122.98	-.0002	-31.90	42.01
EXTM	51	89.85	101.10	27	15	57.4	339.51	-.0001	-33.28	.0002	25622.4	4.35	70.69	.0000	117.78	-.0008	-32.05	43.88
RISE	61	157.78	169.03	27	17	5.3	310.89	.0027	-37.73	.0006	47407.9	3.48	-.00	.0017	143.28	.0014	-31.36	39.69
EXTM	51	236.46	247.71	27	18	24.0	.48	.0034	-30.90	.0002	57479.3	3.17	84.82	-.0000	184.58	.0322	-30.39	27.25
EXTM	61	413.51	424.76	27	21	21.1	5.12	.0039	-32.50	.0002	92055.2	2.60	17.11	.0000	184.51	.0034	-28.80	350.94
EXTM	72	441.44	452.69	27	21	49.0	.99	.0040	-30.70	.0002	92486.5	2.53	67.88	.0000	182.28	.0092	-28.61	344.75
RISE	11	607.17	618.42	28	0	34.7	293.72	.0040	-29.68	.0000	121919.6	1.95	.00	.0026	127.30	.0023	-27.67	306.91
SET	51	634.04	645.29	28	1	1.6	90.00	.0038	-28.85	.0001	124285.6	2.56	11.15	-.0032	245.87	-.0013	-27.55	300.64
SET	61	651.12	662.37	28	1	18.7	61.26	.0040	-29.51	.0002	127765.0	2.43	-.00	-.0022	229.67	.0027	-27.47	296.64
SET	72	829.35	840.60	28	4	16.9	93.96	.0039	-26.42	.0001	150019.4	2.38	-.00	-.0035	243.30	-.0004	-26.77	254.41
RISE	42	840.93	851.28	28	4	27.6	254.99	.0040	-25.27	-.0000	150938.4	1.66	3.15	.0029	118.98	-.0022	-26.73	251.86
EXTM	11	882.10	893.35	28	5	9.6	1.43	.0042	-28.69	.0001	153447.6	1.94	26.09	-.0000	181.40	.0041	-26.59	241.77
SET	11	1154.16	1165.41	28	9	41.7	68.81	.0041	-27.12	.0001	186047.9	2.03	-.00	-.0027	236.09	.0024	-25.84	176.00
EXTM	42	1264.65	1275.90	28	11	32.2	359.90	.0042	-25.27	.0000	191111.0	1.66	80.05	-.0000	.53	-.0215	-25.59	149.08
RISE	51	1400.09	1411.34	28	13	47.6	270.00	.0041	-24.64	-.0000	209342.5	1.22	10.43	.0034	112.45	-.0015	-25.31	115.96
RISE	72	1556.54	1567.79	28	16	24.1	266.32	.0041	-24.79	-.0000	225057.1	1.11	-.01	.0037	115.04	-.0005	-25.02	77.58
RISE	61	1627.61	1638.86	28	17	35.2	294.43	.0041	-26.04	.0000	231450.4	1.20	.00	.0026	125.11	.0027	-24.91	60.12
SET	42	1687.74	1698.99	28	18	35.3	105.00	.0041	-23.87	.0001	236505.6	1.79	2.29	-.0030	242.13	-.0022	-24.81	45.32
EXTM	51	1756.53	1767.78	28	19	44.1	359.29	.0042	-24.67	.0000	236437.5	1.43	88.76	.0020	31.36	-.1516	-24.70	28.38
EXTM	61	1891.09	1902.34	28	21	58.6	.56	.0042	-25.42	.0000	251517.7	1.38	23.94	-.0000	180.55	.0041	-24.51	355.20
EXTM	72	1930.14	1941.39	28	22	37.7	.11	.0042	-24.87	.0000	251284.9	1.37	73.04	.0000	180.35	.0130	-24.45	345.56
RISE	11	2063.37	2074.62	29	0	50.9	289.35	.0042	-25.15	-.0000	268081.4	1.00	.00	.0029	121.34	.0024	-24.28	312.65
SET	51	2118.55	2129.80	29	1	46.1	90.00	.0041	-23.68	.0001	271331.3	1.69	10.04	-.0035	248.44	-.0015	-24.21	299.01
SET	61	2154.41	2165.66	29	2	21.9	66.63	.0041	-25.12	.0001	275244.0	1.59	-.00	-.0026	236.22	.0027	-24.17	290.14
SET	72	2302.29	2313.54	29	4	49.8	93.51	.0041	-23.81	.0001	286563.0	1.67	-.00	-.0037	245.95	-.0005	-23.99	253.54
RISE	42	2304.94	2316.19	29	4	52.5	255.00	.0041	-23.21	-.0000	286551.8	.92	1.89	.0030	117.35	-.0023	-23.99	252.88
EXTM	11	2345.73	2356.98	29	5	33.3	.38	.0042	-25.04	.0000	286671.7	1.24	29.75	-.0000	180.40	.0044	-23.95	242.78
SET	11	2627.95	2639.20	29	10	15.5	71.33	.0042	-24.40	.0000	310236.0	1.49	-.00	-.0029	239.63	.0024	-23.65	172.82
EXTM	42	2723.78	2735.03	29	11	51.3	359.94	.0042	-23.33	.0000	310729.2	1.15	78.11	.0000	.27	-.0178	-23.56	149.04
RISE	51	2854.48	2865.73	29	14	2.0	270.00	.0041	-23.00	-.0000	324713.8	.74	9.77	.0035	110.92	-.0016	-23.44	116.59
RISE	72	3010.03	3021.28	29	16	37.6	266.59	.0042	-23.14	-.0000	336250.0	.67	-.00	.0038	113.37	-.0006	-23.30	77.91
RISE	61	3070.56	3081.81	29	17	38.1	292.14	.0042	-24.00	-.0000	340175.4	.78	.00	.0027	122.20	.0027	-23.24	62.79
SET	42	3142.21	3153.46	29	18	49.8	105.00	.0041	-22.52	.0000	344631.9	1.41	1.47	-.0030	243.19	-.0023	-23.17	44.89
EXTM	51	3211.00	3222.25	29	19	58.5	359.99	.0042	-23.06	.0000	342893.7	1.07	87.32	-.0000	.41	-.0402	-23.11	27.70
EXTM	61	3340.09	3351.34	29	22	7.6	.34	.0042	-23.90	.0000	354663.2	1.06	25.86	-.0000	180.34	.0043	-22.98	355.42
EXTM	72	3379.33	3390.58	29	22	46.9	.07	.0043	-23.21	.0000	353826.1	1.06	74.69	.0000	180.24	.0143	-22.95	345.6
RISE	11	3503.62	3514.87	30	0	51.2	287.82	.0042	-23.45	-.0000	367863.2	.74	.00	.0030	119.15	.0024	-22.82	314.49
SET	51	3566.84	3578.09	30	1	54.4	90.00	.0042	-22.37	.0000	370916.5	1.49	9.51	-.0035	249.66	-.0016	-22.76	298.64
SET	61	3609.35	3620.60	30	2	36.9	68.53	.0042	-23.39	.0000	374795.6	1.43	-.00	-.0027	238.66	.0027	-22.71	287.97
IMPACT		3719.14	3730.39	30	4	26.7												
IMPC	42	3719.14	3730.39	30	4	26.7	247.97	.0043	-21.90	.0000	383667.3	1.60	-3.97	.0030	120.44	-.0026	-22.52	260.23
IMPC	72	3719.14	3730.39	30	4	26.7	86.47	.0043	-22.42	.0001	382532.2	2.37	6.25	-.0040	248.15	-.0003	-22.52	260.23
IMPC	11	3719.14	3730.39	30	4	26.7	342.67	.0044	-23.32	.0001	380128.7	1.82	29.22	.0012	161.74	.0044	-22.52	260.23

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	27	14	27.544	6545.584	17.8698	304.9997	10.98407	.6754	117.0621	77.1377
SEPARATION		1.20	12.45	27	14	28.744	6578.455	14.6343	311.0430	10.95623	4.0906	118.8400	83.4818
RETRO		3.20	14.45	27	14	30.744	6735.020	9.0482	320.4545	10.82691	9.6320	120.8814	93.3946
IMPACT		3719.14	3730.39	30	4	26.686	383279.246	-22.5166	260.2269	2.14990	63.8083	297.0327	244.6954

SURVEYOR VIEW PERIODS

GHA	277.6152					EPS -31.1982								LOM	253.9933
SX	-.394061	SY	-.835646	SZ	-.382856	DAO	-22.51372	RAO	244.75046	RM	384510.715	LAT	28.310600	LON	279.461800
C3	-1.154621	ECC	.981042	SLR	12965.262	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.373147	NSY	-.842553	NSZ	-.388413	C3M	1.4974	VIM	2.6714	ZAE	136.107	B.T	.0000	B.R	-.0000
LATE	1.4799	LONE	5.1029	LATS	1.1102	LONS	36.2342	LATI	-9.1308	LONI	322.3497	RSM	152.4129	TTAN	5.8134
LAUNCH DATE	JUN 27,1966			BASE AZM	111.0		TF 62.152					ARRIVAL DATE	JUN 30 1966		4 51 46.2

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	14 24 47.2	28.0	16.79	304.44	3.11	78.71	119.16	14 36 2.2	6549.5	10.98	1.54

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DUE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	27	14	36.0												
SEPARATION	1.20	12.45	27	14	37.2												
RETRO	3.20	14.45	27	14	39.2												
RISE 72	4.56	15.81	27	14	40.6	85.72	-.1426	28.32	-.0390	2774.5	-8.03	-.01	.1301	298.62	-.0189	3.62	325.13
EXTM 72	10.16	21.41	27	14	46.2	5.21	-.2375	-16.63	-.1361	1794.8	4.39	79.90	.0000	209.77	-1.5118	-9.82	344.56
RISE 51	11.10	22.35	27	14	47.1	84.43	-.0778	11.38	-.0498	5470.4	-3.11	.00	.0905	232.66	-.0109	-11.60	347.25
EXTM 51	36.54	47.79	27	15	12.6	2.11	-.0221	-33.47	-.0046	10121.5	5.32	82.05	-.0000	192.83	-.1376	-30.49	26.43
EXTM 72	70.88	82.13	27	15	46.9	290.13	-.0000	-35.38	.0004	23730.9	4.75	20.95	.0000	124.95	-.0004	-33.22	40.13
EXTM 51	89.54	100.79	27	16	5.6	341.86	-.0002	-34.84	.0004	25581.2	4.35	71.93	.0000	124.54	-.0015	-33.25	41.96
RISE 61	157.48	168.73	27	17	13.5	312.79	.0027	-38.75	.0007	47400.7	3.48	-.00	.0017	145.09	.0014	-32.30	37.90
EXTM 51	227.41	238.66	27	18	23.4	.69	.0033	-31.90	.0003	55801.4	3.22	83.81	-.0000	185.47	.0262	-31.27	27.07
EXTM 61	407.41	418.66	27	21	23.4	5.63	.0039	-33.16	.0003	91195.3	2.61	16.41	-.0000	184.91	.0034	-29.42	350.45
EXTM 72	433.86	445.11	27	21	49.9	1.14	.0040	-30.66	.0002	91375.4	2.55	67.21	.0000	182.53	.0089	-29.21	344.62
RISE 11	601.56	612.81	28	0	37.6	294.23	.0040	-30.19	.0000	121160.6	1.96	.00	.0026	127.98	.0023	-28.15	306.37
SET 51	625.99	637.24	28	1	2.0	90.00	.0038	-26.92	.0001	123190.5	2.56	11.34	-.0032	245.42	-.0012	-28.03	300.68
SET 61	640.29	651.54	28	1	16.3	60.59	.0039	-30.13	.0002	126333.1	2.44	-.00	-.0021	228.89	.0027	-27.95	297.33
SET 72	821.75	833.00	28	4	17.8	94.03	.0039	-26.82	.0001	149083.0	2.38	-.00	-.0035	242.91	-.0004	-27.17	254.37
RISE 42	832.34	843.59	28	4	28.4	254.99	.0040	-25.56	-.0000	149968.9	1.67	3.39	.0028	119.29	-.0022	-27.13	251.83
EXTM 11	874.79	886.04	28	5	10.8	1.54	.0042	-29.09	.0001	152600.8	1.94	25.69	.0000	181.50	.0040	-26.97	241.66
SET 11	1145.11	1156.36	28	9	41.1	68.50	.0041	-27.44	.0001	185036.1	2.03	.00	-.0027	235.66	.0024	-26.15	176.32
EXTM 42	1256.90	1268.15	28	11	32.9	359.90	.0042	-25.56	.0000	190246.2	1.66	80.34	-.0000	.56	-.0221	-25.87	149.08
RISE 51	1392.39	1403.64	28	13	48.4	270.00	.0041	-24.89	-.0000	208491.5	1.22	10.53	.0034	112.69	-.0015	-25.57	115.95
RISE 72	1548.68	1559.93	28	16	24.7	266.28	.0041	-25.02	-.0000	224213.9	1.11	-.01	.0037	115.28	-.0005	-25.26	77.61
RISE 61	1620.94	1632.19	28	17	37.0	294.69	.0041	-26.27	.0000	230717.9	1.20	.00	.0026	125.44	.0027	-25.13	59.85
SET 42	1679.96	1691.21	28	18	36.0	105.00	.0041	-24.08	.0001	235662.3	1.79	2.42	-.0030	241.96	-.0022	-25.02	45.33
EXTM 51	1744.66	1755.91	28	19	40.7	358.25	.0042	-24.89	.0000	235260.9	1.42	88.20	.0033	62.28	-.0589	-24.92	29.39
EXTM 61	1883.46	1894.71	28	21	59.5	.60	.0042	-26.02	.0000	250726.3	1.38	23.74	.0000	180.59	.0041	-24.70	355.17
EXTM 72	1922.41	1933.66	28	22	38.4	.12	.0042	-25.06	.0000	250471.6	1.37	72.84	.0000	180.38	.0128	-24.64	345.55
RISE 11	2056.25	2067.50	29	0	52.3	289.51	.0042	-25.32	-.0000	267309.5	1.00	.00	.0029	121.57	.0024	-24.45	312.49
SET 51	2110.74	2121.99	29	1	46.8	90.00	.0041	-23.85	.0001	270496.9	1.69	10.11	-.0035	248.29	-.0015	-24.38	299.01
SET 61	2145.85	2157.10	29	2	21.9	66.44	.0042	-25.28	.0001	274357.4	1.58	-.00	-.0026	235.98	.0027	-24.33	290.33
SET 72	2294.57	2305.82	29	4	50.6	93.54	.0041	-23.96	.0001	285736.9	1.67	-.00	-.0037	245.80	-.0005	-24.14	253.52
RISE 42	2297.16	2308.41	29	4	53.2	255.00	.0041	-23.36	-.0000	285711.5	.92	1.98	.0030	117.47	-.0023	-24.14	252.88
EXTM 11	2338.03	2349.28	29	5	34.1	.40	.0042	-25.19	.0000	285859.9	1.24	29.60	-.0000	180.42	.0044	-24.09	242.76
SET 11	2619.67	2630.92	29	10	15.7	71.22	.0042	-24.53	.0000	309353.6	1.49	-.00	-.0029	239.47	.0024	-23.78	172.93
EXTM 42	2715.94	2727.19	29	11	52.0	359.94	.0042	-23.44	.0000	309868.8	1.15	78.22	.0000	.29	-.0180	-23.68	149.04
RISE 51	2846.66	2857.91	29	14	2.7	270.00	.0041	-23.10	-.0000	323842.9	.74	9.81	.0035	111.02	-.0016	-23.55	116.58
RISE 72	3002.14	3013.39	29	16	38.2	266.58	.0042	-23.23	-.0000	335366.1	.66	-.00	.0038	113.47	-.0006	-23.39	77.92
RISE 61	3063.15	3074.40	29	17	39.2	292.24	.0042	-24.09	-.0000	339309.8	.78	.00	.0027	122.33	.0027	-23.33	62.68
SET 42	3134.36	3145.61	29	18	50.4	105.00	.0041	-22.61	.0000	343717.1	1.41	1.52	-.0030	243.13	-.0023	-23.26	44.89
EXTM 51	3203.17	3214.42	29	19	59.2	359.99	.0042	-23.14	.0000	341969.8	1.06	87.40	-.0000	.40	-.0427	-23.19	27.70
EXTM 61	3332.32	3343.57	29	22	8.4	.35	.0042	-23.98	.0000	353717.2	1.06	25.78	-.0000	180.35	.0043	-23.06	355.41
EXTM 72	3371.52	3382.77	29	22	47.6	.07	.0043	-23.29	.0000	352860.0	1.06	74.61	.0000	180.25	.0142	-23.02	345.60
RISE 11	3496.10	3507.35	30	0	52.1	287.89	.0042	-23.52	-.0000	366861.6	.74	.00	.0030	119.24	.0024	-22.90	314.42
SET 51	3559.05	3570.30	30	1	55.1	90.00	.0042	-22.44	.0000	369853.7	1.47	9.54	-.0035	249.60	-.0016	-22.83	298.65
SET 61	3601.27	3612.52	30	2	37.3	68.45	.0042	-23.47	.0000	373674.5	1.41	-.00	-.0027	238.55	.0027	-22.78	288.06
IMPACT	3729.15	3740.40	30	4	45.2												
IMPC 42	3729.15	3740.40	30	4	45.2	252.41	.0043	-21.97	.0000	383358.2	1.58	-.76	.0031	117.86	-.0025	-22.56	255.77
IMPC 72	3729.15	3740.40	30	4	45.2	90.93	.0043	-22.44	.0001	383033.3	2.36	2.16	-.0040	247.64	-.0004	-22.56	255.77
IMPC 11	3729.15	3740.40	30	4	45.2	347.20	.0044	-23.37	.0001	380083.6	1.84	30.18	.0009	166.39	.0045	-22.56	255.77
SET 72	3738.47	3749.72	30	4	54.5	93.29	.0045	-22.40	.0001	384027.0	3.33	-.01	-.0041	247.37	-.0005	-22.54	253.40

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	27	14	36.037	6549.465	16.7849	304.4445	10.98035	1.5420	119.1636	78.7115
SEPARATION	1.20	12.45	27	14	37.237	6594.165	13.3483	310.3094	10.94262	4.9466	120.7685	84.8773
RETRO	3.20	14.45	27	14	39.237	6769.324	7.5079	319.4187	10.79874	10.4457	122.5143	94.4879
IMPACT	3729.15	3740.40	30	4	45.182	383326.734	-22.5607	255.7678	2.14576	63.5681	297.3933	244.8730

	LAT	LONG	RAD

JUN 27, 1966
111 DEGREES

SURVEYOR VIEW PERIODS

GHA	277.6152				EPS -30.9897							LOM	248.0311
SX	-.390437	SY	-.836819	SZ	-.383787	DAO	-22.56044	RAO	244.98752	RM	384568.795	LAT	28.310600	LON	279.461800
C3	-1.168836	ECC	.980809	SLR	12963.735	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.369339	NSY	-.843792	NSZ	-.389364	C3M	1.4971	VIM	2.6714	ZAE	135.613	B.T	.0000	B.R	-.0000
LATE	1.5057	LONE	5.1011	LATS	1.1107	LONS	36.0222	LATI	-9.4887	LONI	321.9190	RSM	152.4137	TTAN	5.8050
LAUNCH DATE	JUN 27,1966			BASE AZM	115.0		TF 62.409				ARRIVAL DATE	JUN 30 1966		5 16 29.9	

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	14 34 21.2	28.1	15.38	303.62	5.03	80.29	121.96	14 45 36.2	6557.2	10.97	2.49

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT												
INJECTION		.00	11.25	27	14	45.6												
SEPARATION		1.20	12.45	27	14	46.8												
RETRO		3.20	14.45	27	14	48.8												
RISE	72	4.51	15.76	27	14	50.1	86.80	-.1284	21.88	-.0639	2883.1	-7.63	.00	.1273	292.10	-.0455	1.61	323.23
EXTM	72	10.55	21.80	27	14	56.1	10.80	-.2205	-28.73	-.1034	2091.0	4.71	66.82	-.0000	204.68	-.5571	-13.04	343.25
RISE	51	11.18	22.43	27	14	56.8	86.67	-.0718	6.86	-.0531	5644.5	-2.77	.00	.0873	277.62	-.0166	-14.24	345.01
EXTM	51	40.15	51.40	27	15	25.8	1.93	-.0187	-37.72	-.0022	11419.9	5.25	77.91	-.0000	187.30	-.0715	-33.44	26.51
EXTM	72	71.09	82.34	27	15	56.7	292.24	-.0001	-37.79	.0007	23747.2	4.74	22.36	.0000	127.73	-.0008	-35.11	37.98
EXTM	51	87.53	98.78	27	16	13.1	344.47	-.0006	-37.13	.0007	25117.5	4.37	72.57	.0000	134.56	-.0027	-35.00	39.77
RISE	61	160.61	171.86	27	17	26.2	315.35	.0027	-40.05	.0007	48[illegible]0.5	3.45	.00	.0017	147.45	.0014	-33.59	35.56
EXTM	51	218.50	229.75	27	18	24.1	1.11	.0032	-33.54	.0004	[illegible]7	3.26	82.34	-.0000	186.95	.0205	-32.54	26.70
EXTM	61	401.40	412.65	27	21	27.0	6.31	.0039	-34.10	.0003	[illegible]0	2.63	15.44	.0000	185.41	.0033	-30.30	349.83
EXTM	72	426.04	437.29	27	21	51.6	1.37	.0040	-31.60	.0002	[illegible]5	2.56	66.27	.0000	182.90	.0085	-30.07	344.40
RISE	11	596.34	607.59	28	0	41.9	294.98	.0040	-30.90	.0001	120432.9	1.97	.00	.0026	128.94	.0023	-28.84	305.61
SET	51	617.31	628.56	28	1	2.9	90.00	.0038	-27.61	.0002	121978.6	2.57	11.61	-.0032	244.78	-.0012	-28.71	300.73
SET	61	627.48	638.73	28	1	13.1	59.60	.0039	-30.87	.0002	124610.5	2.44	.01	-.0021	227.75	.0027	-28.65	298.35
SET	72	813.63	824.88	28	4	19.2	94.13	.0039	-27.38	.0001	148053.0	2.38	-.00	-.0035	242.34	-.0004	-27.73	254.30
RISE	42	824.04	835.29	28	4	29.6	254.99	.0040	-26.21	-.0000	148883.1	1.67	3.72	.0028	119.72	-.0022	-27.69	251.81
EXTM	11	867.05	878.30	28	5	12.7	1.71	.0042	-29.65	.0001	151684.4	1.94	25.12	.0000	181.64	.0040	-27.51	241.51
SET	11	1134.84	1146.09	28	9	40.4	68.06	.0041	-27.90	.0001	183846.1	2.03	-.00	-.0027	235.07	.0024	-26.59	176.77
EXTM	42	1248.47	1259.72	28	11	34.1	359.90	.0042	-25.97	.0000	189252.3	1.67	80.75	-.0000	.59	-.0231	-26.27	149.08
RISE	51	1384.00	1395.25	28	13	49.6	270.00	.0041	-25.26	-.0000	207502.1	1.22	10.68	.0034	113.03	-.0015	-25.94	115.94
RISE	72	1540.03	1551.28	28	16	25.6	266.22	.0041	-25.35	-.0000	223221.1	1.11	-.01	.0037	115.61	-.0005	-25.59	77.66
RISE	61	1614.00	1625.25	28	17	39.6	295.06	.0041	-26.59	.0000	229877.1	1.20	.00	.0026	125.90	.0027	-25.44	59.47
SET	42	1671.44	1682.69	28	18	37.0	105.00	.0041	-24.38	.0001	234659.6	1.79	2.61	-.0030	241.72	-.0022	-25.33	45.34
EXTM	51	1735.50	1746.75	28	19	41.1	358.08	.0042	-25.20	.0000	234223.1	1.42	88.18	.0036	72.99	-.0377	-25.21	29.56
EXTM	61	1875.16	1886.41	28	22	.8	.65	.0042	-26.29	.0000	249782.9	1.38	23.47	.0000	180.64	.0041	-24.97	355.11
EXTM	72	1913.94	1925.19	28	22	39.5	.14	.0042	-25.53	.0000	249493.4	1.37	72.57	.0000	180.42	.0127	-24.90	345.54
RISE	11	2048.63	2059.88	29	0	54.2	289.73	.0042	-25.57	-.0000	266380.5	1.00	.00	.0029	121.89	.0024	-24.69	312.26
SET	51	2102.16	2113.41	29	1	47.8	90.00	.0041	-24.08	.0001	269476.1	1.68	10.21	-.0035	248.07	-.0015	-24.61	299.02
SET	61	2136.19	2147.44	29	2	21.8	66.17	.0042	-25.52	.0001	273260.0	1.58	-.00	-.0026	235.64	.0027	-24.56	290.60
SET	72	2286.10	2297.35	29	4	51.7	93.57	.0041	-24.16	.0001	284716.4	1.67	-.00	-.0037	245.59	-.0005	-24.35	253.49
RISE	42	2288.61	2299.86	29	4	54.2	255.00	.0041	-23.57	-.0000	284670.5	.92	2.11	.0030	117.63	-.0023	-24.35	252.87
EXTM	11	2329.59	2340.84	29	5	35.2	.44	.0042	-25.40	.0000	284857.1	1.24	29.39	-.0000	180.46	.0044	-24.29	242.72
SET	11	2610.39	2621.64	29	10	16.0	71.06	.0042	-24.70	.0000	308234.7	1.43	-.00	-.0029	239.24	.0024	-23.95	173.09
EXTM	42	2707.28	2718.53	29	11	52.9	359.93	.0042	-23.60	.0000	308775.7	1.14	78.38	.0000	.32	-.0181	-23.84	149.05
RISE	51	2838.03	2849.28	29	14	3.6	270.00	.0041	-23.25	-.0000	322727.7	.73	9.87	.0035	111.16	-.0016	-23.70	116.58
RISE	72	2993.58	3004.83	29	16	39.2	266.56	.0042	-23.37	-.0000	334240.6	.66	.00	.0038	113.61	-.0006	-23.53	77.93
RISE	61	3055.24	3066.49	29	17	40.8	292.39	.0042	-24.23	-.0000	338208.3	.77	.01	.0027	122.52	.0027	-23.46	62.53
SET	42	3125.81	3137.06	29	18	51.4	105.00	.0041	-22.73	.0000	342544.2	1.40	1.59	-.0030	243.03	-.0023	-23.38	44.89
EXTM	51	3194.63	3205.88	29	20	.2	359.99	.0042	-23.26	.0000	340782.8	1.06	87.53	-.0000	.43	-.0393	-23.31	27.69
EXTM	61	3323.84	3335.09	29	22	9.4	.37	.0042	-24.10	.0000	352497.3	1.05	25.66	-.0000	180.37	.0043	-23.17	355.39
EXTM	72	3362.97	3374.22	29	22	48.6	.07	.0043	-23.41	.0000	351610.9	1.05	74.50	.0000	180.27	.0141	-23.13	345.60
RISE	11	3487.91	3499.16	30	0	53.5	287.98	.0042	-23.63	-.0000	365562.8	.72	.00	.0030	119.38	.0024	-23.00	314.33
SET	51	3550.48	3561.73	30	1	56.1	90.00	.0042	-22.53	.0000	368474.3	1.46	9.58	-.0035	249.51	-.0016	-22.93	298.65
SET	61	3592.27	3603.52	30	2	37.9	68.33	.0042	-23.67	.0000	372223.3	1.39	-.00	-.0027	238.41	.0027	-22.88	288.17
SET	72	3730.32	3741.57	30	4	55.9	93.30	.0042	-22.52	.0001	381959.1	1.90	-.00	-.0039	247.25	-.0005	-22.66	253.40
RISE	42	3731.23	3742.48	30	4	56.8	255.00	.0042	-22.08	.0000	381906.8	1.14	1.19	.0031	116.45	-.0024	-22.66	253.16
IMPACT		3744.53	3755.78	30	5	10.1												
IMPC	42	3744.53	3755.78	30	5	10.1	258.40	.0043	-22.05	.0000	382931.9	1.55	3.69	.0032	114.52	-.0024	-22.62	249.75
IMPC	72	3744.53	3755.78	30	5	10.1	96.93	.0043	-22.46	.0001	383711.5	2.34	-3.32	-.0039	246.77	-.0006	-22.62	249.75
IMPC	11	3744.53	3755.78	30	5	10.1	353.30	.0044	-23.43	.0001	380072.1	1.86	31.02	.0005	172.83	.0047	-22.62	249.75

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	27	14	45.604	6557.246	15.3785	303.6259	10.97321	2.4916	121.9582	80.2912
SEPARATION		1.20	12.45	27	14	46.804	6614.785	11.6855	309.2463	10.92474	5.8808	123.3457	86.2124
RETRO		3.20	14.45	27	14	48.804	6810.001	5.5125	317.9634	10.76546	11.3284	124.7289	95.4309
IMPACT		3744.53	3755.78	30	5	10.137	383394.559	-22.6200	249.7525	2.13925	63.0330	297.7127	245.1134

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SURVEYOR VIEW PERIODS

GHA	278.6008					EPS	-19.8160							LOM	284.6309
SX	-.187779	SY	-.885658	SZ	-.424675	DAO	-25.13007	RAO	258.02931	RM	387767.781	LAT	28.310600	LON	279.461800
C3	-1.059525	ECC	.982604	SLR	12975.479	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.166471	NSY	-.886338	NSZ	-.427953	C3M	1.4933	VIM	2.6707	ZAE	138.819	B.T	.0000	B.R	-.0000
LATE	2.8493	LONE	4.9504	LATS	1.1375	LONS	24.6505	LATI	-5.0715	LONI	324.4980	RSM	152.4511	ITAN	6.4546
LAUNCH DATE		JUN 28,1966		BASE AZM	87.0		TF 61.569					ARRIVAL DATE		JUL 1 1966	3 38 35.5

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
87.00	14 0 15.7	27.3	25.94	307.27	-13.38	76.38	101.96	14 11 30.7	6633.9	10.91	-6.63

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DR3	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	28	14	11.5												
SEPARATION		1.20	12.45	28	14	12.7												
RETRO		3.20	14.45	28	14	14.7												
RISE	72	6.71	17.96	28	14	18.2	34.29	-1.2948	80.47	.0325	2495.5	-4.13	-.00	.0927	354.65	.1961	13.37	343.67
RISE	51	11.96	23.21	28	14	23.5	64.61	-.1395	41.64	-.0245	4629.7	-4.04	.00	.0991	317.53	.0407	2.24	4.29
EXTM	72	12.45	23.70	28	14	24.0	293.31	-.0364	19.43	-.1201	3190.1	6.42	18.90	-.0000	66.26	.1321	1.32	5.87
EXTM	51	28.58	39.83	28	14	40.1	342.46	-.0293	-7.40	-.0247	6894.3	5.57	65.18	-.0000	45.41	.0909	-16.39	37.23
EXTM	72	65.06	76.31	28	15	16.6	272.04	-.0002	-24.72	-.0016	22832.1	4.97	5.14	.0000	114.29	.0016	-25.46	56.87
RISE	42	72.34	83.59	28	15	23.8	103.25	-.0042	-17.99	-.0079	25531.2	4.26	.00	.0049	247.78	.0001	-26.06	58.10
EXTM	51	79.81	91.06	28	15	31.3	320.47	-.0002	-25.59	-.00	22945.5	4.58	54.51	.0000	98.62	.0022	-26.54	58.94
EXTM	42	127.81	139.06	28	16	19.3	98.93	.0005	-22.91	-.0007	39323.8	3.98	6.18	-.0000	246.24	-.0009	-27.95	58.31
SET	42	194.26	205.51	28	17	25.8	105.00	.0022	-24.42	-.0002	54423.4	3.61	2.63	-.0015	241.70	-.0014	-28.37	49.93
RISE	61	209.69	220.94	28	17	41.2	303.81	.0032	-33.33	.0002	57861.3	3.15	.00	.0018	136.03	.0020	-28.39	47.42
EXTM	51	314.27	325.52	28	19	25.8	.03	.0037	-28.53	.0000	71250.5	2.89	87.21	.0000	180.63	.0585	-28.30	27.66
EXTM	61	473.23	484.48	28	22	4.7	2.56	.0039	-31.35	.0001	100910.4	2.49	18.37	.0000	182.30	.0036	-27.99	353.33
EXTM	72	508.86	520.11	28	22	40.4	.41	.0040	-29.14	.0001	102370.8	2.42	68.76	-.0000	180.99	.0098	-27.92	345.29
RISE	11	673.26	684.51	29	1	24.8	293.51	.0040	-29.48	-.0000	130774.6	1.89	.00	.0026	127.04	.0023	-27.61	307.28
SET	51	702.37	713.62	29	1	53.9	90.00	.0039	-26.54	.0001	133313.4	2.49	11.19	-.0032	245.78	-.0013	-27.56	300.44
SET	61	719.49	730.74	29	2	11.0	61.36	.0040	-29.53	.0001	136734.3	2.37	-.00	-.0022	229.79	.0026	-27.53	296.41
SET	72	896.88	908.13	29	5	8.4	94.05	.0040	-26.93	.0001	158312.4	2.33	-.00	-.0035	242.79	-.0005	-27.26	254.19
RISE	42	906.21	917.46	29	5	17.7	255.00	.0040	-25.86	-.0000	159006.6	1.62	3.51	.0029	119.45	-.0022	-27.25	251.95
EXTM	11	946.19	957.44	29	5	57.7	.83	.0042	-29.20	.0000	161266.7	1.90	25.59	-.0000	180.80	.0040	-27.19	242.35
SET	11	1216.58	1227.83	29	10	28.1	67.86	.0041	-28.11	.0001	193212.4	2.01	.00	-.0027	234.79	.0024	-26.86	176.90
EXTM	42	1330.90	1342.15	29	12	22.4	359.95	.0042	-26.47	.0000	198525.1	1.65	81.25	.0000	.31	-.0228	-26.74	149.03
RISE	51	1465.93	1477.18	29	14	37.4	270.00	.0041	-25.97	-.0000	216578.6	1.21	10.96	.0034	113.69	-.0015	-26.61	116.00
RISE	72	1621.39	1632.64	29	17	12.9	266.07	.0041	-26.24	-.0000	232183.3	1.10	-.01	.0036	116.52	-.0005	-26.47	77.86
RISE	61	1700.50	1711.75	29	18	32.0	296.17	.0041	-27.52	-.0000	239271.1	1.20	.00	.0025	127.26	.0027	-26.41	58.42
SET	42	1753.83	1765.08	29	19	25.3	105.00	.0041	-25.46	.0000	243602.0	1.78	3.27	-.0029	240.87	-.0022	-26.37	45.30
EXTM	51	1817.91	1829.16	29	20	29.4	358.12	.0042	-26.33	.0000	243227.1	1.42	88.21	.0036	109.71	.0387	-26.32	29.52
EXTM	61	1956.28	1967.53	29	22	47.8	.35	.0042	-27.51	.0000	258809.1	1.38	22.25	.0000	180.34	.0040	-26.21	355.40
EXTM	72	1996.17	2007.42	29	23	27.7	.11	.0042	-26.63	.0000	258536.1	1.37	71.27	-.0000	180.32	.0116	-26.19	345.56
RISE	11	2136.10	2147.35	30	1	47.6	291.03	.0042	-26.95	-.0000	275836.1	1.01	.00	.0028	123.69	.0024	-26.09	311.00
SET	51	2184.67	2195.92	30	2	36.2	90.00	.0041	-25.56	.0000	278493.1	1.69	10.80	-.0034	246.70	-.0015	-26.06	298.99
SET	61	2211.87	2223.12	30	3	3.4	64.48	.0042	-26.99	.0000	281821.6	1.59	-.00	-.0025	233.53	.0027	-26.04	292.27
SET	72	2369.81	2381.06	30	5	41.3	93.85	.0041	-25.76	.0000	293984.2	1.67	-.01	-.0037	243.97	-.0005	-25.95	253.19
RISE	42	2371.00	2382.25	30	5	42.5	255.00	.0041	-25.19	-.0000	293729.3	.93	3.10	.0030	118.91	-.0023	-25.95	252.89
EXTM	11	2411.31	2422.56	30	6	22.8	.24	.0042	-27.01	.0000	294157.1	1.25	27.78	-.0000	180.25	.0042	-25.92	242.91
SET	11	2686.37	2697.62	30	10	57.9	69.39	.0042	-26.52	.0000	317196.2	1.50	-.00	-.0028	236.88	.0024	-25.77	174.74
EXTM	42	2790.11	2801.36	30	12	41.6	359.97	.0042	-25.53	.0000	318274.7	1.16	80.31	.0000	.17	-.0180	-25.72	149.01
RISE	51	2920.69	2931.94	30	14	52.2	270.01	.0041	-25.23	-.0000	332304.8	.76	10.66	.0034	113.00	-.0015	-25.65	116.59
RISE	72	3074.29	3085.54	30	17	25.8	266.21	.0042	-25.41	-.0000	343931.6	.70	-.00	.0037	115.67	-.0005	-25.57	78.29
RISE	61	3146.65	3157.90	30	18	38.2	294.71	.0042	-26.29	-.0000	348719.8	.81	.00	.0026	125.46	.0027	-25.53	60.24
SET	42	3208.18	3219.43	30	19	39.7	105.00	.0041	-24.87	.0000	352450.6	1.43	2.91	-.0030	241.34	-.0023	-25.50	44.88
EXTM	51	3271.90	3283.15	30	20	43.4	358.69	.0042	-25.46	.0000	350642.0	1.09	88.78	.0037	77.07	-.0424	-25.47	28.98
EXTM	61	3405.77	3417.02	30	22	57.3	.22	.0042	-26.31	.0000	363220.5	1.10	23.45	-.0000	180.21	.0041	-25.40	355.54
EXTM	72	3445.41	3456.66	30	23	36.9	.05	.0042	-25.68	.0000	362338.0	1.11	72.23	.0000	180.15	.0114	-25.37	345.62
RISE	11	3578.60	3589.85	1	1	50.1	290.05	.0042	-25.92	-.0000	377339.4	.84	.00	.0029	122.34	.0024	-25.29	312.28
SET	51	3632.89	3644.14	1	2	44.4	90.00	.0042	-24.88	.0000	380071.2	1.63	10.53	-.0035	247.33	-.0015	-25.25	298.64
SET	61	3664.12	3675.37	1	3	15.6	65.72	.0042	-25.91	.0000	383671.0	1.67	.01	-.0026	235.08	.0028	-25.22	290.76
IMPACT		3694.17	3705.42	1	3	45.7												
IMPC	72	3694.17	3705.42	1	3	45.7	63.49	.0043	-25.24	.0001	383589.8	2.40	27.30	-.0039	245.62	.0004	-25.18	283.11
IMPC	51	3694.17	3705.42	1	3	45.7	105.48	.0043	-24.71	.0001	386738.8	2.39	-2.11	-.0034	241.17	-.0019	-25.18	283.11
IMPC	11	3694.17	3705.42	1	3	45.7	319.49	.0044	-25.93	.0000	384555.4	1.78	17.85	.0022	142.14	.0034	-25.18	283.11
IMPC	61	3694.17	3705.42	1	3	45.7	73.40	.0043	-25.82	.0001	387046.3	2.32	-4.88	-.0028	239.97	.0027	-25.18	283.11

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	28	14	11.512	6637.210	25.9688	307.1464	10.91388	-6.6323	101.9027	76.2510
SEPARATION		1.20	12.45	28	14	12.712	6566.017	24.3488	314.2948	10.97061	-3.2552	105.0764	83.7002
RETRO		3.20	14.45	28	14	14.712	6556.811	20.8942	325.7085	10.97838	2.4563	109.6756	95.6153
IMPACT		3694.17	3705.42	1	3	45.678	386556.430	-25.1800	283.1110	2.18616	67.0077	287.7150	258.2852

SURVEYOR VIEW PERIODS

GHA	278.6001					EPS	-19.6081						LOM	278.5268	
SX	-.183872	SY	-.886196	SZ	-.425262	DAO	-25.16724	RAO	258.27835	RM	387828.898	LAT	28.310600	LON	279.461800
C3	-1.054159	ECC	.982692	SLR	12976.058	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.162604	NSY	-.888794	NSZ	-.428492	C3M	1.4966	VIM	2.6713	ZAE	138.926	B.T	.0000	B.R	-.0000
LATE	2.8734	LONE	4.9463	LATS	1.1380	LONS	24.4412	LATI	-4.9594	LONI	324.5873	RSM	152.4517	TTAN	6.4639
LAUNCH DATE	JUN 28,1966			BASE AZM	90.0		TF 61.503					ARRIVAL DATE	JUL 1 1966	4	3 56.1

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
90.00	14 24 54.2	27.6	24.72	307.33	-7.85	82.61	104.26	14 36 9.2	6575.2	10.96	-3.89

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PRORE IN SUNLIGHT											
INJECTION		.00	11.25	28	14	36.2												
SEPARATION		1.20	12.45	28	14	37.4												
RETRO		3.20	14.45	28	14	39.4												
RISE	72	5.94	17.19	28	14	42.1	66.44	-.4994	70.85	.1001	2573.4	-5.61	-.00	.1068	342.50	.1595	13.06	339.04
RISE	51	11.62	22.87	28	14	47.8	68.68	-.1222	37.03	-.0274	4894.4	-3.78	-.00	.0967	311.95	.0301	1.27	.75
EXTM	72	11.80	23.05	28	14	47.9	303.93	-.0586	21.06	-.1375	2813.7	5.99	27.81	-.0000	61.09	.1672	.95	1.31
EXTM	51	30.55	41.80	28	15	6.7	347.50	-.0254	-10.98	-.0188	7737.1	5.49	71.09	-.0000	40.98	.0962	-17.74	34.81
EXTM	72	65.52	76.77	28	15	41.7	277.83	-.0001	-25.43	-.0015	22698.3	4.93	10.41	.0000	114.43	.0015	-25.42	51.53
EXTM	51	82.16	93.41	28	15	58.3	327.33	-.0001	-26.00	-.0011	23555.3	4.51	60.68	.0000	97.77	.0023	-26.56	53.55
RISE	42	94.16	105.41	28	16	10.3	105.01	-.0014	-20.42	-.0015	31797.5	4.18	.17	.0020	244.85	-.0004	-27.07	54.00
EXTM	42	127.74	138.99	28	16	43.9	104.45	.0006	-22.54	-.0007	40012.7	3.97	1.88	-.0000	243.49	-.0009	-27.84	52.58
SET	42	139.05	150.30	28	16	55.2	105.00	.0010	-22.07	-.0006	42686.5	3.90	1.74	-.0004	242.84	-.0010	-27.97	51.53
RISE	61	179.99	191.24	28	17	36.1	304.46	.0030	-33.77	.0002	51937.4	3.34	-.00	.0017	136.73	.0018	-28.23	46.30
EXTM	51	285.09	296.34	28	19	21.2	.04	.0036	-28.52	.0000	66286.2	2.99	87.22	-.0000	180.79	.0585	-28.28	27.65
EXTM	61	447.56	458.81	28	22	3.7	2.73	.0039	-31.48	.0001	97213.4	2.54	18.24	.0000	182.45	.0035	-27.99	353.17
EXTM	72	482.81	494.06	28	22	39.0	.42	.0040	-29.19	.0001	98714.4	2.47	68.71	-.0000	181.02	.0097	-27.93	345.28
RISE	11	648.53	659.78	29	1	24.7	293.57	.0040	-29.54	-.0000	127677.2	1.92	.00	.0026	127.12	.0023	-27.63	307.16
SET	51	676.95	688.20	29	1	53.1	90.00	.0039	-26.53	.0001	130180.9	2.52	11.18	-.0032	245.79	-.0013	-27.58	300.51
SET	61	693.87	705.12	29	2	10.0	61.28	.0040	-29.59	.0001	133605.4	2.40	-.00	-.0022	229.69	.0026	-27.55	296.53
SET	72	872.01	883.26	29	5	8.2	94.05	.0039	-26.94	.0001	155553.0	2.35	-.00	-.0035	242.78	-.0005	-27.28	254.23
RISE	42	881.68	892.93	29	5	17.8	254.99	.0040	-25.86	-.0001	156300.8	1.64	3.51	.0029	119.45	-.0022	-27.27	251.92
EXTM	11	921.64	932.89	29	5	57.8	.85	.0042	-29.25	.0000	158614.5	1.92	25.53	-.0000	180.82	.0040	-27.21	242.34
SET	11	1192.02	1203.27	29	10	28.2	67.82	.0041	-28.15	.0001	190842.9	2.02	.00	-.0027	234.73	.0024	-26.89	176.95
EXTM	42	1306.66	1317.91	29	12	22.8	359.95	.0042	-26.49	.0000	196288.8	1.66	81.27	.0000	.31	-.0225	-26.77	149.03
RISE	51	1441.84	1453.09	29	14	38.0	270.00	.0041	-25.99	-.0000	214460.4	1.22	10.97	.0034	113.71	-.0015	-26.64	115.98
RISE	72	1597.33	1608.58	29	17	13.5	266.06	.0041	-26.27	-.0000	230179.2	1.12	-.01	.0036	116.54	-.0005	-26.50	77.85
RISE	61	1676.65	1687.90	29	18	32.8	296.21	.0041	-27.56	-.0000	237336.2	1.21	.00	.0025	127.31	.0027	-26.44	58.36
SET	42	1729.73	1740.98	29	19	25.9	105.00	.0041	-25.48	.0000	241677.3	1.79	3.28	-.0029	240.86	-.0022	-26.39	45.31
EXTM	51	1793.85	1805.10	29	20	30.0	358.11	.0042	-26.36	.0000	241347.0	1.43	88.19	.0036	110.54	.0401	-26.34	29.52
EXTM	61	1932.28	1943.53	29	22	48.4	.35	.0042	-27.55	.0000	257016.1	1.39	22.21	.0000	180.34	.0040	-26.24	355.40
EXTM	72	1972.18	1983.43	29	23	28.3	.11	.0042	-26.66	.0000	256762.9	1.38	71.24	-.0000	180.32	.0116	-26.22	345.56
RISE	11	2112.31	2123.56	30	1	48.5	291.06	.0042	-26.99	-.0000	274150.5	1.02	.00	.0028	123.74	.0024	-26.12	310.96
SET	51	2160.69	2171.94	30	2	36.8	90.00	.0041	-25.58	.0000	276815.1	1.69	10.81	-.0034	246.67	-.0015	-26.09	299.00
SET	61	2187.72	2198.97	30	3	3.9	64.43	.0042	-27.02	.0000	280145.2	1.59	-.00	-.0025	233.47	.0027	-26.08	292.32
SET	72	2345.88	2357.13	30	5	49.0	93.86	.0041	-25.80	.0000	292400.2	1.68	-.01	-.0037	243.94	-.0005	-25.98	253.19
RISE	42	2347.11	2358.36	30	5	43.3	255.00	.0041	-25.22	-.0000	292146.4	.94	3.12	.0030	118.94	-.0023	-25.98	252.89
EXTM	11	2387.40	2398.65	30	6	23.6	.24	.0042	-27.05	.0000	292596.9	1.26	27.74	-.0000	180.25	.0042	-25.96	242.91
SET	11	2662.33	2673.58	30	10	58.5	69.35	.0042	-26.55	.0000	315741.9	1.50	-.00	-.0028	236.83	.0024	-25.81	174.78
EXTM	42	2766.36	2777.61	30	12	42.5	.00	.0042	-25.56	.0000	316883.2	1.17	80.34	-.0000	359.88	-.0039	-25.75	148.98
RISE	51	2896.86	2908.11	30	14	53.0	270.00	.0041	-25.26	-.0000	330957.5	.76	10.68	.0034	113.03	-.0015	-25.69	116.59
RISE	72	3050.53	3061.78	30	17	26.7	266.21	.0042	-25.45	-.0000	342646.2	.70	-.00	.0037	115.71	-.0005	-25.61	78.29
RISE	61	3123.09	3134.34	30	18	9.2	294.75	.0042	-26.33	-.0000	347459.8	.82	.00	.0026	125.52	.0027	-25.57	60.19
SET	42	3184.39	3195.64	30	19	40.5	105.00	.0041	-24.90	.0000	351182.1	1.43	2.93	-.0030	241.31	-.0023	-25.54	44.89
EXTM	51	3248.11	3259.36	30	20	44.3	358.68	.0042	-25.50	.0000	349383.7	1.09	88.79	.0037	78.89	-.0371	-25.50	28.98
EXTM	61	3381.96	3393.21	30	22	58.1	.22	.0042	-26.45	.0000	361970.1	1.10	23.41	-.0000	180.21	.0041	-25.44	355.54
EXTM	72	3421.60	3432.85	30	23	37.8	.05	.0042	-25.72	.0000	361081.6	1.10	72.19	.0000	180.15	.0116	-25.41	345.63
RISE	11	3554.99	3566.24	1	1	51.1	290.09	.0042	-25.96	-.0000	376039.0	.83	.00	.0029	122.40	.0024	-25.34	312.23
SET	51	3609.13	3620.38	1	2	45.3	90.00	.0042	-24.92	.0000	378674.5	1.59	10.54	-.0035	247.29	-.0015	-25.30	298.64
SET	61	3640.20	3651.45	1	3	16.4	65.66	.0042	-25.96	.0000	382145.0	1.58	.00	-.0026	235.00	.0028	-25.27	290.82
IMPACT		3690.20	3701.45	1	4	6.4												
IMPC	72	3690.20	3701.45	1	4	6.4	68.50	.0043	-25.24	.0001	384096.5	2.41	22.77	-.0039	245.88	.0002	-25.21	278.13
IMPC	11	3690.20	3701.45	1	4	6.4	324.52	.0044	-25.98	.0000	384360.8	1.80	20.22	.0020	146.22	.0036	-25.21	278.13

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	28	14	36.153	6575.611	24.7227	307.3056	10.96320	-3.8919	104.2535	82.5873
SEPARATION		1.20	12.45	28	14	37.353	6545.116	22.8440	314.2868	10.98852	-.4745	107.1944	89.8694
RETRO		3.20	14.45	28	14	39.353	6599.716	19.0401	325.3899	10.94257	5.2174	111.3507	101.4738
IMPACT		3690.20	3701.45	1	4	6.350	386609.520	-25.2098	278.1327	2.18610	66.8086	287.3800	258.4890

SURVEYOR VIEW PERIODS

GHA	278.6008					EPS	-19.4015						LOM	272.4549	
SX	-.179983	SY	-.886717	SZ	-.425839	DAO	-25.20379	RAO	258.52615	RM	387889.711	LAT	28.310600	LON	279.461800
C3	-1.054057	ECC	.982693	SLR	12976.069	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.158703	NSY	-.889238	NSZ	-.429033	C3M	1.4966	VIM	2.6713	ZAE	138.918	B.T	.0000	B.R	-.0000
LATE	2.8974	LONE	4.9417	LATS	1.1385	LONS	24.2276	LATI	-4.9563	LONI	324.5787	RSM	152.4522	TTAN	6.4708
LAUNCH DATE	JUN 28,1966			BASE AZM	93.0		TF 61.519					ARRIVAL DATE	JUL 1 1966	4 29	8.7

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
93.00	14 45 47.0	27.8	23.51	307.22	-3.23	87.74	106.49	14 57 2.0	6549.8	10.98	-1.60

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	28	14	57.0												
SEPARATION		1.20	12.45	28	14	58.2												
RETRO		3.20	14.45	28	15	.2												
RISE	72	5.39	16.64	28	15	2.4	74.82	-.3143	62.07	.0851	2670.9	-6.51	.00	.1158	333.12	.1246	12.38	335.37
EXTM	72	11.31	22.56	28	15	8.3	315.31	-.0878	21.02	-.1498	2529.6	5.56	37.44	-.0000	55.77	.2150	.21	357.40
RISE	51	11.38	22.63	28	15	8.4	71.89	-.1093	32.80	-.0302	5133.7	-3.51	.00	.0943	306.97	.0216	.09	357.62
EXTM	51	32.81	44.06	28	15	29.8	351.51	-.0218	-14.50	-.0142	8649.0	5.43	76.23	.0000	36.91	.1069	-19.31	32.72
EXTM	72	46.35	77.60	28	16	3.4	282.90	-.0000	-26.25	-.0013	22708.5	4.89	15.02	.0000	115.15	.0013	-25.76	46.98
EXTM	51	84.61	95.86	28	16	21.6	333.26	-.0001	-26.68	-.0010	24214.0	4.45	66.03	.0000	98.20	.0024	-26.90	48.91
RISE	61	155.35	166.60	28	17	32.4	305.51	.0027	-34.47	.0003	46762.4	3.53	-.00	.0016	137.85	.0016	-28.27	44.77
EXTM	51	259.54	270.79	28	19	16.6	.03	.0035	-28.70	.0000	61777.2	3.09	87.04	.0000	180.59	.0500	-28.43	27.66
EXTM	61	426.20	437.45	28	22	3.2	2.99	.0039	-31.74	.0001	94076.4	2.59	17.97	.0000	182.67	.0035	-28.14	352.94
EXTM	72	460.72	471.97	28	22	37.8	.43	.0040	-29.39	.0001	95543.1	2.51	68.51	-.0000	181.03	.0095	-28.07	345.27
RISE	11	628.16	639.41	29	1	25.2	293.74	.0040	-29.71	-.0000	125069.7	1.95	.00	.0026	127.34	.0023	-27.75	306.95
SET	51	655.47	666.72	29	1	52.5	90.00	.0038	-26.63	.0001	127466.2	2.54	11.22	-.0032	245.70	-.0013	-27.70	300.57
SET	61	671.60	682.85	29	2	8.6	61.06	.0040	-29.76	.0001	130619.6	2.42	-.00	-.0022	229.44	.0026	-27.67	296.79
SET	72	851.10	862.35	29	5	8.1	94.06	.0039	-27.04	.0001	153172.0	2.37	-.00	-.0035	242.68	-.0004	-27.39	254.26
RISE	42	861.03	872.28	29	5	18.1	254.99	.0040	-25.94	-.0001	153956.3	1.66	3.56	.0029	119.51	-.0022	-27.37	251.89
EXTM	11	901.06	912.31	29	5	58.1	.88	.0041	-29.39	.0001	156339.2	1.94	25.40	-.0000	180.85	.0040	-27.31	242.30
SET	11	1171.06	1182.31	29	10	28.1	67.72	.0041	-28.25	.0001	188748.2	2.04	-.00	-.0027	234.60	.0024	-26.97	177.07
EXTM	42	1286.24	1297.49	29	12	23.3	359.95	.0042	-26.58	.0000	194329.5	1.67	81.36	.0000	.32	-.0230	-26.85	149.03
RISE	51	1421.56	1432.81	29	14	38.6	270.00	.0041	-26.06	-.0000	212594.1	1.23	10.99	.0034	113.77	-.0015	-26.72	115.97
RISE	72	1577.06	1588.31	29	17	14.1	266.05	.0041	-26.34	-.0000	228399.6	1.12	-.01	.0036	116.61	-.0005	-26.57	77.85
RISE	61	1656.81	1668.06	29	18	33.8	296.31	.0041	-27.64	-.0000	235634.7	1.22	.00	.0025	127.43	.0027	-26.51	58.26
SET	42	1709.45	1720.70	29	19	26.5	105.00	.0041	-25.54	.0000	239955.7	1.80	3.32	-.0029	240.81	-.0022	-26.46	45.32
EXTM	51	1773.65	1784.90	29	20	30.7	358.12	.0042	-26.43	.0000	239666.8	1.44	88.18	.0035	112.69	.0438	-26.41	29.52
EXTM	61	1912.12	1923.37	29	22	49.2	.36	.0042	-27.62	.0000	255403.6	1.40	22.14	.0000	180.35	.0040	-26.31	355.39
EXTM	72	1951.99	1963.24	29	23	29.0	.11	.0042	-26.73	.0000	255159.4	1.39	71.17	-.0000	180.32	.0115	-26.28	345.56
RISE	11	2092.43	2103.68	30	1	49.5	291.13	.0042	-27.06	-.0000	272620.3	1.03	.00	.0028	123.83	.0024	-26.18	310.89
SET	51	2140.50	2151.75	30	2	37.5	90.00	.0041	-25.54	.0000	275274.6	1.70	10.83	-.0034	246.62	-.0015	-26.15	299.01
SET	61	2167.23	2178.48	30	3	4.3	64.35	.0042	-27.09	.0000	278592.7	1.60	-.00	-.0025	233.38	.0027	-26.14	292.40
SET	72	2325.73	2336.98	30	5	42.8	93.86	.0041	-25.85	.0000	290925.2	1.68	-.00	-.0037	243.88	-.0005	-26.04	253.20
RISE	42	2327.00	2338.25	30	5	44.0	255.00	.0041	-25.27	-.0000	290672.6	.95	3.15	.0030	118.98	-.0023	-26.04	252.88
EXTM	11	2367.29	2378.54	30	6	24.3	.25	.0042	-27.11	.0000	291145.7	1.26	27.68	-.0000	180.25	.0042	-26.01	242.91
SET	11	2642.00	2653.25	30	10	59.0	69.30	.0042	-26.61	.0000	314347.2	1.51	-.00	-.0028	236.76	.0024	-25.86	174.84
EXTM	42	2746.25	2757.50	30	12	43.3	360.00	.0042	-25.62	.0000	315530.7	1.17	80.40	-.0000	.11	-.0031	-25.80	148.98
RISE	51	2876.80	2888.05	30	14	53.8	270.00	.0041	-25.31	-.0000	329640.2	.77	10.70	.0034	113.07	-.0015	-25.74	116.58
RISE	72	3030.57	3041.82	30	17	27.6	266.20	.0042	-25.50	-.0000	341375.2	.70	-.00	.0037	115.76	-.0005	-25.65	78.30
RISE	61	3103.37	3114.62	30	18	40.4	294.81	.0042	-26.38	-.0000	346208.4	.82	.00	.0026	125.59	.0027	-25.62	60.13
SET	42	3164.39	3175.64	30	19	41.4	105.00	.0041	-24.95	.0000	349910.6	1.43	2.96	-.0030	241.28	-.0023	-25.58	44.89
EXTM	51	3228.12	3239.37	30	20	45.2	358.68	.0042	-25.55	.0000	348114.8	1.09	88.80	.0038	81.12	-.0303	-25.55	28.98
EXTM	61	3361.96	3373.21	30	22	59.0	.22	.0042	-26.40	.0000	360695.3	1.10	23.36	-.0000	180.21	.0041	-25.48	355.54
EXTM	72	3401.60	3412.85	30	23	38.6	.05	.0042	-25.77	.0000	359795.5	1.10	72.14	.0000	180.15	.0118	-25.46	345.62
RISE	11	3535.19	3546.44	1	1	52.2	290.14	.0042	-26.01	-.0000	374703.0	.81	.00	.0029	122.46	.0024	-25.38	312.18
SET	51	3589.16	3600.41	1	2	46.2	90.00	.0042	-24.97	.0000	377255.0	1.56	10.56	-.0035	247.24	-.0015	-25.35	298.65
SET	61	3620.04	3631.29	1	3	17.1	65.60	.0042	-26.01	.0000	380633.8	1.52	.00	-.0026	234.93	.0027	-25.32	290.89
IMPACT		3691.16	3702.41	1	4	28.2												
IMPC	72	3691.16	3702.41	1	4	28.2	73.79	.0043	-25.24	.0001	384649.9	2.42	17.98	-.0039	245.95	.0600	-25.24	272.87
IMPC	11	3691.16	3702.41	1	4	28.2	329.85	.0044	-26.02	.0000	384187.9	1.82	22.45	.0018	150.77	.0038	-25.24	272.87

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	28	14	57.033	6549.842	23.5057	307.2187	10.98462	-1.6019	106.4918	87.7349
SEPARATION		1.20	12.45	28	14	58.233	6551.376	21.3817	314.0432	10.98322	1.8267	109.2159	94.8601
RETRO		3.20	14.45	28	15	.233	6557.971	17.2766	324.7871	10.89417	7.4628	112.9507	106.1054
IMPACT		3691.16	3702.41	1	4	28.194	386666.457	-25.2413	272.8724	2.18423	66.5552	287.2193	258.7045

SURVEYOR VIEW PERIODS

GHA	278.0008					EPS	-19.2348							LOM	267.5526
SX	-.176842	SY	-.881127	SZ	-.426300	DAO	-25.23299	RAD	258.72627	RM	387938.813	LAT	28.310600	LON	279.461800
C3	-1.054804	ECC	.982681	SLR	12975.986	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.155546	NSY	-.889585	NSZ	-.429470	C3M	1.4976	VIM	2.5715	ZAE	138.863	B.T	.0000	B.R	-.0000
LATE	2.9147	LONE	4.9386	LATS	1.1389	LONS	24.0587	LATI	-5.0543	LONI	324.5409	RSM	152.4527	TTAN	6.4759
LAUNCH DATE	JUN 28,1966			BASE AZM	96.0		TF 61.545					ARRIVAL	DATE JUL 1 196		4 49 29.9

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
96.00	15 2 33.3	28.0	22.32	306.97	.43	91.69	108.66	15 13 48.3	6544.8	10.99	.21

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	28	15	13.8												
SEPARATION		1.20	12.45	28	15	15.0												
RETRO		3.20	14.45	28	15	17.0												
RISE	72	5.00	16.25	28	15	18.8	78.66	-.2433	54.78	.0624	2764.2	-7.06	-.00	.1214	325.57	.0941	11.46	332.41
EXTM	72	10.99	22.24	28	15	24.8	326.47	-.1179	18.77	-.1541	2330.7	5.19	47.52	-.0000	50.75	.2816	-.88	354.17
RISE	51	11.23	22.48	28	15	25.0	74.56	-.0996	28.90	-.0329	5336.4	-3.27	.00	.0920	302.45	.0147	-1.31	354.88
EXTM	51	35.13	46.38	28	15	48.9	354.69	-.0190	-17.46	-.0109	9544.8	5.36	80.71	-.0000	33.09	.1309	-21.04	30.94
EXTM	72	57.46	68.71	28	16	21.3	287.13	.0000	-27.46	-.0011	22846.3	4.85	18.80	.0000	116.39	.0011	-26.45	43.28
EXTM	51	87.31	98.56	28	16	41.1	338.12	.0000	-27.45	-.0008	24956.6	4.40	70.38	.0000	100.49	.0023	-27.54	45.11
RISE	61	136.96	148.21	28	17	30.8	306.98	.0024	-35.41	.0004	42728.8	3.70	-.00	.0015	139.37	.0013	-28.54	42.90
EXTM	51	238.40	249.65	28	19	12.2	.06	.0034	-29.10	.0000	57925.7	3.18	86.64	-.0000	180.92	.0481	-28.77	27.63
EXTM	61	409.48	420.73	28	22	3.3	3.31	.0039	-32.13	.0002	91602.1	2.63	17.57	.0000	182.94	.0034	-28.42	352.63
EXTM	72	443.14	454.39	28	22	36.9	.50	.0040	-29.71	.0001	92985.6	2.55	68.19	-.0000	181.16	.0093	-28.34	345.21
RISE	11	612.40	623.65	29	1	24.2	294.01	.0040	-29.97	-.0000	123029.2	1.97	.00	.0026	127.69	.0023	-27.97	306.64
SET	51	638.20	649.45	29	1	52.0	90.00	.0038	-26.43	.0001	125250.8	2.56	11.30	-.0032	245.50	-.0013	-27.92	300.63
SET	61	653.01	664.26	29	2	6.8	60.72	.0039	-30.03	.0001	128458.3	2.44	-.00	-.0022	229.04	.0026	-27.89	297.17
SET	72	834.40	845.65	29	5	8.2	94.10	.0039	-27.22	.0001	151249.8	2.38	-.00	-.0035	242.49	-.0004	-27.57	254.27
RISE	42	844.49	855.74	29	5	18.3	254.99	.0040	-26.11	-.0001	152050.5	1.67	3.66	.0028	119.64	-.0021	-27.55	251.86
EXTM	11	884.69	895.94	29	5	58.5	.95	.0041	-29.39	.0001	154519.4	1.95	25.19	-.0000	180.91	.0040	-27.49	242.24
SET	11	1153.92	1165.17	29	10	27.7	67.56	.0041	-28.41	.0001	187013.3	2.05	.00	-.0027	234.38	.0024	-27.12	177.25
EXTM	42	1269.88	1281.13	29	12	23.7	59.95	.0042	-26.71	.0000	192738.1	1.68	81.49	.0000	.35	-.0237	-26.98	149.03
RISE	51	1405.32	1416.57	29	14	39.1	270.00	.0041	-26.18	-.0000	211077.1	1.24	11.04	.0034	113.89	-.0015	-26.84	115.95
RISE	72	1560.77	1572.02	29	17	14.6	266.03	.0041	-26.45	-.0000	226950.0	1.13	-.01	.0036	116.72	-.0005	-26.69	77.86
RISE	61	1641.16	1652.41	29	18	35.0	294.44	.0041	-27.76	-.0000	234272.6	1.22	.00	.0025	127.55	.0027	-26.61	58.12
SET	42	1693.18	1704.43	29	19	27.0	105.00	.0041	-25.44	.0000	238551.1	1.80	3.38	-.0029	240.73	-.0022	-26.57	45.33
EXTM	51	1764.01	1775.26	29	20	37.8	359.78	.0042	-26.53	.0000	238866.8	1.45	89.19	.0009	166.07	.2567	-26.51	27.90
EXTM	61	1896.02	1907.27	29	22	49.8	.39	.0042	-27.72	.0000	254097.2	1.41	22.04	-.0000	180.37	.0040	-26.40	355.37
EXTM	72	1935.82	1947.07	29	23	29.6	.12	.0042	-26.93	.0000	253852.8	1.39	71.08	-.0000	180.33	.0115	-26.37	345.56
RISE	11	2076.62	2087.87	30	1	50.4	291.21	.0042	-27.14	-.0000	271379.5	1.03	.00	.0028	123.94	.0024	-26.27	310.80
SET	51	2124.31	2135.56	30	2	38.1	90.00	.0041	-25.72	.0000	274012.3	1.70	10.86	-.0034	246.54	-.0015	-26.23	299.02
SET	61	2150.64	2161.89	30	3	4.4	64.25	.0042	-27.18	.0000	277309.2	1.60	-.00	-.0025	233.25	.0027	-26.22	292.51
SET	72	2309.60	2320.85	30	5	43.4	93.87	.0041	-25.92	.0000	289718.6	1.69	-.00	-.0037	243.81	-.0005	-26.11	253.19
RISE	42	2310.88	2322.13	30	5	44.7	255.00	.0041	-25.34	-.0000	289461.3	.95	3.20	.0029	119.04	-.0023	-26.11	252.87
EXTM	11	2351.20	2362.45	30	6	25.0	.26	.0042	-27.19	.0000	289958.6	1.27	27.60	-.0000	180.26	.0042	-26.08	242.89
SET	11	2625.60	2636.85	30	10	59.4	69.24	.0042	-26.48	.0000	313191.0	1.51	-.00	-.0028	236.67	.0024	-25.92	174.91
EXTM	42	2730.09	2741.34	30	12	43.9	359.99	.0042	-25.67	.0000	314411.4	1.18	80.45	-.0000	.13	-.0105	-25.86	148.99
RISE	51	2860.70	2871.95	30	14	54.5	270.00	.0041	-25.16	-.0000	328547.7	.77	10.72	.0034	113.12	-.0015	-25.79	116.58
RISE	72	3014.43	3025.68	30	17	28.2	266.19	.0042	-25.58	-.0000	340303.0	.70	-.00	.0037	115.81	-.0005	-25.71	78.30
RISE	61	3087.51	3098.76	30	18	41.3	294.87	.0042	-26.43	-.0000	345154.7	.82	.00	.0026	125.67	.0027	-25.66	60.06
SET	42	3148.27	3159.52	30	19	42.1	105.00	.0041	-24.99	.0000	348836.6	1.43	2.98	-.0030	241.24	-.0023	-25.63	44.90
EXTM	51	3211.99	3223.24	30	20	45.8	358.68	.0042	-25.59	.0000	347042.6	1.09	88.80	.0038	83.34	-.0234	-25.60	28.98
EXTM	61	3345.89	3357.14	30	22	59.7	.22	.0042	-26.45	.0000	359621.3	1.10	23.31	-.0000	180.22	.0041	-25.52	355.53
EXTM	72	3385.52	3396.77	30	23	39.3	.05	.0042	-25.81	.0000	358711.8	1.10	72.09	.0000	180.15	.0116	-25.50	345.62
RISE	11	3519.31	3530.56	1	1	53.1	290.18	.0042	-26.05	-.0000	373587.2	.80	.00	.0029	122.52	.0024	-25.42	312.14
SET	51	3573.12	3584.37	1	2	44.9	90.00	.0042	-25.01	.0000	376082.9	1.54	10.58	-.0035	247.21	-.0015	-25.39	298.65
SET	61	3603.83	3615.08	1	3	17.6	65.55	.0042	-26.06	.0000	379405.7	1.48	.00	-.0026	234.86	.0027	-25.37	290.94
IMPACT		3692.71	3703.96	1	4	44.5												
IMPC	72	3692.71	3703.96	1	4	44.5	78.23	.0043	-25.24	.0001	385122.4	2.42	13.97	-.0039	245.86	-.0001	-25.27	268.46
IMPC	11	3692.71	3703.96	1	4	44.5	334.32	.0044	-26.06	.0000	384067.2	1.85	24.09	.0016	154.76	.0040	-25.27	268.46

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION		.00	11.25	28	15	13.806	6544.757	22.3188	306.9651	10.98889	.2127	108.6624	91.6858
SEPARATION		1.20	12.45	28	15	15.006	6571.321	19.9626	313.6264	10.96636	3.6361	111.1766	98.6479
RETRO		3.20	14.45	28	15	17.006	6718.053	15.5872	323.9978	10.84488	9.2041	114.5073	109.5207
IMPACT		3692.71	3703.96	1	4	44.518	386711.980	-25.2677	268.4591	2.18301	66.4718	287.3643	258.8849

SURVEYOR VIEW PERIODS

GHA	278.0008					EPS	-19.0831							LOM	263.0870
SX	-.173981	SY	-.887493	SZ	-.426716	DAO	-25.25935	RAO	258.90002	RM	387983.559	LAT	28.310600	LON	279.461800
C3	-1.058483	ECC	.982621	SLR	12975.591	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.152639	NSY	-.889894	NSZ	-.429873	C3M	1.4973	VIM	2.6714	ZAE	138.732	B.T	.0000	B.R	-.0000
LATE	2.9342	LONE	4.9352	LATS	1.1393	LONS	23.8986	LATI	-5.2358	LONI	324.4413	RSM	152.4531	TTAN	6.4793

LAUNCH DATE JUN 28,1966 BASE AZM 99.0 TF 61.616 ARRIVAL DATE JUL 1 1966 5 8 2.4

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99.00	15 15 51.9	28.1	21.16	306.60	3.28	94.66	110.79	15 27 6.9	6550.0	10.98	1.63

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	28	15	27.1												
SEPARATION		1.20	12.45	28	15	28.3												
RETRO		3.20	14.45	28	15	30.3												
RISE	72	4.72	15.97	28	15	31.8	80.95	-.2058	48.56	.0401	2846.4	-7.38	.00	.1249	319.19	.0676	10.37	329.96
EXTM	72	10.79	22.04	28	15	37.9	336.72	-.1426	14.37	-.1506	2203.9	4.91	57.91	-.0000	46.11	.3848	-2.27	351.49
RISE	51	11.14	22.39	28	15	38.3	76.87	-.0919	25.23	-.0355	5505.0	-3.05	.00	.0900	298.24	.0088	-2.87	352.48
EXTM	51	37.39	48.64	28	16	4.5	357.22	-.0169	-21.10	-.0085	10393.8	5.30	84.71	-.0000	29.34	.1938	-22.87	29.43
EXTM	72	68.79	80.04	28	16	35.9	290.58	.0001	-28.90	-.0008	23090.2	4.80	21.79	.0000	118.03	.0009	-27.42	40.32
RISE	61	125.06	136.31	28	17	32.2	308.79	.0021	-36.52	.0005	40042.7	3.83	-.00	.0014	141.21	.0011	-29.09	40.82
EXTM	51	221.08	232.33	28	19	8.2	.10	.0033	-29.71	.0001	54678.5	3.26	86.03	-.0000	181.27	.0401	-29.30	27.60
EXTM	61	396.88	408.13	28	22	4.0	3.71	.0038	-32.62	.0002	89728.1	2.65	17.06	.0000	183.27	.0034	-28.82	352.26
EXTM	72	429.43	440.68	28	22	36.5	.59	.0040	-30.16	.0001	90962.5	2.57	37.74	-.0000	181.34	.0091	-28.73	345.13
RISE	11	600.65	611.90	29	1	27.8	294.37	.0040	-30.32	.0000	121484.0	1.99	.00	.0026	128.16	.0023	-28.29	306.24
SET	51	624.60	635.85	29	1	51.7	90.00	.0038	-27.13	.0001	123466.3	2.58	11.42	-.0032	245.22	-.0013	-28.23	300.68
SET	61	637.54	648.79	29	2	4.7	60.26	.0039	-30.18	.0001	126453.7	2.46	-.00	-.0021	228.51	.0026	-28.20	297.66
SET	72	821.36	832.61	29	5	8.5	94.14	.0039	-27.48	.0001	149715.0	2.39	-.00	-.0035	242.24	-.0004	-27.83	254.25
RISE	42	831.51	842.76	29	5	18.6	254.99	.0040	-26.35	-.0000	150513.8	1.69	3.81	.0028	119.84	-.0021	-27.81	251.83
EXTM	11	871.97	883.22	29	5	59.1	1.03	.0041	-29.36	.0001	153092.8	1.96	24.92	-.0000	180.98	.0040	-27.74	242.16
SET	11	1140.13	1151.38	29	10	27.2	67.35	.0041	-28.62	.0001	185573.8	2.05	-.00	-.0026	234.10	.0024	-27.32	197.47
EXTM	42	1257.00	1268.25	29	12	24.1	359.94	.0042	-26.90	.0000	191439.5	1.69	81.68	.0000	.39	-.0242	-27.17	149.04
RISE	51	1392.55	1403.80	29	14	39.7	270.00	.0041	-26.34	-.0000	209831.4	1.25	11.11	.0034	114.04	-.0014	-27.01	115.94
RISE	72	1547.94	1559.19	29	17	15.0	266.01	.0041	-26.60	-.0000	225749.5	1.14	-.01	.0036	116.88	-.0005	-26.84	77.87
RISE	61	1629.14	1640.39	29	[illegible]	56.3	296.62	.0041	-27.90	-.0000	233167.5	1.23	.00	.0025	127.81	.0027	-26.75	57.93
SET	42	1680.39	1691.64	29	19	27.5	105.00	.0041	-25.77	.0000	237379.3	1.81	3.46	-.0029	240.62	-.0022	-26.71	45.33
EXTM	51	1751.05	1762.30	29	20	38.2	359.73	.0042	-26.66	.0000	237706.7	1.45	89.04	.0010	165.34	.2177	-26.64	27.95
EXTM	61	1883.39	1894.64	29	22	50.5	.41	.0042	-27.85	.0000	253605.3	1.41	21.91	-.0000	180.39	.0040	-26.52	355.35
EXTM	72	1923.12	1934.37	29	23	30.2	.13	.0042	-26.95	.0000	252753.7	1.39	70.95	-.0000	180.35	.0114	-26.49	345.55
RISE	11	2064.34	2075.59	30	1	51.5	291.32	.0042	-27.26	-.0000	270335.8	1.04	.00	.0028	124.09	.0024	-26.38	310.69
SET	51	2111.56	2122.81	30	2	38.7	90.00	.0041	-25.82	.0000	272933.7	1.71	10.90	-.0034	246.45	-.0015	-26.34	299.02
SET	61	2137.38	2148.63	30	3	4.5	64.12	.0042	-27.29	.0000	276199.0	1.60	-.00	-.0025	233.10	.0027	-26.32	292.64
SET	72	2296.93	2308.18	30	5	44.0	93.89	.0041	-26.92	.0001	288677.7	1.69	-.00	-.0037	243.71	-.0005	-26.20	253.18
RISE	42	2298.18	2309.43	30	5	45.3	255.00	.0041	-26.43	-.0000	288413.0	.95	3.25	.0029	119.11	-.0023	-26.20	252.87
EXTM	11	2338.56	2349.81	30	6	25.7	.28	.0042	-27.28	.0000	288935.1	1.27	27.51	-.0000	180.28	.0042	-26.17	242.88
SET	11	2612.59	2623.84	30	10	59.7	69.16	.0042	-26.75	.0000	312163.3	1.51	-.00	-.0028	236.57	.0024	-26.00	174.98
EXTM	42	2717.35	2728.60	30	12	44.5	359.98	.0042	-25.74	.0000	313412.8	1.18	80.53	-.0000	.16	-.0167	-25.93	149.00
RISE	51	2848.02	2859.27	30	14	55.1	270.00	.0041	-25.43	-.0000	327563.5	.77	10.74	.0034	113.18	-.0015	-25.86	116.58
RISE	72	3001.85	3013.10	30	17	29.0	266.18	.0042	-25.60	-.0000	339351.8	.70	-.00	.0037	115.87	-.0005	-25.76	78.31
RISE	61	3075.22	3086.47	30	18	42.3	294.94	.0042	-26.49	-.0000	344218.8	.82	.00	.0026	125.75	.0027	-25.72	60.00
SET	42	3135.68	3146.93	30	19	42.8	105.00	.0041	-25.05	.0000	347873.0	1.43	3.01	-.0030	241.20	-.0023	-25.68	44.90
EXTM	51	3199.40	3210.65	30	20	46.5	358.68	.0042	-25.65	.0000	346077.8	1.09	88.80	.0038	85.82	-.0156	-25.66	28.98
EXTM	61	3333.33	3344.58	30	23	.4	.23	.0042	-26.50	.0000	358644.6	1.09	23.26	-.0000	180.23	.0041	-25.57	355.52
EXTM	72	3372.93	3384.18	30	23	40.0	.05	.0042	-25.86	.0000	357721.7	1.09	72.05	.0000	180.16	.0117	-25.55	349.62
RISE	11	3506.89	3518.14	1	1	54.0	290.22	.0042	-26.10	-.0000	372559.4	.79	.00	.0029	122.57	.0024	-25.46	312.10
SET	51	3560.53	3571.78	1	2	47.6	90.00	.0042	-25.05	.0000	375002.5	1.52	10.59	-.0035	247.17	-.0015	-25.43	298.65
SET	61	3591.06	3602.31	1	3	18.2	65.50	.0042	-26.10	.0000	378278.3	1.46	.00	-.0026	234.80	.0027	-25.41	290.99
IMPACT		3696.94	3708.19	1	5	4.1												
IMPC	42	3696.94	3708.19	1	5	4.1	243.98	.0043	-24.46	.0000	387249.0	1.68	-4.88	.0029	124.95	-.0027	-25.29	264.24
IMPC	72	3696.94	3708.19	1	5	4.1	82.46	.0043	-25.23	.0001	385584.2	2.42	10.15	-.0039	245.65	-.0002	-25.29	264.24
IMPC	11	3696.94	3708.19	1	5	4.1	338.60	.0044	-26.10	.0000	383978.9	1.86	25.44	.0013	158.73	.0041	-25.29	264.24

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	28	15	27.115	6550.009	21.1582	306.6025	10.98425	1.6277	110.7952	94.6596
SEPARATION		1.20	12.45	28	15	28.315	6595.920	18.5859	313.0804	10.94555	5.0351	113.1024	101.4384
RETRO		3.20	14.45	28	15	30.315	6773.144	13.9543	323.0943	10.80012	10.5364	116.0585	111.9536
IMPACT		3696.94	3708.19	1	5	4.054	386758.875	-25.2930	264.2364	2.18031	66.1983	287.5364	259.0581

SURVEYOR VIEW PERIODS

GHA 278.6008 EPS -18.9508 LOM 259.1935
SX -.171485 SY -.887800 SZ -.427076 DAO -25.28214 RAO 259.06762 RM 388022.594 LAT 28.310600 LON 279.461800
C3 -1.043461 ECC .982539 SLR 12975.056 RCA 6544.6450 LTA -20.0000 GTA 20.00 TB 675.0000 POL -.0
NSX -.150083 NSY -.890157 NSZ -.430227 C3M 1.4373 VIM 2.6714 ZAE 138.555 B.T .0000 B.R -.0000
DATE 2.9495 LONF 4.9322 LATS 1.1396 LONS 23.7617 LATI -5.4776 LONI 324.3052 RSM 152.4734 TTAN 6.4814
LAUNCH DATE JUN 28,1966 BASE AZM 102.0 TF 61.705 ARRIVAL DATE JUL 1 1966 5 24 12.3

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
102.00	15 26 18.6	28.1	20.02	306.15	5.49	96.83	112.90	15 37 33.6	6559.6	10.98	2.72

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	28	15	37.6												
SEPARATION	1.20	12.45	28	15	38.8												
RETRO	3.20	14.45	28	15	40.8												
RISE 72	4.51	15.76	28	15	42.1	82.55	-.1819	43.06	.0193	2917.1	-7.55	.00	.1269	313.58	.0440	9.14	327.90
EXTM 72	10.69	21.94	28	15	48.3	345.68	-.1597	8.24	-.1416	2139.1	4.72	68.45	-.0000	41.81	.5779	-3.89	349.25
RISE 51	11.09	22.34	28	15	48.7	78.93	-.0857	21.71	-.0381	5644.5	-2.87	.00	.0882	294.25	.0036	-4.58	350.36
EXTM 51	36.56	47.81	28	16	14.1	2.28	-.0186	-22.90	-.0084	10240.3	5.24	86.48	.0168	323.37	.1464	-23.99	26.27
EXTM 72	69.87	81.12	28	16	47.4	293.34	.0001	-30.50	-.0006	23294.9	4.77	24.07	.0000	119.94	.0007	-28.58	37.92
RISE 61	119.50	130.75	28	17	37.1	310.81	.0019	-37.68	.0006	38795.3	3.89	-.00	.0013	143.20	.0009	-29.90	38.74
EXTM 51	207.20	218.45	28	19	4.8	.17	.0031	-30.51	.0001	52012.5	3.33	85.22	-.0000	181.77	.0323	-29.99	27.53
EXTM 61	387.20	398.45	28	22	4.8	4.05	.0038	-33.21	.0002	88291.4	2.68	16.46	.0000	183.54	.0033	-29.34	351.92
EXTM 72	418.97	430.22	28	22	36.5	.70	.0040	-30.71	.0001	89408.3	2.60	67.18	-.0000	181.56	.0088	-29.22	345.02
RISE 11	592.25	603.50	29	1	29.8	294.81	.0040	-30.74	.0000	120365.4	2.00	.00	.0025	128.72	.0023	-28.68	305.78
SET 51	614.03	625.28	29	1	51.6	90.00	.0038	-27.52	.0001	122055.7	2.59	11.57	-.0032	244.86	-.0013	-28.62	300.72
SET 61	624.66	635.91	29	2	2.2	59.69	.0039	-30.81	.0002	124758.2	2.47	-.00	-.0021	227.86	.0026	-28.59	298.25
SET 72	811.33	822.58	29	5	8.9	94.20	.0039	-27.79	.0001	148515.5	2.40	-.00	-.0034	241.92	-.0004	-28.15	254.22
RISE 42	821.48	832.73	29	5	19.0	254.99	.0040	-26.66	-.0000	149297.4	1.70	4.00	.0028	120.08	-.0021	-28.13	251.81
EXTM 11	862.27	873.52	29	5	59.8	1.13	.0041	-30.19	.0001	151978.4	1.97	24.60	-.0000	181.07	.0039	-28.04	242.06
SET 11	1129.04	1140.29	29	10	26.6	67.10	.0041	-28.88	.0001	184389.3	2.06	-.00	-.0026	233.76	.0024	-27.57	177.74
EXTM 42	1247.02	1258.27	29	12	24.6	359.93	.0042	-27.13	.0000	190401.8	1.69	81.91	.0000	.43	-.0253	-27.39	149.04
RISE 51	1382.66	1393.91	29	14	40.2	270.00	.0041	-26.54	-.0000	208830.1	1.25	11.19	.0034	114.23	-.0014	-27.21	115.93
RISE 72	1537.93	1549.18	29	17	15.5	265.98	.0041	-26.78	-.0000	224777.3	1.14	-.01	.0036	117.06	-.0005	-27.02	77.89
RISE 61	1620.11	1631.36	29	18	37.7	296.84	.0041	-28.88	-.0000	232297.4	1.23	.00	.0025	128.07	.0027	-26.92	57.71
SET 42	1670.45	1681.70	29	19	28.0	105.00	.0041	-25.93	.0001	236424.5	1.81	3.56	-.0029	240.50	-.0022	-26.87	45.34
EXTM 51	1739.32	1750.57	29	20	36.9	359.27	.0042	-26.83	.0000	236616.8	1.45	88.73	.0020	148.96	.1444	-26.80	28.40
EXTM 61	1873.62	1884.87	29	22	51.2	.45	.0042	-28.00	.0000	252118.7	1.41	21.76	-.0000	180.42	.0040	-26.66	355.31
EXTM 72	1913.25	1924.50	29	23	30.8	.14	.0042	-27.09	.0000	251854.1	1.40	70.81	-.0000	180.37	.0113	-26.63	345.54
RISE 11	2054.97	2066.22	30	1	52.5	291.44	.0042	-27.38	-.0000	269484.9	1.04	.00	.0028	124.26	.0024	-26.50	310.56
SET 51	2101.44	2112.89	30	2	39.2	90.00	.0041	-25.94	.0000	272038.4	1.71	10.95	-.0034	246.33	-.0015	-26.46	299.03
SET 61	2124.88	2136.13	30	3	4.4	63.98	.0042	-27.41	.0000	275264.4	1.61	-.00	-.0025	232.92	.0027	-26.44	292.79
SET 72	2287.09	2298.34	30	5	44.7	93.90	.0041	-26.12	.0001	287808.5	1.69	-.00	-.0037	243.61	-.0005	-26.31	253.17
RISE 42	2288.31	2299.56	30	5	45.9	255.00	.0041	-25.54	-.0000	287534.2	.96	3.32	.0029	119.19	-.0023	-26.31	252.86
EXTM 11	2328.75	2340.00	30	6	26.3	.30	.0042	-27.39	.0000	288082.1	1.27	27.40	-.0000	180.30	.0042	-26.28	242.85
SET 11	2602.36	2613.61	30	10	59.9	69.08	.0042	-26.84	.0000	311283.1	1.51	-.00	-.0028	236.45	.0024	-26.08	175.07
EXTM 42	2707.41	2718.66	30	12	45.0	359.97	.0042	-25.82	.0000	312557.1	1.18	80.60	.0000	.22	-.0197	-26.01	149.01
RISE 51	2838.14	2849.39	30	14	55.7	270.00	.0041	-25.49	-.0000	326714.4	.77	10.77	.0034	113.25	-.0015	-25.93	116.57
RISE 72	2991.93	3003.18	30	17	29.5	266.17	.0042	-25.46	-.0000	338504.1	.70	-.00	.0037	115.93	-.0005	-25.82	78.32
RISE 61	3065.61	3076.87	30	18	43.2	295.01	.0042	-26.95	-.0000	343385.3	.82	.00	.0026	125.84	.0027	-25.78	59.92
SET 42	3125.79	3137.04	30	19	43.3	105.00	.0041	-25.10	.0000	3470.).3	1.43	3.05	-.0030	241.16	-.0023	-25.74	44.90
EXTM 51	3189.51	3200.76	30	20	47.1	358.67	.0042	-25.70	.0000	345210.6	1.09	88.80	.0038	88.38	-.0075	-25.70	28.99
EXTM 61	3323.52	3334.77	30	23	1.1	.25	.0042	-26.55	.0000	357767.9	1.09	23.21	-.0000	180.24	.0041	-25.62	355.51
EXTM 72	3363.08	3374.33	30	23	40.6	.05	.0042	-25.90	.0000	356831.8	1.09	72.00	.0000	180.16	.0119	-25.59	345.62
RISE 11	3497.22	3508.47	*	1	94.8	290.26	.0042	-26.14	-.0000	371638.2	.79	.00	.0029	122.63	.0024	-25.51	312.06
SET 51	3550.70	3561.95	1	2	48.3	90.00	.0042	-25.09	.0000	374037.9	1.51	10.61	-.0035	247.13	-.0015	-25.47	298.66
SET 61	3581.07	3592.32	1	3	18.6	65.46	.0042	-26.14	.0000	377277.1	1.44	.00	-.0026	234.74	.0027	-25.45	291.04
IMPACT	3702.29	3713.54	1	5	19.8												
IMPC 42	3702.29	3713.54	1	5	19.8	247.76	.0043	-24.70	.0000	387001.0	1.66	-2.29	.0029	122.69	-.0026	-25.32	260.43
IMPC 72	3702.29	3713.54	1	5	19.8	86.27	.0043	-25.23	.0001	386001.8	2.42	6.71	-.0039	245.36	-.0003	-25.32	260.43
IMPC 11	3702.29	3713.54	1	5	19.8	342.46	.0044	-26.13	.0000	383917.8	1.88	26.46	.0011	162.41	.0042	-25.32	260.43

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION	.00	11.25	28	15	37.559	6559.650	20.0210	306.1631	10.97595	2.7189	112.9064	96.8385
SEPARATION	1.20	12.45	28	15	38.759	6620.294	17.2436	312.4508	10.92497	6.1086	115.0140	103.4262
RETRO	3.20	14.45	28	15	40.759	6820.542	12.3609	322.1288	10.76195	11.9504	117.6237	113.6064
IMPACT	3702.29	3713.54	1	5	19.849	386799.063	-25.3159	260.4323	2.17796	66.0706	287.9365	259.2137

SURVEYOR VIEW PERIODS

GHA 278.4668 EPS -18.8280 LOM 255.5787
SX -.169166 SY -.888091 SZ -.427408 DAO -25.30415 RAO 259.21530 RM 388058.824 LAT 28.310600 LON 279.461800
C3 -1.049891 ECC .982433 SLR 12974.365 RCA 6544.6450 LTA -20.0000 GTA 20.00 TB 675.00000 POL -.0
NSX -.147694 NSY -.890397 NSZ -.430559 C3M 1.4971 VIM 2.6714 ZAE 138.330 B.T .0000 B.R -.0000
LATE 2.9637 LONE 4.9293 LATS 1.1399 LONS 23.6344 LATI -5.7605 LONI 324.1301 RSM 152.4538 TTAN 6.4824
LAUNCH DATE JUN 28.1966 BASE AZM 105.0 TF 61.816 ARRIVAL DATE JUL 1 1966 5 39 13.0

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPTH
105.00	15 34 36.7	28.1	18.91	305.65	7.20	98.40	115.00	15 45 50.7	6370.3	10.97	3.57

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	28	15	46.8												
SEPARATION		1.20	12.45	28	15	47.0												
RETRO		3.20	14.45	28	15	49.0												
RISE	72	4.37	15.62	28	15	50.2	83.77	-.1646	38.02	-.0000	2979.7	-7.61	-.0	.1677	308.45	.0226	7.82	326.12
EXTM	72	10.68	21.93	28	15	56.5	353.26	-.1691	.97	-.1291	2134.5	4.64	78.95	-.0050	37.77	1.1098	-5.72	347.37
RISE	51	11.08	22.33	28	15	56.9	80.82	-.0805	18.30	-.0406	5763.4	-2.69	.00	.0866	290.40	-.0011	-6.41	349.45
EXTM	51	41.79	53.04	28	16	27.6	.72	-.0139	-27.34	-.0050	11977.2	5.20	88.27	.0000	201.70	-.4424	-26.79	27.22
EXTM	72	70.96	82.21	28	16	56.8	295.54	.0001	-32.22	-.0004	23536.3	4.73	25.76	.0000	122.05	.0004	-29.90	35.99
EXTM	51	93.69	104.94	28	17	19.5	347.66	.0001	-31.49	-.0002	26737.7	4.29	77.66	.0000	121.65	.0012	-30.64	37.55
RISE	61	119.24	130.49	28	17	45.1	312.90	.0019	-38.41	.0006	38801.1	3.89	-.00	.0013	145.19	.0005	-30.92	36.79
EXTM	51	196.39	207.64	28	19	2.2	.32	.0030	-31.48	.0001	49895.3	3.39	84.25	-.0000	182.70	.0257	-30.83	27.41
EXTM	61	381.29	392.54	28	22	7.1	4.69	.0038	-33.85	.0002	87441.8	2.69	15.79	.0000	184.04	.0033	-29.93	351.36
EXTM	72	411.29	422.54	28	22	37.1	.90	.0040	-31.84	.0001	88262.9	2.61	66.55	-.0000	181.93	.0085	-29.79	344.84
RISE	11	586.43	597.68	29	1	32.3	295.31	.0040	-31.21	.0000	119580.2	2.01	.00	.0025	129.37	.0023	-29.13	305.26
SET	51	605.83	617.08	29	1	51.7	90.00	.0038	-27.96	.0001	120936.4	2.00	11.75	-.0031	244.45	-.0012	-29.07	300.76
SET	61	613.74	624.99	29	1	59.6	59.04	.0039	-31.30	.0002	123297.9	2.48	-.00	-.0021	227.12	.0026	-29.04	298.93
SET	72	803.63	814.88	29	5	9.5	94.27	.0039	-28.15	.0001	147574.1	2.41	-.01	-.0034	241.55	-.0004	-28.51	254.19
RISE	42	813.71	824.96	29	5	19.6	254.99	.0040	-27.01	-.0000	148327.6	1.70	4.21	.0028	120.36	-.0021	-28.49	251.78
EXTM	11	854.89	866.14	29	6	.7	1.24	.0041	-30.45	.0001	151129.5	1.97	24.23	-.0000	181.18	.0039	-28.39	241.95
SET	11	1120.04	1131.29	29	10	25.9	66.80	.0041	-29.17	.0001	183398.6	2.06	-.00	-.0026	233.38	.0024	-27.85	178.04
EXTM	42	1239.33	1250.58	29	12	25.2	359.95	.0042	-27.19	.0000	189569.2	1.69	82.17	-.0000	.36	-.0092	-27.64	149.03
RISE	51	1374.97	1386.22	29	14	40.8	270.00	.0041	-26.77	-.0000	208011.3	1.25	11.28	.0034	114.44	-.0024	-27.43	115.92
RISE	72	1530.10	1541.35	29	17	15.9	265.94	.0041	-26.98	-.0000	223973.9	1.14	-.01	.0036	117.26	-.0005	-27.22	77.92
RISE	61	1613.37	1624.62	29	18	39.2	297.08	.0041	-28.27	-.0000	231601.2	1.23	.00	.0025	128.36	.0027	-27.11	57.47
SET	42	1662.70	1673.95	29	19	28.5	105.00	.0041	-26.12	.0001	235628.6	1.81	3.67	-.0029	240.35	-.0022	-27.05	45.35
EXTM	51	1730.76	1742.01	29	20	36.6	359.06	.0042	-27.01	.0000	235769.0	1.45	88.48	.0021	146.50	.1167	-26.97	28.60
EXTM	61	1866.05	1877.30	29	22	51.9	.48	.0042	-28.16	.0000	251381.2	1.41	21.80	.0000	180.46	.0040	-26.82	355.28
EXTM	72	1905.57	1916.82	29	23	31.4	.15	.0042	-27.25	.0000	251098.3	1.40	70.65	-.0000	180.39	.0112	-26.78	345.53
RISE	11	2047.81	2059.06	30	1	53.7	291.58	.0042	-27.53	-.0000	268771.7	1.04	.00	.0028	124.45	.0024	-26.64	310.42
SET	51	2093.89	2105.14	30	2	39.7	90.00	.0041	-26.08	.0001	271272.7	1.71	11.00	-.0034	246.21	-.0014	-26.60	299.03
SET	61	2118.47	2129.72	30	3	4.3	63.81	.0042	-27.54	.0001	274452.8	1.61	-.00	-.0025	232.71	.0027	-26.57	292.96
SET	72	2279.42	2290.67	30	5	45.3	93.92	.0041	-26.24	.0001	287058.5	1.69	-.00	-.0037	243.49	-.0005	-26.43	253.15
RISE	42	2280.59	2291.84	30	5	46.4	255.00	.0041	-25.65	-.0000	286772.9	.96	3.39	.0029	119.28	-.0023	-26.45	252.86
EXTM	11	2321.12	2332.37	30	6	27.0	.33	.0042	-27.51	.0000	287347.1	1.27	27.28	-.0000	180.33	.0042	-26.39	242.83
SET	11	2594.24	2605.49	30	11	.1	58.99	.0042	-26.94	.0000	310500.6	1.51	-.00	-.0028	236.33	.0024	-26.17	175.16
EXTM	42	2699.61	2710.86	30	12	45.5	319.95	.0042	-25.91	.0000	311794.7	1.18	80.69	.0000	.28	-.0214	-26.09	149.03
RISE	51	2830.41	2841.66	30	14	56.3	27.00	.0041	-25.57	-.0000	325951.6	.77	10.80	.0034	113.32	-.0015	-26.00	116.57
RISE	72	2984.29	2995.54	30	17	30.1	264.16	.0042	-25.73	-.0000	337762.2	.70	-.00	.0037	116.00	-.0005	-25.89	78.32
RISE	61	3058.30	3069.55	30	18	44.1	295.09	.0042	-26.61	-.0000	342655.9	.81	.00	.0026	125.93	.0027	-25.84	59.85
SET	42	3118.14	3129.39	30	19	44.0	105.00	.0041	-25.16	.0000	346247.2	1.43	3.08	-.0030	241.11	-.0023	-25.80	44.90
EXTM	51	3181.86	3193.11	30	20	47.7	358.67	.0042	-25.76	.0000	344442.0	1.08	88.80	.0038	91.12	.0012	-25.76	28.99
EXTM	61	3315.91	3327.16	30	23	1.8	.26	.0042	-26.80	.0000	356982.9	1.09	23.16	-.0000	180.29	.0041	-25.67	355.49
EXTM	72	3355.43	3366.68	30	23	41.3	.06	.0043	-25.95	.0000	356031.2	1.09	71.95	.0000	180.18	.0116	-25.64	345.61
RISE	11	3489.72	3500.97	1	1	55.6	270.30	.0042	-26.18	-.0000	370801.7	.78	.00	.0029	122.69	.0024	-25.55	312.01
SET	51	3543.03	3554.28	1	2	48.9	90.00	.0042	-25.13	.0000	373158.7	1.50	10.63	-.0035	247.10	-.0015	-25.51	298.66
SET	61	3573.72	3584.47	1	3	19.1	65.41	.0042	-26.19	.0000	376364.1	1.42	.00	-.0026	234.68	.0027	-25.49	291.09
IMPACT		3708.99	3720.24	1	5	34.8												
IMPC	42	3708.99	3720.24	1	5	34.8	251.35	.0043	-24.74	.0000	386762.1	1.65	.23	.0030	126.63	-.0025	-25.34	256.82
IMPC	72	3708.99	3720.24	1	5	34.8	89.88	.0043	-25.22	.0001	386402.7	2.41	3.47	-.0039	245.00	-.0004	-25.34	256.82
IMPC	11	3708.99	3720.24	1	5	34.8	346.12	.0044	-26.16	.0000	383891.8	1.89	27.25	.0009	165.99	.0043	-25.34	256.82

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPTH	AZ	RT ASC
INJECTION		.00	11.25	28	15	46.845	6370.608	18.9058	305.6651	10.96661	3.5677	115.0054	98.4177
SEPARATION		1.20	12.45	28	15	47.045	6642.509	19.9314	311.7586	10.90623	6.9400	115.9225	104.8121
RETRO		3.20	14.45	28	15	49.045	6860.351	18.7986	321.1239	10.73010	12.3311	119.2108	114.6787
IMPACT		3708.99	3720.24	1	5	34.832	386840.664	-25.3375	256.8246	2.17452	65.7453	288.2783	259.3619

SURVEYOR VIEW PERIODS

GMA	278.6008					E*S	-18.7111							LOM	252.1340
SX	-.166957	SY	-.886458	SZ	-.427721	DAO	-25.32403	RAO	259.35602	RM	388093.355	LAT	28.310600	LON	279.461800
C3	-1.077385	ECC	.982310	SLR	12973.563	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.145399	NSY	-.896821	NSZ	-.430876	C3M	1.4970	VIM	2.6714	ZAE	138.067	B.T	.0000	B.R	-.0000
LATE	2.9771	LONE	5.0475	LATS	1.1401	LONS	23.6441	LATI	+6.0692	LONI	324.0530	RSM	192.4541	TTAN	6.4825
LAUNCH DATE	JUN 28.1966			BASE AZM	108.0		TF 6*.946				ARRIVAL DATE	JUL 1 1966	5 53 31.0		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	15 41 16.1	28.1	17.83	305.09	8.75	99.51	117.09	15 52 31.1	6580.9	10.96	4.24

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PRORE IN SUNLIGHT											
INJECTION		.00	11.25	28	15	52.5												
SEPARATION		1.20	12.45	28	15	53.7												
RETRO		3.20	14.45	28	15	55.7												
RISE	72	4.28	15.53	28	15	56.8	84.77	-.1512	33.29	-.0182	3036.6	-7.57	.00	.1277	303.65	.0029	6.42	324.57
EXTM	72	10.50	21.75	28	16	3.0	2.20	-.1824	-5.47	-.1232	2122.5	4.26	86.65	.2119	319.03	.9816	-7.27	345.12
RISE	51	11.10	22.35	28	16	3.6	82.60	-.0760	14.96	-.0431	5868.8	-2.52	.00	.0850	286.66	-.0055	-8.32	346.71
EXTM	51	44.16	55.41	28	16	36.7	1.72	-.0127	-30.40	-.0037	12799.0	5.14	85.10	-.0000	197.67	-.1353	-28.85	26.55
EXTM	72	71.70	82.95	28	17	4.2	297.30	.0000	-34.02	-.0001	23704.2	4.71	26.97	.0000	124.27	.0001	-31.32	34.39
EXTM	51	94.25	105.50	28	17	26.8	349.65	.0001	-33.26	-.0001	26929.2	4.27	78.27	.0000	132.32	.0004	-31.89	35.94
RISE	61	122.89	134.14	28	17	55.4	314.97	.0019	-39.87	.0007	39732.2	3.84	-.00	.0014	147.11	.0009	-32.05	34.99
EXTM	51	188.29	199.54	28	19	.8	.56	.0029	-32.57	.0002	48290.9	3.43	83.15	-.0000	183.95	.0206	-31.78	27.20
EXTM	61	376.94	388.19	28	22	8.5	5.23	.0038	-34.54	.0002	86832.7	2.70	15.07	.0000	184.46	.0033	-30.57	350.85
EXTM	72	405.16	416.41	28	22	37.7	1.01	.0039	-32.02	.0001	87344.9	2.62	65.86	.0000	182.10	.0082	-30.42	344.74
RISE	11	582.61	593.86	29	1	35.1	255.87	.0040	-31.73	.0000	119053.9	2.01	.00	.0025	130.06	.0023	-29.62	304.69
SET	51	599.43	610.68	29	1	51.9	90.00	.0038	-28.45	.0001	120043.7	2.61	11.94	-.0031	243.99	-.0012	-29.56	300.80
SET	61	604.29	615.54	29	1	56.8	58.31	.0039	-31.83	.0002	122016.2	2.49	-.00	-.0020	226.30	.0026	-29.54	299.67
SET	72	797.71	808.96	29	5	10 2	94.34	.0039	-28.55	.0001	146831.8	2.41	-.01	-.0034	241.15	-.0004	-28.91	254.14
RISE	42	807.68	818.93	29	5	20.2	254.99	.0040	-27.40	-.0000	147 7.9	1.71	4.45	.0028	120.67	-.0021	-28.88	251.77
EXTM	11	849.29	860.54	29	6	1.8	1.37	.0041	-30.95	.0001	15 77.5	1.98	25.83	.0000	181.28	.0039	-28.77	241.83
SET	11	1112.62	1123.87	29	10	25.1	66.49	.0041	-29.39	.0001	182556.6	2.06	-.00	-.0026	232.96	.0024	-28.15	178.36
EXTM	42	1233.18	1244.43	29	12	25.7	359.93	.0042	-27.67	.0000	188872.4	1.69	82.45	.0000	.51	-.0272	-27.92	149.05
RISE	51	1368.95	1380.20	29	14	41.5	270.00	.0041	-27.92	-.0000	207332.5	1.26	11.37	.0034	114.67	-.0014	-27.68	115.91
RISE	72	1523.91	1535.16	29	17	14.4	265.90	.0041	-27.20	-.0000	223299.6	1.14	-.01	.0036	117.48	-.0005	-27.44	77.95
RISE	61	1608.37	1619.62	29	18	40.9	297.34	.0041	-28.49	-.0000	231037.9	1.23	.00	.0029	128.67	.0027	-27.32	57.21
SET	42	1656.60	1667.85	29	19	29.1	105.00	.0041	-26.31	.0001	234954.4	1.81	3.79	-.0029	240.20	-.0022	-27.25	45.35
EXTM	51	1723.67	1734.92	29	20	36.2	358.80	.0042	-27.20	.0000	235024.3	1.45	88.18	.0022	144.02	.0946	-27.17	28.85
EXTM	61	1860.13	1871.38	29	22	52.6	.53	.0042	-28.34	.0000	250757.5	1.41	21.42	.0000	180.50	.0040	-27.00	355.24
EXTM	72	1899.53	1910.78	29	23	32.0	.16	.0042	-27.43	.0000	250452.6	1.40	70.48	-.0000	180.42	.0112	-26.95	345.52
RISE	11	2042.33	2053.58	30	1	54.8	291.73	.0042	-27.68	-.0000	268163.9	1.04	.00	.0028	124.65	.0024	-26.79	340.27
SET	51	2087.77	2099.02	30	2	40.3	90.00	.0041	-26.22	.0001	270606.2	1.71	11.06	-.0034	246.07	-.0014	-26.74	299.04
SET	61	2111.64	2122.89	30	3	4.2	63.63	.0042	-27.69	.0001	273735.5	1.60	-.00	-.0025	232.50	.0027	-26.72	293.14
SET	72	2273.38	2284.63	30	5	45.9	93.95	.0041	-26.37	.0001	286400.0	1.69	-.00	-.0036	243.36	-.0005	-26.56	253.13
RISE	42	2274.50	2285.75	30	5	47.0	255.00	.0041	-25.78	-.0000	286101.6	.96	3.46	.0029	119.38	-.0023	-26.55	252.86
EXTM	11	2315.12	2326.37	30	6	27.6	.36	.0042	-27.44	.0000	286702.7	1.27	27.15	-.0000	180.35	.0042	-26.52	242.80
SET	11	2587.71	2598.96	30	11	.2	68.89	.0042	-27.04	.0000	309793.0	1.51	-.00	-.0028	236.19	.0024	-26.27	175.26
EXTM	42	2693.42	2704.67	30	12	45.9	359.94	.0042	-26.00	.0000	311104.2	1.18	80.78	.0000	.36	-.0224	-26.19	149.04
RISE	51	2824.28	2835.53	30	14	56.8	270.00	.0041	-25.65	-.0000	325255.3	.77	10.83	.0034	113.39	-.0015	-26.08	116.57
RISE	72	2978.10	2989.35	30	17	30.6	266.15	.0042	-25.80	-.0000	337055.4	.69	-.00	.0037	116.07	-.0006	-25.96	78.33
RISE	61	3052.47	3063.72	30	18	45.0	295.16	.0042	-26.68	-.0000	341960.9	.81	.00	.0026	126.03	.0027	-25.91	59.77
SET	42	3111.99	3123.24	30	19	44.5	105.00	.0041	-25.22	.0000	345516.6	1.42	3.12	-.0030	241.06	-.0023	-25.86	44.91
EXTM	51	3175.71	3186.96	30	20	48.2	358.67	.0042	-25.42	.0000	343704.5	1.08	88.80	.0038	93.95	.0102	-25.81	28.99
EXTM	61	3309.84	3321.09	30	23	2.4	.28	.0042	-26.65	.0000	356228.7	1.08	23.11	-.0000	180.27	.0041	-25.72	355.48
EXTM	72	3349.50	3360.75	30	23	42.0	.11	.0043	-26.10	.0000	355273.1	1.08	71.90	-.0000	180.32	.0121	-25.69	345.56
RISE	11	3483.78	3495.03	1	1	56.3	290.34	.0042	-26.23	-.0000	369998.4	.77	.00	.0029	122.74	.0024	-25.59	311.97
SET	51	3536.92	3548.17	1	2	49.4	90.00	.0042	-25.17	.0000	372316.1	1.49	10.64	-.0035	247.06	-.0015	-25.55	298.66
SET	61	3566.92	3578.17	1	3	19.4	65.36	.0042	-26.23	.0000	375490.1	1.41	.00	-.0026	234.62	.0027	-25.53	291.14
IMPACT		3716.75	3728.00	1	5	49.3												
IMPC	42	3716.75	3728.00	1	5	49.3	254.81	.0043	-24.78	.0000	386524.3	1.64	2.72	.0031	118.70	-.0024	-25.36	253.35
IMPC	72	3716.75	3728.00	1	5	49.3	93.36	.0043	-25.22	.0001	386787.0	2.41	.35	-.0039	244.57	-.0005	-25.36	253.35
IMPC	11	3716.75	3728.00	1	5	49.3	349.65	.0044	-26.18	.0000	383862.4	1.91	27.83	.0007	169.50	.0044	-25.36	253.35

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	A7	RT ASC
INJECTION		.00	11.25	28	15	52.519	6581.449	17.8122	305.1180	10.95740	4.2366	117.0974	99.5435
SEPARATION		1.20	12.45	28	15	53.719	6662.035	14.6469	311.0193	10.88975	7.5932	118.8340	105.7456
RETRO		3.20	14.45	28	15	55.719	6893.541	9.2639	320.0887	10.70364	12.9416	120.8232	115.3165
IMPACT		3716.75	3728.00	1	5	49.268	386878.648	+25.3584	253.3480	2.17134	65.5541	288.7879	259.5043

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SURVEYOR VIEW PERIODS

GHA 278.6008 EPS -18.5960 LOM 248.7403
SX -.164780 SY -.888417 SZ -.428028 DAO -25.34247 RAO 259.49470 RM 388127.395 LAT 28.310600 LON 279.461800
C3 -1.085946 ECC .982170 SLR 12972.041 RCA 6544.6650 LTA -20.0000 GTA 20.00 TB 675.00000 POL -.0
NSX -.143124 NSY -.890838 NSZ -.431189 C3M 1.4969 VIM 2.6714 ZAE 137.767 B.T .0000 B.R -.0000
LATE 2.9904 LONE 4.9240 LATS 1.1404 LONS 23.3940 LATI -6.3936 LONI 323.6810 RSM 152.4544 TTAN 6.4820
LAUNCH DATE JUN 28,1966 BASE AZM 111.0 TF 62.093 ARR.VAL DATE JUL 1 1966 6 7 36.5

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPTH
111.00	15 46 45.2	28.1	16.76	304.49	9.63	100.29	119.18	15 58 .2	6590.7	10.95	4.77

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN SUNLIGHT														
INJECTION	.00	11.25	28	15	58.0												
SEPARATION	1.20	12.45	28	15	59.2												
RETRO	3.20	14.45	28	16	1.2												
RISE 72	4.23	15.48	28	16	2.2	85.62	-.1401	28.77	-.0352	3091.8	-7.44	.01	.1268	299.07	-.0155	4.94	323.17
EXTM 72	10.91	22.16	28	16	8.9	4.54	-.1709	-15.19	-.0999	2307.0	4.73	81.29	-.0000	210.29	-1.2725	-9.90	344.49
RISE 51	11.15	22.40	28	16	9.1	84.29	-.0719	11.67	-.0455	5967.0	-2.35	.00	.0833	282.98	-.0096	-10.30	345.09
EXTM 51	46.93	58.18	28	16	44.9	2.19	-.0115	-33.41	-.0025	13729.2	5.08	82.10	-.0000	193.43	-.0719	-30.98	26.23
EXTM 72	72.38	83.63	28	17	10.4	298.69	-.0000	-35.88	.0001	23875.9	4.69	27.77	.0000	126.56	-.0001	-32.83	33.07
EXTM 51	93.32	104.57	28	17	31.3	351.26	-.0001	-34.94	.0001	26738.1	4.28	78.12	.0000	142.78	-.0008	-33.22	34.61
RISE 61	129.17	140.42	28	18	7.2	317.02	.0021	-40.85	.0007	41263.8	3.77	-.00	.0014	148.95	.0010	-33.22	33.28
EXTM 51	182.64	193.89	28	19	.6	.91	.0028	-33.75	.0002	47169.2	3.47	81.95	-.0000	185.43	.0169	-32.80	26.89
EXTM 61	374.20	385.45	28	22	12.2	5.81	.0038	-35.26	.0002	86478.0	2.71	14.31	.0000	184.89	.0032	-31.26	350.32
EXTM 72	400.81	412.06	28	22	38.8	1.20	.0039	-32.75	.0002	86697.9	2.63	65.13	.0000	182.40	.0079	-31.09	344.57
RISE 11	580.32	591.57	29	1	38.3	296.46	.0040	-32.27	.0000	118726.3	2.02	.00	.0025	130.80	.0023	-30.14	304.10
SET 51	594.41	605.66	29	1	52.4	90.00	.0038	-28.97	.0001	119324.9	2.61	12.14	-.0031	243.49	-.0012	-29.08	300.83
SET 61	595.94	607.19	29	1	53.9	57.52	.0039	-32.40	.0002	120867.8	2.49	-.00	-.0020	225.41	.0027	-30.08	300.48
SET 72	793.13	804.38	29	5	11.1	94.41	.0039	-28.97	.0001	146239.9	2.41	-.01	-.0034	240.72	-.0004	-29.33	254.09
RISE 42	802.95	814.20	29	5	21.0	254.99	.0040	-27.81	-.0000	146912.1	1.71	4.70	.0028	121.00	-.0021	-29.30	251.75
EXTM 11	845.03	856.28	29	6	3.0	1.50	.0041	-31.36	.0001	149973.9	1.98	23.41	.0000	181.40	.0039	-29.17	241.71
SET 11	1106.39	1117.64	29	10	24.4	66.14	.0041	-29.82	.0001	181824.3	2.06	-.00	-.0026	232.51	.0024	-28.48	178.71
EXTM 42	1228.36	1239.61	29	12	26.4	359.92	.0042	-27.97	.0000	188292.9	1.70	82.75	.0000	.58	-.0283	-28.21	149.06
RISE 51	1364.18	1375.43	29	14	42.2	270.00	.0041	-27.28	-.0000	206755.8	1.26	11.48	.0034	114.92	-.0014	-27.94	115.90
RISE 72	1518.96	1530.21	29	17	17.0	265.86	.0041	-27.43	-.0000	222718.7	1.15	-.01	.0036	117.72	-.0005	-27.68	77.98
RISE 61	1604.67	1615.92	29	18	42.7	297.61	.0041	-28.71	-.0000	230570.7	1.23	.00	.0025	129.00	.0027	-27.54	56.93
SET 42	1651.74	1662.99	29	19	29.7	105.00	.0041	-26.52	.0001	234367.1	1.81	3.92	-.0029	240.03	-.0022	-27.47	45.36
EXTM 51	1717.92	1729.17	29	20	35.9	358.57	.0042	-27.41	.0000	234373.5	1.45	87.89	.0023	142.97	.0802	-27.37	29.08
EXTM 61	1855.45	1866.70	29	22	53.5	.57	.0042	-28.53	.0000	250213.9	1.41	21.23	.0000	180.54	.0040	-27.18	355.19
EXTM 72	1894.72	1905.97	29	23	32.7	.17	.0042	-27.61	.0000	249883.9	1.40	70.29	-.0000	180.45	.0171	-27.13	345.51
RISE 11	2038.11	2049.36	30	1	56.1	291.89	.0042	-27.84	-.0000	267629.1	1.04	.00	.0028	124.87	.0024	-26.95	310.11
SET 51	2082.88	2094.13	30	2	40.9	90.00	.0041	-26.38	.0001	270007.7	1.71	11.12	-.0034	245.93	-.0014	-26.90	299.04
SET 61	2105.99	2117.24	30	3	4.0	63.44	.0042	-27.85	.0001	273081.8	1.60	-.00	-.0025	232.27	.0027	-26.87	293.33
SET 72	2268.56	2279.81	30	5	46.6	93.97	.0041	-24.50	.0001	285802.5	1.69	-.00	-.0036	243.23	-.0005	-26.69	253.12
RISE 42	2269.62	2280.87	30	5	47.6	255.00	.0041	-25.91	-.0000	285490.4	.96	3.55	.0029	119.49	-.0023	-26.69	252.85
EXTM 11	2310.34	2321.59	30	6	28.3	.39	.0042	-27.77	.0000	286118.4	1.27	27.02	-.0000	180.38	.0042	-26.65	242.77
SET 11	2582.36	2593.61	30	11	.4	68.79	.0042	-27.15	.0000	309132.3	1.51	-.00	-.0028	236.05	.0024	-26.38	175.37
EXTM 42	2688.58	2699.83	30	12	46.6	359.96	.0042	-26.10	.0000	310468.2	1.17	80.88	-.0000	.26	-.0206	-26.28	149.02
RISE 51	2819.35	2830.60	30	14	57.4	270.00	.0041	-25.73	-.0000	324598.5	.77	10.87	.0034	113.47	-.0015	-26.17	116.36
RISE 72	2973.28	2984.53	30	17	31.3	266.14	.0042	-25.87	-.0000	336410.2	.69	.00	.0037	116.14	-.0006	-26.03	78.34
RISE 61	3047.99	3059.24	30	18	46.0	295.25	.0042	-26.75	-.0000	341325.6	.81	.00	.0026	126.13	.0027	-25.97	59.68
SET 42	3107.15	3118.40	30	19	45.2	105.00	.0041	-25.28	.0000	344842.4	1.42	3.16	-.0030	241.01	-.0023	-25.93	44.91
EXTM 51	3170.87	3182.12	30	20	48.9	358.67	.0042	-25.88	.0000	343022.3	1.08	88.79	.0038	96.93	.0195	-25.88	28.99
EXTM 61	3305.04	3316.29	30	23	3.0	.29	.0042	-26.71	.0000	355524.7	1.08	23.05	-.0000	180.29	.0041	-25.77	355.46
EXTM 72	3344.65	3355.90	30	23	42.6	.11	.0043	-26.06	.0000	354551.4	1.08	71.85	-.0000	180.33	.0121	-25.74	345.56
RISE 11	3479.08	3490.33	1	1	57.1	290.39	.0042	-26.27	-.0000	369239.0	.77	.00	.0029	122.80	.0024	-25.64	311.93
SET 51	3532.03	3543.28	1	2	50.0	90.00	.0042	-25.21	.0000	371516.1	1.48	10.66	-.0035	247.02	-.0015	-25.59	298.66
SET 61	3561.84	3573.09	1	3	19.8	65.31	.0042	-26.27	.0000	374660.7	1.40	.00	-.0026	234.56	.0027	-25.57	291.19
RISE 42	3712.90	3724.15	1	5	50.9	255.00	.0042	-24.83	.0000	385263.1	1.20	2.88	.0030	118.63	-.0024	-25.41	253.15
SET 72	3713.69	3724.94	1	5	51.7	93.76	.0042	-25.26	.0001	385656.2	1.98	.00	-.0038	244.48	-.0005	-25.40	252.95
IMPACT	3725.56	3736.81	1	6	3.6												
IMPC 42	3725.56	3736.81	1	6	3.6	258.24	.0043	-24.82	.0000	386288.0	1.62	5.22	.0031	116.84	-.0024	-25.38	249.91
IMPC 72	3725.56	3736.81	1	6	3.6	96.79	.0043	-25.22	.0001	387169.6	2.40	-2.72	-.0038	244.07	-.0006	-25.38	249.91
IMPC 11	3725.56	3736.81	1	6	3.6	353.14	.0044	-26.21	.0000	383863.4	1.92	28.25	.0005	173.02	.0044	-25.38	249.91

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPTH	AZ	RT ASC
INJECTION	.00	11.25	28	15	58.004	6591.598	16.7405	304.5275	10.94873	4.7736	119.1860	100.3281
SEPARATION	1.20	12.45	28	15	59.204	6678.998	13.3894	310.2384	10.87539	8.1162	120.7521	106.3398
RETRO	3.20	14.45	28	16	1.204	6921.336	7.7560	319.0255	10.68152	13.4286	122.4621	115.6283
IMPACT	3725.56	3736.81	1	6	3.561	386919.672	-25.3790	249.9065	2.16719	65.1660	289.1745	259.6458

SURVEYOR VIEW PERIODS

GMA 27R.5618 EPS -18.4389 LOM 244.1067
SX -.161807 SY -.888963 SZ -.424443 DAD -25.3648 RAD 259.68407 RM 388173.859 LAT 28.310600 LON 279.461800
C3 -1.099032 ECC .981955 SLR 12971.236 RCA 6544.6650 LTA -20.0000 GTA 20.00 TB 675.00000 POL -.0
NSX -.140000 NSY -.891127 NSZ -.431615 C3M 1.4967 VIM 2.6713 ZAE 137.312 B.T .0000 B.R -.0000
LATE 3.0085 LONE 4.9204 LATS 1.1408 LONS 23.2310 LATI -6.8376 LONI 323.3076 RSM 152.4548 TTAN 6.4801
LAUNCH DATE JUN 28,1966 BASE AZM 115.0 TF 62.318 ARRIVAL DATE JUL 1 1966 6 26 50.8

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	15 52 45.1	28.1	15.38	303.62	10.78	100.93	121.96	16 4 .1	6602.4	10.94	5.34

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PRORE IN SUNLIGHT											
INJECTION		.00	11.25	28	16	4.0												
SEPARATION		1.20	12.45	28	16	5.2												
RETRO		3.20	14.45	28	16	7.2												
RISE	72	4.22	15.47	28	16	8.2	86.63	-.1273	22.94	-.0561	3168.4	-7.13	-.00	.1243	293.17	-.0379	2.88	321.50
RISE	51	11.25	22.50	28	16	15.3	86.45	-.0670	7.33	-.0486	6094.7	-2.10	-.00	.0810	278.14	-.0145	-13.05	343.08
EXTM	72	12.27	22.52	28	16	15.3	9.58	-.1648	-25.93	-.0805	2558.8	4.94	69.80	-.0000	205.68	-.4884	-13.07	343.12
EXTM	51	51.94	63.19	28	16	55.9	1.78	-.0094	-37.26	-.0011	15351.2	4.98	78.38	-.0000	187.07	-.0375	-33.89	26.47
EXTM	72	72.65	83.90	28	17	16.6	300.09	-.0001	-38.45	.0004	23956.2	4.68	28.32	.0000	129.67	-.0005	-34.92	31.58
EXTM	51	88.65	99.90	28	17	32.6	353.11	-.0007	-37.38	.0003	25597.2	4.34	76.97	.0000	154.98	-.0030	-35.10	33.06
RISE	61	140.10	151.35	28	18	24.1	319.72	.0023	-42.04	.0007	43838.6	3.65	-.00	.0015	151.31	.0011	-34.74	31.07
EXTM	51	178.57	189.82	28	19	2.6	1.56	.0027	-35.41	.0003	46374.7	3.49	80.23	.0000	187.54	.0133	-34.25	26.33
EXTM	61	372.44	383.69	28	22	16.4	6.59	.0038	-36.25	.0003	86303.1	2.71	13.27	.0000	185.46	.0032	-32.22	349.59
EXTM	72	396.90	408.15	28	22	40.9	1.48	.0039	-33.76	.0002	86121.6	2.64	64.10	.0000	182.82	.0075	-32.03	344.31
RISE	11	579.05	590.30	29	1	43.1	297.29	.0040	-33.01	.0000	118522.0	2.02	.00	.0025	131.82	.0023	-30.87	303.26
SET	61	586.02	597.27	29	1	50.0	56.36	.0039	-33.21	.0002	119480.0	2.50	-.00	-.0019	224.15	.0027	-30.83	301.65
SET	51	589.34	600.59	29	1	53.3	90.00	.0038	-29.11	.0002	118569.9	2.61	12.43	-.0031	242.80	-.0012	-30.82	300.88
SET	72	788.60	799.85	29	5	12.6	94.52	.0039	-29.56	.0001	145623.8	2.41	-.00	-.0034	240.13	-.0004	-29.93	254.01
RISE	42	798.19	809.44	29	5	22.2	254.99	.0040	-28.40	-.0000	146230.1	1.72	5.06	.0028	121.46	-.0021	-29.89	251.72
EXTM	11	840.92	852.17	29	6	4.9	1.69	.0041	-31.94	.0001	149472.8	1.98	22.83	.0000	181.56	.0038	-29.73	241.53
SET	11	1099.45	1110.70	29	10	23.5	65.66	.0041	-30.29	.0001	180969.7	2.06	-.00	-.0025	231.88	.0024	-28.93	179.21
EXTM	42	1223.38	1234.63	29	12	27.4	359.91	.0042	-28.40	.0000	187643.8	1.70	83.18	.0000	.68	-.0302	-28.62	149.07
RISE	51	1359.26	1370.51	29	14	43.3	270.00	.0041	-27.45	-.0000	206098.8	1.26	11.62	.0033	115.26	-.0014	-28.31	115.89
RISE	72	1513.77	1525.02	29	17	17.8	265.80	.0041	-27.76	-.0000	222044.4	1.15	-.01	.0036	118.05	-.0005	-28.00	78.03
RISE	61	1601.25	1612.50	29	18	45.2	298.00	.0042	-29.02	.0000	230050.7	1.23	.00	.0024	129.46	.0027	-27.85	56.54
SET	42	1646.68	1657.93	29	19	30.7	105.00	.0041	-26.42	.0001	233675.9	1.81	4.10	-.0029	239.79	-.0022	-27.77	45.37
EXTM	51	1712.64	1723.89	29	20	36.6	358.51	.0042	-27.71	.0000	233678.5	1.45	87.62	.0021	146.24	.0739	-27.65	29.14
EXTM	61	1850.64	1861.89	29	22	54.6	.63	.0042	-28.79	.0000	249571.8	1.41	20.97	.0000	180.60	.0039	-27.44	355.13
EXTM	72	1889.72	1900.97	29	23	33.7	.19	.0042	-27.87	.0000	249204.3	1.40	70.04	-.0000	180.49	.0109	-27.38	345.49
RISE	11	2033.92	2045.17	30	1	57.9	292.11	.0042	-28.07	-.0000	266989.1	1.04	.00	.0028	125.17	.0024	-27.17	309.88
SET	51	2077.74	2088.99	30	2	41.7	90.00	.0041	-26.60	.0001	269276.0	1.70	11.21	-.0034	245.72	-.0014	-27.12	299.05
SET	61	2099.78	2111.03	30	3	3.8	83.17	.0042	-28.07	.0001	272271.1	1.60	-.00	-.0025	231.94	.0027	-27.09	293.60
SET	72	2263.53	2274.78	30	5	47.5	94.00	.0041	-26.69	.0001	285063.0	1.68	-.00	-.0036	243.03	-.0005	-26.88	253.09
RISE	42	2264.50	2275.75	30	5	48.5	255.00	.0041	-26.10	-.0000	284731.1	.95	3.66	.0029	119.64	-.0023	-26.88	252.85
EXTM	11	2305.36	2316.61	30	6	29.4	.43	.0042	-27.96	.0000	285395.2	1.27	26.83	-.0000	180.42	.0042	-26.83	242.73
SET	11	2576.55	2587.80	30	11	.5	68.64	.0042	-27.30	.0001	308286.6	1.51	.00	-.0028	235.85	.0024	-26.53	175.52
EXTM	42	2683.36	2694.61	30	12	47.4	359.96	.0042	-26.24	.0000	309645.5	1.17	81.02	-.0000	.28	-.0219	-26.42	149.02
RISE	51	2814.14	2825.39	30	14	58.1	270.00	.0041	-25.85	-.0000	323750.3	.77	10.91	.0034	113.58	-.0015	-26.29	116.56
RISE	72	2967.97	2979.22	30	17	32.0	266.12	.0042	-25.98	-.0000	335534.9	.69	.00	.0037	116.24	-.0006	-26.14	78.35
RISE	61	3043.21	3054.46	30	18	47.2	295.36	.0042	-26.85	-.0000	340463.6	.80	.00	.0026	126.27	.0027	-26.07	59.56
SET	42	3101.88	3113.13	30	19	45.9	105.00	.0041	-25.37	.0000	343925.2	1.42	3.21	-.0030	240.94	-.0023	-26.02	44.91
EXTM	51	3165.61	3176.86	30	20	49.6	358.67	.0042	-25.97	.0000	342092.1	1.07	88.78	.0038	101.04	.0319	-25.96	28.99
EXTM	61	3299.89	3311.14	30	23	3.9	.32	.0042	-26.79	.0000	354564.1	1.07	22.97	-.0000	180.31	.0041	-25.85	355.44
EXTM	72	3339.43	3350.68	30	23	43.4	.12	.0043	-26.13	.0000	353566.2	1.07	71.77	-.0000	180.35	.0121	-25.81	345.55
RISE	11	3474.10	3485.35	1	1	58.1	290.45	.0042	-26.34	-.0000	368204.6	.76	.00	.0029	122.89	.0024	-25.70	311.86
SET	51	3526.79	3538.04	1	2	50.8	90.00	.0042	-25.27	.0000	370428.9	1.46	10.68	-.0035	246.96	-.0015	-25.65	298.67
SET	61	3556.33	3567.58	1	3	20.3	65.24	.0042	-26.33	.0000	373533.9	1.38	.00	-.0026	234.47	.0027	-25.63	291.27
RISE	42	3707.93	3719.18	1	5	51.9	255.00	.0042	-24.88	-.0000	383752.2	1.00	2.92	.0030	118.67	-.0023	-25.46	253.15
SET	72	3708.73	3719.98	1	5	52.7	93.77	.0042	-25.32	.0001	384140.4	1.76	.00	-.0038	244.42	-.0005	-25.46	252.95
IMPACT		3739.09	3750.34	1	6	23.1												
IMPC	42	3739.09	3750.34	1	6	23.1	262.93	.0043	-24.98	.0000	385956.7	1.61	8.71	.0032	114.38	-.0023	-25.41	245.20
IMPC	11	3739.09	3750.34	1	6	23.1	357.92	.0044	-26.24	.0000	383889.2	1.94	28.52	.0002	177.87	.0045	-25.41	245.20
EXTM	11	3750.91	3762.16	1	6	34.9	.87	.0044	-26.24	.0001	384296.2	2.27	28.55	.0000	180.89	.0045	-25.41	242.30

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	28	16	4.001	6603.811	15.3470	303.6782	10.93835	5.3427	121.9695	100.9822
SEPARATION		1.20	12.45	28	16	5.201	6698.240	11.7551	309.1383	10.85901	8.6692	123.3237	106.7431
RETRO		3.20	14.45	28	16	7.201	6951.925	5.7887	317.5628	10.65716	13.9417	124.6895	115.6690
IMPACT		3739.09	3750.34	1	6	23.095	386972.617	-25.4069	245.2026	2.16182	64.8180	289.8776	259.8388

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SURVEYOR VIEW PERIODS

GHA	279.5865					EPS	-7.9120							LOM	281.6118
SX	.045588	SY	-.893135	SZ	-.447472	DAO	-26.58162	RAO	272.92202	RM	391417.727	LAT	28.310600	LON	279.461800
CJ	-1.011505	ECC	.983392	SLR	12980.640	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.066679	NSY	-.891331	NSZ	-.448423	CJM	1.4930	VIM	2.6706	ZAE	139.851	B.T	.0000	B.R	-.0000
LATE	4.1822	LONE	4.5886	LATS	1.1456	LONS	11.8899	LATI	-2.1922	LONI	324.9221	RSM	152.4760	TTAN	6.6838

LAUNCH DATE JUN 29,1966 BASE AZM 84.0 TF 61.882 ARRIVAL DATE JUL 2 1966 4 46 6.7

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
84.00	14 55 36.1	27.3	27.10	307.53	-13.28	91.49	99.79	15 6 51.1	6632.6	10.92	-6.58

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	29	15	6.9												
SEPARATION		1.20	12.45	29	15	8.1												
RETRO		3.20	14.45	29	15	10.1												
RISE	72	7.10	18.35	29	15	13.9	345.22	-1.1955	81.83	-.1295	2649.1	-2.81	-.00	.0824	2.08	.1971	14.64	346.49
RISE	51	12.15	23.40	29	15	19.0	61.01	-.1472	45.14	-.0235	4716.9	-3.73	.00	.0962	321.91	.0454	4.16	6.10
EXTM	72	13.38	24.63	29	15	20.2	289.53	-.0252	17.81	-.0966	3772.2	6.62	15.86	-.0000	68.87	.1034	1.92	9.91
EXTM	51	30.10	41.35	29	15	37.0	338.88	-.0240	-6.32	-.0228	7502.5	5.59	62.00	-.0000	49.73	.0703	-15.48	39.63
EXTM	72	63.47	74.72	29	16	10.3	272.07	-.0002	-23.54	-.0020	22384.8	5.01	5.03	.0000	113.12	.0021	-24.35	56.68
RISE	42	73.61	84.86	29	16	20.5	102.79	-.0039	-17.42	-.0030	25918.1	4.26	.00	.0048	248.51	-.0002	-25.36	58.34
EXTM	51	77.51	88.76	29	16	24.4	320.53	-.0003	-24.49	-.0017	22337.8	4.62	54.38	.0000	96.73	.0030	-25.67	58.76
EXTM	42	128.82	140.07	29	17	15.7	99.05	.0006	-22.69	-.0008	39621.7	3.98	5.96	-.0000	246.36	-.0010	-27.70	58.11
SET	42	193.00	204.25	29	18	19.8	104.99	.0022	-24.46	-.0003	54211.0	3.62	2.66	-.0014	241.67	-.0014	-28.43	49.97
RISE	61	209.72	220.97	29	18	36.6	303.99	.0032	-33.45	.0001	57924.5	3.16	.00	.0018	136.23	.0020	-28.51	47.24
EXTM	51	313.30	324.55	29	20	20.2	360.00	.0037	-28.95	.0000	71179.3	2.90	86.79	.0000	179.77	.0038	-28.69	27.69
EXTM	61	471.12	482.37	29	22	58.0	2.21	.0039	-31.97	.0001	100819.3	2.50	17.76	.0000	181.97	.0035	-28.60	353.66
EXTM	72	507.88	519.13	29	23	34.7	.33	.0040	-29.82	.0000	102432.4	2.43	68.08	-.0000	180.76	.0094	-28.56	345.37
RISE	11	676.09	687.34	30	2	22.9	294.30	.0040	-30.25	-.0000	131402.6	1.90	.00	.0026	128.07	.0023	-28.38	306.50
SET	51	701.81	713.06	30	2	48.7	90.00	.0039	-27.33	.0001	133480.6	2.50	11.50	-.0032	245.04	-.0013	-28.35	300.46
SET	61	714.51	725.76	30	3	1.4	60.30	.0040	-30.35	.0001	136378.6	2.38	-.00	-.0022	228.55	.0026	-28.33	297.47
SET	72	897.08	908.33	30	6	3.9	94.20	.0039	-27.81	.0001	158715.2	2.34	-.00	-.0035	241.90	-.0005	-28.14	254.05
RISE	42	905.87	917.12	30	6	12.7	255.00	.0040	-26.76	-.0001	159291.1	1.63	4.06	.0028	120.16	-.0021	-28.14	251.94
EXTM	11	945.40	956.65	30	6	52.3	.73	.0042	-30.12	.0000	161674.6	1.91	24.67	-.0000	180.69	.0040	-28.10	242.45
SET	11	1212.19	1223.44	30	11	19.0	66.86	.0041	-29.12	.0001	193331.9	2.02	-.00	-.0026	233.45	.0024	-27.86	177.90
EXTM	42	1330.70	1341.95	30	13	17.6	359.96	.0042	-27.53	.0000	199135.8	1.66	82.31	.0000	.27	-.0244	-27.77	149.02
RISE	51	1465.76	1477.01	30	15	32.6	270.00	.0041	-27.03	-.0000	217254.7	1.23	11.38	.0034	114.68	-.0014	-27.67	115.99
RISE	72	1620.48	1631.73	30	18	7.3	265.88	.0041	-27.33	-.0000	232948.0	1.12	-.00	.0036	117.61	-.0005	-27.56	78.04
RISE	61	1705.76	1717.01	30	19	32.6	297.51	.0041	-28.63	-.0000	240645.2	1.21	.00	.0025	128.87	.0027	-27.51	57.08
SET	42	1753.64	1764.89	30	20	20.5	105.00	.0041	-26.57	.0000	244453.9	1.79	3.95	-.0029	239.99	-.0022	-27.48	45.30
EXTM	51	1819.51	1830.76	30	21	26.4	358.56	.0042	-27.48	.0000	244359.4	1.44	87.84	.0022	143.86	.0791	-27.44	29.09
EXTM	61	1956.00	1967.25	30	23	42.9	.31	.0042	-28.65	.0000	260000.4	1.40	21.11	.0000	180.30	.0039	-27.36	355.44
EXTM	72	1995.99	2007.24	1	0	22.8	.10	.0042	-27.80	.0000	259692.2	1.38	70.10	-.0000	180.26	.0108	-27.33	345.57
RISE	11	2140.55	2151.80	1	2	47.4	292.16	.0042	-28.12	-.0000	277433.2	1.03	.00	.0028	125.23	.0024	-27.26	309.88
SET	51	2184.55	2195.80	1	3	31.4	90.00	.0041	-26.74	.0000	279710.4	1.70	11.26	-.0034	245.59	-.0014	-27.23	299.00
SET	61	2206.03	2217.28	1	3	52.9	63.05	.0042	-28.17	.0000	282659.8	1.59	-.00	-.0025	231.79	.0027	-27.22	293.69
SET	72	2370.51	2381.76	1	6	37.4	94.05	.0041	-26.96	.0000	295468.3	1.68	-.00	-.0036	242.76	-.0005	-27.14	252.99
RISE	42	2370.96	2382.21	1	6	37.8	255.00	.0041	-26.39	-.0000	295076.0	.95	3.84	.0029	119.87	-.0022	-27.14	252.89
EXTM	11	2411.14	2422.39	1	7	18.0	.22	.0042	-28.22	.0000	295728.0	1.27	26.57	-.0000	180.22	.0041	-27.12	242.94
SET	11	2681.55	2692.80	1	11	48.4	68.20	.0042	-27.75	.0000	318553.0	1.51	.00	-.0028	235.25	.0024	-27.00	175.93
EXTM	42	2790.15	2801.40	1	13	37.0	359.99	.0042	-26.79	.0000	320052.2	1.18	81.57	-.0000	.11	-.0074	-26.96	148.99
RISE	51	2920.69	2931.94	1	15	47.5	270.00	.0041	-26.49	-.0000	334164.8	.78	11.17	.0034	114.17	-.0015	-26.91	116.59
RISE	72	3073.58	3084.83	1	18	20.4	265.99	.0042	-26.69	-.0000	345910.5	.71	-.00	.0037	116.97	-.0005	-26.85	78.51
RISE	61	3152.90	3164.15	1	19	39.8	296.23	.0042	-27.58	-.0000	351198.8	.83	.00	.0025	127.33	.0027	-26.82	58.72
SET	42	3208.36	3219.61	1	20	35.2	105.00	.0041	-26.17	.0000	354468.5	1.44	3.70	-.0030	240.31	-.0023	-26.80	44.89
EXTM	51	3274.01	3285.26	1	21	40.9	359.16	.0042	-26.79	.0000	352907.6	1.10	88.70	.0022	144.76	.1358	-26.78	28.51
EXTM	61	3405.84	3417.09	1	23	59.7	.16	.0042	-27.65	.0000	365551.7	1.11	22.11	-.0000	180.16	.0040	-26.73	355.59
EXTM	72	3445.82	3457.07	2	0	32.7	.07	.0042	-27.04	.0000	364619.2	1.11	70.86	-.0000	180.21	.0112	-26.72	345.60
RISE	11	3584.16	3595.41	2	2	51.0	291.35	.0042	-27.29	-.0000	379955.9	.85	.00	.0028	124.14	.0024	-26.67	310.98
SET	51	3633.32	3644.57	2	3	40.2	90.00	.0042	-26.28	.0000	382230.8	1.60	11.09	-.0035	246.02	-.0015	-26.65	298.65
SET	61	3658.13	3669.38	2	4	5.0	64.07	.0042	-27.33	.0000	385310.1	1.57	-.00	-.0026	233.03	.0027	-26.64	292.41
IMPACT		3712.89	3724.14	2	4	59.7												
IMPC	72	3712.89	3724.14	2	4	59.7	68.12	.0043	-26.65	.0000	387660.1	2.43	23.06	-.0039	244.34	.0002	-26.60	278.52
IMPC	51	3712.89	3724.14	2	4	59.7	110.06	.0043	-26.11	.0000	390700.2	2.41	-4.95	-.0033	237.85	-.0020	-26.60	278.52
IMPC	11	3712.89	3724.14	2	4	59.7	324.13	.0044	-27.37	.0000	388097.5	1.84	18.84	.0020	146.65	.0035	-26.60	278.52

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	29	15	6.852	6635.746	27.1191	307.4028	10.91724	-6.5833	99.7333	91.3661
SEPARATION		1.20	12.45	29	15	8.052	6565.333	25.7433	314.6923	10.97338	-3.2032	103.1184	98.9564
RETRO		3.20	14.45	29	15	10.052	6557.359	22.6273	326.3607	10.98010	2.5115	108.1217	111.1262
IMPACT		3712.89	3724.14	2	4	59.747	390202.188	-26.6027	278.5167	2.20004	68.0667	278.0184	273.2444

SURVEYOR VIEW PERIODS

GHA	279.5845					EPS	-7.6922							LOM	274.2820
SX	.050275	SY	-.8927880	SZ	-.447678	DAO	-26.59483	RAO	273.22308	RM	391491.297	LAT	28.310600	LON	279.461800
C3	-1.004560	ECC	.983506	SLR	12981.388	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.071288	NSY	-.890899	NSZ	-.448573	C3M	1.4970	VIM	2.6714	ZAE	139.997	B.T	.0000	B.R	-.0000
LATE	4.2067	LONE	4.5795	LATS	1.1662	LONS	11.6324	LATI	-1.9427	LONI	325.0249	RSM	152.4763	TTAN	6.6837
LAUNCH DATE	JUN 29,1966			BASE AZM	87.0		TF 61.796					ARRIVAL DATE	JUL 2 1966		5 16 33.1

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
87.00	15 25 .4		27.7	25.86	307.70	-6.71	99.03	102.15	15 36 15.4	6567.0	10.97	-3.33

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	29	15	36.3												
SEPARATION		1.20	12.45	29	15	37.5												
RETRO		3.20	14.45	29	15	39.5												
RISE	72	6.13	17.38	29	15	42.4	57.02	-.7052	75.70	.0816	2722.2	-4.63	-.01	.0993	348.04	.1647	14.71	340.85
RISE	61	9.25	20.50	29	15	45.5	5.89	-.1819	-49.61	.0051	3998.1	5.32	.00	.0144	183.82	-.1171	8.18	353.70
RISE	51	11.75	23.00	29	15	48.0	65.85	-.1262	40.51	-.0254	5034.7	-3.43	.00	.0936	315.91	.0340	3.45	2.09
EXTM	61	12.57	23.82	29	15	48.8	339.33	-.0933	-46.03	.0179	5255.5	6.96	1.20	-.0000	165.97	-.0666	2.02	4.54
EXTM	72	12.70	23.95	29	15	49.0	299.93	-.0399	19.74	-.1089	3380.2	6.26	24.75	-.0000	63.92	.1268	1.81	4.90
SET	61	18.07	29.32	29	15	54.3	319.49	-.0386	-41.94	.0103	7653.2	7.33	.00	-.0053	151.11	-.0300	-5.76	17.67
EXTM	51	32.89	44.14	29	16	9.1	344.56	-.0197	-9.81	-.0166	8638.1	5.48	68.37	-.0000	45.36	.0693	-16.70	36.91
EXTM	72	63.64	74.89	29	16	39.9	278.89	-.0001	-23.75	-.0019	22122.0	4.98	11.27	.0000	112.76	.0020	-23.86	50.39
EXTM	51	79.79	91.04	29	16	56.0	328.61	-.0003	-24.48	-.0016	22940.9	4.55	61.62	.0000	94.32	.0033	-25.31	52.46
RISE	61	170.84	182.09	29	18	27.1	304.18	.0029	-33.58	.0001	50067.0	3.42	-.00	.0018	136.43	.0018	-27.85	46.40
EXTM	51	278.31	289.56	29	20	14.6	359.98	.0036	-28.59	-.0000	65182.0	3.02	87.15	.0000	179.55	.0473	-28.34	27.70
EXTM	61	439.90	451.15	29	22	56.2	2.29	.0039	-31.90	.0001	96262.4	2.57	17.83	.0000	182.04	.0035	-28.37	353.59
EXTM	72	476.63	487.88	29	23	32.9	.30	.0040	-29.65	.0000	98009.9	2.49	68.25	-.0000	180.71	.0094	-28.35	345.39
RISE	11	645.79	657.04	30	2	22.0	294.19	.0040	-30.14	-.0000	127590.7	1.93	.00	.0026	127.92	.0023	-28.22	306.54
SET	51	671.48	682.73	30	2	47.7	90.00	.0039	-27.15	.0001	129729.7	2.53	11.43	-.0032	245.21	-.0013	-28.19	300.53
SET	61	684.87	696.12	30	3	1.1	60.43	.0040	-30.25	.0001	132737.6	2.41	-.00	-.0022	228.70	.0026	-28.18	297.39
SET	72	867.29	878.54	30	6	3.5	94.18	.0039	-27.68	.0001	155392.7	2.36	-.00	-.0035	242.03	-.0005	-28.02	254.12
RISE	42	876.57	887.82	30	6	12.8	254.99	.0040	-26.91	-.0001	156051.9	1.65	3.97	.0028	120.04	-.0021	-28.01	251.90
EXTM	11	915.95	927.20	30	6	52.2	.71	.0042	-30.04	.0000	158459.6	1.94	24.75	-.0000	180.68	.0040	-27.98	242.46
SET	11	1183.35	1194.60	30	11	19.6	66.93	.0041	-29.04	.0001	190532.4	2.04	-.00	-.0026	233.55	.0024	-27.77	177.85
EXTM	42	1301.77	1313.02	30	13	18.0	359.97	.0042	-27.44	.0000	196453.7	1.67	82.22	.0000	.25	-.0232	-27.69	149.01
RISE	51	1436.99	1448.24	30	15	33.2	270.00	.0041	-26.95	-.0000	214715.3	1.24	11.35	.0034	114.61	-.0014	-27.60	115.97
RISE	72	1591.82	1603.07	30	18	8.1	265.89	.0041	-27.27	-.0000	230546.7	1.13	-.01	.0036	117.55	-.0005	-27.50	78.01
RISE	61	1676.85	1688.10	30	19	33.1	297.46	.0041	-28.58	-.0000	238288.0	1.23	.00	.0025	128.81	.0027	-27.45	57.13
SET	42	1724.88	1736.13	30	20	21.1	105.00	.0041	-26.51	.0000	242149.3	1.80	3.91	-.0029	240.04	-.0022	-27.42	45.32
EXTM	51	1790.85	1802.10	30	21	27.1	358.57	.0042	-27.43	.0000	242108.0	1.45	87.88	.0023	143.21	.0801	-27.39	29.08
EXTM	61	1927.31	1938.56	30	23	43.6	.30	.0042	-28.62	.0000	257835.9	1.41	21.14	.0000	180.28	.0039	-27.32	355.46
EXTM	72	1967.35	1978.60	1	0	23.6	.10	.0042	-27.77	.0000	257559.9	1.40	70.14	-.0000	180.25	.0108	-27.30	345.58
R'SE	11	2111.89	2123.14	1	2	48.1	292.13	.0042	-28.10	-.0000	275391.3	1.04	.00	.0028	125.20	.0024	-27.23	309.89
SET	51	2155.93	2167.18	1	3	32.2	90.00	.0041	-26.70	.0000	277700.0	1.71	11.25	-.0034	245.62	-.0014	-27.20	299.01
SET	61	2177.54	2188.79	1	3	53.8	63.08	.0042	-28.15	.0000	280670.8	1.60	-.00	-.0025	231.83	.0027	-27.19	293.67
SET	72	2341.92	2353.17	1	6	38.2	94.05	.0041	-26.94	.0000	293565.2	1.69	-.00	-.0036	242.79	-.0005	-27.12	253.01
RISE	42	2342.44	2353.69	1	6	38.7	255.00	.0041	-26.37	-.0000	293181.1	.96	3.82	.0029	119.84	-.0022	-27.12	252.88
EXTM	11	2382.57	2393.82	1	7	18.8	.21	.0042	-28.20	.0000	293847.7	1.27	26.59	-.0000	180.21	.0041	-27.10	242.95
SET	11	2653.07	2664.32	1	11	49.3	68.21	.0042	-27.75	.0000	316821.7	1.52	.00	-.0028	235.26	.0024	-26.99	175.92
EXTM	42	2761.69	2772.94	1	13	37.9	360.00	.0042	-26.78	.0000	318376.0	1.18	81.57	-.0000	.13	-.0046	-26.95	148.98
RISE	51	2892.26	2903.51	1	15	48.5	270.00	.0041	-26.48	-.0000	332552.8	.79	11.16	.0034	114.17	-.0015	-26.90	116.58
RISE	72	3045.24	3056.49	1	18	21.5	265.99	.0042	-26.69	-.0000	344383.9	.71	-.00	.0037	116.96	-.0005	-26.85	78.50
RISE	61	3124.57	3135.82	1	19	40.8	296.24	.0042	-27.58	-.0000	349688.6	.83	.00	.0025	127.34	.0027	-26.82	58.71
SET	42	3179.96	3191.21	1	20	36.2	105.00	.0041	-26.17	.0000	352963.9	1.44	3.70	-.0030	240.31	-.0023	-26.80	44.89
EXTM	51	3245.58	3256.83	1	21	41.8	359.16	.0042	-26.80	.0000	351411.5	1.10	88.70	.0022	144.66	.1349	-26.78	28.51
EXTM	61	3377.38	3388.63	1	23	53.6	.16	.0042	-27.46	.0000	364063.6	1.11	22.10	-.0000	180.15	.0040	-26.74	355.60
EXTM	72	3417.39	3428.64	2	0	33.6	.07	.0042	-27.05	.0000	363129.2	1.11	70.85	-.0000	180.20	.0111	-26.73	345.60
RISE	11	3555.82	3567.07	2	2	52.1	291.37	.0042	-27.31	-.0000	378416.7	.83	.00	.0028	124.16	.0024	-26.68	310.96
SET	51	3604.93	3616.18	2	3	41.2	90.00	.0042	-26.29	.0000	380619.6	1.57	11.09	-.0035	246.01	-.0015	-26.66	298.65
SET	61	3629.68	3640.93	2	4	5.9	64.05	.0042	-27.35	.0000	383630.3	1.51	-.00	-.0025	233.00	.0027	-26.65	292.43
IMPACT		3707.77	3719.02	2	5	24.0												
IMPC	72	3707.77	3719.02	2	5	24.0	74.00	.0043	-26.62	.0000	388267.4	2.45	17.80	-.0039	244.50	.0000	-26.61	272.67
IMPC	11	3707.77	3719.02	2	5	24.0	330.05	.0044	-27.40	.0000	387904.5	1.86	21.30	.0017	151.60	.0037	-26.61	272.67

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	29	15	36.257	6567.192	25.8664	307.6808	10.97241	-3.3282	102.1389	99.0154
SEPARATION		1.20	12.45	29	15	37.457	6544.683	24.2234	314.8018	10.99114	.0992	105.2849	106.4373
RETRO		3.20	14.45	29	15	39.457	6512.296	20.7521	326.1319	10.93433	5.7802	109.8261	118.2687
IMPACT		3707.77	3719.02	2	5	24.032	390264.547	-26.6122	272.6699	2.19992	67.8378	277.4372	273.4853

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SURVEYOR VIEW PERIODS

GHA	279.5865					EPS	-7.4774						LOM	267.0554	
SX	.054893	SY	-.892411	SZ	-.447872	DAO	-26.60723	RAD	273.51986	RM	391563.813	LAT	28.310600	LON	279.461800
C3	-1.003165	ECC	.983529	SLR	12981.535	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.075885	NSY	-.890446	NSZ	-.448718	C3M	1.4970	VIM	2.6714	ZAE	140.035	B.T	.0000	B.R	-.0000
LATE	4.2308	LONE	4.5697	LATS	1.1667	LONS	11.3779	LATI	-1.8203	LONI	325.0380	RSM	152.4766	TTAN	6.6836
LAUNCH DATE	JUN 29,1966			BASE AZM	90.0		TF 61.796					ARRIVAL DATE	JUL 2 1966 5 46 33.8		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
90.00	15 49 59.2	27.9	24.64	307.65	-1.22	105.25	104.40	16 1 14.2	6545.4	10.99	-.61

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	29	16	1.2												
SEPARATION	1.20	12.45	29	16	2.4												
RETRO	3.20	14.45	29	16	4.4												
RISE 72	5.46	16.71	29	16	6.7	71.50	-.3697	66.38	.0858	2833.8	-5.70	-.00	.1097	337.67	.1314	14.26	336.51
RISE 61	8.65	19.90	29	16	9.9	17.68	-.1780	-48.39	-.0069	4146.2	4.64	.00	.0207	191.63	-.1166	7.67	349.38
RISE 51	11.49	22.74	29	16	12.7	69.54	-.1111	35.95	-.0275	5325.9	-3.11	.00	.0906	310.67	.0250	2.47	358.56
EXTM 72	12.17	23.42	29	16	13.4	311.01	-.0602	20.45	-.1184	3074.9	5.87	34.12	.0000	58.65	.1385	1.33	.50
EXTM 61	13.84	25.09	29	16	15.1	340.45	-.0736	-45.50	.0136	6038.1	6.89	2.49	-.0000	166.42	-.0534	-1.23	4.84
SET 61	26.02	37.27	29	16	27.3	313.98	-.0177	-39.37	.0045	11128.1	6.70	-.00	-.0038	146.20	-.0139	-13.28	25.49
EXTM 51	36.27	47.52	29	16	37.5	349.05	-.0159	-13.25	-.0120	9930.1	5.37	73.82	-.0000	41.55	.0702	-18.20	34.55
EXTM 72	64.77	76.02	29	17	6.0	284.93	-.0000	-24.40	-.0017	22182.6	4.92	16.81	.0000	113.19	.0018	-23.89	45.12
EXTM 51	82.16	93.41	29	17	23.4	335.61	-.0002	-24.82	-.0014	23602.0	4.49	67.96	.0000	92.91	.0038	-25.35	46.99
RISE 61	135.91	147.16	29	18	17.2	304.87	.0024	-34.05	.0002	42453.2	3.73	-.00	.0014	137.17	.0014	-27.25	44.88
EXTM 51	247.34	258.59	29	20	8.6	359.96	.0034	-28.43	-.0000	59634.2	3.14	87.31	.0000	179.09	.0599	-28.17	27.73
EXTM 61	413.65	424.90	29	22	54.9	2.45	.0039	-31.99	.0001	92337.1	2.62	17.74	.0000	182.19	.0035	-28.31	353.44
EXTM 72	449.96	461.21	29	23	31.2	.28	.0040	-29.65	.0000	94136.7	2.54	68.26	.0000	180.65	.0094	-28.29	345.42
RISE 11	620.59	631.84	30	2	21.8	294.21	.0040	-30.16	-.0000	124343.3	1.97	.00	.0026	127.94	.0023	-28.18	306.46
SET 51	645.73	656.98	30	2	47.0	90.00	.0038	-27.09	.0001	126462.0	2.56	11.40	-.0032	245.27	-.0013	-28.16	300.60
SET 61	659.14	670.39	30	3	.4	60.40	.0039	-30.27	.0001	129496.0	2.44	-.00	-.0022	228.67	.0026	-28.15	297.47
SET 72	842.13	853.38	30	6	3.4	94.17	.0039	-27.65	.0001	152512.9	2.39	-.00	-.0035	242.06	-.0005	-28.00	254.18
RISE 42	851.81	863.06	30	6	13.0	254.99	.0040	-26.56	-.0001	153235.6	1.68	3.94	.0028	120.00	-.0021	-27.99	251.86
EXTM 11	891.14	902.39	30	6	52.4	.72	.0041	-30.05	.0000	155687.3	1.96	24.74	-.0000	180.69	.0040	-27.96	242.46
SET 11	1158.71	1169.96	30	11	19.9	66.93	.0041	-29.05	.0001	188059.8	2.05	-.00	-.0026	233.54	.0024	-27.76	177.87
EXTM 42	1277.45	1288.70	30	13	18.7	.00	.0042	-27.43	.0000	194116.4	1.69	82.21	-.0000	359.86	-.0009	-27.68	148.98
RISE 51	1412.69	1423.94	30	15	33.9	270.00	.0041	-26.94	-.0000	212480.3	1.25	11.34	.0034	114.60	-.0014	-27.59	115.95
RISE 72	1567.60	1578.85	30	18	8.8	265.89	.0041	-27.26	-.0000	228419.8	1.14	-.01	.0036	117.55	-.0005	-27.50	78.00
RISE 61	1652.67	1663.92	30	19	33.9	297.46	.0041	-28.59	-.0000	236215.6	1.24	.00	.0025	128.82	.0027	-27.45	57.11
SET 42	1700.59	1711.84	30	20	21.8	105.00	.0041	-26.50	.0000	240095.5	1.81	3.91	-.0029	240.05	-.0022	-27.42	45.33
EXTM 51	1766.61	1777.86	30	21	27.8	358.56	.0042	-27.43	.0000	240095.0	1.46	87.88	.0023	143.10	.0799	-27.39	29.08
EXTM 61	1903.11	1914.36	30	23	44.4	.30	.0042	-28.64	.0000	255898.4	1.42	21.13	.0000	180.28	.0039	-27.32	355.46
EXTM 72	1943.17	1954.42	1	0	24.4	.09	.0042	-27.77	.0000	255642.4	1.40	70.13	-.0000	180.25	.0108	-27.30	345.58
RISE 11	2087.81	2099.06	1	2	49.0	292.14	.0042	-28.10	-.0000	273548.4	1.05	.00	.0028	125.21	.0024	-27.23	309.88
SET 51	2131.76	2143.01	1	3	33.0	90.00	.0041	-26.70	.0000	275869.0	1.71	11.25	-.0034	245.62	-.0014	-27.21	299.02
SET 61	2153.34	2164.59	1	3	54.6	63.07	.0042	-28.16	.0000	278846.2	1.61	-.00	-.0025	231.81	.0027	-27.20	293.69
SET 72	2317.79	2329.04	1	6	39.0	94.05	.0041	-26.94	.0000	291814.3	1.70	-.00	-.0036	242.78	-.0005	-27.13	253.02
RISE 42	2318.37	2329.62	1	6	39.6	255.00	.0041	-26.37	-.0000	291434.8	.97	3.82	.0029	119.85	-.0022	-27.13	252.87
EXTM 11	2358.47	2369.72	1	7	19.7	.21	.0042	-28.22	.0000	292116.4	1.28	26.58	-.0000	180.20	.0041	-27.11	242.95
SET 11	2628.95	2640.20	1	11	50.2	68.20	.0042	-27.76	.0000	315186.0	1.52	.00	-.0028	235.25	.0024	-27.00	175.94
EXTM 42	2737.65	2748.90	1	13	38.9	360.00	.0042	-26.79	.0000	316783.1	1.19	81.57	-.0000	.12	-.0036	-26.96	148.98
RISE 51	2868.25	2879.50	1	15	49.5	270.00	.0041	-26.49	-.0000	331003.6	.79	11.17	.0034	114.18	-.0015	-26.91	116.58
RISE 72	3021.35	3032.60	1	18	22.6	265.99	.0042	-26.70	-.0000	342905.5	.71	-.00	.0037	116.97	-.0005	-26.86	78.50
RISE 61	3100.73	3111.98	1	19	42.0	296.25	.0042	-27.60	-.0000	348219.8	.83	.00	.0025	127.36	.0027	-26.83	58.69
SET 42	3156.01	3167.26	1	20	37.2	105.00	.0041	-26.18	.0000	351490.0	1.44	3.71	-.0030	240.30	-.0023	-26.81	44.90
EXTM 51	3221.56	3232.81	1	21	42.8	359.14	.0042	-26.81	.0000	349935.5	1.10	88.68	.0022	144.40	.1324	-26.79	28.53
EXTM 61	3353.40	3364.65	1	23	54.6	.15	.0042	-27.58	.0000	362585.4	1.11	22.08	-.0000	180.15	.0040	-26.75	355.60
EXTM 72	3393.41	3404.66	2	0	34.6	.07	.0042	-27.07	.0000	361643.9	1.11	70.84	-.0000	180.20	.0112	-26.74	345.60
RISE 11	3531.94	3543.19	2	2	53.2	291.38	.0042	-27.33	-.0000	376878.7	.82	.00	.0028	124.18	.0024	-26.70	310.94
SET 51	3580.97	3592.22	2	3	42.2	90.00	.0042	-26.31	.0000	379021.4	1.54	11.10	-.0035	245.99	-.0015	-26.68	298.65
SET 61	3605.65	3616.90	2	4	6.9	64.02	.0042	-27.37	.0000	381981.9	1.47	-.00	-.0025	232.97	.0027	-26.67	292.46
IMPACT	3707.73	3718.98	2	5	49.0												
IMPC 72	3707.73	3718.98	2	5	49.0	80.03	.0043	-26.58	.0000	388908.9	2.45	12.41	-.0039	244.40	-.0001	-26.62	266.67
IMPC 11	3707.73	3718.98	2	5	49.0	336.14	.0044	-27.42	.0000	387751.3	1.89	23.44	.0014	156.96	.0039	-26.62	266.67

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	29	16	1.237	6545.405	24.6419	307.6539	10.99066	-.6062	104.3994	105.2506
SEPARATION	1.20	12.45	29	16	2.437	6560.696	22.7497	314.6161	10.97767	2.8221	107.3219	112.5135
RETRO	3.20	14.45	29	16	4.437	6689.525	18.9885	325.5294	10.87056	8.4268	111.4022	123.9282
IMPACT	3707.73	3718.98	2	5	48.969	390329.527	-26.6219	266.6659	2.19798	67.5522	277.0930	273.7328

SURVEYOR VIEW PERIODS

GHA	279.5865					EPS	-7.3058							LOM	261.2334
SX	.058611	SY	-.892100	SZ	-.448021	DAO	-26.61477	RAO	273.75893	RM	391622.219	LAT	28.310600	LON	279.461800
C3	-1.003565	ECC	.983522	SLR	12981.494	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.079600	NSY	-.890063	NSZ	-.448834	C3M	1.4966	VIM	2.6713	ZAE	140.020	B.T	.0000	B.R	-.0000
LATE	4.2501	LONE	4.5622	LATS	1.1671	LONS	11.1742	LATI	-1.8422	LONI	325.0214	RSM	152.4769	TTAN	6.6839

LAUNCH DATE JUN 29,1966 BASE AZM 93.0 TF 61.818 ARRIVAL DATE JUL 2 1966 6 10 44.5

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
93.00	16 9 30.9	28.0	23.45	307.43	3.00	109.92	106.58	16 20 45.9	6549.1	10.99	1.49

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	FLE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	29	16	20.8												
SEPARATION		1.20	12.45	29	16	22.0												
RETRO		3.20	14.45	29	16	24.0												
RISE	72	5.00	16.25	29	16	25.8	76.75	-.2687	58.78	.0682	2936.7	-6.34	.01	.1162	329.70	.1027	13.47	333.13
RISE	61	8.76	20.01	29	16	29.5	21.15	-.1592	-47.78	-.0088	4496.5	4.63	.00	.0210	194.03	-.1052	5.78	347.67
RISE	51	11.33	22.58	29	16	32.1	72.47	-.1001	31.99	-.0296	5564.7	-2.84	.00	.0881	306.03	.0180	1.21	355.55
EXTM	72	11.81	23.06	29	16	32.6	321.72	-.0821	19.30	-.1229	2653.1	5.53	43.50	-.0000	53.71	.2003	.44	356.86
EXTM	61	15.24	26.49	29	16	36.0	341.32	-.0598	-45.12	.0106	5858.4	6.79	3.01	-.0000	166.92	-.0436	-4.45	5.07
SET	61	35.13	46.38	29	16	55.9	312.44	-.0094	-38.58	.0025	14699.8	6.06	-.01	-.0021	144.76	-.0075	-18.38	29.66
EXTM	51	39.73	50.98	29	17	.5	352.59	-.0130	-16.47	-.0089	11193.1	5.27	78.45	-.0000	38.10	.0766	-19.87	32.51
EXTM	72	66.18	77.43	29	17	26.9	289.88	.0000	-25.45	-.0015	22380.1	4.86	21.30	.0000	114.30	.0016	-24.40	40.91
EXTM	51	85.00	96.25	29	17	45.8	341.23	-.0001	-25.59	-.0012	24405.7	4.43	73.09	.0000	93.60	.0042	-25.82	42.61
RISE	61	106.61	117.86	29	18	7.4	306.29	.0016	-34.97	.0003	35535.4	4.08	-.00	.0011	138.66	.0008	-26.76	42.48
EXTM	51	221.81	233.06	29	20	2.6	359.94	.0033	-28.54	-.0001	54872.0	3.26	87.20	-.0000	178.92	.0561	-28.25	27.74
EXTM	61	393.50	404.75	29	22	54.3	2.72	.0038	-32.25	.0001	89281.7	2.67	17.47	.0000	182.41	.0034	-28.44	353.20
EXTM	72	429.19	440.44	29	23	30.0	.31	.0040	-29.83	.0000	91064.9	2.58	68.07	.0000	180.72	.0092	-28.42	345.38
RISE	11	601.52	612.77	30	2	22.3	294.37	.0040	-30.32	-.0000	121848.6	2.00	.00	.0025	128.15	.0023	-28.29	306.25
SET	51	625.55	636.80	30	2	46.3	90.00	.0038	-27.18	.0001	123852.5	2.59	11.44	-.0032	245.18	-.0013	-28.27	300.67
SET	61	638.20	649.45	30	2	59.0	60.19	.0039	-30.43	.0001	126809.6	2.47	-.00	-.0022	228.43	.0026	-28.26	297.72
SET	72	822.55	833.80	30	6	3.3	94.19	.0039	-27.74	.0001	150238.4	2.40	-.00	-.0034	241.97	-.0005	-28.09	254.20
RISE	42	832.49	843.74	30	6	13.3	254.99	.0040	-26.63	-.0001	150998.0	1.70	3.98	.0028	120.06	-.0021	-28.08	251.83
EXTM	11	871.91	883.16	30	6	52.7	.76	.0041	-30.17	.0000	153516.7	1.97	24.61	-.0000	180.73	.0039	-28.05	242.42
SET	11	1139.12	1150.37	30	11	19.9	66.84	.0041	-29.14	.0001	186061.4	2.06	-.00	-.0026	233.42	.0024	-27.83	177.98
EXTM	42	1258.34	1269.59	30	13	19.1	359.99	.0042	-27.50	.0000	192246.3	1.70	82.28	-.0000	.14	-.0111	-27.75	148.99
RISE	51	1393.74	1404.99	30	15	34.5	270.00	.0041	-27.00	-.0000	210702.0	1.26	11.37	.0034	114.65	-.0014	-27.65	115.94
RISE	72	1548.66	1559.91	30	18	9.4	265.88	.0041	-27.31	-.0000	226722.8	1.15	-.01	.0036	117.60	-.0005	-27.55	77.99
RISE	61	1634.08	1645.33	30	19	34.8	297.54	.0041	-28.65	-.0000	234588.9	1.24	.00	.0024	128.91	.0027	-27.50	57.02
SET	42	1681.63	1692.88	30	20	22.4	105.00	.0041	-26.95	.0000	238453.1	1.82	3.93	-.0029	240.01	-.0022	-27.47	45.34
EXTM	51	1747.63	1758.88	30	21	28.4	358.54	.0042	-27.48	.0000	238481.4	1.46	87.82	.0023	143.52	.0783	-27.44	29.10
EXTM	61	1884.29	1895.54	30	23	45.1	.31	.0042	-28.69	.0000	254355.9	1.42	21.07	.0000	180.29	.0039	-27.36	355.44
EXTM	72	1924.32	1935.57	1	0	25.1	.10	.0042	-27.82	.0000	254108.8	1.41	70.08	-.0000	180.26	.0107	-27.34	345.58
RISE	11	2069.18	2080.43	1	2	49.9	292.18	.0042	-28.15	-.0000	272079.6	1.06	.00	.0028	125.27	.0024	-27.27	309.83
SET	51	2112.90	2124.15	1	3	33.7	90.00	.0041	-26.74	.0000	274394.2	1.72	11.27	-.0034	245.59	-.0114	-27.25	299.03
SET	61	2134.27	2145.52	1	3	55.0	63.01	.0042	-28.20	.0000	277363.3	1.62	-.00	-.0025	231.75	.0027	-27.24	293.74
SET	72	2298.98	2310.23	1	6	39.7	94.05	.0041	-26.97	.0000	290401.1	1.70	-.00	-.0036	242.75	-.0005	-27.16	253.02
RISE	42	2299.59	2310.84	1	6	40.4	255.00	.0041	-26.40	-.0000	290021.9	.97	3.84	.0029	119.87	-.0022	-27.16	252.87
EXTM	11	2339.70	2350.95	1	7	20.5	.21	.0042	-28.25	.0000	290721.7	1.29	26.54	-.0000	180.21	.0041	-27.14	242.94
SET	11	2610.03	2621.28	1	11	50.8	68.17	.0042	-27.79	.0000	313847.6	1.53	.00	-.0028	235.21	.0024	-27.03	175.98
EXTM	42	2718.88	2730.13	1	13	39.6	360.00	.0042	-26.82	.0000	315481.1	1.19	81.60	-.0000	.12	-.0035	-26.99	148.98
RISE	51	2849.51	2860.76	1	15	50.3	270.00	.0041	-26.51	-.0000	329732.1	.79	11.18	.0034	114.20	-.0015	-26.94	116.57
RISE	72	3002.61	3013.86	1	18	23.4	265.99	.0042	-26.72	-.0000	341664.6	.71	-.00	.0037	117.00	-.0005	-26.88	78.50
RISE	61	3082.11	3093.36	1	19	42.9	296.28	.0042	-27.62	-.0000	346989.6	.83	.00	.0025	127.40	.0027	-26.85	58.66
SET	42	3137.25	3148.50	1	20	38.0	105.00	.0041	-26.20	.0000	350250.3	1.44	3.72	-.0030	240.29	-.0023	-26.83	44.90
EXTM	51	3202.70	3213.95	1	21	43.5	359.11	.0042	-26.83	.0000	348690.6	1.10	88.65	.0022	144.01	.1287	-26.81	28.56
EXTM	61	3334.68	3345.93	1	23	55.4	.16	.0042	-27.70	.0000	361344.2	1.10	22.06	-.0000	180.15	.0040	-26.77	355.60
EXTM	72	3374.68	3385.93	2	0	35.4	.07	.0042	-27.08	.0000	360395.9	1.11	70.82	-.0000	180.20	.0112	-26.76	345.60
RISE	11	3513.32	3524.57	2	2	54.1	291.40	.0042	-27.35	-.0000	375595.8	.81	.00	.0028	124.21	.0024	-26.71	310.92
SET	51	3562.27	3573.52	2	3	43.0	90.00	.0042	-26.32	.0000	377698.1	1.52	11.10	-.0034	245.98	-.0015	-26.70	298.66
SET	61	3586.88	3598.13	2	4	7.6	64.00	.0042	-27.59	.0000	380627.0	1.45	-.00	-.0025	232.95	.0027	-26.69	292.49
IMPACT		3709.11	3720.36	2	6	9.9												
IMPC	42	3709.11	3720.36	2	6	9.9	246.56	.0043	-26.01	-.0000	390578.5	1.71	-2.24	.0029	124.39	-.0025	-26.63	261.63
IMPC	72	3709.11	3720.36	2	6	9.9	85.07	.0043	-26.55	.0000	389453.0	2.45	7.91	-.0039	244.13	-.0003	-26.63	261.63
IMPC	11	3709.11	3720.36	2	6	9.9	341.24	.0044	-27.44	.0000	387656.8	1.92	24.89	.0011	161.66	.0041	-26.63	261.63

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	29	16	20.764	6549.131	23.4476	307.4321	10.98755	1.4885	106.5768	109.9241
SEPARATION		1.20	12.45	29	16	21.964	6593.174	21.3273	314.2104	10.95035	4.9802	109.2764	117.0031
RETRO		3.20	14.45	29	16	23.964	6767.560	17.3116	324.7003	10.80715	10.4122	112.9249	127.9944
IMPACT		3709.11	3720.36	2	6	9.873	390381.521	-26.6300	261.6325	2.19667	67.4545	277.0996	273.9397

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SURVEYOR VIEW PERIODS

GHA	279.5865					EPS	-7.1854							LOM	257.1201
SX	.061237	SY	-.891873	SZ	-.448122	DAO	-26.62127	RAO	273.92781	RM	391663.473	LAT	28.310400	LON	279.461800
C3	-1.003985	ECC	.983516	SLR	12981.452	RCA	6544.6550	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.082224	NSY	-.889782	NSZ	-.448917	C3M	1.4975	VIM	2.6715	ZAE	139.979	B.T	.0000	B.R	-.0000
LATE	4.2638	LONE	4.5571	LATS	1.1674	LONS	11.0248	LATI	-1.9921	LONI	325.0003	RSM	152.4770	TTAN	6.6845
LAUNCH DATE	JUN 29,1966			BASE AZM	96.0		TF 61.837					ARRIVAL	DATE JUL 2 1966 6 27 49.4		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
96.00	16 23 52.6	28.1	22.28	307.08	6.17	113.17	108.71	16 35 7.6	6562.9	10.98	3.01

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DFC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT												
INJECTION		.00	11.25	29	16	35.1												
SEPARATION		1.20	12.45	29	16	36.3												
RETRO		3.20	14.45	29	16	38.3												
RISE	72	4.68	15.93	29	16	39.8	79.57	-.2217	52.52	.0493	3022.1	-6.75	.00	.1203	323.24	.0785	12.45	330.46
RISE	61	9.42	20.67	29	16	44.5	19.60	-.1368	-48.07	-.0057	4994.0	4.99	.00	.0179	192.95	-.0899	2.83	347.79
RISE	51	11.23	22.48	29	16	46.4	74.93	-.0920	28.14	-.0318	5745.7	-2.64	.00	.0861	301.80	.0123	-.28	353.01
EXTM	72	11.54	22.79	29	16	46.7	331.44	-.1023	16.40	-.1231	2687.6	5.25	52.72	-.0000	49.23	.2600	-.78	353.85
EXTM	61	16.75	28.00	29	16	51.9	341.73	-.0497	-45.40	.0086	7708.3	6.69	2.82	-.0000	167.27	-.0360	-7.71	5.38
EXTM	51	42.78	54.03	29	17	17.9	355.45	-.0112	-19.44	-.0068	12270.3	5.19	82.43	-.0000	34.63	.0957	-21.61	30.73
SET	61	44.06	55.31	29	17	19.2	312.75	-.0056	-38.74	.0017	17905.8	5.59	-.00	-.0010	145.06	-.0046	-21.90	31.31
EXTM	72	67.73	78.98	29	17	42.9	293.71	.0001	-26.82	-.0013	22671.2	4.81	24.68	.0000	115.95	.0014	-25.30	37.71
RISE	61	84.16	95.41	29	17	59.3	308.61	.0005	-36.41	.0006	29807.1	4.45	-.00	.0007	141.03	-.0000	-26.45	39.14
EXTM	51	88.34	99.59	29	18	3.5	345.50	.0000	-26.75	-.0010	25337.3	4.37	76.96	.0000	97.66	.0044	-26.67	39.27
EXTM	51	201.71	212.96	29	19	56.8	359.93	.0031	-28.96	-.0001	50984.4	3.37	86.78	-.0000	178.87	.0469	-28.60	27.75
EXTM	61	379.31	390.56	29	22	54.4	3.09	.0038	-32.47	.0001	87124.1	2.71	17.04	.0000	182.72	.0034	-28.76	352.85
EXTM	72	413.99	425.24	29	23	29.1	.38	.0040	-30.19	.0001	88791.3	2.62	67.71	.0000	180.87	.0090	-28.73	345.32
RISE	11	588.26	599.51	30	2	23.4	294.67	.0040	-30.60	-.0000	120098.1	2.02	.00	.0025	128.54	.0023	-28.54	305.92
SET	51	610.66	621.91	30	2	45.8	90.00	.0038	-27.41	.0001	121897.2	2.60	11.53	-.0031	244.96	-.0013	-28.52	300.72
SET	61	621.79	633.04	30	2	56.9	59.81	.0039	-30.72	.0001	124673.8	2.49	-.00	-.0021	227.99	.0026	-28.51	298.14
SET	72	808.24	819.49	30	6	3.4	94.23	.0039	-27.94	.0001	148561.0	2.41	-.00	-.0034	241.77	-.0004	-28.30	254.20
RISE	42	818.31	829.56	30	6	13.4	254.99	.0040	-26.82	-.0001	149331.0	1.71	4.09	.0028	120.20	-.0021	-28.29	251.80
EXTM	11	857.94	869.19	30	6	53.1	.84	.0041	-30.39	.0000	151940.3	1.98	24.39	-.0000	180.79	.0039	-28.24	242.35
SET	11	1124.30	1135.55	30	11	19.4	66.67	.0041	-29.31	.0001	184535.9	2.07	-.00	-.0026	233.20	.0024	-27.99	178.16
EXTM	42	1244.30	1255.55	30	13	19.4	359.98	.0042	-27.64	.0000	190860.6	1.70	82.42	-.0000	.16	-.0180	-27.88	149.00
RISE	51	1379.83	1391.08	30	15	35.0	270.00	.0041	-27.12	-.0000	209382.8	1.27	11.41	.0034	114.77	-.0014	-27.78	115.92
RISE	72	1534.70	1545.95	30	18	9.8	265.86	.0041	-27.42	-.0000	225462.3	1.16	-.01	.0036	117.71	-.0005	-27.66	78.00
RISE	61	1620.75	1632.00	30	19	35.9	297.68	.0041	-28.76	-.0000	233414.8	1.25	.00	.0024	129.08	.0027	-27.61	56.88
SET	42	1667.70	1678.95	30	20	22.8	105.00	.0041	-26.64	.0000	237232.3	1.82	3.99	-.0029	239.93	-.0022	-27.57	45.35
EXTM	51	1733.65	1744.90	30	21	28.8	358.52	.0042	-27.58	.0000	237284.2	1.47	87.73	.0022	144.61	.0762	-27.53	29.13
EXTM	61	1870.51	1881.76	30	23	45.6	.34	.0042	-28.78	.0000	253223.8	1.43	20.98	.0000	180.32	.0039	-27.45	353.42
EXTM	72	1910.48	1921.73	1	0	25.6	.10	.0042	-27.91	.0000	252975.9	1.41	70.00	-.0000	180.27	.0107	-27.42	345.57
RISE	11	2055.65	2066.90	1	2	50.8	292.26	.0042	-28.23	-.0000	271005.8	1.06	.00	.0028	125.37	.0024	-27.34	309.74
SET	51	2099.03	2110.28	1	3	34.2	90.00	.0041	-26.81	.0000	273298.9	1.72	11.29	-.0034	245.52	-.0014	-27.32	299.03
SET	61	2120.04	2131.29	1	3	55.2	62.92	.0042	-28.28	.0000	276246.7	1.62	-.00	-.0025	231.64	.0027	-27.31	293.84
SET	72	2285.17	2296.42	1	6	40.3	94.06	.0041	-27.03	.0000	289354.8	1.70	-.00	-.0036	242.69	-.0005	-27.22	253.01
RISE	42	2285.77	2297.02	1	6	40.9	255.00	.0041	-26.46	-.0000	288971.6	.98	3.88	.0029	119.92	-.0022	-27.22	252.86
EXTM	11	2325.93	2337.18	1	7	21.1	.23	.0042	-28.32	.0000	289693.6	1.29	26.47	-.0000	180.23	.0041	-27.20	242.93
SET	11	2596.02	2607.27	1	11	51.1	68.12	.0042	-27.84	.0000	312846.5	1.53	.00	-.0028	235.14	.0024	-27.08	176.03
EXTM	42	2705.07	2716.32	1	13	40.2	360.00	.0042	-26.86	.0000	314513.3	1.20	81.64	-.0000	.14	-.0041	-27.03	148.98
RISE	51	2835.72	2846.97	1	15	50.8	270.00	.0041	-26.55	-.0000	328786.2	.80	11.19	.0034	114.23	-.0015	-26.97	116.57
RISE	72	2988.93	3000.18	1	18	24.1	265.98	.0042	-26.75	-.0000	340777.6	.72	-.00	.0037	117.03	-.0005	-26.91	78.50
RISE	61	3068.58	3079.83	1	19	43.7	296.32	.0042	-27.65	-.0000	346113.8	.84	.00	.0025	127.44	.0027	-26.88	58.62
SET	42	3123.54	3134.79	1	20	38.7	105.00	.0041	-26.23	.0000	349361.5	1.44	3.74	-.0030	240.27	-.0023	-26.86	44.90
EXTM	51	3188.83	3200.08	1	21	44.0	359.06	.0042	-26.86	.0000	347791.7	1.10	88.60	.0023	143.34	.1236	-26.84	28.60
EXTM	61	3320.99	3332.24	1	23	56.1	.17	.0042	-27.72	.0000	360453.6	1.10	22.04	-.0000	180.16	.0040	-26.79	355.59
EXTM	72	3360.96	3372.21	2	0	36.1	.07	.0042	-27.11	.0000	359498.0	1.10	70.80	-.0000	180.21	.0112	-26.78	345.60
RISE	11	3499.67	3510.92	2	2	54.8	291.42	.0042	-27.36	-.0000	374672.0	.81	.00	.0028	124.23	.0024	-26.73	310.90
SET	51	3548.54	3559.79	2	3	43.7	90.00	.0042	-26.34	.0000	376745.2	1.51	11.11	-.0034	245.97	-.0015	-26.71	298.66
SET	61	3573.08	3584.33	2	4	8.2	63.98	.0042	-27.40	.0000	379652.9	1.44	-.00	-.0025	232.92	.0027	-26.70	292.91
IMPACT		3710.23	3721.48	2	6	25.4												
IMPC	42	3710.23	3721.48	2	6	25.4	250.27	.0043	-26.04	-.0000	390336.4	1.69	.31	.0030	122.25	-.0025	-26.64	257.91
IMPC	72	3710.23	3721.48	2	6	25.4	88.80	.0043	-26.53	.0000	389861.0	2.45	4.59	-.0038	243.81	-.0004	-26.64	257.91
IMPC	11	3710.23	3721.48	2	6	25.4	345.02	.0044	-27.46	.0000	387611.3	1.93	25.76	.0009	165.25	.0042	-26.64	257.91

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION		.00	11.25	29	16	35.126	6563.024	22.2787	307.0931	10.97589	3.0076	108.7108	113.1893
SEPARATION		1.20	12.45	29	16	36.326	6627.555	19.9491	313.6635	10.92166	6.3943	111.1892	120.0566
RETRO		3.20	14.45	29	16	38.326	6833.975	15.6894	323.7647	10.75404	11.8234	114.4444	130.6590
IMPACT		3710.23	3721.48	2	6	25.051	390422.746	-26.6362	257.9060	2.19497	67.2254	277.2979	274.0934

SURVEYOR VIEW PERIODS

GHA	279.5865					EPS	-7.0841							LOM	253.6399
SX	.083458	SY	-.891875	SZ	-.448205	DAO	-26.42861	RAO	274.07069	RM	391698.367	LAT	28.310600	LON	279.461800
C3	-1.007262	ECC	.983465	SLR	12981.121	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.084471	NSY	-.889534	NSZ	-.448992	C3M	1.4971	VIM	2.6714	ZAE	139.875	B.T	.0000	B.R	-.0000
LATE	4.2753	LONE	4.5521	LATS	1.1677	LONS	10.9060	LATI	-2.2355	LONI	324.9313	RSM	152.4772	TTAN	6.6856
LAUNCH DATE	JUN 29,1966			BASE AZM	99.0		TF 61.894					ARRIVAL DATE	JUL 2 1966		6 42 16.6

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99.00	16 34 19.6	28.1	21.14	306.65	8.26	115.36	110.81	16 45 34.6	6578.5	10.96	4.09

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PRORE IN SUNLIGHT											
INJECTION	.00	11.25	29	16	45.6												
SEPARATION	1.20	12.45	29	16	46.8												
RETRO	3.20	14.45	29	16	48.8												
RISE 72	4.45	15.70	29	16	50.0	81.40	-.1940	47.11	.0313	3084.1	-7.02	.01	.1230	317.70	.0574	11.25	328.29
RISE 51	11.17	22.42	29	16	56.7	77.08	-.0858	24.47	-.0340	5880.2	-2.48	.00	.0846	297.84	.0074	-1.95	350.82
RISE 61	10.74	21.99	29	16	56.3	13.95	-.1111	-48.91	-.0007	5707.0	5.53	.00	.0127	189.12	-.0719	-1.25	349.68
EXTM 72	11.36	22.61	29	16	56.9	340.04	-.1192	12.02	-.1201	2566.6	5.04	61.88	-.0000	45.11	.3550	-2.25	351.31
EXTM 61	18.38	29.63	29	17	4.0	341.70	-.0421	-46.16	.0072	8589.0	6.59	2.07	-.0000	167.43	-.0301	-11.02	5.83
EXTM 51	45.32	56.57	29	17	30.9	357.76	-.0101	-22.28	-.0054	13145.3	5.13	85.98	-.0000	31.00	.1541	-23.41	29.20
SET 61	47.41	58.66	29	17	33.0	314.94	-.0048	-39.86	.0017	19119.1	5.42	-.00	-.0006	147.09	-.0040	-23.82	30.05
EXTM 72	69.23	80.48	29	17	54.8	296.61	.0001	-28.44	-.0010	22996.3	4.77	27.10	.0000	117.97	.0011	-26.49	35.29
RISE 61	72.77	84.02	29	17	58.3	311.51	-.0005	-38.07	.0008	26751.4	4.68	.00	.0005	143.87	-.0008	-26.75	35.71
EXTM 51	186.15	197.40	29	19	51.7	359.94	.0029	-29.67	-.0000	47881.3	3.45	86.07	-.0000	179.17	.0353	-29.20	27.74
EXTM 61	369.83	381.08	29	22	55.4	3.54	.0038	-33.22	.0002	85691.7	2.73	16.47	.0000	183.09	.0033	-29.23	352.43
EXTM 72	403.20	414.45	29	23	28.8	.49	.0039	-30.71	.0001	87163.9	2.64	67.19	.0000	181.08	.0087	-29.19	345.22
RISE 11	579.55	590.80	30	2	25.1	295.08	.0040	-31.00	-.0000	118934.0	2.03	.00	.0025	129.07	.0023	-28.91	305.48
SET 51	599.90	611.15	30	2	45.5	90.00	.0038	-27.76	.0001	120453.0	2.62	11.67	-.0031	244.64	-.0013	-28.88	300.77
SET 61	608.86	620.11	30	2	54.4	59.28	.0039	-31.12	.0001	122958.7	2.50	-.00	-.0021	227.39	.0026	-28.86	298.69
SET 72	798.04	809.29	30	6	3.6	94.28	.0039	-28.23	.0001	147340.1	2.42	-.01	-.0034	241.48	-.0004	-28.59	254.18
RISE 42	808.12	819.37	30	6	13.7	254.99	.0040	-27.09	-.0001	148098.7	1.72	4.26	.0028	120.42	-.0021	-28.57	251.78
EXTM 11	848.08	859.33	30	6	53.7	.93	.0041	-30.69	.0001	150816.1	1.99	24.10	-.0000	180.88	.0039	-28.52	242.25
SET 11	1113.18	1124.43	30	11	18.8	66.43	.0041	-29.54	.0001	183354.3	2.07	-.00	-.0026	232.89	.0024	-28.21	178.41
EXTM 42	1234.14	1245.39	30	13	19.7	359.96	.0042	-27.84	.0000	189818.8	1.71	82.62	.0000	.28	-.0257	-28.08	149.02
RISE 51	1369.83	1381.08	30	15	35.4	270.00	.0041	-27.29	-.0000	208388.7	1.27	11.48	.0034	114.93	-.0014	-27.95	115.91
RISE 72	1524.61	1535.86	30	18	10.2	265.84	.0041	-27.58	-.0000	224502.9	1.16	-.01	.0036	117.87	-.0005	-27.82	78.02
RISE 61	1411.52	1422.77	30	19	37.1	297.87	.0041	-28.91	-.0000	232552.2	1.25	.00	.0024	129.30	.0027	-27.75	56.69
SET 42	1657.66	1668.91	30	20	23.2	105.00	.0041	-26.78	.0000	236295.4	1.83	4.08	-.0029	239.83	-.0022	-27.71	45.35
EXTM 51	1723.60	1734.85	30	21	29.2	358.51	.0042	-27.72	.0000	236367.7	1.47	87.61	.0021	146.32	.0738	-27.67	29.14
EXTM 61	1860.66	1871.91	30	23	46.2	.37	.0042	-28.91	.0000	252358.7	1.43	20.85	.0000	180.35	.0039	-27.57	355.39
EXTM 72	1900.52	1911.77	1	0	26.1	.11	.0042	-28.03	.0000	252100.5	1.42	69.88	-.0000	180.29	.0107	-27.54	345.56
RISE 11	2044.11	2055.36	1	2	51.7	292.36	.0042	-28.33	-.0000	270179.4	1.06	.00	.0028	125.51	.0024	-27.44	309.64
SET 51	2089.03	2100.28	1	3	34.6	90.00	.0041	-26.91	.0000	272436.1	1.72	11.33	-.0034	245.43	-.0014	-27.42	299.84
SET 61	2109.54	2120.79	1	3	55.1	62.79	.0042	-28.38	.0000	275350.4	1.62	-.00	-.0024	231.49	.0027	-27.41	293.97
SET 72	2275.23	2286.48	1	6	40.8	94.08	.0041	-27.12	.0000	288522.7	1.70	-.00	-.0036	242.60	-.0005	-27.31	253.00
RISE 42	2275.82	2287.07	1	6	41.4	255.00	.0041	-26.54	-.0000	288132.2	.98	3.93	.0029	119.98	-.0022	-27.31	252.86
EXTM 11	2316.04	2327.29	1	7	21.6	.25	.0042	-28.40	.0000	288877.9	1.29	26.39	-.0000	180.25	.0041	-27.28	242.90
SET 11	2585.77	2597.02	1	11	51.3	68.05	.0042	-27.91	.0000	312019.8	1.53	.00	-.0028	235.05	.0024	-27.14	176.09
EXTM 42	2695.10	2706.35	1	13	40.7	360.00	.0042	-26.92	.0000	313714.3	1.20	81.70	-.0000	.13	-.0058	-27.08	148.99
RISE 51	2825.77	2837.02	1	15	51.3	270.00	.0041	-26.60	-.0000	327996.0	.80	11.21	.0034	114.28	-.0015	-27.02	116.57
RISE 72	2978.95	2990.20	1	18	24.5	265.98	.0042	-26.79	-.0000	339997.7	.71	-.00	.0037	117.07	-.0005	-26.95	78.50
RISE 61	3058.81	3070.06	1	19	44.4	296.37	.0042	-27.69	-.0000	345344.8	.83	.00	.0025	127.50	.0027	-26.92	58.57
SET 42	3113.58	3124.83	1	20	39.2	105.00	.0041	-26.26	.0000	348574.0	1.44	3.76	-.0030	240.24	-.0023	-26.89	44.91
EXTM 51	3178.69	3189.94	1	21	44.3	359.02	.0042	-26.89	.0000	346991.5	1.10	88.55	.0023	142.82	.1183	-26.87	28.65
EXTM 61	3311.10	3322.35	1	23	54.7	.18	.0042	-27.75	.0000	359660.2	1.10	22.01	-.0000	180.17	.0040	-26.82	355.58
EXTM 72	3351.04	3362.29	2	0	36.6	.08	.0042	-27.13	.0000	358695.5	1.10	70.77	-.0000	180.22	.0111	-26.80	345.59
RISE 11	3489.84	3501.09	2	2	55.4	291.44	.0042	-27.58	-.0000	373845.6	.80	.00	.0028	124.26	.0024	-26.75	310.88
SET 51	3538.63	3549.88	2	3	44.2	90.00	.0042	-26.35	.0000	375893.2	1.51	11.11	-.0034	245.95	-.0015	-26.73	298.66
SET 61	3563.09	3574.34	2	4	8.7	63.96	.0042	-27.42	.0000	378782.7	1.43	-.00	-.0025	232.89	.0027	-26.72	292.53
RISE 42	3719.03	3730.28	2	6	44.6	255.00	.0044	-26.07	-.0000	390748.3	2.58	3.64	.0032	119.61	-.0024	-26.64	253.16
IMPACT	3713.66	3724.91	2	6	39.2												
IMPC 42	3713.66	3724.91	2	6	39.2	253.60	.0043	-26.07	-.0000	390111.3	1.68	2.65	.0030	120.38	-.0024	-26.64	254.56
IMPC 72	3713.66	3724.91	2	6	39.2	92.15	.0043	-26.51	.0000	390225.4	2.45	1.62	-.0038	243.45	-.0005	-26.64	254.56
IMPC 11	3713.66	3724.91	2	6	39.2	348.42	.0044	-27.47	.0000	387584.6	1.95	26.38	.0007	168.53	.0043	-26.64	254.56
SET 72	3720.58	3731.83	2	6	46.2	93.97	.0047	-26.49	.0001	391468.9	5.01	.00	-.0042	243.23	-.0006	-26.63	252.74

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	29	16	45.576	6578.948	21.1310	306.6790	10.96265	4.0937	110.8221	115.3909
SEPARATION	1.20	12.45	29	16	46.776	6657.737	18.6024	313.0394	10.89652	7.4568	113.0893	122.0522
RETRO	3.20	14.45	29	16	48.776	6886.522	14.0974	322.7921	10.71243	12.8190	115.9852	132.3063
IMPACT	3713.66	3724.91	2	6	39.235	3904457.422	-26.6419	254.5630	2.19344	67.1526	277.7427	274.2308

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SURVEYOR VIEW PERIODS

GHA	229.3865					EPS	-7.0000						LOM	250.7332	
SX	.045412	SY	-.891507	SZ	-.448273	DAD	-26.6396	RAD	274.19001	RM	391727.512	LAT	28.310600	LON	279.461800
C3	-1.011207	ECC	.963397	SLR	12980.671	RCA	6584.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.086363	NSY	-.889319	NSZ	-.449057	C3M	1.4968	VIM	2.6713	ZAE	139.734	B.T	.0000	B.R	-.0000
LATE	4.2848	LONE	4.4587	LITS	1.1578	LONS	10.9142	LATI	-2.5382	LONI	324.9461	RSM	152.4773	TTAN	6.6870
LAUNCH DATE		JUN	29,1966		BASE AZM	102.0		TF	51.967			ARRIVAL DATE	JUL	2 1966	6 54 20.8

LNCH AZMTH	LNCH TIME		INJ RA	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
102.00	16 41 58.1		28.1	20.02	306.16	9.83	116.79	112.91	16 53 13.1	6592.7	10.95	4.87

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DFC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	29	16	53.2												
SEPARATION		1.20	12.45	29	16	54.4												
RETRO		3.20	14.45	29	16	56.4												
RISE	72	4.29	15.54	29	16	57.5	82.77	-.1749	42.21	.0142	3132.0	-7.18	-.00	.1247	312.71	.0380	9.94	326.47
RISE	51	11.14	22.39	29	17	4.4	79.04	-.0808	21.53	-.0364	5982.7	-2.35	-.01	.0834	294.04	.0029	-3.76	348.91
EXTM	72	11.24	22.49	29	17	4.5	347.57	-.1321	6.40	-.1144	2489.9	4.89	71.07	-.0000	41.24	.5368	-.92	349.16
RISE	61	13.42	24.67	29	17	6.6	2.98	-.0781	-49.72	.0043	6928.3	6.13	.00	.0063	181.92	-.0503	-7.15	354.32
EXTM	61	20.21	31.46	29	17	13.4	341.16	-.0359	-47.20	.0062	9534.0	6.48	.96	-.0000	167.32	-.0252	-14.44	6.52
SET	61	37.44	48.69	29	17	30.7	321.70	-.0095	-42.84	.0027	15907.3	5.79	-.00	-.0000	152.97	-.0074	-23.02	23.03
EXTM	51	45.15	56.40	29	17	38.4	1.01	-.0107	-24.42	-.0050	13169.2	5.10	88.39	.0096	325.04	.1852	-24.85	27.00
EXTM	72	70.70	81.95	29	18	3.9	298.80	.0001	-30.21	-.0007	23344.2	4.73	28.79	.0000	120.22	.0009	-27.87	33.46
RISE	61	77.45	88.70	29	18	10.7	313.64	-.0002	-39.20	.0009	28140.9	4.56	-.00	.0007	145.89	-.0006	-28.29	34.15
EXTM	51	174.12	185.37	29	19	47.3	359.97	.0028	-30.41	-.0000	45422.2	3.53	85.13	.0000	179.65	.0233	-30.01	27.71
EXTM	61	363.81	375.06	29	22	57.0	4.07	.0038	-33.47	.0002	84809.6	2.74	15.80	.0000	183.51	.0033	-29.82	351.95
EXTM	72	395.69	406.94	29	23	28.9	.63	.0039	-31.43	.0001	86028.4	2.66	66.57	-.0000	181.35	.0084	-29.75	345.09
RISE	11	574.17	585.42	30	2	27.4	295.58	.0040	-31.46	-.0000	118207.5	2.04	.00	.0025	129.70	.0023	-29.35	304.96
SET	51	592.15	603.40	30	2	45.4	90.00	.0038	-28.19	.0001	119391.3	2.63	11.84	-.0031	244.23	-.0012	-29.31	300.81
SET	61	598.43	609.68	30	2	51.7	58.64	.0039	-31.59	.0001	121554.2	2.51	-.00	-.0021	226.66	.0026	-29.30	299.35
SET	72	790.82	802.07	30	6	4.0	94.34	.0039	-28.58	.0001	146460.0	2.43	-.01	-.0034	241.12	-.0004	-28.94	254.14
RISE	42	800.83	812.08	30	6	14.1	254.99	.0040	-27.43	-.0001	147191.2	1.73	4.47	.0028	120.70	-.0021	-28.92	251.76
EXTM	11	841.19	852.44	30	6	54.4	1.05	.0041	-31.04	.0001	150029.8	2.00	23.74	-.0000	180.98	.0039	-28.85	242.14
SET	11	1104.72	1115.97	30	11	17.9	66.15	.0041	-29.81	.0001	182432.6	2.08	-.00	-.0026	232.52	.0024	-28.47	178.70
EXTM	42	1226.87	1238.12	30	13	20.1	359.96	.0042	-28.09	.0000	189047.3	1.71	82.87	.0000	.34	-.0268	-28.32	149.02
RISE	51	1342.64	1353.89	30	15	35.9	270.00	.0041	-27.51	-.0000	207642.9	1.28	11.57	.0033	115.13	-.0014	-28.17	115.90
RISE	72	1517.30	1528.55	30	18	10.5	265.80	.0041	-27.77	-.0000	223775.8	1.17	-.01	.0036	118.06	-.0005	-28.01	78.04
RISE	61	1605.24	1616.49	30	19	38.5	298.09	.0041	-29.09	-.0000	231930.2	1.26	.00	.0024	129.57	.0027	-27.93	56.46
SET	42	1650.43	1661.68	30	20	23.6	105.00	.0041	-26.95	.0000	235580.0	1.83	4.18	-.0029	239.69	-.0022	-27.88	45.36
EXTM	51	1722.32	1733.57	30	21	35.5	.01	.0042	-27.88	.0000	236198.6	1.48	87.86	.0000	180.44	.0264	-27.82	27.68
EXTM	61	1853.63	1864.88	30	23	44.8	.41	.0042	-29.06	.0000	251706.4	1.43	20.71	-.0000	180.39	.0034	-27.71	355.35
EXTM	72	1893.37	1904.62	1	0	24.6	.12	.0042	-28.17	.0000	251430.5	1.42	69.73	-.0000	180.32	.0106	-27.68	345.55
RISE	11	2039.43	2050.68	1	2	52.6	292.49	.0042	-28.46	-.0000	269552.4	1.06	.00	.0027	125.68	.0024	-27.57	309.51
SET	51	2081.81	2093.06	1	3	35.0	90.00	.0041	-27.03	.0000	271762.6	1.72	11.38	-.0034	245.32	-.0014	-27.54	299.04
SET	61	2101.72	2112.97	1	3	54.9	62.85	.0042	-28.50	.0000	274635.2	1.62	-.00	-.0024	231.31	.0027	-27.52	294.12
SET	72	2268.08	2279.33	1	6	41.3	94.10	.0041	-27.22	.0001	287869.4	1.71	-.00	-.0036	242.50	-.0005	-27.41	252.99
RISE	42	2268.63	2279.88	1	6	41.8	255.00	.0041	-26.64	-.0000	287469.1	.98	3.99	.0029	120.06	-.0022	-27.41	252.85
EXTM	11	2308.94	2320.19	1	7	22.2	.28	.0042	-28.51	.0000	288240.3	1.29	26.29	-.0000	180.27	.0041	-27.38	242.88
SET	11	2578.24	2589.49	1	11	51.5	67.97	.0042	-27.98	.0000	311348.0	1.53	.00	-.0028	234.95	.0024	-27.21	176.17
EXTM	42	2687.89	2699.14	1	13	41.1	359.99	.0042	-26.99	.0000	313067.4	1.20	81.77	-.0000	.12	-.0074	-27.15	148.99
RISE	51	2818.56	2829.81	1	15	51.8	270.00	.0041	-26.65	-.0000	327350.3	.80	11.23	.0034	114.33	-.0015	-27.08	116.56
RISE	72	2971.87	2983.12	1	18	25.1	265.97	.0042	-26.84	-.0000	339392.1	.71	.00	.0037	117.11	-.0005	-27.00	78.50
RISE	61	3051.94	3063.19	1	19	45.2	296.42	.0042	-27.73	-.0000	344746.7	.83	.00	.0025	127.56	.0027	-26.96	58.52
SET	42	3106.48	3117.73	1	20	39.7	105.00	.0041	-26.60	.0000	347952.9	1.44	3.78	-.0030	240.21	-.0023	-26.93	44.91
EXTM	51	3171.41	3182.66	1	21	44.6	358.97	.0042	-26.93	.0000	346354.4	1.10	88.50	.0023	142.44	.1135	-26.90	28.69
EXTM	61	3304.04	3315.29	1	23	57.3	.19	.0042	-27.78	.0000	359023.7	1.10	21.98	-.0000	180.18	.0040	-26.85	355.56
EXTM	72	3343.93	3355.18	2	0	37.1	.08	.0042	-27.16	.0000	358047.4	1.10	70.74	-.0000	180.23	.0111	-26.83	345.59
RISE	11	3482.79	3494.04	2	2	56.0	291.46	.0042	-27.41	-.0000	373168.3	.80	.00	.0028	124.29	.0024	-26.77	310.86
SET	51	3531.48	3542.73	2	3	44.7	90.00	.0042	-26.17	.0000	375190.1	1.50	11.12	-.0034	245.93	-.0015	-26.75	298.66
SET	61	3555.85	3567.10	2	4	9.1	63.94	.0042	-27.44	.0000	378062.2	1.42	-.00	-.0025	232.87	.0027	-26.74	292.56
RISE	42	3712.26	3723.51	2	6	45.5	255.00	.0043	-26.88	-.0000	389397.5	1.40	3.65	.0030	119.62	-.0023	-26.65	253.16
SET	72	3713.90	3725.15	2	6	47.1	93.97	.0043	-26.51	.0000	389974.4	2.22	.00	-.0038	243.21	-.0005	-26.65	252.74
IMPACT		3718.01	3729.26	2	6	51.2												
IMPC	42	3718.01	3729.26	2	6	51.2	256.48	.0043	-26.09	-.0000	389916.7	1.67	4.70	.0031	118.82	-.0023	-26.65	251.67
IMPC	72	3718.01	3729.26	2	6	51.2	95.03	.0043	-26.50	.0000	390543.1	2.44	-.94	-.0038	243.08	-.0006	-26.65	251.67
IMPC	11	3718.01	3729.26	2	6	51.2	351.35	.0044	-27.47	.0000	387577.6	1.96	26.79	.0006	171.40	.0043	-26.65	251.67

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION		.00	11.25	29	16	53.218	6593.614	20.0027	306.2092	10.95050	4.8743	112.9209	116.8369
SEPARATION		1.20	12.45	29	16	54.418	6682.325	17.2810	312.3660	10.87610	8.2174	114.9891	123.2945
RETRO		3.20	14.45	29	16	56.418	6926.891	12.5262	321.8047	10.68070	13.5279	117.5538	133.2345
IMPACT		3718.01	3729.26	2	6	51.231	390490.824	-26.6469	251.6750	2.19073	66.8835	278.2212	274.3501

SURVEYOR VIEW PERIODS

GHA	279.5865					EPS	-6.9250							LOM	248.1328
SX	.066970	SY	-.891354	SZ	-.448333	DAD	-26.4376	RAD	274.29675	RM	391753.574	LAT	28.310600	LON	279.461800
C3	-1.014304	ECC	.985313	SLR	12940.128	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.068170	NSY	-.894121	NSZ	-.449118	C3M	1.4765	VIM	2.6713	ZAE	139.556	R.T	.0000	B.R	-.0000
LATE	4.2934	LONE	4.5450	LATS	1.1681	LONS	10.7125	LATI	-2.8769	LONI	324.7127	RSM	152.4774	TTAN	6.6889
LAUNCH DATE	JUN 29,1966			BASE AZM	105.0		TF 62.053					ARRIVAL DATE	JUL 2 1966 7 5 8.8		

LNCH AZMTH	LNCH TIME	PH	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
105.00	14 47 42.2	28.1	18.92	305.43	10.99	117.70	114.99	16 58 57.2	6604.7	10.94	5.45

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA PRIOR IN SUNLIGHT	HA	DEC	DUE	RNG	DRG	ELS	DEL	AZI	DAZ	LAT	LONG
INJECTION		.00	11.25	29	16	59.0												
SEPARATION		1.20	12.45	29	17	.2												
RETRO		3.20	14.45	29	17	2.2												
RISE	72	4.19	15.44	29	17	3.1	83.86	-.1604	37.42	-.0023	3171.3	-7.26	-.00	.1255	308.04	.0198	8.55	324.90
RISE	51	11.14	22.39	29	17	10.1	80.86	-.0765	14.25	-.0388	6065.7	-2.24	-.00	.0823	290.34	-.0013	-5.67	347.18
EXTM	72	11.19	22.44	29	17	10.1	354.11	-.1408	-.19	-.1066	2463.1	4.82	80.30	-.0000	37.55	1.0483	-5.76	347.32
EXTM	51	49.52	60.77	29	17	48.5	1.02	-.0088	-27.44	-.0034	14563.0	5.03	87.69	-.0000	203.05	-.2107	-27.21	26.98
EXTM	72	71.84	83.09	29	18	10.8	300.47	.0001	-32.6	-.0005	23627.4	4.70	29.91	.0000	122.58	.0006	-29.36	32.01
RISE	61	88.09	99.34	29	18	27.0	315.43	.0005	-40.39	.0008	31091.9	4.34	-.00	.0009	147.53	-.0001	-30.09	33.19
EXTM	51	97.73	108.98	29	18	36.7	353.05	.0004	-41.48	-.0003	27896.6	4.23	81.49	.0000	134.33	.0031	-30.36	33.29
EXTM	51	145.24	176.49	29	19	44.2	.11	.0026	-31.3	.0000	43576.9	3.59	84.01	.0000	180.89	.0208	-30.97	27.59
EXTM	61	361.28	371.53	29	22	59.2	4.44	.0038	-34.47	.0002	84326.0	2.75	15.07	.0000	183.95	.0032	-30.49	351.42
EXTM	72	390.28	401.53	29	23	29.2	.74	.0039	-32.03	.0001	85213.6	2.67	65.87	.0000	181.54	.0081	-30.39	344.99
RISE	11	571.12	582.37	30	2	30.1	296.14	.0040	-31.98	.0000	117789.7	2.04	.00	.0025	130.40	.0023	-29.84	304.40
SET	51	588.51	597.76	30	2	48.5	90.00	.0038	-28.68	.0001	118599.0	2.03	12.03	-.0031	243.77	-.0012	-29.80	300.85
SET	61	589.71	600.96	30	2	48.7	57.90	.0039	-32.13	.0002	121362.4	2.02	-.00	-.0020	225.84	.0026	-29.79	300.10
SET	72	785.66	796.91	30	6	4.6	94.42	.0039	-28.97	.0001	145817.3	2.43	-.01	-.0034	240.72	-.0004	-29.33	254.09
RISE	42	795.56	806.81	30	6	14.5	254.99	.0040	-27.82	.0000	146510.2	1.73	4.71	.0028	121.00	-.0021	-29.31	251.74
EXTM	11	836.37	847.62	30	6	55.3	1.18	.0041	-31.93	.0001	149478.7	2.00	23.35	.0000	181.10	.0038	-29.23	242.02
SET	11	1098.09	1109.34	30	11	17.0	65.84	.0041	-30.2	.0001	171689.2	2.08	-.00	-.0026	232.11	.0024	-28.77	179.02
EXTM	42	1221.56	1232.81	30	13	20.5	359.95	.0042	-28.56	.0000	198457.3	1.71	83.14	.0000	.41	-.0286	-28.59	149.03
RISE	51	1357.41	1368.66	30	15	36.4	270.00	.0042	-27.74	-.0000	207066.6	1.28	11.66	.0033	115.35	-.0014	-28.41	115.89
RISE	72	1511.91	1523.16	30	18	10.9	265.77	.0041	-27.48	-.0000	223206.4	1.17	-.00	.0036	118.27	-.0005	-28.22	78.07
RISE	61	1401.12	1412.27	30	19	46.0	298.35	.0041	-29.19	-.0000	231473.2	1.26	.00	.0024	122.87	.0027	-28.12	56.28
SET	42	1645.13	1656.38	30	20	24.1	105.00	.0041	-27.13	.0001	235014.0	1.83	4.29	-.0026	234.54	-.0022	-28.07	45.36
EXTM	51	1717.05	1728.30	30	21	6.0	.01	.0042	-28.06	.0000	235652.1	1.48	87.68	.0000	180.45	.0325	-28.00	27.68
EXTM	61	1846.52	1859.77	30	23	47.5	.46	.0042	-29.22	.0000	251194.3	1.43	20.54	-.0000	180.83	.0039	-27.87	355.30
EXTM	72	1888.13	1899.38	1	0	27.1	.14	.0042	-28.1	.0000	250897.6	1.42	69.57	-.0000	180.33	.0105	-27.83	345.54
RISE	11	2034.71	2045.96	1	2	53.7	292.63	.0042	-2	-.0000	269058.0	1.06	.00	-.0027	125.62	.0024	-27.70	309.37
SET	51	2076.49	2087.74	1	3	35.4	90.00	.0041	-28.6	.0001	271214.6	1.72	11.43	-.0034	240.0	-.0014	-27.67	299.05
SET	61	2095.75	2107.00	1	3	54.7	62.48	.0042	-28.74	.0000	274039.3	1.62	-.00	-.0024	231.11	.0027	-27.65	294.29
SET	72	2252.85	2264.10	1	6	41.8	94.11	.0041	-27.53	.0001	287333.4	1.70	-.00	-.0036	240.38	-.0005	-27.52	252.97
RISE	42	2263.34	2274.59	1	6	42.3	255.00	.0041	-28.5	-.0000	286921.6	.98	4.06	.00	120.45	-.0022	-27.52	252.85
EXTM	11	2303.76	2315.01	1	7	22.7	.31	.0042	-28.69	.0000	287719.1	1.29	26.17	-.00	180.31	.0041	-27.49	242.85
SET	11	2572.56	2583.81	1	11	51.5	87.89	.0042	-28.37	.0000	310775.7	1.53	.01	-.0027	234.83	.0024	-27.30	176.26
EXTM	42	2682.56	2693.81	1	13	41.5	359.99	.0042	-27.16	.0000	312517.6	1.20	81.84	-.00	.14	-.0079	-27.23	148.99
RISE	51	2813.25	2824.50	1	15	52.2	270.00	.0041	-28.72	-.0000	326795.9	.80	11.26	-.00	114.39	-.0015	-27.14	116.56
RISE	72	2966.51	2977.76	1	18	25.5	265.96	.0042	-28.49	-.0000	338834.5	.71	.00	-.00	117.17	-.0005	-27.05	78.51
RISE	61	3048.84	3058.09	1	19	45.8	296.48	.0042	-27.78	-.0000	344199.0	.83	.00	-.00	127.63	.0027	-27.01	58.46
SET	42	3101.13	3112.38	1	20	46.1	105.00	.0041	-28.34	.0000	347366.6	1.43	3.85	-.0030	240.18	-.0022	-26.98	44.91
EXTM	51	3185.92	3177.17	1	21	44.9	358.93	.0042	-26.97	-.0000	345768.1	1.09	88.44	.0023	142.36	.1093	-26.95	28.73
EXTM	61	3298.78	3310.03	1	23	37.7	.21	.0042	-27.42	.0000	356438.5	1.10	21.94	-.0000	180.20	.0040	-26.88	355.54
EXTM	72	3338.62	3349.87	2	0	17.6	.09	.0042	-27.19	.0000	357450.4	1.10	70.21	-.0000	180.24	.0112	-26.86	345.59
RISE	11	3417.58	3428.83	2	2	56.5	291.49	.0042	-27.43	-.0000	372547.1	.79	.00	.0028	124.32	.0024	-26.79	310.83
SET	51	3526.17	3537.42	2	3	46.1	90.00	.0042	-26.49	.0000	374545.8	1.49	11.13	-.0034	245.91	-.0015	-26.77	298.66
SET	61	3550.45	3561.70	2	4	9.4	63.91	.0042	-27.46	.0000	377402.6	1.41	-.00	-.0025	232.84	.0027	-26.76	292.58
RISE	42	3707.16	3718.41	2	6	46.1	255.00	.0042	-26.10	-.0000	388437.1	1.19	3.62	-.0030	119.63	-.0023	-26.67	253.15
SET	72	3708.79	3720.04	2	6	47.7	93.97	.0042	-26.62	.0000	388992.4	1.96	-.00	-.0038	243.20	-.0005	-26.67	252.74
IMPACT		3723.20	3734.45	2	7	2.2												
IMPC	42	3723.20	3734.45	2	7	2.2	259.10	.0043	-26.11	-.0000	389735.0	1.67	6.60	.0031	117.42	-.0023	-26.65	249.05
IMPC	72	3723.20	3734.45	2	7	2.2	97.65	.0043	-26.49	.0000	390829.1	2.43	-3.25	-.0038	242.69	-.0007	-26.65	249.05
IMPC	11	3723.20	3734.45	2	7	2.2	354.02	.0044	-27.48	.0000	387579.3	1.97	27.06	.0004	174.04	.0043	-26.65	249.05

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION		.00	11.25	29	16	58.953	6604.207	18.8935	305.6930	10.94019	5.4487	115.0124	117.7583
SEPARATION		1.20	12.45	29	17	.153	6701.963	15.9823	311.6544	10.85976	8.7756	116.8938	124.0205
RETRO		3.20	14.45	29	17	2.153	6958.003	10.9740	320.8041	10.65635	14.0431	119.1504	133.6716
IMPACT		3723.20	3734.45	2	7	2.152	3090519.063	-26.6516	249.0455	2.18885	66.7655	278.8527	274.4583

SURVEYOR VIEW PERIODS

GHA	279.5865					EPS	-6.8537					LOM	245.6368		
SX	.069556	SY	-.891206	SZ	-.448388	D J	-26.64033	RAD	274.39879	RM	391778.488	LAT	28.310600	LON	279.461800
C3	-1.022338	FCC	.983214	SLR	12979.479	RCA	6544.6550	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.6
NSX	.049714	NSY	-.888927	NSZ	-.449176	C3M	1.4964	VIM	2.6713	ZAE	139.345	R.T	.0000	B.R	-.0000
LATE	4.3014	LONE	4.6361	LATS	1.1682	LONS	10.7196	LATI	-3.2366	LONI	324.6553	RSA	152.4775	TTAN	6.6910
LAUNCH DATE	JUN 29,1966			BASE AZM	108.0		TF 62.154					ARRIVAL	DATE JUL 2 1966 7 15 28.2		

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
108.00	16 52	9.1	28.1	17.84	305.06	11.47	118.24	117.08	17 3 24.1	6614.8	10.93	5.88

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	E E	DEI	AZI	DAZ	LAT	LONG
							PHASE IN SUNLIGHT											
INJECTION		.00	11.25	29	17	3.4												
SEPARATION		1.20	12.45	29	17	4.6												
RETRO		3.20	14.45	29	17	4.6												
RISE	72	4.12	15.37	29	17	7.5	84.78	-.1485	33.22	-.0183	3207.6	-7.25	-.00	.1256	303.58	.0024	7.08	323.51
EXTM	72	10.53	21.78	29	17	13.9	6.20	-.1679	-3.10	-.1151	2309.8	3.90	82.12	.2023	308.11	.1094	-6.61	344.01
RISE	51	11.16	22.41	29	17	14.6	82.58	-.0727	15.00	-.0412	6138.8	-2.12	.00	.0812	286.70	-.0052	-7.66	345.59
EXTM	51	51.82	63.07	29	17	55.2	1.95	-.0082	-30.68	-.0025	15312.2	4.98	84.77	-.0001	198.71	-.0822	-29.23	26.33
EXTM	72	72.57	83.82	29	18	16.0	301.75	.0001	-33.98	-.0003	23818.0	4.68	30.60	.0000	174.99	.0003	-30.92	30.81
EXTM	51	98.45	109.70	29	18	41.9	354.48	.0003	-33.05	-.0002	28122.1	4.22	81.25	.0000	148.00	.0019	-31.72	32.12
RISE	61	100.00	111.25	29	18	43.4	317.24	.0011	-40.95	.0008	36240.0	4.14	-.00	.0011	149.15	.0003	-31.75	32.11
EXTM	51	159.42	170.67	29	19	42.8	.41	.0025	-32.99	.0001	42358.5	3.63	82.74	.0000	182.71	.0164	-32.05	27.33
EXTM	61	358.50	369.75	29	23	1.9	5.24	.0038	-35.51	.0002	84124.9	2.74	14.30	.0000	184.41	.0032	-31.20	350.86
EXTM	72	386.98	398.23	29	23	30.4	.98	.0039	-32.77	.0001	84726.1	2.66	65.12	.0000	181.96	.0078	-31.07	344.77
RISE	11	569.75	581.00	30	2	33.2	296.74	.0040	-32.52	.0000	117593.4	2.55	.00	.0025	131.15	.0023	-30.37	303.78
SET	61	582.16	593.41	30	2	45.6	57.10	.0039	-32.70	.0002	119316.0	2.52	-.00	-.0020	224.96	.0026	-30.33	300.92
SET	51	582.35	593.60	30	2	45.7	90.00	.0038	-29.21	.0001	117997.5	2.63	12.24	-.0031	243.27	-.0012	-30.33	300.88
SET	72	781.95	793.20	30	6	5.4	94.49	.0039	-29.39	.0001	145339.9	2.43	-.01	-.0034	240.30	-.0004	-29.76	254.04
RISE	42	791.69	802.94	30	6	15.1	254.99	.0040	-28.24	.0000	145987.0	1.74	4.96	.0028	121.33	-.0021	-29.73	251.72
EXTM	11	833.00	844.25	30	6	56.4	1.32	.0041	-31.85	.0001	149091.1	2.00	22.93	.0000	181.22	.0038	-29.63	241.88
SET	11	1092.74	1103.99	30	11	16.1	65.49	.0041	-30.45	.0001	181067.2	2.08	-.00	-.0025	231.67	.0024	-29.09	179.37
EXTM	42	1217.61	1228.86	30	13	21.0	359.94	.0042	-28.66	.0000	187990.4	1.72	83.44	.0000	.49	-.0302	-28.87	149.34
RISE	51	1353.51	1364.76	30	15	36.9	270.00	.0041	-28.00	-.0000	206804.5	1.28	11.76	.0033	115.59	-.0014	-28.66	115.89
RISE	72	1507.84	1519.09	30	18	11.2	265.73	.0041	-28.20	-.0000	222742.1	1.17	-.00	.0036	118.50	-.0005	-28.44	78.10
RISE	61	1598.17	1609.42	30	19	41.6	298.61	.0041	-29.51	-.0000	231121.3	1.26	.00	.0024	130.18	.0027	-28.33	55.93
SET	42	1641.16	1652.41	30	20	24.6	105.00	.0041	-27.54	.0001	234546.8	1.83	4.41	-.0029	239.38	-.0022	-28.28	45.37
EXTM	51	1713.15	1724.40	30	21	36.5	.02	.0042	-28.26	.0000	235205.1	1.48	87.48	-.0000	180.53	.0615	-28.19	27.67
EXTM	61	1844.75	1856.00	30	23	48.1	.51	.0042	-29.59	.0000	250774.3	1.43	20.37	-.0000	180.47	.0039	-28.04	355.26
EXTM	72	1884.22	1895.47	1	0	27.6	.15	.0042	-28.50	.0000	256453.6	1.42	69.40	-.0000	180.38	.0105	-28.00	345.52
RISE	11	2031.34	2042.59	1	2	54.7	292.78	.0042	-28.75	-.0000	248648.5	1.06	.00	.0027	126.06	.0024	-27.85	309.22
SET	51	2072.50	2083.75	1	3	35.9	90.00	.0041	-27.50	.0001	270746.3	1.72	11.49	-.0034	245.06	-.0014	-27.81	299.05
SET	61	2091.63	2102.29	1	3	54.4	62.30	.0042	-28.78	.0001	273518.7	1.62	-.00	-.0024	230.90	.0027	-27.79	294.47
SET	72	2258.92	2270.17	1	6	42.3	94.14	.0041	-27.45	.0001	286870.3	1.70	-.00	-.0036	242.26	-.0005	-27.64	252.96
RISE	42	2259.36	2270.61	1	6	42.8	255.00	.0041	-28.87	-.0000	286446.0	.98	4.13	.0029	120.24	-.0022	-27.64	252.85
EXTM	11	2299.88	2311.13	1	7	23.3	.34	.0042	-28.74	.0000	287270.1	1.29	26.05	-.0000	180.33	.0041	-27.61	242.82
SET	11	2568.20	2579.45	1	11	51.6	67.81	.0042	-28.16	.0000	310266.8	1.53	-.00	-.0027	234.72	.0025	-27.39	176.35
EXTM	42	2678.52	2689.77	1	13	41.9	359.99	.0042	-27.15	.0000	312024.5	1.20	81.93	-.0000	.13	-.0107	-27.31	148.99
RISE	51	2809.22	2820.47	1	15	52.6	270.00	.0041	-26.78	-.0000	326293.4	.80	11.28	.0034	114.45	-.0015	-27.21	116.56
RISE	72	2962.43	2973.68	1	18	25.8	265.95	.0042	-26.94	-.0000	338323.2	.71	.00	.0037	117.22	-.0005	-27.10	78.52
RISE	61	3043.05	3054.30	1	19	44.5	296.54	.0042	-27.83	-.0000	343697.0	.83	.00	.0025	127.71	.0027	-27.06	58.46
SET	42	3097.07	3108.32	1	20	40.5	105.00	.0041	-26.39	.0000	346850.6	1.43	3.83	-.0030	240.14	-.0022	-27.03	44.91
EXTM	51	3161.75	3173.00	1	21	48.9	358.90	.0042	-27.01	.0000	345226.2	1.09	88.39	.0023	142.58	.1061	-26.99	28.76
EXTM	61	3294.80	3306.05	1	23	59	.23	.0042	-27.45	.0000	357892.8	1.09	21.71	-.0000	180.22	.0040	-26.91	355.53
EXTM	72	3334.59	3345.84	2	0	38.0	.09	.0042	-27.23	.0000	356892.1	1.09	70.68	-.0000	180.25	.0112	-26.89	345.58
RISE	11	3473.64	3484.89	2	2	57.0	291.51	.0042	-27.46	-.0000	371962.9	.79	.00	.0028	124.35	.0024	-26.82	310.81
SET	51	3522.13	3533.38	2	3	45.5	90.00	.0042	-26.41	.0000	373938.2	1.49	11.14	-.0034	245.89	-.0015	-26.79	298.67
SET	61	3546.31	3557.56	2	4	9.7	63.88	.0042	-27.48	.0000	376779.6	1.40	-.00	-.0025	232.80	.0027	-26.78	292.61
RISE	42	3703.27	3714.52	2	6	46.7	255.00	.0042	-26.11	-.0000	387601.5	1.08	3.66	.0030	119.64	-.0023	-26.63	253.15
SET	72	3704.89	3716.14	2	6	48.3	93.97	.0042	-26.54	.0000	388145.5	1.84	.00	-.0037	243.19	-.0005	-26.68	252.74
IMPACT		3729.26	3740.51	2	7	12.7												
IMPC	42	3729.26	3740.51	2	7	12.7	281.42	.0043	-26.13	-.0000	389558.9	1.66	8.46	.0032	1 .10	-.0023	-26.66	246.52
IMPC	11	3729.26	3740.51	2	7	12.7	356.59	.0044	-27.49	.0000	387590.8	1.98	27.22	.0002	176.59	.0044	-26.66	246.52

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION		.00	11.25	29	17	3.401	6614.803	17.8040	305.1348	10.93152	5.8843	117.1000	118.3152
SEPARATION		1.20	12.45	29	17	4.601	6717.773	14.7062	310.9079	10.84661	9.1979	118.8058	124.3891
RETRO		3.20	14.45	29	17	6.601	6982.379	9.4420	319.7859	10.63728	14.4369	120.7740	133.7684
IMPACT		3729.26	3740.51	2	7	12.662	390544.801	-26.6561	246.5152	2.18626	66.6160	279.5217	274.5625

JUN 29, 1966
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S RVEYED VIEW PERIODS

GHA	274.5485					E-S	-6.7826							LOM	243.1607
SX	.071141	SY	-.491[illegible]	SZ	-.448443	RAD	-26.44782	RAD	274.50082	RM	391803.402	LAT	28.310600	LON	279.461800
C3	-1. 24255	EC	.993[illegible]	SLP	12976.736	SCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.091468	NSY	-.894730	NSZ	-.440275	CSK	1.4964	VIM	2.6713	ZAE	139.101	R.T	.0000	B.R	-.0000
LATE	4.3968	LONE	6.5454	LATS	1.1484	LONS	10.5376	LATI	-3.6075	LONI	324.3802	RSM	152.4776	TTAN	6.6935
LAUNCH DATE	JUN 29,1966			BASE AZM	111.0	TF	62.270					ARRIVAL DATE	JUL 2 1966 7 25 47.7		

LNCH AZMTH	LNCH TIME		INJ LAT	INJ LONG	INJ IA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	16 55 44.1	28.1	16.78	304.45	12.06	114.52	119.16	17 6 56.1	6623.2	10.92	6.22

EVNT	STA	TET	TEL	DAY	HR	MIN	HA	DHA	DEC	RDF	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	29	17	7.0												
SEPARATION		1.20	12.45	29	17	8.2												
RETRO		5.20	16.45	29	17	10.2												
RISE	72	4.09	15.34	29	17	11.1	85.60	-.1304	28.45	-.0337	3244.7	-7.16	-.00	.1249	299.25	-.0142	5.56	322.25
RISE	51	11.20	22.45	29	17	18.2	84.23	-.0692	11.79	-.0436	6208.9	-2.00	-.01	.0800	283.11	-.0090	-9.70	344.10
EXTM	72	11.55	22.80	29	17	18.3	4.31	-.1469	-14.96	-.0866	2581.1	4.86	81.77	-.0000	210.53	-1.1622	-9.9[illegible]	344.45
EXTM	51	54.75	66.00	29	18	1.7	2.33	-.0074	-53.09	-.0017	16242.3	4.92	81.98	-.0000	194.08	-.0461	-31.32	26.05
EXTM	72	73.20	84.45	29	18	20.2	302.73	.0000	-35.74	-.0000	23995.1	4.47	30.95	.0000	127.42	.0000	-32.53	29.84
EXTM	51	96.48	107.73	29	18	43.4	355.59	.0000	-34.79	-.0000	27666.2	4.24	80.18	.0000	158.27	.0002	-33.11	31.21
RISE	61	112.27	123.52	29	18	59.2	319.12	.0015	-41.78	.0008	37351.0	3.97	-.00	.0013	150.79	.0006	-33.25	30.87
EXTM	51	146.54	157.79	29	19	43.5	.89	.0024	-34.44	.0002	41769.6	3.65	81.37	.0000	184.91	.0131	-33.20	26.92
EXTM	61	157.98	169.23	29	23	4.9	5.85	.0034	-46.16	.0002	84126.0	2.76	13.51	.0000	184.86	.0031	-31.94	350.29
EXTM	72	184.72	195.97	29	23	31.7	1.19	.0039	-55.24	.0002	84399.4	2.68	64.34	.0000	182.30	.0075	-31.79	344.58
RISE	11	569.55	580.80	30	2	36.5	297.38	.0040	-33.18	.0000	117552.5	2.05	.01	.0024	131.93	.0023	-30.92	303.15
SET	61	575.47	586.72	30	2	42.4	56.23	.0039	-33.50	.0002	116367.0	2.53	-.00	-.0019	224.01	.0026	-30.90	301.80
SET	51	679.26	690.51	30	4	46.2	90.00	.0036	-29.77	.0001	117533.8	2.64	12.45	-.0031	242.74	-.0012	-30.88	300.91
SET	72	779.28	790.53	30	6	6.3	94.57	.0034	-29.83	.0001	144980.0	2.43	-.00	-.0034	239.85	-.0004	-30.20	253.98
RISE	42	788.84	800.09	30	6	15.8	254.99	.0040	-28.57	-.0000	145574.2	1.74	5.23	.0028	121.68	-.0021	-30.17	251.71
EXTM	11	830.67	841.92	30	6	57.6	1.47	.0041	-42.38	.0001	148819.4	2.00	22.50	.0000	181.34	.0038	-30.05	241.74
SET	11	1088.29	1099.54	30	11	15.3	65.13	.0041	-30.79	.0001	180529.5	2.08	-.00	-.0025	231.20	.0024	-29.42	179.74
EXTM	42	1214.62	1225.87	30	13	21.6	359.93	.0042	-28.37	.0000	187608.8	1.72	83.75	.0000	.58	-.0323	-29.17	149.05
RISE	51	1350.58	1361.83	30	15	37.5	270.00	.0041	-28.27	-.0000	206220.5	1.28	11.86	.0033	115.84	-.0014	-28.93	115.88
RISE	72	1504.71	1515.96	30	18	11.7	265.68	.0041	-28.14	-.0000	222348.7	1.17	-.00	.0036	118.73	-.0005	-28.68	78.14
RISE	61	1596.31	1607.56	30	19	43.3	298.89	.0042	-29.73	-.0000	230842.5	1.26	.00	.0024	130.51	.0027	-28.55	55.65
SET	42	1838.13	1849.38	30	20	25.1	105.00	.0041	-27.55	.0001	234145.3	1.83	4.54	-.0029	239.22	-.0022	-28.49	45.37
EXTM	51	1710.11	1721.36	30	21	37.1	.01	.0042	-28.46	.0000	234815.9	1.48	87.28	.0000	180.39	.0538	-28.39	27.67
EXTM	61	1841.91	1853.16	30	23	48.9	.55	.0042	-29.08	.0000	250414.4	1.43	20.18	-.0000	180.51	.0039	-28.22	355.21
EXTM	72	1981.24	1992.49	1	0	28.2	.17	.0042	-28.38	.0000	250067.4	1.42	69.22	-.0000	180.41	.0104	-28.17	345.51
RISE	11	2028.92	2040.17	1	2	55.9	292.93	.0042	-28.91	-.0000	268293.3	1.06	.00	.0027	126.27	.0024	-28.00	309.06
SET	51	2069.42	2080.67	1	3	36.4	90.00	.0041	-27.45	.0001	270328.4	1.72	11.55	-.0034	244.92	-.0014	-27.96	299.05
SET	61	2087.21	2098.46	1	3	54.2	62.11	.0042	-28.43	.0001	273045.4	1.62	-.00	-.0024	230.68	.0027	-27.94	294.66
SET	72	2255.91	2267.16	1	6	42.9	94.16	.0041	-27.58	.0001	286452.3	1.70	-.00	-.0036	242.14	-.0005	-27.77	252.94
RISE	42	2256.29	2267.54	1	6	43.3	255.00	.0041	-26.99	-.0000	286014.5	.98	4.21	.0029	120.34	-.0022	-27.77	252.84
EXTM	11	2296.93	2308.18	1	7	23.9	.37	.0042	-28.26	.0000	286865.5	1.29	25.93	-.0000	180.36	.0041	-27.73	242.79
SET	11	2564.70	2575.95	1	11	51.7	67.71	.0042	-28.26	.0000	309788.6	1.53	-.00	-.0027	234.59	.0024	-27.48	176.44
EXTM	42	2575.28	2586.53	1	13	42.2	359.96	.0042	-27.23	.0000	311554.8	1.19	82.01	.0000	.28	-.0235	-27.39	149.02
RISE	51	2806.09	2817.34	1	15	53.1	270.00	.0041	-26.86	-.0000	325818.6	.80	11.31	.0034	114.52	-.0015	-27.28	116.56
RISE	72	2959.22	2970.47	1	18	26.2	265.94	.0041	-27.11	-.0000	337633.7	.73	-.00	.0036	117.29	-.0005	-27.17	78.53
RISE	61	3040.18	3051.43	1	19	47.1	296.41	.0042	-27.49	-.0000	343221.1	.83	.00	.0025	127.79	.0027	-27.11	58.33
SET	42	3093.92	3105.17	1	20	40.9	105.00	.0041	-26.44	.0000	346344.8	1.43	3.86	-.0030	240.10	-.0022	-27.07	44.91
EXTM	51	3158.52	3169.77	1	21	45.5	358.88	.0042	-27.06	.0000	344708.9	1.09	88.35	.0023	143.07	.1036	-27.03	28.78
EXTM	61	3292.73	3303.98	1	23	58.7	.25	.0042	-27.89	.0000	357366.4	1.09	21.87	-.0000	180.24	.0040	-26.95	355.51
EXTM	72	3331.47	3342.72	2	0	38.4	.10	.0042	-27.26	.0000	356351.7	1.09	70.64	-.0000	180.27	.0112	-26.93	345.57
RISE	11	3470.61	3481.86	2	2	57.6	291.54	.0042	-27.48	-.0000	371393.8	.78	.00	.0028	124.39	.0024	-26.84	310.78
SET	51	3518.98	3530.23	2	3	46.0	90.00	.0042	-26.44	.0000	373344.5	1.48	11.15	-.0034	245.87	-.0015	-26.81	298.67
SET	61	3543.05	3554.30	2	4	10.0	63.86	.0042	-27.51	.0000	376170.1	1.39	-.00	-.0025	232.77	.0027	-26.80	292.64
RISE	42	3700.23	3711.48	2	6	47.2	255.00	.0042	-26.12	-.0000	386819.1	1.01	3.67	.0030	119.65	-.0023	-26.70	253.15
SET	72	3701.86	3713.11	2	6	48.8	93.98	.0042	-26.35	.0000	387358.6	1.76	-.00	-.0037	243.17	-.0005	-26.69	252.73
IMPACT		3736.21	3747.46	2	7	23.2												
IMPC	42	3736.21	3747.46	2	7	23.2	284.15	.0043	-26.14	-.0000	389382.3	1.65	10.33	.0032	114.81	-.0022	-26.66	243.98
IMPC	11	3736.21	3747.46	2	7	23.2	359.16	.0044	-27.49	.0000	387612.2	1.99	27.30	.0001	179.16	.0044	-26.66	243.98
EXTM	11	3741.66	3752.91	2	7	28.6	.60	.0045	-27.48	.0000	388363.1	2.93	27.31	.0000	180.60	.0045	-26.65	242.56

