SEQUENCE OF EVENTS File: mm158b.01.rsoe Source: mm158b.01.pef Generated: Thu Jan 24 23:15:54 2002
MGS (094) DKF: mm158b.01.dkf Alloc: MGS_02029_02059.SAF
Page 1 OWLT = 14:19, RTLT = 28:38

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
1	MGS	02-031/00:00:00		Light Time: OWLT = 14:18, RTLT = 28:37		
2	MGS	02-031/00:00:10	25	Acquisition Of X-Band Signal		
3	MGS	02-031/00:00:10	25	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
4	MGS	02-031/00:00:10	25	NOTE: Carrier Only -- No Telemetry Modulation		
5	MGS	02-031/00:07:00	25	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
6	MGS	02-031/00:07:01	25	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
7	MGS	02-031/00:11:18		<<ERROR>> Resulting from 1150-B-MOLA; After initial instrument or replacement heater turn-ON, either the MOLA or its replacement heater will be ON at all times. The MOLA and its replacement heater shall never both be on at the same time.; payload::MOLA_On=TRUE, payload::MOLA_Heater_Status=Power_On;		02-030/23:57:00
8	MGS	02-031/00:11:45		NOTE: Exit Solar Eclipse 12956		02-030/23:57:26
9	MGS	02-031/00:14:17		NOTE: Start Block (SSRMGR)		02-030/23:59:58
10	MGS	02-031/00:14:17		Sends a one-word SSR command to the XSU command SOB: SSR_2A, SE_1A, CLRALL, PART1	STSSRC	02-030/23:59:58
11	MGS	02-031/00:14:18		Sends a one-word SSR command to the XSU command SOB: SSR_2A, SE_1A, RECORD, PART1	STSSRC	02-030/23:59:59
12	MGS	02-031/00:14:19		SSR 2A Data Enable	CSD2AE	02-031/00:00:00
13	MGS	02-031/00:14:19		SSR Activity: ID=SSR_2A, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-031/00:00:00
14	MGS	02-031/00:26:46		NOTE: Periapsis 12957 ----------		02-031/00:12:27
15	MGS	02-031/00:40:06	25	NOTE: Transmitter Off in 15 minutes		
16	MGS	02-031/00:55:06	25	Transmitter Off		
17	MGS	02-031/01:16:56		NOTE: Begin fixed Sub-Reflector for Radio Science		02-031/01:02:37
18	MGS	02-031/01:19:01		NOTE: Start Block (MAP_PB_ODY)		02-031/01:04:42
19	MGS	02-031/01:19:02		: 00:27:06, 01:29:37, FALSE, FALSE, FALSE, 00:01:15, 00:05:43, 01:17:11, 00:05:27	AEMINI	02-031/01:04:43
20	MGS	02-031/01:19:02		Enable sending eclipse ingress script when array power disappears	SWEISE	02-031/01:04:43
21	MGS	02-031/01:19:02		NOTE: Start EVP data return script		02-031/01:04:43
22	MGS	02-031/01:19:03		: SSR_1B, F42KHZ, PART2, SE_1A, 2002-031T01:48:47.000	AEMPBI	02-031/01:04:44
23	MGS	02-031/01:21:57		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-031/01:07:38
24	MGS	02-031/01:21:57		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=1, BITS=32464000, DUR=01:07:38		02-031/01:07:38
25	MGS	02-031/01:21:57		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-031/01:07:38
26	MGS	02-031/01:21:57		: 00:07:07, FALSE	RDSCII	02-031/01:07:38
27	MGS	02-031/01:21:57		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-031/01:07:38
28	MGS	02-031/01:21:57		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-031/01:07:38
29	MGS	02-031/01:21:57		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-031/01:07:38
30	MGS	02-031/01:21:57		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-031/01:07:38
31	MGS	02-031/01:21:57	25	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
32	MGS	02-031/01:21:57	25	NOTE: Carrier Only -- No Telemetry Modulation		
33	MGS	02-031/01:23:04		NOTE: Enter Planetary Atmosphere 12957		02-031/01:08:45
34	MGS	02-031/01:25:42		NOTE: Apoapsis 12957 -		02-031/01:11:23
35	MGS	02-031/01:27:29		NOTE: Enter Earth Occultation 12957		02-031/01:13:10
36	MGS	02-031/01:27:29	25	NOTE: Loss Of X-Band Signal		
37	MGS	02-031/01:28:05		SSR 1B Data Disable	CSD1BX	02-031/01:13:46
38	MGS	02-031/01:28:05		SSR Activity: ID=SSR_1B, FCN=End Recording, PRT=2, BITS=180824000, DUR=06:16:43		02-031/01:13:46
39	MGS	02-031/01:28:06		NOTE: End Block (SSRMGR)		02-031/01:13:47
40	MGS	02-031/01:29:01		NOTE: Enter Solar Eclipse 12957		02-031/01:14:42
41	MGS	02-031/01:29:02		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-031/01:14:43
42	MGS	02-031/01:29:04		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-031/01:14:45
43	MGS	02-031/01:29:04		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-031/01:14:45
44	MGS	02-031/01:29:04		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-031/01:14:45
45	MGS	02-031/01:29:04		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-031/01:14:45
46	MGS	02-031/01:29:04		NOTE: End EVP script		02-031/01:14:45
47	MGS	02-031/01:29:05		Turn off the MOT Exciter and RPA beam	STRPAF	02-031/01:14:46
48	MGS	02-031/01:29:05		NOTE: End Block (MAP_RT)		02-031/01:14:46
49	MGS	02-031/01:29:08		NOTE: End fixed Sub-Reflector for Radio Science		02-031/01:14:49
50	MGS	02-031/01:33:05	25	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
51	MGS	02-031/01:56:08		: 01:29:37	RPAONX	02-031/01:41:49

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
52	MGS	02-031/01:56:08		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-031/01:41:49
53	MGS	02-031/01:57:53		Disables autonomous command to send eclipse ingress script	SWEISX	02-031/01:43:34
54	MGS	02-031/01:57:58		NOTE: Exit Earth Occultation 12957		02-031/01:43:39
55	MGS	02-031/01:57:58	25	Acquisition Of X-Band Signal		
56	MGS	02-031/01:57:58	25	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
57	MGS	02-031/02:01:43	25	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
58	MGS	02-031/02:02:40		NOTE: Exit Planetary Atmosphere 12957		02-031/01:48:21
59	MGS	02-031/02:03:06		: REC_1B, F42KHZ, PART2, SE_1A, FALSE, 00:12:00	AEMPB	02-031/01:48:47
60	MGS	02-031/02:03:06		Sends a one-word MOT command to the XSU command SOB: SSR_1B	STMOTC	02-031/01:48:47
61	MGS	02-031/02:03:06		Sends a one-word SSR command to the XSU command SOB: SSR_1B, F42KHZ, PLYBCK, PART2	STSSRC	02-031/01:48:47
62	MGS	02-031/02:03:07		SSR 1B Data Enable	CSD1BE	02-031/01:48:48
63	MGS	02-031/02:03:07		SSR Activity: ID=SSR_1B, FCN=Start Playback, PRT=2, BR=42666		02-031/01:48:48
64	MGS	02-031/02:03:07	25	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
65	MGS	02-031/02:09:28		NOTE: Exit Solar Eclipse 12957		02-031/01:55:09
66	MGS	02-031/02:24:07		NOTE: Periapsis 12958 ----------		02-031/02:09:48
67	MGS	02-031/02:34:27		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-031/02:20:08
68	MGS	02-031/02:34:27		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-031/02:20:08
69	MGS	02-031/02:34:28		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-031/02:20:09
70	MGS	02-031/02:34:28		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-031/02:20:09
71	MGS	02-031/02:37:45	25	NOTE: Transmitter Off in 15 minutes		
72	MGS	02-031/02:52:45	25	Transmitter Off		
73	MGS	02-031/02:56:28		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-031/02:42:09
74	MGS	02-031/02:56:28		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-031/02:42:09
75	MGS	02-031/03:11:45		SSR 1B Data Disable	CSD1BX	02-031/02:57:26
76	MGS	02-031/03:11:45		SSR Activity: ID=SSR_1B, FCN=End Playback, PRT=2, BITS=175701333, DUR=01:08:38		02-031/02:57:26
77	MGS	02-031/03:11:45		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-031/02:57:26
78	MGS	02-031/03:11:45	25	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
79	MGS	02-031/03:16:41		NOTE: Start Block (MAP_RT)		02-031/03:02:22
80	MGS	02-031/03:16:42		: 00:27:11, 01:29:32, FALSE, TRUE, FALSE, 00:01:15, 00:07:21, 01:13:51, 00:07:04	AEMINI	02-031/03:02:23
81	MGS	02-031/03:16:42		Enable sending eclipse ingress script when array power disappears	SWEISE	02-031/03:02:23
82	MGS	02-031/03:16:42		NOTE: Start EVP data return script		02-031/03:02:23
83	MGS	02-031/03:16:43		: SE_2A, RTM, 01:13:50, MRC, 2002-031T03:48:11.000	AEMRTI	02-031/03:02:24
84	MGS	02-031/03:20:43		NOTE: Enter Planetary Atmosphere 12958		02-031/03:06:24
85	MGS	02-031/03:21:23	25	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
86	MGS	02-031/03:23:07		NOTE: Apoapsis 12958 -		02-031/03:08:47
87	MGS	02-031/03:25:08		NOTE: Enter Earth Occultation 12958		02-031/03:10:49
88	MGS	02-031/03:25:08	25	NOTE: Loss Of X-Band Signal		
89	MGS	02-031/03:25:45		NOTE: End EVP script		02-031/03:11:25
90	MGS	02-031/03:25:45		Turn off the MOT Exciter and RPA beam	STRPAF	02-031/03:11:26
91	MGS	02-031/03:25:46		NOTE: End Block (MAP_PB_ODY)		02-031/03:11:26
92	MGS	02-031/03:26:42		NOTE: Enter Solar Eclipse 12958		02-031/03:12:22
93	MGS	02-031/03:26:42		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-031/03:12:23
94	MGS	02-031/03:30:45	25	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
95	MGS	02-031/03:50:08		NOTE: Begin fixed Sub-Reflector for Radio Science		02-031/03:35:48
96	MGS	02-031/03:51:28		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-031/03:37:09
97	MGS	02-031/03:51:28		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-031/03:37:09
98	MGS	02-031/03:51:33		Set eclipse egress script address: 019A	SWSEES	02-031/03:37:14
99	MGS	02-031/03:53:53		: 01:29:32	RPAONX	02-031/03:39:34
100	MGS	02-031/03:53:53		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-031/03:39:34
101	MGS	02-031/03:55:08		: 00:00:30, 00:07:21, FALSE	RDSCIE	02-031/03:40:49
102	MGS	02-031/03:55:08		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-031/03:40:49
103	MGS	02-031/03:55:08		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-031/03:40:49
104	MGS	02-031/03:55:08		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-031/03:40:49
105	MGS	02-031/03:55:08		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-031/03:40:49

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
106	MGS	02-031/03:55:39		NOTE: Exit Earth Occultation 12958		02-031/03:41:19
107	MGS	02-031/03:55:39	25	Acquisition Of X-Band Signal		
108	MGS	02-031/03:55:39	25	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
109	MGS	02-031/03:55:39	25	NOTE: Carrier Only -- No Telemetry Modulation		
110	MGS	02-031/04:00:20		NOTE: Exit Planetary Atmosphere 12958		02-031/03:46:01
111	MGS	02-031/04:02:29		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-031/03:48:10
112	MGS	02-031/04:02:29		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-031/03:48:10
113	MGS	02-031/04:02:29		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-031/03:48:10
114	MGS	02-031/04:02:29		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-031/03:48:10
115	MGS	02-031/04:02:29	25	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
116	MGS	02-031/04:02:30		: RTM, MRC, 01:13:50, S&E_2A, FALSE, 00:07:05	AEMRT	02-031/03:48:11
117	MGS	02-031/04:02:30		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-031/03:48:11
118	MGS	02-031/04:02:30		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-031/03:48:11
119	MGS	02-031/04:02:30	25	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
120	MGS	02-031/04:02:34		NOTE: End fixed Sub-Reflector for Radio Science		02-031/03:48:14
121	MGS	02-031/04:07:08		NOTE: Exit Solar Eclipse 12958		02-031/03:52:49
122	MGS	02-031/04:21:36		NOTE: Periapsis 12959 ----------		02-031/04:07:16
123	MGS	02-031/04:28:07		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-031/04:13:48
124	MGS	02-031/04:28:07		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-031/04:13:48
125	MGS	02-031/04:28:08		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-031/04:13:49
126	MGS	02-031/04:28:08		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-031/04:13:49
127	MGS	02-031/04:30:00	25	NOTE: Transmitter Off in 15 minutes		
128	MGS	02-031/04:45:00	25	Transmitter Off		
129	MGS	02-031/04:50:08		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-031/04:35:49
130	MGS	02-031/04:50:08		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-031/04:35:49
131	MGS	02-031/04:57:56	25	NOTE: Below Uplink Interlock Limit		
132	MGS	02-031/05:00:00	45	Begin Pre-Cal		
133	MGS	02-031/05:00:00	45	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
134	MGS	02-031/05:00:00	45	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
135	MGS	02-031/05:00:00	45	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
136	MGS	02-031/05:00:00	45	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=OFF, EXC=2		
137	MGS	02-031/05:00:00	45	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
138	MGS	02-031/05:00:00	45	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
139	MGS	02-031/05:00:00	45	Config: TGC: DEST=37		
140	MGS	02-031/05:00:00	45	Config: TGC: BAND=X, BR=8000.000000		
141	MGS	02-031/05:00:00	45	Config: FSS: CH=2, PRI_FL=10000		
142	MGS	02-031/05:00:00	45	Config: RSR		
143	MGS	02-031/05:00:00	45	Config: TXL		
144	MGS	02-031/05:00:00	45	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
145	MGS	02-031/05:00:00	45	Config: BVR		
146	MGS	02-031/05:00:00	45	Config: Doppler Extractor: BIAS=+1MHZ		
147	MGS	02-031/05:00:00	45	Config: MDA: SMPL=0.1		
148	MGS	02-031/05:08:30		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-031/04:54:11
149	MGS	02-031/05:08:30		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-031/04:54:11
150	MGS	02-031/05:08:30	25	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
151	MGS	02-031/05:10:00	25	End Tracking		
152	MGS	02-031/05:11:20		NOTE: Begin fixed Sub-Reflector for Radio Science		02-031/04:57:00
153	MGS	02-031/05:14:24		NOTE: Start EVP data return script		02-031/05:00:05
154	MGS	02-031/05:16:20		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-031/05:02:01
155	MGS	02-031/05:16:20		: 00:07:04, FALSE	RDSCII	02-031/05:02:01
156	MGS	02-031/05:16:20		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-031/05:02:01
157	MGS	02-031/05:16:20		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-031/05:02:01
158	MGS	02-031/05:16:20		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-031/05:02:01
159	MGS	02-031/05:16:20		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-031/05:02:01

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
160	MGS	02-031/05:18:25		NOTE: Enter Planetary Atmosphere 12959		02-031/05:04:05
161	MGS	02-031/05:20:55		NOTE: Apoapsis 12959 -		02-031/05:06:35
162	MGS	02-031/05:22:49		NOTE: Enter Earth Occultation 12959		02-031/05:08:30
163	MGS	02-031/05:23:24		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-031/05:09:05
164	MGS	02-031/05:23:24		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-031/05:09:05
165	MGS	02-031/05:23:24		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-031/05:09:05
166	MGS	02-031/05:23:24		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-031/05:09:05
167	MGS	02-031/05:23:25		NOTE: End EVP script		02-031/05:09:05
168	MGS	02-031/05:23:25		Turn off the MOT Exciter and RPA beam	STRPAF	02-031/05:09:06
169	MGS	02-031/05:23:29		NOTE: End fixed Sub-Reflector for Radio Science		02-031/05:09:09
170	MGS	02-031/05:24:24		NOTE: Enter Solar Eclipse 12959		02-031/05:10:04
171	MGS	02-031/05:24:24		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-031/05:10:05
172	MGS	02-031/05:25:00	25	End Post-Cal		
173	MGS	02-031/05:45:00	45	Begin Tracking		
174	MGS	02-031/05:47:37		NOTE: Start Block (SSRMGR)		02-031/05:33:18
175	MGS	02-031/05:47:37		Sends a one-word SSR command to the XSU command SOB: SSR_2B, SE_1A, CLRALL, PART1	STSSRC	02-031/05:33:18
176	MGS	02-031/05:47:38		Sends a one-word SSR command to the XSU command SOB: SSR_2B, SE_1A, RECORD, PART1	STSSRC	02-031/05:33:19
177	MGS	02-031/05:47:39		SSR 2B Data Enable	CSD2BE	02-031/05:33:20
178	MGS	02-031/05:47:39		SSR Activity: ID=SSR_2B, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-031/05:33:20
179	MGS	02-031/05:47:50		NOTE: Begin fixed Sub-Reflector for Radio Science		02-031/05:33:30
180	MGS	02-031/05:49:08		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-031/05:34:49
181	MGS	02-031/05:49:08		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-031/05:34:49
182	MGS	02-031/05:49:13		Set eclipse egress script address: 01DC	SWSEES	02-031/05:34:54
183	MGS	02-031/05:51:35		: 01:29:32	RPAONX	02-031/05:37:16
184	MGS	02-031/05:51:35		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-031/05:37:16
185	MGS	02-031/05:52:50		: 00:00:30, 00:07:21, FALSE	RDSCIE	02-031/05:38:31
186	MGS	02-031/05:52:50		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-031/05:38:31
187	MGS	02-031/05:52:50		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-031/05:38:31
188	MGS	02-031/05:52:50		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-031/05:38:31
189	MGS	02-031/05:52:50		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-031/05:38:31
190	MGS	02-031/05:53:21		NOTE: Exit Earth Occultation 12959		02-031/05:39:01
191	MGS	02-031/05:53:21	45	Acquisition Of X-Band Signal		
192	MGS	02-031/05:53:21	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
193	MGS	02-031/05:53:21	45	NOTE: Carrier Only -- No Telemetry Modulation		
194	MGS	02-031/05:55:00	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
195	MGS	02-031/05:58:02		NOTE: Exit Planetary Atmosphere 12959		02-031/05:43:42
196	MGS	02-031/06:00:11		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-031/05:45:52
197	MGS	02-031/06:00:11		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-031/05:45:52
198	MGS	02-031/06:00:11		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-031/05:45:52
199	MGS	02-031/06:00:11		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-031/05:45:52
200	MGS	02-031/06:00:11	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
201	MGS	02-031/06:00:12		: RTM, MRC, 01:13:50, S&E_2A, FALSE, 00:07:05	AEMRT	02-031/05:45:53
202	MGS	02-031/06:00:12		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-031/05:45:53
203	MGS	02-031/06:00:12		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-031/05:45:53
204	MGS	02-031/06:00:12		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=1, BITS=6024000, DUR=00:12:33		02-031/05:45:53
205	MGS	02-031/06:00:12		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-031/05:45:53
206	MGS	02-031/06:00:12	45	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
207	MGS	02-031/06:00:16		NOTE: End fixed Sub-Reflector for Radio Science		02-031/05:45:56
208	MGS	02-031/06:04:50		NOTE: Exit Solar Eclipse 12959		02-031/05:50:31
209	MGS	02-031/06:14:20		SSR 2A Data Disable	CSD2AX	02-031/06:00:00
210	MGS	02-031/06:14:20		SSR Activity: ID=SSR_2A, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-031/06:00:00
211	MGS	02-031/06:14:21		NOTE: End Block (SSRMGR)		02-031/06:00:01
212	MGS	02-031/06:19:23		NOTE: Periapsis 12960 ----------		02-031/06:05:03
213	MGS	02-031/06:23:39	45	Acquire D/L: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
214	MGS	02-031/06:25:50		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-031/06:11:30
215	MGS	02-031/06:25:50		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-031/06:11:30
216	MGS	02-031/06:25:51		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-031/06:11:31
217	MGS	02-031/06:25:51		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-031/06:11:31
218	MGS	02-031/06:33:11	45	NOTE: Transmitter Off in 15 minutes		
219	MGS	02-031/06:47:51		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-031/06:33:31
220	MGS	02-031/06:47:51		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-031/06:33:31
221	MGS	02-031/06:48:11	45	Transmitter Off		
222	MGS	02-031/07:09:02		NOTE: Begin fixed Sub-Reflector for Radio Science		02-031/06:54:42
223	MGS	02-031/07:12:12		NOTE: Start EVP data return script		02-031/06:57:52
224	MGS	02-031/07:14:03		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-031/06:59:43
225	MGS	02-031/07:14:03		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=1, BITS=41464000, DUR=01:13:50		02-031/06:59:43
226	MGS	02-031/07:14:03		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-031/06:59:43
227	MGS	02-031/07:14:03		: 00:07:04, FALSE	RDSCII	02-031/06:59:43
228	MGS	02-031/07:14:03		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-031/06:59:43
229	MGS	02-031/07:14:03		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-031/06:59:43
230	MGS	02-031/07:14:03		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-031/06:59:43
231	MGS	02-031/07:14:03		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-031/06:59:43
232	MGS	02-031/07:14:03	45	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
233	MGS	02-031/07:14:03	45	NOTE: Carrier Only -- No Telemetry Modulation		
234	MGS	02-031/07:16:12		NOTE: Enter Planetary Atmosphere 12960		02-031/07:01:52
235	MGS	02-031/07:18:42		NOTE: Apoapsis 12960 -		02-031/07:04:22
236	MGS	02-031/07:20:36		NOTE: Enter Earth Occultation 12960		02-031/07:06:16
237	MGS	02-031/07:20:36	45	NOTE: Loss Of X-Band Signal		
238	MGS	02-031/07:21:07		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-031/07:06:47
239	MGS	02-031/07:21:07		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-031/07:06:47
240	MGS	02-031/07:21:07		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-031/07:06:47
241	MGS	02-031/07:21:07		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-031/07:06:47
242	MGS	02-031/07:21:07		NOTE: End EVP script		02-031/07:06:47
243	MGS	02-031/07:21:08		Turn off the MOT Exciter and RPA beam	STRPAF	02-031/07:06:48
244	MGS	02-031/07:21:11		NOTE: End fixed Sub-Reflector for Radio Science		02-031/07:06:51
245	MGS	02-031/07:22:11		NOTE: Enter Solar Eclipse 12960		02-031/07:07:51
246	MGS	02-031/07:22:12		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-031/07:07:52
247	MGS	02-031/07:26:13	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
248	MGS	02-031/07:45:37		NOTE: Begin fixed Sub-Reflector for Radio Science		02-031/07:31:17
249	MGS	02-031/07:46:51		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-031/07:32:31
250	MGS	02-031/07:46:51		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-031/07:32:31
251	MGS	02-031/07:46:55		Command the PSE with included data word: 3990	SWPSEL	02-031/07:32:35
252	MGS	02-031/07:46:56		Set eclipse egress script address: 0158	SWSEES	02-031/07:32:36
253	MGS	02-031/07:49:23		: 01:29:32	RPAONX	02-031/07:35:03
254	MGS	02-031/07:49:23		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-031/07:35:03
255	MGS	02-031/07:50:38		: 00:00:30, 00:07:21, FALSE	RDSCIE	02-031/07:36:18
256	MGS	02-031/07:50:38		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-031/07:36:18
257	MGS	02-031/07:50:38		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-031/07:36:18
258	MGS	02-031/07:50:38		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-031/07:36:18
259	MGS	02-031/07:50:38		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-031/07:36:18
260	MGS	02-031/07:51:08		NOTE: Exit Earth Occultation 12960		02-031/07:36:48
261	MGS	02-031/07:51:08	45	Acquisition Of X-Band Signal		
262	MGS	02-031/07:51:08	45	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
263	MGS	02-031/07:51:08	45	NOTE: Carrier Only -- No Telemetry Modulation		
264	MGS	02-031/07:55:48		NOTE: Exit Planetary Atmosphere 12960		02-031/07:41:28
265	MGS	02-031/07:57:59		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-031/07:43:39
266	MGS	02-031/07:57:59		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-031/07:43:39
267	MGS	02-031/07:57:59		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-031/07:43:39

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
268	MGS	02-031/07:57:59		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-031/07:43:39
269	MGS	02-031/07:57:59	45	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
270	MGS	02-031/07:58:00		: RTM, MRC, 01:13:50, S&E_2A, FALSE, 00:07:05	AEMRT	02-031/07:43:40
271	MGS	02-031/07:58:00		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-031/07:43:40
272	MGS	02-031/07:58:00		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-031/07:43:40
273	MGS	02-031/07:58:00		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=1, BITS=62560000, DUR=00:43:57		02-031/07:43:40
274	MGS	02-031/07:58:00		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-031/07:43:40
275	MGS	02-031/07:58:00	45	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
276	MGS	02-031/07:58:03		NOTE: End fixed Sub-Reflector for Radio Science		02-031/07:43:43
277	MGS	02-031/08:02:38		NOTE: Exit Solar Eclipse 12960		02-031/07:48:17
278	MGS	02-031/08:17:15		NOTE: Periapsis 12961 ----------		02-031/08:02:55
279	MGS	02-031/08:27:37		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-031/08:13:17
280	MGS	02-031/08:27:37		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-031/08:13:17
281	MGS	02-031/08:27:38		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-031/08:13:18
282	MGS	02-031/08:27:38		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-031/08:13:18
283	MGS	02-031/08:30:58	45	NOTE: Transmitter Off in 15 minutes		
284	MGS	02-031/08:40:00	65	Begin Pre-Cal		
285	MGS	02-031/08:40:00	65	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
286	MGS	02-031/08:40:00	65	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
287	MGS	02-031/08:40:00	65	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
288	MGS	02-031/08:40:00	65	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
289	MGS	02-031/08:40:00	65	At BOT: S/C Tlm Mode: BR=40000.0, FL=10000, SC=HIGH, MI=80.0		
290	MGS	02-031/08:40:00	65	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
291	MGS	02-031/08:40:00	65	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
292	MGS	02-031/08:40:00	65	Config: TGC: DEST=37		
293	MGS	02-031/08:40:00	65	Config: TGC: BAND=X, BR=40000.000000		
294	MGS	02-031/08:40:00	65	Config: FSS: CH=2, PRI_FL=10000		
295	MGS	02-031/08:40:00	65	Config: RSR		
296	MGS	02-031/08:40:00	65	Config: TXL		
297	MGS	02-031/08:40:00	65	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
298	MGS	02-031/08:40:00	65	Config: BVR		
299	MGS	02-031/08:40:00	65	Config: Doppler Extractor: BIAS=+1MHZ		
300	MGS	02-031/08:40:00	65	Config: MDA: SMPL=0.1		
301	MGS	02-031/08:40:00	65	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
302	MGS	02-031/08:40:00	65	Config: SRA: HIGH=4, LOW=14, SERV=D		
303	MGS	02-031/08:40:00	65	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
304	MGS	02-031/08:45:58	45	Transmitter Off		
305	MGS	02-031/08:49:38		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-031/08:35:18
306	MGS	02-031/08:49:38		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-031/08:35:18
307	MGS	02-031/09:06:50		NOTE: Begin fixed Sub-Reflector for Radio Science		02-031/08:52:29
308	MGS	02-031/09:09:59		NOTE: Start EVP data return script		02-031/08:55:39
309	MGS	02-031/09:11:50		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-031/08:57:30
310	MGS	02-031/09:11:50		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=1, BITS=98000000, DUR=01:13:50		02-031/08:57:30
311	MGS	02-031/09:11:50		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-031/08:57:30
312	MGS	02-031/09:11:50		: 00:07:04, FALSE	RDSCII	02-031/08:57:30
313	MGS	02-031/09:11:50		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-031/08:57:30
314	MGS	02-031/09:11:50		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-031/08:57:30
315	MGS	02-031/09:11:50		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-031/08:57:30
316	MGS	02-031/09:11:50		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-031/08:57:30
317	MGS	02-031/09:11:50	45	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
318	MGS	02-031/09:11:50	45	NOTE: Carrier Only -- No Telemetry Modulation		
319	MGS	02-031/09:14:00		NOTE: Enter Planetary Atmosphere 12961		02-031/08:59:39
320	MGS	02-031/09:16:21		NOTE: Apoapsis 12961 -		02-031/09:02:01
321	MGS	02-031/09:18:23		NOTE: Enter Earth Occultation 12961		02-031/09:04:03

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
322	MGS	02-031/09:18:23	45	NOTE: Loss Of X-Band Signal		
323	MGS	02-031/09:18:54		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-031/09:04:34
324	MGS	02-031/09:18:54		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-031/09:04:34
325	MGS	02-031/09:18:54		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-031/09:04:34
326	MGS	02-031/09:18:54		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-031/09:04:34
327	MGS	02-031/09:18:55		NOTE: End EVP script		02-031/09:04:34
328	MGS	02-031/09:18:55		Turn off the MOT Exciter and RPA beam	STRPAF	02-031/09:04:35
329	MGS	02-031/09:18:59		NOTE: End fixed Sub-Reflector for Radio Science		02-031/09:04:38
330	MGS	02-031/09:19:58		NOTE: Enter Solar Eclipse 12961		02-031/09:05:38
331	MGS	02-031/09:19:59		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-031/09:05:39
332	MGS	02-031/09:24:00	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
333	MGS	02-031/09:43:25		NOTE: Begin fixed Sub-Reflector for Radio Science		02-031/09:29:04
334	MGS	02-031/09:44:38		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-031/09:30:18
335	MGS	02-031/09:44:38		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-031/09:30:18
336	MGS	02-031/09:44:43		Set eclipse egress script address: 019A	SWSEES	02-031/09:30:23
337	MGS	02-031/09:47:10		: 01:29:32	RPAONX	02-031/09:32:50
338	MGS	02-031/09:47:10		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-031/09:32:50
339	MGS	02-031/09:48:25		: 00:00:30, 00:07:21, FALSE	RDSCIE	02-031/09:34:05
340	MGS	02-031/09:48:25		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-031/09:34:05
341	MGS	02-031/09:48:25		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-031/09:34:05
342	MGS	02-031/09:48:25		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-031/09:34:05
343	MGS	02-031/09:48:25		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-031/09:34:05
344	MGS	02-031/09:48:56		NOTE: Exit Earth Occultation 12961		02-031/09:34:35
345	MGS	02-031/09:48:56	45	Acquisition Of X-Band Signal		
346	MGS	02-031/09:48:56	45	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
347	MGS	02-031/09:48:56	45	NOTE: Carrier Only -- No Telemetry Modulation		
348	MGS	02-031/09:53:36		NOTE: Exit Planetary Atmosphere 12961		02-031/09:39:16
349	MGS	02-031/09:55:46		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-031/09:41:26
350	MGS	02-031/09:55:46		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-031/09:41:26
351	MGS	02-031/09:55:46		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-031/09:41:26
352	MGS	02-031/09:55:46		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-031/09:41:26
353	MGS	02-031/09:55:46	45	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
354	MGS	02-031/09:55:47		: RTM, MRC, 01:13:50, S&E_2A, FALSE, 00:07:05	AEMRT	02-031/09:41:27
355	MGS	02-031/09:55:47		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-031/09:41:27
356	MGS	02-031/09:55:47		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-031/09:41:27
357	MGS	02-031/09:55:47		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=1, BITS=119096000, DUR=00:43:57		02-031/09:41:27
358	MGS	02-031/09:55:47		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-031/09:41:27
359	MGS	02-031/09:55:47	45	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
360	MGS	02-031/09:55:51		NOTE: End fixed Sub-Reflector for Radio Science		02-031/09:41:30
361	MGS	02-031/10:00:25		NOTE: Exit Solar Eclipse 12961		02-031/09:46:05
362	MGS	02-031/10:14:57		NOTE: Periapsis 12962 ----------		02-031/10:00:37
363	MGS	02-031/10:21:24		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-031/10:07:04
364	MGS	02-031/10:21:24		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-031/10:07:04
365	MGS	02-031/10:21:25		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-031/10:07:05
366	MGS	02-031/10:21:25		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-031/10:07:05
367	MGS	02-031/10:25:00	45	NOTE: Transmitter Off in 15 minutes		
368	MGS	02-031/10:40:00	65	Begin Tracking		
369	MGS	02-031/10:40:00	65	Acquire D/L: X/16, 3-Way/45, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
370	MGS	02-031/10:40:00	45	Transmitter Off		
371	MGS	02-031/10:43:25		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-031/10:29:05
372	MGS	02-031/10:43:25		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-031/10:29:05
373	MGS	02-031/10:50:41	65	NOTE: Above Uplink Interlock Limit		
374	MGS	02-031/10:54:11	45	NOTE: Below Uplink Interlock Limit		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
375	MGS	02-031/11:00:00	45	End Tracking		
376	MGS	02-031/11:04:37		NOTE: Begin fixed Sub-Reflector for Radio Science		02-031/10:50:16
377	MGS	02-031/11:07:44		NOTE: Start EVP data return script		02-031/10:53:24
378	MGS	02-031/11:08:41	65	Acquire D/L: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
379	MGS	02-031/11:09:37		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-031/10:55:17
380	MGS	02-031/11:09:37		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=1, BITS=154536000, DUR=01:13:50		02-031/10:55:17
381	MGS	02-031/11:09:37		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-031/10:55:17
382	MGS	02-031/11:09:37		: 00:07:04, FALSE	RDSCII	02-031/10:55:17
383	MGS	02-031/11:09:37		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-031/10:55:17
384	MGS	02-031/11:09:37		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-031/10:55:17
385	MGS	02-031/11:09:37		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-031/10:55:17
386	MGS	02-031/11:09:37		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-031/10:55:17
387	MGS	02-031/11:09:37	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
388	MGS	02-031/11:09:37	65	NOTE: Carrier Only -- No Telemetry Modulation		
389	MGS	02-031/11:11:45		NOTE: Enter Planetary Atmosphere 12962		02-031/10:57:25
390	MGS	02-031/11:13:51		NOTE: Apoapsis 12962 -		02-031/10:59:30
391	MGS	02-031/11:15:00	45	End Post-Cal		
392	MGS	02-031/11:16:09		NOTE: Enter Earth Occultation 12962		02-031/11:01:48
393	MGS	02-031/11:16:09	65	NOTE: Loss Of X-Band Signal		
394	MGS	02-031/11:16:41		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-031/11:02:21
395	MGS	02-031/11:16:41		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-031/11:02:21
396	MGS	02-031/11:16:41		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-031/11:02:21
397	MGS	02-031/11:16:41		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-031/11:02:21
398	MGS	02-031/11:16:42		NOTE: End EVP script		02-031/11:02:21
399	MGS	02-031/11:16:42		Turn off the MOT Exciter and RPA beam	STRPAF	02-031/11:02:22
400	MGS	02-031/11:16:46		NOTE: End fixed Sub-Reflector for Radio Science		02-031/11:02:25
401	MGS	02-031/11:17:44		NOTE: Enter Solar Eclipse 12962		02-031/11:03:23
402	MGS	02-031/11:17:44		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-031/11:03:24
403	MGS	02-031/11:20:59		NOTE: Start Block (SSRMGR)		02-031/11:06:39
404	MGS	02-031/11:20:59		Sends a one-word SSR command to the XSU command SOB: SSR_2A, SE_1A, RECORD, PART2	STSSRC	02-031/11:06:39
405	MGS	02-031/11:21:00		SSR 2A Data Enable	CSD2AE	02-031/11:06:40
406	MGS	02-031/11:21:00		SSR Activity: ID=SSR_2A, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-031/11:06:40
407	MGS	02-031/11:41:10		NOTE: Begin fixed Sub-Reflector for Radio Science		02-031/11:26:49
408	MGS	02-031/11:42:25		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-031/11:28:05
409	MGS	02-031/11:42:25		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-031/11:28:05
410	MGS	02-031/11:42:30		Set eclipse egress script address: 01DC	SWSEES	02-031/11:28:10
411	MGS	02-031/11:44:55		: 01:29:32	RPAONX	02-031/11:30:35
412	MGS	02-031/11:44:55		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-031/11:30:35
413	MGS	02-031/11:46:10		: 00:00:30, 00:07:21, FALSE	RDSCIE	02-031/11:31:50
414	MGS	02-031/11:46:10		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-031/11:31:50
415	MGS	02-031/11:46:10		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-031/11:31:50
416	MGS	02-031/11:46:10		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-031/11:31:50
417	MGS	02-031/11:46:10		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-031/11:31:50
418	MGS	02-031/11:46:40		Disables autonomous command to send eclipse ingress script	SWEISX	02-031/11:32:20
419	MGS	02-031/11:46:42		NOTE: Exit Earth Occultation 12962		02-031/11:32:21
420	MGS	02-031/11:46:42	65	Acquisition Of X-Band Signal		
421	MGS	02-031/11:46:42	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
422	MGS	02-031/11:46:42	65	NOTE: Carrier Only -- No Telemetry Modulation		
423	MGS	02-031/11:47:40		SSR 2B Data Disable	CSD2BX	02-031/11:33:20
424	MGS	02-031/11:47:40		SSR Activity: ID=SSR_2B, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-031/11:33:20
425	MGS	02-031/11:47:41		NOTE: End Block (SSRMGR)		02-031/11:33:21
426	MGS	02-031/11:51:23		NOTE: Exit Planetary Atmosphere 12962		02-031/11:37:02
427	MGS	02-031/11:53:31		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-031/11:39:11
428	MGS	02-031/11:53:31		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-031/11:39:11

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
429	MGS	02-031/11:53:31		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-031/11:39:11
430	MGS	02-031/11:53:31		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-031/11:39:11
431	MGS	02-031/11:53:31	65	D/L Change: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
432	MGS	02-031/11:53:32		: RTM, MRC, 01:13:50, S&E_2A, FALSE, 00:07:05	AEMRT	02-031/11:39:12
433	MGS	02-031/11:53:32		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-031/11:39:12
434	MGS	02-031/11:53:32		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-031/11:39:12
435	MGS	02-031/11:53:32		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=2, BITS=15616000, DUR=00:32:32		02-031/11:39:12
436	MGS	02-031/11:53:32		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-031/11:39:12
437	MGS	02-031/11:53:32	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
438	MGS	02-031/11:53:36		NOTE: End fixed Sub-Reflector for Radio Science		02-031/11:39:15
439	MGS	02-031/11:58:11		NOTE: Exit Solar Eclipse 12962		02-031/11:43:50
440	MGS	02-031/12:12:44		NOTE: Periapsis 12963 ----------		02-031/11:58:23
441	MGS	02-031/12:14:20		Dump SCP memory to the EDF using physical addressing arguments: 56A4, 240	SCDSCM	02-031/12:00:00
442	MGS	02-031/12:19:09		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-031/12:04:49
443	MGS	02-031/12:19:09		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-031/12:04:49
444	MGS	02-031/12:19:10		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-031/12:04:50
445	MGS	02-031/12:19:10		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-031/12:04:50
446	MGS	02-031/12:41:11		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-031/12:26:50
447	MGS	02-031/12:41:11		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-031/12:26:50
448	MGS	02-031/13:02:22		NOTE: Begin fixed Sub-Reflector for Radio Science		02-031/12:48:01
449	MGS	02-031/13:05:27		NOTE: Start Block (MAP_RT)		02-031/12:51:06
450	MGS	02-031/13:05:28		: 00:27:13, 01:29:26, FALSE, TRUE, FALSE, 00:01:15, 00:07:20, 01:13:46, 00:07:04	AEMINI	02-031/12:51:07
451	MGS	02-031/13:05:28		Enable sending eclipse ingress script when array power disappears	SWEISE	02-031/12:51:07
452	MGS	02-031/13:05:28		NOTE: Start EVP data return script		02-031/12:51:07
453	MGS	02-031/13:05:29		: SE_2A, RTM, 01:13:45, MRC, 2002-031T13:36:56.000	AEMRTI	02-031/12:51:08
454	MGS	02-031/13:07:23		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-031/12:53:02
455	MGS	02-031/13:07:23		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=2, BITS=51056000, DUR=01:13:50		02-031/12:53:02
456	MGS	02-031/13:07:23		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-031/12:53:02
457	MGS	02-031/13:07:23		: 00:07:04, FALSE	RDSCII	02-031/12:53:02
458	MGS	02-031/13:07:23		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-031/12:53:02
459	MGS	02-031/13:07:23		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-031/12:53:02
460	MGS	02-031/13:07:23		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-031/12:53:02
461	MGS	02-031/13:07:23		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-031/12:53:02
462	MGS	02-031/13:07:23	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
463	MGS	02-031/13:07:23	65	NOTE: Carrier Only -- No Telemetry Modulation		
464	MGS	02-031/13:09:28		NOTE: Enter Planetary Atmosphere 12963		02-031/12:55:07
465	MGS	02-031/13:11:36		NOTE: Apoapsis 12963 -		02-031/12:57:15
466	MGS	02-031/13:13:52		NOTE: Enter Earth Occultation 12963		02-031/12:59:32
467	MGS	02-031/13:13:52	65	NOTE: Loss Of X-Band Signal		
468	MGS	02-031/13:14:27		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-031/13:00:06
469	MGS	02-031/13:14:27		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-031/13:00:06
470	MGS	02-031/13:14:27		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-031/13:00:06
471	MGS	02-031/13:14:27		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-031/13:00:06
472	MGS	02-031/13:14:27		NOTE: End EVP script		02-031/13:00:06
473	MGS	02-031/13:14:28		Turn off the MOT Exciter and RPA beam	STRPAF	02-031/13:00:07
474	MGS	02-031/13:14:28		NOTE: End Block (MAP_RT)		02-031/13:00:07
475	MGS	02-031/13:14:31		NOTE: End fixed Sub-Reflector for Radio Science		02-031/13:00:10
476	MGS	02-031/13:15:28		NOTE: Enter Solar Eclipse 12963		02-031/13:01:07
477	MGS	02-031/13:15:28		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-031/13:01:07
478	MGS	02-031/13:38:56		NOTE: Begin fixed Sub-Reflector for Radio Science		02-031/13:24:35
479	MGS	02-031/13:40:11		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-031/13:25:50
480	MGS	02-031/13:40:11		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-031/13:25:50
481	MGS	02-031/13:40:15		Command the PSE with included data word: 3990	SWPSEL	02-031/13:25:54
482	MGS	02-031/13:40:16		Set eclipse egress script address: 0158	SWSEES	02-031/13:25:55

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
483	MGS	02-031/13:42:41		: 01:29:26	RPAONX	02-031/13:28:20
484	MGS	02-031/13:42:41		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-031/13:28:20
485	MGS	02-031/13:43:56		: 00:00:30, 00:07:20, FALSE	RDSCIE	02-031/13:29:35
486	MGS	02-031/13:43:56		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-031/13:29:35
487	MGS	02-031/13:43:56		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-031/13:29:35
488	MGS	02-031/13:43:56		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-031/13:29:35
489	MGS	02-031/13:43:56		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-031/13:29:35
490	MGS	02-031/13:44:27		NOTE: Exit Earth Occultation 12963		02-031/13:30:06
491	MGS	02-031/13:44:27	65	Acquisition Of X-Band Signal		
492	MGS	02-031/13:44:27	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
493	MGS	02-031/13:44:27	65	NOTE: Carrier Only -- No Telemetry Modulation		
494	MGS	02-031/13:49:07		NOTE: Exit Planetary Atmosphere 12963		02-031/13:34:46
495	MGS	02-031/13:51:16		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-031/13:36:55
496	MGS	02-031/13:51:16		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-031/13:36:55
497	MGS	02-031/13:51:16		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-031/13:36:55
498	MGS	02-031/13:51:16		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-031/13:36:55
499	MGS	02-031/13:51:16	65	D/L Change: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
500	MGS	02-031/13:51:17		: RTM, MRC, 01:13:45, S&E_2A, FALSE, 00:07:05	AEMRT	02-031/13:36:56
501	MGS	02-031/13:51:17		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-031/13:36:56
502	MGS	02-031/13:51:17		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-031/13:36:56
503	MGS	02-031/13:51:17		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=2, BITS=72128000, DUR=00:43:54		02-031/13:36:56
504	MGS	02-031/13:51:17		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-031/13:36:56
505	MGS	02-031/13:51:17	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
506	MGS	02-031/13:51:21		NOTE: End fixed Sub-Reflector for Radio Science		02-031/13:37:00
507	MGS	02-031/13:55:54		NOTE: Exit Solar Eclipse 12963		02-031/13:41:33
508	MGS	02-031/14:10:28		NOTE: Periapsis 12964 ----------		02-031/13:56:07
509	MGS	02-031/14:20:53		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-031/14:06:32
510	MGS	02-031/14:20:53		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-031/14:06:32
511	MGS	02-031/14:20:54		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-031/14:06:33
512	MGS	02-031/14:20:54		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-031/14:06:33
513	MGS	02-031/14:42:54		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-031/14:28:33
514	MGS	02-031/14:42:54		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-031/14:28:33
515	MGS	02-031/15:00:02		NOTE: Begin fixed Sub-Reflector for Radio Science		02-031/14:45:41
516	MGS	02-031/15:03:10		NOTE: Start EVP data return script		02-031/14:48:49
517	MGS	02-031/15:05:02		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-031/14:50:41
518	MGS	02-031/15:05:02		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=2, BITS=107528000, DUR=01:13:45		02-031/14:50:41
519	MGS	02-031/15:05:02		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-031/14:50:41
520	MGS	02-031/15:05:02		: 00:07:04, FALSE	RDSCII	02-031/14:50:41
521	MGS	02-031/15:05:02		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-031/14:50:41
522	MGS	02-031/15:05:02		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-031/14:50:41
523	MGS	02-031/15:05:02		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-031/14:50:41
524	MGS	02-031/15:05:02		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-031/14:50:41
525	MGS	02-031/15:05:02	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
526	MGS	02-031/15:05:02	65	NOTE: Carrier Only -- No Telemetry Modulation		
527	MGS	02-031/15:07:11		NOTE: Enter Planetary Atmosphere 12964		02-031/14:52:50
528	MGS	02-031/15:09:29		NOTE: Apoapsis 12964 -		02-031/14:55:08
529	MGS	02-031/15:11:35		NOTE: Enter Earth Occultation 12964		02-031/14:57:14
530	MGS	02-031/15:11:35	65	NOTE: Loss Of X-Band Signal		
531	MGS	02-031/15:12:06		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-031/14:57:45
532	MGS	02-031/15:12:06		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-031/14:57:45
533	MGS	02-031/15:12:06		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-031/14:57:45
534	MGS	02-031/15:12:06		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-031/14:57:45
535	MGS	02-031/15:12:07		NOTE: End EVP script		02-031/14:57:46
536	MGS	02-031/15:12:07		Turn off the MOT Exciter and RPA beam	STRPAF	02-031/14:57:46

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
537	MGS	02-031/15:12:11		NOTE: End fixed Sub-Reflector for Radio Science		02-031/14:57:50
538	MGS	02-031/15:13:10		NOTE: Enter Solar Eclipse 12964		02-031/14:58:48
539	MGS	02-031/15:13:10		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-031/14:58:49
540	MGS	02-031/15:36:38		NOTE: Begin fixed Sub-Reflector for Radio Science		02-031/15:22:17
541	MGS	02-031/15:37:54		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-031/15:23:33
542	MGS	02-031/15:37:54		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-031/15:23:33
543	MGS	02-031/15:37:59		Set eclipse egress script address: 019A	SWSEES	02-031/15:23:38
544	MGS	02-031/15:40:23		: 01:29:26	RPAONX	02-031/15:26:02
545	MGS	02-031/15:40:23		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-031/15:26:02
546	MGS	02-031/15:41:38		: 00:00:30, 00:07:20, FALSE	RDSCIE	02-031/15:27:17
547	MGS	02-031/15:41:38		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-031/15:27:17
548	MGS	02-031/15:41:38		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-031/15:27:17
549	MGS	02-031/15:41:38		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-031/15:27:17
550	MGS	02-031/15:41:38		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-031/15:27:17
551	MGS	02-031/15:42:09		NOTE: Exit Earth Occultation 12964		02-031/15:27:48
552	MGS	02-031/15:42:09	65	Acquisition Of X-Band Signal		
553	MGS	02-031/15:42:09	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
554	MGS	02-031/15:42:09	65	NOTE: Carrier Only -- No Telemetry Modulation		
555	MGS	02-031/15:46:50		NOTE: Exit Planetary Atmosphere 12964		02-031/15:32:29
556	MGS	02-031/15:48:58		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-031/15:34:37
557	MGS	02-031/15:48:58		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-031/15:34:37
558	MGS	02-031/15:48:58		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-031/15:34:37
559	MGS	02-031/15:48:58		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-031/15:34:37
560	MGS	02-031/15:48:58	65	D/L Change: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
561	MGS	02-031/15:48:59		: RTM, MRC, 01:13:45, S&E_2A, FALSE, 00:07:05	AEMRT	02-031/15:34:38
562	MGS	02-031/15:48:59		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-031/15:34:38
563	MGS	02-031/15:48:59		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-031/15:34:38
564	MGS	02-031/15:48:59		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=2, BITS=128624000, DUR=00:43:57		02-031/15:34:38
565	MGS	02-031/15:48:59		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-031/15:34:38
566	MGS	02-031/15:48:59	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
567	MGS	02-031/15:49:03		NOTE: End fixed Sub-Reflector for Radio Science		02-031/15:34:42
568	MGS	02-031/15:53:36		NOTE: Exit Solar Eclipse 12964		02-031/15:39:15
569	MGS	02-031/16:07:58		NOTE: Periapsis 12965 ----------		02-031/15:53:37
570	MGS	02-031/16:14:35		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-031/16:00:14
571	MGS	02-031/16:14:35		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-031/16:00:14
572	MGS	02-031/16:14:36		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-031/16:00:15
573	MGS	02-031/16:14:36		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-031/16:00:15
574	MGS	02-031/16:36:36		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-031/16:22:15
575	MGS	02-031/16:36:36		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-031/16:22:15
576	MGS	02-031/16:54:20		NOTE: Start Block (SSRMGR)		02-031/16:39:59
577	MGS	02-031/16:54:20		Sends a one-word SSR command to the XSU command SOB: SSR_2B, SE_1A, RECORD, PART2	STSSRC	02-031/16:39:59
578	MGS	02-031/16:54:21		SSR 2B Data Enable	CSD2BE	02-031/16:40:00
579	MGS	02-031/16:54:21		SSR Activity: ID=SSR_2B, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-031/16:40:00
580	MGS	02-031/16:57:44		NOTE: Begin fixed Sub-Reflector for Radio Science		02-031/16:43:23
581	MGS	02-031/17:00:52		NOTE: Start EVP data return script		02-031/16:46:31
582	MGS	02-031/17:02:44		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-031/16:48:23
583	MGS	02-031/17:02:44		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=2, BITS=4024000, DUR=00:08:23		02-031/16:48:23
584	MGS	02-031/17:02:44		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-031/16:48:23
585	MGS	02-031/17:02:44		: 00:07:04, FALSE	RDSCII	02-031/16:48:23
586	MGS	02-031/17:02:44		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-031/16:48:23
587	MGS	02-031/17:02:44		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-031/16:48:23
588	MGS	02-031/17:02:44		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-031/16:48:23
589	MGS	02-031/17:02:44		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-031/16:48:23
590	MGS	02-031/17:02:44	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
591	MGS	02-031/17:02:44	65	NOTE: Carrier Only -- No Telemetry Modulation		
592	MGS	02-031/17:04:54		NOTE: Enter Planetary Atmosphere 12965		02-031/16:50:32
593	MGS	02-031/17:06:54		NOTE: Apoapsis 12965 -		02-031/16:52:32
594	MGS	02-031/17:09:18		NOTE: Enter Earth Occultation 12965		02-031/16:54:56
595	MGS	02-031/17:09:18	65	NOTE: Loss Of X-Band Signal		
596	MGS	02-031/17:09:48		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-031/16:55:27
597	MGS	02-031/17:09:48		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-031/16:55:27
598	MGS	02-031/17:09:48		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-031/16:55:27
599	MGS	02-031/17:09:48		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-031/16:55:27
600	MGS	02-031/17:09:49		NOTE: End EVP script		02-031/16:55:28
601	MGS	02-031/17:09:49		Turn off the MOT Exciter and RPA beam	STRPAF	02-031/16:55:28
602	MGS	02-031/17:09:53		NOTE: End fixed Sub-Reflector for Radio Science		02-031/16:55:32
603	MGS	02-031/17:10:52		NOTE: Enter Solar Eclipse 12965		02-031/16:56:31
604	MGS	02-031/17:10:52		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-031/16:56:31
605	MGS	02-031/17:21:01		SSR 2A Data Disable	CSD2AX	02-031/17:06:40
606	MGS	02-031/17:21:01		SSR Activity: ID=SSR_2A, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-031/17:06:40
607	MGS	02-031/17:21:02		NOTE: End Block (SSRMGR)		02-031/17:06:41
608	MGS	02-031/17:34:20		NOTE: Begin fixed Sub-Reflector for Radio Science		02-031/17:19:59
609	MGS	02-031/17:35:36		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-031/17:21:15
610	MGS	02-031/17:35:36		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-031/17:21:15
611	MGS	02-031/17:35:41		Set eclipse egress script address: 01DC	SWSEES	02-031/17:21:20
612	MGS	02-031/17:38:05		: 01:29:26	RPAONX	02-031/17:23:44
613	MGS	02-031/17:38:05		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-031/17:23:44
614	MGS	02-031/17:39:20		: 00:00:30, 00:07:20, FALSE	RDSCIE	02-031/17:24:59
615	MGS	02-031/17:39:20		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-031/17:24:59
616	MGS	02-031/17:39:20		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-031/17:24:59
617	MGS	02-031/17:39:20		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-031/17:24:59
618	MGS	02-031/17:39:20		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-031/17:24:59
619	MGS	02-031/17:39:52		NOTE: Exit Earth Occultation 12965		02-031/17:25:30
620	MGS	02-031/17:39:52	65	Acquisition Of X-Band Signal		
621	MGS	02-031/17:39:52	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
622	MGS	02-031/17:39:52	65	NOTE: Carrier Only -- No Telemetry Modulation		
623	MGS	02-031/17:44:32		NOTE: Exit Planetary Atmosphere 12965		02-031/17:30:11
624	MGS	02-031/17:46:40		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-031/17:32:19
625	MGS	02-031/17:46:40		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-031/17:32:19
626	MGS	02-031/17:46:40		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-031/17:32:19
627	MGS	02-031/17:46:40		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-031/17:32:19
628	MGS	02-031/17:46:40	65	D/L Change: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
629	MGS	02-031/17:46:41		: RTM, MRC, 01:13:45, S&E_2A, FALSE, 00:07:05	AEMRT	02-031/17:32:20
630	MGS	02-031/17:46:41		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-031/17:32:20
631	MGS	02-031/17:46:41		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-031/17:32:20
632	MGS	02-031/17:46:41		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=2, BITS=25120000, DUR=00:43:57		02-031/17:32:20
633	MGS	02-031/17:46:41		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-031/17:32:20
634	MGS	02-031/17:46:41	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
635	MGS	02-031/17:46:45		NOTE: End fixed Sub-Reflector for Radio Science		02-031/17:32:24
636	MGS	02-031/17:51:18		NOTE: Exit Solar Eclipse 12965		02-031/17:36:57
637	MGS	02-031/18:05:22		NOTE: Periapsis 12966 ----------		02-031/17:51:00
638	MGS	02-031/18:12:17		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-031/17:57:56
639	MGS	02-031/18:12:17		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-031/17:57:56
640	MGS	02-031/18:12:18		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-031/17:57:57
641	MGS	02-031/18:12:18		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-031/17:57:57
642	MGS	02-031/18:34:18		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-031/18:19:57
643	MGS	02-031/18:34:18		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-031/18:19:57
644	MGS	02-031/18:55:26		NOTE: Begin fixed Sub-Reflector for Radio Science		02-031/18:41:05

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
645	MGS	02-031/18:58:37		NOTE: Start EVP data return script		02-031/18:44:15
646	MGS	02-031/19:00:27		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-031/18:46:05
647	MGS	02-031/19:00:27		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=2, BITS=60520000, DUR=01:13:45		02-031/18:46:05
648	MGS	02-031/19:00:27		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-031/18:46:05
649	MGS	02-031/19:00:27		: 00:07:04, FALSE	RDSCII	02-031/18:46:05
650	MGS	02-031/19:00:27		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-031/18:46:05
651	MGS	02-031/19:00:27		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-031/18:46:05
652	MGS	02-031/19:00:27		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-031/18:46:05
653	MGS	02-031/19:00:27		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-031/18:46:05
654	MGS	02-031/19:00:27	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
655	MGS	02-031/19:00:27	65	NOTE: Carrier Only -- No Telemetry Modulation		
656	MGS	02-031/19:02:38		NOTE: Enter Planetary Atmosphere 12966		02-031/18:48:16
657	MGS	02-031/19:04:25		NOTE: Apoapsis 12966 -		02-031/18:50:03
658	MGS	02-031/19:07:01		NOTE: Enter Earth Occultation 12966		02-031/18:52:39
659	MGS	02-031/19:07:01	65	NOTE: Loss Of X-Band Signal		
660	MGS	02-031/19:07:31		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-031/18:53:09
661	MGS	02-031/19:07:31		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-031/18:53:09
662	MGS	02-031/19:07:31		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-031/18:53:09
663	MGS	02-031/19:07:31		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-031/18:53:09
664	MGS	02-031/19:07:31		NOTE: End EVP script		02-031/18:53:10
665	MGS	02-031/19:07:32		Turn off the MOT Exciter and RPA beam	STRPAF	02-031/18:53:10
666	MGS	02-031/19:07:35		NOTE: End fixed Sub-Reflector for Radio Science		02-031/18:53:14
667	MGS	02-031/19:08:37		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-031/18:54:15
668	MGS	02-031/19:08:37		NOTE: Enter Solar Eclipse 12966		02-031/18:54:15
669	MGS	02-031/19:32:05		NOTE: Begin fixed Sub-Reflector for Radio Science		02-031/19:17:43
670	MGS	02-031/19:33:19		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-031/19:18:57
671	MGS	02-031/19:33:19		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-031/19:18:57
672	MGS	02-031/19:33:23		Command the PSE with included data word: 3990	SWPSEL	02-031/19:19:01
673	MGS	02-031/19:33:24		Set eclipse egress script address: 0158	SWSEES	02-031/19:19:02
674	MGS	02-031/19:35:50		: 01:29:26	RPAONX	02-031/19:21:28
675	MGS	02-031/19:35:50		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-031/19:21:28
676	MGS	02-031/19:37:05		: 00:00:30, 00:07:20, FALSE	RDSCIE	02-031/19:22:43
677	MGS	02-031/19:37:05		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-031/19:22:43
678	MGS	02-031/19:37:05		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-031/19:22:43
679	MGS	02-031/19:37:05		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-031/19:22:43
680	MGS	02-031/19:37:05		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-031/19:22:43
681	MGS	02-031/19:37:36		NOTE: Exit Earth Occultation 12966		02-031/19:23:14
682	MGS	02-031/19:37:36	65	Acquisition Of X-Band Signal		
683	MGS	02-031/19:37:36	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
684	MGS	02-031/19:37:36	65	NOTE: Carrier Only -- No Telemetry Modulation		
685	MGS	02-031/19:40:00	25	Begin Pre-Cal		
686	MGS	02-031/19:40:00	25	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
687	MGS	02-031/19:40:00	25	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
688	MGS	02-031/19:40:00	25	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
689	MGS	02-031/19:40:00	25	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=OFF, EXC=2		
690	MGS	02-031/19:40:00	25	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
691	MGS	02-031/19:40:00	25	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
692	MGS	02-031/19:40:00	25	Config: TGC: DEST=37		
693	MGS	02-031/19:40:00	25	Config: TGC: BAND=X, BR=0.000000		
694	MGS	02-031/19:40:00	25	Config: FSS: CH=2, PRI_FL=10000		
695	MGS	02-031/19:40:00	25	Config: RSR		
696	MGS	02-031/19:40:00	25	Config: TXL		
697	MGS	02-031/19:40:00	25	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
698	MGS	02-031/19:40:00	25	Config: BVR		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
699	MGS	02-031/19:40:00	25	Config: Doppler Extractor: BIAS=+1MHZ		
700	MGS	02-031/19:40:00	25	Config: MDA: SMPL=0.1		
701	MGS	02-031/19:42:16		NOTE: Exit Planetary Atmosphere 12966		02-031/19:27:54
702	MGS	02-031/19:44:25		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-031/19:30:03
703	MGS	02-031/19:44:25		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-031/19:30:03
704	MGS	02-031/19:44:25		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-031/19:30:03
705	MGS	02-031/19:44:25		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-031/19:30:03
706	MGS	02-031/19:44:25	65	D/L Change: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
707	MGS	02-031/19:44:26		: RTM, MRC, 01:13:45, S&E_2A, FALSE, 00:07:05	AEMRT	02-031/19:30:04
708	MGS	02-031/19:44:26		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-031/19:30:04
709	MGS	02-031/19:44:26		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-031/19:30:04
710	MGS	02-031/19:44:26		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=2, BITS=81632000, DUR=00:43:59		02-031/19:30:04
711	MGS	02-031/19:44:26		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-031/19:30:04
712	MGS	02-031/19:44:26	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
713	MGS	02-031/19:44:30		NOTE: End fixed Sub-Reflector for Radio Science		02-031/19:30:08
714	MGS	02-031/19:49:03		NOTE: Exit Solar Eclipse 12966		02-031/19:34:41
715	MGS	02-031/20:03:24		NOTE: Periapsis 12967 ----------		02-031/19:49:02
716	MGS	02-031/20:14:02		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-031/19:59:40
717	MGS	02-031/20:14:02		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-031/19:59:40
718	MGS	02-031/20:14:03		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-031/19:59:41
719	MGS	02-031/20:14:03		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-031/19:59:41
720	MGS	02-031/20:36:03		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-031/20:21:41
721	MGS	02-031/20:36:03		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-031/20:21:41
722	MGS	02-031/20:53:11		NOTE: Begin fixed Sub-Reflector for Radio Science		02-031/20:38:49
723	MGS	02-031/20:56:23		NOTE: Start EVP data return script		02-031/20:42:01
724	MGS	02-031/20:58:11		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-031/20:43:49
725	MGS	02-031/20:58:11		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=2, BITS=117032000, DUR=01:13:45		02-031/20:43:49
726	MGS	02-031/20:58:11		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-031/20:43:49
727	MGS	02-031/20:58:11		: 00:07:04, FALSE	RDSCII	02-031/20:43:49
728	MGS	02-031/20:58:11		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-031/20:43:49
729	MGS	02-031/20:58:11		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-031/20:43:49
730	MGS	02-031/20:58:11		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-031/20:43:49
731	MGS	02-031/20:58:11		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-031/20:43:49
732	MGS	02-031/20:58:11	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
733	MGS	02-031/20:58:11	65	NOTE: Carrier Only -- No Telemetry Modulation		
734	MGS	02-031/21:00:23		NOTE: Enter Planetary Atmosphere 12967		02-031/20:46:00
735	MGS	02-031/21:02:37		NOTE: Apoapsis 12967 -		02-031/20:48:15
736	MGS	02-031/21:04:46		NOTE: Enter Earth Occultation 12967		02-031/20:50:23
737	MGS	02-031/21:04:46	65	NOTE: Loss Of X-Band Signal		
738	MGS	02-031/21:05:15		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-031/20:50:53
739	MGS	02-031/21:05:15		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-031/20:50:53
740	MGS	02-031/21:05:15		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-031/20:50:53
741	MGS	02-031/21:05:15		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-031/20:50:53
742	MGS	02-031/21:05:16		NOTE: End EVP script		02-031/20:50:54
743	MGS	02-031/21:05:16		Turn off the MOT Exciter and RPA beam	STRPAF	02-031/20:50:54
744	MGS	02-031/21:05:20		NOTE: End fixed Sub-Reflector for Radio Science		02-031/20:50:58
745	MGS	02-031/21:06:23		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-031/20:52:01
746	MGS	02-031/21:06:23		NOTE: Enter Solar Eclipse 12967		02-031/20:52:01
747	MGS	02-031/21:25:00	25	Begin Tracking		
748	MGS	02-031/21:26:34	65	NOTE: Below Uplink Interlock Limit		
749	MGS	02-031/21:29:51		NOTE: Begin fixed Sub-Reflector for Radio Science		02-031/21:15:29
750	MGS	02-031/21:31:03		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-031/21:16:41
751	MGS	02-031/21:31:03		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-031/21:16:41
752	MGS	02-031/21:31:08		Set eclipse egress script address: 019A	SWSEES	02-031/21:16:46

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
753	MGS	02-031/21:33:36		: 01:29:26	RPAONX	02-031/21:19:14
754	MGS	02-031/21:33:36		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-031/21:19:14
755	MGS	02-031/21:34:51		: 00:00:30, 00:07:20, FALSE	RDSCIE	02-031/21:20:29
756	MGS	02-031/21:34:51		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-031/21:20:29
757	MGS	02-031/21:34:51		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-031/21:20:29
758	MGS	02-031/21:34:51		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-031/21:20:29
759	MGS	02-031/21:34:51		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-031/21:20:29
760	MGS	02-031/21:35:00	25	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
761	MGS	02-031/21:35:00	65	End Tracking		
762	MGS	02-031/21:35:23		NOTE: Exit Earth Occultation 12967		02-031/21:21:00
763	MGS	02-031/21:35:23	25	Acquisition Of X-Band Signal		
764	MGS	02-031/21:35:23	25	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
765	MGS	02-031/21:35:23	25	NOTE: Carrier Only -- No Telemetry Modulation		
766	MGS	02-031/21:40:02		NOTE: Exit Planetary Atmosphere 12967		02-031/21:25:40
767	MGS	02-031/21:42:11		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-031/21:27:49
768	MGS	02-031/21:42:11		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-031/21:27:49
769	MGS	02-031/21:42:11		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-031/21:27:49
770	MGS	02-031/21:42:11		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-031/21:27:49
771	MGS	02-031/21:42:11	25	D/L Change: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
772	MGS	02-031/21:42:12		: RTM, MRC, 01:13:45, S&E_2A, FALSE, 00:07:05	AEMRT	02-031/21:27:50
773	MGS	02-031/21:42:12		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-031/21:27:50
774	MGS	02-031/21:42:12		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-031/21:27:50
775	MGS	02-031/21:42:12		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=2, BITS=138160000, DUR=00:44:01		02-031/21:27:50
776	MGS	02-031/21:42:12		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-031/21:27:50
777	MGS	02-031/21:42:12	25	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
778	MGS	02-031/21:42:16		NOTE: End fixed Sub-Reflector for Radio Science		02-031/21:27:54
779	MGS	02-031/21:46:50		NOTE: Exit Solar Eclipse 12967		02-031/21:32:27
780	MGS	02-031/21:50:00	65	End Post-Cal		
781	MGS	02-031/22:01:38		NOTE: Periapsis 12968 ----------		02-031/21:47:15
782	MGS	02-031/22:03:44	25	Acquire D/L: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
783	MGS	02-031/22:07:49		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-031/21:53:27
784	MGS	02-031/22:07:49		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-031/21:53:27
785	MGS	02-031/22:07:50		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-031/21:53:28
786	MGS	02-031/22:07:50		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-031/21:53:28
787	MGS	02-031/22:15:03	25	NOTE: Transmitter Off in 15 minutes		
788	MGS	02-031/22:27:41		NOTE: Start Block (SSRMGR)		02-031/22:13:19
789	MGS	02-031/22:27:41		Sends a one-word SSR command to the XSU command SOB: SSR_2A, SE_1A, RECORD, PART3	STSSRC	02-031/22:13:19
790	MGS	02-031/22:27:42		SSR 2A Data Enable	CSD2AE	02-031/22:13:20
791	MGS	02-031/22:27:42		SSR Activity: ID=SSR_2A, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-031/22:13:20
792	MGS	02-031/22:29:50		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-031/22:15:28
793	MGS	02-031/22:29:50		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-031/22:15:28
794	MGS	02-031/22:30:03	25	Transmitter Off		
795	MGS	02-031/22:50:57		NOTE: Begin fixed Sub-Reflector for Radio Science		02-031/22:36:35
796	MGS	02-031/22:54:10		NOTE: Start EVP data return script		02-031/22:39:48
797	MGS	02-031/22:54:22		SSR 2B Data Disable	CSD2BX	02-031/22:40:00
798	MGS	02-031/22:54:22		SSR Activity: ID=SSR_2B, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-031/22:40:00
799	MGS	02-031/22:54:23		NOTE: End Block (SSRMGR)		02-031/22:40:01
800	MGS	02-031/22:55:57		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-031/22:41:35
801	MGS	02-031/22:55:57		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=3, BITS=13560000, DUR=00:28:15		02-031/22:41:35
802	MGS	02-031/22:55:57		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-031/22:41:35
803	MGS	02-031/22:55:57		: 00:07:04, FALSE	RDSCII	02-031/22:41:35
804	MGS	02-031/22:55:57		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-031/22:41:35
805	MGS	02-031/22:55:57		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-031/22:41:35
806	MGS	02-031/22:55:57		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-031/22:41:35

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
807	MGS	02-031/22:55:57		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-031/22:41:35
808	MGS	02-031/22:55:57	25	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
809	MGS	02-031/22:55:57	25	NOTE: Carrier Only -- No Telemetry Modulation		
810	MGS	02-031/22:58:10		NOTE: Enter Planetary Atmosphere 12968		02-031/22:43:48
811	MGS	02-031/23:00:54		NOTE: Apoapsis 12968 -		02-031/22:46:31
812	MGS	02-031/23:02:33		NOTE: Enter Earth Occultation 12968		02-031/22:48:11
813	MGS	02-031/23:02:33	25	NOTE: Loss Of X-Band Signal		
814	MGS	02-031/23:03:01		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-031/22:48:39
815	MGS	02-031/23:03:01		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-031/22:48:39
816	MGS	02-031/23:03:01		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-031/22:48:39
817	MGS	02-031/23:03:01		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-031/22:48:39
818	MGS	02-031/23:03:02		NOTE: End EVP script		02-031/22:48:40
819	MGS	02-031/23:03:02		Turn off the MOT Exciter and RPA beam	STRPAF	02-031/22:48:40
820	MGS	02-031/23:03:06		NOTE: End fixed Sub-Reflector for Radio Science		02-031/22:48:44
821	MGS	02-031/23:04:10		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-031/22:49:48
822	MGS	02-031/23:04:10		NOTE: Enter Solar Eclipse 12968		02-031/22:49:48
823	MGS	02-031/23:07:41		NOTE: Start Block (SSRMGR)		02-031/22:53:19
824	MGS	02-031/23:07:41		Sends a one-word SSR command to the XSU command SOB: SSR_2B, SE_1A, RECORD, PART3	STSSRC	02-031/22:53:19
825	MGS	02-031/23:07:42		SSR 2B Data Enable	CSD2BE	02-031/22:53:20
826	MGS	02-031/23:07:42		SSR Activity: ID=SSR_2B, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-031/22:53:20
827	MGS	02-031/23:08:11	25	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
828	MGS	02-031/23:27:38		NOTE: Begin fixed Sub-Reflector for Radio Science		02-031/23:13:16
829	MGS	02-031/23:28:50		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-031/23:14:28
830	MGS	02-031/23:28:50		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-031/23:14:28
831	MGS	02-031/23:28:55		Set eclipse egress script address: 01DC	SWSEES	02-031/23:14:33
832	MGS	02-031/23:31:23		: 01:29:26	RPAONX	02-031/23:17:01
833	MGS	02-031/23:31:23		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-031/23:17:01
834	MGS	02-031/23:32:38		: 00:00:30, 00:07:20, FALSE	RDSCIE	02-031/23:18:16
835	MGS	02-031/23:32:38		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-031/23:18:16
836	MGS	02-031/23:32:38		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-031/23:18:16
837	MGS	02-031/23:32:38		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-031/23:18:16
838	MGS	02-031/23:32:38		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-031/23:18:16
839	MGS	02-031/23:33:08		Disables autonomous command to send eclipse ingress script	SWEISX	02-031/23:18:46
840	MGS	02-031/23:33:11		NOTE: Exit Earth Occultation 12968		02-031/23:18:48
841	MGS	02-031/23:33:11	25	Acquisition Of X-Band Signal		
842	MGS	02-031/23:33:11	25	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
843	MGS	02-031/23:33:11	25	NOTE: Carrier Only -- No Telemetry Modulation		
844	MGS	02-031/23:34:22		SSR 2A Data Disable	CSD2AX	02-031/23:20:00
845	MGS	02-031/23:34:22		SSR Activity: ID=SSR_2A, FCN=End Recording, PRT=3, BITS=32000000, DUR=01:06:40		02-031/23:20:00
846	MGS	02-031/23:34:23		NOTE: End Block (SSRMGR)		02-031/23:20:01
847	MGS	02-031/23:37:50		NOTE: Exit Planetary Atmosphere 12968		02-031/23:23:28
848	MGS	02-031/23:39:58		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-031/23:25:36
849	MGS	02-031/23:39:58		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-031/23:25:36
850	MGS	02-031/23:39:58		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-031/23:25:36
851	MGS	02-031/23:39:58		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-031/23:25:36
852	MGS	02-031/23:39:58	25	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
853	MGS	02-031/23:39:59		: RTM, MRC, 01:13:45, S&E_2A, FALSE, 00:07:05	AEMRT	02-031/23:25:37
854	MGS	02-031/23:39:59		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-031/23:25:37
855	MGS	02-031/23:39:59		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-031/23:25:37
856	MGS	02-031/23:39:59		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=3, BITS=15496000, DUR=00:32:17		02-031/23:25:37
857	MGS	02-031/23:39:59		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-031/23:25:37
858	MGS	02-031/23:39:59	25	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
859	MGS	02-031/23:40:03		NOTE: End fixed Sub-Reflector for Radio Science		02-031/23:25:41
860	MGS	02-031/23:44:37		NOTE: Exit Solar Eclipse 12968		02-031/23:30:15

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
861	MGS	02-031/23:59:38		NOTE: Periapsis 12969 ----------		02-031/23:45:16
862	MGS	02-032/00:00:00		Light Time: OWLT = 14:22, RTLT = 28:45		
863	MGS	02-032/00:00:00	15	Begin Pre-Cal		
864	MGS	02-032/00:00:00	15	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
865	MGS	02-032/00:00:00	15	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=ON, RCVR2=ON, TWNC=ON		
866	MGS	02-032/00:00:00	15	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
867	MGS	02-032/00:00:00	15	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
868	MGS	02-032/00:00:00	15	At BOT: S/C Tlm Mode: BR=0.0, FL=10000, SC=OFF, MI=0.0		
869	MGS	02-032/00:00:00	15	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
870	MGS	02-032/00:00:00	15	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
871	MGS	02-032/00:00:00	15	Config: TGC: DEST=37		
872	MGS	02-032/00:00:00	15	Config: TGC: BAND=X, BR=0.000000		
873	MGS	02-032/00:00:00	15	Config: FSS: CH=2, PRI_FL=10000		
874	MGS	02-032/00:00:00	15	Config: RSR		
875	MGS	02-032/00:00:00	15	Config: TXL		
876	MGS	02-032/00:00:00	15	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
877	MGS	02-032/00:00:00	15	Config: BVR		
878	MGS	02-032/00:00:00	15	Config: Doppler Extractor: BIAS=+1MHZ		
879	MGS	02-032/00:00:00	15	Config: MDA: SMPL=0.1		
880	MGS	02-032/00:00:00	15	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
881	MGS	02-032/00:00:00	15	Config: SRA: HIGH=4, LOW=14, SERV=D		
882	MGS	02-032/00:00:00	15	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
883	MGS	02-032/00:05:36		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-031/23:51:14
884	MGS	02-032/00:05:36		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-031/23:51:14
885	MGS	02-032/00:05:37		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-031/23:51:15
886	MGS	02-032/00:05:37		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-031/23:51:15
887	MGS	02-032/00:12:50	25	NOTE: Transmitter Off in 15 minutes		
888	MGS	02-032/00:14:20		NOTE: Start Block (SSRMGR)		02-031/23:59:58
889	MGS	02-032/00:14:20		Sends a one-word SSR command to the XSU command SOB: SSR_1A, SE_1A, CLRALL, PART1	STSSRC	02-031/23:59:58
890	MGS	02-032/00:14:21		Sends a one-word SSR command to the XSU command SOB: SSR_1A, SE_1A, RECORD, PART1	STSSRC	02-031/23:59:59
891	MGS	02-032/00:14:22		Load SCP memory at a physical address: 150DC, [A016]	SCGNLD	02-032/00:00:00
892	MGS	02-032/00:14:22		SSR 1A Data Enable	CSD1AE	02-032/00:00:00
893	MGS	02-032/00:14:22		SSR Activity: ID=SSR_1A, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-032/00:00:00
894	MGS	02-032/00:27:37		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-032/00:13:15
895	MGS	02-032/00:27:37		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-032/00:13:15
896	MGS	02-032/00:27:50	25	Transmitter Off		
897	MGS	02-032/00:41:02		SSR 2B Data Disable	CSD2BX	02-032/00:26:40
898	MGS	02-032/00:41:02		SSR Activity: ID=SSR_2B, FCN=End Recording, PRT=3, BITS=44800000, DUR=01:33:20		02-032/00:26:40
899	MGS	02-032/00:41:03		NOTE: End Block (SSRMGR)		02-032/00:26:41
900	MGS	02-032/00:48:44		NOTE: Begin fixed Sub-Reflector for Radio Science		02-032/00:34:22
901	MGS	02-032/00:51:55		NOTE: Start Block (MAP_RT)		02-032/00:37:33
902	MGS	02-032/00:51:56		: 00:27:17, 01:29:23, FALSE, TRUE, FALSE, 00:01:15, 00:07:20, 01:13:43, 00:07:04	AEMINI	02-032/00:37:34
903	MGS	02-032/00:51:56		Enable sending eclipse ingress script when array power disappears	SWEISE	02-032/00:37:34
904	MGS	02-032/00:51:56		NOTE: Start EVP data return script		02-032/00:37:34
905	MGS	02-032/00:51:57		: SE_2A, RTM, 01:13:42, MRC, 2002-032T01:23:27.000	AEMRTI	02-032/00:37:35
906	MGS	02-032/00:53:44		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-032/00:39:22
907	MGS	02-032/00:53:44		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=18896000, DUR=00:39:22		02-032/00:39:22
908	MGS	02-032/00:53:44		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-032/00:39:22
909	MGS	02-032/00:53:44		: 00:07:04, FALSE	RDSCII	02-032/00:39:22
910	MGS	02-032/00:53:44		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-032/00:39:22
911	MGS	02-032/00:53:44		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-032/00:39:22
912	MGS	02-032/00:53:44		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-032/00:39:22
913	MGS	02-032/00:53:44		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-032/00:39:22
914	MGS	02-032/00:53:44	25	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
915	MGS	02-032/00:53:44	25	NOTE: Carrier Only -- No Telemetry Modulation		
916	MGS	02-032/00:55:57		NOTE: Enter Planetary Atmosphere 12969		02-032/00:41:34
917	MGS	02-032/00:58:41		NOTE: Apoapsis 12969 -		02-032/00:44:18
918	MGS	02-032/01:00:00	15	Begin Tracking		
919	MGS	02-032/01:00:00	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
920	MGS	02-032/01:00:00	15	NOTE: Carrier Only -- No Telemetry Modulation		
921	MGS	02-032/01:00:20		NOTE: Enter Earth Occultation 12969		02-032/00:45:58
922	MGS	02-032/01:00:20	15	NOTE: Loss Of X-Band Signal		
923	MGS	02-032/01:00:20	25	NOTE: Loss Of X-Band Signal		
924	MGS	02-032/01:00:48		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-032/00:46:26
925	MGS	02-032/01:00:48		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-032/00:46:26
926	MGS	02-032/01:00:48		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-032/00:46:26
927	MGS	02-032/01:00:48		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-032/00:46:26
928	MGS	02-032/01:00:49		NOTE: End EVP script		02-032/00:46:27
929	MGS	02-032/01:00:49		Turn off the MOT Exciter and RPA beam	STRPAF	02-032/00:46:27
930	MGS	02-032/01:00:50		NOTE: End Block (MAP_RT)		02-032/00:46:28
931	MGS	02-032/01:00:53		NOTE: End fixed Sub-Reflector for Radio Science		02-032/00:46:31
932	MGS	02-032/01:01:56		NOTE: Enter Solar Eclipse 12969		02-032/00:47:33
933	MGS	02-032/01:01:56		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-032/00:47:34
934	MGS	02-032/01:05:57	25	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
935	MGS	02-032/01:10:00	15	U/L Transfer From DSS-25 to DSS-15: PWR=20.0, BR=125.0, CS=5.82dB		
936	MGS	02-032/01:12:00	15	Range Modulation On: SUP=3.0dB		
937	MGS	02-032/01:13:00	15	Begin Ranging Acquisition		
938	MGS	02-032/01:20:00	25	End Tracking		
939	MGS	02-032/01:25:28		NOTE: Begin fixed Sub-Reflector for Radio Science		02-032/01:11:05
940	MGS	02-032/01:26:38		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-032/01:12:15
941	MGS	02-032/01:26:38		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-032/01:12:15
942	MGS	02-032/01:26:42		Command the PSE with included data word: 3990	SWPSEL	02-032/01:12:19
943	MGS	02-032/01:26:43		Set eclipse egress script address: 0158	SWSEES	02-032/01:12:20
944	MGS	02-032/01:29:14		: 01:29:23	RPAONX	02-032/01:14:51
945	MGS	02-032/01:29:14		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-032/01:14:51
946	MGS	02-032/01:30:29		: 00:00:30, 00:07:20, FALSE	RDSCIE	02-032/01:16:06
947	MGS	02-032/01:30:29		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-032/01:16:06
948	MGS	02-032/01:30:29		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-032/01:16:06
949	MGS	02-032/01:30:29		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-032/01:16:06
950	MGS	02-032/01:30:29		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-032/01:16:06
951	MGS	02-032/01:30:58		NOTE: Exit Earth Occultation 12969		02-032/01:16:35
952	MGS	02-032/01:30:58	15	Acquisition Of X-Band Signal		
953	MGS	02-032/01:30:58	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
954	MGS	02-032/01:30:58	15	NOTE: Carrier Only -- No Telemetry Modulation		
955	MGS	02-032/01:35:00	25	End Post-Cal		
956	MGS	02-032/01:35:38		NOTE: Exit Planetary Atmosphere 12969		02-032/01:21:15
957	MGS	02-032/01:37:49		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-032/01:23:26
958	MGS	02-032/01:37:49		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-032/01:23:26
959	MGS	02-032/01:37:49		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-032/01:23:26
960	MGS	02-032/01:37:49		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-032/01:23:26
961	MGS	02-032/01:37:49	15	Acquire D/L: X/16, 3-Way/25, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
962	MGS	02-032/01:37:50		: RTM, MRC, 01:13:42, S&E_2A, FALSE, 00:07:05	AEMRT	02-032/01:23:27
963	MGS	02-032/01:37:50		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-032/01:23:27
964	MGS	02-032/01:37:50		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-032/01:23:27
965	MGS	02-032/01:37:50		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=40056000, DUR=00:44:05		02-032/01:23:27
966	MGS	02-032/01:37:50		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-032/01:23:27
967	MGS	02-032/01:37:50	15	D/L Change: X/16, 3-Way/25, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
968	MGS	02-032/01:37:53		NOTE: End fixed Sub-Reflector for Radio Science		02-032/01:23:30

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
969	MGS	02-032/01:38:45	15	Acquire D/L: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
970	MGS	02-032/01:42:23		NOTE: Exit Solar Eclipse 12969		02-032/01:28:00
971	MGS	02-032/01:57:10		NOTE: Periapsis 12970 ----------		02-032/01:42:47
972	MGS	02-032/02:07:23		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-032/01:53:00
973	MGS	02-032/02:07:23		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-032/01:53:00
974	MGS	02-032/02:07:24		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-032/01:53:01
975	MGS	02-032/02:07:24		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-032/01:53:01
976	MGS	02-032/02:10:32	15	NOTE: Transmitter Off in 15 minutes		
977	MGS	02-032/02:23:33	15	Range Modulation Off		
978	MGS	02-032/02:25:32	15	Transmitter Off		
979	MGS	02-032/02:29:24		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-032/02:15:01
980	MGS	02-032/02:29:24		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-032/02:15:01
981	MGS	02-032/02:46:31		NOTE: Begin fixed Sub-Reflector for Radio Science		02-032/02:32:08
982	MGS	02-032/02:49:39		NOTE: Start EVP data return script		02-032/02:35:16
983	MGS	02-032/02:51:32		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-032/02:37:09
984	MGS	02-032/02:51:32		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=75432000, DUR=01:13:42		02-032/02:37:09
985	MGS	02-032/02:51:32		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-032/02:37:09
986	MGS	02-032/02:51:32		: 00:07:04, FALSE	RDSCII	02-032/02:37:09
987	MGS	02-032/02:51:32		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-032/02:37:09
988	MGS	02-032/02:51:32		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-032/02:37:09
989	MGS	02-032/02:51:32		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-032/02:37:09
990	MGS	02-032/02:51:32		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-032/02:37:09
991	MGS	02-032/02:51:32	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
992	MGS	02-032/02:51:32	15	NOTE: Carrier Only -- No Telemetry Modulation		
993	MGS	02-032/02:53:40		NOTE: Enter Planetary Atmosphere 12970		02-032/02:39:17
994	MGS	02-032/02:56:02		NOTE: Apoapsis 12970 -		02-032/02:41:39
995	MGS	02-032/02:58:03		NOTE: Enter Earth Occultation 12970		02-032/02:43:40
996	MGS	02-032/02:58:03	15	NOTE: Loss Of X-Band Signal		
997	MGS	02-032/02:58:36		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-032/02:44:13
998	MGS	02-032/02:58:36		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-032/02:44:13
999	MGS	02-032/02:58:36		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-032/02:44:13
1000	MGS	02-032/02:58:36		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-032/02:44:13
1001	MGS	02-032/02:58:36		NOTE: End EVP script		02-032/02:44:13
1002	MGS	02-032/02:58:37		Turn off the MOT Exciter and RPA beam	STRPAF	02-032/02:44:14
1003	MGS	02-032/02:58:40		NOTE: End fixed Sub-Reflector for Radio Science		02-032/02:44:17
1004	MGS	02-032/02:59:39		NOTE: Enter Solar Eclipse 12970		02-032/02:45:15
1005	MGS	02-032/02:59:39		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-032/02:45:16
1006	MGS	02-032/03:03:40	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
1007	MGS	02-032/03:05:40	15	Range Modulation On: SUP=3.0dB		
1008	MGS	02-032/03:06:40	15	Begin Ranging Acquisition		
1009	MGS	02-032/03:23:11		NOTE: Begin fixed Sub-Reflector for Radio Science		02-032/03:08:47
1010	MGS	02-032/03:24:24		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-032/03:10:01
1011	MGS	02-032/03:24:24		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-032/03:10:01
1012	MGS	02-032/03:24:29		Set eclipse egress script address: 019A	SWSEES	02-032/03:10:06
1013	MGS	02-032/03:26:56		: 01:29:23	RPAONX	02-032/03:12:33
1014	MGS	02-032/03:26:56		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-032/03:12:33
1015	MGS	02-032/03:28:11		: 00:00:30, 00:07:20, FALSE	RDSCIE	02-032/03:13:48
1016	MGS	02-032/03:28:11		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-032/03:13:48
1017	MGS	02-032/03:28:11		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-032/03:13:48
1018	MGS	02-032/03:28:11		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-032/03:13:48
1019	MGS	02-032/03:28:11		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-032/03:13:48
1020	MGS	02-032/03:28:41		Disables autonomous command to send eclipse ingress script	SWEISX	02-032/03:14:18
1021	MGS	02-032/03:28:41		NOTE: Exit Earth Occultation 12970		02-032/03:14:18
1022	MGS	02-032/03:28:41	15	Acquisition Of X-Band Signal		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
1023	MGS	02-032/03:28:41	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
1024	MGS	02-032/03:28:41	15	NOTE: Carrier Only -- No Telemetry Modulation		
1025	MGS	02-032/03:33:21		NOTE: Exit Planetary Atmosphere 12970		02-032/03:18:58
1026	MGS	02-032/03:35:31		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-032/03:21:08
1027	MGS	02-032/03:35:31		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-032/03:21:08
1028	MGS	02-032/03:35:31		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-032/03:21:08
1029	MGS	02-032/03:35:31		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-032/03:21:08
1030	MGS	02-032/03:35:31	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
1031	MGS	02-032/03:35:32		: RTM, MRC, 01:13:42, S&E_2A, FALSE, 00:07:05	AEMRT	02-032/03:21:09
1032	MGS	02-032/03:35:32		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-032/03:21:09
1033	MGS	02-032/03:35:32		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-032/03:21:09
1034	MGS	02-032/03:35:32		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=96552000, DUR=00:44:00		02-032/03:21:09
1035	MGS	02-032/03:35:32		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-032/03:21:09
1036	MGS	02-032/03:35:32	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
1037	MGS	02-032/03:35:36		NOTE: End fixed Sub-Reflector for Radio Science		02-032/03:21:12
1038	MGS	02-032/03:40:05		NOTE: Exit Solar Eclipse 12970		02-032/03:25:42
1039	MGS	02-032/03:54:32		NOTE: Periapsis 12971 ----------		02-032/03:40:09
1040	MGS	02-032/04:01:04		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-032/03:46:41
1041	MGS	02-032/04:01:04		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-032/03:46:41
1042	MGS	02-032/04:01:05		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-032/03:46:42
1043	MGS	02-032/04:01:05		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-032/03:46:42
1044	MGS	02-032/04:08:11	15	NOTE: Transmitter Off in 15 minutes		
1045	MGS	02-032/04:21:12	15	Range Modulation Off		
1046	MGS	02-032/04:23:05		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-032/04:08:42
1047	MGS	02-032/04:23:05		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-032/04:08:42
1048	MGS	02-032/04:23:11	15	Transmitter Off		
1049	MGS	02-032/04:44:14		NOTE: Begin fixed Sub-Reflector for Radio Science		02-032/04:29:50
1050	MGS	02-032/04:49:14		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-032/04:34:51
1051	MGS	02-032/04:49:14		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=131928000, DUR=01:13:42		02-032/04:34:51
1052	MGS	02-032/04:49:14		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-032/04:34:51
1053	MGS	02-032/04:49:14		: 00:07:04, FALSE	RDSCII	02-032/04:34:51
1054	MGS	02-032/04:49:14		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-032/04:34:51
1055	MGS	02-032/04:49:14		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-032/04:34:51
1056	MGS	02-032/04:49:14		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-032/04:34:51
1057	MGS	02-032/04:49:14		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-032/04:34:51
1058	MGS	02-032/04:49:14	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
1059	MGS	02-032/04:49:14	15	NOTE: Carrier Only -- No Telemetry Modulation		
1060	MGS	02-032/04:51:20		NOTE: Enter Planetary Atmosphere 12971		02-032/04:36:56
1061	MGS	02-032/04:53:44		NOTE: Apoapsis 12971 -		02-032/04:39:21
1062	MGS	02-032/04:55:43		NOTE: Enter Earth Occultation 12971		02-032/04:41:19
1063	MGS	02-032/04:55:43	15	NOTE: Loss Of X-Band Signal		
1064	MGS	02-032/04:56:18		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-032/04:41:55
1065	MGS	02-032/04:56:18		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-032/04:41:55
1066	MGS	02-032/04:56:18		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-032/04:41:55
1067	MGS	02-032/04:56:18		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-032/04:41:55
1068	MGS	02-032/04:56:19		NOTE: End EVP script		02-032/04:41:55
1069	MGS	02-032/04:56:19		Turn off the MOT Exciter and RPA beam	STRPAF	02-032/04:41:56
1070	MGS	02-032/04:56:20		NOTE: End Block (MAP_RT)		02-032/04:41:56
1071	MGS	02-032/04:56:23		NOTE: End fixed Sub-Reflector for Radio Science		02-032/04:41:59
1072	MGS	02-032/04:57:19		NOTE: Enter Solar Eclipse 12971		02-032/04:42:56
1073	MGS	02-032/04:58:00	15	NOTE: Below Uplink Interlock Limit		
1074	MGS	02-032/05:00:00	15	End Tracking		
1075	MGS	02-032/05:11:41		Disable HGA control mode	SAHGCX	02-032/04:57:18
1076	MGS	02-032/05:11:42		No Operation	SCNOOP	02-032/04:57:19

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
1077	MGS	02-032/05:11:43		CDU-1 Uplink Rate Select (Based on 3 bit Code): 7	TCC1BS	02-032/04:57:20
1078	MGS	02-032/05:11:43		CDU-2 Uplink Rate Select (Based on 3 bit Code): 7	TCC2BS	02-032/04:57:20
1079	MGS	02-032/05:15:00	15	End Post-Cal		
1080	MGS	02-032/05:22:05		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-032/05:07:42
1081	MGS	02-032/05:22:05		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-032/05:07:42
1082	MGS	02-032/05:22:10		Set eclipse egress script address: 01DC	SWSEES	02-032/05:07:47
1083	MGS	02-032/05:26:22		NOTE: Exit Earth Occultation 12971		02-032/05:11:58
1084	MGS	02-032/05:31:01		NOTE: Exit Planetary Atmosphere 12971		02-032/05:16:38
1085	MGS	02-032/05:37:46		NOTE: Exit Solar Eclipse 12971		02-032/05:23:22
1086	MGS	02-032/05:47:41		NOTE: Start Block (SSRMGR)		02-032/05:33:18
1087	MGS	02-032/05:47:41		Sends a one-word SSR command to the XSU command SOB: SSR_1B, SE_1A, CLRALL, PART1	STSSRC	02-032/05:33:18
1088	MGS	02-032/05:47:42		Sends a one-word SSR command to the XSU command SOB: SSR_1B, SE_1A, RECORD, PART1	STSSRC	02-032/05:33:19
1089	MGS	02-032/05:47:43		SSR 1B Data Enable	CSD1BE	02-032/05:33:20
1090	MGS	02-032/05:47:43		SSR Activity: ID=SSR_1B, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-032/05:33:20
1091	MGS	02-032/05:52:12		NOTE: Periapsis 12972 ----------		02-032/05:37:48
1092	MGS	02-032/05:58:45		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-032/05:44:22
1093	MGS	02-032/05:58:45		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-032/05:44:22
1094	MGS	02-032/05:58:46		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-032/05:44:23
1095	MGS	02-032/05:58:46		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-032/05:44:23
1096	MGS	02-032/06:14:23		SSR 1A Data Disable	CSD1AX	02-032/06:00:00
1097	MGS	02-032/06:14:23		SSR Activity: ID=SSR_1A, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-032/06:00:00
1098	MGS	02-032/06:14:24		NOTE: End Block (SSRMGR)		02-032/06:00:01
1099	MGS	02-032/06:15:00	34	Begin Pre-Cal		
1100	MGS	02-032/06:15:00	34	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
1101	MGS	02-032/06:15:00	34	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
1102	MGS	02-032/06:15:00	34	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
1103	MGS	02-032/06:15:00	34	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=OFF, EXC=2		
1104	MGS	02-032/06:15:00	34	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
1105	MGS	02-032/06:15:00	34	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
1106	MGS	02-032/06:15:00	34	Config: TGC: DEST=37		
1107	MGS	02-032/06:15:00	34	Config: TGC: BAND=X, BR=0.000000		
1108	MGS	02-032/06:15:00	34	Config: FSS: CH=2, PRI_FL=10000		
1109	MGS	02-032/06:15:00	34	Config: RSR		
1110	MGS	02-032/06:15:00	34	Config: TXL		
1111	MGS	02-032/06:15:00	34	Config: UWV: AMP=XHEMT, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
1112	MGS	02-032/06:15:00	34	Config: BVR		
1113	MGS	02-032/06:15:00	34	Config: Doppler Extractor: BIAS=+1MHZ		
1114	MGS	02-032/06:15:00	34	Config: MDA: SMPL=0.1		
1115	MGS	02-032/06:15:00	34	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
1116	MGS	02-032/06:15:00	34	Config: SRA: HIGH=4, LOW=14, SERV=D		
1117	MGS	02-032/06:15:00	34	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
1118	MGS	02-032/06:20:46		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-032/06:06:23
1119	MGS	02-032/06:20:46		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-032/06:06:23
1120	MGS	02-032/06:45:03		NOTE: Start Block (MAP_PB)		02-032/06:30:40
1121	MGS	02-032/06:45:04		: 00:27:18, 01:29:23, FALSE, TRUE, FALSE, 00:01:15, 00:07:19, 01:13:45, 00:07:03	AEMINI	02-032/06:30:41
1122	MGS	02-032/06:45:04		Enable sending eclipse ingress script when array power disappears	SWEISE	02-032/06:30:41
1123	MGS	02-032/06:45:04		NOTE: Start EVP data return script		02-032/06:30:41
1124	MGS	02-032/06:45:05		: SSR_2A, F42KHZ, PART1, SE_1A, 2002-032T07:16:33.000	AEMPBI	02-032/06:30:42
1125	MGS	02-032/06:49:05		NOTE: Enter Planetary Atmosphere 12972		02-032/06:34:41
1126	MGS	02-032/06:51:37		NOTE: Apoapsis 12972 -		02-032/06:37:13
1127	MGS	02-032/06:53:27		NOTE: Enter Earth Occultation 12972		02-032/06:39:04
1128	MGS	02-032/06:55:04		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-032/06:40:41
1129	MGS	02-032/06:55:04		NOTE: Enter Solar Eclipse 12972		02-032/06:40:41
1130	MGS	02-032/07:09:35		Select Automatic HGA control mode	SAHACE	02-032/06:55:12

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
1131	MGS	02-032/07:09:36		Selects Hign Gain Antenna for downlink, Reconfigures if beam is already on	STUHGA	02-032/06:55:13
1132	MGS	02-032/07:09:37		CDU-1 Uplink Rate Select (Based on 3 bit Code): 3	TCC1BS	02-032/06:55:14
1133	MGS	02-032/07:09:37		CDU-2 Uplink Rate Select (Based on 3 bit Code): 3	TCC2BS	02-032/06:55:14
1134	MGS	02-032/07:15:00	34	Begin Tracking		
1135	MGS	02-032/07:18:37		NOTE: Begin fixed Sub-Reflector for Radio Science		02-032/07:04:14
1136	MGS	02-032/07:19:46		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-032/07:05:23
1137	MGS	02-032/07:19:46		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-032/07:05:23
1138	MGS	02-032/07:19:50		Command the PSE with included data word: 3990	SWPSEL	02-032/07:05:27
1139	MGS	02-032/07:19:51		Set eclipse egress script address: 0158	SWSEES	02-032/07:05:28
1140	MGS	02-032/07:22:22		: 01:29:23	RPAONX	02-032/07:07:59
1141	MGS	02-032/07:22:22		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-032/07:07:59
1142	MGS	02-032/07:23:37		: 00:00:30, 00:07:19, FALSE	RDSCIE	02-032/07:09:14
1143	MGS	02-032/07:23:37		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-032/07:09:14
1144	MGS	02-032/07:23:37		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-032/07:09:14
1145	MGS	02-032/07:23:37		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-032/07:09:14
1146	MGS	02-032/07:23:37		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-032/07:09:14
1147	MGS	02-032/07:24:07		NOTE: Exit Earth Occultation 12972		02-032/07:09:43
1148	MGS	02-032/07:24:07	34	Acquisition Of X-Band Signal		
1149	MGS	02-032/07:24:07	34	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
1150	MGS	02-032/07:24:07	34	NOTE: Carrier Only -- No Telemetry Modulation		
1151	MGS	02-032/07:25:00	34	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
1152	MGS	02-032/07:27:00	34	Range Modulation On: SUP=3.0dB		
1153	MGS	02-032/07:28:00	34	Begin Ranging Acquisition		
1154	MGS	02-032/07:28:46		NOTE: Exit Planetary Atmosphere 12972		02-032/07:14:22
1155	MGS	02-032/07:30:56		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-032/07:16:33
1156	MGS	02-032/07:30:56		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-032/07:16:33
1157	MGS	02-032/07:30:56		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-032/07:16:33
1158	MGS	02-032/07:30:56		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-032/07:16:33
1159	MGS	02-032/07:30:56		: REC_2A, F42KHZ, PART1, SE_1A, FALSE, 00:12:10	AEMPB	02-032/07:16:33
1160	MGS	02-032/07:30:56		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-032/07:16:33
1161	MGS	02-032/07:30:56		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, PLYBCK, PART1	STSSRC	02-032/07:16:33
1162	MGS	02-032/07:30:56	34	D/L Change: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
1163	MGS	02-032/07:30:57		SSR 2A Data Enable	CSD2AE	02-032/07:16:34
1164	MGS	02-032/07:30:57		SSR Activity: ID=SSR_2A, FCN=Start Playback, PRT=1, BR=42666		02-032/07:16:34
1165	MGS	02-032/07:30:57	34	D/L Change: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
1166	MGS	02-032/07:31:02		NOTE: End fixed Sub-Reflector for Radio Science		02-032/07:16:38
1167	MGS	02-032/07:35:31		NOTE: Exit Solar Eclipse 12972		02-032/07:21:07
1168	MGS	02-032/07:50:05		NOTE: Periapsis 12973 ----------		02-032/07:35:41
1169	MGS	02-032/07:53:47	34	Acquire D/L: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
1170	MGS	02-032/08:00:31		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-032/07:46:07
1171	MGS	02-032/08:00:31		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-032/07:46:07
1172	MGS	02-032/08:00:32		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-032/07:46:08
1173	MGS	02-032/08:00:32		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-032/07:46:08
1174	MGS	02-032/08:03:42	34	NOTE: Transmitter Off in 15 minutes		
1175	MGS	02-032/08:16:42	34	Range Modulation Off		
1176	MGS	02-032/08:18:42	34	Transmitter Off		
1177	MGS	02-032/08:22:32		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-032/08:08:08
1178	MGS	02-032/08:22:32		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-032/08:08:08
1179	MGS	02-032/08:39:36		SSR 2A Data Disable	CSD2AX	02-032/08:25:12
1180	MGS	02-032/08:39:36		SSR Activity: ID=SSR_2A, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-032/08:25:12
1181	MGS	02-032/08:39:36		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-032/08:25:12
1182	MGS	02-032/08:39:36	34	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
1183	MGS	02-032/08:39:42		NOTE: Begin fixed Sub-Reflector for Radio Science		02-032/08:25:18
1184	MGS	02-032/08:40:00	65	Begin Pre-Cal		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
1185	MGS	02-032/08:40:00	65	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
1186	MGS	02-032/08:40:00	65	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
1187	MGS	02-032/08:40:00	65	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
1188	MGS	02-032/08:40:00	65	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
1189	MGS	02-032/08:40:00	65	At BOT: S/C Tlm Mode: BR=8000.0, FL=10000, SC=HIGH, MI=80.0		
1190	MGS	02-032/08:40:00	65	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
1191	MGS	02-032/08:40:00	65	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
1192	MGS	02-032/08:40:00	65	Config: TGC: DEST=37		
1193	MGS	02-032/08:40:00	65	Config: TGC: BAND=X, BR=8000.000000		
1194	MGS	02-032/08:40:00	65	Config: FSS: CH=2, PRI_FL=10000		
1195	MGS	02-032/08:40:00	65	Config: RSR		
1196	MGS	02-032/08:40:00	65	Config: TXL		
1197	MGS	02-032/08:40:00	65	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
1198	MGS	02-032/08:40:00	65	Config: BVR		
1199	MGS	02-032/08:40:00	65	Config: Doppler Extractor: BIAS=+1MHZ		
1200	MGS	02-032/08:40:00	65	Config: MDA: SMPL=0.1		
1201	MGS	02-032/08:40:00	65	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
1202	MGS	02-032/08:40:00	65	Config: SRA: HIGH=4, LOW=14, SERV=D		
1203	MGS	02-032/08:40:00	65	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
1204	MGS	02-032/08:42:52		NOTE: Start EVP data return script		02-032/08:28:28
1205	MGS	02-032/08:42:52		: SSR_2B, F42KHZ, PART1, 2002-032T09:14:20.000	AEMPBU	02-032/08:28:28
1206	MGS	02-032/08:44:42		: 00:07:03, FALSE	RDSCII	02-032/08:30:18
1207	MGS	02-032/08:44:42		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-032/08:30:18
1208	MGS	02-032/08:44:42		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-032/08:30:18
1209	MGS	02-032/08:44:42		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-032/08:30:18
1210	MGS	02-032/08:44:42		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-032/08:30:18
1211	MGS	02-032/08:44:42	34	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
1212	MGS	02-032/08:44:42	34	NOTE: Carrier Only -- No Telemetry Modulation		
1213	MGS	02-032/08:46:53		NOTE: Enter Planetary Atmosphere 12973		02-032/08:32:29
1214	MGS	02-032/08:49:20		NOTE: Apoapsis 12973 -		02-032/08:34:56
1215	MGS	02-032/08:51:15		NOTE: Enter Earth Occultation 12973		02-032/08:36:51
1216	MGS	02-032/08:51:15	34	NOTE: Loss Of X-Band Signal		
1217	MGS	02-032/08:51:45		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-032/08:37:21
1218	MGS	02-032/08:51:45		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-032/08:37:21
1219	MGS	02-032/08:51:45		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-032/08:37:21
1220	MGS	02-032/08:51:45		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-032/08:37:21
1221	MGS	02-032/08:51:46		Turn off the MOT Exciter and RPA beam	STRPAF	02-032/08:37:22
1222	MGS	02-032/08:51:46		NOTE: End EVP script		02-032/08:37:22
1223	MGS	02-032/08:51:50		NOTE: End fixed Sub-Reflector for Radio Science		02-032/08:37:26
1224	MGS	02-032/08:52:52		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-032/08:38:28
1225	MGS	02-032/08:52:52		NOTE: Enter Solar Eclipse 12973		02-032/08:38:28
1226	MGS	02-032/08:56:51	34	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
1227	MGS	02-032/08:58:52	34	Range Modulation On: SUP=3.0dB		
1228	MGS	02-032/08:59:52	34	Begin Ranging Acquisition		
1229	MGS	02-032/09:16:25		NOTE: Begin fixed Sub-Reflector for Radio Science		02-032/09:02:01
1230	MGS	02-032/09:17:32		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-032/09:03:08
1231	MGS	02-032/09:17:32		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-032/09:03:08
1232	MGS	02-032/09:17:37		Set eclipse egress script address: 019A	SWSEES	02-032/09:03:13
1233	MGS	02-032/09:20:10		: 01:29:23	RPAONX	02-032/09:05:46
1234	MGS	02-032/09:20:10		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-032/09:05:46
1235	MGS	02-032/09:21:25		: 00:00:30, 00:07:19, FALSE	RDSCIE	02-032/09:07:01
1236	MGS	02-032/09:21:25		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-032/09:07:01
1237	MGS	02-032/09:21:25		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-032/09:07:01
1238	MGS	02-032/09:21:25		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-032/09:07:01

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
1239	MGS	02-032/09:21:25		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-032/09:07:01
1240	MGS	02-032/09:21:54		NOTE: Exit Earth Occultation 12973		02-032/09:07:30
1241	MGS	02-032/09:21:54	34	Acquisition Of X-Band Signal		
1242	MGS	02-032/09:21:54	34	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
1243	MGS	02-032/09:21:54	34	NOTE: Carrier Only -- No Telemetry Modulation		
1244	MGS	02-032/09:26:34		NOTE: Exit Planetary Atmosphere 12973		02-032/09:12:09
1245	MGS	02-032/09:28:44		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-032/09:14:20
1246	MGS	02-032/09:28:44		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-032/09:14:20
1247	MGS	02-032/09:28:44		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-032/09:14:20
1248	MGS	02-032/09:28:44		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-032/09:14:20
1249	MGS	02-032/09:28:44		: REC_2B, F42KHZ, PART1, SE_1A, FALSE, 00:12:10	AEMPB	02-032/09:14:20
1250	MGS	02-032/09:28:44		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-032/09:14:20
1251	MGS	02-032/09:28:44		Sends a one-word SSR command to the XSU command SOB: SSR_2B, F42KHZ, PLYBCK, PART1	STSSRC	02-032/09:14:20
1252	MGS	02-032/09:28:44	34	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
1253	MGS	02-032/09:28:45		SSR 2B Data Enable	CSD2BE	02-032/09:14:21
1254	MGS	02-032/09:28:45		SSR Activity: ID=SSR_2B, FCN=Start Playback, PRT=1, BR=42666		02-032/09:14:21
1255	MGS	02-032/09:28:45	34	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
1256	MGS	02-032/09:28:49		NOTE: End fixed Sub-Reflector for Radio Science		02-032/09:14:25
1257	MGS	02-032/09:33:19		NOTE: Exit Solar Eclipse 12973		02-032/09:18:55
1258	MGS	02-032/09:47:53		NOTE: Periapsis 12974 ----------		02-032/09:33:28
1259	MGS	02-032/09:54:18		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-032/09:39:54
1260	MGS	02-032/09:54:18		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-032/09:39:54
1261	MGS	02-032/09:54:19		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-032/09:39:55
1262	MGS	02-032/09:54:19		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-032/09:39:55
1263	MGS	02-032/10:01:28	34	NOTE: Transmitter Off in 15 minutes		
1264	MGS	02-032/10:14:28	34	Range Modulation Off		
1265	MGS	02-032/10:16:19		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-032/10:01:55
1266	MGS	02-032/10:16:19		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-032/10:01:55
1267	MGS	02-032/10:16:28	34	Transmitter Off		
1268	MGS	02-032/10:37:23		SSR 2B Data Disable	CSD2BX	02-032/10:22:59
1269	MGS	02-032/10:37:23		SSR Activity: ID=SSR_2B, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-032/10:22:59
1270	MGS	02-032/10:37:23		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-032/10:22:59
1271	MGS	02-032/10:37:23	34	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
1272	MGS	02-032/10:37:29		NOTE: Begin fixed Sub-Reflector for Radio Science		02-032/10:23:05
1273	MGS	02-032/10:40:00	65	Begin Tracking		
1274	MGS	02-032/10:40:00	65	Acquire D/L: X/16, 3-Way/34, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
1275	MGS	02-032/10:40:39		NOTE: Start EVP data return script		02-032/10:26:15
1276	MGS	02-032/10:40:39		: SSR_2A, F42KHZ, PART2, 2002-032T11:12:07.000	AEMPBU	02-032/10:26:15
1277	MGS	02-032/10:42:29		: 00:07:03, FALSE	RDSCII	02-032/10:28:05
1278	MGS	02-032/10:42:29		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-032/10:28:05
1279	MGS	02-032/10:42:29		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-032/10:28:05
1280	MGS	02-032/10:42:29		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-032/10:28:05
1281	MGS	02-032/10:42:29		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-032/10:28:05
1282	MGS	02-032/10:42:29	34	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
1283	MGS	02-032/10:42:29	34	NOTE: Carrier Only -- No Telemetry Modulation		
1284	MGS	02-032/10:42:29	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
1285	MGS	02-032/10:42:29	65	NOTE: Carrier Only -- No Telemetry Modulation		
1286	MGS	02-032/10:44:40		NOTE: Enter Planetary Atmosphere 12974		02-032/10:30:15
1287	MGS	02-032/10:46:52		NOTE: Apoapsis 12974 -		02-032/10:32:28
1288	MGS	02-032/10:48:22	65	NOTE: Above Uplink Interlock Limit		
1289	MGS	02-032/10:49:02		NOTE: Enter Earth Occultation 12974		02-032/10:34:37
1290	MGS	02-032/10:49:02	34	NOTE: Loss Of X-Band Signal		
1291	MGS	02-032/10:49:02	65	NOTE: Loss Of X-Band Signal		
1292	MGS	02-032/10:49:32		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-032/10:35:08

