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LUNAR ORBIT RENDEZVOUS REFERENCE TRAJECTORY DATA PACKAGE (U)

PREPARED UNDER CONTRACT NO. 10001
TO BELLCOMM, INC.

C71-250

REFERENCE TRAJECTORY LISTING (CONTINUED)

ISSUE I
VOLUME 3

JUNE 30, 1963
8408-6015-RC-000

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(NASA-CR-125437) LUNAR ORBIT RENDEZVOUS REFERENCE TRAJECTORY DATA PACKAGE. VOLUME 3, ISSUE 1: REFERENCE TRAJECTORY LISTING (CONTINUED) (Space Technology Labs., Inc.) 212 p

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PREPARED UNDER CONTRACT NO. 10001
TO BELLCOMM, INC.

REFERENCE TRAJECTORY LISTING (CONTINUED)

ISSUE 1 — June 30, 1963

VOLUME 3 — 8408-6015-RC-000

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H. L. Baker
for E. M. Boughton
Project Manager

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Approved: R. M. Page
R. M. Page
Manager,
Systems Analysis Department

Space Technology Laboratories, Inc.
One Space Park
Redondo Beach, California

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PRIMARY PHASE CUTOFF ---- BETA SUB I 90.00000095

START DEBOOST FROM TRANSFER ORBIT TO SURFACE

6 FEB. 1968 13 HR 10 MIN 50.71 SEC TMST 296187.7304 J.D. 2439893.0492 3 DAY 10 HR 16.5 MIN

SELENOGRAPHIC

LEM	ALT	49955.06250	R	5752349.875	VI	5674.695556	X	5485188.125	VX	-1647.459686
40	LTDM	-3.728795170			FPVI	-.95367432-06	Y	-1691830.953	VY	-5418.935729
	LONM	-17.14166259			AZVI	273.5534667	Z	-374097.3125	VZ	350.9727745
	A	6188738.625	ASND	296.5360717	VVEN	-27959934.00	APOG	151.8622550	VAPG	4927.125305
	ECC	.0705133853	ARGP	313.5620574	ARGL	313.5620269	PERG	8.221484541	VPER	5674.695739
	INCL	174.8508987	MA	359.9999694	TA	359.9999694	PERD	122.5639247	MOON	ELLIPSE
	LTDE	-2.922232508	LONE	-.4657363891	LTDS	-1.417009323	LONS	89.07641220		
	WT	25961.08374	ATLI	92.42962741	VA	5689.944885	AAAP	-2.428901940	VIR	-.18072128-03
	DVV	14.11453032	AMIS	93.55346679	FPVA	-.95367432-06	AAAY	.0095348729	VIT	5674.695556
	RANG	177.9496688	RLAT	-179.9999961	AZVA	273.5439300	AAAT	2.428920626	VAT	-5689.944885
	F	10400.00000	DWT	-33.54838705			VISN	369.1707191	DVI	12.88889133
	VLGR	-.00000000 00	VLML	.00000000 00	ASPM	.00000000 00	TPSE	.00000000 00	IDVL	.00000000 00
	RDROI	TARGET SITE	RGR	1085492.296	AZR	94.15452003	ELR	92.80612564	DRGR	-5618.668334
	PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 10 MIN 52.18 SEC TMST 296189.2070 J.D. 2439893.0492 3 DAY 10 HR 16.5 MIN

SELENOGRAPHIC

LEM	ALT	49954.87500	R	5752349.687	VI	5655.662353	X	5482753.500	VX	-1650.043487
40	LTDM	-3.723627120			FPVI	-.0028572082	Y	-1699817.062	VY	-5398.252380
	LONM	-17.22499465			AZVI	273.5588874	Z	-373579.5156	VZ	350.3487968
	A	6141370.312	ASND	296.5361061	VVEN	-28175589.00	APOG	136.2707862	VAPG	4981.836791
	ECC	.0633444367	ARGP	313.6933784	ARGL	313.6453781	PERG	8.221320033	VPER	5655.663330
	INCL	174.8508968	MA	359.9577980	TA	359.9519996	PERD	121.1594743	MOON	ELLIPSE

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LTDE	-2.922253519	LONE	-.4655342102	LTDS	-1.417008996	LONS	89.07642936		
WT	25911.54736	ATLI	92.35680866	VA	5670.911621	AAAP	-2.358994513	VIR	-.2822229862
DVV	14.13135361	AMIS	93.55888271	FPVA	-.0028495788	AAAY	.0095775124	VIT	5655.662353
RANG	176.5849075	RLAT	-179.9999961	AZVA	273.5493049	AAAT	2.359013944	VAT	-5670.911621
F	10400.00000	DWT	-33.54838705			VISN	388.2201499	DVI	12.91353178
VLGR	-.19288364-03	VLML	.0165990677	ASPM	310.0000000	TPSE	15356.25000	IDVL	19.04948687
RDR01	TARGET SITE	RGR	1077209.640	AZR	94.15422439	ELR	92.74409198	DRGR	-5600.156494
PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 10 MIN 56.18 SEC TMST 296193.2070 J.D. 2439893.0492 3 DAY 10 HR 16.6 MIN

	SELENOGRAPHIC								
LEM	ALT	49951.93750	R	5752346.750	VI	5603.915710	X	5476139.875	VX -1656.728195
40	LTDM	-3.709675222			FPVI	-.0123605728	Y	-1721297.734	VY -5342.057922
	LONM	-17.44933319			AZVI	273.5734405	Z	-372181.5468	VZ 348.6264839
A	6016939.000	ASND	296.5361938	VVEN	-28758265.25	APOG	95.31431388	VAPG	5131.812744
ECC	.0439753113	ARGP	314.1632575	ARGL	313.8697662	PERG	8.220260500	VPER	5603.919921
INCL	174.8508852	MA	359.7314872	TA	359.7065086	PERD	117.4959421	MOON	ELLIPSE
LTDE	-2.922310292	LONE	-.4649887085	LTDS	-1.417008698	LONS	89.07647705		
WT	25777.35375	ATLI	92.15813541	VA	5619.164978	AAAP	-2.169947534	VIR	-1.209129810
DVV	14.17725086	AMIS	93.57342433	FPVA	-.0123271942	AAAY	.0096944558	VIT	5603.915588
RANG	172.9109592	RLAT	-179.9999961	AZVA	273.5637283	AAAT	2.169969171	VAT	-5619.164855
F	10400.00000	DWT	-33.54838705			VISN	440.0084953	DVI	12.98075783
VLGR	-.0029138042	VLML	.0565692936	ASPM	310.0000000	TPSE	56956.25000	IDVL	70.83782768
RDR01	TARGET SITE	RGR	1054909.625	AZR	94.15340328	ELR	92.57562351	DRGR	-5549.807250
PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 11 MIN .18 SEC TMST 296197.2070 J.D. 2439893.0492 3 DAY 10 HR 16.6 MIN

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SELENOGRAPHIC

LEM	ALT	49944.87500	R	5752339.625	VI	5551.896362	X	5469500.312	VX	-1662.949752
40	LTDM	-3.695796072			FPVI	-.0244541168	Y	-1742553.187	VY	-5285.625976
	LONM	-17.67160034			AZVI	273.5878067	Z	-370790.5703	VZ	346.8572578
	A	5897908.875	ASND	296.5362815	VVEN	-29338657.50	APOG	56.13912868	VAPG	5284.417175
	ECC	.0246856839	ARGP	315.1072731	ARGL	314.0920867	PERG	8.215765476	VPER	5551.919677
	INCL	174.8508815	MA	359.0340118	TA	358.9848136	PERD	114.0266933	MCON	ELLIPSE
	LTDE	-2.922367364	LONE	-.4644432068	LTDS	-1.417008265	LONS	89.07652282		
	WT	25643.16015	ATLI	91.95739746	VA	5567.145629	AAAP	-1.981390908	VIR	-2.365684457
	DVV	14.22362852	AMIS	93.58777809	FPVA	-.0243873596	AAAY	.0098136612	VIT	5551.895812
	RANG	169.2706871	RLAT	-179.9999961	AZVA	273.5779647	AAAT	1.981415212	VAT	-5567.14508C
	F	10400.00000	DWT	-33.54838705			VISN	492.0671501	DVI	13.04868781
	VLGR	-.0095781511	VLML	.0895921215	ASPM	310.0000000	TPSE	98556.25000	IDVL	122.8964366
	RDRC1	TARGET SITE	RGR	1032811.554	AZR	94.15255546	ELR	92.40654277	DRGR	-5499.162963
	PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 11 MIN 4.18 SEC TMST 296201.2070 J.D. 2439893.0493 3 DAY 10 HR 16.7 MIN

SELENOGRAPHIC

LEM	ALT	49932.68750	R	5752327.562	VI	5499.603088	X	5462773.500	VX	-1668.892425
40	LTDM	-3.681991279			FPVI	-.0391569137	Y	-1763778.921	VY	-5228.898498
	LONM	-17.89383697			AZVI	273.6019821	Z	-369406.7031	VZ	345.0409240
	A	5783950.562	ASND	296.5343170	VVEN	-29916704.00	APOG	18.67067742	VAPG	5439.542663
	ECC	.0055134716	ARGP	321.4767074	ARGL	314.3123397	PERG	8.173962473	VPER	5499.856689
	INCL	174.8508739	MA	352.9141082	TA	352.8356323	PERD	110.7379055	MCON	ELLIPSE
	LTDE	-2.922423750	LONE	-.4659576416	LTDS	-1.417008265	LONS	89.07451057		
	WT	25508.96679	ATLI	91.75457954	VA	5514.852294	AAAP	-1.793337225	VIR	-3.758617401
	DVV	14.27049660	AMIS	93.60194492	FPVA	-.0390481949	AAAY	.0099353315	VIT	5499.601806
	RANG	165.6310863	RLAT	-179.9999961	AZVA	273.5920104	AAAT	1.793364733	VAT	-5514.851013

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F	10400.000000	DWT	-33.54838705			VISN	544.3989486	DVI	13.11733210
VLGR	-.0211353584	VLML	.1161645241	ASPM	310.0000000	TPSE	140156.2500	IDVL	175.2283000
RDR01	TARGET SITE	RGR	1010712.609	AZR	94.15240287	ELR	92.23522663	DRGR	-5448.228637
PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 11 MIN 8.18 SEC TMST 296205.2070 J.D. 2439893.0493 3 DAY 10 HR 16.8 MIN

SELENOGRAPHIC

LEM	ALT	49914.50000	R	5752309.312	VI	5447.034301	X	5456087.187	VX	-1674.174011
40	LTDM	-3.668264687			FPVI	-.0564889908	Y	-1784580.750	VY	-5171.997070
	LONM	-18.11192321			AZVI	273.6159744	Z	-368030.2617	VZ	343.1771888
A	5674759.500	ASND	296.5344085	VVEN	-30492345.50	APOG	8.248269796	VAPG	5446.839294
TIMP	21750.97192	LTDI	1.666638717	LONI	-82.30356216	CRIP	892.4462280		
WT	25374.77319	ATLI	91.54967403	VA	5462.283508	AAAP	-1.605797454	VIR	-5.370451688
DVV	14.31786561	AMIS	93.61592292	FPVA	-.0563306808	AAAY	.0100591184	VIT	5447.031616
RANG	162.0591564	RLAT	-179.9999961	AZVA	273.6058654	AAAT	1.605828955	VAT	-5462.280822
F	10400.000000	DWT	-33.54838705			VISN	597.0067749	DVI	13.18670248
VLGR	-.0385423377	VLML	.1368392557	ASPM	310.0000000	TPSE	181756.2500	IDVL	227.8360977
RDR01	TARGET SITE	RGR	989022.0859	AZR	94.15151596	ELR	92.06485271	DRGR	-5396.990295
PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 11 MIN 12.18 SEC TMST 296209.2070 J.D. 2439893.0494 3 DAY 10 HR 16.8 MIN

SELENOGRAPHIC

LEM	ALT	49889.43750	R	5752284.125	VI	5394.188537	X	5449337.437	VX	-1679.103103
40	LTDM	-3.654617667			FPVI	-.0764703750	Y	-1805285.000	VY	-5114.823669
	LONM	-18.32927322			AZVI	273.6297760	Z	-366661.3398	VZ	341.2658729
A	5570057.187	ASND	296.5331306	VVEN	-31065520.25	APOG	8.235905766	VAPG	5394.040100
TIMP	21314.83715	LTDI	-.4758144654	LONI	-58.17899703	CRIP	495.7799987		
WT	25240.57958	ATLI	91.34266948	VA	5409.437683	AAAP	-1.418781563	VIR	-7.199549198

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DVV	14.365746C2	AMIS	93.62971591	FPVA	-.0762548446	AAAY	.0101851054	VIT	5394.183715
RANG	158.4992256	RLAT	-179.9999961	AZVA	273.6195297	AAAT	1.418818116	VAT	-5409.432861
F	10400.000CC	DWT	-33.54838705			VISN	649.8935546	DVI	13.25681078
VLGR	-.0627634199	VLML	.1522269230	ASPM	310.0000000	TPSE	223356.2500	ICVL	280.7228164
RCRC1	TARGET SITE	RGR	967401.1718	AZR	94.15110492	ELR	91.89272308	DRGR	-5345.456542
PICH	.1C57434287	YAW	.00C00000 00	ROLL	.0000C000 00				

6 FEB. 1968 13 HR 11 MIN 16.18 SEC TMST 296213.2070 J.C. 2439893.0494 3 DAY 10 HR 16.9 MIN

	SELENOGRAPHIC								
LEM	ALT	49856.625CC	R	5752251.375	VI	5341.064575	X	5442612.187	VX	-1683.42958C
40	LTCM	-3.641052961			FPVI	-.0991249084	Y	-1825629.656	VY	-5057.46051C
	LONM	-18.54313278			AZVI	273.6433944	Z	-365300.1679	VZ	339.3066749
	A	5469586.437	ASND	296.5332298	VVEN	-31636162.75	APOG	8.231554746	VAPG	5340.908447
	TIMP	21161.58056	LTDI	-1.236082404	LONI	-49.61291122	CRIP	354.9343681		
	WT	25106.38598	ATLI	91.13355445	VA	5356.313537	AAAP	-1.232303798	VIR	-9.24C439415
	DVV	14.41414821	AMIS	93.64332294	FPVA	-.0988416672	AAAY	.0103136652	VIT	5341.056579
	RANG	154.9963C92	RLAT	179.9999961	AZVA	273.6330070	AAAT	1.232346951	VAT	-5356.305541
	F	10400.00CCC	DWT	-33.54838705			VISN	703.0622558	DVI	13.32766842
	VLGR	-.0947705442	VLML	.1629991C28	ASPM	310.0000000	TPSE	264956.2500	ICVL	333.8915405
	RCRC1	TARGET SITE	RGR	946122.9296	AZR	94.15016746	ELR	91.72099876	DRGR	-5293.619018
	PICH	.1C57434287	YAW	.00C00000 00	ROLL	.0000C000 00				

6 FEB. 1968 13 HR 11 MIN 16.18 SEC TMST 296213.2070 J.C. 2439893.0494 3 DAY 10 HR 16.9 MIN

	SELENOGRAPHIC								
CM-SM	ALT	481628.5625	R	6184023.562	VI	5291.622924	X	6066977.625	VX	-932.3321075
120	LTCM	-4.120776236			FPVI	.92411041-03	Y	-1111959.875	VY	-5201.067565
	LONM	-10.38594055			AZVI	273.0897102	Z	-444378.5156	VZ	284.4722137
	A	6188449.75C	ASND	296.5265884	VVEN	-27961239.00	APOG	80.73508644	VAPG	5283.994567

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ECC	.72731783-03	ARGP	305.5103950	ARGL	306.8013458	PERG	79.25356864	VPER	5291.686401
INCL	174.8511486	MA	1.289070457	TA	1.290947839	PERD	122.5553445	MOON	ELLIPSE
LTDE	-2.922594815	LONE	-.4656944275	LTDS	-1.417007416	LONS	89.07327938		
WT	35799.86279	ATLI	85.19759368	VA	5308.016357	AAAP	-5.739758372	VIR	.0852208137
DVV	4.526525020	AMIS	286.7188339	FPVA	.92124939-03	AAAY	-13.27284240	VIT	5291.622680
RANG	288.5335464	RLAT	175.3533515	AZVA	273.0801582	AAAT	14.37439298	VAT	-5308.016296

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	296213.2070	RCL	951530.4218	OPCL	.0012626195	XCL	815722.9531	VXCL	-5.853311538
		ACL	.0014728295	DRCL	389.6958923	YCL	20.96875000	VYCL	.0590114593
		ECL	120.9880485			ZCL	-489904.3007	VZCL	-766.6439895

6 FEB. 1968 13 HR 11 MIN 20.18 SEC TMST 296217.2070 J.D. 2439893.0494 3 DAY 10 HR 17.0 MIN

	SELENOGRAPHIC								
LEM	ALT	49815.25000	R	5752210.000	VI	5287.660705	X	5435870.625	VX	-1687.273162
					FPVI	-.1244707107	Y	-1845744.406	VY	-4999.869445
40	LTDM	-3.627572983			AZVI	273.6568298	Z	-363946.9492	VZ	337.2993545
	LONM	-18.75486755								
	A	5373108.750	ASND	296.5333213	VVEN	-32204210.50	APOG	8.228067755	VAPG	5287.482971
	TIMP	21077.69287	LTDI	-1.645895525	LONI	-44.87205123	CRIP	277.0150375		
	WT	24972.19238	ATLI	90.92231845	VA	5302.909606	AAAP	-1.046376004	VIR	-11.4871819
	DVV	14.46308362	AMIS	93.65674495	FPVA	-.1241130829	AAAY	.0104448986	VIT	5287.648193
	RANG	151.5280475	RLAT	179.9999961	AZVA	273.6463012	AAAT	1.046428129	VAT	-5302.897155
							VISN	756.5159149	DVI	13.39928781
	F	10400.00000	DWT	-33.54838705			TPSE	306556.2500	ICVL	387.3452148
	VLGR	-.1355437152	VLML	.1698913369	ASPM	310.0000000	ELR	91.54858779	DRGR	-5241.479858
	RDR01	TARGET SITE	RGR	925052.5859	AZR	94.14919662				
	PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 11 MIN 24.18 SEC TMST 296221.2070 J.D. 2439893.0496 3 DAY 10 HR 17.0 MIN

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SELENOGRAPHIC

LEM	ALT	49764.43750	R	5752159.187	VI	5233.975402	X	5429047.562	VX	-1690.807708
40	LTDM	-3.614179581			FPVI	-.1525344848	Y	-1865823.593	VY	-4941.991455
	LONM	-18.96652603			AZVI	273.6700782	Z	-362601.7851	VZ	335.2436866
	A	5280404.062	ASND	296.5313606	VVEN	-32769599.00	APOG	8.224395513	VAPG	5233.767395
	TIMP	21023.42504	LTDI	-1.908084481	LONI	-41.77149200	CRIP	226.0716667		
	WT	24837.99902	ATLI	90.70895004	VA	5249.224121	AAAP	-.8610115498	VIR	-13.93412041
	DVV	14.51256227	AMIS	93.66998195	FPVA	-.1520910263	AAAY	.0105791194	VIT	5233.956848
	RANG	148.0611705	RLAT	179.9999961	AZVA	273.6594009	AAAT	.8610765412	VAT	-5249.205627
	F	10400.00000	DWT	-33.54838705			VISN	810.2575912	DVI	13.47168040
	VLGR	-.1860708613	VLML	.1737056132	ASPM	310.0000000	TPSE	348156.2500	IDVL	441.0868301
	RDRO1	TARGET SITE	RGR	903987.2500	AZR	94.14901542	ELR	91.37373924	DRGR	-5189.041564
	PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 11 MIN 28.18 SEC TMST 296225.2070 J.D. 2439893.0496 3 DAY 10 HR 17.1 MIN

SELENOGRAPHIC

LEM	ALT	49703.50000	R	5752098.250	VI	5180.007141	X	5422278.375	VX	-1693.671325
40	LTDM	-3.600875973			FPVI	-.1833324432	Y	-1885475.578	VY	-4883.950256
	LONM	-19.17397308			AZVI	273.6831436	Z	-361265.0117	VZ	333.1394119
	A	5191268.812	ASND	296.5314598	VVEN	-33332261.25	APOG	8.220147371	VAPG	5179.761474
	TIMP	20985.02856	LTDI	-2.092449843	LONI	-39.54909515	CRIP	189.5662784		
	WT	24703.80541	ATLI	90.49343967	VA	5195.255676	AAAP	-.6762215942	VIR	-16.57485914
	DVV	14.56259703	AMIS	93.68303489	FPVA	-.1827945709	AAAY	.0107158986	VIT	5179.980590
2"	RANG	144.6628456	RLAT	179.9999961	AZVA	273.6723175	AAAT	.6763064861	VAT	-5195.229248
	F	10400.00000	DWT	-33.54838705			VISN	864.2904052	DVI	13.54486000
	VLGR	-.2473482638	VLML	.1753138210	ASPM	310.0000000	TPSE	389756.2500	IDVL	495.1197738
	RDRO1	TARGET SITE	RGR	883336.4531	AZR	94.14799404	ELR	91.19987583	DRGR	-5136.294738
1"	PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

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6 FEB. 1968 13 HR 11 MIN 32.18 SEC TMST 296229.2070 J.D. 2439893.0496 3 DAY 10 HR 17.2 MIN

SELENOGRAPHIC

LEM	ALT	49631.56250	R	5752026.375	VI	5125.754211	X	5415498.875	VX	-1696.039886
40	LTDM	-3.587663918			FPVI	-.2168922424	Y	-1904894.906	VY	-4825.686828
	LONM	-19.37926101			AZVI	273.6960258	Z	-359936.7187	VZ	330.9862594
	A	5105513.375	ASND	296.5315589	VVEN	-33892131.50	APOG	8.215065956	VAPG	5125.464111
	TIMP	20956.30224	LTDI	-2.230105698	LONI	-37.86431884	CRIP	161.8975486		
	WT	24569.61181	ATLI	90.27577495	VA	5141.002563	AAAP	-.4920214563	VIR	-19.40358662
	DVV	14.61319875	AMIS	93.69590473	FPVA	-.2162494659	AAAY	.0108558527	VIT	5125.717468
	RANG	141.2998619	RLAT	179.9999942	AZVA	273.6850471	AAAT	.4921411983	VAT	-5140.965942
	F	10400.00000	DWT	-33.54838705			VISN	918.6175384	DVI	13.61883902
	VLGR	-.3203806989	VLML	.1756610945	ASPM	310.0000000	TPSE	431356.2500	ICVL	549.4468307
	RDRO1	TARGET SITE	RGR	862897.2890	AZR	94.14693546	ELR	91.02527809	DRGR	-5083.241638
	PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 11 MIN 36.18 SEC TMST 296233.2070 J.D. 2439893.0497 3 DAY 10 HR 17.2 MIN

SELENOGRAPHIC

LEM	ALT	49548.00000	R	5751942.812	VI	5071.215087	X	5408664.687	VX	-1698.023529
40	LTDM	-3.574546843			FPVI	-.2532358169	Y	-1924210.531	VY	-4767.162719
	LONM	-19.58375167			AZVI	273.7087287	Z	-358617.2226	VZ	328.7841110
	A	5022962.500	ASND	296.5302886	VVEN	-34449139.00	APOG	8.209069132	VAPG	5070.873291
	TIMP	20933.98583	LTDI	-2.337216466	LONI	-36.53800201	CRIP	140.1193618		
	WT	24435.41821	ATLI	90.05594635	VA	5086.463195	AAAP	-.3084238246	VIR	-22.41379094
	DVV	14.66437935	AMIS	93.70859241	FPVA	-.2524766922	AAAY	.0109985518	VIT	5071.165527
	RANG	137.9500637	RLAT	179.9999942	AZVA	273.6975936	AAAT	.3086198680	VAT	-5086.413818
	F	10400.00000	DWT	-33.54838705			VISN	973.2422027	DVI	13.69363045
	VLGR	-.4061815925	VLML	.1757690441	ASPM	310.0000000	TPSE	472956.2500	ICVL	604.0715637
	RDRO1	TARGET SITE	RGR	842534.6953	AZR	94.14644050	ELR	90.84869956	DRGR	-5029.882995

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PICH .1057434287 YAW .00000000 00 ROLL .00000000 00

6 FEB. 1968 13 HR 11 MIN 40.18 SEC TMST 296237.2070 J.D. 2439893.0497 3 DAY 10 HR 17.3 MIN

	SELENOGRAPHIC								
LEM	ALT	49452.06250	R	5751846.812	VI	5016.388000	X	5401869.625	VX	-1699.388076
40	LTDM	-3.561525464			FPVI	-.2923870086	Y	-1943161.843	VY	-4708.461059
	LONM	-19.78468704			AZVI	273.7212448	Z	-357306.5859	VZ	326.5324974
	A	4943452.187	ASND	296.5303916	VVEN	-35003216.50	APOG	8.201796770	VAPG	5015.988464
	TIMP	20916.17138	LTDI	-2.423128485	LONI	-35.46155548	CRIP	122.4464645		
	WT	24301.22485	ATLI	89.83394050	VA	5031.635742	AAAP	-.1254446581	VIR	-25.55929156
	DVV	14.71615099	AMIS	93.72109699	FPVA	-.2915019989	AAAY	.0111445479	VIT	5016.322631
	RANG	134.6583442	RLAT	179.9999942	AZVA	273.7099533	AAAT	.1259387266	VAT	-5031.570556
	F	10400.00000	DWT	-33.54838705			VISN	1028.167678	DVI	13.76924788
	VLGR	-.5057733953	VLML	.1767388750	ASPM	310.0000000	IPSE	514556.2500	IDVL	658.9969024
	RDR01	TARGET SITE	RGR	822522.3750	AZR	94.14531803	ELR	90.67255115	DRGR	-4976.213134

PICH .1057434287 YAW .00000000 00 ROLL .00000000 00

6 FEB. 1968 13 HR 11 MIN 44.18 SEC TMST 296241.2070 J.D. 2439893.0498 3 DAY 10 HR 17.4 MIN

	SELENOGRAPHIC								
LEM	ALT	49343.00000	R	5751737.750	VI	4961.271057	X	5394999.750	VX	-1700.412261
40	LTDM	-3.548601985			FPVI	-.3343753814	Y	-1962071.828	VY	-4649.482055
	LONM	-19.98548885			AZVI	273.7335815	Z	-356004.9570	VZ	324.2312812
	A	4866830.437	ASND	296.5284423	VVEN	-35554295.50	APOG	8.193269610	VAPG	4960.806579
	TIMP	20901.66699	LTDI	-2.493623673	LONI	-34.57213211	CRIP	107.8455734		
	WT	24167.03125	ATLI	89.60974693	VA	4976.518493	AAAP	.0568997776	VIR	-28.95367503
	DVV	14.76852536	AMIS	93.73342132	FPVA	-.3333511352	AAAY	.0112941111	VIT	4961.186523
	RANG	131.3687229	RLAT	179.9999923	AZVA	273.7221260	AAAT	.0580098401	VAT	-4976.434265
	F	10400.00000	DWT	-33.54838705			VISN	1083.397308	DVI	13.84570503

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VLGR	-.6201880425	VLML	.1797555126	ASPM	310.000000	TPSE	556156.2500	ICVL	714.2266006
RDRC1	TARGET SITE	RGR	802521.2734	AZR	94.14509296	ELR	90.49368953	DRGR	-4922.234069
PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 11 MIN 48.18 SEC TMST 296245.2070 J.D. 2439893.0498 3 DAY 10 HR 17.4 MIN

	SELENOGRAPHIC								
LEM	ALT	49220.18750	R	5751615.000	VI	4905.862731	X	5388197.187	VX	-1700.755310
40	LTDM	-3.535780459			FPVI	-.3792200088	Y	-1980551.546	VY	-4590.350097
	LONM	-20.18202590			AZVI	273.7457389	Z	-354712.7343	VZ	321.8801383
	A	4792955.687	ASND	296.5285453	VVEN	-36102301.50	APOG	8.183528542	VAPG	4905.325378
	TIMP	20889.68237	LTDI	-2.552503883	LONI	-33.82156372	CRIP	95.52546596		
	WT	24032.83764	ATLI	89.38335418	VA	4921.109741	AAAP	.2385968454	VIR	-32.47000741
	DVV	14.82151615	AMIS	93.74556446	FPVA	-.3780450821	AAAY	.0114471249	VIT	4905.755249
	RANG	128.1487865	RLAT	179.9999923	AZVA	273.7341156	AAAT	.2388712838	VAT	-4921.002563
	F	10400.00000	DWT	-33.54838705			VISN	1138.934463	DVI	13.92301630
	VLGR	-.7504668906	VLML	.1860909201	ASPM	310.000000	TPSE	597756.2500	ICVL	769.7637634
	RDRC1	TARGET SITE	RGR	782940.8046	AZR	94.14390945	ELR	90.31589317	DRGR	-4867.940734
	PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 11 MIN 52.18 SEC TMST 296249.2070 J.D. 2439893.0498 3 DAY 10 HR 17.5 MIN

	SELENOGRAPHIC								
LEM	ALT	49083.00000	R	5751477.812	VI	4850.161010	X	5381394.312	VX	-1700.582244
40	LTDM	-3.523062139			FPVI	-.4269495010	Y	-1998794.375	VY	-4531.006042
	LONM	-20.37635040			AZVI	273.7577171	Z	-353430.0078	VZ	319.4788665
	A	4721695.000	ASND	296.5286560	VVEN	-36647164.00	APOG	8.172234296	VAPG	4849.543518
	TIMP	20879.66259	LTDI	-2.602407366	LONI	-33.18096542	CRIP	85.01140499		
	WT	23898.64404	ATLI	89.15475177	VA	4865.407592	AAAP	.4196290746	VIR	-36.14162254
	DVV	14.87513601	AMIS	93.75752639	FPVA	-.4256124496	AAAY	.0116034250	VIT	4850.026367

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RANG	124.9650011	RLAT	179.9999923	AZVA	273.7459220	AAAT	.4197894707	VAT	-4865.273376
F	10400.00000	DWT	-33.54838705			VISN	1194.782592	DVI	14.00119554
VLGR	-.8976610154	VLML	.1971084419	ASPM	310.0000000	TPSE	639356.2500	IDVL	825.6119384
RDRO1	TARGET SITE	RGR	763578.1484	AZR	94.14267826	ELR	90.13727092	DRGR	-4813.333374
PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 11 MIN 56.18 SEC TMST 296253.2070 J.D. 2439893.0499 3 DAY 10 HR 17.6 MIN

	SELENOGRAPHIC								
LEM	ALT	48930.87500	R	5751325.625	VI	4794.164062	X	5374520.687	VX	-1700.049560
40	LTDM	-3.510448992			FPVI	-.4775924682	Y	-2016992.625	VY	-4471.390686
	LONM	-20.57050704			AZVI	273.7695121	Z	-352156.9335	VZ	317.0271873
	A	4652924.812	ASND	296.5267066	VVEN	-37188808.50	APOG	8.159376621	VAPG	4793.458496
	TIMP	20871.21508	LTDI	-2.645192235	LONI	-32.63040542	CRIP	75.97560501		
	WT	23764.45043	ATLI	88.92392826	VA	4809.410156	AAAP	.5999793187	VIR	-39.96171188
	DVV	14.92939770	AMIS	93.76931095	FPVA	-.4760789871	AAAY	.0117635677	VIT	4793.997497
	RANG	121.7839975	RLAT	179.9999923	AZVA	273.7575454	AAAT	.6000946238	VAT	-4809.244140
	F	10400.00000	DWT	-33.54838705			VISN	1250.945205	DVI	14.08025777
	VLGR	-1.062831878	VLML	.2142665293	ASPM	310.0000000	TPSE	680956.2500	IDVL	881.7745666
	RDRO1	TARGET SITE	RGR	744230.3046	AZR	94.14242553	ELR	89.95572566	DRGR	-4758.410095
	PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 12 MIN .18 SEC TMST 296257.2070 J.D. 2439893.0499 3 DAY 10 HR 17.6 MIN

2"	SELENOGRAPHIC								
LEM	ALT	48763.12500	R	5751157.937	VI	4737.869995	X	5367722.750	VX	-1698.829193
40	LTDM	-3.497944146			FPVI	-.5311765671	Y	-2034758.718	VY	-4411.628479
	LONM	-20.76036453			AZVI	273.7811317	Z	-350893.8203	VZ	314.5248031
	A	4586529.375	ASND	296.5268173	VVEN	-37727160.50	APOG	8.144821643	VAPG	4737.068420
1"	TIMP	20864.04614	LTDI	-2.682236999	LONI	-32.14931869	CRIP	68.08061599		

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WT	23630.25708	ATLI	88.69087123	VA	4753.115478	AAAP	.7796298042	VIR	-43.92323112
DVV	14.98431479	AMIS	93.78091526	FPVA	-.5294723511	AAAY	.0119277695	VIT	4737.666381
RANG	118.6732397	RLAT	179.9999904	AZVA	273.7685857	AAAT	.7797210440	VAT	-4752.912475
F	10400.00000	DWT	-33.54838705			VISN	1307.425842	DVI	14.16021800
VLGR	-1.247051402	VLML	.2391225807	ASPM	310.0000000	TPSE	722556.2500	IDVL	938.2551651
RDRO1	TARGET SITE	RGR	725307.0546	AZR	94.14112377	ELR	89.77531528	DRGR	-4703.168823
PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 12 MIN 4.18 SEC TMST 296261.2070 J.D. 2439893.0499 3 DAY 10 HR 17.7 MIN

SELENOGRAPHIC

LEM	ALT	48579.25000	R	5750974.062	VI	4681.276355	X	5360930.750	VX	-1697.079635
40	LTDM	-3.485549330			FPVI	-.5877294540	Y	-2052285.359	VY	-4351.660339
	LONM	-20.94797515			AZVI	273.7925758	Z	-349640.8007	VZ	311.9714622
	A	4522400.312	ASND	296.5269317	VVEN	-3826214.350	APOG	8.128559231	VAPG	4680.370544
	TIMP	20857.93579	LTDI	-2.714566677	LONI	-31.72742080	CRIP	61.15746212		
	WT	23496.06347	ATLI	88.45556735	VA	4696.521667	AAAP	.9585630819	VIR	-48.01894378
	DVV	15.03990137	AMIS	93.79234218	FPVA	-.5858221054	AAAY	.0120961196	VIT	4681.030517
	RANG	115.5992193	RLAT	179.9999904	AZVA	273.7802429	AAAT	.9586393833	VAT	-4696.276184
	F	10400.00000	DWT	-33.54838705			VISN	1364.228164	DVI	14.24109148
	VLGR	-1.451402321	VLML	.2733382657	ASPM	310.0000000	TPSE	764156.2500	IDVL	995.0574417
	RDRO1	TARGET SITE	RGR	706605.4140	AZR	94.13976669	ELR	89.59400844	DRGR	-4647.608276
	PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 12 MIN 8.18 SEC TMST 296265.2070 J.D. 2439893.0500 3 DAY 10 HR 17.8 MIN

SELENOGRAPHIC

LEM	ALT	48378.81250	R	5750773.625	VI	4624.382446	X	5354122.000	VX	-1694.847976
40	LTDM	-3.473266422			FPVI	-.6472816467	Y	-2069635.984	VY	-4291.467834
	LONM	-21.13401031			AZVI	273.8038368	Z	-348398.0507	VZ	309.3669204

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A	4460436.000	ASND	296.5263671	VVEN	-38793681.00	APOG	8.110435009	VAPG	4623.362731
TIMP	20852.71289	LTDI	-2.742976576	LONI	-31.35574340	CRIP	55.05836772		
WT	23361.86987	ATLI	88.21800899	VA	4639.626647	AAAP	1.136759340	VIR	-52.24157094
DVV	15.09617173	AMIS	93.80359077	FPVA	-.6451549530	AAAY	.0122684306	VIT	4624.087341
RANG	112.5509719	RLAT	179.9999885	AZVA	273.7913208	AAAT	1.136825531	VAT	-4639.332519
F	10400.00000	DWT	-33.54838705			VISN	1421.355819	DVI	14.32289409
VLGR	-1.676978483	VLML	.3186836205	ASPM	310.0000000	TPSE	805756.2500	IDVL	1052.185195
RDR01	TARGET SITE	RGR	688058.4609	AZR	94.13872432	ELR	89.41102600	DRGR	-4591.725830
PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 12 MIN 12.18 SEC TMST 296269.2070 J.D. 2439893.0500 3 DAY 10 HR 17.8 MIN

SELENOGRAPHIC

LEM	ALT	48161.18750	R	5750556.000	VI	4567.184936	X	5347348.125	VX -1692.025985
40	LTDM	-3.461098760			FPVI	-.7098636627	Y	-2086681.187	VY -4231.093872
	LONM	-21.31708908			AZVI	273.8149261	Z	-347165.8750	VZ 306.7108268
A	4400541.250	ASND	296.5264854	VVEN	-39321693.00	APOG	8.090356349	VAPG	4566.042846
TIMP	20848.24194	LTDI	-2.768091738	LONI	-31.02527999	CRIP	49.63638114		
WT	23227.67626	ATLI	87.97817993	VA	4582.428405	AAAP	1.314199134	VIR	-56.58365011
DVV	15.15313959	AMIS	93.81466293	FPVA	-.7075023651	AAAY	.0124457007	VIT	4566.834411
RANG	109.5511398	RLAT	179.9999885	AZVA	273.8022155	AAAT	1.314258068	VAT	-4582.079040
F	10400.00000	DWT	-33.54838705			VISN	1478.812576	DVI	14.40564191
VLGR	-1.924885615	VLML	.3770412504	ASPM	310.0000000	TPSE	847356.2500	IDVL	1109.641983
RDR01	TARGET SITE	RGR	669803.8515	AZR	94.13726425	ELR	89.22781944	DRGR	-4535.520629
PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 12 MIN 16.18 SEC TMST 296273.2070 J.D. 2439893.0502 3 DAY 10 HR 17.9 MIN

SELENOGRAPHIC

LEM	ALT	47926.00000	R	5750320.812	VI	4509.682250	X	5340536.125	VX -1688.761215

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40	LTDM	-3.449047535			FPVI	-.7755069732	Y	-2103612.406	VY	-4170.479858
	LONM	-21.49925231			AZVI	273.8258399	Z	-345944.3945	VZ	304.0029716
	A	4342626.750	ASND	296.5252380	VVEN	-39846098.50	APOG	8.068292498	VAPG	4508.408203
	TIMP	20844.41650	LTDI	-2.790400594	LONI	-30.73207855	CRIP	44.82566404		
	WT	23093.48291	ATLI	87.73607158	VA	4524.924804	AAAP	1.490862324	VIR	-61.03753185
	DVV	15.21082067	AMIS	93.82555770	FPVA	-.7728958130	AAAY	.0126277245	VIT	4509.269165
	RANG	106.5662298	RLAT	179.9999885	AZVA	273.8129272	AAAT	1.490915790	VAT	-4524.513061
	F	10400.00000	DWT	-33.54838705			VISN	1536.602233	DVI	14.48935127
	VLGR	-2.196241349	VLML	.4504123814	ASPM	310.0000000	TPSE	888956.2500	IDVL	1167.431625
	RDR01	TARGET SITE	RGR	651638.7031	AZR	94.13653087	ELR	89.04206371	DRGR	-4478.988708
	PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 12 MIN 16.18 SEC TMST 296273.2070 J.D. 2439893.0502 3 DAY 10 HR 17.9 MIN

SELENOGRAPHIC

CM-SM	ALT	481636.3125	R	6184031.312	VI	5291.604370	X	6002831.875	VX	-1198.296951
120	LTDM	-3.956864893			FPVI	.0018835068	Y	-1423429.234	VY	-5145.189697
	LONM	-13.33995056			AZVI	273.2972755	Z	-426731.7812	VZ	303.6173934
	A	6188422.437	ASND	296.5182113	VVEN	-27961364.00	APOG	80.73059177	VAPG	5284.006225
	ECC	.72731783-03	ARGP	307.0910949	ARGL	309.7442283	PERG	79.24907302	VPER	5291.698059
	INCL	174.8510627	MA	2.649279922	TA	2.653130590	PERD	122.5545301	MCON	ELLIPSE
	LTDE	-2.923448652	LONE	-.4671287536	LTDS	-1.417003795	LONS	89.06436824		
	WT	35799.86279	ATLI	82.33920192	VA	5307.997924	AAAP	-8.913175344	VIR	.1738710403
	DVV	4.526488542	AMIS	287.0021743	FPVA	.0018787384	AAAY	-13.09689283	VIT	5291.604248
2"	RANG	240.1930541	RLAT	174.6542453	AZVA	273.2870826	AAAT	15.67277705	VAT	-5307.997863

COORDINATES OF LEM RELATIVE TO CM-SM

	TMST	296273.2070	RCL	952791.3437	OPCL	.0013459827	XCL	815993.0468	VXCL	-836.6283874
			ACL	.0015716319	DRCL	-354.8706436	YCL	22.38281250	VYCL	.0543794632
1"			ECL	121.0826263			ZCL	-491901.1093	VZCL	-700.4766921

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6 FEB. 1968 13 HR 12 MIN 20.18 SEC TMST 296277.2070 J.C. 2439893.0502 3 DAY 10 HR 18.0 MIN

SELENOGRAPHIC

LEM	ALT	47672.75000	R	5750067.562	VI	4451.871948	X	5333788.750	VX	-1684.847869
40	LTDM	-3.437115848			FPVI	-.8442459106	Y	-2120172.843	VY	-4109.708557
	LONM	-21.67774581			AZVI	273.8365745	Z	-344733.8945	VZ	301.2430000
	A	4286608.000	ASND	296.5253601	VVEN	-40366819.00	APOG	8.043996572	VAPG	4450.457031
	TIMP	20841.14672	LTDI	-2.810311675	LONI	-30.46833419	CRIP	40.49828386		
	WT	22959.28930	ATLI	87.49166965	VA	4467.113525	AAAP	1.666727140	VIR	-65.55556674
	DVV	15.26923012	AMIS	93.83627796	FPVA	-.8413667679	AAAY	.0128146809	VIT	4451.388610
	RANG	103.6411743	RLAT	179.9999885	AZVA	273.8234634	AAAT	1.666776403	VAT	-4466.631835
	F	10400.00000	DWT	-33.54838705			VISN	1594.728683	DVI	14.57403957
	VLGR	-2.492175847	VLML	.5409213677	ASPM	310.0000000	TPSE	930556.2500	ICVL	1225.558029
	RCR01	TARGET SITE	RGR	633836.3515	AZR	94.13496589	ELR	88.85683155	DRGR	-4422.130859
	PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 12 MIN 24.18 SEC TMST 296281.2070 J.C. 2439893.0502 3 DAY 10 HR 18.0 MIN

SELENOGRAPHIC

LEM	ALT	47401.12500	R	5749795.937	VI	4393.751953	X	5327058.125	VX	-1680.382644
40	LTDM	-3.425305485			FPVI	-.9161148071	Y	-2136489.812	VY	-4048.741760
	LONM	-21.85393142			AZVI	273.8471374	Z	-343534.5234	VZ	298.4306716
	A	4232406.437	ASND	296.5254859	VVEN	-40883770.50	APOG	8.017540574	VAPG	4392.186096
	TIMP	20838.36425	LTDI	-2.828140586	LONI	-30.23148727	CRIP	36.61267852		
	WT	22825.09570	ATLI	87.24496269	VA	4408.992553	AAAP	1.841770797	VIR	-70.24973964
	DVV	15.32838237	AMIS	93.84682273	FPVA	-.9129476547	AAAY	.0130067592	VIT	4393.190246
	RANG	100.7539882	RLAT	179.9999866	AZVA	273.8338127	AAAT	1.841816708	VAT	-4408.432800
	F	10400.00000	DWT	-33.54838705			VISN	1653.195877	DVI	14.65972328
	VLGR	-2.813832193	VLML	.6508209631	ASPM	310.0000000	TPSE	972156.2500	ICVL	1284.025268
	RCR01	TARGET SITE	RGR	616262.0625	AZR	94.13333034	ELR	88.67055225	DRGR	-4364.943847

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PICH .1057434287 YAW .00000000 00 ROLL .00000000 00

6 FEB. 1968 13 HR 12 MIN 28.18 SEC TMST 296285.2070 J.D. 2439893.0503 3 DAY 10 HR 18.1 MIN

	SELENOGRAPHIC									
LEM	ALT	47110.68750	R	5749505.437	VI	4335.319885	X	5320269.062	VX	-1675.504180
40	LTDM	-3.413618654			FPVI	-.9911470413	Y	-2152753.750	VY	-3987.521240
	LONM	-22.02985763			AZVI	273.8575248	Z	-342346.5078	VZ	295.5656967
	A	4179947.343	ASND	296.5235595	VVEN	-41396868.50	APOG	7.988739252	VAPG	4333.593322
	TIMP	20836.00732	LTDI	-2.844162583	LONI	-30.02014541	CRIP	33.14508819		
	WT	22690.90209	ATLI	86.99593639	VA	4350.559448	AAAP	2.015968501	VIR	-74.95215507
	DVV	15.38829421	AMIS	93.85719394	FPVA	-.9876747131	AAAY	.0132038113	VIT	4334.671203
	RANG	97.87109565	RLAT	179.9999866	AZVA	273.8439865	AAAT	2.016011714	VAT	-4349.913024
	F	10400.00000	DWT	-33.54838705			VISN	1712.007827	DVI	14.74642074
	VLGR	-3.162367016	VLML	.7824983224	ASPM	310.0000000	TPSE	1013756.250	IDVL	1342.837265
	RDRC1	TARGET SITE	RGR	598713.1796	AZR	94.13292980	ELR	88.48064804	DRGR	-4307.421203

PICH .1057434287 YAW .00000000 00 ROLL .00000000 00

6 FEB. 1968 13 HR 12 MIN 32.18 SEC TMST 296289.2070 J.D. 2439893.0503 3 DAY 10 HR 18.2 MIN

	SELENOGRAPHIC									
LEM	ALT	46801.06250	R	5749195.875	VI	4276.573608	X	5313578.000	VX	-1669.918838
40	LTDM	-3.402057617			FPVI	-1.069381713	Y	-2168581.156	VY	-3926.169952
	LONM	-22.20138931			AZVI	273.8677368	Z	-341170.0625	VZ	292.6477432
	A	4129161.000	ASND	296.5236892	VVEN	-41906026.50	APOG	7.957551538	VAPG	4274.676147
	TIMP	20834.02758	LTDI	-2.858599692	LONI	-29.82740020	CRIP	29.98342585		
	WT	22556.70874	ATLI	86.74458122	VA	4291.811950	AAAP	2.189298450	VIR	-79.81438064
	DVV	15.44898211	AMIS	93.86739063	FPVA	-1.065583229	AAAY	.0134071092	VIT	4275.828735
	RANG	95.05998706	RLAT	179.9999847	AZVA	273.8539810	AAAT	2.189339458	VAT	-4291.069702
	F	10400.00000	DWT	-33.54838705			VISN	1771.168624	DVI	14.83414947

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VLGR	-3.5389508CC	VLML	.9384802729	ASPM	310.0000000	TPSE	1055356.250	ICVL	1401.99794C
RDRC1	TARGET SITE	RGR	581599.0625	AZR	94.13118553	ELR	88.29213523	DRGR	-4249.568908
PICH	.1C57434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 12 MIN 36.18 SEC TMST 296293.2070 J.D. 2439893.0504 3 DAY 10 HR 18.2 MIN

SELENOGRAPHIC

LEM	ALT	46472.0625C	R	5748866.937	VI	4217.51C620	X	5306858.187	VX	-1663.859939
40	LTDM	-3.390623897			FPVI	-1.15C853157	Y	-2184290.062	VY	-3864.589691
	LONM	-22.37194824			AZVI	273.8777809	Z	-340005.3398	VZ	289.6765556
	A	4079981.4C6	ASND	296.5224571	VVEN	-42411157.50	APOG	7.923884928	VAPG	4215.431945
	TIMP	20832.383C5	LTDI	-2.871639788	LONI	-29.65429306	CRIP	27.14306068		
	WT	22422.51513	ATLI	86.49088478	VA	4232.747680	AAAP	2.361733377	VIR	-84.7C81C508
	DVV	15.51046252	AMIS	93.87741374	FPVA	-1.14671C395	AAAY	.0136164491	VIT	4216.659851
	RANG	92.26501560	RLAT	179.9999828	AZVA	273.8637924	AAAT	2.361772626	VAT	-4231.899963
	F	10400.000CC	DWT	-33.54838705			VISN	1830.682418	DVI	14.92292821
	VLGR	-3.944768786	VLML	1.121440187	ASPM	310.C000000	TPSE	1096956.250	ICVL	1461.511734
	RDRC1	TARGET SITE	RGR	564581.0390	AZR	94.13028430	ELR	88.10065937	DRGR	-4191.377258
	PICH	.1C57434287	YAW	.00C00000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 12 MIN 4C.18 SEC TMST 296297.2070 J.D. 2439893.0504 3 DAY 10 HR 18.3 MIN

SELENOGRAPHIC

LEM	ALT	46123.31250	R	5748518.187	VI	4158.128417	X	5300216.000	VX	-1657.135971
40	LTDM	-3.379320949			FPVI	-1.235606193	Y	-2199625.000	VY	-3802.862518
2"	LONM	-22.53877639			AZVI	273.8876495	Z	-338852.6640	VZ	286.6517944
	A	4032346.156	ASND	296.5225982	VVEN	-42912173.50	APOG	7.887656986	VAPG	4155.857971
	TIMP	20831.03833	LTDI	-2.883443683	LONI	-29.49604797	CRIP	24.54760885		
1"	WT	22288.32153	ATLI	86.23483181	VA	4173.364074	AAAP	2.533245295	VIR	-89.66482353
	DVV	15.57275271	AMIS	93.88726425	FPVA	-1.231094360	AAAY	.0138318820	VIT	4157.161499

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RANG	89.53097629	RLAT	179.9999828	AZVA	273.8734283	AAAT	2.533283025	VAT	-4172.400695
F	10400.00000	DWT	-33.54838705			VISN	1890.553466	DVI	15.01277637
VLGR	-4.381021320	VLML	1.334203973	ASPM	310.0000000	TPSE	1138556.250	ICVL	1521.382843
RDRC1	TARGET SITE	RGR	547932.4609	AZR	94.12840366	ELR	87.90977954	DRGR	-4132.850952
PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 12 MIN 44.18 SEC TMST 296301.2070 J.D. 2439893.0504 3 DAY 10 HR 18.4 MIN

	SELENOGRAPHIC								
LEM	ALT	45754.68750	R	5748149.562	VI	4098.424560	X	5293601.875	VX	-1649.836074
40	LTDM	-3.368150413			FPVI	-1.323679924	Y	-2214712.687	VY	-3740.950592
	LONM	-22.70323562			AZVI	273.8973464	Z	-337712.1992	VZ	283.5731544
	A	3986196.593	ASND	296.5227394	VVEN	-43408982.50	APOG	7.848754644	VAPG	4095.951782
	TIMP	20829.96215	LTDI	-2.894149959	LONI	-29.35225677	CRIP	22.18842744		
	WT	22154.12792	ATLI	85.97640991	VA	4113.658691	AAAP	2.703806161	VIR	-94.67582511
	DVV	15.63587033	AMIS	93.89694309	FPVA	-1.318777084	AAAY	.0140540491	VIT	4097.330810
	RANG	86.83545017	RLAT	179.9999809	AZVA	273.8828849	AAAT	2.703842639	VAT	-4112.569030
	F	10400.00000	DWT	-33.54838705			VISN	1950.786087	DVI	15.10371291
	VLGR	-4.848924338	VLML	1.579756572	ASPM	310.0000000	TPSE	1180156.250	ICVL	1581.615509
	RDRC1	TARGET SITE	RGR	531518.6953	AZR	94.12643527	ELR	87.71770572	DRGR	-4073.984405
	PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 12 MIN 48.18 SEC TMST 296305.2070 J.D. 2439893.0505 3 DAY 10 HR 18.4 MIN

	SELENOGRAPHIC								
LEM	ALT	45365.81250	R	5747760.625	VI	4038.396484	X	5286937.812	VX	-1642.087585
40	LTDM	-3.357114315			FPVI	-1.415117263	Y	-2229742.500	VY	-3678.797058
	LONM	-22.86737060			AZVI	273.9068756	Z	-336584.1406	VZ	280.4403953
	A	3941477.125	ASND	296.5208320	VVEN	-43901493.00	APOG	7.807033956	VAPG	4035.710784
	TIMP	20829.12768	LTDI	-2.903877615	LONI	-29.22344970	CRIP	20.07527780		

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WT	22019.93432	ATLI	85.71560668	VA	4053.629028	AAAP	2.873385667	VIR	-99.73218822
DVV	15.69983315	AMIS	93.90645027	FPVA	-1.409799575	AAAY	.0142836873	VIT	4037.164794
RANG	84.14557361	RLAT	179.9999790	AZVA	273.8921623	AAAT	2.873421162	VAT	-4052.401947
F	10400.00000	DWT	-33.54838705			VISN	2011.384643	DVI	15.19575786
VLGR	-5.349710643	VLML	1.861249864	ASPM	310.0000000	TPSE	1221756.250	IDVL	1642.214080
RDR01	TARGET SITE	RGR	515136.9335	AZR	94.12590789	ELR	87.52135944	DRGR	-4014.767974
PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 12 MIN 52.18 SEC TMST 296309.2070 J.D. 2439893.0505 3 DAY 10 HR 18.5 MIN

SELENOGRAPHIC

LEM	ALT	44956.68750	R	5747351.500	VI	3978.041473	X	5280386.187	VX	-1633.618515
40	LTDM	-3.346214860			FPVI	-1.509965896	Y	-2244333.156	VY	-3616.522552
	LONM	-23.02704620			AZVI	273.9162292	Z	-335468.7343	VZ	277.2530708
	A	3898135.750	ASND	296.5209846	VVEN	-44389611.50	APOG	7.762546181	VAPG	3975.131835
	TIMP	20828.51367	LTDI	-2.912724137	LONI	-29.10425949	CRIP	18.12043428		
	WT	21885.74096	ATLI	85.45240974	VA	3993.272308	AAAP	3.041951119	VIR	-104.8247985
	DVV	15.76465940	AMIS	93.91578674	FPVA	-1.504205703	AAAY	.0145201593	VIT	3976.660095
	RANG	81.52851486	RLAT	179.9999771	AZVA	273.9012603	AAAT	3.041985750	VAT	-3991.896209
	F	10400.00000	DWT	-33.54838705			VISN	2072.353637	DVI	15.28893113
	VLGR	-5.884630203	VLML	2.182008534	ASPM	310.0000000	TPSE	1263356.250	IDVL	1703.182968
	RDR01	TARGET SITE	RGR	499196.8789	AZR	94.12379360	ELR	87.32665061	DRGR	-3955.213104
	PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 12 MIN 56.18 SEC TMST 296313.2070 J.D. 2439893.0505 3 DAY 10 HR 18.6 MIN

SELENOGRAPHIC

LEM	ALT	44527.25000	R	5746922.062	VI	3917.356933	X	5273869.687	VX	-1624.558364
40	LTDM	-3.335454404			FPVI	-1.608271598	Y	-2258674.468	VY	-3554.070007
	LONM	-23.18431472			AZVI	273.9254150	Z	-334366.1914	VZ	274.0109062

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A	3856123.000	ASND	296.5211372	VVEN	-44873239.50	APOG	7.715178370	VAPG	3914.212341
TIMP	20828.09985	LTDI	-2.920779585	LONI	-28.99557876	CRIP	16.33769989		
WT	21751.54736	ATLI	85.18680381	VA	3932.585906	AAAP	3.209470957	VIR	-109.9444122
DVV	15.83036911	AMIS	93.92495155	FPVA	-1.602042198	AAAY	.0147645158	VIT	3915.813751
RANG	78.95068359	RLAT	179.9999771	AZVA	273.9101791	AAAT	3.209504902	VAT	-3931.048706
F	10400.00000	DWT	-33.54838705			VISN	2133.697631	DVI	15.38325428
VLGR	-6.454950749	VLML	2.545539230	ASPM	310.0000000	TPSE	1304956.250	IDVL	1764.526992
RDRO1	TARGET SITE	RGR	483495.6953	AZR	94.12157630	ELR	87.13061237	DRGR	-3895.310699
PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 13 MIN .18 SEC TMST 296317.2070 J.C. 2439893.0507 3 DAY 10 HR 18.6 MIN

SELENOGRAPHIC

LEM	ALT	44077.18750	R	5746471.875	VI	3856.339965	X	5267308.750	VX	-1615.027420
40	LTDM	-3.324834644			FPVI	-1.710083961	Y	-2272954.906	VY	-3491.383514
	LONM	-23.34121704			AZVI	273.9344329	Z	-333276.6875	VZ	270.713581
A	3815391.750	ASND	296.5192375	VVEN	-45352283.50	APOG	7.664796650	VAPG	3852.949310
TIMP	20827.86791	LTDI	-2.928123116	LONI	-28.89842605	CRIP	14.74312889		
WT	21617.35375	ATLI	84.91877841	VA	3871.566986	AAAP	3.375907331	VIR	-115.0816411
DVV	15.89698135	AMIS	93.93394660	FPVA	-1.703355789	AAAY	.0150169751	VIT	3854.622406
RANG	76.37910366	RLAT	179.9999752	AZVA	273.9189224	AAAT	3.375940740	VAT	-3869.856201
F	10400.00000	DWT	-33.54838705			VISN	2195.421234	DVI	15.47874879
VLGR	-7.061959147	VLML	2.955536931	ASPM	310.0000000	TPSE	1346556.250	IDVL	1826.250595
RDRO1	TARGET SITE	RGR	467830.8789	AZR	94.12094497	ELR	86.92983150	DRGR	-3835.048858
PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 13 MIN 4.18 SEC TMST 296321.2070 J.C. 2439893.0507 3 DAY 10 HR 18.7 MIN

SELENOGRAPHIC

LEM	ALT	43606.56250	R	5746001.312	VI	3794.987915	X	5260868.937	VX	-1604.767120

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40	LTDM	-3.314358294			FPVI	-1.815456390	Y	-2286794.875	VY	-3428.581939
	LONM	-23.49362564			AZVI	273.9432830	Z	-332200.5234	VZ	267.3607788
	A	3775898.187	ASND	296.5194053	VVEN	-45826640.50	APOG	7.611380517	VAPG	3791.340209
	TIMP	20827.80371	LTDI	-2.934822171	LONI	-28.80782318	CRIP	13.25727450		
	WT	21483.16015	ATLI	84.64831638	VA	3810.212829	AAAP	3.541223704	VIR	-120.2267827
	DVV	15.96451616	AMIS	93.94277191	FPVA	-1.808198928	AAAY	.0152782327	VIT	3793.083007
	RANG	73.88106822	RLAT	179.9999732	AZVA	273.9274864	AAAT	3.541256666	VAT	-3808.315551
	F	10400.00000	DWT	-33.54838705			VISN	2257.529205	DVI	15.57543599
	VLGR	-7.706961989	VLML	3.415895104	ASPM	310.0000000	TPSE	1388156.250	IDVL	1888.358612
	RDRC1	TARGET SITE	RGR	452611.7656	AZR	94.11855316	ELR	86.73088550	DRGR	-3774.442962
	PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 13 MIN 8.18 SEC TMST 296325.2070 J.D. 2439893.0508 3 DAY 10 HR 18.8 MIN

SELENOGRAPHIC

LEM	ALT	43115.37500	R	5745510.250	VI	3733.297790	X	5254443.937	VX	-1593.940307
40	LTDM	-3.304026633			FPVI	-1.924445152	Y	-2300446.312	VY	-3365.590026
	LONM	-23.64426803			AZVI	273.9519615	Z	-331137.8242	VZ	263.9521522
	A	3737600.406	ASND	296.5188903	VVEN	-46296210.50	APOG	7.554857969	VAPG	3729.381835
	TIMP	20827.89282	LTDI	-2.940936267	LONI	-28.72571563	CRIP	11.91094481		
	WT	21348.96679	ATLI	84.37540531	VA	3748.520507	AAAP	3.705378115	VIR	-125.3701381
	DVV	16.03299403	AMIS	93.95142936	FPVA	-1.916626930	AAAY	.0155492115	VIT	3731.192108
	RANG	71.41177177	RLAT	179.9999732	AZVA	273.9358673	AAAT	3.705410718	VAT	-3746.423370
	F	10400.00000	DWT	-33.54838705			VISN	2320.026336	DVI	15.67333865
	VLGR	-8.391286730	VLML	3.930713892	ASPM	310.0000000	TPSE	1429756.250	IDVL	1950.855697
	RDRO1	TARGET SITE	RGR	437567.9101	AZR	94.11663722	ELR	86.52923679	DRGR	-3713.478027
	PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

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6 FEB. 1968 13 HR 13 MIN 12.18 SEC TMST 296329.2070 J.D. 2439893.0508 3 DAY 10 HR 18.8 MIN

SELENOGRAPHIC

LEM	ALT	42603.62500	R	5744998.437	VI	3671.266601	X	5248091.000	VX	-1582.460052
40	LTDM	-3.293843150			FPVI	-2.037105560	Y	-2313782.437	VY	-3302.448364
	LONM	-23.79176330			AZVI	273.9604721	Z	-330088.9218	VZ	260.4873161
	A	3700458.531	ASND	296.5190620	VVEN	-46760890.00	APOG	7.495115876	VAPG	3667.071228
	TIMP	20828.12353	LTDI	-2.946521788	LONI	-28.65001678	CRIP	10.66929030		
	WT	21214.77319	ATLI	84.10003089	VA	3686.486907	AAAP	3.868329674	VIR	-130.5015583
	DVV	16.10243630	AMIS	93.95991611	FPVA	-2.028691291	AAAY	.0158300129	VIT	3668.946380
	RANG	68.99427509	RLAT	179.9999732	AZVA	273.9440765	AAAT	3.868362069	VAT	-3684.176269
	F	10400.00000	DWT	-33.54838705			VISN	2382.917572	DVI	15.77248013
	VLGR	-9.116282463	VLML	4.504309356	ASPM	310.0000000	TPSE	1471356.250	IDVL	2013.746902
	RDRC1	TARGET SITE	RGR	422836.4921	AZR	94.11400985	ELR	86.32726955	DRGR	-3652.158416
	PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 13 MIN 16.18 SEC TMST 296333.2070 J.D. 2439893.0508 3 DAY 10 HR 18.9 MIN

SELENOGRAPHIC

LEM	ALT	42071.37500	R	5744466.125	VI	3608.891265	X	5241785.062	VX	-1570.361953
40	LTDM	-3.283809155			FPVI	-2.153501510	Y	-2326865.656	VY	-3239.140014
	LONM	-23.93677520			AZVI	273.9688186	Z	-329054.0000	VZ	256.9659843
	A	3664435.218	ASND	296.5192413	VVEN	-47220573.50	APOG	7.432102739	VAPG	3604.405364
	TIMP	20828.48461	LTDI	-2.951625436	LONI	-28.58078384	CRIP	9.533639311		
	WT	21080.57958	ATLI	83.82217979	VA	3624.109039	AAAP	4.030031681	VIR	-135.6108436
	DVV	16.17286491	AMIS	93.96823692	FPVA	-2.144454956	AAAY	.0161206908	VIT	3606.342437
	RANG	66.61701107	RLAT	179.9999713	AZVA	273.9521026	AAAT	4.030063927	VAT	-3621.570922
	F	10400.00000	DWT	-33.54838705			VISN	2446.207855	DVI	15.87288355
	VLGR	-9.883321762	VLML	5.141223073	ASPM	310.0000000	TPSE	1512956.250	IDVL	2077.037261
	RDRC1	TARGET SITE	RGR	408351.1445	AZR	94.11123847	ELR	86.12375450	DRGR	-3590.477844
	PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

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6 FEB. 1968 13 HR 13 MIN 16.18 SEC TMST 296333.2070 J.C. 2439893.0508 3 DAY 10 HR 18.9 MIN

SELENOGRAPHIC

CM-SM	ALT	481649.4375	R	6184044.437	VI	5291.578430	X	5922809.687	VX	-1460.957809
120	LTDM	-3.782537817			FPVI	.0028419494	Y	-1730981.406	VY	-5075.701293
	LONM	-16.29136276			AZVI	273.4960823	Z	-407960.1289	VZ	321.9618263
	A	6188387.5CC	ASND	296.5111160	VVEN	-27961520.75	APOG	80.71960544	VAPG	5284.048278
	ECC	.72217771-C3	ARGP	308.6446113	ARGL	312.6870002	PERG	79.24855899	VPER	5291.685852
	INCL	174.8509769	MA	4.036572814	TA	4.042387545	PERD	122.5534934	MCON	ELLIPSE
	LTDE	-2.924302935	LCNE	-.4671859741	LTDS	-1.417000025	LONS	89.05683231		
	WT	35799.86279	ATLI	79.48196887	VA	5307.971923	AAAP	-11.91354513	VIR	.2622585296
	DVV	4.526438534	AMIS	287.3128166	FPVA	.0028324127	AAAY	-12.91817033	VIT	5291.578186
	RANG	191.8752689	RLAT	173.9456958	AZVA	273.4852714	AAAT	17.30921292	VAT	-5307.971862

CCCRDINATES CF LEM RELATIVE TO CM-SM

TMST	296333.2C7C	RCL	908349.4531	OPCL	.0014980740	XCL	764424.5078	VXCL	-1735.35501C
		ACL	.0017801296	DRCL	-1128.419891	YCL	23.75000000	VYCL	.0533790588
		ECL	122.6954870			ZCL	-490666.8046	VZCL	-614.5683288

6 FEB. 1968 13 HR 13 MIN 2C.18 SEC TMST 296337.2070 J.C. 2439893.0509 3 DAY 10 HR 19.0 MIN

SELENOGRAPHIC

LEM	ALT	41518.8125C	R	5743913.562	VI	3546.168609	X	5235472.625	VX	-1557.716674
40	LTDM	-3.273926526			FPVI	-2.273696899	Y	-2339820.968	VY	-3175.629943
	LONM	-24.08067321			AZVI	273.9769973	Z	-328033.2226	VZ	253.3877925
	A	3629494.968	ASND	296.5180587	VVEN	-47675153.50	APOG	7.365746617	VAPG	3541.381256
	TIMP	20828.967C4	LTDI	-2.956289410	LONI	-28.51882934	CRIP	8.517878651		
	WT	20946.38558	ATLI	83.54183864	VA	3561.383697	AAAP	4.190435946	VIR	-140.6875457
	DVV	16.24430251	AMIS	93.97638893	FPVA	-2.263978004	AAAY	.0164219870	VIT	3543.376739
	RANG	64.25840282	RLAT	179.9999694	AZVA	273.9599494	AAAT	4.190468182	VAT	-3558.603759

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F	10400.00000	DWT	-33.54838705			VISN	2509.902343	DVI	15.97457385
VLGR	-10.69380116	VLML	5.846233487	ASPM	310.0000000	TPSE	1554556.250	IDVL	2140.731689
RDRO1	TARGET SITE	RGR	393977.1523	AZR	94.10967159	ELR	85.91583156	DRGR	-3528.424743
PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 13 MIN 24.18 SEC TMST 296341.2070 J.D. 2439893.0509 3 DAY 10 HR 19.0 MIN

SELENOGRAPHIC

LEM	ALT	40945.93750	R	5743340.687	VI	3483.095581	X	5229268.312	VX	-1544.364608
40	LTDM	-3.264198243			FPVI	-2.397761344	Y	-2352396.343	VY	-3111.995635
	LONM	-24.22069168			AZVI	273.9850082	Z	-327026.9335	VZ	249.7523155
	A	3595604.250	ASND	296.5182495	VVEN	-48124520.50	APOG	7.296016633	VAPG	3477.995697
	TIMP	20829.56201	LTDI	-2.960552275	LONI	-28.46090698	CRIP	7.568139612		
	WT	20812.19238	ATLI	83.25899124	VA	3498.307830	AAAP	4.349488914	VIR	-145.7210369
	DVV	16.31677126	AMIS	93.98437404	FPVA	-2.387329101	AAAY	.0167358878	VIT	3480.045989
	RANG	61.96293592	RLAT	179.9999675	AZVA	273.9676208	AAAT	4.349521100	VAT	-3495.271514
	F	10400.00000	DWT	-33.54838705			VISN	2574.006195	DVI	16.01757496
	VLGR	-11.54914307	VLML	6.624365329	ASPM	310.0000000	TPSE	1596156.250	IDVL	2204.835601
	RDRO1	TARGET SITE	RGR	379988.1367	AZR	94.10663700	ELR	85.70891094	DRGR	-3466.013122
	PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 13 MIN 28.18 SEC TMST 296345.2070 J.D. 2439893.0509 3 DAY 10 HR 19.1 MIN

SELENOGRAPHIC

LEM	ALT	40353.12500	R	5742747.875	VI	3419.668792	X	5223118.625	VX	-1530.377700
40	LTDM	-3.254625797			FPVI	-2.525768280	Y	-2364716.750	VY	-3048.201721
	LONM	-24.35818481			AZVI	273.9928512	Z	-326035.2812	VZ	246.0592441
	A	3562731.281	ASND	296.5184478	VVEN	-48568560.50	APOG	7.222871601	VAPG	3414.245452
	TIMP	20830.26220	LTDI	-2.964447706	LONI	-28.40793991	CRIP	6.699749171		
	WT	20677.99902	ATLI	82.97362327	VA	3434.877990	AAAP	4.507135748	VIR	-150.7004222

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DVV	16.39029574	AMIS	93.99219131	FPVA	-2.514576911	AAAY	.0170619609	VIT	3416.346588
RANG	59.70910072	RLAT	179.9999656	AZVA	273.9751091	AAAT	4.507168054	VAT	-3431.570495
F	10400.00000	DWT	-33.54838705			VISN	2638.524749	DVI	16.18191337
VLGR	-12.45079708	VLML	7.480903148	ASPM	310.0000000	TPSE	1637756.250	IDVL	2269.354125
RDRC1	TARGET SITE	RGR	366249.5273	AZR	94.10342597	ELR	85.50024890	DRGR	-3403.231628
PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 13 MIN 32.18 SEC TMST 296349.2070 J.D. 2439893.0510 3 DAY 10 HR 19.2 MIN

	SELENOGRAPHIC								
LEM	ALT	39740.43750	R	5742135.125	VI	3355.884918	X	5216940.687	VX -1515.857376
40	LTDM	-3.245211541			FPVI	-2.657795906	Y	-2376969.093	VY -2984.196166
	LONM	-24.49520111			AZVI	274.0005340	Z	-325058.5312	VZ 242.3081932
	A	3530845.718	ASND	296.5165939	VVEN	-49007162.00	APOG	7.146177887	VAPG 3350.127441
	TIMP	20831.06005	LTDI	-2.968009263	LONI	-28.36153793	CRIP	5.938523054	
	WT	20543.80541	ATLI	82.68571949	VA	3371.090911	AAAP	4.663315534	VIR -155.6146430
	DVV	16.46489953	AMIS	93.99984359	FPVA	-2.645798683	AAAY	.0174015313	VIT 3352.274963
	RANG	57.46329259	RLAT	179.9999637	AZVA	273.9824180	AAAT	4.663348019	VAT -3367.497283
	F	10400.00000	DWT	-33.54838705			VISN	2703.463317	DVI 16.28761482
	VLGR	-13.40024161	VLML	8.421401381	ASPM	310.0000000	TPSE	1679356.250	IDVL 2334.292755
	RDRC1	TARGET SITE	RGR	352559.4335	AZR	94.10231971	ELR	85.28506183	DRGR -3340.062164
	PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00			

6 FEB. 1968 13 HR 13 MIN 36.18 SEC TMST 296353.2070 J.D. 2439893.0510 3 DAY 10 HR 19.2 MIN

	SELENOGRAPHIC								
LEM	ALT	39108.25000	R	5741503.000	VI	3291.740417	X	5210907.625	VX -1500.580917
40	LTDM	-3.235957503			FPVI	-2.793925285	Y	-2388777.750	VY -2920.090820
	LONM	-24.62760925			AZVI	274.0080490	Z	-324096.8984	VZ 238.4987716
	A	3499919.281	ASND	296.5168075	VVEN	-49440206.50	APOG	7.065997123	VAPG 3285.638153

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TIMP	20831.94995	LTDI	-2.971262723	LONI	-28.31724166	CRIP	5.210539579		
WT	20409.61181	ATLI	82.39526653	VA	3306.943023	AAAP	4.817963659	VIR	-160.4522857
DVV	16.54060864	AMIS	94.00732803	FPVA	-2.781070709	AAAY	.0177551459	VIT	3287.827545
RANG	55.29266643	RLAT	179.9999618	AZVA	273.9895477	AAAT	4.817996382	VAT	-3303.048156
F	10400.00000	DWT	-33.54838705			VISN	2768.827514	DVI	16.39470624
VLGR	-14.39898562	VLML	9.451699376	ASPM	310.0000000	TPSE	1720956.250	IDVL	2399.656951
RDR01	TARGET SITE	RGR	339326.1015	AZR	94.09881591	ELR	85.07255840	DRGR	-3276.531097
PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 13 MIN 40.18 SEC TMST 296357.2070 J.D. 2439893.0511 3 DAY 10 HR 19.3 MIN

SELENOGRAPHIC

LEM	ALT	38456.93750	R	5740851.687	VI	3227.231872	X	5204879.437	VX	-1484.720291
40	LTDM	-3.226865232			FPVI	-2.934247970	Y	-2400454.468	VY	-2855.797576
	LONM	-24.75882720			AZVI	274.0153999	Z	-323150.5625	VZ	234.6306037
A	3469924.781	ASND	296.5156631	VVEN	-49867574.50	APOG	6.982185363	VAPG	3220.774688
TIMP	20832.92553	LTDI	-2.974234968	LONI	-28.27811813	CRIP	4.568810105		
WT	20275.41821	ATLI	82.10224723	VA	3242.430938	AAAP	4.971010744	VIR	-165.2018127
DVV	16.61744856	AMIS	94.01464843	FPVA	-2.920481681	AAAY	.0181239771	VIT	3223.000732
RANG	53.14166021	RLAT	179.9999599	AZVA	273.9964981	AAAT	4.971043825	VAT	-3238.219665
F	10400.00000	DWT	-33.54838705			VISN	2834.622863	DVI	16.50321507
VLGR	-15.44857108	VLML	10.57793402	ASPM	310.0000000	TPSE	1762556.250	IDVL	2465.452331
RDR01	TARGET SITE	RGR	326212.0585	AZR	94.09674835	ELR	84.85462760	DRGR	-3212.609497
PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 13 MIN 44.18 SEC TMST 296361.2070 J.D. 2439893.0511 3 DAY 10 HR 19.4 MIN

SELENOGRAPHIC

LEM	ALT	37786.75000	R	5740181.562	VI	3162.355560	X	5198973.500	VX	-1468.130920
40	LTDM	-3.217937946			FPVI	-3.078860282	Y	-2411748.875	VY	-2791.390411

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LONM	-24.88608932			AZVI	274.0225868	Z	-322219.8789	VZ	230.7032737
A	3440836.656	ASND	296.5158920	VVEN	-50289145.50	APOG	6.894763112	VAPG	3155.533264
TIMP	20833.98242	LTDI	-2.976949751	LONI	-28.24111557	CRIP	3.962043345		
WT	20141.22485	ATLI	81.80664730	VA	3177.550842	AAAP	5.122378587	VIR	-169.8514556
DVV	16.69544506	AMIS	94.02180194	FPVA	-3.064123153	AAAY	.0185092387	VIT	3157.790832
RANG	51.05495548	RLAT	179.9999580	AZVA	274.0032615	AAAT	5.122412025	VAT	-3173.007965
F	10400.00000	DWT	-33.54838705			VISN	2900.855163	DVI	16.61316967
VLGR	-16.55057454	VLML	11.80655491	ASPM	310.0000000	TPSE	1804156.250	IDVL	2531.684478
RDRO1	TARGET SITE	RGR	313490.1015	AZR	94.09287261	ELR	84.63806629	DRGR	-3148.316131
PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 13 MIN 48.18 SEC TMST 296365.2070 J.D. 2439893.0511 3 DAY 10 HR 19.4 MIN