EVNT	STA	TET	TEL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	29	17	6.968	6625.727	16.7353	304.5373	10.92419	6.2245	119.1858	118.6119
SEPARATION		1.20	12.45	29	17	8.168	6730.641	13.4536	310.1274	10.83582	9.5272	120.7263	124.5028
RETRO		5.20	16.45	29	17	10.168	7001.893	7.9326	318.7450	10.62198	14.7409	122.4238	133.6217
IMPACT		3736.21	3747.46	2	7	23.179	390575.379	-26.6604	243.9829	2.18342	66.4166	280.1927	274.6669

SURVEYOR VIEW PERIODS

GHA	279.5865					EPS	-6.6840					LOM	239.6914
SX	.672352	SY	-.496841	SZ	-.448517	DAO	-26.64456	RAO	274.64320	RM	391838.160	LAT	28.310600	LON	279.461800
C3	-1.[illegible]16	ECC	.982824	SLR	12977.575	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.693688	NSY	-.688448	NSZ	-.449313	C3M	1.4964	VIM	2.6713	ZAE	138.724	B.T	.0000	B.R	-.0000
LATE	4.3211	LONE	4.5436	LATS	1.1687	LONS	10.4135	LATI	-4.1092	LONI	324.0911	RSM	152.4777	TTAN	6.6972
LAUNCH DATE	JUN 29,1966			BASE AZM	115.0		TF 62.450					ARRIVAL DATE	JUL 2 1966 7 40 12.1		

LNCH AZMTH	LNCH TIME	RH	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	16 59 33.4	28.0	15.41	303.58	13.27	118.62	121.95	17 10 48.4	6632.5	10.92	6.58

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDF	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	29	17	10.8												
SEPARATION	1.20	12.45	29	17	12.0												
RETRO	3.20	14.45	29	17	14.0												
RISE 72	4.10	15.35	29	17	14.9	86.57	-.1265	23.56	-.0531	3299.3	-6.90	-.00	.1228	293.59	-.0351	3.44	320.72
RISE 51	11.31	22.56	29	17	22.1	86.35	-.0649	7.52	-.0466	6304.6	-1.81	.00	.0782	278.35	-.0138	-12.52	342.24
EXTM 72	11.66	22.91	29	17	22.5	9.13	-.1447	-24.90	-.0719	2797.3	5.03	70.90	-.0000	206.10	-.4574	-13.10	343.06
EXTM 51	61.29	72.54	29	18	12.1	1.64	-.0057	-37.16	-.0006	18230.5	4.79	78.50	-.0000	186.55	-.0231	-34.21	26.51
EXTM 72	73.53	84.78	29	18	24.3	303.67	-.0001	-38.60	.0003	24116.1	4.66	31.00	.0000	130.65	-.0004	-34.74	28.76
EXTM 51	88.20	99.45	29	18	39.0	356.99	-.0009	-37.62	.0002	25595.6	4.35	78.14	.0000	168.28	-.0035	-35.03	30.03
RISE 61	128.90	140.15	29	19	19.7	321.71	.0020	-42.85	.0008	41381.0	3.77	-.00	.0014	152.98	.0009	-35.02	29.00
EXTM 51	157.11	168.36	29	19	47.9	1.83	.0023	-36.15	.0003	41943.0	3.64	79.47	.0000	188.10	.0105	-34.79	26.12
EXTM 61	358.73	369.98	29	23	9.5	6.69	.0038	-37.08	.0003	84360.0	2.75	12.43	.0000	185.46	.0031	-32.95	349.51
EXTM 72	383.18	394.43	29	23	34.0	1.51	.0039	-34.60	.0002	84193.7	2.68	63.27	.0000	182.76	.0072	-32.77	344.29
RISE 11	570.61	581.86	30	2	41.4	298.26	.0040	-33.85	.0000	117671.0	2.05	.01	.0024	132.99	.0023	-31.67	302.27
SET 61	567.22	578.47	30	2	38.0	54.98	.0039	-34.14	.0002	117200.2	2.53	.00	-.0019	222.68	.0026	-31.69	303.05
SET 51	576.35	587.60	30	2	47.2	90.00	.0038	-30.93	.0002	117070.6	2.64	12.75	-.0031	242.02	-.0011	-31.64	300.95
SET 72	776.88	788.13	30	6	7.7	94.68	.0039	-30.44	.0001	144628.6	2.43	-.00	-.0033	239.24	-.0004	-30.81	253.89
RISE 42	786.16	797.41	30	6	17.0	254.99	.0040	-29.28	-.0000	145151.4	1.74	5.60	.0028	122.16	-.0021	-30.77	251.69
EXTM 11	828.71	839.96	30	6	59.5	1.67	.0041	-32.87	.0001	148582.9	2.00	21.90	.0000	181.51	.0038	-30.63	241.55
SET 11	1083.34	1094.59	30	11	14.2	64.63	.0041	-31.27	.0001	179899.8	2.08	-.00	-.0025	230.56	.0024	-29.89	180.25
EXTM 42	1211.69	1222.94	30	13	22.5	359.92	.0042	-29.59	.0000	187187.4	1.71	84.17	.0000	.74	-.0348	-29.58	149.06
RISE 51	1347.70	1358.95	30	15	38.5	270.00	.0041	-28.63	-.0000	205786.8	1.28	12.01	.0033	116.19	-.0014	-29.29	115.87
RISE 72	1501.56	1512.81	30	18	12.4	265.62	.0041	-28.76	-.0000	221893.0	1.17	-.00	.0035	119.06	-.0005	-29.00	78.19
RISE 61	1594.92	1606.17	30	19	45.7	299.29	.0042	-30.03	-.0000	230541.5	1.26	.00	.0024	130.96	.0027	-28.84	55.26
SET 42	1435.12	1446.37	30	20	25.9	105.00	.0041	-27.84	.0001	233671.8	1.83	4.72	-.0029	238.99	-.0022	-28.78	45.38
EXTM 51	1707.17	1718.42	30	21	38.0	.03	.0042	-28.74	.0000	234363.0	1.48	87.00	-.0000	180.59	.0585	-28.66	27.66
EXTM 61	1839.15	1850.40	30	23	50.0	.62	.0042	-29.83	.0000	249988.0	1.43	19.93	-.0000	180.58	.0039	-28.47	355.14
EXTM 72	1878.28	1889.53	1	0	29.1	.19	.0042	-28.93	.0000	249603.1	1.41	68.98	-.0000	180.46	.0103	-28.41	345.49
RISE 11	2026.76	2038.01	1	2	57.6	293.16	.0042	-29.12	-.0000	267867.2	1.06	.01	.0027	126.56	.0024	-28.22	308.83
SET 51	2066.32	2077.57	1	3	37.1	90.00	.0041	-27.65	.0001	269811.8	1.72	11.63	-.0034	244.73	-.0014	-28.17	299.06
SET 61	2083.07	2094.32	1	3	53.9	61.85	.0042	-29.14	.0001	272451.0	1.61	-.00	-.0024	230.37	.0027	-28.14	294.92
SET 72	2252.90	2264.15	1	6	43.7	94.19	.0041	-27.75	.0001	285927.5	1.70	-.00	-.0036	241.96	-.0005	-27.94	252.91
RISE 42	2253.18	2264.43	1	6	44.0	255.00	.0041	-27.77	-.0000	285470.9	.98	4.31	.0029	120.48	-.0022	-27.94	252.84
EXTM 11	2293.98	2305.23	1	7	24.8	.42	.0042	-29.03	.0000	286357.3	1.29	25.76	-.0000	180.41	.0041	-27.90	242.74
SET 11	2560.98	2572.23	1	11	51.8	67.58	.0042	-28.39	.0001	309167.8	1.52	-.00	-.0027	234.41	.0024	-27.61	176.58
EXTM 42	2672.06	2683.31	1	13	42.9	359.96	.0042	-27.35	.0000	310951.9	1.19	82.13	.0000	.32	-.0249	-27.51	149.02
RISE 51	2802.89	2814.14	1	15	53.7	270.00	.0041	-26.96	-.0000	325193.3	.79	11.35	.0034	114.61	-.0015	-27.39	116.55
RISE 72	2955.94	2967.19	1	18	26.7	265.92	.0041	-27.09	-.0000	336981.7	.73	-.00	.0036	117.37	-.0005	-27.25	78.54
RISE 61	3037.43	3048.68	1	19	48.2	296.70	.0042	-27.96	-.0000	342617.2	.82	.00	.0025	127.90	.0027	-27.18	58.24
SET 42	3090.79	3102.04	1	20	41.6	105.00	.0041	-26.50	.0000	345697.6	1.43	3.91	-.0030	240.05	-.0022	-27.14	44.91
EXTM 51	3155.32	3166.57	1	21	46.1	358.87	.0042	-27.12	.0000	344045.7	1.09	88.29	.0023	144.00	.1012	-27.10	28.80
EXTM 61	3288.66	3299.91	1	23	59.5	.27	.0042	-27.95	.0000	356680.2	1.08	21.82	-.0000	180.26	.0040	-27.00	355.48
EXTM 72	3328.32	3339.57	2	0	39.1	.11	.0043	-27.31	.0000	355644.4	1.08	70.59	-.0000	180.29	.0112	-26.98	345.57
RISE 11	3467.56	3478.81	2	2	58.4	291.57	.0042	-27.42	-.0000	370639.6	.77	.00	.0028	124.44	.0024	-26.88	310.74
SET 51	3515.77	3527.02	2	3	46.6	90.00	.0042	-26.47	.0000	372554.1	1.47	11.16	-.0034	245.84	-.0015	-26.85	298.67
SET 61	3539.68	3550.93	2	4	10.5	63.82	.0042	-27.54	.0000	375356.8	1.38	-.00	-.0025	232.72	.0027	-26.83	292.68
RISE 42	3697.10	3708.35	2	6	47.9	255.00	.0042	-26.14	-.0000	385799.0	.94	3.69	.0030	119.67	-.0023	-26.72	253.15
SET 72	3698.74	3709.99	2	6	49.6	93.99	.0042	-26.57	.0000	386333.8	1.69	-.00	-.0037	243.15	-.0005	-26.72	252.73
EXTM 11	3737.99	3749.24	2	7	28.8	.38	.0043	-27.51	.0000	386702.9	1.63	27.28	-.0000	180.38	.0043	-26.68	242.78
IMPACT	3747.02	3758.27	2	7	37.8												
IMPC 42	3747.02	3758.27	2	7	37.8	267.67	.0043	-26.17	-.0000	389138.1	1.64	12.99	.0033	113.04	-.0022	-26.67	240.46
IMPC 11	3747.02	3758.27	2	7	37.8	2.73	.0044	-27.50	.0000	387660.4	2.00	27.24	-.0001	182.73	.0044	-26.67	240.46

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	29	17	10.807	6635.616	15.3444	303.6825	10.91602	6.5779	121.9673	118.7193
SEPARATION	1.20	12.45	29	17	12.007	6744.504	11.8224	309.0336	10.82408	9.8688	123.3024	124.3713
RETRO	3.20	14.45	29	17	14.007	7029.605	5.9598	317.3142	10.60566	15.0554	124.6640	133.1532
IMPACT	3747.02	3758.27	2	7	37.822	390618.250	-26.6667	240.4579	2.17835	65.9595	280.9730	274.8127

SURVEYOR VIEW PERIODS

GHA	280.5721					EPS	6.4748							LOM	275.1908
SX	.274406	SY	-.852077	SZ	-.445719	DAO	-26.46236	RAO	287.85082	RM	395038.066	LAT	28.310600	LON	279.461800
C3	-.976681	ECC	.981964	SLR	12984.382	HCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.294240	NSY	-.443108	NSZ	-.444436	C3M	1.4930	VIM	2.6706	ZAE	140.558	B.T	.0000	B.R	-.0000
LATE	5.2758	LONE	4.0200	LATS	1.1910	LONS	359.0048	LATI	.3339	LONI	324.8276	RSM	152.4824	TTAN	6.5130

LAUNCH DATE JUN 30,1966 BASE AZM 84.0 TF 62.401 ARRIVAL DATE JUL 3 1966 6 7 20.8

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FTH
84.00	15 45 26.2	27.2	27.12	307.42	-14.75	104.87	99.75	15 56 41.2	6653.4	10.90	-7.31

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	30	15	56.7												
SEPARATION		1.20	12.45	30	15	57.9												
RETRO		3.20	14.45	30	15	59.9												
RISE	72	7.25	18.50	30	16	3.9	333.13	-.9490	81.15	-.1626	2608.7	-2.60	-.00	.0801	3.98	.2033	14.29	347.23
RISE	51	12.20	23.45	30	16	8.9	60.64	-.1507	45.48	-.0232	4632.2	-3.85	.00	.0973	322.34	.0472	3.89	6.59
EXTM	72	13.33	24.58	30	16	10.0	288.25	-.0247	17.49	-.0983	3735.2	6.66	14.69	.0000	69.29	.1045	1.81	10.12
EXTM	51	29.30	40.55	30	16	26.0	338.30	-.0259	-5.78	-.0247	7171.2	5.61	61.22	-.0000	49.82	.0742	-15.43	39.72
EXTM	72	63.71	74.96	30	17	.4	270.64	-.0003	-23.76	-.0020	22525.2	5.02	3.75	.0000	113.49	.0020	-24.71	58.05
RISE	42	69.84	81.09	30	17	6.5	102.51	-.0046	-17.06	-.0033	24758.4	4.26	.00	.0055	248.95	-.0000	-25.34	59.18
EXTM	51	77.64	88.89	30	17	14.3	318.81	-.0003	-24.76	-.0016	22391.8	4.63	52.88	.0000	97.66	.0028	-25.96	60.16
EXTM	42	128.56	139.81	30	18	5.2	97.63	.0006	-22.92	-.0008	39387.2	3.99	7.16	-.0000	246.94	-.0009	-27.87	59.60
SET	42	203.74	214.99	30	19	20.4	105.00	.0023	-24.74	-.0002	56384.6	3.57	2.83	-.0016	241.44	-.0015	-28.56	49.74
RISE	61	217.56	228.81	30	19	34.3	303.93	.0033	-33.41	.0001	59484.7	3 12	.00	.0018	136.17	.0020	-28.60	47.41
EXTM	51	320.72	331.97	30	21	17.4	.01	.0037	-28.94	.0000	72487.5	2.88	86.80	.0000	180.32	.0281	-28.68	27.68
EXTM	61	478.03	489.28	30	23	54.7	2.27	.0040	-31.56	.0001	101920.8	2.50	17.87	.0000	182.02	.0035	-28.53	353.60
EXTM	72	514.57	525.82	1	0	31.3	.35	.0041	-29.72	.0001	103492.3	2.42	68.18	-.0000	180.82	.0095	-28.48	345.34
RISE	11	681.77	693.02	1	3	18.5	294.17	.0040	-30.12	-.0000	132299.5	1.89	.00	.0026	127.89	.0023	-28.26	306.65
SET	51	708.21	719.46	1	3	44.9	90.00	.0039	-27.22	.0001	134474.3	2.50	11.46	-.0032	245.14	-.0013	-28.23	300.43
SET	61	721.65	732.90	1	3	58.3	60.48	.0040	-30.21	.0001	137461.8	2.38	-.00	-.0022	228.77	.0026	-28.21	297.27
SET	72	903.19	914.44	1	6	39.9	94.18	.0040	-27.47	.0001	159674.0	2.34	-.00	-.0035	242.04	-.0005	-28.00	254.05
RISE	42	911.94	923.19	1	7	8.6	255.00	.0040	-26.62	-.0001	160256.4	1.63	3.97	.0029	120.05	-.0021	-27.99	251.96
EXTM	11	951.61	962.86	1	7	48.3	.75	.0042	-29.95	.0000	162633.8	1.91	24.84	-.0000	180.72	.0040	-27.95	242.43
SET	11	1218.97	1230.22	1	12	15.7	67.04	.0041	-28.93	.0001	194418.8	2.02	-.00	-.0026	233.70	.0024	-27.69	177.70
EXTM	42	1336.61	1347.86	1	14	13.3	359.96	.0042	-27.44	.0000	200169.2	1.66	82.12	.0000	.29	-.0240	-27.58	149.02
RISE	51	1471.60	1482.85	1	16	28.3	270.00	.0041	-26.44	-.0000	218330.2	1.23	11.31	.0034	114.51	-.0014	-27.48	116.00
RISE	72	1626.41	1637.66	1	19	3.1	265.91	.0041	-27.13	-.0000	234080.0	1.13	-.00	.0036	117.42	-.0005	-27.36	78.02
RISE	61	1710.52	1721.77	1	20	27.2	297.25	.0041	-28.42	-.0000	241704.9	1.22	.00	.0025	128.57	.0027	-27.31	57.34
SET	42	1759.48	1770.73	1	21	16.2	105.00	.0041	-26.67	.0000	245643.5	1.80	3.83	-.0029	240.15	-.0022	-27.27	45.30
EXTM	51	1825.79	1837.04	1	22	22.5	358.69	.0042	-27.27	.0000	245599.9	1.44	88.07	.0023	142.73	.0877	-27.23	28.97
EXTM	61	1961.80	1973.05	2	0	38.5	.32	.0042	-28.44	.0000	261237.2	1.40	21.33	.0000	180.31	.0040	-27.15	355.43
EXTM	72	2001.76	2013.01	2	1	18.4	.10	.0042	-27.58	.0000	260958.4	1.39	70.32	-.0000	180.27	.0110	-27.12	345.57
RISE	11	2145.37	2156.62	2	3	42.1	291.94	.0042	-27.90	-.0000	278699.7	1.04	.00	.0028	124.94	.0024	-27.04	310.10
SET	51	2190.30	2201.55	2	4	27.0	90.00	.0041	-26.52	.0000	281082.7	1.70	11.18	-.0034	245.80	-.0014	-27.02	298.99
SET	61	2212.88	2224.13	2	4	49.6	63.33	.0042	-27.95	.0000	284120.5	1.60	-.00	-.0025	232.13	.0027	-27.00	293.41
SET	72	2376.08	2387.33	2	7	32.8	94.01	.0041	-26.74	.0000	296910.6	1.69	-.00	-.0036	242.99	-.0005	-26.92	253.02
RISE	42	2376.61	2387.86	2	7	33.3	255.00	.0041	-26.17	-.0000	296540.2	.96	3.70	.0029	119.69	-.0022	-26.92	252.89
EXTM	11	2416.84	2428.09	2	8	13.5	.22	.0042	-27.39	.0000	297179.2	1.27	26.81	-.0000	180.22	.0042	-26.90	242.93
SET	11	2688.11	2699.36	2	12	44.8	68.43	.0042	-27.62	.0000	320236.7	1.52	.00	-.0028	235.56	.0024	-26.77	175.70
EXTM	42	2795.75	2807.00	2	14	32.4	359.99	.0042	-26.56	.0000	321731.8	1.19	81.34	-.0000	.14	-.0120	-26.72	148.99
RISE	51	2926.26	2937.51	2	16	42.9	270.00	.0041	-26.25	-.0000	335925.9	.79	11.07	.0034	113.95	-.0015	-26.67	116.60
RISE	72	3079.40	3090.65	2	19	16.1	266.03	.0042	-26.46	-.0000	347760.5	.71	-.00	.0037	116.73	-.0005	-26.61	78.48
RISE	61	3157.46	3168.71	2	20	34.2	295.95	.0042	-27.34	-.0000	352974.2	.83	.00	.0025	126.99	.0027	-26.59	59.01
SET	42	3214.08	3225.33	2	21	30.8	105.00	.0041	-25.95	.0000	356342.0	1.44	3.57	-.0030	240.48	-.0023	-26.57	44.88
EXTM	51	3280.48	3291.73	2	22	37.2	359.36	.0042	-26.57	.0000	354821.6	1.10	88.99	.0022	145.57	.1766	-26.56	28.31
EXTM	61	3411.41	3422.66	3	0	48.1	.13	.0042	-27.43	.0000	367390.3	1.11	22.33	-.0000	180.13	.0040	-26.32	355.62
EXTM	72	3451.49	3462.74	3	1	28.2	.07	.0042	-26.43	.0000	366475.3	1.11	71.08	-.0000	180.19	.0113	-26.51	345.61
RISE	11	3589.15	3600.40	3	3	45.8	291.17	.0042	-27.10	-.0000	381721.3	.83	.00	.0028	123.88	.0024	-26.48	311.17
SET	51	3639.14	3650.39	3	4	35.8	90.00	.0042	-26.10	.0000	383995.0	1.57	11.01	-.0035	246.19	-.0015	-26.47	298.64
SET	61	3664.81	3676.06	3	5	1.5	64.28	.0042	-27.15	.0000	387065.9	1.51	-.00	-.0026	233.29	.0027	-26.46	292.19
IMPACT		3744.03	3755.28	3	6	20.7												
IMPC	72	3744.03	3755.28	3	6	20.7	74.51	.0043	-26.45	.0000	391863.4	2.46	17.34	-.0039	244.67	.0000	-26.45	272.15
IMPC	11	3744.03	3755.28	3	6	20.7	330.58	.0044	-27.23	-.0000	391416.1	1.88	21.65	.0017	151.97	.0038	-26.45	272.15

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FTH	AZ	RT ASC
INJECTION		.00	11.25	30	15	56.687	6658.233	27.1422	307.2510	10.90161	-7.3150	99.6630	104.6927
SEPARATION		1.20	12.45	30	15	57.887	6576.122	25.7723	314.5538	10.96588	-3.9502	103.0582	112.2963
RETRO		3.20	14.45	30	15	59.887	6550.914	22.6691	326.2224	10.98713	1.7635	108.0685	124.4663
IMPACT		3744.03	3755.28	3	6	20.721	393812.027	-26.4539	272.1528	2.20631	68.3811	268.9179	288.1651

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SURVEYOR VIEW PERIODS

GHA	280.5721					EPS	6.6763							LOM	267.8926
SX	.274809	SY	-.850793	SZ	-.445439	DAO	-26.4545	RAD	288.14424	PM	395108.344	LAT	28.310600	LON	279.461800
C3	-.971080	ECC	.984056	SLR	12984.984	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.298557	NSY	-.844756	NSZ	-.444110	C3M	1.4970	VIM	2.6714	ZAE	140.662	B.T	.0000	B.R	-.0000
LATE	5.2947	LONE	4.0042	LATS	1.1915	LONS	358.7520	LATI	.5554	LONI	324.8904	RSM	152.4823	TTAN	6.5036
LAUNCH DATE		JUN	30.1966		BASE AZM	87.0		TF	62.335			ARRIVAL DATE		JUL 3 1966	6 37 37.8

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
87.00	16 13 38.1	27.6	25.88	307.60	-8.44	112.11	102.10	16 24 53.1	6580.0	10.96	-4.19

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DFC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT												
INJECTION		.00	11.25	30	16	24.9												
SEPARATION		1.20	12.45	30	16	26.1												
RETRO		3.20	14.45	30	16	28.1												
RISE	72	6.27	17.52	30	16	31.2	53.07	-.8126	76.99	.0768	2660.8	-4.53	-.00	.0979	349.64	.1725	14.37	341.57
RISE	61	11.04	22.29	30	16	35.9	348.21	-.1303	-49.15	.0179	4620.5	6.49	.01	.0044	172.32	-.0870	4.52	.27
RISE	51	11.79	23.04	30	16	36.7	65.55	-.1290	40.65	-.0252	4927.4	-3.59	.00	.0950	316.32	.0356	3.14	2.66
EXTM	61	12.42	23.67	30	16	37.3	338.82	-.0978	-47.60	.0189	5180.3	6.97	.17	-.0000	165.90	-.0686	2.02	4.58
EXTM	72	12.62	23.87	30	16	37.5	298.20	-.0391	19.69	-.1120	3324.9	6.30	23.22	-.0000	64.55	.1283	1.68	5.16
SET	61	14.07	25.32	30	16	39.0	330.55	-.0716	-45.81	.0169	5885.5	7.27	.01	-.0030	159.96	-.0526	-.70	9.20
EXTM	51	31.58	42.83	30	16	56.5	344.06	-.0220	-9.18	-.0185	8131.5	5.51	67.57	-.0000	45.28	.0748	-16.60	36.99
EXTM	72	63.89	75.14	30	17	28.8	277.13	-.0002	-24.03	-.0019	22281.7	4.98	9.69	.0000	113.16	.0019	-24.29	52.02
EXTM	51	79.84	91.09	30	17	44.7	326.54	-.0002	-24.81	-.0015	22962.1	4.56	59.81	.0000	95.61	.0030	-25.65	54.11
RISE	42	91.76	103.01	30	17	56.6	104.52	-.0015	-19.55	-.0018	31184.5	4.20	.00	.0022	245.82	-.0005	-26.32	54.64
EXTM	42	128.47	139.72	30	18	33.4	103.87	.0007	-22.20	-.0008	40189.6	3.98	2.10	-.0000	244.09	-.0010	-27.44	53.11
SET	42	147.43	158.68	30	18	52.3	105.00	.0013	-22.95	-.0006	44644.7	3.86	1.73	-.0006	242.86	-.0012	-27.75	51.19
RISE	61	181.40	192.65	30	19	26.3	304.15	.0030	-33.56	.0001	52292.9	3.34	-.00	.0017	136.40	.0019	-28.08	48.64
EXTM	51	287.51	298.76	30	21	12.4	360.00	.0036	-28.64	-.0000	66842.9	2.99	87.10	.0000	179.70	.0025	-28.38	27.69
EXTM	61	448.29	459.54	30	23	53.2	2.36	.0039	-31.80	.0001	97597.8	2.55	17.92	.0000	182.11	.0035	-28.32	353.52
EXTM	72	484.71	495.96	1	0	29.6	.33	.0040	-29.57	.0001	99279.8	2.48	68.33	-.0000	180.79	.0095	-28.29	345.36
RISE	11	652.76	664.01	1	3	17.6	294.06	.0040	-30.02	-.0000	128647.7	1.93	.00	.0026	127.75	.0023	-28.11	306.69
SET	51	679.18	690.43	1	3	44.1	90.00	.0039	-27.04	.0001	130883.6	2.53	14.38	-.0032	245.31	-.0013	-28.08	300.51
SET	61	693.29	704.54	1	3	58.2	60.61	.0040	-30.11	.0001	133979.0	2.41	-.00	-.0022	228.92	.0026	-28.06	297.17
SET	72	874.65	885.90	1	6	59.5	94.15	.0039	-27.53	.0001	156482.4	2.36	-.00	-.0035	242.18	-.0005	-27.87	254.13
RISE	42	883.88	895.13	1	7	8.8	254.99	.0040	-26.46	-.0001	157144.8	1.65	3.88	.0029	119.93	-.0021	-27.86	251.92
EXTM	11	923.42	934.67	1	7	48.3	.74	.0042	-29.86	.0000	159546.7	1.94	24.99	-.0000	180.71	.0040	-27.82	242.44
SET	11	1191.39	1202.64	1	12	16.3	67.13	.0041	-28.85	.0001	191726.8	2.04	-.00	-.0026	233.81	.0024	-27.59	177.64
EXTM	42	1308.89	1320.14	1	14	13.8	359.96	.0042	-27.24	.0000	197579.7	1.68	82.02	.0000	.27	-.0236	-27.49	149.02
RISE	51	1444.03	1455.28	1	16	28.9	270.00	.0041	-26.75	-.0000	215874.7	1.24	11.27	.0034	114.42	-.0014	-27.39	115.98
RISE	72	1598.96	1610.21	1	19	3.9	265.93	.0041	-27.06	-.0000	231753.7	1.14	-.01	.0036	117.34	-.0005	-27.29	77.99
RISE	61	1682.72	1693.97	1	20	27.6	297.18	.0041	-28.36	-.0000	239408.0	1.23	.00	.0025	128.48	.0027	-27.23	57.41
SET	42	1731.92	1743.17	1	21	16.8	105.00	.0041	-26.50	.0000	243407.0	1.81	3.78	-.0029	240.21	-.0022	-27.20	45.31
EXTM	51	1798.66	1809.91	1	22	23.5	358.78	.0042	-27.20	.0000	243440.6	1.45	88.17	.0023	143.41	.0936	-27.16	28.88
EXTM	61	1934.31	1945.56	2	0	39.2	.31	.0042	-28.39	.0000	259127.6	1.42	21.38	.0000	180.30	.0040	-27.09	355.44
EXTM	72	1974.31	1985.56	2	1	19.2	.10	.0042	-27.53	.0000	258879.5	1.40	70.38	-.0000	180.27	.0109	-27.06	345.57
RISE	11	2117.81	2129.06	2	3	42.7	291.89	.0042	-27.85	-.0000	276696.9	1.05	.00	.0028	124.88	.0024	-26.99	310.14
SET	51	2162.87	2174.12	2	4	27.8	90.00	.0041	-26.46	.0000	279117.9	1.71	11.16	-.0034	245.85	-.0014	-26.96	299.00
SET	61	2185.69	2196.94	2	4	50.6	63.38	.0042	-27.90	.0000	282184.5	1.61	-.00	-.0025	232.19	.0027	-26.95	293.36
SET	72	2348.66	2359.91	2	7	33.5	94.00	.0041	-26.69	.0000	295042.1	1.70	-.00	-.0036	243.03	-.0005	-26.87	253.04
RISE	42	2349.28	2360.53	2	7	34.2	255.00	.0041	-26.12	-.0000	294682.6	.97	3.67	.0029	119.65	-.0022	-26.87	252.89
EXTM	11	2389.46	2400.71	2	8	14.3	.22	.0042	-27.95	.0000	295330.9	1.28	26.84	-.0000	180.21	.0042	-26.85	242.94
SET	11	2660.91	2672.16	2	12	45.8	68.46	.0042	-27.48	.0000	318534.5	1.53	.01	-.0028	235.61	.0024	-26.73	175.67
EXTM	42	2768.46	2779.71	2	14	33.3	359.99	.0042	-26.52	.0000	320072.3	1.19	81.30	-.0000	.14	-.0108	-26.69	148.99
RISE	51	2899.00	2910.25	2	16	43.9	270.00	.0041	-26.22	-.0000	334325.8	.79	11.06	.0034	113.92	-.0015	-26.64	116.59
RISE	72	3052.16	3063.41	2	19	17.0	266.04	.0042	-26.43	-.0000	346216.7	.71	-.00	.0037	116.70	-.0005	-26.59	78.47
RISE	61	3130.09	3141.34	2	20	35.0	295.93	.0042	-27.32	-.0000	351436.6	.83	.00	.0025	126.96	.0027	-26.57	59.03
SET	42	3186.78	3198.03	2	21	31.7	105.00	.0041	-25.93	.0000	354820.7	1.44	3.55	-.0030	240.50	-.0023	-26.55	44.89
EXTM	51	3253.10	3264.35	2	22	38.0	359.34	.0042	-26.55	.0000	353303.0	1.10	89.00	.0023	143.87	.1740	-26.53	26.33
EXTM	61	3384.10	3395.35	3	0	49.0	.13	.0042	-27.42	.0000	365883.9	1.11	22.34	-.0000	180.12	.0041	-26.50	355.63
EXTM	72	3424.19	3435.44	3	1	29.1	.06	.0042	-26.81	.0000	364970.3	1.11	71.09	-.0000	180.18	.0113	-26.49	345.61
RISE	11	3561.85	3573.10	3	3	46.7	291.15	.0042	-27.09	-.0000	380177.8	.82	.00	.0028	123.87	.0024	-26.46	311.18
SET	51	3611.89	3623.14	3	4	36.8	90.00	.0042	-26.08	.0000	382409.0	1.54	11.01	-.0035	246.20	-.0015	-26.45	298.64
SET	61	3637.65	3648.90	3	5	2.5	64.30	.0042	-27.14	.0000	385442.6	1.48	-.00	-.0026	233.31	.0027	-26.45	292.18
IMPACT		3740.11	3751.36	3	6	45.0												
IMPC	72	3740.11	3751.36	3	6	45.0	80.38	.0043	-26.40	.0000	392484.9	2.47	12.09	-.0039	244.58	-.0002	-26.44	266.30
IMPC	11	3740.11	3751.36	3	6	45.0	336.51	.0044	-27.23	-.0000	391262.1	1.91	23.73	.0014	157.22	.0040	-26.44	266.30

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	30	16	24.885	6580.512	25.8889	307.5644	10.96295	-4.1852	102.0878	112.0750
SEPARATION		1.20	12.45	30	16	26.085	6545.843	24.2500	314.6219	10.99168	-.7672	105.2398	119.5033
RETRO		3.20	14.45	30	16	28.085	6593.844	20.7775	326.0565	10.95128	4.9343	109.7994	131.3692
IMPACT		3740.11	3751.36	3	6	44.994	393869.922	-26.4386	266.3033	2.20661	68.2733	268.4565	288.4004

SURVEYOR VIEW PERIODS

GHA	28[illegible]				EQS	6.8749						LOM	260.7865	
SX	.2[illegible]	SY	-.44[illegible]	SZ	-.445156	DAU	26.43144	RAD	288.42973	PM	395176.480	LAT	28.310600	LON 279.461800
C3	-.970295	ECC	.984469	SLR	12985.044	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL -.0
NSX	.302461	NSY	-.843428	NSZ	-.443785	C3M	1.4769	VIM	2.4714	ZAE	140.682	R.T	.0000	B.R -.0000
LATE	5.3139	LONE	3.9935	LATS	1.1920	LONS	355.50.7	LATI	.6571	LONI	324.8864	RSM	52.4823	TTAN 6.4963
LAUNCH DATE	JUN 30,1966			BASE AZM	90.0		IF 62.343				ARRIVAL DATE JUL 3 1966 7 7 6.9			

LNCH AZMTH	LNCH TIME	PA	INJ LAT	INJ LONG	INJ FPA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
90.00	16 37 48.7	27.9	24.66	307.57	-3.13	118.11	104.37	16 48 55.7	6549.5	10.99	-1.55

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	FLE	DEL	AZI	DAZ	LAT	LONG
					PHASE IN SUNLIGHT													
INJECTION		.00	11.25	30	16	48.9												
SEPARATION		1.20	12.45	30	16	50.1												
RETRO		3.20	14.45	30	16	52.1												
RISE	72	5.59	16.84	30	16	54.5	70.32	-.3968	67.60	.0902	2756.4	-5.70	-.00	.1092	338.98	.1390	13.92	337.24
RISE	61	9.64	20.89	30	16	58.6	6.77	-.1587	-49.06	.0044	4422.6	5.45	.00	.0136	184.38	-.1021	5.54	353.24
RISE	51	11.51	22.76	30	17	.4	69.30	-.1142	36.25	-.0275	5198.6	-3.31	-.00	.0925	311.03	.0264	2.13	359.19
EXTM	72	12.84	23.29	30	17	1.0	309.00	-.0601	20.68	-.1241	2990.8	5.90	32.32	-.0000	59.36	.1612	1.23	.74
EXTM	61	13.62	24.87	30	17	2.6	339.68	-.0776	-46.67	.0147	5940.4	6.92	1.32	-.0000	166.18	-.0553	-1.29	5.02
SET	61	20.78	32.03	30	17	9.7	319.20	-.0293	-41.41	.0076	8984.6	7.05	.00	-.0043	150.85	-.0227	-9.80	19.53
EXTM	51	34.33	45.58	30	17	24.3	348.64	-.0184	-12.69	-.0138	9212.6	5.42	73.05	.0000	41.24	.0776	-18.04	34.62
EXTM	72	64.80	76.05	30	17	53.7	282.90	-.0001	-24.09	-.0017	22284.4	4.93	14.97	.0000	113.54	.0017	-24.34	46.90
RISE	61	149.78	161.03	30	19	18.7	304.81	.0026	-34.01	.0002	45582.4	3.60	-.00	.0015	137.11	.0016	-27.68	45.31
EXTM	51	258.18	269.43	30	21	7.1	359.98	.0035	-28.33	-.0000	61650.9	3.10	87.21	.0000	179.53	.0472	-28.26	27.70
EXTM	61	423.18	434.43	30	23	52.1	2.53	.0039	-31.49	.0001	93863.3	2.61	17.84	.0000	182.26	.0035	-28.27	353.36
EXTM	72	[illegible].16	470.41	1	0	28.1	.31	.0040	-29.57	.0001	95585.4	2.53	68.33	.0000	180.74	.0094	-28.24	345.38
RISE	11	528.53	539.78	1	1	17.5	294.07	.0040	-30.03	-.0000	125526.8	1.96	.00	.0026	127.77	.0023	-28.07	306.62
SET	51	554.45	565.70	1	1	43.4	90.00	.0038	-26.98	.0001	127749.3	2.56	11.36	-.0032	245.37	-.0013	-28.04	300.57
SET	61	555.61	579.46	1	3	57.5	60.59	.0040	-30.13	.0001	130873.6	2.44	-.00	-.0022	228.89	.0026	-28.03	297.26
SET	72	850.46	861.71	1	6	59.4	94.15	.0039	-27.50	.0001	153711.5	2.39	-.00	-.0035	242.21	-.0005	-27.84	254.18
RISE	42	860.17	871.32	1	7	9.0	254.99	.0040	-26.41	-.0001	154434.8	1.68	3.85	.0029	119.88	-.0021	-27.83	251.88
EXTM	11	899.59	910.84	1	7	48.5	.76	.0041	-29.47	.0000	156878.6	1.96	24.92	-.0000	180.72	.0040	-27.80	242.42
SET	11	1167.75	1179.00	1	12	16.7	67.14	.0041	-28.14	.0001	189346.7	2.05	-.00	-.0026	233.82	.0024	-27.56	177.65
EXTM	42	1285.38	1296.63	1	14	14.3	359.96	.0042	-27.42	.0000	195307.8	1.69	82.00	.0000	.26	-.0236	-27.47	149.02
RISE	51	1420.65	1431.90	1	16	29.6	270.00	.0041	-26.72	-.0000	213711.6	1.25	11.26	.0034	114.39	-.0014	-27.37	115.97
RISE	72	1575.67	1586.92	1	19	4.6	265.93	.0041	-27.13	-.0000	229692.8	1.15	-.01	.0036	117.31	-.0005	-27.26	77.97
RISE	61	1659.35	1670.60	1	20	28.3	297.16	.0041	-28.14	-.0000	237387.3	1.24	.00	.0025	128.46	.0027	-27.21	57.42
SET	42	1706.55	1717.80	1	21	17.5	105.00	.0041	-26.27	.0000	241414.9	1.82	3.76	-.0029	240.23	-.0022	-27.18	45.32
EXTM	51	1775.50	1786.75	1	22	24.4	358.81	.0042	-27.18	.0000	241500.4	1.46	88.21	.0022	143.84	.0961	-27.14	28.84
EXTM	61	1911.04	1922.29	2	0	40.0	.32	.0042	-28.47	.0000	257241.2	1.42	21.39	.0000	180.30	.0040	-27.06	355.44
EXTM	72	1951.04	1962.29	2	1	20.0	.10	.0042	-27.91	.0000	257012.9	1.41	70.40	-.0000	180.27	.0109	-27.04	345.57
RISE	11	2094.55	2105.80	2	3	43.5	291.88	.0042	-27.84	-.0000	274892.6	1.06	.00	.0028	124.86	.0024	-26.77	310.14
SET	51	2139.61	2150.86	2	4	28.5	90.00	.0041	-26.44	.0000	277333.5	1.72	11.15	-.0034	245.87	-.0014	-26.94	299.01
SET	61	2162.51	2173.76	2	4	51.4	63.40	.0042	-27.89	.0000	280414.8	1.62	-.00	-.0025	232.21	.0027	-26.93	293.35
SET	72	2325.42	2336.67	2	7	34.3	94.00	.0041	-26.57	.0000	293329.6	1.70	-.00	-.0036	243.05	-.0005	-26.85	253.05
RISE	42	2326.11	2337.36	2	7	35.0	255.00	.0041	-26.10	-.0000	292977.5	.97	3.66	.0029	119.63	-.0022	-26.85	252.88
EXTM	11	2366.27	2377.52	2	8	15.2	.22	.0042	-27.23	.0000	293636.1	1.29	26.86	-.0000	180.21	.0042	-26.84	242.94
SET	11	2637.79	2649.04	2	12	46.7	68.47	.0042	-27.47	.0000	316937.7	1.53	.01	-.0028	235.62	.0024	-26.72	175.66
EXTM	42	2745.32	2756.57	2	14	34.2	359.99	.0042	-26.90	.0000	318507.9	1.20	81.28	-.0000	.13	-.0118	-26.67	148.99
RISE	51	2875.89	2887.14	2	16	44.8	270.00	.0041	-26.20	-.0000	332802.4	.80	11.05	.0034	113.91	-.0015	-26.62	116.59
RISE	72	3029.18	3040.43	2	19	18.1	266.04	.0042	-26.41	-.0000	344773.7	.71	-.00	.0037	116.68	-.0005	-26.57	78.46
RISE	61	3107.01	3118.26	2	20	35.9	295.91	.0042	-27.41	-.0000	349990.9	.83	.00	.0025	126.94	.0027	-26.55	59.04
SET	42	3163.72	3174.97	2	21	32.6	105.00	.0041	-25.91	.0000	353380.4	1.44	3.54	-.0030	240.52	-.0023	-26.53	44.89
EXTM	51	3229.93	3241.18	2	22	38.9	359.31	.0042	-26.13	.0000	351854.5	1.10	88.99	.0023	142.08	.1695	-26.52	28.36
EXTM	61	3361.02	3372.27	3	0	49.9	.13	.0042	-27.41	.0000	364432.5	1.11	22.36	-.0000	180.12	.0040	-26.49	355.63
EXTM	72	3401.31	3412.56	3	1	30.0	.06	.0042	-26.80	.0000	363514.2	1.11	71.11	-.0000	180.18	.0112	-26.48	345.61
RISE	11	3538.74	3549.99	3	3	47.7	291.14	.0042	-27.17	-.0000	378671.8	.81	.00	.0028	123.85	.0024	-26.45	311.19
SET	51	3588.82	3600.07	3	4	37.7	90.00	.0042	-26.17	.0000	380864.0	1.53	11.00	-.0035	246.22	-.0015	-26.44	298.65
SET	61	3614.65	3625.90	3	5	3.6	64.31	.0042	-27.13	.0000	383868.1	1.45	-.00	-.0026	233.32	.0027	-26.43	292.17
IMPACT		3740.60	3751.85	3	7	9.5												
IMPC	42	3740.60	3751.85	3	7	9.5	247.81	.0043	-25.82	-.0000	394049.6	1.72	-1.52	.0029	123.51	-.0025	-26.42	260.39
IMPC	72	3740.60	3751.85	3	7	9.5	86.30	.0043	-26.14	.0000	393126.4	2.47	6.79	-.0038	244.24	-.0003	-26.42	260.39
IMPC	11	3740.60	3751.85	3	7	9.5	342.51	.0044	-27.23	-.0000	391155.1	1.94	25.41	.0011	162.79	.0041	-26.42	260.39

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	30	16	48.928	6549.521	24.6507	307.5729	10.98871	-1.5524	104.3656	118.1106
SEPARATION		1.20	12.45	30	16	50.128	6551.757	22.7710	314.5418	10.98672	1.8781	107.2932	125.3803
RETRO		3.20	14.45	30	16	52.128	6559.616	18.9894	325.5268	10.89666	7.5189	111.4013	136.8667
IMPACT		3740.60	3751.85	3	7	9.524	393931.533	-26.4230	260.3922	2.20439	67.9830	268.1899	288.6386

SURVEYOR VIEW PERIODS

GHA	280.5721				EPS	7.0357					LOM	255.0958	
SX	.286512	SY	-.848506	SZ	-.444926	DAO	-26.41862	RAO	288.65821	RM	395231.332	LAT	28.310600
LON	279.461800	C3	-.970467	ECC	.984066	SLR	12985.052	RCA	6544.6450	LTA	-20.0000	GTA	20.00
TB	675.00000	POL	-.0	NSX	.306202	NSY	-.842435	NSZ	-.443522	C3M	1.4967	VIM	2.6713
ZAE	140.676	B,T	.0000	B,R	-.0000	LATE	5.3275	LONE	3.9827	LATS	1.1923	LONS	358.3025
LATI	.6292	LONI	324.8743	RSM	152.4822	TTAN	6.4908						
LAUNCH DATE	JUN 30.1966			BASE AZM	93.0		TF 62.362				ARRIVAL DATE	JUL 3 1966	7 30 43.6

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
93.00	16 56 52.8	28.0	23.46	307.38	1.05	122.73	106.56	17 8 7.8	6545.2	10.99	.52

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELF	DEL	AZI	DAZ	LAT	LONG
						PRORF IN SUNLIGHT											
INJECTION	.00	11.25	30	17	8.1												
SEPARATION	1.20	12.45	30	17	9.3												
RETRO	3.20	14.45	30	17	11.3												
RISE 72	5.12	16.37	30	17	13.2	76.24	-.2811	59.75	.0732	2853.3	-6.41	-.01	.1162	330.71	.1091	13.13	333.83
RISE 61	9.71	20.96	30	17	17.8	11.48	-.1454	-49.19	.0005	4752.8	5.32	.00	.0149	187.48	-.0939	3.73	351.28
RISE 51	11.33	22.58	30	17	19.5	72.30	-.1030	32.24	-.0299	5426.7	-3.05	-.00	.0901	306.31	.0191	.86	356.19
EXTM 72	11.63	22.88	30	17	19.8	319.79	-.0844	19.48	-.1312	2741.6	5.54	41.65	-.0000	54.34	.2053	.37	357.03
EXTM 61	14.97	26.22	30	17	23.1	340.40	-.0631	-46.19	.0116	6739.4	6.83	1.81	-.0000	166.57	-.0452	-4.56	5.35
SET 61	26.53	37.78	30	17	34.7	317.06	-.0178	-40.45	.0046	11473.0	6.58	-.00	-.0031	148.97	-.0139	-14.97	23.56
EXTM 51	37.17	48.42	30	17	45.3	352.27	-.0156	-15.43	-.0104	10285.9	5.34	77.75	-.0000	37.56	.0859	-19.66	32.58
EXTM 72	66.15	77.40	30	18	14.3	287.71	.0000	-25.73	-.0014	22466.6	4.88	19.34	.0000	114.57	.0015	-24.84	42.77
EXTM 51	84.98	96.23	30	18	33.1	338.77	-.0001	-25.98	-.0011	24381.9	4.44	70.91	.0000	95.40	.0035	-26.19	44.56
RISE 61	124.29	135.54	30	19	12.4	306.04	.0021	-34.81	.0003	39819.0	3.86	-.00	.0013	138.40	.0012	-27.50	43.40
EXTM 51	233.65	244.90	30	21	1.8	359.97	.0034	-28.67	-.0000	57147.6	3.21	87.07	.0000	179.35	.0491	-28.37	27.71
EXTM 61	403.55	414.80	30	23	51.7	2.81	.0039	-32.13	.0001	90908.6	2.65	17.58	.0000	182.49	.0034	-28.39	353.11
EXTM 72	438.84	450.09	1	0	27.0	.35	.0040	-29.74	.0001	92598.4	2.57	68.16	.0000	180.82	.0093	-28.36	345.34
RISE 11	609.74	620.99	1	3	17.9	294.22	.0040	-30.17	-.0000	123079.1	1.99	.00	.0026	127.96	.0023	-28.17	306.43
SET 51	634.64	645.89	1	3	42.8	90.00	.0038	-27.85	.0001	125197.3	2.58	11.39	-.0032	245.30	-.0013	-28.14	300.63
SET 61	648.13	659.38	1	3	56.3	60.41	.0039	-30.27	.0001	128256.6	2.46	-.00	-.0022	228.68	.0026	-28.12	297.48
SET 72	831.21	842.46	1	6	59.3	94.16	.0039	-27.67	.0001	151479.3	2.40	-.00	-.0035	242.14	-.0005	-27.92	254.21
RISE 42	841.08	852.33	1	7	9.2	254.99	.0040	-26.47	-.0001	152239.9	1.69	3.88	.0028	119.93	-.0021	-27.91	251.85
EXTM 11	880.69	891.94	1	7	48.8	.80	.0041	-29.97	.0000	154748.4	1.97	24.81	-.0000	180.77	.0040	-27.87	242.38
SET 11	1148.57	1159.82	1	12	16.7	67.07	.0041	-28.91	.0001	187391.0	2.06	-.00	-.0026	233.73	.0024	-27.62	177.74
EXTM 42	1266.61	1277.86	1	14	14.7	359.96	.0042	-27.26	.0000	193471.8	1.70	82.04	.0000	.27	-.0242	-27.52	149.02
RISE 51	1402.01	1413.26	1	16	30.1	270.00	.0041	-26.76	-.0000	211962.5	1.26	11.27	.0034	114.43	-.0014	-27.41	115.95
RISE 72	1557.05	1568.30	1	19	5.2	265.93	.0041	-27.16	-.0000	228023.6	1.16	-.01	.0036	117.35	-.0005	-27.30	77.96
RISE 61	1640.96	1652.21	1	20	29.1	297.21	.0041	-28.38	-.0000	235776.1	1.25	.00	.0025	128.52	.0027	-27.24	57.36
SET 42	1689.90	1701.15	1	21	18.0	105.00	.0041	-26.29	.0000	239799.2	1.83	3.78	-.0029	240.21	-.0022	-27.21	45.33
EXTM 51	1756.75	1768.00	1	22	24.9	358.77	.0042	-27.21	.0000	239905.3	1.47	88.17	.0023	143.51	.0933	-27.17	28.88
EXTM 61	1892.52	1903.77	2	0	40.7	.33	.0042	-28.40	.0000	255720.3	1.43	21.36	.0000	180.31	.0040	-27.09	355.43
EXTM 72	1932.49	1943.74	2	1	20.6	.10	.0042	-27.23	.0000	255501.7	1.42	70.37	-.0000	180.28	.0109	-27.06	345.57
RISE 11	2076.13	2087.38	2	3	44.3	291.90	.0042	-27.36	-.0000	273438.7	1.06	.00	.0028	124.89	.0024	-26.99	310.11
SET 51	2121.05	2132.30	2	4	29.2	90.00	.0041	-26.46	.0000	275881.9	1.73	11.15	-.0034	245.86	-.0014	-26.96	299.01
SET 61	2143.85	2155.10	2	4	52.0	63.37	.0042	-27.41	.0000	278963.1	1.62	-.00	-.0025	232.18	.0027	-26.95	293.38
SET 72	2306.89	2318.14	2	7	35.0	94.00	.0041	-26.68	.0000	291936.5	1.71	-.00	-.0036	243.04	-.0005	-26.87	253.06
RISE 42	2307.62	2318.87	2	7	35.8	255.00	.0041	-26.11	-.0000	291587.1	.98	3.66	.0029	119.64	-.0022	-26.87	252.88
EXTM 11	2347.80	2359.05	2	8	15.9	.22	.0042	-27.95	.0000	292260.3	1.29	26.84	-.0000	180.22	.0042	-26.85	242.93
SET 11	2619.26	2630.51	2	12	47.4	68.46	.0042	-27.48	.0000	315625.9	1.54	.01	-.0028	235.61	.0024	-26.72	175.67
EXTM 42	2726.85	2738.10	2	14	35.0	359.99	.0042	-26.51	.0000	317225.8	1.20	81.29	-.0000	.14	-.0120	-26.68	148.99
RISE 51	2857.45	2868.70	2	16	45.6	270.00	.0041	-26.20	-.0000	331551.3	.80	11.05	.0034	113.91	-.0015	-26.62	116.58
RISE 72	3010.87	3022.12	2	19	19.0	266.04	.0042	-26.41	-.0000	343599.3	.71	-.00	.0037	116.68	-.0005	-26.56	78.45
RISE 61	3088.66	3099.91	2	20	34.8	295.91	.0042	-27.31	-.0000	348816.1	.83	.00	.0025	126.94	.0027	-26.54	59.04
SET 42	3145.35	3156.60	2	21	33.5	105.00	.0041	-25.90	.0000	352205.2	1.44	3.54	-.0030	240.53	-.0023	-26.53	44.89
EXTM 51	3211.51	3222.76	2	22	39.6	359.30	.0042	-26.53	.0000	350674.9	1.10	88.99	.0024	141.33	.1673	-26.51	28.38
EXTM 61	3342.64	3353.89	3	0	50.8	.13	.0042	-27.40	.0000	363247.8	1.10	22.36	-.0000	180.12	.0041	-26.48	355.62
EXTM 72	3382.72	3393.97	3	1	30.9	.06	.0042	-26.79	.0000	362324.2	1.10	71.11	-.0000	180.19	.0113	-26.47	345.61
RISE 11	3520.34	3531.59	3	3	48.5	291.14	.0042	-27.07	-.0000	377444.6	.81	.00	.0028	123.84	.0024	-26.44	311.19
SET 51	3570.42	3581.67	3	4	38.6	90.00	.0042	-26.06	.0000	379609.4	1.51	11.00	-.0035	246.23	-.0015	-26.43	298.65
SET 61	3596.29	3607.54	3	5	4.4	64.32	.0042	-27.12	.0000	382594.1	1.44	-.00	-.0026	233.33	.0027	-26.42	292.17
IMPACT	3741.70	3752.95	3	7	29.8												
IMPC 42	3741.70	3752.95	3	7	29.8	252.68	.0043	-25.83	-.0000	393725.3	1.70	1.85	.0030	120.72	-.0024	-26.41	255.50
IMPC 72	3741.70	3752.95	3	7	29.8	91.20	.0043	-26.29	.0000	393661.2	2.46	2.43	-.0038	243.79	-.0005	-26.41	255.50
IMPC 11	3741.70	3752.95	3	7	29.8	347.47	.0044	-27.22	-.0000	391102.8	1.96	26.46	.0008	167.56	.0043	-26.41	255.50

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	R ASC
INJECTION	.00	11.25	30	17	8.130	6545.215	23.4618	307.3800	10.99231	.5221	106.5560	122.7314
SEPARATION	1.20	12.45	30	17	9.330	6576.063	21.3357	314.1844	10.96622	3.9462	109.2669	129.8367
RETRO	3.20	14.45	30	17	11.330	6729.725	17.2850	324.7662	10.83928	9.5065	112.9445	140.9198
IMPACT	3741.70	3752.95	3	7	29.830	393982.820	-26.4101	255.4990	7.20224	67.7230	268.1838	288.8358

SURVEYOR VIEW PERIODS

GHA	280.5721					EPS	7.1513						LOM	251.0298	
SX	.288954	SY	-.847760	SZ	-.444757	DAO	-26.40780	RAO	288.82138	RM	395270.344	LAT	28.310600	LON	279.461800
C3	-.970242	ECC	.984670	SLR	12985.077	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.308627	NSY	-.841547	NSZ	-.443337	C3M	1.4975	VIM	2.6715	ZAE	140.662	B.T	.0000	B.R	-.0000
LATE	5.3378	LONE	1.9761	LATS	1.1926	LONS	358.1596	LATI	.4861	LONI	324.8730	RSM	152.4821	TTAN	1.4860
LAUNCH	DATE	JUN	30,1966		PASE AZM	96.0		TF	67.370			ARRIVAL	DATE	JUL	3 1966 7 47 35,9

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
96.00	17 11 30.7	28.1	22.29	307.06	4.00	126.08	108.70	17 22 45.7	6553.4	10.99	2.08

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DFC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	30	17	22.8												
SEPARATION		1.20	12.45	30	17	24.0												
RETRO		3.20	14.45	30	17	26.0												
RISE	72	4.78	16.03	30	17	27.5	79.30	-.2284	53.24	.0534	2935.0	-6.86	-.00	.1208	323.98	.0834	12.12	331.11
RISE	61	10.49	21.74	30	17	33.2	10.09	-.1230	-49.42	.0017	5307.6	5.58	.00	.0127	86.56	-.0792	.62	351.56
RISE	51	11.22	22.47	30	17	34.0	74.81	-.0945	28.92	-.0322	5607.1	-2.85	.00	.0881	92.01	.0131	-.62	353.63
EXTM	72	11.34	22.59	30	17	34.1	329.88	-.1077	17.19	-.1329	2560.1	5.23	51.07	-.0000	49.72	.2674	-.81	353.95
EXTM	61	16.42	27.67	30	17	39.2	340.80	-.0526	-46.41	.0094	7568.5	6.73	1.67	-.0000	166 89	-.0375	-7.83	5.69
SET	61	30.52	41.77	30	17	53.3	317.88	-.0137	-41.24	.0036	13141.7	6.26	-.00	-.0021	149.71	-.0107	-18.14	24.28
EXTM	51	39.80	51.05	30	18	2.6	355.20	-.0136	-18.89	-.0081	11244.5	5.26	81.84	-.0000	33.90	.1072	-21.39	30.80
EXTM	72	67.51	78.76	30	18	30.3	291.54	.0001	-27.16	-.0012	22703.7	4.83	22.73	.0000	116.09	.0013	-25.69	39.51
EXTM	51	88.04	99.29	30	18	50.8	343.09	.0000	-27.09	-.0009	25234.4	4.38	74.81	.0000	98.85	.0035	-26.98	41.17
RISE	61	106.34	117.59	30	19	9.1	307.84	.0016	-35.84	.0004	35536.8	4.08	-.00	.0011	140.26	.0007	-27.63	41.01
EXTM	51	214.04	225.29	30	20	54.8	359.98	.0032	-29.08	-.0000	53425.1	3.30	86.66	-.0000	179.62	.0330	-28.73	27.70
EXTM	61	389.10	400.35	30	23	51.9	3.17	.0036	-32.53	.0001	88726.3	2.69	17.17	.0000	182.79	.0034	-28.69	352.78
EXTM	72	423.42	434.67	1	0	26.2	.42	.0040	-30.18	.0001	90307.4	2.60	67.82	.0000	180.97	.0091	-28.65	345.28
RISE	11	596.11	607.36	1	3	16.9	294.49	.0040	-30.43	-.0000	121286.7	2.01	.00	.0025	128.31	.0023	-28.40	306.12
SET	51	619.50	630.75	1	3	42.3	90.00	.0038	-27.26	.0001	123219.7	2.60	11.47	-.0032	245.10	-.0013	-28.36	300.69
SET	61	631.62	642.87	1	3	54.4	60.06	.0039	-30.53	.0001	126119.3	2.48	-.00	-.0021	228.28	.0026	-28.35	297.86
SET	72	816.62	827.87	1	6	59.4	94.19	.0039	-27.75	.0001	149775.3	2.41	-.00	-.0034	241.96	-.0004	-28.10	254.21
RISE	42	826.62	837.87	1	7	9.4	254.99	.0040	-26.43	-.0001	150549.1	1.71	3.98	.0028	120.06	-.0021	-28.09	251.82
EXTM	11	866.45	877.70	1	7	49.2	.87	.0041	-30.17	.0000	153144.2	1.98	24.62	-.0000	180.83	.0039	-28.04	242.31
SET	11	1133.57	1144.82	1	12	16.3	66.92	.0041	-29.05	.0001	185853.7	2.07	-.00	-.0026	233.53	.0024	-27.75	177.90
EXTM	42	1252.42	1263.67	1	14	15.2	359.99	.0042	-27.48	.0000	192078.1	1.71	82.16	-.0000	.15	-.0149	-27.63	148.99
RISE	51	1387.82	1399.07	1	16	30.6	270.00	.0041	-26.46	-.0000	210624.1	1.27	11.31	.0034	114.52	-.0014	-27.52	115.94
RISE	72	1542.83	1554.08	1	19	5.6	265.91	.0041	-27.15	-.0000	226746.3	1.16	-.01	.0036	117.44	-.0005	-27.39	77.97
RISE	61	1627.25	1638.50	1	20	30.0	297.32	.0041	-28.48	-.0000	234575.0	1.25	.00	.0025	128.65	.0027	-27.33	57.24
SET	42	1675.69	1686.94	1	21	18.4	105.00	.0041	-26.47	.0000	238563.2	1.83	3.82	-.0029	240.15	-.0022	-27.29	45.33
EXTM	51	1742.18	1753.43	1	22	24.9	358.67	.0042	-27.29	.0000	238664.5	1.47	88.05	.0023	142.75	.0867	-27.25	28.98
EXTM	61	1878.46	1889.71	2	0	41.2	.35	.0042	-28.48	.0000	254571.7	1.43	21.28	.0000	180.33	.0040	-27.15	355.41
EXTM	72	1918.37	1929.62	2	1	21.1	.11	.0042	-27.60	.0000	254354.2	1.42	70.30	-.0000	180.29	.0109	-27.13	345.57
RISE	11	2062.25	2073.50	2	3	45.0	291.96	.0042	-27.92	-.0000	272346.4	1.07	.00	.0028	124.96	.0024	-27.04	310.05
SET	51	2106.90	2118.15	2	4	29.7	90.00	.0041	-26.51	.0000	274776.2	1.73	11.17	-.0034	245.81	-.0014	-27.01	299.02
SET	61	2129.43	2140.68	2	4	52.2	63.30	.0042	-27.97	.0000	277843.7	1.63	-.00	-.0025	232.10	.0027	-27.00	293.45
SET	72	2292.78	2304.03	2	7	35.5	94.01	.0041	-26.72	.0000	290880.3	1.71	-.00	-.0036	243.00	-.0005	-26.91	253.05
RISE	42	2293.52	2304.77	2	7	36.3	255.00	.0041	-26. 5	-.0000	290529.1	.98	3.69	.0029	119.67	-.0022	-26.91	252.87
EXTM	11	2333.74	2344.99	2	8	16.5	.24	.0042	-28.00	.0000	291221.8	1.30	26.80	-.0000	180.24	.0042	-26.89	242.92
SET	11	2605.03	2616.28	2	12	47.8	68.43	.0042	-27.51	.0000	314625.2	1.54	.00	-.0028	235.57	.0024	-26.75	175.71
EXTM	42	2712.74	2723.99	2	14	35.5	359.99	.0042	-26.53	.0000	316254.5	1.20	81.31	-.0000	.14	-.0131	-26.70	148.99
RISE	51	2843.37	2854.62	2	16	46.1	270.00	.0041	-26.22	-.0000	330604.3	.80	11.06	.0034	113.92	-.0015	-26.64	116.58
RISE	72	2996.78	3008.03	2	19	19.5	266.04	.0042	-26.42	-.0000	342680.4	.72	-.00	.0037	116.69	-.0005	-26.58	78.45
RISE	61	3074.44	3085.69	2	20	37.4	295.92	.0042	-27.42	-.0000	347905.7	.84	.00	.0025	126.96	.0027	-26.55	59.02
SET	42	3131.25	3142.50	2	21	34.0	105.00	.0041	-25.91	.0000	351290.9	1.44	3.54	-.0030	240.52	-.0023	-26.54	44.90
EXTM	51	3197.48	3208.73	2	22	40.2	359.31	.0042	-26.53	.0000	349767.9	1.10	88.99	.0023	142.22	.1697	-26.52	28.36
EXTM	61	3328.59	3339.84	3	0	51.4	.14	.0042	-27.41	.0000	362339.9	1.10	22.35	-.0000	180.13	.0040	-26.48	355.62
EXTM	72	3368.65	3379.90	3	1	31.4	.07	.0042	-26.79	.0000	361412.8	1.10	71.11	-.0000	180.19	.0114	-26.47	345.61
RISE	11	3506.28	3517.53	3	3	49.0	291.14	.0042	-27.17	-.0000	376516.8	.80	.00	.0028	123.85	.0024	-26.44	311.19
SET	51	3556.36	3567.61	3	4	39.1	90.00	.0042	-26.96	.0000	378665.6	1.51	11.00	-.0035	246.23	-.0015	-26.43	298.65
SET	61	3582.25	3593.50	3	5	5.0	64.32	.0042	-27.12	.0000	381639.2	1.43	-.00	-.0026	233.34	.0027	-26.42	292.17
RISE	42	3737.10	3748.35	3	7	39.9	255.00	.0043	-25.44	-.0000	393005.8	1.44	3.50	.0031	119.42	-.0023	-26.40	253.16
SET	72	3738.64	3749.89	3	7	41.4	93.93	.0043	-26.26	.0000	393560.6	2.26	.00	-.0038	243.47	-.0006	-26.40	252.77
IMPACT		3742.18	3753.43	3	7	44.9												
IMPC	42	3742.18	3753.43	3	7	44.9	256.30	.0043	-25.84	-.0000	393474.5	1.69	4.43	.0031	118.72	-.0023	-26.40	251.86
IMPC	72	3742.18	3753.43	3	7	44.9	94.84	.0043	-26.26	.0000	394056.4	2.46	-.81	-.0038	243.34	-.0006	-26.40	251.86
IMPC	11	3742.18	3753.43	3	7	44.9	351.17	.0044	-27.22	-.0000	391082.8	1.98	27.02	.0005	171.18	.0043	-26.40	251.86

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	30	17	22.762	6553.426	22.2888	307.0609	10.98541	2.0829	108.6987	126.0804
SEPARATION		1.20	12.45	30	17	23.962	6605.556	19.9455	313.6733	10.94153	5.4872	111.1926	132.9936
RETRO		3.20	14.45	30	17	25.962	6792.660	15.6416	323.8738	10.78854	10.9706	114.4739	143.6955
IMPACT		3742.18	3753.43	3	7	44.943	3940[illegible].324	-26.4007	251.8566	2.20175	67.6846	268.4510	288.9821

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SURVEYOR VIEW PERIODS

GHA	280.5721					EPS	7.2476						LOM	247.6632	
SX	.290974	SY	-.847143	SZ	-.444615	DAO	-26.39471	RAO	288.95644	RM	395302.629	LAT	28.310600	LON	279.461800
C3	-.972084	ECC	.984039	SLR	12984.878	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.310654	NSY	-.840881	NS7	-.443185	C3M	1.4970	VIM	2.6714	ZAE	140.603	B.T	.0000	B.R	-.0000
LATF	5.3463	LONF	4.0966	LATS	1.1928	LONS	358.1691	LATI	.2548	LONI	324.9686	RSM	152.4821	TTAN	6.4846
LAUNCH DATE	JUN 30,1966			BASE AZM	99.0		TF 62.407					ARRIVAL DATE	JUL 3 1966	8	1 34.0

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
99.00	17 22 29.6	28.1	21.14	306.65	6.52	128.42	110.81	17 33 44.6	6565.7	10.97	3.24

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PRORE IN SUNLIGHT											
INJECTION		.00	11.25	30	17	33.7												
SEPARATION		1.20	12.45	30	17	34.9												
RETRO		3.20	14.45	30	17	36.9												
RISE	72	4.54	15.79	30	17	38.3	81.26	-.1980	47.60	.0342	2999.9	-7.15	.00	.1238	318.20	.0607	10.94	328.86
EXTM	72	11.14	22.39	30	17	44.9	338.95	-.1272	12.82	-.1301	2432.5	5.00	60.56	-.0000	45.44	.3656	-2.25	351.37
RISE	51	11.15	22.40	30	17	44.9	77.01	-.0880	25.00	-.0346	5747.0	-2.68	-.00	.0865	297.98	.0078	-2.27	351.40
RISE	61	12.26	23.51	30	17	46.0	3.30	-.0935	-49.71	.0051	6212.1	6.05	.01	.0077	182.13	-.0602	-4.02	354.26
EXTM	61	18.01	29.26	30	17	51.7	340.77	-.0445	-47.07	.0079	8436.3	6.63	1.03	-.0000	167.03	-.0313	-11.15	6.18
SET	61	30.27	41.52	30	18	4.0	321.83	-.0146	-42.89	.0039	13194.2	6.20	-.00	-.0017	153.08	-.0113	-19.40	21.36
EXTM	51	42.12	53.37	30	18	15.9	357.57	-.0123	-21.85	-.0064	12069.2	5.20	85.52	-.0000	30.25	.1673	-23.20	29.29
EXTM	72	68.94	80.19	30	18	42.7	294.53	.0001	-28.62	-.0010	23000.6	4.79	25.26	.0000	117.98	.0011	-26.82	37.00
RISE	61	97.03	108.28	30	19	10.8	310.02	.0011	-37.24	.0006	33255.4	4.22	-.00	.0010	142.43	.0004	-28.21	38.56
EXTM	51	198.55	209.80	30	20	52.3	.00	.0031	-29.75	-.0000	50400.8	3.39	85.99	-.0000	180.23	.0028	-29.30	27.68
EXTM	61	378.55	389.80	30	23	52.3	3.50	.0038	-33.05	.0002	87134.3	2.71	16.64	.0000	183.06	.0033	-29.13	352.47
EXTM	72	412.10	423.35	1	0	25.8	.53	.0040	-30.56	.0001	88610.2	2.62	67.34	.0000	181.18	.0088	-29.07	345.19
RISE	11	586.72	597.97	1	3	20.5	294.87	.0040	-30.80	-.0000	120039.5	2.02	.00	.0025	128.80	.0023	-28.73	305.71
SET	51	608.21	619.46	1	3	42.0	90.00	.0038	-27.58	.0001	121716.3	2.61	11.60	-.0031	244.80	-.0013	-28.69	300.73
SET	61	618.35	629.60	1	3	52.1	59.58	.0039	-30.90	.0001	124372.2	2.50	-.00	-.0021	227.72	.0026	-28.67	298.37
SET	72	805.86	817.11	1	6	59.6	94.24	.0039	-28.01	.0001	148497.5	2.42	-.01	-.0034	241.70	-.0004	-28.36	254.19
RISE	42	815.89	827.14	1	7	9.6	254.99	.0040	-26.88	-.0001	149264.2	1.72	4.13	.0028	120.25	-.0021	-28.35	251.80
EXTM	11	856.02	867.27	1	7	49.8	.97	.0041	-30.44	.0001	151962.5	1.99	24.35	-.0000	180.91	.0039	-28.29	242.22
SET	11	1122.01	1133.26	1	12	15.8	66.71	.0041	-29.26	.0001	184639.6	2.08	-.00	-.0026	233.26	.0024	-27.94	178.12
EXTM	42	1241.59	1252.84	1	14	15.3	359.94	.0042	-27.56	.0000	190982.5	1.71	82.34	.0000	.46	-.0264	-27.81	149.04
RISE	51	1377.27	1388.52	1	16	31.0	270.00	.0041	-27.01	-.0000	209593.9	1.28	11.37	.0034	114.67	-.0014	-27.67	115.93
RISE	72	1532.20	1543.45	1	19	5.9	265.89	.0041	-27.29	-.0000	225755.8	1.17	-.01	.0036	117.57	-.0005	-27.53	77.98
RISE	61	1617.36	1628.61	1	20	31.1	297.48	.0041	-28.61	-.0000	233672.2	1.26	.00	.0025	128.84	.0027	-27.45	57.08
SET	42	1665.10	1676.35	1	21	18.8	105.00	.0041	-26.48	.0000	237599.1	1.83	3.89	-.0029	240.06	-.0022	-27.41	45.34
EXTM	51	1731.24	1742.49	1	22	25.0	358.57	.0042	-27.40	.0000	237691.6	1.48	87.90	.0023	142.84	.0806	-27.36	29.07
EXTM	61	1868.04	1879.29	2	0	41.8	.38	.0042	-28.58	.0000	253680.9	1.44	21.18	.0000	180.36	.0040	-27.25	355.38
EXTM	72	1907.86	1919.11	2	1	21.6	.12	.0042	-27.70	.0000	253456.0	1.42	70.20	-.0000	180.31	.0109	-27.23	345.56
RISE	11	2052.08	2063.33	2	3	45.8	292.04	.0042	-28.01	-.0000	271495.8	1.07	.00	.0028	125.08	.0024	-27.12	309.96
SET	51	2096.35	2107.60	2	4	30.1	90.00	.0041	-26.59	.0000	273897.5	1.73	11.21	-.0034	245.73	-.0014	-27.10	299.03
SET	61	2118.48	2129.73	2	4	52.2	63.20	.0042	-28.05	.0000	276939.2	1.63	-.00	-.0025	231.98	.0027	-27.08	293.56
SET	72	2282.28	2293.53	2	7	36.0	94.02	.0041	-26.79	.0000	290035.8	1.71	-.00	-.0036	242.93	-.0005	-26.98	253.05
RISE	42	2283.01	2294.26	2	7	36.8	255.00	.0041	-26.21	-.0000	289679.4	.98	3.73	.0029	119.72	-.0022	-26.98	252.87
EXTM	11	2323.30	2334.55	2	8	17.0	.26	.0042	-28.06	.0000	290393.7	1.30	26.73	-.0000	180.26	.0042	-26.95	242.90
SET	11	2594.31	2605.56	2	12	48.1	68.39	.0042	-27.56	.0000	313801.9	1.54	.00	-.0028	235.51	.0024	-26.80	175.75
EXTM	42	2702.21	2713.46	2	14	36.0	359.99	.0042	-26.57	.0000	315455.9	1.21	81.35	-.0000	.15	-.0143	-26.74	148.99
RISE	51	2832.86	2844.11	2	16	46.6	270.00	.0041	-26.25	-.0000	329818.8	.81	11.07	.0034	113.95	-.0015	-26.68	116.58
RISE	72	2986.42	2997.67	2	19	20.2	266.04	.0042	-26.44	-.0000	341959.3	.72	.00	.0037	116.71	-.0005	-26.60	78.45
RISE	61	3064.35	3075.60	2	20	38.1	295.95	.0042	-27.34	-.0000	347187.7	.83	.00	.0025	126.99	.0027	-26.57	59.00
SET	42	3120.84	3132.09	2	21	34.6	105.00	.0041	-25.92	.0000	350561.5	1.44	3.55	-.0030	240.51	-.0023	-26.55	44.90
EXTM	51	3187.17	3198.42	2	22	40.9	359.34	.0042	-26.55	.0000	349042.4	1.10	89.00	.0023	143.71	.1735	-26.53	28.34
EXTM	61	3318.21	3329.46	3	0	51.9	.15	.0042	-27.42	.0000	361600.5	1.10	22.34	-.0000	180.14	.0040	-26.49	355.61
EXTM	72	3358.23	3369.48	3	1	32.0	.07	.0042	-26.80	.0000	360665.7	1.10	71.10	-.0000	180.20	.0113	-26.48	345.60
RISE	11	3495.87	3507.12	3	3	49.6	291.14	.0042	-27.07	-.0000	375744.0	.80	.00	.0028	123.85	.0024	-26.44	311.18
SET	51	3545.91	3557.16	3	4	39.7	90.00	.0042	-26.06	.0000	377874.2	1.50	11.00	-.0035	246.23	-.0015	-26.43	298.65
SET	61	3571.79	3583.04	3	5	5.5	64.32	.0042	-27.12	.0000	380835.9	1.42	-.00	-.0026	233.33	.0027	-26.42	292.17
RISE	42	3726.87	3738.12	3	7	40.6	255.00	.0042	-25.83	-.0000	391833.9	1.18	3.49	.0030	119.42	-.0023	-26.39	253.16
SET	72	3728.40	3739.65	3	7	42.1	93.93	.0042	-26.25	.0000	392360.8	1.95	-.00	-.0038	243.48	-.0006	-26.39	252.77
IMPACT		3744.44	3755.69	3	7	58.2												
IMPC	42	3744.44	3755.69	3	7	58.2	259.48	.0043	-25.85	-.0000	393254.3	1.68	6.74	.0032	117.01	-.0023	-26.39	248.67
IMPC	72	3744.44	3755.69	3	7	58.2	98.02	.0043	-26.23	.0000	394404.3	2.45	-3.62	-.0038	242.88	-.0007	-26.39	248.67
IMPC	11	3744.44	3755.69	3	7	58.2	354.40	.0044	-27.21	-.0000	391083.8	2.00	27.36	.0003	174.40	.0044	-26.39	248.67

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION		.00	11.25	30	17	33.743	6565.931	21.1380	306.6593	10.97491	3.2351	110.8154	128.4314
SEPARATION		1.20	12.45	30	17	34.943	6633.501	18.5892	313.0721	10.91818	6.6187	113.0997	135.1450
RETRO		3.20	14.45	30	17	36.943	6844.728	14.0352	322.9236	10.74700	12.0364	116.0172	145.4979
IMPACT		3744.44	3755.69	3	7	58.183	3940.52.555	-26.3925	248.6662	2.19962	67.465°	268.8452	289.1107

SURVEYOR VIEW PERIODS

GHA	280.5721					EPS	7.3250							LOM	244.9664
SX	.292592	SY	-.846646	SZ	-.444500	DAO	-26.39134	RAO	289.06459	RM	395328.461	LAT	28.310600	LON	279.461800
C3	-.974566	ECC	.983999	SLR	12984.614	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.312286	NSY	-.848339	NSZ	-.443066	C3M	1.4968	VIM	2.6713	ZAE	140.519	B.T	.0000	B.R	-.0000
LATE	5.3531	LONE	5.9439	LATS	1.1930	LONS	357.9468	LATI	-.0362	LONI	324.7935	RSM	152.4821	TTAN	6.4840

LAUNCH DATE JUN 30,1966 BASE AZM 102.0 TF 62.453 ARRIVAL DATE JUL 3 1966 8 12 45.3

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	17 30 44.4	28.1	20.02	306 17	8.24	130.01	112.91	17 41 59.4	6578.4	10.96	4.09

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	30	17	42.0												
SEPARATION		1.20	12.45	30	17	43.2												
RETRO		3.20	14.45	30	17	45.2												
RISE	72	4.37	15.62	30	17	46.4	82.68	-.1775	42.61	.0160	3652.0	-7.32	.00	.1256	313.02	.0401	9.65	327.00
EXTM	72	11.02	22.27	30	17	53.0	346.92	-.1417	7.04	-.1237	2355.7	4.84	70.16	-.0000	41.44	.5520	-3.91	349.19
RISE	51	11.11	22.36	30	17	53.1	79.00	-.0826	21.59	-.0370	5857.1	-2.54	.00	.0852	294.11	.0031	-4.06	349.44
RISE	61	18.61	29.86	30	18	.6	343.09	-.0430	-48.50	.0070	8909.1	6.52	.01	.0005	168.89	-.0293	-13.51	5.03
EXTM	61	19.78	31.03	30	18	1.8	340.27	-.0380	-48.12	.0068	9364.1	6.52	.02	-.0000	166.95	-.0263	-14.55	6.87
SET	61	21.28	32.53	30	18	3.3	337.10	-.0326	-47.43	.0064	9950.0	6.50	.00	-.0005	164.74	-.0230	-15.78	9.07
EXTM	51	41.41	52.66	30	18	23.4	1.52	-.0135	-23.81	-.0062	11930.2	5.17	87.63	.0122	324.01	.1552	-24.49	26.69
EXTM	72	70.32	81.57	30	18	52.3	296.83	.0001	-30.33	-.0007	23317.7	4.75	27.08	.0000	120.11	.0008	-28.14	35.06
RISE	61	96.28	107.53	30	19	18.3	312.22	.0010	-38.46	.0007	33139.1	4.22	-.00	.0010	144.55	.0003	-29.26	36.51
EXTM	51	186.64	197.89	30	20	48.6	.08	.0029	-30.63	.0000	48022.5	3.46	85.10	-.0000	180.80	.0284	-30.06	27.62
EXTM	61	372.30	383.55	30	23	54.3	4.11	.0038	-33.66	.0002	86222.0	2.73	16.01	.0000	183.56	.0033	-29.68	351.90
EXTM	72	403.93	415.18	1	0	25.9	.66	.0039	-31.14	.0001	87383.5	2.64	66.76	-.0000	181.43	.0085	-29.59	345.06
RISE	11	580.55	591.80	1	3	22.5	295.33	.0040	-31.23	.0000	119215.2	2.03	.00	.0025	129.39	.0023	-29.14	305.23
SET	51	599.82	611.07	1	3	41.8	90.00	.0038	-27.98	.0001	120582.2	2.62	11.76	-.0031	244.42	-.0012	-29.10	300.77
SET	61	607.51	618.76	1	3	49.5	58.98	.0039	-31.14	.0001	122925.8	2.51	-.00	-.0021	227.05	.0026	-29.00	298.99
SET	72	797.98	809.23	1	6	60.0	94.30	.0039	-28.53	.0001	147550.9	2.43	-.01	-.0034	241.37	-.0004	-28.69	254.16
RISE	42	807.97	819.22	1	7	10.0	254.99	.0040	-27.19	-.0001	148295.3	1.73	4.32	.0028	120.50	-.0021	-28.67	251.78
EXTM	11	848.48	859.73	1	7	50.5	1.08	.0041	-30.77	.0001	151109.6	2.00	24.02	-.0000	181.01	.0039	-28.60	242.12
SET	11	1113.02	1124.27	1	12	15.0	66.46	.0041	-29.51	.0001	183680.3	2.08	-.00	-.0026	232.92	.0024	-28.18	178.38
EXTM	42	1233.78	1245.03	1	14	15.8	359.95	.0042	-27.78	.0000	190176.4	1.72	82.56	.0000	.36	-.0263	-28.02	149.03
RISE	51	1369.45	1380.70	1	16	31.4	270.00	.0041	-27.20	-.0000	208809.5	1.28	11.45	.0034	114.84	-.0014	-27.86	115.92
RISE	72	1524.27	1535.52	1	19	6.3	265.86	.0041	-27.45	-.0000	224996.6	1.17	-.01	.0036	117.74	-.0005	-27.69	78.00
RISE	61	1610.33	1621.58	1	20	32.3	297.68	.0041	-28.77	-.0000	233010.5	1.26	.00	.0024	129.08	.0027	-27.61	56.87
SET	42	1657.23	1668.48	1	21	19.2	105.00	.0041	-26.63	.0000	236856.7	1.84	3.98	-.0029	239.94	-.0022	-27.56	45.35
EXTM	51	1723.21	1734.46	1	22	25.2	358.53	.0042	-27.55	.0000	236954.6	1.48	87.76	.0022	144.26	.0768	-27.50	29.12
EXTM	61	1860.35	1871.60	2	0	42.3	.42	.0042	-28.71	.0000	253003.9	1.44	21.05	.0000	180.39	.0039	-27.38	355.34
EXTM	72	1900.06	1911.31	2	1	22.1	.13	.0042	-27.83	.0000	252765.6	1.42	70.08	-.0000	180.33	.0109	-27.35	345.55
RISE	11	2044.68	2055.93	2	3	46.7	292.15	.0042	-28.12	-.0000	270849.1	1.07	.00	.0028	125.22	.0024	-27.23	309.85
SET	51	2088.49	2099.74	2	4	30.5	90.00	.0041	-26.69	.0000	273212.6	1.73	11.25	-.0034	245.64	-.0014	-27.20	299.03
SET	61	2110.12	2121.37	2	4	52.1	63.08	.0042	-28.15	.0000	276219.7	1.63	-.00	-.0025	231.82	.0027	-27.18	293.69
SET	72	2274.48	2285.73	2	7	36.5	94.03	.0041	-26.87	.0001	289376.2	1.72	-.00	-.0036	242.85	-.0005	-27.06	253.04
RISE	42	2275.18	2286.43	2	7	37.2	255.00	.0041	-26.30	-.0000	289012.0	.99	3.78	.0029	119.79	-.0022	-27.06	252.86
EXTM	11	2315.55	2326.80	2	8	17.5	.28	.0042	-28.15	.0000	289750.1	1.30	26.64	-.0000	180.28	.0041	-27.03	242.87
SET	11	2586.22	2597.47	2	12	48.2	68.33	.0042	-27.62	.0000	313142.6	1.54	.00	-.0028	235.43	.0024	-26.86	175.82
EXTM	42	2694.35	2705.60	2	14	36.3	359.98	.0042	-26.62	.0000	314819.3	1.21	81.41	-.0000	.16	-.0158	-26.79	149.00
RISE	51	2825.01	2836.26	2	16	47.0	270.00	.0041	-26.29	-.0000	329188.9	.81	11.09	.0034	113.99	-.0015	-26.72	116.57
RISE	72	2978.54	2989.79	2	19	20.5	266.04	.0042	-26.47	-.0000	341339.2	.71	.00	.0037	116.75	-.0005	-26.63	78.45
RISE	61	3056.65	3067.90	2	20	38.6	295.98	.0042	-27.37	-.0000	346576.5	.83	.00	.0025	127.03	.0027	-26.60	58.96
SET	42	3112.98	3124.23	2	21	35.0	105.00	.0041	-25.95	.0000	349935.8	1.44	3.57	-.0030	240.49	-.0023	-26.58	44.90
EXTM	51	3179.40	3190.65	2	22	41.4	359.36	.0042	-26.57	.0000	348422.2	1.10	88.99	.0022	145.46	.1760	-26.56	28.32
EXTM	61	3310.42	3321.67	3	0	52.4	.16	.0042	-27.44	.0000	360972.4	1.10	22.32	-.0000	180.16	.0040	-26.51	355.59
EXTM	72	3350.40	3361.65	3	1	32.4	.07	.0042	-26.82	.0000	360030.2	1.10	71.08	-.0000	180.21	.0113	-26.50	345.60
RISE	11	3488.07	3499.32	3	3	50.1	291.15	.0042	-27.08	-.0000	375091.8	.79	.00	.0028	123.86	.0024	-26.45	311.17
SET	51	3538.07	3549.32	3	4	40.1	90.00	.0042	-26.06	.0000	377207.2	1.50	11.00	-.0035	246.22	-.0015	-26.44	298.66
SET	61	3563.93	3575.18	3	5	5.9	64.31	.0042	-27.13	.0000	380159.4	1.41	-.00	-.0026	233.32	.0027	-26.43	292.18
RISE	42	3719.18	3730.43	3	7	41.2	255.00	.0042	-25.82	-.0000	390954.6	1.07	3.49	.0030	119.41	-.0023	-26.39	253.16
SET	72	3720.69	3731.94	3	7	42.7	93.92	.0042	-26.25	.0000	391469.8	1.84	.00	-.0037	243.48	-.0005	-26.39	252.78
IMPACT		3747.20	3758.45	3	8	9.2												
IMPC	42	3747.20	3758.45	3	8	9.2	262.13	.0043	-25.96	-.0000	393066.8	1.68	8.68	.0032	115.62	-.0022	-26.39	246.01
IMPC	11	3747.20	3758.45	3	8	9.2	357.09	.0044	-27.21	.0000	391093.4	2.01	27.52	.0002	177.09	.0044	-26.39	246.01

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	30	17	41.990	6578.825	20.0075	306.1971	10.95417	4.0871	112.9175	130.0367
SEPARATION		1.20	12.45	30	17	43.190	6657.551	17.2607	312.4116	10.89817	7.4516	115.0026	136.5520
RETRO		3.20	14.45	30	17	45.190	6886.285	12.4551	321.9443	10.71413	12.8165	117.5860	146.5860
IMPACT		3747.20	3758.45	3	8	9.188	3940?8.684	-26.3860	246.0141	2.19849	67.4194	269.4090	289.2172

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SURVEYOR VIEW PERIODS

GHA	280.5721					EPS	7.3928							LOM	242.6129
SX	.294002	SY	-.846211	SZ	-.444398	DAO	-26.38484	RAO	289.15895	RM	395351.000	LAT	28.310600	LON	279.461800
C3	-.977954	ECC	.983943	SLR	12984.247	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.313721	NSY	-.839859	NSZ	-.442963	C3M	1.4965	VIM	2.6713	ZAE	140.403	B.T	.0000	B.R	-.0000
LATE	5.3591	LONE	4.0489	LATS	1.1931	LONS	357.9514	LATI	-.3662	LONI	324.8124	RSM	152.4820	TTAN	6.4846
LAUNCH DATE		JUN	30,1966		BASE AZM	105.0		TF	62.512			ARRIVAL DATE		JUL	3 1966 8 22 31.2

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FTH
105.00	17 37	2.9	28.1	18.92	305.64	9.53	131.07	115.00	17 48 17.9	6589.8	10.95	4.73

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	30	17	48.3												
SEPARATION		1.20	12.45	30	17	49.5												
RETRO		3.20	14.45	30	17	51.5												
RISE	72	4.26	15.51	30	17	52.6	83.82	-.1621	37.77	-.0015	3096.7	-7.40	-.00	.1265	308.20	.0208	8.27	325.38
EXTM	72	10.98	22.23	30	17	59.3	353.80	-.1511	.20	-.1147	2332.4	4.75	79.80	-.0000	37.63	1.0718	-5.74	347.34
RISE	51	11.11	22.36	30	17	59.4	80.84	-.0781	18.27	-.0395	5948.2	-2.41	.00	.0840	290.36	-.0012	-5.95	347.67
EXTM	51	46.20	57.45	30	18	34.5	.89	-.0106	-27.65	-.0040	13480.7	5.10	87.93	-.0000	202.38	-.2838	-27.03	27.09
EXTM	72	71.39	82.64	30	18	59.7	298.61	.0001	-32.14	-.0004	23573.7	4.72	28.34	.0000	122.36	.0005	-29.57	33.50
EXTM	51	95.66	106.91	30	19	24.0	351.01	.0002	-31.50	-.0003	27340.8	4.26	80.24	.0000	128.22	.0022	-30.46	34.90
RISE	61	101.47	112.72	30	19	29.8	314.29	.0012	-39.53	.0007	34531.1	4.13	-.00	.0011	146.49	.0004	-30.58	34.85
EXTM	51	177.68	188.93	30	20	46.0	.22	.0028	-31.69	.0001	46203.4	3.51	84.05	-.0000	181.83	.0228	-30.97	27.49
EXTM	61	368.04	379.29	30	23	56.3	4.65	.0038	-34.32	.0002	85625.4	2.74	15.32	.0000	183.98	.0033	-30.30	351.40
EXTM	72	398.04	409.29	1	0	26.3	.80	.0039	-31.79	.0001	86501.8	2.66	66.10	.0000	181.69	.0083	-30.19	344.93
RISE	11	576.74	587.99	1	3	25.0	295.85	.0040	-31.71	.0000	118701.7	2.04	.00	.0025	130.04	.0023	-29.60	304.70
SET	51	593.57	604.82	1	3	41.9	90.00	.0038	-28.44	.0001	119719.3	2.63	11.94	-.0031	243.99	-.0012	-29.56	300.81
SET	61	598.40	609.65	1	3	46.7	58.30	.0039	-31.84	.0002	121695.2	2.51	-.00	-.0020	226.28	.0026	-29.54	299.69
SET	72	792.19	803.44	1	7	.5	94.37	.0039	-28.70	.0001	146844.5	2.43	-.01	-.0034	241.00	-.0004	-29.06	254.12
RISE	42	802.08	813.33	1	7	10.4	254.99	.0040	-27.55	-.0000	147555.3	1.73	4.54	.0028	120.79	-.0021	-29.03	251.76
EXTM	11	843.03	854.28	1	7	51.3	1.20	.0041	-31.13	.0001	150494.5	2.00	23.65	.0000	181.12	.0039	-28.95	242.00
SET	11	1105.90	1117.15	1	12	14.2	66.17	.0041	-29.80	.0001	182901.9	2.08	-.00	-.0026	232.54	.0024	-28.46	178.68
EXTM	42	1227.86	1239.11	1	14	16.2	359.94	.0042	-28.04	.0000	189545.0	1.72	82.82	.0000	.42	.0277	-28.27	149.03
RISE	51	1363.60	1374.85	1	16	31.9	270.00	.0041	-27.42	-.0000	208197.8	1.28	11.53	.0034	115.05	-.0014	-28.08	115.91
RISE	72	1518.28	1529.53	1	19	6.6	265.82	.0041	-27.64	-.0000	224398.3	1.17	-.01	.0036	117.93	-.0005	-27.89	78.03
RISE	61	1605.37	1616.62	1	20	33.7	297.91	.0041	-28.95	-.0000	232515.6	1.26	.00	.0024	129.35	.0027	-27.78	56.65
SET	42	1651.32	1662.57	1	21	19.6	105.00	.0041	-26.90	.0001	236267.1	1.84	4.09	-.0029	239.81	-.0022	-27.73	45.35
EXTM	51	1717.25	1728.50	1	22	25.5	358.51	.0042	-27.71	.0000	236378.8	1.48	87.62	.0021	146.35	.0739	-27.66	29.14
EXTM	61	1854.62	1865.87	2	0	42.9	.46	.0042	-28.86	.0000	252472.1	1.44	20.90	.0000	180.43	.0039	-27.52	355.30
EXTM	72	1894.21	1905.46	2	1	22.5	.14	.0042	-27.97	.0000	252216.1	1.43	69.93	-.0000	180.36	.0108	-27.49	345.54
RISE	11	2039.28	2050.53	2	3	47.6	292.27	.0042	-28.24	-.0000	270339.1	1.07	.00	.0028	125.39	.0024	-27.35	309.73
SET	51	2082.56	2093.81	2	4	30.9	90.00	.0041	-26.80	.0001	272656.7	1.73	11.29	-.0034	245.53	-.0014	-27.31	299.03
SET	61	2103.62	2114.87	2	4	51.9	62.93	.0042	-28.27	.0000	275622.9	1.63	-.00	-.0024	231.65	.0027	-27.30	293.83
SET	72	2268.62	2279.87	2	7	36.9	94.05	.0041	-26.97	.0001	288837.9	1.72	- 00	-.0036	242.75	-.0005	-27.16	253.02
RISE	42	2269.28	2280.53	2	7	37.6	255.00	.0041	-26.39	-.0000	288463.9	.99	3.84	.0029	119.87	-.0022	-27.16	252.86
EXTM	11	2309.75	2321.00	2	8	18.0	.31	.0042	-28.25	.0000	289227.1	1.30	26.55	-.0000	180.31	.0041	-27.13	242.84
SET	11	2580.01	2591.26	2	12	48.3	68.26	.0042	-27.69	.0000	312586.7	1.54	.00	-.0028	235.33	.0024	-26.93	175.88
EXTM	42	2688.41	2699.66	2	14	36.7	359.98	.0042	-26.69	.0000	314283.8	1.21	81.47	-.0000	.16	-.0179	-26.86	149.00
RISE	51	2819.08	2830.33	2	16	47.4	270.00	.0041	-26.34	-.0000	328654.5	.81	11.11	.0034	114.04	-.0015	-26.77	116.57
RISE	72	2972.55	2983.80	2	19	20.8	266.02	.0041	-26.52	-.0000	340596.1	.74	-.00	.0037	116.79	-.0005	-26.68	78.46
RISE	61	3050.89	3062.14	2	20	39.2	296.03	.0042	-27.41	-.0000	346059.5	.83	.00	.0025	127.09	.0027	-26.64	58.92
SET	42	3107.03	3118.28	2	21	35.3	105.00	.0041	-25.98	.0000	349400.8	1.44	3.59	-.0030	240.46	-.0023	-26.61	44.90
EXTM	51	3173.48	3184.73	2	22	41.8	359.36	.0042	-26.60	.0000	347886.7	1.10	88.97	.0021	146.56	.1746	-26.58	28.31
EXTM	61	3304.54	3315.79	3	0	52.8	.18	.0042	-27.46	.0000	360431.4	1.10	22.30	-.0000	180.17	.0041	-26.53	355.57
EXTM	72	3344.48	3355.73	3	1	32.8	.08	.0042	-26.84	.0000	359480.4	1.10	71.07	-.0000	180.22	.0114	-26.51	345.59
RISE	11	3482.19	3493.44	3	3	50.5	291.16	.0042	-27.10	-.0000	374524.0	.79	.00	.0028	123.88	.0024	-26.46	311.16
SET	51	3532.14	3543.39	3	4	40.4	90.00	.0042	-26.17	.0000	376624.1	1.49	11.00	-.0035	246.22	-.0015	-26.44	298.66
SET	61	3557.96	3569.21	3	5	6.3	64.30	.0042	-27.13	.0000	379566.6	1.41	-.00	-.0025	233.31	.0027	-26.43	292.19
RISE	42	3713.34	3724.59	3	7	41.6	255.00	.0042	-25.82	-.0000	390214.8	1.01	3.49	.0030	119.41	-.0023	-26.39	253.16
SET	72	3714.86	3726.11	3	7	43.2	93.93	.0042	-26.25	.0000	390724.4	1.77	-.00	-.0037	243.48	-.0005	-26.39	252.78
IMPACT		3750.72	3761.97	3	8	19.0												
IMPC	42	3750.72	3761.97	3	8	19.0	264.49	.0043	-25.87	-.0000	392898.9	1.68	10.43	.0032	114.40	-.0022	-26.38	243.65
IMPC	11	3750.72	3761.97	3	8	19.0	359.50	.0044	-27.20	.0000	391111.2	2.02	27.59	.0000	179.50	.0044	-26.38	243.65
EXTM	11	3752.80	3764.05	3	8	21.1	.05	.0044	-27.20	.0000	391373.8	2.22	27.59	.0000	180.05	.0045	-26.38	243.10

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FTH	AZ	RT ASC
INJECTION		.00	11.25	30	17	48.299	6590.625	18.8968	305.6856	10.95447	4.7271	115.0111	131.1067
SEPARATION		1.20	12.45	30	17	49.499	6677.515	15.9569	311.7064	10.88157	8.0756	116.9081	137.4283
RETRO		3.20	14.45	30	17	51.499	6910.209	10.8973	320.9448	10.68823	13.3983	119.1770	147.1673
IMPACT		3750.72	3761.97	3	8	19.014	394102.750	-26.3802	243.6459	2.19701	67.3322	270.0489	289.3185

SURVEYOR VIEW PERIODS

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GHA   280.5721                                    EPS   7.4556                                    LOM  240.4404
SX     .295303 SY    -.845608 SZ    -.444303 DAD  -26.3778 RAD  289.24603 RM  395371.801 LAT  28.310600 LON 279.461800
C3    -.982114 RCC    .988475 SLR  12983.799 HCA  6544.6650 LTA  -20.0000 GTA  20.00     TB   675.00000 POL       -.0
NSX    .315054 NSY   -.839409 NSZ   -.442869 C3H     1.4964 VIM     2.6713 ZAE    140.257 R.T      .0000 B.R     -.0000
LATE   9.3445  LONE   3.9552  LATS   1.1933  LONS 357.7875  LATI   -.7208  LONI 324.6287  RSM  152.4820  TTAN   6.4865
LAUNCH DATE   JUN  30,1966       RASE AZM  108.0       TF  62.582                          ARRIVAL DATE JUL   3 1966   8 31 32.0

 LNCH       LNCH                      INJ      INJ      INJ      INJ      INJ          INJ          INJ      INJ      INJ
 AZMTH      TIME            PR        LAT      LONG     TA       RT ASC   AZMTH        TIME         RAD      VEL      PTH
108.00    17 41 59.5        26.1      17.83    305.08    10.52    13 .74   117.09    17 53 14.5    6599.7   10.95     5.22

EVNT STA  TFI      TFL     DAY HR MIN     HA      DHA     DEC      DDE      RNG      DRG     ELE      DEL    AZI      DAZ     LAT     LONG
                                PHORE IN SUNLIGHT
INJECTION    .00    11.25   30 17 53.2
SEPARATION  1.20    12.45   30 17 54.4
RETRO       3.20    14.45   30 17 56.4
 RISE 72    4.18    15.43   30 17 57.4    84.78 -.1497   33.25  -.0182   3137.7   -7.38  -.00   .1265 303.61   .0026   6.81 323.94
 EXTM 72   10.44    21.69   30 18  3.7     5.35 -.1762   -3.44  -.1205   2215.7    3.93 83.05   .2121 309.65   .1774  -6.76 344.28
 RISE 51   11.13    22.38   30 18  4.4    82.58 -.0741   14.99  -.0420   6028.7   -2.28   .00   .0828 286.69  -.0053  -7.92 346.04
 EXTM 51   48.39    59.64   30 18 41.6     1.84 -.0099  -30.65  -.0030  14216.1    5.06 84.92  -.0000 198.20  -.1022 -29.06  26.43
 EXTM 72   72.14    83.39   30 19  5.4   299.98  .0000  -34.01  -.0002  23765.7    4.70 29.16   .0000 124.69   .0002 -31.08  32.22
 EXTM 51   96.14   107.39   30 19 29.4   352.56  .0002  -33.14  -.0001  27509.5    4.25 80.17  -.0000 140.59   .0011 -31.79  33.64
 RISE 61  109.72   120.97   30 19 43.0   316.27  .0015  -30.50   .0007  36454.8    4.01  -.00   .0012 148.28   .0006 -31.95  33.37
 EXTM 51  171.47   182.72   30 20 44.7      .49  .0027  -32.87   .0001  44934.8    3.55 82.86   .0000 183.30   .0181 -31.98  27.26
 EXTM 61  366.47   377.72   30 23 59.7     5.43  .0038  -35.01   .0002  85463.9    2.74 14.58  -.0000 184.59   .0032 -30.97 350.68
 EXTM 72  393.98   405.23    1  0 27.2      .99  .0039  -32.50   .0001  85902.1    2.66 65.39   .0000 182.01   .0080 -30.84 344.76
 RISE 11  574.64   585.89    1  3 27.9   296.42  .0040  -32.23   .0000 118416.0    2.05   .00   .0025 130.75   .0023 -30.10 304.13
 SET  51  588.87   600.12    1  3 42.1    90.00  .0038  -28.94   .0001 119056.5    2.63 12.13  -.0031 243.52  -.0012 -30.05 300.84
 SET  61  590.55   601.80    1  3 43.8    57.55  .0039  -32.38   .0002 120620.4    2.52  -.00  -.0020 225.45   .0026 -30.05 300.45
 SET  72  787.93   799.18    1  7  1.2    94.44  .0039  -29.09   .0001 146312.4    2.43  -.01  -.0034 240.60  -.0004 -29.45 254.07
 RISE 42  797.68   808.93    1  7 10.9   254.99  .0040  -27.94  -.0000 146981.9    1.74  4.78   .0028 121.10  -.0021 -29.43 251.75
 EXTM 11  839.10   850.35    1  7 52.3     1.33  .0041  -31.52   .0001 150051.9    2.01 23.26   .0000 181.24   .0038 -29.32 241.87
 SET  11 1100.11  1111.36    1 12 13.4    65.85  .0041  -30.10   .0001 182253.5    2.08  -.00  -.0026 232.13   .0024 -28.76 179.00
 EXTM 42 1223.37  1234.62    1 14 16.6   359.94  .0042  -28.51   .0000 189045.8    1.72 83.09   .0000    .48  -.0293 -28.53 149.04
 RISE 51 1359.16  1370.41    1 16 32.4   270.00  .0041  -27.65  -.0000 207709.1    1.29 11.63   .0033 115.27  -.0014 -28.32 115.90
 RISE 72 1513.68  1524.93    1 19  6.9   265.79  .0041  -27.85  -.0000 223914.1    1.17  -.00   .0036 118.14  -.0005 -28.09  78.06
 RISE 61 1601.89  1613.14    1 20 35.1   298.15  .0041  -29.14  -.0000 232138.5    1.26   .00   .0024 129.64   .0027 -27.97  56.40
 SET  42 1648.81  1658.06    1 21 20.1   105.00  .0041  -26.98   .0001 235785.3    1.84  4.20  -.0029 239.67  -.0022 -27.92  45.36
 EXTM 51 1718.69  1729.94    1 22 31.9      .01  .0042  -27.89   .0000 236442.2    1.49 87.85   .0000 180.47   .0453 -27.83  27.68
 EXTM 61 1850.31  1861.56    2  0 43.6      .51  .0042  -29.02   .0000 252043.4    1.44 20.74  -.0000 180.48   .0039 -27.68 355.25
 EXTM 72 1889.76  1901.01    2  1 23.0      .15  .0042  -28.13   .0000 251765.0    1.43 69.78  -.0000 180.39   .0107 -27.64 345.52
 RISE 11 2035.38  2046.55    2  3 48.5   292.40  .0042  -28.47  -.0000 269924.1    1.07   .00   .0028 125.57   .0024 -27.48 309.60
 SET  51 2078.02  2089.27    2  4 31.3    90.00  .0041  -24.93   .0001 272190.4    1.73 11.34  -.0034 245.41  -.0014 -27.44 299.04
 SET  61 2098.45  2109.70    2  4 51.7    62.77  .0042  -28.40   .0001 275111.0    1.63  -.00  -.0024 231.46   .0027 -27.42 293.99
 SET  72 2264.14  2275.39    2  7 37.4    94.07  .0041  -27.08   .0001 288383.0    1.72  -.00  -.0036 242.64  -.0005 -27.27 253.01
 RISE 42 2264.75  2276.00    2  7 38.0   255.00  .0041  -26.50  -.0000 287997.9    .99  3.90   .0029 119.95  -.0022 -27.27 252.86
 EXTM 11 2305.32  2316.57    2  8 18.6      .34  .0042  -28.45   .0000 288786.7    1.30 26.44  -.0000 180.34   .0041 -27.23 242.82
 SET  11 2575.13  2586.38    2 12 48.4    68.18  .0042  -27.77   .0000 312100.0    1.54   .00  -.0028 235.23   .0024 -27.01 175.96
 EXTM 42 2683.82  2695.07    2 14 37.1   359.98  .0042  -24.76   .0000 313816.4    1.21 81.94  -.0000    .19  -.0173 -26.92 149.00
 RISE 51 2814.50  2825.75    2 16 47.7   270.00  .0041  -26.40  -.0000 328183.6     .81 11.13   .0034 114.09  -.0015 -26.83 116.57
 RISE 72 2967.93  2979.18    2 19 21.2   266.02  .0041  -26.96  -.0000 340120.9     .74  -.00   .0037 116.84  -.0005 -26.72  78.47
 RISE 61 3046.66  3057.85    2 20 39.8   294.67  .0042  -27.44  -.0000 345441.0     .83   .00   .0025 127.14   .0027 -26.67  58.87
 SET  42 3102.55  3113.80    2 21 35.8   105.00  .0041  -26.01   .0000 348961.4    1.44  3.60  -.0030 240.44  -.0023 -26.64  44.90

 EXTM 51 3168.93  3180.18    2 22 42.2   359.35  .0042  -26.43   .0000 347438.1    1.10 88.94   .0021 146.89   .1702 -26.61  28.32
 EXTM 61 3300.09  3311.34    3  0 53.3      .20  .0042  -27.48   .0000 359974.3    1.10 22.28  -.0000 180.19   .0041 -26.55 359.56
 EXTM 72 3339.97  3351.22    3  1 33.2      .08  .0042  -26.86   .0000 359012.2    1.10 71.05  -.0000 180.24   .0114 -26.53 345.59
 RISE 11 3477.70  3488.95    3  3 50.9   291.16  .0042  -27.11  -.0000 374030.0     .79   .00   .0028 123.90   .0024 -26.47 311.14
 SET  51 3527.58  3538.83    3  4 40.8    90.00  .0042  -26.08   .0000 376112.0    1.49 11.00  -.0035 246.21  -.0015 -26.45 298.66
 SET  61 3553.36  3564.61    3  5  6.6    64.29  .0042  -27.14   .0000 379043.6    1.40  -.00  -.0025 233.30   .0027 -26.44 292.20
 RISE 42 3704.84  3720.09    3  7 42.1   255.00  .0042  -25.82  -.0000 389561.7     .97  3.49   .0030 119.41  -.0023 -26.39 253.16
 SET  72 3710.35  3721.60    3  7 43.6    93.93  .0042  -26.25   .0000 390066.9    1.72  -.00  -.0037 243.48  -.0005 -26.39 252.78
 EXTM 11 3748.78  3760.03    3  8 22.0      .13  .0043  -27.20   .0000 390455.9    1.03 27.59  -.0000 180.13   .0043 -26.38 243.02
IMPACT   3754.95  3766.20    3  8 28.2
 IMPC 42 3754.95  3766.20    3  8 28.2   266.70  .0043  -25.58  -.0000 392744.8    1.67 12.09   .0033 113.28  -.0022 -26.37 241.44
 IMPC 11 3754.95  3766.20    3  8 28.2     1.74  .0044  -27.20   .0000 391138.3    2.03 27.57  -.0001 181.75   .0044 -26.37 241.44

EVNT STA  TFI      TFL     DAY HR MIN        RAD          LAT          LONG         VEL          FPA          AZ          RT ASC
INJECTION    .00    11.25   30 17 53.242     6600.953      17.8062     305.1304     10.94598      5.2183     117.1000     131.7986
SEPARATION  1.20    12.45   30 17 54.442     6693.947      14.6771     310.9627     10.86791      8.5532     118.8197     137.9237
RETRO       3.20    14.45   30 17 56.442     6845.477       9.3617     319.9226     10.66764     13.8421     120.7963     147.3849
IMPACT   3754.95  3766.20    3  8 28.187   3941228.387     -26.3749     241.4359      2.19428     67.0605     270.6696     289.4019
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SURVEYOR VIEW PERIODS

GHA	280.5721				EPS	7.5078					LOM	238.6347	
SX	.296385	SY	-.845471	SZ	-.444224	DAO	-22.37171	RAD	289.31840	RM	395389.086	LAT	28.310600	LON	9.461800
C3	-.985794	ECC	.983814	SLR	12983.402	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.316165	NSY	-.839032	NSZ	-.442793	C3M	1.4977	VIM	2.6715	ZAE	140.100	B.T	.0000	B.R	-.0000
LATE	5.3591	LONE	4.0203	LATS	1.1934	LONS	357.7976	LATI	-1.0892	LONI	324.5966	RSM	152.4820	TTAN	6.4891
LAUNCH DATE		JUN	30.1966		BASE AZM	111.0		TF	62.645			ARRIVAL DATE		JUL	3 1966	R	39	1.5

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
111.00	17 45 55.6	28.1	16.77	304.47	11.30	132.12	119.17	17 57 10.6	6608.2	10.94	5.60

EVNT	STA	TFI	TFL	DAY	HR	MIN	MA	DMA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PRORE IN SUNLIGHT											
INJECTION		.00	11.25	30	17	57.2												
SEPARATION		1.20	12.45	30	17	58.4												
RETRO		3.20	14.45	30	18	.4												
RISE	72	4.15	15.40	30	18	1.3	85.41	-.1392	28.47	-.0343	3178.6	-7.28	-.00	.1258	299.17	-.0148	5.30	322.65
EXTM	72	11.15	22.40	30	18	8.3	4.41	-.1568	-15.14	-.0921	2460.9	4.81	81.58	.0000	210.43	-1.2098	-9.92	344.47
RISE	51	11.17	22.42	30	18	8.3	84.25	-.0704	11.74	-.0444	6101.6	-2.15	-.00	.0815	283.05	-.0092	-9.56	344.52
EXTM	51	51.06	62.31	30	18	48.2	2.26	-.0091	-33.44	-.0020	15087.1	5.00	82.05	-.0000	193.77	-.0566	-31.16	26.13
EXTM	72	72.69	83.94	30	19	9.9	301.04	-.0000	-35.93	.0000	23916.8	4.69	29.62	.0000	127.05	-.0000	-32.66	31.18
EXTM	51	94.81	106.06	30	19	32.0	353.79	-.0001	-34.16	.0000	27213.7	4.27	79.42	.0000	151.06	-.0003	-33.16	32.63
RISE	61	119.60	130.85	30	19	56.8	318.21	.0018	-41.39	.0008	39110.7	3.88	-.00	.0013	150.00	.0008	-33.28	31.92
EXTM	51	168.04	179.29	30	20	45.2	.92	.0026	-34.12	.0002	44244.8	3.57	81.58	.0000	185.21	.0148	-33.07	26.89
EXTM	61	364.54	375.79	1	0	1.7	5.83	.0038	-35.75	.0002	85240.6	2.74	13.83	.0000	124.87	.0032	-31.68	350.31
EXTM	72	391.23	402.48	1	0	28.4	1.19	.0039	-33.23	.0002	85507.0	2.67	64.65	.0000	182.33	.0077	-31.52	344.57
RISE	11	573.82	585.07	1	3	31.0	297.01	.0040	-32.77	.0000	118304.5	2.05	.00	.0025	131.48	.0023	-30.63	303.53
SET	61	583.59	594.84	1	3	40.8	56.74	.0039	-32.95	.0002	119461.7	2.52	-.00	-.0020	224.56	.0026	30.59	301.27
SET	51	585.34	596.59	1	3	42.5	90.00	.0038	-29.47	.0001	118548.3	2.64	12.33	.0031	243.03	-.0012	-30.58	300.87
SET	72	784.78	796.03	1	7	2.0	94.51	.0039	-29.51	.0001	145916.9	2.43	-.00	-.0034	240.18	-.0004	-29.87	254.01
RISE	42	794.37	805.62	1	7	11.5	254.99	.0040	-28.35	-.0000	146539.6	1.74	5.03	.0028	121.43	-.0021	-29.84	251.73
EXTM	11	836.29	847.54	1	7	53.5	1.48	.0041	-31.93	.0001	149744.7	2.01	22.85	.0000	181.35	.0038	-29.72	241.73
SET	11	1095.32	1106.57	1	12	12.5	65.52	.0041	-30.42	.0001	181712.1	2.08	-.00	-.0025	231.70	.0024	-29.07	179.74
EXTM	42	1219.93	1231.18	1	14	17.1	359.93	.0042	-28.60	.0000	188656.4	1.72	83.38	.0000	.57	-.0306	-28.81	149.05
RISE	51	1355.76	1367.01	1	16	32.9	270.00	.0041	-27.90	-.0000	207325.0	1.29	11.72	.0033	115.50	-.0014	-28.56	115.89
RISE	72	1510.10	1521.35	1	19	7.3	265.75	.0041	-28.07	-.0000	223530.0	1.18	-.00	.0036	118.36	-.0005	-28.31	78.09
RISE	61	1599.49	1610.74	1	20	36.7	298.41	.0042	-29.35	-.0000	231866.4	1.27	.00	.0024	129.94	.0027	-28.17	56.14
SET	42	1643.32	1654.57	1	21	20.5	105.00	.0041	-27.48	.0001	235401.0	1.84	4.32	-.0029	239.51	-.0022	-28.11	45.36
EXTM	51	1715.22	1726.47	1	22	32.4	.01	.0042	-28.07	.0000	236075.5	1.49	87.67	.0000	180.51	.0463	-28.01	27.67
EXTM	61	1947.00	1958.25	2	0	44.2	.56	.0042	-29.19	.0000	251708.9	1.44	20.57	-.0000	180.52	.0039	-27.84	355.20
EXTM	72	1886.31	1897.56	2	1	23.5	.17	.0042	-28.29	.0000	251407.9	1.43	69.62	-.0000	180.42	.0106	-27.79	345.51
RISE	11	2032.34	2043.59	2	3	49.5	292.54	.0042	-28.51	-.0000	269602.7	1.07	.00	.0027	125.75	.0024	-27.62	309.46
SET	51	2074.48	2085.73	2	4	31.7	90.00	.0041	-27.06	.0001	271414.8	1.73	11.39	-.0034	245.29	-.0014	-27.57	298.04
SET	61	2094.24	2105.49	2	4	51.4	62.61	.0042	-28.53	.0001	274686.9	1.83	-.00	-.0024	231.26	.0027	-27.55	294.16
SET	72	2260.66	2271.91	2	7	37.8	94.09	.0041	-27.19	.0001	288017.2	1.71	-.00	-.0036	242.53	-.0005	-27.38	252.99
RISE	42	2261.21	2272.46	2	7	38.4	255.00	.0041	-26.61	-.0000	287620.2	.99	3.97	.0029	120.04	-.0022	-27.38	252.85
EXTM	11	2301.89	2313.14	2	8	19.1	.37	.0042	-28.46	.0000	288435.7	1.30	26.33	-.0000	180.37	.0041	-27.34	242.78
SET	11	2571.20	2582.45	2	12	48.4	68.10	.0042	-27.86	.0000	311696.8	1.54	.00	-.0028	235.12	.0024	-27.09	174.05
EXTM	42	2680.22	2691.47	2	14	37.4	359.98	.0042	-26.83	.0000	313434.4	1.21	81.61	-.0000	.19	-.0180	-26.99	149.00
RISE	51	2810.90	2822.15	2	16	48.1	270.00	.0041	-26.46	-.0000	327797.3	.81	11.16	.0034	114.15	-.0015	-26.89	116.57
RISE	72	2964.28	2975.53	2	19	21.5	266.01	.0041	-26.41	-.0000	339729.7	.74	-.00	.0037	116.89	-.0005	-26.77	78.47
RISE	61	3043.18	3054.43	2	20	40.4	296.12	.0042	-27.49	-.0000	345262.8	.83	.00	.0025	127.20	.0027	-26.71	58.82
SET	42	3098.91	3110.16	2	21	36.1	105.00	.0041	-26.05	.0000	348562.2	1.44	3.63	-.0030	240.41	-.0023	-26.68	44.90
EXTM	51	3165.18	3176.43	2	22	42.4	359.32	.0042	-26.66	.0000	347029.3	1.10	88.89	.0021	146.72	.1630	-26.65	28.35
EXTM	61	3296.53	3307.78	3	0	53.7	.22	.0042	-27.51	.0000	359569.6	1.09	22.25	-.0000	180.21	.0041	-26.58	355.54
EXTM	72	3336.36	3347.61	3	1	33.5	.09	.0042	-26.88	.0000	358598.2	1.09	71.02	-.0000	180.25	.0114	-26.56	345.58
RISE	11	3474.14	3485.39	3	3	51.3	291.19	.0042	-27.13	-.0000	373600.6	.78	.00	.0028	123.92	.0024	-26.49	311.13
SET	51	3523.95	3535.20	3	4	41.1	90.00	.0042	-26.09	.0000	375668.4	1.48	11.01	-.0035	246.20	-.0015	-26.47	298.66
SET	61	3549.67	3560.92	3	5	6.8	64.27	.0042	-27.16	.0000	378591.0	1.40	-.00	-.0025	233.28	.0027	-26.45	292.22
RISE	42	3705.26	3716.51	3	7	42.4	255.00	.0042	-25.82	-.0000	389023.6	.94	3.49	.0030	119.41	-.0023	-26.39	253.16
SET	72	3706.76	3718.01	3	7	43.9	93.93	.0042	-26.25	.0000	389525.9	1.69	-.00	-.0037	243.48	-.0005	-26.39	252.78
EXTM	11	3745.31	3756.56	3	8	22.5	.14	.0043	-27.20	.0000	389771.6	1.56	27.59	-.0000	180.14	.0043	-26.37	243.02
IMPACT		3758.69	3769.94	3	8	35.9												
IMPC	42	3758.69	3769.94	3	8	35.9	268.55	.0043	-25.88	-.0000	392613.2	1.67	13.48	.0033	112.35	-.0021	-26.37	239.59
IMPC	11	3758.69	3769.94	3	8	35.9	3.62	.0044	-27.19	.0000	391164.1	2.04	27.51	-.0002	183.63	.0044	-26.37	239.59

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION		.00	11.25	30	17	57.177	6609.820	16.7366	304.9349	10.93872	5.6024	119.1867	132.1816
SEPARATION		1.20	12.45	30	17	58.377	6707.473	13.4214	310.1832	10.85669	8.9261	120.7393	136.1307
RETRO		3.20	14.45	30	18	.377	6966.620	7.8493	318.8774	10.65112	14.1878	122.4419	147.3943
IMPACT		3758.69	3769.94	3	8	35.866	3941147.652	-26.3706	239.9854	2.19287	66.9584	271.3932	289.4763

SURVEYOR VIEW PERIODS

SMA	280.5721					EPS	7.6011							LOM	235.4202
SX	.298308	SY	-.844869	SZ	-.444082	DAO	-26.36459	RAO	289.44719	RM	395419.820	LAT	28.310600	LON	279.461800
C3	-.995091	ECC	.983462	SLR	12982.405	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.318167	NSY	-.836352	NSZ	-.442647	C3M	1.4964	VIM	2.6713	ZAE	139.798	B.T	.0000	B.R	-.0000
LATE	5.3771	LONE	3.9457	LATS	1.1036	LONS	357.6111	LATI	-1.5960	LONI	324.3054	RSM	152.4820	TTAN	6.4948
LAUNCH DATE		JUN	30,1966		BASE AZM	115.0		TF	62.799			ARRIVAL DATE		JUL 3 1966	8 52 21.7

LNCH AZMTH	LNCH TIME		PR	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME		INJ RAD	INJ VEL	INJ PTH
115.00	17 5	13.9	28.1	15.39	303.60	12.11	132.33	121.95	18	1 28.9	6617.7	10.93	6.00

EVNT	STA	TFI	TFL	DAY	HR	MIN	RA	DRA	DEC	DDE	RNG	DRG	ELE	REL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT												
INJECTION		.00	11.25	30	18	1.5												
SEPARATION		1.20	12.45	30	18	2.7												
RETRO		3.20	14.45	30	18	4.7												
RISE	72	4.15	15.40	30	18	5.6	86.60	-.1270	23.17	-.0545	3238.1	-7.01	-.00	.1236	293.40	-.0364	3.18	321.08
RISE	51	11.28	22.53	30	18	12.8	86.39	-.0659	7.43	-.0475	6207.0	-1.94	.00	.0796	278.26	-.0141	-12.76	342.63
EXTM	72	11.47	22.72	30	18	12.9	9.33	-.1537	-25.36	-.0758	2684.8	4.99	70.41	-.0000	205.90	-.4719	-13.09	343.09
EXTM	51	56.42	67.67	30	18	57.9	1.73	-.0074	-37.19	-.0008	16766.0	4.89	78.45	-.0000	186.91	-.0297	-34.05	26.47
EXTM	72	73.12	84.37	30	19	14.6	302.06	-.0001	-38.54	.0004	24060.5	4.67	29.79	.0000	130.19	-.0004	-34.83	30.04
EXTM	51	88.92	99.77	30	19	30.0	355.24	-.0008	-37.36	.0002	25650.8	4.35	77.70	.0000	161.96	-.0032	-35.07	31.40
RISE	61	133.98	145.23	30	20	15.5	320.81	.0022	-42.49	.0008	42551.1	3.72	-.00	.0014	152.23	.0010	-34.92	29.94
EXTM	51	167.07	178.32	30	20	48.6	1.71	.0026	-35.84	.0003	44088.0	3.58	79.79	.0000	187.83	.0118	-34.57	26.21
EXTM	61	364.63	375.88	1	0	6.1	6.63	.0038	-36.73	.0003	85367.0	2.74	12.79	.0000	185.45	.0031	-32.65	349.56
EXTM	72	389.12	400.37	1	0	30.6	1.49	.0039	-34.25	.0002	85213.4	2.67	63.62	.0000	182.78	.0073	-32.46	344.30
RISE	11	574.17	585.42	1	3	35.6	297.84	.0040	-33.50	.0000	118332.5	2.05	.00	.0024	132.49	.0023	-31.34	302.70
SET	61	575.22	586.47	1	3	36.7	55.56	.0039	-33.75	.0002	118479.1	2.53	.01	-.0019	223.30	.0027	-31.34	302.46
SET	51	581.93	593.18	1	3	43.4	90.00	.0038	-33.19	.0002	118025.1	2.64	12.62	-.0031	242.34	-.0011	-31.30	300.91
SET	72	781.85	793.10	1	7	3.3	94.61	.0039	-30.08	.0001	145510.7	2.43	-.00	-.0034	239.60	-.0004	-30.45	253.93
RISE	42	791.18	802.43	1	7	12.7	254.99	.0040	-28.92	-.0000	146065.3	1.75	5.38	.0028	121.88	-.0021	-30.41	251.71
EXTM	11	833.80	845.05	1	7	55.3	1.67	.0041	-32.48	.0001	149452.0	2.01	22.29	.0000	181.52	.0038	-30.26	241.55
SET	11	1090.02	1101.27	1	12	11.5	65.05	.0041	-30.87	.0001	181058.6	2.08	-.00	-.0025	231.10	.0024	-29.50	179.81
EXTM	42	1216.49	1227.74	1	14	18.0	359.92	.0042	-28.99	.0000	188200.8	1.72	83.77	.0000	.69	-.0329	-29.20	149.06
RISE	51	1352.38	1363.63	1	16	33.9	270.00	.0041	-28.24	-.0000	206862.0	1.29	11.86	.0033	115.82	-.0014	-28.90	115.88
RISE	72	1506.46	1517.71	1	19	7.9	265.70	.0041	-28.37	-.0000	223051.0	1.18	-.00	.0036	118.66	-.0005	-28.61	78.13
RISE	61	1597.48	1608.73	1	20	39.0	298.78	.0042	-29.63	-.0000	231533.3	1.27	.01	.0024	130.37	.0027	-28.45	55.78
SET	42	1639.80	1651.05	1	21	21.3	105.00	.0041	-27.44	.0001	234908.8	1.84	4.48	-.0029	239.30	-.0022	-28.38	45.37
EXTM	51	1711.71	1722.96	1	22	33.2	.01	.0042	-28.33	.0000	235600.1	1.49	87.41	.0000	180.46	.0513	-28.27	27.67
EXTM	61	1843.72	1854.97	2	0	45.2	.62	.0042	-29.42	.0000	251265.8	1.44	20.34	-.0000	180.58	.0039	-28.07	355.14
EXTM	72	1882.93	1894.08	2	1	24.3	.19	.0042	-28.51	.0000	250930.0	1.42	69.39	-.0000	180.47	.0105	-28.01	345.49
RISE	11	2029.55	2040.80	2	3	51.0	292.74	.0042	-28.71	-.0000	269160.1	1.07	.00	.0027	126.01	.0024	-27.81	309.26
SET	51	2070.87	2082.12	2	4	32.4	90.00	.0041	-27.25	.0001	271293.0	1.73	11.47	-.0034	245.11	-.0014	-27.76	299.05
SET	61	2089.70	2100.95	2	4	51.2	62.38	.0042	-28.72	.0001	274095.7	1.63	-.00	-.0024	230.99	.0027	-27.74	294.39
SET	72	2257.12	2268.37	2	7	38.6	94.12	.0041	-27.34	.0001	287491.5	1.71	-.00	-.0036	242.37	-.0005	-27.53	252.97
RISE	42	2257.60	2268.85	2	7	39.1	255.00	.0041	-26.76	-.0000	287077.9	.99	4.07	.0029	120.16	-.0022	-27.53	252.85
EXTM	11	2298.43	2309.68	2	8	19.9	.42	.0042	-28.61	.0000	287926.5	1.30	26.18	-.0000	180.41	.0041	-27.49	242.74
SET	11	2567.03	2578.28	2	12	48.5	67.98	.0042	-27.97	.0000	311089.8	1.54	.01	-.0027	234.96	.0024	-27.20	176.17
EXTM	42	2676.51	2687.76	2	14	38.0	359.98	.0042	-26.93	.0000	312846.8	1.21	81.71	-.0000	.19	-.0209	-27.09	149.01
RISE	51	2907.19	2918.44	2	16	48.7	270.00	.0041	-26.54	-.0000	327191.2	.81	11.19	.0034	114.23	-.0015	-26.97	116.56
RISE	72	2960.50	2971.75	2	19	22.0	264.00	.0041	-26.68	-.0000	339102.2	.74	-.00	.0037	116.95	-.0005	-26.84	78.48
RISE	61	3039.71	3050.96	2	20	41.2	296.19	.0042	-27.55	-.0000	344645.4	.83	.00	.0025	127.29	.0027	-26.77	58.74
SET	42	3095.14	3106.39	2	21	36.6	105.00	.0041	-26.10	.0000	347910.1	1.43	3.66	-.0030	240.37	-.0023	-26.74	44.91
EXTM	51	3161.21	3172.46	2	22	42.7	359.97	.0042	-26.71	.0000	346354.8	1.09	88.83	.0021	146.21	.1528	-26.70	28.40
EXTM	1	3292.86	3304.11	3	0	54.3	.24	.0042	-27.55	.0000	358889.8	1.09	22.21	-.0000	180.23	.0040	-26.61	355.51
EXTM		332.62	3343.87	3	1	34.1	.10	.0042	-26.92	.0000	357901.2	1.09	70.99	-.0000	180.27	.0114	-26.59	345.58
RISE	11	3470.46	3481.71	3	3	51.9	291.21	.0042	-27.15	-.0000	372867.1	.78	.00	.0028	123.95	.0024	-26.51	311.10
SET	51	3520.17	3531.42	3	4	41.7	90.00	.0042	-26.11	.0000	374908.5	1.48	11.02	-.0035	246.18	-.0015	-26.49	298.66
SET	61	3545.81	3557.06	3	5	7.3	64.25	.0042	-27.17	.0000	377815.3	1.39	-.00	-.0025	233.25	.0027	-26.47	292.24
RISE	42	3701.56	3712.81	3	7	43.0	255.00	.0042	-25.82	-.0000	388105.5	.90	3.49	.0030	119.41	-.0023	-26.39	253.15
SET	72	3703.06	3714.31	3	7	44.5	93.93	.0042	-26.25	.0000	388603.6	1.65	-.00	-.0037	243.48	-.0005	-26.39	252.78
EXTM	11	3741.71	3752.96	3	8	23.2	.14	.0043	-27.20	.0000	388678.6	1.41	27.59	.0000	180.14	.0043	-26.37	243.02
IMPACT		3767.96	3779.21	3	8	49.4												
IMPC	42	3767.96	3779.21	3	8	49.4	271.82	.0043	-25.90	-.0000	392381.1	1.66	15.98	.0033	110.73	-.0021	-26.36	236.31
IMPC	11	3767.96	3779.21	3	8	49.4	6.74	.0044	-27.18	.0000	391222.4	2.05	27.27	-.0004	186.94	.0044	-26.36	236.31

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	30	18	1.481	6619.871	15.3449	303.6817	10.93036	6.0045	121.9689	132.4073
SEPARATION		1.20	12.45	30	18	2.681	6722.270	11.7870	309.0886	10.84420	9.3157	123.3136	138.1151
RETRO		3.20	14.45	30	18	4.681	6989.316	5.8735	317.4396	10.63323	14.5477	124.6770	146.9674
IMPACT		3767.96	3779.21	3	8	49.441	394182.402	-26.3626	236.3141	2.18932	66.7424	272.3566	289.6081

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SURVEYOR VIEW PERIODS

GHA	281.5578					EPS	18.1110							LOM	258.7421
SX	.489872	SY	-.764202	SZ	-.419548	DAO	-24.80605	RAO	302.66083	RM	398496.750	LAT	28.310600	LON	279.461800
C3	-.953212	ECC	.984349	SLP	12986.905	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.507485	NSY	-.754489	NSZ	-.416180	C3M	1.4924	VIM	2.6705	ZAE	141.095	B.T	.0000	B R	-.0000
LATE	6.0877	LONE	3.2273	LATS	1.2135	LONS	345.7920	LATI	2.4742	LONI	324.3709	RSM	152.4697	TTAN	5.9633
LAUNCH DATE	JUL	1 1966		BASE AZM	90.0		TF 63.058					ARRIVAL DATE	JUL 4 1966	8	8 6.5

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
90.00	16 55 47.9	27.4	24.77	307.10	-11.57	123.17	104.17	17 7 2.9	6611.4	10.94	-5.74

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	1	17	7.0												
SEPARATION		1.20	12.45	1	17	8.2												
RETRO		3.20	14.45	1	17	10.2												
RISE	72	6.23	17.48	1	17	13.3	61.84	-.6289	73.60	.1045	2438.9	-5.47	.00	.1041	345.59	.1777	12.37	340.45
EXTM	72	11.67	22.92	1	17	18.7	299.96	-.0562	21.13	-.1467	2707.3	6.08	24.32	.0000	62.47	.1710	.72	1.77
RISE	51	11.72	22.97	1	17	18.8	68.15	-.1288	37.66	-.0270	4669.6	-4.14	-.00	.1000	312.71	.0334	.61	1.95
EXTM	51	28.35	39.60	1	17	35.4	346.52	-.0314	-9.76	-.0233	6832.7	5.54	69.54	-.0000	41.08	.1108	-17.59	34.96
EXTM	72	66.00	77.25	1	18	13.1	274.03	-.0001	-25.67	-.0013	23032.6	4.95	7.03	.0000	115.05	.0013	-26.13	55.09
RISE	42	76.60	87.85	1	18	23.6	104.14	-.0035	-19.09	-.0024	26873.9	4.27	.00	.0041	246.40	.0001	-26.82	56.66
EXTM	51	81.59	92.84	1	18	28.6	322.84	-.0001	-26.39	-.0010	23440.1	4.55	56.73	.0000	99.48	.0018	-27.07	57.12
EXTM	42	126.88	138.13	1	19	13.9	100.81	.0005	-22.95	-.0006	39390.0	4.00	4.81	-.0000	245.19	-.0008	-28.09	56.41
SET	42	178.80	190.05	1	20	5.9	105.00	.0020	-24.13	-.0002	51367.6	3.70	2.46	-.0013	241.93	-.0013	-28.31	50.29
RISE	61	199.22	210.47	1	20	26.3	303.95	.0032	-33.43	.0002	55913.2	3.22	-.00	.0018	136.19	.0019	-28.31	47.13
EXTM	51	304.22	315.47	1	22	11.3	.06	.0037	-28.30	.0001	69746.9	2.94	87.44	-.0000	181.24	.0699	-28.09	27.63
EXTM	61	464.83	476.08	2	0	51.9	2.83	.0039	-31.02	.0001	100010.5	2.52	18.69	.0000	182.56	.0036	-27.64	353.08
EXTM	72	499.60	510.85	2	1	26.6	.46	.0040	-28.76	.0001	101432.6	2.45	69.14	-.0000	181.14	.0100	-27.55	345.24
RISE	11	662.08	673.33	2	4	9.1	293.07	.0040	-29.05	-.0000	129905.4	1.92	.00	.0026	126.46	.0023	-27.17	307.71
SET	51	693.00	704.25	2	4	40.0	90.00	.0039	-26.07	.0001	132756.7	2.52	11.00	-.0032	246.21	-.0013	-27.11	300.44
SET	61	712.62	723.87	2	4	59.7	61.95	.0040	-29.06	.0001	136510.0	2.40	-.00	-.0022	230.48	.0027	-27.07	295.82
SET	72	887.17	898.42	2	7	54.2	93.96	.0040	-26.42	.0001	158037.4	2.36	-.00	-.0035	243.30	-.0005	-26.75	254.27
RISE	42	896.80	908.05	2	8	3.8	254.99	.0040	-25.35	-.0000	158818.3	1.64	3.20	.0029	119.04	-.0022	-26.74	251.96
EXTM	11	937.05	948.30	2	8	44.1	.89	.0042	-28.67	.0001	161091.9	1.93	26.11	-.0000	180.67	.0041	-26.67	242.29
SET	11	1209.45	1220.70	2	13	16.5	68.42	.0041	-27.53	.0001	193765.3	2.04	-.00	-.0027	235.55	.0024	-26.29	176.32
EXTM	42	1321.44	1332.69	2	15	8.5	359.97	.0042	-25.87	.0000	199043.7	1.68	80.65	-.0000	.22	-.0198	-26.16	149.01
RISE	51	1456.30	1467.55	2	17	23.4	270.00	.0041	-25.37	-.0000	217335.8	1.24	10.72	.0034	113.13	-.0015	-26.01	116.01
RISE	72	1612.12	1623.37	2	19	59.2	266.17	.0041	-25.63	-.0000	233227.7	1.13	-.01	.0037	115.89	-.0005	-25.86	77.78
RISE	61	1687.79	1699.04	2	21	14.8	295.42	.0041	-26.89	-.0000	240147.3	1.23	.00	.0025	126.34	.0027	-25.79	59.17
SET	42	1744.21	1755.46	2	22	11.3	105.00	.0041	-24.83	.0000	244898.0	1.81	2.88	-.0029	241.37	-.0022	-25.74	45.28
EXTM	51	1807.93	1819.18	2	23	15.0	358.05	.0042	-25.68	.0000	244568.3	1.45	88.24	.0038	88.60	-.0053	-25.69	29.59
EXTM	61	1946.60	1957.85	3	1	33.7	.37	.0042	-26.85	.0000	260369.7	1.42	22.91	.0000	180.36	.0041	-25.57	355.39
EXTM	72	1986.43	1997.68	3	2	13.5	.12	.0042	-25.97	.0000	260210.6	1.40	71.94	-.0000	180.35	.0121	-25.54	345.56
RISE	11	2123.72	2134.97	3	4	30.8	290.40	.0042	-26.29	-.0000	277587.6	1.04	.00	.0028	122.83	.0024	-25.44	311.63
SET	51	2174.91	2186.16	3	5	22.0	90.00	.0041	-24.90	.0000	280580.7	1.72	10.53	-.0034	247.31	-.0015	-25.40	298.98
SET	61	2205.24	2216.49	3	5	52.3	65.26	.0042	-26.31	.0000	284184.7	1.62	.00	-.0025	234.50	.0027	-25.38	291.48
SET	72	2359.53	2370.78	3	8	26.6	93.73	.0041	-25.10	.0000	296367.8	1.71	-.00	-.0037	244.64	-.0005	-25.28	253.29
RISE	42	2361.05	2372.30	3	8	28.1	255.00	.0041	-24.53	-.0000	296166.4	.97	2.70	.0030	118.39	-.0023	-25.28	252.91
EXTM	11	2401.45	2412.70	3	9	8.5	.26	.0042	-26.33	.0000	296590.6	1.28	28.47	-.0000	180.26	.0043	-25.25	242.90
SET	11	2679.04	2690.29	3	13	46.1	70.04	.0042	-25.82	.0000	320443.0	1.54	-.00	-.0028	237.79	.0024	-25.09	174.08
EXTM	42	2780.07	2791.32	3	15	27.1	359.97	.0042	-24.83	.0000	321553.5	1.20	79.61	.0000	.19	-.0174	-25.03	149.01
RISE	51	2910.56	2921.81	3	17	37.6	270.00	.0041	-24.54	-.0000	335871.7	.79	10.39	.0035	112.36	-.0015	-24.96	116.61
RISE	72	3064.94	3076.19	3	20	12.0	266.33	.0042	-24.74	-.0000	347821.9	.70	-.00	.0037	115.00	-.0005	-24.90	78.20
RISE	61	3133.81	3145.06	3	21	20.9	293.94	.0042	-25.62	-.0000	352416.3	.82	.00	.0026	124.50	.0027	-24.88	61.01
SET	42	3198.49	3209.74	3	22	25.5	105.00	.0041	-24.23	.0000	356430.8	1.44	2.51	-.0030	241.84	-.0023	-24.86	44.87
EXTM	51	3264.67	3275.92	3	23	31.7	359.32	.0042	-24.82	.0000	354766.7	1.10	88.90	.0021	33.78	-.1667	-24.84	28.35
EXTM	61	3395.67	3406.92	4	1	42.7	.12	.0042	-25.71	.0000	367123.5	1.10	24.06	-.0000	180.12	.0042	-24.80	355.63
EXTM	72	3435.60	3446.85	4	2	22.6	.02	.0042	-25.08	.0000	366295.1	1.10	72.82	.0000	180.09	.0092	-24.79	345.65
RISE	11	3567.04	3578.29	4	4	34.1	289.56	.0042	-25.38	-.0000	381045.7	.80	.00	.0029	121.64	.0024	-24.77	312.78
SET	51	3623.56	3634.81	4	5	30.6	90.00	.0042	-24.39	.0000	383719.5	1.52	10.33	-.0035	247.79	-.0015	-24.76	298.63
SET	61	3657.16	3668.41	4	6	4.2	66.27	.0042	-25.43	.0000	387175.0	1.46	-.00	-.0026	235.77	.0027	-24.76	290.20
RISE	42	3805.28	3816.53	4	8	32.3	255.00	.0043	-24.16	-.0000	396228.8	1.38	2.47	.0031	118.10	-.0024	-24.72	253.18
IMPACT		3783.48	3794.73	4	8	10.5												
IMPC	42	3783.48	3794.73	4	8	10.5	249.87	.0043	-24.19	-.0000	397323.7	1.71	-1.16	.0030	121.06	-.0025	-24.77	258.34
IMPC	72	3783.48	3794.73	4	8	10.5	88.34	.0043	-24.47	.0000	396662.4	2.48	4.79	-.0039	245.71	-.0004	-24.77	258.34
IMPC	11	3783.48	3794.73	4	8	10.5	344.59	.0044	-25.57	-.0000	394263.2	1.95	27.50	.0009	164.33	.0043	-24.77	258.34
SET	72	3805.93	3817.18	4	8	33.0	93.64	.0043	-24.59	.0000	396439.0	2.13	-.00	-.0038	245.16	-.0006	-24.72	253.03

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	1	17	7.048	6613.175	24.7884	307.0197	10.93756	-5.7411	104.1324	123.0855
SEPARATION		1.20	12.45	1	17	8.248	6555.697	22.9207	314.0169	10.98416	-2.3421	107.0894	130.3835
RETRO		3.20	14.45	1	17	10.248	6567.615	19.1185	325.1774	10.97411	3.3757	111.2873	142.0454
IMPACT		3783.48	3794.73	4	8	10.526	397245.949	-24.7747	258.3373	2.20498	68.0548	261.0567	302.8616

SURVEYOR VIEW PERIODS

GHA	281.5578				EPS	18.2651						LOM	253.9125
SX	.492459	SY	-.762804	SZ	-.419063	DAO	-24.77544	RAD	302.84591	RM	398538.387	LAT	28.310600
LON	279.461800	C3	-.949054	ECC	.984417	SLR	12987.352	RCA	6544.6450	LTA	-20.0000	GTA	20.00
TB	675.00000	POL	-.0	NSX	.510004	NSY	-.753065	NSZ	-.415679	C3M	1.4963	VIM	2.6713
ZAE	141.154	B.T	.0000	B.R	-.0000	LATE	6.0959	LONE	3.2155	LATS	1.2137	LONS	345.6272
LATI	2.4581	LONI	324.4212	RSM	152.4694	TTAN	5.9509	LAUNCH DATE	JUL 1 1966	BASE AZM	93.0	TF	63.006
ARRIVAL DATE	JUL 4 1966 8 28 6.7												

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
93.00	17 15 32.5	27.7	23.56	307.03	-7.15	128.04	106.41	17 26 47.5	6570.0	10.97	-3.55

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
				PROBE IN SUNLIGHT														
INJECTION		.00	11.25	1	17	26.8												
SEPARATION		1.20	12.45	1	17	28.0												
RETRO		3.20	14.45	1	17	30.0												
RISE	72	5.66	16.91	1	17	32.4	73.19	-.3546	64.36	.0970	2514.5	-6.55	.00	.1147	335.53	.1407	11.70	336.75
EXTM	72	11.11	22.36	1	17	37.9	311.02	-.0885	21.83	-.1662	2375.9	5.61	33.53	-.0000	57.16	.2224	.04	357.77
RISE	51	11.45	22.70	1	17	38.2	71.51	-.1153	33.34	-.0303	4883.3	-3.92	-.00	.0980	307.60	.0242	-.61	358.88
EXTM	51	29.91	41.16	1	17	56.7	350.76	-.0281	-13.35	-.0182	7507.4	5.48	74.87	.0000	36.79	.1260	-19.10	32.86
EXTM	72	66.53	77.78	1	18	33.3	278.74	-.0001	-26.56	-.0011	22966.7	4.91	11.31	.0000	115.63	.0012	-26.46	50.74
EXTM	51	83.84	95.09	1	18	50.6	328.41	-.0001	-27.10	-.0008	24032.3	4.49	61.75	.0000	99.85	.0017	-27.40	52.74
RISE	61	177.21	188.46	1	20	24.0	304.87	.0030	-34.15	.0003	51468.9	3.37	-.00	.0017	137.17	.0017	-28.44	45.86
EXTM	51	280.74	291.99	1	22	7.5	.07	.0036	-28.49	.0001	65699.0	3.02	87.25	-.0000	181.31	.0040	-28.24	27.62
EXTM	61	444.78	456.03	2	0	51.6	3.08	.0039	-31.24	.0001	97104.2	2.56	18.47	.0000	182.78	.0035	-27.75	352.84
EXTM	72	478.88	490.13	2	1	25.7	.50	.0040	-28.91	.0001	98493.8	2.49	68.98	-.0000	181.23	.0098	-27.66	345.20
RISE	11	642.61	653.86	2	4	9.4	293.19	.0040	-29.17	-.0000	127434.3	1.94	.00	.0026	126.62	.0023	-27.26	307.54
SET	51	672.67	683.92	2	4	39.5	90.00	.0039	-26.13	.0001	130214.5	2.54	11.03	-.0032	246.16	-.0013	-27.19	300.50
SET	61	691.78	703.03	2	4	58.6	61.80	.0040	-29.18	.0001	133932.7	2.42	-.00	-.0022	230.31	.0026	-27.15	296.01
SET	72	867.30	878.55	2	7	54.1	93.97	.0039	-26.48	.0001	155800.2	2.38	-.00	-.0035	243.25	-.0004	-26.81	254.30
RISE	42	877.18	888.43	2	8	4.0	254.99	.0040	-25.39	-.0000	156619.5	1.66	3.22	.0029	119.07	-.0022	-26.79	251.93
EXTM	11	917.53	928.78	2	8	44.3	.93	.0042	-28.75	.0001	158955.6	1.95	26.03	-.0000	180.91	.0041	-26.73	242.25
SET	11	1189.73	1200.98	2	13	16.5	68.38	.0041	-27.57	.0001	191829.9	2.05	-.00	-.0027	235.49	.0024	-26.33	176.39
EXTM	42	1302.02	1313.27	2	15	8.8	359.97	.0042	-25.90	.0000	197218.2	1.69	80.68	-.0000	.22	-.0199	-26.19	149.01
RISE	51	1437.00	1448.25	2	17	23.8	270.00	.0041	-25.38	-.0000	215604.2	1.25	10.73	.0034	113.14	-.0015	-26.03	116.00
RISE	72	1592.85	1604.10	2	19	59.6	266.17	.0041	-25.64	-.0000	231586.3	1.14	-.01	.0037	115.91	-.0005	-25.87	77.77
RISE	61	1668.63	1679.88	2	21	15.4	295.44	.0041	-26.91	-.0000	238554.4	1.23	.00	.0025	126.37	.0027	-25.80	59.14
SET	42	1724.90	1736.15	2	22	11.7	105.00	.0041	-24.64	.0000	243319.1	1.82	2.89	-.0029	241.36	-.0022	-25.75	45.29
EXTM	51	1788.62	1799.87	2	23	15.4	358.04	.0042	-25.69	.0000	243020.5	1.46	88.23	.0038	88.90	-.0046	-25.69	29.60
EXTM	61	1927.41	1938.66	3	1	34.2	.38	.0042	-26.86	.0000	258895.0	1.42	22.90	.0000	180.37	.0041	-25.58	355.38
EXTM	72	1967.20	1978.45	3	2	14.0	.12	.0042	-25.97	.0000	258750.0	1.41	71.93	-.0000	180.36	.0121	-25.55	345.55
RISE	11	2104.55	2115.80	3	4	31.3	290.41	.0042	-26.30	-.0000	276186.6	1.05	.00	.0028	122.83	.0024	-25.44	311.62
SET	51	2155.68	2166.93	3	5	22.5	90.00	.0041	-24.90	.0000	279195.3	1.73	10.53	-.0034	247.31	-.0015	-25.40	298.98
SET	61	2186.00	2197.25	3	5	52.8	65.26	.0042	-26.32	.0000	282810.6	1.63	.00	-.0025	234.50	.0027	-25.38	291.48
SET	72	2340.31	2351.56	3	8	27.1	93.73	.0041	-25.09	.0000	295052.8	1.71	-.00	-.0037	244.65	-.0005	-25.28	253.29
RISE	42	2341.88	2353.13	3	8	28.7	255.00	.0041	-24.52	-.0000	294876.2	.97	2.69	.0030	118.38	-.0013	-25.27	252.90
EXTM	11	2382.29	2393.54	3	9	9.1	.26	.0042	-26.32	.0000	295294.9	1.29	28.47	-.0000	180.27	.0043	-25.25	242.89
SET	11	2659.89	2671.14	3	13	46.7	70.04	.0042	-25.81	.0000	319242.2	1.54	-.00	-.0028	237.80	.0024	-25.08	174.08
EXTM	42	2760.91	2772.16	3	15	27.7	359.97	.0042	-24.82	.0000	320384.3	1.20	79.60	.0000	.19	-.0178	-25.02	149.01
RISE	51	2891.42	2902.67	3	17	38.2	270.00	.0041	-24.52	-.0000	334744.6	.80	10.38	.0035	112.34	-.0015	-24.95	116.61
RISE	72	3045.94	3057.19	3	20	12.7	266.33	.0042	-24.72	-.0000	346793.6	.70	-.00	.0037	114.97	-.0005	-24.87	78.19
RISE	61	3114.68	3125.93	3	21	21.5	293.92	.0042	-25.60	-.0000	351388.0	.82	.00	.0026	124.47	.0027	-24.85	61.04
SET	42	3179.43	3190.68	3	22	26.2	105.00	.0041	-24.21	.0000	355415.5	1.44	2.50	-.0030	241.86	-.0023	-24.83	44.87
EXTM	51	3245.51	3256.76	3	23	32.3	359.30	.0042	-24.40	.0000	353749.8	1.10	88.87	.0021	34.06	-.1617	-24.81	28.37
EXTM	61	3376.58	3387.83	4	1	43.4	.12	.0042	-25.68	.0000	366116.5	1.10	24.08	-.0000	180.12	.0042	-24.78	355.63
EXTM	72	3416.51	3427.76	4	2	23.3	.02	.0042	-25.06	.0000	365289.2	1.10	72.84	.0000	180.09	.0096	-24.77	345.65
RISE	11	3547.86	3559.11	4	4	34.7	289.54	.0042	-25.36	-.0000	380021.3	.79	.00	.0029	121.61	.0024	-24.74	312.80
SET	51	3604.45	3615.70	4	5	31.2	90.00	.0042	-24.36	.0000	382681.4	1.51	10.32	-.0035	247.81	-.0015	-24.74	298.63
SET	61	3638.16	3649.41	4	6	4.9	66.30	.0042	-25.41	.0000	386123.6	1.44	-.00	-.0026	235.80	.0027	-24.73	290.18
RISE	42	3784.72	3795.97	4	8	31.5	254.99	.0044	-24.20	-.0001	397548.4	2.28	2.49	.0032	118.13	-.0024	-24.76	253.19
IMPACT		3780.34	3791.59	4	8	27.1												
IMPC	42	3780.34	3791.59	4	8	27.1	253.86	.0043	-24.18	-.0000	397047.7	1.70	1.66	.0031	118.76	-.0024	-24.75	254.33
IMPC	72	3780.34	3791.59	4	8	27.1	92.34	.0043	-24.62	.0000	397102.1	2.47	1.17	-.0039	245.30	-.0005	-24.75	254.33
IMPC	11	3780.34	3791.59	4	8	27.1	348.66	.0044	-25.54	-.0000	394222.6	1.97	28.31	.0007	168.37	.0044	-24.75	254.33
SET	72	3785.35	3796.60	4	8	32.1	93.65	.0044	-24.62	-.0000	397926.1	3.26	00	-.0040	245.13	-.0006	-24.76	253.02

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	1	17	26.792	6570.304	23.5632	307.0062	10.97235	-3.5487	106.4066	128.0215
SEPARATION		1.20	12.45	1	17	27.992	6544.696	21.4459	313.8448	10.99365	-.1245	109.1431	135.1608
RETRO		3.20	14.45	1	17	29.992	6607.416	17.3130	324.6970	10.94094	5.5704	112.9239	146.5144
IMPACT		3780.34	3791.59	4	8	27.128	397283.789	-24.7492	254.3293	2.20445	67.8477	261.0661	303.0156

SURVEYOR VIEW PERIODS

GHA	281.5578					EPS	18.4064							LOM	249.4867
SX	.494826	SY	-.761517	SZ	-.418615	DAO	-24.74719	RAO	303.01538	RM	398576.461	LAT	28.31' 00	LON	279.461800
C3	-.947925	ECC	.984436	SLR	12987.471	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.512333	NSY	-.751738	NSZ	-.415216	C3M	1.4976	VIM	2.6715	ZAE	141.163	B.T	.0000	B.R	-.0000
LATE	6.1034	LONE	3.2054	LATS	1.2140	LONS	345.4674	LATI	2.3532	LONI	324.4336	RSM	152.4691	TTAN	5.9415
LAUNCH DATE		JUL	1.1966		BASE AZM	96.0		TF	63.000			ARRIVAL DATE		JUL 4 1966	8 46 26.5

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
96.00	17 31 59.6	27.8	22.37	306.82	-3.52	131.95	108.61	17 43 14.6	6550.8	10.99	-1.75

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	1	17	43.2												
SEPARATION		1.20	12.45	1	17	44.4												
RETRO		3.20	14.45	1	17	46.4												
RISE	72	5.24	16.49	1	17	48.5	77.88	-.2616	56.52	.0732	2595.4	-7.22	.00	.1215	327.36	.1069	10.78	333.73
EXTM	72	9.95	21.20	1	17	53.2	329.37	-.1757	29.21	-.2128	1927.9	3.79	42.59	.0498	37.16	.3498	.47	351.97
RISE	51	11.27	22.52	1	17	54.5	74.30	-.1049	29.31	-.0335	5071.7	-3.70	.00	.0960	302.92	.0166	-2.01	356.16
EXTM	51	31.58	42.83	1	18	14.8	354.14	-.0253	-16.87	-.0143	8198.9	5.44	79.59	-.0000	32.74	.1555	-20.77	31.07
EXTM	72	67.34	78.59	1	18	50.6	282.77	-.0000	-27.71	-.0009	23021.6	4.88	14.94	.0000	116.67	.0010	-27.10	47.10
EXTM	51	86.12	97.37	1	19	9.4	333.12	-.0000	-28.03	-.0006	24644.8	4.44	65.97	.0000	101.52	.0016	-27.99	49.04
RISE	61	160.33	171.58	1	20	23.6	306.11	.0028	-34.86	.0003	47940.9	3.50	-.00	.0017	138.48	.0016	-28.78	44.32
EXTM	51	260.77	272.02	1	22	4.0	.09	.0035	-28.86	.0001	62155.3	3.10	86.88	-.0000	181.44	.0556	-28.57	27.61
EXTM	61	428.52	439.77	2	0	51.8	3.40	.0039	-31.57	.0002	94722.0	2.60	18.12	.0000	183.04	.0035	-27.99	352.55
EXTM	72	461.67	472.92	2	1	24.9	.54	.0040	-29.19	.0001	96012.5	2.52	68.71	-.0000	181.30	.0096	-27.89	345.17
RISE	11	626.95	638.20	2	4	10.2	293.41	.0040	-29.38	.0000	125415.1	1.96	.00	.0026	126.90	.0023	-27.43	307.29
SET	51	655.78	667.03	2	4	39.0	90.00	.0039	-26.29	.0001	128061.9	2.56	11.09	-.0032	246.01	-.0013	-27.36	300.55
SET	61	673.89	685.14	2	4	57.1	61.54	.0040	-29.39	.0001	131678.4	2.44	-.00	-.0022	230.00	.0026	-27.32	296.30
SET	72	850.88	862.13	2	7	54.1	93.99	.0039	-26.60	.0001	153917.0	2.39	-.00	-.0035	243.12	-.0004	-26.94	254.31
RISE	42	860.94	872.19	2	8	4.2	254.99	.0040	-25.50	-.0000	154758.8	1.68	3.29	.0029	119.16	-.0022	-26.93	251.90
EXTM	11	901.46	912.71	2	8	44.7	1.00	.0042	-28.90	.0001	157171.7	1.96	25.88	-.0000	180.97	.0040	-26.85	242.19
SET	11	1173.09	1184.34	2	13	16.3	68.27	.0041	-27.68	.0001	190155.3	2.06	.01	-.0027	235.35	.0024	-26.42	176.51
EXTM	42	1285.93	1297.18	2	15	9.2	359.96	.0042	-25.98	.0000	195663.1	1.70	80.76	-.0000	.24	-.0202	-26.27	149.02
RISE	51	1421.01	1432.26	2	17	24.3	270.00	.0041	-25.45	-.0000	214123.2	1.26	10.75	.0034	113.20	-.0015	-26.10	115.99
RISE	72	1576.85	1588.10	2	20	.1	266.16	.0041	-25.70	-.0000	230175.0	1.15	-.01	.0037	115.96	-.0005	-25.93	77.76
RISE	61	1652.94	1664.19	2	21	16.2	295.51	.0041	-26.97	-.0000	237201.6	1.24	.00	.0025	126.45	.0027	-25.85	59.06
SET	42	1708.88	1720.13	2	22	19.1	105.00	.0041	-24.88	.0000	241954.7	1.83	2.91	-.0029	241.33	-.0022	-25.80	45.30
EXTM	51	1772.60	1783.85	2	23	15.8	358.03	.0042	-25.74	.0000	241682.3	1.46	88.22	.0038	90.38	-.0015	-25.74	29.61
EXTM	61	1911.53	1922.78	3	1	34.8	.40	.0042	-26.91	.0000	257619.8	1.43	22.85	.0000	180.39	.0041	-25.61	355.36
EXTM	72	1951.27	1962.52	3	2	14.5	.13	.0042	-26.01	.0000	257480.4	1.42	71.89	-.0000	180.37	.0121	-25.58	345.55
RISE	11	2088.75	2100.00	3	4	32.0	290.44	.0042	-26.33	-.0000	274968.6	1.06	.00	.0028	122.87	.0024	-25.47	311.59
SET	51	2139.72	2150.97	3	5	23.0	90.00	.0041	-24.92	.0000	277977.9	1.73	10.54	-.0034	247.29	-.0015	-25.43	298.99
SET	61	2169.92	2181.17	3	5	53.2	65.23	.0042	-26.34	.0000	281593.2	1.63	.00	-.0025	234.46	.0027	-25.41	291.52
SET	72	2324.38	2335.63	3	8	27.6	93.74	.0041	-25.11	.0000	293889.0	1.72	-.00	-.0037	244.63	-.0005	-25.29	253.29
RISE	42	2325.98	2337.23	3	8	29.2	255.00	.0041	-24.54	-.0000	293714.1	.98	2.70	.0030	118.40	-.0023	-25.29	252.90
EXTM	11	2366.42	2377.67	3	9	9.7	.27	.0042	-26.34	.0000	294148.7	1.29	28.45	-.0000	180.28	.0043	-25.26	242.88
SET	11	2643.94	2655.19	3	13	47.2	70.04	.0042	-25.82	.0000	318155.0	1.54	-.00	-.0028	237.79	.0024	-25.08	174.09
EXTM	42	2745.00	2756.25	3	15	28.2	359.97	.0042	-24.82	.0000	319322.8	1.20	79.60	.0000	.19	-.0182	-25.02	149.01
S	51	2875.54	2886.79	3	17	38.8	270.00	.0041	-24.52	-.0000	333712.6	.80	10.38	.0035	112.34	-.0015	-24.95	116.60
RISE	72	3030.22	3041.47	3	20	13.5	266.34	.0042	-24.71	-.0000	348851.0	.71	.00	.0037	114.96	-.0005	-24.86	78.18
RISE	61	3098.87	3110.12	3	21	22.1	293.90	.0042	-25.59	-.0000	350442.5	.82	.00	.0026	124.45	.0027	-24.84	61.05
SET	42	3163.64	3174.89	3	22	26.9	105.00	.0041	-24.19	.0000	354474.6	1.44	2.49	-.0030	241.88	-.0023	-24.82	44.67
EXTM	51	3229.65	3240.90	3	23	32.9	359.28	.0042	-24.78	.0000	352804.5	1.10	88.84	.0021	34.26	-.1584	-24.80	28.39
EXTM	61	3360.79	3372.04	4	1	44.0	.13	.0042	-25.67	.0000	365171.5	1.10	24.09	-.0000	180.13	.0042	-24.76	355.62
EXTM	72	3400.69	3411.94	4	2	23.9	.02	.0042	-25.04	.0000	364341.5	1.10	72.86	.0000	180.09	.0097	-24.75	349.65
RISE	11	3531.97	3543.22	4	4	35.2	289.52	.0042	-25.34	-.0000	379049.4	.79	.00	.0029	121.59	.0024	-24.72	312.81
SET	51	3588.61	3599.86	4	5	31.9	90.00	.0042	-24.34	.0000	381694.5	1.51	10.31	-.0035	247.83	-.0015	-24.71	298.63
SET	61	3622.42	3633.67	4	6	5.7	66.32	.0042	-25.39	.0000	385124.2	1.43	-.00	-.0026	235.83	.0027	-24.71	290.16
RISE	42	3769.30	3780.55	4	8	32.5	255.00	.0042	-24.15	-.0000	395856.1	1.29	2.47	.0031	118.09	-.0023	-24.72	253.18
SET	72	3769.87	3781.12	4	8	33.1	93.64	.0042	-24.58	.0000	396185.8	2.06	.00	-.0038	245.17	-.0006	-24.72	253.04
IMPACT		3779.99	3791.24	4	8	43.2												
IMPC	42	3779.99	3791.24	4	8	43.2	257.73	.0043	-24.18	-.0000	396774.0	1.69	4.46	.0032	116.60	-.0023	-24.72	250.44
IMPC	72	3779.99	3791.24	4	8	43.2	96.23	.0043	-24.57	.0000	397528.1	2.47	-2.32	-.0039	244.80	-.0007	-24.72	250.44
IMPC	11	3779.99	3791.24	4	8	43.2	352.60	.0044	-25.52	-.0000	394205.4	1.99	28.87	.0005	172.38	.0045	-24.72	250.44

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	1	17	43.244	6550.806	22.3662	306.8130	10.98865	-1.7453	108.6045	131.9526
SEPARATION		1.20	12.45	1	17	44.444	6550.385	20.0110	313.4934	10.98889	1.6876	111.1311	138.9338
RETRO		3.20	14.45	1	17	46.444	6653.961	15.5810	324.0118	10.90235	7.3346	114.5110	149.9536
IMPACT		3779.99	3791.24	4	8	43.234	397320.781	-24.7244	250.4415	2.20298	67.6314	261.2330	303.1651

JUL 1, 1966
96 DEGREES

SURVEYOR VIEW PERIODS

GHA	281.5578				EPS	18.5305					LOM	245.6010	
SX	.496900	SY	-.760383	SZ	-.418220	DAO	+24.72223	RAO	303.16407	RM	398609.840	LAT	28.310600
C3	-.948758	ECC	.984422	SLR	12987.383	RCA	6544.6650	LTA	+20.0000	GTA	20.00	TB	675.00000
NSX	.514391	NSY	-.750558	NSZ	-.414807	C3M	1.4975	VIM	2.6715	ZAE	141.136	B.T	.0000
LATE	6.1099	LONE	3.1962	LATS	1.2142	LONS	345.3312	LATI	2.1736	LONI	324.4193	RSM	152.4689
LAUNCH DATE	JUL	1, 1966		BASE AZM	99.0		TF 63.022					ARRIVAL DATE	JUL 4 1966 9 2 32.2

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPTH
99.00	17 45 27.8	27.9	21.20	306.49	-.58	135.01	110.76	17 56 42.8	6544.8	10.99	-.29

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	1	17	56.7												
SEPARATION	1.20	12.45	1	17	57.9												
RETRO	3.20	14.45	1	17	59.9												
RISE 72	4.94	16.19	1	18	1.6	80.55	-.2158	49.79	.0482	2672.7	-7.62	.00	.1258	320.45	.0768	9.69	331.21
EXTM 72	10.32	21.57	1	18	7.0	335.10	-.1700	17.74	-.1842	1934.4	4.58	54.47	.0121	43.63	.4214	-2.05	351.22
RISE 51	11.15	22.40	1	18	7.9	76.70	-.0967	25.51	-.0365	5234.7	-3.49	.01	.0941	298.56	.0100	-3.58	353.74
EXTM 51	33.30	44.55	1	18	30.0	356.84	-.0229	-20.31	-.0112	8882.9	5.40	83.84	-.0000	28.83	.2259	-22.58	29.56
EXTM 72	68.31	79.56	1	19	5.0	286.15	.0000	-29.07	-.0007	23158.6	4.84	17.92	.0000	118.07	.0007	-27.99	44.10
EXTM 51	88.31	99.56	1	19	25.0	337.03	.0000	-29.16	-.0005	25243.5	4.40	69.37	.0000	104.75	.0013	-28.79	45.97
RISE 61	148.67	159.92	1	20	25.4	307.63	.0026	-35.81	.0004	45445.7	3.60	-.00	.0016	140.04	.0014	-29.33	42.60
EXTM 51	244.17	255.42	1	22	.9	.13	.0034	-29.41	.0001	59135.9	3.16	86.33	.0000	181.81	.0462	-29.05	27.57
EXTM 61	415.75	427.00	2	0	52.5	3.77	.0039	-32.00	.0002	92843.5	2.63	17.68	.0000	183.36	.0035	-28.34	352.20
EXTM 72	447.86	459.11	2	1	24.6	.63	.0040	-29.57	.0001	93998.4	2.55	68.33	-.0000	181.47	.0094	-28.22	345.09
RISE 11	614.74	625.99	2	4	11.5	293.70	.0040	-29.67	.0000	123822.6	1.98	.00	.0026	127.28	.0023	-27.69	306.96
SET 51	642.03	653.28	2	4	38.7	90.00	.0038	-26.53	.0001	126279.3	2.58	11.19	-.0032	245.79	-.0013	-27.61	300.59
SET 61	658.67	669.92	2	4	55.4	61.17	.0040	-29.68	.0001	129730.4	2.46	-.00	-.0022	229.57	.0026	-27.57	296.70
SET 72	837.59	848.84	2	7	54.3	94.02	.0039	-26.80	.0001	152369.4	2.40	-.00	-.0035	242.92	-.0004	-27.14	254.31
RISE 42	847.75	859.00	2	8	4.5	254.99	.0040	-25.69	-.0000	153218.4	1.69	3.40	.0029	119.31	-.0022	-27.12	251.88
EXTM 11	888.52	899.77	2	8	45.2	1.07	.0042	-29.11	.0001	155721.1	1.97	25.67	-.0000	181.04	.0040	-27.04	242.12
SET 11	1159.33	1170.58	2	13	16.0	68.12	.0041	-27.93	.0001	188742.5	2.07	.00	-.0027	235.15	.0024	-26.56	176.67
EXTM 42	1272.84	1284.09	2	15	9.5	359.96	.0042	-26.11	.0000	194368.2	1.70	80.89	-.0000	.25	-.0210	-26.39	149.02
RISE 51	1408.01	1419.26	2	17	24.7	270.00	.0041	-25.55	-.0000	212885.4	1.26	10.79	.0034	113.30	-.0015	-26.21	115.98
RISE 72	1563.81	1575.06	2	20	.5	266.15	.0041	-25.79	-.0000	228989.1	1.15	-.01	.0037	116.06	-.0005	-26.02	77.77
RISE 61	1640.40	1651.65	2	21	17.1	295.62	.0041	-27.07	-.0000	236084.5	1.25	.00	.0025	126.59	.0027	-25.94	58.95
SET 42	1695.85	1707.10	2	22	12.6	105.00	.0041	-24.96	.0000	240803.2	1.83	2.96	-.0029	241.27	-.0022	-25.88	45.31
EXTM 51	1759.57	1770.82	2	23	16.3	358.02	.0042	-25.82	.0000	240554.5	1.47	88.21	.0038	92.90	.0038	-25.81	29.62
EXTM 61	1898.64	1909.89	3	1	35.3	.43	.0042	-26.98	.0000	256546.0	1.43	22.78	.0000	180.41	.0041	-25.68	353.33
EXTM 72	1938.31	1949.56	3	2	15.0	.13	.0042	-26.08	.0000	256404.9	1.42	71.83	-.0000	180.38	.0120	-25.64	345.54
RISE 11	2076.01	2087.26	3	4	32.7	290.49	.0042	-26.38	-.0000	273938.9	1.06	.00	.0028	122.95	.0024	-25.52	311.53
SET 51	2126.72	2137.97	3	5	23.4	90.00	.0041	-24.97	.0000	276936.0	1.73	10.56	-.0034	247.24	-.0015	-25.48	298.99
SET 61	2156.72	2167.97	3	5	53.4	65.17	.0042	-26.40	.0000	280543.8	1.63	-.00	-.0025	234.39	.0027	-25.45	291.57
SET 72	2311.41	2322.66	3	8	28.1	93.74	.0041	-25.15	.0000	292888.0	1.72	-.00	-.0037	244.59	-.0005	-25.33	253.29
RISE 42	2313.03	2324.28	3	8	29.7	255.00	.0041	-24.57	-.0000	292711.7	.98	2.72	.0030	118.42	-.0023	-25.33	252.89
EXTM 11	2353.52	2364.77	3	9	10.2	.29	.0042	-26.18	.0000	293163.9	1.30	28.41	-.0000	180.30	.0043	-25.30	242.87
SET 11	2630.87	2642.12	3	13	47.6	70.01	.0042	-25.81	.0000	317200.3	1.55	-.00	-.0028	237.75	.0024	-25.11	174.11
EXTM 42	2732.03	2743.28	3	15	28.7	359.96	.0042	-24.84	.0000	318390.1	1.21	79.62	.0000	.21	-.0184	-25.04	149.02
RISE 51	2862.59	2873.84	3	17	39.3	270.00	.0041	-24.53	-.0000	332800.0	.80	10.39	.0035	112.35	-.0015	-24.96	116.60
RISE 72	3017.26	3028.51	3	20	14.0	266.34	.0042	-24.71	-.0000	344963.6	.71	.00	.0037	114.96	-.0005	-24.87	78.18
RISE 61	3085.93	3097.18	3	21	22.6	293.91	.0042	-25.59	-.0000	349558.1	.82	.00	.0026	124.46	.0027	-24.84	61.04
SET 42	3150.66	3161.91	3	22	27.4	105.00	.0041	-24.19	.0000	353589.1	1.44	2.49	-.0030	241.88	-.0023	-24.82	44.88
EXTM 51	3216.68	3227.93	3	23	33.4	359.28	.0042	-24.78	.0000	351919.7	1.10	88.84	.0021	34.28	-.1580	-24.80	28.39
EXTM 61	3347.87	3359.12	4	1	44.6	.14	.0042	-25.67	.0000	364287.2	1.10	24.10	-.0000	180.14	.0042	-24.76	355.61
EXTM 72	3387.75	3399.00	4	2	24.5	.02	.0042	-25.04	.0000	363453.5	1.10	72.87	.0000	180.09	.0104	-24.75	345.65
RISE 11	3519.00	3530.25	4	4	35.7	289.51	.0042	-25.33	-.0000	378144.1	.78	.00	.0029	121.58	.0024	-24.71	312.82
SET 51	3575.67	3586.92	4	5	32.4	90.00	.0042	-24.33	.0000	380777.2	1.50	10.30	-.0035	247.84	-.0015	-24.70	298.63
SET 61	3609.55	3620.80	4	6	6.3	66.34	.0042	-25.38	.0000	384197.5	1.43	-.00	-.0026	235.85	.0027	-24.69	290.15
RISE 42	3756.58	3767.83	4	8	33.3	255.00	.0042	-24.12	-.0000	394614.6	1.10	2.45	.0031	118.07	-.0023	-24.69	253.18
SET 72	3757.13	3768.38	4	8	33.8	93.64	.0042	-24.55	.0000	394933.4	1.86	-.00	-.0038	245.20	-.0006	-24.69	253.04
IMPACT	3781.34	3792.59	4	8	58.1												
IMPC 42	3781.34	3792.59	4	8	58.1	261.30	.0043	-24.17	-.0000	396515.0	1.68	7.09	.0032	114.67	-.0023	-24.70	246.86
IMPC 11	3781.34	3792.59	4	8	58.1	356.23	.0044	-25.50	-.0000	394205.8	2.01	29.18	.0002	176.11	.0045	-24.70	246.86

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPTH	AZ	RT ASC
INJECTION	.00	11.25	1	17	56.713	6544.836	21.1963	306.4946	10.99365	-.2901	110.7562	135.0106
SEPARATION	1.20	12.45	1	17	57.913	6564.490	18.6135	313.0121	10.97695	3.1382	113.0806	141.8289
RETRO	3.20	14.45	1	17	59.913	6700.356	13.9069	323.1941	10.86420	8.7332	116.0825	152.5123
IMPACT	3781.34	3792.59	4	8	58.055	397351.891	-24.7018	246.8631	2.20228	67.6864	261.5671	303.3021

SURVEYOR VIEW PERIODS

GHA	281.9578					EPS	18.6349							LOM	242.3301
SX	.498644	SY	-.759425	SZ	-.417885	DAO	-24.70112	RAO	383.28918	RM	398637.891	LAT	28.310600	LON	279.461800
C3	-.950365	ECC	.984396	SLR	12987.213	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.516129	NSY	-.749554	NSZ	-.414463	C3M	1.4971	VIM	2.6714	ZAE	141.087	B.T	.0000	B.R	-.0000
LATE	6.1154	LONE	3.3123	LATS	1.2144	LONS	345.3404	LATI	1.9360	LONI	324.5160	RSM	152.4687	TTAN	5.9298
LAUNCH DATE	JUL	1	1966	BASE AZM	102.0	TF	63.055					ARRIVAL DATE	JUL 4 1966	9	16 5.0

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
102.00	17 56 24.5	28.0	20.05	306.09	1.76	137.35	112.88	18 7 39.5	6946.2	10.99	.87

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	1	18	7.7												
SEPARATION		1.20	12.45	1	18	8.9												
RETRO		3.20	14.45	1	18	10.9												
RISE	72	4.71	15.96	1	18	12.4	82.34	-.1879	43.84	.0245	2743.7	-7.84	.00	.1284	314.37	.0499	8.48	329.08
EXTM	72	10.32	21.57	1	18	18.0	343.91	-.1862	9.95	-.1689	1885.9	4.58	65.94	-.0000	42.35	.6116	-3.88	349.33
RISE	51	11.09	22.34	1	18	18.7	78.84	-.0900	21.87	-.0395	5375.9	-3.29	.00	.0923	294.43	.0042	-5.27	351.57
EXTM	51	35.04	46.29	1	18	42.7	358.95	-.0210	-23.67	-.0088	9557.7	5.36	87.72	-.0000	24.98	.5305	-24.50	28.32
EXTM	72	69.39	80.64	1	19	17.0	288.93	.0000	-30.58	-.0005	23358.8	4.81	20.28	.0000	119.75	.0005	-29.07	41.65
RISE	61	141.88	153.13	1	20	29.5	309.35	.0024	-36.84	.0005	43990.3	3.66	-.00	.0016	141.77	.0013	-30.06	40.79
EXTM	51	230.64	241.89	1	21	58.3	.22	.0033	-30.12	.0001	56625.7	3.23	85.62	-.0000	182.47	.0376	-29.67	27.49
EXTM	61	406.00	417.25	2	0	53.7	4.20	.0039	-32.50	.0002	91416.9	2.65	17.15	.0000	183.71	.0034	-28.78	351.80
EXTM	72	436.89	448.14	2	1	24.5	.73	.0040	-30.04	.0001	92389.1	2.57	67.85	-.0000	181.68	.0092	-28.64	344.99
RISE	11	605.48	616.73	2	4	13.1	294.07	.0040	-30.02	.0000	122606.3	1.99	.00	.0026	127.76	.0023	-28.02	306.57
SET	51	630.95	642.20	2	4	38.6	90.00	.0038	-26.85	.0001	124824.9	2.59	11.31	-.0032	245.49	-.0013	-27.94	300.64
SET	61	645.72	656.97	2	4	53.4	60.71	.0039	-30.03	.0002	128053.0	2.47	-.00	-.0022	229.03	.0026	-27.89	297.18
SET	72	826.96	838.21	2	7	54.6	94.07	.0039	-27.05	.0001	151120.5	2.41	-.00	-.0035	242.67	-.0004	-27.40	254.29
R SE	42	837.15	848.40	2	8	4.8	254.99	.0039	-25.93	-.0000	151962.2	1.70	3.55	.0028	119.50	-.0022	-27.38	251.86
EXTM	11	878.22	889.47	2	8	45.9	1.17	.0041	-29.38	.0001	154565.9	1.98	25.41	-.0000	181.13	.0040	-27.28	242.03
SET	11	1147.95	1159.20	2	13	15.6	67.93	.0041	-28.03	.0001	187599.0	2.07	.00	-.0027	234.89	.0024	-26.75	176.87
EXTM	42	1262.28	1273.53	2	15	9.9	359.96	.0042	-26.27	.0000	193309.0	1.71	81.05	-.0000	.28	-.0216	-26.56	149.02
RISE	51	1397.53	1408.78	2	17	25.2	270.00	.0041	-25.70	-.0000	211870.0	1.27	10.85	.0034	113.44	-.0015	-26.36	115.97
RISE	72	1553.25	1564.50	2	20	.9	266.13	.0041	-25.92	-.0000	228012.7	1.16	-.01	.0036	116.18	-.0005	-26.15	77.78
RISE	61	1630.49	1641.74	2	21	18.2	295.76	.0041	-27.19	-.0000	235186.1	1.25	.00	.0025	126.77	.0027	-26.06	58.80
SET	42	1685.32	1696.57	2	22	13.0	105.00	.0041	-25.07	.0000	239852.2	1.84	3.03	-.0029	241.18	-.0022	-25.99	45.31
EXTM	51	1749.08	1760.33	2	23	16.7	358.02	.0042	-25.92	.0000	239627.2	1.47	88.21	.0038	96.31	.0109	-25.92	29.61
EXTM	61	1888.26	1899.51	3	1	35.9	.46	.0042	-27.07	.0000	255665.2	1.44	22.69	.0000	180.44	.0041	-25.77	355.30
EXTM	72	1927.84	1939.09	3	2	15.5	.14	.0042	-26.17	.0000	259516.9	1.42	71.74	-.0000	180.40	.0120	-25.73	345.53
RISE	11	2065.82	2077.07	3	4	33.5	290.56	.0042	-26.46	-.0000	273093.7	1.06	.00	.0028	123.05	.0024	-25.60	311.45
SET	51	2116.21	2127.46	3	5	23.9	90.00	.0041	-25.04	.0000	276068.2	1.74	10.59	-.0034	247.18	-.0015	-25.55	299.00
SET	61	2145.83	2157.08	3	5	53.5	65.08	.0042	-26.47	.0000	279652.3	1.64	.00	-.0025	234.28	.0027	-25.52	291.67
SET	72	2300.94	2312.19	3	8	28.6	93.75	.0041	-25.21	.0001	292053.0	1.72	-.00	-.0037	244.53	-.0005	-25.39	253.29
RISE	42	2302.55	2313.80	3	8	30.2	285.00	.0041	-24.63	-.0000	291872.6	.98	2.76	.0030	118.47	-.0023	-25.39	252.89
EXTM	11	2343.10	2354.35	3	9	10.8	.31	.0042	-26.44	.0000	298344.6	1.30	28.35	-.0000	180.32	.0043	-25.35	242.85
SET	11	2620.22	2631.47	3	13	47.9	69.98	.0042	-25.88	.0000	316390.6	1.55	-.00	-.0028	237.70	.0024	-25.14	174.15
EXTM	42	2721.51	2732.76	3	15	29.2	359.96	.0042	-24.87	.0000	317601.1	1.21	79.65	.0000	.22	-.0189	-25.07	149.02
RISE	51	2852.10	2863.35	3	17	39.8	270.00	.0041	-24.55	-.0000	332024.8	.80	10.39	.0035	112.37	-.0015	-24.98	116.60
RISE	72	3006.75	3018.00	3	20	14.4	266.33	.0042	-24.72	-.0000	344206.0	.71	.00	.0037	114.98	-.0005	-24.88	78.18
RISE	61	3075.49	3086.74	3	21	23.1	293.92	.0042	-25.60	-.0000	348805.1	.82	.30	.0026	124.48	.0027	-24.85	61.02
SET	42	3140.15	3151.40	3	22	27.8	105.00	.0041	-24.20	.0000	352830.1	1.44	2.49	-.0030	241.87	-.0023	-24.83	44.88
EXTM	51	3206.20	3217.45	3	23	33.9	359.29	.0042	-24.79	.0000	351162.7	1.10	88.85	.0021	34.20	-.1593	-24.80	28.38
EXTM	61	3337.42	3348.67	4	1	45.1	.15	.0042	-25.67	.0000	363527.6	1.10	24.09	-.0000	180.15	.0042	-24.76	355.60
EXTM	72	3377.26	3388.51	4	2	24.9	.03	.0042	-25.04	.0000	362688.9	1.10	72.87	.0000	180.10	.0109	-24.75	345.64
RISE	11	3508.51	3519.76	4	4	36.2	289.51	.0042	-25.33	-.0000	377343.4	.78	.00	.0029	121.57	.0024	-24.71	312.82
SET	51	3565.19	3576.44	4	5	32.8	90.00	.0042	-24.32	.0000	379985.2	1.50	10.30	-.0035	247.85	-.0015	-24.69	298.64
SET	61	3599.12	3610.37	4	6	6.8	66.35	.0042	-25.37	.0000	383397.3	1.42	-.00	-.0026	235.86	.0027	-24.68	290.14
RISE	42	3746.24	3757.49	4	8	33.9	255.00	.0042	-24.10	-.0000	393621.4	1.01	2.44	.0030	118.05	-.0023	-24.67	253.18
SET	72	3746.75	3758.00	4	8	34.4	93.63	.0042	-24.53	.0000	393933.7	1.78	-.00	-.0038	245.22	-.0006	-24.67	253.05
IMPACT		3783.32	3794.57	4	9	11.0												
IMPC	42	3783.32	3794.57	4	9	11.0	264.42	.0043	-24.17	-.0000	396286.7	1.68	9.42	.0033	113.01	-.0022	-24.68	243.74
IMPC	11	3783.32	3794.57	4	9	11.0	359.40	.0044	-25.48	-.0000	394221.3	2.03	29.31	.0000	179.38	.0045	-24.68	243.74
EXTM	11	3784.62	3795.87	4	9	12.3	359.74	.0044	-25.48	-.0000	394381.5	2.14	29.31	.0000	179.73	.0045	-24.68	243.41

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION		.00	11.25	1	18	7.659	6946.206	20.0519	306.0869	10.99243	.8746	112.8803	137.3465
SEPARATION		1.20	12.45	1	18	8.859	6581.890	17.2490	312.4379	10.96224	4.2962	115.0104	143.9987
RETRO		3.20	14.45	1	18	10.859	6743.228	12.2751	322.2963	10.82926	9.8415	117.6594	154.3585
IMPACT		3783.32	3794.57	4	9	10.983	397379.047	-24.6822	243.7417	2.20142	67.5818	262.0216	303.4217

SURVEYOR VIEW PERIODS

GHA	281.5578					EPS	18.7240							LOM	239.5379
SX	.500130	SY	-.758605	SZ	-.417598	DAO	-24.68302	RAO	303.39592	RM	398661.805	LAT	28.310600	LON	279.461800
C3	-.952494	ECC	.984361	SLR	12986.981	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NBX	.517618	NSY	-.748689	NSZ	-.414170	C3M	1.4968	VIM	2.6713	ZAE	141.016	B.T	.0000	B.R	-.0000
LATE	6.1200	LONE	3.1814	LATS	1.2145	LONS	345.1183	LATI	1.6551	LONI	324.3513	RSM	152.4685	TTAN	5.9270
LAUNCH DATE		JUL	1.1966	BASE AZM	105.0	TF	63.096					ARRIVAL DATE		JUL 4 1966	9 27 38.8

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	18 5 19.4	28.1	18.93	305.61	3.64	139.10	114.99	18 16 34.4	6551.2	10.99	1.81

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	1	18	16.6												
SEPARATION	1.20	12.45	1	18	17.8												
RETRO	3.20	14.45	1	18	19.8												
RISE 72	4.55	15.80	1	18	21.1	83.68	-.1685	38.42	.0025	2809.1	-7.92	.00	.1295	308.86	.0256	7.16	327.23
EXTM 72	10.29	21.54	1	18	26.9	352.35	-.1997	1.96	-.1538	1869.0	4.46	77.53	.0000	38.01	1.1669	-5.68	347.41
RISE 51	11.06	22.31	1	18	27.6	80.80	-.0843	18.35	-.0423	5499.8	-3.10	.00	.0905	290.46	-.0010	-7.07	349.61
EXTM 51	35.52	46.77	1	18	52.1	2.15	-.0212	-26.40	-.0077	9815.5	5.31	87.96	.0156	250.72	-.3728	-26.14	26.39
EXTM 72	70.21	81.46	1	19	26.8	291.20	.0000	-32.21	-.0002	23516.6	4.78	22.11	.0000	121.63	.0002	-30.30	39.60
EXTM 51	91.20	102.45	1	19	47.8	342.85	.0000	-31.84	-.0001	26067.4	4.34	73.80	.0000	116.09	.0004	-30.83	41.33
RISE 61	139.33	150.58	1	20	35.9	311.18	.0024	-37.89	.0006	43476.9	3.68	-.00	.0016	143.56	.0012	-30.93	38.99
EXTM 51	219.71	230.96	1	21	56.3	.33	.0033	-30.97	.0002	54561.8	3.28	84.77	.0000	183.11	.0305	-30.42	27.39
EXTM 61	398.75	410.00	2	0	55.3	4.67	.0039	-33.07	.0002	90368.8	2.66	16.56	.0000	184.08	.0034	-29.29	351.36
EXTM 72	428.27	439.52	2	1	24.8	.86	.0040	-30.59	.0001	91120.1	2.59	67.30	.0000	181.92	.0089	-29.14	344.88
RISE 11	598.62	609.87	2	4	15.2	294.49	.0040	-30.43	.0000	121700.0	2.01	.00	.0026	128.31	.0023	-28.40	306.13
SET 51	622.06	633.31	2	4	38.6	90.00	.0038	7.22	.0001	123640.3	2.60	11.46	-.0032	245.14	-.0013	-28.32	300.68
SET 61	634.61	645.86	2	4	51.2	60.17	.0039	-.45	.0002	126596.1	2.48	-.00	-.0021	228.41	.0027	-28.27	297.74
SET 72	818.51	829.76	2	7	55.1	94.12	.0039	-27.35	.0001	150116.7	2.42	-.00	-.0035	242.36	-.0004	-27.70	254.26
RISE 42	828.67	839.92	2	8	5.2	254.99	.0040	-26.22	-.0000	150938.8	1.71	3.73	.0028	119.73	-.0022	-27.67	251.84
EXTM 11	870.09	881.34	2	8	46.7	1.27	.0041	-29.68	.0001	153652.3	1.98	25.10	-.0000	181.22	.0040	-27.56	241.92
SET 11	1138.50	1149.75	2	13	15.1	67.71	.0041	-28.26	.0001	186562.4	2.08	-.00	-.0027	234.59	.0024	-26.97	177.10
EXTM 42	1253.64	1264.89	2	15	10.2	359.92	.0042	-26.48	.0000	192426.6	1.71	81.26	.0000	.50	-.0242	-26.76	149.06
RISE 51	1389.09	1400.34	2	17	25.7	270.00	.0041	-25.87	-.0000	211035.2	1.27	10.92	.0034	113.60	-.0015	-26.53	115.96
RISE 72	1544.71	1555.96	2	20	1.3	266.10	.0041	-26.07	-.0000	227205.9	1.16	-.01	.0036	116.34	-.0005	-26.30	77.80
RISE 61	1622.74	1633.99	2	21	19.3	295.94	.0041	-27.33	-.0000	234464.9	1.25	.00	.0025	126.97	.0027	-26.19	58.62
SET 42	1676.82	1688.07	2	22	13.4	105.00	.0041	-25.20	.0001	239063.5	1.84	3.11	-.0029	241.08	-.0022	-26.12	45.32
EXTM 51	1740.66	1751.91	2	23	17.2	358.83	.0042	-26.05	.0000	238864.5	1.47	86.20	.0037	100.44	.0195	-26.04	29.60
EXTM 61	1879.93	1891.18	3	1	36.5	.49	.0042	-27.19	.0000	254940.6	1.44	22.57	.0000	180.47	.0040	-25.88	355.27
EXTM 72	1919.41	1930.66	3	2	16.0	.15	.0042	-26.28	.0000	254780.7	1.42	71.63	-.0000	180.43	.0119	-25.84	345.53
RISE 11	2057.72	2068.97	3	4	34.3	290.65	.0042	-26.56	-.0000	272397.9	1.06	.00	.0028	123.17	.0024	-25.69	311.36
SET 51	2107.71	2118.96	3	5	24.3	90.00	.0041	-25.12	.0001	275341.7	1.74	10.62	-.0034	247.10	-.0015	-25.64	299.00
SET 61	2136.91	2148.16	3	5	53.5	64.97	.0042	-26.56	.0001	278898.0	1.64	.00	-.0025	234.14	.0027	-25.61	291.78
SET 72	2292.49	2303.74	3	8	29.1	93.76	.0041	-25.28	.0001	291352.8	1.72	-.01	-.0037	244.46	-.0005	-25.46	253.28
RISE 42	2294.07	2305.32	3	8	30.6	255.00	.0041	-24.70	-.0000	291166.5	.98	2.80	.0030	118.52	-.0023	-25.46	252.89
EXTM 11	2334.70	2345.95	3	9	11.3	.33	.0042	-26.51	.0000	291659.6	1.30	28.28	-.0000	180.34	.0043	-25.42	242.82
SET 11	2611.52	2622.77	3	13	48.1	69.93	.0042	-25.93	.0000	315699.1	1.55	-.00	-.0028	237.64	.0024	-25.19	174.20
EXTM 42	2712.99	2724.24	3	15	29.6	359.96	.0042	-24.91	.0000	316929.2	1.21	79.69	.0000	.24	-.0191	-25.11	149.02
RISE 51	2843.59	2854.84	3	17	40.2	270.00	.0041	-24.58	-.0000	331362.1	.81	10.41	.0035	112.40	-.0015	-25.01	116.60
RISE 72	2998.21	3009.46	3	20	14.8	266.33	.0041	-24.75	-.0000	343336.2	.74	-.00	.0037	115.00	-.0005	-24.91	78.19
RISE 61	3067.18	3078.43	3	21	23.8	293.94	.0042	-25.62	-.0000	348222.6	.82	.00	.0026	124.50	.0027	-24.86	61.01
SET 42	3131.76	3143.01	3	22	28.3	105.00	.0041	-24.21	.0000	352237.1	1.44	2.50	-.0030	241.86	-.0023	-24.84	44.88
EXTM 51	3197.83	3209.08	3	23	34.4	359.30	.0042	-24.79	.0000	350566.7	1.10	88.86	.0021	34.13	-.1608	-24.81	28.38
EXTM 61	3329.04	3340.29	4	1	45.6	.16	.0042	-25.67	.0000	362918.8	1.10	24.09	-.0000	180.16	.0042	-24.76	355.59
EXTM 72	3368.84	3380.09	4	2	25.4	.03	.0042	-25.04	.0000	362072.4	1.09	72.87	.0000	180.11	.0112	-24.75	345.64
RISE 11	3500.05	3511.30	4	4	36.6	289.51	.0042	-25.32	-.0000	376722.3	.78	.00	.0029	121.57	.0024	-24.70	312.82
SET 51	3556.73	3567.98	4	5	33.3	90.00	.0042	-24.31	.0000	379329.4	1.49	10.30	-.0035	247.86	-.0015	-24.69	298.64
SET 61	3590.69	3601.94	4	6	7.3	66.35	.0042	-25.36	.0000	382731.3	1.41	-.00	-.0026	235.87	.0027	-24.68	290.13
RISE 42	3737.84	3749.09	4	8	34.4	255.00	.0042	-24.09	-.0000	392804.8	.96	2.43	.0030	118.04	-.0023	-24.65	253.17
SET 72	3738.33	3749.58	4	8	34.9	93.63	.0042	-24.51	.0000	393112.6	1.72	-.00	-.0038	245.23	-.0006	-24.65	253.05
EXTM 11	3776.94	3788.19	4	9	13.5	359.88	.0043	-25.46	-.0000	393295.0	1.66	29.33	.0000	179.88	.0044	-24.66	243.27
IMPACT	3785.75	3797.00	4	9	22.3												
IMPC 42	3785.75	3797.00	4	9	22.3	267.15	.0043	-24.17	-.0000	396089.0	1.67	11.48	.0033	111.59	-.0022	-24.66	241.00
IMPC 11	3785.75	3797.00	4	9	22.3	2.18	.0044	-25.47	-.0000	394250.3	2.04	29.29	-.0002	182.26	.0045	-24.66	241.00

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	1	18	16.573	6551.251	18.9301	305.6100	10.98804	1.8672	114.9880	139.1045
SEPARATION	1.20	12.45	1	18	17.773	6599.651	15.9194	311.7833	10.94727	5.2166	116.9292	145.5786
RETRO	3.20	14.45	1	18	19.773	6780.958	10.6851	321.3303	10.79875	10.7156	119.2493	155.6271
IMPACT	3785.75	3797.00	4	9	22.327	397406.656	-24.6649	241.0035	2.19899	67.3331	262.5137	303.5272

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SURVEYOR VIEW PERIODS

GHA	281.5578					EPS	18.8035							LOM	237.0485
SX	.501454	SY	-.757872	SZ	-.417341	DAO	-24.66681	RAO	303.49104	RM	398683.102	LAT	28.310600	LON	279.461800
CJ	-.955302	ECC	.984315	SLR	12986.683	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.518951	NSY	-.747909	NSZ	-.413909	C3M	1.4966	VIM	2.6713	ZAE	140.921	B.T	.0000	B.R	-.0000
LATE	6.1241	LONE	3.2697	LATS	1.2147	LONS	345.1254	LATI	1.3428	LONI	324.3868	RSM	152.4683	TTAN	5.9259
LAUNCH DATE	JUL 1 1966			BASE AZM	108.0		TF 63.146					ARRIVAL DATE	JUL 4 1966 9 37 57.4		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	18 12 38.5	28.1	17.83	305.07	5.16	140.40	117.08	18 23 53.5	6557.8	10.98	2.56

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT												
INJECTION		.00	11.25	1	18	23.9												
SEPARATION		1.20	12.45	1	18	25.1												
RETRO		3.20	14.45	1	18	27.1												
RISE	72	4.45	15.70	1	18	28.3	84.75	-.1537	33.37	-.0180	2871.0	-7.89	.00	.1296	303.73	.0034	5.76	325.61
EXTM	72	9.77	21.02	1	18	33.7	6.89	-.2333	-1.80	-.1596	1786.1	3.28	80.81	.2802	311.28	.2304	-6.58	344.15
RISE	51	11.06	22.31	1	18	35.0	82.62	-.0794	14.92	-.0451	5611.8	-2.92	.00	.0888	286.60	-.0058	-8.97	347.82
EXTM	51	38.80	50.05	1	19	2.7	1.60	-.0178	-30.22	-.0050	10955.8	5.28	85.30	-.0000	197.16	-.1976	-28.57	26.69
EXTM	72	70.91	82.16	1	19	34.8	293.04	.0000	-33.92	.0000	23664.5	4.76	23.48	.0000	123.64	-.0000	-31.64	37.90
EXTM	51	91.77	103.02	1	19	55.7	344.97	-.0000	-33.35	.0001	26255.2	4.33	74.90	.0000	123.76	-.0003	-32.01	39.61
RISE	61	140.19	151.44	1	20	44.1	313.07	.0024	-38.90	.0006	43733.6	3.67	-.00	.0016	145.35	.0012	-31.89	37.25
EXTM	51	211.29	222.54	1	21	55.2	.52	.0031	-31.92	.0002	52952.5	3.32	83.80	.0000	184.13	.0250	-31.26	27.22
EXTM	61	393.50	404.75	2	0	57.4	5.17	.0038	-33.68	.0002	89628.7	2.68	15.92	.0000	184.48	.0033	-29.86	350.89
EXTM	72	421.58	432.83	2	1	25.5	1.01	.0040	-31.19	.0002	90134.4	2.61	66.69	.0000	182.17	.0086	-29.69	344.74
RISE	11	593.69	604.94	2	4	17.6	294.95	.0040	-30.88	.0000	121045.3	2.01	.00	.0026	128.91	.0023	-28.83	305.65
SET	51	614.93	626.18	2	4	38.8	90.00	.0038	-27.64	.0001	122676.8	2.61	11.62	-.0032	244.75	-.0012	-28.74	300.71
SET	61	624.93	636.18	2	4	48.8	59.55	.0039	-30.91	.0002	125310.4	2.49	.01	-.0021	227.71	.0027	-28.70	298.38
SET	72	811.79	823.04	2	7	55.7	94.18	.0039	-27.68	.0001	149308.9	2.42	-.00	-.0035	242.03	-.0004	-28.04	254.23
RISE	42	821.87	833.12	2	8	5.8	254.99	.0040	-26.54	-.0000	150102.8	1.72	3.93	.0028	119.99	-.0022	-28.01	251.82
EXTM	11	863.69	874.94	2	8	47.6	1.39	.0041	-30.01	.0001	152932.7	1.99	24.77	.0000	181.32	.0040	-27.88	241.81
SET	11	1130.59	1141.84	2	13	14.5	67.46	.0041	-28.51	.0001	185714.1	2.08	-.00	-.0026	234.25	.0024	-27.21	177.36
EXTM	42	1246.77	1258.02	2	15	10.7	359.91	.0042	-26.70	.0000	191709.1	1.71	81.48	.0000	.57	-.0247	-26.98	149.07
RISE	51	1382.29	1393.54	2	17	26.2	270.00	.0041	-26.06	-.0000	210342.7	1.27	11.00	.0034	113.78	-.0015	-26.73	115.95
RISE	72	1537.77	1549.02	2	20	1.7	266.07	.0041	-26.23	-.0000	226532.0	1.16	-.01	.0036	116.51	-.0005	-26.47	77.82
RISE	61	1616.68	1627.93	2	21	20.6	296.13	.0041	-27.49	-.0000	233881.6	1.26	.00	.0025	127.21	.0027	-26.35	58.43
SET	42	1669.95	1681.20	2	22	13.8	105.00	.0041	-25.35	.0001	238401.3	1.84	3.20	-.0029	240.96	-.0022	-26.27	45.32
EXTM	51	1733.91	1745.16	2	23	17.8	358.06	.0042	-26.20	.0000	238230.7	1.48	88.20	.0037	105.13	.0290	-26.19	29.58
EXTM	61	1873.21	1884.46	3	1	37.1	.53	.0042	-27.32	.0000	254336.4	1.44	22.44	.0000	180.51	.0040	-26.00	355.23
EXTM	72	1912.57	1923.82	3	2	16.5	.16	.0042	-26.40	.0000	254161.3	1.43	71.50	-.0000	180.45	.0119	-25.96	345.52
RISE	11	2051.25	2062.50	3	4	35.1	290.75	.0042	-26.66	-.0000	271816.0	1.07	.00	.0028	123.31	.0024	-25.79	311.26
SET	51	2100.81	2112.06	3	5	24.7	90.00	.0041	-25.22	.0001	274722.7	1.74	10.66	-.0034	247.01	-.0015	-25.74	299.01
SET	61	2129.52	2140.77	3	5	53.4	64.85	.0042	-26.66	.0001	278245.6	1.64	.01	-.0025	234.00	.0027	-25.71	291.91
SET	72	2285.63	2296.88	3	8	29.5	93.78	.0041	-25.36	.0001	290754.0	1.72	-.01	-.0037	244.38	-.0005	-25.54	253.27
RISE	42	2287.18	2298.43	3	8	31.1	255.00	.0041	-24.78	-.0000	290559.4	.98	2.85	.0030	118.59	-.0023	-25.54	252.88
EXTM	11	2327.90	2339.15	3	9	11.8	.36	.0042	-26.60	.0000	291075.4	1.30	28.20	-.0000	180.36	.0043	-25.50	242.80
SET	11	2604.37	2615.62	3	13	48.3	69.88	.0042	-25.99	.0000	315094.2	1.55	-.00	-.0028	237.56	.0024	-25.25	174.26
EXTM	42	2706.04	2717.29	3	15	29.9	359.95	.0042	-24.96	.0000	316342.7	1.21	79.74	.0000	.26	-.0194	-25.16	149.03
RISE	51	2836.66	2847.91	3	17	40.6	270.00	.0041	-24.62	-.0000	330780.2	.81	10.42	.0035	112.43	-.0015	-25.05	116.59
RISE	72	2991.25	3002.50	3	20	15.1	266.32	.0041	-24.78	-.0000	342758.2	.74	-.00	.0037	115.03	-.0005	-24.93	78.19
RISE	61	3060.35	3071.60	3	21	24.2	293.97	.0042	-25.64	-.0000	347655.4	.82	.00	.0026	124.54	.0027	-24.89	60.97
SET	42	3124.80	3136.05	3	22	28.7	105.00	.0041	-24.23	.0000	351657.2	1.44	2.51	-.0030	241.85	-.0023	-24.86	44.88
EXTM	51	3190.95	3202.20	3	23	34.8	359.31	.0042	-24.81	.0000	349990.5	1.10	88.88	.0021	33.92	-.1647	-24.83	28.36
EXTM	61	3322.15	3333.40	4	1	46.0	.18	.0042	-25.68	.0000	362335.5	1.09	24.08	-.0000	180.18	.0042	-24.77	355.58
EXTM	72	3361.91	3373.16	4	2	25.8	.03	.0042	-25.05	.0000	361482.1	1.09	72.86	.0000	180.12	.0115	-24.75	345.64
RISE	11	3493.12	3504.37	4	4	37.0	289.51	.0042	-25.33	-.0000	376117.3	.77	.00	.0029	121.57	.0024	-24.70	312.82
SET	51	3549.78	3561.03	4	5	33.7	90.00	.0042	-24.31	.0000	378712.8	1.49	10.30	-.0035	247.86	-.0015	-24.68	298.64
SET	61	3583.75	3595.00	4	6	7.6	66.36	.0042	-25.36	.0000	382107.0	1.41	-.00	-.0026	235.87	.0027	-24.67	290.13
RISE	42	3730.96	3742.21	4	8	34.9	255.00	.0042	-24.07	-.0000	392077.3	.93	2.42	.0030	118.03	-.0023	-24.64	253.17
SET	72	3731.44	3742.69	4	8	35.3	93.63	.0042	-24.50	.0000	392381.7	1.69	-.00	-.0038	245.25	-.0005	-24.64	253.05
EXTM	11	3770.16	3781.41	4	9	14.1	359.88	.0043	-25.45	-.0000	392401.9	1.49	29.35	.0000	179.88	.0044	-24.64	243.27
IMPACT		3788.75	3800.00	4	9	32.6												
IMPC	42	3788.75	3800.00	4	9	32.6	269.64	.0043	-24.17	-.0000	395905.(	1.67	13.38	.0033	110.31	-.0022	-24.65	238.51
IMPC	11	3788.75	3800.00	4	9	32.6	4.71	.0044	-25.45	-.0000	394283.0	2.06	29.18	-.0003	184.87	.0045	-24.65	238.51

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	1	18	23.892	6557.914	17.8317	305.0779	10.98236	2.5587	117.0861	140.4073
SEPARATION		1.20	12.45	1	18	25.092	6616.436	14.6200	311.0699	10.93311	5.9598	118.8468	146.7001
RETRO		3.20	14.45	1	18	27.092	6813.631	9.1281	320.3191	10.77248	11.4140	120.8600	156.4507
IMPACT		3788.75	3800.00	4	9	32.639	397428.613	-24.6495	238.5139	2.19788	67.2905	263.1219	303.6225

SURVEYOR VIEW PERIODS

GHA	281.5578					EPS	18.8776					LOM	234.7298
SX	.5024886	SY	-.757188	SZ	-.417101	DAD	-24.65167	RAD	303.57961	RM	398702.922	LAT	28.310600
LON	279.461800	C3	-.954813	ECC	.984257	SLR	12986.305	RCA	6544.6650	LTA	-20.0000	GTA	20.00
TB	675.00000	POL	-.0	NSX	.520200	NSY	-.747177	NSZ	-.413666	C3M	1.4965	VIM	2.6713
ZAE	140.799	B.T	.0000	B.R	-.0000	LATE	6.1280	LONE	3.1694	LATS	1.2148	LONS	344.9493
LATI	1.0082	LONI	324.2122	RSM	152.4682	TTAN	5.9267						
LAUNCH DATE	JUL 1 1966			BASE AZM	111.0		TF 63.206				ARRIVAL DATE	JUL 4 1966	9 47 33.6

LNCH AZMTH	LNCH TIME	Pg	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
111.00	18 18 43.5	28.1	16.76	304.49	6.39	141.34	119.18	18 29 58.5	6564.9	10.98	3.17

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	1	18	30.0												
SEPARATION		1.20	12.45	1	18	31.2												
RETRO		3.20	14.45	1	18	33.2												
RISE	72	4.39	15.64	1	18	34.4	85.67	-.1417	28.56	-.0370	2931.6	-7.74	-.00	.1267	298.86	-.0171	4.28	324.15
EXTM	72	9.77	21.02	1	18	39.7	14.27	-.2303	-10.19	-.1470	1869.5	3.18	75.73	.2039	259.69	-.7192	-8.47	342.47
RISE	51	11.10	22.35	1	18	41.1	84.35	-.0750	11.53	-.0477	5716.5	-2.72	.00	.0870	282.83	-.0102	-10.94	346.16
EXTM	51	41.03	52.28	1	19	11.0	2.13	-.0163	-33.40	-.0034	11748.9	5.23	82.12	-.0000	193.09	-.1024	-30.71	26.34
EXTM	72	71.26	82.51	1	19	41.2	294.50	-.0000	-35.71	.0002	23736.1	4.74	24.45	.0000	125.74	-.0003	-33.05	36.46
EXTM	51	91.09	102.34	1	20	1.1	346.71	-.0002	-34.96	.0003	26123.9	4.33	75.31	.0000	132.03	-.0012	-33.27	38.18
RISE	61	143.63	154.88	1	20	53.6	314.95	.0024	-39.86	.0007	44569.7	3.63	-.00	.0016	147.10	.0012	-32.89	35.57
EXTM	51	205.15	216.40	1	21	55.1	.82	.0031	-32.96	.0003	51776.4	3.35	82.74	.0000	185.44	.0208	-32.17	26.96
EXTM	61	389.85	401.10	2	0	59.8	5.70	.0038	-34.32	.0003	89138.9	2.68	15.25	.0000	184.87	.0033	-30.46	350.41
EXTM	72	416.46	427.71	2	1	26.4	1.17	.0040	-31.83	.0002	89383.3	2.62	66.05	.0000	182.45	.0083	-30.28	344.59
RISE	11	590.31	601.56	2	4	20.3	295.46	.0040	-31.35	.0000	120591.9	2.02	.00	.0026	129.55	.0023	-29.28	305.14
SET	51	609.21	620.46	2	4	39.2	90.00	.0038	-28.09	.0001	121890.8	2.62	11.80	-.0032	244.32	-.0012	-29.19	300.74
SET	61	616.51	627.76	2	4	46.5	58.91	.0039	-31.40	.0002	124181.6	2.49	-.00	-.0021	226.96	.0027	-29.16	299.04
SET	72	806.45	817.70	2	7	56.4	94.25	.0039	-28.04	.0001	148657.1	2.43	-.01	-.0034	241.67	-.0004	-28.40	254.18
RISE	42	816.41	827.66	2	8	6.4	254.99	.0040	-26.89	-.0000	149416.2	1.72	4.14	.0028	120.27	-.0022	-28.36	251.80
EXTM	11	858.66	869.91	2	8	48.6	1.51	.0042	-30.36	.0001	152366.9	1.99	24.41	.0000	181.43	.0039	-28.22	241.70
SET	11	1123.91	1135.16	2	13	13.9	67.19	.0041	-28.79	.0001	184983.2	2.08	-.00	-.0026	233.89	.0024	-27.48	177.64
EXTM	42	1241.19	1252.44	2	15	11.2	359.90	.0042	-26.95	.0000	191110.9	1.72	81.73	.0000	.64	-.0254	-27.21	149.08
RISE	51	1376.77	1388.02	2	17	26.7	270.00	.0041	-26.27	-.0000	209760.9	1.28	11.08	.0034	113.97	-.0015	-26.93	115.94
RISE	72	1532.11	1543.36	2	20	2.1	266.04	.0041	-26.42	-.0000	225960.8	1.17	-.01	.0036	116.69	-.0005	-26.65	77.84
RISE	61	1611.95	1623.20	2	21	21.9	296.34	.0042	-27.67	-.0000	233404.4	1.26	.00	.0025	127.46	.0027	-26.52	58.22
SET	42	1664.34	1675.59	2	22	14.3	105.00	.0041	-25.51	.0001	237836.2	1.84	3.30	-.0029	240.84	-.0022	-26.44	45.33
EXTI	51	1728.46	1739.71	2	23	18.4	358.10	.0042	-26.35	.0000	237695.8	1.48	88.18	.0036	110.21	.0388	-26.34	29.54
EXTM	61	1867.77	1879.02	3	1	37.7	.57	.0042	-27.46	.0000	253823.7	1.44	22.30	.0000	180.55	.0040	-26.14	355.19
EXTM	72	1907.00	1918.25	3	2	17.0	.17	.0042	-26.54	.0000	253630.5	1.43	71.37	-.0000	180.48	.0118	-26.09	345.51
RISE	11	2046.08	2057.33	3	4	36.1	290.86	.0042	-26.78	-.0000	271319.8	1.07	.00	.0028	123.47	.0024	-25.91	311.15
SET	51	2095.16	2106.41	3	5	25.1	90.00	.0041	-25.33	.0001	274184.5	1.74	10.71	-.0034	246.90	-.0015	-25.85	299.01
SET	61	2123.40	2134.65	3	5	53.4	64.73	.0042	-26.77	.0001	277675.3	1.64	-.00	-.0025	233.84	.0027	-25.81	292.03
SET	72	2280.02	2291.27	3	8	30.0	93.79	.0041	-25.45	.0001	290230.3	1.72	-.01	-.0037	244.29	-.0005	-25.63	253.26
RISE	42	2281.54	2292.79	3	8	31.5	255.00	.0041	-24.87	-.0000	290026.6	.99	2.90	.0030	118.66	-.0023	-25.63	252.88
EXTM	11	2322.35	2333.60	3	9	12.3	.39	.0042	-26.48	.0000	290565.6	1.30	28.11	-.0000	180.39	.0043	-25.59	242.77
SET	11	2598.44	2609.69	3	13	48.4	69.82	.0042	-26.06	.0000	314552.3	1.55	-.00	-.0028	237.48	.0024	-25.31	174.32
EXTM	42	2700.33	2711.58	3	15	30.3	359.95	.0042	-25.01	.0000	315817.4	1.21	79.79	.0000	.28	-.0199	-25.21	149.03
RISE	51	2830.96	2842.21	3	17	40.9	270.00	.0041	-24.67	-.0000	330255.6	.81	10.44	.0035	112.48	-.0015	-25.10	116.59
RISE	72	2985.51	2996.76	3	20	15.5	266.32	.0041	-24.81	-.0000	342233.0	.74	-.00	.0037	115.07	-.0006	-24.97	78.19
RISE	61	3054.76	3066.01	3	21	24.7	294.00	.0042	-25.67	-.0000	347140.4	.82	.00	.0026	124.58	.0027	-24.92	60.94
SET	42	3119.06	3130.31	3	22	29.0	105.00	.0041	-24.25	.0000	351126.9	1.44	2.53	-.0030	241.83	-.0023	-24.88	44.88
EXTM	51	3185.30	3196.55	3	23	35.3	359.34	.0042	-24.83	.0000	349463.6	1.10	88.91	.0021	33.71	-.1694	-24.85	28.34
EXTM	61	3316.49	3327.74	4	1	46.5	.20	.0042	-25.70	.0000	361799.2	1.09	24.06	-.0000	180.19	.0042	-24.79	355.56
EXTM	72	3356.19	3367.44	4	2	26.2	.04	.0042	-25.96	.0000	360937.8	1.09	72.84	.0000	180.13	.0116	-24.77	345.63
RISE	11	3487.42	3498.67	4	4	37.4	289.51	.0042	-25.33	-.0000	375557.3	.77	.00	.0029	121.58	.0024	-24.71	312.81
SET	51	3544.05	3555.30	4	5	34.0	90.00	.0042	-24.71	.0000	378140.5	1.48	10.30	-.0035	247.86	-.0015	-24.69	298.64
SET	61	3578.02	3589.27	4	6	8.0	66.36	.0042	-25.36	.0000	381526.8	1.40	-.00	-.0026	235.87	.0027	-24.67	290.13
RISE	42	3725.29	3736.54	4	8	35.3	255.00	.0042	-24.06	-.0000	391410.4	.90	2.41	.0030	118.02	-.0023	-24.63	253.17
SET	72	3725.75	3737.00	4	8	35.7	93.63	.0042	-24.49	.0000	391712.0	1.66	-.00	-.0038	245.26	-.0005	-24.63	253.06
EXTM	11	3744.96	3756.21	4	9	14.9	359.99	.0043	-25.43	.0000	391661.0	1.41	29.36	.0000	179.99	.0039	-24.63	243.16
IMPACT		3792.38	3803.63	4	9	42.4												
IMPC	42	3792.38	3803.63	4	9	42.4	271.99	.0043	-24.16	-.0000	395733.1	1.67	15.19	.0034	109.12	-.0021	-24.63	236.17
IMPC	11	3792.38	3803.63	4	9	42.4	7.09	.0044	-25.43	-.0000	394322.4	2.07	28.99	-.0005	187.32	.0045	-24.63	236.17

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION		.00	11.25	1	18	29.976	6565.074	16.7563	304.4980	10.97626	3.1701	119.1787	141.3924
SEPARATION		1.20	12.45	1	18	31.176	6631.793	13.3497	310.3071	10.92021	6.5555	120.7680	147.4623
RETRO		3.20	14.45	1	18	33.176	6841.705	7.6018	319.2699	10.75001	11.9781	122.4947	156.9265
IMPACT		3792.38	3803.63	4	9	42.357	397449.656	-24.6358	236.1675	2.19656	67.2265	263.7781	303.7125

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SURVEYOR VIEW PERIODS

GHA	281.5578					EPS	18.9722						LOM	231.7654	
SX	.504260	SY	-.756311	SZ	-.416792	DAO	-24.63224	RAO	303.69280	RM	398728.227	LAT	28.310600	LON	279.461800
C3	-.964527	ECC	.984163	SLR	12985.690	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.521805	NSY	-.746230	NSZ	-.413353	C3M	1.4965	VIM	2.6713	ZAE	140.594	B.T	.0000	B.R	-.0000
LATE	6.1329	LONE	3.2746	LATS	1.2149	LONS	344.9577	LATI	.5393	LONI	324.1834	RSM	152.4680	TTAN	5.9301

LAUNCH DATE JUL 1 1966 BASE AZM 115.0 TF 63.304 ARRIVAL DATE JUL 4 1966 9 59 50.2

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
115.00	18 25 23.2	28.1	15.37	303.64	7.70	142.16	121.96	18 36 38.2	6574.1	10.97	3.82

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	FLE	DEL	AZI	DAZ	LAT	LONG
							PRORE IN SUNLIGHT											
INJECTION		.00	11.25	1	18	36.6												
SEPARATION		1.20	12.45	1	18	37.8												
RETRO		3.20	14.45	1	18	39.8												
RISE	72	4.37	15.62	1	18	41.0	86.73	-.1282	22.39	-.0601	3014.2	-7.41	-.00	.1261	292.62	-.0418	2.20	322.42
EXTM	72	10.85	22.10	1	18	47.5	10.18	-.1925	-27.33	-.0920	2298.7	4.82	68.32	-.0000	205.15	-.5257	-13.05	343.19
RISE	51	11.19	22.44	1	18	47.8	86.56	-.0696	7.09	-.0510	5851.7	-2.45	.00	.0845	277.87	-.0156	-13.68	344.10
EXTM	51	44.77	56.02	1	19	21.4	1.87	-.0140	-37.46	-.0016	13036.1	5.15	78.17	-.0000	187.25	-.0548	-33.62	26.48
EXTM	72	71.51	82.76	1	19	48.2	295.98	-.0001	-38.17	.0006	23799.9	4.73	25.22	.0000	128.63	-.0006	-35.05	34.88
EXTM	51	88.01	99.26	1	20	4.6	348.62	-.0007	-37.32	.0005	25385.1	4.37	74.92	.0000	142.9[illegible]	-.0028	-35.09	36.55
RISE	61	151.07	162.32	1	21	7.7	317.45	.0026	-41.04	.0007	46299.9	3.56	-.00	.0016	149.34	.0013	-34.23	33.42
EXTM	51	199.98	211.23	1	21	56.6	1.33	.0031	-34.42	.0003	50791.5	3.38	81.25	-.0000	187.22	.0167	-33.45	26.52
EXTM	61	386.97	398.22	2	1	3.6	6.42	.0038	-35.21	.0003	88794.7	2.69	14.33	.0000	185.41	.0033	-31.31	349.74
EXTM	72	411.59	422.84	2	1	28.2	1.42	.0040	-32.73	.0002	88676.7	2.63	65.14	.0000	182.85	.0080	-31.11	344.36
RISE	11	587.66	598.91	2	4	24.3	296.17	.0040	-32.00	.0001	120231.7	2.02	.00	.0025	130.44	.0023	-29.91	304.42
SET	51	603.31	614.56	2	4	39.9	90.00	.0038	-28.73	.0002	121061.3	2.62	12.05	-.0031	243.72	-.0012	-29.83	300.78
SET	61	606.61	617.86	2	4	43.2	57.95	.0039	-32.09	.0002	122837.2	2.50	-.00	-.0020	225.90	.0027	-29.81	300.01
SET	72	800.99	812.24	2	7	57.6	94.34	.0039	-28.54	.0001	147976.7	2.43	-.01	-.0034	241.16	-.0004	-28.90	254.12
RISE	42	810.77	822.02	2	8	7.4	254.99	.0040	-27.39	-.0000	148682.0	1.73	4.44	.0028	120.66	-.0021	-28.86	251.78
EXTM	11	853.62	864.87	2	8	50.3	1.69	.0042	-30.86	.0001	151798.0	2.00	23.92	.0000	181.58	.0039	-28.70	241.53
SET	11	1116.49	1127.74	2	13	13.1	66.80	.0041	-29.17	.0001	184149.6	2.08	-.00	-.0026	233.37	.0024	-27.85	178.03
EXTM	42	1235.44	1246.69	2	15	12.1	359.92	.0042	-27.29	.0000	190466.6	1.72	82.07	-.0000	.55	-.0263	-27.54	149.06
RISE	51	1370.95	1382.20	2	17	27.6	270.00	.0041	-26.57	-.0000	209116.3	1.28	11.20	.0034	114.25	-.0015	-27.23	115.93
RISE	72	1526.06	1537.31	2	20	2.7	265.99	.0041	-26.67	-.0000	225319.8	1.17	-.01	.0036	116.95	-.0005	-26.91	77.88
RISE	61	1607.24	1618.49	2	21	23.9	296.63	.0042	-27.91	.0000	232891.4	1.26	.00	.0025	127.82	.0027	-26.76	57.92
SET	42	1658.39	1669.64	2	22	15.0	105.00	.0041	-25 73	.0001	237196.2	1.84	3.43	-.0029	240.66	-.0022	-26.67	45.34
EXTM	51	1723.31	1734.56	2	23	19.9	358.30	.0042	-26.58	.0000	237145.4	1.48	88.26	.0033	119.05	.0580	-26.55	29.35
EXTM	61	1862.02	1873.27	3	1	38.7	.63	.0042	-27.65	.0000	253245.5	1.44	22.11	.0000	180.60	.0040	-26.33	355.13
EXTM	72	1901.08	1912.33	3	2	17.7	.19	.0042	-26.73	.0000	253024.8	1.43	71.18	-.0000	180.52	.0116	-26.27	349.49
RISE	11	2040.71	2051.96	3	4	37.4	291.02	.0042	-26.95	-.0000	270755.8	1.07	.00	.0028	123.68	.0024	-26.07	310.99
SET	51	2089.12	2100.37	3	5	25.8	90.00	.0041	-25.49	.0001	273558.6	1.74	10.77	-.0034	246.76	-.0015	-26.00	299.02
SET	61	2116.42	2127.67	3	5	53.3	64.55	.0042	-26.92	.0001	276996.6	1.64	-.00	-.0025	233.62	.0027	-25.97	292.21
SET	72	2274.04	2285.29	3	8	30.7	93.82	.0041	-25.58	.0001	289616.4	1.72	-.01	-.0037	244.16	-.0005	-25.76	253.24
RISE	42	2275.50	2286.75	3	8	32.1	255.00	.0041	-24.99	-.0000	289399.4	.99	2.98	.0030	118.76	-.0023	-25.76	252.88
EXTM	11	2316.43	2327.68	3	9	13.1	.42	.0042	-26.81	.0000	289969.2	1.30	27.98	-.0000	180.43	.0043	-25.71	242.74
SET	11	2591.97	2603.22	3	13	48.6	69.73	.0042	-26.15	.0000	313898.2	1.55	-.00	-.0028	237.36	.0024	-25.40	174.41
EXTM	42	2694.18	2705.43	3	15	30.8	359.94	.0042	-25.09	.0000	315183.0	1.21	79.87	.0000	.30	-.0204	-25.29	149.04
RISE	51	2824.82	2836.07	3	17	41.5	270.00	.0041	-24.73	-.0000	329617.0	.81	10.47	.0035	112.53	-.0015	-25.16	116.59
RISE	72	2979.32	2990.57	3	20	16.0	266.31	.0041	-24.86	-.0000	341587.7	.74	-.00	.0037	115.12	-.0006	-25.02	78.20
RISE	61	3048.89	3060.14	3	21	25.5	294.04	.0042	-25.71	-.0000	346563.5	.82	.00	.0026	124.63	.0027	-24.95	60.90
SET	42	3112.99	3124.24	3	22	29.6	105.00	.0041	-24.28	.0000	350526.1	1.44	2.54	-.0030	241.81	-.0023	-24.91	44.89
EXTM	51	3179.31	3190.56	3	23	35.9	359.36	.0042	-24.86	.0000	348860.0	1.09	88.95	.0021	33.62	-.1749	-24.88	28.32
EXTM	61	3310.46	3321.71	4	1	47.1	.72	.0042	-25.72	.0000	361173.3	1.09	24.04	-.0000	180.21	.0042	-24.80	355.54
EXTM	72	3350.10	3361.35	4	2	26.7	.04	.0042	-25.08	.0000	360298.5	1.09	72.83	.0000	180.14	.0120	-24.78	345.63
RISE	11	3481.32	3492.57	4	4	38.0	289.52	.0042	-25.34	-.0000	374886.4	.77	.00	.0029	121.59	.0024	-24.71	318.81
SET	51	3537.90	3549.15	4	5	34.5	90.00	.0042	-24.31	.0000	377448.9	1.48	10.30	-.0035	247.86	-.0015	-24.69	298.64
SET	61	3571.86	3583.11	4	6	8.5	66.35	.0042	-25.36	.0000	380821.9	1.40	-.00	-.0026	235.87	.0027	-24.67	290.13
RISE	42	3719.17	3730.42	4	8	35.8	255.00	.0042	-24.05	-.0000	390590.9	.87	2.40	.0030	118.01	-.0023	-24.62	253.17
SET	72	3719.61	3730.86	4	8	36.2	93.63	.0042	-24.48	.0000	390889.3	1.63	-.00	-.0038	245.27	-.0005	-24.62	253.06
EXTM	11	3759.13	3770.38	4	9	15.8	.05	.0043	-25.42	.0000	390750.1	1.33	29.37	.0000	180.06	.0044	-24.61	243.10
IMPACT		3798.22	3809.47	4	9	54.9												
IMPC	42	3798.22	3809.47	4	9	54.9	275.01	.0043	-24.16	-.0000	395515.3	1.66	17.53	.0034	107.61	-.0021	-24.62	233.15
IMPC	11	3798.22	3809.47	4	9	54.9	10.15	.0044	-25.41	-.0000	394388.6	2.08	28.62	-.0007	190.45	.0044	-24.62	233.15

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION		.00	11.25	1	18	36.637	6574.457	15.3590	303.6583	10.96826	3.8212	121.9662	142.1826
SEPARATION		1.20	12.45	1	18	37.837	6649.738	11.7007	309.2227	10.90508	7.1923	123.3409	148.0479
RETRO		3.20	14.45	1	18	39.837	6873.064	5.6138	317.8166	10.72499	12.5747	124.7147	157.1431
IMPACT		3798.22	3809.47	4	9	54.8	3974[illegible]0.539	-24.6162	233.1493	2.19313	66.9157	264.6169	303.8288

SURVEYOR VIEW PERIODS

GMA	282.5434					EPS	29.9002					LOM	2.3 7583		
SX	.6/2279	SY	-.619776	SZ	-.372442	DAO	-21.86754	RAO	316.41906	RM	401403.695	LAT	28.310600	LON	279.461800
CB	-.940254	HCC	.984562	SLP	12988.298	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.684954	NSY	-.622023	NSZ	-.367337	C3M	1.4933	VIM	2.6707	ZAE	141.523	B.T	.0000	B.R	-.0000
LATE	6.5522	LONE	2.2935	LATS	1.2317	LONS	352.8267	LATI	3.8052	LONI	323.7077	RSM	152.4393	TTAN	5.1036
LAUNCH DATE	JUL	2,1966		BASE AZM	96.0		TF 63.725					ARRIVAL DATE	JUL 5 1966		9 38 53.1

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
96.00	17 40 30.4	27.3	22.55	306.23	-13.92	134.48	108.38	17 51 45.4	6641.4	10.91	-6.90

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
					PROBE IN SUNLIGHT												
INJECTION	.00	11.25	2	17	51.8												
SEPARATION	1.20	12.45	2	17	53.0												
RETRO	3.20	14.45	2	17	55.0												
RISE 72	5.95	17.20	2	17	57.7	74.95	-.3321	61.87	.1093	2191.7	-7.41	-.00	.1179	332.92	.1502	9.01	337.06
EXTM 72	10.32	21.57	2	18	2.1	310.87	-.1355	23.46	-.2408	1765.3	5.20	32.58	.0000	55.29	.3215	-1.29	355.08
RISE 51	11.57	22.82	2	18	3.3	71.52	-.1191	30.46	-.0339	4431.5	-4.79	.00	.1058	304.25	.0225	-3.86	359.47
EXTM 51	25.86	36.91	2	18	17.4	352.50	-.0467	-14.23	-.0264	5691.4	5.48	76.52	.0000	32.86	.2246	-20.35	31.36
RISE 42	67.91	79.16	2	18	59.7	104.76	-.0354	-19.84	-.0026	24246.1	4.30	.00	.0056	245.45	.0011	-28.35	57.41
EXTM 72	68.30	79.55	2	19	.1	271.42	-.0001	-27.76	-.0005	23800.0	4.91	5.10	.0000	117.37	.0005	-28.36	57.49
EXTM 51	83.35	94.60	2	19	15.1	320.02	-.0000	-28.24	-.0003	23928.6	4.53	54.44	.0000	103.23	.0005	-28.69	59.43
ENTER SHA	85.23	96.48	2	19	17.0												
ENTR 42	85.23	96.48	2	19	17.0	100.68	-.0027	-21.82	-.0014	28703.7	4.26	4.23	.0028	246.17	.0004	-28.71	59.56
ENTR 72	85.23	96.48	2	19	17.0	272.16	.0010	-28.14	-.0003	28551.9	4.47	5.61	.0009	117.70	.0002	-28.71	59.56
ENTR 51	85.23	96.48	2	19	17.0	320.02	.0001	-28.27	-.0003	24439.7	4.49	54.45	.0001	103.28	.0004	-28.71	59.56
EXTM 42	123.77	135.02	2	19	55.5	98.46	.0003	-23.60	-.0004	38314.7	4.04	6.94	-.0000	245.94	-.0005	-28.70	59.05
EXIT SHA	185.56	196.81	2	20	57.3												
EXIT 42	185.56	196.81	2	20	57.3	103.45	.0021	-24.15	-.0000	52599.0	3.68	3.59	-.0015	242.77	-.0012	-28.17	51.71
EXIT 72	185.56	196.81	2	20	57.3	286.57	.0032	-28.46	.0000	51031.4	3.23	18.29	.0028	117.44	.0000	-28.17	51.71
EXIT 51	185.56	196.81	2	20	57.3	332.78	.0031	-28.17	.0001	47504.4	3.38	65.66	.0027	101.89	-.0003	-28.17	51.71
EXIT 61	185.56	196.81	2	20	57.3	298.85	.0030	-33.46	.0004	53300.8	3.29	-2.73	.0020	132.92	.0016	-28.17	51.71
SET 42	197.46	208.71	2	21	9.2	105.00	.0023	-24.16	.0000	55205.1	3.62	2.47	-.0016	241.90	-.0013	-28.06	49.84
RISE 61	208.42	219.67	2	21	20.2	303.17	.0032	-32.49	.0003	57718.6	3.15	.00	.0020	135.34	.0019	-27.96	48.03
EXTM 51	315.64	326.89	2	23	7.4	.07	.0037	-27.20	.0001	71696.0	2.90	88.53	-.0000	182.38	.1257	-27.08	27.62
EXTM 61	477.26	488.51	3	1	49.0	3.46	.0040	-29.41	.0002	101701.1	2.50	20.28	.0000	183.22	.0037	-26.12	352.47
EXTM 72	509.67	520.92	3	2	21.4	.60	.0041	-27.07	.0001	102834.8	2.44	70.83	-.0000	181.62	.0110	-25.97	345.11
RISE 11	663.04	674.29	3	4	54.8	291.25	.0040	-27.18	.0000	130044.4	1.91	.00	.0027	123.99	.0023	-25.35	309.54
SET 51	701.95	713.20	3	5	33.7	90.00	.0039	-24.16	.0001	134020.6	2.52	10.24	-.0033	247.95	-.0014	-25.21	300.37
SET 61	731.74	742.99	3	6	3.5	64.42	.0040	-27.03	.0001	138984.7	2.39	.00	-.0023	233.46	.0027	-25.11	293.32
SET 72	894.04	905.29	3	8	45.8	93.60	.0040	-24.32	.0001	158900.6	2.37	-.01	-.0036	243.43	-.0004	-24.65	254.57
RISE 42	904.68	915.93	3	8	56.4	254.99	.0040	-23.23	-.0000	159943.2	1.64	1.90	.0029	117.37	-.0022	-24.62	252.01
EXTM 11	945.83	957.08	3	9	37.6	1.09	.0042	-26.46	.0001	161953.0	1.92	28.32	-.0000	181.11	.0042	-24.52	242.10
SET 11	1226.31	1237.56	3	14	18.1	70.68	.0041	-25.12	.0001	195631.2	2.04	-.00	-.0028	238.70	.0024	-23.92	174.04
EXTM 42	1328.53	1339.78	3	16	.3	359.90	.0042	-23.38	.0000	199936.6	1.67	78.16	.0000	.44	-.0184	-23.74	149.08
RISE 51	1463.33	1474.58	3	18	15.1	270.00	.0041	-22.87	-.0000	218279.4	1.23	9.71	.0035	110.81	-.0015	-23.53	116.05
RISE 72	1620.70	1631.95	3	20	55.5	266.60	.0041	-23.08	-.0000	234207.9	1.12	-.01	.0037	113.32	-.0035	-23.31	77.39
RISE 61	1682.77	1694.02	3	21	54.5	292.47	.0041	-24.31	-.0000	239893.9	1.22	.00	.0027	122.63	.0027	-23.22	62.11
SET 42	1751.22	1762.47	3	23	3.0	105.00	.0041	-22.23	.0000	245915.8	1.82	1.29	-.0030	243.42	-.0023	-23.14	45.25
EXTM 51	1822.39	1833.64	4	0	14.1	359.98	.0042	-22.98	.0000	246069.9	1.46	87.24	.0000	.48	-.0602	-23.05	27.70
EXTM 61	1953.63	1964.88	4	2	25.4	.45	.0042	-24.15	.0000	260953.3	1.42	25.61	-.0000	180.46	.0042	-22.90	355.31
EXTM 72	1992.95	2004.20	4	3	4.7	.08	.0042	-23.22	.0000	260939.8	1.40	74.68	.0000	180.28	.0144	-22.86	345.59
RISE 11	2120.24	2131.49	4	5	12.0	287.92	.0042	-23.56	-.0000	277597.0	1.04	.00	.0030	119.29	.0024	-22.73	314.12
SET 51	2181.57	2192.82	4	6	13.3	90.00	.0041	-22.15	.0000	281546.9	1.73	9.42	-.0035	249.86	-.0015	-22.67	298.95
SET 61	2224.37	2235.62	4	6	56.1	68.38	.0041	-23.53	.0000	286034.7	1.63	-.00	-.0027	238.47	.0027	-22.63	288.35
SET 72	2364.22	2375.47	4	9	16.0	93.27	.0041	-22.32	.0000	297081.8	1.72	-.01	-.0038	247.45	-.0005	-22.50	253.71
RISE 42	2367.37	2378.62	4	9	19.1	255.00	.0041	-21.75	-.0000	297216.4	.96	.99	.0030	116.19	-.0023	-22.50	252.93
EXTM 11	2408.03	2419.28	4	9	59.8	.30	.0042	-23.50	.0000	297187.0	1.29	31.29	-.0000	180.33	.0045	-22.46	242.85
SET 11	2695.75	2707.00	4	14	47.5	72.63	.0042	-22.94	.0000	322090.1	1.55	-.00	-.0030	241.51	.0024	-22.23	171.48
EXTM 42	2786.22	2797.47	4	16	18.0	359.96	.0042	-21.90	.0000	322509.9	1.20	76.68	-.0000	.17	-.0146	-22.16	149.02
RISE 51	2916.56	2927.81	4	18	28.3	270.00	.0041	-21.63	-.0000	336903.2	.79	9.21	.0035	109.66	-.0016	-22.06	116.64
RISE 72	3073.07	3084.32	4	21	4.8	266.02	.0042	-21.80	-.0000	348990.1	.69	.00	.0038	112.02	-.0006	-21.96	77.74
RISE 61	3127.04	3138.29	4	21	58.8	290.89	.0042	-22.46	-.0000	352572.8	.80	.00	.0028	120.31	.0027	-21.94	64.26
SET 42	3204.78	3216.03	4	23	18.5	105.00	.0041	-21.28	.0000	357627.7	1.44	.71	-.0031	244.17	-.0024	-21.91	44.85
EXTM 51	3273.48	3284.73	5	0	25.2	.00	.0042	-21.82	.0000	359914.5	1.10	86.08	-.0000	359.77	-.0038	-21.89	27.68
EXTM 61	3401.77	3413.02	5	2	33.5	.13	.0042	-22.73	.0000	367721.8	1.09	27.04	-.0000	180.13	.0044	-21.85	359.63
EXTM 72	3441.65	3452.90	5	3	13.4	.02	.0042	-22.08	.0000	367075.6	1.09	75.53	.0000	180.09	.0111	-21.84	345.65
RISE 11	3542.49	3553.74	5	5	14.2	286.92	.0042	-22.41	-.0000	381118.5	.76	.00	.0030	117.81	.0024	-21.81	315.42
SET 51	3429.67	3440.92	5	6	21.4	90.00	.0042	-21.42	.0000	384560.2	1.51	9.12	-.0036	250.54	-.0016	-21.80	298.60
SET 61	3676.20	3687.45	5	7	8.0	69.53	.0042	-22.45	.0000	388707.4	1.45	-.00	-.0028	239.98	.0027	-21.79	286.94
SET 72	3809.12	3820.37	5	9	20.9	93.16	.0042	-21.68	.0000	398609.7	1.99	.00	-.0039	248.10	-.0006	-21.82	253.48
RISE 42	3810.22	3821.47	5	9	22.0	255.00	.0042	-21.26	-.0000	398636.4	1.23	.69	.0031	115.81	-.0024	-21.82	253.20
IMPACT	3823.47	3834.72	5	9	35.2												
IMPC 42	3823.47	3834.72	5	9	35.2	258.38	.0043	-21.29	-.0001	399737.0	1.68	3.22	.0032	113.92	-.0024	-21.83	249.81
IMPC 72	3823.47	3834.72	5	9	35.2	96.83	.0043	-21.48	-.0000	400468.0	2.47	-3.36	-.0039	247.56	-.0007	-21.83	249.81
IMPC 11	3823.47	3834.72	5	9	35.2	353.24	.0044	-22.40	-.0000	396747.3	1.99	31.83	.0004	172.66	.0047	-21.83	249.81