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
1293	MGS	02-032/10:49:32		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-032/10:35:08
1294	MGS	02-032/10:49:32		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-032/10:35:08
1295	MGS	02-032/10:49:32		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-032/10:35:08
1296	MGS	02-032/10:49:33		Turn off the MOT Exciter and RPA beam	STRPAF	02-032/10:35:09
1297	MGS	02-032/10:49:33		NOTE: End EVP script		02-032/10:35:09
1298	MGS	02-032/10:49:37		NOTE: End fixed Sub-Reflector for Radio Science		02-032/10:35:13
1299	MGS	02-032/10:50:39		NOTE: Enter Solar Eclipse 12974		02-032/10:36:14
1300	MGS	02-032/10:50:39		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-032/10:36:15
1301	MGS	02-032/10:51:59	34	NOTE: Below Uplink Interlock Limit		
1302	MGS	02-032/11:00:00	34	End Tracking		
1303	MGS	02-032/11:14:12		NOTE: Begin fixed Sub-Reflector for Radio Science		02-032/10:59:48
1304	MGS	02-032/11:15:00	34	End Post-Cal		
1305	MGS	02-032/11:15:19		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-032/11:00:55
1306	MGS	02-032/11:15:19		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-032/11:00:55
1307	MGS	02-032/11:15:24		Set eclipse egress script address: 01DC	SWSEES	02-032/11:01:00
1308	MGS	02-032/11:17:57		: 01:29:23	RPAONX	02-032/11:03:33
1309	MGS	02-032/11:17:57		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-032/11:03:33
1310	MGS	02-032/11:19:12		: 00:00:30, 00:07:19, FALSE	RDSCIE	02-032/11:04:48
1311	MGS	02-032/11:19:12		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-032/11:04:48
1312	MGS	02-032/11:19:12		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-032/11:04:48
1313	MGS	02-032/11:19:12		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-032/11:04:48
1314	MGS	02-032/11:19:12		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-032/11:04:48
1315	MGS	02-032/11:19:42		NOTE: Exit Earth Occultation 12974		02-032/11:05:18
1316	MGS	02-032/11:19:42	65	Acquisition Of X-Band Signal		
1317	MGS	02-032/11:19:42	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
1318	MGS	02-032/11:19:42	65	NOTE: Carrier Only -- No Telemetry Modulation		
1319	MGS	02-032/11:21:03		NOTE: Start Block (SSRMGR)		02-032/11:06:39
1320	MGS	02-032/11:21:03		Sends a one-word SSR command to the XSU command SOB: SSR_1A, SE_1A, RECORD, PART2	STSSRC	02-032/11:06:39
1321	MGS	02-032/11:21:04		SSR 1A Data Enable	CSD1AE	02-032/11:06:40
1322	MGS	02-032/11:21:04		SSR Activity: ID=SSR_1A, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-032/11:06:40
1323	MGS	02-032/11:24:21		NOTE: Exit Planetary Atmosphere 12974		02-032/11:09:57
1324	MGS	02-032/11:26:31		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-032/11:12:07
1325	MGS	02-032/11:26:31		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-032/11:12:07
1326	MGS	02-032/11:26:31		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-032/11:12:07
1327	MGS	02-032/11:26:31		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-032/11:12:07
1328	MGS	02-032/11:26:31		: REC_2A, F42KHZ, PART2, SE_1A, FALSE, 00:12:10	AEMPB	02-032/11:12:07
1329	MGS	02-032/11:26:31		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-032/11:12:07
1330	MGS	02-032/11:26:31		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, PLYBCK, PART2	STSSRC	02-032/11:12:07
1331	MGS	02-032/11:26:31	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
1332	MGS	02-032/11:26:32		SSR 2A Data Enable	CSD2AE	02-032/11:12:08
1333	MGS	02-032/11:26:32		SSR Activity: ID=SSR_2A, FCN=Start Playback, PRT=2, BR=42666		02-032/11:12:08
1334	MGS	02-032/11:26:32	65	D/L Change: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
1335	MGS	02-032/11:26:36		NOTE: End fixed Sub-Reflector for Radio Science		02-032/11:12:12
1336	MGS	02-032/11:31:06		NOTE: Exit Solar Eclipse 12974		02-032/11:16:41
1337	MGS	02-032/11:45:35		NOTE: Periapsis 12975 ----------		02-032/11:31:10
1338	MGS	02-032/11:47:44		SSR 1B Data Disable	CSD1BX	02-032/11:33:20
1339	MGS	02-032/11:47:44		SSR Activity: ID=SSR_1B, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-032/11:33:20
1340	MGS	02-032/11:47:45		NOTE: End Block (SSRMGR)		02-032/11:33:21
1341	MGS	02-032/11:52:05		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-032/11:37:41
1342	MGS	02-032/11:52:05		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-032/11:37:41
1343	MGS	02-032/11:52:06		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-032/11:37:42
1344	MGS	02-032/11:52:06		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-032/11:37:42
1345	MGS	02-032/12:14:06		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-032/11:59:42
1346	MGS	02-032/12:14:06		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-032/11:59:42

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
1347	MGS	02-032/12:14:24		Dump SCP memory to the EDF using physical addressing arguments: 56A4, 240	SCDSCM	02-032/12:00:00
1348	MGS	02-032/12:35:10		SSR 2A Data Disable	CSD2AX	02-032/12:20:46
1349	MGS	02-032/12:35:10		SSR Activity: ID=SSR_2A, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-032/12:20:46
1350	MGS	02-032/12:35:10		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-032/12:20:46
1351	MGS	02-032/12:35:10	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
1352	MGS	02-032/12:35:16		NOTE: Begin fixed Sub-Reflector for Radio Science		02-032/12:20:52
1353	MGS	02-032/12:38:23		NOTE: Start EVP data return script		02-032/12:23:59
1354	MGS	02-032/12:38:23		: SSR_2B, F42KHZ, PART2, 2002-032T13:09:51.000	AEMPBU	02-032/12:23:59
1355	MGS	02-032/12:40:16		: 00:07:03, FALSE	RDSCII	02-032/12:25:52
1356	MGS	02-032/12:40:16		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-032/12:25:52
1357	MGS	02-032/12:40:16		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-032/12:25:52
1358	MGS	02-032/12:40:16		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-032/12:25:52
1359	MGS	02-032/12:40:16		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-032/12:25:52
1360	MGS	02-032/12:40:16	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
1361	MGS	02-032/12:40:16	65	NOTE: Carrier Only -- No Telemetry Modulation		
1362	MGS	02-032/12:42:24		NOTE: Enter Planetary Atmosphere 12975		02-032/12:27:59
1363	MGS	02-032/12:44:24		NOTE: Apoapsis 12975 -		02-032/12:30:00
1364	MGS	02-032/12:46:46		NOTE: Enter Earth Occultation 12975		02-032/12:32:22
1365	MGS	02-032/12:46:46	65	NOTE: Loss Of X-Band Signal		
1366	MGS	02-032/12:47:19		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-032/12:32:55
1367	MGS	02-032/12:47:19		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-032/12:32:55
1368	MGS	02-032/12:47:19		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-032/12:32:55
1369	MGS	02-032/12:47:19		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-032/12:32:55
1370	MGS	02-032/12:47:20		Turn off the MOT Exciter and RPA beam	STRPAF	02-032/12:32:56
1371	MGS	02-032/12:47:20		NOTE: End EVP script		02-032/12:32:56
1372	MGS	02-032/12:47:24		NOTE: End fixed Sub-Reflector for Radio Science		02-032/12:33:00
1373	MGS	02-032/12:48:23		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-032/12:33:59
1374	MGS	02-032/12:48:24		NOTE: Enter Solar Eclipse 12975		02-032/12:33:59
1375	MGS	02-032/13:11:56		NOTE: Begin fixed Sub-Reflector for Radio Science		02-032/12:57:32
1376	MGS	02-032/13:13:06		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-032/12:58:42
1377	MGS	02-032/13:13:06		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-032/12:58:42
1378	MGS	02-032/13:13:10		Command the PSE with included data word: 3990	SWPSEL	02-032/12:58:46
1379	MGS	02-032/13:13:11		Set eclipse egress script address: 0158	SWSEES	02-032/12:58:47
1380	MGS	02-032/13:15:41		: 01:29:23	RPAONX	02-032/13:01:17
1381	MGS	02-032/13:15:41		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-032/13:01:17
1382	MGS	02-032/13:16:56		: 00:00:30, 00:07:19, FALSE	RDSCIE	02-032/13:02:32
1383	MGS	02-032/13:16:56		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-032/13:02:32
1384	MGS	02-032/13:16:56		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-032/13:02:32
1385	MGS	02-032/13:16:56		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-032/13:02:32
1386	MGS	02-032/13:16:56		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-032/13:02:32
1387	MGS	02-032/13:17:26		Disables autonomous command to send eclipse ingress script	SWEISX	02-032/13:03:02
1388	MGS	02-032/13:17:28		NOTE: Exit Earth Occultation 12975		02-032/13:03:03
1389	MGS	02-032/13:17:28	65	Acquisition Of X-Band Signal		
1390	MGS	02-032/13:17:28	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
1391	MGS	02-032/13:17:28	65	NOTE: Carrier Only -- No Telemetry Modulation		
1392	MGS	02-032/13:22:07		NOTE: Exit Planetary Atmosphere 12975		02-032/13:07:42
1393	MGS	02-032/13:24:15		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-032/13:09:51
1394	MGS	02-032/13:24:15		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-032/13:09:51
1395	MGS	02-032/13:24:15		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-032/13:09:51
1396	MGS	02-032/13:24:15		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-032/13:09:51
1397	MGS	02-032/13:24:15		: REC_2B, F42KHZ, PART2, SE_1A, FALSE, 00:12:10	AEMPB	02-032/13:09:51
1398	MGS	02-032/13:24:15		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-032/13:09:51
1399	MGS	02-032/13:24:15		Sends a one-word SSR command to the XSU command SOB: SSR_2B, F42KHZ, PLYBCK, PART2	STSSRC	02-032/13:09:51
1400	MGS	02-032/13:24:15	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
1401	MGS	02-032/13:24:16		SSR 2B Data Enable	CSD2BE	02-032/13:09:52
1402	MGS	02-032/13:24:16		SSR Activity: ID=SSR_2B, FCN=Start Playback, PRT=2, BR=42666		02-032/13:09:52
1403	MGS	02-032/13:24:16	65	D/L Change: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
1404	MGS	02-032/13:24:20		NOTE: End fixed Sub-Reflector for Radio Science		02-032/13:09:56
1405	MGS	02-032/13:28:50		NOTE: Exit Solar Eclipse 12975		02-032/13:14:26
1406	MGS	02-032/13:43:20		NOTE: Periapsis 12976 ----------		02-032/13:28:56
1407	MGS	02-032/13:53:49		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-032/13:39:25
1408	MGS	02-032/13:53:49		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-032/13:39:25
1409	MGS	02-032/13:53:50		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-032/13:39:26
1410	MGS	02-032/13:53:50		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-032/13:39:26
1411	MGS	02-032/14:15:51		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-032/14:01:26
1412	MGS	02-032/14:15:51		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-032/14:01:26
1413	MGS	02-032/14:32:55		SSR 2B Data Disable	CSD2BX	02-032/14:18:30
1414	MGS	02-032/14:32:55		SSR Activity: ID=SSR_2B, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-032/14:18:30
1415	MGS	02-032/14:32:55		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-032/14:18:30
1416	MGS	02-032/14:32:55	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
1417	MGS	02-032/14:33:01		NOTE: Begin fixed Sub-Reflector for Radio Science		02-032/14:18:36
1418	MGS	02-032/14:36:06		NOTE: Start Block (MAP_RT)		02-032/14:21:41
1419	MGS	02-032/14:36:07		: 00:27:18, 01:29:22, FALSE, TRUE, FALSE, 00:01:15, 00:07:19, 01:13:44, 00:07:03	AEMINI	02-032/14:21:42
1420	MGS	02-032/14:36:07		Enable sending eclipse ingress script when array power disappears	SWEISE	02-032/14:21:42
1421	MGS	02-032/14:36:07		NOTE: Start EVP data return script		02-032/14:21:42
1422	MGS	02-032/14:36:08		: SE_2A, RTM, 01:13:43, MRC, 2002-032T15:07:35.000	AEMRTI	02-032/14:21:43
1423	MGS	02-032/14:38:01		: 00:07:03, FALSE	RDSCII	02-032/14:23:36
1424	MGS	02-032/14:38:01		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-032/14:23:36
1425	MGS	02-032/14:38:01		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-032/14:23:36
1426	MGS	02-032/14:38:01		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-032/14:23:36
1427	MGS	02-032/14:38:01		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-032/14:23:36
1428	MGS	02-032/14:38:01	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
1429	MGS	02-032/14:38:01	65	NOTE: Carrier Only -- No Telemetry Modulation		
1430	MGS	02-032/14:40:07		NOTE: Enter Planetary Atmosphere 12976		02-032/14:25:42
1431	MGS	02-032/14:42:18		NOTE: Apoapsis 12976 -		02-032/14:27:53
1432	MGS	02-032/14:44:29		NOTE: Enter Earth Occultation 12976		02-032/14:30:04
1433	MGS	02-032/14:44:29	65	NOTE: Loss Of X-Band Signal		
1434	MGS	02-032/14:45:04		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-032/14:30:39
1435	MGS	02-032/14:45:04		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-032/14:30:39
1436	MGS	02-032/14:45:04		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-032/14:30:39
1437	MGS	02-032/14:45:04		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-032/14:30:39
1438	MGS	02-032/14:45:05		Turn off the MOT Exciter and RPA beam	STRPAF	02-032/14:30:40
1439	MGS	02-032/14:45:05		NOTE: End EVP script		02-032/14:30:40
1440	MGS	02-032/14:45:06		NOTE: End Block (MAP_PB)		02-032/14:30:41
1441	MGS	02-032/14:45:09		NOTE: End fixed Sub-Reflector for Radio Science		02-032/14:30:44
1442	MGS	02-032/14:46:06		NOTE: Enter Solar Eclipse 12976		02-032/14:31:41
1443	MGS	02-032/14:46:07		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-032/14:31:42
1444	MGS	02-032/15:09:40		NOTE: Begin fixed Sub-Reflector for Radio Science		02-032/14:55:14
1445	MGS	02-032/15:10:51		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-032/14:56:26
1446	MGS	02-032/15:10:51		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-032/14:56:26
1447	MGS	02-032/15:10:56		Set eclipse egress script address: 019A	SWSEES	02-032/14:56:31
1448	MGS	02-032/15:13:25		: 01:29:22	RPAONX	02-032/14:59:00
1449	MGS	02-032/15:13:25		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-032/14:59:00
1450	MGS	02-032/15:14:40		: 00:00:30, 00:07:19, FALSE	RDSCIE	02-032/15:00:15
1451	MGS	02-032/15:14:40		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-032/15:00:15
1452	MGS	02-032/15:14:40		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-032/15:00:15
1453	MGS	02-032/15:14:40		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-032/15:00:15
1454	MGS	02-032/15:14:40		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-032/15:00:15

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
1455	MGS	02-032/15:15:12		NOTE: Exit Earth Occultation 12976		02-032/15:00:46
1456	MGS	02-032/15:15:12	65	Acquisition Of X-Band Signal		
1457	MGS	02-032/15:15:12	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
1458	MGS	02-032/15:15:12	65	NOTE: Carrier Only -- No Telemetry Modulation		
1459	MGS	02-032/15:19:51		NOTE: Exit Planetary Atmosphere 12976		02-032/15:05:26
1460	MGS	02-032/15:21:59		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-032/15:07:34
1461	MGS	02-032/15:21:59		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-032/15:07:34
1462	MGS	02-032/15:21:59		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-032/15:07:34
1463	MGS	02-032/15:21:59		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-032/15:07:34
1464	MGS	02-032/15:21:59	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
1465	MGS	02-032/15:22:00		: RTM, MRC, 01:13:43, S&E_2A, FALSE, 00:07:04	AEMRT	02-032/15:07:35
1466	MGS	02-032/15:22:00		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-032/15:07:35
1467	MGS	02-032/15:22:00		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-032/15:07:35
1468	MGS	02-032/15:22:00	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
1469	MGS	02-032/15:22:04		NOTE: End fixed Sub-Reflector for Radio Science		02-032/15:07:38
1470	MGS	02-032/15:26:33		NOTE: Exit Solar Eclipse 12976		02-032/15:12:08
1471	MGS	02-032/15:27:54		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-032/15:13:29
1472	MGS	02-032/15:27:54	65	D/L Change: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
1473	MGS	02-032/15:27:56		NOTE: Start Block (SSRMGR)		02-032/15:13:31
1474	MGS	02-032/15:27:56		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-032/15:13:31
1475	MGS	02-032/15:27:56		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-032/15:13:31
1476	MGS	02-032/15:27:57		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-032/15:13:32
1477	MGS	02-032/15:27:58		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, PLYBCK, PART3	STSSRC	02-032/15:13:33
1478	MGS	02-032/15:27:59		SSR 2A Data Enable	CSD2AE	02-032/15:13:34
1479	MGS	02-032/15:27:59		SSR Activity: ID=SSR_2A, FCN=Start Playback, PRT=3, BR=42666		02-032/15:13:34
1480	MGS	02-032/15:27:59	65	D/L Change: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
1481	MGS	02-032/15:40:26		NOTE: Start Block (SSRMGR)		02-032/15:26:01
1482	MGS	02-032/15:40:26		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-032/15:26:01
1483	MGS	02-032/15:40:26		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-032/15:26:01
1484	MGS	02-032/15:40:27		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-032/15:26:02
1485	MGS	02-032/15:40:27		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, ENBSCR, PART1	STSSRC	02-032/15:26:02
1486	MGS	02-032/15:40:28		Sends a one-word SSR command to the XSU command SOB: SSR_2B, F42KHZ, PLYBCK, PART3	STSSRC	02-032/15:26:03
1487	MGS	02-032/15:40:29		SSR 2A Data Disable	CSD2AX	02-032/15:26:04
1488	MGS	02-032/15:40:29		SSR 2B Data Enable	CSD2BE	02-032/15:26:04
1489	MGS	02-032/15:40:29		SSR Activity: ID=SSR_2B, FCN=Start Playback, PRT=3, BR=42666		02-032/15:26:04
1490	MGS	02-032/15:40:30		NOTE: End Block (SSRMGR)		02-032/15:26:05
1491	MGS	02-032/15:41:01		NOTE: Periapsis 12977 ----------		02-032/15:26:36
1492	MGS	02-032/15:47:33		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-032/15:33:08
1493	MGS	02-032/15:47:33		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-032/15:33:08
1494	MGS	02-032/15:47:34		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-032/15:33:09
1495	MGS	02-032/15:47:34		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-032/15:33:09
1496	MGS	02-032/15:57:59		SSR 2B Data Disable	CSD2BX	02-032/15:43:34
1497	MGS	02-032/15:57:59		SSR Activity: ID=SSR_2B, FCN=End Playback, PRT=3, BITS=44800000, DUR=00:17:30		02-032/15:43:34
1498	MGS	02-032/15:58:00		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-032/15:43:35
1499	MGS	02-032/15:58:00		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-032/15:43:35
1500	MGS	02-032/15:58:00		NOTE: End Block (SSRMGR)		02-032/15:43:35
1501	MGS	02-032/15:58:00	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
1502	MGS	02-032/16:09:34		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-032/15:55:09
1503	MGS	02-032/16:09:34		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-032/15:55:09
1504	MGS	02-032/16:30:43		NOTE: Begin fixed Sub-Reflector for Radio Science		02-032/16:16:17
1505	MGS	02-032/16:33:49		NOTE: Start EVP data return script		02-032/16:19:24
1506	MGS	02-032/16:35:43		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-032/16:21:18
1507	MGS	02-032/16:35:43		: 00:07:03, FALSE	RDSCII	02-032/16:21:18
1508	MGS	02-032/16:35:43		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-032/16:21:18

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
1509	MGS	02-032/16:35:43		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-032/16:21:18
1510	MGS	02-032/16:35:43		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-032/16:21:18
1511	MGS	02-032/16:35:43		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-032/16:21:18
1512	MGS	02-032/16:35:43	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
1513	MGS	02-032/16:35:43	65	NOTE: Carrier Only -- No Telemetry Modulation		
1514	MGS	02-032/16:37:49		NOTE: Enter Planetary Atmosphere 12977		02-032/16:23:24
1515	MGS	02-032/16:39:59		NOTE: Apoapsis 12977 -		02-032/16:25:33
1516	MGS	02-032/16:42:12		NOTE: Enter Earth Occultation 12977		02-032/16:27:47
1517	MGS	02-032/16:42:12	65	NOTE: Loss Of X-Band Signal		
1518	MGS	02-032/16:42:46		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-032/16:28:21
1519	MGS	02-032/16:42:46		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-032/16:28:21
1520	MGS	02-032/16:42:46		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-032/16:28:21
1521	MGS	02-032/16:42:46		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-032/16:28:21
1522	MGS	02-032/16:42:47		NOTE: End EVP script		02-032/16:28:21
1523	MGS	02-032/16:42:47		Turn off the MOT Exciter and RPA beam	STRPAF	02-032/16:28:22
1524	MGS	02-032/16:42:51		NOTE: End fixed Sub-Reflector for Radio Science		02-032/16:28:25
1525	MGS	02-032/16:43:48		NOTE: Enter Solar Eclipse 12977		02-032/16:29:23
1526	MGS	02-032/16:43:49		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-032/16:29:24
1527	MGS	02-032/16:54:24		NOTE: Start Block (SSRMGR)		02-032/16:39:59
1528	MGS	02-032/16:54:24		Sends a one-word SSR command to the XSU command SOB: SSR_1B, SE_1A, RECORD, PART2	STSSRC	02-032/16:39:59
1529	MGS	02-032/16:54:25		SSR 1B Data Enable	CSD1BE	02-032/16:40:00
1530	MGS	02-032/16:54:25		SSR Activity: ID=SSR_1B, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-032/16:40:00
1531	MGS	02-032/17:07:22		NOTE: Begin fixed Sub-Reflector for Radio Science		02-032/16:52:56
1532	MGS	02-032/17:08:34		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-032/16:54:09
1533	MGS	02-032/17:08:34		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-032/16:54:09
1534	MGS	02-032/17:08:39		Set eclipse egress script address: 01DC	SWSEES	02-032/16:54:14
1535	MGS	02-032/17:11:07		: 01:29:22	RPAONX	02-032/16:56:42
1536	MGS	02-032/17:11:07		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-032/16:56:42
1537	MGS	02-032/17:12:22		: 00:00:30, 00:07:19, FALSE	RDSCIE	02-032/16:57:57
1538	MGS	02-032/17:12:22		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-032/16:57:57
1539	MGS	02-032/17:12:22		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-032/16:57:57
1540	MGS	02-032/17:12:22		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-032/16:57:57
1541	MGS	02-032/17:12:22		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-032/16:57:57
1542	MGS	02-032/17:12:54		NOTE: Exit Earth Occultation 12977		02-032/16:58:28
1543	MGS	02-032/17:12:54	65	Acquisition Of X-Band Signal		
1544	MGS	02-032/17:12:54	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
1545	MGS	02-032/17:12:54	65	NOTE: Carrier Only -- No Telemetry Modulation		
1546	MGS	02-032/17:17:33		NOTE: Exit Planetary Atmosphere 12977		02-032/17:03:08
1547	MGS	02-032/17:19:41		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-032/17:05:16
1548	MGS	02-032/17:19:41		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-032/17:05:16
1549	MGS	02-032/17:19:41		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-032/17:05:16
1550	MGS	02-032/17:19:41		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-032/17:05:16
1551	MGS	02-032/17:19:41	65	D/L Change: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
1552	MGS	02-032/17:19:42		: RTM, MRC, 01:13:43, S&E_2A, FALSE, 00:07:04	AEMRT	02-032/17:05:17
1553	MGS	02-032/17:19:42		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-032/17:05:17
1554	MGS	02-032/17:19:42		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-032/17:05:17
1555	MGS	02-032/17:19:42		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=2, BITS=12136000, DUR=00:25:17		02-032/17:05:17
1556	MGS	02-032/17:19:42		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-032/17:05:17
1557	MGS	02-032/17:19:42	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
1558	MGS	02-032/17:19:46		NOTE: End fixed Sub-Reflector for Radio Science		02-032/17:05:20
1559	MGS	02-032/17:21:05		SSR 1A Data Disable	CSD1AX	02-032/17:06:40
1560	MGS	02-032/17:21:05		SSR Activity: ID=SSR_1A, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-032/17:06:40
1561	MGS	02-032/17:21:06		NOTE: End Block (SSRMGR)		02-032/17:06:41
1562	MGS	02-032/17:24:15		NOTE: Exit Solar Eclipse 12977		02-032/17:09:50

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
1563	MGS	02-032/17:38:23		NOTE: Periapsis 12978 ----------		02-032/17:23:58
1564	MGS	02-032/17:45:14		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-032/17:30:49
1565	MGS	02-032/17:45:14		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-032/17:30:49
1566	MGS	02-032/17:45:15		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-032/17:30:50
1567	MGS	02-032/17:45:15		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-032/17:30:50
1568	MGS	02-032/18:07:15		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-032/17:52:50
1569	MGS	02-032/18:07:15		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-032/17:52:50
1570	MGS	02-032/18:28:25		NOTE: Begin fixed Sub-Reflector for Radio Science		02-032/18:13:59
1571	MGS	02-032/18:31:32		NOTE: Start EVP data return script		02-032/18:17:07
1572	MGS	02-032/18:33:25		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-032/18:19:00
1573	MGS	02-032/18:33:25		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=2, BITS=47520000, DUR=01:13:43		02-032/18:19:00
1574	MGS	02-032/18:33:25		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-032/18:19:00
1575	MGS	02-032/18:33:25		: 00:07:03, FALSE	RDSCII	02-032/18:19:00
1576	MGS	02-032/18:33:25		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-032/18:19:00
1577	MGS	02-032/18:33:25		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-032/18:19:00
1578	MGS	02-032/18:33:25		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-032/18:19:00
1579	MGS	02-032/18:33:25		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-032/18:19:00
1580	MGS	02-032/18:33:25	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
1581	MGS	02-032/18:33:25	65	NOTE: Carrier Only -- No Telemetry Modulation		
1582	MGS	02-032/18:35:33		NOTE: Enter Planetary Atmosphere 12978		02-032/18:21:07
1583	MGS	02-032/18:37:22		NOTE: Apoapsis 12978 -		02-032/18:22:56
1584	MGS	02-032/18:39:54		NOTE: Enter Earth Occultation 12978		02-032/18:25:29
1585	MGS	02-032/18:39:54	65	NOTE: Loss Of X-Band Signal		
1586	MGS	02-032/18:40:28		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-032/18:26:03
1587	MGS	02-032/18:40:28		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-032/18:26:03
1588	MGS	02-032/18:40:28		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-032/18:26:03
1589	MGS	02-032/18:40:28		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-032/18:26:03
1590	MGS	02-032/18:40:29		NOTE: End EVP script		02-032/18:26:03
1591	MGS	02-032/18:40:29		Turn off the MOT Exciter and RPA beam	STRPAF	02-032/18:26:04
1592	MGS	02-032/18:40:33		NOTE: End fixed Sub-Reflector for Radio Science		02-032/18:26:07
1593	MGS	02-032/18:41:32		NOTE: Enter Solar Eclipse 12978		02-032/18:27:06
1594	MGS	02-032/18:41:32		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-032/18:27:07
1595	MGS	02-032/19:05:05		NOTE: Begin fixed Sub-Reflector for Radio Science		02-032/18:50:39
1596	MGS	02-032/19:06:15		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-032/18:51:50
1597	MGS	02-032/19:06:15		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-032/18:51:50
1598	MGS	02-032/19:06:19		Command the PSE with included data word: 3990	SWPSEL	02-032/18:51:54
1599	MGS	02-032/19:06:20		Set eclipse egress script address: 0158	SWSEES	02-032/18:51:55
1600	MGS	02-032/19:08:50		: 01:29:22	RPAONX	02-032/18:54:25
1601	MGS	02-032/19:08:50		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-032/18:54:25
1602	MGS	02-032/19:10:05		: 00:00:30, 00:07:19, FALSE	RDSCIE	02-032/18:55:40
1603	MGS	02-032/19:10:05		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-032/18:55:40
1604	MGS	02-032/19:10:05		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-032/18:55:40
1605	MGS	02-032/19:10:05		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-032/18:55:40
1606	MGS	02-032/19:10:05		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-032/18:55:40
1607	MGS	02-032/19:10:37		NOTE: Exit Earth Occultation 12978		02-032/18:56:11
1608	MGS	02-032/19:10:37	65	Acquisition Of X-Band Signal		
1609	MGS	02-032/19:10:37	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
1610	MGS	02-032/19:10:37	65	NOTE: Carrier Only -- No Telemetry Modulation		
1611	MGS	02-032/19:15:15		NOTE: Exit Planetary Atmosphere 12978		02-032/19:00:49
1612	MGS	02-032/19:17:24		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-032/19:02:59
1613	MGS	02-032/19:17:24		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-032/19:02:59
1614	MGS	02-032/19:17:24		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-032/19:02:59
1615	MGS	02-032/19:17:24		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-032/19:02:59
1616	MGS	02-032/19:17:24	65	D/L Change: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
1617	MGS	02-032/19:17:25		: RTM, MRC, 01:13:43, S&E_2A, FALSE, 00:07:04	AEMRT	02-032/19:03:00
1618	MGS	02-032/19:17:25		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-032/19:03:00
1619	MGS	02-032/19:17:25		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-032/19:03:00
1620	MGS	02-032/19:17:25		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=2, BITS=68640000, DUR=00:44:00		02-032/19:03:00
1621	MGS	02-032/19:17:25		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-032/19:03:00
1622	MGS	02-032/19:17:25	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
1623	MGS	02-032/19:17:29		NOTE: End fixed Sub-Reflector for Radio Science		02-032/19:03:03
1624	MGS	02-032/19:21:58		NOTE: Exit Solar Eclipse 12978		02-032/19:07:32
1625	MGS	02-032/19:36:06		NOTE: Periapsis 12979 ----------		02-032/19:21:41
1626	MGS	02-032/19:46:57		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-032/19:32:32
1627	MGS	02-032/19:46:57		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-032/19:32:32
1628	MGS	02-032/19:46:58		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-032/19:32:33
1629	MGS	02-032/19:46:58		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-032/19:32:33
1630	MGS	02-032/20:08:58		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-032/19:54:33
1631	MGS	02-032/20:08:58		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-032/19:54:33
1632	MGS	02-032/20:26:08		NOTE: Begin fixed Sub-Reflector for Radio Science		02-032/20:11:42
1633	MGS	02-032/20:29:18		NOTE: Start EVP data return script		02-032/20:14:52
1634	MGS	02-032/20:30:00	15	Begin Pre-Cal		
1635	MGS	02-032/20:30:00	15	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
1636	MGS	02-032/20:30:00	15	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=ON, RCVR2=ON, TWNC=ON		
1637	MGS	02-032/20:30:00	15	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
1638	MGS	02-032/20:30:00	15	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
1639	MGS	02-032/20:30:00	15	At BOT: S/C Tlm Mode: BR=0.0, FL=10000, SC=OFF, MI=0.0		
1640	MGS	02-032/20:30:00	15	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
1641	MGS	02-032/20:30:00	15	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
1642	MGS	02-032/20:30:00	15	Config: TGC: DEST=37		
1643	MGS	02-032/20:30:00	15	Config: TGC: BAND=X, BR=0.000000		
1644	MGS	02-032/20:30:00	15	Config: FSS: CH=2, PRI_FL=10000		
1645	MGS	02-032/20:30:00	15	Config: RSR		
1646	MGS	02-032/20:30:00	15	Config: TXL		
1647	MGS	02-032/20:30:00	15	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
1648	MGS	02-032/20:30:00	15	Config: BVR		
1649	MGS	02-032/20:30:00	15	Config: Doppler Extractor: BIAS=+1MHZ		
1650	MGS	02-032/20:30:00	15	Config: MDA: SMPL=0.1		
1651	MGS	02-032/20:30:00	15	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
1652	MGS	02-032/20:30:00	15	Config: SRA: HIGH=4, LOW=14, SERV=D		
1653	MGS	02-032/20:30:00	15	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
1654	MGS	02-032/20:31:09		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-032/20:16:43
1655	MGS	02-032/20:31:09		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=2, BITS=104024000, DUR=01:13:43		02-032/20:16:43
1656	MGS	02-032/20:31:09		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-032/20:16:43
1657	MGS	02-032/20:31:09		: 00:07:03, FALSE	RDSCII	02-032/20:16:43
1658	MGS	02-032/20:31:09		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-032/20:16:43
1659	MGS	02-032/20:31:09		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-032/20:16:43
1660	MGS	02-032/20:31:09		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-032/20:16:43
1661	MGS	02-032/20:31:09		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-032/20:16:43
1662	MGS	02-032/20:31:09	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
1663	MGS	02-032/20:31:09	65	NOTE: Carrier Only -- No Telemetry Modulation		
1664	MGS	02-032/20:33:17		NOTE: Enter Planetary Atmosphere 12979		02-032/20:18:51
1665	MGS	02-032/20:35:17		NOTE: Apoapsis 12979 -		02-032/20:20:51
1666	MGS	02-032/20:37:38		NOTE: Enter Earth Occultation 12979		02-032/20:23:12
1667	MGS	02-032/20:37:38	65	NOTE: Loss Of X-Band Signal		
1668	MGS	02-032/20:38:12		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-032/20:23:46
1669	MGS	02-032/20:38:12		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-032/20:23:46
1670	MGS	02-032/20:38:12		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-032/20:23:46

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
1671	MGS	02-032/20:38:12		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-032/20:23:46
1672	MGS	02-032/20:38:12		NOTE: End EVP script		02-032/20:23:46
1673	MGS	02-032/20:38:13		Turn off the MOT Exciter and RPA beam	STRPAF	02-032/20:23:47
1674	MGS	02-032/20:38:16		NOTE: End fixed Sub-Reflector for Radio Science		02-032/20:23:50
1675	MGS	02-032/20:39:17		NOTE: Enter Solar Eclipse 12979		02-032/20:24:51
1676	MGS	02-032/20:39:18		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-032/20:24:52
1677	MGS	02-032/21:02:50		NOTE: Begin fixed Sub-Reflector for Radio Science		02-032/20:48:24
1678	MGS	02-032/21:03:59		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-032/20:49:33
1679	MGS	02-032/21:03:59		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-032/20:49:33
1680	MGS	02-032/21:04:04		Set eclipse egress script address: 019A	SWSEES	02-032/20:49:38
1681	MGS	02-032/21:06:36		: 01:29:22	RPAONX	02-032/20:52:10
1682	MGS	02-032/21:06:36		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-032/20:52:10
1683	MGS	02-032/21:07:51		: 00:00:30, 00:07:19, FALSE	RDSCIE	02-032/20:53:25
1684	MGS	02-032/21:07:51		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-032/20:53:25
1685	MGS	02-032/21:07:51		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-032/20:53:25
1686	MGS	02-032/21:07:51		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-032/20:53:25
1687	MGS	02-032/21:07:51		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-032/20:53:25
1688	MGS	02-032/21:08:22		NOTE: Exit Earth Occultation 12979		02-032/20:53:56
1689	MGS	02-032/21:08:22	65	Acquisition Of X-Band Signal		
1690	MGS	02-032/21:08:22	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
1691	MGS	02-032/21:08:22	65	NOTE: Carrier Only -- No Telemetry Modulation		
1692	MGS	02-032/21:13:00		NOTE: Exit Planetary Atmosphere 12979		02-032/20:58:34
1693	MGS	02-032/21:15:00	15	Begin Tracking		
1694	MGS	02-032/21:15:00	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
1695	MGS	02-032/21:15:00	15	NOTE: Carrier Only -- No Telemetry Modulation		
1696	MGS	02-032/21:15:10		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-032/21:00:44
1697	MGS	02-032/21:15:10		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-032/21:00:44
1698	MGS	02-032/21:15:10		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-032/21:00:44
1699	MGS	02-032/21:15:10		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-032/21:00:44
1700	MGS	02-032/21:15:10	15	D/L Change: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
1701	MGS	02-032/21:15:10	65	D/L Change: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
1702	MGS	02-032/21:15:11		: RTM, MRC, 01:13:43, S&E_2A, FALSE, 00:07:04	AEMRT	02-032/21:00:45
1703	MGS	02-032/21:15:11		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-032/21:00:45
1704	MGS	02-032/21:15:11		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-032/21:00:45
1705	MGS	02-032/21:15:11		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=2, BITS=125160000, DUR=00:44:02		02-032/21:00:45
1706	MGS	02-032/21:15:11		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-032/21:00:45
1707	MGS	02-032/21:15:11	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
1708	MGS	02-032/21:15:11	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
1709	MGS	02-032/21:15:14		NOTE: End fixed Sub-Reflector for Radio Science		02-032/21:00:48
1710	MGS	02-032/21:19:44		NOTE: Exit Solar Eclipse 12979		02-032/21:05:18
1711	MGS	02-032/21:25:00	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
1712	MGS	02-032/21:26:17	65	NOTE: Below Uplink Interlock Limit		
1713	MGS	02-032/21:27:00	15	Range Modulation On: SUP=3.0dB		
1714	MGS	02-032/21:28:00	15	Begin Ranging Acquisition		
1715	MGS	02-032/21:34:18		NOTE: Periapsis 12980 ----------		02-032/21:19:52
1716	MGS	02-032/21:35:00	65	End Tracking		
1717	MGS	02-032/21:40:43		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-032/21:26:17
1718	MGS	02-032/21:40:43		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-032/21:26:17
1719	MGS	02-032/21:40:44		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-032/21:26:18
1720	MGS	02-032/21:40:44		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-032/21:26:18
1721	MGS	02-032/21:47:47	15	NOTE: Transmitter Off in 15 minutes		
1722	MGS	02-032/21:50:00	65	End Post-Cal		
1723	MGS	02-032/21:53:52	15	Acquire D/L: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
1724	MGS	02-032/22:00:48	15	Range Modulation Off		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
1725	MGS	02-032/22:02:44		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-032/21:48:18
1726	MGS	02-032/22:02:44		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-032/21:48:18
1727	MGS	02-032/22:02:47	15	Transmitter Off		
1728	MGS	02-032/22:23:54		NOTE: Begin fixed Sub-Reflector for Radio Science		02-032/22:09:27
1729	MGS	02-032/22:27:04		NOTE: Start EVP data return script		02-032/22:12:38
1730	MGS	02-032/22:27:45		NOTE: Start Block (SSRMGR)		02-032/22:13:19
1731	MGS	02-032/22:27:45		Sends a one-word SSR command to the XSU command SOB: SSR_1A, SE_1A, RECORD, PART3	STSSRC	02-032/22:13:19
1732	MGS	02-032/22:27:46		SSR 1A Data Enable	CSD1AE	02-032/22:13:20
1733	MGS	02-032/22:27:46		SSR Activity: ID=SSR_1A, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-032/22:13:20
1734	MGS	02-032/22:28:54		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-032/22:14:28
1735	MGS	02-032/22:28:54		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=3, BITS=544000, DUR=00:01:08		02-032/22:14:28
1736	MGS	02-032/22:28:54		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-032/22:14:28
1737	MGS	02-032/22:28:54		: 00:07:03, FALSE	RDSCII	02-032/22:14:28
1738	MGS	02-032/22:28:54		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-032/22:14:28
1739	MGS	02-032/22:28:54		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-032/22:14:28
1740	MGS	02-032/22:28:54		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-032/22:14:28
1741	MGS	02-032/22:28:54		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-032/22:14:28
1742	MGS	02-032/22:28:54	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
1743	MGS	02-032/22:28:54	15	NOTE: Carrier Only -- No Telemetry Modulation		
1744	MGS	02-032/22:31:03		NOTE: Enter Planetary Atmosphere 12980		02-032/22:16:37
1745	MGS	02-032/22:33:38		NOTE: Apoapsis 12980 -		02-032/22:19:12
1746	MGS	02-032/22:35:24		NOTE: Enter Earth Occultation 12980		02-032/22:20:58
1747	MGS	02-032/22:35:24	15	NOTE: Loss Of X-Band Signal		
1748	MGS	02-032/22:35:57		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-032/22:21:31
1749	MGS	02-032/22:35:57		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-032/22:21:31
1750	MGS	02-032/22:35:57		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-032/22:21:31
1751	MGS	02-032/22:35:57		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-032/22:21:31
1752	MGS	02-032/22:35:58		NOTE: End EVP script		02-032/22:21:31
1753	MGS	02-032/22:35:58		Turn off the MOT Exciter and RPA beam	STRPAF	02-032/22:21:32
1754	MGS	02-032/22:36:02		NOTE: End fixed Sub-Reflector for Radio Science		02-032/22:21:35
1755	MGS	02-032/22:37:04		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-032/22:22:38
1756	MGS	02-032/22:37:04		NOTE: Enter Solar Eclipse 12980		02-032/22:22:38
1757	MGS	02-032/22:41:02	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
1758	MGS	02-032/22:43:03	15	Range Modulation On: SUP=3.0dB		
1759	MGS	02-032/22:44:03	15	Begin Ranging Acquisition		
1760	MGS	02-032/22:54:26		SSR 1B Data Disable	CSD1BX	02-032/22:40:00
1761	MGS	02-032/22:54:26		SSR Activity: ID=SSR_1B, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-032/22:40:00
1762	MGS	02-032/22:54:27		NOTE: End Block (SSRMGR)		02-032/22:40:01
1763	MGS	02-032/23:00:37		NOTE: Begin fixed Sub-Reflector for Radio Science		02-032/22:46:10
1764	MGS	02-032/23:01:44		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-032/22:47:18
1765	MGS	02-032/23:01:44		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-032/22:47:18
1766	MGS	02-032/23:01:49		Set eclipse egress script address: 01DC	SWSEES	02-032/22:47:23
1767	MGS	02-032/23:04:22		: 01:29:22	RPAONX	02-032/22:49:56
1768	MGS	02-032/23:04:22		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-032/22:49:56
1769	MGS	02-032/23:05:37		: 00:00:30, 00:07:19, FALSE	RDSCIE	02-032/22:51:11
1770	MGS	02-032/23:05:37		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-032/22:51:11
1771	MGS	02-032/23:05:37		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-032/22:51:11
1772	MGS	02-032/23:05:37		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-032/22:51:11
1773	MGS	02-032/23:05:37		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-032/22:51:11
1774	MGS	02-032/23:06:07		Disables autonomous command to send eclipse ingress script	SWEISX	02-032/22:51:41
1775	MGS	02-032/23:06:10		NOTE: Exit Earth Occultation 12980		02-032/22:51:43
1776	MGS	02-032/23:06:10	15	Acquisition Of X-Band Signal		
1777	MGS	02-032/23:06:10	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
1778	MGS	02-032/23:06:10	15	NOTE: Carrier Only -- No Telemetry Modulation		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
1779	MGS	02-032/23:07:45		NOTE: Start Block (SSRMGR)		02-032/22:53:19
1780	MGS	02-032/23:07:45		Sends a one-word SSR command to the XSU command SOB: SSR_1B, SE_1A, RECORD, PART3	STSSRC	02-032/22:53:19
1781	MGS	02-032/23:07:46		SSR 1B Data Enable	CSD1BE	02-032/22:53:20
1782	MGS	02-032/23:07:46		SSR Activity: ID=SSR_1B, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-032/22:53:20
1783	MGS	02-032/23:10:47		NOTE: Exit Planetary Atmosphere 12980		02-032/22:56:21
1784	MGS	02-032/23:12:56		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-032/22:58:30
1785	MGS	02-032/23:12:56		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-032/22:58:30
1786	MGS	02-032/23:12:56		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-032/22:58:30
1787	MGS	02-032/23:12:56		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-032/22:58:30
1788	MGS	02-032/23:12:56	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
1789	MGS	02-032/23:12:57		: RTM, MRC, 01:13:43, S&E_2A, FALSE, 00:07:04	AEMRT	02-032/22:58:31
1790	MGS	02-032/23:12:57		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-032/22:58:31
1791	MGS	02-032/23:12:57		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-032/22:58:31
1792	MGS	02-032/23:12:57		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=3, BITS=2488000, DUR=00:05:11		02-032/22:58:31
1793	MGS	02-032/23:12:57		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-032/22:58:31
1794	MGS	02-032/23:12:57	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
1795	MGS	02-032/23:13:01		NOTE: End fixed Sub-Reflector for Radio Science		02-032/22:58:34
1796	MGS	02-032/23:17:31		NOTE: Exit Solar Eclipse 12980		02-032/23:03:05
1797	MGS	02-032/23:32:28		NOTE: Periapsis 12981 ----------		02-032/23:18:02
1798	MGS	02-032/23:34:26		SSR 1A Data Disable	CSD1AX	02-032/23:20:00
1799	MGS	02-032/23:34:26		SSR Activity: ID=SSR_1A, FCN=End Recording, PRT=3, BITS=32000000, DUR=01:06:40		02-032/23:20:00
1800	MGS	02-032/23:34:27		NOTE: End Block (SSRMGR)		02-032/23:20:01
1801	MGS	02-032/23:38:30		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-032/23:24:04
1802	MGS	02-032/23:38:30		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-032/23:24:04
1803	MGS	02-032/23:38:31		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-032/23:24:05
1804	MGS	02-032/23:38:31		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-032/23:24:05
1805	MGS	02-032/23:45:35	15	NOTE: Transmitter Off in 15 minutes		
1806	MGS	02-032/23:58:35	15	Range Modulation Off		
1807	MGS	02-033/00:00:00		Light Time: OWLT = 14:26, RTLT = 28:52		
1808	MGS	02-033/00:00:31		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-032/23:46:05
1809	MGS	02-033/00:00:31		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-032/23:46:05
1810	MGS	02-033/00:00:35	15	Transmitter Off		
1811	MGS	02-033/00:14:25		NOTE: Start Block (SSRMGR)		02-032/23:59:59
1812	MGS	02-033/00:14:25		Sends a one-word SSR command to the XSU command SOB: SSR_2A, SE_1A, RECORD, PART1	STSSRC	02-032/23:59:59
1813	MGS	02-033/00:14:26		SSR 2A Data Enable	CSD2AE	02-033/00:00:00
1814	MGS	02-033/00:14:26		SSR Activity: ID=SSR_2A, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-033/00:00:00
1815	MGS	02-033/00:21:40		NOTE: Begin fixed Sub-Reflector for Radio Science		02-033/00:07:13
1816	MGS	02-033/00:24:50		NOTE: Start Block (MAP_PB)		02-033/00:10:24
1817	MGS	02-033/00:24:51		: 00:27:21, 01:29:18, FALSE, TRUE, FALSE, 00:01:15, 00:07:18, 01:13:42, 00:07:02	AEMINI	02-033/00:10:25
1818	MGS	02-033/00:24:51		Enable sending eclipse ingress script when array power disappears	SWEISE	02-033/00:10:25
1819	MGS	02-033/00:24:51		NOTE: Start EVP data return script		02-033/00:10:25
1820	MGS	02-033/00:24:52		: SSR_1A, F42KHZ, PART1, SE_1A, 2002-033T00:56:19.000	AEMPBI	02-033/00:10:26
1821	MGS	02-033/00:26:40		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-033/00:12:14
1822	MGS	02-033/00:26:40		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=1, BITS=5872000, DUR=00:12:14		02-033/00:12:14
1823	MGS	02-033/00:26:40		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-033/00:12:14
1824	MGS	02-033/00:26:40		: 00:07:03, FALSE	RDSCII	02-033/00:12:14
1825	MGS	02-033/00:26:40		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-033/00:12:14
1826	MGS	02-033/00:26:40		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-033/00:12:14
1827	MGS	02-033/00:26:40		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-033/00:12:14
1828	MGS	02-033/00:26:40		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-033/00:12:14
1829	MGS	02-033/00:26:40	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
1830	MGS	02-033/00:26:40	15	NOTE: Carrier Only -- No Telemetry Modulation		
1831	MGS	02-033/00:28:51		NOTE: Enter Planetary Atmosphere 12981		02-033/00:14:24
1832	MGS	02-033/00:31:42		NOTE: Apoapsis 12981 -		02-033/00:17:16

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
1833	MGS	02-033/00:33:12		NOTE: Enter Earth Occultation 12981		02-033/00:18:46
1834	MGS	02-033/00:33:12	15	NOTE: Loss Of X-Band Signal		
1835	MGS	02-033/00:33:43		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-033/00:19:17
1836	MGS	02-033/00:33:43		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-033/00:19:17
1837	MGS	02-033/00:33:43		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-033/00:19:17
1838	MGS	02-033/00:33:43		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-033/00:19:17
1839	MGS	02-033/00:33:44		NOTE: End EVP script		02-033/00:19:17
1840	MGS	02-033/00:33:44		Turn off the MOT Exciter and RPA beam	STRPAF	02-033/00:19:18
1841	MGS	02-033/00:33:45		NOTE: End Block (MAP_RT)		02-033/00:19:18
1842	MGS	02-033/00:33:48		NOTE: End fixed Sub-Reflector for Radio Science		02-033/00:19:21
1843	MGS	02-033/00:34:51		NOTE: Enter Solar Eclipse 12981		02-033/00:20:25
1844	MGS	02-033/00:34:51		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-033/00:20:25
1845	MGS	02-033/00:38:50	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
1846	MGS	02-033/00:40:50	15	Range Modulation On: SUP=3.0dB		
1847	MGS	02-033/00:41:06		SSR 1B Data Disable	CSD1BX	02-033/00:26:40
1848	MGS	02-033/00:41:06		SSR Activity: ID=SSR_1B, FCN=End Recording, PRT=3, BITS=44800000, DUR=01:33:20		02-033/00:26:40
1849	MGS	02-033/00:41:07		NOTE: End Block (SSRMGR)		02-033/00:26:41
1850	MGS	02-033/00:41:50	15	Begin Ranging Acquisition		
1851	MGS	02-033/00:58:27		NOTE: Begin fixed Sub-Reflector for Radio Science		02-033/00:44:01
1852	MGS	02-033/00:59:31		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-033/00:45:05
1853	MGS	02-033/00:59:31		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-033/00:45:05
1854	MGS	02-033/00:59:35		Command the PSE with included data word: 3990	SWPSEL	02-033/00:45:09
1855	MGS	02-033/00:59:36		Set eclipse egress script address: 0158	SWSEES	02-033/00:45:10
1856	MGS	02-033/01:02:12		: 01:29:18	RPAONX	02-033/00:47:46
1857	MGS	02-033/01:02:12		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-033/00:47:46
1858	MGS	02-033/01:03:27		: 00:00:30, 00:07:18, FALSE	RDSCIE	02-033/00:49:01
1859	MGS	02-033/01:03:27		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-033/00:49:01
1860	MGS	02-033/01:03:27		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-033/00:49:01
1861	MGS	02-033/01:03:27		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-033/00:49:01
1862	MGS	02-033/01:03:27		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-033/00:49:01
1863	MGS	02-033/01:03:58		NOTE: Exit Earth Occultation 12981		02-033/00:49:31
1864	MGS	02-033/01:03:58	15	Acquisition Of X-Band Signal		
1865	MGS	02-033/01:03:58	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
1866	MGS	02-033/01:03:58	15	NOTE: Carrier Only -- No Telemetry Modulation		
1867	MGS	02-033/01:08:36		NOTE: Exit Planetary Atmosphere 12981		02-033/00:54:09
1868	MGS	02-033/01:10:45		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-033/00:56:19
1869	MGS	02-033/01:10:45		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-033/00:56:19
1870	MGS	02-033/01:10:45		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-033/00:56:19
1871	MGS	02-033/01:10:45		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-033/00:56:19
1872	MGS	02-033/01:10:45		: REC_1A, F42KHZ, PART1, SE_1A, FALSE, 00:12:06	AEMPB	02-033/00:56:19
1873	MGS	02-033/01:10:45		Sends a one-word MOT command to the XSU command SOB: SSR_1A	STMOTC	02-033/00:56:19
1874	MGS	02-033/01:10:45		Sends a one-word SSR command to the XSU command SOB: SSR_1A, F42KHZ, PLYBCK, PART1	STSSRC	02-033/00:56:19
1875	MGS	02-033/01:10:45	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
1876	MGS	02-033/01:10:46		SSR 1A Data Enable	CSD1AE	02-033/00:56:20
1877	MGS	02-033/01:10:46		SSR Activity: ID=SSR_1A, FCN=Start Playback, PRT=1, BR=42666		02-033/00:56:20
1878	MGS	02-033/01:10:46	15	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
1879	MGS	02-033/01:10:50		NOTE: End fixed Sub-Reflector for Radio Science		02-033/00:56:24
1880	MGS	02-033/01:15:18		NOTE: Exit Solar Eclipse 12981		02-033/01:00:52
1881	MGS	02-033/01:30:16		NOTE: Periapsis 12982 ----------		02-033/01:15:49
1882	MGS	02-033/01:40:17		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-033/01:25:51
1883	MGS	02-033/01:40:17		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-033/01:25:51
1884	MGS	02-033/01:40:18		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-033/01:25:52
1885	MGS	02-033/01:40:18		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-033/01:25:52
1886	MGS	02-033/01:43:20	15	NOTE: Transmitter Off in 15 minutes		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
1887	MGS	02-033/01:56:20	15	Range Modulation Off		
1888	MGS	02-033/01:58:20	15	Transmitter Off		
1889	MGS	02-033/02:02:18		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-033/01:47:52
1890	MGS	02-033/02:02:18		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-033/01:47:52
1891	MGS	02-033/02:19:24		SSR 1A Data Disable	CSD1AX	02-033/02:04:58
1892	MGS	02-033/02:19:24		SSR Activity: ID=SSR_1A, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-033/02:04:58
1893	MGS	02-033/02:19:24		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-033/02:04:58
1894	MGS	02-033/02:19:24	15	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
1895	MGS	02-033/02:19:27		NOTE: Begin fixed Sub-Reflector for Radio Science		02-033/02:05:01
1896	MGS	02-033/02:22:35		NOTE: Start EVP data return script		02-033/02:08:09
1897	MGS	02-033/02:22:35		: SSR_1B, F42KHZ, PART1, 2002-033T02:54:03.000	AEMPBU	02-033/02:08:09
1898	MGS	02-033/02:24:27		: 00:07:02, FALSE	RDSCII	02-033/02:10:01
1899	MGS	02-033/02:24:27		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-033/02:10:01
1900	MGS	02-033/02:24:27		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-033/02:10:01
1901	MGS	02-033/02:24:27		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-033/02:10:01
1902	MGS	02-033/02:24:27		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-033/02:10:01
1903	MGS	02-033/02:24:27	15	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
1904	MGS	02-033/02:24:27	15	NOTE: Carrier Only -- No Telemetry Modulation		
1905	MGS	02-033/02:26:36		NOTE: Enter Planetary Atmosphere 12982		02-033/02:12:10
1906	MGS	02-033/02:29:14		NOTE: Apoapsis 12982 -		02-033/02:14:47
1907	MGS	02-033/02:30:58		NOTE: Enter Earth Occultation 12982		02-033/02:16:31
1908	MGS	02-033/02:30:58	15	NOTE: Loss Of X-Band Signal		
1909	MGS	02-033/02:31:29		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-033/02:17:03
1910	MGS	02-033/02:31:29		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-033/02:17:03
1911	MGS	02-033/02:31:29		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-033/02:17:03
1912	MGS	02-033/02:31:29		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-033/02:17:03
1913	MGS	02-033/02:31:30		NOTE: End EVP script		02-033/02:17:04
1914	MGS	02-033/02:31:30		Turn off the MOT Exciter and RPA beam	STRPAF	02-033/02:17:04
1915	MGS	02-033/02:31:34		NOTE: End fixed Sub-Reflector for Radio Science		02-033/02:17:08
1916	MGS	02-033/02:32:35		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-033/02:18:09
1917	MGS	02-033/02:32:36		NOTE: Enter Solar Eclipse 12982		02-033/02:18:09
1918	MGS	02-033/02:36:35	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
1919	MGS	02-033/02:38:35	15	Range Modulation On: SUP=3.0dB		
1920	MGS	02-033/02:39:35	15	Begin Ranging Acquisition		
1921	MGS	02-033/02:56:11		NOTE: Begin fixed Sub-Reflector for Radio Science		02-033/02:41:45
1922	MGS	02-033/02:57:19		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-033/02:42:52
1923	MGS	02-033/02:57:19		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-033/02:42:52
1924	MGS	02-033/02:57:24		Set eclipse egress script address: 019A	SWSEES	02-033/02:42:57
1925	MGS	02-033/02:59:57		: 01:29:18	RPAONX	02-033/02:45:30
1926	MGS	02-033/02:59:57		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-033/02:45:30
1927	MGS	02-033/03:01:12		: 00:00:30, 00:07:18, FALSE	RDSCIE	02-033/02:46:45
1928	MGS	02-033/03:01:12		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-033/02:46:45
1929	MGS	02-033/03:01:12		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-033/02:46:45
1930	MGS	02-033/03:01:12		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-033/02:46:45
1931	MGS	02-033/03:01:12		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-033/02:46:45
1932	MGS	02-033/03:01:43		NOTE: Exit Earth Occultation 12982		02-033/02:47:16
1933	MGS	02-033/03:01:43	15	Acquisition Of X-Band Signal		
1934	MGS	02-033/03:01:43	15	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
1935	MGS	02-033/03:01:43	15	NOTE: Carrier Only -- No Telemetry Modulation		
1936	MGS	02-033/03:06:22		NOTE: Exit Planetary Atmosphere 12982		02-033/02:51:55
1937	MGS	02-033/03:08:30		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-033/02:54:03
1938	MGS	02-033/03:08:30		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-033/02:54:03
1939	MGS	02-033/03:08:30		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-033/02:54:03
1940	MGS	02-033/03:08:30		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-033/02:54:03

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
1941	MGS	02-033/03:08:30		: REC_1B, F42KHZ, PART1, SE_1A, FALSE, 00:12:06	AEMPB	02-033/02:54:03
1942	MGS	02-033/03:08:30		Sends a one-word MOT command to the XSU command SOB: SSR_1B	STMOTC	02-033/02:54:03
1943	MGS	02-033/03:08:30		Sends a one-word SSR command to the XSU command SOB: SSR_1B, F42KHZ, PLYBCK, PART1	STSSRC	02-033/02:54:03
1944	MGS	02-033/03:08:30	15	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
1945	MGS	02-033/03:08:31		SSR 1B Data Enable	CSD1BE	02-033/02:54:04
1946	MGS	02-033/03:08:31		SSR Activity: ID=SSR_1B, FCN=Start Playback, PRT=1, BR=42666		02-033/02:54:04
1947	MGS	02-033/03:08:31	15	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
1948	MGS	02-033/03:08:35		NOTE: End fixed Sub-Reflector for Radio Science		02-033/02:54:08
1949	MGS	02-033/03:13:03		NOTE: Exit Solar Eclipse 12982		02-033/02:58:36
1950	MGS	02-033/03:27:39		NOTE: Periapsis 12983 ----------		02-033/03:13:12
1951	MGS	02-033/03:34:02		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-033/03:19:35
1952	MGS	02-033/03:34:02		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-033/03:19:35
1953	MGS	02-033/03:34:03		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-033/03:19:36
1954	MGS	02-033/03:34:03		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-033/03:19:36
1955	MGS	02-033/03:40:59	15	NOTE: Transmitter Off in 15 minutes		
1956	MGS	02-033/03:45:00	34	Begin Pre-Cal		
1957	MGS	02-033/03:45:00	34	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
1958	MGS	02-033/03:45:00	34	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
1959	MGS	02-033/03:45:00	34	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
1960	MGS	02-033/03:45:00	34	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=OFF, EXC=2		
1961	MGS	02-033/03:45:00	34	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
1962	MGS	02-033/03:45:00	34	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
1963	MGS	02-033/03:45:00	34	Config: TGC: DEST=37		
1964	MGS	02-033/03:45:00	34	Config: TGC: BAND=X, BR=8000.000000		
1965	MGS	02-033/03:45:00	34	Config: FSS: CH=2, PRI_FL=10000		
1966	MGS	02-033/03:45:00	34	Config: RSR		
1967	MGS	02-033/03:45:00	34	Config: TXL		
1968	MGS	02-033/03:45:00	34	Config: UWV: AMP=XHEMT, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
1969	MGS	02-033/03:45:00	34	Config: BVR		
1970	MGS	02-033/03:45:00	34	Config: Doppler Extractor: BIAS=+1MHZ		
1971	MGS	02-033/03:45:00	34	Config: MDA: SMPL=0.1		
1972	MGS	02-033/03:45:00	34	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
1973	MGS	02-033/03:45:00	34	Config: SRA: HIGH=4, LOW=14, SERV=D		
1974	MGS	02-033/03:45:00	34	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
1975	MGS	02-033/03:54:00	15	Range Modulation Off		
1976	MGS	02-033/03:55:59	15	Transmitter Off		
1977	MGS	02-033/03:56:03		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-033/03:41:36
1978	MGS	02-033/03:56:03		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-033/03:41:36
1979	MGS	02-033/04:17:09		SSR 1B Data Disable	CSD1BX	02-033/04:02:42
1980	MGS	02-033/04:17:09		SSR Activity: ID=SSR_1B, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-033/04:02:42
1981	MGS	02-033/04:17:09		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-033/04:02:42
1982	MGS	02-033/04:17:09	15	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
1983	MGS	02-033/04:17:12		NOTE: Begin fixed Sub-Reflector for Radio Science		02-033/04:02:45
1984	MGS	02-033/04:20:17		NOTE: Start EVP data return script		02-033/04:05:50
1985	MGS	02-033/04:20:17		: SSR_1A, F42KHZ, PART2, 2002-033T04:51:44.000	AEMPBU	02-033/04:05:50
1986	MGS	02-033/04:22:12		: 00:07:02, FALSE	RDSCII	02-033/04:07:45
1987	MGS	02-033/04:22:12		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-033/04:07:45
1988	MGS	02-033/04:22:12		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-033/04:07:45
1989	MGS	02-033/04:22:12		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-033/04:07:45
1990	MGS	02-033/04:22:12		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-033/04:07:45
1991	MGS	02-033/04:22:12	15	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
1992	MGS	02-033/04:22:12	15	NOTE: Carrier Only -- No Telemetry Modulation		
1993	MGS	02-033/04:24:17		NOTE: Enter Planetary Atmosphere 12983		02-033/04:09:50
1994	MGS	02-033/04:26:37		NOTE: Apoapsis 12983 -		02-033/04:12:09

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
1995	MGS	02-033/04:28:39		NOTE: Enter Earth Occultation 12983		02-033/04:14:11
1996	MGS	02-033/04:28:39	15	NOTE: Loss Of X-Band Signal		
1997	MGS	02-033/04:29:14		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-033/04:14:47
1998	MGS	02-033/04:29:14		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-033/04:14:47
1999	MGS	02-033/04:29:14		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-033/04:14:47
2000	MGS	02-033/04:29:14		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-033/04:14:47
2001	MGS	02-033/04:29:15		NOTE: End EVP script		02-033/04:14:48
2002	MGS	02-033/04:29:15		Turn off the MOT Exciter and RPA beam	STRPAF	02-033/04:14:48
2003	MGS	02-033/04:29:19		NOTE: End fixed Sub-Reflector for Radio Science		02-033/04:14:52
2004	MGS	02-033/04:30:00	15	NOTE: Transmitter Off in 15 minutes		
2005	MGS	02-033/04:30:16		NOTE: Enter Solar Eclipse 12983		02-033/04:15:49
2006	MGS	02-033/04:30:17		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-033/04:15:50
2007	MGS	02-033/04:34:15	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
2008	MGS	02-033/04:36:16	15	Range Modulation On: SUP=3.0dB		
2009	MGS	02-033/04:37:16	15	Begin Ranging Acquisition		
2010	MGS	02-033/04:43:00	15	Range Modulation Off		
2011	MGS	02-033/04:45:00	34	Begin Tracking		
2012	MGS	02-033/04:45:00	15	Transmitter Off		
2013	MGS	02-033/04:53:53		NOTE: Begin fixed Sub-Reflector for Radio Science		02-033/04:39:26
2014	MGS	02-033/04:55:00	34	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
2015	MGS	02-033/04:55:03		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-033/04:40:36
2016	MGS	02-033/04:55:03		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-033/04:40:36
2017	MGS	02-033/04:55:08		Set eclipse egress script address: 01DC	SWSEES	02-033/04:40:41
2018	MGS	02-033/04:57:00	34	Range Modulation On: SUP=3.0dB		
2019	MGS	02-033/04:57:33	15	NOTE: Below Uplink Interlock Limit		
2020	MGS	02-033/04:57:38		: 01:29:18	RPAONX	02-033/04:43:11
2021	MGS	02-033/04:57:38		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-033/04:43:11
2022	MGS	02-033/04:58:00	34	Begin Ranging Acquisition		
2023	MGS	02-033/04:58:53		: 00:00:30, 00:07:18, FALSE	RDSCIE	02-033/04:44:26
2024	MGS	02-033/04:58:53		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-033/04:44:26
2025	MGS	02-033/04:58:53		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-033/04:44:26
2026	MGS	02-033/04:58:53		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-033/04:44:26
2027	MGS	02-033/04:58:53		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-033/04:44:26
2028	MGS	02-033/04:59:24		NOTE: Exit Earth Occultation 12983		02-033/04:44:57
2029	MGS	02-033/04:59:24	15	Acquisition Of X-Band Signal		
2030	MGS	02-033/04:59:24	15	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
2031	MGS	02-033/04:59:24	15	NOTE: Carrier Only -- No Telemetry Modulation		
2032	MGS	02-033/04:59:24	34	Acquisition Of X-Band Signal		
2033	MGS	02-033/04:59:24	34	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
2034	MGS	02-033/04:59:24	34	NOTE: Carrier Only -- No Telemetry Modulation		
2035	MGS	02-033/05:04:03		NOTE: Exit Planetary Atmosphere 12983		02-033/04:49:35
2036	MGS	02-033/05:05:00	15	End Tracking		
2037	MGS	02-033/05:06:11		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-033/04:51:44
2038	MGS	02-033/05:06:11		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-033/04:51:44
2039	MGS	02-033/05:06:11		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-033/04:51:44
2040	MGS	02-033/05:06:11		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-033/04:51:44
2041	MGS	02-033/05:06:11		: REC_1A, F42KHZ, PART2, SE_1A, FALSE, 00:12:06	AEMPB	02-033/04:51:44
2042	MGS	02-033/05:06:11		Sends a one-word MOT command to the XSU command SOB: SSR_1A	STMOTC	02-033/04:51:44
2043	MGS	02-033/05:06:11		Sends a one-word SSR command to the XSU command SOB: SSR_1A, F42KHZ, PLYBCK, PART2	STSSRC	02-033/04:51:44
2044	MGS	02-033/05:06:11	34	Acquire D/L: X/16, 3-Way/15, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
2045	MGS	02-033/05:06:12		SSR 1A Data Enable	CSD1AE	02-033/04:51:45
2046	MGS	02-033/05:06:12		SSR Activity: ID=SSR_1A, FCN=Start Playback, PRT=2, BR=42666		02-033/04:51:45
2047	MGS	02-033/05:06:12	34	D/L Change: X/16, 3-Way/15, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
2048	MGS	02-033/05:06:16		NOTE: End fixed Sub-Reflector for Radio Science		02-033/04:51:49

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
2049	MGS	02-033/05:10:43		NOTE: Exit Solar Eclipse 12983		02-033/04:56:16
2050	MGS	02-033/05:13:54	34	Acquire D/L: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
2051	MGS	02-033/05:20:00	15	End Post-Cal		
2052	MGS	02-033/05:23:54	34	Acquire D/L: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
2053	MGS	02-033/05:25:00	45	Begin Pre-Cal		
2054	MGS	02-033/05:25:00	45	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
2055	MGS	02-033/05:25:00	45	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=ON, RCVR2=ON, TWNC=ON		
2056	MGS	02-033/05:25:00	45	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
2057	MGS	02-033/05:25:00	45	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
2058	MGS	02-033/05:25:00	45	At BOT: S/C Tlm Mode: BR=8000.0, FL=10000, SC=OFF, MI=0.0		
2059	MGS	02-033/05:25:00	45	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
2060	MGS	02-033/05:25:00	45	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
2061	MGS	02-033/05:25:00	45	Config: TGC: DEST=37		
2062	MGS	02-033/05:25:00	45	Config: TGC: BAND=X, BR=8000.000000		
2063	MGS	02-033/05:25:00	45	Config: FSS: CH=2, PRI_FL=10000		
2064	MGS	02-033/05:25:00	45	Config: RSR		
2065	MGS	02-033/05:25:00	45	Config: TXL		
2066	MGS	02-033/05:25:00	45	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
2067	MGS	02-033/05:25:00	45	Config: BVR		
2068	MGS	02-033/05:25:00	45	Config: Doppler Extractor: BIAS=+1MHZ		
2069	MGS	02-033/05:25:00	45	Config: MDA: SMPL=0.1		
2070	MGS	02-033/05:25:00	45	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
2071	MGS	02-033/05:25:00	45	Config: SRA: HIGH=4, LOW=14, SERV=D		
2072	MGS	02-033/05:25:00	45	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
2073	MGS	02-033/05:25:05		NOTE: Periapsis 12984 ----------		02-033/05:10:38
2074	MGS	02-033/05:31:42		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-033/05:17:15
2075	MGS	02-033/05:31:42		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-033/05:17:15
2076	MGS	02-033/05:31:43		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-033/05:17:16
2077	MGS	02-033/05:31:43		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-033/05:17:16
2078	MGS	02-033/05:38:39	34	NOTE: Transmitter Off in 15 minutes		
2079	MGS	02-033/05:47:46		NOTE: Start Block (SSRMGR)		02-033/05:33:19
2080	MGS	02-033/05:47:46		Sends a one-word SSR command to the XSU command SOB: SSR_2B, SE_1A, RECORD, PART1	STSSRC	02-033/05:33:19
2081	MGS	02-033/05:47:47		SSR 2B Data Enable	CSD2BE	02-033/05:33:20
2082	MGS	02-033/05:47:47		SSR Activity: ID=SSR_2B, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-033/05:33:20
2083	MGS	02-033/05:51:40	34	Range Modulation Off		
2084	MGS	02-033/05:53:39	34	Transmitter Off		
2085	MGS	02-033/05:53:43		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-033/05:39:16
2086	MGS	02-033/05:53:43		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-033/05:39:16
2087	MGS	02-033/06:14:27		SSR 2A Data Disable	CSD2AX	02-033/06:00:00
2088	MGS	02-033/06:14:27		SSR Activity: ID=SSR_2A, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-033/06:00:00
2089	MGS	02-033/06:14:28		NOTE: End Block (SSRMGR)		02-033/06:00:01
2090	MGS	02-033/06:14:50		SSR 1A Data Disable	CSD1AX	02-033/06:00:23
2091	MGS	02-033/06:14:50		SSR Activity: ID=SSR_1A, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-033/06:00:23
2092	MGS	02-033/06:14:50		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-033/06:00:23
2093	MGS	02-033/06:14:50	34	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
2094	MGS	02-033/06:14:53		NOTE: Begin fixed Sub-Reflector for Radio Science		02-033/06:00:26
2095	MGS	02-033/06:17:58		NOTE: Start EVP data return script		02-033/06:03:31
2096	MGS	02-033/06:17:58		: SSR_1B, F42KHZ, PART2, 2002-033T06:49:25.000	AEMPBU	02-033/06:03:31
2097	MGS	02-033/06:19:53		: 00:07:02, FALSE	RDSCII	02-033/06:05:26
2098	MGS	02-033/06:19:53		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-033/06:05:26
2099	MGS	02-033/06:19:53		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-033/06:05:26
2100	MGS	02-033/06:19:53		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-033/06:05:26
2101	MGS	02-033/06:19:53		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-033/06:05:26
2102	MGS	02-033/06:19:53	34	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
2103	MGS	02-033/06:19:53	34	NOTE: Carrier Only -- No Telemetry Modulation		
2104	MGS	02-033/06:21:58		NOTE: Enter Planetary Atmosphere 12984		02-033/06:07:30
2105	MGS	02-033/06:24:21		NOTE: Apoapsis 12984 -		02-033/06:09:54
2106	MGS	02-033/06:25:00	45	Begin Tracking		
2107	MGS	02-033/06:25:00	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
2108	MGS	02-033/06:25:00	45	NOTE: Carrier Only -- No Telemetry Modulation		
2109	MGS	02-033/06:26:19		NOTE: Enter Earth Occultation 12984		02-033/06:11:52
2110	MGS	02-033/06:26:19	34	NOTE: Loss Of X-Band Signal		
2111	MGS	02-033/06:26:19	45	NOTE: Loss Of X-Band Signal		
2112	MGS	02-033/06:26:55		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-033/06:12:28
2113	MGS	02-033/06:26:55		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-033/06:12:28
2114	MGS	02-033/06:26:55		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-033/06:12:28
2115	MGS	02-033/06:26:55		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-033/06:12:28
2116	MGS	02-033/06:26:56		NOTE: End EVP script		02-033/06:12:29
2117	MGS	02-033/06:26:56		Turn off the MOT Exciter and RPA beam	STRPAF	02-033/06:12:29
2118	MGS	02-033/06:27:00		NOTE: End fixed Sub-Reflector for Radio Science		02-033/06:12:33
2119	MGS	02-033/06:27:58		NOTE: Enter Solar Eclipse 12984		02-033/06:13:31
2120	MGS	02-033/06:27:58		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-033/06:13:31
2121	MGS	02-033/06:31:56	34	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
2122	MGS	02-033/06:33:00	34	Range Modulation Off		
2123	MGS	02-033/06:33:57	34	Range Modulation On: SUP=3.0dB		
2124	MGS	02-033/06:34:57	34	Begin Ranging Acquisition		
2125	MGS	02-033/06:35:00	45	U/L Transfer From DSS-34 to DSS-45: PWR=20.0, BR=125.0, CS=5.82dB		
2126	MGS	02-033/06:37:00	45	Range Modulation On: SUP=3.0dB		
2127	MGS	02-033/06:38:00	45	Begin Ranging Acquisition		
2128	MGS	02-033/06:45:00	34	End Tracking		
2129	MGS	02-033/06:51:34		NOTE: Begin fixed Sub-Reflector for Radio Science		02-033/06:37:07
2130	MGS	02-033/06:52:43		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-033/06:38:16
2131	MGS	02-033/06:52:43		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-033/06:38:16
2132	MGS	02-033/06:52:47		Command the PSE with included data word: 3990	SWPSEL	02-033/06:38:20
2133	MGS	02-033/06:52:48		Set eclipse egress script address: 0158	SWSEES	02-033/06:38:21
2134	MGS	02-033/06:55:19		: 01:29:18	RPAONX	02-033/06:40:52
2135	MGS	02-033/06:55:19		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-033/06:40:52
2136	MGS	02-033/06:56:34		: 00:00:30, 00:07:18, FALSE	RDSCIE	02-033/06:42:07
2137	MGS	02-033/06:56:34		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-033/06:42:07
2138	MGS	02-033/06:56:34		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-033/06:42:07
2139	MGS	02-033/06:56:34		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-033/06:42:07
2140	MGS	02-033/06:56:34		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-033/06:42:07
2141	MGS	02-033/06:57:04		Disables autonomous command to send eclipse ingress script	SWEISX	02-033/06:42:37
2142	MGS	02-033/06:57:06		NOTE: Exit Earth Occultation 12984		02-033/06:42:39
2143	MGS	02-033/06:57:06	45	Acquisition Of X-Band Signal		
2144	MGS	02-033/06:57:06	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
2145	MGS	02-033/06:57:06	45	NOTE: Carrier Only -- No Telemetry Modulation		
2146	MGS	02-033/07:00:00	34	End Post-Cal		
2147	MGS	02-033/07:01:44		NOTE: Exit Planetary Atmosphere 12984		02-033/06:47:16
2148	MGS	02-033/07:03:52		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-033/06:49:25
2149	MGS	02-033/07:03:52		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-033/06:49:25
2150	MGS	02-033/07:03:52		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-033/06:49:25
2151	MGS	02-033/07:03:52		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-033/06:49:25
2152	MGS	02-033/07:03:52		: REC_1B, F42KHZ, PART2, SE_1A, FALSE, 00:12:06	AEMPB	02-033/06:49:25
2153	MGS	02-033/07:03:52		Sends a one-word MOT command to the XSU command SOB: SSR_1B	STMOTC	02-033/06:49:25
2154	MGS	02-033/07:03:52		Sends a one-word SSR command to the XSU command SOB: SSR_1B, F42KHZ, PLYBCK, PART2	STSSRC	02-033/06:49:25
2155	MGS	02-033/07:03:52	45	Acquire D/L: X/16, 3-Way/34, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
2156	MGS	02-033/07:03:53		SSR 1B Data Enable	CSD1BE	02-033/06:49:26

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
2157	MGS	02-033/07:03:53		SSR Activity: ID=SSR_1B, FCN=Start Playback, PRT=2, BR=42666		02-033/06:49:26
2158	MGS	02-033/07:03:53	45	D/L Change: X/16, 3-Way/34, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
2159	MGS	02-033/07:03:54	45	Acquire D/L: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
2160	MGS	02-033/07:03:57		NOTE: End fixed Sub-Reflector for Radio Science		02-033/06:49:30
2161	MGS	02-033/07:08:25		NOTE: Exit Solar Eclipse 12984		02-033/06:53:57
2162	MGS	02-033/07:22:48		NOTE: Periapsis 12985 ----------		02-033/07:08:21
2163	MGS	02-033/07:33:23		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-033/07:18:56
2164	MGS	02-033/07:33:23		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-033/07:18:56
2165	MGS	02-033/07:33:24		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-033/07:18:57
2166	MGS	02-033/07:33:24		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-033/07:18:57
2167	MGS	02-033/07:36:25	45	NOTE: Transmitter Off in 15 minutes		
2168	MGS	02-033/07:49:25	45	Range Modulation Off		
2169	MGS	02-033/07:51:25	45	Transmitter Off		
2170	MGS	02-033/07:55:24		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-033/07:40:57
2171	MGS	02-033/07:55:24		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-033/07:40:57
2172	MGS	02-033/08:12:31		SSR 1B Data Disable	CSD1BX	02-033/07:58:04
2173	MGS	02-033/08:12:31		SSR Activity: ID=SSR_1B, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-033/07:58:04
2174	MGS	02-033/08:12:31		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-033/07:58:04
2175	MGS	02-033/08:12:31	45	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
2176	MGS	02-033/08:12:34		NOTE: Begin fixed Sub-Reflector for Radio Science		02-033/07:58:07
2177	MGS	02-033/08:15:43		NOTE: Start Block (MAP_RT)		02-033/08:01:16
2178	MGS	02-033/08:15:44		: 00:27:21, 01:29:17, FALSE, TRUE, FALSE, 00:01:15, 00:07:18, 01:13:41, 00:07:02	AEMINI	02-033/08:01:17
2179	MGS	02-033/08:15:44		Enable sending eclipse ingress script when array power disappears	SWEISE	02-033/08:01:17
2180	MGS	02-033/08:15:44		NOTE: Start EVP data return script		02-033/08:01:17
2181	MGS	02-033/08:15:45		: SE_2A, RTM, 01:13:40, MRC, 2002-033T08:47:12.000	AEMRTI	02-033/08:01:18
2182	MGS	02-033/08:17:34		: 00:07:02, FALSE	RDSCII	02-033/08:03:07
2183	MGS	02-033/08:17:34		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-033/08:03:07
2184	MGS	02-033/08:17:34		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-033/08:03:07
2185	MGS	02-033/08:17:34		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-033/08:03:07
2186	MGS	02-033/08:17:34		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-033/08:03:07
2187	MGS	02-033/08:17:34	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
2188	MGS	02-033/08:17:34	45	NOTE: Carrier Only -- No Telemetry Modulation		
2189	MGS	02-033/08:19:44		NOTE: Enter Planetary Atmosphere 12985		02-033/08:05:17
2190	MGS	02-033/08:22:10		NOTE: Apoapsis 12985 -		02-033/08:07:42
2191	MGS	02-033/08:24:05		NOTE: Enter Earth Occultation 12985		02-033/08:09:37
2192	MGS	02-033/08:24:05	45	NOTE: Loss Of X-Band Signal		
2193	MGS	02-033/08:24:36		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-033/08:10:09
2194	MGS	02-033/08:24:36		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-033/08:10:09
2195	MGS	02-033/08:24:36		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-033/08:10:09
2196	MGS	02-033/08:24:36		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-033/08:10:09
2197	MGS	02-033/08:24:37		NOTE: End EVP script		02-033/08:10:10
2198	MGS	02-033/08:24:37		Turn off the MOT Exciter and RPA beam	STRPAF	02-033/08:10:10
2199	MGS	02-033/08:24:38		NOTE: End Block (MAP_PB)		02-033/08:10:11
2200	MGS	02-033/08:24:41		NOTE: End fixed Sub-Reflector for Radio Science		02-033/08:10:14
2201	MGS	02-033/08:25:44		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-033/08:11:17
2202	MGS	02-033/08:25:44		NOTE: Enter Solar Eclipse 12985		02-033/08:11:17
2203	MGS	02-033/08:29:42	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
2204	MGS	02-033/08:31:42	45	Range Modulation On: SUP=3.0dB		
2205	MGS	02-033/08:32:42	45	Begin Ranging Acquisition		
2206	MGS	02-033/08:49:21		NOTE: Begin fixed Sub-Reflector for Radio Science		02-033/08:34:53
2207	MGS	02-033/08:50:24		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-033/08:35:57
2208	MGS	02-033/08:50:24		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-033/08:35:57
2209	MGS	02-033/08:50:29		Set eclipse egress script address: 019A	SWSEES	02-033/08:36:02
2210	MGS	02-033/08:53:05		: 01:29:17	RPAONX	02-033/08:38:38

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
2211	MGS	02-033/08:53:05		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-033/08:38:38
2212	MGS	02-033/08:54:20		: 00:00:30, 00:07:18, FALSE	RDSCIE	02-033/08:39:53
2213	MGS	02-033/08:54:20		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-033/08:39:53
2214	MGS	02-033/08:54:20		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-033/08:39:53
2215	MGS	02-033/08:54:20		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-033/08:39:53
2216	MGS	02-033/08:54:20		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-033/08:39:53
2217	MGS	02-033/08:54:52		NOTE: Exit Earth Occultation 12985		02-033/08:40:25
2218	MGS	02-033/08:54:52	45	Acquisition Of X-Band Signal		
2219	MGS	02-033/08:54:52	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
2220	MGS	02-033/08:54:52	45	NOTE: Carrier Only -- No Telemetry Modulation		
2221	MGS	02-033/08:55:00	65	Begin Pre-Cal		
2222	MGS	02-033/08:55:00	65	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
2223	MGS	02-033/08:55:00	65	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
2224	MGS	02-033/08:55:00	65	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
2225	MGS	02-033/08:55:00	65	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=OFF, EXC=2		
2226	MGS	02-033/08:55:00	65	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
2227	MGS	02-033/08:55:00	65	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
2228	MGS	02-033/08:55:00	65	Config: TGC: DEST=37		
2229	MGS	02-033/08:55:00	65	Config: TGC: BAND=X, BR=0.000000		
2230	MGS	02-033/08:55:00	65	Config: FSS: CH=2, PRI_FL=10000		
2231	MGS	02-033/08:55:00	65	Config: RSR		
2232	MGS	02-033/08:55:00	65	Config: TXL		
2233	MGS	02-033/08:55:00	65	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
2234	MGS	02-033/08:55:00	65	Config: BVR		
2235	MGS	02-033/08:55:00	65	Config: Doppler Extractor: BIAS=+1MHZ		
2236	MGS	02-033/08:55:00	65	Config: MDA: SMPL=0.1		
2237	MGS	02-033/08:59:30		NOTE: Exit Planetary Atmosphere 12985		02-033/08:45:02
2238	MGS	02-033/09:01:38		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-033/08:47:11
2239	MGS	02-033/09:01:38		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-033/08:47:11
2240	MGS	02-033/09:01:38		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-033/08:47:11
2241	MGS	02-033/09:01:38		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-033/08:47:11
2242	MGS	02-033/09:01:38	45	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
2243	MGS	02-033/09:01:39		: RTM, MRC, 01:13:40, S&E_2A, FALSE, 00:07:03	AEMRT	02-033/08:47:12
2244	MGS	02-033/09:01:39		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-033/08:47:12
2245	MGS	02-033/09:01:39		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-033/08:47:12
2246	MGS	02-033/09:01:39	45	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
2247	MGS	02-033/09:01:44		NOTE: End fixed Sub-Reflector for Radio Science		02-033/08:47:16
2248	MGS	02-033/09:06:11		NOTE: Exit Solar Eclipse 12985		02-033/08:51:43
2249	MGS	02-033/09:07:33		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-033/08:53:06
2250	MGS	02-033/09:07:33	45	D/L Change: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
2251	MGS	02-033/09:07:35		NOTE: Start Block (SSRMGR)		02-033/08:53:08
2252	MGS	02-033/09:07:35		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-033/08:53:08
2253	MGS	02-033/09:07:35		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-033/08:53:08
2254	MGS	02-033/09:07:36		Sends a one-word MOT command to the XSU command SOB: SSR_1A	STMOTC	02-033/08:53:09
2255	MGS	02-033/09:07:37		Sends a one-word SSR command to the XSU command SOB: SSR_1A, F42KHZ, PLYBCK, PART3	STSSRC	02-033/08:53:10
2256	MGS	02-033/09:07:38		SSR 1A Data Enable	CSD1AE	02-033/08:53:11
2257	MGS	02-033/09:07:38		SSR Activity: ID=SSR_1A, FCN=Start Playback, PRT=3, BR=42666		02-033/08:53:11
2258	MGS	02-033/09:07:38	45	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
2259	MGS	02-033/09:20:06		NOTE: Start Block (SSRMGR)		02-033/09:05:38
2260	MGS	02-033/09:20:06		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-033/09:05:38
2261	MGS	02-033/09:20:06		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-033/09:05:38
2262	MGS	02-033/09:20:07		Sends a one-word MOT command to the XSU command SOB: SSR_1B	STMOTC	02-033/09:05:39
2263	MGS	02-033/09:20:08		Sends a one-word SSR command to the XSU command SOB: SSR_1B, F42KHZ, PLYBCK, PART3	STSSRC	02-033/09:05:40
2264	MGS	02-033/09:20:09		SSR 1A Data Disable	CSD1AX	02-033/09:05:41

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
2265	MGS	02-033/09:20:09		SSR Activity: ID=SSR_1A, FCN=End Playback, PRT=3, BITS=32000000, DUR=00:12:30		02-033/09:05:41
2266	MGS	02-033/09:20:09		SSR 1B Data Enable	CSD1BE	02-033/09:05:41
2267	MGS	02-033/09:20:09		SSR Activity: ID=SSR_1B, FCN=Start Playback, PRT=3, BR=42666		02-033/09:05:41
2268	MGS	02-033/09:20:09	45	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
2269	MGS	02-033/09:20:10		NOTE: End Block (SSRMGR)		02-033/09:05:42
2270	MGS	02-033/09:20:41		NOTE: Periapsis 12986 ----------		02-033/09:06:13
2271	MGS	02-033/09:27:11		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-033/09:12:43
2272	MGS	02-033/09:27:11		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-033/09:12:43
2273	MGS	02-033/09:27:12		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-033/09:12:44
2274	MGS	02-033/09:27:12		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-033/09:12:44
2275	MGS	02-033/09:34:11	45	NOTE: Transmitter Off in 15 minutes		
2276	MGS	02-033/09:37:39		SSR 1B Data Disable	CSD1BX	02-033/09:23:11
2277	MGS	02-033/09:37:39		SSR Activity: ID=SSR_1B, FCN=End Playback, PRT=3, BITS=44800000, DUR=00:17:30		02-033/09:23:11
2278	MGS	02-033/09:37:40		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-033/09:23:12
2279	MGS	02-033/09:37:40		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-033/09:23:12
2280	MGS	02-033/09:37:40		NOTE: End Block (SSRMGR)		02-033/09:23:12
2281	MGS	02-033/09:37:40	45	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
2282	MGS	02-033/09:47:12	45	Range Modulation Off		
2283	MGS	02-033/09:49:11	45	Transmitter Off		
2284	MGS	02-033/09:49:12		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-033/09:34:44
2285	MGS	02-033/09:49:12		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-033/09:34:44
2286	MGS	02-033/10:10:20		NOTE: Begin fixed Sub-Reflector for Radio Science		02-033/09:55:52
2287	MGS	02-033/10:13:32		NOTE: Start EVP data return script		02-033/09:59:04
2288	MGS	02-033/10:15:20		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-033/10:00:52
2289	MGS	02-033/10:15:20		: 00:07:02, FALSE	RDSCII	02-033/10:00:52
2290	MGS	02-033/10:15:20		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-033/10:00:52
2291	MGS	02-033/10:15:20		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-033/10:00:52
2292	MGS	02-033/10:15:20		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-033/10:00:52
2293	MGS	02-033/10:15:20		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-033/10:00:52
2294	MGS	02-033/10:15:20	45	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
2295	MGS	02-033/10:15:20	45	NOTE: Carrier Only -- No Telemetry Modulation		
2296	MGS	02-033/10:17:32		NOTE: Enter Planetary Atmosphere 12986		02-033/10:03:04
2297	MGS	02-033/10:19:50		NOTE: Apoapsis 12986 -		02-033/10:05:22
2298	MGS	02-033/10:21:52		NOTE: Enter Earth Occultation 12986		02-033/10:07:24
2299	MGS	02-033/10:21:52	45	NOTE: Loss Of X-Band Signal		
2300	MGS	02-033/10:22:22		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-033/10:07:54
2301	MGS	02-033/10:22:22		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-033/10:07:54
2302	MGS	02-033/10:22:22		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-033/10:07:54
2303	MGS	02-033/10:22:22		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-033/10:07:54
2304	MGS	02-033/10:22:23		Turn off the MOT Exciter and RPA beam	STRPAF	02-033/10:07:55
2305	MGS	02-033/10:22:23		NOTE: End EVP script		02-033/10:07:55
2306	MGS	02-033/10:22:27		NOTE: End fixed Sub-Reflector for Radio Science		02-033/10:07:59
2307	MGS	02-033/10:23:32		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-033/10:09:04
2308	MGS	02-033/10:23:32		NOTE: Enter Solar Eclipse 12986		02-033/10:09:04
2309	MGS	02-033/10:40:00	65	Begin Tracking		
2310	MGS	02-033/10:46:03	65	NOTE: Above Uplink Interlock Limit		
2311	MGS	02-033/10:47:08		NOTE: Begin fixed Sub-Reflector for Radio Science		02-033/10:32:40
2312	MGS	02-033/10:48:12		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-033/10:33:44
2313	MGS	02-033/10:48:12		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-033/10:33:44
2314	MGS	02-033/10:48:17		Set eclipse egress script address: 01DC	SWSEES	02-033/10:33:49
2315	MGS	02-033/10:49:47	45	NOTE: Below Uplink Interlock Limit		
2316	MGS	02-033/10:50:53		: 01:29:17	RPAONX	02-033/10:36:25
2317	MGS	02-033/10:50:53		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-033/10:36:25
2318	MGS	02-033/10:52:08		: 00:00:30, 00:07:18, FALSE	RDSCIE	02-033/10:37:40

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
2319	MGS	02-033/10:52:08		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-033/10:37:40
2320	MGS	02-033/10:52:08		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-033/10:37:40
2321	MGS	02-033/10:52:08		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-033/10:37:40
2322	MGS	02-033/10:52:08		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-033/10:37:40
2323	MGS	02-033/10:52:40		NOTE: Exit Earth Occultation 12986		02-033/10:38:12
2324	MGS	02-033/10:52:40	45	Acquisition Of X-Band Signal		
2325	MGS	02-033/10:52:40	45	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
2326	MGS	02-033/10:52:40	45	NOTE: Carrier Only -- No Telemetry Modulation		
2327	MGS	02-033/10:52:40	65	Acquisition Of X-Band Signal		
2328	MGS	02-033/10:52:40	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
2329	MGS	02-033/10:52:40	65	NOTE: Carrier Only -- No Telemetry Modulation		
2330	MGS	02-033/10:57:18		NOTE: Exit Planetary Atmosphere 12986		02-033/10:42:50
2331	MGS	02-033/10:59:26		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-033/10:44:58
2332	MGS	02-033/10:59:26		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-033/10:44:58
2333	MGS	02-033/10:59:26		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-033/10:44:58
2334	MGS	02-033/10:59:26		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-033/10:44:58
2335	MGS	02-033/10:59:26	45	D/L Change: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
2336	MGS	02-033/10:59:26	65	D/L Change: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
2337	MGS	02-033/10:59:27		: RTM, MRC, 01:13:40, S&E_2A, FALSE, 00:07:03	AEMRT	02-033/10:44:59
2338	MGS	02-033/10:59:27		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-033/10:44:59
2339	MGS	02-033/10:59:27		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-033/10:44:59
2340	MGS	02-033/10:59:27	45	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
2341	MGS	02-033/10:59:27	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
2342	MGS	02-033/10:59:31		NOTE: End fixed Sub-Reflector for Radio Science		02-033/10:45:03
2343	MGS	02-033/11:00:00	45	End Tracking		
2344	MGS	02-033/11:03:59		NOTE: Exit Solar Eclipse 12986		02-033/10:49:31
2345	MGS	02-033/11:15:00	45	End Post-Cal		
2346	MGS	02-033/11:18:25		NOTE: Periapsis 12987 ----------		02-033/11:03:56
2347	MGS	02-033/11:21:07		NOTE: Start Block (SSRMGR)		02-033/11:06:39
2348	MGS	02-033/11:21:07		Sends a one-word SSR command to the XSU command SOB: SSR_2A, SE_1A, RECORD, PART2	STSSRC	02-033/11:06:39
2349	MGS	02-033/11:21:08		SSR 2A Data Enable	CSD2AE	02-033/11:06:40
2350	MGS	02-033/11:21:08		SSR Activity: ID=SSR_2A, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-033/11:06:40
2351	MGS	02-033/11:24:58		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-033/11:10:30
2352	MGS	02-033/11:24:58		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-033/11:10:30
2353	MGS	02-033/11:24:59		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-033/11:10:31
2354	MGS	02-033/11:24:59		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-033/11:10:31
2355	MGS	02-033/11:46:59		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-033/11:32:31
2356	MGS	02-033/11:46:59		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-033/11:32:31
2357	MGS	02-033/11:47:48		SSR 2B Data Disable	CSD2BX	02-033/11:33:20
2358	MGS	02-033/11:47:48		SSR Activity: ID=SSR_2B, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-033/11:33:20
2359	MGS	02-033/11:47:49		NOTE: End Block (SSRMGR)		02-033/11:33:21
2360	MGS	02-033/12:08:07		NOTE: Begin fixed Sub-Reflector for Radio Science		02-033/11:53:39
2361	MGS	02-033/12:11:18		NOTE: Start EVP data return script		02-033/11:56:50
2362	MGS	02-033/12:13:07		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-033/11:58:39
2363	MGS	02-033/12:13:07		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=2, BITS=24952000, DUR=00:51:59		02-033/11:58:39
2364	MGS	02-033/12:13:07		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-033/11:58:39
2365	MGS	02-033/12:13:07		: 00:07:02, FALSE	RDSCII	02-033/11:58:39
2366	MGS	02-033/12:13:07		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-033/11:58:39
2367	MGS	02-033/12:13:07		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-033/11:58:39
2368	MGS	02-033/12:13:07		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-033/11:58:39
2369	MGS	02-033/12:13:07		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-033/11:58:39
2370	MGS	02-033/12:13:07	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
2371	MGS	02-033/12:13:07	65	NOTE: Carrier Only -- No Telemetry Modulation		
2372	MGS	02-033/12:14:28		Dump SCP memory to the EDF using physical addressing arguments: 56A4, 240	SCDSCM	02-033/12:00:00

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
2373	MGS	02-033/12:15:18		NOTE: Enter Planetary Atmosphere 12987		02-033/12:00:49
2374	MGS	02-033/12:17:20		NOTE: Apoapsis 12987 -		02-033/12:02:51
2375	MGS	02-033/12:19:38		NOTE: Enter Earth Occultation 12987		02-033/12:05:10
2376	MGS	02-033/12:19:38	65	NOTE: Loss Of X-Band Signal		
2377	MGS	02-033/12:20:09		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-033/12:05:41
2378	MGS	02-033/12:20:09		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-033/12:05:41
2379	MGS	02-033/12:20:09		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-033/12:05:41
2380	MGS	02-033/12:20:09		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-033/12:05:41
2381	MGS	02-033/12:20:10		Turn off the MOT Exciter and RPA beam	STRPAF	02-033/12:05:42
2382	MGS	02-033/12:20:10		NOTE: End EVP script		02-033/12:05:42
2383	MGS	02-033/12:20:14		NOTE: End fixed Sub-Reflector for Radio Science		02-033/12:05:46
2384	MGS	02-033/12:21:18		NOTE: Enter Solar Eclipse 12987		02-033/12:06:50
2385	MGS	02-033/12:21:18		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-033/12:06:50
2386	MGS	02-033/12:44:54		NOTE: Begin fixed Sub-Reflector for Radio Science		02-033/12:30:26
2387	MGS	02-033/12:45:59		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-033/12:31:31
2388	MGS	02-033/12:45:59		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-033/12:31:31
2389	MGS	02-033/12:46:03		Command the PSE with included data word: 3990	SWPSEL	02-033/12:31:35
2390	MGS	02-033/12:46:04		Set eclipse egress script address: 0158	SWSEES	02-033/12:31:36
2391	MGS	02-033/12:48:39		: 01:29:17	RPAONX	02-033/12:34:11
2392	MGS	02-033/12:48:39		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-033/12:34:11
2393	MGS	02-033/12:49:54		: 00:00:30, 00:07:18, FALSE	RDSCIE	02-033/12:35:26
2394	MGS	02-033/12:49:54		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-033/12:35:26
2395	MGS	02-033/12:49:54		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-033/12:35:26
2396	MGS	02-033/12:49:54		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-033/12:35:26
2397	MGS	02-033/12:49:54		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-033/12:35:26
2398	MGS	02-033/12:50:27		NOTE: Exit Earth Occultation 12987		02-033/12:35:59
2399	MGS	02-033/12:50:27	65	Acquisition Of X-Band Signal		
2400	MGS	02-033/12:50:27	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
2401	MGS	02-033/12:50:27	65	NOTE: Carrier Only -- No Telemetry Modulation		
2402	MGS	02-033/12:55:04		NOTE: Exit Planetary Atmosphere 12987		02-033/12:40:36
2403	MGS	02-033/12:57:12		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-033/12:42:44
2404	MGS	02-033/12:57:12		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-033/12:42:44
2405	MGS	02-033/12:57:12		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-033/12:42:44
2406	MGS	02-033/12:57:12		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-033/12:42:44
2407	MGS	02-033/12:57:12	65	D/L Change: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
2408	MGS	02-033/12:57:13		: RTM, MRC, 01:13:40, S&E_2A, FALSE, 00:07:03	AEMRT	02-033/12:42:45
2409	MGS	02-033/12:57:13		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-033/12:42:45
2410	MGS	02-033/12:57:13		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-033/12:42:45
2411	MGS	02-033/12:57:13		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=2, BITS=46120000, DUR=00:44:06		02-033/12:42:45
2412	MGS	02-033/12:57:13		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-033/12:42:45
2413	MGS	02-033/12:57:13	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
2414	MGS	02-033/12:57:17		NOTE: End fixed Sub-Reflector for Radio Science		02-033/12:42:49
2415	MGS	02-033/13:01:45		NOTE: Exit Solar Eclipse 12987		02-033/12:47:16
2416	MGS	02-033/13:16:10		NOTE: Periapsis 12988 ----------		02-033/13:01:41
2417	MGS	02-033/13:26:44		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-033/13:12:16
2418	MGS	02-033/13:26:44		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-033/13:12:16
2419	MGS	02-033/13:26:45		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-033/13:12:17
2420	MGS	02-033/13:26:45		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-033/13:12:17
2421	MGS	02-033/13:48:45		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-033/13:34:17
2422	MGS	02-033/13:48:45		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-033/13:34:17
2423	MGS	02-033/14:05:53		NOTE: Begin fixed Sub-Reflector for Radio Science		02-033/13:51:25
2424	MGS	02-033/14:09:01		NOTE: Start EVP data return script		02-033/13:54:33
2425	MGS	02-033/14:10:53		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-033/13:56:25
2426	MGS	02-033/14:10:53		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=2, BITS=81480000, DUR=01:13:40		02-033/13:56:25

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
2427	MGS	02-033/14:10:53		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-033/13:56:25
2428	MGS	02-033/14:10:53		: 00:07:02, FALSE	RDSCII	02-033/13:56:25
2429	MGS	02-033/14:10:53		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-033/13:56:25
2430	MGS	02-033/14:10:53		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-033/13:56:25
2431	MGS	02-033/14:10:53		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-033/13:56:25
2432	MGS	02-033/14:10:53		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-033/13:56:25
2433	MGS	02-033/14:10:53	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
2434	MGS	02-033/14:10:53	65	NOTE: Carrier Only -- No Telemetry Modulation		
2435	MGS	02-033/14:13:01		NOTE: Enter Planetary Atmosphere 12988		02-033/13:58:33
2436	MGS	02-033/14:15:00		NOTE: Apoapsis 12988 -		02-033/14:00:31
2437	MGS	02-033/14:17:22		NOTE: Enter Earth Occultation 12988		02-033/14:02:54
2438	MGS	02-033/14:17:22	65	NOTE: Loss Of X-Band Signal		
2439	MGS	02-033/14:17:55		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-033/14:03:27
2440	MGS	02-033/14:17:55		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-033/14:03:27
2441	MGS	02-033/14:17:55		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-033/14:03:27
2442	MGS	02-033/14:17:55		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-033/14:03:27
2443	MGS	02-033/14:17:56		Turn off the MOT Exciter and RPA beam	STRPAF	02-033/14:03:28
2444	MGS	02-033/14:17:56		NOTE: End EVP script		02-033/14:03:28
2445	MGS	02-033/14:18:00		NOTE: End fixed Sub-Reflector for Radio Science		02-033/14:03:32
2446	MGS	02-033/14:19:01		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-033/14:04:33
2447	MGS	02-033/14:19:02		NOTE: Enter Solar Eclipse 12988		02-033/14:04:33
2448	MGS	02-033/14:42:37		NOTE: Begin fixed Sub-Reflector for Radio Science		02-033/14:28:09
2449	MGS	02-033/14:43:45		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-033/14:29:17
2450	MGS	02-033/14:43:45		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-033/14:29:17
2451	MGS	02-033/14:43:50		Set eclipse egress script address: 019A	SWSEES	02-033/14:29:22
2452	MGS	02-033/14:46:22		: 01:29:17	RPAONX	02-033/14:31:54
2453	MGS	02-033/14:46:22		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-033/14:31:54
2454	MGS	02-033/14:47:37		: 00:00:30, 00:07:18, FALSE	RDSCIE	02-033/14:33:09
2455	MGS	02-033/14:47:37		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-033/14:33:09
2456	MGS	02-033/14:47:37		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-033/14:33:09
2457	MGS	02-033/14:47:37		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-033/14:33:09
2458	MGS	02-033/14:47:37		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-033/14:33:09
2459	MGS	02-033/14:48:12		NOTE: Exit Earth Occultation 12988		02-033/14:33:43
2460	MGS	02-033/14:48:12	65	Acquisition Of X-Band Signal		
2461	MGS	02-033/14:48:12	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
2462	MGS	02-033/14:48:12	65	NOTE: Carrier Only -- No Telemetry Modulation		
2463	MGS	02-033/14:52:49		NOTE: Exit Planetary Atmosphere 12988		02-033/14:38:20
2464	MGS	02-033/14:54:55		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-033/14:40:27
2465	MGS	02-033/14:54:55		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-033/14:40:27
2466	MGS	02-033/14:54:55		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-033/14:40:27
2467	MGS	02-033/14:54:55		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-033/14:40:27
2468	MGS	02-033/14:54:55	65	D/L Change: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
2469	MGS	02-033/14:54:56		: RTM, MRC, 01:13:40, S&E_2A, FALSE, 00:07:03	AEMRT	02-033/14:40:28
2470	MGS	02-033/14:54:56		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-033/14:40:28
2471	MGS	02-033/14:54:56		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-033/14:40:28
2472	MGS	02-033/14:54:56		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=2, BITS=102624000, DUR=00:44:03		02-033/14:40:28
2473	MGS	02-033/14:54:56		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-033/14:40:28
2474	MGS	02-033/14:54:56	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
2475	MGS	02-033/14:55:01		NOTE: End fixed Sub-Reflector for Radio Science		02-033/14:40:32
2476	MGS	02-033/14:59:29		NOTE: Exit Solar Eclipse 12988		02-033/14:45:00
2477	MGS	02-033/15:13:55		NOTE: Periapsis 12989 ----------		02-033/14:59:26
2478	MGS	02-033/15:20:27		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-033/15:05:59
2479	MGS	02-033/15:20:27		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-033/15:05:59
2480	MGS	02-033/15:20:28		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-033/15:06:00

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
2481	MGS	02-033/15:20:28		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-033/15:06:00
2482	MGS	02-033/15:42:29		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-033/15:28:00
2483	MGS	02-033/15:42:29		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-033/15:28:00
2484	MGS	02-033/16:03:37		NOTE: Begin fixed Sub-Reflector for Radio Science		02-033/15:49:08
2485	MGS	02-033/16:06:44		NOTE: Start EVP data return script		02-033/15:52:15
2486	MGS	02-033/16:08:37		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-033/15:54:08
2487	MGS	02-033/16:08:37		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=2, BITS=137984000, DUR=01:13:40		02-033/15:54:08
2488	MGS	02-033/16:08:37		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-033/15:54:08
2489	MGS	02-033/16:08:37		: 00:07:02, FALSE	RDSCII	02-033/15:54:08
2490	MGS	02-033/16:08:37		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-033/15:54:08
2491	MGS	02-033/16:08:37		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-033/15:54:08
2492	MGS	02-033/16:08:37		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-033/15:54:08
2493	MGS	02-033/16:08:37		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-033/15:54:08
2494	MGS	02-033/16:08:37	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
2495	MGS	02-033/16:08:37	65	NOTE: Carrier Only -- No Telemetry Modulation		
2496	MGS	02-033/16:10:44		NOTE: Enter Planetary Atmosphere 12989		02-033/15:56:15
2497	MGS	02-033/16:12:56		NOTE: Apoapsis 12989 -		02-033/15:58:27
2498	MGS	02-033/16:15:05		NOTE: Enter Earth Occultation 12989		02-033/16:00:36
2499	MGS	02-033/16:15:05	65	NOTE: Loss Of X-Band Signal		
2500	MGS	02-033/16:15:39		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-033/16:01:10
2501	MGS	02-033/16:15:39		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-033/16:01:10
2502	MGS	02-033/16:15:39		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-033/16:01:10
2503	MGS	02-033/16:15:39		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-033/16:01:10
2504	MGS	02-033/16:15:40		Turn off the MOT Exciter and RPA beam	STRPAF	02-033/16:01:11
2505	MGS	02-033/16:15:40		NOTE: End EVP script		02-033/16:01:11
2506	MGS	02-033/16:15:44		NOTE: End fixed Sub-Reflector for Radio Science		02-033/16:01:15
2507	MGS	02-033/16:16:44		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-033/16:02:15
2508	MGS	02-033/16:16:44		NOTE: Enter Solar Eclipse 12989		02-033/16:02:15
2509	MGS	02-033/16:40:20		NOTE: Begin fixed Sub-Reflector for Radio Science		02-033/16:25:51
2510	MGS	02-033/16:41:29		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-033/16:27:00
2511	MGS	02-033/16:41:29		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-033/16:27:00
2512	MGS	02-033/16:41:34		Set eclipse egress script address: 01DC	SWSEES	02-033/16:27:05
2513	MGS	02-033/16:44:05		: 01:29:17	RPAONX	02-033/16:29:36
2514	MGS	02-033/16:44:05		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-033/16:29:36
2515	MGS	02-033/16:45:20		: 00:00:30, 00:07:18, FALSE	RDSCIE	02-033/16:30:51
2516	MGS	02-033/16:45:20		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-033/16:30:51
2517	MGS	02-033/16:45:20		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-033/16:30:51
2518	MGS	02-033/16:45:20		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-033/16:30:51
2519	MGS	02-033/16:45:20		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-033/16:30:51
2520	MGS	02-033/16:45:55		NOTE: Exit Earth Occultation 12989		02-033/16:31:26
2521	MGS	02-033/16:45:55	65	Acquisition Of X-Band Signal		
2522	MGS	02-033/16:45:55	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
2523	MGS	02-033/16:45:55	65	NOTE: Carrier Only -- No Telemetry Modulation		
2524	MGS	02-033/16:50:32		NOTE: Exit Planetary Atmosphere 12989		02-033/16:36:03
2525	MGS	02-033/16:52:38		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-033/16:38:09
2526	MGS	02-033/16:52:38		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-033/16:38:09
2527	MGS	02-033/16:52:38		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-033/16:38:09
2528	MGS	02-033/16:52:38		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-033/16:38:09
2529	MGS	02-033/16:52:38	65	D/L Change: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
2530	MGS	02-033/16:52:39		: RTM, MRC, 01:13:40, S&E_2A, FALSE, 00:07:03	AEMRT	02-033/16:38:10
2531	MGS	02-033/16:52:39		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-033/16:38:10
2532	MGS	02-033/16:52:39		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-033/16:38:10
2533	MGS	02-033/16:52:39		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=2, BITS=159120000, DUR=00:44:02		02-033/16:38:10
2534	MGS	02-033/16:52:39		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-033/16:38:10