SELENOGRAPHIC

LEM	ALT	37098.25000	R	5739493.000	VI	3097.107788	X	5193135.250	VX	-1450.876541
40	LTDM	-3.209177196			FPVI	-3.227864265	Y	-2422785.343	VY	-2726.835845
	LONM	-25.01075363			AZVI	274.0296096	Z	-321305.0117	VZ	226.7164001
	A	3412630.625	ASND	296.5161323	VVEN	-50704793.50	APOG	6.803648173	VAPG	3089.910614
	TIMP	20835.11459	LTDI	-2.979429096	LONI	-28.20730590	CRIP	3.407675623		
	WT	20007.03125	ATLI	81.50845050	VA	3112.299072	AAAP	5.271986186	VIR	-174.3891258
	DVV	16.77462697	AMIS	94.02879142	FPVA	-3.212092399	AAAY	.0189116606	VIT	3092.194213
	RANG	49.01144933	RLAT	179.9999561	AZVA	274.0098457	AAAT	5.272020101	VAT	-3107.409515
	F	10400.00000	DWT	-33.54838705			VISN	2967.530181	DVI	16.72459959
	VLGR	-17.70661044	VLML	13.14434075	ASPM	310.0000000	TPSE	1845756.250	IDVL	2598.359497
	RDRO1	TARGET SITE	RGR	301026.0351	AZR	94.08875751	ELR	84.41947078	DRGR	-3083.636962
	PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 13 MIN 52.18 SEC TMST 296369.2070 J.D. 2439893.0513 3 DAY 10 HR 19.5 MIN

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	SELENOGRAPHIC									
LEM	ALT	36391.81250	R	5738786.562	VI	3031.484771	X	5187279.875	VX	-1433.046524
40	LTDM	-3.200584560			FPVI	-3.381371498	Y	-2433749.781	VY	-2662.084899
	LONM	-25.13486862			AZVI	274.0364685	Z	-320406.1679	VZ	222.6695594
	A	3385283.906	ASND	296.5143280	VVEN	-51114393.00	APOG	6.708861053	VAPG	3023.903259
	TIMP	20836.31982	LTDI	-2.981690645	LONI	-28.17850494	CRIP	2.935229986		
	WT	19872.83764	ATLI	81.20764350	VA	3046.671875	AAAP	5.419743180	VIR	-178.8025321
	DVV	16.85502195	AMIS	94.03561592	FPVA	-3.364496231	AAAY	.0193334850	VIT	3026.207122
	RANG	46.97671175	RLAT	179.9999561	AZVA	274.0162429	AAAT	5.419777691	VAT	-3041.420562
	F	10400.00000	DWT	-33.54838705			VISN	3034.653961	DVI	16.83753442
	VLGR	-18.91833305	VLML	14.59841549	ASPM	310.0000000	TPSE	1887356.250	IDVL	2665.483337
	RDRO1	TARGET SITE	RGR	288618.3867	AZR	94.08718585	ELR	84.19262313	DRGR	-3018.548767
	PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 13 MIN 56.18 SEC TMST 296373.2070 J.D. 2439893.0513 3 DAY 10 HR 19.6 MIN

	SELENOGRAPHIC									
LEM	ALT	35668.00000	R	5738062.750	VI	2965.482574	X	5181584.687	VX	-1414.440704
40	LTDM	-3.192163109			FPVI	-3.539500236	Y	-2444268.500	VY	-2597.243743
	LONM	-25.25429153			AZVI	274.0431632	Z	-319523.6757	VZ	218.5623168
	A	3358774.812	ASND	296.5145912	VVEN	-51517813.00	APOG	6.610350310	VAPG	2957.507751
	TIMP	20837.59277	LTDI	-2.983754247	LONI	-28.15033721	CRIP	2.473474741		
	WT	19738.64404	ATLI	80.90420722	VA	2980.665252	AAAP	5.565552294	VIR	-183.0790443
	DVV	16.93665862	AMIS	94.04227542	FPVA	-3.521449089	AAAY	.0197753361	VIT	2959.825836
	RANG	45.01856803	RLAT	179.9999542	AZVA	274.0224571	AAAT	5.565587461	VAT	-2975.037353
	F	10400.00000	DWT	-33.54838705			VISN	3102.232513	DVI	16.95200467
	VLGR	-20.18744015	VLML	16.17626619	ASPM	310.0000000	TPSE	1928956.250	IDVL	2733.061889
	RDRO1	TARGET SITE	RGR	276674.9921	AZR	94.08264541	ELR	83.96942615	DRGR	-2953.086578
	PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

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6 FEB. 1968 13 HR 14 MIN .18 SEC TMST 296377.2070 J.D. 2439893.0513 3 DAY 10 HR 19.6 MIN

SELENOGRAPHIC

LEM	ALT	34927.37500	R	5737322.187	VI	2899.097198	X	5175965.312	VX	-1395.150527
40	LTDM	-3.183914542			FPVI	-3.702383041	Y	-2454527.562	VY	-2532.262756
	LONM	-25.37107467			AZVI	274.0496978	Z	-318657.7382	VZ	214.3942775
	A	3333082.906	ASND	296.5148620	VVEN	-51914921.00	APOG	6.508126258	VAPG	2890.720367
	TIMP	20838.93066	LTDI	-2.985635340	LONI	-28.12465286	CRIP	2.052521854		
	WT	19604.45068	ATLI	80.59812545	VA	2914.275177	AAAP	5.709306299	VIR	-187.2058715
	DVV	17.01956748	AMIS	94.04876995	FPVA	-3.683073997	AAAY	.0202387376	VIT	2893.046600
	RANG	43.10402822	RLAT	179.9999523	AZVA	274.0284843	AAAT	5.709342122	VAT	-2908.256134
	F	10400.00000	DWT	-33.54838705			VISN	3170.272094	DVI	17.06804203
	VLGR	-21.51567626	VLML	17.88576292	ASPM	310.0000000	TPSE	1970556.250	IDVL	2801.101409
	RDRO1	TARGET SITE	RGR	264994.2578	AZR	94.07780933	ELR	83.74395942	DRGR	-2887.227874
	PICH	.1057434287	YAW	.00000000 00	ROLL	.0000000 00				

6 FEB. 1968 13 HR 14 MIN 4.18 SEC TMST 296381.2070 J.D. 2439893.0514 3 DAY 10 HR 19.7 MIN

SELENOGRAPHIC

LEM	ALT	34170.62500	R	5736565.375	VI	2832.324493	X	5170335.812	VX	-1375.258010
40	LTDM	-3.175841003			FPVI	-3.870162010	Y	-2464712.312	VY	-2467.095092
	LONM	-25.48725891			AZVI	274.0560722	Z	-317808.6093	VZ	210.1650581
	A	3308188.718	ASND	296.5130958	VVEN	-52305580.50	APOG	6.402116954	VAPG	2823.537658
	TIMP	20840.32983	LTDI	-2.987350523	LONI	-28.10328292	CRIP	1.702093526		
	WT	19470.25708	ATLI	80.28938579	VA	2847.497589	AAAP	5.850886702	VIR	-191.1698455
	DVV	17.10377955	AMIS	94.05510330	FPVA	-3.849508285	AAAY	.0207258358	VIT	2825.865539
	RANG	41.19911003	RLAT	179.9999504	AZVA	274.0343246	AAAT	5.850923419	VAT	-2841.073150
	F	10400.00000	DWT	-33.54838705			VISN	3238.778991	DVI	17.18567895
	VLGR	-22.90483641	VLML	19.73518180	ASPM	310.0000000	TPSE	2012156.250	IDVL	2869.608398
	RDRO1	TARGET SITE	RGR	253374.7636	AZR	94.07586860	ELR	83.50893878	DRGR	-2820.946441

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6 FEB. 1968 13 HR 14 MIN 8.18 SEC TMST 296385.2070 J.D. 2439893.0514 3 DAY 10 HR 19.8 MIN

	SELENOGRAPHIC								
LEM	ALT	33398.25000	R	5735793.062	VI	2765.160278	X	5164875.875	VX	-1354.576599
					FPVI	-4.042991638	Y	-2474450.187	VY	-2401.842956
40	LTDM	-3.167944490			AZVI	274.0622825	Z	-316976.5234	VZ	205.8740940
	LONM	-25.59870529								
	A	3284074.156	ASND	296.5133972	VVEN	-52689655.00	APOG	6.292394280	VAPG	2755.955688
	TIMP	20841.78759	LTDI	-2.988912880	LONI	-28.08193206	CRIP	1.352440223		
	WT	19336.06347	ATLI	79.97796726	VA	2780.328186	AAAP	5.990165352	VIR	-194.957611C
	DVV	17.18932676	AMIS	94.06127071	FPVA	-4.020898818	AAAY	.0212379067	VIT	2758.278961
	RANG	39.37221193	RLAT	179.9999465	AZVA	274.0399742	AAAT	5.990203022	VAT	-2773.484497
							VISN	3307.759704	DVI	17.3C49488C
	F	10400.00000	DWT	-33.54838705						
	VLGR	-24.35677051	VLML	21.73322463	ASPM	310.0000000	TPSE	2053756.250	ICVL	2938.589019
	RCRC1	TARGET SITE	RGR	242224.2382	AZR	94.07050132	ELR	83.27837181	DRGR	-2754.282806

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6 FEB. 1968 13 HR 14 MIN 12.18 SEC TMST 296389.2070 J.D. 2439893.0515 3 DAY 10 HR 19.8 MIN

	SELENOGRAPHIC								
LEM	ALT	32611.12500	R	5735005.937	VI	2697.600250	X	5159470.375	VX	-1333.218475
					FPVI	-4.221041679	Y	-2483988.750	VY	-2336.44281C
40	LTDM	-3.160225719			AZVI	274.0683288	Z	-316161.5937	VZ	201.5209045
	LONM	-25.70814514								
	A	3260722.000	ASND	296.5130233	VVEN	-53067000.00	APOG	6.178917169	VAPG	2687.971008
	TIMP	20843.30175	LTDI	-2.990334779	LONI	-28.06316757	CRIP	1.045312389		
	WT	19201.86987	ATLI	79.66385459	VA	2712.762664	AAAP	6.126997411	VIR	-198.5554504
	DVV	17.2762413C	AMIS	94.06727313	FPVA	-4.197406768	AAAY	.0217781088	VIT	2690.28302C
	RANG	37.57771682	RLAT	179.9999446	AZVA	274.0454292	AAAT	6.127036094	VAT	-2705.486450
							VISN	3377.220794	DVI	17.42588567
	F	10400.00000	DWT	-33.54838705						

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VLGR	-25.87338876	VLML	23.88904619	ASPM	310.0000000	TPSE	2095356.250	IDVL	3008.050292
RDRO1	TARGET SITE	RGR	231273.4785	AZR	94.06591033	ELR	83.04264259	DRGR	-2687.203247
PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 14 MIN 16.18 SEC TMST 296393.2070 J.D. 2439893.0515 3 DAY 10 HR 19.9 MIN

SELENOGRAPHIC

LEM	ALT	31810.06250	R	5734204.875	VI	2629.639953	X	5154181.500	VX	-1311.119689
40	LTDM	-3.152689278			FPVI	-4.404499053	Y	-2493203.531	VY	-2270.929565
	LONM	-25.81418991			AZVI	274.0742187	Z	-315364.3320	VZ	197.1051921
	A	3238116.125	ASND	296.5133590	VVEN	-53437471.00	APOG	6.061737000	VAPG	2619.579711
	TIMP	20844.86962	LTDI	-2.991629987	LONI	-28.04545593	CRIP	.7560728192		
	WT	19067.67626	ATLI	79.34703350	VA	2644.796661	AAAP	6.261225998	VIR	-201.9493789
	DVV	17.36455845	AMIS	94.07311344	FPVA	-4.379208564	AAAY	.0223478037	VIT	2621.873901
	RANG	35.83931350	RLAT	179.9999427	AZVA	274.0506935	AAAT	6.261265814	VAT	-2637.075225
	F	10400.00000	DWT	-33.54838705			VISN	3447.169036	DVI	17.54852485
	VLGR	-27.45666694	VLML	26.21228098	ASPM	310.0000000	TPSE	2136956.250	IDVL	3077.998443
	RDRO1	TARGET SITE	RGR	220659.4667	AZR	94.05981540	ELR	82.80699825	DRGR	-2619.720336
	PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 14 MIN 16.18 SEC TMST 296393.2070 J.D. 2439893.0515 3 DAY 10 HR 19.9 MIN

SELENOGRAPHIC

CM-SM	ALT	481667.8125	R	6184062.812	VI	5291.545166	X	5827048.000	VX	-1719.862152
120	LTDM	-3.598258674			FPVI	.0037956238	Y	-2034086.968	VY	-4992.723876
	LONM	-19.24290847			AZVI	273.6856117	Z	-388112.9257	VZ	339.4570999
	A	6188346.625	ASND	296.5025634	VVEN	-27961706.75	APOG	80.70229434	VAPG	5284.120605
	ECC	.71178613-03	ARGP	310.1602516	ARGL	315.6296615	PERG	79.25242710	VPER	5291.648315
	INCL	174.8508853	MA	5.461614489	TA	5.469408631	PERD	122.5522813	MCON	ELLIPSE
	LTDE	-2.925156176	LONE	-.4686203003	LTDS	-1.416995972	LONS	89.04792308		

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WT	35799.86279	ATLI	76.62635803	VA	5307.938720	AAAP	-14.90657460	VIR	.3504703045
DVV	4.526374697	AMIS	287.6516647	FPVA	.0037851333	AAAY	-12.73564434	VIT	5291.544982
RANG	143.5355033	RLAT	173.2239112	AZVA	273.6742134	AAAT	19.24957752	VAT	-5307.938659

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	296393.2070	RCL	817820.1953	OPCL	.0017796663	XCL	656584.4531	VXCL	-2710.039337
		ACL	.0022166944	DRCL	-1876.948074	YCL	25.40234375	VYCL	.0564804077
		ECL	126.5971660			ZCL	-487572.2812	VZCL	-501.1844139

6 FEB. 1968 13 HR 14 MIN 20.18 SEC TMST 296397.2070 J.D. 2439893.0515 3 DAY 10 HR 20.0 MIN

SELENOGRAPHIC

LEM	ALT	30995.87500	R	5733390.687	VI	2561.274841	X	5148982.375	VX	-1288.301895
40	LTDM	-3.145335972			FPVI	-4.593570709	Y	-2502156.031	VY	-2205.289611
	LONM	-25.91750717			AZVI	274.0799446	Z	-314584.8359	VZ	192.6263713
	A	3216241.250	ASND	296.5137062	VVEN	-5380919.00	APOG	5.940833270	VAPG	2550.778045
	TIMP	20846.48901	LTDI	-2.992809742	LONI	-28.02931594	CRIP	.4937826134		
	WT	18933.48291	ATLI	79.02748298	VA	2576.425476	AAAP	6.392674505	VIR	-205.1251125
	DVV	17.45431137	AMIS	94.07878875	FPVA	-4.566501617	AAAY	.0229507778	VIT	2553.047698
	RANG	34.14515781	RLAT	179.9999408	AZVA	274.0557594	AAAT	6.392715692	VAT	-2568.246856
	F	10400.00000	DWT	-33.54838705			VISN	3517.611328	DVI	17.67290186
	VLGR	-29.10865306	VLML	28.71307325	ASPM	310.0000000	TPSE	2178556.250	IDVL	3148.440673
	RDRC1	TARGET SITE	RGR	210316.2324	AZR	94.05327701	ELR	82.56879234	DRGR	-2551.821838
	PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 14 MIN 24.18 SEC TMST 296401.2070 J.D. 2439893.0516 3 DAY 10 HR 20.0 MIN

SELENOGRAPHIC

LEM	ALT	30169.43750	R	5732564.250	VI	2492.500366	X	5143816.000	VX	-1264.808990
40	LTDM	-3.138167560			FPVI	-4.788486480	Y	-2510968.906	VY	-2139.495452
	LONM	-26.01945495			AZVI	274.0855102	Z	-313823.3632	VZ	188.0840053

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A	3195083.218	ASND	296.5127067	VVEN	-54157191.50	APOG	5.816267669	VAPG	2481.562164
TIMP	20848.15820	LTDI	-2.993883609	LONI	-28.01598739	CRIP	.2800452672		
WT	18799.28930	ATLI	78.70518875	VA	2507.644622	AAAP	6.521146535	VIR	-208.0680027
DVV	17.54553818	AMIS	94.08430194	FPVA	-4.759501457	AAAY	.0235894341	VIT	2483.800659
RANG	32.47350358	RLAT	179.9999389	AZVA	274.0606231	AAAT	6.521189212	VAT	-2498.997650
F	10400.00000	DWT	-33.54838705			VISN	3588.554626	DVI	17.79905509
VLGR	-30.83147478	VLML	31.40211009	ASPM	310.0000000	TPSE	2220156.250	IDVL	3219.384063
RDRC1	TARGET SITE	RGR	200110.6679	AZR	94.04896354	ELR	82.32143402	DRGR	-2483.484954
PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 14 MIN 28.18 SEC TMST 296405.2070 J.C. 2439893.0516 3 DAY 10 HR 20.1 MIN

SELENOGRAPHIC

LEM	ALT	29331.62500	R	5731726.437	VI	2423.311614	X	5138805.000	VX	-1240.529449
40	LTDM	-3.131186932			FPVI	-4.989500999	Y	-2519395.125	VY	-2073.610839
	LONM	-26.11726760			AZVI	274.0909156	Z	-313080.2265	VZ	183.4775943
A	3174628.593	ASND	296.5130958	VVEN	-54506134.50	APOG	5.688081324	VAPG	2411.928039
TIMP	20849.87524	LTDI	-2.994862645	LONI	-28.00258255	CRIP	.0941570876		
WT	18665.09570	ATLI	78.38013076	VA	2438.449188	AAAP	6.646420896	VIR	-210.7632217
DVV	17.63827514	AMIS	94.08965206	FPVA	-4.958449363	AAAY	.0242667151	VIT	2414.128814
RANG	30.86950683	RLAT	179.9999370	AZVA	274.0652847	AAAT	6.646465182	VAT	-2429.323608
F	10400.00000	DWT	-33.54838705			VISN	3660.006164	DVI	17.92702245
VLGR	-32.62734794	VLML	34.29065942	ASPM	310.0000000	TPSE	2261756.250	IDVL	3290.835632
RDRC1	TARGET SITE	RGR	190314.0820	AZR	94.04155445	ELR	82.07768058	DRGR	-2414.742736
PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 14 MIN 32.18 SEC TMST 296409.2070 J.C. 2439893.0518 3 DAY 10 HR 20.2 MIN

SELENOGRAPHIC

LEM	ALT	28483.62500	R	5730878.375	VI	2353.703765	X	5133801.812	VX	-1215.580688

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40	LTDM	-3.124395668			FPVI	-5.196899414	Y	-2527742.187	VY	-2007.564025
	LONM	-26.214363C9			AZVI	274.C961647	Z	-312355.6210	VZ	178.8066234
	A	3154865.031	ASND	296.5114517	VVEN	-54847587.00	APOG	5.556325674	VAPG	2341.871765
	TIMP	20851.6394C	LTDI	-2.995755255	LONI	-27.99242C19	CRIP	5896.586730		
	WT	18530.902C9	ATLI	78.05229282	VA	2368.834259	AAAP	6.768248558	VIR	-213.1954536
	DVV	17.73256087	AMIS	94.09483814	FPVA	-5.163615226	AAAY	.C249871046	VIT	2344.028381
	RANG	29.27769088	RLAT	179.9999351	AZVA	274.0697402	AAAT	6.768294692	VAT	-2359.220916
	F	10400.00CCC	DWT	-33.54838705			VISN	3731.973266	DVI	18.0568428C
	VLGR	-34.49858713	VLML	37.39060974	ASPM	310.CCOCC00	TPSE	2303356.250	ICVL	3362.802642
	RDRO1	TARGET SITE	RGR	18C591.1152	AZR	94.0381C214	ELR	81.82005500	DRGR	-2345.541931
	PICH	.1C57434287	YAW	.00CC0000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 14 MIN 36.18 SEC TMST 296413.2070 J.D. 2439893.0518 3 DAY 10 HR 2C.2 MIN

SELENOGRAPHIC

LEM	ALT	27626.50000	R	5730021.250	VI	2283.671844	X	5128990.750	VX	-1189.808135
40	LTDM	-3.117795854			FPVI	-5.411001205	Y	-2535640.218	VY	-1941.446166
	LONM	-26.30660247			AZVI	274.1012496	Z	-311649.8515	VZ	174.C705718
	A	3135780.937	ASND	296.5118904	VVEN	-55181384.00	APOG	5.421083033	VAPG	2271.389465
	TIMP	20853.44873	LTDI	-2.996570140	LONI	-27.98125839	CRIP	5896.417236		
	WT	18396.70874	ATLI	77.72165679	VA	2298.794860	AAAP	6.886352777	VIR	-215.3491077
	DVV	17.82843518	AMIS	94.09986114	FPVA	-5.375298500	AAAY	.0257549214	VIT	2273.495513
	RANG	27.76560115	RLAT	179.9999332	AZVA	274.0739860	AAAT	6.886400938	VAT	-2288.685760
	F	10400.00000	DWT	-33.54838705			VISN	3804.463439	DVI	18.18855714
	VLGR	-36.44761657	VLML	40.71451807	ASPM	310.C000C00	TPSE	2344956.250	ICVL	3435.292816
	RDRO1	TARGET SITE	RGR	171348.0000	AZR	94.02974128	ELR	81.57034969	DRGR	-2275.938873
	PICH	.1C57434287	YAW	.00C00000 00	ROLL	.0000C000 00				

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6 FEB. 1968 13 HR 14 MIN 4C.18 SEC TMST 296417.2070 J.C. 2439893.0518 3 DAY 10 HR 2C.3 MIN

SELENOGRAPHIC

LEM	ALT	26761.250CC	R	5729156.000	VI	2213.210723	X	5124284.375	VX	-1163.278457
40	LTDM	-3.111389398			FPVI	-5.632168769	Y	-2543273.625	VY	-1875.215484
	LONM	-26.39602661			AZVI	274.1061782	Z	-310963.1406	VZ	169.2689247
	A	3117365.531	ASND	296.5123596	VVEN	-55507361.00	APOG	5.282415092	VAPG	2200.47702C
	TIMP	20855.30249	LTDI	-2.997315824	LONI	-27.97103881	CRIP	5896.253112		
	WT	18262.51513	ATLI	77.38820457	VA	2228.325897	AAAP	7.000413835	VIR	-217.2082195
	DVV	17.92593979	AMIS	94.10472106	FPVA	-5.593842506	AAAY	.0265750394	VIT	2202.526336
	RANG	26.29890584	RLAT	179.9999294	AZVA	274.0780105	AAAT	7.000464260	VAT	-2217.714324
	F	10400.00CCC	DWT	-33.54838705			VISN	3877.484313	DVI	18.32220745
	VLGR	-38.476984C2	VLML	44.27566003	ASPM	310.0000000	TPSE	2386556.250	ICVL	3508.313598
	RDR01	TARGET SITE	RGR	162384.1621	AZR	94.02070903	ELR	81.31807518	DRGR	-2205.899658
	PICH	.1C57434287	YAW	.00CC0000 00	ROLL	.0000C000 00				

6 FEB. 1968 13 HR 14 MIN 44.18 SEC TMST 296421.2070 J.C. 2439893.0519 3 DAY 10 HR 2C.4 MIN

SELENOGRAPHIC

LEM	ALT	25889.1875C	R	5728283.937	VI	2142.315155	X	5119593.812	VX	-1136.048553
40	LTDM	-3.105178087			FPVI	-5.86C813140	Y	-2550825.812	VY	-1808.833938
	LONM	-26.48467636			AZVI	274.11C9504	Z	-310295.7343	VZ	164.4011573
	A	3099608.875	ASND	296.5108C70	VVEN	-55825344.50	APOG	5.140424668	VAPG	2129.130401
	TIMP	20857.1997C	LTDI	-2.997999459	LONI	-27.96371841	CRIP	5896.134521		
	WT	18128.32153	ATLI	77.05191802	VA	2157.421997	AAAP	7.110070169	VIR	-218.7565746
	DVV	18.02511644	AMIS	94.10941696	FPVA	-5.819631576	AAAY	.0274527366	VIT	2131.117004
	RANG	24.84574747	RLAT	179.9999275	AZVA	274.0818138	AAAT	7.110123157	VAT	-2146.302673
	F	10400.00CCC	DWT	-33.54838705			VISN	3951.043731	DVI	18.45783591
	VLGR	-40.58937692	VLML	48.08809280	ASPM	310.C000000	TPSE	2428156.250	ICVL	3581.872985
	RDR01	TARGET SITE	RGR	153499.6582	AZR	94.01625537	ELR	81.04946708	DRGR	-2135.384979
	PICH	.1C57434287	YAW	.00000000 00	ROLL	.00000000 00				

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6 FEB. 1968 13 HR 14 MIN 48.18 SEC TMST 296425.2070 J.D. 2439893.0519 3 DAY 10 HR 20.4 MIN

SELENOGRAPHIC

LEM	ALT	25011.68750	R	5727406.375	VI	2070.979766	X	5115105.500	VX	-1107.977783
40	LTDM	-3.099164694			FPVI	-6.097403526	Y	-2557928.312	VY	-1742.387130
	LONM	-26.56841659			AZVI	274.1155624	Z	-309647.9609	VZ	159.4666996
	A	3082501.906	ASND	296.5113449	VVEN	-56135157.50	APOG	4.995245575	VAPG	2057.345428
	TIMP	20859.13989	LTDI	-2.998628944	LONI	-27.95508575	CRIP	5895.993896		
	WT	17994.12752	ATLI	76.71277999	VA	2086.077880	AAAP	7.214904844	VIR	-219.9774799
	DVV	18.12600970	AMIS	94.11394977	FPVA	-6.053107261	AAAY	.0283949238	VIT	2059.263732
	RANG	23.47218966	RLAT	179.9999237	AZVA	274.0853881	AAAT	7.214960634	VAT	-2074.447082
	F	10400.00000	DWT	-33.54838705			VISN	4025.149688	DVI	18.59548783
	VLGR	-42.78764104	VLML	52.16672039	ASPM	310.0000000	TPSE	2469756.250	IDVL	3655.979095
	RDR01	TARGET SITE	RGR	145099.8437	AZR	94.00598621	ELR	80.79144191	DRGR	-2064.459197
	PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 14 MIN 52.18 SEC TMST 296429.2070 J.D. 2439893.0519 3 DAY 10 HR 20.5 MIN

SELENOGRAPHIC

LEM	ALT	24129.81250	R	5726524.562	VI	1999.199157	X	5110731.000	VX	-1079.125091
40	LTDM	-3.093351006			FPVI	-6.342475891	Y	-2564764.750	VY	-1675.836181
	LONM	-26.64928817			AZVI	274.1200141	Z	-309020.0781	VZ	154.4649829
	A	3066036.281	ASND	296.5119171	VVEN	-56436623.00	APOG	4.846980571	VAPG	1985.118072
	TIMP	20861.12231	LTDI	-2.999211430	LONI	-27.94709396	CRIP	5895.863403		
	WT	17859.93432	ATLI	76.37076854	VA	2014.287963	AAAP	7.314440786	VIR	-220.8538913
	DVV	18.22866439	AMIS	94.11831951	FPVA	-6.294773101	AAAY	.0294095869	VIT	1986.962707
	RANG	22.14608192	RLAT	179.9999237	AZVA	274.0887222	AAAT	7.314499914	VAT	-2002.143737
	F	10400.00000	DWT	-33.54838705			VISN	4099.810363	DVI	18.73520803
	VLGR	-45.07480335	VLML	56.52737760	ASPM	310.0000000	TPSE	2511356.250	IDVL	3730.639770
	RDR01	TARGET SITE	RGR	136984.6367	AZR	93.99485969	ELR	80.53127861	DRGR	-1993.084075

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6 FEB. 1968 13 HR 14 MIN 56.18 SEC TMST 296433.2070 J.C. 2439893.0520 3 DAY 10 HR 20.6 MIN

SELENOGRAPHIC

LEM	ALT	23245.31250	R	5725640.125	VI	1926.967697	X	5106411.937	VX	-1049.520477
40	LTDM	-3.087738275			FPVI	-6.596653938	Y	-2571457.312	VY	-1609.158889
	LONM	-26.72864532			AZVI	274.1243133	Z	-308412.2890	VZ	149.3954639
	A	3050204.531	ASND	296.5111732	VVEN	-56729551.50	APOG	4.695804655	VAPG	1912.444183
	TIMP	20863.14697	LTDI	-2.999752044	LONI	-27.94104003	CRIP	5895.764404		
	WT	17725.74096	ATLI	76.02586650	VA	1942.046691	AAAP	7.408122122	VIR	-221.368431C
	DVV	18.33312869	AMIS	94.12252521	FPVA	-6.545208930	AAAY	.0305047617	VIT	1914.210144
	RANG	20.84542608	RLAT	179.9999198	AZVA	274.0918121	AAAT	7.408184886	VAT	-1929.388854
	F	10400.00000	DWT	-33.54838705			VISN	4175.034179	DVI	18.87704372
	VLGR	-47.45409917	VLML	61.18691921	ASPM	310.0000000	TPSE	2552956.250	ICVL	3805.863525
	RCRO1	TARGET SITE	RGR	129021.5781	AZR	93.98697853	ELR	80.25761604	DRGR	-1921.229064

PICH .1057434287 YAW .00000000 00 ROLL .00000000 00

6 FEB. 1968 13 HR 15 MIN .18 SEC TMST 296437.2070 J.C. 2439893.0520 3 DAY 10 HR 20.6 MIN

SELENOGRAPHIC

LEM	ALT	22359.43750	R	5724754.187	VI	1854.279663	X	5102274.562	VX	-1019.076347
40	LTDM	-3.082329779			FPVI	-6.860657691	Y	-2577760.468	VY	-1542.40924C
	LONM	-26.80372238			AZVI	274.1284523	Z	-307824.9492	VZ	144.2575225
	A	3034999.718	ASND	296.5118408	VVEN	-57013756.00	APOG	4.541851401	VAPG	1839.319458
	TIMP	20865.21386	LTDI	-3.000259280	LONI	-27.93407440	CRIP	5895.650512		
	WT	17591.54736	ATLI	75.67805671	VA	1869.348236	AAAP	7.495302796	VIR	-221.5032787
	DVV	18.43944978	AMIS	94.12656688	FPVA	-6.805091857	AAAY	.0316910255	VIT	1841.002273
	RANG	19.61400818	RLAT	179.9999160	AZVA	274.0946426	AAAT	7.495369672	VAT	-1856.178634
	F	10400.00000	DWT	-33.54838705			VISN	4250.829589	DVI	19.0210433C

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VLGR	-49.92900562	VLML	66.16333103	ASPM	310.0000000	TPSE	2594556.250	ICVL	3881.658966
RDRC1	TARGET SITE	RGR	121481.1113	AZR	93.97411441	ELR	79.99328899	DRGR	-1848.941009
PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 15 MIN 4.18 SEC TMST 296441.2070 J.D. 2439893.0521 3 DAY 10 HR 20.7 MIN

	SELENOGRAPHIC								
LEM	ALT	21473.81250	R	5723868.562	VI	1781.129257	X	5098167.437	VX	-987.8769989
40	LTDM	-3.07712643			FPVI	-7.135334014	Y	-2583979.843	VY	-1475.528884
	LONM	-26.87793731			AZVI	274.1324386	Z	-307258.2617	VZ	139.0505714
	A	3020415.937	ASND	296.5105171	VVEN	-57289041.50	APOG	4.385326623	VAPG	1765.739791
	TIMP	20867.32299	LTDI	-3.000737607	LONI	-27.92956161	CRIP	5895.576660		
	WT	17457.35375	ATLI	75.32731819	VA	1796.186767	AAAP	7.575222075	VIR	-221.2402057
	DVV	18.54767894	AMIS	94.13044452	FPVA	-7.075210571	AAAY	.0329805724	VIT	1767.335327
	RANG	18.39689683	RLAT	179.9999141	AZVA	274.0971984	AAAT	7.575293898	VAT	-1782.509368
	F	10400.00000	DWT	-33.54838705			VISN	4327.205444	DVI	19.16725683
	VLGR	-52.50328063	VLML	71.47586154	ASPM	310.0000000	TPSE	2636156.250	ICVL	3958.034881
	RDRC1	TARGET SITE	RGR	114029.5371	AZR	93.96724891	ELR	79.70759582	DRGR	-1776.148330
	PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 15 MIN 8.18 SEC TMST 296445.2070 J.D. 2439893.0521 3 DAY 10 HR 20.8 MIN

	SELENOGRAPHIC								
LEM	ALT	20590.06250	R	5722984.750	VI	1707.510665	X	5094279.750	VX	-955.8046722
40	LTDM	-3.07213127			FPVI	-7.421679496	Y	-2589748.093	VY	-1408.593139
	LONM	-26.94714355			AZVI	274.1362686	Z	-306712.5898	VZ	133.7739849
	A	3006447.906	ASND	296.5113067	VVEN	-57555206.50	APOG	4.226436078	VAPG	1691.700988
	TIMP	20869.47460	LTDI	-3.001194238	LONI	-27.92329025	CRIP	5895.473999		
	WT	17323.16015	ATLI	74.97363090	VA	1722.556365	AAAP	7.646982729	VIR	-220.5606365
	DVV	18.65786750	AMIS	94.13415813	FPVA	-7.356495857	AAAY	.0343875303	VIT	1693.205734

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RANG	17.26208472	RLAT	179.9999103	AZVA	274.0994720	AAAT	7.647059977	VAT	-1708.377426
F	10400.00000	DWT	-33.54838705			VISN	4404.170715	DVI	19.31573581
VLGR	-55.18101167	VLML	77.14517974	ASPM	310.0000000	TPSE	2677756.250	IDVL	4035.000152
RDRO1	TARGET SITE	RGR	107071.2119	AZR	93.95247745	ELR	79.44040584	DRGR	-1702.928543
PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 15 MIN 12.18 SEC TMST 296449.2070 J.D. 2439893.0521 3 DAY 10 HR 20.8 MIN

	SELENOGRAPHIC								
LEM	ALT	19709.87500	R	5722104.625	VI	1633.417831	X	5090522.062	VX	-922.9054718
40	LTDM	-3.067345678			FPVI	-7.720886230	Y	-2595248.468	VY	-1341.568420
	LONM	-27.01338577			AZVI	274.1399497	Z	-306188.1718	VZ	128.4271316
	A	2993091.281	ASND	296.5121726	VVEN	-57812047.00	APOG	4.065457403	VAPG	1617.198730
	TIMP	20871.67041	LTDI	-3.001633703	LONI	-27.91725158	CRIP	5895.375122		
	WT	17188.96679	ATLI	74.61697673	VA	1648.450958	AAAP	7.709512472	VIR	-219.4455089
	DVV	18.77006983	AMIS	94.13770675	FPVA	-7.650051116	AAAY	.0359290978	VIT	1618.609725
	RANG	16.17558979	RLAT	179.9999084	AZVA	274.1014442	AAAT	7.709596157	VAT	-1633.779113
	F	10400.00000	DWT	-33.54838705			VISN	4481.734436	DVI	19.46653270
	VLGR	-57.96667766	VLML	83.19356727	ASPM	310.0000000	TPSE	2719356.250	IDVL	4112.563720
	RDRO1	TARGET SITE	RGR	100406.7294	AZR	93.93638801	ELR	79.17366886	DRGR	-1629.236053
	PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 15 MIN 16.18 SEC TMST 296453.2070 J.D. 2439893.0522 3 DAY 10 HR 20.9 MIN

	SELENOGRAPHIC								
LEM	ALT	18835.06250	R	5721229.812	VI	1558.844802	X	5086866.562	VX	-889.1850585
40	LTDM	-3.062771320			FPVI	-8.034371376	Y	-2600541.593	VY	-1274.447235
	LONM	-27.07732772			AZVI	274.1434745	Z	-305685.2578	VZ	123.0094194
	A	2980342.156	ASND	296.5124549	VVEN	-58059351.50	APOG	3.902586072	VAPG	1542.228942
	TIMP	20873.91088	LTDI	-3.002061814	LONI	-27.91204833	CRIP	5895.289855		

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WT	17054.77319	ATLI	74.25733470	VA	1573.864425	AAAP	7.761524438	VIR	-217.8753318
DVV	18.88434171	AMIS	94.14109230	FPVA	-7.95720005	AAAY	.0376252415	VIT	1543.543777
RANG	15.12765061	RLAT	179.9999065	AZVA	274.1030883	AAAT	7.761615574	VAT	-1558.710861
F	10400.00000	DWT	-33.54838705			VISN	4559.906127	DVI	19.61970305
VLGR	-60.86522340	VLML	89.64515304	ASPP	310.0000000	TPSE	2760956.250	ICVL	4190.735412
RDROI	TARGET SITE	RGR	93971.12500	AZR	93.92170810	ELR	78.89989280	DRGR	-1555.051055
PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 15 MIN 16.18 SEC TPST 296453.2070 J.D. 2439893.0522 3 DAY 10 HR 20.9 MIN

SELENOGRAPHIC

CM-SP	ALT	481691.4375	R	6184086.437	VI	5291.504943	X	5715835.312	VX	-1974.199157
120	LTDM	-3.404519915			FPVI	.0047454834	Y	-2331798.031	VY	-4896.507324
	LONP	-22.19320297			AZVI	273.8653717	Z	-367242.7070	VZ	356.0571365
	A	6188299.625	ASND	296.4939193	VVEN	-27961918.50	APOG	80.68918991	VAPG	5284.168518
	ECC	.70653301-03	ARGP	311.6339759	ARGL	318.5722045	PERG	79.25004005	VPER	5291.640625
	INCL	174.8507957	MA	6.928466379	TA	6.938226282	PERD	122.5508842	MCON	ELLIPSE
	LTDE	-2.926009982	LONE	-.4700508117	LTDS	-1.416992619	LONS	89.03901386		
	WT	35799.86279	ATLI	73.77287101	VA	5307.898559	AAAP	-17.89172482	VIR	.4381296634
	DVV	4.52629780 7	AMIS	288.0201644	FPVA	.0047311783	AAAY	-12.54820036	VIT	5291.504699
	RANG	95.19636535	RLAT	172.4848213	AZVA	273.8534164	AAAT	21.41132426	VAT	-5307.898498

COORDINATES OF LEM RELATIVE TO CM-SM

TPST	296453.2070	RCL	686741.6953	OPCL	.0023168491	XCL	487525.6601	VXCL	-3772.141235
		ACL	.0032635757	DRCL	-2432.051422	YCL	27.76953125	VYCL	.0641326904
		ECL	134.7723026			ZCL	-483666.0976	VZCL	-349.0516929

6 FEB. 1968 13 HR 15 MIN 20.18 SEC TPST 296457.2070 J.D. 2439893.0522 3 DAY 10 HR 21.0 MIN

SELENOGRAPHIC

LEM	ALT	17967.50000	R	5720362.312	VI	1483.785507	X	5083378.625	VX	-854.6022644

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40	LTDM	-3.0584107C4			FPVI	-8.363866806	Y	-2605504.968	VY	-1207.254516
	LONM	-27.13758087			AZVI	274.1468505	Z	-305204.1718	VZ	117.5200786
	A	2968197.718	ASND	296.5135116	VVEN	-58296903.50	APOG	3.738171815	VAPG	1466.787338
	TIMP	20876.19750	LTDI	-3.002484440	LONI	-27.90623855	CRIP	5895.194641		
	WT	16920.57958	ATLI	73.89468669	VA	1498.790649	AAAP	7.801457583	VIR	-215.8301925
	DVV	19.00074028	AMIS	94.14431095	FPVA	-8.279541015	AAAY	.0395020712	VIT	1468.004333
	RANG	14.13981735	RLAT	179.9999027	AZVA	274.1043777	AAAT	7.801557481	VAT	-1483.169143
	F	10400.00000	DWT	-33.54838705			VISN	4638.695312	DVI	19.77530264
	VLGR	-63.88215684	VLML	96.52621459	ASPM	310.000000	TPSE	2802556.250	IDVL	4269.524597
	RDRO1	TARGET SITE	RGR	87900.09570	AZR	93.90278911	ELR	78.63719940	DRGR	-1480.397521
	PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 15 MIN 24.18 SEC TMST 296461.2070 J.D. 2439893.0522 3 DAY 10 HR 21.0 MIN

SELENOGRAPHIC

LEM	ALT	17109.12500	R	5719503.937	VI	1408.233932	X	5080030.875	VX	-819.1631164
40	LTDM	-3.054265797			FPVI	-8.711483955	Y	-2610199.562	VY	-1139.982406
	LONM	-27.19480895			AZVI	274.1500816	Z	-304745.1953	VZ	111.9584913
	A	2956655.718	ASND	296.5146865	VVEN	-58524479.50	APOG	3.572523206	VAPG	1390.869720
	TIMP	20878.53247	LTDI	-3.002907007	LONI	-27.90042877	CRIP	5895.099487		
	WT	16786.38598	ATLI	73.52901077	VA	1423.223403	AAAP	7.827396512	VIR	-213.2896919
	DVV	19.11932611	AMIS	94.14736366	FPVA	-8.619032859	AAAY	.0415892163	VIT	1391.987899
	RANG	13.19972765	RLAT	179.9999008	AZVA	274.1052856	AAAT	7.827506840	VAT	-1407.150436
	F	10400.00000	DWT	-33.54838705			VISN	4718.111877	DVI	19.93339061
	VLGR	-67.02366924	VLML	103.8655500	ASPM	310.000000	TPSE	2844156.250	IDVL	4348.941223
	RDRO1	TARGET SITE	RGR	82128.61425	AZR	93.88219642	ELR	78.37940979	DRGR	-1405.254821
	PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

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6 FEB. 1968 13 HR 15 MIN 28.18 SEC TPST 296465.2070 J.D. 2439893.0524 3 DAY 10 HR 21.1 MIN

SELENOGRAPHIC

LEM	ALT	16261.93750	R	5718656.625	VI	1332.184082	X	5076763.875	VX	-782.8830108
40	LTDM	-3.050338268			FPVI	-9.079845428	Y	-2614746.343	VY	-1072.615432
	LONM	-27.25037002			AZVI	274.1531677	Z	-304308.5937	VZ	106.3239536
	A	2945714.625	ASND	296.5146293	VVEN	-58741851.50	APOG	3.405948847	VAPG	1314.471954
	TIMP	20880.91748	LTDI	-3.003335386	LONI	-27.89590835	CRIP	5895.025390		
	WT	16652.19238	ATLI	73.16028785	VA	1347.156555	AAAP	7.836969852	VIR	-210.2329635
	DVV	19.24016070	AMIS	94.15024948	FPVA	-8.978091239	AAAY	.0439248048	VIT	1315.490982
	RANG	12.28952312	RLAT	179.9998970	AZVA	274.1057662	AAAT	7.837092936	VAT	-1330.651290
	F	10400.00000	DWT	-33.54838705			VISN	4798.165832	DVI	20.09402608
	VLGR	-70.29679393	VLML	111.6949615	ASPM	310.0000000	TPSE	2885756.250	ICVL	4428.995239
	RDRO1	TARGET SITE	RGR	76525.51367	AZR	93.86675739	ELR	78.10658264	DRGR	-1329.587066
	PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 15 MIN 32.18 SEC TPST 296469.2070 J.D. 2439893.0524 3 DAY 10 HR 21.2 MIN

SELENOGRAPHIC

LEM	ALT	15428.00000	R	5717822.687	VI	1255.630264	X	5073706.375	VX	-745.6984634
40	LTDM	-3.046630144			FPVI	-9.472237587	Y	-2618901.968	VY	-1005.195335
	LONM	-27.30149078			AZVI	274.1561088	Z	-303894.6914	VZ	100.6157376
	A	2935374.031	ASND	296.5161094	VVEN	-58948785.00	APOG	3.238911598	VAPG	1237.589920
	TIMP	20883.35668	LTDI	-3.003774613	LONI	-27.88986587	CRIP	5894.926330		
	WT	16517.99902	ATLI	72.78849697	VA	1270.584167	AAAP	7.827196061	VIR	-206.6387214
	DVV	19.36330771	AMIS	94.15297031	FPVA	-9.359747886	AAAY	.0465572905	VIT	1238.510314
	RANG	11.45135354	RLAT	179.9998931	AZVA	274.1057701	AAAT	7.827334523	VAT	-1253.668441
	F	10400.00000	DWT	-33.54838705			VISN	4878.867553	DVI	20.25727128
	VLGR	-73.70961761	VLML	120.0498914	ASPM	310.0000000	TPSE	2927356.250	ICVL	4509.696838
	RDRO1	TARGET SITE	RGR	71359.27246	AZR	93.84288311	ELR	77.86398792	DRGR	-1253.445556
	PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

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6 FEB. 1968 13 HR 15 MIN 36.18 SEC TMST 296473.2070 J.D. 2439893.0525 3 DAY 10 HR 21.2 MIN

SELENOGRAPHIC

LEM	ALT	14609.50000	R	5717004.375	VI	1178.566970	X	5070705.187	VX	-707.6597213
40	LTDM	-3.043143004			FPVI	-9.892848968	Y	-2622970.312	VY	-937.6803894
	LONM	-27.35158538			AZVI	274.1589164	Z	-303503.7460	VZ	94.83313465
	A	2925634.062	ASND	296.5157394	VVEN	-59145037.50	APOG	3.071843504	VAPG	1160.219558
	TIMP	20885.85302	LTDI	-3.004230231	LONI	-27.88565826	CRIP	5894.857238		
	WT	16383.80541	ATLI	72.41361808	VA	1193.500427	AAAP	7.794287085	VIR	-202.4850978
	DVV	19.488835C9	AMIS	94.15552330	FPVA	-9.767846107	AAAY	.0495464885	VIT	1161.042587
	RANG	10.6298536C	RLAT	179.9998912	AZVA	274.1052360	AAAT	7.794444501	VAT	-1176.198562
	F	10400.00000	DWT	-33.54838705			VISN	4960.227600	DVI	20.42319107
	VLGR	-77.27155113	VLML	128.9702663	ASPM	310.0000000	TPSE	2968956.250	IDVL	4591.056884
	RDR01	TARGET SITE	RGR	66298.93750	AZR	93.82897377	ELR	77.59477233	DRGR	-1176.750595
	PICH	.1C57434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 15 MIN 4C.18 SEC TMST 296477.2070 J.D. 2439893.0525 3 DAY 10 HR 21.3 MIN

SELENOGRAPHIC

LEM	ALT	13808.8125C	R	5716203.687	VI	1100.989181	X	5067952.125	VX	-668.6858291
40	LTDM	-3.C39879411			FPVI	-10.34709930	Y	-2626585.937	VY	-870.1263351
	LONM	-27.39651870			AZVI	274.1615943	Z	-303136.1054	VZ	88.97537040
	A	2916495.656	ASNC	296.5176734	VVEN	-5933C359.50	APOG	2.905176579	VAPG	1082.356811
	TIMP	20888.41C64	LTDI	-3.004709631	LONI	-27.87906646	CRIP	5894.749267		
	WT	16249.61193	ATLI	72.03563022	VA	1115.899963	AAAP	7.733337521	VIR	-197.7497425
	DVV	19.61681032	AMIS	94.15791034	FPVA	-10.20734786	AAAY	.0529707838	VIT	1083.084579
	RANG	9.893086552	RLAT	179.9998874	AZVA	274.1040725	AAAT	7.733518958	VAT	-1098.238479
	F	10400.00CCC	DWT	-33.54838705			VISN	5042.256713	DVI	20.59185099
	VLGR	-80.99370574	VLML	138.5016422	ASPM	310.0000000	TPSE	3010556.250	IDVL	4673.C85998
	RDR01	TARGET SITE	RGR	61746.10009	AZR	93.80184364	ELR	77.37947177	DRGR	-1099.576477

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6 FEB. 1968 13 HR 15 MIN 44.18 SEC TPST 296481.2070 J.D. 2439893.0525 3 DAY 10 HR 21.4 MIN

	SELENOGRAPHIC									
LEM	ALT	13028.31250	R	5715423.187	VI	1022.892654	X	5065356.875	VX	-628.8016433
40	LTDM	-3.036840885			FPVI	-10.84213161	Y	-2629931.250	VY	-802.5097961
	LONM	-27.43832397			AZVI	274.1641502	Z	-302792.0351	VZ	83.04168224
	A	2907960.750	ASND	296.5199203	VVEN	-59504495.50	APOG	2.739497095	VAPG	1003.997764
	TIMP	20891.03588	LTDI	-3.005218327	LONI	-27.87206649	CRIP	5894.634460		
	WT	16115.41833	ATLI	71.65451240	VA	1037.777954	AAAP	7.637895464	VIR	-192.4098148
	DVV	19.74730563	AMIS	94.16012763	FPVA	-10.68477725	AAAY	.0569331590	VIT	1004.633186
	RANG	9.207992911	RLAT	179.9998836	AZVA	274.1021728	AAAT	7.638107657	VAT	-1019.785041
	F	10400.00000	DWT	-33.54838705			VISN	5124.966125	DVI	20.76331996
	VLGR	-84.88941478	VLML	148.6968116	ASPP	310.0000000	TPSE	3052156.250	ICVL	4755.795471
	RDRC1	TARGET SITE	RGR	57503.07470	AZR	93.77266025	ELR	77.18630027	DRGR	-1021.866294

PICH .1057434287 YAW .00000000 00 ROLL .00000000 00

6 FEB. 1968 13 HR 15 MIN 48.18 SEC TPST 296485.2070 J.D. 2439893.0526 3 DAY 10 HR 21.4 MIN

	SELENOGRAPHIC									
LEM	ALT	12270.37500	R	5714665.125	VI	944.2743530	X	5062828.187	VX	-588.0219955
40	LTDM	-3.034028917			FPVI	-11.38756656	Y	-2633187.875	VY	-734.8131561
	LONM	-27.47904205			AZVI	274.1665992	Z	-302471.8007	VZ	77.03127861
	A	2900031.937	ASND	296.5205039	VVEN	-59667181.00	APOG	2.575298845	VAPG	925.1385955
	TIMP	20893.73461	LTDI	-3.005763679	LONI	-27.86661911	CRIP	5894.545104		
	WT	15981.22485	ATLI	71.27024555	VA	959.1306686	AAAP	7.499287426	VIR	-186.4419040
	DVV	19.88039398	AMIS	94.16217613	FPVA	-11.20887565	AAAY	.0615712851	VIT	925.6854019
	RANG	8.540967345	RLAT	179.9998817	AZVA	274.0993919	AAAT	7.499540150	VAT	-940.8352890
	F	10400.00000	DWT	-33.54838705			VISN	5208.367126	DVI	20.93766832

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VLGR	-88.97496128	VLML	159.6180744	ASPM	310.0000000	TPSE	3093756.250	ICVL	4839.196411
RDRO1	TARGET SITE	RGR	53372.87060	AZR	93.75609397	ELR	76.96999168	DRGR	-943.5747756
PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 15 MIN 52.18 SEC TMST 296489.2070 J.D. 2439893.0526 3 DAY 10 HR 21.5 MIN

	SELENOGRAPHIC								
LEM	ALT	11537.68750	R	5713932.375	VI	865.1331176	X	5060559.375	VX	-546.2797698
40	LTDM	-3.031446337			FPVI	-11.99666595	Y	-2635991.687	VY	-667.0837860
	LONM	-27.51453018			AZVI	274.1689567	Z	-302175.8320	VZ	70.94333362
	A	2892713.093	ASND	296.5236434	VVEN	-59818145.50	APOG	2.413332700	VAPG	845.7755813
	TIMP	20896.51611	LTDI	-3.006353914	LONI	-27.85850524	CRIP	5894.412048		
	WT	15847.03125	ATLI	70.88280773	VA	879.9559173	AAAP	7.305582463	VIR	-179.8220825
	DVV	20.01615381	AMIS	94.16405582	FPVA	-11.79165458	AAAY	.0670767482	VIT	846.2383346
	RANG	7.957024574	RLAT	179.9998779	AZVA	274.0955162	AAAT	7.305890321	VAT	-861.3863449
	F	10400.00000	DWT	-33.54838705			VISN	5292.471435	DVI	21.11496973
	VLGR	-93.27064800	VLML	171.3406028	ASPM	310.0000000	TPSE	3135356.250	ICVL	4923.300781
	RDRO1	TARGET SITE	RGR	49756.04052	AZR	93.72404766	ELR	76.83532047	DRGR	-864.7450180
	PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 15 MIN 56.18 SEC TMST 296493.2070 J.D. 2439893.0526 3 DAY 10 HR 21.6 MIN

	SELENOGRAPHIC								
LEM	ALT	10832.75000	R	5713227.500	VI	785.4707489	X	5058459.250	VX	-503.5916252
40	LTDM	-3.029094457			FPVI	-12.68826484	Y	-2638524.468	VY	-599.3026885
	LONM	-27.54683303			AZVI	274.1712455	Z	-301904.3593	VZ	64.77702522
	A	2886008.562	ASND	296.5274543	VVEN	-59957109.50	APOG	2.254205524	VAPG	765.9052047
	TIMP	20899.38916	LTDI	-3.006998062	LONI	-27.84965133	CRIP	5894.266906		
	WT	15712.83776	ATLI	70.49217605	VA	800.2539825	AAAP	7.039897680	VIR	-172.5258388
	DVV	20.15466403	AMIS	94.16576576	FPVA	-12.45007419	AAAY	.0737162055	VIT	766.2891921

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RANG	7.428097367	RLAT	179.9998760	AZVA	274.0902595	AAAT	7.040283560	VAT	-781.4353866
F	10400.00000	DWT	-33.54838705			VISN	5377.290954	DVI	21.29529953
VLGR	-97.80238246	VLML	183.9575386	ASPM	310.0000000	TPSE	3176956.250	IDVL	5008.120178
RDRO1	TARGET SITE	RGR	46455.69873	AZR	93.69048023	ELR	76.74262142	DRGR	-785.3167572
PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 16 MIN .18 SEC TMST 296497.2070 J.D. 2439893.0527 3 DAY 10 HR 21.6 MIN

	SELENOGRAPHIC								
LEM	ALT	10158.43750	R	5712553.187	VI	705.2939300	X	5056468.562	VX	-459.9578094
40	LTDM	-3.026974529			FPVI	-13.49001312	Y	-2640907.218	VY	-531.4625244
	LONM	-27.57729721			AZVI	274.1735038	Z	-301657.6562	VZ	58.53148365
	A	2879924.000	ASND	296.5308074	VVEN	-60083784.50	APOG	2.098740249	VAPG	685.5239944
	TIMP	20902.36718	LTDI	-3.007705271	LONI	-27.84129333	CRIP	5894.129760		
	WT	15578.64416	ATLI	70.09833145	VA	720.0292663	AAAP	6.677548050	VIR	-164.5280876
	DVV	20.29600763	AMIS	94.16730499	FPVA	-13.20888996	AAAY	.0818814561	VIT	685.8352813
	RANG	6.928957462	RLAT	179.9998722	AZVA	274.0831832	AAAT	6.678049981	VAT	-700.9797744
	F	10400.00000	DWT	-33.54838705			VISN	5462.837951	DVI	21.47873592
	VLGR	-102.6037120	VLML	197.5865745	ASPM	310.0000000	TPSE	3218556.250	IDVL	5093.667297
	RDRO1	TARGET SITE	RGR	43341.81152	AZR	93.66750144	ELR	76.65696430	DRGR	-705.2574386
	PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 16 MIN 1.17 SEC TMST 296498.1953 J.D. 2439893.0527 3 DAY 10 HR 21.6 MIN

	SELENOGRAPHIC								
CM-SM	ALT	481712.6250	R	6184107.625	VI	5291.470275	X	5622496.375	VX	-2161.482788
120	LTDM	-3.253346323			FPVI	.0054531097	Y	-2550989.781	VY	-4815.838867
	LONM	-24.40433120			AZVI	273.9934768	Z	-350954.8867	VZ	367.8908805
	A	6188260.687	ASND	296.4877166	VVEN	-27962094.50	APOG	80.67739105	VAPG	5284.213073
	ECC	.70124056-03	ARGP	312.7043800	ARGL	320.7785949	PERG	79.24903202	VPER	5291.629272

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INCL	174.8507289	MA	8.062936663	TA	8.074212074	PERD	122.5497264	MOON	ELLIPSE
LTDE	-2.926649928	LONE	-.4707832336	LTDS	-1.416989252	LONS	89.03267478		
WT	35799.86279	ATLI	71.63489151	VA	5307.863952	AAAP	-20.12470507	VIR	.5034413337
DVV	4.526231884	AMIS	288.3171463	FPVA	.0054359436	AAAY	-12.40368258	VIT	5291.46997C
RANG	58.95460128	RLAT	171.9166145	AZVA	273.9811248	AAAT	23.14046168	VAT	-5307.863891

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	296498.1953	RCL	575771.1796	OPCL	.0030061374	XCL	317181.8359	VXCL	-4635.703552
		ACL	.0054569558	DRCL	-2387.094543	YCL	30.20898437	VYCL	.0731506347
		ECL	146.5724716			ZCL	-480529.0156	VZCL	-199.6563606

6 FEB. 1968 13 HR 16 MIN 1.17 SEC TMST 296498.1953 J.D. 2439893.0527 3 DAY 10 HR 21.6 MIN

SELENOGRAPHIC

LEM	ALT	9996.250000	R	5712391.000	VI	685.3405761	X	5056017.937	VX	-448.9880104
40	LTDM	-3.026485353			FPVI	-13.71025943	Y	-2641425.906	VY	-514.6414184
	LONM	-27.58401107			AZVI	274.1740646	Z	-301600.3906	VZ	56.97090387
	A	2878512.218	ASND	296.5321617	VVEN	-60113252.50	APOG	2.060835659	VAPG	665.5186691
	TIMP	20903.12231	LTDI	-3.007892251	LONI	-27.83872222	CRIP	5894.087646		
	WT	15545.37854	ATLI	70.00019931	VA	700.0623550	AAAP	6.568807780	VIR	-162.4340343
	DVV	20.33149361	AMIS	94.16765975	FPVA	-13.41649341	AAAY	.0842038123	VIT	665.8129501
	RANG	6.818199098	RLAT	179.9998703	AZVA	274.0810775	AAAT	6.569347441	VAT	-680.9570388
	F	10400.00000	DWT	-33.54838705			VISN	5484.158447	DVI	21.52469849
	VLGR	-103.8400516	VLML	201.1372261	ASPM	310.0000000	TPSE	3228864.843	IDVL	5114.987792
	RDR01	TARGET SITE	RGR	42652.40869	AZR	93.65896797	ELR	76.65437126	DRGR	-685.3118972
	PICH	.1057434287	YAW	.00000000 00	ROLL	.00000000 00				

SECONDARY PHASE CUTOFF ---- PRIMARY TIME TO GO .0414772033

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6 FEB. 1968 13 HR 16 MIN 1.17 SEC TMST 296498.1953 J.D. 2439893.0527 3 DAY 10 HR 21.6 MIN

SELENOGRAPHIC

LEM	ALT	9996.250000	R	5712391.000	VI	685.3405761	X	5056017.937	VX	-448.9880104
41	LTDM	-3.026485353			FPVI	-13.71025943	Y	-2641425.906	VY	-514.6414184
	LONM	-27.58401107			AZVI	274.1740646	Z	-301600.3906	VZ	56.97090387
	A	2878512.218	ASND	296.5321617	VVEN	-60113252.50	APOG	2.060835659	VAPG	665.5186691
	TIMP	20903.12231	LTDI	-3.007892251	LONI	-27.83872222	CRIP	5894.087646		
	WT	15545.37854	ATLI	70.00019931	VA	700.0623550	AAAP	6.568807780	VIR	-162.4340343
	DVV	20.33149385	AMIS	94.16765975	FPVA	-13.41649341	AAAY	.0842038123	VIT	665.8129501
	RANG	6.818199098	RLAT	179.9998703	AZVA	274.0810775	AAAT	6.569347441	VAT	-680.5570388
	F	10400.000000	DWT	-33.54838705			VISN	5484.158447	DVI	21.52469873
	VLGR	-103.8400516	VLML	201.1372261	ASPM	310.0000000	TPSE	3228864.843	ICVL	5114.987792
	RCRO1	TARGET SITE	RGR	42652.40869	AZR	93.65896797	ELR	76.65437126	DRGR	-685.3118972
	PICH	.1057434287	YAW	.00000000 00	ROLL	.0000000 00				

6 FEB. 1968 13 HR 16 MIN 1.17 SEC TMST 296498.1953 J.D. 2439893.0527 3 DAY 10 HR 21.6 MIN

SELENOGRAPHIC

LEM	ALT	9996.125000	R	5712391.125	VI	685.3312988	X	5056017.750	VX	-448.9828872
41	LTDM	-3.026484996			FPVI	-13.71036434	Y	-2641426.093	VY	-514.6335830
	LONM	-27.58401489			AZVI	274.1740646	Z	-301600.3476	VZ	56.97017669
	A	2878511.593	ASND	296.5321655	VVEN	-60113266.50	APOG	2.060825377	VAPG	665.5090460
	TIMP	20903.12231	LTDI	-3.007892191	LONI	-27.83872222	CRIP	5894.087646		
	WT	15545.36303	ATLI	70.00015354	VA	700.0530471	AAAP	6.568755507	VIR	-162.4330463
	DVV	20.33151030	AMIS	94.16765975	FPVA	-13.41659259	AAAY	.0842048935	VIT	665.8036193
	RANG	6.818199098	RLAT	179.9998703	AZVA	274.0810775	AAAT	6.569295227	VAT	-680.5477005
	F	10400.000000	DWT	-33.54838705			VISN	5484.168334	DVI	21.52472019
	VLGR	-103.8400516	VLML	201.1372261	ASPM	310.0000000	TPSE	3228864.843	ICVL	5114.997619
	RCRO1	TARGET SITE	RGR	42652.11865	AZR	93.65894412	ELR	76.65436744	DRGR	-685.3025970
	PICH	.1057434287	YAW	.00000000 00	ROLL	.0000000 00				

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COORDINATES OF LEM RELATIVE TO CM-SM

TMST	296498.1953	RCL	575771.4453	OPCL	.0030073022	XCL	317182.1289	VXCL	-4635.712829
		ACL	.0054590676	DRCL	-2387.102111	YCL	30.22070312	VYCL	.0731506347
		ECL	146.5724544			ZCL	-480529.1406	VZCL	-199.6548957

PRIMARY PHASE CUTOFF ---- PHASE TIME LAPSE 310.4677734

END PITCH RATE

6 FEB. 1968 13 HR 16 MIN 1.17 SEC TMST 296498.1953 J.D. 2439893.0527 3 DAY 10 HR 21.6 MIN

SELENOGRAPHIC

LEM	ALT	9996.125000	R	5712390.937	VI	685.3312759	X	5056017.750	VX	-448.9828872
43	LTDM	-3.026484996			FPVI	-13.71036434	Y	-2641426.093	VY	-514.6335830
	LONM	-27.58401489			AZVI	274.1740646	Z	-301600.3476	VZ	56.97017669
	A	2878511.593	ASND	296.5321655	VVEN	-60113266.50	APOG	2.060825377	VAPG	665.5093460
	TIMP	20903.12231	LTDI	-3.007892191	LONI	-27.83872222	CRIP	5894.087646		
	WT	15545.36303	ATLI	39.94967269	VA	700.0530471	AAAP	143.3662719	VIR	-162.4330463
	DVV	5.620750069	AMIS	94.16775894	FPVA	-13.41659259	AAAY	.0842048935	VIT	665.8036193
	RANG	6.818199098	RLAT	179.9998111	AZVA	274.0810775	AAAT	36.63377809	VAT	-680.9477005
	F	4124.819946	DWT	-13.30587077			VISN	5484.168334	DVI	8.537076354
	VLGR	-.00000000 00	VLML	.00000000 00	ASPM	.00000000 00	TPSE	.00000000 00	IDVL	.00000000 00
	RDR01	TARGET SITE	RGR	42652.11865	AZR	93.65894412	ELR	76.65436744	DRGR	-685.3025970

6 FEB. 1968 13 HR 16 MIN 4.18 SEC TMST 296501.2070 J.D. 2439893.0527 3 DAY 10 HR 21.7 MIN

SELENOGRAPHIC

LEM	ALT	9513.375000	R	5711908.125	VI	668.3930206	X	5054683.125	VX	-438.0873336
43	LTDM	-3.025040388			FPVI	-13.71350955	Y	-2642955.093	VY	-501.7372589
	LONM	-27.60383605			AZVI	274.1753349	Z	-301431.0390	VZ	55.57377576
	A	2877169.000	ASND	296.5336151	VVEN	-60141316.50	APOG	1.960884898	VAPG	649.0664138
	TIMP	20905.19091	LTDI	-3.007350266	LONI	-27.84611892	CRIP	5894.208923		

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WT	15505.32836	ATLI	39.96951866	VA	683.1135940	AAAP	143.3819370	VIR	-158.4540977
DVV	5.639890730	AMIS	94.16880798	FPVA	-13.41241168	AAAY	.0862524425	VIT	649.3392944
RANG	6.492818355	RLAT	179.9998092	AZVA	274.0800209	AAAT	36.61811637	VAT	-664.4821090
F	4124.819946	DWT	-13.30587077			VISN	5509.887695	DVI	8.559119105
VLGR	-3.783821105	VLML	14.34496414	ASPM	310.0000000	TPSE	12410.71313	ICVL	25.71942663
RDRCI	TARGET SITE	RGR	40615.58544	AZR	93.63207149	ELR	76.65249729	DRGR	-668.3623580

6 FEB. 1968 13 HR 16 MIN 8.18 SEC TMST 296505.2070 J.C. 2439893.0529 3 DAY 10 HR 21.8 MIN

	SELENOGRAPHIC								
LEM	ALT	8890.250000	R	5711285.000	VI	645.7845916	X	5052864.875	VX	-423.5193443
43	LTDM	-3.023174554			FPVI	-13.71545124	Y	-2645109.406	VY	-484.5457267
	LONM	-27.63147735			AZVI	274.1769981	Z	-301212.4335	VZ	53.70797967
A	2875432.406	ASND	296.5336151	VVEN	-60177638.50	APOG	1.831711068	VAPG	627.1242523
TIMP	20907.94775	LTDI	-3.006649196	LONI	-27.85774230	CRIP	5894.399353		
WT	15452.10498	ATLI	39.99513196	VA	660.5037994	AAAP	143.3991775	VIR	-153.1156406
DVV	5.665457308	AMIS	94.17016124	FPVA	-13.40403556	AAAY	.0891491212	VIT	627.3701782
RANG	6.041505932	RLAT	179.9998035	AZVA	274.0783958	AAAT	36.60087966	VAT	-642.5113754
F	4124.819946	DWT	-13.30587077			VISN	5544.183044	DVI	8.588600158
VLGR	-8.816103458	VLML	33.46236991	ASPM	310.0000000	TPSE	28909.99291	ICVL	60.01467418
RDRCI	TARGET SITE	RGR	37788.63281	AZR	93.61293697	ELR	76.57769680	DRGR	-645.7524337

6 FEB. 1968 13 HR 16 MIN 12.18 SEC TMST 296509.2070 J.C. 2439893.0529 3 DAY 10 HR 21.8 MIN

	SELENOGRAPHIC								
LEM	ALT	8288.500000	R	5710683.375	VI	623.0729293	X	5051200.187	VX	-408.8179321
43	LTDM	-3.021372556			FPVI	-13.71444797	Y	-2647013.125	VY	-467.3342208
	LONM	-27.65617752			AZVI	274.1786384	Z	-301001.3398	VZ	51.83144521
A	2873751.406	ASND	296.5358276	VVEN	-60212841.50	APOG	1.706795737	VAPG	605.0880889
TIMP	20910.71313	LTDI	-3.005971193	LONI	-27.86699295	CRIP	5894.551086		
WT	15398.88146	ATLI	40.01986551	VA	637.7910079	AAAP	143.4118747	VIR	-147.7200984

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	DVV	5.691163420	AMIS	94.17146778	FPVA	-13.39199829	AAAY	.0922647537	VIT	605.3087158
	RANG	5.634911239	RLAT	179.9997978	AZVA	274.0764999	AAAT	36.58818578	VAT	-620.4483337
	F	4124.819946	DWT	-13.30587077			VISN	5578.596801	DVI	8.618285179
	VLGR	-13.84964382	VLML	52.63244771	ASPM	310.0000000	TPSE	45409.27246	ICVL	54.42844295
	RDRC1	TARGET SITE	RGR	35251.00683	AZR	93.57097530	ELR	76.57323932	DRGR	-623.0375595

6 FEB. 1968 13 HR 16 MIN 16.18 SEC TMST 296513.2070 J.D. 2439893.0529 3 DAY 10 HR 21.9 MIN

	SELENOGRAPHIC								
LEM	ALT	7708.500000	R	5710103.312	VI	600.2575683	X	5049594.500	VX	-394.0003471
43	LTDM	-3.019634485			FPVI	-13.71001338	Y	-2648848.000	VY	-450.0871810
	LONM	-27.68000030			AZVI	274.1802597	Z	-300797.8007	VZ	49.94410753
	A	2872126.437	ASND	296.5382041	VVEN	-60246907.50	APOG	1.586138874	VAPG	582.9578933
	TIMP	20913.48706	LTDI	-3.005316466	LONI	-27.87592697	CRIP	5894.697509		
	WT	15345.65795	ATLI	40.04371547	VA	614.9748382	AAAP	143.4194679	VIR	-142.2658195
	DVV	5.717011392	AMIS	94.17272663	FPVA	-13.37573814	AAAY	.0956262480	VIT	583.1548461
	RANG	5.244219243	RLAT	179.9997940	AZVA	274.0743064	AAAT	36.58059978	VAT	-598.2929763
	F	4124.819946	DWT	-13.30587077			VISN	5613.129638	DVI	8.648176074
	VLGR	-18.88325810	VLML	71.85432147	ASPM	310.0000000	TPSE	61908.55175	ICVL	128.9614048
	RDRC1	TARGET SITE	RGR	32804.45410	AZR	93.52436637	ELR	76.56984233	DRGR	-600.2183837

6 FEB. 1968 13 HR 16 MIN 16.18 SEC TMST 296513.2070 J.D. 2439893.0529 3 DAY 10 HR 21.9 MIN

	SELENOGRAPHIC								
CM-SM	ALT	481720.3750	R	6184115.375	VI	5291.457885	X	5589498.312	VX	-2223.236053
120	LTDM	-3.201835662			FPVI	.0056886673	Y	-2623258.343	VY	-4787.334533
	LONM	-25.14156341			AZVI	274.0349006	Z	-345404.4414	VZ	371.7179946
	A	6188247.312	ASND	296.4858665	VVEN	-27962155.00	APOG	80.66427612	VAPG	5284.275390
	ECC	.69053397-03	ARGP	313.0536270	ARGL	321.5146141	PERG	79.25773429	VPER	5291.578369
	INCL	174.8507041	MA	8.449300766	TA	8.460987091	PERD	122.5493316	MCON	ELLIPSE
	LTDE	-2.926863431	LONE	-.4707946777	LTDS	-1.416987702	LONS	89.03079223		

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WT	35799.86279	ATLI	70.92205047	VA	5307.851623	AAAP	-20.86854243	VIR	.5252232551
DVV	4.526208221	AMIS	288.4203605	FPVA	.0056705475	AAAY	-12.35460746	VIT	5291.457641
RANG	46.868988C3	RLAT	171.7239990	AZVA	274.0224151	AAAT	23.73394727	VAT	-5307.851562

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	296513.2070	RCL	542347.4843	OPCL	.0032941544	XCL	253176.5273	VXCL	-4715.184204
		ACL	.0070566428	DRCL	-2052.103607	YCL	31.18164062	VYCL	.0763702392
		ECL	152.1721782			ZCL	-479627.3984	VZCL	-168.5072441

6 FEB. 1968 13 HR 16 MIN 20.18 SEC TMST 296517.2070 J.D. 2439893.0530 3 DAY 10 HR 22.0 MIN

	SELENOGRAPHIC								
LEM	ALT	7150.50000C	R	5709545.250	VI	577.3380813	X	5047984.687	VX	-379.0761680
43	LTDM	-3.01796028C			FPVI	-13.70157527	Y	-2650734.937	VY	-432.7956924
	LONM	-27.70430374			AZVI	274.1818618	Z	-300601.8007	VZ	48.04592895
	A	2870558.187	ASND	296.5394134	VVEN	-60279820.50	APOG	1.469833061	VAPG	560.7336654
	TIMP	20916.27124	LTDI	-3.004684418	LONI	-27.88591766	CRIP	5894.861267		
	WT	15292.43444	ATLI	40.06667757	VA	592.0548629	AAAP	143.4212932	VIR	-136.7511215
	DVV	5.743003249	AMIS	54.17393875	FPVA	-13.35460376	AAAY	.0992631223	VIT	560.9085388
	RANG	4.845746755	RLAT	179.9997882	AZVA	274.0717887	AAAT	36.57877826	VAT	-576.0452117
							VISN	5647.782470	DVI	8.678274989
	F	4124.819946	DWT	-13.30587077						
	VLGR	-23.91557121	VLML	51.12682247	ASPM	310.0000000	TPSE	78407.83105	ICVL	163.6142253
	RDR01	TARGET SITE	RGR	30316.68945	AZR	93.48839759	ELR	76.50625419	DRGR	-577.2956924

6 FEB. 1968 13 HR 16 MIN 24.18 SEC TMST 296521.2070 J.D. 2439893.0530 3 DAY 10 HR 22.0 MIN

	SELENOGRAPHIC								
LEM	ALT	6614.6250C0	R	5709009.375	VI	554.3140182	X	5046498.500	VX	-364.0234069
43	LTDM	-3.016350686			FPVI	-13.68846607	Y	-2652431.562	VY	-415.4785079
	LONM	-27.72634506			AZVI	274.1834526	Z	-300413.4218	VZ	46.13682127
	A	2869047.312	ASND	296.5422096	VVEN	-60311565.00	APOG	1.357950300	VAPG	538.4153518
	TIMP	20919.06762	LTDI	-3.004075288	LONI	-27.89422225	CRIP	5894.997314		

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WT	15239.21105	ATLI	40.08874464	VA	569.0306930	AAAP	143.4165859	VIR	-131.1743125
DVV	5.769141495	AMIS	94.17510318	FPVA	-13.32782745	AAAY	.1032114336	VIT	538.5697021
RANG	4.484275579	RLAT	179.9997825	AZVA	274.0689010	AAAT	36.58349084	VAT	-553.7049942
F	4124.819946	DWT	-13.30587077			VISN	5682.556091	DVI	8.708584070
VLGR	-28.94498467	VLML	110.4484386	ASPM	310.0000000	TPSE	94907.11035	ICVL	198.3877849
RDR01	TARGET SITE	RGR	28053.53857	AZR	93.43121528	ELR	76.49957656	DRGR	-554.2665863