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION	.00	11.25	2	17	51.756	6645.233	22.5894	306.0896	10.91321	-6.9049	108.3232	134.3487
SEPARATION	1.20	12.45	2	17	52.956	6569.753	20.2577	312.8092	10.97291	-3.5290	110.8956	141.3691
RETRO	3.20	14.45	2	17	54.956	6554.298	15.8079	323.4933	10.98593	2.1888	114.3708	152.5546
ENTER SHA	85.23	96.48	2	19	16 991	29857.917	-28.7127	59.5619	5.07541	61.6933	92.1107	269.1882
EXIT SHA	185.56	196.81	2	20	57.314	52378.084	-28.1691	51.7065	3.74097	68.8796	83.8256	286.4823
IMPACT	3823.47	3834.72	5	9	35.230	4001?4.965	-21.8330	249.8134	2.20026	67.5953	255.4229	316.5572

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SURVEYOR VIEW PERIODS

GHA	282.7414					EPS	30.0106							LOM	245.2718
SX	.673834	SY	-.638449	SZ	-.371924	RAO	-21.83458	RAD	316.54456	RM	401427.965	LAT	28.310600	LON	279.461800
C3	-.934444	ECC	.984521	SLR	129986.688	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.688451	NSY	-.629489	NSZ	-.366804	CRM	1.4972	VIM	2.6714	ZAE	141.567	B.T	.0000	B.R	-.0000
LATE	6.5550	LONE	2.2444	LATS	1.2318	LONS	339.7046	LATI	3.6471	LONI	323.7556	RSM	152.4390	TTAN	5.0901
LAUNCH DATE	JUL	2.1944		BASE AZM	99.0		TF 63.675					ARRIVAL DATE	JUL 5 1966	9 53 17.6	

LNCH AZMTH	LNCH TIME		FA	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
99.00	17 56	4.3	27.5	21.36	306.02	-10.43	138.18	110.58	18 7 19.3	6598.7	10.95	-5.27

EVNT STA	TFI	TFL	DAY HR MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PROBE IN SUNLIGHT												
INJECTION	.00	11.25	2 18 7.3												
SEPARATION	1.20	12.45	2 18 8.5												
RETRO	3.20	14.45	2 18 10.5												
RISE 72	5.55	16.80	2 18 12.9	79.22	-.2459	53.40	.0752	2267.9	-8.09	.00	.1253	324.15	.1070	8.01	334.24
EXTM 72	9.47	20.72	2 18 16.8	331.86	-.2680	29.22	-.2956	1419.	3.21	43.58	.0669	35.66	.5101	-1.42	350.30
RISE 51	11.36	22.61	2 18 18.7	76.24	-.1086	26.26	-.0383	4604.9	-4.56	-.00	.1038	299.41	.0137	-5.34	356.07
EXTM 51	28.71	37.96	2 18 34.0	355.81	-.0429	-18.37	-.0208	6188.8	5.47	81.67	-.0000	28.60	.3156	-22.12	29.80
EXTM 72	68.80	79.85	2 19 15.9	275.24	-.0000	-28.92	-.0003	23719.6	4.88	8.37	.0000	118.23	.0003	-29.03	54.01
RISE 42	80.13	91.38	2 19 27.5	105.00	-.0032	-21.79	-.0016	27817.4	4.28	1.02	.0033	243.78	.0006	-29.25	55.59
EXTM 51	84.91	96.16	2 19 32.2	324.35	.0000	-29.24	-.0001	24325.9	4.49	58.30	.0000	104.55	.0002	-29.30	53.97
ENTER SHA	85.81	97.06	2 19 33.1												
ENTR 42	85.81	97.06	2 19 33.1	104.02	-.0025	-22.27	-.0013	29273.1	4.26	2.03	.0026	243.95	.0004	-29.30	56.02
ENTR 72	85.81	97.06	2 19 33.1	275.83	.0011	-29.15	-.0001	28525.5	4.45	8.91	.0009	118.42	.0007	-29.30	56.02
ENTR 51	85.81	97.06	2 19 33.1	324.35	.0001	-29.24	-.0001	24567.2	4.47	58.31	.0001	104.56	.0002	-29.30	56.02
EXTM 42	123.35	134.60	2 20 10.7	101.98	.0003	-23.91	-.0004	38628.7	4.04	4.52	-.0000	243.78	-.0005	-29.18	55.47
SET 42	168.22	179.47	2 20 55.5	104.99	-.0017	-24.38	-.0001	49126.5	3.77	2.61	-.0012	241.73	-.0010	-28.73	50.59
EXIT SHA	179.66	190.91	2 21 7.0												
EXIT 42	179.66	190.91	2 21 7.0	106.27	.0020	-24.40	-.0000	51691.5	3.71	1.71	-.0014	240.99	-.0011	-28.61	48.96
EXIT 72	179.66	190.91	2 21 7.0	289.25	.0031	-29.09	.0001	49682.5	3.27	20.62	.0027	118.18	.0001	-28.61	48.96
EXIT 51	179.66	190.91	2 21 7.0	335.79	.0030	-28.74	.0001	46293.8	3.43	65.30	.0027	103.43	-.0001	-28.61	48.96
EXIT 61	179.66	190.91	2 21 7.0	301.62	.0030	-34.04	.0004	52072.1	3.33	-1.72	.0019	135.09	.0016	-28.61	48.96
RISE 61	194.57	205.82	2 21 21.7	304.33	.0031	-33.68	.0004	54970.9	3.24	-.00	.0019	136.59	.0018	-28.46	46.69
EXTM 51	291.05	302.30	2 22 58.4	358.61	.0037	-27.72	.0002	47472.8	2.98	87.66	.0019	148.18	.0650	-27.55	28.96
EXTM 61	442.25	453.50	3 1 49.6	3.79	.0040	-29.77	.0002	99577.8	2.53	19.90	.0000	183.49	.0037	-26.41	352.17
EXTM 72	493.70	504.95	3 2 21.0	.46	.0041	-27.38	.0001	100600.4	2.47	70.51	-.0000	181.75	.0108	-26.24	345.06
RISE 11	648.41	659.66	3 4 55.7	291.48	.0040	-27.42	.0000	128196.3	1.93	.00	.0027	124.31	.0023	-25.55	309.28
SET 51	686.08	697.33	3 5 33.4	90.00	.0039	-24.55	.0001	132044.3	2.54	10.31	-.0033	247.82	-.0013	-25.41	300.42
SET 61	714.79	726.04	3 6 2.1	64.14	.0040	-27.26	.0001	136910.8	2.41	.01	-.0023	233.12	.0027	-25.31	293.63
SET 72	878.56	889.81	3 8 46.9	93.43	.0040	-24.47	.0001	157167.7	2.38	-.01	-.0036	245.28	-.0004	-24.80	254.57
RISE 42	889.34	900.59	3 8 57.7	254.99	.0040	-23.47	-.0000	158225.0	1.65	1.98	.0029	117.48	-.0022	-24.77	251.98
EXTM 11	93[illegible]	941.93	3 9 38.0	1.15	.0042	-26.63	.0001	160315.8	1.94	28.15	-.0000	181.17	.0042	-24.66	242.04
SET 11	1[illegible]	1221.80	3 14 17.9	70.58	.0041	-25.24	.0001	194095.8	2.05	-.00	-.0028	238.55	.0024	-24.03	174.16
EXTM 42	1[illegible]	1324.51	3 16 .6	359.90	.0042	-23.47	.0000	198506.1	1.68	78.25	.0000	.47	-.0185	-23.84	149.08
RISE 51	1[illegible]	1459.40	3 18 15.5	270.00	.0041	-22.95	-.0000	216922.6	1.24	9.74	.0035	110.88	-.0015	-23.61	116.04
RISE 72	1605.[illegible]	1616.75	3 20 52.8	266.59	.0041	-23.15	-.0000	232921.1	1.13	-.01	.0037	113.38	-.0005	-23.37	77 39
RISE 61	1667.90	1679.15	3 21 55.2	292.54	.0041	-24.37	-.0000	238662.3	1.23	.00	.0027	122.72	.0027	-23.28	62.03
SET 42	1736.01	1747.26	3 23 3.3	105.00	.0041	-22.28	.0000	244676.7	1.83	1.32	-.0030	243.38	-.0023	-23.19	45.26
EXTM 51	1807.21	1818.46	4 0 14.5	359.98	.0042	-23.03	.0000	244863.7	1.47	87.29	.0000	.51	-.0620	-23.10	27.70
EXTM 61	1938.55	1949.80	4 2 25.9	.47	.0042	-24.20	.0000	259806.6	1.42	25.56	-.0000	180.48	.0042	-22.94	355.29
EXTM 72	1977.80	1989.05	4 3 5.1	.08	.0042	-23.26	.0000	259798.0	1.41	74.64	.0000	180.39	.0144	-22.90	345.59
RISE 11	2105.23	2116.48	4 5 12.5	287.95	.0042	-23.59	-.0000	276506.4	1.04	.00	.0030	119.33	.0024	-22.76	314.09
SET 51	2166.39	2177.64	4 6 13.7	90.00	.0041	-22.18	.0000	280461.0	1.74	9.44	-.0035	249.83	-.0015	-22.70	298.95
SET 61	2209.07	2220.32	4 6 56.4	64.35	.0041	-23.56	.0000	284953.0	1.64	-.00	-.0027	238.43	.0027	-22.65	288.39
SET 72	2349.06	2360.31	4 9 16.4	93.28	.0041	-22.34	.0000	296053.3	1.72	-.01	-.0038	247.43	-.0005	-22.52	253.71
RISE 42	2352.23	2363.48	4 9 19.6	255.00	.0041	-21.76	-.0000	296189.4	.97	1.00	.0030	116.21	-.0023	-22.52	252.93
EXTM 11	2392.93	2404.18	4 10 .3	.32	.0042	-23.52	.0000	296177.7	1.29	31.27	-.0000	180.34	.0045	-22.48	242.84
SET 11	2680.56	2691.81	4 14 47.9	72.62	.0042	-22.95	.0000	321150.2	1.55	-.00	-.0030	241.50	.0024	-22.23	171.49
EXTM 42	2771.07	2782.32	4 16 18.4	359.96	.0042	-21.90	.0000	321595.7	1.20	76.68	-.0000	.17	-.0148	-22.16	149.02
RISE 51	2901.43	2912.68	4 18 28.8	270.00	.0041	-21.63	-.0000	336027.6	.79	9.21	.0035	109.65	-.0016	-22.06	116.63
RISE 72	3057.94	3069.19	4 21 5.3	266.82	.0042	-21.80	-.0000	348151.9	.69	.00	.0038	112.02	-.0006	-21.95	77.73
RISE 61	3111.87	3123.12	4 21 59.2	290.68	.0042	-22.66	-.0000	351739.3	.80	.00	.0028	120.30	.0027	-21.93	64.27
SET 42	3189.63	3200.88	4 23 16.9	105.00	.0041	-22.27	.0000	356805.9	1.44	.70	-.0031	244.18	-.0024	-21.99	44.85
EXTM 51	3258.34	3269.59	5 0 25.7	.00	.0042	-21.80	.0000	355100.6	1.10	86.07	-.0000	359.75	-.0017	-21.87	27.69
EXTM 61	3386.66	3397.91	5 2 34.0	.14	.0042	-22.71	.0000	366920.7	1.09	27.05	-.0000	180.14	.0044	-21.83	355.62
EXTM 72	3426.51	3437.76	5 3 13.8	.02	.0042	-22.06	.0000	366276.6	1.09	75.84	.0000	180.10	.0112	-21.82	345.65
RISE 11	3547.29	3558.54	5 5 14.6	286.90	.0042	-22.39	-.0000	380317.6	.76	.00	.0030	117.79	.0024	-21.79	313.44
SET 51	3614.53	3625.78	5 6 21.9	90.00	.0042	-21.39	.0000	383757.2	1.50	9.11	-.0036	250.56	-.0016	-21.78	298.61
SET 61	3661.17	3672.42	5 7 8.5	69.56	.0042	-22.43	.0000	387898.5	1.44	-.00	-.0028	240.01	.0027	-21.77	286.92
SET 72	3794.11	3805.36	5 9 21.4	93.16	.0042	-21.45	.0000	397564.0	1.85	-.00	-.0039	248.13	-.0006	-21.78	253.49
RISE 42	3795.25	3806.50	5 9 22.6	255.00	.0042	-21.22	-.0000	397587.4	1.08	.67	.0031	115.78	-.0024	-21.78	253.26
IMPACT	3820.52	3831.77	5 9 47.8												
IMPC 42	3820.52	3831.77	5 9 47.8	201.43	.0043	-21.28	-.0001	399505.4	1.67	5.49	.0033	112.23	-.0023	-21.80	246.76
IMPC 11	3820.52	3831.77	5 9 47.8	356.34	.0044	-22.58	-.0000	396742.2	2.01	32.11	.0002	176.01	.0048	-21.86	246.76

EVNT STA	TFI	TFL	DAY HR MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	.25	2 18 7.322	6599.923	21.3824	305.9650	10.94885	-5.1726	110.5623	138.1262
SEPARATION	1.20	12.43	2 18 8.522	6558.920	18.8129	312.5161	10.98895	-1.7643	112.9215	144.9781
RETRO	3.20	14.45	2 18 10.522	6574.120	14.0268	322.9413	10.96771	3.9134	116.0215	155.9046
ENTER SHA	85.81	97.06	2 19 33.131	30178.333	-29.3021	56.0242	5.04776	61.8134	91.2787	269.6966
EXIT SHA	179.66	190.91	2 21 6.982	52278.787	-28.6114	48.9566	3.78358	68.6643	83.2675	286.1559
IMPACT	3820.52	3831.77	5 9 47.840	400165.778	-21.0044	246.7620	2.20115	67.6124	255.6922	316.6671

SURVEYOR VIEW PERIODS

GHA	282.5434					EPS	30.1602							LOM	240.5619
SX	.475930	SY	-.636653	SZ	-.371204	DAO	-21.78991	RAO	316.71397	RM	401460.641	LAT	28.310600	LON	279.461800
CS	-.941163	ECC	.984547	SLR	12988.200	RCA	6544.6650	LTA	-28.0000	GTA	20.00	TB	675.00000	PCL	-.0
NSX	.690543	NSY	-.623821	NSZ	-.366056	CSM	1.4936	VIM	2.6707	ZAE	141.489	E.T	.0000	B.R	-.0000
LATE	6.5587	LONE	2.2302	LATS	1.2320	LONS	332.5401	LATI	3.4729	LONI	323.6848	PSM	152.4385	TTAN	5.0823
LAUNCH DATE	JUL	2,1966		BASE AZM	102.0		TF 63.756					ARRIVAL DATE	JUL 5 1966	10 12 45.4	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	18 9 32.7	27.6	20.20	305.72	-7.47	141.26	112.75	18 20 47.7	6572.3	10.97	-3.70

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	2	18	20.8												
SEPARATION	1.20	12.45	2	18	22.0												
RETRO	3.20	14.45	2	18	24.0												
RISE 72	5.26	16.51	2	18	26.1	81.72	-.2028	46.05	.0415	2347.3	-8.45	.00	.1297	316.63	.0686	6.87	331.85
EXTM 72	9.10	20.35	2	18	29.9	349.28	-.3568	25.27	-.2895	1275.3	2.00	55.22	.1698	17.15	.6993	-2.56	347.32
RISE 51	11.23	22.48	2	18	32.0	78.61	-.1001	22.27	-.0424	4764.2	-4.33	.00	.1017	294.88	.0061	-6.95	354.92
EXTM 51	27.91	39.16	2	18	48.7	358.36	-.0394	-22.39	-.0161	6721.6	5.46	86.33	.0000	24.49	.6227	-24.02	28.54
EXTM 72	68.89	80.14	2	19	29.7	278.35	-.0000	-30.23	-.0001	23661.4	4.86	11.16	.0000	119.39	.0001	-29.88	51.01
ENTER SHA	87.67	98.92	2	19	48.5												
ENTR 42	87.67	98.92	2	19	48.5	106.69	-.0023	-23.01	-.0011	30082.4	4.25	.54	.0023	241.85	.0004	-30.06	53.06
ENTR 72	87.67	98.92	2	19	48.5	279.07	.0012	-30.28	.0000	28866.5	4.40	11.79	.0010	119.41	-.0001	-30.06	53.06
ENTR 51	87.67	98.92	2	19	48.5	328.08	.0001	-30.37	.0001	25053.1	4.43	61.55	.0001	106.75	-.0001	-30.06	53.06
EXIT SHA	171.67	182.92	2	21	12.5												
EXIT 42	171.67	182.92	2	21	12.5	108.36	.0018	-24.80	-.0000	50220.3	3.74	.48	-.0013	239.50	-.0011	-29.22	47.03
EXIT 72	171.67	182.92	2	21	12.5	290.97	.0031	-29.86	.0001	47931.9	3.34	22.08	.0027	119.08	.0001	-29.22	47.03
EXIT 51	171.67	182.92	2	21	12.5	337.84	.0029	-29.49	.0002	44635.9	3.49	70.05	.0025	105.86	.0001	-29.22	47.03
EXIT 61	171.67	182.92	2	21	12.5	303.45	.0029	-34.90	.0005	50429.7	3.39	-1.40	.0019	136.81	.0015	-29.22	47.03
RISE 61	183.92	195.17	2	21	24.7	305.65	.0030	-34.56	.0005	52891.1	3.31	-.00	.0019	137.99	.0017	-29.07	45.24
EXTM 51	282.60	293.85	2	23	3.4	.15	.0036	-28.23	.0002	66037.7	3.01	87.50	.0000	183.09	.0732	-28.01	27.55
EXTM 61	449.86	461 17	3	1	50.7	4.15	.0039	-30.19	.0002	97797.0	2.56	19.47	.0000	183.80	.0036	-26.76	351.83
EXTM 72	480.16	491.41	3	2	20.9	.71	.0040	-27.76	.0001	98660.5	2.49	70.13	.0000	181.85	.0105	-26.58	348.01
RISE 11	636.37	647.62	3	4	57.2	291.75	.0040	-27.71	.0000	126627.0	1.94	.00	.0027	124.69	.0023	-25.81	308.97
SET 51	672.60	683.85	3	5	33.4	90.00	.0039	-24.59	.0001	130306.8	2.55	10.41	-.0033	247.60	-.0013	-25.66	300.46
SET 61	700.06	711.31	3	6	.9	63.82	.0040	-27.54	.0002	135046.6	2.42	-.00	-.0023	232.72	.0027	-25.56	293.98
SET 72	865.47	876.72	3	8	46.3	93.66	.0040	-24.66	.0001	155634.1	2.39	-.01	-.0036	245.09	-.0004	-24.99	254.57
EXTM 11	917.92	929.17	3	9	38.7	1.23	.0042	-26.83	.0001	158872.1	1.95	27.95	-.0000	181.25	.0042	-24.84	241.96
SET 11	1197.00	1208.25	3	14	17.8	70.44	.0041	-25.38	.0001	192678.1	2.06	-.00	-.0028	238.36	.0024	-24.16	174.30
EXTM 42	1300.41	1311.66	3	16	1.2	359.92	.0042	-23.59	.0000	197197.1	1.69	78.37	-.0000	.37	-.0184	-23.95	149.06
RISE 51	1435.27	1446.52	3	18	16.1	270.00	.0041	-23.04	-.0000	215650.4	1.24	9.78	.0035	110.97	-.0015	-23.71	116.03
RISE 72	1592.58	1603.83	3	20	53.4	266.58	.0041	-23.23	-.0000	231691.2	1.14	-.01	.0037	113.46	-.0005	-23.45	77.39
RISE 61	1655.39	1666.64	3	21	56.2	292.63	.0041	-24.45	-.0000	237484.5	1.23	.00	.0027	122.84	.0027	-23.36	61.94
SET 42	1723.08	1734.33	3	23	3.9	105.00	.0041	-22.35	.0000	243471.7	1.83	1.36	-.0030	243.33	-.0023	-23.26	45.27
EXTM 51	1794.31	1805.56	4	0	15.1	359.98	.0042	-23.10	.0000	243680.2	1.47	87.36	.0000	.56	-.0644	-23.17	27.71
EXTM 61	1925.76	1937.01	4	2	26.6	.50	.0042	-24.26	.0000	258663.1	1.43	25.50	-.0000	180.50	.0042	-23.00	355.26
EXTM 72	1964.94	1976.19	4	3	5.7	.09	.0042	-23.32	.0000	258650.5	1.41	74.59	.0000	180.31	.0143	-22.95	345.58
RISE 11	2092.52	2103.77	4	5	13.3	287.99	.0042	-23.64	-.0000	275390.1	1.04	.00	.0030	119.39	.0024	-22.80	314.04
SET 51	2153.49	2164.74	4	6	14.3	90.00	.0041	-22.21	.0000	279335.7	1.74	9.45	-.0035	249.80	-.0015	-22.73	298.96
SET 61	2196.01	2207.26	4	6	56.8	68.31	.0041	-23.60	.0000	283822.4	1.64	-.00	-.0027	238.37	.0027	-22.69	288.43
SET 72	2336.17	2347.42	4	9	17.0	93.28	.0041	-22.36	.0000	294954.4	1.72	-.01	-.0038	247.41	-.0005	-22.54	253.72
RISE 42	2339.37	2350.62	4	9	20.2	255.00	.0041	-21.78	-.0000	295091.1	.97	1.01	.0030	116.22	-.0023	-22.54	252.92
EXTM 11	2380.12	2391.37	4	10	.9	.33	.0042	-23.55	.0000	295091.8	1.29	31.24	-.0000	180.36	.0045	-22.50	242.83
SET 11	2667.63	2678.88	4	14	48.4	72.61	.0042	-22.96	.0000	320081.3	1.55	-.00	-.0030	241.49	.0024	-22.24	171.50
EXTM 42	2758.18	2769.43	4	16	19.0	359.96	.0042	-21.91	.0000	320536.8	1.20	76.69	-.0000	.18	-.0153	-22.16	149.02
RISE 51	2888.56	2899.81	4	18	29.4	270.00	.0041	-21.62	-.0000	334974.6	.79	9.21	.0035	109.65	-.0016	-22.06	116.63
RISE 72	3045.05	3056.30	4	21	5.8	266.81	.0041	-21.79	-.0000	346900.2	.72	-.01	.0038	112.01	-.0006	-21.94	77.73
RISE 61	3098.97	3110.22	4	21	59.8	290.67	.0042	-22.64	-.0000	350711.5	.80	.00	.0028	120.29	.0027	-21.91	64.28
SET 42	3176.76	3188.01	4	23	17.6	105.00	.0041	-21.25	.0000	355776.1	1.44	.69	-.0031	244.20	-.0024	-21.88	44.85
EXTM 51	3245.47	3256.72	5	0	26.3	360.00	.0042	-21.78	.0000	354064.4	1.10	86.05	-.0000	.19	-.0011	-21.85	27.69
EXTM 61	3373.84	3385.09	5	2	34.6	.15	.0042	-22.69	.0000	365870.4	1.09	27.07	-.0000	180.15	.0044	-21.81	355.61
EXTM 72	3413.66	3424.91	5	3	14.5	.02	.0042	-22.04	.0000	365219.8	1.09	75.87	.0000	180.11	.0119	-21.80	345.65
RISE 11	3534.36	3545.61	5	5	15.2	286.88	.0042	-22.36	-.0000	379229.1	.76	.00	.0030	117.75	.0024	-21.76	315.46
SET 51	3601.69	3612.94	5	6	22.5	90.00	.0042	-21.36	.0000	382651.6	1.50	9.10	-.0036	250.59	-.0016	-21.74	298.61
SET 61	3618.48	3629.73	5	7	9.3	69.59	.0042	-22.40	.0000	386775.6	1.43	-.00	-.0028	240.06	.0027	-21.73	286.89
SET 72	3781.39	3792.64	5	9	22.2	93.16	.0042	-21.60	.0000	396176.0	1.74	-.00	-.0039	248.18	-.0006	-21.73	253.50
RISE 42	3782.57	3793.82	5	9	23.4	255.00	.0042	-21.17	-.0000	396198.2	.97	.64	.0031	115.74	-.0024	-21.73	253.20
EXTM 11	3821.62	3832.87	5	10	2.4	359.86	.0043	-22.53	-.0000	396332.9	1.83	32.26	-.0000	179.84	.0047	-21.76	243.29
IMPACT	3825.37	3836.62	5	10	6.2												
IMPC 42	3825.37	3836.62	5	10	6.2	269.85	.0043	-21.25	-.0001	399167.6	1.67	8.86	.0033	109.82	-.0023	-21.76	242.33
IMPC 11	3825.37	3836.62	5	10	6.2	.83	.0044	-22.53	-.0000	396761.5	2.04	32.25	-.0001	180.91	.0048	-21.76	242.33

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	2	18	20.795	6572.631	20.2050	305.6977	10.97082	-3.7043	112.7461	141.2363
SEPARATION	1.20	12.45	2	18	21.995	6544.821	17.4040	312.0890	10.99390	-.2821	114.9065	147.9284
RETRO	3.20	14.45	2	18	23.995	6603.982	12.3059	322.2362	10.94417	5.4169	117.6466	158.5770
ENTER SHA	87.67	98.92	2	19	48.461	30808.646	-30.0631	53.0649	4.99349	62.1148	90.0685	270.5804
EXIT SHA	171.67	182.92	2	21	12.462	50675.407	-29.2220	47.0340	3.84584	68.3340	82.6039	285.6072
IMPACT	3825.37	3836.62	5	10	6.160	400198.238	-21.7627	242.3294	2.19886	67.5150	256.0348	316.8269

* An additional line of data should appear here. See Errata

GHA	282.5434					EPS	30.2376						LOM	238.1198	
SX	.677014	SY	-.635719	SZ	-.370828	DAO	-21.76669	RAD	316.80175	RM	401477.539	LAT	28.310600	LON	279.461800
C3	-.938669	ECC	.98458A	SLR	12988.468	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.691589	NSY	-.622879	NSZ	-.365686	C3M	1.4971	VIM	2.6714	ZAE	141.499	B.T	.0000	B.R	-.0000
LATE	6.5406	LONE	2.3509	LATS	1.2321	LONS	332.5824	LATI	3.2410	LONI	323.8412	RSM	152.4382	TTAN	5.0734
LAUNCH DATE	JUL	2,1966		BASE AZM	105.0	TF	63.722					ARRIVAL DATE	JUL 5 1966 10 22 50.9		

LNCH AZMTH	LNCH TIME	P8	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	18 21 2.7	27.8	19.05	305.33	-4.95	143.75	114.90	18 32 17.7	6556.8	10.98	-2.46

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PRORE IN SUNLIGHT											
INJECTION	.00	11.25	2	18	32.3												
SEPARATION	1.20	12.45	2	18	33.5												
RETRO	3.20	14.45	2	18	35.5												
RISE 72	5.04	16.29	2	18	37.3	83.43	-.1763	39.50	.0106	2427.8	-8.59	-.00	.1319	309.96	.0347	5.61	329.77
EXTM 72	9.51	20.76	2	18	41.8	351.83	-.3099	7.01	-.2429	1320.9	3.59	73.00	.0648	28.86	1.3224	-5.37	347.07
RISE 51	11.14	22.39	2	18	43.4	80.74	-.0929	18.46	-.0461	4912.9	-4.08	.00	.0995	290.58	-.0006	-8.67	352.37
EXTM 51	29.17	40.42	2	19	1.5	.40	-.0364	-26.23	-.0123	7272.0	5.44	89.40	.0094	216.16	-3.1853	-26.00	27.47
EXTM 72	69.40	80.65	2	19	41.7	281.04	.0000	-31.67	.0001	23697.5	4.84	13.51	.0000	120.78	-.0001	-30.90	48.46
ENTER SHA	91.84	103.09	2	20	4.1												
ENTR 42	91.84	103.09	2	20	4.1	108.72	-.0018	-24.02	-.0009	31410.7	4.23	-.27	.0019	239.89	.0003	-30.94	50.60
ENTR 72	91.84	103.09	2	20	4.1	282.07	.0014	-31.49	.0002	29834.6	4.31	14.39	.0012	120.59	-.0002	-30.94	50.60
ENTR 51	91.84	103.09	2	20	4.1	331.33	.0003	-31.57	.0003	26158.6	4.35	64.25	.0003	109.77	-.0005	-30.94	50.60
EXIT SHA	161.19	172.44	2	21	13.5												
EXIT 42	161.19	172.44	2	21	13.5	109.84	.0016	-25.34	-.0000	48107.6	3.80	-.22	-.0011	238.23	-.0009	-30.01	45.84
EXIT 72	161.19	172.44	2	21	13.5	291.81	.0030	-30.79	.0002	45680.6	3.42	22.74	.0026	120.14	.0000	-30.01	45.84
EXIT 51	161.19	172.44	2	21	13.5	339.05	.0027	-30.43	.0003	42432.5	3.57	70.96	.0024	109.07	.0004	-30.01	45.84
EXIT 61	161.19	172.44	2	21	13.5	304.43	.0028	-36.00	.0006	48278.0	3.47	-1.76	.0019	138.12	.0014	-30.01	45.84
RISE 61	176.67	187.92	2	21	29.0	307.11	.0030	-35.49	.0005	51445.6	3.35	-.00	.0019	139.51	.0016	-29.79	43.69
EXTM 51	269.58	280.83	2	23	1.9	.24	.0036	-29.92	.0002	63752.1	3.06	86.82	.0000	183.75	.0563	-28.63	27.47
EXTM 61	439.60	450.85	3	1	51.9	4.54	.0039	-30.67	.0002	95344.9	2.58	18.96	.0000	184.13	.0036	-27.18	351.46
EXTM 72	468.83	480.08	3	2	21.1	.82	.0040	-28.22	.0001	97051.0	2.51	69.67	.0000	182.08	.0102	-26.98	344.91
RISE 11	626.46	637.71	3	4	58.8	292.09	.0040	-28.05	.0000	125360.0	1.96	.00	.0027	125.14	.0023	-26.13	308.61
SET 51	661.04	672.29	3	5	33.3	90.00	.0039	-24.89	.0001	128835.4	2.57	10.53	-.0033	247.31	-.0013	-25.97	300.50
SET 61	686.87	698.12	3	5	59.2	63.41	.0040	-27.88	.0002	133399.5	2.43	-.00	-.0023	232.23	.0027	-25.86	294.41
SET 72	854.28	865.53	3	8	46.6	93.70	.0040	-24.90	.0001	154363.9	2.40	-.01	-.0036	244.84	-.0004	-25.24	254.55
RISE 42	865.17	876.42	3	8	57.5	254.99	.0040	-23.78	-.0000	155420.9	1.67	2.23	.0029	117.80	-.0022	-25.20	251.94
EXTM 11	907.04	918.29	3	9	39.3	1.32	.0042	-27.08	.0001	157694.6	1.96	27.70	-.0000	181.33	.0042	-25.07	241.88
SET 11	1185.11	1196.36	3	14	17.4	70.29	.0041	-25.56	.0001	191502.6	2.06	-.00	-.0028	238.12	.0024	-24.33	174.48
EXTM 42	1289.18	1300.43	3	16	1.5	359.90	.0042	-23.75	.0000	196130.4	1.70	78.53	-.0000	.47	-.0189	-24.11	149.08
RISE 51	1424.17	1435.42	3	18	16.5	270.00	.0041	-23.18	-.0000	214642.6	1.25	9.84	.0035	111.09	-.0015	-23.84	116.02
RISE 72	1581.40	1592.65	3	20	53.7	266.56	.0041	-23.34	-.0000	230733.1	1.14	-.01	.0037	113.58	-.0005	-23.57	77.40
RISE 61	1644.79	1656.04	3	21	57.1	292.76	.0041	-24.57	.0000	236598.3	1.23	.00	.0027	123.00	.0027	-23.47	61.81
SET 42	1711.93	1723.18	3	23	4.2	105.00	.0041	-22.45	.0001	242547.2	1.84	1.42	-.0030	243.25	-.0023	-23.37	45.27
EXTM 51	1783.17	1794.42	4	0	15.5	359.98	.0042	-23.20	.0000	242783.4	1.48	87.46	.0000	.63	-.0685	-23.26	27.71
EXTM 61	1914.73	1925.98	4	2	27.0	.53	.0042	-24.35	.0000	257820.1	1.43	25.41	-.0000	180.53	.0042	-23.08	355.24
EXTM 72	1953.83	1965.08	4	3	6.1	.10	.0042	-23.40	.0000	257803.7	1.42	74.50	.0000	180.33	.0143	-23.03	345.58
RISE 11	2081.65	2092.90	4	5	13.9	288.05	.0042	-23.71	-.0000	274591.5	1.05	.00	.0030	119.48	.0024	-22.87	313.98
SET 51	2142.33	2153.58	4	6	14.6	90.00	.0041	-22.98	.0000	278524.2	1.74	9.48	-.0035	249.74	-.0015	-22.80	298.96
SET 61	2184.57	2195.82	4	6	56.9	68.24	.0042	-23.66	.0000	283000.6	1.64	-.00	-.0027	238.28	.0027	-22.75	288.51
SET 72	2325.04	2336.29	4	9	17.3	93.29	.0041	-22.42	.0001	294188.1	1.73	-.01	-.0038	247.36	-.0005	-22.60	253.71
RISE 42	2328.23	2339.48	4	9	20.5	255.00	.0041	-21.83	-.0000	294321.8	.97	1.04	.0030	116.26	-.0023	-22.59	252.92
EXTM 11	2369.04	2380.29	4	10	1.3	.35	.0042	-23.60	.0000	294343.9	1.30	31.19	-.0000	180.38	.0045	-22.55	242.81
SET 11	2656.35	2667.60	4	14	48.6	72.58	.0042	-22.99	.0000	319369.7	1.56	-.00	-.0030	241.45	.0024	-22.27	171.53
EXTM 42	2747.01	2758.26	4	16	19.3	359.96	.0042	-21.93	.0000	319850.4	1.21	76.71	-.0000	.18	-.0152	-22.19	149.02
RISE 51	2877.40	2888.65	4	18	29.7	270.00	.0041	-21.64	-.0000	334312.0	.79	9.21	.0035	109.67	-.0016	-22.08	116.63
RISE 72	3033.87	3045.12	4	21	6.2	266.81	.0041	-21.80	-.0000	346264.7	.73	-.01	.0038	112.02	-.0006	-21.95	77.73
RISE 61	3087.92	3099.17	4	22	.2	290.67	.0042	-22.64	-.0000	350149.8	.80	.00	.0028	120.29	.0027	-21.91	64.28
SET 42	3165.68	3176.93	4	23	18.0	105.00	.0041	-21.25	.0000	355216.4	1.44	.68	-.0031	244.20	-.0024	-21.88	44.85
EXTM 51	3234.39	3245.64	5	0	26.7	360.00	.0042	-21.78	.0000	353506.8	1.10	86.04	-.0000	.20	-.0032	-21.85	27.69
EXTM 61	3362.76	3374.01	5	2	35.1	.15	.0042	-22.68	.0000	365315.8	1.09	27.08	-.0000	180.16	.0044	-21.80	355.60
EXTM 72	3402.56	3413.81	5	3	14.9	.02	.0042	-22.93	.0000	364663.8	1.09	75.88	.0000	180.11	.0124	-21.79	345.65
RISE 11	3523.20	3534.45	5	5	15.5	286.87	.0042	-22.35	-.0000	378665.5	.76	.00	.0030	117.74	.0024	-21.76	315.47
SET 51	3590.55	3601.80	5	6	22.8	90.00	.0042	-21.35	.0000	382082.7	1.49	9.09	-.0036	250.61	-.0016	-21.73	298.61
SET 61	3637.40	3648.65	5	7	9.7	69.61	.0042	-22.38	.0000	386200.8	1.43	-.00	-.0028	240.08	.0027	-21.72	286.87
SET 72	3770.26	3781.51	5	9	22.6	93.15	.0042	-21.58	.0000	395499.4	1.71	-.00	-.0039	248.20	-.0006	-21.71	253.90
RISE 42	3771.47	3782.72	5	9	23.8	255.00	.0042	-21.15	-.0000	395522.3	.94	.62	.0031	115.72	-.0024	-21.71	253.20
EXTM 11	3810.59	3821.84	5	10	2.9	359.85	.0043	-22.50	-.0000	395449.0	1.58	32.29	-.0000	179.84	.0047	-21.73	243.30
IMPACT	3823.31	3834.56	5	10	15.6												
IMPC 42	3823.31	3834.56	5	10	15.6	268.13	.0043	-21.24	-.0001	398994.2	1.66	10.61	.0034	108.60	-.0022	-21.74	240.05
IMPC 11	3823.31	3834.56	5	10	15.6	3.15	.0044	-22.51	-.0000	396784.7	2.05	32.20	-.0002	183.44	.0048	-21.74	240.05

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	2	18	32.296	6556.867	19.0564	305.3229	10.98401	-2.4564	114.8945	143.7446
SEPARATION	1.20	12.45	2	18	33.496	6546.575	16.8311	311.5542	10.99253	.9756	116.8662	150.2767
RETRO	3.20	14.45	2	18	35.496	6634.189	10.6391	321.4138	10.91914	6.6449	119.2647	169.6377
ENTER SHA	91.84	103.09	2	20	4.133	32021.100	-30.9383	50.6000	4.89465	62.6720	88.3685	272.0441
EXIT SHA	161.19	172.44	2	21	13.489	48503.738	-30.0130	45.8357	3.93666	67.8625	81.9474	284.6662
IMPACT	3823.31	3834.56	5	10	15.601	400216.742	-21.7414	240.0452	2.19822	67.3468	256.4592	316.9096

GHA	282.5434					EPS	30.3335						LOM	235.0954	
SX	.674854	SY	-.644562	SZ	-.370361	DAD	-21.73786	RAD	316.91042	RM	401498.422	LAT	28.310600	LON	279.461800
C3	-.94[illegible]668	RCC	.984656	SLR	12988.253	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.692919	NSY	-.621478	NSZ	-.365212	C3M	1.4769	VIM	2.6714	ZAE	141.434	B.T	.0000	B.R	-.0000
LATE	6.5629	LONE	.2144	LATS	1.2323	LONS	332.3488	LATI	2.9730	LONI	323.6706	RSM	152.4379	TTAN	5.0685
LAUNCH DATE	JUL	2, 1966		BASE AZM	108.0		TF	63.760				ARRIVAL DATE	JUL	5 1966	10 35 20.8

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	18 36 57.4	27.9	17.94	304.86	-2.33	145.77	117.02	18 42 12.4	6548.6	10.99	-1.41

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	FLE	DEL	AZI	DAZ	LAT	LONG
			PROPR IN SUNLIGHT														
INJECTION	.00	11.25	2	18	42.2												
SEPARATION	1.20	12.45	2	18	43.4												
RETRO	3.20	14.45	2	18	45.4												
RISE 72	4.89	16.14	2	18	47.1	84.71	-.1578	33.54	-.0172	2506.6	-8.55	.00	.1326	303.91	.0048	4.25	327.95
EXTM 72	9.30	20.55	2	18	51.5	6.06	-.3339	-1.48	-.2273	1320.4	2.75	81.11	.3933	316.91	.5042	-6.79	344.62
RISE 51	11.11	22.36	2	18	53.3	82.69	-.0868	14.77	-.0495	5051.6	-3.83	.00	.0972	286.44	-.0066	-10.49	350.40
EXTM 51	30.75	42.00	2	19	13.0	1.48	-.0332	-30.04	-.0089	7917.3	5.43	85.51	-.0000	196.56	-.3842	-28.12	26.88
EXTM 72	69.73	80.98	2	19	51.9	283.30	.0000	-33.22	.0003	23705.2	4.82	15.43	.0000	122.37	-.0003	-32.03	46.26
EXTM 51	87.73	98.98	2	20	9.9	333.99	-.0001	-33.01	.0004	25096.1	4.42	66.27	.0000	113.96	-.0010	-31.98	48.21
ENTER SHA	99.88	111.13	2	20	22.1												
ENTR 42	99.88	111.13	2	20	22.1	110.17	-.0011	-25.96	-.0006	33642.9	4.18	-.50	.0012	238.10	.0002	-31.83	48.49
ENTR 72	99.88	111.13	2	20	22.1	285.65	.0017	-32.46	.0003	31782.5	4.16	16.91	.0014	121.82	-.0003	-31.83	48.49
ENTR 51	99.88	111.13	2	20	22.1	334.27	.0008	-32.71	.0004	28242.9	4.22	66.56	.0007	113.33	-.0007	-31.83	48.49
EXIT SHA	145.66	156.91	2	21	7.9												
EXIT 42	145.66	156.91	2	21	7.9	110.69	.0012	-25.99	-.0001	44721.2	3.89	-.39	-.0008	237.24	-.0007	-31.04	45.52
EXIT 72	145.66	156.91	2	21	7.9	291.40	.0026	-31.94	.0002	42322.3	3.57	22.30	.0024	121.36	-.0000	-31.04	45.52
EXIT 51	145.66	156.91	2	21	7.9	339.13	.0024	-31.66	.0003	39060.3	3.70	70.80	.0021	112.79	.0004	-31.04	45.52
EXIT 61	145.66	156.91	2	21	7.9	304.26	.0025	-37.47	.0007	45010.1	3.60	-2.98	.0018	138.94	.0011	-31.04	45.52
RISE 61	172.37	183.62	2	21	34.6	308.47	.0029	-36.44	.0006	50600.4	3.38	-.00	.0019	141.09	.0015	-30.58	42.12
EXTM 51	258.73	269.98	2	23	.9	.35	.0035	-29.69	.0002	61814.8	3.10	86.04	.0000	184.46	.0444	-29.32	27.37
EXTM 61	431.39	442.64	3	1	53.6	4.96	.0039	-31.20	.0002	95178.3	2.59	18.42	.0000	184.47	.0035	-27.65	351.07
EXTM 72	459.39	470.64	3	2	21.6	.93	.0040	-28.72	.0002	95690.9	2.53	69.17	.0000	182.30	.0099	-27.44	344.80
RISE 11	618.52	629.77	3	5	.7	292.46	.0045	-28.43	.0000	124322.7	1.97	.00	.0027	125.64	.0023	-26.48	308.22
SET 51	651.30	662.55	3	5	33.5	90.00	.0039	-25.23	.0001	127563.9	2.58	10.67	-.0033	247.00	-.0013	-26.32	300.53
SET 61	675.29	686.54	3	5	57.5	62.96	.0040	-28.25	.0002	131917.8	2.44	-.00	-.0022	231.68	.0027	-26.21	294.89
SET 72	844.89	856.14	3	8	47.1	93.75	.0039	-25.17	.0001	153263.5	2.41	-.01	-.0036	244.57	-.0004	-25.51	254.53
RISE 42	855.76	867.03	3	8	58.0	254.99	.0040	-24.04	-.0000	154307.5	1.68	2.39	.0029	118.01	-.0022	-25.47	251.92
EXTM 11	897.97	909.22	3	9	40.2	1.42	.0042	-27.46	.0001	156682.7	1.96	27.42	-.0000	181.42	.0042	-25.33	241.78
SET 11	1174.88	1186.13	3	14	17.1	70.09	.0041	-25.77	.0001	190438.9	2.07	-.00	-.0028	237.86	.0024	-24.53	174.68
EXTM 42	1279.67	1290.92	3	16	1.9	359.88	.0042	-23.43	.0000	195169.9	1.70	78.71	-.0000	.59	-.0193	-24.28	149.10
RISE 51	1414.80	1426.05	3	18	17.0	270.00	.0041	-23.33	-.0000	213726.2	1.25	9.90	.0034	111.23	-.0015	-24.00	116.01
RISE 72	1571.93	1583.18	3	20	54.1	266.54	.0041	-23.47	-.0000	229848.6	1.14	-.01	.0037	113.71	-.0005	-23.70	77.42
RISE 61	1635.96	1647.21	3	21	58.2	292.90	.0041	-24.70	.0000	235785.0	1.24	.00	.0027	123.18	.0027	-23.59	61.66
SET 42	1702.48	1713.73	3	23	4.7	105.00	.0041	-22.56	.0001	241682.4	1.84	1.49	-.0030	243.17	-.0023	-23.48	45.28
EXTM 51	1773.78	1785.03	4	0	16.0	359.99	.0042	-23.31	.0000	241943.8	1.48	87.57	-.0060	.48	-.0556	-23.37	27.70
EXTM 61	1905.42	1916.67	4	2	27.6	.56	.0042	-24.44	.0000	257018.1	1.43	25.32	-.0000	180.56	.0042	-23.17	355.20
EXTM 72	1944.42	1955.67	4	3	6.6	.10	.0042	-23.49	.0000	256992.0	1.42	74.41	.0000	180.36	.0142	-23.12	345.57
RISE 11	2072.50	2083.75	4	5	14.7	288.13	.0042	-23.79	-.0000	273816.5	1.05	.00	.0030	119.59	.0024	-22.95	313.90
SET 51	2132.86	2144.11	4	6	15.1	90.00	.0041	-22.45	.0001	277727.2	1.74	9.51	-.0035	249.68	-.0015	-22.87	298.97
SET 61	2174.79	2186.04	4	6	57.0	68.16	.0042	-23.73	.0001	282186.7	1.64	-.00	-.0027	238.18	.0027	-22.82	288.59
SET 72	2315.60	2326.85	4	9	17.8	93.30	.0041	-22.47	.0001	293418.0	1.73	-.01	-.0038	247.30	-.0005	-22.65	253.71
RISE 42	2318.78	2330.03	4	9	21.0	255.00	.0041	-21.89	-.0000	293547.7	.97	1.08	.0030	116.31	-.0023	-22.65	252.92
EXTM 11	2359.65	2370.90	4	10	1.9	.37	.0042	-23.46	.0000	293588.6	1.30	31.13	-.0000	180.40	.0045	-22.60	242.79
SET 11	2646.73	2657.98	4	14	48.9	72.55	.0042	-23.03	.0000	318618.9	1.56	-.00	-.0030	241.40	.0024	-22.30	171.57
EXTM 42	2737.52	2748.77	4	16	19.7	359.96	.0042	-21.96	.0000	319116.0	1.21	76.74	-.0000	.19	-.0154	-22.22	149.02
RISE 51	2867.91	2879.16	4	18	30.1	270.00	.0041	-21.66	-.0000	333587.9	.80	9.22	.0035	109.69	-.0016	-22.10	116.63
RISE 72	3024.37	3035.62	4	21	6.6	266.81	.0041	-21.81	-.0000	345551.4	.73	-.01	.0038	112.03	-.0006	-21.96	77.73
RISE 61	3078.47	3089.72	4	22	.7	290.68	.0042	-22.65	-.0000	349444.9	.80	.00	.0028	120.30	.0027	-21.92	64.26
SET 42	3156.17	3167.42	4	23	18.4	105.00	.0041	-21.25	.0000	354506.5	1.44	.69	-.0031	244.19	-.0024	-21.88	44.85
EXTM 51	3224.88	3236.13	5	0	27.1	360.00	.0042	-21.78	.0000	352796.2	1.10	86.04	-.0000	.23	-.0057	-21.85	27.69
EXTM 61	3353.31	3364.56	5	2	35.5	.17	.0042	-22.68	.0000	364604.3	1.09	27.08	-.0000	180.17	.0044	-21.80	355.59
EXTM 72	3393.07	3404.32	5	3	15.3	.03	.0042	-22.02	.0000	363947.4	1.09	75.88	.0000	180.11	.0137	-21.78	345.65
RISE 11	3513.67	3524.92	5	5	15.9	266.86	.0042	-22.34	-.0000	377935.7	.76	.00	.0030	117.73	.0024	-21.74	315.48
SET 51	3581.05	3592.30	5	6	23.3	90.00	.0042	-21.33	.0000	381344.0	1.49	9.09	-.0036	250.62	-.0016	-21.72	298.61
SET 61	3627.97	3639.22	5	7	10.2	69.62	.0042	-22.67	.0000	385453.8	1.42	-.00	-.0028	240.10	.0027	-21.70	286.86
SET 72	3760.82	3772.07	5	9	23.0	93.15	.0042	-21.55	.0000	394642.7	1.67	-.01	-.0039	248.23	-.0006	-21.69	253.51
RISE 42	3762.05	3773.30	5	9	24.3	255.00	.0042	-21.12	-.0000	394667.1	.90	.60	.0031	115.70	-.0024	-21.69	253.20
EXTM 11	3801.30	3812.55	5	10	3.5	359.86	.0043	-22.47	-.0000	394434.7	1.43	32.32	.0000	179.85	.0047	-21.69	243.29
IMPACT	3825.57	3836.82	5	10	27.8												
IMPC 42	3825.57	3836.82	5	10	27.8	271.08	.0043	-21.23	-.0001	398767.0	1.66	12.90	.0034	107.04	-.0022	-21.71	237.10
IMPC 11	3825.57	3836.82	5	10	27.8	6.14	.0044	-22.48	-.0000	396822.8	2.07	32.02	-.0004	186.69	.0047	-21.71	237.10

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	2	18	42.207	6548.646	17.9361	304.8632	10.99078	-1.4059	117.0201	145.7695
SEPARATION	1.20	12.45	2	18	43.407	6552.916	14.6937	310.9314	10.98708	2.0257	118.8117	152.1385
RETRO	3.20	14.45	2	18	45.407	6664.094	9.0225	320.4979	10.89433	7.6633	120.8882	162.2064
ENTER SHA	99.88	111.13	2	20	22.088	34186.396	-31.8302	46.4911	4.73062	63.5823	86.0067	274.4363
EXIT SHA	145.66	156.91	2	21	7.863	45129.885	-31.0385	45.5216	4.08950	67.0541	81.5649	282.9418
IMPACT	3825.57	3836.82	5	10	27.779	400237.383	-21.7140	237.0984	2.19738	67.3277	256.9746	317.0157

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SURVEYOR VIEW PERIODS

GHA	282.5434					EPS	30.4209							LOM	232.3376
SX	.679575	SY	-.633504	SZ	-.369934	DAO	-21.71152	RAO	317.0094	RM	401517.418	LAT	28.310600	LON	279.461800
C3	-.943222	ECC	.984513	SLR	12987.978	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.694135	NSY	-.620574	NSZ	-.364779	C3M	1.4967	VIM	2.6713	ZAE	141.347	B.T	.0000	B.R	-.0000
LATE	6.5650	LONE	2.3107	LATS	1.2324	LONS	332.3545	LATI	2.6788	LONI	323.7158	RSM	152.4376	TTAN	5.0657
LAUNCH DATE	JUL	2,1966		BASE AZM	111.0		TF 63.805					ARRIVAL DATE	JUL 5 1966 10 46 44.6		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	18 39 30.2	27.9	16.84	304.34	-1.04	147.38	119.13	18 50 45.2	6545.2	10.99	-.52

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
				PHORE IN SUNLIGHT													
INJECTION	.00	11.25	2	18	50.8												
SEPARATION	1.20	12.45	2	18	52.0												
RETRO	3.20	14.45	2	18	54.0												
RISE 72	4.79	16.04	2	18	55.5	85.77	-.1435	28.00	-.0419	2586.8	-8.37	-.00	.1317	298.29	-.0216	2.81	326.32
EXTM 72	9.27	20.52	2	19	.0	15.87	-.3223	-11.55	-.2056	1418.7	2.53	73.95	.2676	255.62	-.9594	-8.61	342.83
RISE 51	11.11	22.35	2	19	1.9	84.53	-.0814	11.18	-.0527	5183.5	-3.58	-.00	.0949	282.43	-.0119	-12.39	348.58
EXTM 51	32.45	43.70	2	19	23.2	2.12	-.0303	-33.64	-.0061	8598.2	5.42	81.89	-.0000	192.60	-.1841	-30.28	26.51
EXTM 72	69.95	81.20	2	20	.7	285.19	-.0000	-34.84	.0005	23707.1	4.81	16.95	.0000	124.10	-.0006	-33.28	44.37
EXTM 51	87.55	98.80	2	20	18.3	336.27	-.0002	-34.50	.0006	25077.1	4.41	67.76	.0000	118.84	-.0016	-33.11	46.32
RISE 61	170.58	181.83	2	21	41.3	310.29	.0029	-37.18	.0006	50278.6	3.40	.00	.0019	142.69	.0015	-31.41	40.55
EXTM 51	249.87	261.12	2	23	.6	.52	.0035	-30.54	.0003	60216.4	3.14	85.18	-.0000	185.37	.0358	-30.08	27.21
EXTM 61	424.87	436.12	3	1	55.6	5.41	.0039	-31.75	.0003	94263.6	2.61	17.83	.0000	184.83	.0035	-28.16	350.65
EXTM 72	451.60	462.85	3	2	22.3	1.06	.0040	-29.26	.0002	94564.2	2.55	68.62	.0000	182.54	.0096	-27.94	344.69
RISE 11	612.23	623.48	3	5	3.0	292.86	.0040	-28.84	.0001	123494.9	1.98	.00	.0027	126.18	.0023	-26.87	307.80
SET 51	643.08	654.33	3	5	33.8	90.00	.0039	-25.61	.0001	126477.7	2.59	10.82	-.0033	246.65	-.0013	-26.70	300.57
SET 61	665.02	676.27	3	5	55.8	62.46	.0040	-28.66	.0002	130589.4	2.45	-.00	-.0022	231.08	.0027	-26.59	295.41
SET 72	837.00	848.25	3	8	47.8	93.80	.0039	-25.47	.0001	152328.6	2.41	-.00	-.0035	244.27	-.0004	-25.81	254.51
RISE 42	847.85	859.10	3	8	58.6	254.99	.0040	-24.33	-.0000	153352.6	1.69	2.57	.0029	118.24	-.0022	-25.77	251.91
EXTM 11	890.39	901.64	3	9	41.1	1.52	.0042	-27.65	.0001	155833.9	1.97	27.12	-.0000	181.51	.0041	-25.61	241.68
SET 11	1165.99	1177.24	3	14	16.7	69.88	.0041	-25.99	.0001	189502.2	2.07	-.00	-.0028	237.57	.0024	-24.75	174.90
EXTM 42	1271.57	1282.82	3	16	2.3	359.85	.0042	-24.13	.0000	194337.5	1.70	78.91	.0000	.72	-.0197	-24.48	149.13
RISE 51	1406.82	1418.07	3	18	17.6	270.00	.0041	-23.50	-.0000	212931.0	1.26	9.97	.0034	111.39	-.0015	-24.17	116.00
RISE 72	1563.84	1575.09	3	20	54.6	266.51	.0041	-23.62	-.0000	229077.3	1.15	-.01	.0037	113.86	-.0005	-23.85	77.43
RISE 61	1628.58	1639.83	3	21	59.3	293.06	.0041	-24.84	.0000	235089.6	1.24	.00	.0026	123.38	.0027	-23.73	61.50
SET 42	1694.42	1705.67	3	23	5.2	105.00	.0041	-22.69	.0001	240925.3	1.84	1.57	-.0030	243.07	-.0023	-23.61	45.28
EXTM 51	1765.70	1776.95	4	0	16.5	359.98	.0042	-23.43	.0000	241203.1	1.48	87.69	.0000	.64	-.0767	-23.49	27.71
EXTM 61	1897.50	1908.75	4	2	28.3	.59	.0042	-24.55	.0000	256318.7	1.43	25.21	-.0000	180.60	.0042	-23.28	355.17
EXTM 72	1936.39	1947.64	4	3	7.1	.11	.0042	-23.60	.0000	256280.1	1.42	74.31	.0000	180.38	.0141	-23.22	345.56
RISE 11	2064.77	2076.02	4	5	15.5	288.21	.0042	-23.88	-.0000	273139.1	1.05	.00	.0029	119.70	.0024	-23.04	313.82
SET 51	2124.77	2136.02	4	6	15.5	90.00	.0041	-22.43	.0001	277022.6	1.75	9.54	-.0035	249.60	-.0015	-22.95	298.97
SET 61	2166.33	2177.58	4	6	57.1	68.07	.0042	-23.82	.0001	281460.1	1.65	-.00	-.0027	238.06	.0027	-22.90	288.68
SET 72	2307.53	2318.78	4	9	18.3	93.31	.0041	-22.54	.0001	292735.0	1.73	-.01	-.0038	247.23	-.0005	-22.72	253.70
RISE 42	2310.70	2321.95	4	9	21.5	255.00	.0041	-21.95	-.0000	292859.2	.98	1.12	.0030	116.36	-.0023	-22.72	252.91
EXTM 11	2351.64	2362.89	4	10	2.4	.39	.0042	-23.72	.0000	292919.6	1.30	31.07	-.0000	180.42	.0045	-22.67	242.77
SET 11	2638.44	2649.69	4	14	49.2	72.51	.0042	-23.07	.0000	317942.5	1.56	-.00	-.0030	241.34	.0024	-22.35	171.61
EXTM 42	2729.38	2740.63	4	16	20.1	359.96	.0042	-22.00	.0000	318455.3	1.21	76.78	-.0000	.19	-.0153	-22.25	149.02
RISE 51	2859.78	2871.03	4	18	30.5	270.00	.0041	-21.69	-.0000	332933.7	.80	9.23	.0035	109.71	-.0016	-22.13	116.62
RISE 72	3016.21	3027.46	4	21	7.0	266.81	.0041	-21.83	-.0000	344903.9	.73	-.01	.0038	112.05	-.0006	-21.98	77.73
RISE 61	3070.38	3081.63	4	22	1.1	290.70	.0042	-22.67	-.0000	348805.7	.80	.00	.0028	120.33	.0027	-21.94	64.25
SET 42	3148.00	3159.25	4	23	18.7	105.00	.0041	-21.26	.0000	353859.4	1.44	.69	-.0031	244.19	-.0024	-21.90	44.86
EXTM 51	3216.71	3227.96	5	0	27.5	360.00	.0042	-21.79	.0000	352147.9	1.10	86.05	-.0000	.23	-.0086	-21.86	27.69
EXTM 61	3345.20	3356.45	5	2	36.0	.18	.0042	-22.68	.0000	363954.3	1.09	27.08	-.0000	180.19	.0044	-21.80	355.57
EXTM 72	3384.92	3396.17	5	3	15.7	.03	.0042	-22.02	.0000	363291.9	1.09	75.88	.0000	180.13	.0129	-21.78	345.64
RISE 11	3505.50	3516.75	5	5	16.2	286.86	.0042	-22.33	-.0000	377267.1	.75	.00	.0030	117.72	.0024	-21.73	315.48
SET 51	3572.89	3584.14	5	6	23.6	90.00	.0042	-21.32	.0000	380665.9	1.49	9.08	-.0036	250.63	-.0016	-21.70	298.61
SET 61	3619.87	3631.12	5	7	10.6	69.64	.0042	-22.35	.0000	384767.8	1.41	-.00	-.0028	240.12	.0027	-21.69	286.84
SET 72	3752.69	3763.94	5	9	23.4	93.15	.0042	-21.53	.0000	393868.9	1.65	-.01	-.0039	248.25	-.0006	-21.66	253.51
RISE 42	3753.96	3765.21	5	9	24.7	255.00	.0042	-21.10	-.0000	393894.8	.88	.59	.0031	115.68	-.0024	-21.66	253.19
EXTM 11	3793.58	3804.83	5	10	4.3	359.95	.0043	-22.44	-.0000	393584.6	1.35	32.35	.0000	179.94	.0046	-21.67	243.20
IMPACT	3828.32	3839.57	5	10	39.1												
IMPC 42	3828.32	3839.57	5	10	39.1	273.81	.0043	-21.22	-.0000	398556.6	1.66	15.03	.0034	105.61	-.0022	-21.69	234.37
IMPC 11	3828.32	3839.57	5	10	39.1	8.91	.0044	-22.46	-.0000	396869.7	2.08	31.72	-.0006	189.69	.0047	-21.69	234.37

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	2	18	50.753	6545.205	16.8433	304.3352	10.99359	-.5178	119.1320	147.3837
SEPARATION	1.20	12.45	2	18	51.953	6561.721	13.3899	310.2376	10.97954	2.9111	120.7519	153.5870
RETRO	3.20	14.45	2	18	53.953	6692.629	7.4467	319.5154	10.87078	8.5174	122.5269	163.3662
IMPACT	3828.32	3839.57	5	10	39.072	400256.684	-21.6886	234.3659	2.19642	67.2961	257.5479	317.1141

GHA	282.5414					EPS	30.5287							LOM	228.9365
SX	.681007	SY	-.552192	SZ	-.464405	RAD	21.67495	RAD	317.13152	RM	401540.785	LAT	28.310600	LON	279.461800
C3	-.947444	ECC	.954444	SLR	12987.524	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.695440	NSY	-.414203	NSZ	-.364243	C3M	1.4968	VIM	2.6713	ZAE	141.197	B.T	.0000	B.R	-.0000
LATE	6.5476	LONE	2.1962	LATS	1.2325	LONS	332.1328	LATI	2.2566	LONI	323.5051	RSM	152.4372	TTAN	5.0653
LAUNCH DATE	JUL	2,1966		PAGE AZM	115.0		TF 63.879					ARRIVAL DATE	JUL 5 1966 11 0 47.8		

LNCH AZMTH	LNCH TIME	RM	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	18 49 10.2	28.0	15.43	303.54	.93	149.02	121.94	19 0 25.2	6545.1	10.99	.46

EVNT	STA	TFI	TFL	DAY	HR	MIN	RA	DRA	DEC	DDE	RNG	DRG	FLE	DEL	AZI	DAZ	LAT	LONG
							PRDRE IN SUNLIGHT											
INJECTION		.00	11.25	2	19	.4												
SEPARATION		1.20	12.45	2	19	1.6												
RETRO		3.20	14.45	2	19	3.6												
RISE	72	4.73	15.98	2	19	5.1	86.94	-.1284	21.65	-.0704	2494.2	-7.95	.00	.1289	291.26	-.0520	.75	324.41
EXTM	72	10.16	21.41	2	19	10.6	11.85	-.2498	-31.19	-.1227	1820.1	4.55	64.31	-.0000	203.93	-.6033	-13.03	343.33
RISE	51	11.18	22.43	2	19	11.6	86.84	-.0750	6.51	-.0564	5352.9	-3.22	.00	.0916	277.23	-.0182	-15.05	346.34
EXTM	51	35.18	46.43	2	19	35.6	1.98	-.0265	-38.17	-.0030	9643.6	5.38	77.46	-.0000	187.21	-.0969	-33.23	26.56
EXTM	72	69.98	81.23	2	20	10.4	287.19	-.0001	-37.12	.0009	23667.6	4.80	18.44	.0000	126.59	-.0009	-35.07	42.26
EXTM	51	86.15	97.40	2	20	26.6	338.79	-.0005	-36.08	.0009	24757.2	4.43	68.89	.0000	126.33	-.0027	-34.77	44.19
RISE	61	171.37	182.62	2	21	51.8	312.48	.0029	-38.59	.0007	50519.9	3.39	.00	.0019	144.79	.0015	-32.55	38.48
EXTM	51	240.71	251.96	2	23	1.1	.81	.0034	-41.76	.0004	58551.1	3.18	83.94	-.0000	186.52	.0279	-31.17	26.96
EXTM	61	418.40	429.65	3	1	58.8	6.03	.0039	-42.53	.0003	93376.6	2.62	17.02	.0000	185.31	.0035	-28.89	350.07
EXTM	72	443.37	454.62	3	2	23.8	1.25	.0040	-30.04	.0002	93375.3	2.56	67.83	.0000	182.88	.0092	-28.65	344.51
RISE	11	605.95	617.20	3	5	6.4	293.44	.0040	-29.41	.0001	122665.1	1.99	.00	.0027	126.94	.0023	-27.42	307.20
SET	51	634.89	646.34	3	5	34.5	90.00	.0039	-26.15	.0002	125272.7	2.59	11.03	-.0032	246.14	-.0013	-27.25	300.61
SET	61	653.01	664.26	3	5	53.4	61.72	.0040	-29.24	.0002	129020.8	2.46	.00	-.0022	230.21	.0027	-27.13	296.16
SET	72	828.40	839.65	3	8	48.8	93.87	.0039	-25.90	.0001	151298.4	2.42	-.00	-.0035	243.83	-.0004	-26.24	254.46
RISE	42	839.15	850.40	3	8	59.6	254.99	.0040	-24.75	-.0000	152287.4	1.70	2.83	.0029	118.57	-.0022	-26.20	251.88
EXTM	11	882.19	893.44	3	9	42.6	1.67	.0042	-28.08	.0001	154915.0	1.97	26.69	.0000	181.65	.0041	-26.01	241.54
SET	11	1155.88	1167.13	3	14	16.3	69.58	.0041	-26.41	.0001	188419.9	2.08	-.00	-.0027	237.14	.0024	-25.06	175.21
EXTM	42	1262.73	1273.98	3	16	3.2	359.85	.0042	-24.41	.0000	193411.2	1.71	79.19	-.0000	.72	-.0202	-24.76	149.12
RISE	51	1397.98	1409.23	3	18	18.4	270.00	.0041	-23.74	-.0000	212027.6	1.26	10.07	.0034	111.61	-.0015	-24.41	115.99
RISE	72	1554.82	1566.07	3	20	55.2	266.48	.0041	-23.83	-.0000	228195.4	1.15	-.01	.0037	114.07	-.0006	-24.06	77.46
RISE	61	1620.59	1631.84	3	22	1.0	293.29	.0041	-25.04	.0000	234313.0	1.24	.00	.0026	123.67	.0027	-23.93	61.27
SET	42	1685.45	1696.70	3	23	5.9	105.00	.0041	-22.87	.0001	240055.1	1.84	1.68	-.0030	242.92	-.0023	-23.80	45.29
EXTM	51	1756.79	1768.04	4	0	17.2	359.99	.0042	-23.61	.0000	240359.0	1.48	87.87	-.0000	.52	-.0642	-23.66	27.70
EXTM	61	1888.72	1899.97	4	2	29.1	.64	.0042	-24.71	.0000	255517.7	1.44	25.05	-.0000	180.64	.0042	-23.43	355.12
EXTM	72	1927.45	1938.70	4	3	7.9	.12	.0042	-23.75	.0000	255458.8	1.42	74.15	.0000	180.41	.0141	-23.37	345.55
RISE	11	2056.25	2067.50	4	5	16.7	288.32	.0042	-24.02	-.0000	272360.6	1.05	.00	.0029	119.87	.0024	-23.17	313.70
SET	51	2115.73	2126.98	4	6	16.1	90.00	.0041	-22.55	.0001	276200.2	1.75	9.59	-.0035	249.49	-.0015	-23.08	298.98
SET	61	2156.75	2168.00	4	6	57.2	67.93	.0042	-23.94	.0001	280603.2	1.65	-.00	-.0026	237.89	.0027	-23.02	288.82
SET	72	2298.53	2309.78	4	9	18.9	93.33	.0041	-22.64	.0001	291934.7	1.73	-.01	-.0038	247.13	-.0005	-22.82	253.69
RISE	42	2301.66	2312.91	4	9	22.1	255.00	.0041	-22.05	-.0000	292050.1	.98	1.18	.0030	116.43	-.0023	-22.82	252.91
EXTM	11	2342.71	2353.96	4	10	3.1	.42	.0042	-23.82	.0000	292137.2	1.30	30.97	-.0000	180.45	.0045	-22.76	242.73
SET	11	2629.09	2640.34	4	14	49.5	72.45	.0042	-23.14	.0000	317134.7	1.56	-.00	-.0029	241.26	.0024	-22.41	171.67
EXTM	42	2720.26	2731.51	4	16	20.7	359.96	.0042	-22.05	.0000	317666.9	1.21	76.83	-.0000	.20	-.0153	-22.31	149.02
RISE	51	2850.65	2861.90	4	18	51.1	270.00	.0041	-21.73	-.0000	332148.8	.80	9.25	.0035	109.75	-.0016	-22.17	116.62
RISE	72	3007.05	3018.30	4	21	7.5	266.80	.0041	-21.46	-.0000	344122.1	.73	-.01	.0038	112.08	-.0006	-22.01	77.74
RISE	61	3061.40	3072.65	4	22	1.8	290.73	.0042	-22.69	-.0000	347859.3	.84	.00	.0027	120.36	.0027	-21.96	64.22
SET	42	3138.91	3150.16	4	23	19.3	105.00	.0041	-21.98	.0000	353126.2	1.44	.70	-.0031	244.18	-.0023	-21.91	44.86
EXTM	51	3207.42	3218.67	5	0	28.0	360.00	.0042	-21.80	.0000	351407.5	1.09	86.06	-.0000	.28	-.0099	-21.87	27.69
EXTM	61	3336.16	3347.41	5	2	36.6	.20	.0042	-22.69	.0000	363201.1	1.09	27.08	-.0000	180.21	.0044	-21.80	355.56
EXTM	72	3375.82	3387.07	5	3	16.2	.03	.0042	-22.02	.0000	362528.7	1.08	75.88	.0000	180.14	.0140	-21.78	345.64
RISE	11	3496.45	3507.70	5	5	16.8	286.85	.0042	-22.33	-.0000	376477.8	.75	.00	.0030	117.71	.0024	-21.72	315.49
SET	51	3543.75	3575.00	5	6	24.2	90.00	.0042	-21.51	.0000	379859.5	1.48	9.08	-.0036	250.64	-.0016	-21.69	298.61
SET	61	3610.79	3622.04	5	7	11.2	69.65	.0042	-22.34	.0000	383947.7	1.41	-.00	-.0028	240.14	.0027	-21.67	286.83
SET	72	3743.56	3754.81	5	9	24.0	93.14	.0042	-21.50	-.0000	392940.5	1.62	-.01	-.0039	248.28	-.0005	-21.64	253.52
RISE	42	3744.86	3756.11	5	9	25.3	255.00	.0042	-21.87	-.0000	392968.4	.85	.57	.0031	115.66	-.0024	-21.64	253.19
EXTM	11	3784.75	3796.00	5	10	5.2	.01	.0043	-22.41	.0000	392573.7	1.29	32.38	.0000	180.01	.0025	-21.64	243.14
IMPACT		3832.76	3844.01	5	10	53.2												
IMPC	42	3832.76	3844.01	5	10	54.2	277.23	.0043	-21.20	-.0000	398297.9	1.66	17.73	.0035	103.83	-.0022	-21.66	230.95
IMPC	11	3832.76	3844.01	5	10	53.2	12.37	.0044	-22.42	-.0000	396947.0	2.10	31.19	-.0008	193.39	.0046	-21.66	230.95

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	2	19	.419	6545.093	15.4281	303.5433	10.99347	.4609	121.9364	149.0151
SEPARATION		1.20	12.45	2	19	1.619	6575.110	11.7003	309.2234	10.96807	3.8867	123.3410	154.9960
RETRO		3.20	14.45	2	19	3.619	6727.497	5.4058	318.1181	10.84215	9.4513	124.7436	164.3921
IMPACT		3832.76	3844.01	5	10	53.183	20283.936	-21.6567	230.9519	2.19365	67.0465	258.3225	317.2375

SURVEYOR VIEW PERIODS

GHA	283.5290					EPS	41.6999							LOM	234.3440
SX	.P 2785	SY	-.483612	SZ	-.306712	DAO	-17.86118	RAO	329.46259	RM	403591.379	LAT	28.310600	LON	279.461800
C3	-.938121	ECC	.984597	SLR	12988.529	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.830912	NSY	-.468497	NSZ	-.300158	C3M	1.4975	VIM	2.6715	ZAE	141.829	B.T	.0000	B.R	-.0000
LATE	6.6799	LONE	1.0949	LATS	1.2402	LONS	319.7361	LATI	4.2095	LONI	322.8212	RSM	152.3925	TTAN	3.9774
LAUNCH DATE		JUL	3,1966		BASE AZM	108.0		TF	64.354			ARRIVAL DATE		JUL 6 1966	11 24 29.1

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	18 42 24.3	27.4	18.16	304.39	-12.34	149.15	116.87	18 53 39.3	6620.5	10.93	-6.12

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL AZI	DAZ	LAT	LONG
						PRORE IN SUNLIGHT										
INJECTION	.00	11.25	3	18	53.7											
SEPARATION	1.20	12.45	3	18	54.9											
RETRO	3.20	14.45	3	18	56.9											
RISE 72	5.46	16.71	3	18	59.1	84.68	-.1587	33.75	-.0151	2122.4	-9.21	.00	.1327 304.12	.0069	2.57	330.50
EXTM 72	8.25	19.50	3	19	1.9	30.14	-.5418	15.57	-.3113	916.4	-2.81	52.02	.6051 308.18	0905	-5.08	342.09
RISE 51	11.36	22.61	3	19	5.0	82.81	-.0948	14.54	-.0547	4459.6	-4.88	.00	.1066 286.19	-.0077	-12.24	353.40
EXTM 51	25.40	36.65	3	19	19.1	1.48	-.0593	-30.15	-.0156	5625.9	5.44	85.40	.0000 196.21	-.6679	-27.81	27.00
ENTER SHA	41.56	52.81	3	19	35.2											
ENTR 72	41.56	52.81	3	19	35.2	275.50	-.0043	-32.78	.0007	15049.2	6.05	8.87	-.0037 122.11	-.0005	-31.60	44.80
ENTR 51	41.56	52.81	3	19	35.2	332.46	-.0139	-33.82	.0003	11241.0	5.70	64.86	-.0112 115.29	-.0061	-31.60	44.80
EXTM 72	69.52	80.77	3	20	3.2	272.71	.0001	-31.61	.0006	24096.1	4.87	6.43	.0000 121.12	-.0006	-31.83	56.10
RISE 42	73.40	84.65	3	20	7.1	105.00	-.0047	-23.80	-.0012	25677.8	4.34	2.25	.0041 242.19	.0016	-31.72	56.77
EXTM 51	84.18	95.43	3	20	17.8	321.58	.0000	-31.64	.0008	24153.5	4.51	55.96	.0000 109.06	-.0014	-31.38	58.00
EXIT SHA	107.79	119.04	3	20	41.4											
EXIT 42	107.79	119.04	3	20	41.4	100.14	-.0007	-24.88	-.0001	34480.6	4.17	6.44	.0006 243.99	.0003	-30.56	58.42
EXIT 72	107.79	119.04	3	20	41.4	275.46	.0020	-30.36	.0005	34237.7	4.05	8.68	.0017 119.67	-.0006	-30.56	58.42
EXIT 51	107.79	119.04	3	20	41.4	322.79	.0015	-30.64	.0006	30245.2	4.11	56.99	.0013 107.24	-.0012	-30.56	58.42
EXTM 42	118.17	129.42	3	20	51.8	99.94	-.0000	-24.90	.0000	37054.8	4.10	6.60	-.0000 244.08	.0000	-30.21	57.95
SET 42	185.16	196.41	3	21	58.8	105.00	.0021	-24.26	.0002	52692.9	3.70	2.53	-.0017 241.82	-.0010	-28.34	50.13
RISE 61	200.47	211.72	3	22	14.1	303.43	.0032	-33.07	.0006	56157.9	3.18	.00	.0022 135.62	.0017	-27.99	47.66
EXTM 51	305.84	317.09	3	23	59.5	.04	.0037	-26.20	.0003	70031.2	2.93	89.54	.0000 184.88	.3698	-26.16	27.65
EXTM 61	471.80	483.05	4	2	45.5	4.59	.0040	-27.63	.0002	100756.3	2.51	21.99	-.0000 184.39	.0038	-24.36	351.39
EXTM 72	500.01	511.26	4	3	13.7	.76	.0041	-25.14	.0002	101402.8	2.46	72.75	.0000 182.31	.0125	-24.13	344.96
RISE 11	643.72	654.97	4	5	37.4	289.20	.0040	-24.99	.0001	127515.1	1.92	.00	.0029 121.14	.0023	-23.15	311.55
SET 51	691.12	702.37	4	6	24.8	90.00	.0039	-21.81	.0001	132763.1	2.54	9.28	-.0034 250.18	-.0014	-22.89	300.35
SET 61	732.69	743.94	4	7	6.3	67.27	.0040	-24.54	.0002	139154.6	2.40	-.00	-.0024 237.04	.0027	-22.67	290.48
SET 72	880.88	892.13	4	9	34.5	93.16	.0040	-21.68	.0001	157391.7	2.39	-.00	-.0037 248.11	-.0004	-22.00	254.98
RISE 42	893.15	904.40	4	9	46.8	255.00	.0040	-20.55	.0000	158816.9	1.64	.26	.0030 115.25	-.0023	-21.95	252.03
EXTM 11	935.48	946.73	4	10	29.1	1.39	.0042	-23.69	.0001	160544.0	1.93	31.08	-.0000 181.48	.0045	-21.79	241.81
SET 11	1225.41	1236.66	4	15	19.1	73.41	.0041	-22.03	.0001	195592.5	2.06	-.00	-.0029 242.67	.0024	-20.86	171.31
EXTM 42	1315.97	1327.22	4	16	49.6	359.83	.0042	-20.16	.0000	198809.3	1.68	74.94	-.0000 .61	-.0151	-20.63	149.14
RISE 51	1450.73	1461.98	4	19	4.4	270.00	.0041	-19.63	-.0000	217266.2	1.23	8.39	.0035 107.82	-.0016	-20.31	116.08
RISE 72	1610.07	1621.32	4	21	43.7	267.14	.0041	-19.76	-.0000	233287.5	1.12	.00	.0038 109.95	-.0006	-19.98	76.88
RISE 61	1655.61	1666.86	4	22	29.3	288.91	.0041	-20.96	.0000	237481.2	1.21	.00	.0028 117.94	.0027	-19.89	65.66
SET 42	1734.12	1745.37	4	23	47.8	103.94	.0041	-18.84	.0001	244594.6	1.84	-.00	-.0031 246.72	-.0023	-19.74	46.30
EXTM 51	1809.28	1820.53	5	1	2.9	359.94	.0042	-19.45	.0000	245016.3	1.47	83.71	.0000 .57	-.0346	-19.61	27.75
EXTM 61	1940.98	1952.23	5	3	14.6	.56	.0042	-20.61	.0000	259602.1	1.42	29.15	-.0000 180.60	.0045	-19.40	355.20
EXTM 72	1979.83	1991.08	5	3	53.5	.08	.0042	-19.62	.0000	259814.2	1.41	78.29	.0000 180.38	.0192	-19.34	345.59
RISE 11	2094.66	2105.91	5	5	48.3	284.87	.0042	-19.98	.0000	275571.7	1.03	.00	.0031 114.72	.0024	-19.17	317.18
SET 51	2168.38	2179.63	5	7	2.0	90.00	.0041	-18.53	.0000	280720.7	1.74	7.93	-.0036 253.20	-.0016	-19.06	298.92
SET 61	2226.41	2237.66	5	8	.1	72.19	.0041	-19.86	.0000	286277.4	1.65	.01	-.0028 243.57	.0027	-18.98	284.54
SET 72	2348.49	2359.74	5	10	2.1	92.69	.0041	-18.65	.0000	295938.5	1.73	-.00	-.0039 251.16	-.0005	-18.83	254.27
RISE 42	2360.63	2371.88	5	10	14.3	256.69	.0041	-18.07	-.0000	296886.6	.95	.00	.0031 112.31	-.0024	-18.81	251.26
EXTM 11	2394.80	2406.05	5	10	48.5	.37	.0042	-19.77	.0000	295906.5	1.29	35.03	-.0000 180.43	.0048	-18.77	242.79
SET 11	2695.00	2706.25	5	15	48.7	75.84	.0042	-19.12	.0000	322131.5	1.56	.00	-.0031 246.37	.0024	-18.42	168.26
EXTM 42	2772.16	2783.41	5	17	5.8	359.89	.0042	-18.01	.0000	321707.2	1.20	72.79	.0000 .34	-.0133	-18.34	149.08
RISE 51	2902.59	2913.84	5	19	16.2	270.00	.0041	-17.77	-.0000	336198.2	.78	7.61	.0036 106.10	-.0017	-18.21	116.66
RISE 72	3061.43	3072.68	5	21	55.1	267.42	.0041	-17.91	-.0000	348094.5	.71	-.01	.0039 108.09	-.0006	-18.06	77.16
RISE 61	3097.15	3108.40	5	22	30.8	286.68	.0042	-18.74	-.0000	350758.6	.78	.00	.0029 114.88	.0027	-18.02	68.27
SET 42	3181.94	3193.19	5	23	55.6	102.75	.0041	-17.37	.0000	356329.4	1.45	-.00	-.0032 248.57	-.0024	-17.98	47.09
EXTM 51	3259.55	3270.80	6	1	13.2	360.00	.0042	-17.81	.0000	355136.8	1.09	82.07	-.0000 .12	-.0029	-17.95	27.69
EXTM 61	3387.79	3399.15	6	3	21.6	.15	.0042	-18.74	.0000	366452.7	1.08	31.03	-.0000 180.17	.0047	-17.89	355.60
EXTM 72	3427.65	3438.90	6	4	1.3	.01	.0042	-18.05	.0000	366065.4	1.08	79.86	.0000 180.11	.0152	-17.87	345.66
RISE 11	3535.18	3546.43	6	5	48.8	283.59	.0042	-18.42	-.0000	379242.2	.73	.00	.0031 112.75	.0024	-17.84	318.75
SET 51	3615.74	3626.99	6	7	9.4	90.00	.0042	-17.42	.0000	383651.3	1.49	7.47	-.0036 254.22	-.0017	-17.81	298.58
SET 61	3678.49	3689.74	6	8	12.1	73.61	.0042	-18.44	.0000	388610.1	1.43	-.00	-.0029 245.52	.0027	-17.80	282.86
SET 72	3793.07	3804.32	6	10	6.7	92.54	.0042	-17.66	.0000	396506.8	1.67	-.00	-.0040 252.16	-.0006	-17.79	254.09
RISE 42	3805.88	3817.13	6	10	19.5	257.35	.0042	-17.24	-.0000	397458.4	.91	.00	.0032 111.27	-.0024	-17.79	250.87
EXTM 11	3835.88	3847.13	6	10	49.5	359.86	.0043	-18.54	-.0000	396084.9	1.42	36.25	.0000 179.83	.0050	-17.81	243.29
IMPACT	3861.23	3872.48	6	11	14.9											
IMPC 42	3861.23	3872.48	6	11	14.9	271.37	.0043	-17.34	-.0001	401066.1	1.65	10.98	.0034 103.57	-.0023	-17.84	236.83
IMPC 11	3861.23	3872.48	6	11	14.9	6.40	.0044	-18.57	-.0000	398560.8	2.07	35.88	-.0005 187.50	.0051	-17.84	236.83

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	3	18	53.654	6622.894	18.2054	304.3057	10.93060	-6.1213	116.8432	149.0673
SEPARATION	1.20	12.45	3	18	54.854	6559.641	14.9724	310.4058	10.98152	-2.7281	118.6772	155.4683
RETRO	3.20	14.45	3	18	56.854	6562.670	9.2365	320.1351	10.97897	2.9908	120.8307	165.6990
ENTER SHA	41.56	52.81	3	19	35.214	17226.875	-31.5970	44.7970	6.73341	51.6612	95.6938	259.9772
EXIT SHA	107.79	119.04	3	20	41.441	35760.434	-30.5588	58.4217	4.62113	64.1986	79.8201	290.2040
IMPACT	3861.23	3872.48	6	11	14.887	402328.777	-17.8355	236.8336	2.19363	67.2817	252.2012	329.5457

JUL 3, 1966
108 DEGREES

SURVEYOR VIEW PERIODS

GHA 283.5290 EPS 41.8036 LOM 231.0252
SX .820909 SY -.482117 SZ -.306059 DAD +17.82188 RAD 329.57445 RM 4036606.621 LAT 28.310600 LON 279.461800
C3 -.940415 FCC .984559 SLR 12988.279 RCA 6544.6450 LTA -20.0000 GTA 20.00 TB 675.00000 POL -.0
NSX .832016 NSY -.466619 NSZ -.299497 C3M 1.4970 VIM 2.6714 ZAE 141.760 B.T .0000 B.R -.0000
LATE 6.6795 LONE 1.2091 LATS 1.2464 LONS 319.7423 LATI 3.9471 LONI 322.8917 RSM 152.3920 TTAN 3.9711
LAUNCH DATE JUL 6 1966 BASE AZM 111.0 TF 64.395 ARRIVAL DATE JUL 6 1966 11 38 10.2

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	18 53 11.6	27.5	17.05	303.94	-10.02	151.41	119.02	19 4 26.6	6594.6	10.95	-4.97

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PRDRE IN SUNLIGHT														
INJECTION	.00	11.25	3	19	4.4												
SEPARATION	1.20	12.45	3	19	5.6												
RETRO	3.20	14.45	3	19	7.6												
RISE 72	5.32	16.57	3	19	9.8	85.92	-.1421	27.15	-.0494	2213.3	-9.01	-.00	.1326	297.43	-.0292	1.13	328.75
EXTM 72	9.05	20.30	3	19	13.5	15.70	-.4767	-15.97	-.2972	1017.3	2.21	72.66	.2825	240.83	-1.5689	-9.05	343.58
RISE 51	11.28	22.53	3	19	15.7	84.88	-.0882	10.74	-.0587	4614.5	-4.58	-.11	.1036	281.89	-.0144	-14.05	351.39
EXTM 51	26.64	37.89	3	19	31.1	2.24	-.0541	-34.33	-.0106	6192.3	5.47	81.20	-.0000	192.16	-.3001	-29.98	26.63
ENTER SHA	42.53	53.78	3	19	47.0												
ENTR 72	42.53	53.78	3	19	47.0	277.49	-.0041	-34.78	.0013	15336.3	5.97	10.64	-.0035	124.05	-.0012	-33.02	43.16
ENTR 51	42.53	53.78	3	19	47.0	335.15	-.0137	-36.11	.0011	11635.9	5.61	66.39	-.0101	122.03	-.0117	-33.02	43.16
EXTM 72	69.21	80.46	3	20	13.7	274.92	.0001	-33.10	.0009	23913.3	4.87	8.41	.0000	122.47	-.0009	-32.93	53.74
RISE 42	85.19	96.44	3	20	27.6	105.00	-.0031	-25.24	-.0006	28450.4	4.31	3.14	.0026	241.04	.0012	-32.41	55.63
EXTM 51	84.26	95.51	3	20	28.7	324.31	-.0001	-33.03	.0010	24172.0	4.50	58.22	.0000	111.76	-.0019	-32.37	55.72
EXIT SHA	102.47	113.72	3	20	46.9												
EXIT 42	102.47	113.72	3	20	46.9	102.69	-.0011	-25.63	-.0001	33377.8	4.20	5.03	.0008	242.00	.0005	-31.64	56.24
EXIT 72	102.47	113.72	3	20	46.9	277.12	.0019	-31.68	.0006	32822.[illegible]	4.13	10.17	.0015	120.91	-.0007	-31.64	56.24
EXIT 51	102.47	113.72	3	20	46.9	325.01	.0012	-32.06	.0008	28915.0	4.19	58.87	.0011	109.96	-.0015	-31.64	56.24
EXTM 42	117.42	128.67	3	21	1.9	102.22	-.0000	-25.05	.0001	37[illegible]	4.10	5.38	-.0000	242.25	.0001	-31.07	55.70
SET 42	165.42	176.67	3	21	49.9	105.00	.0017	-25.12	.0002	48 [illegible]	3.80	3.06	-.0014	241.14	-.0008	-29.52	50.72
RISE 61	194.82	206.07	3	22	19.3	304.77	.0032	-33.98	.0006	55 [illegible]	3.21	.00	.0021	137.07	.0017	-28.75	46.26
EXTM 51	289.32	300.57	3	24	53.8	358.93	.0037	-27.01	.0003	67 [illegible]	2.[illegible]	88.41	.0022	143.01	.0880	-26.90	28.66
EXTM 61	462.74	473.99	4	2	47.2	4.97	.0040	-28.13	.0002	99490.9	[illegible]	21.48	.0000	184.71	.0038	-24.80	351.04
EXTM 72	489.73	500.98	4	3	14.2	.82	.0041	-25.61	.0002	99949.5	2.47	72.28	.0000	182.44	.0121	-24.56	344.90
RISE 11	634.84	646.09	4	5	39.3	289.53	.0040	-25.35	.0001	126365.0	1.93	[illegible]	.0028	121.60	.0023	-23.49	311.20
SET 51	680.65	691.90	4	6	25.1	90.00	.0039	-22.12	.0001	131419.9	2.55	[illegible]	-.0034	249.89	-.0014	-23.21	300.38
SET 61	720.71	731.96	4	7	5.1	66.89	.0040	-24.88	.0002	137659.7	2.41	-.00	-.0024	236.55	.0027	-22.98	290.88
SET 72	870.71	881.96	4	9	35.1	93.21	.0040	-21.93	.0001	156211.6	2.40	-.00	-.0037	247.85	-.0004	-22.25	254.96
RISE 42	882.98	894.23	4	9	47.4	255.00	.0040	-20.79	.0000	157626.5	1.65	.40	.0030	115.44	-.0023	-22.20	252.01
EXTM 11	925.59	936.84	4	10	30.0	1.48	.0042	-23.95	.0001	159447.0	1.94	30.83	-.0000	181.57	.0044	-22.02	241.73
SET 11	1214.50	1225.75	4	15	18.9	73.25	.0041	-22.21	.0001	194471.3	2.06	-.00	-.0029	242.44	.0024	-21.04	171.47
EXTM 42	1305.75	1317.00	4	16	50.2	359.83	.0042	-20.52	.0000	197782.9	1.69	75.10	-.0000	.61	-.0152	-20.78	149.14
RISE 51	1440.53	1451.78	4	19	5.0	270.00	.0041	-19.77	-.0000	216275.6	1.23	8.44	.0035	107.94	-.0016	-20.45	116.07
RISE 72	1599.78	1611.03	4	21	44.2	267.12	.0041	-19.87	-.0000	232331.3	1.12	.00	.0038	110.07	-.0006	-20.09	76.89
RISE 61	1645.85	1657.10	4	22	30.3	289.03	.0041	-21.07	.0000	236583.0	1.22	.00	.0028	118.10	.0027	-20.00	65.54
SET 42	1724.15	1735.40	4	23	48.6	104.02	.0041	-18.94	.0001	243692.9	1.84	-.00	-.0031	246.66	-.0023	-19.84	46.23
EXTM 51	1799.08	1810.33	5	1	3.5	359.95	.0042	-19.65	.0000	244106.1	1.47	83.81	-.0000	.44	-.0342	-19.71	27.73
EXTM 61	1930.82	1942.07	5	3	15.3	.59	.0042	-20.49	.0000	258726.1	1.42	29.07	-.0000	180.63	.0045	-19.48	355.17
EXTM 72	1969.57	1980.82	5	3	54.0	.09	.0042	-19.69	.0000	258929.9	1.41	78.21	.0000	180.40	.0192	-19.41	345.59
RISE 11	2084.61	2095.86	5	5	49.1	284.02	.0042	-20.05	.0000	274719.8	1.03	.00	.0031	114.81	.00[illegible]	-19.23	317.12
SET 51	2158.06	2169.31	5	7	2.5	90.00	.0041	-18.59	.0000	279854.4	1.75	7.96	-.0036	253.14	-.0016	-19.12	298.92
SET 61	2215.90	2227.15	5	8	.3	72.14	.0041	-19.92	.0001	285406.5	1.65	-.00	-.0028	243.49	.0027	-19.04	284.59
SET 72	2338.19	2349.44	5	10	2.6	92.69	.0041	-18.70	.0000	295098.5	1.74	-.00	-.0039	251.12	-.0005	-18.87	254.27
RISE 42	2350.20	2361.45	5	10	14.6	256.65	.0041	-18.71	-.0000	296037.0	.95	.00	.0031	112.36	-.0024	-18.85	251.29
EXTM 11	2384.56	2395.81	5	10	49.0	.39	.0042	-19.81	.0000	295080.2	1.29	34.98	-.0000	180.45	.0048	-18.81	242.77
SET 11	2684.56	2695.81	5	15	49.0	75.82	.0042	-19.14	.0000	321315.8	1.56	.00	-.0031	246.34	.0024	-18.45	168.28
EXTM 42	2761.79	2773.04	5	17	6.2	359.89	.0042	-18.03	.0000	320904.0	1.20	72.81	.0000	.36	-.0133	-18.36	149.09
RISE 51	2892.25	2903.50	5	19	16.7	270.00	.0041	-17.77	-.0000	335407.3	.78	7.62	.0036	106.11	-.0017	-18.22	116.66
RISE 72	3051.08	3062.33	5	21	55.5	267.42	.0041	-17.91	-.0000	347314.9	.71	-.01	.0039	108.09	-.0006	-18.06	77.15
RISE 61	3086.79	3098.04	5	22	31.2	286.68	.0042	-18.74	-.0000	349984.7	.78	.00	.0029	114.89	.0027	-18.02	68.27
SET 42	3171.55	3182.80	5	23	54.0	102.75	.0041	-17.46	.0000	355552.3	1.45	-.00	-.0032	248.58	-.0024	-17.98	47.09
EXTM 51	3249.18	3260.43	6	1	13.6	360.00	.0042	-17.80	.0000	354359.7	1.09	82.06	-.0000	.12	-.0055	-17.94	27.69
EXTM 61	3377.58	3388.83	6	3	22.0	.17	.0042	-18.12	.0000	365673.7	1.08	31.04	-.0000	180.18	.0047	-17.88	355.59
EXTM 72	3417.29	3428.54	6	4	1.7	.02	.0042	-18.03	.0000	365282.4	1.08	79.87	.0000	180.13	.0152	-17.86	345.66
RISE 11	3524.76	3536.01	6	5	49.2	283.58	.0042	-18.40	-.0000	378446.2	.73	.00	.0032	112.73	.0024	-17.82	318.77
SET 51	3605.38	3616.63	6	7	9.8	90.00	.0042	-17.40	.0000	382846.7	1.49	7.46	-.0036	254.24	-.0017	-17.79	298.59
SET 61	3668.24	3679.49	6	8	12.7	73.64	.0042	-18.41	.0000	387794.1	1.43	-.00	-.0029	245.56	.0027	-17.77	282.84
SET 72	3782.74	3794.00	6	10	7.2	92.63	.0042	-17.42	.0000	395597.8	1.64	-.00	-.0040	252.20	-.0006	-17.76	254.10
RISE 42	3795.72	3806.97	6	10	20.2	257.38	.0042	-17.20	-.0000	396538.0	.87	.00	.0032	111.22	-.0024	-17.76	250.83
EXTM 11	3825.72	3836.97	6	10	50.2	359.88	.0043	-18.50	-.0000	395063.3	1.33	36.29	.0000	179.86	.0050	-17.76	243.27
IMPACT	3863.72	3874.97	6	11	28.2												
IMPC 42	3863.72	3874.97	6	11	28.2	274.59	.0043	-17.42	-.0001	400804.7	1.65	13.54	.0035	101.82	-.0023	-17.80	233.62
IMPC 11	3863.72	3874.97	6	11	28.2	9.67	.0044	-18.53	-.0000	398611.3	2.09	35.49	-.0007	191.28	.0050	-17.80	233.62

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	3	19	4.443	6595.621	17.0771	303.8953	10.95215	-4.9723	119.0018	151.3615
SEPARATION	1.20	12.45	3	19	5.643	6549.557	13.6272	309.8267	10.98993	-1.5603	120.6559	157.5937
RETRO	3.20	14.45	3	19	7.643	6579.432	7.5820	319.3014	10.96476	4.1526	122.4989	167.5697
ENTER SHA	42.53	53.78	3	19	46.975	17663.226	-43.0212	43.1559	.64780	52.2099	94.3725	261.2843
EXIT SHA	102.47	113.72	3	20	46.910	34524.875	-31.6431	56.2402	4.70642	63.7163	79.1196	289.3935
IMPACT	3863.72	3874.97	6	11	28.159	402343.867	-17.7980	233.6154	2.19273	67.2625	252.7079	329.6545

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SURVEYOR VIEW PERIODS

GHA	283.5290					EPS	41.9281							LOM	227.0566
SX	.822249	SY	-.480327	SZ	-.305277	DAO	+17.77480	RAO	329.70814	RM	403624.746	LAT	28.310600	LON	279.461800
C3	-.943789	ECC	.984504	SLR	12987.919	RCA	6544.6450	LTA	+20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.833334	NSY	-.465111	NSZ	-.298707	C3M	1.4971	VIM	2.6714	ZAE	141.643	B.T	.0000	B.R	-.0000
LATE	6.6790	LONE	1.0707	LATS	1.2464	LONS	319.4784	LATI	3.5643	LONI	322.6759	RSM	192.3915	TTAN	3.9664
LAUNCH DATE		JUL	3,1966		BASE AZM	115.0		TF	64.455				ARRIVAL DATE JUL	6 1966	11 54 32.0

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	19 5 44.7	27.6	15.61	303.24	-7.39	157.85	121.85	19 16 59.7	6571.7	10.97	-3.67

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	3	19	17.0												
SEPARATION	1.20	12.45	3	19	18.2												
RETRO	3.20	14.45	3	19	20.2												
RISE 72	5.22	16.47	3	19	22.2	87.25	-.1255	19.07	-.0868	2338.9	-8.49	.00	.1300	289.26	-.0686	-.95	326.70
EXTM 72	9.05	20.30	3	19	26.0	29.46	-.4074	-29.50	-.2550	1268.8	2.04	54.92	.1652	228.15	-.7035	-11.63	341.40
RISE 51	11.31	22.56	3	19	28.3	87.24	-.0807	5.70	-.0634	4804.3	-4.13	.00	.0999	276.33	-.0220	-16.68	349.05
EXTM 51	28.64	39.89	3	19	45.6	2.10	-.0475	-39.44	-.0051	7058.0	5.49	76.18	-.0000	186.82	-.1550	-32.95	26.66
ENTER SHA	45.46	56.71	3	20	2.5												
ENTR 72	45.46	56.71	3	20	2.5	279.31	-.0035	-37.29	.0019	16311.0	5.78	12.17	-.0028	126.57	-.0019	-35.07	42.35
ENTR 51	45.46	56.71	3	20	2.5	336.87	-.0121	-38.98	.0021	12703.9	5.46	66.51	-.0074	129.99	-.0155	-35.07	42.35
EXTM 72	68.91	80.16	3	20	25.9	277.35	.0001	-35.21	.0012	23735.7	4.86	10.53	.0000	124.49	-.0012	-34.54	51.09
EXTM 51	83.49	94.74	3	20	40.5	327.39	-.0003	-35.07	.0013	23981.3	4.50	60.52	.0000	116.32	-.0026	-33.86	53.09
EXIT SHA	93.32	104.57	3	20	50.3												
EXIT 42	93.32	104.57	3	20	50.3	106.06	-.0019	-26.78	-.0002	31292.9	4.26	3.33	.0015	239.25	.0009	-33.39	53.61
EXIT 72	93.32	104.57	3	20	50.3	278.66	.0016	-33.76	.0008	30406.9	4.28	11.56	.0013	122.97	-.0009	-33.39	53.61
EXIT 51	93.32	104.57	3	20	50.3	327.50	.0006	-34.36	.0011	26583.9	4.32	60.72	.0006	114.92	-.0021	-33.39	53.61
RISE 42	107.17	118.42	3	21	4.2	105.00	-.0007	-26.83	.0000	34795.2	4.17	4.11	.0005	239.79	.0004	-32.75	53.59
EXTM 42	116.32	127.57	3	21	13.3	104.78	-.0001	-26.78	.0001	37069.2	4.11	4.23	-.0000	239.95	.0002	-32.35	53.21
SET 42	130.52	141.77	3	21	27.5	105.00	.0006	-26.61	.0002	40529.7	4.02	3.97	-.0006	239.96	-.0002	-31.77	52.18
RISE 61	190.34	201.59	3	22	27.3	306.63	.0032	-35.19	.0007	54236.9	3.24	.00	.0021	139.02	.0016	-29.80	44.39
EXTM 51	282.20	293.45	3	23	59.2	.25	.0037	-27.95	.0003	65962.8	3.01	87.78	.0000	185.80	.0842	-27.75	27.45
EXTM 61	452.90	464.15	4	2	49.9	5.49	.0040	-28.82	.0003	98126.1	2.55	20.75	.0000	185.15	.0037	-25.44	350.55
EXTM 72	478.62	489.87	4	3	15.6	1.03	.0041	-26.28	.0002	98372.9	2.49	71.60	-.0000	182.93	.0116	-25.18	344.71
RISE 11	625.19	636.44	4	5	42.2	290.00	.0040	-25.86	.0001	125105.4	1.94	.00	.0028	122.27	.0023	-23.97	310.70
SET 51	668.73	679.98	4	6	25.7	90.	.0039	-22.58	.0002	129871.8	2.57	9.60	-.0033	249.46	-.0013	-23.68	300.43
SET 61	706.53	717.78	4	7	3.5	66.3	.0040	-25.38	.0002	135872.9	2.42	-.00	-.0024	235.85	.0027	-23.44	291.46
SET 72	859.13	870.38	4	9	36.1	93.27	.0040	-22.29	.0001	154856.7	2.40	-.00	-.0037	247.48	-.0004	-22.62	254.93
RISE 42	871.36	882.61	4	9	48.4	255.00	.0040	-21.14	.0000	156250.6	1.66	.62	.0029	115.72	-.0023	-22.57	251.98
EXTM 11	914.38	925.63	4	10	31.4	1.60	.0042	-24.32	.0001	158200.6	1.95	30.45	-.0000	181.69	.0044	-22.37	241.60
SET 11	1201.77	1213.02	4	15	18.8	73.02	.0041	-22.48	.0001	193149.0	2.07	-.00	-.0029	242.09	.0024	-21.30	171.72
EXTM 42	1294.01	1305.26	4	16	51.0	359.83	.0042	-20.56	.0000	196589.2	1.69	75.34	.0000	.62	-.0154	-21.02	149.14
RISE 51	1428.80	1440.05	4	19	5.8	270.00	.0041	-19.97	.0000	215120.6	1.24	8.53	.0035	108.12	-.0016	-20.65	116.06
RISE 72	1587.92	1599.17	4	21	44.9	267.10	.0041	-20.04	-.0000	231212.8	1.13	.00	.0038	110.24	-.0006	-20.27	76.91
RISE 61	1634.78	1646.03	4	22	31.8	289.20	.0041	-21.24	.0000	235548.3	1.22	.00	.0028	110.33	.0027	-20.16	65.36
SET 42	1712.80	1724.05	4	23	49.8	104.14	.0041	-19.08	.0001	242648.4	1.85	-.00	-.0031	246.41	-.0023	-20.00	46.11
EXTM 51	1787.19	1798.44	5	1	4.2	359.94	.0042	-19.59	.0000	243027.8	1.47	83.95	.0000	.56	-.0361	-19.85	27.74
EXTM 61	1919.12	1930.37	5	3	16.1	.63	.0042	-20.82	.0000	257702.8	1.43	28.94	-.0000	180.67	.0045	-19.60	355.13
EXTM 72	1957.74	1968.99	5	3	54.7	.09	.0042	-19.82	.0000	257892.0	1.41	78.09	.0000	180.43	.0190	-19.53	345.58
RISE 11	2073.10	2084.35	5	5	50.1	285.01	.0042	-20.16	.0000	273723.9	1.04	.00	.0031	114.94	.0024	-19.33	317.02
SET 51	2146.15	2157.40	5	7	3.1	90.00	.0041	-18.68	.0001	278831.6	1.75	7.99	-.0036	253.06	-.0016	-19.22	298.93
SET 61	2203.62	2214.87	5	8	.6	72.05	.0041	-20.01	.0001	284365.8	1.65	-.00	-.0028	243.37	.0027	-19.13	284.69
SET 72	2326.30	2337.55	5	10	3.3	92.71	.0041	-18.77	.0001	294105.6	1.74	-.00	-.0039	251.04	-.0005	-18.95	254.26
RISE 42	2338.06	2349.31	5	10	15.1	256.60	.0041	-18.18	-.0000	295026.6	.96	.00	.0031	112.47	-.0024	-18.93	251.35
EXTM 11	2372.74	2383.99	5	10	49.7	.42	.0042	-19.88	.0000	294105.0	1.29	34.91	-.0000	180.48	.0048	-18.88	242.74
SET 11	2672.45	2683.70	5	15	49.4	75.79	.0042	-19.19	.0000	320344.0	1.57	.00	-.0031	246.20	.0024	-18.49	168.32
EXTM 42	2749.78	2761.03	5	17	6.8	359.88	.0042	-18.06	.0000	319945.2	1.21	72.84	.0000	.35	-.0134	-18.39	149.10
RISE 51	2880.27	2891.52	5	19	17.3	270.00	.0041	-17.80	-.0000	334461.2	.78	7.63	.0036	106.13	-.0017	-18.25	116.65
RISE 72	3039.07	3050.32	5	21	56.1	267.42	.0041	-17.92	-.0000	346379.4	.71	-.01	.0039	108.10	-.0006	-18.07	77.15
RISE 61	3074.84	3086.09	5	22	31.8	286.69	.0042	-18.75	.0000	348832.6	.82	.00	.0029	114.90	.0027	-18.04	68.25
SET 42	3159.61	3170.86	5	23	56.6	102.74	.0041	-17.45	.0000	354699.6	1.45	-.00	-.0032	248.59	-.0024	-17.97	47.10
EXTM 51	3237.27	3248.52	6	1	14.3	360.00	.0042	-17.78	.0000	353501.3	1.09	82.04	-.0000	.14	-.0070	-17.92	27.69
EXTM 61	3345.70	3356.95	6	3	22.7	.18	.0042	-18.71	.0000	364799.3	1.08	31.05	-.0000	180.20	.0047	-17.86	355.58
EXTM 72	3405.36	3416.61	6	4	2.4	.02	.0042	-18.01	.0000	364400.4	1.08	79.89	.0000	180.13	.0165	-17.84	349.65
RISE 11	3512.73	3523.98	6	5	49.7	283.56	.0042	-18.38	-.0000	377537.8	.73	.00	.0032	112.70	.0024	-17.79	318.79
SET 51	3593.41	3604.66	6	7	10.4	90.00	.0042	-17.36	.0000	381921.1	1.48	7.45	-.0036	254.27	-.0017	-17.76	298.59
SET 61	3656.39	3667.64	6	8	13.2	73.67	.0042	-18.38	.0000	386849.8	1.42	-.00	-.0029	245.60	.0027	-17.74	282.81
SET 72	3770.75	3782.00	6	10	7.	92.52	.0042	-17.98	.0000	394542.7	1.61	-.00	-.0039	252.24	-.0006	-17.71	254.11
RISE 42	3783.92	3795.17	6	10	2.	257.41	.0042	-17.16	-.0000	395472.4	.84	.00	.0032	111.17	-.0024	-17.71	250.80
EXTM 11	3813.92	3825.17	6	10	50.9	359.91	.0043	-18.46	-.0000	393907.7	1.26	36.34	.0000	179.89	.0050	-17.72	243.24
IMPACT	3867.28	3878.53	6	11	44.3												
IMPC 42	3867.28	3878.53	6	11	44.3	278.50	.0043	-17.29	-.0001	400493.2	1.64	16.66	.0035	99.69	-.0023	-17.75	229.71
IMPC 11	3867.28	3878.53	6	11	44.3	13.63	.0044	-18.48	-.0000	398697.7	2.11	34.78	-.0010	195.79	.0049	-17.75	229.71

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	3	19	16.995	6572.051	15.6226	303.2189	10.97113	-3.6661	121.8489	153.8317
SEPARATION	1.20	12.45	3	19	18.195	6544.783	11.8920	308.9254	10.99382	-.2428	123.2801	159.8391
RETRO	3.20	14.45	3	19	20.195	6604.799	5.4560	318.0454	10.94336	5.4540	124.7368	169.4604
ENTER SHA	45.46	56.71	3	20	2.457	18724.286	-15.0747	42.3515	6.45231	53.4480	91.6716	264.3611
EXIT SHA	93.32	104.57	3	20	50.319	32295.798	-13.3913	53.6139	4.87245	62.7907	78.4607	287.6219
IMPACT	3867.28	3878.53	6	11	44.280	402366.445	-17.7522	229.7068	2.18969	66.9794	253.3866	329.7872

JUL 3, 1966
115 DEGREES

JUL 1966

JUL 1966

SURVEYOR VIEW PERIODS

GHA	303.2420					EPS	-74.4181							LOM	272.5172
SX	-.686652	SY	-.686452	SZ	-.289972	DAO	-16.85627	RAO	225.84671	RM	379950.234	LAT	28.310600	LON	279.461800
C3	-1.214415	ECC	.980061	SLR	12958.837	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.648926	NSY	-.699894	NSZ	-.298402	C3M	1.4926	VIM	2.6705	ZAE	134 299	B.T	.0000	B.R	-.0000
LATE	-.4688	LONE	6.2715	LATS	1.4439	LONS	80.5338	LATI	-11.6972	LONI	321.6325	RSM	152.0384	TTAN	4.3679
LAUNCH DATE	JUL 23,1966			BASE AZM	108.0		TF 61.816					ARRIVAL DATE	JUL 26 1966		0 40 14,4

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	1 30 21.8	27.4	18.15	304.43	-11.72	45.56	116.89	10 41 36.8	6612.9	10.92	-5.80

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	FLP	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	23	10	41.6												
SEPARATION		1.20	12.45	23	10	42.8												
RETRO		3.20	14.45	23	10	44.8												
RISE	72	5.43	16.68	23	10	47.0	64.68	-.1586	33.73	-.0153	2144.9	-9.16	.00	.1326	304.10	.0067	2.67	330.35
EXTM	72	8.28	19.53	23	10	49.9	29.26	-.5315	14.96	-.3097	931.7	-2.58	53.07	.5972	308.21	.0909	-5.11	342.13
RISE	51	11.35	22.60	23	10	53.0	82.81	-.0942	14.56	-.0543	4492.6	-4.82	-.00	.1058	286.20	-.0077	-12.13	353.23
EXTM	51	25.65	36.90	23	11	7.3	1.48	-.0576	-30.74	-.0151	5723.0	5.43	85.41	.0000	196.22	-.6500	-27.82	27.00
EXTM	72	69.72	80.97	23	11	51.3	273.16	.0001	-31.69	.0006	24068.0	4.84	6.81	.0000	121.17	-.0006	-31.85	55.66
RISE	42	75.14	86.39	23	11	56.8	105.00	-.0043	-23.91	-.0011	26115.2	4.31	2.32	.0038	242.10	.0015	-31.71	56.56
EXTM	51	84.56	95.81	23	12	6.2	322.11	-.0000	-31.71	.0008	24165.6	4.48	56.41	.0000	109.20	-.0014	-31.41	57.57
EXTM	42	118.61	129.86	23	12	40.2	100.37	-.0000	-24.93	.0000	37072.5	4.07	6.30	-.0000	243.82	.0000	-30.27	57.52
SET	42	182.25	193.50	23	13	43.9	105.00	.0020	-24.35	.0002	51833.9	3.68	2.59	-.0016	241.75	-.0010	-28.49	50.23
RISE	61	199.89	211.14	23	14	1.5	303.63	.0032	-33.21	.0006	55768.6	3.13	.00	.0021	135.84	.0017	-28.09	47.43
EXTM	61	471.31	482.56	23	18	32.9	4.66	.0040	-27.73	.0002	99795.2	2.47	21.89	.0000	184.44	.0038	-24.43	351.34
EXTM	72	499.31	510.56	23	19	.9	.75	.0041	-25.22	.0002	100333.4	2.41	72.67	.0000	182.29	.0124	-24.20	344.97
RISE	11	443.62	454.87	23	21	25.2	289.26	.0040	-25.05	.0001	126129.0	1.87	.00	.0029	121.22	.0023	-22.19	311.46
SET	51	690.59	701.84	23	22	12.2	90.00	.0039	-21.83	.0001	131181.4	2.49	9.29	-.0034	250.16	-.0014	-22.92	300.38
SET	61	731.97	743.22	23	22	53.6	67.20	.0040	-24.40	.0002	137425.8	2.35	-.00	-.0024	236.95	.0027	-22.70	290.57
SET	72	880.69	891.84	24	1	22.2	93.17	.0040	-21.69	.0001	155248.8	2.33	-.00	-.0037	248.09	-.0004	-22.02	255.01
RISE	42	893.12	904.37	24	1	34.7	255.00	.0040	-20.65	.0000	156664.3	1.59	.25	.0030	115.25	-.0023	-21.97	252.00
EXTM	11	935.49	946.74	24	2	17.1	1.42	.0042	-23.73	.0001	158260.2	1.88	31.04	-.0000	181.52	.0045	-21.80	241.78
SET	11	1225.46	1236.71	24	7	7.1	73.41	.0041	-22.03	.0001	192283.4	1.99	-.00	-.0029	242.67	.0024	-20.85	171.33
EXTM	42	1316.20	1327.45	24	8	37.8	359.83	.0042	-20.13	.0000	195178.8	1.62	74.91	-.0000	.63	-.0150	-20.60	149.15
RISE	51	1451.20	1462.45	24	10	52.8	270.00	.0041	-19.98	-.0000	213132.9	1.16	8.37	.0035	107.77	-.0016	-20.27	116.05
RISE	72	1610.71	1621.96	24	13	32.3	267.15	.0041	-19.70	-.0000	228518.9	1.05	.00	.0038	109.90	-.0006	-19.92	76.84
RISE	61	1656.07	1667.32	24	14	17.7	288.88	.0041	-20.92	.0000	232906.7	1.14	.00	.0028	117.89	.0027	-19.83	65.67
SET	42	1734.29	1745.54	24	15	35.9	103.87	.0041	-18.76	.0001	239263.2	1.77	-.00	-.0031	246.82	-.0023	-19.68	46.39
EXTM	51	1809.95	1821.20	24	16	51.6	359.95	.0042	-19.38	.0000	239405.9	1.39	83.64	-.0000	.42	-.0336	-19.54	27.73
EXTM	61	1941.75	1953.00	24	19	3.4	.58	.0042	-20.56	.0000	253411.7	1.35	29.20	-.0000	180.62	.0045	-19.32	352.18
EXTM	72	1980.56	1991.81	24	19	42.2	.08	.0042	-19.54	.0000	253449.9	1.33	78.37	.0000	180.40	.0193	-19.25	345.59
RISE	11	2095.32	2106.57	24	21	36.9	284.81	.0042	-19.91	.0000	268678.0	.95	.00	.0031	114.63	.0024	-19.07	317.21
SET	51	2169.08	2180.33	24	22	50.7	90.00	.0041	-18.42	.0000	273492.2	1.07	7.89	-.0036	253.30	-.0016	-18.96	298.95
SET	61	2227.50	2238.75	24	23	49.1	72.27	.0041	-19.78	.0001	278799.5	1.57	.01	-.0028	243.68	.0027	-18.88	284.48
SET	72	2349.21	2360.46	25	1	50.8	92.67	.0041	-18.53	.0001	287847.7	1.65	-.00	-.0039	251.28	-.0005	-18.71	254.33
RISE	42	2362.12	2373.37	25	2	3.7	256.79	.0041	-17.93	-.0000	288793.1	.87	.00	.0031	112.14	-.0024	-18.70	251.13
EXTM	11	2395.83	2407.08	25	2	37.4	.39	.0042	-19.68	.0000	287605.5	1.21	35.11	-.0000	180.45	.0048	-18.65	242.77
SET	11	2696.39	2707.64	25	7	38.0	75.93	.0042	-19.00	.0000	312355.1	1.48	.00	-.0031	246.51	.0024	-18.29	168.19
EXTM	42	2773.32	2784.57	25	8	54.9	359.89	.0042	-17.96	.0000	311522.6	1.12	72.64	.0000	.36	-.0132	-18.20	149.09
RISE	51	2903.98	2915.23	25	11	5.6	270.00	.0041	-17.60	-.0000	325342.4	.69	7.54	.0036	105.95	-.0017	-18.06	116.63
RISE	72	3062.55	3073.80	25	13	44.2	267.45	.0042	-17.71	-.0000	336550.2	.63	-.01	.0039	107.89	-.0006	-17.86	77.09
RISE	61	3097.24	3108.49	25	14	18.9	286.50	.0042	-18.56	.0000	338760.7	.74	.00	.0029	114.64	.0027	-17.82	68.42
SET	42	3181.55	3192.80	25	15	43.2	102.53	.0042	-17.08	.0000	344103.6	1.41	-.00	-.0032	248.93	-.0024	-17.72	47.34
EXTM	51	3260.04	3271.29	25	17	1.7	359.97	.0042	-17.47	.0000	342792.7	1.05	81.73	-.0000	.23	-.0243	-17.62	27.71
EXTM	61	3389.33	3400.58	25	19	10.9	.39	.0042	-18.33	.0000	353839.4	1.05	31.43	-.0000	180.43	.0047	-17.46	355.37
EXTM	72	3428.25	3439.50	25	19	49.9	.05	.0043	-17.98	.0000	353351.8	1.05	80.32	.0000	180.30	.0229	-17.41	345.62
RISE	11	3533.84	3545.09	25	21	35.4	283.15	.0042	-17.98	.0000	366255.1	.72	.00	.0032	112.07	.0024	-17.27	319.17
SET	51	3615.72	3626.97	25	22	57.3	90.00	.0042	-16.74	.0000	370799.5	1.53	7.18	-.0037	254.84	-.0017	-17.14	298.61
SET	61	3681.08	3692.33	26	0	2.7	74.36	.0042	-17.47	.0001	376253.1	1.64	-.00	-.0029	246.57	.0028	-17.01	282.13
IMPACT		3708.98	3720.23	26	0	30.6												
IMPC	72	3708.98	3720.23	26	0	30.6	71.60	.0043	-16.48	.0001	376579.2	2.31	19.83	-.0041	254.84	-.0001	-16.91	275.02
IMPC	11	3708.98	3720.23	26	0	30.6	327.69	.0044	-17.65	.0001	375669.5	1.67	28.90	.0021	144.42	.0041	-16.91	275.02
IMPC	61	3708.98	3720.23	26	0	30.6	81.49	.0043	-17.54	.0001	379290.8	2.21	-4.99	-.0030	251.19	.0028	-16.91	275.02

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	23	10	41.614	6614.[illegible]	18.1823	304.3538	10.92432	-5.8020	116.8589	45.4815
SEPARATION		1.20	12.45	23	10	42.814	6556.420	14.9522	310.4441	10.97166	-2.4147	118.6871	51.8727
RETRO		3.20	14.45	23	10	44.814	6564.427	9.2223	320.1594	10.96321	3.2835	120.8345	62.0893
IMPACT		3708.98	3720.23	26	0	30.597	3787[illegible].090	-16.9139	275.0236	7.13207	41.6646	305.3025	225.9350

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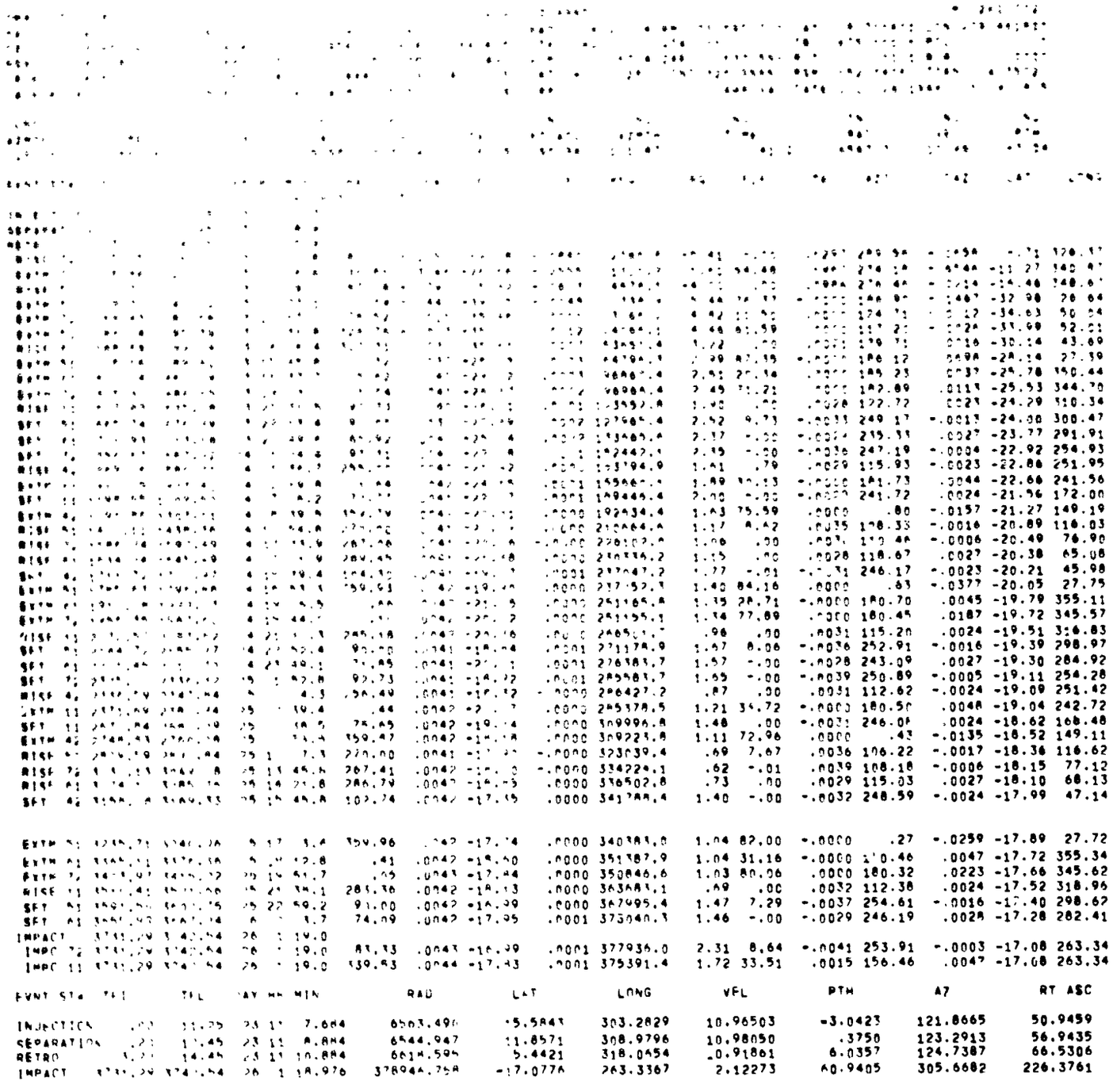
SURVEYOR VIEW PERIODS

GHA	303.2420					EPS	-74.2604							LOM	268.0972
SX	-.666440	SY	-.688360	SZ	-.290998	240	-16.91769	RAO	226.01296	RM	380004.695	LAT	28.310600	LON	279.461800
C3	-1.219422	ECC	.979978	SLR	12958 7?1	RCA	(544.6650	LTA	-26.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.646625	NSY	-.701580	NSZ	-.299435	C3M	1.4970	VIM	2.6714	ZAE	134.046	B.T	.0000	B.R	-.0000
LATE	-.4492	LONE	6.2736	LATS	1.4444	LONS	80.3787	LATI	-11.8677	LONI	321.4110	RSM	152.0392	TTAN	4.3648
LAUNCH DATE	JUL 23,1966			BASE AZM	111.0		TF 61.918					ARRIVAL DATE	JUL 26 1966 0 58 32.1		

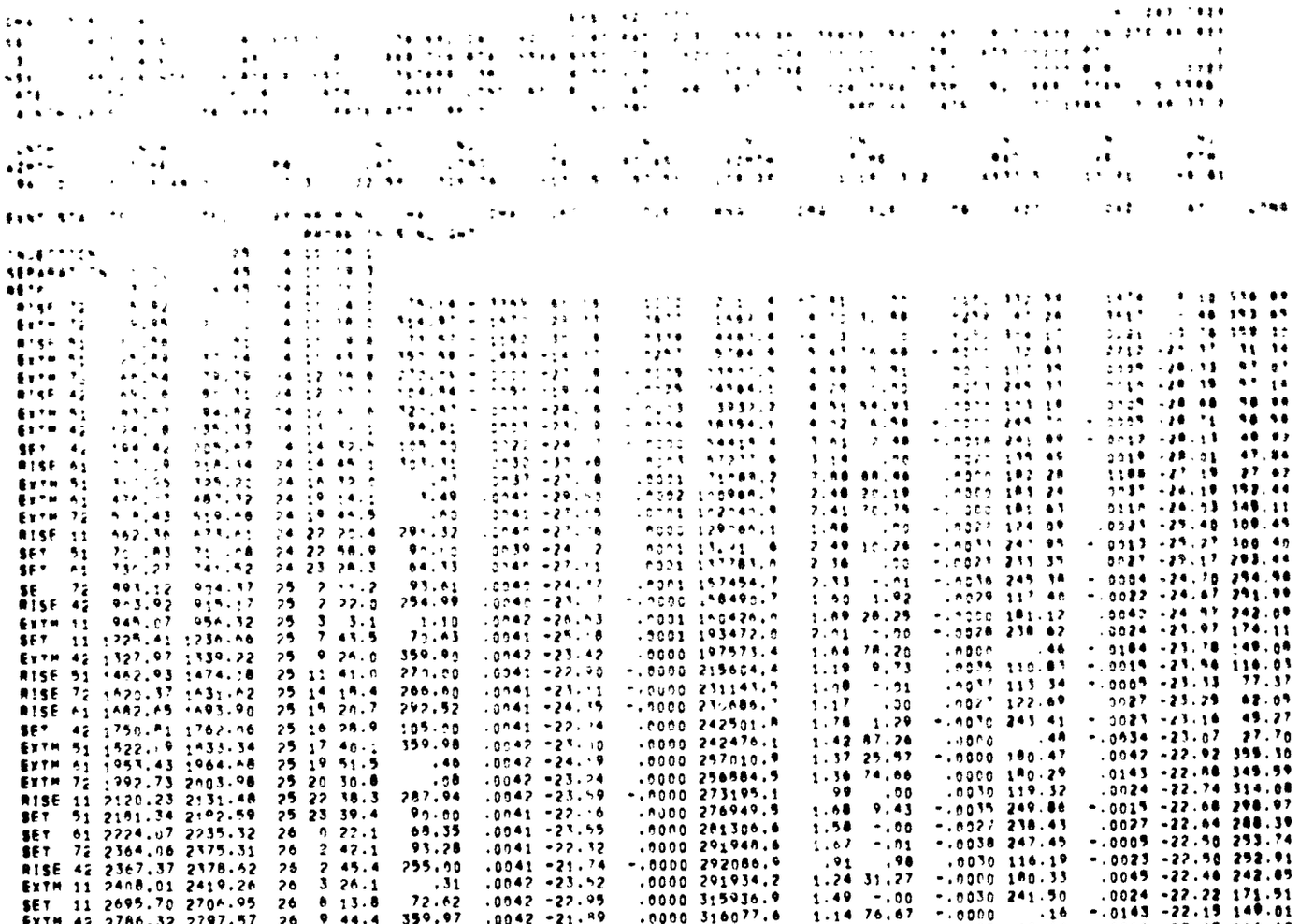
LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FTH
111.00	10 42 12.3	27.5	17.03	303.99	-9.16	48.08	119.09	10 53 27.3	6586.2	10.95	-4.53

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRQ	FLE	DEL	AZI	DAZ	LAT	LONG
						PRORE IN SUNLIGHT											
INJECTION	.00	11.25	23	10	53.5												
SEPARATION	1.20	12.45	23	10	54.7												
RETRO	3.20	14.45	23	10	56.7												
RISE 72	5.28	16.53	23	10	58.7	85.90	-.1422	27.24	-.0485	2246.1	-8.94	.00	.1325	297.52	-.0284	1.26	328.53
EXTM 72	9.04	20.29	23	11	2.5	13.50	-.4602	-15.00	-.2906	1045.8	2.08	72.35	.3043	244.82	-1.4395	-8.95	343.42
RISE 51	11.30	22.55	23	11	4.8	84.76	-.0875	10.72	-.0581	4656.2	-4.48	.01	.1029	281.92	-.0141	-13.94	351.19
EXTM 51	27.06	38.31	23	11	20.5	2.23	-.0518	-34.26	-.0101	6354.1	5.45	81.26	.0000	192.21	-.2894	-30.00	26.62
EXTM 72	69.57	80.82	23	12	3.0	275.65	.0001	-33.24	.0008	23918.1	4.84	9.03	.0000	122.57	-.0009	-32.97	53.07
EXTM 51	84.75	96.00	23	12	18.2	325.18	-.0001	-33.16	.0010	24211.3	4.46	58.94	.0000	112.12	-.0019	-32.44	55.03
RISE 42	87.44	98.69	23	12	20.9	105.00	-.0026	-25.41	-.0005	29538.5	4.26	3.24	.0021	240.92	.0010	-32.33	55.21
EXTM 42	117.97	129.22	23	12	51.4	102.90	-.0000	-25.72	.0001	37171.7	4.07	4.93	-.0000	241.82	.0001	-31.18	55.00
SET 42	158.83	170.08	23	13	32.3	105.00	.0015	-25.32	.0002	46823.3	3.81	3.19	-.0012	240.99	-.0007	-29.86	50.98
RISE 61	193.70	204.95	23	14	7.2	305.15	.0032	-34.23	.0006	54589.9	3.19	.00	.0021	137.46	.0017	-28.93	45.86
EXTM 51	292.30	303.55	23	15	45.8	.14	.0037	-27.14	.0003	67238.7	2.94	88.60	-.0000	185.19	.1345	-27.02	27.56
EXTM 61	461.26	472.51	23	18	34.7	5.05	.0040	-28.34	.0003	98414.7	2.49	21.26	.0030	184.77	.0038	-24.97	350.97
EXTM 72	488.08	499.33	23	19	1.5	.85	.0041	-25.80	.0002	98767.1	2.43	72.08	.0000	182.48	.0119	-24.73	344.88
RISE 11	634.17	645.42	23	21	27.6	289.69	.0040	-25.52	.0001	124920.1	1.88	.00	.0028	121.82	.0023	-23.63	311.01
SET 51	679.11	690.36	23	22	12.6	90.00	.0039	-22.26	.0001	129723.7	2.50	9.47	-.0034	249.76	-.0014	-23.39	300.42
SET 61	718.45	729.70	23	22	51.9	66.70	.0040	-25.06	.0002	135761.8	2.36	-.00	-.0024	236.30	.0027	-23.13	291.10
SET 72	869.50	880.75	24	1	23.0	93.22	.0040	-22.04	.0001	153979.2	2.34	-.00	-.0037	247.73	-.0004	-22.38	254.98
RISE 42	882.00	893.25	24	1	35.5	255.00	.0040	-20.89	.0000	155373.8	1.60	.47	.0023	119.52	-.0023	-22.32	251.98
EXTM 11	924.66	935.91	24	2	18.1	1.51	.0042	-24.10	.0001	157081.8	1.89	30.68	-.0000	181.60	.0044	-22.14	241.69
SET 11	1213.23	1224.48	24	7	6.7	73.16	.0041	-22.33	.0001	191039.9	2.00	-.00	-.0029	232.29	.0024	-21.13	171.60
EXTM 42	1305.08	1316.33	24	8	38.5	359.84	.0042	-20.40	.0000	194068.2	1.62	75.18	-.0000	.60	-.0153	-20.86	149.14
RISE 51	1440.09	1451.34	24	10	53.5	270.00	.0041	-19.82	-.0000	212054.5	1.17	8.46	.0035	107.99	-.0016	-20.51	116.04
RISE 72	1599.46	1610.71	24	13	32.9	267.12	.0041	-19.92	-.0000	227473.6	1.05	.00	.0038	110.12	-.0006	-20.15	78.86
RISE 61	1645.85	1657.10	24	14	19.3	289.10	.0041	-21.14	.0000	231561.0	1.15	.00	.0028	118.20	.0027	-20.05	65.44
SET 42	1723.76	1735.01	24	15	37.2	104.03	.0041	-18.96	.0001	238304.1	1.77	-.00	-.0031	246.57	-.0023	-19.89	46.24
EXTM 51	1798.75	1810.00	24	16	52.2	359.95	.0042	-19.58	.0000	238400.4	1.40	83.84	-.0000	.50	-.0351	-19.74	27.74
EXTM 61	1930.70	1941.95	24	19	4.2	.61	.0042	-20.75	.0000	252458.3	1.35	29.01	-.0000	180.65	.0045	-19.50	355.15
EXTM 72	1969.41	1980.66	24	19	42.9	.09	.0042	-19.72	.0000	252480.1	1.34	78.18	.0000	180.42	.0190	-19.43	345.58
RISE 11	2084.74	2095.99	24	21	38.2	284.95	.0042	-20.08	.0000	267762.2	.96	.00	.0031	114.85	.0024	-19.24	317.06
SET 51	2157.87	2169.12	24	22	51.3	90.00	.0041	-18.58	.0001	272528.8	1.67	7.95	-.0036	293.15	-.0016	-19.13	298.96
SET 61	2215.66	2226.91	24	23	49.1	72.12	.0041	-19.95	.0001	277802.8	1.57	-.00	-.0028	243.45	.0027	-19.04	284.65
SET 72	2338.09	2349.34	25	1	51.5	92.69	.0041	-18.68	.0001	286916.0	1.65	-.00	-.0039	251.13	-.0005	-18.86	254.31
RISE 42	2350.47	2361.72	25	2	3.9	256.68	.0041	-18.08	-.0000	287823.4	.87	.00	.0031	112.33	-.0024	-18.85	251.24
EXTM 11	2384.71	2395.96	25	2	38.2	.41	.0042	-19.83	.0000	286691.6	1.21	34.96	-.0000	180.47	.0048	-18.80	242.75
SET 11	2684.71	2695.96	25	7	38.2	75.82	.0042	-19.13	.0000	311409.4	1.48	.01	-.0031	246.35	.0024	-18.41	168.31
EXTM 42	2762.06	2773.31	25	8	55.5	359.88	.0042	-17.98	.0000	310606.9	1.12	72.76	.0000	.39	-.0133	-18.32	149.10
RISE 51	2892.76	2904.01	25	11	6.2	270.00	.0041	-17.71	-.0000	324434.1	.69	7.59	.0036	106.05	-.0017	-18.17	116.62
RISE 72	3051.27	3062.52	25	13	44.7	267.44	.0042	-17.82	-.0000	335641.5	.63	-.01	.0039	107.99	-.0006	-17.97	77.10
RISE 61	3086.44	3097.69	25	14	19.9	286.61	.0042	-18.46	.0000	337878.8	.74	.00	.0029	114.78	.0027	-17.93	68.31
SET 42	3170.63	3181.88	25	15	44.1	102.61	.0042	-17.18	.0000	343204.5	1.41	-.00	-.0032	248.81	-.0024	-17.82	47.27
EXTM 51	3248.81	3260.06	25	17	2.3	359.97	.0042	-17.57	.0000	341862.5	1.05	81.83	-.0000	.25	-.0240	-17.72	27.72
EXTM 61	3378.15	3389.40	25	19	11.6	.40	.0042	-18.43	.0000	352899.3	1.04	31.33	-.0000	180.44	.0047	-17.56	355.36
EXTM 72	3417.05	3428.30	25	19	50.5	.05	.0043	-17.68	.0000	352393.4	1.04	80.23	.0000	180.30	.0228	-17.20	348.62
RISE 11	3522.96	3534.21	25	21	36.4	283.22	.0042	-17.97	.0000	365274.9	.71	.00	.0032	112.18	.0024	-17.36	319.09
SET 51	3604.56	3615.81	25	22	58.0	90.00	.0042	-16.83	.0000	369729.3	1.51	7.22	-.0037	254.76	-.0016	-17.24	298.61
SET 61	3669.62	3680.87	26	0	3.1	74.26	.0042	-17.78	.0001	374995.8	1.55	-.00	-.0029	246.43	.0028	-17.11	282.24
IMPACT	3715.07	3726.32	26	0	48.5												
IMPC 72	3715.07	3726.32	26	0	48.5	75.95	.0043	-16.92	.0001	377074.0	2.31	15.67	-.0041	254.56	-.0002	-16.97	270.69
IMPC 11	3715.07	3726.32	26	0	48.5	332.07	.0044	-17.77	.0001	375543.1	1.69	30.81	.0019	148.70	.0043	-16.97	270.69

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FTH	AZ	RT ASC
INJECTION	.00	11.25	23	10	53.455	6586.908	17.0471	303.9519	10.94647	-4.9312	119.0190	48.0480
SEPARATION	1.20	12.45	23	10	54.655	6547.196	13.5950	309.8825	10.97923	-1.1205	120.6691	54.2794
RETRO	3.20	14.45	23	10	56.655	6586.777	7.5650	319.3281	10.94586	4.5629	122.5024	64.2264
IMPACT	3715.07	3726.32	26	0	48.522	378846.629	-16.9747	270.6930	2.12942	61.4756	305.5399	226.3901



EVNT	STA	TRK	TYP	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION				23	17	7.664	6503.496	+5.5843	303.2829	10.96503	-3.0423	121.8665	50.9459
SEPARATION				23	11	8.884	6544.947	11.8571	308.9796	10.98050	.3750	123.2913	56.9435
RETRO				23	17	10.884	6614.595	5.4421	318.0454	10.91861	6.0357	124.7387	66.5306
IMPACT				26	1	18.976	378944.258	-17.0776	263.3367	2.12273	60.9405	305.6682	226.3761



EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION		.00	11.25	24	11	18.053	6634.726	22.5732	306.1428	10.91180	-6.6141	108.3443	57.3908
SEPARATION		1.20	12.45	24	11	19.253	6565.813	20.2414	312.8547	10.96834	-3.2387	110.9113	64.4036
RETRO		3.20	14.45	24	11	21.253	6556.926	15.7921	323.5296	10.97584	2.4672	114.3807	79.5799
IMPACT		3682.85	3694.10	27	0	40.899	382980.223	-21.2630	284.8411	2.17062	64.7907	298.8690	239.3207

[illegible] 279.2708
[illegible] LON 279.4A1800
[illegible] PCL -.0
[illegible] B.R -.0000
[illegible] TTAN 5.5678
[illegible] ARRIVAL DATE JUL 27 1966 [illegible] 3 14.5

LAUNCH AZIMUTH	[illegible] TIME	[illegible]	INJ [illegible] AT	INJ [illegible]	INJ [illegible]	INJ RT ASC	INJ AZIMUTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99.10	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	61.580	110.000	11 34 44.5	A590.4	10.95	-4.76

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION				24	11	34.7							
SEPARATION				4	11	35.9							
RETRO			11.45	4	11	47.9							
RISE	72	[illegible]	[illegible]	4	11	41.2	[illegible]	-.2426	6599.2	-8.05	-.00	.1253 323.82	.1040 8.15 334.00
EXTM	72	[illegible]	[illegible]	4	11	44.7	6590.27	-.2514	6560.0	4.64	45.35	.0000 49.24	.4492 -2.43 351.98
RISE	51	[illegible]	[illegible]	4	11	44.1	7A.9A	-.1078	6552.2	-4.48	.00	.1029 299.34	.0133 -5.20 356.62
EXTM	51	[illegible]	[illegible]	24	12	[illegible].9	755.89	-.1411	6350.4	5.46	81.84	-.0000 28.58	.3065 -22.15 29.79
EXTM	72	[illegible]	[illegible]	4	12	43.4	675.99	-.[illegible]	23466.0	4.87	9.03	.0000 118.22	.0004 -28.98 53.30
RISE	42	[illegible]	[illegible]	4	12	[illegible].8	105.01	-.0027	26856.8	4.25	1.18	.0029 243.56	.0004 -29.27 53.18
EXTM	51	[illegible]	[illegible]	24	12	[illegible].1	725.23	[illegible]	24390.8	4.46	59.07	.0000 104.55	.0003 -29.28 55.27
EXTM	42	[illegible].76	[illegible].1	24	13	[illegible].5	102.89	[illegible]	38718.7	4.01	3.99	-.0000 243.39	-.0005 -29.21 54.73
SET	42	[illegible].40	[illegible]	24	14	[illegible].1	104.99	.0014	47520.4	3.78	2.60	-.0011 241.74	-.0010 -28.86 50.82
RISE	51	[illegible]	[illegible]	4	14	44.8	704.58	[illegible]	54335.5	3.23	-.00	.0019 136.86	.0018 -28.55 46.39
EXTM	51	294.84	[illegible]	24	14	29.6	.11	.0037	67861.5	2.95	87.94	-.0000 182.86	.0892 -27.62 27.58
EXTM	42	459.83	[illegible]	24	14	14.6	1.80	.0039	96686.9	2.51	19.74	.0000 183.50	.0036 -26.53 352.15
EXTM	72	491.14	[illegible].41	24	14	43.9	.43	.0040	7637.1	2.44	70.36	.0000 181.65	.0107 -26.37 345 09
RISE	11	446.93	456.18	24	22	21.7	291.81	.0040	27129.0	1.90	.00	.0027 124.50	.0023 -25.68 309.12
SET	51	483.84	495.06	24	22	58.6	90.00	.0039	130807.7	2.51	10.36	-.0033 247.71	-.0013 -25.54 300.45
SET	41	711.90	723.15	24	23	28.6	83.97	.0040	135546.6	2.38	-.00	-.0023 232.91	.0027 -25.44 293.83
SET	72	876.83	887.48	25	0	11.4	93.85	.0040	155615.3	2.35	-.01	-.0036 245.16	-.0004 -24.93 254.58
RISE	42	887.54	898.78	25	2	22.3	254.99	.0040	156659.0	1.62	2.05	.0029 117.57	-.0022 -24.89 251.96
EXTM	11	928.87	940.12	25	3	3.6	1.17	.0042	158687.4	1.90	28.01	-.0000 181.18	.0042 -24.78 242.03
SET	11	[illegible]	[illegible]	25	7	41.1	70.45	.0041	191806.9	2.01	-.00	-.0028 238.37	.0024 -24.15 174.30
EXTM	42	1511.80	1524.05	25	9	24.5	359.93	.0042	196054.8	1.64	78.37	-.0000 .35	-.0184 -23.95 149.05
RISE	51	1446.75	1458.00	25	11	41.5	270.00	.0041	214146.8	1.20	9.79	.0035 110.97	-.0015 -23.72 116.02
RISE	72	1604.14	1615.38	25	14	18.9	266.57	.0041	229754.8	1.09	-.01	.0037 113.49	-.0005 -23.48 77.38
RISE	61	1667.14	1678.39	25	15	21.9	292.67	.0041	235387.1	1.18	.00	.0027 122.89	.0027 -23.39 61.89
SET	42	1734.80	1745.95	25	16	29.3	105.00	.0041	241158.0	1.78	1.37	-.0030 243.31	-.0023 -23.29 45.28
EXTM	51	1805.91	1817.16	25	17	40.7	359.98	.0042	241169.6	1.42	87.40	.0000 .55	-.0677 -23.20 27.71
EXTM	41	1937.35	1948.60	25	19	52.1	.48	.0042	255770.5	1.38	25.45	-.0000 180.49	.0042 -23.04 355.28
EXTM	72	1976.80	1987.85	25	20	31.3	.09	.0042	255643.2	1.36	74.54	.0000 180.30	.0142 -22.99 345.59
RISE	11	2104.53	2115.78	25	22	39.3	288.84	.0042	272022.7	.99	.00	.0029 119.47	.0024 -22.85 313.98
SET	51	2165.18	2176.43	25	23	39.9	90.00	.0041	275754.3	1.69	9.47	-.0035 249.75	-.0015 -22.79 298.97
SET	41	2207.44	2218.69	26	0	22.2	68.23	.0041	280091.6	1.59	-.00	-.0027 238.28	.0027 -22.74 288.52
SET	72	2347.97	2359.22	26	2	42.7	93.29	.0041	290814.0	1.67	-.01	-.0038 247.35	.0005 -22.60 253.73
RISE	42	2351.27	2362.52	26	2	46.0	255.00	.0041	290945.3	.92	1.04	.0030 116.26	-.0023 -22.60 252.91
EXTM	11	2391.94	2403.19	26	3	26.7	.32	.0042	290821.9	1.24	31.17	-.0000 180.35	.0045 -22.56 242.83
SET	11	2677.26	2688.51	26	8	14.0	72.54	.0042	314858.5	1.50	-.00	-.0030 241.38	.0024 -22.31 171.59
EXTM	42	2770.24	2781.49	26	9	45.0	359.97	.0042	315042.4	1.15	76.75	-.0000 .14	-.0136 -22.23 149.01
RISE	51	2900.70	2911.95	26	11	55.4	270.00	.0041	329043.6	.74	9.23	.0035 109.71	-.0016 -22.13 116.61
RISE	72	3056.65	3067.90	26	14	31.4	266.81	.0042	340581.6	.67	-.00	.0038 112.05	-.0006 -21.99 77.72
RISE	41	3110.69	3121.94	26	15	25.4	290.71	.0042	344126.9	.79	.00	.0028 120.34	.0027 -21.94 64.22
SET	42	3188.16	3199.41	26	16	42.9	105.00	.0041	349108.8	1.43	.67	-.0031 244.22	-.0023 -21.87 44.87
EXTM	51	3256.87	3268.12	26	17	51.6	359.99	.0042	347345.1	1.08	86.00	-.0000 .27	-.0299 -21.81 27.70
EXTM	41	3385.89	3397.14	26	20	.6	.32	.0042	359115.1	1.09	27.17	-.0000 180.33	.0044 -21.69 355.43
EXTM	72	3425.14	3436.39	26	20	39.9	.06	.0043	358427.7	1.09	76.01	.0000 180.24	.0157 -21.65 345.61
RISE	11	3544.80	3556.05	26	22	39.5	286.69	.0042	372461.3	.79	.00	.0030 117.48	.0024 -21.53 315.64
SET	51	3612.54	3623.79	26	23	47.3	90.00	.0042	376161.5	1.60	8.98	-.0036 250.87	-.0016 -21.45 298.62
SET	41	3660.49	3671.74	27	0	35.2	69.97	.0042	380831.1	1.72	-.00	-.0028 240.56	.0028 -21.37 286.52
IMPACT		3683.07	3694.32	27	0	57.8							
IMPC	72	3683.07	3694.32	27	0	57.8	65.84	.0043	-21.33	.0001	380261.1	2.36 25.32	-.0040 250.09	.0002 -21.31 280.76
IMPC	11	3683.07	3694.32	27	0	57.8	321.88	.0044	-22.05	.0001	380570.0	1.73 22.29	.0023 141.80	.0036 -21.31 280.76
IMPC	61	3683.07	3694.32	27	0	57.8	75.75	.0043	-21.95	.0001	383407.3	2.28 -3.85	-.0029 244.29	.0028 -21.31 280.76

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	24	11	34.742	6591.295	21.3612	306.0256	10.94775	-4.7579	110.5848	61.4575
SEPARATION		1.20	12.45	24	11	35.942	6548.343	18.7923	312.5675	10.98313	-1.3522	112.9381	68.3002
RETRO		3.20	14.45	24	11	37.942	6582.845	14.0092	322.9786	10.95404	4.3476	116.0305	79.2126
IMPACT		3683.07	3694.32	27	0	57.812	383032.512	-21.3076	280.7602	2.16971	64.5580	298.8521	239.4798

SURVEYOR VIEW PERIODS

GHA	304.2276					EPS	-61.7492							LOM	274.0946
SX	-.472107	SY	-.803157	SZ	-.363392	DAO	-21.10867	RAP	239.55240	RM	384295.504	LAT	28.310800	LON	279.461800
CJ	-1.117341	ECC	.981654	SLR	12969.268	RPA	6544.8450	LTA	-28.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.452216	NSY	-.811737	NSZ	-.369571	CSM	1.4976	VIM	2.6715	ZAE	136.862	R.T	.0000	B.R	-.0000
LATE	1.1006	LONE	6.2888	LATS	1.4644	LAN	67.9446	LATI	-8.9777	LONI	324.1848	RSM	192.1014	TTAN	9.9721
LAUNCH DATE	JUL 24.1966			BASE AZM	102.0		TF 61.480					ARRIVAL DATE	JUL 27 1966	1 24 41.3	

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FTH
102.00	11 36	8.3	27.7	20.17	305.77	-6.17	64.88	112.77	11 49 23.3	6564.7	10.97	-3.16

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELF	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	24	11	49.4												
SEPARATION		1.20	12.45	24	11	50.6												
RETRO		3.20	14.45	24	11	52.6												
RISE	72	5.19	16.44	24	11	54.6	81.80	-.2008	45.77	.0392	2391.4	-8.38	-.00	.1296	316.34	.0660	7.05	331.53
EXTM	72	9.78	21.03	24	11	59.2	338.63	-.2537	14.33	-.2453	1440.6	4.25	59.28	.0000	43.71	.6797	-3.90	349.49
RISE	51	11.21	22.46	24	12	.6	78.64	-.0989	22.22	-.0420	4830.6	-4.21	.00	.1005	294.83	.0098	-6.76	354.19
EXTM	51	28.53	39.78	24	12	17.9	358.42	-.0371	-22.53	-.0151	6971.7	5.44	86.48	-.0000	24.52	.6098	-24.07	28.52
EXTM	72	69.10	80.35	24	12	58.5	279.43	-.0000	-30.31	-.0002	23632.6	4.84	12.10	.0000	119.42	.0002	-29.83	50.03
EXTM	51	86.81	98.06	24	13	16.2	329.33	.0000	-30.42	.0000	24764.3	4.43	62.63	.0000	106.95	-.0001	-30.06	51.99
RISE	61	180.53	191.78	24	14	49.9	306.05	.0030	-34.82	.0005	52048.6	3.31	-.00	.0019	138.41	.0017	-29.23	44.77
EXTM	51	278.04	289.29	24	16	27.4	.17	.0036	-28.46	.0002	64957.9	3.01	87.28	-.0000	183.21	.0666	-28.21	27.53
EXTM	61	446.21	457.46	24	19	15.6	4.18	.0039	-30.44	.0002	96750.9	2.54	19.21	.0000	183.82	.0036	-26.97	351.80
EXTM	72	476.57	487.82	24	19	46.0	.74	.0040	-28.00	.0001	97570.6	2.47	69.89	-.0000	181.90	.0104	-26.79	344.98
RISE	11	634.05	645.30	24	22	23.4	291.98	.0040	-27.94	.0000	125472.9	1.92	.00	.0027	124.99	.0023	-26.02	308.72
SET	51	669.13	680.38	24	22	58.5	90.00	.0039	-24.80	.0001	128932.1	2.52	10.50	-.0033	247.40	-.0013	-25.88	300.49
SET	61	695.41	706.66	24	23	24.8	63.52	.0040	-27.79	.0002	133484.6	2.39	-.00	-.0023	232.36	.0027	-25.78	294.30
SET	72	862.40	873.65	25	2	11.8	93.70	.0039	-24.87	.0001	153976.7	2.36	-.01	-.0036	244.87	-.0004	-25.21	254.57
RISE	42	873.37	884.62	25	2	22.8	254.99	.0040	-23.75	-.0000	155016.7	1.63	2.22	.0029	117.78	-.0022	-25.18	291.94
EXTM	11	914.94	926.19	25	3	4.3	1.24	.0042	-27.07	.0001	157146.9	1.91	27.71	-.0000	181.25	.0042	-25.06	241.95
SET	11	1193.27	1204.52	25	7	42.7	70.23	.0041	-25.61	.0001	190264.4	2.02	-.00	-.0028	238.06	.0024	-24.37	174.54
EXTM	42	1297.64	1308.89	25	9	27.0	359.90	.0042	-23.80	.0000	194642.4	1.65	78.58	-.0000	.46	-.0188	-24.16	149.08
RISE	51	1432.76	1444.01	25	11	42.2	270.00	.0041	-23.24	-.0000	212794.6	1.20	9.86	.0035	111.15	-.0015	-23.91	116.01
RISE	72	1590.04	1601.29	25	14	19.4	266.54	.0041	-23.42	-.0000	228448.9	1.09	-.01	.0037	113.66	-.0005	-23.65	77.40
RISE	61	1653.96	1665.21	25	15	23.3	292.87	.0041	-24.67	-.0000	234178.5	1.19	.00	.0026	123.15	.0027	-23.56	61.68
SET	42	1720.56	1731.81	25	16	30.0	105.00	.0041	-22.53	.0001	239879.2	1.79	1.47	-.0030	243.19	-.0023	-23.36	45.29
EXTM	51	1791.96	1803.21	25	17	41.3	359.99	.0042	-23.30	.0000	239925.0	1.43	87.56	-.0000	.49	-.0454	-23.36	27.70
EXTM	61	1923.47	1934.72	25	19	52.9	.51	.0042	-24.47	.0000	254575.3	1.38	25.29	-.0000	180.51	.0042	-23.19	355.25
EXTM	72	1962.64	1973.89	25	20	32.0	.09	.0042	-23.52	.0000	254438.5	1.37	74.39	.0000	180.32	.0141	-23.14	345.58
RISE	11	2091.08	2102.33	25	22	40.5	288.17	.0042	-23.84	-.0000	270876.7	1.00	.00	.0029	119.65	.0024	-22.99	313.84
SET	51	2151.18	2162.43	25	23	40.6	90.00	.0041	-22.39	.0000	274568.2	1.69	9.52	-.0035	249.64	-.0015	-22.92	298.98
SET	61	2192.84	2204.09	26	0	22.2	68.08	.0041	-23.80	.0000	278872.1	1.59	-.00	-.0027	238.08	.0027	-22.88	288.67
SET	72	2334.06	2345.31	26	2	43.4	93.31	.0041	-22.54	.0001	289667.0	1.67	-.01	-.0038	247.23	-.0005	-22.73	253.71
RISE	42	2337.32	2348.57	26	2	46.7	255.00	.0041	-21.95	-.0000	289788.1	.92	1.12	.0030	116.36	-.0023	-22.72	252.90
EXTM	11	2378.04	2389.29	26	3	27.4	.34	.0042	-23.75	.0000	289693.4	1.24	31.04	-.0000	180.36	.0045	-22.68	242.82
SET	11	2664.90	2676.15	26	8	14.3	72.44	.0042	-23.15	.0000	313717.4	1.50	-.00	-.0029	241.24	.0024	-22.41	171.69
EXTM	42	2756.30	2767.55	26	9	45.7	359.98	.0042	-22.07	.0000	313937.4	1.15	76.85	-.0000	.13	-.0114	-22.33	149.00
RISE	51	2886.76	2898.01	26	11	56.1	270.00	.0041	-21.78	-.0000	327946.9	.74	9.27	.0035	109.80	-.0016	-22.23	116.61
RISE	72	3042.78	3054.03	26	14	32.2	266.79	.0042	-21.92	-.0000	339495.1	.67	-.01	.0038	112.15	-.0006	-22.08	77.73
RISE	61	3097.27	3108.52	26	15	26.7	290.81	.0042	-22.78	-.0000	343065.4	.79	.00	.0028	120.47	.0027	-22.03	64.12
SET	42	3174.31	3185.56	26	16	43.7	105.00	.0041	-21.32	.0000	348005.6	1.43	.72	-.0031	244.15	-.0023	-21.96	44.87
EXTM	51	3243.03	3254.28	26	17	52.4	359.99	.0042	-21.82	.0000	346239.3	1.08	86.08	-.0000	.27	-.0305	-21.89	27.70
EXTM	61	3372.07	3383.32	26	20	1.5	.33	.0042	-22.67	.0000	357994.4	1.08	27.09	-.0000	180.34	.0044	-21.77	355.43
EXTM	72	3411.29	3422.54	26	20	40.7	.06	.0043	-21.98	.0000	357287.6	1.08	75.92	.0000	180.24	.0155	-21.74	345.61
RISE	11	3531.25	3542.50	26	22	40.6	286.76	.0042	-22.23	-.0000	371274.4	.78	.00	.0030	117.58	.0024	-21.61	315.56
SET	51	3598.73	3609.98	26	23	48.1	90.00	.0042	-21.14	.0000	374860.9	1.56	9.01	-.0036	250.80	-.0016	-21.53	298.63
SET	61	3646.39	3657.64	27	0	35.8	69.87	.0042	-22.13	.0001	379320.6	1.59	-.00	-.0028	240.42	.0028	-21.46	286.62
IMPACT		3688.79	3700.04	27	1	18.2												
IMPC	72	3688.79	3700.04	27	1	18.2	70.78	.0043	-21.36	.0001	380793.5	2.37	20.72	-.0040	250.09	.0001	-21.36	275.85
IMPC	11	3688.79	3700.04	27	1	18.2	326.85	.0044	-22.12	.0001	380397.3	1.75	24.62	.0020	146.13	.0038	-21.36	275.85

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FTH	AZ	RT ASC
INJECTION		.00	11.25	24	11	49.388	6564.910	20.1799	305.7614	10.96918	-3.1554	112.7683	64.8646
SEPARATION		1.20	12.45	24	11	50.588	6544.809	17.3783	312.1469	10.98590	.2663	114.9238	71.5510
RETRO		3.20	14.45	24	11	52.588	6616.159	12.2919	322.2636	10.92595	5.9391	117.6524	82.1690
IMPACT		3688.79	3700.04	27	1	18.176	383096.109	-21.3613	275.8473	2.16666	64.2487	298.8909	239.6717

SURVEYOR VIEW PERIODS

GHA	304.2276					EPS	-41.5941						LOM	269.0785	
SX	-.4621968 SY	-.8044431 SZ	-.364273 RAD	-21.16282 RAD	239.74753 RM	384354.969	LAT	28.310600	LON	279.461800					
C3	-1.124453 RDC	.9851548 SLR	10968.535 RCA	6544.6456 ITA	-20.0000 GTA	20.00	TB	675.00000	POL	-.0					
NSX	-.4492965 NSY	-.8135004 NSZ	-.370453 DEM	1.4974 VIM	2.6715 ZAE	136.624	R.T	.0000	B.R	-.0000					
LATE	1.1221 LONE	2.2847 LATS	1.4447 LONS	67.7700 LATI	-9.1667 LONI	323.9812	RSM	152.1022	TTAN	5.5731					
LAUNCH DATE	JUL 24,1966	BASE AZM	105.0	TF	61.607		ARRIVAL DATE	JUL 27 1966	1 45 28.6						

LNCH AZMTH	LNCH TIME	RM	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	11 20 44.0	27.8	19.05	305.39	-3.63	67.65	114.92	12 1 59.0	6551.2	10.98	-1.80

EVNT STA	TFI	TFL	DAY	HR	MIN	RA	DRA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
					PROBE IN SUNLIGHT												
INJECTION	.0	11.25	24	12	2.0												
SEPARATION	1.20	12.45	24	12	3.2												
RETRO	3.20	14.45	24	12	5.2												
RISE 72	4.97	16.22	24	12	7.0	83.46	-.1751	39.43	.0091	2482.3	-8.49	.00	.1317	309.78	.0331	5.84	329.40
EXTM 72	9.52	20.77	24	12	11.5	353.50	-.2999	7.47	-.2328	1371.8	3.45	73.40	.0973	23.15	1.2778	-5.22	346.82
RISE 51	11.13	22.38	24	12	13.1	80.75	-.0916	18.44	-.0455	4995.7	-3.94	-.00	.0981	290.56	-.0007	-8.44	351.97
EXTM 51	29.51	40.76	24	12	31.5	1.51	-.0351	-25.95	-.0123	7441.5	5.39	88.63	.0295	260.99	-.6983	-25.85	26.87
EXTM 72	69.70	80.95	24	13	11.7	282.40	.0000	-31.79	.0000	23678.1	4.81	14.67	.0000	120.89	-.0000	-30.85	47.25
EXTM 51	87.94	99.17	24	13	29.9	332.85	-.0000	-31.71	.0002	25068.7	4.40	65.52	.0000	110.45	-.0005	-30.97	49.17
RISE 61	172.62	183.87	24	14	54.6	307.68	.0029	-35.44	.0005	50460.1	3.37	-.00	.0018	140.09	.0016	-30.00	43.06
EXTM 51	263.73	274.98	24	16	25.7	.26	.0035	-29.53	.0002	62433.5	3.06	86.50	.0000	183.78	.0507	-28.91	27.45
EXTM 61	435.01	446.26	24	19	17.0	4.50	.0039	-31.01	.0002	95151.7	2.56	18.62	.0000	184.15	.0036	-27.47	351.42
EXTM 72	464.19	475.44	24	19	46.2	.84	.0040	-28.54	.0001	95795.9	2.49	69.35	.0000	182.09	.0100	-27.28	344.89
RISE 11	623.59	634.84	24	22	25.6	292.40	.0040	-28.47	.0000	124107.6	1.93	.00	.0027	125.56	.0023	-26.42	308.28
SET 51	656.63	667.88	24	22	58.6	90.00	.0039	-25.18	.0001	127308.9	2.54	10.65	-.0033	247.05	-.0013	-26.27	300.54
SET 61	680.82	692.07	24	23	22.8	63.00	.0040	-28.21	.0002	131631.1	2.40	-.00	-.0023	231.74	.0027	-26.17	294.85
SET 72	850.38	861.63	25	2	12.4	93.75	.0039	-25.19	.0001	152564.6	2.37	-.01	-.0035	244.55	-.0004	-25.54	254.54
RISE 42	861.36	872.61	25	2	23.3	254.99	.0040	-24.16	-.0000	153591.0	1.64	2.41	.0029	118.02	-.0022	-25.50	251.91
EXTM 11	905.22	916.47	25	3	5.2	1.34	.0042	-27.41	.0001	155830.2	1.92	27.37	-.0000	181.33	.0042	-25.37	241.86
SET 11	1180.21	1191.46	25	7	42.2	69.98	.0041	-25.88	.0001	188890.9	2.03	-.00	-.0028	237.71	.0024	-24.63	174.80
EXTM 42	1285.56	1296.81	25	9	27.5	359.87	.0042	-24.04	.0000	193398.9	1.66	78.82	.0000	.60	-.0195	-24.40	149.10
RISE 51	1420.87	1432.12	25	11	42.9	270.00	.0041	-23.46	-.0000	211599.8	1.21	9.95	.0034	111.35	-.0015	-24.13	115.99
RISE 72	1578.03	1589.28	25	14	20.0	266.51	.0041	-23.62	-.0000	227286.8	1.10	-.01	.0037	113.86	-.0005	-23.85	77.42
RISE 61	1642.95	1654.20	25	15	24.9	293.09	.0041	-24.47	.0000	233118.5	1.19	.00	.0026	123.43	.0027	-23.75	61.46
SET 42	1708.61	1719.86	25	16	30.6	105.00	.0041	-22.71	.0001	238734.0	1.79	1.58	-.0030	243.04	-.0023	-23.65	45.30
EXTM 51	1780.00	1791.25	25	17	42.0	359.98	.0042	-23.48	.0000	238802.9	1.43	87.74	.0000	.63	-.0782	-23.54	27.71
EXTM 61	1911.67	1922.92	25	19	53.7	.54	.0042	-24.65	.0000	253502.6	1.38	25.11	-.0000	180.54	.0042	-23.36	355.23
EXTM 72	1950.76	1962.01	25	20	32.7	.10	.0042	-23.69	.0000	253351.3	1.37	74.22	.0000	180.34	.0140	-23.30	345.57
RISE 11	2079.75	2091.00	25	22	41.7	288.31	.0042	-24.00	-.0000	269842.3	1.00	.00	.0029	119.85	.0024	-23.14	313.70
SET 51	2139.24	2150.49	25	23	41.2	90.00	.0041	-22.54	.0001	273484.9	1.69	9.58	-.0035	249.50	-.0015	-23.07	298.99
SET 61	2180.26	2191.51	26	0	22.2	67.92	.0041	-23.95	.0001	277748.4	1.59	-.00	-.0026	237.87	.0027	-23.02	288.84
SET 72	2322.21	2333.46	26	2	44.2	93.33	.0041	-22.68	.0001	288611.4	1.67	-.01	-.0038	247.09	-.0005	-22.86	253.70
RISE 42	2325.44	2336.69	26	2	47.4	255.00	.0041	-22.68	-.0000	288720.7	.92	3.20	.0030	116.46	-.0023	-22.86	252.90
EXTM 11	2366.21	2377.46	26	3	28.2	.36	.0042	-23.49	.0000	288654.7	1.24	30.90	-.0000	180.38	.0045	-22.81	242.80
SET 1	2652.56	2663.81	26	8	14.5	72.34	.0042	-23.26	.0000	312643.7	1.50	-.00	-.0029	241.09	.0024	-22.53	171.79
EXTM 42	2744.25	2755.50	26	9	46.2	359.94	.0042	-22.18	.0000	312883.7	1.15	76.96	.0000	.25	-.0163	-22.44	149.04
RISE 51	2874.87	2886.12	26	11	56.8	270.00	.0041	-21.88	-.0000	326905.0	.74	9.31	.0035	109.89	-.0016	-22.33	116.60
RISE 72	3030.83	3042.08	26	14	32.8	266.78	.0042	-22.02	-.0000	338447.2	.67	-.01	.0038	112.24	-.0006	-22.17	77.74
RISE 61	3085.77	3097.02	26	15	27.8	290.91	.0042	-22.87	-.0000	342039.2	.78	.00	.0028	120.61	.0027	-22.12	64.02
SET 42	3162.40	3173.65	26	16	44.4	105.00	.0041	-21.40	.0000	346933.5	1.42	.78	-.0031	244.08	-.0023	-22.05	44.87
EXTM 51	3231.14	3242.39	26	17	53.1	359.99	.0042	-21.91	.0000	345161.0	1.08	86.17	-.0000	.31	-.0163	-21.98	27.70
EXTM 61	3360.22	3371.47	26	20	2.2	.34	.0042	-22.76	.0000	356896.4	1.08	27.00	-.0030	180.35	.0044	-21.86	355.42
EXTM 72	3399.43	3410.68	26	20	41.4	.06	.0043	-22.06	.0000	356169.6	1.08	75.84	.0000	180.25	.0155	-21.82	345.61
RISE 11	3519.71	3530.96	26	22	41.7	286.83	.0042	-22.31	-.0000	370113.9	.76	.00	.0030	117.59	.0024	-21.69	315.49
SET 51	3586.92	3598.17	26	23	48.9	90.00	.0042	-21.22	.0000	373605.6	1.53	9.04	-.0036	250.72	-.0016	-21.61	298.63
SET 61	3634.28	3645.53	27	0	36.3	69.77	.0042	-22.22	.0000	377927.8	1.52	-.00	-.0028	240.30	.0028	-21.55	286.72
IMPACT	3696.40	3707.65	27	1	38.4												
IMPC 72	3696.40	3707.65	27	1	38.4	75.68	.0043	-21.38	.0001	381333.5	2.37	16.15	-.0040	249.94	-.0001	-21.41	270.97
IMPC 11	3696.40	3707.65	27	1	38.4	331.78	.0044	-22.18	.0001	380253.6	1.77	26.68	.0018	150.66	.0041	-21.41	270.97

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	24	12	1.983	6551.211	19.0297	305.3836	10.98029	-1.8003	114.9143	67.6442
SEPARATION	1.20	12.45	24	12	3.183	6549.978	16.0056	311.6065	10.98122	1.6248	116.8806	74.1679
RETRO	3.20	14.45	24	12	5.183	6651.902	10.6360	321.4195	10.89597	7.2603	119.2658	84.4823
IMPACT	3696.40	3707.65	27	1	38.382	383156.992	-21.4145	270.9718	2.16321	64.0682	299.1527	239.8617

GHA	304.2276					ECS	-61.4254							LOM	244.2400
SX	-.446383	SY	-.805714	SZ	-.365118	DAO	-21.41483	RAO	239.93584	RM	384412.289	LAT	28.310600	LON	279.461800
C3	-1.132354	ECC	.991408	SLR	12967.656	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	679.00000	POL	-.0
NSX	-.446280	NSY	-.814227	NSZ	-.377306	C3M	1.4973	VIM	2.8714	ZAE	136.339	B.T	.0000	B.R	-.0000
LATE	1.1428	LONE	6.2851	LATS	1.4650	LONS	67.6001	LATI	-9.3834	LONI	323.7358	RSM	192.1030	TTAN	5.9713
LAUNCH DATE	JUL 24,1966			BASE AZM	108.0		TF 61.757					ARRIVAL DATE	JUL 27 1966 2 5 31.8		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
108.00	12 1 33.2	27.9	17.91	304.92	-1.33	69.89	117.04	12 12 48.2	6545.5	10.98	-.66

EVNT STA	TFI	TFL	DAY HR MIN	HA	DHA	DEC	DDE	RNG	DRG	FLP	REL AZI	DAZ	LAT	LONG
			PROBE IN SUNLIGHT											
INJECTION	.00	11.25	24 12 12.8											
SEPARATION	1.20	12.45	24 12 14.0											
RETRO	3.20	14.45	24 12 16.0											
RISE 72	4.81	16.06	24 12 17.6	84.73	-.1570	33.61	-.0174	2571.9	-8.43	-.00	.1320 363.87	.0045	4.53	327.52
EXTM 72	9.25	20.50	24 12 22.1	8.56	-.3213	.12	-.2192	1377.9	2.43	78.29	.3840 312.85	.3042	-6.49	344.14
RISE 51	11.10	22.35	24 12 23.9	82.68	-.0854	14.80	-.0487	5149.3	-3.67	-.00	.0956 286.47	-.0064	-10.22	349.91
EXTM 51	31.89	43.14	24 12 44.7	1.49	-.0301	-30.05	-.0081	8355.2	5.40	85.49	-.0000 196.62	-.3469	-28.19	26.85
EXTM 72	70.07	81.32	24 13 22.9	284.92	-.0000	-33.38	.0003	23687.4	4.79	16.78	.0000 122.57	-.0003	-32.00	44.83
EXTM 51	88.54	99.79	24 13 41.3	335.84	-.0001	-33.12	.0004	25252.5	4.38	67.76	.0000 115.07	-.0010	-32.02	46.75
RISE 61	167.94	179.19	24 15 .7	309.42	.0029	-36.86	.0006	49532.4	3.40	-.00	.0018 141.84	.0015	-30.86	41.31
EXTM 51	251.80	263.05	24 16 24.6	.41	.0035	-30.10	.0002	60293.1	3.11	85.62	-.0000 184.65	.0395	-29.68	27.32
EXTM 61	425.98	437.23	24 19 18.8	5.04	.0039	-31.63	.0002	93865.9	2.58	17.98	.0000 184.51	.0035	-28.02	351.00
EXTM 72	453.91	465.16	24 19 46.7	.96	.0040	-29.14	.0002	94308.8	2.51	68.75	.0000 182.31	.0097	-27.82	344.78
RISE 11	615.24	626.49	24 22 28.0	292.86	.0040	-28.83	.0000	123003.1	1.94	.00	.0027 126.17	.0023	-26.86	307.79
SET 51	646.07	657.32	24 22 58.9	90.00	.0039	-25.61	.0001	125913.5	2.55	10.82	-.0032 246.65	-.0013	-26.70	300.58
SET 61	667.92	679.17	24 23 20.7	62.42	.0040	-28.68	.0002	129965.4	2.42	-.00	-.0022 231.04	.0027	-26.60	299.45
SET 72	840.28	851.53	25 2 13.1	93.81	.0039	-25.55	.0001	151356.0	2.37	-.00	-.0035 244.19	-.0004	-25.90	254.51
RISE 42	851.23	862.48	25 2 24.0	254.99	.0040	-24.41	-.0000	152360.4	1.65	2.62	.0029 118.30	-.0022	-25.86	251.89
EXTM 11	893.41	904.66	25 3 6.2	1.44	.0042	-27.77	.0001	154714.7	1.93	27.01	-.0000 181.43	.0041	-25.71	241.77
SET 11	1168.90	1180.15	25 7 41.7	69.71	.0041	-26.17	.0001	187670.9	2.03	-.00	-.0027 237.33	.0024	-24.91	179.08
EXTM 42	1275.31	1286.56	25 9 28.1	359.84	.0042	-24.31	.0000	192308.8	1.66	79.09	.0000 .77	-.0200	-24.66	149.13
RISE 51	1410.80	1422.05	25 11 43.6	270.00	.0041	-23.69	-.0000	210548.5	1.21	10.05	.0034 111.57	-.0015	-24.37	119.98
RISE 72	1567.82	1579.07	25 14 20.6	266.48	.0041	-23.84	-.0000	226256.8	1.10	-.01	.0037 114.08	-.0005	-24.07	77.45
RISE 61	1633.83	1645.08	25 15 26.6	293.33	.0041	-25.08	.0000	232194.6	1.19	.00	.0026 123.73	.0027	-23.96	61.21
SET 42	1698.47	1709.72	25 16 31.3	105.00	.0041	-22.91	.0001	237712.6	1.79	1.70	-.0030 242.89	-.0023	-23.85	49.30
EXTM 51	1769.93	1781.18	25 17 42.7	359.99	.0042	-23.68	.0000	237807.7	1.43	87.94	-.0000 .50	-.0037	-23.73	27.70
EXTM 61	1901.69	1912.94	25 19 54.5	.57	.0042	-24.83	.0000	252544.6	1.38	24.93	-.0000 180.57	.0042	-23.54	359.19
EXTM 72	1940.68	1951.93	25 20 33.5	.11	.0042	-23.87	.0000	252374.7	1.37	74.04	.0000 180.34	.0138	-23.48	349.57
RISE 11	2070.25	2081.50	25 22 43.1	288.46	.0042	-24.16	-.0000	268913.5	1.00	.00	.0029 120.07	.0024	-23.30	313.55
SET 51	2129.10	2140.35	25 23 41.9	90.00	.0041	-22.70	.0001	272500.3	1.69	9.65	-.0035 249.36	-.0019	-23.23	298.99
SET 61	2169.42	2180.67	26 0 22.2	67.74	.0041	-24.11	.0001	276717.6	1.59	-.00	-.0029 237.65	.0027	-23.18	289.02
SET 72	2312.15	2323.40	26 2 45.0	93.35	.0041	-22.82	.0001	287645.3	1.67	-.01	-.0038 246.95	-.0005	-23.00	253.68
RISE 42	2315.33	2326.58	26 2 48.1	255.00	.0041	-22.23	-.0000	287741.5	.92	1.28	.0030 116.57	-.0023	-23.00	252.89
EXTM 11	2356.17	2367.42	26 3 29.0	.38	.0042	-24.03	.0000	287704.2	1.24	30.76	-.0000 180.41	.0045	-22.95	242.78
SET 11	2641.98	2653.23	26 8 14.8	72.23	.0042	-23.39	.0000	311640.2	1.50	-.00	-.0029 240.94	.0024	-22.65	171.91
EXTM 42	2734.09	2745.34	26 9 46.9	359.94	.0042	-22.30	.0000	311906.2	1.15	77.08	.0000 .27	-.0164	-22.56	149.04
RISE 51	2864.74	2875.99	26 11 57.5	270.00	.0041	-21.99	-.0000	325923.7	.74	9.36	.0035 109.99	-.0016	-22.43	116.60
RISE 72	3020.78	3032.03	26 14 33.6	266.76	.0042	-22.12	-.0000	337466.7	.67	-.01	.0038 112.34	-.0006	-22.27	77.75
RISE 61	3076.20	3087.45	26 15 29.0	291.02	.0042	-22.97	-.0000	341081.3	.78	.00	.0027 120.75	.0027	-22.22	63.91
SET 42	3152.36	3163.61	26 16 45.2	105.00	.0041	-21.50	.0000	345925.9	1.42	.83	-.0031 244.00	-.0023	-22.14	44.88
EXTM 51	3221.11	3232.36	26 17 53.9	359.99	.0042	-22.00	.0000	344146.2	1.08	86.27	-.0000 .28	-.0287	-22.07	27.69
EXTM 61	3350.23	3361.48	26 20 3.0	.35	.0042	-22.85	.0000	355860.7	1.07	26.91	-.0000 180.36	.0044	-21.94	359.41
EXTM 72	3389.39	3400.64	26 20 42.2	.07	.0043	-22.15	.0000	355112.5	1.07	75.75	.0000 180.26	.0155	-21.90	345.61
RISE 11	3509.98	3521.23	26 22 42.8	286.91	.0042	-22.39	-.0000	369015.9	.75	.00	.0030 117.79	.0024	-21.77	319.41
SET 51	3576.89	3588.14	26 23 49.7	90.00	.0042	-21.30	.0000	372422.9	1.51	9.08	-.0036 250.65	-.0016	-21.70	298.63
SET 61	3623.92	3635.17	27 0 36.7	69.68	.0042	-22.31	.0000	376641.0	1.48	-.00	-.0028 240.18	.0028	-21.63	286.82
IMPACT	3705.39	3716.64	27 1 58.2											
IMPC 72	3705.39	3716.64	27 1 58.2	80.48	.0043	-21.40	.0001	381876.3	2.37	11.69	-.0040 249.66	-.0002	-21.47	266.19
IMPC 11	3705.39	3716.64	27 1 58.2	336.63	.0044	-22.25	.0001	380146.4	1.79	28.42	.0016 155.32	.0043	-21.47	266.19

EVNT STA	TFI	TFL	DAY HR MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	24 12 12.803	6545.539	17.9091	304.9188	10.9846	-.6980	117.0373	69.8917
SEPARATION	1.20	12.45	24 12 14.003	6560.067	14.6693	310.9774	10.9723	2.7643	118.8234	76.2511
RETRO	3.20	14.45	24 12 16.003	6687.386	9.0296	320.4860	10.86637	8.3605	120.8863	86.2611
IMPACT	3705.39	3716.64	27 1 58.197	383220.051	-21.4665	266.1919	2.15905	63.6964	299.2805	240.0486

SURVEYOR VIEW PERIODS

GHA	314.2274													LOM	259.5103
SX	-.4432[illegible]	SY	-.8[illegible]6929	SZ	-.385940	DAO	21.46[illegible]45	RAO	240.11999	RM	384468.281	LAT	28.310600	LON	279.461800
C3	-1.141[illegible]97	ECC	.[illegible]3255	SEM	129[illegible].669	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.44[illegible]	NSY	-.8[illegible]	SZ	-.472141	C4M	1.4472	VIM	2.6714	ZAE	136.013	B.T	.0000	B.R	-.0000
LATE	1.1561	LONE	[illegible]	LATS	1.4452	LONS	67.4349	LATI	-9.6193	LONI	323.4512	RSM	152.1038	TTAN	5.5670
LAUNCH DATE	JUL [illegible], 1966			BASE AZM	111.0		TF 61.927					ARRIVAL DATE	JUL 27 1966 2 25 7.9		

LNCH AZMTH	LNCH TIME	RM	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FTH
111.00	12 1[illegible] 53.4	28.0	16.82	304.39	.32	71.70	119.15	12 22 8.4	6544.9	10.98	.31

EVNT ST.	TFI	TFL	DAY	HR	MIN	RA	DRA	DEC	RDF	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	24	12	22.1												
SEPARATION	1.20	12.45	24	12	23.3												
RETRO	3.20	14.45	24	12	25.3												
RISE 72	4.76	15.95	24	12	26.8	85.74	-.1432	28.13	-.0407	2659.8	-8.23	.00	.1311	298.42	-.0205	3.13	325.85
EXTM 72	9.18	20.43	24	12	31.3	18.72	-.3065	-9.11	-.2006	1482.1	2.10	71.45	.3944	264.91	-.6681	-8.20	342.18
RISE 51	11.11	22.34	24	12	33.2	84.49	-.0799	11.26	-.0515	5294.4	-3.39	.00	.0931	282.52	-.0115	-12.08	348.06
EXTM 51	33.91	45.14	24	12	56.1	2.11	-.0270	-34.67	-.0055	9142.3	5.37	81.96	-.0000	192.69	-.1655	-30.36	26.48
EXTM 72	78.34	81.69	24	13	32.5	267.04	-.0000	-35.17	.0005	23696.0	4.78	18.46	.0000	124.42	-.0005	-33.27	42.76
EXTM 51	88.34	99.69	24	13	50.5	358.38	-.0002	-34.65	.0005	25234.6	4.38	69.36	-.0000	120.72	-.0016	-33.18	44.67
RISE 61	166.07	177.32	24	15	8.2	311.23	.0028	-37.91	.0006	49193.3	3.41	-.00	.0018	143.60	.0015	-31.76	39.55
EXTM 51	241.96	253.21	24	16	24.1	.60	.0034	-31.06	.0003	58504.7	3.15	84.65	-.0000	185.53	.0316	-30.54	27.15
EXTM 61	418.83	430.08	24	19	21.0	5.61	.0039	-32.28	.0003	92854.6	2.59	17.30	.0000	184.88	.0035	-28.62	350.56
EXTM 72	445.43	456.68	24	19	47.6	1.10	.0040	-29.78	.0002	93074.7	2.53	68.10	.0000	182.56	.0093	-28.41	344.65
RISE 11	468.69	479.94	24	22	30.8	293.35	.0040	-29.33	.0001	122124.5	1.95	.00	.0027	126.83	.0023	-27.33	307.27
SET 51	837.17	848.42	24	29	59.3	90.00	.0039	-26.87	.0001	124716.4	2.56	11.00	-.0032	246.22	-.0013	-27.17	300.62
SET 61	856.42	867.67	24	23	18.6	61.79	.0040	-29.19	.0002	128461.0	2.42	-.00	-.0022	230.29	.0027	-27.07	296.10
SET 72	931.82	943.07	25	2	14.0	93.87	.0039	-25.94	.0001	150327.1	2.38	-.00	-.0035	-3.80	-.0004	-26.28	254.47
RISE 42	942.70	953.95	25	2	24.8	254.99	.0040	-24.78	-.0000	15129[illegible]	1.66	2.85	.0029	118.59	-.0022	-26.24	251.87
EXTM 11	985.24	996.49	25	3	7.4	1.54	.0042	-28.16	.0001	153772.5	1.93	26.61	.0000	181.52	.0041	-26.08	241.66
SET 11	1159.06	1170.31	25	7	41.2	69.41	.0041	-26.49	.0001	186582.8	2.03	-.00	-.0027	236.92	.0024	-25.22	175.39
EXTM 42	1266.85	1278.10	25	9	29.0	359.87	.0042	-24.60	.0000	191375.8	1.66	79.38	-.0000	.64	-.0205	-24.94	149.11
RISE 51	1402.27	1413.52	25	11	44.4	270.00	.0041	-23.95	-.0000	209620.3	1.22	10.15	.0034	111.81	-.0015	-24.63	115.97
RISE 72	1559.12	1570.37	25	14	21.3	266.44	.0041	-24.07	-.0000	225339.6	1.10	-.01	.0037	114.32	-.0005	-24.30	77.48
RISE 61	1426.31	1437.56	25	15	28.5	293.59	.0041	-25.31	.0000	231386.7	1.19	.00	.0026	124.06	.0027	-24.18	60.95
SET 42	1689.85	1701.10	25	16	32.0	105.00	.0041	-23.12	.0001	236796.9	1.79	1.84	-.0030	242.72	-.0023	-24.06	45.31
EXTM 51	1755.61	1766.86	25	17	37.8	358.54	.0042	-23.90	.0000	236421.1	1.42	87.73	.0022	36.12	-.0798	-23.95	29.11
EXTM 61	1893.22	1904.47	25	19	55.4	.60	.0042	-25.93	.0000	251682.8	1.38	24.73	.0000	180.60	.0042	-23.73	355.16
EXTM 72	1932.12	1943.37	25	20	34.3	.12	.0042	-24.06	.0000	251492.1	1.37	73.84	.0000	180.39	.0137	-23.67	345.56
RISE 1[illegible]	2062.30	2073.55	25	22	44.4	288.62	.0042	-24.34	-.0000	268074.4	1.00	.00	.0029	120.30	.0024	-23.48	313.39
SET 51	2120.47	2131.72	25	23	42.6	90.00	.0041	-22.86	.0001	271599.3	1.69	9.71	-.0035	249.20	-.0015	-23.39	299.00
SET 61	2160.04	2171.29	26	0	22.2	67.56	.0041	-24.28	.0001	275765.6	1.59	-.00	-.0026	237.41	.0027	-23.34	289.21
SET 72	2303.61	2314.86	26	2	45.7	93.38	.0041	-22.97	.0001	286754.8	1.67	-.00	-.0038	246.80	-.0005	-23.15	253.66
RISE 42	2306.73	2317.98	26	2	48.9	255.00	.0041	-22.37	-.0000	286836.7	.92	1.38	.0030	116.69	-.0023	-23.15	252.89
EXTM 11	2347.64	2358.89	26	3	29.8	.40	.0042	-24.18	.0000	286828.2	1.24	30.61	-.0000	180.43	.0045	-23.10	242.75
SET 11	2632.87	2644.12	26	8	15.0	72.12	.0042	-23.51	.0000	310695.6	1.50	-.00	-.0029	240.77	.0024	-22.77	172.02
EXTM 42	2725.43	2736.68	26	9	47.6	359.93	.0042	-22.42	.0000	310984.7	1.15	77.20	.0000	.29	-.0168	-22.67	149.05
RISE 51	2856.10	2867.35	26	11	58.2	270.00	.0041	-22.09	-.0000	324992.7	.74	9.40	.0035	110.09	-.0016	-22.54	116.60
RISE 72	3012.06	3023.31	26	14	34.2	266.74	.0042	-22.22	-.0000	336520.3	.67	-.01	.0038	112.44	-.0006	-22.38	77.77
RISE 61	3067.98	3079.23	26	15	30.1	291.13	.0042	-23.07	-.0000	340154.9	.78	.00	.0027	120.89	.0027	-22.32	63.80
SET 42	3143.69	3154.94	26	16	45.8	105.00	.0041	-21.59	.0000	344947.4	1.42	.89	-.0031	243.93	-.0023	-22.24	44.88
EXTM 51	3212.46	3223.71	26	17	54.0	359.99	.0042	-22.10	.0000	343158.2	1.07	86.36	-.0000	.30	-.0258	-22.16	27.69
EXTM 61	3341.63	3352.88	26	20	3.8	.36	.0042	-22.94	.0000	354848.8	1.07	26.82	-.0000	180.37	.0044	-22.03	355.40
EXTM 72	3380.77	3392.02	26	20	42.9	.07	.0043	-22.24	.0000	354079.0	1.07	75.67	.0000	180.26	.0154	-21.99	345.60
RISE 11	3501.68	3512.93	26	22	43.8	286.98	.0042	-22.48	-.0000	367944.0	.74	.00	.0030	117.90	.0024	-21.86	315.34
SET 51	3568.30	3579.55	26	23	50.4	90.00	.0042	-21.58	.0000	371275.5	1.49	9.11	-.0036	250.57	-.0016	-21.78	298.64
SET 61	3615.01	3626.26	27	0	37.2	69.59	.0042	-22.40	.0000	375410.8	1.45	-.00	-.0028	240.06	.0027	-21.72	286.91
IMPACT	3715.64	3726.89	27	2	17.8												
IMPC 72	3715.64	3726.89	27	2	17.8	85.22	.0043	-21.43	.0001	382417.1	2.37	7.30	-.0040	249.26	-.0003	-21.52	261.47
IMPC 11	3715.64	3726.89	27	2	17.8	341.42	.0044	-22.31	.0001	380069.0	1.81	29.85	.0013	160.13	.0044	-21.52	261.47

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FTH	AZ	RT ASC
INJECTION	.00	11.25	24	12	22.140	6544.857	16.8166	304.3850	10.98486	.3072	119.1464	71.6987
SEPARATION	1.20	12.45	24	12	23.340	6572.687	13.3667	310.2778	10.96125	3.7262	120.7612	77.8923
RETRO	3.20	14.45	24	12	25.340	6721.278	7.4640	319.4881	10.83824	9.2842	122.5233	87.6039
IMPACT	3715.64	3726.89	27	2	17.780	383286.152	-21.5178	261.4668	2.15475	63.4535	299.6024	240.2330

SURVEYOR VIEW PERIODS

GHA	304.2276					EPS	-61.0411							LON	293.2183
SX	-.459962	SY	-.808533	SZ	-.367028	DAO	-21.53245	RAD	240.36510	RM	384542.703	LAT	28.310600	LON	279.461800
C3	-1.156194	ECC	.981016	SLR	12965.091	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.439545	NSY	-.816996	NSZ	-.373253	C3M	1.4970	VIM	2.6714	ZAE	135.518	B.T	.0000	B.R	-.0000
LATE	1.1900	LONE	6.2815	LATS	1.4656	LONS	67.2135	LATI	-9.9515	LONI	323.0148	RSM	192.1048	TTAN	5.5579
LAUNCH DATE	JUL 24,1966			BASE AZM	115.0		TF 62.18R					ARRIVAL DATE	JUL 27 1966		2 51 12.5

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FTH
115.00	12 21 29.6	28.0	15.40	303.58	2.78	73.56	121.95	12 32 44.6	6548.5	10.98	1.38

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	24	12	32.7												
SEPARATION	1.20	12.45	24	12	33.9												
RETRO	3.20	14.45	24	12	35.9												
RISE 72	4.63	15.88	24	12	37.4	86.88	-.1284	21.43	-.0673	2777.7	-7.80	-.01	.1281	291.61	-.0489	1.13	323.88
EXTM 72	10.32	21.57	24	12	43.1	11.37	-.2466	-30.00	-.1138	1935.1	4.61	65.47	-.0000	204.28	-.5828	-15.04	343.29
RISE 51	11.18	22.43	24	12	43.9	86.77	-.0735	6.67	-.0549	5480.0	-3.02	.00	.0897	277.41	-.0174	-14.69	345.75
EXTM 51	37.17	48.42	24	13	9.9	1.96	-.0229	-37.96	-.0026	10357.2	5.32	77.67	-.0000	187.27	-.0896	-33.31	26.53
EXTM 72	70.49	81.74	24	13	43.2	289.33	-.0001	-37.44	.0008	23681.2	4.76	20.12	.0000	127.06	-.0008	-35.10	40.41
EXTM 51	86.88	98.13	24	13	59.6	341.22	-.0005	-36.90	.0008	24907.2	4.39	70.51	.0000	129.47	-.0027	-34.88	42.30
RISE 61	167.15	178.40	24	15	19.9	313.70	.0028	-39.23	.0007	49495.1	3.40	.00	.0018	145.94	.0015	-33.01	37.24
EXTM 51	231.72	242.97	24	16	24.5	.93	.0034	-32.44	.0004	56623.1	3.19	83.25	-.0000	186.71	.0243	-31.76	26.85
EXTM 61	411.72	422.97	24	19	24.5	6.18	.0039	-33.20	.0003	91863.6	2.60	16.35	-.0000	185.38	.0034	-29.77	349.94
EXTM 72	436.47	447.72	24	19	49.2	1.31	.0040	-30.69	.0002	91761.2	2.54	67.18	.0000	182.91	.0089	-29.24	344.46
RISE 11	602.30	613.55	24	22	35.0	294.07	.0040	-30.03	.0001	121244.7	1.96	.00	.0026	127.77	.0023	-28.00	306.54
SET 51	627.43	638.68	24	23	.2	90.00	.0038	-26.74	.0002	123373.7	2.56	11.27	-.0032	245.59	-.0012	-27.84	300.67
SET 61	642.85	654.10	24	23	15.6	60.87	.0040	-29.91	.0002	126655.4	2.43	-.00	-.0021	229.21	.0027	-27.75	297.05
SET 72	822.61	833.86	25	2	15.4	93.97	.0039	-26.49	.0001	149167.7	2.38	-.00	-.0035	243.24	-.0004	-26.84	254.42
RISE 42	833.36	844.61	25	2	26.1	254.99	.0040	-25.32	-.0000	150094.6	1.66	3.18	.0028	119.02	-.0022	-26.79	251.84
EXTM 11	876.42	887.67	25	3	9.2	1.70	.0042	-28.71	.0001	152734.3	1.94	26.06	.0000	181.66	.0041	-26.61	241.51
SET 11	1147.79	1159.04	25	7	40.5	68.98	.0041	-26.94	.0001	185290.3	2.03	.01	-.0027	236.32	.0024	-25.65	175.84
EXTM 42	1257.37	1268.62	25	9	30.1	359.87	.0042	-25.01	.0000	190277.8	1.66	79.79	-.0000	.70	-.0212	-25.34	149.11
RISE 51	1392.85	1404.10	25	11	45.6	270.00	.0041	-24.31	-.0000	208532.8	1.22	10.30	.0034	112.15	-.0015	-24.99	115.96
RISE 72	1549.45	1560.70	25	14	22.2	266.38	.0041	-24.40	-.0000	224253.1	1.10	-.01	.0037	114.65	-.0006	-24.64	77.52
RISE 61	1618.31	1629.56	25	15	31.1	293.95	.0041	-25.63	.0000	230450.4	1.19	.00	.0026	124.52	.0027	-24.49	60.58
SET 42	1680.30	1691.55	25	16	33.0	105.00	.0041	-23.43	.0001	235702.3	1.79	2.02	-.0030	242.48	-.0022	-24.37	45.32
EXTM 51	1746.59	1757.84	25	17	39.3	358.67	.0042	-24.20	.0000	235391.5	1.42	88.04	.0023	38.48	-.0895	-24.24	28.99
EXTM 61	1883.89	1895.14	25	19	56.6	.65	.0042	-25.31	.0000	250651.1	1.38	24.45	.0000	180.65	.0042	-24.00	359.11
EXTM 72	1922.62	1933.87	25	20	35.4	.13	.0042	-24.33	.0000	250426.2	1.37	73.57	.0000	180.42	.0135	-23.93	345.54
RISE 11	2053.66	2064.91	25	22	46.4	288.84	.0042	-24.59	-.0000	267060.5	1.00	.00	.0029	120.62	.0024	-23.72	313.16
SET 51	2110.86	2122.11	25	23	43.6	90.00	.0041	-23.10	.0001	270494.4	1.69	9.81	-.0035	248.98	-.0015	-23.63	299.01
SET 61	2149.37	2160.62	26	0	22.1	67.29	.0042	-24.52	.0001	274585.5	1.59	-.00	-.0026	237.07	.0027	-23.57	289.48
SET 72	2294.12	2305.37	26	2	46.9	93.41	.0041	-23.18	.0001	285653.1	1.67	-.00	-.0038	246.58	-.0005	-23.37	253.64
RISE 42	2297.15	2308.40	26	2	49.9	255.00	.0041	-22.58	-.0000	285714.1	.92	1.50	.0030	116.85	-.0023	-23.36	252.88
EXTM 11	2338.17	2349.42	26	3	30.9	.44	.0042	-24.40	.0000	285744.2	1.24	30.39	-.0000	180.46	.0044	-23.31	242.72
SET 11	2622.56	2633.81	26	8	15.3	71.96	.0042	-23.70	.0000	309498.0	1.49	-.00	-.0029	240.54	.0024	-22.95	172.19
EXTM 42	2715.75	2727.00	26	9	48.5	359.93	.0042	-22.69	.0000	309814.4	1.15	77.37	.0000	.32	-.0173	-22.84	149.05
RISE 51	2846.45	2857.70	26	11	59.2	270.00	.0041	-22.25	-.0000	323801.8	.73	9.46	.0035	110.27	-.0016	-22.70	116.59
RISE 72	3002.46	3013.71	26	14	35.2	266.72	.0042	-22.36	-.0000	335315.3	.66	-.01	.0038	112.52	-.0006	-22.52	77.78
RISE 61	3059.06	3070.31	26	15	31.8	291.28	.0042	-23.21	-.0000	338977.6	.77	.00	.0027	121.09	.0027	-22.49	63.64
SET 42	3134.12	3145.37	26	16	46.9	105.00	.0041	-21.72	.0000	343695.2	1.41	.97	-.0031	243.83	-.0023	-22.37	44.88
EXTM 51	3202.85	3214.10	26	17	55.6	359.98	.0042	-22.23	.0000	341888.5	1.06	86.49	.0000	.39	-.0504	-22.29	27.71
EXTM 61	3332.13	3343.38	26	20	4.9	.38	.0042	-23.06	.0000	353548.1	1.06	26.70	-.0000	180.39	.0044	-22.15	355.38
EXTM 72	3371.21	3382.46	26	20	44.0	.07	.0043	-22.36	.0000	352747.4	1.06	75.54	.0000	180.28	.0193	-22.11	348.60
RISE 11	3492.52	3503.77	26	22	45.3	287.08	.0042	-22.59	-.0000	366561.1	.73	.00	.0030	118.05	.0024	-21.97	315.23
SET 51	3558.72	3569.97	26	23	51.5	90.00	.0042	-21.49	.0000	369797.2	1.47	9.15	-.0036	250.47	-.0016	-21.89	298.64
SET 61	3604.98	3616.23	27	0	37.7	69.47	.0042	-22.51	.0000	373837.4	1.41	.00	-.0027	239.90	.0027	-21.83	287.03
IMPACT	3731.28	3742.53	27	2	44.0												
IMPC 42	3731.28	3742.53	27	2	44.0	253.84	.0043	-20.99	.0000	383412.8	1.57	-.91	.0031	116.73	-.0025	-21.59	255.14
IMPC 72	3731.28	3742.53	27	2	44.0	91.55	.0043	-21.46	.0001	383149.5	2.36	1.45	-.0040	248.54	-.0005	-21.59	255.14
IMPC 11	3731.28	3742.53	27	2	44.0	347.84	.0044	-22.38	.0001	380018.9	1.83	31.26	.0009	166.83	.0046	-21.59	255.14
SET 72	3737.29	3748.54	27	2	50.0	93.12	.0045	-21.41	.0002	384126.7	3.57	-.00	-.0042	248.37	-.0004	-21.55	253.56

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FTH	AZ	RT ASC
INJECTION	.00	11.25	24	12	32.744	6548.479	15.4026	303.5858	10.98114	1.3791	121.9477	73.5577
SEPARATION	1.20	12.45	24	12	33.944	6590.905	11.6887	309.2414	10.94529	4.7817	123.3447	79.5140
RETRO	3.20	14.45	24	12	35.944	6762.496	5.4480	318.0569	10.80418	10.2890	124.7379	88.8309
IMPACT	3731.28	3742.53	27	2	44.023	383364.266	-21.5862	255.1357	2.14813	62.9229	299.8698	240.4808

SUN EPOCH VIEW PERIODS

GHA	165.2148					EQS	-49.8242							EOM	288.1737
SX	-.2620958	SY	-.8715512	SZ	-.413912	DAO	-24,45182	RAD	253.21037	RM	388277.980	LAT	28.310600	LON	279.461800
CX	-1.047164	EOC	.9928808	SLW	12976.923	RCH	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.2423731	SSY	-.8726279	FSZ	-.417859	CSG	1.4331	VIM	2.6707	ZAE	138.859	B.T	.0000	B.R	-.0000
LATE	2.5312	LONE	7.0353	RATE	1.4840	LONS	55.7900	LATI	-5.7466	LONI	325.7035	RSM	152.1534	TTAN	6.2784
LAUNCH DATE	JUL 25,1966			BASE AZM	87.0		TF 61.525					ARRIVAL DATE		JUL 28 1966	1 19 4.6

LNCH AZMTH	LNCH TIME	RH	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
87.00	11 43 25.8	27.1	25.98	307.07	-16.29	68.48	101.87	11 54 40.8	6677.5	10.88	-8.07

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	25	11	54.7												
SEPARATION	1.20	12.45	25	11	55.9												
RETRO	3.20	14.45	25	11	57.9												
RISE 72	6.99	18.24	25	12	1.7	14.59	-1.5946	81.84	-.0333	2406.6	-3.81	-.00	.0888	357.95	.2109	12.75	344.93
RISE 51	12.48	23.73	25	12	6.8	64.02	-.1457	42.25	-.0239	4463.4	-4.30	.00	.1013	318.28	.0439	1.71	5.24
EXTM 72	12.80	23.85	25	12	7.1	290.56	-.0347	19.22	-.1244	3127.0	6.50	16.45	-.0000	67.20	.1341	1.11	6.27
EXTM 51	27.22	38.47	25	12	21.9	341.42	-.0340	-6.56	-.0288	6302.	5.59	63.73	-.0000	45.66	.1002	-16.31	37.38
RISE 42	65.69	76.94	25	13	.4	102.74	-.0057	-17.46	-.0035	23432.4	4.25	.01	.0064	248.59	.0005	-26.05	59.70
EXTM 72	65.90	77.15	25	13	.6	269.14	-.0002	-25.13	-.0015	23210.2	4.97	2.56	.0000	114.92	.0015	-26.07	59.74
EXTM 51	79.41	90.66	25	13	14.3	316.99	-.0002	-25.31	-.0012	22917.2	4.60	51.46	.0000	99.97	.0019	-26.97	61.73
EXTM 42	127.19	138.44	25	14	1.9	96.04	.0005	-23.24	-.0006	38803.4	3.99	8.54	-.0000	247.52	-.0008	-28.15	61.33
SET 42	215.04	226.29	25	15	24.7	104.98	.0025	-24.70	-.0001	58531.4	3.52	2.82	-.0017	241.48	-.0014	-28.38	49.54
RISE 61	224.07	235.32	25	15	38.7	303.43	.0033	-33.07	.0002	60632.9	3.07	.00	.0019	135.62	.0020	-28.37	47.98
EXTM 51	329.14	340.39	25	17	24.8	.06	.0038	-28.32	.0001	73742.7	2.85	87.42	-.0000	181.16	.0693	-28.12	27.63
EXTM 61	486.99	498.24	25	20	1.7	2.64	.0040	-30.98	.0001	102883.5	2.47	18.74	.0000	182.39	.0036	-27.69	353.25
EXTM 72	522.25	533.50	25	20	36.9	.44	.0041	-28.78	.0001	104265.4	2.40	69.12	-.0000	181.09	.0100	-27.60	345.26
RISE 11	684.18	695.43	25	23	18.9	293.10	.0040	-29.08	-.0000	132196.4	1.87	.00	.0026	126.50	.0023	-27.24	307.72
SET 51	715.20	726.51	25	23	49.9	90.00	.0039	-26.15	.0001	134985.4	2.48	11.04	-.0032	246.14	-.0013	-27.17	300.40
SET 61	734.60	745.85	26	0	9.3	61.91	.0040	-29.09	.0001	136658.2	2.36	-.00	-.0023	230.43	.0027	-27.13	295.83
SET 72	909.13	920.38	26	3	3.8	93.97	.0040	-26.50	.0001	159774.7	2.33	-.00	-.0035	243.23	-.0005	-26.83	254.23
RISE 42	918.50	929.75	26	3	13.2	255.00	.0040	-25.44	-.0000	160499.0	1.61	3.25	.0029	119.11	-.0022	-26.81	251.98
EXTM 11	958.71	969.96	26	3	53.4	.87	.0042	-28.73	.0001	162691.3	1.89	26.06	-.0000	180.85	.0041	-26.75	242.31
SET 11	1230.81	1242.06	26	8	25.5	88.35	.0041	-27.60	.0001	194767.7	2.01	-.00	-.0027	235.46	.0024	-26.37	176.39
EXTM 42	1343.02	1354.27	26	10	17.7	359.97	.0042	-25.95	.0000	199847.3	1.64	80.73	-.0200	.21	-.0200	-26.24	149.01
RISE 51	1477.45	1488.70	26	12	32.5	270.00	.0041	-25.45	-.0000	217872.3	1.21	10.75	.0034	113.20	-.0015	-26.09	116.02
RISE 72	1633.61	1644.86	26	15	8.3	266.16	.0041	-25.71	-.0000	233463.5	1.10	-.01	.0037	115.97	-.0005	-25.94	77.79
RISE 61	1709.71	1720.96	26	16	24.4	295.51	.0041	-26.97	-.0000	240276.5	1.19	.00	.0025	126.45	.0027	-25.87	59.08
SET 42	1765.75	1777.00	26	17	20.4	105.00	.0041	-24.91	.0000	244880.8	1.78	2.93	-.0029	241.31	-.0022	-25.82	45.28
EXTM 51	1829.47	1840.72	26	18	24.2	358.05	.0042	-25.76	.0000	244434.4	1.42	88.24	.0038	91.21	.0004	-25.76	29.59
EXTM 61	1968.15	1979.40	26	20	42.8	.37	.0042	-26.93	.0000	259979.4	1.38	22.83	.0000	180.36	.0041	-25.65	355.39
EXTM 72	2007.98	2019.23	26	21	22.7	.12	.0042	-26.05	.0000	259739.0	1.37	71.86	-.0000	180.35	.0120	-25.62	345.56
RISE 11	2145.60	2156.85	26	23	40.3	290.48	.0042	-26.37	-.0000	276874.6	1.01	.00	.0028	122.93	.0024	-25.52	311.56
SET 51	2196.46	2207.71	27	0	31.1	90.00	.0041	-24.98	.0000	279739.3	1.69	10.56	-.0034	247.24	-.0015	-25.48	298.98
SET 61	2226.46	2237.71	27	1	1.1	65.18	.0042	-26.39	.0000	283263.1	1.59	-.01	-.0025	234.39	.0027	-25.46	291.56
SET 72	2381.14	2392.39	27	3	35.8	93.75	.0041	-25.17	.0000	295175.3	1.67	-.00	-.0037	244.57	-.0005	-25.36	253.28
RISE 42	2382.66	2393.91	27	3	37.3	255.00	.0041	-24.60	-.0000	294985.4	.93	2.74	.0030	118.45	-.0023	-25.36	252.90
EXTM 11	2423.05	2434.30	27	4	17.7	.26	.0042	-26.41	.0000	295322.3	1.25	28.39	-.0000	180.26	.0043	-25.33	242.90
SET 11	2700.34	2711.59	27	8	55.0	69.96	.0042	-25.90	.0000	318596.5	1.50	-.00	-.0028	237.68	.0024	-25.16	174.16
EXTM 42	2801.70	2812.95	27	10	36.4	359.97	.0042	-24.90	.0000	319526.0	1.16	79.68	.0000	.18	-.0181	-25.11	149.01
RISE 51	2932.20	2943.45	27	12	46.9	270.00	.0042	-24.60	-.0000	333757.1	.75	10.41	.0035	112.41	-.0015	-25.03	116.60
RISE 72	3086.19	3097.44	27	15	20.9	266.32	.0042	-24.78	-.0000	345231.9	.70	-.00	.0037	115.04	-.0005	-24.94	78.20
RISE 61	3155.22	3166.47	27	16	29.9	293.97	.0042	-25.65	-.0000	349816.8	.82	.00	.0026	124.54	.0027	-24.90	60.97
SET 42	3219.71	3230.96	27	17	34.4	105.00	.0041	-24.23	.0000	353803.5	1.44	2.52	-.0030	241.84	-.0023	-24.86	44.88
EXTM 51	3285.85	3297.10	27	18	40.5	359.31	.0042	-24.81	.0000	352127.7	1.10	88.88	.0021	34.00	-.1638	-24.82	28.36
EXTM 61	3417.32	3428.57	27	20	52.0	.24	.0042	-25.65	.0000	364527.3	1.11	24.11	-.0000	180.24	.0042	-24.75	355.51
EXTM 72	3456.88	3468.13	27	21	31.6	.05	.0042	-25.01	.0000	363700.8	1.11	72.89	.0000	180.17	.0124	-24.72	345.62
RISE 11	3587.53	3598.78	27	23	42.2	289.44	.0042	-25.25	-.0000	378639.7	.86	.00	.0029	121.47	.0024	-24.63	312.90
SET 51	3644.27	3655.52	28	0	39.0	90.00	.0042	-24.21	.0000	381675.1	1.69	10.26	-.0035	247.96	-.0015	-24.58	298.63
SET 61	3678.55	3689.80	28	1	13.2	66.52	.0043	-25.21	.0001	385682.4	1.87	-.00	-.0027	236.08	.0028	-24.54	289.96
IMPACT	3691.37	3702.62	28	1	26.1												
IMPC 72	3691.37	3702.62	28	1	26.1	59.88	.0043	-24.59	.0001	383781.3	2.39	30.61	-.0039	246.05	.0005	-24.51	286.68
IMPC 51	3691.37	3702.62	28	1	26.1	101.72	.0043	-24.07	.0001	386969.4	2.41	.41	-.0035	243.30	-.0018	-24.51	286.68
IMPC 11	3691.37	3702.62	28	1	26.1	315.89	.0044	-25.24	.0000	385204.8	1.77	16.55	.0024	138.94	.0033	-24.51	286.68
IMPC 61	3691.37	3702.62	28	1	26.1	69.82	.0043	-25.17	.0001	387246.8	2.32	-2.08	-.0028	238.22	.0028	-24.51	286.68

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	25	11	54.690	6684.692	26.0268	306.8385	10.87848	-8.0728	101.7645	68.2541
SEPARATION	1.20	12.45	25	11	55.880	6589.858	24.4164	314.0182	10.95114	-4.7297	104.9622	75.7346
RETRO	3.20	14.45	25	11	57.880	6546.560	20.9898	325.4214	10.98762	.9702	109.5730	87.6392
IMPACT	3691.37	3702.62	28	1	26.050	387067.645	-24.5093	286.6766	2.19350	66.9198	290.6126	253.4606

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SURVEYOR VIEW PERIODS

GHA	305.2133					EPS	-49.6173						LOM	282.1183	
SX	-.259174	SY	-.872313	SZ	-.414698	DAO	-24.49162	RAO	253.45273	RM	388345.352	LAT	28.310600	LON	279.461800
C3	-1.041565	ECC	.982899	SLR	12977.413	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	475.00000	POL	-.0
NSX	-.238289	NSY	-.876397	NSZ	-.419506	CRM	1.4966	VIM	2.6713	ZAE	138.970	R.T	.0000	B.R	-.0000
LATS	2.5551	LONS	6.0491	LATS	1.4843	LONS	55.5770	LATI	-5.6404	LONI	325.7965	RSM	152.1543	TTAN	6.2892
LAUNCH DATE	JUL 25.1966			BASE AZM	90.0		TF 61.457					ARRIVAL DATE	JUL 28 1966	1 44 12.0	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
90.00	12 7 56.5	27.5	24.76	307.15	-10.75	74.72	104.19	12 19 11.5	6602.1	10.94	-5.33

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PRORE IN SUNLIGHT											
INJECTION		.00	11.25	25	12	19.2												
SEPARATION		1.20	12.45	25	12	20.4												
RETRO		3.20	14.45	25	12	22.4												
RISE	72	6.17	17.42	25	12	25.4	63.02	-.5946	72.99	.0040	2467.8	-5.51	-.00	.1047	344.48	.1735	12.52	340.14
EXTM	72	11.70	22.95	25	12	30.9	300.82	-.0568	21.14	-.1448	2728.1	6.06	25.07	-.0000	62.17	.1702	.77	1.67
RISE	51	11.70	22.95	25	12	30.9	68.27	-.1273	37.53	-.0271	4717.7	-4.07	-.00	.0993	312.54	.0326	.76	1.69
EXTM	51	28.78	40.03	25	12	48.0	346.74	-.0301	-10.02	-.0222	7010.8	5.52	69.88	-.0000	41.04	.1076	-17.61	34.93
EXTM	72	65.91	77.16	25	13	25.1	274.82	-.0001	-25.60	-.0013	22949.2	4.94	7.73	.0000	114.93	.0014	-25.99	54.33
RISE	42	79.24	90.49	25	13	38.4	104.31	-.0031	-19.30	-.0022	27629.4	4.25	.00	.0037	246.14	.0000	-26.85	56.17
EXTM	51	81.71	92.96	25	13	40.9	323.78	-.0001	-26.32	-.0010	23144.3	4.54	57.55	.0000	99.16	.0019	-26.97	56.37
EXTM	42	127.15	138.40	25	14	26.3	101.57	.0005	-22.87	-.0006	35503.1	3.99	4.20	-.0000	244.83	-.0008	-28.05	55.62
SET	42	172.19	183.44	25	15	11.4	104.99	.0018	-23.99	-.0003	49610.7	3.72	2.37	-.0012	242.03	-.0012	-28.29	50.47
RISE	61	195.60	206.85	25	15	34.8	304.08	.0031	-33.51	.0002	55106.6	3.23	-.00	.0018	136.32	.0019	-28.31	46.94
EXTM	51	300.51	311.76	25	17	19.7	.06	.0037	-28.36	.0001	68957.6	2.94	87.38	-.0000	181.15	.0675	-28.14	27.63
EXTM	61	461.58	472.83	25	20	.8	2.82	.0039	-31.13	.0001	99267.1	2.52	16.59	.0000	182.54	.0036	-27.72	353.09
EXTM	72	496.16	507.41	25	20	35.4	.39	.0040	-28.86	.0001	100638.5	2.45	69.04	.0000	180.96	.0099	-27.63	345.30
RISE	11	659.66	670.91	25	23	18.8	293.18	.0040	-29.15	-.0000	129145.0	1.90	.00	.0026	126.60	.0023	-27.27	307.59
SET	51	690.01	701.26	25	23	49.2	90.00	.0039	-26.16	.0001	131894.9	2.51	11.04	-.0032	246.13	-.0013	-27.21	300.46
SET	61	709.07	720.32	26	0	8.3	61.81	.0040	-29.17	.0001	135566.0	2.39	-.00	-.0022	230.32	.0026	-27.17	295.97
SET	72	884.40	895.65	26	3	3.6	93.98	.0039	-26.52	.0001	157047.0	2.35	-.00	-.0035	243.20	-.0005	-26.86	254.27
RISE	42	894.10	905.35	26	3	13.3	254.99	.0040	-25.45	-.0000	157821.2	1.63	3.26	.0029	119.12	-.0022	-26.84	251.95
EXTM	11	934.30	945.55	26	3	53.5	.89	.0042	-28.79	.0001	160069.8	1.91	25.99	-.0000	180.87	.0041	-26.78	242.29
SET	11	1206.33	1217.58	26	8	25.5	68.31	.0041	-27.65	.0001	192417.8	2.02	-.00	-.0027	235.39	.0024	-26.40	176.45
EXTM	42	1318.91	1330.16	26	10	18.1	359.97	.0042	-25.98	.0000	197631.4	1.66	80.77	-.0000	.21	-.0189	-26.27	149.01
RISE	51	1453.87	1465.12	26	12	33.1	270.00	.0041	-25.48	-.0000	215771.9	1.22	10.76	.0034	113.23	-.0015	-26.13	116.00
RISE	72	1609.66	1620.91	26	15	8.9	266.15	.0041	-25.74	-.0000	231475.8	1.11	-.01	.0037	116.01	-.0005	-25.97	77.78
RISE	61	1686.01	1697.26	26	16	25.2	295.56	.0041	-27.02	-.0000	238359.8	1.21	.00	.0025	126.52	.0027	-25.90	59.01
SET	42	1741.77	1753.02	26	17	21.0	105.00	.0041	-24.94	.0000	242971.4	1.79	2.95	-.0029	241.28	-.0022	-25.86	45.29
EXTM	51	1805.49	1816.74	26	18	24.7	358.03	.0042	-25.80	.0000	242566.1	1.43	88.23	.0038	92.47	.0030	-25.80	29.60
EXTM	61	1944.27	1955.52	26	20	43.5	.37	.0042	-26.98	.0000	258202.2	1.39	22.78	.0000	180.36	.0041	-25.69	345.39
EXTM	72	1984.10	1995.35	26	21	23.3	.12	.0042	-26.09	.0000	257980.8	1.38	71.81	-.0000	180.34	.0120	-25.66	345.56
RISE	11	2121.96	2133.21	26	23	41.1	290.52	.0042	-26.42	-.0000	275204.2	1.02	.00	.0028	122.99	.0024	-25.56	311.51
SET	51	2172.59	2183.84	27	0	31.8	90.00	.0041	-25.01	.0000	278074.7	1.70	10.58	-.0034	247.20	-.0015	-25.52	298.99
SET	61	2202.35	2213.60	27	1	1.5	65.11	.0042	-26.44	.0000	281594.7	1.60	.00	-.0025	234.32	.0027	-25.50	291.63
SET	72	2357.33	2368.58	27	3	36.5	93.75	.0041	-25.22	.0000	293604.7	1.68	-.00	-.0037	244.53	-.0005	-25.40	253.28
RISE	42	2358.88	2370.13	27	3	38.1	255.00	.0041	-24.64	-.0000	293415.1	.94	2.77	.0030	118.48	-.0023	-25.40	252.90
EXTM	11	2399.24	2410.49	27	4	18.4	.26	.0042	-26.45	.0000	293776.8	1.26	28.34	-.0000	180.26	.0043	-25.37	242.90
SET	11	2676.38	2687.63	27	8	55.6	69.92	.0042	-25.95	.0000	317153.5	1.51	-.00	-.0028	237.62	.0024	-25.21	174.21
EXTM	42	2777.95	2789.20	27	10	37.1	359.97	.0042	-24.95	.0000	318138.5	1.17	79.73	.0000	.18	-.0179	-25.15	140.01
RISE	51	2908.52	2919.77	27	12	47.7	270.00	.0041	-24.65	-.0000	332245.6	.76	10.43	.0035	112.46	-.0015	-25.08	116.60
RISE	72	3062.58	3073.83	27	15	21.8	266.31	.0042	-24.83	-.0000	343960.1	.70	-.00	.0037	115.08	-.0005	-24.99	78.20
RISE	61	3131.84	3143.09	27	16	31.0	294.03	.0042	-25.70	-.0000	348572.2	.82	.00	.0026	124.62	.0027	-24.95	60.91
SET	42	3196.06	3207.31	27	17	35.3	105.00	.0041	-24.28	.0000	352547.3	1.44	2.54	-.0030	241.81	-.0023	-24.91	44.88
EXTM	51	3262.36	3273.61	27	18	41.6	359.35	.0042	-24.86	.0000	350993.3	1.10	88.94	.0021	33.62	-.1739	-24.87	28.32
EXTM	61	3393.63	3404.88	27	20	52.8	.24	.0042	-25.70	.0000	363287.3	1.11	24.06	-.0000	180.24	.0042	-24.79	359.92
EXTM	72	3433.20	3444.45	27	21	32.4	.05	.0043	-25.06	.0000	362492.8	1.11	72.84	.0000	180.17	.0121	-24.77	345.62
RISE	11	3564.07	3575.32	27	23	43.3	289.49	.0042	-25.30	-.0000	377338.7	.84	.00	.0029	121.54	.0024	-24.68	312.85
SET	51	3620.65	3631.90	28	0	39.5	90.00	.0042	-24.26	.0000	380246.1	1.63	10.28	-.0035	247.91	-.0015	-24.63	298.63
SET	61	3654.75	3666.00	28	1	13.9	66.45	.0042	-25.28	.0000	384021.1	1.66	-.00	-.0026	235.99	.0028	-24.60	290.04
IMPACT		3687.43	3698.68	28	1	46.6												
IMPC	72	3687.43	3698.68	28	1	46.6	64.88	.0043	-24.59	.0001	384280.9	2.40	26.07	-.0039	246.43	-.0003	-24.54	281.72
IMPC	51	3687.43	3698.68	28	1	46.6	106.86	.0043	-24.07	.0001	387465.9	2.39	-3.52	-.0034	241.10	-.0019	-24.54	281.72
IMPC	11	3687.43	3698.68	28	1	46.6	320.90	.0044	-25.29	.0000	384996.6	1.79	19.08	.0072	142.89	.0035	-24.54	281.72

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	25	12	19.191	6603.486	24.7725	307.0889	10.94122	-5.3298	104.1618	74.6489
SEPARATION		1.20	12.45	25	12	20.391	6552.147	22.9030	314.0792	10.98314	-1.9280	107.1136	81.9401
RETRO		3.20	14.45	25	12	22.391	6573.494	19.1001	325.2273	10.96514	3.7807	111.3036	93.5896
IMPACT		3687.43	3698.68	28	1	46.617	387126.801	-24.5447	281.7200	2.19325	66.6752	290.2367	253.6598

GHA	[illegible]				EPS	-49.4050							LON	275.9201	
SX	[illegible]	SY	[illegible]	SZ	-.415313	DAD	24.53405	RAD	253.70091	RM	3A8414.203	LAT	28.310600	LON	279.461800
CJ	[illegible]	SY	[illegible]	SZ	12977.416	HCA	4544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	[illegible]	SY	[illegible]	SZ	-.419176	DTM	1.4966	VIM	2.4713	ZAE	138.965	R.T	.0000	B.R	-.0000
LATE	2.6795	LONE	[illegible]	LATS	1.4847	LONS	55.3548	LATI	-5.8329	LONI	325.7874	RSM	152.1551	TTAN	6.2972
LAUNCH DATE	[illegible]				RASE AZM	93.0		TF	61.476			ARRIVAL DATE	JUL 28 1966	2	9 54.9

LNCH AZMTH	LNCH TIME	RM	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
93.00	12 29 [illegible].9		27.7	23.54	307.89	-6.12	79.96	106.44	12 40 23.9	6562.6	10.97	-2.98

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PHASE IN SUNLIGHT											
INJECTION		.00	11.95	25	12	40.4												
SEPARATION		1.20	13.15	25	12	41.6												
RETRO		3.20	14.45	25	12	43.6												
RISE	72	5.50	16.83	25	12	46.0	73.72	-.0115	23.48	.0935	2558.9	-6.54	-.01	.1150	334.81	.1358	11.89	326.35
EXTM	72	11.16	22.41	25	12	51.6	312.27	.0096	21.63	-.1616	2416.0	5.59	34.65	.0000	56.74	.2204	.10	357.66
RISE	51	11.44	22.69	25	12	51.8	71.62	-.1135	33.18	-.0303	1953.3	-3.81	.00	.0969	307.42	.0234	-.41	58.52
EXTM	51	40.66	41.91	25	13	11.1	350.97	-.0263	-13.58	-.0170	7804.7	5.47	75.26	-.0000	36.80	.1206	-19.15	32.82
EXTM	72	66.60	77.85	25	13	47.0	279.49	-.0001	-26.49	-.0012	22915.5	4.90	12.33	.0000	115.51	.0012	-26.29	49.71
EXTM	51	84.15	95.40	25	14	4.5	329.75	-.0001	-27.10	-.0009	24084.2	4.47	62.94	.0000	92.45	.0019	-27.27	51.68
RISE	61	171.65	182.90	25	15	32.0	305.67	.0029	-34.18	.0003	50235.0	3.40	-.00	.0017	137.38	.0017	-28.43	45.55
EXTM	51	275.14	286.39	25	17	15.5	.06	.0036	-28.57	.0001	64568.1	3.03	87.17	-.0000	181.08	.0613	-28.31	27.43
EXTM	61	440.14	451.39	25	20	.5	3.11	.0039	-31.39	.0001	96156.0	2.56	18.31	-.0000	182.79	.0035	-27.87	352.82
EXTM	72	474.19	485.44	25	20	34.6	.49	.0040	-29.15	.0001	97517.7	2.49	66.84	-.0000	181..9	.0097	-27.78	345.21
RISE	11	638.99	650.24	25	23	19.4	293.35	.0040	-29.42	-.0000	126515.5	1.93	.00	.0026	126.83	.0023	-27.39	307.36
SET	51	668.23	679.48	25	23	48.6	90.00	.0039	-26.27	.0001	129160.7	2.53	11.08	-.0032	246.03	-.0013	-27.33	300.52
SET	61	686.49	697.74	26	0	6.9	61.59	.0040	-29.35	.0001	132762.9	2.41	-.00	-.0022	230.06	.0026	-27.30	296.23
SET	72	863.18	874.43	26	3	1.6	93.99	.0039	-26.53	.0001	154641.9	2.36	-.00	-.0035	243.09	-.0004	-26.97	254.30
RISE	42	873.13	884.38	26	3	13.5	254.99	.0040	-25.53	-.0000	155451.0	1.65	3.31	.0029	119.19	-.0022	-26.95	251.91
EXTM	11	913.39	924.64	26	3	53.8	.93	.0042	-28.93	.0001	157769.7	1.93	25.85	-.0000	180.90	.0040	-26.89	242.26
SET	11	1184.98	1196.23	26	8	25.4	68.19	.0041	-27.76	.0001	190291.0	2.03	-.01	-.0027	235.24	.0024	-26.50	176.59
EXTM	42	1298.18	1309.43	26	10	18.6	359.97	.0042	-26.07	.0000	195446.6	1.57	80.85	-.0000	.19	-.0199	-26.36	149.01
RISE	51	1433.26	1444.51	26	12	33.7	270.00	.0041	-25.56	-.0000	213878.9	1.23	10.79	.0034	113.30	-.0015	-26.21	115.98
RISE	72	1589.06	1600.31	26	15	9.5	266.14	.0041	-25.82	-.0000	229669.9	1.12	-.01	.0036	116.09	-.0005	-26.05	77.78
RISE	61	1565.87	1577.12	26	14	24.3	295.67	.0041	-27.11	-.0000	236633.4	1.21	.00	.0025	126.65	.0027	-25.98	58.90
SET	42	1721.15	1732.40	26	17	21.6	105.00	.0041	-25.01	.0000	241223.6	1.80	2.99	-.0029	241.23	-.0022	-25.93	45.30
EXTM	51	1784.90	1796.15	26	18	25.3	358.02	.0042	-25.88	.0000	240853.9	1.44	88.21	.0038	94.94	.0082	-25.88	29.61
EXTM	61	1923.78	1935.03	26	20	44.2	.38	.0042	-27.06	.0000	256564.7	1.40	22.70	.0000	180.37	.0041	-25.76	355.38
EXTM	72	1966.59	1977.84	26	21	24.0	.12	.0042	-26.17	.0000	256351.[illegible]	1.39	71.74	-.0000	180.35	.0120	-25.73	345.55
RISE	11	2101.77	2113.02	26	23	42.2	290.59	.0042	-26.49	-.0000	273650.0	1.03	.00	.0028	123.09	.0024	-25.63	311.43
SET	51	2152.07	2163.32	27	0	32.5	90.00	.0041	-25.18	.0000	276508.8	1.70	10.51	-.0034	247.14	-.0015	-25.59	299.00
SET	61	2181.49	2192.74	27	1	1.9	65.83	.0042	-26.31	.0000	280014.7	1.60	.00	-.0025	234.21	.0027	-25.57	291.72
SET	72	2336.89	2348.14	27	3	37.3	93.77	.0041	-25.98	.0000	292108.5	1.69	-.01	-.0037	244.[illegible]	-.0005	-25.46	253.28
RISE	42	2338.44	2349.69	27	3	38.8	255.00	.0041	-24.70	-.0000	291916.0	.95	2.80	.0030	118.53	-.0023	-25.46	252.89
EXTM	11	2378.81	2390.06	27	4	19.2	.26	.0042	-26.82	.0000	292300.7	1.26	28.27	-.0000	180.27	.0043	-25.44	242.89
SET	11	2455.70	2466.95	27	6	56.1	69.86	.0042	-26.01	.0000	315733.2	1.51	-.00	-.0028	237.54	.0024	-25.27	174.27
EXTM	42	2757.53	2768.78	27	10	37.9	359.97	.0042	-25.01	.0000	316763.3	1.17	79.79	.0000	.19	-.0178	-25.21	149.01
RISE	51	2888.13	2899.38	27	12	48.5	270.00	.0041	-24.71	-.0000	330904.0	.77	10.46	.0035	112.51	-.0015	-25.14	116.59
RISE	72	3042.16	3053.41	27	15	22.6	266.30	.0042	-24.88	-.0000	342640.8	.70	-.00	.0037	115.14	-.0005	-25.04	78.20
RISE	61	3111.71	3122.96	27	16	32.1	294.10	.0042	-25.76	-.0000	347274.5	.82	.00	.0026	124.70	.0027	-25.00	60.85
SET	42	3175.64	3186.89	27	17	36.0	105.00	.0041	-24.43	.0000	351227.1	1.44	2.58	-.0030	241.77	-.0023	-24.96	44.88
EXTM	51	3242.00	3253.25	27	18	42.4	359.36	.0042	-24.91	.0000	349578.6	1.10	88.99	.0022	34.97	-.1795	-24.93	28.31
EXTM	61	3373.25	3384.50	27	20	53.7	.24	.0042	-25.16	.0000	361963.8	1.10	24.00	-.0000	180.24	.0042	-24.85	355.52
EXTM	72	3412.82	3424.07	27	21	33.2	.05	.0042	-25.12	.0000	361117.1	1.11	72.79	.0000	180.17	.0122	-24.82	345.62
RISE	11	3543.94	3555.21	27	23	44.4	289.54	.0042	-25.46	-.0000	375949.9	.82	.00	.0029	121.61	.0024	-24.74	312.79
SET	51	3600.36	3611.61	28	0	40.8	90.00	.0042	-24.52	.0000	378753.2	1.58	10.30	-.0035	247.85	-.0015	-24.69	298.64
SET	61	3634.24	3645.49	28	1	14.6	66.37	.0042	-25.45	.0000	382487.3	1.57	-.00	-.0026	235.89	.0028	-24.66	290.11
IMPACT		3688.54	3699.79	28	2	8.9												
IMPC	72	3688.54	3699.79	28	2	8.9	70.30	.0043	-24.40	.0001	384840.8	2.42	2.15	-.0039	246.62	.0001	-24.58	276.34
IMPC	11	3688.54	3699.79	28	2	8.9	326.34	.0044	-25.45	.0000	384799.4	1.81	21.58	.0020	147.41	.0037	-24.58	276.34

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.95	25	12	40.398	6563.742	23.5448	307.0746	10.97443	-2.9344	105.4341	79.9509
SEPARATION		1.20	13.15	25	12	41.598	6545.053	21.4264	313.9049	10.98914	.4427	109.1651	87.0821
RETRO		3.20	14.45	25	12	43.598	6620.476	17.2993	324.7309	10.92583	6.1165	112.9340	98.4095
IMPACT		3688.54	3699.79	28	2	8.939	3A718A.117	-24.5831	276.3401	2.19190	66.5818	290.1794	253.8756

SURVEYOR VIEW PERIODS

GHA	3.5.2133				EPS	-49.2121					LOM	270.4575	
SX	-.251888	SY	-.873418	SZ	-.415929	DAO	-24.57785	RAO	253.91971	RM	388474.913	LAT	28.310600
LON	279.461800	C3	-1.043537	ECC	.982866	SLR	12977.199	RCA	6544.6450	LTA	-20.0000	GTA	20.00
TB	67°.00000	POL	-.0	NSX	-.230950	NSY	-.877757	NSZ	-.419767	CRM	1.4964	VIM	2.6713
ZAE	133.891	R.T	.0000	B.R	-.0000	LATE	2.6010	LONE	4.0377	LATS	1.4850	LONS	55.1674
LATI	-5.7161	LONI	325.7280	RSM	152.1558	TTAN	6.3029						
LAUNCH DATE	JUL 25,1966			BASE AZM	96.0		TF	61.525				ARRIVAL DATE	JUL 28 1966 2 32 34.7

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FTH
96.00	12 46 42.-	27.9	22.35	306.87	-2.13	84.15	108.63	12 57 57.1	6547.0	10.99	-1.07