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
2535	MGS	02-033/16:52:39	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
2536	MGS	02-033/16:52:43		NOTE: End fixed Sub-Reflector for Radio Science		02-033/16:38:14
2537	MGS	02-033/16:54:28		NOTE: Start Block (SSRMGR)		02-033/16:39:59
2538	MGS	02-033/16:54:28		Sends a one-word SSR command to the XSU command SOB: SSR_2B, SE_1A, RECORD, PART2	STSSRC	02-033/16:39:59
2539	MGS	02-033/16:54:29		SSR 2B Data Enable	CSD2BE	02-033/16:40:00
2540	MGS	02-033/16:54:29		SSR Activity: ID=SSR_2B, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-033/16:40:00
2541	MGS	02-033/16:57:11		NOTE: Exit Solar Eclipse 12989		02-033/16:42:42
2542	MGS	02-033/17:11:27		NOTE: Periapsis 12990 ----------		02-033/16:56:58
2543	MGS	02-033/17:18:10		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-033/17:03:41
2544	MGS	02-033/17:18:10		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-033/17:03:41
2545	MGS	02-033/17:18:11		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-033/17:03:42
2546	MGS	02-033/17:18:11		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-033/17:03:42
2547	MGS	02-033/17:21:09		SSR 2A Data Disable	CSD2AX	02-033/17:06:40
2548	MGS	02-033/17:21:09		SSR Activity: ID=SSR_2A, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-033/17:06:40
2549	MGS	02-033/17:21:10		NOTE: End Block (SSRMGR)		02-033/17:06:41
2550	MGS	02-033/17:40:11		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-033/17:25:42
2551	MGS	02-033/17:40:11		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-033/17:25:42
2552	MGS	02-033/18:01:19		NOTE: Begin fixed Sub-Reflector for Radio Science		02-033/17:46:50
2553	MGS	02-033/18:04:26		NOTE: Start EVP data return script		02-033/17:49:57
2554	MGS	02-033/18:06:19		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-033/17:51:50
2555	MGS	02-033/18:06:19		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=2, BITS=34480000, DUR=01:11:50		02-033/17:51:50
2556	MGS	02-033/18:06:19		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-033/17:51:50
2557	MGS	02-033/18:06:19		: 00:07:02, FALSE	RDSCII	02-033/17:51:50
2558	MGS	02-033/18:06:19		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-033/17:51:50
2559	MGS	02-033/18:06:19		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-033/17:51:50
2560	MGS	02-033/18:06:19		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-033/17:51:50
2561	MGS	02-033/18:06:19		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-033/17:51:50
2562	MGS	02-033/18:06:19	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
2563	MGS	02-033/18:06:19	65	NOTE: Carrier Only -- No Telemetry Modulation		
2564	MGS	02-033/18:08:27		NOTE: Enter Planetary Atmosphere 12990		02-033/17:53:57
2565	MGS	02-033/18:10:22		NOTE: Apoapsis 12990 -		02-033/17:55:53
2566	MGS	02-033/18:12:47		NOTE: Enter Earth Occultation 12990		02-033/17:58:18
2567	MGS	02-033/18:12:47	65	NOTE: Loss Of X-Band Signal		
2568	MGS	02-033/18:13:21		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-033/17:58:52
2569	MGS	02-033/18:13:21		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-033/17:58:52
2570	MGS	02-033/18:13:21		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-033/17:58:52
2571	MGS	02-033/18:13:21		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-033/17:58:52
2572	MGS	02-033/18:13:22		Turn off the MOT Exciter and RPA beam	STRPAF	02-033/17:58:53
2573	MGS	02-033/18:13:22		NOTE: End EVP script		02-033/17:58:53
2574	MGS	02-033/18:13:26		NOTE: End fixed Sub-Reflector for Radio Science		02-033/17:58:57
2575	MGS	02-033/18:14:26		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-033/17:59:57
2576	MGS	02-033/18:14:26		NOTE: Enter Solar Eclipse 12990		02-033/17:59:57
2577	MGS	02-033/18:38:02		NOTE: Begin fixed Sub-Reflector for Radio Science		02-033/18:23:33
2578	MGS	02-033/18:39:11		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-033/18:24:42
2579	MGS	02-033/18:39:11		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-033/18:24:42
2580	MGS	02-033/18:39:15		Command the PSE with included data word: 3990	SWPSEL	02-033/18:24:46
2581	MGS	02-033/18:39:16		Set eclipse egress script address: 0158	SWSEES	02-033/18:24:47
2582	MGS	02-033/18:41:47		: 01:29:17	RPAONX	02-033/18:27:18
2583	MGS	02-033/18:41:47		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-033/18:27:18
2584	MGS	02-033/18:43:02		: 00:00:30, 00:07:18, FALSE	RDSCIE	02-033/18:28:33
2585	MGS	02-033/18:43:02		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-033/18:28:33
2586	MGS	02-033/18:43:02		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-033/18:28:33
2587	MGS	02-033/18:43:02		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-033/18:28:33
2588	MGS	02-033/18:43:02		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-033/18:28:33

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
2589	MGS	02-033/18:43:37		NOTE: Exit Earth Occultation 12990		02-033/18:29:08
2590	MGS	02-033/18:43:37	65	Acquisition Of X-Band Signal		
2591	MGS	02-033/18:43:37	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
2592	MGS	02-033/18:43:37	65	NOTE: Carrier Only -- No Telemetry Modulation		
2593	MGS	02-033/18:48:15		NOTE: Exit Planetary Atmosphere 12990		02-033/18:33:45
2594	MGS	02-033/18:50:20		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-033/18:35:51
2595	MGS	02-033/18:50:20		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-033/18:35:51
2596	MGS	02-033/18:50:20		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-033/18:35:51
2597	MGS	02-033/18:50:20		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-033/18:35:51
2598	MGS	02-033/18:50:20	65	D/L Change: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
2599	MGS	02-033/18:50:21		: RTM, MRC, 01:13:40, S&E_2A, FALSE, 00:07:03	AEMRT	02-033/18:35:52
2600	MGS	02-033/18:50:21		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-033/18:35:52
2601	MGS	02-033/18:50:21		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-033/18:35:52
2602	MGS	02-033/18:50:21		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=2, BITS=55616000, DUR=00:44:02		02-033/18:35:52
2603	MGS	02-033/18:50:21		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-033/18:35:52
2604	MGS	02-033/18:50:21	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
2605	MGS	02-033/18:50:25		NOTE: End fixed Sub-Reflector for Radio Science		02-033/18:35:56
2606	MGS	02-033/18:54:53		NOTE: Exit Solar Eclipse 12990		02-033/18:40:23
2607	MGS	02-033/19:08:47		NOTE: Periapsis 12991 ----------		02-033/18:54:17
2608	MGS	02-033/19:19:52		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-033/19:05:23
2609	MGS	02-033/19:19:52		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-033/19:05:23
2610	MGS	02-033/19:19:53		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-033/19:05:24
2611	MGS	02-033/19:19:53		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-033/19:05:24
2612	MGS	02-033/19:41:53		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-033/19:27:24
2613	MGS	02-033/19:41:53		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-033/19:27:24
2614	MGS	02-033/19:59:01		NOTE: Begin fixed Sub-Reflector for Radio Science		02-033/19:44:32
2615	MGS	02-033/20:02:10		NOTE: Start EVP data return script		02-033/19:47:41
2616	MGS	02-033/20:04:01		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-033/19:49:32
2617	MGS	02-033/20:04:01		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=2, BITS=90976000, DUR=01:13:40		02-033/19:49:32
2618	MGS	02-033/20:04:01		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-033/19:49:32
2619	MGS	02-033/20:04:01		: 00:07:02, FALSE	RDSCII	02-033/19:49:32
2620	MGS	02-033/20:04:01		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-033/19:49:32
2621	MGS	02-033/20:04:01		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-033/19:49:32
2622	MGS	02-033/20:04:01		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-033/19:49:32
2623	MGS	02-033/20:04:01		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-033/19:49:32
2624	MGS	02-033/20:04:01	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
2625	MGS	02-033/20:04:01	65	NOTE: Carrier Only -- No Telemetry Modulation		
2626	MGS	02-033/20:06:10		NOTE: Enter Planetary Atmosphere 12991		02-033/19:51:41
2627	MGS	02-033/20:07:47		NOTE: Apoapsis 12991 -		02-033/19:53:18
2628	MGS	02-033/20:10:00	25	Begin Pre-Cal		
2629	MGS	02-033/20:10:00	25	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
2630	MGS	02-033/20:10:00	25	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
2631	MGS	02-033/20:10:00	25	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
2632	MGS	02-033/20:10:00	25	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
2633	MGS	02-033/20:10:00	25	At BOT: S/C Tlm Mode: BR=40000.0, FL=10000, SC=HIGH, MI=80.0		
2634	MGS	02-033/20:10:00	25	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
2635	MGS	02-033/20:10:00	25	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
2636	MGS	02-033/20:10:00	25	Config: TGC: DEST=37		
2637	MGS	02-033/20:10:00	25	Config: TGC: BAND=X, BR=40000.000000		
2638	MGS	02-033/20:10:00	25	Config: FSS: CH=2, PRI_FL=10000		
2639	MGS	02-033/20:10:00	25	Config: RSR		
2640	MGS	02-033/20:10:00	25	Config: TXL		
2641	MGS	02-033/20:10:00	25	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
2642	MGS	02-033/20:10:00	25	Config: BVR		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
2643	MGS	02-033/20:10:00	25	Config: Doppler Extractor: BIAS=+1MHZ		
2644	MGS	02-033/20:10:00	25	Config: MDA: SMPL=0.1		
2645	MGS	02-033/20:10:00	25	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
2646	MGS	02-033/20:10:00	25	Config: SRA: HIGH=4, LOW=14, SERV=D		
2647	MGS	02-033/20:10:00	25	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
2648	MGS	02-033/20:10:30		NOTE: Enter Earth Occultation 12991		02-033/19:56:01
2649	MGS	02-033/20:10:30	65	NOTE: Loss Of X-Band Signal		
2650	MGS	02-033/20:11:03		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-033/19:56:34
2651	MGS	02-033/20:11:03		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-033/19:56:34
2652	MGS	02-033/20:11:03		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-033/19:56:34
2653	MGS	02-033/20:11:03		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-033/19:56:34
2654	MGS	02-033/20:11:04		Turn off the MOT Exciter and RPA beam	STRPAF	02-033/19:56:35
2655	MGS	02-033/20:11:04		NOTE: End EVP script		02-033/19:56:35
2656	MGS	02-033/20:11:08		NOTE: End fixed Sub-Reflector for Radio Science		02-033/19:56:39
2657	MGS	02-033/20:12:10		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-033/19:57:41
2658	MGS	02-033/20:12:10		NOTE: Enter Solar Eclipse 12991		02-033/19:57:41
2659	MGS	02-033/20:35:46		NOTE: Begin fixed Sub-Reflector for Radio Science		02-033/20:21:17
2660	MGS	02-033/20:36:53		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-033/20:22:24
2661	MGS	02-033/20:36:53		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-033/20:22:24
2662	MGS	02-033/20:36:58		Set eclipse egress script address: 019A	SWSEES	02-033/20:22:29
2663	MGS	02-033/20:39:31		: 01:29:17	RPAONX	02-033/20:25:02
2664	MGS	02-033/20:39:31		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-033/20:25:02
2665	MGS	02-033/20:40:46		: 00:00:30, 00:07:18, FALSE	RDSCIE	02-033/20:26:17
2666	MGS	02-033/20:40:46		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-033/20:26:17
2667	MGS	02-033/20:40:46		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-033/20:26:17
2668	MGS	02-033/20:40:46		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-033/20:26:17
2669	MGS	02-033/20:40:46		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-033/20:26:17
2670	MGS	02-033/20:41:21		NOTE: Exit Earth Occultation 12991		02-033/20:26:51
2671	MGS	02-033/20:41:21	65	Acquisition Of X-Band Signal		
2672	MGS	02-033/20:41:21	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
2673	MGS	02-033/20:41:21	65	NOTE: Carrier Only -- No Telemetry Modulation		
2674	MGS	02-033/20:45:57		NOTE: Exit Planetary Atmosphere 12991		02-033/20:31:28
2675	MGS	02-033/20:48:04		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-033/20:33:35
2676	MGS	02-033/20:48:04		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-033/20:33:35
2677	MGS	02-033/20:48:04		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-033/20:33:35
2678	MGS	02-033/20:48:04		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-033/20:33:35
2679	MGS	02-033/20:48:04	65	D/L Change: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
2680	MGS	02-033/20:48:05		: RTM, MRC, 01:13:40, S&E_2A, FALSE, 00:07:03	AEMRT	02-033/20:33:36
2681	MGS	02-033/20:48:05		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-033/20:33:36
2682	MGS	02-033/20:48:05		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-033/20:33:36
2683	MGS	02-033/20:48:05		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=2, BITS=112128000, DUR=00:44:04		02-033/20:33:36
2684	MGS	02-033/20:48:05		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-033/20:33:36
2685	MGS	02-033/20:48:05	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
2686	MGS	02-033/20:48:09		NOTE: End fixed Sub-Reflector for Radio Science		02-033/20:33:40
2687	MGS	02-033/20:52:37		NOTE: Exit Solar Eclipse 12991		02-033/20:38:07
2688	MGS	02-033/21:06:45		NOTE: Periapsis 12992 ----------		02-033/20:52:15
2689	MGS	02-033/21:10:00	25	Begin Tracking		
2690	MGS	02-033/21:10:00	25	Acquire D/L: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
2691	MGS	02-033/21:13:35		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-033/20:59:06
2692	MGS	02-033/21:13:35		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-033/20:59:06
2693	MGS	02-033/21:13:36		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-033/20:59:07
2694	MGS	02-033/21:13:36		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-033/20:59:07
2695	MGS	02-033/21:20:00	25	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
2696	MGS	02-033/21:20:30	25	NOTE: Transmitter Off in 15 minutes		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
2697	MGS	02-033/21:22:00	25	Range Modulation On: SUP=3.0dB		
2698	MGS	02-033/21:23:00	25	Begin Ranging Acquisition		
2699	MGS	02-033/21:26:00	65	NOTE: Below Uplink Interlock Limit		
2700	MGS	02-033/21:30:00	65	End Tracking		
2701	MGS	02-033/21:33:31	25	Range Modulation Off		
2702	MGS	02-033/21:35:30	25	Transmitter Off		
2703	MGS	02-033/21:35:36		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-033/21:21:07
2704	MGS	02-033/21:35:36		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-033/21:21:07
2705	MGS	02-033/21:45:00	65	End Post-Cal		
2706	MGS	02-033/21:48:59	25	Acquire D/L: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
2707	MGS	02-033/21:56:46		NOTE: Begin fixed Sub-Reflector for Radio Science		02-033/21:42:16
2708	MGS	02-033/21:59:57		NOTE: Start EVP data return script		02-033/21:45:27
2709	MGS	02-033/22:01:46		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-033/21:47:16
2710	MGS	02-033/22:01:46		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=2, BITS=147488000, DUR=01:13:40		02-033/21:47:16
2711	MGS	02-033/22:01:46		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-033/21:47:16
2712	MGS	02-033/22:01:46		: 00:07:02, FALSE	RDSCII	02-033/21:47:16
2713	MGS	02-033/22:01:46		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-033/21:47:16
2714	MGS	02-033/22:01:46		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-033/21:47:16
2715	MGS	02-033/22:01:46		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-033/21:47:16
2716	MGS	02-033/22:01:46		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-033/21:47:16
2717	MGS	02-033/22:01:46	25	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
2718	MGS	02-033/22:01:46	25	NOTE: Carrier Only -- No Telemetry Modulation		
2719	MGS	02-033/22:03:55		NOTE: Enter Planetary Atmosphere 12992		02-033/21:49:25
2720	MGS	02-033/22:05:56		NOTE: Apoapsis 12992 -		02-033/21:51:27
2721	MGS	02-033/22:08:15		NOTE: Enter Earth Occultation 12992		02-033/21:53:45
2722	MGS	02-033/22:08:15	25	NOTE: Loss Of X-Band Signal		
2723	MGS	02-033/22:08:48		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-033/21:54:18
2724	MGS	02-033/22:08:48		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-033/21:54:18
2725	MGS	02-033/22:08:48		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-033/21:54:18
2726	MGS	02-033/22:08:48		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-033/21:54:18
2727	MGS	02-033/22:08:49		Turn off the MOT Exciter and RPA beam	STRPAF	02-033/21:54:19
2728	MGS	02-033/22:08:49		NOTE: End EVP script		02-033/21:54:19
2729	MGS	02-033/22:08:53		NOTE: End fixed Sub-Reflector for Radio Science		02-033/21:54:23
2730	MGS	02-033/22:09:56		NOTE: Enter Solar Eclipse 12992		02-033/21:55:26
2731	MGS	02-033/22:09:57		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-033/21:55:27
2732	MGS	02-033/22:13:52	25	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
2733	MGS	02-033/22:15:53	25	Range Modulation On: SUP=3.0dB		
2734	MGS	02-033/22:16:53	25	Begin Ranging Acquisition		
2735	MGS	02-033/22:27:49		NOTE: Start Block (SSRMGR)		02-033/22:13:19
2736	MGS	02-033/22:27:49		Sends a one-word SSR command to the XSU command SOB: SSR_2A, SE_1A, RECORD, PART3	STSSRC	02-033/22:13:19
2737	MGS	02-033/22:27:50		SSR 2A Data Enable	CSD2AE	02-033/22:13:20
2738	MGS	02-033/22:27:50		SSR Activity: ID=SSR_2A, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-033/22:13:20
2739	MGS	02-033/22:33:33		NOTE: Begin fixed Sub-Reflector for Radio Science		02-033/22:19:03
2740	MGS	02-033/22:34:37		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-033/22:20:07
2741	MGS	02-033/22:34:37		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-033/22:20:07
2742	MGS	02-033/22:34:42		Set eclipse egress script address: 01DC	SWSEES	02-033/22:20:12
2743	MGS	02-033/22:37:18		: 01:29:17	RPAONX	02-033/22:22:48
2744	MGS	02-033/22:37:18		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-033/22:22:48
2745	MGS	02-033/22:38:33		: 00:00:30, 00:07:18, FALSE	RDSCIE	02-033/22:24:03
2746	MGS	02-033/22:38:33		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-033/22:24:03
2747	MGS	02-033/22:38:33		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-033/22:24:03
2748	MGS	02-033/22:38:33		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-033/22:24:03
2749	MGS	02-033/22:38:33		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-033/22:24:03
2750	MGS	02-033/22:39:03		Disables autonomous command to send eclipse ingress script	SWEISX	02-033/22:24:33

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
2751	MGS	02-033/22:39:07		NOTE: Exit Earth Occultation 12992		02-033/22:24:37
2752	MGS	02-033/22:39:07	25	Acquisition Of X-Band Signal		
2753	MGS	02-033/22:39:07	25	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
2754	MGS	02-033/22:39:07	25	NOTE: Carrier Only -- No Telemetry Modulation		
2755	MGS	02-033/22:43:43		NOTE: Exit Planetary Atmosphere 12992		02-033/22:29:13
2756	MGS	02-033/22:45:51		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-033/22:31:21
2757	MGS	02-033/22:45:51		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-033/22:31:21
2758	MGS	02-033/22:45:51		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-033/22:31:21
2759	MGS	02-033/22:45:51		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-033/22:31:21
2760	MGS	02-033/22:45:51	25	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
2761	MGS	02-033/22:45:52		: RTM, MRC, 01:13:40, S&E_2A, FALSE, 00:07:03	AEMRT	02-033/22:31:22
2762	MGS	02-033/22:45:52		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-033/22:31:22
2763	MGS	02-033/22:45:52		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-033/22:31:22
2764	MGS	02-033/22:45:52		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=3, BITS=8656000, DUR=00:18:02		02-033/22:31:22
2765	MGS	02-033/22:45:52		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-033/22:31:22
2766	MGS	02-033/22:45:52	25	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
2767	MGS	02-033/22:45:56		NOTE: End fixed Sub-Reflector for Radio Science		02-033/22:31:26
2768	MGS	02-033/22:50:23		NOTE: Exit Solar Eclipse 12992		02-033/22:35:53
2769	MGS	02-033/22:54:30		SSR 2B Data Disable	CSD2BX	02-033/22:40:00
2770	MGS	02-033/22:54:30		SSR Activity: ID=SSR_2B, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-033/22:40:00
2771	MGS	02-033/22:54:31		NOTE: End Block (SSRMGR)		02-033/22:40:01
2772	MGS	02-033/23:04:59		NOTE: Periapsis 12993 ----------		02-033/22:50:29
2773	MGS	02-033/23:07:49		NOTE: Start Block (SSRMGR)		02-033/22:53:19
2774	MGS	02-033/23:07:49		Sends a one-word SSR command to the XSU command SOB: SSR_2B, SE_1A, RECORD, PART3	STSSRC	02-033/22:53:19
2775	MGS	02-033/23:07:50		SSR 2B Data Enable	CSD2BE	02-033/22:53:20
2776	MGS	02-033/23:07:50		SSR Activity: ID=SSR_2B, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-033/22:53:20
2777	MGS	02-033/23:11:22		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-033/22:56:52
2778	MGS	02-033/23:11:22		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-033/22:56:52
2779	MGS	02-033/23:11:23		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-033/22:56:53
2780	MGS	02-033/23:11:23		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-033/22:56:53
2781	MGS	02-033/23:18:17	25	NOTE: Transmitter Off in 15 minutes		
2782	MGS	02-033/23:31:17	25	Range Modulation Off		
2783	MGS	02-033/23:33:17	25	Transmitter Off		
2784	MGS	02-033/23:33:23		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-033/23:18:53
2785	MGS	02-033/23:33:23		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-033/23:18:53
2786	MGS	02-033/23:34:30		SSR 2A Data Disable	CSD2AX	02-033/23:20:00
2787	MGS	02-033/23:34:30		SSR Activity: ID=SSR_2A, FCN=End Recording, PRT=3, BITS=32000000, DUR=01:06:40		02-033/23:20:00
2788	MGS	02-033/23:34:31		NOTE: End Block (SSRMGR)		02-033/23:20:01
2789	MGS	02-033/23:54:32		NOTE: Begin fixed Sub-Reflector for Radio Science		02-033/23:40:02
2790	MGS	02-033/23:57:43		NOTE: Start Block (MAP_RT)		02-033/23:43:13
2791	MGS	02-033/23:57:44		: 00:27:26, 01:29:11, FALSE, TRUE, FALSE, 00:01:15, 00:07:16, 01:13:39, 00:07:00	AEMINI	02-033/23:43:14
2792	MGS	02-033/23:57:44		Enable sending eclipse ingress script when array power disappears	SWEISE	02-033/23:43:14
2793	MGS	02-033/23:57:44		NOTE: Start EVP data return script		02-033/23:43:14
2794	MGS	02-033/23:57:45		: SE_2A, RTM, 01:13:38, MRC, 2002-034T00:29:12.000	AEMRTI	02-033/23:43:15
2795	MGS	02-033/23:59:32		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-033/23:45:02
2796	MGS	02-033/23:59:32		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=3, BITS=24816000, DUR=00:51:42		02-033/23:45:02
2797	MGS	02-033/23:59:32		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-033/23:45:02
2798	MGS	02-033/23:59:32		: 00:07:02, FALSE	RDSCII	02-033/23:45:02
2799	MGS	02-033/23:59:32		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-033/23:45:02
2800	MGS	02-033/23:59:32		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-033/23:45:02
2801	MGS	02-033/23:59:32		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-033/23:45:02
2802	MGS	02-033/23:59:32		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-033/23:45:02
2803	MGS	02-033/23:59:32	25	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
2804	MGS	02-033/23:59:32	25	NOTE: Carrier Only -- No Telemetry Modulation		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
2805	MGS	02-034/00:00:00		Light Time: OWLT = 14:30, RTLT = 29:00		
2806	MGS	02-034/00:01:42		NOTE: Enter Planetary Atmosphere 12993		02-033/23:47:12
2807	MGS	02-034/00:04:15		NOTE: Apoapsis 12993 -		02-033/23:49:45
2808	MGS	02-034/00:06:02		NOTE: Enter Earth Occultation 12993		02-033/23:51:32
2809	MGS	02-034/00:06:02	25	NOTE: Loss Of X-Band Signal		
2810	MGS	02-034/00:06:34		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-033/23:52:04
2811	MGS	02-034/00:06:34		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-033/23:52:04
2812	MGS	02-034/00:06:34		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-033/23:52:04
2813	MGS	02-034/00:06:34		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-033/23:52:04
2814	MGS	02-034/00:06:35		Turn off the MOT Exciter and RPA beam	STRPAF	02-033/23:52:05
2815	MGS	02-034/00:06:35		NOTE: End EVP script		02-033/23:52:05
2816	MGS	02-034/00:06:36		NOTE: End Block (MAP_RT)		02-033/23:52:06
2817	MGS	02-034/00:06:39		NOTE: End fixed Sub-Reflector for Radio Science		02-033/23:52:09
2818	MGS	02-034/00:07:44		NOTE: Enter Solar Eclipse 12993		02-033/23:53:13
2819	MGS	02-034/00:07:44		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-033/23:53:14
2820	MGS	02-034/00:11:40	25	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
2821	MGS	02-034/00:13:40	25	Range Modulation On: SUP=3.0dB		
2822	MGS	02-034/00:14:29		NOTE: Start Block (SSRMGR)		02-033/23:59:59
2823	MGS	02-034/00:14:29		Sends a one-word SSR command to the XSU command SOB: SSR_1A, SE_1A, RECORD, PART1	STSSRC	02-033/23:59:59
2824	MGS	02-034/00:14:30		SSR 1A Data Enable	CSD1AE	02-034/00:00:00
2825	MGS	02-034/00:14:30		SSR Activity: ID=SSR_1A, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-034/00:00:00
2826	MGS	02-034/00:14:40	25	Begin Ranging Acquisition		
2827	MGS	02-034/00:31:25		NOTE: Begin fixed Sub-Reflector for Radio Science		02-034/00:16:54
2828	MGS	02-034/00:32:23		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-034/00:17:53
2829	MGS	02-034/00:32:23		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-034/00:17:53
2830	MGS	02-034/00:32:27		Command the PSE with included data word: 3990	SWPSEL	02-034/00:17:57
2831	MGS	02-034/00:32:28		Set eclipse egress script address: 0158	SWSEES	02-034/00:17:58
2832	MGS	02-034/00:35:10		: 01:29:11	RPAONX	02-034/00:20:40
2833	MGS	02-034/00:35:10		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-034/00:20:40
2834	MGS	02-034/00:36:25		: 00:00:30, 00:07:16, FALSE	RDSCIE	02-034/00:21:55
2835	MGS	02-034/00:36:25		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-034/00:21:55
2836	MGS	02-034/00:36:25		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-034/00:21:55
2837	MGS	02-034/00:36:25		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-034/00:21:55
2838	MGS	02-034/00:36:25		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-034/00:21:55
2839	MGS	02-034/00:36:55		NOTE: Exit Earth Occultation 12993		02-034/00:22:25
2840	MGS	02-034/00:36:55	25	Acquisition Of X-Band Signal		
2841	MGS	02-034/00:36:55	25	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
2842	MGS	02-034/00:36:55	25	NOTE: Carrier Only -- No Telemetry Modulation		
2843	MGS	02-034/00:41:10		SSR 2B Data Disable	CSD2BX	02-034/00:26:40
2844	MGS	02-034/00:41:10		SSR Activity: ID=SSR_2B, FCN=End Recording, PRT=3, BITS=44800000, DUR=01:33:20		02-034/00:26:40
2845	MGS	02-034/00:41:11		NOTE: End Block (SSRMGR)		02-034/00:26:41
2846	MGS	02-034/00:41:31		NOTE: Exit Planetary Atmosphere 12993		02-034/00:27:01
2847	MGS	02-034/00:43:41		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-034/00:29:11
2848	MGS	02-034/00:43:41		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-034/00:29:11
2849	MGS	02-034/00:43:41		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-034/00:29:11
2850	MGS	02-034/00:43:41		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-034/00:29:11
2851	MGS	02-034/00:43:41	25	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
2852	MGS	02-034/00:43:42		: RTM, MRC, 01:13:38, S&E_2A, FALSE, 00:07:01	AEMRT	02-034/00:29:12
2853	MGS	02-034/00:43:42		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-034/00:29:12
2854	MGS	02-034/00:43:42		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-034/00:29:12
2855	MGS	02-034/00:43:42		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=14016000, DUR=00:29:12		02-034/00:29:12
2856	MGS	02-034/00:43:42		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-034/00:29:12
2857	MGS	02-034/00:43:42	25	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
2858	MGS	02-034/00:43:46		NOTE: End fixed Sub-Reflector for Radio Science		02-034/00:29:15

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
2859	MGS	02-034/00:48:11		NOTE: Exit Solar Eclipse 12993		02-034/00:33:40
2860	MGS	02-034/01:03:01		NOTE: Periapsis 12994 ----------		02-034/00:48:31
2861	MGS	02-034/01:13:10		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-034/00:58:40
2862	MGS	02-034/01:13:10		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-034/00:58:40
2863	MGS	02-034/01:13:11		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-034/00:58:41
2864	MGS	02-034/01:13:11		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-034/00:58:41
2865	MGS	02-034/01:16:04	25	NOTE: Transmitter Off in 15 minutes		
2866	MGS	02-034/01:29:04	25	Range Modulation Off		
2867	MGS	02-034/01:31:04	25	Transmitter Off		
2868	MGS	02-034/01:35:11		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-034/01:20:41
2869	MGS	02-034/01:35:11		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-034/01:20:41
2870	MGS	02-034/01:52:20		NOTE: Begin fixed Sub-Reflector for Radio Science		02-034/01:37:49
2871	MGS	02-034/01:55:30		NOTE: Start EVP data return script		02-034/01:41:00
2872	MGS	02-034/01:57:20		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-034/01:42:50
2873	MGS	02-034/01:57:20		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=49360000, DUR=01:13:38		02-034/01:42:50
2874	MGS	02-034/01:57:20		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-034/01:42:50
2875	MGS	02-034/01:57:20		: 00:07:00, FALSE	RDSCII	02-034/01:42:50
2876	MGS	02-034/01:57:20		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-034/01:42:50
2877	MGS	02-034/01:57:20		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-034/01:42:50
2878	MGS	02-034/01:57:20		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-034/01:42:50
2879	MGS	02-034/01:57:20		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-034/01:42:50
2880	MGS	02-034/01:57:20	25	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
2881	MGS	02-034/01:57:20	25	NOTE: Carrier Only -- No Telemetry Modulation		
2882	MGS	02-034/01:59:29		NOTE: Enter Planetary Atmosphere 12994		02-034/01:44:59
2883	MGS	02-034/02:02:05		NOTE: Apoapsis 12994 -		02-034/01:47:35
2884	MGS	02-034/02:03:50		NOTE: Enter Earth Occultation 12994		02-034/01:49:19
2885	MGS	02-034/02:03:50	25	NOTE: Loss Of X-Band Signal		
2886	MGS	02-034/02:04:20		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-034/01:49:50
2887	MGS	02-034/02:04:20		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-034/01:49:50
2888	MGS	02-034/02:04:20		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-034/01:49:50
2889	MGS	02-034/02:04:20		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-034/01:49:50
2890	MGS	02-034/02:04:21		NOTE: End EVP script		02-034/01:49:50
2891	MGS	02-034/02:04:21		Turn off the MOT Exciter and RPA beam	STRPAF	02-034/01:49:51
2892	MGS	02-034/02:04:25		NOTE: End fixed Sub-Reflector for Radio Science		02-034/01:49:54
2893	MGS	02-034/02:05:30		NOTE: Enter Solar Eclipse 12994		02-034/01:50:59
2894	MGS	02-034/02:05:30		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-034/01:51:00
2895	MGS	02-034/02:09:26	25	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
2896	MGS	02-034/02:11:27	25	Range Modulation On: SUP=3.0dB		
2897	MGS	02-034/02:12:27	25	Begin Ranging Acquisition		
2898	MGS	02-034/02:29:11		NOTE: Begin fixed Sub-Reflector for Radio Science		02-034/02:14:40
2899	MGS	02-034/02:30:11		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-034/02:15:41
2900	MGS	02-034/02:30:11		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-034/02:15:41
2901	MGS	02-034/02:30:16		Set eclipse egress script address: 019A	SWSEES	02-034/02:15:46
2902	MGS	02-034/02:32:56		: 01:29:11	RPAONX	02-034/02:18:26
2903	MGS	02-034/02:32:56		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-034/02:18:26
2904	MGS	02-034/02:34:11		: 00:00:30, 00:07:16, FALSE	RDSCIE	02-034/02:19:41
2905	MGS	02-034/02:34:11		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-034/02:19:41
2906	MGS	02-034/02:34:11		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-034/02:19:41
2907	MGS	02-034/02:34:11		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-034/02:19:41
2908	MGS	02-034/02:34:11		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-034/02:19:41
2909	MGS	02-034/02:34:42		NOTE: Exit Earth Occultation 12994		02-034/02:20:12
2910	MGS	02-034/02:34:42	25	Acquisition Of X-Band Signal		
2911	MGS	02-034/02:34:42	25	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
2912	MGS	02-034/02:34:42	25	NOTE: Carrier Only -- No Telemetry Modulation		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
2913	MGS	02-034/02:39:19		NOTE: Exit Planetary Atmosphere 12994		02-034/02:24:49
2914	MGS	02-034/02:41:27		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-034/02:26:57
2915	MGS	02-034/02:41:27		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-034/02:26:57
2916	MGS	02-034/02:41:27		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-034/02:26:57
2917	MGS	02-034/02:41:27		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-034/02:26:57
2918	MGS	02-034/02:41:27	25	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
2919	MGS	02-034/02:41:28		: RTM, MRC, 01:13:38, S&E_2A, FALSE, 00:07:01	AEMRT	02-034/02:26:58
2920	MGS	02-034/02:41:28		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-034/02:26:58
2921	MGS	02-034/02:41:28		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-034/02:26:58
2922	MGS	02-034/02:41:28		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=70544000, DUR=00:44:08		02-034/02:26:58
2923	MGS	02-034/02:41:28		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-034/02:26:58
2924	MGS	02-034/02:41:28	25	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
2925	MGS	02-034/02:41:32		NOTE: End fixed Sub-Reflector for Radio Science		02-034/02:27:01
2926	MGS	02-034/02:45:57		NOTE: Exit Solar Eclipse 12994		02-034/02:31:26
2927	MGS	02-034/03:00:36		NOTE: Periapsis 12995 ----------		02-034/02:46:05
2928	MGS	02-034/03:06:56		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-034/02:52:26
2929	MGS	02-034/03:06:56		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-034/02:52:26
2930	MGS	02-034/03:06:57		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-034/02:52:27
2931	MGS	02-034/03:06:57		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-034/02:52:27
2932	MGS	02-034/03:13:47	25	NOTE: Transmitter Off in 15 minutes		
2933	MGS	02-034/03:26:47	25	Range Modulation Off		
2934	MGS	02-034/03:28:47	25	Transmitter Off		
2935	MGS	02-034/03:28:57		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-034/03:14:27
2936	MGS	02-034/03:28:57		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-034/03:14:27
2937	MGS	02-034/03:50:06		NOTE: Begin fixed Sub-Reflector for Radio Science		02-034/03:35:35
2938	MGS	02-034/03:53:12		NOTE: Start EVP data return script		02-034/03:38:42
2939	MGS	02-034/03:55:06		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-034/03:40:36
2940	MGS	02-034/03:55:06		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=105888000, DUR=01:13:38		02-034/03:40:36
2941	MGS	02-034/03:55:06		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-034/03:40:36
2942	MGS	02-034/03:55:06		: 00:07:00, FALSE	RDSCII	02-034/03:40:36
2943	MGS	02-034/03:55:06		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-034/03:40:36
2944	MGS	02-034/03:55:06		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-034/03:40:36
2945	MGS	02-034/03:55:06		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-034/03:40:36
2946	MGS	02-034/03:55:06		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-034/03:40:36
2947	MGS	02-034/03:55:06	25	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
2948	MGS	02-034/03:55:06	25	NOTE: Carrier Only -- No Telemetry Modulation		
2949	MGS	02-034/03:57:13		NOTE: Enter Planetary Atmosphere 12995		02-034/03:42:42
2950	MGS	02-034/03:59:28		NOTE: Apoapsis 12995 -		02-034/03:44:57
2951	MGS	02-034/04:01:33		NOTE: Enter Earth Occultation 12995		02-034/03:47:02
2952	MGS	02-034/04:01:33	25	NOTE: Loss Of X-Band Signal		
2953	MGS	02-034/04:02:06		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-034/03:47:36
2954	MGS	02-034/04:02:06		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-034/03:47:36
2955	MGS	02-034/04:02:06		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-034/03:47:36
2956	MGS	02-034/04:02:06		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-034/03:47:36
2957	MGS	02-034/04:02:07		NOTE: End EVP script		02-034/03:47:36
2958	MGS	02-034/04:02:07		Turn off the MOT Exciter and RPA beam	STRPAF	02-034/03:47:37
2959	MGS	02-034/04:02:11		NOTE: End fixed Sub-Reflector for Radio Science		02-034/03:47:40
2960	MGS	02-034/04:03:12		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-034/03:48:42
2961	MGS	02-034/04:03:13		NOTE: Enter Solar Eclipse 12995		02-034/03:48:42
2962	MGS	02-034/04:07:09	25	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
2963	MGS	02-034/04:09:10	25	Range Modulation On: SUP=3.0dB		
2964	MGS	02-034/04:10:10	25	Begin Ranging Acquisition		
2965	MGS	02-034/04:26:53		NOTE: Begin fixed Sub-Reflector for Radio Science		02-034/04:12:22
2966	MGS	02-034/04:27:58		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-034/04:13:27

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
2967	MGS	02-034/04:27:58		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-034/04:13:27
2968	MGS	02-034/04:28:03		Set eclipse egress script address: 01DC	SWSEES	02-034/04:13:32
2969	MGS	02-034/04:30:00	25	NOTE: Transmitter Off in 15 minutes		
2970	MGS	02-034/04:30:39		: 01:29:11	RPAONX	02-034/04:16:08
2971	MGS	02-034/04:30:39		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-034/04:16:08
2972	MGS	02-034/04:31:54		: 00:00:30, 00:07:16, FALSE	RDSCIE	02-034/04:17:23
2973	MGS	02-034/04:31:54		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-034/04:17:23
2974	MGS	02-034/04:31:54		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-034/04:17:23
2975	MGS	02-034/04:31:54		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-034/04:17:23
2976	MGS	02-034/04:31:54		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-034/04:17:23
2977	MGS	02-034/04:32:24		Disables autonomous command to send eclipse ingress script	SWEISX	02-034/04:17:53
2978	MGS	02-034/04:32:26		NOTE: Exit Earth Occultation 12995		02-034/04:17:55
2979	MGS	02-034/04:32:26	25	Acquisition Of X-Band Signal		
2980	MGS	02-034/04:32:26	25	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
2981	MGS	02-034/04:32:26	25	NOTE: Carrier Only -- No Telemetry Modulation		
2982	MGS	02-034/04:37:03		NOTE: Exit Planetary Atmosphere 12995		02-034/04:22:32
2983	MGS	02-034/04:39:10		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-034/04:24:39
2984	MGS	02-034/04:39:10		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-034/04:24:39
2985	MGS	02-034/04:39:10		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-034/04:24:39
2986	MGS	02-034/04:39:10		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-034/04:24:39
2987	MGS	02-034/04:39:10	25	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
2988	MGS	02-034/04:39:11		: RTM, MRC, 01:13:38, S&E_2A, FALSE, 00:07:01	AEMRT	02-034/04:24:40
2989	MGS	02-034/04:39:11		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-034/04:24:40
2990	MGS	02-034/04:39:11		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-034/04:24:40
2991	MGS	02-034/04:39:11		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=127040000, DUR=00:44:04		02-034/04:24:40
2992	MGS	02-034/04:39:11		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-034/04:24:40
2993	MGS	02-034/04:39:11	25	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
2994	MGS	02-034/04:39:14		NOTE: End fixed Sub-Reflector for Radio Science		02-034/04:24:43
2995	MGS	02-034/04:43:00	25	Range Modulation Off		
2996	MGS	02-034/04:43:39		NOTE: Exit Solar Eclipse 12995		02-034/04:29:08
2997	MGS	02-034/04:45:00	25	Transmitter Off		
2998	MGS	02-034/04:56:34	25	NOTE: Below Uplink Interlock Limit		
2999	MGS	02-034/04:57:58		NOTE: Periapsis 12996 ----------		02-034/04:43:27
3000	MGS	02-034/04:58:31		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-034/04:44:00
3001	MGS	02-034/04:58:31		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=136320000, DUR=00:19:20		02-034/04:44:00
3002	MGS	02-034/04:58:31		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-034/04:44:00
3003	MGS	02-034/04:58:31		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-034/04:44:00
3004	MGS	02-034/04:58:31	25	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
3005	MGS	02-034/05:00:00	25	End Tracking		
3006	MGS	02-034/05:04:39		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-034/04:50:08
3007	MGS	02-034/05:04:39		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-034/04:50:08
3008	MGS	02-034/05:04:40		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-034/04:50:09
3009	MGS	02-034/05:04:40		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-034/04:50:09
3010	MGS	02-034/05:15:00	25	End Post-Cal		
3011	MGS	02-034/05:26:40		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-034/05:12:09
3012	MGS	02-034/05:26:40		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-034/05:12:09
3013	MGS	02-034/05:47:48		NOTE: Begin fixed Sub-Reflector for Radio Science		02-034/05:33:17
3014	MGS	02-034/05:47:50		NOTE: Start Block (SSRMGR)		02-034/05:33:19
3015	MGS	02-034/05:47:50		Sends a one-word SSR command to the XSU command SOB: SSR_1B, SE_1A, RECORD, PART1	STSSRC	02-034/05:33:19
3016	MGS	02-034/05:47:51		SSR 1B Data Enable	CSD1BE	02-034/05:33:20
3017	MGS	02-034/05:47:51		SSR Activity: ID=SSR_1B, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-034/05:33:20
3018	MGS	02-034/05:52:49		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-034/05:38:18
3019	MGS	02-034/05:52:49		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=1, BITS=2384000, DUR=00:04:58		02-034/05:38:18
3020	MGS	02-034/05:52:49		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-034/05:38:18

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
3021	MGS	02-034/05:52:49		: 00:07:00, FALSE	RDSCII	02-034/05:38:18
3022	MGS	02-034/05:52:49		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-034/05:38:18
3023	MGS	02-034/05:52:49		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-034/05:38:18
3024	MGS	02-034/05:52:49		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-034/05:38:18
3025	MGS	02-034/05:52:49		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-034/05:38:18
3026	MGS	02-034/05:54:53		NOTE: Enter Planetary Atmosphere 12996		02-034/05:40:22
3027	MGS	02-034/05:57:03		NOTE: Apoapsis 12996 -		02-034/05:42:32
3028	MGS	02-034/05:59:13		NOTE: Enter Earth Occultation 12996		02-034/05:44:42
3029	MGS	02-034/05:59:49		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-034/05:45:18
3030	MGS	02-034/05:59:49		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-034/05:45:18
3031	MGS	02-034/05:59:49		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-034/05:45:18
3032	MGS	02-034/05:59:49		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-034/05:45:18
3033	MGS	02-034/05:59:49		NOTE: End EVP script		02-034/05:45:18
3034	MGS	02-034/05:59:50		Turn off the MOT Exciter and RPA beam	STRPAF	02-034/05:45:19
3035	MGS	02-034/05:59:50		NOTE: End Block (MAP_RT)		02-034/05:45:19
3036	MGS	02-034/05:59:53		NOTE: End fixed Sub-Reflector for Radio Science		02-034/05:45:22
3037	MGS	02-034/06:00:53		NOTE: Enter Solar Eclipse 12996		02-034/05:46:22
3038	MGS	02-034/06:14:31		SSR 1A Data Disable	CSD1AX	02-034/06:00:00
3039	MGS	02-034/06:14:31		SSR Activity: ID=SSR_1A, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-034/06:00:00
3040	MGS	02-034/06:14:32		NOTE: End Block (SSRMGR)		02-034/06:00:01
3041	MGS	02-034/06:15:19		Disable HGA control mode	SAHGCX	02-034/06:00:48
3042	MGS	02-034/06:15:20		No Operation	SCNOOP	02-034/06:00:49
3043	MGS	02-034/06:15:21		CDU-1 Uplink Rate Select (Based on 3 bit Code): 7	TCC1BS	02-034/06:00:50
3044	MGS	02-034/06:15:21		CDU-2 Uplink Rate Select (Based on 3 bit Code): 7	TCC2BS	02-034/06:00:50
3045	MGS	02-034/06:25:40		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-034/06:11:09
3046	MGS	02-034/06:25:40		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-034/06:11:09
3047	MGS	02-034/06:25:44		Command the PSE with included data word: 3990	SWPSEL	02-034/06:11:13
3048	MGS	02-034/06:25:45		Set eclipse egress script address: 0158	SWSEES	02-034/06:11:14
3049	MGS	02-034/06:30:07		NOTE: Exit Earth Occultation 12996		02-034/06:15:36
3050	MGS	02-034/06:34:43		NOTE: Exit Planetary Atmosphere 12996		02-034/06:20:12
3051	MGS	02-034/06:41:20		NOTE: Exit Solar Eclipse 12996		02-034/06:26:48
3052	MGS	02-034/06:55:33		NOTE: Periapsis 12997 ----------		02-034/06:41:01
3053	MGS	02-034/07:06:19		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-034/06:51:48
3054	MGS	02-034/07:06:19		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-034/06:51:48
3055	MGS	02-034/07:06:20		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-034/06:51:49
3056	MGS	02-034/07:06:20		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-034/06:51:49
3057	MGS	02-034/07:28:20		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-034/07:13:49
3058	MGS	02-034/07:28:20		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-034/07:13:49
3059	MGS	02-034/07:52:37		NOTE: Enter Planetary Atmosphere 12997		02-034/07:38:05
3060	MGS	02-034/07:54:57		NOTE: Apoapsis 12997 -		02-034/07:40:25
3061	MGS	02-034/07:56:56		NOTE: Enter Earth Occultation 12997		02-034/07:42:25
3062	MGS	02-034/07:58:38		NOTE: Enter Solar Eclipse 12997		02-034/07:44:06
3063	MGS	02-034/08:23:20		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-034/08:08:49
3064	MGS	02-034/08:23:20		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-034/08:08:49
3065	MGS	02-034/08:23:25		Set eclipse egress script address: 019A	SWSEES	02-034/08:08:54
3066	MGS	02-034/08:27:51		NOTE: Exit Earth Occultation 12997		02-034/08:13:20
3067	MGS	02-034/08:32:27		NOTE: Exit Planetary Atmosphere 12997		02-034/08:17:55
3068	MGS	02-034/08:39:04		NOTE: Exit Solar Eclipse 12997		02-034/08:24:33
3069	MGS	02-034/08:40:00	65	Begin Pre-Cal		
3070	MGS	02-034/08:40:00	65	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
3071	MGS	02-034/08:40:00	65	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
3072	MGS	02-034/08:40:00	65	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
3073	MGS	02-034/08:40:00	65	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
3074	MGS	02-034/08:40:00	65	At BOT: S/C Tlm Mode: BR=8000.0, FL=10000, SC=HIGH, MI=80.0		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
3075	MGS	02-034/08:40:00	65	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
3076	MGS	02-034/08:40:00	65	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
3077	MGS	02-034/08:40:00	65	Config: TGC: DEST=37		
3078	MGS	02-034/08:40:00	65	Config: TGC: BAND=X, BR=8000.000000		
3079	MGS	02-034/08:40:00	65	Config: FSS: CH=2, PRI_FL=10000		
3080	MGS	02-034/08:40:00	65	Config: RSR		
3081	MGS	02-034/08:40:00	65	Config: TXL		
3082	MGS	02-034/08:40:00	65	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
3083	MGS	02-034/08:40:00	65	Config: BVR		
3084	MGS	02-034/08:40:00	65	Config: Doppler Extractor: BIAS=+1MHZ		
3085	MGS	02-034/08:40:00	65	Config: MDA: SMPL=0.1		
3086	MGS	02-034/08:40:00	65	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
3087	MGS	02-034/08:40:00	65	Config: SRA: HIGH=4, LOW=14, SERV=D		
3088	MGS	02-034/08:40:00	65	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
3089	MGS	02-034/08:53:26		NOTE: Periapsis 12998 ----------		02-034/08:38:55
3090	MGS	02-034/09:00:03		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-034/08:45:32
3091	MGS	02-034/09:00:03		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-034/08:45:32
3092	MGS	02-034/09:00:04		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-034/08:45:33
3093	MGS	02-034/09:00:04		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-034/08:45:33
3094	MGS	02-034/09:22:04		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-034/09:07:33
3095	MGS	02-034/09:22:04		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-034/09:07:33
3096	MGS	02-034/09:46:24		NOTE: Start Block (MAP_RT)		02-034/09:31:53
3097	MGS	02-034/09:46:25		: 00:27:29, 01:29:06, FALSE, TRUE, FALSE, 00:01:15, 00:07:16, 01:13:36, 00:06:58	AEMINI	02-034/09:31:54
3098	MGS	02-034/09:46:25		Enable sending eclipse ingress script when array power disappears	SWEISE	02-034/09:31:54
3099	MGS	02-034/09:46:25		NOTE: Start EVP data return script		02-034/09:31:54
3100	MGS	02-034/09:46:26		: SE_1A, MRC, 01:13:35, MRC, 2002-034T10:17:55.000	AEMRTI	02-034/09:31:55
3101	MGS	02-034/09:50:25		NOTE: Enter Planetary Atmosphere 12998		02-034/09:35:53
3102	MGS	02-034/09:52:41		NOTE: Apoapsis 12998 -		02-034/09:38:09
3103	MGS	02-034/09:54:44		NOTE: Enter Earth Occultation 12998		02-034/09:40:12
3104	MGS	02-034/09:56:25		NOTE: Enter Solar Eclipse 12998		02-034/09:41:53
3105	MGS	02-034/09:56:25		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-034/09:41:54
3106	MGS	02-034/10:11:02		Select Automatic HGA control mode	SAHACE	02-034/09:56:31
3107	MGS	02-034/10:11:03		Selects Hign Gain Antenna for downlink, Reconfigures if beam is already on	STUHGA	02-034/09:56:32
3108	MGS	02-034/10:11:04		CDU-1 Uplink Rate Select (Based on 3 bit Code): 3	TCC1BS	02-034/09:56:33
3109	MGS	02-034/10:11:04		CDU-2 Uplink Rate Select (Based on 3 bit Code): 3	TCC2BS	02-034/09:56:33
3110	MGS	02-034/10:20:09		NOTE: Begin fixed Sub-Reflector for Radio Science		02-034/10:05:37
3111	MGS	02-034/10:21:04		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-034/10:06:33
3112	MGS	02-034/10:21:04		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-034/10:06:33
3113	MGS	02-034/10:21:09		Set eclipse egress script address: 01DC	SWSEES	02-034/10:06:38
3114	MGS	02-034/10:23:54		: 01:29:06	RPAONX	02-034/10:09:23
3115	MGS	02-034/10:23:54		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-034/10:09:23
3116	MGS	02-034/10:25:09		: 00:00:30, 00:07:16, FALSE	RDSCIE	02-034/10:10:38
3117	MGS	02-034/10:25:09		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-034/10:10:38
3118	MGS	02-034/10:25:09		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-034/10:10:38
3119	MGS	02-034/10:25:09		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-034/10:10:38
3120	MGS	02-034/10:25:09		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-034/10:10:38
3121	MGS	02-034/10:25:39		NOTE: Exit Earth Occultation 12998		02-034/10:11:07
3122	MGS	02-034/10:25:39		Disables autonomous command to send eclipse ingress script	SWEISX	02-034/10:11:08
3123	MGS	02-034/10:30:15		NOTE: Exit Planetary Atmosphere 12998		02-034/10:15:43
3124	MGS	02-034/10:32:25		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-034/10:17:54
3125	MGS	02-034/10:32:25		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-034/10:17:54
3126	MGS	02-034/10:32:25		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-034/10:17:54
3127	MGS	02-034/10:32:25		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-034/10:17:54
3128	MGS	02-034/10:32:26		: MRC, MRC, 01:13:35, S&E_1A, FALSE, 00:06:59	AEMRT	02-034/10:17:55

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
3129	MGS	02-034/10:32:26		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-034/10:17:55
3130	MGS	02-034/10:32:26		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-034/10:17:55
3131	MGS	02-034/10:32:26		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=1, BITS=136600000, DUR=04:39:37		02-034/10:17:55
3132	MGS	02-034/10:32:26		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-034/10:17:55
3133	MGS	02-034/10:32:30		NOTE: End fixed Sub-Reflector for Radio Science		02-034/10:17:58
3134	MGS	02-034/10:36:52		NOTE: Exit Solar Eclipse 12998		02-034/10:22:20
3135	MGS	02-034/10:40:00	65	Begin Tracking		
3136	MGS	02-034/10:40:00	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
3137	MGS	02-034/10:43:44	65	NOTE: Above Uplink Interlock Limit		
3138	MGS	02-034/10:45:26		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-034/10:30:54
3139	MGS	02-034/10:45:26		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=1, BITS=142832000, DUR=00:12:59		02-034/10:30:54
3140	MGS	02-034/10:45:26		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-034/10:30:54
3141	MGS	02-034/10:45:28		NOTE: Start Block (SSRMGR)		02-034/10:30:56
3142	MGS	02-034/10:45:28		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-034/10:30:56
3143	MGS	02-034/10:45:28		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-034/10:30:56
3144	MGS	02-034/10:45:29		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-034/10:30:57
3145	MGS	02-034/10:45:30		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, PLYBCK, PART3	STSSRC	02-034/10:30:58
3146	MGS	02-034/10:45:31		SSR 2A Data Enable	CSD2AE	02-034/10:30:59
3147	MGS	02-034/10:45:31		SSR Activity: ID=SSR_2A, FCN=Start Playback, PRT=3, BR=42666		02-034/10:30:59
3148	MGS	02-034/10:45:31	65	D/L Change: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
3149	MGS	02-034/10:51:15		NOTE: Periapsis 12999 ----------		02-034/10:36:43
3150	MGS	02-034/10:57:52		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-034/10:43:20
3151	MGS	02-034/10:57:52		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-034/10:43:20
3152	MGS	02-034/10:57:53		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-034/10:43:21
3153	MGS	02-034/10:57:53		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-034/10:43:21
3154	MGS	02-034/10:57:58		NOTE: Start Block (SSRMGR)		02-034/10:43:26
3155	MGS	02-034/10:57:58		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-034/10:43:26
3156	MGS	02-034/10:57:58		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-034/10:43:26
3157	MGS	02-034/10:57:59		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-034/10:43:27
3158	MGS	02-034/10:57:59		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, ENBSCR, PART1	STSSRC	02-034/10:43:27
3159	MGS	02-034/10:58:00		Sends a one-word SSR command to the XSU command SOB: SSR_2B, F42KHZ, PLYBCK, PART3	STSSRC	02-034/10:43:28
3160	MGS	02-034/10:58:01		SSR 2A Data Disable	CSD2AX	02-034/10:43:29
3161	MGS	02-034/10:58:01		SSR 2B Data Enable	CSD2BE	02-034/10:43:29
3162	MGS	02-034/10:58:01		SSR Activity: ID=SSR_2B, FCN=Start Playback, PRT=3, BR=42666		02-034/10:43:29
3163	MGS	02-034/10:58:02		NOTE: End Block (SSRMGR)		02-034/10:43:30
3164	MGS	02-034/11:15:31		SSR 2B Data Disable	CSD2BX	02-034/11:00:59
3165	MGS	02-034/11:15:31		SSR Activity: ID=SSR_2B, FCN=End Playback, PRT=3, BITS=44800000, DUR=00:17:30		02-034/11:00:59
3166	MGS	02-034/11:15:32		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-034/11:01:00
3167	MGS	02-034/11:15:32		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-034/11:01:00
3168	MGS	02-034/11:15:32		NOTE: End Block (SSRMGR)		02-034/11:01:00
3169	MGS	02-034/11:15:32	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
3170	MGS	02-034/11:19:53		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-034/11:05:21
3171	MGS	02-034/11:19:53		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-034/11:05:21
3172	MGS	02-034/11:21:11		NOTE: Start Block (SSRMGR)		02-034/11:06:39
3173	MGS	02-034/11:21:11		Sends a one-word SSR command to the XSU command SOB: SSR_1A, SE_1A, RECORD, PART2	STSSRC	02-034/11:06:39
3174	MGS	02-034/11:21:12		SSR 1A Data Enable	CSD1AE	02-034/11:06:40
3175	MGS	02-034/11:21:12		SSR Activity: ID=SSR_1A, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-034/11:06:40
3176	MGS	02-034/11:41:01		NOTE: Begin fixed Sub-Reflector for Radio Science		02-034/11:26:29
3177	MGS	02-034/11:44:12		NOTE: Start Block (MAP_PB)		02-034/11:29:40
3178	MGS	02-034/11:44:13		: 00:27:29, 01:29:07, FALSE, TRUE, FALSE, 00:01:15, 00:07:16, 01:13:37, 00:06:58	AEMINI	02-034/11:29:41
3179	MGS	02-034/11:44:13		Enable sending eclipse ingress script when array power disappears	SWEISE	02-034/11:29:41
3180	MGS	02-034/11:44:13		NOTE: Start EVP data return script		02-034/11:29:41
3181	MGS	02-034/11:44:14		: SSR_2A, F42KHZ, PART1, SE_1A, 2002-034T12:15:41.000	AEMPBI	02-034/11:29:42
3182	MGS	02-034/11:46:02		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-034/11:31:30

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
3183	MGS	02-034/11:46:02		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=2, BITS=11920000, DUR=00:24:50		02-034/11:31:30
3184	MGS	02-034/11:46:02		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-034/11:31:30
3185	MGS	02-034/11:46:02		: 00:06:58, FALSE	RDSCII	02-034/11:31:30
3186	MGS	02-034/11:46:02		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-034/11:31:30
3187	MGS	02-034/11:46:02		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-034/11:31:30
3188	MGS	02-034/11:46:02		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-034/11:31:30
3189	MGS	02-034/11:46:02		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-034/11:31:30
3190	MGS	02-034/11:46:02	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
3191	MGS	02-034/11:46:02	65	NOTE: Carrier Only -- No Telemetry Modulation		
3192	MGS	02-034/11:47:52		SSR 1B Data Disable	CSD1BX	02-034/11:33:20
3193	MGS	02-034/11:47:52		SSR Activity: ID=SSR_1B, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-034/11:33:20
3194	MGS	02-034/11:47:53		NOTE: End Block (SSRMGR)		02-034/11:33:21
3195	MGS	02-034/11:48:12		NOTE: Enter Planetary Atmosphere 12999		02-034/11:33:40
3196	MGS	02-034/11:50:16		NOTE: Apoapsis 12999 -		02-034/11:35:44
3197	MGS	02-034/11:52:31		NOTE: Enter Earth Occultation 12999		02-034/11:37:59
3198	MGS	02-034/11:52:31	65	NOTE: Loss Of X-Band Signal		
3199	MGS	02-034/11:53:00		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-034/11:38:28
3200	MGS	02-034/11:53:00		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-034/11:38:28
3201	MGS	02-034/11:53:00		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-034/11:38:28
3202	MGS	02-034/11:53:00		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-034/11:38:28
3203	MGS	02-034/11:53:00		NOTE: End EVP script		02-034/11:38:28
3204	MGS	02-034/11:53:01		Turn off the MOT Exciter and RPA beam	STRPAF	02-034/11:38:29
3205	MGS	02-034/11:53:01		NOTE: End Block (MAP_RT)		02-034/11:38:29
3206	MGS	02-034/11:53:04		NOTE: End fixed Sub-Reflector for Radio Science		02-034/11:38:32
3207	MGS	02-034/11:54:12		NOTE: Enter Solar Eclipse 12999		02-034/11:39:40
3208	MGS	02-034/11:54:13		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-034/11:39:41
3209	MGS	02-034/12:14:32		Dump SCP memory to the EDF using physical addressing arguments: 56A4, 240	SCDSCM	02-034/12:00:00
3210	MGS	02-034/12:17:56		NOTE: Begin fixed Sub-Reflector for Radio Science		02-034/12:03:24
3211	MGS	02-034/12:18:53		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-034/12:04:21
3212	MGS	02-034/12:18:53		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-034/12:04:21
3213	MGS	02-034/12:18:57		Command the PSE with included data word: 3990	SWPSEL	02-034/12:04:25
3214	MGS	02-034/12:18:58		Set eclipse egress script address: 0158	SWSEES	02-034/12:04:26
3215	MGS	02-034/12:21:42		: 01:29:07	RPAONX	02-034/12:07:10
3216	MGS	02-034/12:21:42		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-034/12:07:10
3217	MGS	02-034/12:22:57		: 00:00:30, 00:07:16, FALSE	RDSCIE	02-034/12:08:25
3218	MGS	02-034/12:22:57		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-034/12:08:25
3219	MGS	02-034/12:22:57		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-034/12:08:25
3220	MGS	02-034/12:22:57		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-034/12:08:25
3221	MGS	02-034/12:22:57		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-034/12:08:25
3222	MGS	02-034/12:23:26		NOTE: Exit Earth Occultation 12999		02-034/12:08:54
3223	MGS	02-034/12:23:26	65	Acquisition Of X-Band Signal		
3224	MGS	02-034/12:23:26	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
3225	MGS	02-034/12:23:26	65	NOTE: Carrier Only -- No Telemetry Modulation		
3226	MGS	02-034/12:28:02		NOTE: Exit Planetary Atmosphere 12999		02-034/12:13:30
3227	MGS	02-034/12:30:13		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-034/12:15:41
3228	MGS	02-034/12:30:13		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-034/12:15:41
3229	MGS	02-034/12:30:13		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-034/12:15:41
3230	MGS	02-034/12:30:13		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-034/12:15:41
3231	MGS	02-034/12:30:13		: REC_2A, F42KHZ, PART1, SE_1A, FALSE, 00:11:57	AEMPB	02-034/12:15:41
3232	MGS	02-034/12:30:13		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-034/12:15:41
3233	MGS	02-034/12:30:13		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, PLYBCK, PART1	STSSRC	02-034/12:15:41
3234	MGS	02-034/12:30:13	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
3235	MGS	02-034/12:30:14		SSR 2A Data Enable	CSD2AE	02-034/12:15:42
3236	MGS	02-034/12:30:14		SSR Activity: ID=SSR_2A, FCN=Start Playback, PRT=1, BR=42666		02-034/12:15:42

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
3237	MGS	02-034/12:30:14	65	D/L Change: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
3238	MGS	02-034/12:30:17		NOTE: End fixed Sub-Reflector for Radio Science		02-034/12:15:45
3239	MGS	02-034/12:34:39		NOTE: Exit Solar Eclipse 12999		02-034/12:20:07
3240	MGS	02-034/12:48:57		NOTE: Periapsis 13000 ----------		02-034/12:34:25
3241	MGS	02-034/12:59:38		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-034/12:45:06
3242	MGS	02-034/12:59:38		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-034/12:45:06
3243	MGS	02-034/12:59:39		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-034/12:45:07
3244	MGS	02-034/12:59:39		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-034/12:45:07
3245	MGS	02-034/13:21:39		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-034/13:07:07
3246	MGS	02-034/13:21:39		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-034/13:07:07
3247	MGS	02-034/13:38:50		NOTE: Begin fixed Sub-Reflector for Radio Science		02-034/13:24:17
3248	MGS	02-034/13:38:52		SSR 2A Data Disable	CSD2AX	02-034/13:24:20
3249	MGS	02-034/13:38:52		SSR Activity: ID=SSR_2A, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-034/13:24:20
3250	MGS	02-034/13:38:52		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-034/13:24:20
3251	MGS	02-034/13:38:52	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
3252	MGS	02-034/13:41:58		NOTE: Start EVP data return script		02-034/13:27:26
3253	MGS	02-034/13:41:58		: SSR_2B, F42KHZ, PART1, 2002-034T14:13:26.000	AEMPBU	02-034/13:27:26
3254	MGS	02-034/13:43:50		: 00:06:58, FALSE	RDSCII	02-034/13:29:18
3255	MGS	02-034/13:43:50		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-034/13:29:18
3256	MGS	02-034/13:43:50		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-034/13:29:18
3257	MGS	02-034/13:43:50		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-034/13:29:18
3258	MGS	02-034/13:43:50		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-034/13:29:18
3259	MGS	02-034/13:43:50	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
3260	MGS	02-034/13:43:50	65	NOTE: Carrier Only -- No Telemetry Modulation		
3261	MGS	02-034/13:45:57		NOTE: Enter Planetary Atmosphere 13000		02-034/13:31:25
3262	MGS	02-034/13:47:47		NOTE: Apoapsis 13000 -		02-034/13:33:14
3263	MGS	02-034/13:50:16		NOTE: Enter Earth Occultation 13000		02-034/13:35:44
3264	MGS	02-034/13:50:16	65	NOTE: Loss Of X-Band Signal		
3265	MGS	02-034/13:50:48		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-034/13:36:16
3266	MGS	02-034/13:50:48		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-034/13:36:16
3267	MGS	02-034/13:50:48		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-034/13:36:16
3268	MGS	02-034/13:50:48		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-034/13:36:16
3269	MGS	02-034/13:50:49		NOTE: End EVP script		02-034/13:36:16
3270	MGS	02-034/13:50:49		Turn off the MOT Exciter and RPA beam	STRPAF	02-034/13:36:17
3271	MGS	02-034/13:50:53		NOTE: End fixed Sub-Reflector for Radio Science		02-034/13:36:20
3272	MGS	02-034/13:51:58		NOTE: Enter Solar Eclipse 13000		02-034/13:37:25
3273	MGS	02-034/13:51:58		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-034/13:37:26
3274	MGS	02-034/14:15:42		NOTE: Begin fixed Sub-Reflector for Radio Science		02-034/14:01:09
3275	MGS	02-034/14:16:39		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-034/14:02:07
3276	MGS	02-034/14:16:39		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-034/14:02:07
3277	MGS	02-034/14:16:44		Set eclipse egress script address: 019A	SWSEES	02-034/14:02:12
3278	MGS	02-034/14:19:27		: 01:29:07	RPAONX	02-034/14:04:55
3279	MGS	02-034/14:19:27		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-034/14:04:55
3280	MGS	02-034/14:20:42		: 00:00:30, 00:07:16, FALSE	RDSCIE	02-034/14:06:10
3281	MGS	02-034/14:20:42		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-034/14:06:10
3282	MGS	02-034/14:20:42		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-034/14:06:10
3283	MGS	02-034/14:20:42		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-034/14:06:10
3284	MGS	02-034/14:20:42		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-034/14:06:10
3285	MGS	02-034/14:21:13		NOTE: Exit Earth Occultation 13000		02-034/14:06:40
3286	MGS	02-034/14:21:13	65	Acquisition Of X-Band Signal		
3287	MGS	02-034/14:21:13	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
3288	MGS	02-034/14:21:13	65	NOTE: Carrier Only -- No Telemetry Modulation		
3289	MGS	02-034/14:25:48		NOTE: Exit Planetary Atmosphere 13000		02-034/14:11:16
3290	MGS	02-034/14:27:58		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-034/14:13:26

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
3291	MGS	02-034/14:27:58		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-034/14:13:26
3292	MGS	02-034/14:27:58		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-034/14:13:26
3293	MGS	02-034/14:27:58		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-034/14:13:26
3294	MGS	02-034/14:27:58		: REC_2B, F42KHZ, PART1, SE_1A, FALSE, 00:11:57	AEMPB	02-034/14:13:26
3295	MGS	02-034/14:27:58		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-034/14:13:26
3296	MGS	02-034/14:27:58		Sends a one-word SSR command to the XSU command SOB: SSR_2B, F42KHZ, PLYBCK, PART1	STSSRC	02-034/14:13:26
3297	MGS	02-034/14:27:58	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
3298	MGS	02-034/14:27:59		SSR 2B Data Enable	CSD2BE	02-034/14:13:27
3299	MGS	02-034/14:27:59		SSR Activity: ID=SSR_2B, FCN=Start Playback, PRT=1, BR=42666		02-034/14:13:27
3300	MGS	02-034/14:27:59	65	D/L Change: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
3301	MGS	02-034/14:28:03		NOTE: End fixed Sub-Reflector for Radio Science		02-034/14:13:30
3302	MGS	02-034/14:32:24		NOTE: Exit Solar Eclipse 13000		02-034/14:17:52
3303	MGS	02-034/14:46:44		NOTE: Periapsis 13001 ----------		02-034/14:32:11
3304	MGS	02-034/14:53:23		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-034/14:38:51
3305	MGS	02-034/14:53:23		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-034/14:38:51
3306	MGS	02-034/14:53:24		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-034/14:38:52
3307	MGS	02-034/14:53:24		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-034/14:38:52
3308	MGS	02-034/15:15:24		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-034/15:00:52
3309	MGS	02-034/15:15:24		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-034/15:00:52
3310	MGS	02-034/15:36:35		NOTE: Begin fixed Sub-Reflector for Radio Science		02-034/15:22:02
3311	MGS	02-034/15:36:37		SSR 2B Data Disable	CSD2BX	02-034/15:22:05
3312	MGS	02-034/15:36:37		SSR Activity: ID=SSR_2B, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-034/15:22:05
3313	MGS	02-034/15:36:37		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-034/15:22:05
3314	MGS	02-034/15:36:37	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
3315	MGS	02-034/15:39:41		NOTE: Start EVP data return script		02-034/15:25:09
3316	MGS	02-034/15:39:41		: SSR_2A, F42KHZ, PART2, 2002-034T16:11:09.000	AEMPBU	02-034/15:25:09
3317	MGS	02-034/15:41:35		: 00:06:58, FALSE	RDSCII	02-034/15:27:03
3318	MGS	02-034/15:41:35		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-034/15:27:03
3319	MGS	02-034/15:41:35		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-034/15:27:03
3320	MGS	02-034/15:41:35		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-034/15:27:03
3321	MGS	02-034/15:41:35		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-034/15:27:03
3322	MGS	02-034/15:41:35	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
3323	MGS	02-034/15:41:35	65	NOTE: Carrier Only -- No Telemetry Modulation		
3324	MGS	02-034/15:43:40		NOTE: Enter Planetary Atmosphere 13001		02-034/15:29:07
3325	MGS	02-034/15:45:38		NOTE: Apoapsis 13001 -		02-034/15:31:06
3326	MGS	02-034/15:47:59		NOTE: Enter Earth Occultation 13001		02-034/15:33:26
3327	MGS	02-034/15:47:59	65	NOTE: Loss Of X-Band Signal		
3328	MGS	02-034/15:48:33		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-034/15:34:01
3329	MGS	02-034/15:48:33		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-034/15:34:01
3330	MGS	02-034/15:48:33		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-034/15:34:01
3331	MGS	02-034/15:48:33		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-034/15:34:01
3332	MGS	02-034/15:48:34		NOTE: End EVP script		02-034/15:34:01
3333	MGS	02-034/15:48:34		Turn off the MOT Exciter and RPA beam	STRPAF	02-034/15:34:02
3334	MGS	02-034/15:48:38		NOTE: End fixed Sub-Reflector for Radio Science		02-034/15:34:05
3335	MGS	02-034/15:49:41		NOTE: Enter Solar Eclipse 13001		02-034/15:35:08
3336	MGS	02-034/15:49:41		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-034/15:35:09
3337	MGS	02-034/16:13:25		NOTE: Begin fixed Sub-Reflector for Radio Science		02-034/15:58:52
3338	MGS	02-034/16:14:24		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-034/15:59:52
3339	MGS	02-034/16:14:24		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-034/15:59:52
3340	MGS	02-034/16:14:29		Set eclipse egress script address: 01DC	SWSEES	02-034/15:59:57
3341	MGS	02-034/16:17:10		: 01:29:07	RPAONX	02-034/16:02:38
3342	MGS	02-034/16:17:10		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-034/16:02:38
3343	MGS	02-034/16:18:25		: 00:00:30, 00:07:16, FALSE	RDSCIE	02-034/16:03:53
3344	MGS	02-034/16:18:25		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-034/16:03:53

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
3345	MGS	02-034/16:18:25		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-034/16:03:53
3346	MGS	02-034/16:18:25		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-034/16:03:53
3347	MGS	02-034/16:18:25		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-034/16:03:53
3348	MGS	02-034/16:18:56		NOTE: Exit Earth Occultation 13001		02-034/16:04:24
3349	MGS	02-034/16:18:56	65	Acquisition Of X-Band Signal		
3350	MGS	02-034/16:18:56	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
3351	MGS	02-034/16:18:56	65	NOTE: Carrier Only -- No Telemetry Modulation		
3352	MGS	02-034/16:23:33		NOTE: Exit Planetary Atmosphere 13001		02-034/16:09:00
3353	MGS	02-034/16:25:41		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-034/16:11:09
3354	MGS	02-034/16:25:41		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-034/16:11:09
3355	MGS	02-034/16:25:41		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-034/16:11:09
3356	MGS	02-034/16:25:41		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-034/16:11:09
3357	MGS	02-034/16:25:41		: REC_2A, F42KHZ, PART2, SE_1A, FALSE, 00:11:57	AEMPB	02-034/16:11:09
3358	MGS	02-034/16:25:41		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-034/16:11:09
3359	MGS	02-034/16:25:41		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, PLYBCK, PART2	STSSRC	02-034/16:11:09
3360	MGS	02-034/16:25:41	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
3361	MGS	02-034/16:25:42		SSR 2A Data Enable	CSD2AE	02-034/16:11:10
3362	MGS	02-034/16:25:42		SSR Activity: ID=SSR_2A, FCN=Start Playback, PRT=2, BR=42666		02-034/16:11:10
3363	MGS	02-034/16:25:42	65	D/L Change: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
3364	MGS	02-034/16:25:46		NOTE: End fixed Sub-Reflector for Radio Science		02-034/16:11:13
3365	MGS	02-034/16:30:07		NOTE: Exit Solar Eclipse 13001		02-034/16:15:35
3366	MGS	02-034/16:44:26		NOTE: Periapsis 13002 ----------		02-034/16:29:53
3367	MGS	02-034/16:51:06		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-034/16:36:34
3368	MGS	02-034/16:51:06		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-034/16:36:34
3369	MGS	02-034/16:51:07		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-034/16:36:35
3370	MGS	02-034/16:51:07		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-034/16:36:35
3371	MGS	02-034/16:54:31		NOTE: Start Block (SSRMGR)		02-034/16:39:59
3372	MGS	02-034/16:54:31		Sends a one-word SSR command to the XSU command SOB: SSR_1B, SE_1A, RECORD, PART2	STSSRC	02-034/16:39:59
3373	MGS	02-034/16:54:32		SSR 1B Data Enable	CSD1BE	02-034/16:40:00
3374	MGS	02-034/16:54:32		SSR Activity: ID=SSR_1B, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-034/16:40:00
3375	MGS	02-034/17:13:08		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-034/16:58:35
3376	MGS	02-034/17:13:08		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-034/16:58:35
3377	MGS	02-034/17:21:13		SSR 1A Data Disable	CSD1AX	02-034/17:06:40
3378	MGS	02-034/17:21:13		SSR Activity: ID=SSR_1A, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-034/17:06:40
3379	MGS	02-034/17:21:14		NOTE: End Block (SSRMGR)		02-034/17:06:41
3380	MGS	02-034/17:34:18		NOTE: Begin fixed Sub-Reflector for Radio Science		02-034/17:19:45
3381	MGS	02-034/17:34:21		SSR 2A Data Disable	CSD2AX	02-034/17:19:48
3382	MGS	02-034/17:34:21		SSR Activity: ID=SSR_2A, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-034/17:19:48
3383	MGS	02-034/17:34:21		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-034/17:19:48
3384	MGS	02-034/17:34:21	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
3385	MGS	02-034/17:37:23		NOTE: Start EVP data return script		02-034/17:22:50
3386	MGS	02-034/17:37:23		: SSR_2B, F42KHZ, PART2, 2002-034T18:08:50.000	AEMPBU	02-034/17:22:50
3387	MGS	02-034/17:39:19		: 00:06:58, FALSE	RDSCII	02-034/17:24:46
3388	MGS	02-034/17:39:19		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-034/17:24:46
3389	MGS	02-034/17:39:19		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-034/17:24:46
3390	MGS	02-034/17:39:19		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-034/17:24:46
3391	MGS	02-034/17:39:19		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-034/17:24:46
3392	MGS	02-034/17:39:19	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
3393	MGS	02-034/17:39:19	65	NOTE: Carrier Only -- No Telemetry Modulation		
3394	MGS	02-034/17:41:23		NOTE: Enter Planetary Atmosphere 13002		02-034/17:26:50
3395	MGS	02-034/17:43:23		NOTE: Apoapsis 13002 -		02-034/17:28:50
3396	MGS	02-034/17:45:42		NOTE: Enter Earth Occultation 13002		02-034/17:31:09
3397	MGS	02-034/17:45:42	65	NOTE: Loss Of X-Band Signal		
3398	MGS	02-034/17:46:17		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-034/17:31:44

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
3399	MGS	02-034/17:46:17		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-034/17:31:44
3400	MGS	02-034/17:46:17		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-034/17:31:44
3401	MGS	02-034/17:46:17		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-034/17:31:44
3402	MGS	02-034/17:46:17		NOTE: End EVP script		02-034/17:31:44
3403	MGS	02-034/17:46:18		Turn off the MOT Exciter and RPA beam	STRPAF	02-034/17:31:45
3404	MGS	02-034/17:46:21		NOTE: End fixed Sub-Reflector for Radio Science		02-034/17:31:48
3405	MGS	02-034/17:47:23		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-034/17:32:50
3406	MGS	02-034/17:47:23		NOTE: Enter Solar Eclipse 13002		02-034/17:32:50
3407	MGS	02-034/18:11:06		NOTE: Begin fixed Sub-Reflector for Radio Science		02-034/17:56:33
3408	MGS	02-034/18:12:08		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-034/17:57:35
3409	MGS	02-034/18:12:08		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-034/17:57:35
3410	MGS	02-034/18:12:12		Command the PSE with included data word: 3990	SWPSEL	02-034/17:57:39
3411	MGS	02-034/18:12:13		Set eclipse egress script address: 0158	SWSEES	02-034/17:57:40
3412	MGS	02-034/18:14:52		: 01:29:07	RPAONX	02-034/18:00:19
3413	MGS	02-034/18:14:52		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-034/18:00:19
3414	MGS	02-034/18:16:07		: 00:00:30, 00:07:16, FALSE	RDSCIE	02-034/18:01:34
3415	MGS	02-034/18:16:07		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-034/18:01:34
3416	MGS	02-034/18:16:07		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-034/18:01:34
3417	MGS	02-034/18:16:07		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-034/18:01:34
3418	MGS	02-034/18:16:07		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-034/18:01:34
3419	MGS	02-034/18:16:37		Disables autonomous command to send eclipse ingress script	SWEISX	02-034/18:02:04
3420	MGS	02-034/18:16:39		NOTE: Exit Earth Occultation 13002		02-034/18:02:06
3421	MGS	02-034/18:16:39	65	Acquisition Of X-Band Signal		
3422	MGS	02-034/18:16:39	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
3423	MGS	02-034/18:16:39	65	NOTE: Carrier Only -- No Telemetry Modulation		
3424	MGS	02-034/18:21:15		NOTE: Exit Planetary Atmosphere 13002		02-034/18:06:42
3425	MGS	02-034/18:23:23		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-034/18:08:50
3426	MGS	02-034/18:23:23		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-034/18:08:50
3427	MGS	02-034/18:23:23		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-034/18:08:50
3428	MGS	02-034/18:23:23		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-034/18:08:50
3429	MGS	02-034/18:23:23		: REC_2B, F42KHZ, PART2, SE_1A, FALSE, 00:11:57	AEMPB	02-034/18:08:50
3430	MGS	02-034/18:23:23		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-034/18:08:50
3431	MGS	02-034/18:23:23		Sends a one-word SSR command to the XSU command SOB: SSR_2B, F42KHZ, PLYBCK, PART2	STSSRC	02-034/18:08:50
3432	MGS	02-034/18:23:23	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
3433	MGS	02-034/18:23:24		SSR 2B Data Enable	CSD2BE	02-034/18:08:51
3434	MGS	02-034/18:23:24		SSR Activity: ID=SSR_2B, FCN=Start Playback, PRT=2, BR=42666		02-034/18:08:51
3435	MGS	02-034/18:23:24	65	D/L Change: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
3436	MGS	02-034/18:23:27		NOTE: End fixed Sub-Reflector for Radio Science		02-034/18:08:54
3437	MGS	02-034/18:27:49		NOTE: Exit Solar Eclipse 13002		02-034/18:13:16
3438	MGS	02-034/18:41:50		NOTE: Periapsis 13003 ----------		02-034/18:27:17
3439	MGS	02-034/18:45:00	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
3440	MGS	02-034/18:47:00	65	Range Modulation On: SUP=3.0dB		
3441	MGS	02-034/18:48:00	65	Begin Ranging Acquisition		
3442	MGS	02-034/18:52:49		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-034/18:38:16
3443	MGS	02-034/18:52:49		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-034/18:38:16
3444	MGS	02-034/18:52:50		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-034/18:38:17
3445	MGS	02-034/18:52:50		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-034/18:38:17
3446	MGS	02-034/18:55:33	65	NOTE: Transmitter Off in 15 minutes		
3447	MGS	02-034/19:08:33	65	Range Modulation Off		
3448	MGS	02-034/19:10:33	65	Transmitter Off		
3449	MGS	02-034/19:14:06	65	Acquire D/L: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
3450	MGS	02-034/19:14:50		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-034/19:00:17
3451	MGS	02-034/19:14:50		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-034/19:00:17
3452	MGS	02-034/19:31:59		NOTE: Begin fixed Sub-Reflector for Radio Science		02-034/19:17:26

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
3453	MGS	02-034/19:32:02		SSR 2B Data Disable	CSD2BX	02-034/19:17:29
3454	MGS	02-034/19:32:02		SSR Activity: ID=SSR_2B, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-034/19:17:29
3455	MGS	02-034/19:32:02		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-034/19:17:29
3456	MGS	02-034/19:32:02	65	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
3457	MGS	02-034/19:35:05		NOTE: Start Block (MAP_RT)		02-034/19:20:32
3458	MGS	02-034/19:35:06		: 00:27:29, 01:29:06, FALSE, TRUE, FALSE, 00:01:15, 00:07:16, 01:13:36, 00:06:58	AEMINI	02-034/19:20:33
3459	MGS	02-034/19:35:06		Enable sending eclipse ingress script when array power disappears	SWEISE	02-034/19:20:33
3460	MGS	02-034/19:35:06		NOTE: Start EVP data return script		02-034/19:20:33
3461	MGS	02-034/19:35:07		: SE_2A, RTM, 01:13:35, MRC, 2002-034T20:06:34.000	AEMRTI	02-034/19:20:34
3462	MGS	02-034/19:37:00		: 00:06:58, FALSE	RDSCII	02-034/19:22:27
3463	MGS	02-034/19:37:00		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-034/19:22:27
3464	MGS	02-034/19:37:00		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-034/19:22:27
3465	MGS	02-034/19:37:00		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-034/19:22:27
3466	MGS	02-034/19:37:00		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-034/19:22:27
3467	MGS	02-034/19:37:00	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
3468	MGS	02-034/19:37:00	65	NOTE: Carrier Only -- No Telemetry Modulation		
3469	MGS	02-034/19:39:06		NOTE: Enter Planetary Atmosphere 13003		02-034/19:24:33
3470	MGS	02-034/19:40:47		NOTE: Apoapsis 13003 -		02-034/19:26:13
3471	MGS	02-034/19:43:24		NOTE: Enter Earth Occultation 13003		02-034/19:28:51
3472	MGS	02-034/19:43:24	65	NOTE: Loss Of X-Band Signal		
3473	MGS	02-034/19:43:58		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-034/19:29:25
3474	MGS	02-034/19:43:58		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-034/19:29:25
3475	MGS	02-034/19:43:58		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-034/19:29:25
3476	MGS	02-034/19:43:58		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-034/19:29:25
3477	MGS	02-034/19:43:58		NOTE: End EVP script		02-034/19:29:25
3478	MGS	02-034/19:43:59		Turn off the MOT Exciter and RPA beam	STRPAF	02-034/19:29:26
3479	MGS	02-034/19:43:59		NOTE: End Block (MAP_PB)		02-034/19:29:26
3480	MGS	02-034/19:44:02		NOTE: End fixed Sub-Reflector for Radio Science		02-034/19:29:29
3481	MGS	02-034/19:45:06		NOTE: Enter Solar Eclipse 13003		02-034/19:30:32
3482	MGS	02-034/19:45:06		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-034/19:30:33
3483	MGS	02-034/19:49:00	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
3484	MGS	02-034/19:51:01	65	Range Modulation On: SUP=3.0dB		
3485	MGS	02-034/19:52:01	65	Begin Ranging Acquisition		
3486	MGS	02-034/20:08:50		NOTE: Begin fixed Sub-Reflector for Radio Science		02-034/19:54:16
3487	MGS	02-034/20:09:50		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-034/19:55:17
3488	MGS	02-034/20:09:50		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-034/19:55:17
3489	MGS	02-034/20:09:55		Set eclipse egress script address: 019A	SWSEES	02-034/19:55:22
3490	MGS	02-034/20:12:35		: 01:29:06	RPAONX	02-034/19:58:02
3491	MGS	02-034/20:12:35		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-034/19:58:02
3492	MGS	02-034/20:13:50		: 00:00:30, 00:07:16, FALSE	RDSCIE	02-034/19:59:17
3493	MGS	02-034/20:13:50		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-034/19:59:17
3494	MGS	02-034/20:13:50		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-034/19:59:17
3495	MGS	02-034/20:13:50		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-034/19:59:17
3496	MGS	02-034/20:13:50		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-034/19:59:17
3497	MGS	02-034/20:14:22		NOTE: Exit Earth Occultation 13003		02-034/19:59:48
3498	MGS	02-034/20:14:22	65	Acquisition Of X-Band Signal		
3499	MGS	02-034/20:14:22	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
3500	MGS	02-034/20:14:22	65	NOTE: Carrier Only -- No Telemetry Modulation		
3501	MGS	02-034/20:18:57		NOTE: Exit Planetary Atmosphere 13003		02-034/20:04:24
3502	MGS	02-034/20:21:06		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-034/20:06:33
3503	MGS	02-034/20:21:06		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-034/20:06:33
3504	MGS	02-034/20:21:06		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-034/20:06:33
3505	MGS	02-034/20:21:06		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-034/20:06:33
3506	MGS	02-034/20:21:06	65	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
3507	MGS	02-034/20:21:07		: RTM, MRC, 01:13:35, S&E_2A, FALSE, 00:06:59	AEMRT	02-034/20:06:34
3508	MGS	02-034/20:21:07		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-034/20:06:34
3509	MGS	02-034/20:21:07		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-034/20:06:34
3510	MGS	02-034/20:21:07	65	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
3511	MGS	02-034/20:21:11		NOTE: End fixed Sub-Reflector for Radio Science		02-034/20:06:37
3512	MGS	02-034/20:25:32		NOTE: Exit Solar Eclipse 13003		02-034/20:10:59
3513	MGS	02-034/20:35:00	25	Begin Pre-Cal		
3514	MGS	02-034/20:35:00	25	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
3515	MGS	02-034/20:35:00	25	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
3516	MGS	02-034/20:35:00	25	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
3517	MGS	02-034/20:35:00	25	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
3518	MGS	02-034/20:35:00	25	At BOT: S/C Tlm Mode: BR=40000.0, FL=10000, SC=HIGH, MI=80.0		
3519	MGS	02-034/20:35:00	25	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
3520	MGS	02-034/20:35:00	25	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
3521	MGS	02-034/20:35:00	25	Config: TGC: DEST=37		
3522	MGS	02-034/20:35:00	25	Config: TGC: BAND=X, BR=40000.000000		
3523	MGS	02-034/20:35:00	25	Config: FSS: CH=2, PRI_FL=10000		
3524	MGS	02-034/20:35:00	25	Config: RSR		
3525	MGS	02-034/20:35:00	25	Config: TXL		
3526	MGS	02-034/20:35:00	25	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
3527	MGS	02-034/20:35:00	25	Config: BVR		
3528	MGS	02-034/20:35:00	25	Config: Doppler Extractor: BIAS=+1MHZ		
3529	MGS	02-034/20:35:00	25	Config: MDA: SMPL=0.1		
3530	MGS	02-034/20:39:27		NOTE: Periapsis 13004 ----------		02-034/20:24:54
3531	MGS	02-034/20:46:31		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-034/20:31:58
3532	MGS	02-034/20:46:31		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-034/20:31:58
3533	MGS	02-034/20:46:32		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-034/20:31:59
3534	MGS	02-034/20:46:32		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-034/20:31:59
3535	MGS	02-034/20:53:16	65	NOTE: Transmitter Off in 15 minutes		
3536	MGS	02-034/21:06:16	65	Range Modulation Off		
3537	MGS	02-034/21:08:16	65	Transmitter Off		
3538	MGS	02-034/21:08:32		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-034/20:53:59
3539	MGS	02-034/21:08:32		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-034/20:53:59
3540	MGS	02-034/21:20:00	25	Begin Tracking		
3541	MGS	02-034/21:20:00	25	Acquire D/L: X/16, 3-Way/65, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
3542	MGS	02-034/21:25:43	65	NOTE: Below Uplink Interlock Limit		
3543	MGS	02-034/21:29:42		NOTE: Begin fixed Sub-Reflector for Radio Science		02-034/21:15:08
3544	MGS	02-034/21:30:00	65	End Tracking		
3545	MGS	02-034/21:32:51		NOTE: Start EVP data return script		02-034/21:18:18
3546	MGS	02-034/21:34:42		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-034/21:20:09
3547	MGS	02-034/21:34:42		: 00:06:58, FALSE	RDSCII	02-034/21:20:09
3548	MGS	02-034/21:34:42		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-034/21:20:09
3549	MGS	02-034/21:34:42		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-034/21:20:09
3550	MGS	02-034/21:34:42		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-034/21:20:09
3551	MGS	02-034/21:34:42		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-034/21:20:09
3552	MGS	02-034/21:34:42	25	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
3553	MGS	02-034/21:34:42	25	NOTE: Carrier Only -- No Telemetry Modulation		
3554	MGS	02-034/21:36:50		NOTE: Enter Planetary Atmosphere 13004		02-034/21:22:16
3555	MGS	02-034/21:38:35		NOTE: Apoapsis 13004 -		02-034/21:24:01
3556	MGS	02-034/21:41:08		NOTE: Enter Earth Occultation 13004		02-034/21:26:34
3557	MGS	02-034/21:41:08	25	NOTE: Loss Of X-Band Signal		
3558	MGS	02-034/21:41:40		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-034/21:27:07
3559	MGS	02-034/21:41:40		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-034/21:27:07

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
3560	MGS	02-034/21:41:40		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-034/21:27:07
3561	MGS	02-034/21:41:40		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-034/21:27:07
3562	MGS	02-034/21:41:41		NOTE: End EVP script		02-034/21:27:07
3563	MGS	02-034/21:41:41		Turn off the MOT Exciter and RPA beam	STRPAF	02-034/21:27:08
3564	MGS	02-034/21:41:45		NOTE: End fixed Sub-Reflector for Radio Science		02-034/21:27:11
3565	MGS	02-034/21:42:51		NOTE: Enter Solar Eclipse 13004		02-034/21:28:17
3566	MGS	02-034/21:42:51		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-034/21:28:18
3567	MGS	02-034/21:45:00	65	End Post-Cal		
3568	MGS	02-034/21:46:45	25	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
3569	MGS	02-034/22:06:35		NOTE: Begin fixed Sub-Reflector for Radio Science		02-034/21:52:01
3570	MGS	02-034/22:07:32		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-034/21:52:59
3571	MGS	02-034/22:07:32		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-034/21:52:59
3572	MGS	02-034/22:07:37		Set eclipse egress script address: 01DC	SWSEES	02-034/21:53:04
3573	MGS	02-034/22:10:20		: 01:29:06	RPAONX	02-034/21:55:47
3574	MGS	02-034/22:10:20		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-034/21:55:47
3575	MGS	02-034/22:11:35		: 00:00:30, 00:07:16, FALSE	RDSCIE	02-034/21:57:02
3576	MGS	02-034/22:11:35		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-034/21:57:02
3577	MGS	02-034/22:11:35		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-034/21:57:02
3578	MGS	02-034/22:11:35		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-034/21:57:02
3579	MGS	02-034/22:11:35		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-034/21:57:02
3580	MGS	02-034/22:12:05		Disables autonomous command to send eclipse ingress script	SWEISX	02-034/21:57:32
3581	MGS	02-034/22:12:07		NOTE: Exit Earth Occultation 13004		02-034/21:57:33
3582	MGS	02-034/22:12:07	25	Acquisition Of X-Band Signal		
3583	MGS	02-034/22:12:07	25	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
3584	MGS	02-034/22:12:07	25	NOTE: Carrier Only -- No Telemetry Modulation		
3585	MGS	02-034/22:16:42		NOTE: Exit Planetary Atmosphere 13004		02-034/22:02:08
3586	MGS	02-034/22:18:51		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-034/22:04:18
3587	MGS	02-034/22:18:51		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-034/22:04:18
3588	MGS	02-034/22:18:51		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-034/22:04:18
3589	MGS	02-034/22:18:51		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-034/22:04:18
3590	MGS	02-034/22:18:51	25	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
3591	MGS	02-034/22:18:52		: RTM, MRC, 01:13:35, S&E_2A, FALSE, 00:06:59	AEMRT	02-034/22:04:19
3592	MGS	02-034/22:18:52		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-034/22:04:19
3593	MGS	02-034/22:18:52		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-034/22:04:19
3594	MGS	02-034/22:18:52	25	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
3595	MGS	02-034/22:18:56		NOTE: End fixed Sub-Reflector for Radio Science		02-034/22:04:22
3596	MGS	02-034/22:23:18		NOTE: Exit Solar Eclipse 13004		02-034/22:08:44
3597	MGS	02-034/22:27:52		NOTE: Start Block (SSRMGR)		02-034/22:13:19
3598	MGS	02-034/22:27:52		Sends a one-word SSR command to the XSU command SOB: SSR_1A, SE_1A, RECORD, PART3	STSSRC	02-034/22:13:19
3599	MGS	02-034/22:27:53		SSR 1A Data Enable	CSD1AE	02-034/22:13:20
3600	MGS	02-034/22:27:53		SSR Activity: ID=SSR_1A, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-034/22:13:20
3601	MGS	02-034/22:37:37		NOTE: Periapsis 13005 ----------		02-034/22:23:03
3602	MGS	02-034/22:44:16		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-034/22:29:43
3603	MGS	02-034/22:44:16		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-034/22:29:43
3604	MGS	02-034/22:44:17		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-034/22:29:44
3605	MGS	02-034/22:44:17		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-034/22:29:44
3606	MGS	02-034/22:51:01	25	NOTE: Transmitter Off in 15 minutes		
3607	MGS	02-034/22:54:33		SSR 1B Data Disable	CSD1BX	02-034/22:40:00
3608	MGS	02-034/22:54:33		SSR Activity: ID=SSR_1B, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-034/22:40:00
3609	MGS	02-034/22:54:34		NOTE: End Block (SSRMGR)		02-034/22:40:01
3610	MGS	02-034/23:06:01	25	Transmitter Off		
3611	MGS	02-034/23:06:17		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-034/22:51:44
3612	MGS	02-034/23:06:17		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-034/22:51:44
3613	MGS	02-034/23:07:52		NOTE: Start Block (SSRMGR)		02-034/22:53:19

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
3614	MGS	02-034/23:07:52		Sends a one-word SSR command to the XSU command SOB: SSR_1B, SE_1A, RECORD, PART3	STSSRC	02-034/22:53:19
3615	MGS	02-034/23:07:53		SSR 1B Data Enable	CSD1BE	02-034/22:53:20
3616	MGS	02-034/23:07:53		SSR Activity: ID=SSR_1B, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-034/22:53:20
3617	MGS	02-034/23:27:27		NOTE: Begin fixed Sub-Reflector for Radio Science		02-034/23:12:53
3618	MGS	02-034/23:30:37		NOTE: Start Block (MAP_RT)		02-034/23:16:03
3619	MGS	02-034/23:30:38		: 00:27:32, 01:29:03, FALSE, TRUE, FALSE, 00:01:15, 00:07:14, 01:13:35, 00:06:58	AEMINI	02-034/23:16:04
3620	MGS	02-034/23:30:38		Enable sending eclipse ingress script when array power disappears	SWEISE	02-034/23:16:04
3621	MGS	02-034/23:30:38		NOTE: Start EVP data return script		02-034/23:16:04
3622	MGS	02-034/23:30:39		: SE_2A, RTM, 01:13:34, MRC, 2002-035T00:02:06.000	AEMRTI	02-034/23:16:05
3623	MGS	02-034/23:32:28		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-034/23:17:54
3624	MGS	02-034/23:32:28		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=3, BITS=11792000, DUR=00:24:34		02-034/23:17:54
3625	MGS	02-034/23:32:28		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-034/23:17:54
3626	MGS	02-034/23:32:28		: 00:06:58, FALSE	RDSCII	02-034/23:17:54
3627	MGS	02-034/23:32:28		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-034/23:17:54
3628	MGS	02-034/23:32:28		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-034/23:17:54
3629	MGS	02-034/23:32:28		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-034/23:17:54
3630	MGS	02-034/23:32:28		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-034/23:17:54
3631	MGS	02-034/23:32:28	25	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
3632	MGS	02-034/23:32:28	25	NOTE: Carrier Only -- No Telemetry Modulation		
3633	MGS	02-034/23:34:34		SSR 1A Data Disable	CSD1AX	02-034/23:20:00
3634	MGS	02-034/23:34:34		SSR Activity: ID=SSR_1A, FCN=End Recording, PRT=3, BITS=32000000, DUR=01:06:40		02-034/23:20:00
3635	MGS	02-034/23:34:35		NOTE: End Block (SSRMGR)		02-034/23:20:01
3636	MGS	02-034/23:34:36		NOTE: Enter Planetary Atmosphere 13005		02-034/23:20:02
3637	MGS	02-034/23:36:54		NOTE: Apoapsis 13005 -		02-034/23:22:20
3638	MGS	02-034/23:38:54		NOTE: Enter Earth Occultation 13005		02-034/23:24:20
3639	MGS	02-034/23:38:54	25	NOTE: Loss Of X-Band Signal		
3640	MGS	02-034/23:39:26		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-034/23:24:52
3641	MGS	02-034/23:39:26		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-034/23:24:52
3642	MGS	02-034/23:39:26		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-034/23:24:52
3643	MGS	02-034/23:39:26		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-034/23:24:52
3644	MGS	02-034/23:39:26		NOTE: End EVP script		02-034/23:24:52
3645	MGS	02-034/23:39:27		Turn off the MOT Exciter and RPA beam	STRPAF	02-034/23:24:53
3646	MGS	02-034/23:39:27		NOTE: End Block (MAP_RT)		02-034/23:24:53
3647	MGS	02-034/23:39:30		NOTE: End fixed Sub-Reflector for Radio Science		02-034/23:24:56
3648	MGS	02-034/23:40:38		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-034/23:26:04
3649	MGS	02-034/23:40:38		NOTE: Enter Solar Eclipse 13005		02-034/23:26:04
3650	MGS	02-034/23:44:31	25	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
3651	MGS	02-035/00:00:00		Light Time: OWLT = 14:34, RTLT = 29:08		
3652	MGS	02-035/00:04:25		NOTE: Begin fixed Sub-Reflector for Radio Science		02-034/23:49:51
3653	MGS	02-035/00:05:18		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-034/23:50:44
3654	MGS	02-035/00:05:18		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-034/23:50:44
3655	MGS	02-035/00:05:22		Command the PSE with included data word: 3990	SWPSEL	02-034/23:50:48
3656	MGS	02-035/00:05:23		Set eclipse egress script address: 0158	SWSEES	02-034/23:50:49
3657	MGS	02-035/00:08:10		: 01:29:03	RPAONX	02-034/23:53:36
3658	MGS	02-035/00:08:10		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-034/23:53:36
3659	MGS	02-035/00:09:25		: 00:00:30, 00:07:14, FALSE	RDSCIE	02-034/23:54:51
3660	MGS	02-035/00:09:25		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-034/23:54:51
3661	MGS	02-035/00:09:25		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-034/23:54:51
3662	MGS	02-035/00:09:25		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-034/23:54:51
3663	MGS	02-035/00:09:25		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-034/23:54:51
3664	MGS	02-035/00:09:54		NOTE: Exit Earth Occultation 13005		02-034/23:55:20
3665	MGS	02-035/00:09:54	25	Acquisition Of X-Band Signal		
3666	MGS	02-035/00:09:54	25	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
3667	MGS	02-035/00:09:54	25	NOTE: Carrier Only -- No Telemetry Modulation		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
3668	MGS	02-035/00:14:29		NOTE: Exit Planetary Atmosphere 13005		02-034/23:59:55
3669	MGS	02-035/00:14:33		NOTE: Start Block (SSRMGR)		02-034/23:59:59
3670	MGS	02-035/00:14:33		Sends a one-word SSR command to the XSU command SOB: SSR_2A, SE_1A, RECORD, PART1	STSSRC	02-034/23:59:59
3671	MGS	02-035/00:14:34		SSR 2A Data Enable	CSD2AE	02-035/00:00:00
3672	MGS	02-035/00:14:34		SSR Activity: ID=SSR_2A, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-035/00:00:00
3673	MGS	02-035/00:16:39		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-035/00:02:05
3674	MGS	02-035/00:16:39		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-035/00:02:05
3675	MGS	02-035/00:16:39		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-035/00:02:05
3676	MGS	02-035/00:16:39		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-035/00:02:05
3677	MGS	02-035/00:16:39	25	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
3678	MGS	02-035/00:16:40		: RTM, MRC, 01:13:34, S&E_2A, FALSE, 00:06:59	AEMRT	02-035/00:02:06
3679	MGS	02-035/00:16:40		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-035/00:02:06
3680	MGS	02-035/00:16:40		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-035/00:02:06
3681	MGS	02-035/00:16:40		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=1, BITS=1008000, DUR=00:02:06		02-035/00:02:06
3682	MGS	02-035/00:16:40		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-035/00:02:06
3683	MGS	02-035/00:16:40	25	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
3684	MGS	02-035/00:16:44		NOTE: End fixed Sub-Reflector for Radio Science		02-035/00:02:10
3685	MGS	02-035/00:21:05		NOTE: Exit Solar Eclipse 13005		02-035/00:06:31
3686	MGS	02-035/00:35:48		NOTE: Periapsis 13006 ----------		02-035/00:21:14
3687	MGS	02-035/00:41:14		SSR 1B Data Disable	CSD1BX	02-035/00:26:40
3688	MGS	02-035/00:41:14		SSR Activity: ID=SSR_1B, FCN=End Recording, PRT=3, BITS=44800000, DUR=01:33:20		02-035/00:26:40
3689	MGS	02-035/00:41:15		NOTE: End Block (SSRMGR)		02-035/00:26:41
3690	MGS	02-035/00:46:04		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-035/00:31:30
3691	MGS	02-035/00:46:04		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-035/00:31:30
3692	MGS	02-035/00:46:05		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-035/00:31:31
3693	MGS	02-035/00:46:05		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-035/00:31:31
3694	MGS	02-035/00:48:49	25	NOTE: Transmitter Off in 15 minutes		
3695	MGS	02-035/01:03:49	25	Transmitter Off		
3696	MGS	02-035/01:08:05		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-035/00:53:31
3697	MGS	02-035/01:08:05		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-035/00:53:31
3698	MGS	02-035/01:25:14		NOTE: Begin fixed Sub-Reflector for Radio Science		02-035/01:10:40
3699	MGS	02-035/01:28:25		NOTE: Start EVP data return script		02-035/01:13:51
3700	MGS	02-035/01:30:14		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-035/01:15:40
3701	MGS	02-035/01:30:14		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=1, BITS=36320000, DUR=01:13:34		02-035/01:15:40
3702	MGS	02-035/01:30:14		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-035/01:15:40
3703	MGS	02-035/01:30:14		: 00:06:58, FALSE	RDSCII	02-035/01:15:40
3704	MGS	02-035/01:30:14		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-035/01:15:40
3705	MGS	02-035/01:30:14		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-035/01:15:40
3706	MGS	02-035/01:30:14		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-035/01:15:40
3707	MGS	02-035/01:30:14		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-035/01:15:40
3708	MGS	02-035/01:30:14	25	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
3709	MGS	02-035/01:30:14	25	NOTE: Carrier Only -- No Telemetry Modulation		
3710	MGS	02-035/01:32:24		NOTE: Enter Planetary Atmosphere 13006		02-035/01:17:49
3711	MGS	02-035/01:35:02		NOTE: Apoapsis 13006 -		02-035/01:20:28
3712	MGS	02-035/01:36:42		NOTE: Enter Earth Occultation 13006		02-035/01:22:08
3713	MGS	02-035/01:36:42	25	NOTE: Loss Of X-Band Signal		
3714	MGS	02-035/01:37:12		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-035/01:22:38
3715	MGS	02-035/01:37:12		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-035/01:22:38
3716	MGS	02-035/01:37:12		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-035/01:22:38
3717	MGS	02-035/01:37:12		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-035/01:22:38
3718	MGS	02-035/01:37:13		Turn off the MOT Exciter and RPA beam	STRPAF	02-035/01:22:39
3719	MGS	02-035/01:37:13		NOTE: End EVP script		02-035/01:22:39
3720	MGS	02-035/01:37:17		NOTE: End fixed Sub-Reflector for Radio Science		02-035/01:22:43
3721	MGS	02-035/01:38:25		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-035/01:23:51

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
3722	MGS	02-035/01:38:25		NOTE: Enter Solar Eclipse 13006		02-035/01:23:51
3723	MGS	02-035/01:42:19	25	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
3724	MGS	02-035/02:02:12		NOTE: Begin fixed Sub-Reflector for Radio Science		02-035/01:47:38
3725	MGS	02-035/02:03:05		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-035/01:48:31
3726	MGS	02-035/02:03:05		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-035/01:48:31
3727	MGS	02-035/02:03:10		Set eclipse egress script address: 019A	SWSEES	02-035/01:48:36
3728	MGS	02-035/02:05:57		: 01:29:03	RPAONX	02-035/01:51:23
3729	MGS	02-035/02:05:57		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-035/01:51:23
3730	MGS	02-035/02:07:12		: 00:00:30, 00:07:14, FALSE	RDSCIE	02-035/01:52:38
3731	MGS	02-035/02:07:12		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-035/01:52:38
3732	MGS	02-035/02:07:12		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-035/01:52:38
3733	MGS	02-035/02:07:12		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-035/01:52:38
3734	MGS	02-035/02:07:12		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-035/01:52:38
3735	MGS	02-035/02:07:42		NOTE: Exit Earth Occultation 13006		02-035/01:53:08
3736	MGS	02-035/02:07:42	25	Acquisition Of X-Band Signal		
3737	MGS	02-035/02:07:42	25	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
3738	MGS	02-035/02:07:42	25	NOTE: Carrier Only -- No Telemetry Modulation		
3739	MGS	02-035/02:12:17		NOTE: Exit Planetary Atmosphere 13006		02-035/01:57:43
3740	MGS	02-035/02:14:26		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-035/01:59:52
3741	MGS	02-035/02:14:26		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-035/01:59:52
3742	MGS	02-035/02:14:26		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-035/01:59:52
3743	MGS	02-035/02:14:26		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-035/01:59:52
3744	MGS	02-035/02:14:26	25	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
3745	MGS	02-035/02:14:27		: RTM, MRC, 01:13:34, S&E_2A, FALSE, 00:06:59	AEMRT	02-035/01:59:53
3746	MGS	02-035/02:14:27		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-035/01:59:53
3747	MGS	02-035/02:14:27		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-035/01:59:53
3748	MGS	02-035/02:14:27		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=1, BITS=57544000, DUR=00:44:13		02-035/01:59:53
3749	MGS	02-035/02:14:27		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-035/01:59:53
3750	MGS	02-035/02:14:27	25	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
3751	MGS	02-035/02:14:31		NOTE: End fixed Sub-Reflector for Radio Science		02-035/01:59:57
3752	MGS	02-035/02:18:52		NOTE: Exit Solar Eclipse 13006		02-035/02:04:18
3753	MGS	02-035/02:33:41		NOTE: Periapsis 13007 ----------		02-035/02:19:06
3754	MGS	02-035/02:39:51		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-035/02:25:17
3755	MGS	02-035/02:39:51		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-035/02:25:17
3756	MGS	02-035/02:39:52		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-035/02:25:18
3757	MGS	02-035/02:39:52		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-035/02:25:18
3758	MGS	02-035/02:46:35	25	NOTE: Transmitter Off in 15 minutes		
3759	MGS	02-035/03:01:35	25	Transmitter Off		
3760	MGS	02-035/03:01:52		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-035/02:47:18
3761	MGS	02-035/03:01:52		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-035/02:47:18
3762	MGS	02-035/03:23:01		NOTE: Begin fixed Sub-Reflector for Radio Science		02-035/03:08:27
3763	MGS	02-035/03:26:10		NOTE: Start EVP data return script		02-035/03:11:36
3764	MGS	02-035/03:28:01		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-035/03:13:27
3765	MGS	02-035/03:28:01		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=1, BITS=92856000, DUR=01:13:34		02-035/03:13:27
3766	MGS	02-035/03:28:01		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-035/03:13:27
3767	MGS	02-035/03:28:01		: 00:06:58, FALSE	RDSCII	02-035/03:13:27
3768	MGS	02-035/03:28:01		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-035/03:13:27
3769	MGS	02-035/03:28:01		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-035/03:13:27
3770	MGS	02-035/03:28:01		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-035/03:13:27
3771	MGS	02-035/03:28:01		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-035/03:13:27
3772	MGS	02-035/03:28:01	25	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
3773	MGS	02-035/03:28:01	25	NOTE: Carrier Only -- No Telemetry Modulation		
3774	MGS	02-035/03:30:10		NOTE: Enter Planetary Atmosphere 13007		02-035/03:15:35
3775	MGS	02-035/03:32:40		NOTE: Apoapsis 13007 -		02-035/03:18:05