6 FEB. 1968 13 HR 16 MIN 28.18 SEC TMST 296525.2070 J.D. 2439893.0531 3 DAY 10 HR 22.1 MIN

	SELENOGRAPHIC								
LEM	ALT	6101.187500	R	5708496.062	VI	531.1849517	X	5045040.937	VX	-348.8568038
43	LTDM	-3.014805853			FPVI	-13.66989135	Y	-2654119.187	VY	-398.1221809
	LONM	-27.74817657			AZVI	274.1850318	Z	-300232.7070	VZ	44.21674203
A	2867594.406	ASND	296.5445671	VVEN	-60342124.00	APOG	1.250562608	VAPG	516.0029449
TIMP	20921.87744	LTDI	-3.003488957	LONI	-27.90289688	CRIP	5895.139526		
WT	15185.98754	ATLI	40.10991525	VA	545.9019393	AAAP	143.4044380	VIR	-125.5336694
DVV	5.795428395	AMIS	94.17621898	FPVA	-13.29450607	AAAY	.1075124247	VIT	516.1382980
RANG	4.126297950	RLAT	179.9997787	AZVA	274.0656127	AAAT	36.59564638	VAT	-531.2722702
F	4124.819946	DWT	-13.30587077			VISN	5717.451416	DVI	8.739105701
VLGR	-33.96963405	VLML	129.8172454	ASPM	310.0000000	TPSE	111406.3896	ICVL	233.2831630
RDR01	TARGET SITE	RGR	25816.53710	AZR	93.37604713	ELR	76.45659732	DRGR	-531.1320724

6 FEB. 1968 13 HR 16 MIN 32.18 SEC TMST 296529.2070 J.D. 2439893.0531 3 DAY 10 HR 22.2 MIN

	SELENOGRAPHIC								
LEM	ALT	5610.437500	R	5708005.250	VI	507.9504661	X	5043676.062	VX	-333.5657920
43	LTDM	-3.013326227			FPVI	-13.64490318	Y	-2655676.906	VY	-380.7354278
	LONM	-27.76842117			AZVI	274.1866073	Z	-300059.6914	VZ	42.28563022
A	2866200.000	ASND	296.5478897	VVEN	-60371480.00	APOG	1.147669971	VAPG	493.4964256
TIMP	20924.70166	LTDI	-3.002925932	LONI	-27.91056823	CRIP	5895.265258		
WT	15132.76403	ATLI	40.13018703	VA	522.6682586	AAAP	143.3837718	VIR	-119.8274507

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	DVV	5.821866512	AMIS	94.17728710	FPVA	-13.25356578	AAAY	.1122158831	VIT	493.6142807
	RANG	3.794300884	RLAT	179.9997749	AZVA	274.0618629	AAAT	36.61632013	VAT	-508.7469749
	F	4124.819946	DWT	-13.30587077			VISN	5752.469238	DVI	8.769842147
	VLGR	-38.98734045	VLML	149.2308311	ASPM	310.0000000	TPSE	127905.6689	ICVL	268.3009262
	RCRO1	TARGET SITE	RGR	23738.43554	AZR	93.30407428	ELR	76.44558429	DRGR	-507.8904724

6 FEB. 1968 13 HR 16 MIN 36.18 SEC TMST 296533.2070 J.D. 2439893.0531 3 DAY 10 HR 22.2 MIN

	SELENOGRAPHIC									
LEM	ALT	5142.625000	R	5707537.437	VI	484.6101531	X	5042372.562	VX	-318.1545028
43	LTDM	-3.011912167			FPVI	-13.61236095	Y	-2657164.937	VY	-363.3140830
	LONM	-27.78776168			AZVI	274.1881828	Z	-299894.4375	VZ	40.34342670
	A	2864864.812	ASND	296.5515441	VVEN	-60399616.50	APOG	1.049395829	VAPG	470.8957786
	TIMP	20927.54345	LTDI	-3.002385914	LONI	-27.91792297	CRIP	5895.385803		
	WT	15079.54052	ATLI	40.14955329	VA	499.3293266	AAAP	143.3532981	VIR	-114.0538825
	DVV	5.848458111	AMIS	94.17830753	FPVA	-13.20372295	AAAY	.1173807587	VIT	470.5975700
	RANG	3.477136135	RLAT	179.9997692	AZVA	274.0575981	AAAT	36.64680385	VAT	-486.1290855
	F	4124.819946	DWT	-13.30587077			VISN	5787.610412	DVI	8.800795435
	VLGR	-43.99554824	VLML	168.6861877	ASPM	310.0000000	TPSE	144404.9472	ICVL	303.4421539
	RCRO1	TARGET SITE	RGR	21753.52368	AZR	93.22243690	ELR	76.43241786	DRGR	-484.5415916

6 FEB. 1968 13 HR 16 MIN 40.18 SEC TMST 296537.2070 J.D. 2439893.0532 3 DAY 10 HR 22.3 MIN

	SELENOGRAPHIC									
LEM	ALT	4698.125000	R	5707092.812	VI	461.1636543	X	5041035.437	VX	-302.6345214
43	LTDM	-3.010563492			FPVI	-13.57088088	Y	-2658764.375	VY	-345.8474617
	LONM	-27.80825424			AZVI	274.1897735	Z	-299736.9257	VZ	38.39006996
	A	2863589.500	ASND	296.5535202	VVEN	-60426514.00	APOG	.9557916224	VAPG	448.2009887
	TIMP	20930.40502	LTDI	-3.001868575	LONI	-27.92702102	CRIP	5895.534729		
	WT	15026.31701	ATLI	40.16801357	VA	475.8848495	AAAP	143.3114585	VIR	-108.2111930
	DVV	5.875205755	AMIS	94.17928028	FPVA	-13.14342498	AAAY	.1230787309	VIT	448.2881355

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RANG	3.141222417	RLAT	179.9997634	AZVA	274.0527458	AAAT	36.68865203	VAT	-463.4185218
F	4124.819946	DWT	-13.30587077			VISN	5822.875915	DVI	8.831968069
VLGR	-48.99124479	VLML	188.1795902	ASPM	310.0000000	TPSE	160904.2246	IDVL	338.7076187
RDRC1	TARGET SITE	RGR	19663.75585	AZR	93.16268444	ELR	76.27398490	DRGR	-461.0839118

6 FEB. 1968 13 HR 16 MIN 44.18 SEC TMST 296541.2070 J.D. 2439893.0532 3 DAY 10 HR 22.4 MIN

SELENOGRAPHIC

LEM	ALT	4277.062500	R	5706671.812	VI	437.6106376	X	5039856.125	VX	-286.9795036
43	LTDM	-3.009281396			FPVI	-13.51876544	Y	-2660112.843	VY	-328.3580665
	LONM	-27.82577514			AZVI	274.1913833	Z	-299587.2890	VZ	36.42549896
A	2862374.843	ASND	296.5579948	VVEN	-60452156.50	APOG	.8669499084	VAPG	425.4120712
TIMP	20933.29028	LTDI	-3.001374572	LONI	-27.93374252	CRIP	5895.644897		
WT	14973.09362	ATLI	40.18555784	VA	452.3346023	AAAP	143.2563629	VIR	-102.2975473
DVV	5.902112245	AMIS	94.18020343	FPVA	-13.07077980	AAAY	.1293963752	VIT	425.4859313
RANG	2.853909820	RLAT	179.9997596	AZVA	274.0472183	AAAT	36.74376058	VAT	-440.6152534
F	4124.819946	DWT	-13.30587077			VISN	5858.266479	DVI	8.863362073
VLGR	-53.97086095	VLML	207.7064342	ASPM	310.0000000	TPSE	177403.5019	IDVL	374.0981025
RDRC1	TARGET SITE	RGR	17866.56274	AZR	93.05819416	ELR	76.23753929	DRGR	-437.5169296

6 FEB. 1968 13 HR 16 MIN 48.18 SEC TMST 296545.2070 J.D. 2439893.0532 3 DAY 10 HR 22.4 MIN

SELENOGRAPHIC

LEM	ALT	3879.750000	R	5706274.500	VI	413.9508285	X	5038739.687	VX	-271.2016410
43	LTDM	-3.008065760			FPVI	-13.45391273	Y	-2661391.218	VY	-310.8346557
	LONM	-27.84238433			AZVI	274.1930236	Z	-299445.5273	VZ	34.44965267
A	2861221.406	ASND	296.5629882	VVEN	-60476527.00	APOG	.7829221189	VAPG	402.5290184
TIMP	20936.20239	LTDI	-3.000903755	LONI	-27.94014739	CRIP	5895.749755		
WT	14919.87011	ATLI	40.20218706	VA	428.6784515	AAAP	143.1856765	VIR	-96.31111526
DVV	5.929180145	AMIS	94.18107986	FPVA	-12.98346233	AAAY	.1364406720	VIT	402.5909271
RANG	2.581558048	RLAT	179.9997539	AZVA	274.0409088	AAAT	36.81445980	VAT	-417.7192611

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F	4124.819946	DWT	-13.30587077			VISN	5893.783081	DVI	8.894980311
VLGR	-58.93014049	VLML	227.2610282	ASPM	310.0000000	TPSE	193902.7792	IDVL	409.6148338
RDRO1	TARGET SITE	RGR	16163.79833	AZR	92.93763732	ELR	76.19167137	DRGR	-413.8392868

6 FEB. 1968 13 HR 16 MIN 52.18 SEC TMST 296549.2070 J.D. 2439893.0533 3 DAY 10 HR 22.5 MIN

	SELENOGRAPHIC								
LEM	ALT	3506.687500	R	5705901.437	VI	390.1840171	X	5037590.937	VX	-255.3105983
43	LTDM	-3.009164003			FPVI	-13.37368869	Y	-2662780.656	VY	-293.2682304
	LONM	-27.86013412			AZVI	274.1947097	Z	-299311.6406	VZ	32.46246576
	A	2860130.000	ASND	296.5665435	VVEN	-60499604.00	APOG	.7038214132	VAPG	379.5518569
	TIMP	20939.14697	LTDI	-3.000455558	LONI	-27.94829559	CRIP	5895.883117		
	WT	14866.64660	ATLI	40.21789407	VA	404.9163246	AAAP	143.0965023	VIR	-90.25003147
	DVV	5.956412076	AMIS	94.18190670	FPVA	-12.87857532	AAAY	.1443447359	VIT	379.6030807
	RANG	2.290638893	RLAT	179.9997482	AZVA	274.0336837	AAAT	36.90364933	VAT	-394.7304916
	F	4124.819946	DWT	-13.30587077			VISN	5929.426635	DVI	8.926824927
	VLGR	-63.86396980	VLML	246.8363265	ASPM	310.0000000	TPSE	210402.0566	IDVL	445.2583770
	RDRO1	TARGET SITE	RGR	14357.46887	AZR	92.83852863	ELR	75.93422031	DRGR	-390.0386772

6 FEB. 1968 13 HR 16 MIN 56.18 SEC TMST 296553.2070 J.D. 2439893.0533 3 DAY 10 HR 22.6 MIN

	SELENOGRAPHIC								
LEM	ALT	3157.875000	R	5705552.625	VI	366.3100967	X	5036601.625	VX	-239.2837581
43	LTDM	-3.005834728			FPVI	-13.27474498	Y	-2663918.500	VY	-275.6779327
	LONM	-27.87489700			AZVI	274.1964645	Z	-299185.7812	VZ	30.46387505
	A	2859101.281	ASND	296.5728950	VVEN	-60521372.50	APOG	.6296889335	VAPG	356.4805870
	TIMP	20942.12890	LTDI	-3.000031501	LONI	-27.95405960	CRIP	5895.977416		
	WT	14813.42309	ATLI	40.23267841	VA	381.0483169	AAAP	142.9851856	VIR	-84.11241149
	DVV	5.983810544	AMIS	94.18268585	FPVA	-12.75246906	AAAY	.1532758921	VIT	356.5223541
	RANG	2.048584580	RLAT	179.9997444	AZVA	274.0253753	AAAT	37.01498508	VAT	-371.6489219
	F	4124.819946	DWT	-13.30587077			VISN	5965.197998	DVI	8.958898305

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	VLGR	-68.76615428	VLML	266.4235610	ASPM	310.0000000	TPSE	226901.3339	IDVL	481.0297698
	RDRO1	TARGET SITE	RGR	12845.10156	AZR	92.67728328	ELR	75.83188533	DRGR	-366.1297378

6 FEB. 1968 13 HR 17 MIN .18 SEC TMST 296557.2070 J.D. 2439893.0535 3 DAY 10 HR 22.6 MIN

SELENOGRAPHIC

LEM	ALT	2833.812500	R	5705228.625	VI	342.3290901	X	5035613.000	VX	-223.1375846
43	LTDM	-3.004819154			FPVI	-13.15276050	Y	-2665106.593	VY	-258.0488471
	LONM	-27.89010620			AZVI	274.1983070	Z	-299067.8125	VZ	28.45380043
	A	2858136.062	ASND	296.5787696	VVEN	-60541811.50	APOG	.5606481060	VAPG	333.3152427
	TIMP	20945.15673	LTDI	-2.999629527	LONI	-27.96087265	CRIP	5896.088867		
	WT	14760.19970	ATLI	40.24653387	VA	357.0746803	AAAP	142.8470554	VIR	-77.89634227
	DVV	6.011378765	AMIS	94.18341255	FPVA	-12.60047817	AAAY	.1634478569	VIT	333.3487129
	RANG	1.799304157	RLAT	179.9997367	AZVA	274.0157699	AAAT	37.15313577	VAT	-348.4745140
	F	4124.819946	DWT	-13.30587077			VISN	6001.098144	DVI	8.991202950
	VLGR	-73.62911033	VLML	286.0117797	ASPM	310.0000000	TPSE	243400.6113	IDVL	516.9298782
	RDRO1	TARGET SITE	RGR	11296.58703	AZR	92.51739597	ELR	75.52809906	DRGR	-342.0828437

6 FEB. 1968 13 HR 17 MIN 4.18 SEC TMST 296561.2070 J.D. 2439893.0535 3 DAY 10 HR 22.7 MIN

SELENOGRAPHIC

LEM	ALT	2534.875000	R	5704929.625	VI	318.2412376	X	5034753.062	VX	-206.8583793
43	LTDM	-3.003872722			FPVI	-13.00206565	Y	-2666103.562	VY	-240.3922519
	LONM	-27.90301513			AZVI	274.2002716	Z	-298958.0273	VZ	26.43220734
	A	2857235.062	ASND	296.5871238	VVEN	-60560902.00	APOG	.4967606626	VAPG	310.0558586
	TIMP	20948.23852	LTDI	-2.999252855	LONI	-27.96598434	CRIP	5896.172302		
	WT	14706.97619	ATLI	40.25945854	VA	332.9959564	AAAP	142.6760501	VIR	-71.59988975
	DVV	6.039119243	AMIS	94.18409347	FPVA	-12.41654014	AAAY	.1751381438	VIT	310.0821495
	RANG	1.587683498	RLAT	179.9997310	AZVA	274.0045967	AAAT	37.32416915	VAT	-325.2072601
	F	4124.819946	DWT	-13.30587077			VISN	6037.127929	DVI	9.023741483
	VLGR	-78.44344806	VLML	305.5871620	ASPM	310.0000000	TPSE	259899.8886	IDVL	552.9596862

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RCRO1	TARGET SITE	RGR	9976.538330	AZR	92.29240989	ELR	75.33092689	DRGR	-317.9233283

6 FEB. 1968 13 HR 17 MIN 8.18 SEC TMST 296565.2070 J.C. 2439893.0535 3 DAY 10 HR 22.8 MIN

	SELENOGRAPHIC								
LEM	ALT	2261.125000	R	5704655.937	VI	294.0470352	X	5033958.312	VX	-190.4518260
					FPVI	-12.81506729	Y	-2667029.687	VY	-222.7026023
43	LTDM	-3.002994507			AZVI	274.2024040	Z	-298856.3593	VZ	24.35901137
	LONM	-27.91498565								
	A	2856399.093	ASND	296.5968627	VVEN	-60578626.50	APOG	.4381191619	VAPG	286.7024688
	TIMP	20951.38598	LTDI	-2.998900592	LONI	-27.97076034	CRIP	5896.250244		
	WT	14653.75268	ATLI	40.27144718	VA	308.8130264	AAAP	142.4641475	VIR	-65.22109127
	DVV	6.067034840	AMIS	94.18472480	FPVA	-12.19264221	AAAY	.1887134816	VIT	286.7226295
	RANG	1.391474515	RLAT	179.9997272	AZVA	273.9914855	AAAT	37.53610324	VAT	-301.8471374
	F	4124.819946	DWT	-13.30587077			VISN	6073.288391	DVI	9.056516408
	VLGR	-83.19737339	VLML	325.1321067	ASPM	310.0000000	TPSE	276399.1640	IDVL	589.1201248
	RCRO1	TARGET SITE	RGR	8753.386108	AZR	92.02243041	ELR	75.07423210	DRGR	-293.6299018

6 FEB. 1968 13 HR 17 MIN 12.18 SEC TMST 296569.2070 J.C. 2439893.0536 3 DAY 10 HR 22.8 MIN

	SELENOGRAPHIC								
LEM	ALT	2013.187500	R	5704408.000	VI	269.7474098	X	5033133.625	VX	-173.9243602
					FPVI	-12.58136558	Y	-2668066.062	VY	-204.9738426
43	LTDM	-3.002184301			AZVI	274.2047615	Z	-298762.8281	VZ	22.35414958
	LONM	-27.92808151								
	A	2855629.031	ASND	296.6063041	VVEN	-60594963.50	APOG	.3848676197	VAPG	263.2551193
	TIMP	20954.61499	LTDI	-2.998572915	LONI	-27.97725296	CRIP	5896.356079		
	WT	14600.52917	ATLI	40.28249406	VA	284.5273094	AAAP	142.2005176	VIR	-58.75795984
	DVV	6.095128953	AMIS	94.18530750	FPVA	-11.91795253	AAAY	.2046678439	VIT	263.2701416
	RANG	1.176940128	RLAT	179.9997215	AZVA	273.9759559	AAAT	37.79977416	VAT	-278.3941307
	F	4124.819946	DWT	-13.30587077			VISN	6109.580383	DVI	9.089530229
	VLGR	-87.87583160	VLML	344.6238975	ASPM	310.0000000	TPSE	292898.4375	IDVL	625.4121627
	RCRO1	TARGET SITE	RGR	7430.484985	AZR	91.74399471	ELR	74.31738281	DRGR	-269.0994834

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TMST	296573.2070	RCL	480219.7031	OPCL	.0042863622	XCL	-15070.76220	VXCL	-5051.542419
		ACL	179.8634147	DRCL	210.6935157	YCL	35.92578125	VYCL	.0895505615
		ECL	181.7984142			ZCL	-479983.1640	VZCL	-52.18637466

6 FEB. 1968 13 HR 17 MIN 20.18 SEC TMST 296577.2070 J.D. 2439893.0536 3 DAY 10 HR 23.0 MIN

	SELENOGRAPHIC								
LEM	ALT	1595.625000	R	5703990.437	VI	220.8391551	X	5031875.750	VX	-140.4647865
43	LTDM	-3.000771075			FPVI	-11.90866279	Y	-2669563.781	VY	-169.4322128
	LONM	-27.94731903			AZVI	274.2105102	Z	-298600.4609	VZ	18.22914338
	A	2854289.562	ASND	296.6369247	VVEN	-60623398.50	APOG	.2947504185	VAPG	216.0788021
	TIMP	20961.38989	LTDI	-2.997998327	LONI	-27.98502349	CRIP	5896.481750		
	WT	14494.08227	ATLI	40.30175638	VA	235.6575832	AAAP	141.4517517	VIR	-45.57063722
	DVV	6.151863575	AMIS	94.18632316	FPVA	-11.14989662	AAAY	.2467363421	VIT	216.0862083
	RANG	.8618138358	RLAT	179.9997100	AZVA	273.9346580	AAAT	38.54865360	VAT	-231.2094573
	F	4124.819946	DWT	-13.30587077			VISN	6182.562988	DVI	9.156285285
	VLGR	-96.92146682	VLML	383.3187332	ASPM	310.0000000	TPSE	325896.9843	ICVL	698.3947219
	RDRC1	TARGET SITE	RGR	5475.035705	AZR	90.84118461	ELR	73.08451747	DRGR	-219.6208648

6 FEB. 1968 13 HR 17 MIN 24.18 SEC TMST 296581.2070 J.D. 2439893.0537 3 DAY 10 HR 23.0 MIN

	SELENOGRAPHIC								
LEM	ALT	1426.812500	R	5703821.625	VI	196.2373046	X	5031283.812	VX	-123.5423917
43	LTDM	-3.000167697			FPVI	-11.41626071	Y	-2670326.281	VY	-151.6099338
	LONM	-27.95688247			AZVI	274.2142028	Z	-298531.6289	VZ	16.14886212
	A	2853722.031	ASND	296.6565895	VVEN	-60635455.00	APOG	.2581624836	VAPG	192.3499679
	TIMP	20964.98950	LTDI	-2.997754424	LONI	-27.98967361	CRIP	5896.556030		
	WT	14440.85876	ATLI	40.30996131	VA	211.0823726	AAAP	140.9137935	VIR	-38.84234237
	DVV	6.180510461	AMIS	94.18675613	FPVA	-10.60371398	AAAY	.2752507403	VIT	192.3547554
	RANG	.7052939608	RLAT	179.9997043	AZVA	273.9065361	AAAT	39.08669471	VAT	-207.4778041
	F	4124.819946	DWT	-13.30587077			VISN	6219.255554	DVI	9.190031886

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6 FEB. 1968 13 HR 17 MIN 16.18 SEC TMST 296573.2070 J.D. 2439893.0536 3 DAY 10 HR 22.9 MIN

SELENOGRAPHIC

LEM	ALT	1791.187500	R	5704186.062	VI	245.3439292	X	5032471.250	VX	-157.2596626
43	LTDM	-3.001443177			FPVI	-12.28632068	Y	-2668850.468	VY	-187.2192630
	LONM	-27.93817138			AZVI	274.2074241	Z	-298677.5117	VZ	20.29754996
	A	2854925.562	ASND	296.6200904	VVEN	-60609894.50	APOG	.3370471820	VAPG	239.7138729
	TIMP	20957.94165	LTDI	-2.998271882	LONI	-27.98133087	CRIP	5896.422180		
	WT	14547.30566	ATLI	40.29259920	VA	260.1410217	AAAP	141.8701686	VIR	-52.20848798
	DVV	6.123404145	AMIS	94.18584060	FPVA	-11.57748603	AAAY	.2236848455	VIT	239.7246685
	RANG	1.011628761	RLAT	179.9997158	AZVA	273.9573326	AAAT	38.13017225	VAT	-254.8482379
	F	4124.819946	DWT	-13.30587077			VISN	6146.004943	DVI	9.122785687
	VLGR	-92.45923137	VLML	364.0327339	ASPM	310.0000000	TPSE	309397.7109	ICVL	661.8366928
	RDR01	TARGET SITE	RGR	6403.285156	AZR	91.34074115	ELR	73.78874874	DRGR	-244.4616241

6 FEB. 1968 13 HR 17 MIN 16.18 SEC TMST 296573.2070 J.D. 2439893.0536 3 DAY 10 HR 22.9 MIN

SELENOGRAPHIC

CM-SM	ALT	481754.5000	R	6184149.500	VI	5291.404296	X	5448313.250	VX	-2466.427917
120	LTDM	-2.990743219			FPVI	.0066223144	Y	-2907830.468	VY	-4665.446166
	LONM	-28.08937835			AZVI	274.1937522	Z	-322655.6210	VZ	386.3983917
	A	6188190.125	ASND	296.4770355	VVEN	-27962413.25	APOG	80.63253307	VAPG	5284.415649
	ECC	.66860664-03	ARGP	314.4152870	ARGL	324.4568901	PERG	79.27066421	VPER	5291.486694
	INCL	174.8506183	MA	10.02827727	TA	10.04160296	PERD	122.5476303	MCON	ELLIPSE
	LTDE	-2.927715182	LONE	-.4722251892	LTDS	-1.416982799	LONS	89.02188396		
	WT	35799.86279	ATLI	68.07450103	VA	5307.798156	AAAP	-23.83667349	VIR	.6114184856
	DVV	4.526106834	AMIS	288.8549842	FPVA	.0066013336	AAAY	-12.15348672	VIT	5291.404052
	RANG	1.469834953	RLAT	170.9365463	AZVA	274.1807746	AAAT	26.17455816	VAT	-5307.798095

COORDINATES OF LEM RELATIVE TO CM-SM

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VLGR	-101.2267484	VLML	402.4271583	ASPM	310.0000000	TPSE	342396.2578	ICVL	735.0873489
RDRO1	TARGET SITE	RGR	4517.144958	AZR	90.22447872	ELR	71.61170387	DRGR	-194.3255214

6 FEB. 1968 13 HR 17 MIN 28.18 SEC TMST 296585.2070 J.D. 2439893.0537 3 DAY 10 HR 23.1 MIN

SELENOGRAPHIC

LEM	ALT	1285.000000	R	5703679.875	VI	171.5454559	X	5030823.750	VX	-106.4838123
43	LTDM	-2.999634563			FPVI	-10.75821208	Y	-2670897.000	VY	-133.7589340
	LONM	-27.96412277			AZVI	274.2187805	Z	-298471.2187	VZ	14.05663108
	A	2853223.750	ASND	296.6836090	VVEN	-60646045.00	APOG	.2273450978	VAPG	168.5274600
	TIMP	20968.77490	LTDI	-2.997544616	LONI	-27.99248886	CRIP	5896.599609		
	WT	14387.63525	ATLI	40.31721162	VA	186.4240112	AAAP	140.2079296	VIR	-32.02151155
	DVV	6.209347903	AMIS	94.18713951	FPVA	-9.890575408	AAAY	.3114164322	VIT	168.5303115
	RANG	.5868870467	RLAT	179.9996986	AZVA	273.8708305	AAAT	39.79266738	VAT	-183.6532993
	F	4124.819946	DWT	-13.30587077			VISN	6256.083557	DVI	9.224028110
	VLGR	-105.3242340	VLML	421.2804565	ASPM	310.0000000	TPSE	358895.5312	ICVL	771.9153366
	RDRO1	TARGET SITE	RGR	3790.733367	AZR	89.41677951	ELR	70.20531558	DRGR	-168.8425388

6 FEB. 1968 13 HR 17 MIN 32.18 SEC TMST 296589.2070 J.D. 2439893.0538 3 DAY 10 HR 23.2 MIN

SELENOGRAPHIC

LEM	ALT	1170.750000	R	5703565.562	VI	146.7760181	X	5030400.000	VX	-89.29350566
43	LTDM	-2.999171853			FPVI	-9.848867416	Y	-2671456.906	VY	-115.8749752
	LONM	-27.97109985			AZVI	274.2247123	Z	-298419.2304	VZ	11.95238447
	A	2852795.656	ASND	296.7189254	VVEN	-60655145.00	APOG	.2024114020	VAPG	144.6113815
	TIMP	20972.78833	LTDI	-2.997374624	LONI	-27.99545669	CRIP	5896.643066		
	WT	14334.41174	ATLI	40.32350587	VA	161.6969242	AAAP	139.2558937	VIR	-25.10602593
	DVV	6.238379240	AMIS	94.18747425	FPVA	-8.932218551	AAAY	.3587574996	VIT	144.6128864
	RANG	.4729245156	RLAT	179.9996929	AZVA	273.8241081	AAAT	40.74485254	VAT	-159.7359771
	F	4124.819946	DWT	-13.30587077			VISN	6293.048095	DVI	9.258276820
	VLGR	-109.1383523	VLML	439.7642135	ASPM	310.0000000	TPSE	375394.8046	ICVL	808.8799362

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RDR01	TARGET SITE	RGR	3103.342041	AZR	88.35750007	ELR	67.85413646	DRGR	-142.6908378

6 FEB. 1968 13 HR 17 MIN 36.18 SEC TMST 296593.2070 J.D. 2439893.0538 3 DAY 10 HR 23.2 MIN

SELENOGRAPHIC

LEM	ALT	1084.250000	R	5703479.062	VI	121.9522237	X	5030077.312	VX	-71.96746730
43	LTDM	-2.998778969			FPVI	-8.532331466	Y	-2671884.531	VY	-97.96060943
	LONM	-27.97641754			AZVI	274.2328453	Z	-298375.6562	VZ	9.836040616
	A	2852438.687	ASND	296.7692947	VVEN	-60662736.00	APOG	.1834848355	VAPG	120.6018400
	TIMP	20977.07543	LTDI	-2.997251629	LONI	-27.99708175	CRIP	5896.663330		
	WT	14281.18835	ATLI	40.32883405	VA	136.9266471	AAAP	137.9224166	VIR	-18.09374928
	DVV	6.267607629	AMIS	94.18775749	FPVA	-7.593381881	AAAY	.4233224727	VIT	120.6024923
	RANG	.3862647712	RLAT	179.9996871	AZVA	273.7604751	AAAT	42.07853555	VAT	-135.7259101
	F	4124.819946	DWT	-13.30587077			VISN	6330.150146	DVI	9.292780756
	VLGR	-112.5499105	VLML	457.7004280	ASPM	310.0000000	TPSE	391894.0781	IDVL	845.9818038
	RDR01	TARGET SITE	RGR	2585.360412	AZR	87.03278255	ELR	65.22127532	DRGR	-116.2047338

6 FEB. 1968 13 HR 17 MIN 40.18 SEC TMST 296597.2070 J.D. 2439893.0538 3 DAY 10 HR 23.3 MIN

SELENOGRAPHIC

LEM	ALT	1026.125000	R	5703420.937	VI	97.12209320	X	5029824.375	VX	-54.50628519
43	LTDM	-2.998456537			FPVI	-6.492856979	Y	-2672240.562	VY	-80.01474952
	LONM	-27.98077392			AZVI	274.2448883	Z	-298340.5625	VZ	7.707528948
	A	2852153.843	ASND	296.8448104	VVEN	-60668794.00	APOG	.1707196887	VAPG	96.49895477
	TIMP	20981.686003	LTDI	-2.997187167	LONI	-27.99789810	CRIP	5896.671386		
	WT	14227.96484	ATLI	40.33319616	VA	112.1621885	AAAP	135.9526081	VIR	-10.98250532
	DVV	6.297036886	AMIS	94.18799018	FPVA	-5.619192123	AAAY	.5163764804	VIT	96.49914741
	RANG	.3155022599	RLAT	179.9996795	AZVA	273.6688919	AAAT	44.04863071	VAT	-111.6232099
	F	4124.819946	DWT	-13.30587077			VISN	6367.390686	DVI	9.327542901
	VLGR	-115.3550596	VLML	474.7916107	ASPM	310.0000000	TPSE	408393.3515	IDVL	883.2223815
	RDR01	TARGET SITE	RGR	2174.369812	AZR	85.40451908	ELR	61.85631752	DRGR	-89.24715423

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6 FEB. 1968 13 HR 17 MIN 44.18 SEC TMST 296601.2070 J.D. 2439893.0540 3 DAY 10 HR 23.4 MIN

SELENOGRAPHIC

LEM	ALT	996.6250000	R	5703391.375	VI	72.40110969	X	5029545.437	VX	-36.91116142
43	LTDM	-2.998204648			FPVI	-2.984876632	Y	-2672705.437	VY	-62.03626346
	LONM	-27.98622131			AZVI	274.2648468	Z	-298313.9726	VZ	5.566775023
	A	2851942.062	ASND	296.9685325	VVEN	-60673299.00	APOG	.1641982533	VAPG	72.30286693
	TIMP	20986.66064	LTDI	-2.997196435	LONI	-27.99975967	CRIP	5896.682800		
	WT	14174.74133	ATLI	40.33658933	VA	87.50935935	AAAP	132.8059368	VIR	-3.770099252
	DVV	6.326669991	AMIS	94.18817234	FPVA	-2.469193458	AAAY	.6613157093	VIT	72.30288314
	RANG	.2272932790	RLAT	179.9996757	AZVA	273.5259895	AAAT	47.19569206	VAT	-87.42810916
	F	4124.819946	DWT	-13.30587077			VISN	6404.770812	DVI	9.362566113
	VLGR	-117.1620435	VLML	490.4883117	ASPM	310.0000000	TPSE	424892.6250	IDVL	920.602600
	RDR01	TARGET SITE	RGR	1703.078628	AZR	82.56712722	ELR	54.20117425	DRGR	-59.62099933

6 FEB. 1968 13 HR 17 MIN 46.23 SEC TMST 296603.2539 J.D. 2439893.0540 3 DAY 10 HR 23.4 MIN

SELENOGRAPHIC

CM-SM	ALT	481773.5000	R	6184168.500	VI	5291.375122	X	5372188.937	VX	-2585.744537
120	LTDM	-2.882041007			FPVI	.0070858002	Y	-3047431.687	VY	-4599.764526
	LONM	-29.56454086			AZVI	274.2691688	Z	-310939.3359	VZ	393.3700523
	A	6188159.500	ASND	296.4732780	VVEN	-27962550.50	APOG	80.62178421	VAPG	5284.458312
	ECC	.66301150-03	ARGP	315.0717201	ARGL	325.9303741	PERG	79.27132225	VPER	5291.470214
	INCL	174.85057006	MA	10.84435331	TA	10.85865402	PERD	122.5467224	MCON	ELLIPSE
	LTDE	-2.928143352	LONE	-.4722480774	LTDS	-1.416981160	LONS	89.01811599		
	WT	35799.86279	ATLI	66.64984703	VA	5307.768981	AAAP	-25.31980586	VIR	.6542253494
	DVV	4.526051521	AMIS	289.0866584	FPVA	.0070638656	AAAY	-12.04945063	VIT	5291.374816
	RANG	25.66642236	RLAT	170.5304756	AZVA	274.2559585	AAAT	27.43135499	VAT	-5307.768920

COORDINATES OF LEM RELATIVE TO CM-SM

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TMST	296603.2539	RCL	507879.1992	OPCL	.0043792050	XCL	-157173.6445	VXCL	-5231.524169
		ACL	179.9858455	DRCL	1618.089614	YCL	38.81799316	VYCL	.0972137451
		ECL	198.0273265			ZCL	-482946.9218	VZCL	.9600524902

6 FEB. 1968 13 HR 17 MIN 46.23 SEC TMST 296603.2539 J.D. 2439893.0540 3 DAY 10 HR 23.4 MIN

SELENOGRAPHIC

LEM	ALT	992.6875000	R	5703387.500	VI	59.87266445	X	5029479.062	VX	-27.84371209
43	LTDM	-2.998103290			FPVI	-.0341863632	Y	-2672823.125	VY	-52.81594085
	LONM	-27.98757934			AZVI	274.2812919	Z	-298303.6953	VZ	4.465432286
	A	2851862.250	ASND	297.0720672	VVEN	-60674997.50	APOG	.1633547861	VAPG	59.8726530
	TIMP	20989.36083	LTDI	-2.997236073	LONI	-27.99917984	CRIP	5896.681640		
	WT	14147.47827	ATLI	40.33795022	VA	74.99882411	AAAP	130.3652324	VIR	-.0357253272
	DVV	6.341929376	AMIS	94.18824577	FPVA	-.0272903442	AAAY	.7713095546	VIT	59.87265348
	RANG	.2055306881	RLAT	179.9996719	AZVA	273.4166641	AAAT	49.63661575	VAT	-74.99881553
	F	4124.819946	DWT	-13.30587077			VISN	6423.972778	DVI	9.380608320
	VLGR	-117.4652204	VLML	497.6739501	ASPM	310.0000000	TPSE	433343.6562	IDVL	939.8045501
	RDR01	TARGET SITE	RGR	1595.198562	AZR	81.30670070	ELR	51.53405094	DRGR	-45.69629669

PRIMARY PHASE CUTOFF ---- PHASE TIME LAPSE 105.0576171

ACHIEVE HOVER CONDITION

6 FEB. 1968 13 HR 17 MIN 46.23 SEC TMST 296603.2539 J.D. 2439893.0540 3 DAY 10 HR 23.4 MIN

SELENOGRAPHIC

LEM	ALT	992.6875000	R	5703387.687	VI	59.87266445	X	5029479.062	VX	-27.84371209
50	LTDM	-2.998103290			FPVI	-.0341863632	Y	-2672823.125	VY	-52.81594085
	LONM	-27.98757934			AZVI	274.2812919	Z	-298303.6953	VZ	4.465432286
	WT	14147.47827	ATLI	40.33794736	VA	74.99882411	AAAP	130.3652324	VIR	-.0357253272
	DVV	3.645570755	AMIS	94.18824577	FPVA	-.0272903442	AAAY	.7713096887	VIT	59.87265348
	RANG	.2055306881	RLAT	179.9996719	AZVA	273.4166641	AAAT	49.63661575	VAT	-74.99881553

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F	2307.746582	DWT	-7.444343805			VISN	6423.972778	DVI	5.248245358
VLGR	-.00000000 00	VLML	.00000000 00	ASPM	.00000000 00	TPSE	.00000000 00	ICVL	.00000000 00
RDR01	TARGET SITE	RGR	1595.198562	AZR	81.30670070	ELR	51.53405094	DRGR	-45.69629669
PICH	.9606262222	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 17 MIN 48.18 SEC TMST 296605.2070 J.D. 2439893.0540 3 DAY 10 HR 23.4 MIN

	SELENOGRAPHIC								
LEM	ALT	990.12500000	R	5703385.125	VI	53.42718935	X	5029425.500	VX	-26.95688768
50	LTDM	-2.998020380			FPVI	-2.683663368	Y	-2672919.343	VY	-45.92008066
	LONM	-27.98868942			AZVI	274.2931785	Z	-298295.3164	VZ	4.120538711
	WT	14132.95300	ATLI	38.46471118	VA	68.54104232	AAAP	130.5565223	VIR	-2.501549750
	DVV	3.484621673	AMIS	94.18832302	FPVA	-2.091593742	AAAY	.8436453715	VIT	53.36859369
	RANG	.1878311652	RLAT	179.9996547	AZVA	273.3438224	AAAT	49.44572162	VAT	-68.49537754
	F	2307.746582	DWT	-7.444343805			VISN	6434.218261	DVI	5.253639280
	VLGR	-.2461836133	VLML	3.936844438	ASPM	310.0000000	TPSE	4502.810180	ICVL	10.24548184
	RDR01	TARGET SITE	RGR	1510.989074	AZR	80.06150913	ELR	49.07551622	DRGR	-40.71851205
	PICH	.9606262222	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 17 MIN 52.18 SEC TMST 296609.2070 J.D. 2439893.0540 3 DAY 10 HR 23.5 MIN

	SELENOGRAPHIC								
LEM	ALT	971.12500000	R	5703366.125	VI	41.41973304	X	5029321.375	VX	-25.04643630
50	LTDM	-2.997878432			FPVI	-9.573887825	Y	-2673076.343	VY	-32.80936670
	LONM	-27.99057388			AZVI	274.3267326	Z	-298280.2187	VZ	3.437412768
	WT	14103.17565	ATLI	34.62409830	VA	56.39353656	AAAP	131.6418571	VIR	-6.888905227
	DVV	3.151265770	AMIS	94.18846702	FPVA	-7.016644477	AAAY	1.024528846	VIT	40.84283638
	RANG	.1580539401	RLAT	179.9996147	AZVA	273.1558647	AAAT	48.36173439	VAT	-55.97118854
	F	2307.746582	DWT	-7.444343805			VISN	6455.254943	DVI	5.264731824
	VLGR	-2.463558018	VLML	14.30201303	ASPM	310.0000000	TPSE	13733.79650	ICVL	31.28223395
	RDR01	TARGET SITE	RGR	1365.640136	AZR	77.29952144	ELR	44.69508934	DRGR	-32.36007213

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PICH .9606262222 YAW .00000000 00 ROLL .00000000 00

6 FEB. 1968 13 HR 17 MIN 56.18 SEC TMST 296613.2070 J.D. 2439893.0541 3 DAY 10 HR 23.6 MIN

	SELENOGRAPHIC									
LEM	ALT	936.1250000	R	5703331.125	VI	31.24832558	X	5029129.312	VX	-22.88519120
50	LTDM	-2.997771143			FPVI	-19.51533985	Y	-2673364.593	VY	-21.09321022
	LONM	-27.99404144			AZVI	274.3820800	Z	-298267.7265	VZ	2.793272703
	WT	14073.39831	ATLI	30.78299975	VA	45.78944778	AAAP	133.9640426	VIR	-10.43879246
	DVV	2.813637644	AMIS	94.18859767	FPVA	-13.17780590	AAAY	1.260745406	VIT	29.45317387
	RANG	.1040793750	RLAT	179.9995651	AZVA	272.8933258	AAAT	46.04239940	VAT	-44.58368682
	F	2307.746582	DWT	-7.444343805			VISN	6476.336181	DVI	5.275871217
	VLGR	-7.711545586	VLML	28.75299263	ASPM	310.0000000	TPSE	22964.78271	IDVL	52.36338663
	RDRC1	TARGET SITE	RGR	1129.566757	AZR	69.46764659	ELR	34.05383682	DRGR	-23.60489344

PICH .9606262222 YAW .00000000 00 ROLL .00000000 00

6 FEB. 1968 13 HR 18 MIN .18 SEC TMST 296617.2070 J.D. 2439893.0541 3 DAY 10 HR 23.6 MIN

	SELENOGRAPHIC									
LEM	ALT	888.5625000	R	5703283.562	VI	23.36121535	X	5029042.312	VX	-20.60485053
50	LTDM	-2.997695893			FPVI	-34.48615932	Y	-2673427.875	VY	-10.78717410
	LONM	-27.99501419			AZVI	274.4873504	Z	-298257.7578	VZ	2.196223318
	WT	14043.62084	ATLI	26.94147086	VA	36.84554147	AAAP	137.9880466	VIR	-13.22728824
	DVV	2.472107231	AMIS	94.18871974	FPVA	-21.03835868	AAAY	1.565466105	VIT	19.25578403
	RANG	.0898639532	RLAT	179.9995002	AZVA	272.5108528	AAAT	42.02505159	VAT	-34.38942813
	F	2307.746582	DWT	-7.444343805			VISN	6497.461975	DVI	5.287057995
	VLGR	-17.20638132	VLML	49.05657243	ASPM	310.0000000	TPSE	32195.76904	IDVL	73.48935222
	RDR01	TARGET SITE	RGR	1042.724884	AZR	65.16918754	ELR	31.58315992	DRGR	-20.06054568

PICH .9606262222 YAW .00000000 00 ROLL .00000000 00

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6 FEB. 1968 13 HR 18 MIN 4.18 SEC TMST 296621.2070 J.D. 2439893.0542 3 DAY 10 HR 23.7 MIN

SELENOGRAPHIC

LEM	ALT	831.1875000	R	5703226.187	VI	18.47343707	X	5028900.312	VX	-18.30112457
50	LTDM	-2.997648954			FPVI	-56.10612869	Y	-2673573.531	VY	-1.897466018
	LONM	-27.99697875			AZVI	274.7520980	Z	-298250.0820	VZ	1.654189974
	WT	14013.84350	ATLI	23.09955859	VA	29.70430755	AAAP	144.1991252	VIR	-15.33428227
	DVV	2.127053409	AMIS	94.18884849	FPVA	-31.07976436	AAAY	1.940181329	VIT	10.30182826
	RANG	.0626520607	RLAT	179.9994144	AZVA	271.9224815	AAAT	35.83080482	VAT	-25.44023728
	F	2307.746582	DWT	-7.444343805			VISN	6518.632690	DVI	5.298292219
	VLGR	-32.09586477	VLML	77.33521366	ASPM	310.0000000	TPSE	41426.75537	IDVL	94.66002750
	RDRO1	TARGET SITE	RGR	914.0405502	AZR	52.07944011	ELR	24.61873364	DRGR	-17.09563994
	PICH	.9606262222	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 18 MIN 8.18 SEC TMST 296625.2070 J.D. 2439893.0542 3 DAY 10 HR 23.8 MIN

SELENOGRAPHIC

LEM	ALT	766.6875000	R	5703161.687	VI	17.04848194	X	5028831.562	VX	-16.06870746
50	LTDM	-2.997626215			FPVI	-81.09814262	Y	-2673565.656	VY	5.573781728
	LONM	-27.99723434			AZVI	276.4089546	Z	-298244.4570	VZ	1.174879714
	WT	13984.06616	ATLI	19.25731086	VA	24.49368166	AAAP	152.7475757	VIR	-16.84313106
	DVV	1.778865337	AMIS	94.18899154	FPVA	-43.44453239	AAAY	2.350922942	VIT	2.638118833
	RANG	.0596520691	RLAT	179.9992923	AZVA	270.9488143	AAAT	27.32625746	VAT	-17.78340172
	F	2307.746582	DWT	-7.444343805			VISN	6539.848388	DVI	5.309574246
	VLGR	-51.68715143	VLML	113.9395503	ASPM	310.0000000	TPSE	50657.74169	IDVL	115.8756189
	RDRO1	TARGET SITE	RGR	847.9296264	AZR	49.33509874	ELR	25.31594991	DRGR	-15.99421668
2"	PICH	.9606262222	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 18 MIN 12.18 SEC TMST 296629.2070 J.D. 2439893.0542 3 DAY 10 HR 23.8 MIN

SELENOGRAPHIC

1" LEM	ALT	697.1250000	R	5703092.125	VI	18.22021508	X	5028771.562	VX	-14.00288105

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50	LTDM	-2.997624039			FPVI	-78.27898025	Y	-2673530.812	VY	11.63224768
	LONM	-27.99720764			AZVI	92.59261894	Z	-298240.5976	VZ	.7657502964
	WT	13954.28881	ATLI	15.41478228	VA	21.20546269	AAAP	162.7933731	VIR	-17.84029436
	DVV	1.427947267	AMIS	94.18918323	FPVA	-57.27834320	AAAY	2.713148593	VIT	3.701369255
	RANG	.0600071009	RLAT	179.9991073	AZVA	269.1630897	AAAT	17.39462089	VAT	-11.46278965
	F	2307.746582	DWT	-7.444343805			VISN	6561.109313	DVI	5.320904433
	VLGR	-72.79184341	VLML	154.6272792	ASPM	310.0000000	TPSE	59888.72802	ICVL	137.1365890
	RDRO1	TARGET SITE	RGR	786.5929870	AZR	49.57169914	ELR	27.62014317	DRGR	-14.55334818
	PICH	.9606262222	YAW	.00000000 00	ROLL	.0000000 00				

6 FEB. 1968 13 HR 18 MIN 16.18 SEC TMST 296633.2070 J.D. 2439893.0543 3 DAY 10 HR 23.9 MIN

SELENOGRAPHIC

LEM	ALT	624.5000000	R	5703019.500	VI	20.35521626	X	5028623.125	VX	-12.19771802
50	LTDM	-2.997637927			FPVI	-64.78019523	Y	-2673655.281	VY	16.28994083
	LONM	-27.99901580			AZVI	93.50180530	Z	-298238.1835	VZ	.4339723140
	WT	13924.51135	ATLI	11.57202994	VA	19.53628921	AAAP	7.686389803	VIR	-18.41495394
	DVV	1.074733659	AMIS	94.18948745	FPVA	-70.49330139	AAAY	2.942435026	VIT	8.673194408
	RANG	.0419059465	RLAT	179.9987964	AZVA	265.3420104	AAAT	8.230340957	VAT	-6.523501217
	F	2307.746582	DWT	-7.444343805			VISN	6582.415710	DVI	5.332283198
	VLGR	-92.86533641	VLML	193.8959045	ASPM	310.0000000	TPSE	69119.71386	ICVL	158.4429378
	RDRO1	TARGET SITE	RGR	674.2649536	AZR	22.63524794	ELR	22.19562411	DRGR	-15.97689902
	PICH	.9606262222	YAW	.00000000 00	ROLL	.0000000 00				

6 FEB. 1968 13 HR 18 MIN 16.18 SEC TMST 296633.2070 J.D. 2439893.0543 3 DAY 10 HR 23.9 MIN

SELENOGRAPHIC

CM-SM	ALT	481793.7500	R	6184188.750	VI	5291.344482	X	5292682.562	VX	-2703.071014
120	LTDM	-2.771804392			FPVI	.0075445175	Y	-3184692.218	VY	-4531.190063
	LONM	-31.03599929			AZVI	274.3415298	Z	-299056.5117	VZ	400.0602264

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A	6188128.625	ASND	296.4681320	VVEN	-27962691.75	APOG	80.62241172	VAPG	5284.441833
ECC	.66860664-03	ARGP	315.7079887	ARGL	327.3990440	PERG	79.26055240	VPER	5291.513000
INCL	174.8505249	MA	11.67546725	TA	11.69105267	PERD	122.5458040	MOON	ELLIPSE
LTDE	-2.928570657	LONE	-.4736595154	LTDS	-1.416981160	LONS	89.01297187		
WT	35799.86279	ATLI	65.23089885	VA	5307.738403	AAAP	-26.79585933	VIR	.6966359615
DVV	4.525993883	AMIS	289.3275642	FPVA	.0075216293	AAAY	-11.94326770	VIT	5291.344177
RANG	49.80642080	RLAT	170.1169624	AZVA	274.3280944	AAAT	28.70297336	VAT	-5307.738342

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	296633.2070	RCL	575227.5781	OPCL	.0041876098	XCL	-302600.9453	VXCL	-5299.027587
		ACL	179.9920368	DRCL	2804.199035	YCL	42.04199218	VYCL	.1037750244
		ECL	211.7392482			ZCL	-489202.8554	VZCL	-19.54582214

6 FEB. 1968 13 HR 18 MIN 20.18 SEC TMST 296637.2070 J.D. 2439893.0543 3 DAY 10 HR 24.0 MIN

SELENOGRAPHIC

LEM	ALT	550.3125000	R	5702945.312	VI	22.32268214	X	5028577.375	VX	-10.74814248
50	LTDM	-2.997664779			FPVI	-56.70540237	Y	-2673583.156	VY	19.56386542
	LONM	-27.99858856			AZVI	93.69844532	Z	-298236.9687	VZ	.1863978840
	WT	13894.734000	ATLI	7.729110300	VA	18.90386033	AAAP	.9984163269	VIR	-18.65861821
	DVV	.7197523340	AMIS	94.19009590	FPVA	-80.76088142	AAAY	3.038261801	VIT	12.25390160
	RANG	.0446780114	RLAT	179.9981746	AZVA	254.9042835	AAAT	3.198104113	VAT	-3.035111635
	F	2307.746582	DWT	-7.444343805			VISN	6603.767639	DVI	5.343710601
	VLGR	-111.3658657	VLML	231.7925682	ASPM	310.0000000	TPSE	78350.70019	IDVL	179.7949237
	RDRO1	TARGET SITE	RGR	613.4246978	AZR	31.10770344	ELR	26.26565957	DRGR	-14.23645663
2"	PICH	.9606262222	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 18 MIN 24.18 SEC TMST 296641.2070 J.D. 2439893.0544 3 DAY 10 HR 24.0 MIN

SELENOGRAPHIC

1" LEM	ALT	475.6250000	R	5702870.625	VI	23.58666539	X	5028472.500	VX	-9.745880603

[redacted]

50	LTDM	-2.997699886			FPVI	-52.30947494	Y	-2673621.125	VY	21.47900676
	LONM	-27.99942398			AZVI	93.76867961	Z	-298236.5585	VZ	.0295274535
	WT	13864.95666	ATLI	3.886095017	VA	18.70457458	AAAP	-1.742607310	VIR	-18.66471028
	DVV	.364058841C	AMIS	94.19193458	FPVA	-86.25859069	AAAY	3.067992091	VIT	14.42079651
	RANG	.0388357173	RLAT	179.9963150	AZVA	219.0505332	AAAT	3.528350263	VAT	-1.220532804
	F	2307.746582	DWT	-7.444343805			VISN	6625.165466	DVI	5.355187118
	VLGR	-128.6519737	VLML	269.2178535	ASPM	310.0000000	TPSE	87581.68652	ICVL	201.1926002
	RDRO1	TARGET SITE	RGR	530.7898941	AZR	14.09948408	ELR	26.40346026	DRGR	-15.56813144
	PICH	.9606262222	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 18 MIN 28.18 SEC TMST 296645.2070 J.D. 2439893.0544 3 DAY 10 HR 24.1 MIN

SELENOGRAPHIC

LEM	ALT	401.1875000	R	5702796.187	VI	23.93856596	X	5028434.625	VX	-9.282977342
50	LTDM	-2.997739434			FPVI	-50.71330261	Y	-2673533.625	VY	22.06536531
	LONM	-27.99882507			AZVI	93.78588104	Z	-298236.5937	VZ	-.0305200091
	WT	13835.17932	ATLI	.0474365172	VA	18.55518865	AAAP	-.1653784867	VIR	-18.52814602
	DVV	.0441900096	AMIS	94.52714061	FPVA	-86.90626907	AAAY	3.090032726	VIT	15.15792679
	RANG	.0417181356	RLAT	179.6613769	AZVA	181.9176311	AAAT	3.094455093	VAT	-1.001414254
	F	2307.746582	DWT	-7.444343805			VISN	6646.609252	DVI	5.366712987
	VLGR	-145.2730255	VLML	306.9327735	ASPM	310.0000000	TPSE	96812.66992	ICVL	222.6365814
	RDRO1	TARGET SITE	RGR	474.4158630	AZR	27.46978282	ELR	32.30980634	DRGR	-12.40567386
	PICH	.9606262222	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 13 HR 18 MIN 28.22 SEC TMST 296645.2500 J.D. 2439893.0544 3 DAY 10 HR 24.1 MIN

SELENOGRAPHIC

CM-SM	ALT	481802.1875	R	6184197.187	VI	5291.331726	X	5259764.875	VX	-2749.689819
120	LTDM	-2.726956129			FPVI	.0077276230	Y	-3239228.218	VY	-4502.804443
	LONM	-31.62685394			AZVI	274.3698234	Z	-294221.8125	VZ	402.6767616

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A	6188115.875	ASND	296.4668807	VVEN	-27962749.00	APOG	80.61460494	VAPG	5284.476867
ECC	.66301150-03	ARGP	315.9604949	ARGL	327.9896736	PERG	79.26415252	VPER	5291.488830
INCL	174.8505077	MA	12.01341664	TA	12.02917635	PERD	122.5454235	MCON	ELLIPSE
LTDE	-2.928742319	LONE	-.4733924866	LTDS	-1.416979938	LONS	89.01174068		
WT	35799.86279	ATLI	64.66056919	VA	5307.725769	AAAP	-27.38884282	VIR	.713580846 8
DVV	4.525969982	AMIS	289.4273872	FPVA	.0077047348	AAAY	-11.89981317	VIT	5291.331542
RANG	59.50112104	RLAT	169.9480133	AZVA	274.3563003	AAAT	29.21914219	VAT	-5307.725708

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	296645.2500	RCL	611180.4609	OPCL	.0040712718	XCL	-361420.1796	VXCL	-5305.284667
		ACL	179.9931125	DRCL	3153.527862	YCL	43.42871093	VYCL	.1063995361
		ECL	216.2527084			ZCL	-492866.1210	VZCL	-20.16308212

6 FEB. 1968 13 HR 18 MIN 28.22 SEC TMST 296645.2500 J.D. 2439893.0544 3 DAY 10 HR 24.1 MIN

SELENOGRAPHIC

LEM	ALT	400.3125000	R	5702795.312	VI	23.93707919	X	5028434.187	VX	-9.281145811
50	LTDM	-2.997739940			FPVI	-50.71002769	Y	-2673532.562	VY	22.06452274
	LONM	-27.99881744			AZVI	93.78584671	Z	-298236.5976	VZ	-.0306243030
	WT	13834.83837	ATLI	.0209831947	VA	18.55317378	AAAP	-.1218370851	VIR	-18.52612876
	DVV	.0440863129	AMIS	260.7061119	FPVA	-86.90596771	AAAY	3.090337872	VIT	15.15804445
	RANG	.0417684181	RLAT	13.47175538	AZVA	181.9107379	AAAT	3.092738628	VAT	-1.001404732
	F	2307.746582	DWT	-7.444343805			VISN	6646.854919	DVI	5.366845369
	VLGR	-145.4600982	VLML	307.3650283	ASPM	310.0000000	TPSE	96917.46484	IDVL	222.8823318
	RDR01	TARGET SITE	RGR	473.8243980	AZR	27.61263680	ELR	32.39425516	DRGR	-12.36321699
	PICH	.9606262222	YAW	.00000000 00	ROLL	.00000000 00				

PRIMARY PHASE CUTOFF ---- EPSILON LOCAL .0209831947

START VERTICAL DESCENT

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6 FEB. 1968 13 HR 18 MIN 28.22 SEC TMST 296645.2500 J.D. 2439893.0544 3 DAY 10 HR 24.1 MIN

SELENOGRAPHIC

LEM	ALT	400.31250000	R	5702795.312	VI	23.93707919	X	5028434.187	VX	-9.281145811
52	LTDM	-2.997739940			FPVI	-50.71002769	Y	-2673532.562	VY	22.06452274
	LONM	-27.99881744			AZVI	93.78584671	Z	-298236.5976	VZ	-.030624303
	WT	13834.83837	ATLI	.0209831947	VA	18.55317378	AAAP	-.1218370851	VIR	-18.52612876
	DVV	.8207791149	AMIS	260.7061119	FPVA	-86.90596771	AAAY	3.090337932	VIT	15.15804445
	RANG	.0417684181	RLAT	13.47376298	AZVA	181.9107379	AAAT	3.092738717	VAT	-1.001404732
	F	2641.726165	DWT	-8.521697282			VISN	6646.854919	DVI	6.143540978
	VLGR	-.00000000 00	VLML	.00000000 00	ASPM	.00000000 00	TPSE	.00000000 00	IDVL	.00000000 00
	RDRC1	TARGET SITE	RGR	473.8243980	AZR	27.61263680	ELR	32.39425516	DRGR	-12.36321699

6 FEB. 1968 13 HR 18 MIN 32.18 SEC TMST 296649.2070 J.D. 2439893.0544 3 DAY 10 HR 24.2 MIN

SELENOGRAPHIC

LEM	ALT	333.50000000	R	5702728.500	VI	21.50364923	X	5028403.125	VX	-6.392377793
52	LTDM	-2.997779697			FPVI	-45.17119407	Y	-2673448.312	VY	20.53056144
	LONM	-27.99821472			AZVI	93.78278732	Z	-298237.0585	VZ	-.2012192067
	WT	13801.13854	ATLI	.0197827890	VA	15.28353440	AAAP	-.1550321933	VIR	-15.25074172
	DVV	.8356555179	AMIS	265.3554687	FPVA	-86.24599838	AAAY	3.748278707	VIT	15.15987491
	RANG	.0466414210	RLAT	8.828808069	AZVA	181.7942733	AAAT	3.751483410	VAT	-1.00065115
	F	2641.726165	DWT	-8.521697282			VISN	6671.179687	DVI	6.158542275
	VLGR	-15.63888537	VLML	42.39518022	ASPM	310.0000000	TPSE	10446.94335	IDVL	24.32482290
	RDRO1	TARGET SITE	RGR	437.5089797	AZR	38.77836513	ELR	40.38243007	DRGR	-5.984911918

6 FEB. 1968 13 HR 18 MIN 36.18 SEC TMST 296653.2070 J.D. 2439893.0546 3 DAY 10 HR 24.2 MIN

SELENOGRAPHIC

LEM	ALT	279.18750000	R	5702674.187	VI	19.26002669	X	5028351.500	VX	-3.417371481
52	LTDM	-2.997819274			FPVI	-38.07569503	Y	-2673429.562	VY	18.95067691
	LONM	-27.99829101			AZVI	93.77969360	Z	-298238.1523	VZ	-.3768985756
	WT	13767.05175	ATLI	.0209831947	VA	11.91970932	AAAP	-.2067802157	VIR	-11.87769782

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DVV	.8508025184	AMIS	267.5940361	FPVA	-85.18807983	AAAY	4.801961541	VIT	15.16142880
RANG	.0453581274	RLAT	6.583895862	AZVA	181.6953487	AAAT	4.806411623	VAT	-.9998826906
F	2641.726165	DWT	-8.521697282			VISN	6695.844360	DVI	6.173790693
VLGR	-29.79730463	VLML	83.45808601	ASPM	310.0000000	TPSE	21013.84790	IDVL	48.98945045
RDRO1	TARGET SITE	RGR	392.1215248	AZR	38.04047775	ELR	44.64984083	DRGR	-2.45232138C

6 FEB. 1968 13 HR 18 MIN 40.18 SEC TMST 296657.2070 J.D. 2439893.0546 3 DAY 10 HR 24.3 MIN

SELENOGRAPHIC

LEM 52	ALT	238.5000000	R	5702633.500	VI	17.35528016	X	5028343.750	VX	-.3891161792
	LTDM	-2.997859507			FPVI	-29.11275863	Y	-2673356.906	VY	17.34201550
	LONM	-27.99768447			AZVI	93.77660179	Z	-298240.0156	VZ	-.5557420999
	WT	13732.96496	ATLI	.0231970297	VA	8.502768158	AAAP	-.2993189208	VIR	-8.443864345
	DVV	.8660502210	AMIS	268.8958549	FPVA	-83.25192451	AAAY	6.725959181	VIT	15.16268122
	RANG	.0516123897	RLAT	5.285239338	AZVA	181.6156158	AAAT	6.732616007	VAT	-.9991103038
	F	2641.726165	DWT	-8.521697282			VISN	6720.570129	DVI	6.185114749
	VLGR	-41.59954309	VLML	121.8866415	ASPM	310.0000000	TPSE	31580.75219	IDVL	73.71521854
	RDRO1	TARGET SITE	RGR	393.9916152	AZR	47.23582553	ELR	52.78259897	DRGR	3.197539538

6 FEB. 1968 13 HR 18 MIN 44.18 SEC TMST 296661.2070 J.D. 2439893.0546 3 DAY 10 HR 24.4 MIN

SELENOGRAPHIC

LEM 52	ALT	211.6875000	R	5702606.687	VI	15.95075833	X	5028348.437	VX	2.692992836
	LTDM	-2.997899591			FPVI	-18.07471847	Y	-2673290.843	VY	15.70446360
	LONM	-27.99707412			AZVI	93.77350997	Z	-298242.6093	VZ	-.7377712875
	WT	13698.87817	ATLI	.0209831947	VA	5.048526465	AAAP	-.5170323625	VIR	-4.948834776
	DVV	.8814008981	AMIS	269.7435455	FPVA	-78.59481430	AAAY	168.6062774	VIT	15.16363167
	RANG	.0589422518	RLAT	4.438029587	AZVA	181.5552463	AAAT	11.40483725	VAT	-.9983254969
	F	2641.726165	DWT	-8.521697282			VISN	6745.357360	DVI	6.204515099
	VLGR	-50.14586353	VLML	156.6196613	ASPM	310.0000000	TPSE	42147.65625	IDVL	98.50243663
	RDRO1	TARGET SITE	RGR	415.9646415	AZR	54.29702281	ELR	59.44297456	DRGR	7.562467277

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6 FEB. 1968 13 HR 18 MIN 48.18 SEC TMST 296665.2070 J.D. 2439893.0547 3 DAY 10 HR 24.4 MIN

SELENOGRAPHIC

LEM	ALT	199.0000000	R	5702594.000	VI	15.22804999	X	5028269.250	VX	5.829822242
52	LTDM	-2.997939825			FPVI	-5.245491981	Y	-2673412.281	VY	14.03761875
	LONM	-27.99852752			AZVI	93.77042198	Z	-298245.9375	VZ	-.9230078757
	WT	13664.79138	ATLI	.0231970297	VA	1.712684869	AAAP	-1.553338348	VIR	-1.392198637
	DVV	.8968543857	AMIS	2703413734	FPVA	-54.37778091	AAAY	144.4071102	VIT	15.16427671
	RANG	.0414592149	RLAT	3.844593435	AZVA	181.5144252	AAAT	35.61232757	VAT	-.9975331574
	F	2641.726165	DWT	-8.521697282			VISN	6770.206359	DVI	6.219992220
	VLGR	-54.47255134	VLML	186.5165576	ASPM	310.0000000	TPSE	52714.56054	IDVL	123.3515176
	RDR01	TARGET SITE	RGR	320.8985519	AZR	35.53493452	ELR	51.73570108	DRGR	5.405433595

6 FEB. 1968 13 HR 18 MIN 49.69 SEC TMST 296666.7109 J.D. 2439893.0547 3 DAY 10 HR 24.4 MIN

SELENOGRAPHIC

CM-SM	ALT	481817.8750	R	6184212.875	VI	5291.308471	X	5199715.125	VX	-2832.035644
120	LTDM	-2.646345198			FPVI	.0080547333	Y	-3335554.000	VY	-4451.031311
	LONM	-32.67967987			AZVI	274.4190864	Z	-285531.3984	VZ	407.2322120
	A	6188092.625	ASND	296.4643592	VVEN	-27962853.75	APOG	80.61077785	VAPG	5284.486877
	ECC	.66301150-03	ARGP	316.3985786	ARGL	329.0419158	PERG	79.26032638	VPER	5291.498840
	INCL	174.8504753	MA	12.62674772	TA	12.64333450	PERD	122.5447349	MCON	ELLIPSE
	LTDE	-2.929048299	LONE	-.4732131958	LTDS	-1.416979149	LONS	89.00924396		
	WT	35799.86279	ATLI	63.64499044	VA	5307.702453	AAAP	-28.44435596	VIR	.7436950207
	DVV	4.525925993	AMIS	289.6095809	FPVA	.0080289840	AAAY	-11.82125771	VIT	5291.308227
	RANG	76.77784824	RLAT	169.6430244	AZVA	274.4054069	AAAT	30.14487528	VAT	-5307.702392

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	296666.7109	RCL	684113.3906	OPCL	.0038543855	XCL	-466160.3710	VXCL	-5306.418518
		ACL	179.9943408	DRCL	3617.315399	YCL	46.02148437	VYCL	.1109466553
		ECL	222.9537734			ZCL	-500705.1406	VZCL	-2.021003723

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6 FEB. 1968 13 HR 18 MIN 49.69 SEC TMST 296666.7109 J.D. 2439893.0547 3 DAY 10 HR 24.4 MIN

	SELENOGRAPHIC									
LEM	ALT	197.9375000	R	5702592.937	VI	15.16448736	X	5028278.937	VX	7.024081885
52	LTDM	-2.997954845			FPVI	-.1429424286	Y	-2673391.625	VY	13.40286624
	LONM	-27.99829864			AZVI	93.76925945	Z	-298247.3710	VZ	-.9935454279
	WT	13651.96484	ATLI	.0231970297	VA	.9979494437	AAAP	-2.680814981	VIR	-.0378327956
	DVV	.9026961028	AMIS	270.5215492	FPVA	-2.172631263	AAAY	92.17494010	VIT	15.16444003
	RANG	.0435509882	RLAT	3.663955479	AZVA	181.5041732	AAAT	87.82506084	VAT	-.9972320497
	F	2641.726165	DWT	-8.521697282			VISN	6779.572875	DVI	6.225836157
	VLGR	-54.84981775	VLML	196.3209896	ASPM	310.0000000	TPSE	56690.04638	IDVL	132.7180519
	RDRO1	TARGET SITE	RGR	330.3806915	AZR	39.74476337	ELR	53.24867582	DRGR	7.114695668

PRIMARY PHASE CUTOFF ---- PHASE TIME LAPSE 21.45947265

ACHIEVE HOVER CONDITION

6 FEB. 1968 13 HR 18 MIN 49.69 SEC TMST 296666.7109 J.D. 2439893.0547 3 DAY 10 HR 24.4 MIN

	SELENOGRAPHIC									
LEM	ALT	197.9375000	R	5702592.937	VI	15.16448736	X	5028278.937	VX	7.024081885
54	LTDM	-2.997954845			FPVI	-.1429424286	Y	-2673391.625	VY	13.40286624
	LONM	-27.99829864			AZVI	93.76925945	Z	-298247.3710	VZ	-.9935454279
	WT	13651.96484	ATLI	.0231970297	VA	.9979494437	AAAP	-2.680814981	VIR	-.0378327956
	DVV	.4211411401	AMIS	270.5215492	FPVA	-2.172631263	AAAY	92.17494010	VIT	15.16444003
	RANG	.0435509882	RLAT	3.663955479	AZVA	181.5041732	AAAT	87.82506084	VAT	-.9972320497
2"	F	2079.999969	DWT	-6.709677338			VISN	6779.572875	DVI	4.901998996
	VLGR	-.00000000 00	VLML	.00000000 00	ASPM	.00000000 00	TPSE	.00000000 00	IDVL	.00000000 00
	RDRO1	TARGET SITE	RGR	330.3806915	AZR	39.74476337	ELR	53.24867582	DRGR	7.114695668

1" 6 FEB. 1968 13 HR 18 MIN 52.18 SEC TMST 296669.2070 J.D. 2439893.0547 3 DAY 10 HR 24.5 MIN

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	SELENOGRAPHIC									
LEM	ALT	196.4375000	R	5702591.437	VI	15.20336818	X	5028295.187	VX	6.104398965
54	LTDM	-2.997979849			FPVI	-4.077418327	Y	-2673357.531	VY	13.89237022
	LONM	-27.99791717			AZVI	93.76727962	Z	-298249.7890	VZ	-.9384927302
	WT	13635.22338	ATLI	.0209831947	VA	1.470401063	AAAP	-1.833492472	VIR	-1.081025615
	DVV	.4151252657	AMIS	270.7832412	FPVA	-47.32335472	AAAY	137.3551502	VIT	15.16488659
	RANG	.0474937558	RLAT	3.402190238	AZVA	181.4771003	AAAT	42.66207122	VAT	-.9967260957
	F	2079.999969	DWT	-6.709677338			VISN	6791.811401	DVI	4.908017694
	VLGR	-.4895154387	VLML	12.68980777	ASPM	309.9999923	TPSE	5189.843627	IDVL	12.23851561
	RDR01	TARGET SITE	RGR	348.9372138	AZR	45.83583784	ELR	55.78956270	DRGR	7.794591367

6 FEB. 1968 13 HR 18 MIN 56.18 SEC TMST 296673.2070 J.D. 2439893.0548 3 DAY 10 HR 24.6 MIN

	SELENOGRAPHIC									
LEM	ALT	188.8750000	R	5702583.875	VI	15.40779745	X	5028220.750	VX	4.658117413
54	LTDM	-2.998019218			FPVI	-10.17565250	Y	-2673481.250	VY	14.66207671
	LONM	-27.99936676			AZVI	93.76410579	Z	-298253.2968	VZ	-.8518640175
	WT	13608.38464	ATLI	.0197827890	VA	2.898507714	AAAP	-.9381841421	VIR	-2.722042053
	DVV	.4054595120	AMIS	271.1239624	FPVA	-69.90402984	AAAY	159.9250087	VIT	15.16544449
	RANG	.0340581336	RLAT	3.063193231	AZVA	181.4419174	AAAT	20.09351849	VAT	-.9959086254
	F	2079.999969	DWT	-6.709677338			VISN	6811.462829	DVI	4.917697429
	VLGR	-3.136298388	VLML	34.78367757	ASPM	309.9999923	TPSE	13509.84338	IDVL	31.88998675
	RDR01	TARGET SITE	RGR	280.0250930	AZR	17.68194794	ELR	47.63600349	DRGR	.8608607054

6 FEB. 1968 13 HR 19 MIN .18 SEC TMST 296677.2070 J.D. 2439893.0548 3 DAY 10 HR 24.6 MIN

	SELENOGRAPHIC									
LEM	ALT	174.8125000	R	5702569.812	VI	15.77027714	X	5028236.500	VX	3.245366156
54	LTDM	-2.998059242			FPVI	-15.91484642	Y	-2673421.062	VY	15.41364908
	LONM	-27.99876022			AZVI	93.76093292	Z	-298256.5468	VZ	-.7672452703
	WT	13581.54589	ATLI	.0197827890	VA	4.437356948	AAAP	-.6153921857	VIR	-4.324343383
	DVV	.3957678266	AMIS	271.3947334	FPVA	-77.04113388	AAAY	167.0555038	VIT	15.16580677

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RANG	.0377069092	RLAT	2.792431175	AZVA	181.4169311	AAAT	12.95814204	VAT	-.9950834065
F	2079.999969	DWT	-6.709677338			VISN	6831.153015	DVI	4.927415370
VLGR	-7.948664188	VLML	58.92271995	ASPM	309.9999885	TPSE	21829.84301	IDVL	51.58024358
RDR01	TARGET SITE	RGR	288.0859222	AZR	32.56231689	ELR	52.70213079	DRGR	3.191592812

6 FEB. 1968 13 HR 19 MIN 4.18 SEC TMST 296681.2070 J.D. 2439893.0548 3 DAY 10 HR 24.7 MIN

SELENOGRAPHIC

LEM	ALT	154.3125000	R	5702549.312	VI	16.26877975	X	5028246.750	VX	1.866736367
54	LTDM	-2.998099207			FPVI	-21.21750640	Y	-2673357.906	VY	16.14681887
	LONM	-27.99814987			AZVI	93.75776195	Z	-298259.4453	VZ	-.6846419349
	WT	13554.70727	ATLI	.0197827890	VA	5.971182584	AAAP	-.4572089761	VIR	-5.887825429
	DVV	.3860497549	AMIS	271.6150283	FPVA	-80.41514778	AAAY	170.4259777	VIT	15.16597187
	RANG	.0434191744	RLAT	2.572096109	AZVA	181.4022731	AAAT	9.584530234	VAT	-.9942499772
	F	2079.999969	DWT	-6.709677338			VISN	6850.882202	DVI	4.937171757
	VLGR	-14.73483133	VLML	84.93654346	ASPM	309.9999847	TPSE	30149.84252	IDVL	71.30933761
	RDR01	TARGET SITE	RGR	305.5307044	AZR	44.18691825	ELR	59.70549726	DRGR	5.521618127

6 FEB. 1968 13 HR 19 MIN 8.18 SEC TMST 296685.2070 J.D. 2439893.0549 3 DAY 10 HR 24.8 MIN

SELENOGRAPHIC

LEM	ALT	127.7500000	R	5702522.750	VI	16.88043570	X	5028187.375	VX	.5227259695
54	LTDM	-2.998138636			FPVI	-26.04715633	Y	-2673412.281	VY	16.86152386
	LONM	-27.99891281			AZVI	93.75459098	Z	-298261.9648	VZ	-.6040595621
	WT	13527.86853	ATLI	.0270885299	VA	7.478653788	AAAP	-.3633562326	VIR	-7.412381649
	DVV	.3763044961	AMIS	271.7979545	FPVA	-82.36669158	AAAY	7.602015614	VIT	15.16593909
	RANG	.0352961612	RLAT	2.387152135	AZVA	181.3980426	AAAT	7.610694348	VAT	-.9934086501
	F	2079.999969	DWT	-6.709677338			VISN	6870.650451	DVI	4.946966886
	VLGR	-23.27688789	VLML	112.6320991	ASPM	309.9999809	TPSE	38469.84179	IDVL	91.07767963
	RDR01	TARGET SITE	RGR	249.3958549	AZR	30.24290990	ELR	59.29268980	DRGR	2.030274897

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6 FEB. 1968 13 HR 19 MIN 12.18 SEC TMST 296689.2070 J.D. 2439893.0549 3 DAY 10 HR 24.8 MIN

SELENOGRAPHIC

LEM	ALT	95.06250000	R	5702490.062	VI	17.58326840	X	5028186.812	VX	-.7873583659
54	LTDM	-2.998178541			FPVI	-30.40065288	Y	-2673343.406	VY	17.55776882
	LONM	-27.99830627			AZVI	93.75141906	Z	-298264.2226	VZ	-.5255038142
	WT	13501.02978	ATLI	.0270885299	VA	8.953089952	AAAP	-.3007549755	VIR	-8.897901296
	DVV	.3665314689	AMIS	271.9513816	FPVA	-83.63498306	AAAY	6.344733655	VIT	15.16570734
	RANG	.0407147961	RLAT	2.233909100	AZVA	181.4043807	AAAT	6.351857841	VAT	-.9925579652
	F	2079.999969	DWT	-6.709677338			VISN	6890.458007	DVI	4.956801056
	VLGR	-33.35281276	VLML	141.8091659	ASPM	309.9999809	TPSE	46789.84082	IDVL	110.8852748
	RCR01	TARGET SITE	RGR	265.0759277	AZR	42.92424297	ELR	69.05255126	DRGR	5.764839947