EVNT STA	TFI	TFL	DAY HR MIN	HA	DHA	DEC	DDE	RNG	DRG	E.E	DEL	AZI	DAZ	LAT	LONG
			PROBE IN SUNLIGHT												
INJECTION	.00	11.25	25 12 56.0												
SEPARATION	1.20	12.45	25 12 59.2												
RETRO	3.20	14.45	25 13 1.2												
RISE 72	5.16	16.41	25 13 3.1	78.17	-.2549	55.91	.0693	2652.4	-7.17	-.00	.1215	326.73	.1023	11.01	333.28
EXTM 72	10.80	22.05	25 13 8.7	323.96	-.1237	19.81	-.1693	2196.4	5.17	44.99	-.0000	51.50	.2905	-.94	354.32
RISE 51	11.26	22.51	25 13 9.2	74.39	-.1031	29.17	-.0333	5160.5	-3.55	.00	.0946	302.75	.0159	-1.77	355.72
EXTM 51	32.68	43.93	25 13 30.6	354.33	-.0231	-17.20	-.0131	8618.3	5.41	79.97	-.0000	32.81	.1471	-20.85	31.03
EXTM 72	67.56	78.81	25 14 5.5	284.22	.0000	-27.65	-.0010	23001.0	4.86	16.22	.0000	116.59	.0010	-26.91	45.85
EXTM 51	86.61	97.86	25 14 24.6	334.79	.0000	-27.93	-.0007	24749.5	4.42	67.44	.0000	101.23	.0018	-27.85	17.73
RISE 61	153.17	164.42	25 15 31.1	306.42	.0020	-35.05	.0003	46327.2	3.55	-.00	.0016	138.79	.0015	-28.75	43.86
EXTM 51	253.59	264.84	25 17 11.5	.08	.0035	-28.96	.0001	60722.0	3.11	86.78	.0000	181.23	.0528	-28.66	27.62
EXTM 61	422.49	433.74	25 20 .4	3.38	.0039	-31.77	.0002	93563.8	2.60	17.92	.0000	183.02	.0035	-28.14	352.57
EXTM 72	455.79	467.04	25 20 33.7	.53	.0040	-29.37	.0001	94861.3	2.52	68.52	-.0000	181.26	.0095	-28.05	345.18
RISE 11	622.47	633.72	25 23 20.4	293.61	.0040	-29.58	.0000	124380.8	1.95	.00	.0026	127.17	.0023	-27.62	307.06
SET 51	650.23	661.48	25 23 48.2	90.00	.0038	-26.47	.0001	126858.8	2.55	11.16	-.0032	245.84	-.0013	-27.55	300.58
SET 61	667.21	678.46	26 0 5.2	61.26	.0040	-29.61	.0001	130324.4	2.43	-.00	-.0022	229.67	.0026	-27.51	298.60
SET 72	845.73	856.98	26 3 3.7	94.02	.0039	-26.81	.0001	152631.5	2.38	-.00	-.0035	242.91	-.0004	-27.15	294.30
RISE 42	855.86	867.11	26 3 13.8	254.99	.0040	-25.70	-.0000	153459.3	1.66	3.41	.0029	119.32	-.0022	-27.13	291.88
EXTM 11	896.65	907.93	26 3 54.2	.99	.0041	-29.14	.0001	155862.6	1.94	25.65	-.0000	180.95	.0040	-27.06	242.20
SET 11	1167.15	1178.40	26 8 25.1	68.04	.0041	-27.09	.0001	188477.0	2.04	.00	-.0027	235.03	.0024	-26.65	176.76
EXTM 42	1281.09	1292.34	26 10 19.0	359.97	.0042	-26.22	.0000	193971.8	1.68	80.99	-.0000	.20	-.0201	-26.50	149.01
RISE 51	1416.29	1427.54	26 12 34.2	270.00	.0041	-25.68	-.0000	212276.6	1.24	10.84	.0034	112.42	-.0015	-26.34	115.97
RISE 72	1572.04	1583.29	26 15 10.0	266.12	.0041	-25.94	-.0000	228134.5	1.13	-.01	.0036	115.20	-.0005	-26.17	77.79
RISE 61	1649.31	1660.76	26 16 27.5	295.81	.0041	-27.23	-.0000	235185.6	1.22	.00	.0025	126.02	.0027	-26.09	56.75
SET 42	1704.16	1715.41	26 17 22.1	105.00	.0041	-25.12	.0000	239731.8	1.50	3.06	-.0029	241.14	-.0022	-26.04	45.81
EXTM 51	1767.95	1779.20	26 18 25.9	358.02	.0042	-25.99	.0000	239396.1	1.44	88.20	.0038	98.38	.0153	-25.98	29.01
EXTM 61	1906.93	1918.18	26 20 44.9	.40	.0042	-27.17	.0000	255168.5	1.40	22.59	.0000	180.78	.0040	-25.96	355.36
EXTM 72	1946.69	1957.94	26 21 24.6	.12	.0042	-26.27	.0000	254956.7	1.39	71.64	-.0000	180.35	.0119	-25.83	345.55
RISE 11	2085.26	2096.51	26 23 43.2	290.68	.0042	-26.58	-.0000	272320.5	1.03	.00	.0028	123.21	.0024	-25.72	311.34
SET 51	2135.15	2146.40	27 0 33.1	90.00	.0041	-25.16	.0000	275155.5	1.74	10.66	-.0034	247.00	-.0015	-25.68	299.00
SET 61	2164.13	2175.38	27 1 2.1	64.91	.0042	-26.61	.0000	278637.6	1.60	.00	-.0025	234.07	.0027	-25.66	291.84
SET 72	2320.04	2331.29	27 3 38.0	93.78	.0041	-25.56	.0000	290809.5	1.69	-.01	-.0037	244.38	-.0005	-25.84	252.27
RISE 42	2321.59	2332.84	27 3 39.5	255.00	.0041	-24.78	-.0000	290611.5	.95	2.85	.0030	118.59	-.0023	-25.0	252.88
EXTM 11	2361.99	2373.24	27 4 19.9	.27	.0042	-26.61	.0000	291020.8	1.27	28.18	-.0000	180.28	.0043	-25.52	242.88
SET 11	2638.55	2649.80	27 8 56.5	69.79	.0042	-26.09	.0000	314478.1	1.52	-.00	-.0028	237.44	.0024	-25.34	174.35
EXTM 42	2740.68	2751.93	27 10 38.6	359.97	.0042	-25.08	.0000	315546.8	1.18	79.86	.0000	.20	-.0102	-25.28	149.01
RISE 51	2871.32	2882.57	27 12 49.3	270.00	.0041	-24.77	-.0000	329710.1	.77	10.48	.0035	112.57	-.0015	-25.20	116.59
RISE 72	3025.43	3036.68	27 15 23.4	266.29	.0042	-24.95	-.0000	341483.3	.70	-.00	.0037	115.20	-.0005	-25.10	78.21
RISE 61	3095.29	3106.54	27 16 33.2	294.17	.0042	-25.82	-.0000	348136.9	.82	.00	.0026	124.79	.0027	-25.06	60.77
SET 42	3158.90	3170.15	27 17 36.9	105.00	.0041	-24.39	.0000	350062.1	1.44	2.61	-.0030	241.72	-.0023	-25.02	44.89
EXTM 51	3224.87	3236.12	27 18 42.8	359.26	.0042	-24.97	.0000	348386.0	1.10	88.98	.0025	41.04	-.1639	-24.98	28.41
EXTM 61	3356.53	3367.78	27 20 54.5	.24	.0042	-25.82	.0000	360789.0	1.10	23.94	-.0000	180.24	.0042	-24.90	355.51
EXTM 72	3396.08	3407.33	27 21 34.0	.05	.0042	-25.17	.0000	359928.5	1.10	72.73	.0000	180.17	.0122	-24.88	342.62
RISE 11	3527.44	3538.69	27 23 45.4	289.59	.0042	-25.41	-.0000	374714.9	.81	.00	.0029	121.68	.0024	-24.79	312.74
SET 51	3583.64	3594.89	28 0 41.6	90.00	.0042	-24.37	.0000	377438.0	1.56	10.32	-.0035	247.80	-.0015	-24.75	298.64
SET 61	3617.30	3628.55	28 1 15.3	66.30	.0042	-25.40	.0000	380982.3	1.51	-.00	-.0026	235.81	.0027	-24.72	290.18
IMPACT	3691.48	3702.73	28 2 29.4												
IMPC 72	3691.48	3702.73	28 2 29.4	75.27	.0043	-24.60	.0001	385372.9	2.42	16.64	-.0039	246.66	-.0180	-24.62	271.40
IMPC 11	3691.48	3702.73	28 2 29.4	331.34	.0044	-25.40	.0000	384652.0	1.83	23.60	.0017	151.79	.0039	-24.62	271.40

EVNT STA	TFI	TFL	DAY HR MIN	RAD	LAT	LONG	VEL	FTH	AZ	RT ASC
INJECTION	.00	11.25	25 12 57.952	6546.968	22.3478	306.8721	10.98755	-1.0689	108.6278	84.1489
SEPARATION	1.20	12.45	25 12 59.152	6555.877	19.9919	313.5460	10.97990	2.3993	111.1491	91 1237
RETRO	3.20	14.45	25 13 1.152	6674.356	15.5791	324.0163	10.88116	7.9781	114.5122	102.0994
IMPACT	3691.48	3702.73	28 2 29.434	387247.309	-24.6183	271.4008	2.18947	66.3211	290.1684	254.0742

SURVEYOR VIEW PERIODS

GHA	305.2133				EPS -49.0660							LOM	265.9718
SX	-.243083	SY	-.874381	SZ	-.416431	DAO	-24.60947	RAO	254.09945	RM	388524.531	LAT	28.310600	LON	279.461800
C3	-1.046175	ECC	.982823	SLR	12976.916	RCA	6544.6650	LTA	-20.0 10	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.228107	NSY	-.876267	NSZ	-.420255	C3M	1.4974	VIM	2.6714	ZAE	138.776	B.T	.0000	B.R	-.0000
LATE	2.6186	LONE	6.0529	LATS	1.4852	LONS	55.0095	LATI	-5.8764	LONI	325.6397	RSM	152.1564	TTAN	6.3070
LAUNCH DATE	JUL 25,1966			BASE AZM	99.0		TF 61.580				ARRIVAL	DATE	JUL 28 1966	2 51 11.3	

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ TH
99.00	13 0 50.0	28.0	21.18	306.54	.91	87.36	110.77	13 12 5.0	6545.1	10.9?	.45

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELF	DEL	AZI	DAZ	LAT	LONG
						PRORE IN SUNLIGHT												
INJECTION		.00	11.25	25	13	12.1												
SEPARATION		1.20	12.45	25	13	13.3												
RETRO		3.20	14.45	25	13	15.3												
RISE	72	4.85	16.10	25	13	16.9	80.71	-.2118	49.31	.0450	2738.5	-7.53	.00	.1255	319.95	.0731	9.95	330.74
EXTM	72	10.58	21.83	25	13	22.7	334.94	-.1541	15.54	-.1670	2056.5	4.85	55.85	-.0000	46.63	.3981	-2.29	351.58
RISE	51	11.15	22.40	25	13	23.2	76.77	-.0949	25.40	-.0361	5336.5	-3.32	.00	.0925	296.44	.0095	-3.31	353.26
EXTM	51	34.72	45.97	25	13	46.8	356.98	-.0205	-20.60	-.0101	9412.0	5.36	84.16	-.0000	28.97	.2136	-22.68	29.51
EXTM	72	68.51	79.76	25	14	20.6	287.80	.0000	-29.02	-.0007	23122.9	4.82	19.36	.0000	118.06	.0008	-27.79	42.68
RISE	61	140.51	151.76	25	15	32.6	308.06	.0024	-36.08	.0004	43574.6	3.66	-.00	.0015	140.48	.0013	-29.29	41.97
EXTM	51	235.88	247.13	25	17	8.0	.13	.0034	-29.55	.0001	57474.7	3.19	86.19	-.0000	181.71	.0438	-29.17	27.57
EXTM	61	408.98	420.23	25	20	1.1	3.76	.0039	-32.25	.0002	91574.8	2.63	17.43	.0000	183.33	.0034	-28.53	352.21
EXTM	72	441.23	452.48	25	20	33.3	.62	.0040	-29.90	.0001	92736.4	2.55	68.09	-.0000	181.43	.0093	-28.42	345.10
RISE	11	609.81	621.06	25	23	21.9	293.96	.0040	-29.92	.0000	122700.5	1.97	.00	.0026	127.62	.0023	-27.92	306.68
SET	51	635.78	647.03	25	23	47.9	90.00	.0038	-26.76	.0001	124984.8	2.57	11.28	-.0032	245.57	-.0013	-27.85	300.63
SET	61	651.01	662.26	26	0	3.1	60.82	.0039	-29.95	.0001	128249.6	2.45	-.00	-.0022	229.16	.0026	-27.81	297.07
SET	72	931.82	943.07	26	3	6.9	94.07	.0039	-27.05	.0001	151011.9	2.39	-.00	-.0035	242.67	-.0004	-27.40	254.30
RISE	42	842.04	853.29	26	3	14.1	254.99	.0040	-25.93	-.0000	151842.0	1.68	3.55	.0028	119.50	-.0022	-27.38	251.86
EXTM	11	882.70	893.95	26	3	54.8	1.06	.0041	-29.40	.0001	154343.3	1.95	25.39	-.0000	181.03	.0040	-27.30	242.13
SET	11	1152.55	1163.80	26	8	24.6	67.84	.0041	-28.13	.0001	186973.9	2.05	.00	-.0027	234.76	.0024	-26.84	176.97
EXTM	42	1267.26	1278.51	26	10	19.3	359.93	.0042	-26.19	.0000	192596.9	1.68	81.17	.0000	.40	-.0232	-26.68	149.04
RISE	51	1402.69	1413.94	26	12	34.8	270.00	.0041	-25.84	-.0000	210972.0	1.24	10.91	.0034	113.57	-.0015	-26.50	115.96
RISE	72	1558.37	1569.62	26	15	10.5	266.10	.0041	-26.08	-.0000	226880.7	1.13	-.01	.0036	116.35	-.0005	-26.32	77.80
RISE	61	1636.63	1647.88	26	16	28.7	295.98	.0041	-27.37	-.0000	234026.6	1.23	.00	.0025	127.03	.0027	-26.23	58.57
SET	42	1690.53	1701.78	26	17	22.6	105.00	.0041	-25.25	.0000	238510.8	1.81	3.14	-.0029	241.04	-.0022	-26.18	45.32
EXTM	51	1754.43	1765.68	26	18	26.5	358.04	.0042	-26.12	.0000	238210.0	1.45	88.19	.0037	102.63	.0240	-26.11	29.60
EXTM	61	1893.46	1904.71	26	20	45.5	.42	.0042	-27.29	.0000	254033.1	1.41	22.47	.0000	180.41	.0040	-25.98	355.34
EXTM	72	1933.15	1944.40	26	21	25.2	.13	.0042	-26.39	.0000	253815.4	1.39	71.51	-.0000	180.37	.0118	-25.94	345.54
RISE	11	2072.14	2083.39	26	23	44.2	290.78	.0042	-26.70	-.0000	271238.4	1.04	.00	.0028	123.36	.0024	-25.82	311.23
SET	51	2121.57	2132.82	27	0	33.7	90.00	.0041	-25.27	.0000	274040.9	1.71	10.68	-.0034	246.97	-.0015	-25.78	299.01
SET	61	2150.08	2161.33	27	1	2.2	64.80	.0042	-26.71	.0000	277496.5	1.61	-.00	-.0025	233.92	.0027	-25.76	291.96
SET	72	2306 53	2317.78	27	3	38.6	93.80	.0041	-25.45	.0001	289738.2	1.69	-.01	-.0037	244.29	-.0005	-25.64	253.26
RISE	42	2308.07	2319.32	27	3	40.2	255.00	.0041	-24.87	-.0000	289532.7	.95	2.91	.0030	118.66	-.0023	-25.64	252.88
XTM	11	2348.51	2359.76	27	4	20.6	.29	.0042	-26.71	.0000	289967.7	1.27	28.09	-.0000	180.29	.0043	-25.61	242.87
SET	11	2624.71	2635.96	27	8	56.8	69.72	.0042	-26.17	.0000	313429.2	1.52	-.00	-.0028	237.34	.0024	-25.41	174.42
EXTM	42	2727.14	2738.39	27	10	39.2	359.97	.0042	-25.15	.0000	314532.1	1.18	79.93	.0000	.21	-.0186	-25.35	149.01
RISE	51	2857.80	2869.05	27	12	49.9	270.00	.0041	-24.83	-.0000	328711.3	.77	10.51	.0035	112.63	-.0015	-25.27	116.58
RISE	72	3012.01	3023.26	27	15	24.1	266.28	.0042	-25.01	-.0000	340519.4	.70	-.00	.0037	115.27	-.0006	-25.17	78.22
RISE	61	3082.18	3093.43	27	16	34.3	294.24	.0042	-25.48	-.0000	345191.1	.82	.00	.0026	124.88	.0027	-25.12	60.70
SET	42	3145.48	3156.73	27	17	37.6	105.00	.0041	-24.44	.0000	349088.7	1.44	2.64	-.0030	241.68	-.0023	-25.08	44.89
EXTM	51	3210.67	3221.92	27	18	42.8	359.06	.0042	-25.03	.0000	347363.3	1.09	88.89	.0029	50.05	-.1291	-25.04	28.61
EXTM	61	3343.13	3354.38	27	20	55.2	.25	.0042	-25.87	.0000	359806.9	1.10	23.89	-.0000	180.25	.0042	-24.95	355.50
EXTM	72	3382.65	3393.90	27	21	34.7	.05	.0043	-25.23	.0000	358933.6	1.10	72.68	.0000	180.17	.0122	-24.93	345.62
RISE	11	3514.20	3525.45	27	23	46.3	289.63	.0042	-25.46	-.0000	373684.1	.80	.00	.0029	121.75	.0024	-24.84	312.69
SET	51	3570.22	3581.47	28	0	42.3	90.00	.0042	-24.41	.0000	376348.5	1.54	10.34	-.0035	247.76	-.0015	-24.79	298.65
SET	61	3603.68	3614.93	28	1	15.8	66.25	.0042	-25.45	.0000	379833.0	1.48	-.00	-.0026	235.74	.0027	-24.77	290.24
IMPACT		3694.79	3706.04	28	2	46.9												
IMPC	72	3694.79	3706.04	28	2	46.9	79.48	.0043	-24.60	.0001	385834.8	2.42	12.80	-.0039	246.45	-.0001	-24.65	267.20
IMPC	11	3694.79	3706.04	28	2	46.9	335.60	.0044	-25.44	.0000	384551.9	1.85	25.10	.0015	155.67	.0040	-24.65	267.20

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	25	13	12.083	6545.076	21.1796	306.5420	10.98901	.4509	110.7733	87.3612
SEPARATION		1.20	12.45	25	13	13.283	6574.915	18.5980	313.0503	10.96373	3.8725	113.0928	94.1704
RETRO		3.20	14.45	25	13	15.283	6726.853	13.9180	323.1707	10.83812	9.4309	116.0769	104.7922
IMPACT		3694.79	3706.04	28	2	46.870	387298.328	-24.6483	267.1991	2.18713	66.0542	290.2799	254.2433

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SURVEYOR VIEW PERIODS

GHA	305.2133					EPS	-48.9209							LOM	261.7194
SX	-.246422	SY	-.874910	SZ	-.416903	DAO	-24.63924	RAO	254.26987	RM	388571.629	LAT	28,310600	LON	279.461800
C3	-1.051308	ECC	.982737	SLR	12976.352	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.225382	NSY	-.878747	NSZ	-.420721	C3M	1.4972	VIM	2.6714	ZAE	138.594	B.T	.0000	B.R	-.0000
LATE	2.6352	LONE	6.0283	LATS	1.4855	LONS	54.8598	LATI	-6.0959	LONI	325.4943	RSM	152.1570	TTAN	.3092
LAUNCH DATE		JUL	25.1966		BASE AZM	102.0		TF	61.675			ARRIVAL DATE		JUL 28 1966	3 8 49.9

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	13 12 15.3	26.1	20.04	306.12	3.34	89.80	112.89	13 23 30.3	6550.2	10.98	1.66

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PRORE IN SUNLIGHT												
INJECTION		.00	11.25	25	13	23.5												
SEPARATION		1.20	12.45	25	13	24.7												
RETRO		3.20	14.45	25	13	26.7												
RISE	72	4.63	15.88	25	13	28.1	82.44	-.1853	43.50	.0223	2816.3	-7.72	-.01	.1277	314.03	.0473	8.76	328.58
EXTM	72	10.47	21.72	25	13	34.0	344.63	-.1747	9.21	-.1569	1987.8	4.64	67.04	-.0000	42.11	.5975	-3.89	349.30
RISE	51	11.09	22.34	25	13	34.6	78.88	-.0882	21.80	-.0389	5487.1	-3.11	.00	.0905	294.35	.0039	-4.98	351.06
EXTM	51	36.78	48.03	25	14	.3	359.06	-.0185	-23.90	-.0078	10189.6	5.31	87.97	-.0000	25.18	.5267	-24.61	28.27
EXTM	72	69.56	80.81	25	14	33.1	290.74	.0000	-30.56	-.0005	23310.9	4.79	21.84	.0000	119.83	.0006	-28.88	40.09
RISE	61	133.36	144.61	25	15	36.9	309.94	.0023	-37.19	.0005	42010.8	3.73	-.00	.0015	142.35	.0012	-30.05	39.99
EXTM	51	221.42	232.67	25	17	4.9	.22	.0033	-30.31	.0001	54760.7	3.26	85.43	-.0000	182.37	.0352	-29.83	27.49
EXTM	61	398.77	410.02	25	20	2.3	4.20	.0039	-32.81	.0002	90070.4	2.65	16.85	.0000	183.69	.0034	-29.02	351.80
EXTM	72	429.77	441.02	25	20	33.3	.73	.0040	-30.33	.0001	91044.4	2.57	67.56	-.0000	181.64	.0090	-28.89	345.00
RISE	11	600.34	611.59	25	23	23.9	294.38	.0040	-30.33	.0000	121476.3	1.99	.00	.0026	128.17	.0023	-28.30	306.23
SET	51	624.24	635.49	25	23	47.7	90.00	.0038	-27.12	.0001	123455.1	2.58	11.42	-.0032	245.23	-.0013	-28.22	300.68
SET	61	637.28	648.53	26	0	.8	60.28	.0039	-30.36	.0002	126456.5	2.46	-.00	-.0021	228.54	.0026	-28.19	297.64
SET	72	820.82	832.07	26	3	4.3	94.12	.0039	-27.36	.0001	149701.4	2.40	-.00	-.0035	242.36	-.0004	-27.71	254.27
RISE	42	831.04	842.29	26	3	14.5	254.99	.0040	-26.22	-.0000	150517.7	1.69	3.73	.0028	119.74	-.0022	-27.68	251.83
EXTM	11	872.01	883.26	26	3	55.5	1.16	.0041	-29.71	.0001	153127.8	1.96	25.07	-.0000	181.11	.0040	-27.59	242.04
SET	11	1140.51	1151.76	26	8	24.0	67.58	.0041	-28.38	.0001	185691.9	2.05	.01	-.0027	234.43	.0024	-27.08	177.23
EXTM	42	1256.31	1267.56	26	10	19.8	359.93	.0042	-26.62	.0000	191463.9	1.69	81.40	.0000	.45	-.0242	-26.89	149.05
RISE	51	1391.85	1403.10	26	12	35.4	270.00	.0041	-26.03	-.0000	209879.5	1.25	10.98	.0034	113.75	-.0015	-26.70	115.95
RISE	72	1547.42	1558.67	26	15	10.9	266.07	.0041	-26.26	-.0000	225820.8	1.14	-.01	.0036	116.53	-.0005	-26.49	77.82
RISE	61	1626.63	1637.88	26	16	30.1	296.19	.0041	-27.54	-.0000	233067.6	1.23	.00	.0025	127.29	.0027	-26.40	58.36
SET	42	1679.64	1690.89	26	17	23.1	105.00	.0041	-25.41	.0001	237470.1	1.81	3.23	-.0029	240.92	-.0022	-26.34	45.33
EXTM	51	1743.70	1754.95	26	18	27.2	358.07	.0042	-26.28	.0000	237205.0	1.45	88.18	.0036	107.73	.0341	-26.27	29.57
EXTM	61	1882.73	1893.98	26	20	46.2	.46	.0042	-27.44	.0000	253063.6	1.41	22.32	.0000	180.44	.0040	-26.12	355.30
EXTM	72	1922.34	1933.59	26	21	25.8	.14	.0042	-26.53	.0000	252833.3	1.40	71.37	-.0000	180.39	.0117	-26.08	345.54
RISE	11	2061.82	2073.07	26	23	45.3	290.91	.0042	-26.83	-.0000	270306.9	1.04	.00	.0028	123.53	.0024	-25.95	311.10
SET	51	2110.71	2121.96	27	0	34.2	90.00	.0041	-25.39	.0000	273065.7	1.71	10.73	-.0034	246.85	-.0015	-25.90	299.02
SET	61	2138.63	2149.88	27	1	2.1	64.65	.0042	-26.84	.0000	276483.0	1.61	-.00	-.0025	233.74	.0027	-25.88	292.11
SET	72	2295.75	2307.00	27	3	39.3	93.81	.0041	-25.56	.0001	288791.4	1.69	-.01	-.0037	244.18	-.0005	-25.75	253.25
RISE	42	2297.25	2308.50	27	3	40.8	255.00	.0041	-24.98	-.0000	288576.2	.96	2.97	.0030	118.74	-.0023	-25.74	252.87
EXTM	11	2337.75	2349.00	27	4	21.3	.31	.0042	-26.82	.0000	289037.1	1.27	27.98	-.0000	180.31	.0043	-25.71	242.85
SET	11	2613.52	2624.77	27	8	57.0	69.63	.0042	-26.26	.0000	312473.6	1.52	-.00	-.0028	237.22	.0024	-25.50	174.51
EXTM	42	2716.30	2727.55	27	10	39.8	359.96	.0042	-25.23	.0000	313604.8	1.18	80.01	.0000	.22	-.0195	-25.43	149.02
RISE	51	2846.98	2858.23	27	12	50.5	270.00	.0041	-24.91	-.0000	327788.9	.77	10.54	.0035	112.70	-.0015	-25.34	116.58
RISE	72	3001.15	3012.40	27	15	24.7	266.27	.0042	-25.07	-.0000	339599.0	.70	-.00	.0037	115.33	-.0006	-25.23	78.22
RISE	61	3071.66	3082.91	27	16	35.2	294.32	.0042	-25.95	-.0000	344286.2	.82	.00	.0026	124.97	.0027	-25.18	60.62
SET	42	3134.64	3145.89	27	17	38.1	105.00	.0041	-24.50	.0000	348151.4	1.44	2.68	-.0030	241.63	-.0023	-25.14	44.89
EXTM	51	3198.81	3210.06	27	18	42.3	358.80	.0042	-25.09	.0000	346354.7	1.09	88.73	.0033	59.20	-.0906	-25.10	28.87
EXTM	61	3332.36	3343.61	27	20	55.9	.26	.0042	-25.93	.0000	358852.8	1.09	23.83	-.0000	180.26	.0042	-25.01	355.49
EXTM	72	3371.86	3383.11	27	21	35.4	.06	.0042	-25.28	.0000	357965.2	1.09	72.62	.0000	180.18	.0121	-24.98	345.62
RISE	11	3503.63	3514.88	27	23	47.1	289.68	.0042	-25.51	-.0000	372680.9	.79	.00	.0029	121.81	.0024	-24.89	312.64
SET	51	3559.46	3570.71	28	0	43.0	90.00	.0042	-24.46	.0000	375292.1	1.52	10.36	-.0035	247.72	-.0015	-24.84	298.65
SET	61	3592.71	3603.96	28	1	16.2	66.19	.0042	-25.50	.0000	378727.3	1.46	-.00	-.0026	235.66	.0027	-24.81	290.30
IMPACT		3700.50	3711.75	28	3	4.0												
IMPC	42	3700.50	3711.75	28	3	4.0	245.14	.0043	-24.05	.0000	387794.7	1.67	-4.51	.0029	123.78	-.0026	-24.68	263.07
IMPC	72	3700.50	3711.75	28	3	4.0	83.62	.0043	-24.61	.0001	386291.9	2.42	9.05	-.0039	246.20	-.0002	-24.68	263.07
IMPC	11	3700.50	3711.75	28	3	4.0	339.79	.0044	-25.48	.0000	384474.0	1.87	26.37	.0013	159.63	.0042	-24.68	263.07

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION		.00	11.25	25	13	23.506	6550.203	20.0367	306.1237	10.98444	1.6971	112.8931	89.8064
SEPARATION		1.20	12.45	25	13	24.706	6596.519	17.2431	312.4511	10.94537	5.0644	115.0143	96.4346
RETRO		3.20	14.45	25	13	26.706	6774.384	12.3065	322.2351	10.79945	10.5647	117.6464	106.7201
IMPACT		3700.50	3711.75	28	3	4.004	387346.238	-24.6777	263.0696	2.18455	65.9206	290.6287	254.4091

SURVEYOR VIEW PERIODS

GHA	305.2133					EPS -48.7885						LOM	257.8381
SX	-.243993	SY	-.875387	SZ	-.417332	DAO	+24.66625	RAO	254.42548	RM	388614.563	LAT	28.31060C
LON	279.461800	C3	-1.057805	ECC	.952632	SLR	12975.665	RCA	6544.6650	LTA	+20.0000	GTA	20.00
TB	675.00000	POL	-.0	NSX	-.222876	NSY	-.879181	NSZ	-.421149	C3M	1.4973	VIM	2.6714
ZAE	138.367	B.T	.0000	B.R	-.0000	LATE	2.6504	LONE	6.0245	LATS	1.4857	LONS	54.7236
LATI	+6.3564	LONI	325.3132	RSM	152.1575	TTAN	6.3102						
LAUNCH DATE	JUL 25,1966			BASE AZM	105.0			TF	61.788			ARRIVAL DATE	JUL 28 1966 3 24 56.1

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	13 21 28.0	28.1	18.92	305.63	5.27	91.62	1 5.00	13 32 43.0	6558.4	10.98	2.61

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PRORE IN SUNLIGHT											
INJECTION		.00	11.25	25	13	32.7												
SEPARATION		1.20	12.45	25	13	33.9												
RETRO		3.20	14.45	25	13	35.9												
RISE	72	4.47	15.72	25	13	37.2	83.72	-.1668	38.24	.0013	2885.7	-7.78	.00	.1287	308.67	.0242	7.46	326.73
EXTM	72	10.46	21.71	25	13	43.2	352.78	-.1852	1.45	-.1420	1985.2	4.54	78.20	.0000	37.89	1.1409	-5.70	347.39
RISE	51	11.07	22.32	25	13	43.8	80.81	-.0826	18.33	-.0415	5617.5	-2.92	.00	.0887	290.43	-.0011	-6.77	349.09
EXTM	51	35.92	47.17	25	14	8.6	3.93	-.0204	-25.91	-.0078	10023.7	5.25	86.46	.0181	266.35	-.1362	-25.86	25.28
EXTM	72	70.61	81.86	25	14	43.3	293.13	.0000	-32.23	-.0003	23528.8	4.75	23.73	.0000	121.81	.0003	-30.14	37.99
EXTM	51	92.39	103.64	25	15	5.1	344.99	.0001	-31.79	-.0002	26365.5	4.31	75.54	.0000	118.19	.0007	-30.75	39.65
RISE	61	131.01	142.26	25	15	43.7	311.93	.0022	-38.30	.0006	41534.7	3.75	-.00	.0015	144.28	.0011	-30.98	38.06
EXTM	51	209.82	221.07	25	17	2.5	.74	.0032	-31.22	-.02	52539.0	3.32	84.51	-.0000	183.07	.0282	-30.63	27.38
EXTM	61	391.28	402.53	25	20	4.0	4.69	.0038	-33.43	[illegible]	88980.0	2.67	16.20	.0000	184.08	.0033	-29.58	351.35
EXTM	72	420.88	432.13	25	20	33.6	.86	.0040	-30.93	[illegible]	85725.1	2.59	66.96	.0000	181.88	.0087	-29.44	344.88
RISE	11	593.50	604.75	25	23	26.2	294.86	.0040	-30.78	.009	120558.0	2.00	.00	.0026	128.79	.0023	-28.73	305.73
SET	51	615.10	626.35	25	23	47.8	90.00	.0038	-27.55	.0001	122220.1	2.59	11.59	-.0032	244.83	-.0012	-28.65	300.72
SET	61	625.58	636.83	25	23	58.3	59.66	.0039	-30.83	.0002	124904.9	2.47	-.00	-.0021	227.83	.0026	-28.62	298.28
SET	72	812.19	823.44	26	3	4.9	94.19	.0039	-27.70	.0001	148653.4	2.40	-.00	-.0034	242.01	-.0004	-28.06	254.24
RISE	42	822.36	833.61	26	3	15.1	254.99	.0040	-26.56	-.0000	149444.5	1.70	3.94	.0028	120.00	-.0021	-28.03	251.81
EXTM	11	863.69	874.94	26	3	56.4	1.27	.0041	-30.07	.0001	152172.3	1.97	24.71	-.0000	181.21	.0040	-27.93	241.93
SET	11	1130.68	1141.93	26	8	23.4	67.32	.0041	-28.66	.0001	184620.1	2.06	-.00	-.0026	234.06	.0024	-27.35	177.51
EXTM	42	1247.62	1258.87	26	10	20.3	359.92	.0042	-26.87	.0000	190533.4	1.59	81.65	.0000	.51	-.0249	-27.14	149.06
RISE	51	1383.25	1394.50	26	12	36.0	270.00	.0041	-26.25	-.0000	208976.3	1.25	11.07	.0034	113.96	-.0015	-26.92	115.93
RISE	72	1538.69	1549.94	26	15	11.4	266.03	.0041	-26.46	-.0000	224936.9	1.14	-.01	.0036	116.73	-.0005	-26.69	77.84
RISE	61	1618.96	1630.21	26	16	31.7	296.42	.0041	-27.74	-.0000	232289.5	1.23	.00	.0025	127.57	.0027	-26.59	58.13
SET	42	1670.98	1682.23	26	17	23.7	105.00	.0041	-25.58	.0001	236596.2	1.81	3.34	-.0029	240.77	-.0022	-26.52	45.34
EXTM	51	1735.24	1746.49	26	18	28.0	358.11	.0042	-26.46	.0000	236367.6	1.45	88.16	.0035	113.41	.0445	-26.44	29.52
EXTM	61	1874.25	1885.50	26	20	47.0	.49	.0042	-27.61	.0000	252251.0	1.41	22.15	.0000	180.47	.0040	-26.28	355.27
EXTM	72	1913.74	1924.99	26	21	26.5	.15	.0042	-26.69	.0000	252003.4	1.40	71.21	-.0000	180.42	.0116	-26.24	345.53
RISE	11	2053.75	2065.00	26	23	46.5	291.04	.0042	-26.97	-.0000	269521.9	1.04	.00	.0028	123.71	.0024	-26.09	310.96
SET	51	2102.05	2113.30	27	0	34.8	90.00	.0041	-25.52	.0001	272229.4	1.71	10.78	-.0034	246.73	-.0015	-26.04	299.02
SET	61	2129.33	2140.58	27	1	2.0	64.49	.0042	-26.98	.0001	275602.1	1.61	-.00	-.0025	233.54	.0027	-26.01	292.28
SET	72	2287.18	2298.43	27	3	39.9	93.83	.0041	-25.68	.0001	287973.8	1.69	-.01	-.0037	244.06	-.0005	-25.86	253.23
RISE	42	2288.63	2299.88	27	3	41.3	255.00	.0041	-25.09	-.0000	287747.1	.96	3.04	.0030	118.84	-.0023	-25.86	252.87
EXTM	11	2329.21	2340.46	27	4	21.9	.33	.0042	-26.94	.0000	288234.6	1.27	27.86	-.0000	180.34	.0042	-25.83	242.82
SET	11	2604.49	2615.74	27	8	57.2	69.54	.0042	-26.35	.0000	311627.0	1.52	-.00	-.0028	237.09	.0024	-25.60	174.61
EXTM	42	2707.63	2718.88	27	10	40.3	359.96	.0042	-25.32	.0000	312782.7	1.18	80.10	.0000	.24	-.0197	-25.52	149.02
RISE	51	2838.34	2849.59	27	12	51.1	270.00	.0041	-24.99	-.0000	326965.1	.77	10.57	.0034	112.77	-.0015	-25.42	116.58
RISE	72	2992.60	3003.85	27	15	25.3	266.26	.0042	-25.15	-.0000	338795.3	.70	-.00	.0037	115.40	-.0006	-25.30	78.23
RISE	61	3063.47	3074.72	27	16	36.2	294.40	.0042	-26.02	-.0000	343497.3	.82	.00	.0026	125.07	.0027	-25.25	60.54
SET	42	3126.10	3137.35	27	17	38.8	105.00	.0041	-24.57	.0000	347326.6	1.43	2.72	-.0030	241.58	-.0023	-25.21	44.90
EXTM	51	3190.36	3201.61	27	18	43.1	358.82	.0042	-25.15	.0000	345530.6	1.09	88.78	.0033	61.22	-.0888	-25.16	28.84
EXTM	61	3323.86	3335.11	27	20	56.6	.28	.0042	-25.99	.0000	358006.3	1.09	23.77	-.0000	180.27	.0042	-25.06	355.48
EXTM	72	3363.31	3374.56	27	21	36.0	.06	.0043	-25.33	.0000	357102.4	1.09	72.57	.0000	180.19	.0123	-25.03	345.61
RISE	11	3495.26	3506.51	27	23	48.0	289.73	.0042	-25.56	-.0000	371781.5	.78	.00	.0029	121.88	.0024	-24.93	312.59
SET	51	3550.89	3562.14	28	0	43.6	90.00	.0042	-24.51	.0000	374343.3	1.51	10.38	-.0035	247.67	-.0015	-24.89	298.65
SET	61	3583.94	3595.19	28	1	16.7	66.13	.0042	-25.55	.0000	377735.5	1.44	-.00	-.0026	235.59	.0027	-24.86	290.36
RISE	42	3733.14	3744.39	28	3	45.9	255.00	.0042	-24.21	.0000	386036.6	1.24	2.51	.0031	118.14	-.0024	-24.79	253.15
IMPACT		3707.27	3718.52	28	3	20.0												
IMPC	42	3707.27	3718.52	28	3	20.0	248.97	.0043	-24.10	.0000	387546.6	1.66	-1.84	.0030	121.52	-.0026	-24.71	259.22
IMPC	72	3707.27	3718.52	28	3	20.0	87.48	.0043	-24.61	.0001	386724.7	2.42	5.56	-.0039	245.87	-.0003	-24.71	259.22
IMPC	11	3707.27	3718.52	28	3	20.0	343.70	.0044	-25.51	.0000	384425.8	1.88	27.35	.0011	163.43	.0043	-24.71	259.22
SET	72	3733.63	3744.88	28	3	46.3	93.66	.0042	-24.65	.0001	386272.9	1.99	-.00	-.0038	245.09	-.0005	-24.79	253.04

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	25	13	32.716	6558.481	18.9173	305.6390	10.97723	2.6116	114.9973	91.6307
SEPARATION		1.20	12.45	25	13	33.916	6617.688	15.9212	311.7796	10.92740	6.0033	116.9282	98.0721
RETRO		3.20	14.45	25	13	35.916	6815.701	10.7320	321.2451	10.76607	11.4516	119.2334	108.0389
IMPACT		3707.27	3718.52	28	3	19.988	387394.363	+24.7052	259.2177	2.18107	65.5924	290.9055	254.5643

SURVEYOR VIEW PERIODS

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GHA   305.2133                                   EPS -48.6606                                                    LOM  254.0875
SX    -.241644 SY    -.875842 SZ    -.417743 DAD  -24.69218 RAD  254.57587 RM  388656.023 LAT  28.310600 LON 279.461800
CJ    -1.065611 ECC    .982504 SLR  12974.826 RCA  6544.6650 LTA  -20.0000 GTA  20.00      TS  675.00000 POL      -.0
NSX   -.220436 NSY    -.879597 NSZ   -.421565 C3M     1.4972 VIM     2.6714 ZAE    138.097 B.T      .0000 B.R     -.0000
LATE   2.6651  LONE   6.0206  LATS   1.4859  LONS  54.5918  LATI  -6.6442  LONI 325.0922  RSM  152.1580  TTAN   6.3100
LAUNCH DATE   JUL  25,1966      BASE AZM  108.0      TF  61.927                    ARRIVAL DATE JUL  28 1966   3 40 29.8

 LNCH      LNCH                    INJ      INJ      INJ      INJ      INJ          INJ          INJ      INJ      INJ
 AZMTH     TIME          PB        LAT      LONG     TA       RT ASC   AZMTH        TIME         RAD      VEL      PTH
 108.00    13 29  .1     28.1     17.83    305.09     6.81    92.97    117.09     13 40 15.1    6567.6   10.97     3.38

EVNT STA  TFI      TFL     DAY HR MIN     HA      DHA     DEC      DDE      RNG      DRG     ELE      DEL     AZI      DAZ      LAT     LONG
                                  PROBE IN SUNLIGHT
INJECTION    .00    11.25  25 13 40.3
SEPARATION  1.20    12.45  25 13 41.5
RETRO       3.20    14.45  25 13 43.5
 RISE 72    4.37    15.62  25 13 44.6    84.77 -.1525   33.33  -.0181   2950.9   -7.73   -.01   .1286 303.69   .0031    6.08 325.10
 EXTM 72   10.45    21.70  25 13 50.7      .39 -.1917   -6.40  -.1283   2024.3    4.41 88.45   .1715 345.58  5.6300   -7.54 345.58
 RISE 51   11.08    22.33  25 13 51.3    62.61 -.0777   14.94  -.0441   5734.4   -2.73   .00   .0869 286.63  -.0056   -8.66 347.28
 EXTM 51   41.18    52.43  25 14 21.4     1.65 -.0153  -30.3   -.0043  11778.4    5.21 85.21  -.0000 197.36  -.1665  -28.70  26.63
 EXTM 72   71.18    82.43  25 14 51.4   295.05  .0000  -33.9   -.0001  23638.6    4.73 25.13  -.0000 123.93   .0001  -31.49  36.21
 EXTM 51   92.92   104.17  25 15 13.2   347.19  .0000  -33.32   .0000  26547.9    4.30 76.54   .0000 127.29  -.0000  -31.96  37.87
 RISE 61  132.47   143.72  25 15 52.7   313.96  .0022  -39.36   .0007  41935.5    3.73   -.00   .0015 146.18   .0011  -32.01  36.21
 EXTM 51  200.91   212.16  25 17  1.2      .56  .0031  -32.95   .0002  50810.0    3.36 83.47  -.0000 184.20   .0228  -31.53  27.19
 EXTM 61  385.92   397.17  25 20  6.2     5.21  .0038  -34.10   .0002  88216.5    2.68 15.51   .0000 184.48   .0033  -30.21 350.86
 EXTM 72  414.04   425.29  25 20 34.3     1.01  .0040  -31.59   .0001  88705.8    2.61 66.29   .0000 182.15   .0084  -30.04 344.74
 RISE 11  588.72   599.97  25 23 29.0   295.39  .0040  -31.28   .0000 119904.1    2.00    .00   .0025 129.46   .0023  -29.20 305.19
 SET  51  607.83   619.08  25 23 48.1    90.00  .0038  -28.02   .0001 121215.6    2.60 11.77  -.0032 244.39  -.0012  -29.13 300.76
 SET  61  615.43   626.68  25 23 55.7    58.97  .0039  -31.35   .0002 123537.4    2.48   -.00  -.0021 227.04   .0027  -29.10 298.99
 SET  72  805.39   816.64  26  3  5.6    94.26  .0039  -28.09   .0001 147808.4    2.41   -.01  -.0034 241.62  -.0004  -28.45 254.19
 RISE 42  815.46   826.71  26  3 15.7   254.99  .0040  -26.94  -.0000 148565.4    1.70   4.17   .0028 120.30  -.0021  -28.42 251.79
 EXTM 11  857.20   868.45  26  3 57.5     1.39  .0041  -30.45   .0001 151417.4    1.97 24.33   .0030 181.31   .0039  -28.29 241.82
 SET  11 1122.46  1133.71  26  8 22.7    67.01  .0041  -28.97   .0001 183693.8    2.06   -.00  -.0026 233.65   .0024  -27.65 177.83
 EXTM 42 1240.69  1251.94  26 10 20.9   359.91  .0042  -27.15   .0000 189755.9    1.69 81.93   .0000    .57  -.0259  -27.41 149.07
 RISE 51 1376.38  1387.63  26 12 36.6   270.00  .0041  -26.50  -.0000 208214.0    1.25 11.17   .0034 114.18  -.0015  -27.16 115.92
 RISE 72 1531.66  1542.91  26 15 11.9   265.99  .0041  -26.67  -.0000 224182.2    1.14   -.01   .0036 116.95  -.0005  -26.91  77.87
 RISE 61 1613.09  1624.34  26 16 33.3   296.68  .0041  -27.95  -.0000 231644.6    1.23    .00   .0025 127.88   .0027  -26.79  57.87
 SET  42 1664.03  1675.28  26 17 24.3   105.00  .0041  -25.78   .0001 235843.2    1.81   3.46  -.0029 240.62  -.0022  -26.72  45.34
 EXTM 51 1731.91  1743.16  26 18 32.2   359.02  .0042  -26.65   .0000 235946.0    1.46 88.73   .0026 136.19   .1215  -26.63  28.64
 EXTM 61 1867.49  1878.74  26 20 47.7      .54  .0042  -27.78   .0000 251551.4    1.41 21.98   .0000 180.51   .0040  -26.45 355.23
 EXTM 72 1906.86  1918.11  26 21 27.1      .16  .0042  -26.86   .0000 251281.6    1.40 71.04  -.0000 180.44   .0115  -26.40 345.52
 RISE 11 2047.43  2058.68  26 23 47.7   291.19  .0042  -27.12  -.0000 268839.8    1.04    .00   .0028 123.92   .0024  -26.24 310.81
 SET  51 2095.09  2106.34  27  0 35.3    90.00  .0041  -25.67   .0001 271489.2    1.71 10.84  -.0034 246.59  -.0015  -26.19 299.03
 SET  61 2121.67  2132.92  27  1  1.9    64.31  .0042  -27.13   .0001 274811.8    1.61   -.00  -.0025 233.33   .0027  -26.16 292.46
 SET  72 2280.27  2291.52  27  3 40.5    93.85  .0041  -25.81   .0001 287240.0    1.69   -.00  -.0037 243.93  -.0005  -25.99 253.22
 RISE 42 2281.70  2292.95  27  3 42.0   255.00  .0041  -25.22  -.0000 287003.8     .96   3.12   .0029 118.94  -.0023  -25.99 252.87
 EXTM 11 2322.37  2333.62  27  4 22.6      .36  .0042  -27.06   .0000 287518.1    1.27 27.73  -.0000 180.36   .0042  -25.95 242.80
 SET  11 2597.12  2608.37  27  8 57.4    69.44  .0042  -26.46   .0000 310848.8    1.52   -.00  -.0028 236.95   .0024  -25.70 174.71
 EXTM 42 2700.65  2711.90  27 10 40.9   359.96  .0042  -25.42   .0000 312025.8    1.18 80.20   .0000    .26  -.0200  -25.61 149.02
 RISE 51 2831.38  2842.63  27 12 51.6   270.00  .0041  -25.07  -.0000 326200.0     .77 10.60   .0034 112.85  -.0015  -25.51 116.57
 RISE 72 2985.58  2996.83  27 15 25.8   266.25  .0042  -25.22  -.0000 338020.3     .70   -.00   .0037 115.48  -.0006  -25.38  78.24
 RISE 61 3056.83  3068.08  27 16 37.1   294.48  .0042  -26.09  -.0000 342735.6     .81    .00   .0026 125.18   .0027  -25.32  60.45
 SET  42 3119.11  3130.36  27 17 39.4   105.00  .0041  -24.63   .0000 346526.8    1.43   2.76  -.0030 241.53  -.0023  -25.27  44.90
 EXTM 51 3185.41  3196.66  27 18 45.7   359.34  .0042  -25.21   .0000 344856.1    1.09 89.20   .0029  48.74  -.1831  -25.22  28.34
 EXTM 61 3316.96  3328.21  27 20 57.2      .29  .0042  -26.05   .0000 357181.9    1.09 23.71  -.0000 180.29   .0041  -25.12 355.46
 EXTM 72 3356.37  3367.62  27 21 36.6      .06  .0043  -25.39   .0000 356260.9    1.09 72.51   .0000 180.20   .0123  -25.09 345.61
 RISE 11 3488.52  3499.77  27 23 48.8   289.77  .0042  -25.62  -.0000 370905.6     .77    .00   .0029 121.95   .0024  -24.98 312.54
 SET  51 3543.96  3555.21  28  0 44.2    90.00  .0042  -24.55   .0000 373421.7    1.50 10.40  -.0035 247.63  -.0015  -24.94 298.65
 SET  61 3576.80  3588.05  28  1 17.0    66.08  .0042  -25.60   .0000 376775.9    1.42   -.00  -.0026 235.52   .0027  -24.91 290.42
 RISE 42 3724.34  3735.59  28  3 44.6   255.00  .0045  -24.14   .0001 387957.0    2.83   2.46   .0032 118.08  -.0026  -24.71 253.16
IMPACT   3715.38  3726.63  28  3 35.6
 IMPC 42 3715.38  3726.63  28  3 35.6   252.72  .0043  -24.14   .0000 387294.3    1.64    .83   .0030 119.37  -.0025  -24.73 255.45
 IMPC 72 3715.38  3726.63  28  3 35.6    91.25  .0043  -24.61   .0001 387147.2    2.41   2.15  -.0039 245.45  -.0004  -24.73 255.45
 IMPC 11 3715.38  3726.63  28  3 35.6   347.52  .0044  -25.55   .0000 384396.4    1.90 28.11   .0008 167.23   .0044  -24.73 255.45
 SET  72 3724.85  3736.10  28  3 45.1    93.64  .0044  -24.58   .0001 388143.4    3.35   -.00  -.0040 245.17  -.0003  -24.72 253.05

EVNT STA  TFI      TFL     DAY HR MIN          RAD          LAT          LONG          VEL          PTH          AZ          RT ASC
INJECTION    .00    11.25  25 13 40.251     6567.863      17.8207      305.1006     10.96905      3.3760     117.0927      92.9813
SEPARATION  1.20    12.45  25 13 41.451     6637.243      14.6294      311.0522     10.91079      6.7525     118.8423      99.2336
RETRO       3.20    14.45  25 13 43.451     6851.141       9.1895      320.2149     10.73757     12.1556     120.8434     108.8978
IMPACT   3715.38  3726.63  28  3 35.636   387439.230     -24.7320      255.4467      2.17774     65.3995     291.3648     254.7159
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SURVEYOR VIEW PERIODS

GHA	305.2133					EPS	-48.5353						LOM	250.4147	
SX	-.239343	SY	-.876283	SZ	-.418143	DAO	+24.71742	RAO	254.72318	RM	388696.586	LAT	28.310600	LON	279.461800
C3	-1.074462	ECC	.962358	SLR	12973.871	RCA	6544.6650	LTA	+20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.218032	NSY	-.880000	NSZ	-.421973	C3M	1.4971	VIM	2.6714	ZAE	137.789	B.T	.0000	B.R	-.0000
LATE	2.6794	LONE	6.0163	LATS	1.4861	LONS	54.4611	LATI	+6.9488	LONI	324.8393	RSM	152.1585	TTAN	6.3088
LAUNCH DATE	JUL 25,1966			BASE AZM	111.0		TF 62.076					ARRIVAL DATE	JUL 28 1966	3 55 44.1	

LNCH AZMTH	LNCH TIME	PH	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	13 35 15.3	28.1	16.76	304.49	8.06	93.94	119.18	13 46 30.3	6576.9	10.96	4.00

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	25	13	46.5												
SEPARATION		1.20	12.45	25	13	47.7												
RETRO		3.20	14.45	25	13	49.7												
RISE	72	4.31	15.56	25	13	50.8	85.64	-.1409	28.67	-.0361	3013.1	-7.59	.00	.1277	298.97	-.0163	4.62	323 65
EXTM	72	10.70	21.95	25	13	57.2	4.48	-.1851	-15.65	-.1077	2172.7	4.65	81.00	-.0000	210.17	-1.3312	-9.88	344.51
RISE	51	11.12	22.37	25	13	57.6	84.32	-.0734	11.60	-.0466	5843.0	-2.53	.00	.0851	282.90	-.0099	-10.62	345.61
EXTM	51	43.79	55.04	25	14	30.3	2.16	-.0138	-33.39	-.0029	12683.1	5.16	82.12	-.0000	193.24	-.0865	-30.84	26.29
EXTM	72	71.94	83.19	25	14	58.4	296.60	+.0000	-35.81	.0002	23826.3	4.71	26.11	.0000	126.14	-.0002	-32.95	34.76
EXTM	51	92.19	103.44	25	15	18.7	349.00	-.0002	-34.97	.0002	26406.3	4.30	76.78	.0000	136.87	-.0010	-33.26	36.38
RISE	61	136.75	148.00	25	16	3.3	315.93	.0023	-40.36	.0007	42976.2	3.69	-.00	.0015	148.03	.0011	-33.09	34.44
EXTM	51	194.34	205.59	25	17	.8	.88	.0030	-33.68	.0003	49528.3	3.40	82.32	-.0000	185.49	.0187	-32.51	26.92
EXTM	61	382.27	393.52	25	20	8.8	5.76	.0038	-34.80	.0002	87718.8	2.69	14.77	.0000	184.89	.0033	-30.87	350.35
EXTM	72	408.85	420.10	25	20	35.4	1.19	.0040	-32.30	.0002	87932.9	2.62	65.58	.0000	182.44	.0081	-30.69	344.57
RISE	11	585.56	596.81	25	23	32.1	295.96	.0040	-31.41	.0000	119460.0	2.01	.00	.0025	130.17	.0023	-29.71	304.61
SET	51	602.03	613.28	25	23	48.5	90.00	.0038	-28.53	.0001	120395.3	2.60	11.97	-.0031	243.91	-.0012	-29.64	300.79
SET	61	606.46	617.71	25	23	53.0	58.21	.0039	-31.90	.0002	122312.1	2.48	-.00	-.0020	226.19	.0027	-29.62	299.76
SET	72	800.03	811.28	26	3	6.5	94.33	.0039	-28.50	.0001	147123.8	2.41	-.01	-.0034	241.20	-.0004	-28.86	254.14
RISE	42	809.98	821.23	26	3	16.5	254.99	.0040	-27.34	-.0000	147839.8	1.71	4.42	.0028	120.62	-.0021	-28.83	251.77
EXTM	11	852.16	863.41	26	3	58.7	1.51	.0041	-30.46	.0001	150820.9	1.98	23.91	.0000	181.42	.0039	-28.69	241.69
SET	11	1115.52	1126.77	26	8	22.0	66.68	.0041	-29.29	.0001	182885.6	2.06	-.00	-.0026	233.21	.0024	-27.97	178.17
EXTM	42	1235.16	1246.41	26	10	21.7	359.92	.0042	-27.44	.0000	189104.1	1.69	82.22	-.0000	.54	-.0266	-27.70	149.06
RISE	51	1370.86	1382.11	26	12	37.4	270.00	.0041	-26.76	-.0000	207562.1	1.26	11.27	.0034	114.43	-.0015	-27.42	115.91
RISE	72	1525.96	1537.21	26	15	12.5	265.95	.0041	-26.90	-.0000	223528.8	1.14	-.01	.0036	117.18	-.0005	-27.14	77.90
RISE	61	1606.62	1617.87	26	16	35.1	296.95	.0041	-28.17	-.0000	231103.8	1.23	.00	.0025	128.20	.0027	-27.01	57.60
SET	42	1658.42	1669.67	26	17	24.9	105.00	.0041	-25.99	.0001	235184.9	1.81	3.59	-.0029	240.45	-.0022	-26.93	45.35
EXTM	51	1727.10	1738.35	26	18	33.6	359.22	.0042	-26.86	.0000	235372.7	1.46	88.68	.0020	148.07	.1377	-26.83	28.45
EXTM	61	1862.06	1873.31	26	20	48.6	.58	.0042	-27.97	.0000	250938.8	1.41	21.79	.0000	180.55	.0040	-26.63	355.18
EXTM	72	1901.30	1912.55	26	21	27.8	.17	.0042	-27.15	.0000	250644.2	1.40	70.86	-.0000	180.47	.0114	-26.58	345.50
RISE	11	2042.46	2053.71	26	23	49.0	291.35	.0042	-27.29	-.0000	265238.0	1.04	.00	.0028	124.13	.0024	-26.40	310.65
SET	51	2089.45	2100.70	27	0	36.0	90.00	.0041	-25.82	.0001	270823.9	1.71	10.90	-.0034	246.45	-.0014	-26.34	299.03
SET	61	2115.27	2126.52	27	1	1.8	64.12	.0042	-27.28	.0001	274092.1	1.61	-.00	-.0025	233.10	.0027	-26.31	292.65
SET	72	2274.70	2285.95	27	3	41.2	93.87	.0041	-25.84	.0001	286577.4	1.69	-.00	-.0037	243.79	-.0005	-26.13	253.20
RISE	42	2276.08	2287.33	27	3	42.6	255.00	.0041	-25.85	-.0000	286327.3	.96	3.20	.0029	119.04	-.0023	-26.13	252.86
EXTM	11	2316.84	2328.09	27	4	23.3	.39	.0042	-27.20	.0000	286868.6	1.27	27.59	-.0000	180.39	.0042	-26.08	242.77
SET	11	2591.02	2602.27	27	8	57.5	69.34	.0042	-26.57	.0000	310124.0	1.51	-.00	-.0028	236.81	.0024	-25.81	174.81
EXTM	42	2695.07	2706.32	27	10	41.6	359.98	.0042	-25.52	.0000	311327.5	1.18	80.30	-.0000	.16	-.0150	-25.71	149.00
RISE	51	2825.71	2836.96	27	12	52.2	270.00	.0041	-25.16	-.0000	325480.7	.77	10.64	.0034	112.93	-.0015	-25.59	116.57
RISE	72	2980.02	2991.27	27	15	26.5	266.24	.0042	-25.30	-.0000	337311.4	.69	.00	.0037	115.56	-.0006	-25.46	78.25
RISE	61	3051.63	3062.88	27	16	38.1	294.57	.0042	-26.17	-.0000	342038.5	.81	.00	.0026	125.29	.0027	-25.40	60.36
SET	42	3113.53	3124.78	27	17	40.0	105.00	.0041	-24.70	.0000	345798.0	1.43	2.80	-.0030	241.47	-.0023	-25.34	44.90
EXTM	51	3176.96	3188.21	27	18	43.5	358.61	.0042	-25.28	.0000	343923.0	1.08	88.66	.0036	70.31	-.0575	-25.29	29.05
EXTM	61	3311.41	3322.66	27	20	57.9	.31	.0042	-26.11	.0000	356412.2	1.08	23.65	-.0000	180.30	.0041	-25.18	355.45
EXTM	72	3350.76	3362.03	27	21	37.3	.17	.0043	-25.45	.0000	355473.1	1.08	72.45	.0000	180.21	.0123	-25.15	345.60
RISE	11	3483.10	3494.35	27	23	49.6	289.82	.0042	-25.67	-.0000	370079.6	.77	.00	.0029	122.02	.0024	-25.03	312.49
SET	51	3538.33	3549.58	28	0	44.8	90.00	.0042	-24.60	.0000	372549.5	1.49	10.42	-.0035	247.58	-.0015	-24.99	298.66
SET	61	3570.95	3582.20	28	1	17.5	66.02	.0042	-25.45	.0000	375867.1	1.41	-.00	-.0026	235.45	.0027	-24.96	290.48
RISE	42	3719.00	3730.25	28	3	45.5	255.00	.0043	-24.20	.0000	386554.9	1.37	2.49	.0031	118.13	-.0024	-24.77	253.16
SET	72	3719.42	3730.67	28	3	45.9	93.65	.0043	-24.63	.0001	386875.3	2.15	.00	-.0038	245.12	-.0005	-24.77	253.05
IMPACT		3724.55	3735.80	28	3	51.1												
IMPC	42	3724.55	3735.80	28	3	51.1	256.43	.0043	-24.19	.0000	387043.3	1.63	3.52	.0031	117.33	-.0024	-24.76	251.73
IMPC	72	3724.55	3735.80	28	3	51.1	94.97	.0043	-24.61	.0001	387566.3	2.40	-1.18	-.0039	244.95	-.0006	-24.76	251.73
IMPC	11	3724.55	3735.80	28	3	51.1	351.29	.0044	-25.58	.0001	384390.6	1.91	28.66	.0006	171.05	.0045	-24.76	251.73

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	25	13	46.504	6577.320	16.7467	304.5158	10.96088	3.9480	119.1834	93.9640
SEPARATION		1.20	12.45	25	13	47.704	6654.803	13.3665	310.2780	10.89585	7.3584	120.7813	100.0269
RETRO		3.20	14.45	25	13	49.704	6881.413	7.6768	319.1510	10.71329	12.7225	122.4739	109.4014
IMPACT		3724.55	3735.80	28	3	51.057	387486.902	+24.7583	251.7308	2.17346	65.0075	291.6976	254.8658

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SURVEYOR VIEW PERIODS

GHA	305.2133					EPS	-48.3656							LOM	245.4356
SX	-.236222	SY	-.876872	SZ	-.418682	DAO	-24.75141	RAO	254.92294	RM	388751.535	LAT	28.310600	LON	279.461800
C3	-1.088050	ECC	.982135	SLR	12972.412	RCA	6544.6650	LTA	-28.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.214753	NSY	-.830542	NSZ	-.422525	C3M	1.4968	VIM	2.6713	ZAE	137.323	B.T	.0000	B.R	-.0000
LATE	2.6988	LONE	6.0110	LATS	1.4864	LONS	54.2871	LATI	-7.3683	LONI	324.4483	RSM	152.1591	TTAN	6.3058
LAUNCH DATE		JUL	25,1966		BASE AZM	115.0		TF	62.310			ARRIVAL DATE		JUL 28 1966	4 16 23.7

LNCH AZMTH	LNCH TIME			PR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	13 42	8.2		28.1	15.37	303.63	9.40	94.81	121.96	13 53 23.2	6588.5	10.95	4.66

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DFC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	25	13	53.4												
SEPARATION		1.20	12.45	25	13	54.6												
RETRO		3.20	14.45	25	13	56.6												
RISE	72	4.29	15.54	25	13	57.7	86.67	-.1277	22.70	-.0578	3097.9	-7.26	-.00	.1251	292.93	-.0396	2.57	321.92
EXTM	72	11.07	22.32	25	14	4.5	9.84	-.1768	-26.54	-.0855	2437.1	4.88	69.15	-.0000	205.44	-.5052	-13.06	343.15
RISE	51	11.23	22.48	25	14	4.6	86.50	-.0682	.7.22	-.0496	5983.0	-2.26	.00	.0826	278.02	-.0150	-13.34	343.55
EXTM	51	48.32	59.57	25	14	41.7	1.83	-.0115	-37.35	-.0013	14191.1	5.06	78.29	-.0000	187.19	-.0453	-33.76	26.47
EXTM	72	72.18	83.43	25	15	5.6	298.18	-.0001	-38.14	.0005	23885.7	4.70	26.89	.0000	126.18	-.0006	-34.99	33.11
EXTM	51	88.47	99.72	25	15	21.9	351.03	-.0007	-37.37	.0004	25508.8	4.35	76.10	.0000	148.96	-.0029	-35.11	34.68
RISE	61	145.46	156.71	25	16	18.8	318.67	.0024	-41.59	.0007	45011.1	3.60	-.00	.0015	150.40	.0012	-34.52	32.16
EXTM	51	188.84	200.09	25	17	2.2	1.44	.0029	-34.97	.0003	48459.4	3.43	80.69	.0000	187.31	.0148	-33.90	26.43
EXTM	61	379.44	390.69	25	20	12.8	6.52	.0038	-35.77	.0003	87373.6	2.69	13.75	.0000	185.45	.0032	-31.80	349.64
EXTM	72	403.95	415.20	25	20	37.3	1.46	.0040	-33.29	.0002	87205.0	2.63	64.58	.0000	182.84	.0077	-31.60	344.33
RISE	11	583.28	594.53	25	23	36.7	296.76	.0040	-32.54	.0001	119118.4	2.01	.00	.0025	131.18	.0023	-30.42	303.80
SET	61	595.86	607.11	25	23	49.2	57.11	.0039	-32.69	.0002	120841.5	2.49	-.00	-.0020	224.97	.0027	-30.35	300.88
SET	51	596.05	607.30	25	23	49.4	90.00	.0038	-29.25	.0002	119521.1	2.61	12.25	-.0031	243.24	-.0012	-30.35	300.84
SET	72	794.60	805.85	26	3	8.0	94.43	.0039	-29.08	.0001	146398.9	2.41	-.00	-.0034	240.62	-.0004	-29.44	254.07
RISE	42	804.33	815.58	26	3	17.7	254.99	.0040	-27.92	-.0000	147052.1	1.71	4.77	.0028	121.08	-.0021	-29.40	251.75
EXTM	11	847.13	858.38	26	4	.5	1.70	.0041	-31.43	.0001	150210.3	1.98	23.34	.0000	181.58	.0039	-29.24	241.52
SET	11	1107.75	1119.00	26	8	21.1	66.21	.0041	-29.76	.0001	181942.0	2.06	-.00	-.0026	232.59	.0024	-28.41	178.65
EXTM	42	1229.29	1240.54	26	10	22.7	359.90	.0042	-27.86	.0000	188359.4	1.69	82.64	.0000	.68	-.0285	-28.10	149.07
RISE	51	1365.07	1376.32	26	12	38.5	270.00	.0041	-27.12	-.0000	206816.1	1.26	11.42	.0034	114.77	-.0014	-27.79	115.90
RISE	72	1519.90	1531.15	26	15	13.3	265.90	.0041	-27.23	-.0000	222768.8	1.14	-.01	.0036	117.31	-.0005	-27.47	77.95
RISE	61	1604.30	1615.55	26	16	37.7	297.33	.0042	-28.48	.0000	230496.8	1.23	.00	.0025	128.66	.0027	-27.31	57.21
SET	42	1652.50	1663.75	26	17	25.9	105.00	.0041	-26.29	.0001	234409.2	1.81	3.77	-.0029	240.22	-.0022	-27.23	45.36
EXTM	51	1719.89	1731.14	26	18	33.3	356.89	.0042	-27.15	.0000	234500.4	1.45	88.27	.0022	145.00	.1009	-27.11	28.77
EXTM	61	1856.37	1867.62	26	20	49.8	.64	.0042	-28.24	.0000	250213.6	1.41	21.52	.0000	180.61	.0040	-26.89	355.13
EXTM	72	1895.43	1906.68	26	21	28.8	.19	.0042	-27.31	.0000	249882.4	1.40	70.60	-.0000	180.51	.0113	-26.83	345.49
RISE	11	2037.41	2048.66	26	23	50.8	291.57	.0042	-27.52	-.0000	267527.9	1.04	.00	.0028	124.44	.0024	-26.63	310.42
SET	51	2083.45	2094.70	27	0	36.8	90.00	.0041	-26.04	.0001	270012.1	1.71	10.99	-.0034	246.24	-.0014	-26.56	299.04
SET	61	2108.21	2119.46	27	1	1.6	63.86	.0042	-27.51	.0001	273201.8	1.60	-.00	-.0025	232.77	.0027	-26.53	292.92
SET	72	2268.81	2280.06	27	3	42.2	93.91	.0041	-26.13	.0001	285759.2	1.69	-.00	-.0037	243.60	-.0005	-26.32	253.17
RISE	42	2270.10	2281.35	27	3	43.5	255.00	.0041	-25.55	-.0000	285489.2	.95	3.32	.0029	119.20	-.0023	-26.32	252.86
EXTM	11	2310.99	2322.24	27	4	24.4	.43	.0042	-27.39	.0000	286066.7	1.27	27.40	-.0000	180.43	.0042	-26.27	242.73
SET	11	2584.36	2595.61	27	8	57.8	69.19	.0042	-26.73	.0001	309202.3	1.51	-.00	-.0028	236.60	.0024	-25.96	174.97
EXTM	42	2688.93	2700.18	27	10	42.3	359.96	.0042	-25.66	.0000	310423.1	1.17	80.44	-.0000	.23	-.0207	-25.85	149.02
RISE	51	2819.65	2830.90	27	12	53.0	270.00	.0041	-25.28	-.0000	324555.5	.77	10.69	.0034	113.05	-.0015	-25.72	116.57
RISE	72	2973.85	2985.10	27	15	27.2	266.22	.0042	-25.41	-.0000	336359.8	.69	.00	.0037	115.67	-.0006	-25.57	78.26
RISE	61	3046.02	3057.27	27	16	39.4	294.69	.0042	-26.27	-.0000	341102.3	.81	.00	.0026	125.44	.0027	-25.50	60.24
SET	42	3107.41	3118.66	27	17	40.8	105.00	.0041	-24.80	.0000	344792.9	1.42	2.86	-.0030	241.40	-.0023	-25.44	44.90
EXTM	51	3170.45	3181.70	27	18	43.8	358.50	.0042	-25.38	.0000	342889.1	1.07	88.60	.0037	75.33	-.0421	-25.38	29.16
EXTM	61	3305.40	3316.65	27	20	58.8	.33	.0042	-26.20	.0000	355371.9	1.07	23.56	.0000	180.32	.0041	-25.26	355.43
EXTM	72	3344.71	3355.96	27	21	38.1	.07	.0043	-25.53	.0000	354407.3	1.07	72.37	.0000	180.23	.0122	-25.23	345.60
RISE	11	3477.31	3488.56	27	23	50.7	289.89	.0042	-25.74	-.0000	368963.8	.76	.00	.0029	122.11	.0024	-25.11	312.42
SET	51	3532.25	3543.50	28	0	45.6	90.00	.0042	-24.67	.0000	371374.2	1.47	10.44	-.0035	247.52	-.0015	-25.06	298.66
SET	61	3564.57	3575.82	28	1	18.0	65.94	.0042	-25.72	.0000	374645.8	1.39	-.00	-.0026	235.35	.0027	-25.02	290.56
RISE	42	3713.26	3724.51	28	3	46.6	255.00	.0042	-24.27	.0000	384835.9	1.05	2.54	.0030	118.19	-.0024	-24.85	253.16
SET	72	3713.71	3724.96	28	3	47.1	93.66	.0042	-24.71	.0001	385155.4	1.81	-.00	-.0038	245.04	-.0005	-24.85	253.04
IMPACT		3738.63	3749.88	28	4	12.0												
IMPC	42	3738.63	3749.88	28	4	12.0	261.46	.0043	-24.25	.0000	386692.1	1.61	7.26	.0032	114.65	-.0023	-24.79	246.68
IMPC	11	3738.63	3749.88	28	4	12.0	356.42	.0044	-25.62	.0001	384411.3	1.93	29.08	.0003	176.30	.0045	-24.79	246.68

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	25	13	53.387	6589.314	15.3511	303.6714	10.95050	4.6585	121.9688	94.8448
SEPARATION		1.20	12.45	25	13	54.587	6675.264	11.7271	309.1817	10.87836	8.0041	123.3326	100.6560
RETRO		3.20	14.45	25	13	56.587	6915.283	5.7060	317.6828	10.68615	13.3241	124.7015	109.6585
IMPACT		3738.63	3749.88	28	4	12.012	387548.484	-24.7940	248.6809	2.16786	64.6565	292.3328	255.0691

SURVEYOR VIEW PERIODS

GHA	306.1989					EPS	-37.4248						LOM	281.2462	
SX	-.838884	SY	-.895474	SZ	-.444041	DAD	-26.36202	RAD	268.02472	RM	392193.539	LAT	28.310600	LON	279.461800
C3	-1.002573	FPC	.983539	SLR	12981.599	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.009833	NSY	-.895143	NSZ	-.445670	C3M	1.4929	VIM	2.6706	ZAE	139,992	B.T	.0000	B.R	-.0000
LATE	3.8841	LONE	5.5848	LATS	1.5037	LONS	42.8894	LATI	-2.8141	LONI	326.1168	RSM	152.1961	TTAN	6.5746
LAUNCH DATE	JUL	26,1966		BASE AZM	84.0		TF 61.969					ARRIVAL DATE	JUL 29 1966		2 41 52.5

LNCH AZMTH	LNCH TIME	PH	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
84.00	12 45 55.2	27.2	27.11	307.46	-14.27	85.53	99.74	12 57 10.2	6646.4	10.91	-7.08

EVNT	STA	TFI	TFL	DAY	HR	MIN	RA	DRA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT												
INJECTION		.00	11.25	26	12	57.2												
SEPARATION		1.20	12.45	26	12	58.4												
RETRO		3.20	14.45	26	13	.4												
RISE	72	7.20	18.45	26	13	4.4	336.88	-1.0315	41.41	-.1528	2621.5	-2.67	.00	.0809	3.36	.2013	14.40	346.99
RISE	51	12.19	23.44	26	13	9.4	60.76	-.1495	45.37	-.0233	4659.4	-3.81	.00	.0970	322.2[illegible]	.0466	3.97	6.43
EXTM	72	13.35	24.60	26	13	10.5	288.66	-.0249	17.73	-.0977	3746.8	6.65	15.07	-.0000	69.16	.1041	1.85	10.05
EXTM	51	29.55	40.80	26	13	26.7	338.49	-.0253	-5.96	-.0241	7274.9	5.60	61.47	-.0000	49.78	.0729	-15.44	39.69
EXTM	72	63.61	74.86	26	14	.8	271.09	-.0003	-23.69	-.0020	22470.5	5.02	4.16	.0000	113.37	.0020	-24.60	57.61
RISE	42	70.98	82.23	26	14	8.2	102.60	-.0044	-17.17	-.0032	25109.6	4.26	.00	.0053	248.82	-.0001	-25.34	58.91
EXTM	51	77.59	88.84	26	14	14.8	319.36	-.0003	-24.67	-.0017	22367.0	4.63	53.36	.0000	97.37	.0028	-25.87	59.71
EXTM	42	128.66	139.91	26	15	5.8	98.08	.0006	-22.85	-.0008	39458.5	3.98	6.78	-.0000	246.76	-.0010	-27.82	59.13
SET	42	200.45	211.68	26	16	17.6	105.00	.0023	-24.66	-.0002	55703.3	3.58	2.78	-.0015	241.50	-.0014	-28.52	49.81
RISE	61	215.14	226.39	26	16	32.3	303.96	.0033	-33.43	.0001	58988.0	3.13	.00	.0018	136.19	.0020	-28.58	47.35
EXTM	51	318.41	329.66	26	18	15.6	.01	.0037	-28.95	.0000	72052.2	2.88	86.79	.0000	180.37	.0163	-28.69	27.68
EXTM	61	475.89	487.14	26	20	53.1	2.25	.0039	-31.90	.0001	101530.8	2.50	17.83	.0000	182.01	.0035	-28.55	353.62
EXTM	72	512.51	523.76	26	21	29.7	.34	.0041	-29.75	.0001	103110.5	2.42	68.15	-.0000	180.80	.0094	-28.51	345.35
RISE	11	680.05	691.30	27	0	17.2	294.21	.0040	-30.16	-.0000	131945.7	1.89	.00	.0026	127.95	.0023	-28.30	306.60
SET	51	706.25	717.50	27	0	43.4	90.00	.0039	-27.25	.0001	134083.3	2.49	11.47	-.0032	245.11	-.0013	-[illegible].27	300.44
SET	61	719.44	730.69	27	0	56.6	60.42	.0040	-30.26	.0001	137039.3	2.38	-.00	-.0022	228.70	.0026	-28.25	297.33
SET	72	901.33	912.58	27	3	58.5	94.18	.0040	-27.71	.0001	159261.3	2.34	-.00	-.0035	242.00	-.0005	-28.04	254.05
RISE	42	910.10	921.35	27	4	7.3	255.00	.0040	-26.66	-.0001	159841.7	1.63	4.00	.0029	120.08	-.0021	-28.04	251.95
EXTM	11	949.73	960.98	27	4	46.9	.74	.0042	-30.10	.0000	162234.0	1.91	24.79	-.0000	180.71	.0040	-27.[illegible]9	242.43
SET	11	1216.91	1228.16	27	9	14.1	66.99	.0041	-28.99	.0001	193907.4	2.02	-.00	-.0026	233.62	.0024	-27.74	177.76
EXTM	42	1334.84	1346.09	27	11	12.0	359.96	.0042	-27.40	.0000	199651.8	1.66	82.18	.0000	.29	-.0242	-27.64	149.02
RISE	51	1469.86	1481.11	27	13	27.0	270.00	.0041	-26.90	-.0000	217772.1	1.22	11.33	.0034	114.56	-.0014	-27.54	116.00
RISE	72	1624.66	1635.91	27	16	1.8	265.90	.0041	-27.[illegible]9	-.0000	233470.6	1.12	-.00	.0036	117.48	-.0005	-27.42	78.02
RISE	61	1709.12	1720.37	27	17	26.3	297.33	.0041	-28.48	-.0000	241098.8	1.21	.00	.0025	128.66	.0027	-27.37	57.26
SET	42	1757.75	1769.00	27	18	14.9	105.00	.0041	-26.43	.0000	244985.0	1.79	3.86	-.0029	240.10	-.0022	-27.33	45.30
EXTM	51	1823.85	1835.10	27	19	21.0	358.63	.0042	-27.33	.0000	244903.9	1.44	87.99	.0023	142 68	.0839	-27.29	29.02
EXTM	61	1960.09	1971.34	27	21	57.3	.32	.0042	-28.50	.0000	260517.0	1.40	21.26	.0000	180.30	.0040	-27.21	355.44
EXTM	72	2000.06	2011.31	27	22	17.2	.10	.0042	-27.65	.0000	260219.3	1.39	70.25	-.0000	180.27	.0108	-27.19	345.57
RISE	11	2143.97	2155.22	28	0	41.1	292.01	.0042	-27.97	-.0000	277925.3	1.03	.00	.0028	125.03	.0024	-27.11	310.03
SET	51	2188.61	2199.86	28	1	25.8	90.00	.0041	-26.58	.0000	280263.5	1.70	11.20	-.0034	245.73	-.0014	-27.08	299.00
SET	61	2210.85	2222.10	28	1	48.0	63.24	.0042	-28.02	.0000	283268.6	1.60	-.00	-.0025	232.02	.0027	-27.07	293.49
SET	72	2374.45	2385.70	28	4	31.6	94.02	.0041	-26.80	.0000	296021.6	1.68	-.00	-.0036	242.92	-.0005	-26.99	253.02
RISE	42	2374.97	2386.22	28	4	32.1	255.00	.0041	-26.24	-.0000	295645.9	.95	3.74	.0029	119.74	-.0022	-26.99	252.89
EXTM	11	2415.18	2426.43	28	5	12.3	.22	.0042	-28.06	.0000	296277.6	1.27	26.74	-.0000	180.22	.0042	-26.97	242.93
SET	11	2486.20	2497.45	28	9	43.4	68.36	.0042	-27.59	.0000	319189.9	1.51	.00	-.0028	235.47	.0024	-26.84	175.77
EXTM	42	2794.13	2805.38	28	11	51.3	359.99	.0042	-26.63	.0000	320656.4	1.18	81.41	-.0000	.13	-.0112	-26.79	148.99
RISE	51	2924.66	2935.91	28	13	41.8	270.00	.0041	-26.32	-.0000	334788.9	.78	11.10	.0034	114.02	-.0015	-26.74	116.59
RISE	72	3077.46	3088.91	28	16	14.8	266.02	.0042	-26.52	-.0000	346550.0	.71	-.00	.0037	116.79	-.0005	-26.67	78.48
RISE	61	3156.03	3167.28	28	17	33.2	296.02	.0042	27.40	-.0000	351781.0	.83	.00	.0025	127.08	.0027	-26.64	58.94
SET	42	3212.34	3223.59	28	18	29.5	105.00	.0041	-26.00	.0000	355124.3	1.44	3.60	-.0030	240.45	-.0023	-26.62	44.89
EXTM	51	3278.75	3290.00	28	19	35.9	359.36	.0042	-26.61	.0000	353606.4	1.10	88.95	.0021	146.81	.1728	-26.60	28.31
EXTM	61	3409.85	3421.10	28	21	47.0	.18	.0042	-27.46	.0000	366194.0	1.11	22.30	-.0000	180.17	.0041	-26.55	355.58
EXTM	72	3449.80	3461.05	28	22	27.0	.08	.0042	-26.85	.0000	365274.2	1.11	71.05	-.0000	180.22	.0114	-26.53	345.59
RISE	11	3587.37	3598.62	29	0	44.5	291.17	.0042	-27.10	-.0000	380572.1	.85	.00	.0028	123.88	.0024	-26.47	311.17
SET	51	3637.29	3648.54	29	1	34.5	90.00	.0042	-26.08	.0000	382908.9	1.60	11.01	-.0035	245.20	-.0015	-26.45	298.84
SET	61	3663.05	3674.30	29	2	.2	64.31	.0042	-27.13	.0000	386050.3	1.57	-.00	-.0026	233.33	.0027	-26.44	292.17
IMPACT		3718.16	3729.41	29	2	55.3												
IMPC	72	3718.16	3729.41	29	2	55.3	68.44	.0043	-26.43	.0001	388462.4	2.44	22.78	-.0039	244.59	.0002	-26.39	278.19
IMPC	11	3718.16	3729.41	29	2	55.3	324.46	.0044	-27.16	.0000	388836.8	1.84	19.17	.0020	146.80	.0035	-26.39	278.19

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	26	12	57.171	6650.576	27.1345	307.3018	10.90625	-7.0755	99.6866	85.3684
SEPARATION		1.20	12.45	26	12	58.371	6572.350	25.7628	314.5993	10.96788	-3.7059	103.0780	92.9667
RETRO		3.20	14.45	26	13	.371	6552.757	22.6560	326.2657	10.98440	2.0062	108.0852	105.1344
IMPACT		3718.16	3729.41	29	2	55.326	390975.926	-26.3942	278.1920	2.20381	68.0557	280.9519	268.3419

SURVEYOR VIEW PERIODS

GMA	306.1989				EPS -37.1840						LOM	274.0360	
SX	-.020304	SY	-.895449	SZ	-.444387	DAO	-26.38412	RAO	268.31738	RM	392266.934	LAT	28.310600
C3	-.995374	ECC	.983657	SLR	12982.375	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	672.00000
NSX	-.005328	NSY	-.895038	NSZ	-.445958	C3M	1.4970	VIM	2.6714	ZAE	140.149	B.T	.0000
LATE	3.9086	LONE	5.5732	LATS	1.5041	LONS	42.6355	LATI	-2.5713	LONI	326.2291	RSM	152.1968

LON	279.461800												
POL	-.0												
R.R	-.0000												
TTAN	6.5761												

LAUNCH DATE JUL 26,1966 BASE AZM 87.0 TF 61.880 ARRIVAL DATE JUL 29 1966 3 11 48.3

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
87.00	13 15 10.0	27.6	25.87	307.64	-7.72	93.04	102.12	13 26 25.0	6574.2	10.97	-3.83

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT
							PROBE IN SUNLIGHT										
INJECTION		.00	11.25	26	13	26.4											
SEPARATION		1.20	12.45	26	13	27.6											
RETRO		3.20	14.45	26	13	29.6											
RISE	72	6.21	17.46	26	13	32.6	54.80	-.7651	76.46	.0791	2685.9	-4.58	-.00	.0985	348.97	.1692	14.51 341.27
RISE	61	10.04	21.29	26	13	36.5	357.31	-.1589	-49.72	.0129	4254.0	5.92	.01	.0092	178.26	-.0031	6.52 356.72
RISE	51	11.77	23.02	26	13	38.2	65.68	-.1282	40.51	-.0253	4971.9	-3.52	-.00	.0044	316.14	.0349	3.27 2.42
EXTM	61	12.49	23.74	26	13	38.9	339.03	-.0959	-47.20	.0185	5210.9	6.97	.59	-.0000	165.93	-.0678	2.02 4.57
EXTM	72	12.65	23.90	26	13	39.1	298.92	-.0395	19.72	-.1107	3346.7	6.28	23.86	-.0000	64.28	.1277	1.74 5.05
SET	61	15.96	27.21	26	13	42.4	324.26	-.0522	-43.81	.0136	6718.3	7.37	-.00	-.0046	155.07	-.0397	-3.32 13.59
EXTM	51	32.10	43.35	26	13	58.5	344.27	-.0211	-9.44	-.0177	8334.1	5.50	67.90	-.0000	45.3	.0726	-16.64 36.95
EXTM	72	63.80	75.05	26	14	30.2	277.85	-.0001	-23.92	-.0019	22216.1	4.98	10.34	.0000	113.00	.0019	-24.12 51.35
EXTM	51	79.84	91.09	26	14	46.3	327.39	-.0003	-24.68	-.0015	22955.7	4.56	60.55	.0000	95.10	.0031	-25.52 [illegible]
RISE	42	96.51	107.76	26	15	2.9	104.79	-.0011	-19.88	-.0016	32464.9	4.17	.00	.0018	245.40	-.0006	-26.41 53.97
EXTM	42	128.67	139.92	26	15	35.1	104.56	.0007	-22.09	-.0008	40315.7	3.97	1.92	-.0000	243.79	-.0010	-27.36 52.38
SET	42	137.45	148.70	26	15	43.9	105.00	.0010	-22.48	-.0007	42392.0	3.92	1.44	-.0003	243.23	-.0011	-27.52 51.95
RISE	61	177.17	188.42	26	16	23.6	304.17	.0030	-33.57	.0001	51397.5	3.37	-.00	.0017	136.42	.0018	-27.99 46.53
EXTM	51	283.77	295.02	26	18	10.2	359.99	.0036	-28.62	-.0000	66152.0	3.00	87.12	.0000	179.63	.0029	-28.37 27.69
EXTM	61	444.89	456.14	26	20	51.3	2.34	.0039	-31.85	.0001	97025.4	2.56	17.88	.0000	182.08	.0035	-28.35 353.54
EXTM	72	481.44	492.69	26	21	27.9	.32	.0040	-29.01	.0000	90729.8	2.48	68.29	-.0000	180.76	.0024	-28.22 345.37
RISE	11	649.96	661.21	27	0	16.4	294.12	.0040	-30.07	-.0000	128169.0	1.93	.00	.0026	127.83	.0023	-28.15 306.63
SET	51	676.06	687.31	27	0	42.5	90.00	.0039	-27.08	.0001	130359.4	2.53	11.40	-.0032	245.27	-.0013	28.13 303.52
SET	61	689.86	701.11	27	0	56.3	60.53	.0040	-30.17	.0001	133415.3	2.41	-.00	-.0022	228.82	.0026	-28.11 297.28
SET	72	871.69	882.94	27	3	58.1	94.16	.0039	-27.60	.0001	155962.1	2.36	-.00	-.0035	242.12	-.0035	-27.94 254.13
RISE	42	880.94	892.19	27	4	7.4	254.99	.0040	-26.52	-.0001	156622.9	1.65	3.72	.0029	119.97	-.0021	27.93 251.91
EXTM	11	920.42	931.67	27	4	46.8	.73	.0042	-29.94	.0000	159022.2	1.93	24.85	-.0000	180.70	.0040	-27.89 242.45
SET	11	1188.15	1199.40	27	9	14.6	67.04	.0041	-28.93	.0001	191121.1	2.04	-.00	-.0026	293.70	.0024	-27.66 177.73
EXTM	42	1306.04	1317.29	27	11	12.5	359.96	.0042	-27.33	.0000	196986.6	1.67	82.11	.0000	.26	-.0035	-27.57 149.01
RISE	51	1441.22	1452.47	27	13	27.6	270.00	.0041	-26.83	-.0000	215248.7	1.24	11.30	.0034	114.50	-.0014	-27.48 115.98
RISE	72	1596.12	1607.37	27	16	2.5	265.91	.0041	-27.14	-.0000	231084.5	1.13	-.01	.0036	117.43	-.0005	-27.38 76.10
RISE	61	1680.41	1691.66	27	17	26.8	297.29	.0041	-28.45	-.0000	238761.6	1.23	.00	.0025	128.62	.0027	-27.32 57.29
SET	42	1729.12	1740.37	27	18	15.5	105.00	.0041	-26.38	.0000	242695.1	1.80	3.83	-.0029	240.14	-.0022	-27.29 45.31
EXTM	51	1795.42	1806.67	27	19	21.8	358.66	.0042	-27.30	.0000	242676.2	1.45	88.03	.0025	142.64	.0859	-27.26 28.99
EXTM	61	1931.53	1942.78	27	21	37.9	.31	.0042	-28.48	.0000	258369.1	1.41	21.28	.0000	180.29	.0040	-27.18 355.45
EXTM	72	1971.55	1982.80	27	22	18.0	.10	.0042	-27.63	.0000	258102.8	1.40	70.28	-.0000	180.26	.0109	-27.16 345.58
RISE	11	2115.48	2126.73	28	0	41.9	291.99	.0042	-27.95	-.0000	275901.4	1.04	.00	.0028	125.01	.0024	-27.08 310.04
SET	51	2160.12	2171.37	28	1	26.5	90.00	.0041	-26.56	.0000	278267.7	1.71	11.20	-.0034	245.76	-.0014	-27.06 299.00
SET	61	2182.44	2193.69	28	1	48.9	63.26	.0042	-28.00	.0000	281291.0	1.61	-.00	-.0025	232.04	.0027	-27.05 293.49
SET	72	2345.99	2357.24	28	4	32.4	94.02	.0041	-26.79	.0000	294134.3	1.69	-.00	-.0036	242.93	-.0005	-26.97 253.03
RISE	42	2346.58	2357.83	28	4	33.0	255.00	.0041	-26.22	-.0000	293765.5	.96	3.73	.0029	119.73	-.0022	-26.97 252.88
EXTM	11	2386.74	2397.99	28	5	13.2	.21	.0042	-28.05	.0000	294413.7	1.28	26.74	-.0000	180.21	.0042	-26.96 242.94
SET	11	2657.80	2669.05	28	9	44.2	68.36	.0042	-27.59	.0000	317471.8	1.52	.00	-.0028	235.47	.0024	-26.84 175.77
EXTM	42	2765.79	2777.04	28	11	32.2	359.99	.0042	-26.63	.0000	318995.7	1.19	81.41	-.0000	.13	-.0096	-26.80 148.99
RISE	51	2896.35	2907.60	28	13	42.8	270.00	.0041	-26.32	-.0000	333192.4	.79	11.10	.0034	114.02	-.0015	-25.74 116.59
RISE	72	3049.45	3060.70	28	16	15.9	266.02	.0042	-26.53	-.0000	345040.5	.71	-.00	.0037	116.80	-.0005	-26.68 78.48
RISE	61	3127.86	3139.11	28	17	34.3	296.04	.0042	-27.42	-.0000	350291.6	.83	.00	.0025	127.10	.0027	-26.66 58.91
SET	42	3184.07	3195.32	28	18	30.5	105.00	.0041	-26.01	.0000	353637.4	1.44	3.80	-.0030	240.44	-.0023	-26.64 44.89
EXTM	51	3250.44	3261.69	28	19	36.9	359.35	.0042	-26.63	.0000	352128.5	1.10	88.94	.0021	146.86	.1703	-26.61 28.32
EXTM	61	3381.53	3392.78	28	21	47.9	.17	.0042	-27.48	.0000	364726.6	1.11	22.28	-.0000	180.16	.0040	-26.56 355.58
EXTM	72	3421.49	3432.74	28	22	27.9	.08	.0042	-26.87	.0000	363804.5	1.11	71.03	-.0000	180.22	.0113	-26.55 345.60
RISE	11	3559.20	3570.45	29	0	45.6	291.19	.0042	-27.12	-.0000	379058.6	.83	.00	.0028	123.92	.0024	-26.50 311.14
SET	51	3609.03	3620.28	29	1	35.4	90.00	.0042	-26.11	.0000	381322.3	1.57	11.02	-.0035	246.18	-.0015	-26.48 298.65
SET	61	3634.68	3645.93	29	2	1.1	64.28	.0042	-27.15	.0000	384391.7	1.51	-.00	-.0026	233.28	.0027	-26.46 292.20
IMPACT		3712.80	3724.05	29	3	19.2											
IMPC	72	3712.80	3724.05	29	3	19.2	74.23	.0043	-26.41	.0001	389062.5	2.45	17.60	-.0039	244.72	.0000	-26.41 272.44
IMPC	11	3712.80	3724.05	29	3	19.2	330.29	.0044	-27.19	.0000	388649.7	1.87	21.58	.0017	151.70	.0038	-26.41 272.44

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	26	13	26.417	6574.575	25.8792	307.6147	10.96674	-3.8281	102.1099	93.0129
SEPARATION		1.20	12.45	26	13	27.617	6544.995	24.2387	314.7407	10.99129	-.4886	105.2598	100.4398
RETRO		3.20	14.45	26	13	29.617	6601.217	20.7048	326.0943	10.94400	5.2888	109.8128	112.2947
IMPACT		3712.80	3724.05	29	3	19.213	391037.883	-26.4108	272.4383	2.20380	67.8433	280.3763	268.5761

JUL 26, 1966
87 DEGREES

SURVEYOR VIEW PERIODS

GMA 366.1989 EQS -36.9424 LOM 266.7989
SX -.021709 SY -.899404 SZ -.444724 DAD -26.40070 RAD 268.61113 RM 392340.453 LAT 28.310600 LON 279.461800
CX -.993934 EQC .983681 SLR 12982.930 RCA 6544.6450 LTA +20.0000 GTA 20.00 TB 675.00000 POL -.0
NSX -.000127 NSY -.894909 NSZ -.446247 C3M 1.4970 VIM 2.6714 ZAE 140.192 B.T .0000 B.R -.0000
LATE 3.9540 LONE -.2016 LATS 1.2045 LONS 42.3809 LATI +2.4498 LONI 326.2442 RSM 152.1975 TTAN 6.5774
LAUNCH DATE JUL 26,1966 BASE AZM 90.0 TF 61.879 ARRIVAL DATE JUL 29 1966 3 41 50.7

LNCH AZMTH	LCH TIME	RS	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FTH
90.00	13 41 14.9	27 9	24.65	307.62	-2.19	99.30	104.38	13 51 29.9	6547.0	10.99	-1.08

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						-MORE	IN SUNLIGHT											
INJECTION		.00	11.25	26	13	51.5												
SEPARATION		1.20	12.45	26	13	52.7												
RETRO		3.20	14.45	26	13	54.7												
RISE	72	5.53	16.78	26	13	57.0	70.93	-.3838	66.99	.0881	2794.3	-5.70	-.00	1095	338.32	.1352	14.09	336.88
RISE	61	9.10	20.35	26	14	.6	12.54	-.1700	-49.07	-.0013	4264.9	5.03	.01	.0172	188.18	-.1100	6.69	351.18
RISE	51	11.50	22.75	26	14	3.0	69.41	-.1127	36.10	-.0275	5260.8	-3.21	.00	.0916	310.85	.0257	2.29	358.88
EXTM	72	12.11	23.36	26	14	3.6	310.00	-.0602	20.57	-.1213	3031.2	5.88	33.21	-.0000	59.01	.1599	1.28	.62
EXTM	61	13.72	24.97	26	14	5.2	340.05	-.0756	-46.04	.0142	5987.9	6.90	1.89	-.0000	166.30	-.0544	-1.26	4.93
SET	61	23.26	34.51	26	14	14.8	316.31	-.0228	-40.52	.0059	10013.5	6.89	-.00	-.0041	148.33	-.0178	-11.62	22.64
EXTM	51	25.25	36.50	26	14	26.7	348.85	-.0171	-12.91	-.0129	9554.7	5.40	73.43	-.0000	41.38	.0740	-10.12	34.59
EXTM	72	64.76	76.01	26	14	56.3	283.90	-.0000	-24.55	-.0017	22224.5	4.93	15.87	.0000	113.37	.0018	-24.12	46.02
EXTM	51	82.22	93.47	26	15	13.7	334.42	-.0002	-25.02	-.0014	23611.2	4.49	66.91	.0000	93.81	.0035	-25.54	47.94
RISE	61	144.19	154.44	26	16	14.7	304.85	.0025	-34.03	.0002	44101.8	3.66	-.00	.0015	137.15	.0015	-27.49	45.11
EXTM	51	252.95	264.20	26	18	4.4	359.98	.0035	-28.48	-.0000	60670.4	3.12	87.25	-.0000	179.48	.0492	-28.22	27.70
EXTM	61	417.95	429.20	26	20	49.4	2.36	.0039	-31.95	.0001	93008.2	2.61	17.78	.0000	182.10	.0035	-28.29	353.53
EXTM	72	454.68	465.93	26	21	26.2	.29	.0040	-29.41	.0000	94856.7	2.53	68.29	.0000	180.69	.009	-28.27	345.40
RISE	11	824.69	835.94	27	0	16.2	294.14	.0040	-30.10	-.0000	124918.9	1.96	.00	.0026	127.86	.0013	-28.13	306.54
SET	51	850.21	861.46	27	0	41.7	90.00	.0038	-27.03	.0001	127004.1	2.56	11.38	-.0032	245.31	-.0013	-28.10	300.59
SET	61	863.98	875.23	27	0	55.5	60.49	.0040	-30.20	.0001	130160.4	2.44	-.00	-.0022	228.78	.0026	-28.09	297.37
SET	72	946.42	957.67	27	3	57.9	94.16	.0039	-27.58	.0001	153074.0	2.38	-.00	-.0035	242.13	-.0005	-27.92	254.18
RISE	42	956.87	967.32	27	4	7.6	254.99	.0040	-26.49	-.0001	153796.5	1.67	3.89	.0028	119.94	-.0021	-27.91	251.87
EXTM	11	995.49	1006.74	27	4	47.0	.74	.0041	-29.96	.0000	156241.4	1.95	24.83	-.0000	180.71	.0040	-27.88	242.44
SET	11	1163.35	1174.60	27	9	14.9	67.03	.0041	-28.94	.0001	188635.0	2.05	-.00	-.0026	233.68	.0024	-27.66	177.76
EXTM	42	1281.48	1292.73	27	11	13.0	359.97	.0042	-27.52	.0000	194626.5	1.69	82.10	.0000	26	-.0230	-27.57	149.01
RISE	51	1416.81	1428.06	27	13	28.3	270.00	.0041	-26.83	-.0000	213003.3	1.25	11.30	.0034	114.50	-.0014	-27.48	115.96
RISE	72	1571.77	1583.02	27	16	3.3	265.91	.0041	-27.14	-.0000	228947.2	1.14	-.01	.0036	117.43	-.0005	-27.38	77.98
RISE	61	1456.15	1467.40	27	17	27.6	297.31	.0041	-28.37	-.0000	236483.0	1.24	.00	.0025	128.64	.0027	-27.33	57.26
SET	42	1704.71	1715.96	27	18	16.2	105.00	.0041	-26.48	.0000	240631.0	1.81	3.83	-.0029	240.14	-.0022	-27.30	45.32
EXTM	51	1771.04	1782.29	27	19	22.5	358.65	.0042	-27.30	.0000	240652.7	1.46	88.02	.0023	142.62	.0854	-27.26	29.00
EXTM	61	1907.22	1918.47	27	21	38.7	.31	.0042	-28.50	.0000	256422.9	1.42	21.26	.0000	180.29	.0040	-27.19	355.45
EXTM	72	1947.25	1958.50	27	22	18.7	.10	.0042	-27.44	.0000	256176.1	1.40	70.26	-.0000	180.26	.0109	-27.17	345.58
RISE	11	2091.33	2102.58	28	0	42.8	292.01	.0042	-27.97	-.0000	274051.8	1.05	.00	.0028	125.03	.0024	-27.10	310.01
SET	51	2135.83	2147.08	28	1	27.3	90.00	.0041	-26.57	.0000	276426.9	1.71	11.20	-.0034	245.75	-.0014	-27.07	299.01
SET	61	2158.08	2169.33	28	1	49.6	63.23	.0042	-28.02	.0000	279453.9	1.61	-.00	-.0025	232.02	.0027	-27.06	293.52
SET	72	2321.75	2333.00	28	4	33.2	94.02	.0041	-26.80	.0000	292374.6	1.70	-.00	-.0036	242.92	-.0005	-26.99	253.03
RISE	42	2322.39	2333.64	28	4	33.9	255.00	.0041	-26.23	-.0000	292009.5	.97	3.74	.0029	119.74	-.0022	-26.99	252.88
EXTM	11	2362.52	2373.77	28	5	14.0	.21	.0042	-28.07	.0000	292674.2	1.28	26.72	-.0000	180.21	.0042	-26.97	242.94
SET	11	2633.53	2644.78	28	9	45.0	68.34	.0042	-27.61	.0000	315825.0	1.52	.00	-.0028	235.44	.0024	-26.86	175.80
EXTM	42	2741.64	2752.89	28	11	33.1	359.99	.0042	-26.45	.0000	317394.1	1.19	81.43	-.0000	.13	-.0079	-26.81	148.99
RISE	51	2872.23	2883.48	28	13	43.7	270.00	.0041	-26.34	-.0000	331634.3	.79	11.11	.0034	114.04	-.0015	-26.76	116.58
RISE	72	3025.44	3036.69	28	16	16.9	266.02	.0042	-26.55	-.0000	343554.4	.71	-.00	.0037	116.82	-.0005	-26.70	78.48
RISE	61	3103.96	3115.21	28	17	35.5	296.07	.0042	-27.44	-.0000	348818.6	.83	.00	.0025	127.13	.0027	-26.68	58.88
SET	42	3160.01	3171.26	28	18	31.5	105.00	.0041	-26.03	.0000	352155.3	1.44	3.61	-.0030	240.42	-.0023	-26.66	44.89
EXTM	51	3226.31	3237.56	28	19	37.8	359.33	.0042	-26.65	.0000	350644.8	1.10	88.91	.0021	146.78	.1658	-26.63	28.34
EXTM	61	3357.44	3368.69	28	21	48.9	.17	.0042	-27.51	.0000	363241.5	1.11	22.25	-.0000	180.16	.0040	-26.59	355.59
EXTM	72	3397.41	3408.66	28	22	28.9	.08	.0042	-28.90	.0000	362311.6	1.11	71.01	-.0000	180.21	.0113	-26.57	345.60
RISE	11	3535.24	3546.49	29	0	46.7	291.22	.0042	-27.15	-.0000	377515.4	.82	.00	.0028	123.95	.0024	-26.52	311.11
SET	51	3584.97	3596.22	29	1	36.5	90.00	.0042	-26.13	.0000	379715.6	1.54	11.03	-.0035	246.16	-.0015	-26.50	298.65
SET	61	3610.50	3621.75	29	2	2.0	64.24	.0042	-27.19	.0000	382730.3	1.47	-.00	-.0026	233.24	.0027	-26.49	292.24
IMPACT		3712.76	3724.01	29	3	44.3												
IMPC	72	3712.76	3724.01	29	3	44.3	80.28	.0043	-26.39	.0001	389709.1	2.45	12.17	-.0039	244.59	-.0001	-26.43	266.41
IMPC	11	3712.76	3724.01	29	3	44.3	336.40	.0044	-27.23	.0000	388498.6	1.89	23.70	.0014	157.12	.0040	-26.43	266.41

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FTH	AZ	R' ASC
INJECTION		.00	11.25	26	13	51.498	6547.034	24.6510	307.6148	10.98975	-1.0845	104.3831	99.3005
SEPARATION		1.20	12.45	26	13	52.698	6555.723	22.7604	314.5790	10.98229	2.3441	107.3076	106.5655
RETRO		3.20	14.45	26	13	54.698	6673.980	18.9882	325.9302	10.88376	7.9678	111.4025	118.0180
IMPACT		3712.76	3724.01	29	3	44.254	391103.754	-26.4282	267.4067	2.20183	67.5464	280.0193	268.8219

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SURVEYOR VIEW PERIODS

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GHA   306.1989                                        EPS -36.7440                                                    LOM  260.8531
SX    -.017934 SY    -.895354 SZ    -.444994 DAO  -26 42297 RAO  268.85249 RM  392400.758 LAT  28.310600 LON 279.461800
C3    -.994455 ECC    .983672 SLR  12982.473 RCA  6544.6650 LTA   -20.0000 GTA  20.00      TB  675.00000 POL       -.0
NSX    .00303. NSY    -.A94787 NSZ   -.446483 C3M     1.4967 VIM     2.6713 ZAE    140.173 B.T      .0000 B.R     -.0000
LATE  3.9530  LONE   5.5529  LATS   1.5048  LONS  42.1725  LATI  -2.4657  LONI 326.2244  RSM  152.1980  TTAN   6.5788
LAUNCH DATE   JUL  26.1966      BASE AZM   93.0      TF  61.905                      ARRIVAL DATE JUL  29 1966   4  6 31.6

 LNCH      LNCH                    INJ      INJ      INJ      INJ      INJ          INJ          INJ      INJ      INJ
AZMTH      TIME          PB        LAT      LONG     TA       RT ASC   AZMTH        TIME         RAD      VEL      PTH
 93.00    14  0  6.6     28.0     23.45    307.41     2.13   104.07   106.57     14 11 21.6     6546.9    10.99     1.05

EVNT STA   TFI       TFL     DAY HR MIN      HA       DHA      DEC       DDE       RNG       DRG      ELE      DEL    AZI       DAZ      LAT      L NB
                                 PROBE IN SUNLIGHT
INJECTION     .00     11.25   26 14 11.4
SEPARATION   1.20     12.45   26 14 12.6
RETRO        3.20     14.45   26 14 14.6
 RISE 72     5.05     16.30   26 14 16.4     76.54  -.2740   59.21    .0704    2900.3   -6.38   -.01   .1162 330.14    .1055   13.32  333.44
 RISE 61     9.14     20.39   26 14 20.5     17.13  -.1542  -48.47   -.0047    4593.8    4.93    .00   .0184 191.26   -.1007    4.94  349.17
 RISE 51    11.33     22.58   26 14 22.7     72.39  -.1014   32.10   -.0297    5502.1   -2.94    .00   .0890 306.16    .0185    1.06  355.84
 EXTM 72    11.72     22.97   26 14 23.1    320.86   .0832   19.57   -.1266    2801.7    5.53  42.68  -.0000  53.99    .2026     .41  356.94
 EXTM 61    15.11     26.36   26 14 26.5    340.92  -.0613  -45.61    .0111    6802.2    6.81   2.47  -.0000 166.77   -.0443   -4.49    5.19
 SET  61    30.81     42.06   26 14 42.2    314.32  -.0128  -39.55    .0033   13113.0    6 31   -.00  -.0026 146.52   -.0101  -16.88   26.99
 EXTM 51    38.52     49.77   26 14 49.9    352.45  -.0142  -16.18   -.0096   10766.2    5.30  78.13  -.0000  37.81    .0808  -19.77   32.54
 EXTM 72    66.09     77.34   26 15 17.4    288.90   .0000  -25.57   -.0015   22394.1    4.87  20.41   .0000 114.41    .0016  -24.59   41.73
 EXTM 51    85.03     96.28   26 15 36.4    340.12  -.0001  -25.78   -.0012   24402.6    4.43  72.11   .0000  94.47    .0038  -25.99   43.49
 RISE 61   115.16    126.41   26 16  6.5    306.17   .0019  -34.89    .0003   37630.9    3.97   -.00   .0012 138.54    .0010  -27.14   42.94
 EXTM 51   227.22    238.47   26 17 58.6    359.96   .0033  -28.61   -.0000   55908.9    3.24  87.13  -.0030 179.15    .0526  -28.3.   27.72
 EXTM 61   398.08    409.33   26 20 49.4      2.76   .0039  -32.20    .0001   90008.8    2.66  17.52   .0000 182.45    .0034  -28.42  353.16
 EXTM 72   433.58    444.83   26 21 24.9       .33   .0040  -29.79    .0001   91746.4    2.57  68.11   .0000 180.77    .0092  -28.40  345.37
 RISE 11   605.29    616.54   27  0 16.6    294.30   .0040  -30.25   -.0000  122384.6    1.99    .00   .0026 128.07    .0023  -28.24  306.33
 SET  51   629.69    640.94   27  0 41.0     90.00   .0038  -27.12    .0001  124435.6    2.58  11.42  -.0032 245.23   -.0013  -28.22  300.65
 SET  61   642.70    653.95   27  0 54.1     60.28   .0039  -30.36    .0001  127435.0    2.46   -.00  -.0022 228.54    .0026  -28.20  297.62
 SET  72   826.50    837.75   27  3 57.9     94.18   .0039  -27.67    .0001  150762.2    2.40   -.00  -.0034 242.04   -.0005  -28.02  254.20
 RISE 42   836.41    847.66   27  4  7.8    254.99   .0040  -26.56   -.0001  151521.6    1.69   3.94   .0028 120.00   -.0021  -28.01  251.84
 EXTM 11   875.92    887.17   27  4 47.3       .78   .0041  -30.09    .0000  154033.7    1.97  24.70  -.0000 180.74    .0039  -27.97  242.40
 SET  11  1143.42   1154.67   27  9 14.8     66.94   .0041  -29.04    .0001  186600.8    2.08   -.00  -.0026 233.55    .0024  -27.74  177.87
 EXTM 42  1262.19   1273.44   27 11 13.6    360.00   .0042  -27.39    .0000  192738.3    1.70  82.18  -.0000    .13   -.0058  -27.64  148.98
 RISE 51  1397.53   1408.78   27 13 28.9    270.00   .0041  -26.89   -.0000  211191.9    1.26  11.32   .0034 114.55   -.0014  -27.55  119.94
 RISE 72  1552.51   1563.76   27 16  3.9    265.90   .0041  -27.20   -.0000  227217.9    1.15   -.01   .0036 117.49   -.0005  -27.44   77.98
 RISE 61  1637.26   1648.51   27 17 28.6    297.39   .0041  -28.53   -.0000  235026.7    1.24    .00   .0025 120.    .0027  -27.39   57.17
 SET  42  1685.42   1696.67   27 18 16.8    105.00   .0041  -26.43    .0000  238955.6    1.82   3.86  -.0029 240.10   -.0022  -27.36   45.33
 EXTM 51  1751.62   1762.87   27 19 23.0    358.60   .0042  -27.36    .0000  238998.4    1.46  87.95   .0023 142.63    .0824  -27.32   29.05
 EXTM 61  1888.07   1899.32   27 21 39.4       .32   .0042  -28.56    .0000  254850.1    1.42  21.20   .0000 180.30    .0040  -27.24  355.44
 EXTM 72  1928.07   1939.32   27 22 19.4       .10   .0042  -27.69    .0000  254611.9    1.41  70.21  -.0000 180.27    .0108  -27.22  345.57
 RISE 11  2072.39   2083.64   28  0 43.7    292.06   .0042  -28.02   -.0000  272554.7    1.06    .00   .0028 125.10    .002.  -27.14  309.95
 SET  51  2116.64   2127.89   28  1 28.0     90.00   .0041  -2..61    .0000  274921.8    1.72  11.22  -.0034 245.71   -.0014  -27.12  299.02
 SET  61  2138.65   2149.90   28  1 50.0     63.17   .0042  -28.07    .0000  277938.7    1.62   -.00  -.0025 231.94    .0027  -27.11  293.58
 SET  72  2302.61   2313.86   28  4 34.0     94.03   .0041  -26.84    .0000  290932.2    1.70   -.00  -.0036 242.88   -.0005  -27.03  253.04
 RISE 42  2303.28   2314.53   28  4 34.6    255.00   .0041  -26.27   -.0000  290566.6     .97   3.76   .0029 119.77   -.0022  -27.03  252.87
 EXTM 11  2343.42   2354.67   28  5 14.8       .22   .0042  -28.12    .0000  291250.5    1.29  26.67  -.0000 180.22    .0042  -27.01  242.94
 SET  11  2614.26   2625.51   28  9 45.6     68.30   .0042  -27.65    .0000  314455.7    1.53    .00  -.0028 235.39    .0024  -26.89  175.84
 EXTM 42  2722.55   2733.80   28 11 33.9    359.99   .0042  -26.68    .0000  318093.2    1 20  81.46  -.0000    .12   -.0086  -26.85  148.99
 RISE 51  2853.17   2864.42   28 13 44.5    270.00   .0041  -26.37   -.0000  330333.9     .80  11.12   .0034 114.07   -.0015  -26.80  116.58


 RISE 72  3006.36   3017.61   28 16 17.7    266.01   .0042  -26.97   -.0000  342284.5     .72   -.00   .0037 116.85   -.0005  -26.73   78.48
 RISE 61  3085.04   3096.29   28 17 36.4    296.10   .0042  -27.47   -.0000  347561.8     .84    .00   .0025 127.18    .0027  -26.70   58.84
 SET  42  3140.92   3152.17   28 18 32.3    105.00   .0041  -26.05    .0000  350886.0    1.44   3.63  -.0030 240.40   -.0023  -26.68   44.90
 EXTM 51  3207.13   3218.38   28 19 38.5    359.31   .0042  -26.6.    .0000  349371.3    1.10  88.87   .0021 146.53    .1600  -26.66   28.37
 EXT. 61  3338.38   3349.63   28 21 49.7       .17   .0042  -27.54    .0000  361971.3    1.11  22.22  -.0000 180.16    .0040  -26.61  355.58
 EXTM 72  3378.35   3389.60   28 22 29.7       .08   .0042  -26.92    .0000  361034.0    1.11  70.98  -.0000 180.22    .0112  -26.60  345.60
 RISE 11  3516.32   3527.57   29  0 47.7    291.24   .0042  -27.18   -.0000  376204.2     .81    .00   .0028 123.99    .0024  -26.55  311.00
 SET  51  3565.94   3577.19   29  1 37.3     90.00   .0042  -26.15    .0000  378360.5    1.53  11.04  -.0035 246.14   -.0015  -26.53  298.65
 SET  61  3591.36   3602.61   29  2  2.7     64.21   .0042  -27.21    .0000  381339.8    1.45   -.00  -.0025 233.20    .0027  -26.52  292.28
IMPACT    3714.28   3725.53   29  4  5.6
 IMPC 42  3714.28   3725.53   29  4  5.6    246.94   .0043  -25.83   -.0000  391339.6    1.71  -2.10   .0029 124.03   -.0025  -26.44  261.25
 IMPC 72  3714.28   3725.53   29  4  5.6     85.45   .0043  -26.36    .0001  390267.7    2.46   7.56  -.0019 244.29   -.0003  -26.44  261.25
 IMPC 11  3714.28   3725.53   29  4  5.6    341.63   .0044  -27.25    .0000  388404.9    1.92  25.17   .0021 161.97    .0041  -26.44  261.25

EVNT STA   TFI       TFL     DAY HR MIN          RAD          LAT          LONG          VEL          PTH          AZ          RT ASC
INJECTION     .00     11.25   26 14 11.360     6546.906      23.4536      307.4102     10.98981      1.0949     106.5681     104.0749
SEPARATION   1.20     12.45   26 14 12.560     6585.035      21.3303      314.2013     10.95759      4.4724     109.2731     111.1668
RETRO        3.20     14.45   26 14 14.560     6750.153      17.2983      324.7333     10.82162     10.0065     112.9347     122.2002
IMPACT    3714.28   3725.53   29  4  5.644   391157.598     -26.4430      261.2539      2.20044     67.4693     280.0189     269.0313
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SURVEYOR VIEW PERIODS

GHA	306.1989					EPS	-36.5986							LOM	256.4949
SX	-.0151A8	SY	-.895309	SZ	-.445188	DAO	-26.43537	RAD	269.02940	RM	392444.895	LAT	28.310600	LON	279.461800
C3	-.995357	EPC	.983657	SLR	12982.376	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	.0
NSX	.005803	NSY	-.894686	NSZ	-.446659	C3M	1.4974	VIM	2.6715	ZAE	140.123	B.T	.0000	B.R	-.0000
LATE	3.9677	LONE	5.5458	LATS	1.5050	LONS	42.0191	LATI	-2.6056	LONI	326.1900	RSM	152.1984	TTAN	6.5799
LAUNCH DATE		JUL	26,1966		BASE AZM	96.0		TF	61.931			ARRIVAL DATE		JUL 29 1966	4 24 37.1

LNCH AZMTH	LNCH TIME	RR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
96.00	14 14 56.4	28.1	22.28	307.07	5.30	107.46	108.70	14 26 11.4	6558.6	10.98	2.63

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	RDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	26	14	26.2												
SEPARATION	1.20	12.45	26	14	27.4												
RETRO	3.20	14.45	26	14	29.4												
RISE 72	4.72	15.97	26	14	30.9	79.46	-.2244	52.81	.0509	2986.1	-6.80	.00	.1205	323.54	.0805	12.31	330.73
RISE 61	9.81	21.06	26	14	36.0	15.97	-.1321	-48.64	-.0027	5103.4	5.23	.01	.0157	190.48	-.0859	2.00	349.22
RISE 51	11.22	22.47	26	14	37.4	74.88	-.0930	28.41	-.0320	5688.4	-2.72	.00	.0869	301.88	.0126	-.42	353.26
EXTM 72	11.46	22.71	26	14	37.6	330.81	-.1045	16.72	-.1271	2634.0	5.24	52.95	-.0000	49.42	.2631	-.79	353.89
EXTM 61	16.81	27.86	26	14	42.8	341.35	-.0509	-45.91	.0089	7649.6	6.71	2.34	-.0000	167.11	-.0366	-7.76	5.51
SET 61	37.24	48.49	26	15	3.4	314.74	-.0086	-39.75	.0024	15571.4	5.90	-.00	-.0016	146.90	-.0069	-20.32	28.37
EXTM 51	41.50	52.75	26	15	7.7	355.35	-.0122	-19.21	-.0073	11829.7	5.22	82.19	-.0000	34.31	.1004	-21.51	30.76
EXTM 72	67.62	78.87	26	15	33.8	292.82	.0001	-26.92	-.0012	22677.6	4.82	23.87	.0000	116.01	.0014	-25.46	38.45
EXTM 51	88.25	99.50	26	15	54.4	344.51	.0006	-26.90	-.0010	25300.7	4.37	76.08	.0000	98.20	.0040	-26.86	40.05
RISE 61	94.71	105.96	26	16	.9	308.21	.0011	-36.17	.0005	32585.3	4.26	-.00	.0009	140.63	.0004	-27.08	40.11
EXTM 51	206.80	218.05	26	17	53.0	359.94	.0032	-29.02	-.0000	51992.4	3.34	86.72	.0000	179.09	.0463	-28.66	27.74
EXTM 61	383.38	394.63	26	20	49.6	3.12	.0038	-32.62	.0001	87777.7	2.70	17.09	.0000	182.75	.0034	-28.74	352.82
EXTM 72	417.90	429.15	26	21	24.1	.40	.0040	-30.15	.0001	89406.4	2.61	67.75	.0000	180.91	.0090	-28.70	345.30
RISE 11	591.54	602.79	27	0	17.7	294.60	.0040	-30.54	-.0000	120570.6	2.01	.00	.0025	128.45	.0023	-28.49	305.99
SET 51	614.33	625.58	27	0	40.5	90.00	.0038	-27.35	.0001	122420.6	2.60	11.51	-.0032	245.02	-.0013	-28.46	300.71
SET 61	625.85	637.10	27	0	52.0	59.91	.0039	-30.65	.0001	125244.5	2.48	-.00	-.0021	228.10	.0026	-28.44	298.03
SET 72	811.73	822.98	27	1	57.9	94.21	.0039	-27.86	.0001	149028.8	2.41	-.00	-.0034	241.84	-.0004	-28.22	254.20
RISE 42	821.77	833.02	27	4	8.0	254.99	.0040	-26.74	-.0001	149799.8	1.71	4.05	.0028	120.15	-.0021	-28.21	251.81
EXTM 11	861.48	872.73	27	4	47.7	.85	.0041	-30.30	.0000	152401.4	1.98	24.48	-.0000	180.81	.3039	-28.16	242.33
SET 11	1128.15	1139.40	27	9	14.3	66.77	.0041	-29.20	-.0001	185024.4	2.07	-.00	-.0026	233.33	.0024	-27.89	178.06
EXTM 42	1247.66	1258.91	27	11	13.9	359.98	.0042	-27.54	.0000	191298.4	1.70	82.32	-.0000	.19	-.0201	-27.78	149.00
RISE 51	1383.17	1394.42	27	13	29.4	270.00	.0041	-27.91	-.0000	209823.3	1.27	11.37	.3034	114.67	-.0014	-27.67	115.93
RISE 72	1538.10	1549.35	27	16	4.3	265.88	.0041	-27.31	-.0000	225908.7	1.16	-.01	.0036	117.60	-.0005	-27.55	77.99
RISE 61	1623.49	1634.74	27	17	29.7	297.53	.0041	-28.65	-.0000	233804.7	1.25	.00	.0025	128.90	.0027	-27.49	57.03
SET 42	1671.04	1682.29	27	18	17.2	105.00	.0041	-26.53	.0000	237687.2	1.83	3.92	-.0029	240.02	-.0022	-27.46	45.34
EXTM 51	1737.07	1748.32	27	19	21.3	358.55	.0042	-27.46	.0000	237742.2	1.47	87.84	.0023	143.28	.0788	-27.42	29.10
EXTM 61	1873.84	1885.09	27	21	40.0	.34	.0042	-28.66	.0000	253669.9	1.43	21.10	.0000	180.32	.0039	-27.33	355.42
EXTM 72	1913.78	1925.03	27	22	20.0	.11	.0042	-27.78	.0000	253430.9	1.41	70.12	-.0000	180.28	.0108	-27.30	345.57
RISE 11	2058.43	2069.68	28	0	44.6	292.14	.0042	-28.10	-.0000	271433.7	1.06	.00	.0028	125.21	.0024	-27.22	309.87
SET 51	2102.32	2113.57	28	1	28.5	90.00	.0041	-26.69	.0000	273778.2	1.72	11.24	-.0034	245.64	-.0014	-27.19	299.03
SET 61	2123.95	2135.20	28	1	50.1	63.08	.0042	-28.15	.0000	276772.8	1.62	-.00	-.0025	231.83	.0027	-27.13	293.68
SET 72	2288.36	2299.61	28	4	34.5	94.04	.0041	-26.91	.0000	289837.6	1.71	-.00	-.0036	242.81	-.0005	-27.09	253.03
RISE 42	2289.02	2300.27	28	4	35.2	255.00	.0041	-26.33	-.0000	289467.8	.98	3.80	.0029	119.82	-.0022	-27.09	252.86
EXTM 11	2329.20	2340.45	28	5	15.4	.23	.0042	-28.19	.0000	290174.2	1.29	26.60	-.0000	180.23	.0041	-27.07	242.92
SET 11	2599.78	2611.03	28	9	46.0	68.25	.0042	-27.71	.0000	313404.3	1.53	.00	-.0028	235.32	.0024	-26.94	175.90
EXTM 42	2708.29	2719.54	28	11	54.5	359.99	.0042	-26.73	.0000	315045.8	1.20	81.51	-.0000	.13	-.0089	-26.89	148.99
RISE 51	2838.93	2850.18	28	13	45.1	270.00	.0041	-26.41	-.0000	329337.9	.80	11.14	.0034	114.10	-.0015	-26.84	116.57
RISE 72	2992.24	3003.49	28	16	18.4	266.01	.0042	-26.61	-.0000	341348.2	.72	-.00	.0037	116.89	-.0005	-26.77	78.48
RISE 61	3071.10	3082.35	28	17	37.3	296.15	.0042	-27.51	-.0000	346638.2	.84	.00	.0025	127.23	.0027	-26.74	58.80
SET 42	3126.77	3138.02	28	18	33.0	105.00	.0041	-26.08	.0000	349946.4	1.44	3.65	-.0030	240.38	-.0023	-26.72	44.90
EXTM 51	3192.85	3204.10	28	19	39.0	359.27	.0042	-26.71	.0000	348423.9	1.10	88.83	.0021	146.18	.1535	-26.69	28.40
EXTM 61	3324.26	3335.51	28	21	50.4	.18	.0042	-27.57	.0000	361028.6	1.10	22.19	-.0000	180.17	.0040	-26.64	355.58
EXTM 72	3364.19	3375.44	28	22	30.4	.08	.0042	-26.95	.0000	360083.0	1.10	70.95	-.0000	180.22	.0113	-26.62	345.59
RISE 11	3502.26	3513.51	29	0	48.5	291.27	.0042	-27.20	-.0000	375226.2	.81	.00	.0028	124.02	.0024	-26.57	311.06
SET 51	3551.77	3563.02	29	1	38.0	90.00	.0042	-26.18	.0000	377349.9	1.52	11.04	-.0035	246.12	-.0015	-26.55	298.66
SET 61	3577.09	3588.34	29	2	3.3	64.18	.0042	-27.24	.0000	380304.4	1.44	-.00	-.0025	237.16	.0027	-26.54	292.31
IMPACT	3715.88	3727.13	29	4	22.1												
IMPC 42	3715.88	3727.13	29	4	22.1	250.88	.0043	-25.86	-.0000	391081.0	1.70	.62	.0030	121.76	-.0025	-26.45	257.30
IMPC 72	3715.88	3727.13	29	4	22.1	89.41	.0043	-26.35	.0001	390701.9	2.45	4.03	-.0038	243.93	-.0004	-26.45	257.30
IMPC 11	3715.88	3727.13	29	4	22.1	345.64	.0044	-27.27	.0000	388359.9	1.94	26.06	.0009	165.80	.0042	-26.45	257.30

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	26	14	26.191	6558.665	22.2825	307.0811	10.97992	2.6295	108.7063	107.4636
SEPARATION	1.20	12.45	26	14	27.391	6618.146	19.9467	313.6699	10.92988	6.0236	111.1914	114.3533
RETRO	3.20	14.45	26	14	29.391	6818.694	15.6684	323.8124	10.76818	11.4751	114.4573	124.9972
IMPACT	3715.88	3727.13	29	4	22.067	391201.543	-26.4545	257.2981	2.19852	67.2326	280.1702	269.1926

SURVEYOR VIEW PERIODS

EPS -36.4768

GHA	306.1989													LOM	252.8418
SX	-.012850	SY	-.895266	SZ	-.445348	DAO	-26.44559	RAO	269.17769	RM	392481.848	LAT	28.310600	LON	279.461800
C3	-.999570	ECC	.983604	SLR	12982.033	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.008150	NSY	-.894592	NSZ	-.446809	C3M	1.4972	VIM	2.6714	ZAE	140.011	B.T	.0000	B.R	-.0000
LATE	3.9799	LONE	5.5396	LATS	1.5052	LONS	41.8903	LATI	-2.8375	LONI	326.1110	RSM	152.1988	TTAN	6.5814
LAUNCH DATE		JUL	26.1966		BASE AZM	99.0		TF	61.991			ARRIVAL DATE		JUL 29 1966	4 39 46.9

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZ.TH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99.00	14 25 51.9	28.1	21.14	306.65	7.60	109.77	110.81	14 37 6.9	6573.3	10.97	3.77

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DFC	DDE	RNG	DRG	FLE	DEL	AZI	DAZ	LAT
						PRORE IN SUNLIGHT											
INJECTION		.00	11.25	26	14	37.1											
SEPARATION		1.20	12.45	26	14	38.3											
RETRO		3.20	14.45	26	14	40.3											
RISE	72	4.48	15.73	26	14	41.6	81.35	-.1955	47.29	.0324	3052.2	-7.07	.00	.1233	317.89	.0566	11.14 328.51
RISE	51	11.16	22.41	26	14	48.3	77.06	-.0866	24.92	-.0342	5829.6	-2.56	-.01	.0854	297.89	.0075	-2.07 351.04
RISE	61	11.22	22.47	26	14	48.3	10.35	-.1056	-49.30	.0015	5859.8	5.72	.00	.0109	186.73	-.0680	-2.17 351.20
EXTM	72	11.27	22.52	26	14	48.4	339.63	-.1222	12.32	-.1238	2514.7	5.02	61.39	-.0000	45.23	.3591	-2.25 351.33
EXTM	61	18.24	29.49	26	14	55.4	341.33	-.0430	-46.50	.0075	8532.6	6.61	1.66	-.0000	167.27	-.0305	-11.08 5.97
SET	61	38.78	50.03	26	15	15.9	317.46	-.0082	-41.05	.0024	16234.8	5.78	-.00	-.0011	149.34	-.0066	-22.05 26.56
EXTM	51	44.04	55.29	26	15	21.2	357.69	-.0109	-22.11	-.0058	12717.2	5.16	85.80	-.0000	30.69	.1590	-23.33 29.24
EXTM	72	69.21	80.46	26	15	46.3	295.82	.0001	-28.51	-.0010	23021.9	4.77	26.40	.0000	117.98	.0011	-26.62 35.95
RISE	61	84.17	95.42	26	16	1.3	310.70	.0004	-37.63	.0007	29884.3	4.44	-.01	.0008	143.10	-.0001	-27.54 37.23
EXTM	51	190.98	202.23	26	17	48.1	359.97	.0030	-29.71	-.0000	48863.4	3.43	86.03	-.0000	179.51	.0312	-29.25 27.71
EXTM	61	373.37	384.62	26	20	50.5	3.57	.0038	-33.16	.0002	86266.1	2.72	16.53	.0000	183.12	.0033	-29.20 352.40
EXTM	72	406.62	417.87	26	21	23.7	.50	.0039	-30.65	.0001	87706.3	2.63	67.24	-.0000	181.12	.0088	-29.15 345.21
RISE	11	582.32	593.57	27	0	19.4	295.01	.0040	-30.92	-.0000	119339.2	2.03	.00	.0025	128.97	.0023	-28.84 305.56
SET	51	603.08	614.33	27	0	40.2	90.00	.0038	-27.69	.0001	120914.7	2.62	11.64	-.0031	244.70	-.0013	-28.81 300.76
SET	61	612.48	623.73	27	0	49.6	59.39	.0039	-31.04	.0001	123474.9	2.50	-.00	-.0021	227.51	.0026	-28.79 298.58
SET	72	801.04	812.29	27	3	58.2	94.27	.0039	-28.15	.0001	147751.4	2.42	-.01	-.0034	241.56	-.0006	-28.50 254.18
RISE	42	811.11	822.36	27	4	8.2	254.99	.0040	-27.01	-.0001	148512.6	1.72	4.21	.0028	120.36	-.0021	-28.49 251.79
EXTM	11	851.13	862.38	27	4	48.2	.95	.0041	-30.60	.0001	151221.0	1.99	24.19	-.0000	180.89	.0039	-28.43 242.24
SET	11	1116.56	1127.81	27	9	13.7	66.54	.0041	-29.43	.0001	183794.6	2.08	-.00	-.0026	233.03	.0024	-28.11 178.30
EXTM	42	1237.05	1248.30	27	11	14.2	359.96	.0042	-27.74	.0000	190210.1	1.71	82.52	.0000	.29	-.0254	-27.98 149.02
RISE	51	1372.70	1383.95	27	13	29.8	270.00	.0041	-27.19	-.0000	208783.2	1.27	11.44	.0034	114.83	-.0014	-27.85 115.92
RISE	72	1527.54	1538.79	27	16	4.7	265.85	.0041	-27.47	-.0000	224904.9	1.16	-.01	.0036	117.76	-.0005	-27.71 78.00
RISE	61	1613.80	1625.05	27	17	30.0	297.72	.0041	-28.80	-.0000	232898.4	1.25	.00	.0024	129.13	.0027	-27.64 56.83
SET	42	1660.54	1671.79	27	18	17.7	105.00	.0041	-26.67	.0000	236706.9	1.83	4.01	-.0029	239.91	-.0022	-27.60 45.35
EXTM	51	1726.49	1737.74	27	19	23.6	358.52	.0042	-27.60	.0000	236777.0	1.47	87.72	.0022	144.84	.0758	-27.55 29.13
EXTM	61	1863.51	1874.76	27	21	40.6	.37	.0042	-28.73	.0000	252762.7	1.43	20.98	.0000	180.35	.0039	-27.45 355.38
EXTM	72	1903.36	1914.61	27	22	20.5	.11	.0042	-27.90	.0000	252514.0	1.42	70.00	-.0000	180.30	.0108	-27.42 345.56
RISE	11	2048.44	2059.69	28	0	45.6	292.24	.0042	-28.21	-.0000	270567.2	1.06	.00	.0028	125.35	.0024	-27.32 309.76
SET	51	2091.86	2103.11	28	1	29.0	90.00	.0041	-26.79	.0000	272874.8	1.73	11.28	-.0034	245.55	-.0014	-27.30 299.03
SET	61	2112.98	2124.23	28	1	50.1	62.95	.0042	-28.26	.0000	275035.6	1.62	-.00	-.0025	231.67	.0027	-27.28 293.81
SET	72	2277.96	2289.21	28	4	35.1	94.06	.0041	-26.99	.0000	288966.1	1.71	-.00	-.0036	242.73	-.0005	-27.18 253.02
RISE	42	2278.61	2289.86	28	4	35.7	255.00	.0041	-26.42	-.0000	288588.9	.98	3.85	.0029	119.88	-.0022	-27.18 252.86
EXTM	11	2318.86	2330.11	28	5	16.0	.26	.0042	-28.28	.0000	289319.4	1.29	26.52	-.0000	180.25	.0041	-27.16 242.90
SET	11	2589.08	2600.33	28	9	46.2	68.18	.0042	-27.77	.0000	312539.8	1.53	.00	-.0028	235.23	.0024	-27.01 175.96
EXTM	42	2697.86	2709.11	28	11	35.0	359.99	.0042	-26.79	.0000	314208.9	1.20	81.57	-.0000	.14	-.0096	-26.95 148.99
RISE	51	2828.52	2839.77	28	13	45.6	270.00	.0041	-26.46	-.0000	328510.2	.80	11.16	.0034	114.15	-.0015	-26.89 116.57
RISE	72	2981.80	2993.05	28	16	18.9	266.00	.0042	-26.66	-.0000	340531.4	.72	-.00	.0037	116.93	-.0005	-26.82 78.48
RISE	61	3060.90	3072.15	28	17	38.0	296.20	.0042	-27.55	-.0000	345833.6	.83	.00	.0025	127.30	.0027	-26.78 58.74
SET	42	3116.35	3127.60	28	18	33.5	105.00	.0041	-26.12	.0000	349121.4	1.44	3.67	-.0030	240.35	-.0023	-26.76 44.90
EXTM	51	3182.28	3193.53	28	19	39.4	359.23	.0042	-26.75	.0000	347587.5	1.10	88.78	.0022	145.72	.1461	-26.73 28.44
EXTM	61	3313.90	3325.15	28	21	51.0	.19	.0042	-27.60	.0000	360197.7	1.10	22.16	-.0000	180.18	.0040	-26.67 355.56
EXTM	72	3353.81	3365.06	28	22	30.9	.08	.0042	-26.98	.0000	359242.7	1.10	70.92	-.0000	180.23	.0113	-26.65 345.59
RISE	11	3491.99	3503.24	29	0	49.1	291.29	.0042	-27.23	-.0000	374362.5	.80	.00	.0028	124.06	.0024	-26.59 311.03
SET	51	3541.40	3552.65	29	1	38.5	90.00	.0042	-26.20	.0000	376458.2	1.51	11.05	-.0035	246.10	-.0015	-26.57 298.66
SET	61	3566.61	3577.86	29	2	3.7	64.15	.0042	-27.26	.0000	379392.2	1.43	-.00	-.0025	233.13	.0027	-26.56 292.34
RISE	42	3721.93	3733.18	29	4	39.0	255.00	.0043	-25.89	-.0000	391103.0	1.92	3.53	.0031	119.47	-.0024	-26.46 253.16
IMPACT		3719.49	3730.74	29	4	36.6											
IMPC	42	3719.49	3730.74	29	4	36.6	254.36	.0043	-25.89	-.0000	390843.9	1.69	3.08	.0031	119.82	-.0024	-26.46 253.80
IMPC	72	3719.49	3730.74	29	4	36.6	92.91	.0043	-26.33	.0001	391084.4	2.45	.91	-.0038	243.53	-.0005	-26.46 253.80
IMPC	11	3719.49	3730.74	29	4	36.6	349.20	.0044	-27.29	.0000	388336.0	1.96	26.68	.0007	169.25	.0043	-26.46 253.80
SET	72	3723.44	3734.69	29	4	40.6	93.94	.0044	-26.32	.0001	391708.3	2.04	.00	-.0039	243.41	-.0005	-26.46 252.77

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	26	14	37.116	6573.654	21.1334	306.6723	10.96735	3.7695	110.8199	109.7936
SEPARATION		1.20	12.45	26	14	38.316	6648.241	18.5966	313.0538	10.90476	7.1404	113.0939	116.4759
RETRO		3.20	14.45	26	14	40.316	6870.417	14.0727	322.8444	10.72548	12.5238	115.9979	126.7678
IMPACT		3719.49	3730.74	29	4	36.605	391238.258	-26.4648	253.7960	2.19691	67.1522	280.5863	269.3349

JUL 26, 1966
99 DEGREES

SURVEYOR VIEW PERIODS

GHA	306.1989			EPS	-36.3725							LOM	249.7126
SX	-.010844 SY	-.895225 SZ	-.445483 DAO	-26.45422 RAO	269.30471 RM	392513.480	LAT	28.3106CO	LON	279.461800			
C3	-1.00317 ECC	.983529 SLR	12981.538 RCA	6544.6650 LTA	-20.0000 GTA	20.00	TB	675.00000	POL	-.0			
NSX	.010180 NSY	-.894505 NSZ	-.446941 C3M	1.4469 VIM	2.6714 ZAE	139.855	B.T	.0000	B.R	-.0000			
LATE	3.9903 LONE	5.6534 LATS	1.5053 LONS	41.8991 LATI	-3.1292 LONI	326.1180	RSM	152.1991	TTAN	6.5829			
LAUNCH DATE	JUL 26,1966	BASE AZM	102.0	TF	62.071		ARRIVAL DATE	JUL 29 1966	4 52 46.3				

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
102.00	14 33 56.9	28.1	20.02	306.17	9.27	111.31	112.91	14 45 11.9	6587.4	10.96	4.60

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	FLE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	26	14	45.2												
SEPARATION		1.20	12.45	26	14	46.4												
RETRO		3.20	14.45	26	14	48.4												
RISE	72	4.32	15.57	26	14	49.5	82.74	-.1758	42.31	.0148	3103.8	-7.23	-.00	.1250	312.81	.0387	9.84	326.66
RISE	51	11.53	22.38	26	14	56.3	79.03	-.0814	21.55	-.0366	5938.1	-2.42	-.00	.0840	294.06	.0030	-3.87	349.09
EXTM	72	11.55	22.41	26	14	56.4	347.35	-.1354	6.62	-.1176	2441.8	4.87	70.76	-.0000	41.31	.5422	-3.92	349.17
RISE	61	14.32	25.57	26	14	59.5	358.42	-.0703	49.75	.0057	7258.4	6.27	.00	.0047	178.98	-.0456	-8.49	356.53
EXTM	61	20.05	31.30	26	15	5.3	340.85	-.0367	-47.49	.0064	9472.9	6.49	.63	-.0000	167.19	-.0256	-14.48	6.65
SET	61	31.54	42.79	26	15	16.7	325.09	-.0140	-44.10	.0036	13818.6	6.06	-.00	-.0011	155.74	-.0106	-21.20	19.34
EXTM	51	46.24	57.49	26	15	31.4	359.56	-.0101	-24.95	-.0046	13474.2	5.10	89.12	.0000	26.82	.6609	-25.20	27.98
EXTM	72	70.47	81.72	26	15	55.7	298.10	.0001	-30.25	-.0007	23308.6	4.74	28.18	.0000	120.17	.0008	-27.96	34.01
RISE	61	85.16	96.41	26	16	10.4	313 00	.0004	-38.87	.0008	30229.1	4.41	-.00	.0008	145.29	-.0002	-28.75	35.21
EXTM	51	178.54	189.79	26	17	43.7	359.99	.0028	-30.63	.0000	46342.7	3.50	85.11	.0000	179.80	.0136	-30.04	27.69
EXTM	61	366.84	378.09	26	20	52.0	4.08	.0038	-33.80	.0002	85303.5	2.74	15.87	.0000	183.53	.0033	-29.78	351.93
EXTM	72	398.63	409.88	26	21	23.8	.64	.0039	-31.27	.0001	86499.8	2.65	66.63	-.0000	181.38	.0085	-29.70	345.08
RISE	11	576.47	587.72	27	0	21.7	295.49	.0040	-31.38	-.0000	118548.0	2.04	.00	.0025	129.59	.0023	-29.28	305.06
SET	51	594.89	606.14	27	0	40.1	90.00	.0038	-28.12	.0001	119793.7	2.62	11.81	-.0031	244.30	-.0012	-29.24	300.80
SET	61	601.65	612.90	27	0	46.9	58.76	.0039	-31.51	.0001	122018.4	2.51	-.00	-.0021	226.80	.0026	-29.22	299.23
SET	72	793.38	804.63	27	3	58.6	94.33	.0039	-28.49	.0001	146816.5	2.43	-.01	-.0034	241.21	-.0004	-28.85	254.15
RISE	42	803.39	814.64	27	4	8.6	254.99	.0040	-27.35	-.0001	147552.1	1.73	4.42	.0028	120.63	-.0021	-28.83	251.77
EXTM	11	843.80	855.05	27	4	49.0	1.06	.0041	-30.95	.0001	150380.1	2.00	23.84	-.0000	180.99	.0039	-28.77	242.13
SET	11	1107.68	1118.93	27	9	12.9	66.26	.0041	-29.71	.0001	182825.0	2.08	-.00	-.0026	232.66	.0024	-28.37	178.59
EXTM	42	1229.36	1240.61	27	11	14.6	359.96	.0042	-27.98	.0000	189390.7	1.71	82.76	.0000	.34	-.0269	-28.22	149.02
RISE	51	1365.09	1376.34	27	13	30.3	270.00	.0041	-27.40	-.0000	207990.7	1.28	11.52	.0034	115.03	-.0014	-28.06	115.91
RISE	72	1519.81	1531.06	27	16	5.0	265.82	.0041	-27.66	-.0000	224131.9	1.17	-.01	.0036	117.95	-.0005	-27.90	78.03
RISE	61	1607.09	1618.34	27	17	32.3	297.95	.0041	-28.98	-.0000	232230.7	1.26	.00	.0024	129.40	.0027	-27.81	56.61
SET	42	1652.88	1664.13	27	18	18.1	105.00	.0041	-26.84	.0000	235945.8	1.83	4.11	-.0029	239.78	-.0022	-27.77	45.36
EXTM	51	1718.61	1730.06	27	19	24.0	358.50	.0042	-27.76	.0000	236033.3	1.47	87.57	.0021	146.93	.0731	-27.71	29.14
EXTM	61	1856.04	1867.29	27	21	41.2	.41	.0042	-28.94	.0000	252063.7	1.43	20.83	.0000	180.39	.0039	-27.59	355.35
EXTM	72	1895.78	1907.03	27	22	21.0	.13	.0042	-28.05	.0000	251798.8	1.42	69.85	-.0000	180.32	.0107	-27.56	345.55
RISE	11	2041.34	2052.59	28	0	46.5	292.37	.0042	-28.34	-.0000	269895.8	1.06	.00	.0028	125.52	.0024	-27.45	309.63
SET	51	2084.22	2095.47	28	1	29.4	90.00	.0041	-26.91	.0000	272156.3	1.73	11.33	-.0034	245.43	-.0014	-27.42	299.04
SET	61	2104.74	2115.99	28	1	49.9	62.80	.0042	-28.38	.0000	275074.7	1.62	-.00	-.0024	231.49	.0027	-27.40	293.97
SET	72	2270.40	2281.65	28	4	35.6	94.07	.0041	-27.10	.0001	288267.8	1.71	-.00	-.0036	242.62	-.0005	-27.29	253.01
RISE	42	2271.00	2282.25	28	4	36.2	255.00	.0041	-26.52	-.0000	287880.6	.98	3.92	.0029	119.96	-.0022	-27.29	252.86
EXTM	11	2311.34	2322.59	28	5	16.5	.28	.0042	-28.38	.0000	288636.6	1.29	26.41	-.0000	180.28	.0041	-27.26	242.88
SET	11	2581.13	2592.38	28	9	46.3	68.10	.0042	-27.86	.0000	311822.5	1.53	.00	-.0028	235.12	.0024	-27.09	176.04
EXTM	42	2690.23	2701.48	28	11	35.4	359.99	.0042	-26.86	.0000	313516.0	1.20	81.64	-.0000	.15	-.0107	-27.02	148.99
RISE	51	2820.91	2832.16	28	13	46.1	270.00	.0041	-26.52	-.0000	327818.0	.80	11.18	.0034	114.21	-.0015	-26.95	116.57
RISE	72	2974.30	2985.55	28	16	19.5	266.00	.0042	-26.71	-.0000	339880.7	.71	.00	.0037	116.98	-.0005	-26.87	78.49
RISE	61	3053.63	3064.88	28	17	38.8	296.26	.0042	-27.60	-.0000	345191.5	.83	.00	.0025	127.37	.0027	-26.83	58.68
SET	42	3108.83	3120.08	28	18	34.0	105.00	.0041	-26.16	.0000	348453.8	1.44	3.70	-.0030	240.32	-.0023	-26.80	44.90
EXTM	51	3174.55	3185.80	28	19	39.8	359.18	.0042	-26.79	.0000	346901.9	1.10	88.72	.0022	145.04	.1379	-26.77	28.49
EXTM	61	3306.42	3317.67	28	21	51.6	.21	.0042	-27.64	.0000	359513.5	1.10	22.12	-.0000	180.20	.0040	-26.76	355.55
EXTM	72	3346.28	3357.53	28	22	31.5	.09	.0042	-27.01	.0000	358546.1	1.10	70.89	-.0000	180.24	.0114	-26.69	345.59
RISE	11	3484.55	3495.80	29	0	49.8	291.32	.0042	-27.26	-.0000	373636.1	.79	.00	.0028	124.09	.0024	-26.62	311.00
SET	51	3533.84	3545.09	29	1	39.0	90.00	.0042	-26.22	.0000	375703.2	1.50	11.06	-.0034	246.07	-.0015	-26.60	298.66
SET	61	3558.94	3570.19	29	2	4.1	64.12	.0042	-27.29	.0000	378617.3	1.42	-.00	-.0025	233.09	.0027	-26.58	292.37
RISE	42	3714.70	3725.95	29	4	39.9	255.00	.0042	-25.92	-.0000	389805.0	1.30	3.55	.0030	119.49	-.0023	-26.49	253.16
SET	72	3716.24	3727.49	29	4	41.4	93.94	.0043	-26.34	.0000	390351.1	2.09	.00	-.0038	243.38	-.0005	-26.48	252.76
IMPACT		3724.29	3735.54	29	4	49.5												
IMPC	42	3724.29	3735.54	29	4	49.5	257.46	.0043	-25.92	-.0000	390633.3	1.67	5.31	.0031	118.15	-.0023	-26.47	250.69
IMPC	72	3724.29	3735.54	29	4	49.5	96.01	.0043	-26.42	.0001	391425.9	2.44	-1.83	-.0038	243.11	-.0006	-26.47	250.69
IMPC	11	3724.29	3735.54	29	4	49.5	352.34	.0044	-27.30	.0000	388332.7	1.97	27.08	.0005	172.36	.0043	-26.47	250.69

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION		.00	11.25	26	14	45.198	6588.107	20.0042	306.2056	10.95532	4.5981	112.9200	111.3530
SEPARATION		1.20	12.45	26	14	46.398	6673.349	17.2731	312.3837	10.88384	7.9489	114.9943	117.8319
RETRO		3.20	14.45	26	14	48.398	6912.376	12.5002	321.8557	10.69238	13.2784	117.5649	127.8053
IMPACT		3724.29	3735.54	29	4	49.488	391274.234	-26.4741	250.6932	2.19400	66.8731	281.0220	269.4616

SURVEYOR VIEW PERIODS

GHA	306.1980				EPS -36.2785							LOM	246.8917
SX	-.009074	SY	-.895185	SZ	-.445603	DAO	-26.46190	RAO	269.41923	RM	392541.965	LAT	28.310600
LON	279.461800	C3	-1.008800	ECC	.983437	SLR	12980.933	RCA	6544.6650	LTA	-20.0000	GTA	20.00
TB	675.00000	POL	-.0	NSX	.012025	NSY	-.894422	NSZ	-.447063	C3M	1.4967	VIM	2.6713
ZAE	139.661	B.T	.0000	B.R	-.0000	LATE	3.9998	LONE	5.5301	LATS	1.5055	LONS	41.6811
LATI	-3.4577	LONI	325.8580	RSM	152.1993	TTAN	6.5847						

LAUNCH DATE JUL 26,1966 BASE AZM 105.0 TF 62.167 ARRIVAL DATE JUL 29 1966 5 4 28.8

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
105.00	14 40 3.7	28.1	18.92	305.64	10.51	112.32	115.00	14 51 18.7	6599.6	10.94	5.21

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	26	14	51.3												
SEPARATION		1.20	12.45	26	14	52.5												
RETRO		3.20	14.45	26	14	54.5												
RISE	72	4.21	15.46	26	14	55.5	83.85	-.1610	37.67	-.0020	3146.7	-7.31	-.00	.1258	308.09	.0201	8.46	325.06
EXTM	72	11.12	22.37	26	15	2.4	354.01	-.1441	-.06	-.1092	2419.4	4.79	80.14	.0000	37.57	1.0560	-5.76	347.33
RISE	51	11.13	22.38	26	15	2.4	80.85	-.0770	18.25	-.0390	6026.8	-2.30	-.00	.0829	290.35	-.0013	-5.76	347.34
EXTM	51	48.37	59.62	26	15	39.7	.97	-.0094	-27.79	-.0036	14189.6	5.05	87.78	-.0000	282.79	-.2330	-27.15	27.02
EXTM	72	71.64	82.89	26	16	3.0	299.85	.0001	-32.09	-.0005	23595.4	4.71	29.39	.0000	122.50	.0006	-29.43	32.49
RISE	61	92.87	104.12	26	16	24.2	315.00	.0008	-39.89	.0008	32336.0	4.26	-.00	.0010	147.14	.0001	-30.29	33.81
EXTM	51	97.00	108.25	26	16	28.3	352.37	.0003	-31.42	-.0003	27700.1	4.24	81.22	.0000	132.07	.0028	-30.39	33.82
EXTM	51	169.52	180.77	26	17	40.8	.15	.0027	-31.73	.0001	44483.1	3.56	84.01	.0000	181.26	.0216	-30.98	27.55
EXTM	61	362.88	374.13	26	20	54.2	4.64	.0038	-34.49	.0002	84750.2	2.75	15.15	.0000	183.96	.0032	-30.43	351.41
EXTM	72	392.88	404.13	26	21	24.2	.77	.0039	-31.95	.0001	85632.3	2.66	65.94	.0000	181.60	.0082	-30.32	344.97
RISE	11	573.01	584.26	27	0	24.3	296.04	.0040	-31.89	.0000	118073.6	2.04	-.00	.0025	130.29	.0023	-29.77	304.49
SET	51	588.87	600.12	27	0	40.2	90.00	.0038	-28.60	.0001	118949.5	2.63	12.00	-.0031	243.84	-.0012	-29.72	300.83
SET	61	592.60	603.85	27	0	43.9	58.03	.0039	-32.03	.0002	120781.6	2.52	-.00	-.0020	225.99	.0026	-29.71	299.97
SET	72	787.85	799.10	27	3	59.2	94.40	.0039	-28.88	.0001	146125.9	2.43	-.01	-.0034	240.82	-.0004	-29.24	254.10
RISE	42	797.75	809.00	27	4	9.1	254.99	.0040	-27.73	-.0000	146824.5	1.73	4.65	.0028	120.93	-.0021	-29.22	251.75
EXTM	11	838.61	849.86	27	4	49.9	1.19	.0041	-31.33	.0001	149781.2	2.00	23.45	.0000	181.11	.0039	-29.14	242.01
SET	11	1100.70	1111.95	27	9	12.0	65.95	.0041	-30.01	.0001	182039.2	2.08	-.00	-.0026	232.25	.0024	-28.67	178.91
EXTM	42	1223.68	1234.93	27	11	15.0	359.95	.0042	-28.26	.0000	188758.2	1.72	83.04	.0000	.41	-.0281	-28.48	149.03
RISE	51	1359.49	1370.74	27	13	30.8	270.00	.0041	-27.64	-.0000	207372.5	1.28	11.62	.0033	115.25	-.0014	-28.30	115.90
RISE	72	1514.06	1525.31	27	16	5.4	265.78	.0041	-27.87	-.0000	223521.1	1.17	-.00	.0036	118.16	-.0005	-28.11	78.06
RISE	61	1602.53	1613.78	27	17	33.8	298.21	.0041	-29.18	-.0000	231733.7	1.26	.01	.0024	129.70	.0027	-28.01	56.34
SET	42	1647.22	1658.47	27	18	18.5	105.00	.0041	-27.02	.0001	235338.4	1.83	4.22	-.0029	239.63	-.0022	-27.96	45.36
EXTM	51	1719.16	1730.41	27	19	30.5	.02	.0042	-27.94	.0000	235974.6	1.48	87.80	-.0000	180.57	.0663	-27.89	27.67
EXTM	61	1850.59	1861.84	27	21	41.9	.46	.0042	-29.10	.0000	251511.4	1.43	20.66	-.0000	180.43	.0039	-27.76	355.30
EXTM	72	1890.19	1901.44	27	22	21.5	.14	.0042	-28.21	.0000	251224.4	1.42	69.69	-.0000	180.35	.0106	-27.72	345.54
RISE	11	2036.26	2047.51	28	0	47.6	292.51	.0042	-28.48	-.0000	269360.4	1.07	.00	.0027	125.71	.0024	-27.59	309.49
SET	51	2078.55	2089.80	28	1	29.9	90.00	.0041	-27.04	.0001	271566.3	1.73	11.38	-.0034	245.31	-.0014	-27.55	299.04
SET	61	2098.40	2109.65	28	1	49.7	62.63	.0042	-28.52	.0000	274436.3	1.62	-.00	-.0024	231.29	.0027	-27.53	294.14
SET	72	2264.80	2276.05	28	4	36.1	94.09	.0041	-27.21	.0001	287689.5	1.71	-.00	-.0036	242.51	-.0005	-27.40	252.99
RISE	42	2265.36	2276.61	28	4	36.7	255.00	.0041	-26.63	-.0000	287290.7	.98	3.98	.0029	120.05	-.0022	-27.40	252.85
EXTM	11	2305.79	2317.04	28	5	17.1	.31	.0042	-28.49	.0000	288073.0	1.29	26.30	-.0000	180.30	.0041	-27.37	242.85
SET	11	2575.08	2586.33	28	9	46.4	68.01	.0042	-27.94	.0000	311205.8	1.53	.00	-.0028	235.00	.0024	-27.18	176.14
EXTM	42	2684.55	2695.80	28	11	35.9	359.99	.0042	-26.94	.0000	312922.0	1.20	81.72	-.0000	.15	-.0124	-27.10	148.99
RISE	51	2815.23	2826.48	28	13	46.5	270.00	.0041	-26.59	-.0000	327218.7	.80	11.21	.0034	114.27	-.0015	-27.02	116.56
RISE	72	2968.58	2979.83	28	16	19.9	265.99	.0042	-26.76	-.0000	339277.4	.71	.00	.0037	117.04	-.0005	-26.92	78.49
RISE	61	3048.20	3059.45	28	17	39.5	296.32	.0042	-27.65	-.0000	344598.9	.83	.00	.0025	127.44	.0027	-26.88	58.62
SET	42	3103.13	3114.38	28	18	34.4	105.00	.0041	-26.21	.0000	347834.1	1.44	3.73	-.0030	240.28	-.0023	-26.85	44.91
EXTM	51	3168.61	3179.86	28	19	39.9	359.11	.0042	-26.83	.0000	346261.6	1.10	88.65	.0022	144.14	.1292	-26.81	28.56
EXTM	61	3300.81	3312.06	28	21	52.1	.22	.0042	-27.68	.0000	358880.0	1.10	22.08	-.0000	180.21	.0040	-26.74	355.53
EXTM	72	3340.62	3351.87	28	22	31.9	.09	.0042	-27.05	.0000	357900.3	1.10	70.85	-.0000	180.25	.0113	-26.72	345.58
RISE	11	3479.01	3490.26	29	0	50.3	291.35	.0042	-27.29	-.0000	372965.4	.79	.00	.0028	124.13	.0024	-26.65	310.97
SET	51	3528.18	3539.43	29	1	39.5	90.00	.0042	-26.25	.0000	375006.9	1.49	11.07	-.0034	246.05	-.0015	-26.62	298.66
SET	61	3553.17	3564.42	29	2	4.5	64.09	.0042	-27.31	.0000	377903.5	1.41	-.00	-.0025	233.06	.0027	-26.61	292.40
RISE	42	3709.23	3720.48	29	4	40.5	255.00	.0042	-25.94	-.0000	388811.2	1.13	3.56	.0030	119.50	-.0023	-26.51	253.15
SET	72	3710.74	3721.99	29	4	42.1	93.94	.0042	-26.36	.0000	389338.8	1.90	.01	-.0037	243.36	-.0005	-26.50	252.77
IMPACT		3730.00	3741.25	29	5	1.3												
IMPC	42	3730.00	3741.25	29	5	1.3	260.30	.0043	-25.95	-.0000	390435.3	1.67	7.38	.0031	116.65	-.0023	-26.48	247.85
IMPC	72	3730.00	3741.25	29	5	1.3	98.85	.0043	-26.31	.0001	391735.6	2.44	-4.34	-.0038	242.66	-.0007	-26.48	247.85
IMPC	11	3730.00	3741.25	29	5	1.3	355.24	.0044	-27.31	.0000	388339.5	1.98	27.32	.0003	175.23	.0044	-26.48	247.85

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION		.00	11.25	26	14	51.312	6600.842	18.8944	305.6910	10.94482	5.2127	115.0122	112.3710
SEPARATION		1.20	12.45	26	14	52.512	6693.747	15.9733	311.6727	10.86684	8.5466	116.8988	118.6536
RETRO		3.20	14.45	26	14	54.512	6948.089	10.9480	320.8514	10.66668	13.8341	119.1594	128.3336
IMPACT		3730.00	3741.25	29	5	1.310	391305.063	-26.4827	247.8455	2.19173	66.7432	281.6225	269.5775

SURVEYOR VIEW PERIODS

GHA 306.1989 EPS -30.1887 LOM 244.1992
SX -.007366 SY -.895144 SZ -.445716 DAO -26.46915 RAO 269.52852 RM 392569.133 LAT 28.310600 LON 279.461800
C3 -1.015356 ECC .983329 SLR 12980.225 RCA 6544.6650 LTA -20.0000 GTA 20.00 TB 675.00000 POL -.0
NSX .013800 NSY -.894338 NSZ -.447180 C3M 1.4966 VIM 2.6713 ZAE 139.433 B.T .0000 B.R -.0000
LATE 4.0087 LONE 5.6280 LATS 1.5054 LONS 41.6887 LATI -3.8075 LONI 325.7899 RSM 152.1996 TTAN 6.5866
LAUNCH DATE JUL 26,1966 BASE AZM 108.0 TF 62.277 ARRIVAL DATE JUL 29 1966 5 15 39.4

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	14 44 49.6	28.1	17.84	305.06	11.46	112.94	117.08	14 56 4.6	6610.0	10.94	5.68

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
				PHORE IN SUNLIGHT														
INJECTION		.00	11.25	26	14	56.1												
SEPARATION		1.20	12.45	26	14	57.3												
RETRO		3.20	14.45	26	14	59.3												
RISE	72	4.14	15.39	26	15	.2	84.78	-.1489	33.23	-.0183	3186.2	-7.29	-.00	.1259	303.59	.0025	7.00	323.64
EXTM	72	10.55	21.80	26	15	6.6	5.47	-.1688	-3.46	-.1155	2291.7	3.98	82.98	.2035	308.92	.1466	-6.74	344.22
RISE	51	11.15	22.40	26	15	7.2	82.58	-.0731	15.00	-.0414	6104.9	-2.17	.00	.0817	286.70	-.0053	-7.74	345.73
EXTM	51	50.69	61.94	26	15	46.8	1.91	-.0087	-30.64	-.0027	14955.8	5.00	84.82	-.0000	198.58	-.0882	-29.18	26.36
EXTM	72	72.44	83.69	26	16	8.5	301.21	.0001	-33.99	-.0002	23800.4	4.69	30.16	.0000	124.90	.0003	-30.97	31.25
EXTM	51	97.66	108.91	26	16	33.7	353.89	.0002	-33.08	-.0002	27911.8	4.23	80.94	.0000	145.51	.0016	-31.74	32.59
RISE	61	103.17	114.42	26	16	39.2	316.92	.0012	-40.80	.0008	35032.3	4.10	-.00	.0012	148.87	.0004	-31.83	32.52
EXTM	51	163.17	174.42	26	17	39.2	.42	.0025	-32.96	.0001	43160.9	3.60	82.77	.0000	182.79	.0169	-32.03	27.32
EXTM	61	360.71	371.96	26	20	56.8	5.23	.0038	-35.22	.0002	84484.9	2.75	14.39	.0000	184.41	.0032	-31.13	350.86
EXTM	72	389.17	400.42	26	21	25.2	.99	.0039	-32.69	.0001	85080.2	2.67	65.20	.0000	181.98	.0079	-31.00	344.76
RISE	11	571.27	582.52	27	0	27.3	296.64	.0040	-32.43	.0000	117826.1	2.05	.00	.0025	131.02	.0023	-30.29	303.89
SET	51	584.38	595.63	27	0	40.5	90.00	.0038	-29.13	.0001	118303.5	2.61	12.20	-.0031	243.35	-.0012	-30.25	300.87
SET	61	584.75	596.00	27	0	40.8	57.23	.0039	-32.60	.0002	119693.7	2.52	.00	-.0020	225.10	.0026	-30.25	300.78
SET	72	783.83	795.08	27	3	59.9	94.47	.0039	-29.30	.0001	145607.7	2.43	-.01	-.0034	240.39	-.0004	-29.66	254.05
RISE	42	793.57	804.82	27	4	9.7	254.99	.0040	-28.15	-.0000	146261.6	1.74	4.91	.0028	121.26	-.0021	-29.64	251.73
EXTM	11	834.92	846.17	27	4	51.0	1.32	.0041	-31.75	.0001	149352.8	2.00	23.03	.0000	181.22	.0038	-29.54	241.88
SET	11	1095.05	1106.30	27	9	11.1	65.61	.0041	-30.34	.0001	181380.7	2.08	-.00	-.0026	231.81	.0024	-28.99	179.26
EXTM	42	1219.43	1230.68	27	11	15.5	359.94	.0042	-28.55	.0000	188255.0	1.72	83.33	.0000	.48	-.0301	-28.77	149.04
RISE	51	1355.30	1366.55	27	13	31.4	270.00	.0041	-27.89	-.0000	206874.4	1.28	11.72	.0033	115.49	-.0014	-28.55	115.89
RISE	72	1509.69	1520.94	27	16	5.8	265.74	.0041	-28.09	-.0000	223020.9	1.17	-.00	.0036	118.39	-.0005	-28.33	78.09
RISE	61	1599.36	1610.61	27	17	35.4	298.47	.0041	-29.39	-.0000	231344.9	1.26	.00	.0024	130.01	.0027	-28.22	56.08
SET	42	1642.95	1654.20	27	18	19.0	105.00	.0041	-27.23	.0001	234835.1	1.83	4.35	-.0029	239.47	-.0022	-28.16	45.37
EXTM	51	1714.92	1726.17	27	19	31.0	.02	.0042	-28.14	.0000	235488.9	1.48	87.60	-.0000	180.59	.0667	-28.08	27.66
EXTM	61	1846.51	1857.76	27	21	42.6	.51	.0042	-29.28	.0000	251055.2	1.43	20.48	-.0000	180.47	.0039	-27.93	355.25
EXTM	72	1885.98	1897.23	27	22	22.1	.15	.0042	-28.38	.0000	250744.2	1.42	69.52	-.0000	180.38	.0106	-27.89	345.52
RISE	11	2032.61	2043.86	28	0	48.7	292.66	.0042	-28.63	-.0000	268915.0	1.07	.00	.0027	125.91	.0024	-27.74	309.34
SET	51	2074.25	2085.50	28	1	30.3	90.00	.0041	-27.18	.0001	271061.2	1.72	11.44	-.0034	245.17	-.0014	-27.70	299.05
SET	61	2093.39	2104.64	28	1	49.5	62.45	.0042	-28.66	.0001	273878.1	1.62	-.00	-.0024	231.07	.0027	-27.68	294.32
SET	72	2260.58	2271.83	28	4	36.7	94.12	.0041	-27.33	.0001	287189.2	1.71	-.00	-.0036	242.38	-.0005	-27.52	252.97
RISE	42	2261.08	2272.33	28	4	37.2	255.00	.0041	-26.75	-.0000	286777.6	.98	4.06	.0029	120.15	-.0022	-27.52	252.85
EXTM	11	2301.62	2312.87	28	5	17.7	.34	.0042	-28.62	.0000	287586.7	1.29	26.18	-.0000	180.33	.0041	-27.49	242.82
SET	11	2570.37	2581.62	28	9	46.4	67.92	.0042	-28.04	.0000	310652.8	1.53	.01	-.0027	234.87	.0024	-27.27	176.24
EXTM	42	2680.22	2691.47	28	11	36.3	359.99	.0042	-27.02	.0000	312389.6	1.20	81.80	-.0000	.16	-.0125	-27.19	148.99
RISE	51	2810.91	2822.16	28	13	47.0	270.00	.0041	-26.66	-.0000	326676.0	.80	11.24	.0034	114.34	-.0015	-27.09	116.56
RISE	72	2964.20	2975.45	28	16	20.3	265.98	.0042	-26.82	-.0000	338725.0	.71	.00	.0037	117.10	-.0005	-26.98	78.50
RISE	61	3044.13	3055.38	28	17	40.2	296.39	.0042	-27.71	-.0000	344056.5	.83	.00	.0025	127.52	.0027	-26.93	58.55
SET	42	3098.78	3110.03	28	18	34.9	105.00	.0041	-26.26	.0000	347262.2	1.43	3.76	-.0030	240.24	-.0023	-26.90	44.91
EXTM	51	3163.97	3175.22	28	19	40.0	359.04	.0042	-26.88	.0000	345664.6	1.09	88.57	.0023	143.07	.1202	-26.86	28.63
EXTM	61	3296.54	3307.79	28	21	52.6	.24	.0042	-27.72	.0000	358290.4	1.09	22.04	-.0000	180.23	.0040	-26.78	355.51
EXTM	72	3336.30	3347.55	28	22	32.4	.10	.0042	-27.09	.0000	357297.3	1.09	70.82	-.0000	180.26	.0114	-26.76	345.58
RISE	11	3474.80	3486.05	29	0	50.9	291.37	.0042	-27.32	-.0000	372335.8	.79	.00	.0028	124.17	.0024	-26.68	310.94
SET	51	3523.85	3535.10	29	1	39.9	90.00	.0042	-26.27	.0000	374351.4	1.49	11.08	-.0034	246.03	-.0015	-26.65	298.66
SET	61	3548.71	3559.96	29	2	4.8	64.06	.0042	-27.34	.0000	377230.7	1.40	-.00	-.0025	233.02	.0027	-26.63	292.44
RISE	42	3705.04	3716.29	29	4	41.1	255.00	.0042	-25.95	-.0000	387936.4	1.04	3.57	.0030	119.52	-.0023	-26.53	253.15
SET	72	3706.58	3717.83	29	4	42.7	93.95	.0042	-26.38	.0000	388459.9	1.80	-.00	-.0037	243.34	-.0005	-26.52	252.76
IMPACT		3736.60	3747.85	29	5	12.7												
IMPC	42	3736.60	3747.85	29	5	12.7	263.03	.0043	-25.97	-.0000	390243.8	1.66	9.40	.0032	115.24	-.0022	-26.49	245.11
IMPC	11	3736.60	3747.85	29	5	12.7	358.01	.0044	-27.32	.0000	388357.5	1.99	27.45	.0002	178.01	.0044	-26.49	245.11
EXTM	11	3746.99	3758.24	29	5	23.1	.65	.0045	-27.31	.0000	388975.5	2.62	27.48	.0000	180.65	.0045	-26.49	242.51

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	26	14	56.077	6611.740	17.8045	305.1338	10.93585	5.6811	117.1001	113.0084
SEPARATION		1.20	12.45	26	14	57.277	6710.308	14.6967	310.9257	10.85301	9.0012	118.8103	119.1011
RETRO		3.20	14.45	26	14	59.277	6970.931	9.4168	319.8288	10.64641	14.2553	120.7810	128.5056
IMPACT		3736.60	3747.85	29	5	12.673	391335.281	-26.4909	245.1083	2.18913	66.5805	282.2598	269.6889

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SURVEYOR VIEW PERIODS

GHA	306.1989					EPS	-36.0994					LOM	241.5191
SX	-.005666	SY	-.895101	SZ	-.445827	DAD	-26.47628	RAD	269.63732	RM	392596.164	LAT	28.310600	LON	279.461800
C3	-1.022806	ECC	.983207	SLR	12979.423	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.015576	NSY	-.894250	NSZ	-.447296	C3M	1.4966	VIM	2.6713	ZAE	139.172	B.T	.0000	B.R	-.0000
LATE	4.0177	LONE	5.5212	LATS	1.5058	LONS	41.4920	LATI	-4.1688	LONI	325.4880	RSM	152.1998	TTAN	6.5888
LAUNCH DATE	√JUL	26,1966		BASE AZM	√111.0		TF	62.401				ARRIVAL DATE	JUL 29 1966		5 26 46.9

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	14 48 39.6	28.1	16.78	304.45	12.20	113.29	119.17	14 59 54.6	6618.8	10,93	6.05

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	26	14	59.9												
SEPARATION		1.20	12.45	26	15	1.1												
RETRO		3.20	14.45	26	15	3.1												
RISE	72	4.11	15.36	26	15	4.0	85.60	-.1386	28.93	-.0338	3225.7	-7.19	-.00	.1251	299.23	-.0144	5.48	322.36
RISE	51	11.20	22.45	26	15	11.1	84.24	-.0695	11.78	-.0438	6179.0	-2.04	-.00	.0805	283.09	-.0091	-9.78	344.22
EXTM	72	11.29	22.54	26	15	11.2	4.34	-.1497	-15.01	-.0881	2546.4	4.85	81.72	.0000	210.51	-1.1756	-9.94	344.45
EXTM	51	53.63	64.88	26	15	53.5	2.31	-.0079	-33.48	-.0018	15894.0	4.94	82.01	-.0000	193.98	-.0491	-31.27	26.07
EXTM	72	73.14	84.39	26	16	13.0	302.25	.0000	-35.94	.0000	23995.2	4.67	30.57	.0000	127.31	-.0000	-32.57	30.23
EXTM	51	95.95	107.20	26	16	35.9	355.07	.0000	-34.81	.0000	27521.3	4.25	79.98	.0000	156.09	.0000	-33.13	31.61
RISE	**61**	**114.47**	**125.72**	**26**	**16**	**54.4**	**318.86**	**.0016**	**-41.47**	**.0008**	**37878.1**	**3.94**	**-.00**	**.0013**	**150.56**	**.0007**	**-33.26**	**31.18**
EXTM	51	159.98	171.23	26	17	39.9	.90	.0024	-34.28	.0002	42509.5	3.62	81.43	.0000	184.99	.0136	-33.17	26.91
EXTM	61	359.88	371.13	26	20	59.8	5.84	.0038	-35.97	.0002	84435.8	2.75	13.60	.0000	184.86	.0031	-31.87	350.30
EXTM	72	386.62	397.87	26	21	26.5	1.19	.0039	-33.45	.0002	84706.9	2.68	64.43	.0000	182.31	.0076	-31.71	344.57
RISE	11	570.81	582.06	27	0	30.7	297.28	.0040	-32.99	.0000	117747.9	2.05	.01	.0024	131.80	.0023	-30.84	303.25
SET	61	577.78	589.03	27	0	37.7	56.38	.0039	-33.20	.0002	118716.0	2.52	-.00	-.0019	224.17	.0026	-30.81	301.65
SET	51	581.03	592 28	27	0	40.9	90.00	.0038	-29.68	.0001	117802.1	2.64	12.42	-.0031	242.83	-.0012	-30.80	300.90
SET	72	780.89	792.14	27	4	.8	94.55	.0039	-29.74	.0001	145213.2	2.43	-.00	-.0034	239.95	-.0004	-30.10	253.99
RISE	42	790.46	801.71	27	4	10.4	254.99	.0040	-28.58	-.0000	145816.9	1.74	5.17	.0028	121.61	-.0021	-30.08	251.71
EXTM	11	832.32	843.57	27	4	52.2	1.47	.0041	-32.18	.0001	149046.5	2.00	22.60	.0000	181.35	.0038	-29.96	241.74
SET	11	1090.35	1101.60	27	9	10.3	65.25	.0041	-30.69	.0001	180811.2	2.08	-.00	-.0025	231.35	.0024	-29.32	179.62
EXTM	42	1216.19	1227.44	27	11	16.1	359.93	.0042	-28.86	.0000	187841.8	1.72	83.64	.0000	.58	-.0319	-29.07	149.05
RISE	51	1352.11	1363.36	27	13	32.0	270.00	.0041	-28.16	-.0000	206458.9	1.28	11.82	.0033	115.74	-.0014	-28.82	115.88
RISE	72	1506.31	1517.56	27	16	6.2	265.70	.0041	-28.33	-.0000	222596.1	1.17	-.00	.0036	118.63	-.0005	-28.57	78.12
RISE	61	1597.29	1608.54	27	17	37.2	298.76	.0042	-29.62	-.0000	231037.9	1.26	.00	.0024	130.35	.0027	-28.44	55.79
SET	42	1639.67	1650.92	27	18	19.6	105.00	.0041	-27.44	.0001	234401.8	1.83	4.48	-.0029	239.30	-.0022	-28.38	45.37
EXTM	51	1711 62	1722.87	27	19	31.5	.01	.0042	-28.35	.0000	235066.3	1.48	87.39	.0000	180.42	.0451	-28.28	27.67
EXTM	61	1843.43	1854.68	27	21	43.3	.56	.0042	-29.46	.0000	250663.3	1.43	20.30	-.0000	180.52	.0039	-28.11	355.21
EXTM	72	1882.75	1894.00	27	22	22.7	.17	.0042	-28.57	.0000	250325.8	1.42	69.34	-.0000	180.42	.0105	-28.06	345.51
RISE	11	2029.95	2041.20	28	0	49.9	292.82	.0042	-28.79	-.0000	268528.0	1.06	.00	.0027	126.12	.0024	-27.89	309.18
SET	51	2070.93	2082.18	28	1	30.8	90.00	.0041	-27.34	.0001	270610.2	1.72	11.50	-.0034	245.03	-.0014	-27.85	299.05
SET	61	2089.30	2100.55	28	1	49.2	62.26	.0042	-28.81	.0001	273370.8	1.62	-.00	-.0024	230.85	.0027	-27.83	294.51
SET	72	2257.33	2268.58	28	4	37.2	94.14	.0041	-27.46	.0001	286737.6	1.70	-.00	-.0036	242.25	-.0005	-27.65	252.95
RISE	42	2257.76	2269.01	28	4	37.7	255.00	.0041	-26.88	-.0000	286312.3	.98	4.14	.0029	120.25	-.0022	-27.65	252.85
EXTM	11	2298.41	2309.66	28	5	18.3	.37	.0042	-28.74	.0000	287148.3	1.29	26.05	-.0000	180.36	.0041	-27.61	242.79
SET	11	2566.65	2577.90	28	9	46.6	67.83	.0042	-28.14	.0000	310141.3	1.53	-.00	-.0027	234.75	.0024	-27.37	176.33
EXTM	42	2676.84	2688.09	28	11	36.8	359.99	.0042	-27.11	.0000	311892.0	1.20	81.89	-.0000	.17	-.0133	-27.27	148.99
RISE	51	2807.54	2818.79	28	13	47.4	270.00	.0041	-26.74	-.0000	326164.2	.80	11.27	.0034	114.41	-.0015	-27.17	116.56
RISE	72	2960.75	2972.00	28	16	20.7	265.96	.0041	-26.89	-.0000	337995.5	.73	-.00	.0037	117.17	-.0005	-27.05	78.51
RISE	61	3041.16	3052.41	28	17	41.1	296.46	.0042	-27.77	-.0000	343581.1	.83	.00	.0025	127.61	.0027	-26.99	58.48
SET	42	3095.51	3106.76	28	18	35.4	105.00	.0041	-26.31	.0000	346753.9	1.43	3.79	-.0030	240.20	-.0022	-26.95	44.91
EXTM	51	3160.44	3171.69	28	19	40.3	358.97	.0042	-26.93	.0000	345131.3	1.09	88.50	.0023	142.49	.1133	-26.91	28.69
EXTM	61	3293.31	3304.56	28	21	53.2	.26	.0042	-27.76	.0000	357753.7	1.09	22.00	-.0000	180.25	.0040	-26.82	355.50
EXTM	72	3333.01	3344.26	28	22	32.9	.10	.0042	-27.13	.0000	356744.9	1.09	70.78	-.0000	180.28	.0113	-26.80	345.57
RISE	11	3471.59	3482.84	29	0	51.5	291.40	.0042	-27.35	-.0000	371748.5	.78	.00	.0028	124.21	.0024	-26.71	310.91
SET	51	3520.50	3531.75	29	1	40.4	90.00	.0042	-26.30	.0000	373735.2	1.48	11.09	-.0034	246.00	-.0015	-26.68	298.67
SET	61	3545.23	3556.48	29	2	5.1	64.02	.0042	-27.37	.0000	376595.6	1.39	-.00	-.0025	232.97	.0027	-26.66	292.47
RISE	42	3701.76	3713.01	29	4	41.7	255.00	.0042	-25.97	-.0000	387125.0	.97	3.58	.0030	119.53	-.0023	-26.55	253.15
SET	72	3703.32	3714.57	29	4	43.2	93.96	.0042	-26.40	.0000	387644.9	1.73	-.00	-.0037	243.32	-.0005	-26.54	252.76
EXTM	11	3743.12	3754.37	29	5	23.0	.53	.0044	-27.33	.0000	388276.8	1.94	27.46	-.0000	180.53	.0044	-26.50	242.63
IMPACT		3744.09	3755.34	29	5	24.0												
IMPC	42	3744.09	3755.34	29	5	24.0	265.75	.0043	-25.99	.0000	390055.6	1.65	11.44	.0032	113.86	-.0022	-26.50	242.38
IMPC	11	3744.09	3755.34	29	5	24.0	.78	.0044	-27.33	.0000	388389.9	2.00	27.46	-.0000	180.78	.0044	-26.50	242.38

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	26	14	59.910	6621.029	16.7355	304.5369	10.92822	6.0483	119.1862	113.3723
SEPARATION		1.20	12.45	26	15	1.110	6723.915	13.4440	310.1441	10.84158	9.3569	120.7302	119.2803
RETRO		3.20	14.43	26	15	3.110	6991.743	7.9085	318.7834	10.63006	14.5840	122.4291	128.4210
IMPACT		3744.09	3755.34	29	5	23.999	391369.176	-26.4991	242.3809	2.18520	66.1958	282.7729	269.8006

SURVEYOR VIEW PERIODS

GHA	306.1089					EPS	-35.9748							LOM	237.7787
SX	-.003294	SY	-.895037	SZ	-.445981	DAO	-26.48610	RAO	269.78916	RM	392633.852	LAT	28.310600	LON	279.461800
C3	-1.034366	ECC	.983017	SLR	12978.182	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.018070	NSY	-.894123	NSZ	-.447456	C3M	1.4964	VIM	2.6713	ZAE	138.771	B.T	.0000	B R	-.0000
LATE	4.0301	LONE	5.5157	LATS	1.5059	LONS	41.3610	LATI	-4.6577	LONI	325.1729	RSM	152.2002	TTAN	6.5917
LAUNCH DATE		JUL	26.1966		BASE AZM	115.0		TF	62.595			ARRIVAL DATE		JUL 29 1966	5 42 18.6

LNCH AZMTH	LNCH TIME	PH	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	14 52 47.8	28.0	15.40	303.59	12.97	113.46	121.95	15 4 2.8	6628.6	10.92	6.43

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DUE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	26	15	4.0												
SEPARATION	1.20	12.45	26	15	5.2												
RETRO	3.20	14.45	26	15	7.2												
RISE 72	4.11	15.36	26	15	8.2	86.57	-.1266	23.61	-.0534	3283.6	-6.93	-.00	.1230	293.55	-.0354	3.37	320.81
RISE 51	11.30	22.55	26	15	15.3	86.36	-.0651	7.49	-.0469	6279.3	-1.84	.00	.0786	278.33	-.0138	-12.58	342.34
EXTM 72	11.61	22.86	26	15	15.7	9.18	-.1470	-25.02	-.0729	2768.0	5.02	70.78	-.0000	206.04	-.4611	-13.09	343.07
EXTM 51	59.92	71.17	26	16	4.0	1.66	-.0062	-37.17	-.0007	17821.6	4.82	78.49	-.0000	186.64	-.0248	-34.16	26.50
EXTM 72	73.50	84.75	26	16	17.5	303.25	-.0001	-38.69	.0003	24121.1	4.66	30.69	.0000	130.53	-.0004	-34.77	29.10
EXTM 51	88.34	99.59	26	16	32.4	356.53	-.0009	-37.53	.0002	25621.7	4.35	78.04	.0000	166.59	-.0034	-35.04	30.39
RISE 61	130.34	141.59	26	17	14.4	321.49	.0021	-42.75	.0008	41708.5	3.76	.01	.0014	152.79	.0010	-35.00	29.24
EXTM 51	159.84	171.09	26	17	43.9	1.80	.0024	-36.07	.0003	42530.9	3.62	79.55	.0000	188.06	.0109	-34.73	26.14
EXTM 61	360.28	371.53	26	21	4.3	6.67	.0038	-36.99	.0003	84611.7	2.75	12.53	.0000	185.46	.0031	-32.87	349.52
EXTM 72	384.75	396.00	26	21	28.8	1.50	.0039	-34.51	.0002	84447.9	2.68	63.36	.0000	182.77	.0072	-32.69	344.29
RISE 11	571.57	582.82	27	0	35.6	298.15	.0040	-33.76	.0000	117822.0	2.05	.01	.0024	132.86	.0023	-31.59	302.38
SET 61	569.34	580.59	27	0	33.4	55.14	.0039	-34.04	.0002	117512.8	2.53	-.00	-.0019	222.84	.0026	-31.60	302.89
SET 51	577.83	589.08	27	0	41.9	90.00	.0038	-30.44	.0002	117295.7	2.64	12.71	-.0031	242.10	-.0011	-31.55	300.94
SET 72	778.20	789.45	27	4	2.2	94.66	.0039	-30.34	.0001	144821.9	2.43	-.00	-.0033	239.33	-.0004	-30.71	253.90
RISE 42	787.50	798.75	27	4	11.5	254.99	.0040	-29.18	-.0000	145353.1	1.74	5.54	.0028	122.09	-.0021	-30.68	251.69
EXTM 11	830.07	841.32	27	4	54.1	1.67	.0041	-32.77	.0001	148770.1	2.00	22.01	.0000	181.51	.0038	-30.53	241.55
SET 11	1085.12	1096.37	27	9	9.2	64.74	.0041	-31.16	.0001	180143.8	2.08	-.00	-.0025	230.71	.0024	-29.79	180.13
EXTM 42	1212.98	1224.23	27	11	17.0	359.92	.0042	-29.28	.0000	187383.1	1.72	84.06	.0000	.72	-.0346	-29.48	149.06
RISE 51	1348.97	1360.22	27	13	33.0	270.00	.0041	-28.53	-.0000	205987.8	1.28	11.97	.0033	116.09	-.0014	-29.19	115.87
RISE 72	1502.88	1514.13	27	16	6.9	265.64	.0041	-28.65	-.0000	222102.4	1.17	-.00	.0036	118.96	-.0005	-28.90	78.17
RISE 61	1595.61	1606.86	27	17	39.7	299.15	.0042	-29.92	-.0000	230697.5	1.26	.00	.0024	130.80	.0027	-28.74	55.40
SET 42	1636.38	1647.63	27	18	20.4	105.00	.0041	-27.73	.0001	233889.5	1.83	4.66	-.0029	239.07	-.0022	-28.67	45.38
EXTM 51	1708.42	1719.67	27	19	32.5	.03	.0042	-28.63	.0000	234575.7	1.48	87.10	-.0000	180.63	.0610	-28.56	27.66
EXTM 61	1840.39	1851.64	27	21	44.4	.62	.0042	-29.72	.0000	250197.3	1.43	20.04	-.0000	180.58	.0039	-28.36	355.14
EXTM 72	1879.51	1890.76	27	22	23.6	.19	.0042	-28.82	.0000	249821.5	1.42	69.09	-.0000	180.46	.0103	-28.31	345.49
RISE 11	2027.50	2038.75	28	0	51.5	293.04	.0042	-29.01	-.0000	268060.1	1.06	.00	.0027	126.41	.0024	-28.11	308.95
SET 51	2067.55	2078.80	28	1	31.6	90.00	.0041	-27.55	.0001	270052.0	1.72	11.58	-.0034	244.83	-.0014	-28.06	299.06
SET 61	2084.86	2096.11	28	1	48.9	61.99	.0042	-29.03	.0001	272733.1	1.62	-.00	-.0024	230.53	.0027	-28.03	294.78
SET 72	2254.05	2265.30	28	4	38.1	94.17	.0041	-27.64	.0001	286170.1	1.70	-.00	-.0036	242.07	-.0005	-27.83	252.93
RISE 42	2254.39	2265.64	28	4	38.4	255.00	.0041	-27.06	-.0000	285725.6	.98	4.25	.0029	120.39	-.0022	-27.83	252.84
EXTM 11	2295.19	2306.44	28	5	19.2	.42	.0042	-28.92	.0000	286597.2	1.29	25.87	-.0000	180.41	.0041	-27.79	242.74
SET 11	2562.64	2573.89	28	9	46.7	67.69	.0042	-28.28	.0001	309473.0	1.52	-.00	-.0027	234.56	.0024	-27.50	176.47
EXTM 42	2673.26	2684.51	28	11	37.3	359.96	.0042	-27.24	.0000	311234.9	1.19	82.02	.0000	.32	-.0243	-27.40	149.02
RISE 51	2804.07	2815.32	28	13	48.1	270.00	.0041	-26.85	-.0000	325490.2	.80	11.31	.0034	114.51	-.0015	-27.27	116.55
RISE 72	2957.19	2968.44	28	16	21.2	265.94	.0041	-26.98	-.0000	337293.0	.73	-.00	.0036	117.26	-.0005	-27.14	78.52
RISE 61	3038.05	3049.30	28	17	42.1	296.56	.0042	-27.85	-.0000	342892.8	.82	.00	.0025	127.73	.0027	-27.07	58.38
SET 42	3091.98	3103.23	28	18	36.0	105.00	.0041	-26.39	.0000	346019.5	1.43	3.83	-.0030	240.14	-.0022	-27.03	44.91
EXTM 51	3156.68	3167.93	28	19	40.7	358.91	.0042	-27.00	.0000	344370.7	1.09	88.41	.0023	142.55	.1069	-26.98	28.75
EXTM 61	3289.89	3301.14	28	21	53.9	.28	.0042	-27.82	.0000	356984.0	1.08	21.94	-.0000	180.27	.0040	-26.88	355.47
EXTM 72	3329.52	3340.77	28	22	33.6	.11	.0043	-27.19	.0000	355954.0	1.08	70.72	-.0000	180.30	.0112	-26.85	345.56
RISE 11	3468.26	3479.51	29	0	52.3	291.45	.0042	-27.39	-.0000	370915.1	.77	.00	.0028	124.27	.0024	-26.75	310.86
SET 51	3516.98	3528.23	29	1	41.0	90.00	.0042	-26.34	.0000	372864.2	1.47	11.11	-.0034	245.96	-.0015	-26.72	298.67
SET 61	3541.52	3552.77	29	2	5.6	63.98	.0042	-27.41	.0000	375699.9	1.38	-.00	-.0025	232.91	.0027	-26.70	292.52
RISE 42	3698.36	3709.61	29	4	42.4	255.00	.0042	-26.00	-.0000	386041.0	.92	3.60	.0030	119.56	-.0023	-26.58	253.15
SET 72	3699.92	3711.17	29	4	44.0	93.96	.0042	-26.43	.0000	386558.0	1.67	-.00	-.0037	243.29	-.0005	-26.57	252.75
EXTM 11	3739.39	3750.64	29	5	23.4	.39	.0043	-27.37	.0000	386802.9	1.50	27.43	-.0000	180.39	.0043	-26.53	242.77
IMPACT	3755.73	3766.98	29	5	39.8												
IMPC 42	3755.73	3766.98	29	5	39.8	269.55	.0043	-26.03	.0000	389788.1	1.64	14.32	.0033	111.97	-.0022	-26.51	238.58
IMPC 11	3755.73	3766.98	29	5	39.8	4.64	.0044	-27.54	.0000	388448.7	2.02	27.30	-.0003	184.64	.0044	-26.51	238.58

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	26	15	4.047	6631.437	15.3444	303.6824	10.91956	6.4314	121.9678	113.5549
SEPARATION	1.20	12.45	26	15	5.247	6738.692	11.8130	309.0483	10.82905	9.7273	123.3054	119.2216
RETRO	3.20	14.45	26	15	7.247	7013.963	5.9373	317.3469	10.61251	14.9253	124.6674	128.0216
IMPACT	3755.73	3766.98	29	5	39.776	391412.379	-26.5103	238.5808	2.18067	65.8926	283.6264	269.9556

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SURVEYOR VIEW PERIODS

GHA	307.1846					EPS	-25.2243							LOM	271.1234
SX	.200958	SY	-.870331	SZ	-.449600	DAO	-26.71402	RAO	283.00166	RM	395771.359	LAT	28.310600	LON	279.461800
C3	-.973583	ECC	.984015	SLR	12984.717	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.221119	NSY	-.865755	NSZ	-.448970	C3M	1.4930	VIM	2.6706	ZAE	140.689	B.T	.0000	B.R	-.0000
LATE	5.0131	LONE	4.9164	LATS	1.5217	LONS	29.8790	LATI	-.1407	LONI	325.8951	RSM	152.2236	TTAN	6.4690
LAUNCH DATE	JUL 27,1966			BASE AZM	84.0		TF 62.568					ARRIVAL DATE	JUL 30 1966	4 18	4.1

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
84.00	13 46 24.1	27.3	27.10	307.54	-13.17	101.75	99.80	13 57 39.1	6631.1	10.92	-6.53

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	27	13	57.7												
SEPARATION		1.20	12.45	27	13	58.9												
RETRO		3.20	14.45	27	14	.9												
RISE	72	7.08	18.33	27	14	4.7	346.23	-1.2133	81.87	-.1266	2652.4	-2.83	-.00	.0826	1.93	.1966	14.66	346.44
RISE	51	12.14	23.39	27	14	9.8	61.04	-.1469	45.12	-.0235	4723.9	-3.72	.00	.0962	321.87	.0453	4.18	6.06
EXTM	72	13.39	24.64	27	14	11.0	289.64	-.0253	17.82	-.0964	3775.7	6.62	15.95	-.0000	68.64	.1034	1.93	9.89
EXTM	51	30.18	41.43	27	14	27.8	338.92	-.0238	-6.37	-.0227	7534.8	5.59	62.07	-.0000	49.73	.0699	-15.49	39.63
EXTM	72	63.38	74.63	27	15	1.0	272.20	-.0002	-23.51	-.0021	22359.1	5.02	5.15	.0000	113.07	.0021	-24.31	56.54
RISE	42	73.98	85.23	27	15	11.6	102.82	-.0038	-17.45	-.0030	26039.4	4.26	.00	.0047	248.47	-.0002	-25.36	58.26
EXTM	51	77.46	88.71	27	15	15.1	320.70	-.0004	-24.46	-.0017	22332.2	4.63	54.52	.0000	96.63	.0030	-25.63	58.63
EXTM	42	128.79	140.04	27	16	6.4	99.19	.0006	-22.66	-.0008	39654.1	3.98	5.85	-.0000	246.31	-.0010	-27.68	57.97
SET	42	191.90	203.15	27	17	9.6	105.00	.0022	-24.43	-.0003	54027.7	3.62	2.64	-.0014	241.69	-.0014	-28.41	49.98
RISE	61	208.81	220.06	27	17	26.5	303.99	.0032	-33.45	.0001	57788.1	3.17	.00	.0018	136.23	.0020	-28.50	47.23
EXTM	51	312.45	323.70	27	19	10.1	360.00	.0037	-28.95	.0000	71106.7	2.91	86.79	.0000	179.72	.0070	-28.69	27.69
EXTM	61	470.26	481.51	27	21	47.9	2.21	.0039	-31.98	.0001	100819.3	2.51	17.75	.0000	181.96	.0035	-28.60	353.66
EXTM	72	507.05	518.30	27	22	24.7	.32	.0040	-29.83	.0000	102452.1	2.44	68.07	-.0000	180.75	.0094	-28.57	345.37
RISE	11	675.31	686.56	28	1	13.0	294.31	.0040	-30.26	-.0000	131506.1	1.90	.00	.0026	128.08	.0023	-28.39	306.49
SET	51	700.99	712.24	28	1	38.6	90.00	.0039	-27.35	.0001	133589.8	2.50	11.51	-.0032	245.02	-.0013	-28.36	300.46
SET	61	713.61	724.86	28	1	51.3	60.28	.0040	-30.37	.0001	136484.6	2.39	-.00	-.0022	228.53	.0026	-28.35	297.48
SET	72	896.27	907.52	28	4	53.9	94.21	.0039	-27.83	.0001	158918.5	2.35	-.00	-.0035	241.88	-.0005	-28.16	254.04
RISE	42	905.01	916.26	28	5	2.7	255.00	.0040	-26.78	-.0001	159493.1	1.64	4.07	.0028	120.17	-.0021	-28.16	251.94
EXTM	11	944.54	955.79	28	5	42.2	.72	.0042	-30.13	.0000	161898.3	1.92	24.66	-.0000	180.69	.0040	-28.12	242.45
SET	11	1211.24	1222.49	28	10	8.9	66.84	.0041	-29.14	.0001	193682.4	2.03	-.00	-.0026	233.42	.0024	-27.88	177.92
EXTM	42	1329.82	1341.07	28	12	7.5	359.96	.0042	-27.56	.0000	199557.5	1.67	82.34	.0000	.27	-.0245	-27.79	149.01
RISE	51	1464.85	1476.10	28	14	22.5	270.00	.0041	-27.06	-.0000	217748.2	1.23	11.39	.0034	114.71	-.0014	-27.69	115.99
RISE	72	1619.53	1630.78	28	16	57.2	265.87	.0041	-27.36	-.0000	233528.6	1.13	-.00	.0036	117.64	-.0005	-27.59	78.05
RISE	61	1704.96	1716.21	28	18	22.6	297.54	.0042	-28.65	-.0000	241290.3	1.22	.00	.0025	128.92	.0027	-27.54	57.05
SET	42	1752.73	1763.98	28	19	10.4	105.00	.0041	-26.61	.0000	245114.9	1.80	3.97	-.0029	239.96	-.0022	-27.51	45.30
EXTM	51	1818.57	1829.82	28	20	16.2	358.56	.0042	-27.51	.0000	245059.4	1.45	87.81	.0022	144.28	.0785	-27.47	29.09
EXTM	61	1955.05	1966.30	28	22	32.7	.31	.0042	-28.68	.0000	260787.4	1.41	21.08	.0000	180.29	.0039	-27.39	359.45
EXTM	72	1995.05	2006.30	28	23	12.7	.10	.0042	-27.84	.0000	260502.7	1.39	70.07	-.0000	180.26	.0107	-27.37	345.57
RISE	11	2139.70	2150.95	29	1	37.4	292.19	.0042	-28.15	-.0000	278343.6	1.04	.00	.0028	125.27	.0024	-27.29	309.85
SET	51	2183.60	2194.85	29	2	21.3	90.00	.0041	-26.77	.0000	280639.7	1.71	11.28	-.0034	245.56	-.0014	-27.27	299.00
SET	61	2204.92	2216.17	29	2	42.6	63.01	.0042	-28.21	.0000	283591.6	1.61	-.00	-.0025	231.75	.0027	-27.26	293.72
SET	72	2369.58	2380.83	29	5	27.2	94.06	.0041	-27.00	.0000	296523.5	1.69	-.00	-.0036	242.72	-.0005	-27.18	252.98
RISE	42	2369.97	2381.22	29	5	27.6	255.00	.0041	-26.43	-.0000	296124.2	.96	3.86	.0029	119.90	-.0022	-27.18	252.89
EXTM	11	2410.15	2421.40	29	6	7.8	.22	.0042	-28.25	.0000	296809.5	1.28	26.54	-.0000	180.21	.0041	-27.16	242.94
SET	11	2680.43	2691.68	29	10	38.1	68.17	.0042	-27.79	.0000	319808.6	1.52	.00	-.0028	235.21	.0024	-27.04	175.96
EXTM	42	2789.15	2800.40	29	12	26.8	360.00	.0042	-26.84	.0000	321393.1	1.19	81.62	-.0000	.13	-.0091	-27.00	148.98
RISE	51	2919.66	2930.91	29	14	37.3	270.00	.0041	-26.53	-.0000	335597.3	.79	11.18	.0034	114.21	-.0015	-26.95	116.59
RISE	72	3072.62	3083.87	29	17	10.3	265.99	.0042	-26.74	-.0000	347442.0	.71	-.00	.0037	117.01	-.0005	-26.89	78.52
RISE	61	3152.23	3163.48	29	18	29.9	296.29	.0042	-27.63	-.0000	352753.2	.83	.00	.0025	127.40	.0027	-26.87	58.67
SET	42	3207.48	3218.73	29	19	25.1	105.00	.0041	-26.23	.0000	356007.7	1.44	3.74	-.0030	240.26	-.0023	-26.85	44.89
EXTM	51	3272.74	3283.99	29	20	30.4	359.07	.0042	-26.85	.0000	354425.2	1.10	88.61	.0023	143.28	.1236	-26.83	28.60
EXTM	61	3404.88	3416.13	29	22	42.5	.14	.0042	-27.71	.0000	367083.6	1.10	22.05	-.0000	180.13	.0040	-26.80	359.62
EXTM	72	3444.95	3456.20	29	23	22.6	.07	.0042	-27.11	.0000	366142.0	1.11	70.79	-.0000	180.19	.0110	-26.79	345.61
RISE	11	3583.72	3594.97	30	1	41.4	291.43	.0042	-27.38	-.0000	381402.3	.83	.00	.0028	124.25	.0024	-26.75	310.90
SET	51	3632.67	3643.92	30	2	30.3	90.00	.0042	-26.37	.0000	383551.5	1.55	11.12	-.0034	245.93	-.0015	-26.74	298.64
SET	61	3657.07	3668.32	30	2	54.7	63.96	.0042	-27.42	.0000	386508.4	1.48	-.00	-.0025	232.99	.0027	-26.73	292.52
IMPACT		3754.09	3765.34	30	4	31.7												
IMPC	72	3754.09	3765.34	30	4	31.7	78.67	.0043	-26.68	.0000	392989.4	2.47	13.63	-.0039	244.35	-.0001	-26.71	268.01
IMPC	11	3754.09	3765.34	30	4	31.7	334.78	.0044	-27.50	-.0000	392016.5	1.90	22.92	.0015	155.77	.0039	-26.71	268.01

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	27	13	57.652	6634.169	27.1174	307.4139	10.92017	-6.5295	99.7385	101.6279
SEPARATION		1.20	12.45	27	13	58.852	6564.601	25.7407	314.7042	10.97573	-3.1461	103.1236	109.2190
RETRO		3.20	14.45	27	14	.852	6587.954	22.6241	326.3713	10.98133	2.5697	108.1258	121.3874
IMPACT		3754.09	3765.34	30	4	31.742	394541.352	-26.7129	268.0129	2.20641	68.4599	271.4034	283.3184

SURVEYOR VIEW PERIODS

GHA	307.1846					EPS -24.9826								LOM	263.6740
SX	.205515	SY	-.869338	SZ	-.449460	DAO	-26.70904	RAO	283.30076	RM	395839.258	LAT	28.310600	LON	279.461800
C3	-.967743	ECC	.984111	SLR	12985.340	HCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.225593	NSY	-.864699	NSZ	-.448780	C3M	1.4971	VIM	2.6714	ZAE	140.802	B.T	.0000	B.R	-.0000
LATE	5.0330	LONE	4.9018	LATS	1.5220	LONS	29.6178	LATI	.0963	LONI	325.9630	RSM	152.2240	TTAN	6.4609

LAUNCH DATE JUL 27,1966 BASE AZM 87.0 TF 62.498 ARRIVAL DATE JUL 30 1966 4 48 58.7

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
87.00	14 15 19.5	27.7	25.86	307.70	-6.71	109.16	102.15	14 26 34.5	6567.0	10.97	-3.33

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	27	14	26.6												
SEPARATION		1.20	12.45	27	14	27.8												
RETRO		3.20	14.45	27	14	29.8												
RISE	72	6.13	17.38	27	14	32.7	57.04	-.7048	75.69	.0817	2722.5	-4.63	-.01	.0993	348.03	.1647	14.71	340.84
RISE	61	9.24	20.49	27	14	35.8	5.97	-.1821	-49.61	.0051	3996.1	5.31	.00	.0144	183.87	-.1172	8.19	353.68
RISE	51	11.75	23.00	27	14	38.3	65.85	-.1262	40.31	-.0254	5035.6	-3.43	.00	.0936	315.91	.0340	3.45	2.09
EXTM	61	12.57	23.82	27	14	39.1	339.32	-.0933	-46.62	.0179	5257.0	6.96	1.20	-.0000	165.96	-.0665	2.02	4.55
EXTM	72	12.69	23.94	27	14	39.3	299.94	-.0399	19.74	-.1088	3381.0	6.26	24.76	-.0000	63.92	.1268	1.81	4.90
SET	61	18.11	29.36	27	14	44.7	319.43	-.0384	-41.91	.0102	7668.3	7.33	.00	-.0053	151.05	-.0299	-5.80	17.73
EXTM	51	32.90	44.15	27	14	59.5	344.57	-.0197	-9.82	-.0166	8645.6	5.48	68.38	-.0000	45.37	.0692	-16.71	36.91
EXTM	72	63.59	74.84	27	15	30.2	278.92	-.0001	-23.74	-.0019	22113.3	4.98	11.30	.0000	112.75	.0020	-23.85	50.36
EXTM	51	79.74	90.99	27	15	46.3	328.65	-.0003	-24.47	-.0016	22937.6	4.56	61.65	.0000	94.29	.0033	-25.30	52.43
RISE	61	170.54	181.79	27	17	17.1	304.17	.0029	-33.58	.0001	50035.8	3.43	-.00	.0016	136.43	.0018	-27.84	46.40
EXTM	51	278.04	289.29	27	19	4.6	359.98	.0036	-28.59	-.0000	65194.1	3.03	87.15	.0000	179.55	.0488	-28.34	27.70
EXTM	61	439.60	450.85	27	21	46.2	2.29	.0039	-31.90	.0001	96326.8	2.57	17.83	.0000	182.04	.0035	-28.37	353.59
EXTM	72	476.33	487.58	27	22	22.9	.30	.0040	-29.65	.0000	98089.1	2.49	68.25	-.0000	180.71	.0094	-28.35	345.39
RISE	11	645.47	656.72	28	1	12.0	294.19	.0040	-30.15	-.0000	127733.6	1.94	.00	.0026	127.93	.0023	-28.22	306.54
SET	51	671.17	682.42	28	1	37.7	90.00	.0039	-27.15	.0001	129884.8	2.54	11.43	-.0032	245.20	-.0013	-28.20	300.53
SET	61	684.54	695.79	28	1	51.1	60.43	.0040	-30.25	.0001	132896.3	2.42	-.00	-.0022	228.70	.0026	-28.19	297.39
SET	72	866.97	878.22	28	4	53.5	94.18	.0039	-27.69	.0001	155629.5	2.37	-.00	-.0035	242.02	-.0005	-28.03	254.12
RISE	42	876.21	887.46	28	5	2.8	254.99	.0040	-26.81	-.0001	156288.2	1.66	3.97	.0028	120.04	-.0021	-28.02	251.90
EXTM	11	915.59	926.84	28	5	42.2	.71	.0042	-30.04	.0000	158714.7	1.94	24.75	-.0000	180.68	.0040	-27.99	242.47
SET	11	1182.95	1194.20	28	10	9.5	66.92	.0041	-29.05	.0001	190911.3	2.04	-.00	-.0026	233.54	.0024	-27.78	177.85
EXTM	42	1301.37	1312.62	28	12	7.9	359.97	.0042	-27.45	.0000	196892.6	1.68	82.23	.0000	.25	-.0234	-27.70	149.01
RISE	51	1436.56	1447.81	28	14	23.1	270.00	.0041	-26.97	-.0000	215221.9	1.25	11.35	.0034	114.62	-.0014	-27.61	115.97
RISE	72	1591.37	1602.62	28	16	57.9	265.89	.0041	-27.28	-.0000	231135.7	1.14	-.00	.0036	117.56	-.0005	-27.51	78.02
RISE	61	1476.45	1487.70	28	18	23.0	277.47	.0041	-28.59	-.0000	238929.7	1.24	.00	.0025	128.83	.0027	-27.46	57.12
SET	42	1724.45	1735.70	28	19	11.0	105.00	.0041	-26.53	.0000	242814.7	1.81	3.92	-.0029	240.03	-.0022	-27.44	45.31
EXTM	51	1790.39	1801.64	28	20	17.0	358.57	.0042	-27.45	.0000	242809.3	1.46	87.87	.0023	143.38	.0798	-27.40	29.08
EXTM	61	1926.84	1938.09	28	22	33.4	.30	.0042	-28.64	.0000	258618.0	1.42	21.13	.0000	180.28	.0039	-27.33	355.46
EXTM	72	1966.88	1978.13	28	23	13.5	.09	.0042	-27.78	.0000	258365.4	1.41	70.12	-.0000	180.25	.0108	-27.31	349.58
RISE	11	2111.44	2122.69	29	1	38.0	292.14	.0042	-28.11	-.0000	276286.7	1.05	.00	.0028	125.21	.0024	-27.24	309.88
SET	51	2155.46	2166.71	29	2	22.0	90.00	.0041	-26.72	.0000	278619.9	1.72	11.26	-.0034	245.61	-.0014	-27.22	299.00
SET	61	2177.01	2188.26	29	2	43.6	60.06	.0042	-28.16	.0000	281599.3	1.61	-.00	-.0025	231.81	.0027	-27.21	293.68
SET	72	2341.45	2352.70	29	5	28.0	94.05	.0041	-26.95	.0000	294603.5	1.70	-.00	-.0036	242.77	-.0005	-27.14	253.00
RISE	42	2341.93	2353.18	29	5	28.5	255.00	.0041	-26.39	-.0000	294214.8	.97	3.83	.0029	119.86	-.0022	-27.14	252.88
EXTM	11	2382.06	2393.31	29	6	8.6	.21	.0042	-28.22	.0000	294910.3	1.29	26.58	-.0000	180.20	.0041	-27.12	242.95
SET	11	2652.50	2663.75	29	10	39.1	68.19	.0042	-27.76	.0000	318057.8	1.53	.00	-.0028	235.24	.0024	-27.01	175.94
EXTM	42	2761.16	2772.41	29	12	27.7	360.00	.0042	-26.81	.0000	319688.5	1.20	81.59	-.0000	.13	-.0039	-26.97	148.98
RISE	51	2891.69	2902.94	29	14	38.3	270.00	.0041	-26.50	-.0000	333953.7	.80	11.17	.0034	114.19	-.0015	-26.92	116.59
RISE	72	3044.78	3056.03	29	17	11.4	265.99	.0042	-26.71	-.0000	345901.2	.71	-.00	.0037	116.99	-.0005	-26.87	78.51
RISE	61	3124.26	3135.51	29	18	30.8	296.27	.0042	-27.61	-.0000	351219.0	.83	.00	.0025	127.38	.0027	-26.85	58.69
SET	42	3179.56	3190.81	29	19	26.1	105.00	.0041	-26.21	.0000	354486.7	1.44	3.73	-.0030	240.28	-.0023	-26.83	44.89
EXTM	51	3244.95	3256.20	29	20	31.5	359.10	.0042	-26.84	.0000	352920.0	1.10	88.64	.0023	143.79	.1273	-26.82	28.57
EXTM	61	3376.91	3388.16	29	22	43.5	.13	.0042	-27.70	.0000	365574.3	1.10	22.06	-.0000	180.12	.0040	-26.78	355.62
EXTM	72	3416.99	3428.24	29	23	23.6	.06	.0042	-27.10	.0000	364633.3	1.11	70.80	-.0000	180.18	.0110	-26.78	349.61
RISE	11	3555.76	3567.01	30	1	42.3	291.43	.0042	-27.37	-.0000	379857.8	.82	.00	.0028	124.24	.0024	-26.74	310.91
SET	51	3604.72	3615.97	30	2	31.3	90.00	.0042	-26.36	.0000	381969.1	1.53	11.12	-.0034	245.94	-.0015	-26.73	298.65
SET	61	3629.17	3640.42	30	2	55.7	63.96	.0042	-27.42	.0000	384895.8	1.45	-.00	-.0025	232.90	.0027	-26.73	292.52
IMPACT		3749.89	3761.14	30	4	56.5												
IMPC	42	3749.89	3761.14	30	4	56.5	246.15	.0043	-26.09	-.0000	394822.2	1.73	-2.46	.0029	124.70	-.0025	-26.70	262.06
IMPC	72	3749.89	3761.14	30	4	56.5	84.64	.0043	-26.63	.0000	393628.3	2.47	8.30	-.0038	244.08	-.0003	-26.70	262.06
IMPC	11	3749.89	3761.14	30	4	56.5	340.82	.0044	-27.51	-.0000	391892.6	1.93	24.72	.0011	161.29	.0041	-26.70	262.06

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	27	14	26.575	6567.176	25.8664	307.6810	10.97406	-3.3277	102.1390	109.1456
SEPARATION		1.20	12.45	27	14	27.775	6544.682	24.2228	314.8043	10.99281	.1023	105.2859	116.5697
RETRO		3.20	14.45	27	14	29.775	6612.425	20.7508	326.1383	10.93591	5.7868	109.8284	128.4052
IMPACT		3749.89	3761.14	30	4	56.463	3945.99.668	-26.7047	262.0595	2.20578	68.2657	270.8639	283.5582

SURVEYOR VIEW PERIODS

GHA 307.1846 EPS -24.7482 LOM 256.4455
SX .209931 SY -.868358 SZ -.449315 DAO -26.69974 RAO 283.59085 RM 395904.980 LAT 28.310600 LON 279.461800
C3 -.967025 ECC .984122 SLR 12985.423 RCA 6544.6650 LTA -20.0000 GTA 20.00 TB 675.00000 POL -.0
NSX .229979 NSY -.963642 NSZ -.448589 C3M 1.4970 VIM 2.6714 ZAE 140.823 B.T .0000 B.R -.0000
LATE 5.0522 LONE 4.8863 LATS 1.5224 LONS 29.3633 LTI .2061 LONI 325.9561 RSM 152.2244 TTAN 6.4548
LAUNCH DATE JUL 27.1966 BASE AZM 90.0 TF 62.506 ARRIVAL DATE JUL 30 1966 5 18 58.2

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
90.00	14 39 44.2	27.9	24.64	307.65	-1.34	115.23	104.40	14 50 59.2	6545.6	10.99	-.67

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PRDRE	IN SUNLIGHT										
INJECTION		.00	11.25	27	14	51.0												
SEPARATION		1.20	12.45	27	14	52.2												
RETRO		3.20	14.45	27	14	54.2												
RISE	72	5.47	16.72	27	14	56.5	71.42	-.3716	66.46	.0861	2828.7	-5.70	.00	.1097	337.75	.1319	14.24	336.56
RISE	61	8.70	19.95	27	14	59.7	17.11	-.1773	-48.48	-.0063	4158.2	4.68	.00	.0203	191.25	.1159	7.57	349.57
RISE	51	11.48	22.73	27	15	2.5	69.52	-.1113	35.97	-.0275	5318.3	-3.13	-.00	.0908	310.69	.0251	2.45	358.60
EXTM	72	12.16	23.41	27	15	3.1	310.89	-.0602	20.46	-.1188	3070.0	5.87	34.02	.0000	58.70	.1586	1.33	.52
EXTM	61	13.82	25.07	27	15	4.8	340.39	-.0738	-45.56	.0137	6033.6	6.89	2.42	-.0000	166.40	-.0535	-1.24	4.86
SET	61	25.69	36.94	27	15	16.7	314.21	-.0182	-39.49	.0046	11002.2	6.73	-.0.	-.0038	146.42	-.0143	-13.10	25.19
EXTM	51	36.15	47.40	27	15	27.1	349.03	-.0160	-13.22	-.0121	9890.1	5.38	73.78	-.0000	41.54	.0706	-18.19	34.56
EXTM	72	64.73	75.98	27	15	55.7	284.83	-.0000	-24.41	-.0017	22182.6	4.92	16.72	.0000	113.20	.0018	-23.91	45.20
EXTM	51	82.13	93.38	27	16	13.1	335.49	-.0002	-24.84	-.0014	23602.6	4.49	67.85	.0000	93.00	.0038	-25.36	47.08
RISE	61	136.57	147.82	27	17	7.6	304.87	.0024	-34.04	.0002	42625.4	3.73	-.00	.0014	137.17	.0014	-27.27	44.90
EXTM	51	247.81	259.06	27	18	58.8	359.96	.0035	-28.43	-.0000	59770.0	3.15	87.31	.0000	179.13	.0597	-28.17	27.72
EXTM	61	414.00	425.25	27	21	45.0	2.46	.0039	-31.98	.0001	92489.2	2.63	17.75	.0000	182.19	.0035	-28.31	353.44
EXTM	72	450.29	461.54	27	22	21.3	.28	.0040	-29.64	.0000	94296.4	2.54	68.26	.0000	180.65	.0094	-28.29	345.41
RISE	11	620.82	632.07	28	1	11.8	294.20	.0040	-30.15	-.0000	124544.5	1.97	.00	.0026	127.94	.0023	-28.18	306.47
SET	51	646.02	657.27	28	1	37.0	90.00	.0038	-27.08	.0001	126680.4	2.57	11.40	-.0032	245.27	-.0013	-28.16	300.60
SET	61	659.46	670.71	28	1	50.4	60.41	.0039	-30.27	.0001	129723.1	2.45	-.00	-.0022	228.68	.0026	-28.15	297.46
SET	72	842.38	853.63	28	4	53.4	94.17	.0039	-27.65	.0001	152800.9	2.39	-.00	-.0035	242.06	-.0005	-28.00	254.17
RISE	42	852.02	863.27	28	5	3.0	254.99	.0040	-26.56	-.0001	153523.1	1.68	3.94	.0028	120.00	-.0021	-27.99	251.87
EXTM	11	891.36	902.61	28	5	42.3	.72	.0041	-30.05	.0000	155990.9	1.96	24.74	-.0000	180.69	.0040	-27.96	242.46
SET	11	1158.93	1170.18	28	10	9.9	66.93	.0041	-29.04	.0001	188483.0	2.06	-.00	-.0026	233.55	.0024	-27.75	177.86
EXTM	42	1277.62	1288.87	28	12	8.6	.00	.0042	-27.43	.0000	194589.8	1.70	82.21	-.0000	359.88	-.0023	-27.67	148.98
RISE	51	1412.81	1424.06	28	14	23.8	270.00	.0041	-26.94	-.0000	213017.2	1.26	11.34	.0034	114.60	-.0014	-27.59	115.96
RISE	72	1567.70	1578.95	28	16	58.7	265.89	.0041	-27.26	-.0000	229035.0	1.15	-.01	.0036	117.54	-.0005	-27.49	78.00
RISE	61	1652.74	1663.99	28	18	23.7	297.46	.0041	-28.58	-.0000	236872.8	1.25	.00	.0025	128.81	.0027	-27.45	57.12
SET	42	1700.71	1711.96	28	19	11.7	105.00	.0041	-26.50	.0000	240784.0	1.82	3.90	-.0029	240.0	-.0022	-27.42	45.32
EXTM	51	1766.72	1777.97	28	20	17.7	358.57	.0042	-27.43	.0000	240818.4	1.47	87.88	.0023	143.10	.0800	-27.38	29.08
EXTM	61	1903.20	1914.45	28	22	34.2	.30	.0042	-28.63	.0000	256695.7	1.43	21.13	.0000	180.28	.0039	-27.31	355.46
EXTM	72	1943.25	1954.50	28	23	14.2	.09	.0042	-27.77	.0000	256463.0	1.41	70.14	-.0000	180.25	.0108	-27.29	345.58
RISE	11	2087.84	2099.09	29	1	38.8	292.13	.0042	-28.10	-.0000	274449.9	1.06	.00	.0028	125.20	.0024	-27.23	309.89
SET	51	2131.84	2143.09	29	2	22.8	90.00	.0041	-26.70	.0000	276800.8	1.72	11.25	-.0034	245.62	-.0014	-27.21	299.01
SET	61	2153.44	2164.69	29	2	44.4	63.07	.0042	-28.15	.0000	279792.6	1.62	-.00	-.0025	232.82	.0027	-27.20	293.68
SET	72	2317.86	2329.11	29	5	28.8	94.05	.0041	-26.94	.0000	292858.3	1.71	-.00	-.0036	242.78	-.0005	-27.12	253.01
RISE	42	2318.40	2329.65	29	5	29.4	255.00	.0041	-26.37	-.0000	292476.3	.98	3.82	.0029	119.85	-.0022	-27.12	252.88
EXTM	11	2358.51	2369.76	29	6	9.5	.21	.0042	-28.21	.0000	293183.1	1.29	26.58	-.0000	180.20	.0041	-27.11	242.95
SET	11	2629.00	2640.25	29	10	40.0	68.20	.0042	-27.75	.0000	316427.3	1.53	.00	-.0028	235.25	.0024	-27.00	175.93
EXTM	42	2737.66	2748.91	29	12	28.6	360.00	.0042	-26.79	.0000	318093.1	1.20	81.57	-.0000	.12	-.0037	-26.96	148.98
RISE	51	2868.23	2879.48	29	14	39.2	270.00	.0041	-26.49	-.0000	332399.6	.80	11.17	.0034	114.18	-.0015	-26.91	116.58
RISE	72	3021.46	3032.71	29	17	12.4	265.99	.0042	-26.70	-.0000	344436.0	.71	-.00	.0037	116.98	-.0005	-26.86	78.50
RISE	61	3100.87	3112.12	29	18	31.9	296.26	.0042	-27.60	-.0000	349754.1	.83	.00	.0025	127.37	.0027	-26.84	58.69
SET	42	3156.16	3167.41	29	19	27.2	105.00	.0041	-26.20	.0000	353024.5	1.44	3.72	-.0030	240.29	-.0023	-26.82	44.89
EXTM	51	3221.61	3232.86	29	20	32.6	359.11	.0042	-26.83	.0000	351462.2	1.10	88.65	.0022	144.00	.1292	-26.81	28.56
EXTM	61	3353.48	3364.73	29	22	44.5	.13	.0042	-27.70	.0000	364104.3	1.10	22.06	-.0000	180.12	.0040	-26.78	355.63
EXTM	72	3393.57	3404.82	29	23	24.6	.06	.0042	-27.09	.0000	363156.9	1.10	70.81	-.0000	180.18	.0109	-26.77	345.61
RISE	11	3532.34	3543.59	30	1	43.3	291.42	.0042	-27.37	-.0000	378340.8	.81	.00	.0028	124.24	.0024	-26.74	310.91
SET	51	3581.29	3592.54	30	2	32.3	90.00	.0042	-26.36	.0000	380417.4	1.51	11.12	-.0034	245.95	-.0015	-26.73	298.65
SET	61	3605.76	3617.01	30	2	56.7	63.97	.0042	-27.42	.0000	383319.7	1.43	-.00	-.0025	232.90	.0027	-26.72	292.92
IMPACT		3750.39	3761.64	30	5	21.4												
IMPC	42	3750.39	3761.64	30	5	21.4	252.12	.0043	-26.12	-.0000	394424.8	1.71	1.65	.0030	121.25	-.0024	-26.70	256.05
IMPC	72	3750.39	3761.64	30	5	21.4	90.65	.0043	-26.58	.0000	394278.9	2.47	2.95	-.0038	243.96	-.0005	-26.70	256.05
IMPC	11	3750.39	3761.64	30	5	21.4	346.91	.0044	-27.51	-.0000	391816.9	1.96	26.07	.0008	167.08	.0042	-26.70	256.05

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION		.00	11.25	27	14	50.986	6545.561	24.6430	307.6498	10.99219	-.6665	104.3974	115.2333
SEPARATION		1.20	12.45	27	14	52.186	6560.025	22.7511	314.6112	10.97988	2.7624	107.3280	122.4961
RETRO		3.20	14.45	27	14	54.186	6687.583	18.9880	329.5308	10.87381	8.3722	111.4026	133.9170
IMPACT		3750.39	3761.64	30	5	21.376	394659.137	-26.6963	256.0522	2.20350	67.9077	270.5718	283.8080

JUL 27, 1966
90 DEGREES

SURVEYOR VIEW PERIODS

GHA	307.1844				EPS -24.5637							LUM	250.7539
SX	.213404	SY	-.867573	SZ	-.449194	DAO	-26.49199	RAO	283.81916	RM	395956.625	LAT	28.310600	LON	279.461800
C3	-.967417	ECC	.9M4116	SLR	12985.380	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	6[illegible].00000	POL	-.0
NSX	.233438	NSY	-.862792	NSZ	-.449838	C3M	1.4967	VIM	2.6713	ZAE	140.812	B.T	.0000	B.R	-.0000
LATE	5.0472	LONE	4.8752	LATS	1.5226	LONS	29.1638	LATI	.1752	LONI	325.9396	RSM	152.2247	TTAN	6.4503
LAUNCH DATE		JUL	27.1966		BASE AZM		93.0		TF	62.528		ARRIVAL DATE		JUL 30 1966	5 42 35.1

LNCH AZMTH	LNCH TIME			INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME		INJ RAD	INJ VEL	INJ PTH
93.00	14 5H 48.5			23.45	307.43	2.79	119.79	106.57	15 10	3.5	6548.5	10.99	1.38

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEL	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
					PROBE IN SUNLIGHT												
INJECTION	.00	11.25	27	15	10.1												
SEPARATION	1.20	12.45	27	15	11.3												
RETRO	3.20	14.45	27	15	13.3												
RISE 72	5.01	16.26	27	15	15.1	76.71	-.2700	58.88	.0688	2929.6	-6.35	-.00	.1162	329.80	.1034	13.44	333.21
RISE 61	8.84	20.09	27	15	18.9	20.23	-.1582	-47.95	-.0078	4517.7	4.70	.00	.0204	193.39	-.1042	5.58	348.01
RISE 51	11.33	22.58	27	15	21.4	72.45	-.1004	32.02	-.0297	5549.8	-2.87	.00	.0883	306.06	.0181	7.18	355.62
EXTM 72	11.79	23.04	27	15	21.8	321.52	-.0824	19.36	-.1238	2841.0	5.55	43.31	-.0000	53.79	.2009	.43	356.88
EXTM 61	15.21	26.46	27	15	25.3	341.22	-.0601	-45.23	.0107	6846.1	6.8[illegible]	2.89	-.0000	166.88	-.0437	-4.46	5.10
SET 61	34.04	45.29	27	15	44.1	312.85	-.0102	-38.79	.0026	14308.3	6.13	-.00	-.0022	145.15	-.0080	-18.04	29.05
EXTM 51	39.44	50.69	27	15	49.5	352.56	-.0133	-16.40	-.0090	11094.7	5.28	78.37	-.0000	38.03	.0776	-19.84	32.52
EXTM 72	66.05	77.30	27	16	16.1	289.67	.0000	-25.46	-.0015	22359.9	4.87	21.10	.0000	114.31	.0016	-24.43	41.08
EXTM 51	84.97	96.22	27	16	35.0	340.98	-.0001	-25.03	-.0012	24406.5	4.43	72.88	.0000	93.79	.0041	-25.86	42.80
RISE 61	108.53	119.78	27	16	58.6	306.26	.0017	-34.95	.0003	36027.2	4.00	-.00	.0011	138.63	.0009	-26.85	42.59
EXTM 51	222.89	234.14	27	18	53.0	359.94	.0033	-28.55	-.0001	55121.2	3.26	87.18	.0000	178.87	.0562	-28.26	27.74
EXTM 61	394.37	405.62	27	21	44.4	2.72	.0038	-32.23	.0001	89509.3	2.67	17.48	.0000	182.41	.0034	-28.44	353.19
EXTM 72	430.02	441.27	27	22	20.1	.31	.0040	-29.82	.0001	91293.8	2.59	68.08	.0000	180.73	.0092	-28.42	345.38
RISE 11	602.18	613.43	28	1	12.2	294.35	.0040	-30.30	-.0000	122099.7	2.00	.00	.0026	128.14	.0023	-28.28	306.27
SET 51	626.31	637.56	28	1	36.4	90.00	.0039	-27.17	-.0001	126125.5	2.59	11.44	-.0032	245.19	-.0013	-28.26	300.66
SET 61	639.03	650.28	28	1	49.1	60.21	.0039	-30.42	-.0001	127895.7	2.47	-.00	-.0022	228.45	.0026	-28.25	297.70
SET 72	823.25	834.50	28	4	54.3	94.19	.0039	-27.73	-.0001	150571.3	2.41	-.00	-.0034	241.98	-.0005	-28.08	254.20
RISE 42	833.15	844.40	28	5	4.2	254.99	.0040	-28.42	-.0001	151330.3	1.70	3.98	.0028	120.05	-.0021	-28.07	251.84
EXTM 11	872.58	883.83	28	5	42.6	.77	.0041	-30.16	.0000	153864.2	1.98	24.53	-.0000	180.73	.0039	-28.04	242.41
SET 11	1139.83	1151.08	28	10	9.9	64.86	.0042	-29.12	.0001	186526.1	2.07	-.00	-.0026	233.45	.0024	-27.82	177.96
EXTM 42	1258.95	1270.20	28	12	9.0	359.99	.0042	-27.48	.0000	192754.4	1.71	82.26	-.0000	.13	-.0095	-27.73	148.99
RISE 51	1394.30	1405.55	28	14	24.4	270.00	.0042	-26.98	-.0000	211271.0	1.27	11.36	.0034	114.64	-.0014	-27.64	115.94
RISE 72	1549.21	1560.46	28	16	59.3	265.89	.0041	-27.30	-.0000	227368.1	1.16	-.01	.0036	117.58	-.0005	-27.54	78.00
RISE 61	1634.51	1645.76	28	18	24.6	297.52	.0041	-28.43	-.0000	235268.4	1.25	.00	.0025	128.88	.0027	-27.49	57.05
SET 42	1682.19	1693.44	28	19	12.2	105.00	.0041	-26.53	.0000	239170.1	1.83	3.92	-.0039	240.02	-.0022	-27.46	45.33
EXTM 51	1748.19	1759.44	28	20	14.2	358.55	.0042	-27.46	.0000	239232.9	1.47	87.84	.0023	143.38	.0788	-27.42	29.10
EXTM 61	1884.81	1896.06	28	22	34.9	.31	.0042	-28.67	.0000	255177.2	1.43	21.09	-.0020	180.29	.0039	-27.33	355.44
EXTM 72	1924.83	1936.08	28	23	14.9	.10	.	-27.80	.0000	254953.6	1.42	70.10	-.0000	180.26	.0108	-27.32	345.58
RISE 11	2069.58	2080.83	29	1	39.6	292.16	.	28.13	-.0000	272999.8	1.07	.00	.0028	125.24	.0024	-27.25	309.85
SET 51	2113.41	2124.66	29	2	23.5	90.00	.0041	-26.72	.0000	275349.5	1.73	11.26	-.0034	245.60	-.0014	-27.23	299.02
SET 61	2134.87	2146.12	29	2	44.9	63.64	.0042	-28.18	.0000	278338.0	1.63	-.00	-.0025	231.78	.0027	-27.22	293.72
SET 72	2299.46	2310.71	29	5	29.5	94.05	.0041	-26.96	.0000	291465.5	1.71	-.00	-.0036	242.76	-.0005	-27.14	253.01
RISE 42	2300.04	2311.29	29	5	30.1	255.00	.0041	-26.18	-.0000	291085.4	.98	3.82	.0029	119.86	-.0022	-27.14	252.87
EXTM 11	2340.16	2351.41	29	6	10.2	.21	.0042	-28.23	.0000	291807.8	1.30	26.58	-.0000	180.21	.0041	-27.13	242.94
SET 11	2410.57	2421.82	29	10	40.6	68.18	.0042	-27.77	.0000	315111.7	1.54	-.00	-.0028	235.23	.0024	-27.01	175.95
EXTM 42	2719.32	2730.57	29	12	29.4	360.00	.0042	-25.83	.0000	316808.9	1.20	81.[illegible]	-.0000	.12	-.0043	-26.97	148.98
RISE 51	2849.91	2861.16	29	14	40.0	270.00	.0041	-26.50	-.0000	331145.5	.81	[illegible]	.0034	114.19	-.0015	-26.92	116.58
RISE 72	3003.14	3014.39	29	17	13.2	265.99	.0042	-26.71	-.0000	343216.5	.73	[illegible]	.0037	116.98	-.0005	-26.87	78.50
RISE 61	3082.59	3093.84	29	18	32.6	296.27	.0042	-27.41	-.0000	348540.6	.88	.00	.0025	127.38	.0027	-26.84	58.68
SET 42	3137.82	3149.07	29	19	27.9	105.00	.0041	-26.20	.0000	351808.8	1.44	3.72	-.0030	240.29	-.0023	-26.83	44.90
EXTM 51	3203.26	3214.51	29	20	33.3	359.11	.0042	-26.[illegible]	.0000	350248.1	1.10	[illegible].65	.0022	143.97	.1287	-26.81	28.56
EXTM 61	3335.17	3346.42	29	22	45.2	.13	.0042	-27.70	.0000	362890.1	1.10	22.06	-.0000	180.13	.0040	-26.78	355.62
EXTM 72	3375.25	3386.50	29	23	25.3	.06	.0042	-27.10	.0000	361940.8	1.10	70.81	-.0000	180.18	.0110	-26.77	345.61
RISE 11	3514.05	3525.30	30	1	44.1	291.42	.0042	-27.37	-.0000	377097.8	.80	.00	.0028	124.24	.0024	-26.74	310.90
SET 51	3562.99	3574.24	30	2	33.0	90.00	.0042	-26.16	.0000	379151.9	1.50	11.11	-.0034	245.95	-.0015	-26.73	298.65
SET 61	3587.47	3598.72	30	2	57.5	63.96	.0042	-27.42	.0000	382038.8	1.42	-.00	-.0025	232.90	.0027	-26.72	292.52
RISE 42	3743.82	3755.07	30	5	33.9	255.00	.0042	-26.13	-.0000	393387.1	1.26	3.58	.0030	119.66	-.0033	-26.69	253.16
SET 72	3745.56	3756.81	30	5	35.6	93.98	.0043	-26.55	.0000	393973.3	2.27	.00	-.0038	243.17	-.0006	-26.69	252.72
IMPACT	3751.66	3762.91	30	5	41.7												
IMPC 42	3751.66	3762.91	30	5	41.7	257.01	.0043	-26.14	-.0000	394085.9	1.70	5.12	.0031	118.57	-.0029	-26.69	251.15
IMPC 72	3751.66	3762.91	30	5	41.7	95.54	.0043	-26.54	.0000	394807.5	2.46	-1.38	-.0038	242.96	-.0006	-26.69	251.15
IMPC 11	3751.66	3762.91	30	5	41.7	351.88	.0044	-27.51	.0000	391789.4	1.99	26.82	.0005	171.93	.0043	-26.69	251.15

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	27	15	10.058	6548.513	23.4490	307.4270	10.98968	1.3820	106.5747	119.7919
SEPARATION	1.20	12.45	27	15	11.258	6591.121	21.3276	314.2095	10.95372	4.7966	109.2761	126.8753
RETRO	3.20	14.45	27	15	13.258	6763.320	17.3072	324.7112	10.81224	10.3164	112.9281	137.8784
IMPACT	3751.66	3762.91	30	5	41.714	394705.051	-26.6896	251.1505	2.20237	67.8180	270.6051	283.9968

SURVEYOR VIEW PERIODS

GHA	307.1846				EPS -24.4348							LOM	246.7740
SX	.215831	SY	-.867018	SZ	-.449106	DAO	-26.68436	RAO	283.97876	RM	395992.672	LAT	28.310600	LON	279.401800
CS	-.96[illegible]70	ECC	.984113	SLR	12985.361	RCA	6544.6656	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.235854	NSY	-.862188	NSZ	-.448335	CSM	1.4975	VIM	2.6715	ZAE	140.788	B.T	.0000	B.R	-.0030
LATE	5.0777	LONE	4.8668	LATS	1.5228	LONS	29.0239	LATI	.0006	LONI	325.9294	RSM	152.2249	TTAN	6.4475
LAUNCH DATE	JUL 27,1966			BASE AZM	96.0		TF 62.541					ARRIVAL DATE	JUL 30 1966 5 59 5.9		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
96.00	15 12 55.1	28.1	22.2M	307.08	5.80	122.98	108.71	15 24 10.1	6561.3	10,98	2.88

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	27	15	24.2												
SEPARATION	1.20	12.45	27	15	25.4												
RETRO	3.20	14.45	27	15	27.4												
RISE 72	4.69	15.94	27	15	28.9	79.53	-.2227	52.62	.0499	3009.8	-6.77	.00	.1204	323.34	.0792	12.40	330.55
RISE 61	9.54	20.79	27	15	33.7	18.42	-.1354	-48.27	-.0047	5028.1	5.07	.00	.0172	192.14	-.0886	2.56	348.25
RISE 51	11.22	22.47	27	15	35.4	74.92	-.0924	28.36	-.0319	5726.6	-2.67	-.00	.0864	301.83	.0124	-.32	353.09
EXTM 72	11.51	22.76	27	15	35.7	331.23	-.1031	16.51	-.1245	2669.6	5.25	52.50	-.0000	49.30	.2610	-.79	353.86
EXTM 61	16.71	27.96	27	15	40.9	341.58	-.0501	-45.53	.0087	7691.6	6.70	2.66	-.0000	137.20	-.0362	-7.73	5.44
SET 61	41.57	52.82	27	16	5.7	313.37	-.0065	-39.06	.0019	17072.9	5.70	-.00	-.0012	145.64	-.0053	-21.38	30.36
EXTM 51	42.35	53.60	27	16	6.5	355.41	-.0115	-19.37	-.0070	12125.8	5.20	82.35	-.0000	34.52	.0972	-21.58	30.74
EXTM 72	67.63	78.88	27	16	31.8	293.43	.0001	-26.85	-.0013	22662.4	4.82	24.42	.0000	115.96	.0014	-25.35	37.94
RISE 61	87.75	99.00	27	16	51.9	308.45	.0007	-36.32	.0005	30778.2	4.38	-.00	.0008	140.88	.0001	-26.68	39.50
EXTM 51	203.21	214.46	27	18	47.4	359.93	.0031	-28.98	-.0001	51317.9	3.36	86.76	.0000	178.81	.0468	-28.62	27.75
EXTM 61	380.47	391.72	27	21	44.6	3.10	.0038	-32.65	.0001	87393.7	2.71	17.05	.0000	182.73	.0034	-28.75	352.85
EXTM 72	415.10	426.35	27	22	19.3	.39	.0040	-30.18	.0001	89059.7	2.62	67.72	.0000	180.88	.0090	-28.72	345.31
RISE 11	589.13	600.38	28	1	13.3	294.65	.0040	-30.58	-.0000	120375.2	2.02	.00	.0025	128.51	.0023	-28.53	305.94
SET 51	611.67	622.92	28	1	35.8	90.00	.0038	-27.40	.0001	122[illegible].6	2.61	11.53	-.0031	244.98	-.0013	-28.50	300.72
SET 61	622.92	634.17	28	1	47.1	59.84	.0039	-30.70	.0001	124995.3	2.49	-.00	-.0021	228 03	.0026	-28.49	298.10
SET 72	809.17	820.42	28	4	53.3	94.22	.0039	-27.92	.0001	148918.7	2.42	-.00	-.0034	241.79	-.0004	-28.28	254.20
RISE 42	819.20	830.45	28	5	3.4	254.99	.0040	-26.80	-.0001	149638.5	1.72	4.08	.0028	120.19	-.0021	-28.27	251.81
EXTM 11	858.86	870.11	28	5	43.0	.84	.0041	-30.37	.0000	152311.8	1.99	24.42	-.0000	180.80	.0039	-28.22	242.34
SET 11	1125.28	1136.53	28	10	9.5	66.70	.0041	-29.28	.0001	185025.5	2.08	-.00	-.0026	233.24	.0024	-27.96	178.13
EXTM 42	1245.01	1256.26	28	12	9.2	359.95	.0042	-27.62	.0000	191375.4	1.71	82.40	.0000	.33	-.0260	-27.66	149.03
RISE 51	1380.61	1391.86	28	14	24.8	270.00	.0041	-27.09	-.0000	209971.1	1.28	11.40	.0034	114.74	-.0014	-27.75	115.93
RISE 72	1535.48	1546.73	28	16	59.7	265.87	.0041	-27.40	-.0000	226120.3	1.17	-.01	.0036	117.69	-.0005	-27.64	78.00
RISE 61	1621.36	1632.61	28	18	25.5	297.64	.0041	-28.73	-.0000	234107.8	1.26	.00	.0024	129.03	.0027	-27.58	56.92
SET 42	1668.48	1679.73	28	19	12.7	105.00	.0041	-26.62	.0000	237967.7	1.83	3.98	-.0029	239.95	-.0022	-27.55	45.34
EXTM 51	1734.43	1745.68	28	20	18.6	358.53	.0042	-27.55	.0000	238052.8	1.48	87.76	.0022	144.33	.0768	-27.51	29.12
EXTM 61	1871.26	1882.51	28	22	35.4	.34	.0042	-28.75	.0000	254061.2	1.44	21.01	.0000	180.32	.0039	-27.42	359.42
EXTM 72	1911.21	1922.46	28	23	15.4	.10	.0042	-27.88	.0000	253837.2	1.42	70.03	-.0000	180.27	.0107	-27.40	345.57
RISE 11	2056.24	2067.49	29	1	40.4	292.23	.0042	-28.70	-.0000	271939.3	1.07	.00	.0026	125.33	.0024	-27.32	309.78
SET 51	2099.76	2111.01	29	2	23.9	90.00	.0041	-26.78	.0000	274271.3	1.73	11.28	-.0034	245.55	-.0014	-27.29	299.03
SET 61	2120.92	2132.17	29	2	45.1	62.96	.0042	-28.25	.0000	277242.1	1.63	-.00	-.0025	231.68	.0027	-27.28	293.80
SET 72	2285.87	2297.12	29	5	30.0	94.06	.0041	-27.01	.0000	290435.0	1.71	-.00	-.0036	242.71	-.0005	-27.20	253.04
RISE 42	2286.45	2297.70	29	5	30.6	255.00	.0041	-26.43	-.0000	290052.1	.99	3.86	.0029	119.90	-.0022	-27.20	252.87
EXTM 11	2326.62	2337.87	29	6	10.8	.23	.0042	-29.29	.0000	290795.0	1.30	26.50	-.0000	180.23	.0041	-27.18	242.93
SET 11	2596.81	2608.06	29	10	41.0	68.15	.0042	-27.81	.0000	314129.7	1.54	.00	-.0028	235.18	.0024	-27.05	175.99
EXTM 42	2705.72	2716.97	29	12	29.9	360.00	.0042	-26.84	.0000	315857.3	1.21	81.62	-.0000	.13	-.0052	-27.00	148.98
RISE 51	2836.34	2847.59	29	14	40.5	270.00	.0041	-26.52	-.0000	330216.3	.81	11.18	.0034	114.21	-.0015	-26.95	116.57
RISE 72	2989.71	3000.96	29	17	13.9	265.99	.0042	-26.72	-.0000	342365.4	.72	.00	.0037	117.00	-.0005	-26.88	78.50
RISE 61	3069.22	3080.47	29	18	33.4	296.29	.0042	-27.63	-.0000	347695.3	.84	.00	.0025	127.41	.0027	-26.86	58.67
SET 42	3124.34	3135.59	29	19	28.5	105.00	.0041	-26.71	.0000	350955.6	1.44	3.73	-.0030	240.28	-.0023	-26.84	44.90
EXTM 51	3149.71	3200.96	29	20	33.9	359.09	.0042	-26.84	.0000	349390.3	1.10	88.63	.0023	143.70	.1263	-26.82	28.58
EXTM 61	3311.70	3322.95	29	22	45.9	.14	.0042	-27.72	.0000	362034.3	1.10	22.05	-.0000	180.13	.0046	-26.79	355.61
EXTM 72	3361.76	3373.01	29	23	25.9	.07	.0042	-27.10	.0000	361079.5	1.10	70.80	-.0000	180.19	.0109	-26.78	349.61
RISE 11	3500.57	3511.82	30	1	44.7	291.43	.0042	-27.37	-.0000	376215.4	.80	.00	.0028	124.24	.0024	-26.74	318.90
SET 51	3549.47	3560.72	30	2	33.6	90.00	.0042	-26.36	.0000	378251.5	1.50	11.12	-.0034	245.95	-.0015	-26.71	298.66
SET 61	3573.93	3585.18	30	2	58.1	63.96	.0042	-27.42	.0000	381126.8	1.41	-.00	-.0025	232.89	.0027	-26.72	292.53
RISE 42	3736.52	3741.77	30	5	34.7	255.00	.0042	-26.12	-.0000	392114.7	1.13	3.67	.0030	119.55	-.0023	-26.69	253.16
SET 72	3732.22	3743.47	30	5	36.4	93.97	.0042	-26.55	.0000	391371.9	1.90	.00	-.0037	243.18	-.0005	-26.69	252.73
IMPACT	3752.44	3763.69	30	5	56.6												
IMPC 42	3752.44	3763.69	30	5	56.6	260.98	.0043	-26.15	-.0000	393835.3	1.69	7.71	.0032	116.67	-.0022	-26.68	247.56
IMPC 72	3752.44	3763.69	30	5	56.6	99.12	.0043	-26.51	.0000	395194.8	2.45	-4.54	.0038	242.41	-.0007	-26.68	247.56
IMPC 11	3752.44	3763.69	30	5	56.6	355.52	.0044	-27.51	.0000	391793.3	2.01	27.14	.0003	175.54	.0044	-26.68	247.56