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
3776	MGS	02-035/03:34:28		NOTE: Enter Earth Occultation 13007		02-035/03:19:54
3777	MGS	02-035/03:34:28	25	NOTE: Loss Of X-Band Signal		
3778	MGS	02-035/03:34:59		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-035/03:20:25
3779	MGS	02-035/03:34:59		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-035/03:20:25
3780	MGS	02-035/03:34:59		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-035/03:20:25
3781	MGS	02-035/03:34:59		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-035/03:20:25
3782	MGS	02-035/03:35:00		Turn off the MOT Exciter and RPA beam	STRPAF	02-035/03:20:26
3783	MGS	02-035/03:35:00		NOTE: End EVP script		02-035/03:20:26
3784	MGS	02-035/03:35:04		NOTE: End fixed Sub-Reflector for Radio Science		02-035/03:20:30
3785	MGS	02-035/03:36:10		NOTE: Enter Solar Eclipse 13007		02-035/03:21:36
3786	MGS	02-035/03:36:10		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-035/03:21:36
3787	MGS	02-035/03:40:04	25	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
3788	MGS	02-035/03:59:57		NOTE: Begin fixed Sub-Reflector for Radio Science		02-035/03:45:23
3789	MGS	02-035/04:00:52		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-035/03:46:18
3790	MGS	02-035/04:00:52		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-035/03:46:18
3791	MGS	02-035/04:00:57		Set eclipse egress script address: 01DC	SWSEES	02-035/03:46:23
3792	MGS	02-035/04:03:42		: 01:29:03	RPAONX	02-035/03:49:08
3793	MGS	02-035/04:03:42		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-035/03:49:08
3794	MGS	02-035/04:04:57		: 00:00:30, 00:07:14, FALSE	RDSCIE	02-035/03:50:23
3795	MGS	02-035/04:04:57		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-035/03:50:23
3796	MGS	02-035/04:04:57		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-035/03:50:23
3797	MGS	02-035/04:04:57		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-035/03:50:23
3798	MGS	02-035/04:04:57		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-035/03:50:23
3799	MGS	02-035/04:05:27		Disables autonomous command to send eclipse ingress script	SWEISX	02-035/03:50:53
3800	MGS	02-035/04:05:28		NOTE: Exit Earth Occultation 13007		02-035/03:50:54
3801	MGS	02-035/04:05:28	25	Acquisition Of X-Band Signal		
3802	MGS	02-035/04:05:28	25	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
3803	MGS	02-035/04:05:28	25	NOTE: Carrier Only -- No Telemetry Modulation		
3804	MGS	02-035/04:10:04		NOTE: Exit Planetary Atmosphere 13007		02-035/03:55:29
3805	MGS	02-035/04:12:11		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-035/03:57:37
3806	MGS	02-035/04:12:11		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-035/03:57:37
3807	MGS	02-035/04:12:11		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-035/03:57:37
3808	MGS	02-035/04:12:11		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-035/03:57:37
3809	MGS	02-035/04:12:11	25	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
3810	MGS	02-035/04:12:12		: RTM, MRC, 01:13:34, S&E_2A, FALSE, 00:06:59	AEMRT	02-035/03:57:38
3811	MGS	02-035/04:12:12		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-035/03:57:38
3812	MGS	02-035/04:12:12		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-035/03:57:38
3813	MGS	02-035/04:12:12		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=1, BITS=114064000, DUR=00:44:11		02-035/03:57:38
3814	MGS	02-035/04:12:12		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-035/03:57:38
3815	MGS	02-035/04:12:12	25	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
3816	MGS	02-035/04:12:16		NOTE: End fixed Sub-Reflector for Radio Science		02-035/03:57:42
3817	MGS	02-035/04:16:37		NOTE: Exit Solar Eclipse 13007		02-035/04:02:03
3818	MGS	02-035/04:30:00	25	NOTE: Transmitter Off in 15 minutes		
3819	MGS	02-035/04:31:06		NOTE: Periapsis 13008 ----------		02-035/04:16:31
3820	MGS	02-035/04:37:36		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-035/04:23:02
3821	MGS	02-035/04:37:36		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-035/04:23:02
3822	MGS	02-035/04:37:37		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-035/04:23:03
3823	MGS	02-035/04:37:37		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-035/04:23:03
3824	MGS	02-035/04:45:00	25	Transmitter Off		
3825	MGS	02-035/04:56:07	25	NOTE: Below Uplink Interlock Limit		
3826	MGS	02-035/04:59:37		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-035/04:45:03
3827	MGS	02-035/04:59:37		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-035/04:45:03
3828	MGS	02-035/05:03:30		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-035/04:48:56
3829	MGS	02-035/05:03:30		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=1, BITS=138688000, DUR=00:51:18		02-035/04:48:56

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
3830	MGS	02-035/05:03:30		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-035/04:48:56
3831	MGS	02-035/05:03:30		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-035/04:48:56
3832	MGS	02-035/05:03:30	25	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
3833	MGS	02-035/05:05:00	25	End Tracking		
3834	MGS	02-035/05:20:00	25	End Post-Cal		
3835	MGS	02-035/05:20:47		NOTE: Begin fixed Sub-Reflector for Radio Science		02-035/05:06:12
3836	MGS	02-035/05:25:46		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-035/05:11:12
3837	MGS	02-035/05:25:46		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=1, BITS=149376000, DUR=00:22:16		02-035/05:11:12
3838	MGS	02-035/05:25:46		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-035/05:11:12
3839	MGS	02-035/05:25:46		: 00:06:58, FALSE	RDSCII	02-035/05:11:12
3840	MGS	02-035/05:25:46		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-035/05:11:12
3841	MGS	02-035/05:25:46		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-035/05:11:12
3842	MGS	02-035/05:25:46		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-035/05:11:12
3843	MGS	02-035/05:25:46		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-035/05:11:12
3844	MGS	02-035/05:27:51		NOTE: Enter Planetary Atmosphere 13008		02-035/05:13:16
3845	MGS	02-035/05:30:01		NOTE: Apoapsis 13008 -		02-035/05:15:26
3846	MGS	02-035/05:32:10		NOTE: Enter Earth Occultation 13008		02-035/05:17:35
3847	MGS	02-035/05:32:44		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-035/05:18:10
3848	MGS	02-035/05:32:44		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-035/05:18:10
3849	MGS	02-035/05:32:44		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-035/05:18:10
3850	MGS	02-035/05:32:44		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-035/05:18:10
3851	MGS	02-035/05:32:45		Turn off the MOT Exciter and RPA beam	STRPAF	02-035/05:18:11
3852	MGS	02-035/05:32:46		NOTE: End EVP script		02-035/05:18:11
3853	MGS	02-035/05:32:47		NOTE: End Block (MAP_RT)		02-035/05:18:12
3854	MGS	02-035/05:32:50		NOTE: End fixed Sub-Reflector for Radio Science		02-035/05:18:15
3855	MGS	02-035/05:33:51		NOTE: Enter Solar Eclipse 13008		02-035/05:19:17
3856	MGS	02-035/05:47:53		NOTE: Start Block (SSRMGR)		02-035/05:33:19
3857	MGS	02-035/05:47:53		Sends a one-word SSR command to the XSU command SOB: SSR_2B, SE_1A, RECORD, PART1	STSSRC	02-035/05:33:19
3858	MGS	02-035/05:47:54		SSR 2B Data Enable	CSD2BE	02-035/05:33:20
3859	MGS	02-035/05:47:54		SSR Activity: ID=SSR_2B, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-035/05:33:20
3860	MGS	02-035/05:48:19		Disable HGA control mode	SAHGCX	02-035/05:33:45
3861	MGS	02-035/05:48:20		No Operation	SCNOOP	02-035/05:33:46
3862	MGS	02-035/05:48:21		CDU-1 Uplink Rate Select (Based on 3 bit Code): 7	TCC1BS	02-035/05:33:47
3863	MGS	02-035/05:48:21		CDU-2 Uplink Rate Select (Based on 3 bit Code): 7	TCC2BS	02-035/05:33:47
3864	MGS	02-035/05:58:38		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-035/05:44:03
3865	MGS	02-035/05:58:38		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-035/05:44:03
3866	MGS	02-035/05:58:42		Command the PSE with included data word: 3990	SWPSEL	02-035/05:44:07
3867	MGS	02-035/05:58:43		Set eclipse egress script address: 0158	SWSEES	02-035/05:44:08
3868	MGS	02-035/06:03:10		NOTE: Exit Earth Occultation 13008		02-035/05:48:35
3869	MGS	02-035/06:07:46		NOTE: Exit Planetary Atmosphere 13008		02-035/05:53:11
3870	MGS	02-035/06:14:18		NOTE: Exit Solar Eclipse 13008		02-035/05:59:43
3871	MGS	02-035/06:14:35		SSR 2A Data Disable	CSD2AX	02-035/06:00:00
3872	MGS	02-035/06:14:35		SSR Activity: ID=SSR_2A, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-035/06:00:00
3873	MGS	02-035/06:14:36		NOTE: End Block (SSRMGR)		02-035/06:00:01
3874	MGS	02-035/06:28:31		NOTE: Periapsis 13009 ----------		02-035/06:13:56
3875	MGS	02-035/06:39:18		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-035/06:24:43
3876	MGS	02-035/06:39:18		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-035/06:24:43
3877	MGS	02-035/06:39:19		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-035/06:24:44
3878	MGS	02-035/06:39:19		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-035/06:24:44
3879	MGS	02-035/07:01:19		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-035/06:46:44
3880	MGS	02-035/07:01:19		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-035/06:46:44
3881	MGS	02-035/07:25:32		NOTE: Enter Planetary Atmosphere 13009		02-035/07:10:56
3882	MGS	02-035/07:27:47		NOTE: Apoapsis 13009 -		02-035/07:13:11
3883	MGS	02-035/07:29:50		NOTE: Enter Earth Occultation 13009		02-035/07:15:15

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
3884	MGS	02-035/07:31:33		NOTE: Enter Solar Eclipse 13009		02-035/07:16:58
3885	MGS	02-035/07:56:19		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-035/07:41:44
3886	MGS	02-035/07:56:19		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-035/07:41:44
3887	MGS	02-035/07:56:24		Set eclipse egress script address: 019A	SWSEES	02-035/07:41:49
3888	MGS	02-035/08:00:52		NOTE: Exit Earth Occultation 13009		02-035/07:46:16
3889	MGS	02-035/08:05:26		NOTE: Exit Planetary Atmosphere 13009		02-035/07:50:51
3890	MGS	02-035/08:11:59		NOTE: Exit Solar Eclipse 13009		02-035/07:57:24
3891	MGS	02-035/08:26:13		NOTE: Periapsis 13010 ----------		02-035/08:11:38
3892	MGS	02-035/08:30:00	65	Begin Pre-Cal		
3893	MGS	02-035/08:30:00	65	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
3894	MGS	02-035/08:30:00	65	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
3895	MGS	02-035/08:30:00	65	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
3896	MGS	02-035/08:30:00	65	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
3897	MGS	02-035/08:30:00	65	At BOT: S/C Tlm Mode: BR=8000.0, FL=10000, SC=HIGH, MI=80.0		
3898	MGS	02-035/08:30:00	65	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
3899	MGS	02-035/08:30:00	65	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
3900	MGS	02-035/08:30:00	65	Config: TGC: DEST=37		
3901	MGS	02-035/08:30:00	65	Config: TGC: BAND=X, BR=8000.000000		
3902	MGS	02-035/08:30:00	65	Config: FSS: CH=2, PRI_FL=10000		
3903	MGS	02-035/08:30:00	65	Config: RSR		
3904	MGS	02-035/08:30:00	65	Config: TXL		
3905	MGS	02-035/08:30:00	65	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
3906	MGS	02-035/08:30:00	65	Config: BVR		
3907	MGS	02-035/08:30:00	65	Config: Doppler Extractor: BIAS=+1MHZ		
3908	MGS	02-035/08:30:00	65	Config: MDA: SMPL=0.1		
3909	MGS	02-035/08:30:00	65	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
3910	MGS	02-035/08:30:00	65	Config: SRA: HIGH=4, LOW=14, SERV=D		
3911	MGS	02-035/08:30:00	65	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
3912	MGS	02-035/08:32:59		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-035/08:18:24
3913	MGS	02-035/08:32:59		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-035/08:18:24
3914	MGS	02-035/08:33:00		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-035/08:18:25
3915	MGS	02-035/08:33:00		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-035/08:18:25
3916	MGS	02-035/08:55:00		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-035/08:40:25
3917	MGS	02-035/08:55:00		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-035/08:40:25
3918	MGS	02-035/09:19:18		NOTE: Start Block (MAP_RT)		02-035/09:04:43
3919	MGS	02-035/09:19:19		: 00:27:34, 01:29:00, FALSE, TRUE, FALSE, 00:01:15, 00:07:14, 01:13:33, 00:06:57	AEMINI	02-035/09:04:44
3920	MGS	02-035/09:19:19		Enable sending eclipse ingress script when array power disappears	SWEISE	02-035/09:04:44
3921	MGS	02-035/09:19:19		NOTE: Start EVP data return script		02-035/09:04:44
3922	MGS	02-035/09:19:20		: SE_1A, MRC, 01:13:32, MRC, 2002-035T09:50:48.000	AEMRTI	02-035/09:04:45
3923	MGS	02-035/09:23:18		NOTE: Enter Planetary Atmosphere 13010		02-035/09:08:42
3924	MGS	02-035/09:25:36		NOTE: Apoapsis 13010 -		02-035/09:11:00
3925	MGS	02-035/09:27:36		NOTE: Enter Earth Occultation 13010		02-035/09:13:00
3926	MGS	02-035/09:29:19		NOTE: Enter Solar Eclipse 13010		02-035/09:14:43
3927	MGS	02-035/09:29:19		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-035/09:14:44
3928	MGS	02-035/09:43:58		Select Automatic HGA control mode	SAHACE	02-035/09:29:23
3929	MGS	02-035/09:43:59		Selects Hign Gain Antenna for downlink, Reconfigures if beam is already on	STUHGA	02-035/09:29:24
3930	MGS	02-035/09:44:00		CDU-1 Uplink Rate Select (Based on 3 bit Code): 3	TCC1BS	02-035/09:29:25
3931	MGS	02-035/09:44:00		CDU-2 Uplink Rate Select (Based on 3 bit Code): 3	TCC2BS	02-035/09:29:25
3932	MGS	02-035/09:53:08		NOTE: Begin fixed Sub-Reflector for Radio Science		02-035/09:38:32
3933	MGS	02-035/09:54:00		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-035/09:39:25
3934	MGS	02-035/09:54:00		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-035/09:39:25
3935	MGS	02-035/09:54:05		Set eclipse egress script address: 01DC	SWSEES	02-035/09:39:30
3936	MGS	02-035/09:56:53		: 01:29:00	RPAONX	02-035/09:42:18
3937	MGS	02-035/09:56:53		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-035/09:42:18

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
3938	MGS	02-035/09:58:08		: 00:00:30, 00:07:14, FALSE	RDSCIE	02-035/09:43:33
3939	MGS	02-035/09:58:08		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-035/09:43:33
3940	MGS	02-035/09:58:08		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-035/09:43:33
3941	MGS	02-035/09:58:08		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-035/09:43:33
3942	MGS	02-035/09:58:08		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-035/09:43:33
3943	MGS	02-035/09:58:38		NOTE: Exit Earth Occultation 13010		02-035/09:44:02
3944	MGS	02-035/09:58:38		Disables autonomous command to send eclipse ingress script	SWEISX	02-035/09:44:03
3945	MGS	02-035/10:03:12		NOTE: Exit Planetary Atmosphere 13010		02-035/09:48:37
3946	MGS	02-035/10:05:22		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-035/09:50:47
3947	MGS	02-035/10:05:22		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-035/09:50:47
3948	MGS	02-035/10:05:22		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-035/09:50:47
3949	MGS	02-035/10:05:22		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-035/09:50:47
3950	MGS	02-035/10:05:23		: MRC, MRC, 01:13:32, S&E_1A, FALSE, 00:06:58	AEMRT	02-035/09:50:48
3951	MGS	02-035/10:05:23		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-035/09:50:48
3952	MGS	02-035/10:05:23		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-035/09:50:48
3953	MGS	02-035/10:05:23		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=1, BITS=123584000, DUR=04:17:28		02-035/09:50:48
3954	MGS	02-035/10:05:23		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-035/09:50:48
3955	MGS	02-035/10:05:27		NOTE: End fixed Sub-Reflector for Radio Science		02-035/09:50:51
3956	MGS	02-035/10:09:46		NOTE: Exit Solar Eclipse 13010		02-035/09:55:10
3957	MGS	02-035/10:24:06		NOTE: Periapsis 13011 ----------		02-035/10:09:31
3958	MGS	02-035/10:30:00	65	Begin Tracking		
3959	MGS	02-035/10:30:00	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
3960	MGS	02-035/10:30:45		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-035/10:16:10
3961	MGS	02-035/10:30:45		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-035/10:16:10
3962	MGS	02-035/10:30:46		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-035/10:16:11
3963	MGS	02-035/10:30:46		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-035/10:16:11
3964	MGS	02-035/10:35:26		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-035/10:20:51
3965	MGS	02-035/10:35:26		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=1, BITS=138008000, DUR=00:30:03		02-035/10:20:51
3966	MGS	02-035/10:35:26		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-035/10:20:51
3967	MGS	02-035/10:35:28		NOTE: Start Block (SSRMGR)		02-035/10:20:53
3968	MGS	02-035/10:35:28		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-035/10:20:53
3969	MGS	02-035/10:35:28		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-035/10:20:53
3970	MGS	02-035/10:35:29		Sends a one-word MOT command to the XSU command SOB: SSR_1A	STMOTC	02-035/10:20:54
3971	MGS	02-035/10:35:30		Sends a one-word SSR command to the XSU command SOB: SSR_1A, F42KHZ, PLYBCK, PART3	STSSRC	02-035/10:20:55
3972	MGS	02-035/10:35:31		SSR 1A Data Enable	CSD1AE	02-035/10:20:56
3973	MGS	02-035/10:35:31		SSR Activity: ID=SSR_1A, FCN=Start Playback, PRT=3, BR=42666		02-035/10:20:56
3974	MGS	02-035/10:35:31	65	D/L Change: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
3975	MGS	02-035/10:41:26	65	NOTE: Above Uplink Interlock Limit		
3976	MGS	02-035/10:47:58		NOTE: Start Block (SSRMGR)		02-035/10:33:23
3977	MGS	02-035/10:47:58		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-035/10:33:23
3978	MGS	02-035/10:47:58		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-035/10:33:23
3979	MGS	02-035/10:47:59		Sends a one-word MOT command to the XSU command SOB: SSR_1B	STMOTC	02-035/10:33:24
3980	MGS	02-035/10:48:00		Sends a one-word SSR command to the XSU command SOB: SSR_1B, F42KHZ, PLYBCK, PART3	STSSRC	02-035/10:33:25
3981	MGS	02-035/10:48:01		SSR 1A Data Disable	CSD1AX	02-035/10:33:26
3982	MGS	02-035/10:48:01		SSR Activity: ID=SSR_1A, FCN=End Playback, PRT=3, BITS=32000000, DUR=00:12:30		02-035/10:33:26
3983	MGS	02-035/10:48:01		SSR 1B Data Enable	CSD1BE	02-035/10:33:26
3984	MGS	02-035/10:48:01		SSR Activity: ID=SSR_1B, FCN=Start Playback, PRT=3, BR=42666		02-035/10:33:26
3985	MGS	02-035/10:48:01	65	D/L Change: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
3986	MGS	02-035/10:48:02		NOTE: End Block (SSRMGR)		02-035/10:33:27
3987	MGS	02-035/10:52:46		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-035/10:38:11
3988	MGS	02-035/10:52:46		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-035/10:38:11
3989	MGS	02-035/11:05:31		SSR 1B Data Disable	CSD1BX	02-035/10:50:56
3990	MGS	02-035/11:05:31		SSR Activity: ID=SSR_1B, FCN=End Playback, PRT=3, BITS=44800000, DUR=00:17:30		02-035/10:50:56
3991	MGS	02-035/11:05:32		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-035/10:50:57

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
3992	MGS	02-035/11:05:32		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-035/10:50:57
3993	MGS	02-035/11:05:32		NOTE: End Block (SSRMGR)		02-035/10:50:57
3994	MGS	02-035/11:05:32	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
3995	MGS	02-035/11:13:55		NOTE: Begin fixed Sub-Reflector for Radio Science		02-035/10:59:19
3996	MGS	02-035/11:17:05		NOTE: Start Block (MAP_PB)		02-035/11:02:30
3997	MGS	02-035/11:17:06		: 00:27:34, 01:29:01, FALSE, TRUE, FALSE, 00:01:15, 00:07:14, 01:13:34, 00:06:57	AEMINI	02-035/11:02:31
3998	MGS	02-035/11:17:06		Enable sending eclipse ingress script when array power disappears	SWEISE	02-035/11:02:31
3999	MGS	02-035/11:17:06		NOTE: Start EVP data return script		02-035/11:02:31
4000	MGS	02-035/11:17:07		: SSR_1A, F42KHZ, PART1, SE_1A, 2002-035T11:48:34.000	AEMPBI	02-035/11:02:32
4001	MGS	02-035/11:18:55		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-035/11:04:20
4002	MGS	02-035/11:18:55		: 00:06:57, FALSE	RDSCII	02-035/11:04:20
4003	MGS	02-035/11:18:55		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-035/11:04:20
4004	MGS	02-035/11:18:55		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-035/11:04:20
4005	MGS	02-035/11:18:55		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-035/11:04:20
4006	MGS	02-035/11:18:55		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-035/11:04:20
4007	MGS	02-035/11:18:55	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
4008	MGS	02-035/11:18:55	65	NOTE: Carrier Only -- No Telemetry Modulation		
4009	MGS	02-035/11:21:06		NOTE: Enter Planetary Atmosphere 13011		02-035/11:06:30
4010	MGS	02-035/11:21:14		NOTE: Start Block (SSRMGR)		02-035/11:06:39
4011	MGS	02-035/11:21:14		Sends a one-word SSR command to the XSU command SOB: SSR_2A, SE_1A, RECORD, PART2	STSSRC	02-035/11:06:39
4012	MGS	02-035/11:21:15		SSR 2A Data Enable	CSD2AE	02-035/11:06:40
4013	MGS	02-035/11:21:15		SSR Activity: ID=SSR_2A, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-035/11:06:40
4014	MGS	02-035/11:23:17		NOTE: Apoapsis 13011 -		02-035/11:08:41
4015	MGS	02-035/11:25:23		NOTE: Enter Earth Occultation 13011		02-035/11:10:47
4016	MGS	02-035/11:25:23	65	NOTE: Loss Of X-Band Signal		
4017	MGS	02-035/11:25:52		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-035/11:11:17
4018	MGS	02-035/11:25:52		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-035/11:11:17
4019	MGS	02-035/11:25:52		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-035/11:11:17
4020	MGS	02-035/11:25:52		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-035/11:11:17
4021	MGS	02-035/11:25:53		NOTE: End EVP script		02-035/11:11:17
4022	MGS	02-035/11:25:53		Turn off the MOT Exciter and RPA beam	STRPAF	02-035/11:11:18
4023	MGS	02-035/11:25:54		NOTE: End Block (MAP_RT)		02-035/11:11:18
4024	MGS	02-035/11:25:57		NOTE: End fixed Sub-Reflector for Radio Science		02-035/11:11:21
4025	MGS	02-035/11:27:06		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-035/11:12:31
4026	MGS	02-035/11:27:06		NOTE: Enter Solar Eclipse 13011		02-035/11:12:31
4027	MGS	02-035/11:47:55		SSR 2B Data Disable	CSD2BX	02-035/11:33:20
4028	MGS	02-035/11:47:55		SSR Activity: ID=SSR_2B, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-035/11:33:20
4029	MGS	02-035/11:47:56		NOTE: End Block (SSRMGR)		02-035/11:33:21
4030	MGS	02-035/11:50:55		NOTE: Begin fixed Sub-Reflector for Radio Science		02-035/11:36:20
4031	MGS	02-035/11:51:46		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-035/11:37:11
4032	MGS	02-035/11:51:46		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-035/11:37:11
4033	MGS	02-035/11:51:50		Command the PSE with included data word: 3990	SWPSEL	02-035/11:37:15
4034	MGS	02-035/11:51:51		Set eclipse egress script address: 0158	SWSEES	02-035/11:37:16
4035	MGS	02-035/11:54:40		: 01:29:01	RPAONX	02-035/11:40:05
4036	MGS	02-035/11:54:40		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-035/11:40:05
4037	MGS	02-035/11:55:55		: 00:00:30, 00:07:14, FALSE	RDSCIE	02-035/11:41:20
4038	MGS	02-035/11:55:55		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-035/11:41:20
4039	MGS	02-035/11:55:55		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-035/11:41:20
4040	MGS	02-035/11:55:55		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-035/11:41:20
4041	MGS	02-035/11:55:55		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-035/11:41:20
4042	MGS	02-035/11:56:25		NOTE: Exit Earth Occultation 13011		02-035/11:41:50
4043	MGS	02-035/11:56:25	65	Acquisition Of X-Band Signal		
4044	MGS	02-035/11:56:25	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
4045	MGS	02-035/11:56:25	65	NOTE: Carrier Only -- No Telemetry Modulation		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
4046	MGS	02-035/12:01:00		NOTE: Exit Planetary Atmosphere 13011		02-035/11:46:24
4047	MGS	02-035/12:03:09		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-035/11:48:34
4048	MGS	02-035/12:03:09		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-035/11:48:34
4049	MGS	02-035/12:03:09		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-035/11:48:34
4050	MGS	02-035/12:03:09		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-035/11:48:34
4051	MGS	02-035/12:03:09		: REC_1A, F42KHZ, PART1, SE_1A, FALSE, 00:11:53	AEMPB	02-035/11:48:34
4052	MGS	02-035/12:03:09		Sends a one-word MOT command to the XSU command SOB: SSR_1A	STMOTC	02-035/11:48:34
4053	MGS	02-035/12:03:09		Sends a one-word SSR command to the XSU command SOB: SSR_1A, F42KHZ, PLYBCK, PART1	STSSRC	02-035/11:48:34
4054	MGS	02-035/12:03:09	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
4055	MGS	02-035/12:03:10		SSR 1A Data Enable	CSD1AE	02-035/11:48:35
4056	MGS	02-035/12:03:10		SSR Activity: ID=SSR_1A, FCN=Start Playback, PRT=1, BR=42666		02-035/11:48:35
4057	MGS	02-035/12:03:10	65	D/L Change: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
4058	MGS	02-035/12:03:14		NOTE: End fixed Sub-Reflector for Radio Science		02-035/11:48:39
4059	MGS	02-035/12:07:34		NOTE: Exit Solar Eclipse 13011		02-035/11:52:58
4060	MGS	02-035/12:14:35		Dump SCP memory to the EDF using physical addressing arguments: 56A4, 240	SCDSCM	02-035/12:00:00
4061	MGS	02-035/12:21:51		NOTE: Periapsis 13012 ----------		02-035/12:07:15
4062	MGS	02-035/12:32:33		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-035/12:17:57
4063	MGS	02-035/12:32:33		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-035/12:17:57
4064	MGS	02-035/12:32:34		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-035/12:17:58
4065	MGS	02-035/12:32:34		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-035/12:17:58
4066	MGS	02-035/12:54:34		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-035/12:39:58
4067	MGS	02-035/12:54:34		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-035/12:39:58
4068	MGS	02-035/13:11:44		NOTE: Begin fixed Sub-Reflector for Radio Science		02-035/12:57:08
4069	MGS	02-035/13:11:49		SSR 1A Data Disable	CSD1AX	02-035/12:57:13
4070	MGS	02-035/13:11:49		SSR Activity: ID=SSR_1A, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-035/12:57:13
4071	MGS	02-035/13:11:49		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-035/12:57:13
4072	MGS	02-035/13:11:49	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
4073	MGS	02-035/13:14:53		NOTE: Start EVP data return script		02-035/13:00:17
4074	MGS	02-035/13:14:53		: SSR_1B, F42KHZ, PART1, 2002-035T13:46:20.000	AEMPBU	02-035/13:00:17
4075	MGS	02-035/13:16:44		: 00:06:57, FALSE	RDSCII	02-035/13:02:08
4076	MGS	02-035/13:16:44		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-035/13:02:08
4077	MGS	02-035/13:16:44		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-035/13:02:08
4078	MGS	02-035/13:16:44		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-035/13:02:08
4079	MGS	02-035/13:16:44		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-035/13:02:08
4080	MGS	02-035/13:16:44	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
4081	MGS	02-035/13:16:44	65	NOTE: Carrier Only -- No Telemetry Modulation		
4082	MGS	02-035/13:18:52		NOTE: Enter Planetary Atmosphere 13012		02-035/13:04:16
4083	MGS	02-035/13:20:46		NOTE: Apoapsis 13012 -		02-035/13:06:10
4084	MGS	02-035/13:23:09		NOTE: Enter Earth Occultation 13012		02-035/13:08:33
4085	MGS	02-035/13:23:09	65	NOTE: Loss Of X-Band Signal		
4086	MGS	02-035/13:23:41		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-035/13:09:05
4087	MGS	02-035/13:23:41		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-035/13:09:05
4088	MGS	02-035/13:23:41		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-035/13:09:05
4089	MGS	02-035/13:23:41		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-035/13:09:05
4090	MGS	02-035/13:23:42		Turn off the MOT Exciter and RPA beam	STRPAF	02-035/13:09:06
4091	MGS	02-035/13:23:42		NOTE: End EVP script		02-035/13:09:06
4092	MGS	02-035/13:23:46		NOTE: End fixed Sub-Reflector for Radio Science		02-035/13:09:10
4093	MGS	02-035/13:24:53		NOTE: Enter Solar Eclipse 13012		02-035/13:10:17
4094	MGS	02-035/13:24:53		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-035/13:10:17
4095	MGS	02-035/13:48:42		NOTE: Begin fixed Sub-Reflector for Radio Science		02-035/13:34:06
4096	MGS	02-035/13:49:34		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-035/13:34:58
4097	MGS	02-035/13:49:34		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-035/13:34:58
4098	MGS	02-035/13:49:39		Set eclipse egress script address: 019A	SWSEES	02-035/13:35:03
4099	MGS	02-035/13:52:27		: 01:29:01	RPAONX	02-035/13:37:51

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
4100	MGS	02-035/13:52:27		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-035/13:37:51
4101	MGS	02-035/13:53:42		: 00:00:30, 00:07:14, FALSE	RDSCIE	02-035/13:39:06
4102	MGS	02-035/13:53:42		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-035/13:39:06
4103	MGS	02-035/13:53:42		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-035/13:39:06
4104	MGS	02-035/13:53:42		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-035/13:39:06
4105	MGS	02-035/13:53:42		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-035/13:39:06
4106	MGS	02-035/13:54:12		NOTE: Exit Earth Occultation 13012		02-035/13:39:36
4107	MGS	02-035/13:54:12	65	Acquisition Of X-Band Signal		
4108	MGS	02-035/13:54:12	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
4109	MGS	02-035/13:54:12	65	NOTE: Carrier Only -- No Telemetry Modulation		
4110	MGS	02-035/13:58:47		NOTE: Exit Planetary Atmosphere 13012		02-035/13:44:11
4111	MGS	02-035/14:00:56		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-035/13:46:20
4112	MGS	02-035/14:00:56		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-035/13:46:20
4113	MGS	02-035/14:00:56		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-035/13:46:20
4114	MGS	02-035/14:00:56		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-035/13:46:20
4115	MGS	02-035/14:00:56		: REC_1B, F42KHZ, PART1, SE_1A, FALSE, 00:11:53	AEMPB	02-035/13:46:20
4116	MGS	02-035/14:00:56		Sends a one-word MOT command to the XSU command SOB: SSR_1B	STMOTC	02-035/13:46:20
4117	MGS	02-035/14:00:56		Sends a one-word SSR command to the XSU command SOB: SSR_1B, F42KHZ, PLYBCK, PART1	STSSRC	02-035/13:46:20
4118	MGS	02-035/14:00:56	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
4119	MGS	02-035/14:00:57		SSR 1B Data Enable	CSD1BE	02-035/13:46:21
4120	MGS	02-035/14:00:57		SSR Activity: ID=SSR_1B, FCN=Start Playback, PRT=1, BR=42666		02-035/13:46:21
4121	MGS	02-035/14:00:57	65	D/L Change: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
4122	MGS	02-035/14:01:01		NOTE: End fixed Sub-Reflector for Radio Science		02-035/13:46:25
4123	MGS	02-035/14:05:20		NOTE: Exit Solar Eclipse 13012		02-035/13:50:44
4124	MGS	02-035/14:19:34		NOTE: Periapsis 13013 ----------		02-035/14:04:58
4125	MGS	02-035/14:26:19		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-035/14:11:43
4126	MGS	02-035/14:26:19		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-035/14:11:43
4127	MGS	02-035/14:26:20		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-035/14:11:44
4128	MGS	02-035/14:26:20		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-035/14:11:44
4129	MGS	02-035/14:48:20		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-035/14:33:44
4130	MGS	02-035/14:48:20		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-035/14:33:44
4131	MGS	02-035/15:09:30		NOTE: Begin fixed Sub-Reflector for Radio Science		02-035/14:54:54
4132	MGS	02-035/15:09:35		SSR 1B Data Disable	CSD1BX	02-035/14:54:59
4133	MGS	02-035/15:09:35		SSR Activity: ID=SSR_1B, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-035/14:54:59
4134	MGS	02-035/15:09:35		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-035/14:54:59
4135	MGS	02-035/15:09:35	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
4136	MGS	02-035/15:12:37		NOTE: Start EVP data return script		02-035/14:58:01
4137	MGS	02-035/15:12:37		: SSR_1A, F42KHZ, PART2, 2002-035T15:44:04.000	AEMPBU	02-035/14:58:01
4138	MGS	02-035/15:14:30		: 00:06:57, FALSE	RDSCII	02-035/14:59:54
4139	MGS	02-035/15:14:30		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-035/14:59:54
4140	MGS	02-035/15:14:30		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-035/14:59:54
4141	MGS	02-035/15:14:30		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-035/14:59:54
4142	MGS	02-035/15:14:30		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-035/14:59:54
4143	MGS	02-035/15:14:30	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
4144	MGS	02-035/15:14:30	65	NOTE: Carrier Only -- No Telemetry Modulation		
4145	MGS	02-035/15:16:36		NOTE: Enter Planetary Atmosphere 13013		02-035/15:01:59
4146	MGS	02-035/15:18:22		NOTE: Apoapsis 13013 -		02-035/15:03:46
4147	MGS	02-035/15:20:53		NOTE: Enter Earth Occultation 13013		02-035/15:06:17
4148	MGS	02-035/15:20:53	65	NOTE: Loss Of X-Band Signal		
4149	MGS	02-035/15:21:27		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-035/15:06:51
4150	MGS	02-035/15:21:27		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-035/15:06:51
4151	MGS	02-035/15:21:27		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-035/15:06:51
4152	MGS	02-035/15:21:27		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-035/15:06:51
4153	MGS	02-035/15:21:28		Turn off the MOT Exciter and RPA beam	STRPAF	02-035/15:06:52

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
4154	MGS	02-035/15:21:28		NOTE: End EVP script		02-035/15:06:52
4155	MGS	02-035/15:21:32		NOTE: End fixed Sub-Reflector for Radio Science		02-035/15:06:56
4156	MGS	02-035/15:22:37		NOTE: Enter Solar Eclipse 13013		02-035/15:08:00
4157	MGS	02-035/15:22:37		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-035/15:08:01
4158	MGS	02-035/15:46:26		NOTE: Begin fixed Sub-Reflector for Radio Science		02-035/15:31:50
4159	MGS	02-035/15:47:20		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-035/15:32:44
4160	MGS	02-035/15:47:20		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-035/15:32:44
4161	MGS	02-035/15:47:25		Set eclipse egress script address: 01DC	SWSEES	02-035/15:32:49
4162	MGS	02-035/15:50:11		: 01:29:01	RPAONX	02-035/15:35:35
4163	MGS	02-035/15:50:11		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-035/15:35:35
4164	MGS	02-035/15:51:26		: 00:00:30, 00:07:14, FALSE	RDSCIE	02-035/15:36:50
4165	MGS	02-035/15:51:26		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-035/15:36:50
4166	MGS	02-035/15:51:26		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-035/15:36:50
4167	MGS	02-035/15:51:26		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-035/15:36:50
4168	MGS	02-035/15:51:26		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-035/15:36:50
4169	MGS	02-035/15:51:58		NOTE: Exit Earth Occultation 13013		02-035/15:37:21
4170	MGS	02-035/15:51:58	65	Acquisition Of X-Band Signal		
4171	MGS	02-035/15:51:58	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
4172	MGS	02-035/15:51:58	65	NOTE: Carrier Only -- No Telemetry Modulation		
4173	MGS	02-035/15:56:32		NOTE: Exit Planetary Atmosphere 13013		02-035/15:41:56
4174	MGS	02-035/15:58:40		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-035/15:44:04
4175	MGS	02-035/15:58:40		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-035/15:44:04
4176	MGS	02-035/15:58:40		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-035/15:44:04
4177	MGS	02-035/15:58:40		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-035/15:44:04
4178	MGS	02-035/15:58:40		: REC_1A, F42KHZ, PART2, SE_1A, FALSE, 00:11:53	AEMPB	02-035/15:44:04
4179	MGS	02-035/15:58:40		Sends a one-word MOT command to the XSU command SOB: SSR_1A	STMOTC	02-035/15:44:04
4180	MGS	02-035/15:58:40		Sends a one-word SSR command to the XSU command SOB: SSR_1A, F42KHZ, PLYBCK, PART2	STSSRC	02-035/15:44:04
4181	MGS	02-035/15:58:40	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
4182	MGS	02-035/15:58:41		SSR 1A Data Enable	CSD1AE	02-035/15:44:05
4183	MGS	02-035/15:58:41		SSR Activity: ID=SSR_1A, FCN=Start Playback, PRT=2, BR=42666		02-035/15:44:05
4184	MGS	02-035/15:58:41	65	D/L Change: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
4185	MGS	02-035/15:58:45		NOTE: End fixed Sub-Reflector for Radio Science		02-035/15:44:09
4186	MGS	02-035/16:03:04		NOTE: Exit Solar Eclipse 13013		02-035/15:48:27
4187	MGS	02-035/16:17:19		NOTE: Periapsis 13014 ----------		02-035/16:02:43
4188	MGS	02-035/16:24:03		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-035/16:09:27
4189	MGS	02-035/16:24:03		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-035/16:09:27
4190	MGS	02-035/16:24:04		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-035/16:09:28
4191	MGS	02-035/16:24:04		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-035/16:09:28
4192	MGS	02-035/16:46:04		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-035/16:31:28
4193	MGS	02-035/16:46:04		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-035/16:31:28
4194	MGS	02-035/16:54:35		NOTE: Start Block (SSRMGR)		02-035/16:39:59
4195	MGS	02-035/16:54:35		Sends a one-word SSR command to the XSU command SOB: SSR_2B, SE_1A, RECORD, PART2	STSSRC	02-035/16:39:59
4196	MGS	02-035/16:54:36		SSR 2B Data Enable	CSD2BE	02-035/16:40:00
4197	MGS	02-035/16:54:36		SSR Activity: ID=SSR_2B, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-035/16:40:00
4198	MGS	02-035/17:05:00	25	Begin Pre-Cal		
4199	MGS	02-035/17:05:00	25	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
4200	MGS	02-035/17:05:00	25	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
4201	MGS	02-035/17:05:00	25	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
4202	MGS	02-035/17:05:00	25	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
4203	MGS	02-035/17:05:00	25	At BOT: S/C Tlm Mode: BR=42666.7, FL=10000, SC=HIGH, MI=80.0		
4204	MGS	02-035/17:05:00	25	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
4205	MGS	02-035/17:05:00	25	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
4206	MGS	02-035/17:05:00	25	Config: TGC: DEST=37		
4207	MGS	02-035/17:05:00	25	Config: TGC: BAND=X, BR=42666.666667		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
4208	MGS	02-035/17:05:00	25	Config: FSS: CH=2, PRI_FL=10000		
4209	MGS	02-035/17:05:00	25	Config: RSR		
4210	MGS	02-035/17:05:00	25	Config: TXL		
4211	MGS	02-035/17:05:00	25	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
4212	MGS	02-035/17:05:00	25	Config: BVR		
4213	MGS	02-035/17:05:00	25	Config: Doppler Extractor: BIAS=+1MHZ		
4214	MGS	02-035/17:05:00	25	Config: MDA: SMPL=0.1		
4215	MGS	02-035/17:05:00	25	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
4216	MGS	02-035/17:05:00	25	Config: SRA: HIGH=4, LOW=14, SERV=D		
4217	MGS	02-035/17:05:00	25	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
4218	MGS	02-035/17:07:14		NOTE: Begin fixed Sub-Reflector for Radio Science		02-035/16:52:38
4219	MGS	02-035/17:07:19		SSR 1A Data Disable	CSD1AX	02-035/16:52:43
4220	MGS	02-035/17:07:19		SSR Activity: ID=SSR_1A, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-035/16:52:43
4221	MGS	02-035/17:07:19		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-035/16:52:43
4222	MGS	02-035/17:07:19	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
4223	MGS	02-035/17:10:19		NOTE: Start EVP data return script		02-035/16:55:43
4224	MGS	02-035/17:10:19		: SSR_1B, F42KHZ, PART2, 2002-035T17:41:46.000	AEMPBU	02-035/16:55:43
4225	MGS	02-035/17:12:14		: 00:06:57, FALSE	RDSCII	02-035/16:57:38
4226	MGS	02-035/17:12:14		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-035/16:57:38
4227	MGS	02-035/17:12:14		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-035/16:57:38
4228	MGS	02-035/17:12:14		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-035/16:57:38
4229	MGS	02-035/17:12:14		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-035/16:57:38
4230	MGS	02-035/17:12:14	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
4231	MGS	02-035/17:12:14	65	NOTE: Carrier Only -- No Telemetry Modulation		
4232	MGS	02-035/17:14:18		NOTE: Enter Planetary Atmosphere 13014		02-035/16:59:41
4233	MGS	02-035/17:16:19		NOTE: Apoapsis 13014 -		02-035/17:01:42
4234	MGS	02-035/17:18:36		NOTE: Enter Earth Occultation 13014		02-035/17:03:59
4235	MGS	02-035/17:18:36	65	NOTE: Loss Of X-Band Signal		
4236	MGS	02-035/17:19:11		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-035/17:04:35
4237	MGS	02-035/17:19:11		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-035/17:04:35
4238	MGS	02-035/17:19:11		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-035/17:04:35
4239	MGS	02-035/17:19:11		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-035/17:04:35
4240	MGS	02-035/17:19:12		Turn off the MOT Exciter and RPA beam	STRPAF	02-035/17:04:36
4241	MGS	02-035/17:19:12		NOTE: End EVP script		02-035/17:04:36
4242	MGS	02-035/17:19:16		NOTE: End fixed Sub-Reflector for Radio Science		02-035/17:04:40
4243	MGS	02-035/17:20:19		NOTE: Enter Solar Eclipse 13014		02-035/17:05:42
4244	MGS	02-035/17:20:19		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-035/17:05:43
4245	MGS	02-035/17:21:16		SSR 2A Data Disable	CSD2AX	02-035/17:06:40
4246	MGS	02-035/17:21:16		SSR Activity: ID=SSR_2A, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-035/17:06:40
4247	MGS	02-035/17:21:17		NOTE: End Block (SSRMGR)		02-035/17:06:41
4248	MGS	02-035/17:44:08		NOTE: Begin fixed Sub-Reflector for Radio Science		02-035/17:29:32
4249	MGS	02-035/17:45:04		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-035/17:30:28
4250	MGS	02-035/17:45:04		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-035/17:30:28
4251	MGS	02-035/17:45:08		Command the PSE with included data word: 3990	SWPSEL	02-035/17:30:32
4252	MGS	02-035/17:45:09		Set eclipse egress script address: 0158	SWSEES	02-035/17:30:33
4253	MGS	02-035/17:47:53		: 01:29:01	RPAONX	02-035/17:33:17
4254	MGS	02-035/17:47:53		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-035/17:33:17
4255	MGS	02-035/17:49:08		: 00:00:30, 00:07:14, FALSE	RDSCIE	02-035/17:34:32
4256	MGS	02-035/17:49:08		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-035/17:34:32
4257	MGS	02-035/17:49:08		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-035/17:34:32
4258	MGS	02-035/17:49:08		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-035/17:34:32
4259	MGS	02-035/17:49:08		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-035/17:34:32
4260	MGS	02-035/17:49:38		Disables autonomous command to send eclipse ingress script	SWEISX	02-035/17:35:02
4261	MGS	02-035/17:49:41		NOTE: Exit Earth Occultation 13014		02-035/17:35:04

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
4262	MGS	02-035/17:49:41	65	Acquisition Of X-Band Signal		
4263	MGS	02-035/17:49:41	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
4264	MGS	02-035/17:49:41	65	NOTE: Carrier Only -- No Telemetry Modulation		
4265	MGS	02-035/17:54:15		NOTE: Exit Planetary Atmosphere 13014		02-035/17:39:39
4266	MGS	02-035/17:56:22		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-035/17:41:46
4267	MGS	02-035/17:56:22		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-035/17:41:46
4268	MGS	02-035/17:56:22		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-035/17:41:46
4269	MGS	02-035/17:56:22		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-035/17:41:46
4270	MGS	02-035/17:56:22		: REC_1B, F42KHZ, PART2, SE_1A, FALSE, 00:11:53	AEMPB	02-035/17:41:46
4271	MGS	02-035/17:56:22		Sends a one-word MOT command to the XSU command SOB: SSR_1B	STMOTC	02-035/17:41:46
4272	MGS	02-035/17:56:22		Sends a one-word SSR command to the XSU command SOB: SSR_1B, F42KHZ, PLYBCK, PART2	STSSRC	02-035/17:41:46
4273	MGS	02-035/17:56:22	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
4274	MGS	02-035/17:56:23		SSR 1B Data Enable	CSD1BE	02-035/17:41:47
4275	MGS	02-035/17:56:23		SSR Activity: ID=SSR_1B, FCN=Start Playback, PRT=2, BR=42666		02-035/17:41:47
4276	MGS	02-035/17:56:23	65	D/L Change: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
4277	MGS	02-035/17:56:27		NOTE: End fixed Sub-Reflector for Radio Science		02-035/17:41:51
4278	MGS	02-035/18:00:46		NOTE: Exit Solar Eclipse 13014		02-035/17:46:09
4279	MGS	02-035/18:14:54		NOTE: Periapsis 13015 ----------		02-035/18:00:17
4280	MGS	02-035/18:25:45		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-035/18:11:09
4281	MGS	02-035/18:25:45		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-035/18:11:09
4282	MGS	02-035/18:25:46		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-035/18:11:10
4283	MGS	02-035/18:25:46		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-035/18:11:10
4284	MGS	02-035/18:47:47		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-035/18:33:10
4285	MGS	02-035/18:47:47		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-035/18:33:10
4286	MGS	02-035/19:04:57		NOTE: Begin fixed Sub-Reflector for Radio Science		02-035/18:50:20
4287	MGS	02-035/19:05:00	25	Begin Tracking		
4288	MGS	02-035/19:05:00	25	Acquire D/L: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
4289	MGS	02-035/19:05:02		SSR 1B Data Disable	CSD1BX	02-035/18:50:25
4290	MGS	02-035/19:05:02		SSR Activity: ID=SSR_1B, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-035/18:50:25
4291	MGS	02-035/19:05:02		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-035/18:50:25
4292	MGS	02-035/19:05:02	25	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
4293	MGS	02-035/19:05:02	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
4294	MGS	02-035/19:08:01		NOTE: Start Block (MAP_RT)		02-035/18:53:24
4295	MGS	02-035/19:08:02		: 00:27:34, 01:29:00, FALSE, TRUE, FALSE, 00:01:15, 00:07:14, 01:13:33, 00:06:57	AEMINI	02-035/18:53:25
4296	MGS	02-035/19:08:02		Enable sending eclipse ingress script when array power disappears	SWEISE	02-035/18:53:25
4297	MGS	02-035/19:08:02		NOTE: Start EVP data return script		02-035/18:53:25
4298	MGS	02-035/19:08:03		: SE_2A, RTM, 01:13:32, MRC, 2002-035T19:39:29.000	AEMRTI	02-035/18:53:26
4299	MGS	02-035/19:09:57		: 00:06:57, FALSE	RDSCII	02-035/18:55:20
4300	MGS	02-035/19:09:57		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-035/18:55:20
4301	MGS	02-035/19:09:57		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-035/18:55:20
4302	MGS	02-035/19:09:57		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-035/18:55:20
4303	MGS	02-035/19:09:57		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-035/18:55:20
4304	MGS	02-035/19:09:57	25	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
4305	MGS	02-035/19:09:57	25	NOTE: Carrier Only -- No Telemetry Modulation		
4306	MGS	02-035/19:09:57	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
4307	MGS	02-035/19:09:57	65	NOTE: Carrier Only -- No Telemetry Modulation		
4308	MGS	02-035/19:12:01		NOTE: Enter Planetary Atmosphere 13015		02-035/18:57:24
4309	MGS	02-035/19:13:48		NOTE: Apoapsis 13015 -		02-035/18:59:11
4310	MGS	02-035/19:16:18		NOTE: Enter Earth Occultation 13015		02-035/19:01:41
4311	MGS	02-035/19:16:18	25	NOTE: Loss Of X-Band Signal		
4312	MGS	02-035/19:16:18	65	NOTE: Loss Of X-Band Signal		
4313	MGS	02-035/19:16:54		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-035/19:02:17
4314	MGS	02-035/19:16:54		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-035/19:02:17
4315	MGS	02-035/19:16:54		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-035/19:02:17

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
4316	MGS	02-035/19:16:54		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-035/19:02:17
4317	MGS	02-035/19:16:55		Turn off the MOT Exciter and RPA beam	STRPAF	02-035/19:02:18
4318	MGS	02-035/19:16:55		NOTE: End EVP script		02-035/19:02:18
4319	MGS	02-035/19:16:56		NOTE: End Block (MAP_PB)		02-035/19:02:19
4320	MGS	02-035/19:16:59		NOTE: End fixed Sub-Reflector for Radio Science		02-035/19:02:22
4321	MGS	02-035/19:18:01		NOTE: Enter Solar Eclipse 13015		02-035/19:03:24
4322	MGS	02-035/19:18:02		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-035/19:03:25
4323	MGS	02-035/19:41:50		NOTE: Begin fixed Sub-Reflector for Radio Science		02-035/19:27:13
4324	MGS	02-035/19:42:47		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-035/19:28:10
4325	MGS	02-035/19:42:47		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-035/19:28:10
4326	MGS	02-035/19:42:52		Set eclipse egress script address: 019A	SWSEES	02-035/19:28:15
4327	MGS	02-035/19:45:36		: 01:29:00	RPAONX	02-035/19:30:59
4328	MGS	02-035/19:45:36		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-035/19:30:59
4329	MGS	02-035/19:46:51		: 00:00:30, 00:07:14, FALSE	RDSCIE	02-035/19:32:14
4330	MGS	02-035/19:46:51		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-035/19:32:14
4331	MGS	02-035/19:46:51		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-035/19:32:14
4332	MGS	02-035/19:46:51		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-035/19:32:14
4333	MGS	02-035/19:46:51		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-035/19:32:14
4334	MGS	02-035/19:47:23		NOTE: Exit Earth Occultation 13015		02-035/19:32:46
4335	MGS	02-035/19:47:23	25	Acquisition Of X-Band Signal		
4336	MGS	02-035/19:47:23	25	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
4337	MGS	02-035/19:47:23	25	NOTE: Carrier Only -- No Telemetry Modulation		
4338	MGS	02-035/19:47:23	65	Acquisition Of X-Band Signal		
4339	MGS	02-035/19:47:23	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
4340	MGS	02-035/19:47:23	65	NOTE: Carrier Only -- No Telemetry Modulation		
4341	MGS	02-035/19:51:58		NOTE: Exit Planetary Atmosphere 13015		02-035/19:37:20
4342	MGS	02-035/19:54:05		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-035/19:39:28
4343	MGS	02-035/19:54:05		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-035/19:39:28
4344	MGS	02-035/19:54:05		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-035/19:39:28
4345	MGS	02-035/19:54:05		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-035/19:39:28
4346	MGS	02-035/19:54:05	25	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
4347	MGS	02-035/19:54:05	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
4348	MGS	02-035/19:54:06		: RTM, MRC, 01:13:32, S&E_2A, FALSE, 00:06:58	AEMRT	02-035/19:39:29
4349	MGS	02-035/19:54:06		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-035/19:39:29
4350	MGS	02-035/19:54:06		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-035/19:39:29
4351	MGS	02-035/19:54:06	25	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
4352	MGS	02-035/19:54:06	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
4353	MGS	02-035/19:54:09		NOTE: End fixed Sub-Reflector for Radio Science		02-035/19:39:32
4354	MGS	02-035/19:58:28		NOTE: Exit Solar Eclipse 13015		02-035/19:43:51
4355	MGS	02-035/20:12:14		NOTE: Periapsis 13016 ----------		02-035/19:57:37
4356	MGS	02-035/20:19:27		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-035/20:04:50
4357	MGS	02-035/20:19:27		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-035/20:04:50
4358	MGS	02-035/20:19:28		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-035/20:04:51
4359	MGS	02-035/20:19:28		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-035/20:04:51
4360	MGS	02-035/20:41:28		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-035/20:26:51
4361	MGS	02-035/20:41:28		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-035/20:26:51
4362	MGS	02-035/21:02:37		NOTE: Begin fixed Sub-Reflector for Radio Science		02-035/20:48:00
4363	MGS	02-035/21:05:45		NOTE: Start EVP data return script		02-035/20:51:08
4364	MGS	02-035/21:07:38		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-035/20:53:01
4365	MGS	02-035/21:07:38		: 00:06:57, FALSE	RDSCII	02-035/20:53:01
4366	MGS	02-035/21:07:38		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-035/20:53:01
4367	MGS	02-035/21:07:38		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-035/20:53:01
4368	MGS	02-035/21:07:38		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-035/20:53:01
4369	MGS	02-035/21:07:38		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-035/20:53:01

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
4370	MGS	02-035/21:07:38	25	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
4371	MGS	02-035/21:07:38	25	NOTE: Carrier Only -- No Telemetry Modulation		
4372	MGS	02-035/21:07:38	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
4373	MGS	02-035/21:07:38	65	NOTE: Carrier Only -- No Telemetry Modulation		
4374	MGS	02-035/21:09:44		NOTE: Enter Planetary Atmosphere 13016		02-035/20:55:07
4375	MGS	02-035/21:11:14		NOTE: Apoapsis 13016 -		02-035/20:56:36
4376	MGS	02-035/21:14:01		NOTE: Enter Earth Occultation 13016		02-035/20:59:24
4377	MGS	02-035/21:14:01	25	NOTE: Loss Of X-Band Signal		
4378	MGS	02-035/21:14:01	65	NOTE: Loss Of X-Band Signal		
4379	MGS	02-035/21:14:35		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-035/20:59:58
4380	MGS	02-035/21:14:35		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-035/20:59:58
4381	MGS	02-035/21:14:35		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-035/20:59:58
4382	MGS	02-035/21:14:35		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-035/20:59:58
4383	MGS	02-035/21:14:36		NOTE: End EVP script		02-035/20:59:58
4384	MGS	02-035/21:14:36		Turn off the MOT Exciter and RPA beam	STRPAF	02-035/20:59:59
4385	MGS	02-035/21:14:40		NOTE: End fixed Sub-Reflector for Radio Science		02-035/21:00:02
4386	MGS	02-035/21:15:45		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-035/21:01:08
4387	MGS	02-035/21:15:45		NOTE: Enter Solar Eclipse 13016		02-035/21:01:08
4388	MGS	02-035/21:25:26	65	NOTE: Below Uplink Interlock Limit		
4389	MGS	02-035/21:30:00	65	End Tracking		
4390	MGS	02-035/21:39:34		NOTE: Begin fixed Sub-Reflector for Radio Science		02-035/21:24:56
4391	MGS	02-035/21:40:28		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-035/21:25:51
4392	MGS	02-035/21:40:28		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-035/21:25:51
4393	MGS	02-035/21:40:33		Set eclipse egress script address: 01DC	SWSEES	02-035/21:25:56
4394	MGS	02-035/21:43:19		: 01:29:00	RPAONX	02-035/21:28:42
4395	MGS	02-035/21:43:19		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-035/21:28:42
4396	MGS	02-035/21:44:34		: 00:00:30, 00:07:14, FALSE	RDSCIE	02-035/21:29:57
4397	MGS	02-035/21:44:34		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-035/21:29:57
4398	MGS	02-035/21:44:34		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-035/21:29:57
4399	MGS	02-035/21:44:34		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-035/21:29:57
4400	MGS	02-035/21:44:34		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-035/21:29:57
4401	MGS	02-035/21:45:00	65	End Post-Cal		
4402	MGS	02-035/21:45:06		NOTE: Exit Earth Occultation 13016		02-035/21:30:29
4403	MGS	02-035/21:45:06	25	Acquisition Of X-Band Signal		
4404	MGS	02-035/21:45:06	25	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
4405	MGS	02-035/21:45:06	25	NOTE: Carrier Only -- No Telemetry Modulation		
4406	MGS	02-035/21:49:40		NOTE: Exit Planetary Atmosphere 13016		02-035/21:35:03
4407	MGS	02-035/21:51:48		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-035/21:37:11
4408	MGS	02-035/21:51:48		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-035/21:37:11
4409	MGS	02-035/21:51:48		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-035/21:37:11
4410	MGS	02-035/21:51:48		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-035/21:37:11
4411	MGS	02-035/21:51:48	25	D/L Change: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
4412	MGS	02-035/21:51:49		: RTM, MRC, 01:13:32, S&E_2A, FALSE, 00:06:58	AEMRT	02-035/21:37:12
4413	MGS	02-035/21:51:49		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-035/21:37:12
4414	MGS	02-035/21:51:49		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-035/21:37:12
4415	MGS	02-035/21:51:49	25	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
4416	MGS	02-035/21:51:53		NOTE: End fixed Sub-Reflector for Radio Science		02-035/21:37:15
4417	MGS	02-035/21:56:11		NOTE: Exit Solar Eclipse 13016		02-035/21:41:34
4418	MGS	02-035/22:10:08		NOTE: Periapsis 13017 ----------		02-035/21:55:30
4419	MGS	02-035/22:17:10		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-035/22:02:33
4420	MGS	02-035/22:17:10		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-035/22:02:33
4421	MGS	02-035/22:17:11		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-035/22:02:34
4422	MGS	02-035/22:17:11		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-035/22:02:34
4423	MGS	02-035/22:27:56		NOTE: Start Block (SSRMGR)		02-035/22:13:19

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
4424	MGS	02-035/22:27:56		Sends a one-word SSR command to the XSU command SOB: SSR_2A, SE_1A, RECORD, PART3	STSSRC	02-035/22:13:19
4425	MGS	02-035/22:27:57		SSR 2A Data Enable	CSD2AE	02-035/22:13:20
4426	MGS	02-035/22:27:57		SSR Activity: ID=SSR_2A, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-035/22:13:20
4427	MGS	02-035/22:39:11		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-035/22:24:34
4428	MGS	02-035/22:39:11		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-035/22:24:34
4429	MGS	02-035/22:54:37		SSR 2B Data Disable	CSD2BX	02-035/22:40:00
4430	MGS	02-035/22:54:37		SSR Activity: ID=SSR_2B, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-035/22:40:00
4431	MGS	02-035/22:54:38		NOTE: End Block (SSRMGR)		02-035/22:40:01
4432	MGS	02-035/23:00:21		NOTE: Begin fixed Sub-Reflector for Radio Science		02-035/22:45:43
4433	MGS	02-035/23:03:31		NOTE: Start EVP data return script		02-035/22:48:54
4434	MGS	02-035/23:05:21		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-035/22:50:44
4435	MGS	02-035/23:05:21		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=3, BITS=17952000, DUR=00:37:24		02-035/22:50:44
4436	MGS	02-035/23:05:21		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-035/22:50:44
4437	MGS	02-035/23:05:21		: 00:06:57, FALSE	RDSCII	02-035/22:50:44
4438	MGS	02-035/23:05:21		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-035/22:50:44
4439	MGS	02-035/23:05:21		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-035/22:50:44
4440	MGS	02-035/23:05:21		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-035/22:50:44
4441	MGS	02-035/23:05:21		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-035/22:50:44
4442	MGS	02-035/23:05:21	25	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
4443	MGS	02-035/23:05:21	25	NOTE: Carrier Only -- No Telemetry Modulation		
4444	MGS	02-035/23:07:29		NOTE: Enter Planetary Atmosphere 13017		02-035/22:52:51
4445	MGS	02-035/23:07:56		NOTE: Start Block (SSRMGR)		02-035/22:53:19
4446	MGS	02-035/23:07:56		Sends a one-word SSR command to the XSU command SOB: SSR_2B, SE_1A, RECORD, PART3	STSSRC	02-035/22:53:19
4447	MGS	02-035/23:07:57		SSR 2B Data Enable	CSD2BE	02-035/22:53:20
4448	MGS	02-035/23:07:57		SSR Activity: ID=SSR_2B, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-035/22:53:20
4449	MGS	02-035/23:09:18		NOTE: Apoapsis 13017 -		02-035/22:54:41
4450	MGS	02-035/23:11:46		NOTE: Enter Earth Occultation 13017		02-035/22:57:08
4451	MGS	02-035/23:11:46	25	NOTE: Loss Of X-Band Signal		
4452	MGS	02-035/23:12:18		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-035/22:57:41
4453	MGS	02-035/23:12:18		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-035/22:57:41
4454	MGS	02-035/23:12:18		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-035/22:57:41
4455	MGS	02-035/23:12:18		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-035/22:57:41
4456	MGS	02-035/23:12:19		NOTE: End EVP script		02-035/22:57:41
4457	MGS	02-035/23:12:19		Turn off the MOT Exciter and RPA beam	STRPAF	02-035/22:57:42
4458	MGS	02-035/23:12:23		NOTE: End fixed Sub-Reflector for Radio Science		02-035/22:57:45
4459	MGS	02-035/23:13:31		NOTE: Enter Solar Eclipse 13017		02-035/22:58:53
4460	MGS	02-035/23:13:31		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-035/22:58:54
4461	MGS	02-035/23:34:37		SSR 2A Data Disable	CSD2AX	02-035/23:20:00
4462	MGS	02-035/23:34:37		SSR Activity: ID=SSR_2A, FCN=End Recording, PRT=3, BITS=32000000, DUR=01:06:40		02-035/23:20:00
4463	MGS	02-035/23:34:38		NOTE: End Block (SSRMGR)		02-035/23:20:01
4464	MGS	02-035/23:37:20		NOTE: Begin fixed Sub-Reflector for Radio Science		02-035/23:22:42
4465	MGS	02-035/23:38:11		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-035/23:23:34
4466	MGS	02-035/23:38:11		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-035/23:23:34
4467	MGS	02-035/23:38:15		Command the PSE with included data word: 3990	SWPSEL	02-035/23:23:38
4468	MGS	02-035/23:38:16		Set eclipse egress script address: 0158	SWSEES	02-035/23:23:39
4469	MGS	02-035/23:41:05		: 01:29:00	RPAONX	02-035/23:26:28
4470	MGS	02-035/23:41:05		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-035/23:26:28
4471	MGS	02-035/23:42:20		: 00:00:30, 00:07:14, FALSE	RDSCIE	02-035/23:27:43
4472	MGS	02-035/23:42:20		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-035/23:27:43
4473	MGS	02-035/23:42:20		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-035/23:27:43
4474	MGS	02-035/23:42:20		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-035/23:27:43
4475	MGS	02-035/23:42:20		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-035/23:27:43
4476	MGS	02-035/23:42:50		Disables autonomous command to send eclipse ingress script	SWEISX	02-035/23:28:13
4477	MGS	02-035/23:42:52		NOTE: Exit Earth Occultation 13017		02-035/23:28:14

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
4478	MGS	02-035/23:42:52	25	Acquisition Of X-Band Signal		
4479	MGS	02-035/23:42:52	25	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
4480	MGS	02-035/23:42:52	25	NOTE: Carrier Only -- No Telemetry Modulation		
4481	MGS	02-035/23:47:25		NOTE: Exit Planetary Atmosphere 13017		02-035/23:32:48
4482	MGS	02-035/23:49:34		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-035/23:34:57
4483	MGS	02-035/23:49:34		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-035/23:34:57
4484	MGS	02-035/23:49:34		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-035/23:34:57
4485	MGS	02-035/23:49:34		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-035/23:34:57
4486	MGS	02-035/23:49:34	25	D/L Change: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
4487	MGS	02-035/23:49:35		: RTM, MRC, 01:13:32, S&E_2A, FALSE, 00:06:58	AEMRT	02-035/23:34:58
4488	MGS	02-035/23:49:35		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-035/23:34:58
4489	MGS	02-035/23:49:35		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-035/23:34:58
4490	MGS	02-035/23:49:35		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=3, BITS=19984000, DUR=00:41:38		02-035/23:34:58
4491	MGS	02-035/23:49:35		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-035/23:34:58
4492	MGS	02-035/23:49:35	25	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
4493	MGS	02-035/23:49:39		NOTE: End fixed Sub-Reflector for Radio Science		02-035/23:35:01
4494	MGS	02-035/23:53:57		NOTE: Exit Solar Eclipse 13017		02-035/23:39:20
4495	MGS	02-036/00:00:00		Light Time: OWLT = 14:37, RTLT = 29:15		
4496	MGS	02-036/00:08:21		NOTE: Periapsis 13018 ----------		02-035/23:53:44
4497	MGS	02-036/00:14:36		NOTE: Start Block (SSRMGR)		02-035/23:59:59
4498	MGS	02-036/00:14:36		Sends a one-word SSR command to the XSU command SOB: SSR_1A, SE_1A, RECORD, PART1	STSSRC	02-035/23:59:59
4499	MGS	02-036/00:14:37		SSR 1A Data Enable	CSD1AE	02-036/00:00:00
4500	MGS	02-036/00:14:37		SSR Activity: ID=SSR_1A, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-036/00:00:00
4501	MGS	02-036/00:18:56		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-036/00:04:19
4502	MGS	02-036/00:18:56		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-036/00:04:19
4503	MGS	02-036/00:18:57		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-036/00:04:20
4504	MGS	02-036/00:18:57		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-036/00:04:20
4505	MGS	02-036/00:40:57		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-036/00:26:20
4506	MGS	02-036/00:40:57		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-036/00:26:20
4507	MGS	02-036/00:41:17		SSR 2B Data Disable	CSD2BX	02-036/00:26:40
4508	MGS	02-036/00:41:17		SSR Activity: ID=SSR_2B, FCN=End Recording, PRT=3, BITS=44800000, DUR=01:33:20		02-036/00:26:40
4509	MGS	02-036/00:41:18		NOTE: End Block (SSRMGR)		02-036/00:26:41
4510	MGS	02-036/00:58:07		NOTE: Begin fixed Sub-Reflector for Radio Science		02-036/00:43:29
4511	MGS	02-036/01:01:16		NOTE: Start Block (MAP_PB)		02-036/00:46:39
4512	MGS	02-036/01:01:17		: 00:27:38, 01:28:56, FALSE, TRUE, FALSE, 00:01:15, 00:07:13, 01:13:30, 00:06:57	AEMINI	02-036/00:46:40
4513	MGS	02-036/01:01:17		Enable sending eclipse ingress script when array power disappears	SWEISE	02-036/00:46:40
4514	MGS	02-036/01:01:17		NOTE: Start EVP data return script		02-036/00:46:40
4515	MGS	02-036/01:01:18		: SSR_2A, F42KHZ, PART1, SE_1A, 2002-036T01:32:46.000	AEMPBI	02-036/00:46:41
4516	MGS	02-036/01:03:08		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-036/00:48:30
4517	MGS	02-036/01:03:08		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=23280000, DUR=00:48:30		02-036/00:48:30
4518	MGS	02-036/01:03:08		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-036/00:48:30
4519	MGS	02-036/01:03:08		: 00:06:57, FALSE	RDSCII	02-036/00:48:30
4520	MGS	02-036/01:03:08		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-036/00:48:30
4521	MGS	02-036/01:03:08		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-036/00:48:30
4522	MGS	02-036/01:03:08		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-036/00:48:30
4523	MGS	02-036/01:03:08		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-036/00:48:30
4524	MGS	02-036/01:03:08	25	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
4525	MGS	02-036/01:03:08	25	NOTE: Carrier Only -- No Telemetry Modulation		
4526	MGS	02-036/01:05:15		NOTE: Enter Planetary Atmosphere 13018		02-036/00:50:37
4527	MGS	02-036/01:07:38		NOTE: Apoapsis 13018 -		02-036/00:53:00
4528	MGS	02-036/01:09:32		NOTE: Enter Earth Occultation 13018		02-036/00:54:54
4529	MGS	02-036/01:09:32	25	NOTE: Loss Of X-Band Signal		
4530	MGS	02-036/01:10:05		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-036/00:55:27
4531	MGS	02-036/01:10:05		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-036/00:55:27

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
4532	MGS	02-036/01:10:05		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-036/00:55:27
4533	MGS	02-036/01:10:05		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-036/00:55:27
4534	MGS	02-036/01:10:05		NOTE: End EVP script		02-036/00:55:27
4535	MGS	02-036/01:10:06		Turn off the MOT Exciter and RPA beam	STRPAF	02-036/00:55:28
4536	MGS	02-036/01:10:06		NOTE: End Block (MAP_RT)		02-036/00:55:28
4537	MGS	02-036/01:10:09		NOTE: End fixed Sub-Reflector for Radio Science		02-036/00:55:31
4538	MGS	02-036/01:11:18		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-036/00:56:40
4539	MGS	02-036/01:11:18		NOTE: Enter Solar Eclipse 13018		02-036/00:56:40
4540	MGS	02-036/01:35:11		NOTE: Begin fixed Sub-Reflector for Radio Science		02-036/01:20:33
4541	MGS	02-036/01:35:58		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-036/01:21:20
4542	MGS	02-036/01:35:58		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-036/01:21:20
4543	MGS	02-036/01:36:03		Set eclipse egress script address: 019A	SWSEES	02-036/01:21:25
4544	MGS	02-036/01:38:56		: 01:28:56	RPAONX	02-036/01:24:18
4545	MGS	02-036/01:38:56		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-036/01:24:18
4546	MGS	02-036/01:40:11		: 00:00:30, 00:07:13, FALSE	RDSCIE	02-036/01:25:33
4547	MGS	02-036/01:40:11		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-036/01:25:33
4548	MGS	02-036/01:40:11		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-036/01:25:33
4549	MGS	02-036/01:40:11		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-036/01:25:33
4550	MGS	02-036/01:40:11		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-036/01:25:33
4551	MGS	02-036/01:40:40		NOTE: Exit Earth Occultation 13018		02-036/01:26:02
4552	MGS	02-036/01:40:40	25	Acquisition Of X-Band Signal		
4553	MGS	02-036/01:40:40	25	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
4554	MGS	02-036/01:40:40	25	NOTE: Carrier Only -- No Telemetry Modulation		
4555	MGS	02-036/01:45:13		NOTE: Exit Planetary Atmosphere 13018		02-036/01:30:35
4556	MGS	02-036/01:47:24		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-036/01:32:46
4557	MGS	02-036/01:47:24		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-036/01:32:46
4558	MGS	02-036/01:47:24		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-036/01:32:46
4559	MGS	02-036/01:47:24		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-036/01:32:46
4560	MGS	02-036/01:47:24		: REC_2A, F42KHZ, PART1, SE_1A, FALSE, 00:11:49	AEMPB	02-036/01:32:46
4561	MGS	02-036/01:47:24		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-036/01:32:46
4562	MGS	02-036/01:47:24		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, PLYBCK, PART1	STSSRC	02-036/01:32:46
4563	MGS	02-036/01:47:24	25	D/L Change: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
4564	MGS	02-036/01:47:25		SSR 2A Data Enable	CSD2AE	02-036/01:32:47
4565	MGS	02-036/01:47:25		SSR Activity: ID=SSR_2A, FCN=Start Playback, PRT=1, BR=42666		02-036/01:32:47
4566	MGS	02-036/01:47:25	25	D/L Change: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
4567	MGS	02-036/01:47:29		NOTE: End fixed Sub-Reflector for Radio Science		02-036/01:32:51
4568	MGS	02-036/01:51:45		NOTE: Exit Solar Eclipse 13018		02-036/01:37:07
4569	MGS	02-036/02:06:25		NOTE: Periapsis 13019 ----------		02-036/01:51:47
4570	MGS	02-036/02:12:44		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-036/01:58:06
4571	MGS	02-036/02:12:44		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-036/01:58:06
4572	MGS	02-036/02:12:45		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-036/01:58:07
4573	MGS	02-036/02:12:45		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-036/01:58:07
4574	MGS	02-036/02:34:45		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-036/02:20:07
4575	MGS	02-036/02:34:45		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-036/02:20:07
4576	MGS	02-036/02:55:54		NOTE: Begin fixed Sub-Reflector for Radio Science		02-036/02:41:16
4577	MGS	02-036/02:56:03		SSR 2A Data Disable	CSD2AX	02-036/02:41:25
4578	MGS	02-036/02:56:03		SSR Activity: ID=SSR_2A, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-036/02:41:25
4579	MGS	02-036/02:56:03		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-036/02:41:25
4580	MGS	02-036/02:56:03	25	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
4581	MGS	02-036/02:59:04		NOTE: Start EVP data return script		02-036/02:44:26
4582	MGS	02-036/02:59:04		: SSR_2B, F42KHZ, PART1, 2002-036T03:30:32.000	AEMPBU	02-036/02:44:26
4583	MGS	02-036/03:00:54		: 00:06:57, FALSE	RDSCII	02-036/02:46:16
4584	MGS	02-036/03:00:54		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-036/02:46:16
4585	MGS	02-036/03:00:54		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-036/02:46:16

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
4586	MGS	02-036/03:00:54		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-036/02:46:16
4587	MGS	02-036/03:00:54		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-036/02:46:16
4588	MGS	02-036/03:00:54	25	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
4589	MGS	02-036/03:00:54	25	NOTE: Carrier Only -- No Telemetry Modulation		
4590	MGS	02-036/03:03:03		NOTE: Enter Planetary Atmosphere 13019		02-036/02:48:25
4591	MGS	02-036/03:05:31		NOTE: Apoapsis 13019 -		02-036/02:50:53
4592	MGS	02-036/03:07:20		NOTE: Enter Earth Occultation 13019		02-036/02:52:42
4593	MGS	02-036/03:07:20	25	NOTE: Loss Of X-Band Signal		
4594	MGS	02-036/03:07:51		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-036/02:53:13
4595	MGS	02-036/03:07:51		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-036/02:53:13
4596	MGS	02-036/03:07:51		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-036/02:53:13
4597	MGS	02-036/03:07:51		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-036/02:53:13
4598	MGS	02-036/03:07:52		Turn off the MOT Exciter and RPA beam	STRPAF	02-036/02:53:14
4599	MGS	02-036/03:07:52		NOTE: End EVP script		02-036/02:53:14
4600	MGS	02-036/03:07:56		NOTE: End fixed Sub-Reflector for Radio Science		02-036/02:53:18
4601	MGS	02-036/03:09:04		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-036/02:54:26
4602	MGS	02-036/03:09:04		NOTE: Enter Solar Eclipse 13019		02-036/02:54:26
4603	MGS	02-036/03:32:57		NOTE: Begin fixed Sub-Reflector for Radio Science		02-036/03:18:19
4604	MGS	02-036/03:33:45		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-036/03:19:07
4605	MGS	02-036/03:33:45		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-036/03:19:07
4606	MGS	02-036/03:33:50		Set eclipse egress script address: 01DC	SWSEES	02-036/03:19:12
4607	MGS	02-036/03:36:42		: 01:28:56	RPAONX	02-036/03:22:04
4608	MGS	02-036/03:36:42		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-036/03:22:04
4609	MGS	02-036/03:37:57		: 00:00:30, 00:07:13, FALSE	RDSCIE	02-036/03:23:19
4610	MGS	02-036/03:37:57		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-036/03:23:19
4611	MGS	02-036/03:37:57		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-036/03:23:19
4612	MGS	02-036/03:37:57		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-036/03:23:19
4613	MGS	02-036/03:37:57		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-036/03:23:19
4614	MGS	02-036/03:38:27		NOTE: Exit Earth Occultation 13019		02-036/03:23:49
4615	MGS	02-036/03:38:27	25	Acquisition Of X-Band Signal		
4616	MGS	02-036/03:38:27	25	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
4617	MGS	02-036/03:38:27	25	NOTE: Carrier Only -- No Telemetry Modulation		
4618	MGS	02-036/03:43:01		NOTE: Exit Planetary Atmosphere 13019		02-036/03:28:23
4619	MGS	02-036/03:45:10		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-036/03:30:32
4620	MGS	02-036/03:45:10		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-036/03:30:32
4621	MGS	02-036/03:45:10		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-036/03:30:32
4622	MGS	02-036/03:45:10		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-036/03:30:32
4623	MGS	02-036/03:45:10		: REC_2B, F42KHZ, PART1, SE_1A, FALSE, 00:11:49	AEMPB	02-036/03:30:32
4624	MGS	02-036/03:45:10		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-036/03:30:32
4625	MGS	02-036/03:45:10		Sends a one-word SSR command to the XSU command SOB: SSR_2B, F42KHZ, PLYBCK, PART1	STSSRC	02-036/03:30:32
4626	MGS	02-036/03:45:10	25	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
4627	MGS	02-036/03:45:11		SSR 2B Data Enable	CSD2BE	02-036/03:30:33
4628	MGS	02-036/03:45:11		SSR Activity: ID=SSR_2B, FCN=Start Playback, PRT=1, BR=42666		02-036/03:30:33
4629	MGS	02-036/03:45:11	25	D/L Change: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
4630	MGS	02-036/03:45:15		NOTE: End fixed Sub-Reflector for Radio Science		02-036/03:30:37
4631	MGS	02-036/03:49:31		NOTE: Exit Solar Eclipse 13019		02-036/03:34:53
4632	MGS	02-036/04:04:04		NOTE: Periapsis 13020 ----------		02-036/03:49:25
4633	MGS	02-036/04:10:00	34	Begin Pre-Cal		
4634	MGS	02-036/04:10:00	34	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
4635	MGS	02-036/04:10:00	34	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
4636	MGS	02-036/04:10:00	34	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
4637	MGS	02-036/04:10:00	34	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
4638	MGS	02-036/04:10:00	34	At BOT: S/C Tlm Mode: BR=8000.0, FL=10000, SC=HIGH, MI=80.0		
4639	MGS	02-036/04:10:00	34	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
4640	MGS	02-036/04:10:00	34	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
4641	MGS	02-036/04:10:00	34	Config: TGC: DEST=37		
4642	MGS	02-036/04:10:00	34	Config: TGC: BAND=X, BR=8000.000000		
4643	MGS	02-036/04:10:00	34	Config: FSS: CH=2, PRI_FL=10000		
4644	MGS	02-036/04:10:00	34	Config: RSR		
4645	MGS	02-036/04:10:00	34	Config: TXL		
4646	MGS	02-036/04:10:00	34	Config: UWV: AMP=XHEMT, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
4647	MGS	02-036/04:10:00	34	Config: BVR		
4648	MGS	02-036/04:10:00	34	Config: Doppler Extractor: BIAS=+1MHZ		
4649	MGS	02-036/04:10:00	34	Config: MDA: SMPL=0.1		
4650	MGS	02-036/04:10:30		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-036/03:55:52
4651	MGS	02-036/04:10:30		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-036/03:55:52
4652	MGS	02-036/04:10:31		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-036/03:55:53
4653	MGS	02-036/04:10:31		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-036/03:55:53
4654	MGS	02-036/04:32:31		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-036/04:17:53
4655	MGS	02-036/04:32:31		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-036/04:17:53
4656	MGS	02-036/04:53:40		NOTE: Begin fixed Sub-Reflector for Radio Science		02-036/04:39:02
4657	MGS	02-036/04:53:49		SSR 2B Data Disable	CSD2BX	02-036/04:39:11
4658	MGS	02-036/04:53:49		SSR Activity: ID=SSR_2B, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-036/04:39:11
4659	MGS	02-036/04:53:49		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-036/04:39:11
4660	MGS	02-036/04:53:49	25	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
4661	MGS	02-036/04:55:00	34	Begin Tracking		
4662	MGS	02-036/04:55:00	34	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
4663	MGS	02-036/04:55:39	25	NOTE: Below Uplink Interlock Limit		
4664	MGS	02-036/04:56:47		NOTE: Start EVP data return script		02-036/04:42:09
4665	MGS	02-036/04:56:47		: SSR_2A, F42KHZ, PART2, 2002-036T05:28:15.000	AEMPBU	02-036/04:42:09
4666	MGS	02-036/04:58:40		: 00:06:57, FALSE	RDSCII	02-036/04:44:02
4667	MGS	02-036/04:58:40		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-036/04:44:02
4668	MGS	02-036/04:58:40		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-036/04:44:02
4669	MGS	02-036/04:58:40		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-036/04:44:02
4670	MGS	02-036/04:58:40		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-036/04:44:02
4671	MGS	02-036/04:58:40	25	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
4672	MGS	02-036/04:58:40	25	NOTE: Carrier Only -- No Telemetry Modulation		
4673	MGS	02-036/04:58:40	34	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
4674	MGS	02-036/04:58:40	34	NOTE: Carrier Only -- No Telemetry Modulation		
4675	MGS	02-036/05:00:47		NOTE: Enter Planetary Atmosphere 13020		02-036/04:46:08
4676	MGS	02-036/05:02:56		NOTE: Apoapsis 13020 -		02-036/04:48:17
4677	MGS	02-036/05:05:00	25	End Tracking		
4678	MGS	02-036/05:05:04		NOTE: Enter Earth Occultation 13020		02-036/04:50:26
4679	MGS	02-036/05:05:04	34	NOTE: Loss Of X-Band Signal		
4680	MGS	02-036/05:05:37		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-036/04:50:59
4681	MGS	02-036/05:05:37		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-036/04:50:59
4682	MGS	02-036/05:05:37		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-036/04:50:59
4683	MGS	02-036/05:05:37		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-036/04:50:59
4684	MGS	02-036/05:05:38		Turn off the MOT Exciter and RPA beam	STRPAF	02-036/04:51:00
4685	MGS	02-036/05:05:38		NOTE: End EVP script		02-036/04:51:00
4686	MGS	02-036/05:05:42		NOTE: End fixed Sub-Reflector for Radio Science		02-036/04:51:04
4687	MGS	02-036/05:06:47		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-036/04:52:09
4688	MGS	02-036/05:06:47		NOTE: Enter Solar Eclipse 13020		02-036/04:52:09
4689	MGS	02-036/05:10:39	34	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
4690	MGS	02-036/05:20:00	25	End Post-Cal		
4691	MGS	02-036/05:30:40		NOTE: Begin fixed Sub-Reflector for Radio Science		02-036/05:16:02
4692	MGS	02-036/05:31:31		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-036/05:16:53
4693	MGS	02-036/05:31:31		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-036/05:16:53

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
4694	MGS	02-036/05:31:35		Command the PSE with included data word: 3990	SWPSEL	02-036/05:16:57
4695	MGS	02-036/05:31:36		Set eclipse egress script address: 0158	SWSEES	02-036/05:16:58
4696	MGS	02-036/05:34:25		: 01:28:56	RPAONX	02-036/05:19:47
4697	MGS	02-036/05:34:25		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-036/05:19:47
4698	MGS	02-036/05:35:40		: 00:00:30, 00:07:13, FALSE	RDSCIE	02-036/05:21:02
4699	MGS	02-036/05:35:40		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-036/05:21:02
4700	MGS	02-036/05:35:40		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-036/05:21:02
4701	MGS	02-036/05:35:40		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-036/05:21:02
4702	MGS	02-036/05:35:40		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-036/05:21:02
4703	MGS	02-036/05:36:11		NOTE: Exit Earth Occultation 13020		02-036/05:21:33
4704	MGS	02-036/05:36:11	34	Acquisition Of X-Band Signal		
4705	MGS	02-036/05:36:11	34	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
4706	MGS	02-036/05:36:11	34	NOTE: Carrier Only -- No Telemetry Modulation		
4707	MGS	02-036/05:40:46		NOTE: Exit Planetary Atmosphere 13020		02-036/05:26:07
4708	MGS	02-036/05:42:53		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-036/05:28:15
4709	MGS	02-036/05:42:53		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-036/05:28:15
4710	MGS	02-036/05:42:53		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-036/05:28:15
4711	MGS	02-036/05:42:53		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-036/05:28:15
4712	MGS	02-036/05:42:53		: REC_2A, F42KHZ, PART2, SE_1A, FALSE, 00:11:49	AEMPB	02-036/05:28:15
4713	MGS	02-036/05:42:53		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-036/05:28:15
4714	MGS	02-036/05:42:53		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, PLYBCK, PART2	STSSRC	02-036/05:28:15
4715	MGS	02-036/05:42:53	34	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
4716	MGS	02-036/05:42:54		SSR 2A Data Enable	CSD2AE	02-036/05:28:16
4717	MGS	02-036/05:42:54		SSR Activity: ID=SSR_2A, FCN=Start Playback, PRT=2, BR=42666		02-036/05:28:16
4718	MGS	02-036/05:42:54	34	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
4719	MGS	02-036/05:42:58		NOTE: End fixed Sub-Reflector for Radio Science		02-036/05:28:20
4720	MGS	02-036/05:47:14		NOTE: Exit Solar Eclipse 13020		02-036/05:32:35
4721	MGS	02-036/05:47:57		NOTE: Start Block (SSRMGR)		02-036/05:33:19
4722	MGS	02-036/05:47:57		Sends a one-word SSR command to the XSU command SOB: SSR_1B, SE_1A, RECORD, PART1	STSSRC	02-036/05:33:19
4723	MGS	02-036/05:47:58		SSR 1B Data Enable	CSD1BE	02-036/05:33:20
4724	MGS	02-036/05:47:58		SSR Activity: ID=SSR_1B, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-036/05:33:20
4725	MGS	02-036/06:01:24		NOTE: Periapsis 13021 ----------		02-036/05:46:46
4726	MGS	02-036/06:12:13		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-036/05:57:35
4727	MGS	02-036/06:12:13		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-036/05:57:35
4728	MGS	02-036/06:12:14		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-036/05:57:36
4729	MGS	02-036/06:12:14		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-036/05:57:36
4730	MGS	02-036/06:14:38		SSR 1A Data Disable	CSD1AX	02-036/06:00:00
4731	MGS	02-036/06:14:38		SSR Activity: ID=SSR_1A, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-036/06:00:00
4732	MGS	02-036/06:14:39		NOTE: End Block (SSRMGR)		02-036/06:00:01
4733	MGS	02-036/06:14:41	34	NOTE: Transmitter Off in 15 minutes		
4734	MGS	02-036/06:29:41	34	Transmitter Off		
4735	MGS	02-036/06:34:14		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-036/06:19:36
4736	MGS	02-036/06:34:14		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-036/06:19:36
4737	MGS	02-036/06:51:23		NOTE: Begin fixed Sub-Reflector for Radio Science		02-036/06:36:45
4738	MGS	02-036/06:51:32		SSR 2A Data Disable	CSD2AX	02-036/06:36:54
4739	MGS	02-036/06:51:32		SSR Activity: ID=SSR_2A, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-036/06:36:54
4740	MGS	02-036/06:51:32		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-036/06:36:54
4741	MGS	02-036/06:51:32	34	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
4742	MGS	02-036/06:54:27		NOTE: Start EVP data return script		02-036/06:39:49
4743	MGS	02-036/06:54:27		: SSR_2B, F42KHZ, PART2, 2002-036T07:25:55.000	AEMPBU	02-036/06:39:49
4744	MGS	02-036/06:56:23		: 00:06:57, FALSE	RDSCII	02-036/06:41:45
4745	MGS	02-036/06:56:23		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-036/06:41:45
4746	MGS	02-036/06:56:23		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-036/06:41:45
4747	MGS	02-036/06:56:23		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-036/06:41:45

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
4748	MGS	02-036/06:56:23		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-036/06:41:45
4749	MGS	02-036/06:56:23	34	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
4750	MGS	02-036/06:56:23	34	NOTE: Carrier Only -- No Telemetry Modulation		
4751	MGS	02-036/06:58:27		NOTE: Enter Planetary Atmosphere 13021		02-036/06:43:48
4752	MGS	02-036/07:00:25		NOTE: Apoapsis 13021 -		02-036/06:45:46
4753	MGS	02-036/07:02:44		NOTE: Enter Earth Occultation 13021		02-036/06:48:05
4754	MGS	02-036/07:02:44	34	NOTE: Loss Of X-Band Signal		
4755	MGS	02-036/07:03:20		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-036/06:48:42
4756	MGS	02-036/07:03:20		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-036/06:48:42
4757	MGS	02-036/07:03:20		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-036/06:48:42
4758	MGS	02-036/07:03:20		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-036/06:48:42
4759	MGS	02-036/07:03:21		Turn off the MOT Exciter and RPA beam	STRPAF	02-036/06:48:43
4760	MGS	02-036/07:03:21		NOTE: End EVP script		02-036/06:48:43
4761	MGS	02-036/07:03:25		NOTE: End fixed Sub-Reflector for Radio Science		02-036/06:48:47
4762	MGS	02-036/07:04:27		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-036/06:49:49
4763	MGS	02-036/07:04:28		NOTE: Enter Solar Eclipse 13021		02-036/06:49:49
4764	MGS	02-036/07:08:19	34	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
4765	MGS	02-036/07:28:21		NOTE: Begin fixed Sub-Reflector for Radio Science		02-036/07:13:42
4766	MGS	02-036/07:29:15		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-036/07:14:36
4767	MGS	02-036/07:29:15		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-036/07:14:36
4768	MGS	02-036/07:29:20		Set eclipse egress script address: 019A	SWSEES	02-036/07:14:41
4769	MGS	02-036/07:32:06		: 01:28:56	RPAONX	02-036/07:17:27
4770	MGS	02-036/07:32:06		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-036/07:17:27
4771	MGS	02-036/07:33:21		: 00:00:30, 00:07:13, FALSE	RDSCIE	02-036/07:18:42
4772	MGS	02-036/07:33:21		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-036/07:18:42
4773	MGS	02-036/07:33:21		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-036/07:18:42
4774	MGS	02-036/07:33:21		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-036/07:18:42
4775	MGS	02-036/07:33:21		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-036/07:18:42
4776	MGS	02-036/07:33:51		Disables autonomous command to send eclipse ingress script	SWEISX	02-036/07:19:12
4777	MGS	02-036/07:33:52		NOTE: Exit Earth Occultation 13021		02-036/07:19:13
4778	MGS	02-036/07:33:52	34	Acquisition Of X-Band Signal		
4779	MGS	02-036/07:33:52	34	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
4780	MGS	02-036/07:33:52	34	NOTE: Carrier Only -- No Telemetry Modulation		
4781	MGS	02-036/07:38:26		NOTE: Exit Planetary Atmosphere 13021		02-036/07:23:47
4782	MGS	02-036/07:40:34		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-036/07:25:55
4783	MGS	02-036/07:40:34		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-036/07:25:55
4784	MGS	02-036/07:40:34		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-036/07:25:55
4785	MGS	02-036/07:40:34		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-036/07:25:55
4786	MGS	02-036/07:40:34		: REC_2B, F42KHZ, PART2, SE_1A, FALSE, 00:11:49	AEMPB	02-036/07:25:55
4787	MGS	02-036/07:40:34		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-036/07:25:55
4788	MGS	02-036/07:40:34		Sends a one-word SSR command to the XSU command SOB: SSR_2B, F42KHZ, PLYBCK, PART2	STSSRC	02-036/07:25:55
4789	MGS	02-036/07:40:34	34	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
4790	MGS	02-036/07:40:35		SSR 2B Data Enable	CSD2BE	02-036/07:25:56
4791	MGS	02-036/07:40:35		SSR Activity: ID=SSR_2B, FCN=Start Playback, PRT=2, BR=42666		02-036/07:25:56
4792	MGS	02-036/07:40:35	34	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
4793	MGS	02-036/07:40:39		NOTE: End fixed Sub-Reflector for Radio Science		02-036/07:26:00
4794	MGS	02-036/07:44:54		NOTE: Exit Solar Eclipse 13021		02-036/07:30:15
4795	MGS	02-036/07:58:56		NOTE: Periapsis 13022 ----------		02-036/07:44:17
4796	MGS	02-036/08:05:54		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-036/07:51:15
4797	MGS	02-036/08:05:54		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-036/07:51:15
4798	MGS	02-036/08:05:55		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-036/07:51:16
4799	MGS	02-036/08:05:55		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-036/07:51:16
4800	MGS	02-036/08:12:23	34	NOTE: Transmitter Off in 15 minutes		
4801	MGS	02-036/08:27:23	34	Transmitter Off		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
4802	MGS	02-036/08:27:55		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-036/08:13:16
4803	MGS	02-036/08:27:55		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-036/08:13:16
4804	MGS	02-036/08:49:04		NOTE: Begin fixed Sub-Reflector for Radio Science		02-036/08:34:25
4805	MGS	02-036/08:49:13		SSR 2B Data Disable	CSD2BX	02-036/08:34:34
4806	MGS	02-036/08:49:13		SSR Activity: ID=SSR_2B, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-036/08:34:34
4807	MGS	02-036/08:49:13		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-036/08:34:34
4808	MGS	02-036/08:49:13	34	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
4809	MGS	02-036/08:52:10		NOTE: Start Block (MAP_RT)		02-036/08:37:31
4810	MGS	02-036/08:52:11		: 00:27:38, 01:28:55, FALSE, TRUE, FALSE, 00:01:15, 00:07:13, 01:13:29, 00:06:57	AEMINI	02-036/08:37:32
4811	MGS	02-036/08:52:11		Enable sending eclipse ingress script when array power disappears	SWEISE	02-036/08:37:32
4812	MGS	02-036/08:52:11		NOTE: Start EVP data return script		02-036/08:37:32
4813	MGS	02-036/08:52:12		: SE_2A, RTM, 01:13:28, MRC, 2002-036T09:23:39.000	AEMRTI	02-036/08:37:33
4814	MGS	02-036/08:54:04		: 00:06:57, FALSE	RDSCII	02-036/08:39:25
4815	MGS	02-036/08:54:04		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-036/08:39:25
4816	MGS	02-036/08:54:04		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-036/08:39:25
4817	MGS	02-036/08:54:04		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-036/08:39:25
4818	MGS	02-036/08:54:04		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-036/08:39:25
4819	MGS	02-036/08:54:04	34	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
4820	MGS	02-036/08:54:04	34	NOTE: Carrier Only -- No Telemetry Modulation		
4821	MGS	02-036/08:56:10		NOTE: Enter Planetary Atmosphere 13022		02-036/08:41:31
4822	MGS	02-036/08:58:17		NOTE: Apoapsis 13022 -		02-036/08:43:38
4823	MGS	02-036/09:00:26		NOTE: Enter Earth Occultation 13022		02-036/08:45:47
4824	MGS	02-036/09:00:26	34	NOTE: Loss Of X-Band Signal		
4825	MGS	02-036/09:01:01		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-036/08:46:22
4826	MGS	02-036/09:01:01		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-036/08:46:22
4827	MGS	02-036/09:01:01		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-036/08:46:22
4828	MGS	02-036/09:01:01		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-036/08:46:22
4829	MGS	02-036/09:01:02		Turn off the MOT Exciter and RPA beam	STRPAF	02-036/08:46:23
4830	MGS	02-036/09:01:02		NOTE: End EVP script		02-036/08:46:23
4831	MGS	02-036/09:01:03		NOTE: End Block (MAP_PB)		02-036/08:46:24
4832	MGS	02-036/09:01:06		NOTE: End fixed Sub-Reflector for Radio Science		02-036/08:46:27
4833	MGS	02-036/09:02:11		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-036/08:47:32
4834	MGS	02-036/09:02:11		NOTE: Enter Solar Eclipse 13022		02-036/08:47:32
4835	MGS	02-036/09:06:02	34	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
4836	MGS	02-036/09:26:04		NOTE: Begin fixed Sub-Reflector for Radio Science		02-036/09:11:25
4837	MGS	02-036/09:26:55		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-036/09:12:16
4838	MGS	02-036/09:26:55		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-036/09:12:16
4839	MGS	02-036/09:27:00		Set eclipse egress script address: 01DC	SWSEES	02-036/09:12:21
4840	MGS	02-036/09:29:49		: 01:28:55	RPAONX	02-036/09:15:10
4841	MGS	02-036/09:29:49		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-036/09:15:10
4842	MGS	02-036/09:31:04		: 00:00:30, 00:07:13, FALSE	RDSCIE	02-036/09:16:25
4843	MGS	02-036/09:31:04		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-036/09:16:25
4844	MGS	02-036/09:31:04		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-036/09:16:25
4845	MGS	02-036/09:31:04		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-036/09:16:25
4846	MGS	02-036/09:31:04		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-036/09:16:25
4847	MGS	02-036/09:31:34		Disables autonomous command to send eclipse ingress script	SWEISX	02-036/09:16:55
4848	MGS	02-036/09:31:35		NOTE: Exit Earth Occultation 13022		02-036/09:16:56
4849	MGS	02-036/09:31:35	34	Acquisition Of X-Band Signal		
4850	MGS	02-036/09:31:35	34	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
4851	MGS	02-036/09:31:35	34	NOTE: Carrier Only -- No Telemetry Modulation		
4852	MGS	02-036/09:36:08		NOTE: Exit Planetary Atmosphere 13022		02-036/09:21:29
4853	MGS	02-036/09:38:17		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-036/09:23:38
4854	MGS	02-036/09:38:17		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-036/09:23:38
4855	MGS	02-036/09:38:17		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-036/09:23:38

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
4856	MGS	02-036/09:38:17		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-036/09:23:38
4857	MGS	02-036/09:38:17	34	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
4858	MGS	02-036/09:38:18		: RTM, MRC, 01:13:28, S&E_2A, FALSE, 00:06:58	AEMRT	02-036/09:23:39
4859	MGS	02-036/09:38:18		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-036/09:23:39
4860	MGS	02-036/09:38:18		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-036/09:23:39
4861	MGS	02-036/09:38:18	34	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
4862	MGS	02-036/09:38:22		NOTE: End fixed Sub-Reflector for Radio Science		02-036/09:23:43
4863	MGS	02-036/09:42:38		NOTE: Exit Solar Eclipse 13022		02-036/09:27:59
4864	MGS	02-036/09:44:12		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-036/09:29:33
4865	MGS	02-036/09:44:12	34	D/L Change: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
4866	MGS	02-036/09:44:14		NOTE: Start Block (SSRMGR)		02-036/09:29:35
4867	MGS	02-036/09:44:14		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-036/09:29:35
4868	MGS	02-036/09:44:14		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-036/09:29:35
4869	MGS	02-036/09:44:15		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-036/09:29:36
4870	MGS	02-036/09:44:16		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, PLYBCK, PART3	STSSRC	02-036/09:29:37
4871	MGS	02-036/09:44:17		SSR 2A Data Enable	CSD2AE	02-036/09:29:38
4872	MGS	02-036/09:44:17		SSR Activity: ID=SSR_2A, FCN=Start Playback, PRT=3, BR=42666		02-036/09:29:38
4873	MGS	02-036/09:44:17	34	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
4874	MGS	02-036/09:56:44		NOTE: Start Block (SSRMGR)		02-036/09:42:05
4875	MGS	02-036/09:56:44		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-036/09:42:05
4876	MGS	02-036/09:56:44		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-036/09:42:05
4877	MGS	02-036/09:56:45		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-036/09:42:06
4878	MGS	02-036/09:56:45		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, ENBSCR, PART1	STSSRC	02-036/09:42:06
4879	MGS	02-036/09:56:46		Sends a one-word SSR command to the XSU command SOB: SSR_2B, F42KHZ, PLYBCK, PART3	STSSRC	02-036/09:42:07
4880	MGS	02-036/09:56:47		SSR 2A Data Disable	CSD2AX	02-036/09:42:08
4881	MGS	02-036/09:56:47		SSR 2B Data Enable	CSD2BE	02-036/09:42:08
4882	MGS	02-036/09:56:47		SSR Activity: ID=SSR_2B, FCN=Start Playback, PRT=3, BR=42666		02-036/09:42:08
4883	MGS	02-036/09:56:48		NOTE: Periapsis 13023 ----------		02-036/09:42:08
4884	MGS	02-036/09:56:48		NOTE: End Block (SSRMGR)		02-036/09:42:09
4885	MGS	02-036/10:03:37		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-036/09:48:58
4886	MGS	02-036/10:03:37		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-036/09:48:58
4887	MGS	02-036/10:03:38		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-036/09:48:59
4888	MGS	02-036/10:03:38		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-036/09:48:59
4889	MGS	02-036/10:10:09	34	NOTE: Transmitter Off in 15 minutes		
4890	MGS	02-036/10:14:17		SSR 2B Data Disable	CSD2BX	02-036/09:59:38
4891	MGS	02-036/10:14:17		SSR Activity: ID=SSR_2B, FCN=End Playback, PRT=3, BITS=44800000, DUR=00:17:30		02-036/09:59:38
4892	MGS	02-036/10:14:18		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-036/09:59:39
4893	MGS	02-036/10:14:18		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-036/09:59:39
4894	MGS	02-036/10:14:18		NOTE: End Block (SSRMGR)		02-036/09:59:39
4895	MGS	02-036/10:14:18	34	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
4896	MGS	02-036/10:25:09	34	Transmitter Off		
4897	MGS	02-036/10:25:38		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-036/10:10:59
4898	MGS	02-036/10:25:38		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-036/10:10:59
4899	MGS	02-036/10:43:10	34	NOTE: Below Uplink Interlock Limit		
4900	MGS	02-036/10:46:46		NOTE: Begin fixed Sub-Reflector for Radio Science		02-036/10:32:07
4901	MGS	02-036/10:49:32		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-036/10:34:53
4902	MGS	02-036/10:49:32		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-036/10:34:53
4903	MGS	02-036/10:49:32	34	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
4904	MGS	02-036/10:50:00	34	End Tracking		
4905	MGS	02-036/10:51:46		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-036/10:37:07
4906	MGS	02-036/10:51:46		: 00:06:57, FALSE	RDSCII	02-036/10:37:07
4907	MGS	02-036/10:51:46		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-036/10:37:07
4908	MGS	02-036/10:51:46		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-036/10:37:07
4909	MGS	02-036/10:51:46		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-036/10:37:07

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
4910	MGS	02-036/10:51:46		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-036/10:37:07
4911	MGS	02-036/10:53:57		NOTE: Enter Planetary Atmosphere 13023		02-036/10:39:18
4912	MGS	02-036/10:56:04		NOTE: Apoapsis 13023 -		02-036/10:41:24
4913	MGS	02-036/10:58:13		NOTE: Enter Earth Occultation 13023		02-036/10:43:34
4914	MGS	02-036/10:58:43		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-036/10:44:04
4915	MGS	02-036/10:58:43		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-036/10:44:04
4916	MGS	02-036/10:58:43		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-036/10:44:04
4917	MGS	02-036/10:58:43		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-036/10:44:04
4918	MGS	02-036/10:58:44		Turn off the MOT Exciter and RPA beam	STRPAF	02-036/10:44:05
4919	MGS	02-036/10:58:44		NOTE: End EVP script		02-036/10:44:05
4920	MGS	02-036/10:58:45		NOTE: End Block (MAP_RT)		02-036/10:44:06
4921	MGS	02-036/10:58:48		NOTE: End fixed Sub-Reflector for Radio Science		02-036/10:44:09
4922	MGS	02-036/10:59:58		NOTE: Enter Solar Eclipse 13023		02-036/10:45:19
4923	MGS	02-036/11:05:00	34	End Post-Cal		
4924	MGS	02-036/11:14:30		Disable HGA control mode	SAHGCX	02-036/10:59:51
4925	MGS	02-036/11:14:31		No Operation	SCNOOP	02-036/10:59:52
4926	MGS	02-036/11:14:32		CDU-1 Uplink Rate Select (Based on 3 bit Code): 7	TCC1BS	02-036/10:59:53
4927	MGS	02-036/11:14:32		CDU-2 Uplink Rate Select (Based on 3 bit Code): 7	TCC2BS	02-036/10:59:53
4928	MGS	02-036/11:21:18		NOTE: Start Block (SSRMGR)		02-036/11:06:39
4929	MGS	02-036/11:21:18		Sends a one-word SSR command to the XSU command SOB: SSR_1A, SE_1A, RECORD, PART2	STSSRC	02-036/11:06:39
4930	MGS	02-036/11:21:19		SSR 1A Data Enable	CSD1AE	02-036/11:06:40
4931	MGS	02-036/11:21:19		SSR Activity: ID=SSR_1A, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-036/11:06:40
4932	MGS	02-036/11:24:38		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-036/11:09:59
4933	MGS	02-036/11:24:38		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-036/11:09:59
4934	MGS	02-036/11:24:42		Command the PSE with included data word: 3990	SWPSEL	02-036/11:10:03
4935	MGS	02-036/11:24:43		Set eclipse egress script address: 0158	SWSEES	02-036/11:10:04
4936	MGS	02-036/11:29:23		NOTE: Exit Earth Occultation 13023		02-036/11:14:43
4937	MGS	02-036/11:33:56		NOTE: Exit Planetary Atmosphere 13023		02-036/11:19:16
4938	MGS	02-036/11:40:25		NOTE: Exit Solar Eclipse 13023		02-036/11:25:46
4939	MGS	02-036/11:47:59		SSR 1B Data Disable	CSD1BX	02-036/11:33:20
4940	MGS	02-036/11:47:59		SSR Activity: ID=SSR_1B, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-036/11:33:20
4941	MGS	02-036/11:48:00		NOTE: End Block (SSRMGR)		02-036/11:33:21
4942	MGS	02-036/11:54:38		NOTE: Periapsis 13024 ----------		02-036/11:39:59
4943	MGS	02-036/12:05:24		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-036/11:50:45
4944	MGS	02-036/12:05:24		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-036/11:50:45
4945	MGS	02-036/12:05:25		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-036/11:50:46
4946	MGS	02-036/12:05:25		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-036/11:50:46
4947	MGS	02-036/12:14:39		Dump SCP memory to the EDF using physical addressing arguments: 56A4, 240	SCDSCM	02-036/12:00:00
4948	MGS	02-036/12:27:25		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-036/12:12:46
4949	MGS	02-036/12:27:25		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-036/12:12:46
4950	MGS	02-036/12:51:45		NOTE: Enter Planetary Atmosphere 13024		02-036/12:37:05
4951	MGS	02-036/12:53:40		NOTE: Apoapsis 13024 -		02-036/12:39:01
4952	MGS	02-036/12:56:01		NOTE: Enter Earth Occultation 13024		02-036/12:41:21
4953	MGS	02-036/12:57:46		NOTE: Enter Solar Eclipse 13024		02-036/12:43:06
4954	MGS	02-036/13:22:25		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-036/13:07:46
4955	MGS	02-036/13:22:25		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-036/13:07:46
4956	MGS	02-036/13:22:30		Set eclipse egress script address: 019A	SWSEES	02-036/13:07:51
4957	MGS	02-036/13:27:10		NOTE: Exit Earth Occultation 13024		02-036/13:12:30
4958	MGS	02-036/13:31:43		NOTE: Exit Planetary Atmosphere 13024		02-036/13:17:04
4959	MGS	02-036/13:38:13		NOTE: Exit Solar Eclipse 13024		02-036/13:23:33
4960	MGS	02-036/13:52:20		NOTE: Periapsis 13025 ----------		02-036/13:37:40
4961	MGS	02-036/13:59:12		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-036/13:44:32
4962	MGS	02-036/13:59:12		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-036/13:44:32
4963	MGS	02-036/13:59:13		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-036/13:44:33

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
4964	MGS	02-036/13:59:13		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-036/13:44:33
4965	MGS	02-036/14:21:13		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-036/14:06:33
4966	MGS	02-036/14:21:13		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-036/14:06:33
4967	MGS	02-036/14:49:30		NOTE: Enter Planetary Atmosphere 13025		02-036/14:34:50
4968	MGS	02-036/14:51:10		NOTE: Apoapsis 13025 -		02-036/14:36:30
4969	MGS	02-036/14:53:46		NOTE: Enter Earth Occultation 13025		02-036/14:39:06
4970	MGS	02-036/14:55:31		NOTE: Enter Solar Eclipse 13025		02-036/14:40:51
4971	MGS	02-036/15:20:13		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-036/15:05:33
4972	MGS	02-036/15:20:13		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-036/15:05:33
4973	MGS	02-036/15:20:18		Set eclipse egress script address: 01DC	SWSEES	02-036/15:05:38
4974	MGS	02-036/15:24:57		NOTE: Exit Earth Occultation 13025		02-036/15:10:16
4975	MGS	02-036/15:29:30		NOTE: Exit Planetary Atmosphere 13025		02-036/15:14:50
4976	MGS	02-036/15:35:58		NOTE: Exit Solar Eclipse 13025		02-036/15:21:18
4977	MGS	02-036/15:50:07		NOTE: Periapsis 13026 ----------		02-036/15:35:27
4978	MGS	02-036/15:56:57		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-036/15:42:17
4979	MGS	02-036/15:56:57		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-036/15:42:17
4980	MGS	02-036/15:56:58		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-036/15:42:18
4981	MGS	02-036/15:56:58		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-036/15:42:18
4982	MGS	02-036/16:18:58		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-036/16:04:18
4983	MGS	02-036/16:18:58		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-036/16:04:18
4984	MGS	02-036/16:47:13		NOTE: Enter Planetary Atmosphere 13026		02-036/16:32:33
4985	MGS	02-036/16:48:59		NOTE: Apoapsis 13026 -		02-036/16:34:19
4986	MGS	02-036/16:51:29		NOTE: Enter Earth Occultation 13026		02-036/16:36:49
4987	MGS	02-036/16:53:14		NOTE: Enter Solar Eclipse 13026		02-036/16:38:34
4988	MGS	02-036/16:54:39		NOTE: Start Block (SSRMGR)		02-036/16:39:59
4989	MGS	02-036/16:54:39		Sends a one-word SSR command to the XSU command SOB: SSR_1B, SE_1A, RECORD, PART2	STSSRC	02-036/16:39:59
4990	MGS	02-036/16:54:40		SSR 1B Data Enable	CSD1BE	02-036/16:40:00
4991	MGS	02-036/16:54:40		SSR Activity: ID=SSR_1B, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-036/16:40:00
4992	MGS	02-036/17:07:58		Select Automatic HGA control mode	SAHACE	02-036/16:53:18
4993	MGS	02-036/17:07:59		Selects Hign Gain Antenna for downlink, Reconfigures if beam is already on	STUHGA	02-036/16:53:19
4994	MGS	02-036/17:08:00		CDU-1 Uplink Rate Select (Based on 3 bit Code): 3	TCC1BS	02-036/16:53:20
4995	MGS	02-036/17:08:00		CDU-2 Uplink Rate Select (Based on 3 bit Code): 3	TCC2BS	02-036/16:53:20
4996	MGS	02-036/17:17:58		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-036/17:03:18
4997	MGS	02-036/17:17:58		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-036/17:03:18
4998	MGS	02-036/17:18:02		Command the PSE with included data word: 3990	SWPSEL	02-036/17:03:22
4999	MGS	02-036/17:18:03		Set eclipse egress script address: 0158	SWSEES	02-036/17:03:23
5000	MGS	02-036/17:21:20		SSR 1A Data Disable	CSD1AX	02-036/17:06:40
5001	MGS	02-036/17:21:20		SSR Activity: ID=SSR_1A, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-036/17:06:40
5002	MGS	02-036/17:21:21		NOTE: End Block (SSRMGR)		02-036/17:06:41
5003	MGS	02-036/17:22:41		NOTE: Exit Earth Occultation 13026		02-036/17:08:00
5004	MGS	02-036/17:27:14		NOTE: Exit Planetary Atmosphere 13026		02-036/17:12:34
5005	MGS	02-036/17:30:00	15	Begin Pre-Cal		
5006	MGS	02-036/17:30:00	15	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
5007	MGS	02-036/17:30:00	15	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
5008	MGS	02-036/17:30:00	15	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
5009	MGS	02-036/17:30:00	15	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=OFF, EXC=2		
5010	MGS	02-036/17:30:00	15	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
5011	MGS	02-036/17:30:00	15	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
5012	MGS	02-036/17:30:00	15	Config: TGC: DEST=37		
5013	MGS	02-036/17:30:00	15	Config: TGC: BAND=X, BR=8000.000000		
5014	MGS	02-036/17:30:00	15	Config: FSS: CH=2, PRI_FL=10000		
5015	MGS	02-036/17:30:00	15	Config: RSR		
5016	MGS	02-036/17:30:00	15	Config: TXL		
5017	MGS	02-036/17:30:00	15	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
5018	MGS	02-036/17:30:00	15	Config: BVR		
5019	MGS	02-036/17:30:00	15	Config: Doppler Extractor: BIAS=+1MHZ		
5020	MGS	02-036/17:30:00	15	Config: MDA: SMPL=0.1		
5021	MGS	02-036/17:30:00	15	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
5022	MGS	02-036/17:30:00	15	Config: SRA: HIGH=4, LOW=14, SERV=D		
5023	MGS	02-036/17:30:00	15	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
5024	MGS	02-036/17:33:41		NOTE: Exit Solar Eclipse 13026		02-036/17:19:01
5025	MGS	02-036/17:47:50		NOTE: Periapsis 13027 ----------		02-036/17:33:10
5026	MGS	02-036/17:58:40		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-036/17:44:00
5027	MGS	02-036/17:58:40		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-036/17:44:00
5028	MGS	02-036/17:58:41		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-036/17:44:01
5029	MGS	02-036/17:58:41		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-036/17:44:01
5030	MGS	02-036/18:20:41		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-036/18:06:01
5031	MGS	02-036/18:20:41		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-036/18:06:01
5032	MGS	02-036/18:30:00	15	Begin Tracking		
5033	MGS	02-036/18:40:55		NOTE: Start Block (MAP_RT)		02-036/18:26:15
5034	MGS	02-036/18:40:56		: 00:27:38, 01:28:55, FALSE, TRUE, FALSE, 00:01:15, 00:07:13, 01:13:29, 00:06:57	AEMINI	02-036/18:26:16
5035	MGS	02-036/18:40:56		Enable sending eclipse ingress script when array power disappears	SWEISE	02-036/18:26:16
5036	MGS	02-036/18:40:56		NOTE: Start EVP data return script		02-036/18:26:16
5037	MGS	02-036/18:40:57		: SE_2A, RTM, 01:13:28, MRC, 2002-036T19:12:23.000	AEMRTI	02-036/18:26:17
5038	MGS	02-036/18:44:56		NOTE: Enter Planetary Atmosphere 13027		02-036/18:30:15
5039	MGS	02-036/18:46:47		NOTE: Apoapsis 13027 -		02-036/18:32:07
5040	MGS	02-036/18:49:12		NOTE: Enter Earth Occultation 13027		02-036/18:34:31
5041	MGS	02-036/18:50:56		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-036/18:36:16
5042	MGS	02-036/18:50:56		NOTE: Enter Solar Eclipse 13027		02-036/18:36:16
5043	MGS	02-036/18:54:47	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
5044	MGS	02-036/18:56:47	15	Range Modulation On: SUP=3.0dB		
5045	MGS	02-036/18:57:47	15	Begin Ranging Acquisition		
5046	MGS	02-036/19:14:50		NOTE: Begin fixed Sub-Reflector for Radio Science		02-036/19:00:09
5047	MGS	02-036/19:15:41		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-036/19:01:01
5048	MGS	02-036/19:15:41		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-036/19:01:01
5049	MGS	02-036/19:15:46		Set eclipse egress script address: 019A	SWSEES	02-036/19:01:06
5050	MGS	02-036/19:18:34		: 01:28:55	RPAONX	02-036/19:03:54
5051	MGS	02-036/19:18:34		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-036/19:03:54
5052	MGS	02-036/19:19:49		: 00:00:30, 00:07:13, FALSE	RDSCIE	02-036/19:05:09
5053	MGS	02-036/19:19:49		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-036/19:05:09
5054	MGS	02-036/19:19:49		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-036/19:05:09
5055	MGS	02-036/19:19:49		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-036/19:05:09
5056	MGS	02-036/19:19:49		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-036/19:05:09
5057	MGS	02-036/19:20:23		NOTE: Exit Earth Occultation 13027		02-036/19:05:43
5058	MGS	02-036/19:20:23	15	Acquisition Of X-Band Signal		
5059	MGS	02-036/19:20:23	15	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
5060	MGS	02-036/19:20:23	15	NOTE: Carrier Only -- No Telemetry Modulation		
5061	MGS	02-036/19:24:57		NOTE: Exit Planetary Atmosphere 13027		02-036/19:10:16
5062	MGS	02-036/19:27:02		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-036/19:12:22
5063	MGS	02-036/19:27:02		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-036/19:12:22
5064	MGS	02-036/19:27:02		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-036/19:12:22
5065	MGS	02-036/19:27:02		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-036/19:12:22
5066	MGS	02-036/19:27:02	15	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
5067	MGS	02-036/19:27:03		: RTM, MRC, 01:13:28, S&E_2A, FALSE, 00:06:58	AEMRT	02-036/19:12:23
5068	MGS	02-036/19:27:03		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-036/19:12:23
5069	MGS	02-036/19:27:03		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-036/19:12:23
5070	MGS	02-036/19:27:03		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=2, BITS=73144000, DUR=02:32:23		02-036/19:12:23
5071	MGS	02-036/19:27:03		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-036/19:12:23