6 FEB. 1968 13 HR 19 MIN 14.35 SEC TMST 296691.3750 J.D. 2439893.0549 3 DAY 10 HR 24.9 MIN

SELENOGRAPHIC

CM-SM	ALT	481836.6875	R	6184231.687	VI	5291.280822	X	5128509.937	VX	-2925.507354
120	LTDM	-2.552605122			FPVI	.0084266662	Y	-3444886.625	VY	-4389.654602
	LONM	-33.88977050			AZVI	274.4738540	Z	-275424.8164	VZ	412.2978134
	A	6188065.125	ASND	296.4611701	VVEN	-27962976.50	APOG	80.58884811	VAPG	5284.588867
	ECC	.64593538-03	ARGP	316.8896369	ARGL	330.2512168	PERG	79.27319431	VPER	5291.420227
	INCL	174.8504409	MA	13.34441614	TA	13.36157953	PERD	122.5439176	MCON	ELLIPSE
	LTDE	-2.929399102	LONE	-.4732818603	LTDS	-1.416977807	LONS	89.00610160		
	WT	35799.86279	ATLI	62.47862291	VA	5307.674804	AAAP	-29.65599632	VIR	.7780871391
	DVV	4.525874614	AMIS	289.8261451	FPVA	.0084009170	AAAY	-11.72906720	VIT	5291.280517
	RANG	96.63808345	RLAT	169.2858161	AZVA	274.4600067	AAAT	31.21775627	VAT	-5307.674743

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	296691.3750	RCL	778412.0390	OPCL	.0036213565	XCL	-586340.6484	VXCL	-5305.369323
		ACL	179.9951896	DRCL	4004.156402	YCL	49.19921875	VYCL	.1159820556
		ECL	228.8728942			ZCL	-511986.2773	VZCL	-11.97277069

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6 FEB. 1968 13 HR 19 MIN 14.35 SEC TMST 296691.3750 J.D. 2439893.0549 3 DAY 10 HR 24.9 MIN

SELENOGRAPHIC

LEM	ALT	74.87500000	R	5702469.875	VI	17.99512743	X	5028184.375	VX	-1.483055755
54	LTDM	-2.998200088			FPVI	-32.56771755	Y	-2673304.906	VY	17.92738485
	LONM	-27.99797439			AZVI	93.74970054	Z	-298265.3125	VZ	-.4837752543
	WT	13486.48315	ATLI	.0261698696	VA	9.737378239	AAAP	-.2746358104	VIR	-9.686706662
	DVV	.3612227253	AMIS	272.0244865	FPVA	-84.15226936	AAAY	5.831039130	VIT	15.16549766
	RANG	.0443512136	RLAT	2.161030292	AZVA	181.4122791	AAAT	5.837503016	VAT	-.9920928180
	F	2079.999969	DWT	-6.709677338			VISN	6901.210205	DVI	4.962147474
	VLGR	-39.38140487	VLML	158.1759548	ASPM	309.9999580	TPSE	51299.21142	IDVL	121.6373891
	RDRC1	TARGET SITE	RGR	279.6492500	AZR	48.34636926	ELR	74.52774906	DRGR	7.677258312

SECONDARY PHASE CUTOFF ---- PHASE TIME LAPSE 24.66308593

6 FEB. 1968 13 HR 19 MIN 14.35 SEC TMST 296691.3750 J.D. 2439893.0549 3 DAY 10 HR 24.9 MIN

SELENOGRAPHIC

LEM	ALT	74.87500000	R	5702469.875	VI	17.99512743	X	5028184.375	VX	-1.483055755
56	LTDM	-2.998200088			FPVI	-32.56771755	Y	-2673304.906	VY	17.92738485
	LONM	-27.99797439			AZVI	93.74970054	Z	-298265.3125	VZ	-.4837752543
	WT	13486.48315	ATLI	.0261698696	VA	9.737378239	AAAP	-.2746358104	VIR	-9.686706662
	DVV	.6035808623	AMIS	272.0244865	FPVA	-84.15226936	AAAY	5.831039130	VIT	15.16549766
	RANG	.0443512136	RLAT	2.161030292	AZVA	181.4122791	AAAT	5.837503016	VAT	-.9920928180
	F	2484.419860	DWT	-8.014257550			VISN	6901.210205	DVI	5.926950931
	VLGR	-39.38140487	VLML	158.1759548	ASPM	309.9999580	TPSE	51299.21142	IDVL	121.6373891
	RDRO1	TARGET SITE	RGR	279.6492500	AZR	48.34636926	ELR	74.52774906	DRGR	7.677258312

2"

6 FEB. 1968 13 HR 19 MIN 16.18 SEC TMST 296693.2070 J.D. 2439893.0549 3 DAY 10 HR 24.9 MIN

SELENOGRAPHIC

LEM	ALT	58.12500000	R	5702453.125	VI	17.42147541	X	5028182.500	VX	-.5030542686
56	LTDM	-2.998218387			FPVI	-29.48572635	Y	-2673272.531	VY	17.40578961
1"	LONM	-27.99769592			AZVI	93.74827575	Z	-298266.2500	VZ	-.5415144712

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WT	13471.80078	ATLI	.0270885299	VA	8.632122635	AAAP	-.3076446652	VIR	-8.574968338
DVV	.6100089028	AMIS	272.0822296	FPVA	-83.40303802	AAAY	6.575108230	VIT	15.16501641
RANG	.0476659965	RLAT	2.103202641	AZVA	181.4365940	AAAT	6.582301497	VAT	-.9916947707
						VISN	6912.074462	DVI	5.933410406
F	2484.419860	DWT	-8.014257550						
VLGR	-44.40644979	VLML	174.6363201	ASPM	309.9999618	TPSE	55850.74609	ICVL	132.5016975
RDRC1	TARGET SITE	RGR	295.4242706	AZR	52.26631975	ELR	78.71727657	DRGR	9.463265180

6 FEB. 1968 13 HR 19 MIN 16.18 SEC TMST 296693.2070 J.D. 2439893.0549 3 DAY 10 HR 24.9 MIN

	SELENOGRAPHIC								
CM-SM	ALT	481838.0625	R	6184233.062	VI	5291.278747	X	5123144.000	VX	-2932.379333
120	LTDM	-2.545596331			FPVI	.0084543228	Y	-3452924.437	VY	-4385.029724
	LONM	-33.97939682			AZVI	274.4778442	Z	-274669.1289	VZ	412.6667938
	A	6188062.937	ASND	296.4611892	VVEN	-27962987.00	APOG	80.57063102	VAPG	5284.682373
	ECC	.62839539-03	ARGP	316.9262886	ARGL	330.3410453	PERG	79.29070186	VPER	5291.328369
	INCL	174.8504390	MA	13.39806425	TA	13.41475510	PERD	122.5438537	MOON	ELLIPSE
	LTDE	-2.929424971	LONE	-.4730339050	LTDS	-1.416977435	LONS	89.00612354		
	WT	35799.86279	ATLI	62.39201879	VA	5307.672729	AAAP	-29.74593853	VIR	.7806510925
	DVV	4.525870442	AMIS	289.8425483	FPVA	.0084285736	AAAY	-11.72213399	VIT	5291.278381
	RANG	98.10911464	RLAT	169.2589836	AZVA	274.4639854	AAAT	31.29780912	VAT	-5307.672668

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	296693.2070	RCL	785768.1562	OPCL	.0036048292	XCL	-595257.0703	VXCL	-5305.465209
		ACL	179.9952392	DRCL	4026.254211	YCL	49.43750000	VYCL	.1163482666
		ECL	229.2485084			ZCL	-512933.3515	VZCL	-10.89175796

6 FEB. 1968 13 HR 19 MIN 20.18 SEC TMST 296697.2070 J.D. 2439893.0551 3 DAY 10 HR 25.0 MIN

	SELENOGRAPHIC								
LEM	ALT	28.75000000	R	5702423.750	VI	16.34717440	X	5028088.625	VX	1.673334851
56	LTDM	-2.998257815			FPVI	-21.93515872	Y	-2673386.281	VY	16.24750900
	LONM	-27.99914932			AZVI	93.74516773	Z	-298268.6328	VZ	-.6697158292

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WT	13439.74365	ATLI	.0242283882	VA	6.186463356	AAAP	-.4209932051	VIR	-6.106603026
DVV	.6241071000	AMIS	272.1948966	FPVA	-80.78383255	AAAY	170.7934741	VIT	15.16375637
RANG	.0317484163	RLAT	1.991886764	AZVA	181.5029392	AAAT	9.215816140	VAT	-.9908221587
F	2484.419860	DWT	-8.014257550			VISN	6935.836364	DVI	5.947563052
VLGR	-53.65786218	VLML	208.7170734	ASPM	309.9999656	TPSE	65788.42480	ICVL	156.2636814
RDRO1	TARGET SITE	RGR	195.0048179	AZR	26.00822520	ELR	81.60649585	DRGR	4.791769862

6 FEB. 1968 13 HR 19 MIN 24.18 SEC TMST 296701.2070 J.D. 2439893.0551 3 DAY 10 HR 25.0 MIN

	SELENOGRAPHIC								
LEM	ALT	9.312500000	R	5702404.312	VI	15.57950401	X	5028099.812	VX	3.898861616
56	LTDM	-2.998297572			FPVI	-13.29098224	Y	-2673323.656	VY	15.06248474
	LONM	-27.99853897			AZVI	93.74205970	Z	-298271.5742	VZ	-.8008605316
	WT	13407.68664	ATLI	.0242283882	VA	3.715962171	AAAP	-.6832107529	VIR	-3.581674903
	DVV	.6382914558	AMIS	272.2930679	FPVA	-74.54972839	AAAY	164.5645904	VIT	15.16220784
	RANG	.0367251816	RLAT	1.893689408	AZVA	181.5876293	AAAT	15.44910717	VAT	-.9895392649
	F	2484.419860	DWT	-8.014257550			VISN	6959.655029	DVI	5.961783349
	VLGR	-60.11469507	VLML	239.7527809	ASPM	309.9999694	TPSE	75726.10253	ICVL	180.0823249
	RDRO1	TARGET SITE	RGR	223.2913665	AZR	40.58847093	ELR	87.65264415	DRGR	8.937855005

6 FEB. 1968 13 HR 19 MIN 28.18 SEC TMST 296705.2070 J.D. 2439893.0552 3 DAY 10 HR 25.1 MIN

	SELENOGRAPHIC								
LEM	ALT	.187500000	R	5702395.187	VI	15.19330310	X	5028056.125	VX	6.174791038
56	LTDM	-2.998336434			FPVI	-3.773225784	Y	-2673385.968	VY	13.85042440
	LONM	-27.99930191			AZVI	93.73894977	Z	-298274.9531	VZ	-.9349662140
2"	WT	13375.62963	ATLI	.0209831947	VA	1.406374290	AAAP	-1.748169660	VIR	-.9998357370
	DVV	.6525627076	AMIS	272.3800849	FPVA	-45.31075096	AAAY	135.3378582	VIT	15.16036891
	RANG	.0295447544	RLAT	1.807406589	AZVA	181.6908550	AAAT	44.67578458	VAT	-.9890486076
	F	2484.419860	DWT	-8.014257550			VISN	6983.530700	DVI	5.976071834
	VLGR	-63.28650760	VLML	267.1796226	ASPM	309.9999732	TPSE	85663.77929	ICVL	203.9579410
1"	RDRO1	TARGET SITE	RGR	179.5858287	AZR	22.80049800	ELR	90.01257705	DRGR	4.951307892

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6 FEB. 1968 13 HR 19 MIN 29.69 SEC TMST 296706.7109 J.C. 2439893.0552 3 DAY 10 HR 25.1 MIN

SELENOGRAPHIC

CM-SM	ALT	481848.6875	R	6184243.687	VI	5291.263183	X	5082991.312	VX	-2983.073394
120	LTDM	-2.493739098			FPVI	.0086574554	Y	-3512216.468	VY	-4350.427368
	LCNM	-34.64347839			AZVI	274.5069084	Z	-269077.7890	VZ	415.3551292
	A	6188048.625	ASND	296.4578704	VVEN	-27963053.25	APOG	80.59199523	VAPG	5284.565490
	ECC	.65167714-03	ARGP	317.1904220	ARGL	331.0032043	PERG	79.26462650	VPER	5291.457702
	INCL	174.8504238	MA	13.79482805	TA	13.81278049	PERD	122.5434274	MOON	ELLIPSE
	LTDE	-2.929614871	LCNE	-.4746246338	LTDS	-1.416974812	LONS	89.00285053		
	WT	35799.86279	ATLI	61.75377702	VA	5307.657348	AAAP	-30.40868234	VIR	.7993893623
	DVV	4.525840997	AMIS	289.9648513	FPVA	.0086297989	AAAY	-11.67064630	VIT	5291.263000
	RANG	109.0093336	RLAT	169.0598602	AZVA	274.4929580	AAAT	31.88935422	VAT	-5307.657287

COORDINATES OF LEM RELATIVE TO CM-SM

	TMST	296706.7109	RCL	841154.1562	OPCL	.0034925245	XCL	-660943.5156	VXCL	-5306.318420
			ACL	179.9955520	DRCL	4171.071166	YCL	51.27343750	VYCL	.1191711426
			ECL	231.7908306			ZCL	-520282.6054	VZCL	-2.570007324

6 FEB. 1968 13 HR 19 MIN 29.69 SEC TMST 296706.7109 J.C. 2439893.0552 3 DAY 10 HR 25.1 MIN

SELENOGRAPHIC

LEM	ALT	-.62500000CC	R	5702394.375	VI	15.15960764	X	5028066.000	VX	7.043933093
56	LTDM	-2.998351275			FPVI	-.0517368316	Y	-2673365.468	VY	13.38746213
	LCNM	-27.99907302			AZVI	93.73778057	Z	-298276.3984	VZ	-.9861903637
	WT	13363.56909	ATLI	.0197827890	VA	.9888070896	AAAP	-2.452067434	VIR	-.0136891827
	DVV	.6579547524	AMIS	272.4096336	FPVA	-.7932348251	AAAY	90.79408645	VIT	15.15960144
	RANG	.0309713150	RLAT	1.778012856	AZVA	181.7345447	AAAT	89.20591163	VAT	-.9887123257
	F	2484.419860	DWT	-8.014257550			VISN	6992.528076	DVI	5.981465220
	VLGR	-63.55431079	VLML	276.4757766	ASPM	309.9999732	TPSE	89402.53515	IDVL	212.9553623
	RDROI	TARGET SITE	RGR	188.2923603	AZR	29.37982439	ELR	90.21694755	DRGR	6.560271978

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PRIMARY PHASE CUTOFF ---- PHASE TIME LAPSE 40.00000000

BEGINNING OF THE LUNAR SURFACE STAY PERIOD

6 FEB. 1968 13 HR 19 MIN 29.69 SEC TMST 296706.7109 J.D. 2439893.0552 3 DAY 10 HR 25.1 MIN

SELENOGRAPHIC

LEM	ALT	-.31250000CC	R	5702394.687	VI	15.15728318	X	5028066.250	VX	7.119141042
60	LTDM	-2.998351156			FPVI	.0147676468	Y	-2673365.843	VY	13.38137006
	LONM	-27.99907302			AZVI	90.00000000	Z	-298276.4023	VZ	-.20445405-03
	WT	13363.569099	ATLI	.0209831947	VA	.0039064040	AAAP	.64399256-03	VIR	.0039063347
	DVV	5.323509931	AMIS	180.0000019	FPV1	90.00000000	AAAY	.0017598515	VIT	15.15728259
	RANG	.48815615-06	RLAT	-.00000000 00	AZV1	198.6087932	AAAT	.0018739807	VAT	-.23262617-04
	RDR01	TARGET SITE	RGR	188.1930770	AZR	29.32032513	ELR	90.16005420	DRGR	7.422346711

6 FEB. 1968 13 HR 19 MIN 46.18 SEC TMST 296723.2070 J.D. 2439893.0553 3 DAY 10 HR 25.4 MIN

SELENOGRAPHIC

CM-SM	ALT	481862.0625	R	6184256.875	VI	5291.243591	X	5033237.875	VX	-3044.181182
120	LTDM	-2.429951936			FPVI	.0089044571	Y	-3583685.437	VY	-4307.554321
	LONM	-35.45101928			AZVI	274.5415916	Z	-262199.8203	VZ	418.5636672
	A	6188029.625	ASND	296.4573326	VVEV	-27963138.50	APOG	80.57712173	VAPG	5284.634521
	ECC	.64014212-03	ARGP	317.5055541	ARGL	331.8119812	PERG	79.27325630	VPER	5291.404724
	INCL	174.8503990	MA	14.28835892	TA	14.30642366	PERD	122.5428628	MOON	ELLIPSE
	LTDE	-2.929849922	LONE	-.4730606079	LTDS	-1.416973546	LONS	89.00235748		
	WT	35799.86279	ATLI	60.97462034	VA	5307.637878	AAAP	-31.21753931	VIR	.8221178055
	DVV	4.525804638	AMIS	290.1176338	FPV1	.0088758468	AAAY	-11.60682368	VIT	5291.243469
	RANG	122.2655868	RLAT	168.8133869	AZV1	274.5275344	AAAT	32.61515998	VAT	-5307.637817

6 FEB. 1968 13 HR 28 MIN 16.18 SEC TMST 297233.2070 J.D. 2439893.0613 3 DAY 10 HR 33.9 MIN

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	SELENOGRAPHIC									
LEM	ALT	-.31250000C0	R	5702394.687	VI	15.15728247	X	5028066.250	VX	7.115140744
60	LTDM	-2.998351514			FPVI	.0147666931	Y	-2673365.843	VY	13.38136959
	LONM	-27.99907302			AZVI	90.00000000	Z	-298276.4023	VZ	-.20445284-03
	WT	13363.56909	ATLI	.0270885299	VA	.0039062496	AAAP	.0038313312	VIR	.0039062751
	DVV	5.323509812	AMIS	91.67833805	FPVA	90.00000000	AAAY	.0017778503	VIT	15.15728187
	RANG	.63460300-05	RLAT	-139.2592830	AZVA	243.6185131	AAAT	.0042237247	VAT	-.00000000 00
	RDRO1	TARGET SITE	RGR	188.1325950	AZR	29.30887079	ELR	90.17861652	DRGR	7.419696033

6 FEB. 1968 13 HR 28 MIN 16.18 SEC TMST 297233.2070 J.D. 2439893.0613 3 DAY 10 HR 33.9 MIN

	SELENOGRAPHIC									
CM-SM	ALT	482448.9375	R	6184843.937	VI	5290.487854	X	3050624.906	VX	-4581.729675
120	LTDM	-.2859683595			FPVI	.0157194137	Y	-5380058.250	VY	-2602.342041
	LONM	-60.44570159			AZVI	275.1421890	Z	-30868.98242	VZ	474.1609878
	A	6187434.500	ASND	296.3797798	VVEN	-27965828.00	APOG	80.35462188	VAPG	5285.534790
	ECC	.51790047-03	ARGP	323.5638771	ARGL	356.8126373	PERG	79.29984569	VPER	5291.012451
	INCL	174.8498859	MA	33.21633148	TA	33.24875879	PERD	122.5251855	MOON	ELLIPSE
	LTDE	-2.937101602	LONE	-.4831733703	LTDS	-1.416942462	LONS	88.92868709		
	WT	35799.86279	ATLI	37.27929496	VA	5306.883483	AAAP	-55.90718126	VIR	1.451331526
	DVV	4.524409651	AMIS	297.9490776	FPVA	.0156707763	AAAY	-4.881206095	VIT	5290.487365
	RANG	533.0366363	RLAT	158.0158138	AZVA	275.1262588	AAAT	55.95131349	VAT	-5306.883239

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	297233.2070	RCL	3362731.781	OPCL	.0110590269	XCL	-3067512.343	VXCL	-5303.232910
		ACL	179.9878749	DRCL	4841.579223	YCL	649.0625000	VYCL	1.106018066
		ECL	245.8123512			ZCL	-1377800.000	VZCL	-9.580049514

6 FEB. 1968 13 HR 58 MIN 16.18 SEC TMST 299033.2070 J.D. 2439893.0820 3 DAY 11 HR 3.9 MIN

SELENOGRAPHIC

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LEM	ALT	-.312500000C	R	5702394.625	VI	15.15728223	X	5028066.250	VX	7.119140565
60	LTDM	-2.998351633			FPVI	.0147666931	Y	-2673365.843	VY	13.38136935
	LONM	-27.99907302			AZVI	90.00000000	Z	-298276.4023	VZ	-.20455033-03
	WT	13363.569C9	ATLI	.0312788510	VA	.0039061988	AAAP	.0023263585	VIR	.003906161C
	DVV	5.323509812	AMIS	36C.0000000	FPVA	89.99010753	AAAY	.0032884856	VIT	15.15728175
	RANG	.82986545-C5	RLAT	-131.2638359	AZVA	213.7824974	AAAT	.0040281610	VAT	-.17199219-04
	RDR01	TARGET SITE	RGR	188.1239185	AZR	29.31042766	ELR	90.21658134	DRGR	7.42CC3566C

6 FEB. 1968 13 HR 58 MIN 16.18 SEC TMST 299033.2070 J.C. 2439893.0820 3 DAY 11 HR 3.9 MIN

SELENOGRAPHIC

CM-SM	ALT	485576.3125	R	6187971.312	VI	5288.099243	X	-5275074.375	VX	-2732.517669
120	LTDM	5.1293900C1			FPVI	.0137224197	Y	-3187240.812	VY	4527.209289
	LONM	-148.8593CC6			AZVI	270.4492263	Z	553236.8125	VZ	41.4C777873
	A	6188100.75C	ASND	296.1288299	VVEN	-27962816.50	APOG	8C.21487331	VAPG	5286.545043
	ECC	.27295752-C3	ARGP	359.9930610	ARGL	85.0C825405	PERG	79.65890598	VPER	5289.431823
	INCL	174.8510265	MA	84.98445987	TA	85.01518821	PERD	122.5449762	MCON	ELLIPSE
	LTDE	-2.962663948	LCNE	-.5110244751	LTDS	-1.416829153	LONS	88.67651176		
	WT	35799.86279	ATLI	54.30850934	VA	5304.503051	AAAP	-142.9019451	VIR	1.266371548
	DVV	4.520438432	AMIS	73.64736557	FPVA	.0136795044	AAAY	163.9360847	VIT	5288.098815
	RANG	1981.757217	RLAT	6.508670687	AZVA	270.4478340	AAAT	38.98004388	VAT	-5304.502868

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	299033.2070	RCL	10351031.50	OPCL	.0132815401	XCL	-4888486.375	VXCL	-5280.318603
		ACL	179.9718742	DRCL	2506.279632	YCL	2399.437500	VYCL	1.102291107
		ECL	208.1817798			ZCL	-9123954.750	VZCL	-14.22758293

6 FEB. 1968 14 HR 28 MIN 16.18 SEC TMST 300833.2070 J.C. 2439893.1029 3 DAY 11 HR 33.9 MIN

SELENOGRAPHIC

LEM	ALT	-.312500000C	R	57C2394.562	VI	15.15728271	X	5028066.250	VX	7.119140684

[redacted]

60	LTDM	-2.9983516C3			FPVI	.0147666931	Y	-2673365.843	VY	13.3813697C
	LONM	-27.999073C2			AZVI	90.00000000	Z	-298276.4023	VZ	-.20446862-03
	WT	13363.569C9	ATLI	.0288379122	VA	.0039060302	AAAP	-.37775522-03	VIR	.0039060971
	DVV	5.323509812	AMIS	83.71034240	FPVA	90.00000000	AAAY	.0022881353	VIT	15.15728211
	RANG	.78104985-C5	RLAT	-151.5664405	AZVA	169.1114578	AAAT	.0023191081	VAT	-.C000C000 0C
	RCRC1	TARGET SITE	RGR	188.1112480	AZR	29.30164051	ELR	90.19758415	DRGR	7.418018877

6 FEB. 1968 14 HR 28 MIN 16.18 SEC TMST 300833.2070 J.C. 2439893.1029 3 DAY 11 HR 33.9 MIN

	SELENOGRAPHIC									
CM-SM	ALT	485221.6875	R	6187616.687	VI	5288.146850	X	-3341727.625	VX	4430.910278
120	LTDM	.6118320152			FPVI	-.0166893005	Y	5207215.062	VY	2847.685394
	LONM	122.6902961			AZVI	264.8856048	Z	66073.10253	VZ	-471.3990135
	A	6187502.937	ASND	295.8865432	VVEN	-27965518.50	APOG	80.16738224	VAPG	5286.53601C
	ECC	.32296769-C3	ARGP	266.7917938	ARGL	173.1689186	PERG	79.50962257	VPER	5289.951843
	INCL	174.8492317	MA	266.4136123	TA	266.3771209	PERC	122.5272178	MCON	ELLIPSE
	LTDE	-2.988171994	LCNE	-.5409164429	LTDS	-1.416715964	LONS	88.42227840		
	WT	35799.86279	ATLI	139.2910995	VA	5304.549865	AAAP	127.6812553	VIR	-1.54C505647
	DVV	4.520416498	AMIS	63.79361867	FPVA	-.0166378021	AAAY	5.700736343	VIT	5288.146362
	RANG	2466.96408C	RLAT	-19.78016257	AZVA	264.9014587	AAAT	52.40031671	VAT	-5304.549621

CCORDINATES CF LEM RELATIVE TO CM-SM

	TMST	300833.2C7C	RCL	11501728.50	OPCL	.0211887802	XCL	2798515.250	VXCL	-5274.973327
			ACL	.0870845374	DRCL	-1292.154586	YCL	4253.500000	VYCL	1.099334716
			ECL	165.9178619			ZCL	-11156077.00	VZCL	8.956827163

6 FEB. 1968 14 HR 58 MIN 16.18 SEC TMST 302633.2070 J.C. 2439893.1238 3 DAY 12 HR 3.9 MIN

	SELENOGRAPHIC									
LEM	ALT	-.3125000CC0	R	5702394.625	VI	15.15728247	X	5028066.250	VX	7.119140744
60	LTDM	-2.998351424			FPVI	.0147676468	Y	-2673365.843	VY	13.38136947

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LONM	-27.99907302			AZVI	90.00000000	Z	-298276.4023	VZ	-.20450321-03
WT	13363.56909	ATLI	.0288379122	VA	.0039064133	AAAP	.0045696198	VIR	.0039063373
DVV	5.323509812	AMIS	180.0000019	FPVA	89.99010753	AAAY	.0023728846	VIT	15.15728187
RANG	.48815616-05	RLAT	-51.26748085	AZVA	241.0702247	AAAT	.0051489811	VAT	.24360733-04
RDRC1	TARGET SITE	RGR	188.1615028	AZR	29.31484293	ELR	90.17883777	DRGR	7.421073377

6 FEB. 1968 14 HR 58 MIN 16.18 SEC TMST 302633.2070 J.D. 2439893.1238 3 DAY 12 HR 3.9 MIN

	SELENOGRAPHIC								
CM-SM	ALT	482167.0000	R	6184562.000	VI	5290.984436	X	5089376.625	VX	2974.510528
120	LTDM	-5.091273009			FPVI	-.0128889084	Y	3470710.281	VY	-4375.127746
	LONM	34.29210805			AZVI	269.2255821	Z	-548833.9921	VZ	-71.12371921
	A	6188032.625	ASND	295.6315803	VVEN	-27963124.50	APOG	80.55345344	VAPG	5284.758605
	ECC	.01642486-03	ARGP	283.2414398	ARGL	261.3739013	PERG	79.29790210	VPER	5291.278015
	INCL	174.8503170	MA	338.1587333	TA	338.1324615	PERD	122.5429515	MCON	ELLIPSE
	LTDE	-3.013625204	LONE	-.5707893371	LTDS	-1.416602224	LONS	88.16804885		
	WT	35799.86279	ATLI	129.2144412	VA	5307.379211	AAAP	40.83165693	VIR	-1.190311491
	DVV	4.525361597	AMIS	286.8584403	FPVA	-.0128479004	AAAY	-16.40358781	VIT	5290.984008
	RANG	1018.025054	RLAT	-172.1180534	AZVA	269.2279739	AAAT	42.39322900	VAT	-5307.379089

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	302633.2070	RCL	6149488.687	OPCL	.0561283356	XCL	5041923.750	VXCL	-5298.043945
		ACL	.0684580644	DRCL	-4352.163757	YCL	6024.187500	VYCL	1.095481872
		ECL	124.9258575			ZCL	-3520679.000	VZCL	14.55830955

6 FEB. 1968 15 HR 28 MIN 16.18 SEC TMST 304433.2070 J.D. 2439893.1445 3 DAY 12 HR 33.9 MIN

	SELENOGRAPHIC								
LEM	ALT	-.3125000000	R	5702394.625	VI	15.15728247	X	5028066.250	VX	7.119140684
60	LTDM	-2.998351365			FPVI	.0147676468	Y	-2673365.843	VY	13.38136947
	LONM	-27.99907302			AZVI	90.00000000	Z	-298276.4023	VZ	-.20449525-03

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WT	13363.569009	ATLI	.0288379122	VA	.0039063603	AAAP	.0049781734	VIR	.0039062773
DVV	5.323509812	AMIS	180.0000019	FPVA	90.00000000	AAAY	.0022858876	VIT	15.15728187
RANG	.39052492-05	RLAT	-140.3893108	AZVA	243.8457889	AAAT	.0054779095	VAT	-.25465069-04
RCR01	TARGET SITE	RGR	188.1649036	AZR	29.31426119	ELR	90.17889690	DRGR	7.420939207

6 FEB. 1968 15 HR 28 MIN 16.18 SEC TMST 304433.2070 J.D. 2439893.1445 3 DAY 12 HR 33.9 MIN

SELENOGRAPHIC

CM-SM	ALT	482241.5625	R	6184636.562	VI	5290.724487	X	3608682.000	VX	-4274.464416
120	LTDM	-.9241767749			FPVI	.0139284134	Y	-5021672.062	VY	-3082.588836
	LONM	-54.29816055			AZVI	275.0680389	Z	-99753.40722	VZ	467.2939910
	A	6187573.250	ASND	295.3941078	VVEN	-27965200.50	APOG	80.40600109	VAPG	5285.327453
	ECC	.54591504-03	ARGP	322.5207557	ARGL	349.6513671	PERG	79.29414749	VPER	5291.101318
	INCL	174.8485984	MA	27.10217738	TA	27.13060975	PERD	122.5293064	MCON	ELLIPSE
	LTDE	-3.039024531	LONE	-.5978927612	LTDS	-1.416486695	LONS	87.91657447		
	WT	35799.86279	ATLI	44.05630922	VA	5307.119567	AAAP	-48.78214216	VIR	1.285967886
	DVV	4.524837732	AMIS	294.7882881	FPVA	.0138854980	AAAY	-6.482815980	VIT	5290.724060
	RANG	431.8186416	RLAT	162.0742149	AZVA	275.0523414	AAAT	48.92090511	VAT	-5307.119384

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	304433.2070	RCL	2751109.843	OPCL	.1630615163	XCL	-2532234.781	VXCL	-5304.270751
		ACL	179.8228416	DRCL	4885.398071	YCL	7829.539062	VYCL	1.092468261
		ECL	246.9912109			ZCL	-1075328.390	VZCL	-7.997182130

2" 6 FEB. 1968 15 HR 58 MIN 16.18 SEC TMST 306233.2070 J.D. 2439893.1654 3 DAY 13 HR 3.9 MIN

SELENOGRAPHIC

LEM	ALT	-.3125000000	R	5702394.625	VI	15.15728271	X	5028066.250	VX	7.119140744
60	LTDM	-2.998351186			FPVI	.0147666931	Y	-2673365.843	VY	13.38136970
	LONM	-27.99907302			AZVI	90.00000000	Z	-298276.4023	VZ	-.20445443-03
1"	WT	13363.569009	ATLI	.0242283882	VA	.0039061972	AAAP	.0042435083	VIR	.0039062752

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DVV	5.323509871	AMIS	270.0000000	FPVA	89.99010753	AAAY	.0018307288	VIT	15.15728211
RANG	.97631231-06	RLAT	174.9413566	AZVA	245.1693420	AAAT	.0046215723	VAT	-.00000000 00

RDR01	TARGET SITE	RGR	188.1777763	AZR	29.31202936	ELR	90.16006755	DRGR	7.420432865

6 FEB. 1968 15 HR 58 MIN 16.18 SEC TMST 306233.2070 J.D. 2439893.1654 3 DAY 13 HR 3.9 MIN

	SELENOGRAPHIC								
CM-SM	ALT	485374.6250	R	6187769.625	VI	5288.211303	X	-4900950.187	VX	-3200.719787
120	LTDM	5.034726381			FPVI	.0157585144	Y	-3738220.062	VY	4208.391845
	LONM	-142.6652698			AZVI	271.0867767	Z	543035.5859	VZ	100.0405302
	A	6187959.812	ASND	295.1373291	VVEN	-27963453.75	APOG	80.24259471	VAPG	5286.340881
	ECC	.32296769-03	ARGP	354.2148818	ARGL	77.85037994	PERG	79.58478355	VPER	5289.756591
	INCL	174.8496093	MA	83.59836673	TA	83.63549709	PERD	122.5407886	MCON	ELLIPSE
	LTDE	-3.064370036	LONE	-.6277275085	LTDS	-1.416372597	LONS	87.66234779		
	WT	35799.86279	ATLI	47.38504886	VA	5304.614562	AAAP	-135.5027408	VIR	1.454312562
	DVV	4.5206058C2	AMIS	72.49554729	FPVA	.0157098770	AAAY	163.2247238	VIT	5288.210876
	RANG	1880.688064	RLAT	9.351354479	AZVA	271.0834159	AAAT	45.78552961	VAT	-5304.614318

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	306233.2070	RCL	10021331.62	OPCL	.0549192121	XCL	-5175731.687	VXCL	-5281.867065
		ACL	179.8936614	DRCL	2740.930694	YCL	9605.656250	VYCL	1.088630080
		ECL	211.0958766			ZCL	-8581305.250	VZCL	-15.17705392

6 FEB. 1968 16 HR 28 MIN 16.18 SEC TMST 308033.2070 J.D. 2439893.1863 3 DAY 13 HR 33.9 MIN

	SELENOGRAPHIC								
LEM	ALT	-.31250000C0	R	5702394.687	VI	15.15728271	X	5028066.250	VX	7.119140803
60	LTDM	-2.998351275			FPVI	.0147666931	Y	-2673365.843	VY	13.38136970
	LONM	-27.999073C2			AZVI	90.00000000	Z	-298276.4023	VZ	-.20445063-03
	WT	13363.569C9	ATLI	.0296737565	VA	.0039062395	AAAP	-.0020302416	VIR	.0039062750
	DVV	5.323509812	AMIS	105.5911436	FPVA	89.99010753	AAAY	.0019056545	VIT	15.15728211

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RANG	.24407808-05	RLAT	-160.7968044	AZVA	131.6920280	AAAT	.0027844928	VAT	-.00000000 00
RDR01	TARGET SITE	RGR	188.1571636	AZR	29.30470705	ELR	90.19809627	DRGR	7.418725967

6 FEB. 1968 16 HR 28 MIN 16.18 SEC TMST 308033.2070 J.D. 2439893.1863 3 DAY 13 HR 33.9 MIN

SELENOGRAPHIC

CM-SM	ALT	485438.3750	R	6187833.375	VI	5288.023254	X	-3878915.437	VX	4098.347595
120	LTDM	1.243509143			FPVI	-.0149211883	Y	4819259.312	VY	3309.741455
	LONM	128.8298168			AZVI	264.9999198	Z	134286.0332	VZ	-460.8100585
	A	6187647.000	ASND	294.8989524	VVEN	-27964868.00	APOG	80.19110202	VAPG	5286.474487
	ECC	.32296769-03	ARGP	262.6252250	ARGL	166.0148315	PERG	79.53332138	VPER	5289.890258
	INCL	174.8479919	MA	263.4285240	TA	263.3896064	PERD	122.5314989	MCON	ELLIPSE
	LTDE	-3.089659959	LONE	-.6575431824	LTDS	-1.416257590	LONS	87.40812492		
	WT	35799.86279	ATLI	132.4568271	VA	5304.426757	AAAP	134.8243598	VIR	-1.377188563
	DVV	4.52022916C	AMIS	66.46242523	FPVA	-.0148744583	AAAY	7.251073598	VIT	5288.022766
	RANG	2568.030334	RLAT	-16.23242473	AZVA	265.0154228	AAAT	45.40046977	VAT	-5304.426574

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	308033.2070	RCL	11647354.75	OPCL	.0560884517	XCL	2248258.937	VXCL	-5274.128540
		ACL	.2905699052	DRCL	-1025.248703	YCL	11401.92187	VYCL	1.085571289
		ECL	168.8704776			ZCL	-11428301.50	VZCL	7.336299896

6 FEB. 1968 16 HR 58 MIN 16.18 SEC TMST 309833.2070 J.D. 2439893.2070 3 DAY 14 HR 3.9 MIN

SELENOGRAPHIC

LEM	ALT	-.3125000000	R	5702394.625	VI	15.15728282	X	5028066.250	VX	7.119140803
60	LTDM	-2.998351484			FPVI	.0147666931	Y	-2673365.843	VY	13.38136982
	LONM	-27.99907302			AZVI	90.00000000	Z	-298276.4023	VZ	-.20443077-03
	WT	13363.56909	ATLI	.0261698696	VA	.0039061367	AAAP	.73869237-03	VIR	.0039061547
	DVV	5.323509871	AMIS	99.58232879	FPVA	89.99010753	AAAY	.0016208829	VIT	15.15728223
	RANG	.58578738-05	RLAT	-160.3548507	AZVA	202.9868984	AAAT	.0017812714	VAT	.00000000 00

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RDR01	TARGET SITE	RGR	188.1393985	AZR	29.3077802	ELR	90.17873382	DRGR	7.419427812

6 FEB. 1968 16 HR 58 MIN 16.18 SEC TMST 309833.2070 J.D. 2439893.2070 3 DAY 14 HR 3.9 MIN

	SELENOGRAPHIC								
CM-SM	ALT	482360.5625	R	6184755.562	VI	5290.756164	X	4685674.625	VX	3425.150146
120	LTDM	-4.956196486			FPVI	-.0146818161	Y	4001268.125	VY	-4030.355590
	LONM	40.49521827			AZVI	268.5947074	Z	-534326.4296	VZ	-129.1508121
	A	6187885.937	ASND	294.6431655	VVEN	-27963787.00	APOG	80.49122142	VAPG	5285.018859
	ECC	.57903033-03	ARGP	281.0868835	ARGL	254.2087669	PERG	79.31184959	VPER	5291.142822
	INCL	174.8488998	MA	333.1519432	TA	333.1218795	PERD	122.5385951	MOON	ELLIPSE
	LTDE	-3.114893972	LONE	-.6845893860	LTDS	-1.416141554	LONS	87.15665340		
	WT	35799.86279	ATLI	136.1059284	VA	5307.151489	AAAP	48.21060228	VIR	-1.355832815
	DVV	4.524946332	AMIS	288.3676795	FPVA	-.0146360397	AAAY	-17.20137095	VIT	5290.755859
	RANG	1119.263153	RLAT	-168.9530506	AZVA	268.5990524	AAAT	49.25824165	VAT	-5307.151306

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	309833.2070	RCL	6687577.437	OPCL	.1127871126	XCL	5299408.062	VXCL	-5296.337036
		ACL	.1423310861	DRCL	-4206.348693	YCL	13164.53125	VYCL	1.081705093
		ECL	127.5870790			ZCL	-4079190.312	VZCL	15.40657520

6 FEB. 1968 17 HR 28 MIN 16.18 SEC TMST 311633.2070 J.D. 2439893.2279 3 DAY 14 HR 33.9 MIN

	SELENOGRAPHIC								
LEM	ALT	-.3125000000	R	5702394.687	VI	15.15728247	X	5028066.250	VX	7.119140744
60	LTDM	-2.998351246			FPVI	.0147676468	Y	-2673365.843	VY	13.38136947
2"	LONM	-27.99907302			AZVI	90.00000000	Z	-298276.4023	VZ	-.20443695-03
	WT	13363.56909	ATLI	.0296737565	VA	.0039064098	AAAP	.0045441951	VIR	.0039063339
	DVV	5.323509812	AMIS	180.0000019	FPVA	89.99010753	AAAY	.0014026393	VIT	15.15728187
	RANG	.19526246-05	RLAT	-.00000000 00	AZVA	251.3561859	AAAT	.0047557445	VAT	-.24360733-04
1"	RDR01	TARGET SITE	RGR	188.1751098	AZR	29.31251692	ELR	90.17907333	DRGR	7.420536637

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6 FEB. 1968 17 HR 28 MIN 16.18 SEC TMST 311633.2070 J.C. 2439893.2279 3 DAY 14 HR 33.9 MIN

SELENOGRAPHIC

CM-SM	ALT	482060.2500	R	6184455.250	VI	5290.942993	X	4124685.187	VX	-3917.768890
120	LTDM	-1.548391148			FPVI	.0119361877	Y	-4605054.750	VY	-3527.015899
	LONM	-48.14962768			AZVI	274.9150390	Z	-167111.6015	VZ	453.1244125
	A	6187722.000	ASND	294.4066162	VVEN	-27964528.25	APOG	80.48355865	VAPG	5284.988586
	ECC	.59801996-03	ARGP	320.9464225	ARGL	342.4897842	PERG	79.26555156	VPER	5291.313354
	INCL	174.8474025	MA	21.51816463	TA	21.54336142	PERD	122.5337257	MOON	ELLIPSE
	LTDE	-3.140072435	LONE	-.7143592834	LTDS	-1.416025176	LONS	86.90243625		
	WT	35799.86279	ATLI	50.94615888	VA	5307.337585	AAAP	-41.61209487	VIR	1.102088689
	DVV	4.525236487	AMIS	292.4902267	FPVA	.0118989944	AAAY	-7.978084683	VIT	5290.942687
	RANG	330.6314659	RLAT	165.2380561	AZVA	274.8998184	AAAT	41.95767450	VAT	-5307.337463

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	311633.2070	RCL	2136521.437	OPCL	.4004097320	XCL	-1967674.375	VXCL	-5305.133361
		ACL	179.5652389	DRCL	4888.342956	YCL	14930.89062	VYCL	1.078552246
		ECL	247.0717639			ZCL	-832321.1796	VZCL	-6.318046569

6 FEB. 1968 17 HR 58 MIN 16.18 SEC TMST 313433.2070 J.C. 2439893.2488 3 DAY 15 HR 3.9 MIN

SELENOGRAPHIC

LEM	ALT	-.31250000CC	R	5702394.625	VI	15.15728306	X	5028066.250	VX	7.119140982
60	LTDM	-2.998351216			FPVI	.0147676468	Y	-2673365.843	VY	13.38137006
	LONM	-27.99907302			AZVI	90.00000000	Z	-298276.4023	VZ	-.20447891-03
	WT	13363.569CS	ATLI	.0209831947	VA	.0039063527	AAAP	.0010649787	VIR	.0039062765
	DVV	5.323509871	AMIS	180.0000019	FPVA	90.00000000	AAAY	.0021534273	VIT	15.15728247
	RANG	.14644685-05	RLAT	150.1445598	AZVA	204.8196697	AAAT	.0024023798	VAT	-.24407356-04
	RDR01	TARGET SITE	RGR	188.1896762	AZR	29.32090687	ELR	90.15999507	DRGR	7.422480881

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6 FEB. 1968 17 HR 58 MIN 16.18 SEC TMST 313433.2070 J.D. 2439893.2488 3 DAY 15 HR 3.9 MIN

SELENOGRAPHIC

CM-SM	ALT	485146.8750	R	6187541.875	VI	5288.342224	X	-4470193.812	VX	-3631.879547
120	LTDM	4.861344158			FPVI	.0175094604	Y	-4245949.187	VY	3840.744689
	LONM	-136.4737510			AZVI	271.7074584	Z	524361.3750	VZ	157.1433353
	A	6187811.000	ASND	294.1465454	VVEN	-27964126.25	APOG	80.21809291	VAPG	5286.404479
	ECC	.32296769-03	ARGP	348.7806282	ARGL	70.69278335	PERG	79.56030178	VPER	5289.820129
	INCL	174.8481941	MA	81.87548732	TA	81.91215229	PERD	122.5363693	MOON	ELLIPSE
	LTDE	-3.165195912	LONE	-.7441101074	LTDS	-1.415910020	LONS	86.64821815		
	WT	35799.86279	ATLI	40.54821968	VA	5304.744995	AAAP	-128.1528015	VIR	1.615892887
	DVV	4.520804345	AMIS	70.56539440	FPVA	.0174551010	AAAY	162.3189163	VIT	5288.341918
	RANG	1779.612548	RLAT	12.90056955	AZVA	271.7021751	AAAT	52.69053506	VAT	-5304.744689

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	313433.2070	RCL	9662644.375	OPCL	.0991345336	XCL	-5403011.562	VXCL	-5283.508239
		ACL	179.8227062	DRCL	2967.570648	YCL	16718.53125	VYCL	1.074649810
		ECL	213.9981231			ZCL	-8010860.437	VZCL	-15.94162368

6 FEB. 1968 18 HR 28 MIN 16.18 SEC TMST 315233.2070 J.D. 2439893.2695 3 DAY 15 HR 33.9 MIN

SELENOGRAPHIC

LEM	ALT	-.312500000	R	5702394.687	VI	15.15728282	X	5028066.250	VX	7.119140744
60	LTDM	-2.998351424			FPVI	.0147666931	Y	-2673365.843	VY	13.38136982
	LONM	-27.99907302			AZVI	90.00000000	Z	-298276.4023	VZ	-.20448204-03
	WT	13363.56909	ATLI	.0270885299	VA	.0039060868	AAAP	.0011697687	VIR	.0039060978
	DVV	5.323509871	AMIS	120.4290266	FPVA	89.99010753	AAAY	.0024012052	VIT	15.15728223
2"	RANG	.48815616-05	RLAT	-173.8055953	AZVA	204.4635238	AAAT	.0026709821	VAT	-.00000000 00
	RDR01	TARGET SITE	RGR	188.1427993	AZR	29.30712652	ELR	90.17879390	DRGR	7.419293701

1" 6 FEB. 1968 18 HR 28 MIN 16.18 SEC TMST 315233.2070 J.D. 2439893.2695 3 DAY 15 HR 33.9 MIN

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	SELENOGRAPHIC									
CM-SM	ALT	485628.5000	R	6188023.500	VI	5287.924865	X	-4371338.437	VX	3718.330383
120	LTDM	1.856189101			FPVI	-.0128803253	Y	4375255.250	VY	3733.616180
	LONM	134.9743385			AZVI	265.1919097	Z	200435.9238	VZ	-443.0319747
	A	6187797.250	ASND	293.9135704	VVEN	-27964188.75	APOG	80.15064620	VAPG	5286.748657
	ECC	.25895024-03	ARGP	258.1040382	ARGL	158.8612899	PERG	79.62323284	VPER	5289.487426
	INCL	174.8468379	MA	260.7853584	TA	260.7572517	PERD	122.5359611	MCON	ELLIPSE
	LTDE	-3.190260082	LONE	-.7717742920	LTDS	-1.415791243	LONS	86.39606571		
	WT	35799.86279	ATLI	125.5349845	VA	5304.328918	AAAP	142.0156707	VIR	-1.188786745
	DVV	4.520086169	AMIS	68.45008754	FPVA	-.0128393173	AAAY	168.9924831	VIT	5287.924499
	RANG	2669.115081	RLAT	-13.39075338	AZVA	265.2068138	AAAT	38.82393169	VAT	-5304.328796

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	315233.2070	RCL	11759276.50	OPCL	.0898524616	XCL	1671800.328	VXCL	-5273.469482
		ACL	.6319873631	DRCL	-755.2842330	YCL	18441.14062	VYCL	1.071594238
		ECL	171.8266315			ZCL	-11639816.50	VZCL	5.621059417

6 FEB. 1968 18 HR 58 MIN 16.18 SEC TMST 317033.2070 J.D. 2439893.2904 3 DAY 16 HR 3.9 MIN

	SELENOGRAPHIC									
LEM	ALT	-.31250000C0	R	5702394.687	VI	15.15728247	X	5028066.250	VX	7.119140803
60	LTDM	-2.998351156			FPVI	.0147686004	Y	-2673365.843	VY	13.38136947
	LONM	-27.99907302			AZVI	90.00000000	Z	-298276.4023	VZ	-.20441520-03
	WT	13363.56909	ATLI	.0312788510	VA	.0039066189	AAAP	.0028901760	VIR	.0039065711
	DVV	5.323509812	AMIS	180.0000019	FPVA	89.99010753	AAAY	.96523333-03	VIT	15.15728187
	RANG	.48815615-06	RLAT	8.028427839	AZVA	250.0444850	AAAT	.0030470957	VAT	-.19322204-04
	RDR01	TARGET SITE	RGR	188.2132740	AZR	29.32785010	ELR	90.19822502	DRGR	7.424064219

6 FEB. 1968 18 HR 58 MIN 16.18 SEC TMST 317033.2070 J.D. 2439893.2904 3 DAY 16 HR 3.9 MIN

SELENOGRAPHIC

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CM-SM	ALT	482577.5625	R	6184972.562	VI	5290.505981	X	4227977.250	VX	3835.736602
120	LTDM	-4.743505954			FPVI	-.0162611007	Y	4485141.187	VY	-3638.995117
	LONM	46.69056940			AZVI	267.9858741	Z	-511467.8437	VZ	-185.1785411
	A	6187734.375	ASND	293.6520843	VVEN	-27964472.00	APOG	80.41845703	VAPG	5285.331665
	ECC	.53209216-03	ARGP	279.5113830	ARGL	247.0449447	PERG	79.33472633	VPER	5290.959228
	INCL	174.8474941	MA	327.5663871	TA	327.5335617	PERD	122.5340938	MCON	ELLIPSE
	LTDE	-3.215267866	LONE	-.8014640808	LTDS	-1.415672957	LONS	86.14186286		
	WT	35799.86279	ATLI	142.8854789	VA	5306.901855	AAAP	55.53688001	VIR	-1.501585245
	DVV	4.524492979	AMIS	290.8446044	FPVA	-.0162105560	AAAY	-18.25146341	VIT	5290.505554
	RANG	1220.435104	RLAT	-164.8915252	AZVA	267.9920997	AAAT	56.20159244	VAT	-5306.901611

COORDINATES OF LEM RELATIVE TO CM-SM

	TMST	317033.2070	RCL	7206234.625	OPCL	.1608811859	XCL	5495169.375	VXCL	-5294.544250
			ACL	.2109745387	DRCL	-4047.789337	YCL	20234.40625	VYCL	1.067558288
			ECL	130.3095359			ZCL	-4661815.375	VZCL	16.07188987

6 FEB. 1968 19 HR 28 MIN 16.18 SEC TMST 318833.2070 J.D. 2439893.3113 3 DAY 16 HR 33.9 MIN

SELENOGRAPHIC

LEM	ALT	-.31250000C0	R	5702394.625	VI	15.15728271	X	5028066.250	VX	7.119140684
60	LTDM	-2.998351395			FPVI	.0147666931	Y	-2673365.843	VY	13.38136970
	LONM	-27.99907302			AZVI	90.00000095	Z	-298276.4023	VZ	-.20455700-03
	WT	13363.569C9	ATLI	.0209831947	VA	.0039059923	AAAP	.0059285599	VIR	.0039059825
	DVV	5.323509931	AMIS	107.1365880	FPVA	89.99010753	AAAY	.0034516343	VIT	15.15728211
	RANG	.43934054-05	RLAT	-175.8166694	AZVA	238.2960834	AAAT	.0068601459	VAT	-.87535666-05
2"	RDR01	TARGET SITE	RGR	188.1328620	AZR	29.29785203	ELR	90.14078617	DRGR	7.417170226

6 FEB. 1968 19 HR 28 MIN 16.18 SEC TMST 318833.2070 J.D. 2439893.3113 3 DAY 16 HR 33.9 MIN

SELENOGRAPHIC

1" CM-SM	ALT	481907.6250	R	6184302.625	VI	5291.138061	X	4592852.875	VX	-3515.676757

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120	LTDM	-2.148898094			FPVI	.0097770691	Y	-4134915.562	VY	-3930.603820
	LONM	-41.99650192			AZVI	274.6854324	Z	-231890.0449	VZ	431.8692855
	A	6187873.437	ASND	293.4192161	VVEN	-27963845.00	APOG	80.51480770	VAPG	5284.891113
	ECC	.60421722-03	ARGP	318.8481521	ARGL	335.3277931	PERG	79.28414916	VPER	5291.281433
	INCL	174.8462867	MA	16.45988821	TA	16.47963833	PERD	122.5382242	MCON	ELLIPSE
	LTDE	-3.240219950	LONE	-.8304519653	LTDS	-1.415556281	LONS	85.88833999		
	WT	35799.86279	ATLI	57.90692234	VA	5307.532287	AAAP	-34.39040899	VIR	.9027330875
	DVV	4.525595128	AMIS	290.7432098	FPVA	.0097465515	AAAY	-11.32578194	VIT	5291.137756
	RANG	229.4492111	RLAT	167.8335609	AZVA	274.6709251	AAAT	35.49534702	VAT	-5307.532165

COORDINATES OF LEM RELATIVE TO CM-SM

	TMST	318833.2070	RCL	1526415.828	OPCL	.8234579414	XCL	-1380218.109	VXCL	-5305.808166
			ACL	179.0894222	DRCL	4799.588745	YCL	21936.97265	VYCL	1.064361572
			ECL	244.7311763			ZCL	-651507.5390	VZCL	-4.562553405

6 FEB. 1968 19 HR 58 MIN 16.18 SEC TMST 320633.2070 J.D. 2439893.3320 3 DAY 17 HR 3.9 MIN

	SELENOGRAPHIC									
LEM	ALT	-.312500000	R	5702394.687	VI	15.15728259	X	5028066.250	VX	7.119140803
					FPVI	.0147676468	Y	-2673365.843	VY	13.38136959
60	LTDM	-2.998351335			AZVI	90.00000000	Z	-298276.4023	VZ	-.20445358-03
	LONM	-27.99907302								
	WT	13363.56909	ATLI	.0288379122	VA	.0039064073	AAAP	.0025975958	VIR	.0035063347
	DVV	5.323509812	AMIS	180.0000019	FPVA	90.00000000	AAAY	.0016996081	VIT	15.15728199
	RANG	.34170931-05	RLAT	-124.8716735	AZVA	235.3112964	AAAT	.0031042184	VAT	-.2381323C-04
	RDRO1	TARGET SITE	RGR	188.1683044	AZR	29.31367969	ELR	90.17895603	DRGR	7.420805096

6 FEB. 1968 19 HR 58 MIN 16.18 SEC TMST 320633.2070 J.D. 2439893.3320 3 DAY 17 HR 3.9 MIN

	SELENOGRAPHIC									
CM-SM	ALT	484897.0000	R	6187292.000	VI	5288.491638	X	-3987618.031	VX	-4021.142456
120	LTDM	4.611956656			FPVI	.0189437866	Y	-4704675.750	VY	3428.364868

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LONM	-130.2841453			AZVI	272.3014640	Z	497501.1757	VZ	211.8246994
A	6187660.500	ASND	293.1586151	VVEN	-27964806.25	APOG	80.23736953	VAPG	5286.240051
ECC	.36621094-03	ARGP	343.7314605	ARGL	63.53545236	PERG	79.49150848	VPER	5290.113220
INCL	174.8467998	MA	79.76253509	TA	79.80398654	PERD	122.5318975	MOON	ELLIPSE
LTDE	-3.265110522	LONE	-.8580360412	LTDS	-1.415435701	LONS	85.63619709		
WT	35799.86279	ATLI	33.85372781	VA	5304.893615	AAAP	-120.8568515	VIR	1.748452663
DVV	4.521034479	AMIS	67.42659664	FPVA	.0188856125	AAAY	161.0814285	VIT	5288.491149
RANG	1678.496246	RLAT	17.58824014	AZVA	272.2943458	AAAT	59.65873432	VAT	-5304.893310

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	320633.2070	RCL	9275885.250	OPCL	.1465170383	XCL	-5567726.562	VXCL	-5285.224670
		ACL	179.7559013	DRCL	3185.594573	YCL	23720.31250	VYCL	1.060386657
		ECL	216.8869934			ZCL	-7419023.312	VZCL	-16.51149749

6 FEB. 1968 20 HR 28 MIN 16.18 SEC TMST 322433.2070 J.D. 2439893.3529 3 DAY 17 HR 33.9 MIN

	SELENOGRAPHIC								
LEM	ALT	-.3125000000	R	5702394.625	VI	15.15728247	X	5028066.250	VX	7.119140684
60	LTDM	-2.998351663			FPVI	.0147666931	Y	-2673365.843	VY	13.38136959
	LONM	-27.99907302			AZVI	90.00000000	Z	-298276.4023	VZ	-.20449324-03
	WT	13363.569009	ATLI	.0296737565	VA	.0039060874	AAAP	.0011738141	VIR	.0039061580
	DVV	5.323509812	AMIS	112.7121200	FPVA	89.99010753	AAAY	.0025653497	VIT	15.15728199
	RANG	.87868108-05	RLAT	-148.4742736	AZVA	203.0847930	AAAT	.0028211449	VAT	-.00000000 00
	RDR01	TARGET SITE	RGR	188.1078453	AZR	29.30222201	ELR	90.19752597	DRGR	7.418152987

2"

6 FEB. 1968 20 HR 28 MIN 16.18 SEC TMST 322433.2070 J.D. 2439893.3529 3 DAY 17 HR 33.9 MIN

	SELENOGRAPHIC								
CM-SM	ALT	485788.5625	R	6188183.562	VI	5287.851928	X	-4812985.812	VX	3295.509124
120	LTDM	2.440363884			FPVI	-.0105991363	Y	3880638.156	VY	4114.120422
	LONM	141.1212882			AZVI	265.4587173	Z	263489.8125	VZ	-418.3401412

1"

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A	6187946.437	ASND	292.9261779	VVEN	-27963514.25	APOG	80.12680339	VAPG	5286.936279
ECC	.21143198-03	ARGP	253.4122123	ARGL	151.7081108	PERG	79.69617271	VPER	5289.172302
INCL	174.8457622	MA	258.3211898	TA	258.2958984	PERD	122.5403928	MOON	ELLIPSE
LTDE	-3.289945691	LONE	-.8876571655	LTDS	-1.415317386	LONS	85.38199329		
WT	35799.86279	ATLI	118.5571556	VA	5304.256225	AAAP	149.2603492	VIR	-.9783673286
DVV	4.519986629	AMIS	69.99007034	FPVA	-.0105667114	AAAY	168.3789005	VIT	5287.851562
RANG	2770.139404	RLAT	-11.00541198	AZVA	265.4727897	AAAT	32.18008136	VAT	-5304.256103

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	322433.2070	RCL	11837097.12	OPCL	.1229407023	XCL	1076200.953	VXCL	-5273.003234
		ACL	1.351968601	DRCL	-483.2237014	YCL	25399.07812	VYCL	1.057144165
		ECL	174.7835845			ZCL	-11788045.37	VZCL	3.832843780

6 FEB. 1968 20 HR 58 MIN 16.18 SEC TMST 324233.2070 J.D. 2439893.3738 3 DAY 18 HR 3.9 MIN

	SELENOGRAPHIC								
LEM	ALT	-.312500000	R	5702394.625	VI	15.15728271	X	5028066.250	VX	7.119140803
					FPVI	.0147666931	Y	-2673365.843	VY	13.38136970
60	LTDM	-2.998351424			AZVI	90.00000000	Z	-298276.4023	VZ	-.20442644-03
	LONM	-27.99907302							
	WT	13363.56909	ATLI	.0261698696	VA	.0039062449	AAAP	.0018676414	VIR	.0039062737
	DVV	5.323509871	AMIS	114.1256284	FPVA	89.99010753	AAAY	.0014447202	VIT	15.15728211
	RANG	.48815616-05	RLAT	-110.8693466	AZVA	230.7865409	AAAT	.0023612075	VAT	-.00000000 00
	RDR01	TARGET SITE	RGR	188.1427993	AZR	29.30712652	ELR	90.17879390	DRGR	7.419293761

6 FEB. 1968 20 HR 58 MIN 16.18 SEC TMST 324233.2070 J.D. 2439893.3738 3 DAY 18 HR 3.9 MIN

	SELENOGRAPHIC								
CM-SM	ALT	482814.7500	R	6185209.750	VI	5290.239685	X	3721275.687	VX	4201.871948
					FPVI	-.0176010132	Y	4917106.375	VY	-3205.324493
120	LTDM	-4.456588268			AZVI	267.4086837	Z	-480613.8593	VZ	-238.3305759
	LONM	52.88149261							
	A	6187585.812	ASND	292.6632118	VVEN	-27965143.75	APOG	80.36468124	VAPG	5285.547241

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ECC	.50330880-03	ARGP	278.5590171	ARGL	239.8825664	PERG	79.33960247	VPER	5290.870483
INCL	174.8461112	MA	321.3596992	TA	321.3235435	PERD	122.5296802	MOON	ELLIPSE
LTDE	-3.314719498	LONE	-.9165611267	LTDS	-1.415196374	LONS	85.12847995		
WT	35799.86279	ATLI	149.4758834	VA	5306.636108	AAAP	62.80753326	VIR	-1.625234127
DVV	4.524012267	AMIS	294.8743286	FPVA	-.0175466537	AAAY	-19.75123906	VIT	5290.239196
RANG	1321.617813	RLAT	-159.3474006	AZVA	267.4166946	AAAT	63.19530439	VAT	-5306.635864

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	324233.2070	RCL	7704298.687	OPCL	.2022567093	XCL	5627133.687	VXCL	-5292.687927
		ACL	.2769137509	DRCL	-3877.017883	YCL	27196.46875	VYCL	1.053100585
		ECL	133.0806140			ZCL	-5262209.187	VZCL	16.54634094

6 FEB. 1968 21 HR 18 MIN 16.18 SEC TMST 325433.2070 J.D. 2439893.3876 3 DAY 18 HR 23.9 MIN

SELENOGRAPHIC

CM-SM	ALT	481636.4375	R	6184031.437	VI	5291.627014	X	6127324.125	VX	-564.4251022
120	LTDM	-4.517623782			FPVI	-.0021171570	Y	-678885.3046	VY	-5256.471618
	LONM	-6.322380065			AZVI	272.4832344	Z	-487089.7929	VZ	228.5737953
	A	6188475.500	ASND	292.5144577	VVEN	-27961124.00	APOG	80.74453926	VAPG	5283.956542
	ECC	.73242188-03	ARGP	301.6888618	ARGL	298.7388687	PERG	79.25260162	VPER	5291.702453
	INCL	174.8461055	MA	357.0543327	TA	357.0500068	PERD	122.5561094	MOON	ELLIPSE
	LTDE	-3.331208139	LONE	-.9346733093	LTDS	-1.415119394	LONS	84.96061229		
	WT	35799.86279	ATLI	93.46072196	VA	5308.020446	AAAP	2.738527536	VIR	-.1956932544
	DVV	4.526535153	AMIS	286.0535354	FPVA	-.0021114349	AAAY	-13.73816800	VIT	5291.626831
	RANG	355.1625976	RLAT	177.3676509	AZVA	272.4755630	AAAT	13.98812735	VAT	-5308.020446

2"

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	325433.2070	RCL	2285163.281	OPCL	.7076494470	XCL	2106604.281	VXCL	-5305.678588
		ACL	.7675654664	DRCL	-4893.327209	YCL	28222.90625	VYCL	1.050857543
		ECL	112.7898311			ZCL	-885095.0078	VZCL	5.780548095

1"

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6 FEB. 1968 21 HR 18 MIN 16.18 SEC TMST 325433.2070 J.D. 2439893.3876 3 DAY 18 HR 23.9 MIN

	SELENOGRAPHIC										
LEM	ALT	-.312500000C	R	5702394.750	VI	15.15728318	X	5028066.250	VX	7.119141161
60	LTDM	-2.998351126			FPVI	.0147686004	Y	-2673365.843	VY	13.38137006
	LONM	-27.99907302			AZVI	90.00000000	Z	-298276.4023	VZ	-.20442181-03
	WT	13363.569009	ATLI	.0209831947	VA	.0039065633	AAAP	.0013509309	VIR	.0039065715
	DVV	5.323509931	AMIS	180.0000019	FPVA	90.00000000	AAAY	.0011452187	VIT	15.15728259
	RANG	.00000000 00	RLAT	-.00000000 00	AZVA	228.2309684	AAAT	.0017710280	VAT	-.00000000 00
	RDRC1	TARGET SITE	RGR	188.2110691	AZR	29.32813239	ELR	90.14103889	DRGR	7.424155235

PRIMARY PHASE CUTOFF ---- TIME 49800.00000

6 FEB. 1968 21 HR 18 MIN 16.18 SEC TMST 325433.2070 J.D. 2439893.3876 3 DAY 18 HR 23.9 MIN

	SELENOGRAPHIC										
LEM	ALT	-.250000000C	R	5702394.750	VI	15.15728318	X	5028066.250	VX	7.119141161
61	LTDM	-2.998351126			FPVI	.0147686004	Y	-2673365.875	VY	13.38137006
	LONM	-27.99907302			AZVI	90.00000000	Z	-298276.4023	VZ	-.20442181-03
	WT	13363.569009	ATLI	.0209831947	VA	.0039065633	AAAP	.0013509309	VIR	.0039065715
	DVV	5.323509156	AMIS	360.0000000	FPVA	90.00000000	AAAY	.0011453788	VIT	15.15728259
	RANG	.24407808-05	RLAT	-13.66686296	AZVA	228.2309684	AAAT	.0017711315	VAT	-.00000000 00
	RDRC1	TARGET SITE	RGR	188.2110691	AZR	29.32813239	ELR	90.14103889	DRGR	7.424155235

6 FEB. 1968 21 HR 25 MIN 19.65 SEC TMST 325856.6757 J.D. 2439893.3926 3 DAY 18 HR 30.9 MIN

	SELENOGRAPHIC										
CM-SM	ALT	481686.5625	R	6184081.562	VI	5291.469909	X	5492476.312	VX	-2391.169342
120	LTDM	-3.344352483			FPVI	.0046930313	Y	-2818761.781	VY	-4706.513488
	LONM	-27.16708374			AZVI	273.9244766	Z	-360759.6523	VZ	361.5141792
	A	6188207.875	ASND	292.4563560	VVEN	-27962332.50	APOG	80.65227222	VAPG	5284.320800

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ECC	.68511794-03	ARGP	312.5032539	ARGL	319.5088272	PERG	79.25676727	VPER	5291.566467
INCL	174.8455123	MA	6.996032714	TA	7.005572259	PERD	122.5481586	MOON	ELLIPSE
LTDE	-3.337016284	LONE	-.9434509277	LTDS	-1.415089458	LONS	84.89898490		
WT	35799.86279	ATLI	73.29104423	VA	5307.863403	AAAP	-18.38490653	VIR	.4332995415
DVV	4.5262199C4	AMIS	288.0778541	FPVA	.0046787262	AAAY	-12.48571002	VIT	5291.469787
RANG	14.74400997	RLAT	172.3859462	AZVA	273.9123382	AAAT	21.77037525	VAT	-5307.863342

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	325856.6757	RCL	49C633.3906	OPCL	3.348888754	XCL	84848.43750	VXCL	-5306.589050
		ACL	18.66434383	DRCL	-917.4356002	YCL	2866C.77246	VYCL	1.05C079345
		ECL	170.0241889			ZCL	-482390.3281	VZCL	-.2096786499

6 FEB. 1968 21 HR 25 MIN 19.65 SEC TMST 325856.6757 J.D. 2439893.3926 3 DAY 18 HR 3C.9 MIN

SELENOGRAPHIC

LEM	ALT	-.25000000CC	R	5702394.625	VI	15.15728282	X	5028066.250	VX	7.119140923
61	LTDM	-2.998351275			FPVI	.0147686004	Y	-2673365.875	VY	13.38136970
	LONM	-27.99907302			AZVI	90.00000000	Z	-298276.4023	VZ	-.20449290-03
	WT	13363.56909	ATLI	.0288379122	VA	.0039065112	AAAP	-.16399862-03	VIR	.0039064560
	DVV	5.323509C97	AMIS	271.6783370	FPVA	89.99010753	AAAY	.0022694720	VIT	15.15728223
	RANG	.48815616-C5	RLAT	-28.18100953	AZVA	174.3902225	AAAT	.0022753898	VAT	-.20762960-04
	RCRO1	TARGET SITE	RGR	188.1870079	AZR	29.32139444	ELR	90.17899990	DRGR	7.422584712

PRIMARY PHASE CUTOFF ---- PHASE TIME LAPSE 423.4697265

LIFTOFF FROM LUNAR SURFACE

6 FEB. 1968 21 HR 25 MIN 19.65 SEC TMST 325856.6757 J.D. 2439893.3926 3 DAY 18 HR 3C.9 MIN

SELENOGRAPHIC

LEM	ALT	-.37500000CC	R	5702394.625	VI	15.15728282	X	5028066.062	VX	7.119140923
70	LTDM	-2.998351275			FPVI	.0147686004	Y	-2673365.750	VY	13.3813697C

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LONM	-27.99907302			AZVI	90.00000000	Z	-298276.4062	VZ	-.20449290-03
WT	8490.000000	ATLI	.0231970297	VA	.0039065112	AAAP	-.16334666-03	VIR	.0039064560
DVV	6.045394361	AMIS	285.5911445	FPVA	89.99010753	AAAY	.0022695254	VIT	15.15728223
RANG	.48815616-05	RLAT	-108.8975896	AZVA	174.3902225	AAAT	.0022753961	VAT	.20762960-04
F	3000.000000	DWT	-9.230769157			VISN	6992.528076	DVI	11.36890447
VLGR	.00000000 00	VLML	.00000000 00	ASPM	.00000000 00	TPSE	.00000000 00	ICVL	.00000000 00
RDR01	TARGET SITE	RGR	188.1870079	AZR	29.32139444	ELR	90.17899990	DRGR	7.422584712

6 FEB. 1968 21 HR 25 MIN 20.18 SEC TMST 325857.2070 J.D. 2439893.3926 3 DAY 18 HR 31.0 MIN

	SELENOGRAPHIC								
LEM	ALT	.4375000000	R	5702395.437	VI	15.49403917	X	5028070.562	VX	9.947447061
70	LTDM	-2.998351246			FPVI	11.96214866	Y	-2673359.000	VY	11.87793612
	LONM	-27.99899291			AZVI	89.99961280	Z	-298276.4453	VZ	-.1678763572
	WT	8485.105102	ATLI	.0231970297	VA	3.211378842	AAAP	-.0054385799	VIR	3.211378753
	DVV	6.0519545C7	AMIS	270.0436439	FPVA	90.00000000	AAAY	-.0016800620	VIT	15.15758204
	RANG	.0013103748	RLAT	-1.779517605	AZVA	71.07600593	AAAT	.0056921664	VAT	.77204045-03
	F	3000.000000	DWT	-9.230769157			VISN	6998.558410	DVI	11.37546312
	VLGR	.2932711281	VLML	5.403714537	ASPM	325.0000000	TPSE	1590.820312	ICVL	6.030376017
	RDR01	TARGET SITE	RGR	192.2469024	AZR	31.40874409	ELR	89.95139312	DRGR	7.902125835

6 FEB. 1968 21 HR 25 MIN 20.65 SEC TMST 325857.6757 J.D. 2439893.3926 3 DAY 18 HR 31.0 MIN

	SELENOGRAPHIC								
CM-SM	ALT	481687.0000	R	6184082.000	VI	5291.469177	X	5490083.187	VX	-2395.188293
120	LTDM	-3.340995878			FPVI	.0047082901	Y	-2823467.250	VY	-4704.448303
	LONM	-27.21607971			AZVI	273.9273376	Z	-360398.0156	VZ	361.7782440
	A	6188206.875	ASND	292.4563713	VVEN	-27962338.25	APOG	80.64655303	VAPG	5284.350036
	ECC	.67965874-03	ARGP	312.5264854	ARGL	319.5578651	PERG	79.26215744	VPER	5291.538085
	INCL	174.8455104	MA	7.021895170	TA	7.031377017	PERD	122.5481300	MOON	ELLIPSE
	LTDE	-3.337030589	LONE	-.9433135986	LTDS	-1.415089696	LONS	84.89899635		

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WT	35799.86279	ATLI	73.24350738	VA	5307.862670	AAAP	-18.43456363	VIR	.4347498417
DVV	4.526218354	AMIS	288.0843162	FPVA	.0046939850	AAAY	-12.48253488	VIT	5291.468872
RANG	13.984392C4	RLAT	172.3734283	AZVA	273.9151878	AAAT	21.80838274	VAT	-5307.862609

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	325857.6757	RCL	489738.6445	OPCL	3.355140566	XCL	79954.63964	VXCL	-5306.50415C
		ACL	19.72155833	DRCL	-872.0141296	YCL	28661.85156	VYCL	1.08C780029
		ECL	17C.5875606			ZCL	-482317.0078	VZCL	5.826824188

6 FEB. 1968 21 HR 25 MIN 20.65 SEC TMST 325857.6757 J.D. 2439893.3926 3 DAY 18 HR 31.0 MIN

SELENOGRAPHIC

LEM	ALT	2.6250000CC	R	57C2397.625	VI	16.32266640	X	5028075.875	VX	12.45537805
70	LTDM	-2.998351216			FPVI	21.77661800	Y	-2673353.781	VY	10.54479932
	LONM	-27.99892044			AZVI	89.99926948	Z	-298276.5507	VZ	-.3165554032
	WT	8480.769165	ATLI	.0231970297	VA	6.055527925	AAAP	-.0053719923	VIR	6.055528044
	DVV	6.057774543	AMIS	27C.0057106	FPVA	90.0C000000	AAAY	-.0016837119	VIT	15.15783679
	RANG	.0024959410	RLAT	-1.625919327	AZVA	70.59014606	AAAT	.0056296703	VAT	.0000C000 00
	F	3000.0000CC	DWT	-9.230769157			VISN	7003.903137	DVI	11.38127887
	VLGR	1.C16260176	VLML	9.202592253	ASPM	325.0000000	TPSE	3000.000000	IDVL	11.37520587
	RDR01	TARGET SITE	RGR	196.0557079	AZR	33.17767763	ELR	89.31224346	DRGR	8.367374539

SECONDARY PHASE CUTOFF ---- PHASE TIME LAPSE 1.000000000

END OF VERTICAL RISE

2"

6 FEB. 1968 21 HR 25 MIN 20.65 SEC TMST 325857.6757 J.D. 2439893.3926 3 DAY 18 HR 31.0 MIN

SELENOGRAPHIC

LEM	ALT	2.6250000CC	R	57C2397.625	VI	16.32266640	X	5028075.875	VX	12.45537805
72	LTDM	-2.998351216			FPVI	21.77661800	Y	-2673353.781	VY	10.54479932
	LONM	-27.99892044			AZVI	89.99926948	Z	-298276.5507	VZ	-.3165554032

1"