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION	.00	11.25	27	15	24.168	6561.450	22.2800	307.0891	10.97882	2.8775	108.7093	122.9913
SEPARATION	1.20	12.45	27	15	25.368	6624.267	19.9478	313.6671	10.9[illegible]605	6.2483	111.1904	129.8781
RETRO	3.20	14.45	27	15	27.368	6828.071	15.6810	323.7838	10.76042	11.7874	114.4496	140.4882
IMPACT	3752.44	3763.69	30	5	56.605	394741.137	-26.6847	247.5622	2.20064	67.6802	270.8480	284.1414

SURVEYOR VIEW PERIODS

GHA	307.1846					EPS	-24.3294							LCM	243.5178
SX	.217815	SY	-.866560	SZ	-.449032	DAO	-26.68162	RAO	284.10931	RM	396022.137	LAT	28.310600	LON	279.461800
C3	-.969845	ECC	.9840/6	SLR	12985.115	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.237851	NSY	-.861682	NSZ	-.448253	C3M	1.4970	VIM	2.6714	ZAE	140.716	B.T	.0000	B.R	-.0000
LATE	5.0842	LONE	4.9837	LATS	1.5229	LONS	29.0341	LATI	-.2246	LONI	326.0095	RSM	152.2250	TTAN	6.4462
LAUNCH DATE		JUL 27,1966		BASE AZM	99.0		TF 62.584					ARRIVAL DATE		JUL 31 1966	6 12 36.5

LNCH AZMTH	LNCH TIME	PH	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99.00	15 23 12.9	28.1	21.14	306.45	7.97	125.13	110.01	15 34 27.9	6576.1	10.97	3.95

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	27	15	34.5												
SEPARATION		1.20	12.45	27	15	35.7												
RETRO		3.20	14.45	27	15	37.7												
RISE	72	4.46	15.71	27	15	38.9	81.38	-.1947	47.19	.0318	3070.4	-7.04	-.00	.1231	317.78	.0579	11.20	328.39
RISE	51	11.16	22.41	27	15	45.6	77.07	-.0062	24.89	-.0341	5856.3	-2.51	.00	.0850	297.86	.0074	-2.00	350.92
RISE	61	10.94	22.19	27	15	45.4	12.44	-.1089	-49.09	.0002	5768.9	5.61	.00	.0120	188.11	-.0703	-1.63	350.31
EXTM	72	11.32	22.57	27	15	45.8	339.86	-.1205	12 15	-.1217	2544.2	5.04	61.67	-.0000	45.17	.3568	-2.25	351.32
EXTM	61	18.53	29.58	27	15	52.8	341.52	-.0425	-46.30	.0073	8568.0	6.60	1.90	-.0000	167.35	-.0303	-11.05	5.90
SET	61	43.11	54.36	27	16	17.6	316.04	-.0063	-40.39	.0020	17708.1	5.59	-.00	-.0008	148.08	-.0051	-23.02	28.47
EXTM	51	44.76	56.01	27	16	19.2	357.73	-.0104	-22.21	-.0056	12965.1	5.14	85.90	-.0000	30.87	.1561	-23.37	29.22
EXTM	72	69.14	80.39	27	16	43.6	296.28	.0001	-28.46	-.0010	22991.2	4.78	26.82	.0000	117.97	.0011	-26.54	35.56
RISE	61	77.93	89.18	27	16	52.4	311.10	-.0000	-37.85	.0008	28200.1	4.56	-.01	.0006	143.48	-.0005	-27.14	36.46
EXTM	51	188.04	199.29	27	18	42.5	359.94	.0030	-29.68	-.0000	48298.4	3.45	86.06	-.0000	179.27	.0357	-29.22	27.73
EXTM	61	371.15	382.40	27	21	45.6	3.55	.0038	-33.20	.0002	85987.0	2.73	16.49	.0000	183.10	.0033	-29.22	352.42
EXTM	72	404.47	415.72	27	22	18.9	.49	.0039	-30.69	.0001	87456.8	2.64	67.21	.0000	181.10	.0087	-29.17	345.22
RISE	11	580.52	691.77	28	1	15.0	295.05	.0040	-30.97	-.0000	119225.3	2.03	.00	.0025	129.03	.0023	-28.88	305.51
SET	51	601.06	612.31	28	1	35.5	90.00	.0038	-27.74	.0001	120776.8	2.62	11.66	-.0031	244.66	-.0013	-28.85	300.76
SET	61	610.18	621.43	28	1	44.6	59.32	.0039	-31.09	.0001	123306.4	2.51	-.00	-.0021	227.44	.0026	-28.84	298.64
SET	72	799.10	810.35	28	4	53.6	94.28	.0039	-28.20	.0001	147715.0	2.43	-.01	-.0034	241.50	-.0004	-28.56	254.18
RISE	42	809.14	820.39	28	5	3.6	254.99	.0040	-27.07	-.0001	148474.0	1.73	4.25	.0028	120.40	-.0021	-28.54	251.79
EXTM	11	849.12	860.37	28	5	43.6	.94	.0041	-30.66	.0001	151204.2	2.00	24.13	-.0000	180.88	.0039	-28.49	242.25
SET	11	1114.32	1125.57	28	10	8.8	66.47	.0041	-29.50	.0001	183865.2	2.08	-.00	-.0026	232.94	.0024	-28.17	178.37
EXTM	42	1235.10	1246.35	28	12	9.6	359.96	.0042	-27.81	.0000	190363.8	1.72	82.59	.0000	.29	-.0247	-28.05	149.02
RISE	51	1370.74	1381.99	28	14	25.2	270.00	.0041	-27.26	-.0000	208995.6	1.28	11.47	.0034	114.90	-.0014	-27.92	115.92
RISE	72	1525.52	1536.77	28	16	60.0	265.84	.0041	-27.55	-.0000	225186.5	1.17	-.01	.0036	117.83	-.0005	-27.79	78.02
RISE	61	1612.21	1623.46	28	18	26.7	297.82	.0041	-28.88	-.0000	233261.0	1.26	.00	.0024	129.24	.0027	-27.72	56.74
SET	42	1658.57	1669.82	28	19	13.0	105.00	.0041	-26.75	.0000	237051.6	1.84	4.06	-.0029	239.85	-.0022	-27.68	45.35
EXTM	51	1724.49	1735.74	28	20	19.0	358.51	.0042	-27.68	.0000	237156.3	1.48	87.65	.0021	145.92	.0745	-27.63	29.13
EXTM	61	1861.52	1872.77	28	22	36.0	.37	.0042	-28.07	.0000	253217.0	1.44	20.89	.0000	180.35	.0039	-27.53	355.39
EXTM	72	1901.38	1912.63	28	23	15.8	.11	.0042	-27.99	.0000	252983.6	1.43	69.91	-.0000	180.30	.0107	-27.50	345.56
RISE	11	2046.78	2058.03	29	1	41.2	292.33	.0042	-28.30	-.0000	271133.4	1.07	.00	.0028	125.46	.0024	-27.41	309.68
SET	51	2089.88	2101.13	29	2	24.3	90.00	.0041	-26.87	.0000	273432.7	1.73	11.32	-.0034	245.46	-.0014	-27.38	299.03
SET	61	2110.58	2121.83	29	2	45.0	62.84	.0042	-28.34	.0000	276373.3	1.63	-.00	-.0024	231.55	.0027	-27.37	293.92
SET	72	2276.05	2287.30	29	5	30.5	94.07	.0041	-27.08	.0000	289628.2	1.72	-.00	-.0036	242.64	-.0005	-27.27	253.00
RISE	42	2276.61	2287.86	29	5	31.1	255.00	.0041	-26.51	-.0000	289238.9	.99	3.91	.0029	119.96	-.0022	-27.27	252.86
EXTM	11	2316.85	2328.10	29	6	11.3	.25	.0042	-28.36	.0000	290004.6	1.30	25.43	-.0000	180.25	.0041	-27.25	242.90
SET	11	2586.73	2597.98	29	10	41.2	68.09	.0042	-27.87	.0000	313335.4	1.54	.00	-.0028	235.10	.0024	-27.10	176.05
EXTM	42	2695.87	2707.12	29	12	30.3	359.99	.0042	-26.88	.0000	315088.8	1.21	81.66	-.0000	.12	-.0078	-27.05	148.99
RISE	51	2826.50	2837.75	29	14	41.0	270.00	.0041	-26.56	-.0000	329458.5	.81	11.20	.0034	114.24	-.0015	-26.99	116.57
RISE	72	2979.85	2991.10	29	17	14.3	265.99	.0042	-26.75	-.0000	3 1622.4	.72	.00	.0037	117.03	-.0005	-26.91	78.50
RISE	61	3059.52	3070.77	29	18	34.0	296.32	.0042	-27.66	-.0000	346961.8	.84	.00	.0025	127 45	.0027	-26.89	58.62
SET	42	3114.49	3125.74	29	19	29.0	105.00	.0041	-26.24	.0000	350208.8	1.44	3.74	-.0030	240.26	-.0023	-26.87	44.90
EXTM	51	3179.71	3190.96	29	20	34.2	359.05	.0042	-26.87	.0000	348634.0	1.10	88.59	.0023	143.14	.1219	-26.85	28.62
EXTM	61	3311.92	3323.17	29	22	46.4	.15	.0042	-27.73	.0000	361286.8	1.10	22.03	-.0000	180.15	.0040	-26.80	355.60
EXTM	72	3351.94	3363.19	29	23	26.4	.07	.0042	-27.12	.0000	360325.3	1.10	70.78	-.0000	180.20	.0110	-26.79	345.60
RISE	11	3490.80	3502.05	30	1	45.3	291.44	.0042	-27.38	-.0000	375444.8	.79	.00	.0028	124.26	.0024	-26.75	310.88
SET	51	3539.65	3550.90	30	2	34.1	90.00	.0042	-26.36	.0000	377465.1	1.49	11.12	-.0034	245.94	-.0015	-26.74	298.66
SET	61	3564.08	3575.33	30	2	58.5	63.95	.0042	-27.43	.0000	380330.3	1.41	-.00	-.0025	232.88	.0027	-26.73	292.54
RISE	42	3720.86	3732.11	30	5	35.3	255.00	.0042	-26.12	-.0000	391111.2	1.04	3.67	.0030	119.65	-.0023	-26.69	253.16
SET	72	3722.57	3733.82	30	5	37.0	93.98	.0042	-26.55	.0000	391659.9	1.79	-.00	-.0037	243.18	-.0005	-26.69	252.72
IMPACT		3755.06	3766.31	30	6	9.5												
IMPC	42	3755.06	3766.31	30	6	9.5	263.69	.0043	-26.17	-.0000	393613.0	1.68	10.01	.0032	115.06	-.0022	-26.68	244.45
IMPC	11	3755.06	3766.31	30	6	9.5	358.68	.0044	-27.50	.0000	391809.1	2.02	27.28	.0001	178.69	.0044	-26.68	244.45
EXTM	11	3760.39	3771.64	30	6	14.9	.10	.0045	-27.50	.0000	392552.7	2.93	27.29	.0000	180.10	.0045	-26.68	243.05

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	27	15	34.464	6576.547	21.1320	306.6762	10.96631	3.9509	110.8212	125.1595
SEPARATION		1.20	12.45	27	15	35.664	6653.511	18.5994	313.0470	10.90172	7.3188	113.0917	131.8312
RETRO		3.20	14.45	27	15	37.664	6879.478	14.0853	322.8177	10.71970	12.6927	115.9915	142.1032
IMPACT		3755.06	3766.31	30	6	9.520	394770.031	-26.6808	244.4495	2.19952	67.5540	271.3142	284.2663

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SURVEYOR VIEW PERIODS

GHA	307.1846					EPS	-24.2450							LOM	240.9102
SX	.219402	SY	-.866191	SZ	-.448972	DAO	-26.67774	RAO	284.21383	RM	396045.703	LAT	28.310600	LON	279.461800
C3	-.972825	ECC	.984027	SLR	12984.796	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.239461	NSY	-.861269	NSZ	-.448190	C3M	1.4967	VIM	2.6713	ZAE	140.615	B.T	.0000	B.P	-.0000
LATE	5.0931	LONE	4.8545	LATS	1.5231	LONS	28.8178	LATI	-.5283	LONI	325.8245	RSM	152.7351	TTAN	6.4464
LAUNCH DATE	JUL 27,1966			BASE AZM	102.0		TF 62.637					ARRIVAL DATE	JUL 30 1966		6 23 25.6

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	15 30 46.1	28.1	20.02	306.16	9.53	126.54	112.91	15 42 1.1	6589.8	10.95	4.73

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	27	15	42.0												
SEPARATION	1.20	12.45	27	15	43.2												
RETRO	3.20	14.45	27	15	45.2												
RISE 72	4.31	15.56	27	15	46.3	82.75	-.1754	42.26	.0145	3116.9	-7.21	-.00	.1249	312.76	.0384	9.89	326.57
RISE 51	11.13	22.38	27	15	53.2	79.03	-.0811	21.54	-.0365	5959.2	-2.39	-.00	.0838	294.05	.0029	-3.82	349.01
EXTM 72	11.20	22.45	27	15	53.2	347.46	-.1338	6.52	-.1161	2464.5	4.89	70.91	-.0000	41.28	.5397	-3.92	349.17
RISE 61	13.86	25.11	27	15	55.9	.69	-.0743	-49.76	.0051	7087.4	6.20	.00	.0055	180.45	-.0479	-7.81	355.41
EXTM 61	20.13	31.38	27	16	2.1	340.98	-.0363	-47.35	.0063	9504.8	6.49	.79	-.0000	167.24	-.0254	-14.46	6.60
SET 61	34.30	45.55	27	16	16.3	323.31	-.0116	-43.46	.0032	14813.5	5.93	-.00	-.0010	154.30	-.0089	-22.13	21.23
EXTM 51	46.82	58.07	27	16	28.8	359.59	-.0097	-25.00	-.0045	13670.6	5.09	89.18	.0000	27.00	.6858	-25.24	27.97
EXTM 72	70.51	81.76	27	16	52.5	298.45	.0001	-30.22	-.0007	23312.9	4.74	28.49	.0000	120.19	.0009	-27.91	33.73
RISE 61	81.49	92.74	27	17	3.5	313.29	.0001	-39.02	.0008	29254.0	4.48	-.00	.0007	145.56	-.0004	-28.54	34.73
EXTM 51	176.29	187.54	27	18	38.3	359.98	.0028	-30.62	-.0000	45905.4	3.52	85.12	.0000	179.73	.0183	-30.02	27.70
EXTM 61	365.20	376.45	27	21	47.2	4.07	.0038	-33.83	.0002	85115.9	2.75	15.84	.0000	183.51	.0033	-29.80	351.94
EXTM 72	397.03	408.28	27	22	19.1	.63	.0039	-31.30	.0001	86334.2	2.66	66.60	-.0000	181.36	.0085	-29.73	345.09
RISE 11	575.16	586.41	28	1	17.2	295.54	.0040	-31.42	-.0000	118504.5	2.04	.00	.0025	129.65	.0023	-29.32	305.01
SET 51	593.37	604.62	28	1	35.4	90.00	.0038	-28.16	.0001	119727.3	2.63	11.83	-.0031	244.26	-.0012	-29.28	300.80
SET 61	599.88	611.13	28	1	41.9	58.69	.0039	-31.55	.0001	121921.2	2.52	-.00	-.0021	226.73	.0026	-29.27	299.29
SET 72	791.93	803.18	28	4	53.9	94.34	.0039	-28.54	.0001	146846.2	2.43	-.01	-.0034	241.16	-.0004	-28.90	254.14
RISE 42	801.91	813.16	28	5	3.9	254.99	.0040	-27.40	-.0001	147578.7	1.73	4.45	.0028	120.67	-.0021	-28.89	251.77
EXTM 11	842.29	853.54	28	5	44.3	1.05	.0041	-31.00	.0001	150429.0	2.00	23.78	-.0000	180.99	.0039	-28.82	242.14
SET 11	1105.95	1117.20	28	10	8.0	66.20	.0041	-29.77	.0001	182961.6	2.09	-.00	-.0026	232.58	.0024	-28.43	178.65
EXTM 42	1227.88	1239.13	28	12	9.9	359.96	.0042	-28.05	.0000	189608.1	1.72	82.83	.0000	.34	-.0271	-28.28	149.02
RISE 51	1363.60	1374.85	28	14	25.6	270.00	.0041	-27.46	-.0000	208267.3	1.28	11.55	.0034	115.09	-.0014	-28.13	115.91
RISE 72	1518.26	1529.51	28	17	.3	265.81	.0041	-27.73	-.0000	224479.2	1.17	-.01	.0036	118.02	-.0005	-27.97	78.04
RISE 61	1605.93	1617.18	28	18	27.9	298.03	.0041	-29.05	-.0000	232656.0	1.27	.00	.0024	129.50	.0027	-27.88	56.52
SET 42	1651.39	1662.64	28	19	13.4	105.00	.0041	-26.91	.0000	236358.1	1.84	4.15	-.0029	239.72	-.0022	-27.84	45.35
EXTM 51	1723.24	1734.49	28	20	25.3	.00	.0042	-27.83	.0000	237010.4	1.49	87.91	.0000	180.43	.0188	-27.78	27.68
EXTM 61	1854.53	1865.78	28	22	36.6	.41	.0042	-29.01	.0000	252588.2	1.44	20.75	-.0000	180.39	.0039	-27.67	355.35
EXTM 72	1894.27	1905.52	28	23	15.3	.12	.0042	-28.12	.0000	252338.4	1.43	69.78	-.0000	180.32	.0107	-27.64	345.55
RISE 11	2040.11	2051.36	29	1	42.1	292.44	.0042	-28.41	-.0000	270531.5	1.07	.00	.0027	125.62	.0024	-27.52	309.56
SET 51	2082.71	2093.96	29	2	24.7	90.00	.0041	-26.98	.0000	272788.0	1.73	11.36	-.0034	245.36	-.0014	-27.49	299.04
SET 61	2102.85	2114.10	29	2	44.9	62.70	.0042	-28.46	.0000	275689.8	1.63	-.00	-.0024	231.38	.0027	-27.48	294.06
SET 72	2268.93	2280.18	29	5	31.0	94.09	.0041	-27.18	.0001	289006.2	1.72	-.00	-.0036	242.54	-.0005	-27.36	252.99
RISE 42	2269.47	2280.72	29	5	31.5	255.00	.0041	-26.60	-.0000	288607.9	.99	3.96	.0029	120.03	-.0022	-27.36	252.86
EXTM 11	2309.79	2321.04	29	6	11.8	.28	.0042	-28.46	.0000	289398.5	1.30	26.33	-.0000	180.27	.0041	-27.34	242.88
SET 11	2579.27	2590.52	29	10	41.3	68.02	.0042	-27.94	.0000	312703.3	1.54	.00	-.0028	235.01	.0024	-27.17	176.12
EXTM 42	2688.69	2699.94	29	12	30.7	359.99	.0042	-26.94	.0000	314481.7	1.21	81.73	-.0000	.13	-.0087	-27.11	148.99
RISE 51	2819.34	2830.59	29	14	41.4	270.00	.0041	-26.61	-.0000	328855.5	.81	11.22	.0034	114.29	-.0015	-27.04	116.57
RISE 72	2972.64	2983.89	29	17	14.7	265.98	.0041	-26.80	-.0000	340810.8	.74	-.00	.0037	117.07	-.0005	-26.96	78.51
RISE 61	3052.66	3063.91	29	18	34.7	296.36	.0042	-27.69	-.0000	346429.6	.83	.00	.0025	127.50	.0027	-26.92	58.58
SET 42	3107.44	3118.69	29	19	29.5	105.00	.0041	-26.26	.0000	349698.3	1.44	3.76	-.0030	240.24	-.0023	-26.90	44.90
EXTM 51	3172.51	3183.76	29	20	34.5	359.01	.0042	-26.89	.0000	348069.8	1.10	88.55	.0023	142.72	.1176	-26.87	28.66
EXTM 61	3304.90	3316.15	29	22	46.9	.17	.0042	-27.76	.0000	360723.0	1.10	22.01	-.0000	180.16	.0040	-26.82	355.59
EXTM 72	3344.87	3356.12	29	23	26.9	.08	.0042	-27.14	.0000	359751.8	1.10	70.76	-.0000	180.21	.0110	-26.81	345.60
RISE 11	3483.75	3495.00	30	1	45.8	291.45	.0042	-27.40	-.0000	374847.4	.79	.00	.0028	124.28	.0024	-26.76	310.87
SET 51	3532.54	3543.79	30	2	34.6	90.00	.0042	-26.37	.0000	376849.7	1.49	11.12	-.0034	245.93	-.0015	-26.75	298.66
SET 61	3556.92	3568.17	30	2	58.9	63.94	.0042	-27.44	.0000	379703.9	1.40	-.00	-.0025	232.87	.0027	-26.74	292.55
RISE 42	3713.81	3725.06	30	5	35.8	255.00	.0042	-26.12	-.0000	390333.1	.98	3.67	.0030	119.65	-.0023	-26.69	253.16
SET 72	3715.53	3726.78	30	5	37.5	93.98	.0042	-26.55	.0000	390876.1	1.73	-.00	-.0037	243.18	-.0005	-26.69	252.72
EXTM 11	3753.94	3765.19	30	6	16.0	.19	.0043	-27.50	.0000	391351.1	1.80	27.29	-.0000	180.18	.0043	-26.68	242.97
IMPACT	3758.22	3769.47	30	6	20.2												
IMPC 42	3758.22	3769.47	30	6	20.2	266.27	.0043	-26.18	-.0000	393431.1	1.68	11.93	.0032	113.75	-.0022	-26.68	241.87
IMPC 11	3758.22	3769.47	30	6	20.2	1.30	.0044	-27.50	.0000	391836.5	2.03	27.28	-.0001	181.30	.0044	-26.68	241.87

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	27	15	42.018	6590.599	20.0035	306.2073	10.95471	4.7260	112.9204	126.5844
SEPARATION	1.20	12.45	27	15	43.218	6677.480	17.2762	312.3767	10.88184	8.0746	114.9923	133.0546
RETRO	3.20	14.45	27	15	45.218	6919.165	12.5110	321.8345	10.68851	13.3978	117.5603	143.0137
IMPACT	3758.22	3769.47	30	6	20.241	394797.684	-26.6776	241.8641	2.19699	67.2944	271.8346	284.3706

SURVEYOR VIEW PERIODS

GHA	307.1846					EPS	-24.1705							LOM	238.6103
SX	.220802	SY	-.865863	SZ	-.448918	DAD	-26.67426	RAD	284.30600	RM	396066.477	LAT	28.310600	LON	279.461800
C3	-.976887	ECC	.983964	SLR	12984.385	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.240892	NSY	-.860898	NSZ	-.448135	C3H	1.4965	VIM	2.6713	ZAE	140.482	B.T	.0000	B.R	-.0000
LATE	5.0991	LONE	4.9371	LATS	1.5231	LONS	28.8243	LATI	-.8684	LONI	325.8267	RSM	152.2252	TTAN	6.4476
LAUNCH DATE		JUL 27,1966		BASE AZM	105.0		TF 62.705					ARRIVAL DATE JUL 30 1966		6 32 58.1	

LNCH AZMTH	LNCH TIME	PH	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	15 36 27.0	28.1	18.92	305.63	10.68	127.44	115.00	15 47 42.0	6601.4	10.94	5.30

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	FLE	DEL	AZI	DAZ	LAT	LONG
						PHASE IN SUNLIGHT												
INJECTION		.00	11.25	27	15	47.7												
SEPARATION		1.20	12.45	27	15	48.9												
RETRO		3.20	14.45	27	15	50.9												
RISE	72	4.20	15.45	27	15	51.9	83.85	-.1608	37.65	-.0021	3155.7	-7.29	-.00	.1257	308.07	.0200	8.49	325.00
RISE	51	11.13	22.38	27	15	58.8	80.85	-.0768	18.25	-.0389	6041.4	-2.27	-.00	.0827	290.34	-.0013	-5.73	347.28
EXTM	72	11.15	22.40	27	15	58.8	354.04	-.1429	-.11	-.1082	2435.8	4.80	80.20	-.0000	37.57	1.0532	-5.76	347.33
EXTM	51	48.80	60.05	27	16	36.5	.99	-.0092	-27.81	-.0035	14336.3	5.05	87.74	-.0000	202.92	-.2241	-27.18	27.00
EXTM	72	71.66	82.93	27	16	59.4	300.10	.0001	-32.08	-.0005	23606.3	4.71	29.60	.0000	122.53	.0006	-29.40	32.29
RISE	61	90.94	102.19	27	17	18.6	315.16	.0007	-39.47	.0008	31849.3	4.30	-.00	.0010	147.29	-.0000	-30.21	33.57
EXTM	51	96.94	108.19	27	17	24.6	352.64	.0003	-31.39	-.0003	27703.2	4.24	81.42	-.0000	132.89	.0029	-30.37	33.61
EXTM	51	167.71	178.96	27	18	35.4	.13	.0026	-31.73	.0000	44129.6	3.58	84.01	.0000	181.08	.0213	-30.97	27.57
EXTM	61	361.68	372.93	27	21	49.4	4.63	.0038	-34.52	.0002	84635.0	2.75	15.12	.0000	183.95	.0032	-30.45	351.42
EXTM	72	391.68	402.93	27	22	19.4	.75	.0039	-31.98	.0001	85529.1	2.67	65.91	.0000	181.56	.0082	-30.35	344.98
RISE	11	572.09	583.34	28	1	19.8	296.09	.0040	-31.93	.0000	118087.8	2.05	.00	.0025	130.34	.0023	-29.80	304.45
SET	51	587.76	599.01	28	1	35.5	90.00	.0038	-28.64	.0001	118943.4	2.64	12.02	-.0031	243.80	-.0012	-29.76	300.83
SET	61	591.25	602.50	28	1	39.0	57.97	.0039	-32.07	.0002	120745.7	2.52	-.00	-.0020	225.92	.0026	-29.75	300.03
SET	72	786.79	798.04	28	4	54.5	94.41	.0039	-28.93	.0001	146211.7	2.44	-.01	-.0034	240.77	-.0004	-29.29	254.09
RISE	42	796.65	807.90	28	5	4.4	254.99	.0040	-27.78	-.0000	146906.8	1.74	4.68	.0028	120.97	-.0021	-29.27	251.75
EXTM	11	837.49	848.74	28	5	45.2	1.18	.0041	-31.38	.0001	149885.9	2.01	23.40	.0000	181.10	.0039	-29.18	242.02
SET	11	1099.39	1110.64	28	10	7.1	65.89	.0041	-30.07	.0001	182234.3	2.09	-.00	-.0026	232.18	.0024	-28.72	178.96
EXTM	42	1222.58	1233.83	28	12	10.3	359.95	.0042	-28.31	.0000	189032.0	1.72	83.09	.0000	.40	-.0288	-28.54	149.03
RISE	51	1358.37	1369.62	28	14	26.1	270.00	.0041	-27.69	-.0000	207707.1	1.29	11.64	.0033	115.31	-.0014	-28.36	115.90
RISE	72	1512.88	1524.13	28	17	.6	265.77	.0041	-27.93	-.0000	223928.4	1.18	-.00	.0036	118.22	-.0005	-28.17	78.07
RISE	61	1601.69	1612.94	28	18	29.4	298.28	.0041	-29.24	-.0000	232216.0	1.27	.01	.0024	129.79	.0027	-28.07	56.27
SET	42	1646.10	1657.35	28	19	13.8	105.00	.0041	-27.09	.0001	235813.3	1.84	4.26	-.0029	239.58	-.0022	-28.02	45.36
EXTM	51	1717.98	1729.23	28	20	25.7	.01	.0042	-28.01	.0000	236485.6	1.49	87.73	.0000	180.42	.0281	-27.95	27.68
EXTM	61	1849.43	1860.68	28	22	37.1	.46	.0042	-29.16	.0000	252099.4	1.44	20.60	-.0000	180.43	.0039	-27.82	355.30
EXTM	72	1889.04	1900.29	28	23	16.7	.14	.0042	-28.28	.0000	251829.9	1.43	69.63	-.0000	180.35	.0106	-27.78	345.54
RISE	11	2035.36	2046.61	29	1	43.1	292.57	.0042	-28.55	-.0000	270062.4	1.07	.00	.0027	125.79	.0024	-27.65	309.43
SET	51	2077.40	2088.65	29	2	25.1	90.00	.0041	-27.11	.0001	272268.7	1.73	11.41	-.0034	245.24	-.0014	-27.62	299.04
SET	61	2096.93	2108.18	29	2	44.6	62.55	.0042	-28.58	.0000	275125.5	1.63	-.00	-.0024	231.19	.0027	-27.60	294.22
SET	72	2263.70	2274.95	29	5	31.4	94.11	.0041	-27.28	.0001	288501.9	1.72	-.00	-.0036	242.44	-.0005	-27.47	252.98
RISE	42	2264.18	2275.43	29	5	31.9	255.00	.0041	-26.70	-.0000	288092.9	.99	4.03	.0029	120.11	-.0022	-27.47	252.86
EXTM	11	2304.61	2315.86	29	6	12.3	.31	.0042	-28.56	.0000	288909.5	1.30	26.23	-.0000	180.30	.0041	-27.44	242.85
SET	11	2573.63	2584.88	29	10	41.3	67.94	.0042	-28.02	.0000	312171.6	1.54	.00	-.0028	234.91	.0024	-27.25	176.20
EXTM	42	2683.37	2694.62	29	12	31.1	359.99	.0042	-27.01	.0000	313972.8	1.21	81.79	-.0000	.14	-.0098	-27.18	138.99
RISE	51	2814.03	2825.28	29	14	41.7	270.00	.0041	-26.67	-.0000	328345.1	.81	11.24	.0034	114.34	-.0015	-27.09	116.57
RISE	72	2967.28	2978.53	29	17	15.0	265.97	.0041	-26.84	-.0000	340298.5	.74	-.00	.0037	117.12	-.0005	-27.00	78.51
RISE	61	3047.53	3058.78	29	18	35.2	296.41	.0042	-27.73	-.0000	345930.9	.83	.00	.0025	127.56	.0027	-26.96	58.53
SET	42	3102.10	3113.35	29	19	29.8	105.00	.0041	-26.30	.0000	349139.2	1.44	3.78	-.0030	240.21	-.0023	-26.93	44.90
EXTM	51	3167.02	3178.27	29	20	34.7	358.97	.0042	-26.93	.0000	347538.5	1.10	88.50	.0023	142.42	.1133	-26.91	28.70
EXTM	61	3299.64	3310.89	29	22	47.3	.18	.0042	-27.78	.0000	360197.7	1.10	21.98	-.0000	180.18	.0040	-26.85	355.57
EXTM	72	3339.56	3350.81	29	23	27.3	.08	.0042	-27.16	.0000	359217.2	1.09	70.74	-.0000	180.22	.0112	-26.83	345.59
RISE	11	3478.50	3489.75	30	1	46.2	291.47	.0042	-27.41	-.0000	374295.9	.79	.00	.0028	124.30	.0024	-26.78	310.85
SET	51	3527.22	3538.47	30	2	34.9	90.00	.0042	-26.39	.0000	376282.6	1.48	11.13	-.0034	245.92	-.0015	-26.76	298.66
SET	61	3551.54	3562.79	30	2	59.2	63.92	.0042	-27.45	.0000	379127.0	1.40	-.00	-.0025	232.85	.0027	-26.75	292.57
RISE	42	3708.57	3719.82	30	5	36.3	255.00	.0042	-26.12	-.0000	389649.7	.95	3.67	.0030	119.65	-.0023	-26.69	253.15
SET	72	3710.28	3721.53	30	5	38.0	93.98	.0042	-26.55	.0000	390188.9	1.70	-.00	-.0037	243.17	-.0005	-26.69	252.72
EXTM	11	3748.13	3759.38	30	6	15.8	.01	.0043	-27.50	.0000	390406.9	1.56	27.29	.0000	180.01	.0026	-26.68	243.14
IMPACT		3762.19	3773.44	30	6	29.9												
IMPC	42	3762.19	3773.44	30	6	29.9	268.59	.0043	-26.19	-.0000	393264.1	1.67	13.68	.0033	112.59	-.0021	-26.67	239.54
IMPC	11	3762.19	3773.44	30	6	29.9	3.66	.0044	-27.50	.0000	391866.6	2.05	27.20	-.0002	183.65	.0044	-26.67	239.54

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	27	15	47.701	6602.736	18.8941	305.6917	10.94476	5.2982	115.0123	127.4932
SEPARATION		1.20	12.45	27	15	48.901	6696.713	15.9760	311.6672	10.86589	8.6312	116.8973	133.7695
RETRO		3.20	14.45	27	15	50.901	6949.850	10.9562	320.8366	10.66451	13.9148	119.1566	143.4403
IMPACT		3762.19	3773.44	30	6	29.888	3948[illegible].926	-26.6749	239.5409	2.19546	67.2152	272.4952	284.4640

SURVEYOR VIEW PERIODS

GHA	307.1846					EPS	-24.0909							LOM	236.1496
SX	.222299	SY	-.865511	SZ	-.448858	DAO	-26.67046	RAO	284.40459	RM	396088.684	LAT	28.310600	LON	279.461800
C3	-.982646	ECC	.983866	SLR	12983.746	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.242442	NSY	-.860494	NSZ	-.448076	C3M	1.4952	VIM	2.6710	ZAE	140.300	B.T	.0000	B.R	-.0000
LATE	5.1056	LONE	4.8444	LATS	1.5233	LONS	28.6503	LATI	-1.2317	LONI	325.6097	RSM	152.2254	TTAN	6.4502
LAUNCH DATE		JUL 27,1966		BASE AZM	108.0		TF 62.802					ARRIVAL DATE		JUL 30 1966	6 43 10.7

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
108.00	15 40 53.9	28.1	17.84	305.06	11.56	127.98	117.08	15 52 8.9	6611.2	10.94	5.73

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	27	15	52.1												
SEPARATION		1.20	12.45	27	15	53.3												
RETRO		3.20	14.45	27	15	55.3												
RISE	72	4.13	15.38	27	15	56.3	84.78	-.1488	33.23	-.0183	3191.9	-7.28	-.00	.1258	303.59	.0025	7.02	323.61
EXTM	72	10.55	21.80	27	16	2.7	5.66	-.1685	-3.34	-.1154	2297.0	3.96	82.76	.2033	308.70	.1357	-6.70	344.16
RISE	51	11.15	22.40	27	16	3.3	82.58	-.0730	15.00	-.0414	6114.3	-2.16	.00	.0816	286.70	-.0053	-7.72	345.69
EXTM	51	51.01	62.26	27	16	43.2	1.92	-.0086	-30.65	-.0026	15062.9	5.00	84.81	-.0000	198.62	-.0864	-29.19	26.35
EXTM	72	72.44	83.69	27	17	4.6	301.37	.0001	-33.99	-.0002	23802.5	4.69	30.30	.0000	124.92	.0003	-30.95	31.11
EXTM	51	97.85	109.10	27	17	30.0	354.07	.0003	-33.07	-.0002	27977.9	4.23	81.04	.0000	146.26	.0017	-31.73	33.45
RISE	61	102.11	113.36	27	17	34.3	317.02	.0012	-40.85	.0008	34784.8	4.12	-.00	.0011	148.95	.0004	-31.80	32.40
EXTM	51	162.11	173.36	27	18	34.3	.44	.0025	-32.97	.0001	42963.9	3.61	62.76	-.0000	182.93	.0168	-32.04	27.31
EXTM	61	359.88	371.13	27	21	52.0	5.20	.0038	-35.25	.0002	84429.4	2.76	14.36	.0000	184.40	.0032	-31.16	350.87
EXTM	72	388.36	399.61	27	22	20.5	.98	.0039	-32.72	.0001	85038.0	2.68	65.17	.0000	181.97	.0079	-31.03	344.77
RISE	11	570.64	581.89	28	1	22.8	296.68	.0040	-32.46	.0000	117881.2	2.62	.00	.0025	131.07	.0023	-30.32	303.86
SET	51	583.60	594.85	28	1	35.8	90.00	.0038	-29.16	.0001	118341.5	2.64	12.22	-.0031	243.31	-.0012	-30.28	330.87
SET	61	583.76	595.01	28	1	35.9	57.18	.0039	-32.64	.0002	119705.6	2.53	.00	-.0020	225.05	.0026	-30.28	300.83
SET	72	783.08	794.33	28	4	55.2	94.48	.0039	-29.34	.0001	145732.4	2.44	-.01	-.0034	240.35	-.0004	-29.70	254.04
RISE	42	792.78	804.03	28	5	4.9	254.99	.0040	-28.19	-.0000	146382.7	1.74	4.93	.0028	121.29	-.0021	-29.68	251.73
EXTM	11	834.11	845.36	28	5	46.3	1.32	.0041	-31.79	.0001	149495.7	2.01	22.99	.0000	181.22	.0038	-29.58	241.88
SET	11	1094.07	1105.32	28	10	6.2	65.56	.0041	-30.39	.0001	181614.4	2.09	-.00	-.0026	231.75	.0024	-29.03	179.30
EXTM	42	1218.62	1229.87	28	12	10.8	359.94	.0042	-28.60	.0000	188563.8	1.72	83.38	.0000	.49	-.0300	-28.81	149.04
RISE	51	1354.47	1365.72	28	14	26.6	270.00	.0041	-27.94	-.0000	207243.7	1.29	11.74	.0033	115.54	-.0014	-28.60	115.89
RISE	72	1508.81	1520.06	28	17	1.0	265.74	.0041	-28.14	-.0000	223463.1	1.18	-.00	.0036	118.44	-.0005	-28.39	78.10
RISE	61	1598.76	1610.01	28	18	30.9	298.53	.0041	-29.44	-.0000	231858.1	1.27	.00	.0024	130.09	.0027	-28.27	56.02
SET	42	1642.12	1653.37	28	19	14.3	105.00	.0041	-27.28	.0001	235345.2	1.84	4.38	-.0029	239.43	-.0022	-28.22	45.36
EXTM	51	1714.00	1725.33	28	20	26.2	.02	.0042	-28.20	.0000	236038.2	1.49	87.54	-.0000	180.57	.0630	-28.13	27.67
EXTM	61	1845.65	1856.90	28	22	37.8	.50	.0042	-29.33	.0000	251677.4	1.44	20.43	-.0000	180.47	.0039	-27.98	323.26
EXTM	72	1885.12	1896.37	28	23	17.3	.15	.0042	-28.44	.0000	251384.5	1.43	69.46	-.0000	180.38	.0105	-27.94	345.92
RISE	11	2031.95	2043.20	29	1	44.1	292.71	.0042	-28.69	-.0000	269649.8	1.07	.00	.0027	125.98	.0024	-27.79	309.28
SET	51	2073.40	2084.65	29	2	25.5	90.00	.0041	-27.24	.0001	271799.8	1.73	11.46	-.0034	245.12	-.0014	-27.75	299.04
SET	61	2092.25	2103.50	29	2	44.4	62.38	.0042	-28.72	.0001	274606.7	1.63	-.00	-.0024	230.99	.0027	-27.74	294.39
SET	72	2259.76	2271.01	29	5	31.9	94.13	.0041	-27.39	.0001	288037.9	1.71	-.00	-.0036	242.32	-.0005	-27.58	252.96
RISE	42	2260.19	2271.44	29	5	32.3	255.00	.0041	-26.81	-.0000	287617.1	.99	4.10	.0029	120.20	-.0022	-27.58	252.85
EXTM	11	2300.73	2311.98	29	6	12.9	.34	.0042	-28.67	.0000	288459.2	1.30	26.12	-.0000	180.33	.0041	-27.55	242.82
SET	11	2569.24	2580.49	29	10	41.4	67.86	.0042	-28.10	.0000	311659.9	1.54	.01	-.0027	234.79	.0024	-27.33	176.29
EXTM	42	2679.33	2690.58	29	12	31.5	359.99	.0042	-27.09	.0000	313479.7	1.21	81.87	-.0000	.14	-.0117	-27.25	148.99
RISE	51	2809.99	2821.24	29	14	42.1	270.00	.0041	-26.73	-.0000	327843.0	.81	11.26	.0034	114.40	-.0015	-27.16	116.56
RISE	72	2963.20	2974.45	29	17	15.3	265.96	.0041	-26.89	-.0000	339786.0	.74	-.00	.0037	117.17	-.0005	-27.05	78.52
RISE	61	3043.69	3054.94	29	18	35.8	296.47	.0042	-27.78	-.0000	345428.8	.83	.00	.0025	127.63	.0027	-27.00	58.47
SET	42	3098.03	3109.28	29	19	30.2	105.00	.0041	-26.34	.0000	348612.7	1.43	3.81	-.0030	240.18	-.0022	-26.98	44.91
EXTM	51	3162.81	3174.06	29	20	35.0	358.94	.0042	-26.96	.0000	346998.2	1.09	88.45	.0023	142.35	.1095	-26.94	28.73
EXTM	61	3295.65	3306.90	29	22	47.8	.20	.0042	-27.81	.0000	359656.4	1.09	21.95	-.0000	180.19	.0040	-26.88	355.55
EXTM	72	3335.52	3346.77	29	23	27.7	.09	.0042	-27.19	.0000	358664.2	1.09	70.71	-.0000	180.24	.0111	-26.86	345.59
RISE	11	3474.53	3485.78	30	1	46.7	291.49	.0042	-27.43	-.0000	373719.6	.78	.00	.0028	124.32	.0024	-26.80	310.83
SET	51	3523.16	3534.41	30	2	35.3	90.00	.0042	-26.40	.0000	375687.6	1.48	11.13	-.0034	245.91	-.0015	-26.78	298.66
SET	61	3547.42	3558.67	30	2	59.6	63.90	.0042	-27.47	.0000	378520.7	1.39	-.00	-.0025	232.83	.0027	-26.76	292.59
RISE	42	3704.59	3715.84	30	5	36.7	255.00	.0042	-26.13	-.0000	388937.9	.91	3.68	.0030	119.66	-.0023	-26.70	253.15
SET	72	3706.29	3717.54	30	5	38.4	93.99	.0042	-26.56	.0000	389473.7	1.66	-.01	-.0037	243.17	-.0005	-26.70	252.72
EXTM	11	3744.69	3755.94	30	6	16.8	.13	.0043	-27.51	.0000	389600.9	1.44	27.28	.0000	180.13	.0043	-26.68	243.02
IMPACT		3768.12	3779.37	30	6	40.3												
IMPC	42	3768.12	3779.37	30	6	40.3	271.10	.0043	-26.20	-.0000	393084.8	1.67	15.59	.0033	111.36	-.0021	-26.67	237.04
IMPC	11	3768.12	3779.37	30	6	40.3	6.20	.0044	-27.49	.0000	391908.1	2.06	27.03	-.0004	186.18	.0043	-26.67	237.04

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION		.00	11.25	27	15	52.148	6613.034	17.8044	305.1341	10.93634	5.7345	117.1001	128.0505
SEPARATION		1.20	12.45	27	15	53.348	6712.265	14.6987	310.9221	10.85292	9.0544	118.8094	134.1394
RETRO		3.20	14.45	27	15	55.348	6974.032	9.4221	319.8197	10.64556	14.3668	120.7795	143.5384
IMPACT		3768.12	3779.37	30	6	40.272	394844.441	-26.6719	237.0388	2.19321	67.0950	273.1936	284.5646

SURVEYOR VIEW PERIODS

GHA	307.1846					EPS	-24.0393							LOM	234.5540
SX	.223270	SY	-.865281	SZ	-.448819	DAD	-26.66797	RAD	284.46852	RM	396103.063	LAT	28.310600	LON	279.461800
C3	-.985927	ECC	.983812	SLR	12983.388	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.243440	NSY	-.850229	NSZ	-.448043	C3M	1.4974	VIM	2.6714	ZAE	140.137	B.T	.0000	B.R	-.0000
LATE	5.1047	LONE	4.9017	LATS	1.5233	LONS	28.6548	LATI	-1.6045	LONI	325.5663	RSM	152.2254	TTAN	6.4531
LAUNCH DATE		JUL	27.1966		BASE AZM	111.0		TF	62.858			ARRIVAL DATE		JUL 30 1966	6 49 47.9

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	15 44 20.5	28.1	16.78	304.45	12.24	128.23	119.17	15 55 35.5	6619.3	10.93	6.07

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	27	15	55.6												
SEPARATION		1.20	12.45	27	15	56.8												
RETRO		3.20	14.45	27	15	58.8												
RISE	72	4.10	15.35	27	15	59.7	85.60	-.1386	28.93	-.0338	3228.0	-7.19	-.00	.1251	299.23	-.0143	5.49	322.35
RISE	51	11.19	22.44	27	16	6.8	84.24	-.0695	11.78	-.0438	6183.1	-2.04	-.01	.0804	283.09	-.0091	-9.77	344.21
EXTM	72	11.30	22.55	27	16	6.9	4.34	-.1493	-15.30	-.0879	2551.1	4.85	81.73	.0000	210.51	-1.1741	-9.94	344.45
EXTM	51	53.80	65.05	27	16	49.4	2.31	-.0078	-33.48	-.0018	15953.5	4.94	82.00	-.0000	194.00	-.0486	-31.28	26.07
EXTM	72	73.10	84.35	27	17	8.7	302.33	.0000	-35.94	.0000	23992.1	4.67	30.64	.0000	127.33	-.0000	-32.56	30.16
EXTM	51	96.00	107.25	27	17	31.6	355.17	.0000	-34.81	-.0000	27550.3	4.25	80.02	.0000	156.47	.0001	-33.12	31.54
RISE	61	114.00	125.25	27	17	49.6	318.90	.0016	-41.69	.0008	37784.9	3.95	-.00	.0013	150.60	.0006	-33.26	31.12
EXTM	51	159.28	170.53	27	18	34.9	.90	.0024	-34.29	.0002	42390.0	3.63	81.41	.0000	184.97	.0136	-33.18	26.91
EXTM	61	359.38	370.63	27	21	55.0	5.84	.0038	-35.99	.0002	84442.2	2.76	13.58	.0000	184.86	.0031	-31.88	350.30
EXTM	72	386.13	397.38	27	22	21.7	1.19	.0039	-33.47	.0002	84725.2	2.68	64.41	.0000	182.30	.0076	-31.73	344.58
RISE	11	570.43	581.68	28	1	26.0	297.30	.0040	-33.02	.0000	117854.1	2.05	.01	.0024	131.83	.0023	-30.86	303.23
SET	61	577.15	588.40	28	1	32.7	56.34	.0039	-33.23	.0002	118790.8	2.53	-.00	-.0019	224.13	.0026	-30.83	301.68
SET	51	580.55	591.80	28	1	36.1	90.00	.0038	-29.71	.0001	117898.3	2.64	12.43	-.0031	242.80	-.0012	-30.82	300.90
SET	72	780.43	791.68	28	4	56.0	94.56	.0039	-29.77	.0001	145397.5	2.44	-.00	-.0034	239.92	-.0004	-30.13	253.98
RISE	42	789.95	801.20	28	5	5.5	254.99	.0040	-28.61	-.0000	145998.0	1.75	5.19	.0028	121.63	-.0021	-30.11	251.72
EXTM	11	831.79	843.04	28	5	47.4	1.46	.0041	-32.21	.0001	149249.7	2.01	22.57	.0000	181.34	.0038	-29.99	241.74
SET	11	1089.69	1100.94	28	10	5.3	65.21	.0041	-30.72	.0001	181119.3	2.09	-.00	-.0025	231.30	.0024	-29.36	179.65
EXTM	42	1215.64	1226.89	28	12	11.2	359.93	.0042	-28.90	.0000	188225.5	1.72	83.68	.0000	.58	-.0320	-29.10	149.05
RISE	51	1351.54	1362.79	28	14	27.1	270.00	.0041	-28.20	-.0000	206909.5	1.29	11.84	.0033	115.78	-.0014	-28.86	115.89
RISE	72	1505.69	1516.94	28	17	1.3	265.70	.0041	-28.67	-.0000	223127.2	1.18	-.00	.0036	118.67	-.0005	-28.61	78.13
RISE	61	1596.91	1608.16	28	18	32.5	298.81	.0042	-29.45	-.0000	231640.9	1.27	.01	.0024	130.41	.0027	-28.48	55.74
SET	42	1639.10	1650.35	28	19	14.7	105.00	.0041	-27.48	.0001	235008.7	1.84	4.50	-.0029	239.27	-.0022	-28.42	45.37
EXTM	51	1711.04	1722.29	28	20	26.6	.01	.0042	-28.39	.0000	235716.0	1.49	87.35	.0000	180.40	.0494	-28.32	27.67
EXTM	61	1842.42	1854.07	28	22	38.4	.55	.0042	-29.50	.0000	251391.7	1.44	20.26	-.0000	180.51	.0039	-28.15	355.21
EXTM	72	1882.15	1893.40	28	23	17.7	.17	.0042	-28.61	.0000	251075.3	1.43	69.29	-.0000	180.41	.0104	-28.11	345.51
RISE	11	2029.50	2040.75	29	1	45.1	292.86	.0042	-28.83	-.0000	269377.8	1.08	.00	.0027	126.18	.0024	-27.94	309.14
SET	51	2070.33	2081.58	29	2	26.9	90.00	.0041	-27.38	.0001	271470.8	1.73	11.52	-.0034	244.99	-.0014	-27.89	299.05
SET	61	2088.47	2099.72	29	2	44.1	62.20	.0042	-28.86	.0001	274226.1	1.63	-.00	-.0024	230.78	.0027	-27.87	294.56
SET	72	2256.75	2268.00	29	5	32.3	94.15	.0041	-27.61	.0001	287719.2	1.71	-.00	-.0036	242.20	-.0005	-27.70	252.94
RISE	42	2257.12	2268.37	29	5	32.7	255.00	.0041	-26.93	-.0000	287285.5	.99	4.17	.0029	120.29	-.0022	-27.70	252.85
EXTM	11	2297.77	2309.02	29	6	13.4	.37	.0042	-28.79	.0000	288155.6	1.30	26.00	-.0000	180.36	.0041	-27.66	242.79
SET	11	2565.81	2577.06	29	10	41.4	67.78	.0042	-28.19	.0000	311306.7	1.54	-.00	-.0027	234.68	.0024	-27.42	176.37
EXTM	42	2676.19	2687.44	29	12	31.8	359.99	.0042	-27.17	.0000	313144.6	1.21	81.95	-.0000	.16	-.0119	-27.33	148.99
RISE	51	2806.85	2818.10	29	14	42.4	270.00	.0041	-26.80	-.0000	327503.4	.81	11.29	.0034	114.46	-.0015	-27.22	116.56
RISE	72	2960.01	2971.26	29	17	15.6	265.95	.0041	-26.94	-.0000	339441.7	.74	-.00	.0036	117.22	-.0005	-27.11	78.53
RISE	61	3040.75	3052.00	29	18	36.3	296.53	.0042	-27.82	-.0000	345099.4	.83	.00	.0025	127.69	.0027	-27.05	58.41
SET	42	3094.86	3106.11	29	19	30.4	105.00	.0041	-26.38	.0000	348261.3	1.43	3.83	-.0030	240.14	-.0022	-27.02	44.91
EXTM	51	3159.54	3170.79	29	20	35.1	358.91	.0042	-27.00	.0000	346639.0	1.09	88.40	.0023	142.54	.1066	-26.98	28.76
EXTM	61	3292.55	3303.80	29	22	48.1	.22	.0042	-27.84	.0000	359302.4	1.09	21.92	-.0000	180.21	.0040	-26.91	355.53
EXTM	72	3332.37	3343.62	29	23	28.0	.09	.0042	-27.22	.0000	358301.1	1.09	70.68	-.0000	180.25	.0111	-26.89	345.58
RISE	11	3471.43	3482.68	30	1	47.0	291.51	.0042	-27.45	-.0000	373344.4	.78	.00	.0028	124.35	.0024	-26.82	310.81
SET	51	3519.98	3531.23	30	2	35.6	90.00	.0042	-26.42	.0000	375298.9	1.47	11.14	-.0034	245.89	-.0015	-26.79	298.66
SET	61	3544.17	3555.42	30	2	59.8	63.88	.0042	-27.48	.0000	378123.3	1.39	-.00	-.0025	232.80	.0027	-26.78	292.61
RISE	42	3701.44	3712.69	30	5	17.0	255.00	.0042	-26.13	-.0000	388481.5	.90	3.68	.0030	119.66	-.0023	-26.70	253.15
SET	72	3703.14	3714.39	30	5	38.7	93.99	.0042	-26.56	.0000	389015.7	1.64	-.01	-.0037	243.16	-.0005	-26.70	252.72
EXTM	11	3741.70	3752.95	30	6	17.3	.16	.0043	-27.51	.0000	389086.2	1.38	27.28	.0000	180.16	.0043	-26.68	242.99
IMPACT		3771.49	3782.74	30	6	47.1												
IMPC	42	3771.49	3782.74	30	6	47.1	272.74	.0043	-26.21	-.0000	392967.7	1.67	16.84	.0033	110.56	-.0021	-26.67	235.40
IMPC	11	3771.49	3782.74	30	6	47.1	7.87	.0044	-27.49	.0000	391940.6	2.06	26.86	-.0005	187.82	.0043	-26.67	235.40

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	27	15	55.592	6621.554	16.7355	304.5369	10.92944	6.0692	119.1861	128.3167
SEPARATION		1.20	12.45	27	15	56.792	6724.713	13.4446	310.1431	10.84264	9.3788	120.7300	134.2237
RETRO		3.20	14.45	27	15	58.792	6993.054	7.9099	318.7811	10.63080	14.6067	122.4287	143.3631
IMPACT		3771.49	3782.74	30	6	47.079	394860.895	-26.6704	235.3984	2.19195	66.9834	273.9315	284.6306

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SURVEYOR VIEW PERIODS

GHA	307.1846					EPS	-23.9359							LOM	231.3575
SX	.225213	SY	-.864819	SZ	-.448740	DAO	-26,66288	RAO	284.59656	RM	396131.863	LAT	28.310600	LON	279.461800
C3	-.995643	ECC	.983653	SLR	12982.347	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.245471	NSY	-.859693	NSZ	-.447964	C3M	1.4965	VIM	2.6713	ZAE	139.813	B.T	.0000	B.R	-.0000
LATE	5.1180	LONE	4.8346	LATS	1.5235	LONS	28.4821	LATI	-2.1145	LONI	325.2636	RSM	152.2256	TTAN	6.4589
LAUNCH DATE		JUL	27,1966		BASE AZM	115.0		TF	63.020			ARRIVAL DATE		JUL 30 1966	7 3 3.6

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
115.00	15 48	8.7	28.0	15.40	303.59	12.95	128.32	121.95	15 59 23.7	6628.3	10.92	6.42

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
					PROBE IN SUNLIGHT												
INJECTION	.00	11.25	27	15	59.4												
SEPARATION	1.20	12.45	27	16	.6												
RETRO	3.20	14.45	27	16	2.6												
RISE 72	4.11	15.36	27	16	3.5	86.57	-.1266	23.31	-.0535	3282.5	-6.93	-.00	.1230	293.54	-.0354	3.37	320.82
RISE 51	11.30	22.55	27	16	10.7	86.36	-.0652	7.49	-.0469	6278.1	-1.84	.00	.0786	278.33	-.0139	-12.59	342.34
EXTM 72	11.60	22.85	27	16	11.0	9.18	-.1471	-25.02	-.0729	2766.6	5.02	70.77	-.0000	206.04	-.4614	-13.09	343.07
EXTM 51	59.89	71.14	27	16	59.3	1.66	-.0062	-37.16	-.0007	17820.6	4.82	78.49	-.0000	186.64	-.0248	-34.16	26.50
EXTM 72	73.45	84.70	27	17	12.8	303.25	-.0001	-38.58	.0003	24117.6	4.66	30.69	.0000	130.53	-.0004	-34.77	29.10
EXTM 51	88.30	99.55	27	17	27.7	356.53	-.0009	-37.33	.0002	25626.4	4.35	78.04	.0000	166.59	-.0034	-35.04	30.39
RISE 61	130.19	141.44	27	18	9.6	321.48	.0021	-42.76	.0008	41697.5	3.76	-.00	.0014	152.79	.0010	-35.00	29.24
EXTM 51	159.75	171.00	27	18	39.1	1.80	.0024	-36.08	.0003	42540.4	3.63	79.55	.0000	188.05	.0109	-34.74	26.14
EXTM 61	360.12	371.37	27	21	59.5	6.67	.0038	-37.00	.0003	84674.1	2.75	12.52	.0000	185.45	.0031	-32.88	349.53
EXTM 72	384.60	395.85	27	22	24.0	1.50	.0039	-34.51	.0002	84521.3	2.68	63.35	.0000	182.76	.0072	-32.70	344.29
RISE 11	571.42	582.67	28	1	30.8	298.16	.0040	-33.77	.0000	117967.4	2.05	.01	.0024	132.87	.0023	-31.60	302.37
SET 61	569.12	580.37	28	1	28.5	55.12	.0039	-34.05	.0002	117646.9	2.53	.00	-.0019	222.83	.0026	-31.61	302.91
SET 51	577.66	588.91	28	1	37.1	90.00	.0038	-30.46	.0002	117441.1	2.64	12.72	-.0031	242.09	-.0011	-31.57	300.93
SET 72	778.02	789.27	28	4	57.4	94.67	.0039	-30.36	.0001	145051.3	2.44	-.00	-.0033	239.32	-.0004	-30.73	253.90
RISE 42	787.28	798.53	28	5	6.7	254.99	.0040	-29.20	-.0000	145580.1	1.75	5.55	.0028	122.10	-.0021	-30.69	251.70
EXTM 11	829.83	841.08	28	5	49.2	1.67	.0041	-32.78	.0001	149017.7	2.01	21.99	.0000	181.51	.0038	-30.35	241.55
SET 11	1084.81	1096.06	28	10	4.2	64.72	.0041	-31.18	.0001	180505.0	2.09	-.00	-.0025	230.68	.0024	-29.80	180.15
EXTM 42	1212.71	1223.96	28	12	12.1	359.92	.0042	-29.31	.0000	187815.0	1.72	84.09	.0000	.72	-.0346	-29.50	149.06
RISE 51	1348.67	1359.92	28	14	28.1	270.00	.0041	-28.56	-.0000	206488.7	1.29	11.98	.0033	116.12	-.0014	-29.21	115.88
RISE 72	1502.54	1513.79	28	17	1.9	265.64	.0041	-28.68	-.0000	222686.9	1.18	-.00	.0036	118.98	-.0005	-28.92	78.18
RISE 61	1595.41	1606.66	28	18	34.8	299.18	.0042	-29.95	-.0000	231347.7	1.27	.00	.0024	130.84	.0027	-28.77	55.37
SET 42	1636.09	1647.34	28	19	15.5	105.00	.0041	-27.76	.0001	234552.8	1.84	4.67	-.0029	239.05	-.0022	-28.70	45.38
EXTM 51	1708.09	1719.34	28	20	27.5	.03	.0042	-28.66	.0000	235281.6	1.49	87.08	-.0000	180.61	.0608	-28.59	27.66
EXTM 61	1840.05	1851.30	28	22	39.4	.62	.0042	-29.74	.0000	250983.8	1.44	20.02	-.0000	180.57	.0039	-28.39	355.14
EXTM 72	1879.18	1890.43	28	23	18.6	.19	.0042	-28.84	.0000	250631.0	1.43	69.06	-.0000	180.46	.0103	-28.34	345.49
RISE 11	2027.25	2038.50	29	1	46.6	293.06	.0042	-29.04	-.0000	268969.2	1.07	.00	.0027	126.45	.0024	-28.14	308.93
SET 51	2067.22	2078.47	29	2	26.6	90.00	.0041	-27.59	.0001	270978.4	1.73	11.60	-.0034	244.80	-.0014	-28.09	299.05
SET 61	2084.38	2095.63	29	2	43.8	61.96	.0042	-29.06	.0001	273659.9	1.63	-.00	-.0024	230.49	.0027	-28.07	294.81
SET 72	2253.72	2264.97	29	5	33.1	94.18	.0041	-27.68	.0001	287221.0	1.71	-.00	-.0036	242.04	-.0005	-27.87	252.92
RISE 42	2254.01	2265.26	29	5	33.4	255.00	.0041	-27.10	-.0000	286769.6	.99	4.27	.0029	120.42	-.0022	-27.87	252.85
EXTM 11	2294.81	2306.06	29	6	14.2	.42	.0042	-28.95	.0000	287674.1	1.30	25.84	-.0000	180.40	.0041	-27.82	242.74
SET 11	2562.13	2573.38	29	10	41.5	67.66	.0042	-28.31	.0000	310721.4	1.54	-.00	-.0027	234.52	.0024	-27.54	176.49
EXTM 42	2672.86	2684.11	29	12	32.3	359.96	.0042	-27.27	.0000	312569.1	1.21	82.05	.0000	.31	-.0248	-27.43	149.02
RISE 51	2803.64	2814.89	29	14	43.0	270.00	.0041	-26.89	-.0000	326916.0	.81	11.32	.0034	114.55	-.0015	-27.31	116.56
RISE 72	2956.72	2967.97	29	17	16.1	265.94	.0041	-27.02	-.0000	338830.9	.74	-.00	.0036	117.30	-.0005	-27.18	78.54
RISE 61	3037.94	3049.19	29	18	37.3	296.60	.0042	-27.89	-.0000	344549.5	.83	.00	.0025	127.79	.0027	-27.11	58.34
SET 42	3091.71	3102.96	29	19	31.1	105.00	.0041	-26.44	.0000	347673.6	1.43	3.87	-.0030	240.10	-.0022	-27.07	44.91
EXTM 51	3156.29	3167.54	29	20	35.7	358.89	.0042	-27.06	.0000	346033.6	1.09	88.35	.0023	143.09	.1038	-27.03	28.78
EXTM 61	3289.47	3300.72	29	22	48.9	.25	.0042	-27.89	.0000	358677.2	1.09	21.87	-.0000	180.24	.0040	-26.95	355.51
EXTM 72	3329.20	3340.45	29	23	28.6	.10	.0042	-27.26	.0000	357656.8	1.09	70.65	-.0000	180.27	.0112	-26.92	345.58
RISE 11	3468.33	3479.58	30	1	47.7	291.53	.0042	-27.48	-.0000	372656.9	.77	.00	.0028	124.39	.0024	-26.84	310.78
SET 51	3516.75	3528.00	30	2	36.1	90.00	.0042	-26.44	.0000	374582.1	1.47	11.15	-.0034	245.37	-.0015	-26.81	298.67
SET 61	3540.83	3552.08	30	3	.2	63.86	.0042	-27.51	.0000	377389.0	1.38	-.00	-.0025	232.77	.0027	-26.80	292.64
RISE 42	3698.25	3709.50	30	5	37.6	255.00	.0042	-26.14	-.0000	387617.3	.87	3.69	.0030	119.67	-.0023	-26.71	253.15
SET 72	3699.94	3711.19	30	5	39.3	93.99	.0042	-26.57	.0000	388148.4	1.61	-.01	-.0037	243.15	-.0005	-26.71	252.72
EXTM 11	3738.67	3749.92	30	6	18.1	.19	.0043	-27.52	.0000	388120.2	1.31	27.27	.0000	180.19	.0043	-26.69	242.96
IMPACT	3781.17	3792.42	30	7	.6												
IMPC 42	3781.17	3792.42	30	7	.6	275.99	.0043	-26.23	-.0000	392740.0	1.66	19.35	.0034	108.99	-.0021	-26.67	232.15
IMPC 11	3781.17	3792.42	30	7	.6	11.17	.0044	-27.48	.0000	392019.7	2.07	26.43	-.0007	191.06	.0043	-26.67	232.15

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION	.00	11.25	27	15	59.395	6631.117	15.3444	303.6825	10.92157	6.4211	121.9678	128.4154
SEPARATION	1.20	12.45	27	16	.595	6738.291	11.8117	309.0503	10.83116	9.7190	123.3038	134.0841
RETRO	3.20	14.45	27	16	2.595	7013.471	5.9342	317.3514	10.61472	14.9202	124.6679	142.8865
IMPACT	3781.17	3792.42	30	7	.568	394897.023	-26.6664	232.1482	2.18713	66.5685	274.7907	284.7620

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SURVEYOR VIEW PERIODS

GHA	308.1702					EPS	-13.4758						LOM	259.6346	
SX	.419187	SY	-.799065	SZ	-.431020	DAD	-25.53228	RAD	297.68139	RM	398944.879	LAT	28.310600	LON	279.461800
C3	-.955701	ECC	.994308	SLR	12986.636	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TR	675.00000	POL	-.0
NSX	.417532	NSY	-.790856	NSZ	-.428287	C3M	1.4933	VIM	2.6707	ZAE	141.112	B.T	.0000	B.R	-.0000
LATE	5.8583	LONE	4.0790	LATS	1.5370	LONS	16.8360	LATI	2.0368	LONI	325.2762	RSM	152.2340	TTAN	6.0020
LAUNCH DATE		JUL	28.1966		BASE AZM	87.0		TF	63.230			ARRIVAL DATE		JUL 31 1966	5 58 31.5

LNCH AZMTH	LNCH TIME	PR	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
87.00	14 40 33.8	27.3	25.95.	307.26	-13.53	116.04	101.96	14 51 48.8	6636.1	10.92	-6.71

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PRGRE IN SUNLIGHT											
INJECTION	.00	11.25	28	14	51.8												
SEPARATION	1.20	12.45	28	14	53.0												
RETRO	3.20	14.45	28	14	55.0												
RISE 72	6.72	17.97	28	14	58.5	33.48	-1.3127	80.55	.0301	2491.0	-4.12	-.00	.0926	354.80	.1969	13.34	343.73
RISE 51	11.96	23.21	28	15	3.8	64.59	-.1398	41.67	-.0245	4622.4	-4.06	.00	.0992	317.67	.0408	2.21	4.34
EXTM 72	12.45	23.70	28	15	4.3	293.18	-.0363	19.40	-.1203	3188.5	6.43	18.79	-.0000	66.33	.1321	1.30	5.90
EXTM 51	28.51	39.76	28	15	20.3	342.42	-.0295	-7.36	-.0248	6873.0	5.57	65.13	-.0000	45.43	.0912	-16.38	37.23
EXTM 72	64.95	76.20	28	15	56.8	271.96	-.0002	-24.72	-.0016	22824.4	4.98	5.07	.0000	114.30	.0016	-25.47	56.94
RISE 42	72.04	83.29	28	16	3.9	103.24	-.0042	-17.97	-.0029	25468.6	4.27	.00	.0050	247.81	.0001	-26.06	58.15
EXTM 51	79.68	90.93	28	16	11.5	320.38	-.0002	-25.60	-.0013	22940.8	4.59	54.43	.0000	98.65	.0022	-26.55	59.01
EXTM 42	127.68	138.93	28	16	59.5	98.85	.0005	-22.92	-.0007	39341.0	3.99	6.25	-.0000	246.28	-.0009	-27.95	58.39
SET 42	194.66	205.91	28	18	6.5	105.00	.0022	-24.43	-.0002	54605.3	3.62	2.64	-.0015	241.69	-.0014	-28.37	49.91
RISE 61	209.78	221.03	28	18	21.6	303.79	.0032	-33.32	.0002	57989.7	3.16	.00	.0018	136.01	.0020	-28.39	47.44
EXTM 51	314.34	325.59	28	20	6.2	.03	.0037	-28.53	.0000	71456.7	2.90	87.21	.0000	180.63	.0571	-28.30	27.66
EXTM 61	473.14	484.39	28	22	44.9	2.55	.0040	-31.34	.0001	101235.3	2.51	18.38	.0000	182.30	.0036	-27.99	353.34
EXTM 72	508.76	520.01	28	23	20.6	.41	.0041	-29.14	.0001	102731.0	2.44	68.76	-.0000	180.99	.0098	-27.92	345.29
RISE 11	473.03	484.28	29	2	4.8	293.51	.0040	-29.48	-.0000	131293.1	1.90	.00	.0026	127.03	.0023	-27.62	307.29
SET 51	702.22	713.47	29	2	34.0	90.00	.0039	-26.55	.0001	133875.1	2.51	11.19	-.0032	245.77	-.0013	-27.57	300.43
SET 61	719.34	730.59	29	2	51.2	61.36	.0040	-29.53	.0001	137315.3	2.39	-.00	-.0022	229.79	.0026	-27.54	296.39
SET 72	896.66	907.91	29	5	48.5	94.05	.0040	-26.94	.0001	159096.8	2.35	-.00	-.0035	242.78	-.0005	-27.27	254.17
RISE 42	905.88	917.13	29	5	57.7	255.00	.0040	-25.88	-.0000	159789.3	1.64	3.52	.0029	119.46	-.0022	-27.26	251.96
EXTM 11	945.86	957.11	29	6	37.7	.82	.0042	-29.20	.0000	162101.8	1.92	25.59	-.0000	180.80	.0040	-27.20	242.36
SET 11	1216.18	1227.43	29	11	8.0	67.85	.0041	-28.12	.0001	194401.0	2.03	.00	-.0027	234.78	.0024	-26.88	176.89
EXTM 42	1330.46	1341.71	29	13	2.3	359.95	.0042	-26.49	.0000	199870.7	1.67	81.27	.0000	.30	-.0229	-26.76	149.03
RISE 51	1465.40	1476.65	29	15	17.2	270.00	.0041	-25.99	-.0000	218113.8	1.24	10.97	.0034	113.71	-.0015	-26.63	116.01
RISE 72	1620.78	1632.03	29	17	52.6	266.06	.0041	-26.27	-.0000	233951.4	1.13	-.01	.0036	116.54	-.0005	-26.50	77.88
RISE 61	1699.98	1711.23	29	19	11.8	296.18	.0041	-27.54	-.0000	241171.5	1.22	.00	.0025	127.28	.0027	-26.43	58.41
SET 42	1753.30	1764.55	29	20	5.1	105.00	.0041	-25.49	.0000	245584.6	1.81	3.29	-.0029	240.85	-.0022	-26.39	45.29
EXTM 51	1817.39	1828.64	29	21	9.2	358.14	.0042	-26.56	.0000	245316.1	1.45	88.22	.0036	110.69	.0409	-26.34	29.50
EXTM 61	1955.63	1966.88	29	23	27.4	.35	.0042	-27.52	.0000	261118.6	1.41	22.24	.0000	180.33	.0040	-26.24	355.41
EXTM 72	1995.52	2006.77	30	0	7.3	.11	.0042	-26.66	.0000	260911.8	1.40	71.25	-.0000	180.31	.0115	-26.22	345.56
RISE 11	2135.47	2146.72	30	2	27.3	291.05	.0042	-26.98	-.0000	278453.2	1.04	.00	.0028	123.72	.0024	-26.12	310.99
SET 51	2184.04	2195.29	30	3	15.8	90.00	.0041	-25.59	.0000	281192.8	1.72	10.81	-.0034	246.66	-.0015	-26.09	298.98
SET 61	2211.10	2222.35	30	3	42.9	64.45	.0042	-27.01	.0000	284560.6	1.61	-.00	-.0025	233.49	.0027	-26.08	292.29
SET 72	2369.16	2380.41	30	6	21.0	93.86	.0041	-25.80	.0000	297015.3	1.70	-.01	-.0037	243.93	-.0005	-25.98	253.17
RISE 42	2370.23	2381.48	30	6	22.0	255.00	.0041	-25.23	-.0000	296750.1	.96	3.13	.0030	118.95	-.0023	-25.98	252.90
EXTM 11	2410.55	2421.80	30	7	2.4	.24	.0042	-27.03	.0000	297258.0	1.28	27.76	-.0000	180.24	.0042	-25.96	242.92
SET 11	2685.49	2696.74	30	11	37.3	69.36	.0042	-26.55	.0000	320801.3	1.53	-.00	-.0028	236.84	.0024	-25.81	174.76
EXTM 42	2789.28	2800.53	30	13	21.1	359.97	.0042	-25.57	.0000	322082.7	1.19	80.35	.0000	.18	-.0168	-25.76	149.01
RISE 51	2919.78	2931.03	30	15	31.6	270.00	.0041	-25.27	-.0000	336363.1	.79	10.68	.0034	113.04	-.0015	-25.70	116.61
RISE 72	3073.68	3084.93	30	18	5.5	266.20	.0042	-25.48	-.0000	348286.9	.70	-.00	.0037	115.74	-.0005	-25.63	78.32
RISE 61	3146.45	3157.70	30	19	18.3	294.79	.0042	-26.76	-.0000	353126.2	.82	.00	.0026	125.57	.0027	-25.61	60.17
SET 42	3207.73	3218.98	30	20	19.5	105.00	.0041	-24.97	.0000	356851.7	1.43	2.97	-.0030	241.26	-.0023	-25.59	44.87
EXTM 51	3271.46	3282.71	30	21	23.3	358.69	.0042	-25.57	.0000	355063.9	1.09	38.81	.0038	82.30	-.0266	-25.58	28.97
EXTM 61	3404.98	3416.23	30	23	36.8	.12	.0042	-26.45	.0000	367637.2	1.10	23.31	-.0000	180.12	.0041	-25.54	355.63
EXTM 72	3445.10	3456.35	31	0	16.9	.07	.0042	-25.84	.0000	366763.9	1.10	72.07	-.0000	180.20	.0119	-25.53	345.61
RISE 11	3579.13	3590.38	31	2	30.9	294.24	.0042	-26.12	-.0000	381639.6	.80	.00	.0029	122.61	.0024	-25.51	312.09
SET 51	3632.90	3644.15	31	3	24.7	90.00	.0042	-25.13	.0000	384088.1	1.52	10.63	-.0035	247.10	-.0015	-25.50	298.63
SET 61	3663.14	3674.39	31	3	55.0	65.42	.0042	-26.17	.0000	387336.9	1.45	.00	-.0026	234.70	.0027	-25.49	291.05
IMPACT	3793.80	3805.15	31	6	5.6												
IMPC 42	3793.80	3805.05	31	6	5.6	250.10	.0043	-24.92	-.0000	397706.9	1.71	-.53	.0030	121.48	-.0025	-25.50	258.10
IMPC 72	3793.80	3805.05	31	6	5.6	88.58	.0043	-25.40	.0000	397130.0	2.48	4.66	-.0039	244.96	-.0004	-25.50	258.10
IMPC 11	3793.80	3805.05	31	6	5.6	344.83	.0044	-26.30	-.0000	394780.9	1.96	26.84	.0009	164.76	.0043	-25.50	258.10

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	28	14	51.814	6639.485	25.9716	307.1315	10.91687	-6.7130	101.8961	115.9088
SEPARATION	1.20	12.45	28	14	53.014	6567.057	24.3523	314.2805	10.97447	-3.3348	105.0705	123.3586
RETRO	3.20	14.45	28	14	55.014	6556.091	20.8976	325.6984	10.98372	2.3835	109.6720	135.2778
IMPACT	3793.80	3805.05	31	6	5.615	3976 8.879	-25.5016	258.1035	2.20359	68.2455	263.2186	297.9272

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SURVEYOR VIEW PERIODS

GHA	308.1702					EPS	-13.2917							LOM	253.5566
SX	.422576	SY	-.797545	SZ	-.430525	DAO	-25.50085	RAO	297.91666	RM	398993.047	LAT	28.310600	LON	279.461800
C3	-.951789	ECC	.984373	SLR	12987.055	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.440849	NSY	-.789095	NS7	-.427762	C3M	1.4967	VIM	2.6713	ZAE	141.174	B.T	.0300	B.R	-.0000
LATE	5.8095	LONE	4.0644	LATS	1.5373	LONS	16.6232	LATI	2.1199	LONI	325.3146	RSM	152.2340	TTAN	5.9892
LAUNCH DATE		JUL	28.1966		BASE AZM	90.0		TF	63.183			ARRIVAL DATE		JUL 31 1966	6 23 42.5

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
90.00	15 3 52.2	27.6	24.72	307.31	-8.31	121.92	104.25	15 15 7.2	6578.9	10.96	-4.12

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PRORE IN SUNLIGHT											
INJECTION		.00	11.25	28	15	15.1												
SEPARATION		1.20	12.45	28	15	16.3												
RETRO		3.20	14.45	28	15	18.3												
RISE	72	5.97	17.22	28	15	21.1	65.99	-.5121	71.17	.1009	2557.0	-5.60	-.01	.1066	342.85	.1616	12.98	339.21
RISE	51	11.62	22.87	28	15	26.7	68.61	-.1230	37.10	-.0273	4867.6	-3.83	.00	.0972	312.04	.0305	1.20	.89
EXTM	72	11.77	23.02	28	15	26.9	303.46	-.0583	21.06	-.1386	2800.8	6.01	27.40	-.0000	61.27	.1677	.92	1.37
EXTM	51	30.26	41.51	28	15	45.4	347.39	-.0260	-10.85	-.0192	7629.4	5.51	70.92	.0000	40.98	.0978	-17.72	34.82
EXTM	72	65.43	76.68	28	16	20.6	277.42	-.0001	-25.36	-.0015	22712.9	4.95	10.05	.0000	114.49	.0015	-25.49	51.89
EXTM	51	82.00	93.25	28	16	37.1	326.86	-.0001	-26.04	-.0011	23542.5	4.53	60.27	.0000	97.96	.0023	-26.61	53.93
RISE	42	90.35	101.60	28	16	45.5	104.99	-.0017	-20.13	-.0017	30821.2	4.21	.00	.0023	245.09	-.0003	-26.98	54.32
EXTM	42	127.49	138.74	28	17	22.6	104.06	.0006	-22.59	-.0007	39960.7	3.99	2.19	-.0000	243.67	-.0009	-27.86	52.99
SET	42	144.73	155.98	28	17	39.9	105.00	.0012	-23.20	-.0005	44031.6	3.88	1.88	-.0006	242.66	-.0011	-28.05	51.31
RISE	61	181.86	193.11	28	18	17.0	304.40	.0030	-33.73	.0002	52413.4	3.34	-.00	.0017	136.67	.0018	-28.25	46.40
EXTM	51	286.86	298.11	28	20	2.0	.04	.0036	-28.51	.0000	66762.7	3.00	87.23	-.0000	180.81	.0590	-28.27	27.65
EXTM	61	449.00	460.25	28	22	44.1	2.74	.0039	-31.44	.0001	97732.7	2.56	18.28	.0000	182.46	.0035	-27.97	353.17
EXTM	72	484.20	495.45	28	23	19.3	.43	.0040	-29.16	.0001	99257.7	2.48	68.74	-.0000	181.03	.0097	-27.90	345.27
RISE	11	649.53	660.78	29	2	4.6	293.53	.0040	-29.50	-.0000	128318.7	1.93	.00	.0026	127.06	.0023	-27.60	307.22
SET	51	678.22	689.47	29	2	33.3	90.00	.0039	-26.50	.0001	130988.6	2.54	11.17	-.0032	245.81	-.0013	-27.55	300.49
SET	61	695.35	706.60	29	2	50.5	61.33	.0040	-29.55	.0001	134356.5	2.41	-.00	-.0022	229.76	.0026	-27.52	296.47
SET	72	873.14	884.39	29	5	48.3	94.04	.0039	-26.91	.0001	156451.4	2.37	-.00	-.0035	242.81	-.0005	-27.25	254.22
RISE	42	882.71	893.96	29	5	57.8	254.99	.0040	-25.83	-.0001	157200.2	1.66	3.49	.0029	119.43	-.0022	-27.23	251.93
EXTM	11	922.70	933.95	29	6	37.8	.85	.0042	-29.21	.0000	159557.4	1.94	25.58	-.0000	180.82	.0040	-27.18	242.34
SET	11	1193.17	1204.42	29	11	8.3	67.86	.0041	-28.10	.0001	192138.1	2.05	.00	-.0027	234.79	.0024	-26.85	176.90
EXTM	42	1307.55	1318.80	29	13	2.7	359.95	.0042	-26.46	.0000	197711.2	1.68	81.24	.0000	.30	-.0229	-26.73	149.03
RISE	51	1442.62	1453.87	29	15	17.7	270.00	.0041	-25.96	-.0000	216063.8	1.25	10.95	.0034	113.68	-.0015	-26.60	116.00
RISE	72	1598.08	1609.33	29	17	53.2	266.07	.0041	-26.24	-.0000	232006.1	1.14	-.01	.0036	116.51	-.0005	-26.47	77.86
RISE	61	1677.17	1688.42	29	19	12.3	296.16	.0041	-27.52	-.0000	239262.6	1.23	.00	.0025	127.25	.0027	-26.40	58.42
SET	42	1730.52	1741.77	29	20	5.6	105.00	.0041	-25.45	.0000	243711.3	1.82	3.26	-.0029	240.88	-.0022	-26.36	45.30
EXTM	51	1794.59	1805.84	29	21	9.7	358.12	.0042	-26.33	.0000	243474.6	1.46	88.21	.0036	109.63	.0386	-26.31	29.59
EXTM	61	1932.95	1944.20	29	23	28.1	.35	.0042	-27.50	.0000	259355.3	1.42	22.26	.0000	180.34	.0040	-26.21	355.41
EXTM	72	1972.84	1984.09	30	0	8.0	.11	.0042	-26.63	.0000	259169.4	1.41	71.27	-.0000	180.31	.0117	-26.19	345.56
RISE	11	2112.75	2124.00	30	2	27.9	291.03	.0042	-26.95	-.0000	276773.6	1.05	.00	.0028	123.69	.0024	-26.09	311.00
SET	51	2161.36	2172.61	30	3	16.5	90.00	.0041	-25.56	.0000	279539.6	1.72	10.80	-.0034	246.69	-.0015	-26.06	298.99
SET	61	2188.55	2199.80	30	3	43.7	64.48	.0042	-26.99	.0000	282927.7	1.62	-.00	-.0025	233.53	.0027	-26.05	292.26
SET	72	2346.49	2357.74	30	6	21.6	93.85	.0041	-25.77	.0000	295439.9	1.71	-.01	-.0037	243.96	-.0005	-25.95	253.18
RISE	42	2347.63	2358.88	30	6	22.8	255.00	.0041	-25.20	-.0000	295182.8	.97	3.11	.0030	118.92	-.0023	-25.95	252.90
EXTM	11	2387.94	2399.19	30	7	3.1	.24	.0042	-27.01	.0000	295701.7	1.29	27.78	-.0000	180.24	.0042	-25.93	242.91
SET	11	2662.98	2674.23	30	11	38.1	69.38	.0042	-26.52	.0000	319359.4	1.54	-.00	-.0028	236.87	.0024	-25.78	174.74
EXTM	42	2766.71	2777.96	30	13	21.8	359.97	.0042	-25.54	.0000	320673.6	1.20	80.32	.0000	.17	-.0180	-25.73	149.01
RISE	51	2897.24	2908.49	30	15	32.4	270.00	.0041	-25.25	-.0000	335001.3	.80	10.67	.0034	113.01	-.0015	-25.67	116.60
RISE	72	3051.28	3062.53	30	18	6.4	266.21	.0042	-25.45	-.0000	347030.9	.70	-.00	.0037	115.71	-.0005	-25.60	78.31
RISE	61	3123.88	3135.13	30	19	19.0	294.76	.0042	-26.33	-.0000	351868.1	.82	.00	.0026	125.52	.0027	-25.58	60.20
SET	42	3185.25	3196.50	30	20	20.4	105.00	.0041	-24.94	.0000	355609.0	1.44	2.95	-.0030	241.28	-.0023	-25.56	44.88
EXTM	51	3248.98	3260.23	30	21	24.1	358.69	.0042	-25.54	.0000	353825.2	1.09	88.80	.0038	80.88	-.0310	-25.55	28.97
EXTM	61	3382.46	3393.71	30	23	37.6	.12	.0042	-26.42	.0000	366399.5	1.10	23.34	-.0000	180.12	.0041	-25.52	355.63
EXTM	72	3422.59	3433.84	31	0	17.7	.07	.0042	-25.81	.0000	365527.4	1.10	72.10	-.0000	180.20	.0120	-25.51	345.61
RISE	11	3556.53	3567.78	31	2	31.6	290.92	.0042	-26.10	-.0000	380378.1	.79	.00	.0029	122.57	.0024	-25.48	312.11
SET	51	3610.38	3621.63	31	3	25.5	90.00	.0042	-25.10	.0000	382809.3	1.51	10.61	-.0035	247.12	-.0015	-25.47	298.63
SET	61	3640.74	3651.99	31	3	55.9	65.45	.0042	-26.15	.0000	386043.3	1.43	.00	-.0026	234.74	.0027	-25.47	291.03
RISE	42	3790.91	3802.16	31	6	26.0	255.00	.0043	-24.92	-.0000	397353.5	1.69	2.93	.0031	118.70	-.0024	-25.48	253.18
IMPACT		3791.00	3802.25	31	6	26.1												
IMPC	42	3791.00	3802.25	31	6	26.1	255.02	.0043	-24.92	-.0000	397363.0	1.70	2.95	.0031	118.68	-.0024	-25.48	253.15
IMPC	72	3791.00	3802.25	31	6	26.1	93.52	.0043	-25.34	.0000	397666.3	2.47	.22	-.0038	244.43	-.0006	-25.48	253.15
IMPC	11	3791.00	3802.25	31	6	26.1	349.85	.0044	-26.28	-.0000	394733.2	1.98	27.77	.0006	169.71	.0044	-25.48	253.15
SET	72	3791.96	3803.21	31	6	27.1	93.77	.0043	-25.34	.0000	397809.0	2.55	.00	-.0039	244.40	-.0006	-25.48	252.91

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	28	15	15.120	6579.398	24.7299	307.2743	10.96478	-4.1212	104.2404	121.8939
SEPARATION		1.20	12.45	28	15	16.320	6545.649	22.8520	314.2586	10.99272	-.7814	107.1834	129.1791
RETRO		3.20	14.45	28	15	18.320	6595.184	19.0451	325.3763	10.95104	5.0013	111.3523	140.7981
IMPACT		3791.00	3802.25	31	6	26.124	397749.016	-25.4755	253.1549	2.20263	67.9991	263.0220	298.1193

SURVEYOR VIEW PERIODS

GHA	308.1702						EPS -13.1182									LOM	247.8122
SX	.425772	SY	-.796100	SZ	-.430051	DAO	-25.47081	RAO	248.13886	RM	399038.445	LAT	28.310600	LON	279.461800		
C3	-.951848	ECC	.984372	SLR	12987.054	HCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0		
NSX	.444013	NSY	-.787592	NSZ	-.427260	C3M	1.4966	VIM	2.6713	ZAE	141.171	B.T	.0000	B.R	-.0000		
LATE	5.8800	LONE	4.0501	LATS	1.5375	LONS	16.4215	LATI	2.0973	LONI	325.3015	RSM	152.2340	TTAN	5.9794		
LAUNCH DATE	JUL 28,1966			BASE AZM	93.0		TF 63.198					ARRIVAL DATE	JUL 31 1966		6 47 30.6		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
93.00	15 23 26.0	27.8	23.51	307.19	-3.98	126.71	106.48	15 34 41.0	6552.5	10.99	-1.97

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	28	15	34.7												
SEPARATION		1.20	12.45	28	15	35.9												
RETRO		3.20	14.45	28	15	37.9												
RISE	72	5.44	14.69	28	15	40.1	74.55	-.3211	62.48	.0873	2641.1	-6.53	-.00	.1157	333.55	.1275	12.25	335.63
EXTM	72	11.26	22.51	28	15	45.9	314.52	-.0880	21.18	-.1529	2499.0	5.57	36.72	-.0000	56.03	.2165	.18	357.47
RISE	51	11.39	22.64	28	15	46.1	71.83	-.1105	32.90	-.0302	5086.6	-3.59	-.00	.0950	307.09	.0221	-.04	357.85
EXTM	51	32.22	43.47	28	16	8.9	351.37	-.0229	-14.29	-.0149	8427.4	5.45	75.99	-.0000	36.88	.1103	-19.27	32.75
EXTM	72	66.30	77.55	28	16	41.0	282.17	-.0000	-26.31	-.0013	22749.8	4.90	14.36	.0000	115.24	.0013	-25.89	47.64
EXTM	51	84.30	95.55	28	16	59.0	332.41	-.0061	-26.76	-.0009	24161.0	4.47	65.28	-.0000	98.51	.0023	-26.99	49.58
RISE	61	159.22	170.47	28	18	13.9	305.41	.0027	-34.40	.0003	47674.3	3.51	-.00	.0016	137.74	.0016	-28.32	44.97
EXTM	51	263.07	274.32	28	19	57.8	.03	.0035	-28.68	.0000	62561.5	3.09	87.06	.0000	180.63	.0517	-28.41	27.66
EXTM	61	429.14	440.39	28	22	43.8	3.00	.0039	-31.46	.0001	94803.3	2.60	18.04	.0000	182.68	.0035	-28.09	352.92
EXTM	72	463.57	474.82	28	23	18.3	.44	.0040	-29.42	.0001	96280.5	2.52	68.58	-.0000	181.05	.0096	-28.01	345.26
RISE	11	630.34	641.59	29	2	5.0	293.66	.0040	-29.63	-.0000	125844.1	1.96	.00	.0026	127.23	.0023	-27.68	307.04
SET	51	658.13	669.38	29	2	32.8	90.00	.0039	-26.56	.0001	128331.1	2.56	11.20	-.0032	245.75	-.0013	-27.63	300.55
SET	61	674.69	685.94	29	2	49.4	61.17	.0040	-29.67	.0001	131752.9	2.44	-.00	-.0022	229.57	.0026	-27.60	296.66
SET	72	853.53	864.78	29	5	48.2	90.05	.0039	-26.97	.0001	154197.3	2.39	-.00	-.0035	242.75	-.0004	-27.31	254.25
RISE	42	863.37	874.62	29	5	58.0	254.99	.0040	-25.87	-.0001	154984.9	1.68	3.52	.0029	119.46	-.0022	-27.29	251.90
EXTM	11	903.45	914.70	29	6	38.1	.89	.0042	-29.29	.0001	157403.8	1.96	25.49	-.0000	180.86	.0040	-27.24	242.29
SET	11	1173.71	1184.96	29	11	8.4	67.81	.0041	-28.16	.0001	190168.1	2.06	.00	-.0027	234.72	.0024	-26.89	176.97
EXTM	42	1286.41	1299.66	29	13	3.1	359.95	.0042	-26.49	.0000	195848.5	1.69	81.27	.0000	.32	-.0230	-26.77	149.03
RISE	51	1423.61	1434.86	29	15	18.3	270.00	.0041	-25.98	-.0000	214288.1	1.25	10.96	.0034	113.70	-.0015	-26.63	115.98
RISE	72	1579.10	1590.35	29	17	53.8	266.07	.0041	-26.26	-.0000	230311.0	1.15	-.01	.0036	116.53	-.0005	-26.49	77.85
RISE	61	1658.32	1669.57	29	19	13.0	296.19	.0041	-27.54	-.0000	237614.7	1.24	.00	.0025	127.29	.0027	-26.42	58.39
SET	42	1711.50	1722.75	29	20	6.2	105.00	.0041	-25.46	.0000	242069.8	1.82	3.27	-.0029	240.87	-.0022	-26.38	45.30
EXTM	51	1775.60	1786.85	29	21	10.3	358.11	.0042	-26.34	.0000	241862.6	1.46	88.20	.0036	109.95	.0390	-26.33	29.53
EXTM	61	1914.06	1925.31	29	23	28.7	.36	.0042	-27.52	.0000	257805.7	1.43	22.24	.0000	180.35	.0040	-26.22	355.40
EXTM	72	1953.92	1965.17	30	0	8.6	.11	.0042	-26.84	.0000	257630.8	1.41	71.26	-.0000	180.32	.0116	-26.19	345.56
RISE	11	2093.89	2105.14	30	2	28.6	291.03	.0042	-26.96	-.0000	275287.0	1.06	.00	.0028	123.70	.0024	-26.10	310.99
SET	51	2142.42	2153.67	30	3	17.1	90.00	.0041	-25.56	.0000	278062.4	1.73	10.80	-.0034	246.69	-.0015	-26.07	298.99
SET	61	2169.60	2180.85	30	3	44.3	64.47	.0042	-26.99	.0000	281457.5	1.63	-.00	-.0025	233.52	.0027	-26.05	292.28
SET	72	2327.57	2338.82	30	6	22.3	93.85	.0041	-25.77	.0000	294020.1	1.71	-.01	-.0037	243.97	-.0005	-25.95	253.19
RISE	42	2328.77	2340.02	30	6	23.4	255.00	.0041	-25.19	-.0000	293767.5	.98	3.11	.0030	118.92	-.0023	-25.95	252.89
EXTM	11	2369.09	2380.34	30	7	3.8	.25	.0042	-27.01	.0000	294298.4	1.29	27.78	-.0000	180.25	.0042	-25.93	242.91
SET	11	2644.13	2655.38	30	11	38.8	69.39	.0042	-26.52	.0000	318027.8	1.54	-.00	-.0028	236.88	.0024	-25.77	174.74
EXTM	42	2747.85	2759.10	30	13	22.5	359.97	.0042	-25.53	.0000	319367.1	1.20	80.31	.0000	.18	-.0174	-25.72	149.01
RISE	51	2878.41	2889.66	30	15	33.1	270.00	.0041	-25.23	-.0000	333726.6	.80	10.67	.0034	113.00	-.0015	-25.65	116.60
RISE	72	3032.62	3043.87	30	18	7.3	266.22	.0042	-25.42	-.0000	345850.6	.70	.00	.0037	115.69	-.0005	-25.58	78.30
RISE	61	3105.08	3116.33	30	19	19.8	294.74	.0042	-26.31	-.0000	350681.2	.82	.00	.0026	125.50	.0027	-25.56	60.21
SET	42	3166.51	3177.76	30	20	21.2	105.00	.0041	-24.92	.0000	354428.1	1.44	2.93	-.0030	241.30	-.0023	-25.54	44.88
EXTM	51	3230.23	3241.48	30	21	24.9	358.69	.0042	-25.52	.0000	352642.7	1.09	88.80	.0038	79.85	-.0341	-25.53	28.97
EXTM	61	3363.70	3374.95	30	23	38.4	.12	.0042	-26.40	.0000	365208.0	1.10	23.36	-.0000	180.12	.0041	-25.49	355.63
EXTM	72	3403.82	3415.07	31	0	18.5	.07	.0042	-25.79	.0000	364332.8	1.10	72.12	-.0000	180.20	.0119	-25.48	345.61
RISE	11	3537.68	3548.93	31	2	32.4	290.20	.0042	-26.08	-.0000	379151.0	.79	.00	.0029	122.55	.0024	-25.46	312.13
SET	51	3591.59	3602.84	31	3	26.3	90.00	.0042	-25.08	.0000	381563.8	1.50	10.60	-.0035	247.15	-.0015	-25.45	298.64
SET	61	3622.05	3633.30	31	3	56.7	65.47	.0042	-26.13	.0000	384784.1	1.42	.00	-.0026	234.77	.0027	-25.44	291.01
RISE	42	3772.49	3783.74	31	6	27.2	255.00	.0042	-24.88	-.0000	395467.3	1.15	2.91	.0030	118.67	-.0023	-25.44	253.18
SET	72	3773.51	3784.76	31	6	28.2	93.77	.0042	-25.30	.0000	395382.1	1.92	-.00	-.0038	244.44	-.0006	-25.44	252.92
IMPACT		3791.87	3803.12	31	6	46.6												
IMPC	42	3791.87	3803.12	31	6	46.6	259.94	.0043	-24.92	-.0000	397011.5	1.69	6.52	.0032	116.00	-.0023	-25.45	248.22
IMPC	72	3791.87	3803.12	31	6	46.6	98.44	.0043	-25.28	.0000	398198.7	2.46	-4.17	-.0038	243.74	-.0007	-25.45	248.22
IMPC	11	3791.87	3803.12	31	6	46.6	354.85	.0044	-26.25	-.0000	394720.4	2.01	28.34	.0003	174.75	.0044	-25.45	248.22

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	28	15	34.683	6552.520	23.5153	307.1035	10.98700	-1.9728	106.4777	126.7072
SEPARATION		1.20	12.45	28	15	35.883	6548.948	21.3916	314.0124	10.98993	1.4597	109.2043	133.8369
RETRO		3.20	14.45	28	15	37.883	6647.469	17.2770	324.7862	10.90754	7.1154	112.9504	145.1121
IMPACT		3791.87	3803.12	31	6	46.554	397785.262	-25.4495	248.2243	2.20046	67.7393	263.0173	298.3107

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SURVEYOR VIEW PERIODS

GHA	308.1702						EPS -12.9876								LOM	243.4830	
SX	.428176	SY	-.795004	SZ	-.429691	DAO	-25.44795	RAO	298.30620	RM	399072.590	LAT	28.310600	LON	279.461800		
C3	-.951211	ECC	.984382	SLR	12987.122	HCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0		
NSX	.446389	NSY	-.786452	NSZ	-.426884	C3M	1.4976	VIM	2.6715	ZAE	141.171	B.T	.0000	B.R	-.0000		
LATE	5.8879	LONE	4.0394	LATS	1.5376	LONS	16.2697	LATI	1.9797	LONI	325.3052	RSM	152.2340	TTAN	5.9714		
LAUNCH DATE	JUL 28,1966			BASE AZM	96.0		TF 63.198					ARRIVAL DATE	JUL 31 1966		7 5 26.8		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FTH
96.00	15 39 16.7	27.9	22.33	306.93	-.51	130.43	108.65	15 50 31.7	6544.8	10.99	-.25

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PRORE IN SUNLIGHT											
INJECTION		.00	11.25	28	15	50.5												
SEPARATION		1.20	12.45	28	15	51.7												
RETRO		3.20	14.45	28	15	53.7												
RISE	72	5.06	16.31	28	15	55.6	78.48	-.2475	55.18	.0649	2723.6	-7.10	.00	.1215	325.98	.0970	11.30	332.72
EXTM	72	10.91	22.16	28	16	1.4	325.60	-.1200	19.14	-.1594	2281.7	5.19	46.64	.0000	51.02	.2849	-.90	354.23
RISE	51	11.23	22.48	28	16	1.8	74.50	-.1009	29.00	-.0331	5273.6	-3.37	.00	.0930	302.56	.0151	-1.47	355.18
EXTM	51	34.21	45.46	28	16	24.7	354.57	-.0204	-17.63	-.0176	9211.6	5.39	80.45	.0000	32.97	.1364	-20.97	30.97
EXTM	72	67.32	78.57	28	16	57.8	286.15	.0000	-27.52	-.0010	22871.0	4.86	17.93	.0000	116.45	.0011	-26.60	44.13
RISE	61	142.41	153.66	28	18	12.9	306.79	.0025	-35.29	.0004	44019.2	3.66	-.00	.0015	139.18	.0014	-28.63	43.24
EXTM	51	243.26	254.51	28	19	53.8	.06	.0034	-29.07	.0000	58960.1	3.17	86.67	.0000	180.88	.0497	-28.74	27.63
EXTM	61	413.47	424.72	28	22	44.0	3.33	.0039	-32.02	.0002	92478.7	2.63	17.68	.0000	182.96	.0035	-28.34	352.62
EXTM	72	447.01	458.26	28	23	17.5	.50	.0040	-29.61	.0001	93864.9	2.55	68.29	-.0000	181.19	.0094	-28.26	345.20
RISE	11	615.34	626.59	29	2	5.9	293.89	.0040	-29.85	-.0000	123894.6	1.98	-.00	.0026	127.53	.0023	-27.87	306.77
SET	51	641.81	653.06	29	2	32.3	90.00	.0038	-26.74	.0001	126231.0	2.58	11.27	-.0032	245.59	-.0013	-27.82	300.60
SET	61	657.25	668.50	29	2	47.8	60.88	.0039	-29.90	.0001	129530.9	2.46	-.00	-.0022	229.23	.0026	-27.79	296.99
SET	72	837.71	848.96	29	5	48.2	94.88	.0039	-27.11	.0001	152368.8	2.40	-.00	-.0035	242.61	-.0004	-27.46	254.26
RISE	42	847.72	858.97	29	5	58.2	254.99	.0040	-28.00	-.0000	153176.2	1.69	3.60	.0029	119.56	-.0022	-27.44	251.87
EXTM	11	887.99	899.24	29	6	38.5	.95	.0041	-29.46	.0001	155674.9	1.97	25.33	-.0000	180.92	.0040	-27.38	242.23
SET	11	1157.64	1168.89	29	11	8.2	67.69	.0041	-28.27	.0001	188537.0	2.07	-.00	-.0027	234.57	.0024	-27.00	177.10
EXTM	42	1272.91	1284.16	29	13	3.4	359.95	.0042	-26.58	.0000	194337.6	1.70	81.36	.0000	.34	-.0237	-26.86	149.03
RISE	51	1408.22	1419.47	29	15	18.7	270.00	.0041	-26.05	-.0000	212849.7	1.26	10.99	.0034	113.77	-.0015	-26.71	115.97
RISE	72	1563.70	1574.95	29	17	54.2	266.06	.0041	-26.32	-.0000	228939.0	1.16	-.01	.0036	116.59	-.0005	-26.56	77.85
RISE	61	1443.29	1454.54	29	19	13.8	296.27	.0041	-27.61	-.0000	233307.2	1.25	.00	.0025	127.39	.0027	-26.48	58.30
SET	42	1696.09	1707.34	29	20	6.6	105.00	.0041	-25.52	.0000	240742.6	1.83	3.30	-.0029	240.83	-.0022	-26.44	45.31
EXTM	51	1760.25	1771.50	29	21	10.8	358.12	.0042	-26.40	.0000	240567.7	1.47	88.19	.0035	111.68	.0420	-26.38	29.52
EXTM	61	1898.78	1910.03	29	23	29.3	.38	.0042	-27.57	.0000	256566.6	1.43	22.19	.0000	180.37	.0040	-26.27	355.38
EXTM	72	1938.59	1949.84	30	0	9.1	.12	.0042	-26.49	.0000	256395.7	1.42	71.22	-.0000	180.34	.0115	-26.24	345.56
RISE	11	2078.73	2089.98	30	2	29.3	291.07	.0042	-27.00	-.0000	274104.4	1.06	.00	.0028	123.76	.0024	-26.13	310.95
SET	51	2127.07	2138.32	30	3	17.6	90.00	.0041	-25.59	.0000	276875.5	1.73	10.81	-.0034	246.66	-.0015	-26.10	299.00
SET	61	2154.07	2165.32	30	3	44.6	64.42	.0042	-27.03	.0000	280265.6	1.63	-.00	-.0025	233.46	.0027	-26.08	292.32
SET	72	2312.25	2323.50	30	6	22.8	93.85	.0041	-25.79	.0000	292884.9	1.72	-.01	-.0037	243.94	-.0005	-25.98	253.19
RISE	42	2313.46	2324.71	30	6	24.0	255.00	.0041	-25.22	-.0000	292632.9	.98	3.12	.0030	118.94	-.0023	-25.98	252.89
EXTM	11	2353.82	2365.07	30	7	4.4	.26	.0042	-27.04	.0000	293180.7	1.30	27.75	-.0000	180.26	.0042	-25.95	242.89
SET	11	2628.75	2640.00	30	11	39.3	69.37	.0042	-26.53	.0000	316960.9	1.54	-.00	-.0028	236.86	.0024	-25.79	174.76
EXTM	42	2732.67	2743.92	30	13	23.2	.00	.0042	-25.54	.0000	318336.3	1.21	80.32	-.0000	359.89	-.0050	-25.73	148.98
RISE	51	2863.13	2874.38	30	15	33.7	270.00	.0041	-25.23	-.0000	332713.9	.80	10.67	.0034	113.00	-.0015	-25.66	116.59
RISE	72	3017.34	3028.59	30	18	7.9	266.22	.0042	-25.42	-.0000	344872.5	.71	.00	.0037	115.69	-.0005	-25.58	78.29
RISE	61	3089.80	3101.05	30	19	20.3	294.74	.0042	-26.31	-.0000	349708.2	.82	.00	.0026	125.56	.0027	-25.56	60.21
SET	42	3151.20	3162.45	30	20	21.7	105.00	.0041	-24.91	.0000	353457.8	1.44	2.93	-.0030	241.31	-.0023	-25.54	44.88
EXTM	51	3214.93	3226.18	30	21	25.5	358.69	.0042	-25.52	.0000	351675.5	1.09	88.80	.0038	79.66	-.0347	-25.52	28.97
EXTM	61	3348.44	3359.69	30	23	39.0	.13	.0042	-26.40	.0000	364246.3	1.10	23.36	-.0000	180.13	.0041	-25.49	359.62
EXTM	72	3388.54	3399.79	31	0	19.1	.07	.0042	-25.78	.0000	363369.7	1.10	72.13	-.0000	180.21	.0121	-25.48	345.60
RISE	11	3522.38	3533.63	31	2	32.9	290.19	.0042	-26.07	-.0000	378175.5	.78	.00	.0029	122.53	.0024	-25.44	312.14
SET	51	3576.32	3587.57	31	3	26.8	90.00	.0042	-25.06	.0000	380578.9	1.49	10.60	-.0035	247.16	-.0015	-25.43	298.64
SET	61	3606.85	3618.10	31	3	57.4	65.49	.0042	-26.11	.0000	383792.2	1.41	.00	-.0026	234.78	.0027	-25.43	290.99
RISE	42	3757.40	3768.65	31	6	27.9	255.00	.0042	-24.85	-.0000	394218.9	1.03	2.90	-.0030	118.65	-.0023	-25.42	253.17
SET	72	3758.38	3769.63	31	6	28.9	93.76	.0042	-25.28	.0000	394620.7	1.79	-.00	-.0038	244.46	-.0006	-25.42	252.92
IMPACT		3791.89	3803.14	31	7	2.4												
IMPC	42	3791.89	3803.14	31	7	2.4	263.76	.0043	-24.92	-.0000	396731.1	1.68	9.35	.0032	113.98	-.0022	-25.43	244.40
IMPC	11	3791.89	3803.14	31	7	2.4	358.74	.0044	-26.24	-.0000	394731.7	2.03	28.94	.0001	178.71	.0049	-25.43	244.40
EXTM	11	3795.39	3806.64	31	7	5.9	359.66	.0044	-26.24	-.0000	395189.2	2.43	28.95	.0000	179.65	.0049	-25.43	243.49

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FTH	AZ	RT ASC
INJECTION		.00	11.25	28	15	50.528	6544.795	22.3285	306.9342	10.99359	-.2916	108.6506	130.4380
SEPARATION		1.20	12.45	28	15	51.728	6564.968	19.9730	313.5980	10.97644	3.1793	111.1668	137.3946
RETRO		3.20	14.45	28	15	53.728	6701.717	15.5806	324.0129	10.86298	8.7706	114.5113	148.3109
IMPACT		3791.89	3803.14	31	7	2.419	397815.918	-25.4295	244.3953	2.20015	67.7874	263.2328	298.4588

SURVEYOR VIEW PERIODS

GHA	308.1702					EPS	-12.8766							LOM	239.7950
SX	.430222	SY	-.794066	SZ	-.429382	DAD	-25.42833	RAD	298.44868	RM	399101.621	LAT	28.310600	LON	279.461800
C3	-.952346	ECC	.944363	SMR	12987.001	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.448424	NSY	-.785467	NSZ	-.426963	C3M	1.4973	VIM	2.6714	ZAE	141.135	B.T	.0000	B.R	-.0000
LATE	5.8946	LONE	4.0302	LATS	1.5378	LONS	16.1412	LATI	1.7832	LONI	325.2848	RSM	152.2340	TTAN	5.9659
LAUNCH DATE	JUL 28.1966			BASE AZM	99.0		F 65.224					ARRIVAL DATE	JUL 31 1966	7 20 43.6	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
99.00	15 51 54.1	28.0	21.17	306.58	2.32	133.24	110.79	16 3 9.1	6547.1	10.99	1.10

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PRIME IN SUNLIGHT											
INJECTION	.00	11.25	28	16	3.2												
SEPARATION	1.20	12.45	28	16	4.4												
RETRO	3.20	14.45	28	16	6.4												
RISE 72	4.77	16.02	28	16	7.9	80.85	-.2085	48.89	.0423	2798.2	-7.45	-.00	.1252	319.52	.0700	10.18	330.31
EXTM 72	10.69	21.94	28	16	13.8	335.95	-.1477	14.48	-.1577	2137.3	4.89	57.02	-.0000	46.34	.3908	-2.28	351.53
RISE 51	11.14	22.39	28	16	14.3	76.82	-.0933	25.30	-.0358	5430.2	-3.17	.00	.0912	298.33	.0091	-3.07	352.32
EXTM 51	36.16	47.41	28	16	39.3	357.12	-.0184	-20.88	-.0092	9955.5	5.34	84.47	-.0000	29.16	.2021	-22.78	29.47
EXTM 72	68.47	79.72	28	17	11.6	289.40	.0000	-28.95	-.0008	23071.5	4.82	20.76	.0000	118.03	.0009	-27.57	41.30
RISE 61	131.64	142.89	28	18	14.8	308.48	.0022	-36.33	.0004	41621.1	3.77	-.00	.0014	140.90	.0012	-29.20	41.33
EXTM 51	227.12	238.37	28	19	50.3	.11	.0033	-29.46	.0001	55951.9	3.24	86.08	-.0000	181.38	.0416	-29.26	27.59
EXTM 61	401.80	413.05	28	22	44.7	3.72	.0039	-32.47	.0002	90717.0	2.66	17.21	.0000	183.29	.0034	-28.72	352.25
EXTM 72	434.03	445.28	28	23	17.2	.80	.0040	-30.02	.0001	91952.4	2.58	67.87	-.0000	181.37	.0092	-28.62	345.12
RISE 11	604.08	615.33	29	2	7.2	294.21	.0040	-30.17	.0000	122417.2	2.00	.00	-.0026	127.95	.0023	-28.16	306.42
SET 51	628.88	640.13	29	2	32.0	90.00	.0038	-27.00	.0001	124539.9	2.59	11.37	-.0032	245.34	-.0013	-28.10	300.65
SET 61	642.69	653.94	29	2	45.8	60.48	.0039	-30.22	.0001	127647.1	2.47	-.00	-.0022	228.76	.0026	-28.06	297.43
SET 72	825.28	836.53	29	5	48.4	94.12	.0039	-27.33	.0001	150912.6	2.41	-.00	-.0035	242.39	-.0004	-27.68	254.25
RISE 42	835.36	846.61	29	5	58.5	254.99	.0040	-26.21	-.0000	151721.1	1.70	3.72	.0028	119.72	-.0021	-27.66	251.85
EXTM 11	875.89	887.14	29	6	39.0	1.04	.0041	-29.49	.0001	154314.2	1.98	25.10	-.0000	180.99	.0040	-27.58	242.15
SET 11	1144.58	1155.83	29	11	7.7	67.52	.0041	-28.44	.0001	187185.9	2.07	.01	-.0027	234.34	.0024	-27.16	177.29
EXTM 42	1260.63	1271.88	29	13	3.8	359.94	.0042	-26.73	.0000	193115.6	1.71	81.51	.0000	.39	-.0239	-27.00	149.04
RISE 51	1396.04	1407.29	29	15	19.2	270.00	.0041	-26.18	-.0000	211482.5	1.27	11.04	.0034	113.88	-.0015	-26.83	115.96
RISE 72	1551.47	1562.72	29	17	54.6	286.04	.0041	-26.43	-.0000	227819.9	1.16	-.01	.0036	116.70	-.0005	-26.66	77.86
RISE 61	1631.64	1642.89	29	19	14.8	296.40	.0041	-27.72	-.0000	235263.7	1.25	.00	.0025	127.54	.0027	-26.58	58.16
SET 42	1683.88	1695.13	29	20	7.0	105.00	.0041	-25.41	.0000	239655.4	1.83	3.36	-.0029	240.76	-.0022	-26.53	45.32
EXTM 51	1748.15	1759.40	29	21	11.3	358.14	.0042	-26.49	.0000	239513.5	1.47	88.17	.0035	114.56	.0470	-26.47	29.50
EXTM 61	1886.72	1897.97	29	23	29.9	.41	.0042	-27.46	.0000	255555.9	1.44	22.10	.0000	180.39	.0040	-26.35	355.35
EXTM 72	1926.45	1937.70	30	0	9.6	.13	.0042	-26.76	.0000	255381.3	1.42	71.14	-.0000	180.35	.0115	-26.31	345.55
RISE 11	2066.85	2078.10	30	2	30.0	291.14	.0042	-27.07	-.0000	273136.9	1.06	.00	.0028	123.84	.0024	-26.20	310.88
SET 51	2114.89	2126.14	30	3	18.0	90.00	.0041	-25.45	.0000	275890.2	1.74	10.83	-.0034	246.61	-.0015	-26.16	299.01
SET 61	2141.80	2153.05	30	3	44.8	64.35	.0042	-27.09	.0000	279264.0	1.63	-.00	-.0025	233.37	.0027	-26.14	292.40
SET 72	2300.09	2311.34	30	6	23.2	93.86	.0041	-25.84	.0000	291935.1	1.72	-.00	-.0037	243.89	-.0005	-26.03	253.19
RISE 42	2301.33	2312.58	30	6	24.5	255.00	.0041	-25.26	-.0000	291683.6	.98	3.15	.0030	118.97	-.0023	-26.02	252.88
EXTM 11	2341.75	2353.00	30	7	4.9	.28	.0042	-27.09	.0000	292250.5	1.30	27.70	-.0000	180.28	.0042	-26.00	242.88
SET 11	2416.47	2427.72	30	11	39.6	69.34	.0042	-26.57	.0000	316052.0	1.55	-.00	-.0028	236.81	.0024	-25.82	174.79
EXTM 42	2720.41	2731.76	30	13	23.7	360.00	.0042	-25.57	.0000	317449.9	1.21	80.35	-.0000	.11	-.0014	-25.75	148.98
RISE 51	2851.00	2862.25	30	15	34.2	270.00	.0041	-25.25	-.0000	331846.3	.81	10.67	.0034	113.02	-.0015	-25.68	116.59
RISE 72	3005.18	3016.43	30	18	8.3	286.21	.0041	-25.44	-.0000	343806.8	.74	-.00	.0037	115.70	-.0005	-25.59	78.30
RISE 61	3077.83	3089.08	30	19	21.0	294.74	.0042	-26.32	-.0000	348932.0	.82	.00	.0026	125.51	.0027	-25.56	60.20
SET 42	3139.19	3150.44	30	20	22.3	105.00	.0041	-24.91	.0000	352676.1	1.44	2.93	-.0030	241.31	-.0023	-25.54	44.88
EXTM 51	3202.92	3214.17	30	21	26.1	358.69	.0042	-25.52	.0000	350891.2	1.09	88.80	.0038	79.64	-.0348	-25.52	28.97
EXTM 61	3436.44	3447.69	30	23	39.6	.14	.0042	-26.40	.0000	363452.7	1.09	23.36	-.0000	180.13	.0041	-25.48	355.62
EXTM 72	3376.51	3387.76	31	0	19.7	.07	.0042	-25.77	.0000	362570.3	1.09	72.13	-.0000	180.22	.0120	-25.47	345.60
RISE 11	3510.30	3521.55	31	2	33.5	290.19	.0042	-26.06	-.0000	377351.4	.78	.00	.0029	122.52	.0024	-25.44	312.14
SET 51	3564.25	3575.50	31	3	27.4	90.00	.0042	-25.05	.0000	379740.8	1.49	10.59	-.0035	247.17	-.0015	-25.42	298.64
SET 61	3594.82	3606.07	31	3	58.0	64.50	.0042	-26.11	.0000	382944.0	1.41	.00	-.0026	234.80	.0027	-25.42	290.99
RISE 72	3745.43	3756.68	31	6	28.6	255.00	.0042	-24.83	-.0000	393185.5	.96	2.88	.0030	118.63	-.0023	-25.40	253.17
SET 72	3746.38	3757.63	31	6	29.5	93.76	.0042	-25.26	.0000	393587.1	1.72	-.00	-.0038	244.48	-.0005	-25.40	252.93
EXTM 11	3784.58	3795.83	31	7	7.7	359.90	.0043	-26.21	-.0000	393800.5	1.66	28.58	.0000	179.90	.0044	-25.41	243.25
IMPACT	3793.47	3804.72	31	7	16.6												
IMPC 42	3793.47	3804.72	31	7	16.6	267.18	.0043	-24.92	-.0000	396481.9	1.67	11.92	.0033	112.21	-.0022	-25.41	240.97
IMPC 11	3793.47	3804.72	31	7	16.6	2.21	.0044	-26.22	-.0000	394763.3	2.04	28.54	-.0001	182.26	.0045	-25.41	240.97

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION	.00	11.25	28	16	3.152	6547.098	21.1671	306.5774	10.99158	1.0990	110.7861	133.2379
SEPARATION	1.20	12.45	28	16	4.352	6585.851	18.5887	313.0735	10.95883	4.5178	113.1002	140.0349
RETRO	3.20	14.45	28	16	6.352	6752.016	13.9324	323.1405	10.82206	10.0525	116.0696	150.6033
IMPACT	3793.47	3804.72	31	7	16.619	397846.941	-25.4116	240.9688	2.19788	67.4647	263.5620	298.5919

SURVEYOR VIEW PERIODS

GMA	308.1702					EPS	-12.7848							LOM	236.7411
SX	.431914	SY	-.793286	SZ	-.429124	DAO	-25.41199	RAO	298.56662	RM	399125.629	LAT	28.310600	LON	279.461800
C3	-.954237	ECC	.984332	SLR	12986.796	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.450120	NSY	-.784642	NSZ	-.426297	C3M	1.4969	VIM	2.6714	ZAE	141.076	B.T	.0000	B.R	-.0000
LATE	5.9001	LONE	4.1384	LATS	1.5378	LONS	16.1489	LATI	1.5278	LONI	325.3666	RSM	152.2340	TTAN	5.9623
LAUNCH DATE		JUL	28.1966	BASE AZM	102.0		TF	63.261				ARRIVAL DATE		JUL 31 1966	7 33 22.8

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	16 1 54.5	28.1	20.03	306.14	4.34	135.31	112.90	16 13 9.5	6554.0	10.99	2.15

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DE	AZI	DAZ	LAT	LONG
						PHORE IN SUNLIGHT												
INJECTION		.00	11.25	28	16	13.2												
SEPARATION		1.20	12.45	28	16	14.4												
RETRO		3.20	14.45	28	16	16.4												
RISE	72	4.57	15.82	28	16	17.7	82.49	-.1838	43.29	.0209	2863.6	-7.65	-.00	.1274	313.81	.0457	8.94	328.26
EXTM	72	10.57	21.82	28	16	23.7	345.14	-.1675	8.74	-.1495	2058.5	4.68	67.72	-.0000	41.97	.5883	-3.89	349.28
RISE	51	11.08	22.33	28	16	24.2	78.90	-.0871	21.76	-.0385	5561.6	-2.99	.00	.0895	294.30	.0038	-4.79	350.73
EXTM	51	35.76	47.01	28	16	48.9	1.65	-.0197	-22.97	-.0088	9934.0	5.28	86.85	.0163	331.14	.2153	-24.05	26.67
EXTM	72	69.57	80.82	28	17	22.7	292.03	.0001	-30.53	-.0006	23289.1	4.79	22.95	.0000	119.88	.0006	-28.73	39.01
RISE	61	126.49	137.74	28	18	19.6	310.36	.0021	-37.43	.0005	40490.9	3.82	-.00	.0015	142.76	.0010	-30.00	39.40
EXTM	51	214.18	225.43	28	19	47.3	.19	.0032	-30.42	.0001	53486.7	3.30	85.31	-.0000	182.04	.0336	-29.93	27.51
EXTM	61	392.89	404.14	28	22	46.0	4.18	.0038	-33.01	.0002	89436.0	2.68	16.65	.0000	183.66	.0034	-29.19	351.82
EXTM	72	424.02	435.27	28	23	17.2	.71	.0040	-30.53	.0001	90468.8	2.66	67.36	-.0000	181.59	.0089	-29.08	345.01
RISE	11	595.89	607.14	29	2	9.0	294.61	.0040	-30.55	.0000	121332.3	2.[illegible]	.00	.0026	128.4[illegible]	.0023	-28.51	306.00
SET	51	618.73	629.98	29	2	31.9	90.00	.0038	-27.35	.0001	123191.7	2.60	11.51	-.0032	245.02	-.0013	-28.45	300.69
SET	61	630.45	641.70	29	2	43.6	59.97	.0039	-30.60	.0002	126043.5	2.48	-.00	-.0021	228.17	.0026	-28.41	297.96
SET	72	815.61	826.86	29	5	48.8	94.17	.0039	-27.61	.0001	149766.1	2.42	-.00	-.0035	242.11	-.0004	-27.96	254.23
RISE	42	825.68	836.93	29	5	58.8	254.99	.0040	-26.48	-.0000	150561.4	1.71	3.89	.0028	119.94	-.0021	-27.9[illegible]	251.83
EXTM	11	866.55	877.80	29	6	39.7	1.14	.0041	-29.97	.0001	153260.7	1.99	24.81	-.0000	181.08	.0040	-27.85	242.06
SET	11	1134.05	1145.30	29	11	7.2	87.31	.0041	-28.66	.0001	186080.8	2.08	-.00	-.0026	234.06	.0024	-27.36	177.50
EXTM	42	1250.98	1262.23	29	13	4.1	359.93	.0042	-26.92	.0000	192137.3	1.71	81.70	.0000	.44	-.0249	-27.18	149.05
RISE	51	1386.48	1397.73	29	15	19.6	270.00	.0041	-26.34	-.0000	210745.0	1.27	11.10	.0034	114.03	-.0015	-27.00	115.95
RISE	72	1541.82	1553.07	29	17	55.0	266.01	.0041	-26.57	-.0000	226916.6	1.16	-.01	.0036	116.84	-.0005	-26.80	77.88
RISE	61	1622.74	1633.99	29	19	15.9	296.56	.0041	-27.85	-.0000	234445.8	1.26	.00	.0025	127.74	.0027	-26.71	58.00
SET	42	1674.27	1685.52	29	20	7.4	105.00	.0041	-25.73	.0000	238774.6	1.84	3.43	-.0029	240.64	-.0022	-26.66	45.33
EXTM	11	1740.17	1751.42	29	21	13.3	358.54	.0042	-26.61	.0000	238796.9	1.48	88.43	.0032	123.87	.0747	-26.59	29.11
EXTM	61	1877.29	1888.54	29	23	30.4	.44	.0042	-27.77	.0000	254744.3	1.44	22.00	.0000	180.42	.0040	-26.45	355.32
EXTM	72	1916.91	1928.16	30	0	10.1	.14	.0042	-26.87	.0000	254560.0	1.42	71.04	-.0000	180.37	.0115	-26.41	345.54
RISE	11	2057.64	2068.89	30	2	3[illegible].8	291.22	.0042	-27.16	-.0000	272359.0	1.07	.00	.0028	123.96	.0024	-26.28	310.79
SET	51	2105.30	2116.55	30	3	16.5	90.00	.0041	-25.73	.0000	275084.0	1.74	10.87	-.0034	246 53	-.0015	-26.24	299.01
SET	61	2131.61	2142.86	30	3	44.8	64.25	.0042	-27.18	.0000	278432.6	1.64	-.00	-.0025	233.25	.0027	-2[illegible].22	292.51
SET	72	2290.54	2301.79	30	6	43.7	93.17	.0041	-25.91	.0001	291159.2	1.72	-.00	-.0037	243.82	-.0005	-26.09	253.19
RISE	42	2291.77	2303.02	30	6	24.9	255.00	.0041	-25.33	-.0000	290902.3	.99	3.19	.0029	119.02	-.0023	-26.09	252.88
EXTM	11	2332.26	2343.51	30	7	5.4	.30	.0042	-27.16	.0000	291490.9	1.30	27.63	-.0000	180.30	.0042	-26.06	242.86
SET	11	2406.70	2417.95	30	11	39.9	69.30	.0042	-26.61	.0000	315292.4	1.55	-.00	-.0028	236.75	.0024	-25.86	174.84
EXTM	42	2710.90	2722.15	30	13	24.1	359.99	.0042	-25.60	.0000	316710.8	1.21	80.[illegible]	-.0000	.10	-.0111	-25.79	148.99
RISE	51	2841.43	2852.68	30	15	34.6	270.00	.0041	-25.28	-.0000	331120.0	.81	10.69	.0034	113.05	-.0015	-25.71	116.59
RISE	72	2995.59	3006.84	30	18	8.7	266.21	.0041	-25.46	-.0000	343092.2	.74	-.00	.0037	115.72	-.0005	-25.62	78.30
RISE	61	3068.34	3079.59	30	19	21.5	294.77	.0042	-26.34	-.0000	348229.7	.82	.00	.0024	125.53	.0027	-25.58	60.18
SET	42	3129.60	3140.85	30	20	22.8	105.00	.0041	-24.93	.0000	351965.1	1.44	2.94	-.0030	241.30	-.0023	-25.56	44.89
EXTM	51	3193 32	3204.57	30	21	24.5	358.69	.0042	-25.53	.0000	350180.1	1.09	88.80	.0038	80.28	-.0328	-25.53	28.97
EXTM	61	3326.91	3338.16	30	23	40.1	.15	.0042	-26.41	.0000	362742.4	1.09	23.36	-.0000	180.15	.0041	-25.49	355.60
EXTM	72	3366.94	3378.19	31	0	20.1	.08	.0042	-25.78	.0000	361854.6	1.09	72.12	-.0000	180.23	.0121	-25.48	345.60
RISE	11	3500.74	3511.99	31	2	33.9	290.19	.0042	-26.06	-.0000	376622.9	.78	.00	.0029	122.53	.0024	-25.44	312.14
SET	51	3554.68	3565.93	31	3	27.8	90.00	.0042	-25.05	.0000	379081.5	1.48	10.59	-.0035	247.17	-.0015	-25.42	298.64
SET	61	3585.27	3596.52	31	3	58.4	65.50	.0042	-26.10	.0000	382199.0	1.40	.00	-.0026	234.80	.0027	-25.41	298.98
RISE	42	3735.95	3747.20	31	6	29.1	255.00	.0042	-24.82	-.0000	392323.0	.92	2.88	.0030	118.62	-.0023	-25.39	253.17
SET	72	3736.88	3748.13	31	6	30.0	93.76	.0042	-25.25	.0000	392712.9	1.68	-.00	-.0038	244.49	-.0005	-25.39	252.93
EXTM	11	3775.30	3786.55	31	7	8.5	359.92	.0043	-26.20	-.0000	392758.4	1.47	28.59	.0000	179.92	.0044	-25.39	243.23
IMPACT		3795.66	3806.91	31	7	28.8												
IMPC	42	3795.66	3806.91	31	7	28.8	270.13	.0043	-24.92	-.0000	396263.8	1.67	14.16	.0033	110.72	-.0021	-25.40	238.02
IMPC	11	3795.66	3806.91	31	7	28.8	5.20	.0044	-26.20	-.0000	396800.9	2.06	28.39	-.0003	185.31	.0044	-25.40	238.02

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	28	16	13.158	6554.026	20.0288	306.1436	10.98566	2.1529	112.8398	133.3[illegible]24
SEPARATION		1.20	12.45	28	16	14.358	6607.109	17.2407	312.4565	10.94096	9.5968	115.0159	141.9262
RETRO		3.20	14.45	28	16	16.358	6795.733	12.3263	322.1963	10.78682	11.0375	117.6381	152.1673
IMPACT		3795.66	3806.91	31	7	28.819	397873.480	-25.3964	238.0242	2.19708	67.4398	264.0498	298 7057

SURVEYOR VIEW PERIODS

GMA	308.1702				EPS	-12.7069							LOM	234.1452	
SX	.433351	SY	-.792621	SZ	-.428904	DAD	-25.39802	RAD	298.66682	RM	399146.008	LAT	28.310600	LON	279.461800
C3	-.956695	ECC	.984292	SLR	12986.532	RPA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.451566	NSY	-.783932	NSZ	-.426873	C3M	1.4967	VIM	2.6713	ZAE	140.994	B.T	.0000	B.R	-.0000
LATE	5.9048	LONE	6.0184	LATS	1.5380	LONS	15.9423	LATI	1.2303	LONI	325.2022	RSM	152.2340	TTAN	5.9608
LAUNCH DATE	JUL 28,1966			BASE AZM	105.0		TF 63.306					ARRIVAL DATE	JUL 31 1966		7 44 8.1

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
105.00	15 9 53.0	28.1	18.92	305.44	6.01	136.81	115.00	15 21 8.0	6562.5	10.98	2.98

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	28	16	21.1												
SEPARATION	1.20	12.45	28	16	22.3												
RETRO	3.20	14.45	28	16	24.3												
RISE 72	4.43	15.68	28	16	25.6	83.74	-.1600	38.15	.0008	2922.1	-7.72	-.01	.1284	308.59	.0236	7.60	326.49
EXTM 72	10.54	21.79	28	16	31.7	352.97	-.1768	1.22	-.1368	2042.9	4.58	78.50	-.0000	37.85	1.1289	-5.70	347.39
RISE 51	11.06	22.31	28	16	32.2	80.81	-.0818	18.42	-.0412	5674.7	-2.83	.00	.0879	290.42	-.0011	-6.63	348.84
EXTM 51	39.99	51.24	28	17	1.1	.65	-.0156	-27.21	-.0055	11364.3	5.25	88.42	-.0000	201.47	-.5407	-26.68	27.27
EXTM 72	70.56	81.81	28	17	31.7	294.13	.0000	-32.22	-.0003	23504.1	4.76	24.58	.0000	121.90	.0004	-30.03	37.14
EXTM 51	92.77	104.02	28	17	53.9	346.10	.0001	-31.75	-.0002	26518.6	4.31	76.43	.0000	119.48	.0009	-30.70	38.77
RISE 61	126.05	137.30	28	18	27.2	312.32	.0021	-38.51	.0006	40452.3	3.82	-.00	.0014	144.65	.0010	-30.97	37.55
EXTM 51	204.05	215.30	28	19	45.2	.33	.0031	-31.34	.0001	51523.7	3.56	84.39	-.0000	182.90	.0271	-30.72	27.39
EXTM 61	386.69	397.94	28	22	47.8	4.48	.0038	-33.62	.0002	88542.2	2.69	16.02	.0000	184.05	.0033	-29.74	351.36
EXTM 72	416.39	427.64	28	23	17.5	.85	.0040	-31.12	.0001	89336.7	2.62	66.77	.0000	181.85	.0086	-29.61	344.89
RISE 11	590.12	601.37	29	2	11.3	295.07	.0040	-30.98	.0000	120565.7	2.02	.00	.0025	129.05	.0023	-28.92	305.52
SET 51	610.76	622.03	29	2	31.9	90.00	.0038	-27.75	.0001	122120.0	2.61	11.67	-.0032	244.64	-.0012	-28.85	306.73
SET 61	620.06	631.31	29	2	41.2	59.38	.0039	-31.05	.0002	124665.2	2.49	-.00	-.0021	227.50	.0026	-28.82	298.57
SET 72	808.11	819.36	29	5	49.2	94.23	.0039	-27.93	.0001	148867.5	2.42	-.01	-.0034	241.78	-.0004	-28.28	254.20
RISE 42	818.13	829.38	29	5	59.3	254.99	.0040	-26.79	-.0000	149638.4	1.72	4.08	.0028	120.18	-.0021	-28.26	251.81
EXTM 11	859.38	870.63	29	6	40.5	1.23	.0041	-30.30	.0001	152453.0	1.99	24.48	-.0000	181.18	.0039	-28.16	241.95
SET 11	1125.43	1136.68	29	11	6.6	67.07	.0041	-28.91	.0001	185161.2	2.08	-.00	-.0026	233.72	.0024	-27.60	177.76
EXTM 42	1243.40	1254.65	29	13	4.5	359.92	.0042	-27.14	.0000	191353.7	1.72	81.92	.0000	.50	-.0256	-27.40	149.05
RISE 51	1478.97	1490.22	29	15	20.1	270.00	.0041	-26.53	-.0000	209990.4	1.28	11.18	.0034	114.21	-.0014	-27.19	115.94
RISE 72	1534.19	1545.44	29	17	55.3	265.98	.0041	-26.73	-.0000	226185.2	1.17	-.01	.0036	117.01	-.0005	-26.97	77.90
RISE 61	1615.98	1627.23	29	19	17.1	296.75	.0041	-28.01	-.0000	233807.2	1.26	.00	.0025	127.97	.0027	-26.86	57.80
SET 42	1666.70	1677.95	29	20	7.8	105.00	.0041	-25.87	.0001	238058.3	1.84	3.52	-.0029	240.54	-.0022	-26.80	45.33
EXTM 51	1736.50	1747.75	29	21	17.6	359.52	.0042	-26.75	.0000	238446.8	1.48	88.91	.0015	157.01	.1805	-26.72	28.15
EXTM 61	1869.89	1881.14	29	23	31.0	.48	.0042	-27.89	.0000	254091.3	1.44	21.87	-.0000	180.46	.0040	-26.57	355.28
EXTM 72	1909.40	1920.65	30	0	10.5	.15	.0042	-26.99	.0000	253892.3	1.43	70.91	-.0000	180.40	.0114	-26.53	345.53
RISE 11	2050.50	2061.75	30	2	31.6	291.32	.0042	-27.26	-.0000	271732.1	1.07	.00	.0028	124.10	.0024	-26.39	310.69
SET 51	2097.72	2108.97	30	3	18.9	90.00	.0041	-25.83	.0001	274420.7	1.74	10.91	-.0034	246.44	-.0015	-26.34	299.01
SET 61	2123.56	2134.81	30	3	44.7	64.13	.0042	-27.28	.0001	277737.4	1.64	-.00	-.0025	233.11	.0027	-26.32	292.63
SET 72	2283.01	2294.26	30	6	24.1	93.88	.0041	-25.99	.0001	290519.5	1.72	-.00	-.0037	243.74	-.0005	-26.17	253.18
RISE 42	2284.22	2295.47	30	6	25.4	255.00	.0041	-25.41	-.0000	290255.1	.99	3.24	.0029	119.09	-.0023	-26.17	252.88
EXTM 11	2424.79	2436.04	30	7	5.9	.33	.0042	-27.24	.0000	290866.2	1.30	27.55	-.0000	180.33	.0042	-26.14	242.83
SET 11	2598.89	2610.14	30	11	40.0	69.24	.0042	-26.47	.0000	314652.0	1.55	-.00	-.0028	236.68	.0024	-25.92	174.90
EXTM 42	2705.27	2716.52	30	13	24.4	359.98	.0042	-25.65	.0000	316089.6	1.21	80.43	-.0000	.14	-.0159	-25.84	149.00
RISE 51	2833.84	2845.09	30	15	35.0	270.00	.0041	-25.32	-.0000	330507.0	.81	10.70	.0034	113.09	-.0015	-25.75	116.59
RISE 72	2987.98	2999.23	30	18	9.1	266.20	.0041	-25.49	-.0000	342485.4	.74	-.00	.0037	115.75	-.0005	-25.65	78.30
RISE 61	3060.87	3072.12	30	19	22.0	294.80	.0042	-26.37	-.0000	347635.2	.82	.00	.0026	125.57	.0027	-25.61	60.15
ET 42	3121.98	3133.23	30	20	23.1	105.00	.0041	-24.95	.0000	351358.2	1.44	2.95	-.0030	241.28	-.0023	-25.58	44.89
EXTM 51	3185.71	3196.96	30	21	26.8	358.69	.0042	-25.55	.0000	349572.5	1.09	86.80	.0038	81.23	-.0299	-25.55	28.98
EXTM 61	3319.37	3330.62	30	23	40.5	.17	.0042	-26.42	.0000	362134.6	1.09	23.34	-.0000	180.16	.0041	-25.50	355.59
EXTM 72	3359.16	3370.61	31	0	20.5	.08	.0042	-25.79	.0000	361240.4	1.09	72.11	-.0000	180.24	.0121	-25.49	345.59
RISE 11	3493.17	3504.42	31	2	34.3	290.19	.0042	-26.07	-.0000	375995.5	.77	.00	.0029	122.53	.0024	-25.44	312.14
SET 51	3547.09	3558.34	31	3	28.2	90.00	.0042	-25.05	.0000	378363.8	1.48	10.59	-.0035	247.17	-.0015	-25.42	298.64
SET 61	3577.68	3588.93	31	3	58.8	65.50	.0042	-26.10	.0000	381554.6	1.40	.00	-.0026	234.80	.0027	-25.41	290.99
RISE 42	3728.42	3739.67	31	6	29.6	255.00	.0042	-24.81	-.0000	391590.8	.90	2.87	.0030	118.61	-.0023	-25.38	253.17
SET 72	3729.34	3740.59	31	6	30.5	93.75	.0042	-25.24	.0000	391977.3	1.65	-.00	-.0037	244.50	-.0005	-25.38	252.94
EXTM 11	3768.14	3779.39	31	7	9.3	.00	.0043	-26.19	.0000	391942.5	1.39	28.60	.0000	180.00	41.5047	-25.38	243.15
IMPACT	3798.34	3809.59	31	7	39.5												
IMPC 42	3798.34	3809.59	31	7	39.5	272.70	.0043	-24.92	-.0000	396073.5	1.67	16.13	.0033	109.43	-.0021	-25.38	235.45
IMPC 11	3798.34	3809.59	31	7	39.5	7.81	.0044	-26.19	-.0000	394844.1	2.08	28.16	-.0005	187.95	.0046	-25.38	235.45

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION	.00	11.25	28	16	21.134	6562.662	18.9125	305.6500	10.97833	2.9787	115.0007	136.8183
SEPARATION	1.20	12.45	28	16	22.334	6626.836	15.9225	311.7768	10.92442	6.3679	116.9275	143.2459
RETRO	3.20	14.45	28	16	24.334	6832.777	10.7522	321.2084	10.75719	11.8019	119.2266	153.1788
IMPACT	3798.34	3809.59	31	7	39.473	397891.230	-25.3833	235.4530	2.19600	67.4033	264.6295	298.8052

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SURVEYOR VIEW PERIODS

GMA	308.1702					EPS	-12.6370							LOM	231.8154
SX	.434640	SY	-.792023	SZ	-.428705	DAO	-25.38543	RAO	298.75673	RM	399164.285	LAT	28.310600	LON	279.461800
C3	-.959831	ECC	.984241	SLR	12986.192	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.452871	NSY	-.783288	NSZ	-.425872	C3M	1.4965	VIM	2.6713	ZAE	140.886	B.T	.0000	B.R	-.0000
LATE	5.9089	LONE	4.0989	LATS	1.5360	LONS	15.9489	LATI	.9033	LONI	325.2221	RSM	152.2340	TTAN	5.9607
LAUNCH DATE		JUL	28.1966		BASE AZM	108.0		TF	63.360			ARRIVAL DATE		JUL 31 1966	7 53 47.2

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	16 16 19.4	28.1	17.83	305.09	7.32	137.87	117.09	16 27 34.4	6571.3	10.97	3.63

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PRORE IN SUNLIGHT											
INJECTION		.00	11.25	28	16	27.6												
SEPARATION		1.20	12.45	28	16	28.8												
RETRO		3.20	14.45	28	16	30.8												
RISE	72	4.34	15.59	28	16	31.9	84.76	-.1522	33.32	-.0181	2976.4	-7.69	.00	.1285	303.68	.0030	6.18	324.94
EXTM	72	10.41	21.66	28	16	38.0	1.47	-.1909	-5.73	-.1285	2042.5	4.29	87.38	.2124	326.02	1.8895	-7.38	345.31
RISE	51	11.08	22.33	28	16	38.7	82.60	-.0772	14.95	-.0438	5775.8	-2.66	.00	.0864	286.64	-.0056	-8.55	347.11
EXTM	51	42.07	53.32	28	17	9.6	1.67	-.0144	-30.33	-.0041	12100.4	5.20	85.18	-.0000	197.44	-.1561	-28.75	26.61
EXTM	72	71.33	82.58	28	17	38.9	295.81	.0000	-34.00	-.0001	23682.5	4.74	25.75	.0000	124.04	.0001	-31.44	35.61
EXTM	51	93.21	104.46	28	18	.8	348.02	.0000	-33.30	-.0000	26676.3	4.30	77.14	.0000	128.82	.0001	-31.94	37.22
RISE	61	129.21	140.46	28	18	36.8	314.30	.0021	-39.53	.0007	41256.3	3.78	.01	.0015	146.50	.0010	-32.03	35.80
EXTM	51	196.33	207.58	28	19	43.9	.53	.0030	-32.37	.0002	50014.8	3.40	83.35	.0000	183.89	.0221	-31.62	27.22
EXTM	61	382.45	393.70	28	22	50.0	5.20	.0038	-34.26	.0002	87956.3	2.70	15.35	.0000	184.46	.0033	-30.35	350.87
EXTM	72	410.64	421.89	28	23	18.2	1.01	.0040	-31.76	.0001	88486.4	2.63	66.13	.0000	182.12	.0083	-30.19	344.74
RISE	11	586.23	597.48	29	2	13.8	295.57	.0040	-31.45	.0000	120045.6	2.03	.00	.0025	129.69	.0023	-29.38	305.01
SET	51	604.54	615.79	29	2	32.1	90.00	.0038	-28.20	.0001	121265.3	2.62	11.84	-.0031	244.22	-.0012	-29.30	300.76
SET	61	611.07	622.32	29	2	38.6	58.72	.0039	-31.54	.0002	123459.2	2.50	-.00	-.0021	226.75	.0027	-29.28	299.24
SET	72	802.29	813.54	29	5	49.5	94.29	.0039	-28.28	.0001	148160.7	2.43	-.01	-.0034	241.42	-.0004	-28.64	254.15
RISE	42	812.21	823.46	29	5	59.8	254.99	.0040	-27.14	-.0000	148898.7	1.73	4.29	.0028	120.46	-.0021	-28.61	251.79
EXTM	11	853.88	865.13	29	6	41.5	1.37	.0041	-30.65	.0001	151835.1	2.00	24.13	.0000	181.29	.0039	-28.49	241.83
SET	11	1118.30	1129.55	29	11	5.9	66.79	.0041	-29.18	.0001	184386.7	2.08	-.00	-.0026	233.36	.0024	-27.87	178.04
EXTM	42	1237.50	1248.75	29	13	5.1	359.94	.0042	-27.38	.0000	190727.9	1.72	82.16	-.0000	.41	-.0259	-27.63	149.04
RISE	51	1373.04	1384.29	29	15	20.6	270.00	.0041	-26.73	-.0000	209374.6	1.28	11.26	.0034	114.41	-.0014	-27.40	115.93
R..	72	1528.11	1539.36	29	17	55.7	265.95	.0041	-26.91	-.0000	225583.0	1.17	-.01	.0036	117.20	-.0005	-27.15	77.92
RISE	61	1610.87	1622.12	29	19	18.4	296.97	.0041	-28.19	-.0000	233302.3	1.26	.00	.0025	128.23	.0027	-27.03	57.59
SET	42	1660.69	1671.94	29	20	8.3	105.00	.0041	-26.03	.0001	237464.7	1.84	3.62	-.0029	240.42	-.0022	-26.97	45.34
EXTM	51	1729.07	1740.32	29	21	16.6	359.16	.0042	-26.91	.0000	237744.0	1.48	88.61	.0021	147.27	.1293	-26.88	28.51
EXTM	61	1864.05	1875.30	29	23	31.6	.53	.0042	-28.03	.0000	253553.7	1.44	21.73	.0000	180.50	.0040	-26.71	359.24
EXTM	72	1903.44	1914.69	30	0	11.0	.16	.0042	-27.13	.0000	253337.8	1.43	70.78	-.0000	180.43	.0114	-26.66	345.92
RISE	11	2044.95	2056.20	30	2	32.5	291.44	.0042	-27.38	-.0000	271215.3	1.07	.00	.0028	124.26	.0024	-26.50	310.57
SET	51	2091.69	2102.94	30	3	19.3	90.00	.0041	-25.94	.0001	273861.4	1.74	10.95	-.0034	246.34	-.0014	-26.45	299.02
SET	61	2117.00	2128.25	30	3	44.6	64.00	.0042	-27.39	.0001	277140.8	1.64	-.00	-.0025	232.94	.0027	-26.43	292.76
SET	72	2277.03	2288.28	30	6	24.6	93.90	.0041	-26.08	.0001	289977.5	1.72	-.00	-.0037	243.65	-.0005	-26.27	253.16
RISE	42	2278.20	2289.45	30	6	25.8	255.00	.0041	-25.50	-.0000	289704.1	.99	3.29	.0029	119.16	-.0023	-26.27	252.87
EXTM	11	2318.86	2330.11	30	7	6.4	.35	.0042	-27.33	.0000	290339.1	1.30	27.46	-.0000	180.35	.0042	-26.23	242.81
SET	11	2592.57	2603.82	30	11	40.1	69.18	.0042	-26.74	.0000	314095.4	1.55	-.00	-.0028	236.59	.0024	-25.98	174.96
EXTM	42	2697.17	2708.42	30	13	24.7	359.97	.0042	-25.71	.0000	315550.3	1.21	80.49	-.0000	.19	-.0180	-25.90	149.01
RISE	51	2827.77	2839.02	30	15	35.3	270.00	.0041	-25.37	-.0000	329971.7	.81	10.72	.0034	113.13	-.0015	-25.80	116.58
RISE	72	2981.88	2993.13	30	18	9.4	266.19	.0041	-25.52	-.0000	341951.5	.74	-.00	.0037	115.79	-.0005	-25.68	78.30
RISE	61	3055.04	3066.29	30	19	22.6	294.83	.0042	-26.39	-.0000	347171.7	.82	.00	.0026	125.61	.0027	-25.63	60.12
SET	42	3116.01	3127.26	30	20	23.6	105.00	.0041	-24.97	.0000	350878.4	1.44	2.97	-.0030	241.26	-.0023	-25.60	44.89
EXTM	51	3179.73	3190.98	30	21	27.3	358.69	.0042	-25.57	.0000	349088.3	1.09	88.80	.0038	82.10	-.0273	-25.57	28.97
EXTM	61	3313.42	3324.67	30	23	41.0	.18	.0042	-26.43	.0000	361638.6	1.09	23.33	-.0000	180.18	.0041	-25.51	355.57
EXTM	72	3353.36	3364.61	31	0	20.9	.08	.0042	-25.80	.0000	360735.2	1.09	72.10	-.0000	180.25	.0121	-25.50	345.59
RISE	11	3487.17	3498.42	31	2	34.7	290.20	.0042	-26.07	-.0000	375467.6	.77	.00	.0029	122.54	.0024	-25.44	312.13
SET	51	3541.05	3552.30	31	3	28.6	90.00	.0042	-25.05	.0000	377821.3	1.48	10.59	-.0035	247.17	-.0015	-25.43	298.65
SET	61	3571.63	3582.88	31	3	59.2	65.50	.0042	-26.11	.0000	381003.2	1.39	.00	-.0026	234.80	.0027	-25.41	290.99
RISE	42	3722.40	3733.65	31	6	30.0	255.00	.0042	-24.80	-.0000	390952.8	.88	2.87	.0030	118.61	-.0023	-25.37	253.17
SET	72	3723.30	3734.55	31	6	30.9	93.75	.0042	-25.23	.0000	391336.4	1.63	-.00	-.0037	244.51	-.0005	-25.37	252.94
EXTM	11	3762.31	3773.56	31	7	9.9	.04	.0043	-26.18	.0000	391234.5	1.33	28.61	.0000	180.05	.0042	-25.37	243.11
IMPACT		3801.63	3812.88	31	7	49.2												
IMPC	42	3801.63	3812.88	31	7	49.2	275.05	.0043	-24.92	-.0000	395903.7	1.67	17.95	.0034	108.27	-.0021	-25.37	233.11
IMPC	11	3801.63	3812.88	31	7	49.2	10.19	.0044	-26.17	-.0000	394895.4	2.08	27.87	-.0006	190.35	.0044	-25.37	233.11

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	28	16	27.574	6571.551	17.8179	305.1064	10.97082	3.6328	117.0943	137.8892
SEPARATION		1.20	12.45	28	16	28.774	6644.373	14.6322	311.0469	10.90973	7.0085	118.8410	144.1305
RETRO		3.20	14.45	28	16	30.774	6863.842	9.2069	320.1862	10.73247	12.4629	120.8388	153.7711
IMPACT		3801.63	3812.88	31	7	49.201	397913.727	-25.3713	233.1056	2.19346	67.1575	265.2100	298.8966

SURVEYOR VIEW PERIODS

GHA	308.1702					EPS	-12.5712							LOM	229.6185
SX	.435854	SY	-.791457	SZ	-.428517	DAU	-25.37150	RAD	298.84148	RM	399181.504	LAT	28.310600	LON	279.461800
C3	-.963787	ECC	.984176	SLR	12985.776	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.454110	NSY	-.782674	NSZ	-.425682	C3M	1.4964	VIM	2.6713	ZAE	140.749	B.T	.0000	B.R	-.0000
LATE	5.9129	LONE	2.0046	LATS	1.5381	LONS	15.7831	LATI	.5563	LONI	325.0418	RSM	152.2340	TTAN	5.9624
LAUNCH DATE	JUL 28,1966			BASE AZM	111.0		TF	65.427				ARRIVAL DATE	JUL 31 1966 8 2 53.3		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	16 21 36.6	28.1	16.76	304.49	8.38	138.60	119.18	16 32 51.6	6579.5	10.96	4.16

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	28	16	32.9												
SEPARATION	1.20	12.45	28	16	34.1												
RETRO	3.20	14.45	28	16	36.1												
RISE 72	4.29	15.54	28	16	37.1	85.64	-.1408	28.69	-.0359	3029.8	-7.56	.00	.1276	298.99	-.0161	4.69	323.55
EXTM 72	10.74	21.99	28	16	43.6	4.65	-.1820	-15.59	-.1059	2201.8	4.67	81.07	.0000	210.19	-1.3193	-9.88	344.50
RISE 51	11.12	22.37	28	16	44.0	84.31	-.0731	11.42	-.0464	5870.3	-2.49	.00	.0848	282.92	-.0098	-10.55	345.50
EXTM 51	44.46	55.71	28	17	17.3	2.16	-.0132	-33.39	-.0028	12926.1	5.15	82.12	-.0000	193.29	-.0829	-30.87	26.27
EXTM 72	71.78	83.03	28	17	44.6	297.12	-.0000	-35.83	.0002	23792.1	4.72	26.53	.0000	126.25	-.0002	-32.92	34.31
EXTM 51	92.33	103.58	28	18	5.2	349.57	-.0002	-34.96	.0002	26493.8	4.31	77.13	.0000	138.23	-.0010	-33.25	35.94
RISE 61	134.68	145.93	28	18	47.5	316.24	.0022	-40.48	.0007	42581.0	3.72	-.00	.0015	148.26	.0011	-33.13	34.16
EXTM 51	191.13	202.38	28	19	44.0	.87	.0029	-33.48	.0003	48995.9	3.43	82.22	.0000	185.37	.0182	-32.59	26.92
EXTM 61	379.77	391.02	28	22	52.6	5.75	.0038	-34.93	.0002	87614.8	2.71	14.64	.0000	184.87	.0032	-30.99	350.36
EXTM 72	406.40	417.65	28	23	19.3	1.19	.0040	-32.44	.0002	87864.1	2.64	65.44	.0000	182.41	.0080	-30.82	344.58
RISE 11	583.80	595.05	29	2	16.7	296.11	.0040	-31.95	.0000	119717.6	2.03	.00	.0025	130.37	.0023	-29.85	304.46
SET 51	599.64	610.89	29	2	32.5	90.00	.0038	-28.68	.0001	120580.2	2.63	12.03	-.0031	243.77	-.0012	-29.78	300.79
SET 61	603.16	614.41	29	2	36.0	58.00	.0039	-32.06	.0002	122385.6	2.51	-.00	-.0020	225.95	.0027	-29.77	299.97
SET 72	797.77	809.02	29	5	50.6	94.36	.0039	-28.66	.0001	147601.6	2.43	-.01	-.0034	241.04	-.0004	-29.02	254.11
RISE 42	807.56	818.81	29	6	.4	254.99	.0040	-27.51	-.0000	148300.4	1.73	4.52	.0028	120.76	-.0021	-28.99	251.77
EXTM 11	849.69	860.94	29	6	42.5	1.50	.0041	-31.02	.0001	151362.8	2.00	23.75	.0000	181.40	.0039	-28.85	241.71
SET 11	1112.33	1123.58	29	11	5.2	66.49	.0041	-29.48	.0001	183722.3	2.08	-.00	-.0026	232.97	.0024	-28.15	178.34
EXTM 42	1232.66	1243.91	29	13	5.5	359.92	.0042	-27.64	.0000	190196.8	1.72	82.42	.0000	.58	-.0273	-27.89	149.06
RISE 51	1368.31	1379.56	29	15	21.2	270.00	.0041	-26.96	-.0000	208861.8	1.28	11.35	.0034	114.62	-.0014	-27.62	115.92
RISE 72	1523.23	1534.48	29	17	56.1	265.92	.0041	-27.11	-.0000	225076.1	1.17	-.01	.0036	117.39	-.0005	-27.35	77.95
RISE 61	1607.02	1618.27	29	19	19.9	297.19	.0042	-28.37	-.0000	232895.6	1.26	.00	.0025	128.50	.0027	-27.22	57.36
SET 42	1655.88	1667.13	29	20	8.7	105.00	.0041	-26.21	.0001	236960.9	1.84	3.72	-.0029	240.28	-.0022	-27.14	45.34
EXTM 51	1723.56	1734.81	29	21	16.4	358.98	.0042	-27.08	.0000	237193.3	1.48	88.38	.0022	145.79	.1087	-27.04	28.68
EXTM 61	1859.41	1870.66	29	23	32.3	.57	.0042	-28.18	.0000	252864.6	1.44	70.63	-.0000	180.46	.0113	-26.80	345.51
EXTM 72	1898.67	1909.92	30	0	11.5	.17	.0042	-27.27	.0000	252864.6	1.43	70.63	-.0000	180.46	.0113	-26.80	345.51
RISE 11	2040.62	2051.87	30	2	33.5	291.56	.0042	-27.51	-.0000	270776.6	1.07	.00	.0028	124.42	.0024	-26.63	310.45
SET 51	2086.83	2098.08	30	3	19.7	90.00	.0041	-26.06	.0001	273375.5	1.74	11.00	-.0034	246.23	-.0014	-26.57	299.02
SET 61	2111.57	2122.82	30	3	44.4	63.86	.0042	-27.51	.0001	276613.8	1.64	-.00	-.0025	232.	.0027	-26.54	292.91
SET 72	2272.22	2283.47	30	6	25.1	93.91	.0041	-26.18	.0001	289503.4	1.72	-.00	-.0037	243.5	-.0005	-26.37	253.15
RISE 42	2273.34	2284.59	30	6	26.2	255.00	.0041	-25.60	-.0000	289219.9	.99	3.35	.0029	119.24	-.0023	-26.36	252.87
EXTM 11	2314.10	2325.35	30	7	7.0	.38	.0042	-27.43	.0000	289879.2	1.30	27.36	-.0000	180.38	.0042	-26.32	242.78
SET 11	2587.39	2598.64	30	11	40.2	69.11	.0042	-26.81	.0000	313594.3	1.55	-.00	-.0028	236.49	.0024	-26.05	175.03
EXTM 42	2692.22	2703.47	30	13	25.1	359.96	.0042	-25.77	.0000	315064.6	1.21	80.55	-.0000	.24	-.0202	-25.96	149.02
RISE 51	2822.86	2834.11	30	15	35.7	270.00	.0041	-25.42	-.0000	329486.2	.81	10.74	.0034	113.18	-.0015	-25.85	116.58
RISE 72	2976.92	2988.17	30	18	9.8	266.19	.0041	-25.56	-.0000	341462.9	.74	-.00	.0037	115.83	-.0005	-25.72	78.31
RISE 61	3050.27	3061.52	30	19	23.1	294.87	.0042	-26.43	-.0000	346695.1	.82	.00	.0026	125.66	.0027	-25.66	60.07
SET 42	3111.06	3122.31	30	20	23.9	105.00	.0041	-25.00	.0000	350384.2	1.43	2.99	-.0030	241.24	-.0023	-25.63	44.89
EXTM 51	3174.78	3186.03	30	21	27.6	358.89	.0042	-25.60	.0000	348591.6	1.09	88.81	.0038	83.42	-.0232	-25.60	28.98
EXTM 61	3308.55	3319.80	30	23	41.4	.20	.0042	-26.45	.0000	361138.2	1.09	23.31	-.0000	180.19	.0041	-25.53	355.56
EXTM 72	3348.25	3359.50	31	0	21.1	.04	.0042	-25.82	.0000	360214.3	1.09	72.08	.0000	180.13	.0112	-25.51	345.63
RISE 11	3482.27	3493.52	31	2	35.1	290.21	.0042	-26.08	-.0000	374943.9	.77	.00	.0029	122.55	.0024	-25.45	312.12
SET 51	3536.10	3547.35	31	3	29.0	90.00	.0042	-25.16	.0000	377285.2	1.47	10.60	-.0035	247.16	-.0015	-25.43	298.65
SET 61	3566.66	3577.91	31	3	59.5	65.49	.0042	-26.11	.0000	380459.5	1.39	.00	-.0026	234.79	.0027	-25.42	291.00
RISE 42	3717.50	3728.75	31	6	30.4	255.00	.0042	-24.80	-.0000	390344.7	.86	2.86	.0030	118.60	-.0023	-25.37	253.16
SET 72	3718.39	3729.64	31	6	31.2	93.75	.0042	-25.23	.0000	390726.1	1.61	-.00	-.0037	244.51	-.0005	-25.37	252.94
EXTM 11	3757.56	3768.81	31	7	10.4	.08	.0043	-26.17	.0000	390576.0	1.29	28.62	.0000	180.08	.0043	-25.36	243.08
IMPACT	3805.60	3816.85	31	7	58.5												
IMPC 42	3805.60	3816.85	31	7	58.5	277.29	.0043	-24.92	-.0000	395740.0	1.67	19.69	.0034	107.17	-.0021	-25.36	230.87
IMPC 11	3805.60	3816.85	31	7	58.5	12.46	.0044	-26.16	.0000	394948.7	2.10	27.51	-.0008	192.61	.0043	-25.36	230.87

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	28	16	32.859	6580.040	16.7453	304.5186	10.96368	4.1581	119.1841	138.6263
SEPARATION	1.20	12.45	28	16	34.059	6659.689	13.3690	310.2737	10.89690	7.5214	120.7603	144.6822
RETRO	3.20	14.45	28	16	36.059	6889.899	7.6882	319.1330	10.71180	12.8825	122.4765	154.0429
IMPACT	3805.60	3816.85	31	7	58.458	397932.395	-25.3600	230.8715	2.19204	67.0827	265.8876	298.9831

SURVEYOR VIEW PERIODS

GHA	308.1702				EPS -12.4853							LOM	226.7460
SX	.437440	SY	-.790715	SZ	-.428270	DAO	-25.35784	RAO	298.95227	RM	399203.977	LAT	28.310600
LON	279.461800	C3	-.970069	ECC	.984072	SLR	12985.091	RCA	6544.6650	LTA	-20.0000	GTA	20.00
TB	675.00000	POL	-.0	NSX	.455739	NSY	-.781863	NSZ	-.425432	C3M	1.4964	VIM	2.6713
ZAE	140.523	B.T	.0000	B.R	-.0000	LATE	5.9180	LONE	4.1064	LATS	1.5382	LONS	15.7912
LATI	.0742	LONI	324.9914	RSM	152.2340	TTAN	5.9669						

LAUNCH DATE JUL 28.1966 BASE AZM 115.0 TF 63.534 ARRIVAL DATE JUL 31 1966 8 14 47.4

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	16 27 20.4	28.1	15.37	303.63	9.50	139.18	121.96	16 38 35.4	6589.5	10.95	4.71

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT												
INJECTION		.00	11.25	28	16	38.6												
SEPARATION		1.20	12.45	28	16	39.8												
RETRO		3.20	14.45	28	16	41.8												
RISE	72	4.28	15.53	28	16	42.9	86.67	-.1278	22.72	-.0577	3103.6	-7.25	-.00	.1252	292.95	-.0395	2.60	321.88
EXTM	72	11.08	22.33	28	16	49.7	9.81	-.1758	-26.48	-.0851	2448.2	4.89	69.22	-.0000	265.46	-.5040	-13.06	343.15
RISE	51	11.22	22.47	28	16	49.8	86.49	-.0681	7.23	-.0496	5993.3	-2.25	.00	.0825	278.03	-.0150	-13.31	343.50
EXTM	51	48.67	59.92	28	17	27.3	1.82	-.0112	-37.33	-.0013	14323.7	5.06	78.30	-.0000	187.17	-.0444	-33.77	26.47
EXTM	72	72.12	83.37	28	17	50.7	298.43	-.0001	-38.35	.0005	23894.8	4.71	27.07	.0000	129.24	-.0006	-34.98	32.91
EXTM	51	88.37	99.62	28	18	7.0	351.30	-.0007	-37.37	.0004	25531.4	4.36	76.22	.0000	149.69	-.0029	-35.11	34.47
RISE	61	144.56	155.81	28	19	3.1	318.81	.0024	-41.65	.0007	44895.9	3.62	-.00	.0015	150.52	.0012	-34.55	32.02
EXTM	51	187.21	198.46	28	19	45.8	1.44	.0029	-35.04	.0003	48245.2	3.45	80.62	.0000	187.26	.0146	-33.96	26.43
EXTM	61	378.03	389.28	28	22	56.6	6.51	.0038	-35.85	.0003	87451.1	2.71	13.68	.0000	185.43	.0032	-31.89	349.66
EXTM	72	402.59	413.84	28	23	21.2	1.46	.0040	-33.37	.0002	87315.4	2.65	64.49	.0000	182.83	.0077	-31.69	344.33
RISE	11	582.31	593.56	29	2	20.9	296.87	.0040	-32.63	.0000	119509.2	2.03	.00	.0025	131.30	.0023	-30.52	303.70
SET	61	593.87	605.12	29	2	32.5	56.96	.0039	-32.79	.0002	121107.3	2.51	.00	-.0020	224.81	.0027	-30.46	301.02
SET	51	594.69	605.94	29	2	33.3	90.00	.0038	-29.35	.0002	119870.6	2.63	12.29	-.0031	243.14	-.0012	-30.45	300.83
SET	72	793.29	804.54	29	5	51.9	94.45	.0039	-29.19	.0001	147030.8	2.43	-.00	-.0034	240.50	-.0004	-29.55	254.04
RISE	42	802.86	814.11	29	6	1.4	254.99	.0040	-28.04	-.0000	147670.4	1.74	4.84	.0028	121.17	-.0021	-29.52	251.75
EXTM	11	845.62	856.87	29	6	44.2	1.68	.0042	-31.54	.0001	150904.7	2.00	23.23	.0000	181.56	.0039	-29.36	241.53
SET	11	1105.72	1116.97	29	11	4.3	66.08	.0041	-29.89	.0001	182965.0	2.08	-.00	-.0026	232.42	.0024	-28.55	178.77
EXTM	42	1227.74	1238.99	29	13	6.3	359.91	.0042	-28.01	.0000	189627.2	1.72	82.78	.0000	.67	-.0287	-28.24	149.07
RISE	51	1363.43	1374.68	29	15	22.0	270.00	.0041	-27.27	-.0000	208296.9	1.28	11.47	.0034	114.91	-.0014	-27.93	115.91
RISE	72	1518.11	1529.36	29	17	56.7	265.87	.0041	-27.38	-.0000	224508.9	1.17	-.01	.0036	117.67	-.0005	-27.62	77.99
RISE	61	1603.33	1614.58	29	19	21.9	297.51	.0042	-28.63	.0000	232464.1	1.26	.00	.0025	128.88	.0027	-27.47	57.04
SET	42	1650.86	1662.11	29	20	9.5	105.00	.0041	-26.45	.0001	236390.8	1.84	3.87	-.0029	240.09	-.0022	-27.39	45.35
EXTM	51	1717.27	1728.52	29	21	15.9	358.65	.0042	-27.32	.0000	236528.8	1.48	88.02	.0023	142.90	.0852	-27.27	29.00
EXTM	61	1854.60	1865.85	29	23	33.2	.63	.0042	-28.39	.0000	252589.1	1.44	21.37	.0000	180.59	.0040	-27.06	355.14
EXTM	72	1893.69	1904.94	30	0	12.3	.19	.0042	-27.47	.0000	252324.0	1.43	70.43	-.0000	180.50	.0112	-27.00	345.49
RISE	11	2036.24	2047.49	30	2	34.8	291.73	.0042	-27.68	-.0000	270277.2	1.07	.00	.0028	124.65	.0024	-26.80	310.27
SET	61	2071.72	2082.97	30	3	20.3	90.00	.0041	-26.23	.0001	272807.9	1.74	11.06	-.0034	246.07	-.0014	-26.74	299.03
SET	61	2105.65	2116.90	30	3	44.2	63.65	.0042	-27.68	.0001	275986.9	1.64	-.00	-.0025	232.52	.0027	-26.71	283.11
SET	72	2267.17	2278.42	30	6	25.8	93.94	.0041	-26.32	.0001	288944.8	1.72	-.00	-.0037	243.41	-.0005	-26.51	253.13
RISE	42	2268.23	2279.48	30	6	26.8	255.00	.0041	-25.74	-.0000	288645.9	.99	3.44	.0029	119.35	-.0023	-26.50	252.87
EXTM	11	2309.13	2320.38	30	7	7.7	.42	.0042	-27.57	.0000	289337.5	1.30	27.22	-.0000	180.42	.0042	-26.46	242.74
SET	11	2581.81	2593.06	30	11	40.4	69.01	.0042	-26.91	.0000	312983.5	1.55	-.00	-.0028	236.36	.0024	-26.15	175.13
EXTM	42	2686.96	2698.21	30	13	25.6	359.95	.0042	-25.86	.0000	314471.3	1.21	80.64	.0000	.32	-.0218	-26.05	149.03
RISE	51	2817.66	2828.91	30	15	36.2	270.00	.0041	-25.49	-.0000	328888.2	.81	10.77	.0034	113.24	-.0015	-25.92	116.58
RISE	72	2971.65	2982.90	30	18	10.2	266.18	.0041	-25.62	.0000	340854.7	.74	-.00	.0037	115.89	-.0006	-25 78	78.32
RISE	61	3045.25	3056.50	30	19	23.8	294.93	.0042	-26.48	-.0000	346101.2	.82	.00	.0026	125.74	.0027	-2 .71	60.01
SET	42	3105.79	3117.04	30	20	24.4	105.00	.0041	-25.04	.0000	349763.5	1.43	3.01	-.0030	241.20	-.0023	-25.68	44.89
EXTM	51	3169.51	3180.76	30	21	28.1	358.68	.0042	-25.64	.0000	347965.3	1.09	88.81	.0038	85.34	-.0172	-25.64	28.98
EXTM	61	3303.37	3314.62	30	23	42.0	.22	.0042	-26.49	.0000	360504.2	1.09	23.28	-.0000	180.22	.0041	-25.56	355.53
EXTM	72	3343.01	3354.26	31	0	21.6	.05	.0042	-25.85	.0000	359567.6	1.08	72.06	.0000	180.15	.0114	-25.54	345.63
RISE	11	3477.07	3488.32	31	2	35.7	290.22	.0042	-26.10	-.0000	374274.2	.76	.00	.0029	122.58	.0024	-25.47	312.10
SET	51	3530.82	3542.07	31	3	29.4	90.00	.0042	-25.07	.0000	376597.2	1.47	10.60	-.0035	247.15	-.0015	-25.44	298.65
SET	61	3561.34	3572.59	31	3	59.9	65.48	.0042	-26.12	.0000	379760.3	1.38	.00	-.0026	234.77	.0027	-25.43	291.01
RISE	42	3712.27	3723.52	31	6	30.9	255.00	.0042	-24.79	-.0000	389565.2	.84	2.86	.0030	118.60	-.0023	-25.36	253.16
SET	72	3713.15	3724.40	31	6	31.7	93.75	.0042	-25.23	.0000	389944.2	1.59	-.00	-.0037	244.52	-.0005	-25.36	252.94
EXTM	11	3752.50	3763.75	31	7	11.1	.11	.0043	-26.17	.0000	389741.5	1.25	28.62	.0000	180.11	.0043	-25.35	243.04
IMPACT		3812.01	3823.26	31	8	10.6												
IMPC	42	3812.01	3823.26	31	8	10.6	280.22	.0043	-24.92	-.0000	395527.2	1.66	22.00	.0034	185.73	-.0021	-25.35	227.94
IMPC	11	3812.01	3823.26	31	8	10.6	15.43	.0044	-26.14	.0000	395030.1	2.11	26.94	-.0010	195.54	.0043	-25.35	227.94

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	28	16	38.590	6590.308	15.3508	303.6719	10.95508	4.7114	121.9689	139.2163
SEPARATION		1.20	12.45	28	16	39.790	6677.007	11.7272	309.1816	10.88236	8.0606	123.3326	145.0268
RETRO		3.20	14.45	28	16	41.790	6918.408	5.7074	317.6808	10.68923	13.3849	124.7013	154.0273
IMPACT		3812.01	3823.26	31	8	10.604	397957.547	-25.3452	227.9403	2.18971	66.9415	266.8278	299.0967

JUL 28, 1966
115 DEGREES

SURVEYOR VIEW PERIODS

GHA	309.1559					EPS	4.8995							LOM	247.6644
SX	.612603	SY	-.687332	SZ	-.390245	DAO	-22.96977	RAO	311.70989	RM	401646.016	LAT	28.310600	LON	279.461800
C3	-.944179	ECC	.984465	SLR	12987.659	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.628330	NSY	-.675831	NSZ	-.385647	C3M	1.4928	VIM	2.6706	ZAE	141.402	B.T	.0000	B.R	-.0000
LATE	6.3841	LONE	3.0910	LATS	1.5490	LONS	3.8005	LATI	3.5671	LONI	324.4401	RSM	152.2261	TTAN	5.2171
LAUNCH DATE	JUL	29,1966		BASE AZM	93.0		TF 63.891					ARRIVAL DATE	AUG 1 1966		7 38 18.2

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
93.00	15 32 32.7	27.2	23.68	306.59	-14.22	129.38	106.24	15 43 47.7	6645.7	10.91	-7.06

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL AZI	DAZ	LAT	LONG
			PROBE IN SUNLIGHT													
INJECTION	.00	11.25	29	15	43.8											
SEPARATION	1.20	12.45	29	15	45.0											
RETRO	3.20	14.45	29	15	47.0											
RISE 72	6.18	17.43	29	15	50.0	68.80	*.4720	69.01	.1196	2253.8	-6.44	-.00	.1103 340.49	.1753	10.45	339.17
EXTM 72	10.90	22.15	29	15	54.7	303.00	*.0845	22.72	-.1931	2170.4	5.74	26.39	*.0000 59.72	.2324	-.29	358.44
RISE 51	11.69	22.94	29	15	55.5	70.76	*.1263	34.06	*.0298	4458.6	*4.63	-.00	.1043 308.79	.0295	-1.86	1.14
EXTM 51	26.19	37.44	29	16	10.0	349.21	*.0418	-11.23	*.0273	5910.7	5.51	72.27	*.0000 37.06	.1617	-18.84	33.10
EXTM 72	67.54	78.79	29	16	51.3	271.34	*.0001	-26.82	*.0009	23596.1	4.93	4.74	.0000 116.46	.0009	-27.51	57.75
RISE 42	68.34	79.59	29	16	52.1	104.15	*.0052	*19.10	*.0028	24356.1	4.29	.00	.0056 246.39	.0008	-27.55	57.90
EXTM 51	82.31	93.56	29	17	6.1	319.64	*.0001	-27.43	*.0006	23652.6	4.55	54.03	.0000 101.91	.0010	-28.05	59.70
EXTM 42	125.01	136.26	29	17	48.8	98.16	.0004	-23.39	*.0005	38587.5	4.02	7.03	*.0000 246.27	*.0006	-28.44	59.27
SET 42	199.80	211.05	29	19	3.6	105.00	.0023	*24.26	*.0006	55662.3	3.60	2.53	*.0016 241.82	*.0013	-28.13	49.79
RISE 61	210.81	222.06	29	19	14.6	304.27	.0033	-32.96	.0003	58184.6	3.14	.00	.0019 135.45	.0019	-28.06	47.96
EXTM 51	317.54	328.79	29	21	1.3	.06	.0037	-27.58	.0001	72006.4	2.90	88.15	.0000 181.84	.0975	-27.43	27.63
EXTM 61	478.07	489.32	29	23	41.9	3.18	.0040	*29.97	.0002	101851.3	2.50	19.73	.0000 182.92	.0037	-26.67	352.74
EXTM 72	511.51	522.76	30	0	15.3	.55	.0041	-27.68	.0001	103095.3	2.43	70.22	*.0000 181.43	.0106	-26.54	345.16
RISE 11	667.93	679.18	30	2	51.7	291.89	.0040	-27.85	.0000	130654.5	1.90	.00	.0027 124.88	.0023	-26.01	308.90
SET 51	704.10	715.35	30	3	27.9	90.00	.0039	-24.87	.0001	134228.0	2.51	10.52	*.0033 247.34	*.0013	-25.91	300.38
SET 61	730.23	741.48	30	3	54.0	63.54	.0040	-27.77	.0001	138750.6	2.39	*.00	*.0023 232.39	.0027	-25.84	294.21
SET 72	896.86	908.11	30	6	40.7	93.74	.0040	-25.10	.0001	159180.5	2.36	*.01	*.0036 244.64	*.0004	-25.43	254.45
RISE 42	907.05	918.30	30	6	50.8	254.99	.0040	*24.02	*.0000	160114.0	1.63	2.38	.0029 117.99	*.0022	-25.40	252.00
EXTM 11	947.86	959.11	30	7	31.7	1.01	.0042	-27.27	.0001	162209.2	1.92	27.51	*.0000 181.01	.0042	-25.32	242.18
SET 11	1225.40	1236.65	30	12	9.2	69.86	.0041	*26.01	.0001	195460.3	2.04	*.00	*.0028 237.54	.0024	-24.81	174.87
EXTM 42	1331.07	1342.32	30	13	54.9	359.91	.0042	-24.31	.0000	200087.2	1.67	79.09	.0000 .46	*.0196	-24.64	149.07
RISE 51	1465.94	1477.19	30	16	9.7	270.00	.0041	*23.80	*.0000	218395.2	1.23	10.09	.0034 111.67	*.0015	-24.46	116.04
RISE 72	1522.73	1533.98	30	18	46.5	266.44	.0041	*24.03	*.0000	234286.8	1.12	*.01	.0037 114.28	*.0005	-24.26	77.54
RISE 61	1689.77	1701.02	30	19	53.6	293.54	.0041	*25.27	*.0000	240414.2	1.22	.00	.0026 124.00	.0027	-24.18	61.04
SET 42	1753.85	1765.10	30	20	57.6	105.00	.0041	*23.20	.0000	245963.7	1.82	1.88	*.0030 242.66	*.0023	-24.11	45.26
EXTM 51	1819.54	1830.79	30	22	3.3	358.58	.0042	*23.99	.0000	245690.6	1.45	87.83	.0023 36.74	*.0824	-24.04	29.07
EXTM 61	1956.23	1967.48	31	0	20.0	.42	.0042	-25.16	.0000	261135.3	1.41	24.60	.0000 180.42	.0042	-23.90	355.34
EXTM 72	1995.68	2006.93	31	0	59.5	.08	.0042	*24.25	.0000	261057.3	1.40	73.66	.0000 180.26	.0133	-23.86	345.60
RISE 11	2126.68	2137.93	31	3	10.5	288.83	.0042	*24.58	*.0000	277969.6	1.04	.00	.0029 120.60	.0024	-23.74	313.21
SET 51	2184.31	2195.56	31	4	8.1	90.00	.0041	*23.18	.0000	281562.3	1.73	9.84	*.0035 248.91	*.0015	-23.69	298.96
SET 61	2222.56	2233.81	31	4	46.4	67.24	.0042	*24.57	.0000	285724.5	1.63	*.00	*.0026 237.00	.0027	-23.66	289.49
SET 72	2367.68	2378.93	31	7	11.5	93.44	.0041	*23.36	.0000	297171.6	1.71	*.00	*.0037 246.40	*.0005	-23.54	253.55
RISE 42	2370.22	2381.47	31	7	14.0	255.00	.0041	*22.79	*.0000	297188.2	.96	1.63	.0030 117.01	*.0023	-23.54	252.92
EXTM 11	2410.79	2422.04	31	7	54.6	.29	.0042	*24.56	.0000	297316.4	1.28	30.24	*.0000 180.30	.0044	-23.51	242.87
SET 11	2694.79	2706.04	31	12	38.6	71.67	.0042	*24.02	.0000	321807.1	1.54	*.00	*.0029 240.12	.0024	-23.30	172.43
EXTM 42	2789.11	2800.36	31	14	12.9	359.96	.0042	*23.00	.0000	322467.8	1.20	77.78	.0000 .19	*.0165	-23.23	149.02
RISE 51	2919.53	2930.78	31	16	23.3	270.00	.0041	*22.72	*.0000	336825.2	.79	9.65	.0035 110.67	*.0016	-23.15	116.63
RISE 72	3075.34	3086.59	31	18	59.1	266.64	.0042	*22.90	*.0000	348893.7	.69	.00	.0038 113.13	*.0005	-23.05	77.91
RISE 61	3134.76	3146.01	31	19	58.6	291.88	.0042	*23.76	*.0000	352824.0	.80	.00	.0027 121.87	.0027	-23.03	63.08
SET 42	3207.74	3218.99	31	21	11.5	105.00	.0041	*22.39	.0000	357472.4	1.43	1.38	*.0030 243.30	*.0023	-23.01	44.85
EXTM 51	3276.44	3287.69	31	22	20.2	359.99	.0042	*22.94	.0000	355812.2	1.09	87.20	.0000 .36	*.0417	-22.99	27.70
EXTM 61	3404.79	3416.04	1	0	28.6	.13	.0042	*23.84	.0000	367712.1	1.09	25.92	*.0000 180.13	.0043	-22.95	355.63
EXTM 72	3444.70	3455.95	1	1	8.5	.02	.0042	*23.20	.0000	366979.4	1.09	74.70	.0000 180.08	.0112	-22.94	345.65
RISE 11	3569.43	3580.68	1	3	13.2	287.88	.0042	*23.52	*.0000	381215.1	.77	.00	.0030 119.24	.0024	-22.91	314.46
SET 51	3632.73	3643.98	1	4	16.5	90.00	.0042	*22.53	.0000	384331.6	1.50	9.58	*.0035 249.51	*.0016	-22.90	298.61
SET 61	3674.56	3685.81	1	4	58.4	68.34	.0042	*23.56	.0000	388191.6	1.43	*.00	*.0027 238.42	.0027	-22.90	288.13
SET 72	3812.99	3824.24	1	7	16.8	93.34	.0042	*22.78	.0000	398305.6	1.90	.00	*.0038 246.99	*.0006	-22.91	253.31
RISE 42	3813.46	3824.71	1	7	17.3	255.00	.0042	*22.35	*.0000	398195.3	1.13	1.36	.0031 116.67	*.0024	-22.91	253.20
IMPACT	3833.48	3844.73	1	7	37.3											
IMPC 42	3833.48	3844.73	1	7	37.3	260.10	.0043	*22.40	*.0001	399768.5	1.67	5.16	.0032 113.87	*.0023	-22.93	248.09
IMPC 72	3833.48	3844.73	1	7	37.3	98.56	.0043	*22.77	*.0000	400868.2	2.46	*4.74	*.0039 246.20	*.0007	-22.93	248.09
IMPC 11	3833.48	3844.73	1	7	37.3	354.99	.0044	*23.71	*.0000	397082.9	2.00	30.89	.0003 174.66	.0046	-22.93	248.09

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	29	15	43.795	6649.885	23.7155	306.4377	10.90936	*7.0552	106.1742	129.2313
SEPARATION	1.20	12.45	29	15	44.995	6571.975	21.6178	313.3095	10.97077	*3.6816	108.9466	136.4040
RETRO	3.20	14.45	29	15	46.995	6552.992	17.4989	324.2346	10.98677	2.0358	112.7856	147.8305
IMPACT	3833.48	3844.73	1	7	37.275	400391.461	*22.9332	248.0863	2.19673	67.6558	256.8896	311.8732

)

SURVEYOR VIEW PERIODS

GHA	309.1559						EPS	4.8865							LOM	243.7673		
SX	.614465	SY	-.685973	SZ	-.389711	DAO	-22.93650	RAD	311.85262	RM	401671.512	LAT	28.310600	LON	279.461800			
C3	-.941663	ECC	.984539	SLR	12988.145	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0			
NSX	.630126	NSY	-.674264	NSZ	-.385109	C3M	1.4974	VIM	2.6714	ZAE	141.462	R,T	.0000	B.R	-.0000			
LATE	6.3878	LONE	3.0802	LATS	1.5491	LONS	3.6643	LATI	3.4823	LONI	324.4988	RSM	152.2259	TTAN	5.2027			
LAUNCH DATE	JUL 29,1966			BASE AZM	96.0		TF	63.827				ARRIVAL DATE	AUG 1 1966		7 54 25.1			

LNCH AZMTH	LNCH TIME		PR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME		INJ RAD	INJ VEL	INJ PTH
96.00	15 50	.7	27.5	22.48	306.46	-10.29	133.63	108.47	16	1 15.7	6597.3	10.95	-5.10

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	NG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	29	16	1.3												
SEPARATION		1.20	12.45	29	16	2.5												
RETRO		3.20	14.45	29	16	4.5												
RISE	72	5.69	16.94	29	16	7.0	76.16	-.3024	59.87	.0954	2325.9	-7.39	-.00	.1198	330.83	.1333	9.62	335.92
EXTM	72	9.68	20.93	29	16	10.9	322.32	-.1989	33.31	-.2662	1679.7	3.48	35.43	.0547	38.82	.3792	.35	352.26
RISE	51	11.40	22.65	29	16	12.7	74.03	-.1140	30.11	-.0337	4654.9	-4.44	-.20	.1022	303.73	.0201	-3.15	358.21
EXTM	51	27.31	38.56	29	16	28.6	353.11	-.0383	-15.18	-.0216	6434.0	5.48	77.63	.0000	32.71	.1999	-20.47	31.26
EXTM	72	67.90	79.15	29	17	9.2	275.43	-.0001	-27.85	-.0007	23508.7	4.90	8.46	.0000	.17.14	.0007	-28.01	53.85
RISE	42	80.08	91.33	29	17	21.3	105.00	-.0032	-20.95	-.0018	27866.5	4.27	.50	.0034	244.44	.0004	-28.43	55.50
EXTM	51	84.34	95.59	29	17	25.6	324.54	-.0000	-28.30	-.0004	24170.3	4.50	58.42	.0000	102.75	.0008	-28.53	55.83
EXTM	42	124.71	135.96	29	18	6.0	102.12	.0004	-23.53	-.0005	38996.7	4.02	4.18	-.0000	244.00	-.0006	-28.78	55.21
SET	42	166.91	178.16	29	18	48.2	105.00	.0017	-24.21	-.0001	48853.3	3.77	2.51	-.0012	241.86	-.0011	-28.60	50.62
RISE	61	193.42	204.67	29	19	14.7	304.30	.0031	-33.66	.0003	54774.8	3.25	-.00	.0019	136.57	.0018	-28.42	46.69
EXTM	51	297.33	308.58	29	20	58.6	.09	.0037	-27.93	.0001	68586.9	2.96	87.81	-.0000	182.24	.0033	-27.74	27.60
EXTM	61	460.78	472.03	29	23	42.0	3.47	.0039	-30.27	.0002	99392.0	2.53	19.42	.0000	183.18	.0036	-26.84	352.47
EXTM	72	493.17	504.42	30	0	14.4	.55	.0040	-27.92	.0001	100526.0	2.47	69.98	.0000	181.41	.0104	-26.74	345.16
RISE	11	651.08	662.33	30	2	52.3	292.06	.0040	-28.04	.0000	128530.7	1.93	.00	.0027	125.12	.0023	-26.17	308.68
SET	51	686.17	697.42	30	3	27.4	90.0	.0039	-25.00	.0001	132004.6	2.54	10.58	-.0033	247.21	-.0013	-26.06	300.43
SET	61	711.51	722.76	30	3	52.8	63.32	.0040	-27.95	.0001	136463.0	2.41	-.00	-.0023	232.12	.0027	-25.98	294.45
SET	72	879.35	890.60	30	6	40.6	93.75	.0040	-25.20	.0001	157226.5	2.38	-.01	-.0036	244.54	-.0004	-25.54	254.46
RISE	42	889.73	900.98	30	6	51.0	254.99	.0040	-24.11	-.0000	158184.9	1.65	2.44	.0029	118.07	-.0022	-25.51	251.97
EXTM	11	930.69	941.94	30	7	32.0	1.06	.0042	-27.40	.0001	160353.2	1.94	27.38	-.0000	181.06	.0042	-25.42	242.12
SET	11	1207.81	1219.06	30	12	9.1	69.78	.0041	-26.10	.0001	193752.8	2.05	-.00	-.0028	237.43	.0024	-24.88	174.96
EXTM	42	1313.84	1325.09	30	13	55.1	359.89	.0042	-24.37	.0000	198482.6	1.68	79.15	.0000	.53	-.0198	-24.71	149.08
RISE	51	1448.86	1460.11	30	16	10.1	270.00	.0041	-23.85	-.0000	216878.1	1.24	10.11	.0034	111.72	-.0015	-24.51	116.03
RISE	72	1605.65	1616.90	30	18	46.9	266.44	.0041	-24.07	-.0000	232850.3	1.13	-.01	.0037	114.32	-.0005	-24.30	77.53
RISE	61	1672.91	1684.16	30	19	54.2	293.59	.0041	-25.31	-.0000	239029.2	1.23	.00	.0026	124.06	.0027	-24.22	60.99
SET	42	1736.74	1747.99	30	20	58.0	105.00	.0041	-23.23	.0000	244582.6	1.82	1.90	-.0030	242.63	-.0023	-24.14	45.27
EXTM	51	1802.48	1813.73	30	22	3.7	358.58	.0042	-24.03	.0000	244344.5	1.46	87.86	.0023	37.19	-.0829	-24.07	29.07
EXTM	61	1939.24	1950.49	31	0	20.5	.44	.0042	-25.19	.0000	259853.8	1.42	24.57	.0000	180.43	.0042	-23.92	355.32
EXTM	72	1978.64	1989.89	31	0	59.9	.08	.0042	-24.27	.0000	259785.3	1.41	73.63	.0000	180.27	.0133	-23.88	345.59
RISE	11	2109.74	2120.99	31	3	11.0	288.85	.0042	-24.60	-.0000	276753.3	1.04	.00	.0029	120.63	.0024	-23.76	313.19
SET	51	2167.26	2178.51	31	4	8.5	90.00	.0041	-23.19	.0000	280357.0	1.73	9.85	-.0035	248.90	-.0015	-23.71	298.96
SET	61	2205.43	2216.68	31	4	46.7	67.22	.0042	-24.59	.0000	284527.9	1.63	-.00	-.0026	236.97	.0027	-23.67	289.51
SET	72	2350.64	2361.89	31	7	11.9	93.44	.0041	-23.37	.0000	296031.5	1.72	-.00	-.0037	246.39	-.0005	-23.55	253.56
RISE	42	2353.22	2364.47	31	7	14.5	255.00	.0041	-22.79	-.0000	296051.1	.97	1.63	.0030	117.02	-.0023	-23.54	252.92
EXTM	11	2393.81	2405.06	31	7	55.1	.30	.0042	-24.57	.0000	296196.0	1.29	30.23	-.0000	180.31	.0044	-23.51	242.86
SET	11	2677.77	2689.02	31	12	39.0	71.68	.0042	-24.02	.0000	320771.6	1.55	-.00	-.0029	240.12	.0024	-23.30	172.44
EXTM	42	2772.10	2783.35	31	14	13.4	359.96	.0042	-22.99	.0000	321461.0	1.20	77.77	.0000	.20	-.0166	-23.23	149.02
RISE	51	2902.54	2913.79	31	16	23.8	270.00	.0041	-22.71	-.0000	335857.5	.79	9.65	.0035	110.66	-.0016	-23.14	116.63
RISE	72	3058.36	3069.61	31	18	59.6	266.64	.0042	-22.89	-.0000	347975.0	.69	.00	.0038	113.12	-.0005	-23.04	77.90
RISE	61	3117.72	3128.97	31	19	59.0	291.87	.0042	-23.75	-.0000	351911.2	.80	.00	.0027	121.85	.0027	-23.02	63.09
SET	42	3190.72	3201.97	31	21	12.0	105.00	.0041	-22.37	.0000	356574.7	1.44	1.37	-.0030	243.32	-.0023	-22.99	44.86
EXTM	51	3259.44	3270.69	31	22	20.7	359.99	.0042	-22.92	.0000	354924.4	1.09	87.18	.0000	.43	-.0355	-22.97	27.70
EXTM	61	3387.81	3399.06	1	0	29.1	.13	.0042	-23.82	.0000	366840.0	1.09	25.94	-.0000	180.13	.0043	-22.93	355.62
EXTM	72	3427.70	3438.95	1	1	9.0	.02	.0042	-23.18	.0000	366111.2	1.09	74.72	.0000	180.10	.0104	-22.92	345.65
RISE	11	3552.36	3563.61	1	3	13.6	287.87	.0042	-23.50	-.0000	380348.0	.76	.00	.0030	119.21	.0024	-22.89	314.47
SET	51	3615.73	3626.98	1	4	17.0	90.00	.0042	-22.50	.0000	383464.5	1.50	9.57	-.0035	249.54	-.0016	-22.88	298.61
SET	61	3657.66	3668.91	1	4	58.9	68.37	.0042	-23.54	.0000	387321.2	1.43	-.00	-.0027	238.45	.0027	-22.88	288.11
SET	72	3796.12	3807.37	1	7	17.4	93.34	.0042	-22.75	.0000	397225.4	1.79	-.00	-.0038	247.02	-.0006	-22.88	253.32
RISE	42	3796.61	3807.86	1	7	17.9	255.00	.0042	-22.32	-.0000	397116.3	1.03	1.34	.0031	116.64	-.0024	-22.88	253.19
IMPACT		3829.63	3840.88	1	7	50.9												
IMPC	42	3829.63	3840.88	1	7	50.9	263.39	.0043	-22.39	-.0001	399517.7	1.67	7.62	.0033	112.08	-.0023	-22.91	244.79
IMPC	11	3829.63	3840.88	1	7	50.9	358.34	.0044	-23.69	-.0000	397085.6	2.02	31.08	.0001	178.22	.0047	-22.91	244.79
EXTM	11	3833.93	3845.18	1	7	55.2	359.47	.0044	-23.69	-.0000	397661.8	2.60	31.10	-.0000	179.43	.0048	-22.91	243.67

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	29	16	1.262	6598.419	22.4937	306.4013	10.94983	-5.1035	108.4460	133.5738
SEPARATION		1.20	12.45	29	16	2.462	6550.437	20.1533	313.0999	10.98913	-1.6946	110.9960	140.5732
RETRO		3.20	14.45	29	16	4.462	6577.238	15.6900	323.7632	10.96655	4.0196	114.4440	151.7378
IMPACT		3829.63	3840.88	1	7	50.895	400412.715	-22.9053	244.7926	2.19788	67.6627	257.0563	311.9938

JUL 29, 1966
96 DEGREES

SURVEYOR VIEW PERIODS

GHA	309.1559					EPS	4.8761						LOM	239.5712	
SX	.616445	SY	-.684505	SZ	-.389133	DAO	-22.90055	RAO	312.00620	RM	401698.891	LAT	28.310600	LON	279.461800
C3	-.941911	ECC	.984635	SLR	12988.122	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.632096	NSY	-.672754	NSZ	-.384518	C3M	1.4976	VIM	2.6715	ZAE	141.449	B.T	.0000	B.R	-.0000
LATE	6.3918	LONE	3.0677	LATS	1.5492	LONS	3.5170	LATI	3.3310	LONI	324.4890	RSM	152.2257	TTAN	5.1923
LAUNCH DATE	JUL 29,1966			BASE AZM	99.0		TF 63.840					ARRIVAL DATE	AUG 1 1966		8 11 46.2

LNCH AZMTH	LNCH TIME		PR	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99.00	16 4 56.5		27.7	21.29	306.22	-6.97	137.14	110.66	16 16 13.3	6568.7	10.97	-3.46

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PPORE IN SUNLIGHT											
INJECTION		.00	11.25	29	16	16.2												
SEPARATION		1.20	12.45	29	16	17.4												
RETRO		3.20	14.45	29	16	19.4												
RISE	72	5.33	16.58	29	16	21.5	79.74	-.2343	52.05	.0646	2403.9	-7.95	.00	.1260	322.76	.0952	8.59	333.21
EXTM	72	9.96	21.21	29	16	26.2	329.30	-.2013	21.09	-.2374	1634.1	4.42	48.17	.0123	45.58	.4536	-2.16	351.50
RISE	51	11.26	22.51	29	16	27.5	76.40	-.1045	25.98	-.0378	4817.1	-4.19	.01	.1005	299.11	.0123	-4.72	355.78
EXTM	51	28.57	39.82	29	16	44.8	356.18	-.0351	-19.05	-.0170	6990.9	5.46	82.44	.0000	28.57	.2830	-22.25	29.73
EXTM	72	68.30	79.55	29	17	24.5	278.98	-.0000	-29.06	-.0005	23464.4	4.87	11.65	.0000	118.17	.0005	-28.74	50.50
EXTM	51	85.99	97.24	29	17	42.2	328.75	.0000	-29.33	-.0002	24603.5	4.46	62.14	.0000	104.56	.0005	-29.19	52.49
RISE	61	180.11	191.36	29	19	16.3	305.56	.0030	-34.50	.0004	52101.6	3.34	-.00	.0018	137.90	.0017	-28.94	45.25
EXTM	51	279.88	291.13	29	20	56.1	.12	.0036	-28.41	.0001	65561.1	3.02	87.33	.0000	182.36	.0675	-28.17	27.57
EXTM	61	446.46	457.71	29	23	42.7	3.81	.0039	-30.64	.0002	97331.4	2.56	19.03	.0000	183.46	.0036	-27.18	352.15
EXTM	72	478.09	489.34	30	0	14.3	.66	.0040	-28.25	.0001	98379.2	2.49	69.65	-.0000	181.68	.0102	-27.03	345.05
RISE	11	637.20	648.45	30	2	53.4	292.32	.0040	-28.29	.0000	126746.9	1.94	.00	.0027	125.46	.0023	-26.39	308.40
SET	51	670.97	682.22	30	3	27.2	90.00	.0039	-25.20	.0001	130073.2	2.55	10.66	-.0033	247.03	-.0013	-26.27	300.48
SET	61	695.16	706.41	30	3	51.4	63.03	.0040	-28.19	.0001	134417.2	2.42	-.00	-.0023	231.76	.0027	-26.19	294.78
SET	72	864.57	875.82	30	6	40.8	93.78	.0039	-25.37	.0001	155531.1	2.39	-.01	-.0035	244.37	-.0004	-25.70	254.47
RISE	42	875.07	886.32	30	6	51.3	254.99	.0040	-24.26	-.0000	156502.5	1.66	2.53	.0029	118.18	-.0022	-25.67	251.95
EXTM	11	916.24	927.49	30	7	32.5	1.13	.0042	-27.58	.0001	158752.7	1.95	27.20	-.0000	181.13	.0041	-25.57	242.06
SET	11	1182.69	1203.94	30	12	8.9	69.66	.0041	-26.22	.0001	192226.6	2.06	-.00	-.0028	237.27	.0024	-24.99	175.09
EXTM	42	1299.37	1310.62	30	13	55.6	359.91	.0042	-24.47	.0000	197072.3	1.69	79.25	-.0000	.43	-.0198	-24.80	149.06
RISE	51	1434.38	1445.63	30	16	10.6	270.00	.0041	-23.93	-.0000	215521.6	1.25	10.14	.0034	111.79	-.0015	-24.59	116.02
RISE	72	1591.14	1602.39	30	18	47.4	266.43	.0041	-24.14	-.0000	231552.9	1.14	-.01	.0037	114.39	-.0005	-24.37	77.53
RISE	61	1658.76	1670.01	30	19	55.0	293.67	.0041	-25.38	-.0000	237787.6	1.23	.00	.0026	124.16	.0027	-24.28	60.90
SET	42	1722.22	1733.47	30	20	58.4	105.00	.0041	-23.29	.0000	243323.8	1.83	1.94	-.0030	242.59	-.0023	-24.20	45.28
EXTM	51	1788.05	1799.30	30	22	4.3	358.60	.0042	-24.08	.0000	243117.7	1.46	87.91	.0023	37.83	-.0843	-24.12	29.05
EXTM	61	1924.85	1936.10	31	0	21.1	.46	.0042	-25.24	.0000	258674.6	1.43	24.52	.0000	180.45	.0042	-23.97	355.30
EXTM	72	1964.19	1975.44	31	1	.4	.09	.0042	-24.32	.0000	258607.7	1.41	73.59	.0000	180.28	.0133	-23.93	345.59
RISE	11	2095.44	2106.69	31	3	11.7	288.88	.0042	-24.64	-.0000	275619.5	1.05	.00	.0029	120.68	.0024	-23.79	313.15
SET	51	2152.78	2164.03	31	4	9.0	90.00	.0041	-23.22	.0000	279221.1	1.73	9.86	-.0035	248.87	-.0015	-23.74	298.97
SET	61	2190.81	2202.06	31	4	47.0	67.18	.0042	-24.62	.0000	283380.7	1.64	-.00	-.0026	236.93	.0027	-23.70	289.56
SET	72	2336.18	2347.43	31	7	12.4	93.45	.0041	-23.39	.0000	294939.8	1.72	-.00	-.0037	246.37	-.0005	-23.57	253.56
RISE	42	2338.78	2350.03	31	7	15.0	255.00	.0041	-22.81	-.0000	294960.5	.97	1.64	.0030	117.03	-.0023	-23.57	252.92
EXTM	11	2379.42	2390.67	31	7	55.6	.31	.0042	-24.59	.0000	295120.7	1.29	30.20	-.0000	180.33	.0044	-23.53	242.85
SET	11	2663.28	2674.53	31	12	39.5	71.67	.0042	-24.03	.0000	319742.0	1.55	-.00	-.0029	240.11	.0024	-23.30	172.45
EXTM	42	2757.65	2768.90	31	14	13.9	359.96	.0042	-23.00	.0000	320451.0	1.20	77.78	.0000	.21	-.0168	-23.23	149.02
RISE	51	2888.11	2899.36	31	16	24.3	270.00	.0041	-22.71	-.0000	334871.3	.79	9.65	.0035	110.65	-.0016	-23.14	116.62
RISE	72	3043.92	3055.17	31	19	.1	266.44	.0041	-22.88	-.0000	346797.0	.73	-.00	.0038	113.11	-.0006	-23.03	77.90
RISE	61	3103.36	3114.61	31	19	59.6	291.85	.0042	-23.74	-.0000	351028.1	.80	.00	.0027	121.82	.0027	-23.00	63.10
SET	42	3176.41	3187.66	31	21	12.6	105.00	.0041	-22.35	.0000	355695.1	1.44	1.36	-.0030	243.33	-.0023	-22.97	44.86
EXTM	51	3245.12	3256.37	31	22	21.3	359.99	.0042	-22.90	.0000	354041.2	1.09	87.16	.0000	.42	-.0355	-22.95	27.70
EXTM	61	3373.49	3384.74	1	0	29.7	.14	.0042	-23.80	.0000	365946.9	1.09	25.96	-.0000	180.14	.0043	-22.91	355.62
EXTM	72	3413.35	3424.60	1	1	9.6	.02	.0042	-23.16	.0000	365214.5	1.09	74.75	.0000	180.09	.0113	-22.90	345.65
RISE	11	3537.92	3549.17	1	3	14.1	287.84	.0042	-23.47	-.0000	379426.2	.76	.00	.0030	119.18	.0024	-22.87	314.49
SET	51	3601.35	3612.60	1	4	17.6	90.00	.0042	-22.47	.0000	382530.4	1.49	9.56	-.0035	249.56	-.0016	-22.85	298.62
SET	61	3643.41	3654.66	1	4	59.6	68.40	.0042	-23.01	.0000	386375.8	1.42	-.00	-.0027	238.49	.0027	-22.85	288.08
SET	72	3781.81	3793.06	1	7	18.0	93.34	.0042	-22.71	.0000	396071.7	1.72	-.00	-.0038	247.06	-.0006	-22.84	253.33
RISE	42	3782.33	3793.58	1	7	18.6	255.00	.0042	-22.28	-.0000	395965.6	.95	1.32	.0031	116.61	-.0024	-22.84	253.19
EXTM	11	3821.06	3832.31	1	7	57.3	359.76	.0043	-23.64	-.0000	396108.1	1.65	31.15	.0000	179.75	.0046	-22.86	243.39
IMPACT		3830.39	3841.64	1	8	6.6												
IMPC	42	3830.39	3841.64	1	8	6.6	267.18	.0043	-22.37	-.0001	399230.8	1.66	10.51	.0033	110.06	-.0022	-22.87	240.99
IMPC	11	3830.39	3841.64	1	8	6.6	2.19	.0044	-23.65	-.0000	397113.0	2.04	31.10	-.0002	182.34	.0047	-22.87	240.99

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	29	16	16.222	6568.974	21.3006	306.1986	10.97375	-3.4566	110.6486	137.1212
SEPARATION		1.20	12.45	29	16	17.422	6544.668	18.7235	312.7388	10.99400	-.0343	112.9931	143.9623
RETRO		3.20	14.45	29	16	19.422	6609.498	13.9458	323.1122	10.93953	5.6617	116.0628	154.8370
IMPACT		3830.39	3841.64	1	8	6.607	400441.746	-22.8728	240.9935	2.19567	67.4876	257.3042	312.1336

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SURVEYOR VIEW PERIODS

GHA	309.1559					EPS	4.8700					LOM	235.8946		
SX	.618214	SY	-.683215	SZ	-.388624	DAO	+22.86892	RAO	312.14068	RM	401722.820	LAT	28.310600	LON	279.461800
C3	-.943105	ECC	.984515	SLR	12987.993	RCA	6544.6650	LTA	+20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.633827	NSY	-.671422	NSZ	-.383999	C3M	1.4973	VIM	2.6714	ZAE	141.413	B.T	.0000	B.R	-.0000
LATE	6.3953	LONE	3.0572	LATS	1.5493	LONS	3.5882	LATI	3.1258	LONI	324.4656	RSM	152.2256	TTAN	5.1843
LAUNCH DATE	JUL 29,1966			BASE AZM	102.0		TF 63.866					ARRIVAL DATE	AUG 1 1966 8 26 58.4		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	16 17 39.3	27.8	20.13	305.88	-4.19	139.98	112.81	16 28 54.3	6553.4	10.99	-2.08

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	29	16	28.9												
SEPARATION	1.20	12.45	29	16	30.1												
RETRO	3.20	14.45	29	16	32.1												
RISE 72	5.06	16.31	29	16	34.0	81.96	-.1974	45.22	.0347	2482.8	-8.25	-.00	.1296	315.78	.0612	7.43	330.89
EXTM 72	9.65	20.90	29	16	38.6	343.81	+.2606	16.43	-.2372	1488.5	3.67	60.86	.0536	33.32	.6992	-3.39	348.63
RISE 51	11.15	22.40	29	16	40.1	78.70	-.0966	22.13	-.0414	4972.9	-3.97	-.00	.0984	294.72	.0054	-6.36	353.48
EXTM 51	29.95	41.20	29	16	58.9	358.56	+.0321	+22.83	+.0132	7575.7	5.44	86.81	-.0000	24.57	.5821	-24.16	28.47
EXTM 72	68.89	80.14	29	17	37.8	282.01	+.0000	+30.44	-.0003	23503.8	4.85	14.33	.0000	119.50	.0003	-29.67	47.68
EXTM 51	87.48	98.73	29	17	56.4	332.34	.0000	+30.50	-.0001	25006.2	4.42	65.21	.0000	107.46	.0001	-30.01	49.63
RISE 61	170.69	181.94	29	19	19.6	307.00	.0029	+30.42	.0005	50184.4	3.40	-.00	.0018	139.40	.0016	-29.58	43.68
EXTM 51	265.14	276.39	29	20	54.0	.19	.0035	+29.02	.0002	62952.5	3.08	86.71	.0000	182.90	.0540	-28.72	27.51
EXTM 61	434.81	446.06	29	23	43.7	4.18	.0039	+31.09	.0002	95651.4	2.59	18.56	.0000	183.78	.0035	-27.56	351.80
EXTM 72	465.32	476.57	30	0	14.2	.74	.0040	+28.66	.0001	96543.4	2.52	69.23	-.0000	181.84	.0100	-27.39	344.98
RISE 11	625.97	637.22	30	2	54.9	292.63	.0040	+28.60	.0000	125289.0	1.96	.00	.0027	125.87	.0023	-26.67	308.07
SET 51	658.17	669.42	30	3	27.1	90.00	.0039	+25.47	.0001	128425.0	2.57	10.76	-.0032	246.78	-.0013	-26.55	300.52
SET 61	680.87	692.12	30	3	49.8	62.65	.0040	+28.50	.0002	132606.8	2.44	-.00	-.0022	231.31	.0027	-26.46	295.18
SET 72	852.18	863.43	30	6	41.1	93.82	.0039	+25.58	.0001	154094.4	2.40	-.00	-.0035	244.16	-.0004	-25.92	254.46
RISE 42	862.75	874.00	30	6	51.7	254.99	.0040	+24.46	-.0000	155067.4	1.67	2.65	.0029	118.34	-.0022	-25.89	251.93
EXTM 11	904.19	915.44	30	7	33.1	1.22	.0042	+27.80	.0001	157409.3	1.96	26.98	-.0000	181.21	.0041	-25.77	241.98
SET 11	1179.74	1190.99	30	12	8.6	69.51	.0041	+26.38	.0001	190899.8	2.06	-.00	-.0027	237.05	.0024	-25.14	175.26
EXTM 42	1287.08	1298.33	30	13	56.0	359.91	.0042	+24.61	.0000	198855.9	1.70	79.39	-.0000	.46	-.0202	-24.94	149.07
RISE 51	1422.18	1433.43	30	16	11.1	270.00	.0041	+24.05	-.0000	214357.5	1.25	10.19	.0034	111.90	-.0015	-24.71	116.01
RISE 72	1578.89	1590.14	30	18	47.8	266.41	.0041	+24.24	-.0000	230435.7	1.14	-.01	.0037	114.49	-.0005	-24.47	77.54
RISE 61	1647.01	1658.26	30	19	55.9	293.78	.0041	+25.48	-.0000	236735.0	1.24	.00	.0026	124.30	.0027	-24.37	60.78
SET 42	1709.98	1721.23	30	20	58.9	105.00	.0041	+23.37	.0001	242236.7	1.83	1.99	-.0030	242.52	-.0023	-24.29	45.28
EXTM 51	1776.01	1787.26	30	22	4.9	358.64	.0042	+24.16	.0000	242070.4	1.47	86.00	.0023	38.36	-.0874	-24.20	29.01
EXTM 61	1912.75	1924.00	31	0	21.7	.48	.0042	+25.31	.0000	257660.3	1.43	24.45	.0000	180.48	.0042	-24.04	355.28
EXTM 72	1952.01	1963.26	31	1	.9	.09	.0042	+24.39	.0000	257589.7	1.42	73.52	.0000	180.30	.0133	-23.99	345.58
RISE 11	2083.46	2094.71	31	3	12.4	288.94	.0042	+24.70	-.0000	274642.6	1.05	.00	.0029	120.75	.0024	-23.85	313.09
SET 51	2140.55	2151.80	31	4	9.5	90.00	.0041	+23.27	.0000	278232.2	1.74	9.88	-.0035	248.82	-.0015	-23.79	298.97
SET 61	2178.36	2189.61	31	4	47.3	67.13	.0042	+24.67	.0000	282392.3	1.64	-.00	-.0026	236.85	.0027	-23.75	289.62
SET 72	2323.98	2335.23	31	7	12.9	93.45	.0041	+23.43	.0001	293987.2	1.72	-.00	-.0037	246.33	-.0005	-23.61	253.56
RISE 42	2326.59	2337.84	31	7	15.5	255.00	.0041	+22.85	-.0000	294006.6	.97	1.67	.0030	117.06	-.0023	-23.61	252.91
EXTM 11	2367.28	2378.53	31	7	56.2	.33	.0042	+24.63	.0000	294184.0	1.30	30.16	-.0000	180.34	.0044	-23.57	242.83
SET 11	2650.98	2662.23	31	12	39.9	71.65	.0042	+24.05	.0000	319831.0	1.55	-.00	-.0029	240.08	.0024	-23.32	172.47
EXTM 42	2745.42	2756.67	31	14	14.3	359.95	.0042	+23.01	.0000	319558.3	1.21	77.79	.0000	.23	-.0167	-23.25	149.03
RISE 51	2875.91	2887.16	31	16	24.8	270.00	.0041	+22.71	-.0000	333996.3	.80	9.65	.0035	110.66	-.0016	-23.15	116.62
RISE 72	3031.72	3042.97	31	19	.6	266.64	.0041	+22.88	-.0000	345940.3	.73	-.00	.0038	113.11	-.0006	-23.04	77.90
RISE 61	3091.15	3102.40	31	20	.1	291.85	.0042	+23.74	-.0000	350180.1	.80	.00	.0027	121.63	.0027	-23.00	63.10
SET 42	3164.19	3175.44	31	21	13.1	105.00	.0041	+22.34	.0000	354847.1	1.44	1.35	-.0030	243.34	-.0023	-22.97	44.86
EXTM 51	3232.90	3244.15	31	22	21.8	359.99	.0042	+22.89	.0000	353194.1	1.09	87.16	.0000	.42	-.0368	-22.95	27.70
EXTM 61	3361.32	3372.57	1	0	30.2	.15	.0042	+23.79	.0000	365100.6	1.09	25.97	-.0000	180.15	.0043	-22.90	355.61
EXTM 72	3401.15	3412.40	1	1	10.1	.02	.0042	+23.15	.0000	364365.3	1.09	74.76	.0000	180.10	.0114	-22.89	345.65
RISE 11	3525.68	3536.93	1	3	14.6	287.83	.0042	+23.46	-.0000	378563.8	.76	.00	.0030	119.16	.0024	-22.85	314.51
SET 51	3589.16	3600.41	1	4	18.1	90.00	.0042	+22.45	.0000	381660.5	1.49	9.55	-.0035	249.58	-.0016	-22.84	298.62
SET 61	3631.30	3642.55	1	5	.2	68.42	.0042	+23.49	.0000	385499.2	1.41	-.00	-.0027	238.52	.0027	-22.83	288.06
SET 72	3769.67	3780.92	1	7	18.6	93.33	.0042	+22.68	.0000	395061.1	1.67	-.01	-.0038	247.09	-.0006	-22.81	253.33
RISE 42	3770.24	3781.49	1	7	19.1	255.00	.0042	+22.25	-.0000	394958.1	.91	1.30	.0031	116.59	-.0024	-22.81	253.19
EXTM 11	3809.38	3820.63	1	7	58.3	359.84	.0043	+23.61	-.0000	394918.2	1.45	31.18	.0000	179.83	.0046	-22.82	243.31
IMPACT	3831.93	3843.18	1	8	20.8												
IMPC 42	3831.93	3843.18	1	8	20.8	270.62	.0043	+22.36	+.0000	398966.1	1.66	13.16	.0034	108.26	-.0022	-22.84	237.55
IMPC 11	3831.93	3843.18	1	8	20.8	5.68	.0044	+23.62	-.0000	397152.5	2.06	30.92	-.0004	186.07	.0046	-22.84	237.55

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	29	16	28.906	6553.395	20.1359	305.8729	10.98669	+2.0794	112.8069	139.9791
SEPARATION	1.20	12.45	29	16	30.106	6548.343	17.3305	312.2546	10.99084	1.3524	114.9560	146.6577
RETRO	3.20	14.45	29	16	32.106	6644.420	12.2602	322.3254	10.91046	7.0105	117.6656	157.2298
IMPACT	3831.93	3843.18	1	8	20.837	400464.375	-22.8437	237.5523	2.19502	67.3932	257.6365	312.2596

SURVEYOR VIEW PERIODS

GHA	309.1559					EPS	4.8670							LOM	232.7041
SX	.619729	SY	-.682093	SZ	-.388181	DAO	-22.84139	RAO	312.25741	RM	401743.547	LAT	28.310600	LON	279.461800
C3	-.944761	RCC	.984468	SLR	12987.813	RCA	6544.6650	LTA	-20.0000	GTA	20.30	TB	675.00000	POL	-.0
NSX	.435332	NSY	-.670257	NSZ	-.383548	C3M	1.4970	VIM	2.6714	ZAE	141.361	B.T	.0000	B.R	-.0000
LATE	6.3982	LONE	3.1688	LATS	1.5494	LONS	3.3973	LATI	2.8780	LONI	324.5526	RSM	152.2254	TTAN	5.1785
LAUNCH DATE	JUL 29,1966			BASE AZM	105.0		TF 63.898				ARRIVAL DATE	AUG	1 1966	8 40	9.9

LNCH AZMTH	LNCH TIME	RM	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	16 28 22.8	27.9	19.00	305.45	-1.48	142.25	114.94	16 39 37.8	6546.4	10.99	-.93

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
				PROBE IN SUNLIGHT														
INJECTION		.00	11.25	29	16	39.6												
SEPARATION		1.20	12.45	29	16	40.8												
RETRO		3.20	14.45	29	16	42.8												
RISE	72	4.86	16.11	29	16	44.5	83.53	-.1737	39.10	.0073	2559.2	-.36	-.00	.1314	309.55	.0311	6.16	328.88
EXTM	72	9.42	20.67	29	16	49.1	357.45	-.2960	9.18	-.2242	1428.6	2.97	72.73	.1783	8.51	1.0856	-4.80	346.14
RISE	51	11.09	22.34	29	16	50.7	80.76	-.0899	18.42	-.0448	5114.6	-3.74	-.00	.0963	290.54	-.0008	-8.10	351.39
EXTM	51	30.99	42.24	29	17	10.6	1.15	-.0306	-26.22	-.0106	8040.9	5.40	88.86	.0206	245.02	-1.0567	-26.01	27.04
EXTM	72	69.59	80.84	29	17	49.2	284.58	.0000	-31.94	-.0000	23602.7	4.82	16.52	.0000	121.06	.0000	-30.75	45.30
EXTM	51	88.56	99.81	29	18	8.2	335.36	-.0000	-31.80	.0001	25309.3	4.40	67.62	.0000	111.46	-.0003	-30.97	47.21
RISE	61	164.81	176.06	29	19	24.4	308.58	.0028	-36.39	.0005	48990.2	3.45	-.00	.0018	141.00	.0015	-30.33	42.05
EXTM	51	252.87	264.12	29	20	52.5	.30	.0035	-29.75	.0002	60744.9	3.13	85.98	.0000	183.68	.0432	-29.37	27.42
EXTM	61	425.52	436.77	29	23	45.1	4.60	.0039	-31.60	.0002	94315.7	2.61	18.04	.0000	184.12	.0035	-28.01	351.41
EXTM	72	454.80	466.05	30	0	14.4	.85	.0040	-29.14	.0001	95021.4	2.54	68.75	.0000	182.04	.0097	-27.83	344.89
RISE	11	617.03	628.28	30	2	56.7	292.99	.0040	-28.96	.0000	124122.9	1.97	.00	.0027	125.35	.0023	-27.00	307.68
SET	51	647.48	658.73	30	3	27.1	90.00	.0039	-25.79	.0001	127030.4	2.58	10.89	-.0032	246.48	-.0013	-26.87	300.56
SET	61	668.38	679.63	30	3	48.0	62.21	.0040	-28.46	.0002	131006.8	2.45	-.00	-.0022	230.78	.0027	-26.79	295.65
SET	72	841.86	853.11	30	6	41.5	93.86	.0039	-25.83	.0001	152888.1	2.41	-.00	-.0035	243.90	-.0004	-26.18	254.44
RISE	42	852.46	863.71	30	6	52.1	254.99	.0040	-24.71	-.0000	153852.7	1.68	2.80	.0029	118.54	-.0022	-26.14	251.91
EXTM	11	894.20	905.45	30	7	33.8	1.31	.0042	-28.07	.0001	156294.6	1.97	26.71	-.0000	181.30	.0041	-26.02	241.89
SET	11	1168.65	1179.90	30	12	8.3	69.33	.0041	-26.56	.0001	189752.1	2.07	-.00	-.0027	236.80	.0024	-25.33	175.45
EXTM	42	1276.78	1288.03	30	13	54.4	359.90	.0042	-24.78	.0000	194823.0	1.70	79.56	-.0000	.50	-.0206	-25.10	149.08
RISE	51	1411.95	1423.20	30	16	11.6	270.00	.0041	-24.19	-.0000	213367.0	1.26	10.25	.0034	112.03	-.0015	-24.85	116.00
RISE	72	1568.58	1579.83	30	18	48.2	266.39	.0041	-24.16	-.0000	229482.1	1.15	-.01	.0037	114.61	-.0005	-24.59	77.55
RISE	61	1637.33	1648.58	30	19	57.0	293.92	.0041	-25.60	-.0000	235853.6	1.24	.00	.0026	124.48	.0027	-24.49	60.64
SET	42	1699.69	1710.94	30	20	59.3	105.00	.0041	-23.48	.0001	241306.3	1.84	2.05	-.0030	242.44	-.0023	-24.40	45.29
EXTM	51	1766.18	1777.43	30	22	5.8	358.75	.0042	-24.27	.0000	241200.7	1.47	88.14	.0023	37.90	-.0946	-24.31	28.91
EXTM	61	1902.61	1913.86	31	0	22.2	.52	.0042	-25.41	.0000	256797.3	1.43	24.35	.0000	180.51	.0042	-24.13	355.25
EXTM	72	1941.78	1953.03	31	1	1.4	.10	.0042	-24.47	.0000	256718.7	1.42	73.43	.0000	180.32	.0133	-24.08	345.57
RISE	11	2073.49	2084.74	31	3	13.1	289.00	.0042	-24.77	-.0000	273811.2	1.05	.00	.0029	120.85	.0024	-23.92	313.02
SET	51	2130.27	2141.52	31	4	9.9	90.00	.0041	-23.34	.0000	277380.5	1.74	9.91	-.0035	248.76	-.0015	-23.86	298.98
SET	61	2167.76	2179.01	31	4	47.4	67.05	.0042	-24.74	.0001	281524.2	1.64	-.00	-.0026	236.75	.0027	-23.82	289.70
SET	72	2313.72	2324.97	31	7	13.4	93.46	.0041	-23.48	.0001	293166.0	1.73	-.00	-.0037	246.28	-.0005	-23.66	253.55
RISE	42	2316.33	2327.58	31	7	16.0	255.00	.0041	-22.90	-.0000	293181.9	.98	1.70	.0030	117.10	-.0023	-23.66	252.91
EXTM	11	2357.08	2368.33	31	7	54.7	.35	.0042	-24.58	.0000	293378.2	1.30	30.11	-.0000	180.36	.0044	-23.62	242.81
SET	11	2640.56	2651.81	31	12	40.2	71.62	.0042	-24.08	.0000	318035.4	1.55	-.00	-.0029	240.04	.0024	-23.36	172.51
EXTM	42	2735.12	2746.37	31	14	14.7	359.95	.0042	-23.04	.0000	318780.5	1 21	77.82	.0000	.24	-.0172	-23.27	149.03
RISE	51	2865.62	2876.87	31	16	25.3	270.00	.0041	-22.73	-.0000	333231.9	.80	9.66	.0035	110.68	-.0016	-23.17	116.62
RISE	72	3021.42	3032.67	31	19	1.0	266.63	.0041	-22.89	-.0000	345189.2	.73	-.00	.0038	113.13	-.0006	-23.05	77.90
RISE	61	3080.90	3092.15	31	20	.5	291.86	.0042	-23.75	-.0000	349438.2	.80	.00	.0027	121.84	.0027	-23.01	63.09
SET	42	3153.88	3165.13	31	21	13.5	105.00	.0041	-22.35	.0000	354101.3	1.44	1.36	-.0030	243.33	-.0023	-22.98	44.86
EXTM	51	3222.60	3233.85	31	22	22.2	359.99	.0042	-22.90	.0000	352448.6	1.09	87.16	.0000	.37	-.0440	-22.95	27.70
EXTM	61	3351.07	3362.32	1	0	30.7	.16	.0042	-23.79	.0000	364355.4	1.09	25.97	-.0000	180.16	.0043	-22.90	355.59
EXTM	72	3390.87	3402.12	1	1	10.5	.03	.0042	-23.14	.0000	363616.0	1.09	74.76	.0000	180.11	.0118	-22.88	345.65
RISE	11	3515.36	3526.61	1	3	15.0	287.82	.0042	-23.45	-.0000	377802.4	.76	.00	.0030	119.15	.0024	-22.84	314.51
SET	51	3578.86	3590.11	1	4	18.5	90.00	.0042	-22.44	.0000	380891.4	1.48	9.54	-.0035	249.59	-.0016	-22.82	298.62
SET	61	3621.08	3632.33	1	5	.7	68.43	.0042	-23.48	.0000	384723.9	1.41	-.00	-.0027	238.54	.0027	-22.81	288.05
SET	72	3759.43	3770.68	1	7	19.1	93.33	.0042	-22.66	.0000	394186.6	1.64	-.01	-.0038	247.11	-.0006	-22.79	253.34
RISE	42	3760.02	3771.27	1	7	19.6	255.00	.0042	-22.22	-.0000	394086.4	.83	1.28	.0031	116.57	-.0024	-22.79	253.19
EXTM	11	3799.60	3810.85	1	7	59.2	359.94	.0043	-23.58	-.0000	393957.1	1.36	31.21	.0000	179.94	.0045	-22.80	243.21
IMPACT		3833.89	3845.14	1	8	33.5												
IMPC	42	3833.89	3845.14	1	8	33.5	273.69	.0043	-22.35	-.0000	398730.2	1.66	15.54	.0034	106.67	-.0022	-22.82	234.48
IMPC	11	3833.89	3845.14	1	8	33.5	8.79	.0044	-23.59	-.0000	397202.4	2.08	30.61	-.0006	189.37	.0046	-22.82	234.48

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	29	16	39.630	6546.418	18.9987	305.4543	10.99249	-.9332	114.9374	142.2450
SEPARATION		1.20	12.45	29	16	40.830	6557.227	15.9711	311.6774	10.98325	2.4995	116.9001	148.7689
RETRO		3.20	14.45	29	16	42.830	6578.937	10.6225	321.4441	10.88193	8.1193	119.2703	159.0370
IMPACT		3833.89	3845.14	1	8	33.524	400484.555	-22.8178	234.4842	2.19426	67.3765	258.1597	312.3719

SURVEYOR VIEW PERIODS

GHA	309.1559					EPS	4.8661						LOM	229.8733	
SX	.621071	SY	-.681096	SZ	-.387787	DAO	+22.81690	RAO	312.36074	RM	401761.895	LAT	28.310600	LON	279.461800
CJ	-.946957	ECC	.984452	SLR	12987.575	RCA	6544.6650	LTA	+20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.636670	NSY	+.669215	NSZ	-.383148	C3M	1.4968	VIM	2.6713	ZAE	141.288	B.T	.0000	B.R	-.0000
LATE	6.4009	LONE	5.0402	LATS	1.5495	LONS	3.1777	LATI	2.5969	LONI	324.3840	RSM	152.2253	TTAN	5.1749
LAUNCH DATE	JUL 29.1966			BASE AZM	108.0		TF 63.938				ARRIVAL DATE AUG 1 1966			8 51 52.2	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	16 37 28.1	28.0	17.89	304.96	.04	144.03	117.05	16 48 43.1	6544.7	10.99	.02

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PRORE IN SUNLIGHT											
INJECTION		.00	11.25	29	16	48.7												
SEPARATION		1.20	12.45	29	16	49.9												
RETRO		3.20	14.45	29	16	51.9												
RISE	72	4.72	15.97	29	16	53.4	84.73	+.1566	33.48	+.0176	2633.7	+8.32	.00	.1317	303.84	.0042	4.79	327.12
EXTM	72	9.14	20.39	29	16	57.9	11.69	+.3126	2.08	+.2128	1431.2	1.99	74.65	.3756	310.11	.1602	-6.10	343.52
RISE	51	11.07	22.32	29	16	59.8	82.67	+.0842	14.83	+.0479	5245.8	-3.51	.00	.0912	286.51	-.0063	-9.95	349.48
EXTM	51	33.11	44.36	29	17	21.8	1.50	+.0271	-30.07	+.0074	8847.9	5.40	85.47	+.0000	196.73	-.3112	-28.26	26.83
EXTM	72	69.98	81.23	29	17	58.7	286.71	+.0000	-33.54	.0002	23640.8	4.80	18.27	.0000	122.80	-.0002	-31.95	43.25
EXTM	51	89.02	100.27	29	18	17.7	337.89	+.0001	-33.22	.0003	25460.5	4.39	69.40	.0000	116.49	-.0009	-32.04	45.16
RISE	61	162.01	173.26	29	19	30.7	310.25	.0028	+37.36	.0006	48448.6	3.47	+.00	.0018	142.65	.0015	-31.16	40.41
EXTM	51	242.81	254.06	29	20	51.5	.44	.0034	+30.58	.0002	58910.4	3.17	85.14	+.0000	184.51	.0349	-30.11	27.29
EXTM	61	418.23	429.48	29	23	47.0	5.05	.0039	+32.15	.0002	93281.1	2.62	17.46	.0000	184.48	.0035	-28.51	350.99
EXTM	72	446.23	457.48	30	0	14.9	.97	.0040	+29.67	.0002	93777.0	2.56	68.21	.0000	182.27	.0094	-28.31	344.77
RISE	11	610.05	621.30	30	2	58.8	293.39	.0040	+29.36	.0000	123206.9	1.98	.00	.0026	126.88	.0023	-27.38	307.26
SET	51	638.56	649.81	30	3	27.3	90.00	.0039	+26.15	.0001	125855.8	2.59	11.04	+.0032	246.14	+.0013	-27.24	300.60
SET	61	657.41	668.66	30	3	46.1	61.70	.0040	+29.26	.0002	129588.2	2.46	+.00	+.0022	230.19	.0027	-27.16	296.17
SET	72	833.32	844.57	30	6	42.0	93.91	.0039	+26.13	.0001	151880.1	2.41	+.00	+.0035	243.60	+.0004	-26.47	254.42
RISE	42	843.89	855.14	30	6	52.6	254.99	.0040	+24.99	+.0000	152827.8	1.69	2.98	.0029	118.76	+.0022	-26.43	251.89
EXTM	11	885.98	897.23	30	7	34.7	1.41	.0042	+28.36	.0001	155376.0	1.97	26.42	+.0000	181.39	.0041	-26.29	241.79
SET	11	1159.16	1170.41	30	12	7.9	69.12	.0041	+26.80	.0001	188757.5	2.07	+.00	+.0027	236.51	.0024	-25.54	175.67
EXTM	42	1268.16	1279.41	30	13	56.9	359.90	.0042	+24.97	.0000	193946.5	1.70	79.75	+.0000	.54	+.0210	-25.29	149.00
RISE	51	1403.39	1414.64	30	16	12.1	270.00	.0041	+24.35	+.0000	212323.5	1.26	10.31	.0034	112.18	+.0015	-25.02	115.99
RISE	72	1559.91	1571.16	30	18	48.6	266.36	.0041	+24.51	+.0000	228666.5	1.15	+.01	.0037	114.76	+.0005	-24.74	77.57
RISE	61	1629.38	1640.63	30	19	58.1	294.08	.0041	+25.74	.0000	235116.2	1.24	.00	.0026	124.68	.0027	-24.62	60.48
SET	42	1691.06	1702.31	30	20	59.8	105.00	.0041	+23.60	.0001	240508.1	1.84	2.13	+.0030	242.34	+.0022	-24.53	45.29
EXTM	51	1758.26	1769.51	30	22	7.0	358.92	.0042	+24.39	.0000	240484.0	1.48	88.33	.0022	36.08	+.1078	-24.42	28.74
EXTM	61	1894.13	1905.38	31	0	22.8	.55	.0042	+25.52	.0000	256061.0	1.43	24.24	.0000	180.54	.0042	-24.23	355.21
EXTM	72	1933.18	1944.43	31	1	1.9	.11	.0042	+24.58	.0000	255971.0	1.42	73.33	.0000	180.35	.0132	-24.18	345.57
RISE	11	2065.20	2076.45	31	3	13.9	289.09	.0042	+24.86	+.0000	273100.8	1.06	.00	.0029	120.97	.0024	-24.01	312.94
SET	51	2121.61	2132.86	31	4	10.3	90.00	.0041	+23.42	.0001	276643.1	1.74	9.94	+.0035	248.68	+.0015	-23.94	298.98
SET	61	2158.74	2169.99	31	4	47.5	66.96	.0042	+24.82	.0001	280764.8	1.64	+.00	+.0026	236.64	.0027	-23.90	289.79
SET	72	2305.10	2316.35	31	7	13.8	93.47	.0041	+23.55	.0001	292453.6	1.73	+.00	+.0037	246.21	+.0005	-23.73	253.55
RISE	42	2307.70	2318.95	31	7	16.4	255.00	.0041	+22.96	+.0000	292464.3	.98	1.74	.0030	117.15	+.0023	-23.73	252.91
EXTM	11	2348.52	2359.77	31	7	57.2	.37	.0042	+24.75	.0000	292680.7	1.30	30.04	+.0000	180.39	.0044	-23.68	242.79
SET	11	2631.72	2642.97	31	12	40.4	71.58	.0042	+24.13	.0000	317334.5	1.55	+.00	+.0029	239.98	.0024	-23.40	172.55
EXTM	42	2726.42	2737.67	31	14	15.1	359.94	.0042	+23.07	.0000	318096.4	1.21	77.85	.0000	.26	+.0175	-23.31	149.04
RISE	51	2856.95	2868.20	31	16	25.7	270.00	.0041	+22.76	+.0000	332557.1	.80	9.67	.0035	110.70	+.0016	-23.20	116.61
RISE	72	3012.72	3023.97	31	19	1.4	266.63	.0041	+22.91	+.0000	344523.2	.73	+.00	.0038	113.14	+.0006	-23.07	77.90
RISE	61	3072.36	3083.61	31	20	1.1	291.87	.0042	+23.76	+.0000	348618.5	.84	.00	.0027	121.86	.0027	-23.02	63.07
SET	42	3145.29	3156.54	31	21	14.0	105.00	.0041	+22.35	.0000	353501.6	1.44	1.36	+.0030	243.33	+.0023	-22.98	44.86
EXTM	51	3214.00	3225.25	31	22	22.7	359.99	.0042	+22.90	.0000	351843.4	1.09	87.16	.0000	.39	+.0444	-22.95	27.70
EXTM	61	3342.50	3353.75	1	0	31.2	.17	.0042	+23.79	.0000	363739.6	1.08	25.97	+.0000	180.17	.0043	-22.89	355.58
EXTM	72	3382.26	3393.51	1	1	11.0	.03	.0042	+23.14	.0000	362993.4	1.08	74.77	.0000	180.12	.0123	-22.88	345.64
RISE	11	3506.70	3517.95	1	3	15.4	287.82	.0042	+23.44	+.0000	377158.3	.75	.00	.0030	119.14	.0024	-22.83	314.52
SET	51	3570.22	3581.47	1	4	18.9	90.00	.0042	+22.43	.0000	380235.1	1.48	9.54	+.0035	249.61	+.0016	-22.81	298.62
SET	61	3612.48	3623.73	1	5	1.2	68.45	.0042	+23.47	.0000	384058.4	1.40	+.00	+.0027	238.55	.0027	-22.80	288.04
SET	72	3750.78	3762.03	1	7	19.5	93.33	.0042	+22.64	.0000	393428.4	1.62	+.01	+.0038	247.13	+.0005	-22.77	253.34
RISE	42	3751.40	3762.65	1	7	20.1	255.00	.0042	+22.20	+.0000	393330.7	.85	1.27	.0031	116.55	+.0024	-22.77	253.19
EXTM	11	3791.19	3802.44	1	7	59.9	359.99	.0043	+23.56	.0000	393128.8	1.30	31.23	.0000	179.98	.0036	-22.77	243.16
IMPACT		3836.31	3847.56	1	8	45.0												
IMPC	42	3836.31	3847.56	1	8	45.0	276.48	.0043	+22.34	+.0000	398520.5	1.66	17.72	.0034	105.24	+.0022	-22.79	231.70
IMPC	11	3836.31	3847.56	1	8	45.0	11.61	.0044	+23.57	+.0000	397262.9	2.09	30.20	+.0008	192.32	.0045	-22.79	231.70