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
5072	MGS	02-036/19:27:03	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
5073	MGS	02-036/19:27:08		NOTE: End fixed Sub-Reflector for Radio Science		02-036/19:12:27
5074	MGS	02-036/19:31:23		NOTE: Exit Solar Eclipse 13027		02-036/19:16:42
5075	MGS	02-036/19:45:17		NOTE: Periapsis 13028 ----------		02-036/19:30:36
5076	MGS	02-036/19:52:22		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-036/19:37:42
5077	MGS	02-036/19:52:22		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-036/19:37:42
5078	MGS	02-036/19:52:23		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-036/19:37:43
5079	MGS	02-036/19:52:23		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-036/19:37:43
5080	MGS	02-036/19:58:48	15	NOTE: Transmitter Off in 15 minutes		
5081	MGS	02-036/20:11:48	15	Range Modulation Off		
5082	MGS	02-036/20:13:48	15	Transmitter Off		
5083	MGS	02-036/20:14:24		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-036/19:59:43
5084	MGS	02-036/20:14:24		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-036/19:59:43
5085	MGS	02-036/20:35:32		NOTE: Begin fixed Sub-Reflector for Radio Science		02-036/20:20:51
5086	MGS	02-036/20:38:39		NOTE: Start EVP data return script		02-036/20:23:58
5087	MGS	02-036/20:40:32		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-036/20:25:51
5088	MGS	02-036/20:40:32		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=2, BITS=108408000, DUR=01:13:28		02-036/20:25:51
5089	MGS	02-036/20:40:32		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-036/20:25:51
5090	MGS	02-036/20:40:32		: 00:06:57, FALSE	RDSCII	02-036/20:25:51
5091	MGS	02-036/20:40:32		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-036/20:25:51
5092	MGS	02-036/20:40:32		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-036/20:25:51
5093	MGS	02-036/20:40:32		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-036/20:25:51
5094	MGS	02-036/20:40:32		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-036/20:25:51
5095	MGS	02-036/20:40:32	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
5096	MGS	02-036/20:40:32	15	NOTE: Carrier Only -- No Telemetry Modulation		
5097	MGS	02-036/20:42:39		NOTE: Enter Planetary Atmosphere 13028		02-036/20:27:58
5098	MGS	02-036/20:44:12		NOTE: Apoapsis 13028 -		02-036/20:29:31
5099	MGS	02-036/20:46:55		NOTE: Enter Earth Occultation 13028		02-036/20:32:14
5100	MGS	02-036/20:46:55	15	NOTE: Loss Of X-Band Signal		
5101	MGS	02-036/20:47:29		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-036/20:32:48
5102	MGS	02-036/20:47:29		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-036/20:32:48
5103	MGS	02-036/20:47:29		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-036/20:32:48
5104	MGS	02-036/20:47:29		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-036/20:32:48
5105	MGS	02-036/20:47:30		Turn off the MOT Exciter and RPA beam	STRPAF	02-036/20:32:49
5106	MGS	02-036/20:47:30		NOTE: End EVP script		02-036/20:32:49
5107	MGS	02-036/20:47:34		NOTE: End fixed Sub-Reflector for Radio Science		02-036/20:32:53
5108	MGS	02-036/20:48:39		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-036/20:33:58
5109	MGS	02-036/20:48:39		NOTE: Enter Solar Eclipse 13028		02-036/20:33:58
5110	MGS	02-036/20:52:29	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
5111	MGS	02-036/20:54:29	15	Range Modulation On: SUP=3.0dB		
5112	MGS	02-036/20:55:29	15	Begin Ranging Acquisition		
5113	MGS	02-036/21:12:32		NOTE: Begin fixed Sub-Reflector for Radio Science		02-036/20:57:51
5114	MGS	02-036/21:13:24		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-036/20:58:43
5115	MGS	02-036/21:13:24		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-036/20:58:43
5116	MGS	02-036/21:13:29		Set eclipse egress script address: 01DC	SWSEES	02-036/20:58:48
5117	MGS	02-036/21:16:17		: 01:28:55	RPAONX	02-036/21:01:36
5118	MGS	02-036/21:16:17		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-036/21:01:36
5119	MGS	02-036/21:17:32		: 00:00:30, 00:07:13, FALSE	RDSCIE	02-036/21:02:51
5120	MGS	02-036/21:17:32		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-036/21:02:51
5121	MGS	02-036/21:17:32		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-036/21:02:51
5122	MGS	02-036/21:17:32		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-036/21:02:51
5123	MGS	02-036/21:17:32		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-036/21:02:51
5124	MGS	02-036/21:18:06		NOTE: Exit Earth Occultation 13028		02-036/21:03:25
5125	MGS	02-036/21:18:06	15	Acquisition Of X-Band Signal		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
5126	MGS	02-036/21:18:06	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
5127	MGS	02-036/21:18:06	15	NOTE: Carrier Only -- No Telemetry Modulation		
5128	MGS	02-036/21:22:39		NOTE: Exit Planetary Atmosphere 13028		02-036/21:07:58
5129	MGS	02-036/21:24:45		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-036/21:10:04
5130	MGS	02-036/21:24:45		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-036/21:10:04
5131	MGS	02-036/21:24:45		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-036/21:10:04
5132	MGS	02-036/21:24:45		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-036/21:10:04
5133	MGS	02-036/21:24:45	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
5134	MGS	02-036/21:24:46		: RTM, MRC, 01:13:28, S&E_2A, FALSE, 00:06:58	AEMRT	02-036/21:10:05
5135	MGS	02-036/21:24:46		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-036/21:10:05
5136	MGS	02-036/21:24:46		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-036/21:10:05
5137	MGS	02-036/21:24:46		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=2, BITS=129640000, DUR=00:44:14		02-036/21:10:05
5138	MGS	02-036/21:24:46		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-036/21:10:05
5139	MGS	02-036/21:24:46	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
5140	MGS	02-036/21:24:50		NOTE: End fixed Sub-Reflector for Radio Science		02-036/21:10:09
5141	MGS	02-036/21:29:06		NOTE: Exit Solar Eclipse 13028		02-036/21:14:25
5142	MGS	02-036/21:42:48		NOTE: Periapsis 13029 ----------		02-036/21:28:07
5143	MGS	02-036/21:50:05		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-036/21:35:24
5144	MGS	02-036/21:50:05		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-036/21:35:24
5145	MGS	02-036/21:50:06		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-036/21:35:25
5146	MGS	02-036/21:50:06		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-036/21:35:25
5147	MGS	02-036/21:56:30	15	NOTE: Transmitter Off in 15 minutes		
5148	MGS	02-036/22:09:31	15	Range Modulation Off		
5149	MGS	02-036/22:11:30	15	Transmitter Off		
5150	MGS	02-036/22:12:06		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-036/21:57:25
5151	MGS	02-036/22:12:06		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-036/21:57:25
5152	MGS	02-036/22:28:00		NOTE: Start Block (SSRMGR)		02-036/22:13:19
5153	MGS	02-036/22:28:00		Sends a one-word SSR command to the XSU command SOB: SSR_1A, SE_1A, RECORD, PART3	STSSRC	02-036/22:13:19
5154	MGS	02-036/22:28:01		SSR 1A Data Enable	CSD1AE	02-036/22:13:20
5155	MGS	02-036/22:28:01		SSR Activity: ID=SSR_1A, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-036/22:13:20
5156	MGS	02-036/22:33:14		NOTE: Begin fixed Sub-Reflector for Radio Science		02-036/22:18:33
5157	MGS	02-036/22:36:24		NOTE: Start EVP data return script		02-036/22:21:43
5158	MGS	02-036/22:38:14		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-036/22:23:33
5159	MGS	02-036/22:38:14		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=3, BITS=4904000, DUR=00:10:13		02-036/22:23:33
5160	MGS	02-036/22:38:14		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-036/22:23:33
5161	MGS	02-036/22:38:14		: 00:06:57, FALSE	RDSCII	02-036/22:23:33
5162	MGS	02-036/22:38:14		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-036/22:23:33
5163	MGS	02-036/22:38:14		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-036/22:23:33
5164	MGS	02-036/22:38:14		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-036/22:23:33
5165	MGS	02-036/22:38:14		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-036/22:23:33
5166	MGS	02-036/22:38:14	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
5167	MGS	02-036/22:38:14	15	NOTE: Carrier Only -- No Telemetry Modulation		
5168	MGS	02-036/22:40:22		NOTE: Enter Planetary Atmosphere 13029		02-036/22:25:41
5169	MGS	02-036/22:41:52		NOTE: Apoapsis 13029 -		02-036/22:27:11
5170	MGS	02-036/22:44:38		NOTE: Enter Earth Occultation 13029		02-036/22:29:57
5171	MGS	02-036/22:44:38	15	NOTE: Loss Of X-Band Signal		
5172	MGS	02-036/22:45:11		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-036/22:30:30
5173	MGS	02-036/22:45:11		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-036/22:30:30
5174	MGS	02-036/22:45:11		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-036/22:30:30
5175	MGS	02-036/22:45:11		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-036/22:30:30
5176	MGS	02-036/22:45:12		Turn off the MOT Exciter and RPA beam	STRPAF	02-036/22:30:31
5177	MGS	02-036/22:45:12		NOTE: End EVP script		02-036/22:30:31
5178	MGS	02-036/22:45:16		NOTE: End fixed Sub-Reflector for Radio Science		02-036/22:30:35
5179	MGS	02-036/22:46:24		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-036/22:31:43

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
5180	MGS	02-036/22:46:24		NOTE: Enter Solar Eclipse 13029		02-036/22:31:43
5181	MGS	02-036/22:50:13	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
5182	MGS	02-036/22:52:13	15	Range Modulation On: SUP=3.0dB		
5183	MGS	02-036/22:53:13	15	Begin Ranging Acquisition		
5184	MGS	02-036/22:54:41		SSR 1B Data Disable	CSD1BX	02-036/22:40:00
5185	MGS	02-036/22:54:41		SSR Activity: ID=SSR_1B, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-036/22:40:00
5186	MGS	02-036/22:54:42		NOTE: End Block (SSRMGR)		02-036/22:40:01
5187	MGS	02-036/23:08:00		NOTE: Start Block (SSRMGR)		02-036/22:53:19
5188	MGS	02-036/23:08:00		Sends a one-word SSR command to the XSU command SOB: SSR_1B, SE_1A, RECORD, PART3	STSSRC	02-036/22:53:19
5189	MGS	02-036/23:08:01		SSR 1B Data Enable	CSD1BE	02-036/22:53:20
5190	MGS	02-036/23:08:01		SSR Activity: ID=SSR_1B, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-036/22:53:20
5191	MGS	02-036/23:10:17		NOTE: Begin fixed Sub-Reflector for Radio Science		02-036/22:55:36
5192	MGS	02-036/23:11:06		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-036/22:56:25
5193	MGS	02-036/23:11:06		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-036/22:56:25
5194	MGS	02-036/23:11:10		Command the PSE with included data word: 3990	SWPSEL	02-036/22:56:29
5195	MGS	02-036/23:11:11		Set eclipse egress script address: 0158	SWSEES	02-036/22:56:30
5196	MGS	02-036/23:14:02		: 01:28:55	RPAONX	02-036/22:59:21
5197	MGS	02-036/23:14:02		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-036/22:59:21
5198	MGS	02-036/23:15:17		: 00:00:30, 00:07:13, FALSE	RDSCIE	02-036/23:00:36
5199	MGS	02-036/23:15:17		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-036/23:00:36
5200	MGS	02-036/23:15:17		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-036/23:00:36
5201	MGS	02-036/23:15:17		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-036/23:00:36
5202	MGS	02-036/23:15:17		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-036/23:00:36
5203	MGS	02-036/23:15:47		Disables autonomous command to send eclipse ingress script	SWEISX	02-036/23:01:06
5204	MGS	02-036/23:15:51		NOTE: Exit Earth Occultation 13029		02-036/23:01:09
5205	MGS	02-036/23:15:51	15	Acquisition Of X-Band Signal		
5206	MGS	02-036/23:15:51	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
5207	MGS	02-036/23:15:51	15	NOTE: Carrier Only -- No Telemetry Modulation		
5208	MGS	02-036/23:20:23		NOTE: Exit Planetary Atmosphere 13029		02-036/23:05:41
5209	MGS	02-036/23:22:30		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-036/23:07:49
5210	MGS	02-036/23:22:30		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-036/23:07:49
5211	MGS	02-036/23:22:30		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-036/23:07:49
5212	MGS	02-036/23:22:30		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-036/23:07:49
5213	MGS	02-036/23:22:30	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
5214	MGS	02-036/23:22:31		: RTM, MRC, 01:13:28, S&E_2A, FALSE, 00:06:58	AEMRT	02-036/23:07:50
5215	MGS	02-036/23:22:31		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-036/23:07:50
5216	MGS	02-036/23:22:31		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-036/23:07:50
5217	MGS	02-036/23:22:31		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=3, BITS=6960000, DUR=00:14:30		02-036/23:07:50
5218	MGS	02-036/23:22:31		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-036/23:07:50
5219	MGS	02-036/23:22:31	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
5220	MGS	02-036/23:22:35		NOTE: End fixed Sub-Reflector for Radio Science		02-036/23:07:54
5221	MGS	02-036/23:26:51		NOTE: Exit Solar Eclipse 13029		02-036/23:12:09
5222	MGS	02-036/23:34:41		SSR 1A Data Disable	CSD1AX	02-036/23:20:00
5223	MGS	02-036/23:34:41		SSR Activity: ID=SSR_1A, FCN=End Recording, PRT=3, BITS=32000000, DUR=01:06:40		02-036/23:20:00
5224	MGS	02-036/23:34:42		NOTE: End Block (SSRMGR)		02-036/23:20:01
5225	MGS	02-036/23:40:54		NOTE: Periapsis 13030 ----------		02-036/23:26:13
5226	MGS	02-036/23:51:50		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-036/23:37:09
5227	MGS	02-036/23:51:50		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-036/23:37:09
5228	MGS	02-036/23:51:51		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-036/23:37:10
5229	MGS	02-036/23:51:51		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-036/23:37:10
5230	MGS	02-036/23:54:15	15	NOTE: Transmitter Off in 15 minutes		
5231	MGS	02-037/00:00:00		Light Time: OWLT = 14:41, RTLT = 29:23		
5232	MGS	02-037/00:07:16	15	Range Modulation Off		
5233	MGS	02-037/00:09:15	15	Transmitter Off		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
5234	MGS	02-037/00:13:51		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-036/23:59:10
5235	MGS	02-037/00:13:51		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-036/23:59:10
5236	MGS	02-037/00:14:40		NOTE: Start Block (SSRMGR)		02-036/23:59:59
5237	MGS	02-037/00:14:40		Sends a one-word SSR command to the XSU command SOB: SSR_2A, SE_1A, RECORD, PART1	STSSRC	02-036/23:59:59
5238	MGS	02-037/00:14:41		SSR 2A Data Enable	CSD2AE	02-037/00:00:00
5239	MGS	02-037/00:14:41		SSR Activity: ID=SSR_2A, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-037/00:00:00
5240	MGS	02-037/00:30:59		NOTE: Begin fixed Sub-Reflector for Radio Science		02-037/00:16:18
5241	MGS	02-037/00:34:09		NOTE: Start Block (MAP_RT)		02-037/00:19:28
5242	MGS	02-037/00:34:10		: 00:27:42, 01:28:48, FALSE, TRUE, FALSE, 00:01:15, 00:07:12, 01:13:24, 00:06:56	AEMINI	02-037/00:19:29
5243	MGS	02-037/00:34:10		Enable sending eclipse ingress script when array power disappears	SWEISE	02-037/00:19:29
5244	MGS	02-037/00:34:10		NOTE: Start EVP data return script		02-037/00:19:29
5245	MGS	02-037/00:34:11		: SE_2A, RTM, 01:13:23, MRC, 2002-037T01:05:40.000	AEMRTI	02-037/00:19:30
5246	MGS	02-037/00:35:59		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-037/00:21:18
5247	MGS	02-037/00:35:59		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=1, BITS=10224000, DUR=00:21:18		02-037/00:21:18
5248	MGS	02-037/00:35:59		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-037/00:21:18
5249	MGS	02-037/00:35:59		: 00:06:57, FALSE	RDSCII	02-037/00:21:18
5250	MGS	02-037/00:35:59		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-037/00:21:18
5251	MGS	02-037/00:35:59		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-037/00:21:18
5252	MGS	02-037/00:35:59		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-037/00:21:18
5253	MGS	02-037/00:35:59		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-037/00:21:18
5254	MGS	02-037/00:35:59	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
5255	MGS	02-037/00:35:59	15	NOTE: Carrier Only -- No Telemetry Modulation		
5256	MGS	02-037/00:38:08		NOTE: Enter Planetary Atmosphere 13030		02-037/00:23:27
5257	MGS	02-037/00:40:08		NOTE: Apoapsis 13030 -		02-037/00:25:26
5258	MGS	02-037/00:41:21		SSR 1B Data Disable	CSD1BX	02-037/00:26:40
5259	MGS	02-037/00:41:21		SSR Activity: ID=SSR_1B, FCN=End Recording, PRT=3, BITS=44800000, DUR=01:33:20		02-037/00:26:40
5260	MGS	02-037/00:41:22		NOTE: End Block (SSRMGR)		02-037/00:26:41
5261	MGS	02-037/00:42:24		NOTE: Enter Earth Occultation 13030		02-037/00:27:42
5262	MGS	02-037/00:42:24	15	NOTE: Loss Of X-Band Signal		
5263	MGS	02-037/00:42:56		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-037/00:28:15
5264	MGS	02-037/00:42:56		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-037/00:28:15
5265	MGS	02-037/00:42:56		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-037/00:28:15
5266	MGS	02-037/00:42:56		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-037/00:28:15
5267	MGS	02-037/00:42:57		Turn off the MOT Exciter and RPA beam	STRPAF	02-037/00:28:16
5268	MGS	02-037/00:42:57		NOTE: End EVP script		02-037/00:28:16
5269	MGS	02-037/00:42:58		NOTE: End Block (MAP_RT)		02-037/00:28:17
5270	MGS	02-037/00:43:01		NOTE: End fixed Sub-Reflector for Radio Science		02-037/00:28:20
5271	MGS	02-037/00:44:10		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-037/00:29:29
5272	MGS	02-037/00:44:11		NOTE: Enter Solar Eclipse 13030		02-037/00:29:29
5273	MGS	02-037/00:47:59	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
5274	MGS	02-037/00:50:00	15	Range Modulation On: SUP=3.0dB		
5275	MGS	02-037/00:51:00	15	Begin Ranging Acquisition		
5276	MGS	02-037/01:08:08		NOTE: Begin fixed Sub-Reflector for Radio Science		02-037/00:53:26
5277	MGS	02-037/01:08:51		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-037/00:54:10
5278	MGS	02-037/01:08:51		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-037/00:54:10
5279	MGS	02-037/01:08:56		Set eclipse egress script address: 019A	SWSEES	02-037/00:54:15
5280	MGS	02-037/01:11:52		: 01:28:48	RPAONX	02-037/00:57:11
5281	MGS	02-037/01:11:52		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-037/00:57:11
5282	MGS	02-037/01:13:07		: 00:00:30, 00:07:12, FALSE	RDSCIE	02-037/00:58:26
5283	MGS	02-037/01:13:07		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-037/00:58:26
5284	MGS	02-037/01:13:07		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-037/00:58:26
5285	MGS	02-037/01:13:07		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-037/00:58:26
5286	MGS	02-037/01:13:07		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-037/00:58:26
5287	MGS	02-037/01:13:38		NOTE: Exit Earth Occultation 13030		02-037/00:58:56

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
5288	MGS	02-037/01:13:38	15	Acquisition Of X-Band Signal		
5289	MGS	02-037/01:13:38	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
5290	MGS	02-037/01:13:38	15	NOTE: Carrier Only -- No Telemetry Modulation		
5291	MGS	02-037/01:18:09		NOTE: Exit Planetary Atmosphere 13030		02-037/01:03:28
5292	MGS	02-037/01:20:19		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-037/01:05:38
5293	MGS	02-037/01:20:19		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-037/01:05:38
5294	MGS	02-037/01:20:19		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-037/01:05:38
5295	MGS	02-037/01:20:19		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-037/01:05:38
5296	MGS	02-037/01:20:19	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
5297	MGS	02-037/01:20:20		: RTM, MRC, 01:13:23, S&E_2A, FALSE, 00:06:57	AEMRT	02-037/01:05:39
5298	MGS	02-037/01:20:20		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-037/01:05:39
5299	MGS	02-037/01:20:20		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-037/01:05:39
5300	MGS	02-037/01:20:20		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=1, BITS=31512000, DUR=00:44:21		02-037/01:05:39
5301	MGS	02-037/01:20:20		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-037/01:05:39
5302	MGS	02-037/01:20:20	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
5303	MGS	02-037/01:20:25		NOTE: End fixed Sub-Reflector for Radio Science		02-037/01:05:43
5304	MGS	02-037/01:24:38		NOTE: Exit Solar Eclipse 13030		02-037/01:09:56
5305	MGS	02-037/01:39:06		NOTE: Periapsis 13031 ----------		02-037/01:24:25
5306	MGS	02-037/01:45:36		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-037/01:30:55
5307	MGS	02-037/01:45:36		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-037/01:30:55
5308	MGS	02-037/01:45:37		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-037/01:30:56
5309	MGS	02-037/01:45:37		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-037/01:30:56
5310	MGS	02-037/01:52:03	15	NOTE: Transmitter Off in 15 minutes		
5311	MGS	02-037/02:05:03	15	Range Modulation Off		
5312	MGS	02-037/02:07:03	15	Transmitter Off		
5313	MGS	02-037/02:07:37		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-037/01:52:56
5314	MGS	02-037/02:07:37		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-037/01:52:56
5315	MGS	02-037/02:28:44		NOTE: Begin fixed Sub-Reflector for Radio Science		02-037/02:14:02
5316	MGS	02-037/02:31:57		NOTE: Start EVP data return script		02-037/02:17:16
5317	MGS	02-037/02:33:43		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-037/02:19:02
5318	MGS	02-037/02:33:43		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=1, BITS=66736000, DUR=01:13:23		02-037/02:19:02
5319	MGS	02-037/02:33:43		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-037/02:19:02
5320	MGS	02-037/02:33:43		: 00:06:56, FALSE	RDSCII	02-037/02:19:02
5321	MGS	02-037/02:33:43		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-037/02:19:02
5322	MGS	02-037/02:33:43		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-037/02:19:02
5323	MGS	02-037/02:33:43		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-037/02:19:02
5324	MGS	02-037/02:33:43		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-037/02:19:02
5325	MGS	02-037/02:33:43	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
5326	MGS	02-037/02:33:43	15	NOTE: Carrier Only -- No Telemetry Modulation		
5327	MGS	02-037/02:35:56		NOTE: Enter Planetary Atmosphere 13031		02-037/02:21:14
5328	MGS	02-037/02:38:20		NOTE: Apoapsis 13031 -		02-037/02:23:38
5329	MGS	02-037/02:40:12		NOTE: Enter Earth Occultation 13031		02-037/02:25:30
5330	MGS	02-037/02:40:12	15	NOTE: Loss Of X-Band Signal		
5331	MGS	02-037/02:40:40		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-037/02:25:58
5332	MGS	02-037/02:40:40		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-037/02:25:58
5333	MGS	02-037/02:40:40		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-037/02:25:58
5334	MGS	02-037/02:40:40		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-037/02:25:58
5335	MGS	02-037/02:40:41		Turn off the MOT Exciter and RPA beam	STRPAF	02-037/02:25:59
5336	MGS	02-037/02:40:41		NOTE: End EVP script		02-037/02:25:59
5337	MGS	02-037/02:40:45		NOTE: End fixed Sub-Reflector for Radio Science		02-037/02:26:03
5338	MGS	02-037/02:41:58		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-037/02:27:16
5339	MGS	02-037/02:41:58		NOTE: Enter Solar Eclipse 13031		02-037/02:27:16
5340	MGS	02-037/02:45:47	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
5341	MGS	02-037/02:47:47	15	Range Modulation On: SUP=3.0dB		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
5342	MGS	02-037/02:48:47	15	Begin Ranging Acquisition		
5343	MGS	02-037/03:05:55		NOTE: Begin fixed Sub-Reflector for Radio Science		02-037/02:51:13
5344	MGS	02-037/03:06:38		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-037/02:51:56
5345	MGS	02-037/03:06:38		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-037/02:51:56
5346	MGS	02-037/03:06:43		Set eclipse egress script address: 01DC	SWSEES	02-037/02:52:01
5347	MGS	02-037/03:09:40		: 01:28:48	RPAONX	02-037/02:54:58
5348	MGS	02-037/03:09:40		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-037/02:54:58
5349	MGS	02-037/03:10:55		: 00:00:30, 00:07:12, FALSE	RDSCIE	02-037/02:56:13
5350	MGS	02-037/03:10:55		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-037/02:56:13
5351	MGS	02-037/03:10:55		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-037/02:56:13
5352	MGS	02-037/03:10:55		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-037/02:56:13
5353	MGS	02-037/03:10:55		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-037/02:56:13
5354	MGS	02-037/03:11:25		Disables autonomous command to send eclipse ingress script	SWEISX	02-037/02:56:43
5355	MGS	02-037/03:11:26		NOTE: Exit Earth Occultation 13031		02-037/02:56:44
5356	MGS	02-037/03:11:26	15	Acquisition Of X-Band Signal		
5357	MGS	02-037/03:11:26	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
5358	MGS	02-037/03:11:26	15	NOTE: Carrier Only -- No Telemetry Modulation		
5359	MGS	02-037/03:15:58		NOTE: Exit Planetary Atmosphere 13031		02-037/03:01:16
5360	MGS	02-037/03:18:07		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-037/03:03:25
5361	MGS	02-037/03:18:07		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-037/03:03:25
5362	MGS	02-037/03:18:07		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-037/03:03:25
5363	MGS	02-037/03:18:07		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-037/03:03:25
5364	MGS	02-037/03:18:07	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
5365	MGS	02-037/03:18:08		: RTM, MRC, 01:13:23, S&E_2A, FALSE, 00:06:57	AEMRT	02-037/03:03:26
5366	MGS	02-037/03:18:08		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-037/03:03:26
5367	MGS	02-037/03:18:08		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-037/03:03:26
5368	MGS	02-037/03:18:08		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=1, BITS=88048000, DUR=00:44:24		02-037/03:03:26
5369	MGS	02-037/03:18:08		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-037/03:03:26
5370	MGS	02-037/03:18:08	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
5371	MGS	02-037/03:18:12		NOTE: End fixed Sub-Reflector for Radio Science		02-037/03:03:30
5372	MGS	02-037/03:22:25		NOTE: Exit Solar Eclipse 13031		02-037/03:07:43
5373	MGS	02-037/03:37:03		NOTE: Periapsis 13032 ----------		02-037/03:22:21
5374	MGS	02-037/03:43:25		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-037/03:28:43
5375	MGS	02-037/03:43:25		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-037/03:28:43
5376	MGS	02-037/03:43:26		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-037/03:28:44
5377	MGS	02-037/03:43:26		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-037/03:28:44
5378	MGS	02-037/03:49:49	15	NOTE: Transmitter Off in 15 minutes		
5379	MGS	02-037/04:02:49	15	Range Modulation Off		
5380	MGS	02-037/04:04:49	15	Transmitter Off		
5381	MGS	02-037/04:05:26		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-037/03:50:44
5382	MGS	02-037/04:05:26		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-037/03:50:44
5383	MGS	02-037/04:26:31		NOTE: Begin fixed Sub-Reflector for Radio Science		02-037/04:11:49
5384	MGS	02-037/04:29:43		NOTE: Start Block (MAP_RT)		02-037/04:15:01
5385	MGS	02-037/04:29:44		: 00:27:42, 01:28:48, FALSE, TRUE, FALSE, 00:01:15, 00:07:12, 01:13:24, 00:06:56	AEMINI	02-037/04:15:02
5386	MGS	02-037/04:29:44		Enable sending eclipse ingress script when array power disappears	SWEISE	02-037/04:15:02
5387	MGS	02-037/04:29:44		NOTE: Start EVP data return script		02-037/04:15:02
5388	MGS	02-037/04:29:45		: SE_1A, MRC, 01:13:23, MRC, 2002-037T05:01:12.000	AEMRTI	02-037/04:15:03
5389	MGS	02-037/04:31:31		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-037/04:16:49
5390	MGS	02-037/04:31:31		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=1, BITS=123272000, DUR=01:13:23		02-037/04:16:49
5391	MGS	02-037/04:31:31		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-037/04:16:49
5392	MGS	02-037/04:31:31		: 00:06:56, FALSE	RDSCII	02-037/04:16:49
5393	MGS	02-037/04:31:31		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-037/04:16:49
5394	MGS	02-037/04:31:31		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-037/04:16:49
5395	MGS	02-037/04:31:31		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-037/04:16:49

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
5396	MGS	02-037/04:31:31		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-037/04:16:49
5397	MGS	02-037/04:31:31	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
5398	MGS	02-037/04:31:31	15	NOTE: Carrier Only -- No Telemetry Modulation		
5399	MGS	02-037/04:33:42		NOTE: Enter Planetary Atmosphere 13032		02-037/04:19:00
5400	MGS	02-037/04:36:03		NOTE: Apoapsis 13032 -		02-037/04:21:20
5401	MGS	02-037/04:37:58		NOTE: Enter Earth Occultation 13032		02-037/04:23:16
5402	MGS	02-037/04:37:58	15	NOTE: Loss Of X-Band Signal		
5403	MGS	02-037/04:38:27		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-037/04:23:45
5404	MGS	02-037/04:38:27		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-037/04:23:45
5405	MGS	02-037/04:38:27		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-037/04:23:45
5406	MGS	02-037/04:38:27		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-037/04:23:45
5407	MGS	02-037/04:38:28		Turn off the MOT Exciter and RPA beam	STRPAF	02-037/04:23:46
5408	MGS	02-037/04:38:28		NOTE: End EVP script		02-037/04:23:46
5409	MGS	02-037/04:38:29		NOTE: End Block (MAP_RT)		02-037/04:23:47
5410	MGS	02-037/04:38:32		NOTE: End fixed Sub-Reflector for Radio Science		02-037/04:23:50
5411	MGS	02-037/04:39:43		NOTE: Enter Solar Eclipse 13032		02-037/04:25:01
5412	MGS	02-037/04:39:44		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-037/04:25:02
5413	MGS	02-037/04:55:43	15	NOTE: Below Uplink Interlock Limit		
5414	MGS	02-037/05:00:00	15	End Tracking		
5415	MGS	02-037/05:00:00	45	Begin Pre-Cal		
5416	MGS	02-037/05:00:00	45	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
5417	MGS	02-037/05:00:00	45	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
5418	MGS	02-037/05:00:00	45	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
5419	MGS	02-037/05:00:00	45	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
5420	MGS	02-037/05:00:00	45	At BOT: S/C Tlm Mode: BR=8000.0, FL=10000, SC=HIGH, MI=80.0		
5421	MGS	02-037/05:00:00	45	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
5422	MGS	02-037/05:00:00	45	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
5423	MGS	02-037/05:00:00	45	Config: TGC: DEST=37		
5424	MGS	02-037/05:00:00	45	Config: TGC: BAND=X, BR=8000.000000		
5425	MGS	02-037/05:00:00	45	Config: FSS: CH=2, PRI_FL=10000		
5426	MGS	02-037/05:00:00	45	Config: RSR		
5427	MGS	02-037/05:00:00	45	Config: TXL		
5428	MGS	02-037/05:00:00	45	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
5429	MGS	02-037/05:00:00	45	Config: BVR		
5430	MGS	02-037/05:00:00	45	Config: Doppler Extractor: BIAS=+1MHZ		
5431	MGS	02-037/05:00:00	45	Config: MDA: SMPL=0.1		
5432	MGS	02-037/05:00:00	45	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
5433	MGS	02-037/05:00:00	45	Config: SRA: HIGH=4, LOW=14, SERV=D		
5434	MGS	02-037/05:00:00	45	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
5435	MGS	02-037/05:03:40		NOTE: Begin fixed Sub-Reflector for Radio Science		02-037/04:48:58
5436	MGS	02-037/05:04:26		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-037/04:49:44
5437	MGS	02-037/05:04:26		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-037/04:49:44
5438	MGS	02-037/05:04:30		Command the PSE with included data word: 3990	SWPSEL	02-037/04:49:48
5439	MGS	02-037/05:04:31		Set eclipse egress script address: 0158	SWSEES	02-037/04:49:49
5440	MGS	02-037/05:07:26		: 01:28:48	RPAONX	02-037/04:52:44
5441	MGS	02-037/05:07:26		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-037/04:52:44
5442	MGS	02-037/05:08:41		: 00:00:30, 00:07:12, FALSE	RDSCIE	02-037/04:53:59
5443	MGS	02-037/05:08:41		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-037/04:53:59
5444	MGS	02-037/05:08:41		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-037/04:53:59
5445	MGS	02-037/05:08:41		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-037/04:53:59
5446	MGS	02-037/05:08:41		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-037/04:53:59
5447	MGS	02-037/05:09:11		Disables autonomous command to send eclipse ingress script	SWEISX	02-037/04:54:29
5448	MGS	02-037/05:09:12		NOTE: Exit Earth Occultation 13032		02-037/04:54:30
5449	MGS	02-037/05:13:45		NOTE: Exit Planetary Atmosphere 13032		02-037/04:59:03

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
5450	MGS	02-037/05:15:00	15	End Post-Cal		
5451	MGS	02-037/05:15:53		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-037/05:01:11
5452	MGS	02-037/05:15:53		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-037/05:01:11
5453	MGS	02-037/05:15:53		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-037/05:01:11
5454	MGS	02-037/05:15:53		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-037/05:01:11
5455	MGS	02-037/05:15:54		: MRC, MRC, 01:13:23, S&E_1A, FALSE, 00:06:57	AEMRT	02-037/05:01:12
5456	MGS	02-037/05:15:54		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-037/05:01:12
5457	MGS	02-037/05:15:54		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-037/05:01:12
5458	MGS	02-037/05:15:54		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=1, BITS=144576000, DUR=00:44:23		02-037/05:01:12
5459	MGS	02-037/05:15:54		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-037/05:01:12
5460	MGS	02-037/05:15:58		NOTE: End fixed Sub-Reflector for Radio Science		02-037/05:01:15
5461	MGS	02-037/05:20:11		NOTE: Exit Solar Eclipse 13032		02-037/05:05:28
5462	MGS	02-037/05:34:31		NOTE: Periapsis 13033 ----------		02-037/05:19:48
5463	MGS	02-037/05:45:10		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-037/05:30:28
5464	MGS	02-037/05:45:10		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-037/05:30:28
5465	MGS	02-037/05:45:11		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-037/05:30:29
5466	MGS	02-037/05:45:11		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-037/05:30:29
5467	MGS	02-037/05:48:01		NOTE: Start Block (SSRMGR)		02-037/05:33:19
5468	MGS	02-037/05:48:01		Sends a one-word SSR command to the XSU command SOB: SSR_2B, SE_1A, RECORD, PART1	STSSRC	02-037/05:33:19
5469	MGS	02-037/05:48:02		SSR 2B Data Enable	CSD2BE	02-037/05:33:20
5470	MGS	02-037/05:48:02		SSR Activity: ID=SSR_2B, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-037/05:33:20
5471	MGS	02-037/06:00:00	45	Begin Tracking		
5472	MGS	02-037/06:00:00	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
5473	MGS	02-037/06:07:11		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-037/05:52:29
5474	MGS	02-037/06:07:11		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-037/05:52:29
5475	MGS	02-037/06:14:42		SSR 2A Data Disable	CSD2AX	02-037/06:00:00
5476	MGS	02-037/06:14:42		SSR Activity: ID=SSR_2A, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-037/06:00:00
5477	MGS	02-037/06:14:43		NOTE: End Block (SSRMGR)		02-037/06:00:01
5478	MGS	02-037/06:24:17		NOTE: Begin fixed Sub-Reflector for Radio Science		02-037/06:09:34
5479	MGS	02-037/06:27:24		NOTE: Start Block (MAP_RT)		02-037/06:12:42
5480	MGS	02-037/06:27:25		: 00:27:42, 01:28:48, FALSE, TRUE, FALSE, 00:01:15, 00:07:12, 01:13:24, 00:06:56	AEMINI	02-037/06:12:43
5481	MGS	02-037/06:27:25		Enable sending eclipse ingress script when array power disappears	SWEISE	02-037/06:12:43
5482	MGS	02-037/06:27:25		NOTE: Start EVP data return script		02-037/06:12:43
5483	MGS	02-037/06:27:26		: SE_2A, RTM, 01:13:23, MRC, 2002-037T06:58:53.000	AEMRTI	02-037/06:12:44
5484	MGS	02-037/06:29:17		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-037/06:14:35
5485	MGS	02-037/06:29:17		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=1, BITS=19800000, DUR=00:41:15		02-037/06:14:35
5486	MGS	02-037/06:29:17		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-037/06:14:35
5487	MGS	02-037/06:29:17		: 00:06:56, FALSE	RDSCII	02-037/06:14:35
5488	MGS	02-037/06:29:17		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-037/06:14:35
5489	MGS	02-037/06:29:17		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-037/06:14:35
5490	MGS	02-037/06:29:17		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-037/06:14:35
5491	MGS	02-037/06:29:17		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-037/06:14:35
5492	MGS	02-037/06:29:17	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
5493	MGS	02-037/06:29:17	45	NOTE: Carrier Only -- No Telemetry Modulation		
5494	MGS	02-037/06:31:25		NOTE: Enter Planetary Atmosphere 13033		02-037/06:16:42
5495	MGS	02-037/06:33:23		NOTE: Apoapsis 13033 -		02-037/06:18:41
5496	MGS	02-037/06:35:40		NOTE: Enter Earth Occultation 13033		02-037/06:20:58
5497	MGS	02-037/06:35:40	45	NOTE: Loss Of X-Band Signal		
5498	MGS	02-037/06:36:13		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-037/06:21:31
5499	MGS	02-037/06:36:13		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-037/06:21:31
5500	MGS	02-037/06:36:13		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-037/06:21:31
5501	MGS	02-037/06:36:13		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-037/06:21:31
5502	MGS	02-037/06:36:14		NOTE: End EVP script		02-037/06:21:31
5503	MGS	02-037/06:36:14		Turn off the MOT Exciter and RPA beam	STRPAF	02-037/06:21:32

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
5504	MGS	02-037/06:36:15		NOTE: End Block (MAP_RT)		02-037/06:21:32
5505	MGS	02-037/06:36:18		NOTE: End fixed Sub-Reflector for Radio Science		02-037/06:21:35
5506	MGS	02-037/06:37:25		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-037/06:22:43
5507	MGS	02-037/06:37:25		NOTE: Enter Solar Eclipse 13033		02-037/06:22:43
5508	MGS	02-037/06:41:15	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
5509	MGS	02-037/06:43:15	45	Range Modulation On: SUP=3.0dB		
5510	MGS	02-037/06:44:15	45	Begin Ranging Acquisition		
5511	MGS	02-037/07:01:22		NOTE: Begin fixed Sub-Reflector for Radio Science		02-037/06:46:40
5512	MGS	02-037/07:02:11		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-037/06:47:29
5513	MGS	02-037/07:02:11		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-037/06:47:29
5514	MGS	02-037/07:02:16		Set eclipse egress script address: 019A	SWSEES	02-037/06:47:34
5515	MGS	02-037/07:05:07		: 01:28:48	RPAONX	02-037/06:50:25
5516	MGS	02-037/07:05:07		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-037/06:50:25
5517	MGS	02-037/07:06:22		: 00:00:30, 00:07:12, FALSE	RDSCIE	02-037/06:51:40
5518	MGS	02-037/07:06:22		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-037/06:51:40
5519	MGS	02-037/07:06:22		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-037/06:51:40
5520	MGS	02-037/07:06:22		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-037/06:51:40
5521	MGS	02-037/07:06:22		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-037/06:51:40
5522	MGS	02-037/07:06:55		NOTE: Exit Earth Occultation 13033		02-037/06:52:12
5523	MGS	02-037/07:06:55	45	Acquisition Of X-Band Signal		
5524	MGS	02-037/07:06:55	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
5525	MGS	02-037/07:06:55	45	NOTE: Carrier Only -- No Telemetry Modulation		
5526	MGS	02-037/07:11:27		NOTE: Exit Planetary Atmosphere 13033		02-037/06:56:45
5527	MGS	02-037/07:13:34		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-037/06:58:52
5528	MGS	02-037/07:13:34		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-037/06:58:52
5529	MGS	02-037/07:13:34		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-037/06:58:52
5530	MGS	02-037/07:13:34		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-037/06:58:52
5531	MGS	02-037/07:13:34	45	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
5532	MGS	02-037/07:13:35		: RTM, MRC, 01:13:23, S&E_2A, FALSE, 00:06:57	AEMRT	02-037/06:58:53
5533	MGS	02-037/07:13:35		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-037/06:58:53
5534	MGS	02-037/07:13:35		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-037/06:58:53
5535	MGS	02-037/07:13:35		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=1, BITS=41064000, DUR=00:44:18		02-037/06:58:53
5536	MGS	02-037/07:13:35		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-037/06:58:53
5537	MGS	02-037/07:13:35	45	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
5538	MGS	02-037/07:13:39		NOTE: End fixed Sub-Reflector for Radio Science		02-037/06:58:57
5539	MGS	02-037/07:17:52		NOTE: Exit Solar Eclipse 13033		02-037/07:03:09
5540	MGS	02-037/07:31:55		NOTE: Periapsis 13034 ----------		02-037/07:17:12
5541	MGS	02-037/07:38:51		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-037/07:24:09
5542	MGS	02-037/07:38:51		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-037/07:24:09
5543	MGS	02-037/07:38:52		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-037/07:24:10
5544	MGS	02-037/07:38:52		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-037/07:24:10
5545	MGS	02-037/07:45:10	45	NOTE: Transmitter Off in 15 minutes		
5546	MGS	02-037/07:58:10	45	Range Modulation Off		
5547	MGS	02-037/08:00:10	45	Transmitter Off		
5548	MGS	02-037/08:00:52		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-037/07:46:10
5549	MGS	02-037/08:00:52		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-037/07:46:10
5550	MGS	02-037/08:21:58		NOTE: Begin fixed Sub-Reflector for Radio Science		02-037/08:07:16
5551	MGS	02-037/08:25:06		NOTE: Start EVP data return script		02-037/08:10:24
5552	MGS	02-037/08:26:58		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-037/08:12:16
5553	MGS	02-037/08:26:58		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=1, BITS=76288000, DUR=01:13:23		02-037/08:12:16
5554	MGS	02-037/08:26:58		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-037/08:12:16
5555	MGS	02-037/08:26:58		: 00:06:56, FALSE	RDSCII	02-037/08:12:16
5556	MGS	02-037/08:26:58		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-037/08:12:16
5557	MGS	02-037/08:26:58		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-037/08:12:16

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
5558	MGS	02-037/08:26:58		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-037/08:12:16
5559	MGS	02-037/08:26:58		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-037/08:12:16
5560	MGS	02-037/08:26:58	45	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
5561	MGS	02-037/08:26:58	45	NOTE: Carrier Only -- No Telemetry Modulation		
5562	MGS	02-037/08:29:05		NOTE: Enter Planetary Atmosphere 13034		02-037/08:14:22
5563	MGS	02-037/08:31:10		NOTE: Apoapsis 13034 -		02-037/08:16:27
5564	MGS	02-037/08:33:20		NOTE: Enter Earth Occultation 13034		02-037/08:18:37
5565	MGS	02-037/08:33:20	45	NOTE: Loss Of X-Band Signal		
5566	MGS	02-037/08:33:54		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-037/08:19:12
5567	MGS	02-037/08:33:54		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-037/08:19:12
5568	MGS	02-037/08:33:54		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-037/08:19:12
5569	MGS	02-037/08:33:54		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-037/08:19:12
5570	MGS	02-037/08:33:55		Turn off the MOT Exciter and RPA beam	STRPAF	02-037/08:19:13
5571	MGS	02-037/08:33:55		NOTE: End EVP script		02-037/08:19:13
5572	MGS	02-037/08:33:59		NOTE: End fixed Sub-Reflector for Radio Science		02-037/08:19:17
5573	MGS	02-037/08:35:06		NOTE: Enter Solar Eclipse 13034		02-037/08:20:23
5574	MGS	02-037/08:35:06		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-037/08:20:24
5575	MGS	02-037/08:38:55	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
5576	MGS	02-037/08:40:55	45	Range Modulation On: SUP=3.0dB		
5577	MGS	02-037/08:41:55	45	Begin Ranging Acquisition		
5578	MGS	02-037/08:59:04		NOTE: Begin fixed Sub-Reflector for Radio Science		02-037/08:44:21
5579	MGS	02-037/08:59:52		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-037/08:45:10
5580	MGS	02-037/08:59:52		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-037/08:45:10
5581	MGS	02-037/08:59:57		Set eclipse egress script address: 01DC	SWSEES	02-037/08:45:15
5582	MGS	02-037/09:02:49		: 01:28:48	RPAONX	02-037/08:48:06
5583	MGS	02-037/09:02:49		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-037/08:48:06
5584	MGS	02-037/09:04:04		: 00:00:30, 00:07:12, FALSE	RDSCIE	02-037/08:49:21
5585	MGS	02-037/09:04:04		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-037/08:49:21
5586	MGS	02-037/09:04:04		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-037/08:49:21
5587	MGS	02-037/09:04:04		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-037/08:49:21
5588	MGS	02-037/09:04:04		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-037/08:49:21
5589	MGS	02-037/09:04:34		Disables autonomous command to send eclipse ingress script	SWEISX	02-037/08:49:51
5590	MGS	02-037/09:04:36		NOTE: Exit Earth Occultation 13034		02-037/08:49:53
5591	MGS	02-037/09:04:36	45	Acquisition Of X-Band Signal		
5592	MGS	02-037/09:04:36	45	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
5593	MGS	02-037/09:04:36	45	NOTE: Carrier Only -- No Telemetry Modulation		
5594	MGS	02-037/09:09:08		NOTE: Exit Planetary Atmosphere 13034		02-037/08:54:25
5595	MGS	02-037/09:11:16		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-037/08:56:33
5596	MGS	02-037/09:11:16		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-037/08:56:33
5597	MGS	02-037/09:11:16		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-037/08:56:33
5598	MGS	02-037/09:11:16		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-037/08:56:33
5599	MGS	02-037/09:11:16	45	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
5600	MGS	02-037/09:11:17		: RTM, MRC, 01:13:23, S&E_2A, FALSE, 00:06:57	AEMRT	02-037/08:56:34
5601	MGS	02-037/09:11:17		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-037/08:56:34
5602	MGS	02-037/09:11:17		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-037/08:56:34
5603	MGS	02-037/09:11:17		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=1, BITS=97552000, DUR=00:44:18		02-037/08:56:34
5604	MGS	02-037/09:11:17		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-037/08:56:34
5605	MGS	02-037/09:11:17	45	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
5606	MGS	02-037/09:11:21		NOTE: End fixed Sub-Reflector for Radio Science		02-037/08:56:38
5607	MGS	02-037/09:15:33		NOTE: Exit Solar Eclipse 13034		02-037/09:00:50
5608	MGS	02-037/09:29:37		NOTE: Periapsis 13035 ----------		02-037/09:14:54
5609	MGS	02-037/09:30:00	65	Begin Pre-Cal		
5610	MGS	02-037/09:30:00	65	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
5611	MGS	02-037/09:30:00	65	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
5612	MGS	02-037/09:30:00	65	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
5613	MGS	02-037/09:30:00	65	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
5614	MGS	02-037/09:30:00	65	At BOT: S/C Tlm Mode: BR=8000.0, FL=10000, SC=HIGH, MI=80.0		
5615	MGS	02-037/09:30:00	65	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
5616	MGS	02-037/09:30:00	65	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
5617	MGS	02-037/09:30:00	65	Config: TGC: DEST=37		
5618	MGS	02-037/09:30:00	65	Config: TGC: BAND=X, BR=8000.000000		
5619	MGS	02-037/09:30:00	65	Config: FSS: CH=2, PRI_FL=10000		
5620	MGS	02-037/09:30:00	65	Config: RSR		
5621	MGS	02-037/09:30:00	65	Config: TXL		
5622	MGS	02-037/09:30:00	65	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
5623	MGS	02-037/09:30:00	65	Config: BVR		
5624	MGS	02-037/09:30:00	65	Config: Doppler Extractor: BIAS=+1MHZ		
5625	MGS	02-037/09:30:00	65	Config: MDA: SMPL=0.1		
5626	MGS	02-037/09:30:00	65	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
5627	MGS	02-037/09:30:00	65	Config: SRA: HIGH=4, LOW=14, SERV=D		
5628	MGS	02-037/09:30:00	65	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
5629	MGS	02-037/09:36:32		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-037/09:21:49
5630	MGS	02-037/09:36:32		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-037/09:21:49
5631	MGS	02-037/09:36:33		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-037/09:21:50
5632	MGS	02-037/09:36:33		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-037/09:21:50
5633	MGS	02-037/09:42:54	45	NOTE: Transmitter Off in 15 minutes		
5634	MGS	02-037/09:55:55	45	Range Modulation Off		
5635	MGS	02-037/09:57:54	45	Transmitter Off		
5636	MGS	02-037/09:58:33		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-037/09:43:50
5637	MGS	02-037/09:58:33		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-037/09:43:50
5638	MGS	02-037/10:19:40		NOTE: Begin fixed Sub-Reflector for Radio Science		02-037/10:04:57
5639	MGS	02-037/10:22:51		NOTE: Start Block (MAP_RT)		02-037/10:08:08
5640	MGS	02-037/10:22:52		: 00:27:44, 01:28:46, FALSE, TRUE, FALSE, 00:01:15, 00:07:12, 01:13:24, 00:06:54	AEMINI	02-037/10:08:09
5641	MGS	02-037/10:22:52		Enable sending eclipse ingress script when array power disappears	SWEISE	02-037/10:08:09
5642	MGS	02-037/10:22:52		NOTE: Start EVP data return script		02-037/10:08:09
5643	MGS	02-037/10:22:53		: SE_1A, MRC, 01:13:23, MRC, 2002-037T10:54:21.000	AEMRTI	02-037/10:08:10
5644	MGS	02-037/10:24:40		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-037/10:09:57
5645	MGS	02-037/10:24:40		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=1, BITS=132776000, DUR=01:13:23		02-037/10:09:57
5646	MGS	02-037/10:24:40		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-037/10:09:57
5647	MGS	02-037/10:24:40		: 00:06:56, FALSE	RDSCII	02-037/10:09:57
5648	MGS	02-037/10:24:40		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-037/10:09:57
5649	MGS	02-037/10:24:40		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-037/10:09:57
5650	MGS	02-037/10:24:40		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-037/10:09:57
5651	MGS	02-037/10:24:40		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-037/10:09:57
5652	MGS	02-037/10:24:40	45	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
5653	MGS	02-037/10:24:40	45	NOTE: Carrier Only -- No Telemetry Modulation		
5654	MGS	02-037/10:26:50		NOTE: Enter Planetary Atmosphere 13035		02-037/10:12:07
5655	MGS	02-037/10:29:00		NOTE: Apoapsis 13035 -		02-037/10:14:17
5656	MGS	02-037/10:31:05		NOTE: Enter Earth Occultation 13035		02-037/10:16:22
5657	MGS	02-037/10:31:05	45	NOTE: Loss Of X-Band Signal		
5658	MGS	02-037/10:31:36		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-037/10:16:53
5659	MGS	02-037/10:31:36		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-037/10:16:53
5660	MGS	02-037/10:31:36		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-037/10:16:53
5661	MGS	02-037/10:31:36		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-037/10:16:53
5662	MGS	02-037/10:31:37		Turn off the MOT Exciter and RPA beam	STRPAF	02-037/10:16:54
5663	MGS	02-037/10:31:37		NOTE: End EVP script		02-037/10:16:54
5664	MGS	02-037/10:31:38		NOTE: End Block (MAP_RT)		02-037/10:16:55
5665	MGS	02-037/10:31:41		NOTE: End fixed Sub-Reflector for Radio Science		02-037/10:16:58

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
5666	MGS	02-037/10:32:52		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-037/10:18:09
5667	MGS	02-037/10:32:52		NOTE: Enter Solar Eclipse 13035		02-037/10:18:09
5668	MGS	02-037/10:40:59	45	NOTE: Below Uplink Interlock Limit		
5669	MGS	02-037/10:47:25		Disable HGA control mode	SAHGCX	02-037/10:32:42
5670	MGS	02-037/10:47:26		No Operation	SCNOOP	02-037/10:32:43
5671	MGS	02-037/10:47:27		CDU-1 Uplink Rate Select (Based on 3 bit Code): 7	TCC1BS	02-037/10:32:44
5672	MGS	02-037/10:47:27		CDU-2 Uplink Rate Select (Based on 3 bit Code): 7	TCC2BS	02-037/10:32:44
5673	MGS	02-037/10:47:37		Select Automatic HGA control mode	SAHACE	02-037/10:32:54
5674	MGS	02-037/10:47:38		Selects Hign Gain Antenna for downlink, Reconfigures if beam is already on	STUHGA	02-037/10:32:55
5675	MGS	02-037/10:47:39		CDU-1 Uplink Rate Select (Based on 3 bit Code): 3	TCC1BS	02-037/10:32:56
5676	MGS	02-037/10:47:39		CDU-2 Uplink Rate Select (Based on 3 bit Code): 3	TCC2BS	02-037/10:32:56
5677	MGS	02-037/10:50:00	45	End Tracking		
5678	MGS	02-037/10:56:51		NOTE: Begin fixed Sub-Reflector for Radio Science		02-037/10:42:08
5679	MGS	02-037/10:57:33		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-037/10:42:50
5680	MGS	02-037/10:57:33		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-037/10:42:50
5681	MGS	02-037/10:57:37		Command the PSE with included data word: 3990	SWPSEL	02-037/10:42:54
5682	MGS	02-037/10:57:38		Set eclipse egress script address: 0158	SWSEES	02-037/10:42:55
5683	MGS	02-037/11:00:36		: 01:28:46	RPAONX	02-037/10:45:53
5684	MGS	02-037/11:00:36		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-037/10:45:53
5685	MGS	02-037/11:01:51		: 00:00:30, 00:07:12, FALSE	RDSCIE	02-037/10:47:08
5686	MGS	02-037/11:01:51		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-037/10:47:08
5687	MGS	02-037/11:01:51		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-037/10:47:08
5688	MGS	02-037/11:01:51		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-037/10:47:08
5689	MGS	02-037/11:01:51		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-037/10:47:08
5690	MGS	02-037/11:02:21		Disables autonomous command to send eclipse ingress script	SWEISX	02-037/10:47:38
5691	MGS	02-037/11:02:21		NOTE: Exit Earth Occultation 13035		02-037/10:47:38
5692	MGS	02-037/11:05:00	45	End Post-Cal		
5693	MGS	02-037/11:06:53		NOTE: Exit Planetary Atmosphere 13035		02-037/10:52:10
5694	MGS	02-037/11:09:03		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-037/10:54:20
5695	MGS	02-037/11:09:03		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-037/10:54:20
5696	MGS	02-037/11:09:03		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-037/10:54:20
5697	MGS	02-037/11:09:03		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-037/10:54:20
5698	MGS	02-037/11:09:04		: MRC, MRC, 01:13:23, S&E_1A, FALSE, 00:06:55	AEMRT	02-037/10:54:21
5699	MGS	02-037/11:09:04		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-037/10:54:21
5700	MGS	02-037/11:09:04		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-037/10:54:21
5701	MGS	02-037/11:09:04		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=1, BITS=154088000, DUR=00:44:24		02-037/10:54:21
5702	MGS	02-037/11:09:04		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-037/10:54:21
5703	MGS	02-037/11:09:08		NOTE: End fixed Sub-Reflector for Radio Science		02-037/10:54:25
5704	MGS	02-037/11:13:19		NOTE: Exit Solar Eclipse 13035		02-037/10:58:36
5705	MGS	02-037/11:21:22		NOTE: Start Block (SSRMGR)		02-037/11:06:39
5706	MGS	02-037/11:21:22		Sends a one-word SSR command to the XSU command SOB: SSR_2A, SE_1A, RECORD, PART2	STSSRC	02-037/11:06:39
5707	MGS	02-037/11:21:23		SSR 2A Data Enable	CSD2AE	02-037/11:06:40
5708	MGS	02-037/11:21:23		SSR Activity: ID=SSR_2A, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-037/11:06:40
5709	MGS	02-037/11:27:30		NOTE: Periapsis 13036 ----------		02-037/11:12:47
5710	MGS	02-037/11:30:00	65	Begin Tracking		
5711	MGS	02-037/11:30:00	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
5712	MGS	02-037/11:35:26		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-037/11:20:43
5713	MGS	02-037/11:35:26		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=2, BITS=6744000, DUR=00:14:03		02-037/11:20:43
5714	MGS	02-037/11:35:26		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-037/11:20:43
5715	MGS	02-037/11:35:28		NOTE: Start Block (SSRMGR)		02-037/11:20:45
5716	MGS	02-037/11:35:28		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-037/11:20:45
5717	MGS	02-037/11:35:28		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-037/11:20:45
5718	MGS	02-037/11:35:29		Sends a one-word MOT command to the XSU command SOB: SSR_1A	STMOTC	02-037/11:20:46
5719	MGS	02-037/11:35:30		Sends a one-word SSR command to the XSU command SOB: SSR_1A, F42KHZ, PLYBCK, PART3	STSSRC	02-037/11:20:47

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
5720	MGS	02-037/11:35:31		SSR 1A Data Enable	CSD1AE	02-037/11:20:48
5721	MGS	02-037/11:35:31		SSR Activity: ID=SSR_1A, FCN=Start Playback, PRT=3, BR=42666		02-037/11:20:48
5722	MGS	02-037/11:35:31	65	D/L Change: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
5723	MGS	02-037/11:38:18		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-037/11:23:35
5724	MGS	02-037/11:38:18		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-037/11:23:35
5725	MGS	02-037/11:38:19		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-037/11:23:36
5726	MGS	02-037/11:38:19		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-037/11:23:36
5727	MGS	02-037/11:47:58		NOTE: Start Block (SSRMGR)		02-037/11:33:15
5728	MGS	02-037/11:47:58		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-037/11:33:15
5729	MGS	02-037/11:47:58		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-037/11:33:15
5730	MGS	02-037/11:47:59		Sends a one-word MOT command to the XSU command SOB: SSR_1B	STMOTC	02-037/11:33:16
5731	MGS	02-037/11:48:00		Sends a one-word SSR command to the XSU command SOB: SSR_1B, F42KHZ, PLYBCK, PART3	STSSRC	02-037/11:33:17
5732	MGS	02-037/11:48:01		SSR 1B Data Enable	CSD1BE	02-037/11:33:18
5733	MGS	02-037/11:48:01		SSR Activity: ID=SSR_1B, FCN=Start Playback, PRT=3, BR=42666		02-037/11:33:18
5734	MGS	02-037/11:48:01		SSR 1A Data Disable	CSD1AX	02-037/11:33:18
5735	MGS	02-037/11:48:01		SSR Activity: ID=SSR_1A, FCN=End Playback, PRT=3, BITS=32000000, DUR=00:12:30		02-037/11:33:18
5736	MGS	02-037/11:48:01	65	D/L Change: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
5737	MGS	02-037/11:48:02		NOTE: End Block (SSRMGR)		02-037/11:33:19
5738	MGS	02-037/11:48:03		SSR 2B Data Disable	CSD2BX	02-037/11:33:20
5739	MGS	02-037/11:48:03		SSR Activity: ID=SSR_2B, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-037/11:33:20
5740	MGS	02-037/11:48:04		NOTE: End Block (SSRMGR)		02-037/11:33:21
5741	MGS	02-037/12:00:19		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-037/11:45:36
5742	MGS	02-037/12:00:19		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-037/11:45:36
5743	MGS	02-037/12:05:31		SSR 1B Data Disable	CSD1BX	02-037/11:50:48
5744	MGS	02-037/12:05:31		SSR Activity: ID=SSR_1B, FCN=End Playback, PRT=3, BITS=44800000, DUR=00:17:30		02-037/11:50:48
5745	MGS	02-037/12:05:32		NOTE: End Block (SSRMGR)		02-037/11:50:49
5746	MGS	02-037/12:05:32		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-037/11:50:49
5747	MGS	02-037/12:05:32		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-037/11:50:49
5748	MGS	02-037/12:05:32	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
5749	MGS	02-037/12:14:43		Dump SCP memory to the EDF using physical addressing arguments: 56A4, 240	SCDSCM	02-037/12:00:00
5750	MGS	02-037/12:17:27		NOTE: Begin fixed Sub-Reflector for Radio Science		02-037/12:02:44
5751	MGS	02-037/12:20:38		NOTE: Start Block (MAP_PB)		02-037/12:05:55
5752	MGS	02-037/12:20:39		: 00:27:44, 01:28:47, FALSE, TRUE, FALSE, 00:01:15, 00:07:12, 01:13:25, 00:06:54	AEMINI	02-037/12:05:56
5753	MGS	02-037/12:20:39		Enable sending eclipse ingress script when array power disappears	SWEISE	02-037/12:05:56
5754	MGS	02-037/12:20:39		NOTE: Start EVP data return script		02-037/12:05:56
5755	MGS	02-037/12:20:40		: SSR_1A, F42KHZ, PART1, SE_1A, 2002-037T12:52:07.000	AEMPBI	02-037/12:05:57
5756	MGS	02-037/12:22:27		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-037/12:07:44
5757	MGS	02-037/12:22:27		: 00:06:54, FALSE	RDSCII	02-037/12:07:44
5758	MGS	02-037/12:22:27		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-037/12:07:44
5759	MGS	02-037/12:22:27		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-037/12:07:44
5760	MGS	02-037/12:22:27		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-037/12:07:44
5761	MGS	02-037/12:22:27		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-037/12:07:44
5762	MGS	02-037/12:22:27	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
5763	MGS	02-037/12:22:27	65	NOTE: Carrier Only -- No Telemetry Modulation		
5764	MGS	02-037/12:24:38		NOTE: Enter Planetary Atmosphere 13036		02-037/12:09:55
5765	MGS	02-037/12:26:42		NOTE: Apoapsis 13036 -		02-037/12:11:58
5766	MGS	02-037/12:28:53		NOTE: Enter Earth Occultation 13036		02-037/12:14:09
5767	MGS	02-037/12:28:53	65	NOTE: Loss Of X-Band Signal		
5768	MGS	02-037/12:29:21		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-037/12:14:38
5769	MGS	02-037/12:29:21		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-037/12:14:38
5770	MGS	02-037/12:29:21		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-037/12:14:38
5771	MGS	02-037/12:29:21		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-037/12:14:38
5772	MGS	02-037/12:29:22		Turn off the MOT Exciter and RPA beam	STRPAF	02-037/12:14:39
5773	MGS	02-037/12:29:22		NOTE: End EVP script		02-037/12:14:39

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
5774	MGS	02-037/12:29:23		NOTE: End Block (MAP_RT)		02-037/12:14:40
5775	MGS	02-037/12:29:26		NOTE: End fixed Sub-Reflector for Radio Science		02-037/12:14:43
5776	MGS	02-037/12:30:39		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-037/12:15:56
5777	MGS	02-037/12:30:39		NOTE: Enter Solar Eclipse 13036		02-037/12:15:56
5778	MGS	02-037/12:54:38		NOTE: Begin fixed Sub-Reflector for Radio Science		02-037/12:39:55
5779	MGS	02-037/12:55:19		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-037/12:40:36
5780	MGS	02-037/12:55:19		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-037/12:40:36
5781	MGS	02-037/12:55:24		Set eclipse egress script address: 019A	SWSEES	02-037/12:40:41
5782	MGS	02-037/12:58:23		: 01:28:47	RPAONX	02-037/12:43:40
5783	MGS	02-037/12:58:23		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-037/12:43:40
5784	MGS	02-037/12:59:38		: 00:00:30, 00:07:12, FALSE	RDSCIE	02-037/12:44:55
5785	MGS	02-037/12:59:38		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-037/12:44:55
5786	MGS	02-037/12:59:38		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-037/12:44:55
5787	MGS	02-037/12:59:38		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-037/12:44:55
5788	MGS	02-037/12:59:38		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-037/12:44:55
5789	MGS	02-037/13:00:09		NOTE: Exit Earth Occultation 13036		02-037/12:45:25
5790	MGS	02-037/13:00:09	65	Acquisition Of X-Band Signal		
5791	MGS	02-037/13:00:09	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
5792	MGS	02-037/13:00:09	65	NOTE: Carrier Only -- No Telemetry Modulation		
5793	MGS	02-037/13:04:41		NOTE: Exit Planetary Atmosphere 13036		02-037/12:49:57
5794	MGS	02-037/13:06:50		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-037/12:52:07
5795	MGS	02-037/13:06:50		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-037/12:52:07
5796	MGS	02-037/13:06:50		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-037/12:52:07
5797	MGS	02-037/13:06:50		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-037/12:52:07
5798	MGS	02-037/13:06:50		: REC_1A, F42KHZ, PART1, SE_1A, FALSE, 00:11:41	AEMPB	02-037/12:52:07
5799	MGS	02-037/13:06:50		Sends a one-word MOT command to the XSU command SOB: SSR_1A	STMOTC	02-037/12:52:07
5800	MGS	02-037/13:06:50		Sends a one-word SSR command to the XSU command SOB: SSR_1A, F42KHZ, PLYBCK, PART1	STSSRC	02-037/12:52:07
5801	MGS	02-037/13:06:50	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
5802	MGS	02-037/13:06:51		SSR 1A Data Enable	CSD1AE	02-037/12:52:08
5803	MGS	02-037/13:06:51		SSR Activity: ID=SSR_1A, FCN=Start Playback, PRT=1, BR=42666		02-037/12:52:08
5804	MGS	02-037/13:06:51	65	D/L Change: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
5805	MGS	02-037/13:06:55		NOTE: End fixed Sub-Reflector for Radio Science		02-037/12:52:12
5806	MGS	02-037/13:11:07		NOTE: Exit Solar Eclipse 13036		02-037/12:56:23
5807	MGS	02-037/13:25:16		NOTE: Periapsis 13037 ----------		02-037/13:10:32
5808	MGS	02-037/13:32:05		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-037/13:17:22
5809	MGS	02-037/13:32:05		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-037/13:17:22
5810	MGS	02-037/13:32:06		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-037/13:17:23
5811	MGS	02-037/13:32:06		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-037/13:17:23
5812	MGS	02-037/13:54:06		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-037/13:39:23
5813	MGS	02-037/13:54:06		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-037/13:39:23
5814	MGS	02-037/14:15:16		NOTE: Begin fixed Sub-Reflector for Radio Science		02-037/14:00:32
5815	MGS	02-037/14:15:29		SSR 1A Data Disable	CSD1AX	02-037/14:00:46
5816	MGS	02-037/14:15:29		SSR Activity: ID=SSR_1A, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-037/14:00:46
5817	MGS	02-037/14:15:29		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-037/14:00:46
5818	MGS	02-037/14:15:29	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
5819	MGS	02-037/14:18:25		NOTE: Start EVP data return script		02-037/14:03:42
5820	MGS	02-037/14:18:25		: SSR_1B, F42KHZ, PART1, 2002-037T14:49:53.000	AEMPBU	02-037/14:03:42
5821	MGS	02-037/14:20:15		: 00:06:54, FALSE	RDSCII	02-037/14:05:32
5822	MGS	02-037/14:20:15		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-037/14:05:32
5823	MGS	02-037/14:20:15		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-037/14:05:32
5824	MGS	02-037/14:20:15		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-037/14:05:32
5825	MGS	02-037/14:20:15		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-037/14:05:32
5826	MGS	02-037/14:20:15	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
5827	MGS	02-037/14:20:15	65	NOTE: Carrier Only -- No Telemetry Modulation		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
5828	MGS	02-037/14:22:25		NOTE: Enter Planetary Atmosphere 13037		02-037/14:07:41
5829	MGS	02-037/14:24:12		NOTE: Apoapsis 13037 -		02-037/14:09:29
5830	MGS	02-037/14:26:39		NOTE: Enter Earth Occultation 13037		02-037/14:11:55
5831	MGS	02-037/14:26:39	65	NOTE: Loss Of X-Band Signal		
5832	MGS	02-037/14:27:09		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-037/14:12:26
5833	MGS	02-037/14:27:09		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-037/14:12:26
5834	MGS	02-037/14:27:09		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-037/14:12:26
5835	MGS	02-037/14:27:09		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-037/14:12:26
5836	MGS	02-037/14:27:10		Turn off the MOT Exciter and RPA beam	STRPAF	02-037/14:12:27
5837	MGS	02-037/14:27:11		NOTE: End EVP script		02-037/14:12:27
5838	MGS	02-037/14:27:15		NOTE: End fixed Sub-Reflector for Radio Science		02-037/14:12:31
5839	MGS	02-037/14:28:25		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-037/14:13:42
5840	MGS	02-037/14:28:26		NOTE: Enter Solar Eclipse 13037		02-037/14:13:42
5841	MGS	02-037/14:52:25		NOTE: Begin fixed Sub-Reflector for Radio Science		02-037/14:37:41
5842	MGS	02-037/14:53:06		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-037/14:38:23
5843	MGS	02-037/14:53:06		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-037/14:38:23
5844	MGS	02-037/14:53:11		Set eclipse egress script address: 01DC	SWSEES	02-037/14:38:28
5845	MGS	02-037/14:56:09		: 01:28:47	RPAONX	02-037/14:41:26
5846	MGS	02-037/14:56:09		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-037/14:41:26
5847	MGS	02-037/14:57:24		: 00:00:30, 00:07:12, FALSE	RDSCIE	02-037/14:42:41
5848	MGS	02-037/14:57:24		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-037/14:42:41
5849	MGS	02-037/14:57:24		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-037/14:42:41
5850	MGS	02-037/14:57:24		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-037/14:42:41
5851	MGS	02-037/14:57:24		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-037/14:42:41
5852	MGS	02-037/14:57:56		NOTE: Exit Earth Occultation 13037		02-037/14:43:12
5853	MGS	02-037/14:57:56	65	Acquisition Of X-Band Signal		
5854	MGS	02-037/14:57:56	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
5855	MGS	02-037/14:57:56	65	NOTE: Carrier Only -- No Telemetry Modulation		
5856	MGS	02-037/15:02:28		NOTE: Exit Planetary Atmosphere 13037		02-037/14:47:44
5857	MGS	02-037/15:04:36		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-037/14:49:53
5858	MGS	02-037/15:04:36		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-037/14:49:53
5859	MGS	02-037/15:04:36		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-037/14:49:53
5860	MGS	02-037/15:04:36		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-037/14:49:53
5861	MGS	02-037/15:04:36		: REC_1B, F42KHZ, PART1, SE_1A, FALSE, 00:11:41	AEMPB	02-037/14:49:53
5862	MGS	02-037/15:04:36		Sends a one-word MOT command to the XSU command SOB: SSR_1B	STMOTC	02-037/14:49:53
5863	MGS	02-037/15:04:36		Sends a one-word SSR command to the XSU command SOB: SSR_1B, F42KHZ, PLYBCK, PART1	STSSRC	02-037/14:49:53
5864	MGS	02-037/15:04:36	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
5865	MGS	02-037/15:04:37		SSR 1B Data Enable	CSD1BE	02-037/14:49:54
5866	MGS	02-037/15:04:37		SSR Activity: ID=SSR_1B, FCN=Start Playback, PRT=1, BR=42666		02-037/14:49:54
5867	MGS	02-037/15:04:37	65	D/L Change: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
5868	MGS	02-037/15:04:42		NOTE: End fixed Sub-Reflector for Radio Science		02-037/14:49:58
5869	MGS	02-037/15:08:53		NOTE: Exit Solar Eclipse 13037		02-037/14:54:09
5870	MGS	02-037/15:22:58		NOTE: Periapsis 13038 ----------		02-037/15:08:14
5871	MGS	02-037/15:29:52		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-037/15:15:08
5872	MGS	02-037/15:29:52		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-037/15:15:08
5873	MGS	02-037/15:29:53		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-037/15:15:09
5874	MGS	02-037/15:29:53		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-037/15:15:09
5875	MGS	02-037/15:51:53		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-037/15:37:09
5876	MGS	02-037/15:51:53		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-037/15:37:09
5877	MGS	02-037/16:13:02		NOTE: Begin fixed Sub-Reflector for Radio Science		02-037/15:58:18
5878	MGS	02-037/16:13:16		SSR 1B Data Disable	CSD1BX	02-037/15:58:32
5879	MGS	02-037/16:13:16		SSR Activity: ID=SSR_1B, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-037/15:58:32
5880	MGS	02-037/16:13:16		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-037/15:58:32
5881	MGS	02-037/16:13:16	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
5882	MGS	02-037/16:16:10		NOTE: Start EVP data return script		02-037/16:01:26
5883	MGS	02-037/16:16:10		: SSR_1A, F42KHZ, PART2, 2002-037T16:47:37.000	AEMPBU	02-037/16:01:26
5884	MGS	02-037/16:18:02		: 00:06:54, FALSE	RDSCII	02-037/16:03:18
5885	MGS	02-037/16:18:02		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-037/16:03:18
5886	MGS	02-037/16:18:02		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-037/16:03:18
5887	MGS	02-037/16:18:02		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-037/16:03:18
5888	MGS	02-037/16:18:02		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-037/16:03:18
5889	MGS	02-037/16:18:02	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
5890	MGS	02-037/16:18:02	65	NOTE: Carrier Only -- No Telemetry Modulation		
5891	MGS	02-037/16:20:09		NOTE: Enter Planetary Atmosphere 13038		02-037/16:05:25
5892	MGS	02-037/16:21:46		NOTE: Apoapsis 13038 -		02-037/16:07:01
5893	MGS	02-037/16:24:23		NOTE: Enter Earth Occultation 13038		02-037/16:09:39
5894	MGS	02-037/16:24:23	65	NOTE: Loss Of X-Band Signal		
5895	MGS	02-037/16:24:56		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-037/16:10:12
5896	MGS	02-037/16:24:56		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-037/16:10:12
5897	MGS	02-037/16:24:56		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-037/16:10:12
5898	MGS	02-037/16:24:56		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-037/16:10:12
5899	MGS	02-037/16:24:57		Turn off the MOT Exciter and RPA beam	STRPAF	02-037/16:10:13
5900	MGS	02-037/16:24:57		NOTE: End EVP script		02-037/16:10:13
5901	MGS	02-037/16:25:01		NOTE: End fixed Sub-Reflector for Radio Science		02-037/16:10:17
5902	MGS	02-037/16:26:10		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-037/16:11:26
5903	MGS	02-037/16:26:10		NOTE: Enter Solar Eclipse 13038		02-037/16:11:26
5904	MGS	02-037/16:50:09		NOTE: Begin fixed Sub-Reflector for Radio Science		02-037/16:35:25
5905	MGS	02-037/16:50:53		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-037/16:36:09
5906	MGS	02-037/16:50:53		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-037/16:36:09
5907	MGS	02-037/16:50:57		Command the PSE with included data word: 3990	SWPSEL	02-037/16:36:13
5908	MGS	02-037/16:50:58		Set eclipse egress script address: 0158	SWSEES	02-037/16:36:14
5909	MGS	02-037/16:53:54		: 01:28:47	RPAONX	02-037/16:39:10
5910	MGS	02-037/16:53:54		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-037/16:39:10
5911	MGS	02-037/16:54:43		NOTE: Start Block (SSRMGR)		02-037/16:39:59
5912	MGS	02-037/16:54:43		Sends a one-word SSR command to the XSU command SOB: SSR_2B, SE_1A, RECORD, PART2	STSSRC	02-037/16:39:59
5913	MGS	02-037/16:54:44		SSR 2B Data Enable	CSD2BE	02-037/16:40:00
5914	MGS	02-037/16:54:44		SSR Activity: ID=SSR_2B, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-037/16:40:00
5915	MGS	02-037/16:55:09		: 00:00:30, 00:07:12, FALSE	RDSCIE	02-037/16:40:25
5916	MGS	02-037/16:55:09		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-037/16:40:25
5917	MGS	02-037/16:55:09		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-037/16:40:25
5918	MGS	02-037/16:55:09		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-037/16:40:25
5919	MGS	02-037/16:55:09		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-037/16:40:25
5920	MGS	02-037/16:55:41		NOTE: Exit Earth Occultation 13038		02-037/16:40:57
5921	MGS	02-037/16:55:41	65	Acquisition Of X-Band Signal		
5922	MGS	02-037/16:55:41	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
5923	MGS	02-037/16:55:41	65	NOTE: Carrier Only -- No Telemetry Modulation		
5924	MGS	02-037/17:00:13		NOTE: Exit Planetary Atmosphere 13038		02-037/16:45:29
5925	MGS	02-037/17:02:21		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-037/16:47:37
5926	MGS	02-037/17:02:21		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-037/16:47:37
5927	MGS	02-037/17:02:21		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-037/16:47:37
5928	MGS	02-037/17:02:21		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-037/16:47:37
5929	MGS	02-037/17:02:21		: REC_1A, F42KHZ, PART2, SE_1A, FALSE, 00:11:41	AEMPB	02-037/16:47:37
5930	MGS	02-037/17:02:21		Sends a one-word MOT command to the XSU command SOB: SSR_1A	STMOTC	02-037/16:47:37
5931	MGS	02-037/17:02:21		Sends a one-word SSR command to the XSU command SOB: SSR_1A, F42KHZ, PLYBCK, PART2	STSSRC	02-037/16:47:37
5932	MGS	02-037/17:02:21	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
5933	MGS	02-037/17:02:22		SSR 1A Data Enable	CSD1AE	02-037/16:47:38
5934	MGS	02-037/17:02:22		SSR Activity: ID=SSR_1A, FCN=Start Playback, PRT=2, BR=42666		02-037/16:47:38
5935	MGS	02-037/17:02:22	65	D/L Change: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
5936	MGS	02-037/17:02:26		NOTE: End fixed Sub-Reflector for Radio Science		02-037/16:47:42
5937	MGS	02-037/17:06:37		NOTE: Exit Solar Eclipse 13038		02-037/16:51:53
5938	MGS	02-037/17:20:43		NOTE: Periapsis 13039 ----------		02-037/17:05:59
5939	MGS	02-037/17:21:24		SSR 2A Data Disable	CSD2AX	02-037/17:06:40
5940	MGS	02-037/17:21:24		SSR Activity: ID=SSR_2A, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-037/17:06:40
5941	MGS	02-037/17:21:25		NOTE: End Block (SSRMGR)		02-037/17:06:41
5942	MGS	02-037/17:31:36		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-037/17:16:52
5943	MGS	02-037/17:31:36		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-037/17:16:52
5944	MGS	02-037/17:31:37		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-037/17:16:53
5945	MGS	02-037/17:31:37		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-037/17:16:53
5946	MGS	02-037/17:53:37		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-037/17:38:53
5947	MGS	02-037/17:53:37		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-037/17:38:53
5948	MGS	02-037/18:10:46		NOTE: Begin fixed Sub-Reflector for Radio Science		02-037/17:56:02
5949	MGS	02-037/18:11:00		SSR 1A Data Disable	CSD1AX	02-037/17:56:16
5950	MGS	02-037/18:11:00		SSR Activity: ID=SSR_1A, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-037/17:56:16
5951	MGS	02-037/18:11:00		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-037/17:56:16
5952	MGS	02-037/18:11:00	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
5953	MGS	02-037/18:13:52		NOTE: Start EVP data return script		02-037/17:59:08
5954	MGS	02-037/18:13:52		: SSR_1B, F42KHZ, PART2, 2002-037T18:45:19.000	AEMPBU	02-037/17:59:08
5955	MGS	02-037/18:15:46		: 00:06:54, FALSE	RDSCII	02-037/18:01:02
5956	MGS	02-037/18:15:46		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-037/18:01:02
5957	MGS	02-037/18:15:46		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-037/18:01:02
5958	MGS	02-037/18:15:46		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-037/18:01:02
5959	MGS	02-037/18:15:46		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-037/18:01:02
5960	MGS	02-037/18:15:46	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
5961	MGS	02-037/18:15:46	65	NOTE: Carrier Only -- No Telemetry Modulation		
5962	MGS	02-037/18:17:51		NOTE: Enter Planetary Atmosphere 13039		02-037/18:03:07
5963	MGS	02-037/18:19:41		NOTE: Apoapsis 13039 -		02-037/18:04:56
5964	MGS	02-037/18:22:06		NOTE: Enter Earth Occultation 13039		02-037/18:07:22
5965	MGS	02-037/18:22:06	65	NOTE: Loss Of X-Band Signal		
5966	MGS	02-037/18:22:40		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-037/18:07:56
5967	MGS	02-037/18:22:40		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-037/18:07:56
5968	MGS	02-037/18:22:40		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-037/18:07:56
5969	MGS	02-037/18:22:40		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-037/18:07:56
5970	MGS	02-037/18:22:41		Turn off the MOT Exciter and RPA beam	STRPAF	02-037/18:07:57
5971	MGS	02-037/18:22:41		NOTE: End EVP script		02-037/18:07:57
5972	MGS	02-037/18:22:45		NOTE: End fixed Sub-Reflector for Radio Science		02-037/18:08:01
5973	MGS	02-037/18:23:52		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-037/18:09:08
5974	MGS	02-037/18:23:53		NOTE: Enter Solar Eclipse 13039		02-037/18:09:08
5975	MGS	02-037/18:27:41	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
5976	MGS	02-037/18:29:41	65	Range Modulation On: SUP=3.0dB		
5977	MGS	02-037/18:30:41	65	Begin Ranging Acquisition		
5978	MGS	02-037/18:47:51		NOTE: Begin fixed Sub-Reflector for Radio Science		02-037/18:33:07
5979	MGS	02-037/18:48:37		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-037/18:33:53
5980	MGS	02-037/18:48:37		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-037/18:33:53
5981	MGS	02-037/18:48:42		Set eclipse egress script address: 019A	SWSEES	02-037/18:33:58
5982	MGS	02-037/18:51:36		: 01:28:47	RPAONX	02-037/18:36:52
5983	MGS	02-037/18:51:36		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-037/18:36:52
5984	MGS	02-037/18:52:51		: 00:00:30, 00:07:12, FALSE	RDSCIE	02-037/18:38:07
5985	MGS	02-037/18:52:51		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-037/18:38:07
5986	MGS	02-037/18:52:51		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-037/18:38:07
5987	MGS	02-037/18:52:51		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-037/18:38:07
5988	MGS	02-037/18:52:51		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-037/18:38:07
5989	MGS	02-037/18:53:21		Disables autonomous command to send eclipse ingress script	SWEISX	02-037/18:38:37

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
5990	MGS	02-037/18:53:25		NOTE: Exit Earth Occultation 13039		02-037/18:38:40
5991	MGS	02-037/18:53:25	65	Acquisition Of X-Band Signal		
5992	MGS	02-037/18:53:25	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
5993	MGS	02-037/18:53:25	65	NOTE: Carrier Only -- No Telemetry Modulation		
5994	MGS	02-037/18:57:57		NOTE: Exit Planetary Atmosphere 13039		02-037/18:43:12
5995	MGS	02-037/19:00:03		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-037/18:45:19
5996	MGS	02-037/19:00:03		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-037/18:45:19
5997	MGS	02-037/19:00:03		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-037/18:45:19
5998	MGS	02-037/19:00:03		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-037/18:45:19
5999	MGS	02-037/19:00:03		: REC_1B, F42KHZ, PART2, SE_1A, FALSE, 00:11:41	AEMPB	02-037/18:45:19
6000	MGS	02-037/19:00:03		Sends a one-word MOT command to the XSU command SOB: SSR_1B	STMOTC	02-037/18:45:19
6001	MGS	02-037/19:00:03		Sends a one-word SSR command to the XSU command SOB: SSR_1B, F42KHZ, PLYBCK, PART2	STSSRC	02-037/18:45:19
6002	MGS	02-037/19:00:03	65	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
6003	MGS	02-037/19:00:04		SSR 1B Data Enable	CSD1BE	02-037/18:45:20
6004	MGS	02-037/19:00:04		SSR Activity: ID=SSR_1B, FCN=Start Playback, PRT=2, BR=42666		02-037/18:45:20
6005	MGS	02-037/19:00:04	65	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
6006	MGS	02-037/19:00:08		NOTE: End fixed Sub-Reflector for Radio Science		02-037/18:45:24
6007	MGS	02-037/19:04:20		NOTE: Exit Solar Eclipse 13039		02-037/18:49:35
6008	MGS	02-037/19:18:21		NOTE: Periapsis 13040 ----------		02-037/19:03:36
6009	MGS	02-037/19:25:19		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-037/19:10:35
6010	MGS	02-037/19:25:19		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-037/19:10:35
6011	MGS	02-037/19:25:20		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-037/19:10:36
6012	MGS	02-037/19:25:20		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-037/19:10:36
6013	MGS	02-037/19:31:34	65	NOTE: Transmitter Off in 15 minutes		
6014	MGS	02-037/19:44:35	65	Range Modulation Off		
6015	MGS	02-037/19:46:34	65	Transmitter Off		
6016	MGS	02-037/19:47:20		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-037/19:32:36
6017	MGS	02-037/19:47:20		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-037/19:32:36
6018	MGS	02-037/20:08:29		NOTE: Begin fixed Sub-Reflector for Radio Science		02-037/19:53:44
6019	MGS	02-037/20:08:42		SSR 1B Data Disable	CSD1BX	02-037/19:53:58
6020	MGS	02-037/20:08:42		SSR Activity: ID=SSR_1B, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-037/19:53:58
6021	MGS	02-037/20:08:42		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-037/19:53:58
6022	MGS	02-037/20:08:42	65	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
6023	MGS	02-037/20:11:33		NOTE: Start Block (MAP_RT)		02-037/19:56:49
6024	MGS	02-037/20:11:34		: 00:27:44, 01:28:46, FALSE, TRUE, FALSE, 00:01:15, 00:07:12, 01:13:24, 00:06:54	AEMINI	02-037/19:56:50
6025	MGS	02-037/20:11:34		Enable sending eclipse ingress script when array power disappears	SWEISE	02-037/19:56:50
6026	MGS	02-037/20:11:34		NOTE: Start EVP data return script		02-037/19:56:50
6027	MGS	02-037/20:11:35		: SE_1A, MRC, 01:13:23, MRC, 2002-037T20:43:02.000	AEMRTI	02-037/19:56:51
6028	MGS	02-037/20:13:28		: 00:06:54, FALSE	RDSCII	02-037/19:58:44
6029	MGS	02-037/20:13:28		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-037/19:58:44
6030	MGS	02-037/20:13:28		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-037/19:58:44
6031	MGS	02-037/20:13:28		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-037/19:58:44
6032	MGS	02-037/20:13:28		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-037/19:58:44
6033	MGS	02-037/20:13:28	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
6034	MGS	02-037/20:13:28	65	NOTE: Carrier Only -- No Telemetry Modulation		
6035	MGS	02-037/20:15:34		NOTE: Enter Planetary Atmosphere 13040		02-037/20:00:49
6036	MGS	02-037/20:17:15		NOTE: Apoapsis 13040 -		02-037/20:02:31
6037	MGS	02-037/20:19:49		NOTE: Enter Earth Occultation 13040		02-037/20:05:04
6038	MGS	02-037/20:19:49	65	NOTE: Loss Of X-Band Signal		
6039	MGS	02-037/20:20:22		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-037/20:05:38
6040	MGS	02-037/20:20:22		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-037/20:05:38
6041	MGS	02-037/20:20:22		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-037/20:05:38
6042	MGS	02-037/20:20:22		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-037/20:05:38
6043	MGS	02-037/20:20:23		Turn off the MOT Exciter and RPA beam	STRPAF	02-037/20:05:39

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
6044	MGS	02-037/20:20:24		NOTE: End EVP script		02-037/20:05:39
6045	MGS	02-037/20:20:25		NOTE: End Block (MAP_PB)		02-037/20:05:40
6046	MGS	02-037/20:20:28		NOTE: End fixed Sub-Reflector for Radio Science		02-037/20:05:43
6047	MGS	02-037/20:21:34		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-037/20:06:50
6048	MGS	02-037/20:21:35		NOTE: Enter Solar Eclipse 13040		02-037/20:06:50
6049	MGS	02-037/20:25:00	15	Begin Pre-Cal		
6050	MGS	02-037/20:25:00	15	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
6051	MGS	02-037/20:25:00	15	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
6052	MGS	02-037/20:25:00	15	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
6053	MGS	02-037/20:25:00	15	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
6054	MGS	02-037/20:25:00	15	At BOT: S/C Tlm Mode: BR=8000.0, FL=10000, SC=HIGH, MI=80.0		
6055	MGS	02-037/20:25:00	15	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
6056	MGS	02-037/20:25:00	15	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
6057	MGS	02-037/20:25:00	15	Config: TGC: DEST=37		
6058	MGS	02-037/20:25:00	15	Config: TGC: BAND=X, BR=8000.000000		
6059	MGS	02-037/20:25:00	15	Config: FSS: CH=2, PRI_FL=10000		
6060	MGS	02-037/20:25:00	15	Config: RSR		
6061	MGS	02-037/20:25:00	15	Config: TXL		
6062	MGS	02-037/20:25:00	15	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
6063	MGS	02-037/20:25:00	15	Config: BVR		
6064	MGS	02-037/20:25:00	15	Config: Doppler Extractor: BIAS=+1MHZ		
6065	MGS	02-037/20:25:00	15	Config: MDA: SMPL=0.1		
6066	MGS	02-037/20:25:00	15	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
6067	MGS	02-037/20:25:00	15	Config: SRA: HIGH=4, LOW=14, SERV=D		
6068	MGS	02-037/20:25:00	15	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
6069	MGS	02-037/20:25:22	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
6070	MGS	02-037/20:27:23	65	Range Modulation On: SUP=3.0dB		
6071	MGS	02-037/20:28:23	65	Begin Ranging Acquisition		
6072	MGS	02-037/20:45:34		NOTE: Begin fixed Sub-Reflector for Radio Science		02-037/20:30:49
6073	MGS	02-037/20:46:20		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-037/20:31:36
6074	MGS	02-037/20:46:20		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-037/20:31:36
6075	MGS	02-037/20:46:25		Set eclipse egress script address: 01DC	SWSEES	02-037/20:31:41
6076	MGS	02-037/20:49:18		: 01:28:46	RPAONX	02-037/20:34:34
6077	MGS	02-037/20:49:18		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-037/20:34:34
6078	MGS	02-037/20:50:33		: 00:00:30, 00:07:12, FALSE	RDSCIE	02-037/20:35:49
6079	MGS	02-037/20:50:33		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-037/20:35:49
6080	MGS	02-037/20:50:33		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-037/20:35:49
6081	MGS	02-037/20:50:33		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-037/20:35:49
6082	MGS	02-037/20:50:33		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-037/20:35:49
6083	MGS	02-037/20:51:03		Disables autonomous command to send eclipse ingress script	SWEISX	02-037/20:36:19
6084	MGS	02-037/20:51:07		NOTE: Exit Earth Occultation 13040		02-037/20:36:22
6085	MGS	02-037/20:51:07	65	Acquisition Of X-Band Signal		
6086	MGS	02-037/20:51:07	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
6087	MGS	02-037/20:51:07	65	NOTE: Carrier Only -- No Telemetry Modulation		
6088	MGS	02-037/20:55:00	65	NOTE: Transmitter Off in 15 minutes		
6089	MGS	02-037/20:55:39		NOTE: Exit Planetary Atmosphere 13040		02-037/20:40:54
6090	MGS	02-037/20:57:45		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-037/20:43:01
6091	MGS	02-037/20:57:45		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-037/20:43:01
6092	MGS	02-037/20:57:45		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-037/20:43:01
6093	MGS	02-037/20:57:45		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-037/20:43:01
6094	MGS	02-037/20:57:45	65	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
6095	MGS	02-037/20:57:46		: MRC, MRC, 01:13:23, S&E_1A, FALSE, 00:06:55	AEMRT	02-037/20:43:02
6096	MGS	02-037/20:57:46		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-037/20:43:02
6097	MGS	02-037/20:57:46		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-037/20:43:02

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
6098	MGS	02-037/20:57:51		NOTE: End fixed Sub-Reflector for Radio Science		02-037/20:43:06
6099	MGS	02-037/21:02:01		NOTE: Exit Solar Eclipse 13040		02-037/20:47:16
6100	MGS	02-037/21:08:00	65	Range Modulation Off		
6101	MGS	02-037/21:10:00	65	Transmitter Off		
6102	MGS	02-037/21:15:42		NOTE: Periapsis 13041 ----------		02-037/21:00:57
6103	MGS	02-037/21:23:00		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-037/21:08:16
6104	MGS	02-037/21:23:00		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-037/21:08:16
6105	MGS	02-037/21:23:01		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-037/21:08:17
6106	MGS	02-037/21:23:01		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-037/21:08:17
6107	MGS	02-037/21:24:50	65	NOTE: Below Uplink Interlock Limit		
6108	MGS	02-037/21:25:00	65	End Tracking		
6109	MGS	02-037/21:25:00	15	Begin Tracking		
6110	MGS	02-037/21:25:00	15	Acquire D/L: X/16, 3-Way/65, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
6111	MGS	02-037/21:39:29	15	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
6112	MGS	02-037/21:40:00	65	End Post-Cal		
6113	MGS	02-037/21:45:01		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-037/21:30:17
6114	MGS	02-037/21:45:01		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-037/21:30:17
6115	MGS	02-037/22:06:10		NOTE: Begin fixed Sub-Reflector for Radio Science		02-037/21:51:25
6116	MGS	02-037/22:09:18		NOTE: Start Block (MAP_RT)		02-037/21:54:33
6117	MGS	02-037/22:09:19		: 00:27:44, 01:28:46, FALSE, TRUE, FALSE, 00:01:15, 00:07:12, 01:13:24, 00:06:54	AEMINI	02-037/21:54:34
6118	MGS	02-037/22:09:19		Enable sending eclipse ingress script when array power disappears	SWEISE	02-037/21:54:34
6119	MGS	02-037/22:09:19		NOTE: Start EVP data return script		02-037/21:54:34
6120	MGS	02-037/22:09:20		: SE_2A, RTM, 01:13:23, MRC, 2002-037T22:40:46.000	AEMRTI	02-037/21:54:35
6121	MGS	02-037/22:11:10		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-037/21:56:25
6122	MGS	02-037/22:11:10		: 00:06:54, FALSE	RDSCII	02-037/21:56:25
6123	MGS	02-037/22:11:10		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-037/21:56:25
6124	MGS	02-037/22:11:10		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-037/21:56:25
6125	MGS	02-037/22:11:10		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-037/21:56:25
6126	MGS	02-037/22:11:10		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-037/21:56:25
6127	MGS	02-037/22:11:10	15	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
6128	MGS	02-037/22:11:10	15	NOTE: Carrier Only -- No Telemetry Modulation		
6129	MGS	02-037/22:13:17		NOTE: Enter Planetary Atmosphere 13041		02-037/21:58:32
6130	MGS	02-037/22:14:41		NOTE: Apoapsis 13041 -		02-037/21:59:56
6131	MGS	02-037/22:17:31		NOTE: Enter Earth Occultation 13041		02-037/22:02:46
6132	MGS	02-037/22:17:31	15	NOTE: Loss Of X-Band Signal		
6133	MGS	02-037/22:18:04		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-037/22:03:19
6134	MGS	02-037/22:18:04		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-037/22:03:19
6135	MGS	02-037/22:18:04		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-037/22:03:19
6136	MGS	02-037/22:18:04		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-037/22:03:19
6137	MGS	02-037/22:18:05		Turn off the MOT Exciter and RPA beam	STRPAF	02-037/22:03:20
6138	MGS	02-037/22:18:05		NOTE: End EVP script		02-037/22:03:20
6139	MGS	02-037/22:18:06		NOTE: End Block (MAP_RT)		02-037/22:03:21
6140	MGS	02-037/22:18:09		NOTE: End fixed Sub-Reflector for Radio Science		02-037/22:03:24
6141	MGS	02-037/22:19:18		NOTE: Enter Solar Eclipse 13041		02-037/22:04:33
6142	MGS	02-037/22:19:19		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-037/22:04:34
6143	MGS	02-037/22:23:05	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
6144	MGS	02-037/22:25:05	15	Range Modulation On: SUP=3.0dB		
6145	MGS	02-037/22:26:05	15	Begin Ranging Acquisition		
6146	MGS	02-037/22:28:04		NOTE: Start Block (SSRMGR)		02-037/22:13:19
6147	MGS	02-037/22:28:04		Sends a one-word SSR command to the XSU command SOB: SSR_2A, SE_1A, RECORD, PART3	STSSRC	02-037/22:13:19
6148	MGS	02-037/22:28:05		SSR 2A Data Enable	CSD2AE	02-037/22:13:20
6149	MGS	02-037/22:28:05		SSR Activity: ID=SSR_2A, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-037/22:13:20
6150	MGS	02-037/22:43:17		NOTE: Begin fixed Sub-Reflector for Radio Science		02-037/22:28:32
6151	MGS	02-037/22:44:02		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-037/22:29:17

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
6152	MGS	02-037/22:44:02		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-037/22:29:17
6153	MGS	02-037/22:44:06		Command the PSE with included data word: 3990	SWPSEL	02-037/22:29:21
6154	MGS	02-037/22:44:07		Set eclipse egress script address: 0158	SWSEES	02-037/22:29:22
6155	MGS	02-037/22:47:03		: 01:28:46	RPAONX	02-037/22:32:18
6156	MGS	02-037/22:47:03		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-037/22:32:18
6157	MGS	02-037/22:48:18		: 00:00:30, 00:07:12, FALSE	RDSCIE	02-037/22:33:33
6158	MGS	02-037/22:48:18		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-037/22:33:33
6159	MGS	02-037/22:48:18		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-037/22:33:33
6160	MGS	02-037/22:48:18		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-037/22:33:33
6161	MGS	02-037/22:48:18		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-037/22:33:33
6162	MGS	02-037/22:48:48		Disables autonomous command to send eclipse ingress script	SWEISX	02-037/22:34:03
6163	MGS	02-037/22:48:50		NOTE: Exit Earth Occultation 13041		02-037/22:34:05
6164	MGS	02-037/22:48:50	15	Acquisition Of X-Band Signal		
6165	MGS	02-037/22:48:50	15	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
6166	MGS	02-037/22:48:50	15	NOTE: Carrier Only -- No Telemetry Modulation		
6167	MGS	02-037/22:53:21		NOTE: Exit Planetary Atmosphere 13041		02-037/22:38:36
6168	MGS	02-037/22:54:45		SSR 2B Data Disable	CSD2BX	02-037/22:40:00
6169	MGS	02-037/22:54:45		SSR Activity: ID=SSR_2B, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-037/22:40:00
6170	MGS	02-037/22:54:46		NOTE: End Block (SSRMGR)		02-037/22:40:01
6171	MGS	02-037/22:55:30		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-037/22:40:45
6172	MGS	02-037/22:55:30		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-037/22:40:45
6173	MGS	02-037/22:55:30		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-037/22:40:45
6174	MGS	02-037/22:55:30		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-037/22:40:45
6175	MGS	02-037/22:55:30	15	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
6176	MGS	02-037/22:55:31		: RTM, MRC, 01:13:23, S&E_2A, FALSE, 00:06:55	AEMRT	02-037/22:40:46
6177	MGS	02-037/22:55:31		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-037/22:40:46
6178	MGS	02-037/22:55:31		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-037/22:40:46
6179	MGS	02-037/22:55:31		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=3, BITS=13168000, DUR=00:27:26		02-037/22:40:46
6180	MGS	02-037/22:55:31		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-037/22:40:46
6181	MGS	02-037/22:55:31	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
6182	MGS	02-037/22:55:34		NOTE: End fixed Sub-Reflector for Radio Science		02-037/22:40:49
6183	MGS	02-037/22:59:45		NOTE: Exit Solar Eclipse 13041		02-037/22:44:59
6184	MGS	02-037/23:08:04		NOTE: Start Block (SSRMGR)		02-037/22:53:19
6185	MGS	02-037/23:08:04		Sends a one-word SSR command to the XSU command SOB: SSR_2B, SE_1A, RECORD, PART3	STSSRC	02-037/22:53:19
6186	MGS	02-037/23:08:05		SSR 2B Data Enable	CSD2BE	02-037/22:53:20
6187	MGS	02-037/23:08:05		SSR Activity: ID=SSR_2B, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-037/22:53:20
6188	MGS	02-037/23:13:31		NOTE: Periapsis 13042 ----------		02-037/22:58:46
6189	MGS	02-037/23:24:44		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-037/23:09:59
6190	MGS	02-037/23:24:44		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-037/23:09:59
6191	MGS	02-037/23:24:45		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-037/23:10:00
6192	MGS	02-037/23:24:45		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-037/23:10:00
6193	MGS	02-037/23:27:00	15	NOTE: Transmitter Off in 15 minutes		
6194	MGS	02-037/23:34:45		SSR 2A Data Disable	CSD2AX	02-037/23:20:00
6195	MGS	02-037/23:34:45		SSR Activity: ID=SSR_2A, FCN=End Recording, PRT=3, BITS=32000000, DUR=01:06:40		02-037/23:20:00
6196	MGS	02-037/23:34:46		NOTE: End Block (SSRMGR)		02-037/23:20:01
6197	MGS	02-037/23:40:00	15	Range Modulation Off		
6198	MGS	02-037/23:42:00	15	Transmitter Off		
6199	MGS	02-037/23:46:45		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-037/23:32:00
6200	MGS	02-037/23:46:45		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-037/23:32:00
6201	MGS	02-038/00:00:00		Light Time: OWLT = 14:45, RTLT = 29:30		
6202	MGS	02-038/00:03:53		NOTE: Begin fixed Sub-Reflector for Radio Science		02-037/23:49:08
6203	MGS	02-038/00:07:03		NOTE: Start Block (MAP_RT)		02-037/23:52:18
6204	MGS	02-038/00:07:04		: 00:27:46, 01:28:41, FALSE, TRUE, FALSE, 00:01:15, 00:07:10, 01:13:21, 00:06:54	AEMINI	02-037/23:52:19
6205	MGS	02-038/00:07:04		Enable sending eclipse ingress script when array power disappears	SWEISE	02-037/23:52:19

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
6206	MGS	02-038/00:07:04		NOTE: Start EVP data return script		02-037/23:52:19
6207	MGS	02-038/00:07:05		: SE_2A, RTM, 01:13:20, MRC, 2002-038T00:38:31.000	AEMRTI	02-037/23:52:20
6208	MGS	02-038/00:08:54		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-037/23:54:09
6209	MGS	02-038/00:08:54		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=3, BITS=29192000, DUR=01:00:49		02-037/23:54:09
6210	MGS	02-038/00:08:54		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-037/23:54:09
6211	MGS	02-038/00:08:54		: 00:06:54, FALSE	RDSCII	02-037/23:54:09
6212	MGS	02-038/00:08:54		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-037/23:54:09
6213	MGS	02-038/00:08:54		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-037/23:54:09
6214	MGS	02-038/00:08:54		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-037/23:54:09
6215	MGS	02-038/00:08:54		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-037/23:54:09
6216	MGS	02-038/00:08:54	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
6217	MGS	02-038/00:08:54	15	NOTE: Carrier Only -- No Telemetry Modulation		
6218	MGS	02-038/00:11:01		NOTE: Enter Planetary Atmosphere 13042		02-037/23:56:16
6219	MGS	02-038/00:12:41		NOTE: Apoapsis 13042 -		02-037/23:57:56
6220	MGS	02-038/00:14:44		NOTE: Start Block (SSRMGR)		02-037/23:59:59
6221	MGS	02-038/00:14:44		Sends a one-word SSR command to the XSU command SOB: SSR_1A, SE_1A, RECORD, PART1	STSSRC	02-037/23:59:59
6222	MGS	02-038/00:14:45		SSR 1A Data Enable	CSD1AE	02-038/00:00:00
6223	MGS	02-038/00:14:45		SSR Activity: ID=SSR_1A, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-038/00:00:00
6224	MGS	02-038/00:15:15		NOTE: Enter Earth Occultation 13042		02-038/00:00:30
6225	MGS	02-038/00:15:15	15	NOTE: Loss Of X-Band Signal		
6226	MGS	02-038/00:15:48		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-038/00:01:03
6227	MGS	02-038/00:15:48		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-038/00:01:03
6228	MGS	02-038/00:15:48		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-038/00:01:03
6229	MGS	02-038/00:15:48		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-038/00:01:03
6230	MGS	02-038/00:15:48		NOTE: End EVP script		02-038/00:01:03
6231	MGS	02-038/00:15:49		Turn off the MOT Exciter and RPA beam	STRPAF	02-038/00:01:04
6232	MGS	02-038/00:15:49		NOTE: End Block (MAP_RT)		02-038/00:01:04
6233	MGS	02-038/00:15:52		NOTE: End fixed Sub-Reflector for Radio Science		02-038/00:01:07
6234	MGS	02-038/00:17:04		NOTE: Enter Solar Eclipse 13042		02-038/00:02:18
6235	MGS	02-038/00:17:04		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-038/00:02:19
6236	MGS	02-038/00:20:50	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
6237	MGS	02-038/00:22:50	15	Range Modulation On: SUP=3.0dB		
6238	MGS	02-038/00:23:50	15	Begin Ranging Acquisition		
6239	MGS	02-038/00:41:05		NOTE: Begin fixed Sub-Reflector for Radio Science		02-038/00:26:19
6240	MGS	02-038/00:41:25		SSR 2B Data Disable	CSD2BX	02-038/00:26:40
6241	MGS	02-038/00:41:25		SSR Activity: ID=SSR_2B, FCN=End Recording, PRT=3, BITS=44800000, DUR=01:33:20		02-038/00:26:40
6242	MGS	02-038/00:41:26		NOTE: End Block (SSRMGR)		02-038/00:26:41
6243	MGS	02-038/00:41:45		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-038/00:27:00
6244	MGS	02-038/00:41:45		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-038/00:27:00
6245	MGS	02-038/00:41:50		Set eclipse egress script address: 019A	SWSEES	02-038/00:27:05
6246	MGS	02-038/00:44:50		: 01:28:41	RPAONX	02-038/00:30:05
6247	MGS	02-038/00:44:50		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-038/00:30:05
6248	MGS	02-038/00:46:05		: 00:00:30, 00:07:10, FALSE	RDSCIE	02-038/00:31:20
6249	MGS	02-038/00:46:05		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-038/00:31:20
6250	MGS	02-038/00:46:05		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-038/00:31:20
6251	MGS	02-038/00:46:05		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-038/00:31:20
6252	MGS	02-038/00:46:05		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-038/00:31:20
6253	MGS	02-038/00:46:35		NOTE: Exit Earth Occultation 13042		02-038/00:31:50
6254	MGS	02-038/00:46:35	15	Acquisition Of X-Band Signal		
6255	MGS	02-038/00:46:35	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
6256	MGS	02-038/00:46:35	15	NOTE: Carrier Only -- No Telemetry Modulation		
6257	MGS	02-038/00:51:06		NOTE: Exit Planetary Atmosphere 13042		02-038/00:36:20
6258	MGS	02-038/00:53:15		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-038/00:38:30
6259	MGS	02-038/00:53:15		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-038/00:38:30