WT	8480.769165	ATLI	.0231970297	VA	6.055527925	AAAP	-.0053719813	VIR	6.055528044

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DVV	6.057774543	AMIS	270.0057106	FPVA	90.00000000	AAAY	-.0016836767	VIT	15.15783679
RANG	.002495410	RLAT	-1.640804782	AZVA	70.59014606	AAAT	.0056296492	VAT	.00000000 00
						VISN	7003.903137	DVI	11.38127887
F	3000.000000	DWT	-9.230769157			TPSE	3000.000000	IDVL	11.37520587
VLGR	1.016260176	VLML	9.202592253	ASPM	325.0000000	ELR	89.31224346	DRGR	8.367374539
RDR01	TARGET SITE	RGR	196.0557079	AZR	33.17767763				
PICH	2.99999997	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 21 HR 25 MIN 24.18 SEC TMST 325861.2070 J.D. 2439893.3926 3 DAY 18 HR 31.0 MIN

	SELENOGRAPHIC								
LEM	ALT	61.62500000	R	5702456.625	VI	29.59392213	X	5028150.937	VX	29.43269467
72	LTDM	-2.998352229			FPVI	67.24069881	Y	-2673338.031	VY	-2.682767808
	LONM	-27.99842834			AZVI	90.47878456	Z	-298279.7343	VZ	-1.522985935
	WT	8448.182006	ATLI	10.59149563	VA	27.54076576	AAAP	-2.847721099	VIR	27.28968715
	DVV	6.269113183	AMIS	268.5099258	FPVA	82.25742816	AAAY	-.0016901086	VIT	11.44872069
	RANG	.0105453578	RLAT	-.99292511-04	AZVA	268.5225067	AAAT	2.847721576	VAT	3.710357695
							VISN	7044.159545	DVI	11.42517995
	F	3000.000000	DWT	-9.230769157			TPSE	13590.82031	IDVL	51.63153362
	VLGR	14.52164435	VLML	18.69034695	ASPM	325.0000000	ELR	74.84673786	DRGR	14.69529259
	RDR01	TARGET SITE	RGR	234.7988624	AZR	43.65085935				
	PICH	2.99999997	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 21 HR 25 MIN 28.18 SEC TMST 325865.2070 J.D. 2439893.3926 3 DAY 18 HR 31.1 MIN

	SELENOGRAPHIC								
LEM	ALT	216.6875000	R	5702611.687	VI	49.83708763	X	5028298.312	VX	43.14708566
72	LTDM	-2.998362183			FPVI	88.09029769	Y	-2673390.625	VY	-24.75534796
	LONM	-27.99819946			AZVI	254.8348426	Z	-298288.8320	VZ	-3.039260268
	WT	8411.258911	ATLI	22.59170603	VA	52.55558347	AAAP	-3.984670788	VIR	49.80940914
	DVV	6.871629297	AMIS	268.5098991	FPVA	71.39619731	AAAY	-.0016771173	VIT	1.660739794
	RANG	.0142904235	RLAT	-.88882110-04	AZVA	268.5151748	AAAT	3.984671115	VAT	-16.76639771

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F	3000.000000	DWT	-9.230769157			VISN	7089.960388	DVI	11.47533309
VLGR	35.34500074	VLML	19.75826478	ASPM	325.000000	TPSE	25590.82031	IDVL	97.43249702
RDR01	TARGET SITE	RGR	324.8530387	AZR	47.70825290	ELR	48.21697759	DRGR	32.08805131
PICH	2.999999970	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 21 HR 25 MIN 32.18 SEC TMST 325869.2070 J.D. 2439893.3927 3 DAY 18 HR 31.2 MIN

	SELENOGRAPHIC									
LEM	ALT	455.3750000	R	5702850.375	VI	72.76567745	X	5028422.250	VX	49.58238077
72	LTDM	-2.998390466			FPVI	71.08179092	Y	-2673664.968	VY	-53.05874919
	LONM	-28.00004959			AZVI	267.5580863	Z	-298304.1367	VZ	-4.604411065
	WT	8374.335815	ATLI	34.59122180	VA	78.98867511	AAAP	-5.212122142	VIR	68.83504962
	DVV	7.756475985	AMIS	268.5099143	FPVA	60.62812376	AAAY	-.0016435013	VIT	23.59194302
	RANG	.0159870926	RLAT	-.88069970-04	AZVA	268.5132827	AAAT	5.212122440	VAT	-38.74205350
	F	3000.000000	DWT	-9.230769157			VISN	7135.962768	DVI	11.52592885
	VLGR	56.17862701	VLML	21.99264883	ASPM	325.000000	TPSE	37590.82031	IDVL	143.4349384
	RDR01	TARGET SITE	RGR	482.5664558	AZR	-1.709620684	ELR	19.39643168	DRGR	64.82871627
	PICH	2.999999970	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 21 HR 25 MIN 36.18 SEC TMST 325873.2070 J.D. 2439893.3927 3 DAY 18 HR 31.2 MIN

	SELENOGRAPHIC									
LEM	ALT	760.2500000	R	5703155.250	VI	98.43828392	X	5028619.562	VX	47.57001590
72	LTDM	-2.998445898			FPVI	57.01120185	Y	-2673941.750	VY	-85.96490001
	LONM	-28.00157546			AZVI	268.0918121	Z	-298325.5976	VZ	-6.101260662
2"	WT	8337.412719	ATLI	46.58969259	VA	107.4429664	AAAP	-6.791274368	VIR	82.56777286
	DVV	8.812322616	AMIS	268.5099830	FPVA	50.21759223	AAAY	-.0015942495	VIT	53.59718847
	RANG	.0409628995	RLAT	-.90538896-04	AZVA	268.5124931	AAAT	6.791274547	VAT	-68.74993705
	F	3000.000000	DWT	-9.230769157			VISN	7182.168395	DVI	11.57697248
	VLGR	75.23991012	VLML	23.46098661	ASPM	325.000000	TPSE	49590.82031	IDVL	189.6405334
1"	RDR01	TARGET SITE	RGR	791.1798782	AZR	-45.35229492	ELR	16.15292072	DRGR	89.56110763

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PITCH 2.99999997C YAW .00000000 00 ROLL .0000C000 00

6 FEB. 1968 21 HR 25 MIN 38.39 SEC TMST 325875.4179 J.D. 2439893.3927 3 DAY 18 HR 31.3 MIN

	SELENOGRAPHIC									
CM-SM	ALT	481694.9375	R	6184089.937	VI	5291.454956	X	5446882.000	VX	-2466.318298
120	LTDM	-3.281032562			FPVI	.0049924850	Y	-2906745.625	VY	-4667.173095
	LONM	-28.08675003			AZVI	273.9775810	Z	-353937.2890	VZ	366.4197311
	A	6188189.5C0	ASND	292.4552536	VVEN	-27962416.00	APOG	80.64369392	VAPG	5284.357482
	ECC	.67965874-C3	ARGP	312.9322433	ARGL	320.4280395	PERG	79.25929737	VPER	5291.545532
	INCL	174.8454837	MA	7.485710442	TA	7.495795607	PERC	122.5476121	MCON	ELLIPSE
	LTDE	-3.337274968	LONE	-.9422645569	LTDS	-1.415088489	LONS	84.89783191		
	WT	35799.86279	ATLI	72.40013122	VA	5307.848510	AAAP	-19.31529736	VIR	.4605701633
	DVV	4.526191055	AMIS	288.2004470	FPVA	.0049772262	AAAY	-12.42589712	VIT	5291.454711
	RANG	4.817005872	RLAT	172.1502227	AZVA	273.9652748	AAAT	22.48952484	VAT	-5307.848510

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	325875.4179	RCL	481715.4531	OPCL	3.407790154	XCL	-6355.988769	VXCL	-5218.703857
		ACL	102.5151500	DRCL	-18.35207176	YCL	28634.17773	VYCL	-6.92C898437
		ECL	18C.7573528			ZCL	-480821.6562	VZCL	86.96015548

6 FEB. 1968 21 HR 25 MIN 38.39 SEC TMST 325875.4179 J.D. 2439893.3927 3 DAY 18 HR 31.3 MIN

	SELENOGRAPHIC									
LEM	ALT	948.7500000	R	57C3343.750	VI	113.9432373	X	5028719.812	VX	42.51052713
72	LTDM	-2.998491078			FPVI	50.01451158	Y	-2674153.625	VY	-105.4935197
	LONM	-28.00298309			AZVI	268.2042694	Z	-298339.9453	VZ	-6.858126163
	WT	8316.972412	ATLI	53.23137664	VA	124.2246665	AAAP	-7.857985198	VIR	87.3C41315C
	DVV	9.437027692	AMIS	268.5100517	FPVA	44.65145826	AAAY	-.0015619443	VIT	73.21919059
	RANG	.0639995644	RLAT	-.92880992-04	AZVA	268.5122642	AAAT	7.857985317	VAT	-88.37282562
	F	30C0.000000	DWT	-9.230769157			VISN	7207.835510	DVI	11.6C542488

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VLGR	84.70104885	VLML	24.15846538	ASPM	325.0000000	TPSE	56232.42187	IDVL	215.3077678
RDRO1	TARGET SITE	RGR	1005.077262	AZR	-63.14367437	ELR	19.31562781	DRGR	103.6411542
PICH	2.99999997C	YAW	.00000000 00	ROLL	.00000000 00				

SECONDARY PHASE CUTOFF ---- PHASE TIME LAPSE 18.74414062

CHANGE FROM HIGH PITCH RATE TO LOW PITCH RATE

6 FEB. 1968 21 HR 25 MIN 38.39 SEC TMST 325875.4179 J.D. 2439893.3927 3 DAY 18 HR 31.3 MIN

SELENOGRAPHIC

LEM	ALT	948.7500000	R	5703343.750	VI	113.9432373	X	5028719.812	VX	42.51052713
74	LTDM	-2.998491078			FPVI	50.01451158	Y	-2674153.625	VY	-105.4935197
	LONM	-28.00298309			AZVI	268.2042694	Z	-298339.9453	VZ	-6.858126163
	WT	8316.972412	ATLI	53.23137664	VA	124.2246665	AAAP	-7.857985079	VIR	87.30413150
	DVV	9.437027692	AMIS	268.5100517	FPVA	44.65145826	AAAY	-.0015746453	VIT	73.21919059
	RANG	.0639995644	RLAT	-.73481797-06	AZVA	268.5122642	AAAT	7.857985198	VAT	-88.37282562
	F	3000.0000000	DWT	-9.230769157			VISN	7207.835510	DVI	11.60542488
	VLGR	84.70104885	VLML	24.15846538	ASPM	325.0000000	TPSE	56232.42187	IDVL	215.3077678
	RDRO1	TARGET SITE	RGR	1005.077262	AZR	-63.14367437	ELR	19.31562781	DRGR	103.6411542
	PICH	.1264325157	YAW	.0237112259	ROLL	.19595144-06				

6 FEB. 1968 21 HR 25 MIN 40.18 SEC TMST 325877.2070 J.D. 2439893.3928 3 DAY 18 HR 31.3 MIN

SELENOGRAPHIC

LEM	ALT	1107.2500000	R	5703502.062	VI	127.3149890	X	5028759.000	VX	37.21844816
74	LTDM	-2.998535633			FPVI	45.10418462	Y	-2674416.531	VY	-121.5263032
	LONM	-28.00513458			AZVI	268.2660751	Z	-298352.6718	VZ	-7.433126151
	A	2852513.031	ASND	211.9370212	VVEN	-60661154.50	APOG	.3080813028	VAPG	89.84939575
	TIMP	50279.07373	LTDI	-2.999493002	LONI	-28.03681945	CRIP	.6177159548		
	WT	8300.484985	ATLI	53.45574665	VA	138.4280681	AAAP	-4.108618259	VIR	90.18884277

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DVV	9.478181719	AMIS	268.5628738	FPVA	40.65640497	AAAY	.0361982127	VIT	89.86144447
RANG	.0991972582	RLAT	-.0126088706	AZVA	268.5163497	AAAT	4.108777701	VAT	-105.0157251
F	3000.000000	DWT	-9.230769157			VISN	7228.584899	DVI	11.62847685
VLGR	91.70913410	VLML	24.54988479	ASPM	325.0000000	TPSE	61590.82031	IDVL	236.0572166
RDRC1	TARGET SITE	RGR	1227.657745	AZR	-74.05938911	ELR	25.61381435	DRGR	118.3358755
PICH	.1264325157	YAW	.0237112259	ROLL	.0126085762				

6 FEB. 1968 21 HR 25 MIN 44.18 SEC TMST 325881.2070 J.D. 2439893.3928 3 DAY 18 HR 31.4 MIN

	SELENOGRAPHIC								
LEM	ALT	1480.750000	R	5703875.562	VI	159.8457813	X	5028883.812	VX	25.10187029
74	LTDM	-2.998663276			FPVI	37.13880062	Y	-2674974.781	VY	-157.6245250
	LONM	-28.00950241			AZVI	268.3715057	Z	-298384.8945	VZ	-8.664819955
A	2853139.312	ASND	213.4678478	VVEN	-60647839.50	APOG	.3878711834	VAPG	127.4055299
TIMP	50288.75537	LTDI	-3.000144302	LONI	-28.06171035	CRIP	1.025003507		
WT	8263.561889	ATLI	53.95713996	VA	172.1708850	AAAP	1.950133189	VIR	96.50657081
DVV	9.570611715	AMIS	268.6806144	FPVA	34.09230804	AAAY	.1120299175	VIT	127.4250974
RANG	.1706740353	RLAT	-.0167590517	AZVA	268.5446472	AAAT	1.953348413	VAT	-142.5808372
F	3000.000000	DWT	-9.230769157			VISN	7275.202575	DVI	11.68043494
VLGR	105.6295814	VLML	24.75015544	ASPM	325.0000000	TPSE	73590.82031	IDVL	282.6747856
RDRC1	TARGET SITE	RGR	1761.135070	AZR	-81.98291969	ELR	32.79839658	DRGR	149.1610736
PICH	.1264325157	YAW	.0237112259	ROLL	.0167586130				

6 FEB. 1968 21 HR 25 MIN 46.18 SEC TMST 325883.2070 J.D. 2439893.3928 3 DAY 18 HR 31.4 MIN

	SELENOGRAPHIC								
CM-SM	ALT	481698.6250	R	6184093.625	VI	5291.448486	X	5427523.000	VX	-2497.357635
120	LTDM	-3.254481464			FPVI	.0051164627	Y	-2943085.062	VY	-4650.472045
	LONM	-28.46885299			AZVI	273.9993400	Z	-351076.4179	VZ	368.4297943
A	6188181.750	ASND	292.4546852	VVEN	-27962450.25	APOG	80.63115501	VAPG	5284.419189

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ECC	.66860664-03	ARGP	313.1082992	ARGL	320.8098716	PERG	79.26928615	VPER	5291.490295
INCL	174.8454704	MA	7.691275119	TA	7.701571524	PERD	122.5473814	MCON	ELLIPSE
LTDE	-3.337381631	LONE	-.9418869018	LTDS	-1.415088117	LONS	84.89723777		
WT	35799.86279	ATLI	72.03013801	VA	5307.842102	AAAP	-19.70152974	VIR	.4724667072
DVV	4.526178658	AMIS	288.2523040	FPVA	.0051012039	AAAY	-12.40085935	VIT	5291.448364
RANG	8.727941989	RLAT	172.0516281	AZVA	273.9869651	AAAT	22.79225349	VAT	-5307.842102

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	325883.2070	RCL	483070.5781	OPCL	3.388683140	XCL	-43508.08544	VXCL	-5146.541748
		ACL	146.7235107	DRCL	363.0053215	YCL	28553.91796	VYCL	-13.67604064
		ECL	185.1764640			ZCL	-480259.2109	VZCL	100.2968368

6 FEB. 1968 21 HR 25 MIN 48.18 SEC TMST 325885.2070 J.D. 2439893.3928 3 DAY 18 HR 31.4 MIN

SELENOGRAPHIC

LEM	ALT	1879.062500	R	5704273.875	VI	194.6473579	X	5028959.312	VX	12.61212933
74	LTDM	-2.998825728			FPVI	31.81943750	Y	-2675677.875	VY	-193.5900417
	LONM	-28.01538848			AZVI	268.4564819	Z	-298421.8828	VZ	-9.817960381
	A	2853919.187	ASND	214.7331409	VVEN	-60631266.00	APOG	.4723721333	VAPG	165.3658218
	TIMP	50297.85693	LTDI	-3.000874757	LONI	-28.09163284	CRIP	1.514600217		
	WT	8226.638793	ATLI	54.45701694	VA	207.6804828	AAAP	5.918119549	VIR	102.6266708
	DVV	9.663409233	AMIS	268.7976913	FPVA	29.61414766	AAAY	.1822111830	VIT	165.3945579
	RANG	.2669914365	RLAT	-.0169405709	AZVA	268.5860862	AAAT	5.920923888	VAT	-180.5517921
	F	3000.000000	DWT	-9.230769157			VISN	7322.028991	DVI	11.73285949
2"	VLGR	117.6330718	VLML	24.78572702	ASPM	325.0000000	TPSE	85590.82031	IDVL	329.5012893
	RDR01	TARGET SITE	RGR	2425.600463	AZR	-85.63130474	ELR	39.24196672	DRGR	183.5370025
	PICH	.1264325157	YAW	.0237112259	ROLL	.0169403280				

6 FEB. 1968 21 HR 25 MIN 52.18 SEC TMST 325889.2070 J.D. 2439893.3929 3 DAY 18 HR 31.5 MIN

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	SELENOGRAPHIC									
LEM	ALT	2301.500000	R	5704696.250	VI	230.8782653	X	5028887.750	VX	-.2624456286
74	LTDM	-2.999020695			FPVI	28.04433488	Y	-2676708.250	VY	-230.6210899
	LONM	-28.02487564			AZVI	268.5323181	Z	-298463.3632	VZ	-10.89115345
	A	2854856.625	ASND	215.8833122	VVEN	-60611356.50	APOG	.5613784268	VAPG	203.7298431
	TIMP	50306.58740	LTDI	-3.001667112	LONI	-28.12849807	CRIP	2.117751240		
	WT	8189.715759	ATLI	54.95536041	VA	244.3610973	AAAP	8.671414136	VIR	108.5484914
	DVV	9.756575346	AMIS	268.9141387	FPVA	26.37302827	AAAY	.2484984975	VIT	203.7694721
	RANG	.4222056456	RLAT	-.0166894712	AZVA	268.6339607	AAAT	8.674866437	VAT	-218.9282321
	F	3000.000000	DWT	-9.230769157			VISN	7369.066040	DVI	11.78575670
	VLGR	128.2236518	VLML	25.00701665	ASPM	325.0000000	TPSE	97590.82031	IDVL	376.5383377
	RDRO1	TARGET SITE	RGR	3379.378387	AZR	-87.74342155	ELR	47.09389638	DRGR	222.8137874
	PICH	.1264325157	YAW	.0237112259	ROLL	.0166890381				

6 FEB. 1968 21 HR 25 MIN 56.18 SEC TMST 325893.2070 J.D. 2439893.3929 3 DAY 18 HR 31.6 MIN

	SELENOGRAPHIC									
LEM	ALT	2747.187500	R	5705141.937	VI	268.1198005	X	5028860.312	VX	-13.50994503
74	LTDM	-2.999244689			FPVI	25.22635555	Y	-2677704.437	VY	-267.5154266
	LONM	-28.03384780			AZVI	268.6032829	Z	-298508.9570	VZ	-11.88302350
	A	2855955.562	ASND	216.9808807	VVEN	-60588033.50	APOG	.6546432003	VAPG	242.4971961
	TIMP	50315.04931	LTDI	-3.002504497	LONI	-28.16806793	CRIP	2.765150755		
	WT	8152.792724	ATLI	55.45215368	VA	281.9083633	AAAP	10.63451659	VIR	114.2714433
	DVV	9.850112319	AMIS	269.0299682	FPVA	23.91303825	AAAY	.3119090758	VIT	242.5495071
	RANG	.5690125823	RLAT	-.0163953989	AZVA	268.6854629	AAAT	10.63888311	VAT	-257.7098426
	F	3000.000000	DWT	-9.230769157			VISN	7416.315673	DVI	11.83913302
	VLGR	137.7443714	VLML	25.49602222	ASPM	325.0000000	TPSE	109590.8203	IDVL	423.7878875
	RDRO1	TARGET SITE	RGR	4344.452575	AZR	-88.72104740	ELR	50.79878282	DRGR	259.9405822
	PICH	.1264325157	YAW	.0237112259	ROLL	.0163948727				

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6 FEB. 1968 21 HR 26 MIN .18 SEC TMST 325897.2070 J.C. 2439893.3929 3 DAY 18 HR 31.6 MIN

SELENOGRAPHIC

LEM	ALT	3215.375000	R	5705610.062	VI	306.1455612	X	5028779.125	VX	-27.14076304
74	LTDM	-2.999494940			FPVI	23.03546714	Y	-2678848.687	VY	-304.6716995
	LONM	-28.04439163			AZVI	268.6713600	Z	-298558.3281	VZ	-12.79217410
	A	2857220.062	ASND	218.0509548	VVEN	-60561219.00	APOG	.7519401535	VAPG	281.6675376
	TIMP	50323.30175	LTDI	-3.003371685	LONI	-28.21232604	CRIP	3.489229768		
	WT	8115.869628	ATLI	55.94738292	VA	320.1535110	AAAP	12.07858693	VIR	119.7950229
	DVV	9.944021582	AMIS	269.1452178	FPVA	21.97363853	AAAY	.3731288053	VIT	281.7343711
	RANG	.7415303588	RLAT	-.0161013820	AZVA	268.7392234	AAAT	12.08401465	VAT	-296.8963165
	F	3000.000000	DWT	-9.230769157			VISN	7463.779785	DVI	11.89299499
	VLGR	146.4291591	VLML	26.24903988	ASPM	325.0000000	TPSE	121590.8203	IDVL	471.2519798
	RDRO1	TARGET SITE	RGR	5460.189819	AZR	-89.34855937	ELR	53.94913482	DRGR	298.0908584
	PICH	.1264325157	YAW	.0237112259	ROLL	.0161009538				

6 FEB. 1968 21 HR 26 MIN 4.18 SEC TMST 325901.2070 J.C. 2439893.3931 3 DAY 18 HR 31.7 MIN

SELENOGRAPHIC

LEM	ALT	3705.250000	R	5706100.000	VI	344.8241195	X	5028546.375	VX	-41.17061614
74	LTDM	-2.999767959			FPVI	21.27521324	Y	-2680322.781	VY	-342.0865783
	LONM	-28.05857086			AZVI	268.7375907	Z	-298611.1328	VZ	-13.61720871
	A	2858654.406	ASND	219.1057033	VVEN	-60530833.50	APOG	.8530635685	VAPG	321.2405357
	TIMP	50331.38232	LTDI	-3.004253685	LONI	-28.26327514	CRIP	4.322735607		
2"	WT	8078.946533	ATLI	56.44103097	VA	358.9964561	AAAP	13.16142463	VIR	125.1187925
	DVV	10.03830564	AMIS	269.2598953	FPVA	20.39704895	AAAY	.4326186105	VIT	321.3237609
	RANG	.9735053330	RLAT	-.0158113907	AZVA	268.7944908	AAAT	13.16804528	VAT	-336.4873580
	F	3000.000000	DWT	-9.230769157			VISN	7511.460266	DVI	11.94734930
1"	VLGR	154.4416294	VLML	27.23667263	ASPM	325.0000000	TPSE	133590.8203	IDVL	518.9326095
	RDRO1	TARGET SITE	RGR	6901.932250	AZR	-89.77440834	ELR	57.56304502	DRGR	338.1415519

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PICH .1264325157 YAW .0237112259 ROLL .0158111534

6 FEB. 1968 21 HR 26 MIN 8.18 SEC TMST 325905.207C J.D. 2439893.3931 3 DAY 18 HR 31.8 MIN

	SELENOGRAPHIC										
LEM	ALT	4216.1250CC	R	57C6610.812	VI	384.C746803	X	5028353.000	VX	-55.57972621
74	LTDM	-3.C00062137			FPVI	19.82247543	Y	-2681766.437	VY	-379.7606353
	LONM	-28.07229232			AZVI	268.8C25817	Z	-298667.1210	VZ	-14.35673582
	A	2860262.812	ASND	22C.1573429	VVEN	-60496794.00	APOG	.9577562809	VAPG	361.2159118
	TIMP	50339.31591	LTDI	-3.C05137383	LONI	-28.31674957	CRIP	5.197544455		
	WT	8042.023437	ATLI	56.93307971	VA	398.3745841	AAAP	13.98349642	VIR	130.2424049
	DVV	10.13296663	AMIS	269.3740272	FPVA	19.08281898	AAAY	.4906958341	VIT	361.3174209
	RANG	1.198003724	RLAT	-.0155272910	AZVA	268.8508224	AAAT	13.99143898	VAT	-376.4827003
	F	30C0.000CCC	DWT	-9.230769157			VISN	7559.359252	DVI	12.0C220298
	VLGR	161.89962CC	VLML	28.42427587	ASPM	325.C00CC00	TPSE	145590.8203	ICVL	566.8314743
	RCR01	TARGET SITE	RGR	8332.940307	AZR	-90.05130577	ELR	59.64346265	DRGR	377.450119C

PICH .1264325157 YAW .0237112259 ROLL .0155271960

6 FEB. 1968 21 HR 26 MIN 12.18 SEC TMST 325909.207C J.D. 2439893.3932 3 DAY 18 HR 31.8 MIN

	SELENOGRAPHIC										
LEM	ALT	4746.9375CC	R	5707141.687	VI	423.8451766	X	5028036.937	VX	-70.39252185
74	LTDM	-3.C00372976			FPVI	18.59660625	Y	-2683481.718	VY	-417.6892967
	LONM	-28.08900451			AZVI	268.8666954	Z	-298725.8164	VZ	-15.0C935184
	A	2862049.812	ASND	221.2073001	VVEN	-60459022.5C	APOG	1.065802291	VAPG	401.5933952
	TIMP	50347.121C9	LTDI	-3.C06007701	LONI	-28.37613677	CRIP	6.169409513		
	WT	8005.1004C2	ATLI	57.42351627	VA	438.2469711	AAAP	14.61153221	VIR	135.1655712
	DVV	10.2280071S	AMIS	269.4876365	FPVA	17.96423721	AAAY	.5475840568	VIT	401.7150726
	RANG	1.47141622C	RLAT	-.0152479313	AZVA	268.9079360	AAAT	14.62092697	VAT	-416.8820877
	F	3000.0000CC	DWT	-9.230769157			VISN	7607.478576	DVI	12.05756247

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WT	35799.86279	ATLI	70.60503864	VA	5307.816345	AAAP	-21.18833971	VIR	.5166175365
DVV	4.526129543	AMIS	288.4573707	FPVA	.0055780411	AAAY	-12.30327546	VIT	5291.422546
RANG	31.88841414	RLAT	171.6677780	AZVA	274.0688667	AAAT	23.97860980	VAT	-5307.816284

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	325913.2070	RCL	513245.8554	OPCL	3.101478248	XCL	-181275.9140	VXCL	-4855.294006
		ACL	171.2907829	DRCL	1569.440155	YCL	27768.94995	VYCL	-38.25819396
		ECL	200.7146015			ZCL	-479363.3671	VZCL	153.4885826

6 FEB. 1968 21 HR 26 MIN 20.18 SEC TMST 325917.2070 J.D. 2439893.3932 3 DAY 18 HR 32.0 MIN

SELENOGRAPHIC

LEM	ALT	5865.750000	R	5708260.562	VI	504.8174781	X	5027351.625	VX	-101.1949682
					FPVI	16.62242889	Y	-2687129.062	VY	-494.3103485
74	LTDM	-3.001035302			AZVI	268.9932022	Z	-298850.2851	VZ	-16.04826807
	LONM	-28.12459182								
	A	2866178.062	ASND	223.3199691	VVEN	-60371941.00	APOG	1.291131302	VAPG	483.5538063
	TIMP	50362.39550	LTDI	-3.007656544	LONI	-28.50565719	CRIP	8.288278818		
	WT	7931.254211	ATLI	58.39948558	VA	519.3722076	AAAP	15.45589900	VIR	144.4098491
	DVV	10.41923868	AMIS	269.7133445	FPVA	16.14367580	AAAY	.6584016308	VIT	483.7214889
	RANG	2.053629279	RLAT	-.0147037487	AZVA	269.0238189	AAAT	15.46860265	VAT	-498.8920555
							VISN	7704.386779	DVI	12.16982781
	F	3000.000000	DWT	-9.230769157			TPSE	181590.8203	IDVL	711.859024
	VLGR	181.7203388	VLML	32.87589597	ASPM	325.0000000	ELR	64.72850131	DRGR	498.8917083
	RDR01	TARGET SITE	RGR	13707.91284	AZR	-90.48009395				
	PICH	.1264325157	YAW	.0237112259	ROLL	.0147035168				

6 FEB. 1968 21 HR 26 MIN 24.18 SEC TMST 325921.2070 J.D. 2439893.3933 3 DAY 18 HR 32.0 MIN

SELENOGRAPHIC

LEM	ALT	6452.125000	R	5708846.937	VI	545.9782867	X	5026818.312	VX	-117.2199478
					FPVI	15.80781936	Y	-2689364.375	VY	-532.593225
74	LTDM	-3.001379609			AZVI	269.0558700	Z	-298915.2382	VZ	-16.43175363
	LONM	-28.14693069								

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A	2868529.062	ASND	224.3823242	VVEN	-60322462.50	APOG	1.407992556	VAPG	525.1363754
TIMP	50369.88427	LTDI	-3.008407533	LONI	-28.57915878	CRIP	9.490175008		
WT	7894.331176	ATLI	58.88498640	VA	560.5921020	AAAP	15.72857213	VIR	148.7307872
DVV	10.515436C5	AMIS	269.8254852	FPVA	15.38538551	AAAY	.7125460580	VIT	525.3298416
RANG	2.419072598	RLAT	-.0144387660	AZVA	269.0823745	AAAT	15.74314022	VAT	-540.5022277
F	3000.000000	DWT	-9.230769157			VISN	7753.179748	DVI	12.22674798
VLGR	187.6515846	VLML	34.57149171	ASPM	325.000000	TPSE	193590.8203	ICVL	760.6519775
RDRO1	TARGET SITE	RGR	15973.02709	AZR	-90.54262351	ELR	66.24959182	DRGR	540.5334854
PICH	.1264325157	YAW	.0237112259	ROLL	.0144383521				

6 FEB. 1968 21 HR 26 MIN 28.18 SEC TMST 325925.2070 J.D. 2439893.3933 3 DAY 18 HR 32.1 MIN

SELENOGRAPHIC

LEM	ALT	7055.375000	R	5709450.125	VI	587.5709991	X	5026316.750	VX	-133.6349735
74	LTDM	-3.001728832			FPVI	15.07839393	Y	-2691574.156	VY	-571.9280776
	LONM	-28.16888809			AZVI	269.1182708	Z	-298981.5742	VZ	-16.7227168C
	A	2871077.843	ASND	225.4532070	VVEN	-60268910.00	APOG	1.527343079	VAPG	567.1203689
	TIMP	50377.28173	LTDI	-3.009092271	LONI	-28.65501785	CRIP	10.73124229		
	WT	7857.408081	ATLI	59.36881160	VA	602.2357330	AAAP	15.92717802	VIR	152.8509521
	DVV	10.61202597	AMIS	269.9371719	FPVA	14.70283889	AAAY	.7659515515	VIT	567.3414001
	RANG	2.778280347	RLAT	-.0141781639	AZVA	269.1412429	AAAT	15.94375717	VAT	-582.5156326
	F	3000.000000	DWT	-9.230769157			VISN	7802.201477	DVI	12.28420329
	VLGR	193.3066082	VLML	36.33957386	ASPM	325.000000	TPSE	205590.8203	ICVL	809.6737976
	RDRO1	TARGET SITE	RGR	18218.22265	AZR	-90.59177780	ELR	67.30039024	DRGR	582.1416549
2"	PICH	.1264325157	YAW	.0237112259	ROLL	.0141777069				

6 FEB. 1968 21 HR 26 MIN 32.18 SEC TMST 325929.2070 J.D. 2439893.3933 3 DAY 18 HR 32.2 MIN

SELENOGRAPHIC

1" LEM	ALT	7674.687500	R	5710069.437	VI	629.5866546	X	5025748.625	VX	-150.4614276

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74	LTDM	-3.002079337			FPVI	14.41866111	Y	-2693940.125	VY	-611.1091918
	LONM	-28.19253921			AZVI	269.1804733	Z	-299048.8945	VZ	-16.91974592
	A	2873829.875	ASND	226.5308895	VVEN	-60211196.50	APOG	1.649038851	VAPG	609.5056610
	TIMP	50384.59472	LTDI	-3.009697586	LONI	-28.73527526	CRIP	12.04409265		
	WT	7820.484985	ATLI	59.85094594	VA	644.2958374	AAAP	16.06516051	VIR	156.7704353
	DVV	10.70901215	AMIS	270.0484237	FPVA	14.08260822	AAAY	.8186778948	VIT	609.7560043
	RANG	3.165188938	RLAT	-.0139219443	AZVA	269.2003746	AAAT	16.08390212	VAT	-624.9321212
	F	3000.000000	DWT	-9.230769157			VISN	7851.454101	DVI	12.34220087
	VLGR	198.7121410	VLML	38.16448688	ASPM	325.0000000	TPSE	217590.8203	IDVL	858.9264602
	RDR01	TARGET SITE	RGR	20630.69506	AZR	-90.62468338	ELR	68.25769805	DRGR	624.1739578
	PICH	.1264325157	YAW	.0237112259	ROLL	.0139216257				

6 FEB. 1968 21 HR 26 MIN 36.18 SEC TMST 325933.2070 J.D. 2439893.3934 3 DAY 18 HR 32.2 MIN

SELENOGRAPHIC

LEM	ALT	8309.250000	R	5710704.062	VI	672.0186691	X	5025047.875	VX	-167.7185039
74	LTDM	-3.002427488			FPVI	13.81672763	Y	-2696583.781	VY	-650.5304565
	LONM	-28.21927642			AZVI	269.2425193	Z	-299116.7812	VZ	-17.02142357
	A	2876790.437	ASND	227.6140995	VVEN	-60149231.50	APOG	1.772832989	VAPG	652.2922286
	TIMP	50391.82714	LTDI	-3.010210096	LONI	-28.82126998	CRIP	13.45091986		
	WT	7783.561950	ATLI	60.33137130	VA	686.7670669	AAAP	16.15290975	VIR	160.4894504
	DVV	10.80639874	AMIS	270.1592559	FPVA	13.51431846	AAAY	.8707733899	VIT	652.5735397
	RANG	3.602569341	RLAT	-.0136701555	AZVA	269.2597389	AAAT	16.17397046	VAT	-667.7515563
	F	3000.000000	DWT	-9.230769157			VISN	7900.939819	DVI	12.40074896
	VLGR	203.8903102	VLML	40.03285646	ASPM	325.0000000	TPSE	229590.8203	IDVL	908.4120330
	RDR01	TARGET SITE	RGR	23339.74853	AZR	-90.64092159	ELR	69.25464153	DRGR	666.7947998
	PICH	.1264325157	YAW	.0237112259	ROLL	.0136696130				

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6 FEB. 1968 21 HR 26 MIN 40.18 SEC TMST 325937.2070 J.D. 2439893.3934 3 DAY 18 HR 32.3 MIN

SELENOGRAPHIC

LEM	ALT	8958.312500	R	5711353.125	VI	714.8621673	X	5024341.812	VX	-185.3796329
74	LTDM	-3.002770304			FPVI	13.26330566	Y	-2699265.156	VY	-690.1973724
	LONM	-28.24636459			AZVI	269.3044471	Z	-299184.9023	VZ	-17.02633595
	A	2879965.187	ASND	228.7054805	VVEN	-60082926.00	APOG	1.898560941	VAPG	695.4800415
	TIMP	50398.98339	LTDI	-3.010617405	LONI	-28.91024398	CRIP	14.90649747		
	WT	7746.638854	ATLI	60.81007337	VA	729.6455001	AAAP	16.19858479	VIR	164.0082626
	DVV	10.90418994	AMIS	270.2696876	FPVA	12.98982620	AAAY	.9222785160	VIT	695.7939376
	RANG	4.045689463	RLAT	-.0134223983	AZVA	269.3193016	AAAT	16.22212719	VAT	-710.9738693
	F	3000.000000	DWT	-9.230769157			VISN	7950.660827	DVI	12.45985507
	VLGR	208.8596630	VLML	41.93321847	ASPM	325.0000000	TPSE	241590.8203	ICVL	958.1330642
	RDR01	TARGET SITE	RGR	26092.47265	AZR	-90.65161800	ELR	70.04374790	DRGR	709.6257171
	PICH	.1264325157	YAW	.0237112259	ROLL	.0134220829				

6 FEB. 1968 21 HR 26 MIN 44.18 SEC TMST 325941.2070 J.D. 2439893.3936 3 DAY 18 HR 32.4 MIN

SELENOGRAPHIC

LEM	ALT	9621.062500	R	5712015.937	VI	758.1134872	X	5023531.937	VX	-203.4718780
74	LTDM	-3.003103733			FPVI	12.75104904	Y	-2702165.937	VY	-730.1017227
	LONM	-28.27588272			AZVI	269.3662910	Z	-299252.8164	VZ	-16.93305802
	A	2883359.937	ASND	229.8027286	VVEN	-60012187.00	APOG	2.026027262	VAPG	739.0691146
	TIMP	50406.06591	LTDI	-3.010906279	LONI	-29.00422668	CRIP	16.44301819		
	WT	7709.715759	ATLI	61.28703689	VA	772.9282150	AAAP	16.20867896	VIR	167.3272304
2"	DVV	11.00239062	AMIS	270.3797302	FPVA	12.50265407	AAAY	.9732282981	VIT	739.4170989
	RANG	4.528550207	RLAT	-.0131788645	AZVA	269.3790397	AAAT	16.23487210	VAT	-754.5989761
	F	3000.000000	DWT	-9.230769157			VISN	8000.619384	DVI	12.51952731
	VLGR	213.6359119	VLML	43.85570764	ASPM	325.0000000	TPSE	253590.8203	ICVL	1008.091751
	RDR01	TARGET SITE	RGR	29081.81225	AZR	-90.65270709	ELR	70.81917572	DRGR	752.9278640
1"	PICH	.1264325157	YAW	.0237112259	ROLL	.0131787294				

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6 FEB. 1968 21 HR 26 MIN 48.18 SEC TMST 325945.2070 J.D. 2439893.3936 3 DAY 18 HR 32.4 MIN

	SELENOGRAPHIC										
LEM	ALT	10296.68750	R	5712691.562	VI	801.7699584	X	5022681.125	VX	-221.9819107
					FPVI	12.27406978	Y	-2705166.562	VY	-770.2459869
74	LTDM	-3.003425031			AZVI	269.4280700	Z	-299320.2070	VZ	-16.74017024
	LONM	-28.30646896								
	A	2886980.656	ASND	230.9068508	VVEN	-59936922.50	APOG	2.155036479	VAPG	783.0595169
	TIMP	50413.07910	LTDI	-3.011064559	LONI	-29.10182952	CRIP	18.03984069		
	WT	7672.792724	ATLI	61.76224565	VA	816.6131057	AAAP	16.18842244	VIR	170.4468002
	DVV	11.10100519	AMIS	270.4893989	FPVA	12.04759025	AAAY	1.023652657	VIT	783.4430084
	RANG	5.028878629	RLAT	-.0129392101	AZVA	269.4389457	AAAT	16.21744108	VAT	-798.6268463
							VISN	8050.817810	DVI	12.57977378
	F	3000.000000	DWT	-9.230769157			TPSE	265590.8203	ICVL	1058.290023
	VLGR	218.2325019	VLML	45.79180336	ASPM	325.0000000	ELR	71.49255180	DRGR	796.5529556
	RDR01	TARGET SITE	RGR	32180.63916	AZR	-90.64922904				
	PICH	.1264325157	YAW	.0237112259	ROLL	.0129392538				

6 FEB. 1968 21 HR 26 MIN 52.18 SEC TMST 325949.2070 J.D. 2439893.3936 3 DAY 18 HR 32.5 MIN

	SELENOGRAPHIC										
LEM	ALT	10984.37500	R	5713379.187	VI	845.8296508	X	5021755.437	VX	-240.9217414
					FPVI	11.82758998	Y	-2708328.218	VY	-810.6257095
74	LTDM	-3.003730028			AZVI	269.4898033	Z	-299386.6015	VZ	-16.44624352
	LONM	-28.33882904								
	A	2890833.531	ASND	232.0166931	VVEN	-59857038.50	APOG	2.285393208	VAPG	827.4513626
	TIMP	50420.02392	LTDI	-3.011079162	LONI	-29.20371627	CRIP	19.70615315		
	WT	7635.869628	ATLI	62.23568439	VA	860.6986770	AAAP	16.14207577	VIR	173.3674831
	DVV	11.20003902	AMIS	270.5987129	FPVA	11.62038803	AAAY	1.073577746	VIT	827.8716735
	RANG	5.558216214	RLAT	-.0127037638	AZVA	269.4989967	AAAT	16.17410182	VAT	-843.0574874
							VISN	8101.258361	DVI	12.64060306
	F	3000.000000	DWT	-9.230769157			TPSE	277590.8203	ICVL	1108.730621
	VLGR	222.6610431	VLML	47.73412132	ASPM	325.0000000	ELR	72.12157917	DRGR	840.5745773
	RDR01	TARGET SITE	RGR	35454.71191	AZR	-90.64048290				

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PICH .1264325157 YAW .0237112259 ROLL .0127035415

6 FEB. 1968 21 HR 26 MIN 56.18 SEC TMST 325953.2070 J.C. 2439893.3937 3 DAY 18 HR 32.6 MIN

	SELENOGRAPHIC									
LEM	ALT	11683.37500	R	5714078.187	VI	890.2911682	X	5020655.687	VX	-260.3257102
74	LTDM	-3.004014492			FPVI	11.40770339	Y	-2711832.281	VY	-851.2292938
	LONM	-28.37503814			AZVI	269.5515136	Z	-299451.5664	VZ	-16.04983472
	A	2894925.156	ASND	233.1296672	VVEN	-59772438.50	APOG	2.416953444	VAPG	872.2447814
	TIMP	50426.90429	LTDI	-3.010936975	LONI	-29.31193161	CRIP	21.47595167		
	WT	7598.946533	ATLI	62.70733785	VA	905.1839141	AAAP	16.07314467	VIR	176.0899028
	DVV	11.29949724	AMIS	270.7076835	FPVA	11.21755886	AAAY	1.123026639	VIT	872.7031021
	RANG	6.152376234	RLAT	-.0124722328	AZVA	269.5591850	AAAT	16.10836768	VAT	-887.8909072
	F	3000.000000	DWT	-9.230769157			VISN	8151.943420	DVI	12.70202350
	VLGR	226.9316444	VLML	49.67623949	ASPM	325.0000000	TPSE	289590.8203	IDVL	1159.415786
	RDR01	TARGET SITE	RGR	39101.18066	AZR	-90.62397193	ELR	72.80224323	DRGR	885.1399688

PICH .1264325157 YAW .0237112259 ROLL .0124720114

6 FEB. 1968 21 HR 27 MIN .18 SEC TMST 325957.2070 J.C. 2439893.3937 3 DAY 18 HR 32.6 MIN

	SELENOGRAPHIC									
LEM	ALT	12392.81250	R	5714787.625	VI	935.1536026	X	5019574.937	VX	-280.1378822
74	LTDM	-3.004276245			FPVI	11.01117515	Y	-2715318.843	VY	-892.0724487
	LONM	-28.41099548			AZVI	269.6132087	Z	-299514.8125	VZ	-15.54952549
	A	2899262.125	ASND	234.2492656	VVEN	-59683025.50	APOG	2.549531966	VAPG	917.4399261
	TIMP	50433.72119	LTDI	-3.010626763	LONI	-29.42234039	CRIP	23.28220820		
	WT	7562.023458	ATLI	63.17718982	VA	950.0681838	AAAP	15.98453640	VIR	178.6147460
	DVV	11.39938557	AMIS	270.8163223	FPVA	10.83620834	AAAY	1.172020643	VIT	917.5373779
	RANG	6.739787161	RLAT	-.0122444196	AZVA	269.6195030	AAAT	16.02315330	VAT	-933.1271667
	F	3000.000000	DWT	-9.230769157			VISN	8202.875366	DVI	12.76404368

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VLGR	231.0531730	VLML	51.61255884	ASPM	325.0000000	TPSE	301590.8203	ICVL	1210.347518
RDR01	TARGET SITE	RGR	42731.18115	AZR	-90.60771560	ELR	73.34662246	DRGR	929.9351730
PICH	.1264325157	YAW	.0237112259	ROLL	.0122441990				

6 FEB. 1968 21 HR 27 MIN 4.18 SEC TMST 325961.2070 J.D. 2439893.3937 3 DAY 18 HR 32.7 MIN

	SELENOGRAPHIC								
LEM	ALT	13112.00000	R	5715506.750	VI	980.4163818	X	5018414.000	VX	-300.3912086
74	LTDM	-3.004510372			FPVI	10.63531112	Y	-2718969.156	VY	-933.1442031
	LONM	-28.44876861			AZVI	269.6749000	Z	-299575.8242	VZ	-14.94386184
	A	2903851.343	ASND	235.3727703	VVEN	-59588701.50	APOG	2.682923138	VAPG	963.0370864
	TIMP	50440.47753	LTDI	-3.010135233	LONI	-29.53697586	CRIP	25.15679383		
	WT	7525.100402	ATLI	63.64522457	VA	995.3511734	AAAP	15.87869000	VIR	180.9427833
	DVV	11.49970948	AMIS	270.9246482	FPVA	10.47391796	AAAY	1.220578432	VIT	963.5745849
	RANG	7.356188356	RLAT	-.0120200438	AZVA	269.6799468	AAAT	15.92090570	VAT	-978.7663955
	F	3000.000000	DWT	-9.230769157			VISN	8254.056518	DVI	12.82667243
	VLGR	235.0334720	VLML	53.53818178	ASPM	325.0000000	TPSE	313590.8203	ICVL	1261.528778
	RDR01	TARGET SITE	RGR	46541.18164	AZR	-90.58838748	ELR	73.86105155	DRGR	975.1233139
	PICH	.1264325157	YAW	.0237112259	ROLL	.0120198243				

6 FEB. 1968 21 HR 27 MIN 8.18 SEC TMST 325965.2070 J.D. 2439893.3938 3 DAY 18 HR 32.8 MIN

	SELENOGRAPHIC								
LEM	ALT	13840.06250	R	5716234.875	VI	1026.079223	X	5017073.250	VX	-321.1245460
74	LTDM	-3.004713237			FPVI	10.27784633	Y	-2722964.593	VY	-974.4306411
	LONM	-28.49044036			AZVI	269.7366027	Z	-299634.2031	VZ	-14.23139083
	A	2908700.187	ASND	236.4974231	VVEN	-59489367.00	APOG	2.817013740	VAPG	1009.036460
	TIMP	50447.17529	LTDI	-3.009449899	LONI	-29.65789794	CRIP	27.13483786		
	WT	7488.177307	ATLI	64.11142635	VA	1041.032775	AAAP	15.75765883	VIR	183.0748691
	DVV	11.60047578	AMIS	271.0326766	FPVA	10.12864494	AAAY	1.268717423	VIT	1009.614852

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RANG	8.039072394	RLAT	-.0117997030	AZVA	269.7405052	AAAT	15.80368709	VAT	-1024.808670
F	3000.000000	DWT	-9.230769157			VISN	8305.489501	DVI	12.88991892
VLGR	238.8795146	VLML	55.44881916	ASPM	325.0000000	TPSE	325590.8203	IDVL	1312.961807
RDRO1	TARGET SITE	RGR	50729.77783	AZR	-90.56422519	ELR	74.41326808	DRGR	1020.817611
PICH	.1264325157	YAW	.0237112259	ROLL	.0117993102				

6 FEB. 1968 21 HR 27 MIN 12.18 SEC TMST 325969.2070 J.C. 2439893.3938 3 DAY 18 HR 32.8 MIN

	SELENOGRAPHIC								
LEM	ALT	14576.37500	R	5716971.125	VI	1072.142135	X	5015746.562	VX	-342.2732086
74	LTDM	-3.004881083			FPVI	9.936867713	Y	-2726945.250	VY	-1015.951751
	LONM	-28.53190231			AZVI	269.7983207	Z	-299689.5234	VZ	-13.41068816
	A	2913816.062	ASND	237.6265583	VVEN	-59384919.50	APOG	2.951628953	VAPG	1055.438385
	TIMP	50453.81640	LTDI	-3.008558660	LONI	-29.78096389	CRIP	29.14754962		
	WT	7451.254272	ATLI	64.57578182	VA	1087.113174	AAAP	15.62318849	VIR	185.0119838
	DVV	11.70169019	AMIS	271.1404113	FPVA	9.798664093	AAAY	1.316453307	VIT	1056.058380
	RANG	8.717411637	RLAT	-.0115826420	AZVA	269.8011817	AAAT	15.67325162	VAT	-1071.254226
	F	3000.000000	DWT	-9.230769157			VISN	8357.176757	DVI	12.95379185
	VLGR	242.5975418	VLML	57.34070587	ASPM	325.0000000	TPSE	337590.8203	IDVL	1364.648910
	RDRO1	TARGET SITE	RGR	54904.87060	AZR	-90.54043388	ELR	74.87031459	DRGR	1066.781280
	PICH	.1264325157	YAW	.0237112259	ROLL	.0115820338				

6 FEB. 1968 21 HR 27 MIN 16.18 SEC TMST 325973.2070 J.C. 2439893.3939 3 DAY 18 HR 32.9 MIN

	SELENOGRAPHIC								
LEM	ALT	15319.93750	R	5717714.812	VI	1118.605255	X	5014269.125	VX	-363.8999900
74	LTDM	-3.005009323			FPVI	9.610740661	Y	-2731212.656	VY	-1057.685577
	LONM	-28.57660293			AZVI	269.8600616	Z	-299741.2890	VZ	-12.48028087
	A	2919206.781	ASND	238.7559719	VVEN	-59275258.50	APOG	3.086604177	VAPG	1102.243209
	TIMP	50460.40234	LTDI	-3.007448494	LONI	-29.90959548	CRIP	31.25134348		

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WT	7414.331176	ATLI	65.03827285	VA	1133.592651	AAAP	15.47677183	VIR	186.7551326
DVV	11.80335998	AMIS	271.2478713	FPVA	9.482494354	AAAY	1.363801240	VIT	1102.905349
RANG	9.447214245	RLAT	-.0113686377	AZVA	269.8619651	AAAT	15.53110301	VAT	-1118.103225
F	3000.000000	DWT	-9.230769157			VISN	8409.120727	DVI	13.01830136
VLGR	246.1931743	VLML	59.21053457	ASPM	325.0000000	TPSE	349590.8203	ICVL	1416.592956
RDRC1	TARGET SITE	RGR	59396.56298	AZR	-90.51355171	ELR	75.34123992	DRGR	1113.201934
PICH	.1264325157	YAW	.0237112259	ROLL	.0113685934				

6 FEB. 1968 21 HR 27 MIN 16.18 SEC TMST 325973.2070 J.D. 2439893.3939 3 DAY 18 HR 32.9 MIN

SELENOGRAPHIC

CM-SM	ALT	481747.1250	R	6184142.125	VI	5291.366882	X	5186019.500	VX	-2848.267761
120	LTDM	-2.937437146			FPVI	.0065441131	Y	-3353860.656	VY	-4442.238037
	LONM	-32.89123153			AZVI	274.2376594	Z	-316909.4140	VZ	390.4538803
	A	6188087.875	ASND	292.4407615	VVEN	-27962875.50	APOG	80.61569499	VAPG	5284.459289
	ECC	.66860664-03	ARGP	315.0631332	ARGL	325.2232894	PERG	79.25384616	VPER	5291.530456
	INCL	174.8453350	MA	10.14658248	TA	10.16015315	PERD	122.5445947	MCON	ELLIPSE
	LTDE	-3.3386172C5	LONE	-.9447059631	LTDS	-1.415084093	LONS	84.88318824		
	WT	35799.86279	ATLI	67.75741004	VA	5307.760559	AAAP	-24.15541815	VIR	.6042485237
	DVV	4.526022553	AMIS	288.8938293	FPVA	.0065240860	AAAY	-12.10218656	VIT	5291.366638
	RANG	80.01642513	RLAT	170.8790740	AZVA	274.2245445	AAAT	26.43220186	VAT	-5307.760498

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	325973.2070	RCL	646129.6328	OPCL	2.145630091	XCL	-428956.2187	VXCL	-4208.482055
		ACL	176.7722434	DRCL	2590.464904	YCL	24190.80859	VYCL	-78.92300415
		ECL	221.6325931			ZCL	-482591.8281	VZCL	268.4860649

6 FEB. 1968 21 HR 27 MIN 20.18 SEC TMST 325977.2070 J.D. 2439893.3939 3 DAY 18 HR 33.0 MIN

SELENOGRAPHIC

LEM	ALT	16070.125CC	R	5718464.937	VI	1165.468933	X	5012769.562	VX	-385.9591102

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74	LTDM	-3.005095094			FPVI	9.298070907	Y	-2735527.218	VY	-1099.646575
	LONM	-28.62181854			AZVI	269.9218368	Z	-299789.1562	VZ	-11.4387201C
	A	2924880.375	ASND	239.8875999	VVEN	-59160278.00	APOG	3.221774816	VAPG	1149.451293
	TIMP	50466.934C8	LTDI	-3.006108105	LONI	-30.04103469	CRIP	33.40159416		
	WT	7377.408081	ATLI	65.49888324	VA	1180.471679	AAAP	15.31969153	VIR	188.3054809
	DVV	11.90549147	AMIS	271.3550682	FPVA	9.178872108	AAAY	1.410774052	VIT	1150.156021
	RANG	10.18851220	RLAT	-.0111585053	AZVA	269.9228591	AAAT	15.37853336	VAT	-1165.355911
	F	3000.000000	DWT	-9.230769157			VISN	8461.323974	DVI	13.08345639
	VLGR	249.6714992	VLML	61.05539703	ASPM	325.0000000	TPSE	361590.8203	IDVL	1468.796356
	RDRC1	TARGET SITE	RGR	63942.76562	AZR	-90.4864C251	ELR	75.75519847	DRGR	1159.946609
	PICH	.1264325157	YAW	.0237112259	ROLL	.0111585476				

6 FEB. 1968 21 HR 27 MIN 24.18 SEC TMST 325981.2070 J.D. 2439893.3939 3 DAY 18 HR 33.0 MIN

SELENOGRAPHIC

LEM	ALT	16826.125CC	R	5719220.937	VI	1212.733688	X	5011180.812	VX	-408.4788894
74	LTDM	-3.005133718			FPVI	8.997651100	Y	-2740010.062	VY	-1141.824081
	LONM	-28.66892623			AZVI	269.9836502	Z	-299832.6484	VZ	-10.2845335C
	A	2930845.281	ASND	241.0192375	VVEN	-59039873.50	APOG	3.356966048	VAPG	1197.063186
	TIMP	50473.414C6	LTDI	-3.004524797	LONI	-30.17663955	CRIP	35.61925125		
	WT	7340.484985	ATLI	65.95760154	VA	1227.750839	AAAP	15.15305864	VIR	189.664215C
	DVV	12.00809180	AMIS	271.4620C94	FPVA	8.886700630	AAAY	1.457385122	VIT	1197.810699
	RANG	10.95817101	RLAT	-.0109515057	AZVA	269.9838562	AAAT	15.21666502	VAT	-1213.012603
	F	3000.000000	DWT	-9.230769157			VISN	8513.789184	DVI	13.14926695
	VLGR	253.0371494	VLML	62.87273693	ASPM	325.0000000	TPSE	373590.8203	IDVL	1521.261520
	RDR01	TARGET SITE	RGR	68676.66601	AZR	-90.45784187	ELR	76.15227794	DRGR	1207.084503
	PICH	.1264325157	YAW	.0237112259	ROLL	.0109514621				

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6 FEB. 1968 21 HR 27 MIN 28.18 SEC TMST 325985.2070 J.D. 2439893.3940 3 DAY 18 HR 33.1 MIN

SELENOGRAPHIC

LEM	ALT	17587.18750	R	5719982.062	VI	1260.400085	X	5009402.437	VX	-431.5058708
74	LTDM	-3.005121052			FPVI	8.708440780	Y	-2744842.187	VY	-1184.200057
	LONM	-28.72001266			AZVI	270.0455093	Z	-299871.2773	VZ	-9.016256809
	A	2937110.4066	ASND	242.1479778	VVEN	-58913937.00	APOG	3.492105871	VAPG	1245.079223
	TIMP	50479.84423	LTDI	-3.002686142	LONI	-30.31847381	CRIP	37.93933153		
	WT	7303.561950	ATLI	66.41440868	VA	1275.430801	AAAP	14.97783803	VIR	190.8326644
	DVV	12.11116862	AMIS	271.5687141	FPVA	8.605030059	AAAY	1.503646105	VIT	1245.869689
	RANG	11.79354381	RLAT	-.0107486202	AZVA	270.0449600	AAAT	15.04647457	VAT	-1261.073593
	F	3000.000000	DWT	-9.230769157			VISN	8566.519042	DVI	13.21574294
	VLGR	256.2943611	VLML	64.66030502	ASPM	325.0000000	TPSE	385590.8203	IDVL	1573.991256
	RDR01	TARGET SITE	RGR	73798.98828	AZR	-90.42693042	ELR	76.57298755	DRGR	1254.693450
	PICH	.1264325157	YAW	.0237112259	ROLL	.0107482779				

6 FEB. 1968 21 HR 27 MIN 32.18 SEC TMST 325989.2070 J.D. 2439893.3940 3 DAY 18 HR 33.2 MIN

SELENOGRAPHIC

LEM	ALT	18352.56250	R	5720747.437	VI	1308.468887	X	5007629.687	VX	-454.9604911
74	LTDM	-3.005052924			FPVI	8.429531097	Y	-2749664.125	VY	-1226.802154
	LONM	-28.77096557			AZVI	270.1074142	Z	-299904.6132	VZ	-7.632410228
	A	2943684.750	ASND	243.2770881	VVEN	-58782359.50	APOG	3.626988500	VAPG	1293.500045
	TIMP	50486.22558	LTDI	-3.000579863	LONI	-30.46239852	CRIP	40.29359054		
	WT	7266.638854	ATLI	66.86929035	VA	1323.512420	AAAP	14.79487347	VIR	191.8122100
	DVV	12.21472978	AMIS	271.6751861	FPVA	8.333032608	AAAY	1.549568802	VIT	1294.333374
2"	RANG	12.627462C2	RLAT	-.0105482233	AZVA	270.1061668	AAAT	14.86881816	VAT	-1309.539306
	F	3000.000000	DWT	-9.230769157			VISN	8619.516113	DVI	13.28289449
	VLGR	259.4470214	VLML	66.41613101	ASPM	325.0000000	TPSE	397590.8203	IDVL	1626.988342
	RDR01	TARGET SITE	RGR	78913.54589	AZR	-90.39622592	ELR	76.93719959	DRGR	1302.613891
1"	PICH	.1264325157	YAW	.0237112259	ROLL	.0105480522				

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6 FEB. 1968 21 HR 27 MIN 36.18 SEC TMST 325993.2070 J.D. 2439893.3942 3 DAY 18 HR 33.2 MIN

SELENOGRAPHIC

LEM	ALT	19121.43750	R	5721516.250	VI	1356.940872	X	5005695.937	VX	-478.9183349
74	LTDM	-3.004924446			FPVI	8.160128593	Y	-2754777.125	VY	-1269.601577
	LONM	-28.82524108			AZVI	270.1693725	Z	-299932.1093	VZ	-6.131508290
	A	2950577.875	ASND	244.4022808	VVEN	-58645032.00	APOG	3.761500865	VAPG	1342.326141
	TIMP	50492.55908	LTDI	-2.998193055	LONI	-30.61185073	CRIP	42.73819017		
	WT	7229.715759	ATLI	67.32223129	VA	1371.996536	AAAP	14.60490691	VIR	192.604330
	DVV	12.31878280	AMIS	271.7814407	FPVA	8.069982528	AAAY	1.595163345	VIT	1343.202178
	RANG	13.51468980	RLAT	-.0103510447	AZVA	270.1674766	AAAT	14.68445110	VAT	-1358.41011
	F	3000.000000	DWT	-9.230769157			VISN	8672.783081	DVI	13.35073196
	VLGR	262.4987220	VLML	68.13848590	ASPM	325.0000000	TPSE	409590.8203	IDVL	1680.255401
	RDR01	TARGET SITE	RGR	84353.86230	AZR	-90.36398410	ELR	77.31078910	DRGR	1350.974746
	PICH	.1264325157	YAW	.0237112259	ROLL	.0103508743				

6 FEB. 1968 21 HR 27 MIN 40.18 SEC TMST 325997.2070 J.D. 2439893.3942 3 DAY 18 HR 33.3 MIN

SELENOGRAPHIC

LEM	ALT	19893.12500	R	5722287.937	VI	1405.816970	X	5003731.625	VX	-503.3235397
74	LTDM	-3.004732787			FPVI	7.899538040	Y	-2759941.500	VY	-1312.618164
	LONM	-28.88010406			AZVI	270.2313880	Z	-299953.4375	VZ	-4.512074649
	A	2957799.750	ASND	245.5254516	VVEN	-58501843.00	APOG	3.895498901	VAPG	1391.558181
	TIMP	50498.84765	LTDI	-2.995514929	LONI	-30.76407241	CRIP	45.22837972		
	WT	7192.792724	ATLI	67.77321434	VA	1420.884124	AAAP	14.40858983	VIR	193.2106246
	DVV	12.42333650	AMIS	271.8874893	FPVA	7.815244674	AAAY	1.640440568	VIT	1392.476562
	RANG	14.41198647	RLAT	-.0101572572	AZVA	270.2288856	AAAT	14.49403905	VAT	-1407.686523
	F	3000.000000	DWT	-9.230769157			VISN	8726.322875	DVI	13.41926586
	VLGR	265.4527931	VLML	69.82585906	ASPM	325.0000000	TPSE	421590.8203	IDVL	1733.795135
	RDR01	TARGET SITE	RGR	89855.06054	AZR	-90.33158588	ELR	77.64925003	DRGR	1399.683059

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PICH .1264325157 YAW .0237112259 ROLL .0101570026

6 FEB. 1968 21 HR 27 MIN 44.18 SEC TMST 326001.2070 J.D. 2439893.3942 3 DAY 18 HR 33.4 MIN

SELENOGRAPHIC

LEM	ALT	20666.87500	R	5723061.687	VI	1455.098190	X	5001668.687	VX	-528.2096786
74	LTDM	-3.004472702			FPVI	7.647146225	Y	-2765278.281	VY	-1355.838348
	LONM	-28.93693923			AZVI	270.2934646	Z	-299968.0585	VZ	-2.772611916
	A	2965360.687	ASND	246.6443767	VVEN	-58352676.50	APOG	4.028859138	VAPG	1441.196853
	TIMP	50505.09179	LTDI	-2.992532283	LONI	-30.92043685	CRIP	47.78615713		
	WT	7155.869628	ATLI	68.22222614	VA	1470.176223	AAAP	14.20649886	VIR	193.6327686
	DVV	12.52839934	AMIS	271.9933395	FPVA	7.568256378	AAAY	1.685409456	VIT	1442.157089
	RANG	15.34176957	RLAT	-.0099664423	AZVA	270.2904014	AAAT	14.29817378	VAT	-1457.369033
	F	3000.000000	DWT	-9.230769157			VISN	8780.138183	DVI	13.48850703
	VLGR	268.3123245	VLML	71.47693729	ASPM	325.0000000	TPSE	433590.8203	ICVL	1787.610519
	RDRC1	TARGET SITE	RGR	95551.84765	AZR	-90.29842948	ELR	77.97718143	DRGR	1448.787506

PICH .1264325157 YAW .0237112259 ROLL .0099660202

6 FEB. 1968 21 HR 27 MIN 48.18 SEC TMST 326005.2070 J.D. 2439893.3943 3 DAY 18 HR 33.4 MIN

SELENOGRAPHIC

LEM	ALT	21441.93750	R	5723836.750	VI	1504.785583	X	4999405.750	VX	-553.6312103
74	LTDM	-3.004139483			FPVI	7.402410507	Y	-2770968.125	VY	-1399.239562
	LONM	-28.99782943			AZVI	270.3556098	Z	-299975.4375	VZ	-.9116198048
	A	2973271.593	ASND	247.7561626	VVEN	-58197419.50	APOG	4.161458253	VAPG	1491.242889
	TIMP	50511.29394	LTDI	-2.989232391	LONI	-31.08300781	CRIP	50.44578456		
	WT	7118.946533	ATLI	68.66925048	VA	1519.873962	AAAP	13.99914932	VIR	193.8725051
	DVV	12.63398015	AMIS	272.0990028	FPVA	7.328518867	AAAY	1.730079755	VIT	1492.244308
	RANG	16.33729434	RLAT	-.0097785253	AZVA	270.3520202	AAAT	14.09738659	VAT	-1507.458221
	F	3000.000000	DWT	-9.230769157			VISN	8834.231933	DVI	13.55846655

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VLGR	271.0802116	VLML	73.09058189	ASPM	325.0000000	TPSE	445590.8203	IDVL	1841.704193
RDRO1	TARGET SITE	RGR	101646.2460	AZR	-90.26414680	ELR	78.32099533	DRGR	1498.345916
PICH	.1264325157	YAW	.0237112259	ROLL	.0097785245				

6 FEB. 1968 21 HR 27 MIN 52.18 SEC TMST 326009.2070 J.D. 2439893.3943 3 DAY 18 HR 33.5 MIN

	SELENOGRAPHIC								
LEM	ALT	22217.62500	R	5724612.437	VI	1554.880249	X	4997139.687	VX	-579.4933013
74	LTDM	-3.003729105			FPVI	7.164849281	Y	-2776652.250	VY	-1442.857925
	LONM	-29.05866622			AZVI	270.4178199	Z	-299975.1484	VZ	1.072405397
	A	2981543.750	ASND	248.8641109	VVEN	-58035954.00	APOG	4.293183088	VAPG	1541.697006
	TIMP	50517.45458	LTDI	-2.985603481	LONI	-31.24766921	CRIP	53.13931083		
	WT	7082.023498	ATLI	69.11426925	VA	1569.978439	AAAP	13.78699886	VIR	193.9317378
	DVV	12.74008762	AMIS	272.2044868	FPVA	7.095591545	AAAY	1.774459764	VIT	1542.738815
	RANG	17.33304286	RLAT	-.0095936428	AZVA	270.4137382	AAAT	13.89215302	VAT	-1557.954666
	F	3000.000000	DWT	-9.230769157			VISN	8888.606933	DVI	13.62915527
	VLGR	273.7591590	VLML	74.66581535	ASPM	325.0000000	TPSE	457590.8203	IDVL	1896.079162
	RDRO1	TARGET SITE	RGR	107739.3046	AZR	-90.22982215	ELR	78.62850856	DRGR	1548.242446
	PICH	.1264325157	YAW	.0237112259	ROLL	.0095936837				

6 FEB. 1968 21 HR 27 MIN 56.18 SEC TMST 326013.2070 J.D. 2439893.3943 3 DAY 18 HR 33.6 MIN

	SELENOGRAPHIC								
LEM	ALT	22993.12500	R	5725388.000	VI	1605.383361	X	4994769.125	VX	-605.8489074
74	LTDM	-3.003236949			FPVI	6.934036254	Y	-2782511.218	VY	-1486.671707
	LONM	-29.12152862			AZVI	270.4801063	Z	-299966.6718	VZ	3.180977016
	A	2990188.875	ASND	249.9653606	VVEN	-57868162.50	APOG	4.423868954	VAPG	1592.560073
	TIMP	50523.57617	LTDI	-2.981632798	LONI	-31.41648483	CRIP	55.90101242		
	WT	7045.100402	ATLI	69.55726909	VA	1620.490890	AAAP	13.57045602	VIR	193.8123817
	DVV	12.84673178	AMIS	272.3098068	FPVA	6.869078636	AAAY	1.818558022	VIT	1593.641265

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RANG	18.36118006	RLAT	-.0094116803	AZVA	270.4755630	AAAT	13.68289971	VAT	-1608.859054
F	3000.000000	DWT	-9.230769157			VISN	8943.266113	DVI	13.70058512
VLGR	276.3517150	VLML	76.20180320	ASPM	325.0000000	TPSE	469590.8203	ICVL	1950.738494
RDR01	TARGET SITE	RGR	114032.7138	AZR	-90.19496154	ELR	78.92799186	DRGR	1598.538070
PICH	.1264325157	YAW	.0237112259	ROLL	.0094117628				

6 FEB. 1968 21 HR 28 MIN .18 SEC TMST 326017.2070 J.D. 2439893.3944 3 DAY 18 HR 33.6 MIN

	SELENOGRAPHIC								
LEM	ALT	23767.875000	R	5726162.687	VI	1656.296218	X	4992258.812	VX	-632.7205963
74	LTDM	-3.002657115			FPVI	6.709588050	Y	-2788605.531	VY	-1530.670608
	LONM	-29.18711090			AZVI	270.5424613	Z	-299949.3945	VZ	5.415571630
	A	2999219.437	ASND	251.0584297	VVEN	-57693922.50	APOG	4.553454220	VAPG	1643.832946
	TIMP	50529.65966	LTDI	-2.977306634	LONI	-31.59014511	CRIP	58.74217462		
	WT	7008.177307	ATLI	69.99823570	VA	1671.412628	AAAP	13.34988844	VIR	193.5165367
	DVV	12.95392215	AMIS	272.4149627	FPVA	6.648631095	AAAY	1.862382650	VIT	1644.952438
	RANG	19.43345260	RLAT	-.0092329014	AZVA	270.5374908	AAAT	13.47001433	VAT	-1660.172134
	F	3000.000000	DWT	-9.230769157			VISN	8998.212524	DVI	13.77276766
	VLGR	278.8602790	VLML	77.69784355	ASPM	325.0000000	TPSE	481590.8203	ICVL	2005.684890
	RDR01	TARGET SITE	RGR	120595.0371	AZR	-90.15950107	ELR	79.22671031	DRGR	1649.249725
	PICH	.1264325157	YAW	.0237112259	ROLL	.0092326925				

6 FEB. 1968 21 HR 28 MIN 4.18 SEC TMST 326021.2070 J.D. 2439893.3944 3 DAY 18 HR 33.7 MIN

	SELENOGRAPHIC								
LEM	ALT	24541.062500	R	5726935.875	VI	1707.620056	X	4989673.375	VX	-660.0765762
74	LTDM	-3.001987487			FPVI	6.491161346	Y	-2794816.531	VY	-1574.866577
	LONM	-29.25406646			AZVI	270.6049003	Z	-299923.0429	VZ	7.777799546
	A	3008648.312	ASND	252.1439895	VVEN	-57513114.00	APOG	4.681805133	VAPG	1695.516510
	TIMP	50535.70703	LTDI	-2.972614824	LONI	-31.76729965	CRIP	61.64060401		

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WT	6971.254272	ATLI	70.43715190	VA	1722.744949	AAAP	13.12562847	VIR	193.0463294
DVV	13.06166863	AMIS	272.5199737	FPVA	6.433930397	AAAY	1.905941039	VIT	1696.673019
RANG	20.52858996	RLAT	-.0090570282	AZVA	270.5995216	AAAT	13.25385046	VAT	-1711.894638
F	3000.000000	DWT	-9.230769157			VISN	9053.449218	DVI	13.84571468
VLGR	281.2871284	VLML	79.15335464	ASPM	325.0000000	TPSE	493590.8203	IDVL	2060.921600
RDRO1	TARGET SITE	RGR	127294.0869	AZR	-90.12375831	ELR	79.51128768	DRGR	1700.345520
PICH	.1264325157	YAW	.0237112259	ROLL	.0090567369				

6 FEB. 1968 21 HR 28 MIN 8.18 SEC TMST 326025.2070 J.D. 2439893.3945 3 DAY 18 HR 33.8 MIN

SELENOGRAPHIC

LEM	ALT	25312.000000	R	5727706.812	VI	1759.356292	X	4986876.750	VX	-687.9972152
74	LTDM	-3.001221537			FPVI	6.278451919	Y	-2801384.156	VY	-1619.224807
	LONM	-29.32515335			AZVI	270.6674232	Z	-299886.9609	VZ	10.26915907
	A	3018489.093	ASND	253.2185554	VVEN	-57325612.00	APOG	4.808829188	VAPG	1747.611801
	TIMP	50541.72021	LTDI	-2.967542707	LONI	-31.95070266	CRIP	64.64133071		
	WT	6934.331176	ATLI	70.87399959	VA	1774.489257	AAAP	12.89797294	VIR	192.4040298
	DVV	13.16998195	AMIS	272.6248397	FPVA	6.224696159	AAAY	1.949240937	VIT	1748.803955
	RANG	21.69128727	RLAT	-.0088838702	AZVA	270.6616630	AAAT	13.03472805	VAT	-1764.027435
	F	3000.000000	DWT	-9.230769157			VISN	9108.979370	DVI	13.91943883
	VLGR	283.6344184	VLML	80.56786346	ASPM	325.0000000	TPSE	505590.8203	IDVL	2116.451599
	RDRO1	TARGET SITE	RGR	134399.9980	AZR	-90.08757781	ELR	79.80696105	DRGR	1751.886856
	PICH	.1264325157	YAW	.0237112259	ROLL	.0088834971				

6 FEB. 1968 21 HR 28 MIN 12.18 SEC TMST 326029.2070 J.D. 2439893.3945 3 DAY 18 HR 33.8 MIN

SELENOGRAPHIC

LEM	ALT	26080.062500	R	5728474.875	VI	1811.506286	X	4984068.187	VX	-716.3719863
74	LTDM	-3.000355303			FPVI	6.071180343	Y	-2807950.156	VY	-1663.790878
	LONM	-29.39626693			AZVI	270.7300262	Z	-299840.6914	VZ	12.89118754

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A	3028755.906	ASND	254.2855606	VVEN	-57131291.00	APOG	4.934392511	VAPG	1800.119842
TIMP	50547.70019	LTDI	-2.962078243	LONI	-32.13624954	CRIP	67.67703342		
WT	6897.408081	ATLI	71.30876636	VA	1826.646942	AAAP	12.66719555	VIR	191.5919628
DVV	13.27887260	AMIS	272.7295761	FPVA	6.020670890	AAAY	1.992288976	VIT	1801.346023
RANG	22.85490751	RLAT	-.0087132820	AZVA	270.7239074	AAAT	12.81294560	VAT	-1816.571365
F	3000.000000	DWT	-9.230769157			VISN	9164.805786	DVI	13.99395203
VLGR	285.9042015	VLML	81.94099998	ASPM	325.0000000	TPSE	517590.8203	ICVL	2172.278106
RDRO1	TARGET SITE	RGR	141511.2109	AZR	-90.05114555	ELR	80.07789230	DRGR	1803.785659
PICH	.1264325157	YAW	.0237112259	ROLL	.0087129924				