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	29	16	48.719	6544.667	17.8877	304.9629	10.99390	.0221	117.0588	144.0319
SEPARATION		1.20	12.45	29	16	49.919	6568.641	14.6450	311.0229	10.97353	3.4505	118.8349	150.3928
RETRO		3.20	14.45	29	16	51.919	6711.442	9.0258	320.4924	10.85523	9.0340	120.8874	160.3637
IMPACT		3836.31	3847.56	1	8	45.026	400506.289	+22.7942	231.7031	2.19193	67.1547	258.6563	312.4743

SURVEYOR VIEW PERIODS

GHA	309.1559					EPS	4.8668					LOM	227.2797		
SX	.622299	SY	-.680181	SZ	-.387425	DAD	-22.79440	RAD	312.45547	RM	401778.680	LAT	28.310600	LON	279.461800
C3	-.949747	ECC	.984406	SLR	12987.280	HCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.637900	NSY	-.668253	NSZ	-.382781	C3H	1.4966	VIM	2.6713	ZAE	141.191	B.T	.0000	B.R	-.0000
LATE	6.4032	LONE	3.1309	LATS	1.5495	LONS	3.1850	LATI	2.2906	LONI	324.4167	RSM	152.2252	TTAN	5.1733
LAUNCH DATE	JUL 29,1966			BASE AZM	111.0		TF 63.988					ARRIVAL DATE	AUG 1 1966	9	2 35.6

LNCH AZMTH	LNCH TIME	PH	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	16 45 13.0	28.0	16.80	304.41	1.65	145.42	119.15	16 56 28.0	6546.0	10.99	.82

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RN	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	29	16	56.5												
SEPARATION		1.20	12.45	29	16	57.7												
RETRO		3.20	14.45	29	16	59.7												
RISE	72	4.64	15.89	29	17	1.1	85.73	-.1432	28.21	-.0400	2707.6	-8.15	.00	.1309	298.51	-.0198	3.33	325.55
EXTM	72	10.02	21.27	29	17	6.5	5.39	-.2551	-16.95	-.1456	1698.9	4.31	79.54	-.0000	289.65	-1.5643	-9.81	344.57
RISE	51	11.09	22.34	29	17	7.6	84.46	-.0791	11.32	-.0509	5369.6	-3.27	.00	.0921	282.58	-.0112	-11.87	347.71
EXTM	51	34.99	46.24	29	17	31.5	2.11	-.0248	-33.52	-.0051	9568.9	5.37	82.01	-.0000	192.75	-.1529	-30.41	26.46
EXTM	72	70.31	81.56	29	18	6.8	288.48	-.0000	-35.22	.0004	23683.9	4.75	19.62	.0000	124.66	-.0005	-33.25	41.52
EXTM	51	88.68	99.93	29	18	25.1	340.00	-.0002	-34.75	.0005	25406.9	4.39	70.57	.0000	122.38	-.0015	-33.22	43.41
RISE	61	161.78	173.03	29	19	38.2	311.96	.0028	-38.31	.0006	48457.3	3.47	-.00	.0018	141.31	.0014	-32.04	38.78
EXTM	51	234.77	246.02	29	20	51.2	.64	.0034	-31.49	.0003	57431.3	3.21	84.22	-.0000	185.46	.0287	-30.91	27.11
EXTM	61	412.65	423.90	29	23	49.1	5.52	.0039	-32.74	.0003	92500.6	2.63	16.85	.0000	184.85	.0034	-29.05	350.55
EXTM	72	439.30	450.55	30	0	15.8	1.11	.0040	-30.25	.0002	92768.2	2.57	67.63	.0000	182.52	.0091	-28.84	344.64
RISE	11	604.69	615.94	30	3	1.2	293.82	.0040	-29.79	.0001	122498.9	1.99	.00	.0026	127.45	.0023	-27.79	306.81
SET	51	631.15	642.40	30	3	27.6	90.00	.0038	-26.55	.0001	124864.5	2.60	11.19	-.0032	245.76	-.0013	-27.65	300.63
SET	61	647.72	658.97	30	3	44.2	61.15	.0040	-29.69	.0002	128319.7	2.47	-.00	-.0022	229.54	.0027	-27.56	296.74
SET	72	826.24	837.49	30	6	42.7	93.96	.0039	-26.44	.0001	151035.0	2.42	-.00	-.0035	243.28	-.0004	-26.79	254.39
RISE	42	836.76	848.01	30	6	53.2	291.99	.0040	-25.30	-.0000	151959.0	1.70	3.17	.0029	119.00	-.0022	-26.75	251.87
EXTM	11	879.22	890.47	30	7	35.7	1.52	.0042	-28.68	.0001	154618.2	1.98	26.10	.0000	181.49	.0041	-26.60	241.68
SET	11	1150.94	1162.19	30	12	7.4	68.88	.0041	-27.04	.0001	187882.1	2.08	.01	-.0027	236.19	.0024	-25.77	175.91
EXTM	42	1260.93	1272.18	30	13	57.4	359.89	.0042	-25.18	.0000	193196.1	1.71	79.96	-.0000	.58	-.0214	-25.50	149.09
RISE	51	1396.21	1407.46	30	16	12.7	270.00	.0041	-24.54	-.0000	211797.8	1.26	10.39	.0034	112.35	-.0015	-25.20	115.98
RISE	72	1552.60	1563.85	30	18	49.1	266.34	.0041	-24.66	-.0000	227960.7	1.15	-.01	.0037	114.92	-.0005	-24.90	77.59
RISE	61	1622.86	1634.11	30	19	59.3	294.25	.0041	-25.89	.0000	234492.6	1.25	.00	.0026	124.89	.0027	-24.77	60.30
SET	42	1683.79	1695.04	30	21	.3	105.00	.0041	-23.74	.0001	239814.0	1.84	2.21	-.0030	242.23	-.0022	-24.67	45.30
EXTM	51	1751.65	1762.90	30	22	8.1	359.08	.0042	-24.52	.0000	239865.2	1.48	88.53	.0021	34.48	-.1242	-24.55	28.58
EXTM	61	1887.01	1898.26	31	0	23.5	.59	.0042	-25.64	.0000	255423.5	1.44	24.12	.0000	180.58	.0042	-24.35	355.18
EXTM	72	1925.95	1937.20	31	1	2.4	.12	.0042	-24.69	.0000	255319.0	1.42	73.21	.0000	180.37	.0132	-24.29	345.56
RISE	11	2058.29	2069.54	31	3	14.8	289.18	.0042	-24.96	-.0000	272484.8	1.06	.00	.0029	121.10	.0024	-24.11	312.84
SET	51	2114.31	2125.56	31	4	10.8	90.00	.0041	-23.51	.0001	275993.8	1.74	9.98	-.0035	248.60	-.0015	-24.03	298.98
SET	61	2151.03	2162.28	31	4	47.5	66.85	.0042	-24.92	.0001	280088.7	1.64	-.00	-.0026	236.50	.0027	-23.98	289.90
SET	72	2297.83	2309.08	31	7	14.3	93.48	.0041	-23.62	.0001	291823.9	1.73	-.00	-.0037	246.14	-.0005	-23.80	253.54
RISE	42	2300.40	2311.65	31	7	16.9	255.00	.0041	-23.04	-.0000	291827.8	.98	1.78	.0030	117.21	-.0023	-23.80	252.90
EXTM	11	2341.30	2352.55	31	7	57.8	.39	.0042	-24.83	.0000	292065.3	1.30	29.97	-.0000	180.41	.0044	-23.75	242.77
SET	11	2624.19	2635.44	31	12	40.7	71.53	.0042	-24.18	.0000	316703.6	1.55	-.00	-.0029	239.91	.0024	-23.45	172.60
EXTM	42	2719.06	2730.31	31	14	15.5	359.94	.0042	-23.12	.0000	317481.3	1.21	77.90	.0000	.28	-.0176	-23.35	149.04
RISE	51	2849.60	2860.85	31	16	26.1	270.00	.0041	-22.79	-.0000	331947.5	.80	9.68	.0035	110.73	-.0016	-23.23	116.61
RISE	72	3005.34	3016.59	31	19	1.8	266.03	.0041	-22.94	-.0000	343918.1	.73	-.00	.0038	113.17	-.0006	-23.09	77.90
RISE	61	3065.08	3076.33	31	20	1.5	291.89	.0042	-23.78	-.0000	348022.0	.84	.00	.0027	121.89	.0027	-23.04	63.05
SET	42	3137.91	3149.16	31	21	14.4	105.00	.0041	-22.36	.0000	352897.3	1.44	1.37	-.0030	243.32	-.0023	-23.00	44.87
EXTM	51	3206.62	3217.87	31	22	23.1	359.99	.0042	-22.91	.0000	351237.9	1.09	87.17	.0000	.39	-.0471	-22.96	27.70
EXTM	61	3335.18	3346.43	1	0	31.6	.19	.0042	-23.80	.0000	363132.7	1.08	25.97	-.0000	180.19	.0043	-22.90	355.57
EXTM	72	3374.89	3386.14	1	1	11.4	.03	.0042	-23.14	.0000	362380.4	1.08	74.76	.0000	180.12	.0132	-22.88	345.64
RISE	11	3499.33	3510.58	1	3	15.8	287.81	.0042	-23.44	-.0000	376533.3	.75	.00	.0030	119.13	.0024	-22.83	314.52
SET	51	3562.84	3574.09	1	4	19.3	90.00	.0042	-22.42	.0000	379600.9	1.48	9.53	-.0035	249.61	-.0016	-22.80	298.62
SET	61	3605.14	3616.39	1	5	1.6	68.45	.0042	-23.46	.0000	383417.8	1.40	-.00	-.0027	238.56	.0027	-22.79	288.03
SET	72	3743.43	3754.68	1	7	19.9	93.32	.0042	-22.62	.0000	392722.2	1.60	-.01	-.0038	247.15	-.0005	-22.75	253.35
RISE	42	3744.07	3755.32	1	7	20.5	255.00	.0042	-22.19	-.0000	392626.5	.84	1.26	.0031	116.54	-.0024	-22.75	253.19
EXTM	11	3784.03	3795.28	1	8	.5	.02	.0043	-23.54	.0000	392374.5	1.26	31.25	.0000	180.03	.0039	-22.75	243.13
IMPACT		3839.27	3850.52	1	8	55.7												
IMPC	42	3839.27	3850.52	1	8	55.7	279.07	.0043	-22.33	-.0000	398323.5	1.66	19.77	.0035	103.92	-.0021	-22.77	229.11
IMPC	11	3839.27	3850.52	1	8	54.7	14.24	.0044	-23.54	-.0000	397326.4	2.11	29.72	-.0009	195.05	.0045	-22.77	229.11

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	29	16	56.466	6546.013	16.8024	304.4117	10.99261	.8178	119.1541	145.4229
SEPARATION		1.20	12.45	29	16	57.666	6580.920	13.3541	310.2995	10.96308	4.2401	120.7662	151.6116
RETRO		3.20	14.45	29	16	59.666	6741.037	7.4713	319.4764	10.83106	9.7881	122.5218	161.2899
IMPACT		3839.27	3850.52	1	8	55.732	400523.637	-22.7725	229.1141	2.19090	67.1167	259.2496	312.5691

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SURVEYOR VIEW PERIODS

GHA	309.1559					EPS	4.8696							LOM	224.0489
SX	.623826	SY	-.679038	SZ	-.386973	DAD	-22.76629	RAD	312.57340	RM	401799.551	LAT	28.310600	LON	279.461800
C3	-.954391	ECC	.984330	SLR	12986.776	RCA	6544.6458	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSY	.639439	NSY	-.667044	NSZ	-.362321	C3M	1.4966	VIM	2.6713	ZAE	141.026	B.T	.0000	B.R	-.0000
LATE	6.4062	LONE	3.0235	LATS	1.3496	LONS	2.9758	LATI	1.8542	LONI	324.2010	RSM	192.2250	TYAN	5.1743
LAUNCH DATE	JUL 29,1966			BASE AZM	115.0		TF 64.068					ARRIVAL DATE	AUG 1 196		9 15 57.1

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME		INJ RAD	INJ VEL	INJ PTH
115.00	16 53 53.3		28.1	15.40	303.60	3.40	146.76	121.95	17	5 8.3	6550.4	10.99	1.69

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	29	17	5.1												
SEPARATION		1.20	12.45	29	17	6.3												
RETRO		3.20	14.45	29	17	8.3												
RISE	72	4.59	15.84	29	17	9.7	86.84	-.1286	21.56	.0663	2607.5	-7.76	-.00	.1281	291.78	-.0479	1.27	323.70
EXTM	72	10.38	21.63	29	17	15.5	11.19	-.2388	-29.61	-.1107	1980.2	4.65	65.89	-.0000	294.39	-.5759	-13.04	343.28
RISE	51	11.17	22.42	29	17	16.3	86.74	-.0731	6.73	-.0544	5528.7	-2.95	.00	.0891	277.47	-.0172	-14.56	345.53
EXTM	51	38.02	49.27	29	17	43.2	1.95	-.0215	-37.47	-.0025	10686.8	5.31	77.75	-.3000	187.28	-.0810	-33.35	26.52
EXTM	72	70.39	81.64	29	18	15.5	290.31	-.0001	-37.57	.0008	23672.6	4.78	20.88	.0000	127.29	-.0008	-35.11	39.57
EXTM	51	86.87	98.12	29	18	32.0	342.32	-.0006	-36.99	.0007	24987.6	4.41	71.22	.0000	131.08	-.0027	-34.93	41.44
RISE	61	164.62	175.87	29	19	49.8	314.27	.0028	-39.52	.0007	49142.7	3.44	.00	.0018	146.47	.0014	-33.23	36.66
EXTM	51	226.73	237.98	29	20	51.9	.97	.0033	-32.78	.0004	55963.7	3.24	82.91	.0000	186.63	.0228	-32.06	26.82
EXTM	61	406.73	417.98	29	23	51.9	6.03	.0039	-33.56	.0003	91688.3	2.64	15.99	.0000	185.23	.0034	-29.82	350.08
EXTM	72	432.17	443.42	30	0	17.3	1.32	.0040	-31.06	.0002	91733.1	2.58	66.81	.0000	182.88	.0087	-29.59	344.45
RISE	11	599.61	610.86	30	3	4.7	294.45	.0040	-30.39	.0001	121821.6	2.00	.00	.0026	128.25	.0023	-28.36	338.17
SET	51	623.18	634.43	30	3	28.3	90.00	.0038	-27.13	.0002	123780.7	2.60	11.42	-.0032	245.23	-.0012	-28.22	300.67
SET	61	636.40	647.65	30	3	41.5	60.34	.0040	-30.32	.0002	126821.6	2.47	-.00	-.0021	228.61	.0027	-28.15	297.57
SET	72	818.68	829.93	30	6	43.8	94.64	.0039	-26.90	.0001	150119.6	2.42	-.00	-.0035	242.82	-.0004	-27.25	254.33
RISE	42	829.07	840.32	30	6	54.2	254.99	.0040	-25.74	-.0000	151001.2	1.71	3.44	.0028	119.35	-.0022	-27.20	251.85
EXTM	11	872.06	883.31	30	7	37.2	1.68	.0042	-29.13	.0001	153813.1	1.98	25.65	.0000	181.63	.0040	-27.02	241.53
SET	11	1141.75	1153.00	30	12	6.9	68.56	.0041	-27.39	.0001	186884.1	2.08	.00	-.0027	235.74	.0024	-26.11	176.25
EXTM	42	1253.05	1264.30	30	13	57.2	359.88	.0042	-25.49	.0000	192355.8	1.71	80.27	-.0000	.63	-.0221	-25.80	149.09
RISE	51	1388.37	1399.62	30	16	11.5	270.00	.0041	-24.80	-.0000	210979.2	1.27	10.49	.0034	112.60	-.0015	-25.47	115.97
RISE	72	1544.57	1555.82	30	18	49.7	266.30	.0041	-24.89	-.0000	227157.8	1.16	-.01	.0037	115.15	-.0005	-25.13	77.73
RISE		1615.96	1627.21	30	20	1.1	294.50	.0042	-26.11	.0000	233803.3	1.25	.00	.0026	125.21	.0027	-24.98	64.65
SET		1675.82	1687.07	30	21	1.0	105.00	.0041	-23.94	.0001	239019.3	1.84	2.34	-.0030	242.08	-.0022	-24.87	45.31
EXTM	1	1744.90	1756.15	30	22	10.0	359.39	.0042	-24.72	.0000	239199.7	1.48	88.84	.0018	28.50	-.1670	-24.74	28.29
EXTM	11	1879.23	1890.48	31	0	24.4	.64	.0042	-25.81	.0000	254696.5	1.44	23.95	-.0000	180.63	.0041	-24.51	355.13
EXTM	72	1918.01	1929.26	31	1	3.1	.13	.0042	-24.86	.0000	254569.0	1.42	73.04	.0000	180.41	.0130	-24.49	345.94
RISE	11	2050.82	2062.07	31	3	16.0	269.31	.0042	-25.11	-.0000	271777.0	1.06	.00	.0029	121.29	.0024	-24.25	312.71
SET	51	2106.26	2117.51	31	4	11.4	90.00	.0041	-23.65	.0001	275236.7	1.74	10.03	-.0035	248.48	-.0011	-24.17	298.91
SET	61	2142.37	2153.62	31	4	47.5	66.70	.0042	-25.05	.0001	279290.5	1.64	-.00	-.0026	236.31	.0027	-24.11	290.09
SET	72	2289.82	2301.07	31	7	15.0	93.50	.0041	-23.73	.0001	291085.6	1.73	-.00	-.0037	246.02	-.0005	-23.92	253.53
RISE	42	2292.35	2303.60	31	7	17.5	255.00	.0041	-23.15	-.0000	291079.2	.98	1.85	.0030	117.30	-.0023	-23.91	252.90
EXTM	11	2333.36	2344.61	31	7	58.5	.43	.0042	-24.93	.0000	291345.0	1.30	29.86	-.0000	180.44	.0044	-23.86	242.73
SET	11	2615.79	2627.04	31	12	40.9	71.46	.0042	-24.26	.0000	315947.2	1.55	-.00	-.0029	239.82	.0024	-23.52	172.67
EXTM	42	2710.91	2722.16	31	14	16.0	359.93	.0042	-23.18	.0000	316743.8	1.21	77.96	.0000	.30	-.0178	-23.42	149.05
RISE	51	2841.46	2852.71	31	16	26.6	270.00	.0041	-22.85	-.0000	331212.2	.80	9.70	.0035	110.78	-.0016	-23.28	116.61
RISE	72	2997.16	3008.41	31	19	2.3	266.52	.0041	-22.97	-.0000	343182.9	.73	-.00	.0038	113.21	-.0006	-23.13	77.91
RISE	61	3057.05	3068.30	31	20	2.2	291.90	.0042	-23.61	-.0000	347287.5	.84	.00	.0027	121.94	.0027	-23.07	63.01
SET	42	3129.84	3141.09	31	21	15.0	105.00	.0041	-22.38	.0000	352425.7	1.43	1.38	-.0030	243.31	-.0023	-23.01	44.87
EXTM	51	3198.54	3209.79	31	22	23.7	359.99	.0042	-22.92	.0000	350558.2	1.09	87.18	.0000	.41	-.0488	-22.97	27.70
EXTM	61	3327.15	3338.40	1	0	32.3	.20	.0042	-23.80	.0000	362438.5	1.08	25.96	-.0000	180.21	.0043	-22.90	355.55
EXTM	72	3366.80	3378.05	1	1	11.9	.04	.0042	-23.15	.0000	361675.4	1.08	74.76	.0000	180.14	.0134	-22.88	345.64
RISE	11	3491.19	3502.44	1	3	16.3	287.81	.0042	-23.44	-.0000	375801.1	.75	.00	.0030	119.13	.0024	-22.82	314.52
SET	51	3554.69	3565.94	1	4	19.8	90.00	.0042	-22.41	.0000	378851.5	1.47	9.53	-.0035	249.62	-.0016	-22.80	298.62
SET	61	3597.03	3608.28	1	5	2.2	68.46	.0042	-23.45	.0000	382696.2	1.39	-.00	-.0027	238.58	.0027	-22.78	288.02
SET	72	3735.28	3746.53	1	7	20.4	93.32	.0042	-22.60	.0000	391870.4	1.58	-.01	-.0038	247.17	-.0003	-22.74	253.35
RISE	42	3715.94	3747.19	1	7	21.1	255.00	.0042	-22.17	-.0000	391777.2	.82	1.25	.0031	116.52	-.0024	-22.74	253.18
EXTM	11	3776.05	3787.30	1	8	1.2	.06	.0043	-23.52	.0000	391467.4	1.22	31.27	.0000	180.06	.0045	-22.73	243.10
IMPACT		3844.08	3855.33	1	9	9.2												
IMPC	42	3844.08	3855.33	1	9	9.2	282.34	.0043	-22.12	-.0000	398081.4	1.66	22.37	.0035	102.25	-.0027	-22.74	225.85
IMPC	11	3844.08	3855.33	1	9	9.2	17.54	.0044	-23.51	-.0000	397423.9	2.12	28.97	-.0011	198.42	.0044	-22.74	225.85

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	29	17	5.138	6550.398	15.3952	303.5982	10.98871	1.6866	121.9589	146.7833
SEPARATION		1.20	12.45	29	17	6.338	6597.160	11.6838	309.2502	10.94926	5.0976	123.3465	152.7362
RETRO		3.20	14.45	29	17	8.338	6775.893	5.4555	318.0461	10.80272	10.6829	124.7368	162.0335
IMPACT		3844.08	3855.33	1	9	9.221	400549.359	-22.7436	225.8527	2.18776	66.8352	260.0281	312.6892

SURVEYOR VIEW PERIODS

GHA	310.1415					EPS	12.3519							LOM	252.2425
SX	.773728	SY	-.541009	SZ	-.329628	DAO	-19.24619	RAO	325.03780	RM	403798.730	LAT	28.310600	LON	279.461800
C3	-.943722	ECC	.984515	SLR	12987.929	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.784143	NSY	-.524641	NSZ	-.323464	CRM	1.4935	VIM	2.6707	ZAE	141.600	B.T	.0000	B.R	-.0000
LATE	6.5761	LONE	1.9550	LATS	1.5572	LONS	350.6721	LATI	4.1400	LONI	323.4550	RSM	152.1997	TTAN	4.1569
LAUNCH DATE	JUL 30,1966			BASE AZM	105.0		TF 64.507					ARRIVAL DATE	AUG 2 1966 9 29 3.4		

LNCH AZMTH	LNCH TIME		PR	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	16 39	.6	27.4	19.21	304.98	-11.67	145.42	114.78	16 50 15.6	6611.3	10.94	-5.74

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DUE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PHORE IN SUNLIGHT											
INJECTION	.00	11.25	30	16	50.3												
SEPARATION	1.20	12.45	30	16	51.5												
RETRO	3.20	14.45	30	16	53.5												
RISE 72	5.45	16.70	30	16	55.7	83.20	-.1807	40.46	.0193	2162.5	-9.01	.00	.1317	310.93	.0438	4.48	331.59
EXTM 72	9.23	20.48	30	16	59.5	349.92	-.4224	11.20	-.3354	1020.3	2.98	68.43	.1005	27.83	1.4238	-5.31	347.04
RISE 51	11.33	22.58	30	17	1.6	80.71	-.0992	18.53	-.0488	4504.7	-4.81	-.00	.1059	290.65	-.0003	-9.86	354.45
EXTM 51	25.21	36.46	30	17	15.5	1.69	-.0564	-25.32	-.0197	5600.5	5.36	88.42	.0544	285.09	-.1833	-25.54	26.89
EXTM 72	69.45	80.70	30	17	59.7	273.74	.0000	-30.80	.0003	24029.3	4.87	7.24	.0000	120.23	-.0003	-30.96	55.26
RISE 42	76.02	87.27	30	18	6.3	105.00	-.0041	-23.15	-.0013	26507.5	4.32	1.85	.0038	242.70	.0012	-30.88	56.30
EXTM 42	120.06	131.31	30	18	50.3	100.76	.0001	-24.61	-.0001	37631.5	4.08	5.83	-.0000	243.87	-.0002	-29.91	56.97
SET 42	178.82	190.07	30	19	49.1	105.00	.0020	-24.44	.0001	51360.1	3.72	2.64	-.0015	241.68	-.0010	-28.61	50.30
RISE 61	196.59	209.84	30	20	3.8	303.87	.0032	-33.67	.0005	55793.9	3.20	.00	.0021	136.10	.0018	-28.24	47.20
EXTM 61	468.59	479.84	31	0	58.8	4.39	.0040	-28.44	.0002	100352.8	2.52	21.20	-.0000	184.14	.0038	-25.13	351.59
EXTM 72	497.61	508.86	31	1	7.9	.73	.0041	-25.98	.0002	101075.7	2.46	71.91	.0000	182.10	.0118	-24.92	344.99
RISE 11	645.29	656.54	31	3	35.6	290.03	.0040	-25.88	.0001	127716.4	1.92	.01	.0028	122.30	.0023	-24.03	310.72
SET 51	689.16	700.41	31	4	19.4	90.00	.0039	-22.74	.0001	132453.9	2.54	9.66	-.0033	249.32	-.0014	-23.81	300.38
SET 61	726.15	737.40	31	4	54.4	66.15	.0040	-25.54	.0002	138303.9	2.40	-.00	-.0024	235.61	.0027	-23.64	291.61
SET 72	879.91	891.16	31	7	30.2	93.33	.0040	-22.69	.0001	157249.8	2.38	-.00	-.0036	247.08	-.0004	-23.01	254.84
RISE 42	891.66	902.91	31	7	41.9	255.00	.0040	-21.57	-.0000	158543.9	1.64	.88	.0029	116.05	-.0023	-22.97	252.01
EXTM 11	933.69	944.94	31	8	23.9	1.32	.0042	-24.76	.0001	160404.8	1.93	30.02	-.0000	181.38	.0044	-22.82	241.88
SET 11	1220.05	1231.30	31	13	10.3	72.41	.0041	-23.18	.0001	194981.9	2.05	-.00	-.0029	241.20	.0024	-22.00	172.31
EXTM 42	1314.85	1326.10	31	14	45.1	359.85	.0042	-21.35	.0000	198604.1	1.68	76.13	.0000	.60	-.0161	-21.77	149.13
RISE 51	1449.68	1460.93	31	16	59.9	270.00	.0041	-20.81	-.0000	217040.4	1.23	8.87	.0035	108.90	-.0016	-21.49	116.07
RISE 72	1608.34	1619.59	31	19	38.6	286.95	.0041	-20.96	-.0000	233042.7	1.12	.00	.0038	111.17	-.0006	-21.18	77.06
RISE 61	1659.72	1670.97	31	20	30.0	290.17	.0041	-22.17	.0000	237768.2	1.22	.00	.0028	119.62	.0027	-21.09	64.40
SET 42	1737.18	1748.43	31	21	47.4	104.93	.0041	-20.05	.0001	244774.0	1.83	-.00	-.0031	245.18	-.0023	-20.96	45.31
EXTM 51	1808.48	1819.73	31	22	58.7	359.97	.0042	-20.72	.0000	244830.5	1.47	84.98	-.0000	.39	-.0402	-20.85	27.72
EXTM 61	1940.01	1951.26	1	1	10.3	.53	.0042	-21.88	.0000	259528.4	1.42	27.88	-.0000	180.56	.0044	-20.65	355.23
EXTM 72	1979.00	1990.25	1	1	49.3	.08	.0042	-20.91	.0000	259656.1	1.41	77.00	.0000	180.35	.0172	-20.60	345.59
RISE 11	2098.18	2109.43	1	3	48.4	285.94	.0042	-21.26	-.0000	275733.3	1.03	.00	.0030	116.34	.0024	-20.44	316.10
SET 51	2167.55	2178.80	1	4	57.8	90.00	.0041	-19.42	.0000	280460.0	1.74	8.47	-.0036	252.01	-.0016	-20.35	298.93
SET 61	2220.32	2231.57	1	5	50.6	70.87	.0041	-21.17	.0000	285649.6	1.64	-.00	-.0028	241.77	.0027	-20.28	285.86
SET 72	2348.56	2359.81	1	7	58.8	92.90	.0041	-19.95	.0000	295792.0	1.73	-.01	-.0038	249.85	-.0005	-20.13	254.08
RISE 42	2355.68	2366.93	1	8	5.9	255.63	.0041	-19.47	-.0000	296346.8	.96	.00	.0031	113.95	-.0024	-20.12	252.31
EXTM 11	2394.03	2405.28	1	8	44.3	.36	.0042	-21.09	.0000	295810.1	1.29	33.70	-.0000	180.40	.0047	-20.08	242.80
SET 11	2689.90	2701.15	1	13	40.2	74.73	.0042	-20.47	.0000	321570.6	1.56	-.00	-.0030	244.66	.0024	-19.76	169.37
EXTM 42	2771.79	2782.95	1	15	2.0	359.93	.0042	-19.38	.0000	321436.2	1.20	74.16	-.0000	.25	-.0141	-19.69	149.05
RISE 51	2902.07	2913.32	1	17	12.3	270.00	.0041	-19.12	-.0000	335889.3	.78	8.18	.0036	107.34	-.0016	-19.56	116.65
RISE 72	3060.09	3071.34	1	19	50.4	287.21	.0041	-19.28	-.0000	347776.0	.71	-.01	.0039	109.47	-.0006	-19.43	77.36
RISE 61	3102.10	3113.35	1	20	32.4	288.05	.0042	-20.11	-.0000	350852.6	.78	.00	.0028	116.77	.0027	-19.39	66.90
SET 42	3185.81	3197.06	1	21	56.1	103.85	.0041	-18.73	.0000	356334.6	1.44	-.00	-.0031	246.85	-.0024	-19.35	45.99
EXTM 51	3258.98	3270.23	1	23	9.2	359.98	.0042	-19.21	.0000	354818.8	1.08	83.47	.0000	.24	-.0278	-19.32	27.71
EXTM 61	3387.42	3398.67	2	1	17.7	.15	.0042	-20.13	.0000	366268.4	1.08	29.63	-.0000	180.16	.0046	-19.27	355.60
EXTM 72	3427.21	3438.46	2	1	57.5	.02	.0042	-19.45	.0000	365772.0	1.08	78.45	.0000	180.11	.0141	-19.25	345.65
RISE 11	3539.28	3550.53	2	3	49.5	284.72	.0042	-19.81	-.0000	379189.4	.73	.00	.0031	114.50	.0024	-19.22	317.62
SET 51	3415.31	3426.56	2	5	5.6	90.00	.0042	-18.81	.0000	383220.5	1.48	8.05	-.0036	252.94	-.0016	-19.20	298.59
SET 61	3472.59	3483.84	2	6	2.9	72.23	.0042	-19.83	.0000	387860.0	1.42	-.00	-.0029	243.62	.0027	-19.18	284.24
SET 72	3793.54	3804.79	2	8	3.5	92.75	.0042	-19.04	.0000	396099.5	1.64	-.00	-.0039	250.77	-.0006	-19.17	253.89
RISE 42	3801.19	3812.44	2	8	11.5	256.24	.0042	-18.82	-.0000	396654.4	.87	.00	.0032	113.00	-.0024	-19.18	251.96
EXTM 11	3835.76	3847.01	2	8	46.0	359.90	.0043	-19.94	-.0000	395660.8	1.35	34.86	.0000	179.88	.0048	-19.19	243.25
IMPACT	3870.40	3881.65	2	9	20.7												
IMPC 42	3870.40	3881.65	2	9	20.7	273.76	.0043	-18.74	-.0001	400988.4	1.65	13.65	.0035	103.49	-.0022	-19.22	234.44
IMPC 11	3870.40	3881.65	2	9	20.7	8.83	.0044	-19.96	-.0000	398923.6	2.08	34.20	-.0006	190.05	.0049	-19.22	234.44

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	30	16	50.260	6613.090	19.2379	304.9077	10.93805	-5.7378	114.7554	145.3488
SEPARATION	1.20	12.45	30	16	51.460	6555.664	16.2231	311.1586	10.98462	-2.3385	116.7563	151.9006
RETRO	3.20	14.45	30	16	53.460	6567.662	10.8001	321.1211	10.97451	3.3788	119.2103	162.3645
IMPACT	3870.40	3881.65	2	9	20.665	402539.625	-19.2184	234.4413	2.18966	67.2336	253.0296	325.1321

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SURVEYOR VIEW PERIODS

GHA	310.1415					EPS	12.4264							LOM	229.6724
SX	.774696	SY	-.539910	SZ	-.329154	DAD	-19.21742	RAD	325.12614	RM	403811.215	LAT	28.310600	LON	279.461800
C3	-.942021	ECC	.984533	SLR	12988.107	RCA	6544.6050	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.787077	NSY	-.525531	NSZ	-.322996	C3M	1.4966	VIM	2.6713	ZAE	141.595	B.T	.0000	B.R	-.0000
LATE	6.5762	LONE	2.0438	LATS	1.5572	LONS	350.6794	LATI	3.8975	LONI	323.5618	RSM	152.1995	TTAN	4.1473
LAUNCH DATE		JUL	30.1966		BASE AZM	108.0		TF	64.483			ARRIVAL DATE		AUG 2 1966	9 39 39.7

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	16 50 26.5	27.6	18.08	304.58	-9.07	147.88	116.93	17 1 41.5	6585.5	10.96	-4.50

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PHORE IN SUNLIGHT											
INJECTION	.00	11.25	30	17	1.7												
SEPARATION	1.20	12.45	30	17	2.9												
RETRO	3.20	14.45	30	17	4.9												
RISE 72	5.26	16.51	30	17	7.0	84.69	-.1590	33.68	-.0160	2248.9	-9.00	-.00	.1331	304.04	.0061	3.14	329.65
EXTM 72	8.95	20.20	30	17	10.6	8.93	-.4581	1.50	-.3107	1014.2	1.63	77.05	.5403	316.17	.5352	-6.63	344.44
RISE 51	11.25	22.50	30	17	12.9	82.77	-.0922	14.63	-.0529	4655.3	-4.52	.00	.1034	286.28	-.0073	-11.64	352.38
EXTM 51	26.91	38.16	30	17	28.6	1.47	-.0492	-30.08	-.0130	6306.0	5.46	85.47	-.0000	196.30	-.5636	-27.90	26.97
EXTM 72	69.34	80.59	30	18	11.0	276.23	.0000	-32.25	.0005	23888.9	4.86	9.45	.0000	121.53	-.0005	-31.99	52.71
EXTM 51	85.24	96.49	30	18	26.9	325.75	-.0000	-32.22	.0007	24420.9	4.48	59.48	.0000	110.35	-.0013	-31.66	54.68
RISE 42	89.15	100.40	30	18	30.8	105.00	-.0023	-24.73	-.0007	30155.3	4.27	2.82	.0020	241.45	.0008	-31.55	54.91
EXTM 42	119.15	130.40	30	19	.8	103.24	.0001	-25.28	-.0001	37672.3	4.08	4.42	.0000	241.98	-.0001	-30.72	54.50
SET 42	154.73	165.98	30	19	36.4	105.00	.0014	-25.19	.0001	46139.9	3.86	3.11	-.0011	241.09	-.0007	-29.80	51.08
RISE 61	191.70	202.95	30	20	13.4	305.23	.0032	-34.28	.0006	54460.5	3.24	.00	.0021	137.55	.0017	-28.97	45.77
EXTM 51	290.47	301.72	30	21	52.2	.15	.0037	-27.48	.0003	67399.3	2.99	88.25	.0000	184.31	.1065	-27.33	27.55
EXTM 61	458.43	469.68	31	0	40.1	4.73	.0040	-28.92	.0002	98935.4	2.54	20.70	.0000	184.42	.0037	-25.56	351.27
EXTM 72	486.46	497.71	31	1	8.2	.81	.0041	-26.44	.0002	99510.1	2.48	71.45	.0000	182.27	.0114	-25.34	344.92
RISE 11	635.53	646.78	31	3	37.2	290.35	.0040	-26.23	.0001	126472.1	1.93	.00	.0028	122.75	.0023	-24.35	310.38
SET 51	677.84	689.09	31	4	19.5	90.00	.0039	-23.04	.0001	131022.7	2.55	9.79	-.0033	249.04	-.0013	-24.12	300.41
SET 61	713.31	724.56	31	4	55.0	65.77	.0040	-25.87	.0002	136720.3	2.41	-.00	-.0024	235.14	.0027	-23.94	292.01
SET 72	868.91	880.16	31	7	30.6	93.37	.0040	-22.93	.0001	156005.0	2.39	-.00	-.0036	246.84	-.0004	-23.26	254.82
RISE 42	880.68	891.93	31	7	42.4	255.00	.0040	-21.80	-.0000	157291.8	1.65	1.03	.0029	116.24	-.0023	-23.21	251.99
EXTM 11	922.97	934.22	31	8	24.7	1.41	.0042	-25.00	.0001	159248.1	1.94	29.77	-.0000	181.47	.0044	-23.05	241.79
SET 11	1208.34	1219.59	31	13	10.0	72.26	.0041	-23.36	.0001	193826.9	2.06	-.00	-.0029	240.97	.0024	-22.17	172.48
EXTM 42	1303.80	1315.05	31	14	45.5	359.84	.0042	-21.50	.0000	197550.2	1.69	76.28	.0000	.64	-.0163	-21.93	149.14
RISE 51	1438.71	1449.96	31	17	.4	270.00	.0041	-20.95	-.0000	216038.1	1.24	8.93	.0035	109.03	-.0016	-21.62	116.06
RISE 72	1597.29	1608.54	31	19	39.0	266.93	.0041	-21.08	-.0000	232087.4	1.13	.00	.0038	111.29	-.0006	-21.30	77.07
RISE 61	1649.21	1660.46	31	20	30.9	290.29	.0041	-22.28	.0000	236877.4	1.22	.00	.0028	119.78	.0027	-21.20	64.28
SET 42	1726.42	1737.67	31	21	48.1	105.00	.0041	-20.15	.0001	243880.4	1.84	.01	-.0031	245.07	-.0023	-21.06	45.24
EXTM 51	1797.45	1808.70	31	22	59.1	359.97	.0042	-20.82	.0000	243931.6	1.47	85.08	-.0000	.42	-.0403	-20.94	27.72
EXTM 61	1929.09	1940.34	1	1	10.8	.56	.0042	-21.97	.0000	258680.3	1.42	27.79	-.0000	180.59	.0044	-20.73	355.20
EXTM 72	1967.99	1979.24	1	1	49.7	.09	.0042	-20.99	.0000	258803.2	1.41	76.92	.0000	180.37	.0171	-20.68	345.58
RISE 11	2087.40	2098.65	1	3	49.1	286.00	.0042	-21.33	.0000	274923.5	1.04	.00	.0030	116.43	.0024	-20.50	316.04
SET 51	2156.49	2167.74	1	4	58.2	90.00	.0041	-19.88	.0000	279639.9	1.74	8.49	-.0035	251.96	-.0016	-20.41	298.93
SET 61	2209.01	2220.26	1	5	50..	70.81	.0041	-21.23	.0001	284822.6	1.65	-.00	-.0028	241.68	.0027	-20.34	285.93
SET 72	2337.53	2348.78	1	7	59.2	92.90	.0041	-20.00	.0000	295013.3	1.73	-.01	-.0038	249.80	-.0005	-20.18	254.07
RISE 42	2344.48	2355.73	1	8	5.2	255.59	.0041	-19.42	-.0000	295556.9	.96	.00	.0031	114.01	-.0024	-20.17	252.35
EXTM 11	2383.05	2394.30	1	8	44.7	.37	.0042	-21.14	.0000	295048.8	1.29	33.65	-.0000	180.42	.0047	-20.12	242.78
SET 11	2678.71	2689.96	1	13	40.4	74.71	.0042	-20.50	.0000	320843.7	1.56	-.00	-.0030	244.63	.0024	-19.79	169.40
EXTM 42	2760.60	2771.85	1	15	2.3	359.93	.0042	-19.40	.0000	320729.1	1.20	74.18	-.0000	.27	-.0140	-19.71	149.05
RISE 51	2890.99	2902.24	1	17	12.7	270.00	.0041	-19.14	-.0000	335204.9	.78	8.18	.0036	107.36	-.0016	-19.58	116.65
RISE 72	3049.00	3060.25	1	19	50.7	267.21	.0041	-19.28	-.0000	347116.2	.71	-.01	.0039	109.48	-.0006	-19.43	77.36
RISE 61	3091.07	3102.32	1	20	32.8	288.06	.0042	-20.12	-.0000	349996.4	.82	.00	.0028	116.78	.0027	-19.49	66.89
SET 42	3174.74	3185.99	1	21	56.4	103.85	.0041	-18.73	.0000	355717.4	1.44	-.00	-.0031	246.86	-.0024	-19.35	46.00
EXTM 51	3247.92	3259.17	1	23	9.6	359.98	.0042	-19.20	.0000	354205.8	1.09	83.46	.0000	.24	-.0284	-19.32	27.71
EXTM 61	3376.39	3387.64	2	1	18.1	.16	.0042	-20.12	.0000	365661.6	1.08	29.64	-.0000	180.17	.0046	-19.26	355.59
EXTM 72	3416.14	3427.39	2	1	57.8	.02	.0042	-19.44	.0000	365164.4	1.08	78.46	.0000	180.13	.0136	-19.25	345.65
RISE 11	3528.17	3539.42	2	3	49.9	284.71	.0042	-19.80	-.0000	378578.3	.73	.00	.0031	114.49	.0024	-19.20	317.63
SET 51	3604.22	3615.47	2	5	5.9	90.00	.0042	-18.79	.0000	382607.3	1.48	8.04	-.0036	252.96	-.0016	-19.18	298.59
SET 61	3661.58	3672.83	2	6	3.3	72.25	.0042	-19.81	.0000	387242.8	1.42	-.00	-.0029	243.64	.0027	-19.16	284.23
SET 72	3782.46	3793.71	2	8	4.2	92.74	.0042	-19.02	.0000	395422.2	1.62	-.00	-.0039	250.79	-.0006	-19.15	253.90
RISE 42	3790.23	3801.48	2	8	11.9	256.26	.0042	-18.59	-.0000	395976.8	.85	.00	.0032	112.97	-.0024	-19.15	251.94
EXTM 11	3824.92	3836.17	2	8	46.6	359.95	.0043	-19.91	-.0000	394926.8	1.30	34.88	.0000	179.94	.0047	-19.16	243.21
IMPACT	3869.00	3880.25	2	9	30.7												
IMPC 42	3869.00	3880.25	2	9	30.7	276.19	.0043	-18.72	-.0001	400794.3	1.65	15.58	.0035	102.19	-.0022	-19.19	232.01
IMPC 11	3869.00	3880.25	2	9	30.7	11.29	.0044	-19.93	-.0000	398970.1	2.09	33.83	-.0008	192.81	.0048	-19.19	232.01

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	30	17	1.691	6586.209	18.0921	304.5409	10.95966	-4.4999	116.9193	147.8476
SEPARATION	1.20	12.45	30	17	2.891	6547.020	14.8558	310.6261	10.99200	-1.0836	118.7339	154.2335
RETRO	3.20	14.45	30	17	4.891	6587.834	9.1227	320.3283	10.95764	4.6252	120.8615	164.4371
IMPACT	3869.00	3880.25	2	9	30.696	402552.313	-19.1917	232.0105	2.18956	67.1750	253.4901	325.2160

SURVEYOR VIEW PERIODS

GHA	310.1415					EPS	12.5161					LOM	226.6896
SX	.775819	SY	-.538633	SZ	-.328602	DAO	19.18697	RAO	325.22862	RM	403825.652	LAT	28.310600
LON	279.461800	C3	-.943728	ECC	.984505	SLR	12987.922	RCA	6544.6650	LTA	-20.0000	GTA	20.00
TB	675.00000	POL	-.0	NSX	.788182	NSY	-.524216	NSZ	-.322440	C3M	1.4968	VIM	2.6713
ZAE	141.530	B.T	.0000	B.R	-.0000	LATE	6.5764	LONE	1.9370	LATS	1.5573	LONS	350.4779
LATI	3.6265	LONI	323.4169	RSM	152.7952	TTAN	4.1423						
LAUNCH DATE	JUL 30,1966			BASE AZM	111.0		TF 64.515					ARRIVAL DATE	AUG 2 1966 9 51 58.1

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	17	0 41.3	27.7	16.97	304.10	-6.92	149.93	119.06	17 11 46.3	6568.4	10.97	-3.43

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
					PROBE IN SUNLIGHT												
INJECTION	.00	11.25	30	17	11.8												
SEPARATION	1.20	12.45	30	17	13.0												
RETRO	3.20	14.45	30	17	15.0												
RISE 72	5.13	16.38	30	17	16.9	85.86	-.1432	27.46	-.0465	2336.9	-8.80	.00	.1327	297.75	-.0263	1.69	327.94
EXTM 72	8.92	20.17	30	17	20.7	20.33	-.4221	-11.27	-.2784	1123.0	1.46	69.68	.3727	258.85	-.9547	-8.47	342.69
RISE 51	11.22	22.47	30	17	23.0	84.69	-.0860	10.86	-.0566	4800.4	-4.23	.00	.1008	282.08	-.0135	-13.51	350.46
EXTM 51	28.29	39.54	30	17	40.1	2.18	-.0449	-34.05	-.0089	6909.5	5.47	81.48	-.0000	192.31	-.2582	-30.06	26.59
EXTM 72	69.31	80.56	30	18	21.1	278.35	.0000	-33.78	.0008	23796.4	4.85	11.30	.0000	123.01	-.0008	-33.13	50.52
EXTM 51	85.27	96.52	30	18	37.0	328.36	-.0001	-33.44	.0009	24439.7	4.47	61.52	.0000	113.65	-.0018	-32.69	52.52
RISE 61	187.19	198.44	30	20	19.0	306.66	.0031	-35.21	.0006	53595.4	3.27	.00	.0021	139.05	.0016	-29.75	44.31
EXTM 51	279.98	291.23	30	21	51.8	.25	.0037	-28.24	.0003	65576.4	3.02	87.49	.0000	185.00	.0738	-28.01	27.46
EXTM 61	450.15	461.40	31	0	41.9	5.13	.0040	-29.43	.0003	97777.5	2.55	20.16	.0000	184.76	.0037	-26.02	350.90
EXTM 72	477.19	488.44	31	1	9.0	.95	.0041	-26.93	.0002	98193.4	2.50	70.96	-.0000	182.60	.0111	-25.78	344.78
RISE 11	627.45	638.70	31	3	39.2	290.69	.0040	-26.60	.0001	125422.3	1.95	.00	.0028	123.23	.0093	-24.70	310.01
SET 51	668.06	679.31	31	4	19.8	90.00	.0039	-23.58	.0001	129760.3	2.56	9.92	-.0033	248.73	-.0053	-24.46	300.44
SET 61	701.86	713.11	31	4	53.6	65.35	.0040	-26.23	.0002	135278.3	2.42	-.00	-.0024	234.62	.0027	-24.28	292.45
SET 72	859.44	870.69	31	7	31.2	93.42	.0040	-23.20	.0001	154904.7	2.40	-.00	-.0036	246.57	-.0004	-23.53	254.80
RISE 42	871.16	882.41	31	7	42.9	254.99	.0040	-22.06	.0000	156174.9	1.66	1.18	.0029	116.44	-.0023	-23.48	251.98
EXTM 11	913.79	925.04	31	8	25.6	1.50	.0042	-25.27	.0001	158232.1	1.95	29.50	-.0000	181.56	.0043	-23.31	241.71
SET 11	1198.05	1209.30	31	13	6.8	72.08	.0041	-23.56	.0001	192769.1	2.06	-.00	-.0029	240.71	.0024	-22.36	172.66
EXTM 42	1294.21	1305.46	31	14	44.0	359.83	.0042	-21.48	.0000	196590.2	1.69	76.46	.0000	.69	-.0165	-22.10	149.15
RISE 51	1429.19	1440.44	31	17	1.0	270.00	.0041	-21.09	-.0000	215117.1	1.24	8.99	.0035	109.16	-.0016	-21.77	116.05
RISE 72	1587.68	1598.93	31	19	39.4	266.91	.0041	-21.20	-.0000	231199.2	1.13	.00	.0038	111.41	-.0006	-21.43	77.08
RISE 61	1640.19	1651.44	31	20	32.0	290.42	.0041	-22.41	.0000	236054.0	1.22	.00	.0027	119.95	.0027	-21.32	64.14
SET 42	1716.83	1728.08	31	21	48.6	105.00	.0041	-20.26	.0001	243011.8	1.84	.07	-.0031	244.98	-.0023	-21.17	45.25
EXTM 51	1787.87	1799.12	31	22	59.6	359.97	.0042	-20.92	.0000	243083.4	1.47	85.18	-.0000	.43	-.0422	-21.05	27.72
EXTM 61	1919.62	1930.87	1	1	11.4	.59	.0042	-22.06	.0000	257873.6	1.43	27.70	-.0000	180.62	.0044	-20.82	355.17
EXTM 72	1958.42	1969.67	1	1	50.2	.10	.0042	-21.08	.0000	257987.2	1.41	76.83	.0000	180.40	.0170	-20.76	345.58
RISE 11	2078.06	2089.31	1	3	49.8	286.06	.0042	-21.41	.0000	274142.1	1.04	.00	.0030	116.53	.0024	-20.58	315.97
SET 51	2146.87	2158.12	1	4	58.6	90.00	.0041	-19.95	.0001	278840.4	1.75	8.52	-.0035	251.89	-.0016	-20.48	298.94
SET 61	2199.30	2210.35	1	5	50.9	70.74	.0041	-21.30	.0001	284010.5	1.65	-.00	-.0028	241.59	.0027	-20.40	286.00
SET 72	2327.92	2339.17	1	7	59.7	92.91	.0041	-20.05	.0001	294241.0	1.73	-.01	-.0038	249.74	-.0005	-20.23	254.07
RISE 42	2334.70	2345.95	1	8	6.5	255.55	.0041	-19.47	-.0000	294771.5	.96	.00	.0031	114.08	-.0024	-20.22	252.39
EXTM 11	2373.49	2384.74	1	8	45.3	.39	.0042	-21.19	.0000	294290.9	1.29	33.60	-.0000	180.44	.0047	-20.17	242.77
SET 11	2668.94	2680.19	1	13	40.7	74.68	.0042	-20.53	.0000	320094.8	1.56	-.00	-.0030	244.58	.0024	-19.82	169.43
EXTM 42	2750.93	2762.18	1	15	2.7	359.92	.0042	-19.43	.0000	319993.9	1.21	74.21	-.0000	.28	-.0141	-19.73	149.06
RISE 51	2881.33	2892.58	1	17	13.1	270.00	.0041	-19.15	-.0000	334482.0	.79	8.19	.0036	107.38	-.0016	-19.60	116.65
RISE 72	3039.32	3050.57	1	19	51.1	267.21	.0041	-19.29	-.0000	346405.1	.72	-.01	.0039	109.49	-.0006	-19.44	77.36
RISE 61	3081.42	3092.67	1	20	33.2	288.06	.0042	-20.12	-.0000	349290.7	.82	.00	.0028	116.79	.0027	-19.40	66.88
SET 42	3165.13	3176.38	1	21	56.9	103.84	.0041	-18.72	.0000	355080.3	1.44	-.00	-.0031	246.97	-.0024	-19.34	46.00
EXTM 51	3238.33	3249.58	1	23	10.1	359.98	.0042	-19.19	.0000	353565.7	1.08	83.45	.0000	.25	-.0283	-19.31	27.71
EXTM 61	3366.82	3378.07	2	1	18.6	.17	.0042	-20.11	.0000	365010.7	1.08	29.65	-.0000	180.18	.0046	-19.25	355.59
EXTM 72	3406.54	3417.79	2	1	58.3	.02	.0042	-19.43	.0000	364508.4	1.08	78.48	.0000	180.13	.0148	-19.23	345.65
RISE 11	3518.49	3529.74	2	3	50.3	284.70	.0042	-19.78	-.0000	377902.9	.73	.00	.0031	114.47	.0024	-19.18	317.64
SET 51	3594.58	3605.83	2	5	6.4	90.00	.0042	-18.77	.0000	381920.8	1.48	8.03	-.0036	252.98	-.0016	-19.16	298.59
SET 61	3652.02	3663.27	2	6	3.8	72.27	.0042	-19.79	.0000	386544.8	1.41	-.00	-.0029	243.67	.0027	-19.14	284.21
SET 72	3772.81	3784.06	2	8	4.6	92.74	.0042	-18.99	.0000	394643.5	1.60	-.00	-.0039	250.82	-.0006	-19.12	253.90
RISE 42	3780.71	3791.96	2	8	12.5	256.29	.0042	-18.56	-.0000	395198.0	.83	.00	.0032	112.93	-.0024	-19.12	251.92
EXTM 11	3815.46	3826.71	2	8	47.2	359.98	.0043	-19.88	-.0000	394085.7	1.25	34.92	.0000	179.98	.0041	-19.12	243.17
IMPACT	3870.93	3882.18	2	9	42.7												
IMPC 42	3870.93	3882.18	2	9	42.7	279.10	.0043	-18.70	-.0001	400566.0	1.65	17.90	.0035	100.63	-.0022	-19.16	229.10
IMPC 11	3870.93	3882.18	2	9	42.7	14.24	.0044	-19.90	-.0000	399039.9	2.11	33.26	-.0010	196.06	.0048	-19.16	229.10

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	30	17	11.771	6568.630	16.9775	304.0830	10.97400	-3.4325	119.0582	149.9167
SEPARATION	1.20	12.45	30	17	12.971	6544.662	13.5242	310.0053	10.99392	-.0357	120.6979	156.1398
RETRO	3.20	14.45	30	17	14.971	6610.030	7.4975	319.4350	10.93900	5.6849	122.5164	166.0709
IMPACT	3870.93	3882.18	2	9	42.697	4025?0.117	-19.1595	229.1027	2.18735	66.9519	253.9642	325.3167

SURVEYOR VIEW PERIOUS

GHA	310.1415					EPS	12.6221							LOM	222.9387
SX	.777226	SY	-.537025	SZ	-.327908	DAD	-19.14183	RAD	325.35741	RM	403843.750	LAT	28.310600	LON	279.461800
C3	-.947213	ECC	.984448	SLR	12987.553	RCA	6544.6450	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.789576	NSY	-.522547	NSZ	-.321737	C3M	1.4969	VIM	2.6714	ZAE	141.405	B.T	.0000	B.R	-.0000
LATE	6.5765	LONE	1.9250	LATS	1.5574	LONS	350.3470	LATI	3.2327	LONI	323.3223	RSM	152.1988	TTAN	4.1389

LAUNCH DATE JUL 30,1966 RASE AZM 115.0 TF 64.577 ARRIVAL DATE AUG 2 1966 10 7 26.7

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	17 12 9.4	27.8	15.54	303.36	-4.50	152.11	121.89	17 23 24.4	6554.7	10.99	-2.23

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
			PRORE IN SUNLIGHT														
INJECTION	.00	11.25	30	17	23.4												
SEPARATION	1.20	12.45	30	17	24.6												
RETRO	3.20	14.45	30	17	26.6												
RISE 72	5.04	16.29	30	17	28.4	87.14	-.1269	19.80	-.0805	2458.1	-8.32	-.00	.1299	290.00	-.0622	-.37	325.92
EXTM 72	9.59	20.84	30	17	33.0	17.75	-.3594	-32.97	-.1751	1471.3	3.78	60.03	.0427	210.79	-.6928	-12.60	342.80
RISE 51	11.24	22.49	30	17	34.6	87.09	-.0788	6.00	-.0609	4987.9	-3.82	.00	.0971	276.66	-.0206	-16.12	348.11
EXTM 51	30.51	41.76	30	17	53.9	2.07	-.0393	-38.95	-.0044	7330.5	5.47	76.68	-.0000	186.99	-.1341	-33.03	26.62
EXTM 72	69.24	80.49	30	18	32.6	280.65	.0000	-35.94	.0011	23697.9	4.84	13.23	.0000	125.18	-.0011	-34.79	48.06
EXTM 51	84.37	95.62	30	18	47.8	331.26	-.0004	-35.73	.0011	24228.7	4.47	63.47	.0000	119.05	-.0026	-34.24	50.05
RISE 61	184.31	195.56	30	20	27.7	308.63	.0031	-36.42	.0007	53076.2	3.28	.00	.0020	141.05	.0016	-30.83	42.37
EXTM 51	268.62	279.87	30	21	52.0	.45	.0036	-29.33	.0003	63579.4	3.06	86.39	-.0000	186.18	.0503	-29.00	27.28
EXTM 61	441.37	452.62	31	0	44.8	5.68	.0040	-30.16	.0003	96559.4	2.57	19.41	.0000	185.21	.0036	-26.68	350.38
EXTM 72	466.73	477.98	31	1	10.1	1.09	.0041	-27.63	.0002	96697.5	2.52	70.24	.0000	182.86	.0106	-26.43	344.66
RISE 11	618.89	630.14	31	3	42.3	291.21	.0040	-27.13	.0001	124302.0	1.96	.31	.0028	123.93	.0023	-25.21	309.47
SET 51	657.07	668.32	31	4	20.5	90.00	.0039	-23.86	.0002	128319.2	2.58	10.12	-.0033	248.27	-.0013	-24.96	300.49
SET 61	688.34	699.59	31	4	51.7	64.74	.0040	-26.76	.0002	133554.3	2.43	.01	-.0023	233.85	.0027	-24.77	293.09
SET 72	848.81	860.06	31	7	32.2	93.48	.0040	-23.58	.0001	153653.1	2.41	-.01	-.0036	246.18	-.0004	-23.92	254.76
RISE 42	860.47	871.72	31	7	43.9	254.99	.0040	-22.43	.0000	154896.8	1.67	1.41	.0029	116.74	-.0023	-23.86	251.96
EXTM 11	903.54	914.79	31	8	26.9	1.63	.0042	-25.66	.0001	157089.2	1.96	29.11	-.0000	181.68	.0043	-23.67	241.58
SET 11	1186.15	1197.40	31	13	9.6	71.83	.0041	-23.85	.0001	191523.3	2.07	-.00	-.0028	240.34	.0024	-22.64	172.93
EXTM 42	1283.33	1294.58	31	14	46.7	359.81	.0042	-21.93	.0000	195475.5	1.70	76.71	.0000	.76	-.0168	-22.35	149.16
RISE 51	1418.38	1429.63	31	17	1.8	270.00	.0041	-21.31	-.0000	214043.2	1.25	9.08	.0035	109.36	-.0016	-21.99	116.04
RISE 72	1576.71	1587.96	31	19	40.1	266.88	.0041	-21.39	-.0000	230157.4	1.13	.00	.0038	111.60	-.0006	-21.61	77.10
RISE 61	1630.09	1641.34	31	20	33.5	290.61	.0041	-22.59	.0000	235103.4	1.23	.00	.0027	120.21	.0027	-21.50	63.95
SET 42	1705.90	1717.15	31	21	49.3	105.00	.0041	-20.42	.0001	241988.1	1.84	.17	-.0031	244.86	-.0023	-21.34	45.26
EXTM 51	1776.94	1788.19	31	23	.4	359.96	.0042	-21.08	.0000	242083.5	1.48	85.34	-.0000	.46	-.0439	-21.20	27.72
EXTM 61	1908.85	1920.10	1	1	12.3	.64	.0042	-22.20	.0000	256923.5	1.43	27.56	-.0000	180.66	.0044	-20.96	355.13
EXTM 72	1947.51	1958.76	1	1	50.9	.10	.0042	-21.21	.0000	257020.8	1.42	76.70	.0000	180.43	.0169	-20.89	345.57
RISE 11	2067.51	2078.76	1	3	50.9	286.16	.0042	-21.52	.0000	273218.4	1.04	.00	.0030	116.68	.0024	-20.69	315.87
SET 51	2135.87	2147.12	1	4	59.3	90.00	.0041	-20.05	.0001	277884.5	1.75	8.56	-.0035	251.80	-.0016	-20.58	298.94
SET 61	2187.67	2198.92	1	5	51.1	70.63	.0042	-21.40	.0001	283031.3	1.65	-.00	-.0027	241.45	.0027	-20.50	286.11
SET 72	2316.94	2328.19	1	8	.3	92.92	.0041	-20.14	.0001	293313.2	1.74	-.01	-.0038	249.66	-.0005	-20.31	254.06
RISE 42	2323.44	2334.69	1	8	6.8	255.48	.0041	-19.55	-.0000	293822.0	.96	.00	.0031	114.18	-.0024	-20.31	252.45
EXTM 11	2362.59	2373.84	1	8	46.0	.42	.0042	-21.28	.0000	293380.8	1.30	33.51	-.0000	180.47	.0047	-20.25	242.74
SET 11	2657.69	2668.94	1	13	41.1	74.64	.0042	-20.58	.0000	319178.7	1.56	-.00	-.0030	244.52	.0024	-19.87	169.47
EXTM 42	2739.83	2751.08	1	15	3.2	359.91	.0042	-19.47	.0000	319094.0	1.21	74.25	-.0000	.30	-.0143	-19.78	149.06
RISE 51	2870.25	2881.50	1	17	13.7	270.00	.0041	-19.19	-.0000	333592.4	.79	8.20	.0036	107.40	-.0016	-19.63	116.64
RISE 72	3028.21	3039.46	1	19	51.6	267.21	.0041	-19.31	-.0000	345524.3	.72	-.01	.0039	109.51	-.0006	-19.46	77.36
RISE 61	3070.39	3081.64	1	20	33.8	288.08	.0042	-20.14	.0000	348417.3	.82	.00	.0028	116.81	.0027	-19.42	66.86
SET 42	3154.03	3165.28	1	21	57.4	103.85	.0041	-18.73	.0000	354206.3	1.44	-.00	-.0031	246.86	-.0024	-19.35	46.00
EXTM 51	3227.20	3238.45	1	23	10.6	359.97	.0042	-19.20	.0000	352687.5	1.08	83.46	.0000	.27	-.0290	-19.31	27.71
EXTM 61	3355.76	3367.01	2	1	19.2	.19	.0042	-20.11	.0000	364130.8	1.08	29.66	-.0000	180.20	.0046	-19.24	355.57
EXTM 72	3395.43	3406.68	2	1	58.8	.02	.0042	-19.42	.0000	363421.9	1.07	78.48	.0000	180.14	.0153	-19.22	345.65
RISE 11	3507.33	3518.58	2	3	50.7	284.69	.0042	-19.77	-.0000	377002.1	.73	.00	.0031	114.45	.0024	-19.17	317.65
SET 51	3583.45	3594.70	2	5	6.9	90.00	.0042	-18.75	.0000	381009.6	1.47	8.02	-.0036	253.00	-.0016	-19.14	298.60
SET 61	3640.99	3652.24	2	6	4.4	72.29	.0042	-19.77	.0000	385623.9	1.41	-.00	-.0029	243.70	.0027	-19.12	284.19
SET 72	3761.70	3772.95	2	8	5.1	92.73	.0042	-18.95	.0000	393645.6	1.59	-.00	-.0039	250.86	-.0006	-19.09	253.91
RISE 42	3769.76	3781.01	2	8	13.2	256.32	.0042	-18.52	-.0000	394201.4	.81	.00	.0032	142.89	-.0024	-19.09	251.89
EXTM 11	3804.57	3815.82	2	8	48.0	.02	.0043	-19.84	.0000	393031.1	1.21	34.95	-.0000	180.03	.0043	-19.08	243.13
IMPACT	3874.63	3885.88	2	9	58.0												
IMPC 42	3874.63	3885.88	2	9	58.0	282.86	.0043	-18.68	-.0001	400272.8	1.65	20.89	.0035	98.64	-.0022	-19.12	225.38
IMPC 11	3874.63	3885.88	2	9	58.0	18.01	.0044	-19.85	-.0000	399143.0	2.13	32.35	-.0012	200.13	.0046	-19.12	225.38

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	30	17	23.406	6554.724	15.5388	303.3589	10.98541	-2.2313	121.8871	152.1092
SEPARATION	1.20	12.45	30	17	24.606	6547.565	11.8057	309.0596	10.99131	1.2809	123.3077	158.1107
RETRO	3.20	14.45	30	17	26.606	6640.225	5.4038	318.1210	10.91374	6.8629	124.7439	167.6734
IMPACT	3874.63	3885.88	2	9	58.039	40258R.680	-19.1187	225.3849	2.18611	66.9111	254.7241	325.4448

AUG 1966

AUG 1966

SURVEYOR VIEW PERIODS

GHA 329.8545 EPS -92.7130 LOM 296.6791
SX -.5499445 SY -.7621226 SZ -.34 659 DAO - 9.9/791 RAO 254.18586 RA 3/9316.867 LAT 28.8310500 LON 279.461800
CS -1.138598 ECC .9813806 SLR 12966.99 RCA 6514.6651 LTA -20.0000 GTA 20.00 TH 679.000000 POL -.0
NSX -.5360582 NSY -.7725/3 NSZ -.348737 G3M 1.4934 VIM 2.6707 Z.E 136.037 B.T .0000 B.R -.0000
LATE .7917 LONE .3392 LATS 1.4999 LONS 99.9283 LATI -9.5791 LONI 324.4248 RSM 151.2646 TTAN 5.3522
LAUNCH DATE AUG 20.1966 BASE AZM 99.0 TF 80.450 ARRIVAL DATE AUG 22 1966 21 4/ 1.8

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99.00	9 3 5.9	27.3	21.42	309.89	-13.25	52.70	110.52	9 14 20.9	6632.2	10.91	-6.56

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEI	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	20	9	14.3												
SEPARATION	1.20	12.45	20	9	15.5												
RETRO	5.20	14.45	20	9	17.5												
RISE 7d	5.75	17.00	20	9	20.1	78.73	-.2562	34.39	.3850	2160.9	-8.17	.00	.1240	325.37	.1178	7.54	335.07
EXTM 7d	8.99	21.24	20	9	23.3	336.57	-.3828	39.90	-.3554	1274.5	1.51	37.60	.1451	22.08	.5328	-.49	348.76
RISE 5d	11.48	22.75	20	9	25.8	76.14	-.1119	26.46	-.0386	4434.9	-4.86	.00	.1063	299.68	.0149	-5.85	357.77
EXTM 5d	25.45	36.70	20	9	39.8	355.45	-.0503	-17.69	-.0244	9599.8	5.44	81.01	-.0000	28.67	.3438	-22.04	29.86
EXTM 7d	69.10	80.35	20	10	23.4	272.10	-.0000	-28.71	-.0002	23957.7	4.87	5.62	.0000	118.28	.0002	-29.20	57.32
RISE 4d	69.52	80.57	20	10	23.7	135.00	-.0052	-20.95	-.0022	24591.7	4.29	.43	.0052	244.53	.0012	-29.21	57.06
EXTM 4d	122.66	133.91	20	11	17.0	98.97	.0002	-23.65	-.0005	37987.9	4.03	6.70	-.0000	245.46	-.0004	-29.01	58.62
SET 4d	193.82	205.07	20	12	28.2	105.00	.0022	-24.10	.0001	54279.3	3.62	2.43	-.0016	241.95	-.0012	-28.06	49.93
RISE 6d	206.00	217.25	20	12	40.3	303.20	.0032	-32.90	.0004	57033.4	3.14	.00	.0020	135.37	.0018	-27.91	47.95
EXTM 6d	476.00	487.25	20	17	10.3	3.70	.0040	-28.92	.0002	100818.4	2.47	20.76	.0000	183.47	.0037	-25.61	352.24
EXTM 7d	507.56	518.81	20	17	41.9	.63	.0041	-26.91	.0001	101803.1	2.41	71.58	.0000	181.77	.0114	-25.43	345.08
RISE 1d	658.44	669.69	20	20	12.8	290.60	.0040	-26.06	.0000	128423.2	1.87	.00	.0028	123.18	.0023	-24.71	310.11
SET 5d	699.71	710.96	20	20	54.1	90.00	.0039	-23.48	.0001	132663.5	2.49	9.96	-.0033	248.63	-.0014	-24.54	300.38
SET 6d	732.98	744.23	21	21	27.3	85.20	.0040	-26.15	.0001	137974.3	2.35	-.01	-.0024	234.46	.0027	-24.41	292.51
SET 7d	891.26	902.51	21	0	5.6	93.47	.0040	-23.75	.0001	157041.8	2.53	-.00	-.0036	246.21	-.0004	-23.88	254.72
RISE 4d	902.60	913.85	21	0	17.0	255.00	.0040	-22.15	-.0000	158195.2	1.60	1.42	.0029	116.74	-.0023	-23.85	251.99
EXTM 1d	943.89	955.14	21	0	58.2	1.14	.0042	-25.68	.0001	159999.8	1.69	29.10	.0000	181.18	.0043	-23.73	242.05
SET 1d	1227.45	1238.70	21	5	41.8	74.48	.0041	-24.24	.0001	193375.3	2.00	-.00	-.0028	239.44	.0024	-23.04	173.26
EXTM 4d	1326.29	1337.54	21	7	20.6	359.86	.0042	-22.44	.0000	197093.3	1.63	77.22	.0000	.59	-.0174	-22.84	149.12
RISE 5d	1461.35	1472.60	21	9	55.7	270.00	.0041	-21.91	-.0000	215112.3	1.18	9.33	.0035	109.92	-.0016	-22.59	116.04
RISE 7d	1619.43	1630.68	21	12	53.8	266.77	.0041	-22.10	-.0000	230611.6	1.07	.00	.0038	112.32	-.0005	-22.33	77.21
RISE 6d	1676.56	1687.81	21	13	10.9	291.41	.0041	-23.53	.0000	235680.1	1.17	.00	.0027	121.26	.0027	-22.24	63.15
SET 4d	1749.20	1760.45	21	14	23.6	105.01	.0041	-21.21	.0000	241936.8	1.77	.66	-.0030	244.23	-.0023	-22.13	45.26
EXTM 5d	1820.40	1831.65	21	15	34.7	359.97	.0042	-21.44	.0000	241814.4	1.41	86.20	.0000	.41	-.0341	-22.04	27.71
EXTM 6d	1951.93	1963.18	21	17	46.3	.51	.0042	-23.12	.0000	256204.7	1.56	26.64	-.0000	180.53	.0043	-21.86	355.25
EXTM 7d	1991.12	2002.37	21	18	25.5	.10	.0042	-22.16	.0000	256128.5	1.55	75.75	-.0000	180.40	.0157	-21.81	345.57
RISE 1d	2114.71	2125.96	21	20	29.1	287.00	.0042	-22.71	-.0000	272111.4	.98	.00	.0030	117.94	.0024	-21.67	315.02
SET 5d	2179.63	2190.88	21	21	34.0	90.00	.0041	-21.06	.0000	276191.0	1.68	8.98	-.0035	250.87	-.0016	-21.59	298.96
SET 6d	2227.10	2238.35	21	22	21.4	89.54	.0041	-22.45	.0000	280845.7	1.58	-.00	-.0027	239.98	.0027	-21.54	287.21
SET 7d	2301.55	2312.80	22	0	35.9	93.09	.0041	-21.22	.0000	291006.0	1.66	-.00	-.0038	248.57	-.0005	-21.40	253.92
RISE 4d	2365.57	2376.82	22	0	39.9	255.00	.0041	-20.83	-.0000	291271.7	.90	.30	.0030	115.31	-.0024	-21.39	252.92
EXTM 1d	2406.14	2417.39	22	1	20.5	.29	.0042	-22.40	.0000	290916.5	1.23	32.39	.0000	180.32	.0046	-21.35	242.87
SET 1d	2697.86	2709.11	22	6	12.2	75.6	.0042	-21.80	.0000	315179.2	1.49	-.00	-.0030	242.97	.0024	-21.08	170.51
EXTM 4d	2784.33	2795.58	22	7	58.7	359.93	.0042	-20.72	.0000	315021.0	1.14	75.50	.0000	.28	-.0152	-21.00	149.05
RISE 5d	2914.75	2926.00	22	9	49.1	270.00	.0042	-20.43	-.0000	329120.5	.72	8.72	.0036	108.55	-.0016	-20.88	116.62
RISE 7d	3071.51	3082.76	22	12	25.7	267.01	.0042	-20.57	-.0000	340441.8	.67	.00	.0039	110.77	-.0006	-20.72	77.52
RISE 6d	3119.23	3130.48	22	13	13.6	289.38	.0042	-21.41	-.0000	343583.4	.78	.00	.0028	118.58	.0027	-20.68	65.55
SET 4d	3201.42	3212.67	22	14	35.8	104.85	.0041	-19.95	.0000	348947.7	1.43	-.00	-.0031	245.31	-.0024	-20.59	45.01
EXTM 5d	3270.65	3281.88	22	15	45.0	359.96	.0042	-20.45	.0000	347158.5	1.09	84.69	-.0000	.30	-.0341	-20.53	27.71
EXTM 6d	3399.84	3411.09	22	17	54.2	.36	.0042	-21.28	.0000	358847.6	1.10	28.48	-.0000	180.40	.0045	-20.39	355.38
EXTM 7d	3438.80	3450.05	22	18	33.1	.05	.0043	-20.57	.0000	358267.9	1.11	77.34	.0000	180.22	.0171	-20.35	345.62
RISE 1d	3555.77	3565.02	22	20	28.1	285.56	.0042	-20.81	.0000	372273.0	.85	.00	.0031	115.77	.0024	-20.20	316.77
SET 5d	3625.51	3636.76	22	21	39.9	90.00	.0043	-19.85	.0001	377177.9	2.26	8.40	-.0037	252.17	-.0016	-20.05	298.61
IMPACT	3626.98	3638.23	22	21	41.3												
IMPC 7d	3626.98	3638.23	22	21	41.3	48.20	.0044	-20.14	.0001	374042.1	2.28	41.85	-.0040	249.99	.0009	-20.04	298.23
IMPC 5d	3626.98	3638.23	22	21	41.3	90.38	.0043	-19.84	.0001	377379.9	2.26	8.07	-.0037	252.03	-.0016	-20.04	298.23
IMPC 1d	3626.98	3638.23	22	21	41.3	304.22	.0043	-20.72	.0001	376837.7	1.64	13.05	.0029	127.45	.0030	-20.04	298.23
IMPC 6d	3626.98	3638.23	22	21	41.3	58.15	.0043	-20.76	.0001	377336.6	2.23	8.47	-.0026	233.45	.0032	-20.04	298.23
SET 6d	3681.73	3692.98	22	22	36.1	70.94	.0042	-21.10	.0001	375181.3	1.59	-.00	-.0028	241.87	.0028	-20.42	285.56

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	20	9	14.348	6635.302	21.4639	305.7311	10.91174	-6.5641	110.4742	52.5808
SEPARATION	1.20	12.45	20	9	15.548	6595.077	18.8964	312.3070	10.96781	-3.1812	112.8539	59.4575
RETRO	5.20	14.45	20	9	17.548	6537.430	14.1269	322.7306	10.97426	2.5170	115.9702	70.3826
IMPACT	3626.98	3638.23	22	21	41.352	3783/.746	-20.0388	298.2347	2.16715	63.8895	301.3796	234.3122

BLANK

SURVEYOR VIEW PERIODS

GHA	329.8545				EPS	-92.5479						LOH	292.1202
SX	-.594387	SY	-.763556	SZ	-.242572	DAO	-20.03567	RAO	234.36382	RM	3/9588.801	LAT	28.310600	LON	279.461800
CO	-1.159795	ECC	.981286	SLR	12966.855	RCA	6544.63550	LTA	-20.0000	GIA	20.00	TH	675.00000	POL	-.0
NSX	-.527977	NSY	-.773953	NSZ	-.349632	C3M	1.49472	VIM	2.6714	ZAE	135.916	B.T	.0000	B.R	-.0000
LATE	.8117	LONE	7.3414	LATS	1.5000	LONS	99.7660	LATI	-9.7087	LONI	324.3328	RSM	151.2653	TTAN	5.3391
LAUNCH DATE		AUG	20,1966		BASE AZM	102.0		TF	60.490			ARRIVAL DATE		AUG	22 1966 22 5 55.6

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	9 18 19.3	27.3	20.25	305.59	-9.46	56.25	112.71	9 29 34.3	6592.9	10.94	-4.88

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	20	9	29.6												
SEPARATION		1.20	12.45	20	9	30.8												
RETRO		3.20	14.45	20	9	32.8												
RISE	72	5.41	16.66	20	9	35.0	81.54	-.2063	46.69	.0471	2252.2	-8.57	-.01	.1292	317.28	.0745	6.47	332.53
EXTM	72	9.25	20.50	20	9	38.8	343.28	-.3520	23.39	-.3131	1212.8	2.66	54.66	.1125	27.29	.7531	-3.06	348.17
RISE	51	11.31	22.56	20	9	40.9	78.55	-.1026	22.58	-.0430	4614.8	-4.59	.00	.1039	295.00	.0066	-7.39	355.29
EXTM	51	20.64	31.89	20	9	50.2	358.20	-.0455	-22.07	-.0186	6135.7	5.44	89.98	-.0000	24.49	.6571	-23.94	28.38
EXTM	72	69.36	81.61	20	10	38.9	275.59	.0000	-30.00	-.0000	23872.5	4.85	8.76	.0000	119.30	.0000	-30.00	53.62
RISE	42	83.09	94.34	20	10	52.7	105.00	-.0029	-22.80	-.0012	28526.0	4.26	1.64	.0029	242.98	.0007	-30.06	55.37
EXTM	42	122.51	133.56	20	11	31.9	102.34	.0002	-24.30	-.0003	38292.2	4.03	4.45	-.0000	245.23	-.0003	-29.64	55.15
SET	42	164.46	175.71	20	12	14.0	109.00	.0017	-24.96	.0000	48147.1	3.77	2.72	-.0012	241.59	-.0009	-28.99	50.74
RISE	61	195.67	206.92	20	12	45.2	304.56	.0031	-33.83	.0004	54640.1	3.21	.00	.0020	136.64	.0017	-28.57	46.44
EXTM	51	289.82	301.07	20	14	19.4	358.74	.0037	-27.38	.0002	66918.0	2.96	87.84	.0019	148.80	.0005	-27.42	28.84
EXTM	61	462.10	473.25	20	17	11.6	4.15	.0040	-29.40	.0002	98866.4	2.50	20.25	.0000	185.83	.0037	-26.03	351.84
EXTM	72	492.26	503.51	20	17	41.8	.72	.0041	-26.96	.0001	99676.8	2.44	70.93	-.0000	181.95	.0111	-25.84	345.00
RISE	11	644.82	656.07	20	20	4	290.94	.0040	-26.92	.0000	126706.3	1.89	.00	.0028	125.65	.0023	-25.04	309.73
SET	51	684.37	695.62	20	20	4	90.00	.0039	-23.79	.0001	130750.7	2.51	10.09	-.0033	248.34	-.0013	-24.86	300.43
SET	61	715.94	727.19	20	21	25.5	64.82	.0040	-26.69	.0002	135894.2	2.37	.01	-.0023	253.95	.0027	-24.73	292.97
SET	72	870.42	881.67	21	0	6.0	93.52	.0040	-23.42	.0001	155377.7	2.64	-.01	-.0036	245.94	-.0004	-24.15	4.70
RISE	42	887.77	899.02	21	0	17.5	254.99	.0040	-22.70	-.0000	156522.8	1.61	1.57	.0029	116.95	-.0023	-24.11	291.97
EXTM	11	929.48	940.73	21	0	59.1	1.25	.0042	-25.96	.0001	158449.1	1.90	28.82	-.0000	181.29	.0043	-23.99	241.94
SET	11	1211.80	1223.05	21	5	41.4	71.26	.0041	-24.46	.0001	191832.6	2.01	-.00	-.0028	239.55	.0024	-23.25	173.48
EXTM	42	1311.62	1322.87	21	7	21.2	359.87	.0042	-22.64	.0000	195692.4	1.64	77.42	.0000	.55	-.0176	-23.03	149.10
RISE	51	1446.70	1457.95	21	9	36.3	270.00	.0041	-22.10	-.0000	213765.6	1.19	9.40	.0035	110.09	-.0016	-22.77	116.03
RISE	72	1604.70	1615.95	21	12	14.3	266.74	.0041	-22.27	-.0000	229323.4	1.08	.00	.0038	112.49	-.0005	-22.50	77.52
RISE	61	1662.70	1673.95	21	13	12.3	291.60	.0041	-23.50	.0000	234487.6	1.17	.01	.0027	121.91	.0027	-22.40	62.95
SET	42	1734.50	1745.75	21	14	24.1	105.00	.0041	-21.37	.0001	240682.9	1.78	.75	-.0030	244.11	-.0023	-22.29	45.47
EXTM	51	1805.74	1816.99	21	15	35.3	359.97	.0042	-22.09	.0000	240595.2	1.42	86.35	.0000	.51	-.0515	-22.19	27.71
EXTM	61	1937.31	1948.56	21	17	46.9	.52	.0042	-23.27	.0000	255040.7	1.37	26.49	-.0000	180.53	.0043	-22.00	355.24
EXTM	72	1976.42	1987.67	21	18	26.0	.09	.0042	-22.30	.0000	254957.9	1.36	75.60	.0000	180.33	.0155	-21.95	345.59
RISE	11	2100.56	2111.81	21	20	30.1	287.12	.0042	-22.64	-.0000	271011.3	.98	.00	.0030	118.11	.0024	-21.80	314.90
SET	51	2164.97	2176.22	21	21	34.5	90.00	.0041	-21.19	.0000	275059.8	1.68	9.03	-.0035	250.75	-.0015	-21.72	298.97
SET	61	2211.88	2223.13	21	22	21.5	69.40	.0041	-22.58	.0000	279687.9	1.58	-.00	-.0027	239.80	.0027	-21.66	287.36
SET	72	2346.98	2358.23	22	0	36.6	93.11	.0041	-21.33	.0000	289926.7	1.67	-.00	-.0038	248.45	-.0005	-21.51	253.90
RISE	42	2350.97	2362.22	22	0	40.5	255.00	.0041	-20.74	-.0000	290183.3	.91	.37	.0030	119.40	-.0024	-21.51	252.91
EXTM	11	2391.74	2402.99	22	1	21.3	.35	.0042	-22.52	.0000	2898/0.2	1.23	32.27	-.0000	180.38	.0046	-21.47	242.81
SET	11	2682.87	2694.12	22	6	12.4	73.52	.0042	-21.90	.0000	314133.1	1.49	-.00	-.0030	242.83	.0024	-21.18	170.61
EXTM	42	2769.76	2781.01	22	7	39.3	359.94	.0042	-20.81	.0000	314017.3	1.14	75.60	-.0000	.23	-.0149	-21.10	149.04
RISE	51	2900.30	2911.55	22	9	49.9	270.00	.0042	-20.53	-.0000	328139.7	.72	8.76	.0036	108.64	-.0016	-20.97	116.61
RISE	72	3056.75	3068.00	22	12	26.3	266.99	.0042	-20.66	-.0000	339463.3	.67	-.01	.0039	110.87	-.0006	-20.81	77.54
RISE	61	3105.10	3116.35	22	13	14.7	289.48	.0042	-21.50	-.0000	342632.7	.78	.00	.0028	118.70	.0027	-20.76	65.46
SET	42	3187.16	3198.41	22	14	36.7	104.92	.0041	-20.04	.0000	347987.0	1.43	-.00	-.0031	245.20	-.0024	-20.68	44.95
EXTM	51	3256.11	3267.36	22	15	45.7	359.98	.0042	-20.51	.0000	346176.1	1.09	84.77	-.0000	.30	-.0353	-20.61	27.71
EXTM	61	3385.27	3396.52	22	17	54.8	.37	.0042	-21.36	.0000	357850.1	1.09	28.40	-.0000	180.39	.0045	-20.47	355.39
EXTM	72	3424.33	3435.58	22	18	33.9	.06	.0043	-20.65	.0000	357258.6	1.10	77.26	.0000	180.28	.0173	-20.43	345.61
RISE	11	3539.56	3550.81	22	20	29.1	285.62	.0042	-20.89	.0000	371183.7	.83	.00	.0031	115.88	.0024	-20.28	316.70
SET	51	3611.18	3622.43	22	21	40.8	89.98	.0042	-19.76	.0001	375647.8	1.85	8.46	-.0037	252.08	-.0016	-20.15	298.64
IMPACT		3629.40	3640.65	22	21	59.0												
IMPC	72	3629.40	3640.65	22	21	59.0	52.50	.0044	-20.17	.0001	374453.2	2.29	37.84	-.0041	250.55	.0006	-20.09	293.98
IMPC	51	3629.40	3640.65	22	21	59.0	94.63	.0043	-19.68	.0001	377850.1	2.35	4.46	-.0037	250.29	-.0017	-20.09	293.98
IMPC	11	3629.40	3640.65	22	21	59.0	308.51	.0044	-20.79	.0001	376622.4	1.65	15.73	-.0028	130.54	.0031	-20.09	293.98
IMPC	61	3629.40	3640.65	22	21	59.0	62.47	.0043	-20.80	.0001	3777/5.8	2.24	5.77	-.0027	236.43	.0031	-20.09	293.98

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	20	9	29.572	6593.822	20.2668	305.5403	10.94446	-4.8815	112.6906	56.2064
SEPARATION		1.20	12.45	20	9	30.772	6549.055	17.4729	311.9342	10.98128	-1.4769	114.8601	62.9010
RETRO		3.20	14.45	20	9	32.772	6580.665	12.3704	322.1102	10.95463	4.2217	117.6197	73.5784
IMPACT		3629.40	3640.65	22	21	58.968	378399.371	-20.0911	293.9862	2.16562	63.6229	301.3949	234.4789

SURVEYOR VIEW PERIODS

GHA	329.8545					EPS -92.5611								LOM	286.8917
SX	-.544456	SY	-.765191	SZ	-.343617	DAO	-20.09737	RAO	234.56799	RM	3/9671.273	LAT	28.5106000	LON	279.461800
CS	-1.14618	ECC	.981161	SLR	2966.167	HCA	8544.6556	LTA	-20.0000	GIA	20.00	TB	675.000000	POL	-.0
NSX	-.524924	NSY	-.775592	NSZ	-.350677	C3M	1.4475	VIM	2.6715	ZAE	135.685	B.T	.0000	B.R	-.0000
LAIE	.8348	LONE	7.3444	LATS	1.5000	LONS	99.5847	LATI	-9.8793	LONI	324.1577	RSM	151.2600	TTAN	5.3411
LAUNCH DATE		AUG	20.1966		BASE AZM	105.0		TF	60.614				ARRIVAL DATE AUG	22	1966 22 2/ 35.9

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RI ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	9 51 48.9	27.7	19.09	305.24	-6.90	59.29	114.87	9 43 3.9	6568.2	10.96	-3.42

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	20	9	43.1												
SEPARATION		1.20	12.45	20	9	44.3												
RETRO		3.20	14.45	20	9	46.3												
RISE	7Z	5.16	16.41	20	9	48.2	83.36	-.1776	39.77	.0129	2346.2	-8.71	.00	.1320	310.23	.0371	5.27	330.32
EXTM	7Z	8.97	20.22	20	9	52.0	1.30	-.4025	15.09	-.2882	1155.4	1.52	66.37	.3094	356.88	.9250	-4.35	345.48
RISE	5I	11.20	22.45	20	9	54.3	80.72	-.0947	18.47	-.0469	4786.3	-4.30	.01	.1013	290.60	-.0005	-9.04	353.00
EXTM	5I	27.82	39.07	20	10	10.9	.72	-.0419	-25.97	-.0143	6701.7	5.42	89.31	.0307	250.10	-2.1771	-25.66	27.32
EXTM	7Z	69.62	80.87	20	10	52.7	278.69	.0000	-31.44	.0002	23808.8	4.83	11.50	.0000	120.00	-.0007	-30.96	50.62
RISE	6I	184.51	195.76	20	12	47.6	306.09	.0031	-34.84	.0005	52837.7	3.27	.00	.0019	138.45	.0017	-29.33	44.80
EXTM	5I	281.03	292.28	20	14	24.1	.19	.0036	-28.26	.0002	65431.3	2.99	87.48	.0000	183.76	.0725	-28.03	27.51
EXTM	6I	449.85	461.10	20	17	12.9	4.52	.0039	-29.96	.0002	97152.2	2.52	19.67	.0000	184.16	.0036	-26.51	351.48
EXTM	7Z	478.98	490.23	20	17	42.0	.81	.0040	-27.49	.0001	97798.4	2.46	70.40	.0000	182.13	.0107	-26.31	344.92
RISE	1I	633.41	644.66	20	20	16.5	291.39	.0040	-27.54	.0000	125252.8	1.91	.00	.0027	124.20	.0023	-25.43	309.30
SET	5I	670.99	682.24	20	20	54.1	90.00	.0039	-24.76	.0001	129037.1	2.52	10.24	-.0033	248.00	-.0013	-25.25	300.48
SET	6I	700.64	711.89	20	21	23.7	64.33	.0040	-27.10	.0002	133980.1	2.38	.00	-.0023	233.36	.0027	-25.11	293.48
SET	7Z	863.52	874.77	21	0	6.6	93.57	.0040	-24.14	.0001	153880.8	2.05	-.01	-.0036	245.62	-.0004	-24.47	254.68
RISE	4Z	874.88	886.13	21	0	17.9	294.99	.0040	-23.00	-.0000	155013.8	1.62	1.76	.0029	117.19	-.0022	-24.43	251.95
EXTM	1I	916.86	928.11	21	0	59.9	1.34	.0042	-26.30	.0001	157047.5	1.91	28.48	-.0000	181.37	.0042	-24.29	241.86
SET	1I	1197.90	1209.15	21	5	41.0	71.05	.0041	-24.73	.0001	190392.5	2.02	-.00	-.0028	239.20	.0024	-23.50	173.73
EXTM	4Z	1298.76	1310.01	21	7	21.8	359.86	.0042	-22.66	.0000	194387.3	1.64	77.66	.0000	.59	-.0179	-23.27	149.11
RISE	5I	1433.93	1445.18	21	9	37.0	270.00	.0041	-22.51	-.0000	212505.2	1.19	9.49	.0035	110.29	-.0016	-22.99	116.02
RISE	7Z	1791.81	1803.06	21	12	14.9	266.71	.0041	-22.47	-.0000	228100.4	1.08	.00	.0038	112.70	-.0005	-22.70	77.25
RISE	6I	1650.79	1662.04	21	13	13.9	291.82	.0041	-23.70	.0000	233364.0	1.18	.00	.0027	121.78	.0027	-22.60	62.74
SET	4Z	1721.68	1732.93	21	14	24.7	105.00	.0041	-21.55	.0001	239479.7	1.78	.87	-.0030	243.96	-.0023	-22.48	45.28
EXTM	5I	1792.94	1804.19	21	15	36.0	359.97	.0042	-22.28	.0000	239419.1	1.42	86.54	.0000	.54	-.0577	-22.37	27.72
EXTM	6I	1924.65	1935.88	21	17	47.7	.54	.0042	-23.45	.0000	253914.3	1.37	26.31	-.0000	180.56	.0043	-22.17	355.22
EXTM	7Z	1963.66	1974.91	21	18	26.7	.09	.0042	-22.47	.0000	253817.9	1.36	75.43	.0000	180.35	.0153	-22.12	345.58
RISE	1I	2088.36	2099.61	21	20	31.4	287.26	.0042	-22.80	-.0000	269926.7	.99	.00	.0030	118.32	.0024	-21.95	314.76
SET	5I	2152.16	2163.41	21	21	35.2	90.00	.0041	-21.54	.0000	273928.0	1.68	9.09	-.0035	250.01	-.0015	-21.87	298.97
SET	6I	2198.42	2209.67	21	22	21.5	69.23	.0041	-22.13	.0001	278517.9	1.58	-.00	-.0027	239.59	.0027	-21.81	287.52
SET	7Z	2334.26	2345.51	22	0	37.3	93.13	.0041	-21.47	.0001	288826.9	1.67	-.00	-.0038	248.31	-.0005	-21.65	253.89
RISE	4Z	2338.21	2349.46	22	0	41.3	255.00	.0041	-20.88	-.0000	289071.3	.91	.46	.0030	115.51	-.0024	-21.65	252.91
EXTM	1I	2379.03	2390.28	22	1	22.1	.36	.0042	-22.86	.0000	288787.9	1.23	32.13	-.0000	180.40	.0046	-21.60	242.79
SET	1I	2609.85	2621.10	22	6	12.7	73.41	.0042	-22.03	.0000	313021.2	1.49	-.00	-.0030	242.68	.0024	-21.30	170.72
EXTM	4Z	2750.97	2762.22	22	7	40.0	359.94	.0042	-20.93	.0000	312936.1	1.14	75.71	-.0000	.25	-.0151	-21.21	149.04
RISE	5I	2887.53	2898.78	22	9	30.6	270.00	.0042	-20.63	-.0000	327068.3	.72	8.80	.0036	108.74	-.0016	-21.08	116.61
RISE	7Z	3043.92	3055.17	22	12	27.0	266.98	.0042	-20.76	-.0000	338372.3	.67	-.01	.0039	110.97	-.0006	-20.91	77.55
RISE	6I	3092.77	3104.02	22	13	15.8	289.58	.0042	-21.61	-.0000	341565.9	.78	.00	.0028	118.84	.0027	-20.86	65.35
SET	4Z	3174.72	3185.97	22	14	37.8	105.00	.0041	-20.13	.0000	346898.5	1.43	-.00	-.0031	245.88	-.0024	-20.78	44.87
EXTM	5I	3243.35	3254.60	22	15	46.4	359.98	.0042	-20.61	.0000	345051.8	1.08	84.87	-.0000	.30	-.0368	-20.70	27.71
EXTM	6I	3372.56	3383.81	22	17	55.6	.37	.0042	-21.46	.0000	356698.6	1.09	28.30	-.0000	180.39	.0045	-20.56	355.39
EXTM	7Z	3411.61	3422.86	22	18	34.7	.05	.0043	-20.74	.0000	356081.8	1.09	77.16	.0000	180.28	.0172	-20.52	345.61
RISE	1I	3527.24	3538.49	22	20	30.3	285.70	.0042	-20.99	.0000	369927.2	.80	.00	.0031	116.00	.0024	-20.38	316.62
SET	5I	3598.73	3609.98	22	21	41.8	90.00	.0042	-19.86	.0001	374117.5	1.70	8.49	-.0036	251.98	-.0016	-20.26	298.62
IMPACT		3636.84	3648.09	22	22	19.9												
IMPC	7Z	3636.84	3648.09	22	22	19.9	57.60	.0043	-20.21	.0001	374964.8	2.31	33.06	-.0041	250.99	.0004	-20.15	288.93
IMPC	5I	3636.84	3648.09	22	22	19.9	99.67	.0043	-19.71	.0001	378402.7	2.34	.23	-.0036	248.13	-.0018	-20.15	288.93
IMPC	1I	3636.84	3648.09	22	22	19.9	314.61	.0044	-20.87	.0001	376386.9	1.66	18.74	-.0026	134.41	.0033	-20.15	288.93
IMPC	6I	3636.84	3648.09	22	22	19.9	67.55	.0043	-20.44	.0001	378156.6	2.24	2.45	-.0028	239.83	.0029	-20.15	288.93
SET	6I	3651.85	3663.10	22	22	34.9	71.16	.0043	-20.87	.0001	378475.7	2.24	-.00	-.0029	242.19	.0029	-20.20	285.31

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	20	9	43.085	6568.436	19.1012	305.2205	10.96490	-3.4158	114.8607	59.2691
SEPARATION		1.20	12.45	20	9	44.285	6544.665	18.0811	311.4514	10.98471	57.2958	116.8378	65.8009
RETRO		3.20	14.45	20	9	46.285	6510.010	16.6768	321.3453	10.92976	5.6791	119.2521	76.1961
IMPACT		3636.84	3648.09	22	22	19.904	378482.192	-20.1532	288.9294	2.16219	63.4414	301.6226	234.6764

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SURVEYOR VIEW PERIODS

GMA	329.6545					EPS	-92.1770							LOM	281.7381
SX	-.941528	SY	-.766792	SZ	-.344641	DAO	-20.15990	RAO	234.76931	RM	379752.531	LAT	28.310600	LON	279.461800
CS	-1.194402	ECC	.981048	SLR	12965.284	HCA	6544.6650	LTA	-20.0000	GIA	20.00	TB	675.00000	POL	-.0
NSX	-.921895	NSY	-.777126	NSZ	-.351711	C3M	1.4974	VIM	2.6714	ZAE	135.399	B.T	.0000	B.R	-.0000
LATE	.8574	LONE	7.3466	LATS	1.5001	LONS	99.4035	LATI	-10.0775	LONI	326.8915	RSM	151.2608	TTAN	5.3597
LAUNCH DATE		AUG	20,1966		BASE AZM	108.0		TF	60.768			ARRIVAL DATE		AUG 22 1966 22 48 57.5	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	9 49 34.7	27.8	17.97	304.80	-4.36	64.80	117.00	9 54 49.7	6554.1	10.98	-2.16

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	20	9	54.8												
SEPARATION		1.20	12.45	20	9	56.0												
RETRO		3.20	14.45	20	9	58.0												
RISE	7z	4.98	16.23	20	9	59.8	84.71	-.1581	33.57	-.0169	2440.5	-8.66	.00	.1327	303.94	.0051	3.97	328.58
EXTM	7z	9.48	20.73	20	10	4.3	.89	-.3354	-4.67	-.2252	1286.3	3.53	86.64	.3055	344.59	4.4881	-7.36	345.52
RISE	51	11.15	22.40	20	10	6.0	82.71	-.0881	14.74	-.0503	4948.4	-4.01	.00	.0987	286.40	-.0067	-10.78	350.90
EXTM	51	29.63	40.88	20	10	24.5	1.47	-.0370	-30.04	-.0099	7447.1	5.43	85.51	.0000	196.50	-.4276	-28.06	26.91
EXTM	7z	69.89	81.14	20	11	4.7	281.35	.0000	-32.99	.0004	23776.3	4.81	13.79	.0000	122.13	-.0004	-32.05	48.02
EXTM	51	87.30	98.55	20	11	22.1	331.74	-.0001	-32.84	.0005	24900.0	4.41	64.44	.0000	112.78	-.0011	-31.92	49.97
RISE	61	178.38	189.63	20	12	53.2	307.75	.0030	-35.87	.0006	51633.5	3.31	.00	.0019	140.15	.0016	-30.17	43.11
EXTM	51	268.17	279.42	20	14	23.0	.29	.0036	-29.09	.0003	63175.2	3.04	86.63	.0000	184.55	.0563	-28.79	27.42
EXTM	61	439.80	451.05	20	17	14.6	4.94	.0039	-30.57	.0002	95751.8	2.54	19.04	.0000	184.50	.0036	-27.05	351.09
EXTM	7z	467.74	478.99	20	17	42.6	.92	.0040	-28.07	.0002	96190.9	2.48	69.81	.0000	182.34	.0103	-26.84	344.82
RISE	11	624.46	635.71	20	20	16.9	291.84	.0040	-27.80	.0001	124007.5	1.92	.00	.0027	124.80	.0023	-25.86	308.63
SET	51	659.51	670.76	20	20	54.5	90.00	.0039	-24.58	.0001	127538.7	2.53	10.41	-.0033	247.61	-.0013	-25.67	300.52
SET	61	686.96	698.21	20	21	21.8	63.79	.0040	-27.56	.0002	132240.3	2.39	-.00	-.0023	232.69	.0027	-25.54	294.05
SET	7z	852.49	863.74	21	0	7.5	93.63	.0040	-24.49	.0001	152575.0	2.56	-.01	-.0036	245.26	-.0004	-24.83	254.65
RISE	4z	863.83	875.08	21	0	18.7	254.99	.0040	-23.35	-.0000	153688.7	1.63	1.97	.0029	117.46	-.0022	-24.79	251.93
EXTM	11	906.12	917.37	21	1	.9	1.44	.0042	-26.66	.0001	155835.5	1.91	28.12	-.0000	181.46	.0042	-24.63	241.76
SET	11	1185.70	1196.95	21	5	40.5	70.77	.0041	-25.02	.0001	189094.2	2.02	-.00	-.0028	238.82	.0024	-23.79	174.01
EXTM	42	1287.68	1298.93	21	7	22.5	359.86	.0042	-23.15	.0000	193224.9	1.65	77.93	.0000	.64	-.0183	-23.53	149.12
RISE	51	1422.95	1434.20	21	9	37.8	270.00	.0041	-22.55	-.0000	211376.2	1.20	9.58	.0035	110.51	-.0026	-23.23	116.00
RISE	7z	1580.68	1591.93	21	12	15.5	266.67	.0041	-22.69	-.0000	226996.6	1.09	.00	.0037	112.92	-.0006	-22.92	77.27
RISE	61	1640.68	1651.93	21	13	15.5	292.04	.0041	-23.92	.0000	232300.3	1.18	-.01	.0027	122.08	.0027	-22.81	62.51
SET	4z	1710.62	1721.87	21	14	25.5	105.00	.0041	-21.75	.0001	238236.4	1.78	.99	-.0030	243.80	-.0023	-22.68	45.29
EXTM	51	1781.90	1793.15	21	15	36.7	359.97	.0042	-22.48	.0000	238348.8	1.42	86.74	.0000	.63	-.0609	-22.56	27.72
EXTM	61	1913.74	1924.99	21	17	48.6	.58	.0042	-23.64	.0000	252887.9	1.37	26.12	-.0000	180.39	.0043	-22.36	355.19
EXTM	7z	1952.67	1963.92	21	18	27.5	.10	.0042	-22.66	.0000	252773.4	1.36	75.25	.0000	180.38	.0150	-22.30	345.57
RISE	11	2077.96	2089.21	21	20	32.8	287.41	.0042	-22.97	-.0000	268932.5	.99	.00	.0030	118.54	.0024	-22.12	314.60
SET	51	2141.11	2152.36	21	21	35.9	90.00	.0041	-21.50	.0001	272878.6	1.08	9.16	-.0035	250.46	-.0015	-22.03	298.98
SET	61	2186.67	2197.92	21	22	21.5	69.06	.0041	-22.90	.0001	277423.9	1.58	-.00	-.0027	239.35	.0027	-21.97	287.70
SET	7z	2323.30	2334.55	22	0	38.1	93.15	.0041	-21.64	.0001	287799.2	1.67	-.00	-.0038	246.16	-.0005	-21.80	253.87
RISE	4z	2327.20	2338.45	22	0	42.0	255.00	.0041	-21.02	-.0000	288029.9	.91	.55	.0030	115.62	-.0024	-21.80	252.90
EXTM	11	2368.08	2379.33	22	1	22.9	.38	.0042	-22.81	.0000	287776.2	1.23	31.98	-.0000	180.42	.0046	-21.75	242.77
SET	11	2658.14	2669.39	22	6	13.0	73.30	.0042	-22.14	.0000	311959.3	1.49	-.00	-.0030	242.51	.0024	-21.42	170.83
EXTM	42	2745.91	2757.16	22	7	40.7	359.93	.0042	-21.05	.0000	311901.2	1.14	75.83	-.0000	.27	-.0151	-21.35	149.05
RISE	51	2870.51	2881.76	22	9	51.3	270.00	.0041	-20.75	-.0000	325864.7	.72	8.85	.0035	108.85	-.0016	-21.20	116.61
RISE	7z	3033.00	3044.25	22	12	27.8	266.96	.0042	-20.87	-.0000	337326.6	.66	-.01	.0039	111.08	-.0006	-21.03	77.56
RISE	61	3082.36	3093.61	22	13	17.2	289.70	.0042	-21.72	.0000	340546.4	.78	.00	.0028	119.30	.0027	-20.97	65.43
SET	4z	3163.81	3175.06	22	14	38.6	105.00	.0041	-20.23	.0000	345824.4	1.43	.06	-.0031	245.00	-.0024	-20.88	44.87
EXTM	51	3232.44	3243.69	22	15	47.3	359.98	.0042	-20.71	.0000	343969.2	1.08	84.97	-.0000	.32	-.0362	-20.81	27.71
EXTM	61	3361.67	3372.92	22	17	56.5	.38	.0042	-21.56	.0000	355589.0	1.08	28.20	-.0000	180.40	.0045	-20.66	355.38
EXTM	7z	3400.69	3411.94	22	18	35.5	.07	.0043	-20.84	.0000	354945.5	1.08	77.06	.0000	180.29	.0172	-20.62	345.61
RISE	11	3916.67	3927.92	22	20	31.5	285.79	.0042	-21.08	.0000	368720.8	.78	.00	.0031	116.12	.0024	-20.47	316 53
SET	51	3987.89	3999.14	22	21	42.7	90.00	.0042	-19.48	.0001	372718.4	1.62	8.53	-.0036	251.68	-.0016	-20.36	298.63
SET	61	3040.28	3051.53	22	22	35..	71.14	.0043	-20.91	.0001	377903.9	1.98	-.00	-.0028	242.13	.0028	-20.24	285.35
IMPACT		3040.08	3057.33	22	22	40.9												
IMPC	7z	3040.08	3057.33	22	22	40.9	62.71	.0043	-20.24	.0001	375506.9	2.32	28.27	-.0041	251.22	.0003	-20.22	283.86
IMPC	51	3040.08	3057.33	22	22	40.9	104.72	.0043	-19.75	.0001	378953.8	2.32	-3.94	-.0036	245.85	-.0019	-20.22	283.86
IMPC	11	3040.08	3057.33	22	22	40.9	318.75	.0044	-20.95	.0001	376181.8	1.87	21.56	.0024	138.32	.0035	-20.22	283.86
IMPC	61	3040.08	3057.33	22	22	40.9	72.64	.0043	-20.88	.0001	378626.4	2.24	-.99	-.0029	243.11	.0028	-20.22	283.86

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	20	9	54.828	6554.111	7.9676	304.7983	10.97644	-2.1709	117.0001	61.1958
SEPARATION		1.20	12.45	20	9	56.028	6547.878	14.7269	310.8690	10.98162	1.2630	118.7959	68.1672
RETRO		3.20	14.45	20	9	58.028	6641.656	9.0403	320.4678	10.90306	6.9076	120.8835	78.2674
IMPACT		3040.08	3057.33	22	22	40.904	378569.559	-20.2193	283.8640	2.15796	63.0112	301.6432	234.8753

SURVEYOR VIEW PERIODS

GHA	3[illegible]			EPS	-91.9957							LOM	276.0690
SX	-.5386[illegible]	SY	-.7[illegible]	SZ	-.34564[illegible]	HAO	-2[illegible]	RAO	254.93666	RM	3/9832.117	LAT	28.5106[illegible]	LON	279.461800
CS	-1.16[illegible]	ECC	.98[illegible]	SLR	12904.25[illegible]	HCA	6544.[illegible]	LTA	-20.0000	GTA	20.00	TB	6[illegible].00000	POL	-.0
NSX	-.2189[illegible]	NSY	-.7[illegible]	NSZ	-.352[illegible]	HSM	1.47[illegible]	VIM	26.6714	ZIE	135.07[illegible]	B.T	.0000	B.R	-.0000
LAIP	.8790	LONP	7.3492	LATS	1.5002	LONS	99.22[illegible]	LATI	-10.2948	LONI	323.6042	RSM	191.2875	TTAN	5.3359
LAUNCH DATE	AUG 20,1966			BASE AZM	111.0		TF	60.944				ARRIVAL DATE	AUG 22 1966 23		9 53.5

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RI ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
111.00	9 53 50.4	27.9	28.86	304.30	-2.20	65.87	119.12	10 5 5.4	6547.0	10.96	-1.09

EVNT	STA	IFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	20	10	5.1												
SEPARATION		1.20	12.45	20	10	6.3												
RETRO		3.20	14.45	20	10	8.3												
RISE	7c	9.80	18.11	20	10	10.0	85.78	-.1434	27.69	-.0427	2534.8	-8.45	.00	.1319	298.18	-.0225	2.58	326.65
EXTM	7c	9.79	21.99	20	10	14.8	5.96	-.3090	-17.99	-.1744	1459.1	4.08	78.36	-.0000	209.53	-1.6946	-9.78	344.60
RISE	5i	11.34	22.39	20	10	16.2	64.56	-.0822	11.[illegible]	-.0534	5102.4	-3.71	.00	.0960	262.56	-.0122	-12.63	348.97
EXTM	5i	31.47	42.72	20	10	36.6	2.15	-.0351	-33.72	-.0067	8169.8	5.42	81.81	-.0000	192.35	-.1991	-30.23	26.23
EXTM	7c	70.00	81.25	20	11	15.1	283.63	-.0000	-34.03	.0006	23725.7	4.80	15.68	.0000	123.85	-.0006	-33.27	45.75
EXTM	5i	87.52	98.77	20	11	32.4	334.49	-.0002	-34.34	.0007	2[illegible]	4.49	00.38	.0000	117.42	-.0017	-33.03	47.72
RISE	6i	174.97	186.22	20	13	.1	309.46	.0030	-36.91	.0006	509	54	.00	.0019	141.66	.0015	-31.05	51.40
EXTM	5i	257.44	268.69	20	14	22.5	.45	.0035	-30.01	.0005	6[illegible]266.	.68	85.71	-.0000	185.31	.0409	-29.61	27.27
EXTM	6i	431.65	442.88	20	17	16.7	5.34	.0039	-31.21	.0005	945[illegible]	.56	18.38	.0000	184.85	.0035	-27.64	330.67
EXTM	7c	456.30	469.55	20	17	43.4	1.04	.0040	-28.70	.0002	94829.1	2.30	09.18	.0000	182.58	.0100	-27.42	324.70
RISE	1i	610.52	621.77	20	20	41.6	292.32	.0040	-28.29	.0001	123004.5	1.93	.00	.0027	125.45	.0023	-26.32	308.53
SET	5i	649.70	660.95	20	20	54.8	90.00	.0039	-25.03	.0001	126234.5	2.54	10.59	-.0033	247.18	-.0013	-26.13	300.56
SET	6i	674.73	685.96	20	21	19.8	63.14	.0040	-28.06	.0002	130638.1	2.40	-.00	-.0023	231.97	.0027	-26.00	294.67
SET	7c	843.11	854.36	21	0	8.2	93.70	.0039	-24.87	.0001	151443.8	2.37	-.01	-.0036	244.87	-.0004	-25.21	254.61
RISE	4c	854.40	865.63	21	0	19.5	254.94	.0040	-23.72	-.0000	152529.2	1.64	2.20	.0029	117.75	-.0022	-25.17	251.90
EXTM	1i	897.11	908.26	21	1	2.1	[illegible]	.0042	-27.05	.0001	154793.6	1.92	27.73	-.0000	181.55	.0042	-25.00	241.67
SET	1i	1175.10	1186.24	21	5	40.1	70.48	.0041	-25.34	.0001	187925.1	2.02	-.00	-.0028	238.41	.0024	-24.09	174.51
EXTM	4c	1270.51	1281.76	21	7	23.4	359.88	.0042	-23.44	.0000	192205.3	1.65	78.22	-.0000	.35	-.0185	-23.81	149.10
RISE	5i	1413.52	1424.77	21	9	38.6	270.00	.0041	-22.61	-.0000	210367.3	1.20	9.69	.0035	110.75	-.0015	-23.49	115.99
RISE	7c	1571.10	1582.35	21	12	16.2	266.83	.0041	-22.92	-.0000	226002.6	1.09	.00	.0037	113.15	-.0006	-23.15	77.30
RISE	6i	1632.33	1643.58	21	13	17.4	292.31	.0041	-24.15	.0000	231479.7	1.18	.01	.0027	122.42	.0027	-23.03	62.23
SET	4c	1703.11	1714.36	21	14	26.2	105.00	.0041	-21.96	.0001	237395.8	1.78	1.12	-.0030	243.64	-.0023	-22.90	45.29
EXTM	5i	1772.47	1783.72	21	15	37.6	359.98	.0042	-22.69	.0000	237383.1	1.42	86.95	-.0000	.47	-.0575	-22.77	27.71
EXTM	6i	1904.38	1915.63	21	17	49.3	.61	.0042	-23.84	.0000	251955.7	1.37	25.92	-.0000	180.62	.0043	-22.55	355.15
EXTM	7c	1943.21	1954.46	21	18	28.3	.11	.0042	-22.88	.0000	251819.6	1.36	75.05	.0000	180.40	.0149	-22.49	345.56
RISE	1i	2089.12	2080.37	21	20	54.2	247.57	.0042	-23.[illegible]	-.0000	268024.5	.99	.00	.0030	118.77	.0024	-22.30	314.44
SET	5i	2131.58	2142.83	21	21	36.7	90.00	.0041	-21.87	.0001	271909.0	1.68	9.23	-.0035	250.30	-.0015	-22.21	298.99
SET	6i	2170.40	2181.65	21	22	21.5	68.87	.0041	-23.07	.0001	276404.8	1.58	-.00	-.0027	239.11	.0027	-22.14	287.89
SET	7c	2313.87	2325.12	22	0	39.0	93.19	.0041	-21.[illegible]	.0001	286843.2	1.67	-.00	-.0038	240.00	-.0005	-21.96	253.85
RISE	4c	2317.71	2328.96	22	0	42.8	295.00	.0041	-21.[illegible]	-.0000	287059.0	.91	.64	.0030	115.74	-.0023	-21.95	252.90
EXTM	1i	2378.66	2389.91	22	1	25.7	.41	.0042	-22.97	.0000	286034.9	1.23	31.82	-.0000	180.44	.0046	-21.90	242.75
SET	1i	2648.13	2659.38	22	6	15.2	73.19	.0042	-22.29	.0000	310951.7	1.49	-.00	-.0030	242.34	.0024	-21.56	170.95
EXTM	4c	2736.18	2747.43	22	7	41.3	359.85	.0042	-21.[illegible]	.0000	310905.8	1.14	75.96	.0000	.45	-.0159	-21.46	149.09
RISE	5i	2800.98	2812.23	22	9	52.1	270.00	.0041	-20.87	-.0000	324873.2	.72	8.90	.0035	108.96	-.0016	-21.32	116.60
RISE	7c	3023.41	3034.66	22	12	28.5	266.94	.0042	-20.98	-.0000	336312.5	.66	-.01	.0038	111.19	-.0006	-21.13	77.58
RISE	6i	3073.29	3084.54	22	13	18.4	289.81	.0042	-21.63	.0000	339554.9	.77	.00	.0028	119.15	.0027	-21.08	65.11
SET	4c	3159.77	3171.02	22	14	39.4	105.00	.0041	-20.34	.0000	344775.7	.42	.12	-.0031	244.92	-.0024	-20.98	44.87
EXTM	5i	3222.92	3234.17	22	15	48.0	359.98	.0042	-20.[illegible]	.0000	342909.1	1.07	85.08	-.0000	.53	-.0364	-20.91	27.74
EXTM	6i	3356.20	3367.45	22	17	57.3	.59	.0042	-21.56	.0000	354498.5	1.07	28.10	-.0000	180.41	.0045	-20.76	355.37
EXTM	7c	3391.71	3402.96	22	18	36.5	.07	.0043	-20.74	.0000	353829.2	1.07	76.96	.0000	180.29	.0171	-20.71	345.60
RISE	1i	3507.55	3518.80	22	20	32.6	295.87	.0042	-21.18	.0000	367544.9	.76	.00	.0031	116.24	.0024	-20.56	316.45
SET	5i	3578.50	3589.75	22	21	43.6	90.00	.0042	-20.08	.0000	371398.8	1.57	8.57	-.0036	251.79	-.0016	-20.46	298.63
SET	6i	3630.59	3641.84	22	22	35.7	71.01	.0042	-21.03	.0001	376211.7	1.67	-.00	-.0028	241.96	.0028	-20.36	285.48
IMPACT		3650.64	3661.89	22	23	1.7												
IMPC	7c	3650.64	3661.89	22	23	1.7	67.77	.0043	-20.28	.0001	376062.2	2.33	23.52	-.0041	251.26	.0001	-20.28	278.86
IMPC	1i	3650.64	3661.89	22	23	1.7	323.81	.0044	-21.04	.0001	376004.0	1.69	24.12	.0022	142.86	.0038	-20.28	278.84
IMPC	6i	3650.64	3661.89	22	23	1.7	77.69	.0043	-20.92	.0001	376090.3	2.24	-4.50	-.0030	240.26	.0028	-20.28	278.84

EVNT	STA	IFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION		.00	11.25	20	10	5.091	6547.031	16.8645	304.2954	10.98199	-1.0878	119.1205	63.8654
SEPARATION		1.20	12.45	20	10	6.291	6535.645	15.4126	310.1984	10.9746[illegible]	2.3343	120.7428	78.0693
RETRO		3.20	14.45	20	10	8.291	6[illegible]3.363	7.4555	319.5014	10.8[illegible]44	7.9434	122.5250	79.8736
IMPACT		3650.64	3661.89	22	23	1.726	3[illegible]6053.016	-20.2767	278.8409	2.15347	62.7651	301.9285	235.0721

SURVEYOR VIEW PERIODS

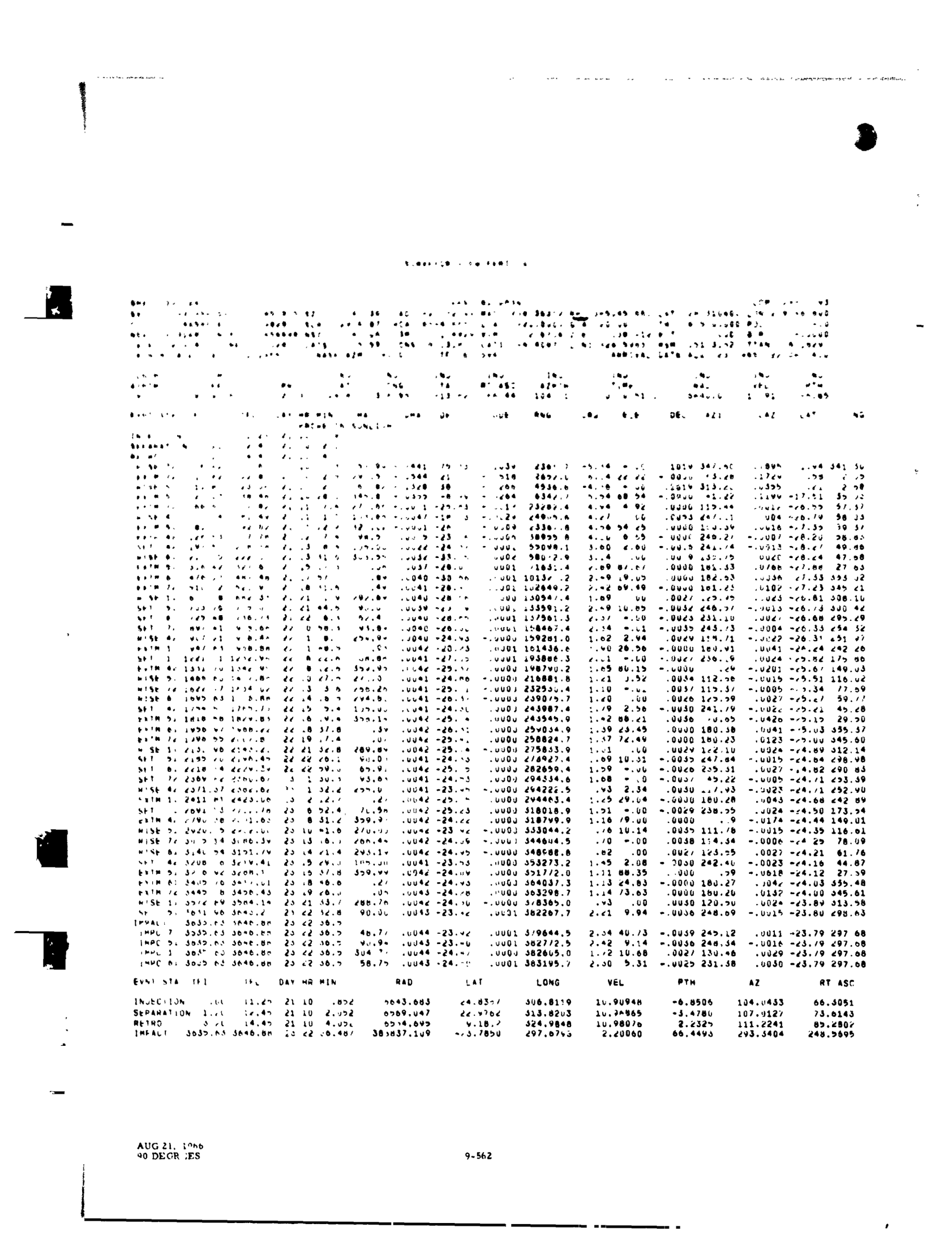
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CS -1.178666 ECC .980647 SLR 12962.676 HCA 6544.6650 LTA -20.0000 GTA 20.00 TB 675.00000 POL -.0
NSX -.514889 NSY -.780716 NSZ -.354079 C3M 1.4970 VIM 2.6714 Z/E 134.567 B.T .0000 B.R -.0000
LATP .9092 LONE 7.3519 LATS 1.5003 LONS 98.9890 LATI -10.6027 LONI 323.1588 RSM 151.2684 ITAN 5.3259
LAUNCH DATE AUG 20,1966 BASE AZM 115.0 TF 61.215 ARRIVAL DATE AUG 22 1966 23 37 48.8

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPTH
115.00	10 5 36.9	28.0	15.44	303.52	.23	66.05	121.93	10 16 51.9	6544.7	10.98	.11

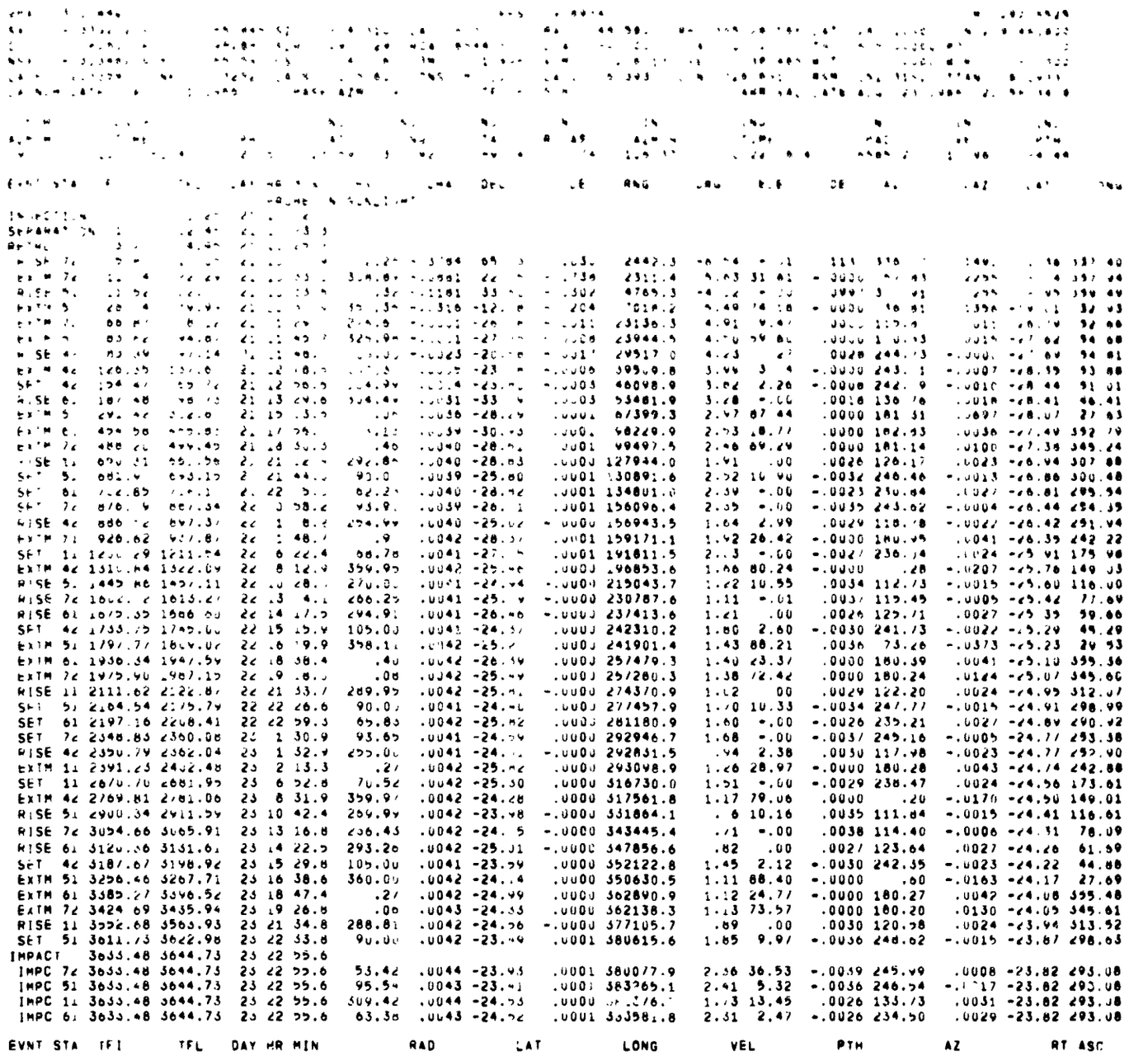
EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
					PROBE IN SUNLIGHT												
INJECTION	.00	11.25	20	10	16.9												
SEPARATION	1.20	12.45	20	10	18.1												
RETRO	5.20	16.45	20	10	20.1												
RISE 7A	9.77	16.02	20	10	21.6	86.97	-.1281	20.89	-.0715	2661.8	-7.99	-.01	.1289	291.10	-.0532	.60	324.61
EXTM 7A	10.11	21.36	20	10	27.0	12.08	-.2797	-31.58	-.1266	1774.2	4.51	63.79	-.0000	203.80	-.6108	-12.03	343.35
RISE 5A	11.19	22.44	20	10	28.1	86.86	-.0754	6.44	-.0369	5300.1	-3.31	.00	.0923	277.15	-.0185	-15.20	346.59
EXTM 5A	34.40	45.65	20	10	51.3	2.01	-.0282	-38.28	-.0032	9328.2	5.58	77.35	-.0000	187.21	-.1023	-33.20	26.56
EXTM 7A	70.06	81.31	20	11	26.9	286.12	-.0001	-36.95	.0009	23667.9	4.78	17.60	.0000	126.35	-.0009	-35.04	43.19
EXTM 5A	86.15	97.40	20	11	43.0	337.56	-.0005	-36.55	.0009	24669.0	4.41	60.04	.0000	124.90	-.0027	-34.69	45.14
RISE 6A	173.99	185.24	20	13	10.9	311.85	.0030	-38.24	.0007	50849.0	3.34	.00	.0019	144.18	.0015	-32.27	39.12
EXTM 5A	245.98	257.23	20	14	22.8	.75	.0035	-31.34	.0004	59201.2	3.13	84.36	-.0000	186.52	.0303	-30.80	27.01
EXTM 6A	423.18	434.43	20	17	20.0	6.02	.0039	-32.1	.0003	93398.0	2.57	17.44	.0000	185.34	.0035	-28.48	350.08
EXTM 7A	448.10	459.35	20	17	55.0	1.24	.0040	-29.60	.0002	93346.7	2.52	68.28	.0000	182.91	.0095	-28.24	344.52
RISE 11	608.84	620.09	20	20	25.7	293.00	.0040	-28.98	.0001	121962.3	1.94	.00	.0027	126.37	.0023	-26.98	307.62
SET 5A	638.79	650.04	20	20	55.7	90.00	.0039	-25.69	.0002	124754.0	2.55	10.85	-.0033	246.57	-.0013	-26.79	300.61
SET 6A	660.22	671.47	20	21	17.1	62.32	.0040	-28.77	.0002	128795.8	2.41	-.00	-.0022	230.92	.0027	-26.66	295.67
SET 7A	832.74	843.99	21	0	9.6	93.79	.0039	-25.41	.0001	150161.5	2.37	-.00	-.0035	244.32	-.0004	-25.76	254.55
RISE 4A	843.91	855.16	21	0	20.8	254.99	.0040	-24.25	.0000	151201.2	1.65	2.52	.0029	118.17	-.0022	-25.71	251.88
EXTM 1A	887.01	898.26	21	1	3.9	1.69	.0042	-27.59	.0001	153628.1	1.92	27.18	.0000	181.68	.0041	-25.52	241.92
SET 1A	1162 67	1173.92	21	5	39.5	70.07	.0041	-25.79	.0001	186533.3	2.02	-.00	-.0028	237.83	.0024	-24.52	174.73
EXTM 4A	1267.55	1278.79	21	7	24.4	359.84	.0042	-23.85	.0000	190985.4	1.65	78.63	-.0000	.76	-.0193	-24.21	149.14
RISE 5A	1402.97	1414.22	21	9	39.8	270.00	.0041	-23.7	-.0000	219176.7	1.20	9.84	.0034	111.09	-.0015	-23.86	115.98
RISE 7A	1580.27	1591.52	21	12	17.1	266.57	.0041	-23.25	.0000	224815.5	1.09	-.01	.0037	113.49	-.0006	-23.49	77.65
RISE 6A	1623.15	1634.40	21	13	20.0	292.60	.0041	-24.48	.0000	230441.3	1.18	.00	.0027	122.87	.0027	-23.35	61.86
SET 4A	1690.43	1701.68	21	14	27.3	105.00	.0041	-22.27	.0001	236204.8	1.78	3.31	-.0030	243.39	-.0023	-23.21	49.30
EXTM 5A	1761.79	1773.04	21	15	38.7	359.97	.0042	-23.00	.0000	236212.6	1.42	87.26	.0000	.64	-.0705	-23.07	27.71
EXTM 6A	1893 91	1905.16	21	17	50.8	.66	.0042	-24.12	.0000	250831.0	1.37	25.61	-.0000	180.67	.0043	-22.83	355.10
EXTM 7A	1932.58	1943.83	21	18	29.4	.12	.0042	-23.13	.0000	250661.1	1.36	74.77	.0000	180.43	.0147	-22.76	345.55
RISE 11	2059.38	2070.61	21	20	36.2	287.79	.0042	-23.41	.0000	266921.1	.99	.00	.0030	119.10	.0024	-22.55	314.21
SET 5A	2120.85	2132.10	21	21	37.7	90.10	.0041	-21.91	.0001	270714.5	1.68	9.33	-.0035	250.08	-.0015	-22.45	298.99
SET 6A	2164.61	2175.86	21	22	21.5	68.61	.0042	-23.32	.0001	275136.6	1.58	-.00	-.0027	238.76	.0027	-22.38	288.16
SET 7A	2303.29	2314.54	22	0	40.2	93.22	.0041	-22.00	.0001	285658.4	1.67	-.01	-.0038	247.78	-.0005	-22.18	253.81
RISE 4A	2307.01	2318.26	22	0	43.9	255.00	.0041	-21.59	-.0000	285849.5	.91	.77	.0030	115.91	-.0023	-22.18	252.89
EXTM 1A	2348.06	2359.31	22	1	24.9	.44	.0042	-23.19	.0000	285664.7	1.23	31.60	-.0000	180.47	.0045	-22.12	242.72
SET 1A	2638.69	2649.94	22	6	13.6	73.02	.0042	-22.48	.0000	309569.6	1.49	-.00	-.0030	242.10	.0024	-21.74	171.12
EXTM 4A	2725.43	2736.68	22	7	42.3	359.89	.0042	-21.56	.0000	309655.7	1.14	74.14	.0000	.43	-.0107	-21.64	149.09
RISE 5A	2858.22	2869.47	22	9	53.1	270.00	.0041	-21.03	-.0000	323600.6	.72	8.97	.0035	109.11	-.0016	-21.49	116.69
RISE 7A	3012.68	3023.93	22	12	29.5	266.92	.0042	-21.13	-.0000	339012.0	.66	-.01	.0038	111.35	-.0006	-21.29	77.60
RISE 6A	3063.29	3074.54	22	13	20.2	289.97	.0042	-21.98	.0000	338285.8	.77	.00	.0028	119.36	.0027	-21.25	64.95
SET 4A	3140.58	3151.83	22	14	40.6	105.00	.0041	-20.48	.0000	343424.4	1.41	.21	-.0033	244.81	-.0024	-21.13	44.88
EXTM 5A	3212.24	3223.49	22	15	49.1	359.98	.0042	-20.96	.0000	341541.2	1.07	85.22	-.0000	.45	-.0376	-21.15	27.71
EXTM 6A	3341.58	3352.83	22	17	58.4	.40	.0042	-21.80	.0000	353088.8	1.06	27.96	-.0000	180.42	.0045	-20.89	355.35
EXTM 7A	3380.54	3391.79	22	18	37.4	.07	.0043	-21.08	.0000	352383.6	1.06	76.83	.0000	180.50	.0170	-20.84	345.60
RISE 11	3497.35	3508.60	22	20	34.2	285.98	.0042	-21.31	.0000	366026.1	.74	.00	.0031	116.41	.0024	-20.69	316.33
SET 5A	3556.87	3568.12	22	21	44.7	90.00	.0042	-20.9	.0000	369721.9	1.52	8.62	-.0036	251.67	-.0016	-20.59	298.63
SET 6A	3619.49	3630.74	22	22	36.4	70.86	.0042	-21.18	.0001	374276.6	1.53	-.00	-.0028	241.75	.0028	-20.50	285.64
IMPACT	3672.87	3684.12	22	23	29.7												
IMPC 7A	3672.87	3684.12	22	23	29.7	74.57	.0043	-20.33	.0001	376839.0	2.53	17.15	-.0041	251.09	-.0001	-20.36	272.08
IMPC 11	3672.87	3684.12	22	23	29.7	330.66	.0044	-21.13	.0001	375817.3	1.71	27.17	.0019	149.08	.0041	-20.36	272.08

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPTH	AZ	RT ASC
INJECTION	.00	11.25	20	10	16.866	6544.691	15.4393	303.5246	10.98328	.1123	121.9314	66.0465
SEPARATION	1.20	12.45	20	10	18.066	6569.826	11.7123	309.2048	10.96197	3.5308	123.3373	72.0274
RETRO	5.20	16.45	20	10	20.066	6714.075	5.4084	318.1172	10.84241	9.0919	124.7436	81.4412
IMPACT	3672.87	3684.12	22	23	29.738	3780.961	-20.3590	272.0342	2.14659	62.2257	302.1383	235.3374

AUG 20, 1966
115 DEGREES



EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION		.00	11.45	21	10	.852	6643.683	24.8357	306.8119	10.90948	-6.8506	104.0433	66.3051
SEPARATION		1.21	12.45	21	10	2.052	6569.047	22.9762	313.8203	10.78865	-5.4780	107.9127	73.6143
RETRO		3.21	14.45	21	10	4.052	6514.695	21.18.2	324.9848	10.98076	2.2325	111.2241	85.2802
IMPACT		3635.83	3646.88	23	22	36.487	383837.109	-23.7850	297.6763	2.20060	66.4493	293.3404	248.5695



EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION		.00	11.25	21	10	22.107	6585.859	-23.594	306.8793	10.95538	-4.4793	106.3554	71.7008
SEPARATION		1.20	12.45	21	10	23.307	6546.993	-21.480	313.7173	10.98749	-1.0669	109.0964	78.8396
RETRO		3.20	14.45	21	10	25.307	6588.045	-17.351	324.6012	10.95287	4.6344	112.4954	90.4249
IMPACT		3633.48	3644.73	23	22	55.584	3839.020	-23.8242	293.0774	2.20023	66.2470	293.1586	248.7544

AUG 21, 1966
93 DEGREES

GMT	3[illegible]							PHS	-[illegible]									LON	28[illegible]
SP	[illegible]	SX	-[illegible]	SZ	-[illegible]	AP	[illegible]	MAG	268.80594	RP	3[illegible]	LAT	20.[illegible]	LON	2[illegible]
EC	[illegible]	HYP	[illegible]	SLM	[illegible]	MOA	[illegible]	LTA	[illegible]	G A	20.00	TA	675.000100	POI	-.0
NSX	[illegible]	RAP	-[illegible]	NSZ	-[illegible]	SM	[illegible]	VIM	2.6713	R	.58	B T	.000	B.R	-.0000
LA P	[illegible]	NP	[illegible]	LA.S	[illegible]	ONS	[illegible]	LATI	-0.4651	NI	26.6 .1	RSM	251.3197	TTAN	6.2505
LAUNCH DATE	[illegible]			MASS AZM	[illegible]			TP	[illegible]			ARRIVAL DATE AUG		23 1966		23 1[illegible]		28.4	

EXIM AZMIN	EXIM RAD	PM LAT	INJ LONG	INJ A	INJ RT ASC	INJ AZMIN	INJ TIME	INJ RAD	INJ VEL	INJ PTH
[illegible]	[illegible]	27.8	22 54	3 [illegible] 79	-5[illegible]	76.13	108.58	0 40 18.2	[illegible]	1[illegible] 98	-2 48

EVNT	STA	TFI	TFL	DAY	HR	MIN	RA	DEC	VDE	RNG	VRG	ELE	DEC	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT										
IN REGION			2 27	21	10	40.3											
SEPARATION			2.45	21	10	41.3											
RETRO		3 70	14.45	21	10	43.3											
MISE	7[illegible]	5 [illegible]	8.5[illegible]	21	10	45.8	[illegible].53	-.2692	57. 2	.0777	2533.9	-7.77	.00	.1213	526.08	.1122	[illegible].52	334.22
EXIM	7[illegible]	[illegible] 83	21.86	21	10	50.9	52 .05	-.1292	20.[illegible]	-. 865	2066.8	5[illegible].6	42.10	-.0000	92.37	.2994	-1.02	334 50
MISE	5	1[illegible] 81	22.56	21	10	54.8	74.1[illegible]	-.1069	29.[illegible]	-.0535	4974.1	-3.86	00	.0974	303.10	.0173	-2.28	336.64
EXIM	5[illegible]	3[illegible] 47	4[illegible].7[illegible]	21	11	[illegible].8	353.92	-.0250	-16.[illegible]	-.[illegible]54	7746.1	5.45	79.16	-.0000	32.08	.1653	-2[illegible].69	31.11
EXIM	7[illegible]	87.5[illegible]	[illegible]8.77	21	11	47.8	281.07	-.0030	-27.[illegible]	-.0004	23124.9	4.67	13.43	.0000	116.76	.0009	-27.34	48.64
EXIM	5	[illegible] 19	47.04	21	12	6.1	331.14	-.0010	-28. [illegible]	-.0005	24518.0	4.44	64.22	.0000	101.86	.0013	-28.14	30.60
MISE	6[illegible]	108 89	181.1[illegible]	21	13	29.2	305.7[illegible]	.0027	-34.[illegible]2	.0003	496[illegible].5	3.42	- 00	.0017	138.09	.0016	-28.77	44.85
EXIM	5[illegible]	2[illegible].68	281.93	21	15	10.0	.04	.0036	-28.[illegible]	.0001	53602.6	5.65	87.05	.0000	181.26	.0596	-28.42	27.60
EXIM	6[illegible]	436 [illegible]1	447.76	21	17	55.8	5.45	.0039	-31.[illegible]6	.0002	95608.5	2.57	18.39	.0000	183.09	.0035	-27.76	352.51
EXIM	7[illegible]	469 55	481.80	21	18	29.9	.59	.0040	-28.[illegible]2	.0001	98837.0	2.49	88.97	-.0000	181.41	.0096	-27.65	345.13
MISE	1[illegible]	633.15	644.4[illegible]	21	21	13.2	293.1[illegible]	.0040	-29.[illegible]	.0000	125744.6	1.94	.00	.0026	126.32	.0023	-27.15	307.58
SET	5[illegible]	665.30	676.5[illegible]	21	21	43.6	90.0[illegible]	.0039	-26.[illegible]	.0001	128533 6	2.54	10.98	-.0032	246.28	-.0013	-27.08	300.53
SET	6[illegible]	685 [illegible]	696.25	21	22	3.3	61.91	.0040	-29.08	.0001	132317.5	2.41	-.00	-.0022	230.46	.0027	-27.02	295 90
SET	7[illegible]	698.[illegible]2	709.27	22	0	38.3	93.94	.0039	-28.[illegible]9	.0001	134031.1	2.37	-.00	-.0035	243.44	-.0004	-26.63	294.36
MISE	4[illegible]	800 [illegible]3	8[illegible].48	22	1	8.5	254.9[illegible]	.0040	-29. 8	-.0003	154897.0	1.85	3.09	.0029	118.91	-.0022	-26.61	291.91
EXIM	1[illegible]	908 87	9[illegible].1[illegible]	22	1	49.2	1.02	.0042	-28.[illegible]	.0001	1572[illegible].8	1.93	26.21	-.0000	181.00	.0041	-26.53	242.17
SET	1[illegible]	1184 82	1 93.07	22	6	22.	68.62	.0041	-27.[illegible]	.0001	189948.9	2.04	-.00	-.0027	235 83	.0024	-26.06	176.15
EXIM	4[illegible]	1295.[illegible]5	1304.3[illegible]	22	8	13.4	359.95	.0042	-25. 0	.0000	195131.6	1.87	80.38	-.0000	.29	-.0210	-25.90	149.03
MISE	5[illegible]	1478 [illegible]7	1489.5[illegible]	22	10	28.8	270.3[illegible]	.0041	-25.[illegible]7	- 0003	213396.6	1.63	10.60	.0034	112.85	-.0015	-25.73	115.99
MISE	7[illegible]	1584 89	1595.6[illegible]	22	13	4.7	266.25	.0041	-25.[illegible]1	-.0003	229210.5	1.12	-.01	.0037	115.57	-.0005	-25.54	77.70
MISE	6[illegible]	1699.[illegible]7	1709.8[illegible]	22	14	18.7	293.03	.0041	-26.[illegible]6	-.0003	235924.8	1.21	.00	.0026	125.89	.0027	-25.46	59 51
SET	4[illegible]	1 16.14	1727.39	22	15	16.4	105.00	.0041	-24.[illegible]8	.0000	2407[illegible].6	1.80	2.67	-.0030	241.65	-.0022	-25.40	45.30
EXIM	5[illegible]	1781 [illegible]6	1791.51	22	16	20.9	356.07	.0042	-25.[illegible]2	.0000	240392.5	1.44	88.21	.0037	77.01	-.0296	-25.34	29.36
EXIM	6[illegible]	1[illegible]8 86	[illegible]30.11	22	18	39.2	.42	.0042	-26.[illegible]0	.0000	256047.1	1.40	23.26	.0000	180.40	.0041	-25.20	355.34
EXIM	7[illegible]	1958.38	1969.63	22	19	18.7	.08	.0042	-25.[illegible]9	.0000	255849.3	1.39	72.51	.0000	180.25	.0122	-25.17	345 59
MISE	1[illegible]	2044 [illegible]0	2[illegible]5.7[illegible]	22	21	14.8	290.05	.0042	-25.[illegible]1	-.0004	273008.2	1.03	.00	.0029	122.33	.0024	-25.05	311.97
SET	5[illegible]	2147.[illegible]0	2158.25	22	22	27.5	90.00	.0041	-24.49	.0000	2760[illegible].6	1.70	10.37	-.0034	247.69	-.0015	-25.01	298.99
SET	6[illegible]	2179.18	2[illegible].46	22	22	59.5	65.72	.0041	-25.92	.0003	2797[illegible].4	1.60	-.00	-.0026	235.07	.0027	-24.98	291.04
SET	7[illegible]	2351.56	2362.[illegible]	23	1	31.7	95.66	.0041	-24.68	.0004	291617.8	1.69	- 00	-.0037	245.07	-.0005	-24.86	253.58
MISE	4[illegible]	2332.32	2344.5[illegible]	23	1	33.6	255.0[illegible]	.0041	-24. 0	-.0000	271496.7	.95	2.43	.0030	118.05	-.0023	-24.86	252.89
EXIM	1[illegible]	2373. 8	2385.03	23	2	14.1	.28	.0042	-25.[illegible]	.0000	291790.0	1.26	26.88	-.0000	180.29	.0043	-24.83	242.87
SET	1[illegible]	2[illegible]052.91	2[illegible]64.16	23	8	53.2	70.45	.0042	-25.[illegible]8	.0000	315448.6	1.51	-.00	-.0029	238.56	.0024	-24.64	173.69
EXIM	4[illegible]	2[illegible]5[illegible] 35	2[illegible]03.6[illegible]	23	8	32.6	359.9[illegible]	.0042	-24.[illegible]6	.0000	316321.1	1.17	79.14	.0000	.19	-.0184	-24.57	149.02
MISE	5[illegible]	2[illegible]882.[illegible]6	2[illegible]894.15	23	10	43.2	269.9[illegible]	.0042	-24.[illegible]5	-.0300	330654.0	.[illegible]6	10.19	.0035	111.90	-.0015	-24.48	116.60
MISE	7[illegible]	3037 [illegible]9	3048.44	23	13	[illegible].[illegible]3	[illegible]66.4[illegible]	.0042	-24.[illegible]2	-.0000	342233.3	.[illegible]1	-.00	.0038	114.47	-.0006	-24.37	78.10
MISE	5[illegible]	3105 [illegible]3	3[illegible]14.48	23	14	23.5	293.33	.0042	-25.[illegible]8	-.0000	346665.9	.82	.00	.0027	125.73	.0027	-24.33	61.61
SET	4[illegible]	3[illegible]1[illegible] [illegible]1	3181.46	23	15	30.5	105.00	.0041	-23.[illegible]3	.0000	350901.6	1.45	2.16	-.0030	242.31	-.0023	-24.28	44.88
EXIM	5[illegible]	3234.[illegible]9	3245.84	23	16	54.9	358.87	.0042	-24.[illegible]1	.0000	349114.1	1.[illegible]0	86.16	.0021	34.09	- 1005	-24.24	28.80
EXIM	6[illegible]	3307.[illegible]3	3[illegible]9.16	23	18	48.2	.27	.0042	-25.[illegible]5	.0000	361650.9	1.12	24.71	-.0000	180.27	.0042	-24.14	355.48
EXIM	7[illegible]	3407.29	3418.54	23	19	27.6	.06	.0043	-24.[illegible]0	.0000	360880.7	1.[illegible]2	73.51	.0000	180.20	.0128	-24.12	345.61
MISE	1[illegible]	3535.60	3546.85	23	21	35.9	288.87	.0042	-24.[illegible]3	-.0000	3[illegible]5756.1	.86	.00	.0030	120.66	.0024	-24.01	313.46
SET	[illegible]	3594.51	3605.76	23	22	34.8	90.00	.0042	-23.[illegible]6	.0000	379031.7	1.71	10.00	-.0035	248.55	-.0015	-23.94	298.63
S.[illegible]	6[illegible]	3631.[illegible]0	3642.8[illegible]	23	23	11.9	67.25	.0043	-24.[illegible]6	.0001	383395.9	2.07	.00	-.0027	237.01	.0028	-23.88	289.23
IMPACT		3650.38	3661.63	23	23	16.7												
IMPC	7[illegible]	3650.38	3661.63	23	23	16.7	58.50	.0043	-23.[illegible]5	.0001	380580.3	2.38	31.87	-.0039	246.65	.0006	-23.87	287.99
IMPC	5[illegible]	3650.38	3661.63	23	23	16.7	100.61	.0043	-23.[illegible]3	.0001	3838[illegible].2	2.40	1.17	-.0035	244.43	-.0014	-23.87	287.99
IMPC	1[illegible]	3650.38	3661.63	23	23	16.7	314.55	.0044	-24.[illegible]4	.0000	382145.4	1.75	16.34	.0024	137.53	.0033	-23.87	287.99
IMPC	6[illegible]	3650.38	3661.63	23	23	16.7	88.50	.0043	-24.[illegible]4	.0001	384020.9	2.32	-.79	-.0027	237.83	.0028	-23.87	287.99

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	21	10	40.303	6557.088	22.3888	306.7404	10.97900	-2.4773	108.5768	76.1233
SEPARATION		1.20	12.45	21	10	41.503	6546.481	20.0369	313.4219	10.98781	.9495	111.1066	83.1056
RETRO		3.70	14.45	21	10	43.503	3633.407	15.5938	323.9826	10.91495	6.6130	114.5032	94.1677
IMPACT		3650.38	3661.63	23	23	16.679	3859[illegible].398	-[illegible].8674	287.9930	2.19835	66.1447	293.2400	248.9582

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SURVEYOR VIEW PERIODS

GHA	330.846					EPS	-79.5344						LON	282.2365	
SX	-.327786	SY	-.853775	SZ	-.404504	DAU	-27.8635	RAD	248.99722	RM	385281.555	LAT	28.510600	LON	279.461800
CJ	-1.04681	ECC	.9828.2	SLR	.2978.84	NCA	6544.6650	LTA	-20.0000	GTA	20.00	TH	675.00000	POL	-.0
NSX	-.366969	NSY	-.859295	NSZ	-.40942	LSM	1.4475	VIM	2.6715	ZAE	138 287	B.T	.0000	B.R	-.0000
LAME	2.5779	LONE	7.3191	LATS	1.5362	LONS	80.767	LATI	-6.6044	LONI	326.5133	RSM	191.3174	TTAN	6.2055
LAUNCH DATE		AUG	21.1966		BASE AZM	99.0		TF	60.664			ARRIVAL DATE		AUG 23 1966 23 3V 47.7	

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ TA	INJ RI ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99.00	10 44	2.9	27.9	21.21	326.45	-1.71	79.60	110.74	10 55 17.9	6546.1	10.99	-.85

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	21	10	55.3												
SEPARATION	1.20	12.45	21	10	56.5												
RETRO	3.20	14.45	21	10	58.5												
RISE 72	5.00	16.25	21	11	.3	80.42	-.2187	50.17	.0509	2623.3	-7.69	-.00	.1259	320.84	.0797	9.49	331.57
EXTM 72	9.67	20.92	21	11	5.0	341.04	-.2246	25.49	-.2180	1737.7	3.25	51.85	.0805	28.34	.4640	-.95	349.41
RISE 51	11.18	22.43	21	11	6.5	76.65	-.0981	25.59	-.0368	5156.8	-3.62	-.00	.0952	298.65	.0104	-3.78	354.11
EXTM 51	32.29	43.54	21	11	27.6	356.72	-.0250	-20.07	-.0122	8482.3	5.41	83.58	-.0000	28.74	.2362	-22.51	29.59
EXTM 72	68.40	79.65	21	12	3.7	284.78	.0000	-29.10	-.0007	23217.3	4.84	16.72	.0000	118.10	.0007	-28.16	45.31
EXTM 51	87.99	99.24	21	12	23.3	335.46	.0000	-29.23	-.0004	25114.9	4.40	68.00	.0000	104.70	.0011	-28.88	47.20
RISE 61	155.46	166.71	21	13	30.8	307.26	.0027	-35.59	.0004	46850.5	3.52	-.00	.0017	139.67	.0015	-29.31	43.10
EXTM 51	251.44	262.69	21	15	6.7	.14	.0035	-29.26	.0001	60330.6	3.12	86.48	.0000	181.95	.0488	-28.92	27.96
EXTM 61	422.10	433.35	21	17	57.4	3.80	.0039	-31.77	.0002	93506.8	2.60	17.91	.0000	183.39	.0035	-28.14	352.17
EXTM 72	454.07	465.32	21	18	29.4	.64	.0040	-29.54	.0001	94600.1	2.52	68.56	-.0000	181.52	.0096	-28.01	345.08
RISE 11	619.59	630.84	21	21	14.9	293.45	.0040	-29.42	.0000	123987.7	1.96	.00	.0026	126.95	.0023	-27.45	307.22
SET 51	648.01	659.26	21	21	43.3	90.00	.0038	-26.28	.0001	126567.0	2.56	11.09	-.0032	246.02	-.0013	-27.37	300.58
SET 61	666.06	677.31	21	22	1.4	61.51	.0040	-29.41	.0001	130167.4	2.43	-.00	-.0022	229.97	.0027	-27.31	296.35
SET 72	843.26	854.51	22	0	58.6	93.98	.0039	-26.53	.0001	152322.4	2.38	-.00	-.0035	243.20	-.0004	-26.87	294.35
RISE 42	853.58	864.83	22	1	8.9	254.99	.0040	-25.41	-.0000	153193.3	1.67	3.23	.0029	119.09	-.0022	-26.85	291.88
EXTM 11	894.44	905.69	22	1	49.7	1.10	.0042	-28.83	.0001	155601.2	1.94	25.95	-.0000	181.07	.0040	-26.76	292.10
SET 11	1166.39	1177.64	22	6	21.7	68.45	.0041	-27.52	.0001	188369.7	2.04	-.00	-.0027	235.56	.0024	-26.25	176.36
EXTM 42	1278.60	1289.85	22	8	13.9	359.95	.0042	-25.78	.0000	193697.1	1.68	20.56	-.0000	.30	-.0215	-26.08	149.03
RISE 51	1413.84	1425.09	22	10	29.1	270.00	.0041	-25.22	-.0000	212019.6	1.24	10.66	.0034	112.99	-.0015	-25.89	115.97
RISE 72	1569.89	1581.14	22	13	5.2	266.20	.0041	-25.45	-.0000	227887.8	1.13	-.01	.0037	115.72	-.0005	-25.69	77.71
RISE 61	1644.65	1655.90	22	14	20.0	295.22	.0041	-26.73	-.0000	234696.2	1.22	.00	.0026	126.10	.0027	-25.60	59.54
SET 42	1701.67	1712.92	22	15	17.0	105.00	.0041	-24.61	.0000	239490.6	1.81	2.75	-.0030	241.55	-.0022	-25.54	45.31
EXTM 51	1765.50	1776.75	22	16	20.8	358.04	.0042	-25.46	.0000	239123.3	1.44	88.21	.0038	81.44	-.0204	-25.47	29.60
EXTM 61	1904.55	1915.80	22	18	39.8	.44	.0042	-26.63	.0000	254847.6	1.40	23.13	.0000	180.43	.0041	-25.32	355.32
EXTM 72	1944.00	1955.25	22	19	19.3	.09	.0042	-25.71	.0000	254645.1	1.39	72.19	.0000	180.26	.0122	-25.29	345.59
RISE 11	2080.56	2091.81	22	21	35.9	290.15	.0042	-26.02	-.0000	271865.4	1.03	.00	.0029	122.48	.0024	-25.16	311.86
SET 51	2132.59	2143.84	22	22	27.9	90.00	.0041	-24.60	.0000	274897.0	1.71	10.41	-.0034	247.59	-.0015	-25.11	299.00
SET 61	2164.22	2175.47	22	22	59.5	65.58	.0041	-26.03	.0000	278564.9	1.61	.01	-.0026	234.90	.0027	-25.09	291.18
SET 72	2317.03	2328.28	23	1	32.3	93.66	.0041	-24.77	.0001	290489.4	1.69	-.00	-.0037	244.97	-.0005	-24.96	253.37
RISE 42	2318.96	2330.21	23	1	34.3	255.30	.0041	-24.19	-.0000	290360.6	.95	2.49	.0030	118.12	-.0023	-24.96	252.89
EXTM 11	2359.47	2370.72	23	2	14.8	.30	.0042	-26.01	.0000	290680.2	1.27	28.78	-.0000	180.31	.0043	-24.92	242.86
SET 11	2638.22	2649.47	23	6	53.5	70.37	.0042	-25.46	.0000	314346.2	1.52	-.00	-.0029	238.25	.0024	-24.72	173.77
EXTM 42	2737.98	2749.23	23	8	33.3	359.96	.0042	-24.44	.0000	315254.5	1.18	79.22	.0010	.21	-.0180	-24.65	149.02
RISE 51	2868.60	2879.85	23	10	43.9	270.00	.0041	-24.13	-.0000	329428.9	.77	10.22	.0035	111.97	-.0015	-24.56	116.59
RISE 72	3022.85	3034.10	23	13	18.1	266.40	.0042	-24.29	-.0000	341192.9	.71	-.00	.0038	114.53	-.0006	-24.44	78.10
RISE 61	3089.23	3100.48	23	14	24.5	293.41	.0042	-25.15	-.0000	345645.0	.82	.00	.0027	123.83	.0027	-24.39	61.53
SET 42	3155.89	3167.14	23	15	31.2	105.00	.0041	-23.71	.0000	349850.3	1.45	2.19	-.0030	242.26	-.0023	-24.35	44.88
EXTM 51	3220.29	3231.54	23	16	35.6	358.87	.0042	-24.27	.0000	348062.1	1.10	88.21	.0022	35.18	-.1021	-24.30	28.79
EXTM 61	3353.58	3364.83	23	18	48.9	.28	.0042	-25.12	.0000	360584.7	1.11	24.65	-.0000	180.28	.0042	-24.20	355.47
EXTM 72	3393.00	3404.25	23	19	28.3	.05	.0043	-24.46	.0000	359798.0	1.12	73.45	.0000	180.20	.0130	-24.17	345.61
RISE 11	3521.58	3532.83	23	21	36.9	288.93	.0042	-24.69	-.0000	374607.5	.84	.00	.0030	120.74	.0024	-24.07	313.40
SET 51	3580.32	3591.57	23	22	35.6	90.00	.0042	-23.62	.0000	377743.3	1.65	10.02	-.0035	248.50	-.0015	-24.01	299.64
SET 61	3617.21	3628.46	23	23	12.5	67.17	.0042	-24.64	.0001	381794.2	1.74	-.00	-.0027	236.90	.0028	-23.95	289.32
IMPACT	3639.86	3651.11	23	23	35.2												
IMPC 72	3639.86	3651.11	23	23	35.2	63.05	.0043	-23.96	.0001	381041.3	2.39	27.78	-.0040	247.03	.0004	-23.91	283.54
IMPC 51	3639.86	3651.11	23	23	35.2	105.05	.0043	-23.44	.0001	384269.4	2.39	-2.40	-.0035	242.47	-.0019	-23.91	283.54
IMPC 11	3639.86	3651.11	23	23	35.2	319.06	.0044	-24.65	.0000	381965.7	1.77	18.69	.0023	141.04	.0034	-23.91	283.54
IMPC 61	3639.86	3651.11	23	23	35.2	72.97	.0043	-24.55	.0001	384417.3	2.32	-3.73	-.0028	240.64	.0027	-23.91	283.54

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	21	10	55.299	6546.118	21.2108	306.4537	10.98810	-.8495	110.7414	79.5958
SEPARATION	1.20	12.45	21	10	56.499	6558.045	18.6277	312.9768	10.97792	2.5780	113.0693	86.4197
RETRO	3.20	14.45	21	10	58.499	6681.383	13.9053	323.1975	10.87523	7.1884	116.0833	97.1418
IMPACT	3639.86	3651.11	23	23	35.161	384055.285	-23.9052	283.5386	2.19633	65.9832	293.4029	249.1369

AUG 21, 1966
99 DEGREES

SURVEYOR VIEW PERIODS

DHA	350.8400					EPS	-79.3754							LON	277.6475
SX	-.3249944	SY	-.8545869	SZ	-.4051222	DAO	-23.89376	RAO	249.18101	R	385349.715	LAT	28.310600	LON	279.461800
CS	-1.052154	E.C	.982725	SLH	12976.273	HCA	6544.6856	LIA	-20.0000	G A	20.00	TB	675.00000	POL	-.0
NSX	-.3040863	NSY	-.8600339	NSZ	-.4097351	C3M	1.4474	VIM	2.6714	Z-E	138.102	B.T	.0000	B.R	-.0000
LATE	2.3904	LONE	7.3169	LATS	1.5062	LONS	80.5948	LATI	-6.8035	LONI	326.3647	RSM	151.3180	TTAN	6.2083
LAUNCH DATE		AUG 21,1966		BASE AZM	102.0		TF 60.764					ARRIVAL DATE		AUG 23 1966 23 58 50.1	

LNCH AZMTH	LNCH TIME	PH	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	10 56 25.8	28.0	20.06	306.06	.95	82.31	112.87	1 / 40.8	6545.1	10.99	.47

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
					PROBE IN SUNLIGHT												
INJECTION	.00	11.25	21	11	7.7												
SEPARATION	1.20	12.45	21	11	8.9												
RETRO	3.20	14.45	21	11	10.9												
RISE 7z	4.76	16.01	21	11	12.4	82.29	-.1891	44.83	.0258	2706.3	-7.90	.00	.1285	314.56	.0513	8.33	329.33
EXTM 7z	10.25	21.50	21	11	17.9	343.35	-.1925	10.37	-.1756	1832.9	4.54	65.33	-.0000	42.47	.0188	-3.88	349.54
RISE 51	11.10	22.35	21	11	18.8	78.82	-.0909	21.91	-.0397	5317.0	-3.39	.00	.0951	294.47	.0044	-5.43	351.84
EXTM 51	34.18	45.43	21	11	41.9	358.89	-.0225	-23.54	-.0093	9224.7	5.37	87.58	-.0000	24.88	.0358	-24.44	28.35
EXTM 7z	69.38	80.63	21	12	17.1	287.86	.0000	-30.36	-.0004	23373.7	4.80	19.38	.0000	119.72	.0005	-29.18	42.54
RISE 61	146.89	158.14	21	13	34.6	309.01	.0025	-36.64	.0005	45029.8	3.60	-.00	.0016	141.43	.0013	-30.03	41. 3
EXTM 51	238.34	247.59	21	15	4.0	.22	.0034	-29.98	.0001	57559.7	3.19	85.75	-.0000	182.64	.0394	-29.56	27.48
EXTM 61	410.84	422.09	21	17	38.5	4.22	.0039	-32.51	.0002	91860.8	2.62	17.35	.0000	183.73	.0034	-28.60	351.78
EXTM 7z	441.64	452.89	21	18	29.3	.74	.0040	-29.45	.0001	92782.5	2.55	68.05	-.0000	181.72	.0093	-28.46	344.98
RISE 11	609.11	620.36	21	21	16.8	293.85	.0040	-29.81	.0000	122608.4	1.97	.00	.0026	127.48	.0023	-27.81	306.79
SET 51	635.53	646.78	21	21	43.2	90.00	.0038	-26.63	.0001	124928.2	2.57	11.23	-.0032	245.69	-.0013	-27.73	300.63
SET 61	654.52	665.77	21	21	59.2	61.00	.0039	-29.81	.0002	128287.4	2.44	-.00	-.0022	229.37	.0027	-27.67	296.89
SET 7z	681.29	692.54	22	0	59.0	94.05	.0039	-26.82	.0001	150906.4	2.39	-.00	-.0035	242.96	-.0004	-27.17	254.33
RISE 4z	841.85	852.97	22	1	9.5	254.99	.0040	-25.69	-.0000	151769.2	1.68	3.41	.0029	119.31	-.0022	-27.14	251.86
EXTM 11	882.80	894.05	22	1	50.5	1.19	.0041	-29. 4	.0001	154283.5	1.95	25.65	-.0000	181.15	.0040	-27.04	242.01
SET 11	1153.48	1164.73	22	6	21.2	68.19	.0041	-27. 7	.0001	187005.6	2.05	.00	-.0027	235.24	.0024	-26.48	176.62
EXTM 4z	1266.75	1278.00	22	8	14.4	359.95	.0042	-26.00	.0000	192477.6	1.68	80.78	-.0000	.32	-.0222	-26.29	149.03
RISE 51	1402.07	1413.32	22	10	29.8	270.00	.0041	-25.41	-.0000	210844.0	1.24	10.74	.0034	113.17	-.0015	-26.08	115.96
RISE 7z	1558.62	1569.87	22	13	5.7	266.17	.0041	-25.83	-.0000	226748.3	1.13	-.01	.0037	115.89	-.0005	-25.86	77.73
RISE 61	1633.71	1644.96	22	14	21.4	295.45	.0041	-26.90	-.0000	233656.5	1.22	.00	.0025	126.35	.0027	-25.77	59.13
SET 11	1689.86	1701.11	22	15	17.5	105.00	.0041	-24.77	.0001	238372.4	1.81	2.84	-.0029	241.42	-.0022	-25.70	45.52
EXTM 51	1753.60	1764.85	22	16	21.3	358.01	.0042	-25.62	.0000	238020.7	1.44	88.20	.0038	86.59	-.0096	-25.62	29.63
EXTM 61	1892.89	1904.14	22	18	40.6	.47	.0042	-26.78	.0000	253803.1	1.41	22.98	.0000	180.45	.0041	-25.47	355.29
EXTM 7z	1932.26	1943.51	22	19	19.9	.09	.0042	-25.86	.0000	253589.1	1.39	72.05	.0000	180.28	.0121	-25.43	345.58
RISE 11	2069.32	2080.57	22	21	37.0	290.26	.0042	-26. 6	-.0000	270862.0	1.03	.00	.0029	122.65	.0024	-25.29	311.73
SET 51	2120.80	2132.05	22	22	28.9	90.00	.0041	-24.72	.0000	273850.7	1.71	10.46	-.0034	247.48	-.0015	-25.24	299.01
SET 61	2151.87	2163.12	22	22	59.5	65.44	.0041	-26.16	.0000	277482.6	1.61	.00	-.0026	234.72	.0027	-25.21	291.32
SET 7z	2305.33	2316.58	23	1	33.0	93.70	.0041	-24.88	.0001	289474.0	1.09	-.00	-.0037	244.86	-.0005	-25.07	253.35
RISE 4z	2307.22	2318.47	23	1	34.9	255.00	.0041	-24.90	-.0000	289335.2	.95	2.56	.0030	118.21	-.0023	-25.07	252.88
EXTM 11	2347.79	2359.04	23	2	15.5	.32	.0042	-26.13	.0000	289681.3	1.27	28.66	-.0000	180.33	.0043	-25.03	242.84
SET 11	2626.10	2637.35	23	6	53.8	78.28	.0042	-25.96	.0000	313324.7	1.52	-.00	-.0029	238.13	.0024	-24.81	173.86
EXTM 4z	2726.21	2737.46	23	8	33.9	359.96	.0042	-24.52	.0000	314262.5	1.18	79.30	.0000	.22	-.0188	-24.73	149.02
RISE 51	2856.86	2868.11	23	10	44.5	270.00	.0041	-24.21	-.0000	328443.0	.77	10.26	.0035	112.05	-.0015	-24.64	116.59
RISE 7z	3011.19	3022.44	23	13	18.9	266.39	.0042	-24.56	-.0000	340218.7	.71	-.00	.0037	114.61	-.0006	-24.52	78.11
RISE 61	3077.95	3089.20	23	14	25.6	293.49	.0042	-25.22	-.0000	344688.6	.82	.00	.0026	123.94	.0027	-24.47	61.44
SET 4z	3144.24	3155.49	23	15	31.9	105.00	.0041	-23.78	.0000	348856.5	1.45	2.24	-.0030	242.20	-.0023	-24.42	44.89
EXTM 51	3208.66	3219.91	23	16	36.3	358.88	.0042	-24.14	.0000	347064.9	1.10	88.27	.0023	36 34	-.1040	-24.37	28.79
EXTM 61	3341.96	3353.21	23	18	49.6	.29	.0042	-25.18	.0000	359565.4	1.11	24 58	-.0000	180.29	.0042	-24.27	355.47
EXTM 7z	3381.35	3392.60	23	19	29.0	.06	.0043	-24.52	.0000	358759.3	1.11	73.38	.0000	180.21	.0128	-24.23	345.61
RISE 11	3510.18	3521.43	23	21	37.9	288.98	.0042	-24.75	-.0000	373504.9	.83	.00	.0029	120.82	.0024	-24.12	313.34
SET 51	3568.72	3579.97	23	22	36.4	90.00	.0042	-23.98	.0000	376529.0	1.60	10.05	-.0035	248.44	-.0015	-24.07	298.64
SET 61	3602.40	3613.65	23	23	13.1	67.09	.0042	-24.70	.0000	380409.4	1.62	-.00	-.0027	236.81	.0028	-24.02	289.40
IMPACT	3645.86	3657.11	23	23	53.5												
IMPC 7z	3645.86	3657.11	23	23	53.5	67.52	.0043	-23.97	.0001	381517.8	2.40	23.70	-.0040	247.23	.0002	-23.94	279.11
IMPC 11	3645.86	3657.11	23	23	53.5	323.54	.0044	-24.70	.0000	381811.3	1.78	20.86	.0021	144.71	.0036	-23.94	279.11

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	21	11	7.681	6545.113	20.0602	306.0644	10.98871	.4708	112.8727	82.3103
SEPARATION	1.20	12.45	21	11	8.881	6575.221	17.2562	312.4217	10.96320	3.8918	115.0056	88.9685
RETRO	3.20	14.45	21	11	10.881	6727.572	12.2678	322.3107	10.83726	9.4489	117.6625	99.3588
IMPACT	3645.86	3657.11	23	23	53.545	384126.242	-23.9428	279.1082	2.19306	65.6803	293.5603	249.3151

SURVEYOR VIEW PERIODS

GHA	330.8401					EPS	-79.2271							LOM	279.3655
SX	-.322296	SY	-.855302	SZ	-.405690	DAO	-23.93439	RAO	249.35253	RM	385413.246	LAT	28.3106	LON	279.481800
CS	-1.059018	ECC	.982612	SLR	12975.533	PCA	6544.9050	LTA	-20.0000	GTA	20.00	TH	675.00000	POL	.0
NSX	-.301329	NSY	-.860750	NSZ	-.410298	G3M	1.4972	VIN	2.6714	ZAE	137.866	B.T	.0000	B.R	-.0000
LATE	2.4136	LONE	7.3145	LATS	1.5063	LONS	86.4493	LATI	-7.0439	LONI	326.1735	RSM	151.3186	TTAN	6.2094
LAUNCH DATE		AUG	21.1966		BASE AZM	105.0		TF	60.887			ARRIVAL	DATE	AUG	24 1966 0 16 36.0

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RI ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	11 6 36.6	28.0	18.94	305.60	3.10	84.40	114.98	11 17 51.6	6549.4	10.98	1.54

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT												
INJECTION		.00	11.25	21	11	17.9												
SEPARATION		1.20	12.45	21	11	19.1												
RETRO		3.20	14.45	21	11	21.1												
RISE	7z	4.59	15.84	21	11	22.4	83.67	-.1690	38.49	.0029	2783.3	-7.97	-.00	.1297	308.93	.0261	7.06	327.40
EXTM	7z	10.24	21.49	21	11	28.1	352.20	-.2049	2.15	-.1580	1829.3	4.43	77.29	-.0000	38.05	1.1758	-5.68	347.42
RISE	51	17.06	28.31	21	11	28.9	80.79	-.0843	18.36	-.0425	5458.5	-3.17	.00	.0911	290.47	-.0010	-7.18	349.80
EXTM	51	35.04	46.29	21	11	52.9	1.96	-.0220	-26.40	-.0079	9616.2	5.31	88.12	.0157	248.86	-.4348	-26.14	26.91
EXTM	7z	70.22	81.47	21	12	28.1	290.45	.0009	-32.20	-.0002	23521.1	4.77	21.47	.0000	121.56	.0007	-30.36	40.24
RISE	61	142.75	154.00	21	13	40.6	310.89	.0024	-37.73	.0006	44166.0	3.63	-.00	.0016	143.28	.0013	-30.89	39.35
EXTM	51	224.02	235.27	21	15	1.9	.35	.0033	-30.84	.0002	55254.7	3.24	84 89	-.0000	183.39	.0316	-30.32	27.37
EXTM	61	402.29	413.54	21	18	.2	4.68	.0039	-32.91	.0002	90615.9	2.64	16.72	.0000	184.10	.0034	-29.14	351.35
EXTM	7z	431.75	443.00	21	18	29.6	.86	.0040	-30.43	.0001	91324.8	2.57	67.46	.0000	181.95	.0090	-28.99	344.87
RISE	11	601.25	612.48	21	21	19.1	294.31	.0040	-30.26	.0000	121555.6	1.98	.00	.0026	128.08	.0023	-28.23	306.81
SET	51	625.43	636.68	21	21	43.3	90.00	.0038	-27.04	.0001	123575.5	2.58	11.39	-.0032	245.31	-.0013	-28.14	300.67
SET	61	639.01	650.26	21	21	56.9	60.46	.0039	-30.26	.0002	126642.2	2.46	-.00	-.0021	228.69	.0027	-28.09	297.50
SET	7z	821.70	832.95	22	0	59.6	94.09	.0039	-27.16	.0001	149748.6	2.40	-.00	-.0035	242.56	-.0004	-27.51	254.30
RISE	4z	832.02	843.27	22	1	9.9	254.99	.0040	-26.02	-.0000	150589.4	1.68	3.61	.0028	119.57	-.0022	-27.48	251.84
EXTM	11	873.51	884.76	22	1	51.4	1.29	.0041	-29.48	.0001	153218.1	1.96	25.30	-.0000	181.24	.0040	-27.37	241.91
SET	11	1142.71	1153.96	22	6	20.6	67.92	.0041	-28.04	.0001	185836.2	2.05	.00	-.0027	234.87	.0024	-26.75	176.90
EXTM	4z	1257.15	1268.40	22	8	15.0	359.94	.0042	-26.24	.0000	191455.0	1.69	81.02	-.0000	.34	-.0228	-26.53	149.03
RISE	51	1392.54	1403.79	22	10	30.4	270.00	.0041	-25.63	-.0000	209849.7	1.24	10.82	.0034	113.38	-.0015	-26.30	115.95
RISE	72	1548.35	1559.60	22	13	6.2	266.14	.0041	-25.82	-.0000	225776.3	1.13	-.01	.0036	116.09	-.0005	-26.06	77.75
RISE	61	1625.09	1636.34	22	14	22.9	295.65	.0041	-27.10	-.0000	232788.8	1.22	.00	.0025	126.63	.0027	-25.95	58.90
SET	4z	1680.26	1691.51	22	15	18.1	105.00	.0041	-24.94	.0001	237411.8	1.81	2.95	-.0029	241.28	-.0022	-25.88	45.33
EXTM	51	1743.99	1755.24	22	16	21.8	357.99	.0042	-25.80	.0000	237077.9	1.45	88.19	.0038	92.26	.0023	-25.80	29.64
EXTM	61	1883.47	1894.72	22	18	41.3	.50	.0042	-26.94	.0000	252905.7	1.41	22.82	.0000	180.49	.0041	-25.63	355.26
EXTM	72	1922.74	1933.99	22	19	20.6	.10	.0042	-26.02	.0000	2526?5.2	1.39	71.89	.0000	180.31	.0121	-25.58	345.57
RISE	11	2060.32	2071.57	22	21	38.2	290.41	.0042	-26.30	-.0000	269994.4	1.03	.00	.0028	122.84	.0024	-25.43	311.59
SET	51	2111.22	2122.47	22	22	29.1	90.00	.0041	-24.85	.0001	272932.3	1.71	10.52	-.0034	247.35	-.0015	-25.37	299.01
SET	61	2141.66	2152.91	22	22	59.5	65.28	.0042	-26.30	.0001	276522.2	1.61	.00	-.0025	234.52	.0027	-25.34	291.49
SET	7z	2295.83	2307.08	23	1	33.7	93.72	.0041	-25.01	.0001	288575.8	1.69	-.00	-.0037	244.74	-.0005	-25.19	253.34
RISE	4z	2297.68	2308.93	23	1	35.5	255.00	.0041	-24.42	-.0000	288425.5	.95	2.63	.0030	118.30	-.0023	-25.19	252.68
EXTM	11	2338.32	2349.57	23	2	16.2	.34	.0042	-26.25	.0000	288798.2	1.27	28.54	-.0000	180.35	.0043	-25.15	242.82
SET	11	2616.15	2627.40	23	6	54.0	70.19	.0042	-25.66	.0000	312398.6	1.52	-.00	-.0029	238.00	.0024	-24.91	173.96
EXTM	4z	2716.63	2727.88	23	8	34.5	359.96	.0042	-24.62	.0000	313361.7	1.18	79.40	.0000	.24	-.0191	-24.83	149.02
RISE	51	2847.31	2858.56	23	10	45.2	270.00	.0041	-24.29	-.0000	327541.0	.77	10.29	.0035	112.12	-.0015	-24.73	116.59
RISE	72	3001.72	3012.97	23	13	19.6	266.38	.0042	-24.44	-.0000	339323.4	.70	-.00	.0037	114.69	-.0006	-24.60	78.12
RISE	61	3068.86	3080.11	23	14	26.7	293.58	.0042	-25.30	-.0000	343809.8	.82	.00	.0026	124.05	.0027	-24.54	61.35
SET	4z	3134.77	3146.02	23	15	32.6	105.00	.0041	-23.85	.0000	347937.5	1.44	2.28	-.0030	242.15	-.0027	-24.49	44.89
EXTM	51	3199.25	3210.50	23	16	37.1	358.89	.0042	-24.41	.0000	346142.7	1.10	88.33	.0023	37.45	-.10 4	-24.44	28.78
EXTM	61	3332.53	3343.78	23	18	50.4	.30	.0042	-25.25	.0000	358617.7	1.10	24.51	-.0000	180.30	.0042	-24.33	355.45
EXTM	72	3371.89	3383.14	23	19	29.7	.06	0043	-24.58	.0000	357791.8	1.11	73.32	.0000	180.22	.0129	-24.30	345.61
RISE	11	3500.94	3512.19	23	21	38.8	289.04	.0042	-24.81	-.0000	372480.6	.8_	.00	.0029	120.90	.0024	-24.18	313.29
SET	51	3559.28	3570.53	23	22	37.1	90.00	.0042	-23.74	.0000	375415.0	1.57	10.07	-.0035	248.39	-.0015	-24.12	298.64
SET	61	3595.72	3606.97	23	23	13.6	67.02	.0042	-24.77	.0000	379183.9	1.55	-.00	-.0027	236.72	.0028	-24.08	289.47
IMPACT		3653.23	3664.48	24	0	11.1												
IMPC	7z	3653.23	3664.48	24	0	11.1	71.77	.0043	-23.98	.0001	381985.5	2.40	19.82	-.0040	247.29	.0001	-23.98	274.88
IMPC	11	3653.23	3664.48	24	0	11.1	327.82	.0044	-24.75	.0000	381686.2	.79	22.74	.0019	148.37	.0038	-23.98	274.88

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	21	11	17.860	6549.423	18.9351	305.5987	10,98474	1.5361	114.9843	84.3966
SEPARATION		1.20	12.45	21	11	19.060	6594.086	15.9222	311.7776	10.94706	4.9449	116.9277	90.8763
RETRO		3.20	14.45	21	11	21.060	6769.358	10.6765	321.3459	10.80314	10.4506	119.2522	100.9459
IMPACT		3653.23	3664.48	24	0	11.086	384194.633	-23.9785	274.8810	2.18938	65.3460	293.7764	249.4853

SURVEYOR VIEW PERIODS

GHA	330.8401				EPS -79.9858							LOM	269.2849
SX	-.5197/0	SY	-.855994	SZ	-.406229	DAO	-23.96815	RAO	249.51603	RM	385473.738	LAT	28.310600
CS	-1.06/142	ECC	.9824/9	SLR	12974.662	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000
NSX	-.298705	NSY	-.861385	NSZ	-.410842	C3M	1.4471	VIM	2.6714	ZAE	137.588	B.T	.0000
LATE	2.4300	LONE	7.3117	LATS	1.5064	LONS	86.3024	LATI	-7.3123	LONI	325.9442	RSM	151.3192
LAUNCH DATE		AUG 21,1966		BASE AZM	108.0		TF 61.029					APRIVAL DATE	AUG 24 1966

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	11 15 2.5	28.1	17.84	305.07	4.84	85.98	117.08	11 26 17.5	6556.3	10 58	2.40

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	21	11	26.3												
SEPARATION	1.20	12.45	21	11	27.5												
RETRO	3.20	14.45	21	11	29.5												
RISE 7	4.47	15.72	21	11	30.8	84.75	-.1538	33.37	-.0180	2855.3	-7.91	.00	.1297	303.74	.0034	5.70	325.70
EXTM 7	9.79	21.04	21	11	36.1	6.29	-.2347	-2.18	-.1603	1771.9	3.35	81.52	.2811	312.10	.2778	-6.67	344.50
RISE 5	11.07	22.32	21	11	37.4	82.62	-.0796	14.91	-.0452	5586.4	-2.96	.00	.0891	286.60	-.0058	-9.04	347.93
EXTM 5	38.54	49.79	21	12	4.6	1.59	-.0184	-30.21	-.0051	10775.4	5.28	85.32	-.0000	197.10	-.2050	-28.55	26.70
EXTM 7	70.85	82.10	21	12	37.1	292.54	-.0000	-33.91	.0000	23634.5	4.75	23.07	.0000	123.57	-.0000	-31.67	38.30
EXTM 5	91.67	102.92	21	12	58.0	344.42	-.0000	-33.55	.0001	26181.0	4.32	74.48	.0000	123.02	-.0004	-32.02	40.04
RISE 6	142.28	153.53	21	13	48.6	312.85	.0024	-38.79	.0006	44122.3	3.63	-.00	.0016	145.15	.0012	-31.85	37.50
EXTM 5	214.12	225.37	21	15	.4	.52	.0032	-31.83	.0002	53371.3	3.29	83.90	.0000	184.13	.0256	-31.18	27.26
EXTM 6	395.93	407.18	21	18	2.2	5.18	.0039	-33.56	.0002	89703.3	2.65	16.04	.0000	184.49	.0033	-29.74	350.88
EXTM 7	423.97	435.22	21	18	30.3	1.01	.0040	-31.07	.0002	90170.9	2.58	66.82	.0000	182.20	.0087	-29.57	344.74
RISE 1	595.46	606.71	21	21	21.8	294.82	.0040	-30.74	.00	120772.8	1.99	.00	.0026	128.73	.0023	-28.69	305.78
SET 5	617.26	628.51	21	21	43.6	90.00	.0038	-27.50	.000	2459.5	2.59	11.57	-.0032	244.88	-.0012	-28.60	300.71
SET 6	628.12	639.37	21	21	54.4	59.76	.0039	-30.76	.0002	1. 188.9	2.46	-.00	-.0021	227.93	.0027	-28.55	298.18
SET 7	814.01	825.26	22	1	.3	94.15	.0039	-27.53	.0001	148800.5	2.40	-.00	-.0035	242.18	-.0004	-27.88	254.26
RISE 4	824.25	835.50	22	1	10.5	254.99	.0040	-26.58	-.0000	149610.1	1.69	3.83	.0028	119.86	-.0022	-27.85	251.82
EXTM 1	866.12	877.37	22	1	52.4	1.40	.0041	-29.86	.0001	152359.8	1.97	24.92	.0000	181.34	.0040	-27.72	241.80
SET 1	1133.68	1144.93	22	6	20.0	67.65	.0041	-28.54	.0001	184828.1	2.05	-.00	-.0026	234.48	.0024	-27.04	177.20
EXTM 4	1249.20	1260.45	22	8	15.5	359.90	.0042	-26.51	.0000	190576.1	1.69	81.29	.0000	.58	-.0242	-26.80	149.07
RISE 5	1384.80	1396.05	22	10	31.1	270.00	.0041	-25.87	-.0000	209003.1	1.25	10.92	.0034	113.60	-.0015	-26.54	115.94
RISE 7	1540.46	1551.71	22	13	6.8	266.10	.0041	-26.04	-.0000	224940.6	1.14	-.01	.0036	116.31	-.0005	-26.28	77.78
RISE 6	1618.33	1629.58	22	14	24.6	295.90	.0041	-27.30	-.0000	232061.1	1.23	.00	.0025	126.93	.0027	-26.16	58.65
SET 1	1672.45	1683.70	22	15	18.7	105.00	.0041	-25.14	.0001	236579.5	1.81	3.07	-.0029	241.13	-.0022	-26.08	45.33
EXTM 5	1736.25	1747.50	22	16	22.5	358.01	.0042	-25.99	.0000	236268.9	1.45	88.19	.0038	98.40	.0150	-25.98	29.63
EXTM 6	1875.83	1887.08	22	18	42.1	.54	.0042	-27.12	.0000	252127.8	1.41	22.64	.0000	180.52	.0041	-25.80	355.22
EXTM 7	1915.18	1926.43	22	19	21.5	.16	.0042	-26.19	.0000	251892.5	1.40	71.71	-.0000	180.47	.0120	-25.75	345.51
RISE 1	2053.13	2064.38	22	21	39.4	290.56	.0042	-26.46	-.0000	269237.0	1.03	.00	.0028	123.04	.0024	-25.58	311.44
SET 5	2103.40	2114.65	22	22	29.7	90.00	.0041	-25.00	.0001	272117.7	1.71	10.57	-.0034	247.21	-.0015	-25.52	299.02
SET 6	2133.15	2144.40	22	22	59.4	65.10	.0042	-26.45	.0001	275659.1	1.61	.00	-.0025	234.61	.0027	-25.49	291.66
SET 7	2288.89	2299.34	23	1	34.4	93.74	.0041	-25.14	.0001	287772.7	1.69	-.00	-.0037	244.61	-.0005	-25.32	253.32
RISE 4	2289.89	2301.14	23	1	36.2	255.00	.0041	-24.95	-.0000	287609.5	.95	2.71	.0030	118.41	-.0023	-25.32	252.87
EXTM 1	2330.61	2341.86	23	2	16.9	.37	.0042	-26.38	.0000	288009.0	1.27	28.41	-.0000	180.37	.0043	-25.28	242.79
SET 1	2607.91	2619.16	23	6	54.2	70.09	.0042	-25.77	.0000	311549.5	1.52	-.00	-.0028	237.86	.0024	-25.01	174.06
EXTM 4	2708.79	2720.04	23	8	35.1	359.95	.0042	-24.71	.0000	312534.6	1.18	79.50	.0000	.26	-.0193	-24.92	149.03
RISE 5	2839.49	2850.74	23	10	45.8	270.00	.0041	-24.38	-.0000	326706.4	.77	10.32	.0035	112.20	-.0015	-24.81	116.58
RISE 7	2993.84	3005.09	23	13	20.1	266.37	.0042	-24.52	-.0000	338473.6	.70	-.00	.0037	114.77	-.0006	-24.67	78.13
RISE 6	3061.38	3072.63	23	14	27.7	293.67	.0042	-25.58	-.0000	342974.3	.82	.00	.0026	124.16	.0027	-24.62	61.26
SET 1	3126.93	3138.18	23	15	33.2	105.00	.0041	-23.92	.0000	347060.2	1.44	2.32	-.0030	242.09	-.0023	-24.56	44.89
EXTM 5	3191.52	3202.77	23	16	37.8	358.91	.0042	-24.48	.0000	345264.2	1.09	98.40	.0024	38.29	-.1097	-24.51	28.75
EXTM 6	3324.78	3336.03	23	18	51.1	.31	.0042	-25.31	.0000	357708.8	1.10	24.45	-.0000	180.31	.0042	-24.39	355.44
EXTM 7	3364.10	3375.35	23	19	30.4	.07	.0043	-24.65	.0000	356863.3	1.10	73.26	.0000	180.22	.0129	-24.36	345.60
RISE 1	3493.40	3504.65	23	21	39.7	289.09	.0042	-24.87	-.0000	371501.9	.80	.00	.0029	120.98	.0024	-24.24	313.23
SET 5	3551.52	3562.77	23	22	37.8	90.00	.0042	-23.80	.0000	374361.6	1.55	10.09	-.0035	248.33	-.0015	-24.18	298.65
SET 6	3587.74	3598.99	23	23	14.0	66.95	.0042	-24.83	.0000	378049.0	1.51	-.00	-.0027	236.63	.0028	-24.14	289.54
IMPACT	3661.75	3673.00	24	0	28.0												
IMPC 7	3661.75	3673.00	24	0	28.0	75.88	.0043	-23.99	.0001	382444.6	2.40	16.07	-.0040	247.22	-.0000	-24.01	270.80
IMPC 1	3661.75	3673.00	24	0	28.0	331.96	.0044	-24.80	.0000	382584.2	1.81	24.38	.0017	152.06	.0039	-24.01	270.80

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	21	11	26.291	6556.327	17.8342	305.0729	10.97858	2.4006	117.0844	85.9843
SEPARATION	1.20	12.45	21	11	27.491	6612.694	14.6209	311.0682	10.93113	5.7958	118.8463	92.2804
RETRO	3.20	14.45	21	11	29.491	6806.257	9.1263	320.3290	10.77317	11.2552	120.8616	102.0425
IMPACT	3661.75	3673.00	24	0	28.039	384258.555	-24.0131	270.7954	2.18578	65.1451	294.1865	249.6494

SURVEYOR VIEW PERIODS

GHA 330.8401 EPS -78.9478 LOM 265.2975
SX -.317300 SY -.856664 SZ -.406752 DAO -24.00097 RAO 249.67583 RM 385532.777 LAT 28.310600 LON 279.461800
CJ -1.076410 ECC .982326 SLR 12973.667 RCA 6544.6650 LTA -20.0000 GTA 20.00 TB 675.00000 POL -.0
NSX -.296124 NSY -.862022 NSZ -.411374 C3M 1.4970 VIM 2.6714 ZAE 137.271 B.T .0000 B.R -.0000
LATE 2.4460 LONE 7.3095 LATS 1.5064 LONS 86.1654 LATI -7.5987 LONI 325.0800 RSM 151.3197 TTAN 6.2073
LAUNCH DATE AUG 21,1966 BASE AZM 111.0 TF 61.190 ARRIVAL DATE AUG 24 1966 0 50 4.4

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
111.00	11 22 6.7	28.1	16.76	304.49	6.28	87.17	119.18	11 33 21.7	6564.2	10.97	3.11

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	URG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	21	11	33.4												
SEPARATION		1.20	12.45	21	11	34.6												
RETRO		3.20	14.45	21	11	36.6												
RISE	72	4.40	15.65	21	11	37.8	85.67	-.1416	28.55	-.0371	2925.2	-7.75	-.00	.1287	298.85	-.0172	4.26	324.19
EXTM	72	9.77	21.02	21	11	43.1	14.21	-.2315	-10.27	-.1476	1860.9	3.17	75.78	.2037	259.34	-.7298	-8.48	348.49
RISE	51	11.10	22.35	21	11	44.5	84.36	-.0750	11.53	-.0478	5705.4	-2.74	.00	.0871	282.82	-.0102	-10.97	346.21
EXTM	51	40.79	52.04	21	12	14.2	2.13	-.0166	-33.40	-.0035	11649.9	5.23	82.12	-.0000	193.08	-.1041	-30.70	26.35
EXTM	72	71.40	82.65	21	12	44.8	294.25	-.0000	-35.69	.0003	23752.1	4.73	24.24	.0000	125.69	-.0003	-33.07	36.68
EXTM	51	91.12	102.37	21	13	4.5	346.43	-.0002	-34.96	.0003	26082.8	4.52	79.12	.0000	131.50	-.0012	-33.28	38.40
RISE	61	144.70	155.95	21	13	58.1	314.83	.0025	-39.80	.0007	44725.1	3.61	-.00	.0016	146.98	.0012	-32.86	38.71
EXTM	51	206 76	218.01	21	15	.1	.81	.0031	-32.89	.0003	51961.2	3.33	82.81	.0000	185.46	.0211	-32.11	26.97
EXTM	61	391.34	402.59	21	18	4.7	5.71	.0038	-34.25	.0003	89060.7	2.66	15.33	.0000	184.89	.0033	-30.39	350.39
EXTM	72	417.90	429.15	21	18	31.3	1.18	.0040	-31.75	.0002	89269.3	2.60	66.13	.0000	182.47	.0084	-30.20	344.98
RISE	11	591.39	602.64	21	21	24.7	295.36	.0040	-31.26	.0000	120208.2	2.00	.00	.0026	129.43	.0023	-29.19	305.22
SET	51	610.64	621.89	21	21	44.0	90.00	.0038	-27.99	.0001	121534.6	2.59	11.76	-.0032	244.42	-.0012	-29.09	300 75
SET	61	616.50	629.75	21	21	51.9	59.04	.0039	-31.30	.0002	123887.1	2.47	-.00	-.0021	227.11	.0027	-29.06	298.92
SET	72	807.84	819.09	22	1	1.2	94.23	.0039	-27.93	.0001	148019.8	2.40	-.01	-.0034	241.78	-.0004	-28.29	254.21
RISE	42	817.96	829.21	22	1	11.3	254.99	.0040	-26.78	-.0000	148791.1	1.70	4.07	.0028	120.17	-.0022	-28.25	251.80
EXTM	11	860.25	871.50	22	1	53.6	1.53	.0042	-30.26	.0001	151666.6	1.97	24.52	.0000	181.45	.0039	-28.11	241.68
SET	11	1125.99	1137.24	22	6	19.3	67.31	.0041	-28.66	.0001	183941.2	2.06	-.00	-.0026	234.05	.0024	-27.35	177.93
EXTM	42	1242.82	1254.07	22	8	16.2	359.90	.0042	-26.81	.0000	189635.7	1.69	81.59	.0000	.65	-.0251	-27.08	149.08
RISE	51	1378.49	1389.74	22	10	31.8	270.00	.0041	-26.13	-.0000	208272.3	1.25	11.02	.0034	113.84	-.0015	-26.80	115.93
RISE	72	1553.98	1565.23	22	13	7.3	266.06	.0041	-26.27	-.0000	224211.0	1.14	-.01	.0036	116.54	-.0005	-26.51	77.81
RISE	61	1613.04	1624.29	22	14	26.4	296.17	.0041	-27.53	-.0000	231442.3	1.23	.00	.0025	127.26	.0027	-26.37	58.38
SET	42	1666.05	1677.30	22	15	19.4	105.00	.0041	-25.35	.0001	235846.3	1.81	3.20	-.0029	240.96	-.0022	-26.29	45.34
EXTM	51	1730.02	1741.27	22	16	23.4	358.04	.0042	-26.20	.0000	235565.3	1.45	86.18	.0037	105.00	.0284	-26.18	29.59
EXTM	61	1869.61	1880.86	22	18	43.0	.58	.0042	-27.31	.0000	251441.5	1.41	22.45	.0000	180.56	.0040	-25.98	355.18
EXTM	72	1908.83	1920.08	22	19	22.2	.17	.0042	-26.38	.0000	251182.2	1.59	71.53	-.0000	150.49	.0119	-25.93	345.50
RISE	11	2047.37	2058.62	22	21	40.7	290.71	.0042	-26.62	-.0000	268563.7	1.03	.00	.0028	123.26	.0024	-25.74	311.28
SET	51	2096.97	2108.22	22	22	30.3	90.00	.0041	-25.16	.0001	271381.5	1.71	10.64	-.0034	247.07	-.0015	-25.68	299.02
SET	61	2125.95	2137.20	22	22	59.3	64.91	.0042	-26.61	.0001	274867.2	1.61	.00	-.0025	234.07	.0027	-25.64	291.86
SET	72	2281.75	2293.00	23	1	35.1	93.76	.0041	-25.27	.0001	287040.6	1.69	-.01	-.0017	244.47	-.0005	-25.46	253.30
RISE	42	2283.48	2294.73	23	1	36.8	255.00	.0041	-27.68	-.0000	286863.3	.95	2.79	.0030	118.51	-.0023	-25.46	252.87
EXTM	11	2324.29	2335.54	23	2	17.6	.39	.0042	-26.52	.0000	287289.9	1.27	28.27	-.0000	180.40	.0043	-25.41	242.77
SET	11	2601.03	2612.28	23	6	54.4	69.98	.0042	-25.88	.0000	310756.0	1.51	-.00	-.0028	237.71	.0024	-25.12	174.17
EXTM	42	2702.31	2713.56	23	8	35.7	359.95	.0042	-24.82	.0000	311760.2	1.17	79.60	.0000	.29	-.0195	-25.03	149.03
RISE	51	2833.03	2844.28	23	10	46.4	270.00	.0041	-24.47	-.0000	325919.4	.77	10.36	.0035	112.29	-.0015	-24.91	116.58
RISE	72	2987.47	2998.72	23	13	20.8	266.35	.0042	-24.60	-.0000	337685.2	.70	-.00	.0037	114.85	-.0006	-24.76	78.14
RISE	61	3055.42	3066.67	23	14	28.8	293.76	.0042	-25.46	-.0000	342200.4	.81	.00	.0026	124.28	.0027	-24.70	61.17
SET	42	3120.57	3131.82	23	15	33.9	105.00	.0041	-23.99	.0000	346241.0	1.44	2.37	-.0030	242.03	-.0023	-24.64	44.89
EXTM	51	3185.39	3196.64	23	16	38.7	358.97	.0042	-24.56	.0000	344450.5	1.09	88.49	.0024	38.45	-.1161	-24.58	28.70
EXTM	61	3318.45	3329.70	23	18	51.8	.33	.0042	-25.38	.0000	356854.2	1.09	24.38	-.0000	180.33	.0042	-24.46	355.43
EXTM	72	3357.73	3368.98	23	19	31.1	.07	.0043	-24.71	.0000	355987.6	1.09	73.19	.0000	180.23	.0129	-24.42	345.60
RISE	11	3487.24	3498.49	23	21	40.6	289.15	.0042	-24.93	-.0000	370575.4	.79	.00	.0029	121.05	.0024	-24.30	313.17
SET	51	3549.14	3556.39	23	22	38.5	90.00	.0042	-23.85	.0000	373366.0	1.53	10.12	-.0035	248.28	-.0015	-24.24	298.65
SET	61	3581.11	3592.36	23	23	14.5	66.88	.0042	-24.89	.0000	376985.0	1.48	-.00	-.0027	236.54	.0028	-24.20	289.61
IMPACT		3671.37	3682.62	24	0	44.7												
IMPC	72	3671.37	3682.62	24	0	44.7	79.91	.0043	-24.00	.0001	382906.9	2.40	12.38	-.0039	247.05	-.0001	-24.05	266.77
IMPC	11	3671.37	3682.62	24	0	44.7	336.03	.0044	-24.84	.0001	381508.2	1.82	25.81	.0015	155.83	.0041	-24.05	266.77

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION		.00	11.25	21	11	33.361	6564.313	16.7571	304.4965	10.97150	3.1095	119.1783	87.1801
SEPARATION		1.20	12.45	21	11	34.561	6630.160	13.3506	310.3055	10.91618	6.4911	120.7676	93.2899
RETRO		3.20	14.45	21	11	36.561	6838.511	7.6015	319.2704	10.74707	11.9094	122.4948	102.7962
IMPACT		3671.37	3682.62	24	0	44.733	384324.875	-24.0469	266.7725	2.18135	64.7497	294.4569	249.8115

AUG 21, 1966
111 DEGREES

SURVEYOR VIEW PERIODS

GHA	330.8401					EPS	-78.7655							LOM	260.0203
SX	-.314030	SY	-.857542	SZ	-.40744U	DAO	-24.04413	RAO	249.88738	RM	365610.832	LAT	28.310600	LON	279.461800
CS	-1.490257	ECC	.982099	SLR	12972.176	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.292688	NSY	-.862859	NSZ	-.412078	C3M	1.4970	VIM	2.6714	ZAE	136.796	B.T	.0000	B.R	-.0000
LATE	2.4671	LONE	7.3063	LATS	1.5065	LONS	85.9799	LATI	-7.9949	LONI	325.2781	RSM	151.3204	TTAN	6.2034
LAUNCH DATE		AUG	21,1966		BASE AZM	115.0		TF	61.429			ARRIVAL DATE		AUG 24 1966	1 11 58.1

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	11 29 55.8	28.1	15.37	303.64	7.91	88.28	121.96	11 41 10.8	6574.9	10.96	3.87

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT												
INJECTION		.00	11.25	21	11	41.2												
SEPARATION		1.20	12.45	21	11	42.4												
RETRO		3.20	14.45	21	11	44.4												
RISE	72	4.37	15.62	21	11	45.5	86.72	-.1280	22.41	-.0599	3018.8	-7.40	-.01	.1260	292.64	-.0416	2.22	322.40
EXTM	72	10.86	22.11	21	11	52.0	10.17	-.1916	-27.29	-.0917	2305.0	4.82	68.35	-.0000	205.17	-.5244	-13.05	343.19
RISE	51	11.20	22.45	21	11	52.4	86.56	-.0695	7.09	-.0509	5857.7	-2.45	.00	.0843	277.88	-.0156	-13.66	344.08
EXTM	51	44.91	56.16	21	12	26.1	1.86	-.0139	-37.46	-.0016	13062.9	5.14	78.17	-.0000	187.22	-.0545	-33.63	26.49
EXTM	72	71.68	82.93	21	12	52.9	296.01	-.0001	-38.17	.0006	23813.0	4.72	25.25	.0000	128.64	-.0006	-35.05	34.86
EXTM	51	88.15	99.40	21	13	9.3	348.66	-.0007	-37.52	.0005	25379.0	4.56	74.94	.0000	142.99	-.0028	-35.09	36.52
RISE	61	151.22	162.47	21	14	12.4	317.47	.0026	-41.05	.0007	46242.6	3.55	-.00	.0016	149.35	.0013	-34.22	33.40
EXTM	51	200.12	211.37	21	15	1.3	1.33	.0030	-34.41	.0005	50688.2	3.36	81.25	-.0000	187.25	.0167	-33.45	26.51
EXTM	61	387.39	398.64	21	18	8.6	6.44	.0038	-35.20	.0003	88541.4	2.67	14.33	.0000	185.43	.0033	-31.29	349.71
EXTM	72	411.95	423.20	21	18	33.1	1.43	.0040	-32.71	.0002	88386.4	2.61	65.16	.0000	182.87	.0080	-31.06	344.35
RISE	11	588.5	599.28	21	21	29.2	296.14	.0040	-31.98	.0001	119723.3	2.00	.00	.0025	130.40	.0023	-29.88	304.44
SET	51	603.71	614.96	21	21	44.9	90.00	.0038	-28.69	.0002	120537.9	2.00	12.03	-.0031	243.76	-.0012	-29.79	300.79
SET	61	607.19	618.44	21	21	48.4	57.94	.0039	-32.08	.0002	122331.4	2.48	-.00	-.0020	225.94	.0027	-29.77	299 98
SET	72	691.45	612.7	22	1	2.6	94.33	.0039	-28.50	.0001	147183.2	2.40	-.01	-.0034	241.20	-.0004	-28.86	254.14
RISE	42	811.37	822.62	22	1	12.6	254.99	.0040	-27.33	-.0000	147895.1	1.70	4.41	.0028	120.62	-.0021	-28.82	291.77
EXTM	11	854.25	865.50	22	1	55.4	1.70	.0042	-30.82	.0001	150943.7	1.97	23.95	.0000	181.60	.0039	-28.65	241.52
SET	11	1117.36	1128.61	22	6	18.5	66.86	.0041	-29.12	.0001	182908.6	2.05	-.00	-.0026	233.45	.0024	-27.79	177.99
EXTM	42	1236.16	1247.41	22	8	17.3	359.91	.0042	-27.22	.0000	189012.0	1.69	82.00	-.0000	.55	-.0263	-27.48	149.06
RISE	51	1371.78	1383.03	22	10	33.0	270.00	.0041	-26.49	-.0000	207436.8	1.25	11.16	.0036	114.17	-.0015	-27.16	115.92
RISE	72	1527.01	1538.26	22	13	8.2	266.01	.0041	-26.59	-.0000	223365.1	1.14	-.01	.0036	116.87	-.0005	-26.83	77.85
RISE	61	1607.78	1619.03	22	14	29.0	296.54	.0042	-27.84	.0000	230747.4	1.23	.00	.0025	127.71	.0027	-26.68	58.00
SET	42	1659.21	1670.46	22	15	20.4	105.00	.0041	-25.64	.0001	234986.9	1.81	3.38	-.0029	240.73	-.0022	-26.58	45.35
EXTM	51	1723.50	1734.75	22	16	24.7	358.12	.0042	-26.49	.0000	234750.4	1.45	88.15	.0035	114.28	.0458	-26.47	29.52
EXTM	61	1862.99	1874.24	22	18	44.2	.64	.0042	-27.57	.0000	250635.1	1.41	22.19	.0000	180.61	.0040	-26.24	355.12
EXTM	72	1902.04	1913.29	22	19	23.2	.19	.0042	-26.63	.0000	250339.8	1.39	71.27	-.0000	180.93	.0117	-26.18	345.49
RISE	11	2041.40	2052.65	22	21	42.6	290.93	.0042	-26.85	-.0000	267764.8	1.03	.00	.0028	123.56	.0024	-25.97	311.06
SET	51	2090.05	2101.30	22	22	31.2	90.00	.0041	-25.38	.0001	270492.0	1.71	10.73	-.0034	246.86	-.0015	-25.90	299.03
SET	61	2118.02	2129.27	22	22	59.2	64.66	.0042	-26.83	.0001	273904.1	1.60	-.00	-.0025	233.76	.0027	-25.86	292.11
SET	72	2274.94	2286.19	23	1	36.1	93.80	.0041	-25.47	.0001	286147.3	1.69	-.01	-.0037	244.27	-.0005	-25.65	253.27
RISE	42	2276.59	2287.84	23	1	37.8	255.00	.0041	-24.88	-.0000	285949.8	.95	2.91	.0030	118.67	-.0023	-25.65	252.87
EXTM	11	2317.52	2328.77	23	2	18.7	.43	.0042	-26.71	.0000	286412.5	1.27	28.08	-.0000	180.44	.0043	-25.60	242.73
SET	11	2593.46	2604.71	23	5	54.6	69.83	.0042	-26.04	.0000	309761.2	1.51	-.00	-.0028	237.50	.0024	-25.28	174.34
EXTM	42	2695.32	2706.57	23	8	36.5	359.94	.0042	-24.96	.0000	310787.7	1.17	79.74	.0000	.31	-.0203	-25.17	149.04
RISE	51	2826.06	2837.31	23	10	47.2	270.00	.0041	-24.60	-.0000	324923.1	.77	10.41	.0035	112.41	-.0015	-25.04	116.57
RISE	72	2980.40	2991.65	23	13	21.6	266.33	.0042	-24.71	-.0000	336657.5	.69	-.00	.0037	114.97	-.0006	-24.87	78.16
RISE	61	3048.94	3060.19	23	14	30.1	293.89	.0042	-25.57	-.0000	341189.7	.81	.00	.0026	124.44	.0027	-24.81	61.04
SET	42	3113.55	3124.80	23	15	34.7	105.00	.0041	-24.10	.0000	345167.3	1.43	2.43	-.0030	241.95	-.0023	-24.74	44.90
EXTM	51	3178.97	3190.22	23	16	40.1	359.12	.0042	-24.66	.0000	343400.0	1.08	88.66	.0023	36.62	-.1329	-24.68	28.55
EXTM	61	3311.55	3322.80	23	18	52.7	.35	.0042	-25.48	.0000	355729.4	1.09	24.28	-.0000	180.35	.0042	-24.55	355.41
EXTM	72	3350.76	3362.01	23	19	31.9	.08	.0043	-24.80	.0000	354834.4	1.09	73.10	.0000	180.25	.0130	-24.51	345.60
RISE	11	3480.60	3491.85	23	21	41.8	289.22	.0042	-25.01	-.0000	369359.6	.78	.00	.0029	121.16	.0024	-24.38	313.09
SET	51	3538.20	3549.45	23	22	39.4	90.00	.0042	-23.93	.0000	372067.5	1.51	10.15	-.0035	248.21	-.0015	-24.32	298.65
SET	61	3573.84	3585.09	23	23	15.0	66.79	.0042	-24.97	.0000	3756 1.0	1.45	-.00	-.0026	236.43	.0027	-24.28	289.71
IMPACT		3685.73	3696.98	24	1	6.9												
IMPC	42	3685.73	3696.98	24	1	6.9	246.77	.0043	-23.47	.0000	384777.0	1.64	-3.78	.0029	122.35	-.0026	-24.09	261.43
IMPC	72	3685.73	3696.98	24	1	6.9	85.27	.0043	-24.01	.0001	383525.4	2.40	7.50	-.0039	246.67	-.0003	-24.09	261.43
IMPC	11	3685.73	3696.98	24	1	6.9	341.45	.0044	-24.90	.0001	381437.9	1.84	27.38	.0012	161.04	.0043	-24.09	261.43

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	21	11	41.181	6575.300	15.3584	303.6593	10.96179	3.8721	121.9664	88.3032
SEPARATION		1.20	12.45	21	11	42.381	6651.166	11.7038	309.2178	10.89813	7.2366	123.3399	94.1626
RETRO		3.20	14.45	21	11	44.381	6875.202	5.6236	317.8024	10.71744	12.6076	124.7133	103.2486
IMPACT		3685.73	3696.98	24	1	6.913	384410.004	-24.0918	261.4272	2.17951	64.3907	295.0397	250.0265

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SURVEYOR VIEW PERIODS

GHA	332.8114					EPS -67.6228								LOM	293.8204
SX	-.108581	SY	-.891424	SZ	-.439969	DAO	-26.10193	RAO	263.05521	RM	3V0212.180	LAT	28.310000	LON	279.461800
CJ	-.989850	ECC	.983748	SLR	12982.964	RCA	6544.6659	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.087474	NSY	-.892584	NSZ	-.442315	CJM	1.4929	VIM	2.6706	ZAE	139.888	B.T	.0000	B.R	-.0000
LATE	5.6935	LONE	6.9721	LATS	1.5121	LONS	74.5063	LATI	-3.4296	LONI	327.4717	RSM	151.3627	TTAN	6.5959
LAUNCH DATE	AUG 22,1966			BASE AZM	84.0		TF 61.206					ARRIVAL DATE	AUG 24 1966 23 45 44.0		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
84.00	10 35 21.1	27.2	27.12	307.37	-15.53	79.32	99.72	10 46 36.1	6665.3	10.89	-7.70

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	22	10	46.6												
SEPARATION		1.20	12.45	22	10	47.8												
RETRO		3.20	14.45	22	10	49.8												
RISE	72	7.34	18.59	22	10	53.9	327.38	-.8148	80.64	-.1769	2588.3	-2.48	-.00	.0788	5.03	.2065	14.10	347.62
RISE	51	12.24	23.49	22	10	58.8	60.45	-.1526	45.66	-.0231	4987.6	-3.91	.01	.0979	322.57	.0482	3.74	6.89
EXTM	72	13.31	24.56	22	10	59.9	287.57	-.0244	17.63	-.0992	3716.1	6.68	14.08	-.0000	69.50	.1051	1.75	10.23
EXTM	51	28.90	40.15	22	11	15.5	337.98	-.0270	-5.50	-.0257	7002.2	5.62	60.79	-.0000	49.88	.0762	-15.41	39.77
EXTM	72	64.08	75.33	22	11	50.7	269.86	-.0003	-23.90	-.0019	22667.3	5.01	3.07	.0000	113.72	.0019	-24.93	98.84
RISE	42	68.04	79.29	22	11	54.6	102.37	-.0050	-16.89	-.0035	24186.0	4.26	.00	.0056	249.17	.0001	-25.33	99.61
EXTM	51	77.56	88.81	22	12	4.2	317.88	-.0003	-24.87	-.0016	22372.1	4.64	52.07	.0000	98.11	.0027	-26.10	60.89
EXTM	42	128.46	139.71	22	12	55.1	96.85	.0006	-23.04	-.0007	39251.7	3.99	7.82	-.0000	247.26	-.0009	-27.95	60.41
SET	42	209.26	220.51	22	14	15.9	104.99	.0024	-24.86	-.0002	57452.9	3.54	2.91	-.0016	241.35	-.0015	-28.61	49.65
RISE	61	221.80	233.05	22	14	28.4	303.89	.0033	-33.38	.0001	60281.6	3.09	.00	.0018	136.12	.0021	-28.64	47.51
EXTM	51	324.82	336.07	22	16	11.4	.02	.0037	-28.92	.0000	73143.7	2.87	86.82	.0000	180.36	.0400	-28.67	27.67
EXTM	61	481.91	493.16	22	18	48.5	2.30	.0040	-31.80	.0001	102428.1	2.49	17.93	.0000	182.05	.0035	-28.48	353.57
EXTM	72	518.32	529.57	22	19	24.9	.36	.0041	-29.66	.0001	103965.6	2.42	68.25	-.0000	180.85	.0095	-28.42	345.33
RISE	11	684.98	696.23	22	22	11.6	294.08	.0040	-30.04	-.0000	132629.2	1.89	.00	.0026	127.78	.0023	-28.19	306.74
SET	51	711.83	723.08	22	22	38.4	90.00	.0039	-27.14	.0001	134849.7	2.49	11.43	-.0032	245.21	-.0013	-28.15	300.42
SET	61	725.72	736.97	22	22	52.3	60.60	.0040	-30.12	.0001	137886.8	2.37	-.00	-.0022	228.90	.0026	-28.13	297.15
SET	72	906.66	917.91	23	1	53.3	94.16	.0040	-27.58	.0001	159958.9	2.33	-.00	-.0035	242.14	-.0005	-27.91	254.06
RISE	42	915.42	926.67	23	2	2.0	255.00	.0040	-26.53	-.0001	160546.7	1.62	3.92	.0029	119.98	-.0021	-27.90	251.96
EXTM	11	955.16	966.41	23	2	41.8	.77	.0042	-29.85	.0000	162903.1	1.91	24.94	-.0000	180.73	.0040	-27.85	242.41
SET	11	1222.89	1234.14	23	7	9.5	67.16	.0041	-28.82	.0001	194693.7	2.02	-.00	-.0026	233.84	.0024	-27.58	177.59
EXTM	42	1340.05	1351.30	23	9	6.6	359.96	.0042	-27.23	.0000	200321.4	1.66	82.01	.0000	.29	-.0246	-27.47	149.02
RISE	51	1479.02	1486.27	23	11	21.6	270.00	.0041	-26.72	-.0000	218446.3	1.23	11.26	.0034	114.40	-.0014	-27.36	116.00
RISE	72	1629.91	1641.16	23	13	56.5	265.94	.0041	-27.01	-.0000	234155.0	1.12	-.01	.0036	117.29	-.0005	-27.24	78.00
RISE	61	1713.30	1724.55	23	15	19.9	297.10	.0041	-28.29	-.0000	241692.9	1.22	.00	.0025	128.38	.0027	-27.18	57.50
SET	42	1762.90	1774.15	23	16	9.5	105.00	.0041	-26.25	.0000	245683.2	1.79	3.75	-.0029	240.25	-.0022	-27.15	45.29
EXTM	51	1829.92	1841.17	23	17	16.5	358.87	.0042	-27.14	.0000	245673.6	1.44	88.27	.0022	144.27	.1002	-27.10	28.79
EXTM	61	1965.23	1976.48	23	19	31.8	.33	.0042	-28.50	.0000	261199.9	1.40	21.46	.0000	180.31	.0040	-27.01	335.43
EXTM	72	2005.17	2016.42	23	20	11.8	.10	.0042	-27.45	.0000	260917.1	1.39	70.46	-.0000	180.28	.0110	-26.99	345.57
RISE	11	2148.24	2159.49	23	22	34.8	291.81	.0042	-27.76	-.0000	278579.4	1.03	.00	.0028	124.76	.0024	-26.91	310.23
SET	51	2193.70	2204.95	23	23	20.3	90.00	.0041	-26.38	.0000	280999.4	1.70	11.12	-.0034	245.92	-.0014	-26.88	298.99
SET	61	2216.95	2228.20	23	23	43.6	63.49	.0042	-27.81	.0000	284078.5	1.60	-.00	-.0025	232.33	.0027	-26.87	293.24
SET	72	2379.38	2390.63	24	2	26.0	93.99	.0041	-26.60	.0000	296761.7	1.69	-.00	-.0036	243.13	-.0005	-26.78	253.05
RISE	42	2380.00	2391.25	24	2	26.6	255.00	.0041	-26.03	-.0000	296407.8	.95	3.62	.0029	119.58	-.0022	-26.78	252.89
EXTM	11	2420.25	2431.50	24	3	6.8	.23	.0042	-27.64	.0000	297813.4	1.27	26.95	-.0000	180.23	.0042	-26.76	242.93
SET	11	2692.06	2703.31	24	7	38.7	68.56	.0042	-27.37	.0000	320046.8	1.51	.01	-.0028	235.75	.0024	-26.63	175.56
EXTM	42	2799.12	2810.37	24	9	25.7	359.99	.0042	-26.41	.0000	321472.5	1.18	81.19	-.0000	.15	-.0142	-26.58	149.00
RISE	51	2929.49	2940.74	24	11	36.1	270.00	.0042	-26.10	-.0000	335784.8	.77	11.01	.0034	113.81	-.0015	-26.51	116.60
RISE	72	3082.53	3093.78	24	14	9.1	266.06	.0042	-26.29	-.0000	347418.9	.72	-.00	.0037	116.56	-.0005	-26.45	78.45
RISE	61	3159.64	3170.89	24	15	26.2	295.74	.0042	-27.17	-.0000	352623.1	.84	.00	.0026	126.74	.0027	-26.42	59.21
SET	42	3217.08	3228.33	24	16	23.7	105.00	.0041	-25.77	.0000	356102.1	1.45	3.46	-.0030	240.63	-.0023	-26.39	44.88
EXTM	51	3281.05	3292.30	24	17	27.6	358.74	.0042	-26.37	.0000	354461.2	1.11	88.71	.0033	119.67	.0815	-26.36	28.92
EXTM	61	3414.60	3425.85	24	19	41.2	.19	.0042	-27.22	.0000	367325.4	1.13	22.54	-.0000	180.19	.0041	-26.31	355.56
EXTM	72	3494.49	3465.74	24	20	21.1	.09	.0042	-26.60	.0000	366472.3	1.14	71.30	-.0000	180.25	.0115	-26.29	345.59
RISE	11	3590.87	3602.12	24	22	37.5	290.92	.0042	-26.84	-.0000	382031.4	.92	.00	.0029	123.54	.0024	-26.22	311.42
SET	51	3641.64	3652.89	24	23	28.2	90.00	.0042	-25.81	.0000	384786.7	1.79	10.90	-.0035	246.46	-.0015	-26.18	298.64
SET	61	3668.48	3679.73	24	23	55.1	64.66	.0043	-26.83	.0000	388499.6	2.14	-.00	-.0026	233.75	.0028	-26.15	291.82
IMPACT		3672.38	3683.63	24	23	59.0												
IMPC	72	3672.38	3683.63	24	23	59.0	55.72	.0043	-26.26	.0001	385387.4	2.41	34.24	-.0038	243.54	.0008	-26.15	290.81
IMPC	51	3672.38	3683.63	24	23	59.0	97.81	.0043	-25.73	.0001	388451.5	2.45	4.49	-.0035	243.54	-.0017	-26.15	290.81
IMPC	11	3672.38	3683.63	24	23	59.0	311.70	.0044	-26.86	.0000	387923.3	1.80	12.97	.0024	136.88	.0031	-26.15	290.81
IMPC	61	3672.38	3683.63	24	23	59.0	65.67	.0043	-26.82	.0001	389019.1	2.35	-.02	-.0026	234.41	.0028	-26.15	290.81

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	22	10	46.602	6671.197	27.1551	307.1660	10.89117	-7.6987	99.6235	79.1137
SEPARATION		1.20	12.45	22	10	47.802	6582.701	25.7873	314.4817	10.95976	-4.3416	103.0269	86.7302
RETRO		3.20	14.45	22	10	49.802	6548.418	22.6924	326.1448	10.98865	1.3667	108.0386	98.8947
IMPACT		3672.38	3683.63	24	23	58.985	3890U2.793	-26.1456	290.8129	2.21754	68.2263	284.0930	263.3693

SURVEYOR VIEW PERIODS

OMA	332.8114					EPS	-67.3810							LOM	286.6542
SX	-.104031	SY	-.891723	SZ	-.440463	DAO	-26.13540	RAO	265.34580	RM	390307.813	LAT	28.310600	LON	279.461800
CS	-.982147	ECC	.9838?4	SLR	12983.793	HCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.082994	NSY	-.892797	NSZ	-.442746	C3M	1.4471	VIM	2.6714	ZAE	140.066	B.T	.0000	B.R	-.0000
LATE	3.7185	LONE	6.9617	LATS	1.5123	LONS	74.2548	LATI	-3.1911	LONI	327.5991	RSM	151.3636	TTAN	6.5588
LAUNCH DATE		AUG	22,1966		BASE AZM		87.0	TF	61.119				ARRIVAL DATE	AUG	25 1966 0 15 28.7

LNCH A/MIN	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
87.00	11 4 ?6.0	27.6	25.89	307.56	-9.00	86.80	102.09	11 15 41.0	6584.8	10.96	-4.46

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	22	11	15.7												
SEPARATION		1.20	12.45	22	11	16.9												
RETRO		3.20	14.45	22	11	18.9												
RISE	7?	6.32	17.57	22	11	22.0	51.59	-.8532	77.41	.0744	2641.3	-4.50	-.00	.0974	350.17	.1750	14.26	341.80
RISE	51	11.81	23.06	22	11	27.5	65.45	-.1307	40.16	-.0251	4893.0	-3.64	-.00	.0955	316.45	.0361	3.04	2.84
EXTM	7?	12.59	23.84	22	11	28.3	297.64	-.0389	19.67	-.1130	3307.7	6.31	22.73	-.0000	64.75	.1288	1.64	5.24
EXTM	51	31.19	42.44	22	11	46.9	343.87	-.0228	-8.98	-.0192	7974.5	5.52	67.30	-.0000	45.27	.0766	-16.57	37.01
EXTM	7?	64.13	75.38	22	12	19.8	276.55	-.0002	-24.13	-.0018	22375.1	4.98	9.17	.0000	113.31	.0019	-24.44	52.59
EXTM	51	79.74	90.99	22	12	35.4	325.85	-.0003	-24.91	-.0015	22930.7	4.57	59.21	.0000	95.99	.0029	-25.76	54.64
RISE	4?	88.57	99.82	22	12	44.3	104.33	-.0019	-19.42	-.0019	30299.4	4.21	.00	.0026	246.11	-.0004	-26.26	55.12
EXTM	4?	128.44	139.69	22	13	24.1	103.31	.0006	-22.29	-.0008	40102.0	3.98	2.56	-.0000	244.33	-.0010	-27.51	33.70
SET	4?	154.22	165.47	22	13	49.9	104.99	.0015	-23.24	-.0005	46128.7	3.82	1.91	-.0008	242.63	-.0012	-27.89	30.97
RISE	61	184.85	196.08	22	14	20.5	304.13	.0030	-33.55	.0001	52986.9	3.32	-.00	.0017	136.38	.0019	-28.14	46.71
EXTM	51	290.80	301.85	22	16	6.3	.00	.0036	-28.64	.0000	67360.6	2.98	87.10	.0000	180.36	.0147	-28.39	27.68
EXTM	61	451.16	462.41	22	18	46.8	2.39	.0039	-31.77	.0001	97983.2	2.55	17.96	.0030	182.14	.0035	-28.30	353.49
EXTM	7?	487.21	498.46	22	19	22.9	.28	.0040	-29.53	.0001	99595.8	2.47	68.37	.0000	180.65	.0095	-28.26	345.41
RISE	11	655.15	666.40	22	22	10.8	294.01	.0040	-29.97	-.0000	128896.6	1.93	.00	.0026	127.69	.0023	-28.06	306.75
SET	51	681.83	693.08	22	22	37.5	90.00	.0039	-26.99	.0001	131160.3	2.52	11.37	-.0032	245.35	-.0013	-28.03	300.50
SET	61	696.22	707.47	22	22	51.9	60.68	.0040	-30.06	.0001	134285.5	2.41	-.00	-.0022	229.00	.0026	-28.01	297.12
SET	7?	877.20	888.45	23	1	52.9	94.14	.0039	-27.48	.0001	156689.2	2.56	-.00	-.0035	242.24	-.0005	-27.81	254.13
RISE	4?	886.43	897.68	23	2	2.1	254.99	.0040	-26.41	-.0001	157353.8	1.65	3.84	.0029	119.88	-.0021	-27.80	251.92
EXTM	11	926.03	937.28	23	2	41.7	.75	.0042	-29.80	.0000	159741.4	1.93	24.99	-.0000	180.72	.0040	-27.76	240.44
SET	11	1194.23	1205.48	23	7	9.9	67.20	.0041	-28.78	.0001	191884.0	2.04	-.00	-.0026	233.90	.0024	-27.51	177.[illegible]
EXTM	4?	1311.41	1322.66	23	9	7.1	359.96	.0042	-27.17	.0000	197679.3	1.67	81.95	.0000	.27	-.0243	-27.42	149.02
RISE	51	1446.54	1457.79	23	11	22.2	270.00	.0041	-26.67	-.0000	215944.9	1.24	11.24	.0034	114.35	-.0014	-27.32	115.98
RISE	7?	1601.53	1612.78	23	13	57.2	265.94	.0041	-26.97	-.0000	231790.5	1.13	-.01	.0036	117.25	-.0005	-27.21	77.98
RISE	61	1684.81	1696.06	23	15	20.5	297.07	.0041	-28.27	-.0000	239383.2	1.23	.00	.0025	128.35	.0027	-27.15	57.51
SET	4?	1734.44	1745.69	23	16	10.1	105.00	.0041	-26.23	.0000	243414.9	1.61	3.73	-.0029	240.28	-.0022	-27.12	45.31
EXTM	51	1801.69	1812.94	23	17	17.4	358.91	.0042	-27.11	.0000	249472.2	1.45	88.71	.0022	144.76	.1033	-27.09	28.75
EXTM	61	1936.84	1948.09	23	19	32.5	.32	.0042	-28.30	.0000	259076.2	1.41	21.47	.0000	180.30	.0040	-27.00	355.44
EXTM	7?	1976.82	1988.07	23	20	12.5	.10	.0042	-27.44	.0000	258823.8	1.40	70.47	-.0000	180.27	.0110	-26.97	345.57
RISE	11	2119.95	2131.20	23	22	35.6	291.80	.0042	-27.76	-.0000	276582.0	1.04	.00	.0028	124.75	.0024	-26.90	310.23
SET	51	2165.38	2176.63	23	23	21.1	90.00	.0041	-26.37	.0000	279026.3	1.71	11.12	-.0034	245.93	-.0014	-26.87	299.00
SET	61	2188.64	2199.89	23	23	44.3	63.49	.0042	-27.81	.0000	282120.0	1.61	-.00	-.0033	232.33	.0027	-26.86	293.25
SET	7?	2351.09	2362.34	24	2	26.8	93.99	.0041	-26.59	.0000	294898.7	1.69	-.00	-.0036	243.13	-.0005	-26.78	253.06
RISE	4?	2351.78	2363.03	24	2	27.5	255.00	.0041	-26.03	-.0000	294550.4	.96	3.61	.0029	119.58	-.0022	-26.78	252.89
EXTM	11	2391.97	2403.22	24	3	7.7	.22	.0042	-27.85	.0000	295174.7	1.28	26.94	-.0000	180.22	.0042	-26.76	242.94
SET	11	2663.79	2675.04	24	7	39.5	68.55	.0042	-27.38	.0000	318351.1	1.52	.01	-.0028	235.74	.0024	-26.64	175.58
EXTM	4?	2770.95	2782.20	24	9	26.6	359.99	.0042	-26.42	.0000	319837.4	1.19	81.20	-.0000	.13	-.0138	-26.59	148.99
RISE	51	2901.45	2912.70	24	11	37.1	270.00	.0042	-26.11	-.0000	334247.3	.78	11.02	.0034	113.82	-.0015	-26.53	116.59
RISE	7?	3054.44	3065.69	24	14	10.1	266.06	.0042	-26.31	-.0000	345915.0	.72	-.00	.0037	116.58	-.0005	-26.47	78.44
RISE	61	3131.67	3142.92	24	15	27.3	295.77	.0042	-27.19	-.0000	351142.0	.84	.00	.0026	126.78	.0027	-26.44	59.18
SET	4?	3188.95	3200.20	24	16	24.6	105.00	.0041	-25.79	.0000	354618.4	1.45	3.47	-.0030	240.61	-.0023	-26.41	44.89
EXTM	51	3253.21	3264.46	24	17	28.9	358.82	.0042	-26.40	.0000	353007.1	1.12	88.75	.0032	122.15	.0910	-26.39	28.85
EXTM	61	3386.43	3397.68	24	19	42.1	.19	.0042	-27.25	.0000	365853.4	1.13	22.51	-.0000	180.18	.0041	-26.33	355.57
EXTM	7?	3426.34	3437.59	24	20	22.0	.08	.0042	-26.63	.0000	364992.8	1.13	71.27	-.0000	180.24	.0115	-26.32	345.59
RISE	11	3562.94	3574.19	24	22	38.6	290.95	.0042	-26.87	-.0000	380458.9	.89	.00	.0029	123.56	.0024	-26.25	311.38
SET	51	3613.63	3624.88	24	23	29.3	90.00	.0042	-25.85	.0000	383030.6	1.68	10.92	-.0035	246.42	-.0015	-26.22	293.64
SET	61	3640.41	3651.66	24	23	56.1	64.59	.0042	-26.89	.0000	386415.9	1.73	-.00	-.0026	233.67	.0028	-26.20	291.88
IMPACT		3667.13	36?8.38	25	0	22.8												
IMPC	7?	3667.13	36?8.38	25	0	22.8	61.51	.0043	-26.25	.0001	385951.5	1.43	28.98	-.0039	244.30	.0005	-26.17	285.07
IMPC	51	3667.13	36?8.38	25	0	22.8	103.53	.0043	-25.72	.0001	386038.9	2.44	-.08	-.0034	241.16	-.0018	-26.17	285.07
IMPC	1.	3667.13	36?8.38	25	0	22.8	317.50	.0044	-26.91	.0000	387273.8	1.82	16.04	.0022	141.18	.0033	-26.17	285.07
IMPC	61	3667.13	36?8.38	25	0	22.8	71.43	.0043	-26.82	.0001	389505.0	2.35	-4.27	-.0025	238.04	.0027	-26.17	285.07

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	22	11	15.883	6585.510	25.8967	307.5236	10.95843	-4.4619	102.0699	86.7614
SEPARATION		1.20	12.45	22	11	16.883	6546.860	24.2602	314.6541	10.99031	-1.0462	105.2242	94.1927
RETRO		3.20	14.45	22	11	18.883	6588.483	20.7868	326.0283	10.95926	4.6588	109.7896	106.0689
IMPACT		3667.13	36?8.38	25	0	22.812	3890?2.309	-26.1699	285.0734	2.21763	68.0413	283.5184	263.6027

SURVEYOR VIEW PERIODS

GHA	332.8114					EPS	-67.1357							LOM	279.3799
SX	-.099411	SY	-.892007	SZ	-.440954	DAO	-26.16474	RAO	265.6408C	RM	390404.629	LAT	28.310600	LON	279.461800
CJ	-.980391	ECC	.983903	SLR	12983.984	RCA	6544.3650	LTA	-20.0000	GTA	20.00	TB	675.00003	POL	-.0
NSY	-.078387	NSY	-.892994	NSZ	-.443189	C3M	1.45..	YIM	2.6 14	TAE	140.113	B.T	.0000	B.R	-.0000
LATE	3.7438	LONE	6.9518	LATS	1.5124	LONS	75.9984	LATI	-3.0636	LON:	327.0268	RSM	191.3644	TTAN	6.5014
LAUNCH DATE		AUG	22.1968		BASE AZM	90.0		TF	61.120				ARRIVAL DATE AUG	25 1968	0 45 40.4

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
90.00	11 29 36.8	27.8	24.66	307.56	-3.42	93.11	104.36	11 40 31.8	6550.5	10.99	-1.70