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
6260	MGS	02-038/00:53:15		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-038/00:38:30
6261	MGS	02-038/00:53:15		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-038/00:38:30
6262	MGS	02-038/00:53:15	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
6263	MGS	02-038/00:53:16		: RTM, MRC, 01:13:20, S&E_2A, FALSE, 00:06:55	AEMRT	02-038/00:38:31
6264	MGS	02-038/00:53:16		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-038/00:38:31
6265	MGS	02-038/00:53:16		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-038/00:38:31
6266	MGS	02-038/00:53:16		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=18488000, DUR=00:38:31		02-038/00:38:31
6267	MGS	02-038/00:53:16		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-038/00:38:31
6268	MGS	02-038/00:53:16	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
6269	MGS	02-038/00:53:20		NOTE: End fixed Sub-Reflector for Radio Science		02-038/00:38:34
6270	MGS	02-038/00:57:30		NOTE: Exit Solar Eclipse 13042		02-038/00:42:45
6271	MGS	02-038/01:11:44		NOTE: Periapsis 13043 ----------		02-038/00:56:58
6272	MGS	02-038/01:18:29		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-038/01:03:44
6273	MGS	02-038/01:18:29		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-038/01:03:44
6274	MGS	02-038/01:18:30		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-038/01:03:45
6275	MGS	02-038/01:18:30		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-038/01:03:45
6276	MGS	02-038/01:24:46	15	NOTE: Transmitter Off in 15 minutes		
6277	MGS	02-038/01:37:46	15	Range Modulation Off		
6278	MGS	02-038/01:39:46	15	Transmitter Off		
6279	MGS	02-038/01:40:30		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-038/01:25:45
6280	MGS	02-038/01:40:30		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-038/01:25:45
6281	MGS	02-038/02:01:36		NOTE: Begin fixed Sub-Reflector for Radio Science		02-038/01:46:50
6282	MGS	02-038/02:04:50		NOTE: Start EVP data return script		02-038/01:50:05
6283	MGS	02-038/02:06:36		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-038/01:51:51
6284	MGS	02-038/02:06:36		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=53688000, DUR=01:13:20		02-038/01:51:51
6285	MGS	02-038/02:06:36		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-038/01:51:51
6286	MGS	02-038/02:06:36		: 00:06:54, FALSE	RDSCII	02-038/01:51:51
6287	MGS	02-038/02:06:36		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-038/01:51:51
6288	MGS	02-038/02:06:36		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-038/01:51:51
6289	MGS	02-038/02:06:36		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-038/01:51:51
6290	MGS	02-038/02:06:36		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-038/01:51:51
6291	MGS	02-038/02:06:36	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
6292	MGS	02-038/02:06:36	15	NOTE: Carrier Only -- No Telemetry Modulation		
6293	MGS	02-038/02:08:48		NOTE: Enter Planetary Atmosphere 13043		02-038/01:54:02
6294	MGS	02-038/02:11:02		NOTE: Apoapsis 13043 -		02-038/01:56:16
6295	MGS	02-038/02:13:02		NOTE: Enter Earth Occultation 13043		02-038/01:58:16
6296	MGS	02-038/02:13:02	15	NOTE: Loss Of X-Band Signal		
6297	MGS	02-038/02:13:30		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-038/01:58:45
6298	MGS	02-038/02:13:30		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-038/01:58:45
6299	MGS	02-038/02:13:30		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-038/01:58:45
6300	MGS	02-038/02:13:30		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-038/01:58:45
6301	MGS	02-038/02:13:31		NOTE: End EVP script		02-038/01:58:45
6302	MGS	02-038/02:13:31		Turn off the MOT Exciter and RPA beam	STRPAF	02-038/01:58:46
6303	MGS	02-038/02:13:35		NOTE: End fixed Sub-Reflector for Radio Science		02-038/01:58:49
6304	MGS	02-038/02:14:50		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-038/02:00:05
6305	MGS	02-038/02:14:50		NOTE: Enter Solar Eclipse 13043		02-038/02:00:05
6306	MGS	02-038/02:18:37	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
6307	MGS	02-038/02:20:37	15	Range Modulation On: SUP=3.0dB		
6308	MGS	02-038/02:21:37	15	Begin Ranging Acquisition		
6309	MGS	02-038/02:38:51		NOTE: Begin fixed Sub-Reflector for Radio Science		02-038/02:24:05
6310	MGS	02-038/02:39:30		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-038/02:24:45
6311	MGS	02-038/02:39:30		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-038/02:24:45
6312	MGS	02-038/02:39:35		Set eclipse egress script address: 01DC	SWSEES	02-038/02:24:50
6313	MGS	02-038/02:42:36		: 01:28:41	RPAONX	02-038/02:27:51

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
6314	MGS	02-038/02:42:36		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-038/02:27:51
6315	MGS	02-038/02:43:51		: 00:00:30, 00:07:10, FALSE	RDSCIE	02-038/02:29:06
6316	MGS	02-038/02:43:51		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-038/02:29:06
6317	MGS	02-038/02:43:51		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-038/02:29:06
6318	MGS	02-038/02:43:51		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-038/02:29:06
6319	MGS	02-038/02:43:51		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-038/02:29:06
6320	MGS	02-038/02:44:21		Disables autonomous command to send eclipse ingress script	SWEISX	02-038/02:29:36
6321	MGS	02-038/02:44:23		NOTE: Exit Earth Occultation 13043		02-038/02:29:37
6322	MGS	02-038/02:44:23	15	Acquisition Of X-Band Signal		
6323	MGS	02-038/02:44:23	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
6324	MGS	02-038/02:44:23	15	NOTE: Carrier Only -- No Telemetry Modulation		
6325	MGS	02-038/02:48:53		NOTE: Exit Planetary Atmosphere 13043		02-038/02:34:08
6326	MGS	02-038/02:51:01		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-038/02:36:16
6327	MGS	02-038/02:51:01		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-038/02:36:16
6328	MGS	02-038/02:51:01		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-038/02:36:16
6329	MGS	02-038/02:51:01		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-038/02:36:16
6330	MGS	02-038/02:51:01	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
6331	MGS	02-038/02:51:02		: RTM, MRC, 01:13:20, S&E_2A, FALSE, 00:06:55	AEMRT	02-038/02:36:17
6332	MGS	02-038/02:51:02		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-038/02:36:17
6333	MGS	02-038/02:51:02		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-038/02:36:17
6334	MGS	02-038/02:51:02		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=75016000, DUR=00:44:26		02-038/02:36:17
6335	MGS	02-038/02:51:02		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-038/02:36:17
6336	MGS	02-038/02:51:02	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
6337	MGS	02-038/02:51:06		NOTE: End fixed Sub-Reflector for Radio Science		02-038/02:36:20
6338	MGS	02-038/02:55:18		NOTE: Exit Solar Eclipse 13043		02-038/02:40:32
6339	MGS	02-038/03:09:50		NOTE: Periapsis 13044 ----------		02-038/02:55:04
6340	MGS	02-038/03:16:16		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-038/03:01:31
6341	MGS	02-038/03:16:16		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-038/03:01:31
6342	MGS	02-038/03:16:17		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-038/03:01:32
6343	MGS	02-038/03:16:17		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-038/03:01:32
6344	MGS	02-038/03:22:33	15	NOTE: Transmitter Off in 15 minutes		
6345	MGS	02-038/03:35:33	15	Range Modulation Off		
6346	MGS	02-038/03:37:33	15	Transmitter Off		
6347	MGS	02-038/03:38:17		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-038/03:23:32
6348	MGS	02-038/03:38:17		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-038/03:23:32
6349	MGS	02-038/03:59:22		NOTE: Begin fixed Sub-Reflector for Radio Science		02-038/03:44:36
6350	MGS	02-038/04:02:36		NOTE: Start Block (MAP_RT)		02-038/03:47:51
6351	MGS	02-038/04:02:37		: 00:27:46, 01:28:41, FALSE, TRUE, FALSE, 00:01:15, 00:07:10, 01:13:21, 00:06:54	AEMINI	02-038/03:47:52
6352	MGS	02-038/04:02:37		Enable sending eclipse ingress script when array power disappears	SWEISE	02-038/03:47:52
6353	MGS	02-038/04:02:37		NOTE: Start EVP data return script		02-038/03:47:52
6354	MGS	02-038/04:02:38		: SE_1A, MRC, 01:13:20, MRC, 2002-038T04:34:04.000	AEMRTI	02-038/03:47:53
6355	MGS	02-038/04:04:22		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-038/03:49:37
6356	MGS	02-038/04:04:22		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=110216000, DUR=01:13:20		02-038/03:49:37
6357	MGS	02-038/04:04:22		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-038/03:49:37
6358	MGS	02-038/04:04:22		: 00:06:54, FALSE	RDSCII	02-038/03:49:37
6359	MGS	02-038/04:04:22		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-038/03:49:37
6360	MGS	02-038/04:04:22		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-038/03:49:37
6361	MGS	02-038/04:04:22		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-038/03:49:37
6362	MGS	02-038/04:04:22		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-038/03:49:37
6363	MGS	02-038/04:04:22	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
6364	MGS	02-038/04:04:22	15	NOTE: Carrier Only -- No Telemetry Modulation		
6365	MGS	02-038/04:06:35		NOTE: Enter Planetary Atmosphere 13044		02-038/03:51:49
6366	MGS	02-038/04:08:59		NOTE: Apoapsis 13044 -		02-038/03:54:13
6367	MGS	02-038/04:10:50		NOTE: Enter Earth Occultation 13044		02-038/03:56:04

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
6368	MGS	02-038/04:10:50	15	NOTE: Loss Of X-Band Signal		
6369	MGS	02-038/04:11:16		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-038/03:56:31
6370	MGS	02-038/04:11:16		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-038/03:56:31
6371	MGS	02-038/04:11:16		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-038/03:56:31
6372	MGS	02-038/04:11:16		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-038/03:56:31
6373	MGS	02-038/04:11:17		NOTE: End EVP script		02-038/03:56:31
6374	MGS	02-038/04:11:17		Turn off the MOT Exciter and RPA beam	STRPAF	02-038/03:56:32
6375	MGS	02-038/04:11:18		NOTE: End Block (MAP_RT)		02-038/03:56:32
6376	MGS	02-038/04:11:21		NOTE: End fixed Sub-Reflector for Radio Science		02-038/03:56:35
6377	MGS	02-038/04:12:37		NOTE: Enter Solar Eclipse 13044		02-038/03:57:51
6378	MGS	02-038/04:12:38		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-038/03:57:52
6379	MGS	02-038/04:16:24	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
6380	MGS	02-038/04:18:24	15	Range Modulation On: SUP=3.0dB		
6381	MGS	02-038/04:19:24	15	Begin Ranging Acquisition		
6382	MGS	02-038/04:30:00	15	NOTE: Transmitter Off in 15 minutes		
6383	MGS	02-038/04:36:38		NOTE: Begin fixed Sub-Reflector for Radio Science		02-038/04:21:52
6384	MGS	02-038/04:37:18		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-038/04:22:32
6385	MGS	02-038/04:37:18		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-038/04:22:32
6386	MGS	02-038/04:37:22		Command the PSE with included data word: 3990	SWPSEL	02-038/04:22:36
6387	MGS	02-038/04:37:23		Set eclipse egress script address: 0158	SWSEES	02-038/04:22:37
6388	MGS	02-038/04:40:24		: 01:28:41	RPAONX	02-038/04:25:38
6389	MGS	02-038/04:40:24		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-038/04:25:38
6390	MGS	02-038/04:41:39		: 00:00:30, 00:07:10, FALSE	RDSCIE	02-038/04:26:53
6391	MGS	02-038/04:41:39		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-038/04:26:53
6392	MGS	02-038/04:41:39		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-038/04:26:53
6393	MGS	02-038/04:41:39		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-038/04:26:53
6394	MGS	02-038/04:41:39		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-038/04:26:53
6395	MGS	02-038/04:42:09		Disables autonomous command to send eclipse ingress script	SWEISX	02-038/04:27:23
6396	MGS	02-038/04:42:11		NOTE: Exit Earth Occultation 13044		02-038/04:27:25
6397	MGS	02-038/04:42:11	15	Acquisition Of X-Band Signal		
6398	MGS	02-038/04:42:11	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
6399	MGS	02-038/04:42:11	15	NOTE: Carrier Only -- No Telemetry Modulation		
6400	MGS	02-038/04:43:00	15	Range Modulation Off		
6401	MGS	02-038/04:45:00	15	Transmitter Off		
6402	MGS	02-038/04:46:42		NOTE: Exit Planetary Atmosphere 13044		02-038/04:31:56
6403	MGS	02-038/04:48:49		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-038/04:34:03
6404	MGS	02-038/04:48:49		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-038/04:34:03
6405	MGS	02-038/04:48:49		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-038/04:34:03
6406	MGS	02-038/04:48:49		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-038/04:34:03
6407	MGS	02-038/04:48:49	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
6408	MGS	02-038/04:48:50		: MRC, MRC, 01:13:20, S&E_1A, FALSE, 00:06:55	AEMRT	02-038/04:34:04
6409	MGS	02-038/04:48:50		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-038/04:34:04
6410	MGS	02-038/04:48:50		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-038/04:34:04
6411	MGS	02-038/04:48:50		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=131552000, DUR=00:44:27		02-038/04:34:04
6412	MGS	02-038/04:48:50		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-038/04:34:04
6413	MGS	02-038/04:48:50	15	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
6414	MGS	02-038/04:48:53		NOTE: End fixed Sub-Reflector for Radio Science		02-038/04:34:07
6415	MGS	02-038/04:53:04		NOTE: Exit Solar Eclipse 13044		02-038/04:38:18
6416	MGS	02-038/04:55:15	15	NOTE: Below Uplink Interlock Limit		
6417	MGS	02-038/05:00:00	15	End Tracking		
6418	MGS	02-038/05:00:00	45	Begin Pre-Cal		
6419	MGS	02-038/05:00:00	45	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
6420	MGS	02-038/05:00:00	45	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
6421	MGS	02-038/05:00:00	45	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
6422	MGS	02-038/05:00:00	45	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
6423	MGS	02-038/05:00:00	45	At BOT: S/C Tlm Mode: BR=8000.0, FL=10000, SC=HIGH, MI=80.0		
6424	MGS	02-038/05:00:00	45	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
6425	MGS	02-038/05:00:00	45	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
6426	MGS	02-038/05:00:00	45	Config: TGC: DEST=37		
6427	MGS	02-038/05:00:00	45	Config: TGC: BAND=X, BR=8000.000000		
6428	MGS	02-038/05:00:00	45	Config: FSS: CH=2, PRI_FL=10000		
6429	MGS	02-038/05:00:00	45	Config: RSR		
6430	MGS	02-038/05:00:00	45	Config: TXL		
6431	MGS	02-038/05:00:00	45	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
6432	MGS	02-038/05:00:00	45	Config: BVR		
6433	MGS	02-038/05:00:00	45	Config: Doppler Extractor: BIAS=+1MHZ		
6434	MGS	02-038/05:00:00	45	Config: MDA: SMPL=0.1		
6435	MGS	02-038/05:00:00	45	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
6436	MGS	02-038/05:00:00	45	Config: SRA: HIGH=4, LOW=14, SERV=D		
6437	MGS	02-038/05:00:00	45	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
6438	MGS	02-038/05:07:33		NOTE: Periapsis 13045 ----------		02-038/04:52:47
6439	MGS	02-038/05:15:00	15	End Post-Cal		
6440	MGS	02-038/05:18:04		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-038/05:03:18
6441	MGS	02-038/05:18:04		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-038/05:03:18
6442	MGS	02-038/05:18:05		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-038/05:03:19
6443	MGS	02-038/05:18:05		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-038/05:03:19
6444	MGS	02-038/05:40:05		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-038/05:25:19
6445	MGS	02-038/05:40:05		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-038/05:25:19
6446	MGS	02-038/05:48:05		NOTE: Start Block (SSRMGR)		02-038/05:33:19
6447	MGS	02-038/05:48:05		Sends a one-word SSR command to the XSU command SOB: SSR_1B, SE_1A, RECORD, PART1	STSSRC	02-038/05:33:19
6448	MGS	02-038/05:48:06		SSR 1B Data Enable	CSD1BE	02-038/05:33:20
6449	MGS	02-038/05:48:06		SSR Activity: ID=SSR_1B, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-038/05:33:20
6450	MGS	02-038/05:57:09		NOTE: Begin fixed Sub-Reflector for Radio Science		02-038/05:42:23
6451	MGS	02-038/06:00:00	45	Begin Tracking		
6452	MGS	02-038/06:00:00	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
6453	MGS	02-038/06:00:20		NOTE: Start Block (MAP_RT)		02-038/05:45:34
6454	MGS	02-038/06:00:21		: 00:27:46, 01:28:41, FALSE, TRUE, FALSE, 00:01:15, 00:07:10, 01:13:21, 00:06:54	AEMINI	02-038/05:45:35
6455	MGS	02-038/06:00:21		Enable sending eclipse ingress script when array power disappears	SWEISE	02-038/05:45:35
6456	MGS	02-038/06:00:21		NOTE: Start EVP data return script		02-038/05:45:35
6457	MGS	02-038/06:00:22		: SE_2A, RTM, 01:13:20, MRC, 2002-038T06:31:47.000	AEMRTI	02-038/05:45:36
6458	MGS	02-038/06:02:10		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-038/05:47:24
6459	MGS	02-038/06:02:10		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=1, BITS=6752000, DUR=00:14:04		02-038/05:47:24
6460	MGS	02-038/06:02:10		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-038/05:47:24
6461	MGS	02-038/06:02:10		: 00:06:54, FALSE	RDSCII	02-038/05:47:24
6462	MGS	02-038/06:02:10		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-038/05:47:24
6463	MGS	02-038/06:02:10		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-038/05:47:24
6464	MGS	02-038/06:02:10		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-038/05:47:24
6465	MGS	02-038/06:02:10		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-038/05:47:24
6466	MGS	02-038/06:02:10	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
6467	MGS	02-038/06:02:10	45	NOTE: Carrier Only -- No Telemetry Modulation		
6468	MGS	02-038/06:04:20		NOTE: Enter Planetary Atmosphere 13045		02-038/05:49:34
6469	MGS	02-038/06:06:26		NOTE: Apoapsis 13045 -		02-038/05:51:40
6470	MGS	02-038/06:08:34		NOTE: Enter Earth Occultation 13045		02-038/05:53:48
6471	MGS	02-038/06:08:34	45	NOTE: Loss Of X-Band Signal		
6472	MGS	02-038/06:09:04		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-038/05:54:18
6473	MGS	02-038/06:09:04		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-038/05:54:18
6474	MGS	02-038/06:09:04		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-038/05:54:18
6475	MGS	02-038/06:09:04		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-038/05:54:18

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
6476	MGS	02-038/06:09:04		NOTE: End EVP script		02-038/05:54:18
6477	MGS	02-038/06:09:05		Turn off the MOT Exciter and RPA beam	STRPAF	02-038/05:54:19
6478	MGS	02-038/06:09:05		NOTE: End Block (MAP_RT)		02-038/05:54:19
6479	MGS	02-038/06:09:08		NOTE: End fixed Sub-Reflector for Radio Science		02-038/05:54:22
6480	MGS	02-038/06:10:21		NOTE: Enter Solar Eclipse 13045		02-038/05:55:35
6481	MGS	02-038/06:10:21		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-038/05:55:35
6482	MGS	02-038/06:14:08	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
6483	MGS	02-038/06:14:46		SSR 1A Data Disable	CSD1AX	02-038/06:00:00
6484	MGS	02-038/06:14:46		SSR Activity: ID=SSR_1A, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-038/06:00:00
6485	MGS	02-038/06:14:47		NOTE: End Block (SSRMGR)		02-038/06:00:01
6486	MGS	02-038/06:16:08	45	Range Modulation On: SUP=3.0dB		
6487	MGS	02-038/06:17:08	45	Begin Ranging Acquisition		
6488	MGS	02-038/06:34:22		NOTE: Begin fixed Sub-Reflector for Radio Science		02-038/06:19:36
6489	MGS	02-038/06:35:05		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-038/06:20:19
6490	MGS	02-038/06:35:05		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-038/06:20:19
6491	MGS	02-038/06:35:10		Set eclipse egress script address: 019A	SWSEES	02-038/06:20:24
6492	MGS	02-038/06:38:07		: 01:28:41	RPAONX	02-038/06:23:21
6493	MGS	02-038/06:38:07		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-038/06:23:21
6494	MGS	02-038/06:39:22		: 00:00:30, 00:07:10, FALSE	RDSCIE	02-038/06:24:36
6495	MGS	02-038/06:39:22		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-038/06:24:36
6496	MGS	02-038/06:39:22		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-038/06:24:36
6497	MGS	02-038/06:39:22		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-038/06:24:36
6498	MGS	02-038/06:39:22		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-038/06:24:36
6499	MGS	02-038/06:39:55		NOTE: Exit Earth Occultation 13045		02-038/06:25:09
6500	MGS	02-038/06:39:55	45	Acquisition Of X-Band Signal		
6501	MGS	02-038/06:39:55	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
6502	MGS	02-038/06:39:55	45	NOTE: Carrier Only -- No Telemetry Modulation		
6503	MGS	02-038/06:44:27		NOTE: Exit Planetary Atmosphere 13045		02-038/06:29:41
6504	MGS	02-038/06:46:32		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-038/06:31:46
6505	MGS	02-038/06:46:32		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-038/06:31:46
6506	MGS	02-038/06:46:32		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-038/06:31:46
6507	MGS	02-038/06:46:32		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-038/06:31:46
6508	MGS	02-038/06:46:32	45	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
6509	MGS	02-038/06:46:33		: RTM, MRC, 01:13:20, S&E_2A, FALSE, 00:06:55	AEMRT	02-038/06:31:47
6510	MGS	02-038/06:46:33		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-038/06:31:47
6511	MGS	02-038/06:46:33		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-038/06:31:47
6512	MGS	02-038/06:46:33		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=1, BITS=28056000, DUR=00:44:23		02-038/06:31:47
6513	MGS	02-038/06:46:33		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-038/06:31:47
6514	MGS	02-038/06:46:33	45	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
6515	MGS	02-038/06:46:37		NOTE: End fixed Sub-Reflector for Radio Science		02-038/06:31:51
6516	MGS	02-038/06:50:48		NOTE: Exit Solar Eclipse 13045		02-038/06:36:02
6517	MGS	02-038/07:04:53		NOTE: Periapsis 13046 ----------		02-038/06:50:07
6518	MGS	02-038/07:11:47		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-038/06:57:01
6519	MGS	02-038/07:11:47		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-038/06:57:01
6520	MGS	02-038/07:11:48		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-038/06:57:02
6521	MGS	02-038/07:11:48		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-038/06:57:02
6522	MGS	02-038/07:17:56	45	NOTE: Transmitter Off in 15 minutes		
6523	MGS	02-038/07:30:57	45	Range Modulation Off		
6524	MGS	02-038/07:32:56	45	Transmitter Off		
6525	MGS	02-038/07:33:48		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-038/07:19:02
6526	MGS	02-038/07:33:48		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-038/07:19:02
6527	MGS	02-038/07:54:53		NOTE: Begin fixed Sub-Reflector for Radio Science		02-038/07:40:07
6528	MGS	02-038/07:58:01		NOTE: Start EVP data return script		02-038/07:43:15
6529	MGS	02-038/07:59:53		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-038/07:45:07

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
6530	MGS	02-038/07:59:53		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=1, BITS=63256000, DUR=01:13:20		02-038/07:45:07
6531	MGS	02-038/07:59:53		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-038/07:45:07
6532	MGS	02-038/07:59:53		: 00:06:54, FALSE	RDSCII	02-038/07:45:07
6533	MGS	02-038/07:59:53		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-038/07:45:07
6534	MGS	02-038/07:59:53		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-038/07:45:07
6535	MGS	02-038/07:59:53		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-038/07:45:07
6536	MGS	02-038/07:59:53		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-038/07:45:07
6537	MGS	02-038/07:59:53	45	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
6538	MGS	02-038/07:59:53	45	NOTE: Carrier Only -- No Telemetry Modulation		
6539	MGS	02-038/08:02:00		NOTE: Enter Planetary Atmosphere 13046		02-038/07:47:13
6540	MGS	02-038/08:03:52		NOTE: Apoapsis 13046 -		02-038/07:49:05
6541	MGS	02-038/08:06:14		NOTE: Enter Earth Occultation 13046		02-038/07:51:28
6542	MGS	02-038/08:06:14	45	NOTE: Loss Of X-Band Signal		
6543	MGS	02-038/08:06:47		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-038/07:52:01
6544	MGS	02-038/08:06:47		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-038/07:52:01
6545	MGS	02-038/08:06:47		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-038/07:52:01
6546	MGS	02-038/08:06:47		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-038/07:52:01
6547	MGS	02-038/08:06:48		NOTE: End EVP script		02-038/07:52:02
6548	MGS	02-038/08:06:48		Turn off the MOT Exciter and RPA beam	STRPAF	02-038/07:52:02
6549	MGS	02-038/08:06:52		NOTE: End fixed Sub-Reflector for Radio Science		02-038/07:52:06
6550	MGS	02-038/08:08:01		NOTE: Enter Solar Eclipse 13046		02-038/07:53:14
6551	MGS	02-038/08:08:01		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-038/07:53:15
6552	MGS	02-038/08:11:48	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
6553	MGS	02-038/08:13:48	45	Range Modulation On: SUP=3.0dB		
6554	MGS	02-038/08:14:48	45	Begin Ranging Acquisition		
6555	MGS	02-038/08:32:02		NOTE: Begin fixed Sub-Reflector for Radio Science		02-038/08:17:16
6556	MGS	02-038/08:32:48		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-038/08:18:02
6557	MGS	02-038/08:32:48		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-038/08:18:02
6558	MGS	02-038/08:32:53		Set eclipse egress script address: 01DC	SWSEES	02-038/08:18:07
6559	MGS	02-038/08:35:47		: 01:28:41	RPAONX	02-038/08:21:01
6560	MGS	02-038/08:35:47		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-038/08:21:01
6561	MGS	02-038/08:37:02		: 00:00:30, 00:07:10, FALSE	RDSCIE	02-038/08:22:16
6562	MGS	02-038/08:37:02		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-038/08:22:16
6563	MGS	02-038/08:37:02		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-038/08:22:16
6564	MGS	02-038/08:37:02		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-038/08:22:16
6565	MGS	02-038/08:37:02		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-038/08:22:16
6566	MGS	02-038/08:37:32		Disables autonomous command to send eclipse ingress script	SWEISX	02-038/08:22:46
6567	MGS	02-038/08:37:36		NOTE: Exit Earth Occultation 13046		02-038/08:22:49
6568	MGS	02-038/08:37:36	45	Acquisition Of X-Band Signal		
6569	MGS	02-038/08:37:36	45	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
6570	MGS	02-038/08:37:36	45	NOTE: Carrier Only -- No Telemetry Modulation		
6571	MGS	02-038/08:42:07		NOTE: Exit Planetary Atmosphere 13046		02-038/08:27:20
6572	MGS	02-038/08:44:12		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-038/08:29:26
6573	MGS	02-038/08:44:12		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-038/08:29:26
6574	MGS	02-038/08:44:12		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-038/08:29:26
6575	MGS	02-038/08:44:12		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-038/08:29:26
6576	MGS	02-038/08:44:12	45	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
6577	MGS	02-038/08:44:13		: RTM, MRC, 01:13:20, S&E_2A, FALSE, 00:06:55	AEMRT	02-038/08:29:27
6578	MGS	02-038/08:44:13		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-038/08:29:27
6579	MGS	02-038/08:44:13		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-038/08:29:27
6580	MGS	02-038/08:44:13		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=1, BITS=84536000, DUR=00:44:20		02-038/08:29:27
6581	MGS	02-038/08:44:13		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-038/08:29:27
6582	MGS	02-038/08:44:13	45	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
6583	MGS	02-038/08:44:17		NOTE: End fixed Sub-Reflector for Radio Science		02-038/08:29:31

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
6584	MGS	02-038/08:48:28		NOTE: Exit Solar Eclipse 13046		02-038/08:33:41
6585	MGS	02-038/09:02:23		NOTE: Periapsis 13047 ----------		02-038/08:47:36
6586	MGS	02-038/09:09:26		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-038/08:54:40
6587	MGS	02-038/09:09:26		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-038/08:54:40
6588	MGS	02-038/09:09:27		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-038/08:54:41
6589	MGS	02-038/09:09:27		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-038/08:54:41
6590	MGS	02-038/09:15:37	45	NOTE: Transmitter Off in 15 minutes		
6591	MGS	02-038/09:28:37	45	Range Modulation Off		
6592	MGS	02-038/09:30:00	65	Begin Pre-Cal		
6593	MGS	02-038/09:30:00	65	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
6594	MGS	02-038/09:30:00	65	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
6595	MGS	02-038/09:30:00	65	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
6596	MGS	02-038/09:30:00	65	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
6597	MGS	02-038/09:30:00	65	At BOT: S/C Tlm Mode: BR=8000.0, FL=10000, SC=HIGH, MI=80.0		
6598	MGS	02-038/09:30:00	65	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
6599	MGS	02-038/09:30:00	65	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
6600	MGS	02-038/09:30:00	65	Config: TGC: DEST=37		
6601	MGS	02-038/09:30:00	65	Config: TGC: BAND=X, BR=8000.000000		
6602	MGS	02-038/09:30:00	65	Config: FSS: CH=2, PRI_FL=10000		
6603	MGS	02-038/09:30:00	65	Config: RSR		
6604	MGS	02-038/09:30:00	65	Config: TXL		
6605	MGS	02-038/09:30:00	65	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
6606	MGS	02-038/09:30:00	65	Config: BVR		
6607	MGS	02-038/09:30:00	65	Config: Doppler Extractor: BIAS=+1MHZ		
6608	MGS	02-038/09:30:00	65	Config: MDA: SMPL=0.1		
6609	MGS	02-038/09:30:00	65	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
6610	MGS	02-038/09:30:00	65	Config: SRA: HIGH=4, LOW=14, SERV=D		
6611	MGS	02-038/09:30:00	65	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
6612	MGS	02-038/09:30:37	45	Transmitter Off		
6613	MGS	02-038/09:31:27		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-038/09:16:41
6614	MGS	02-038/09:31:27		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-038/09:16:41
6615	MGS	02-038/09:52:33		NOTE: Begin fixed Sub-Reflector for Radio Science		02-038/09:37:47
6616	MGS	02-038/09:55:42		NOTE: Start Block (MAP_RT)		02-038/09:40:56
6617	MGS	02-038/09:55:43		: 00:27:50, 01:28:39, FALSE, TRUE, FALSE, 00:01:15, 00:07:10, 01:13:20, 00:06:53	AEMINI	02-038/09:40:57
6618	MGS	02-038/09:55:43		Enable sending eclipse ingress script when array power disappears	SWEISE	02-038/09:40:57
6619	MGS	02-038/09:55:43		NOTE: Start EVP data return script		02-038/09:40:57
6620	MGS	02-038/09:55:44		: SE_1A, MRC, 01:13:19, MRC, 2002-038T10:27:13.000	AEMRTI	02-038/09:40:58
6621	MGS	02-038/09:57:33		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-038/09:42:47
6622	MGS	02-038/09:57:33		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=1, BITS=119736000, DUR=01:13:20		02-038/09:42:47
6623	MGS	02-038/09:57:33		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-038/09:42:47
6624	MGS	02-038/09:57:33		: 00:06:54, FALSE	RDSCII	02-038/09:42:47
6625	MGS	02-038/09:57:33		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-038/09:42:47
6626	MGS	02-038/09:57:33		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-038/09:42:47
6627	MGS	02-038/09:57:33		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-038/09:42:47
6628	MGS	02-038/09:57:33		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-038/09:42:47
6629	MGS	02-038/09:57:33	45	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
6630	MGS	02-038/09:57:33	45	NOTE: Carrier Only -- No Telemetry Modulation		
6631	MGS	02-038/09:59:42		NOTE: Enter Planetary Atmosphere 13047		02-038/09:44:55
6632	MGS	02-038/10:01:40		NOTE: Apoapsis 13047 -		02-038/09:46:54
6633	MGS	02-038/10:03:55		NOTE: Enter Earth Occultation 13047		02-038/09:49:09
6634	MGS	02-038/10:03:55	45	NOTE: Loss Of X-Band Signal		
6635	MGS	02-038/10:04:27		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-038/09:49:41
6636	MGS	02-038/10:04:27		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-038/09:49:41
6637	MGS	02-038/10:04:27		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-038/09:49:41

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
6638	MGS	02-038/10:04:27		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-038/09:49:41
6639	MGS	02-038/10:04:28		NOTE: End EVP script		02-038/09:49:42
6640	MGS	02-038/10:04:28		Turn off the MOT Exciter and RPA beam	STRPAF	02-038/09:49:42
6641	MGS	02-038/10:04:29		NOTE: End Block (MAP_RT)		02-038/09:49:43
6642	MGS	02-038/10:04:32		NOTE: End fixed Sub-Reflector for Radio Science		02-038/09:49:46
6643	MGS	02-038/10:05:43		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-038/09:50:57
6644	MGS	02-038/10:05:44		NOTE: Enter Solar Eclipse 13047		02-038/09:50:57
6645	MGS	02-038/10:09:30	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
6646	MGS	02-038/10:10:00	45	NOTE: Transmitter Off in 15 minutes		
6647	MGS	02-038/10:11:30	45	Range Modulation On: SUP=3.0dB		
6648	MGS	02-038/10:12:30	45	Begin Ranging Acquisition		
6649	MGS	02-038/10:20:18		Disable HGA control mode	SAHGCX	02-038/10:05:32
6650	MGS	02-038/10:20:19		No Operation	SCNOOP	02-038/10:05:33
6651	MGS	02-038/10:20:20		CDU-1 Uplink Rate Select (Based on 3 bit Code): 7	TCC1BS	02-038/10:05:34
6652	MGS	02-038/10:20:20		CDU-2 Uplink Rate Select (Based on 3 bit Code): 7	TCC2BS	02-038/10:05:34
6653	MGS	02-038/10:20:30		Select Automatic HGA control mode	SAHACE	02-038/10:05:44
6654	MGS	02-038/10:20:31		Selects Hign Gain Antenna for downlink, Reconfigures if beam is already on	STUHGA	02-038/10:05:45
6655	MGS	02-038/10:20:32		CDU-1 Uplink Rate Select (Based on 3 bit Code): 3	TCC1BS	02-038/10:05:46
6656	MGS	02-038/10:20:32		CDU-2 Uplink Rate Select (Based on 3 bit Code): 3	TCC2BS	02-038/10:05:46
6657	MGS	02-038/10:23:00	45	Range Modulation Off		
6658	MGS	02-038/10:25:00	45	Transmitter Off		
6659	MGS	02-038/10:29:49		NOTE: Begin fixed Sub-Reflector for Radio Science		02-038/10:15:02
6660	MGS	02-038/10:30:27		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-038/10:15:41
6661	MGS	02-038/10:30:27		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-038/10:15:41
6662	MGS	02-038/10:30:31		Command the PSE with included data word: 3990	SWPSEL	02-038/10:15:45
6663	MGS	02-038/10:30:32		Set eclipse egress script address: 0158	SWSEES	02-038/10:15:46
6664	MGS	02-038/10:33:33		: 01:28:39	RPAONX	02-038/10:18:47
6665	MGS	02-038/10:33:33		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-038/10:18:47
6666	MGS	02-038/10:34:48		: 00:00:30, 00:07:10, FALSE	RDSCIE	02-038/10:20:02
6667	MGS	02-038/10:34:48		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-038/10:20:02
6668	MGS	02-038/10:34:48		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-038/10:20:02
6669	MGS	02-038/10:34:48		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-038/10:20:02
6670	MGS	02-038/10:34:48		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-038/10:20:02
6671	MGS	02-038/10:35:18		NOTE: Exit Earth Occultation 13047		02-038/10:20:31
6672	MGS	02-038/10:35:18	45	Acquisition Of X-Band Signal		
6673	MGS	02-038/10:35:18	45	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
6674	MGS	02-038/10:35:18	45	NOTE: Carrier Only -- No Telemetry Modulation		
6675	MGS	02-038/10:35:18		Disables autonomous command to send eclipse ingress script	SWEISX	02-038/10:20:32
6676	MGS	02-038/10:38:47	45	NOTE: Below Uplink Interlock Limit		
6677	MGS	02-038/10:39:49		NOTE: Exit Planetary Atmosphere 13047		02-038/10:25:02
6678	MGS	02-038/10:40:00	45	End Tracking		
6679	MGS	02-038/10:41:59		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-038/10:27:12
6680	MGS	02-038/10:41:59		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-038/10:27:12
6681	MGS	02-038/10:41:59		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-038/10:27:12
6682	MGS	02-038/10:41:59		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-038/10:27:12
6683	MGS	02-038/10:42:00		: MRC, MRC, 01:13:19, S&E_1A, FALSE, 00:06:54	AEMRT	02-038/10:27:13
6684	MGS	02-038/10:42:00		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-038/10:27:13
6685	MGS	02-038/10:42:00		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-038/10:27:13
6686	MGS	02-038/10:42:00		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=1, BITS=141064000, DUR=00:44:26		02-038/10:27:13
6687	MGS	02-038/10:42:00		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-038/10:27:13
6688	MGS	02-038/10:42:04		NOTE: End fixed Sub-Reflector for Radio Science		02-038/10:27:17
6689	MGS	02-038/10:46:10		NOTE: Exit Solar Eclipse 13047		02-038/10:31:23
6690	MGS	02-038/10:55:00	45	End Post-Cal		
6691	MGS	02-038/11:00:10		NOTE: Periapsis 13048 ----------		02-038/10:45:23

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
6692	MGS	02-038/11:11:10		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-038/10:56:23
6693	MGS	02-038/11:11:10		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-038/10:56:23
6694	MGS	02-038/11:11:11		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-038/10:56:24
6695	MGS	02-038/11:11:11		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-038/10:56:24
6696	MGS	02-038/11:21:26		NOTE: Start Block (SSRMGR)		02-038/11:06:39
6697	MGS	02-038/11:21:26		Sends a one-word SSR command to the XSU command SOB: SSR_1A, SE_1A, RECORD, PART2	STSSRC	02-038/11:06:39
6698	MGS	02-038/11:21:27		SSR 1A Data Enable	CSD1AE	02-038/11:06:40
6699	MGS	02-038/11:21:27		SSR Activity: ID=SSR_1A, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-038/11:06:40
6700	MGS	02-038/11:30:00	65	Begin Tracking		
6701	MGS	02-038/11:30:00	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
6702	MGS	02-038/11:33:11		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-038/11:18:24
6703	MGS	02-038/11:33:11		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-038/11:18:24
6704	MGS	02-038/11:35:32		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-038/11:20:45
6705	MGS	02-038/11:35:32		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=2, BITS=6760000, DUR=00:14:05		02-038/11:20:45
6706	MGS	02-038/11:35:32		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-038/11:20:45
6707	MGS	02-038/11:35:32		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-038/11:20:45
6708	MGS	02-038/11:35:32	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
6709	MGS	02-038/11:48:07		SSR 1B Data Disable	CSD1BX	02-038/11:33:20
6710	MGS	02-038/11:48:07		SSR Activity: ID=SSR_1B, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-038/11:33:20
6711	MGS	02-038/11:48:08		NOTE: End Block (SSRMGR)		02-038/11:33:21
6712	MGS	02-038/11:50:19		NOTE: Begin fixed Sub-Reflector for Radio Science		02-038/11:35:32
6713	MGS	02-038/11:53:30		NOTE: Start Block (MAP_PB)		02-038/11:38:43
6714	MGS	02-038/11:53:31		: 00:27:50, 01:28:40, FALSE, TRUE, FALSE, 00:01:15, 00:07:10, 01:13:21, 00:06:53	AEMINI	02-038/11:38:44
6715	MGS	02-038/11:53:31		Enable sending eclipse ingress script when array power disappears	SWEISE	02-038/11:38:44
6716	MGS	02-038/11:53:31		NOTE: Start EVP data return script		02-038/11:38:44
6717	MGS	02-038/11:53:32		: SSR_2A, F42KHZ, PART1, SE_1A, 2002-038T12:24:59.000	AEMPBI	02-038/11:38:45
6718	MGS	02-038/11:55:19		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-038/11:40:32
6719	MGS	02-038/11:55:19		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=2, BITS=16256000, DUR=00:19:47		02-038/11:40:32
6720	MGS	02-038/11:55:19		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-038/11:40:32
6721	MGS	02-038/11:55:19		: 00:06:53, FALSE	RDSCII	02-038/11:40:32
6722	MGS	02-038/11:55:19		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-038/11:40:32
6723	MGS	02-038/11:55:19		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-038/11:40:32
6724	MGS	02-038/11:55:19		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-038/11:40:32
6725	MGS	02-038/11:55:19		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-038/11:40:32
6726	MGS	02-038/11:55:19	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
6727	MGS	02-038/11:55:19	65	NOTE: Carrier Only -- No Telemetry Modulation		
6728	MGS	02-038/11:57:29		NOTE: Enter Planetary Atmosphere 13048		02-038/11:42:42
6729	MGS	02-038/11:59:28		NOTE: Apoapsis 13048 -		02-038/11:44:41
6730	MGS	02-038/12:01:42		NOTE: Enter Earth Occultation 13048		02-038/11:46:55
6731	MGS	02-038/12:01:42	65	NOTE: Loss Of X-Band Signal		
6732	MGS	02-038/12:02:12		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-038/11:47:25
6733	MGS	02-038/12:02:12		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-038/11:47:25
6734	MGS	02-038/12:02:12		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-038/11:47:25
6735	MGS	02-038/12:02:12		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-038/11:47:25
6736	MGS	02-038/12:02:13		Turn off the MOT Exciter and RPA beam	STRPAF	02-038/11:47:26
6737	MGS	02-038/12:02:13		NOTE: End EVP script		02-038/11:47:26
6738	MGS	02-038/12:02:14		NOTE: End Block (MAP_RT)		02-038/11:47:27
6739	MGS	02-038/12:02:17		NOTE: End fixed Sub-Reflector for Radio Science		02-038/11:47:30
6740	MGS	02-038/12:03:30		NOTE: Enter Solar Eclipse 13048		02-038/11:48:43
6741	MGS	02-038/12:03:31		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-038/11:48:44
6742	MGS	02-038/12:14:47		Dump SCP memory to the EDF using physical addressing arguments: 56A4, 240	SCDSCM	02-038/12:00:00
6743	MGS	02-038/12:27:35		NOTE: Begin fixed Sub-Reflector for Radio Science		02-038/12:12:48
6744	MGS	02-038/12:28:11		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-038/12:13:24
6745	MGS	02-038/12:28:11		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-038/12:13:24

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
6746	MGS	02-038/12:28:16		Set eclipse egress script address: 019A	SWSEES	02-038/12:13:29
6747	MGS	02-038/12:31:21		: 01:28:40	RPAONX	02-038/12:16:34
6748	MGS	02-038/12:31:21		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-038/12:16:34
6749	MGS	02-038/12:32:36		: 00:00:30, 00:07:10, FALSE	RDSCIE	02-038/12:17:49
6750	MGS	02-038/12:32:36		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-038/12:17:49
6751	MGS	02-038/12:32:36		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-038/12:17:49
6752	MGS	02-038/12:32:36		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-038/12:17:49
6753	MGS	02-038/12:32:36		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-038/12:17:49
6754	MGS	02-038/12:33:05		NOTE: Exit Earth Occultation 13048		02-038/12:18:18
6755	MGS	02-038/12:33:05	65	Acquisition Of X-Band Signal		
6756	MGS	02-038/12:33:05	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
6757	MGS	02-038/12:33:05	65	NOTE: Carrier Only -- No Telemetry Modulation		
6758	MGS	02-038/12:37:35		NOTE: Exit Planetary Atmosphere 13048		02-038/12:22:48
6759	MGS	02-038/12:39:46		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-038/12:24:59
6760	MGS	02-038/12:39:46		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-038/12:24:59
6761	MGS	02-038/12:39:46		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-038/12:24:59
6762	MGS	02-038/12:39:46		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-038/12:24:59
6763	MGS	02-038/12:39:46		: REC_2A, F42KHZ, PART1, SE_1A, FALSE, 00:11:36	AEMPB	02-038/12:24:59
6764	MGS	02-038/12:39:46		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-038/12:24:59
6765	MGS	02-038/12:39:46		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, PLYBCK, PART1	STSSRC	02-038/12:24:59
6766	MGS	02-038/12:39:46	65	D/L Change: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
6767	MGS	02-038/12:39:47		SSR 2A Data Enable	CSD2AE	02-038/12:25:00
6768	MGS	02-038/12:39:47		SSR Activity: ID=SSR_2A, FCN=Start Playback, PRT=1, BR=42666		02-038/12:25:00
6769	MGS	02-038/12:39:47	65	D/L Change: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
6770	MGS	02-038/12:39:51		NOTE: End fixed Sub-Reflector for Radio Science		02-038/12:25:03
6771	MGS	02-038/12:43:57		NOTE: Exit Solar Eclipse 13048		02-038/12:29:10
6772	MGS	02-038/12:58:02		NOTE: Periapsis 13049 ----------		02-038/12:43:15
6773	MGS	02-038/13:04:57		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-038/12:50:10
6774	MGS	02-038/13:04:57		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-038/12:50:10
6775	MGS	02-038/13:04:58		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-038/12:50:11
6776	MGS	02-038/13:04:58		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-038/12:50:11
6777	MGS	02-038/13:26:58		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-038/13:12:11
6778	MGS	02-038/13:26:58		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-038/13:12:11
6779	MGS	02-038/13:48:07		NOTE: Begin fixed Sub-Reflector for Radio Science		02-038/13:33:19
6780	MGS	02-038/13:48:25		SSR 2A Data Disable	CSD2AX	02-038/13:33:38
6781	MGS	02-038/13:48:25		SSR Activity: ID=SSR_2A, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-038/13:33:38
6782	MGS	02-038/13:48:25		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-038/13:33:38
6783	MGS	02-038/13:48:25	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
6784	MGS	02-038/13:51:18		NOTE: Start EVP data return script		02-038/13:36:31
6785	MGS	02-038/13:51:18		: SSR_2B, F42KHZ, PART1, 2002-038T14:22:46.000	AEMPBU	02-038/13:36:31
6786	MGS	02-038/13:53:07		: 00:06:53, FALSE	RDSCII	02-038/13:38:20
6787	MGS	02-038/13:53:07		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-038/13:38:20
6788	MGS	02-038/13:53:07		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-038/13:38:20
6789	MGS	02-038/13:53:07		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-038/13:38:20
6790	MGS	02-038/13:53:07		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-038/13:38:20
6791	MGS	02-038/13:53:07	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
6792	MGS	02-038/13:53:07	65	NOTE: Carrier Only -- No Telemetry Modulation		
6793	MGS	02-038/13:55:16		NOTE: Enter Planetary Atmosphere 13049		02-038/13:40:29
6794	MGS	02-038/13:57:06		NOTE: Apoapsis 13049 -		02-038/13:42:19
6795	MGS	02-038/13:59:29		NOTE: Enter Earth Occultation 13049		02-038/13:44:42
6796	MGS	02-038/13:59:29	65	NOTE: Loss Of X-Band Signal		
6797	MGS	02-038/14:00:00		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-038/13:45:13
6798	MGS	02-038/14:00:00		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-038/13:45:13
6799	MGS	02-038/14:00:00		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-038/13:45:13

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
6800	MGS	02-038/14:00:00		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-038/13:45:13
6801	MGS	02-038/14:00:01		NOTE: End EVP script		02-038/13:45:13
6802	MGS	02-038/14:00:01		Turn off the MOT Exciter and RPA beam	STRPAF	02-038/13:45:14
6803	MGS	02-038/14:00:05		NOTE: End fixed Sub-Reflector for Radio Science		02-038/13:45:17
6804	MGS	02-038/14:01:18		NOTE: Enter Solar Eclipse 13049		02-038/13:46:30
6805	MGS	02-038/14:01:18		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-038/13:46:31
6806	MGS	02-038/14:25:23		NOTE: Begin fixed Sub-Reflector for Radio Science		02-038/14:10:35
6807	MGS	02-038/14:25:58		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-038/14:11:11
6808	MGS	02-038/14:25:58		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-038/14:11:11
6809	MGS	02-038/14:26:03		Set eclipse egress script address: 01DC	SWSEES	02-038/14:11:16
6810	MGS	02-038/14:29:08		: 01:28:40	RPAONX	02-038/14:14:21
6811	MGS	02-038/14:29:08		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-038/14:14:21
6812	MGS	02-038/14:30:23		: 00:00:30, 00:07:10, FALSE	RDSCIE	02-038/14:15:36
6813	MGS	02-038/14:30:23		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-038/14:15:36
6814	MGS	02-038/14:30:23		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-038/14:15:36
6815	MGS	02-038/14:30:23		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-038/14:15:36
6816	MGS	02-038/14:30:23		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-038/14:15:36
6817	MGS	02-038/14:30:53		NOTE: Exit Earth Occultation 13049		02-038/14:16:05
6818	MGS	02-038/14:30:53	65	Acquisition Of X-Band Signal		
6819	MGS	02-038/14:30:53	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
6820	MGS	02-038/14:30:53	65	NOTE: Carrier Only -- No Telemetry Modulation		
6821	MGS	02-038/14:35:23		NOTE: Exit Planetary Atmosphere 13049		02-038/14:20:36
6822	MGS	02-038/14:37:33		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-038/14:22:46
6823	MGS	02-038/14:37:33		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-038/14:22:46
6824	MGS	02-038/14:37:33		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-038/14:22:46
6825	MGS	02-038/14:37:33		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-038/14:22:46
6826	MGS	02-038/14:37:33		: REC_2B, F42KHZ, PART1, SE_1A, FALSE, 00:11:36	AEMPB	02-038/14:22:46
6827	MGS	02-038/14:37:33		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-038/14:22:46
6828	MGS	02-038/14:37:33		Sends a one-word SSR command to the XSU command SOB: SSR_2B, F42KHZ, PLYBCK, PART1	STSSRC	02-038/14:22:46
6829	MGS	02-038/14:37:33	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
6830	MGS	02-038/14:37:34		SSR 2B Data Enable	CSD2BE	02-038/14:22:47
6831	MGS	02-038/14:37:34		SSR Activity: ID=SSR_2B, FCN=Start Playback, PRT=1, BR=42666		02-038/14:22:47
6832	MGS	02-038/14:37:34	65	D/L Change: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
6833	MGS	02-038/14:37:38		NOTE: End fixed Sub-Reflector for Radio Science		02-038/14:22:50
6834	MGS	02-038/14:41:45		NOTE: Exit Solar Eclipse 13049		02-038/14:26:57
6835	MGS	02-038/14:55:44		NOTE: Periapsis 13050 ----------		02-038/14:40:57
6836	MGS	02-038/15:02:44		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-038/14:47:57
6837	MGS	02-038/15:02:44		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-038/14:47:57
6838	MGS	02-038/15:02:45		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-038/14:47:58
6839	MGS	02-038/15:02:45		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-038/14:47:58
6840	MGS	02-038/15:24:45		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-038/15:09:58
6841	MGS	02-038/15:24:45		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-038/15:09:58
6842	MGS	02-038/15:45:54		NOTE: Begin fixed Sub-Reflector for Radio Science		02-038/15:31:06
6843	MGS	02-038/15:46:12		SSR 2B Data Disable	CSD2BX	02-038/15:31:25
6844	MGS	02-038/15:46:12		SSR Activity: ID=SSR_2B, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-038/15:31:25
6845	MGS	02-038/15:46:12		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-038/15:31:25
6846	MGS	02-038/15:46:12	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
6847	MGS	02-038/15:49:03		NOTE: Start EVP data return script		02-038/15:34:16
6848	MGS	02-038/15:49:03		: SSR_2A, F42KHZ, PART2, 2002-038T16:20:31.000	AEMPBU	02-038/15:34:16
6849	MGS	02-038/15:50:54		: 00:06:53, FALSE	RDSCII	02-038/15:36:07
6850	MGS	02-038/15:50:54		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-038/15:36:07
6851	MGS	02-038/15:50:54		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-038/15:36:07
6852	MGS	02-038/15:50:54		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-038/15:36:07
6853	MGS	02-038/15:50:54		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-038/15:36:07

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
6854	MGS	02-038/15:50:54	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
6855	MGS	02-038/15:50:54	65	NOTE: Carrier Only -- No Telemetry Modulation		
6856	MGS	02-038/15:53:02		NOTE: Enter Planetary Atmosphere 13050		02-038/15:38:14
6857	MGS	02-038/15:54:36		NOTE: Apoapsis 13050 -		02-038/15:39:49
6858	MGS	02-038/15:57:15		NOTE: Enter Earth Occultation 13050		02-038/15:42:27
6859	MGS	02-038/15:57:15	65	NOTE: Loss Of X-Band Signal		
6860	MGS	02-038/15:57:47		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-038/15:43:00
6861	MGS	02-038/15:57:47		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-038/15:43:00
6862	MGS	02-038/15:57:47		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-038/15:43:00
6863	MGS	02-038/15:57:47		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-038/15:43:00
6864	MGS	02-038/15:57:48		NOTE: End EVP script		02-038/15:43:00
6865	MGS	02-038/15:57:48		Turn off the MOT Exciter and RPA beam	STRPAF	02-038/15:43:01
6866	MGS	02-038/15:57:52		NOTE: End fixed Sub-Reflector for Radio Science		02-038/15:43:04
6867	MGS	02-038/15:59:03		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-038/15:44:16
6868	MGS	02-038/15:59:03		NOTE: Enter Solar Eclipse 13050		02-038/15:44:16
6869	MGS	02-038/16:23:08		NOTE: Begin fixed Sub-Reflector for Radio Science		02-038/16:08:20
6870	MGS	02-038/16:23:45		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-038/16:08:58
6871	MGS	02-038/16:23:45		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-038/16:08:58
6872	MGS	02-038/16:23:49		Command the PSE with included data word: 3990	SWPSEL	02-038/16:09:02
6873	MGS	02-038/16:23:50		Set eclipse egress script address: 0158	SWSEES	02-038/16:09:03
6874	MGS	02-038/16:26:53		: 01:28:40	RPAONX	02-038/16:12:06
6875	MGS	02-038/16:26:53		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-038/16:12:06
6876	MGS	02-038/16:28:08		: 00:00:30, 00:07:10, FALSE	RDSCIE	02-038/16:13:21
6877	MGS	02-038/16:28:08		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-038/16:13:21
6878	MGS	02-038/16:28:08		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-038/16:13:21
6879	MGS	02-038/16:28:08		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-038/16:13:21
6880	MGS	02-038/16:28:08		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-038/16:13:21
6881	MGS	02-038/16:28:39		NOTE: Exit Earth Occultation 13050		02-038/16:13:51
6882	MGS	02-038/16:28:39	65	Acquisition Of X-Band Signal		
6883	MGS	02-038/16:28:39	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
6884	MGS	02-038/16:28:39	65	NOTE: Carrier Only -- No Telemetry Modulation		
6885	MGS	02-038/16:33:10		NOTE: Exit Planetary Atmosphere 13050		02-038/16:18:22
6886	MGS	02-038/16:35:18		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-038/16:20:31
6887	MGS	02-038/16:35:18		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-038/16:20:31
6888	MGS	02-038/16:35:18		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-038/16:20:31
6889	MGS	02-038/16:35:18		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-038/16:20:31
6890	MGS	02-038/16:35:18		: REC_2A, F42KHZ, PART2, SE_1A, FALSE, 00:11:36	AEMPB	02-038/16:20:31
6891	MGS	02-038/16:35:18		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-038/16:20:31
6892	MGS	02-038/16:35:18		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, PLYBCK, PART2	STSSRC	02-038/16:20:31
6893	MGS	02-038/16:35:18	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
6894	MGS	02-038/16:35:19		SSR 2A Data Enable	CSD2AE	02-038/16:20:32
6895	MGS	02-038/16:35:19		SSR Activity: ID=SSR_2A, FCN=Start Playback, PRT=2, BR=42666		02-038/16:20:32
6896	MGS	02-038/16:35:19	65	D/L Change: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
6897	MGS	02-038/16:35:23		NOTE: End fixed Sub-Reflector for Radio Science		02-038/16:20:35
6898	MGS	02-038/16:39:30		NOTE: Exit Solar Eclipse 13050		02-038/16:24:43
6899	MGS	02-038/16:53:31		NOTE: Periapsis 13051 ----------		02-038/16:38:43
6900	MGS	02-038/16:54:46		NOTE: Start Block (SSRMGR)		02-038/16:39:59
6901	MGS	02-038/16:54:46		Sends a one-word SSR command to the XSU command SOB: SSR_1B, SE_1A, RECORD, PART2	STSSRC	02-038/16:39:59
6902	MGS	02-038/16:54:47		SSR 1B Data Enable	CSD1BE	02-038/16:40:00
6903	MGS	02-038/16:54:47		SSR Activity: ID=SSR_1B, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-038/16:40:00
6904	MGS	02-038/17:04:30		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-038/16:49:42
6905	MGS	02-038/17:04:30		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-038/16:49:42
6906	MGS	02-038/17:04:31		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-038/16:49:43
6907	MGS	02-038/17:04:31		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-038/16:49:43

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
6908	MGS	02-038/17:21:28		SSR 1A Data Disable	CSD1AX	02-038/17:06:40
6909	MGS	02-038/17:21:28		SSR Activity: ID=SSR_1A, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-038/17:06:40
6910	MGS	02-038/17:21:29		NOTE: End Block (SSRMGR)		02-038/17:06:41
6911	MGS	02-038/17:26:31		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-038/17:11:43
6912	MGS	02-038/17:26:31		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-038/17:11:43
6913	MGS	02-038/17:43:39		NOTE: Begin fixed Sub-Reflector for Radio Science		02-038/17:28:51
6914	MGS	02-038/17:43:58		SSR 2A Data Disable	CSD2AX	02-038/17:29:10
6915	MGS	02-038/17:43:58		SSR Activity: ID=SSR_2A, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-038/17:29:10
6916	MGS	02-038/17:43:58		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-038/17:29:10
6917	MGS	02-038/17:43:58	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
6918	MGS	02-038/17:46:48		NOTE: Start EVP data return script		02-038/17:32:00
6919	MGS	02-038/17:46:48		: SSR_2B, F42KHZ, PART2, 2002-038T18:18:15.000	AEMPBU	02-038/17:32:00
6920	MGS	02-038/17:48:40		: 00:06:53, FALSE	RDSCII	02-038/17:33:52
6921	MGS	02-038/17:48:40		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-038/17:33:52
6922	MGS	02-038/17:48:40		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-038/17:33:52
6923	MGS	02-038/17:48:40		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-038/17:33:52
6924	MGS	02-038/17:48:40		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-038/17:33:52
6925	MGS	02-038/17:48:40	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
6926	MGS	02-038/17:48:40	65	NOTE: Carrier Only -- No Telemetry Modulation		
6927	MGS	02-038/17:50:45		NOTE: Enter Planetary Atmosphere 13051		02-038/17:35:57
6928	MGS	02-038/17:52:22		NOTE: Apoapsis 13051 -		02-038/17:37:33
6929	MGS	02-038/17:54:59		NOTE: Enter Earth Occultation 13051		02-038/17:40:11
6930	MGS	02-038/17:54:59	65	NOTE: Loss Of X-Band Signal		
6931	MGS	02-038/17:55:33		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-038/17:40:45
6932	MGS	02-038/17:55:33		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-038/17:40:45
6933	MGS	02-038/17:55:33		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-038/17:40:45
6934	MGS	02-038/17:55:33		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-038/17:40:45
6935	MGS	02-038/17:55:33		NOTE: End EVP script		02-038/17:40:45
6936	MGS	02-038/17:55:34		Turn off the MOT Exciter and RPA beam	STRPAF	02-038/17:40:46
6937	MGS	02-038/17:55:37		NOTE: End fixed Sub-Reflector for Radio Science		02-038/17:40:49
6938	MGS	02-038/17:56:47		NOTE: Enter Solar Eclipse 13051		02-038/17:41:59
6939	MGS	02-038/17:56:48		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-038/17:42:00
6940	MGS	02-038/18:20:52		NOTE: Begin fixed Sub-Reflector for Radio Science		02-038/18:06:04
6941	MGS	02-038/18:21:31		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-038/18:06:43
6942	MGS	02-038/18:21:31		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-038/18:06:43
6943	MGS	02-038/18:21:36		Set eclipse egress script address: 019A	SWSEES	02-038/18:06:48
6944	MGS	02-038/18:24:38		: 01:28:40	RPAONX	02-038/18:09:50
6945	MGS	02-038/18:24:38		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-038/18:09:50
6946	MGS	02-038/18:25:53		: 00:00:30, 00:07:10, FALSE	RDSCIE	02-038/18:11:05
6947	MGS	02-038/18:25:53		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-038/18:11:05
6948	MGS	02-038/18:25:53		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-038/18:11:05
6949	MGS	02-038/18:25:53		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-038/18:11:05
6950	MGS	02-038/18:25:53		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-038/18:11:05
6951	MGS	02-038/18:26:23		Disables autonomous command to send eclipse ingress script	SWEISX	02-038/18:11:35
6952	MGS	02-038/18:26:24		NOTE: Exit Earth Occultation 13051		02-038/18:11:36
6953	MGS	02-038/18:26:24	65	Acquisition Of X-Band Signal		
6954	MGS	02-038/18:26:24	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
6955	MGS	02-038/18:26:24	65	NOTE: Carrier Only -- No Telemetry Modulation		
6956	MGS	02-038/18:30:54		NOTE: Exit Planetary Atmosphere 13051		02-038/18:16:06
6957	MGS	02-038/18:33:03		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-038/18:18:15
6958	MGS	02-038/18:33:03		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-038/18:18:15
6959	MGS	02-038/18:33:03		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-038/18:18:15
6960	MGS	02-038/18:33:03		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-038/18:18:15
6961	MGS	02-038/18:33:03		: REC_2B, F42KHZ, PART2, SE_1A, FALSE, 00:11:36	AEMPB	02-038/18:18:15

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
6962	MGS	02-038/18:33:03		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-038/18:18:15
6963	MGS	02-038/18:33:03		Sends a one-word SSR command to the XSU command SOB: SSR_2B, F42KHZ, PLYBCK, PART2	STSSRC	02-038/18:18:15
6964	MGS	02-038/18:33:03	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
6965	MGS	02-038/18:33:04		SSR 2B Data Enable	CSD2BE	02-038/18:18:16
6966	MGS	02-038/18:33:04		SSR Activity: ID=SSR_2B, FCN=Start Playback, PRT=2, BR=42666		02-038/18:18:16
6967	MGS	02-038/18:33:04	65	D/L Change: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
6968	MGS	02-038/18:33:07		NOTE: End fixed Sub-Reflector for Radio Science		02-038/18:18:19
6969	MGS	02-038/18:37:14		NOTE: Exit Solar Eclipse 13051		02-038/18:22:26
6970	MGS	02-038/18:51:15		NOTE: Periapsis 13052 ----------		02-038/18:36:26
6971	MGS	02-038/18:58:13		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-038/18:43:25
6972	MGS	02-038/18:58:13		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-038/18:43:25
6973	MGS	02-038/18:58:14		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-038/18:43:26
6974	MGS	02-038/18:58:14		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-038/18:43:26
6975	MGS	02-038/19:20:14		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-038/19:05:26
6976	MGS	02-038/19:20:14		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-038/19:05:26
6977	MGS	02-038/19:41:24		NOTE: Begin fixed Sub-Reflector for Radio Science		02-038/19:26:35
6978	MGS	02-038/19:41:42		SSR 2B Data Disable	CSD2BX	02-038/19:26:54
6979	MGS	02-038/19:41:42		SSR Activity: ID=SSR_2B, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-038/19:26:54
6980	MGS	02-038/19:41:42		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-038/19:26:54
6981	MGS	02-038/19:41:42	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
6982	MGS	02-038/19:44:28		NOTE: Start Block (MAP_RT)		02-038/19:29:40
6983	MGS	02-038/19:44:29		: 00:27:50, 01:28:39, FALSE, TRUE, FALSE, 00:01:15, 00:07:10, 01:13:20, 00:06:53	AEMINI	02-038/19:29:41
6984	MGS	02-038/19:44:29		Enable sending eclipse ingress script when array power disappears	SWEISE	02-038/19:29:41
6985	MGS	02-038/19:44:29		NOTE: Start EVP data return script		02-038/19:29:41
6986	MGS	02-038/19:44:30		: SE_2A, RTM, 01:13:19, MRC, 2002-038T20:15:57.000	AEMRTI	02-038/19:29:42
6987	MGS	02-038/19:46:24		: 00:06:53, FALSE	RDSCII	02-038/19:31:36
6988	MGS	02-038/19:46:24		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-038/19:31:36
6989	MGS	02-038/19:46:24		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-038/19:31:36
6990	MGS	02-038/19:46:24		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-038/19:31:36
6991	MGS	02-038/19:46:24		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-038/19:31:36
6992	MGS	02-038/19:46:24	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
6993	MGS	02-038/19:46:24	65	NOTE: Carrier Only -- No Telemetry Modulation		
6994	MGS	02-038/19:48:28		NOTE: Enter Planetary Atmosphere 13052		02-038/19:33:39
6995	MGS	02-038/19:50:13		NOTE: Apoapsis 13052 -		02-038/19:35:25
6996	MGS	02-038/19:52:41		NOTE: Enter Earth Occultation 13052		02-038/19:37:53
6997	MGS	02-038/19:52:41	65	NOTE: Loss Of X-Band Signal		
6998	MGS	02-038/19:53:17		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-038/19:38:29
6999	MGS	02-038/19:53:17		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-038/19:38:29
7000	MGS	02-038/19:53:17		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-038/19:38:29
7001	MGS	02-038/19:53:17		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-038/19:38:29
7002	MGS	02-038/19:53:18		NOTE: End EVP script		02-038/19:38:29
7003	MGS	02-038/19:53:18		Turn off the MOT Exciter and RPA beam	STRPAF	02-038/19:38:30
7004	MGS	02-038/19:53:19		NOTE: End Block (MAP_PB)		02-038/19:38:30
7005	MGS	02-038/19:53:22		NOTE: End fixed Sub-Reflector for Radio Science		02-038/19:38:33
7006	MGS	02-038/19:54:29		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-038/19:39:41
7007	MGS	02-038/19:54:29		NOTE: Enter Solar Eclipse 13052		02-038/19:39:41
7008	MGS	02-038/20:05:00	25	Begin Pre-Cal		
7009	MGS	02-038/20:05:00	25	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
7010	MGS	02-038/20:05:00	25	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
7011	MGS	02-038/20:05:00	25	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
7012	MGS	02-038/20:05:00	25	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
7013	MGS	02-038/20:05:00	25	At BOT: S/C Tlm Mode: BR=42666.7, FL=10000, SC=HIGH, MI=80.0		
7014	MGS	02-038/20:05:00	25	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
7015	MGS	02-038/20:05:00	25	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
7016	MGS	02-038/20:05:00	25	Config: TGC: DEST=37		
7017	MGS	02-038/20:05:00	25	Config: TGC: BAND=X, BR=42666.666667		
7018	MGS	02-038/20:05:00	25	Config: FSS: CH=2, PRI_FL=10000		
7019	MGS	02-038/20:05:00	25	Config: RSR		
7020	MGS	02-038/20:05:00	25	Config: TXL		
7021	MGS	02-038/20:05:00	25	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
7022	MGS	02-038/20:05:00	25	Config: BVR		
7023	MGS	02-038/20:05:00	25	Config: Doppler Extractor: BIAS=+1MHZ		
7024	MGS	02-038/20:05:00	25	Config: MDA: SMPL=0.1		
7025	MGS	02-038/20:05:00	25	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
7026	MGS	02-038/20:05:00	25	Config: SRA: HIGH=4, LOW=14, SERV=D		
7027	MGS	02-038/20:05:00	25	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
7028	MGS	02-038/20:18:34		NOTE: Begin fixed Sub-Reflector for Radio Science		02-038/20:03:46
7029	MGS	02-038/20:19:14		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-038/20:04:26
7030	MGS	02-038/20:19:14		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-038/20:04:26
7031	MGS	02-038/20:19:19		Set eclipse egress script address: 01DC	SWSEES	02-038/20:04:31
7032	MGS	02-038/20:22:19		: 01:28:39	RPAONX	02-038/20:07:31
7033	MGS	02-038/20:22:19		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-038/20:07:31
7034	MGS	02-038/20:23:34		: 00:00:30, 00:07:10, FALSE	RDSCIE	02-038/20:08:46
7035	MGS	02-038/20:23:34		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-038/20:08:46
7036	MGS	02-038/20:23:34		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-038/20:08:46
7037	MGS	02-038/20:23:34		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-038/20:08:46
7038	MGS	02-038/20:23:34		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-038/20:08:46
7039	MGS	02-038/20:24:06		NOTE: Exit Earth Occultation 13052		02-038/20:09:18
7040	MGS	02-038/20:24:06	65	Acquisition Of X-Band Signal		
7041	MGS	02-038/20:24:06	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
7042	MGS	02-038/20:24:06	65	NOTE: Carrier Only -- No Telemetry Modulation		
7043	MGS	02-038/20:28:37		NOTE: Exit Planetary Atmosphere 13052		02-038/20:13:49
7044	MGS	02-038/20:30:44		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-038/20:15:56
7045	MGS	02-038/20:30:44		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-038/20:15:56
7046	MGS	02-038/20:30:44		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-038/20:15:56
7047	MGS	02-038/20:30:44		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-038/20:15:56
7048	MGS	02-038/20:30:44	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
7049	MGS	02-038/20:30:45		: RTM, MRC, 01:13:19, S&E_2A, FALSE, 00:06:54	AEMRT	02-038/20:15:57
7050	MGS	02-038/20:30:45		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-038/20:15:57
7051	MGS	02-038/20:30:45		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-038/20:15:57
7052	MGS	02-038/20:30:45	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
7053	MGS	02-038/20:30:49		NOTE: End fixed Sub-Reflector for Radio Science		02-038/20:16:01
7054	MGS	02-038/20:34:56		NOTE: Exit Solar Eclipse 13052		02-038/20:20:07
7055	MGS	02-038/20:36:40		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-038/20:21:52
7056	MGS	02-038/20:36:40	65	D/L Change: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
7057	MGS	02-038/20:36:42		NOTE: Start Block (SSRMGR)		02-038/20:21:54
7058	MGS	02-038/20:36:42		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-038/20:21:54
7059	MGS	02-038/20:36:42		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-038/20:21:54
7060	MGS	02-038/20:36:43		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-038/20:21:55
7061	MGS	02-038/20:36:44		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, PLYBCK, PART3	STSSRC	02-038/20:21:56
7062	MGS	02-038/20:36:45		SSR 2A Data Enable	CSD2AE	02-038/20:21:57
7063	MGS	02-038/20:36:45		SSR Activity: ID=SSR_2A, FCN=Start Playback, PRT=3, BR=42666		02-038/20:21:57
7064	MGS	02-038/20:36:45	65	D/L Change: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
7065	MGS	02-038/20:48:45		NOTE: Periapsis 13053 ----------		02-038/20:33:56
7066	MGS	02-038/20:49:12		NOTE: Start Block (SSRMGR)		02-038/20:34:24
7067	MGS	02-038/20:49:12		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-038/20:34:24
7068	MGS	02-038/20:49:12		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-038/20:34:24
7069	MGS	02-038/20:49:13		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-038/20:34:25

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
7070	MGS	02-038/20:49:13		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, ENBSCR, PART1	STSSRC	02-038/20:34:25
7071	MGS	02-038/20:49:14		Sends a one-word SSR command to the XSU command SOB: SSR_2B, F42KHZ, PLYBCK, PART3	STSSRC	02-038/20:34:26
7072	MGS	02-038/20:49:15		SSR 2A Data Disable	CSD2AX	02-038/20:34:27
7073	MGS	02-038/20:49:15		SSR 2B Data Enable	CSD2BE	02-038/20:34:27
7074	MGS	02-038/20:49:15		SSR Activity: ID=SSR_2B, FCN=Start Playback, PRT=3, BR=42666		02-038/20:34:27
7075	MGS	02-038/20:49:16		NOTE: End Block (SSRMGR)		02-038/20:34:28
7076	MGS	02-038/20:55:55		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-038/20:41:07
7077	MGS	02-038/20:55:55		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-038/20:41:07
7078	MGS	02-038/20:55:56		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-038/20:41:08
7079	MGS	02-038/20:55:56		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-038/20:41:08
7080	MGS	02-038/21:05:00	25	Begin Tracking		
7081	MGS	02-038/21:05:00	25	Acquire D/L: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
7082	MGS	02-038/21:06:45		SSR 2B Data Disable	CSD2BX	02-038/20:51:57
7083	MGS	02-038/21:06:45		SSR Activity: ID=SSR_2B, FCN=End Playback, PRT=3, BITS=44800000, DUR=00:17:30		02-038/20:51:57
7084	MGS	02-038/21:06:46		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-038/20:51:58
7085	MGS	02-038/21:06:46		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-038/20:51:58
7086	MGS	02-038/21:06:46		NOTE: End Block (SSRMGR)		02-038/20:51:58
7087	MGS	02-038/21:06:46	25	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
7088	MGS	02-038/21:06:46	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
7089	MGS	02-038/21:17:56		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-038/21:03:08
7090	MGS	02-038/21:17:56		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-038/21:03:08
7091	MGS	02-038/21:24:32	65	NOTE: Below Uplink Interlock Limit		
7092	MGS	02-038/21:25:00	65	End Tracking		
7093	MGS	02-038/21:39:04		NOTE: Begin fixed Sub-Reflector for Radio Science		02-038/21:24:16
7094	MGS	02-038/21:40:00	65	End Post-Cal		
7095	MGS	02-038/21:42:11		NOTE: Start EVP data return script		02-038/21:27:23
7096	MGS	02-038/21:44:04		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-038/21:29:16
7097	MGS	02-038/21:44:04		: 00:06:53, FALSE	RDSCII	02-038/21:29:16
7098	MGS	02-038/21:44:04		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-038/21:29:16
7099	MGS	02-038/21:44:04		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-038/21:29:16
7100	MGS	02-038/21:44:04		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-038/21:29:16
7101	MGS	02-038/21:44:04		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-038/21:29:16
7102	MGS	02-038/21:44:04	25	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
7103	MGS	02-038/21:44:04	25	NOTE: Carrier Only -- No Telemetry Modulation		
7104	MGS	02-038/21:46:11		NOTE: Enter Planetary Atmosphere 13053		02-038/21:31:22
7105	MGS	02-038/21:47:39		NOTE: Apoapsis 13053 -		02-038/21:32:50
7106	MGS	02-038/21:50:24		NOTE: Enter Earth Occultation 13053		02-038/21:35:35
7107	MGS	02-038/21:50:24	25	NOTE: Loss Of X-Band Signal		
7108	MGS	02-038/21:50:57		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-038/21:36:09
7109	MGS	02-038/21:50:57		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-038/21:36:09
7110	MGS	02-038/21:50:57		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-038/21:36:09
7111	MGS	02-038/21:50:57		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-038/21:36:09
7112	MGS	02-038/21:50:58		Turn off the MOT Exciter and RPA beam	STRPAF	02-038/21:36:10
7113	MGS	02-038/21:50:58		NOTE: End EVP script		02-038/21:36:10
7114	MGS	02-038/21:51:02		NOTE: End fixed Sub-Reflector for Radio Science		02-038/21:36:14
7115	MGS	02-038/21:52:11		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-038/21:37:23
7116	MGS	02-038/21:52:12		NOTE: Enter Solar Eclipse 13053		02-038/21:37:23
7117	MGS	02-038/21:55:56	25	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
7118	MGS	02-038/21:57:57	25	Range Modulation On: SUP=3.0dB		
7119	MGS	02-038/21:58:57	25	Begin Ranging Acquisition		
7120	MGS	02-038/22:16:16		NOTE: Begin fixed Sub-Reflector for Radio Science		02-038/22:01:28
7121	MGS	02-038/22:16:56		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-038/22:02:08
7122	MGS	02-038/22:16:56		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-038/22:02:08
7123	MGS	02-038/22:17:00		Command the PSE with included data word: 3990	SWPSEL	02-038/22:02:12

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
7124	MGS	02-038/22:17:01		Set eclipse egress script address: 0158	SWSEES	02-038/22:02:13
7125	MGS	02-038/22:20:01		: 01:28:39	RPAONX	02-038/22:05:13
7126	MGS	02-038/22:20:01		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-038/22:05:13
7127	MGS	02-038/22:21:16		: 00:00:30, 00:07:10, FALSE	RDSCIE	02-038/22:06:28
7128	MGS	02-038/22:21:16		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-038/22:06:28
7129	MGS	02-038/22:21:16		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-038/22:06:28
7130	MGS	02-038/22:21:16		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-038/22:06:28
7131	MGS	02-038/22:21:16		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-038/22:06:28
7132	MGS	02-038/22:21:46		Disables autonomous command to send eclipse ingress script	SWEISX	02-038/22:06:58
7133	MGS	02-038/22:21:49		NOTE: Exit Earth Occultation 13053		02-038/22:07:00
7134	MGS	02-038/22:21:49	25	Acquisition Of X-Band Signal		
7135	MGS	02-038/22:21:49	25	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
7136	MGS	02-038/22:21:49	25	NOTE: Carrier Only -- No Telemetry Modulation		
7137	MGS	02-038/22:26:19		NOTE: Exit Planetary Atmosphere 13053		02-038/22:11:30
7138	MGS	02-038/22:28:07		NOTE: Start Block (SSRMGR)		02-038/22:13:19
7139	MGS	02-038/22:28:07		Sends a one-word SSR command to the XSU command SOB: SSR_1A, SE_1A, RECORD, PART3	STSSRC	02-038/22:13:19
7140	MGS	02-038/22:28:08		SSR 1A Data Enable	CSD1AE	02-038/22:13:20
7141	MGS	02-038/22:28:08		SSR Activity: ID=SSR_1A, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-038/22:13:20
7142	MGS	02-038/22:28:26		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-038/22:13:38
7143	MGS	02-038/22:28:26		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-038/22:13:38
7144	MGS	02-038/22:28:26		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-038/22:13:38
7145	MGS	02-038/22:28:26		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-038/22:13:38
7146	MGS	02-038/22:28:26	25	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
7147	MGS	02-038/22:28:27		: RTM, MRC, 01:13:19, S&E_2A, FALSE, 00:06:54	AEMRT	02-038/22:13:39
7148	MGS	02-038/22:28:27		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-038/22:13:39
7149	MGS	02-038/22:28:27		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-038/22:13:39
7150	MGS	02-038/22:28:27		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=3, BITS=152000, DUR=00:00:19		02-038/22:13:39
7151	MGS	02-038/22:28:27		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-038/22:13:39
7152	MGS	02-038/22:28:27	25	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
7153	MGS	02-038/22:28:31		NOTE: End fixed Sub-Reflector for Radio Science		02-038/22:13:43
7154	MGS	02-038/22:32:38		NOTE: Exit Solar Eclipse 13053		02-038/22:17:49
7155	MGS	02-038/22:46:09		NOTE: Periapsis 13054 ----------		02-038/22:31:20
7156	MGS	02-038/22:54:48		SSR 1B Data Disable	CSD1BX	02-038/22:40:00
7157	MGS	02-038/22:54:48		SSR Activity: ID=SSR_1B, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-038/22:40:00
7158	MGS	02-038/22:54:49		NOTE: End Block (SSRMGR)		02-038/22:40:01
7159	MGS	02-038/22:57:37		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-038/22:42:49
7160	MGS	02-038/22:57:37		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-038/22:42:49
7161	MGS	02-038/22:57:38		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-038/22:42:50
7162	MGS	02-038/22:57:38		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-038/22:42:50
7163	MGS	02-038/22:59:44	25	NOTE: Transmitter Off in 15 minutes		
7164	MGS	02-038/23:08:07		NOTE: Start Block (SSRMGR)		02-038/22:53:19
7165	MGS	02-038/23:08:07		Sends a one-word SSR command to the XSU command SOB: SSR_1B, SE_1A, RECORD, PART3	STSSRC	02-038/22:53:19
7166	MGS	02-038/23:08:08		SSR 1B Data Enable	CSD1BE	02-038/22:53:20
7167	MGS	02-038/23:08:08		SSR Activity: ID=SSR_1B, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-038/22:53:20
7168	MGS	02-038/23:12:45	25	Range Modulation Off		
7169	MGS	02-038/23:14:44	25	Transmitter Off		
7170	MGS	02-038/23:19:38		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-038/23:04:50
7171	MGS	02-038/23:19:38		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-038/23:04:50
7172	MGS	02-038/23:34:49		SSR 1A Data Disable	CSD1AX	02-038/23:20:00
7173	MGS	02-038/23:34:49		SSR Activity: ID=SSR_1A, FCN=End Recording, PRT=3, BITS=32000000, DUR=01:06:40		02-038/23:20:00
7174	MGS	02-038/23:34:50		NOTE: End Block (SSRMGR)		02-038/23:20:01
7175	MGS	02-038/23:36:47		NOTE: Begin fixed Sub-Reflector for Radio Science		02-038/23:21:58
7176	MGS	02-038/23:39:56		NOTE: Start Block (MAP_RT)		02-038/23:25:07
7177	MGS	02-038/23:39:57		: 00:27:51, 01:28:35, FALSE, TRUE, FALSE, 00:01:15, 00:07:10, 01:13:17, 00:06:52	AEMINI	02-038/23:25:08

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
7178	MGS	02-038/23:39:57		Enable sending eclipse ingress script when array power disappears	SWEISE	02-038/23:25:08
7179	MGS	02-038/23:39:57		NOTE: Start EVP data return script		02-038/23:25:08
7180	MGS	02-038/23:39:58		: SE_2A, RTM, 01:13:16, MRC, 2002-039T00:11:25.000	AEMRTI	02-038/23:25:09
7181	MGS	02-038/23:41:47		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-038/23:26:58
7182	MGS	02-038/23:41:47		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=3, BITS=16144000, DUR=00:33:38		02-038/23:26:58
7183	MGS	02-038/23:41:47		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-038/23:26:58
7184	MGS	02-038/23:41:47		: 00:06:53, FALSE	RDSCII	02-038/23:26:58
7185	MGS	02-038/23:41:47		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-038/23:26:58
7186	MGS	02-038/23:41:47		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-038/23:26:58
7187	MGS	02-038/23:41:47		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-038/23:26:58
7188	MGS	02-038/23:41:47		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-038/23:26:58
7189	MGS	02-038/23:41:47	25	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
7190	MGS	02-038/23:41:47	25	NOTE: Carrier Only -- No Telemetry Modulation		
7191	MGS	02-038/23:43:54		NOTE: Enter Planetary Atmosphere 13054		02-038/23:29:05
7192	MGS	02-038/23:45:11		NOTE: Apoapsis 13054 -		02-038/23:30:22
7193	MGS	02-038/23:48:07		NOTE: Enter Earth Occultation 13054		02-038/23:33:18
7194	MGS	02-038/23:48:07	25	NOTE: Loss Of X-Band Signal		
7195	MGS	02-038/23:48:40		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-038/23:33:51
7196	MGS	02-038/23:48:40		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-038/23:33:51
7197	MGS	02-038/23:48:40		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-038/23:33:51
7198	MGS	02-038/23:48:40		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-038/23:33:51
7199	MGS	02-038/23:48:41		Turn off the MOT Exciter and RPA beam	STRPAF	02-038/23:33:52
7200	MGS	02-038/23:48:41		NOTE: End EVP script		02-038/23:33:52
7201	MGS	02-038/23:48:42		NOTE: End Block (MAP_RT)		02-038/23:33:53
7202	MGS	02-038/23:48:45		NOTE: End fixed Sub-Reflector for Radio Science		02-038/23:33:56
7203	MGS	02-038/23:49:56		NOTE: Enter Solar Eclipse 13054		02-038/23:35:07
7204	MGS	02-038/23:49:57		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-038/23:35:08
7205	MGS	02-038/23:53:40	25	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
7206	MGS	02-038/23:55:40	25	Range Modulation On: SUP=3.0dB		
7207	MGS	02-038/23:56:40	25	Begin Ranging Acquisition		
7208	MGS	02-039/00:00:00		Light Time: OWLT = 14:49, RTLT = 29:38		
7209	MGS	02-039/00:00:00	15	Begin Pre-Cal		
7210	MGS	02-039/00:00:00	15	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
7211	MGS	02-039/00:00:00	15	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
7212	MGS	02-039/00:00:00	15	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
7213	MGS	02-039/00:00:00	15	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
7214	MGS	02-039/00:00:00	15	At BOT: S/C Tlm Mode: BR=40000.0, FL=10000, SC=HIGH, MI=80.0		
7215	MGS	02-039/00:00:00	15	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
7216	MGS	02-039/00:00:00	15	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
7217	MGS	02-039/00:00:00	15	Config: TGC: DEST=37		
7218	MGS	02-039/00:00:00	15	Config: TGC: BAND=X, BR=40000.000000		
7219	MGS	02-039/00:00:00	15	Config: FSS: CH=2, PRI_FL=10000		
7220	MGS	02-039/00:00:00	15	Config: RSR		
7221	MGS	02-039/00:00:00	15	Config: TXL		
7222	MGS	02-039/00:00:00	15	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
7223	MGS	02-039/00:00:00	15	Config: BVR		
7224	MGS	02-039/00:00:00	15	Config: Doppler Extractor: BIAS=+1MHZ		
7225	MGS	02-039/00:00:00	15	Config: MDA: SMPL=0.1		
7226	MGS	02-039/00:00:00	15	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
7227	MGS	02-039/00:00:00	15	Config: SRA: HIGH=4, LOW=14, SERV=D		
7228	MGS	02-039/00:00:00	15	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
7229	MGS	02-039/00:14:02		NOTE: Begin fixed Sub-Reflector for Radio Science		02-038/23:59:13
7230	MGS	02-039/00:14:39		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-038/23:59:50
7231	MGS	02-039/00:14:39		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-038/23:59:50

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
7232	MGS	02-039/00:14:44		Set eclipse egress script address: 019A	SWSEES	02-038/23:59:55
7233	MGS	02-039/00:14:48		NOTE: Start Block (SSRMGR)		02-038/23:59:59
7234	MGS	02-039/00:14:48		Sends a one-word SSR command to the XSU command SOB: SSR_2A, SE_1A, RECORD, PART1	STSSRC	02-038/23:59:59
7235	MGS	02-039/00:14:49		SSR 2A Data Enable	CSD2AE	02-039/00:00:00
7236	MGS	02-039/00:14:49		SSR Activity: ID=SSR_2A, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-039/00:00:00
7237	MGS	02-039/00:17:48		: 01:28:35	RPAONX	02-039/00:02:59
7238	MGS	02-039/00:17:48		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-039/00:02:59
7239	MGS	02-039/00:19:03		: 00:00:30, 00:07:10, FALSE	RDSCIE	02-039/00:04:14
7240	MGS	02-039/00:19:03		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-039/00:04:14
7241	MGS	02-039/00:19:03		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-039/00:04:14
7242	MGS	02-039/00:19:03		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-039/00:04:14
7243	MGS	02-039/00:19:03		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-039/00:04:14
7244	MGS	02-039/00:19:33		NOTE: Exit Earth Occultation 13054		02-039/00:04:44
7245	MGS	02-039/00:19:33	25	Acquisition Of X-Band Signal		
7246	MGS	02-039/00:19:33	25	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
7247	MGS	02-039/00:19:33	25	NOTE: Carrier Only -- No Telemetry Modulation		
7248	MGS	02-039/00:24:02		NOTE: Exit Planetary Atmosphere 13054		02-039/00:09:13
7249	MGS	02-039/00:26:13		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-039/00:11:24
7250	MGS	02-039/00:26:13		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-039/00:11:24
7251	MGS	02-039/00:26:13		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-039/00:11:24
7252	MGS	02-039/00:26:13		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-039/00:11:24
7253	MGS	02-039/00:26:13	25	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
7254	MGS	02-039/00:26:14		: RTM, MRC, 01:13:16, S&E_2A, FALSE, 00:06:53	AEMRT	02-039/00:11:25
7255	MGS	02-039/00:26:14		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-039/00:11:25
7256	MGS	02-039/00:26:14		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-039/00:11:25
7257	MGS	02-039/00:26:14		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=1, BITS=5480000, DUR=00:11:25		02-039/00:11:25
7258	MGS	02-039/00:26:14		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-039/00:11:25
7259	MGS	02-039/00:26:14	25	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
7260	MGS	02-039/00:26:17		NOTE: End fixed Sub-Reflector for Radio Science		02-039/00:11:28
7261	MGS	02-039/00:30:23		NOTE: Exit Solar Eclipse 13054		02-039/00:15:33
7262	MGS	02-039/00:41:29		SSR 1B Data Disable	CSD1BX	02-039/00:26:40
7263	MGS	02-039/00:41:29		SSR Activity: ID=SSR_1B, FCN=End Recording, PRT=3, BITS=44800000, DUR=01:33:20		02-039/00:26:40
7264	MGS	02-039/00:41:30		NOTE: End Block (SSRMGR)		02-039/00:26:41
7265	MGS	02-039/00:44:11		NOTE: Periapsis 13055 ----------		02-039/00:29:22
7266	MGS	02-039/00:51:22		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-039/00:36:33
7267	MGS	02-039/00:51:22		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-039/00:36:33
7268	MGS	02-039/00:51:23		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-039/00:36:34
7269	MGS	02-039/00:51:23		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-039/00:36:34
7270	MGS	02-039/00:57:29	25	NOTE: Transmitter Off in 15 minutes		
7271	MGS	02-039/01:00:00	15	Begin Tracking		
7272	MGS	02-039/01:00:00	15	Acquire D/L: X/16, 3-Way/25, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
7273	MGS	02-039/01:10:29	25	Range Modulation Off		
7274	MGS	02-039/01:12:29	25	Transmitter Off		
7275	MGS	02-039/01:13:23		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-039/00:58:34
7276	MGS	02-039/01:13:23		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-039/00:58:34
7277	MGS	02-039/01:20:00	25	End Tracking		
7278	MGS	02-039/01:34:29		NOTE: Begin fixed Sub-Reflector for Radio Science		02-039/01:19:40
7279	MGS	02-039/01:35:00	25	End Post-Cal		
7280	MGS	02-039/01:37:43		NOTE: Start EVP data return script		02-039/01:22:54
7281	MGS	02-039/01:39:30		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-039/01:24:41
7282	MGS	02-039/01:39:30		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=1, BITS=40648000, DUR=01:13:16		02-039/01:24:41
7283	MGS	02-039/01:39:30		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-039/01:24:41
7284	MGS	02-039/01:39:30		: 00:06:52, FALSE	RDSCII	02-039/01:24:41

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
7285	MGS	02-039/01:39:30		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-039/01:24:41
7286	MGS	02-039/01:39:30		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-039/01:24:41
7287	MGS	02-039/01:39:30		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-039/01:24:41
7288	MGS	02-039/01:39:30		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-039/01:24:41
7289	MGS	02-039/01:39:30	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
7290	MGS	02-039/01:39:30	15	NOTE: Carrier Only -- No Telemetry Modulation		
7291	MGS	02-039/01:41:40		NOTE: Enter Planetary Atmosphere 13055		02-039/01:26:50
7292	MGS	02-039/01:43:23		NOTE: Apoapsis 13055 -		02-039/01:28:34
7293	MGS	02-039/01:45:52		NOTE: Enter Earth Occultation 13055		02-039/01:31:03
7294	MGS	02-039/01:45:52	15	NOTE: Loss Of X-Band Signal		
7295	MGS	02-039/01:46:22		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-039/01:31:33
7296	MGS	02-039/01:46:22		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-039/01:31:33
7297	MGS	02-039/01:46:22		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-039/01:31:33
7298	MGS	02-039/01:46:22		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-039/01:31:33
7299	MGS	02-039/01:46:22		NOTE: End EVP script		02-039/01:31:33
7300	MGS	02-039/01:46:23		Turn off the MOT Exciter and RPA beam	STRPAF	02-039/01:31:34
7301	MGS	02-039/01:46:26		NOTE: End fixed Sub-Reflector for Radio Science		02-039/01:31:37
7302	MGS	02-039/01:47:42		NOTE: Enter Solar Eclipse 13055		02-039/01:32:53
7303	MGS	02-039/01:47:43		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-039/01:32:54
7304	MGS	02-039/01:51:26	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
7305	MGS	02-039/01:53:27	15	Range Modulation On: SUP=3.0dB		
7306	MGS	02-039/01:54:27	15	Begin Ranging Acquisition		
7307	MGS	02-039/02:11:48		NOTE: Begin fixed Sub-Reflector for Radio Science		02-039/01:56:59
7308	MGS	02-039/02:12:23		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-039/01:57:34
7309	MGS	02-039/02:12:23		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-039/01:57:34
7310	MGS	02-039/02:12:28		Set eclipse egress script address: 01DC	SWSEES	02-039/01:57:39
7311	MGS	02-039/02:15:34		: 01:28:35	RPAONX	02-039/02:00:45
7312	MGS	02-039/02:15:34		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-039/02:00:45
7313	MGS	02-039/02:16:49		: 00:00:30, 00:07:10, FALSE	RDSCIE	02-039/02:02:00
7314	MGS	02-039/02:16:49		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-039/02:02:00
7315	MGS	02-039/02:16:49		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-039/02:02:00
7316	MGS	02-039/02:16:49		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-039/02:02:00
7317	MGS	02-039/02:16:49		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-039/02:02:00
7318	MGS	02-039/02:17:19		Disables autonomous command to send eclipse ingress script	SWEISX	02-039/02:02:30
7319	MGS	02-039/02:17:20		NOTE: Exit Earth Occultation 13055		02-039/02:02:30
7320	MGS	02-039/02:17:20	15	Acquisition Of X-Band Signal		
7321	MGS	02-039/02:17:20	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
7322	MGS	02-039/02:17:20	15	NOTE: Carrier Only -- No Telemetry Modulation		
7323	MGS	02-039/02:21:49		NOTE: Exit Planetary Atmosphere 13055		02-039/02:06:59
7324	MGS	02-039/02:23:59		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-039/02:09:10
7325	MGS	02-039/02:23:59		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-039/02:09:10
7326	MGS	02-039/02:23:59		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-039/02:09:10
7327	MGS	02-039/02:23:59		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-039/02:09:10
7328	MGS	02-039/02:23:59	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
7329	MGS	02-039/02:24:00		: RTM, MRC, 01:13:16, S&E_2A, FALSE, 00:06:53	AEMRT	02-039/02:09:11
7330	MGS	02-039/02:24:00		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-039/02:09:11
7331	MGS	02-039/02:24:00		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-039/02:09:11
7332	MGS	02-039/02:24:00		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=1, BITS=62008000, DUR=00:44:30		02-039/02:09:11
7333	MGS	02-039/02:24:00		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-039/02:09:11
7334	MGS	02-039/02:24:00	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
7335	MGS	02-039/02:24:03		NOTE: End fixed Sub-Reflector for Radio Science		02-039/02:09:14
7336	MGS	02-039/02:28:09		NOTE: Exit Solar Eclipse 13055		02-039/02:13:20
7337	MGS	02-039/02:42:25		NOTE: Periapsis 13056 ----------		02-039/02:27:35
7338	MGS	02-039/02:49:08		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-039/02:34:19

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
7339	MGS	02-039/02:49:08		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-039/02:34:19
7340	MGS	02-039/02:49:09		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-039/02:34:20
7341	MGS	02-039/02:49:09		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-039/02:34:20
7342	MGS	02-039/02:55:16	15	NOTE: Transmitter Off in 15 minutes		
7343	MGS	02-039/03:08:16	15	Range Modulation Off		
7344	MGS	02-039/03:10:16	15	Transmitter Off		
7345	MGS	02-039/03:11:09		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-039/02:56:20
7346	MGS	02-039/03:11:09		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-039/02:56:20
7347	MGS	02-039/03:32:16		NOTE: Begin fixed Sub-Reflector for Radio Science		02-039/03:17:26
7348	MGS	02-039/03:35:29		NOTE: Start Block (MAP_RT)		02-039/03:20:40
7349	MGS	02-039/03:35:30		: 00:27:51, 01:28:35, FALSE, TRUE, FALSE, 00:01:15, 00:07:10, 01:13:17, 00:06:52	AEMINI	02-039/03:20:41
7350	MGS	02-039/03:35:30		Enable sending eclipse ingress script when array power disappears	SWEISE	02-039/03:20:41
7351	MGS	02-039/03:35:30		NOTE: Start EVP data return script		02-039/03:20:41
7352	MGS	02-039/03:35:31		: SE_1A, MRC, 01:13:16, MRC, 2002-039T04:06:58.000	AEMRTI	02-039/03:20:42
7353	MGS	02-039/03:37:16		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-039/03:22:27
7354	MGS	02-039/03:37:16		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=1, BITS=97176000, DUR=01:13:16		02-039/03:22:27
7355	MGS	02-039/03:37:16		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-039/03:22:27
7356	MGS	02-039/03:37:16		: 00:06:52, FALSE	RDSCII	02-039/03:22:27
7357	MGS	02-039/03:37:16		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-039/03:22:27
7358	MGS	02-039/03:37:16		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-039/03:22:27
7359	MGS	02-039/03:37:16		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-039/03:22:27
7360	MGS	02-039/03:37:16		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-039/03:22:27
7361	MGS	02-039/03:37:16	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
7362	MGS	02-039/03:37:16	15	NOTE: Carrier Only -- No Telemetry Modulation		
7363	MGS	02-039/03:39:27		NOTE: Enter Planetary Atmosphere 13056		02-039/03:24:38
7364	MGS	02-039/03:41:38		NOTE: Apoapsis 13056 -		02-039/03:26:49
7365	MGS	02-039/03:43:40		NOTE: Enter Earth Occultation 13056		02-039/03:28:50
7366	MGS	02-039/03:43:40	15	NOTE: Loss Of X-Band Signal		
7367	MGS	02-039/03:44:08		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-039/03:29:19
7368	MGS	02-039/03:44:08		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-039/03:29:19
7369	MGS	02-039/03:44:08		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-039/03:29:19
7370	MGS	02-039/03:44:08		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-039/03:29:19
7371	MGS	02-039/03:44:09		NOTE: End EVP script		02-039/03:29:19
7372	MGS	02-039/03:44:09		Turn off the MOT Exciter and RPA beam	STRPAF	02-039/03:29:20
7373	MGS	02-039/03:44:10		NOTE: End Block (MAP_RT)		02-039/03:29:20
7374	MGS	02-039/03:44:13		NOTE: End fixed Sub-Reflector for Radio Science		02-039/03:29:23
7375	MGS	02-039/03:45:30		NOTE: Enter Solar Eclipse 13056		02-039/03:30:40
7376	MGS	02-039/03:45:30		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-039/03:30:41
7377	MGS	02-039/03:49:13	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
7378	MGS	02-039/03:51:14	15	Range Modulation On: SUP=3.0dB		
7379	MGS	02-039/03:52:14	15	Begin Ranging Acquisition		
7380	MGS	02-039/04:09:36		NOTE: Begin fixed Sub-Reflector for Radio Science		02-039/03:54:46
7381	MGS	02-039/04:10:09		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-039/03:55:20
7382	MGS	02-039/04:10:09		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-039/03:55:20
7383	MGS	02-039/04:10:13		Command the PSE with included data word: 3990	SWPSEL	02-039/03:55:24
7384	MGS	02-039/04:10:14		Set eclipse egress script address: 0158	SWSEES	02-039/03:55:25
7385	MGS	02-039/04:13:21		: 01:28:35	RPAONX	02-039/03:58:32
7386	MGS	02-039/04:13:21		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-039/03:58:32
7387	MGS	02-039/04:14:36		: 00:00:30, 00:07:10, FALSE	RDSCIE	02-039/03:59:47
7388	MGS	02-039/04:14:36		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-039/03:59:47
7389	MGS	02-039/04:14:36		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-039/03:59:47
7390	MGS	02-039/04:14:36		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-039/03:59:47
7391	MGS	02-039/04:14:36		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-039/03:59:47
7392	MGS	02-039/04:15:06		Disables autonomous command to send eclipse ingress script	SWEISX	02-039/04:00:17

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
7393	MGS	02-039/04:15:08		NOTE: Exit Earth Occultation 13056		02-039/04:00:18
7394	MGS	02-039/04:15:08	15	Acquisition Of X-Band Signal		
7395	MGS	02-039/04:15:08	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
7396	MGS	02-039/04:15:08	15	NOTE: Carrier Only -- No Telemetry Modulation		
7397	MGS	02-039/04:19:37		NOTE: Exit Planetary Atmosphere 13056		02-039/04:04:47
7398	MGS	02-039/04:21:46		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-039/04:06:57
7399	MGS	02-039/04:21:46		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-039/04:06:57
7400	MGS	02-039/04:21:46		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-039/04:06:57
7401	MGS	02-039/04:21:46		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-039/04:06:57
7402	MGS	02-039/04:21:46	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
7403	MGS	02-039/04:21:47		: MRC, MRC, 01:13:16, S&E_1A, FALSE, 00:06:53	AEMRT	02-039/04:06:58
7404	MGS	02-039/04:21:47		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-039/04:06:58
7405	MGS	02-039/04:21:47		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-039/04:06:58
7406	MGS	02-039/04:21:47		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=1, BITS=118544000, DUR=00:44:31		02-039/04:06:58
7407	MGS	02-039/04:21:47		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-039/04:06:58
7408	MGS	02-039/04:21:47	15	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
7409	MGS	02-039/04:21:51		NOTE: End fixed Sub-Reflector for Radio Science		02-039/04:07:01
7410	MGS	02-039/04:25:00	15	NOTE: Transmitter Off in 15 minutes		
7411	MGS	02-039/04:25:57		NOTE: Exit Solar Eclipse 13056		02-039/04:11:07
7412	MGS	02-039/04:38:00	15	Range Modulation Off		
7413	MGS	02-039/04:40:00	15	Transmitter Off		
7414	MGS	02-039/04:40:24		NOTE: Periapsis 13057 ----------		02-039/04:25:35
7415	MGS	02-039/04:50:56		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-039/04:36:07
7416	MGS	02-039/04:50:56		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-039/04:36:07
7417	MGS	02-039/04:50:57		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-039/04:36:08
7418	MGS	02-039/04:50:57		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-039/04:36:08
7419	MGS	02-039/04:54:47	15	NOTE: Below Uplink Interlock Limit		
7420	MGS	02-039/05:00:00	15	End Tracking		
7421	MGS	02-039/05:00:00	45	Begin Pre-Cal		
7422	MGS	02-039/05:00:00	45	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
7423	MGS	02-039/05:00:00	45	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
7424	MGS	02-039/05:00:00	45	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
7425	MGS	02-039/05:00:00	45	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=OFF, EXC=2		
7426	MGS	02-039/05:00:00	45	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
7427	MGS	02-039/05:00:00	45	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
7428	MGS	02-039/05:00:00	45	Config: TGC: DEST=37		
7429	MGS	02-039/05:00:00	45	Config: TGC: BAND=X, BR=8000.000000		
7430	MGS	02-039/05:00:00	45	Config: FSS: CH=2, PRI_FL=10000		
7431	MGS	02-039/05:00:00	45	Config: RSR		
7432	MGS	02-039/05:00:00	45	Config: TXL		
7433	MGS	02-039/05:00:00	45	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
7434	MGS	02-039/05:00:00	45	Config: BVR		
7435	MGS	02-039/05:00:00	45	Config: Doppler Extractor: BIAS=+1MHZ		
7436	MGS	02-039/05:00:00	45	Config: MDA: SMPL=0.1		
7437	MGS	02-039/05:00:00	45	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
7438	MGS	02-039/05:00:00	45	Config: SRA: HIGH=4, LOW=14, SERV=D		
7439	MGS	02-039/05:00:00	45	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
7440	MGS	02-039/05:12:57		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-039/04:58:08
7441	MGS	02-039/05:12:57		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-039/04:58:08
7442	MGS	02-039/05:15:00	15	End Post-Cal		
7443	MGS	02-039/05:30:03		NOTE: Begin fixed Sub-Reflector for Radio Science		02-039/05:15:13
7444	MGS	02-039/05:33:14		NOTE: Start Block (MAP_RT)		02-039/05:18:25
7445	MGS	02-039/05:33:15		: 00:27:51, 01:28:35, FALSE, TRUE, FALSE, 00:01:15, 00:07:10, 01:13:17, 00:06:52	AEMINI	02-039/05:18:26
7446	MGS	02-039/05:33:15		Enable sending eclipse ingress script when array power disappears	SWEISE	02-039/05:18:26

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
7447	MGS	02-039/05:33:15		NOTE: Start EVP data return script		02-039/05:18:26
7448	MGS	02-039/05:33:16		: SE_2A, RTM, 01:13:16, MRC, 2002-039T06:04:43.000	AEMRTI	02-039/05:18:27
7449	MGS	02-039/05:35:03		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-039/05:20:14
7450	MGS	02-039/05:35:03		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=1, BITS=153712000, DUR=01:13:16		02-039/05:20:14
7451	MGS	02-039/05:35:03		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-039/05:20:14
7452	MGS	02-039/05:35:03		: 00:06:52, FALSE	RDSCII	02-039/05:20:14
7453	MGS	02-039/05:35:03		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-039/05:20:14
7454	MGS	02-039/05:35:03		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-039/05:20:14
7455	MGS	02-039/05:35:03		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-039/05:20:14
7456	MGS	02-039/05:35:03		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-039/05:20:14
7457	MGS	02-039/05:37:14		NOTE: Enter Planetary Atmosphere 13057		02-039/05:22:24
7458	MGS	02-039/05:39:25		NOTE: Apoapsis 13057 -		02-039/05:24:35
7459	MGS	02-039/05:41:27		NOTE: Enter Earth Occultation 13057		02-039/05:26:37
7460	MGS	02-039/05:41:55		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-039/05:27:06
7461	MGS	02-039/05:41:55		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-039/05:27:06
7462	MGS	02-039/05:41:55		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-039/05:27:06
7463	MGS	02-039/05:41:55		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-039/05:27:06
7464	MGS	02-039/05:41:56		NOTE: End EVP script		02-039/05:27:06
7465	MGS	02-039/05:41:56		Turn off the MOT Exciter and RPA beam	STRPAF	02-039/05:27:07
7466	MGS	02-039/05:41:57		NOTE: End Block (MAP_RT)		02-039/05:27:07
7467	MGS	02-039/05:42:00		NOTE: End fixed Sub-Reflector for Radio Science		02-039/05:27:10
7468	MGS	02-039/05:43:15		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-039/05:28:26
7469	MGS	02-039/05:43:16		NOTE: Enter Solar Eclipse 13057		02-039/05:28:26
7470	MGS	02-039/05:48:09		NOTE: Start Block (SSRMGR)		02-039/05:33:19
7471	MGS	02-039/05:48:09		Sends a one-word SSR command to the XSU command SOB: SSR_2B, SE_1A, RECORD, PART1	STSSRC	02-039/05:33:19
7472	MGS	02-039/05:48:10		SSR 2B Data Enable	CSD2BE	02-039/05:33:20
7473	MGS	02-039/05:48:10		SSR Activity: ID=SSR_2B, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-039/05:33:20
7474	MGS	02-039/06:00:00	45	Begin Tracking		
7475	MGS	02-039/06:07:22		NOTE: Begin fixed Sub-Reflector for Radio Science		02-039/05:52:32
7476	MGS	02-039/06:07:58		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-039/05:53:08
7477	MGS	02-039/06:07:58		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-039/05:53:08
7478	MGS	02-039/06:08:03		Set eclipse egress script address: 019A	SWSEES	02-039/05:53:13
7479	MGS	02-039/06:10:00	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
7480	MGS	02-039/06:11:07		: 01:28:35	RPAONX	02-039/05:56:17
7481	MGS	02-039/06:11:07		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-039/05:56:17
7482	MGS	02-039/06:12:00	45	Range Modulation On: SUP=3.0dB		
7483	MGS	02-039/06:12:22		: 00:00:30, 00:07:10, FALSE	RDSCIE	02-039/05:57:32
7484	MGS	02-039/06:12:22		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-039/05:57:32
7485	MGS	02-039/06:12:22		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-039/05:57:32
7486	MGS	02-039/06:12:22		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-039/05:57:32
7487	MGS	02-039/06:12:22		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-039/05:57:32
7488	MGS	02-039/06:12:54		NOTE: Exit Earth Occultation 13057		02-039/05:58:04
7489	MGS	02-039/06:12:54	45	Acquisition Of X-Band Signal		
7490	MGS	02-039/06:12:54	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
7491	MGS	02-039/06:12:54	45	NOTE: Carrier Only -- No Telemetry Modulation		
7492	MGS	02-039/06:13:00	45	Begin Ranging Acquisition		
7493	MGS	02-039/06:14:50		SSR 2A Data Disable	CSD2AX	02-039/06:00:00
7494	MGS	02-039/06:14:50		SSR Activity: ID=SSR_2A, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-039/06:00:00
7495	MGS	02-039/06:14:51		NOTE: End Block (SSRMGR)		02-039/06:00:01
7496	MGS	02-039/06:17:25		NOTE: Exit Planetary Atmosphere 13057		02-039/06:02:35
7497	MGS	02-039/06:19:32		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-039/06:04:42
7498	MGS	02-039/06:19:32		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-039/06:04:42
7499	MGS	02-039/06:19:32		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-039/06:04:42
7500	MGS	02-039/06:19:32		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-039/06:04:42