6 FEB. 1968 21 HR 28 MIN 16.18 SEC TMST 326033.2070 J.D. 2439893.3945 3 DAY 18 HR 33.9 MIN

SELENOGRAPHIC

LEM	ALT	26844.50000	R	5729239.312	VI	1864.071517	X	4981145.062	VX	-745.261940
74	LTDM	-2.999383479			FPVI	5.869099617	Y	-2814694.718	VY	-1708.538131
	LONM	-29.46948242			AZVI	270.7927169	Z	-299783.6523	VZ	15.64543032
A	3039463.687	ASND	255.3422908	VVEN	-56930022.00	APOG	5.058454096	VAPG	1853.041641
TIMP	50553.64892	LTDI	-2.956207722	LONI	-32.32603073	CRIP	70.78260326		
WT	6860.485046	ATLI	71.74143600	VA	1879.219512	AAAP	12.43354058	VIR	190.6125926
DVV	13.38835155	AMIS	272.8341865	FPVA	5.821626663	AAAY	2.035091936	VIT	1854.300247
RANG	24.05197906	RLAT	-.0085456968	AZVA	270.7862625	AAAT	12.58877372	VAT	-1869.527420
F	3000.000000	DWT	-9.230769157			VISN	9220.932006	DVI	14.06926715
VLGR	288.0984382	VLML	83.27248668	ASPM	325.0000000	TPSE	529590.8203	ICVL	2228.404266
RDRO1	TARGET SITE	RGR	148830.8125	AZR	-90.01438713	ELR	80.34340381	DRGR	1856.089035
PICH	.1264325157	YAW	.0237112259	ROLL	.0085454081				

6 FEB. 1968 21 HR 28 MIN 16.18 SEC TMST 326033.2070 J.D. 2439893.3945 3 DAY 18 HR 33.9 MIN

SELENOGRAPHIC

CM-SM	ALT	481786.0000	R	6184181.000	VI	5291.305053	X	5007848.437	VX	-3072.744110

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120	LTDM	-2.716322034			FPVI	.0074844360	Y	-3616580.343	VY	-4288.711914
	LONM	-35.83615493			AZVI	274.3826255	Z	-293074.5625	VZ	403.8569641
	A	6188020.687	ASND	292.4331779	VVEN	-27963179.75	APOG	80.58739757	VAPG	5284.577331
	ECC	.65167714-03	ARGP	316.2709045	ARGL	328.1653747	PERG	79.26003837	VPER	5291.469543
	INCL	174.8452491	MA	11.87903344	TA	11.89446818	PERD	122.5425968	MCON	ELLIPSE
	LTDE	-3.339438527	LONE	-.9447517395	LTDS	-1.415077522	LONS	84.87565326		
	WT	35799.86279	ATLI	64.91378879	VA	5307.698730	AAAP	-27.11357784	VIR	.691133976C
	DVV	4.525905311	AMIS	289.3684959	FPVA	.0074625015	AAAY	-11.89185750	VIT	5291.304687
	RANG	128.2789001	RLAT	170.0576610	AZVA	274.3690643	AAAT	28.97059464	VAT	-5307.698669

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	326033.2070	RCL	802358.1171	OPCL	1.327876836	XCL	-634885.7968	VXCL	-3472.571472
		ACL	178.3224773	DRCL	2504.439117	YCL	18593.64453	VYCL	-104.8880767
		ECL	232.3247299			ZCL	-490257.9570	VZCL	394.2393455

6 FEB. 1968 21 HR 28 MIN 20.18 SEC TMST 326037.2070 J.D. 2439893.3947 3 DAY 18 HR 34.0 MIN

SELENOGRAPHIC

LEM	ALT	27604.68750	R	5729999.562	VI	1917.053482	X	4978037.812	VX	-774.7135391
74	LTDM	-2.998300552			FPVI	5.671984672	Y	-2821737.843	VY	-1753.445053
	LONM	-29.54618835			AZVI	270.8554992	Z	-299715.2851	VZ	18.53346252
	A	3050628.000	ASND	256.3867721	VVEN	-56721677.00	APOG	5.180859625	VAPG	1906.378417
	TIMP	50559.56884	LTDI	-2.949917376	LONI	-32.52143478	CRIP	73.97986984		
	WT	6823.561950	ATLI	72.17199134	VA	1932.208465	AAAP	12.19723284	VIR	189.4684867
	DVV	13.49843049	AMIS	272.9386825	FPVA	5.627352714	AAAY	2.077656805	VIT	1907.667617
2"	RANG	25.30745053	RLAT	-.0083808059	AZVA	270.8487243	AAAT	12.36246597	VAT	-1922.896575
	F	3000.000000	DWT	-9.230769157			VISN	9277.361083	DVI	14.14539778
	VLGR	290.2190055	VLML	84.56213188	ASPM	325.0000000	TPSE	541590.8203	ICVL	2284.833404
	RDR01	TARGET SITE	RGR	156495.0234	AZR	-89.97739887	ELR	80.61325454	DRGR	1908.822937
1"	PICH	.1264325157	YAW	.0237112259	ROLL	.0083804360				

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6 FEB. 1968 21 HR 28 MIN 24.18 SEC TMST 326041.2070 J.D. 2439893.3947 3 DAY 18 HR 34.0 MIN

SELENOGRAPHIC

LEM	ALT	28360.06250	R	5730754.875	VI	1970.453735	X	4974879.250	VX	-804.6483306
74	LTDM	-2.997102588			FPVI	5.479631423	Y	-2828841.812	VY	-1798.545059
	LONM	-29.62365341			AZVI	270.9183731	Z	-299635.1406	VZ	21.55683779
	A	3062265.281	ASND	257.4211654	VVEN	-56506122.50	APOG	5.301557660	VAPG	1960.131301
	TIMP	50565.46093	LTDI	-2.943194687	LONI	-32.71976089	CRIP	77.22518825		
	WT	6786.638854	ATLI	72.60041618	VA	1985.615402	AAAP	11.95847535	VIR	188.1623115
	DVV	13.60912060	AMIS	273.0430717	FPVA	5.437664032	AAAY	2.119988679	VIT	1961.449172
	RANG	26.57420754	RLAT	-.0082184691	AZVA	270.9112968	AAAT	12.13425648	VAT	-1976.679901
	F	3000.000000	DWT	-9.230769157			VISN	9334.096313	DVI	14.22235655
	VLGR	292.2677001	VLML	85.80982589	ASPM	325.0000000	TPSE	553590.8203	IDVL	2341.568634
	RDR01	TARGET SITE	RGR	164236.4101	AZR	-89.94009780	ELR	80.86823177	DRGR	1961.937561
	PICH	.1264325157	YAW	.0237112259	ROLL	.0082179364				

6 FEB. 1968 21 HR 28 MIN 28.18 SEC TMST 326045.2070 J.D. 2439893.3947 3 DAY 18 HR 34.1 MIN

SELENOGRAPHIC

LEM	ALT	29109.87500	R	5731504.687	VI	2024.273895	X	4971599.937	VX	-835.1117935
74	LTDM	-2.995784193			FPVI	5.291854858	Y	-2836126.500	VY	-1843.817291
	LONM	-29.70326995			AZVI	270.9813423	Z	-299542.6367	VZ	24.71712541
	A	3074392.656	ASND	258.4435577	VVEN	-56283225.00	APOG	5.420435011	VAPG	2014.301635
	TIMP	50571.32763	LTDI	-2.936025321	LONI	-32.92240142	CRIP	80.54145145		
	WT	6749.715820	ATLI	73.02669715	VA	2039.441925	AAAP	11.71745586	VIR	186.6968002
	DVV	13.72043406	AMIS	273.1473541	FPVA	5.252386093	AAAY	2.162094742	VIT	2015.646072
	RANG	27.87663936	RLAT	-.0080590385	AZVA	270.9739799	AAAT	11.90436661	VAT	-2030.878540
	F	3000.000000	DWT	-9.230769157			VISN	9391.140991	DVI	14.30015730
	VLGR	294.2462463	VLML	87.01553153	ASPM	325.0000000	TPSE	565590.8203	IDVL	2398.613250
	RDR01	TARGET SITE	RGR	172191.0781	AZR	-89.90254974	ELR	81.11869812	DRGR	2015.460205

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PICH .1264325157 YAW .0237112259 ROLL .0080585887

6 FEB. 1968 21 HR 28 MIN 32.18 SEC TMST 326049.2070 J.D. 2439893.3948 3 DAY 18 HR 34.2 MIN

	SELENOGRAPHIC									
LEM	ALT	29853.43750	R	5732248.250	VI	2078.515563	X	4968095.437	VX	-866.1763992
74	LTDM	-2.994340002			FPVI	5.108487129	Y	-2843771.218	VY	-1889.227523
	LONM	-29.78711318			AZVI	271.0444068	Z	-299437.2148	VZ	28.01591610
	A	3087028.312	ASND	259.4513969	VVEN	-56052851.00	APOG	5.537429988	VAPG	2068.890563
	TIMP	50577.17089	LTDI	-2.928395032	LONI	-33.13146591	CRIP	83.96297550		
	WT	6712.792724	ATLI	73.45081710	VA	2093.689697	AAAP	11.47434651	VIR	185.0748157
	DVV	13.83238339	AMIS	273.2515449	FPVA	5.071366310	AAAY	2.203980028	VIT	2070.259460
	RANG	29.24807143	RLAT	-.0079018870	AZVA	271.0367736	AAAT	11.67300438	VAT	-2085.493652
	F	3000.000000	DWT	-9.230769157			VISN	9448.498657	DVI	14.37881398
	VLGR	296.1563148	VLML	88.17928123	ASPM	325.0000000	TPSE	577590.8203	IDVL	2455.970916
	RDRC1	TARGET SITE	RGR	180563.0039	AZR	-89.86503410	ELR	81.37685775	DRGR	2069.424987
	PICH	.1264325157	YAW	.0237112259	ROLL	.0079016010				

6 FEB. 1968 21 HR 28 MIN 36.18 SEC TMST 326053.2070 J.D. 2439893.3948 3 DAY 18 HR 34.2 MIN

	SELENOGRAPHIC									
LEM	ALT	30590.25000	R	5732985.000	VI	2133.180541	X	4964567.812	VX	-897.7125625
74	LTDM	-2.992765039			FPVI	4.929376602	Y	-2851419.281	VY	-1934.833847
	LONM	-29.87107849			AZVI	271.1075706	Z	-299318.3242	VZ	31.45480370
	A	3100191.156	ASND	260.4483489	VVEN	-55814859.00	APOG	5.652419149	VAPG	2123.899658
	TIMP	50582.99218	LTDI	-2.920289576	LONI	-33.34287261	CRIP	87.42286109		
	WT	6675.869628	ATLI	73.87275791	VA	2148.360412	AAAP	11.22930264	VIR	183.2993679
	DVV	13.94498109	AMIS	273.3556518	FPVA	4.894461631	AAAY	2.245650708	VIT	2125.290679
	RANG	30.62120962	RLAT	-.0077475726	AZVA	271.0996856	AAAT	11.44036471	VAT	-2140.526519
	F	3000.000000	DWT	-9.230769157			VISN	9506.172729	DVI	14.45834076

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VLGR	297.999504C	VLML	89.30117321	ASPM	325.C00CC00	TPSE	589590.8203	ICVL	2513.644989
RDR01	TARGET SITE	RGR	188949.2695	AZR	-89.82708168	ELR	81.61858177	DRGR	2123.766571
PICH	.1264325157	YAW	.0237112259	ROLL	.0077473279				

6 FEB. 1968 21 HR 28 MIN 40.18 SEC TMST 326057.2070 J.C. 2439893.3949 3 DAY 18 HR 34.3 MIN

	SELENOGRAPHIC								
LEM	ALT	31319.5625C	R	5733714.437	VI	2188.270507	X	4960844.500	VX	-929.8386764
74	LTCM	-2.991053581			FPVI	4.754384040	Y	-2859368.937	VY	-1980.580856
	LONM	-29.95861434			AZVI	271.1708374	Z	-299185.3632	VZ	35.03544902
	A	3113901.375	ASND	261.4305992	VVEN	-55569112.50	APOG	5.765392243	VAPG	2179.330230
	TIMP	50588.79443	LTDI	-2.911693304	LONI	-33.56011962	CRIP	90.97884845		
	WT	6638.946533	ATLI	74.29250526	VA	2203.455932	AAAP	10.98247158	VIR	181.3735466
	DVV	14.05824077	AMIS	273.4596786	FPVA	4.721543312	AAAY	2.287111908	VIT	2180.741027
	RANG	32.05346059	RLAT	-.0075958384	AZVA	271.1627120	AAAT	11.20663762	VAT	-2195.978515
	F	3000.000000	DWT	-9.230769157			VISN	9564.166625	DVI	14.53875207
	VLGR	299.7773780	VLML	90.38136863	ASPM	325.C00C000	TPSE	601590.8203	ICVL	2571.638885
	RDR01	TARGET SITE	RGR	197688.7421	AZR	-89.78914260	ELR	81.86365890	DRGR	2178.540252
	PICH	.1264325157	YAW	.0237112259	ROLL	.0075957161				

6 FEB. 1968 21 HR 28 MIN 44.18 SEC TMST 326061.2070 J.C. 2439893.3949 3 DAY 18 HR 34.4 MIN

	SELENOGRAPHIC								
LEM	ALT	32041.06250	R	5734435.875	VI	2243.787292	X	4957060.062	VX	-962.4656372
74	LTCM	-2.989200741			FPVI	4.583380699	Y	-2867383.031	VY	-2026.509078
	LONM	-30.04698944			AZVI	271.2342071	Z	-299037.8242	VZ	38.75935411
	A	3128180.093	ASND	262.4004554	VVEN	-55315464.50	APOG	5.876266956	VAPG	2235.183715
	TIMP	50594.58007	LTDI	-2.902591496	LONI	-33.78052139	CRIP	94.58641052		
	WT	6602.023498	ATLI	74.71004295	VA	2258.977935	AAAP	10.73398566	VIR	179.3005104
	DVV	14.17217493	AMIS	273.5636291	FPVA	4.552494049	AAAY	2.328368246	VIT	2236.611877

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RANG	33.49908113	RLAT	-.0074467151	AZVA	271.2258529	AAAT	10.97200179	VAT	-2251.850921
F	3000.000000	DWT	-9.230769157			VISN	9622.483886	DVI	14.62006270
VLGR	301.4914360	VLML	91.42008304	ASPM	325.0000000	TPSE	613590.8203	ICVL	2629.956146
RCRO1	TARGET SITE	RGR	206513.1328	AZR	-89.75082778	ELR	82.09798622	DRGR	2233.707000
PICH	.1264325157	YAW	.0237112259	ROLL	.0074465525				

6 FEB. 1968 21 HR 28 MIN 48.18 SEC TMST 326065.2070 J.D. 2439893.3949 3 DAY 18 HR 34.4 MIN

	SELENOGRAPHIC								
LEM	ALT	32753.875000	R	5735148.625	VI	2299.732666	X	4953144.062	VX	-995.6445388
74	LTDM	-2.987200915			FPVI	4.416251182	Y	-2875581.187	VY	-2072.593841
	LONM	-30.13759994			AZVI	271.2976799	Z	-298875.0820	VZ	42.62819623
	A	3143049.375	ASND	263.3562507	VVEN	-55053775.00	APOG	5.984919846	VAPG	2291.461700
	TIMP	50600.35058	LTDI	-2.892968237	LONI	-34.00550079	CRIP	98.26928043		
	WT	6565.100402	ATLI	75.12535476	VA	2314.928344	AAAP	10.48397099	VIR	177.0835742
	DVV	14.286798000	AMIS	273.6675148	FPVA	4.387206077	AAAY	2.369425207	VIT	2292.904632
	RANG	34.98149538	RLAT	-.0072999508	AZVA	271.2891120	AAAT	10.73663365	VAT	-2308.145263
	F	3000.000000	DWT	-9.230769157			VISN	9681.128295	DVI	14.70228803
	VLGR	303.1431388	VLML	92.41758918	ASPM	325.0000000	TPSE	625590.8203	ICVL	2688.600616
	RCRO1	TARGET SITE	RGR	215558.9824	AZR	-89.71233844	ELR	82.32909965	DRGR	2289.288787
	PICH	.1264325157	YAW	.0237112259	ROLL	.0072997887				

6 FEB. 1968 21 HR 28 MIN 52.18 SEC TMST 326069.2070 J.D. 2439893.3950 3 DAY 18 HR 34.5 MIN

	SELENOGRAPHIC								
LEM	ALT	33457.500000	R	5735852.187	VI	2356.108581	X	4948990.375	VX	-1029.456405
74	LTDM	-2.985048472			FPVI	4.252890586	Y	-2884142.031	VY	-2118.794860
	LONM	-30.23251342			AZVI	271.3612632	Z	-298696.5664	VZ	46.64362335
	A	3158532.812	ASND	264.2956237	VVEN	-54783895.00	APOG	6.091330349	VAPG	2348.165740
	TIMP	50606.10888	LTDI	-2.882806658	LONI	-34.23720550	CRIP	102.0623216		

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WT	6528.177307	ATLI	75.53842353	VA	2371.308990	AAAP	10.23254024	VIR	174.7261142
DVV	14.40212404	AMIS	273.7713356	FPVA	4.225579261	AAAY	2.410286694	VIT	2349.620910
RANG	36.53418254	RLAT	-.0071562651	AZVA	271.3524894	AAAT	10.50070130	VAT	-2364.863006
F	3000.000000	DWT	-9.230769157			VISN	9740.103515	DVI	14.78544366
VLGR	304.7339096	VLML	93.37420845	ASPM	325.0000000	TPSE	637590.8203	ICVL	2747.575775
RDR01	TARGET SITE	RGR	225031.1542	AZR	-89.67409610	ELR	82.56607055	DRGR	2345.313385
PICH	.1264325157	YAW	.0237112259	ROLL	.0071557807				

6 FEB. 1968 21 HR 28 MIN 56.18 SEC TMST 326073.2070 J.C. 2439893.3950 3 DAY 18 HR 34.6 MIN

SELENOGRAPHIC

LEM	ALT	34151.437500	R	5736546.250	VI	2412.917053	X	4944804.125	VX	-1063.755294
74	LTDM	-2.982738226			FPVI	4.093199729	Y	-2892710.000	VY	-2165.181762
	LONM	-30.32763290			AZVI	271.4249572	Z	-298501.7109	VZ	50.80725765
A	3174655.343	ASND	265.2224349	VVEN	-54505675.50	APOG	6.195457339	VAPG	2405.297698
TIMP	50611.85791	LTDI	-2.872089982	LONI	-34.47160339	CRIP	105.8997640		
WT	6491.254272	ATLI	75.94923400	VA	2428.121978	AAAP	9.979799866	VIR	172.2317199
DVV	14.51816773	AMIS	273.8751068	FPVA	4.067524910	AAAY	2.450957953	VIT	2406.762329
RANG	38.09037971	RLAT	-.0070145618	AZVA	271.4159851	AAAT	10.26437115	VAT	-2422.005889
F	3000.000000	DWT	-9.230769157			VISN	9799.413085	DVI	14.86954498
VLGR	306.2651367	VLML	94.29031276	ASPM	325.0000000	TPSE	649590.8203	ICVL	2806.885375
RDR01	TARGET SITE	RGR	234525.0937	AZR	-89.63532543	ELR	82.79089260	DRGR	2401.729003
PICH	.1264325157	YAW	.0237112259	ROLL	.0070142392				

6 FEB. 1968 21 HR 29 MIN .18 SEC TMST 326077.2070 J.C. 2439893.3950 3 DAY 18 HR 34.6 MIN

SELENOGRAPHIC

LEM	ALT	34835.18750	R	5737229.937	VI	2470.159973	X	4940479.562	VX	-1098.620620
74	LTDM	-2.980264365			FPVI	3.937091827	Y	-2901463.718	VY	-2211.715362
	LONM	-30.42502975			AZVI	271.4887619	Z	-298289.9062	VZ	55.12077188

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A	3191442.968	ASND	266.1344184	VVEN	-54218964.00	APOG	6.297197937	VAPG	2462.859100
TIMP	50617.60009	LTDI	-2.860800385	LONI	-34.71084213	CRIP	109.8167781		
WT	6454.331176	ATLI	76.35777091	VA	2485.369232	AAAP	9.725849628	VIR	169.6039867
DVV	14.63494420	AMIS	273.9788246	FPVA	3.912961959	AAAY	2.491442948	VIT	2464.330474
RANG	39.68385982	RLAT	-.0068757225	AZVA	271.4796066	AAAT	10.02780914	VAT	-2479.57550
F	3000.000000	DWT	-9.230769157			VISN	9859.061157	DVI	14.95460891
VLGR	307.7381629	VLML	95.16631984	ASPM	325.0000000	TPSE	661590.8203	IDVL	2866.533416
RDR01	TARGET SITE	RGR	244245.5253	AZR	-89.59641551	ELR	83.01311779	DRGR	2458.564575
PICH	.1264325157	YAW	.0237112259	ROLL	.0068752802				

6 FEB. 1968 21 HR 29 MIN 4.18 SEC TMST 326081.2070 J.D. 2439893.3951 3 DAY 18 HR 34.7 MIN

SELENOGRAPHIC

LEM	ALT	35508.12500	R	5737903.000	VI	2527.839508	X	4935979.625	VX	-1134.084426
74	LTDM	-2.977620363			FPVI	3.784484863	Y	-2910463.156	VY	-2258.378784
	LONM	-30.52540588			AZVI	271.5526809	Z	-298060.4843	VZ	59.58583831
A	3208923.593	ASND	267.0307006	VVEN	-53923607.50	APOG	6.396552085	VAPG	2520.851867
TIMP	50623.33886	LTDI	-2.848918020	LONI	-34.95571899	CRIP	113.8262882		
WT	6417.408081	ATLI	76.76401424	VA	2543.052825	AAAP	9.470780730	VIR	166.8467235
DVV	14.75246870	AMIS	274.0825042	FPVA	3.761813163	AAAY	2.531746178	VIT	2522.327239
RANG	41.32617473	RLAT	-.0067386993	AZVA	271.5433464	AAAT	9.791177749	VAT	-2537.573608
F	3000.000000	DWT	-9.230769157			VISN	9919.051269	DVI	15.04065132
VLGR	309.1543121	VLML	96.00269222	ASPM	325.0000000	TPSE	673590.8203	IDVL	2926.523620
RDR01	TARGET SITE	RGR	254261.9921	AZR	-89.55751323	ELR	83.23533058	DRGR	2515.829315
PICH	.1264325157	YAW	.0237112259	ROLL	.0067386186				

6 FEB. 1968 21 HR 29 MIN 8.18 SEC TMST 326085.2070 J.D. 2439893.3951 3 DAY 18 HR 34.8 MIN

SELENOGRAPHIC

LEM	ALT	36169.75000	R	5738564.687	VI	2585.957641	X	4931371.375	VX	-1170.098098

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74	LTDM	-2.974801987				FPVI	3.635303497	Y	-2919590.218	VY	-2305.195312
	LONM	-30.62741088				AZVI	271.6167144	Z	-297812.9492	VZ	64.2C410156
	A	3227126.375	ASND	267.9124908		VVEN	-53619449.50	APOG	6.493437588	VAPG	2579.277709
	TIMP	50629.07666	LTDI	-2.836425125		LONI	-35.2C497131	CRIP	117.9078321		
	WT	6380.485046	ATLI	77.16794967		VA	2601.174865	AAAP	9.214681386	VIR	163.9637374
	DVV	14.87075638	AMIS	274.1861419		FPVA	3.614008903	AAAY	2.571871459	VIT	2580.754302
	RANG	42.99503183	RLAT	-.0066046136		AZVA	271.6072158	AAAT	9.554644942	VAT	-2596.002014
	F	30C0.000CCC	DWT	-9.230769157				VISN	9979.387695	DVI	15.1276896C
	VLGR	31C.5148735	VLML	96.79993534		ASPM	325.C000000	TPSE	685590.8203	ICVL	2986.859832
	RDRO1	TARGET SITE	RGR	264440.5234		AZR	-89.51835536	ELR	83.45261287	DRGR	2573.509429
	PICH	.1264325157	YAW	.0237112259		ROLL	.0066045332				

6 FEB. 1968 21 HR 29 MIN 12.18 SEC TMST 326089.2070 J.C. 2439893.3953 3 DAY 18 HR 34.8 MIN

SELENOGRAPHIC

LEM	ALT	36819.62500	R	5739214.375		VI	2644.516571	X	4926512.625	VX	-1206.777709
74	LTDM	-2.971802324				FPVI	3.489477157	Y	-2929081.875	VY	-2352.104949
	LONM	-30.73380661				AZVI	271.6808662	Z	-297546.5937	VZ	68.97731304
	A	3246082.281	ASND	268.7769584		VVEN	-53306330.00	APOG	6.587751567	VAPG	2638.138732
	TIMP	50634.81689	LTDI	-2.823300153		LONI	-35.46146392	CRIP	122.1083154		
	WT	6343.561950	ATLI	77.56956195		VA	2659.737426	AAAP	8.957630395	VIR	160.9590473
	DVV	14.98982465	AMIS	274.2897453		FPVA	3.469483375	AAAY	2.611821860	VIT	2639.613616
	RANG	44.73577070	RLAT	-.0064728231		AZVA	271.6712074	AAAT	9.318376302	VAT	-2654.862579
	F	30C0.0000CC	DWT	-9.230769157				VISN	10040.07421	DVI	15.21574139
	VLGR	311.8211059	VLML	97.55859279		ASPM	325.0000000	TPSE	697590.8203	ICVL	3047.546508
	RDRO1	TARGET SITE	RGR	275054.0937		AZR	-89.47957324	ELR	83.67447853	DRGR	2631.635314
	PICH	.1264325157	YAW	.0237112259		ROLL	.0064726627				

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6 FEB. 1968 21 HR 29 MIN 16.18 SEC TMST 326093.2070 J.D. 2439893.3953 3 DAY 18 HR 34.9 MIN

SELENOGRAPHIC

LEM	ALT	37457.25000	R	5739852.062	VI	2703.518585	X	4921611.375	VX	-1243.960968
74	LTDM	-2.968616068			FPVI	3.346945762	Y	-2938584.437	VY	-2399.189788
	LONM	-30.84048461			AZVI	271.7451362	Z	-297260.8945	VZ	73.90710735
	A	3265824.625	ASND	269.6281051	VVEN	-52984086.00	APOG	6.679566025	VAPG	2697.436889
	TIMP	50640.56396	LTDI	-2.809521257	LONI	-35.72125244	CRIP	126.3629617		
	WT	6306.638854	ATLI	77.96883106	VA	2718.742919	AAAP	8.699702739	VIR	157.8367805
	DVV	15.10968911	AMIS	274.3933219	FPVA	3.328182220	AAAY	2.651602178	VIT	2698.907226
	RANG	46.48150157	RLAT	-.0063438062	AZVA	271.7353286	AAAT	9.082542538	VAT	-2714.157440
	F	3000.000000	DWT	-9.230769157			VISN	10101.11499	DVI	15.30482399
	VLGR	313.0742530	VLML	98.27925014	ASPM	325.0000000	TPSE	709590.8203	ICVL	3108.587310
	RDR01	TARGET SITE	RGR	285697.5156	AZR	-89.44020652	ELR	83.88714218	DRGR	2690.166198
	PICH	.1264325157	YAW	.0237112259	ROLL	.0063436860				

6 FEB. 1968 21 HR 29 MIN 16.18 SEC TMST 326093.2070 J.D. 2439893.3953 3 DAY 18 HR 34.9 MIN

SELENOGRAPHIC

CM-SM	ALT	481830.0000	R	6184225.000	VI	5291.237731	X	4816320.562	VX	-3289.170562
120	LTDM	-2.488085240			FPVI	.0084123611	Y	-3869834.218	VY	-4123.752319
	LONM	-38.78130340			AZVI	274.5160331	Z	-268467.2968	VZ	416.1953277
	A	6187951.062	ASND	292.4241523	VVEN	-27963493.50	APOG	80.55220890	VAPG	5284.730224
	ECC	.62839539-03	ARGP	317.3994483	ARGL	331.1073341	PERG	79.27229976	VPER	5291.376220
	INCL	174.8451633	MA	13.69074320	TA	13.70788407	PERD	122.5405302	MCON	ELLIPSE
	LTDE	-3.340262025	LONE	-.9461708069	LTDS	-1.415074139	LONS	84.86674594		
	WT	35799.86279	ATLI	62.07496118	VA	5307.631652	AAAP	-30.06267189	VIR	.7766716480
	DVV	4.525778591	AMIS	289.8859405	FPVA	.0083856582	AAAY	-11.67045319	VIT	5291.237426
	RANG	176.5911445	RLAT	169.1971931	AZVA	274.5020561	AAAT	31.57323551	VAT	-5307.631591

COORDINATES OF LEM RELATIVE TO CM-SM

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TMST	326093.2070	RCL	937625.4375	OPCL	.7323654145	XCL	-793417.2031	VXCL	-2642.403015
		ACL	179.1346092	DRCL	1953.014511	YCL	11984.57812	VYCL	-111.9353485
		ECL	237.8080043			ZCL	-499486.7265	VZCL	528.5233383

6 FEB. 1968 21 HR 29 MIN 20.18 SEC TMST 326097.2070 J.C. 2439893.3953 3 DAY 18 HR 35.0 MIN

SELENOGRAPHIC

LEM	ALT	38082.18750	R	5740477.000	VI	2762.965820	X	4916560.187	VX	-1281.735839
74	LTDM	-2.965236753			FPVI	3.207649230	Y	-2948275.593	VY	-2446.404144
	LONM	-30.94952774			AZVI	271.8095283	Z	-296955.1367	VZ	78.99526786
	A	3286388.156	ASND	270.4638481	VVEN	-52652555.00	APOG	6.768788278	VAPG	2757.174102
	TIMP	50646.32177	LTDI	-2.795065045	LONI	-35.98653793	CRIP	130.7081012		
	WT	6269.715820	ATLI	78.36574077	VA	2778.193450	AAAP	8.440969109	VIR	154.6011161
	DVV	15.23036754	AMIS	274.4968757	FPVA	3.190049171	AAAY	2.691214859	VIT	2758.637084
	RANG	48.26570463	RLAT	-.0062168861	AZVA	271.7995758	AAAT	8.847320318	VAT	-2773.888458
	F	3000.000000	DWT	-9.230769157			VISN	10162.51416	DVI	15.39495575
	VLGR	314.2755317	VLML	98.96252918	ASPM	325.0000000	TPSE	721590.8203	IDVL	3169.986358
	RDR01	TARGET SITE	RGR	296575.9804	AZR	-89.40073013	ELR	84.09785938	DRGR	2749.125671
	PICH	.1264325157	YAW	.0237112259	ROLL	.0062168457				

6 FEB. 1968 21 HR 29 MIN 24.18 SEC TMST 326101.2070 J.C. 2439893.3954 3 DAY 18 HR 35.0 MIN

SELENOGRAPHIC

LEM	ALT	38694.00000	R	5741088.812	VI	2822.860809	X	4911285.875	VX	-1320.167251
74	LTDM	-2.961657732			FPVI	3.071536064	Y	-2958273.468	VY	-2493.713043
	LONM	-31.06232070			AZVI	271.8740425	Z	-296628.6445	VZ	84.24348163
	A	3307810.156	ASND	271.2827796	VVEN	-52311567.50	APOG	6.855397939	VAPG	2817.352752
	TIMP	50652.09375	LTDI	-2.779906064	LONI	-36.25888442	CRIP	135.1691188		
	WT	6232.792724	ATLI	78.76027584	VA	2838.091552	AAAP	8.181495189	VIR	151.2565574
	DVV	15.35187721	AMIS	274.6004104	FPVA	3.055036544	AAAY	2.730664700	VIT	2818.805511
	RANG	50.11134195	RLAT	-.0060924243	AZVA	271.8639526	AAAT	8.612891912	VAT	-2834.058074

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F	3000.000000	DWT	-9.230769157			VISN	10224.27600	DVI	15.48615539
VLGR	315.4261360	VLML	99.60908699	ASPM	325.0000000	TPSE	733590.8203	IDVL	3231.748352
RDR01	TARGET SITE	RGR	307826.7617	AZR	-89.36149883	ELR	84.31062126	DRGR	2808.527770
PICH	.1264325157	YAW	.0237112259	ROLL	.0060923442				

6 FEB. 1968 21 HR 29 MIN 28.18 SEC TMST 326105.2070 J.D. 2439893.3954 3 DAY 18 HR 35.1 MIN

SELENOGRAPHIC

LEM	ALT	39292.12500	R	5741686.937	VI	2883.205780	X	4905927.500	VX -1359.142166
74	LTDM	-2.957874268			FPVI	2.938554763	Y	-2968343.218	VY -2541.174987
	LONM	-31.17613601			AZVI	271.9386825	Z	-296280.9062	VZ 89.65352249
A	3330129.968	ASND	272.0876388	VVEN	-51960955.50	APOG	6.939333140	VAPG	2877.974884
TIMP	50657.88476	LTDI	-2.764019638	LONI	-36.53573608	CRIP	139.7045345		
WT	6195.869628	ATLI	79.15241813	VA	2898.439392	AAAP	7.886901199	VIR	147.8074092
DVV	15.47423624	AMIS	274.7039337	FPVA	2.923097610	AAAY	2.769952744	VIT	2879.414642
RANG	51.97360706	RLAT	-.0059704638	AZVA	271.9284629	AAAT	8.359177470	VAT	-2894.668182
F	3000.000000	DWT	-9.230769157			VISN	10286.40490	DVI	15.57844233
VLGR	316.5272407	VLML	100.2196168	ASPM	325.0000000	TPSE	745590.8203	IDVL	3293.877197
RDR01	TARGET SITE	RGR	319180.3789	AZR	-89.32184028	ELR	84.51760005	DRGR	2868.349792
PICH	.1264325157	YAW	.0237112259	ROLL	.0059703839				

6 FEB. 1968 21 HR 29 MIN 32.18 SEC TMST 326109.2070 J.D. 2439893.3955 3 DAY 18 HR 35.2 MIN

SELENOGRAPHIC

LEM	ALT	39876.25000	R	5742271.062	VI	2944.003112	X	4900304.750	VX -1398.817596
74	LTDM	-2.953879207			FPVI	2.808662414	Y	-2978779.312	VY -2588.705383
	LONM	-31.29442977			AZVI	272.0034484	Z	-295911.1992	VZ 95.22714233
A	3353389.593	ASND	272.8750305	VVEN	-51600545.50	APOG	7.020573377	VAPG	2939.042816
TIMP	50663.69921	LTDI	-2.747376352	LONI	-36.82074737	CRIP	144.3738250		
WT	6158.946594	ATLI	79.54215049	VA	2959.239471	AAAP	7.628587543	VIR	144.2583961

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DVV	15.59746289	AMIS	274.8074417	FPVA	2.794190406	AAAY	2.809082955	VIT	2940.466583
RANG	53.90964078	RLAT	-.0058509689	AZVA	271.9931030	AAAT	8.129347562	VAT	-2955.721191
F	3000.000000	DWT	-9.230769157			VISN	10348.90502	DVI	15.67183554
VLGR	317.5800056	VLML	100.7948465	ASPM	325.0000000	TPSE	757590.8203	IDVL	3356.377258
RDRO1	TARGET SITE	RGR	330978.1757	AZR	-89.28264236	ELR	84.72824764	DRGR	2928.622375
PICH	.1264325157	YAW	.0237112259	ROLL	.0058509288				

6 FEB. 1968 21 HR 29 MIN 36.18 SEC TMST 326113.2070 J.D. 2439893.3955 3 DAY 18 HR 35.2 MIN

SELENOGRAPHIC

LEM	ALT	40446.12500	R	5742840.875	VI	3005.255493	X	4894629.312	VX	-1439.014343
74	LTDM	-2.949666410			FPVI	2.681818008	Y	-2989229.531	VY	-2636.399871
	LONM	-31.41308975			AZVI	272.0683403	Z	-295518.8632	VZ	100.9661064
	A	3377634.125	ASND	273.6491127	VVEN	-5123059.00	APOG	7.099159777	VAPG	3000.558837
	TIMP	50669.54394	LTDI	-2.729945182	LONI	-37.11006927	CRIP	149.1142978		
	WT	6122.023498	ATLI	79.92945575	VA	3020.494445	AAAP	7.369572103	VIR	140.6142330
	DVV	15.72157645	AMIS	274.9109458	FPVA	2.668278694	AAAY	2.848058313	VIT	3001.964050
	RANG	55.85133886	RLAT	-.0057338660	AZVA	272.0578804	AAAT	7.900761246	VAT	-3017.219635
	F	3000.000000	DWT	-9.230769157			VISN	10411.78100	DVI	15.76635539
	VLGR	318.5855751	VLML	101.3355360	ASPM	325.0000000	TPSE	769590.8203	IDVL	3419.253356
	RDRO1	TARGET SITE	RGR	342813.9218	AZR	-89.24281215	ELR	84.93179416	DRGR	2989.314392
	PICH	.1264325157	YAW	.0237112259	ROLL	.0057337071				

6 FEB. 1968 21 HR 29 MIN 40.18 SEC TMST 326117.2070 J.D. 2439893.3955 3 DAY 18 HR 35.3 MIN

SELENOGRAPHIC

LEM	ALT	41001.06250	R	5743395.875	VI	3066.965393	X	4888791.812	VX	-1479.829223
74	LTDM	-2.945229411			FPVI	2.557983398	Y	-2999870.687	VY	-2684.205780
	LONM	-31.53419876			AZVI	272.1333656	Z	-295103.2343	VZ	106.8722352
	A	3402911.031	ASND	274.4079093	VVEN	-50849620.00	APOG	7.174968898	VAPG	3062.525573

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TIMP	50675.42285	LTDI	-2.711693733	LONI	-37.40600967	CRIP	153.9635581		
WT	6085.100402	ATLI	80.31431579	VA	3082.206726	AAAP	7.109911620	VIR	136.8798103
DVV	15.84659636	AMIS	275.0144462	FPVA	2.545325279	AAAY	2.886881053	VIT	3063.909362
RANG	57.83336830	RLAT	-.0056190034	AZVA	272.1227874	AAAT	7.673651278	VAT	-3079.165802
F	3000.000000	DWT	-9.230769157			VISN	10475.03735	DVI	15.86202204
VLGR	319.5450744	VLML	101.8424777	ASPM	325.0000000	TPSE	781590.8203	ICVL	3482.509765
RDR01	TARGET SITE	RGR	354893.3164	AZR	-89.20289707	ELR	85.13389968	DRGR	3050.444885
PICH	.1264325157	YAW	.0237112259	ROLL	.0056188448				

6 FEB. 1968 21 HR 29 MIN 44.18 SEC TMST 326121.2070 J.C. 2439893.3956 3 DAY 18 HR 35.4 MIN

	SELENOGRAPHIC								
LEM	ALT	41540.93750	R	5743935.750	VI	3129.135498	X	4882717.687	VX	-1521.333206
74	LTDM	-2.940561205			FPVI	2.437122344	Y	-3010820.281	VY	-2732.082946
	LONM	-31.65914535			AZVI	272.1985168	Z	-294663.6093	VZ	112.9473228
A	3429271.500	ASND	275.1501350	VVEN	-50458744.50	APOG	7.248083055	VAPG	3124.945343
TIMP	50681.34375	LTDI	-2.692584782	LONI	-37.71027755	CRIP	158.9498252		
WT	6048.177307	ATLI	80.69671440	VA	3144.379028	AAAP	6.849661350	VIR	133.0601158
DVV	15.97254240	AMIS	275.1179504	FPVA	2.425300598	AAAY	2.925553888	VIT	3126.305145
RANG	59.87823104	RLAT	-.0055068636	AZVA	272.1878356	AAAT	7.448270022	VAT	-3141.562408
F	3000.000000	DWT	-9.230769157			VISN	10538.67883	DVI	15.95885729
VLGR	320.4596176	VLML	102.3164949	ASPM	325.0000000	TPSE	793590.8203	ICVL	3546.151092
RDR01	TARGET SITE	RGR	367354.0156	AZR	-89.16327857	ELR	85.33771800	DRGR	3112.025329
PICH	.1264325157	YAW	.0237112259	ROLL	.0055063892				

2"

6 FEB. 1968 21 HR 29 MIN 48.18 SEC TMST 326125.2070 J.C. 2439893.3956 3 DAY 18 HR 35.4 MIN

	SELENOGRAPHIC								
LEM	ALT	42065.43750	R	5744460.187	VI	3191.768524	X	4876548.375	VX	-1563.402099
74	LTDM	-2.935656160			FPVI	2.319205284	Y	-3021844.593	VY	-2780.099517

1"

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LONM	-31.78520202			AZVI	272.2638015	Z	-294199.3750	VZ	119.1931457
A	3456770.000	ASND	275.8786239	VVEN	-50057346.00	APOG	7.318430185	VAPG	3187.820861
TIMP	50687.31347	LTDI	-2.672580271	LONI	-38.02046966	CRIP	164.0336341		
WT	6011.254272	ATLI	81.07663249	VA	3207.014160	AAAP	6.588870763	VIR	129.1602973
DVV	16.09943509	AMIS	275.2214546	FPVA	2.308174133	AAAY	2.964080005	VIT	3189.154083
RANG	61.94132947	RLAT	-.0053969017	AZVA	272.2530174	AAAT	7.224886715	VAT	-3204.412139
F	3000.000000	DWT	-9.230769157			VISN	10602.70983	DVI	16.05688118
VLGR	321.3303031	VLML	102.7584428	ASPM	325.0000000	TPSE	805590.8203	ICVL	3610.182159
RCR01	TARGET SITE	RGR	379926.0039	AZR	-89.12320899	ELR	85.53702831	DRGR	3174.039093
PICH	.1264325157	YAW	.0237112259	ROLL	.0053963884				

6 FEB. 1968 21 HR 29 MIN 52.18 SEC TMST 326129.2070 J.D. 2439893.3956 3 DAY 18 HR 35.5 MIN

SELENOGRAPHIC

LEM	ALT	42574.18750	R	5744968.937	VI	3254.867218	X	4870209.562	VX	-1606.105789
74	LTDM	-2.930507272			FPVI	2.204200744	Y	-3033061.187	VY	-2828.216156
	LONM	-31.91375732			AZVI	272.3292236	Z	-293709.8398	VZ	125.6116046
	A	3485464.968	ASND	276.5921440	VVEN	-49645237.00	APOG	7.386030972	VAPG	3251.154815
	TIMP	50693.33886	LTDI	-2.651636302	LONI	-38.33834838	CRIP	169.2439899		
	WT	5974.331176	ATLI	81.45405483	VA	3270.114776	AAAP	6.327590227	VIR	125.1855955
	DVV	16.22729611	AMIS	275.3249702	FPVA	2.193918228	AAAY	3.002460449	VIT	3252.458923
	RANG	64.04564094	RLAT	-.0052891282	AZVA	272.3183403	AAAT	7.003796577	VAT	-3267.717712
	F	3000.000000	DWT	-9.230769157			VISN	10667.13549	DVI	16.15611767
	VLGR	322.1582221	VLML	103.1692056	ASPM	325.0000000	TPSE	817590.8203	ICVL	3674.607604
	RCR01	TARGET SITE	RGR	392746.9375	AZR	-89.08306694	ELR	85.73509597	DRGR	3236.497711
	PICH	.1264325157	YAW	.0237112259	ROLL	.0052887337				

6 FEB. 1968 21 HR 29 MIN 56.18 SEC TMST 326133.2070 J.D. 2439893.3958 3 DAY 18 HR 35.6 MIN

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	SELENOGRAPHIC									
LEM	ALT	43066.81250	R	5745461.625	VI	3318.434417	X	4863589.375	VX	-1649.553329
74	LTDM	-2.925107121			FPVI	2.092084884	Y	-3044645.250	VY	-2876.369750
	LONM	-32.04689025			AZVI	272.3947792	Z	-293194.2109	VZ	132.2045631
	A	3515418.781	ASND	277.2887802	VVEN	-49222225.50	APOG	7.450854480	VAPG	3314.949951
	TIMP	50699.42919	LTDI	-2.629705071	LONI	-38.66641616	CRIP	174.6218280		
	WT	5937.408081	ATLI	81.82895946	VA	3333.683807	AAAP	6.065866351	VIR	121.1415252
	DVV	16.35614633	AMIS	275.4284934	FPVA	2.082509994	AAAY	3.040697306	VIT	3316.222473
	RANG	66.22476959	RLAT	-.0051835940	AZVA	272.3838043	AAAT	6.785320460	VAT	-3331.481994
	F	3000.000000	DWT	-9.230769157			VISN	10731.96044	DVI	16.25658822
	VLGR	322.9444503	VLML	103.5496978	ASPM	325.0000000	TPSE	829590.8203	ICVL	3739.432708
	RDR01	TARGET SITE	RGR	406022.7070	AZR	-89.04343509	ELR	85.93610191	DRGR	3299.415649
	PICH	.1264325157	YAW	.0237112259	ROLL	.0051832393				

6 FEB. 1968 21 HR 30 MIN .18 SEC TMST 326137.2070 J.C. 2439893.3958 3 DAY 18 HR 35.6 MIN

	SELENOGRAPHIC									
LEM	ALT	43543.25000	R	5745938.062	VI	3382.473083	X	4856903.375	VX	-1693.545471
74	LTDM	-2.919449836			FPVI	1.982830047	Y	-3056247.375	VY	-2924.673370
	LONM	-32.18050003			AZVI	272.4604682	Z	-292651.9296	VZ	138.9738216
	A	3546698.625	ASND	277.9727745	VVEN	-48788113.50	APOG	7.512941837	VAPG	3379.209014
	TIMP	50705.59423	LTDI	-2.606734633	LONI	-39.00105667	CRIP	180.1081428		
	WT	5900.485046	ATLI	82.20133209	VA	3397.724060	AAAP	5.803744256	VIR	117.0335445
	DVV	16.48600792	AMIS	275.5320281	FPVA	1.973927497	AAAY	3.078793704	VIT	3380.447784
	RANG	68.41178607	RLAT	-.0050805470	AZVA	272.4494056	AAAT	6.569811046	VAT	-3395.707855
	F	3000.000000	DWT	-9.230769157			VISN	10797.18981	DVI	16.35831570
	VLGR	323.6900558	VLML	103.9008617	ASPM	325.0000000	TPSE	841590.8203	ICVL	3804.661987
	RDR01	TARGET SITE	RGR	419346.9218	AZR	-89.00315189	ELR	86.13175201	DRGR	3362.770904
	PICH	.1264325157	YAW	.0237112259	ROLL	.0050803501				

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6 FEB. 1968 21 HR 30 MIN 4.18 SEC TMST 326141.2070 J.D. 2439893.3959 3 DAY 18 HR 35.7 MIN

SELENOGRAPHIC

LEM	ALT	44003.00000	R	5746397.875	VI	3446.986114	X	4850003.250	VX	-1738.225326
74	LTDM	-2.913527399			FPVI	1.876419067	Y	-3068101.062	VY	-2973.044403
	LONM	-32.31735229			AZVI	272.5262985	Z	-292082.1406	VZ	145.9213790
	A	3579376.343	ASND	278.6415786	VVEN	-48342705.50	APOG	7.572251915	VAPG	3443.934906
	TIMP	50711.84375	LTDI	-2.582665890	LONI	-39.34556579	CRIP	185.7566661		
	WT	5863.561950	ATLI	82.57115173	VA	3462.238586	AAAP	5.541266918	VIR	112.867424C
	DVV	16.61690449	AMIS	275.6355819	FPVA	1.868148803	AAAY	3.116749644	VIT	3445.137756
	RANG	70.65219593	RLAT	-.0049797641	AZVA	272.5151519	AAAT	6.357654213	VAT	-3460.398376
	F	3000.000000	DWT	-9.230769157			VISN	10862.82861	DVI	16.46132493
	VLGR	324.3960952	VLML	104.2236700	ASPM	325.000000	TPSE	853590.8203	ICVL	3870.300842
	RDRO1	TARGET SITE	RGR	432993.7421	AZR	-88.96298980	ELR	86.32764339	DRGR	3426.581787
	PICH	.1264325157	YAW	.0237112259	RCLL	.0049796459				

6 FEB. 1968 21 HR 30 MIN 8.18 SEC TMST 326145.2070 J.D. 2439893.3959 3 DAY 18 HR 35.8 MIN

SELENOGRAPHIC

LEM	ALT	44446.125000	R	5746840.937	VI	3511.976684	X	4842960.000	VX	-1783.527969
74	LTDM	-2.907334029			FPVI	1.772827148	Y	-3080090.218	VY	-3021.520172
	LONM	-32.45608901			AZVI	272.5922660	Z	-291484.2539	VZ	153.0490531
	A	3613529.468	ASND	279.2967109	VVEN	-47885795.00	APOG	7.628774464	VAPG	3509.130981
	TIMP	50718.19042	LTDI	-2.557434827	LONI	-39.69920730	CRIP	191.5556793		
2"	WT	5826.638854	ATLI	82.93840217	VA	3527.230499	AAAP	5.278476953	VIR	108.6490211
	DVV	16.74885869	AMIS	275.7391548	FPVA	1.765158653	AAAY	3.154568284	VIT	3510.295654
	RANG	72.92334461	RLAT	-.0048815339	AZVA	272.5810394	AAAT	6.149277985	VAT	-3525.556732
	F	3000.000000	DWT	-9.230769157			VISN	10928.88220	DVI	16.56563925
	VLGR	325.0636215	VLML	104.5191221	ASPM	325.000000	TPSE	865590.8203	ICVL	3936.354339
1"	RDRO1	TARGET SITE	RGR	446828.4140	AZR	-88.92256927	ELR	86.52124977	DRGR	3490.843811

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PICH .1264325157 YAW .0237112259 ROLL .0048814157

6 FEB. 1968 21 HR 30 MIN 12.18 SEC TMST 326149.2070 J.D. 2439893.3959 3 DAY 18 HR 35.8 MIN

	SELENOGRAPHIC									
LEM	ALT	44872.12500	R	5747266.937	VI	3577.447814	X	4835734.187	VX	-1829.494461
74	LTDM	-2.900861978			FPVI	1.672039985	Y	-3092273.312	VY	-3070.076232
	LONM	-32.59741210			AZVI	272.6583747	Z	-290857.4882	VZ	160.3588371
	A	3649241.437	ASND	279.9376792	VVEN	-47417178.50	APOG	7.682560920	VAPG	3574.799896
	TIMP	50724.64746	LTDI	-2.530966430	LONI	-40.06341552	CRIP	197.5285205		
	WT	5789.715820	ATLI	83.30306434	VA	3592.702850	AAAP	5.015413224	VIR	104.3842906
	DVV	16.88189482	AMIS	275.8427429	FPVA	1.664937019	AAAY	3.192250221	VIT	3575.924591
	RANG	75.23704814	RLAT	-.0047855961	AZVA	272.6470680	AAAT	5.945151925	VAT	-3591.186096
	F	3000.000000	DWT	-9.230769157			VISN	10995.35559	DVI	16.67128419
	VLGR	325.6936721	VLML	104.7882461	ASPM	325.0000000	TPSE	877590.8203	IDVL	4002.827697
	RDRC1	TARGET SITE	RGR	460921.0625	AZR	-88.88208103	ELR	86.71394443	DRGR	3555.563049
	PICH	.1264325157	YAW	.0237112259	ROLL	.0047855563				

6 FEB. 1968 21 HR 30 MIN 16.18 SEC TMST 326153.2070 J.D. 2439893.3960 3 DAY 18 HR 35.9 MIN

	SELENOGRAPHIC									
LEM	ALT	45281.12500	R	5747675.937	VI	3643.402862	X	4828211.500	VX	-1876.242980
74	LTDM	-2.894103676			FPVI	1.574038505	Y	-3104824.500	VY	-3118.641113
	LONM	-32.74340820			AZVI	272.7246246	Z	-290201.0820	VZ	167.8526802
2"	A	3686602.281	ASND	280.5626182	VVEN	-46936642.50	APOG	7.733642041	VAPG	3640.945098
	TIMP	50731.23046	LTDI	-2.503177851	LONI	-40.44107437	CRIP	203.7226829		
	WT	5752.792724	ATLI	83.66511821	VA	3658.658996	AAAP	4.752114892	VIR	100.0794572
	DVV	17.01603746	AMIS	275.9463577	FPVA	1.567473411	AAAY	3.229796975	VIT	3642.028045
	RANG	77.62738704	RLAT	-.0046925147	AZVA	272.7132453	AAAT	5.745797038	VAT	-3657.289916
1"	F	3000.000000	DWT	-9.230769157			VISN	11062.25427	DVI	16.77828526

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VLGR	326.2872848	VLML	105.0320987	ASPM	325.0000000	TPSE	889590.8203	ICVL	4069.726440
RDR01	TARGET SITE	RGR	475477.9414	AZR	-88.84213352	ELR	86.90914916	DRGR	3620.750701
PICH	.1264325157	YAW	.0237112259	ROLL	.0046921225				

6 FEB. 1968 21 HR 30 MIN 16.18 SEC TMST 326153.2070 J.D. 2439893.3960 3 DAY 18 HR 35.9 MIN

	SELENOGRAPHIC								
CM-SM	ALT	481879.1250	R	6184274.125	VI	5291.165344	X	4612024.625	VX	-3496.866882
120	LTDM	-2.253328859			FPVI	.0093250274	Y	-4112827.437	VY	-3947.866424
	LONM	-41.72536087			AZVI	274.6375350	Z	-243152.4902	VZ	427.4361457
	A	6187880.125	ASND	292.4150390	VVEN	-27963813.75	APOG	80.53446483	VAPG	5284.791992
	ECC	.62243891-03	ARGP	318.4375152	ARGL	334.0491447	PERG	79.26669311	VPER	5291.375000
	INCL	174.8450832	MA	15.59247243	TA	15.61162638	PERD	122.5384244	MCON	ELLIPSE
	LTDE	-3.341084271	LONE	-.9475898742	LTDS	-1.415070027	LONS	84.85783863		
	WT	35799.86279	ATLI	59.24182271	VA	5307.559387	AAAP	-33.00264358	VIR	.8610210418
	DVV	4.525642514	AMIS	290.4518661	FPVA	.0092964172	AAAY	-11.43581175	VIT	5291.165100
	RANG	224.9126071	RLAT	168.2903480	AZVA	274.6231803	AAAT	34.22534990	VAT	-5307.559326

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	326153.2070	RCL	1031998.265	OPCL	.3127413206	XCL	-898688.9375	VXCL	-1710.834320
		ACL	179.6408710	DRCL	1161.273559	YCL	5632.996093	VYCL	-95.51412963
		ECL	240.5560569			ZCL	-507293.7031	VZCL	667.3403015

6 FEB. 1968 21 HR 30 MIN 20.18 SEC TMST 326157.2070 J.D. 2439893.3960 3 DAY 18 HR 36.0 MIN

	SELENOGRAPHIC								
LEM	ALT	45672.75000	R	5748067.562	VI	3709.845031	X	4820612.125	VX	-1923.557098
74	LTDM	-2.887052595			FPVI	1.478810310	Y	-3117396.406	VY	-3167.343811
	LONM	-32.88996887			AZVI	272.7910156	Z	-289514.3789	VZ	175.5325374
	A	3725709.000	ASND	281.1758308	VVEN	-46443974.00	APOG	7.781976819	VAPG	3707.569885
	TIMP	50737.95654	LTDI	-2.473976254	LONI	-40.82901000	CRIP	210.0862121		

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WT	5715.869628	ATLI	84.02454662	VA	3725.102111	AAAP	4.488619565	VIR	95.74077129
DVV	17.15131187	AMIS	276.0499954	FPVA	1.472751617	AAAY	3.267209827	VIT	3708.609405
RANG	80.02702617	RLAT	-.0046013266	AZVA	272.7795677	AAAT	5.551789462	VAT	-3723.871551
F	3000.000000	DWT	-9.230769157			VISN	11129.58374	DVI	16.88666915
VLGR	326.8454933	VLML	105.2517614	ASPM	325.0000000	TPSE	901590.8203	IDVL	4137.055908
RDRO1	TARGET SITE	RGR	490092.0703	AZR	-88.80151844	ELR	87.10002994	DRGR	3686.391815
PICH	.1264325157	YAW	.0237112259	ROLL	.0046009347				

6 FEB. 1968 21 HR 30 MIN 24.18 SEC TMST 326161.2070 J.D. 2439893.3960 3 DAY 18 HR 36.0 MIN

SELENOGRAPHIC

LEM	ALT	46047.00000	R	5748441.812	VI	3776.777801	X	4812822.125	VX	-1971.553436
74	LTDM	-2.879700988			FPVI	1.386341094	Y	-3130163.281	VY	-3216.114440
	LONM	-33.03917312			AZVI	272.8575515	Z	-288796.5859	VZ	183.4004039
A	3766666.812	ASND	281.7754669	VVEN	-45938954.50	APOG	7.827647447	VAPG	3774.677520
TIMP	50744.84570	LTDI	-2.443252861	LONI	-41.23040390	CRIP	216.6712455		
WT	5678.946594	ATLI	84.38133049	VA	3792.035705	AAAP	4.224962949	VIR	91.37467384
DVV	17.28774380	AMIS	276.1536598	FPVA	1.380761146	AAAY	3.304490059	VIT	3775.672271
RANG	82.47019958	RLAT	-.0045125980	AZVA	272.8460388	AAAT	5.363764226	VAT	-3790.934631
F	3000.000000	DWT	-9.230769157			VISN	11197.34948	DVI	16.99646162
VLGR	327.3693122	VLML	105.4483442	ASPM	325.0000000	TPSE	913590.8203	IDVL	4204.821655
RDRO1	TARGET SITE	RGR	504969.7070	AZR	-88.76084041	ELR	87.29013729	DRGR	3752.498352
PICH	.1264325157	YAW	.0237112259	ROLL	.0045122846				

2"

6 FEB. 1968 21 HR 30 MIN 28.18 SEC TMST 326165.2070 J.D. 2439893.3961 3 DAY 18 HR 36.1 MIN

SELENOGRAPHIC

LEM	ALT	46403.68750	R	5748798.500	VI	3844.204589	X	4804763.500	VX	-2020.316452
74	LTDM	-2.872041106			FPVI	1.296618461	Y	-3143240.531	VY	-3264.900329
	LONM	-33.19241333			AZVI	272.9242324	Z	-288046.9140	VZ	191.4583854

1"

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A	3809589.406	ASND	282.3603744	VVEN	-45421360.50	APOG	7.870592236	VAPG	3842.271759
TIMP	50751.92041	LTDI	-2.410885483	LONI	-41.64787292	CRIP	223.5207576		
WT	5642.023498	ATLI	84.73545169	VA	3859.463195	AAAP	3.961179643	VIR	86.98782825
DVV	17.42536067	AMIS	276.2573509	FPVA	1.291491508	AAAY	3.341638326	VIT	3843.220245
RANG	84.97937965	RLAT	-.0044258775	AZVA	272.9126586	AAAT	5.182421267	VAT	-3858.482757
F	3000.000000	DWT	-9.230769157			VISN	11265.55725	DVI	17.10769152
VLGR	327.85976002	VLML	105.6229858	ASPM	325.0000000	TPSE	925590.8203	ICVL	4273.029479
RDR01	TARGET SITE	RGR	520249.0195	AZR	-88.72050666	ELR	87.48156261	DRGR	3819.077514
PICH	.1264325157	YAW	.0237112259	ROLL	.0044257598				

6 FEB. 1968 21 HR 30 MIN 32.18 SEC TMST 326169.2070 J.D. 2439893.3961 3 DAY 18 HR 36.2 MIN

SELENOGRAPHIC

LEM	ALT	46742.87500	R	5749137.687	VI	3912.128936	X	4796583.687	VX	-2069.697174
74	LTDM	-2.864065617			FPVI	1.209634780	Y	-3156397.906	VY	-3313.792877
	LONM	-33.34696578			AZVI	272.9910583	Z	-287264.6406	VZ	199.7083854
A	3854600.468	ASND	282.9334831	VVEN	-44890965.00	APOG	7.910934627	VAPG	3910.355834
TIMP	50759.20800	LTDI	-2.376729875	LONI	-42.08018875	CRIP	230.6147327		
WT	5605.100402	ATLI	85.08688831	VA	3927.388183	AAAP	3.697303235	VIR	82.58702373
DVV	17.56418895	AMIS	276.3610687	FPVA	1.204934120	AAAY	3.378655225	VIT	3911.257110
RANG	87.51050281	RLAT	-.0043419665	AZVA	272.9794235	AAAT	5.008528947	VAT	-3926.519744
F	3000.000000	DWT	-9.230769157			VISN	11334.21301	DVI	17.22038698
VLGR	328.31785200	VLML	105.7768497	ASPM	325.0000000	TPSE	937590.8203	ICVL	4341.685119
RDR01	TARGET SITE	RGR	535659.2265	AZR	-88.67970275	ELR	87.67018318	DRGR	3886.122833
PICH	.1264325157	YAW	.0237112259	ROLL	.0043418880				

6 FEB. 1968 21 HR 30 MIN 36.18 SEC TMST 326173.2070 J.D. 2439893.3962 3 DAY 18 HR 36.2 MIN

SELENOGRAPHIC

LEM	ALT	47064.43750	R	5749459.187	VI	3980.554534	X	4788090.937	VX	-2119.900054

74	LTDM	-2.855766534			FPVI	1.125378608	Y	-3169923.125	VY	-3362.664276
	LONM	-33.50628280			AZVI	273.0580329	Z	-286448.9570	VZ	208.1525497
	A	3901834.156	ASND	283.4915924	VVEN	-44347536.50	APOG	7.948643744	VAPG	3978.933654
	TIMP	50766.73974	LTDI	-2.340618997	LONI	-42.53252792	CRIP	238.0380611		
	WT	5568.177368	ATLI	85.43562316	VA	3995.814239	AAAP	3.433367639	VIR	78.17918872
	DVV	17.70425748	AMIS	276.4648170	FPVA	1.121080398	AAAY	3.415542244	VIT	3979.786712
	RANG	90.11951923	RLAT	-.0042602987	AZVA	273.0463371	AAAT	4.842926979	VAT	-3995.049346
	F	3000.000000	DWT	-9.230769157			VISN	11403.32238	DVI	17.33457684
	VLGR	328.7445945	VLML	105.9111261	ASPM	325.0000000	TPSE	949590.8203	ICVL	4410.794433
	RDRO1	TARGET SITE	RGR	551543.1796	AZR	-88.63945007	ELR	87.86103820	DRGR	3953.647674
	PICH	.1264325157	YAW	.0237112259	ROLL	.0042602593				

6 FEB. 1968 21 HR 30 MIN 40.18 SEC TMST 326177.2070 J.D. 2439893.3962 3 DAY 18 HR 36.3 MIN

SELENOGRAPHIC

LEM	ALT	47368.31250	R	5749763.062	VI	4049.485168	X	4779510.000	VX	-2170.691467
74	LTDM	-2.847136557			FPVI	1.043845176	Y	-3183471.750	VY	-3411.660858
	LONM	-33.66625595			AZVI	273.1251525	Z	-285599.1250	VZ	216.7929592
	A	3951436.656	ASND	284.0390319	VVEN	-43790839.50	APOG	7.983729898	VAPG	4048.009124
	TIMP	50774.55126	LTDI	-2.302359640	LONI	-43.00279998	CRIP	245.7567596		
	WT	5531.254272	ATLI	85.78163623	VA	4064.745239	AAAP	3.169401645	VIR	73.77150917
	DVV	17.84559440	AMIS	276.5685958	FPVA	1.039926528	AAAY	3.452298700	VIT	4048.813140
	RANG	92.73958492	RLAT	-.0041810119	AZVA	273.1134033	AAAT	4.686520338	VAT	-4064.075714
	F	3000.000000	DWT	-9.230769157			VISN	11472.89160	DVI	17.45029115
	VLGR	329.1409950	VLML	106.0270338	ASPM	325.0000000	TPSE	961590.8203	ICVL	4480.363769
	RDRO1	TARGET SITE	RGR	567493.5781	AZR	-88.59852504	ELR	88.04833698	DRGR	4021.643768
	PICH	.1264325157	YAW	.0237112259	ROLL	.0041809334				

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6 FEB. 1968 21 HR 30 MIN 44.18 SEC TMST 326181.2070 J.D. 2439893.3962 3 DAY 18 HR 36.4 MIN

SELENOGRAPHIC

LEM	ALT	47654.625CC	R	5750049.375	VI	4118.924621	X	4770724.500	VX	-2222.197235
74	LTDM	-2.838167548			FPVI	.965C268554	Y	-3197216.500	VY	-3460.703735
	LONM	-33.82897567			AZVI	273.1924209	Z	-284714.3398	VZ	225.6317405
	A	4003567.718	ASND	284.5739631	VVEN	-4322C633.00	APOG	8.016337037	VAPG	4117.585754
	TIMP	50782.68798	LTDI	-2.261715561	LONI	-43.49558258	CRIP	253.8459815		
	WT	5494.331176	ATLI	86.12490558	VA	4134.184936	AAAP	2.905438125	VIR	69.37119960
	DVV	17.98823C46	AMIS	276.6724052	FPVA	.9614639282	AAAY	3.488925397	VIT	4118.340393
	RANG	95.40482C44	RLAT	-.0041043228	AZVA	273.18C6221	AAAT	4.540283143	VAT	-4133.602844
	F	3000.0000CC	DWT	-9.230769157			VISN	11542.92675	DVI	17.56756091
	VLGR	329.5080528	VLML	106.1258172	ASPM	325.000C000	TPSE	973590.8203	ICVL	4550.399047
	RDR01	TARGET SITE	RGR	583716.9921	AZR	-88.55753898	ELR	88.23507690	DRGR	4090.12030C
	PICH	.1264325157	YAW	.0237112259	ROLL	.0041041273				

6 FEB. 1968 21 HR 30 MIN 48.18 SEC TMST 326185.2070 J.D. 2439893.3964 3 DAY 18 HR 36.4 MIN

SELENOGRAPHIC

LEM	ALT	47923.3125C	R	5750318.C00	VI	4188.876831	X	4761654.500	VX	-2274.508056
74	LTDM	-2.828850746			FPVI	.8889169693	Y	-3211271.437	VY	-3509.733886
	LONM	-33.9958229C			AZVI	273.2598381	Z	-283793.7382	VZ	234.671051C
	A	4058401.4C6	ASND	285.0952415	VVEN	-42636671.50	APOG	8.046372652	VAPG	4187.667968
	TIMP	50791.20C68	LTDI	-2.218412160	LONI	-44.01514053	CRIP	262.3756332		
	WT	5457.408142	ATLI	86.46541404	VA	4204.137329	AAAP	2.641506969	VIR	64.98570156
	DVV	18.13219475	AMIS	276.7762489	FPVA	.8856897354	AAAY	3.525422304	VIT	4188.37268C
2"	RANG	98.13788127	RLAT	-.0040300199	AZVA	273.2479896	AAAT	4.405242443	VAT	-4203.635009
	F	3000.0000CC	DWT	-9.230769157			VISN	11613.43420	DVI	17.68641734
	VLGR	329.8467636	VLML	106.2087478	ASPM	325.000C000	TPSE	985590.8203	ICVL	4620.906311
	RDR01	TARGET SITE	RGR	600351.4921	AZR	-88.51689529	ELR	88.42301464	DRGR	4159.082519
1"	PICH	.1264325157	YAW	.0237112259	ROLL	.0040298244				

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6 FEB. 1968 21 HR 30 MIN 52.18 SEC TMST 326189.2070 J.C. 2439893.3964 3 DAY 18 HR 36.5 MIN

SELENOGRAPHIC

LEM	ALT	48174.50000	R	5750569.250	VI	4259.345947	X	4752450.812	VX	-2327.463836
74	LTDM	-2.819179385			FPVI	.8155136108	Y	-3225408.656	VY	-3558.854705
	LONM	-34.16408157			AZVI	273.3274040	Z	-282836.6328	VZ	243.9130268
	A	4116129.031	ASND	285.6058082	VVEN	-42038704.00	APOG	8.073991060	VAPG	4258.259643
	TIMP	50800.15380	LTDI	-2.172112047	LONI	-44.56235885	CRIP	271.3605842		
	WT	5420.485046	ATLI	86.80313968	VA	4274.606445	AAAP	2.377635866	VIR	60.62281560
	DVV	18.27751994	AMIS	276.8801231	FPVA	.8126020431	AAAY	3.561790376	VIT	4258.914489
	RANG	100.8941841	RLAT	-.0039578533	AZVA	273.3155097	AAAT	4.282464563	VAT	-4274.176513
	F	3000.000000	DWT	-9.230769157			VISN	11684.42028	DVI	17.80689334
	VLGR	330.1581306	VLML	106.2771234	ASPM	325.0000000	TPSE	997590.8203	IDVL	4691.892456
	RDR01	TARGET SITE	RGR	617126.5468	AZR	-88.47578716	ELR	88.60867595	DRGR	4228.529052
	PICH	.1264325157	YAW	.0237112259	ROLL	.0039576969				

6 FEB. 1968 21 HR 30 MIN 56.18 SEC TMST 326193.2070 J.C. 2439893.3964 3 DAY 18 HR 36.6 MIN

SELENOGRAPHIC

LEM	ALT	48408.31250	R	5750803.062	VI	4330.336059	X	4743033.875	VX	-2381.154357
74	LTDM	-2.809144645			FPVI	.7448129654	Y	-3239742.375	VY	-3608.008239
	LONM	-34.33513641			AZVI	273.3951225	Z	-281842.1601	VZ	253.3598937
	A	4176960.000	ASND	286.1045227	VVEN	-41426474.50	APOG	8.099181890	VAPG	4329.365295
	TIMP	50809.62402	LTDI	-2.122405439	LONI	-45.14297103	CRIP	280.8951911		
	WT	5383.56195	ATLI	87.13806247	VA	4345.596557	AAAP	2.113854587	VIR	56.29020690
	DVV	18.42423748	AMIS	276.9840278	FPVA	.7421970367	AAAY	3.598028898	VIT	4329.970153
	RANG	103.6964693	RLAT	-.0038882761	AZVA	273.3831825	AAAT	4.173031628	VAT	-4345.231933
	F	3000.000000	DWT	-9.230769157			VISN	11755.89160	DVI	17.92902135
	VLGR	330.4431457	VLML	106.3322706	ASPM	325.0000000	TPSE	1009590.820	IDVL	4763.363830
	RDR01	TARGET SITE	RGR	634180.3515	AZR	-88.43461799	ELR	88.79388427	DRGR	4298.465820

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PICH .1264325157 YAW .0237112259 ROLL .0038880418

6 FEB. 1968 21 HR 31 MIN .18 SEC TMST 326197.2070 J.D. 2439893.3965 3 DAY 18 HR 36.6 MIN

SELENOGRAPHIC

LEM	ALT	48624.875000	R	5751019.687	VI	4401.851562	X	4733283.562	VX	-2435.718200
74	LTDM	-2.798737764			FPVI	.6768131256	Y	-3254443.156	VY	-3657.102386
	LONM	-34.51107788			AZVI	273.4629898	Z	-280809.4453	VZ	263.0138778
	A	4241125.250	ASND	286.5895462	VVEN	-40799722.00	APOG	8.122027516	VAPG	4400.989135
	TIMP	50819.70898	LTDI	-2.068782150	LONI	-45.76451873	CRIP	291.1030311		
	WT	5346.638854	ATLI	87.47016239	VA	4417.111877	AAAP	1.850187853	VIR	51.99601364
	DVV	18.57238078	AMIS	277.0879669	FPVA	.6744747162	AAAY	3.634138286	VIT	4401.544433
	RANG	106.5789003	RLAT	-.0038212738	AZVA	273.4510078	AAAT	4.078008830	VAT	-4416.805786
	F	3000.000000	DWT	-9.230769157			VISN	11827.85473	DVI	18.05283665
	VLGR	330.7027969	VLML	106.3755407	ASPM	325.0000000	TPSE	1021590.820	ICVL	4835.326904
	RDRC1	TARGET SITE	RGR	651719.8125	AZR	-88.39399909	ELR	88.98102569	DRGR	4368.898254

PICH .1264325157 YAW .0237112259 ROLL .0038209230

6 FEB. 1968 21 HR 31 MIN 4.18 SEC TMST 326201.2070 J.D. 2439893.3965 3 DAY 18 HR 36.7 MIN

SELENOGRAPHIC

LEM	ALT	48824.375000	R	5751219.187	VI	4473.896606	X	4723430.562	VX	-2490.900970
74	LTDM	-2.787951082			FPVI	.6115112304	Y	-3269169.968	VY	-3706.305633
	LONM	-34.68779754			AZVI	273.5310058	Z	-279737.7265	VZ	272.8772430
	A	4308878.687	ASND	287.0652084	VVEN	-40158180.50	APOG	8.142548441	VAPG	4473.135559
	TIMP	50830.52929	LTDI	-2.010605096	LONI	-46.42971038	CRIP	302.0292739		
	WT	5309.715820	ATLI	87.79941844	VA	4489.156677	AAAP	1.586666166	VIR	47.74835157
	DVV	18.72198367	AMIS	277.1919326	FPVA	.6094322204	AAAY	3.670117259	VIT	4473.641784
	RANG	109.4744348	RLAT	-.0037565217	AZVA	273.5189895	AAAT	3.998408436	VAT	-4488.902709
	F	3000.000000	DWT	-9.230769157			VISN	11900.31652	DVI	18.17837381

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VLGR	330.9380798	VLML	106.4083147	ASPM	325.000000	TPSE	1033590.820	ICVL	4907.788635
RDR01	TARGET SITE	RGR	669337.1093	AZR	-88.35270690	ELR	89.16533279	DRGR	4439.825683
PICH	.1264325157	YAW	.0237112259	ROLL	.0037562487				

6 FEB. 1968 21 HR 31 MIN 8.18 SEC TMST 326205.2070 J.D. 2439893.3966 3 DAY 18 HR 36.8 MIN

	SELENOGRAPHIC								
LEM	ALT	49006.93750	R	5751401.687	VI	4546.475708	X	4713316.000	VX	-2546.884582
74	LTDM	-2.776774972			FPVI	.5489082336	Y	-3284149.906	VY	-3755.497161
	LONM	-34.86805725			AZVI	273.5991783	Z	-278626.0664	VZ	282.9522399
	A	4380501.437	ASND	287.5289840	VVEN	-39501580.00	APOG	8.160837292	VAPG	4545.809020
	TIMP	50842.24023	LTDI	-1.947056159	LONI	-47.15008926	CRIP	313.8633575		
	WT	5272.792724	ATLI	88.12581157	VA	4561.735473	AAAP	1.323312729	VIR	43.55559110
	DVV	18.87308120	AMIS	277.2959327	FPVA	.5470724106	AAAY	3.705965906	VIT	4546.267028
	RANG	112.4281587	RLAT	-.0036943575	AZVA	273.5871200	AAAT	3.935141623	VAT	-4561.527526
	F	3000.000000	DWT	-9.230769157			VISN	11973.28405	DVI	18.30566883
	VLGR	331.1499862	VLML	106.4320001	ASPM	325.000000	TPSE	1045590.820	ICVL	4980.756286
	RDR01	TARGET SITE	RGR	687307.0937	AZR	-88.31155014	ELR	89.35002136	DRGR	4511.254394
	PICH	.1264325157	YAW	.0237112259	ROLL	.0036940846				

6 FEB. 1968 21 HR 31 MIN 12.18 SEC TMST 326209.2070 J.D. 2439893.3966 3 DAY 18 HR 36.8 MIN

	SELENOGRAPHIC								
LEM	ALT	49172.87500	R	5751567.625	VI	4619.593688	X	4703015.375	VX	-2603.587249
74	LTDM	-2.765202164			FPVI	.4890041351	Y	-3299270.375	VY	-3804.732452
2"	LONM	-35.05051803			AZVI	273.6674995	Z	-277473.7460	VZ	293.2412757
	A	4456305.250	ASND	287.9824523	VVEN	-38829639.50	APOG	8.176904320	VAPG	4619.014892
	TIMP	50855.04589	LTDI	-1.877072602	LONI	-47.93574142	CRIP	326.7715225		
1"	WT	5235.869628	ATLI	88.44931602	VA	4634.853027	AAAP	1.060155257	VIR	39.42638969
	DVV	19.02570939	AMIS	277.3999595	FPVA	.4873943329	AAAY	3.741683453	VIT	4619.425415