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	22	11	40.9												
SEPARATION		1.20	12.45	22	11	42.1												
RETRO		3.20	14.45	22	11	44.1												
RISE	72	5.61	16.86	22	11	46.5	70.11	-.4039	67.80	.0909	2744.4	-5.70	-.00	.1091	339.19	.1402	13.86	337.3
RISE	61	9.85	21.10	22	11	50.7	4.68	-.1541	-49.67	.0062	4487.2	5.59	.00	.0124	183.03	-.0991	5.11	334.00
RISE	51	11.52	22.77	22	11	52.4	69.26	-.1147	36.30	-.0275	5179.0	-3.34	.00	.0927	311.09	.0266	2.07	330.49
EXTM	72	12.02	23.27	22	11	52.9	308.69	-.0601	20.71	-.1250	2978.2	5.91	32.04	-.0000	59.46	.1617	1.21	.77
EXTM	61	13.59	24.84	22	11	54.5	339.57	-.0782	-46.73	.0148	5924.5	6.92	1.14	-.0000	160.16	-.0556	-1.30	5.04
SET	61	20.01	31.26	22	12	.9	320.30	-.0319	-42.28	.0085	8661.2	7.09	.00	-.0042	151.80	-.0247	-9.16	18.43
EXTM	51	34.05	45.30	22	12	14.9	348.57	-.0188	-12.49	-.0141	9109.0	5.43	72.92	-.0000	41.23	.0787	-18.02	34.64
EXTM	72	64.87	76.12	22	12	45.7	282.58	-.0001	-24.74	-.0017	22315.9	4.93	14.68	.0000	113.60	.0017	-24.42	47.19
EXTM	51	82.24	93.49	22	13	3.1	332.89	-.0002	-25.27	-.0019	23613.1	4.50	65.57	.0000	94.84	.0032	-25.79	49.15
RISE	61	131.89	143.14	22	14	12.7	304.80	.0026	-34.00	.0002	46037.1	3.58	-.00	.0015	137.10	.0016	-27.73	45.38
EXTM	51	259.92	271.17	22	16	.8	359.98	.0035	-28.54	-.0000	61950.1	3.10	87.20	.0000	179.98	.0423	-28.28	27.70
EXTM	61	424.92	436.17	22	18	45.8	2.58	.0036	-31.61	.0001	94096.5	2.60	17.85	-.0000	182.51	.0035	-28.26	393.51
EXTM	72	460.68	471.93	22	19	21.5	.32	.0040	-29.55	.0001	95774.5	2.52	68.35	.0000	180.76	.0094	-28.23	345.37
RISE	11	629.85	641.10	22	22	10.7	294.05	.0040	-30.00	-.0000	125650.9	1.66	.00	.0026	127.74	.0023	-29.05	306.65
SET	51	655.89	667.14	22	22	36.8	90.00	.0038	-26.95	.0001	127883.9	2.55	11.35	-.0032	245.39	-.0013	-28.02	300.57
SET	61	670.20	681.45	22	22	51.1	80.63	.0040	-30.10	.0001	131022.5	2.44	-.00	-.0022	228.93	.0026	-28.00	297.22
SET	72	851.86	863.11	23	1	52.7	94.14	.0039	-27.7	.0001	153798.7	2.38	-.00	-.0035	242.24	-.0005	-27.81	294.18
RISE	42	861.47	872.72	23	2	2.3	254.99	.0040	-26.38	-.0001	154522.9	1.67	3.83	.0029	119.86	-.0021	-27.80	291.79
EXTM	11	901.02	912.27	23	2	41.9	.76	.0041	-29.84	.0000	156957.8	1.95	24.95	-.0000	180.73	.0040	-27.76	288.41
SET	11	1169.30	1180.55	23	7	10.2	67.17	.0041	-28.80	.0001	189391.3	2.05	-.00	-.0026	253.87	.0024	-27.52	177.61
EXTM	42	1286.76	1298.01	23	9	7.6	359.96	.00..	-27.17	.0000	195314.3	1.69	81.96	.0000	.27	-.0234	-27.43	140.02
RISE	51	1422.03	1433.28	23	11	22.9	270.00	.0041	-26.68	-.0000	213694.7	1.25	11.24	.0034	114.35	-.0014	-27.33	115.97
RISE	72	1577.08	1588.33	23	13	57.9	265.94	.0041	-26.99	-.0000	229646.7	1.15	-.01	.0036	117.27	-.0005	-27.22	77.96
RISE	61	1660.51	1671.76	23	15	21.4	297.11	.0041	-28.30	-.0000	237305.1	1.24	.00	.0025	128.39	.0027	-27.17	57.47
SET	42	1709.93	1721.18	23	16	10.8	105.00	.0041	-26.22	.0000	241346.5	1.82	3.73	-.0029	240.27	-.0026	-27.14	45.32
EXTM	51	1777.17	1788.42	23	17	18.0	358.89	.0042	-27.13	.0000	241441.0	1.46	88.29	.0022	144.59	.1014	-27.10	28.77
EXTM	61	1912.43	1923.68	23	19	33.3	.32	.0042	-28.53	.0000	757128.4	1.42	21.44	.0000	180.30	.0040	-27.02	355.44
EXTM	72	1952.43	1963.68	23	20	13.3	.10	.0042	-27.46	.0000	256894.9	1.41	70.44	-.0000	180.27	.0110	-26.99	349.57
RISE	11	2095.74	2106.99	23	22	56.6	291.83	.0042	-27.79	-.0000	274733.4	1.05	.00	.0028	124.79	.0024	-26.92	310.19
SET	51	2141.00	2152.25	23	23	21.9	90.00	.0041	-26.39	.0000	277183.4	1.72	11.13	-.0034	245.92	-.0014	-26.89	299.01
SET	61	2164.13	2175.38	23	23	45.0	63.46	.0042	-27.84	.0000	280277.7	1.62	-.00	-.0025	232.29	.0027	-26.88	293.39
SET	72	2326.76	2338.01	24	2	27.6	93.99	.0041	-26.62	.0000	293138.7	1.70	-.00	-.0036	243.11	-.0009	-27.80	253.06
RISE	42	2327.49	2338.74	24	2	28.4	255.00	.0041	-26.05	-.0000	292792.9	.97	3.63	.0029	119.59	-.0021	-26.80	252.88
EXTM	11	2367.66	2378.91	24	3	8.5	.22	.0042	-27.88	.0000	293435.7	1.28	26.91	-.0000	180.22	.0042	-26.78	242.94
SET	11	2639.38	2650.63	24	7	40.2	88.52	.0042	-27.42	.0000	315702.5	1.53	.01	-.0028	235.69	.0024	-26.66	175.61
EXTM	42	2746.70	2757.95	24	9	27.6	359.59	.0042	-26.45	.0000	318237.0	1.19	81.23	-.0000	.13	-.0035	-26.62	148.99
RISE	51	2877.28	2888.53	24	11	38..	270.00	.0041	-26.14	-.0000	332906.7	.79	11.03	.0034	113.85	-.0015	-26.57	116.59
RISE	72	3038.35	3041.60	24	14	11.2	266.05	.0042	-26.34	-.0000	344421.5	.73	-.00	.0037	116.62	-.0005	-26.50	78.45
RISE	61	3107.73	3118.98	24	15	28.6	295.81	.0042	-27.23	-.0000	349663.9	.85	.00	.0026	126.83	.0027	-26.47	59.14
SET	42	3184.80	3196.05	24	16	25.7	105.00	.0041	-25.82	.0000	353125.6	1.45	3.49	-.0030	240.59	-.0023	-26.45	44.80
EXTM	51	3229.62	3240.87	24	17	30.5	358.96	.0042	-26.43	.0000	351553.3	1.12	88.84	.0031	126.81	.1106	-26.42	28.71
EXTM	61	3362.26	3373.51	24	19	43.1	.18	.0042	-27.29	.0000	364348.9	1.12	22.48	-.0000	180.18	.0641	-26.37	355.57
EXTM	72	3402.17	3413.42	24	20	23.0	.08	.0042	-26.67	.0000	363475.2	1.13	71.24	-.0000	180.23	.0116	-26.35	345.59
RISE	11	3538.96	3550.21	24	22	39.8	290.99	.0042	-26.91	-.0000	378052.5	.86	.00	.0029	123.64	.0024	-26.29	311.34
SET	51	3589.54	3600.79	24	23	30.4	90.00	.0042	-25.89	.0000	381194.0	1.62	10.93	-.0035	244.38	-.0015	-26.26	298.64
SET	61	3616.17	3627.42	24	23	57.0	64.54	.0042	-26.93	.0000	384526.4	1.60	-.00	-.0026	233.61	.0028	-26.24	291.94
IMPACT		3667.22	3678.47	25	0	48.1												
IMPC	72	3667.22	3678.47	25	0	48.1	67.64	.0043	-26.24	.0001	387381.3	2.44	23.50	-.0039	244.76	.0003	-26.20	278.99
IMPC	51	3667.22	3678.47	25	0	48.1	109.59	.0043	-25.71	.0001	389650.3	2.42	-4.80	-.0033	238.42	-.0020	-26.20	278.99
IMPC	11	3667.22	3678.47	25	0	48.1	323.66	.0044	-26.96	.0000	387049.3	1.84	18.98	.0020	144.04	.0035	-26.20	278.99

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	22	11	40.863	6550.474	24.6639	307.5592	10.98743	-1.7228	104.3599	93.1092
SEPARATION		1.20	12.45	22	11	42.063	6550.711	22.7738	314.5321	10.98714	1.7346	107.2894	100.3628
RETRO		3.20	14.45	22	11	44.063	6655.307	18.9904	328.5241	10.99079	7.3785	111.4005	111.5762
IMPACT		3667.22	3678.47	25	0	48.082	389168.500	-26.1955	278.9864	2.21941	67.7302	283.1155	283.8506

AUG 22, 1968
90 DEGREES

SURVEYOR VIEW PERIODS

GHA	352.8114					EPS -66.9303						LOM	273.2839
SX	-.095294[illegible]	SY	-.892231	SZ	-.441356	DAO	-26.19053	RAO	263.88804	RM	390485.555	LAT	28.310600	LON	279.461800
CS	-.980845	ECC	.983895	SLR	12983.936	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.074508	NSY	-.893143	NSZ	-.443558	C3M	1.4967	VIM	2.6713	ZAE	140.099	B.T	.0000	B.R	-.0000
LATE	3.7650	LONE	6.9431	LATS	1.5125	LONS	73.7839	LATI	-3.0774	LONI	327.6092	RSM	151.3652	TTAN	6.5657
LAUNCH DATE	AUG 22,1966			BASE AZM	93.0		TF 81.150				ARRIVAL DATE AUG 25 1966 1 10 58.6				

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
93.00	11 49 50.0	28.0	23.46	307.38	.99	98.00	106.56	12 1 5.0	6545.1	10.99	.49

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LONG
			PROBE IN SUNLIGHT													
INJECTION	.00	11.25	22	12	1.1											
SEPARATION	1.20	12.45	22	12	2.3											
RETRO	3.20	14.45	22	12	4.3											
RISE 72	5.22	16.37	22	12	6.2	76.22	-.2815	59.79	.0734	2850.4	-6.42	-.01	.1162	330.74	.1093	13.12 333.86
RISE 61	9.75	21.00	22	12	10.8	11.09	-.1447	-49.23	.0008	4764.8	5.34	.00	.0147	187.22	-.0934	3.65 351.43
RISE 51	11.33	22.58	22	12	12.4	72.29	-.1031	32.25	-.0299	5421.9	-3.06	-.00	.0901	306.33	.0191	.85 356.22
EXTM 72	11.62	22.87	22	12	12.7	319.73	-.0844	19.90	-.1315	2738.0	5.54	41.59	-.0000	54.36	.2054	.37 357.03
EXTM 61	14.95	26.21	22	12	16.0	340.38	-.0632	-46.23	.0116	6734.5	6.83	1.77	-.0000	166.56	-.0453	-4.56 5.35
SET 61	26.28	37.53	22	12	27.4	317.23	-.0182	-40.94	.0047	11372.7	6.59	-.00	-.0031	149.14	-.0142	-14.84 23.33
EXTM 51	37.09	48.34	22	12	38.2	352.26	-.0157	-15.81	-.0105	10255.0	5.34	77.72	-.0000	37.54	.0863	-19.65 32.58
EXTM 72	66.15	77.40	22	13	7.2	287.63	.0000	-25.74	-.0014	22469.6	4.88	19.26	.0000	114.58	.0015	-24.86 42.84
EXTM 51	84.99	96.24	22	13	26.1	338.68	-.0001	-26.00	-.0011	24380.5	4.44	70.83	.0000	95.46	.0034	-26.20 44.63
RISE 61	124.91	136.16	22	14	6.0	306.03	.0021	-34.81	.0003	39959.4	3.85	-.00	.0013	138.40	.0012	-27.52 43.43
EXTM 51	234.12	245.37	22	15	55.2	359.97	.0034	-28.67	-.0000	57222.2	3.21	87.07	.0000	179.36	.0476	-28.38 27.71
EXTM 61	403.97	415.22	22	18	45.1	2.81	.0039	-32.13	.0001	90945.2	2.65	17.59	.0000	182.50	.0034	-28.39 353.11
EXTM 72	439.24	450.49	22	19	20.3	.35	.0040	-29.74	.0001	92627.7	2.56	68.17	.0000	180.63	.0093	-28.36 345.34
RISE 11	610.10	621.35	22	22	11.2	294.21	.0040	-30.16	-.0000	123078.4	1.99	.00	.0026	127.95	.0023	-28.16 306.44
SET 51	635.03	646.28	22	22	36.1	90.00	.0038	-27.05	.0001	125197.4	2.58	11.39	-.0032	245.30	-.0013	-28.13 300.63
SET 61	648.56	659.81	22	22	49.6	60.42	.0039	-30.26	.0001	128259.5	2.46	-.00	-.0022	228.69	.0026	-28.12 297.47
SET 72	831.59	842.84	23	1	52.7	94.16	.0039	-27.56	.0001	151450.6	2.40	-.00	-.0035	242.15	-.0005	-27.91 254.21
RISE 42	841.47	852.72	23	2	2.5	254.99	.0040	-26.46	-.0001	152211.4	1.69	3.88	.0028	119.92	-.0021	-27.90 251.85
EXTM 11	881.09	892.34	23	2	42.2	.80	.0041	-29.96	.0000	154713.7	1.97	24.82	-.0000	180.77	.0040	-27.86 242.38
SET 11	1149.00	1160.25	23	7	10.1	67.08	.0041	-28.90	.0001	187322.0	2.06	-.00	-.0026	233.74	.0024	-27.60 177.73
EXTM 42	1267.01	1278.26	23	9	8.1	359.96	.0042	-27.25	.0000	193380.8	1.70	82.03	.0000	.28	-.0238	-27.50 149.02
RISE 51	1402.41	1413.66	23	11	23.5	270.00	.0041	-26.74	-.0000	211851.5	1.26	11.27	.0034	114.42	-.0014	-27.40 115.95
RISE 72	1557.47	1568.72	23	13	58.6	265.93	.0041	-27.05	-.0000	227888.6	1.15	-.01	.0036	117.33	-.0005	-27.29 77.96
RISE 61	1641.30	1652.55	23	15	22.4	297.19	.0041	-28.57	-.0000	235620.8	1.25	.00	.0025	128.50	.0027	-27.23 57.37
SET 42	1690.30	1701.55	23	16	11.4	105.00	.0041	-26.28	.0000	239642.0	1.82	3.77	-.0029	240.23	-.0022	-27.20 45.33
EXTM 51	1757.25	1768.50	23	17	18.3	358.80	.0042	-27.19	.0000	239744.1	1.47	88.19	.0023	143.73	.0948	-27.16 28.86
EXTM 61	1892.93	1904.18	23	19	34.0	.35	.0042	-28.39	.0000	255527.6	1.43	21.37	.0000	180.31	.0040	-27.07 355.43
EXTM 72	1932.91	1944.16	23	20	14.0	.10	.0042	-27.52	.0000	255302.7	1.41	70.38	-.0000	180.28	.0110	-27.05 345.57
RISE 11	2076.49	2087.74	23	22	37.6	291.89	.0042	-27.85	-.0000	273210.7	1.06	.00	.0028	124.87	.0024	-26.97 310.13
SET 51	2121.46	2132.71	23	23	22.5	90.00	.0041	-26.44	.0000	275650.8	1.72	11.15	-.0034	245.87	-.0014	-26.95 299.02
SET 61	2144.94	2155.59	23	23	45.4	63.39	.0042	-27.89	.0000	278733.2	1.62	-.00	-.0029	232.20	.0027	-26.93 293.36
SET 72	2307.29	2318.54	24	2	28.4	94.00	.0041	-26.67	.0000	291670.3	1.71	-.00	-.0036	243.06	-.0005	-26.85 253.06
RSE 42	2308.04	2319.29	24	2	29.1	255.00	.0041	-26.09	-.0000	291323.4	.98	3.65	.0029	119.63	-.0022	-26.85 252.87
EXTM 11	2348.22	2359.47	24	3	9.3	.23	.0042	-27.94	.0000	291986.6	1.29	26.86	-.0000	180.22	.0042	-26.83 242.93
SET 11	2619.75	2631.00	24	7	40.8	68.48	.0042	-27.46	.0000	315306.6	1.53	.01	-.0028	235.63	.0024	-26.71 175.66
EXTM 42	2727.27	2738.52	24	9	28.4	359.99	.0042	-26.49	.0000	316881.7	1.20	81.27	-.0000	.14	-.0119	-26.66 148.99
RISE 51	2857.88	2869.13	24	11	39.0	270.00	.0041	-26.18	-.0000	331182.3	.80	11.04	.0034	113.89	-.0015	-26.61 116.58
RISE 72	3011.05	3022.30	24	14	12.1	266.05	.0042	-26.38	-.0000	343146.8	.73	-.00	.0037	116.65	-.0005	-26.54 78.45
RISE 61	3088.62	3099.87	24	15	29.7	295.86	.0042	-27.27	-.0000	348403.1	.85	.00	.0025	126.88	.0027	-26.51 59.09
SET 42	3145.47	3156.72	24	16	26.6	105.00	.0041	-25.85	.0000	351846.6	1.45	3.51	-.0030	240.56	-.0023	-26.48 44.89
EXTM 51	3210.89	3222.14	24	17	32.0	359.11	.0042	-26.47	.0000	350314.7	1.12	88.92	.0028	132.66	.1352	-26.46 28.56
EXTM 61	3342.93	3354.18	24	19	44.0	.19	.0042	-27.52	.0000	363058.1	1.12	22.44	-.0000	180.18	.0041	-26.40 355.57
EXTM 72	3382.83	3394.08	24	20	23.9	.08	.0043	-26.70	.0000	362172.0	1.12	71.20	-.0000	180.23	.0116	-26.38 345.59
RISE 11	3519.79	3531.04	24	22	40.9	291.02	.0042	-26.95	-.0000	377486.1	.85	.00	.0028	123.69	.0024	-26.32 311.30
SET 51	3570.24	3581.49	24	23	31.3	90.00	.0042	-25.92	.0000	379844.1	1.58	10.94	-.0035	246.35	-.0015	-26.30 298.65
SET 61	3596.73	3607.98	24	23	57.8	64.49	.0042	-26.97	.0000	382995.0	1.54	-.00	-.0026	233.55	.0027	-26.28 291.99
IMPACT	3669.00	3680.25	25	1	10.1											
IMPC 72	3669.00	3680.25	25	1	10.1	72.97	.0043	-26.23	.0001	387149.4	2.45	18.72	-.0039	244.91	.0001	-26.22 273.69
IMPC 11	3669.00	3680.25	25	1	10.1	329.02	.0044	-27.00	.0000	386888.3	1.86	21.25	.0018	150.52	.0037	-26.22 273.69

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	22	12	1.083	6545.149	23.4624	307.3780	10.99194	.4897	106.5553	97.9967
SEPARATION	1.20	12.45	22	12	2.283	6575.550	21.3362	314.1828	10.96618	3.9139	109.2664	105.1024
RETRO	3.20	14.45	22	12	4.283	6628.485	17.2847	324.7671	10.83981	9.4749	112.9447	116.1880
IMPACT	3669.00	3680.25	25	1	10.080	3892[illegible]43.199	-26.2178	273.6877	2.21309	67.4685	282.9972	264.0664

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SURVEYOR VIEW PERIODS

GHA	352.8114				EPS -66.7763									LOM	266.7146
SX	-.092639	SY	-.892389	SZ	-.441656	DAO	-26.20958	RAO	264.07336	RM	390546.102	LAT	28.310600	LON	279.461800
CS	-.981797	ECC	.983880	SLR	12983.833	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.071597	NSY	-.893243	NSZ	-.443836	C3M	1.4976	VIM	2.6715	ZAE	140.045	B.T	.0000	B.R	-.0000
LATE	3.7808	LONE	6.9365	LATS	1.5126	LONS	73.6231	LATI	-3.2061	LONI	327.5717	RSM	151.3657	TTAN	6.5657
LAUNCH DATE		AUG	22.1966		BASE AZM		96.0		TF	61.161			ARRIVAL DATE	AUG	25 1966 1 29 56.6

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
96.00	12 5 10.2	28.1	22.29	307.06	4.28	101.52	108.70	12 16 25.2	6553.8	10.98	2.13

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	22	12	16.4												
SEPARATION		1.20	12.45	22	12	17.6												
RETRO		3.20	14.45	22	12	19.6												
RISE	72	4.77	16.02	22	12	21.2	79.31	-.2281	53.20	.0532	2938.9	-6.86	-.00	.1208	323.94	.0831	12.13	331.08
RISE	61	10.43	21.68	22	12	26.8	10.58	-.1238	-49.28	.0014	5289.3	5.55	.00	.0127	186.88	-.0798	.74	351.36
RISE	51	11.22	22.47	22	12	27.6	74.82	-.0944	28.51	-.0322	5613.2	-2.84	.00	.0880	302.00	.0130	-.60	353.60
EXTM	72	11.35	22.60	22	12	27.8	329.95	-.1077	17.15	-.1325	2565.5	5.23	51.14	-.0000	49.69	.2671	-.81	353.95
EXTM	61	16.43	27.68	22	12	32.9	340.84	-.0525	-46.37	.0094	7573.8	6.73	1.72	-.0000	166.90	-.0374	-7.82	5.68
SET	61	30.95	42.20	22	12	47.4	317.63	-.0133	-41.12	.0035	13298.5	6.23	-.00	-.0021	149.49	-.0104	-18.31	24.58
EXTM	51	39.93	51.18	22	12	56.3	355.21	-.0135	-18.92	-.0080	11285.8	5.26	81.87	-.0000	33.94	.1067	-21.39	30.80
EXTM	72	67.53	78.78	22	13	24.0	291.63	.0001	-27.05	-.0012	22702.9	4.83	22.82	.0000	116.08	.0013	-25.68	39.44
EXTM	51	88.07	99.32	22	13	44.5	343.19	.0000	-27.08	-.0009	25239.4	4.38	74.90	.0000	98.81	.0035	-26.97	41.09
RISE	61	105.60	116.85	22	14	2.0	307.87	.0015	-35.96	.0004	35348.3	4.09	-.00	.0011	140.28	.0007	-27.60	40.96
EXTM	51	213.52	224.77	22	15	49.9	359.97	.0032	-29.08	-.0000	53312.4	3.31	86.66	-.0000	179.51	.0378	-28.72	27.71
EXTM	61	388.74	399.99	22	18	45.2	3.16	.0038	-32.54	.0001	88640.4	2.68	17.17	.0000	182.79	.0034	-28.69	352.78
EXTM	72	423.07	434.32	22	19	19.5	.42	.0040	-30.08	.0001	90221.5	2.60	67.82	.0000	180.97	.0091	-28.65	345.28
RISE	11	595.83	607.08	22	22	12.3	294.50	.0040	-30.44	-.0000	121198.5	2.01	.00	.0025	128.32	.0023	-28.40	306.11
SET	51	619.18	630.43	22	22	35.6	90.00	.0038	-27.27	.0001	123122.2	2.60	11.48	-.0032	245.09	-.0013	-28.37	300.69
SET	61	631.26	642.51	22	22	47.7	60.05	.0039	-30.54	.0001	126015.2	2.48	-.00	-.0021	228.27	.0026	-28.35	297.88
SET	72	816.32	827.57	23	1	52.7	94.19	.0039	-27.76	.0001	149660.7	2.41	-.00	-.0034	241.95	-.0004	-28.11	254.21
RISE	42	826.33	837.58	23	2	2.8	254.99	.0040	-26.64	-.0001	150434.4	1.71	3.98	.0028	120.06	-.0021	-28.10	291.82
EXTM	11	866.15	877.40	23	2	42.6	.87	.0041	-30.18	.0000	153025.2	1.98	24.61	-.0000	180.83	.0039	-28.05	242.31
SET	11	1133.25	1144.50	23	7	9.7	66.91	.0041	-29.06	.0001	185696.4	2.07	-.00	-.0026	233.52	.0024	-27.76	177.91
EXTM	42	1252.15	1263.40	23	9	8.6	359.99	.0042	-27.39	.0000	191909.1	1.71	82.17	-.0000	.16	-.0142	-27.64	148.99
RISE	51	1387.57	1398.82	23	11	24.0	270.00	.0041	-26.87	-.0000	210436.0	1.27	11.31	.0034	114.53	-.0014	-27.52	115.94
RISE	72	1542.58	1553.83	23	13	59.0	265.91	.0041	-27.16	-.0000	226534.1	1.16	-.01	.0036	117.44	-.0005	-27.40	77.97
RISE	61	1627.05	1638.30	23	15	23.5	297.33	.0041	-28.49	-.0000	234354.3	1.25	.00	.0025	128.67	.0027	-27.34	57.23
SET	42	1675.43	1686.68	23	16	11.9	105.00	.0041	-26.37	.0000	238328.4	1.83	3.83	-.0029	240.15	-.0022	-27.30	45.34
EXTM	51	1741.89	1753.14	23	17	18.3	358.66	.0042	-27.29	.0000	238416.1	1.47	88.04	.0023	142.70	.0860	-27.25	28.99
EXTM	61	1878.22	1889.47	23	19	34.6	.35	.0042	-28.49	.0000	254304.7	1.43	21.27	.0000	180.33	.0040	-27.16	355.41
EXTM	72	1918.13	1929.38	23	20	14.5	.11	.0042	-27.61	.0000	254079.5	1.42	70.29	-.0000	180.29	.0110	-27.14	345.57
RISE	11	2062.06	2073.31	23	22	38.5	291.97	.0042	-27.93	-.0000	272049.3	1.06	.00	.0028	124.98	.0024	-27.05	310.04
SET	51	2106.66	2117.91	23	23	23.1	90.00	.0041	-26.52	.0000	274466.2	1.73	11.18	-.0034	245.80	-.0014	-27.02	299.02
SET	61	2129.15	2140.40	23	23	45.6	63.29	.0042	-27.98	.0000	277525.8	1.62	-.00	-.0025	232.08	.0027	-27.01	293.47
SET	72	2292.55	2303.80	24	2	29.0	94.01	.0041	-26.73	.0000	290536.2	1.71	-.00	-.0036	242.99	-.0005	-26.92	253.06
RISE	42	2293.30	2304.55	24	2	29.7	255.00	.0041	-26.16	-.0000	290184.8	.98	3.69	.0029	119.68	-.0022	-26.92	252.87
EXTM	11	2333.52	2344.77	24	3	9.9	.24	.0042	-28.01	.0000	290870.9	1.29	26.78	-.0000	180.24	.0042	-26.90	242.92
SET	11	2604.77	2616.02	24	7	41.2	68.42	.0042	-27.52	.0000	314216.1	1.53	.00	-.0028	235.56	.0024	-26.76	175.72
EXTM	42	2712.53	2723.78	24	9	28.9	359.99	.0042	-26.54	.0000	315826.6	1.20	81.32	-.0000	.14	-.0133	-26.71	148.99
RISE	51	2843.16	2854.41	24	11	39.6	270.00	.0041	-26.23	-.0000	330149.1	.80	11.06	.0034	113.93	-.0015	-26.65	116.58
RISE	72	2996.31	3007.56	24	14	12.7	266.04	.0042	-26.42	-.0000	342131.3	.73	-.00	.0037	116.69	-.0005	-26.58	78.45
RISE	61	3074.11	3085.36	24	15	30.5	295.91	.0042	-27.31	-.0000	347402.9	.85	.00	.0025	126.95	.0027	-26.54	59.03
SET	42	3130.74	3141.99	24	16	27.2	105.00	.0041	-25.89	.0000	350828.8	1.45	3.53	-.0030	240.53	-.0023	-26.52	44.90
EXTM	51	3196.67	3207.92	24	17	33.1	359.24	.0042	-26.50	.0000	349331.3	1.12	88.97	.0025	138.37	.1572	-26.49	28.43
EXTM	61	3328.25	3339.50	24	19	44.7	.20	.0042	-27.36	.0000	362037.9	1.12	22.40	-.0000	180.19	.0041	-26.43	355.56
EXTM	72	3368.13	3379.38	24	20	24.6	.08	.0042	-26.74	.0000	361142.3	1.12	71.17	-.0000	180.24	.0114	-26.42	345.59
RISE	11	3505.25	3516.50	24	22	41.7	291.05	.0042	-26.98	-.0000	376419.5	.84	.00	.0028	123.73	.0024	-26.35	311.27
SET	51	3555.59	3566.84	24	23	32.0	90.00	.0042	-25.95	.0000	378725.8	1.56	10.95	-.0035	246.33	-.0015	-26.32	298.65
SET	61	3581.95	3593.20	24	23	58.4	64.45	.0042	-27.00	.0000	381830.3	1.50	-.00	-.0026	233.50	.0027	-26.31	292.03
IMPACT		3670.88	3682.13	25	1	27.3												
IMPC	72	3670.88	3682.13	25	1	27.3	77.14	.0043	-26.21	.0001	387601.9	2.46	14.98	-.0039	244.88	-.0000	-26.24	269.54
IMPC	11	3670.88	3682.13	25	1	27.3	333.23	.0044	-27.03	.0000	386783.8	1.88	22.82	.0016	154.20	.0039	-26.24	269.54

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	22	12	16.419	6553.786	22.2883	307.0626	10.98462	2.1250	108.6993	101.5260
SEPARATION		1.20	12.45	22	12	17.619	6606.479	19.9456	313.6730	10.94022	5.5284	111.1925	108.4372
RETRO		3.20	14.45	22	12	19.619	6794.446	15.6438	323.8688	10.78657	11.0087	114.4725	119.1344
IMPACT		3670.88	3682.13	25	1	27.303	389299.273	-26.2353	269.9385	2.21192	67.3974	283.2133	264.2348

AUG 22, 1966
96 DEGREES

SURVEYOR VIEW PERIODS

GHA	332.8114				EPS -66.6431							LOM	264.7585
SX	-.090127	SY	-.892520	SZ	-.441911	DAO	-26.22587	RAO	264.23581	RM	390598.430	LAT	28.610600	LON	279.461800
CS	-.985529	ECC	.983819	SLR	12983.432	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.069049	NSY	-.893322	NSZ	-.444081	C3M	1.4972	VIM	2.6714	ZAE	139.921	B.T	.0000	B.R	-.0000
LATE	3.7944	LONE	6.9305	LATS	1.5126	LONS	73.4868	LATI	-3.4261	LONI	327.4806	RSM	151.3662	TTAN	6.5675
LAUNCH DATE	AUG 22,1966			BASE AZM	99.0		TF 61.252					ARRIVAL DATE	AUG 25 1966 1 46 21.9		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99.00	12 16 39.7	28.1	21.14	306.65	6.71	103.99	111.81	12 27 54.7	6567.0	10.97	3.33

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	22	12	27.9												
SEPARATION		1.20	12.45	22	12	29.1												
RETRO		3.20	14.45	22	12	31.1												
RISE	7c	4.53	15.78	22	12	32.4	81.27	-.1976	47.54	.0339	3209.8	-7.14	.00	.1237	318.15	.0603	10.98	328.81
RISE	5i	11.15	22.40	22	12	39.1	77.02	-.0877	24.98	-.0345	5761.2	-2.66	-.00	.0863	297.96	.0078	-2.24	351.34
EXTM	7c	11.16	22.41	22	12	39.1	339.07	-.1263	12.73	-.1290	2446.5	5.00	60.71	-.0000	45.41	.3645	-2.25	351.37
RISE	6i	12.05	23.30	22	12	40.0	4.63	-.0960	-49.66	.0045	6139.5	5.99	.01	.0083	183.00	-.0617	-3.66	353.67
EXTM	6i	18.05	29.30	22	12	46.0	340.86	-.0442	-46.97	.0078	8453.8	6.63	1.14	-.0000	167.07	-.0312	-11.14	6.14
SET	6i	31.55	42.80	22	12	59.5	320.97	-.0133	-42.56	.0036	13665.5	6.13	-.00	-.0016	152.36	-.0103	-19.88	22.31
EXTM	5i	42.44	53.69	22	13	10.3	357.59	-.0121	-21.89	-.0063	12175.7	5.19	85.56	-.0000	30.51	.1659	-23.22	29.28
EXTM	7c	68.98	80.23	22	13	36.9	294.74	.0001	-28.60	-.[illegible]	23000.4	4.78	25.46	.0000	117.98	.0011	-26.79	36.82
RISE	6i	95.11	106.36	22	14	3.0	310.11	.0010	-37.29		32758.9	4.25	-.00	.0010	142.52	.0003	-28.13	38.38
EXTM	5i	197.31	208.56	22	15	45.2	360.00	.0031	-29.75	-	50139.7	3.39	85.99	-.0000	179.75	.0060	-29.29	27.69
EXTM	6i	377.31	388.56	22	18	45.2	3.42	.0038	-33.08	.[illegible]62	86905.6	2.71	16.62	.0000	182.99	.0033	-29.15	352.55
EXTM	7c	411.20	422.45	22	19	19.1	.52	.0040	-30.57	.0001	88437.7	2.62	67.32	.0000	181.17	.0088	-29.08	345.19
RISE	11	586.02	597.27	22	22	13.9	294.89	.0040	-30.82	-.0000	119887.4	2.02	.00	.0025	128.83	.0023	-28.75	305.69
SET	5i	607.38	618.63	22	22	35.3	90.00	.0038	-27.60	.0001	121543.9	2.61	11.61	-.0031	244.78	-.0013	-28.71	300.74
SET	6i	617.39	628.64	22	22	45.3	59.54	.0039	-30.92	.0001	124182.5	2.49	-.00	-.0021	227.69	.0026	-28.69	298.41
SET	7c	805.09	816.34	23	1	53.0	94.25	.0039	-28.03	.0001	148315.4	2.42	-.01	-.0034	241.68	-.0004	-28.39	254.19
RISE	4c	815.13	826.38	23	2	3.0	254.99	.0040	-26.90	-.0001	149081.4	1.72	4.15	.0028	120.27	-.0021	-28.37	251.80
EXTM	11	855.25	866.50	23	2	43.2	.96	.0041	-30.47	.0001	151777.1	1.99	24.32	-.0000	180.91	.0039	-28.31	242.22
SET	11	1121.14	1132.39	23	7	9.1	66.69	.0041	-29.29	.0001	184407.3	2.08	-.00	-.0026	233.22	.0024	-27.97	178.15
EXTM	4c	1240.91	1252.16	23	9	8.8	359.95	.0042	-27.59	.0000	190751.0	1.71	82.37	.0000	.59	-.0262	-27.84	149.03
RISE	5i	1376.56	1387.81	23	11	24.5	270.00	.0041	-27.04	-.0000	209337.3	1.27	11.38	.0034	114.69	-.0014	-27.70	115.93
RISE	7c	1531.49	1542.74	23	13	59.4	265.88	.0041	-27.52	-.0000	225472.8	1.16	-.01	.0036	117.60	-.0005	-27.55	77.98
RISE	6i	1616.82	1628.07	23	15	24.7	297.52	.0041	-28.64	-.0000	233390.1	1.26	.00	.0025	128.89	.0027	-27.48	57.04
SET	4c	1664.40	1675.65	23	16	12.3	105.00	.0041	-26.51	.0000	237290.9	1.83	3.91	-.0029	240.04	-.0022	-27.44	45.34
EXTM	5i	1730.49	1741.74	23	17	18.4	358.56	.0042	-27.43	.0000	237368.7	1.47	87.87	.0023	143.05	.0796	-27.39	29.09
EXTM	6i	1867.35	1878.60	23	19	35.3	.38	.0042	-28.62	.0000	253340.5	1.43	21.14	.0000	180.36	.0040	-27.28	355.38
EXTM	7c	1907.18	1918.43	23	20	15.1	.12	.0042	-27.73	.0000	253106.0	1.42	70.17	-.0000	180.31	.0109	-27.26	345.56
RISE	11	2051.54	2062.79	23	22	39.4	292.08	.0042	-28.04	-.0000	271126.7	1.07	.00	.0028	125.12	.0024	-27.16	309.93
SET	5i	2095.67	2106.92	23	23	23.6	90.00	.0041	-26.62	.0000	273506.3	1.73	11.22	-.0034	245.70	-.0014	-27.13	299.03
SET	6i	2117.64	2128.89	23	23	45.6	63.16	.0042	-28.08	.0000	276552.0	1.63	-.00	-.0025	231.93	.0027	-27.11	293.60
SET	7c	2281.63	2292.88	24	2	29.5	94.03	.0041	-26.82	.0000	289608.3	1.71	-.00	-.0036	242.90	-.0005	-27.01	253.05
RISE	4c	2282.36	2293.61	24	2	30.3	255.00	.0041	-26.24	-.0000	289249.4	.98	3.75	.0029	119.75	-.0022	-27.01	252.86
EXTM	11	2322.64	2333.89	24	3	10.5	.26	.0042	-28.10	.0000	289959.6	1.29	26.69	-.0000	180.26	.0042	-26.98	242.90
SET	11	2593.13	2604.38	24	7	41.4	68.35	.0042	-27.59	.0000	313294.0	1.54	.00	-.0028	235.46	.0024	-26.83	175.79
EXTM	4c	2701.57	2712.82	24	9	29.5	359.99	.0042	-26.60	.0000	314932.5	1.20	81.38	-.0000	.14	-.0141	-26.77	148.99
RISE	5i	2832.23	2843.48	24	11	40.1	270.00	.0041	-26.28	-.0000	329263.7	.80	11.08	.0034	113.98	-.0015	-26.71	116.57
RISE	7c	2985.47	2996.72	24	14	13.4	266.03	.0042	-26.47	-.0000	341282.7	.73	-.00	.0037	116.74	-.0005	-26.63	78.46
RISE	6i	3063.52	3074.77	24	15	31.4	295.97	.0042	-27.36	-.0000	346565.5	.84	.00	.0025	127.02	.0027	-26.59	58.97
SET	4c	3119.89	3131.14	24	16	27.8	105.00	.0041	-25.93	.0000	349966.5	1.45	3.56	-.0030	240.50	-.0023	-26.56	44.90
EXTM	5i	3186.20	3197.45	24	17	34.1	359.33	.0042	-26.55	.0000	348490.7	1.11	89.00	.0023	143.60	.1732	-26.53	28.34
EXTM	6i	3317.44	3328.69	24	19	45.4	.21	.0042	-27.40	.0000	361159.0	1.12	22.36	-.0000	180.20	.0041	-26.47	355.55
EXTM	7c	3357.29	3368.54	24	20	25.2	.09	.0043	-26.77	.0000	360250.1	1.12	71.13	-.0000	180.25	.0115	-26.45	345.59
RISE	11	3494.53	3505.78	24	22	42.4	291.08	.0042	-27.01	-.0000	375485.1	.83	.00	.0028	123.77	.0024	-26.38	311.24
SET	5i	3544.74	3555.99	24	23	32.7	90.00	.0042	-25.98	.0000	377744.2	1.55	10.97	-.0035	246.30	-.0015	-26.35	298.65
SET	6i	3570.97	3582.22	24	23	58.9	64.42	.0042	-27.04	.0000	380810.3	1.48	-.00	-.0026	233.46	.0027	-26.34	292.07
IMPACT		3675.12	3686.37	25	1	43.0												
IMPC	7c	3675.12	3686.37	25	1	43.0	80.94	.0043	-26.20	.0001	388024.2	2.46	11.57	-.0039	244.75	-.0002	-26.25	265.75
IMPC	11	3675.12	3686.37	25	1	43.0	337.07	.0044	-27.05	.0000	386711.0	1.90	24.07	.0014	157.66	.0040	-26.25	265.75

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	22	12	27.912	6567.199	21.1372	306.6618	10.97327	3.3290	110.8163	104.0062
SEPARATION		1.20	12.45	22	12	29.112	6636.005	18.5904	313.0691	10.91549	6.7100	113.0988	110.7144
RETRO		3.20	14.45	22	12	31.112	6849.140	14.0418	322.9098	10.74288	12.1212	116.0138	121.0564
IMPACT		3675.12	3686.37	25	1	43.030	389353.758	-26.2514	265.7503	2.20916	67.1341	283.4962	264.3892

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SURVEYOR VIEW PERIODS

GHA 332.8114 EPS -66.5310 LOM 261.4306
SX -.088013 SY -.892626 SZ -.442123 UAO -26.23944 RAO 264.36880 RM 390642.391 LAT 28.310600 LON 279.461800
CS -.990361 ECC .983739 SLR 12982.915 RCA 6544.6650 LTA -20.0000 GTA 20.00 TB 675.00000 POL -.0
NSX -.066867 NSY -.893383 NSZ -.444290 C3M 1.4971 VIM 2.6714 ZAE 139.755 B.T .0000 B.R -.0000
LATE 3.8058 LONE 7.0521 LATS 1.5126 LONS 73.4952 LATI -3.7066 LONI 327.4854 RSM 151.3666 TTAN 6.5892
LAUNCH DATE AUG 22,1966 BASE AZM 102.0 TF 61.337 ARRIVAL DATE AUG 25 1966 2 0 10.7

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	12 25 14.9	28.1	20.02	306.17	8.50	105.67	112.91	12 36 29.9	6580.5	10.96	4.21

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	22	12	36.5												
SEPARATION		1.20	12.45	22	12	37.7												
RETRO		3.20	14.45	22	12	39.7												
RISE	72	4.36	15.61	22	12	40.9	82.70	-.1771	42.46	.0157	3064.6	-7.30	.00	.1254	312.97	.0398	9.70	326.92
EXTM	72	11.05	22.30	22	12	47.6	347.03	-.1401	6.94	-.1222	2376.4	4.84	70.31	-.0000	41.41	.5496	-3.91	349.19
RISE	51	11.12	22.37	22	12	47.6	79.01	-.0823	21.59	-.0369	5877.0	-2.51	-.01	.0849	294.10	.0031	-4.01	349.35
RISE	61	16.56	27.81	22	12	53.1	349.33	-.0541	-49.27	.0071	8107.6	6.47	.00	.0020	173.06	-.0360	-11.35	1.31
EXTM	61	19.84	31.09	22	12	56.3	340.43	-.0377	-47.90	.0067	9387.4	6.51	.17	-.0000	167.02	-.0261	-14.53	6.80
SET	61	24.34	35.59	22	13	.8	332.20	-.0246	-46.26	.0054	11132.5	6.39	.01	-.0010	161.19	-.0178	-17.83	12.85
EXTM	51	41.66	52.91	22	13	18.2	1.66	-.0132	-23.80	-.0061	12022.1	5.16	87.54	.0122	321.68	.1368	-24.48	26.59
EXTM	72	70.40	81.65	22	13	46.9	297.13	.0001	-30.31	-.0007	23324.9	4.74	27.35	.0000	120.13	.0008	-28.10	34.81
RISE	61	93.89	105.14	22	14	10.4	312.38	.0009	-38.54	.0007	32519.0	4.26	-.00	.0010	144.71	.0002	-29.16	36.24
EXTM	51	184.75	196.00	22	15	41.2	.06	.0029	-30.64	.0000	47623.6	3.46	85.10	-.0000	180.62	.0275	-30.06	27.63
EXTM	61	371.02	382.27	22	18	47.5	4.10	.0038	-33.69	.0002	85986.2	2.73	15.97	.0000	183.55	.0033	-29.70	351.91
EXTM	72	402.69	413.94	22	19	19.2	.65	.0039	-31.17	.0001	87153.1	2.64	66.73	-.0000	181.42	.0085	-29.62	345.07
RISE	11	579.62	590.87	22	22	16.1	295.37	.0040	-31.27	-.0000	119022.1	2.03	.00	.0025	129.44	.0023	-29.17	305.19
SET	51	598.68	609.93	22	22	35.2	90.00	.0038	-28.01	.0001	120357.2	2.62	11.77	-.0031	244.39	-.0012	-29.13	300.78
SET	61	606.14	617.39	22	22	42.6	58.93	.0039	-31.38	.0001	122671.4	2.50	-.00	-.0024	226.99	.0026	-29.11	299.05
SET	72	796.92	808.17	23	1	53.4	94.31	.0039	-28.37	.0001	147319.9	2.43	-.01	-.0034	241.33	-.0004	-28.73	294.16
RISE	42	806.92	818.17	23	2	3.4	254.99	.0040	-27.23	-.0001	148062.3	1.72	4.35	.0028	120.93	-.0021	-28.71	251.78
EXTM	11	847.41	858.66	23	2	43.9	1.07	.0041	-30.81	.0001	150875.6	2.00	23.98	-.0000	181.01	.0039	-28.64	242.12
SET	11	1111.80	1123.05	23	7	8.3	66.41	.0041	-29.56	.0001	183387.1	2.08	-.00	-.0026	232.86	.0024	-28.23	178.43
EXTM	42	1232.78	1244.03	23	9	9.3	359.95	.0042	-27.83	.0000	189885.8	1.71	82.61	.0000	.36	-.0261	-28.07	149.03
RISE	51	1368.47	1379.72	23	11	25.0	270.00	.0041	-27.25	-.0000	208495.0	1.28	11.46	.0034	114.89	-.0014	-27.91	115.91
RISE	72	1523.27	1534.52	23	13	59.8	265.85	.0041	-27.50	-.0000	224651.6	1.17	-.01	.0036	117.79	-.0005	-27.74	78.01
RISE	61	1609.62	1620.87	23	15	26.1	297.74	.0041	-28.82	-.0000	232673.4	1.26	.00	.0024	129.15	.0027	-27.65	56.81
SET	42	1656.26	1667.51	23	16	12.8	105.00	.0041	-26.68	.0000	236482.4	1.83	4.01	-.0029	239.91	-.0022	-27.61	45.35
EXTM	51	1722.21	1733.46	23	17	18.7	358.52	.0042	-27.60	.0000	236568.0	1.47	87.72	.0022	144.84	.0758	-27.55	29.13
EXTM	61	1859.39	1870.64	23	19	35.9	.42	.0042	-28.77	.0000	252994.9	1.43	21.00	.0000	180.39	.0039	-27.43	355.34
EXTM	72	1899.11	1910.36	23	20	15.6	.13	.0042	-27.88	.0000	252344.6	1.42	70.03	-.0000	180.33	.0108	-27.40	345.55
RISE	11	2043.95	2055.20	23	22	40.4	292.20	.0042	-28.17	-.0000	270410.0	1.07	.00	.0028	125.29	.0024	-27.28	309.80
SET	51	2087.54	2098.79	23	23	24.0	90.00	.0041	-26.74	.0000	272742.8	1.73	11.26	-.0034	245.59	-.0014	-27.25	299.03
SET	61	2108.92	2120.17	23	23	45.4	63.01	.0042	-28.20	.0000	275726.5	1.63	-.00	-.0025	231.75	.0027	-27.23	293.75
SET	72	2273.58	2284.83	24	2	30.1	94.04	.0041	-26.92	.0001	288865.7	1.71	-.00	-.0036	242.80	-.0005	-27.11	258.03
RISE	42	2274.27	2285.52	24	2	30.8	255.00	.0041	-26.34	-.0000	288497.0	.98	3.81	.0029	119.83	-.0022	-27.11	252.86
EXTM	11	2314.63	2325.88	24	3	11.1	.28	.0042	-28.20	.0000	289232.5	1.30	26.59	-.0000	180.28	.0041	-27.08	242.87
SET	11	2585.10	2596.35	24	7	41.6	68.28	.0042	-27.67	.0000	312534.0	1.54	.00	-.0028	235.36	.0024	-26.91	175.87
EXTM	42	2693.46	2704.71	24	9	30.0	359.98	.0042	-26.68	.0000	314196.4	1.20	81.46	-.0000	.14	-.0161	-26.85	149.00
RISE	51	2824.13	2835.38	24	11	40.6	270.00	.0041	-26.34	-.0000	328528.7	.80	11.11	.0034	114.04	-.0015	-26.77	116.57
RISE	72	2977.33	2988.58	24	14	13.8	266.02	.0042	-26.52	-.0000	340546.6	.72	-.00	.0037	116.80	-.0005	-26.68	78.46
RISE	61	3055.66	3066.91	24	15	32.2	296.03	.0042	-27.41	-.0000	345841.1	.84	.00	.0025	127.09	.0027	-26.64	58.91
SET	42	3111.78	3123.03	24	16	28.3	105.00	.0041	-25.97	.0000	349216.0	1.45	3.58	-.0030	240.46	-.0023	-26.61	44.90
EXTM	51	3178.22	3189.47	24	17	34.7	359.37	.0042	-26.59	.0000	347744.9	1.11	88.98	.0021	146.32	.1756	-26.57	28.31
EXTM	61	3309.41	3320.66	24	19	45.9	.22	.0042	-27.44	.0000	360394.4	1.11	22.32	-.0000	180.21	.0041	-26.51	355.53
EXTM	72	3349.22	3360.47	24	20	25.7	.09	.0042	-26.81	.0000	359472.9	1.11	71.09	-.0000	180.26	.0115	-26.49	345.58
RISE	11	3486.60	3497.85	24	22	43.1	291.11	.0042	-27.04	-.0000	374674.8	.82	.00	.0028	123.81	.0024	-26.41	311.21
SET	51	3536.68	3547.93	24	23	33.2	90.00	.0042	-26.01	.0000	376896.3	1.54	10.98	-.0035	246.27	-.0015	-26.38	298.66
SET	61	3562.79	3574.04	24	23	59.3	64.38	.0042	-27.06	.0000	379933.1	1.46	-.00	-.0026	233.41	.0027	-26.37	292.11
IMPACT		3680.20	3691.45	25	1	56.7												
IMPC	42	3680.20	3691.45	25	1	56.7	245.74	.0043	-25.64	.0000	389684.5	1.71	-3.04	.0029	124.61	-.0026	-26.27	262.46
IMPC	72	3680.20	3691.45	25	1	56.7	84.25	.0043	-26.19	.0001	388392.3	2.46	8.62	-.0039	244.55	-.0003	-26.27	282.46
IMPC	11	3680.20	3691.45	25	1	56.7	340.41	.0044	-27.08	.0000	386661.0	1.91	25.02	.0012	160.76	.0041	-26.27	262.46

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	22	12	36.498	6581.006	20.0066	306.1994	10.96167	4.2130	112.9182	105.6962
SEPARATION		1.20	12.45	22	12	37.698	6661.345	17.2636	312.4051	10.89431	7.5738	115.0007	112.2027
RETRO		3.20	14.45	22	12	39.698	6892.603	12.4661	321.9227	10.70844	12.9296	117.5794	122.2217
IMPACT		3680.20	3691.45	25	1	56.698	389399.031	-26.2655	262.4579	2.20703	67.0222	283.9979	264.5229

SURVEYOR VIEW PERIODS

GHA	352.8114					EPS -66.4281								LOM	258.3741
SX	-.086073	SY	-.892719	SZ	-.442317	UAD	-26.29178	RAD	264.49277	RM	390682.711	LAT	28.510600	LON	279.461800
CS	-.996482	ECC	.983639	SLR	12982.255	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.084884	NSY	-.893433	NSZ	-.444485	C3M	1.4969	VIM	2.6714	ZAE	139.546	B.T	.0000	B.R	-.0000
LATE	3.8184	LONE	6.9216	LATS	1.5127	LONS	73.2597	LATI	-4.0248	LONI	327.2035	RSM	151.3670	TTAN	6.5711
LAUNCH DATE		AUG	22,1966		BASE AZM	105.0		TF	61.440			ARRIVAL DATE		AUG 25 1966	2 12 51.9

LNCH AZMTH	LNCH TIME	P8	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	12 31 48.6	28.1	18.92	305.64	9.63	106.78	115.00	12 43 3.6	6592.7	10.95	4.88

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	22	12	43.1												
SEPARATION		1.20	12.45	22	12	44.3												
RETRO		3.20	14.45	22	12	46.3												
RISE	72	4.24	15.49	22	12	47.3	83.83	-.1618	37.74	-.0016	3111.8	-7.37	-.00	.1263	308.17	.0206	8.32	325.28
EXTM	72	11.02	22.27	22	12	54.1	353.86	-.1490	.12	-.1130	2358.4	4.76	79.91	-.0000	37.61	1.0670	-5.75	347.34
RISE	51	11.11	22.36	22	12	54.2	80.85	-.0777	18.27	-.0393	5972.1	-2.38	-.01	.0836	240.36	-.0012	-5.89	347.57
EXTM	51	46.82	58.07	22	13	29.9	.91	-.0103	-27.69	-.0038	13686.0	5.09	87.89	-.0000	202.52	-.2678	-27.07	27.07
EXTM	72	71.44	82.69	22	13	54.5	298.98	.0001	-32.12	-.0005	23570.8	4.72	28.66	.0000	122.41	.0005	-29.53	33.19
EXTM	51	96.04	107.29	22	14	19.1	351.42	.0003	-31.48	-.0003	27439.1	4.25	80.54	.0000	129.28	.0023	-30.44	34.58
RISE	61	99.01	110.26	22	14	22.1	314.48	.0011	-39.63	.0007	33907.5	4.17	-.00	.0011	146.67	.0003	-30.50	34.56
EXTM	51	175.25	186.50	22	15	38.3	.19	.0028	-31.70	.0001	45685.7	3.52	84.03	.0000	181.59	.0224	-30.97	27.52
EXTM	61	366.54	377.79	22	18	49.6	4.65	.0038	-34.37	.0002	85348.8	2.74	15.27	.0000	183.98	.0032	-30.34	351.40
EXTM	72	390.54	401.79	22	19	19.6	.79	.0039	-31.84	.0001	86224.1	2.66	66.05	.0000	181.66	.0082	-30.23	344.94
RISE	11	575.67	586.92	22	22	18.7	295.91	.0040	-31.77	.0000	118480.2	2.04	.00	.0025	130.12	.0023	-29.65	304.64
SET	51	592.21	603.46	22	22	35.3	90.00	.0038	-28.49	.0001	119453.0	2.63	11.96	-.0031	243.95	-.0012	-29.61	300.82
SET	61	596.71	607.96	22	22	39.8	58.22	.0039	-31.90	.0002	121385.7	2.51	-.00	-.0020	226.19	.0026	-29.59	299.77
SET	72	790.94	802.19	23	1	54.0	94.36	.0039	-28.75	.0001	146573.6	2.43	-.01	-.0034	240.95	-.0004	-29.11	254.11
RISE	42	800.64	812.09	23	2	3.9	254.99	.0040	-27.60	-.0000	147280.9	1.73	4.58	.0028	120.83	-.0021	-29.09	251.76
EXTM	11	841.77	853.02	23	2	44.8	1.20	.0041	-31.19	.0001	150220.8	2.00	23.59	.0000	181.12	.0039	-29.00	242.00
SET	11	1104.41	1115.66	23	7	7.5	66.10	.0041	-29.86	.0001	182553.8	2.08	-.00	-.0026	232.46	.0024	-28.52	178.75
EXTM	42	1226.68	1237.93	23	9	9.7	359.95	.0042	-28.10	.0000	189204.5	1.72	82.88	.0000	.42	-.0274	-28.36	149.03
RISE	51	1362.44	1373.69	23	11	25.5	270.00	.0041	-27.48	-.0000	207829.1	1.28	11.56	.0033	115.11	-.0014	-28.14	115.91
RISE	72	1517.10	1528.35	23	14	.2	265.81	.0041	-27.71	-.0000	223993.8	1.17	-.01	.0036	118.00	-.0005	-27.95	78.03
RISE	61	1604.58	1615.83	23	15	27.6	297.99	.0041	-29.01	-.0000	232125.1	1.26	.00	.0024	129.45	.0027	-27.85	56.56
SET	42	1650.17	1661.42	23	16	13.2	105.00	.0041	-26.86	.0001	235828.2	1.83	4.12	-.0029	239.76	-.0022	-27.80	45.36
EXTM	51	1710.10	1721.35	23	17	19.2	358.51	.0042	-27.78	.0000	235928.2	1.48	87.56	.0021	147.16	.0728	-27.73	29.14
EXTM	61	1853.49	1864.74	23	19	36.6	.46	.0042	-28.93	.0000	251994.3	1.43	20.83	.0000	180.43	.0039	-27.59	355.30
EXTM	72	1893.09	1904.34	23	20	16.2	.14	.0042	-28.04	.0000	251723.6	1.42	69.86	-.0020	180.36	.0107	-27.55	345.54
RISE	11	2038.45	2049.70	23	22	41.5	292.34	.0042	-28.31	-.0000	269828.0	1.07	.00	.0028	125.48	.0024	-27.42	309.66
SET	51	2081.45	2092.70	23	23	24.5	90.00	.0041	-26.87	.0001	272106.4	1.73	11.32	-.0034	245.47	-.0014	-27.38	299.04
SET	61	2102.16	2113.41	23	23	45.2	62.85	.0042	-28.34	.0000	275042.0	1.63	-.00	-.0024	231.55	.0027	-27.36	293.92
SET	72	2267.56	2278.81	24	2	30.6	94.06	.0041	-27.04	.0001	288240.8	1.71	-.00	-.0036	242.68	-.0005	-27.23	253.02
RISE	42	2268.20	2279.45	24	2	31.3	255.00	.0041	-26.46	-.0000	287860.6	.98	3.88	.0029	119.92	-.0022	-27.23	252.86
EXTM	11	2308.66	2319.91	24	3	11.7	.31	.0042	-28.32	.0000	288622.1	1.30	26.47	-.0000	180.31	.0041	-27.20	242.84
SET	11	2578.66	2589.91	24	7	41.7	68.19	.0042	-27.76	.0000	311872.0	1.53	-.00	-.0028	235.24	.0024	-27.00	175.95
EXTM	42	2687.35	2698.60	24	9	30.4	359.98	.0042	-26.76	.0000	313554.5	1.20	81.54	-.0000	.15	-.0178	-26.92	149.00
RISE	51	2818.03	2829.28	24	11	41.1	270.00	.0041	-26.41	-.0000	327881.1	.80	11.14	.0034	114.10	-.0015	-26.84	116.57
RISE	72	2971.20	2982.45	24	14	14.3	266.01	.0042	-26.58	-.0000	339890.8	.72	-.00	.0037	116.86	-.0005	-26.74	78.47
RISE	61	3049.82	3061.07	24	15	32.9	296.10	.0042	-27.47	-.0000	345195.8	.84	-.00	.0025	127.17	.0027	-26.69	58.84
SET	42	3105.67	3116.92	24	16	28.7	105.00	.0041	-26.02	.0000	348541.5	1.45	3.61	-.0030	240.43	-.0023	-26.66	44.90
EXTM	51	3172.04	3183.29	24	17	35.1	359.34	.0042	-26.64	.0000	347059.8	1.11	88.93	.0021	146.91	.1685	-26.62	28.33
EXTM	61	3303.38	3314.63	24	19	46.4	.24	.0042	-27.48	.0000	359701.3	1.11	22.28	-.0000	180.23	.0041	-26.55	355.52
EXTM	72	3343.15	3354.40	24	20	26.2	.10	.0042	-26.85	.0000	358765.8	1.11	71.06	-.0000	180.27	.0115	-26.52	345.58
RISE	11	3480.66	3491.91	24	22	43.7	291.15	.0042	-27.08	-.0000	373934.2	.81	.00	.0028	123.86	.0024	-26.44	311.17
SET	51	3530.62	3541.87	24	23	33.7	90.00	.0042	-26.04	.0000	376120.4	1.53	10.99	-.0035	246.25	-.0015	-26.41	298.66
SET	61	3556.60	3567.85	24	23	59.7	64.35	.0042	-27.09	.0000	379131.0	1.45	-.00	-.0026	233.37	.0027	-26.39	292.14
IMPACT		3686.42	3697.67	25	2	9.5												
IMPC	42	3686.42	3697.67	25	2	9.5	248.81	.0043	-25.67	.0000	389493.9	1.70	-.94	.0029	122.81	-.0025	-26.28	259.38
IMPC	72	3686.42	3697.67	25	2	9.5	87.33	.0043	-26.19	.0001	388739.0	2.45	5.86	-.0039	244.30	-.0003	-26.28	259.38
IMPC	11	3686.42	3697.67	25	2	9.5	343.53	.0044	-27.09	.0000	386628.2	1.93	25.78	.0010	163.72	.0042	-26.28	259.38

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	22	12	43.059	6593.630	18.8960	305.6874	10.95117	4.8753	115.0115	106.8291
SEPARATION		1.20	12.45	22	12	44.259	6682.365	15.9617	311.6966	10.87674	8.2190	116.9054	113.1390
RETRO		3.20	14.45	22	12	46.259	6926.991	10.9126	320.9160	10.68131	13.5305	119.1717	122.8599
IMPACT		3686.42	3697.67	25	2	9.481	389441.984	-26.2787	259.3785	2.20450	66.8764	284.5693	264.6481

SURVEYOR VIEW PERIODS

GHA	332.8114				EPS -66.3300							LOM	255.4593
SX	-.084222	SY	-.892805	SZ	-.442499	DAO	-26.26345	RAO	264.61100	RM	390721.125	LAT	28.310600	LON	279.461800
C3	-1.003606	ECC	.983522	SLR	12981.487	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.062960	NSY	-.8934/8	NSZ	-.444672	C3M	1.4968	VIM	2.6713	ZAE	139.301	B.T	.0000	B.R	-.0000
LATE	3.8264	LONE	7.0281	LATS	1.5127	LONS	73.2679	LATI	-4.3653	LONI	327.1277	RSM	151.3673	TTAN	6.5728
LAUNCH DATE		AUG	22,1966		BASE AZM	108.0		TF	61.559			ARRIVAL DATE		AUG	25 1966	2 24 57.9	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
108.00	12 34 57.3	28.1	17.83	305.07	10.86	107.50	117.08	12 48 12.3	6603.3	10.94	5.38

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	22	12	48.2												
SEPARATION		1.20	12.45	22	12	49.4												
RETRO		3.20	14.45	22	12	51.4												
RISE	72	4.17	15.42	22	12	52.4	84.78	-.1494	33.24	-.0182	3154.9	-7.35	-.00	.1263	303.60	.0025	6.88	323.84
EXTM	72	10.50	21.75	22	12	58.7	5.25	-.1730	-3.55	-.1183	2245.7	3.97	83.20	.2083	309.53	.1740	-6.78	344.50
RISE	51	11.13	22.38	22	12	59.3	82.58	-.0737	14.99	-.0418	6055.6	-2.24	.00	.0824	286.69	-.0053	-7.86	345.93
EXTM	51	49.18	60.43	22	13	37.4	1.86	-.0095	-30.58	-.0029	14468.1	5.04	84.89	-.0000	198.32	-.0972	-29.10	26.41
EXTM	72	72.32	83.57	22	14	.5	300.41	.0001	-34.00	-.0002	23795.8	4.69	29.51	.0000	124.76	.0003	-31.05	31.89
EXTM	51	96.66	107.91	22	14	24.9	353.03	.0002	-33.12	-.0001	27641.7	4.24	80.45	.0000	142.22	.0013	-31.77	33.27
RISE	61	107.51	118.76	22	14	35.7	316.49	.0014	-40.60	.0008	36107.1	4.04	-.00	.0012	148.48	.0005	-31.91	33.09
EXTM	51	168.71	179.96	22	15	36.9	.47	.0026	-32.90	.0001	44340.9	3.57	82.83	.0000	183.19	.0177	-32.00	27.27
EXTM	61	363.71	374.96	22	18	51.9	5.18	.0038	-35.10	.0002	84976.6	2.74	14.51	.0000	184.38	.0032	-31.03	350.91
EXTM	72	392.35	403.60	22	19	20.6	.99	.0039	-32.56	.0001	85597.1	2.67	65.32	.0000	182.00	.0079	-30.90	344.76
RISE	11	573.51	584.76	22	22	21.7	296.49	.0040	-32.30	.0000	118173.7	2.04	.00	.0025	130.84	.0023	-30.17	304.05
SET	51	587.35	598.60	22	22	35.6	90.00	.0038	-29.00	.0001	118755.5	2.63	12.16	-.0031	243.46	-.0012	-30.12	300.85
SET	61	588.58	599.83	22	22	36.8	57.44	.0039	-32.46	.0002	120260.2	2.52	-.00	-.0020	225.33	.0026	-30.12	300.57
SET	72	786.54	797.79	23	1	54.7	94.45	.0039	-29.16	.0001	146006.9	2.43	-.01	-.0034	240.53	-.0004	-29.53	254.06
RISE	42	796.30	807.55	23	2	4.5	254.99	.0040	-28.01	-.0000	146671.2	1.74	4.82	.0028	121.15	-.0021	-29.50	251.74
EXTM	11	847.70	858.95	23	2	45.9	1.33	.0041	-31.60	.0001	149743.8	2.00	23.18	.0000	181.23	.0038	-29.40	241.87
SET	11	1098.42	1109.67	23	7	6.6	65.77	.0041	-30.18	.0001	181853.7	2.08	-.00	-.0026	232.02	.0024	-28.83	179.09
EXTM	42	1222.06	1233.31	23	9	10.3	359.94	.0042	-28.39	.0000	188658.1	1.72	83.17	.0000	.49	-.0295	-28.61	149.04
RISE	51	1357.89	1369.14	23	11	26.1	270.00	.0041	-27.73	-.0000	207288.4	1.28	11.66	.0033	115.34	-.0014	-28.39	115.90
RISE	72	1512.37	1523.62	23	14	.6	265.77	.0041	-27.93	-.0000	223451.5	1.17	-.00	.0036	118.22	-.0005	-28.17	78.07
RISE	61	1601.10	1612.35	23	15	29.3	298.27	.0041	-29.23	-.0000	231698.5	1.26	.01	.0024	129.77	.0027	-28.06	56.28
SET	42	1645.54	1656.79	23	16	13.7	105.00	.0041	-27.06	.0001	235282.7	1.83	4.25	-.0029	239.60	-.0022	-28.00	45.36
EXTM	51	1717.47	1728.72	23	17	25.7	.02	.0042	-27.97	.0000	235929.6	1.48	87.77	-.0000	180.57	.0688	-27.91	27.67
EXTM	61	1849.07	1860.32	23	19	37.3	.51	.0042	-29.11	.0000	251496.6	1.43	20.65	-.0000	180.48	.039	-27.76	355.25
EXTM	72	1888.52	1899.77	23	20	16.7	.15	.0042	-28.21	.0000	251200.7	1.42	59.69	-.0000	180.39	.0106	-27.72	345.52
RISE	11	2034.43	2045.68	23	22	42.6	292.49	.0042	-28.46	-.0000	269339.7	1.07	.00	.0028	125.68	.0024	-27.57	309.51
SET	51	2076.79	2088.04	23	23	25.0	90.00	.0041	-27.01	.0001	271558.3	1.73	11.37	-.0034	245.33	-.0014	-27.52	299.04
SET	61	2096.79	2108.04	23	23	45.0	62.67	.0042	-28.49	.0001	274441.0	1.62	-.00	-.0024	231.33	.0027	-27.51	294.10
SET	72	2262.98	2274.23	24	2	31.2	94.08	.0041	-27.16	.0001	287696.9	1.71	-.00	-.0036	242.56	-.0005	-27.35	253.00
RISE	42	2263.57	2274.82	24	2	31.8	255.00	.0041	-26.58	-.0000	287303.9	.98	3.95	.0029	120.01	-.0022	-27.35	252.85
EXTM	11	2304.13	2315.38	24	3	12.3	.34	.0042	-28.44	.0000	288091.9	1.29	26.35	-.0000	180.34	.0041	-27.31	242.82
SET	11	2573.59	2584.84	24	7	41.8	68.10	.0042	-27.86	.0000	311273.7	1.53	.00	-.0028	235.11	.0024	-27.09	176.05
EXTM	42	2682.67	2693.92	24	9	30.9	359.98	.0042	-26.84	.0000	312976.4	1.20	81.62	-.0000	.16	-.0178	-27.01	149.00
RISE	51	2813.36	2824.61	24	11	41.6	270.00	.0041	-26.49	-.0000	327292.1	.80	11.17	.0034	114.17	-.0015	-26.91	116.56
RISE	72	2966.61	2977.86	24	14	14.8	264.00	.0042	-26.64	-.0000	339323.2	.72	-.00	.0037	116.92	-.0005	-26.80	78.48
RISE	61	3045.54	3056.79	24	15	53.7	296.16	.0042	-27.52	-.0000	344636.2	.84	.00	.0025	127.25	.0027	-26.75	58.77
SET	42	3101.08	3112.33	24	16	29.3	105.00	.0041	-26.08	.0000	347948.9	1.44	8.64	-.0030	240.38	-.0023	-26.71	44.91
EXTM	51	3167.26	3178.51	24	17	35.5	359.30	.0042	-26.69	.0000	346446.5	1.11	88.86	.0021	146.51	.1579	-26.67	28.38
EXTM	61	3298.84	3310.09	24	19	47.0	.26	.0042	-27.52	.0000	359081.1	1.11	22.24	-.0000	180.24	.0040	-26.59	355.50
EXTM	72	3338.55	3349.80	24	20	26.8	.10	.0043	-26.89	.0000	358129.4	1.11	71.01	-.0000	180.28	.0115	-26.56	345.97
RISE	11	3476.16	3487.41	24	22	44.4	291.18	.0042	-27.11	-.0000	373258.1	.81	.00	.0028	123.90	.0024	-26.47	311.14
SET	51	3525.98	3537.23	24	23	34.2	90.00	.0042	-26.07	.0000	375408.0	1.52	11.00	-.0035	246.22	-.0015	-26.44	298.66
SET	61	3551.83	3563.08	25	0	.0	64.31	.0042	-27.13	.0000	378392.6	1.44	-.00	-.0025	230.33	.0027	-26.42	292.18
IMPACT		3693.56	3704.81	25	2	21.8												
IMPC	42	3693.56	3704.81	25	2	21.8	251.75	.0043	-25.70	.0000	389309.7	1.69	1.12	.0030	121.14	-.0025	-26.29	256.42
IMPC	72	3693.56	3704.81	25	2	21.8	90.29	.0043	-26.18	.0001	389076.2	2.45	3.22	-.0038	244.01	-.0004	-26.29	256.42
IMPC	11	3693.56	3704.81	25	2	21.8	346.53	.0044	-27.11	.0000	386612.3	1.93	26.39	.0009	166.62	.0042	-26.29	256.42

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION		.00	11.25	22	12	48.205	6604.686	17.8055	305.1318	10.94202	5.3833	117.1001	107.5633
SEPARATION		1.20	12.45	22	12	49.405	6699.680	14.6839	310.9499	10.86223	8.7126	118.8164	113.6823
RETRO		3.20	14.45	22	12	51.405	6954.433	9.3812	319.8894	10.65970	13.9886	120.7909	123.1231
IMPACT		3693.56	3704.81	25	2	21.766	389486.711	-26.2914	256.4196	2.20078	66.5319	285.0539	264.7690

SURVEYOR VIEW PERIODS

GHA	332.8114				EPS -66.2329							LOM	252.5727
SX	-.082389	SY	-.892887	SZ	-.442679	DAO	-26.27491	RAO	264.72809	RM	390/59.121	LAT	28.510600	LON	279.461830
CS	-1.011683	ECC	.983389	SLR	12980.620	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	-.061045	NSY	-.893519	NSZ	-.444858	C3M	1.4968	VIM	2.6713	ZAE	139.023	B.T	.0000	B.R	-.0000
LATE	3.8363	LONE	6.9131	LATS	1.5128	LONS	73.0557	LATI	-4.7179	LONI	326.8002	RSM	151.3677	TTAN	6.5747
LAUNCH DATE	AUG 22,1966			BASE AZM	111.0		TF 61.693					ARRIVAL DATE	AUG 25 1966		2 36 56.8

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
111.00	12 40	6.5	28.1	16.77	304.46	11.66	107.94	119.17	12 52 21.5	6612.4	10.93	5.78

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	22	12	52.4												
SEPARATION		1.20	12.45	22	12	53.6												
RETRO		3.20	14.45	22	12	55.6												
RISE	72	4.13	15.38	22	12	56.5	85.61	-.1389	28.89	-.0341	3197.7	-7.25	-.00	.1255	299.20	-.0146	5.37	322.53
RISE	51	11.18	22.43	22	13	3.5	84.24	-.0701	11.75	-.0442	6134.5	-2.10	-.00	.0811	283.07	-.0092	-9.89	344.40
EXTM	72	11.21	22.46	22	13	3.6	4.38	-.1539	-15.08	-.0905	2495.1	4.82	81.64	-.0000	210.46	-1.1959	-9.93	344.46
EXTM	51	52.06	63.31	22	13	44.4	2.27	-.0086	-33.46	-.0019	15402.3	4.98	82.03	-.0000	193.81	-.0555	-31.20	26.11
EXTM	72	72.84	84.09	22	14	5.2	301.52	-.0000	-35.93	.0000	23936.5	4.68	80.00	.0000	127.15	-.0000	-32.62	30.80
EXTM	51	95.24	106.49	22	14	27.6	354.30	-.0000	-34.84	.0000	27326.6	4.26	79.65	.0000	153.00	-.0002	-33.15	32.23
RISE	61	117.61	128.86	22	14	50.0	318.47	.0017	-41.50	.0008	38629.0	3.90	-.00	.0013	150.22	.0007	-33.28	31.63
EXTM	51	164.94	176.19	22	15	37.3	.92	.0025	-34.19	.0002	43572.1	3.59	81.52	.0000	185.14	.0143	-33.11	26.89
EXTM	61	362.73	373.98	22	18	55.1	5.83	.0038	-35.84	.0002	84901.5	2.75	13.73	.0000	184.87	.0032	-31.75	350.30
EXTM	72	389.44	400.69	22	19	21.8	1.20	.0039	-33.32	.0002	85167.5	2.67	64.56	.0000	162.53	.0076	-31.60	344.57
RISE	11	572.66	583.91	22	22	25.0	297.11	.0040	-32.86	.0000	118040.1	2.05	.00	.0025	131.61	.0023	-30.71	303.42
SET	61	581.34	592.59	22	22	33.7	56.59	.0039	-33.05	.0002	119244.2	2.52	-.00	-.0019	224.40	.0026	-30.67	301.42
SET	51	583.67	594.92	22	22	36.0	90.00	.0038	-29.55	.0001	118209.0	2.63	12.37	-.0031	242.95	-.0012	-30.66	300.88
SET	72	783.29	794.54	23	1	55.7	94.53	.0039	-29.60	.0001	145570.2	2.43	-.00	-.0034	240.09	-.0004	-29.76	254.00
RISE	42	792.88	804.13	23	2	5.2	254.99	.0040	-28.44	-.0000	146185.7	1.74	5.09	.0028	121.49	-.0021	-29.53	251.72
EXTM	11	834.78	846.03	23	2	47.1	1.47	.0041	-32.02	.0001	149394.9	2.00	22.75	.0000	181.36	.0038	-29.81	241.73
SET	11	1093.43	1104.68	23	7	5.8	65.42	.0041	-30.52	.0001	181247.4	2.08	-.00	-.0025	231.57	.0024	-29.17	179.45
EXTM	42	1218.52	1229.77	23	9	10.9	359.93	.0042	-28.70	.0000	188206.8	1.72	83.48	.0000	.57	-.0313	-28.94	149.05
RISE	51	1354.40	1365.65	23	11	26.8	270.00	.0041	-28.00	-.0000	206835.0	1.28	11.76	.0033	115.59	-.0014	-28.66	115.89
RISE	72	1508.69	1519.94	23	14	1.0	265.73	.0041	-28.16	-.0000	222988.8	1.17	-.00	.0036	118.46	-.0005	-28.41	78.10
RISE	61	1598.69	1609.94	23	15	31.0	298.55	.0042	-29.45	-.0000	231350.0	1.26	.00	.0024	130.10	.0027	-28.27	56.00
SET	42	1641.96	1653.21	23	16	14.3	105.00	.0041	-27.27	.0001	234811.2	1.83	4.38	-.0029	239.43	-.0022	-28.21	45.37
EXTM	51	1713.92	1725.17	23	17	26.3	.02	.0042	-28.18	.0000	235473.3	1.48	87.56	-.0000	180.60	.0685	-28.11	27.66
EXTM	61	1845.68	1856.93	23	19	38.0	.56	.0042	-29.29	.0000	251065.5	1.43	20.47	-.0000	180.52	.0039	-27.94	355.20
EXTM	72	1884.99	1896.24	23	20	17.4	.17	.0042	-28.39	.0000	250743.2	1.42	69.51	-.0000	180.42	.0106	-27.89	345.51
RISE	11	2031.47	2042.72	23	22	43.8	292.65	.0042	-28.62	-.0000	268913.1	1.07	.00	.0027	125.89	.0024	-27.72	309.35
SET	51	2073.17	2084.42	23	23	25.5	90.00	.0041	-27.16	.0001	271067.5	1.73	11.43	-.0034	245.19	-.0014	-27.68	299.05
SET	61	2092.41	2103.66	23	23	44.8	62.48	.0042	-28.64	.0001	273893.9	1.62	-.00	-.0024	231.11	.0027	-27.65	294.29
SET	72	2259.43	2270.68	24	2	31.8	94.11	.0041	-27.29	.0001	287204.4	1.71	-.00	-.0036	242.43	-.0005	-27.48	252.98
RISE	42	2259.95	2271.20	24	2	32.3	255.00	.0041	-26.71	-.0000	286797.9	.98	4.03	.0029	120.12	-.0022	-27.48	252.85
EXTM	11	2300.62	2311.87	24	3	13.0	.37	.0042	-28.57	.0000	287612.4	1.29	26.22	-.0000	180.37	.0041	-27.44	242.78
SET	11	2569.51	2580.76	24	7	41.9	67.99	.0042	-27.96	.0000	310714.6	1.53	.00	-.0028	234.98	.0024	-27.19	176.16
EXTM	42	2678.99	2690.24	24	9	31.4	359.98	.0042	-26.93	.0000	312435.2	1.20	81.71	-.0000	.18	-.0178	-27.10	149.00
RISE	51	2809.69	2820.94	24	11	42.0	270.00	.0041	-26.56	-.0000	326735.8	.80	11.20	.0034	114.24	-.0015	-26.99	116.56
RISE	72	2962.88	2974.13	24	14	15.2	265.99	.0042	-26.71	-.0000	338749.9	.72	-.00	.0037	116.98	-.0005	-26.87	78.49
RISE	61	3042.14	3053.39	24	15	34.5	296.24	.0042	-27.58	-.0000	344071.9	.84	.00	.0025	127.34	.0027	-26.81	58.70
SET	42	3097.37	3108.62	24	16	29.7	105.00	.0041	-26.13	.0000	347350.6	1.44	3.68	-.0030	240.34	-.0023	-26.77	44.91
EXTM	51	3163.34	3174.59	24	17	35.7	359.24	.0042	-26.74	.0000	345825.5	1.10	88.79	.0022	145.67	.1472	-26.72	28.43
EXTM	61	3295.22	3306.47	24	19	47.6	.27	.0042	-27.57	.0000	358457.2	1.10	22.19	-.0000	180.26	.0041	-26.63	355.48
EXTM	72	3334.88	3346.13	24	20	27.2	.11	.0043	-26.93	.0000	357489.6	1.10	70.97	-.0000	180.30	.0114	-26.60	345.57
RISE	11	3472.63	3483.88	24	22	45.0	291.21	.0042	-27.15	-.0000	372582.8	.80	.00	.0028	123.95	.0024	-26.51	311.11
SET	51	3522.31	3533.56	24	23	34.7	90.00	.0042	-26.10	.0000	374698.8	1.51	11.01	-.0035	246.19	-.0015	-26.47	298.66
SET	61	3548.01	3559.26	25	0	.4	64.27	.0042	-27.16	.0000	377659.6	1.42	-.00	-.0025	233.28	.0027	-26.45	292.22
RISE	42	3702.85	3714.10	25	2	35.2	255.00	.0043	-25.73	.0000	389218.7	1.78	3.43	.0031	119.34	-.0024	-26.30	253.16
IMPACT		3701.60	3712.85	25	2	34.0												
IMPC	42	3701.60	3712.85	25	2	34.0	254.67	.0043	-25.73	.0000	389120.8	1.67	3.20	.0031	119.52	-.0024	-26.30	253.48
IMPC	72	3701.60	3712.85	25	2	34.0	93.22	.0043	-26.17	.0001	389408.4	2.44	.61	-.0038	243.65	-.0005	-26.30	253.48
IMPC	11	3701.60	3712.85	25	2	34.0	349.51	.0044	-27.13	.0000	386606.2	1.95	26.88	.0007	169.54	.0043	-26.30	253.48
SET	72	3704.24	3715.49	25	2	36.6	93.91	.0043	-26.16	.0001	389810.8	2.70	.00	-.0039	243.57	-.0005	-26.30	252.80

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION		.00	11.25	22	12	52.359	6614.260	16.7360	304.5359	10.93402	5.7834	119.1865	108.0887
SEPARATION		1.20	12.45	22	12	53.559	6714.048	13.4304	310.1676	10.85013	9.1007	120.7357	113.9413
RETRO		3.20	14.45	22	12	55.559	6976.701	7.8763	318.8394	10.64214	14.3476	122.4368	124.1144
IMPACT		3701.60	3712.85	25	2	33.956	389528.695	-26.3040	253.4833	2.19758	86.3256	285.6714	264.8885

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SURVEYOR VIEW PERIODS

GHA	332.8114			EPS	-66.0975						LOM	248.5487	
SX	-.079854	SY	-.892997	SZ	-.442926	DAO	-26.29073	RAO	264.89132	RM	390812.027	LAT	28.310600
CJ	-1.024159	ECC	.985184	SLR	12979.282	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000
NSX	-.058355	NSY	-.893570	NSZ	-.445114	C3M	1.4965	VIM	2.6713	ZAE	138.598	B.T	.0000
LATE	3.8501	LONE	6.9072	LATS	1.5129	LONS	72.9142	LATI	-5.1955	LONI	326.4602	RSM	151.3681
LAUNCH DATE	AUG 22,1966			BASE AZM	115.0		TF 61.901					ARRIVAL DATE	AUG 25 1966

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
115.00	12 45 36.4	28.1	15.40	303.60	12.51	108.20	121.95	12 56 51.4	6622.6	10.92	6.20

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAT	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	22	12	56.9												
SEPARATION	1.20	12.45	22	12	58.1												
RETRO	3.20	14.45	22	13	.1												
RISE 72	4.13	15.38	22	13	1.0	86.59	-.1208	23.23	-.0540	3259.2	-6.97	-.00	.1233	293.47	-.0359	3.27	320.96
RISE 51	11.29	22.54	22	13	8.1	86.38	-.0655	7.46	-.0472	6240.2	-1.90	.00	.0791	278.29	-.0140	-12.68	342.49
EXTM 72	11.53	22.78	22	13	8.4	9.26	-.1506	-25.20	-.0744	2722.9	5.00	70.58	-.0000	205.97	-.4669	-13.09	343.08
EXTM 51	57.93	69.18	22	13	54.8	1.70	-.0068	-37.18	-.0007	17223.4	4.86	78.47	-.0000	186.81	-.0275	-34.10	26.48
EXTM 72	73.20	84.45	22	14	10.1	302.60	-.0001	-38.57	.0003	24059.4	4.67	30.20	.0000	130.35	-.0004	-34.80	29.60
EXTM 51	88.47	99.72	22	14	25.3	355.83	-.0008	-37.35	.0002	25643.1	4.35	77.86	.0000	164.03	-.0033	-35.06	30.94
RISE 61	132.33	143.58	22	15	9.2	321.12	.0021	-42.61	.0008	42164.0	3.74	-.00	.0014	152.48	.0010	-34.95	29.62
EXTM 51	163.86	175.11	22	15	40.7	1.75	.0025	-35.95	.0003	43388.5	3.60	79.68	.0000	187.94	.0114	-34.65	26.18
EXTM 61	362.70	373.95	22	18	59.6	6.65	.0038	-36.85	.0003	85005.2	2.74	12.67	.0000	185.45	.0031	-32.75	349.54
EXTM 72	387.18	398.43	22	19	24.0	1.50	.0039	-34.36	.0002	84843.9	2.67	63.50	.0000	182.78	.0073	-32.57	344.30
RISE 11	573.05	584.30	22	22	29.9	297.99	.0040	-33.62	.0000	118060.5	2.05	.01	.0024	132.66	.0023	-31.45	302.55
SET 61	572.64	583.89	22	22	29.5	55.38	.0039	-33.86	.0002	118004.3	2.53	.00	-.0019	223.10	.0027	-31.45	302.65
SET 51	580.11	591.36	22	22	37.0	90.00	.0038	-30.31	.0002	117690.4	2.64	12.66	-.0031	242.23	-.0011	-31.41	300.92
SET 72	780.24	791.49	23	1	57.1	94.64	.0039	-30.20	.0001	145130.4	2.43	-.00	-.0034	239.48	-.0004	-30.56	253.92
RISE 42	789.57	800.82	23	2	6.4	254.99	.0040	-29.04	-.0000	145674.9	1.74	5.45	.0028	121.97	-.0021	-30.53	251.70
EXTM 11	832.17	843.42	23	2	49.0	1.67	.0041	-32.61	.0001	149069.6	2.00	22.16	.0000	181.52	.0038	-30.38	261.55
SET 11	1087.88	1099.13	23	7	4.7	64.92	.0041	-31.00	.0001	180536.6	2.08	-.00	-.0025	230.93	.0024	-29.65	179.95
EXTM 42	1214.97	1226.22	23	9	11.8	359.92	.0042	-29.12	.0000	187703.1	1.72	83.90	.0000	.71	-.0335	-29.32	149.06
RISE 51	1350.91	1362.16	23	11	27.8	270.00	.0041	-28.37	-.0000	206310.6	1.28	11.90	.0033	115.94	-.0014	-29.03	115.88
RISE 72	1504.92	1516.17	23	14	1.8	265.67	.0041	-28.49	-.0000	222449.5	1.17	-.00	.0036	118.79	-.0005	-28.74	78.15
RISE 61	1596.67	1607.92	23	15	33.5	298.93	.0042	-29.76	-.0000	230963.4	1.26	.00	.0024	130.55	.0027	-28.58	55.62
SET 42	1638.33	1649.58	23	16	15.2	105.00	.0041	-27.57	.0001	234252.3	1.83	4.56	-.0029	239.20	-.0022	-28.51	45.37
EXTM 51	1710.29	1721.54	23	17	27.1	.02	.0042	-28.46	.0000	234927.8	1.48	87.28	.0000	180.50	.0524	-28.39	27.67
EXTM 61	1842.30	1853.55	23	19	39.2	.63	.0042	-29.55	.0000	250551.6	1.43	20.21	-.0000	180.58	.0039	-28.19	355.14
EXTM 72	1881.42	1892.67	23	20	18.3	.19	.0042	-28.64	.0000	250190.8	1.42	69.26	-.0000	180.46	.0104	-28.14	345.49
RISE 11	2028.69	2039.94	23	22	45.5	292.86	.0042	-28.84	-.0000	268396.5	1.06	.00	.0027	126.18	.0024	-27.94	309.13
SET 51	2069.45	2080.70	23	23	26.3	90.00	.0041	-27.38	.0001	270459.7	1.72	11.52	-.0034	244.99	-.0014	-27.89	299.05
SET 61	2087.64	2098.89	23	23	44.5	62.21	.0042	-28.85	.0001	273206.4	1.62	-.00	-.0024	230.79	.0027	-27.86	294.56
SET 72	2255.81	2267.06	24	2	32.7	94.14	.0041	-27.47	.0001	286585.8	1.70	-.00	-.0036	242.24	-.0005	-27.66	252.95
RISE 42	2256.25	2267.50	24	2	33.1	255.00	.0041	-26.89	-.0000	286159.9	.98	4.14	.0029	120.26	-.0022	-27.66	252.85
EXTM 11	2297.06	2308.31	24	3	13.9	.42	.0042	-28.75	.0000	287009.6	1.29	26.04	-.0000	180.41	.0041	-27.61	242.74
SET 11	2565.20	2576.45	24	7	42.1	67.86	.0042	-28.10	.0001	309994.0	1.53	-.00	-.0027	234.79	.0024	-27.33	176.29
EXTM 42	2675.19	2686.44	24	9	32.1	359.98	.0042	-27.06	.0000	311730.6	1.20	81.84	-.0000	.18	-.0190	-27.22	149.00
RISE 51	2805.89	2817.14	24	11	42.7	270.00	.0041	-26.67	-.0000	326004.4	.80	11.24	.0034	114.35	-.0015	-27.10	116.56
RISE 72	2959.15	2970.40	24	14	16.0	265.98	.0042	-26.80	-.0000	338023.7	.71	.00	.0037	117.07	-.0006	-26.96	78.49
RISE 61	3038.85	3050.10	24	15	35.7	296.34	.0042	-27.67	-.0000	343393.3	.83	.00	.0025	127.47	.0027	-26.89	58.59
SET 42	3093.64	3104.89	24	16	30.5	105.04	.0041	-26.21	.0000	346581.7	1.44	3.73	-.0030	240.28	-.0022	-26.85	44.91
EXTM 51	3159.21	3170.46	24	17	36.1	359.14	.0042	-26.82	.0000	345016.7	1.10	88.68	.0022	144.55	.1324	-26.80	28.53
EXTM 61	3291.55	3302.80	24	19	48.4	.39	.0042	-27.63	.0000	357641.6	1.10	28.13	-.0000	180.29	.0040	-26.69	355.46
EXTM 72	3331.14	3342.39	24	20	28.0	.11	.0043	-26.99	.0000	356649.7	1.10	70.91	-.0000	180.31	.0114	-26.66	345.96
RISE 11	3469.04	3480.29	24	22	45.9	291.26	.0042	-27.20	-.0000	371686.6	.79	.00	.0028	124.01	.0024	-26.56	311.06
SET 51	3518.51	3529.76	24	23	35.4	90.00	.0042	-26.14	.0000	373753.8	1.49	11.03	-.0035	246.15	-.0015	-26.52	298.66
SET 61	3544.00	3555.25	25	0	.9	64.22	.0042	-27.20	.0000	376681.3	1.41	-.00	-.0025	233.21	.0027	-26.50	292.28
RISE 42	3699.41	3710.66	25	2	36.3	255.00	.0042	-25.77	-.0000	387643.3	1.20	3.46	.0030	119.38	-.0023	-26.35	253.15
SET 72	3700.83	3712.08	25	2	37.7	93.92	.0042	-26.20	.0001	388178.2	1.97	.00	-.0038	243.53	-.0005	-26.34	252.79
IMPACT	3714.07	3725.32	25	2	50.9												
IMPC 42	3714.07	3725.32	25	2	50.9	258.75	.0043	-25.77	.0000	388856.2	1.66	6.15	.0031	117.34	-.0023	-26.32	249.40
IMPC 72	3714.07	3725.32	25	2	50.9	97.30	.0043	-26.16	.0001	389872.8	2.42	-3.00	-.0038	243.07	-.0006	-26.32	249.40
IMPC 11	3714.07	3725.32	25	2	50.9	353.66	.0044	-27.15	.0000	386621.5	1.96	27.36	.0004	173.65	.0044	-26.32	249.40

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION	.00	11.25	22	12	56.857	6625.129	15.3446	303.6822	10.92493	6.2025	121.9684	108.2827
SEPARATION	1.20	12.45	22	12	58.057	6729.793	11.7989	309.0702	10.83674	9.5062	123.3098	113.9715
RETRO	3.20	14.45	22	13	.05.	7000.633	5.9030	317.3967	10.62319	14.7218	124.6726	122.7993
IMPACT	3714.07	3725.32	25	2	50.925	389590.652	-26.3213	249.3966	2.19181	69.8327	286.3439	265.0555

AUG 22, 1966
115 DEGREES

SURVEYOR VIEW PERIODS

GHA	333.7971				EPS -55.0911						LOM	27/.6810	
SY	.128392	SY	-.882144	SZ	-.453142	DAO	-26.94545	RAO	278.28100	RM	394869.125	LAT	28.310600
CC	-.955624	ECC	.984310	SLR	12986.647	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000
NSX	.148837	NSY	-.878921	NSZ	-.453151	C3M	1.4929	VIM	2.6706	ZAE	140.845	B.T	.0000
LATE	4.6783	LONE	6.3148	LATS	1.5181	LONS	61.2814	LATI	-.5127	LONI	32/.4889	RSM	151.4037
LAUNCH DATE		AUG 23,1966			BASE AZM		84.0		TF	62.031		ARRIVAL DATE	AUG 26 1966

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
84.00	11 47 50.4	27.4	27.08	307.64	-11.73	98.74	99.84	11 59 5.4	6613.2	10.94	-3.82

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	23	11	59.1												
SEPARATION		1.20	12.45	23	12	.3												
RETRO		3.20	14.45	23	12	2.3												
RISE	72	6.94	18.19	23	12	6.0	358.78	-1.3726	02.09	-.0886	2693.8	-3.01	*.00	.0846	.17	.1904	14.99	345.74
RISE	61	10.15	21.40	23	12	9.2	350.78	-.1635	-49.39	.0193	4006.2	6.24	.00	.0061	174.02	-.1080	8.20	358.96
EXTM	61	11.58	22.84	23	12	10.7	338.88	-.1169	-47.53	.0226	4575.8	6.97	.24	-.0000	165.92	-.0821	5.40	3.93
RISE	51	12.08	23.33	23	12	11.2	61.41	-.1436	44.79	-.0237	4808.8	-3.59	-.00	.0951	321.46	.0436	4.45	5.58
SET	61	13.35	24.60	23	12	12.4	328.58	-.0798	-45.25	.0199	5345.2	7.43	-.00	-.0041	158.47	-.0595	2.20	9.41
EXTM	72	13.44	24.69	23	12	12.5	290.93	-.0258	17.93	-.0947	3814.9	6.59	17.11	-.0000	68.41	.1023	2.04	9.67
EXTM	51	31.05	42.30	23	12	30.1	339.47	-.0220	-6.91	-.0209	7891.4	5.57	62.83	-.0000	49.68	.0661	-15.54	39.55
EXTM	72	62.99	74.24	23	13	2.1	273.64	-.0002	-23.25	-.0021	22184.2	5.02	6.44	.0000	112.07	.0022	-23.92	55.15
EXTM	51	77.36	88.61	23	13	16.5	322.43	-.0004	-24.17	-.0018	22305.6	4.62	56.01	.0000	95.62	.0032	-25.33	57.25
RISE	42	78.49	89.74	23	13	17.6	103.13	-.0031	-17.85	-.0027	27400.2	4.25	.00	.0039	247.97	-.0003	-25.41	57.35
EXTM	42	128.97	140.22	23	14	8.1	100.61	.0007	-22.42	-.0008	39899.3	3.98	4.64	-.0000	245.73	-.0010	-27.50	56.48
SET	42	180.30	191.55	23	14	59.4	105.00	.0020	-24.06	-.0003	51684.3	3.68	2.41	-.0012	241.98	-.0014	-28.22	50.24
RISE	61	200.42	211.67	23	15	19.5	304.00	.0032	-33.46	.0001	56150.8	3.22	-.00	.0017	136.24	.0020	-28.36	47.10
EXTM	51	304.80	316.05	23	17	3.9	359.99	.0037	-28.93	-.0000	69843.4	2.93	86.81	.0030	179.64	.0314	-28.66	27.70
EXTM	61	463.04	474.29	23	19	42.1	2.14	.0039	-32.07	.0001	99833.1	2.53	17.67	.0000	181.90	.0035	-28.65	353.75
EXTM	72	500.08	511.33	23	20	19.2	.30	.0040	-29.90	.0000	101534.5	2.45	68.00	-.0000	180.69	.0093	-28.63	345.39
RISE	11	669.22	680.47	23	23	8.3	294.43	.0040	-30.37	-.0000	130883.1	1.91	.00	.0026	128.23	.0023	-28.49	306.36
SET	51	694.30	705.55	23	23	33.4	90.00	.0039	-27.45	.0001	132850.5	2.51	11.55	-.0032	244.93	-.0013	-28.47	300.47
SET	61	706.28	717.53	23	23	45.4	60.12	.0040	-30.49	.0001	139674.9	2.40	*.00	-.0022	228.35	.0026	-28.46	297.65
SET	72	889.82	901.07	24	2	48.9	94.23	.0039	-27.96	.0001	158329.2	2.35	*.00	-.0035	241.75	-.0005	-28.30	294.03
RISE	42	898.57	909.82	24	2	57.7	255.00	.0040	-26.91	-.0001	158899.3	1.65	4.15	.0028	120.28	-.0021	-28.29	291.93
EXTM	11	937.96	949.21	24	3	37.0	.70	.0042	-30.28	.0000	161333.5	1.93	24.51	-.0000	180.66	.0039	-28.26	242.48
SET	11	1204.13	1215.38	24	8	3.2	66.66	.0041	-29.31	.0001	193177.9	2.03	-.00	-.0026	233.19	.0024	-28.05	178.09
EXTM	42	1323.96	1334.81	24	10	2.6	359.99	.0042	-27.73	.0000	199192.6	1.67	82.52	-.0000	.15	-.0122	-27.97	148.99
RISE	51	1458.53	1469.78	24	12	17.6	270.00	.0041	-27.24	-.0000	217430.4	1.24	11.46	.0034	114.88	-.0014	-27.88	115.99
RISE	72	1613.09	1624.34	24	14	52.2	269.84	.0041	-27.55	-.0000	233272.8	1.14	*.00	.0036	117.84	-.0005	-27.78	78.08
RISE	61	1699.66	1710.91	24	16	18.8	297.79	.0042	-28.85	-.0000	241172.8	1.23	.00	.0024	129.21	.0027	-27.73	56.81
SET	42	1746.41	1757.66	24	17	5.5	105.00	.0041	-26.81	.0000	244911.8	1.81	4.09	-.0029	239.81	-.0022	-27.71	45.30
EXTM	51	1812.20	1823.45	24	18	11.3	358.54	.0042	-27.72	.0000	244893.0	1.45	87.63	.0021	146.96	.0748	-27.67	29.11
EXTM	61	1948.71	1959.96	24	20	27.8	.30	.0042	-28.90	.0000	260700.8	1.41	20.87	.0000	180.28	.0039	-27.60	355.46
EXTM	72	1988.75	2000.00	24	21	7.8	.09	.0042	-28.05	.0000	260421.8	1.40	69.85	-.0000	180.25	.0106	-27.58	345.58
RISE	11	2134.30	2145.55	24	23	33.4	292.40	.0042	-28.37	-.0000	278386.0	1.05	.00	.0027	125.56	.0024	-27.51	309.63
SET	51	2177.32	2188.57	25	0	16.4	90.00	.0041	-26.99	.0000	280618.9	1.71	11.37	-.0034	245.35	-.0014	-27.49	299.00
SET	61	2197.55	2208.80	25	0	36.6	62.74	.0042	-28.43	.0000	283501.1	1.61	*.00	-.0024	231.42	.0027	-27.48	294.00
SET	72	2363.47	2374.72	25	3	22.6	94.10	.0041	-27.22	.0000	296600.5	1.70	*.00	-.0036	242.50	-.0005	-27.41	252.95
RISE	42	2363.71	2374.96	25	3	22.8	255.00	.0041	-26.66	-.0000	296175.1	.97	4.00	.0029	120.08	-.0022	-27.41	252.89
EXTM	11	2403.86	2415.11	25	4	2.9	.21	.0042	-28.48	.0000	296911.5	1.28	26.31	-.0000	180.20	.0041	-27.39	242.95
SET	11	2673.23	2684.48	25	8	32.3	67.93	.0042	-28.03	.0000	319931.9	1.53	.00	-.0028	234.89	.0024	-27.28	176.19
EXTM	42	2782.94	2794.19	25	10	22.0	.00	.0042	-27.08	.0000	321628.7	1.19	81.86	-.0000	359.88	-.0052	-27.24	148.98
RISE	51	2913.42	2924.67	25	12	32.5	270.00	.0041	-26.77	-.0000	335870.2	.80	11.28	.0034	114.44	-.0015	-27.19	116.59
RISE	72	3066.11	3077.36	25	15	5.2	269.94	.0042	-26.98	-.0000	347759.6	.72	*.00	.0037	117.26	-.0005	-27.14	78.56
RISE	61	3147.07	3158.32	25	16	26.2	296.99	.0042	-27.87	-.0000	353214.7	.84	.00	.0025	127.77	.0027	-27.12	59.37
SET	42	3201.14	3212.39	25	17	20.2	105.00	.0041	-26.48	.0000	356410.0	1.45	3.89	-.0029	240.07	-.0022	-27.10	44.89
EXTM	51	3265.65	3276.90	25	18	24.7	358.87	.0042	-27.11	.0000	356840.7	1.11	88.30	.0023	143.82	.1020	-27.08	28.79
EXTM	61	3398.54	3409.79	25	20	37.6	.14	.0042	-27.96	.0000	367679.6	1.12	21.80	-.0000	180.13	.0040	-27.04	359.61
EXTM	72	3438.59	3449.84	25	21	17.7	.07	.0042	-27.36	.0000	366791.8	1.12	70.94	-.0000	180.19	.0109	-27.03	345.61
RISE	11	3578.25	3589.50	25	23	37.5	291.67	.0042	-27.62	-.0000	382227.9	.85	.00	.0028	124.57	.0024	-26.99	310.67
SET	51	3626.22	3637.47	26	0	25.3	90.00	.0042	-26.62	.0000	384396.3	1.59	11.22	-.0034	245.71	-.0015	-26.98	298.64
SET	61	3649.46	3660.71	26	0	48.6	63.67	.0042	-27.66	.0000	387346.6	1.54	*.00	-.0025	232.54	.0027	-26.97	292.81
IMPACT		3721.84	3733.09	26	2	.9												
IMPC	72	3721.84	3733.09	26	2	.9	72.16	.0043	-26.97	.0000	391474.7	2.47	19.44	-.0039	244.12	.0001	-26.95	274.49
IMPC	11	3721.84	3733.09	26	2	.9	328.21	.0044	-27.72	-.0000	391389.4	1.88	20.28	.0018	150.19	.0037	-26.95	274.49

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	23	11	59.091	6613.126	27.6967	307.5492	10.93591	-3.8195	99.8009	98.6942
SEPARATION		1.20	12.45	23	12	.291	6956.463	25.7139	314.8319	10.98341	-2.4216	103.1790	106.2377
RETRO		3.20	14.45	23	12	2.291	6966.534	22.5872	326.4934	10.97491	3.2954	108.1727	118.4005
IMPACT		3721.84	3733.09	26	2	.928	393643.164	-26.9506	274.4900	2.21911	68.7131	273.8811	278.6012

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SURVEYOR VIEW PERIODS

GHA	333.7971					EPS	-54.8385							LOM	270.0028
SX	.133147	SY	-.881438	SZ	-.453144	DAO	-26.94557	RAO	278.58994	RM	394956.148	LAT	28.510600	LON	279.461800
CS	-.949183	ECC	.984415	SLR	12987.336	RCA	6544.6650	LTA	-20.0000	GTA	20.00	18	679.00000	POL	-.0
NSX	.153508	NSY	-.878144	NSZ	-.453099	C3M	1.4972	VIM	2.6714	ZAE	140.974	W.T	.0000	B.R	.0000
LATE	4.8995	LONE	6.2985	LATS	1.5182	LONS	61.0112	LATI	-.2553	LONI	327.5679	RSM	151.4045	TTAN	6.4957
LAUNCH DATE		AUG	23,1966		BASE AZM		87.0		TF 61.959				ARRIVAL DATE AUG 26 1966		2 18 46.8

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
87.00	12 17 37.2	27.8	25.85	307.79	-5.11	106.35	102.18	12 28 52.2	6557.6	10.98	-2.53

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	23	12	28.9												
SEPARATION		1.20	12.45	23	12	30.1												
RETRO		3.20	14.45	23	12	32.1												
RISE	72	6.00	17.25	23	12	34.9	59.98	-.6260	74.50	.0837	2781.4	-4.71	-.01	.1005	346.62	.1578	15 02	340.17
RISE	61	8.45	19.68	23	12	37.3	15.91	-.2016	-48.65	-.0069	3775.7	4.53	.01	.0212	190.43	-.1317	9.96	350.37
RISE	51	11.71	22.96	23	12	40.6	66.14	-.1232	40.01	-.0255	5138.3	-3.[illegible]	-.00	.0922	315.54	.0325	3.74	1.55
EXTM	61	12.71	23.96	23	12	41.6	339.86	-.0893	-45.71	.0170	5328.0	6.95	2.18	-.0000	166.07	-.0647	2.04	4.47
EXTM	72	12.78	24.03	23	12	41.7	301.57	-.0406	19.76	-.1058	3438.5	6.22	26 20	-.0000	63.34	.1253	1.93	4.66
SET	61	21.47	32.72	23	12	50.5	314.80	-.0259	-39.69	.0067	9124.6	7.13	-.00	-.0052	146.78	-.0204	-8.85	22.79
EXTM	51	34.28	45.53	23	13	3.2	345.02	-.0176	-10.42	-.0149	9174.9	5.45	69.13	-.0000	45.52	.0641	-16.82	36.85
EXTM	72	63.39	74.64	23	13	32.3	280.59	-.0001	-23.46	-.0020	21985.5	4.98	12.81	.0000	112.37	.0021	-23.43	48.84
EXTM	51	79.54	90.79	23	13	48.4	330.62	-.0003	-24.10	-.0016	22894.8	4.55	63.36	.0000	92.87	.0037	-24.94	50.86
RISE	61	159.63	170.88	23	15	8.5	304.15	.0028	-33.56	.0001	47723.0	3.52	-.00	.0016	136.40	.0017	-27.55	46.19
EXTM	51	269.05	280.30	23	16	57.9	359.96	.0036	-28.50	-.0000	63650.6	3.06	87.24	.0000	179.27	.0581	-28.25	27.72
EXTM	61	431.33	442.58	23	19	40.2	2.21	.0039	-31.97	.0001	95149.1	2.59	17.77	.0000	161.96	.0035	-28.39	353.67
EXTM	72	468.26	479.51	23	20	17.1	.24	.0040	-29.71	.0000	96983.0	2.51	68.20	.0000	180.56	.0094	-28.39	345.45
RISE	11	638.44	649.69	23	23	7.3	294.29	.0040	-30.24	-.0000	126920.9	1.96	.00	.0026	128.06	.0023	-28.30	306.43
SET	51	663.58	674.83	23	23	32.4	90.00	.0039	-27.23	.0001	129813.2	2.55	11.46	-.0032	245.13	-.0013	-28.29	300.55
SET	61	676.39	687.64	23	23	45.3	60.26	.0040	-30.56	.0001	131965.3	2.43	-.00	-.0022	228.54	.0026	-28.28	297.55
SET	72	859.64	870.89	24	2	48.5	94.20	.0039	-27.81	.0001	154926.4	2.38	-.00	-.0035	241.90	-.0005	-28.15	254.11
RISE	42	868.91	880.16	24	2	57.8	254.99	.0040	-26.73	-.0001	155585.3	1.67	4.04	.0028	120.14	-.0021	-28.14	251.89
EXTM	11	908.13	919.38	24	3	37.0	.68	.0041	-30.18	.0000	158038.0	1.95	24.61	-.0000	180.64	.0039	-28.12	242.50
SET	11	1175.01	1186.26	24	8	3.9	66.76	.0041	-29.22	.0001	190314.8	2.05	-.00	-.0026	233.32	.0024	-27.94	178.02
EXTM	42	1294.28	1305.53	24	10	3.2	360.00	.0042	-27.63	.0000	196441.3	1.69	82.41	-.0000	.14	-.0044	-27.87	148.98
RISE	51	1429.40	1440.65	24	12	18.3	270.00	.0041	-27.15	-.0000	214822.0	1.26	11.43	.0034	114.74	-.0014	-27.79	115.97
RISE	72	1584.10	1595.35	24	14	53.0	265.85	.0041	-27.47	-.0000	230803.0	1.15	-.00	.0036	117.76	-.0005	-27.71	78.05
RISE	61	1670.32	1681.57	24	16	19.2	297.72	.0041	-28.79	-.0000	238738.5	1.24	.00	.0024	129.12	.0027	-27.66	56.87
SET	42	1717.30	1728.55	24	17	6.2	105.00	.0041	-26.73	.0000	242538.2	1.82	4.04	-.0029	239.87	-.0022	-27.64	45.32
EXTM	51	1783.13	1794.38	24	18	12.0	358.56	.0042	-27.66	.0000	242566.5	1.46	87.68	.0021	145.93	.0756	27.61	29.11
EXTM	61	1919.66	1930.91	24	20	28.5	.29	.0042	-28.85	.0000	250463.5	1.40	20.91	.0000	180.27	.0039	-27.54	355.47
EXTM	72	1959.75	1971.00	24	21	8.6	.09	.0042	-28.00	.0000	250218.0	1.41	69.90	-.0000	180.24	.0107	-27.52	345.58
RISE	11	2105.22	2116.47	24	23	34.1	292.36	.0042	-28.33	-.0000	276268.1	1.06	.00	.0028	125.51	.0024	-27.46	309.66
SET	51	2148.35	2159.60	25	0	17.2	90.00	.0041	-26.94	.0000	278537.4	1.72	11.35	-.0034	245.40	-.0014	-27.44	299.01
SET	61	2168.78	2180.03	25	0	37.7	62.79	.0042	-28.39	.0000	281445.9	1.62	-.00	-.0024	231.48	.0027	-27.43	293.96
SET	72	2334.52	2345.77	25	3	43.4	94.09	.0041	-27.18	.0000	294623.7	1.71	-.00	-.0036	242.53	-.0005	-27.37	252.96
RISE	42	2334.85	2346.10	25	3	23.7	255.00	.0041	-26.62	-.0000	294208.4	.98	3.98	.0029	120.04	-.0022	-27.37	252.88
EXTM	11	2374.93	2386.18	25	4	3.8	.20	.0042	-28.45	.0000	294956.1	1.29	26.34	-.0000	180.19	.0041	-27.35	242.96
SET	11	2644.46	2655.71	25	8	33.3	67.96	.0042	-28.01	.0000	318129.5	1.53	.00	-.0028	234.92	.0024	-27.25	176.17
EXTM	42	2754.12	2765.37	25	10	23.0	.00	.0042	-27.06	.0000	319876.2	1.20	81.84	-.0000	359.87	-.0066	-27.21	148.98
RISE	51	2884.63	2895.88	25	12	33.5	270.00	.0041	-26.75	-.0000	334189.2	.80	11.27	.0034	114.42	-.0015	-27.17	116.59
RISE	72	3037.43	3048.68	25	15	6.3	265.95	.0042	-26.97	-.0000	346166.7	.73	-.00	.0037	117.25	-.0005	-27.12	78.55
RISE	61	3118.31	3129.56	25	16	27.2	296.57	.0042	-27.84	-.0000	351631.4	.85	.00	.0025	127.75	.0027	-27.10	58.38
SET	72	3172.38	3183.63	25	17	21.2	105.00	.0041	-26.46	.0000	354836.6	1.45	3.88	-.0029	240.08	-.0022	-27.09	44.89
EXTM	51	3230.90	3242.15	25	18	25.8	358.88	.0042	-27.10	.0000	353275.5	1.11	88.31	.0023	143.66	.1023	-27.07	28.79
EXTM	61	3369.73	3380.98	25	20	38.6	.15	.0042	-27.96	.0000	366112.5	1.12	21.60	-.0000	180.13	.0540	-27.04	355.62
EXTM	72	3409.80	3421.05	25	21	18.7	.06	.0042	-27.36	.0000	365187.4	1.12	70.55	-.0000	180.18	.0108	-27.03	345.61
RISE	11	3549.50	3560.75	25	23	38.4	291.67	.0042	-27.62	-.0000	380613.8	.84	.00	.0028	124.57	.0024	-26.99	310.67
SET	51	3597.47	3608.72	26	0	26.3	90.00	.0042	-26.62	.0000	382724.7	1.56	11.22	-.0034	245.71	-.0015	-26.98	298.65
SET	61	3620.71	3631.96	26	0	49.6	63.66	.0042	-27.67	.0000	385627.6	1.49	-.00	-.0025	232.93	.0027	-26.98	292.82
IMPACT		3717.54	3728.79	26	2	26.4												
IMPC	72	3717.54	3728.79	26	2	26.4	78.36	.0043	-26.92	.0000	392131.5	2.48	13.94	-.0039	244.12	-.0001	-26.95	268.35
IMPC	11	3717.54	3728.79	26	2	26.4	334.43	.0044	-27.74	-.0000	391225.9	1.91	22.58	.0015	155.57	.0039	-26.95	268.35

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION		.00	11.25	23	12	28.869	6557.648	25.8479	307.7763	10.98285	-2.5334	102.1807	106.3463
SEPARATION		1.20	12.45	23	12	30.069	6546.279	24.1999	314.8962	10.99231	.8976	105.3236	113.7671
RETRO		3.20	14.45	23	12	32.069	6632.102	20.7333	326.1878	10.92039	6.5675	109.8459	125.5600
IMPACT		3717.54	3728.79	26	2	26.409	393716.559	-26.9496	268.3501	2.21852	68.4687	273.2886	276.8489

SURVEYOR VIEW PERIODS

GHA	333.797.				EPS	-54.5942							LOM	262.5741	
SX	.137742	SY	-.680735	SZ	-.453136	DAO	-26.94507	RAO	278.88871	RM	395040.035	LAT	28.610600	LON	279.461800
CS	-.948685	ECC	.984428	SLR	12987.426	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.198076	NSY	-.877361	NSZ	-.453044	C3M	1.4971	VIM	2.6714	ZAE	141.001	B.T	.0000	B.R	-.0000
LATE	4.9200	LONE	6.2835	LATS	1.5183	LONS	60.7507	LATI	-.1339	LONI	327.5656	RSM	151.4052	TTAN	6.4902
LAUNCH DATE	AUG 23.1966			BASE AZM	90.0		TF	61.971				ARRIVAL DATE	AUG 26 1966		2 49 36.4

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
90.00	12 42 29.0	28.0	24.63	307.71	.53	112.51	104.42	12 53 44.0	6544.7	10.99	.16

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	23	12	53.7												
SEPARATION		1.20	12.45	23	12	54.9												
RETRO		3.20	14.45	23	12	56.9												
RISE	72	5.36	16.61	23	12	59.1	72.35	-.3494	65.41	.0821	2898.8	-5.70	-.00	.1101	336.63	.1256	24.54	335.91
RISE	61	8.06	19.31	23	13	1.8	24.61	-.1894	-47.05	-.0152	4014.9	4.06	.00	.0257	196.48	-.1246	8.99	346.94
RISE	51	11.47	22.72	23	13	5.2	69.73	-.1085	35.70	-.0275	5433.5	-2.95	.00	.0892	310.38	.0239	2.75	358.04
EXTM	72	12.30	23.55	23	13	6.0	312.64	-.0599	20.21	-.1136	6152.7	5.85	35.60	-.0000	58.11	.1559	1.41	.33
EXTM	61	14.02	25.27	23	13	7.7	341.10	-.0705	-44.61	.0128	6123.0	6.87	3.47	-.0000	166.64	-.0519	-1.17	4.68
SET	61	31.45	42.70	23	13	25.2	310.95	-.0116	-37.76	.0028	13236.8	6.34	-.00	-.0030	143.33	-.0091	-15.76	29.75
EXTM	51	38.13	49.38	23	13	31.9	349.38	-.0139	-13.83	-.0106	10611.0	5.33	74.47	-.0000	41.94	.0640	-18.36	34.51
EXTM	72	64.48	75.73	23	13	58.2	286.66	-.0000	-24.11	-.0018	22037.0	4.92	18.38	.0000	112.85	.0019	-23.47	43.58
EXTM	51	81.86	93.11	23	14	15.6	337.60	-.0002	-24.43	-.0015	23556.6	4.49	69.70	.0000	91.16	.0043	-24.99	45.41
RISE	61	122.37	133.62	23	14	56.1	304.88	.0021	-34.05	.0002	39338.3	3.89	-.00	.0012	137.18	.0012	-26.71	44.44
EXTM	51	237.80	249.05	23	16	51.5	359.94	.0034	-28.29	-.0001	57948.2	3.19	87.45	.0000	178.71	.0641	-28.04	27.74
EXTM	61	405.11	416.36	23	19	38.8	2.36	.0039	-32.14	.0001	91185.8	2.65	17.69	.0000	182.10	.0034	-28.31	353.53
EXTM	72	441.77	453.02	23	20	15.5	.24	.0040	-29.68	.0000	93095.1	2.56	68.22	.0000	180.56	.0093	-28.31	345.45
RISE	11	613.29	624.54	23	23	7.0	294.29	.0040	-30.24	-.0000	123649.8	1.99	.00	.0026	128.06	.0023	-28.25	306.36
SET	51	637.94	649.19	23	23	31.7	90.00	.0038	-27.16	.0001	125728.3	2.58	11.43	-.0032	245.20	-.0013	-28.24	300.62
SET	61	650.86	662.11	23	23	44.6	60.28	.0039	-30.37	.0001	128715.3	2.46	-.00	-.0022	228.53	.0026	-28.23	297.61
SET	72	834.59	845.84	24	2	48.3	94.20	.0039	-27.77	.0001	152030.5	2.40	-.00	-.0034	241.94	-.0005	-28.11	254.17
RISE	42	844.27	855.52	24	2	58.0	254.94	.0040	-26.67	-.0001	152795.6	1.69	4.01	.0028	120.09	-.0021	-28.11	251.86
EXTM	11	883.43	894.68	24	3	37.2	.69	.0041	-30.18	.0001	155248.5	1.97	24.60	-.0000	180.65	.0039	-28.08	242.49
SET	11	1150.54	1161.79	24	8	4.3	66.77	.0041	-29.21	.0001	187830.3	2.07	-.00	-.0026	233.33	.0024	-27.92	178.04
EXTM	42	1269.95	1281.20	24	10	3.7	359.99	.0042	-27.66	.0000	1940?2.2	1.70	82.38	-.0000	.14	-.0071	-27.85	148.99
RISE	51	1405.23	1416.48	24	12	19.0	270.00	.0041	-27.12	-.0000	212568.1	1.27	11.41	.0034	114.77	-.0014	-27.77	115.95
RISE	72	1560.00	1571.25	24	14	53.7	265.86	.0041	-27.45	-.0000	228655.5	1.16	-.00	.0036	117.74	-.0005	-27.59	78.03
RISE	61	1646.19	1657.44	24	16	19.9	297.71	.0041	-28.79	-.0000	236638.4	1.25	.00	.0024	129.11	.0027	-27.65	56.87
SET	42	1693.13	1704.38	24	17	6.9	105.00	.0041	-26.71	.0000	240462.3	1.83	4.03	-.0029	239.89	-.0022	-27.62	45.33
EXTM	51	1759.00	1770.25	24	18	12.7	358.52	.0042	-27.64	.0000	240528.6	1.47	87.69	.0021	145.60	.0756	-27.59	29.12
EXTM	61	1895.59	1906.84	24	20	29.3	.28	.0042	-28.85	.0000	256498.8	1.43	20.91	.0000	180.27	.0039	-27.53	355.47
EXTM	72	1935.69	1946.94	24	21	9.4	.09	.0042	-27.99	.0000	256273.7	1.42	69.91	-.0000	180.24	.0106	-27.51	345.58
RISE	11	2081.22	2092.47	24	23	34.9	292.36	.0042	-28.33	-.0000	274393.1	1.07	.00	.0027	125.50	.0024	-27.45	309.66
SET	51	2124.30	2135.55	25	0	18.0	90.00	.0041	-26.93	.0000	276677.9	1.73	11.34	-.0034	245.41	-.0014	-27.43	299.02
SET	61	2144.77	2156.02	25	0	38.5	62.79	.0042	-28.39	.0000	279596.8	1.63	-.00	-.0024	231.48	.0027	-27.42	293.96
SET	72	2310.50	2321.75	25	3	24.2	94.09	.0041	-27.67	.0000	292840.4	1.71	-.00	-.0036	242.54	-.0005	-27.36	252.97
RISE	42	2310.90	2322.15	25	3	24.6	255.00	.0041	-26.60	-.0000	292431.3	.99	3.97	.0029	120.03	-.0022	-27.36	252.87
EXTM	11	2350.95	2362.20	25	4	4.7	.20	.0042	-28.45	.0000	293191.3	1.30	26.34	-.0000	180.19	.0041	-27.34	242.96
SET	11	2620.51	2631.76	25	8	34.2	67.96	.0042	-28.00	.0000	316461.0	1.54	.00	-.0028	234.92	.0024	-27.25	176.18
EXTM	42	2730.20	2741.45	25	10	23.9	.01	.0042	-27.05	.0000	318245.7	1.21	81.83	-.0000	359.87	-.0071	-27.21	148.98
RISE	51	2860.75	2872.00	25	12	34.5	270.00	.0041	-26.75	-.0000	332600.7	.81	11.27	.0034	114.42	-.0015	-27.17	116.58
RISE	72	3013.67	3024.92	25	15	7.4	265.95	.0042	-26.96	-.0000	344659.5	73	-.00	.0037	117.24	-.0005	-27.12	78.55
RISE	61	3094.52	3105.77	25	16	28.3	296.58	.0042	-27.86	-.0000	350126.8	.85	.00	.0025	127.75	.0027	-27.10	58.38
SET	42	3148.55	3159.80	25	17	22.3	105.00	.0041	-26.46	.0000	353330.7	1.45	3.88	-.0029	240.08	-.0023	-27.09	44.89
EXTM	51	3213.06	3224.31	25	18	26.8	358.88	.0042	-27.09	.0000	351769.8	1.11	88.31	.0023	143.64	.1023	-27.07	28.79
EXTM	61	3343.87	3357.12	25	20	39.6	.13	.0042	-27.96	.0000	364595.7	1.12	21.80	-.0000	180.12	.0040	-27.04	355.62
EXTM	72	3385.95	3397.20	25	21	19.7	.06	.0042	-27.36	.0000	363664.0	1.12	70.55	-.0000	180.18	.0108	-27.03	345.61
RISE	11	3525.69	3536.94	25	23	39.4	291.67	.0042	-27.63	-.0000	379036.3	.83	.00	.0028	124.58	.0024	-27.00	310.66
SET	51	3573.62	3584.87	26	0	27.4	90.00	.0042	-26.62	.0000	381098.6	1.54	11.22	-.0034	245.70	-.0015	-26.99	298.65
SET	61	3596.85	3608.10	26	0	50.6	63.65	.0042	-27.68	.0000	383966.0	1.46	-.00	-.0025	232.52	.0027	-26.98	292.83
IMPACT		3718.28	3729.53	26	2	52.0												
IMPC	42	3718.28	3729.53	26	2	52.0	246.02	.0043	-26.33	-.0000	394005.2	1.74	-2.39	.0029	124.96	-.0025	-26.95	262.18
IMPC	72	3718.28	3729.53	26	2	52.0	84.52	.0043	-26.88	.0000	392805.4	2.48	8.43	-.0035	243.84	-.0003	-26.95	262.18
IMPC	11	3718.28	3729.53	26	2	52.0	340.69	.0044	-27.75	.0000	391111.0	1.94	24.45	.0012	161.25	.0041	-26.95	262.18

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	23	12	53.733	6544.722	24.6289	307.7096	10.99377	.1636	104.4226	112.5126
SEPARATION		1.20	12.45	23	12	54.933	6570.656	22.7350	314.6671	10.97177	3.5917	107.3416	119.7709
RETRO		3.20	14.45	23	12	56.933	6716.565	18.9925	325.5186	10.85099	9.1693	111.3987	131.1238
IMPACT		3718.28	3729.53	26	2	52.008	393791.059	-26.9406	262.1817	2.21610	68.1719	272.9635	279.0979

SURVEYOR VIEW PERIODS

GHA	333.7971					EPS -54.4048								LOM	256.8127
SX	.141302	SY	-.880178	SZ	-.453123	DAO	-26.94426	RAO	279.12035	RM	395104.863	LAT	28.310600	LON	279.461800
C3	-.949056	ECC	.984417	SLR	12987.351	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.161629	NSY	-.876737	NSZ	-.453000	C3M	1.4967	VIM	2.6713	ZAE	140.986	B.T	.0000	B.R	-.0000
LATE	4.9358	LONE	6.2714	LATS	1.5184	LONS	60.5483	LATI	-.1679	LONI	327.5451	RSM	151.4057	TTAN	6.4865
LAUNCH DATE		AUG	23.1966		BASE AZM	93.0		TF	62.000			ARRIVAL DATE		AUG 26 1966	3 13 30.8

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
93.00	13 1 24.3	28.1	23.44	307.46	4.40	117.00	106.59	13 12 39.3	6554.3	0.99	2.18

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	23	13	12.7												
SEPARATION		1.20	12.45	23	13	13.9												
RETRO		3.20	14.45	23	13	15.9												
RISE	72	4.91	16.16	23	13	17.6	77.13	-.2603	58.09	.0648	6003.1	-6.29	-.01	.1160	328.98	.0983	13.72	332.61
RISE	61	8.23	19.48	23	13	20.9	26.77	-.1641	-46.53	-.0147	4380.7	4.18	.00	.0250	198.05	-.1111	6.95	345.56
RISE	51	11.33	22.58	23	13	24.0	72.60	-.0981	31.81	-.0294	5668.1	-2.69	-.00	.0867	305.82	.0173	1.47	355.07
EXTM	72	11.95	23.20	23	13	24.6	323.08	-.0802	18.85	-.1169	2941.7	5.53	44.83	-.0000	53.28	.1965	.48	356.75
EXTM	61	15.45	26.70	23	13	28.1	341.99	-.0574	-44.32	.0100	6951.1	6.77	3.91	-.0000	167.19	-.0424	-4.36	4.86
EXTM	51	41.95	53.20	23	13	54.6	352.82	-.0113	-16.97	-.0078	11967.4	5.23	78.98	-.0000	38.70	.0696	-20.05	32.47
SET	61	45.69	56.94	23	13	58.3	309.71	-.0048	-37.06	.0014	18354.8	5.56	-.00	-.0011	142.12	-.0039	-20.95	34.14
EXTM	72	66.06	77.31	23	14	18.7	291.52	.0001	-25.20	-.0016	22292.1	4.86	22.78	.0000	114.07	.0017	-24.04	39.51
EXTM	51	84.75	96.00	23	14	37.4	343.06	-.0001	-25.25	-.0013	24383.7	4.43	74.71	.0000	91.85	.0049	-25.51	41.15
RISE	61	88.48	99.73	23	14	41.1	306.62	.0008	-35.18	.0004	30913.6	4.38	-.01	.0007	139.00	.0003	-25.72	41.25
EXTM	51	212.44	223.69	23	16	45.1	359.91	.0032	-28.39	-.0001	53135.5	3.31	87.35	.0000	178.20	.0599	-28.10	27.77
EXTM	61	385.58	396.83	23	19	38.2	2.63	.0038	-32.30	.0001	88190.9	2.70	17.42	.0000	182.33	.0034	-28.44	353.28
EXTM	72	421.59	432.84	23	20	14.2	.27	.0040	-29.87	.0000	90078.7	2.61	68.04	.0000	180.63	.0092	-28.44	345.42
RISE	11	594.82	606.07	23	23	7.5	294.46	.0040	-30.40	-.0000	121210.0	2.02	.00	.0025	128.27	.0017	-28.36	306.15
SET	51	618.35	629.60	23	23	31.0	90.00	.0038	-27.25	.0001	123170.7	2.60	11.47	-.0032	245.11	-.0013	-28.35	300.69
SET	61	630.51	641.76	23	23	43.2	60.07	.0039	-30.53	.0001	126078.0	2.49	-.00	-.0022	228.29	.0026	-28.34	297.86
SET	72	815.60	826.85	24	2	48.3	94.21	.0039	-27.86	.0001	149802.3	2.42	-.00	-.0034	241.85	-.0005	-28.21	254.19
RISE	42	825.54	836.79	24	2	58.2	254.99	.0040	-26.74	-.0001	150564.1	1.71	4.05	.0028	120.15	-.0021	-28.20	251.82
EXTM	11	864.80	876.05	24	3	37.5	.73	.0041	-30.30	.0000	153124.0	1.99	24.48	-.0000	180.69	.0039	-28.17	242.45
SET	11	1131.55	1142.80	24	8	4.2	66.68	.0041	-29.29	.0001	185870.2	2.08	-.00	-.0026	233.21	.0024	-27.99	178.14
EXTM	42	1251.35	1262.60	24	10	4.0	359.97	.0042	-27.67	.0000	192229.2	1.71	82.45	.0000	.26	-.0240	-27.91	149.01
RISE	51	1386.87	1398.12	24	12	19.5	270.00	.0041	-27.17	-.0000	210821.7	1.28	11.44	.0034	114.82	-.0014	-27.83	115.94
RISE	72	1541.66	1552.91	24	14	54.3	265.85	.0041	-27.50	-.0000	226987.3	1.17	-.00	.0036	117.79	-.0005	-27.74	78.02
RISE	61	1628.16	1639.41	24	16	20.8	297.78	.0041	-28.84	-.0000	235036.8	1.26	.00	.0024	129.19	.0027	-27.69	56.79
SET	42	1674.76	1686.01	24	17	7.4	105.00	.0041	-26.74	.0000	238846.2	1.83	4.05	-.0029	239.85	-.0022	-27.67	45.34
EXTM	51	1740.65	1751.90	24	18	13.3	358.52	.0042	-27.69	.0000	238943.9	1.48	87.65	.0021	146.06	.0746	-27.63	29.13
EXTM	61	1877.36	1888.61	24	20	30.0	.30	.0042	-28.89	.0000	254978.3	1.44	20.87	.0000	180.28	.0039	-27.57	355.46
EXTM	72	1917.42	1928.67	24	21	10.1	.09	.0042	-28.03	.0000	254761.4	1.43	69.87	-.0000	180.24	.0106	-27.55	345.58
RISE	11	2063.14	2074.39	24	23	35.8	292.39	.0042	-28.36	-.0000	272941.5	1.07	.00	.0027	125.55	.0024	-27.48	309.62
SET	51	2106.03	2117.28	25	0	18.7	90.00	.0041	-26.96	.0000	275221.8	1.73	11.35	-.0034	245.38	-.0014	-27.46	299.02
SET	61	2126.32	2137.57	25	0	39.0	62.74	.0042	-28.42	.0000	278134.2	1.63	-.00	-.0024	231.43	.0027	-27.46	294.01
SET	72	2292.26	2303.51	25	3	24.9	94.09	.0041	-27.20	.0000	291442.3	1.72	-.00	-.0036	242.52	-.0005	-27.39	252.97
RISE	42	2292.70	2303.95	25	3	25.4	255.00	.0041	-26.63	-.0000	291034.3	.99	3.98	.0029	120.05	-.0022	-27.39	252.87
EXTM	11	2332.77	2344.02	25	4	5.4	.20	.0042	-28.48	.0000	291810.8	1.30	26.31	-.0000	180.20	.0041	-27.37	242.95
SET	11	2602.21	2613.46	25	8	34.9	67.93	.0042	-28.03	.0000	315134.8	1.54	.00	-.0028	234.89	.0024	-27.27	176.21
EXTM	42	2712.01	2723.26	25	10	24.7	.01	.0042	-27.07	.0000	316952.8	1.21	81.85	-.0000	359.86	-.0063	-27.23	148.98
RISE	51	2842.59	2853.84	25	12	35.2	270.00	.0041	-26.76	-.0000	331336.8	.81	11.27	.0034	114.43	-.0015	-27.18	116.98
RISE	72	2995.64	3006.89	25	15	8.3	265.94	.0042	-26.97	-.0000	343470.6	.73	-.00	.0037	117.25	-.0005	-27.13	78.55
RISE	61	3076.54	3087.79	25	16	29.2	296.59	.0042	-27.88	-.0000	348941.9	.85	.00	.0025	127.77	.0027	-27.11	58.36
SET	42	3130.47	3141.72	25	17	23.1	105.00	.0041	-26.47	.0000	352138.5	1.45	3.88	-.0029	240.07	-.0023	-27.10	44.90
EXTM	51	3194.98	3206.23	25	18	27.6	358.87	.0042	-27.10	.0000	350576.2	1.11	88.30	.0023	143.77	.1020	-27.08	28.79
EXTM	61	3327.79	3339.04	25	20	40.4	.13	.0042	-27.97	.0000	363393.1	1.11	21.79	-.0000	180.13	.0040	-27.05	355.62
EXTM	72	3367.85	3379.10	25	21	20.5	.06	.0042	-27.37	.0000	362454.0	1.11	70.54	-.0000	180.18	.0108	-27.04	345.61
RISE	11	3507.63	3518.88	25	23	40.3	291.68	.0042	-27.63	-.0000	377786.3	.82	.00	.0028	124.59	.0024	-27.00	310.65
SET	51	3555.52	3566.77	26	0	28.2	90.00	.0042	-26.62	.0000	379814.6	1.52	11.22	-.0034	245.70	-.0015	-26.99	298.65
SET	61	3578.73	3589.98	26	0	51.4	63.65	.0042	-27.68	.0000	382658.7	1.45	-.00	-.0025	232.51	.0027	-26.98	292.84
IMPACT		3720.02	3731.27	26	3	12.7												
IMPC	42	3720.02	3731.27	26	3	12.7	250.98	.0043	-26.36	-.0000	393688.6	1.72	1.00	.0030	122.09	-.0024	-26.95	257.20
IMPC	72	3720.02	3731.27	26	3	12.7	89.50	.0043	-26.84	.0000	393354.9	2.48	4.00	-.0038	243.43	-.0004	-26.95	257.20
IMPC	11	3720.02	3731.27	26	3	12.7	345.74	.0044	-27.76	.0000	391055.8	1.96	25.61	.0009	166.01	.0042	-26.95	257.20

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	23	13	12.655	6554.290	23.4393	307.4624	10.98566	2.1830	106.5888	117.0088
SEPARATION		1.20	12.45	23	13	13.855	6607.786	21.3250	314.2174	10.94063	5.5868	109.2789	124.0646
RETRO		3.20	14.45	23	13	15.855	6797.063	17.3365	324.6387	10.78600	11.0661	112.9065	134.9873
IMPACT		3720.02	3731.27	26	3	12.674	393851.504	-26.9477	257.2021	2.21368	67.9059	272.9519	279.2988

SURVEYOR VIEW PERIODS

QHA	353.7971					EPS -54.2777								LOM	252.9449
SX	.143691	SY	-.879797	SZ	-.453112	DAO	-26.94349	RAO	279.27580	RM	395148.285	LAT	28.31060J	LON	279.461800
CS	-.949438	ECC	.984411	SLR	12987.312	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.164011	NSY	-.876308	NSZ	-.452974	C3H	1.4975	VIM	2.6715	ZAE	140.954	P.T	.0000	B.R	-.0000
LATE	4.9464	LONE	6.2629	LATS	1.5184	LONS	60.4121	LATI	-.3359	LONI	327.5298	RSM	151.4061	TTAN	6.4844
LAUNCH DATE	AUG 23,1966			BASE AZM	96.0		TF 62.018					ARRIVAL DATE	AUG 26 1966		3 29 33.7

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
96.00	13 14 53.9	28.1	22.28	307.09	7.27	120.02	108.71	13 26 8.9	6570.8	10.97	3.60

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	23	13	26.1												
SEPARATION		1.20	12.45	23	13	27.3												
RETRO		3.20	14.45	23	13	29.3												
RISE	72	4.61	15.86	23	13	30.8	79.73	-.2177	52.07	.0468	3079.8	-6.68	.00	.1199	322.78	.0756	12.66	330.03
RISE	61	8.89	20.14	23	13	35.0	24.61	-.1420	-47.05	-.0102	4862.1	4.64	.01	.0211	196.49	-.0950	3.98	345.81
RISE	51	11.24	22.49	23	13	37.4	75.01	-.094	28.22	-.0315	5838.5	-2.50	.00	.0849	301.66	.0118	-.05	352.60
EXTM	72	11.69	22.94	23	13	37.8	332.41	-.0987	15.88	-.1170	2777.2	5.27	53.77	-.0000	48.93	.2550	-.77	353.78
EXTM	61	16.98	28.23	23	13	43.1	342.34	-.0479	-44.72	.0081	7806.6	6.67	3.58	-.0000	167.52	-.0350	-7.63	5.17
EXTM	51	45.11	56.36	23	14	11.3	352.61	-.0097	-19.83	-.0061	13059.9	5.14	82.84	-.0000	35.52	.0879	-21.78	30.68
EXTM	61	62.44	73.69	23	14	28.6	310.60	-.0015	-37.13	.0009	23678.4	4.96	.36	.0000	142.74	-.0015	-24.48	35.64
EXTM	72	67.80	79.05	23	14	33.9	295.17	.0001	-26.64	-.0013	32650.4	4.81	25.99	.0000	115.84	.0015	-25.02	36.50
EXTM	51	88.36	99.61	23	14	54.5	347.12	.0000	-26.49	-.0010	25391.6	4.37	78.41	.0000	96.56	.0052	-26.43	37.98
EXTM	51	192.88	204.13	23	16	39.0	359.88	.0030	-28.83	-.0001	49286.0	3.42	86.91	-.0000	178.08	.0485	-28.47	27.79
EXTM	61	372.08	384.13	23	19	39.0	3.15	.0038	-32.73	.0001	86249.8	2.73	16.97	-.0000	182.77	.0034	-28.78	352.80
EXTM	72	407.28	418.53	23	20	13.4	.35	.0039	-30.25	.0001	87919.3	2.64	67.65	.0000	180.79	.0090	-28.77	345.35
RISE	11	582.46	593.71	23	23	8.6	294.77	.0040	-30.70	-.0000	119566.6	2.03	.00	.0025	128.67	.0023	-28.63	305.80
SET	51	604.33	615.58	23	23	30.5	90.00	.0038	-27.49	.0001	121312.3	2.62	11.57	-.0031	244.88	-.0013	-28.61	300.74
SET	61	614.89	626.14	23	23	41.0	59.67	.0039	-30.83	.0001	124027.4	2.51	-.00	-.0021	227.83	.0026	-28.60	298.29
SET	72	802.15	813.40	24	2	48.3	94.25	.0039	-28.06	.0001	148212.6	2.43	-.01	-.0034	241.64	-.0004	-28.42	254.19
RISE	42	812.20	823.45	24	2	58.3	254.99	.0040	-26.94	-.0001	148982.1	1.73	4.17	.0028	120.30	-.0021	-28.41	251.80
EXTM	11	851.69	862.94	24	3	37.8	.81	.0041	-30.53	.0000	151634.5	2.00	24.26	-.0000	180.76	.0039	-28.37	242.38
SET	11	1117.56	1128.81	24	8	3.7	66.51	.0041	-29.47	.0001	184416.0	2.09	-.00	-.0026	232.99	.0024	-28.14	178.33
EXTM	42	1238.20	1249.45	24	10	4.4	359.97	.0042	-27.81	.0000	190919.8	1.72	82.59	.0000	.21	-.0243	-28.05	149.01
RISE	51	1373.79	1385.04	24	12	19.9	270.00	.0041	-27.30	-.0000	209569.2	1.28	11.48	.0034	114.93	-.0014	-27.95	115.92
RISE	72	1528.53	1539.78	24	14	54.7	265.83	.0041	-27.61	-.0000	225789.7	1.18	-.00	.0036	117.90	-.0005	-27.85	78.03
RISE	61	1615.66	1626.91	24	16	21.8	297.92	.0041	-28.95	-.0000	233924.9	1.27	.00	.0024	129.36	.0027	-27.80	56.65
SET	42	1661.66	1672.91	24	17	7.8	105.00	.0041	-26.84	.0000	237685.9	1.84	4.11	-.0029	239.78	-.0022	-27.77	45.34
EXTM	31	1733.51	1744.76	24	18	19.7	.01	.0042	-27.78	.0000	238341.7	1.49	87.96	-.0000	180.49	.0629	-27.73	27.67
EXTM	61	1864.43	1875.68	24	20	30.6	.33	.0042	-28.98	.0000	253904.5	1.44	20.78	-.0000	180.31	.0039	-27.65	355.43
EXTM	72	1904.41	1915.66	24	21	10.6	.10	.0042	-28.12	.0000	253684.5	1.43	69.79	-.0000	180.26	.0106	-27.63	345.57
RISE	11	2050.44	2061.69	24	23	36.6	292.47	.0042	-28.44	-.0000	271920.8	1.08	.00	.0027	125.05	.0024	-27.56	309.54
SET	51	2092.98	2104.23	25	0	19.1	90.00	.0041	-27 03	.0000	274179.4	1.74	11.38	-.0034	245.32	-.0014	-27.53	299.03
SET	61	2112.92	2124.17	25	0	39.1	62.65	.0042	-28 50	.0000	277070.4	1.64	-.00	-.0024	231.32	.0027	-27.52	294.10
SET	72	2279.28	2290.53	25	3	25.4	94.10	.0041	-27.26	.0000	290445.9	1.72	-.00	-.0036	242.46	-.0005	-27.45	252.97
RISE	42	2279.71	2290.96	25	3	25.9	255.00	.0041	-26.68	-.0000	290034.1	.99	4.02	.0029	120.10	-.0022	-27.44	252.86
EXTM	11	2319.83	2331.08	25	4	6.0	.22	.0042	-28.54	.0000	290832.2	1.31	26.25	-.0000	180.22	.0041	-27.43	242.93
SET	11	2589.02	2600.27	25	8	35.2	67.89	.0042	-28.07	.0000	314179.3	1.55	.00	-.0028	234.83	.0024	-27.31	176.25
EXTM	42	2699.02	2710.27	25	10	25.2	.00	.0042	-27.11	.0000	316029.7	1.21	81.89	-.0000	359.88	-.0067	-27.27	148.98
RISE	51	2829.62	2840.87	25	12	35.8	270.00	.0041	-26.79	-.0000	330434.2	.82	11.29	.0034	114.46	-.0015	-27.22	116.57
RISE	72	2982.65	2993.90	25	15	8.8	265.94	.0042	-27.00	-.0000	342592.1	.73	-.00	.0037	117.28	-.0005	-27.16	78.55
RISE	61	3063.69	3074.94	25	16	29.8	296.62	.0042	-27.90	-.0000	348075.0	.85	.00	.0025	127.81	.0027	-27.13	58.33
SET	42	3117.48	3128.73	25	17	23.6	105.00	.0041	-26.49	.0000	351262.2	1.45	3.90	-.0029	240.06	-.0022	-27.12	44.90
EXTM	51	3181.99	3193.24	25	18	28.1	358.87	.0042	-27.12	.0000	349701.8	1.11	88.29	.0022	144.05	.1013	-27.10	28.80
EXTM	61	3314.86	3326.11	25	20	41.0	.14	.0042	-27.99	.0000	362522.0	1.11	21.77	-.0000	180.14	.0040	-27.06	355.61
EXTM	72	3354.90	3366.15	25	21	21.0	.07	.0042	-27.38	.0000	361577.8	1.11	70.52	-.0000	180.19	.0109	-27.05	345.61
RISE	11	3494.73	3505.98	25	23	40.9	291.69	.0042	-27.64	-.0000	376892.7	.82	.00	.0028	124.60	.0024	-27.01	310.64
SET	51	3542.58	3553.83	26	0	28.7	90.00	.0042	-26.63	.0000	378901.1	1.52	11.22	-.0034	245.69	-.0015	-27.00	298.66
SET	61	3565.75	3577.00	26	0	51.9	63.63	.0042	-27.69	.0000	381731.7	1.44	-.00	-.0025	232.50	.0027	-26.99	292.85
RISE	42	3723.12	3734.37	26	3	29.3	254.99	.0043	-26.38	-.0000	393670.3	1.89	3.83	.0031	119.86	-.0024	-26.95	253.17
IMPACT		3721.10	3732.35	26	3	27.3												
IMPC	42	3721.10	3732.35	26	3	27.3	254.47	.0043	-26.38	-.0000	393455.7	1.71	3.46	.0031	120.15	-.0024	-26.95	253.69
IMPC	72	3721.10	3732.35	26	3	27.3	93.01	.0043	-26.82	.0000	393740.5	2.47	.89	-.0038	243.04	-.0005	-26.95	253.69
IMPC	11	3721.10	3732.35	26	3	27.3	349.31	.0044	-27.77	.0000	391034.8	1.98	26.22	.0007	169.45	.0043	-26.95	253.69
SET	72	3724.98	3736.23	26	3	31.1	94.02	.0044	-26.81	.0000	394356.9	2.95	.00	-.0039	242.92	-.0006	-26.95	252.68

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	23	13	26.149	6571.122	22.2737	307.1091	10.97168	3.6041	108.7167	120.0382
SEPARATION		1.20	12.45	23	13	27.349	6643.572	19.9547	313.6480	10.91017	6.9809	111.1839	126.8779
RETRO		3.20	14.45	23	13	29.349	6862.479	15.7247	323.6838	10.73403	12.3777	114.4225	137.4151
IMPACT		3721.10	3732.35	26	3	27.253	393891.555	-26.9474	253.6887	2.21301	67.8641	273.2684	279.4402

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SURVEYOR VIEW PERIODS

GHA	353.7971					EPS	-54.1745							LOM	249.8050
SX	.145629	SY	-.879484	SZ	-.453100	DAO	-26.94275	RAO	279.40198	RM	395183.473	LAT	28.310600	LON	279.461800
CS	-.952135	ECC	.984367	SLR	12987.019	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.165969	NSY	-.875948	NSZ	-.452956	C3M	1.4970	VIM	2.6714	ZAE	140.869	B.T	.0000	B.R	-.0000
LATE	4.9549	LONE	6.3755	LATS	1.5184	LONS	60.4209	LATI	-.5972	LONI	327.5964	RSM	151.4063	TTAN	6.4839

LAUNCH DATE AUG 23,1966 BASE AZM 99.0 TF 62.069 ARRIVAL DATE AUG 26 1966 3 42 35.4

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99.00	13 24 25.5	28.1	21.14	306.65	9.25	121.96	110.81	13 35 40.5	6587.2	10.96	4.59

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	23	13	35.7												
SEPARATION		1.20	12.45	23	13	36.9												
RETRO		3.20	14.45	23	13	38.9												
RISE	72	4.40	15.65	23	13	40.1	81.49	-.1917	46.83	.0297	3134.5	-6.94	-.00	.1225	317.42	.0555	11.43	327.94
RISE	61	10.12	21.37	23	13	45.8	18.85	-.1175	-48.19	-.0041	5523.9	5.25	.01	.0153	192.43	-.0769	-.02	347.64
RISE	51	11.18	22.43	23	13	46.9	77.13	-.0846	24.80	-.0337	5960.3	-2.36	.00	.0835	297.76	.0071	-1.76	350.48
EXTM	72	11.49	22.74	23	13	47.2	340.64	-.1146	11.56	-.1145	2650.2	5.07	62.63	-.0000	44.92	.3488	-2.25	351.28
EXTM	61	18.63	29.88	23	13	54.3	342.19	-.0407	-45.59	.0068	8694.1	6.57	2.70	-.0000	167.63	-.0293	-10.97	5.65
EXTM	51	47.54	58.79	23	14	23.2	357.89	-.0088	-22.56	-.0049	13887.5	5.08	86.28	-.0000	31.65	.1463	-23.56	29.14
EXTM	61	59.54	70.79	23	14	35.2	313.76	-.0021	-38.66	.0011	22898.4	5.02	.50	.0000	145.67	-.0020	-25.32	32.60
EXTM	72	69.32	80.57	23	14	45.0	297.88	.0001	-28.30	-.0010	22990.5	4.77	28.23	.0000	117.96	.0012	-26.27	34.25
EXTM	51	177.95	189.20	23	16	33.6	359.87	.0028	-29.57	-.0001	46256.3	3.51	86.17	-.0000	178.32	.0364	-29.10	27.80
EXTM	61	363.86	375.11	23	19	39.5	3.49	.0038	-33.31	.0002	84879.0	2.75	16.38	.0000	183.04	.0033	-29.28	352.48
EXTM	72	397.45	408.70	23	20	13.1	.46	.0039	-30.78	.0001	86427.3	2.66	67.12	.0000	181.02	.0087	-29.24	345.25
RISE	11	574.73	585.98	23	23	10.4	295.20	.0040	-31.10	-.0000	118526.9	2.05	.00	.0025	129.22	.0023	-29.01	305.35
SET	51	594.49	605.74	23	23	30.2	90.00	.0038	-27.86	.0001	119980.5	2.63	11.71	-.0031	244.54	-.0013	-28.98	300.78
SET	61	602.80	614.05	23	23	38.5	59.12	.0039	-31.24	.0001	122409.7	2.52	-.00	-.0021	227.21	.0026	-28.97	298.86
SET	72	792.87	804.12	24	2	48.5	94.30	.0039	-28.36	.0001	147093.5	2.44	-.01	-.0034	241.34	-.0004	-28.72	254.16
RISE	42	802.91	814.16	24	2	58.6	254.99	.0040	-27.22	-.0001	147848.1	1.74	4.34	.0028	120.53	-.0021	-28.71	251.77
EXTM	11	842.75	854.00	24	3	38.4	.91	.0041	-30.83	.0001	150611.3	2.01	23.95	-.0000	180.85	.0039	-28.66	242.28
SET	11	1107.30	1118.55	24	8	3.0	66.27	.0041	-29.70	.0001	183318.2	2.09	-.00	-.0026	232.67	.0024	-28.37	178.58
EXTM	42	1228.99	1240.24	24	10	4.7	359.97	.0042	-28.02	.0000	189967.6	1.72	82.80	.0000	.26	-.0257	-28.25	149.01
RISE	51	1364.67	1375.92	24	12	20.3	270.00	.0041	-27.47	-.0000	208655.5	1.29	11.55	.0034	115.10	-.0014	-28.13	115.91
RISE	72	1519.31	1530.56	24	14	55.0	265.80	.0041	-27.77	-.0000	224907.3	1.18	-.00	.0036	118.06	-.0005	-28.01	78.05
RISE	61	1607.32	1618.57	24	16	23.0	298.11	.0041	-29.11	-.0000	233139.9	1.27	.00	.0024	129.58	.0027	-27.94	56.45
SET	42	1652.50	1663.75	24	17	8.2	105.00	.0041	-26.98	.0000	236824.2	1.84	4.20	-.0029	239.67	-.0022	-27.91	45.35
EXTM	51	1724.39	1735.64	24	18	20.1	.01	.0042	-27.92	.0000	237505.7	1.49	87.82	-.0000	180.47	.0663	-27.86	27.67
EXTM	61	1895.45	1906.70	24	20	31.1	.36	.0042	-29.11	.0000	253112.4	1.45	20.65	-.0000	180.54	.0039	-27.77	355.40
EXTM	72	1906.34	1906.59	24	21	11.0	.11	.0042	-28.24	.0000	252881.1	1.43	69.67	-.0000	180.28	.0105	-27.75	345.56
RISE	11	2041.77	2053.02	24	23	37.4	292.57	.0042	-28.55	-.0000	271164.6	1.08	.00	.0027	125.79	.0024	-27.66	309.43
SET	51	2083.86	2095.11	25	0	19.5	90.00	.0041	-27.12	.0000	273386.3	1.74	11.42	-.0034	245.23	-.0014	-27.63	299.04
SET	61	2103.31	2114.56	25	0	39.0	62.53	.0042	-28.60	.0000	276243.2	1.64	-.00	-.0024	231.17	.0027	-27.62	294.23
SET	72	2270.22	2281.47	25	3	25.9	94.12	.0041	-27.34	.0000	289681.7	1.72	-.00	-.0036	242.58	-.0005	-27.53	252.96
RISE	42	2270.62	2281.87	25	3	26.3	255.00	.0041	-26.76	-.0000	289262.6	1.00	4.07	.0029	120.16	-.0022	-27.53	252.86
EXTM	11	2310.82	2322.07	25	4	6.5	.24	.0042	-28.62	.0000	290084.2	1.31	26.17	-.0000	180.24	.0041	-27.51	242.91
SET	11	2579.66	2590.91	25	8	35.3	67.82	.0042	-28.14	.0000	313418.4	1.55	.01	-.0027	234.75	.0024	-27.37	176.32
EXTM	42	2689.93	2701.18	25	10	25.6	.00	.0042	-27.16	.0000	315295.8	1.22	81.94	-.0000	359.87	-.0052	-27.32	148.98
RISE	51	2820.54	2831.79	25	12	36.2	270.00	.0041	-26.84	-.0000	329708.4	.82	11.30	.0034	114.50	-.0015	-27.26	116.57
RISE	72	2973.70	2984.95	25	15	9.4	265.94	.0042	-27.03	-.0000	341925.4	.73	.00	.0037	117.31	-.0005	-27.19	78.55
RISE	61	3054.89	3066.14	25	16	30.6	296.66	.0042	-27.93	-.0000	347414.0	.85	.00	.0025	127.86	.0027	-27.16	58.29
SET	42	3108.50	3119.75	25	17	24.2	105.00	.0041	-26.51	.0000	350583.8	1.45	3.91	-.0029	240.04	-.0022	-27.15	44.90
EXTM	51	3172.99	3184.24	25	18	28.7	358.87	.0042	-27.15	.0000	349019.5	1.11	88.26	.0022	144.48	.1005	-27.12	28.80
EXTM	61	3305.91	3317.16	25	20	41.6	.16	.0042	-28.01	.0000	361831.3	1.11	21.75	-.0000	180.15	.0040	-27.08	355.60
EXTM	72	3345.91	3357.16	25	21	21.6	.07	.0042	-27.40	.0000	360877.4	1.11	70.50	-.0000	180.19	.0110	-27.07	345.60
RISE	11	3485.78	3497.03	25	23	41.5	291.70	.0042	-27.66	-.0000	376164.5	.81	.00	.0028	124.62	.0024	-27.02	310.62
SET	51	3533.56	3544.81	26	0	29.2	90.00	.0042	-26.64	.0000	378150.7	1.51	11.23	-.0034	245.68	-.0015	-27.01	298.66
SET	61	3556.67	3567.92	26	0	52.3	63.62	.0042	-27.70	.0000	380967.1	1.43	-.00	-.0025	232.48	.0027	-27.00	292.87
RISE	42	3714.41	3725.66	26	3	30.1	255.00	.0042	-26.39	-.0000	392400.8	1.32	3.83	.0030	119.86	-.0023	-26.95	253.16
SET	72	3716.29	3727.54	26	3	32.0	94.02	.0043	-26.81	.0000	393014.9	2.12	.00	-.0038	242.91	-.0005	-26.95	252.68
IMPACT		3724.15	3735.40	26	3	39.8												
IMPC	42	3724.15	3735.40	26	3	39.8	257.49	.0043	-26.40	-.0000	393254.4	1.70	5.62	.0031	118.52	-.0023	-26.95	250.66
IMPC	72	3724.15	3735.40	26	3	39.8	96.04	.0043	-26.79	.0000	394075.5	2.47	-1.78	-.0038	242.64	-.0006	-26.95	250.66
IMPC	11	3724.15	3735.40	26	3	39.8	352.38	.0044	-27.77	.0000	391033.9	2.00	26.61	.0005	172.46	.0043	-26.95	250.66

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	23	13	35.675	6587.942	21.1281	306.6873	10.95782	4.5906	110.8247	122.0044
SEPARATION		1.20	12.45	23	13	36.875	6673.126	18.6127	313.0139	10.88637	7.9437	113.0812	128.6318
RETRO		3.20	14.45	23	13	38.875	6912.141	14.1365	322.7095	10.69496	13.2772	115.9651	138.8287
IMPACT		3724.15	3735.40	26	3	39.824	393929.395	-26.9472	250.6996	2.21060	67.6295	273.7078	279.5625

SURVEYOR VIEW PERIODS

QHA	333.7971					EPS -54.0907								LOM	247.2521
SX	.14/204	SY	-.879228	SZ	-.453089	DAO	-26,94206	RAO	279.50455	RM	395212.047	LAT	28.310600	LON	279.461800
CS	-.955748	ECC	.984308	SLR	12986.631	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.167573	NSY	-.875649	NSZ	-.452944	C3M	1.4966	VIM	2.6713	ZAE	140.751	B.T	.0000	B.R	-.0000
LATE	4.9619	LONE	6.2507	LATS	1.5185	LONS	60.2118	LATI	-.9155	LONI	327.4018	RSM	151.4066	TTAN	6.4847
LAUNCH DATE	AUG 23,1966			BASE AZM	102.0		TF 62.132					ARRIVAL DATE	AUG 26 1966	3 53 11.0	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	13 31 14.1	28.1	20.02	306.15	10.65	123.18	112.90	13 42 29.1	6601.1	10.95	5.28

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	23	13	42.5												
SEPARATION		1.20	12.45	23	13	43.7												
RETRO		3.20	14.45	23	13	45.7												
RISE	72	4.25	15.50	23	13	46.7	82.81	-.1736	42.05	.0133	3174.4	-7.11	-.00	.1242	312.55	.0370	10.10	326.19
RISE	51	11.15	22.40	23	13	53.6	79.06	-.0798	21.49	-.0361	6050.4	-2.25	.00	.0825	294.00	.0028	-3.60	348.63
EXTM	72	11.36	22.61	23	13	53.8	347.90	-.1272	6.07	-.1098	2564.6	4.93	71.54	-.0000	41.15	.5288	-3.93	349.14
RISE	61	12.41	23.66	23	13	54.9	8.70	-.0873	-49.43	.0021	6576.8	5.91	.00	.0086	185.64	-.0561	-5.52	351.68
EXTM	61	20.46	31.71	23	14	2.9	341.80	-.0348	-46.75	.0059	9635.7	6.46	1.47	-.0000	167.50	-.0246	-14.39	6.36
EXTM	51	46.48	57.73	23	14	29.0	1.36	-.0099	-24.47	-.0047	13630.5	5.07	88.23	.0096	315.59	.1043	-24.87	26.75
EXTM	61	56.10	67.35	23	14	38.6	316.48	-.0030	-40.49	.0014	21974.9	5.10	.09	.0000	148.42	-.0026	-26.33	29.87
EXTM	72	70.70	81.95	23	14	53.2	299.89	.0001	-30.11	-.0008	23321.9	4.73	29.74	.0000	120.27	.0009	-27.70	32.56
EXTM	51	96.08	107.33	23	15	18.6	352.36	.0003	-29.63	-.0006	27481.1	4.26	82.20	.0000	121.66	.0046	-28.93	33.85
EXTM	51	166.52	177.77	23	16	29.0	359.89	.0026	-30.55	-.0000	43879.5	3.59	85.19	.0000	178.84	.0268	-29.94	27.78
EXTM	61	358.78	370.03	23	19	41.3	4.03	.0038	-33.97	.0002	84143.0	2.76	15.70	.0000	183.47	.0033	-29.89	351.98
EXTM	72	390.81	402.06	23	20	13.3	.61	.0039	-31.42	.0001	85420.8	2.68	66.47	-.0000	181.30	.0084	-29.83	345.11
RISE	11	570.23	581.48	23	23	12.7	295.71	.0040	-31.58	-.0000	117916.4	2.06	.00	.0025	129.86	.0023	-29.46	304.83
SET	51	587.57	598.82	23	23	30.1	90.00	.0038	-28.30	.0001	119023.7	2.64	11.88	-.0031	244.12	-.0012	-29.43	300.82
SET	61	593.11	604.36	23	23	35.6	58.46	.0039	-31.72	.0001	121094.9	2.53	-.00	-.0021	226.46	.0026	-29.42	299.54
SET	72	786.46	797.71	24	2	48.9	94.37	.0039	-28.72	.0001	146308.3	2.44	-.01	-.0034	240.98	-.0004	-29.08	254.12
RISE	42	796.42	807.67	24	2	58.9	254.99	.0040	-27.58	-.0001	147032.3	1.74	4.56	.0028	120.81	-.0021	-29.06	251.75
EXTM	11	836.68	847.93	24	3	39.2	1.03	.0041	-31.19	.0001	149919.1	2.01	23.59	-.0000	180.96	.0039	-29.00	242.16
SET	11	1099.61	1110.86	24	8	2.1	65.98	.0041	-29.98	.0001	182475.1	2.09	-.00	-.0026	232.29	.0024	-28.64	178.87
EXTM	42	1222.51	1233.76	24	10	5.0	359.96	.0042	-28.27	.0000	189275.3	1.73	83.05	.0000	.32	-.0277	-28.50	149.02
RISE	51	1358.27	1369.52	24	12	20.8	270.00	.0041	-27.69	-.0000	207986.1	1.29	11.64	.0033	115.30	-.0014	-28.35	115.90
RISE	72	1512.78	1524.03	24	14	55.3	265.77	.0041	-27.96	-.0000	224254.0	1.18	-.00	.0036	118.25	-.0005	-28.20	78.08
RISE	61	1601.86	1613.11	24	16	24.3	298.34	.0041	-29.29	-.0000	232594.7	1.27	.00	.0024	129.86	.0027	-28.12	56.22
SET	42	1646.06	1657.31	24	17	8.5	105.00	.0041	-27.15	.0000	236181.4	1.84	4.30	-.0029	239.53	-.0022	-28.08	45.36
EXTM	51	1717.94	1729.19	24	18	20.4	.01	.0042	-28.08	.0000	236881.3	1.49	87.66	.0000	180.42	.0272	-28.02	27.68
EXTM	61	1849.20	1860.45	24	20	31.7	.40	.0042	-29.26	.0000	252529.9	1.45	20.50	-.0000	180.38	.0039	-27.92	355.36
EXTM	72	1888.97	1900.22	24	21	11.5	.12	.0042	-28.38	.0000	252281.4	1.43	69.52	-.0000	180.31	.0105	-27.89	345.55
RISE	11	2035.86	2047.11	24	23	38.3	292.70	.0042	-28.67	-.0000	270607.0	1.08	.00	.0027	125.96	.0024	-27.78	309.31
SET	51	2077.42	2088.67	25	0	19.9	90.00	.0041	-27.24	.0000	272781.8	1.74	11.46	-.0034	245.12	-.0014	-27.75	299.04
SET	61	2096.28	2107.53	25	0	38.8	62.38	.0042	-28.72	.0000	275596.3	1.64	-.00	-.0024	230.99	.0027	-27.74	294.38
SET	72	2263.85	2275.10	25	3	26.3	94.13	.0041	-27.44	.0001	289096.4	1.72	-.00	-.0036	242.28	-.0005	-27.63	252.95
RISE	42	2264.21	2275.46	25	3	26.7	255.00	.0041	-26.86	-.0000	288667.4	1.00	4.13	.0029	120.24	-.0022	-27.63	252.86
EXTM	11	2304.51	2315.76	25	4	7.0	.27	.0042	-28.72	.0000	289514.5	1.31	26.07	-.0000	180.26	.0041	-27.60	242.89
SET	11	2572.91	2584.16	25	8	35.4	67.75	.0042	-28.21	.0000	312814.1	1.55	.01	-.0027	234.65	.0024	-27.44	176.40
EXTM	42	2683.49	2694.74	25	10	26.0	.00	.0042	-27.22	.0000	314715.9	1.22	82.01	-.0000	359.86	-.0040	-27.38	148.98
RISE	51	2814.11	2825.36	25	12	36.6	270.00	.0041	-26.89	-.0000	329129.7	.82	11.33	.0034	114.55	-.0015	-27.31	116.57
RISE	72	2967.24	2978.49	25	15	9.7	265.93	.0042	-27.07	-.0000	341350.1	.73	.00	.0037	117.36	-.0005	-27.24	78.55
RISE	61	3048.64	3059.89	25	16	31.1	296.71	.0042	-27.97	-.0000	346848.9	.85	.00	.0025	127.91	.0027	-27.20	58.24
SET	42	3102.05	3113.30	25	17	24.5	105.00	.0041	-26.55	.0000	349999.0	1.45	3.93	-.0029	240.01	-.0022	-27.18	44.90
EXTM	51	3166.54	3177.79	25	18	29.0	358.86	.0042	-27.18	.0000	348432.1	1.11	88.23	.0022	145.00	.0995	-27.15	28.80
EXTM	61	3299.55	3310.80	25	20	42.0	.17	.0042	-28.04	.0000	361240.5	1.11	21.72	-.0000	180.16	.0040	-27.11	355.58
EXTM	72	3339.50	3350.75	25	21	22.0	.08	.0042	-27.42	.0000	360277.3	1.11	70.48	-.0000	180.21	.0109	-27.09	345.60
RISE	11	3479.44	3490.69	25	23	41.9	291.72	.0042	-27.68	-.0000	375544.7	.81	.00	.0028	124.64	.0024	-27.04	310.60
SET	51	3527.14	3538.39	26	0	29.6	90.00	.0042	-26.65	.0000	377512.4	1.50	11.23	-.0034	245.67	-.0015	-27.02	299.66
SET	61	3550.20	3561.45	26	0	52.7	63.60	.0042	-27.72	.0000	380317.1	1.42	-.00	-.0025	232.46	.0027	-27.02	292.88
RISE	42	3708.17	3719.42	26	3	30.7	255.00	.0042	-26.39	-.0000	391497.4	1.16	3.84	.0030	119.86	-.0023	-26.96	253.16
SET	72	3710.02	3721.27	26	3	32.5	94.02	.0042	-26.82	.0000	392088.8	1.93	.01	-.0037	242.91	-.0005	-26.96	252.69
IMPACT		3727.91	3739.16	26	3	50.4												
IMPC	42	3727.91	3739.16	26	3	50.4	260.03	.0043	-26.41	-.0000	393080.6	1.70	7.46	.0031	117.17	-.0023	-26.95	248.11
IMPC	72	3727.91	3739.16	26	3	50.4	98.58	.0043	-26.78	.0000	394353.9	2.46	-4.01	-.0038	242.25	-.0007	-26.95	248.11
IMPC	11	3727.91	3739.16	26	3	50.4	354.97	.0044	-27.77	.0000	391040.9	2.01	26.84	.0003	175.01	.0043	-26.95	248.11

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	23	13	42.485	6602.414	20.0010	306.2135	10.94598	5.2844	112.9218	123.2379
SEPARATION		1.20	12.45	23	13	43.685	6696.237	17.2934	312.3380	10.86725	8.6186	114.9808	129.6633
RETRO		3.20	14.45	23	13	45.685	6949.153	12.5651	321.7284	10.66602	13.9046	117.5373	139.5551
IMPACT		3727.91	3739.16	26	3	50.399	393959.008	-26.9473	248.1112	2.20911	67.5596	274.3254	279.6651

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SURVEYOR VIEW PERIODS

GHA	333.7971					EPS	-54.0177							LOM	245.0299
SX	.148575	SY	-.879002	SZ	-.453079	DAO	-26,94140	RAO	279.59383	RM	395236.887	LAT	28.510600	LON	279.461800
CS	-.960028	ECC	.984237	SLR	12986.170	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.168981	NSY	-.875382	NSZ	-.452936	C3M	1.4965	VIM	2.6713	ZAE	140.603	B.T	.0000	B.R	-.0000
LATE	4.9679	LONE	6.3303	LATS	1.5185	LONS	60.2181	LATI	-1.2671	LONI	327.3889	RSM	151.4068	TTAN	6.4864

LAUNCH DATE AUG 23,1966 BASE AZM 105.0 TF 62.204 ARRIVAL DATE AUG 26 1966 4 2 24.2

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	13 36 15.6	28.1	18.93	305.62	11.67	123.90	114.99	13 47 30.6	6612.4	10.94	5.79

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	23	13	47.5												
SEPARATION		1.20	12.45	23	13	48.7												
RETRO		3.20	14.45	23	13	50.7												
RISE	72	4.15	15.40	23	13	51.7	83.88	-.1596	37.55	-.0027	3207.0	-7.20	-.00	.1251	307.97	.0193	8.68	324.68
RISE	51	11.15	22.40	23	13	58.7	80.86	-.0757	18.23	-.0385	6122.7	-2.16	.00	.0816	290.33	-.0013	-5.54	346.95
EXTM	72	11.30	22.55	23	13	58.8	354.25	-.1361	-.36	-.1029	2528.2	4.85	80.53	.0000	37.51	1.0372	-5.77	347.31
RISE	61	20.52	31.77	23	14	8.0	344.54	-.0360	-48.71	.0056	9891.0	6.38	.00	.0006	169.87	-.0244	-16.38	4.62
EXTM	61	22.61	33.86	23	14	10.1	340.44	-.0296	-48.03	.0052	10688.3	6.34	.04	-.0000	167.06	-.0205	-17.93	7.41
SET	61	25.23	36.48	23	14	12.7	336.27	-.0237	-47.25	.0047	11680.8	6.26	.00	-.0004	164.15	-.0167	-19.60	10.50
EXTM	51	51.36	62.61	23	14	38.9	1.10	-.0079	-27.97	-.0031	15163.3	4.99	87.56	-.0000	203.49	-.1800	-27.31	26.92
EXTM	72	71.83	83.08	23	14	59.3	301.40	.0001	-32.01	-.0005	23608.7	4.70	30.70	.0000	122.68	.0006	-29.23	31.24
RISE	61	79.55	90.80	23	15	7.1	316.25	-.0001	-40.49	.0009	28831.0	4.51	-.00	.0008	148.27	-.0006	-29.65	31.97
EXTM	51	98.88	110.13	23	15	26.4	354.07	.0004	-31.31	-.0003	28236.1	4.22	82.38	.0000	138.31	.0038	-30.31	32.47
EXTM	51	158.32	169.57	23	16	25.8	.63	.0025	-31.73	.0000	42147.8	3.64	84.01	.0000	180.29	.0179	-30.94	27.66
EXTM	61	356.32	367.57	23	19	43.8	4.68	.0038	-34.68	.0002	83832.5	2.77	14.96	-.0000	183.98	.0032	-30.57	351.38
EXTM	72	386.32	397.57	23	20	13.8	.77	.0039	-32.13	.0001	84746.6	2.69	65.76	.0000	181.58	.0081	-30.48	344.97
RISE	11	567.92	579.17	23	23	15.4	296.28	.0040	-32.10	.0000	117599.8	2.06	.00	.0025	130.58	.0023	-29.97	304.25
SET	51	582.63	593.88	23	23	30.1	90.00	.0038	-28.81	.0001	118323.9	2.65	12.08	-.0031	243.65	-.0012	-29.93	300.86
SET	61	585.02	596.27	23	23	32.5	57.71	.0039	-32.27	.0002	119982.1	2.53	-.00	-.0020	225.63	.0026	-29.92	300.30
SET	72	782.00	793.25	24	2	49.5	94.44	.0039	-29.12	.0001	145749.6	2.44	-.01	-.0034	240.58	-.0004	-29.48	254.07
RISE	42	791.82	803.07	24	2	59.3	254.99	.0040	-27.97	-.0001	146432.4	1.75	4.80	.0028	121.12	-.0021	-29.46	251.74
EXTM	11	832.56	843.81	24	3	40.1	1.16	.0041	-31.59	.0001	149451.5	2.02	23.19	.0000	181.08	.0038	-29.38	242.03
SET	11	1093.64	1104.89	24	8	1.1	65.66	.0041	-30.29	.0001	181803.1	2.09	-.00	-.0026	231.88	.0024	-28.94	179.20
EXTM	42	1217.86	1229.11	24	10	5.4	359.95	.0042	-28.55	.0000	188757.4	1.73	83.33	.0000	.41	-.0288	-28.76	149.03
RISE	51	1353.69	1364.94	24	12	21.2	270.00	.0041	-27.93	-.0000	207480.3	1.29	11.73	.0033	115.53	-.0014	-28.59	115.90
RISE	72	1508.05	1519.30	24	14	55.6	265.73	.0041	-28.17	-.0000	223753.6	1.18	-.00	.0036	118.46	-.0005	-28.41	78.11
RISE	61	1598.26	1609.51	24	16	25.8	298.59	.0041	-29.49	-.0000	232204.3	1.27	.00	.0024	130.15	.0027	-28.31	55.97
SET	42	1641.42	1652.67	24	17	8.9	105.00	.0041	-27.33	.0001	235684.3	1.84	4.41	-.0029	239.39	-.0022	-28.27	45.36
EXTM	51	1713.37	1724.62	24	18	20.9	.02	.0042	-28.26	.0000	236406.3	1.50	87.47	-.0000	180.49	.0568	-28.20	27.67
EXTM	61	1844.76	1856.01	24	20	32.3	.45	.0042	-29.42	.0000	252086.4	1.45	20.34	-.0000	180.42	.0039	-28.08	355.31
EXTM	72	1884.39	1895.64	24	21	11.9	.13	.0042	-28.54	.0000	251816.8	1.43	69.36	-.0000	180.34	.0104	-28.04	345.54
RISE	11	2031.79	2043.04	24	23	39.3	292.83	.0042	-28.81	-.0000	270180.7	1.08	.00	.0027	126.14	.0024	-27.91	309.17
SET	51	2072.77	2084.02	25	0	20.3	90.00	.0041	-27.37	.0001	272302.1	1.74	11.52	-.0034	245.00	-.0014	-27.88	299.04
SET	61	2090.97	2102.22	25	0	38.5	62.22	.0042	-28.85	.0000	275068.4	1.64	-.00	-.0024	230.80	.0027	-27.87	294.55
SET	72	2259.26	2270.51	25	3	26.8	94.15	.0041	-27.55	.0001	288628.9	1.72	-.00	-.0036	242.16	-.0005	-27.74	252.93
RISE	42	2259.58	2270.83	25	3	27.1	255.00	.0041	-26.97	-.0000	288188.5	1.00	4.19	.0029	120.32	-.0022	-27.74	252.85
EXTM	11	2299.98	2311.23	25	4	7.5	.30	.0042	-28.83	.0000	289062.0	1.31	25.96	-.0000	180.29	.0041	-27.71	242.86
SET	11	2567.96	2579.21	25	8	35.5	67.68	.0042	-28.29	.0000	312317.3	1.55	-.00	-.0027	234.54	.0024	-27.52	176.47
EXTM	42	2678.69	2689.94	25	10	26.2	359.97	.0042	-27.30	.0000	314227.4	1.22	82.08	.0000	.23	-.0228	-27.45	149.01
RISE	51	2809.44	2820.69	25	12	37.0	270.00	.0041	-26.95	-.0000	328646.5	.82	11.35	.0034	114.61	-.0015	-27.38	116.56
RISE	72	2962.52	2973.77	25	15	10.0	265.92	.0042	-27.12	-.0000	340864.6	.72	.00	.0037	117.40	-.0005	-27.28	78.56
RISE	61	3044.18	3055.43	25	16	31.7	296.76	.0042	-28.02	-.0000	346373.6	.84	.00	.0025	127.98	.0027	-27.25	58.18
SET	42	3097.36	3108.61	25	17	24.9	105.00	.0041	-26.59	.0000	349501.4	1.45	3.96	-.0029	239.98	-.0022	-27.22	44.91
EXTM	51	3161.84	3173.09	25	18	29.4	358.86	.0042	-27.22	.0000	347931.2	1.11	88.20	.0022	145.61	.0984	-27.19	28.81
EXTM	61	3294.94	3306.19	25	20	42.4	.19	.0042	-28.07	.0000	360734.5	1.11	21.69	-.0000	180.18	.0040	-27.13	355.56
EXTM	72	3334.84	3346.09	25	21	22.4	.08	.0042	-27.45	.0000	359761.0	1.11	70.45	-.0000	180.22	.0110	-27.12	345.59
RISE	11	3474.85	3486.10	25	23	42.4	291.74	.0042	-27.69	-.0000	375008.5	.80	.00	.0028	124.67	.0024	-27.06	310.58
SET	51	3522.47	3533.72	26	0	30.0	90.00	.0042	-26.67	.0000	376958.1	1.50	11.24	-.0034	245.66	-.0015	-27.04	298.66
SET	61	3545.46	3556.71	26	0	53.0	63.59	.0042	-27.73	.0000	379751.4	1.41	-.00	-.0025	232.44	.0027	-27.03	292.90
RISE	42	3703.62	3714.87	26	3	31.1	255.00	.0042	-26.40	-.0000	390758.0	1.08	3.84	.0030	119.87	-.0023	-26.96	253.16
SET	72	3705.49	3716.74	26	3	33.0	94.03	.0042	-26.82	.0000	391343.0	1.84	-.00	-.0037	242.90	-.0005	-26.96	252.68
IMPACT		3732.25	3743.50	26	3	59.8												
IMPC	42	3732.25	3743.50	26	3	59.8	262.28	.0043	-26.43	-.0000	392926.0	1.69	9.12	.0032	116.01	-.0022	-26.95	245.86
IMPC	11	3732.25	3743.50	26	3	59.8	357.26	.0044	-27.77	.0000	391055.3	2.02	26.97	.0002	177.28	.0043	-26.95	245.86

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	23	13	47.510	6614.310	18.8926	305.6950	10.93634	5.7868	115.0125	123.9791
SEPARATION		1.20	12.45	23	13	48.710	6714.178	15.9954	311.6274	10.85240	9.1061	116.8864	130.2123
RETRO		3.20	14.45	23	13	50.710	6977.040	11.0106	320.7372	10.64431	14.3562	119.1377	139.8234
IMPACT		3732.25	3743.50	26	3	59.760	393985.711	-26.9476	245.8555	2.20742	67.4640	275.0143	279.7560

SURVEYOR VIEW PERIODS

QHA	333.7971					EPS	-53.9474							LOM	242.8886
SX	.149895	SY	-.878784	SZ	-.453068	DAO	-26.94071	RAO	279.67984	RM	395260.789	LAT	28.310600	LON	279.461800
CS	-.965281	ECC	.984151	SLR	12985.607	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.170349	NSY	-.875121	NSZ	-.452929	C3M	1.4965	VIM	2.6713	ZAE	140.420	B.T	0000	B.R	-.0000
LATE	4.9737	LONE	6.2414	LATS	1.5186	LONS	60.0585	LATI	-1.6379	LONI	327.1788	RSM	151.4070	TTAN	6.4892
LAUNCH DATE		AUG	23,1966		BASE AZM	108.0		TF	62.291			ARRIVAL DATE		AUG 26 1966	4 11 17.3

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	13 40	7.0	28.1	17.85	305.05	12.43	124.30	117.08	13 51 22.0	6621.6	10.93	6.16

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	23	13	51.4												
SEPARATION	1.20	12.45	23	13	52.6												
RETRO	3.20	14.45	23	13	54.6												
RISE 72	4.09	15.34	23	13	55.5	84.79	-.1481	33.21	-.0183	3237.5	-7.20	-.00	.1252	303.57	.0023	7.20	323.33
EXTM 72	10.50	21.75	23	14	1.9	7.18	-.1665	-2.39	-.1144	2336.7	3.80	80.97	.2016	307.27	.0761	-6.44	343.73
RISE 51	11.17	22.42	23	14	2.5	82.57	-.0721	15.01	-.0409	6186.9	-2.05	.00	.0806	286.71	-.0052	-7.54	345.40
EXTM 51	53.51	64.76	23	14	44.9	2.01	-.0075	-30.73	-.0023	15857.2	4.94	84.70	-.0000	199.04	-.0739	-29.31	26.27
EXTM 72	72.78	84.03	23	15	4.1	302.55	.0001	-33.96	-.0003	23866.1	4.68	31.26	.0000	125.13	.0003	-30.84	30.19
RISE 61	94.92	106.17	23	15	26.3	317.75	.0008	-41.18	.0008	32979.2	4.23	-.00	.0010	149.60	.0001	-31.60	31.44
EXTM 51	99.67	110.92	23	15	31.0	355.36	.0004	-33.01	-.0002	28475.5	4.21	81.69	.0000	152.02	.0025	-31.69	31.43
EXTM 51	153.19	164.44	23	16	24.6	.34	.0023	-33.03	.0001	41059.1	3.68	82.70	.0000	182.27	.0155	-32.05	27.39
EXTM 61	354.93	366.18	23	19	46.3	5.22	.0038	-35.43	.0002	83692.2	2.77	14.18	.0000	184.39	.0032	-31.30	350.88
EXTM 72	383.49	394.74	23	20	14.9	.97	.0039	-32.89	.0001	84330.0	2.69	65.00	.0000	181.93	.0078	-31.18	344.78
RISE 11	567.16	578.41	23	23	18.5	296.90	.0040	-32.66	.0000	117489.2	2.06	.01	.0025	131.34	.0023	-30.50	303.63
SET 61	577.99	589.24	23	23	29.4	56.89	.0039	-32.84	.0002	119002.0	2.54	-.00	-.0020	224.73	.0026	-30.47	301.13
SET 51	579.05	590.30	23	23	30.4	90.00	.0038	-29.34	.0001	117800.3	2.65	12.29	-.0031	243.14	-.0012	-30.46	300.89
SET 72	778.86	790.11	24	2	50.2	94.52	.0039	-29.54	.0001	145342.9	2.44	-.00	-.0034	240.15	-.0004	-29.91	254.02
RISE 42	788.52	799.77	24	2	59.9	254.99	.0040	-28.39	-.0000	145977.8	1.75	5.06	.0028	121.45	-.0021	-29.88	251.72
EXTM 11	829.76	841.01	24	3	41.1	1.30	.0041	-32.01	.0001	149134.2	2.02	22.77	.0000	181.20	.0038	-29.79	241.90
SET 11	1088.83	1100.08	24	8	.2	65.31	.0041	-30.62	.0001	181242.0	2.09	-.00	-.0025	231.43	.0024	-29.26	179.55
EXTM 42	1214.46	1225.71	24	10	5.8	359.94	.0042	-28.84	.0000	188352.0	1.73	83.62	.0000	.48	-.0315	-29.05	149.04
RISE 51	1350.35	1361.60	24	12	21.7	270.00	.0041	-28.19	-.0000	207078.5	1.30	11.83	.0033	115.77	-.0014	-28.84	115.89
RISE 72	1504.53	1515.78	24	14	55.9	265.69	.0041	-28.39	-.0000	223348.6	1.19	-.00	.0036	118.69	-.0005	-28.63	78.14
RISE 61	1595.96	1607.21	24	16	27.3	298.85	.0041	-29.70	-.0000	231913.0	1.27	.00	.0024	130.46	.0027	-28.52	55.70
SET 42	1638.00	1649.25	24	17	9.4	105.00	.0041	-27.53	.0001	235276.4	1.84	4.54	-.0029	239.23	-.0022	-28.47	45.37
EXTM 51	1709.94	1721.19	24	18	21.3	.01	.0042	-28.46	.0000	236012.5	1.50	87.28	.0000	180.41	.0425	-28.39	27.67
EXTM 61	1841.53	1852.78	24	20	32.9	.50	.0042	-29.59	.0000	251725.7	1.45	20.17	-.0000	180.46	.0039	-28.24	355.26
EXTM 72	1881.03	1892.28	24	21	12.4	.15	.0042	-28.71	.0000	251432.0	1.43	69.20	-.0000	180.37	.0104	-28.20	345.53
RISE 11	2028.95	2040.20	24	23	40.3	292.98	.0042	-28.95	-.0000	269830.3	1.08	.00	.0027	126.34	.0024	-28.06	309.02
SET 51	2069.31	2080.56	25	0	20.7	90.00	.0041	-27.51	.0001	271893.4	1.74	11.57	-.0034	244.87	-.0014	-28.02	299.05
SET 61	2086.81	2098.06	25	0	38.2	62.04	.0042	-28.99	.0001	274607.4	1.64	-.00	-.0024	230.59	.0027	-28.00	294.72
SET 72	2255.88	2267.13	25	3	27.2	94.17	.0041	-27.67	.0001	288226.0	1.72	-.00	-.0036	242.05	-.0005	-27.86	252.91
RISE 42	2256.14	2267.39	25	3	27.5	255.00	.0041	-27.09	-.0000	287773.0	1.00	4.26	.0029	120.42	-.0022	-27.86	252.85
EXTM 11	2296.65	2307.90	25	4	8.0	.33	.0042	-28.95	.0000	288673.4	1.31	25.84	-.0000	180.72	.0041	-27.82	242.82
SET 11	2564.12	2575.37	25	8	35.5	67.59	.0042	-28.38	.0000	311867.8	1.54	-.00	-.0027	234.43	.0024	-27.61	176.56
EXTM 42	2675.18	2686.43	25	10	26.5	359.97	.0042	-27.37	.0000	313796.0	1.21	82.16	.0000	.26	-.0236	-27.53	149.01
RISE 51	2805.95	2817.20	25	12	37.3	270.00	.0041	-27.02	-.0000	328207.6	.82	11.38	.0034	114.67	-.0015	-27.44	116.56
RISE 72	2958.98	2970.23	25	15	10.3	265.91	.0042	-27.17	-.0000	340417.9	.72	.00	.0037	117.46	-.0005	-27.34	78.56
RISE 61	3040.90	3052.15	25	16	32.3	296.82	.0042	-28.07	-.0000	345936.4	.84	.00	.0025	128.05	.0027	-27.29	58.12
SET 42	3093.84	3105.09	25	17	25.2	105.00	.0041	-26.63	.0000	349039.5	1.44	3.98	-.0029	239.95	-.0022	-27.26	44.91
EXTM 51	3158.32	3169.57	25	18	29.7	358.86	.0042	-27.26	.0000	347465.1	1.10	88.17	.0021	146.26	.0973	-27.23	28.81
EXTM 61	3291.50	3302.75	25	20	42.9	.21	.0042	-28.10	.0000	360260.6	1.10	21.66	-.0000	180.20	.0040	-27.16	355.54
EXTM 72	3331.35	3342.60	25	21	22.7	.09	.0042	-27.48	.0000	359275.7	1.10	70.42	-.0000	180.23	.0110	-27.15	345.59
RISE 11	3471.42	3482.67	25	23	42.8	291.76	.0042	-27.72	-.0000	374501.2	.80	.00	.0028	124.70	.0024	-27.08	310.56
SET 51	3518.96	3530.21	26	0	30.3	90.00	.0042	-26.68	.0000	376431.9	1.49	11.24	-.0034	245.64	-.0015	-27.06	298.66
SET 61	3541.87	3553.12	26	0	53.2	63.56	.0042	-27.75	.0000	379213.4	1.41	-.00	-.0025	232.42	.0027	-27.05	292.93
RISE 42	3700.20	3711.45	26	3	31.6	255.00	.0042	-26.40	-.0000	390078.4	1.02	3.84	.0030	119.87	-.0023	-26.97	253.15
SET 72	3702.08	3713.33	26	3	33.4	94.03	.0042	-26.83	.0000	390658.1	1.78	-.00	-.0037	242.89	-.0005	-26.97	252.68
IMPACT	3737.46	3748.71	26	4	8.8												
IMPC 42	3737.46	3748.71	26	4	8.8	264.46	.0043	-26.44	-.0000	392775.8	1.69	10.73	.0032	114.89	-.0022	-26.95	243.67
IMPC 11	3737.46	3748.71	26	4	8.8	359.47	.0044	-27.77	.0000	391076.7	2.03	27.02	.0000	179.48	.0044	-26.95	243.67
EXTM 11	3741.08	3752.33	26	4	12.4	.43	.0044	-27.77	.0000	391552.4	2.46	27.02	-.0000	180.43	.0044	-26.94	242.73

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	23	13	51.367	6624.043	17.8036	305.1357	10.92847	6.1637	117.0996	124.3865
SEPARATION	1.20	12.45	23	13	52.567	6728.311	14.7192	310.8836	10.84066	9.4712	118.7996	130.4352
RETRO	3.20	14.45	23	13	54.567	6998.559	9.4756	319.7287	10.62755	14.6935	120.7646	139.7817
IMPACT	3737.46	3748.71	26	4	8.826	394012.074	-26.9478	243.6708	2.20541	67.3381	275.7391	279.8441

SURVEYOR VIEW PERIODS

GHA	353.7971					EPS	-53.8765							LOM	240.7295
SX	.151226	SY	-.878562	SZ	-.453057	DAO	-26.93997	RAO	279.76655	RM	395284.863	LAT	28.310600	LON	279.461800
CS	-.971422	ECC	.984050	SLR	12984.951	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.171737	NSY	-.874854	NSZ	-.452921	C3M	1.4965	VIM	2.6713	ZAE	140.206	B.T	.0000	B.R	-.0000
LATE	4.9795	LONE	6.3188	LATS	1.5185	LONS	60.0646	LATI	-2.0189	LONI	327.1069	RSM	151.4072	TTAN	6.4928

LAUNCH DATE AUG 23,1966 BASE AZM 111.0 TF 62.392 ARRIVAL DATE AUG 26 1966 4 20 14.8

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	13 43 11.2	28.0	16.79	304.44	13.02	124.46	119.16	13 54 26.2	6629.2	10.92	6.46

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT												
INJECTION		.00	11.25	23	13	54.4												
SEPARATION		1.20	12.45	23	13	55.6												
RETRO		3.20	14.45	23	13	57.6												
RISE	72	4.07	15.32	23	13	58.5	85.60	-.1381	28.97	-.0334	3269.6	-7.11	-.00	.1246	299.28	-.0140	5.66	322.10
RISE	51	11.22	22.47	23	14	5.7	84.22	-.0688	11.80	-.0433	6249.2	-1.94	.00	.0795	285.13	-.0089	-9.61	343.94
EXTM	72	11.42	22.67	23	14	5.9	4.28	-.1434	-14.90	-.0846	2628.6	4.89	81.85	.0000	210.57	-1.1446	-9.95	344.44
EXTM	51	56.37	67.62	23	14	50.8	2.38	-.0068	-33.52	-.0016	16757.7	4.89	81.95	-.0000	194.30	-.0421	-31.38	26.00
EXTM	72	73.35	84.60	23	15	7.8	303.42	.0000	-35.93	-.0000	24034.5	4.67	31.50	.0000	127.58	.0000	-32.48	29.30
EXTM	51	97.35	108.60	23	15	31.8	356.33	.0001	-34.76	-.0000	27929.8	4.23	80.44	.0000	161.52	.0005	-33.09	30.62
RISE	61	108.94	120.19	23	15	43.4	319.51	.0014	-41.95	.0008	36575.1	4.02	-.00	.0012	151.12	.0005	-33.21	30.41
EXTM	51	151.32	162.57	23	16	25.8	.88	.0023	-34.41	.0002	40682.6	3.70	81.30	.0000	184.79	.0124	-33.24	26.94
EXTM	61	355.32	366.57	23	19	49.8	5.93	.0038	-36.19	.0002	83845.6	2.77	13.38	-.0000	184.91	.0031	-32.05	350.22
EXTM	72	381.75	393.00	23	20	16.2	1.19	.0039	-33.67	.0002	84085.6	2.70	64.21	.0000	182.27	.0075	-31.90	344.58
RISE	11	567.45	578.70	23	23	21.9	297.54	.0040	-33.22	.0000	117518.5	2.06	.01	.0024	132.12	.0023	-31.05	302.99
SET	61	571.67	582.92	23	23	26.1	56.01	.0039	-33.45	.0002	118109.4	2.54	-.00	-.0019	223.78	.0026	-31.04	302.02
SET	51	576.45	587.70	23	23	30.9	90.00	.0038	-29.90	.0001	117402.7	2.65	12.50	-.0031	242.62	-.0012	-31.02	300.92
SET	72	776.66	787.91	24	2	51.1	94.60	.0039	-29.98	.0001	145042.9	2.44	-.00	-.0034	239.70	-.0004	-30.35	293.95
RISE	42	786.13	797.38	24	3	.6	254.99	.0040	-28.83	-.0000	145625.3	1.75	5.32	.0028	121.80	-.0021	-30.32	291.71
EXTM	11	827.90	839.15	24	3	42.3	1.45	.0041	-32.44	.0001	148922.1	2.02	22.34	.0000	181.33	.0038	-30.21	241.76
SET	11	1084.84	1096.09	24	7	59.3	64.95	.0041	-30.97	.0001	180756.7	2.09	-.00	-.0025	230.97	.0024	-29.60	179.92
EXTM	42	1211.92	1223.17	24	10	6.4	359.95	.0042	-29.15	.0000	188023.0	1.73	83.93	.0000	.60	-.0329	-29.35	149.05
RISE	51	1347.86	1359.11	24	12	22.3	270.00	.0041	-28.45	-.0000	206746.6	1.30	11.94	.0033	116.02	-.0014	-29.11	115.88
RISE	72	1501.85	1513.10	24	14	56.3	265.65	.0041	-28.62	-.0000	223006.7	1.19	-.00	.0036	118.92	-.0005	-28.87	78.17
RISE	61	1594.55	1605.80	24	16	29.0	299.14	.0042	-29.91	-.0000	231686.8	1.27	.00	.0024	130.79	.0027	-28.74	55.42
SET	42	1635.42	1646.67	24	17	9.9	105.00	.0041	-27.74	.0001	234926.8	1.84	4.66	-.0029	239.06	-.0022	-28.48	45.37
EXTM	51	1707.43	1718.68	24	18	21.9	.03	.0042	-28.66	.0000	235681.6	1.49	87.08	-.0000	180.56	.0583	-28.58	27.66
EXTM	61	1839.15	1850.40	24	20	33.6	.55	.0042	-29.77	.0000	251417.9	1.45	19.99	-.0000	180.51	.0039	-28.42	355.22
EXTM	72	1878.50	1889.75	24	21	12.9	.16	.0042	-28.88	.0000	251098.0	1.43	69.02	-.0000	180.40	.0103	-28.37	345.51
RISE	11	2027.00	2038.25	24	23	41.4	293.14	.0042	-29.11	-.0000	269529.4	1.08	.01	.0027	126.54	.0024	-28.21	308.86
SET	51	2066.69	2077.94	25	0	21.1	90.00	.0041	-27.66	.0001	271528.5	1.74	11.63	-.0034	244.73	-.0014	-28.17	299.05
SET	61	2083.45	2094.70	25	0	37.9	61.86	.0042	-29.14	.0001	274187.4	1.63	-.00	-.0024	230.37	.0027	-28.15	294.91
SET	72	2253.32	2264.57	25	3	27.8	94.20	.0041	-27.79	.0001	287861.7	1.72	-.00	-.0036	241.92	-.0005	-27.98	252.90
RISE	42	2253.51	2264.76	25	3	28.0	255.00	.0041	-27.21	-.0000	287395.4	1.00	4.34	.0029	120.51	-.0022	-27.98	252.85
EXTM	11	2294.14	2305.39	25	4	8.6	.37	.0042	-29.07	.0000	288322.6	1.31	25.72	-.0000	180.36	.0041	-27.94	242.79
SET	11	2561.08	2572.33	25	8	35.5	67.50	.0042	-28.47	.0000	311446.2	1.54	-.00	-.0027	234.30	.0024	-27.70	176.65
EXTM	42	2672.49	2683.74	25	10	26.9	359.96	.0042	-27.46	.0000	313390.6	1.21	82.24	.0000	.28	-.0246	-27.61	149.02
RISE	51	2803.27	2814.52	25	12	37.7	270.00	.0041	-27.08	-.0000	327791.0	.82	11.40	.0034	114.73	-.0015	-27.51	116.56
RISE	72	2956.23	2967.48	25	15	10.7	265.90	.0041	-27.23	-.0000	339776.4	.75	-.00	.0036	117.52	-.0005	-27.39	78.58
RISE	61	3038.57	3049.82	25	16	33.0	296.88	.0042	-28.11	-.0000	345567.2	.84	.00	.0025	128.12	.0027	-27.34	58.06
SET	42	3091.26	3102.51	25	17	25.7	105.00	.0041	-26.67	.0000	348642.5	1.44	4.01	-.0029	239.91	-.0022	-27.31	44.91
EXTM	51	3155.72	3166.97	25	18	30.2	358.86	.0042	-27.30	.0000	347059.9	1.10	88.14	.0021	146.94	.0964	-27.27	28.81
EXTM	61	3288.95	3300.20	25	20	43.4	.23	.0042	-28.13	.0000	359837.4	1.10	21.63	-.0000	180.22	.0040	-27.20	355.53
EXTM	72	3328.73	3339.98	25	21	23.2	.09	.0042	-27.51	.0000	358838.3	1.10	70.39	-.0000	180.25	.0110	-27.17	345.58
RISE	11	3468.85	3480.10	25	23	43.3	291.78	.0042	-27.74	-.0000	374031.1	.79	.00	.0028	124.72	.0024	-27.10	310.54
SET	51	3516.29	3527.54	26	0	30.7	90.00	.0042	-26.70	.0000	375939.1	1.49	11.25	-.0034	245.63	-.0015	-27.07	298.66
SET	61	3539.11	3550.36	26	0	53.6	63.54	.0042	-27.77	.0000	378707.0	1.40	-.00	-.0025	232.39	.0027	-27.06	292.95
RISE	42	3697.57	3708.82	26	3	32.0	255.00	.0042	-26.41	-.0000	389432.6	.98	3.85	.0030	119.88	-.0023	-26.98	253.15
SET	72	3699.45	3710.70	26	3	33.9	94.05	.0042	-26.84	.0000	390007.8	1.73	-.00	-.0037	242.89	-.0005	-26.98	252.68
EXTM	11	3738.10	3749.35	26	4	12.5	.29	.0043	-27.76	.0000	390501.7	1.76	27.01	-.0000	180.29	.0043	-26.95	242.87
IMPACT		3743.53	3754.78	26	4	18.0												
IMPC	42	3743.53	3754.78	26	4	18.0	266.66	.0043	-26.45	-.0000	392627.6	1.68	12.38	.0032	113.79	-.0022	-26.95	241.47
IMPC	11	3743.53	3754.78	26	4	18.0	1.71	.0044	-27.77	.0000	391108.9	2.04	27.00	-.0001	181.70	.0044	-26.95	241.47

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	23	13	54.437	6632.081	16.7351	304.5376	10.92194	6.4560	119.1852	124.5582
SEPARATION		1.20	12.45	23	13	55.637	6739.668	13.4659	310.1062	10.83117	9.7538	120.7214	130.4276
RETRO		3.20	14.45	23	13	57.637	7015.594	7.9628	318.6970	10.61423	14.9540	122.4171	139.5198
IMPACT		3743.53	3754.78	26	4	17.964	394042.418	-26.9480	241.4696	2.20184	66.9882	276.3637	279.9334

SURVEYOR VIEW PERIODS

GHA	333.7971					EPS	-53.7776							LOM	237.7161
SX	.153082	SY	-.878249	SZ	-.453039	DAD	-26.93883	RAO	279.88756	RM	395318.430	LAT	28.310600	LON	279.461800
CS	-.980986	ECC	.983893	SLR	12983.921	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.173683	NSY	-.874477	NSZ	-.452907	C3M	1.4965	VIM	2.6713	ZAE	139.871	B.T	.0000	B.R	-.0000
LATE	4.9877	LONE	6.2305	LATS	1.5186	LONS	59.8769	LATI	-2.5330	LONI	326.7749	RSM	151.4075	TTAN	6.4988
LAUNCH DATE		AUG	23.1966	BASE AZM		115.0	TF	62.549				ARRIVAL DATE		AUG 26 1966	4 32 45.1

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	13 46 28.2	28.0	15.41	303.57	13.63	124.42	121.94	13 57 43.2	6637.3	10.91	6.76

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	23	13	57.7												
SEPARATION		1.20	12.45	23	13	58.9												
RETRO		3.20	14.45	23	14	.9												
RISE	72	4.08	15.33	23	14	1.8	86.56	-.1264	23.42	-.0527	3318.8	-6.87	-.00	.1225	293.66	-.0347	3.52	320.61
RISE	51	11.32	22.57	23	14	9.0	86.34	-.0646	7.54	-.0464	6336.6	-1.76	.00	.0779	278.38	-.0136	-12.44	342.11
EXTM	72	11.72	22.97	23	14	9.4	9.07	-.1420	-24.75	-.0707	2834.9	5.05	71.05	-.0000	206.16	-.4529	-13.10	343.05
EXTM	51	65.22	74.47	23	15	.9	1.61	-.0052	-37.14	-.0005	18816.1	4.76	78.51	-.0000	186.47	-.0209	-34.27	26.52
EXTM	72	73.71	84.96	23	15	11.4	304.24	-.0001	-38.61	.0003	24168.3	4.66	31.42	.0000	130.80	-.0004	-34.71	28.33
EXTM	51	87.88	99.13	23	15	25.6	357.61	-.0009	-37.50	.0001	25548.4	4.36	78.26	.0000	170.63	-.0037	-35.00	29.55
RISE	61	126.89	138.14	23	16	4.6	322.03	.0020	-42.97	.0008	40956.0	3.80	-.00	.0014	153.25	.0009	-35.05	28.66
EXTM	51	153.19	164.44	23	16	30.9	1.87	.0023	-36.26	.0003	41145.3	3.68	79.36	.0000	188.18	.0100	-34.86	26.09
EXTM	61	356.31	367.56	23	19	54.0	6.69	.0038	-37.21	.0003	84121.1	2.77	12.31	.0000	185.45	.0031	-33.07	349.51
EXTM	72	380.79	392.04	23	20	18.5	1.51	.0039	-34.73	.0002	83973.3	2.70	63.14	.0000	182.74	.0071	-32.89	344.29
RISE	11	569.03	580.28	23	23	26.8	298.42	.0040	-33.99	.0000	117714.6	2.06	.01	.0024	133.18	.0023	-31.80	302.11
SET	61	563.98	575.23	23	23	21.7	54.76	.0039	-34.29	.0002	117007.1	2.54	.00	-.0019	222.44	.0026	-31.83	303.28
SET	51	574.08	585.33	23	23	31.8	90.00	.0038	-30.67	.0002	117014.4	2.65	12.80	-.0031	241.89	-.0011	-31.78	300.95
SET	72	774.78	786.03	24	2	52.5	94.71	.0039	-30.59	.0001	144760.5	2.44	-.00	-.0033	239.09	-.0004	-30.96	253.87
RISE	42	783.96	795.21	24	3	1.7	254.99	.0040	-29.43	-.0000	145267.3	1.76	5.69	.0027	122.28	-.0021	-30.93	251.69
EXTM	11	826.46	837.71	24	3	44.2	1.66	.0041	-33.02	.0001	148753.3	2.02	21.75	.0000	181.50	.0037	-30.78	241.56
SET	11	1080.41	1091.66	24	7	58.1	64.45	.0041	-31.44	.0001	180189.3	2.09	-.00	-.0025	230.54	.0024	-30.06	180.43
EXTM	42	1209.48	1220.73	24	10	7.2	359.92	.0042	-29.57	.0000	187663.8	1.73	84.35	.0000	.76	-.0359	-29.75	149.06
RISE	51	1345.48	1356.73	24	12	23.2	270.00	.0041	-28.81	-.0000	206375.1	1.30	12.08	.0033	116.36	-.0014	-29.47	115.87
RISE	72	1499.19	1510.44	24	14	56.9	265.59	.0041	-28.94	-.0000	222613.3	1.19	-.00	.0035	119.25	-.0005	-29.19	78.22
RISE	61	1593.64	1604.89	24	16	31.4	299.52	.0042	-30.21	-.0000	231447.8	1.27	.00	.0024	131.24	.0027	-29.03	55.03
SET	42	1632.90	1644.15	24	17	10.6	105.00	.0041	-28.03	.0001	234516.8	1.84	4.84	-.0029	238.84	-.0021	-28.97	45.38
EXTM	51	1704.93	1716.18	24	18	22.7	.03	.0042	-28.94	.0000	235288.0	1.49	86.80	-.0000	180.53	.0561	-28.85	27.66
EXTM	61	1836.88	1848.13	24	20	34.6	.62	.0042	-30.02	.0000	251055.7	1.44	19.74	-.0000	180.57	.0039	-28.66	355.15
EXTM	72	1876.03	1887.28	24	21	13.7	.18	.0042	-29.12	.0000	250698.4	1.43	68.78	-.0000	180.45	.0102	-28.61	345.49
RISE	11	2025.26	2036.51	24	23	43.0	293.35	.0042	-29.31	-.0000	269165.1	1.08	.00	.0027	126.82	.0024	-28.41	308.65
SET	51	2064.07	2075.32	25	0	21.8	90.00	.0041	-27.86	.0001	271078.9	1.74	11.71	-.0034	244.54	-.0014	-28.36	299.06
SET	61	2079.81	2091.06	25	0	37.5	61.60	.0042	-29.34	.0001	273661.1	1.63	-.00	-.0024	230.07	.0027	-28.35	295.17
SET	72	2250.82	2262.07	25	3	28.5	94.23	.0041	-27.96	.0001	287408.9	1.72	-.01	-.0036	241.75	-.0005	-28.15	252.86
RISE	42	2250.89	2262.14	25	3	28.6	254.00	.0041	-27.38	-.0000	286921.1	.99	4.44	.0029	120.65	-.0022	-28.15	252.84
EXTM	11	2291.68	2302.93	25	4	9.4	.41	.0042	-29.23	.0000	287883.4	1.30	25.56	-.0000	180.40	.0041	-28.10	242.75
SET	11	2557.87	2569.12	25	8	35.6	67.37	.0042	-28.60	.0000	310900.1	1.54	-.00	-.0027	234.13	.0024	-27.83	176.78
EXTM	42	2669.75	2681.00	25	10	27.5	359.96	.0042	-27.57	.0000	312862.7	1.21	82.35	.0000	.52	-.0261	-27.72	149.02
RISE	51	2800.55	2811.80	25	12	38.3	270.00	.0041	-27.18	-.0000	327243.1	.81	11.44	.0034	114.82	-.0015	-27.60	116.56
RISE	72	2953.43	2964.68	25	15	11.1	265.89	.0041	-27.31	-.0000	339204.5	.75	-.00	.0036	117.59	-.0005	-27.47	78.59
RISE	61	3036.14	3047.39	25	16	33.9	296.96	.0042	-28.18	-.0000	345007.6	.84	.00	.0025	128.22	.0027	-27.40	57.98
SET	42	3088.48	3099.73	25	17	26.2	105.00	.0041	-26.73	.0000	348044.5	1.44	4.05	-.0029	239.86	-.0022	-27.37	44.91
EXTM	51	3157.48	3168.73	25	18	35.2	.01	.0042	-27.35	.0000	346752.0	1.10	88.39	-.0000	180.71	.0512	-27.32	27.68
EXTM	61	3286.28	3297.53	25	20	44.0	.26	.0042	-28.18	.0000	359213.1	1.10	21.58	-.0000	180.25	.0040	-27.24	355.50
EXTM	72	3325.98	3337.23	25	21	23.7	.10	.0042	-27.55	.0000	358195.3	1.10	70.35	-.0000	180.27	.0110	-27.22	345.57
RISE	11	3466.20	3477.45	25	23	43.9	291.81	.0042	-27.77	-.0000	373351.6	.79	.00	.0028	124.77	.0024	-27.13	310.51
SET	51	3513.50	3524.75	26	0	31.2	90.00	.0042	-26.73	.0000	375231.1	1.48	11.26	-.0034	245.60	-.0015	-27.10	298.67
SET	61	3536.20	3547.45	26	0	53.9	63.51	.0042	-27.79	.0000	377081.6	1.39	-.00	-.0025	232.35	.0027	-27.09	292.98
RISE	42	3694.88	3706.13	26	3	32.6	255.00	.0042	-26.42	-.0000	388556.0	.93	3.26	.0030	119.89	-.0023	-26.99	253.15
SET	72	3696.75	3708.00	26	3	34.5	94.04	.0042	-26.85	.0000	389126.7	1.68	-.01	-.0037	242.87	-.0005	-26.99	252.68
EXTM	11	3735.27	3746.52	26	4	13.0	.22	.0043	-27.79	.0000	389367.2	1.50	27.00	.0000	180.22	.0043	-26.96	242.93
IMPACT		3752.96	3764.21	26	4	30.7												
IMPC	42	3752.96	3764.21	26	4	30.7	269.73	.0043	-26.47	-.0000	392416.6	1.67	14.69	.0033	112.27	-.0021	-26.95	238.41
IMPC	11	3752.96	3764.21	26	4	30.7	4.82	.0044	-27.77	.0000	391161.0	2.05	26.86	-.0003	184.78	.0043	-26.95	238.41

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION		.00	11.25	23	13	57.720	6640.830	15.3445	303.6823	10.91467	6.7575	121.9666	124.5259
SEPARATION		1.20	12.45	23	13	58.920	6751.749	11.8334	309.0166	10.82095	10.0449	123.2989	130.1610
RETRO		3.20	14.45	23	14	.920	7033.488	5.9853	317.2770	10.60016	15.2217	124.6602	138.9228
IMPACT		3752.96	3764.21	26	4	30.678	394080.484	-26.9481	238.4059	2.19822	66.7400	277.3310	280.0571

SURVEYOR VIEW PERIODS

GHA	334.7827				EPS -43.0833							LOM	268.8468
SX	.549446	SY	-.826328	SZ	-.441667	DAO	-26.21052	RAO	292.92304	RM	398668.535	LAT	28.310600	LON	279.461800
CS	-.941544	ECC	.584141	SLR	12988.156	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.368373	NSY	-.819403	NSZ	-.439554	C3H	1.4928	VIM	2.6706	ZAE	141.301	B.T	.0000	B.R	-.0000
LATE	5.7576	LONE	5.4525	LATS	1.5225	LONS	48.3291	LATI	1.6506	LONI	326.8797	RSM	151.4328	TTAN	6.0857
LAUNCH DATE		AUG	24,1966		BASE AZM	84.0		TF	62.929			ARRIVAL DATE		AUG	27 1966	3 1	30.1

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
84.00	12 22 46.8	27.1	27.13	307.30	-16.44	108.15	99.69	12 34 1.8	6680.2	10.88	-8.16

EVNT	STA	TFI	TFL	DAY	HR	MIN	MA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	24	12	34.0												
SEPARATION		1.20	12.45	24	12	35.2												
RETRO		3.20	14.45	24	12	37.2												
RISE	72	7.44	18.69	24	12	41.5	321.28	-.6692	79.91	-.1910	2565.1	-2.33	-.00	.0773	6.29	.2183	13.87	348.08
RISE	51	12.28	23.53	24	12	46.3	60.19	-.1549	45.88	-.0229	4536.6	-3.99	.00	.0986	322.84	.0493	3.58	7.14
EXTM	72	13.28	24.53	24	12	47.3	286.79	-.1241	17.55	-.1002	3895.6	6.70	13.38	-.0000	69.76	.1057	1.69	10.37
EXTM	51	28.46	39.71	24	13	2.5	337.61	-.0282	-5.17	-.0270	6817.9	5.63	60.30	-.0000	49.97	.0786	-15.38	39.83
EXTM	72	64.16	75.41	24	13	38.2	268.99	-.0003	-24.01	-.0019	22735.9	5.02	2.30	.0000	113.93	.0019	-25.12	59.67
RISE	42	66.13	77.38	24	13	40.2	102.22	-.0054	-16.70	-.0037	23583.2	4.26	.00	.0064	249.41	.0002	-25.33	60.08
EXTM	51	77.56	88.81	24	13	51.6	316.83	-.0003	-25.01	-.0016	22392.0	4.64	51.16	.0000	98.61	.0025	-26.27	61.74
EXTM	42	128.26	139.51	24	14	42.3	95.97	.0006	-23.17	-.0007	39113.9	3.99	8.55	-.0000	247.62	-.0009	-28.04	61.32
SET	42	215.23	226.48	24	16	9.3	104.98	.0025	-24.98	-.0001	58666.6	3.53	2.99	-.0017	241.26	-.0015	-28.65	49.54
RISE	61	226.25	237.50	24	16	20.3	303.83	.0033	-33.34	.0001	61185.4	3.07	.00	.0019	136.05	.0021	-28.67	47.63
EXTM	51	329.25	340.50	24	18	3.3	.03	.0038	-28.90	.0000	73973.9	2.86	86.84	-.0000	180.65	.0512	-28.65	27.65
EXTM	61	485.95	497.20	24	20	40.0	2.33	.0040	-31.71	.0001	103163.5	2.49	18.02	.0000	182.08	.0035	-28.42	353.55
EXTM	72	522.24	533.49	24	21	16.3	.37	.0041	-29.58	.0001	104687.2	2.42	68.32	-.0000	180.88	.0095	-28.36	345.32
RISE	11	688.21	699.46	25	0	2.2	293.99	.0040	-29.95	-.0000	133293.2	1.89	.00	.0026	127.66	.0023	-28.10	306.85
SET	51	715.57	726.82	25	0	29.6	90.00	.0039	-27.06	.0001	135590.8	2.49	11.39	-.0032	245.29	-.0013	-28.07	300.41
SET	61	729.97	741.22	25	0	44.0	60.73	.0040	-30.02	.0001	138694.3	2.38	-.00	-.0022	229.05	.0026	-28.04	297.01
SET	72	910.19	921.44	25	3	44.2	94.14	.0040	-27.48	.0001	169737.2	2.34	-.00	-.0035	272.23	-.0005	-27.81	254.07
RISE	42	918.92	930.17	25	3	52.9	255.00	.0040	-26.43	-.0001	161330.5	1.63	3.86	.0029	119.90	-.0021	-27.80	251.97
EXTM	11	958.73	969.98	25	4	32.8	.78	.0042	-29.74	.0000	163695.3	1.91	25.05	-.0000	180.74	.0040	-27.75	242.40
SET	11	1226.83	1238.08	25	9	.9	67.28	.0041	-28.70	.0001	195623.0	2.03	-.00	-.0027	234.00	.0024	-27.46	177.46
EXTM	42	1343.42	1354.67	25	10	57.5	359.96	.0042	-27.11	.0000	201296.9	1.67	81.89	.0000	.30	-.0242	-27.35	149.02
RISE	51	1478.32	1489.57	25	13	12.4	270.00	.0041	-26.61	-.0000	219497.3	1.23	11.21	.0034	114.29	-.0014	-27.24	116.01
RISE	72	1633.26	1644.51	25	15	47.3	265.96	.0041	-26.89	-.0000	235301.6	1.13	-.01	.0036	117.17	-.0005	-27.12	77.99
RISE	61	1715.91	1727.16	25	17	9.9	296.94	.0042	-28.16	-.0000	242827.0	1.23	.00	.0025	128.19	.0027	-27.06	57.67
SET	42	1766.21	1777.46	25	18	.2	105.00	.0041	-26.12	.0000	246921.4	1.81	3.67	-.0029	240.35	-.0022	-27.02	45.29
EXTM	51	1833.86	1845.11	25	19	7.9	359.04	.0042	-27.00	.0000	247003.3	1.45	88.47	.0021	145.99	.1158	-26.97	28.62
EXTM	61	1966.48	1979.73	25	21	22.5	.34	.0042	-28.16	.0000	262550.9	1.41	21.60	-.0000	180.32	.0040	-26.88	355.42
EXTM	72	2008.40	2019.65	25	22	2.4	.11	.0042	-27.31	.0000	262304.0	1.40	70.59	-.0000	180.29	.0111	-26.86	345.57
RISE	11	2150.87	2162.12	26	0	24.9	291.67	.0042	-27.63	-.0000	280028.1	1.05	.00	.0028	124.58	.0024	-26.77	310.37
SET	51	2196.93	2208.18	26	1	11.0	90.00	.0041	-26.25	.0000	282536.3	1.71	11.07	-.0034	246.05	-.0015	-26.75	298.98
SET	61	2220.85	2232.10	26	1	34.9	63.66	.0042	-27.67	.0000	285681.0	1.61	-.00	-.0025	232.54	.0027	-26.73	293.06
SET	72	2382.48	2393.73	26	4	16.5	93.96	.0041	-26.46	.0000	298427.0	1.70	-.00	-.0036	243.26	-.0005	-26.64	253.06
RISE	42	2383.13	2394.38	26	4	17.2	255.00	.0041	-25.90	-.0000	298084.6	.97	3.54	.0029	119.48	-.0022	-26.64	252.90
EXTM	11	2423.41	2434.66	26	4	57.4	.23	.0042	-27.70	.0000	298701.7	1.28	27.09	-.0000	180.23	.0042	-26.62	242.92
SET	11	2695.79	2707.04	26	9	29.8	68.71	.0042	-27.22	.0000	322014.9	1.53	-.00	-.0028	235.95	.0024	-26.49	175.40
EXTM	42	2802.20	2813.45	26	11	16.2	359.98	.0042	-26.26	.0000	323485.4	1.20	81.04	-.0000	.14	-.0178	-26.44	149.00
RISE	51	2933.68	2943.93	26	13	26.7	270.00	.0041	-25.96	-.0000	337761.2	.80	10.96	.0034	113.68	-.0015	-26.38	116.60
RISE	72	3086.01	3097.26	26	16	.0	266.08	.0042	-26.17	-.0000	349656.4	.71	-.00	.0037	116.44	-.0005	-26.32	78.43
RISE	61	3162.49	3173.74	26	17	16.5	295.60	.0042	-27.05	-.0000	354770.3	.83	.00	.0026	126.56	.0027	-26.30	59.36
SET	42	3220.56	3231.81	26	18	14.6	105.00	.0041	-25.66	.0000	358258.4	1.44	3.39	-.0030	240.71	-.0023	-26.28	44.88
EXTM	51	3285.95	3297.20	26	19	20.0	359.11	.0042	-26.28	.0000	356654.0	1.10	89.04	.0032	123.97	.1246	-26.27	28.56
EXTM	61	3417.87	3429.12	26	21	31.9	.13	.0042	-27.14	.0000	369258.7	1.11	22.62	-.0000	180.12	.0040	-26.23	355.63
EXTM	72	3457.97	3469.22	26	22	12.0	.07	.0042	-26.53	.0000	368362.3	1.11	71.37	-.0000	180.19	.0114	-26.22	345.61
RISE	11	3594.57	3605.82	27	0	28.6	290.89	.0042	-26.81	-.0000	383504.6	.82	.00	.0028	123.51	.0024	-26.19	311.45
SET	51	3645.75	3657.00	27	1	19.8	90.00	.0042	-25.82	.0000	385824.6	1.55	10.90	-.0035	246.45	-.0015	-26.18	298.63
SET	61	3672.79	3684.04	27	1	46.8	64.62	.0042	-26.86	.0000	388938.6	1.48	-.00	-.0026	233.71	.0027	-26.18	291.85
IMPACT		3775.71	3786.96	27	3	29.7												
IMPC	72	3775.71	3786.96	27	3	29.7	80.81	.0043	-26.14	.0000	396088.1	2.48	11.69	-.0039	244.82	-.0002	-26.18	265.87
IMPC	51	3775.71	3786.96	27	3	29.7	336.96	.0044	-26.97	-.0000	394782.9	1.93	24.12	.0013	157.53	.0040	-26.18	265.87

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	24	12	34.030	6687.636	27.1708	307.0613	10.88116	-8.1561	99.5746	107.9107
SEPARATION		1.20	12.45	24	12	35.230	6591.394	25.8073	314.3856	10.95467	-4.8114	102.9851	115.9358
RETRO		3.20	14.45	24	12	37.230	6546.272	22.7226	326.0440	10.99866	.8945	107.9997	127.6956
IMPACT		3775.71	3786.96	27	3	29.742	20929.578	-26.1818	265.8652	2.21434	68.7221	265.5169	293.2263

SURVEYOR VIEW PERIODS

GHA	334.7827					EPS -42.8582								LOM	261.6979
SX	.353550	SY	-.824821	SZ	-.441217	DAO	-26.18158	RAO	293.20181	RM	398734.434	LAT	28.310600	LON	279.461800
CJ	-.936252	ECC	.994628	SLR	12988.726	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.372388	NSY	-.817649	NSZ	-.439064	C3M	1.4971	VIM	2.6714	ZAE	141.393	B.T	.0000	B.R	-.0000
LATE	5.7717	LONE	5.4339	LATS	1.5226	LONS	48.0784	LATI	1.8519	LONI	326.9306	RSM	151.4353	TTAN	6.0712
LAUNCH DATE		AUG	24,1966		BASE AZM		87.0	TF	62.867			ARRIVAL DATE		AUG 27 1966	3 46 15.9

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
87.00	12 50 16.2	27.5	25.90	307.48	-15.26	115.22	102.05	13 1 31.2	6597.1	10.95	-5.09

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
				PROBE IN SUNLIGHT														
INJECTION		.00	11.25	24	13	1.5												
SEPARATION		1.20	12.45	24	13	2.7												
RETRO		3.20	14.45	24	13	4.7												
RISE	72	6.42	17.67	24	13	7.9	47.73	-.9584	78.34	.0672	2598.0	-4.41	-.00	.0963	351.40	.1810	11.01	342.34
RISE	51	11.84	23.09	24	13	13.4	65.22	-.1332	41.01	-.0250	4816.4	-3.75	-.00	.0966	316.75	.0374	2.81	3.26
EXTM	72	12.54	23.79	24	13	14.1	296.38	-.0382	19.61	-.1151	3271.6	6.75	21.62	.0000	65.20	.1298	1.55	5.43
EXTM	51	30.37	41.62	24	13	31.9	343.50	-.0246	-8.53	-.0206	7646.0	5.54	66.71	-.0000	45.29	.0806	-16.51	37.07
EXTM	72	64.20	75.45	24	14	5.7	275.29	-.0002	-24.29	-.0018	22460.6	4.99	8.03	.0000	113.57	.0018	-24.72	53.75
EXTM	51	79.68	90.93	24	14	21.2	324.35	-.0002	-25.12	-.0014	22930.1	4.56	57.90	.0000	96.79	.0027	-25.98	55.84
RISE	42	82.77	94.02	24	14	24.3	103.97	-.0025	-18.88	-.0022	28672.3	4.24	.00	.0032	246.66	-.0007	-26.17	56.06
EXTM	42	128.18	139.43	24	15	9.7	102.10	.0006	-22.48	-.0008	39902.5	3.89	3.57	-.0000	244.86	-.0009	-27.64	54.98
SET	42	166.93	178.18	24	15	48.4	104.99	.0017	-23.71	-.0004	48896.5	3.76	2.20	-.0010	242.26	-.0013	-28.10	50.59
RISE	61	191.91	203.16	24	16	13.4	304.07	.0031	-33.50	.0001	54466.4	3.28	-.00	.0017	136.31	.0019	-28.24	46.90
EXTM	51	297.08	308.33	24	17	58.0	.02	.0037	-28.64	.0000	68556.6	2.96	87.10	-.0000	180.38	.0444	-28.39	27.67
EXTM	61	457.07	468.32	24	20	38.6	2.43	.0039	-31.67	.0101	98985.4	2.54	18.06	.0000	182.18	.0035	-28.24	353.45
EXTM	72	492.91	504.16	24	21	14.4	.30	.0040	-29.45	.0001	109564.5	2.47	68.45	.0000	180.70	.0096	-28.19	345.40
RISE	11	659.95	671.20	25	0	1.5	293.89	.0040	-29.65	-.0000	127741.0	1.93	.00	.0026	127.53	.0023	-27.96	306.88
SET	51	687.26	698.51	25	0	28.8	90.00	.0039	-26.89	.0001	132095.8	2.53	11.33	-.0032	245.45	-.0013	-27.93	300.48
SET	61	702.30	713.55	25	0	43.8	60.84	.0040	-28.93	.0001	135301.4	2.41	-.00	-.0022	229.19	.0026	-27.91	296.94
SET	72	882.36	893.61	25	3	43.9	94.12	.0039	-27.35	.0001	157624.9	2.37	-.00	-.0035	242.36	-.0005	-27.69	254.14
RISE	42	891.55	902.80	25	3	53.1	255.00	.0040	-26.29	-.0001	158294.7	1.65	3.77	.0029	119.79	-.0021	-27.68	251.94
EXTM	11	931.25	942.50	25	4	32.8	.77	.0042	-29.66	.0000	160684.0	1.94	25.13	-.0000	180.74	.0040	-27.63	242.41
SET	11	1199.90	1211.15	25	9	1.4	67.35	.0041	-28.62	.0001	192987.3	2.04	.01	-.0027	234.11	.0024	-27.37	177.41
EXTM	42	1316.38	1327.63	25	10	57.9	359.96	.0042	-27.01	.0000	198762.7	1.68	81.79	.0000	.28	-.0238	-27.26	149.02
RISE	51	1451.42	1462.67	25	13	12.9	270.00	.0041	-26.51	-.0000	217092.3	1.25	11.18	.0034	114.20	-.0014	-27.15	116.00
RISE	72	1606.48	1617.73	25	15	48.0	265.97	.0041	-26.81	-.0000	233021.3	1.14	-.01	.0036	117.09	-.0005	-27.04	77.96
RISE	61	1688.77	1700.02	25	17	10.3	296.86	.0041	-28.10	-.0000	240571.3	1.24	.00	.0025	128.09	.0027	-26.98	57.73
SET	42	1739.32	1750.57	25	18	.8	105.00	.0041	-26.04	.0000	244727.5	1.82	3.62	-.0029	240.41	-.0022	-26.65	45.30
EXTM	51	1807.36	1818.61	25	19	8.9	359.19	.0042	-26.93	.0000	244881.8	1.46	88.57	.0021	146.72	.1250	-26.90	28.54
EXTM	61	1941.67	1952.92	25	21	23.2	.33		-28.11	.0000	260478.4	1.42	21.65	-.0030	180.31	.0040	-26.82	355.43
EXTM	72	1981.62	1992.87	25	22	3.1	.19	.0042	-27.25	.0000	260261.3	1.41	70.65	-.0000	180.28	.0111	-26.79	345.57
RISE	11	2123.95	2135.20	26	0	25.5	291.62	.0042	-27.57	-.0000	278055.7	1.06	.00	.0028	124.51	.0024	-26.71	310.41
SET	51	2170.16	2181.41	26	1	11.7	90.00	.0041	-26.19	.0000	280603.7	1.72	11.05	-.0034	246.10	-.0015	-26.69	298.99
SET	61	2194.35	2205.60	26	1	35.9	63.73	.0042	-27.62	.0000	283779.4	1.62	-.00	-.0025	232.61	.0027	-26.67	293.01
SET	72	2355.71	2366.96	26	4	17.2	93.95	.0041	-26.41	.0000	296586.0	1.71	-.01	-.0036	243.32	-.0005	-26.59	253.08
RISE	42	2356.46	2367.71	26	4	18.0	255.00	.0041	-25.84	-.0000	296255.3	.98	3.58	.0023	119.43	-.0022	-26.59	252.90
EXTM	11	2396.70	2407.95	26	4	58.2	.22	.0042	-27.65	.0000	296880.2	1.29	27.11	-.0000	180.22	.0042	-26.57	242.93
SET	11	2669.29	2680.54	26	9	30.8	68.75	.0042	-27.16	.0000	320337.7	1.54	-.00	-.0020	236.00	.0024	-26.44	175.37
EXTM	42	2775.57	2786.82	26	11	17.1	359.98	.0042	-26.22	.0000	321846.0	1.20	61.05	-.0000	.14	-.0164	-26.39	149.00
RISE	51	2906.08	2917.33	26	13	27.6	270.00	.0041	-25.92	-.0000	336176.0	.69	10.94	.0034	113.64	-.0015	-26.34	116.60
RISE	72	3059.55	3070.80	26	16	1.1	266.09	.0042	-26.13	-.0000	348182.2	.71	-.00	.0037	116.40	-.0005	-26.28	78.42
RISE	61	3135.82	3147.07	26	17	17.3	295.56	.0042	-27.01	-.0000	353294.5	.84	.00	.0026	126.91	.0027	-26.26	59.40
SET	42	3194.01	3205.26	26	18	15.5	105.00	.0041	-25.63	.0000	356801.4	1.44	3.37	-.0030	240.74	-.0023	-26.25	44.88
EXTM	51	3259.08	3270.33	26	19	20.6	359.03	.0042	-26.24	.0000	359181.4	1.10	88.99	.0033	120.11	.1069	-26.23	28.64
EXTM	61	3391.26	3402.51	26	21	32.8	.12	.0042	-27.11	.0000	367607.1	1.11	22.65	-.0000	180.12	.0041	-26.20	355.63
EXTM	72	3431.38	3442.63	26	22	12.9	.06	.0042	-26.51	.0000	366912.3	1.41	71.40	-.0000	180.19	.0113	-26.19	345.61
RISE	11	3567.91	3579.16	27	0	29.4	290.87	.0042	-26.79	-.0000	382017.5	.61	.00	.0028	123.47	.0024	-26.17	311.47
SET	51	3619.17	3630.42	27	1	20.7	90.00	.0042	-25.79	.0000	384307.4	1.53	10.89	-.0035	246.48	-.0015	-26.16	298.64
SET	61	3646.33	3657.58	27	1	47.9	64.65	.0042	-26.84	.0000	387396.8	1.46	-.00	-.0026	233.74	.0027	-26.16	291.83
IMPACT		3772.00	3783.25	27	3	53.5												
IMPC	42	3772.00	3783.25	27	3	53.5	248.08	.0043	-25.56	-.0000	397603.1	1.73	-1.51	.0030	123.16	-.0025	-26.16	260.13
IMPC	72	3772.00	3783.25	27	3	53.5	86.56	.0043	-26.07	.0000	396709.6	2.48	6.54	-.0039	244.49	-.0004	-26.16	260.13
IMPC	11	3772.00	3783.25	27	3	53.5	342.78	.0044	-26.95	-.0000	394677.7	1.96	25.74	.0010	162.96	.0042	-26.16	260.13

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	24	13	1.520	6598.181	25.9157	307.4250	10.95026	-5.0926	102.0264	115.1658
SEPARATION		1.20	12.45	24	13	2.720	6550.358	24.2836	314.5594	10.98945	-1.6827	105.1853	122.6010
RETRO		3.20	14.45	24	13	4.720	6577.407	20.8125	325.9526	10.96665	4.0302	109.7625	134.4956
IMPACT		3772.00	3783.25	27	3	3.524	3974486.465	-26.1578	260.1276	2.21348	68.4654	265.0681	293.4506

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SURVEYOR VIEW PERIODS

GHA	334.7827				EPS -42.6303							LOM	254.6136
SX	.357000	SY	-.823313	SZ	-.440763	DAO	-26.15258	RAO	293.47784	RM	398799.445	LAT	28.610600	LON	279.461800
CS	-.935918	ECC	.984633	SLR	12988.761	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	875.00000	POL	-.0
NSX	.376406	NSY	-.8160/3	NSZ	-.438569	C3M	1.4971	VIM	2.6715	ZAE	141.406	B.T	.0000	B.R	-.0000
LATE	5.7855	LONE	5.4156	LATS	1.5227	LONS	47.8299	LATI	1.9416	LONI	326.9151	HSM	151.4337	TTAN	6.0598

LAUNCH DATE AUG 24,1966 BASE AZM 90.0 TF 62.881 ARRIVAL DATE AUG 27 1966 4 15 37.6

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ FPA
90.00	13 13 55.7	27.8	24.68	307.49	-5.01	121.16	104.33	13 29 10.7	6557.1	10.98	-2.49

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
PROBE IN SUNLIGHT																	
INJECTION	.00	11.25	24	13	25.2												
SEPARATION	1.20	12.45	24	13	26.4												
RETRO	3.20	14.45	24	13	28.4												
RISE 72	5.73	16.98	24	13	30.9	68.97	-.4332	68.86	.0944	2682.1	-5.68	-.00	.1084	340.33	.1469	13.58	337.96
RISE 51	11.54	22.79	24	13	36.7	69.05	-.1174	36.55	-.0275	5075.9	-3.50	.00	.0942	311.39	.0278	1.79	359.81
RISE 61	11.69	22.94	24	13	36.9	348.96	-.1123	-49.23	.0151	5144.6	6.51	.00	.0042	172.82	-.0748	1.53	.26
EXTM 72	11.93	23.18	24	13	37.1	307.00	-.0597	20.86	-.1296	2915.5	5.94	30.53	-.0000	60.05	.1638	1.12	.96
EXTM 61	13.42	24.67	24	13	38.6	338.99	-.0817	-47.60	.0157	5844.8	6.94	.20	-.0000	166.01	-.0573	-1.33	5.14
SET 61	15.58	26.83	24	13	40.8	330.11	-.0573	-45.70	.0135	6761.4	7.16	-.00	-.0028	159.63	-.0421	-4.47	10.47
EXTM 51	32.68	43.93	24	13	57.9	348.21	-.0210	-11.95	-.0156	8586.5	5.46	72.28	-.0000	41.08	.0849	-17.91	34.69
EXTM 72	64.97	76.22	24	14	30.2	280.91	-.0001	-24.96	-.0016	22429.0	4.94	13.18	.0000	113.89	.0016	-24.77	48.69
EXTM 51	82.18	93.43	24	14	47.4	330.95	-.0002	-25.55	-.0012	23600.3	4.51	63.87	.0000	95.98	.0029	-26.07	50.68
RISE 61	162.10	173.35	24	16	7.3	304.71	.0028	-33.94	.0002	48282.8	3.49	-.00	.0016	137.00	.0017	-27.97	45.71
EXTM 51	268.59	279.84	24	17	53.8	.00	.0036	-28.57	.0000	63571.5	3.07	87.17	.0000	180.28	.0010	-28.31	27.68
EXTM 61	432.51	443.76	24	20	37.7	2.62	.0039	-31.76	.0001	95354.3	2.59	17.97	.0000	182.34	.0035	-28.19	353.28
EXTM 72	468.11	479.36	24	21	13.3	.35	.0040	-29.45	.0001	96996..	2.51	68.45	.0000	180.82	.0095	-28.15	349.35
RISE 11	636.13	647.38	25	0	1.3	293.90	.0040	-29.87	-.0000	126677.3	1.96	.00	.0026	127.55	.0023	-27.93	306.81
SET 51	662.95	674.20	25	0	28.1	90.00	.0039	-26.84	.0001	129018.3	2.55	11.31	-.0032	245.50	-.0013	-27.89	300.54
SET 61	678.02	689.27	25	0	43.2	60.82	.0040	-29.95	.0001	132252.7	2.44	-.00	-.0022	229.16	.0026	-27.88	297.01
SET 72	858.56	869.81	25	3	43.7	94.11	.0039	-27.02	.0001	154896.4	2.39	-.00	-.0035	242.40	-.0005	-27.66	254.19
RISE 42	868.11	879.36	25	3	53.3	254.99	.0040	-26.23	-.0001	155625.3	1.67	3.74	.0029	119.74	-.0021	-27.65	251.90
EXTM 11	907.81	919.06	25	4	33.0	.79	.0042	-29.66	.0000	158056.8	1.96	25.13	-.0000	180.76	.0040	-27.60	242.39
SET 11	1176.65	1187.90	25	9	1.8	67.36	.0041	-28.60	.0001	190639.4	2.06	.01	-.0027	229.13	.0024	-27.34	177.41
EXTM 42	1293.22	1304.47	25	10	58.4	359.96	.0042	-26.98	.0000	196515.9	1.69	81.76	.0000	.28	-.0033	-27.23	149.02
RISE 51	1428.40	1439.65	25	13	13.6	270.00	.0041	-26.48	-.0000	214950.8	1.26	11.16	.0034	114.17	-.0014	-27.12	115.98
RISE 72	1583.95	1594.80	25	15	48.7	265.98	.0041	-26.78	-.0000	230978.6	1.15	-.01	.0036	117.05	-.0005	-27.01	77.94
RISE 61	1665.72	1676.97	25	17	10.9	296.83	.0041	-28.08	-.0000	238563.0	1.25	.00	.0025	126.07	.0027	-26.95	57.75
SET 42	1716.30	1727.55	25	18	1.5	105.00	.0041	-26.01	.0000	242750.7	1.83	3.60	-.0029	240.44	-.0022	-26.92	45.31
EXTM 51	1784.53	1795.78	25	19	9.7	359.15	.0042	-26.90	.0000	242953.4	1.47	88.61	.0021	147.00	.1790	-26.87	28.51
EXTM 61	1918.75	1930.00	25	21	23.9	.33	.0042	-28.09	.0000	258602.5	1.43	21.67	-.0000	180.31	.0040	-26.79	355.43
EXTM 72	1958.71	1969.96	25	22	3.9	.10	.0042	-27.22	.0000	258404.5	1.42	70.68	-.0000	180.28	.0112	-26.77	345.57
RISE 11	2101.01	2112.26	26	0	26.2	291.60	.0042	-27.55	-.0000	276255.9	1.06	.00	.0028	124.48	.0024	-26.69	310.43
SET 51	2147.26	2158.51	26	1	12.4	90.00	.0041	-26.16	.0000	278826.2	1.73	11.04	-.0034	246.13	-.0015	-26.66	299.00
SET 61	2171.56	2182.81	26	1	36.7	63.75	.0042	-27.59	.0000	282010.5	1.63	-.00	-.0025	232.64	.0027	-26.65	292.99
SET 72	2332.82	2344.07	26	4	18.0	93.95	.0041	-26.38	.0000	294876.5	1.71	-.00	-.0036	243.35	-.0005	-26.52	257.09
RISE 42	2333.64	2344.89	26	4	18.8	255.00	.0041	-25.81	-.0000	294594.0	.98	3.48	.0029	119.41	-.0022	-26.56	252.89
EXTM 11	2373.86	2385.11	26	4	59.0	.22	.0042	-27.63	.0000	295187.4	1.30	27.16	-.0000	180.22	.0042	-26.54	242.93
SET 11	2646.56	2657.81	26	9	31.7	68.78	.0042	-27.16	.0000	318742.0	1.54	-.00	-.0028	236.03	.0024	-26.41	175.35
EXTM 42	2752.78	2764.03	26	11	18.0	359.98	.0042	-26.19	.0000	320278.0	1.21	80.97	-.0000	.15	-.0153	-26.37	149.00
RISE 51	2883.33	2894.58	26	13	28.5	270.00	.0041	-25.89	-.0000	334650.2	.81	10.93	.0034	113.62	-.0015	-26.31	116.59
RISE 72	3036.94	3048.19	26	16	2.1	266.10	.0042	-26.10	-.0000	346749.0	.71	-.00	.0037	116.37	-.0005	-26.25	78.41
RISE 61	3113.74	3124.29	26	17	18.2	295.53	.0042	-26.99	-.0000	351853.6	.83	.00	.0026	126.48	.0027	-26.24	59.42
SET 42	3171.31	3182.56	26	18	16.5	105.00	.0041	-25.60	.0000	355369.4	1.44	3.35	-.0030	240.76	-.0023	-26.22	44.88
EXTM 51	3238.43	3249.68	26	19	23.6	359.95	.0042	-26.21	.0000	353882.9	1.11	89.38	.0025	139.59	.2648	-26.20	28.13
EXTM 61	3368.54	3379.79	26	21	33.7	.12	.0042	-27.09	.0000	366361.6	1.10	22.67	-.0000	180.12	.0041	-26.18	355.63
EXTM 72	3408.66	3419.91	26	22	13.8	.06	.0042	-26.48	.0000	365462.7	1.11	71.42	-.0000	180.18	.0115	-26.17	345.61
RISE 11	3545.12	3556.37	27	0	30.3	290.85	.0042	-26.76	-.0000	380522.9	.80	.00	.0028	123.45	.0024	-26.14	311.49
SET 51	3596.44	3607.69	27	1	21.6	90.00	.0042	-25.77	.0000	382787.3	1.51	10.88	-.0035	246.50	-.0015	-26.13	298.64
SET 61	3623.73	3634.98	27	1	48.9	64.67	.0042	-26.82	.0000	385853.2	1.44	-.00	-.0026	233.77	.0027	-26.13	291.80
IMPACT	3772.86	3784.11	27	4	18.0												
IMPC 42	3772.86	3784.11	27	4	18.0	253.96	.0043	-25.57	-.0000	397205.8	1.71	2.60	.0[illegible]	119.79	-.0024	-26.13	294.21
IMPC 72	3772.86	3784.11	27	4	18.0	92.47	.0043	-26.01	.0000	397354.6	2.48	1.26	-.00[illegible]	243.91	-.0005	-26.13	294.21
IMPC 11	3772.86	3784.11	27	4	18.0	348.78	.0044	-26.94	-.0000	394616.7	1.99	26.95	.0007	168.77	.0043	-26.13	294.21