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
7501	MGS	02-039/06:19:32	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
7502	MGS	02-039/06:19:33		: RTM, MRC, 01:13:16, S&E_2A, FALSE, 00:06:53	AEMRT	02-039/06:04:43
7503	MGS	02-039/06:19:33		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-039/06:04:43
7504	MGS	02-039/06:19:33		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-039/06:04:43
7505	MGS	02-039/06:19:33		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=1, BITS=15064000, DUR=00:31:23		02-039/06:04:43
7506	MGS	02-039/06:19:33		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-039/06:04:43
7507	MGS	02-039/06:19:33	45	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
7508	MGS	02-039/06:19:37		NOTE: End fixed Sub-Reflector for Radio Science		02-039/06:04:47
7509	MGS	02-039/06:23:43		NOTE: Exit Solar Eclipse 13057		02-039/06:08:53
7510	MGS	02-039/06:37:55		NOTE: Periapsis 13058 ----------		02-039/06:23:05
7511	MGS	02-039/06:39:40	45	Acquire D/L: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
7512	MGS	02-039/06:44:42		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-039/06:29:52
7513	MGS	02-039/06:44:42		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-039/06:29:52
7514	MGS	02-039/06:44:43		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-039/06:29:53
7515	MGS	02-039/06:44:43		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-039/06:29:53
7516	MGS	02-039/06:50:44	45	NOTE: Transmitter Off in 15 minutes		
7517	MGS	02-039/07:03:45	45	Range Modulation Off		
7518	MGS	02-039/07:05:44	45	Transmitter Off		
7519	MGS	02-039/07:06:43		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-039/06:51:53
7520	MGS	02-039/07:06:43		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-039/06:51:53
7521	MGS	02-039/07:27:49		NOTE: Begin fixed Sub-Reflector for Radio Science		02-039/07:12:59
7522	MGS	02-039/07:30:58		NOTE: Start EVP data return script		02-039/07:16:08
7523	MGS	02-039/07:32:49		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-039/07:17:59
7524	MGS	02-039/07:32:49		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=1, BITS=50232000, DUR=01:13:16		02-039/07:17:59
7525	MGS	02-039/07:32:49		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-039/07:17:59
7526	MGS	02-039/07:32:49		: 00:06:52, FALSE	RDSCII	02-039/07:17:59
7527	MGS	02-039/07:32:49		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-039/07:17:59
7528	MGS	02-039/07:32:49		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-039/07:17:59
7529	MGS	02-039/07:32:49		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-039/07:17:59
7530	MGS	02-039/07:32:49		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-039/07:17:59
7531	MGS	02-039/07:32:49	45	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
7532	MGS	02-039/07:32:49	45	NOTE: Carrier Only -- No Telemetry Modulation		
7533	MGS	02-039/07:34:57		NOTE: Enter Planetary Atmosphere 13058		02-039/07:20:07
7534	MGS	02-039/07:36:46		NOTE: Apoapsis 13058 -		02-039/07:21:56
7535	MGS	02-039/07:39:10		NOTE: Enter Earth Occultation 13058		02-039/07:24:20
7536	MGS	02-039/07:39:10	45	NOTE: Loss Of X-Band Signal		
7537	MGS	02-039/07:39:41		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-039/07:24:51
7538	MGS	02-039/07:39:41		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-039/07:24:51
7539	MGS	02-039/07:39:41		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-039/07:24:51
7540	MGS	02-039/07:39:41		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-039/07:24:51
7541	MGS	02-039/07:39:42		Turn off the MOT Exciter and RPA beam	STRPAF	02-039/07:24:52
7542	MGS	02-039/07:39:42		NOTE: End EVP script		02-039/07:24:52
7543	MGS	02-039/07:39:46		NOTE: End fixed Sub-Reflector for Radio Science		02-039/07:24:56
7544	MGS	02-039/07:40:58		NOTE: Enter Solar Eclipse 13058		02-039/07:26:08
7545	MGS	02-039/07:40:58		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-039/07:26:08
7546	MGS	02-039/07:44:42	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
7547	MGS	02-039/07:46:43	45	Range Modulation On: SUP=3.0dB		
7548	MGS	02-039/07:47:43	45	Begin Ranging Acquisition		
7549	MGS	02-039/08:05:04		NOTE: Begin fixed Sub-Reflector for Radio Science		02-039/07:50:14
7550	MGS	02-039/08:05:43		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-039/07:50:53
7551	MGS	02-039/08:05:43		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-039/07:50:53
7552	MGS	02-039/08:05:48		Set eclipse egress script address: 01DC	SWSEES	02-039/07:50:58
7553	MGS	02-039/08:08:49		: 01:28:35	RPAONX	02-039/07:53:59
7554	MGS	02-039/08:08:49		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-039/07:53:59

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
7555	MGS	02-039/08:10:04		: 00:00:30, 00:07:10, FALSE	RDSCIE	02-039/07:55:14
7556	MGS	02-039/08:10:04		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-039/07:55:14
7557	MGS	02-039/08:10:04		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-039/07:55:14
7558	MGS	02-039/08:10:04		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-039/07:55:14
7559	MGS	02-039/08:10:04		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-039/07:55:14
7560	MGS	02-039/08:10:34		Disables autonomous command to send eclipse ingress script	SWEISX	02-039/07:55:44
7561	MGS	02-039/08:10:38		NOTE: Exit Earth Occultation 13058		02-039/07:55:47
7562	MGS	02-039/08:10:38	45	Acquisition Of X-Band Signal		
7563	MGS	02-039/08:10:38	45	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
7564	MGS	02-039/08:10:38	45	NOTE: Carrier Only -- No Telemetry Modulation		
7565	MGS	02-039/08:15:08		NOTE: Exit Planetary Atmosphere 13058		02-039/08:00:17
7566	MGS	02-039/08:17:14		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-039/08:02:24
7567	MGS	02-039/08:17:14		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-039/08:02:24
7568	MGS	02-039/08:17:14		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-039/08:02:24
7569	MGS	02-039/08:17:14		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-039/08:02:24
7570	MGS	02-039/08:17:14	45	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
7571	MGS	02-039/08:17:15		: RTM, MRC, 01:13:16, S&E_2A, FALSE, 00:06:53	AEMRT	02-039/08:02:25
7572	MGS	02-039/08:17:15		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-039/08:02:25
7573	MGS	02-039/08:17:15		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-039/08:02:25
7574	MGS	02-039/08:17:15		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=1, BITS=71560000, DUR=00:44:26		02-039/08:02:25
7575	MGS	02-039/08:17:15		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-039/08:02:25
7576	MGS	02-039/08:17:15	45	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
7577	MGS	02-039/08:17:19		NOTE: End fixed Sub-Reflector for Radio Science		02-039/08:02:29
7578	MGS	02-039/08:21:25		NOTE: Exit Solar Eclipse 13058		02-039/08:06:34
7579	MGS	02-039/08:35:18		NOTE: Periapsis 13059 ----------		02-039/08:20:28
7580	MGS	02-039/08:42:24		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-039/08:27:34
7581	MGS	02-039/08:42:24		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-039/08:27:34
7582	MGS	02-039/08:42:25		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-039/08:27:35
7583	MGS	02-039/08:42:25		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-039/08:27:35
7584	MGS	02-039/08:48:24	45	NOTE: Transmitter Off in 15 minutes		
7585	MGS	02-039/09:01:24	45	Range Modulation Off		
7586	MGS	02-039/09:03:24	45	Transmitter Off		
7587	MGS	02-039/09:04:25		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-039/08:49:35
7588	MGS	02-039/09:04:25		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-039/08:49:35
7589	MGS	02-039/09:25:31		NOTE: Begin fixed Sub-Reflector for Radio Science		02-039/09:10:41
7590	MGS	02-039/09:30:31		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-039/09:15:41
7591	MGS	02-039/09:30:31		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=1, BITS=106728000, DUR=01:13:16		02-039/09:15:41
7592	MGS	02-039/09:30:31		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-039/09:15:41
7593	MGS	02-039/09:30:31		: 00:06:52, FALSE	RDSCII	02-039/09:15:41
7594	MGS	02-039/09:30:31		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-039/09:15:41
7595	MGS	02-039/09:30:31		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-039/09:15:41
7596	MGS	02-039/09:30:31		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-039/09:15:41
7597	MGS	02-039/09:30:31		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-039/09:15:41
7598	MGS	02-039/09:30:31	45	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
7599	MGS	02-039/09:30:31	45	NOTE: Carrier Only -- No Telemetry Modulation		
7600	MGS	02-039/09:32:37		NOTE: Enter Planetary Atmosphere 13059		02-039/09:17:46
7601	MGS	02-039/09:34:29		NOTE: Apoapsis 13059 -		02-039/09:19:39
7602	MGS	02-039/09:36:49		NOTE: Enter Earth Occultation 13059		02-039/09:21:59
7603	MGS	02-039/09:36:49	45	NOTE: Loss Of X-Band Signal		
7604	MGS	02-039/09:37:23		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-039/09:22:33
7605	MGS	02-039/09:37:23		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-039/09:22:33
7606	MGS	02-039/09:37:23		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-039/09:22:33
7607	MGS	02-039/09:37:23		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-039/09:22:33
7608	MGS	02-039/09:37:24		Turn off the MOT Exciter and RPA beam	STRPAF	02-039/09:22:34

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
7609	MGS	02-039/09:37:24		NOTE: End EVP script		02-039/09:22:34
7610	MGS	02-039/09:37:25		NOTE: End Block (MAP_RT)		02-039/09:22:35
7611	MGS	02-039/09:37:28		NOTE: End fixed Sub-Reflector for Radio Science		02-039/09:22:38
7612	MGS	02-039/09:38:39		NOTE: Enter Solar Eclipse 13059		02-039/09:23:48
7613	MGS	02-039/09:42:22	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
7614	MGS	02-039/09:53:16		Disable HGA control mode	SAHGCX	02-039/09:38:26
7615	MGS	02-039/09:53:17		No Operation	SCNOOP	02-039/09:38:27
7616	MGS	02-039/09:53:18		CDU-1 Uplink Rate Select (Based on 3 bit Code): 7	TCC1BS	02-039/09:38:28
7617	MGS	02-039/09:53:18		CDU-2 Uplink Rate Select (Based on 3 bit Code): 7	TCC2BS	02-039/09:38:28
7618	MGS	02-039/10:03:25		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-039/09:48:35
7619	MGS	02-039/10:03:25		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-039/09:48:35
7620	MGS	02-039/10:03:29		Command the PSE with included data word: 3990	SWPSEL	02-039/09:48:39
7621	MGS	02-039/10:03:30		Set eclipse egress script address: 0158	SWSEES	02-039/09:48:40
7622	MGS	02-039/10:08:18		NOTE: Exit Earth Occultation 13059		02-039/09:53:28
7623	MGS	02-039/10:10:00	45	NOTE: Transmitter Off in 15 minutes		
7624	MGS	02-039/10:12:48		NOTE: Exit Planetary Atmosphere 13059		02-039/09:57:57
7625	MGS	02-039/10:19:05		NOTE: Exit Solar Eclipse 13059		02-039/10:04:15
7626	MGS	02-039/10:25:00	45	Transmitter Off		
7627	MGS	02-039/10:32:58		NOTE: Periapsis 13060 ----------		02-039/10:18:07
7628	MGS	02-039/10:36:35	45	NOTE: Below Uplink Interlock Limit		
7629	MGS	02-039/10:44:04		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-039/10:29:14
7630	MGS	02-039/10:44:04		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-039/10:29:14
7631	MGS	02-039/10:44:05		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-039/10:29:15
7632	MGS	02-039/10:44:05		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-039/10:29:15
7633	MGS	02-039/10:45:00	45	End Tracking		
7634	MGS	02-039/10:45:00	65	Begin Pre-Cal		
7635	MGS	02-039/10:45:00	65	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
7636	MGS	02-039/10:45:00	65	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
7637	MGS	02-039/10:45:00	65	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
7638	MGS	02-039/10:45:00	65	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=OFF, EXC=2		
7639	MGS	02-039/10:45:00	65	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
7640	MGS	02-039/10:45:00	65	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
7641	MGS	02-039/10:45:00	65	Config: TGC: DEST=37		
7642	MGS	02-039/10:45:00	65	Config: TGC: BAND=X, BR=0.000000		
7643	MGS	02-039/10:45:00	65	Config: FSS: CH=2, PRI_FL=10000		
7644	MGS	02-039/10:45:00	65	Config: RSR		
7645	MGS	02-039/10:45:00	65	Config: TXL		
7646	MGS	02-039/10:45:00	65	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
7647	MGS	02-039/10:45:00	65	Config: BVR		
7648	MGS	02-039/10:45:00	65	Config: Doppler Extractor: BIAS=+1MHZ		
7649	MGS	02-039/10:45:00	65	Config: MDA: SMPL=0.1		
7650	MGS	02-039/10:45:00	65	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
7651	MGS	02-039/10:45:00	65	Config: SRA: HIGH=4, LOW=14, SERV=D		
7652	MGS	02-039/10:45:00	65	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
7653	MGS	02-039/11:00:00	45	End Post-Cal		
7654	MGS	02-039/11:06:05		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-039/10:51:15
7655	MGS	02-039/11:06:05		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-039/10:51:15
7656	MGS	02-039/11:21:29		NOTE: Start Block (SSRMGR)		02-039/11:06:39
7657	MGS	02-039/11:21:29		Sends a one-word SSR command to the XSU command SOB: SSR_2A, SE_1A, RECORD, PART2	STSSRC	02-039/11:06:39
7658	MGS	02-039/11:21:30		SSR 2A Data Enable	CSD2AE	02-039/11:06:40
7659	MGS	02-039/11:21:30		SSR Activity: ID=SSR_2A, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-039/11:06:40
7660	MGS	02-039/11:26:22		NOTE: Start Block (MAP_PB)		02-039/11:11:32
7661	MGS	02-039/11:26:23		: 00:27:55, 01:28:32, FALSE, TRUE, FALSE, 00:01:15, 00:07:09, 01:13:15, 00:06:52	AEMINI	02-039/11:11:33
7662	MGS	02-039/11:26:23		Enable sending eclipse ingress script when array power disappears	SWEISE	02-039/11:11:33

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
7663	MGS	02-039/11:26:23		NOTE: Start EVP data return script		02-039/11:11:33
7664	MGS	02-039/11:26:24		: SSR_1A, F42KHZ, PART1, SE_1A, 2002-039T11:57:52.000	AEMPBI	02-039/11:11:34
7665	MGS	02-039/11:30:22		NOTE: Enter Planetary Atmosphere 13060		02-039/11:15:31
7666	MGS	02-039/11:32:21		NOTE: Apoapsis 13060 -		02-039/11:17:30
7667	MGS	02-039/11:34:34		NOTE: Enter Earth Occultation 13060		02-039/11:19:43
7668	MGS	02-039/11:36:23		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-039/11:21:33
7669	MGS	02-039/11:36:24		NOTE: Enter Solar Eclipse 13060		02-039/11:21:33
7670	MGS	02-039/11:45:00	65	Begin Tracking		
7671	MGS	02-039/11:48:10		SSR 2B Data Disable	CSD2BX	02-039/11:33:20
7672	MGS	02-039/11:48:10		SSR Activity: ID=SSR_2B, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-039/11:33:20
7673	MGS	02-039/11:48:11		NOTE: End Block (SSRMGR)		02-039/11:33:21
7674	MGS	02-039/11:51:13		Select Automatic HGA control mode	SAHACE	02-039/11:36:23
7675	MGS	02-039/11:51:14		Selects Hign Gain Antenna for downlink, Reconfigures if beam is already on	STUHGA	02-039/11:36:24
7676	MGS	02-039/11:51:15		CDU-1 Uplink Rate Select (Based on 3 bit Code): 3	TCC1BS	02-039/11:36:25
7677	MGS	02-039/11:51:15		CDU-2 Uplink Rate Select (Based on 3 bit Code): 3	TCC2BS	02-039/11:36:25
7678	MGS	02-039/11:55:00	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
7679	MGS	02-039/11:57:00	65	Range Modulation On: SUP=3.0dB		
7680	MGS	02-039/11:58:00	65	Begin Ranging Acquisition		
7681	MGS	02-039/12:00:34		NOTE: Begin fixed Sub-Reflector for Radio Science		02-039/11:45:43
7682	MGS	02-039/12:01:05		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-039/11:46:15
7683	MGS	02-039/12:01:05		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-039/11:46:15
7684	MGS	02-039/12:01:10		Set eclipse egress script address: 019A	SWSEES	02-039/11:46:20
7685	MGS	02-039/12:04:18		: 01:28:32	RPAONX	02-039/11:49:28
7686	MGS	02-039/12:04:18		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-039/11:49:28
7687	MGS	02-039/12:05:33		: 00:00:30, 00:07:09, FALSE	RDSCIE	02-039/11:50:43
7688	MGS	02-039/12:05:33		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-039/11:50:43
7689	MGS	02-039/12:05:33		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-039/11:50:43
7690	MGS	02-039/12:05:33		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-039/11:50:43
7691	MGS	02-039/12:05:33		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-039/11:50:43
7692	MGS	02-039/12:06:03		NOTE: Exit Earth Occultation 13060		02-039/11:51:12
7693	MGS	02-039/12:06:03	65	Acquisition Of X-Band Signal		
7694	MGS	02-039/12:06:03	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
7695	MGS	02-039/12:06:03	65	NOTE: Carrier Only -- No Telemetry Modulation		
7696	MGS	02-039/12:10:33		NOTE: Exit Planetary Atmosphere 13060		02-039/11:55:42
7697	MGS	02-039/12:12:43		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-039/11:57:52
7698	MGS	02-039/12:12:43		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-039/11:57:52
7699	MGS	02-039/12:12:43		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-039/11:57:52
7700	MGS	02-039/12:12:43		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-039/11:57:52
7701	MGS	02-039/12:12:43		: REC_1A, F42KHZ, PART1, SE_1A, FALSE, 00:11:29	AEMPB	02-039/11:57:52
7702	MGS	02-039/12:12:43		Sends a one-word MOT command to the XSU command SOB: SSR_1A	STMOTC	02-039/11:57:52
7703	MGS	02-039/12:12:43		Sends a one-word SSR command to the XSU command SOB: SSR_1A, F42KHZ, PLYBCK, PART1	STSSRC	02-039/11:57:52
7704	MGS	02-039/12:12:43	65	D/L Change: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
7705	MGS	02-039/12:12:44		SSR 1A Data Enable	CSD1AE	02-039/11:57:53
7706	MGS	02-039/12:12:44		SSR Activity: ID=SSR_1A, FCN=Start Playback, PRT=1, BR=42666		02-039/11:57:53
7707	MGS	02-039/12:12:44	65	D/L Change: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
7708	MGS	02-039/12:12:48		NOTE: End fixed Sub-Reflector for Radio Science		02-039/11:57:57
7709	MGS	02-039/12:14:51		Dump SCP memory to the EDF using physical addressing arguments: 56A4, 240	SCDSCM	02-039/12:00:00
7710	MGS	02-039/12:16:51		NOTE: Exit Solar Eclipse 13060		02-039/12:02:00
7711	MGS	02-039/12:24:41	65	Acquire D/L: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
7712	MGS	02-039/12:30:51		NOTE: Periapsis 13061 ----------		02-039/12:16:00
7713	MGS	02-039/12:37:50		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-039/12:22:59
7714	MGS	02-039/12:37:50		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-039/12:22:59
7715	MGS	02-039/12:37:51		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-039/12:23:00
7716	MGS	02-039/12:37:51		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-039/12:23:00

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
7717	MGS	02-039/12:43:54	65	NOTE: Transmitter Off in 15 minutes		
7718	MGS	02-039/12:56:55	65	Range Modulation Off		
7719	MGS	02-039/12:58:54	65	Transmitter Off		
7720	MGS	02-039/12:59:51		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-039/12:45:00
7721	MGS	02-039/12:59:51		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-039/12:45:00
7722	MGS	02-039/13:20:58		NOTE: Begin fixed Sub-Reflector for Radio Science		02-039/13:06:07
7723	MGS	02-039/13:21:22		SSR 1A Data Disable	CSD1AX	02-039/13:06:31
7724	MGS	02-039/13:21:22		SSR Activity: ID=SSR_1A, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-039/13:06:31
7725	MGS	02-039/13:21:22		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-039/13:06:31
7726	MGS	02-039/13:21:22	65	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
7727	MGS	02-039/13:24:11		NOTE: Start EVP data return script		02-039/13:09:20
7728	MGS	02-039/13:24:11		: SSR_1B, F42KHZ, PART1, 2002-039T13:55:39.000	AEMPBU	02-039/13:09:20
7729	MGS	02-039/13:25:58		: 00:06:52, FALSE	RDSCII	02-039/13:11:07
7730	MGS	02-039/13:25:58		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-039/13:11:07
7731	MGS	02-039/13:25:58		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-039/13:11:07
7732	MGS	02-039/13:25:58		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-039/13:11:07
7733	MGS	02-039/13:25:58		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-039/13:11:07
7734	MGS	02-039/13:25:58	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
7735	MGS	02-039/13:25:58	65	NOTE: Carrier Only -- No Telemetry Modulation		
7736	MGS	02-039/13:28:10		NOTE: Enter Planetary Atmosphere 13061		02-039/13:13:19
7737	MGS	02-039/13:30:04		NOTE: Apoapsis 13061 -		02-039/13:15:13
7738	MGS	02-039/13:32:21		NOTE: Enter Earth Occultation 13061		02-039/13:17:30
7739	MGS	02-039/13:32:21	65	NOTE: Loss Of X-Band Signal		
7740	MGS	02-039/13:32:50		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-039/13:17:59
7741	MGS	02-039/13:32:50		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-039/13:17:59
7742	MGS	02-039/13:32:50		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-039/13:17:59
7743	MGS	02-039/13:32:50		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-039/13:17:59
7744	MGS	02-039/13:32:51		Turn off the MOT Exciter and RPA beam	STRPAF	02-039/13:18:00
7745	MGS	02-039/13:32:51		NOTE: End EVP script		02-039/13:18:00
7746	MGS	02-039/13:32:55		NOTE: End fixed Sub-Reflector for Radio Science		02-039/13:18:04
7747	MGS	02-039/13:34:11		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-039/13:19:20
7748	MGS	02-039/13:34:11		NOTE: Enter Solar Eclipse 13061		02-039/13:19:20
7749	MGS	02-039/13:37:54	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
7750	MGS	02-039/13:39:54	65	Range Modulation On: SUP=3.0dB		
7751	MGS	02-039/13:40:54	65	Begin Ranging Acquisition		
7752	MGS	02-039/13:58:21		NOTE: Begin fixed Sub-Reflector for Radio Science		02-039/13:43:30
7753	MGS	02-039/13:58:51		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-039/13:44:00
7754	MGS	02-039/13:58:51		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-039/13:44:00
7755	MGS	02-039/13:58:56		Set eclipse egress script address: 01DC	SWSEES	02-039/13:44:05
7756	MGS	02-039/14:02:06		: 01:28:32	RPAONX	02-039/13:47:15
7757	MGS	02-039/14:02:06		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-039/13:47:15
7758	MGS	02-039/14:03:21		: 00:00:30, 00:07:09, FALSE	RDSCIE	02-039/13:48:30
7759	MGS	02-039/14:03:21		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-039/13:48:30
7760	MGS	02-039/14:03:21		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-039/13:48:30
7761	MGS	02-039/14:03:21		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-039/13:48:30
7762	MGS	02-039/14:03:21		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-039/13:48:30
7763	MGS	02-039/14:03:51		NOTE: Exit Earth Occultation 13061		02-039/13:49:00
7764	MGS	02-039/14:03:51	65	Acquisition Of X-Band Signal		
7765	MGS	02-039/14:03:51	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
7766	MGS	02-039/14:03:51	65	NOTE: Carrier Only -- No Telemetry Modulation		
7767	MGS	02-039/14:08:20		NOTE: Exit Planetary Atmosphere 13061		02-039/13:53:29
7768	MGS	02-039/14:10:30		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-039/13:55:39
7769	MGS	02-039/14:10:30		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-039/13:55:39
7770	MGS	02-039/14:10:30		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-039/13:55:39

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
7771	MGS	02-039/14:10:30		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-039/13:55:39
7772	MGS	02-039/14:10:30		: REC_1B, F42KHZ, PART1, SE_1A, FALSE, 00:11:29	AEMPB	02-039/13:55:39
7773	MGS	02-039/14:10:30		Sends a one-word MOT command to the XSU command SOB: SSR_1B	STMOTC	02-039/13:55:39
7774	MGS	02-039/14:10:30		Sends a one-word SSR command to the XSU command SOB: SSR_1B, F42KHZ, PLYBCK, PART1	STSSRC	02-039/13:55:39
7775	MGS	02-039/14:10:30	65	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
7776	MGS	02-039/14:10:31		SSR 1B Data Enable	CSD1BE	02-039/13:55:40
7777	MGS	02-039/14:10:31		SSR Activity: ID=SSR_1B, FCN=Start Playback, PRT=1, BR=42666		02-039/13:55:40
7778	MGS	02-039/14:10:31	65	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
7779	MGS	02-039/14:10:35		NOTE: End fixed Sub-Reflector for Radio Science		02-039/13:55:44
7780	MGS	02-039/14:14:38		NOTE: Exit Solar Eclipse 13061		02-039/13:59:47
7781	MGS	02-039/14:28:39		NOTE: Periapsis 13062 ----------		02-039/14:13:47
7782	MGS	02-039/14:35:38		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-039/14:20:47
7783	MGS	02-039/14:35:38		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-039/14:20:47
7784	MGS	02-039/14:35:39		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-039/14:20:48
7785	MGS	02-039/14:35:39		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-039/14:20:48
7786	MGS	02-039/14:41:41	65	NOTE: Transmitter Off in 15 minutes		
7787	MGS	02-039/14:54:41	65	Range Modulation Off		
7788	MGS	02-039/14:56:41	65	Transmitter Off		
7789	MGS	02-039/14:57:39		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-039/14:42:48
7790	MGS	02-039/14:57:39		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-039/14:42:48
7791	MGS	02-039/15:18:45		NOTE: Begin fixed Sub-Reflector for Radio Science		02-039/15:03:54
7792	MGS	02-039/15:19:09		SSR 1B Data Disable	CSD1BX	02-039/15:04:18
7793	MGS	02-039/15:19:09		SSR Activity: ID=SSR_1B, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-039/15:04:18
7794	MGS	02-039/15:19:09		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-039/15:04:18
7795	MGS	02-039/15:19:09	65	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
7796	MGS	02-039/15:21:58		NOTE: Start EVP data return script		02-039/15:07:07
7797	MGS	02-039/15:21:58		: SSR_1A, F42KHZ, PART2, 2002-039T15:53:26.000	AEMPBU	02-039/15:07:07
7798	MGS	02-039/15:23:45		: 00:06:52, FALSE	RDSCII	02-039/15:08:54
7799	MGS	02-039/15:23:45		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-039/15:08:54
7800	MGS	02-039/15:23:45		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-039/15:08:54
7801	MGS	02-039/15:23:45		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-039/15:08:54
7802	MGS	02-039/15:23:45		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-039/15:08:54
7803	MGS	02-039/15:23:45	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
7804	MGS	02-039/15:23:45	65	NOTE: Carrier Only -- No Telemetry Modulation		
7805	MGS	02-039/15:25:57		NOTE: Enter Planetary Atmosphere 13062		02-039/15:11:05
7806	MGS	02-039/15:27:36		NOTE: Apoapsis 13062 -		02-039/15:12:45
7807	MGS	02-039/15:30:08		NOTE: Enter Earth Occultation 13062		02-039/15:15:17
7808	MGS	02-039/15:30:08	65	NOTE: Loss Of X-Band Signal		
7809	MGS	02-039/15:30:37		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-039/15:15:46
7810	MGS	02-039/15:30:37		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-039/15:15:46
7811	MGS	02-039/15:30:37		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-039/15:15:46
7812	MGS	02-039/15:30:37		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-039/15:15:46
7813	MGS	02-039/15:30:38		Turn off the MOT Exciter and RPA beam	STRPAF	02-039/15:15:47
7814	MGS	02-039/15:30:38		NOTE: End EVP script		02-039/15:15:47
7815	MGS	02-039/15:30:42		NOTE: End fixed Sub-Reflector for Radio Science		02-039/15:15:51
7816	MGS	02-039/15:31:58		NOTE: Enter Solar Eclipse 13062		02-039/15:17:07
7817	MGS	02-039/15:31:58		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-039/15:17:07
7818	MGS	02-039/15:35:41	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
7819	MGS	02-039/15:37:41	65	Range Modulation On: SUP=3.0dB		
7820	MGS	02-039/15:38:41	65	Begin Ranging Acquisition		
7821	MGS	02-039/15:56:08		NOTE: Begin fixed Sub-Reflector for Radio Science		02-039/15:41:17
7822	MGS	02-039/15:56:39		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-039/15:41:48
7823	MGS	02-039/15:56:39		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-039/15:41:48
7824	MGS	02-039/15:56:43		Command the PSE with included data word: 3990	SWPSEL	02-039/15:41:52

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
7825	MGS	02-039/15:56:44		Set eclipse egress script address: 0158	SWSEES	02-039/15:41:53
7826	MGS	02-039/15:59:53		: 01:28:32	RPAONX	02-039/15:45:02
7827	MGS	02-039/15:59:53		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-039/15:45:02
7828	MGS	02-039/16:01:08		: 00:00:30, 00:07:09, FALSE	RDSCIE	02-039/15:46:17
7829	MGS	02-039/16:01:08		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-039/15:46:17
7830	MGS	02-039/16:01:08		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-039/15:46:17
7831	MGS	02-039/16:01:08		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-039/15:46:17
7832	MGS	02-039/16:01:08		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-039/15:46:17
7833	MGS	02-039/16:01:38		NOTE: Exit Earth Occultation 13062		02-039/15:46:47
7834	MGS	02-039/16:01:38	65	Acquisition Of X-Band Signal		
7835	MGS	02-039/16:01:38	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
7836	MGS	02-039/16:01:38	65	NOTE: Carrier Only -- No Telemetry Modulation		
7837	MGS	02-039/16:06:08		NOTE: Exit Planetary Atmosphere 13062		02-039/15:51:16
7838	MGS	02-039/16:08:17		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-039/15:53:26
7839	MGS	02-039/16:08:17		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-039/15:53:26
7840	MGS	02-039/16:08:17		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-039/15:53:26
7841	MGS	02-039/16:08:17		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-039/15:53:26
7842	MGS	02-039/16:08:17		: REC_1A, F42KHZ, PART2, SE_1A, FALSE, 00:11:29	AEMPB	02-039/15:53:26
7843	MGS	02-039/16:08:17		Sends a one-word MOT command to the XSU command SOB: SSR_1A	STMOTC	02-039/15:53:26
7844	MGS	02-039/16:08:17		Sends a one-word SSR command to the XSU command SOB: SSR_1A, F42KHZ, PLYBCK, PART2	STSSRC	02-039/15:53:26
7845	MGS	02-039/16:08:17	65	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
7846	MGS	02-039/16:08:18		SSR 1A Data Enable	CSD1AE	02-039/15:53:27
7847	MGS	02-039/16:08:18		SSR Activity: ID=SSR_1A, FCN=Start Playback, PRT=2, BR=42666		02-039/15:53:27
7848	MGS	02-039/16:08:18	65	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
7849	MGS	02-039/16:08:22		NOTE: End fixed Sub-Reflector for Radio Science		02-039/15:53:31
7850	MGS	02-039/16:12:25		NOTE: Exit Solar Eclipse 13062		02-039/15:57:34
7851	MGS	02-039/16:26:21		NOTE: Periapsis 13063 ----------		02-039/16:11:29
7852	MGS	02-039/16:37:24		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-039/16:22:33
7853	MGS	02-039/16:37:24		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-039/16:22:33
7854	MGS	02-039/16:37:25		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-039/16:22:34
7855	MGS	02-039/16:37:25		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-039/16:22:34
7856	MGS	02-039/16:39:25	65	NOTE: Transmitter Off in 15 minutes		
7857	MGS	02-039/16:52:25	65	Range Modulation Off		
7858	MGS	02-039/16:54:25	65	Transmitter Off		
7859	MGS	02-039/16:54:50		NOTE: Start Block (SSRMGR)		02-039/16:39:59
7860	MGS	02-039/16:54:50		Sends a one-word SSR command to the XSU command SOB: SSR_2B, SE_1A, RECORD, PART2	STSSRC	02-039/16:39:59
7861	MGS	02-039/16:54:51		SSR 2B Data Enable	CSD2BE	02-039/16:40:00
7862	MGS	02-039/16:54:51		SSR Activity: ID=SSR_2B, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-039/16:40:00
7863	MGS	02-039/16:59:25		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-039/16:44:34
7864	MGS	02-039/16:59:25		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-039/16:44:34
7865	MGS	02-039/17:16:33		NOTE: Begin fixed Sub-Reflector for Radio Science		02-039/17:01:41
7866	MGS	02-039/17:16:56		SSR 1A Data Disable	CSD1AX	02-039/17:02:05
7867	MGS	02-039/17:16:56		SSR Activity: ID=SSR_1A, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-039/17:02:05
7868	MGS	02-039/17:16:56		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-039/17:02:05
7869	MGS	02-039/17:16:56	65	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
7870	MGS	02-039/17:19:42		NOTE: Start EVP data return script		02-039/17:04:51
7871	MGS	02-039/17:19:42		: SSR_1B, F42KHZ, PART2, 2002-039T17:51:10.000	AEMPBU	02-039/17:04:51
7872	MGS	02-039/17:21:31		SSR 2A Data Disable	CSD2AX	02-039/17:06:40
7873	MGS	02-039/17:21:31		SSR Activity: ID=SSR_2A, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-039/17:06:40
7874	MGS	02-039/17:21:32		NOTE: End Block (SSRMGR)		02-039/17:06:41
7875	MGS	02-039/17:21:32		: 00:06:52, FALSE	RDSCII	02-039/17:06:41
7876	MGS	02-039/17:21:32		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-039/17:06:41
7877	MGS	02-039/17:21:32		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-039/17:06:41
7878	MGS	02-039/17:21:32		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-039/17:06:41

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
7879	MGS	02-039/17:21:32		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-039/17:06:41
7880	MGS	02-039/17:21:32	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
7881	MGS	02-039/17:21:32	65	NOTE: Carrier Only -- No Telemetry Modulation		
7882	MGS	02-039/17:23:41		NOTE: Enter Planetary Atmosphere 13063		02-039/17:08:49
7883	MGS	02-039/17:25:08		NOTE: Apoapsis 13063 -		02-039/17:10:16
7884	MGS	02-039/17:27:53		NOTE: Enter Earth Occultation 13063		02-039/17:13:01
7885	MGS	02-039/17:27:53	65	NOTE: Loss Of X-Band Signal		
7886	MGS	02-039/17:28:24		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-039/17:13:33
7887	MGS	02-039/17:28:24		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-039/17:13:33
7888	MGS	02-039/17:28:24		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-039/17:13:33
7889	MGS	02-039/17:28:24		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-039/17:13:33
7890	MGS	02-039/17:28:25		Turn off the MOT Exciter and RPA beam	STRPAF	02-039/17:13:34
7891	MGS	02-039/17:28:26		NOTE: End EVP script		02-039/17:13:34
7892	MGS	02-039/17:28:30		NOTE: End fixed Sub-Reflector for Radio Science		02-039/17:13:38
7893	MGS	02-039/17:29:42		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-039/17:14:51
7894	MGS	02-039/17:29:43		NOTE: Enter Solar Eclipse 13063		02-039/17:14:51
7895	MGS	02-039/17:33:26	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
7896	MGS	02-039/17:35:26	65	Range Modulation On: SUP=3.0dB		
7897	MGS	02-039/17:36:26	65	Begin Ranging Acquisition		
7898	MGS	02-039/17:53:53		NOTE: Begin fixed Sub-Reflector for Radio Science		02-039/17:39:01
7899	MGS	02-039/17:54:25		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-039/17:39:34
7900	MGS	02-039/17:54:25		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-039/17:39:34
7901	MGS	02-039/17:54:30		Set eclipse egress script address: 019A	SWSEES	02-039/17:39:39
7902	MGS	02-039/17:57:37		: 01:28:32	RPAONX	02-039/17:42:46
7903	MGS	02-039/17:57:37		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-039/17:42:46
7904	MGS	02-039/17:58:52		: 00:00:30, 00:07:09, FALSE	RDSCIE	02-039/17:44:01
7905	MGS	02-039/17:58:52		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-039/17:44:01
7906	MGS	02-039/17:58:52		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-039/17:44:01
7907	MGS	02-039/17:58:52		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-039/17:44:01
7908	MGS	02-039/17:58:52		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-039/17:44:01
7909	MGS	02-039/17:59:22		Disables autonomous command to send eclipse ingress script	SWEISX	02-039/17:44:31
7910	MGS	02-039/17:59:24		NOTE: Exit Earth Occultation 13063		02-039/17:44:32
7911	MGS	02-039/17:59:24	65	Acquisition Of X-Band Signal		
7912	MGS	02-039/17:59:24	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
7913	MGS	02-039/17:59:24	65	NOTE: Carrier Only -- No Telemetry Modulation		
7914	MGS	02-039/18:03:53		NOTE: Exit Planetary Atmosphere 13063		02-039/17:49:01
7915	MGS	02-039/18:06:01		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-039/17:51:10
7916	MGS	02-039/18:06:01		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-039/17:51:10
7917	MGS	02-039/18:06:01		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-039/17:51:10
7918	MGS	02-039/18:06:01		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-039/17:51:10
7919	MGS	02-039/18:06:01		: REC_1B, F42KHZ, PART2, SE_1A, FALSE, 00:11:29	AEMPB	02-039/17:51:10
7920	MGS	02-039/18:06:01		Sends a one-word MOT command to the XSU command SOB: SSR_1B	STMOTC	02-039/17:51:10
7921	MGS	02-039/18:06:01		Sends a one-word SSR command to the XSU command SOB: SSR_1B, F42KHZ, PLYBCK, PART2	STSSRC	02-039/17:51:10
7922	MGS	02-039/18:06:01	65	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
7923	MGS	02-039/18:06:02		SSR 1B Data Enable	CSD1BE	02-039/17:51:11
7924	MGS	02-039/18:06:02		SSR Activity: ID=SSR_1B, FCN=Start Playback, PRT=2, BR=42666		02-039/17:51:11
7925	MGS	02-039/18:06:02	65	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
7926	MGS	02-039/18:06:07		NOTE: End fixed Sub-Reflector for Radio Science		02-039/17:51:15
7927	MGS	02-039/18:10:10		NOTE: Exit Solar Eclipse 13063		02-039/17:55:18
7928	MGS	02-039/18:24:06		NOTE: Periapsis 13064 ----------		02-039/18:09:14
7929	MGS	02-039/18:31:08		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-039/18:16:17
7930	MGS	02-039/18:31:08		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-039/18:16:17
7931	MGS	02-039/18:31:09		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-039/18:16:18
7932	MGS	02-039/18:31:09		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-039/18:16:18

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
7933	MGS	02-039/18:37:07	65	NOTE: Transmitter Off in 15 minutes		
7934	MGS	02-039/18:50:07	65	Range Modulation Off		
7935	MGS	02-039/18:52:07	65	Transmitter Off		
7936	MGS	02-039/18:53:10		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-039/18:38:18
7937	MGS	02-039/18:53:10		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-039/18:38:18
7938	MGS	02-039/19:14:17		NOTE: Begin fixed Sub-Reflector for Radio Science		02-039/18:59:25
7939	MGS	02-039/19:14:41		SSR 1B Data Disable	CSD1BX	02-039/18:59:49
7940	MGS	02-039/19:14:41		SSR Activity: ID=SSR_1B, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-039/18:59:49
7941	MGS	02-039/19:14:41		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-039/18:59:49
7942	MGS	02-039/19:14:41	65	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
7943	MGS	02-039/19:17:25		NOTE: Start Block (MAP_RT)		02-039/19:02:33
7944	MGS	02-039/19:17:26		: 00:27:55, 01:28:31, FALSE, TRUE, FALSE, 00:01:15, 00:07:09, 01:13:14, 00:06:52	AEMINI	02-039/19:02:34
7945	MGS	02-039/19:17:26		Enable sending eclipse ingress script when array power disappears	SWEISE	02-039/19:02:34
7946	MGS	02-039/19:17:26		NOTE: Start EVP data return script		02-039/19:02:34
7947	MGS	02-039/19:17:27		: SE_2A, RTM, 01:13:13, MRC, 2002-039T19:48:54.000	AEMRTI	02-039/19:02:35
7948	MGS	02-039/19:19:17		: 00:06:52, FALSE	RDSCII	02-039/19:04:25
7949	MGS	02-039/19:19:17		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-039/19:04:25
7950	MGS	02-039/19:19:17		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-039/19:04:25
7951	MGS	02-039/19:19:17		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-039/19:04:25
7952	MGS	02-039/19:19:17		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-039/19:04:25
7953	MGS	02-039/19:19:17	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
7954	MGS	02-039/19:19:17	65	NOTE: Carrier Only -- No Telemetry Modulation		
7955	MGS	02-039/19:21:24		NOTE: Enter Planetary Atmosphere 13064		02-039/19:06:32
7956	MGS	02-039/19:23:01		NOTE: Apoapsis 13064 -		02-039/19:08:09
7957	MGS	02-039/19:25:36		NOTE: Enter Earth Occultation 13064		02-039/19:10:44
7958	MGS	02-039/19:25:36	65	NOTE: Loss Of X-Band Signal		
7959	MGS	02-039/19:26:09		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-039/19:11:17
7960	MGS	02-039/19:26:09		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-039/19:11:17
7961	MGS	02-039/19:26:09		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-039/19:11:17
7962	MGS	02-039/19:26:09		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-039/19:11:17
7963	MGS	02-039/19:26:10		Turn off the MOT Exciter and RPA beam	STRPAF	02-039/19:11:18
7964	MGS	02-039/19:26:10		NOTE: End EVP script		02-039/19:11:18
7965	MGS	02-039/19:26:11		NOTE: End Block (MAP_PB)		02-039/19:11:19
7966	MGS	02-039/19:26:14		NOTE: End fixed Sub-Reflector for Radio Science		02-039/19:11:22
7967	MGS	02-039/19:27:25		NOTE: Enter Solar Eclipse 13064		02-039/19:12:33
7968	MGS	02-039/19:27:26		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-039/19:12:34
7969	MGS	02-039/19:31:09	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
7970	MGS	02-039/19:33:09	65	Range Modulation On: SUP=3.0dB		
7971	MGS	02-039/19:34:09	65	Begin Ranging Acquisition		
7972	MGS	02-039/19:51:36		NOTE: Begin fixed Sub-Reflector for Radio Science		02-039/19:36:43
7973	MGS	02-039/19:52:10		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-039/19:37:18
7974	MGS	02-039/19:52:10		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-039/19:37:18
7975	MGS	02-039/19:52:15		Set eclipse egress script address: 01DC	SWSEES	02-039/19:37:23
7976	MGS	02-039/19:55:21		: 01:28:31	RPAONX	02-039/19:40:29
7977	MGS	02-039/19:55:21		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-039/19:40:29
7978	MGS	02-039/19:56:36		: 00:00:30, 00:07:09, FALSE	RDSCIE	02-039/19:41:44
7979	MGS	02-039/19:56:36		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-039/19:41:44
7980	MGS	02-039/19:56:36		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-039/19:41:44
7981	MGS	02-039/19:56:36		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-039/19:41:44
7982	MGS	02-039/19:56:36		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-039/19:41:44
7983	MGS	02-039/19:57:08		NOTE: Exit Earth Occultation 13064		02-039/19:42:15
7984	MGS	02-039/19:57:08	65	Acquisition Of X-Band Signal		
7985	MGS	02-039/19:57:08	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
7986	MGS	02-039/19:57:08	65	NOTE: Carrier Only -- No Telemetry Modulation		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
7987	MGS	02-039/20:01:37		NOTE: Exit Planetary Atmosphere 13064		02-039/19:46:45
7988	MGS	02-039/20:03:45		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-039/19:48:53
7989	MGS	02-039/20:03:45		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-039/19:48:53
7990	MGS	02-039/20:03:45		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-039/19:48:53
7991	MGS	02-039/20:03:45		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-039/19:48:53
7992	MGS	02-039/20:03:45	65	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
7993	MGS	02-039/20:03:46		: RTM, MRC, 01:13:13, S&E_2A, FALSE, 00:06:53	AEMRT	02-039/19:48:54
7994	MGS	02-039/20:03:46		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-039/19:48:54
7995	MGS	02-039/20:03:46		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-039/19:48:54
7996	MGS	02-039/20:03:46	65	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
7997	MGS	02-039/20:03:50		NOTE: End fixed Sub-Reflector for Radio Science		02-039/19:48:57
7998	MGS	02-039/20:05:00	15	Begin Pre-Cal		
7999	MGS	02-039/20:05:00	15	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
8000	MGS	02-039/20:05:00	15	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
8001	MGS	02-039/20:05:00	15	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
8002	MGS	02-039/20:05:00	15	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
8003	MGS	02-039/20:05:00	15	At BOT: S/C Tlm Mode: BR=40000.0, FL=10000, SC=HIGH, MI=80.0		
8004	MGS	02-039/20:05:00	15	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
8005	MGS	02-039/20:05:00	15	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
8006	MGS	02-039/20:05:00	15	Config: TGC: DEST=37		
8007	MGS	02-039/20:05:00	15	Config: TGC: BAND=X, BR=40000.000000		
8008	MGS	02-039/20:05:00	15	Config: FSS: CH=2, PRI_FL=10000		
8009	MGS	02-039/20:05:00	15	Config: RSR		
8010	MGS	02-039/20:05:00	15	Config: TXL		
8011	MGS	02-039/20:05:00	15	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
8012	MGS	02-039/20:05:00	15	Config: BVR		
8013	MGS	02-039/20:05:00	15	Config: Doppler Extractor: BIAS=+1MHZ		
8014	MGS	02-039/20:05:00	15	Config: MDA: SMPL=0.1		
8015	MGS	02-039/20:05:00	15	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
8016	MGS	02-039/20:05:00	15	Config: SRA: HIGH=4, LOW=14, SERV=D		
8017	MGS	02-039/20:05:00	15	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
8018	MGS	02-039/20:07:52		NOTE: Exit Solar Eclipse 13064		02-039/19:53:00
8019	MGS	02-039/20:09:39		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-039/19:54:47
8020	MGS	02-039/20:09:39	65	D/L Change: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
8021	MGS	02-039/20:09:41		NOTE: Start Block (SSRMGR)		02-039/19:54:49
8022	MGS	02-039/20:09:41		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-039/19:54:49
8023	MGS	02-039/20:09:41		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-039/19:54:49
8024	MGS	02-039/20:09:42		Sends a one-word MOT command to the XSU command SOB: SSR_1A	STMOTC	02-039/19:54:50
8025	MGS	02-039/20:09:43		Sends a one-word SSR command to the XSU command SOB: SSR_1A, F42KHZ, PLYBCK, PART3	STSSRC	02-039/19:54:51
8026	MGS	02-039/20:09:44		SSR 1A Data Enable	CSD1AE	02-039/19:54:52
8027	MGS	02-039/20:09:44		SSR Activity: ID=SSR_1A, FCN=Start Playback, PRT=3, BR=42666		02-039/19:54:52
8028	MGS	02-039/20:09:44	65	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
8029	MGS	02-039/20:21:46		NOTE: Periapsis 13065 ----------		02-039/20:06:54
8030	MGS	02-039/20:22:11		NOTE: Start Block (SSRMGR)		02-039/20:07:19
8031	MGS	02-039/20:22:11		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-039/20:07:19
8032	MGS	02-039/20:22:11		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-039/20:07:19
8033	MGS	02-039/20:22:12		Sends a one-word MOT command to the XSU command SOB: SSR_1B	STMOTC	02-039/20:07:20
8034	MGS	02-039/20:22:13		Sends a one-word SSR command to the XSU command SOB: SSR_1B, F42KHZ, PLYBCK, PART3	STSSRC	02-039/20:07:21
8035	MGS	02-039/20:22:14		SSR 1A Data Disable	CSD1AX	02-039/20:07:22
8036	MGS	02-039/20:22:14		SSR Activity: ID=SSR_1A, FCN=End Playback, PRT=3, BITS=32000000, DUR=00:12:30		02-039/20:07:22
8037	MGS	02-039/20:22:14		SSR 1B Data Enable	CSD1BE	02-039/20:07:22
8038	MGS	02-039/20:22:14		SSR Activity: ID=SSR_1B, FCN=Start Playback, PRT=3, BR=42666		02-039/20:07:22
8039	MGS	02-039/20:22:14	65	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
8040	MGS	02-039/20:22:15		NOTE: End Block (SSRMGR)		02-039/20:07:23

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
8041	MGS	02-039/20:28:52		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-039/20:14:00
8042	MGS	02-039/20:28:52		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-039/20:14:00
8043	MGS	02-039/20:28:53		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-039/20:14:01
8044	MGS	02-039/20:28:53		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-039/20:14:01
8045	MGS	02-039/20:34:49	65	NOTE: Transmitter Off in 15 minutes		
8046	MGS	02-039/20:39:44		SSR 1B Data Disable	CSD1BX	02-039/20:24:52
8047	MGS	02-039/20:39:44		SSR Activity: ID=SSR_1B, FCN=End Playback, PRT=3, BITS=44800000, DUR=00:17:30		02-039/20:24:52
8048	MGS	02-039/20:39:45		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-039/20:24:53
8049	MGS	02-039/20:39:45		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-039/20:24:53
8050	MGS	02-039/20:39:45		NOTE: End Block (SSRMGR)		02-039/20:24:53
8051	MGS	02-039/20:39:45	65	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
8052	MGS	02-039/20:47:49	65	Range Modulation Off		
8053	MGS	02-039/20:49:49	65	Transmitter Off		
8054	MGS	02-039/20:50:53		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-039/20:36:01
8055	MGS	02-039/20:50:53		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-039/20:36:01
8056	MGS	02-039/21:05:00	15	Begin Tracking		
8057	MGS	02-039/21:05:00	15	Acquire D/L: X/16, 3-Way/65, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
8058	MGS	02-039/21:11:59		NOTE: Begin fixed Sub-Reflector for Radio Science		02-039/20:57:06
8059	MGS	02-039/21:15:08		NOTE: Start EVP data return script		02-039/21:00:16
8060	MGS	02-039/21:16:59		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-039/21:02:07
8061	MGS	02-039/21:16:59		: 00:06:52, FALSE	RDSCII	02-039/21:02:07
8062	MGS	02-039/21:16:59		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-039/21:02:07
8063	MGS	02-039/21:16:59		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-039/21:02:07
8064	MGS	02-039/21:16:59		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-039/21:02:07
8065	MGS	02-039/21:16:59		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-039/21:02:07
8066	MGS	02-039/21:16:59	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
8067	MGS	02-039/21:16:59	15	NOTE: Carrier Only -- No Telemetry Modulation		
8068	MGS	02-039/21:16:59	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
8069	MGS	02-039/21:16:59	65	NOTE: Carrier Only -- No Telemetry Modulation		
8070	MGS	02-039/21:19:06		NOTE: Enter Planetary Atmosphere 13065		02-039/21:04:14
8071	MGS	02-039/21:20:41		NOTE: Apoapsis 13065 -		02-039/21:05:49
8072	MGS	02-039/21:23:18		NOTE: Enter Earth Occultation 13065		02-039/21:08:26
8073	MGS	02-039/21:23:18	15	NOTE: Loss Of X-Band Signal		
8074	MGS	02-039/21:23:18	65	NOTE: Loss Of X-Band Signal		
8075	MGS	02-039/21:23:51		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-039/21:08:59
8076	MGS	02-039/21:23:51		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-039/21:08:59
8077	MGS	02-039/21:23:51		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-039/21:08:59
8078	MGS	02-039/21:23:51		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-039/21:08:59
8079	MGS	02-039/21:23:52		NOTE: End EVP script		02-039/21:08:59
8080	MGS	02-039/21:23:52		Turn off the MOT Exciter and RPA beam	STRPAF	02-039/21:09:00
8081	MGS	02-039/21:23:56		NOTE: End fixed Sub-Reflector for Radio Science		02-039/21:09:03
8082	MGS	02-039/21:24:14	65	NOTE: Below Uplink Interlock Limit		
8083	MGS	02-039/21:25:00	65	End Tracking		
8084	MGS	02-039/21:25:07		NOTE: Enter Solar Eclipse 13065		02-039/21:10:15
8085	MGS	02-039/21:25:08		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-039/21:10:16
8086	MGS	02-039/21:28:50	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
8087	MGS	02-039/21:30:50	15	Range Modulation On: SUP=3.0dB		
8088	MGS	02-039/21:31:50	15	Begin Ranging Acquisition		
8089	MGS	02-039/21:40:00	65	End Post-Cal		
8090	MGS	02-039/21:49:18		NOTE: Begin fixed Sub-Reflector for Radio Science		02-039/21:34:25
8091	MGS	02-039/21:49:53		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-039/21:35:01
8092	MGS	02-039/21:49:53		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-039/21:35:01
8093	MGS	02-039/21:49:57		Command the PSE with included data word: 3990	SWPSEL	02-039/21:35:05

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
8094	MGS	02-039/21:49:58		Set eclipse egress script address: 0158	SWSEES	02-039/21:35:06
8095	MGS	02-039/21:53:03		: 01:28:31	RPAONX	02-039/21:38:11
8096	MGS	02-039/21:53:03		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-039/21:38:11
8097	MGS	02-039/21:54:18		: 00:00:30, 00:07:09, FALSE	RDSCIE	02-039/21:39:26
8098	MGS	02-039/21:54:18		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-039/21:39:26
8099	MGS	02-039/21:54:18		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-039/21:39:26
8100	MGS	02-039/21:54:18		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-039/21:39:26
8101	MGS	02-039/21:54:18		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-039/21:39:26
8102	MGS	02-039/21:54:50		NOTE: Exit Earth Occultation 13065		02-039/21:39:57
8103	MGS	02-039/21:54:50	15	Acquisition Of X-Band Signal		
8104	MGS	02-039/21:54:50	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
8105	MGS	02-039/21:54:50	15	NOTE: Carrier Only -- No Telemetry Modulation		
8106	MGS	02-039/21:59:19		NOTE: Exit Planetary Atmosphere 13065		02-039/21:44:27
8107	MGS	02-039/22:01:27		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-039/21:46:35
8108	MGS	02-039/22:01:27		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-039/21:46:35
8109	MGS	02-039/22:01:27		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-039/21:46:35
8110	MGS	02-039/22:01:27		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-039/21:46:35
8111	MGS	02-039/22:01:27	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
8112	MGS	02-039/22:01:28		: RTM, MRC, 01:13:13, S&E_2A, FALSE, 00:06:53	AEMRT	02-039/21:46:36
8113	MGS	02-039/22:01:28		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-039/21:46:36
8114	MGS	02-039/22:01:28		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-039/21:46:36
8115	MGS	02-039/22:01:28	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
8116	MGS	02-039/22:01:32		NOTE: End fixed Sub-Reflector for Radio Science		02-039/21:46:39
8117	MGS	02-039/22:05:34		NOTE: Exit Solar Eclipse 13065		02-039/21:50:42
8118	MGS	02-039/22:19:08		NOTE: Periapsis 13066 ----------		02-039/22:04:15
8119	MGS	02-039/22:28:11		NOTE: Start Block (SSRMGR)		02-039/22:13:19
8120	MGS	02-039/22:28:11		Sends a one-word SSR command to the XSU command SOB: SSR_2A, SE_1A, RECORD, PART3	STSSRC	02-039/22:13:19
8121	MGS	02-039/22:28:12		SSR 2A Data Enable	CSD2AE	02-039/22:13:20
8122	MGS	02-039/22:28:12		SSR Activity: ID=SSR_2A, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-039/22:13:20
8123	MGS	02-039/22:30:33		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-039/22:15:41
8124	MGS	02-039/22:30:33		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-039/22:15:41
8125	MGS	02-039/22:30:34		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-039/22:15:42
8126	MGS	02-039/22:30:34		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-039/22:15:42
8127	MGS	02-039/22:32:31	15	NOTE: Transmitter Off in 15 minutes		
8128	MGS	02-039/22:45:31	15	Range Modulation Off		
8129	MGS	02-039/22:47:31	15	Transmitter Off		
8130	MGS	02-039/22:52:34		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-039/22:37:42
8131	MGS	02-039/22:52:34		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-039/22:37:42
8132	MGS	02-039/22:54:52		SSR 2B Data Disable	CSD2BX	02-039/22:40:00
8133	MGS	02-039/22:54:52		SSR Activity: ID=SSR_2B, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-039/22:40:00
8134	MGS	02-039/22:54:53		NOTE: End Block (SSRMGR)		02-039/22:40:01
8135	MGS	02-039/23:08:11		NOTE: Start Block (SSRMGR)		02-039/22:53:19
8136	MGS	02-039/23:08:11		Sends a one-word SSR command to the XSU command SOB: SSR_2B, SE_1A, RECORD, PART3	STSSRC	02-039/22:53:19
8137	MGS	02-039/23:08:12		SSR 2B Data Enable	CSD2BE	02-039/22:53:20
8138	MGS	02-039/23:08:12		SSR Activity: ID=SSR_2B, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-039/22:53:20
8139	MGS	02-039/23:09:41		NOTE: Begin fixed Sub-Reflector for Radio Science		02-039/22:54:48
8140	MGS	02-039/23:12:51		NOTE: Start EVP data return script		02-039/22:57:59
8141	MGS	02-039/23:14:41		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-039/22:59:49
8142	MGS	02-039/23:14:41		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=3, BITS=3112000, DUR=00:06:29		02-039/22:59:49
8143	MGS	02-039/23:14:41		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-039/22:59:49
8144	MGS	02-039/23:14:41		: 00:06:52, FALSE	RDSCII	02-039/22:59:49
8145	MGS	02-039/23:14:41		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-039/22:59:49
8146	MGS	02-039/23:14:41		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-039/22:59:49
8147	MGS	02-039/23:14:41		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-039/22:59:49

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
8148	MGS	02-039/23:14:41		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-039/22:59:49
8149	MGS	02-039/23:14:41	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
8150	MGS	02-039/23:14:41	15	NOTE: Carrier Only -- No Telemetry Modulation		
8151	MGS	02-039/23:16:50		NOTE: Enter Planetary Atmosphere 13066		02-039/23:01:57
8152	MGS	02-039/23:18:05		NOTE: Apoapsis 13066 -		02-039/23:03:12
8153	MGS	02-039/23:21:01		NOTE: Enter Earth Occultation 13066		02-039/23:06:08
8154	MGS	02-039/23:21:01	15	NOTE: Loss Of X-Band Signal		
8155	MGS	02-039/23:21:33		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-039/23:06:41
8156	MGS	02-039/23:21:33		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-039/23:06:41
8157	MGS	02-039/23:21:33		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-039/23:06:41
8158	MGS	02-039/23:21:33		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-039/23:06:41
8159	MGS	02-039/23:21:34		NOTE: End EVP script		02-039/23:06:41
8160	MGS	02-039/23:21:34		Turn off the MOT Exciter and RPA beam	STRPAF	02-039/23:06:42
8161	MGS	02-039/23:21:38		NOTE: End fixed Sub-Reflector for Radio Science		02-039/23:06:45
8162	MGS	02-039/23:22:51		NOTE: Enter Solar Eclipse 13066		02-039/23:07:58
8163	MGS	02-039/23:22:51		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-039/23:07:59
8164	MGS	02-039/23:26:32	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
8165	MGS	02-039/23:28:33	15	Range Modulation On: SUP=3.0dB		
8166	MGS	02-039/23:29:33	15	Begin Ranging Acquisition		
8167	MGS	02-039/23:34:52		SSR 2A Data Disable	CSD2AX	02-039/23:20:00
8168	MGS	02-039/23:34:52		SSR Activity: ID=SSR_2A, FCN=End Recording, PRT=3, BITS=32000000, DUR=01:06:40		02-039/23:20:00
8169	MGS	02-039/23:34:53		NOTE: End Block (SSRMGR)		02-039/23:20:01
8170	MGS	02-039/23:47:01		NOTE: Begin fixed Sub-Reflector for Radio Science		02-039/23:32:08
8171	MGS	02-039/23:47:34		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-039/23:32:42
8172	MGS	02-039/23:47:34		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-039/23:32:42
8173	MGS	02-039/23:47:39		Set eclipse egress script address: 019A	SWSEES	02-039/23:32:47
8174	MGS	02-039/23:50:46		: 01:28:31	RPAONX	02-039/23:35:54
8175	MGS	02-039/23:50:46		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-039/23:35:54
8176	MGS	02-039/23:52:01		: 00:00:30, 00:07:09, FALSE	RDSCIE	02-039/23:37:09
8177	MGS	02-039/23:52:01		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-039/23:37:09
8178	MGS	02-039/23:52:01		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-039/23:37:09
8179	MGS	02-039/23:52:01		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-039/23:37:09
8180	MGS	02-039/23:52:01		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-039/23:37:09
8181	MGS	02-039/23:52:31		Disables autonomous command to send eclipse ingress script	SWEISX	02-039/23:37:39
8182	MGS	02-039/23:52:33		NOTE: Exit Earth Occultation 13066		02-039/23:37:40
8183	MGS	02-039/23:52:33	15	Acquisition Of X-Band Signal		
8184	MGS	02-039/23:52:33	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
8185	MGS	02-039/23:52:33	15	NOTE: Carrier Only -- No Telemetry Modulation		
8186	MGS	02-039/23:57:01		NOTE: Exit Planetary Atmosphere 13066		02-039/23:42:08
8187	MGS	02-039/23:59:10		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-039/23:44:18
8188	MGS	02-039/23:59:10		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-039/23:44:18
8189	MGS	02-039/23:59:10		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-039/23:44:18
8190	MGS	02-039/23:59:10		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-039/23:44:18
8191	MGS	02-039/23:59:10	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
8192	MGS	02-039/23:59:11		: RTM, MRC, 01:13:13, S&E_2A, FALSE, 00:06:53	AEMRT	02-039/23:44:19
8193	MGS	02-039/23:59:11		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-039/23:44:19
8194	MGS	02-039/23:59:11		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-039/23:44:19
8195	MGS	02-039/23:59:11		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=3, BITS=24472000, DUR=00:44:30		02-039/23:44:19
8196	MGS	02-039/23:59:11		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-039/23:44:19
8197	MGS	02-039/23:59:11	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
8198	MGS	02-039/23:59:15		NOTE: End fixed Sub-Reflector for Radio Science		02-039/23:44:22
8199	MGS	02-040/00:00:00		Light Time: OWLT = 14:52, RTLT = 29:45		
8200	MGS	02-040/00:03:17		NOTE: Exit Solar Eclipse 13066		02-039/23:48:24
8201	MGS	02-040/00:14:51		NOTE: Start Block (SSRMGR)		02-039/23:59:59

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
8202	MGS	02-040/00:14:51		Sends a one-word SSR command to the XSU command SOB: SSR_1A, SE_1A, RECORD, PART1	STSSRC	02-039/23:59:59
8203	MGS	02-040/00:14:52		SSR 1A Data Enable	CSD1AE	02-040/00:00:00
8204	MGS	02-040/00:14:52		SSR Activity: ID=SSR_1A, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-040/00:00:00
8205	MGS	02-040/00:16:52		NOTE: Periapsis 13067 ----------		02-040/00:01:59
8206	MGS	02-040/00:24:16		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-040/00:09:24
8207	MGS	02-040/00:24:16		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-040/00:09:24
8208	MGS	02-040/00:24:17		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-040/00:09:25
8209	MGS	02-040/00:24:17		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-040/00:09:25
8210	MGS	02-040/00:30:14	15	NOTE: Transmitter Off in 15 minutes		
8211	MGS	02-040/00:41:32		SSR 2B Data Disable	CSD2BX	02-040/00:26:40
8212	MGS	02-040/00:41:32		SSR Activity: ID=SSR_2B, FCN=End Recording, PRT=3, BITS=44800000, DUR=01:33:20		02-040/00:26:40
8213	MGS	02-040/00:41:33		NOTE: End Block (SSRMGR)		02-040/00:26:41
8214	MGS	02-040/00:43:15	15	Range Modulation Off		
8215	MGS	02-040/00:45:14	15	Transmitter Off		
8216	MGS	02-040/00:46:17		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-040/00:31:25
8217	MGS	02-040/00:46:17		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-040/00:31:25
8218	MGS	02-040/01:07:24		NOTE: Begin fixed Sub-Reflector for Radio Science		02-040/00:52:31
8219	MGS	02-040/01:10:36		NOTE: Start Block (MAP_PB)		02-040/00:55:43
8220	MGS	02-040/01:10:37		: 00:27:57, 01:28:29, FALSE, TRUE, FALSE, 00:01:15, 00:07:08, 01:13:14, 00:06:51	AEMINI	02-040/00:55:44
8221	MGS	02-040/01:10:37		Enable sending eclipse ingress script when array power disappears	SWEISE	02-040/00:55:44
8222	MGS	02-040/01:10:37		NOTE: Start EVP data return script		02-040/00:55:44
8223	MGS	02-040/01:10:38		: SSR_2A, F42KHZ, PART1, SE_1A, 2002-040T01:42:04.000	AEMPBI	02-040/00:55:45
8224	MGS	02-040/01:12:25		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-040/00:57:32
8225	MGS	02-040/01:12:25		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=27616000, DUR=00:57:32		02-040/00:57:32
8226	MGS	02-040/01:12:25		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-040/00:57:32
8227	MGS	02-040/01:12:25		: 00:06:52, FALSE	RDSCII	02-040/00:57:32
8228	MGS	02-040/01:12:25		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-040/00:57:32
8229	MGS	02-040/01:12:25		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-040/00:57:32
8230	MGS	02-040/01:12:25		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-040/00:57:32
8231	MGS	02-040/01:12:25		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-040/00:57:32
8232	MGS	02-040/01:12:25	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
8233	MGS	02-040/01:12:25	15	NOTE: Carrier Only -- No Telemetry Modulation		
8234	MGS	02-040/01:14:34		NOTE: Enter Planetary Atmosphere 13067		02-040/00:59:41
8235	MGS	02-040/01:16:00		NOTE: Apoapsis 13067 -		02-040/01:01:07
8236	MGS	02-040/01:18:45		NOTE: Enter Earth Occultation 13067		02-040/01:03:52
8237	MGS	02-040/01:18:45	15	NOTE: Loss Of X-Band Signal		
8238	MGS	02-040/01:19:17		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-040/01:04:24
8239	MGS	02-040/01:19:17		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-040/01:04:24
8240	MGS	02-040/01:19:17		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-040/01:04:24
8241	MGS	02-040/01:19:17		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-040/01:04:24
8242	MGS	02-040/01:19:17		NOTE: End EVP script		02-040/01:04:24
8243	MGS	02-040/01:19:18		Turn off the MOT Exciter and RPA beam	STRPAF	02-040/01:04:25
8244	MGS	02-040/01:19:18		NOTE: End Block (MAP_RT)		02-040/01:04:25
8245	MGS	02-040/01:19:21		NOTE: End fixed Sub-Reflector for Radio Science		02-040/01:04:28
8246	MGS	02-040/01:20:36		NOTE: Enter Solar Eclipse 13067		02-040/01:05:43
8247	MGS	02-040/01:20:37		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-040/01:05:44
8248	MGS	02-040/01:24:17	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
8249	MGS	02-040/01:26:18	15	Range Modulation On: SUP=3.0dB		
8250	MGS	02-040/01:27:18	15	Begin Ranging Acquisition		
8251	MGS	02-040/01:44:48		NOTE: Begin fixed Sub-Reflector for Radio Science		02-040/01:29:55
8252	MGS	02-040/01:45:18		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-040/01:30:25
8253	MGS	02-040/01:45:18		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-040/01:30:25
8254	MGS	02-040/01:45:23		Set eclipse egress script address: 01DC	SWSEES	02-040/01:30:30
8255	MGS	02-040/01:48:34		: 01:28:29	RPAONX	02-040/01:33:41

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
8256	MGS	02-040/01:48:34		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-040/01:33:41
8257	MGS	02-040/01:49:49		: 00:00:30, 00:07:08, FALSE	RDSCIE	02-040/01:34:56
8258	MGS	02-040/01:49:49		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-040/01:34:56
8259	MGS	02-040/01:49:49		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-040/01:34:56
8260	MGS	02-040/01:49:49		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-040/01:34:56
8261	MGS	02-040/01:49:49		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-040/01:34:56
8262	MGS	02-040/01:50:18		NOTE: Exit Earth Occultation 13067		02-040/01:35:25
8263	MGS	02-040/01:50:18	15	Acquisition Of X-Band Signal		
8264	MGS	02-040/01:50:18	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
8265	MGS	02-040/01:50:18	15	NOTE: Carrier Only -- No Telemetry Modulation		
8266	MGS	02-040/01:54:46		NOTE: Exit Planetary Atmosphere 13067		02-040/01:39:53
8267	MGS	02-040/01:56:57		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-040/01:42:04
8268	MGS	02-040/01:56:57		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-040/01:42:04
8269	MGS	02-040/01:56:57		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-040/01:42:04
8270	MGS	02-040/01:56:57		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-040/01:42:04
8271	MGS	02-040/01:56:57		: REC_2A, F42KHZ, PART1, SE_1A, FALSE, 00:11:27	AEMPB	02-040/01:42:04
8272	MGS	02-040/01:56:57		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-040/01:42:04
8273	MGS	02-040/01:56:57		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, PLYBCK, PART1	STSSRC	02-040/01:42:04
8274	MGS	02-040/01:56:57	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
8275	MGS	02-040/01:56:58		SSR 2A Data Enable	CSD2AE	02-040/01:42:05
8276	MGS	02-040/01:56:58		SSR Activity: ID=SSR_2A, FCN=Start Playback, PRT=1, BR=42666		02-040/01:42:05
8277	MGS	02-040/01:56:58	15	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
8278	MGS	02-040/01:57:01		NOTE: End fixed Sub-Reflector for Radio Science		02-040/01:42:08
8279	MGS	02-040/02:01:03		NOTE: Exit Solar Eclipse 13067		02-040/01:46:10
8280	MGS	02-040/02:15:04		NOTE: Periapsis 13068 ----------		02-040/02:00:10
8281	MGS	02-040/02:22:02		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-040/02:07:09
8282	MGS	02-040/02:22:02		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-040/02:07:09
8283	MGS	02-040/02:22:03		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-040/02:07:10
8284	MGS	02-040/02:22:03		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-040/02:07:10
8285	MGS	02-040/02:28:00	15	NOTE: Transmitter Off in 15 minutes		
8286	MGS	02-040/02:41:00	15	Range Modulation Off		
8287	MGS	02-040/02:43:00	15	Transmitter Off		
8288	MGS	02-040/02:44:03		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-040/02:29:10
8289	MGS	02-040/02:44:03		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-040/02:29:10
8290	MGS	02-040/03:05:10		NOTE: Begin fixed Sub-Reflector for Radio Science		02-040/02:50:17
8291	MGS	02-040/03:05:36		SSR 2A Data Disable	CSD2AX	02-040/02:50:43
8292	MGS	02-040/03:05:36		SSR Activity: ID=SSR_2A, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-040/02:50:43
8293	MGS	02-040/03:05:36		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-040/02:50:43
8294	MGS	02-040/03:05:36	15	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
8295	MGS	02-040/03:08:24		NOTE: Start EVP data return script		02-040/02:53:31
8296	MGS	02-040/03:08:24		: SSR_2B, F42KHZ, PART1, 2002-040T03:39:51.000	AEMPBU	02-040/02:53:31
8297	MGS	02-040/03:10:11		: 00:06:51, FALSE	RDSCII	02-040/02:55:18
8298	MGS	02-040/03:10:11		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-040/02:55:18
8299	MGS	02-040/03:10:11		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-040/02:55:18
8300	MGS	02-040/03:10:11		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-040/02:55:18
8301	MGS	02-040/03:10:11		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-040/02:55:18
8302	MGS	02-040/03:10:11	15	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
8303	MGS	02-040/03:10:11	15	NOTE: Carrier Only -- No Telemetry Modulation		
8304	MGS	02-040/03:12:20		NOTE: Enter Planetary Atmosphere 13068		02-040/02:57:26
8305	MGS	02-040/03:14:20		NOTE: Apoapsis 13068 -		02-040/02:59:27
8306	MGS	02-040/03:16:31		NOTE: Enter Earth Occultation 13068		02-040/03:01:38
8307	MGS	02-040/03:16:31	15	NOTE: Loss Of X-Band Signal		
8308	MGS	02-040/03:17:02		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-040/03:02:09
8309	MGS	02-040/03:17:02		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-040/03:02:09

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
8310	MGS	02-040/03:17:02		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-040/03:02:09
8311	MGS	02-040/03:17:02		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-040/03:02:09
8312	MGS	02-040/03:17:02		NOTE: End EVP script		02-040/03:02:09
8313	MGS	02-040/03:17:03		Turn off the MOT Exciter and RPA beam	STRPAF	02-040/03:02:10
8314	MGS	02-040/03:17:06		NOTE: End fixed Sub-Reflector for Radio Science		02-040/03:02:13
8315	MGS	02-040/03:18:23		NOTE: Enter Solar Eclipse 13068		02-040/03:03:30
8316	MGS	02-040/03:18:24		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-040/03:03:31
8317	MGS	02-040/03:22:04	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
8318	MGS	02-040/03:24:04	15	Range Modulation On: SUP=3.0dB		
8319	MGS	02-040/03:25:04	15	Begin Ranging Acquisition		
8320	MGS	02-040/03:40:00	34	Begin Pre-Cal		
8321	MGS	02-040/03:40:00	34	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
8322	MGS	02-040/03:40:00	34	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
8323	MGS	02-040/03:40:00	34	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
8324	MGS	02-040/03:40:00	34	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
8325	MGS	02-040/03:40:00	34	At BOT: S/C Tlm Mode: BR=42666.7, FL=10000, SC=HIGH, MI=80.0		
8326	MGS	02-040/03:40:00	34	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
8327	MGS	02-040/03:40:00	34	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
8328	MGS	02-040/03:40:00	34	Config: TGC: DEST=37		
8329	MGS	02-040/03:40:00	34	Config: TGC: BAND=X, BR=42666.666667		
8330	MGS	02-040/03:40:00	34	Config: FSS: CH=2, PRI_FL=10000		
8331	MGS	02-040/03:40:00	34	Config: RSR		
8332	MGS	02-040/03:40:00	34	Config: TXL		
8333	MGS	02-040/03:40:00	34	Config: UWV: AMP=XHEMT, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
8334	MGS	02-040/03:40:00	34	Config: BVR		
8335	MGS	02-040/03:40:00	34	Config: Doppler Extractor: BIAS=+1MHZ		
8336	MGS	02-040/03:40:00	34	Config: MDA: SMPL=0.1		
8337	MGS	02-040/03:40:00	34	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
8338	MGS	02-040/03:40:00	34	Config: SRA: HIGH=4, LOW=14, SERV=D		
8339	MGS	02-040/03:40:00	34	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
8340	MGS	02-040/03:42:35		NOTE: Begin fixed Sub-Reflector for Radio Science		02-040/03:27:42
8341	MGS	02-040/03:43:03		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-040/03:28:10
8342	MGS	02-040/03:43:03		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-040/03:28:10
8343	MGS	02-040/03:43:07		Command the PSE with included data word: 3990	SWPSEL	02-040/03:28:14
8344	MGS	02-040/03:43:08		Set eclipse egress script address: 0158	SWSEES	02-040/03:28:15
8345	MGS	02-040/03:46:21		: 01:28:29	RPAONX	02-040/03:31:28
8346	MGS	02-040/03:46:21		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-040/03:31:28
8347	MGS	02-040/03:47:36		: 00:00:30, 00:07:08, FALSE	RDSCIE	02-040/03:32:43
8348	MGS	02-040/03:47:36		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-040/03:32:43
8349	MGS	02-040/03:47:36		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-040/03:32:43
8350	MGS	02-040/03:47:36		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-040/03:32:43
8351	MGS	02-040/03:47:36		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-040/03:32:43
8352	MGS	02-040/03:48:05		NOTE: Exit Earth Occultation 13068		02-040/03:33:12
8353	MGS	02-040/03:48:05	15	Acquisition Of X-Band Signal		
8354	MGS	02-040/03:48:05	15	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
8355	MGS	02-040/03:48:05	15	NOTE: Carrier Only -- No Telemetry Modulation		
8356	MGS	02-040/03:52:33		NOTE: Exit Planetary Atmosphere 13068		02-040/03:37:40
8357	MGS	02-040/03:54:44		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-040/03:39:51
8358	MGS	02-040/03:54:44		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-040/03:39:51
8359	MGS	02-040/03:54:44		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-040/03:39:51
8360	MGS	02-040/03:54:44		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-040/03:39:51
8361	MGS	02-040/03:54:44		: REC_2B, F42KHZ, PART1, SE_1A, FALSE, 00:11:27	AEMPB	02-040/03:39:51
8362	MGS	02-040/03:54:44		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-040/03:39:51
8363	MGS	02-040/03:54:44		Sends a one-word SSR command to the XSU command SOB: SSR_2B, F42KHZ, PLYBCK, PART1	STSSRC	02-040/03:39:51

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
8364	MGS	02-040/03:54:44	15	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
8365	MGS	02-040/03:54:45		SSR 2B Data Enable	CSD2BE	02-040/03:39:52
8366	MGS	02-040/03:54:45		SSR Activity: ID=SSR_2B, FCN=Start Playback, PRT=1, BR=42666		02-040/03:39:52
8367	MGS	02-040/03:54:45	15	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
8368	MGS	02-040/03:54:48		NOTE: End fixed Sub-Reflector for Radio Science		02-040/03:39:55
8369	MGS	02-040/03:58:50		NOTE: Exit Solar Eclipse 13068		02-040/03:43:57
8370	MGS	02-040/04:13:12		NOTE: Periapsis 13069 ----------		02-040/03:58:19
8371	MGS	02-040/04:23:49		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-040/04:08:56
8372	MGS	02-040/04:23:49		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-040/04:08:56
8373	MGS	02-040/04:23:50		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-040/04:08:57
8374	MGS	02-040/04:23:50		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-040/04:08:57
8375	MGS	02-040/04:25:00	15	NOTE: Transmitter Off in 15 minutes		
8376	MGS	02-040/04:38:00	15	Range Modulation Off		
8377	MGS	02-040/04:40:00	34	Begin Tracking		
8378	MGS	02-040/04:40:00	34	Acquire D/L: X/16, 3-Way/15, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
8379	MGS	02-040/04:40:00	15	Transmitter Off		
8380	MGS	02-040/04:45:50		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-040/04:30:57
8381	MGS	02-040/04:45:50		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-040/04:30:57
8382	MGS	02-040/04:54:19	15	NOTE: Below Uplink Interlock Limit		
8383	MGS	02-040/05:00:00	15	End Tracking		
8384	MGS	02-040/05:02:58		NOTE: Begin fixed Sub-Reflector for Radio Science		02-040/04:48:04
8385	MGS	02-040/05:03:23		SSR 2B Data Disable	CSD2BX	02-040/04:48:30
8386	MGS	02-040/05:03:23		SSR Activity: ID=SSR_2B, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-040/04:48:30
8387	MGS	02-040/05:03:23		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-040/04:48:30
8388	MGS	02-040/05:03:23	34	D/L Change: X/16, 3-Way/15, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
8389	MGS	02-040/05:06:10		NOTE: Start EVP data return script		02-040/04:51:17
8390	MGS	02-040/05:06:10		: SSR_2A, F42KHZ, PART2, 2002-040T05:37:37.000	AEMPBU	02-040/04:51:17
8391	MGS	02-040/05:07:58		: 00:06:51, FALSE	RDSCII	02-040/04:53:05
8392	MGS	02-040/05:07:58		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-040/04:53:05
8393	MGS	02-040/05:07:58		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-040/04:53:05
8394	MGS	02-040/05:07:58		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-040/04:53:05
8395	MGS	02-040/05:07:58		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-040/04:53:05
8396	MGS	02-040/05:07:58	34	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
8397	MGS	02-040/05:07:58	34	NOTE: Carrier Only -- No Telemetry Modulation		
8398	MGS	02-040/05:10:08		NOTE: Enter Planetary Atmosphere 13069		02-040/04:55:14
8399	MGS	02-040/05:12:24		NOTE: Apoapsis 13069 -		02-040/04:57:30
8400	MGS	02-040/05:14:19		NOTE: Enter Earth Occultation 13069		02-040/04:59:26
8401	MGS	02-040/05:14:19	34	NOTE: Loss Of X-Band Signal		
8402	MGS	02-040/05:14:49		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-040/04:59:56
8403	MGS	02-040/05:14:49		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-040/04:59:56
8404	MGS	02-040/05:14:49		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-040/04:59:56
8405	MGS	02-040/05:14:49		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-040/04:59:56
8406	MGS	02-040/05:14:50		NOTE: End EVP script		02-040/04:59:56
8407	MGS	02-040/05:14:50		Turn off the MOT Exciter and RPA beam	STRPAF	02-040/04:59:57
8408	MGS	02-040/05:14:54		NOTE: End fixed Sub-Reflector for Radio Science		02-040/05:00:00
8409	MGS	02-040/05:15:00	15	End Post-Cal		
8410	MGS	02-040/05:16:10		NOTE: Enter Solar Eclipse 13069		02-040/05:01:16
8411	MGS	02-040/05:16:10		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-040/05:01:17
8412	MGS	02-040/05:19:51	34	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
8413	MGS	02-040/05:21:52	34	Range Modulation On: SUP=3.0dB		
8414	MGS	02-040/05:22:52	34	Begin Ranging Acquisition		
8415	MGS	02-040/05:40:22		NOTE: Begin fixed Sub-Reflector for Radio Science		02-040/05:25:28
8416	MGS	02-040/05:40:50		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-040/05:25:57

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
8417	MGS	02-040/05:40:50		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-040/05:25:57
8418	MGS	02-040/05:40:55		Set eclipse egress script address: 019A	SWSEES	02-040/05:26:02
8419	MGS	02-040/05:44:07		: 01:28:29	RPAONX	02-040/05:29:14
8420	MGS	02-040/05:44:07		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-040/05:29:14
8421	MGS	02-040/05:45:22		: 00:00:30, 00:07:08, FALSE	RDSCIE	02-040/05:30:29
8422	MGS	02-040/05:45:22		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-040/05:30:29
8423	MGS	02-040/05:45:22		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-040/05:30:29
8424	MGS	02-040/05:45:22		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-040/05:30:29
8425	MGS	02-040/05:45:22		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-040/05:30:29
8426	MGS	02-040/05:45:53		NOTE: Exit Earth Occultation 13069		02-040/05:31:00
8427	MGS	02-040/05:45:53	34	Acquisition Of X-Band Signal		
8428	MGS	02-040/05:45:53	34	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
8429	MGS	02-040/05:45:53	34	NOTE: Carrier Only -- No Telemetry Modulation		
8430	MGS	02-040/05:48:12		NOTE: Start Block (SSRMGR)		02-040/05:33:19
8431	MGS	02-040/05:48:12		Sends a one-word SSR command to the XSU command SOB: SSR_1B, SE_1A, RECORD, PART1	STSSRC	02-040/05:33:19
8432	MGS	02-040/05:48:13		SSR 1B Data Enable	CSD1BE	02-040/05:33:20
8433	MGS	02-040/05:48:13		SSR Activity: ID=SSR_1B, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-040/05:33:20
8434	MGS	02-040/05:50:22		NOTE: Exit Planetary Atmosphere 13069		02-040/05:35:28
8435	MGS	02-040/05:52:30		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-040/05:37:37
8436	MGS	02-040/05:52:30		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-040/05:37:37
8437	MGS	02-040/05:52:30		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-040/05:37:37
8438	MGS	02-040/05:52:30		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-040/05:37:37
8439	MGS	02-040/05:52:30		: REC_2A, F42KHZ, PART2, SE_1A, FALSE, 00:11:27	AEMPB	02-040/05:37:37
8440	MGS	02-040/05:52:30		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-040/05:37:37
8441	MGS	02-040/05:52:30		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, PLYBCK, PART2	STSSRC	02-040/05:37:37
8442	MGS	02-040/05:52:30	34	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
8443	MGS	02-040/05:52:31		SSR 2A Data Enable	CSD2AE	02-040/05:37:38
8444	MGS	02-040/05:52:31		SSR Activity: ID=SSR_2A, FCN=Start Playback, PRT=2, BR=42666		02-040/05:37:38
8445	MGS	02-040/05:52:31	34	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
8446	MGS	02-040/05:52:35		NOTE: End fixed Sub-Reflector for Radio Science		02-040/05:37:41
8447	MGS	02-040/05:56:37		NOTE: Exit Solar Eclipse 13069		02-040/05:41:44
8448	MGS	02-040/06:10:59		NOTE: Periapsis 13070 ----------		02-040/05:56:06
8449	MGS	02-040/06:14:53		SSR 1A Data Disable	CSD1AX	02-040/06:00:00
8450	MGS	02-040/06:14:53		SSR Activity: ID=SSR_1A, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-040/06:00:00
8451	MGS	02-040/06:14:54		NOTE: End Block (SSRMGR)		02-040/06:00:01
8452	MGS	02-040/06:17:36		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-040/06:02:43
8453	MGS	02-040/06:17:36		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-040/06:02:43
8454	MGS	02-040/06:17:37		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-040/06:02:44
8455	MGS	02-040/06:17:37		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-040/06:02:44
8456	MGS	02-040/06:23:32	34	NOTE: Transmitter Off in 15 minutes		
8457	MGS	02-040/06:36:33	34	Range Modulation Off		
8458	MGS	02-040/06:38:32	34	Transmitter Off		
8459	MGS	02-040/06:39:37		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-040/06:24:44
8460	MGS	02-040/06:39:37		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-040/06:24:44
8461	MGS	02-040/07:00:44		NOTE: Begin fixed Sub-Reflector for Radio Science		02-040/06:45:50
8462	MGS	02-040/07:01:09		SSR 2A Data Disable	CSD2AX	02-040/06:46:16
8463	MGS	02-040/07:01:09		SSR Activity: ID=SSR_2A, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-040/06:46:16
8464	MGS	02-040/07:01:09		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-040/06:46:16
8465	MGS	02-040/07:01:09	34	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
8466	MGS	02-040/07:03:54		NOTE: Start EVP data return script		02-040/06:49:01
8467	MGS	02-040/07:03:54		: SSR_2B, F42KHZ, PART2, 2002-040T07:35:21.000	AEMPBU	02-040/06:49:01
8468	MGS	02-040/07:05:44		: 00:06:51, FALSE	RDSCII	02-040/06:50:51
8469	MGS	02-040/07:05:44		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-040/06:50:51
8470	MGS	02-040/07:05:44		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-040/06:50:51

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
8471	MGS	02-040/07:05:44		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-040/06:50:51
8472	MGS	02-040/07:05:44		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-040/06:50:51
8473	MGS	02-040/07:05:44	34	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
8474	MGS	02-040/07:05:44	34	NOTE: Carrier Only -- No Telemetry Modulation		
8475	MGS	02-040/07:07:53		NOTE: Enter Planetary Atmosphere 13070		02-040/06:52:59
8476	MGS	02-040/07:09:55		NOTE: Apoapsis 13070 -		02-040/06:55:01
8477	MGS	02-040/07:12:05		NOTE: Enter Earth Occultation 13070		02-040/06:57:11
8478	MGS	02-040/07:12:05	34	NOTE: Loss Of X-Band Signal		
8479	MGS	02-040/07:12:35		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-040/06:57:42
8480	MGS	02-040/07:12:35		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-040/06:57:42
8481	MGS	02-040/07:12:35		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-040/06:57:42
8482	MGS	02-040/07:12:35		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-040/06:57:42
8483	MGS	02-040/07:12:36		NOTE: End EVP script		02-040/06:57:42
8484	MGS	02-040/07:12:36		Turn off the MOT Exciter and RPA beam	STRPAF	02-040/06:57:43
8485	MGS	02-040/07:12:40		NOTE: End fixed Sub-Reflector for Radio Science		02-040/06:57:46
8486	MGS	02-040/07:13:54		NOTE: Enter Solar Eclipse 13070		02-040/06:59:00
8487	MGS	02-040/07:13:54		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-040/06:59:01
8488	MGS	02-040/07:17:36	34	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
8489	MGS	02-040/07:19:37	34	Range Modulation On: SUP=3.0dB		
8490	MGS	02-040/07:20:37	34	Begin Ranging Acquisition		
8491	MGS	02-040/07:38:06		NOTE: Begin fixed Sub-Reflector for Radio Science		02-040/07:23:12
8492	MGS	02-040/07:38:38		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-040/07:23:44
8493	MGS	02-040/07:38:38		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-040/07:23:44
8494	MGS	02-040/07:38:43		Set eclipse egress script address: 01DC	SWSEES	02-040/07:23:49
8495	MGS	02-040/07:41:52		: 01:28:29	RPAONX	02-040/07:26:58
8496	MGS	02-040/07:41:52		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-040/07:26:58
8497	MGS	02-040/07:43:07		: 00:00:30, 00:07:08, FALSE	RDSCIE	02-040/07:28:13
8498	MGS	02-040/07:43:07		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-040/07:28:13
8499	MGS	02-040/07:43:07		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-040/07:28:13
8500	MGS	02-040/07:43:07		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-040/07:28:13
8501	MGS	02-040/07:43:07		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-040/07:28:13
8502	MGS	02-040/07:43:37		Disables autonomous command to send eclipse ingress script	SWEISX	02-040/07:28:43
8503	MGS	02-040/07:43:39		NOTE: Exit Earth Occultation 13070		02-040/07:28:45
8504	MGS	02-040/07:43:39	34	Acquisition Of X-Band Signal		
8505	MGS	02-040/07:43:39	34	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
8506	MGS	02-040/07:43:39	34	NOTE: Carrier Only -- No Telemetry Modulation		
8507	MGS	02-040/07:48:08		NOTE: Exit Planetary Atmosphere 13070		02-040/07:33:14
8508	MGS	02-040/07:50:15		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-040/07:35:21
8509	MGS	02-040/07:50:15		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-040/07:35:21
8510	MGS	02-040/07:50:15		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-040/07:35:21
8511	MGS	02-040/07:50:15		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-040/07:35:21
8512	MGS	02-040/07:50:15		: REC_2B, F42KHZ, PART2, SE_1A, FALSE, 00:11:27	AEMPB	02-040/07:35:21
8513	MGS	02-040/07:50:15		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-040/07:35:21
8514	MGS	02-040/07:50:15		Sends a one-word SSR command to the XSU command SOB: SSR_2B, F42KHZ, PLYBCK, PART2	STSSRC	02-040/07:35:21
8515	MGS	02-040/07:50:15	34	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
8516	MGS	02-040/07:50:16		SSR 2B Data Enable	CSD2BE	02-040/07:35:22
8517	MGS	02-040/07:50:16		SSR Activity: ID=SSR_2B, FCN=Start Playback, PRT=2, BR=42666		02-040/07:35:22
8518	MGS	02-040/07:50:16	34	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
8519	MGS	02-040/07:50:19		NOTE: End fixed Sub-Reflector for Radio Science		02-040/07:35:25
8520	MGS	02-040/07:54:21		NOTE: Exit Solar Eclipse 13070		02-040/07:39:27
8521	MGS	02-040/08:08:22		NOTE: Periapsis 13071 ----------		02-040/07:53:28
8522	MGS	02-040/08:15:21		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-040/08:00:27
8523	MGS	02-040/08:15:21		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-040/08:00:27
8524	MGS	02-040/08:15:22		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-040/08:00:28

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
8525	MGS	02-040/08:15:22		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-040/08:00:28
8526	MGS	02-040/08:21:12	34	NOTE: Transmitter Off in 15 minutes		
8527	MGS	02-040/08:34:12	34	Range Modulation Off		
8528	MGS	02-040/08:36:12	34	Transmitter Off		
8529	MGS	02-040/08:37:22		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-040/08:22:28
8530	MGS	02-040/08:37:22		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-040/08:22:28
8531	MGS	02-040/08:58:28		NOTE: Begin fixed Sub-Reflector for Radio Science		02-040/08:43:34
8532	MGS	02-040/08:58:54		SSR 2B Data Disable	CSD2BX	02-040/08:44:00
8533	MGS	02-040/08:58:54		SSR Activity: ID=SSR_2B, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-040/08:44:00
8534	MGS	02-040/08:58:54		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-040/08:44:00
8535	MGS	02-040/08:58:54	34	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
8536	MGS	02-040/09:01:34		NOTE: Start Block (MAP_RT)		02-040/08:46:40
8537	MGS	02-040/09:01:35		: 00:27:57, 01:28:28, FALSE, TRUE, FALSE, 00:01:15, 00:07:08, 01:13:13, 00:06:51	AEMINI	02-040/08:46:41
8538	MGS	02-040/09:01:35		Enable sending eclipse ingress script when array power disappears	SWEISE	02-040/08:46:41
8539	MGS	02-040/09:01:35		NOTE: Start EVP data return script		02-040/08:46:41
8540	MGS	02-040/09:01:36		: SE_2A, RTM, 01:13:12, MRC, 2002-040T09:33:02.000	AEMRTI	02-040/08:46:42
8541	MGS	02-040/09:03:29		: 00:06:51, FALSE	RDSCII	02-040/08:48:35
8542	MGS	02-040/09:03:29		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-040/08:48:35
8543	MGS	02-040/09:03:29		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-040/08:48:35
8544	MGS	02-040/09:03:29		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-040/08:48:35
8545	MGS	02-040/09:03:29		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-040/08:48:35
8546	MGS	02-040/09:03:29	34	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
8547	MGS	02-040/09:03:29	34	NOTE: Carrier Only -- No Telemetry Modulation		
8548	MGS	02-040/09:05:33		NOTE: Enter Planetary Atmosphere 13071		02-040/08:50:39
8549	MGS	02-040/09:07:18		NOTE: Apoapsis 13071 -		02-040/08:52:23
8550	MGS	02-040/09:09:45		NOTE: Enter Earth Occultation 13071		02-040/08:54:51
8551	MGS	02-040/09:09:45	34	NOTE: Loss Of X-Band Signal		
8552	MGS	02-040/09:10:20		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-040/08:55:26
8553	MGS	02-040/09:10:20		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-040/08:55:26
8554	MGS	02-040/09:10:20		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-040/08:55:26
8555	MGS	02-040/09:10:20		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-040/08:55:26
8556	MGS	02-040/09:10:20		NOTE: End EVP script		02-040/08:55:26
8557	MGS	02-040/09:10:21		Turn off the MOT Exciter and RPA beam	STRPAF	02-040/08:55:27
8558	MGS	02-040/09:10:21		NOTE: End Block (MAP_PB)		02-040/08:55:27
8559	MGS	02-040/09:10:24		NOTE: End fixed Sub-Reflector for Radio Science		02-040/08:55:30
8560	MGS	02-040/09:11:35		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-040/08:56:41
8561	MGS	02-040/09:11:35		NOTE: Enter Solar Eclipse 13071		02-040/08:56:41
8562	MGS	02-040/09:15:16	34	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
8563	MGS	02-040/09:17:17	34	Range Modulation On: SUP=3.0dB		
8564	MGS	02-040/09:18:17	34	Begin Ranging Acquisition		
8565	MGS	02-040/09:35:47		NOTE: Begin fixed Sub-Reflector for Radio Science		02-040/09:20:53
8566	MGS	02-040/09:36:22		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-040/09:21:28
8567	MGS	02-040/09:36:22		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-040/09:21:28
8568	MGS	02-040/09:36:26		Command the PSE with included data word: 3990	SWPSEL	02-040/09:21:32
8569	MGS	02-040/09:36:27		Set eclipse egress script address: 0158	SWSEES	02-040/09:21:33
8570	MGS	02-040/09:39:32		: 01:28:28	RPAONX	02-040/09:24:38
8571	MGS	02-040/09:39:32		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-040/09:24:38
8572	MGS	02-040/09:40:47		: 00:00:30, 00:07:08, FALSE	RDSCIE	02-040/09:25:53
8573	MGS	02-040/09:40:47		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-040/09:25:53
8574	MGS	02-040/09:40:47		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-040/09:25:53
8575	MGS	02-040/09:40:47		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-040/09:25:53
8576	MGS	02-040/09:40:47		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-040/09:25:53
8577	MGS	02-040/09:41:17		Disables autonomous command to send eclipse ingress script	SWEISX	02-040/09:26:23
8578	MGS	02-040/09:41:20		NOTE: Exit Earth Occultation 13071		02-040/09:26:26

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
8579	MGS	02-040/09:41:20	34	Acquisition Of X-Band Signal		
8580	MGS	02-040/09:41:20	34	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
8581	MGS	02-040/09:41:20	34	NOTE: Carrier Only -- No Telemetry Modulation		
8582	MGS	02-040/09:45:48		NOTE: Exit Planetary Atmosphere 13071		02-040/09:30:54
8583	MGS	02-040/09:47:55		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-040/09:33:01
8584	MGS	02-040/09:47:55		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-040/09:33:01
8585	MGS	02-040/09:47:55		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-040/09:33:01
8586	MGS	02-040/09:47:55		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-040/09:33:01
8587	MGS	02-040/09:47:55	34	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
8588	MGS	02-040/09:47:56		: RTM, MRC, 01:13:12, S&E_2A, FALSE, 00:06:52	AEMRT	02-040/09:33:02
8589	MGS	02-040/09:47:56		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-040/09:33:02
8590	MGS	02-040/09:47:56		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-040/09:33:02
8591	MGS	02-040/09:47:56	34	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
8592	MGS	02-040/09:48:00		NOTE: End fixed Sub-Reflector for Radio Science		02-040/09:33:06
8593	MGS	02-040/09:52:02		NOTE: Exit Solar Eclipse 13071		02-040/09:37:07
8594	MGS	02-040/09:53:51		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-040/09:38:57
8595	MGS	02-040/09:53:51	34	D/L Change: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
8596	MGS	02-040/09:53:53		NOTE: Start Block (SSRMGR)		02-040/09:38:59
8597	MGS	02-040/09:53:53		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-040/09:38:59
8598	MGS	02-040/09:53:53		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-040/09:38:59
8599	MGS	02-040/09:53:54		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-040/09:39:00
8600	MGS	02-040/09:53:55		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, PLYBCK, PART3	STSSRC	02-040/09:39:01
8601	MGS	02-040/09:53:56		SSR 2A Data Enable	CSD2AE	02-040/09:39:02
8602	MGS	02-040/09:53:56		SSR Activity: ID=SSR_2A, FCN=Start Playback, PRT=3, BR=42666		02-040/09:39:02
8603	MGS	02-040/09:53:56	34	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
8604	MGS	02-040/10:05:00	34	NOTE: Transmitter Off in 15 minutes		
8605	MGS	02-040/10:05:48		NOTE: Periapsis 13072 ----------		02-040/09:50:54
8606	MGS	02-040/10:06:23		NOTE: Start Block (SSRMGR)		02-040/09:51:29
8607	MGS	02-040/10:06:23		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-040/09:51:29
8608	MGS	02-040/10:06:23		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-040/09:51:29
8609	MGS	02-040/10:06:24		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-040/09:51:30
8610	MGS	02-040/10:06:24		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, ENBSCR, PART1	STSSRC	02-040/09:51:30
8611	MGS	02-040/10:06:25		Sends a one-word SSR command to the XSU command SOB: SSR_2B, F42KHZ, PLYBCK, PART3	STSSRC	02-040/09:51:31
8612	MGS	02-040/10:06:26		SSR 2A Data Disable	CSD2AX	02-040/09:51:32
8613	MGS	02-040/10:06:26		SSR 2B Data Enable	CSD2BE	02-040/09:51:32
8614	MGS	02-040/10:06:26		SSR Activity: ID=SSR_2B, FCN=Start Playback, PRT=3, BR=42666		02-040/09:51:32
8615	MGS	02-040/10:06:27		NOTE: End Block (SSRMGR)		02-040/09:51:33
8616	MGS	02-040/10:17:01		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-040/10:02:07
8617	MGS	02-040/10:17:01		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-040/10:02:07
8618	MGS	02-040/10:17:02		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-040/10:02:08
8619	MGS	02-040/10:17:02		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-040/10:02:08
8620	MGS	02-040/10:18:00	34	Range Modulation Off		
8621	MGS	02-040/10:20:00	34	Transmitter Off		
8622	MGS	02-040/10:23:56		SSR 2B Data Disable	CSD2BX	02-040/10:09:02
8623	MGS	02-040/10:23:56		SSR Activity: ID=SSR_2B, FCN=End Playback, PRT=3, BITS=44800000, DUR=00:17:30		02-040/10:09:02
8624	MGS	02-040/10:23:57		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-040/10:09:03
8625	MGS	02-040/10:23:57		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-040/10:09:03
8626	MGS	02-040/10:23:57		NOTE: End Block (SSRMGR)		02-040/10:09:03
8627	MGS	02-040/10:23:57	34	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
8628	MGS	02-040/10:34:23	34	NOTE: Below Uplink Interlock Limit		
8629	MGS	02-040/10:39:02		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-040/10:24:08
8630	MGS	02-040/10:39:02		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-040/10:24:08
8631	MGS	02-040/10:44:31		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-040/10:29:37
8632	MGS	02-040/10:44:31		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-040/10:29:37

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
8633	MGS	02-040/10:44:31	34	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
8634	MGS	02-040/10:45:00	34	End Tracking		
8635	MGS	02-040/10:56:08		NOTE: Begin fixed Sub-Reflector for Radio Science		02-040/10:41:14
8636	MGS	02-040/11:00:00	34	End Post-Cal		
8637	MGS	02-040/11:01:08		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-040/10:46:14
8638	MGS	02-040/11:01:08		: 00:06:51, FALSE	RDSCII	02-040/10:46:14
8639	MGS	02-040/11:01:08		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-040/10:46:14
8640	MGS	02-040/11:01:08		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-040/10:46:14
8641	MGS	02-040/11:01:08		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-040/10:46:14
8642	MGS	02-040/11:01:08		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-040/10:46:14
8643	MGS	02-040/11:03:14		NOTE: Enter Planetary Atmosphere 13072		02-040/10:48:20
8644	MGS	02-040/11:05:02		NOTE: Apoapsis 13072 -		02-040/10:50:08
8645	MGS	02-040/11:07:26		NOTE: Enter Earth Occultation 13072		02-040/10:52:31
8646	MGS	02-040/11:07:59		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-040/10:53:05
8647	MGS	02-040/11:07:59		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-040/10:53:05
8648	MGS	02-040/11:07:59		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-040/10:53:05
8649	MGS	02-040/11:07:59		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-040/10:53:05
8650	MGS	02-040/11:08:00		Turn off the MOT Exciter and RPA beam	STRPAF	02-040/10:53:06
8651	MGS	02-040/11:08:00		NOTE: End EVP script		02-040/10:53:06
8652	MGS	02-040/11:08:01		NOTE: End Block (MAP_RT)		02-040/10:53:07
8653	MGS	02-040/11:08:04		NOTE: End fixed Sub-Reflector for Radio Science		02-040/10:53:10
8654	MGS	02-040/11:09:17		NOTE: Enter Solar Eclipse 13072		02-040/10:54:22
8655	MGS	02-040/11:21:33		NOTE: Start Block (SSRMGR)		02-040/11:06:39
8656	MGS	02-040/11:21:33		Sends a one-word SSR command to the XSU command SOB: SSR_1A, SE_1A, RECORD, PART2	STSSRC	02-040/11:06:39
8657	MGS	02-040/11:21:34		SSR 1A Data Enable	CSD1AE	02-040/11:06:40
8658	MGS	02-040/11:21:34		SSR Activity: ID=SSR_1A, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-040/11:06:40
8659	MGS	02-040/11:23:58		Disable HGA control mode	SAHGCX	02-040/11:09:04
8660	MGS	02-040/11:23:59		No Operation	SCNOOP	02-040/11:09:05
8661	MGS	02-040/11:24:00		CDU-1 Uplink Rate Select (Based on 3 bit Code): 7	TCC1BS	02-040/11:09:06
8662	MGS	02-040/11:24:00		CDU-2 Uplink Rate Select (Based on 3 bit Code): 7	TCC2BS	02-040/11:09:06
8663	MGS	02-040/11:34:02		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-040/11:19:08
8664	MGS	02-040/11:34:02		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-040/11:19:08
8665	MGS	02-040/11:34:07		Set eclipse egress script address: 019A	SWSEES	02-040/11:19:13
8666	MGS	02-040/11:39:01		NOTE: Exit Earth Occultation 13072		02-040/11:24:07
8667	MGS	02-040/11:43:29		NOTE: Exit Planetary Atmosphere 13072		02-040/11:28:35
8668	MGS	02-040/11:48:14		SSR 1B Data Disable	CSD1BX	02-040/11:33:20
8669	MGS	02-040/11:48:14		SSR Activity: ID=SSR_1B, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-040/11:33:20
8670	MGS	02-040/11:48:15		NOTE: End Block (SSRMGR)		02-040/11:33:21
8671	MGS	02-040/11:49:43		NOTE: Exit Solar Eclipse 13072		02-040/11:34:49
8672	MGS	02-040/12:03:32		NOTE: Periapsis 13073 ----------		02-040/11:48:38
8673	MGS	02-040/12:10:42		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-040/11:55:48
8674	MGS	02-040/12:10:42		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-040/11:55:48
8675	MGS	02-040/12:10:43		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-040/11:55:49
8676	MGS	02-040/12:10:43		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-040/11:55:49
8677	MGS	02-040/12:14:54		Dump SCP memory to the EDF using physical addressing arguments: 56A4, 240	SCDSCM	02-040/12:00:00
8678	MGS	02-040/12:32:43		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-040/12:17:49
8679	MGS	02-040/12:32:43		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-040/12:17:49
8680	MGS	02-040/13:01:01		NOTE: Enter Planetary Atmosphere 13073		02-040/12:46:06
8681	MGS	02-040/13:02:51		NOTE: Apoapsis 13073 -		02-040/12:47:56
8682	MGS	02-040/13:05:12		NOTE: Enter Earth Occultation 13073		02-040/12:50:17
8683	MGS	02-040/13:07:03		NOTE: Enter Solar Eclipse 13073		02-040/12:52:08
8684	MGS	02-040/13:31:43		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-040/13:16:49
8685	MGS	02-040/13:31:43		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-040/13:16:49
8686	MGS	02-040/13:31:48		Set eclipse egress script address: 01DC	SWSEES	02-040/13:16:54

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
8687	MGS	02-040/13:36:48		NOTE: Exit Earth Occultation 13073		02-040/13:21:53
8688	MGS	02-040/13:41:16		NOTE: Exit Planetary Atmosphere 13073		02-040/13:26:21
8689	MGS	02-040/13:47:30		NOTE: Exit Solar Eclipse 13073		02-040/13:32:35
8690	MGS	02-040/14:01:25		NOTE: Periapsis 13074 ----------		02-040/13:46:30
8691	MGS	02-040/14:08:30		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-040/13:53:35
8692	MGS	02-040/14:08:30		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-040/13:53:35
8693	MGS	02-040/14:08:31		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-040/13:53:36
8694	MGS	02-040/14:08:31		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-040/13:53:36
8695	MGS	02-040/14:30:31		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-040/14:15:36
8696	MGS	02-040/14:30:31		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-040/14:15:36
8697	MGS	02-040/14:58:49		NOTE: Enter Planetary Atmosphere 13074		02-040/14:43:54
8698	MGS	02-040/15:00:31		NOTE: Apoapsis 13074 -		02-040/14:45:36
8699	MGS	02-040/15:02:59		NOTE: Enter Earth Occultation 13074		02-040/14:48:04
8700	MGS	02-040/15:04:51		NOTE: Enter Solar Eclipse 13074		02-040/14:49:55
8701	MGS	02-040/15:29:31		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-040/15:14:36
8702	MGS	02-040/15:29:31		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-040/15:14:36
8703	MGS	02-040/15:29:35		Command the PSE with included data word: 3990	SWPSEL	02-040/15:14:40
8704	MGS	02-040/15:29:36		Set eclipse egress script address: 0158	SWSEES	02-040/15:14:41
8705	MGS	02-040/15:34:36		NOTE: Exit Earth Occultation 13074		02-040/15:19:40
8706	MGS	02-040/15:39:04		NOTE: Exit Planetary Atmosphere 13074		02-040/15:24:08
8707	MGS	02-040/15:45:18		NOTE: Exit Solar Eclipse 13074		02-040/15:30:22
8708	MGS	02-040/15:59:08		NOTE: Periapsis 13075 ----------		02-040/15:44:12
8709	MGS	02-040/16:10:17		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-040/15:55:22
8710	MGS	02-040/16:10:17		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-040/15:55:22
8711	MGS	02-040/16:10:18		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-040/15:55:23
8712	MGS	02-040/16:10:18		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-040/15:55:23
8713	MGS	02-040/16:32:18		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-040/16:17:23
8714	MGS	02-040/16:32:18		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-040/16:17:23
8715	MGS	02-040/16:50:00	25	Begin Pre-Cal		
8716	MGS	02-040/16:50:00	25	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
8717	MGS	02-040/16:50:00	25	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
8718	MGS	02-040/16:50:00	25	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
8719	MGS	02-040/16:50:00	25	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=OFF, EXC=2		
8720	MGS	02-040/16:50:00	25	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
8721	MGS	02-040/16:50:00	25	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
8722	MGS	02-040/16:50:00	25	Config: TGC: DEST=37		
8723	MGS	02-040/16:50:00	25	Config: TGC: BAND=X, BR=8000.000000		
8724	MGS	02-040/16:50:00	25	Config: FSS: CH=2, PRI_FL=10000		
8725	MGS	02-040/16:50:00	25	Config: RSR		
8726	MGS	02-040/16:50:00	25	Config: TXL		
8727	MGS	02-040/16:50:00	25	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
8728	MGS	02-040/16:50:00	25	Config: BVR		
8729	MGS	02-040/16:50:00	25	Config: Doppler Extractor: BIAS=+1MHZ		
8730	MGS	02-040/16:50:00	25	Config: MDA: SMPL=0.1		
8731	MGS	02-040/16:50:00	25	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
8732	MGS	02-040/16:50:00	25	Config: SRA: HIGH=4, LOW=14, SERV=D		
8733	MGS	02-040/16:50:00	25	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
8734	MGS	02-040/16:54:54		NOTE: Start Block (SSRMGR)		02-040/16:39:59
8735	MGS	02-040/16:54:54		Sends a one-word SSR command to the XSU command SOB: SSR_1B, SE_1A, RECORD, PART2	STSSRC	02-040/16:39:59
8736	MGS	02-040/16:54:55		SSR 1B Data Enable	CSD1BE	02-040/16:40:00
8737	MGS	02-040/16:54:55		SSR Activity: ID=SSR_1B, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-040/16:40:00
8738	MGS	02-040/16:56:35		NOTE: Enter Planetary Atmosphere 13075		02-040/16:41:39
8739	MGS	02-040/16:58:00		NOTE: Apoapsis 13075 -		02-040/16:43:05
8740	MGS	02-040/17:00:45		NOTE: Enter Earth Occultation 13075		02-040/16:45:50