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RANG	115.4182720	RLAT	-.0036344577	AZVA	273.6554107	AAAT	3.888974666	VAT	-4634.685302
F	3000.000000	DWT	-9.230769157			VISN	12046.76428	DVI	18.43475961
VLGR	331.3395042	VLML	106.4480304	ASPM	325.0000000	TPSE	1057590.812	ICVL	5054.236511
RDRO1	TARGET SITE	RGR	705495.7968	AZR	-88.27013301	ELR	89.53359031	DRGR	4583.187500
PICH	.1264325157	YAW	.0237112259	ROLL	.0036342626				

6 FEB. 1968 21 HR 31 MIN 16.18 SEC TMST 326213.2070 J.D. 2439893.3966 3 DAY 18 HR 36.9 MIN

	SELENOGRAPHIC								
LEM	ALT	49322.43750	R	5751717.125	VI	4693.255126	X	4692486.312	VX	-2661.060638
74	LTDM	-2.753223389			FPVI	.4317998886	Y	-3314587.781	VY	-3853.976928
	LONM	-35.23588180			AZVI	273.7359771	Z	-276279.8437	VZ	303.7466621
	A	4536636.125	ASND	288.4251365	VVEN	-38142077.50	APOG	8.190872907	VAPG	4692.757446
	TIMP	50869.21728	LTDI	-1.799235492	LONI	-48.80262756	CRIP	341.0160560		
	WT	5198.946594	ATLI	88.76991558	VA	4708.513916	AAAP	.7972175106	VIR	35.36948156
	DVV	19.17990517	AMIS	277.5040206	FPVA	.4304008484	AAAY	3.777269393	VIT	4693.121826
	RANG	118.4560441	RLAT	-.0035770838	AZVA	273.7238502	AAAT	3.860481798	VAT	-4708.381042
	F	3000.000000	DWT	-9.230769157			VISN	12120.76452	DVI	18.56568360
	VLGR	331.5076179	VLML	106.4578695	ASPM	325.0000000	TPSE	1069590.812	ICVL	5128.236755
	RDRO1	TARGET SITE	RGR	723973.2656	AZR	-88.22865581	ELR	89.71685028	DRGR	4655.629455
	PICH	.1264325157	YAW	.0237112259	ROLL	.0035767720				

6 FEB. 1968 21 HR 31 MIN 16.18 SEC TMST 326213.2070 J.D. 2439893.3966 3 DAY 18 HR 36.9 MIN

	SELENOGRAPHIC								
CM-SM	ALT	481933.2500	R	6184328.250	VI	5291.088195	X	4395658.937	VX	-3695.147460
120	LTDM	-2.012672483			FPVI	.0102214813	Y	-4344757.812	VY	-3761.654907
	LONM	-44.66633605			AZVI	274.7468223	Z	-217196.9355	VZ	437.549942C
	A	6187807.750	ASND	292.4079017	VVEN	-27964141.50	APOG	80.49768161	VAPG	5284.951843
	ECC	.59801996-03	ARGP	319.3799476	ARGL	336.9908065	PERG	79.27965450	VPER	5291.276733

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INCL	174.8450088	MA	17.59019970	TA	17.61085557	PERD	122.5362730	MOON	ELLIPSE
LTDE	-3.341906547	LONE	-.9469490051	LTDS	-1.415065377	LONS	84.85099124		
WT	35799.86279	ATLI	56.41543817	VA	5307.482360	AAAP	-35.93354034	VIR	.9438623190
DVV	4.525498271	AMIS	291.0733375	FPVA	.0101909637	AAAY	-11.18535947	VIT	5291.087829
RANG	273.2039566	RLAT	167.3285636	AZVA	274.7321281	AAAT	36.91616010	VAT	-5307.482238

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	326213.2070	RCL	1073707.500	OPCL	.0585043416	XCL	-944481.6015	VXCL	-667.7501449
		ACL	179.9334869	DRCL	204.6584815	YCL	1096.355468	VYCL	-50.52680969
		ECL	241.5996437			ZCL	-510686.9023	VZCL	804.5614166

6 FEB. 1968 21 HR 31 MIN 20.18 SEC TMST 326217.2070 J.D. 2439893.3967 3 DAY 18 HR 37.0 MIN

SELENOGRAPHIC

LEM	ALT	49455.93750	R	5751850.750	VI	4767.464965	X	4681606.125	VX	-2719.452667
74	LTDM	-2.740829110			FPVI	.3772974014	Y	-3330270.500	VY	-3903.127929
	LONM	-35.42622756			AZVI	273.8046035	Z	-275043.4414	VZ	314.4708442
	A	4621880.062	ASND	288.8552017	VVEN	-37438602.50	APOG	8.202815175	VAPG	4767.042114
	TIMP	50885.12597	LTDI	-1.711606740	LONI	-49.77368164	CRIP	356.9741287		
	WT	5162.023498	ATLI	89.08758640	VA	4782.723205	AAAP	.5345243811	VIR	31.39376759
	DVV	19.33570671	AMIS	277.6081047	FPVA	.3760938644	AAAY	3.812722444	VIT	4767.361572
	RANG	121.5757102	RLAT	-.0035222640	AZVA	273.7924499	AAAT	3.850008934	VAT	-4782.620178
	F	3000.000000	DWT	-9.230769157			VISN	12195.29223	DVI	18.69848084
	VLGR	331.6553268	VLML	106.4630088	ASPM	325.0000000	TPSE	1081590.812	IDVL	5202.764465
2"	RDRC1	TARGET SITE	RGR	742946.1171	AZR	-88.18771934	ELR	89.90188694	DRGR	4728.583129
	PICH	.1264325157	YAW	.0237112259	ROLL	.0035219912				

6 FEB. 1968 21 HR 31 MIN 24.18 SEC TMST 326221.2070 J.D. 2439893.3967 3 DAY 18 HR 37.0 MIN

1" SELENOGRAPHIC

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LEM	ALT	49573.75000	R	5751968.500	VI	4842.228088	X	4670610.500	VX	-2778.492065
74	LTDM	-2.72801131C			FPVI	.3254995346	Y	-3345981.531	VY	-3952.373901
	LONM	-35.61745834			AZVI	273.8733825	Z	-273763.7460	VZ	325.4161682
	A	4712467.937	ASND	289.2769508	VVEN	-36718919.00	APOG	8.212792754	VAPG	4841.873474
	TIMP	50903.29687	LTDI	-1.611453056	LONI	-50.87425613	CRIP	375.0631675		
	WT	5125.100402	ATLI	89.40230464	VA	4857.485656	AAAP	.2720999457	VIR	27.50865006
	DVV	19.49315333	AMIS	277.7122192	FPVA	.3244771957	AAAY	3.848041951	VIT	4842.149963
	RANG	124.7102146	RLAT	-.0034699887	AZVA	273.8611984	AAAT	3.857650190	VAT	-4857.407775
	F	3000.000000	DWT	-9.230769157			VISN	12270.35498	DVI	18.83319163
	VLGR	331.7836151	VLML	106.4649677	ASPM	325.0000000	TPSE	1093590.812	ICVL	5277.827148
	RDR01	TARGET SITE	RGR	762007.2421	AZR	-88.14611530	ELR	90.08453750	DRGR	4802.054260
	PICH	.1264325157	YAW	.0237112259	ROLL	.0034696770				

6 FEB. 1968 21 HR 31 MIN 28.18 SEC TMST 326225.2070 J.C. 2439893.3969 3 DAY 18 HR 37.1 MIN

	SELENOGRAPHIC										
LEM	ALT	49676.18750	R	5752071.000	VI	4917.549743	X	4659296.625	VX	-2838.421081
74	LTDM	-2.714759796			FPVI	.2764110565	Y	-3362001.312	VY	-4001.546203
	LONM	-35.81302642			AZVI	273.9423179	Z	-272439.7734	VZ	336.5851516
	A	4808883.437	ASND	289.6871719	VVEN	-35982725.00	APOG	8.220774769	VAPG	4917.257934
	TIMP	50924.50048	LTDI	-1.494770288	LONI	-52.15088272	CRIP	396.0483131		
	WT	5088.177368	ATLI	89.71405124	VA	4932.806579	AAAP	.0099666156	VIR	23.72340202
	DVV	19.65228462	AMIS	277.8163566	FPVA	.2755565643	AAAY	3.883226871	VIT	4917.492492
	RANG	127.9161376	RLAT	-.0034200928	AZVA	273.9301071	AAAT	3.883239597	VAT	-4932.749511
	F	3000.000000	DWT	-9.230769157			VISN	12345.96044	DVI	18.96985721
	VLGR	331.8934707	VLML	106.4652938	ASPM	325.0000000	TPSE	1105590.812	ICVL	5353.432556
	RDR01	TARGET SITE	RGR	781499.7500	AZR	-88.10484504	ELR	90.26825809	DRGR	4876.044982
	PICH	.1264325157	YAW	.0237112259	ROLL	.0034198980				

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6 FEB. 1968 21 HR 31 MIN 32.18 SEC TMST 326229.2070 J.D. 2439893.3969 3 DAY 18 HR 37.2 MIN

SELENOGRAPHIC

LEM		ALT	49763.62500	R	5752158.562	VI	4993.435058	X	4647821.875	VX	-2899.056915
	74	LTDM	-2.701066464			FPVI	.2300329208	Y	-3378105.937	VY	-4050.774353
		LONM	-36.01021194			AZVI	274.0114059	Z	-271070.7265	VZ	347.9803009
		A	4911670.437	ASND	290.0887947	VVEN	-35229712.50	APOG	8.227039098	VAPG	4993.199584
		TIMP	50949.92919	LTDI	-1.355379894	LONI	-53.66738891	CRIP	420.9799118		
		WT	5051.254272	ATLI	90.02280330	VA	5008.691101	AAAP	-.2518514097	VIR	20.04764127
		DVV	19.81314253	AMIS	277.9205207	FPVA	.2293329239	AAAY	3.918275117	VIT	4993.394775
		RANG	131.1486873	RLAT	-.0033726849	AZVA	273.9991683	AAAT	3.926360726	VAT	-5008.650939
		F	3000.000000	DWT	-9.230769157			VISN	12422.11645	DVI	19.10852098
		VLGR	331.9858894	VLML	106.4655656	ASPM	325.0000000	TPSE	1117590.812	ICVL	5429.588623
		RDRO1	TARGET SITE	RGR	801152.8046	AZR	-88.06311035	ELR	90.45041370	DRGR	4950.562255
		PICH	.1264325157	YAW	.0237112259	ROLL	.0033726458				

6 FEB. 1968 21 HR 31 MIN 36.18 SEC TMST 326233.2070 J.D. 2439893.3969 3 DAY 18 HR 37.2 MIN

SELENOGRAPHIC

LEM		ALT	49836.68750	R	5752231.562	VI	5069.889465	X	4636103.000	VX	-2960.502380
	74	LTDM	-2.686921298			FPVI	.1863727569	Y	-3394407.468	VY	-4099.986572
		LONM	-36.21040725			AZVI	274.0806465	Z	-269655.6289	VZ	359.6041755
		A	5021443.000	ASND	290.4806556	VVEN	-34459563.00	APOG	8.231431245	VAPG	5069.705200
		TIMP	50981.53271	LTDI	-1.183193266	LONI	-55.53373336	CRIP	451.6667938		
		WT	5014.331176	ATLI	90.32853698	VA	5085.144592	AAAP	-.5133325606	VIR	16.49131703
		DVV	19.97576999	AMIS	278.0247039	FPVA	.1858139038	AAAY	3.953185439	VIT	5069.862609
		RANG	134.4310379	RLAT	-.0033279905	AZVA	274.0683822	AAAT	3.986374974	VAT	-5085.117858
		F	3000.000000	DWT	-9.230769157			VISN	12498.83129	DVI	19.24922680
		VLGR	332.0618667	VLML	106.4673891	ASPM	325.0000000	TPSE	1129590.812	ICVL	5506.303527
		RDRO1	TARGET SITE	RGR	821104.9843	AZR	-88.02130985	ELR	90.63237190	DRGR	5025.609191
		PICH	.1264325157	YAW	.0237112259	ROLL	.0033278346				

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6 FEB. 1968 21 HR 31 MIN 40.18 SEC TMST 326237.2070 J.D. 2439893.3970 3 DAY 18 HR 37.3 MIN

	SELENOGRAPHIC									
LEM	ALT	49895.75000	R	5752290.562	VI	5146.918579	X	4624014.187	VX	-3022.914733
74	LTDM	-2.672314703			FPVI	.1454343796	Y	-3411071.906	VY	-4149.069274
	LONM	-36.41568756			AZVI	274.1500358	Z	-268193.5429	VZ	371.4593238
	A	5138897.937	ASND	290.8608856	VVEN	-33671953.00	APOG	8.234331965	VAPG	5146.779174
	TIMP	51022.80615	LTDI	-.9601953476	LONI	-57.94603729	CRIP	491.3353118		
	WT	4977.408142	ATLI	90.63123226	VA	5162.172729	AAAP	-.7744538784	VIR	13.06437015
	DVV	20.14020967	AMIS	278.1289062	FPVA	.1450052261	AAAY	3.987956613	VIT	5146.901977
	RANG	137.7968902	RLAT	-.0032855743	AZVA	274.1377525	AAAT	4.062459409	VAT	-5162.156188
	F	3000.000000	DWT	-9.230769157			VISN	12576.11303	DVI	19.39201974
	VLGR	332.1223907	VLML	106.4724025	ASPM	325.0000000	TPSE	1141590.812	ICVL	5583.585144
	RDR01	TARGET SITE	RGR	841562.8281	AZR	-87.98003864	ELR	90.81601524	DRGR	5101.187316
	PICH	.1264325157	YAW	.0237112259	ROLL	.0032856130				

6 FEB. 1968 21 HR 31 MIN 44.18 SEC TMST 326241.2070 J.D. 2439893.3970 3 DAY 18 HR 37.4 MIN

	SELENOGRAPHIC									
LEM	ALT	49941.37500	R	5752336.250	VI	5224.528137	X	4611796.625	VX	-3086.005920
74	LTDM	-2.657237559			FPVI	.1072244644	Y	-3427766.531	VY	-4198.232055
	LONM	-36.62196731			AZVI	274.2195816	Z	-266683.6054	VZ	383.5483551
	A	5264827.562	ASND	291.2337837	VVEN	-32866552.75	APOG	8.235648632	VAPG	5224.428588
	TIMP	51080.77099	LTDI	-.6503483876	LONI	-61.28911209	CRIP	546.3167953		
2"	WT	4940.485046	ATLI	90.93086338	VA	5239.781250	AAAP	-1.035194397	VIR	9.777152538
	DVV	20.30650854	AMIS	278.2331237	FPVA	.1069126129	AAAY	4.022587358	VIT	5224.518981
	RANG	141.1794109	RLAT	-.0032459355	AZVA	274.2072753	AAAT	4.153653323	VAT	-5239.772094
	F	3000.000000	DWT	-9.230769157			VISN	12653.97033	DVI	19.53694772
	VLGR	332.1684608	VLML	106.4822711	ASPM	325.0000000	TPSE	1153590.812	ICVL	5661.442443
1"	RDR01	TARGET SITE	RGR	862119.6171	AZR	-87.93810272	ELR	90.99760627	DRGR	5177.307495

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PICH .1264325157 YAW .0237112259 ROLL .0032459741

6 FEB. 1968 21 HR 31 MIN 48.18 SEC TMST 326245.2070 J.D. 2439893.3970 3 DAY 18 HR 37.4 MIN

	SELENOGRAPHIC									
LEM	ALT	49974.18750	R	5752369.000	VI	5302.723876	X	4599325.062	VX	-3149.931671
74	LTDM	-2.641679853			FPVI	.0717487335	Y	-3444657.750	VY	-4247.363281
	LONM	-36.83132171			AZVI	274.2892761	Z	-265124.8437	VZ	395.874031
	A	5400137.437	ASND	291.5974845	VVEN	-32043023.00	APOG	8.235566377	VAPG	5302.658630
	TIMP	51172.52539	LTDI	-.1668137703	LONI	-66.50925064	CRIP	632.1778488		
	WT	4903.561950	ATLI	91.22740745	VA	5317.975891	AAAP	-1.295532450	VIR	6.640248775
	DVV	20.47471213	AMIS	278.3373565	FPVA	.0715427398	AAAY	4.057074606	VIT	5302.719726
	RANG	144.6128368	RLAT	-.0032088929	AZVA	274.2769508	AAAT	4.258903443	VAT	-5317.971740
	F	3000.000000	DWT	-9.230769157			VISN	12732.41162	DVI	19.68405795
	VLGR	332.2010726	VLML	106.4986953	ASPM	325.0000000	TPSE	1165590.812	IDVL	5739.883789
	RDR01	TARGET SITE	RGR	882982.0234	AZR	-87.89609909	ELR	91.17906856	DRGR	5253.971862

PICH .1264325157 YAW .0237112259 ROLL .0032089899

6 FEB. 1968 21 HR 31 MIN 52.18 SEC TMST 326249.2070 J.D. 2439893.3971 3 DAY 18 HR 37.5 MIN

	SELENOGRAPHIC									
LEM	ALT	49994.75000	R	5752389.437	VI	5381.511779	X	4586512.875	VX	-3214.803833
74	LTDM	-2.625631183			FPVI	.0390138626	Y	-3461855.468	VY	-4296.380249
	LONM	-37.04515457			AZVI	274.3591270	Z	-263516.2265	VZ	408.4390335
	A	5545867.437	ASND	291.9507980	VVEN	-31201019.50	APOG	8.233817696	VAPG	5381.477600
2"	TIMP	51357.12841	LTDI	.7813645229	LONI	-76.86109542	CRIP	802.4355545		
	WT	4866.638916	ATLI	91.52084350	VA	5396.762634	AAAP	-1.555445715	VIR	3.664276838
	DVV	20.64486885	AMIS	278.4416007	FPVA	.0389032364	AAAY	4.091416418	VIT	5381.510498
	RANG	148.1199073	RLAT	-.0031746552	AZVA	274.3467826	AAAT	4.377110838	VAT	-5396.761352
1"	F	3000.000000	DWT	-9.230769157			VISN	12811.44567	DVI	19.83340048

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VLGR	332.2212295	VLML	106.5234041	ASPM	325.0000000	TPSE	1177590.812	ICVL	5818.917846
RDR01	TARGET SITE	RGR	904288.7812	AZR	-87.85441684	ELR	91.36158657	DRGR	5331.181762
PICH	.1264325157	YAW	.0237112259	ROLL	.0031747327				

6 FEB. 1968 21 HR 31 MIN 56.18 SEC TMST 326253.2070 J.D. 2439893.3971 3 DAY 18 HR 37.6 MIN

	SELENOGRAPHIC								
LEM	ALT	50003.75000	R	5752398.500	VI	5460.898254	X	4573522.687	VX	-3280.425903
74	LTDM	-2.609082728			FPVI	.0090284347	Y	-3479139.156	VY	-4345.430664
	LONM	-37.26072692			AZVI	274.4291229	Z	-261856.9316	VZ	421.2461128
	A	5703219.250	ASND	292.2966384	VVEN	-30340185.00	APOG	8.232737660	VAPG	5460.879577
	TIMP	52270.72558	LTDI	4.439918637	LONI	-127.3982410	CRIP	1631.313308		
	WT	4829.715820	ATLI	91.81114578	VA	5476.148010	AAAP	-1.814915254	VIR	.8603804111
	DVV	20.81702828	AMIS	278.5458526	FPVA	.0090036392	AAAY	4.125612318	VIT	5460.898193
	RANG	151.6558952	RLAT	-.0031608904	AZVA	274.4167671	AAAT	4.507171392	VAT	-5476.147949
	F	3000.000000	DWT	-9.230769157			VISN	12891.08178	DVI	19.98502635
	VLGR	332.2299232	VLML	106.5581426	ASPM	325.0000000	TPSE	1189590.812	ICVL	5898.553955
	RDR01	TARGET SITE	RGR	925768.8281	AZR	-87.81227302	ELR	91.54281425	DRGR	5408.948913
	PICH	.1264325157	YAW	.0237112259	ROLL	.0031609485				

6 FEB. 1968 21 HR 31 MIN 57.37 SEC TMST 326254.3945 J.D. 2439893.3971 3 DAY 18 HR 37.6 MIN

	SELENOGRAPHIC								
CM-SM	ALT	481973.3125	R	6184368.312	VI	5291.032775	X	4240226.000	VX	-3825.731384
120	LTDM	-1.844380304			FPVI	.0108270645	Y	-4497474.062	VY	-3627.922729
	LONM	-46.68637084			AZVI	274.8146324	Z	-199043.5781	VZ	443.8265686
	A	6187758.000	ASND	292.4012794	VVEN	-27964364.75	APOG	80.48948383	VAPG	5284.973266
	ECC	.59801996-03	ARGP	319.9715766	ARGL	339.0101013	PERG	79.27147674	VPER	5291.297973
	INCL	174.8449592	MA	19.01629471	TA	19.03852319	PERD	122.5347948	MCON	ELLIPSE
	LTDE	-3.342470884	LONE	-.9481925964	LTDS	-1.415062606	LONS	84.84460639		

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WT	35799.86279	ATLI	54.47974967	VA	5307.427062	AAAP	-37.94034194	VIR	.9996435642
DVV	4.525395154	AMIS	291.5365867	FPVA	.0107927322	AAAY	-11.00269198	VIT	5291.03247C
RANG	306.3832511	RLAT	166.6313457	AZVA	274.7997245	AAAT	38.78149700	VAT	-5307.42694C

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	326254.3945	RCL	1067180.515	OPCL	-.21160988-03	XCL	-937994.8203	VXCL	120.1539926
		ACL	18C.0002422	DRCL	-531.6841201	YCL	-3.941406250	VYCL	-.054C707111
		ECL	241.5155677			ZCL	-508959.7070	VZCL	893.3892517

6 FEB. 1968 21 HR 31 MIN 57.37 SEC TMST 326254.3945 J.C. 2439893.3971 3 DAY 18 HR 37.6 MIN

SELENOGRAPHIC

LEM	ALT	50004.25000	R	5752399.000	VI	5484.603027	X	4569612.062	VX	-3300.090026
74	LTDM	-2.604067742			FPVI	.64945221-03	Y	-3484312.531	VY	-4359.996276
	LONM	-37.32538986			AZVI	274.4499549	Z	-261353.9824	VZ	425.C986137
	A	5752413.187	ASND	292.3977241	VVEN	-30080719.25	APOG	8.373483419	VAPG	5483.769531
	ECC	.14950499-C3	ARGP	251.8100109	ARGL	329.6219177	PERG	8.090397477	VPER	5485.409545
	INCL	174.8454246	MA	77.67123222	TA	77.81190681	PERC	109.8334321	MCON	ELLIPSE
	LTDE	-3.342470884	LONE	-.9481925964	LTDS	-1.415062606	LONS	84.84460639		
	WT	4818.744628	ATLI	91.89679813	VA	5499.852355	AAAP	-1.891923993	VIR	.062C53442C
	DVV	20.86857628	AMIS	278.5768318	FPVA	.64849854-03	AAAY	4.135744333	VIT	5484.602966
	RANG	152.7166595	RLAT	-.0031546976	AZVA	274.4375915	AAAT	4.547939896	VAT	-5499.852294
	F	3000.000000	DWT	-9.230769157			VISN	12914.86193	DVI	20.03052759
	VLGR	332.2304382	VLML	106.5706567	ASPM	325.0000000	TPSE	1193156.234	ICVL	5922.333984
	RDR01	TARGET SITE	RGR	932211.3906	AZR	-87.79973697	ELR	91.59664916	DRGR	5432.163879
	PICH	.1264325157	YAW	.0237112259	ROLL	.0031547168				

PRIMARY PHASE CUTOFF ---- CIRCULAR ORBIT 1.000002458

6 FEB. 1968 21 HR 31 MIN 57.37 SEC TMST 326254.3945 J.C. 2439893.3971 3 DAY 18 HR 37.6 MIN

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	SELENOGRAPHIC									
LEM	ALT	50004.25000	R	5752399.000	VI	5484.603027	X	4569612.062	VX	-3300.090026
80	LTDM	-2.604067742			FPVI	.64945221-03	Y	-3484312.531	VY	-4359.996276
	LONM	-37.32538986			AZVI	274.4499549	Z	-261353.9824	VZ	425.0986137
	A	5752413.187	ASND	292.3977241	VVEN	-30080719.25	APOG	8.373483419	VAPG	5483.769531
	ECC	.14950499-03	ARGP	251.8100109	ARGL	329.6219177	PERG	8.090397477	VPER	5485.409545
	INCL	174.8454246	MA	77.67123222	TA	77.81190681	PERD	109.8334321	MCON	ELLIPSE
	LTDE	-3.342470884	LONE	-.9481925964	LTDS	-1.415062606	LONS	84.84460639		
	WT	4818.744628	ATLI	90.00000095	VA	5499.852355	AAAP	-.42051250-03	VIR	.0620534420
	DVV	5.231063842	AMIS	278.5769348	FPVA	.64849854-03	AAAY	4.135744392	VIT	5484.602966
	RANG	152.7166595	RLAT	-.0031531442	AZVA	274.4375915	AAAT	4.135744392	VAT	-5499.852294
	RDR01	TARGET SITE	RGR	932211.3906	AZR	-87.79973697	ELR	91.59664916	DRGR	5432.163879
	PICH	.0546279661	YAW	.00000000 00	ROLL	.00000000 00				

6 FEB. 1968 21 HR 31 MIN 57.37 SEC TMST 326254.3945 J.D. 2439893.3971 3 DAY 18 HR 37.6 MIN

	SELENOGRAPHIC									
LEM	ALT	50004.25000	R	5752399.250	VI	5484.603271	X	4569612.062	VX	-3300.090026
80	LTDM	-2.604067742			FPVI	.65040588-03	Y	-3484312.531	VY	-4359.996276
	LONM	-37.32538986			AZVI	274.4499549	Z	-261353.9824	VZ	425.0986137
	A	5752413.187	ASND	292.3977241	VVEN	-30080721.75	APOG	8.373483419	VAPG	5483.769531
	ECC	.14950499-03	ARGP	251.8100109	ARGL	329.6219177	PERG	8.090397477	VPER	5485.409545
	INCL	174.8454246	MA	77.67123222	TA	77.81190681	PERD	109.8334321	MCON	ELLIPSE
	LTDE	-3.342470884	LONE	-.9481925964	LTDS	-1.415062606	LONS	84.84460639		
	WT	4818.744628	ATLI	90.00000095	VA	5499.852355	AAAP	-.42051250-03	VIR	.0620534420
	DVV	5.231063842	AMIS	278.5769348	FPVA	.64849854-03	AAAY	4.135744392	VIT	5484.602966
	RANG	152.7166595	RLAT	-.0031531442	AZVA	274.4375915	AAAT	4.135744392	VAT	-5499.852294
	RDR01	TARGET SITE	RGR	932211.3906	AZR	-87.79973697	ELR	91.59664916	DRGR	5432.163879

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PICH .0546279661 YAW .00000000 00 ROLL .00000000 00

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	326254.3945	RCL	1067180.515	OPCL	-.21160988-03	XCL	-937994.8203	VXCL	120.1539926
		ACL	180.0002422	DRCL	-531.6841201	YCL	-3.941406250	VYCL	-.0540707111
		ECL	241.5155677			ZCL	-508959.7070	VZCL	893.3892517

PRIMARY PHASE CUTOFF ---- PHASE TIME LAPSE .00000000 00

INJECT TO TRANSFER ELLIPSE

6 FEB. 1968 21 HR 31 MIN 57.37 SEC TMST 326254.3945 J.D. 2439893.3971 3 DAY 18 HR 37.6 MIN

SELENOGRAPHIC

LEM	ALT	50004.25000	R	5752399.000	VI	5484.603027	X	4569612.062	VX	-3300.090026
85	LTDM	-2.604067742			FPVI	.64945221-03	Y	-3484312.531	VY	-4359.996276
	LONM	-37.32538986			AZVI	274.4499549	Z	-261353.9824	VZ	425.0986137
	A	5752413.187	ASND	292.3977241	VVEN	-30080719.25	APOG	8.373483419	VAPG	5483.769531
	ECC	.14950499-03	ARGP	251.8100109	ARGL	329.6219177	PERG	8.090397477	VPER	5485.409545
	INCL	174.8454246	MA	77.67123222	TA	77.81190681	PERD	109.8334321	MCON	ELLIPSE
	LTDE	-3.342470884	LONE	-.9481925964	LTDS	-1.415062606	LONS	84.84460639		
	WT	4818.744628	ATLI	89.99935054	VA	5499.852355	AAAP	.24937069-05	VIR	.06205344 20
	DVV	20.70164465	AMIS	274.4499511	FPVA	.64849854-03	AAAY	.0123621495	VIT	5484.602966
	RANG	152.7166595	RLAT	.19453766-07	AZVA	274.4375915	AAAT	.0123621498	VAT	-5499.852294
	F	3000.0000 00	DWT	-9.230769157			VISN	12914.86193	DVI	20.03052783
2"	VLGR	.00000000 00	VLML	-.00000000 00	ASPM	.00000000 00	TPSE	.00000000 00	IDVL	.00000000 00
	RDRD1	TARGET SITE	RGR	932211.3906	AZR	-87.79973697	ELR	91.59664916	DRGR	5432.163879

6 FEB. 1968 21 HR 32 MIN .18 SEC TMST 326257.2070 J.D. 2439893.3972 3 DAY 18 HR 37.6 MIN

SELENOGRAPHIC

1" LEM	ALT	50004.62500	R	5752399.375	VI	5541.069274	X	4560144.000	VX	-3345.895355

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85	LTDM	-2.592080086			FPVI	.0029535293	Y	-3496785.218	VY	-4395.840209
	LONM	-37.48152160			AZVI	274.4569435	Z	-260151.7011	VZ	430.1425247
	A	5873987.562	ASND	292.3957023	VVEN	-29458137.00	APOG	48.25191402	VAPG	5316.324218
	ECC	.020700008 1	ARGP	329.6307678	ARGL	329.7763366	PERG	8.229096293	VPER	5541.072631
	INCL	174.8454208	MA	.1396325882	TA	.1455667894	PERD	113.3336772	MCON	ELLIPSE
	LTDE	-3.342510223	LONE	-.9498672485	LTDS	-1.415062695	LONS	84.84257984		
	WT	4792.792053	ATLI	89.84496974	VA	5556.318664	AAAP	.1520840470	VIR	.2854936123
	DVV	20.79295706	AMIS	274.4569358	FPVA	.0029458999	AAAY	.0122501685	VIT	5541.069213
	RANG	155.2778205	RLAT	-.97269178-07	AZVA	274.4446868	AAAT	.1525766160	VAT	-5556.318664
	F	3000.000000	DWT	-9.230769157			VISN	12971.33032	DVI	20.13899135
	VLGR	.40019052-03	VLML	.79377162-04	ASPM	325.0000000	TPSE	8434.570312	IDVL	56.46853637
	RDR01	TARGET SITE	RGR	947766.7421	AZR	-87.77098941	ELR	91.72548961	DRGR	5487.846740

6 FEB. 1968 21 HR 32 MIN 2.34 SEC TMST 326259.3632 J.D. 2439893.3972 3 DAY 18 HR 37.7 MIN

	SELENOGRAPHIC									
CM-SM	ALT	481978.3125	R	6184373.312	VI	5291.025939	X	4221008.875	VX	-3841.247650
120	LTDM	-1.823912456			FPVI	.0108985901	Y	-4515618.562	VY	-3611.391540
	LONM	-46.93135070			AZVI	274.8224143	Z	-196835.6230	VZ	444.5469474
	A	6187752.500	ASND	292.3992500	VVEN	-27964391.00	APOG	80.49489402	VAPG	5284.942749
	ECC	.60421722-03	ARGP	320.0417213	ARGL	339.2537918	PERG	79.26425552	VPER	5291.333129
	INCL	174.8449516	MA	19.18921828	TA	19.21206927	PERD	122.5346317	MCON	ELLIPSE
	LTDE	-3.342539668	LONE	-.9495735168	LTDS	-1.415062904	LONS	84.84260559		
	WT	35799.86279	ATLI	54.24642324	VA	5307.420349	AAAP	-38.18224477	VIR	1.006307363
2"	DVV	4.525382101	AMIS	291.5946998	FPVA	.0108642578	AAAY	-10.97999107	VIT	5291.025695
	RANG	310.4074172	RLAT	166.5449581	AZVA	274.8074836	AAAT	39.00748348	VAT	-5307.420227

COORDINATES OF LEM RELATIVE TO CM-SM

	TMST	326259.3632	RCL	1064301.593	OPCL	-.22164532-03	XCL	-934986.2812	VXCL	219.2338809
1"			ACL	180.0002555	DRCL	-626.1389312	YCL	-4.117187500	VYCL	-.0546190738

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ECL 241.4616451 ZCL -508466.8593 VZCL 907.473114C

6 FEB. 1968 21 HR 32 MIN 2.34 SEC TMST 326259.3632 J.D. 2439893.3972 3 DAY 18 HR 37.7 MIN

SELENOGRAPHIC

LEM	ALT	50005.6875C	R	5752400.562	VI	5584.648193	X	4552880.437	VX	-3381.066955
85	LTDM	-2.582776129			FPVI	.0078964233	Y	-3506308.125	VY	-4423.607055
	LONM	-37.60093307			AZVI	274.4623374	Z	-259218.6074	VZ	434.0307350
	A	5972286.937	ASND	292.3957290	VVEN	-28973279.25	APOG	80.60795974	VAPG	5188.018066
	ECC	.0368186203	ARGP	329.6736679	ARGL	329.8960151	PERG	8.229034662	VPER	5584.652954
	INCL	174.8454170	MA	.2064134292	TA	.2223448865	PERD	116.1904535	MCON	ELLIPSE
	LTDE	-3.342539668	LONE	-.9495735168	LTDS	-1.415062904	LONS	84.84260559		
	WT	4772.857910	ATLI	89.72531509	VA	5599.897521	AAAP	.2668081447	VIR	.7695965767
	DVV	20.86378622	AMIS	274.4623298	FPVA	.0078754425	AAAY	.0121651406	VIT	5584.648132
	RANG	157.2367191	RLAT	-.13617789-06	AZVA	274.4501609	AAAT	.2670853361	VAT	-5599.897460
	F	3000.000000	DWT	-9.230769157			VISN	13014.91198	DVI	20.22310304
	VLGR	.0014299127	VLML	.38014810-03	ASPM	325.0000000	TPSE	14912.10937	IDVL	100.0501546
	RDR01	TARGET SITE	RGR	959664.3750	AZR	-87.74889469	ELR	91.82288169	DRGR	5530.844421

PRIMARY PHASE CUTOFF ---- PHASE TIME LAPSE 4.970703125

START COAST IN THE TRANSFER ELLIPSE

6 FEB. 1968 21 HR 32 MIN 2.34 SEC TMST 326259.3632 J.D. 2439893.3972 3 DAY 18 HR 37.7 MIN

SELENOGRAPHIC

2" LEM	ALT	50005.6875C	R	5752400.562	VI	5584.648193	X	4552880.437	VX	-3381.066955
87	LTDM	-2.582776129			FPVI	.0078964233	Y	-3506308.125	VY	-4423.607055
	LONM	-37.60093307			AZVI	274.4623374	Z	-259218.6074	VZ	434.0307350
	A	5972286.937	ASND	292.3957290	VVEN	-28973279.25	APOG	80.60795974	VAPG	5188.018066
1"	ECC	.0368186203	ARGP	329.6736679	ARGL	329.8960151	PERG	8.229034662	VPER	5584.652954
	INCL	174.8454170	MA	.2064134292	TA	.2223448865	PERD	116.1904535	MCON	ELLIPSE

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LTDE	-3.342539668	LONE	-.9495735168	LTDS	-1.415062904	LONS	84.84260559		
WT	4772.857910	ATLI	89.72531509	VA	5599.897521	AAAP	.2668078393	VIR	.7695965767
DVV	5.231053292	AMIS	274.4623298	FPVA	.0078754425	AAAY	.0121651016	VIT	5584.648132
RANG	157.2367191	RLAT	-.38907969-07	AZVA	274.4501609	AAAT	.2670850269	VAT	-5599.897460
RCR01	TARGET SITE	RGR	959664.3750	AZR	-87.74889469	ELR	91.82288169	DRGR	5530.844421

6 FEB. 1968 21 HR 32 MIN 16.18 SEC TMST 326273.2070 J.D. 2439893.3973 3 DAY 18 HR 37.9 MIN

	SELENOGRAPHIC								
CM-SM	ALT	481992.3750	R	6184387.375	VI	5291.006774	X	4167438.875	VX	-3883.807403
120	LTDM	-1.766749009			FPVI	.0110998153	Y	-4565385.312	VY	-3565.307769
	LONM	-47.60911178			AZVI	274.8436241	Z	-190668.9941	VZ	446.5102882
	A	6187735.437	ASND	292.3979530	VVEN	-27964467.25	APOG	80.46644210	VAPG	5285.083129
	ECC	.57903033-03	ARGP	320.2262840	ARGL	339.9323310	PERG	79.28710174	VPER	5291.207214
	INCL	174.8449344	MA	19.68349647	TA	19.70604467	PERD	122.5341253	MCON	ELLIPSE
	LTDE	-3.342729091	LONE	-.9490547180	LTDS	-1.415061503	LONS	84.84139442		
	WT	35799.86279	ATLI	53.59706640	VA	5307.401123	AAAP	-38.85550022	VIR	1.024820804
	DVV	4.525346517	AMIS	291.7591361	FPVA	.0110654831	AAAY	-10.91598618	VIT	5291.006469
	RANG	321.5417098	RLAT	166.3017101	AZVA	274.8286247	AAAT	39.63766098	VAT	-5307.401000

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	326273.2070	RCL	1055636.203	DPCL	-.24911866-03	XCL	-925932.8046	VXCL	220.2342395
		ACL	180.0002880	DRCL	-626.0034561	YCL	-4.589843750	VYCL	-.0534901619
		ECL	241.2983684			ZCL	-506967.6992	VZCL	901.2602233

6 FEB. 1968 21 HR 33 MIN 16.18 SEC TMST 326333.2070 J.D. 2439893.3981 3 DAY 18 HR 38.9 MIN

	SELENOGRAPHIC								
LEM	ALT	50582.18750	R	5752977.000	VI	5584.059997	X	4291411.812	VX	-3678.889923
87	LTDM	-2.256897151			FPVI	.1522655487	Y	-3824814.062	VY	-4176.682312
	LONM	-41.70971679			AZVI	274.6355743	Z	-226552.8242	VZ	450.3552932

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A	5972175.125	ASND	292.3855323	VVEN	-28973819.50	APOG	80.56978797	VAPG	5188.167602
ECC	.0367991887	ARGP	329.7103233	ARGL	334.0038871	PERG	8.230412960	VPER	5584.596557
INCL	174.8452892	MA	3.986340671	TA	4.293561100	PERD	116.1871900	MCON	ELLIPSE
LTDE	-3.343551486	LONE	-.9504737854	LTDS	-1.415057078	LONS	84.83248806		
WT	4772.857910	ATLI	85.61823177	VA	5599.310791	AAAP	4.226075708	VIR	14.83963894
DVV	5.229882299	AMIS	274.6354179	FPVA	.1518507004	AAAY	.0124985204	VIT	5584.040283
RANG	224.6673164	RLAT	.57746147-05	AZVA	274.6229209	AAAT	4.226094186	VAT	-5599.291137
RDRC1	TARGET SITE	RGR	1368724.812	AZR	-87.22488689	ELR	94.75491333	DRGR	5516.937438

6 FEB. 1968 21 HR 33 MIN 16.18 SEC TMST 326333.2070 J.D. 2439893.3981 3 DAY 18 HR 38.9 MIN

SELENOGRAPHIC

CM-SM	ALT	482056.2500	R	6184451.250	VI	5290.921508	X	3928224.750	VX	-4062.117187
120	LTDM	-1.516205325			FPVI	.0119562149	Y	-4773856.625	VY	-3359.563964
	LONM	-50.55033874			AZVI	274.9276885	Z	-163638.6328	VZ	454.2934570
A	6187663.875	ASND	292.3886184	VVEN	-27964791.75	APOG	80.46761512	VAPG	5285.046447
ECC	.59175780-03	ARGP	320.9682312	ARGL	342.8737106	PERG	79.26236343	VPER	5291.305175
INCL	174.8448696	MA	21.88031911	TA	21.90547680	PERD	122.5319986	MOON	ELLIPSE
LTDE	-3.343551486	LONE	-.9504737854	LTDS	-1.415057078	LONS	84.83248806		
WT	35799.86279	ATLI	50.78821372	VA	5307.316040	AAAP	-41.76875066	VIR	1.103927373
DVV	4.525188386	AMIS	292.5201301	FPVA	.0119190216	AAAY	-7.938470959	VIT	5290.921203
RANG	369.8685417	RLAT	165.1976776	AZVA	274.9124298	AAAT	42.10744428	VAT	-5307.315917

COORDINATES OF LEM RELATIVE TO CM-SM

2"

TMST	326333.2070	RCL	1018108.484	OPCL	-.36821664-03	XCL	-886746.7109	VXCL	224.0995998
		ACL	180.0004253	DRCL	-624.7361907	YCL	-6.542968750	VYCL	-.0486278534
		ECL	240.5721015			ZCL	-5[illegible]25.1054	VZCL	874.2657012

1"

6 FEB. 1968 21 HR 38 MIN 16.18 SEC TMST 326633.2070 J.D. 2439893.4015 3 DAY 18 HR 43.9 MIN

[redacted]

[redacted]

	SELENOGRAPHIC									
LEM	ALT	63462.93750	R	5765857.687	VI	5571.816894	X	3024799.656	VX	-4683.581604
87	LTDM	-.8355379700			FPVI	.7238664627	Y	-4908017.125	VY	-2977.619903
	LONM	-58.35456848			AZVI	275.0871238	Z	-84079.87988	VZ	492.9371719
	A	5971722.437	ASND	292.3425445	VVEN	-28976016.50	APOG	80.40787315	VAPG	5188.811828
	ECC	.0367130395	ARGP	329.8081588	ARGL	350.6599960	PERG	8.243322134	VPER	5584.326477
	INCL	174.8448905	MA	19.39206218	TA	20.85183644	PERD	116.1739807	MOON	ELLIPSE
	LTDE	-3.347663939	LONE	-.9541397095	LTDS	-1.415037721	LONS	84.79137992		
	WT	4772.857910	ATLI	68.96376991	VA	5587.100769	AAAP	20.31434488	VIR	70.39154911
	DVV	5.206046342	AMIS	275.0865173	FPVA	.7218866348	AAAY	.0133900685	VIT	5571.372253
	RANG	498.1635665	RLAT	.12581540-03	AZVA	275.0731697	AAAT	20.31434822	VAT	-5586.657348

6 FEB. 1968 21 HR 38 MIN 16.18 SEC TMST 326633.2070 J.D. 2439893.4015 3 DAY 18 HR 43.9 MIN

	SELENOGRAPHIC									
CM-SM	ALT	482442.8125	R	6184837.812	VI	5290.452087	X	2589937.593	VX	-4783.478088
120	LTDM	-.2175162006			FPVI	.0158357620	Y	-5616394.500	VY	-2209.443206
	LONM	-65.24374008			AZVI	275.1507759	Z	-23479.90014	VZ	474.9518356
	A	6187338.437	ASND	292.3446235	VVEN	-27966262.00	APOG	80.33880138	VAPG	5285.575866
	ECC	.51790047-03	ARGP	323.1981277	ARGL	357.5785789	PERG	79.28404617	VPER	5291.053466
	INCL	174.8446407	MA	34.34715318	TA	34.38044786	PERD	122.5223331	MOON	ELLIPSE
	LTDE	-3.347663939	LONE	-.9541397095	LTDS	-1.415037721	LONS	84.79137992		
	WT	35799.86279	ATLI	36.96943235	VA	5306.847534	AAAP	-56.21820306	VIR	1.462153106
	DVV	4.524330496	AMIS	298.0679092	FPVA	.0157871246	AAAY	-4.801806032	VIT	5290.451599
	RANG	611.4363098	RLAT	157.8686084	AZVA	275.1348228	AAAT	56.25974226	VAT	-5306.847351

2"

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	326633.2070	RCL	833412.2421	OPCL	-.99577797-03	XCL	-694341.6640	VXCL	231.8991508
		ACL	180.0011978	DRCL	-602.1122817	YCL	-14.48437500	VYCL	-.0270328522
		ECL	236.4217357			ZCL	-460939.9375	VZCL	739.3382339

1"

[redacted]

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6 FEB. 1968 21 HR 43 MIN 16.18 SEC TMST 326933.2070 J.D. 2439893.4050 3 DAY 18 HR 48.9 MIN

SELENOGRAPHIC

LEM	ALT	92194.25000	R	5794589.062	VI	5544.898010	X	1512469.015	VX	-5300.298645
87	LTDM	.6447035670			FPVI	1.237406730	Y	-5593339.625	VY	-1551.503768
	LONM	-74.86878204			AZVI	275.1148834	Z	65200.49365	VZ	495.5451736
	A	5971383.250	ASND	292.2961158	VVEN	-28977663.25	APOG	80.27893543	VAPG	5189.334899
	ECC	.0366407214	ARGP	329.8430862	ARGL	7.193692743	PERG	8.260613203	VPER	5584.080688
	INCL	174.8447513	MA	34.85807847	TA	37.35060358	PERD	116.1640815	MOON	ELLIPSE
	LTDE	-3.351773768	LONE	-.9598617554	LTDS	-1.415017426	LONS	84.74821472		
	WT	4772.857910	ATLI	52.43034219	VA	5560.255676	AAAP	36.33567428	VIR	119.7427406
	DVV	5.154181718	AMIS	275.1140098	FPVA	1.233987808	AAAY	.0135179244	VIT	5543.604919
	RANG	769.7305526	RLAT	.37807402-03	AZVA	275.1007118	AAAT	36.33567571	VAT	-5558.966125

6 FEB. 1968 21 HR 43 MIN 16.18 SEC TMST 326933.2070 J.D. 2439893.4050 3 DAY 18 HR 48.9 MIN

SELENOGRAPHIC

CM-SM	ALT	482925.3125	R	6185320.312	VI	5289.950378	X	1080856.562	VX	-5189.652465
120	LTDM	1.095134630			FPVI	.0188283920	Y	-6089002.937	VY	-913.9608078
	LONM	-79.93429565			AZVI	275.0380325	Z	118217.1787	VZ	464.4958305
	A	6187129.812	ASND	292.2981109	VVEN	-27967204.50	APOG	80.27429676	VAPG	5285.821533
	ECC	.48828125-03	ARGP	323.9338455	ARGL	12.28058612	PERG	79.27990150	VPER	5290.985900
	INCL	174.8446121	MA	48.30483579	TA	48.34673643	PERD	122.5161361	MOON	ELLIPSE
	LTDE	-3.351773768	LONE	-.9598617554	LTDS	-1.415017426	LONS	84.74821472		
2"	WT	35799.86279	ATLI	24.02368998	VA	5306.347229	AAAP	-70.52794647	VIR	1.738207221
	DVV	4.523437261	AMIS	310.1530570	FPVA	.0187692642	AAAY	-1.351336836	VIT	5289.949890
	RANG	853.0049209	RLAT	143.8199768	AZVA	275.0224227	AAAT	70.52857303	VAT	-5306.346923

COORDINATES OF LEM RELATIVE TO CM-SM

1"	TMST	326933.2070	RCL	659380.2031	OPCL	-.0017147866	XCL	-513585.6835	VXCL	221.2248306

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ACL	180.0022048	DRCL	-554.1705703	YCL	-19.73437500	VYCL	-.0115737915
ECL	231.1592025			ZCL	-413535.9804	VZCL	608.8737564

6 FEB. 1968 21 HR 48 MIN 16.18 SEC TMST 327233.2070 J.D. 2439893.4084 3 DAY 18 HR 53.9 MIN

	SELENOGRAPHIC								
LEM	ALT	134275.2500	R	5836670.062	VI	5505.879516	X	-121044.9248	VX -5486.630737
87	LTDM	2.05535677C			FPVI	1.652784347	Y	-5831658.875	VY -28.57659077
	LONM	-91.18909072			AZVI	274.7286643	Z	209332.4648	VZ 459.1035499
	A	5971261.125	ASND	292.2514381	VVEN	-28978255.25	APOG	80.21789741	VAPG 5189.600646
	ECC	.036599827C	ARGP	329.8678703	ARGL	23.52540135	PERG	8.281442642	VPER 5583.909118
	INCL	174.8448867	MA	50.33393335	TA	53.65752649	PERD	116.1605176	MCON ELLIPSE
	LTDE	-3.355882972	LONE	-.9642105102	LTDS	-1.414996966	LONS	84.70641994	
	WT	4772.85791C	ATLI	36.09927988	VA	5521.345825	AAAP	52.25257301	VIR 158.803400C
	DVV	5.080002188	AMIS	274.7276496	FPVA	1.648154258	AAAY	.0128765382	VIT 5503.588867
	RANG	1037.964324	RLAT	.77207514-03	AZVA	274.7153778	AAAT	52.25257301	VAT -5519.061584

6 FEB. 1968 21 HR 48 MIN 16.18 SEC TMST 327233.2070 J.D. 2439893.4084 3 DAY 18 HR 53.9 MIN

	SELENOGRAPHIC								
CM-SM	ALT	483475.0000	R	6185870.000	VI	5289.463867	X	-499260.3671	VX -5253.978698
120	LTDM	2.336363077			FPVI	.0206556320	Y	-6160530.250	VY 441.2179145
	LONM	-94.63322830			AZVI	274.5966758	Z	252172.7460	VZ 423.6287879
	A	6187091.250	ASND	292.2536392	VVEN	-27967379.50	APOG	80.21021366	VAPG 5286.137695
	ECC	.43158373-03	ARGP	325.6662483	ARGL	26.98064947	PERG	79.33128070	VPER 5290.702514
	INCL	174.8447761	MA	61.27139043	TA	61.31439781	PERD	122.5149908	MCON ELLIPSE
	LTDE	-3.355882972	LONE	-.9642105102	LTDS	-1.414996966	LONS	84.70641994	
	WT	35799.86279	ATLI	14.53712606	VA	5305.862182	AAAP	-84.79553890	VIR 1.906706571
	DVV	4.5225988C3	AMIS	343.4984855	FPVA	.0205917358	AAAY	2.187038689	VIT 5289.463317
	RANG	1094.510421	RLAT	108.2642478	AZVA	274.5824394	AAAT	84.79557037	VAT -5305.861816

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COORDINATES OF LEM RELATIVE TO CM-SM

TMST	327233.2070	RCL	503029.4609	OPCL	-.0026192881	XCL	-351546.8554	VXCL	194.5687980
		ACL	1800.0037498	DRCL	-485.0895576	YCL	-22.99609375	VYCL	-.0028305054
		ECL	224.3355655			ZCL	-359796.3984	VZCL	488.0935325

6 FEB. 1968 21 HR 48 MIN 42.33 SEC TMST 327259.3632 J.D. 2439893.4088 3 DAY 18 HR 54.3 MIN

	SELENOGRAPHIC								
CM-SM	ALT	483525.0000	R	6185920.000	VI	5289.423461	X	-637005.9296	VX	-5243.079101
120	LTDM	2.438484162			FPVI	.0207509994	Y	-6147402.562	VY	559.2964248
	LONM	-95.91598892			AZVI	274.5433845	Z	263190.6640	VZ	418.6982765
	A	6187096.875	ASND	292.2496643	VVEN	-27967355.00	APOG	80.21984195	VAPG	5286.090087
	ECC	.44013077-03	ARGP	325.9507179	ARGL	28.26239752	PERG	79.32350444	VPER	5290.745300
	INCL	174.8447971	MA	62.26699066	TA	62.31167459	PERD	122.5151567	MCON	ELLIPSE
	LTDE	-3.356241524	LONE	-.9647598266	LTDS	-1.414996042	LONS	84.70260620		
	WT	35799.86279	ATLI	14.12539029	VA	5305.821838	AAAP	-86.04119110	VIR	1.915607214
	DVV	4.522530496	AMIS	348.1978492	FPVA	.0206871033	AAAY	2.492079496	VIT	5289.422912
	RANG	1115.569763	RLAT	103.3591823	AZVA	274.5293159	AAAT	86.04120922	VAT	-5305.821472

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	327259.3632	RCL	490429.1367	OPCL	-.0027135092	XCL	-338502.5703	VXCL	191.6076736
		ACL	1800.0039348	DRCL	-478.2469787	YCL	-23.22656250	VYCL	-.0023555755
		ECL	223.6472969			ZCL	-354875.6796	VZCL	478.1577796

2"

6 FEB. 1968 21 HR 48 MIN 42.33 SEC TMST 327259.3632 J.D. 2439893.4088 3 DAY 18 HR 54.3 MIN

	SELENOGRAPHIC								
LEM	ALT	138466.3750	R	5840861.312	VI	5502.014770	X	-264939.7968	VX	-5482.240112
87	LTDM	2.171149075			FPVI	1.683265686	Y	-5830652.000	VY	104.4451608
	LONM	-92.60168457			AZVI	274.6767005	Z	221278.8964	VZ	454.2042427

1"

A	5971262.000	ASND	292.2474479	VVEN	-28978252.00	APOG	80.21545982	VAPG	5189.613891

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ECC	.03659718C6	ARGP	329.8713150	ARGL	24.93779754	PERG	8.284178853	VPER	5583.893920
INCL	174.8449096	MA	51.68219137	TA	55.06648254	PERD	116.1605443	MOON	ELLIPSE
LTDE	-3.356241524	LONE	-.9647598266	LTDS	-1.414996042	LONS	84.70260620		
WT	4772.85791C	ATLI	34.68701028	VA	5517.491943	AAAP	53.63445281	VIR	161.617628C
DVV	5.072715997	AMIS	274.6756744	FPVA	1.678542137	AAAY	.0127844391	VIT	5499.640563
RANG	1061.163894	RLAT	.81515670-03	AZVA	274.6635398	AAAT	53.63445329	VAT	-5515.124389

PRIMARY PHASE CUTOFF ---- PHASE TIME LAPSE 1000.000000

CONTINUE COAST IN TRANSFER ELLIPSE

6 FEB. 1968 21 HR 48 MIN 42.33 SEC TMST 327259.3632 J.D. 2439893.4088 3 DAY 18 HR 54.3 MIN

SELENOGRAPHIC

LEM	ALT	138466.3750	R	5840861.312	VI	5502.014770	X	-264939.7968	VX	-5482.240112
90	LTDM	2.171149075			FPVI	1.683265686	Y	-5830652.000	VY	104.4451608
	LONM	-92.60168457			AZVI	274.6767005	Z	221278.8964	VZ	454.2042427
	A	5971262.000	ASND	292.2474479	VVEN	-28978252.00	APOG	80.21545982	VAPG	5189.613891
	ECC	.03659718C6	ARGP	329.8713150	ARGL	24.93779754	PERG	8.284178853	VPER	5583.893920
	INCL	174.8449096	MA	51.68219137	TA	55.06648254	PERD	116.1605443	MOON	ELLIPSE
	LTDE	-3.356241524	LONE	-.9647598266	LTDS	-1.414996042	LONS	84.70260620		
	WT	4772.85791C	ATLI	34.68701028	VA	5517.491943	AAAP	53.63445281	VIR	161.617628C
	DVV	5.072715997	AMIS	274.6756744	FPVA	1.678542137	AAAY	.0127844788	VIT	5499.640563
	RANG	1061.163894	RLAT	.81519038-03	AZVA	274.6635398	AAAT	53.63445329	VAT	-5515.124389

2"

6 FEB. 1968 21 HR 53 MIN 16.18 SEC TMST 327533.2070 J.D. 2439893.4120 3 DAY 18 HR 58.9 MIN

SELENOGRAPHIC

LEM	ALT	186159.3125	R	5888554.062	VI	5458.279785	X	-1745746.140	VX	-5244.881591
90	LTDM	3.282904088			FPVI	1.939632415	Y	-5613708.625	VY	1460.582015
	LONM	-107.2746028			AZVI	273.9763755	Z	337214.7656	VZ	388.2470588

1"

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A	5971372.187	ASND	292.2079620	VVEN	-28977716.00	APOG	80.21283721	VAPG	5189.679260
ECC	.0365753905	ARGP	329.9275817	ARGL	39.59655857	PERG	8.323070883	VPER	5583.720581
INCL	174.8452224	MA	65.77675437	TA	69.66897392	PERD	116.1637592	MOON	ELLIPSE
LTDE	-3.359990119	LONE	-.9692497253	LTDS	-1.414977759	LONS	84.66393756		
WT	4772.857910	ATLI	20.03065991	VA	5473.881103	AAAP	68.03525829	VIR	184.7435874
DVV	4.991001009	AMIS	273.9751586	FPVA	1.934102058	AAAY	.0114844698	VIT	5455.152404
RANG	1301.912139	RLAT	.0014480891	AZVA	273.9650115	AAAT	68.03525829	VAT	-5470.762634

6 FEB. 1968 21 HR 53 MIN 16.18 SEC TMST 327533.2070 J.D. 2439893.4120 3 DAY 18 HR 58.9 MIN

SELENOGRAPHIC

CM-SM	ALT	484056.5625	R	6186451.562	VI	5289.026977	X	-2046579.515	VX	-4972.444946
120	LTDM	3.425264209			FPVI	.0210990906	Y	-5826411.687	VY	1767.071380
	LONM	-109.3542823			AZVI	273.8546714	Z	369619.0273	VZ	355.0409622
A	6187231.750	ASND	292.2101364	VVEN	-27966742.75	APOG	80.20613002	VAPG	5286.218933
ECC	.40486143-03	ARGP	330.5690689	ARGL	41.67971897	PERG	79.38161087	VPER	5290.501037
INCL	174.8450775	MA	71.06652450	TA	71.11064720	PERD	122.5191621	MOON	ELLIPSE
LTDE	-3.359990119	LONE	-.9692497253	LTDS	-1.414977759	LONS	84.66393756		
WT	35799.86279	ATLI	16.41535973	VA	5305.426696	AAAP	-99.12752532	VIR	1.947544574
DVV	4.521876692	AMIS	37.89240884	FPVA	.0210332870	AAAY	5.581827163	VIT	5289.026367
RANG	1335.984573	RLAT	51.38069820	AZVA	273.8427352	AAAT	80.87357139	VAT	-5305.426330

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	327533.2070	RCL	369855.7929	OPCL	-.0038761740	XCL	-213826.3007	VXCL	155.8199157
		ACL	180.0067081	DRCL	-400.7650108	YCL	-25.02148437	VYCL	.4158020D-03
		ECL	215.3194236			ZCL	-301780.7500	VZCL	380.7627487

6 FEB. 1968 21 HR 58 MIN 16.18 SEC TMST 327833.2070 J.D. 2439893.4154 3 DAY 19 HR 3.9 MIN

SELENOGRAPHIC

LEM	ALT	243664.6250	R	5946059.375	VI	5406.089965	X	-3238034.468	VX	-4615.665771

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90	LTDM	4.2395178C7			FPVI	2.079453468	Y	-4967648.687	VY	2799.493774
	LONM	-123.0972862			AZVI	272.9342308	Z	439568.6484	VZ	290.2982788
	A	5971654.5CC	ASND	292.1670951	VVEN	-28976346.00	APOG	80.22415161	VAPG	5189.751464
	ECC	.0365378898	ARGP	33C.0257835	ARGL	55.37301349	PERG	8.404691696	VPER	5583.378906
	INCL	174.8456287	MA	81.18427085	TA	85.34722709	PERD	116.1719980	MCON	ELLIPSE
	LTDE	-3.364094793	LONE	-.9742774963	LTDS	-1.414956614	LONS	84.62146091		
	WT	4772.85791C	ATLI	4.259387850	VA	5421.842285	AAAP	83.66728687	VIR	196.1616821
	DVV	4.895230531	AMIS	272.9302864	FPVA	2.073409080	AAAY	.0093961948	VIT	5402.529846
	RANG	1560.990478	RLAT	.0048440043	AZVA	272.9256896	AAAT	83.66728687	VAT	-5418.292541

6 FEB. 1968 21 HR 58 MIN 16.18 SEC TMST 327833.2070 J.D. 2439893.4154 3 DAY 19 HR 3.9 MIN

SELENOGRAPHIC

CM-SM	ALT	484629.625C	R	6187024.625	VI	5288.658447	X	-3459189.562	VX	-4363.713317
120	LTDM	4.290498554			FPVI	.0200414657	Y	-5108720.687	VY	2976.343750
	LONM	-124.1025009			AZVI	272.8594589	Z	462872.0859	VZ	263.2302932
	A	6187515.875	ASND	292.1688156	VVEN	-27965459.50	APOG	80.22377109	VAPG	5286.248718
	ECC	.37624597-03	ARGP	339.1535568	ARGL	56.37845468	PERG	79.45749187	VPER	5290.228149
	INCL	174.8454284	MA	77.18262004	TA	77.22489356	PERD	122.5276031	MCON	ELLIPSE
	LTDE	-3.364094793	LONE	-.9742774963	LTDS	-1.414956614	LONS	84.62146091		
	WT	35799.86279	ATLI	27.40922617	VA	5305.059631	AAAP	-113.6160039	VIR	1.84975934C
	DVV	4.5212956C7	AMIS	62.28196716	FPVA	.0199794769	AAAY	159.2197284	VIT	5288.657836
	RANG	1577.4178CC	RLAT	24.21202182	AZVA	272.8506088	AAAT	66.66822052	VAT	-5305.059265

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	327833.2070	RCL	263351.3554	OPCL	-.0057250781	XCL	-104159.7744	VXCL	109.6067705
		ACL	180.0144786	DRCL	-308.7128067	YCL	-26.31445312	VYCL	.33473969-03
		ECL	203.2981853			ZCL	-241877.4023	VZCL	288.9204254

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6 FEB. 1968 22 HR 3 MIN 16.18 SEC TMST 328133.2070 J.C. 2439893.4188 3 DAY 19 HR 8.9 MIN

SELENOGRAPHIC

LEM	ALT	302394.6250	R	6004789.437	VI	5353.339599	X	-4490983.625	VX	-3667.625030
90	LTDM	4.867971956			FPVI	2.066082000	Y	-3953340.812	VY	3895.699035
	LONM	-138.6430530			AZVI	271.6952285	Z	509566.1796	VZ	174.0720901
	A	5972001.625	ASND	292.1300811	VVEN	-28974662.25	APOG	80.21424579	VAPG	5189.966125
	ECC	.0364675736	ARGP	330.1257629	ARGL	70.84519672	PERG	8.528845787	VPER	5582.823486
	INCL	174.8459663	MA	96.59336471	TA	100.7194328	PERD	116.1821260	MCON	ELLIPSE
	LTDE	-3.368199169	LONE	-.9779396057	LTDS	-1.414936319	LONS	84.58035278		
	WT	4772.857910	ATLI	11.20531630	VA	5369.247619	AAAP	99.14533329	VIR	192.9991359
	DVV	4.800304293	AMIS	91.69698619	FPVA	2.059957504	AAAY	.0067059111	VIT	5349.859436
	RANG	1815.021896	RLAT	179.9999160	AZVA	271.6902008	AAAT	80.85466480	VAT	-5365.777770

6 FEB. 1968 22 HR 3 MIN 16.18 SEC TMST 328133.2070 J.C. 2439893.4188 3 DAY 19 HR 8.9 MIN

SELENOGRAPHIC

CM-SM	ALT	485152.5625	R	6187547.562	VI	5288.362426	X	-4644055.375	VX	-3468.019561
120	LTDM	4.875023782			FPVI	.0174913406	Y	-4054872.437	VY	3989.465637
	LONM	-138.8747539			AZVI	271.6755523	Z	525833.7968	VZ	154.2081394
	A	6187869.375	ASND	292.1310348	VVEN	-27963862.50	APOG	80.21574783	VAPG	5286.441528
	ECC	.31121945-03	ARGP	350.7348060	ARGL	71.07711887	PERG	79.58186244	VPER	5289.733093
	INCL	174.8457221	MA	80.30732631	TA	80.34231185	PERD	122.5381031	MCON	ELLIPSE
	LTDE	-3.368199169	LONE	-.9779396057	LTDS	-1.414936319	LONS	84.58035278		
	WT	35799.86279	ATLI	40.69436645	VA	5304.765075	AAAP	-128.3167610	VIR	1.614284634
	DVV	4.520849764	AMIS	70.62778759	FPVA	.0174379349	AAAY	162.3694877	VIT	5288.361938
2"	RANG	1818.791870	RLAT	12.79957568	AZVA	271.6703720	AAAT	52.53244400	VAT	-5304.764831

COORDINATES OF LEM RELATIVE TO CM-SM

	TMST	328133.2070	RCL	184402.4414	OPCL	-.0084246851	XCL	-24206.47680	VXCL	60.67596673
1"			ACL	180.0641822	DRCL	-219.0717792	YCL	-27.11425781	VYCL	-.79059601-03
			ECL	187.5429801			ZCL	-182806.7460	VZCL	212.9495849

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6 FEB. 1968 22 HR 8 MIN 16.18 SEC TMST 328433.2070 J.D. 2439893.4224 3 DAY 19 HR 13.9 MIN

SELENOGRAPHIC

LEM	ALT	358107.3750	R	6060502.125	VI	5303.764099	X	-5421389.625	VX	-2485.620025
90	LTDM	5.141437768			FPVI	1.904847145	Y	-2653912.406	VY	4685.000061
	LONM	-153.9170379			AZVI	270.3581657	Z	543109.6875	VZ	48.80155372
	A	5972305.437	ASND	292.0926361	VVEN	-28973188.00	APOG	80.16975784	VAPG	5190.343261
	ECC	.0363695789	ARGP	330.1781883	ARGL	86.02575683	PERG	8.673335790	VPER	5582.133789
	INCL	174.8461322	MA	112.0524578	TA	115.8475685	PERD	116.1909942	MCON	ELLIPSE
	LTDE	-3.372300744	LONE	-.9836616516	LTDS	-1.414916187	LONS	84.53718566		
	WT	4772.857910	ATLI	26.37664318	VA	5319.821228	AAAP	114.4775352	VIR	176.2955436
	DVV	4.712765514	AMIS	90.35954093	FPVA	1.899095535	AAAY	.0035501229	VIT	5300.833251
	RANG	2064.282531	RLAT	-179.9988002	AZVA	270.3570823	AAAT	65.52246284	VAT	-5316.899230

6 FEB. 1968 22 HR 8 MIN 16.18 SEC TMST 328433.2070 J.D. 2439893.4224 3 DAY 19 HR 13.9 MIN

SELENOGRAPHIC

CM-SM	ALT	485585.8750	R	6187980.875	VI	5288.133605	X	-5523493.312	VX	-2344.110595
120	LTDM	5.140082001			FPVI	.0136060715	Y	-2734004.218	VY	4740.070495
	LONM	-153.6656284			AZVI	270.3806991	Z	554387.8203	VZ	35.10762262
	A	6188200.375	ASND	292.0927810	VVEN	-27962366.00	APOG	80.24483680	VAPG	5286.432006
	ECC	.28628026-03	ARGP	4.265019416	ARGL	85.77550029	PERG	79.66172409	VPER	5289.459716
	INCL	174.8458747	MA	81.47706413	TA	81.51048088	PERD	122.5479364	MCON	ELLIPSE
	LTDE	-3.372300744	LONE	-.9836616516	LTDS	-1.414916187	LONS	84.53718566		
2"	WT	35799.86279	ATLI	54.61273050	VA	5304.537292	AAAP	-143.2327995	VIR	1.255558967
	DVV	4.520515143	AMIS	73.68876934	FPVA	.0135631561	AAAY	164.0117511	VIT	5288.133239
	RANG	2060.167907	RLAT	6.385571301	AZVA	270.3795204	AAAT	38.66871452	VAT	-5304.537109

COORDINATES OF LEM RELATIVE TO CM-SM

1"	TMST	328433.2070	RCL	130257.6191	OPCL	-.0120398033	XCL	26486.26733	VXCL	13.41987776

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ACL	359.9407882	DRCL	-145.9703941	YCL	-27.37158203	VYCL	-.0012545585
ECL	168.2677974			ZCL	-127536.3652	VZCL	151.8719711

6 FEB. 1968 22 HR 13 MIN 16.18 SEC TMST 328733.2070 J.C. 2439893.4258 3 DAY 19 HR 18.9 MIN

SELENOGRAPHIC

LEM	ALT	406999.7500	R	6109394.500	VI	5260.589965	X	-5972386.500	VX	-1161.750396
90	LTDM	5.059903740			FPVI	1.610933303	Y	-1168315.687	VY	5130.133300
	LONM	-168.9315948			AZVI	269.0188102	Z	538831.7187	VZ	-76.65328121
	A	5972486.625	ASND	292.0576629	VVEN	-28972308.75	APOG	80.10094356	VAPG	5190.791809
	ECC	.0362681355	ARGP	330.1519126	ARGL	100.9459056	PERG	8.801789522	VPER	5581.482116
	INCL	174.8460807	MA	127.5911922	TA	130.7939910	PERD	116.1962804	MOON	ELLIPSE
	LTDE	-3.376401335	LONE	-.9873199463	LTDS	-1.414896041	LONS	84.49607849		
	WT	4772.857910	ATLI	41.28716087	VA	5276.779174	AAAP	129.6811656	VIR	147.8876304
	DVV	4.637820243	AMIS	89.02045726	FPVA	1.605990409	AAAY	.10272247-03	VIT	5258.510803
	RANG	2309.234954	RLAT	-179.9980926	AZVA	269.0218238	AAAT	50.31883239	VAT	-5274.706359

6 FEB. 1968 22 HR 13 MIN 16.18 SEC TMST 328733.2070 J.C. 2439893.4258 3 DAY 19 HR 18.9 MIN

SELENOGRAPHIC

CM-SM	ALT	485896.2500	R	6188291.250	VI	5287.963867	X	-6039436.437	VX	-1066.243347
120	LTDM	5.068074584			FPVI	.0086755752	Y	-1233412.078	VY	5178.633117
	LONM	-168.4574165			AZVI	269.0606613	Z	546669.1953	VZ	-86.28024578
	A	6188423.687	ASND	292.0571861	VVEN	-27961356.25	APOG	80.14231491	VAPG	5287.059631
	ECC	.14950499-03	ARGP	18.53113269	ARGL	100.4730339	PERG	79.83777141	VPER	5288.640869
	INCL	174.8458290	MA	81.92338371	TA	81.94190120	PERD	122.5545701	MOON	ELLIPSE
	LTDE	-3.376401335	LONE	-.9873199463	LTDS	-1.414896041	LONS	84.49607849		
	WT	35799.86279	ATLI	68.76681709	VA	5304.368408	AAAP	-158.3092861	VIR	.8004736900
	DVV	4.520262360	AMIS	74.51190185	FPVA	.0086479187	AAAY	165.1347236	VIT	5287.963623
	RANG	2301.484375	RLAT	1.904340311	AZVA	269.0635643	AAAT	25.55671572	VAT	-5304.368347

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COORDINATES OF LEM RELATIVE TO CM-SM

TMST	328733.2070	RCL	93779.87500	OPCL	-.0165359024	XCL	50370.65625	VXCL	-28.41216635
		ACL	359.9692115	DRCL	-102.7550725	YCL	-27.06542968	VYCL	-.15115738-03
		ECL	147.5124797			ZCL	-79104.11718	VZCL	103.7268209

6 FEB. 1968 22 HR 18 MIN 16.18 SEC TMST 329033.2070 J.D. 2439893.4293 3 DAY 19 HR 23.9 MIN

	SELENOGRAPHIC									
LEM	ALT	445904.0625	R	6148298.875	VI	5226.420349	X	-6115172.625	VX	213.0173816
90	LTDM	4.645024120			FPVI	1.207427024	Y	397913.1093	VY	5218.461975
	LONM	176.2770214			AZVI	267.7638816	Z	497902.6992	VZ	-194.2894077
	A	5972507.375	ASND	292.0191459	VVEN	-28972209.00	APOG	80.03161525	VAPG	5191.168151
	ECC	.0361940022	ARGP	330.0496292	ARGL	115.6514186	PERG	8.877948403	VPER	5581.058105
	INCL	174.8458232	MA	143.2052860	TA	145.6017856	PERD	116.1968870	MOON	ELLIPSE
	LTDE	-3.380500733	LONE	-.9937248230	LTDS	-1.414876893	LONS	84.45222377		
	WT	4772.857910	ATLI	55.98384046	VA	5242.715515	AAAP	144.7801628	VIR	110.1311435
	DVV	4.579335570	AMIS	87.76593685	FPVA	1.203674316	AAAY	-.0034343788	VIT	5225.259826
	RANG	2550.722503	RLAT	-179.9974594	AZVA	267.7708396	AAAT	35.21983480	VAT	-5241.558593

6 FEB. 1968 22 HR 18 MIN 16.18 SEC TMST 329033.2070 J.D. 2439893.4293 3 DAY 19 HR 23.9 MIN

	SELENOGRAPHIC									
CM-SM	ALT	486060.2500	R	6188455.250	VI	5287.848510	X	-6158103.312	VX	281.9232482
120	LTDM	4.663889765			FPVI	.0031013489	Y	348630.2812	VY	5276.461853
	LONM	176.7597541			AZVI	267.8030204	Z	503185.5625	VZ	-202.0157203
	A	6188482.000	ASND	292.0183105	VVEN	-27961094.25	APOG	80.12396430	VAPG	5287.179748
	ECC	.12207031-03	ARGP	29.76863861	ARGL	115.1690731	PERG	79.87531661	VPER	5288.470825
	INCL	174.8455905	MA	85.38345050	TA	85.40043449	PERD	122.5563020	MOON	ELLIPSE
	LTDE	-3.380500733	LONE	-.9937248230	LTDS	-1.414876893	LONS	84.45222377		
	WT	35799.86279	ATLI	83.01715660	VA	5304.253601	AAAP	-6.349871814	VIR	.2861051559

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DVV	4.520073890	AMIS	74.15908336	FPVA	.0030918121	AAAY	166.0523891	VIT	5287.848266
RANG	2542.823089	RLAT	-1.774655252	AZVA	267.8098182	AAAT	15.21432781	VAT	-5304.253601

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	329033.2070	RCL	65572.45019	OPCL	-.0227254871	XCL	51669.58105	VXCL	-61.84743452
		ACL	359.9711570	DRCL	-89.32695007	YCL	-26.00830078	VYCL	.0025591850
		ECL	128.0031337			ZCL	-40373.25781	VZCL	65.92868995

6 FEB. 1968 22 HR 23 MIN 16.18 SEC TMST 329333.2070 J.D. 2439893.4327 3 DAY 19 HR 28.9 MIN

SELENOGRAPHIC

LEM	ALT	472408.8750	R	6174803.625	VI	5203.190490	X	-5847629.250	VX	1551.684722
90	LTDM	3.934904396			FPVI	.7233047485	Y	1937493.531	VY	4957.533935
	LONM	161.6684284			AZVI	266.6677856	Z	423733.9570	VZ	-297.1927528
	A	5972369.5000	ASND	291.9816246	VVEN	-28972877.25	APOG	79.98188114	VAPG	5191.366638
	ECC	.0361673343	ARGP	329.9038925	ARGL	130.1986904	PERG	8.882289171	VPER	5580.973449
	INCL	174.84542008	MA	158.8608684	TA	160.2947940	PERD	116.1928615	MCON	ELLIPSE
	LTDE	-3.384597659	LONE	-.9973793030	LTDS	-1.414856731	LONS	84.41111946		
	WT	4772.857910	ATLI	70.52402687	VA	5219.558227	AAAP	159.8029880	VIR	65.68341922
	DVV	4.539974153	AMIS	86.67029666	FPVA	.7210359573	AAAY	-.0068493176	VIT	5202.775878
	RANG	2789.562164	RLAT	-179.9968109	AZVA	266.6782493	AAAT	20.19700932	VAT	-5219.144897