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	FPA	AZ	RT ASC
INJECTION	.00	11.25	24	13	25.179	6557.172	24.6827	307.4783	10.98388	-2.4869	104.3260	121.1900
SEPARATION	1.20	12.45	24	13	26.379	6546.461	22.7954	314.4567	10.99276	.9461	107.2602	128.4291
RETRO	3.20	14.45	24	13	28.379	6633.384	18.9994	325.4998	10.91993	6.6152	111.3926	139.9736
IMPACT	3772.86	3784.11	27	4	18.037	397545.539	-26.1330	254.2137	2.21102	68.1702	264.9346	293.6817

SURVEYOR VIEW PERIODS

GHA	334.7827					EPS	-42.4442							LOM	248.8268
SX	.36091/	SY	-.822070	SZ	-.440386	DAO	-26.12851	RAO	295.70314	RM	398852.340	LAT	28.310600	LON	279.461800
CC	-.936400	ECC	.984625	SLR	12988.711	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSY	.379692	NSY	-.814769	NSZ	-.438162	C3M	1.4967	VIM	2.6713	ZAE	141.398	B.T	.0000	B.R	-.0000
LATE	5.7967	LONE	5.4005	LATS	1.5227	LONS	47.6267	LATI	1.9133	LONI	326.8963	RSM	151 4340	TTAN	6.0507
LAUNCH DATE	AUG 24,1966			BASE AZM	93.0		TF 62.904					ARRIVAL DATE	AUG 27 1966		4 39 36.6

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
93.00	13 33 11.3	27.9	23.48	307.32	-.79	125.82	106.53	13 44 26.3	6545.0	10.99	-.39

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	24	13	44.4												
SEPARATION		1.20	12.45	24	13	45.6												
RETRO		3.20	14.45	24	13	47.6												
RISE	72	5.23	16.48	24	13	49.7	75.66	-.2941	60.72	.0782	2773.7	-6.46	-.00	.1162	331.72	.1155	12.81	334.50
RISE	51	11.34	22.59	24	13	55.8	72.13	-.1057	32.48	-.0301	5299.7	-3.25	-.00	.0919	306.59	.0201	.53	356.80
RISE	61	11.18	22.43	24	13	55.6	358.60	-.1186	-49.75	.0094	5237.8	6.09	.00	.0080	179.09	-.0768	.81	356.37
EXTM	72	11.48	22.73	24	13	55.9	317.91	-.0861	20.39	-.1392	2645.9	5.55	39.87	-.0000	54.95	.2096	.31	357.19
EXTM	61	14.71	25.96	24	13	59.1	339.61	-.0665	-47.20	.0125	6626.5	6.86	.70	-.0000	166.51	-.0469	-4.63	5.55
SET	61	20.98	31.53	24	14	4.7	324.09	-.0324	-43.74	.0081	8948.9	6.93	.00	-.0032	154.93	-.0246	-10.88	16.33
EXTM	51	35.13	46.38	24	14	19.6	351.95	-.0181	-15.26	-.0119	9539.6	5.39	77.10	-.0000	37.21	.0948	-19.50	32.64
EXTM	72	66.12	77.37	24	14	50.6	285.68	-.0000	-25.96	-.0014	22552.0	4.89	17.51	.0000	114.81	.0014	-25.23	44.52
EXTM	51	84.81	96.06	24	15	9.2	336.45	-.0001	-26.30	-.0011	24324.8	4.45	68.86	.0000	96.73	.0029	-26.50	46.39
RISE	61	138.18	149.43	24	16	2.6	305.83	.0024	-34.68	.0003	43043.3	3.71	-.00	.0014	138.18	.0014	-27.92	44.03
EXTM	51	244.51	255.76	24	17	49.0	360.00	.0034	-28.72	.0000	59208.0	3.16	87.02	.0000	179.71	.0132	-28.43	27.69
EXTM	61	412.85	424.10	24	20	37.3	2.88	.0039	-31.99	.0001	92410.7	2.64	17.72	.0000	182.57	.0035	-28.32	353.04
EXTM	72	447.80	459.05	24	21	12.2	.39	.0040	-29.62	.0001	94024.5	2.55	68.28	.0000	180.91	.0094	-28.27	345.31
RISE	11	617.26	628.51	25	0	1.7	294.04	.0040	-30.00	-.0000	124219.5	1.98	.00	.0026	127.73	.0023	-28.02	306.63
SET	51	645.11	656.36	25	0	27.6	90.00	.0038	-26.91	.0001	126465.7	2.58	11.33	-.0032	245.43	-.0013	-27.98	300.60
SET	61	657.57	668.82	25	0	42.0	60.65	.0039	-30.08	.0001	129643.0	2.46	-.00	-.0022	228.96	.0026	-27.96	297.22
SET	72	839.25	850.50	25	3	43.7	94.13	.0039	-27.38	.0001	152655.5	2.40	-.00	-.0035	242.33	-.0005	-27.73	254.22
RISE	42	849.07	860.32	25	3	53.5	254.99	.0040	-26.28	-.0001	153421.8	1.69	3.77	.0029	119.78	-.0021	-27.72	251.87
EXTM	11	888.86	900.11	25	4	33.3	.83	.0041	-29.75	.0000	155916.3	1.97	25.03	-.0000	180.80	.0040	-27.67	242.35
SET	11	1157.44	1168.69	25	9	1.9	67.30	.0041	-28.66	.0001	188674.0	2.07	.01	-.0026	234.05	.0024	-27.38	177.49
EXTM	42	1274.39	1285.64	25	10	58.8	359.96	.0042	-27.01	.0000	194664.6	1.70	81.79	.0000	.29	-.0257	-27.27	149.02
RISE	51	1409.70	1420.95	25	13	14.1	270.00	.0041	-26.51	-.0000	217185.4	1.27	11.17	.0034	114.19	-.0014	-27.16	115.97
RISE	72	1564.87	1576.12	25	15	49.3	265.97	.0041	-26.80	-.0000	229292.1	1.16	-.01	.0036	117.08	-.0005	-27.04	77.93
RISE	61	1647.22	1658.47	25	17	11.7	296.87	.0041	-28.11	-.0000	236928.4	1.25	.00	.0025	128.11	.0027	-26.98	57.70
SET	42	1697.59	1708.84	25	18	2.0	105.00	.0041	-26.02	.0000	241116.7	1.83	3.61	-.0029	240.43	-.0022	-26.94	45.32
EXTM	51	1765.79	1777.04	25	19	10.2	359.13	.0042	-26.92	.0000	241346.5	1.48	88.58	.0021	146.89	.1265	-26.89	28.53
EXTM	61	1900.17	1911.42	25	21	24.6	.34	.0042	-28.11	.0000	257059.9	1.44	21.65	-.0000	180.32	.0040	-26.81	355.42
EXTM	72	1940.09	1951.34	25	22	4.5	.11	.0042	-27.24	.0000	256871.8	1.42	70.66	-.0000	180.29	.0112	-26.78	345.57
RISE	11	2082.49	2093.74	26	0	26.9	291.61	.0042	-27.56	-.0000	274776.5	1.07	.00	.0028	124.50	.0024	-26.70	310.41
SET	51	2128.63	2139.88	26	1	13.1	90.00	.0041	-26.16	.0000	277352.5	1.73	11.04	-.0034	246.13	-.0015	-26.67	299.00
SET	61	2152.88	2164.13	26	1	37.3	63.74	.0042	-27.61	.0000	280549.1	1.63	-.00	-.0025	232.62	.0027	-26.65	293.01
SET	72	2314.22	2325.47	26	4	18.7	93.95	.0041	-26.38	.0000	293458.8	1.72	-.00	-.0036	243.34	-.0005	-26.57	253.10
RISE	42	2315.09	2326.34	26	4	19.5	255.00	.0041	-25.81	-.0000	293140.2	.99	3.48	.0029	119.41	-.0022	-26.57	252.88
EXTM	11	2355.32	2366.57	26	4	59.8	.23	.0042	-27.64	.0000	293786.4	1.30	27.15	-.0000	180.23	.0042	-26.55	242.92
SET	11	2627.99	2639.24	26	9	32.4	68.77	.0042	-27.16	.0000	317406.7	1.54	-.00	-.0028	236.03	.0024	-26.41	175.35
EXTM	42	2734.24	2745.49	26	11	18.7	359.98	.0042	-26.19	.0000	318968.8	1.21	80.97	-.0000	.15	-.0157	-26.36	149.00
RISE	51	2864.81	2876.06	26	13	29.2	270.00	.0041	-25.88	-.0000	333371.3	.81	10.93	.0034	113.61	-.0015	-26.31	116.59
RISE	72	3018.59	3029.84	26	16	3.0	266.10	.0042	-26.08	-.0000	345563.2	.71	.00	.0037	116.35	-.0005	-26.24	78.40
RISE	61	3094.59	3105.84	26	17	19.0	295.52	.0042	-26.98	-.0000	350662.4	.83	.00	.0026	126.46	.0027	-26.22	59.44
SET	42	3152.88	3164.13	26	18	17.3	105.00	.0041	-25.58	.0000	354181.0	1.44	3.34	-.0030	240.78	-.0023	-26.21	44.89
EXTM	51	3217.27	3228.52	26	19	21.7	358.86	.0042	-26.20	.0000	352512.1	1.10	88.87	.0035	114.29	.0778	-26.19	28.81
EXTM	61	3350.10	3361.35	26	21	54.5	.12	.0042	-27.08	.0000	365160.4	1.10	22.69	-.0000	180.12	.0041	-26.16	355.63
EXTM	72	3390.21	3401.46	26	22	14.6	.06	.0042	-26.47	.0000	364257.5	1.10	71.44	-.0000	180.19	.0115	-26.15	345.61
RISE	11	3526.61	3537.86	27	0	31.1	290.83	.0042	-26.75	-.0000	379282.3	.80	.00	.0028	123.43	.0024	-26.12	311.50
SET	51	3577.97	3589.22	27	1	22.4	90.00	.0042	-25.75	.0000	381522.8	1.50	10.87	-.0035	246.52	-.0015	-26.12	298.64
SET	61	3615.34	3626.59	27	1	49.8	64.69	.0042	-26.80	.0000	384577.8	1.42	-.00	-.0026	233.80	.0027	-26.11	291.79
RISE	42	3758.85	3770.10	27	4	25.3	255.00	.0042	-25.94	-.0000	395584.0	1.22	3.32	.0030	119.19	-.0023	-26.11	253.17
SET	72	3760.27	3771.52	27	4	24.7	93.88	.0042	-25.97	.0000	396085.3	1.99	.00	-.0038	243.76	-.0006	-26.11	252.81
IMPACT		3774.25	3785.50	27	4	38.7												
IMPC	42	3774.25	3785.50	27	4	38.7	258.93	.0043	-25.57	-.0000	396860.3	1.70	6.17	.0032	117.08	-.0023	-26.11	249.23
IMPC	72	3774.25	3785.50	27	4	38.7	97.45	.0043	-25.95	.0000	397896.7	2.47	-3 17	-.0038	243.25	-.0007	-26.11	249.23
IMPC	11	3774.25	3785.50	27	4	38.7	353.83	.0044	-26.92	-.0000	394603.5	2.01	27.60	.0004	173.79	.0044	-26.11	249.23

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	24	13	44.439	6544.975	23.4785	307.3189	10.99408	-.3916	106.5317	125.8187
SEPARATION		1.20	12.45	24	13	45.639	6563.244	21.3518	314.1349	10.97856	3.0381	109.2489	132.9355
RETRO		3.20	14.45	24	13	47.639	6696.991	17.2725	324.7971	10.86752	8.6404	112.9537	144.0990
IMPACT		3774.25	3785.50	27	4	38.689	39/595.461	-26.1121	249.2315	2.20863	67.9050	264.8376	293.8764

SURVEYOR VIEW PERIODS

GHA	334.7827					EPS	-42.3100							LOM	244.6557
SX	.363299	SY	-.821168	SZ	-.440111	DAO	-26.11094	RAO	293.86545	RM	398890.344	LAT	28.310600	LON	279.461800
CS	-.936073	ECC	.984631	SLR	12988.745	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.382051	NSY	-.813822	NSZ	-.437871	C3M	1.4975	VIM	2.6715	ZAE	141.392	B.T	.0000	B.R	-.0000
LATE	5.8048	LONE	5.3894	LATS	1.5228	LONS	47.4802	LATI	1.7792	LONI	326.8959	RSM	151.4343	TTAN	6.0437
LAUNCH DATE	AUG 24,1966			BASE AZM	96.0		TF 62.910					ARRIVAL DATE		AUG 27 1966	4 56 53.7

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
96.00	13 48 14	28.0	22.30	307.02	2.47	129.29	108.68	13 59 29.3	6547.7	10.99	1.23

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	24	13	59.5												
SEPARATION		1.20	12.45	24	14	.7												
RETRO		3.20	14.45	24	14	2.7												
RISE	72	4.88	16.13	24	14	4.4	79.01	-.2355	53.93	.0574	2855.9	-6.96	.00	.1212	324.69	.0881	11.82	331.71
EXTM	72	11.16	22.41	24	14	10.7	328.37	-.1124	17.91	-.1424	2451.3	5.21	49.49	-.0000	50.18	.2741	-.84	354.05
RISE	51	11.22	22.47	24	14	10.7	74.70	-.0969	28.69	-.0326	5482.5	-3.04	.00	.0899	302.21	.0138	-.93	354.20
RISE	61	12.17	23.42	24	14	11.7	357.59	-.0984	-49.73	.0085	5887.1	6.22	.01	.0064	178.45	-.0639	-2.49	356.81
EXTM	61	16.12	27.37	24	14	15.6	339.97	-.0554	-47.33	.0102	7442.9	6.77	.63	-.0000	166.58	-.0389	-7.92	5.95
SET	61	22.56	33.81	24	14	22.1	325.09	-.0267	-44.10	.0066	10062.6	6.70	.00	-.0024	155.74	-.0201	-14.03	16.72
EXTM	51	37.49	48.74	24	14	37.0	354.97	-.0160	-18.42	-.0093	10425.9	5.32	81.32	-.0000	33.48	.1178	-21.21	30.87
EXTM	72	67.49	78.74	24	15	7.0	289.56	.0001	-27.26	-.0011	22785.5	4.84	20.97	.0000	116.23	.0012	-26.04	41.21
EXTM	51	87.66	98.91	24	15	27.1	340.87	.0000	-27.36	-.0009	25115.9	4.40	72.83	.0000	99.67	.0029	-27.24	42.93
RISE	61	121.12	132.37	24	16	.6	307.42	.0020	-35.69	.0004	39133.8	3.89	-.00	.0013	139.83	.0011	-28.16	41.98
EXTM	51	224.88	236.13	24	17	44.4	.01	.0033	-29.13	.0000	55539.7	3.25	86.61	.0000	180.30	.0204	-28.78	27.68
EXTM	61	397.98	409.23	24	20	37.5	3.23	.0039	-32.37	.0001	90176.3	2.67	17.33	.0000	182.86	.0034	-28.59	352.71
EXTM	72	431.99	443.24	24	21	11.5	.46	.0040	-29.94	.0001	91688.2	2.59	67.96	-.0000	181.05	.0092	-28.53	345.25
RISE	11	603.13	614.38	25	0	2.6	294.30	.0040	-30.25	-.0000	122368.0	2.00	.00	.0026	128.06	.0023	-28.23	306.33
SET	51	627.56	638.81	25	0	27.1	90.00	.0038	-27.10	.0001	124442.8	2.60	11.41	-.0032	245.25	-.0013	-28.19	300.65
SET	61	640.75	652.00	25	0	40.2	60.33	.0039	-30.33	.0001	127475.5	2.48	-.00	-.0022	228.59	.0026	-28.17	297.58
SET	72	824.24	835.49	25	3	43.7	94.16	.0039	-27.54	.0001	150905.0	2.41	-.00	-.0035	242.17	-.0004	-27.89	254.22
RISE	42	834.19	845.44	25	3	53.7	254.99	.0040	-26.43	-.0001	151686.7	1.71	3.86	.0028	119.90	-.0021	-27.88	251.84
EXTM	11	874.19	885.44	25	4	33.7	.90	.0041	-29.93	.0001	154264.8	1.98	24.85	-.0000	180.86	.0040	-27.83	242.28
SET	11	1142.12	1153.37	25	9	1.6	67.18	.0041	-28.80	.0001	187106.2	2.08	-.00	-.0026	233.83	.0024	-27.50	177.63
EXTM	42	1259.67	1270.92	25	10	59.2	359.95	.0042	-27.12	.0000	193218.0	1.71	81.90	.0000	.32	-.0246	-27.38	149.03
RISE	51	1395.09	1406.34	25	13	14.6	270.00	.0041	-26.60	-.0000	211807.8	1.27	11.21	.0034	114.28	-.0014	-27.25	115.95
RISE	72	1550.23	1561.48	25	15	49.7	265.96	.0041	-26.88	-.0000	227977.1	1.17	-.01	.0036	117.16	-.0005	-27.12	77.93
RISE	61	1633.03	1644.28	25	17	12.5	296.97	.0041	-28.19	-.0000	235684.1	1.26	.00	.0025	128.23	.0027	-27.05	57.60
SET	42	1682.96	1694.21	25	18	2.4	105.00	.0041	-26.09	.0000	239844.1	1.84	3.55	-.0029	240.37	-.0022	-27.01	45.32
EXTM	51	1750.93	1762.18	25	19	10.4	359.06	.0042	-26.99	.0000	240081.2	1.48	88.49	.0021	146.39	.1181	-26.96	28.60
EXTM	61	1885.68	1896.93	25	21	25.2	.36	.0042	-28.18	.0000	255874.1	1.44	21.59	-.0000	180.34	.0040	-26.86	355.40
EXTM	72	1925.54	1936.79	25	22	5.0	.11	.0042	-27.30	.0000	255688.2	1.43	70.61	-.0000	180.30	.0112	-26.83	345.56
RISE	11	2068.14	2079.39	26	0	27.6	291.66	.0042	-27.61	-.0000	273646.3	1.07	.00	.0028	124.56	.0024	-26.74	310.36
SET	51	2114.06	2125.31	26	1	13.5	90.00	.0041	-26.21	.0000	276212.8	1.74	11.05	-.0034	246.09	-.0014	-26.71	299.01
SET	61	2138.09	2149.34	26	1	37.6	63.68	.0042	-27.65	.0000	279399.5	1.64	-.00	-.0025	232.56	.0027	-26.70	293.07
SET	72	2299.68	2310.93	26	4	19.2	93.95	.0041	-26.42	.0000	292368.6	1.72	-.00	-.0036	243.31	-.0005	-26.60	253.10
RISE	42	2300.56	2311.81	26	4	20.1	255.00	.0041	-25.84	-.0000	292049.5	.99	3.50	.0029	119.43	-.0022	-26.60	252.88
EXTM	11	2340.84	2352.09	26	5	.3	.25	.0042	-27.68	.0000	292713.8	1.30	27.11	-.0000	180.25	.0042	-26.58	242.91
SET	11	2613.36	2624.61	26	9	32.9	68.75	.0042	-27.18	.0000	316376.7	1.55	-.00	-.0028	236.00	.0024	-26.43	175.38
EXTM	42	2719.71	2730.96	26	11	19.2	359.98	.0042	-26.20	.0000	317966.8	1.21	80.98	-.0000	.15	-.0176	-26.38	149.00
RISE	51	2850.31	2861.56	26	13	29.8	270.00	.0041	-25.89	-.0000	332394.5	.81	10.93	.0034	113.62	-.0015	-26.32	116.59
RISE	72	3004.08	3015.33	26	16	3.6	266.10	.0042	-26.09	-.0000	344618.6	.71	.00	.0037	116.36	-.0005	-26.25	78.40
RISE	61	3080.11	3091.36	26	17	19.6	295.52	.0042	-26.98	-.0000	349724.3	.83	.00	.0026	126.47	.0027	-26.22	59.43
SET	42	3138.36	3149.61	26	18	17.8	105.00	.0041	-25.58	.0000	353242.5	1.44	3.34	-.0030	240.78	-.0023	-26.21	44.89
EXTM	51	3205.67	3216.92	26	19	25.2	359.60	.0042	-26.20	.0000	351769.3	1.11	89.41	.0024	141.73	.2906	-26.19	28.08
EXTM	61	3335.63	3346.88	26	21	35.1	.13	.0042	-27.08	.0000	364229.9	1.10	22.69	-.0000	180.13	.0041	-26.16	355.62
EXTM	72	3375.71	3386.96	26	22	15.2	.07	.0042	-26.46	.0000	363324.2	1.10	71.44	-.0000	180.19	.0114	-26.15	345.61
RISE	11	3512.11	3523.36	27	0	31.6	290.83	.0042	-26.74	-.0000	378335.6	.79	.00	.0028	123.42	.0024	-26.12	311.50
SET	51	3563.48	3574.73	27	1	23.0	90.00	.0042	-25.74	.0000	380565.0	1.50	10.87	-.0035	246.33	-.0015	-26.11	298.64
SET	61	3590.89	3602.14	27	1	50.4	64.70	.0042	-26.79	.0000	383612.7	1.42	-.00	-.0026	233.81	.0027	-26.10	291.78
RISE	42	3744.56	3755.81	27	4	24.0	255.00	.0042	-25.53	-.0000	394337.4	1.07	3.31	.0030	119.18	-.0023	-26.09	253.17
SET	72	3745.96	3757.21	27	4	25.4	93.87	.0042	-25.95	.0000	394822.0	1.83	-.00	-.0037	243.78	-.0006	-26.09	252.82
IMPACT		3774.61	3785.86	27	4	54.1												
IMPC	42	3774.61	3785.86	27	4	54.1	262.64	.0043	-25.58	-.0000	396594.9	1.69	8.89	.0032	115.12	-.0022	-26.10	245.51
IMPC	11	3774.61	3785.86	27	4	54.1	357.60	.0044	-26.91	-.0000	394613.8	2.03	27.84	.0001	177.58	.0044	-26.10	245.51
EXTM	11	3781.56	3792.81	27	5	1.0	359.46	.0048	-26.91	-.0000	395695.1	4.67	27.88	.0000	179.46	.0048	-26.10	243.68

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	24	13	59.489	6547.692	22.3009	307.0224	10.99182	1.2263	108.6841	129.2949
SEPARATION		1.20	12.45	24	14	.689	6588.191	19.9489	313.6639	10.95761	4.6442	111.1894	136.2372
RETRO		3.20	14.45	24	14	2.689	6757.131	15.6083	323.9497	10.81868	10.1738	114.4943	147.0243
IMPACT		3774.61	3785.86	27	4	54.095	397629.773	-26.0966	245.5140	2.20820	67.8739	269.0868	294.0211

SURVEYOR VIEW PERIODS

GHA	334.7827				EPS -42.1985								LOM	241.1848	
SX	.3652779	SY	-.8204813	SZ	-.4398879	DAO	-26.09819	RAD	294.00045	RM	398921.887	LAT	28.310600	LON	279.461800
CO	-.9375985	ECC	.9846066	SLR	12988.586	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.3840300	NSY	-.8130200	NSZ	-.4376290	C3M	1.4971	VIM	2.6714	ZAE	141.348	B.T	.0000	B.R	-.0000
LATE	5.8114	LONE	5.5119	LATS	1.5227	LONS	47.4900	LATI	1.5612	LONI	327.0022	RSM	151.4345	TTAN	6.0392
LAUNCH DATE		AUG	24.1966		BASE AZM		99.0		TF	62.945			ARRIVAL DATE AUG		27 1966 5 11 16.8

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME		INJ RAD	INJ VEL	INJ PTH
99.00	13 59 48.5		28.1	21.15	306.63	4.94	131.80	110.80	14 11 3.5		6556.7	10.98	2.45

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	24	14	11.1												
SEPARATION		1.20	12.45	24	14	12.3												
RETRO		3.20	14.45	24	14	14.3												
RISE	72	4.62	15.87	24	14	15.7	81.12	-.2018	48.06	.0370	2924.7	-7.27	-.00	.1244	318.67	.0640	10.66	329.41
EXTM	72	10.96	22.21	24	14	22.0	337.90	-.1346	13.56	-.1398	2318.2	4.96	59.31	-.0000	45.76	.3751	-2.26	351.43
RISE	51	11.14	22.39	24	14	22.2	76.94	-.0899	25.11	-.0351	5628.5	-2.86	.00	.0883	298.10	.0083	-2.56	351.93
RISE	61	15.64	26.89	24	14	26.7	346.44	-.0603	-48.97	.0089	7490.0	6.58	-.00	.0017	171.15	-.0406	-8.98	2.57
EXTM	61	17.67	28.92	24	14	28.7	339.97	-.0468	-47.90	.0085	8297.2	6.67	.09	-.0000	166.72	-.0325	-11.25	6.45
SET	61	19.99	31.24	24	14	31.0	334.23	-.0361	-46.78	.0076	9227.7	6.66	.01	-.0011	162.66	-.0258	-13.46	10.34
EXTM	51	39.66	50.91	24	14	50.7	357.40	-.0144	-21.48	-.0073	11217.4	5.26	85.12	-.0000	29.72	.1797	-23.03	29.36
EXTM	72	68.79	80.04	24	15	19.8	292.65	.0001	-28.76	-.0009	23037.5	4.80	23.61	.0000	118.00	.0010	-27.11	38.58
RISE	61	111.48	122.73	24	16	2.5	309.36	.0017	-36.85	.0005	36870.8	4.01	-.00	.0012	141.78	.0008	-28.75	39.80
EXTM	51	209.24	220.49	24	17	40.3	.04	.0032	-29.76	.0000	52536.8	3.33	85.98	.0000	180.58	.0366	-29.33	27.65
EXTM	61	387.26	398.51	24	20	38.3	3.66	.0038	-32.86	.0002	88569.1	2.69	16.82	.0000	183.21	.0034	-29.01	352.32
EXTM	72	420.07	431.32	24	21	11.1	.55	.0040	-30.39	.0001	89909.1	2.61	67.51	-.0000	181.25	.0089	-28.93	345.16
RISE	11	593.06	604.31	25	0	4.1	294.65	.0040	-30.59	-.0000	121031.7	2.02	.00	.0025	128.52	.0023	-28.55	305.95
SET	51	615.68	626.93	25	0	26.7	90.00	.0038	-27.40	.0001	122867.5	2.61	11.53	-.0032	244.97	-.0013	-28.50	300.70
SET	61	627.03	638.28	25	0	38.1	59.87	.0039	-30.67	.0001	125676.8	2.49	-.00	-.0021	228.07	.0026	-28.48	298.06
SET	72	812.87	824.12	25	3	43.9	94.20	.0039	-27.79	.0001	149598.2	2.42	-.00	-.0034	241.92	-.0004	-28.14	254.21
RISE	42	822.87	834.12	25	3	53.9	254.99	.0040	-26.66	-.0001	150336.3	1.72	4.00	.0028	120.08	-.0021	-28.12	251.82
EXTM	11	863.16	874.41	25	4	34.2	.99	.0041	-30.19	.0101	153013.8	1.99	24.60	-.0000	180.94	.0039	-28.06	242.20
SET	11	1130.03	1141.28	25	9	1.1	66.99	.0041	-28.99	.0001	185840.5	2.08	-.00	-.0026	233.62	.0024	-27.68	177.83
EXTM	42	1248.56	1259.81	25	10	59.6	359.98	.0042	-27.29	.0000	192098.5	1.72	82.07	-.0000	.18	-.0187	-27.54	149.00
RISE	51	1383.94	1395.19	25	13	15.0	270.00	.0041	-26.73	-.0000	210724.0	1.28	11.26	.0034	114.41	-.0014	-27.39	115.94
RISE	72	1539.03	1550.28	25	15	50.1	265.94	.0041	-27.00	-.0000	226936.0	1.17	-.01	.0036	117.28	-.0005	-27.24	77.94
RISE	61	1622.49	1633.74	25	17	13.6	297.12	.0041	-28.31	-.0000	234725.5	1.26	.00	.0025	128.40	.0027	-27.16	57.45
SET	42	1671.78	1683.03	25	18	2.8	105.00	.0041	-26.19	.0000	238851.4	1.84	3.72	-.0029	240.29	-.0022	-27.12	45.33
EXTM	51	1739.31	1750.56	25	19	10.4	358.94	.0042	-27.19	.0000	239051.4	1.48	88.34	.0022	145.30	.1059	-27.06	28.72
EXTM	61	1874.66	1885.91	25	21	25.7	.39	.0042	-28.27	.0000	254935.6	1.44	21.49	.0000	180.37	.0040	-26.95	355.37
EXTM	72	1914.45	1925.70	25	22	5.5	.12	.0042	-27.39	.0000	254743.9	1.43	70.52	-.0000	180.42	.0111	-26.92	345.55
RISE	11	2057.3	2068.60	26	0	28.4	291.74	.0042	-27.69	-.0000	272748.9	1.07	.00	.0028	124.66	.0024	-26.82	310.28
SET	51	2102.91	2114.16	26	1	14.0	90.00	.0041	-26.28	.0000	275291.7	1.74	11.08	-.0034	246.02	-.0014	-26.78	299.02
SET	61	2126.59	2137.84	26	1	37.7	63.59	.0042	-27.73	.0000	278456.7	1.64	-.00	-.0025	232.45	.0027	-26.77	293.16
SET	72	2288.59	2299.84	26	4	19.6	93.96	.0041	-26.47	.0000	291483.5	1.72	-.00	-.0036	243.25	-.0005	-26.66	253.09
RISE	42	2289.46	2300.71	26	4	20.5	255.00	.0041	-25.90	-.0000	291160.1	.99	3.54	.0029	119.47	-.0022	-26.66	252.88
EXTM	11	2329.80	2341.05	26	5	.9	.27	.0042	-27.74	.0000	291844.8	1.31	27.05	-.0000	180.26	.0042	-26.63	242.89
SET	11	2602.08	2613.33	26	9	33.1	68.71	.0042	-27.23	.0000	315518.9	1.55	-.00	-.0028	235.95	.0023	-26.47	175.42
EXTM	42	2708.60	2719.85	26	11	19.7	359.98	.0042	-26.24	.0000	317133.2	1.22	81.02	-.0000	.17	-.0173	-26.41	149.00
RISE	51	2859.21	2870.46	26	13	30.3	270.00	.0041	-25.92	-.0000	331575.9	.81	10.94	.0034	113.64	-.0015	-26.34	116.58
RISE	72	2992.95	3004.20	26	16	4.0	266.09	.0041	-26.11	-.0000	343598.5	.75	-.00	.0037	116.38	-.0005	-26.27	78.40
RISE	61	3069.11	3080.36	26	17	20.2	295.54	.0042	-27.00	-.0000	348938.9	.83	.00	.0026	126.49	.0027	-26.24	59.41
SET	42	3127.26	3138.51	26	18	18.3	105.00	.0041	-25.59	.0000	352449.7	1.44	3.35	-.0030	240.77	-.0023	-26.22	44.89
EXTM	51	3194.08	3205.33	26	19	25.1	359.47	.0042	-26.21	.0000	350943.9	1.10	89.33	.0027	134.60	.2268	-26.20	23.21
EXTM	61	3324.58	3335.83	26	21	35.6	.14	.0042	-27.08	.0000	363437.1	1.10	22.68	-.0000	180.14	.0041	-26.16	355.61
EXTM	72	3364.64	3375.89	26	22	15.7	.07	.0042	-26.47	.0000	362526.4	1.10	71.44	-.0000	180.20	.0116	-26.15	345.60
RISE	11	3501.04	3512.29	27	0	32.1	290.85	.0042	-26.74	-.0000	377521.7	.79	.00	.0028	123.42	.0024	-26.12	311.50
SET	51	3552.40	3563.65	27	1	23.5	90.00	.0042	-25.73	.0000	379738.9	1.49	10.87	-.0035	246.53	-.0015	-26.10	298.65
SET	61	3579.83	3591.08	27	1	50.9	64.71	.0042	-26.79	.0000	382779.0	1.41	-.00	-.0026	233.81	.0027	-26.10	291.78
RISE	42	3733.61	3744.86	27	4	24.7	255.00	.0042	-25.51	-.0000	393322.2	.99	3.30	.0030	119.17	-.0023	-26.08	253.17
SET	72	3734.99	3746.24	27	4	26.1	93.87	.0042	-25.94	.0000	393798.9	1.75	-.00	-.0037	243.79	-.0005	-26.08	252.92
EXTM	11	3773.26	3784.51	27	5	4.3	.05	.0043	-26.89	-.0000	394257.9	1.86	27.90	-.0000	180.05	.0043	-26.08	243.10
IMPACT		3776.56	3787.81	27	5	7.6												
IMPC	42	3776.56	3787.81	27	5	7.6	265.90	.0043	-25.58	-.0000	396360.2	1.69	11.32	.0033	113.44	-.0022	-26.08	242.25
IMPC	11	3776.56	3787.81	27	5	7.6	.91	.0044	-26.89	-.0000	394639.6	2.05	27.89	-.0001	180.92	.0044	-26.08	242.25

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	24	14	11.058	6556.809	21.1467	306.6350	10.98407	2.4506	110.8068	131.8076
SEPARATION		1.20	12.45	24	14	12.258	6613.917	18.5836	313.0860	10.93604	5.8505	113.1042	138.5995
RETRO		3.20	14.45	24	14	14.258	6808.858	13.9884	323.0224	10.77711	11.3157	116.0411	148.9972
IMPACT		3776.56	3787.81	27	5	7.619	39660.270	-26.0832	242.2508	2.20719	67.8227	265.4986	294.1482

SURVEYOR VIEW PERIODS

GHA	334.7827			EPS	-42.1091							LOM	238.4024
SX	.366865	SY	-.819805	SZ	-.439693	DAO	-26.08427	RAO	294.10863	RM	398947.133	LAT	28.310600	LON	279.461800
CS	-.939670	ECC	.9845/2	SLR	12988.365	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.385623	NSY	-.812369	NSZ	-.437438	C3M	1.4968	VIM	2.6713	ZAE	141.281	B.T	.0000	B.R	-.0000
LATE	5.8167	LONE	5.3737	LATS	1.5228	LONS	4/.2615	LATI	1.2841	LONI	326.8339	RSM	151.4346	TTAN	6.0367
LAUNCH DATE	AUG 24,1966			BASE AZM	102.0		TF 62.982				ARRIVAL DATE AUG 27 1966				5 22 48.6

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	14 8 41.1	28.1	20.02	306.17	6.80	133.56	112.91	14 19 56.1	6567.6	10.97	3.38

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	24	14	19.9												
SEPARATION		1.20	12.45	24	14	21.1												
RETRO		3.20	14.45	24	14	23.1												
RISE	72	4.44	15.69	24	14	24.4	82.62	-.1798	42.79	.0177	2981.6	-7.45	.00	.1263	313.30	.0421	9.39	327.47
EXTM	72	10.84	22.09	24	14	30.8	346.29	-.1508	7.65	-.1327	2241.5	4.78	69.30	-.0000	41.63	.5655	-3.90	349.22
RISE	51	11.10	22.35	24	14	31.0	78.96	-.0843	21.66	-.0576	5746.6	-2.71	.00	.0868	294.18	.0034	-4.33	349.91
EXTM	51	41.67	52.92	24	15	1.6	359.33	-.0133	-24.48	-.0058	11937.3	5.21	88.61	-.0000	25.93	.5514	-24.92	28.12
EXTM	72	70.05	81.30	24	15	30.0	295.07	.0001	-30.42	-.0006	23315.2	4.77	25.56	.0000	120.02	.0007	-28.37	36.50
RISE	61	108.70	119.95	24	16	8.6	311.44	.0016	-38.03	.0006	36259.0	4.04	-.00	.0012	143.81	.0007	-29.67	37.77
EXTM	51	197.03	208.28	24	17	37.0	.13	.0030	-30.60	.0001	50142.2	3.40	85.14	-.0000	131.30	.0006	-30.05	27.57
EXTM	61	379.80	391.05	24	20	39.7	4.14	.0038	-33.44	.0002	87468.9	2.71	16.22	.0000	183.60	.0033	-29.53	321.87
EXTM	72	411.22	422.47	24	21	11.2	.68	.0040	-30.94	.0001	88585.9	2.63	66.95	-.0000	181.49	.0087	-29.43	345.04
RISE	11	586.14	597.39	25	0	6.1	295.09	.0040	-31.00	.0000	120109.6	2.03	.00	.0025	129.08	.0023	-28.95	305.50
SET	51	606.65	617.90	25	0	26.6	90.00	.0038	-27.77	.0001	121653.5	2.62	11.68	-.0031	244.62	-.0013	-28.88	300.74
SET	61	615.70	626.95	25	0	35.6	59.32	.0039	-31.09	.0001	124173.0	2.50	-.00	-.0021	227.43	.0026	-28.86	298.64
SET	72	804.33	815.58	25	3	44.3	94.26	.0039	-28.09	.0001	148537.0	2.43	-.01	-.0034	241.62	-.0004	-28.44	294.18
RISE	42	814.31	825.56	25	3	54.2	254.99	.0040	-26.96	-.0000	149296.4	1.73	4.18	.0028	120.32	-.0021	-28.42	291.80
EXTM	11	854.96	866.21	25	4	34.9	1.10	.0041	-30.50	.0001	152085.9	2.00	24.29	-.0000	181.04	.0039	-28.35	242.09
SET	11	1120.48	1131.73	25	9	.4	66.75	.0041	-29.22	.0001	184825.8	2.09	-.00	-.0026	233.31	.0024	-27.91	178.08
EXTM	42	1239.97	1251.22	25	10	59.9	359.96	.0042	-27.49	.0000	191216.8	1.72	82.27	-.0000	.30	-.0247	-27.74	149.02
RISE	51	1375.49	1386.74	25	13	15.4	270.00	.0041	-26.91	-.0000	209883.1	1.28	11.33	.0034	114.57	-.0014	-27.57	115.93
RISE	72	1530.47	1541.72	25	15	50.4	265.91	.0041	-27.16	-.0000	226124.0	1.18	-.01	.0036	117.44	-.0005	-27.39	77.96
RISE	61	1614.77	1626.02	25	17	14.7	297.30	.0041	-28.46	-.0000	234006.1	1.27	.00	.0025	128.62	.0027	-27.31	57.26
SET	42	1663.28	1674.53	25	18	3.2	105.00	.0041	-26.33	.0000	238038.6	1.84	3.80	-.0029	240.18	-.0022	-27.24	45.34
EXTM	51	1730.07	1741.32	25	19	10.0	358.75	.0042	-27.23	.0000	238213.2	1.49	88.13	.0023	143.37	.0914	-27.19	28.90
EXTM	61	1866.33	1877.58	25	21	26.3	.43	.0042	-28.39	.0000	254209.3	1.45	21.37	.0000	180.40	.0040	-27.07	355.33
EXTM	72	1906.01	1917.26	25	22	5.9	.13	.0042	-27.50	.0000	254006.1	1.43	70.40	-.0000	180.35	.0111	-27.03	345.54
RISE	11	2049.28	2060.53	26	0	29.2	291.83	.0042	-27.79	-.0000	272054.8	1.08	.00	.0028	124.80	.0024	-26.91	310.18
SET	51	2094.42	2105.67	26	1	14.4	90.00	.0041	-26.37	.0000	274563.5	1.74	11.12	-.0034	245.94	-.0014	-26.88	299.02
SET	61	2117.65	2128.90	26	1	37.6	63.48	.0042	-27.82	.0000	277697.8	1.64	-.00	-.0025	232.31	.0027	-26.86	293.28
SET	72	2280.15	2291.40	26	4	20.1	93.98	.0041	-26.55	.0001	290782.8	1.72	-.00	-.0036	243.17	-.0005	-26.74	253.08
RISE	42	2281.00	2292.25	26	4	20.9	255.00	.0041	-25.97	-.0000	290452.6	.99	3.58	.0029	119.53	-.0022	-26.74	252.87
EXTM	11	2321.42	2332.67	26	5	1.4	.29	.0042	-27.81	.0000	291160.1	1.31	26.98	-.0000	180.29	.0042	-26.71	242.87
SET	11	2593.37	2604.62	26	9	33.3	68.66	.0042	-27.28	.0000	314824.9	1.55	-.00	-.0028	235.88	.0024	-26.53	175.48
EXTM	42	2700.10	2711.35	26	11	20.0	359.98	.0042	-26.28	.0000	316462.1	1.22	81.06	-.0000	.17	-.0197	-26.46	149.00
RISE	51	2830.73	2841.98	26	13	30.7	270.00	.0041	-25.96	-.0000	330913.8	.82	10.96	.0034	113.68	-.0015	-26.38	116.58
RISE	72	2984.45	2995.70	26	16	4.4	266.09	.0041	-26.14	-.0000	342945.5	.75	-.00	.0037	116.41	-.0005	-26.30	78.41
RISE	61	3060.85	3072.10	26	17	20.8	295.57	.0042	-27.02	-.0000	348355.2	.83	.00	.0026	126.52	.0027	-26.26	59.38
SET	42	3118.88	3130.13	26	18	18.8	105.00	.0041	-25.61	.0000	351853.2	1.44	3.36	-.0030	240.76	-.0023	-26.24	44.89
EXTM	51	3184.56	3195.81	26	19	24.5	359.18	.0042	-26.22	.0000	350268.8	1.10	89.12	.0032	123.50	.1346	-26.22	28.49
EXTM	61	3316.23	3327.48	26	21	36.2	.15	.0042	-27.09	.0000	362828.1	1.10	22.67	-.0000	180.15	.0041	-26.17	355.60
EXTM	72	3356.25	3367.50	26	22	16.2	.07	.0042	-26.48	.0000	361909.7	1.10	71.43	-.0000	180.21	.0116	-26.16	345.60
RISE	11	3492.64	3503.89	27	0	32.6	290.83	.0042	-26.75	-.0000	376882.2	.79	.00	.0028	123.42	.0024	-26.12	311.50
SET	51	3543.97	3555.22	27	1	23.9	90.00	.0042	-25.73	.0000	379084.9	1.49	10.87	-.0035	246.53	-.0015	-26.11	298.65
SET	61	3571.40	3582.65	27	1	51.3	64.71	.0042	-26.79	.0000	382116.2	1.41	-.00	-.0026	233.81	.0027	-26.10	291.78
RISE	42	3725.24	3736.49	27	4	25.2	255.00	.0042	-25.50	-.0000	392524.3	.95	3.29	.0030	119.16	-.0023	-26.07	253.16
SET	72	3726.61	3737.86	27	4	26.5	93.87	.0042	-25.93	.0000	392995.6	1.70	-.00	-.0037	243.80	-.0005	-26.07	252.82
EXTM	11	3764.88	3776.13	27	5	4.8	.02	.0043	-26.88	.0000	393205.3	1.57	27.91	-.0000	180.02	.0038	-26.07	243.14
IMPACT		3778.94	3790.19	27	5	18.9												
IMPC	42	3778.94	3790.19	27	5	18.9	268.61	.0043	-25.59	-.0000	396167.0	1.68	13.37	.0033	112.06	-.0021	-26.07	239.54
IMPC	11	3778.94	3790.19	27	5	18.9	3.67	.0044	-26.88	-.0000	394675.5	2.06	27.81	-.0002	183.70	.0044	-26.07	239.54

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	24	14	19.935	6567.834	20.0137	306.1816	10.97485	3.3756	112.9126	133.5796
SEPARATION		1.20	12.45	24	14	21.135	6637.283	17.2483	312.4394	10.91653	6.7575	115.0109	140.1383
RETRO		3.20	14.45	24	14	23.135	6851.500	12.3996	322.0529	10.74315	12.1691	117.6074	150.2531
IMPACT		3778.94	3790.19	27	5	18.871	397688.520	-26.0722	239.5364	2.20492	67.6053	265.9956	294.2545

SURVEYOR VIEW PERIODS

GHA	334.7827				EPS -42.0325						LOM	236.0191	
SX	.568222	SY	-.819283	SZ	-.439532	DAO	-26.07400	RAO	294.20126	RM	398968.715	LAT	28.310600
CS	-.942496	ECC	.984525	SLR	12988.056	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000
NSX	.586997	NSY	-.811803	NSZ	.437275	C3M	1.4966	VIM	2.6713	ZAE	141.187	B.T	.0000
LATE	5.8212	LONE	5.4579	LATS	1.5228	LONS	47.2682	LATI	.9667	LONI	326.8680	RSM	151.4348
LAUNCH DATE	AUG 24,1966			BASE AZM	105.0		TF 65.032				ARRIVAL DATE	AUG 27 1966	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	14 15 34.9	28.1	18.91	305.65	8.23	134.78	115.00	14 26 49.9	6578.3	10.97	4.08

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	24	14	26.8												
SEPARATION		1.20	12.45	24	14	28.0												
RETRO		3.20	14.45	24	14	30.0												
RISE	72	4.32	15.57	24	14	31.2	83.79	-.1636	37.91	-.0007	3031.1	-7.52	.00	.1273	308.34	.0218	8.02	325.80
EXTM	72	10.81	22.06	24	14	37.6	353.50	-.1609	.56	-.1225	2221.5	4.69	79.34	-.0000	37.71	1.0928	-5.73	347.36
RISE	51	11.00	22.34	24	14	37.9	80.83	-.0795	18.29	-.0401	5845.8	-2.56	.00	.0855	290.39	-.0012	-6.20	348.10
EXTM	51	43.65	54.90	24	15	10.5	.79	-.0124	-27.47	-.0045	12633.1	5.16	88.13	-.0000	201.95	-.3633	-26.89	27.16
EXTM	72	70.96	82.21	24	15	37.8	296.96	.0001	-32.18	-.0004	23519.1	4.74	26.96	.0000	122.18	.0005	-29.75	34.82
EXTM	51	94.38	105.63	24	16	1.2	349.21	.0002	-31.60	-.0003	26993.4	4.29	78.88	.0000	124.29	.0016	-30.55	36.32
RISE	61	111.29	122.54	24	16	18.1	313.50	.0016	-39.13	.0007	36965.4	4.00	-.00	.0013	145.76	.0007	-30.81	35.97
EXTM	51	187.78	199.03	24	17	34.6	.28	.0029	-31.60	.0001	48259.2	3.45	84.14	-.0000	182.38	.0244	-30.91	27.44
EXTM	61	374.82	386.07	24	20	41.7	4.66	.0038	-34.08	.0002	86760.6	2.72	15.56	.0000	184.01	.0033	-30.12	351.38
EXTM	72	404.82	416.07	24	21	11.7	.85	.0039	-31.57	.0001	87630.1	2.65	66.32	-.0000	181.80	.0084	-30.00	344.89
RISE	11	581.60	592.85	25	0	8.4	295.58	.0040	-31.46	.0000	119502.1	2.04	.00	.0025	129.70	.0023	-29.38	304.99
SET	51	599.79	611.04	25	0	26.6	90.00	.0038	-28.21	.0001	120714.5	2.63	11.85	-.0031	244.21	-.0012	-29.32	300.78
SET	61	606.15	617.40	25	0	33.0	58.67	.0039	-31.57	.0002	122889.8	2.51	-.00	-.0021	226.70	.0026	-29.30	299.30
SET	72	797.93	809.18	25	3	44.8	94.32	.0039	-28.44	.0001	147760.5	2.43	-.01	-.0034	241.27	-.0004	-28.79	254.14
RISE	42	807.82	819.07	25	3	54.7	254.99	.0040	-27.30	-.0000	148490.0	1.73	4.39	.0028	120.59	-.0021	-28.77	251.78
EXTM	11	848.89	860.14	25	4	35.7	1.22	.0041	-30.84	.0001	151400.5	2.00	23.94	.0000	181.14	.0039	-28.68	241.98
SET	11	1112.83	1124.08	25	8	59.7	66.48	.0041	-29.49	.0001	183997.3	2.09	-.00	-.0026	232.95	.0024	-28.17	178.36
EXTM	42	1235.40	1244.65	25	11	.2	359.94	.0042	-27.73	.0000	190526.1	1.72	82.51	.0000	.42	-.0271	-27.97	149.04
RISE	51	1369.04	1380.29	25	13	15.9	270.00	.0041	-27.12	-.0000	209220.7	1.29	11.41	.0034	114.77	-.0014	-27.78	115.92
RISE	72	1523.89	1535.14	25	15	50.7	265.88	.0041	-27.34	-.0000	225478.9	1.18	-.01	.0036	117.62	-.0005	-27.57	77.99
RISE	61	1609.16	1620.41	25	17	16.0	297.51	.0041	-27.63	-.0000	233460.2	1.27	.00	.0025	128.88	.0027	-27.47	57.05
SET	42	1656.77	1668.02	25	18	3.6	105.00	.0041	-27.49	.0001	237404.9	1.84	3.90	-.0029	240.06	-.0022	-27.42	45.34
EXTM	51	1722.94	1734.19	25	19	9.8	358.59	.0042	-27.39	.0000	237542.8	1.49	87.92	.0023	142.83	.0813	-27.34	29.06
EXTM	61	1859.99	1871.24	25	21	26.8	.47	.0042	-28.53	.0000	253635.3	1.45	21.23	.0000	180.44	.0040	-27.20	355.29
EXTM	72	1899.56	1910.81	25	22	6.4	.14	.0042	-27.64	.0000	253416.1	1.43	70.27	-.0000	180.37	.0110	-27.16	345.53
RISE	11	2043.24	2054.49	26	0	30.1	291.95	.0042	-27.91	-.0000	271505.1	1.08	.00	.0028	124.95	.0024	-27.03	310.06
SET	51	2087.90	2099.15	26	1	14.7	90.00	.0041	-26.48	.0001	273971.8	1.74	11.16	-.0034	245.84	-.0014	-26.99	299.02
SET	61	2110.59	2121.84	26	1	37.4	63.34	.0042	-27.93	.0000	277068.7	1.64	-.00	-.0025	232.15	.0027	-26.97	293.42
SET	72	2273.68	2284.93	26	4	20.5	93.99	.0041	-26.64	.0001	290211.4	1.73	-.00	-.0036	243.08	-.0005	-26.83	253.07
RISE	42	2274.50	2285.75	26	4	21.3	255.00	.0041	-26.06	-.0000	289872.4	1.00	3.64	.0029	119.61	-.0022	-26.83	252.87
EXTM	11	2315.01	2326.26	26	5	1.8	.32	.0042	-27.90	.0000	290604.0	1.34	26.89	-.0000	180.31	.0042	-26.79	242.84
SET	11	2586.55	2597.80	26	9	33.4	68.59	.0042	-27.35	.0000	314239.7	1.55	.01	-.0028	235.78	.0024	-26.59	175.55
EXTM	42	2693.56	2704.81	26	11	20.4	359.97	.0042	-26.34	.0000	315901.4	1.22	81.12	-.0000	.20	-.0186	-26.52	149.01
RISE	51	2824.20	2835.45	26	13	31.0	270.00	.0041	-26.00	-.0000	330356.6	.82	10.97	.0034	113.72	-.0015	-26.43	116.58
RISE	72	2977.89	2989.14	26	16	4.7	266.08	.0041	-26.17	-.0000	342391.6	.75	-.00	.0037	116.44	-.0005	-26.33	78.41
RISE	61	3054.46	3065.71	26	17	21.3	295.61	.0042	-27.05	-.0000	347814.1	.83	.00	.0026	126.57	.0027	-26.29	59.34
SET	42	3112.32	3123.57	26	18	19.2	105.00	.0041	-25.63	.0000	351297.1	1.44	3.37	-.0030	240.73	-.0023	-26.27	44.89
EXTM	51	3177.57	3188.82	26	19	24.4	359.07	.0042	-26.25	.0000	349683.2	1.10	89.02	.0033	121.50	.1143	-26.24	28.60
EXTM	61	3309.74	3320.99	26	21	36.6	.17	.0042	-27.11	.0000	362270.1	1.10	22.65	-.0000	180.14	.0041	-26.19	355.58
EXTM	72	3349.72	3360.97	26	22	16.5	.08	.0042	-26.49	.0000	361344.5	1.10	71.41	-.0000	180.22	.0115	-26.17	345.60
RISE	11	3486.14	3497.39	27	0	33.0	290.84	.0042	-26.76	-.0000	376303.4	.79	.00	.0028	123.43	.0024	-26.13	311.49
SET	51	3537.43	3548.68	27	1	24.3	90.00	.0042	-25.74	.0000	378494.2	1.49	10.87	-.0035	246.53	-.0015	-26.11	298.65
SET	61	3564.84	3576.09	27	1	51.7	64.70	.0042	-26.80	.0000	381518.2	1.40	-.00	-.0026	233.80	.0027	-26.10	291.79
RISE	42	3718.77	3730.02	27	4	25.6	255.00	.0042	-25.50	-.0000	391834.9	.92	3.29	.0030	119.16	-.0023	-26.06	253.16
SET	72	3720.13	3731.38	27	4	27.0	93.87	.0042	-25.92	.0000	392302.6	1.67	-.00	-.0037	243.81	-.0005	-26.06	252.82
EXTM	11	3758.43	3769.68	27	5	5.3	.00	.0043	-26.88	.0000	392382.2	1.45	27.92	.0000	180.01	.0010	-26.06	243.15
IMPACT		3781.92	3793.17	27	5	28.8												
IMPC	42	3781.92	3793.17	27	5	28.8	270.99	.0043	-25.59	-.0000	395994.4	1.68	15.18	.0033	110.87	-.0021	-26.06	237.15
IMPC	11	3781.92	3793.17	27	5	28.8	6.09	.0044	-26.87	-.0000	394713.3	2.07	27.65	-.0004	186.13	.0044	-26.06	237.15

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	24	14	26.832	6578.727	18.9012	305.6755	10.96576	4.0820	115.0085	134.8026
SEPARATION		1.20	12.45	24	14	28.032	6657.406	15.9396	311.7418	10.89976	7.4481	116.9178	141.1697
RETRO		3.20	14.45	24	14	30.032	6886.122	10.8366	321.0547	10.71576	12.8154	119.1978	150.9840
IMPACT		3781.92	3793.17	27	5	28.756	3977710.801	-26.0627	237.1513	2.20383	67.5613	266.6204	294.3474

SURVEYOR VIEW PERIODS

GHA	334.7827					EPS	-41.9651							LOM	235.8609
SX	.369450	SY	-.818808	SZ	-.439385	DAO	-26.06465	RAO	294.28513	RM	398988.227	LAT	28.310600	LON	279.461800
CS	-.945998	ECC	.984468	SLR	12987.679	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.388248	NSY	-.811285	NSZ	-.437128	C3M	1.4964	VIM	2.6713	ZAE	141.067	B.T	.0000	B.R	-.0000
LATE	5.8253	LONE	5.3612	LATS	1.5229	LONS	47.1015	LATI	.6229	LONI	326.7000	RSM	151.4349	TTAN	6.0369
LAUNCH DATE	AUG 24,1966			BASE AZM	108.0		TF 63.092					ARRIVAL DATE	AUG 27 1966		5 41 37.9

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	14 21	2.6	28.1	17.83	305.09	9.33	135.58	117.09	14 32 17.6	6587.9	10.96	4.63

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	24	14	32.3												
SEPARATION	1.20	12.45	24	14	33.5												
RETRO	3.20	14.45	24	14	35.5												
RISE 72	4.24	15.49	24	14	36.5	84.77	-.1507	33.28	-.0182	3077.2	-7.50	-.00	.1273	303.64	.0028	6.58	324.31
EXTM 72	10.46	21.71	24	14	42.8	3.64	-.1805	-4.48	-.1227	2156.5	4.10	85.01	.2149	313.17	.4041	-7.04	344.75
RISE 51	11.10	22.35	24	14	43.4	82.59	-.0753	14.97	-.0427	5933.7	-2.42	.00	.0841	286.67	-.0054	-8.16	346.44
EXTM 51	45.80	57.05	24	15	18.1	1.77	-.0115	-30.46	-.0034	13367.3	5.12	85.03	-.0000	197.87	-.1210	-28.94	26.51
EXTM 72	71.89	83.14	24	15	44.2	298.44	.0000	-34.02	-.0002	23753.5	4.72	27.90	.0000	124.44	.0002	-31.23	33.48
EXTM 51	94.88	106.13	24	16	7.2	350.89	.0001	-33.21	-.0001	27165.7	4.28	79.11	.0000	135.48	.0006	-31.85	34.96
RISE 61	117.32	128.57	24	16	29.6	315.50	.0018	-40.13	.0007	38493.7	3.92	-.00	.0013	147.60	.0008	-32.03	34.33
EXTM 51	181.13	192.38	24	17	33.4	.53	.0028	-32.71	.0002	46963.0	3.49	83.01	-.0000	183.70	.0196	-31.88	27.22
EXTM 61	371.74	382.99	24	20	44.0	5.22	.0038	-34.76	.0002	86354.5	2.73	14.85	.0000	184.43	.0032	-30.77	350.87
EXTM 72	400.06	411.31	24	21	12.4	1.00	.0039	-32.24	.0001	86922.7	2.66	65.64	.0000	182.05	.0081	-30.62	344.75
RISE 11	578.86	590.11	25	0	11.2	296.12	.0040	-31.96	.0000	119131.4	2.04	.00	.0025	130.38	.0023	-29.85	304.44
SET 51	594.55	605.80	25	0	26.8	90.00	.0038	-28.69	.0001	119983.5	2.63	12.03	-.0031	243.76	-.0012	-29.80	300.81
SET 61	597.93	609.18	25	0	30.2	57.96	.0039	-32.09	.0002	121771.0	2.52	-.00	-.0020	225.90	.0026	-29.79	300.02
SET 72	793.11	804.36	25	3	45.4	94.39	.0039	-28.81	.0001	147166.5	2.44	-.01	-.0034	240.88	-.0004	-29.17	294.09
RISE 42	802.88	814.13	25	3	55.2	254.99	.0040	-27.67	-.0000	147858.0	1.74	4.62	.0028	120.88	-.0021	-29.15	291.76
EXTM 11	844.40	855.65	25	4	36.7	1.35	.0041	-31.22	.0001	150895.7	2.01	23.56	.0000	181.26	.0039	-29.04	241.86
SET 11	1106.58	1117.83	25	8	58.9	66.18	.0041	-29.79	.0001	183306.1	2.09	-.00	-.0026	232.56	.0024	-28.45	178.66
EXTM 42	1228.38	1239.63	25	11	.7	359.99	.0042	-27.99	.0000	189980.2	1.73	82.77	.0000	.49	-.0281	-28.23	149.05
RISE 51	1364.07	1375.32	25	13	16.4	270.00	.0041	-27.34	-.0000	208689.0	1.29	11.50	.0034	114.98	-.0014	-28.00	115.91
RISE 72	1518.77	1530.02	25	15	51.1	265.84	.0041	-27.53	-.0000	224955.6	1.18	-.01	.0036	117.82	-.0005	-27.77	78.01
RISE 61	1605.08	1616.33	25	17	17.4	297.74	.0041	-28.81	-.0000	233040.4	1.27	.00	.0025	129.15	.0027	-27.65	56.82
SET 42	1651.73	1662.98	25	18	4.0	105.00	.0041	-26.66	.0001	236886.9	1.85	4.00	-.0029	239.92	-.0022	-27.59	45.35
EXTM 51	1717.69	1728.94	25	19	10.0	358.53	.0042	-27.56	.0000	237022.4	1.49	87.76	.0022	144.46	.0767	-27.51	29.12
EXTM 61	1855.13	1866.38	25	21	27.4	.51	.0042	-28.68	.0000	253171.0	1.45	21.08	.0000	180.48	.0039	-27.35	355.25
EXTM 72	1894.57	1905.82	25	22	6.9	.15	.0042	-27.78	.0000	252932.5	1.43	70.12	-.0000	180.40	.0109	-27.30	345.52
RISE 11	2038.70	2049.95	26	0	31.0	292.07	.0042	-28.03	-.0000	271058.6	1.08	.00	.0028	125.12	.0024	-27.15	309.93
SET 51	2082.83	2094.08	26	1	15.1	90.00	.0041	-26.60	.0001	273477.7	1.74	11.21	-.0034	245.72	-.0014	-27.11	299.03
SET 61	2104.94	2116.19	26	1	37.2	63.20	.0042	-28.05	.0001	276532.3	1.64	-.00	-.0025	231.97	.0027	-27.08	293.56
SET 72	2268.67	2279.92	26	4	21.0	94.01	.0041	-26.74	.0001	289731.6	1.73	-.00	-.0036	242.98	-.0005	-26.93	253.06
RISE 42	2269.44	2280.69	26	4	21.7	255.00	.0041	-26.16	-.0000	289382.3	1.00	3.70	.0029	119.68	-.0022	-26.93	252.87
EXTM 11	2310.05	2321.30	26	5	2.3	.35	.0042	-28.00	.0000	290138.9	1.31	26.79	-.0000	180.34	.0042	-26.89	242.81
SET 11	2581.17	2592.42	26	9	33.5	68.52	.0042	-27.42	.0000	313736.7	1.55	.00	-.0028	235.69	.0024	-26.66	175.62
EXTM 42	2688.44	2699.69	26	11	20.7	359.97	.0042	-26.40	.0000	315417.2	1.22	81.18	-.0000	.20	-.0210	-26.58	149.01
RISE 51	2819.09	2830.34	26	13	31.4	270.00	.0041	-26.05	-.0000	329871.7	.82	10.99	.0034	113.77	-.0015	-26.48	116.58
RISE 72	2972.74	2983.99	26	16	5.0	266.08	.0041	-26.21	-.0000	341905.3	.75	-.00	.0037	116.48	-.0005	-26.37	78.42
RISE 61	3049.50	3060.75	26	17	21.8	295.65	.0042	-27.09	-.0000	347339.8	.83	.00	.0026	126.62	.0027	-26.33	59.30
SET 42	3107.18	3118.43	26	18	19.5	105.00	.0041	-25.67	.0000	350805.0	1.44	3.39	-.0030	240.71	-.0023	-26.30	44.90
EXTM 51	3173.25	3184.50	26	19	25.5	359.27	.0042	-26.28	.0000	349243.3	1.10	89.15	.0029	129.69	.1630	-26.27	28.40
EXTM 61	3304.68	3315.93	26	21	37.0	.19	.0042	-27.13	.0000	361773.4	1.10	22.63	-.0000	180.18	.0041	-26.21	355.57
EXTM 72	3344.61	3355.86	26	22	16.9	.08	.0042	-26.51	.0000	360839.2	1.10	71.39	-.0000	180.24	.0116	-26.19	345.59
RISE 11	3481.06	3492.31	27	0	33.4	290.85	.0042	-26.77	-.0000	375783.3	.78	.00	.0028	123.45	.0024	-26.14	311.47
SET 51	3532.30	3543.55	27	1	24.6	90.00	.0042	-25.75	.0000	377961.4	1.48	10.87	-.0035	246.52	-.0015	-26.12	298.65
SET 61	3559.68	3570.93	27	1	52.0	64.69	.0042	-26.80	.0000	380977.6	1.40	-.00	-.0026	233.79	.0027	-26.11	291.80
RISE 42	3713.70	3724.95	27	4	26.0	255.00	.0042	-25.49	-.0000	391217.5	.90	3.29	.0030	119.15	-.0023	-26.06	253.16
SET 72	3715.04	3726.29	27	4	27.3	93.87	.0042	-25.92	.0000	391682.3	1.65	-.00	-.0037	243.81	-.0005	-26.06	252.82
EXTM 11	3753.60	3764.85	27	5	5.9	.05	.0043	-26.87	.0000	391693.2	1.38	27.92	.0000	180.06	.0043	-26.05	243.10
IMPACT	3785.54	3796.79	27	5	37.8												
IMPC 42	3785.54	3796.79	27	5	37.8	273.19	.0043	-25.60	-.0000	395836.4	1.68	16.86	.0033	109.79	-.0021	-26.05	234.96
IMPC 11	3785.54	3796.79	27	5	37.8	8.31	.0044	-26.86	.0000	394755.6	2.09	27.44	-.0005	188.35	.0044	-26.05	234.96

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	24	14	32.294	6588.709	17.8094	305.1238	10.95746	4.6304	117.0988	135.6201
SEPARATION	1.20	12.45	24	14	33.494	6674.401	14.6562	311.0018	10.88560	7.9826	118.8296	141.7989
RETRO	3.20	14.45	24	14	35.494	6914.233	9.2977	320.0313	10.69361	13.3140	120.8139	151.3298
IMPACT	3785.54	3796.79	27	5	37.834	397731.656	-26.0540	234.9609	2.20249	67.4938	267.3031	294.4328

SURVEYOR VIEW PERIODS

GHA	354.7827					EPS	-41.9066							LOM	232.1008
SX	.370451	SY	-.818421	SZ	-.439265	DAO	-26.05699	RAO	294.35350	RM	399004.121	LAT	28.310600	LON	279.461800
CS	-.949028	ECC	.984418	SLR	12987.354	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.389270	NSY	-.810858	NSZ	-.437010	C3M	1.4976	VIM	2.6715	ZAE	140.934	B.T	.0000	B.R	-.0000
LATE	5.8287	LONE	5.4233	LATS	1.5228	LONS	47.1065	LATI	.2630	LONI	326.6839	RSM	151.4350	TTAN	6.0391
LAUNCH DATE	AUG 24,1966			BASE AZM	111.0		TF 63.144					ARRIVAL DATE	AUG 27 1966	5 48 55.5	

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	14 25 25.9	28.1	16.76	304.48	10.21	136.08	119.17	14 36 40.9	6596.5	10.95	5.06

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	24	14	36.7												
SEPARATION		1.20	12.45	24	14	37.9												
RETRO		3.20	14.45	24	14	39.9												
RISE	72	4.20	15.45	24	14	40.9	85.62	-.1399	28.80	-.0349	3122.2	-7.59	.01	.1265	299.11	-.0152	5.07	322.99
EXTM	72	10.99	22.24	24	14	47.7	4.49	-.1658	-15.50	-.0970	2361.4	4.76	81.40	-.0000	210.34	-1.2509	-9.91	344.48
RISE	51	11.15	22.40	24	14	47.8	84.27	-.0714	11.70	-.0452	6016.1	-2.27	-.00	.0827	283.01	-.0094	-10.18	344.89
EXTM	51	48.34	59.59	24	15	25.0	2.21	-.0105	-33.41	-.0023	14216.3	5.06	82.09	-.0000	193.54	-.0660	-31.04	26.19
EXTM	72	72.34	83.59	24	15	49.0	299.59	-.0000	-35.90	.0001	23875.6	4.70	28.48	.0000	126.74	-.0001	-32.76	32.34
EXTM	51	93.72	104.97	24	16	10.4	352.23	-.0001	-34.91	.0001	26913.2	4.29	78.65	.0000	145.72	-.0006	-33.20	33.85
RISE	61	125.42	136.67	24	16	42.1	317.47	.0020	-41.05	.0007	40481.9	3.82	-.00	.0014	149.35	.0009	-33.25	32.78
EXTM	51	176.78	188.03	24	17	33.5	.88	.0027	-33.91	.0002	46092.1	3.52	81.79	.0000	185.12	.0161	-32.92	26.92
EXTM	61	370.11	381.36	24	20	46.8	5.80	.0038	-35.46	.0002	86181.2	2.74	14.11	.0000	184.87	.0032	-31.44	350.33
EXTM	72	396.77	408.02	24	21	13.5	1.19	.0039	-32.96	.0002	86446.8	2.66	64.92	.0000	182.36	.0078	-31.28	344.57
RISE	11	577.45	588.70	25	0	14.1	296.69	.0040	-32.48	.0000	118944.0	2.05	.00	.0025	131.09	.0023	-30.36	303.86
SET	51	590.53	601.78	25	0	27.2	90.00	.0038	-29.19	.0001	119415.1	2.64	12.23	-.0031	243.28	-.0012	-30.30	300.84
SET	61	590.66	601.91	25	0	27.3	57.18	.0039	-32.64	.0002	120776.3	2.52	-.00	-.0020	225.05	.0026	-30.30	300.81
SET	72	789.48	800.73	25	3	46.2	94.46	.0039	-29.21	.0001	146716.7	2.44	-.01	-.0034	240.48	-.0004	-29.58	254.04
RISE	42	799.10	810.35	25	3	55.8	254.99	.0040	-28.06	-.0000	147364.3	1.74	4.86	.0028	121.20	-.0021	-29.55	251.75
EXTM	11	841.10	852.35	25	4	37.8	1.48	.0041	-31.61	.0001	150533.7	2.01	23.17	.0000	181.37	.0038	-29.42	241.73
SET	11	1101.38	1112.63	25	8	58.1	65.86	.0041	-30.09	.0001	182727.9	2.09	-.00	-.0026	232.14	.0024	-28.75	178.99
EXTM	42	1224.46	1235.71	25	11	1.1	359.93	.0042	-28.27	.0000	189550.5	1.73	83.05	.0000	.56	-.0295	-28.49	149.05
RISE	51	1360.20	1371.45	25	13	16.9	270.00	.0041	-27.58	-.0000	208268.0	1.29	11.60	.0033	115.20	-.0014	-28.24	119.91
RISE	72	1514.72	1525.97	25	15	51.4	265.81	.0041	-27.74	-.0000	224538.1	1.18	-.01	.0036	118.03	-.0005	-27.98	78.04
RISE	61	1602.15	1613.40	25	17	18.8	297.99	.0042	-29.01	-.0000	232730.4	1.27	.00	.0024	129.44	.0027	-27.85	56.57
SET	42	1647.77	1659.02	25	18	4.5	105.00	.0041	-26.85	.0001	236471.9	1.85	4.12	-.0029	239.77	-.0022	-27.78	45.35
EXTM	51	1713.68	1724.93	25	19	10.4	358.51	.0042	-27.74	.0000	236619.5	1.49	87.60	.0021	146.77	.0737	-27.69	29.13
EXTM	61	1851.35	1862.60	25	21	28.0	.56	.0042	-28.84	.0000	252808.1	1.45	20.92	.0000	180.52	.0039	-27.50	355.21
EXTM	72	1890.65	1901.90	25	22	7.3	.17	.0042	-27.94	.0000	252548.5	1.43	69.96	-.0000	180.43	.0108	-27.45	345.51
RISE	11	2035.25	2046.50	26	0	31.9	292.20	.0042	-28.17	-.0000	270711.3	1.08	.00	.0028	125.29	.0024	-27.28	309.80
SET	51	2078.82	2090.07	26	1	15.5	90.00	.0041	-26.72	.0001	273079.4	1.74	11.26	-.0034	245.60	-.0014	-27.23	299.03
SET	61	2100.30	2111.55	26	1	37.0	63.04	.0042	-28.18	.0001	276088.6	1.64	-.00	-.0025	231.78	.0027	-27.21	293.72
SET	72	2264.72	2275.97	26	4	21.4	94.03	.0041	-26.85	.0001	289346.0	1.73	-.00	-.0036	242.87	-.0005	-27.03	253.04
RISE	42	2265.44	2276.69	26	4	22.1	255.00	.0041	-26.27	-.0000	288985.5	1.00	3.76	.0029	119.77	-.0022	-27.03	252.86
EXTM	11	2306.15	2317.40	26	5	2.8	.38	.0042	-28.11	.0000	289768.3	1.31	26.68	-.0000	180.37	.0042	-26.99	242.78
SET	11	2576.82	2588.07	26	9	53.6	68.45	.0042	-27.50	.0000	313323.1	1.55	.00	-.0028	235.39	.0024	-26.74	175.70
EXTM	42	2684.37	2695.62	26	11	21.1	359.97	.0042	-26.47	.0000	315023.1	1.22	81.25	-.0000	.22	-.0213	-26.65	149.01
RISE	51	2815.03	2826.28	26	13	31.7	270.00	.0041	-26.11	-.0000	329476.0	.82	11.02	.0034	113.82	-.0015	-26.54	116.58
RISE	72	2968.63	2979.88	26	16	5.3	266.07	.0041	-26.26	-.0000	341507.3	.75	-.00	.0037	116.53	-.0005	-26.42	78.42
RISE	61	3045.71	3056.96	26	17	22.4	295.69	.0042	-27.12	-.0000	347014.4	.83	.00	.0026	126.67	.0027	-26.36	59.25
SET	42	3103.21	3114.46	26	18	19.9	105.00	.0041	-25.70	.0000	350460.4	1.44	3.41	-.0030	240.69	-.0023	-26.33	44.90
EXTM	51	3172.15	3183.40	26	19	28.8	.01	.0042	-26.30	.0000	349083.8	1.10	89.44	-.0000	181.94	.1545	-26.29	27.68
EXTM	61	3300.74	3311.99	26	21	37.4	.20	.0042	-27.16	.0000	361414.5	1.10	22.61	-.0000	180.20	.0041	-26.23	355.55
EXTM	72	3340.60	3351.85	26	22	17.3	.09	.0042	-26.53	.0000	360470.2	1.09	71.37	-.0000	180.25	.0116	-26.21	345.59
RISE	11	3477.06	3488.31	27	0	33.7	290.86	.0042	-26.78	-.0000	375393.6	.78	.00	.0029	123.47	.0024	-26.15	311.46
SET	51	3528.24	3539.49	27	1	24.9	90.00	.0042	-25.75	.0000	377557.1	1.48	10.88	-.0035	246.51	-.0015	-26.13	298.65
SET	61	3555.58	3566.83	27	1	52.3	64.68	.0042	-26.81	.0000	380564.6	1.39	-.00	-.0026	233.78	.0027	-26.12	291.81
RISE	42	3709.64	3720.89	27	4	26.3	255.00	.0042	-25.49	-.0000	390733.7	.88	3.29	.0030	119.15	-.0023	-26.06	253.16
SET	72	3710.98	3722.23	27	4	27.7	93.87	.0042	-25.92	.0000	391196.4	1.63	-.00	-.0037	243.81	-.0005	-26.06	252.83
EXTM	11	3749.68	3760.93	27	5	6.4	.08	.0043	-26.87	.0000	391155.1	1.34	27.92	.0000	180.09	.0043	-26.05	243.07
IMPACT		3788.63	3799.88	27	5	45.3												
IMPC	42	3788.63	3799.88	27	5	45.3	274.99	.0043	-25.60	-.0000	395710.0	1.68	18.26	.0034	108.91	-.0021	-26.05	233.16
IMPC	11	3788.63	3799.88	27	5	45.3	10.14	.0044	-26.85	.0000	394798.9	2.09	27.20	-.0006	190.17	.0043	-26.05	233.16

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	24	14	36.682	6597.560	16.7389	304.5306	10.95020	5.0634	119.1864	136.1268
SEPARATION		1.20	12.45	24	14	37.882	6688.669	13.3980	310.2236	10.87375	8.4040	120.7487	142.1207
RETRO		3.20	14.45	24	14	39.882	6937.195	7.7833	318.9821	10.67561	13.7058	122.4562	151.3805
IMPACT		3788.63	3799.88	27	5	45.309	39/752.285	-26.0470	233.1580	2.20004	67.2285	267.9485	294.5036

SURVEYOR VIEW PERIODS

GHA	334.7827					EPS -41.8083								LOM	229.0401
SX	.372191	SY	-.817744	SZ	-.439055	DAO	-26.04359	RAO	294.47237	RM	399031.727	LAT	28.310600	LON	279.461800
CS	-.957261	ECC	.984283	SLR	12986.471	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TP	675.00000	POL	-.0
NSX	.391073	NSY	-.810106	NSZ	-.436796	C3M	1.4965	VIM	2.6713	ZAE	140.671	B.T	.0000	B.R	-.0000
LATE	5.8345	LONE	5.3487	LATS	1.5229	LONS	46.9326	LATI	-.2349	LONI	326.4238	RSM	151.4352	TTAN	6.0450
LAUNCH DATE	AUG 24,1966			BASE AZM	115.0		TF 63.280					ARRIVAL	DATE AUG 27 1966		6 1 36.5

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	14 30 12.7	28.1	15.38	303.62	11.12	136.41	121.96	14 41 27.7	6606.2	10.94	5.52

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	24	14	41.5												
SEPARATION		1.20	12.45	24	14	42.7												
RETRO		3.20	14.45	24	14	44.7												
RISE	72	4.20	15.45	24	14	45.7	86.62	-.1273	23.00	-.0557	3186.8	-7.10	-.00	.1242	293.23	-.0375	2.96	321.39
RISE	51	11.25	22.50	24	14	52.7	86.43	-.0668	7.36	-.0483	6125.7	-2.06	-.00	.0807	278.17	-.0144	-12.97	342.95
EXTM	72	11.31	22.56	24	14	52.8	9.50	-.1617	-25.77	-.0792	2593.2	4.96	69.98	-.0000	205.73	-.4841	-13.08	343.11
EXTM	51	56.16	64.41	24	15	34.6	1.75	-.0088	-37.24	-.0010	15761.9	4.96	78.40	-.0000	186.97	-.0351	-33.94	26.48
EXTM	72	72.72	83.97	24	15	54.2	300.70	-.0001	-38.28	.0004	23998.5	4.69	28.78	.0000	129.83	-.0005	-34.89	31.11
EXTM	51	88.53	99.78	24	16	10.0	353.77	-.0008	-37.38	.0003	25631.4	4.36	77.22	.0000	157.05	-.0030	-35.09	32.55
RISE	61	138.03	149.28	24	16	59.5	320.06	.0023	-42.18	.0007	43475.2	3.69	-.00	.0015	151.59	.0011	-34.80	30.73
EXTM	51	174.91	186.16	24	17	36.4	1.61	.0027	-35.56	.0003	45749.6	3.53	80.09	.0000	187.65	.0129	-34.36	26.29
EXTM	61	369.91	381.16	24	20	51.4	6.66	.0038	-36.41	.0003	86261.8	2.73	13.11	-.0000	185.50	.0032	-32.38	349.52
EXTM	72	394.07	405.32	24	21	15.5	1.48	.0039	-33.94	.0002	86063.9	2.67	63.93	.0000	182.80	.0074	-32.19	344.31
RISE	11	577.14	588.39	25	0	18.6	297.49	.0040	-33.19	.0000	118887.3	2.05	.00	.0025	132.07	.0023	-31.05	303.06
SET	61	582.06	593.31	25	0	23.5	56.08	.0039	-33.41	.0002	119570.5	2.53	-.00	-.0019	223.84	.0027	-31.03	301.93
SET	51	586.60	597.85	25	0	28.1	90.00	.0038	-29.90	.0002	118827.5	2.64	12.50	-.0031	242.62	-.0012	-31.00	300.88
SET	72	786.01	797.26	25	3	47.5	94.56	.0039	-29.77	.0001	146253.0	2.44	-.00	-.0034	239.92	-.0004	-30.13	253.96
RISE	42	795.40	806.65	25	3	56.9	254.99	.0040	-28.61	-.0000	146836.1	1.75	5.19	.0028	121.63	-.0021	-30.10	251.73
EXTM	11	838.06	849.31	25	4	39.5	1.67	.0041	-32.15	.0001	150182.9	2.01	22.62	.0000	181.53	.0038	-29.94	241.54
SET	11	1095.65	1106.90	25	8	57.1	65.42	.0041	-30.52	.0001	182039.6	2.09	-.00	-.0025	231.57	.0024	-29.17	179.44
EXTM	42	1220.52	1231.77	25	11	2.0	359.91	.0042	-28.65	.0000	189055.6	1.73	83.43	.0000	.67	-.0313	-28.86	149.06
RISE	51	1356.31	1367.56	25	13	17.8	270.00	.0041	-27.91	-.0000	207769.8	1.29	11.72	.0033	115.51	-.0014	-28.57	115.90
RISE	72	1510.58	1521.83	25	15	52.0	265.76	.0041	-28.03	-.0000	224028.7	1.18	-.00	.0036	118.32	-.0005	-28.27	78.09
RISE	61	1599.56	1610.81	25	17	21.0	298.33	.0042	-29.28	-.0000	232363.8	1.27	.00	.0024	129.85	.0027	-28.11	56.22
SET	42	1643.73	1655.98	25	18	5.2	105.00	.0041	-27.10	.0001	235953.1	1.85	4.27	-.0029	239.57	-.0022	-28.04	45.36
EXTM	51	1715.61	1726.86	25	19	17.1	.02	.0042	-27.98	.0000	236651.1	1.50	87.76	-.0000	180.62	.0772	-27.92	27.66
EXTM	61	1847.56	1858.81	25	21	29.0	.63	.0042	-29.06	.0000	252342.9	1.45	20.70	-.0000	180.58	.0039	-27.72	355.14
EXTM	72	1886.66	1897.91	25	22	8.1	.19	.0042	-28.15	.0000	252049.1	1.43	69.75	-.0000	180.47	.0107	-27.66	345.49
RISE	11	2031.90	2043.15	26	0	33.4	292.38	.0042	-28.35	-.0000	270249.0	1.08	.00	.0028	125.54	.0024	-27.46	309.62
SET	51	2074.70	2085.95	26	1	16.2	90.00	.0041	-26.90	.0001	272542.5	1.74	11.33	-.0034	245.44	-.0014	-27.41	299.04
SET	61	2095.30	2106.55	26	1	36.8	62.82	.0042	-28.36	.0001	275486.3	1.64	-.00	-.0024	231.52	.0027	-27.38	293.94
SET	72	2260.66	2271.91	26	4	22.1	94.06	.0041	-26.59	.0001	288809.3	1.72	-.00	-.0036	242.73	-.0005	-27.18	253.02
RISE	42	2261.31	2272.56	26	4	22.8	255.00	.0041	-26.41	-.0000	288433.2	1.00	3.85	.0029	119.88	-.0022	-27.18	252.86
EXTM	11	2302.16	2313.41	26	5	3.6	.42	.0042	-28.25	.0000	289248.4	1.31	26.54	-.0000	180.41	.0041	-27.13	242.74
SET	11	2572.16	2583.41	26	9	33.6	68.33	.0042	-27.61	.0000	312715.3	1.55	.01	-.0028	235.44	.0024	-26.84	175.81
EXTM	42	2680.14	2691.39	26	11	21.6	359.96	.0042	-26.57	.0000	314435.8	1.22	81.35	-.0000	.24	-.0214	-26.74	149.02
RISE	51	2810.80	2822.05	26	13	32.3	270.00	.0041	-26.19	-.0000	328874.3	.82	11.05	.0034	113.89	-.0015	-26.62	116.57
RISE	72	2964.33	2975.58	26	16	5.8	266.06	.0041	-26.32	-.0000	340888.3	.75	-.00	.0037	116.59	-.0005	-26.48	78.43
RISE	61	3041.70	3052.95	26	17	23.2	295.75	.0042	-27.18	-.0000	346407.3	.83	.00	.0026	126.75	.0027	-26.41	59.19
SET	42	3098.92	3110.17	26	18	20.4	105.00	.0041	-25.74	.0000	349822.5	1.44	3.44	-.0030	240.65	-.0023	-26.38	44.90
EXTM	51	3163.47	3174.72	26	19	24.9	358.89	.0042	-26.35	.0000	348150.2	1.09	88.83	.0033	121.72	.0963	-26.34	28.77
EXTM	61	3296.54	3307.79	26	21	38.0	.23	.0042	-27.19	.0000	360755.0	1.09	22.57	-.0000	180.22	.0041	-26.26	355.53
EXTM	72	3336.34	3347.59	26	22	17.8	.09	.0042	-26.56	.0000	359796.2	1.09	71.34	-.0000	180.27	.0117	-26.24	345.58
RISE	11	3472.85	3484.10	27	0	34.3	290.88	.0042	-26.80	-.0000	374689.6	.77	.00	.0029	123.49	.0024	-26.17	311.44
SET	51	3523.95	3535.20	27	1	25.4	90.00	.0042	-25.77	.0000	376831.3	1.47	10.88	-.0035	246.50	-.0015	-26.14	298.65
SET	61	3551.23	3562.48	27	1	52.7	64.66	.0042	-26.83	.0000	379825.7	1.39	-.00	-.0026	233.76	.0027	-26.13	291.82
RISE	42	3705.40	3716.65	27	4	26.9	255.00	.0042	-25.49	-.0000	389895.4	.86	3.29	.0030	119.15	-.0023	-26.06	253.16
SET	72	3706.72	3717.97	27	4	28.2	93.87	.0042	-25.92	.0000	390355.0	1.61	-.00	-.0037	243.81	-.0005	-26.06	252.83
EXTM	11	3745.63	3756.88	27	5	7.1	.12	.0043	-26.87	.0000	390244.4	1.28	27.93	.0000	180.12	.0043	-26.04	243.03
IMPACT		3796.77	3808.02	27	5	58.2												
IMPC	42	3796.77	3808.02	27	5	58.2	278.12	.0043	-25.61	-.0000	395487.8	1.67	20.69	.0034	107.39	-.0021	-26.03	230.04
IMPC	11	3796.77	3808.02	27	5	58.2	13.30	.0044	-26.84	.0000	394880.0	2.10	26.69	-.0008	193.29	.0043	-26.03	230.04

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	24	14	41.462	6607.766	15.3463	303.6793	10.94165	5.5168	121.9695	136.4739
SEPARATION		1.20	12.45	24	14	42.662	6704.410	11.7610	309.1291	10.86050	8.8442	123.3219	142.2245
RETRO		3.20	14.45	24	14	44.662	6961.941	5.8056	317.5382	10.65607	14.1139	124.6870	151.1350
IMPACT		3796.77	3808.02	27	5	58.237	39783.199	-26.0346	230.0390	2.19705	67.0548	268.9128	294.6254

SURVEYOR VIEW PERIODS

QHA	335.7684					EPS	-31.0765							LOM	251.6425
SX	.55538.	SY	-.726796	SZ	-.406861	DAO	-24.00783	RAO	307.28566	RM	401745.602	LAT	28.310600	LON	279.461800
CS	-.935856	ECC	.984634	SLR	12988.770	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.569932	NSY	-.716197	NSZ	-.402789	C3H	1.4935	VIM	2.6707	ZAE	141.585	B.T	.0000	B.R	-.0000
LATE	6.3370	LONE	4.4032	LATS	1.5249	LONS	35.1087	LATI	3.4583	LONI	325.9462	RSM	151.4486	TTAN	5.3354
LAUNCH DATE		AUG	25,1966		BASE AZM	90.0		TF	63.758			ARRIVAL DATE		AUG 28 1966	5 18 37.6

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
90.00	13 24 17.7	27.2	24.82	306.87	-15.01	124.12	104.07	13 35 32.7	6657.3	10.90	-7.45

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	25	13	35.5												
SEPARATION		1.20	12.45	25	13	36.7												
RETRO		3.20	14.45	25	13	38.7												
RISE	72	6.52	17.77	25	13	42.1	55.48	-.8221	76.25	.1018	2322.6	-5.26	-.01	.1007	348.70	.1961	11.72	341.75
EXTM	72	11.60	22.85	25	13	47.1	296.35	-.0533	21.06	-.1542	2627.6	6.17	21.15	-.0000	63.72	.1738	.50	2.20
RISE	51	11.85	23.10	25	13	47.4	67.64	-.1350	38.28	-.0264	4469.6	-4.47	-.00	.1029	313.45	.0367	.00	3.06
EXTM	51	26.71	37.96	25	14	2.3	345.53	-.0376	-8.61	-.0280	6118.3	5.55	60.03	-.0000	41.32	.1245	-17.48	35.11
EXTM	72	66.62	77.87	25	14	42.2	270.54	-.0002	-25.88	-.0012	23373.8	4.95	3.92	.0000	115.61	.0012	-26.72	58.46
RISE	42	67.60	78.85	25	14	43.1	103.48	-.0053	-18.28	-.0031	24097.1	4.28	.00	.0059	247.42	.0006	-26.78	58.65
EXTM	51	81.09	92.34	25	14	56.6	318.67	-.0001	-26.63	-.0009	23334.0	4.58	53.06	.0000	100.77	.0015	-27.46	60.45
EXTM	42	126.16	137.41	25	15	41.7	97.39	.0004	-23.25	-.0006	38785.1	4.02	7.53	-.0000	246.80	-.0007	-28.24	59.99
SET	42	205.46	216.71	25	17	1.0	105.00	.0024	-24.42	-.0001	56791.9	3.58	2.63	-.0017	241.69	-.0014	-28.22	46.68
RISE	61	215.58	226.83	25	17	11.1	303.33	.0033	-33.00	.0002	59127.0	3.12	.00	.0019	135.51	.0020	-28.18	47.97
EXTM	51	321.70	332.95	25	18	57.2	.06	.0037	-27.94	.0001	72724.3	2.88	87.80	.0000	181.43	.0805	-27.76	27.63
EXTM	61	480.90	492.15	25	21	36.4	2.89	.0040	-30.48	.0001	102340.7	2.50	19.28	.0000	182.64	.0036	-27.19	353.01
EXTM	72	515.31	526.56	25	22	10.9	.49	.0041	-28.24	.0001	103687.8	2.43	69.66	-.0000	181.25	.0103	-27.08	345.21
RISE	11	674.54	685.79	26	0	50.1	292.51	.0040	-28.48	.0000	131562.6	1.90	.00	.0027	125.71	.0023	-26.64	308.30
SET	51	708.14	719.39	26	1	23.7	90.00	.0039	-25.53	.0001	134762.7	2.51	10.79	-.0033	246.72	-.0013	-26.56	300.39
SET	61	730.80	742.05	26	1	46.3	62.71	.0040	-28.45	.0001	138866.4	2.38	-.00	-.0023	231.38	.0027	-26.51	295.03
SET	72	901.46	912.71	26	4	37.1	93.86	.0040	-25.83	.0001	159787.3	2.36	-.01	-.0035	243.91	-.0004	-26.15	254.33
RISE	42	911.19	922.44	26	4	46.7	255.00	.0040	-24.76	-.0000	160615.1	1.63	2.84	.0029	118.58	-.0022	-26.14	251.99
EXTM	11	951.68	962.93	26	5	27.2	.93	.0042	-28.03	.0001	162793.5	1.92	26.76	-.0000	180.92	.0041	-26.06	242.25
SET	11	1226.40	1237.65	26	10	1.9	69.08	.0041	-26.84	.0001	195673.1	2.04	-.00	-.0027	236.45	.0024	-25.63	175.65
EXTM	42	1335.46	1346.71	26	11	51.0	359.95	.0042	-25.18	.0000	200634.4	1.67	79.96	-.0000	.30	-.0205	-25.48	149.03
RISE	51	1470.24	1481.49	26	14	5.8	270.00	.0041	-24.67	-.0000	218915.1	1.23	10.44	.0034	112.48	-.0015	-25.32	116.04
RISE	72	1626.46	1637.71	26	16	42.0	266.29	.0041	-24.92	-.0000	234798.9	1.13	-.01	.0037	115.18	-.0005	-25.15	77.68
RISE	61	1698.22	1709.47	26	17	53.8	294.57	.0041	-26.17	-.0000	241359.5	1.22	.00	.0026	125.29	.0027	-25.07	60.02
SET	42	1758.14	1769.39	26	18	53.7	105.00	.0041	-24.11	.0000	246473.8	1.82	2.44	-.0030	241.94	-.0022	-25.02	45.27
EXTM	51	1824.21	1835.46	26	19	59.8	358.66	.0042	-24.93	.0000	246297.3	1.45	88.55	.0032	56.57	-.0848	-24.95	28.99
EXTM	61	1960.48	1971.73	26	22	16.0	.39	.0042	-26.10	.0000	261812.9	1.42	23.66	.0000	180.38	.0041	-24.83	355.37
EXTM	72	2000.03	2011.28	26	22	55.6	.07	.0042	-25.20	.0000	261683.1	1.40	72.70	.0000	180.23	.0124	-24.80	345.60
RISE	11	2134.57	2145.82	27	1	10.1	289.70	.0042	-25.53	-.0000	278866.3	1.04	.00	.0029	121.83	.0024	-24.69	312.35
SET	51	2188.69	2199.94	27	2	4.2	90.00	.0041	-24.14	.0000	282134.9	1.72	10.23	-.0035	248.01	-.0015	-24.65	298.96
SET	61	2222.57	2233.82	27	2	38.1	66.15	.0042	-25.54	.0000	285993.4	1.62	-.00	-.0026	235.62	.0037	-24.62	290.58
SET	72	2372.71	2383.96	27	5	8.3	93.60	.0041	-24.33	.0000	297856.9	1.71	-.00	-.0037	245.42	-.0005	-24.51	253.40
RISE	42	2374.67	2385.92	27	5	10.2	255.00	.0041	-23.76	-.0000	297761.9	.97	2.23	.0030	117.79	-.0023	-24.51	252.92
EXTM	11	2415.15	2426.40	27	5	50.7	.27	.0042	-25.54	.0000	298048.6	1.29	29.25	-.0000	180.28	.0044	-24.48	242.89
SET	11	2695.61	2706.86	27	10	31.2	70.77	.0042	-25.02	.0000	322220.9	1.54	-.00	-.0029	238.82	.0024	-24.30	173.34
EXTM	42	2793.62	2804.87	27	12	9.2	359.97	.0042	-24.03	.0000	323141.4	1.20	78.81	.0000	.19	-.0166	-24.24	149.01
RISE	51	2924.05	2935.30	27	14	19.6	270.00	.0041	-23.74	-.0000	337495.6	.79	10.07	.0035	111.61	-.0015	-24.16	116.62
RISE	72	3079.06	3090.31	27	16	54.6	266.46	.0042	-23.93	-.0000	349521.4	.69	-.00	.0038	114.18	-.0005	-24.09	78.08
RISE	61	3143.72	3154.97	27	17	59.3	293.02	.0042	-24.80	-.0000	353812.2	.81	.00	.0027	123.33	.0027	-24.06	61.94
SET	42	3212.15	3223.40	27	19	7.7	105.00	.0041	-23.42	.0000	358105.3	1.44	2.02	-.0030	242.18	-.0023	-24.04	44.86
EXTM	51	3280.94	3292.19	27	20	16.5	.00	.0042	-23.99	.0000	356533.2	1.10	88.25	-.0000	359.49	-.0035	-24.02	27.69
EXTM	61	3409.28	3420.53	27	22	24.8	.12	.0042	-24.88	.0000	363575.4	1.09	24.88	-.0000	180.12	.0042	-23.99	355.63
EXTM	72	3449.20	3460.45	27	23	4.7	.02	.0042	-24.26	.0000	367783.5	1.09	73.65	.0000	180.09	.0095	-23.98	345.65
RISE	11	3577.67	3588.92	28	1	13.2	288.81	.0042	-24.56	-.0000	382280.8	.78	.00	.0029	120.58	.0024	-23.95	313.53
SET	51	3637.24	3648.49	28	2	12.8	90.00	.0042	-23.57	.0000	385137.1	1.50	10.00	-.0035	248.54	-.0015	-23.95	298.62
SET	61	3674.52	3685.77	28	2	50.1	67.20	.0042	-24.61	.0000	388761.7	1.44	-.00	-.0027	236.94	.0027	-23.94	289.28
RISE	42	3817.86	3829.11	28	5	13.4	255.00	.0042	-23.40	-.0000	399375.0	1.36	2.01	.0031	117.50	-.0024	-23.96	253.19
SET	72	3818.02	3829.27	28	5	13.6	93.51	.0042	-23.83	.0000	399613.5	2.14	.01	-.0038	245.93	-.0006	-23.96	253.15
IMPACT		3825.50	3836.75	28	5	21.0												
IMPC	42	3825.50	3836.75	28	5	21.0	256.96	.0043	-23.42	-.0000	400056.0	1.69	3.44	.0032	116.42	-.0023	-23.97	251.23
IMPC	72	3825.50	3836.75	28	5	21.0	95.42	.0043	-23.82	.0000	400630.4	2.48	-1.73	-.0039	245.66	-.0006	-23.97	251.23
IMPC	11	3825.50	3836.75	28	5	21.0	351.80	.0044	-24.76	-.0000	397309.4	2.00	29.54	.0005	171.44	.0045	-23.97	251.23

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	25	13	35.544	6662.511	24.8631	306.6912	10.90021	-7.4458	103.9912	123.9469
SEPARATION		1.20	12.45	25	13	36.744	6578.238	23.0054	313.7166	10.96597	-4.0809	106.9722	131.2731
RETRO		3.20	14.45	25	13	38.744	6550.030	19.2260	324.8846	10.98974	1.6336	111.1911	142.9485
IMPACT		3825.50	3836.75	28	5	21.048	400469.066	-23.9691	251.2315	2.20359	68.0743	258.3502	307.4808

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SURVEYOR VIEW PERIODS

GMA	335.7684					EPS	-30.9151							LOM	246.9163
SX	.55595/	SY	-.725177	SZ	-.406239	DAO	-23.96682	RAO	307.47557	RM	401781.859	LAT	28.310600	LON	279.461800
CS	-.932864	ECC	.984683	SLR	12989.089	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.572445	NSY	-.714550	NSZ	-.402150	C3M	1.4965	VIM	2.67[illegible]	ZAE	141.628	B.T	.0000	B.R	-.0000
LATE	6.3426	LONE	4.3883	LATS	1.5250	LONS	34.9294	LATI	3.4419	LONI	325.9762	RSM	151.4487	TTAN	5.3202
LAUNCH DATE		AUG	25,1966		BASE AZM	93.0		TF	63.723			ARRIVAL DATE		AUG 28 1966	5 39 50.0

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ FA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
93.00	13 44 13.2	27.5	23.61	306.83	-10.52	129.08	106.34	13 55 28.2	6599.7	10.95	-5.22

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	25	13	55.5												
SEPARATION		1.20	12.45	25	13	56.7												
RETRO		3.20	14.45	25	13	58.7												
RISE	72	5.90	17.15	25	14	1.4	71.40	-.4007	66.49	.1078	2387.0	-6.53	-.00	.1130	337.78	.1563	11.10	337.91
EXTM	72	10.98	22.23	25	14	6.5	307.23	-.0874	22.35	-.1796	2267.3	5.66	30.13	.0000	58.37	.2277	-.11	358.08
RISE	51	11.55	22.80	25	14	7.0	71.16	-.1205	33.81	-.0302	4676.6	-4.26	.00	.1011	308.16	.0266	-1.21	359.96
EXTM	51	27.94	39.19	25	14	23.4	350.05	-.0343	-12.36	-.0222	6684.0	5.51	73.66	-.0000	30.46	.1428	-18.95	32.98
EXTM	72	66.94	78.19	25	15	2.4	275.19	-.0001	-26.72	-.0010	23249.2	4.92	8.15	.0000	116.04	.0010	-27.01	94.05
RISE	42	78.70	89.95	25	15	14.2	104.88	-.0033	-20.00	-.0021	27524.2	4.27	.01	.0037	245.26	.0002	-27.60	95.69
EXTM	51	83.20	94.45	25	15	18.7	324.23	-.0001	-27.32	-.0007	23871.7	4.52	58.06	.0000	100.95	.0013	-27.75	96.06
EXTM	42	125.84	137.09	25	16	1.3	101.89	.0005	-23.18	-.0006	39269.5	4.01	4.15	-.0000	244.41	-.0007	-28.39	95.37
SET	42	169.08	180.33	25	16	44.6	105.00	.0018	-24.08	-.0002	49334.8	3.75	2.43	-.0012	241.97	-.0012	-28.42	90.95
RISE	61	194.04	205.29	25	17	9.5	304.18	.0031	-33.58	.0003	54903.8	3.25	-.00	.0018	136.43	.0018	-28.36	46.83
EXTM	51	298.49	309.74	25	18	54.0	.06	.0037	-28.13	.0001	68802.4	2.96	87.60	.0000	181.40	.0752	-27.93	27.63
EXTM	61	460.77	472.02	25	21	36.2	3.14	.0039	-30.69	.0002	99455.3	2.54	19.01	.0000	182.85	.0036	-27.30	352.78
EXTM	72	494.26	505.51	25	22	9.7	.47	.0040	-28.59	.0001	100729.6	2.47	69.51	.0000	181.18	.0102	-27.19	345.23
RISE	11	654.89	666.14	26	0	50.4	292.62	.0040	-28.59	.0000	129079.2	1.93	.00	.0027	125.86	.0023	-26.72	308.14
SET	51	687.68	698.93	26	1	23.2	90.00	.0039	-25.59	.0001	132219.0	2.53	10.81	-.0032	246.67	-.0013	-26.63	300.44
SET	61	709.89	721.14	26	1	45.4	62.57	.0040	-28.56	.0001	136298.8	2.41	-.00	-.0023	231.22	.0027	-26.58	295.20
SET	72	881.44	892.69	26	4	36.9	93.87	.0040	-25.87	.0001	157536.5	2.37	-.01	-.0035	243.86	-.0004	-26.20	254.36
RISE	42	891.42	902.67	26	4	46.9	254.99	.0040	-24.79	-.0000	158402.4	1.65	2.85	.0029	118.60	-.0022	-26.18	251.96
EXTM	11	932.00	943.25	26	5	27.5	.97	.0042	-28.10	.0001	160641.0	1.94	26.68	-.0000	180.96	.0041	-26.11	242.21
SET	11	1206.56	1217.81	26	10	2.0	69.04	.0041	-26.88	.0001	193721.1	2.05	-.00	-.0027	236.40	.0024	-25.65	175.70
EXTM	42	1315.88	1327.13	26	11	51.3	359.94	.0042	-25.19	.0000	198783.5	1.68	79.97	-.0000	.32	-.0204	-25.50	149.04
RISE	51	1450.77	1462.02	26	14	6.2	270.00	.0041	-24.68	-.0000	217155.6	1.24	10.44	.0034	112.49	-.0015	-25.33	116.02
RISE	72	1607.03	1618.28	26	16	42.5	266.29	.0041	-24.93	-.0000	233126.9	1.14	-.01	.0037	115.18	-.0005	-25.16	77.67
RISE	61	1678.86	1690.11	26	17	54.3	294.58	.0041	-26.78	-.0000	239728.6	1.23	.00	.0026	125.31	.0027	-25.08	60.00
SET	42	1738.67	1749.92	26	18	54.1	105.00	.0041	-24.11	.0000	244961.4	1.82	2.44	-.0030	241.94	-.0022	-25.02	45.28
EXTM	51	1803.61	1814.86	26	19	59.1	358.37	.0042	-24.93	.0000	244617.1	1.46	88.32	.0033	61.74	-.0635	-24.96	29.28
EXTM	61	1941.11	1952.36	26	22	16.6	.40	.0042	-26.10	.0000	260299.0	1.42	23.66	.0000	180.39	.0041	-24.83	355.36
EXTM	72	1980.64	1991.89	26	22	56.1	.08	.0042	-25.20	.0000	260183.1	1.41	72.70	.0000	180.24	.0125	-24.79	345.60
RISE	11	2115.20	2126.45	27	1	10.7	289.69	.0042	-25.53	-.0000	277420.2	1.05	.00	.0029	121.83	.0024	-24.68	312.34
SET	51	2169.29	2180.54	27	2	4.8	90.00	.0041	-24.13	.0000	280707.2	1.73	10.22	-.0035	248.03	-.0015	-24.64	298.97
SET	61	2203.20	2214.45	27	2	38.7	66.16	.0042	-25.53	.0000	284580.3	1.63	-.00	-.0026	235.62	.0027	-24.61	290.58
SET	72	2353.32	2364.57	27	5	8.8	93.60	.0041	-24.32	.0000	296494.8	1.72	-.00	-.0037	245.43	-.0005	-24.50	253.41
RISE	42	2355.33	2366.58	27	5	10.8	255.00	.0041	-23.75	-.0000	296405.7	.97	2.22	.0030	117.77	-.0023	-24.50	252.91
EXTM	11	2395.83	2407.08	27	5	51.3	.27	.0042	-25.53	.0000	296704.9	1.29	29.26	-.0000	180.28	.0044	-24.47	242.88
SET	11	2676.32	2687.57	27	10	31.8	70.78	.0042	-25.01	.0000	320969.7	1.55	-.00	-.0029	238.84	.0024	-24.28	173.33
EXTM	42	2774.29	2785.54	27	12	9.8	359.96	.0042	-24.90	.0000	321916.9	1.20	78.78	.0000	.19	-.0172	-24.22	149.02
RISE	51	2904.75	2916.00	27	14	20.2	270.00	.0041	-23.72	-.0000	336310.5	.80	10.06	.0035	111.59	-.0015	-24.14	116.62
RISE	72	3059.92	3071.17	27	16	55.4	266.47	.0042	-23.90	-.0000	348449.2	.69	.00	.0038	114.14	-.0005	-24.05	78.06
RISE	61	3124.40	3135.65	27	17	59.9	292.99	.0042	-24.77	-.0000	352734.0	.81	.00	.0027	123.29	.0027	-24.03	61.97
SET	42	3192.93	3204.18	27	19	8.4	105.00	.0041	-23.39	.0000	357041.2	1.44	2.00	-.0030	242.51	-.0023	-24.01	44.86
EXTM	51	3261.68	3272.93	27	20	17.2	359.99	.0042	-23.96	.0000	355469.5	1.10	88.22	.0000	.54	-.0449	-23.99	27.69
EXTM	61	3390.03	3401.28	27	22	25.5	.12	.0042	-24.85	.0000	367512.4	1.09	24.91	-.0000	180.12	.0042	-23.96	355.63
EXTM	72	3429.95	3441.20	27	23	5.4	.02	.0042	-24.23	.0000	366721.4	1.09	73.68	.0000	180.09	.0094	-23.95	345.65
RISE	11	3558.31	3569.56	28	1	13.8	288.79	.0042	-24.53	-.0000	381198.3	.77	.00	.0029	120.54	.0024	-23.92	313.55
SET	51	3617.97	3629.22	28	2	13.4	90.00	.0042	-23.54	.0000	384044.4	1.50	9.99	-.0035	248.58	-.0015	-23.91	298.62
SET	61	3655.38	3666.63	28	2	50.9	67.23	.0042	-24.58	.0000	387658.5	1.43	-.00	-.0027	236.98	.0027	-23.91	289.25
RISE	42	3798.82	3810.07	28	5	14.3	255.00	.0042	-23.36	-.0000	397856.4	1.10	1.98	.0031	117.46	-.0023	-23.92	253.19
SET	72	3798.95	3810.20	28	5	14.4	93.51	.0042	-23.78	.0000	398088.1	1.86	-.00	-.0038	245.97	-.0006	-23.92	253.19
IMPACT		3823.36	3834.61	28	5	38.8												
IMPC	42	3823.36	3834.61	28	5	38.8	261.24	.0043	-23.41	-.0000	399740.4	1.68	6.60	.0032	114.07	-.0023	-23.94	246.93
IMPC	11	3823.36	3834.61	28	5	38.8	356.16	.0044	-24.72	-.0000	397303.1	2.02	29.96	.0002	175.98	.0046	-23.94	246.93

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	25	13	55.471	6600.946	23.6275	305.7671	10.94824	-5.2192	106.3098	129.0181
SEPARATION		1.20	12.45	25	13	56.671	6551.248	21.5195	313.6165	10.98885	-1.8103	109.0595	136.1483
RETRO		3.20	14.45	25	13	58.671	6575.398	17.3834	324.5222	10.96850	3.9050	112.8718	147.5754
IMPACT		3823.36	3834.61	28	5	38.826	400523.078	-23.9362	246.9344	2.20248	67.8491	258.3564	307.6406

AUG 25, 1966
93 DEGREES

SURVEYOR VIEW PERIODS

GHA	335.7684					EPS	-30.7607							LOM	241.6113
SX	.958414	SY	-./23622	SZ	-.405641	DAO	-23.93128	RAO	307.65714	RM	401816.414	LAT	28.310600	LON	279.461800
CJ	-.933196	ECC	.9846/8	SLR	12989.056	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.974871	NSY	-./12948	NSZ	-.401532	C3M	1.4965	VIM	2.6713	ZAE	141.619	B.T	.0000	B.R	-.0000
LATE	6.-478	LONE	4.3736	LATS	1.5250	LONS	34.7576	LATI	3.3449	LONI	325.9630	RSM	151.4488	TTAN	5.3085
LAUNCH DATE		AUG	25,1966		BASE AZM	96.0		TF	63.738			ARRIVAL DATE		AUG 28 1966	6 0 7.4

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RI ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
96.00	14 1 12.1	27.7	22.41	306.65	-6.74	133.17	108.55	14 12 27.1	6567.2	10.98	-3.34

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	25	14	12.5												
SEPARATION	1.20	12.45	25	14	13.7												
RETRO	3.20	14.45	25	14	15.7												
RISE 72	5.45	16.70	25	14	17.9	77.13	-.2792	58.06	.0832	2463.9	-7.32	.00	.1210	328.95	.1187	10.22	334.78
EXTM 72	10.53	21.78	25	14	23.0	319.16	-.1317	21.50	-.1972	1997.3	5.16	40.30	.0000	52.92	.3044	-1.06	354.61
RISE 51	11.34	22.59	25	14	23.8	74.07	-.1093	29.65	-.0338	4864.8	-4.04	.00	.0992	303.31	.0182	-2.59	357.19
EXTM 51	29.32	40.57	25	14	41.8	353.66	-.0311	-16.07	-.0175	7287.2	5.47	78.67	-.0000	32.66	.1763	-20.61	31.17
EXTM 72	67.47	78.72	25	15	19.9	279.25	-.0000	-27.82	-.0008	23216.0	4.89	11.83	.0000	116.89	.0008	-27.57	50.23
EXTM 51	85.19	96.44	25	15	37.6	329.03	.0000	-28.22	-.0005	24394.7	4.47	62.36	.0000	102.17	.0011	-28.28	52.28
RISE 61	177.00	188.25	25	17	9.5	305.31	.0030	-34.33	.0003	51455.1	3.37	-.00	.0018	137.63	.0017	-28.71	45.44
EXTM 51	278.52	289.77	25	18	51.0	.10	.0036	-28.49	.0001	65335.5	3.03	87.25	-.0000	181.88	.0651	-28.24	27.59
EXTM 61	443.52	454.77	25	21	36.0	3.32	.0039	-31.01	.0002	96946.5	2.57	10.69	.0000	183.00	.0036	-27.52	352.61
EXTM 72	476.95	488.20	25	22	9.4	.59	.0040	-28.64	.0001	98257.8	2.50	69.26	-.0000	181.45	.0100	-27.40	345.12
RISE 11	638.67	649.92	26	0	51.1	292.81	.0040	-28.79	.0000	126993.1	1.95	.00	.0027	126.11	.0023	-26.88	307.91
SET 51	670.32	681.57	26	1	22.8	90.00	.0039	-25.73	.0001	130016.4	2.55	10.87	-.0032	246.54	-.0013	-26.79	300.49
SET 61	691.66	702.91	26	1	44.1	62.34	.0040	-28.75	.0001	134014.3	2.43	-.00	-.0023	230.94	.0027	-26.73	295.47
SET 72	864.53	875.78	26	4	37.0	93.89	.0039	-25.99	.0001	155596.0	2.39	-.00	-.0035	243.75	-.0004	-26.32	254.37
RISE 42	874.69	885.94	26	4	47.1	254.99	.0040	-24.89	-.0000	156486.0	1.67	2.91	.0029	118.68	-.0022	-26.30	251.94
EXTM 11	915.44	926.69	26	5	27.9	1.03	.0042	-28.24	.0001	158797.4	1.95	26.55	-.0000	181.02	.0041	-26.22	242.16
SET 11	1189.53	1200.78	26	10	2.0	68.96	.0041	-26.97	.0001	191998.8	2.06	-.00	-.0027	236.28	.0024	-25.73	175.80
EXTM 42	1299.29	1310.54	26	11	51.7	359.94	.0042	-25.26	.0000	197166.0	1.69	80.04	-.0000	.33	-.0208	-25.57	149.04
RISE 51	1434.79	1445.54	26	14	6.7	270.00	.0041	-24.73	-.0000	215611.2	1.25	10.47	.0034	112.54	-.0015	-25.39	116.01
RISE 72	1590.55	1601.80	26	16	43.0	266.29	.0041	-24.97	-.0000	231650.3	1.14	-.01	.0037	115.23	-.0005	-25.20	77.66
RISE 61	1662.62	1673.87	26	17	55.1	294.64	.0041	-26.23	-.0000	238301.7	1.24	.00	.0026	125.37	.0027	-25.12	59.94
SET 42	1722.16	1733.41	26	18	54.6	105.00	.0041	-24.14	.0000	243429.6	1.83	2.46	-.0030	241.91	-.0022	-25.06	45.28
EXTM 51	1787.42	1798.67	26	19	59.9	358.44	.0042	-24.97	.0000	243238.3	1.47	88.39	.0033	61.69	-.0664	-24.99	29.21
EXTM 61	1924.74	1935.99	26	22	17.2	.42	.0042	-26.13	.0000	258950.9	1.43	23.63	.0000	185.41	.0041	-24.85	355.34
EXTM 72	1964.22	1975.47	26	22	56.7	.08	.0042	-25.23	.0000	258840.6	1.41	72.68	.0000	180.25	.0125	-24.82	345.59
RISE 11	2098.88	2110.13	27	1	11.3	289.71	.0042	-25.55	-.0000	276123.3	1.05	.00	.0029	121.86	.0024	-24.70	312.32
SET 51	2152.84	2164.09	27	2	5.3	90.00	.0041	-24.14	.0000	279414.5	1.73	10.23	-.0035	248.01	-.0015	-24.65	298.97
SET 61	2186.69	2197.94	27	2	39.1	66.14	.0042	-25.55	.0000	283291.2	1.63	-.00	-.0026	235.60	.0027	-24.63	290.60
SET 72	2336.90	2348.15	27	5	9.3	93.60	.0041	-24.33	.0000	295251.1	1.72	-.00	-.0037	245.43	-.0005	-24.51	253.42
RISE 42	2338.94	2350.19	27	5	11.4	255.00	.0041	-23.75	-.0000	295165.0	.97	2.22	.0030	117.78	-.0023	-24.50	292.91
EXTM 11	2379.46	2390.71	27	5	51.9	.28	.0042	-25.54	.0000	295477.3	1.30	29.25	-.0000	180.29	.0043	-24.47	242.87
SET 11	2659.92	2671.17	27	10	32.4	70.78	.0042	-25.01	.0000	319799.7	1.55	-.00	-.0029	238.84	.0024	-24.28	173.33
EXTM 42	2757.89	2769.14	27	12	10.3	359.96	.0042	-24.00	.0000	320767.3	1.21	78.78	.0000	.20	-.0168	-24.21	149.02
RISE 51	2888.38	2899.63	27	14	20.8	270.00	.0041	-23.70	-.0000	335187.8	.88	10.05	.0035	111.98	-.0015	-24.13	116.62
RISE 72	3043.57	3054.82	27	16	56.0	266.48	.0042	-23.88	-.0000	347360.1	.78	.00	.0038	114.13	-.0005	-24.04	78.06
RISE 61	3107.97	3119.22	27	18	.4	292.97	.0042	-24.76	-.0000	351643.4	.81	.00	.0027	123.27	.0027	-24.02	61.98
SET 42	3176.53	3187.78	27	19	9.0	105.00	.0041	-23.37	.0000	355958.2	1.44	1.99	-.0030	242.53	-.0023	-24.00	44.86
EXTM 51	3245.31	3256.56	27	20	17.8	359.99	.0042	-23.94	.0000	354388.6	1.10	88.20	.0000	.63	-.0364	-23.97	27.69
EXTM 61	3373.68	3384.93	27	22	26.1	.13	.0042	-24.83	.0000	366431.9	1.09	24.93	-.0000	180.13	.0042	-23.94	355.62
EXTM 72	3413.58	3424.83	27	23	6.0	.02	.0042	-24.20	.0000	365639.8	1.09	73.70	.0000	180.08	.0110	-23.93	345.65
RISE 11	3541.87	3553.12	28	1	14.3	288.77	.0042	-24.51	-.0000	380099.1	.77	.00	.0029	120.51	.0024	-23.90	313.57
SET 51	3601.61	3612.86	28	2	14.1	90.00	.0042	-23.51	.0000	382936.2	1.49	9.98	-.0035	248.60	-.0015	-23.89	298.62
SET 61	3639.15	3650.40	28	2	51.6	67.26	.0042	-24.55	.0000	386542.3	1.42	-.00	-.0027	237.02	.0027	-23.88	289.22
RISE 42	3782.63	3793.83	28	5	15.1	255.00	.0042	-23.52	-.0000	396484.6	.99	1.95	.0031	117.43	-.0023	-23.86	253.19
SET 72	3782.73	3793.98	28	5	15.2	93.90	.0042	-23.74	.0000	396709.7	1.75	-.00	-.0038	246.01	-.0006	-23.88	253.16
EXTM 11	3821.23	3832.48	28	5	53.7	359.76	.0043	-24.69	-.0000	396965.9	1.86	30.10	.0000	179.75	.0046	-23.90	243.39
IMPACT	3824.30	3835.55	28	5	56.8												
IMPC 42	3824.30	3835.55	28	5	56.8	265.57	.0043	-23.40	-.0000	399414.9	1.68	9.85	.0033	111.77	-.0022	-23.90	242.60
IMPC 11	3824.30	3835.55	28	5	56.8	.56	.0044	-24.69	-.0000	397320.9	2.04	30.10	-.0001	180.59	.0046	-23.90	242.60

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	25	14	12.451	6567.389	22.4191	306.6429	10.97546	-3.3436	188.5395	133.1505
SEPARATION	1.20	12.45	25	14	13.651	6544.679	20.8703	313.3297	10.99439	.0893	111.0750	140.1381
RETRO	3.20	14.45	25	14	15.651	6612.104	15.6139	323.9368	10.93175	5.7739	114.4909	151.2466
IMPACT	3824.30	3835.55	28	5	56.752	4005954.289	-23.9032	242.6013	2.20181	67.8054	298.5246	307.8011

SURVEYOR VIEW PERIODS

QMA	339.7684					EPS	-30.6406							LOM	237.7958
SX	.960323	SY	-.722408	SZ	-.405173	DAO	-23.90194	RAO	307.79829	RM	401843.203	LAT	28.310600	LON	279.461800
CJ	-.932831	ECC	.984684	SLR	12989.096	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.576751	NSY	-.711698	NSZ	-.401054	C3M	1.4974	VIM	2.6715	ZAE	141.613	B.T	.0000	B.R	-.0000
LATE	6.3519	LONE	4.3627	LATS	1.5250	LONS	34.6245	LATI	3.1802	LONI	325.9639	RSM	151.4488	TTAN	5.2988

LAUNCH DATE AUG 25.1966 BASE AZM 99.0 TF 63.740 ARRIVAL DATE AUG 28 1966 6 15 54.5

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
99.00	14 15 24.5	27.8	21.24	306.38	-3.61	136.45	110.71	14 26 39.5	6551.1	10.99	-1.79

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	25	14	26.7												
SEPARATION		1.20	12.45	25	14	27.9												
RETRO		3.20	14.45	25	14	29.9												
RISE	72	5.12	16.37	25	14	31.8	80.19	-.2242	50.83	.0555	2542.6	-7.79	.00	.1281	321.51	.0850	9.17	332.17
EXTM	72	10.25	21.50	25	14	36.9	331.17	-.1756	17.82	-.2014	1815.6	4.75	51.63	.0000	47.69	.4217	-2.34	351.75
RISE	51	11.20	22.45	25	14	37.9	76.56	-.1004	25.73	-.0372	5032.7	-3.83	.00	.0972	298.81	.0110	-4.12	354.71
EXTM	51	30.81	42.06	25	14	57.5	356.53	-.0283	-19.71	-.0138	7909.0	5.44	83.17	-.0000	28.65	.2524	-22.41	29.64
EXTM	72	68.23	79.48	25	15	34.9	282.72	-.0000	-29.11	-.0006	23283.1	4.46	14.92	.0000	118.12	.0006	-28.38	47.12
EXTM	51	87.16	98.41	25	15	53.8	333.10	.0000	-29.29	-.0004	24925.5	4.43	65.93	.0000	104.62	.0009	-29.01	49.06
RISE	61	164.50	175.75	25	17	11.2	306.68	.0028	-35.22	.0004	49866.9	3.46	-.00	.0017	139.07	.0016	-29.24	43.86
EXTM	51	261.50	272.75	25	18	48.2	.14	.0035	-29.00	.0001	62311.4	3.09	86.73	.0000	182.16	.0537	-28.70	27.56
EXTM	61	430.47	441.72	25	21	37.1	3.80	.0039	-31.40	.0002	95051.8	2.60	18.27	.0000	185.41	.0035	-27.84	392.17
EXTM	72	462.29	473.54	25	22	8.9	.64	.0040	-28.99	.0001	96145.3	2.53	68.90	-.0000	181.56	.0098	-27.71	345.07
RISE	11	625.60	636.85	26	0	52.3	293.08	.0040	-29.06	.0000	125303.1	1.97	.00	.0026	126.47	.0023	-27.12	307.61
SET	51	655.82	667.07	26	1	22.5	90.00	.0039	-29.95	.0001	128157.8	2.57	1.95	-.0002	246.33	-.0013	-27.02	300.54
SET	61	675.85	687.10	26	1	42.5	62.00	.0040	-29.02	.0001	132015.6	2.44	-.00	-.0022	230.55	.0027	-26.96	295.83
SET	72	850.46	861.71	26	4	37.1	93.91	.0039	-26.16	.0001	153975.1	2.40	-.00	-.0035	243.57	-.0004	-26.50	254.38
RISE	42	860.74	871.99	26	4	47.4	254.99	.0040	-25.06	-.0000	154875.5	1.68	3.02	.0029	118.81	-.0022	-26.48	251.91
EXTM	11	901.72	912.97	26	5	28.4	1.11	.0042	-28.43	.0001	157273.1	1.96	26.35	-.0000	181.09	.0041	-26.39	242.08
SET	11	1175.06	1186.31	26	10	1.7	68.82	.0041	-27.11	.0001	190532.7	2.07	-.00	-.0027	236.10	.0024	-25.86	175.95
EXTM	42	1285.43	1296.68	26	11	52.1	359.94	.0042	-25.37	.0000	195814.5	1.70	80.15	-.0000	.35	-.0211	-25.68	149.04
RISE	51	1420.52	1431.77	26	14	7.2	270.00	.0041	-24.83	-.0000	214322.0	1.26	10.50	.0034	112.62	-.0015	-25.49	116.00
RISE	72	1576.75	1588.00	26	16	43.4	266.27	.0041	-25.05	-.0000	230418.7	1.15	-.01	.0037	115.31	-.0005	-25.28	77.67
RISE	61	1649.25	1660.50	26	17	55.9	294.73	.0041	-26.31	-.0000	237133.7	1.24	.00	.0026	125.49	.0027	-25.19	59.84
SET	42	1708.36	1719.61	26	18	55.0	105.00	.0041	-24.21	.0000	242236.4	1.83	2.50	-.0000	241.86	-.0022	-25.13	45.29
EXTM	51	1772.54	1783.79	26	19	59.2	358.15	.0042	-25.04	.0000	241974.3	1.47	88.19	.0035	67.55	-.0482	-25.06	29.48
EXTM	61	1911.07	1922.32	26	22	17.7	.44	.0042	-26.19	.0000	257838.9	1.43	23.57	.0000	180.43	.0041	-24.91	355.32
EXTM	72	1950.49	1961.74	26	22	57.1	.09	.0042	-25.28	.0000	257729.4	1.42	72.62	.0000	180.27	.0125	-24.87	345.59
RISE	11	2085.33	2096.58	27	1	12.0	289.76	.0042	-25.60	-.0000	275059.2	1.06	.00	.0029	121.92	.0024	-24.74	312.27
SET	51	2139.08	2150.33	27	2	5.7	90.00	.0041	-24.18	.0000	278343.7	1.74	10.25	-.0035	247.98	-.0015	-24.69	298.98
SET	61	2172.73	2183.98	27	2	39.4	66.09	.0042	-25.59	.0000	282214.5	1.64	-.00	-.0026	235.51	.0027	-24.66	290.66
SET	72	2323.16	2334.41	27	5	9.8	93.60	.0041	-24.36	.0000	294225.8	1.72	-.00	-.0037	245.59	-.0005	-24.54	253.42
RISE	42	2325.22	2336.47	27	5	11.9	255.00	.0041	-23.79	-.0000	294139.4	.98	2.24	.0030	117.80	-.0023	-24.54	252.93
EXTM	11	2365.79	2377.04	27	5	52.4	.30	.0042	-25.57	.0000	294468.9	1.30	29.22	-.0000	180.31	.0043	-24.50	242.86
SET	11	2646.11	2657.36	27	10	32.8	70.77	.0042	-25.02	.0000	318833.3	1.55	-.00	-.0029	238.82	.0024	-24.29	173.35
EXTM	42	2744.15	2755.40	27	12	10.8	359.96	.0042	-24.01	.0000	319823.7	1.21	78.79	.0000	.20	-.0180	-24.22	149.02
RISE	51	2874.66	2885.91	27	14	21.3	270.00	.0041	-23.71	-.0000	334268.1	.80	10.05	.0035	111.58	-.0015	-24.14	116.01
RISE	72	3029.83	3041.08	27	16	56.5	266.47	.0041	-23.88	-.0000	346244.5	.73	-.00	.0037	114.13	-.0003	-24.04	78.06
RISE	61	3094.35	3105.60	27	18	1.0	292.96	.0042	-24.75	-.0000	350833.2	.81	.00	.0027	123.26	.0027	-24.01	61.99
SET	42	3162.93	3174.18	27	19	9.6	105.00	.0041	-23.36	.0000	355149.6	1.44	1.98	-.0030	242.54	-.0023	-23.98	44.87
EXTM	51	3231.69	3242.94	27	20	18.4	359.99	.0042	-23.93	.0000	353978.0	1.10	88.19	.0000	.55	-.0403	-23.96	27.69
EXTM	61	3360.07	3371.32	27	22	26.7	.14	.0042	-24.82	.0000	365614.8	1.09	24.94	-.0000	180.14	.0042	-23.92	355.62
EXTM	72	3399.94	3411.19	27	23	6.6	.02	.0042	-24.19	.0000	364819.3	1.09	73.72	.0000	180.09	.0111	-23.91	345.65
RISE	11	3528.15	3539.40	28	1	14.8	288.75	.0042	-24.49	-.0000	379257.8	.77	.00	.0029	120.49	.0024	-23.88	313.59
SET	51	3587.94	3599.19	28	2	14.6	90.00	.0042	-23.49	.0000	382084.7	1.49	9.97	-.0035	248.62	-.0015	-23.87	298.62
SET	61	3625.57	3636.82	28	2	52.4	67.28	.0042	-24.53	.0000	385682.7	1.41	-.00	-.0027	237.05	.0027	-23.86	289.20
RISE	42	3769.04	3780.29	28	5	15.7	255.00	.0042	-23.29	-.0000	395462.4	.93	1.94	.0031	117.41	-.0023	-23.85	253.19
SET	72	3769.10	3780.35	28	5	15.8	93.50	.0042	-23.72	.0000	395682.7	1.69	-.00	-.0038	246.04	-.0006	-23.85	253.17
EXTM	11	3808.33	3819.58	28	5	55.0	359.90	.0043	-24.65	-.0000	395701.9	1.53	30.14	-.0000	179.89	.0045	-23.86	243.25
IMPACT		3824.42	3835.67	28	6	11.1												
IMPC	42	3824.42	3835.67	28	6	11.1	269.03	.0043	-23.39	-.0000	399156.3	1.67	12.49	.0033	109.06	-.0022	-23.88	239.14
IMPC	11	3824.42	3835.67	28	6	11.1	4.07	.0044	-24.66	-.0000	397358.1	2.06	30.00	-.0003	184.27	.0046	-23.88	239.14

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	25	14	26.659	6551.131	21.2387	306.3745	10.98907	-1.7907	110.7127	136.4438
SEPARATION		1.20	12.45	25	14	27.859	6550.882	18.6566	312.9051	10.98984	1.6417	113.0464	143.2792
RETRO		3.20	14.45	25	14	29.859	6657.694	13.9066	323.1947	10.90409	7.2927	116.0826	154.0662
IMPACT		3824.42	3835.67	28	6	11.079	400582.504	-23.8767	239.1385	2.19991	67.5701	258.8047	307.9299

SURVEYOR VIEW PERIODS

GHA	335.7684					EPS -30.5326								LOM	234.3624
SX	.562037	SY	-.721313	SZ	-.404749	DAO	-23.87543	RAO	307.92523	RM	401867.230	LAT	28.310600	LON	279.461800
CS	-.934070	ECC	.984664	SLR	12988.961	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.578452	NSY	-.710560	NSZ	-.400622	C3M	1.4972	VIM	2.6714	ZAE	141.575	B.T	.0000	B.R	-.0000
LATE	6.3595	LONE	4.4824	LATS	1.5249	LONS	34.6343	LATI	2.9596	LONI	326.0701	RSM	151.4489	TTAN	5.2917
LAUNCH DATE		AUG	25.1966		BASE AZM	102.0		TF	63.767			ARRIVAL DATE		AUG 28 1966	6 30 6.6

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	14 27 15.2	27.9	20.09	306.00	-1.05	139.03	112.85	14 38 28.2	6545.2	10.99	-.52

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DUE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	25	14	38.5												
SEPARATION	1.20	12.45	25	14	39.7												
RETRO	3.20	14.45	25	14	41.7												
RISE 72	4.87	16.12	25	14	43.3	82.16	-.1925	44.48	.0290	2617.7	-8.05	.00	.1292	315.02	.0550	7.98	329.95
EXTM 72	9.44	20.69	25	14	47.9	351.38	-.2670	19.45	-.2212	1573.0	2.82	61.36	.1323	17.15	.6422	-2.60	347.31
RISE 51	11.11	22.36	25	14	49.6	78.77	-.0931	21.99	-.0404	5181.6	-3.61	.00	.0952	294.57	.0047	-5.79	352.48
EXTM 51	32.37	43.62	25	15	10.8	358.76	-.0259	-23.26	-.0107	8541.6	5.41	87.28	.0000	24.72	.5500	-24.32	28.40
EXTM 72	69.02	80.27	25	15	47.5	285.63	.0000	-30.56	-.0004	23389.8	4.83	17.44	.0000	119.63	.0004	-29.38	44.47
RISE 61	156.33	167.58	25	17	14.8	308.26	.0027	-36.20	.0005	47160.1	3.52	-.00	.0017	140.68	.0015	-29.92	42.18
EXTM 51	247.37	258.62	25	18	45.8	.21	.0034	-29.66	.0001	59749.1	3.15	86.07	.0000	182.74	.0436	-29.29	27.49
EXTM 61	419.75	431.00	25	21	38.2	4.20	.0039	-31.88	.0002	93492.4	2.62	17.78	.0000	183.75	.0035	-28.25	351.79
EXTM 72	450.43	461.68	25	22	8.9	.74	.0040	-29.43	.0001	94420.4	2.55	68.46	-.0000	181.76	.0095	-28.10	344.98
RISE 11	615.34	626.59	26	0	53.8	293.42	.0040	-29.39	.0000	123962.6	1.98	.00	.0026	126.92	.0023	-27.42	307.25
SET 51	643.88	655.13	26	1	22.3	90.00	.0039	-26.24	.0001	126602.4	2.58	11.07	-.0032	246.06	-.0013	-27.32	300.58
SET 61	662.23	673.48	26	1	40.7	61.59	.0040	-29.35	.0002	130268.0	2.46	-.00	-.0022	230.05	.0027	-27.26	296.28
SET 72	838.94	850.19	26	4	37.4	93.95	.0039	-26.40	.0001	152628.6	2.41	-.00	-.0035	243.33	-.0004	-26.74	254.37
RISE 42	849.28	860.53	26	4	47.7	254.99	.0040	-25.28	-.0000	153527.0	1.69	3.15	.0029	118.98	-.0022	-26.71	251.89
EXTM 11	890.53	901.78	26	5	29.0	1.19	.0042	-28.67	.0001	156020.9	1.97	26.11	-.0000	181.17	.0041	-26.61	242.00
SET 11	1162.88	1174.13	26	10	1.4	68.65	.0041	-27.29	.0001	189274.7	2.07	-.00	-.0027	235.87	.0024	-26.03	176.13
EXTM 42	1274.01	1285.26	26	11	52.5	359.93	.0042	-25.53	.0000	194675.2	1.70	80.31	-.0000	.38	-.0216	-25.83	149.05
RISE 51	1409.18	1420.43	26	14	7.6	270.00	.0041	-24.96	-.0000	213230.8	1.26	10.55	.0034	112.74	-.0015	-25.62	115.99
RISE 72	1565.34	1576.59	26	16	43.8	266.25	.0041	-25.16	-.0000	229370.7	1.15	-.01	.0037	115.42	-.0005	-25.39	77.67
RISE 61	1638.42	1649.67	26	17	56.9	294.86	.0041	-26.42	-.0000	236157.4	1.25	.00	.0026	125.65	.0027	-25.30	59.71
SET 42	1696.97	1708.22	26	18	55.4	105.00	.0041	-24.30	.0001	241216.5	1.84	2.56	-.0030	241.79	-.0022	-25.22	45.30
EXTM 51	1761.06	1772.31	26	19	59.5	358.13	.0042	-25.13	.0000	240968.4	1.47	88.20	.0036	70.65	-.0425	-25.15	29.51
EXTM 61	1899.82	1911.07	26	22	18.3	.47	.0042	-26.28	.0000	256890.9	1.44	23.48	.0000	180.46	.0041	-24.99	355.29
EXTM 72	1939.16	1950.41	26	22	57.6	.09	.0042	-25.36	.0000	256776.0	1.42	72.54	.0000	180.28	.0126	-24.95	345.58
RISE 11	2074.24	2085.49	27	1	12.7	289.82	.0042	-25.66	-.0000	274148.3	1.06	.00	.0029	122.01	.0024	-24.81	312.20
SET 51	2127.70	2138.95	27	2	6.2	90.00	.0041	-24.24	.0000	277415.5	1.74	10.27	-.0035	247.92	-.0015	-24.76	298.98
SET 61	2161.07	2172.32	27	2	39.5	66.02	.0042	-25.66	.0000	281271.8	1.64	-.00	-.0026	235.44	.0027	-24.72	290.73
SET 72	2311.82	2323.07	27	5	10.3	93.61	.0041	-24.40	.0001	293332.8	1.73	-.00	-.0037	245.35	-.0005	-24.59	253.41
RISE 42	2313.88	2325.13	27	5	12.4	255.00	.0041	-23.83	-.0000	293243.5	.98	2.27	.0030	117.83	-.0023	-24.58	252.90
EXTM 11	2354.50	2365.75	27	5	53.0	.32	.0042	-25.62	.0000	293591.6	1.30	29.17	-.0000	180.33	.0043	-24.55	242.84
SET 11	2634.63	2645.88	27	10	33.1	70.74	.0042	-25.05	.0000	317974.3	1.55	-.00	-.0029	238.78	.0024	-24.32	173.38
EXTM 42	2732.78	2744.03	27	12	11.2	359.96	.0042	-24.03	.0000	318984.5	1.21	78.81	.0000	.22	-.0184	-24.25	149.02
RISE 51	2865.30	2876.55	27	14	21.8	270.00	.0041	-23.72	-.0000	333445.2	.80	10.06	.0035	111.60	-.0015	-24.15	116.61
RISE 72	3018.47	3029.72	27	16	56.9	266.47	.0041	-23.89	-.0000	345438.2	.74	-.00	.0037	114.14	-.0005	-24.05	78.06
RISE 61	3083.02	3094.27	27	18	1.5	292.97	.0042	-24.76	-.0000	350036.9	.81	.00	.0027	123.27	.0027	-24.01	61.98
SET 42	3151.55	3162.80	27	19	10.0	105.00	.0041	-23.36	.0000	354351.0	1.44	1.98	-.0030	242.53	-.0023	-23.99	44.87
EXTM 51	3220.33	3231.58	27	20	18.8	359.99	.0042	-23.93	.0000	352780.6	1.10	88.19	.0000	.54	-.0433	-23.96	27.69
EXTM 61	3348.75	3360.00	27	22	27.2	.15	.0042	-24.82	.0000	364818.9	1.09	24.94	-.0000	180.15	.0042	-23.92	355.61
EXTM 72	3388.60	3399.85	27	23	7.1	.02	.0042	-24.18	.0000	364020.0	1.09	73.72	.0000	180.10	.0108	-23.90	335.65
RISE 11	3516.77	3528.02	28	1	15.2	288.74	.0042	-24.48	-.0000	378446.6	.77	.00	.0029	120.48	.0024	-23.87	313.59
SET 51	3576.59	3587.84	28	2	15.1	90.00	.0042	-23.47	.0000	381266.1	1.48	9.96	-.0035	248.63	-.0015	-23.85	298.63
SET 61	3614.29	3625.54	28	2	52.8	67.30	.0042	-24.52	.0000	384858.7	1.41	-.00	-.0027	237.07	.0027	-23.84	289.19
RISE 42	3757.78	3769.03	28	5	16.2	255.00	.0042	-23.26	-.0000	394527.0	.90	1.92	.0030	117.39	-.0023	-23.83	253.18
SET 72	3757.81	3769.06	28	5	16.3	93.50	.0042	-23.69	.0000	394743.4	1.66	-.00	-.0038	246.07	-.0006	-23.83	253.17
EXTM 11	3797.23	3808.48	28	5	55.7	359.92	.0043	-24.63	-.0000	394618.3	1.40	30.16	.0000	179.91	.0045	-23.83	243.23
IMPACT	3826.02	3837.27	28	6	24.5												
IMPC 42	3826.02	3837.27	28	6	24.5	272.27	.0043	-23.38	-.0000	398910.4	1.67	14.99	.0034	108.30	-.0022	-23.85	235.90
IMPC 11	3826.02	3837.27	28	6	24.5	7.36	.0044	-24.64	-.0000	397405.3	2.08	29.75	-.0005	187.71	.0045	-23.85	235.90

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	25	14	38.470	6545.210	20.0853	306.0011	10.99402	-.5200	112.8510	139.0313
SEPARATION	1.20	12.45	25	14	39.670	6561.725	17.2776	312.3737	10.97995	2.9117	114.9914	145.7047
RETRO	3.20	14.45	25	14	41.670	6692.606	12.2513	322.3428	10.87121	8.5171	117.6693	156.1752
IMPACT	3826.02	3837.27	28	6	24.489	400605.410	-23.8522	235.8967	2.19927	67.5571	259.2218	308.0499

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SURVEYOR VIEW PERIODS

GHA	335.7684						EPS -30.4390										LON	231.3852	
SX	.563521	SY	-.720361	SZ	-.404381	DAO	-23.85236	RAO	308.03525	RM	401888.023	LAT	28.310600	LON	279.461800				
CS	-.935943	ECC	.984633	SLR	12988.765	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0				
NSX	.579952	NSY	-.709564	NSZ	-.400247	C3H	1.4969	VIM	2.6714	ZAE	141.516	B.T	.0000	B.R	-.0000				
LATE	6.3586	LONE	4.3433	LATS	1.5250	LONS	34.3999	LATI	2.6958	LONI	325.9027	RSM	151.4490	TTAN	5.2871				
LAUNCH DATE	AUG 25,1966			BASE AZM	105.0		TF 63.803					ARRIVAL DATE	AUG 28 1966		6 42 25.5				

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	14 57	1.7	28.0	18.96	305.55	1.04	141.04	114.97	14 48 16.7	6545.2	10.99	.52

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	25	14	48.3												
SEPARATION		1.20	12.45	25	14	49.5												
RETRO		3.20	14.45	25	14	51.5												
RISE	72	4.69	15.94	25	14	53.0	83.61	-.1711	38.73	.0046	2689.3	-8.14	.00	.1306	309.18	.0281	6.68	328.02
EXTM	72	10.05	21.30	25	14	58.3	351.61	-.2251	2.85	-.1746	1694.6	4.33	76.37	-.0000	38.21	1.2084	-5.66	347.44
RISE	51	11.06	22.31	25	14	59.3	80.78	-.0870	18.39	-.0435	5314.9	-3.40	.00	.0933	290.50	-.0009	-7.56	350.45
EXTM	51	34.04	45.29	25	15	22.3	.42	-.0238	-26.74	-.0082	9193.3	5.38	88.93	.0000	200.86	-1.2247	-26.33	27.43
EXTM	72	69.75	81.00	25	15	58.0	288.05	.0000	-32.12	-.0001	23512.4	4.80	19.46	.0000	121.35	.0001	-30.53	42.26
RISE	61	152.04	163.29	25	17	20.3	309.96	.0026	-37.20	.0005	46279.7	3.56	-.00	.0017	142.38	.0014	-30.72	40.46
EXTM	51	235.79	247.04	25	18	44.1	.33	.0034	-30.45	.0002	57615.5	3.20	85.28	.0000	183.43	.0354	-29.98	27.39
EXTM	61	411.48	422.73	25	21	39.8	4.64	.0039	-32.42	.0002	92298.2	2.64	17.22	.0000	184.10	.0034	-28.73	351.38
EXTM	72	440.87	452.12	25	22	9.2	.86	.0040	-29.95	.0001	93024.9	2.57	67.94	.0000	181.98	.0092	-28.56	344.88
RISE	11	607.44	618.69	26	0	55.7	293.81	.0040	-29.77	.0000	122925.8	1.99	.00	.0026	127.43	.0023	-27.78	306.84
SET	51	634.09	645.34	26	1	22.4	90.00	.0038	-26.58	.0001	125312.7	2.59	11.21	-.0032	245.74	-.0013	-27.67	300.62
SET	61	650.44	661.69	26	1	38.7	61.10	.0040	-29.74	.0002	128739.2	2.47	-.00	-.0022	229.48	.0027	-27.61	296.79
SET	72	829.55	840.80	26	4	37.8	94.00	.0039	-26.67	.0001	151522.1	2.41	-.00	-.0035	243.05	-.0004	-27.02	254.34
RISE	42	839.89	851.14	26	4	48.2	254.99	.0040	-25.54	-.0000	152408.1	1.70	3.32	.0029	119.20	-.0022	-26.99	251.87
EXTM	11	881.48	892.73	26	5	29.8	1.29	.0042	-28.95	.0001	155006..	1.98	25.83	-.0000	181.26	.0040	-26.87	241.90
SET	11	1152.59	1163.84	26	10	.9	68.44	.0041	-27.50	.0001	188198.9	2.08	.00	-.0027	235.58	.0024	-26.23	176.35
EXTM	42	1264.62	1275.87	26	11	52.9	359.93	.0042	-25.71	.0000	193725.9	1.71	80.49	-.0000	.41	-.0220	-26.01	149.05
RISE	51	1399.85	1411.10	26	14	8.1	270.00	.0041	-25.11	-.0000	212318.6	1.27	10.62	.0034	112.89	-.0015	-25.78	115.98
RISE	72	1555.92	1567.17	26	16	44.2	266.23	.0041	-25.30	-.0000	228491.0	1.16	-.01	.0037	115.56	-.0005	-25.53	77.69
RISE	61	1629.70	1640.95	26	17	58.0	295.01	.0041	-26.55	-.0000	235356.8	1.25	.00	.0026	125.84	.0027	-25.43	59.55
SET	42	1687.59	1698.84	26	18	55.9	105.00	.0041	-24.42	.0001	240357.7	1.84	2.63	-.0030	241.69	-.0022	-25.35	45.30
EXTM	51	1751.58	1762.83	26	19	59.9	358.09	.0042	-25.25	.0000	240119.9	1.48	88.21	.0037	74.48	-.0350	-25.26	29.54
EXTM	61	1890.59	1901.84	26	22	18.9	.50	.0042	-26.38	.0000	256097.6	1.44	23.38	.0000	180.49	.0041	-25.09	355.26
EXTM	72	1929.83	1941.08	26	22	58.1	.10	.0042	-25.46	.0000	255973.1	1.43	72.44	.0009	180.31	.0124	-25.04	345.57
RISE	11	2065.21	2076.46	27	1	13.5	289.90	.0042	-25.75	-.0000	273385.4	1.06	.00	.0029	122.12	.0024	-24.89	312.12
SET	51	2118.31	2129.56	27	2	6.6	90.00	.0041	-24.32	.0001	276627.1	1.74	10.30	-.0035	247.85	-.0015	-24.83	298.99
SET	61	2151.32	2162.57	27	2	39.6	65.93	.0042	-25.74	.0001	280461.8	1.64	-.00	-.0026	235.33	.0027	-24.80	290.82
SET	72	2302.47	2313.72	27	5	10.7	93.62	.0041	-24.47	.0001	292573.1	1.73	-.00	-.0037	245.28	-.0005	-24.65	253.41
RISE	42	2304.52	2315.77	27	5	12.8	255.00	.0041	-23.89	-.0000	292478.7	.98	2.30	.0030	117.88	-.0023	-24.65	252.90
EXTM	11	2345.21	2356.46	27	5	53.5	.34	.0042	-25.69	.0000	292847.0	1.30	29.10	-.0000	180.35	.0043	-24.61	242.82
SET	11	2625.07	2636.32	27	10	33.3	70.70	.0042	-25.10	.0000	317231.5	1.55	-.00	-.0029	238.73	.0024	-24.36	173.42
EXTM	42	2723.37	2734.62	27	12	11.6	359.95	.0042	-24.06	.0000	318260.5	1.21	78.84	.0000	.24	-.0184	-24.28	149.03
RISE	51	2853.92	2865.17	27	14	22.2	270.00	.0041	-23.75	-.0000	332732.4	.81	10.07	.0035	111.62	-.0015	-24.18	116.61
RISE	72	3009.06	3020.31	27	16	57.3	266.47	.0041	-23.91	-.0000	344736.6	.74	-.00	.0037	114.16	-.0006	-24.07	78.06
RISE	61	3073.79	3085.04	27	18	2.1	292.98	.0042	-24.76	-.0000	349412.9	.81	.00	.0027	123.28	.0027	-24.02	61.97
SET	42	3142.26	3153.51	27	19	10.5	105.00	.0041	-23.36	.0000	353719.0	1.44	1.98	-.0030	242.53	-.0023	-23.99	44.87
EXTM	51	3211.03	3222.28	27	20	19.3	359.99	.0042	-23.93	.0000	352143.5	1.10	88.19	.0000	.60	-.0404	-23.96	27.69
EXTM	61	3339.47	3350.72	27	22	27.8	.16	.0042	-24.82	.0000	364171.7	1.09	24.95	-.0000	180.16	.0042	-23.91	355.60
EXTM	72	3379.28	3390.53	27	23	7.6	.03	.0042	-24.18	.0000	363366.1	1.09	73.73	.0000	180.10	.0117	-23.90	345.64
RISE	11	3507.41	3518.66	28	1	15.7	288.73	.0042	-24.47	-.0000	377770.6	.76	.00	.0029	120.46	.0024	-23.86	313.60
SET	51	3567.23	3578.48	28	2	15.5	90.00	.0042	-23.46	.0000	380578.1	1.48	9.96	-.0035	248.65	-.0015	-23.84	298.63
SET	61	3604.99	3616.24	28	2	53.3	67.31	.0042	-24.51	.0000	384162.4	1.40	-.00	-.0027	237.08	.0027	-23.83	289.17
RISE	42	3748.47	3759.72	28	5	16.7	255.00	.0042	-23.24	-.0000	393731.1	.87	1.91	.0030	117.37	-.0023	-23.81	253.18
SET	72	3748.47	3759.72	28	5	16.7	93.49	.0042	-23.67	.0000	393943.7	1.63	-.00	-.0038	246.09	-.0005	-23.81	253.18
EXTM	11	3788.17	3799.42	28	5	56.5	359.98	.0043	-24.61	-.0000	393738.0	1.33	30.19	.0000	179.97	.0044	-23.81	243.18
IMPACT		3828.17	3839.42	28	6	36.4												
IMPC	42	3828.17	3839.42	28	6	36.4	275.16	.0043	-23.38	-.0000	398694.9	1.67	17.24	.0034	106.83	-.0021	-23.83	233.01
IMPC	11	3828.17	3839.42	28	6	36.4	10.29	.0044	-24.61	-.0000	397463.7	2.09	29.39	-.0007	190.74	.0045	-23.83	233.01

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	25	14	48.278	6545.208	18.9572	305.5485	10.99390	.5182	114.9680	141.0374
SEPARATION		1.20	12.45	25	14	49.478	6576.014	15.9330	311.7553	10.96784	3.9437	116.9216	147.5451
RETRO		3.20	14.45	25	14	51.478	6729.670	10.6380	321.4158	10.84091	9.5067	119.2651	157.7069
IMPACT		3828.17	3839.42	28	6	36.450	400629.258	-23.8303	233.0060	2.19693	67.3378	259.6880	308.1574

SURVEYOR VIEW PERIODS

GHA	335.7684					EPS -30.3562								LOM	228.7527
SX	.564832	SY	-.719517	SZ	-.404055	DAO	-23.83190	RAO	308.13249	RM	401906.359	LAT	28.310600	LON	279.461800
CS	-.938363	ECC	.984593	SLR	12988.499	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.581245	NSY	-.708676	NSZ	-.399915	C3M	1.4967	VIM	2.6713	ZAE	141.435	B.T	.0000	B.R	-.0000
LATE	6.3613	LONE	4.4351	LATS	1.5249	LONS	34.4074	LATI	2.3998	LONI	325.9499	RSM	151.4490	TTAN	5.2844

LAUNCH DATE AUG 25,1966 BASE AZM 108.0 TF 63.846 ARRIVAL DATE AUG 28 1966 6 56 18.9

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	14 45 12.7	28.0	17.85	305.03	2.76	142.57	117.07	14 56 27.7	6548.4	10.99	1.37

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	25	14	56.5												
SEPARATION		1.20	12.45	25	14	57.7												
RETRO		3.20	14.45	25	14	59.7												
RISE	72	4.57	15.82	25	15	1.0	84.75	-.1552	33.42	-.0178	2758.1	-8.10	-.00	.1307	303.78	.0038	5.30	326.32
EXTM	72	9.85	21.10	25	15	6.3	2.78	-.2445	-4.32	-.1653	1686.9	3.77	85.47	.2796	322.17	1.1724	-7.16	345.09
RISE	51	11.06	22.31	25	15	7.5	82.64	-.0817	14.88	-.0464	5436.8	-3.19	.00	.0914	286.56	-.0060	-9.43	348.60
EXTM	51	35.85	47.10	25	15	32.3	1.54	-.0219	-30.13	-.0060	9883.9	5.34	85.40	-.0000	196.90	-.2481	-28.41	26.76
EXTM	72	70.43	81.68	25	16	6.9	290.04	.0000	-33.78	.0001	23642.4	4.78	21.01	.0000	123.23	-.0001	-31.81	40.41
EXTM	51	90.39	101.64	25	16	26.9	341.64	-.0001	-33.33	.0002	25858.9	4.36	72.35	.0000	119.77	-.0006	-32.05	42.22
RISE	61	150.99	162.24	25	17	27.5	311.74	.0026	-38.20	.0006	46110.1	3.56	-.00	.0017	144.10	.0013	-31.61	38.76
EXTM	51	226.60	237.85	25	18	43.1	.50	.0033	-31.34	.0002	55900.2	3.25	84.38	-.0000	184.41	.0289	-30.77	27.23
EXTM	61	405.23	416.48	25	21	41.7	5.12	.0039	-33.00	.0002	91410.7	2.65	16.61	.0000	184.48	.0034	-29.26	350.93
EXTM	72	433.25	444.50	25	22	9.7	.99	.0040	-30.51	.0002	91908.4	2.58	67.37	.0000	182.22	.0089	-29.08	344.75
RISE	11	601.50	612.75	26	0	58.0	294.24	.0040	-30.19	.0000	122140.0	2.00	.00	.0026	127.99	.0023	-28.18	306.38
SET	51	626.08	637.33	26	1	22.5	90.00	.0038	-26.97	.0001	124242.7	2.60	11.36	-.0032	245.37	-.0013	-28.07	300.65
SET	61	640.15	651.40	26	1	36.6	60.54	.0039	-30.16	.0002	127389.5	2.48	-.00	-.0021	228.83	.0027	-28.01	297.36
SET	72	821.94	833.19	26	4	38.4	94.06	.0039	-26.98	.0001	150614.3	2.42	-.00	-.0035	242.74	-.0004	-27.33	254.31
RISE	42	832.22	843.47	26	4	48.7	254.99	.0040	-25.85	-.0000	151477.2	1.71	3.50	.0028	119.44	-.0022	-27.30	251.85
EXTM	11	874.18	885.43	26	5	30.6	1.40	.0042	-29.27	.0001	154187.2	1.98	25.51	-.0000	181.36	.0040	-27.17	241.80
SET	11	1143.92	1155.17	26	10	.4	68.22	.0041	-27.74	.0001	187279.2	2.08	.00	-.0027	235.27	.0024	-26.46	176.59
EXTM	42	1256.90	1268.15	26	11	53.4	359.92	.0042	-25.92	.0000	192930.2	1.71	80.70	-.0000	.44	-.0225	-26.22	149.05
RISE	51	1392.18	1403.43	26	14	8.6	270.00	.0041	-25.29	-.0000	211550.5	1.27	10.69	.0034	113.06	-.0015	-25.96	115.97
RISE	72	1548.13	1559.38	26	16	44.6	266.20	.0041	-25.45	-.0000	227746.2	1.16	-.01	.0037	115.72	-.0005	-25.69	77.71
RISE	61	1622.71	1633.96	26	17	59.2	295.19	.0041	-26.70	-.0000	234696.8	1.25	.00	.0026	126.06	.0027	-25.57	59.37
SET	42	1679.85	1691.10	26	18	56.3	105.00	.0041	-24.56	.0001	239627.6	1.84	2.72	-.0030	241.59	-.0022	-25.48	45.31
EXTM	51	1743.72	1754.97	26	20	.2	358.06	.0042	-25.38	.0000	239398.0	1.48	88.21	.0037	78.88	-.0260	-25.39	29.57
EXTM	61	1883.00	1894.25	26	22	19.5	.54	.0042	-26.50	.0000	255427.5	1.44	23.26	.0000	180.53	.0041	-25.20	355.22
EXTM	72	1922.13	1933.38	26	22	58.6	.11	.0042	-25.58	.0000	259289.9	1.43	72.33	.0000	180.33	.0124	-25.15	345.56
RISE	11	2057.84	2069.09	27	1	14.3	289.99	.0042	-25.85	-.0000	272739.9	1.07	.00	.0029	122.25	.0024	-24.99	312.03
SET	51	2110.55	2121.80	27	2	7.0	90.00	.0041	-24.41	.0001	275949.4	1.74	10.34	-.0035	247.77	-.0015	-24.92	298.99
SET	61	2143.14	2154.39	27	2	39.6	65.82	.0042	-25.83	.0001	279756.9	1.64	-.00	-.0026	235.20	.0027	-24.89	290.93
SET	72	2294.75	2306.00	27	5	11.2	93.64	.0041	-24.54	.0001	291918.3	1.73	-.00	-.0037	245.23	-.0005	-24.72	253.40
RISE	42	2296.77	2308.02	27	5	13.2	255.00	.0041	-23.96	-.0000	291817.1	.98	2.35	.0030	117.94	-.0023	-24.72	252.90
EXTM	11	2337.54	2348.79	27	5	54.0	.36	.0042	-25.76	.0000	292206.8	1.30	29.03	-.0000	180.37	.0043	-24.68	242.80
SET	11	2617.09	2628.34	27	10	33.6	70.65	.0042	-25.15	.0000	316579.4	1.56	-.00	-.0029	238.66	.0024	-24.41	173.47
EXTM	42	2715.56	2726.81	27	12	12.0	359.95	.0042	-24.11	.0000	317626.2	1.21	78.89	.0000	.25	-.0186	-24.32	149.03
RISE	51	2946.13	2957.38	27	14	22.6	270.00	.0041	-23.78	-.0000	332105.3	.81	10.08	.0035	111.65	-.0015	-24.21	116.61
RISE	72	3001.25	3012.50	27	16	57.7	266.46	.0041	-23.93	-.0000	344116.0	.74	-.00	.0037	114.18	-.0006	-24.09	78.06
RISE	61	3066.07	3077.32	27	18	2.5	293.00	.0042	-24.78	-.0000	348804.3	.81	.00	.0027	123.31	.0027	-24.04	61.95
SET	42	3134.44	3145.69	27	19	10.9	105.00	.0041	-23.38	.0000	353100.6	1.44	1.99	-.0030	242.52	-.0023	-24.01	44.87
EXTM	51	3203.21	3214.46	27	20	19.7	359.99	.0042	-23.94	.0000	351524.7	1.10	88.20	.0000	.43	-.0646	-23.98	27.69
EXTM	61	3331.72	3342.97	27	22	28.2	.17	.0042	-24.82	.0000	363552.6	1.09	24.94	-.0000	180.17	.0042	-23.92	355.58
EXTM	72	3371.48	3382.73	27	23	7.9	.03	.0042	-24.18	.0000	362741.4	1.09	73.72	.0000	180.12	.0118	-23.90	345.64
RISE	11	3499.61	3510.86	28	1	16.1	288.73	.0042	-24.47	-.0000	377134.4	.76	.00	.0029	120.46	.0024	-23.86	313.60
SET	51	3559.42	3570.67	28	2	15.9	90.00	.0042	-23.46	.0000	379933.2	1.48	9.95	-.0035	248.65	-.0015	-23.84	298.63
SET	61	3597.21	3608.46	28	2	53.7	67.31	.0042	-24.50	.0000	383511.7	1.40	-.00	-.0027	237.09	.0027	-23.83	289.17
RISE	42	3740.69	3751.94	28	5	17.2	255.00	.0042	-23.23	-.0000	393011.8	.85	1.90	.0030	117.36	-.0023	-23.79	253.18
SET	72	3740.69	3751.94	28	5	17.2	93.49	.0042	-23.66	.0000	393222.9	1.61	-.00	-.0038	246.10	-.0005	-23.79	253.18
EXTM	11	3780.60	3791.85	28	5	57.1	.01	.0043	-24.59	.0000	392963.8	1.28	30.20	.0000	180.02	.0034	-23.79	243.14
IMPACT		3830.79	3842.04	28	6	47.2												
IMPC	42	3830.79	3842.04	28	6	47.2	277.78	.0043	-23.37	-.0000	398498.3	1.67	19.29	.0034	105.51	-.0021	-23.81	230.40
IMPC	11	3830.79	3842.04	28	6	47.2	12.94	.0044	-24.59	-.0000	397523.9	2.11	28.96	-.0008	193.46	.0044	-23.81	230.40

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	25	14	56.461	6548.436	17.8536	305.0330	10.99109	1.3684	117.0723	142.5733
SEPARATION		1.20	12.45	25	14	57.661	6590.872	14.6225	311.0652	10.95526	4.7844	118.8456	148.9064
RETRO		3.20	14.45	25	14	59.661	6762.852	9.0653	320.4254	10.81396	10.3069	120.8768	158.7680
IMPACT		3830.79	3842.04	28	6	47.248	400647.867	-23.8107	230.7955	2.19602	67.3109	260.2610	308.2541

SURVEYOR VIEW PERIODS

GHA	335.7684					EPS -30.2801								LOM	226.5320
SX	.566036	SY	-.718739	SZ	-.403753	DAO	-23.81303	RAO	308.22187	RM	401923.188	LAT	28.310600	LON	279.461800
CS	-.941402	ECC	.984543	SLR	12988.172	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.582458	NSY	-.707852	NSZ	-.399610	C3M	1.4966	VIM	2.6713	ZAE	141.331	B.T	.0000	B.R	-.0000
LATE	6.3639	LONE	4.3281	LATS	1.5250	LONS	34.2228	LATI	2.0799	LONI	325.7791	RSM	151.4491	TTAN	5.2839
LAUNCH DATE	AUG 25,1966			BASE AZM	111.0		TF 63.900					ARRIVAL DATE	AUG 28 1966 7 3 19.6		

LNCH AZMTH	LNCH TIME		PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	14 52	5.9	28.1	16.78	304.46	4.17	143.73	119.17	15 3 20.9	6553.3	10.99	2.07

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT												
INJECTION		.00	11.25	25	15	3.3												
SEPARATION		1.20	12.45	25	15	4.5												
RETRO		3.20	14.45	25	15	6.5												
RISE	72	4.50	15.75	25	15	7.9	85.69	-.1425	28.40	-.0384	2825.0	-7.94	.00	.1298	298.70	-.0183	3.83	324.81
EXTM	72	10.26	21.51	25	15	13.6	5.08	-.2249	-16.38	-.1293	1873.2	4.45	80.18	.0000	209.86	-1.4744	-9.83	344.55
RISE	51	11.09	22.34	25	15	14.4	84.40	-.0769	11.44	-.0492	5551.2	-2.98	.00	.0894	281.72	-.0107	-11.38	346.89
EXTM	51	37.90	49.15	25	15	41.3	2.11	-.0200	-33.43	-.0042	10642.3	5.30	82.09	-.0000	192.91	-.1252	-30.56	26.40
EXTM	72	70.73	81.98	25	16	14.1	291.66	-.0000	-35.51	.0003	23687.3	4.77	22.17	.0000	125.22	-.0004	-33.17	38.82
EXTM	51	89.89	101.14	25	16	33.2	343.56	-.0002	-34.90	.0004	25770.5	4.36	73.15	.0000	126.83	-.0014	-33.27	40.63
RISE	61	152.55	163.80	25	17	35.9	313.55	.0026	-39.15	.0007	46512.6	3.55	-.00	.0017	145.80	.0013	-32.54	37.09
EXTM	51	219.48	230.73	25	18	42.8	.74	.0033	-32.31	.0003	54561.6	3.28	83.40	-.0000	185.47	.0240	-31.62	27.02
EXTM	61	400.64	411.89	25	21	44.0	5.62	.0039	-33.61	.0003	90777.2	2.66	15.97	.0000	184.87	.0034	-29.83	350.47
EXTM	72	427.25	438.50	25	22	10.6	1.15	.0040	-31.12	.0002	91029.5	2.60	66.76	.0000	182.49	.0087	-29.64	344.61
RISE	11	597.15	608.40	26	1	.5	294.71	.0040	-30.64	.0000	121561.0	2.01	.00	.0026	128.60	.0023	-28.61	305.90
SET	51	619.53	630.78	26	1	22.9	90.00	.0038	-27.40	.0001	123355.5	2.61	11.53	-.0032	244.97	-.0012	-28.50	300.69
SET	61	631.08	642.33	26	1	34.4	59.93	.0039	-30.63	.0002	126187.2	2.48	-.00	-.0021	228.13	.0027	-28.44	297.99
SET	72	815.76	827.01	26	4	39.1	94.12	.0039	-27.32	.0001	149869.1	2.42	-.00	-.0035	242.39	-.0004	-27.67	254.27
RISE	42	825.95	837.20	26	4	49.3	254.99	.0040	-26.18	-.0000	150701.3	1.71	3.70	.0028	119.70	-.0022	-27.64	251.84
EXTM	11	868.31	879.56	26	5	31.7	1.52	.0042	-29.60	.0001	153527.2	1.99	25.18	.0000	181.46	.0040	-27.49	241.69
SET	11	1136.53	1147.78	26	9	59.9	67.97	.0041	-28.00	.0001	186481.3	2.08	-.00	-.0027	234.93	.0024	-26.71	176.84
EXTM	42	1250.54	1261.79	26	11	53.9	359.92	.0042	-26.15	.0000	192259.3	1.72	80.93	-.0000	.47	-.0231	-26.44	149.06
RISE	51	1385.85	1397.10	26	14	9.2	270.00	.0041	-25.49	-.0000	210899.1	1.27	10.77	.0034	113.24	-.0015	-26.15	115.96
RISE	72	1541.67	1552.92	26	16	45.0	266.18	.0041	-25.62	-.0000	227110.1	1.16	-.01	.0037	115.89	-.0005	-25.86	77.73
RISE	61	1617.11	1628.36	26	18	.5	295.38	.0041	-26.86	.0000	234149.1	1.26	.00	.0026	126.29	.0027	-25.73	59.18
SET	42	1673.43	1684.68	26	18	56.8	105.00	.0041	-24.71	.0001	239000.6	1.84	2.81	-.0030	241.47	-.0022	-25.64	45.31
EXTM	51	1737.21	1748.46	26	20	.6	358.03	.0042	-25.53	.0000	238779.0	1.48	88.21	.0038	83.67	-.0161	-25.53	29.60
EXTM	61	1876.74	1887.99	26	22	20.1	.58	.0042	-26.63	.0000	254855.2	1.44	23.13	.0000	180.56	.0041	-25.33	355.19
EXTM	72	1915.75	1927.00	26	22	59.1	.12	.0042	-25.70	.0000	254701.4	1.43	72.20	.0000	180.36	.0123	-25.27	345.55
RISE	11	2051.83	2063.08	27	1	15.2	290.09	.0042	-25.96	-.0000	272186.7	1.07	.00	.0029	122.39	.0024	-25.09	311.92
SET	51	2104.10	2115.35	27	2	7.4	90.00	.0041	-24.51	.0001	275358.7	1.75	10.38	-.0035	247.67	-.0015	-25.03	299.00
SET	61	2136.22	2147.47	27	2	39.6	65.71	.0042	-25.93	.0001	279134.5	1.64	-.00	-.0026	235.05	.0027	-24.99	291.05
SET	72	2288.33	2299.58	27	5	11.7	93.65	.0041	-24.62	.0001	291345.3	1.73	-.00	-.0037	245.12	-.0005	-24.81	253.39
RISE	42	2290.32	2301.57	27	5	13.7	255.00	.0041	-24.04	-.0000	291236.0	.99	2.40	.0030	118.01	-.0023	-24.80	252.89
EXTM	11	2331.18	2342.43	27	5	54.5	.39	.0042	-25.84	.0000	291647.7	1.31	28.95	-.0000	180.40	.0043	-24.76	242.77
SET	11	2610.38	2621.63	27	10	33.7	70.60	.0042	-25.21	.0000	315996.7	1.56	-.00	-.0029	238.58	.0024	-24.47	173.53
EXTM	42	2709.05	2720.30	27	12	12.4	359.95	.0042	-24.16	.0000	317060.0	1.21	78.94	.0000	.28	-.0186	-24.37	149.03
RISE	51	2839.62	2850.87	27	14	23.0	270.00	.0041	-23.82	-.0000	331542.5	.81	10.10	.0035	111.69	-.0015	-24.25	116.60
RISE	72	2994.71	3005.96	27	16	58.1	266.46	.0041	-23.96	-.0000	343555.4	.74	-.00	.0037	114.21	-.0006	-24.12	78.06
RISE	61	3059.66	3070.91	27	18	3.0	293.03	.0042	-24.81	-.0000	348255.0	.81	.00	.0027	123.35	.0027	-24.07	61.92
SET	42	3127.90	3139.15	27	19	11.2	105.00	.0041	-23.40	.0000	352538.8	1.44	2.00	-.0030	242.50	-.0023	-24.03	44.87
EXTM	51	3196.67	3207.92	27	20	20.0	359.99	.0042	-23.96	.0000	350961.5	1.09	88.22	.0000	.60	-.0526	-23.99	27.69
EXTM	61	3325.25	3336.50	27	22	28.6	.19	.0042	-24.84	.0000	362987.9	1.09	24.93	-.0000	180.19	.0042	-23.93	355.57
EXTM	72	3364.96	3376.21	27	23	8.3	.03	.0042	-24.19	.0000	362170.0	1.08	73.71	.0000	180.13	.0121	-23.91	345.64
RISE	11	3493.09	3504.34	28	1	16.4	288.74	.0042	-24.48	-.0000	376550.9	.76	.00	.0029	120.47	.0024	-23.86	313.60
SET	51	3552.89	3564.14	28	2	16.2	90.00	.0042	-23.46	.0000	379340.1	1.47	9.95	-.0035	248.65	-.0015	-23.84	298.63
SET	61	3590.69	3601.94	28	2	54.0	67.32	.0042	-24.50	.0000	382912.3	1.39	-.00	-.0027	237.10	.0027	-23.82	289.17
SET	72	3734.18	3745.43	28	5	17.5	93.49	.0042	-23.65	.0000	392563.1	1.60	-.00	-.0038	246.11	-.0005	-23.78	253.19
RISE	42	3734.21	3745.46	28	5	17.6	255.00	.0042	-23.21	-.0000	392354.8	.84	1.89	.0030	117.35	-.0023	-23.78	253.18
EXTM	11	3774.24	3785.49	28	5	57.6	.04	.0043	-24.57	.0000	392262.9	1.25	30.22	.0000	180.05	.0044	-23.78	243.11
IMPACT		3833.97	3845.22	28	6	57.3												
IMPC	42	3833.97	3845.22	28	6	57.3	280.22	.0043	-23.36	-.0000	398316.4	1.67	21.21	.0034	104.29	-.0021	-23.79	227.96
IMPC	11	3833.97	3845.22	28	6	57.3	15.41	.0044	-24.57	-.0000	397589.0	2.12	28.47	-.0010	195.95	.0044	-23.79	227.96

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	25	15	3.348	6553.308	16.7741	304.4646	10.98682	2.0693	119.1694	143.7313
SEPARATION		1.20	12.45	25	15	4.548	6605.267	13.3430	310.3186	10.94308	5.4752	120.7706	149.8862
RETRO		3.20	14.45	25	15	6.548	6792.158	7.5272	319.3880	10.79028	10.9612	122.5103	159.4969
IMPACT		3833.97	3845.22	28	6	57.320	400665.496	-23.7925	227.9610	2.19493	67.2656	260.8867	308.3443

SURVEYOR VIEW PERIODS

GHA	335.7684					EPS	-30.1844							LOM	223.2883
SX	.567548	SY	-.717760	SZ	-.403373	DAO	-23.78923	RAO	308.33421	RM	401944.297	LAT	28.310600	LON	279.461800
CS	-.946432	ECC	.984461	SLR	12987.630	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.583991	NSY	-.706806	NSZ	-.399224	C3M	1.4966	VIM	2.6713	ZAE	141.152	B.T	.0000	B.R	-.0000
LATE	6.3669	LONE	4.4342	LATS	1.5249	LONS	34.2315	LATI	1.6280	LONI	325.7674	RSM	151.4491	TTAN	5.2861
LAUNCH DATE	AUG 25,1966			BASE AZM	115.0		TF 63.986					ARRIVAL DATE	AUG 28 1966		7 15 55.0

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	14 59 43.1	28.1	15.38	303.63	5.69	144.80	121.96	15 10 58.1	6560.7	10.98	2.82

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	25	15	11.0												
SEPARATION		1.20	12.45	25	15	12.2												
RETRO		3.20	14.45	25	15	14.2												
RISE	72	4.47	15.72	25	15	15.4	86.78	-.1285	22.01	-.0629	2916.0	-7.58	.00	.1271	292.24	-.0445	1.76	323.02
EXTM	72	10.61	21.86	25	15	21.6	10.63	-.2130	-28.54	-.1004	2143.5	4.74	67.24	-.0000	204.80	-.5495	-13.04	343.23
RISE	51	11.17	22.42	25	15	22.1	86.64	-.0713	6.92	-.0526	5698.2	-2.68	.00	.0866	277.69	-.0163	-14.09	344.77
EXTM	51	41.26	52.51	25	15	52.2	1.91	-.0174	-37.64	-.0020	11838.6	5.24	77.99	-.0000	187.29	-.0668	-33.48	26.50
EXTM	72	70.96	82.21	25	16	21.9	293.31	-.0001	-37.92	.0007	23735.4	4.76	23.18	.0000	127.98	-.0007	-35.10	37.07
EXTM	51	87.49	98.74	25	16	38.5	345.67	-.0006	-37.20	.0006	25204.7	4.39	73.28	.0000	136.73	-.0027	-35.04	38.84
RISE	61	157.67	168.92	25	17	48.6	315.96	.0027	-40.35	.0007	47707.9	3.50	.00	.0017	148.01	.0014	-33.80	34.94
EXTM	51	212.90	224.15	25	18	43.9	1.16	.0032	-33.68	.0004	53324.1	3.31	81.99	-.0000	186.97	.0192	-32.84	26.65
EXTM	61	396.58	407.83	25	21	47.6	6.31	.0039	-34.46	.0003	90250.8	2.67	15.08	.0000	185.38	.0033	-30.64	349.83
EXTM	72	421.29	432.54	25	22	12.3	1.38	.0040	-31.98	.0002	90162.2	2.61	65.89	.0000	182.86	.0083	-30.42	344.40
RISE	11	593.32	604.57	26	1	4.3	295.38	.0040	-31.27	.0001	121046.9	2.01	.00	.0026	129.44	.0023	-29.21	305.23
SET	51	612.63	623.88	26	1	23.6	90.00	.0038	-28.01	.0002	122402.4	2.62	11.77	-.0032	244.40	-.0012	-29.10	300.73
SET	61	620.52	631.77	26	1	31.5	59.06	.0039	-31.29	.0002	124769.9	2.49	-.00	-.0021	227.13	.0027	-29.06	298.88
SET	72	809.29	820.54	26	4	40.3	94.20	.0039	-27.80	.0001	149075.8	2.43	-.00	-.0035	241.91	-.0004	-28.15	254.21
RISE	42	819.32	830.57	26	4	50.3	254.99	.0040	-26.65	-.0000	149859.0	1.72	3.99	.0028	120.07	-.0022	-28.11	251.81
EXTM	11	862.25	873.50	26	5	33.2	1.68	.0042	-30.07	.0001	152844.1	1.99	24.70	.0000	181.60	.0040	-27.94	241.53
SET	11	1128.24	1139.49	26	9	59.2	67.61	.0041	-28.36	.0001	185567.0	2.08	-.00	-.0026	234.45	.0024	-27.06	177.21
EXTM	42	1243.57	1254.82	26	11	54.5	359.88	.0042	-26.47	.0000	191501.5	1.72	81.25	.0000	.73	-.0244	-26.75	149.10
RISE	51	1379.06	1390.31	26	14	10.0	270.00	.0041	-25.77	-.0000	210171.5	1.28	10.88	.0034	113.50	-.0015	-26.43	115.95
RISE	72	1534.66	1545.91	26	16	45.6	266.15	.0041	-25.87	-.0000	226392.4	1.17	-.01	.0036	116.13	-.0005	-26.10	77.76
RISE	61	1611.34	1622.59	26	18	2.3	295.65	.0042	-27.09	.0000	233552.9	1.26	.00	.0025	126.63	.0027	-25.95	58.90
SET	42	1666.51	1677.76	26	18	57.5	105.00	.0041	-24.92	.0001	238287.9	1.85	2.94	-.0030	241.30	-.0022	-25.85	45.32
EXTM	51	1730.23	1741.48	26	20	1.2	358.01	.0042	-25.74	.0000	238080.6	1.48	68.21	.0038	90.43	-.0018	-25.74	29.62
EXTM	61	1870.01	1881.26	26	22	21.0	.63	.0042	-26.82	.0000	254207.2	1.44	22.94	.0000	180.61	.0041	-25.51	355.13
EXTM	72	1908.86	1920.11	26	22	59.8	.14	.0042	-25.88	.0000	254028.5	1.43	72.02	.0000	180.40	.0122	-25.45	345.54
RISE	11	2045.45	2056.70	27	1	16.4	290.24	.0042	-26.11	-.0000	271556.6	1.07	.00	.0029	122.59	.0024	-25.24	311.78
SET	51	2097.09	2108.34	27	2	8.1	90.00	.0041	-24.65	.0001	274672.4	1.75	10.44	-.0035	247.54	-.0015	-25.17	299.00
SET	61	2128.50	2139.75	27	2	39.5	65.53	.0042	-26.07	.0001	278397.0	1.64	.01	-.0026	234.84	.0027	-25.13	291.23
SET	72	2281.38	2292.63	27	5	12.3	93.67	.0041	-24.74	.0001	290675.1	1.73	-.00	-.0037	245.00	-.0005	-24.93	253.37
RISE	42	2283.32	2294.57	27	5	14.3	255.00	.0041	-24.16	-.0000	290553.5	.99	2.47	.0030	118.10	-.0023	-24.92	252.89
EXTM	11	2324.29	2335.54	27	5	55.3	.42	.0042	-25.96	.0000	290995.0	1.31	28.83	-.0000	180.44	.0043	-24.87	242.74
SET	11	2602.98	2614.23	27	10	33.9	70.52	.0042	-25.29	.0000	315297.3	1.56	-.00	-.0029	238.47	.0024	-24.55	173.61
EXTM	42	2701.93	2713.18	27	12	12.9	359.94	.0042	-24.23	.0000	316380.5	1.21	79.01	.0000	.50	-.0192	-24.45	149.04
RISE	51	2832.52	2843.77	27	14	23.5	270.00	.0041	-23.88	-.0000	330862.1	.81	10.12	.0035	111.74	-.0015	-24.31	116.60
RISE	72	2987.56	2998.81	27	16	58.5	266.45	.0041	-24.01	-.0000	342872.1	.74	-.00	.0037	114.25	-.0006	-24.16	78.07
RISE	61	3052.72	3063.97	27	18	3.7	293.08	.0042	-24.85	-.0000	347363.7	.85	.00	.0027	123.41	.0027	-24.10	61.87
SET	42	3120.76	3132.01	27	19	11.7	105.00	.0041	-23.43	.0000	351861.3	1.43	2.02	-.0030	242.48	- 0023	-24.06	44.88
EXTM	51	3189.56	3200.81	27	20	20.5	360.00	.0042	-23.99	.0000	350281.8	1.09	88.25	-.0000	.46	-.0168	-24.02	27.69
EXTM	61	3318.19	3329.44	27	22	29.2	.21	.0042	-24.86	.0000	362300.2	1.08	24.91	-.0000	180.21	.0042	-23.95	355.54
EXTM	72	3357.84	3369.09	27	23	8.8	.04	.0042	-24.21	.0000	361471.7	1.08	73.70	.0000	180.14	.0125	-23.93	345.63
RISE	11	3485.97	3497.22	28	1	16.9	288.74	.0042	-24.48	-.0000	375833.0	.75	.00	.0029	120.48	.0024	-23.86	313.59
SET	51	3545.74	3556.99	28	2	16.7	90.00	.0042	-23.46	.0000	378607.1	1.47	9.95	-.0035	248.65	-.0015	-23.84	298.63
SET	61	3583.54	3594.79	28	2	54.5	67.32	.0042	-24.50	.0000	382169.7	1.39	-.00	-.0027	237.10	.0027	-23.82	289.17
SET	72	3727.04	3738.29	28	5	18.0	93.49	.0042	-23.63	.0000	391746.1	1.58	-.00	-.0038	246.13	-.0005	-23.77	253.19
RISE	42	3727.10	3738.35	28	5	18.1	255.00	.0042	-23.20	-.0000	391540.3	.82	1.88	.0030	117.34	-.0023	-23.77	253.18
EXTM	11	3767.28	3778.53	28	5	58.2	.08	.0043	-24.56	.0000	391401.5	1.22	30.23	.0000	180.08	.0045	-23.76	243.08
IMPACT		3839.13	3850.38	28	7	10.1												
IMPC	42	3839.13	3850.38	28	7	10.1	283.32	.0043	-23.56	-.0000	398088.8	1.67	23.67	.0035	102.74	-.0021	-23.77	224.87
IMPC	11	3839.13	3850.38	28	7	10.1	18.54	.0044	-24.54	-.0000	397684.8	2.14	27.72	-.0012	199.07	.0043	-23.77	224.87

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	25	15	10.968	6560.824	15.3728	303.6353	10.98035	2.8241	121.9606	144.8122
SEPARATION		1.20	12.45	25	15	12.168	6622.940	11.6844	309.2480	10.92812	6.2168	123.3460	150.7257
RETRO		3.20	14.45	25	15	14.168	6825.683	5.5278	317.9412	10.76330	11.6605	124.7268	159.9204
IMPACT		3839.13	3850.38	28	7	10.099	400688.938	-23.7694	224.8721	2.19289	67.1392	261.7637	308.4588

SURVEYOR VIEW PERIODS

GHA	336.7540					EPS	-19.3068									LOM	232.6005
SX	.726805	SY	-.590317	SZ	-.351113	DAO	-20.55543	RAO	320.91618	RM	404034.887	LAT	28.310600	LON	279.461800		
CS	-.938907	ECC	.984584	SLR	12988.441	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0		
NSX	.740278	NSY	-.576813	NSZ	-.345362	C3M	1.4934	VIM	2.6707	ZAE	141.696	B.T	.0000	B.R	-.0000		
LATE	6.5778	LONE	3 2205	LATS	1.5244	LONS	21.8549	LATI	4.2326	LONI	324.8080	RSM	151.4482	TTAN	4.3075		
LAUNCH DATE	AUG 26,1966			BASE AZM	102.0		TF 64.502					ARRIVAL DATE	AUG 29 1966		7 25 1.7		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
102.00	14 36 37.7	27.4	20.27	305.52	-10.98	141.90	112.69	14 47 52.7	6604.6	10.94	-5.44

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	26	14	47.9												
SEPARATION		1.20	12.45	26	14	49.1												
RETRO		3.20	14.45	26	14	51.1												
RISE	72	5.48	16.73	26	14	53.4	81.44	-.2085	47.00	.0498	2209.2	-8.64	.00	.1292	317.59	.0775	6.28	332.84
EXTM	72	9.36	20.61	26	14	57.2	339.34	-.3376	21.45	-.3195	1199.0	3.20	54.32	.0674	34.27	.7597	-3.41	348.73
RISE	51	11.33	22.58	26	14	59.2	78.52	-.1038	22.43	-.0433	4550.3	-4.71	.00	.1051	295.06	.0069	-7.58	355.62
EXTM	51	26.12	37.37	26	15	14.0	358.13	-.0483	-21.93	-.0197	5938.5	5.45	85.82	.0000	24.48	.6718	-23.90	28.60
EXTM	72	69.03	80.28	26	15	56.9	274.54	-.0000	-29.90	-.0000	23871.7	4.88	7.85	.0000	119.27	.0000	-30.02	54.58
RISE	42	78.13	89.38	26	16	6.0	105.00	-.0036	-22.47	-.0015	27182.9	4.30	1.44	.0035	243.24	.0009	-30.06	55.93
EXTM	42	121.74	132.99	26	16	49.6	101.39	.0002	-24.27	-.0002	38144.4	4.06	5.16	-.0000	243.80	-.0003	-29.56	56.19
SET	42	173.49	184.74	26	17	41.4	104.99	.0019	-24.46	.0000	50240.4	3.75	2.66	-.0014	241.66	-.0010	-28.73	50.45
RISE	61	196.65	207.90	26	18	4.5	304.14	.0032	-33.55	.0004	55420.4	3.22	.00	.0020	136.39	.0018	-28.38	46.90
EXTM	51	292.89	304.14	26	19	40.8	358.45	.0037	-27.35	.0002	67780.1	2.97	87.88	.0023	139.51	.0630	-27.21	29.10
EXTM	61	465.39	476.64	26	22	33.3	4.08	.0040	-29.13	.0002	99968.9	2.53	20.52	.0000	183.81	.0037	-25.80	351.88
EXTM	72	495.70	506.95	26	23	3.6	.70	.0041	-26.71	.0001	100850.2	2.46	71.18	-.0000	181.94	.0112	-25.61	345.02
RISE	11	646.93	658.18	27	1	34.8	290.77	.0040	-26.67	.0000	127973.6	1.92	.00	.0028	123.33	.0023	-24.82	309.98
SET	51	687.63	698.88	27	2	15.5	90.00	.0039	-23.57	.0001	132257.1	2.54	10.00	-.0033	248.54	-.0014	-24.64	300.40
SET	61	720.43	731.68	27	2	48.3	65.13	.0040	-26.43	.0002	137610.7	2.40	-.00	-.0024	234.34	.0027	-24.50	292.64
SET	72	879.27	890.52	27	5	27.2	93.48	.0040	-23.60	.0001	157223.3	2.38	-.01	-.0036	246.16	-.0004	-23.93	254.70
RISE	42	890.50	901.75	27	5	38.4	254.99	.0040	-22.49	-.0000	158394.0	1.65	1.45	.0029	116.79	-.0023	-23.90	252.00
EXTM	11	932.22	943.47	27	6	20.1	1.24	.0042	-25.72	.0001	160377.4	1.94	29.06	-.0000	181.28	.0043	-23.77	241.95
SET	11	1215.28	1226.53	27	11	3.2	71.48	.0041	-24.23	.0001	194553.1	2.05	-.00	-.0028	239.85	.0024	-23.04	173.25
EXTM	42	1314.09	1325.34	27	12	42.0	359.87	.0042	-22.43	.0000	198573.9	1.68	77.21	.0000	.54	-.0173	-22.83	149.10
RISE	51	1448.95	1460.20	27	14	56.8	270.00	.0041	-21.90	-.0000	217002.7	1.23	9.32	.0035	109.91	-.0016	-22.57	116.06
RISE	72	1606.96	1618.21	27	17	34.8	266.77	.0041	-22.08	-.0000	233007.4	1.13	.00	.0038	112.30	-.0005	-22.30	77.22
RISE	61	1663.87	1675.12	27	18	31.8	291.36	.0041	-23.29	.0000	238244.5	1.22	.00	.0027	121.20	.0027	-22.21	63.21
SET	42	1736.77	1748.02	27	19	44.7	105.00	.0041	-21.19	.0000	244767.4	1.83	.65	-.0030	244.25	-.0023	-22.10	45.25
EXTM	51	1807.87	1819.12	27	20	55.7	359.97	.0042	-21.90	.0000	244874.0	1.47	86.16	.0000	.46	-.0498	-22.00	27.71
EXTM	61	1939.32	1950.57	27	23	7.2	.50	.0042	-23.06	.0000	259701.4	1.42	26.70	-.0000	180.52	.0043	-21.82	355.26
EXTM	72	1978.44	1989.69	27	23	46.3	.08	.0042	-22.11	.0000	259759.3	1.41	75.80	.0000	180.32	.0157	-21.77	345.59
RISE	11	2101.76	2113.01	28	1	49.6	286.95	.0042	-22.45	-.0000	276156.5	1.04	.00	.0030	117.86	.0024	-21.62	315.09
SET	51	2167.01	2178.26	28	2	54.9	90.00	.0041	-21.02	.0000	280495.9	1.74	8.96	-.0035	250.91	-.0016	-21.54	298.94
SET	61	2214.70	2225.95	28	3	42.6	69.60	.0041	-22.39	.0000	285337.3	1.64	-.00	-.0027	240.07	.0027	-21.49	287.13
SET	72	2348.83	2360.08	28	5	56.7	93.08	.0041	-21.17	.0000	295960.8	1.73	-.00	-.0038	248.62	-.0005	-21.34	253.90
RISE	42	2352.72	2363.97	28	6	.6	255.00	.0041	-20.59	-.0000	296233.7	.96	.28	.0030	115.28	-.0024	-21.34	252.94
EXTM	11	2393.52	2404.77	28	6	41.4	.34	.0042	-22.33	.0000	296036.4	1.29	32.46	-.0000	180.37	.0046	-21.30	242.82
SET	11	2685.24	2696.49	28	11	33.1	73.67	.0042	-21.73	.0000	321406.9	1.55	-.00	-.0030	243.06	.0024	-21.02	170.44
EXTM	42	2771.41	2782.66	28	12	59.3	359.94	.0042	-20.66	.0000	321562.9	1.20	75.44	-.0000	.22	-.0147	-20.94	149.04
RISE	51	2901.78	2913.03	28	15	9.7	270.00	.0041	-20.40	-.0000	336007.5	.79	8.70	.0035	108.52	-.0016	-20.83	116.64
RISE	72	3059.03	3070.28	28	17	46.9	267.01	.0041	-20.56	-.0000	347913.4	.72	-.01	.0038	110.76	-.0006	-20.71	77.55
RISE	61	3107.09	3118.34	28	18	35.0	289.36	.0042	-21.40	-.0000	351392.5	.79	.00	.0028	118.55	.0027	-20.67	65.59
SET	42	3189.75	3201.00	28	19	57.6	104.90	.0041	-20.01	.0000	356806.9	1.43	-.00	-.0031	245.23	-.0024	-20.64	44.94
EXTM	51	3258.79	3270.04	28	21	6.7	359.99	.0042	-20.52	.0000	355009.5	1.09	84.78	-.0000	.19	-.0164	-20.61	27.69
EXTM	61	3387.17	3398.42	28	23	15.0	.14	.0042	-21.44	.0000	366600.7	1.08	28.33	-.0000	180.15	.0045	-20.57	355.61
EXTM	72	3427.00	3438.25	28	23	54.9	.02	.0042	-20.77	.0000	366013.1	1.08	77.13	.0000	180.11	.0127	-20.55	345.65
RISE	11	3543.43	3554.68	29	1	51.3	285.81	.0042	-21.11	-.0000	379687.1	.74	.00	.0031	116.16	.0024	-20.52	316.53
SET	51	3615.09	3626.34	29	3	3.0	90.00	.0042	-20.12	.0000	383380.4	1.48	8.59	-.0036	251.74	-.0016	-20.50	298.60
SET	61	3667.08	3678.33	29	3	55.0	70.90	.0042	-21.14	.0000	387733.8	1.41	-.00	-.0028	241.80	.0027	-20.49	285.58
SET	72	3794.17	3805.42	29	6	2.0	92.96	.0042	-20.35	.0000	396393.1	1.64	-.00	-.0039	249.45	-.0006	-20.48	253.69
RISE	42	3796.80	3808.05	29	6	4.7	255.18	.0042	-19.92	-.0000	396582.8	.87	.00	.0031	114.65	-.0024	-20.48	253.03
EXTM	11	3835.56	3846.81	29	6	43.4	359.89	.0043	-21.26	-.0000	396019.6	1.35	33.54	.0000	179.88	.0048	-20.49	243.26
IMPACT		3870.11	3881.36	29	7	18.0												
IMPC	42	3870.11	3881.36	29	7	18.0	273.72	.0043	-20.05	-.0001	401150.4	1.65	14.33	.0034	104.65	-.0022	-20.53	234.47
IMPC	11	3870.11	3881.36	29	7	18.0	8.80	.0044	-21.28	-.0000	399278.1	2.08	32.90	-.0006	189.77	.0048	-20.53	234.47

EVNT	STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION		.00	11.25	26	14	47.878	6606.072	20.2993	305.4575	10.94385	-5.4449	112.6611	141.8319
SEPARATION		1.20	12.45	26	14	49.078	6553.031	17.5052	311.8602	10.98706	-2.0403	114.8379	148.5354
RETRO		3.20	14.45	26	14	51.078	6571.916	12.3973	322.0575	10.97114	3.6779	117.6084	159.2341
IMPACT		3870.11	3881.36	29	7	17.984	402774.746	-20.5256	234.4737	2.19131	67.3614	253.7895	321.0228

SURVEYOR VIEW PERIODS

GHA	336.7540					EPS -19.2242								LOM	229.8937
SX	.727911	SY	-.589229	SZ	-.350648	DAO	-20,52697	RAO	321,01051	RM	404048.430	LAT	28.310600	LON	279.461800
CS	-.936652	ECC	.984621	SLR	12988.687	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.741545	NSY	-.575716	NSZ	-.344903	C3M	1.4967	VIM	2.6713	ZAE	141.707	B.T	.0000	B.R	-.0000
LATE	6.5782	LONE	3.3139	LATS	1.5243	LONS	21.8626	LATI	4.0129	LONI	324.9330	RSM	151.4481	TTAN	4.2968
LAUNCH DATE	AUG 26,1966			BASE AZM	105.0		TF 64.470					ARRIVAL DATE	AUG 29 1966 7 36 12.1		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
105.00	14 48 55.6	27.6	19.13	305.17	-8.26	144.62	114.84	15 0 10.6	6578.6	10.97	-4.10

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	26	15	.2												
SEPARATION	1.20	12.45	26	15	1.4												
RETRO	5.20	14.45	26	15	3.4												
RISE 72	5.24	16.49	26	15	5.4	83.31	-.1787	39.97	.0146	2291.6	-8.81	.00	.1321	310.43	.0390	5.04	330.70
EXTM 72	8.98	20.23	26	15	9.2	359.59	-.4194	15.54	-.3043	1105.7	1.64	66.55	.2970	1.00	1.0282	-4.50	345.73
RISE 51	11.22	22.47	26	15	11.4	80.72	-.0961	18.49	-.0475	4704.3	-4.45	.00	.1028	290.62	-.0005	-9.27	353.42
EXTM 51	26.61	37.86	26	15	26.8	2.03	-.0473	-25.42	-.0167	6247.6	5.37	88.14	.0451	279.48	-.2691	-25.58	26.68
EXTM 72	69.23	80.48	26	16	9.4	277.33	.0000	-31.28	.0002	23806.7	4.86	10.34	.0000	120.50	-.0002	-30.97	51.84
RISE 42	96.19	107.44	26	16	36.4	105.00	-.0015	-24.27	-.0007	32097.8	4.22	2.54	.0015	241.82	.0003	-30.74	54.19
EXTM 42	121.15	132.40	26	17	1.3	104.12	.0002	-24.86	-.0002	38295.2	4.06	3.54	-.0000	241.84	-.0003	-30.29	53.44
SET 42	143.33	154.58	26	17	23.5	105.00	.0011	-25.00	-.0000	43599.8	3.92	2.99	-.0008	241.23	-.0006	-29.86	51.48
RISE 61	188.18	199.43	26	18	8.4	305.50	.0031	-34.46	.0005	53760.1	3.27	.00	.0020	137.84	.0017	-29.07	45.45
EXTM 51	286.62	297.87	26	19	46.8	.16	.0037	-27.90	.0002	66743.5	3.00	87.83	.0000	183.69	.0850	-27.71	27.54
EXTM 61	454.27	465.52	26	22	34.5	4.45	.0040	-29.59	.0002	98406.6	2.55	20.05	.0000	184.12	.0037	-26.20	351.54
EXTM 72	483.44	494.69	26	23	3.6	.77	.0041	-27.14	.0001	99124.0	2.49	70.75	.0000	182.09	.0109	-25.99	344.95
RISE 11	636.10	647.35	27	1	36.3	291.07	.0040	-27.00	.0000	126594.7	1.94	.00	.0028	123.75	.0023	-25.11	309.65
SET 51	675.29	686.54	27	2	15.5	90.00	.0039	-23.85	.0001	130699.6	2.55	10.11	-.0033	248.28	-.0013	-24.93	300.44
SET 61	706.59	717.84	27	2	46.8	64.75	.0040	-26.74	.0002	135900.4	2.42	.01	-.0023	233.88	.0027	-24.79	293.04
SET 72	867.29	878.54	27	5	27.5	93.52	.0040	-23.83	.0001	155868.6	2.39	-.01	-.0036	245.93	-.0004	-24.16	254.69
RISE 42	878.56	889.81	27	5	38.7	254.99	.0040	-22.71	-.0000	157037.0	1.66	1.58	.0029	116.95	-.0023	-24.12	251.98
EXTM 11	920.54	931.79	27	6	20.7	1.32	.0042	-25.95	.0001	159114.0	1.95	28.83	-.0000	181.36	.0043	-23.98	241.87
SET 11	1202.68	1213.93	27	11	2.9	71.33	.0041	-24.40	.0001	193311.6	2.06	-.00	-.0028	239.63	.0024	-23.20	173.41
EXTM 42	1302.12	1313.37	27	12	42.3	359.86	.0042	-22.58	.0000	197438.3	1.69	77.36	.0000	.58	-.0175	-22.97	149.11
RISE 51	1437.07	1448.32	27	14	57.2	270.00	.0041	-22.02	-.0000	215923.9	1.24	9.37	.0035	110.02	-.0016	-22.69	116.05
RISE 72	1595.01	1606.26	27	17	35.2	266.76	.0041	-22.18	-.0000	231981.1	1.13	.00	.0038	112.40	-.0005	-22.41	77.23
RISE 61	1652.44	1663.69	27	18	32.6	291.48	.0041	-23.40	.0000	237283.0	1.23	.00	.0027	121.34	.0027	-22.31	63.09
SET 42	1724.83	1736.08	27	19	45.0	105.00	.0041	-21.28	.0001	243776.0	1.84	.70	-.0030	244.18	-.0023	-22.19	45.25
EXTM 51	1795.95	1807.20	27	20	56.1	359.97	.0042	-21.99	.0000	243910.5	1.47	86.25	.0000	.49	-.0525	-22.08	27.71
EXTM 61	1927.51	1938.76	27	23	7.7	.53	.0042	-23.14	.0000	258791.3	1.43	26.62	-.0000	180.55	.0043	-21.89	355.23
EXTM 72	1966.54	1977.79	27	23	46.7	.09	.0042	-22.18	.0000	258846.6	1.41	75.72	.0000	180.34	.0155	-21.84	345.58
RISE 11	2090.08	2101.33	28	1	50.3	287.00	.0042	-22.51	-.0000	275290.2	1.04	.00	.0030	117.94	.0024	-21.68	315.03
SET 51	2155.07	2166.32	28	2	55.2	90.00	.0041	-21.08	.0000	279621.3	1.74	8.98	-.0035	250.85	-.0016	-21.60	298.95
SET 61	2202.53	2213.78	28	3	42.7	69.54	.0041	-22.44	.0000	281457.0	1.64	-.00	-.0027	239.99	.0027	-21.54	287.19
SET 72	2336.91	2348.16	28	5	57.1	93.09	.0041	-21.21	.0000	295131.9	1.73	-.00	-.0038	248.58	-.0005	-21.39	253.90
RISE 42	2340.80	2352.05	28	6	1.0	255.00	.0041	-20.63	-.0000	295402.8	.97	.30	.0030	115.31	-.0024	-21.38	252.93
EXTM 11	2381.66	2392.91	28	6	41.8	.35	.0042	-22.37	.0000	295225.6	1.29	32.42	-.0000	180.39	.0046	-21.34	242.80
SET 11	2673.20	2684.45	28	11	33.4	73.65	.0042	-21.75	.0000	320637.9	1.56	-.00	-.0030	243.03	.0024	-21.04	170.46
EXTM 42	2759.45	2770.71	28	12	59.6	359.94	.0042	-20.68	.0000	320816.2	1.21	75.46	-.0000	.24	-.0149	-20.96	149.04
RISE 51	2889.84	2901.09	28	15	10.0	270.00	.0041	-20.41	-.0000	335286.2	.79	8.71	.0035	108.53	-.0016	-20.85	116.64
RISE 72	3047.08	3058.33	28	17	47.3	267.01	.0041	-20.56	-.0000	347220.0	.72	-.01	.0038	110.77	-.0006	-20.71	77.55
RISE 61	3095.21	3106.46	28	18	35.4	289.37	.0042	-21.40	-.0000	350519.2	.83	.00	.0028	118.55	.0027	-20.68	65.58
SET 42	3177.83	3189.08	28	19	58.0	104.90	.0041	-20.01	.0000	356173.1	1.44	-.00	-.0031	245.24	-.0024	-20.64	44.95
EXTM 51	3246.89	3258.14	28	21	7.1	359.99	.0042	-20.51	.0000	354380.6	1.09	84.78	-.0000	.22	-.0152	-20.61	27.69
EXTM 61	3375.29	3386.54	28	23	15.5	.15	.0042	-21.43	.0000	365977.4	1.08	28.33	-.0000	180.16	.0045	-20.56	355.60
EXTM 72	3415.09	3426.34	28	23	55.3	.02	.0042	-20.76	.0000	365389.3	1.08	77.14	.0000	180.11	.0131	-20.54	345.65
RISE 11	3531.47	3542.72	29	1	51.6	285.80	.0042	-21.10	-.0000	379059.0	.74	.00	.0031	116.14	.0024	-20.50	316.54
SET 51	3603.16	3614.41	29	3	3.3	90.00	.0042	-20.10	.0000	382750.3	1.48	8.58	-.0036	251.76	-.0016	-20.48	298.60
SET 61	3655.22	3666.47	29	3	55.4	70.92	.0042	-21.13	.0000	387100.4	1.41	-.00	-.0028	241.83	.0027	-20.47	285.56
SET 72	3782.24	3793.49	29	6	2.4	92.95	.0042	-20.33	.0000	395694.5	1.62	-.00	-.0039	249.47	-.0006	-20.46	253.69
RISE 42	3784.98	3796.23	29	6	5.2	255.20	.0042	-19.89	-.0000	395889.3	.85	.00	.0031	114.62	-.0024	-20.46	253.01
EXTM 11	3823.88	3835.13	29	6	44.1	359.94	.0043	-21.23	-.0000	395262.4	1.30	33.56	.0000	179.93	.0047	-20.47	243.21
IMPACT	3868.17	3879.42	29	7	28.3												
IMPC 42	3868.17	3879.42	29	7	28.3	276.23	.0043	-20.04	-.0001	400952.4	1.65	16.32	.0025	103.32	-.0022	-20.50	231.96
IMPC 11	3868.17	3879.42	29	7	28.3	11.34	.0044	-21.25	-.0000	399326.9	2.10	32.53	-.0008	192.56	.0047	-20.50	231.96

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	26	15	.177	6579.036	19.1369	305.1390	10.96576	-4.1003	114.8336	144.5965
SEPARATION	1.20	12.45	26	15	1.377	6545.591	16.1168	311.3780	10.99346	-.6797	116.8174	151.1362
RETRO	5.20	14.45	26	15	3.377	6595.646	10.6991	321.3048	10.95134	5.0244	119.2446	161.5644
IMPACT	3868.17	3879.42	29	7	28.350	402788.777	-20.4996	231.9630	2.19104	67.2671	254.1993	321.1106

SURVEYOR VIEW PERIODS

GHA	336.7540					EPS	-19.1302							LOM	226.8088
SX	.729169	SY	-.58/988	SZ	-.350117	DAO	-20.49447	RAO	321.11797	RM	404063.801	LAT	28.310600	LON	279.461800
CS	-.93/96/	ECC	.984600	SLR	12988.540	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.742586	NSY	-.574437	NSZ	-.344366	CSM	1.4969	VIM	2.6714	ZAE	141.656	B.T	.0000	B.R	-.0000
LATE	6.5788	LONE	3.2016	LATS	1.5243	LONS	21.6527	LATI	3.7581	LONI	324.7950	RSM	151.4480	TTAN	4.2902
LAUNCH DATE	AUG 26.1966			BASE AZM	108.0		TF 64.496					ARRIVAL DATE	AUG 29 1966 7 48 56.2		

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
108.00	14 59 38.7	27.7	18.00	304.73	-5.95	146.88	116.98	15 10 53.7	6562.2	10.98	-2.95

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
					PROBE IN SUNLIGHT												
INJECTION	.00	11.25	26	15	10.9												
SEPARATION	1.20	12.45	26	15	12.1												
RETRO	3.20	14.45	26	15	14.1												
RISE 72	5.07	16.32	26	15	16.0	84.70	-.1586	33.61	-.0166	2375.2	-8.78	.00	.1330	303.98	.0054	3.69	328.81
EXTM 72	8.58	19.83	26	15	19.5	20.27	-.4260	8.60	-.2764	1126.1	-.24	63.92	.5015	358.82	.1082	-5.49	342.67
RISE 51	11.17	22.42	26	15	22.1	82.73	-.0895	14.70	-.0512	4849.6	-4.18	.00	.1004	286.37	-.0069	-11.07	351.40
EXTM 51	28.64	39.89	26	15	39.5	1.47	-.0407	-30.04	-.0108	7052.7	5.46	85.51	.0000	196.44	-.4704	-29.00	26.93
EXTM 72	69.41	80.66	26	16	20.3	279.71	.0000	-32.78	.0004	23761.4	4.85	12.41	.0000	121.94	-.0004	-32.05	49.47
EXTM 51	86.49	97.74	26	16	37.4	329.83	-.0001	-32.67	.0105	24754.4	4.45	62.87	.0000	111.91	-.0012	-31.85	51.47
RISE 61	182.50	193.75	26	18	13.4	306.96	.0031	-35.39	.0106	52649.2	3.31	.00	.0020	139.35	.0016	-29.83	43.95
EXTM 51	275.02	286.27	26	19	45.9	.25	.0036	-28.63	.0103	64716.6	3.04	87.10	.0000	184.43	.0628	-28.37	27.45
EXTM 61	445.14	456.39	26	22	36.0	4.85	.0039	-30.09	.0002	97116.3	2.57	19.52	.0000	184.45	.0036	-26.64	351.17
EXTM 72	473.18	484.43	26	23	4.1	.88	.0040	-27.61	.0002	97660.7	2.50	70.27	.0000	182.32	.0106	-26.42	344.85
RISE 11	627.23	638.48	27	1	38.1	291.42	.0040	-27.36	.0001	125444.3	1.95	.00	.0028	124.23	.0023	-25.45	309.29
SET 51	664.73	675.98	27	2	15.6	90.00	.0039	-24.17	.0001	129337.8	2.57	10.24	-.0033	247.99	-.0013	-25.25	300.47
SET 61	694.40	705.65	27	2	45.3	64.35	.0040	-27.09	.0002	134363.4	2.43	.00	-.0023	233.37	.0027	-25.11	293.47
SET 72	857.07	868.32	27	5	28.0	93.56	.0040	-24.08	.0001	154683.3	2.40	-.01	-.0036	245.67	-.0004	-24.42	254.67
RISE 42	868.35	879.60	27	5	39.2	254.99	.0040	-22.95	-.0000	155841.9	1.67	1.73	.0029	117.15	-.0023	-24.37	251.96
EXTM 11	910.62	921.87	27	6	21.5	1.41	.0042	-26.21	.0001	158016.2	1.95	28.57	-.0000	181.44	.0043	-24.22	241.79
SET 11	1191.70	1202.95	27	11	2.6	71.16	.0041	-24.59	.0001	192186.1	2.07	-.00	-.0028	239.38	.0024	-23.38	173.59
EXTM 42	1291.85	1303.10	27	12	42.7	359.86	.0042	-22.74	.0000	196415.7	1.69	77.52	.0000	.62	-.0178	-23.13	149.12
RISE 51	1426.87	1438.12	27	14	57.8	270.00	.0041	-22.16	-.0000	214944.1	1.25	9.43	.0035	110.15	-.0016	-22.84	116.04
RISE 72	1584.73	1595.98	27	17	35.6	266.74	.0041	-22.30	-.0000	231038.3	1.14	.00	.0038	112.53	-.0006	-22.53	77.24
RISE 61	1642.77	1654.02	27	18	33.7	291.61	.0041	-23.51	.0000	236409.1	1.23	.01	.0027	121.52	.0027	-22.42	62.95
SET 42	1714.57	1725.82	27	19	45.5	105.00	.0041	-21.38	.0001	242856.0	1.84	.76	-.0030	244.10	-.0023	-22.30	45.26
EXTM 51	1785.70	1796.95	27	20	56.6	359.97	.0042	-22.09	.0000	243012.4	1.47	86.35	.0000	.52	-.0554	-22.18	27.72
EXTM 61	1917.37	1928.62	27	23	8.3	.56	.0042	-23.23	.0000	257937.0	1.43	26.53	-.0000	180.58	.0043	-21.98	355.20
EXTM 72	1956.32	1967.57	27	23	47.2	.10	.0042	-22.27	.0000	257984.6	1.42	75.64	.0000	180.37	.0155	-21.92	345.58
RISE 11	2080.09	2091.34	28	1	51.0	287.07	.0042	-22.58	-.0000	274465.4	1.04	.00	.0030	118.04	.0024	-21.75	314.96
SET 51	2144.79	2156.04	28	2	55.7	90.00	.0041	-21.14	.0000	278779.6	1.74	9.01	-.0035	250.80	-.0015	-21.67	298.95
SET 61	2191.97	2203.22	28	3	42.9	69.47	.0041	-22.51	.0001	283603.1	1.65	-.00	-.0027	239.90	.0027	-21.60	287.27
SET 72	2326.65	2337.90	28	5	57.6	93.10	.0041	-21.26	.0001	294320.6	1.73	-.00	-.0038	248.52	-.0005	-21.44	253.89
RISE 42	2330.54	2341.79	28	6	1.4	255.00	.0041	-20.68	-.0000	294588.4	.97	.33	.0030	115.35	-.0024	-21.44	252.93
EXTM 11	2371.46	2382.71	28	6	42.4	.37	.0042	-22.42	.0000	294429.4	1.30	32.37	-.0000	180.41	.0046	-21.39	242.79
SET 11	2662.79	2674.04	28	11	33.7	73.62	.0042	-21.78	.0000	319855.7	1.56	-.00	-.0030	242.99	.0024	-21.07	170.49
EXTM 42	2749.14	2760.39	28	13	.0	359.94	.0042	-20.71	.0000	320049.5	1.21	75.49	-.0000	.25	-.0148	-20.99	149.04
RISE 51	2879.55	2890.80	28	15	10.4	270.00	.0041	-20.42	-.0000	334533.7	.79	8.71	.0035	108.54	-.0016	-20.96	116.64
RISE 72	3036.77	3048.02	28	17	47.7	267.01	.0041	-20.57	-.0000	346481.7	.72	-.01	.0038	110.78	-.0006	-20.72	77.55
RISE 61	3084.92	3096.17	28	18	35.8	289.38	.0042	-21.41	-.0000	349787.1	.83	.00	.0028	118.56	.0027	-20.68	65.57
SET 42	3167.51	3178.76	28	19	58.4	104.90	.0041	-20.01	.0000	355442.9	1.44	-.00	-.0031	245.24	-.0024	-20.64	44.95
EXTM 51	3236.57	3247.82	28	21	7.5	359.99	.0042	-20.51	.0000	353651.1	1.09	84.77	-.0000	.18	-.0213	-20.61	27.69
EXTM 61	3365.02	3376.27	28	23	15.9	.16	.0042	-21.42	.0000	365250.0	1.08	28.34	-.0000	180.17	.0045	-20.55	355.59
EXTM 72	3404.78	3416.03	28	23	55.7	.02	.0042	-20.75	.0000	364658.9	1.08	77.15	.0000	180.12	.0144	-20.53	345.65
RISE 11	3521.12	3532.37	29	1	52.0	285.79	.0042	-21.09	-.0000	378319.8	.74	.00	.0031	116.13	.0024	-20.49	316.55
SET 51	3592.84	3604.09	29	3	3.7	90.00	.0042	-20.08	.0000	382006.0	1.48	8.57	-.0036	251.77	-.0016	-20.47	298.60
SET 61	3644.98	3656.23	29	3	55.9	70.95	.0042	-21.11	.0000	386350.6	1.41	-.00	-.0028	241.85	.0027	-20.45	285.54
SET 72	3771.95	3783.20	29	6	2.8	92.95	.0042	-20.30	.0000	394875.8	1.60	-.00	-.0039	249.50	-.0006	-20.43	253.70
RISE 42	3774.81	3786.06	29	6	5.7	255.22	.0042	-19.87	-.0000	395076.3	.83	.00	.0031	114.58	-.0024	-20.43	252.98
EXTM 11	3813.80	3825.05	29	6	44.7	359.93	.0043	-21.20	-.0000	394388.3	1.26	33.59	.0000	179.97	.0038	-20.43	243.17
IMPACT	3869.74	3880.99	29	7	40.6												
IMPC 42	3869.74	3880.99	29	7	40.6	279.21	.0043	-20.02	-.0001	400717.4	1.66	18.68	.0035	101.75	-.0022	-20.47	228.99
IMPC 11	3869.74	3880.99	29	7	40.6	14.36	.0044	-21.22	-.0000	399395.0	2.11	31.95	-.0010	195.81	.0046	-20.47	228.99

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	26	15	10.895	6562.338	18.0047	304.7216	10.97943	-2.9524	110.9762	146.8660
SEPARATION	1.20	12.45	26	15	12.095	6545.118	14.7649	310.7975	10.99380	.4779	118.7777	153.2428
RETRO	3.20	14.45	26	15	14.095	6621.473	9.0520	320.4481	10.92973	6.1589	120.8804	163.3947
IMPACT	3869.74	3880.99	29	7	40.634	402803.711	-20.4689	228.9873	2.19051	67.2597	254.6882	321.2145

SURVEYOR VIEW PERIODS

GHA	336.7540					EPS	-19.0419							LOM	22[illegible].9108
SX	.730349	SY	-.586820	SZ	-.349617	DAO	-20.46389	RAO	321.21887	RM	404078.191	LAT	28.310600	LON	279.461800
C3	-.940192	ECC	.984563	SLR	12988.301	RCA	6544.6650	LTA	-20.0000	GTA	20.00	TB	675.00000	POL	-.0
NSX	.743755	NSY	-.573226	NSZ	-.343860	C3M	1.4968	VIM	2.6713	ZAE	141.580	B.T	.0000	B.R	-.0000
LATE	6.5792	LONE	3.3016	LATS	1.5243	LONS	21.6609	LATI	3.4766	LONI	324.8484	RSM	151.4480	TTAN	4.2859

LAUNCH DATE AUG 26,1966 BASE AZM 111.0 TF 64.536 ARRIVAL DATE AUG 29 1966 8 0 54.0

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
111.00	15 8 59.5	27.8	16.90	304.23	-3.97	148.72	119.10	15 20 14.5	6552.5	10.99	-1.97

EVNT	STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
							PROBE IN SUNLIGHT											
INJECTION		.00	11.25	26	15	20.2												
SEPARATION		1.20	12.45	26	15	21.4												
RETRO		3.20	14.45	26	15	23.4												
RISE	72	4.96	16.21	26	15	25.2	85.81	-.1436	27.74	-.0441	2459.8	-8.59	-.00	.1324	298.03	-.0238	2.25	327.14
EXTM	72	9.46	20.71	26	15	29.7	9.64	-.3489	-16.56	-.2055	1325.9	3.45	77.21	.1145	226.49	-1.6963	-9.41	344.06
RISE	51	11.15	22.40	26	15	31.4	84.60	-.0837	11.03	-.0546	4988.7	-3.90	.00	.0979	282.26	-.0126	-12.95	349.52
EXTM	51	30.18	41.43	26	15	50.4	2.15	-.0371	-33.82	-.0074	7693.8	5.45	81.71	-.0000	192.46	-.2201	-30.16	26.55
EXTM	72	69.60	80.85	26	16	29.8	281.72	.0000	-34.35	.0006	23743.2	4.83	14.11	.0000	123.54	-.0007	-33.24	47.45
EXTM	51	86.45	97.70	26	16	46.7	332.29	-.0002	-34.12	.0007	24764.5	4.44	64.66	.0000	115.91	-.0017	-32.93	49.44
RISE	61	179.25	190.50	26	18	19.5	308.47	.0030	-36.32	.0006	52031.2	3.33	.00	.0020	140.89	.0016	-30.63	42.44
EXTM	51	265.28	276.53	26	19	45.5	.38	.0036	-29.43	.0003	62991.5	3.08	86.30	.0000	185.15	.0484	-29.09	27.34
EXTM	61	437.70	448.95	26	22	37.9	5.27	.0039	-30.63	.0003	96071.9	2.58	18.97	.0000	184.79	.0036	-27.12	350.77
EXTM	72	464.53	475.78	26	23	4.8	1.00	.0040	-28.13	.0002	96419.4	2.52	69.75	.0000	182.55	.0103	-26.90	344.74
RISE	11	620.00	631.25	27	1	40.2	291.79	.0040	-27.75	.0001	124499.4	1.96	.00	.0027	124.74	.0023	-25.82	308.89
SET	51	655.70	666.95	27	2	15.9	90.00	.0039	-24.52	.0001	128157.4	2.57	10.38	-.0033	247.66	-.0013	-25.61	300.50
SET	61	683.53	694.78	27	2	43.8	63.89	.0040	-27.48	.0002	132976.2	2.44	-.00	-.0023	232.82	.0027	-25.46	293.94
SET	72	848.35	859.60	27	5	28.6	93.61	.0040	-24.36	.0001	153660.0	2.41	-.01	-.0036	245.39	-.0004	-24.70	254.65
RISE	42	859.61	870.86	27	5	39.9	254.99	.0040	-23.22	-.0000	154802.2	1.68	1.89	.0029	117.36	-.0023	-24.65	251.94
EXTM	11	902.21	913.46	27	6	22.4	1.51	.0042	-26.49	.0001	157078.2	1.96	28.28	-.0000	181.54	.0042	-24.49	241.69
SET	11	1182.08	1193.33	27	11	2.3	70.97	.0041	-24.80	.0001	191184.1	2.07	-.00	-.0028	239.11	.0024	-23.58	173.79
EXTM	42	1283.01	1294.26	27	12	43.2	359.85	.0042	-22.93	.0000	195517.8	1.70	77.71	.0000	.68	-.0180	-23.31	149.13
RISE	51	1418.09	1429.34	27	14	58.3	270.00	.0041	-22.32	-.0000	214080.9	1.25	9.49	.0035	110.30	-.0016	-22.99	116.03
RISE	72	1575.84	1587.09	27	17	36.1	266.71	.0041	-22.44	-.0000	230203.3	1.14	.00	.0038	112.66	-.0006	-22.66	77.26
RISE	61	1634.52	1645.77	27	18	34.8	291.75	.0041	-23.65	.0000	235643.3	1.23	.00	.0027	121.70	.0027	-22.55	62.81
SET	42	1705.71	1716.96	27	19	46.0	105.00	.0041	-21.50	.0001	242037.9	1.84	.84	-.0030	244.00	-.0023	-22.42	45.27
EXTM	51	1776.85	1788.10	27	20	57.1	359.97	.0042	-22.20	.0000	242213.6	1.48	86.46	.0000	.58	-.0554	-22.29	27.72
EXTM	61	1908.65	1919.90	27	23	8.9	.59	.0042	-23.33	.0000	257178.4	1.43	26.43	-.0000	180.61	.0043	-22.08	355.17
EXTM	72	1947.48	1958.73	27	23	47.7	.10	.0042	-22.36	.0000	257215.1	1.42	75.54	.0000	180.39	.0154	-22.02	345.57
RISE	11	2071.52	2082.77	28	1	51.8	287.14	.0042	-22.67	-.0000	273730.5	1.05	.00	.0030	118.14	.0024	-21.83	314.89
SET	51	2135.89	2147.14	28	2	56.1	90.00	.0041	-21.22	.0001	278021.8	1.75	9.04	-.0035	250.73	-.0015	-21.74	298.95
SET	61	2182.76	2194.01	28	3	43.0	69.40	.0042	-22.58	.0001	282828.0	1.65	-.00	-.0027	239.80	.0027	-21.68	287.35
SET	72	2317.78	2329.03	28	5	58.0	93.11	.0041	-21.32	.0001	293587.1	1.73	-.00	-.0038	248.46	-.0005	-21.50	253.89
RISE	42	2321.66	2332.91	28	6	1.9	255.00	.0041	-20.74	-.0000	293850.4	.97	.37	.0030	115.39	-.0024	-21.50	252.93
EXTM	11	2362.64	2373.89	28	6	42.9	.39	.0042	-22.48	.0000	293710.1	1.30	32.31	-.0000	180.43	.0046	-21.44	242.77
SET	11	2653.73	2664.98	28	11	34.0	73.59	.0042	-21.82	.0000	319136.8	1.56	-.00	-.0030	242.94	.0024	-21.11	170.52
EXTM	42	2740.19	2751.44	28	13	.4	359.93	.0042	-20.74	.0000	319344.6	1.21	75.52	-.0000	.27	-.0152	-21.02	149.05
RISE	51	2870.62	2881.87	28	15	10.9	270.00	.0041	-20.45	-.0000	333838.6	.79	8.72	.0035	108.56	-.0016	-20.89	116.64
RISE	72	3027.82	3039.07	28	17	48.1	267.01	.0041	-20.58	-.0000	345795.5	.72	-.01	.0038	110.79	-.0006	-20.74	77.55
RISE	61	3076.02	3087.27	28	18	36.3	289.39	.0042	-21.42	-.0000	349107.2	.83	.00	.0028	118.58	.0027	-20.69	65.56
SET	42	3158.65	3169.90	28	19	58.9	104.89	.0041	-20.00	.0000	354833.4	1.44	-.00	-.0031	245.24	-.0024	-20.63	44.96
EXTM	51	3227.71	3238.96	28	21	8.0	359.99	.0042	-20.51	.0000	353036.9	1.09	84.77	-.0000	.22	-.0192	-20.60	27.69
EXTM	61	3356.18	3367.43	28	23	16.4	.17	.0042	-21.41	.0000	364623.9	1.08	28.35	-.0000	180.18	.0045	-20.54	355.58
EXTM	72	3395.90	3407.15	28	23	56.1	.02	.0042	-20.74	.0000	364026.6	1.08	77.16	.0000	180.13	.0140	-20.52	345.65
RISE	11	3512.18	3523.43	29	1	52.4	285.78	.0042	-21.07	-.0000	377667.0	.73	.00	.0031	116.11	.0024	-20.47	316.56
SET	51	3583.93	3595.18	29	3	4.2	90.00	.0042	-20.06	.0000	381341.7	1.47	8.57	-.0036	251.79	-.0016	-20.45	298.60
SET	61	3636.15	3647.40	29	3	56.4	70.95	.0042	-21.09	.0000	385676.3	1.40	-.00	-.0028	241.88	.0027	-20.43	285.53
SET	72	3763.03	3774.28	29	6	3.3	92.94	.0042	-20.27	.0000	394126.9	1.59	-.00	-.0039	249.52	-.0006	-20.41	253.71
RISE	42	3766.01	3777.26	29	6	6.3	255.24	.0042	-19.84	-.0000	394332.7	.81	.00	.0031	114.55	-.0024	-20.41	252.96
EXTM	11	3805.03	3816.28	29	6	45.3	.01	.0043	-21.17	.0000	393589.7	1.22	33.62	.0000	180.02	.0031	-20.41	243.14
IMPACT		3872.15	3883.40	29	7	52.4												
IMPC	42	3872.15	3883.40	29	7	52.4	282.07	.0043	-20.00	-.0001	400498.1	1.65	20.96	.0035	100.25	-.0022	-20.44	226.14
IMPC	11	3872.15	3883.40	29	7	52.4	17.25	.0044	-21.18	-.0000	399476.0	2.13	31.28	-.0012	198.87	.0046	-20.44	226.14

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	26	15	20.242	6552.503	16.9019	304.2252	10.98755	-1.9710	119.1000	148.7127
SEPARATION	1.20	12.45	26	15	21.442	6548.957	13.4463	310.1401	10.99045	1.4618	120.7293	154.9285
RETRO	3.20	14.45	26	15	23.442	6647.546	7.4514	319.5679	10.90801	7.1184	122.5259	164.7976
IMPACT	3872.15	3883.40	29	7	52.392	402821.684	-20.4393	226.1397	2.18609	67.0314	255.1830	321.3144

SURVEYOR VIEW PERIODS

GHA	336.7540					EPS	-18.9336							LOM	220.3541
SX	.731794	SY	-.585384	SZ	-.349002	DAD	-20.42627	RAD	321.34263	RM	404095.801	LAT	28.310600	LON	279.461800
CJ	-.943959	ECC	.984501	SLR	12987.899	RCA	6544.6650	LTA	-20.0000	GIA	20.00	TB	675.00000	POL	-.0
NSX	.745195	NSY	-.571729	NSZ	-.343237	C3M	1.4968	VIM	2.6713	ZAE	141.446	B.T	.0000	B.R	-.0000
LATE	6.5798	LONE	3.1806	LATS	1.5243	LONS	21.4274	LATI	3.0703	LONI	324.6383	RSM	151.4479	TTAN	4.2839
LAUNCH DATE		AUG	26,1966		BASE AZM	115.0		TF	64.602			ARRIVAL DATE		AUG 29 1966	8 15 34.9

LNCH AZMTH	LNCH TIME	PB	INJ LAT	INJ LONG	INJ TA	INJ RT ASC	INJ AZMTH	INJ TIME	INJ RAD	INJ VEL	INJ PTH
115.00	15 19 40.6	27.9	15.48	303.46	-1.77	150.63	121.92	15 30 55.6	6546.2	10 99	-.88

EVNT STA	TFI	TFL	DAY	HR	MIN	HA	DHA	DEC	DDE	RNG	DRG	ELE	DEL	AZI	DAZ	LAT	LONG
						PROBE IN SUNLIGHT											
INJECTION	.00	11.25	26	15	30.9												
SEPARATION	1.20	12.45	26	15	32.1												
RETRO	3.20	14.45	26	15	34.1												
RISE 72	4.88	16.13	26	15	35.8	87.03	-.1279	20.45	-.0752	2574.5	-8.14	.00	.1296	290.65	-.0568	.18	325.17
EXTM 72	9.49	20.74	26	15	40.4	21.49	-.5233	-28.49	-.1783	1554.7	3.23	61.12	.0959	221.81	-.6657	-12.01	341.90
RISE 51	11.20	22.45	26	15	42.1	86.97	-.0769	6.26	-.0586	5168.1	-3.52	.00	.0944	276.95	-.0193	-15.59	347.22
EXTM 51	32.63	43.88	26	16	3.6	2.03	-.0325	-38.53	-.0037	8672.8	5.43	77.10	-.0000	187.13	-.1151	-33.12	26.59
EXTM 72	69.45	80.70	26	16	40.4	283.88	-.0000	-36.58	.0010	23635.4	4.83	15.83	.0000	125.87	-.0010	-34.97	45.13
EXTM 51	85.34	96.59	26	16	56.3	335.00	-.0004	-36.25	.0010	24509.1	4.45	66.23	.0000	122.27	-.0026	-34.53	47.13
RISE 61	178.09	189.34	26	18	29.0	310.55	.0030	-37.53	.0007	51861.5	3.33	.00	.0020	142.95	.0016	-31.73	40.43
EXTM 51	254.95	266.20	26	19	45.9	.62	.0035	-30.58	.0003	61145.0	3.12	85.13	.0000	186.26	.0361	-30.12	27.13
EXTM 61	430.02	441.27	26	22	40.9	5.86	.0039	-31.38	.0003	95009.2	2.60	18.18	.0000	185.26	.0035	-27.82	350.22
EXTM 72	455.18	466.43	26	23	6.1	1.18	.0040	-28.87	.0002	99073.7	2.54	69.01	.0000	182.87	.0099	-27.58	344.58
RISE 11	612.52	623.77	27	1	43.4	292.33	.0040	-28.30	.0001	123514.7	1.97	.00	.0027	125.47	.0023	-26.34	308.33
SET 51	645.67	656.92	27	2	16.6	90.00	.0039	-25.04	.0002	126827.8	2.59	10.59	-.0033	247.18	-.0013	-26.13	300.95
SET 61	670.77	682.02	27	2	41.7	63.23	.0040	-28.03	.0002	131328.5	2.45	-.00	-.0022	232.01	.0027	-25.98	294.63
SET 72	838.69	849.94	27	5	29.6	93.68	.0040	-24.77	.0001	152913.2	2.41	-.01	-.0036	244.98	-.0004	-25.11	254.61
RISE 42	849.88	861.13	27	5	40.8	254.99	.0040	-23.62	.0000	153424.8	1.68	2.14	.0029	117.67	-.0022	-25.06	251.92
EXTM 11	892.94	904.19	27	6	23.9	1.65	.0042	-26.90	.0001	156041.5	1.97	27.87	-.0000	181.67	.0042	-24.87	241.96
SET 11	1171.04	1182.29	27	11	2.0	70.69	.0041	-25.11	.0001	190015.4	2.07	-.00	-.0028	238.72	.0024	-23.87	174.08
EXTM 42	1273.07	1284.32	27	12	44.0	359.83	.0042	-23.20	.0000	194429.5	1.70	77.98	.0000	.75	-.0184	-23.58	149.14
RISE 51	1408.23	1419.48	27	14	59.2	270.00	.0041	-22.55	-.0000	213088.1	1.25	9.58	.0035	110.51	-.0016	-23.23	116.02
RISE 72	1565.82	1577.07	27	17	36.7	266.68	.0041	-22.63	-.0000	229237.7	1.14	.00	.0038	112.86	-.0006	-22.86	77.28
RISE 61	1625.43	1636.68	27	18	36.4	291.96	.0041	-23.84	.0000	234774.7	1.24	.00	.0027	121.97	.0027	-22.74	62.60
SET 42	1695.72	1706.97	27	19	46.6	105.00	.0041	-21.67	.0001	241087.4	1.84	.94	-.0030	243.87	-.0023	-22.59	45.27
EXTM 51	1766.86	1778.11	27	20	57.8	359.96	.0042	-22.37	.0000	241285.8	1.48	86.63	.0000	.64	-.0603	-22.46	27.72
EXTM 61	1898.83	1910.08	27	23	9.8	.64	.0042	-23.48	.0000	256299.9	1.43	26.28	-.0000	180.65	.0043	-22.22	355.13
EXTM 72	1937.52	1948.77	27	23	48.4	.11	.0042	-22.51	.0000	256318.2	1.42	75.40	.0000	180.42	.0153	-22.15	345.96
RISE 11	2061.95	2073.20	28	1	52.9	287.25	.0042	-22.79	.0000	272876.9	1.05	.00	.0030	118.30	.0024	-21.95	314.78
SET 51	2125.84	2137.09	28	2	56.8	90.00	.0041	-21.33	.0001	277130.1	1.75	9.09	-.0035	250.62	-.0015	-21.85	298.96
SET 61	2172.22	2183.47	28	3	43.1	69.28	.0042	-22.69	.0001	281907.4	1.65	-.00	-.0027	239.64	.0027	-21.79	287.47
SET 72	2307.76	2319.01	28	5	58.7	93.12	.0041	-21.41	.0001	292720.8	1.73	-.00	-.0038	248.37	-.0005	-21.59	253.88
RISE 42	2311.60	2322.85	28	6	2.5	255.00	.0041	-20.83	-.0000	292976.4	.97	.42	.0030	115.47	-.0024	-21.59	252.92
EXTM 11	2352.68	2363.93	28	6	43.6	.42	.0042	-22.57	.0000	292861.7	1.30	32.22	-.0000	180.46	.0046	-21.53	242.74
SET 11	2643.39	2654.64	28	11	34.3	73.54	.0042	-21.88	.0000	318273.2	1.56	-.00	-.0030	242.86	.0024	-21.17	170.58
EXTM 42	2730.03	2741.28	28	13	1.0	359.92	.0042	-20.79	.0000	318498.3	1.21	75.57	-.0000	.29	-.0153	-21.07	149.05
RISE 51	2860.48	2871.73	28	15	11.4	270.00	.0041	-20.48	-.0000	333000.3	.79	8.74	.0035	108.60	-.0016	-20.92	116.63
RISE 72	3017.64	3028.89	28	17	48.6	267.00	.0041	-20.61	-.0000	344963.5	.72	-.01	.0038	110.82	-.0006	-20.76	77.55
RISE 61	3065.95	3077.20	28	18	36.9	289.41	.0042	-21.44	-.0000	348284.1	.83	.00	.0028	118.61	.0027	-20.71	65.53
SET 42	3148.49	3159.74	28	19	59.4	104.90	.0041	-20.02	.0000	354008.0	1.43	-.00	-.0031	245.23	-.0024	-20.65	44.95
EXTM 51	3217.52	3228.77	28	21	8.4	359.99	.0042	-20.52	.0000	352205.9	1.08	84.78	-.0000	.21	-.0242	-20.61	27.70
EXTM 61	3346.06	3357.31	28	23	17.0	.19	.0042	-21.42	.0000	363791.4	1.08	28.35	-.0000	180.20	.0045	-20.54	355.56
EXTM 72	3385.73	3396.98	28	23	56.7	.03	.0042	-20.74	.0000	363187.0	1.07	77.16	.0000	180.14	.0151	-20.52	345.64
RISE 11	3501.97	3513.22	29	1	52.9	285.77	.0042	-21.07	-.0000	376813.4	.73	.00	.0031	116.10	.0024	-20.47	316.97
SET 51	3573.73	3584.98	29	3	4.7	90.00	.0042	-20.05	.0000	380477.8	1.47	8.56	-.0036	251.80	-.0016	-20.44	298.60
SET 61	3626.02	3637.27	29	3	56.9	70.97	.0042	-21.07	.0000	384803.9	1.40	-.00	-.0028	241.90	.0027	-20.42	285.51
SET 72	3752.85	3764.10	29	6	3.8	92.94	.0042	-20.25	.0000	393186.7	1.57	-.00	-.0039	249.55	-.0005	-20.38	253.71
RISE 42	3795.96	3767.21	29	6	6.9	255.27	.0042	-19.81	-.0000	393398.4	.80	.00	.0031	114.51	-.0024	-20.38	252.93
EXTM 11	3795.04	3806.29	29	6	46.0	.04	.0043	-21.14	.0000	392605.5	1.19	33.65	.0000	180.05	.0046	-20.37	243.11
IMPACT	3876.11	3887.36	29	8	7.0												
IMPC 42	3876.11	3887.36	29	8	7.0	285.63	.0043	-19.98	-.0001	400224.3	1.66	23.82	.0035	98.37	-.0022	-20.40	222.59
IMPC 11	3876.11	3887.36	29	8	7.0	20.84	.0044	-21.14	-.0000	399589.1	2.14	30.28	-.0014	202.60	.0044	-20.40	222.59

EVNT STA	TFI	TFL	DAY	HR	MIN	RAD	LAT	LONG	VEL	PTH	AZ	RT ASC
INJECTION	.00	11.25	26	15	30.927	6546.214	15.4760	303.4635	10.99268	-.8772	121.9151	150.6295
SEPARATION	1.20	12.45	26	15	32.127	6557.784	11.7444	309.1549	10.98282	2.5538	123.3271	156.6217
RETRO	3.20	14.45	26	15	34.127	6680.717	5.3900	318.1409	10.88050	8.1723	124.7458	166.1091
IMPACT	3876.11	3887.36	29	8	7.038	402839.988	-20.4027	222.5920	2.18679	66.9834	255.9707	321.4383