6 FEB. 1968 22 HR 23 MIN 16.18 SEC TMST 329333.2070 J.D. 2439893.4327 3 DAY 19 HR 28.9 MIN

SELENOGRAPHIC

CM-SM	ALT	486066.1875	R	6188461.187	VI	5287.791076	X	-5871670.750	VX	1611.221405
2" 120	LTDM	3.954508751			FPVI	-.0026540756	Y	1907455.656	VY	5027.122436
	LONM	162.0032272			AZVI	266.6907463	Z	426783.5976	VZ	-304.5292701
	A	6188359.375	ASND	291.9806289	VVEN	-27961648.75	APOG	80.13171958	VAPG	5287.087158
	ECC	.14950499-03	ARGP	239.3957023	ARGL	129.8631210	PERG	79.82718753	VPER	5288.668334
1"	INCL	174.8452033	MA	250.4932212	TA	250.4674186	PERD	122.5526580	MCON	ELLIPSE

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LTDE	-3.384597659	LONE	-.9973793030	LTDS	-1.414856731	LONS	84.41111946		
WT	35799.86279	ATLI	97.29388809	VA	5304.196166	AAAP	171.4773864	VIR	-.2450759411
DVV	4.519953966	AMIS	73.03807830	FPVA	-.0026454925	AAAY	166.9179306	VIT	5287.790771
RANG	2784.072235	RLAT	-5.231303572	AZVA	266.7009925	AAAT	15.45644450	VAT	-5304.196105

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	329333.2070	RCL	38594.93212	OPCL	-.0358045986	XCL	36057.69042	VXCL	-84.72011852
		ACL	359.9616737	DRCL	-91.82597351	YCL	-24.11828613	VYCL	.0062985420
		ECL	110.8910951			ZCL	-13762.67309	VZCL	35.54581069

6 FEB. 1968 22 HR 28 MIN 16.18 SEC TMST 329633.2070 J.D. 2439893.4363 3 DAY 19 HR 33.9 MIN

	SELENOGRAPHIC								
LEM	ALT	484926.1250	R	6187321.000	VI	5192.162414	X	-5192632.937	VX 2775.372344
90	LTDM	2.979766458			FPVI	.1915454864	Y	3349037.656	VY 4371.699218
	LONM	147.1796226			AZVI	265.7915153	Z	321637.3320	VZ -379.6117134
	A	5972110.562	ASND	291.9404945	VVEN	-28974134.00	APOG	79.96071243	VAPG 5191.357604
	ECC	.0361907081	ARGP	329.7600326	ARGL	144.6513576	PERG	8.818247437	VPER 5581.225097
	INCL	174.8449630	MA	174.5118026	TA	174.8913230	PERD	116.1853065	MCON ELLIPSE
	LTDE	-3.388693243	LONE	-1.002410888	LTDS	-1.414837300	LONS	84.36863708	
	WT	4772.857910	ATLI	84.97183132	VA	5208.564636	AAAP	5.211894810	VIR 17.35777974
	DVV	4.521372675	AMIS	85.79450321	FPVA	.1909427643	AAAY	-.0099339419	VIT 5192.133361
	RANG	2869.499298	RLAT	-179.9960975	AZVA	265.8047904	AAAT	5.211904227	VAT -5208.535705

6 FEB. 1968 22 HR 28 MIN 16.18 SEC TMST 329633.2070 J.D. 2439893.4363 3 DAY 19 HR 33.9 MIN

	SELENOGRAPHIC								
CM-SM	ALT	485915.8750	R	6188310.875	VI	5287.803649	X	-5198977.125	VX 2834.601684
120	LTDM	2.986943006			FPVI	-.0081205368	Y	3340934.500	VY 4447.025878
	LONM	147.2746372			AZVI	265.7963447	Z	322462.8515	VZ -387.1178550
	A	6188088.312	ASND	291.9394340	VVEN	-27962873.50	APOG	80.13140106	VAPG 5286.972961

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ECC	.19301011-03	ARGP	248.7929477	ARGL	144.5551471	PERG	79.73827362	VPER	5289.014282
INCL	174.8447551	MA	255.7853469	TA	255.7621974	PERD	122.5446081	MCON	ELLIPSE
LTDE	-3.388693243	LONE	-1.002410888	LTDS	-1.414837300	LONS	84.36863708		
WT	35799.86279	ATLI	111.5427474	VA	5304.208374	AAAP	156.5602588	VIR	-.7495377064
DVV	4.519927918	AMIS	71.21832847	FPVA	-.0080957413	AAAY	167.8520927	VIT	5287.803405
RANG	2871.069213	RLAT	-8.920147895	AZVA	265.8093719	AAAT	25.82964205	VAT	-5304.208251

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	329633.2070	RCL	10324.31164	OPCL	-.1185439871	XCL	10275.91735	VXCL	-95.64837741
		ACL	359.8808975	DRCL	-96.11705970	YCL	-21.36080932	VYCL	.0103077888
		ECL	95.54849338			ZCL	-998.2370223	VZCL	9.484173417

6 FEB. 1968 22 HR 30 MIN 1.54 SEC TMST 329738.5664 J.D. 2439893.4375 3 DAY 19 HR 35.6 MIN

	SELENOGRAPHIC								
CM-SM	ALT	485828.2500	R	6188223.250	VI	5287.828002	X	-4878521.687	VX	3223.894012
120	LTDM	2.597278684			FPVI	-.0098896026	Y	3796773.937	VY	4171.240539
	LONM	142.1076889			AZVI	265.5451354	Z	280422.6757	VZ	-410.3445930
	A	6187969.687	ASND	291.9234161	VVEN	-27963408.25	APOG	80.14789009	VAPG	5286.836669
	ECC	.22837264-03	ARGP	253.0664596	ARGL	149.7146854	PERG	79.68274879	VPER	5289.252014
	INCL	174.8446063	MA	256.6763687	TA	256.6482238	PERD	122.5410823	MCON	ELLIPSE
	LTDE	-3.390130072	LONE	-1.005176544	LTDS	-1.414828673	LONS	84.35271644		
	WT	35799.86279	ATLI	116.5286045	VA	5304.232421	AAAP	151.3712539	VIR	-.9128892422
	DVV	4.519949138	AMIS	70.37639236	FPVA	-.0098600387	AAAY	168.2236938	VIT	5287.827636
	RANG	2786.390014	RLAT	-10.36948275	AZVA	265.5589408	AAAT	30.29883122	VAT	-5304.232299

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	329738.5664	RCL	173.1838417	OPCL	-6.695248901	XCL	171.5234317	VXCL	-96.51263141
		ACL	353.2862091	DRCL	-95.53169155	YCL	-20.19122409	VYCL	.0116262436
		ECL	85.72143077			ZCL	12.83239078	VZCL	.7688983679

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6 FEB. 1968 22 HR 30 MIN 1.54 SEC TMST 329738.5664 J.D. 2439893.4375 3 DAY 19 HR 35.6 MIN

SELENOGRAPHIC

LEM	ALT	485841.1250	R	6188235.812	VI	5191.315124	X	-4878428.937	VX	3164.459930
90	LTDM	2.596968919			FPVI	-.0000000C 00	Y	3796916.500	VY	4095.569641
	LONM	142.1061172			AZVI	265.5451927	Z	280389.8359	VZ	-402.8093795
	A	5972001.437	ASND	291.9244918	VVEN	-28974662.00	APOG	79.95939540	VAPG	5191.313598
	ECC	.0362083060	ARGP	329.7173118	ARGL	149.7173461	PERG	8.783634424	VPER	5581.374450
	INCL	174.8448123	MA	180.0000343	TA	180.0000343	PERD	116.1821222	MOON	ELLIPSE
	LTDE	-3.390130072	LONE	-1.005176544	LTDS	-1.414828673	LONS	84.35271644		
	WT	4772.857910	ATLI	90.03666305	VA	5207.719787	AAAP	-.0366636161	VIR	-.98466873-04
	DVV	4.519930362	AMIS	85.54835319	FPVA	.0000000C 00	AAAY	-.0109027854	VIT	5191.315063
	RANG	2786.349884	RLAT	-179.9958267	AZVA	265.5592536	AAAT	.0382503783	VAT	-5207.719726

PRIMARY PHASE CUTOFF ---- BETA SUB I 90.0000000C

INJECT INTO THE CM-SM ORBIT

6 FEB. 1968 22 HR 30 MIN 1.54 SEC TMST 329738.5664 J.D. 2439893.4375 3 DAY 19 HR 35.6 MIN

SELENOGRAPHIC

LEM	ALT	485841.1250	R	6188235.812	VI	5191.315124	X	-4878428.937	VX	3164.459930
95	LTDM	2.596968919			FPVI	-.0000000C 00	Y	3796916.500	VY	4095.569641
	LONM	142.1061172			AZVI	265.5451927	Z	280389.8359	VZ	-402.8093795
	A	5972001.437	ASND	291.9244918	VVEN	-28974662.00	APOG	79.95939540	VAPG	5191.313598
	ECC	.0362083060	ARGP	329.7173118	ARGL	149.7173461	PERG	8.783634424	VPER	5581.374450
	INCL	174.8448123	MA	180.0000343	TA	180.0000343	PERD	116.1821222	MOON	ELLIPSE
	LTDE	-3.390130072	LONE	-1.005176544	LTDS	-1.414828673	LONS	84.35271644		
	WT	4772.857910	ATLI	90.59847259	VA	5207.719787	AAAP	-.5984614864	VIR	-.98466873-04
	DVV	20.76759791	AMIS	265.5446166	FPVA	.0000000C 00	AAAY	-.0146368231	VIT	5191.315063
	RANG	2786.349884	RLAT	.36169252-06	AZVA	265.5592536	AAAT	.5986404493	VAT	-5207.719726

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F	3000.000000	DWT	-9.230769157			VISN	13014.91198	DVI	20.22310280
VLGR	-.00000000 00	VLML	.00000000 00	ASPM	.00000000 00	TPSE	.00000000 00	IDVL	.00000000 00

6 FEB. 1968 22 HR 30 MIN 4.18 SEC TMST 329741.2070 J.D. 2439893.4375 3 DAY 19 HR 35.7 MIN

SELENOGRAPHIC

LEM	ALT	485839.8750	R	6188234.625	VI	5244.791320	X	-4870026.187	VX	3206.887298
S5	LTDM	2.587064355			FPVI	-.0089101791	Y	3807764.812	VY	4130.088928
	LONM	141.9789390			AZVI	265.5394325	Z	279321.1367	VZ	-407.5240440
	A	6089285.562	ASND	291.9245491	VVEN	-28416589.75	APOG	79.96063041	VAPG	5244.782409
	ECC	.0162514054	ARGP	329.3053817	ARGL	149.8448352	PERG	47.38737106	VPER	5418.068725
	INCL	174.8448028	MA	180.5571975	TA	180.5394515	PERD	119.6214199	MCON	ELLIPSE
	LTDE	-3.3901661C3	LONE	-1.0048179 62	LTDS	-1.414828076	LONS	84.35274696		
	WT	4748.509948	ATLI	90.47103691	VA	5261.196044	AAAP	-.4621513337	VIR	-.8156778812
	DVV	20.85902380	AMIS	265.5388641	FPVA	-.0088815689	AAAY	-.0145018011	VIT	5244.791198
	RANG	2784.263641	RLAT	.16275828-05	AZVA	265.5533676	AAAT	.4623787962	VAT	-5261.195983
	F	3000.000000	DWT	-9.230769157			VISN	13068.39086	DVI	20.32679653
	VLGR	-.96615199-03	VLML	.0023125936	ASPM	325.0000000	TPSE	7913.085937	IDVL	53.47891759

6 FEB. 1968 22 HR 30 MIN 6.29 SEC TMST 329743.3203 J.D. 2439893.4375 3 DAY 19 HR 35.7 MIN

SELENOGRAPHIC

CM-SM	ALT	485823.8125	R	6188218.812	VI	5287.829345	X	-4863164.875	VX	3240.795196
120	LTDM	2.579190224			FPVI	-.0099687576	Y	3816560.031	VY	4158.028869
	LONM	141.8755531			AZVI	265.5346450	Z	278470.8320	VZ	-411.3148498
	A	6187964.250	ASND	291.9234619	VVEN	-27963433.75	APOG	80.12973499	VAPG	5286.928649
	ECC	.21143198-03	ARGP	253.2526092	ARGL	149.9473323	PERG	79.69910430	VPER	5289.164672
	INCL	174.8446006	MA	256.7206001	TA	256.6947212	PERD	122.5409212	MCON	ELLIPSE
	LTDE	-3.390195190	LONE	-1.0045280 45	LTDS	-1.414828181	LONS	84.35277175		
	WT	35799.86279	ATLI	116.7530889	VA	5304.233825	AAAP	151.1379261	VIR	-.9201231003

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DVV	4.519950449	AMIS	70.33534717	FPVA	-.0099372864	AAAY	168.2412471	VIT	5287.829040
RANG	2782.581970	RLAT	-10.43764221	AZVA	265.5484848	AAAT	30.50507760	VAT	-5304.233703

COORDINATES OF LEM RELATIVE TO CM-SM

TMST	329743.3203	RCL	62.63976669	OPCL	-18.74966526	XCL	-57.67233228	VXCL	.0082927382
		ACL	199.2451038	DRCL	-.0647747386	YCL	-20.13454723	VYCL	.0109502505
		ECL	283.5180816			ZCL	13.86515390	VZCL	-.2422428727

6 FEB. 1968 22 HR 30 MIN 6.29 SEC TMST 329743.3203 J.D. 2439893.4375 3 DAY 19 HR 35.7 MIN

	SELENOGRAPHIC								
LEM	ALT	485837.6875	R	6188232.437	VI	5287.837463	X	-4863212.812	VX	3240.991577
95	LTDM	2.579046011			FPVI	-.0131263733	Y	3816522.531	VY	4157.886352
	LONM	141.8761005			AZVI	265.5347900	Z	278455.8906	VZ	-411.3154869
	A	6188011.312	ASND	291.9245948	VVEN	-27963220.50	APOG	80.15474033	VAPG	5286.818908
	ECC	.22837264-03	ARGP	248.8243446	ARGL	149.9479274	PERG	79.68958950	VPER	5289.234191
	INCL	174.8447952	MA	261.1493797	TA	261.1235809	PERD	122.5423192	MCON	ELLIPSE
	LTDE	-3.390195190	LONE	-1.004528045	LTDS	-1.414828181	LONS	84.35277175		
	WT	4729.001953	ATLI	90.36798954	VA	5304.242187	AAAP	-.3549020402	VIR	-1.211628198
	DVV	20.93296623	AMIS	265.5342292	FPVA	-.0130863189	AAAY	-.0143951971	VIT	5287.837341
	RANG	2782.576660	RLAT	.27487714-05	AZVA	265.5486259	AAAT	.3551938608	VAT	-5304.242004
	F	3000.000000	DWT	-9.230769157			VISN	13111.43725	DVI	20.41064834
	VLGR	-.0028343746	VLML	.0034137037	ASPM	325.0000000	TPSE	14252.92968	IDVL	96.52538394

PRIMARY PHASE CUTOFF ---- PHASE TIME LAPSE 4.750976562

6 FEB. 1968 22 HR 33 MIN 16.18 SEC TMST 329933.2070 J.D. 2439893.4397 3 DAY 19 HR 38.9 MIN

	SELENOGRAPHIC								
CM-SM	ALT	485623.0000	R	6188017.875	VI	5287.904235	X	-4184292.843	VX	3871.503601
120	LTDM	1.824808463			FPVI	-.0128784179	Y	4554605.437	VY	3574.341308
	LONM	132.5735301			AZVI	265.1772804	Z	197048.3476	VZ	-444.3821258

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A	6187738.437	ASND	291.8960342	VVEN	-27964454.50	APOG	80.14095687	VAPG	5286.773925
ECC	.25895024-03	ARGP	260.6201133	ARGL	159.2456512	PERG	79.61355400	VPER	5289.512573
INCL	174.8443527	MA	258.6555519	TA	258.6255378	PERD	122.5342140	MOON	ELLIPSE
LTDE	-3.392787367	LONE	-1.007431030	LTDS	-1.414816275	LONS	84.32616424		
WT	35799.86279	ATLI	125.6932039	VA	5304.308410	AAAP	141.8585700	VIR	-1.188629865
DVV	4.520039916	AMIS	68.42365550	FPVA	-.0128383636	AAAY	169.0190773	VIT	5287.904052
RANG	2629.870758	RLAT	-13.42702579	AZVA	265.1922302	AAAT	38.96889686	VAT	-5304.308227

6 FEB. 1968 22 HR 38 MIN 16.18 SEC TMST 330233.2070 J.D. 2439893.4432 3 DAY 19 HR 43.9 MIN

SELENOGRAPHIC									
CM-SM 120	ALT	485212.2500	R	6187606.937	VI	5288.110717	X	-2894361.562	VX 4653.762268
	LTDM	.5439628437			FPVI	-.0165996551	Y	5468610.375	VY 2466.431121
	LONM	117.8908433			AZVI	264.8727836	Z	58743.90478	VZ -472.5780982
A	6187400.000	ASND	291.8509521	VVEN	-27965983.25	APOG	80.15043067	VAPG	5286.579956
ECC	.32296769-03	ARGP	270.5399398	ARGL	173.9357471	PERG	79.49268054	VPER	5289.995788
INCL	174.8440837	MA	263.4334373	TA	263.3958053	PERD	122.5241613	MOON	ELLIPSE
LTDE	-3.396879583	LONE	-1.012458801	LTDS	-1.414796516	LONS	84.28368377		
WT	35799.86279	ATLI	139.6033077	VA	5304.513854	AAAP	127.3698892	VIR	-1.532216250
DVV	4.520336091	AMIS	63.69696235	FPVA	-.0165481567	AAAY	5.620975554	VIT	5288.110473
RANG	2388.534301	RLAT	-19.90298843	AZVA	264.8886795	AAAT	52.70743894	VAT	-5304.513610

6 FEB. 1968 22 HR 43 MIN 16.18 SEC TMST 330533.2070 J.D. 2439893.4467 3 DAY 19 HR 48.9 MIN

SELENOGRAPHIC									
2" CM-SM 120	ALT	484715.3125	R	6187110.125	VI	5288.433532	X	-1414098.812	VX 5129.911560
	LTDM	-.7723785862			FPVI	-.0190753937	Y	6022765.125	VY 1196.148223
	LONM	103.2132720			AZVI	264.9020347	Z	-83403.11425	VZ -469.8581047
A	6187161.750	ASND	291.8058128	VVEN	-27967061.50	APOG	80.15525436	VAPG	5286.453063
ECC	.36621094-03	ARGP	277.2139968	ARGL	188.6269264	PERG	79.40945529	VPER	5290.326477
1" INCL	174.8440055	MA	271.4547157	TA	271.4129257	PERD	122.5170841	MOON	ELLIPSE

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LTDE	-3.400968641	LONE	-1.016796112	LTDS	-1.414775103	LONS	84.24189472

WT	35799.86279	ATLI	152.8652076	VA	5304.835327	AAAP	113.0388870	VIR	-1.760851025
DVV	4.520847618	AMIS	54.01875352	FPVA	-.0190172195	AAAY	2.230771988	VIT	5288.433227
RANG	2147.168212	RLAT	-31.49034619	AZVA	264.9178352	AAAT	66.96393871	VAT	-5304.835021

6 FEB. 1968 22 HR 48 MIN 16.18 SEC TMST 330833.2070 J.D. 2439893.4501 3 DAY 19 HR 53.9 MIN

SELENOGRAPHIC

CM-SM	ALT	484168.1250	R	6186562.875	VI	5288.868041	X	159115.0957	VX	5268.611389
120	LTDM	-2.038778156			FPVI	-.0202188492	Y	6180598.875	VY	-153.0449409
	LONM	88.52528476			AZVI	265.2633476	Z	-220092.4511	VZ	-436.3908653

A	6187083.812	ASND	291.7617645	VVEN	-27967412.50	APOG	80.17229938	VAPG	5286.331359
ECC	.39555302-03	ARGP	279.9254417	ARGL	203.3208122	PERG	79.36674690	VPER	5290.515075
INCL	174.8441257	MA	283.4390792	TA	283.3953666	PERD	122.5147705	MCON	ELLIPSE

LTDE	-3.405058175	LONE	-1.020450592	LTDS	-1.414755180	LONS	84.20078659

WT	35799.86279	ATLI	163.7631721	VA	5305.268371	AAAP	98.77370834	VIR	-1.866521239
DVV	4.521579027	AMIS	28.41131854	FPVA	-.0201568603	AAAY	-1.305376008	VIT	5288.867675
RANG	1905.772293	RLAT	-59.24131059	AZVA	265.2780227	AAAT	81.22634315	VAT	-5305.268005

6 FEB. 1968 22 HR 53,MIN 16.18 SEC TMST 331133.2070 J.D. 2439893.4536 3 DAY 19 HR 58.9 MIN

SELENOGRAPHIC

CM-SM	ALT	483607.5000	R	6186002.250	VI	5289.391662	X	1722131.015	VX	5060.546936
120	LTDM	-3.172771841			FPVI	-.0200529098	Y	5931582.125	VY	-1492.779724
	LONM	73.81026935			AZVI	265.9342155	Z	-342376.7968	VZ	-374.3497734

A	6187187.625	ASND	291.7164192	VVEN	-27966943.50	APOG	80.21719837	VAPG	5286.142578
ECC	.42286397-03	ARGP	279.3447036	ARGL	218.0188007	PERG	79.35601902	VPER	5290.615112
INCL	174.8444023	MA	298.7165641	TA	298.6740951	PERD	122.5178527	MCON	ELLIPSE

LTDE	-3.409144967	LONE	-1.026851654	LTDS	-1.414735481	LONS	84.15693092

WT	35799.86279	ATLI	165.3505477	VA	5305.790466	AAAP	84.46778869	VIR	-1.851290464

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DVV	4.522493720	AMIS	333.7033615	FPVA	-.0199899673	AAAY	-4.756248593	VIT	5289.391296
RANG	1664.286727	RLAT	-116.3669919	AZVA	265.9468040	AAAT	84.46796703	VAT	-5305.790100

6 FEB. 1968 22 HR 58 MIN 16.18 SEC TMST 331433.2070 J.D. 2439893.4570 3 DAY 20 HR 3.9 MIN

SELENOGRAPHIC

CM-SM	ALT	483068.5000	R	6185463.187	VI	5289.963073	X	3171484.656	VX	4519.275329
120	LTDM	-4.100008666			FPVI	-.0186786651	Y	5292075.062	VY	-2734.418579
	LONM	59.06618785			AZVI	266.8721923	Z	-442245.7500	VZ	-287.7763481
	A	6187446.375	ASND	291.6759185	VVEN	-27965773.25	APOG	80.30254268	VAPG	5285.810180
	ECC	.46482990-03	ARGP	278.2291793	ARGL	232.7217178	PERG	79.35584354	VPER	5290.726562
	INCL	174.8447532	MA	314.5307121	TA	314.4925384	PERD	122.5255384	MOON	ELLIPSE
	LTDE	-3.413228273	LONE	-1.030498504	LTDS	-1.414712786	LONS	84.11582756		
	WT	35799.86279	ATLI	155.7203559	VA	5306.360351	AAAP	70.02324676	VIR	-1.724731445
	DVV	4.523516118	AMIS	301.5757217	FPVA	-.0186214447	AAAY	-7.896088600	VIT	5289.962768
	RANG	1422.799118	RLAT	-151.2016773	AZVA	266.8818664	AAAT	70.04629135	VAT	-5306.360046

6 FEB. 1968 23 HR 3 MIN 16.18 SEC TMST 331733.2070 J.D. 2439893.4606 3 DAY 20 HR 8.9 MIN

SELENOGRAPHIC

CM-SM	ALT	482582.4375	R	6184977.187	VI	5290.526916	X	4412210.062	VX	3680.011199
120	LTDM	-4.759158611			FPVI	-.0162553787	Y	4303837.812	VY	-3796.571014
	LONM	44.28764057			AZVI	268.0168876	Z	-513152.1445	VZ	-182.3223743
	A	6187793.687	ASND	291.6349258	VVEN	-27964204.50	APOG	80.46277046	VAPG	5285.127075
	ECC	.56601675-03	ARGP	279.3857650	ARGL	247.4297027	PERG	79.30993652	VPER	5291.113403
	INCL	174.8450698	MA	328.0779228	TA	328.0439376	PERD	122.5358543	MOON	ELLIPSE
	LTDE	-3.417314231	LONE	-1.036895751	LTDS	-1.414695128	LONS	84.07197284		
	WT	35799.86279	ATLI	142.7417774	VA	5306.922912	AAAP	55.37342882	VIR	-1.501157999
	DVV	4.524539887	AMIS	290.7648353	FPVA	-.0162057876	AAAY	-18.19534087	VIT	5290.526672
	RANG	1181.220748	RLAT	-165.0091190	AZVA	268.0230178	AAAT	56.04328107	VAT	-5306.922668

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6 FEB. 1968 23 HR 8 MIN 16.18 SEC TMST 332033.2070 J.D. 2439893.4640 3 DAY 20 HR 13.9 MIN

	SELENOGRAPHIC									
CM-SM	ALT	482175.8750	R	6184570.625	VI	5291.021911	X	5362051.562	VX	2598.165008
120	LTDM	-5.106196224			FPVI	-.0129632950	Y	3032215.937	VY	-4608.713684
	LONM	29.48796224			AZVI	269.2933807	Z	-550439.2265	VZ	-64.88610649
	A	6188138.875	ASND	291.5984458	VVEN	-27962644.75	APOG	80.60685920	VAPG	5284.526977
	ECC	.65167714-03	ARGP	283.5821037	ARGL	262.1419906	PERG	79.27947902	VPER	5291.419067
	INCL	174.8452682	MA	338.5872840	TA	338.5598869	PERD	122.5461091	MOON	ELLIPSE
	LTDE	-3.421393781	LONE	-1.040542602	LTDS	-1.414672166	LONS	84.03086853		
	WT	35799.86279	ATLI	128.9123992	VA	5307.416809	AAAP	40.50130701	VIR	-1.197204411
	DVV	4.525445163	AMIS	286.8017234	FPVA	-.0129232406	AAAY	-16.32327127	VIT	5291.021728
	RANG	939.6465225	RLAT	-172.2555541	AZVA	269.2955627	AAAT	42.07993888	VAT	-5307.416625

6 FEB. 1968 23 HR 13 MIN 16.18 SEC TMST 332333.2070 J.D. 2439893.4675 3 DAY 20 HR 18.9 MIN

	SELENOGRAPHIC									
CM-SM	ALT	481870.3750	R	6184265.062	VI	5291.391479	X	5958629.437	VX	1344.688766
120	LTDM	-5.117750048			FPVI	-.0089864731	Y	1560624.359	VY	-5117.363159
	LONM	14.67667126			AZVI	270.6170921	Z	-551654.1562	VZ	56.83567714
	A	6188392.312	ASND	291.5614738	VVEN	-27961498.25	APOG	80.68816089	VAPG	5284.213500
	ECC	.69053397-03	ARGP	290.1022300	ARGL	276.8572235	PERG	79.28158760	VPER	5291.516296
	INCL	174.8452739	MA	346.7731590	TA	346.7549934	PERD	122.5536375	MOON	ELLIPSE
	LTDE	-3.425473630	LONE	-1.045562744	LTDS	-1.414652153	LONS	83.98839282		
	WT	35799.86279	ATLI	114.7823152	VA	5307.785522	AAAP	25.44808769	VIR	-.8300521374
	DVV	4.526119649	AMIS	285.5579376	FPVA	-.0089588165	AAAY	-15.11191296	VIT	5291.391418
	RANG	698.0184402	RLAT	-177.0808868	AZVA	270.6151885	AAAT	28.68514943	VAT	-5307.785461

6 FEB. 1968 23 HR 18 MIN 16.18 SEC TMST 332633.2070 J.D. 2439893.4709 3 DAY 20 HR 23.9 MIN

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	SELENOGRAPHIC									
CM-SM	ALT	481682.3750	R	6184077.125	VI	5291.593383	X	6162437.187	VX	2.41053465C
120	LTDM	-4.792918622			FPVI	-.0045166015	Y	-13786.59582	VY	-5288.703186
	LONM	-.1281852722			AZVI	271.8998756	Z	-516708.5937	VZ	174.8536548
	A	6188489.000	ASND	291.5249137	VVEN	-27961062.50	APOG	80.74676132	VAPG	5283.950744
	ECC	.73242188-03	ARGP	297.8899955	ARGL	291.5735778	PERG	79.25482368	VPER	5291.696655
	INCL	174.8450794	MA	353.6928596	TA	353.6835823	PERD	122.5565090	MCON	ELLIPSE
	LTDE	-3.429553478	LONE	-1.049896240	LTDS	-1.414632409	LONS	83.94659900		
	WT	35799.86279	ATLI	100.5284786	VA	5307.986999	AAAP	10.30585861	VIR	-.4172648191
	DVV	4.526480257	AMIS	285.6727294	FPVA	-.0045022964	AAAY	-14.16058743	VIT	5291.593383
	RANG	456.3852424	RLAT	179.1017265	AZVA	271.8940048	AAAT	17.27589225	VAT	-5307.986938

6 FEB. 1968 23 HR 23 MIN 16.18 SEC TMST 332933.2070 J.D. 2439893.4745 3 DAY 20 HR 28.9 MIN

	SELENOGRAPHIC									
CM-SM	ALT	481622.7500	R	6184017.625	VI	5291.607727	X	5959992.687	VX	-1340.225372
120	LTDM	-4.153389036			FPVI	.24986267-03	Y	-1587437.109	VY	-5111.331909
	LONM	-14.91441726			AZVI	273.0565681	Z	-447888.8789	VZ	281.4155845
	A	6188403.375	ASND	291.4856529	VVEN	-27961450.25	APOG	80.73265933	VAPG	5283.987304
	ECC	.73242188-03	ARGP	305.9389457	ARGL	306.2892036	PERG	79.24074172	VPER	5291.733276
	INCL	174.8447208	MA	.3497412726	TA	.3502547890	PERD	122.5539665	MCON	ELLIPSE
	LTDE	-3.433629959	LONE	-1.055603027	LTDS	-1.414612129	LONS	83.90343093		
	WT	35799.86279	ATLI	86.23245906	VA	5308.001220	AAAP	-4.673746526	VIR	.0228798389
	DVV	4.526488781	AMIS	286.6222229	FPVA	.24890900-03	AAAY	-13.29327332	VIT	5291.607666
	RANG	214.7489299	RLAT	175.6288928	AZVA	273.0471153	AAAT	14.03361892	VAT	-5308.001159

6 FEB. 1968 23 HR 28 MIN 16.18 SEC TMST 333233.2070 J.D. 2439893.4779 3 DAY 20 HR 33.9 MIN

	SELENOGRAPHIC									
CM-SM	ALT	481696.9375	R	6184091.750	VI	5291.439270	X	5364681.125	VX	-2594.302673
120	LTDM	-3.241772860			FPVI	.0050973892	Y	-3056287.156	VY	-4596.996459

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LONM	-29.67039489			AZVI	274.0111732	Z	-349706.8476	VZ	369.5224761
A	6188157.187	ASND	291.4456939	VVEN	-27962562.00	APOG	80.63837623	VAPG	5284.371276
ECC	.67965874-03	ARGP	313.2881431	ARGL	321.0025367	PERG	79.25399017	VPER	5291.559265
INCL	174.84428C2	MA	7.703947007	TA	7.71439C933	PERD	122.5466527	MCON	ELLIPSE
LTDE	-3.437704741	LONE	-1.059932708	LTDS	-1.414590835	LONS	83.86164093		
WT	35799.86279	ATLI	71.95088958	VA	5307.832885	AAAP	-19.78155350	VIR	.4705975055
DVV	4.526158034	AMIS	288.2612571	FPVA	.005C811767	AAAY	-12.38808763	VIT	5291.439270
RANG	27.60575675	RLAT	172.0378971	AZVA	273.9987640	AAAT	22.85175776	VAT	-5307.832824

6 FEB. 1968 23 HR 33 MIN 16.18 SEC TMST 333533.2070 J.D. 2439893.4813 3 DAY 20 HR 38.9 MIN

SELENOGRAPHIC

CM-SM	ALT	481903.625C	R	6184298.375	VI	5291.116333	X	4415839.000	VX -3677.139129
120	LTDM	-2.118413746			FPVI	.0097770691	Y	-4323615.812	VY -3779.779052
	LONM	-44.39540863			AZVI	274.7019348	Z	-228601.8046	VZ 433.3943710
	A	6187814.750	ASND	291.4041671	VVEN	-27964109.00	APOG	80.51757526	VAPG 5284.851745
	ECC	.61642486-03	ARGP	318.9897079	ARGL	335.7125930	PERG	79.26206493	VPER 5291.371154
	INCL	174.8438568	MA	16.70261383	TA	16.72288274	PERD	122.5364799	MCON ELLIPSE
	LTDE	-3.441777795	LONE	-1.063575744	LTDS	-1.414570242	LONS	83.82053470	
	WT	35799.86279	ATLI	57.74850273	VA	5307.510620	AAAP	-34.54801511	VIR .9027888775
	DVV	4.525547206	AMIS	290.7670516	FPVA	.0097475052	AAAY	-11.29975676	VIT 5291.116210
	RANG	268.6696052	RLAT	167.8003349	AZVA	274.6873779	AAAT	35.63764095	VAT -5307.510498

6 FEB. 1968 23 HR 38 MIN 16.18 SEC TMST 333833.2070 J.D. 2439893.4849 3 DAY 20 HR 43.9 MIN

SELENOGRAPHIC

CM-SM	ALT	482234.4375	R	6184629.250	VI	5290.684204	X	3175788.156	VX -4517.575805
120	LTDM	-.8571130559			FPVI	.0140113830	Y	-5306170.875	VY -2713.489807
	LONM	-59.09912490			AZVI	275.0849037	Z	-92515.16699	VZ 468.8513069
	A	6187465.312	ASND	291.3580398	VVEN	-27965688.75	APOG	80.36697483	VAPG 5285.483886

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ECC	.52504427-03	ARGP	322.3255462	ARGL	350.4191017	PERG	79.29764461	VPER	5291.037048
INCL	174.8435478	MA	28.06519269	TA	28.09355258	PERD	122.5261011	MOON	ELLIPSE
LTDE	-3.445849537	LONE	-1.069969177	LTDS	-1.414550289	LONS	83.77668190		
WT	35799.86279	ATLI	43.74244594	VA	5307.079345	AAAP	-49.09401035	VIR	1.293726980
DVV	4.524748384	AMIS	294.8690948	FPVA	.0139684677	AAAY	-6.403006136	VIT	5290.684020
RANG	510.2803955	RLAT	161.9691791	AZVA	275.0691528	AAAT	49.22626352	VAT	-5307.079162

6 FEB. 1968 23 HR 43 MIN 16.18 SEC TMST 334133.2070 J.D. 2439893.4883 3 DAY 20 HR 48.9 MIN

SELENOGRAPHIC

CM-SM	ALT	482672.9375	R	6185067.750	VI	5290.195556	X	1726754.437	VX	-5060.048889
120	LTDM	.4597824253			FPVI	.0175008774	Y	-5938932.437	VY	-1468.942489
	LONM	-73.78812408			AZVI	275.1360893	Z	49632.87939	VZ	473.5848197
A	6187199.312	ASND	291.3136634	VVEN	-27966891.50	APOG	80.29344940	VAPG	5285.751770
ECC	.49585196-03	ARGP	323.5435981	ARGL	5.122409164	PERG	79.28361415	VPER	5290.996337
INCL	174.8434238	MA	41.54102420	TA	41.57880449	PERD	122.5181989	MOON	ELLIPSE
LTDE	-3.449919700	LONE	-1.073608398	LTDS	-1.414529576	LONS	83.73557758		
WT	35799.86279	ATLI	30.23949694	VA	5306.591918	AAAP	-63.46262264	VIR	1.615788340
DVV	4.523867785	AMIS	302.8267059	FPVA	.0174465179	AAAY	-3.082856446	VIT	5290.195312
RANG	751.8292312	RLAT	152.1474151	AZVA	275.1201782	AAAT	63.47088623	VAT	-5306.591674

6 FEB. 1968 23 HR 48 MIN 16.18 SEC TMST 334433.2070 J.D. 2439893.4918 3 DAY 20 HR 53.9 MIN

SELENOGRAPHIC

CM-SM	ALT	483194.2500	R	6185589.000	VI	5289.701171	X	163865.3164	VX	-5269.202941
2" 120	LTDM	1.746587112			FPVI	.0199489593	Y	-6180543.375	VY	-127.5014511
	LONM	-88.48126602			AZVI	274.8524398	Z	188530.4140	VZ	447.3032455
A	6187085.187	ASND	291.2680549	VVEN	-27967406.75	APOG	80.23482894	VAPG	5286.007263
ECC	.45674529-03	ARGP	324.5854530	ARGL	19.82333469	PERG	79.30465984	VPER	5290.838195
INCL	174.8435020	MA	55.19476127	TA	55.23787879	PERD	122.5148115	MOON	ELLIPSE

1"

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LTDE	-3.453987985	LONE	-1.078624725	LTDS	-1.414509579	LONS	83.69309806		
WT	35799.86279	ATLI	18.41174125	VA	5306.098876	AAAP	-77.73835086	VIR	1.841555595
DVV	4.523003816	AMIS	322.6661949	FPVA	.0198869705	AAAY	.4385424666	VIT	5289.700805
RANG	993.3641281	RLAT	130.2241287	AZVA	274.8374099	AAAT	77.73836708	VAT	-5306.098571

6 FEB. 1968 23 HR 53 MIN 16.18 SEC TMST 334733.2070 J.D. 2439893.4952 3 DAY 20 HR 58.9 MIN

	SELENOGRAPHIC								
CM-SM	ALT	483765.8750	R	6186160.625	VI	5289.241333	X	-1409739.796	VX	-5131.415283
120	LTDM	2.919544488			FPVI	.0211000442	Y	-6015142.562	VY	1221.142059
	LONM	-103.1900749			AZVI	274.2519187	Z	315083.5312	VZ	391.7443923
	A	6187152.687	ASND	291.2243576	VVEN	-27967101.25	APOG	80.21143817	VAPG	5286.157592
	ECC	.42286397-03	ARGP	328.0298500	ARGL	34.52283525	PERG	79.35028836	VPER	5290.630065
	INCL	174.84375CC	MA	66.44921016	TA	66.49298381	PERD	122.5168132	MCON	ELLIPSE
	LTDE	-3.458054780	LONE	-1.082950592	LTDS	-1.414489001	LONS	83.65130615		
	WT	35799.86279	ATLI	13.69291806	VA	5305.640563	AAAP	-92.02608203	VIR	1.947724819
	DVV	4.522229790	AMIS	12.89509868	FPVA	.0210351944	AAAY	3.930733978	VIT	5289.240966
	RANG	1234.846450	RLAT	77.64490127	AZVA	274.2387504	AAAT	87.97392177	VAT	-5305.640197

6 FEB. 1968 23 HR 58 MIN 16.18 SEC TMST 335033.2070 J.D. 2439893.4988 3 DAY 21 HR 3.9 MIN

	SELENOGRAPHIC								
CM-SM	ALT	484349.3750	R	6186744.125	VI	5288.841491	X	-2890682.687	VX	-4655.878723
120	LTDM	3.902020871			FPVI	.0207834244	Y	-5453669.000	VY	2489.616973
	LONM	-117.9255409			AZVI	273.3727111	Z	421010.9101	VZ	310.5565567
	A	6187384.250	ASND	291.1812896	VVEN	-27966054.75	APOG	80.23123836	VAPG	5286.153869
	ECC	.40486143-03	ARGP	335.1175498	ARGL	49.22175550	PERG	79.40669918	VPER	5290.435791
	INCL	174.8440933	MA	74.05947303	TA	74.10420036	PERD	122.5236921	MCON	ELLIPSE
	LTDE	-3.462119668	LONE	-1.088649749	LTDS	-1.414468333	LONS	83.60814189		
	WT	35799.86279	ATLI	21.44451761	VA	5305.242187	AAAP	-106.4278221	VIR	1.918374061

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DVV	4.521586358	AMIS	53.57188796	FPVA	.0207195282	AAAY	7.165311276	VIT	5288.841125
RANG	1476.309509	RLAT	34.33143758	AZVA	273.3622703	AAAT	73.58273124	VAT	-5305.241821

7 FEB. 1968 HR 3 MIN 16.18 SEC TMST 335333.2070 J.D. 2439893.5022 3 DAY 21 HR 8.9 MIN

	SELENOGRAPHIC								
CM-SM	ALT	484902.8750	R	6187297.625	VI	5288.511352	X	-4181247.781	VX	-3874.083312
120	LTDM	4.629443407			FPVI	.0189466476	Y	-4533258.625	VY	3593.901123
	LONM	-132.6868686			AZVI	272.2714233	Z	499383.8671	VZ	209.0590038
	A	6187718.812	ASND	291.1418495	VVEN	-27964542.75	APOG	80.25719070	VAPG	5286.162170
	ECC	.37624597-03	ARGP	345.5293006	ARGL	63.92054414	PERG	79.49088096	VPER	5290.141357
	INCL	174.8444309	MA	78.34875106	TA	78.39124011	PERD	122.5336303	MOON	ELLIPSE
	LTDE	-3.466182887	LONE	-1.092975616	LTDS	-1.414448082	LONS	83.56634998		
	WT	35799.86279	ATLI	33.99439048	VA	5304.913452	AAAP	-121.0197343	VIR	1.748696327
	DVV	4.521079719	AMIS	67.52748870	FPVA	.0188884735	AAAY	161.1447086	VIT	5288.511047
	RANG	1717.711120	RLAT	17.45035529	AZVA	272.2643966	AAAT	59.50031900	VAT	-5304.913146

7 FEB. 1968 HR 8 MIN 16.18 SEC TMST 335633.2070 J.D. 2439893.5057 3 DAY 21 HR 13.9 MIN

	SELENOGRAPHIC								
CM-SM	ALT	485385.3750	R	6187780.125	VI	5288.249267	X	-5196729.875	VX	-2837.440368
120	LTDM	5.053701102			FPVI	.0156764984	Y	-3314439.812	VY	4461.580078
	LONM	-147.4705371			AZVI	271.0199432	Z	545077.8203	VZ	93.89449596
	A	6188070.625	ASND	291.1036567	VVEN	-27962953.25	APOG	80.24887943	VAPG	5286.355590
	ECC	.31121945-03	ARGP	358.3374633	ARGL	78.61920642	PERG	79.61497306	VPER	5289.647094
	INCL	174.8446617	MA	80.24738025	TA	80.28174114	PERD	122.5440797	MOON	ELLIPSE
	LTDE	-3.470244437	LONE	-1.097988128	LTDS	-1.414427861	LONS	83.52386856		
	WT	35799.86279	ATLI	47.68447542	VA	5304.652648	AAAP	-135.8323955	VIR	1.446768879
	DVV	4.520691335	AMIS	72.57014274	FPVA	.0156288147	AAAY	163.3105716	VIT	5288.249023
	RANG	1959.089309	RLAT	9.197030782	AZVA	271.0167884	AAAT	45.47091674	VAT	-5304.652404

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7 FEB. 1968 HR 13 MIN 16.18 SEC TMST 335933.2070 J.D. 2439893.5092 3 DAY 21 HR 18.9 MIN

	SELENOGRAPHIC									
CM-SM	ALT	485759.8750	R	6188154.625	VI	5288.047729	X	-5870276.687	VX	-1614.208541
120	LTDM	5.146616637			FPVI	.0112056732	Y	-1877489.234	VY	5035.576354
	LONM	-162.2641735			AZVI	269.7008819	Z	555106.2812	VZ	-27.40252661
	A	6188347.937	ASND	291.0665664	VVEN	-27961699.75	APOG	80.25556564	VAPG	5286.439453
	ECC	.27295752-03	ARGP	12.37310791	ARGL	93.31730079	PERG	79.69957733	VPER	5289.326110
	INCL	174.8447189	MA	80.91217517	TA	80.94419288	PERD	122.5523185	MCON	ELLIPSE
	LTDE	-3.474303305	LONE	-1.102996826	LTDS	-1.414406225	LONS	83.48139190		
	WT	35799.86279	ATLI	61.74866294	VA	5304.452087	AAAP	-150.8392791	VIR	1.034083694
	DVV	4.520393610	AMIS	74.29533386	FPVA	.0111713409	AAAY	164.6294364	VIT	5288.047607
	RANG	2200.437744	RLAT	3.970122456	AZVA	269.7018051	AAAT	31.88246989	VAT	-5304.451965

7 FEB. 1968 HR 18 MIN 16.18 SEC TMST 336233.2070 J.D. 2439893.5126 3 DAY 21 HR 23.9 MIN

	SELENOGRAPHIC									
CM-SM	ALT	485997.9375	R	6188392.562	VI	5287.900451	X	-6157595.687	VX	-284.9995422
120	LTDM	4.902072370			FPVI	.0058898926	Y	-317130.0312	VY	5278.170898
	LONM	-177.0517406			AZVI	268.4017677	Z	528816.4765	VZ	-146.8976764
	A	6188479.000	ASND	291.0308609	VVEN	-27961106.00	APOG	80.12347030	VAPG	5287.181091
	ECC	.12207031-03	ARGP	25.74723434	ARGL	108.0141868	PERG	79.87482261	VPER	5288.472106
	INCL	174.8445720	MA	82.25424671	TA	82.26695251	PERD	122.5562133	MCON	ELLIPSE
	LTDE	-3.478361994	LONE	-1.106632232	LTDS	-1.414386063	LONS	83.44028663		
	WT	35799.86279	ATLI	75.96320629	VA	5304.305480	AAAP	-165.9598121	VIR	.5435140133
	DVV	4.520163297	AMIS	74.44471073	FPVA	.0058727264	AAAY	165.6228656	VIT	5287.900390
	RANG	2441.737701	RLAT	-.0110233684	AZVA	268.4067115	AAAT	19.70290565	VAT	-5304.305419

7 FEB. 1968 HR 23 MIN 16.18 SEC TMST 336533.2070 J.D. 2439893.5161 3 DAY 21 HR 28.9 MIN

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SELENOGRAPHIC

CM-SM	ALT	486082.1875	R	6188476.875	VI	5287.807922	X	-6039850.062	VX	1063.051651
120	LTDM	4.336454689			FPVI	.16975403-03	Y	1264317.453	VY	5173.480529
	LONM	168.1770286			AZVI	267.2086219	Z	467930.3945	VZ	-256.7750358
	A	6188431.187	ASND	290.9919929	VVEN	-27961323.50	APOG	80.18784141	VAPG	5286.826538
	ECC	.19301011-03	ARGP	324.3630981	ARGL	122.7092552	PERG	79.79469299	VPER	5288.867736
	INCL	174.8442478	MA	158.2476119	TA	158.3461551	PERD	122.5547924	MCON	ELLIPSE
	LTDE	-3.482417285	LONE	-1.112323761	LTDS	-1.414364919	LONS	83.39712429		
	WT	35799.86279	ATLI	90.23441314	VA	5304.213134	AAAP	1.050204649	VIR	.0155611038
	DVV	4.519995272	AMIS	73.67701530	FPVA	.16975403-03	AAAY	166.4977912	VIT	5287.807861
	RANG	2683.035858	RLAT	-3.516965895	AZVA	267.2172622	AAAT	13.54004263	VAT	-5304.213073

7 FEB. 1968 HR 28 MIN 16.18 SEC TMST 336833.2070 J.D. 2439893.5195 3 DAY 21 HR 33.9 MIN

SELENOGRAPHIC

CM-SM	ALT	486007.9375	R	6188402.750	VI	5287.779296	X	-5524842.625	VX	2340.922210
120	LTDM	3.487391233			FPVI	-.0054807663	Y	2762379.468	VY	4728.456298
	LONM	153.4352931			AZVI	266.1997184	Z	376433.6250	VZ	-349.8494834
	A	6188215.875	ASND	290.9532546	VVEN	-27962297.25	APOG	80.10810279	VAPG	5287.148376
	ECC	.14950499-03	ARGP	244.9281482	ARGL	137.4022235	PERG	79.80357074	VPER	5288.729675
	INCL	174.8438167	MA	252.4953308	TA	252.4740734	PERD	122.5483961	MCON	ELLIPSE
	LTDE	-3.486473232	LONE	-1.115959167	LTDS	-1.414345622	LONS	83.35601711		
	WT	35799.86279	ATLI	104.5046072	VA	5304.184387	AAAP	163.9137115	VIR	-.5060207844
	DVV	4.519908368	AMIS	72.21452426	FPVA	-.0054636001	AAAY	167.3810443	VIT	5287.779235
	RANG	2923.571624	RLAT	-7.029978334	AZVA	266.2114868	AAAT	20.05589938	VAT	-5304.184326

7 FEB. 1968 HR 33 MIN 16.18 SEC TMST 337133.2070 J.D. 2439893.5231 3 DAY 21 HR 38.9 MIN

SELENOGRAPHIC

CM-SM	ALT	485783.3750	R	6188178.187	VI	5287.831481	X	-4646327.437	VX	3464.936248
120	LTDM	2.410919636			FPVI	-.0106182098	Y	4078900.375	VY	3972.272521

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LONM	138.72087009			AZVI	265.4403457	Z	260312.3300	VZ	-420.035820C
A	6187889.000	ASND	290.9101982	VVEN	-27963774.25	APOG	80.16574668	VAPG	5286.709472
ECC	.25895024-03	ARGP	256.2632751	ARGL	152.0933284	PERG	79.63833332	VPER	5289.448181
INCL	174.8433818	MA	255.8595542	TA	255.8300457	PERD	122.5386857	MOON	ELLIPSE
LTDE	-3.490527361	LONE	-1.121654510	LTDS	-1.414325803	LONS	83.31285095		
WT	35799.86279	ATLI	118.7156658	VA	5304.236083	AAAP	149.1022052	VIR	-.980C474643
DVV	4.519940674	AMIS	69.96827602	FPVA	-.0105848312	AAAY	168.4045562	VIT	5287.831359
RANG	2730.885223	RLAT	-11.03627812	AZVA	265.4544754	AAAT	32.31886863	VAT	-5304.235961

7 FEB. 1968 HR 38 MIN 16.18 SEC TMST 337433.2070 J.D. 2439893.5265 3 DAY 21 HR 43.9 MIN

	SELENOGRAPHIC								
CM-SM	ALT	485428.1250	R	6187822.875	VI	5287.983703	X	-3462272.718	VX	4360.940246
120	LTDM	1.177541494			FPVI	-.0148677826	Y	5126953.187	VY	2954.799194
	LONM	124.0314722			AZVI	264.9789276	Z	127163.0332	VZ	-462.7459793
	A	6187534.562	ASND	290.8665122	VVEN	-27965375.50	APOG	80.13522720	VAPG	5286.71643C
	ECC	.28628026-03	ARGP	266.9797248	ARGL	166.7834053	PERG	79.55218601	VPER	5289.744262
	INCL	174.84304C4	MA	259.8389587	TA	259.8036766	PERD	122.5281591	MOON	ELLIPSE
	LTDE	-3.494577437	LONE	-1.125972747	LTDS	-1.414303898	LONS	83.27106094		
	WT	35799.86279	ATLI	132.7718696	VA	5304.387268	AAAP	134.5118656	VIR	-1.372284531
	DVV	4.520140469	AMIS	66.39386C81	FPVA	-.0148210525	AAAY	7.171526849	VIT	5287.98352C
	RANG	2489.60321C	RLAT	-16.32341551	AZVA	264.9944953	AAAT	45.70334911	VAT	-5304.387084

7 FEB. 1968 HR 43 MIN 16.18 SEC TMST 337733.207C J.D. 2439893.5300 3 DAY 21 HR 48.9 MIN

	SELENOGRAPHIC								
CM-SM	ALT	484970.6875	R	6187365.437	VI	5288.250854	X	-2050414.937	VX	4970.164489
120	LTDM	-.1324631739			FPVI	-.0179662704	Y	5837729.375	VY	1742.773773
	LONM	109.3530597			AZVI	264.8445663	Z	-14304.67004	VZ	-475.1861381
	A	6187244.812	ASND	290.8209152	VVEN	-27966685.00	APOG	80.13643074	VAPG	5286.586364

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ECC	.33430332-03	ARGP	275.0515975	ARGL	181.4738197	PERG	79.45559883	VPER	5290.122192
INCL	174.8428668	MA	266.4613227	TA	266.4222183	PERD	122.5195512	MCON	ELLIPSE
LTDE	-3.498627543	LONE	-1.130973815	LTDS	-1.414284199	LONS	83.22858333		
WT	35799.86279	ATLI	146.4419631	VA	5304.653259	AAAP	120.1121063	VIR	-1.658291041
DVV	4.520548701	AMIS	59.80594682	FPVA	-.0179100036	AAAY	3.938979297	VIT	5288.250610
RANG	2248.250640	RLAT	-24.73070359	AZVA	264.8605499	AAAT	59.90763711	VAT	-5304.652954

7 FEB. 1968 HR 48 MIN 16.18 SEC TMST 338033.2070 J.D. 2439893.5334 3 DAY 21 HR 53.9 MIN

	SELENOGRAPHIC								
CM-SM	ALT	484445.0625	R	6186839.937	VI	5288.635925	X	-503667.1015	VX	5252.457153
120	LTDM	-1.434069290			FPVI	-.0197687149	Y	6164359.937	VY	415.8601799
	LONM	94.671050007			AZVI	265.0457878	Z	-154835.6718	VZ	-456.5357666
A	6187094.937	ASND	290.7751541	VVEN	-27967363.75	APOG	80.14425849	VAPG	5286.481567
ECC	.36621094-03	ARGP	279.3762512	ARGL	196.1661472	PERG	79.39845943	VPER	5290.354980
INCL	174.8429012	MA	276.8314552	TA	276.7898941	PERD	122.5150995	MCON	ELLIPSE
LTDE	-3.502671867	LONE	-1.135974884	LTDS	-1.414260908	LONS	83.18610763		
WT	35799.86279	ATLI	158.9236679	VA	5305.036987	AAAP	105.8267412	VIR	-1.824862241
DVV	4.521183013	AMIS	44.46100091	FPVA	-.0197076797	AAAY	.4488170408	VIT	5288.635559
RANG	2006.856292	RLAT	-42.09776496	AZVA	265.0611419	AAAT	74.17329502	VAT	-5305.036621

7 FEB. 1968 HR 53 MIN 16.18 SEC TMST 338333.2070 J.D. 2439893.5370 3 DAY 21 HR 58.9 MIN

	SELENOGRAPHIC								
CM-SM	ALT	483887.9375	R	6186282.687	VI	5289.124328	X	1076213.109	VX	5189.134399
120	LTDM	-2.642704010			FPVI	-.0202503204	Y	6085269.125	VY	-938.7515716
	LONM	79.97063446			AZVI	265.5701560	Z	-285234.2343	VZ	-408.0025253
A	6187123.125	ASND	290.7303924	VVEN	-27967235.50	APOG	80.18824291	VAPG	5286.265319
ECC	.40486143-03	ARGP	279.8627738	ARGL	210.8619880	PERG	79.36373329	VPER	5290.547485
INCL	174.843111	MA	291.0426330	TA	290.9992103	PERD	122.5159368	MCON	ELLIPSE

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LTDE	-3.506720393	LONE	-1.140983581	LTDS	-1.414242774	LONS	83.14362525		
WT	35799.86279	ATLI	166.3752593	VA	5305.523803	AAAP	91.55373477	VIR	-1.869489908
DVV	4.522024929	AMIS	2.267915010	FPVA	-.0201883316	AAAY	-3.070788025	VIT	5289.123962
RANG	1765.418045	RLAT	-86.57107830	AZVA	265.5838775	AAAT	88.44626522	VAT	-5305.523437

7 FEB. 1968 HR 58 MIN 16.18 SEC TMST 338633.2070 J.D. 2439893.5404 3 DAY 22 HR 3.9 MIN

	SELENOGRAPHIC								
CM-SM	ALT	483335.0625	R	6185729.687	VI	5289.682373	X	2585172.718	VX	4784.200073
120	LTDM	-3.679411023			FPVI	-.0194759369	Y	5605582.625	VY	-2231.916625
	LONM	65.24187564			AZVI	266.3847618	Z	-396961.2109	VZ	-332.7430725
	A	6187322.625	ASND	290.6881637	VVEN	-27966332.00	APOG	80.24831390	VAPG	5286.038818
	ECC	.43158373-03	ARGP	278.4445228	ARGL	225.5624504	PERG	79.36933898	VPER	5290.603576
	INCL	174.8434448	MA	307.1571960	TA	307.1179237	PERD	122.5218629	MOON	ELLIPSE
	LTDE	-3.510763615	LONE	-1.145294189	LTDS	-1.414220422	LONS	83.10183715		
	WT	35799.86279	ATLI	161.2677726	VA	5306.080383	AAAP	77.18811893	VIR	-1.798239231
	DVV	4.523015260	AMIS	313.1451797	FPVA	-.0194168091	AAAY	-6.389645934	VIT	5289.682067
	RANG	1523.944473	RLAT	-138.2581291	AZVA	266.3959465	AAAT	77.19210052	VAT	-5306.080078

7 FEB. 1968 1 HR 3 MIN 16.18 SEC TMST 338933.2070 J.D. 2439893.5438 3 DAY 22 HR 8.9 MIN

	SELENOGRAPHIC								
CM-SM	ALT	482819.4375	R	6185214.125	VI	5290.259948	X	3923858.250	VX	4064.123474
120	LTDM	-4.475924134			FPVI	-.0175781250	Y	4756807.250	VY	-3378.492706
	LONM	50.48100757			AZVI	26[illegible].4375991	Z	-482695.2265	VZ	-235.6658878
2"	A	6187643.000	ASND	290.6488761	VVEN	-27964885.25	APOG	80.38895702	VAPG	5285.445678
	ECC	.51790047-03	ARGP	278.2988281	ARGL	240.2680263	PERG	79.33415031	VPER	5290.923217
	INCL	174.8437938	MA	322.0057182	TA	321.9691925	PERD	122.5313787	MOON	ELLIPSE
	LTDE	-3.514806062	LONE	-1.148918151	LTDS	-1.414199352	LONS	83.06073379		
1"	WT	35799.86279	ATLI	149.3392887	VA	5306.656555	AAAP	62.64524126	VIR	-1.623148202

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DVV	4.524058282	AMIS	294.7451553	FPVA	-.0175237655	AAAY	-19.67802405	VIT	5290.259704
RANG	1282.435104	RLAT	-159.5126380	AZVA	267.4455223	AAAT	63.03683376	VAT	-5306.656311

7 FEB. 1968 1 HR 8 MIN 16.18 SEC TMST 339233.2070 J.D. 2439893.5474 3 DAY 22 HR 13.9 MIN

SELENOGRAPHIC

CM-SM	ALT	482370.0625	R	6184764.750	VI	5290.796752	X	5004294.687	VX	3075.893157
120	LTDM	-4.979294121			FPVI	-.0147190094	Y	3594465.656	VY	-4303.051818
	LONM	35.68878650			AZVI	268.6602935	Z	-536811.1718	VZ	-123.1149339
	A	6188000.312	ASND	290.6089210	VVEN	-27963270.25	APOG	80.53569889	VAPG	5284.836914
	ECC	.60421722-03	ARGP	281.1611061	ARGL	254.9783878	PERG	79.30502033	VPER	5291.227172
	INCL	174.8440628	MA	333.8479843	TA	333.8172798	PERD	122.5419921	MOON	ELLIPSE
	LTDE	-3.518846392	LONE	-1.155292511	LTDS	-1.414178580	LONS	83.01688098		
	WT	35799.86279	ATLI	135.8096599	VA	5307.192138	AAAP	47.88173961	VIR	-1.359285116
	DVV	4.525037229	AMIS	288.2705917	FPVA	-.0146732330	AAAY	-17.10861182	VIT	5290.796569
	RANG	1040.837280	RLAT	-169.1286525	AZVA	268.6644325	AAAT	48.94265174	VAT	-5307.191955

7 FEB. 1968 1 HR 13 MIN 16.18 SEC TMST 339533.2070 J.D. 2439893.5508 3 DAY 22 HR 18.9 MIN

SELENOGRAPHIC

CM-SM	ALT	482011.0000	R	6184405.750	VI	5291.232727	X	5754818.625	VX	1884.853347
120	LTDM	-5.155756413			FPVI	-.0110807419	Y	2195467.343	VY	-4944.134460
	LONM	20.88188791			AZVI	269.9722480	Z	-555752.5468	VZ	-2.460565745
	A	6188302.250	ASND	290.5730628	VVEN	-27961905.75	APOG	80.65100765	VAPG	5284.367736
	ECC	.66860664-03	ARGP	286.7798652	ARGL	269.6924247	PERG	79.28910732	VPER	5291.438781
	INCL	174.8441658	MA	342.9349937	TA	342.9125556	PERD	122.5509624	MOON	ELLIPSE
	LTDE	-3.522885829	LONE	-1.158916473	LTDS	-1.414157554	LONS	82.97577667		
	WT	35799.86279	ATLI	121.7936372	VA	5307.627075	AAAP	32.90979290	VIR	-1.023422211
	DVV	4.525833129	AMIS	285.9479942	FPVA	-.0110464096	AAAY	-15.65084540	VIT	5291.232604
	RANG	799.2485275	RLAT	-174.8813552	AZVA	269.9723320	AAAT	35.19188547	VAT	-5307.626953

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7 FEB. 1968 1 HR 18 MIN 16.18 SEC TMST 339833.2070 J.D. 2439893.5543 3 DAY 22 HR 23.9 MIN

SELENOGRAPHIC

CM-SM	ALT	481761.5000	R	6184156.312	VI	5291.517700	X	6126128.500	VX	569.1985549
120	LTDM	-4.993336677			FPVI	-.0068435669	Y	651617.5937	VY	-5259.482727
	LONM	6.071548044			AZVI	271.2862243	Z	-538268.2734	VZ	118.3829011
	A	6188470.250	ASND	290.5361289	VVEN	-27961147.50	APOG	80.72265052	VAPG	5284.067810
	ECC	.71178613-03	ARGP	294.1410522	ARGL	284.4084968	PERG	79.27275180	VPER	5291.595458
	INCL	174.8440685	MA	350.2812767	TA	350.2674407	PERD	122.5559511	MCON	ELLIPSE
	LTDE	-3.526922196	LONE	-1.163913726	LTDS	-1.414137393	LONS	82.93330001		
	WT	35799.86279	ATLI	107.5868043	VA	5307.911499	AAAP	17.79828739	VIR	-.6322127580
	DVV	4.526347994	AMIS	285.4910774	FPVA	-.0068235397	AAAY	-14.60175025	VIT	5291.517639
	RANG	557.6147689	RLAT	-179.0848388	AZVA	271.2822532	AAAT	22.46191740	VAT	-5307.911437

7 FEB. 1968 1 HR 23 MIN 16.18 SEC TMST 340133.2070 J.D. 2439893.5577 3 DAY 22 HR 28.9 MIN

SELENOGRAPHIC

CM-SM	ALT	481635.4375	R	6184030.250	VI	5291.621398	X	6093596.812	VX	-784.1303710
120	LTDM	-4.502833545			FPVI	-.0021991730	Y	-935200.1484	VY	-5228.079406
	LONM	-8.725254058			AZVI	272.5147743	Z	-485498.3085	VZ	231.4797077
	A	6188460.750	ASND	290.4983329	VVEN	-27961191.00	APOG	80.75237751	VAPG	5283.909545
	ECC	.74252473-03	ARGP	302.1974525	ARGL	299.1246986	PERG	79.23988819	VPER	5291.762207
	INCL	174.8437805	MA	356.9317970	TA	356.9272422	PERD	122.5556697	MCON	ELLIPSE
	LTDE	-3.530959278	LONE	-1.168907165	LTDS	-1.414117336	LONS	82.89082431		
	WT	35799.86279	ATLI	93.30336666	VA	5308.014831	AAAP	2.579897373	VIR	-.2032065391
	DVV	4.526522398	AMIS	286.0649223	FPVA	-.0021924972	AAAY	-13.71049356	VIT	5291.621398
	RANG	315.9847602	RLAT	177.3373012	AZVA	272.5069999	AAAT	13.93310344	VAT	-5308.014770

7 FEB. 1968 1 HR 28 MIN 16.18 SEC TMST 340433.2070 J.D. 2439893.5613 3 DAY 22 HR 33.9 MIN

	SELENOGRAPHIC									
CM-SM	ALT	481641.4375	R	6184036.250	VI	5291.537414	X	5659347.250	VX	-2085.752410
120	LTDM	-3.716987580			FPVI	.0026483536	Y	-2460360.218	VY	-4851.958496
	LONM	-23.49664688			AZVI	273.5766983	Z	-400899.8046	VZ	329.4003753
	A	6188276.000	ASND	290.4587516	VVEN	-27962025.50	APOG	80.67991161	VAPG	5284.206481
	ECC	.70124056-03	ARGP	309.9783935	ARGL	313.8393020	PERG	79.25155258	VPER	5291.622741
	INCL	174.8433685	MA	3.855498254	TA	3.860906928	PERD	122.5501823	MCON	ELLIPSE
	LTDE	-3.534992009	LONE	-1.173904418	LTDS	-1.414096057	LONS	82.84834575		
	WT	35799.86279	ATLI	79.00724220	VA	5307.930969	AAAP	-12.39790904	VIR	.2444968223
	DVV	4.526346147	AMIS	287.3609848	FPVA	.0026407242	AAAY	-12.84011697	VIT	5291.537353
	RANG	74.56761646	RLAT	173.8632049	AZVA	273.5656356	AAAT	17.57110834	VAT	-5307.930908

7 FEB. 1968 1 HR 33 MIN 16.18 SEC TMST 340733.2070 J.D. 2439893.5647 3 DAY 22 HR 38.9 MIN

	SELENOGRAPHIC									
CM-SM	ALT	481781.9375	R	6184176.750	VI	5291.284179	X	4852079.437	VX	-3249.673583
120	LTDM	-2.688000828			FPVI	.0074663162	Y	-3823251.875	VY	-4156.044311
	LONM	-38.23675155			AZVI	274.4027557	Z	-290020.9335	VZ	405.7168273
	A	6187964.250	ASND	290.4176139	VVEN	-27963433.75	APOG	80.55437946	VAPG	5284.724548
	ECC	.62839539-03	ARGP	316.5262641	ARGL	328.5510177	PERG	79.27447032	VPER	5291.370544
	INCL	174.8429260	MA	12.00968217	TA	12.02475082	PERD	122.5409212	MCON	ELLIPSE
	LTDE	-3.539023876	LONE	-1.178211212	LTDS	-1.414074525	LONS	82.80655479		
	WT	35799.86279	ATLI	64.75521945	VA	5307.678100	AAAP	-27.27231192	VIR	.6894240379
	DVV	4.525859177	AMIS	289.3887062	FPVA	.0074434280	AAAY	-11.86640393	VIT	5291.284118
	RANG	167.5467586	RLAT	170.0284843	AZVA	274.3891334	AAAT	29.10482621	VAT	-5307.678039

7 FEB. 1968 1 HR 38 MIN 16.18 SEC TMST 341033.2070 J.D. 2439893.5682 3 DAY 22 HR 43.9 MIN

	SELENOGRAPHIC									
CM-SM	ALT	482052.3750	R	6184447.062	VI	5290.900024	X	3724930.656	VX	-4199.274719
120	LTDM	-1.483720496			FPVI	.0119948251	Y	-4934230.875	VY	-3186.267547

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LONM	-52.95025634			AZVI	274.9399681	Z	-160133.3496	VZ	455.4280624
A	6187606.062	ASND	290.3729896	VVEN	-27965052.00	APOG	80.44512939	VAPG	5285.138427
ECC	.57903033-03	ARGP	320.9694366	ARGL	343.2592391	PERG	79.26581954	VPER	5291.262451
INCL	174.8425521	MA	22.26442122	TA	22.28980183	PERD	122.5302810	MCON	ELLIPSE
LTDE	-3.543054401	LCNE	-1.183891296	LTDS	-1.414054393	LONS	82.76339244		
WT	35799.86279	ATLI	50.63026857	VA	5307.294738	AAAP	-41.92536020	VIR	1.106536030
DVV	4.525141298	AMIS	292.5498733	FPVA	.0119476318	AAAY	-7.899098038	VIT	5290.899902
RANG	409.1050224	RLAT	165.1574897	AZVA	274.9246673	AAAT	42.25730133	VAT	-5307.294616

7 FEB. 1968 1 HR 43 MIN 16.18 SEC TMST 341333.2070 J.D. 2439893.5717 3 DAY 22 HR 48.9 MIN

	SELENOGRAPHIC								
CM-SM	ALT	482440.3750	R	6184835.125	VI	5290.435546	X	2352454.437	VX	-4871.875976
120	LTDM	-.182989180 1			FPVI	.0159044266	Y	-5719943.437	VY	-2006.896820
	LONM	-67.64398956			AZVI	275.1544227	Z	-19752.87158	VZ	475.2874794
	A	6187295.312	ASND	290.3282699	VVEN	-27966456.25	APOG	80.31685066	VAPG	5285.671386
	ECC	.50330880-03	ARGP	323.0302925	ARGL	357.9640235	PERG	79.29182243	VPER	5290.994689
	INCL	174.8423366	MA	34.90051698	TA	34.93373107	PERD	122.5210523	MCON	ELLIPSE
	LTDE	-3.547083407	LCNE	-1.188198089	LTDS	-1.414033487	LONS	82.72160053		
	WT	35799.86279	ATLI	36.81455469	VA	5306.831237	AAAP	-56.37369394	VIR	1.468390062
	DVV	4.524294257	AMIS	298.1275177	FPVA	.0158548355	AAAY	-4.762589693	VIT	5290.435302
	RANG	650.6718063	RLAT	157.7947444	AZVA	275.1384544	AAAT	56.41399049	VAT	-5306.830993

7 FEB. 1968 1 HR 48 MIN 16.18 SEC TMST 341633.2070 J.D. 2439893.5751 3 DAY 22 HR 53.9 MIN

	SELENOGRAPHIC								
CM-SM	ALT	482925.0000	R	6185319.812	VI	5289.942749	X	825104.8515	VX	-5223.421020
120	LTDM	1.129457235			FPVI	.0159180374	Y	-6128826.812	VY	-695.7448501
	LONM	-82.33255004			AZVI	275.0328178	Z	121921.7539	VZ	464.0114517
	A	6187111.937	ASND	290.2838211	VVEN	-27967286.25	APOG	80.25556564	VAPG	5285.911132

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ECC	.47277629-C3	ARGP	323.9049835	ARGL	12.66600906	PERG	79.29274845	VPER	5290.911499
INCL	174.8423194	MA	48.72014236	TA	48.76102304	PERD	122.5156040	MCON	ELLIPSE
LTDE	-3.551110863	LCNE	-1.191814422	LTDS	-1.414013236	LONS	82.68049621		
WT	35799.86279	ATLI	23.88169217	VA	5306.339721	AAAP	-70.68356037	VIR	1.746537089
DVV	4.523420929	AMIS	31C.3210449	FPVA	.0188598633	AAAY	-1.314842164	VIT	5289.942443
RANG	892.2000274	RLAT	143.6326C07	AZVA	275.0172271	AAAT	70.68413829	VAT	-5306.339416

7 FEB. 1968 1 HR 53 MIN 16.18 SEC TMST 341933.2070 J.C. 2439893.5786 3 DAY 22 HR 58.9 MIN

	SELENOGRAPHIC								
CM-SM	ALT	483477.25C0	R	6185872.062	VI	5289.466796	X	-756863.3046	VX	-5230.967407
120	LTDM	2.368247449			FPVI	.0207443237	Y	-6134071.500	VY	661.1010055
	LONM	-97.03398895			AZVI	274.5829238	Z	255612.2792	VZ	422.3561401
	A	6187103.0CC	ASND	29C.2373657	VVEN	-27967326.75	APOG	80.21214771	VAPG	5286.132629
	ECC	.43158373-C3	ARGP	326.1346168	ARGL	27.36613464	PERG	79.33321475	VPER	5290.697448
	INCL	174.8424968	MA	61.18858194	TA	61.23151493	PERD	122.5153388	MCON	ELLIPSE
	LTDE	-3.555135279	LCNE	-1.198173522	LTDS	-1.413991883	LONS	82.63664913		
	WT	35799.86279	ATLI	14.46296381	VA	5305.865173	AAAP	-84.95246410	VIR	1.914965629
	DVV	4.522606492	AMIS	344.0439643	FPVA	.0206804275	AAAY	2.218433797	VIT	5289.46643C
	RANG	1133.734375	RLAT	107.6937503	AZVA	274.5687294	AAAT	84.95249366	VAT	-5305.864807

7 FEB. 1968 1 HR 58 MIN 16.18 SEC TMST 342233.207C J.C. 2439893.5820 3 DAY 23 HR 3.9 MIN

	SELENOGRAPHIC								
CM-SM	ALT	484060.9375	R	6186455.687	VI	5289.039489	X	-2288717.375	VX	-4894.20C134
2" 120	LTDM	3.4526242C1			FPVI	.0211639404	Y	-5735433.687	VY	1973.851638
	LONM	-111.7544059			AZVI	273.8332443	Z	372568.1367	VZ	353.C630645
	A	6187270.625	ASND	29C.1953430	VVEN	-27966568.50	APOG	80.23975563	VAPG	5286.061035
	ECC	.43158373-C3	ARGP	331.6663093	ARGL	42.06532144	PERG	79.36079120	VPER	5290.625732
	INCL	174.8428115	MA	70.35187435	TA	70.39900779	PERD	122.5203180	MCON	ELLIPSE

1" [redacted]

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LTDE	-3.559158325	LONE	-1.201789855	LTDS	-1.413970708	LONS	82.59554386		
WT	35799.86279	ATLI	16.49203705	VA	5305.439392	AAAP	-99.28664112	VIR	1.953550577
DVV	4.521905601	AMIS	38.36058521	FPVA	.0210981369	AAAY	5.606078445	VIT	5289.039062
RANG	1375.182540	RLAT	50.88208150	AZVA	273.8213768	AAAT	80.71452426	VAT	-5305.439025

7 FEB. 1968 2 HR 3 MIN 16.18 SEC TMST 342533.2070 J.D. 2439893.5856 3 DAY 23 HR 8.9 MIN

	SELENOGRAPHIC								
CM-SM	ALT	484635.3125	R	6187030.187	VI	5288.677124	X	-3670070.687	VX -4235.372253
120	LTDM	4.311534285			FPVI	.0200634002	Y	-4959190.500	VY 3156.544982
	LONM	-126.5034523			AZVI	272.8317337	Z	465137.6484	VZ 260.6759376
	A	6187571.812	ASND	290.1541633	VVEN	-27965208.00	APOG	80.25265502	VAPG 5286.122802
	ECC	.39555302-03	ARGP	340.7762374	ARGL	56.76423454	PERG	79.44703102	VPER 5290.306396
	INCL	174.8431682	MA	75.94420433	TA	75.98799228	PERD	122.5292644	MOON ELLIPSE
	LTDE	-3.563179403	LONE	-1.206775665	LTDS	-1.413949608	LONS	82.55306816	
	WT	35799.86279	ATLI	27.54056477	VA	5305.078491	AAAP	-113.7776756	VIR 1.851842880
	DVV	4.521337866	AMIS	62.44654750	FPVA	.0200014114	AAAY	159.3067321	VIT 5288.676757
	RANG	1616.612640	RLAT	24.01234793	AZVA	272.8229713	AAAT	66.50977039	VAT -5305.078186

PRIMARY PHASE CUTOFF ---- TIME 66900.00000

[redacted]