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
8741	MGS	02-040/17:02:36		NOTE: Enter Solar Eclipse 13075		02-040/16:47:41
8742	MGS	02-040/17:17:30		Select Automatic HGA control mode	SAHACE	02-040/17:02:35
8743	MGS	02-040/17:17:31		Selects Hign Gain Antenna for downlink, Reconfigures if beam is already on	STUHGA	02-040/17:02:36
8744	MGS	02-040/17:17:32		CDU-1 Uplink Rate Select (Based on 3 bit Code): 3	TCC1BS	02-040/17:02:37
8745	MGS	02-040/17:17:32		CDU-2 Uplink Rate Select (Based on 3 bit Code): 3	TCC2BS	02-040/17:02:37
8746	MGS	02-040/17:21:35		SSR 1A Data Disable	CSD1AX	02-040/17:06:40
8747	MGS	02-040/17:21:35		SSR Activity: ID=SSR_1A, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-040/17:06:40
8748	MGS	02-040/17:21:36		NOTE: End Block (SSRMGR)		02-040/17:06:41
8749	MGS	02-040/17:27:18		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-040/17:12:23
8750	MGS	02-040/17:27:18		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-040/17:12:23
8751	MGS	02-040/17:27:23		Set eclipse egress script address: 019A	SWSEES	02-040/17:12:28
8752	MGS	02-040/17:32:22		NOTE: Exit Earth Occultation 13075		02-040/17:17:27
8753	MGS	02-040/17:36:50		NOTE: Exit Planetary Atmosphere 13075		02-040/17:21:55
8754	MGS	02-040/17:43:03		NOTE: Exit Solar Eclipse 13075		02-040/17:28:08
8755	MGS	02-040/17:50:00	25	Begin Tracking		
8756	MGS	02-040/17:56:53		NOTE: Periapsis 13076 ----------		02-040/17:41:57
8757	MGS	02-040/18:00:44	25	NOTE: Above Uplink Interlock Limit		
8758	MGS	02-040/18:04:02		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-040/17:49:07
8759	MGS	02-040/18:04:02		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-040/17:49:07
8760	MGS	02-040/18:04:03		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-040/17:49:08
8761	MGS	02-040/18:04:03		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-040/17:49:08
8762	MGS	02-040/18:05:00	25	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
8763	MGS	02-040/18:09:53	25	NOTE: Transmitter Off in 15 minutes		
8764	MGS	02-040/18:24:53	25	Transmitter Off		
8765	MGS	02-040/18:26:03		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-040/18:11:08
8766	MGS	02-040/18:26:03		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-040/18:11:08
8767	MGS	02-040/18:50:19		NOTE: Start Block (MAP_RT)		02-040/18:35:24
8768	MGS	02-040/18:50:20		: 00:27:57, 01:28:28, FALSE, TRUE, FALSE, 00:01:15, 00:07:08, 01:13:13, 00:06:51	AEMINI	02-040/18:35:25
8769	MGS	02-040/18:50:20		Enable sending eclipse ingress script when array power disappears	SWEISE	02-040/18:35:25
8770	MGS	02-040/18:50:20		NOTE: Start EVP data return script		02-040/18:35:25
8771	MGS	02-040/18:50:21		: SE_2A, RTM, 01:13:12, MRC, 2002-040T19:21:46.000	AEMRTI	02-040/18:35:26
8772	MGS	02-040/18:54:18		NOTE: Enter Planetary Atmosphere 13076		02-040/18:39:22
8773	MGS	02-040/18:55:41		NOTE: Apoapsis 13076 -		02-040/18:40:45
8774	MGS	02-040/18:58:29		NOTE: Enter Earth Occultation 13076		02-040/18:43:33
8775	MGS	02-040/19:00:20		NOTE: Enter Solar Eclipse 13076		02-040/18:45:24
8776	MGS	02-040/19:00:20		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-040/18:45:25
8777	MGS	02-040/19:04:01	25	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
8778	MGS	02-040/19:06:01	25	Range Modulation On: SUP=3.0dB		
8779	MGS	02-040/19:07:01	25	Begin Ranging Acquisition		
8780	MGS	02-040/19:24:32		NOTE: Begin fixed Sub-Reflector for Radio Science		02-040/19:09:36
8781	MGS	02-040/19:25:03		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-040/19:10:08
8782	MGS	02-040/19:25:03		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-040/19:10:08
8783	MGS	02-040/19:25:08		Set eclipse egress script address: 01DC	SWSEES	02-040/19:10:13
8784	MGS	02-040/19:28:17		: 01:28:28	RPAONX	02-040/19:13:22
8785	MGS	02-040/19:28:17		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-040/19:13:22
8786	MGS	02-040/19:29:32		: 00:00:30, 00:07:08, FALSE	RDSCIE	02-040/19:14:37
8787	MGS	02-040/19:29:32		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-040/19:14:37
8788	MGS	02-040/19:29:32		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-040/19:14:37
8789	MGS	02-040/19:29:32		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-040/19:14:37
8790	MGS	02-040/19:29:32		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-040/19:14:37
8791	MGS	02-040/19:30:07		NOTE: Exit Earth Occultation 13076		02-040/19:15:11
8792	MGS	02-040/19:30:07	25	Acquisition Of X-Band Signal		
8793	MGS	02-040/19:30:07	25	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
8794	MGS	02-040/19:30:07	25	NOTE: Carrier Only -- No Telemetry Modulation		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
8795	MGS	02-040/19:34:35		NOTE: Exit Planetary Atmosphere 13076		02-040/19:19:39
8796	MGS	02-040/19:36:40		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-040/19:21:45
8797	MGS	02-040/19:36:40		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-040/19:21:45
8798	MGS	02-040/19:36:40		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-040/19:21:45
8799	MGS	02-040/19:36:40		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-040/19:21:45
8800	MGS	02-040/19:36:40	25	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
8801	MGS	02-040/19:36:41		: RTM, MRC, 01:13:12, S&E_2A, FALSE, 00:06:52	AEMRT	02-040/19:21:46
8802	MGS	02-040/19:36:41		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-040/19:21:46
8803	MGS	02-040/19:36:41		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-040/19:21:46
8804	MGS	02-040/19:36:41		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=2, BITS=77648000, DUR=02:41:46		02-040/19:21:46
8805	MGS	02-040/19:36:41		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-040/19:21:46
8806	MGS	02-040/19:36:41	25	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
8807	MGS	02-040/19:36:45		NOTE: End fixed Sub-Reflector for Radio Science		02-040/19:21:49
8808	MGS	02-040/19:40:47		NOTE: Exit Solar Eclipse 13076		02-040/19:25:51
8809	MGS	02-040/19:54:38		NOTE: Periapsis 13077 ----------		02-040/19:39:42
8810	MGS	02-040/20:01:46		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-040/19:46:51
8811	MGS	02-040/20:01:46		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-040/19:46:51
8812	MGS	02-040/20:01:47		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-040/19:46:52
8813	MGS	02-040/20:01:47		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-040/19:46:52
8814	MGS	02-040/20:07:35	25	NOTE: Transmitter Off in 15 minutes		
8815	MGS	02-040/20:20:35	25	Range Modulation Off		
8816	MGS	02-040/20:22:35	25	Transmitter Off		
8817	MGS	02-040/20:23:48		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-040/20:08:52
8818	MGS	02-040/20:23:48		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-040/20:08:52
8819	MGS	02-040/20:44:53		NOTE: Begin fixed Sub-Reflector for Radio Science		02-040/20:29:57
8820	MGS	02-040/20:48:03		NOTE: Start EVP data return script		02-040/20:33:07
8821	MGS	02-040/20:49:54		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-040/20:34:58
8822	MGS	02-040/20:49:54		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=2, BITS=112784000, DUR=01:13:12		02-040/20:34:58
8823	MGS	02-040/20:49:54		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-040/20:34:58
8824	MGS	02-040/20:49:54		: 00:06:51, FALSE	RDSCII	02-040/20:34:58
8825	MGS	02-040/20:49:54		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-040/20:34:58
8826	MGS	02-040/20:49:54		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-040/20:34:58
8827	MGS	02-040/20:49:54		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-040/20:34:58
8828	MGS	02-040/20:49:54		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-040/20:34:58
8829	MGS	02-040/20:49:54	25	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
8830	MGS	02-040/20:49:54	25	NOTE: Carrier Only -- No Telemetry Modulation		
8831	MGS	02-040/20:52:01		NOTE: Enter Planetary Atmosphere 13077		02-040/20:37:05
8832	MGS	02-040/20:53:36		NOTE: Apoapsis 13077 -		02-040/20:38:40
8833	MGS	02-040/20:56:12		NOTE: Enter Earth Occultation 13077		02-040/20:41:16
8834	MGS	02-040/20:56:12	25	NOTE: Loss Of X-Band Signal		
8835	MGS	02-040/20:56:45		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-040/20:41:49
8836	MGS	02-040/20:56:45		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-040/20:41:49
8837	MGS	02-040/20:56:45		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-040/20:41:49
8838	MGS	02-040/20:56:45		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-040/20:41:49
8839	MGS	02-040/20:56:46		NOTE: End EVP script		02-040/20:41:49
8840	MGS	02-040/20:56:46		Turn off the MOT Exciter and RPA beam	STRPAF	02-040/20:41:50
8841	MGS	02-040/20:56:50		NOTE: End fixed Sub-Reflector for Radio Science		02-040/20:41:53
8842	MGS	02-040/20:58:02		NOTE: Enter Solar Eclipse 13077		02-040/20:43:06
8843	MGS	02-040/20:58:03		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-040/20:43:07
8844	MGS	02-040/21:01:43	25	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
8845	MGS	02-040/21:03:43	25	Range Modulation On: SUP=3.0dB		
8846	MGS	02-040/21:04:43	25	Begin Ranging Acquisition		
8847	MGS	02-040/21:22:15		NOTE: Begin fixed Sub-Reflector for Radio Science		02-040/21:07:18
8848	MGS	02-040/21:22:48		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-040/21:07:52

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
8849	MGS	02-040/21:22:48		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-040/21:07:52
8850	MGS	02-040/21:22:52		Command the PSE with included data word: 3990	SWPSEL	02-040/21:07:56
8851	MGS	02-040/21:22:53		Set eclipse egress script address: 0158	SWSEES	02-040/21:07:57
8852	MGS	02-040/21:26:00		: 01:28:28	RPAONX	02-040/21:11:04
8853	MGS	02-040/21:26:00		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-040/21:11:04
8854	MGS	02-040/21:27:15		: 00:00:30, 00:07:08, FALSE	RDSCIE	02-040/21:12:19
8855	MGS	02-040/21:27:15		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-040/21:12:19
8856	MGS	02-040/21:27:15		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-040/21:12:19
8857	MGS	02-040/21:27:15		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-040/21:12:19
8858	MGS	02-040/21:27:15		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-040/21:12:19
8859	MGS	02-040/21:27:50		NOTE: Exit Earth Occultation 13077		02-040/21:12:54
8860	MGS	02-040/21:27:50	25	Acquisition Of X-Band Signal		
8861	MGS	02-040/21:27:50	25	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
8862	MGS	02-040/21:27:50	25	NOTE: Carrier Only -- No Telemetry Modulation		
8863	MGS	02-040/21:32:18		NOTE: Exit Planetary Atmosphere 13077		02-040/21:17:22
8864	MGS	02-040/21:34:23		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-040/21:19:27
8865	MGS	02-040/21:34:23		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-040/21:19:27
8866	MGS	02-040/21:34:23		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-040/21:19:27
8867	MGS	02-040/21:34:23		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-040/21:19:27
8868	MGS	02-040/21:34:23	25	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
8869	MGS	02-040/21:34:24		: RTM, MRC, 01:13:12, S&E_2A, FALSE, 00:06:52	AEMRT	02-040/21:19:28
8870	MGS	02-040/21:34:24		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-040/21:19:28
8871	MGS	02-040/21:34:24		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-040/21:19:28
8872	MGS	02-040/21:34:24		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=2, BITS=134144000, DUR=00:44:30		02-040/21:19:28
8873	MGS	02-040/21:34:24		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-040/21:19:28
8874	MGS	02-040/21:34:24	25	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
8875	MGS	02-040/21:34:28		NOTE: End fixed Sub-Reflector for Radio Science		02-040/21:19:31
8876	MGS	02-040/21:38:29		NOTE: Exit Solar Eclipse 13077		02-040/21:23:33
8877	MGS	02-040/21:52:10		NOTE: Periapsis 13078 ----------		02-040/21:37:14
8878	MGS	02-040/22:03:28		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-040/21:48:32
8879	MGS	02-040/22:03:28		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-040/21:48:32
8880	MGS	02-040/22:03:29		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-040/21:48:33
8881	MGS	02-040/22:03:29		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-040/21:48:33
8882	MGS	02-040/22:05:17	25	NOTE: Transmitter Off in 15 minutes		
8883	MGS	02-040/22:18:17	25	Range Modulation Off		
8884	MGS	02-040/22:20:17	25	Transmitter Off		
8885	MGS	02-040/22:25:29		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-040/22:10:33
8886	MGS	02-040/22:25:29		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-040/22:10:33
8887	MGS	02-040/22:28:15		NOTE: Start Block (SSRMGR)		02-040/22:13:19
8888	MGS	02-040/22:28:15		Sends a one-word SSR command to the XSU command SOB: SSR_1A, SE_1A, RECORD, PART3	STSSRC	02-040/22:13:19
8889	MGS	02-040/22:28:16		SSR 1A Data Enable	CSD1AE	02-040/22:13:20
8890	MGS	02-040/22:28:16		SSR Activity: ID=SSR_1A, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-040/22:13:20
8891	MGS	02-040/22:42:36		NOTE: Begin fixed Sub-Reflector for Radio Science		02-040/22:27:39
8892	MGS	02-040/22:45:45		NOTE: Start EVP data return script		02-040/22:30:49
8893	MGS	02-040/22:47:36		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-040/22:32:40
8894	MGS	02-040/22:47:36		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=3, BITS=9280000, DUR=00:19:20		02-040/22:32:40
8895	MGS	02-040/22:47:36		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-040/22:32:40
8896	MGS	02-040/22:47:36		: 00:06:51, FALSE	RDSCII	02-040/22:32:40
8897	MGS	02-040/22:47:36		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-040/22:32:40
8898	MGS	02-040/22:47:36		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-040/22:32:40
8899	MGS	02-040/22:47:36		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-040/22:32:40
8900	MGS	02-040/22:47:36		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-040/22:32:40
8901	MGS	02-040/22:47:36	25	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
8902	MGS	02-040/22:47:36	25	NOTE: Carrier Only -- No Telemetry Modulation		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
8903	MGS	02-040/22:49:44		NOTE: Enter Planetary Atmosphere 13078		02-040/22:34:47
8904	MGS	02-040/22:51:02		NOTE: Apoapsis 13078 -		02-040/22:36:06
8905	MGS	02-040/22:53:54		NOTE: Enter Earth Occultation 13078		02-040/22:38:58
8906	MGS	02-040/22:53:54	25	NOTE: Loss Of X-Band Signal		
8907	MGS	02-040/22:54:27		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-040/22:39:31
8908	MGS	02-040/22:54:27		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-040/22:39:31
8909	MGS	02-040/22:54:27		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-040/22:39:31
8910	MGS	02-040/22:54:27		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-040/22:39:31
8911	MGS	02-040/22:54:28		NOTE: End EVP script		02-040/22:39:31
8912	MGS	02-040/22:54:28		Turn off the MOT Exciter and RPA beam	STRPAF	02-040/22:39:32
8913	MGS	02-040/22:54:32		NOTE: End fixed Sub-Reflector for Radio Science		02-040/22:39:35
8914	MGS	02-040/22:54:56		SSR 1B Data Disable	CSD1BX	02-040/22:40:00
8915	MGS	02-040/22:54:56		SSR Activity: ID=SSR_1B, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-040/22:40:00
8916	MGS	02-040/22:54:57		NOTE: End Block (SSRMGR)		02-040/22:40:01
8917	MGS	02-040/22:55:45		NOTE: Enter Solar Eclipse 13078		02-040/22:40:48
8918	MGS	02-040/22:55:45		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-040/22:40:49
8919	MGS	02-040/22:59:24	25	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
8920	MGS	02-040/23:01:25	25	Range Modulation On: SUP=3.0dB		
8921	MGS	02-040/23:02:25	25	Begin Ranging Acquisition		
8922	MGS	02-040/23:08:15		NOTE: Start Block (SSRMGR)		02-040/22:53:19
8923	MGS	02-040/23:08:15		Sends a one-word SSR command to the XSU command SOB: SSR_1B, SE_1A, RECORD, PART3	STSSRC	02-040/22:53:19
8924	MGS	02-040/23:08:16		SSR 1B Data Enable	CSD1BE	02-040/22:53:20
8925	MGS	02-040/23:08:16		SSR Activity: ID=SSR_1B, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-040/22:53:20
8926	MGS	02-040/23:19:57		NOTE: Begin fixed Sub-Reflector for Radio Science		02-040/23:05:00
8927	MGS	02-040/23:20:29		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-040/23:05:33
8928	MGS	02-040/23:20:29		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-040/23:05:33
8929	MGS	02-040/23:20:34		Set eclipse egress script address: 019A	SWSEES	02-040/23:05:38
8930	MGS	02-040/23:23:42		: 01:28:28	RPAONX	02-040/23:08:46
8931	MGS	02-040/23:23:42		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-040/23:08:46
8932	MGS	02-040/23:24:57		: 00:00:30, 00:07:08, FALSE	RDSCIE	02-040/23:10:01
8933	MGS	02-040/23:24:57		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-040/23:10:01
8934	MGS	02-040/23:24:57		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-040/23:10:01
8935	MGS	02-040/23:24:57		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-040/23:10:01
8936	MGS	02-040/23:24:57		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-040/23:10:01
8937	MGS	02-040/23:25:27		Disables autonomous command to send eclipse ingress script	SWEISX	02-040/23:10:31
8938	MGS	02-040/23:25:32		NOTE: Exit Earth Occultation 13078		02-040/23:10:35
8939	MGS	02-040/23:25:32	25	Acquisition Of X-Band Signal		
8940	MGS	02-040/23:25:32	25	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
8941	MGS	02-040/23:25:32	25	NOTE: Carrier Only -- No Telemetry Modulation		
8942	MGS	02-040/23:30:00		NOTE: Exit Planetary Atmosphere 13078		02-040/23:15:03
8943	MGS	02-040/23:32:05		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-040/23:17:09
8944	MGS	02-040/23:32:05		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-040/23:17:09
8945	MGS	02-040/23:32:05		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-040/23:17:09
8946	MGS	02-040/23:32:05		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-040/23:17:09
8947	MGS	02-040/23:32:05	25	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
8948	MGS	02-040/23:32:06		: RTM, MRC, 01:13:12, S&E_2A, FALSE, 00:06:52	AEMRT	02-040/23:17:10
8949	MGS	02-040/23:32:06		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-040/23:17:10
8950	MGS	02-040/23:32:06		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-040/23:17:10
8951	MGS	02-040/23:32:06		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=3, BITS=11440000, DUR=00:23:50		02-040/23:17:10
8952	MGS	02-040/23:32:06		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-040/23:17:10
8953	MGS	02-040/23:32:06	25	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
8954	MGS	02-040/23:32:10		NOTE: End fixed Sub-Reflector for Radio Science		02-040/23:17:13
8955	MGS	02-040/23:34:56		SSR 1A Data Disable	CSD1AX	02-040/23:20:00
8956	MGS	02-040/23:34:56		SSR Activity: ID=SSR_1A, FCN=End Recording, PRT=3, BITS=32000000, DUR=01:06:40		02-040/23:20:00

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
8957	MGS	02-040/23:34:57		NOTE: End Block (SSRMGR)		02-040/23:20:01
8958	MGS	02-040/23:36:11		NOTE: Exit Solar Eclipse 13078		02-040/23:21:15
8959	MGS	02-040/23:49:30		NOTE: Periapsis 13079 ----------		02-040/23:34:33
8960	MGS	02-040/23:57:10		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-040/23:42:14
8961	MGS	02-040/23:57:10		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-040/23:42:14
8962	MGS	02-040/23:57:11		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-040/23:42:15
8963	MGS	02-040/23:57:11		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-040/23:42:15
8964	MGS	02-041/00:00:00		Light Time: OWLT = 14:56, RTLT = 29:53		
8965	MGS	02-041/00:02:59	25	NOTE: Transmitter Off in 15 minutes		
8966	MGS	02-041/00:14:55		NOTE: Start Block (SSRMGR)		02-040/23:59:59
8967	MGS	02-041/00:14:55		Sends a one-word SSR command to the XSU command SOB: SSR_2A, SE_1A, RECORD, PART1	STSSRC	02-040/23:59:59
8968	MGS	02-041/00:14:56		SSR 2A Data Enable	CSD2AE	02-041/00:00:00
8969	MGS	02-041/00:14:56		SSR Activity: ID=SSR_2A, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-041/00:00:00
8970	MGS	02-041/00:15:59	25	Range Modulation Off		
8971	MGS	02-041/00:17:59	25	Transmitter Off		
8972	MGS	02-041/00:19:11		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-041/00:04:15
8973	MGS	02-041/00:19:11		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-041/00:04:15
8974	MGS	02-041/00:40:18		NOTE: Begin fixed Sub-Reflector for Radio Science		02-041/00:25:21
8975	MGS	02-041/00:41:36		SSR 1B Data Disable	CSD1BX	02-041/00:26:40
8976	MGS	02-041/00:41:36		SSR Activity: ID=SSR_1B, FCN=End Recording, PRT=3, BITS=44800000, DUR=01:33:20		02-041/00:26:40
8977	MGS	02-041/00:41:37		NOTE: End Block (SSRMGR)		02-041/00:26:41
8978	MGS	02-041/00:43:28		NOTE: Start Block (MAP_PB)		02-041/00:28:32
8979	MGS	02-041/00:43:29		: 00:28:02, 01:28:22, FALSE, TRUE, FALSE, 00:01:15, 00:07:07, 01:13:09, 00:06:50	AEMINI	02-041/00:28:33
8980	MGS	02-041/00:43:29		Enable sending eclipse ingress script when array power disappears	SWEISE	02-041/00:28:33
8981	MGS	02-041/00:43:29		NOTE: Start EVP data return script		02-041/00:28:33
8982	MGS	02-041/00:43:30		: SSR_1A, F42KHZ, PART1, SE_1A, 2002-041T01:14:57.000	AEMPBI	02-041/00:28:34
8983	MGS	02-041/00:45:18		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-041/00:30:22
8984	MGS	02-041/00:45:18		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=1, BITS=14576000, DUR=00:30:22		02-041/00:30:22
8985	MGS	02-041/00:45:18		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-041/00:30:22
8986	MGS	02-041/00:45:18		: 00:06:51, FALSE	RDSCII	02-041/00:30:22
8987	MGS	02-041/00:45:18		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-041/00:30:22
8988	MGS	02-041/00:45:18		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-041/00:30:22
8989	MGS	02-041/00:45:18		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-041/00:30:22
8990	MGS	02-041/00:45:18		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-041/00:30:22
8991	MGS	02-041/00:45:18	25	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
8992	MGS	02-041/00:45:18	25	NOTE: Carrier Only -- No Telemetry Modulation		
8993	MGS	02-041/00:47:27		NOTE: Enter Planetary Atmosphere 13079		02-041/00:32:30
8994	MGS	02-041/00:48:29		NOTE: Apoapsis 13079 -		02-041/00:33:32
8995	MGS	02-041/00:51:37		NOTE: Enter Earth Occultation 13079		02-041/00:36:40
8996	MGS	02-041/00:51:37	25	NOTE: Loss Of X-Band Signal		
8997	MGS	02-041/00:52:09		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-041/00:37:13
8998	MGS	02-041/00:52:09		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-041/00:37:13
8999	MGS	02-041/00:52:09		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-041/00:37:13
9000	MGS	02-041/00:52:09		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-041/00:37:13
9001	MGS	02-041/00:52:10		NOTE: End EVP script		02-041/00:37:13
9002	MGS	02-041/00:52:10		Turn off the MOT Exciter and RPA beam	STRPAF	02-041/00:37:14
9003	MGS	02-041/00:52:11		NOTE: End Block (MAP_RT)		02-041/00:37:14
9004	MGS	02-041/00:52:14		NOTE: End fixed Sub-Reflector for Radio Science		02-041/00:37:17
9005	MGS	02-041/00:53:29		NOTE: Enter Solar Eclipse 13079		02-041/00:38:32
9006	MGS	02-041/00:53:29		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-041/00:38:33
9007	MGS	02-041/00:57:08	25	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
9008	MGS	02-041/00:59:08	25	Range Modulation On: SUP=3.0dB		
9009	MGS	02-041/01:00:08	25	Begin Ranging Acquisition		
9010	MGS	02-041/01:17:46		NOTE: Begin fixed Sub-Reflector for Radio Science		02-041/01:02:49

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
9011	MGS	02-041/01:18:11		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-041/01:03:15
9012	MGS	02-041/01:18:11		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-041/01:03:15
9013	MGS	02-041/01:18:16		Set eclipse egress script address: 01DC	SWSEES	02-041/01:03:20
9014	MGS	02-041/01:21:31		: 01:28:22	RPAONX	02-041/01:06:35
9015	MGS	02-041/01:21:31		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-041/01:06:35
9016	MGS	02-041/01:22:46		: 00:00:30, 00:07:07, FALSE	RDSCIE	02-041/01:07:50
9017	MGS	02-041/01:22:46		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-041/01:07:50
9018	MGS	02-041/01:22:46		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-041/01:07:50
9019	MGS	02-041/01:22:46		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-041/01:07:50
9020	MGS	02-041/01:22:46		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-041/01:07:50
9021	MGS	02-041/01:23:16		NOTE: Exit Earth Occultation 13079		02-041/01:08:19
9022	MGS	02-041/01:23:16	25	Acquisition Of X-Band Signal		
9023	MGS	02-041/01:23:16	25	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
9024	MGS	02-041/01:23:16	25	NOTE: Carrier Only -- No Telemetry Modulation		
9025	MGS	02-041/01:27:43		NOTE: Exit Planetary Atmosphere 13079		02-041/01:12:46
9026	MGS	02-041/01:29:53		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-041/01:14:57
9027	MGS	02-041/01:29:53		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-041/01:14:57
9028	MGS	02-041/01:29:53		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-041/01:14:57
9029	MGS	02-041/01:29:53		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-041/01:14:57
9030	MGS	02-041/01:29:53		: REC_1A, F42KHZ, PART1, SE_1A, FALSE, 00:11:21	AEMPB	02-041/01:14:57
9031	MGS	02-041/01:29:53		Sends a one-word MOT command to the XSU command SOB: SSR_1A	STMOTC	02-041/01:14:57
9032	MGS	02-041/01:29:53		Sends a one-word SSR command to the XSU command SOB: SSR_1A, F42KHZ, PLYBCK, PART1	STSSRC	02-041/01:14:57
9033	MGS	02-041/01:29:53	25	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
9034	MGS	02-041/01:29:54		SSR 1A Data Enable	CSD1AE	02-041/01:14:58
9035	MGS	02-041/01:29:54		SSR Activity: ID=SSR_1A, FCN=Start Playback, PRT=1, BR=42666		02-041/01:14:58
9036	MGS	02-041/01:29:54	25	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
9037	MGS	02-041/01:29:58		NOTE: End fixed Sub-Reflector for Radio Science		02-041/01:15:01
9038	MGS	02-041/01:33:55		NOTE: Exit Solar Eclipse 13079		02-041/01:18:58
9039	MGS	02-041/01:47:28		NOTE: Periapsis 13080 ----------		02-041/01:32:31
9040	MGS	02-041/01:54:54		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-041/01:39:58
9041	MGS	02-041/01:54:54		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-041/01:39:58
9042	MGS	02-041/01:54:55		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-041/01:39:59
9043	MGS	02-041/01:54:55		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-041/01:39:59
9044	MGS	02-041/02:00:43	25	NOTE: Transmitter Off in 15 minutes		
9045	MGS	02-041/02:13:44	25	Range Modulation Off		
9046	MGS	02-041/02:15:43	25	Transmitter Off		
9047	MGS	02-041/02:16:55		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-041/02:01:59
9048	MGS	02-041/02:16:55		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-041/02:01:59
9049	MGS	02-041/02:38:02		NOTE: Begin fixed Sub-Reflector for Radio Science		02-041/02:23:05
9050	MGS	02-041/02:38:33		SSR 1A Data Disable	CSD1AX	02-041/02:23:36
9051	MGS	02-041/02:38:33		SSR Activity: ID=SSR_1A, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-041/02:23:36
9052	MGS	02-041/02:38:33		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-041/02:23:36
9053	MGS	02-041/02:38:33	25	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
9054	MGS	02-041/02:41:16		NOTE: Start EVP data return script		02-041/02:26:19
9055	MGS	02-041/02:41:16		: SSR_1B, F42KHZ, PART1, 2002-041T03:12:43.000	AEMPBU	02-041/02:26:19
9056	MGS	02-041/02:43:03		: 00:06:50, FALSE	RDSCII	02-041/02:28:06
9057	MGS	02-041/02:43:03		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-041/02:28:06
9058	MGS	02-041/02:43:03		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-041/02:28:06
9059	MGS	02-041/02:43:03		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-041/02:28:06
9060	MGS	02-041/02:43:03		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-041/02:28:06
9061	MGS	02-041/02:43:03	25	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
9062	MGS	02-041/02:43:03	25	NOTE: Carrier Only -- No Telemetry Modulation		
9063	MGS	02-041/02:45:12		NOTE: Enter Planetary Atmosphere 13080		02-041/02:30:15
9064	MGS	02-041/02:46:37		NOTE: Apoapsis 13080 -		02-041/02:31:40

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
9065	MGS	02-041/02:49:22		NOTE: Enter Earth Occultation 13080		02-041/02:34:25
9066	MGS	02-041/02:49:22	25	NOTE: Loss Of X-Band Signal		
9067	MGS	02-041/02:49:53		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-041/02:34:56
9068	MGS	02-041/02:49:53		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-041/02:34:56
9069	MGS	02-041/02:49:53		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-041/02:34:56
9070	MGS	02-041/02:49:53		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-041/02:34:56
9071	MGS	02-041/02:49:53		NOTE: End EVP script		02-041/02:34:56
9072	MGS	02-041/02:49:54		Turn off the MOT Exciter and RPA beam	STRPAF	02-041/02:34:57
9073	MGS	02-041/02:49:57		NOTE: End fixed Sub-Reflector for Radio Science		02-041/02:35:00
9074	MGS	02-041/02:51:15		NOTE: Enter Solar Eclipse 13080		02-041/02:36:18
9075	MGS	02-041/02:51:16		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-041/02:36:19
9076	MGS	02-041/02:54:53	25	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
9077	MGS	02-041/02:56:54	25	Range Modulation On: SUP=3.0dB		
9078	MGS	02-041/02:57:54	25	Begin Ranging Acquisition		
9079	MGS	02-041/03:15:32		NOTE: Begin fixed Sub-Reflector for Radio Science		02-041/03:00:35
9080	MGS	02-041/03:15:56		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-041/03:00:59
9081	MGS	02-041/03:15:56		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-041/03:00:59
9082	MGS	02-041/03:16:00		Command the PSE with included data word: 3990	SWPSEL	02-041/03:01:03
9083	MGS	02-041/03:16:01		Set eclipse egress script address: 0158	SWSEES	02-041/03:01:04
9084	MGS	02-041/03:19:18		: 01:28:22	RPAONX	02-041/03:04:21
9085	MGS	02-041/03:19:18		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-041/03:04:21
9086	MGS	02-041/03:20:33		: 00:00:30, 00:07:07, FALSE	RDSCIE	02-041/03:05:36
9087	MGS	02-041/03:20:33		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-041/03:05:36
9088	MGS	02-041/03:20:33		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-041/03:05:36
9089	MGS	02-041/03:20:33		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-041/03:05:36
9090	MGS	02-041/03:20:33		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-041/03:05:36
9091	MGS	02-041/03:21:02		NOTE: Exit Earth Occultation 13080		02-041/03:06:05
9092	MGS	02-041/03:21:02	25	Acquisition Of X-Band Signal		
9093	MGS	02-041/03:21:02	25	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
9094	MGS	02-041/03:21:02	25	NOTE: Carrier Only -- No Telemetry Modulation		
9095	MGS	02-041/03:25:00	45	Begin Pre-Cal		
9096	MGS	02-041/03:25:00	45	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
9097	MGS	02-041/03:25:00	45	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
9098	MGS	02-041/03:25:00	45	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
9099	MGS	02-041/03:25:00	45	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
9100	MGS	02-041/03:25:00	45	At BOT: S/C Tlm Mode: BR=42666.7, FL=10000, SC=HIGH, MI=80.0		
9101	MGS	02-041/03:25:00	45	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
9102	MGS	02-041/03:25:00	45	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
9103	MGS	02-041/03:25:00	45	Config: TGC: DEST=37		
9104	MGS	02-041/03:25:00	45	Config: TGC: BAND=X, BR=42666.666667		
9105	MGS	02-041/03:25:00	45	Config: FSS: CH=2, PRI_FL=10000		
9106	MGS	02-041/03:25:00	45	Config: RSR		
9107	MGS	02-041/03:25:00	45	Config: TXL		
9108	MGS	02-041/03:25:00	45	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
9109	MGS	02-041/03:25:00	45	Config: BVR		
9110	MGS	02-041/03:25:00	45	Config: Doppler Extractor: BIAS=+1MHZ		
9111	MGS	02-041/03:25:00	45	Config: MDA: SMPL=0.1		
9112	MGS	02-041/03:25:00	45	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
9113	MGS	02-041/03:25:00	45	Config: SRA: HIGH=4, LOW=14, SERV=D		
9114	MGS	02-041/03:25:00	45	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
9115	MGS	02-041/03:25:29		NOTE: Exit Planetary Atmosphere 13080		02-041/03:10:32
9116	MGS	02-041/03:27:40		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-041/03:12:43
9117	MGS	02-041/03:27:40		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-041/03:12:43
9118	MGS	02-041/03:27:40		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-041/03:12:43

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
9119	MGS	02-041/03:27:40		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-041/03:12:43
9120	MGS	02-041/03:27:40		: REC_1B, F42KHZ, PART1, SE_1A, FALSE, 00:11:21	AEMPB	02-041/03:12:43
9121	MGS	02-041/03:27:40		Sends a one-word MOT command to the XSU command SOB: SSR_1B	STMOTC	02-041/03:12:43
9122	MGS	02-041/03:27:40		Sends a one-word SSR command to the XSU command SOB: SSR_1B, F42KHZ, PLYBCK, PART1	STSSRC	02-041/03:12:43
9123	MGS	02-041/03:27:40	25	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
9124	MGS	02-041/03:27:41		SSR 1B Data Enable	CSD1BE	02-041/03:12:44
9125	MGS	02-041/03:27:41		SSR Activity: ID=SSR_1B, FCN=Start Playback, PRT=1, BR=42666		02-041/03:12:44
9126	MGS	02-041/03:27:41	25	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
9127	MGS	02-041/03:27:44		NOTE: End fixed Sub-Reflector for Radio Science		02-041/03:12:47
9128	MGS	02-041/03:31:42		NOTE: Exit Solar Eclipse 13080		02-041/03:16:45
9129	MGS	02-041/03:45:42		NOTE: Periapsis 13081 ----------		02-041/03:30:45
9130	MGS	02-041/03:56:41		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-041/03:41:44
9131	MGS	02-041/03:56:41		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-041/03:41:44
9132	MGS	02-041/03:56:42		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-041/03:41:45
9133	MGS	02-041/03:56:42		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-041/03:41:45
9134	MGS	02-041/03:58:30	25	NOTE: Transmitter Off in 15 minutes		
9135	MGS	02-041/04:11:31	25	Range Modulation Off		
9136	MGS	02-041/04:13:30	25	Transmitter Off		
9137	MGS	02-041/04:18:42		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-041/04:03:45
9138	MGS	02-041/04:18:42		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-041/04:03:45
9139	MGS	02-041/04:25:00	45	Begin Tracking		
9140	MGS	02-041/04:25:00	45	Acquire D/L: X/16, 3-Way/25, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
9141	MGS	02-041/04:35:48		NOTE: Begin fixed Sub-Reflector for Radio Science		02-041/04:20:51
9142	MGS	02-041/04:36:19		SSR 1B Data Disable	CSD1BX	02-041/04:21:22
9143	MGS	02-041/04:36:19		SSR Activity: ID=SSR_1B, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-041/04:21:22
9144	MGS	02-041/04:36:19		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-041/04:21:22
9145	MGS	02-041/04:36:19	25	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
9146	MGS	02-041/04:36:19	45	D/L Change: X/16, 3-Way/25, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
9147	MGS	02-041/04:39:03		NOTE: Start EVP data return script		02-041/04:24:06
9148	MGS	02-041/04:39:03		: SSR_1A, F42KHZ, PART2, 2002-041T05:10:30.000	AEMPBU	02-041/04:24:06
9149	MGS	02-041/04:40:49		: 00:06:50, FALSE	RDSCII	02-041/04:25:52
9150	MGS	02-041/04:40:49		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-041/04:25:52
9151	MGS	02-041/04:40:49		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-041/04:25:52
9152	MGS	02-041/04:40:49		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-041/04:25:52
9153	MGS	02-041/04:40:49		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-041/04:25:52
9154	MGS	02-041/04:40:49	25	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
9155	MGS	02-041/04:40:49	25	NOTE: Carrier Only -- No Telemetry Modulation		
9156	MGS	02-041/04:40:49	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
9157	MGS	02-041/04:40:49	45	NOTE: Carrier Only -- No Telemetry Modulation		
9158	MGS	02-041/04:42:59		NOTE: Enter Planetary Atmosphere 13081		02-041/04:28:02
9159	MGS	02-041/04:44:55		NOTE: Apoapsis 13081 -		02-041/04:29:58
9160	MGS	02-041/04:45:00	25	End Tracking		
9161	MGS	02-041/04:47:10		NOTE: Enter Earth Occultation 13081		02-041/04:32:12
9162	MGS	02-041/04:47:10	45	NOTE: Loss Of X-Band Signal		
9163	MGS	02-041/04:47:39		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-041/04:32:42
9164	MGS	02-041/04:47:39		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-041/04:32:42
9165	MGS	02-041/04:47:39		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-041/04:32:42
9166	MGS	02-041/04:47:39		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-041/04:32:42
9167	MGS	02-041/04:47:39		NOTE: End EVP script		02-041/04:32:42
9168	MGS	02-041/04:47:40		Turn off the MOT Exciter and RPA beam	STRPAF	02-041/04:32:43
9169	MGS	02-041/04:47:43		NOTE: End fixed Sub-Reflector for Radio Science		02-041/04:32:46
9170	MGS	02-041/04:49:02		NOTE: Enter Solar Eclipse 13081		02-041/04:34:05
9171	MGS	02-041/04:49:03		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-041/04:34:06

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
9172	MGS	02-041/04:52:40	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
9173	MGS	02-041/04:54:41	45	Range Modulation On: SUP=3.0dB		
9174	MGS	02-041/04:55:41	45	Begin Ranging Acquisition		
9175	MGS	02-041/05:00:00	25	End Post-Cal		
9176	MGS	02-041/05:13:20		NOTE: Begin fixed Sub-Reflector for Radio Science		02-041/04:58:22
9177	MGS	02-041/05:13:42		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-041/04:58:45
9178	MGS	02-041/05:13:42		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-041/04:58:45
9179	MGS	02-041/05:13:47		Set eclipse egress script address: 019A	SWSEES	02-041/04:58:50
9180	MGS	02-041/05:17:05		: 01:28:22	RPAONX	02-041/05:02:08
9181	MGS	02-041/05:17:05		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-041/05:02:08
9182	MGS	02-041/05:18:20		: 00:00:30, 00:07:07, FALSE	RDSCIE	02-041/05:03:23
9183	MGS	02-041/05:18:20		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-041/05:03:23
9184	MGS	02-041/05:18:20		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-041/05:03:23
9185	MGS	02-041/05:18:20		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-041/05:03:23
9186	MGS	02-041/05:18:20		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-041/05:03:23
9187	MGS	02-041/05:18:50		NOTE: Exit Earth Occultation 13081		02-041/05:03:53
9188	MGS	02-041/05:18:50	45	Acquisition Of X-Band Signal		
9189	MGS	02-041/05:18:50	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
9190	MGS	02-041/05:18:50	45	NOTE: Carrier Only -- No Telemetry Modulation		
9191	MGS	02-041/05:23:17		NOTE: Exit Planetary Atmosphere 13081		02-041/05:08:19
9192	MGS	02-041/05:25:27		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-041/05:10:30
9193	MGS	02-041/05:25:27		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-041/05:10:30
9194	MGS	02-041/05:25:27		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-041/05:10:30
9195	MGS	02-041/05:25:27		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-041/05:10:30
9196	MGS	02-041/05:25:27		: REC_1A, F42KHZ, PART2, SE_1A, FALSE, 00:11:21	AEMPB	02-041/05:10:30
9197	MGS	02-041/05:25:27		Sends a one-word MOT command to the XSU command SOB: SSR_1A	STMOTC	02-041/05:10:30
9198	MGS	02-041/05:25:27		Sends a one-word SSR command to the XSU command SOB: SSR_1A, F42KHZ, PLYBCK, PART2	STSSRC	02-041/05:10:30
9199	MGS	02-041/05:25:27	45	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
9200	MGS	02-041/05:25:28		SSR 1A Data Enable	CSD1AE	02-041/05:10:31
9201	MGS	02-041/05:25:28		SSR Activity: ID=SSR_1A, FCN=Start Playback, PRT=2, BR=42666		02-041/05:10:31
9202	MGS	02-041/05:25:28	45	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
9203	MGS	02-041/05:25:32		NOTE: End fixed Sub-Reflector for Radio Science		02-041/05:10:34
9204	MGS	02-041/05:29:29		NOTE: Exit Solar Eclipse 13081		02-041/05:14:32
9205	MGS	02-041/05:43:44		NOTE: Periapsis 13082 ----------		02-041/05:28:46
9206	MGS	02-041/05:48:16		NOTE: Start Block (SSRMGR)		02-041/05:33:19
9207	MGS	02-041/05:48:16		Sends a one-word SSR command to the XSU command SOB: SSR_2B, SE_1A, RECORD, PART1	STSSRC	02-041/05:33:19
9208	MGS	02-041/05:48:17		SSR 2B Data Enable	CSD2BE	02-041/05:33:20
9209	MGS	02-041/05:48:17		SSR Activity: ID=SSR_2B, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-041/05:33:20
9210	MGS	02-041/05:50:28		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-041/05:35:31
9211	MGS	02-041/05:50:28		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-041/05:35:31
9212	MGS	02-041/05:50:29		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-041/05:35:32
9213	MGS	02-041/05:50:29		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-041/05:35:32
9214	MGS	02-041/05:56:17	45	NOTE: Transmitter Off in 15 minutes		
9215	MGS	02-041/06:09:17	45	Range Modulation Off		
9216	MGS	02-041/06:11:17	45	Transmitter Off		
9217	MGS	02-041/06:12:29		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-041/05:57:32
9218	MGS	02-041/06:12:29		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-041/05:57:32
9219	MGS	02-041/06:14:57		SSR 2A Data Disable	CSD2AX	02-041/06:00:00
9220	MGS	02-041/06:14:57		SSR Activity: ID=SSR_2A, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-041/06:00:00
9221	MGS	02-041/06:14:58		NOTE: End Block (SSRMGR)		02-041/06:00:01
9222	MGS	02-041/06:33:36		NOTE: Begin fixed Sub-Reflector for Radio Science		02-041/06:18:38
9223	MGS	02-041/06:34:06		SSR 1A Data Disable	CSD1AX	02-041/06:19:09
9224	MGS	02-041/06:34:06		SSR Activity: ID=SSR_1A, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-041/06:19:09
9225	MGS	02-041/06:34:06		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-041/06:19:09

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
9226	MGS	02-041/06:34:06	45	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
9227	MGS	02-041/06:36:48		NOTE: Start EVP data return script		02-041/06:21:51
9228	MGS	02-041/06:36:48		: SSR_1B, F42KHZ, PART2, 2002-041T07:08:15.000	AEMPBU	02-041/06:21:51
9229	MGS	02-041/06:38:36		: 00:06:50, FALSE	RDSCII	02-041/06:23:39
9230	MGS	02-041/06:38:36		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-041/06:23:39
9231	MGS	02-041/06:38:36		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-041/06:23:39
9232	MGS	02-041/06:38:36		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-041/06:23:39
9233	MGS	02-041/06:38:36		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-041/06:23:39
9234	MGS	02-041/06:38:36	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
9235	MGS	02-041/06:38:36	45	NOTE: Carrier Only -- No Telemetry Modulation		
9236	MGS	02-041/06:40:47		NOTE: Enter Planetary Atmosphere 13082		02-041/06:25:49
9237	MGS	02-041/06:42:44		NOTE: Apoapsis 13082 -		02-041/06:27:47
9238	MGS	02-041/06:44:57		NOTE: Enter Earth Occultation 13082		02-041/06:29:59
9239	MGS	02-041/06:44:57	45	NOTE: Loss Of X-Band Signal		
9240	MGS	02-041/06:45:26		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-041/06:30:29
9241	MGS	02-041/06:45:26		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-041/06:30:29
9242	MGS	02-041/06:45:26		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-041/06:30:29
9243	MGS	02-041/06:45:26		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-041/06:30:29
9244	MGS	02-041/06:45:27		NOTE: End EVP script		02-041/06:30:29
9245	MGS	02-041/06:45:27		Turn off the MOT Exciter and RPA beam	STRPAF	02-041/06:30:30
9246	MGS	02-041/06:45:31		NOTE: End fixed Sub-Reflector for Radio Science		02-041/06:30:33
9247	MGS	02-041/06:46:48		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-041/06:31:51
9248	MGS	02-041/06:46:48		NOTE: Enter Solar Eclipse 13082		02-041/06:31:51
9249	MGS	02-041/06:50:27	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
9250	MGS	02-041/06:52:28	45	Range Modulation On: SUP=3.0dB		
9251	MGS	02-041/06:53:28	45	Begin Ranging Acquisition		
9252	MGS	02-041/07:11:05		NOTE: Begin fixed Sub-Reflector for Radio Science		02-041/06:56:07
9253	MGS	02-041/07:11:29		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-041/06:56:32
9254	MGS	02-041/07:11:29		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-041/06:56:32
9255	MGS	02-041/07:11:34		Set eclipse egress script address: 01DC	SWSEES	02-041/06:56:37
9256	MGS	02-041/07:14:50		: 01:28:22	RPAONX	02-041/06:59:53
9257	MGS	02-041/07:14:50		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-041/06:59:53
9258	MGS	02-041/07:16:05		: 00:00:30, 00:07:07, FALSE	RDSCIE	02-041/07:01:08
9259	MGS	02-041/07:16:05		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-041/07:01:08
9260	MGS	02-041/07:16:05		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-041/07:01:08
9261	MGS	02-041/07:16:05		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-041/07:01:08
9262	MGS	02-041/07:16:05		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-041/07:01:08
9263	MGS	02-041/07:16:35		Disables autonomous command to send eclipse ingress script	SWEISX	02-041/07:01:38
9264	MGS	02-041/07:16:37		NOTE: Exit Earth Occultation 13082		02-041/07:01:40
9265	MGS	02-041/07:16:37	45	Acquisition Of X-Band Signal		
9266	MGS	02-041/07:16:37	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
9267	MGS	02-041/07:16:37	45	NOTE: Carrier Only -- No Telemetry Modulation		
9268	MGS	02-041/07:21:05		NOTE: Exit Planetary Atmosphere 13082		02-041/07:06:07
9269	MGS	02-041/07:23:12		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-041/07:08:15
9270	MGS	02-041/07:23:12		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-041/07:08:15
9271	MGS	02-041/07:23:12		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-041/07:08:15
9272	MGS	02-041/07:23:12		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-041/07:08:15
9273	MGS	02-041/07:23:12		: REC_1B, F42KHZ, PART2, SE_1A, FALSE, 00:11:21	AEMPB	02-041/07:08:15
9274	MGS	02-041/07:23:12		Sends a one-word MOT command to the XSU command SOB: SSR_1B	STMOTC	02-041/07:08:15
9275	MGS	02-041/07:23:12		Sends a one-word SSR command to the XSU command SOB: SSR_1B, F42KHZ, PLYBCK, PART2	STSSRC	02-041/07:08:15
9276	MGS	02-041/07:23:12	45	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
9277	MGS	02-041/07:23:13		SSR 1B Data Enable	CSD1BE	02-041/07:08:16
9278	MGS	02-041/07:23:13		SSR Activity: ID=SSR_1B, FCN=Start Playback, PRT=2, BR=42666		02-041/07:08:16
9279	MGS	02-041/07:23:13	45	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
9280	MGS	02-041/07:23:17		NOTE: End fixed Sub-Reflector for Radio Science		02-041/07:08:19
9281	MGS	02-041/07:27:15		NOTE: Exit Solar Eclipse 13082		02-041/07:12:18
9282	MGS	02-041/07:41:18		NOTE: Periapsis 13083 ----------		02-041/07:26:20
9283	MGS	02-041/07:48:14		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-041/07:33:17
9284	MGS	02-041/07:48:14		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-041/07:33:17
9285	MGS	02-041/07:48:15		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-041/07:33:18
9286	MGS	02-041/07:48:15		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-041/07:33:18
9287	MGS	02-041/07:54:00	45	NOTE: Transmitter Off in 15 minutes		
9288	MGS	02-041/08:07:00	45	Range Modulation Off		
9289	MGS	02-041/08:09:00	45	Transmitter Off		
9290	MGS	02-041/08:10:15		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-041/07:55:18
9291	MGS	02-041/08:10:15		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-041/07:55:18
9292	MGS	02-041/08:31:21		NOTE: Begin fixed Sub-Reflector for Radio Science		02-041/08:16:23
9293	MGS	02-041/08:31:51		SSR 1B Data Disable	CSD1BX	02-041/08:16:54
9294	MGS	02-041/08:31:51		SSR Activity: ID=SSR_1B, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-041/08:16:54
9295	MGS	02-041/08:31:51		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-041/08:16:54
9296	MGS	02-041/08:31:51	45	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
9297	MGS	02-041/08:34:30		NOTE: Start Block (MAP_RT)		02-041/08:19:33
9298	MGS	02-041/08:34:31		: 00:28:02, 01:28:21, FALSE, TRUE, FALSE, 00:01:15, 00:07:07, 01:13:08, 00:06:50	AEMINI	02-041/08:19:34
9299	MGS	02-041/08:34:31		Enable sending eclipse ingress script when array power disappears	SWEISE	02-041/08:19:34
9300	MGS	02-041/08:34:31		NOTE: Start EVP data return script		02-041/08:19:34
9301	MGS	02-041/08:34:32		: SE_2A, RTM, 01:13:07, MRC, 2002-041T09:05:59.000	AEMRTI	02-041/08:19:35
9302	MGS	02-041/08:36:21		: 00:06:50, FALSE	RDSCII	02-041/08:21:24
9303	MGS	02-041/08:36:21		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-041/08:21:24
9304	MGS	02-041/08:36:21		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-041/08:21:24
9305	MGS	02-041/08:36:21		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-041/08:21:24
9306	MGS	02-041/08:36:21		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-041/08:21:24
9307	MGS	02-041/08:36:21	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
9308	MGS	02-041/08:36:21	45	NOTE: Carrier Only -- No Telemetry Modulation		
9309	MGS	02-041/08:38:30		NOTE: Enter Planetary Atmosphere 13083		02-041/08:23:32
9310	MGS	02-041/08:40:07		NOTE: Apoapsis 13083 -		02-041/08:25:09
9311	MGS	02-041/08:42:40		NOTE: Enter Earth Occultation 13083		02-041/08:27:42
9312	MGS	02-041/08:42:40	45	NOTE: Loss Of X-Band Signal		
9313	MGS	02-041/08:43:11		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-041/08:28:14
9314	MGS	02-041/08:43:11		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-041/08:28:14
9315	MGS	02-041/08:43:11		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-041/08:28:14
9316	MGS	02-041/08:43:11		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-041/08:28:14
9317	MGS	02-041/08:43:12		NOTE: End EVP script		02-041/08:28:14
9318	MGS	02-041/08:43:12		Turn off the MOT Exciter and RPA beam	STRPAF	02-041/08:28:15
9319	MGS	02-041/08:43:13		NOTE: End Block (MAP_PB)		02-041/08:28:15
9320	MGS	02-041/08:43:16		NOTE: End fixed Sub-Reflector for Radio Science		02-041/08:28:18
9321	MGS	02-041/08:44:31		NOTE: Enter Solar Eclipse 13083		02-041/08:29:33
9322	MGS	02-041/08:44:31		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-041/08:29:34
9323	MGS	02-041/08:48:10	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
9324	MGS	02-041/08:50:10	45	Range Modulation On: SUP=3.0dB		
9325	MGS	02-041/08:51:10	45	Begin Ranging Acquisition		
9326	MGS	02-041/09:08:48		NOTE: Begin fixed Sub-Reflector for Radio Science		02-041/08:53:50
9327	MGS	02-041/09:09:16		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-041/08:54:18
9328	MGS	02-041/09:09:16		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-041/08:54:18
9329	MGS	02-041/09:09:20		Command the PSE with included data word: 3990	SWPSEL	02-041/08:54:22
9330	MGS	02-041/09:09:21		Set eclipse egress script address: 0158	SWSEES	02-041/08:54:23
9331	MGS	02-041/09:12:34		: 01:28:21	RPAONX	02-041/08:57:36
9332	MGS	02-041/09:12:34		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-041/08:57:36
9333	MGS	02-041/09:13:49		: 00:00:30, 00:07:07, FALSE	RDSCIE	02-041/08:58:51

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
9334	MGS	02-041/09:13:49		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-041/08:58:51
9335	MGS	02-041/09:13:49		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-041/08:58:51
9336	MGS	02-041/09:13:49		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-041/08:58:51
9337	MGS	02-041/09:13:49		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-041/08:58:51
9338	MGS	02-041/09:14:19		Disables autonomous command to send eclipse ingress script	SWEISX	02-041/08:59:21
9339	MGS	02-041/09:14:21		NOTE: Exit Earth Occultation 13083		02-041/08:59:23
9340	MGS	02-041/09:14:21	45	Acquisition Of X-Band Signal		
9341	MGS	02-041/09:14:21	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
9342	MGS	02-041/09:14:21	45	NOTE: Carrier Only -- No Telemetry Modulation		
9343	MGS	02-041/09:18:48		NOTE: Exit Planetary Atmosphere 13083		02-041/09:03:50
9344	MGS	02-041/09:20:56		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-041/09:05:58
9345	MGS	02-041/09:20:56		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-041/09:05:58
9346	MGS	02-041/09:20:56		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-041/09:05:58
9347	MGS	02-041/09:20:56		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-041/09:05:58
9348	MGS	02-041/09:20:56	45	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
9349	MGS	02-041/09:20:57		: RTM, MRC, 01:13:07, S&E_2A, FALSE, 00:06:51	AEMRT	02-041/09:05:59
9350	MGS	02-041/09:20:57		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-041/09:05:59
9351	MGS	02-041/09:20:57		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-041/09:05:59
9352	MGS	02-041/09:20:57	45	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
9353	MGS	02-041/09:21:00		NOTE: End fixed Sub-Reflector for Radio Science		02-041/09:06:02
9354	MGS	02-041/09:24:58		NOTE: Exit Solar Eclipse 13083		02-041/09:10:00
9355	MGS	02-041/09:26:50		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-041/09:11:52
9356	MGS	02-041/09:26:50	45	D/L Change: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
9357	MGS	02-041/09:26:52		NOTE: Start Block (SSRMGR)		02-041/09:11:54
9358	MGS	02-041/09:26:52		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-041/09:11:54
9359	MGS	02-041/09:26:52		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-041/09:11:54
9360	MGS	02-041/09:26:53		Sends a one-word MOT command to the XSU command SOB: SSR_1A	STMOTC	02-041/09:11:55
9361	MGS	02-041/09:26:54		Sends a one-word SSR command to the XSU command SOB: SSR_1A, F42KHZ, PLYBCK, PART3	STSSRC	02-041/09:11:56
9362	MGS	02-041/09:26:55		SSR 1A Data Enable	CSD1AE	02-041/09:11:57
9363	MGS	02-041/09:26:55		SSR Activity: ID=SSR_1A, FCN=Start Playback, PRT=3, BR=42666		02-041/09:11:57
9364	MGS	02-041/09:26:55	45	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
9365	MGS	02-041/09:38:40		NOTE: Periapsis 13084 ----------		02-041/09:23:42
9366	MGS	02-041/09:39:22		NOTE: Start Block (SSRMGR)		02-041/09:24:24
9367	MGS	02-041/09:39:22		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-041/09:24:24
9368	MGS	02-041/09:39:22		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-041/09:24:24
9369	MGS	02-041/09:39:23		Sends a one-word MOT command to the XSU command SOB: SSR_1B	STMOTC	02-041/09:24:25
9370	MGS	02-041/09:39:24		Sends a one-word SSR command to the XSU command SOB: SSR_1B, F42KHZ, PLYBCK, PART3	STSSRC	02-041/09:24:26
9371	MGS	02-041/09:39:25		SSR 1A Data Disable	CSD1AX	02-041/09:24:27
9372	MGS	02-041/09:39:25		SSR Activity: ID=SSR_1A, FCN=End Playback, PRT=3, BITS=32000000, DUR=00:12:30		02-041/09:24:27
9373	MGS	02-041/09:39:25		SSR 1B Data Enable	CSD1BE	02-041/09:24:27
9374	MGS	02-041/09:39:25		SSR Activity: ID=SSR_1B, FCN=Start Playback, PRT=3, BR=42666		02-041/09:24:27
9375	MGS	02-041/09:39:25	45	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
9376	MGS	02-041/09:39:26		NOTE: End Block (SSRMGR)		02-041/09:24:28
9377	MGS	02-041/09:49:57		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-041/09:34:59
9378	MGS	02-041/09:49:57		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-041/09:34:59
9379	MGS	02-041/09:49:58		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-041/09:35:00
9380	MGS	02-041/09:49:58		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-041/09:35:00
9381	MGS	02-041/09:51:39	45	NOTE: Transmitter Off in 15 minutes		
9382	MGS	02-041/09:56:55		SSR 1B Data Disable	CSD1BX	02-041/09:41:57
9383	MGS	02-041/09:56:55		SSR Activity: ID=SSR_1B, FCN=End Playback, PRT=3, BITS=44800000, DUR=00:17:30		02-041/09:41:57
9384	MGS	02-041/09:56:56		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-041/09:41:58
9385	MGS	02-041/09:56:56		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-041/09:41:58
9386	MGS	02-041/09:56:56		NOTE: End Block (SSRMGR)		02-041/09:41:58
9387	MGS	02-041/09:56:56	45	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
9388	MGS	02-041/10:04:39	45	Range Modulation Off		
9389	MGS	02-041/10:06:39	45	Transmitter Off		
9390	MGS	02-041/10:11:58		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-041/09:57:00
9391	MGS	02-041/10:11:58		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-041/09:57:00
9392	MGS	02-041/10:29:03		NOTE: Begin fixed Sub-Reflector for Radio Science		02-041/10:14:05
9393	MGS	02-041/10:32:12	45	NOTE: Below Uplink Interlock Limit		
9394	MGS	02-041/10:34:04		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-041/10:19:06
9395	MGS	02-041/10:34:04		: 00:06:50, FALSE	RDSCII	02-041/10:19:06
9396	MGS	02-041/10:34:04		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-041/10:19:06
9397	MGS	02-041/10:34:04		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-041/10:19:06
9398	MGS	02-041/10:34:04		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-041/10:19:06
9399	MGS	02-041/10:34:04		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-041/10:19:06
9400	MGS	02-041/10:34:04	45	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
9401	MGS	02-041/10:34:04	45	NOTE: Carrier Only -- No Telemetry Modulation		
9402	MGS	02-041/10:36:10		NOTE: Enter Planetary Atmosphere 13084		02-041/10:21:12
9403	MGS	02-041/10:37:43		NOTE: Apoapsis 13084 -		02-041/10:22:45
9404	MGS	02-041/10:40:00	45	End Tracking		
9405	MGS	02-041/10:40:20		NOTE: Enter Earth Occultation 13084		02-041/10:25:22
9406	MGS	02-041/10:40:54		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-041/10:25:56
9407	MGS	02-041/10:40:54		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-041/10:25:56
9408	MGS	02-041/10:40:54		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-041/10:25:56
9409	MGS	02-041/10:40:54		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-041/10:25:56
9410	MGS	02-041/10:40:54		NOTE: End EVP script		02-041/10:25:56
9411	MGS	02-041/10:40:55		Turn off the MOT Exciter and RPA beam	STRPAF	02-041/10:25:57
9412	MGS	02-041/10:40:55		NOTE: End Block (MAP_RT)		02-041/10:25:57
9413	MGS	02-041/10:40:58		NOTE: End fixed Sub-Reflector for Radio Science		02-041/10:26:00
9414	MGS	02-041/10:42:12		NOTE: Enter Solar Eclipse 13084		02-041/10:27:13
9415	MGS	02-041/10:55:00	45	End Post-Cal		
9416	MGS	02-041/10:56:55		Disable HGA control mode	SAHGCX	02-041/10:41:57
9417	MGS	02-041/10:56:56		No Operation	SCNOOP	02-041/10:41:58
9418	MGS	02-041/10:56:57		CDU-1 Uplink Rate Select (Based on 3 bit Code): 7	TCC1BS	02-041/10:41:59
9419	MGS	02-041/10:56:57		CDU-2 Uplink Rate Select (Based on 3 bit Code): 7	TCC2BS	02-041/10:41:59
9420	MGS	02-041/11:06:58		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-041/10:52:00
9421	MGS	02-041/11:06:58		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-041/10:52:00
9422	MGS	02-041/11:07:03		Set eclipse egress script address: 019A	SWSEES	02-041/10:52:05
9423	MGS	02-041/11:12:02		NOTE: Exit Earth Occultation 13084		02-041/10:57:03
9424	MGS	02-041/11:16:29		NOTE: Exit Planetary Atmosphere 13084		02-041/11:01:30
9425	MGS	02-041/11:21:37		NOTE: Start Block (SSRMGR)		02-041/11:06:39
9426	MGS	02-041/11:21:37		Sends a one-word SSR command to the XSU command SOB: SSR_2A, SE_1A, RECORD, PART2	STSSRC	02-041/11:06:39
9427	MGS	02-041/11:21:38		SSR 2A Data Enable	CSD2AE	02-041/11:06:40
9428	MGS	02-041/11:21:38		SSR Activity: ID=SSR_2A, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-041/11:06:40
9429	MGS	02-041/11:22:38		NOTE: Exit Solar Eclipse 13084		02-041/11:07:40
9430	MGS	02-041/11:36:16		NOTE: Periapsis 13085 ----------		02-041/11:21:17
9431	MGS	02-041/11:43:37		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-041/11:28:39
9432	MGS	02-041/11:43:37		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-041/11:28:39
9433	MGS	02-041/11:43:38		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-041/11:28:40
9434	MGS	02-041/11:43:38		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-041/11:28:40
9435	MGS	02-041/11:48:18		SSR 2B Data Disable	CSD2BX	02-041/11:33:20
9436	MGS	02-041/11:48:18		SSR Activity: ID=SSR_2B, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-041/11:33:20
9437	MGS	02-041/11:48:19		NOTE: End Block (SSRMGR)		02-041/11:33:21
9438	MGS	02-041/12:05:38		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-041/11:50:40
9439	MGS	02-041/12:05:38		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-041/11:50:40
9440	MGS	02-041/12:14:58		Dump SCP memory to the EDF using physical addressing arguments: 56A4, 240	SCDSCM	02-041/12:00:00
9441	MGS	02-041/12:33:54		NOTE: Enter Planetary Atmosphere 13085		02-041/12:18:56

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
9442	MGS	02-041/12:35:36		NOTE: Apoapsis 13085 -		02-041/12:20:38
9443	MGS	02-041/12:38:04		NOTE: Enter Earth Occultation 13085		02-041/12:23:05
9444	MGS	02-041/12:39:56		NOTE: Enter Solar Eclipse 13085		02-041/12:24:58
9445	MGS	02-041/13:04:38		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-041/12:49:40
9446	MGS	02-041/13:04:38		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-041/12:49:40
9447	MGS	02-041/13:04:43		Set eclipse egress script address: 01DC	SWSEES	02-041/12:49:45
9448	MGS	02-041/13:09:46		NOTE: Exit Earth Occultation 13085		02-041/12:54:47
9449	MGS	02-041/13:14:13		NOTE: Exit Planetary Atmosphere 13085		02-041/12:59:14
9450	MGS	02-041/13:20:23		NOTE: Exit Solar Eclipse 13085		02-041/13:05:24
9451	MGS	02-041/13:34:09		NOTE: Periapsis 13086 ----------		02-041/13:19:10
9452	MGS	02-041/13:41:22		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-041/13:26:24
9453	MGS	02-041/13:41:22		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-041/13:26:24
9454	MGS	02-041/13:41:23		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-041/13:26:25
9455	MGS	02-041/13:41:23		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-041/13:26:25
9456	MGS	02-041/14:03:23		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-041/13:48:25
9457	MGS	02-041/14:03:23		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-041/13:48:25
9458	MGS	02-041/14:31:42		NOTE: Enter Planetary Atmosphere 13086		02-041/14:16:43
9459	MGS	02-041/14:33:21		NOTE: Apoapsis 13086 -		02-041/14:18:22
9460	MGS	02-041/14:35:51		NOTE: Enter Earth Occultation 13086		02-041/14:20:52
9461	MGS	02-041/14:37:44		NOTE: Enter Solar Eclipse 13086		02-041/14:22:45
9462	MGS	02-041/15:02:23		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-041/14:47:25
9463	MGS	02-041/15:02:23		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-041/14:47:25
9464	MGS	02-041/15:02:27		Command the PSE with included data word: 3990	SWPSEL	02-041/14:47:29
9465	MGS	02-041/15:02:28		Set eclipse egress script address: 0158	SWSEES	02-041/14:47:30
9466	MGS	02-041/15:07:33		NOTE: Exit Earth Occultation 13086		02-041/14:52:35
9467	MGS	02-041/15:12:00		NOTE: Exit Planetary Atmosphere 13086		02-041/14:57:01
9468	MGS	02-041/15:18:11		NOTE: Exit Solar Eclipse 13086		02-041/15:03:12
9469	MGS	02-041/15:31:58		NOTE: Periapsis 13087 ----------		02-041/15:16:59
9470	MGS	02-041/15:43:10		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-041/15:28:11
9471	MGS	02-041/15:43:10		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-041/15:28:11
9472	MGS	02-041/15:43:11		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-041/15:28:12
9473	MGS	02-041/15:43:11		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-041/15:28:12
9474	MGS	02-041/16:05:11		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-041/15:50:12
9475	MGS	02-041/16:05:11		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-041/15:50:12
9476	MGS	02-041/16:29:29		NOTE: Enter Planetary Atmosphere 13087		02-041/16:14:30
9477	MGS	02-041/16:30:56		NOTE: Apoapsis 13087 -		02-041/16:15:56
9478	MGS	02-041/16:33:38		NOTE: Enter Earth Occultation 13087		02-041/16:18:39
9479	MGS	02-041/16:35:31		NOTE: Enter Solar Eclipse 13087		02-041/16:20:32
9480	MGS	02-041/16:54:58		NOTE: Start Block (SSRMGR)		02-041/16:39:59
9481	MGS	02-041/16:54:58		Sends a one-word SSR command to the XSU command SOB: SSR_2B, SE_1A, RECORD, PART2	STSSRC	02-041/16:39:59
9482	MGS	02-041/16:54:59		SSR 2B Data Enable	CSD2BE	02-041/16:40:00
9483	MGS	02-041/16:54:59		SSR Activity: ID=SSR_2B, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-041/16:40:00
9484	MGS	02-041/17:00:11		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-041/16:45:12
9485	MGS	02-041/17:00:11		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-041/16:45:12
9486	MGS	02-041/17:00:16		Set eclipse egress script address: 019A	SWSEES	02-041/16:45:17
9487	MGS	02-041/17:05:21		NOTE: Exit Earth Occultation 13087		02-041/16:50:22
9488	MGS	02-041/17:09:48		NOTE: Exit Planetary Atmosphere 13087		02-041/16:54:49
9489	MGS	02-041/17:15:58		NOTE: Exit Solar Eclipse 13087		02-041/17:00:58
9490	MGS	02-041/17:21:39		SSR 2A Data Disable	CSD2AX	02-041/17:06:40
9491	MGS	02-041/17:21:39		SSR Activity: ID=SSR_2A, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-041/17:06:40
9492	MGS	02-041/17:21:40		NOTE: End Block (SSRMGR)		02-041/17:06:41
9493	MGS	02-041/17:29:40		NOTE: Periapsis 13088 ----------		02-041/17:14:40
9494	MGS	02-041/17:36:57		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-041/17:21:58
9495	MGS	02-041/17:36:57		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-041/17:21:58

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
9496	MGS	02-041/17:36:58		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-041/17:21:59
9497	MGS	02-041/17:36:58		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-041/17:21:59
9498	MGS	02-041/17:58:58		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-041/17:43:59
9499	MGS	02-041/17:58:58		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-041/17:43:59
9500	MGS	02-041/18:27:14		NOTE: Enter Planetary Atmosphere 13088		02-041/18:12:15
9501	MGS	02-041/18:28:26		NOTE: Apoapsis 13088 -		02-041/18:13:27
9502	MGS	02-041/18:31:23		NOTE: Enter Earth Occultation 13088		02-041/18:16:24
9503	MGS	02-041/18:33:16		NOTE: Enter Solar Eclipse 13088		02-041/18:18:16
9504	MGS	02-041/18:57:58		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-041/18:42:59
9505	MGS	02-041/18:57:58		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-041/18:42:59
9506	MGS	02-041/18:58:03		Set eclipse egress script address: 01DC	SWSEES	02-041/18:43:04
9507	MGS	02-041/19:03:07		NOTE: Exit Earth Occultation 13088		02-041/18:48:08
9508	MGS	02-041/19:07:34		NOTE: Exit Planetary Atmosphere 13088		02-041/18:52:34
9509	MGS	02-041/19:13:43		NOTE: Exit Solar Eclipse 13088		02-041/18:58:43
9510	MGS	02-041/19:27:26		NOTE: Periapsis 13089 ----------		02-041/19:12:26
9511	MGS	02-041/19:34:42		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-041/19:19:43
9512	MGS	02-041/19:34:42		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-041/19:19:43
9513	MGS	02-041/19:34:43		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-041/19:19:44
9514	MGS	02-041/19:34:43		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-041/19:19:44
9515	MGS	02-041/19:56:43		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-041/19:41:44
9516	MGS	02-041/19:56:43		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-041/19:41:44
9517	MGS	02-041/20:24:57		NOTE: Enter Planetary Atmosphere 13089		02-041/20:09:57
9518	MGS	02-041/20:26:18		NOTE: Apoapsis 13089 -		02-041/20:11:18
9519	MGS	02-041/20:29:07		NOTE: Enter Earth Occultation 13089		02-041/20:14:07
9520	MGS	02-041/20:30:59		NOTE: Enter Solar Eclipse 13089		02-041/20:15:59
9521	MGS	02-041/20:55:43		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-041/20:40:44
9522	MGS	02-041/20:55:43		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-041/20:40:44
9523	MGS	02-041/20:55:47		Command the PSE with included data word: 3990	SWPSEL	02-041/20:40:48
9524	MGS	02-041/20:55:48		Set eclipse egress script address: 0158	SWSEES	02-041/20:40:49
9525	MGS	02-041/21:00:51		NOTE: Exit Earth Occultation 13089		02-041/20:45:51
9526	MGS	02-041/21:05:18		NOTE: Exit Planetary Atmosphere 13089		02-041/20:50:18
9527	MGS	02-041/21:11:26		NOTE: Exit Solar Eclipse 13089		02-041/20:56:26
9528	MGS	02-041/21:25:08		NOTE: Periapsis 13090 ----------		02-041/21:10:08
9529	MGS	02-041/21:36:24		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-041/21:21:25
9530	MGS	02-041/21:36:24		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-041/21:21:25
9531	MGS	02-041/21:36:25		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-041/21:21:26
9532	MGS	02-041/21:36:25		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-041/21:21:26
9533	MGS	02-041/21:58:26		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-041/21:43:26
9534	MGS	02-041/21:58:26		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-041/21:43:26
9535	MGS	02-041/22:22:40		NOTE: Enter Planetary Atmosphere 13090		02-041/22:07:40
9536	MGS	02-041/22:24:01		NOTE: Apoapsis 13090 -		02-041/22:09:01
9537	MGS	02-041/22:26:49		NOTE: Enter Earth Occultation 13090		02-041/22:11:49
9538	MGS	02-041/22:28:19		NOTE: Start Block (SSRMGR)		02-041/22:13:19
9539	MGS	02-041/22:28:19		Sends a one-word SSR command to the XSU command SOB: SSR_2A, SE_1A, RECORD, PART3	STSSRC	02-041/22:13:19
9540	MGS	02-041/22:28:20		SSR 2A Data Enable	CSD2AE	02-041/22:13:20
9541	MGS	02-041/22:28:20		SSR Activity: ID=SSR_2A, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-041/22:13:20
9542	MGS	02-041/22:28:41		NOTE: Enter Solar Eclipse 13090		02-041/22:13:41
9543	MGS	02-041/22:53:26		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-041/22:38:26
9544	MGS	02-041/22:53:26		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-041/22:38:26
9545	MGS	02-041/22:53:31		Set eclipse egress script address: 019A	SWSEES	02-041/22:38:31
9546	MGS	02-041/22:55:00		SSR 2B Data Disable	CSD2BX	02-041/22:40:00
9547	MGS	02-041/22:55:00		SSR Activity: ID=SSR_2B, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-041/22:40:00
9548	MGS	02-041/22:55:01		NOTE: End Block (SSRMGR)		02-041/22:40:01
9549	MGS	02-041/22:58:33		NOTE: Exit Earth Occultation 13090		02-041/22:43:33

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
9550	MGS	02-041/23:03:00		NOTE: Exit Planetary Atmosphere 13090		02-041/22:48:00
9551	MGS	02-041/23:08:19		NOTE: Start Block (SSRMGR)		02-041/22:53:19
9552	MGS	02-041/23:08:19		Sends a one-word SSR command to the XSU command SOB: SSR_2B, SE_1A, RECORD, PART3	STSSRC	02-041/22:53:19
9553	MGS	02-041/23:08:20		SSR 2B Data Enable	CSD2BE	02-041/22:53:20
9554	MGS	02-041/23:08:20		SSR Activity: ID=SSR_2B, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-041/22:53:20
9555	MGS	02-041/23:09:07		NOTE: Exit Solar Eclipse 13090		02-041/22:54:07
9556	MGS	02-041/23:22:31		NOTE: Periapsis 13091 ----------		02-041/23:07:31
9557	MGS	02-041/23:30:07		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-041/23:15:07
9558	MGS	02-041/23:30:07		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-041/23:15:07
9559	MGS	02-041/23:30:08		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-041/23:15:08
9560	MGS	02-041/23:30:08		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-041/23:15:08
9561	MGS	02-041/23:35:00		SSR 2A Data Disable	CSD2AX	02-041/23:20:00
9562	MGS	02-041/23:35:00		SSR Activity: ID=SSR_2A, FCN=End Recording, PRT=3, BITS=32000000, DUR=01:06:40		02-041/23:20:00
9563	MGS	02-041/23:35:01		NOTE: End Block (SSRMGR)		02-041/23:20:01
9564	MGS	02-041/23:52:08		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-041/23:37:08
9565	MGS	02-041/23:52:08		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-041/23:37:08
9566	MGS	02-042/00:00:00		Light Time: OWLT = 15:00, RTLT = 30:00		
9567	MGS	02-042/00:14:59		NOTE: Start Block (SSRMGR)		02-041/23:59:59
9568	MGS	02-042/00:14:59		Sends a one-word SSR command to the XSU command SOB: SSR_1A, SE_1A, RECORD, PART1	STSSRC	02-041/23:59:59
9569	MGS	02-042/00:15:00	45	Begin Pre-Cal		
9570	MGS	02-042/00:15:00	45	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
9571	MGS	02-042/00:15:00	45	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
9572	MGS	02-042/00:15:00	45	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
9573	MGS	02-042/00:15:00	45	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
9574	MGS	02-042/00:15:00	45	At BOT: S/C Tlm Mode: BR=8000.0, FL=10000, SC=HIGH, MI=80.0		
9575	MGS	02-042/00:15:00	45	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
9576	MGS	02-042/00:15:00	45	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
9577	MGS	02-042/00:15:00	45	Config: TGC: DEST=37		
9578	MGS	02-042/00:15:00	45	Config: TGC: BAND=X, BR=8000.000000		
9579	MGS	02-042/00:15:00	45	Config: FSS: CH=2, PRI_FL=10000		
9580	MGS	02-042/00:15:00	45	Config: RSR		
9581	MGS	02-042/00:15:00	45	Config: TXL		
9582	MGS	02-042/00:15:00	45	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
9583	MGS	02-042/00:15:00	45	Config: BVR		
9584	MGS	02-042/00:15:00	45	Config: Doppler Extractor: BIAS=+1MHZ		
9585	MGS	02-042/00:15:00	45	Config: MDA: SMPL=0.1		
9586	MGS	02-042/00:15:00	45	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
9587	MGS	02-042/00:15:00	45	Config: SRA: HIGH=4, LOW=14, SERV=D		
9588	MGS	02-042/00:15:00	45	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
9589	MGS	02-042/00:15:00		SSR 1A Data Enable	CSD1AE	02-042/00:00:00
9590	MGS	02-042/00:15:00		SSR Activity: ID=SSR_1A, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-042/00:00:00
9591	MGS	02-042/00:16:23		NOTE: Start Block (MAP_RT)		02-042/00:01:23
9592	MGS	02-042/00:16:24		: 00:28:07, 01:28:15, FALSE, TRUE, FALSE, 00:01:15, 00:07:05, 01:13:05, 00:06:49	AEMINI	02-042/00:01:24
9593	MGS	02-042/00:16:24		Enable sending eclipse ingress script when array power disappears	SWEISE	02-042/00:01:24
9594	MGS	02-042/00:16:24		NOTE: Start EVP data return script		02-042/00:01:24
9595	MGS	02-042/00:16:25		: SE_1A, MRC, 01:13:04, MRC, 2002-042T00:47:52.000	AEMRTI	02-042/00:01:25
9596	MGS	02-042/00:20:23		NOTE: Enter Planetary Atmosphere 13091		02-042/00:05:23
9597	MGS	02-042/00:21:25		NOTE: Apoapsis 13091 -		02-042/00:06:25
9598	MGS	02-042/00:24:32		NOTE: Enter Earth Occultation 13091		02-042/00:09:32
9599	MGS	02-042/00:26:24		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-042/00:11:24
9600	MGS	02-042/00:26:24		NOTE: Enter Solar Eclipse 13091		02-042/00:11:24
9601	MGS	02-042/00:41:20		Select Automatic HGA control mode	SAHACE	02-042/00:26:20
9602	MGS	02-042/00:41:21		Selects Hign Gain Antenna for downlink, Reconfigures if beam is already on	STUHGA	02-042/00:26:21
9603	MGS	02-042/00:41:22		CDU-1 Uplink Rate Select (Based on 3 bit Code): 3	TCC1BS	02-042/00:26:22

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
9604	MGS	02-042/00:41:22		CDU-2 Uplink Rate Select (Based on 3 bit Code): 3	TCC2BS	02-042/00:26:22
9605	MGS	02-042/00:41:40		SSR 2B Data Disable	CSD2BX	02-042/00:26:40
9606	MGS	02-042/00:41:40		SSR Activity: ID=SSR_2B, FCN=End Recording, PRT=3, BITS=44800000, DUR=01:33:20		02-042/00:26:40
9607	MGS	02-042/00:41:41		NOTE: End Block (SSRMGR)		02-042/00:26:41
9608	MGS	02-042/00:50:46		NOTE: Begin fixed Sub-Reflector for Radio Science		02-042/00:35:46
9609	MGS	02-042/00:51:08		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-042/00:36:08
9610	MGS	02-042/00:51:08		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-042/00:36:08
9611	MGS	02-042/00:51:13		Set eclipse egress script address: 01DC	SWSEES	02-042/00:36:13
9612	MGS	02-042/00:54:31		: 01:28:15	RPAONX	02-042/00:39:31
9613	MGS	02-042/00:54:31		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-042/00:39:31
9614	MGS	02-042/00:55:46		: 00:00:30, 00:07:05, FALSE	RDSCIE	02-042/00:40:46
9615	MGS	02-042/00:55:46		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-042/00:40:46
9616	MGS	02-042/00:55:46		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-042/00:40:46
9617	MGS	02-042/00:55:46		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-042/00:40:46
9618	MGS	02-042/00:55:46		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-042/00:40:46
9619	MGS	02-042/00:56:16		Disables autonomous command to send eclipse ingress script	SWEISX	02-042/00:41:16
9620	MGS	02-042/00:56:16		NOTE: Exit Earth Occultation 13091		02-042/00:41:16
9621	MGS	02-042/01:00:42		NOTE: Exit Planetary Atmosphere 13091		02-042/00:45:42
9622	MGS	02-042/01:02:51		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-042/00:47:51
9623	MGS	02-042/01:02:51		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-042/00:47:51
9624	MGS	02-042/01:02:51		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-042/00:47:51
9625	MGS	02-042/01:02:51		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-042/00:47:51
9626	MGS	02-042/01:02:52		: MRC, MRC, 01:13:04, S&E_1A, FALSE, 00:06:50	AEMRT	02-042/00:47:52
9627	MGS	02-042/01:02:52		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-042/00:47:52
9628	MGS	02-042/01:02:52		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-042/00:47:52
9629	MGS	02-042/01:02:52		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=22976000, DUR=00:47:52		02-042/00:47:52
9630	MGS	02-042/01:02:52		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-042/00:47:52
9631	MGS	02-042/01:02:56		NOTE: End fixed Sub-Reflector for Radio Science		02-042/00:47:56
9632	MGS	02-042/01:06:50		NOTE: Exit Solar Eclipse 13091		02-042/00:51:50
9633	MGS	02-042/01:15:00	45	Begin Tracking		
9634	MGS	02-042/01:15:00	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
9635	MGS	02-042/01:20:09		NOTE: Periapsis 13092 ----------		02-042/01:05:09
9636	MGS	02-042/01:20:24		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-042/01:05:24
9637	MGS	02-042/01:20:24		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=31392000, DUR=00:17:32		02-042/01:05:24
9638	MGS	02-042/01:20:24		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-042/01:05:24
9639	MGS	02-042/01:20:26		NOTE: Start Block (SSRMGR)		02-042/01:05:26
9640	MGS	02-042/01:20:26		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-042/01:05:26
9641	MGS	02-042/01:20:26		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-042/01:05:26
9642	MGS	02-042/01:20:27		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-042/01:05:27
9643	MGS	02-042/01:20:28		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, PLYBCK, PART3	STSSRC	02-042/01:05:28
9644	MGS	02-042/01:20:29		SSR 2A Data Enable	CSD2AE	02-042/01:05:29
9645	MGS	02-042/01:20:29		SSR Activity: ID=SSR_2A, FCN=Start Playback, PRT=3, BR=42666		02-042/01:05:29
9646	MGS	02-042/01:20:29	45	D/L Change: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
9647	MGS	02-042/01:25:00	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
9648	MGS	02-042/01:27:00	45	Range Modulation On: SUP=3.0dB		
9649	MGS	02-042/01:27:49		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-042/01:12:49
9650	MGS	02-042/01:27:49		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-042/01:12:49
9651	MGS	02-042/01:27:50		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-042/01:12:50
9652	MGS	02-042/01:27:50		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-042/01:12:50
9653	MGS	02-042/01:28:00	45	Begin Ranging Acquisition		
9654	MGS	02-042/01:32:56		NOTE: Start Block (SSRMGR)		02-042/01:17:56
9655	MGS	02-042/01:32:56		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-042/01:17:56
9656	MGS	02-042/01:32:56		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-042/01:17:56
9657	MGS	02-042/01:32:57		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-042/01:17:57

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
9658	MGS	02-042/01:32:57		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, ENBSCR, PART1	STSSRC	02-042/01:17:57
9659	MGS	02-042/01:32:58		Sends a one-word SSR command to the XSU command SOB: SSR_2B, F42KHZ, PLYBCK, PART3	STSSRC	02-042/01:17:58
9660	MGS	02-042/01:32:59		SSR 2B Data Enable	CSD2BE	02-042/01:17:59
9661	MGS	02-042/01:32:59		SSR Activity: ID=SSR_2B, FCN=Start Playback, PRT=3, BR=42666		02-042/01:17:59
9662	MGS	02-042/01:32:59		SSR 2A Data Disable	CSD2AX	02-042/01:17:59
9663	MGS	02-042/01:33:00		NOTE: End Block (SSRMGR)		02-042/01:18:00
9664	MGS	02-042/01:33:29	45	NOTE: Transmitter Off in 15 minutes		
9665	MGS	02-042/01:46:30	45	Range Modulation Off		
9666	MGS	02-042/01:48:29	45	Transmitter Off		
9667	MGS	02-042/01:49:50		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-042/01:34:50
9668	MGS	02-042/01:49:50		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-042/01:34:50
9669	MGS	02-042/01:50:29		SSR 2B Data Disable	CSD2BX	02-042/01:35:29
9670	MGS	02-042/01:50:29		SSR Activity: ID=SSR_2B, FCN=End Playback, PRT=3, BITS=44800000, DUR=00:17:30		02-042/01:35:29
9671	MGS	02-042/01:50:30		NOTE: End Block (SSRMGR)		02-042/01:35:30
9672	MGS	02-042/01:50:30		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-042/01:35:30
9673	MGS	02-042/01:50:30		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-042/01:35:30
9674	MGS	02-042/01:50:30	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
9675	MGS	02-042/01:55:01	45	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
9676	MGS	02-042/02:10:56		NOTE: Begin fixed Sub-Reflector for Radio Science		02-042/01:55:56
9677	MGS	02-042/02:14:08		NOTE: Start Block (MAP_PB)		02-042/01:59:08
9678	MGS	02-042/02:14:09		: 00:28:07, 01:28:16, FALSE, TRUE, FALSE, 00:01:15, 00:07:05, 01:13:06, 00:06:49	AEMINI	02-042/01:59:09
9679	MGS	02-042/02:14:09		Enable sending eclipse ingress script when array power disappears	SWEISE	02-042/01:59:09
9680	MGS	02-042/02:14:09		NOTE: Start EVP data return script		02-042/01:59:09
9681	MGS	02-042/02:14:10		: SSR_2A, F42KHZ, PART1, SE_1A, 2002-042T02:45:36.000	AEMPBI	02-042/01:59:10
9682	MGS	02-042/02:15:56		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-042/02:00:56
9683	MGS	02-042/02:15:56		: 00:06:49, FALSE	RDSCII	02-042/02:00:56
9684	MGS	02-042/02:15:56		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-042/02:00:56
9685	MGS	02-042/02:15:56		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-042/02:00:56
9686	MGS	02-042/02:15:56		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-042/02:00:56
9687	MGS	02-042/02:15:56		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-042/02:00:56
9688	MGS	02-042/02:15:56	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
9689	MGS	02-042/02:15:56	45	NOTE: Carrier Only -- No Telemetry Modulation		
9690	MGS	02-042/02:18:07		NOTE: Enter Planetary Atmosphere 13092		02-042/02:03:06
9691	MGS	02-042/02:19:14		NOTE: Apoapsis 13092 -		02-042/02:04:13
9692	MGS	02-042/02:22:16		NOTE: Enter Earth Occultation 13092		02-042/02:07:15
9693	MGS	02-042/02:22:16	45	NOTE: Loss Of X-Band Signal		
9694	MGS	02-042/02:22:45		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-042/02:07:45
9695	MGS	02-042/02:22:45		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-042/02:07:45
9696	MGS	02-042/02:22:45		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-042/02:07:45
9697	MGS	02-042/02:22:45		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-042/02:07:45
9698	MGS	02-042/02:22:46		Turn off the MOT Exciter and RPA beam	STRPAF	02-042/02:07:46
9699	MGS	02-042/02:22:46		NOTE: End EVP script		02-042/02:07:46
9700	MGS	02-042/02:22:47		NOTE: End Block (MAP_RT)		02-042/02:07:47
9701	MGS	02-042/02:22:50		NOTE: End fixed Sub-Reflector for Radio Science		02-042/02:07:50
9702	MGS	02-042/02:24:09		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-042/02:09:09
9703	MGS	02-042/02:24:09		NOTE: Enter Solar Eclipse 13092		02-042/02:09:09
9704	MGS	02-042/02:27:45	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
9705	MGS	02-042/02:29:45	45	Range Modulation On: SUP=3.0dB		
9706	MGS	02-042/02:30:45	45	Begin Ranging Acquisition		
9707	MGS	02-042/02:48:31		NOTE: Begin fixed Sub-Reflector for Radio Science		02-042/02:33:31
9708	MGS	02-042/02:48:50		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-042/02:33:50
9709	MGS	02-042/02:48:50		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-042/02:33:50
9710	MGS	02-042/02:48:54		Command the PSE with included data word: 3990	SWPSEL	02-042/02:33:54
9711	MGS	02-042/02:48:55		Set eclipse egress script address: 0158	SWSEES	02-042/02:33:55

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
9712	MGS	02-042/02:52:16		: 01:28:16	RPAONX	02-042/02:37:16
9713	MGS	02-042/02:52:16		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-042/02:37:16
9714	MGS	02-042/02:53:31		: 00:00:30, 00:07:05, FALSE	RDSCIE	02-042/02:38:31
9715	MGS	02-042/02:53:31		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-042/02:38:31
9716	MGS	02-042/02:53:31		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-042/02:38:31
9717	MGS	02-042/02:53:31		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-042/02:38:31
9718	MGS	02-042/02:53:31		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-042/02:38:31
9719	MGS	02-042/02:54:01		NOTE: Exit Earth Occultation 13092		02-042/02:39:00
9720	MGS	02-042/02:54:01	45	Acquisition Of X-Band Signal		
9721	MGS	02-042/02:54:01	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
9722	MGS	02-042/02:54:01	45	NOTE: Carrier Only -- No Telemetry Modulation		
9723	MGS	02-042/02:58:27		NOTE: Exit Planetary Atmosphere 13092		02-042/02:43:26
9724	MGS	02-042/03:00:36		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-042/02:45:36
9725	MGS	02-042/03:00:36		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-042/02:45:36
9726	MGS	02-042/03:00:36		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-042/02:45:36
9727	MGS	02-042/03:00:36		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-042/02:45:36
9728	MGS	02-042/03:00:36		: REC_2A, F42KHZ, PART1, SE_1A, FALSE, 00:11:17	AEMPB	02-042/02:45:36
9729	MGS	02-042/03:00:36		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-042/02:45:36
9730	MGS	02-042/03:00:36		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, PLYBCK, PART1	STSSRC	02-042/02:45:36
9731	MGS	02-042/03:00:36	45	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
9732	MGS	02-042/03:00:37		SSR 2A Data Enable	CSD2AE	02-042/02:45:37
9733	MGS	02-042/03:00:37		SSR Activity: ID=SSR_2A, FCN=Start Playback, PRT=1, BR=42666		02-042/02:45:37
9734	MGS	02-042/03:00:37	45	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
9735	MGS	02-042/03:00:41		NOTE: End fixed Sub-Reflector for Radio Science		02-042/02:45:41
9736	MGS	02-042/03:04:36		NOTE: Exit Solar Eclipse 13092		02-042/02:49:35
9737	MGS	02-042/03:18:19		NOTE: Periapsis 13093 ----------		02-042/03:03:18
9738	MGS	02-042/03:29:34		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-042/03:14:34
9739	MGS	02-042/03:29:34		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-042/03:14:34
9740	MGS	02-042/03:29:35		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-042/03:14:35
9741	MGS	02-042/03:29:35		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-042/03:14:35
9742	MGS	02-042/03:31:15	45	NOTE: Transmitter Off in 15 minutes		
9743	MGS	02-042/03:44:16	45	Range Modulation Off		
9744	MGS	02-042/03:46:15	45	Transmitter Off		
9745	MGS	02-042/03:51:35		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-042/03:36:35
9746	MGS	02-042/03:51:35		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-042/03:36:35
9747	MGS	02-042/04:08:43		NOTE: Begin fixed Sub-Reflector for Radio Science		02-042/03:53:42
9748	MGS	02-042/04:09:15		SSR 2A Data Disable	CSD2AX	02-042/03:54:15
9749	MGS	02-042/04:09:15		SSR Activity: ID=SSR_2A, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-042/03:54:15
9750	MGS	02-042/04:09:15		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-042/03:54:15
9751	MGS	02-042/04:09:15	45	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
9752	MGS	02-042/04:11:55		NOTE: Start EVP data return script		02-042/03:56:55
9753	MGS	02-042/04:11:55		: SSR_2B, F42KHZ, PART1, 2002-042T04:43:22.000	AEMPBU	02-042/03:56:55
9754	MGS	02-042/04:13:42		: 00:06:49, FALSE	RDSCII	02-042/03:58:42
9755	MGS	02-042/04:13:42		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-042/03:58:42
9756	MGS	02-042/04:13:42		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-042/03:58:42
9757	MGS	02-042/04:13:42		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-042/03:58:42
9758	MGS	02-042/04:13:42		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-042/03:58:42
9759	MGS	02-042/04:13:42	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
9760	MGS	02-042/04:13:42	45	NOTE: Carrier Only -- No Telemetry Modulation		
9761	MGS	02-042/04:15:53		NOTE: Enter Planetary Atmosphere 13093		02-042/04:00:52
9762	MGS	02-042/04:17:33		NOTE: Apoapsis 13093 -		02-042/04:02:32
9763	MGS	02-042/04:20:02		NOTE: Enter Earth Occultation 13093		02-042/04:05:01
9764	MGS	02-042/04:20:02	45	NOTE: Loss Of X-Band Signal		
9765	MGS	02-042/04:20:32		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-042/04:05:31

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
9766	MGS	02-042/04:20:32		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-042/04:05:31
9767	MGS	02-042/04:20:32		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-042/04:05:31
9768	MGS	02-042/04:20:32		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-042/04:05:31
9769	MGS	02-042/04:20:33		Turn off the MOT Exciter and RPA beam	STRPAF	02-042/04:05:32
9770	MGS	02-042/04:20:33		NOTE: End EVP script		02-042/04:05:32
9771	MGS	02-042/04:20:37		NOTE: End fixed Sub-Reflector for Radio Science		02-042/04:05:36
9772	MGS	02-042/04:21:56		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-042/04:06:55
9773	MGS	02-042/04:21:56		NOTE: Enter Solar Eclipse 13093		02-042/04:06:55
9774	MGS	02-042/04:25:32	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
9775	MGS	02-042/04:27:32	45	Range Modulation On: SUP=3.0dB		
9776	MGS	02-042/04:28:32	45	Begin Ranging Acquisition		
9777	MGS	02-042/04:46:18		NOTE: Begin fixed Sub-Reflector for Radio Science		02-042/04:31:17
9778	MGS	02-042/04:46:36		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-042/04:31:35
9779	MGS	02-042/04:46:36		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-042/04:31:35
9780	MGS	02-042/04:46:41		Set eclipse egress script address: 019A	SWSEES	02-042/04:31:40
9781	MGS	02-042/04:50:03		: 01:28:16	RPAONX	02-042/04:35:02
9782	MGS	02-042/04:50:03		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-042/04:35:02
9783	MGS	02-042/04:51:18		: 00:00:30, 00:07:05, FALSE	RDSCIE	02-042/04:36:17
9784	MGS	02-042/04:51:18		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-042/04:36:17
9785	MGS	02-042/04:51:18		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-042/04:36:17
9786	MGS	02-042/04:51:18		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-042/04:36:17
9787	MGS	02-042/04:51:18		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-042/04:36:17
9788	MGS	02-042/04:51:48		NOTE: Exit Earth Occultation 13093		02-042/04:36:47
9789	MGS	02-042/04:51:48	45	Acquisition Of X-Band Signal		
9790	MGS	02-042/04:51:48	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
9791	MGS	02-042/04:51:48	45	NOTE: Carrier Only -- No Telemetry Modulation		
9792	MGS	02-042/04:56:14		NOTE: Exit Planetary Atmosphere 13093		02-042/04:41:13
9793	MGS	02-042/04:58:23		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-042/04:43:22
9794	MGS	02-042/04:58:23		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-042/04:43:22
9795	MGS	02-042/04:58:23		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-042/04:43:22
9796	MGS	02-042/04:58:23		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-042/04:43:22
9797	MGS	02-042/04:58:23		: REC_2B, F42KHZ, PART1, SE_1A, FALSE, 00:11:17	AEMPB	02-042/04:43:22
9798	MGS	02-042/04:58:23		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-042/04:43:22
9799	MGS	02-042/04:58:23		Sends a one-word SSR command to the XSU command SOB: SSR_2B, F42KHZ, PLYBCK, PART1	STSSRC	02-042/04:43:22
9800	MGS	02-042/04:58:23	45	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
9801	MGS	02-042/04:58:24		SSR 2B Data Enable	CSD2BE	02-042/04:43:23
9802	MGS	02-042/04:58:24		SSR Activity: ID=SSR_2B, FCN=Start Playback, PRT=1, BR=42666		02-042/04:43:23
9803	MGS	02-042/04:58:24	45	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
9804	MGS	02-042/04:58:28		NOTE: End fixed Sub-Reflector for Radio Science		02-042/04:43:27
9805	MGS	02-042/05:02:23		NOTE: Exit Solar Eclipse 13093		02-042/04:47:22
9806	MGS	02-042/05:16:30		NOTE: Periapsis 13094 ----------		02-042/05:01:28
9807	MGS	02-042/05:23:22		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-042/05:08:21
9808	MGS	02-042/05:23:22		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-042/05:08:21
9809	MGS	02-042/05:23:23		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-042/05:08:22
9810	MGS	02-042/05:23:23		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-042/05:08:22
9811	MGS	02-042/05:29:03	45	NOTE: Transmitter Off in 15 minutes		
9812	MGS	02-042/05:42:03	45	Range Modulation Off		
9813	MGS	02-042/05:44:03	45	Transmitter Off		
9814	MGS	02-042/05:45:23		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-042/05:30:22
9815	MGS	02-042/05:45:23		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-042/05:30:22
9816	MGS	02-042/05:48:20		NOTE: Start Block (SSRMGR)		02-042/05:33:19
9817	MGS	02-042/05:48:20		Sends a one-word SSR command to the XSU command SOB: SSR_1B, SE_1A, RECORD, PART1	STSSRC	02-042/05:33:19
9818	MGS	02-042/05:48:21		SSR 1B Data Enable	CSD1BE	02-042/05:33:20
9819	MGS	02-042/05:48:21		SSR Activity: ID=SSR_1B, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-042/05:33:20

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
9820	MGS	02-042/06:06:29		NOTE: Begin fixed Sub-Reflector for Radio Science		02-042/05:51:28
9821	MGS	02-042/06:07:02		SSR 2B Data Disable	CSD2BX	02-042/05:52:01
9822	MGS	02-042/06:07:02		SSR Activity: ID=SSR_2B, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-042/05:52:01
9823	MGS	02-042/06:07:02		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-042/05:52:01
9824	MGS	02-042/06:07:02	45	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
9825	MGS	02-042/06:09:44		NOTE: Start EVP data return script		02-042/05:54:43
9826	MGS	02-042/06:09:44		: SSR_2A, F42KHZ, PART2, 2002-042T06:41:10.000	AEMPBU	02-042/05:54:43
9827	MGS	02-042/06:11:29		: 00:06:49, FALSE	RDSCII	02-042/05:56:28
9828	MGS	02-042/06:11:29		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-042/05:56:28
9829	MGS	02-042/06:11:29		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-042/05:56:28
9830	MGS	02-042/06:11:29		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-042/05:56:28
9831	MGS	02-042/06:11:29		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-042/05:56:28
9832	MGS	02-042/06:11:29	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
9833	MGS	02-042/06:11:29	45	NOTE: Carrier Only -- No Telemetry Modulation		
9834	MGS	02-042/06:13:41		NOTE: Enter Planetary Atmosphere 13094		02-042/05:58:40
9835	MGS	02-042/06:15:01		SSR 1A Data Disable	CSD1AX	02-042/06:00:00
9836	MGS	02-042/06:15:01		SSR Activity: ID=SSR_1A, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-042/06:00:00
9837	MGS	02-042/06:15:02		NOTE: End Block (SSRMGR)		02-042/06:00:01
9838	MGS	02-042/06:15:40		NOTE: Apoapsis 13094 -		02-042/06:00:39
9839	MGS	02-042/06:17:50		NOTE: Enter Earth Occultation 13094		02-042/06:02:49
9840	MGS	02-042/06:17:50	45	NOTE: Loss Of X-Band Signal		
9841	MGS	02-042/06:18:18		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-042/06:03:17
9842	MGS	02-042/06:18:18		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-042/06:03:17
9843	MGS	02-042/06:18:18		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-042/06:03:17
9844	MGS	02-042/06:18:18		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-042/06:03:17
9845	MGS	02-042/06:18:19		Turn off the MOT Exciter and RPA beam	STRPAF	02-042/06:03:18
9846	MGS	02-042/06:18:19		NOTE: End EVP script		02-042/06:03:18
9847	MGS	02-042/06:18:23		NOTE: End fixed Sub-Reflector for Radio Science		02-042/06:03:22
9848	MGS	02-042/06:19:43		NOTE: Enter Solar Eclipse 13094		02-042/06:04:42
9849	MGS	02-042/06:19:44		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-042/06:04:43
9850	MGS	02-042/06:23:19	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
9851	MGS	02-042/06:25:20	45	Range Modulation On: SUP=3.0dB		
9852	MGS	02-042/06:26:20	45	Begin Ranging Acquisition		
9853	MGS	02-042/06:44:06		NOTE: Begin fixed Sub-Reflector for Radio Science		02-042/06:29:05
9854	MGS	02-042/06:44:23		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-042/06:29:22
9855	MGS	02-042/06:44:23		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-042/06:29:22
9856	MGS	02-042/06:44:28		Set eclipse egress script address: 01DC	SWSEES	02-042/06:29:27
9857	MGS	02-042/06:47:51		: 01:28:16	RPAONX	02-042/06:32:50
9858	MGS	02-042/06:47:51		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-042/06:32:50
9859	MGS	02-042/06:49:06		: 00:00:30, 00:07:05, FALSE	RDSCIE	02-042/06:34:05
9860	MGS	02-042/06:49:06		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-042/06:34:05
9861	MGS	02-042/06:49:06		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-042/06:34:05
9862	MGS	02-042/06:49:06		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-042/06:34:05
9863	MGS	02-042/06:49:06		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-042/06:34:05
9864	MGS	02-042/06:49:37		NOTE: Exit Earth Occultation 13094		02-042/06:34:35
9865	MGS	02-042/06:49:37	45	Acquisition Of X-Band Signal		
9866	MGS	02-042/06:49:37	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
9867	MGS	02-042/06:49:37	45	NOTE: Carrier Only -- No Telemetry Modulation		
9868	MGS	02-042/06:54:03		NOTE: Exit Planetary Atmosphere 13094		02-042/06:39:01
9869	MGS	02-042/06:56:11		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-042/06:41:10
9870	MGS	02-042/06:56:11		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-042/06:41:10
9871	MGS	02-042/06:56:11		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-042/06:41:10
9872	MGS	02-042/06:56:11		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-042/06:41:10
9873	MGS	02-042/06:56:11		: REC_2A, F42KHZ, PART2, SE_1A, FALSE, 00:11:17	AEMPB	02-042/06:41:10

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
9874	MGS	02-042/06:56:11		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-042/06:41:10
9875	MGS	02-042/06:56:11		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, PLYBCK, PART2	STSSRC	02-042/06:41:10
9876	MGS	02-042/06:56:11	45	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
9877	MGS	02-042/06:56:12		SSR 2A Data Enable	CSD2AE	02-042/06:41:11
9878	MGS	02-042/06:56:12		SSR Activity: ID=SSR_2A, FCN=Start Playback, PRT=2, BR=42666		02-042/06:41:11
9879	MGS	02-042/06:56:12	45	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
9880	MGS	02-042/06:56:16		NOTE: End fixed Sub-Reflector for Radio Science		02-042/06:41:15
9881	MGS	02-042/07:00:11		NOTE: Exit Solar Eclipse 13094		02-042/06:45:09
9882	MGS	02-042/07:14:21		NOTE: Periapsis 13095 ----------		02-042/06:59:20
9883	MGS	02-042/07:21:10		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-042/07:06:09
9884	MGS	02-042/07:21:10		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-042/07:06:09
9885	MGS	02-042/07:21:11		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-042/07:06:10
9886	MGS	02-042/07:21:11		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-042/07:06:10
9887	MGS	02-042/07:26:48	45	NOTE: Transmitter Off in 15 minutes		
9888	MGS	02-042/07:39:49	45	Range Modulation Off		
9889	MGS	02-042/07:41:48	45	Transmitter Off		
9890	MGS	02-042/07:43:11		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-042/07:28:10
9891	MGS	02-042/07:43:11		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-042/07:28:10
9892	MGS	02-042/08:04:17		NOTE: Begin fixed Sub-Reflector for Radio Science		02-042/07:49:16
9893	MGS	02-042/08:04:50		SSR 2A Data Disable	CSD2AX	02-042/07:49:49
9894	MGS	02-042/08:04:50		SSR Activity: ID=SSR_2A, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-042/07:49:49
9895	MGS	02-042/08:04:50		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-042/07:49:49
9896	MGS	02-042/08:04:50	45	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
9897	MGS	02-042/08:07:28		NOTE: Start EVP data return script		02-042/07:52:27
9898	MGS	02-042/08:07:28		: SSR_2B, F42KHZ, PART2, 2002-042T08:38:54.000	AEMPBU	02-042/07:52:27
9899	MGS	02-042/08:09:17		: 00:06:49, FALSE	RDSCII	02-042/07:54:16
9900	MGS	02-042/08:09:17		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-042/07:54:16
9901	MGS	02-042/08:09:17		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-042/07:54:16
9902	MGS	02-042/08:09:17		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-042/07:54:16
9903	MGS	02-042/08:09:17		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-042/07:54:16
9904	MGS	02-042/08:09:17	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
9905	MGS	02-042/08:09:17	45	NOTE: Carrier Only -- No Telemetry Modulation		
9906	MGS	02-042/08:11:27		NOTE: Enter Planetary Atmosphere 13095		02-042/07:56:25
9907	MGS	02-042/08:13:17		NOTE: Apoapsis 13095 -		02-042/07:58:15
9908	MGS	02-042/08:15:36		NOTE: Enter Earth Occultation 13095		02-042/08:00:34
9909	MGS	02-042/08:15:36	45	NOTE: Loss Of X-Band Signal		
9910	MGS	02-042/08:16:06		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-042/08:01:05
9911	MGS	02-042/08:16:06		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-042/08:01:05
9912	MGS	02-042/08:16:06		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-042/08:01:05
9913	MGS	02-042/08:16:06		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-042/08:01:05
9914	MGS	02-042/08:16:07		Turn off the MOT Exciter and RPA beam	STRPAF	02-042/08:01:06
9915	MGS	02-042/08:16:07		NOTE: End EVP script		02-042/08:01:06
9916	MGS	02-042/08:16:11		NOTE: End fixed Sub-Reflector for Radio Science		02-042/08:01:10
9917	MGS	02-042/08:17:28		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-042/08:02:27
9918	MGS	02-042/08:17:28		NOTE: Enter Solar Eclipse 13095		02-042/08:02:27
9919	MGS	02-042/08:21:05	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
9920	MGS	02-042/08:23:05	45	Range Modulation On: SUP=3.0dB		
9921	MGS	02-042/08:24:05	45	Begin Ranging Acquisition		
9922	MGS	02-042/08:41:50		NOTE: Begin fixed Sub-Reflector for Radio Science		02-042/08:26:49
9923	MGS	02-042/08:42:11		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-042/08:27:10
9924	MGS	02-042/08:42:11		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-042/08:27:10
9925	MGS	02-042/08:42:15		Command the PSE with included data word: 3990	SWPSEL	02-042/08:27:14
9926	MGS	02-042/08:42:16		Set eclipse egress script address: 0158	SWSEES	02-042/08:27:15
9927	MGS	02-042/08:45:35		: 01:28:16	RPAONX	02-042/08:30:34

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
9928	MGS	02-042/08:45:35		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-042/08:30:34
9929	MGS	02-042/08:46:50		: 00:00:30, 00:07:05, FALSE	RDSCIE	02-042/08:31:49
9930	MGS	02-042/08:46:50		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-042/08:31:49
9931	MGS	02-042/08:46:50		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-042/08:31:49
9932	MGS	02-042/08:46:50		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-042/08:31:49
9933	MGS	02-042/08:46:50		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-042/08:31:49
9934	MGS	02-042/08:47:20		Disables autonomous command to send eclipse ingress script	SWEISX	02-042/08:32:19
9935	MGS	02-042/08:47:23		NOTE: Exit Earth Occultation 13095		02-042/08:32:21
9936	MGS	02-042/08:47:23	45	Acquisition Of X-Band Signal		
9937	MGS	02-042/08:47:23	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
9938	MGS	02-042/08:47:23	45	NOTE: Carrier Only -- No Telemetry Modulation		
9939	MGS	02-042/08:51:49		NOTE: Exit Planetary Atmosphere 13095		02-042/08:36:47
9940	MGS	02-042/08:53:55		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-042/08:38:54
9941	MGS	02-042/08:53:55		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-042/08:38:54
9942	MGS	02-042/08:53:55		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-042/08:38:54
9943	MGS	02-042/08:53:55		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-042/08:38:54
9944	MGS	02-042/08:53:55		: REC_2B, F42KHZ, PART2, SE_1A, FALSE, 00:11:17	AEMPB	02-042/08:38:54
9945	MGS	02-042/08:53:55		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-042/08:38:54
9946	MGS	02-042/08:53:55		Sends a one-word SSR command to the XSU command SOB: SSR_2B, F42KHZ, PLYBCK, PART2	STSSRC	02-042/08:38:54
9947	MGS	02-042/08:53:55	45	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
9948	MGS	02-042/08:53:56		SSR 2B Data Enable	CSD2BE	02-042/08:38:55
9949	MGS	02-042/08:53:56		SSR Activity: ID=SSR_2B, FCN=Start Playback, PRT=2, BR=42666		02-042/08:38:55
9950	MGS	02-042/08:53:56	45	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
9951	MGS	02-042/08:54:00		NOTE: End fixed Sub-Reflector for Radio Science		02-042/08:38:59
9952	MGS	02-042/08:57:55		NOTE: Exit Solar Eclipse 13095		02-042/08:42:54
9953	MGS	02-042/09:11:46		NOTE: Periapsis 13096 ----------		02-042/08:56:44
9954	MGS	02-042/09:20:00	65	Begin Pre-Cal		
9955	MGS	02-042/09:20:00	65	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
9956	MGS	02-042/09:20:00	65	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
9957	MGS	02-042/09:20:00	65	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
9958	MGS	02-042/09:20:00	65	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=OFF, EXC=2		
9959	MGS	02-042/09:20:00	65	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
9960	MGS	02-042/09:20:00	65	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
9961	MGS	02-042/09:20:00	65	Config: TGC: DEST=37		
9962	MGS	02-042/09:20:00	65	Config: TGC: BAND=X, BR=8000.000000		
9963	MGS	02-042/09:20:00	65	Config: FSS: CH=2, PRI_FL=10000		
9964	MGS	02-042/09:20:00	65	Config: RSR		
9965	MGS	02-042/09:20:00	65	Config: TXL		
9966	MGS	02-042/09:20:00	65	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
9967	MGS	02-042/09:20:00	65	Config: BVR		
9968	MGS	02-042/09:20:00	65	Config: Doppler Extractor: BIAS=+1MHZ		
9969	MGS	02-042/09:20:00	65	Config: MDA: SMPL=0.1		
9970	MGS	02-042/09:20:00	65	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
9971	MGS	02-042/09:20:00	65	Config: SRA: HIGH=4, LOW=14, SERV=D		
9972	MGS	02-042/09:20:00	65	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
9973	MGS	02-042/09:22:54		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-042/09:07:53
9974	MGS	02-042/09:22:54		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-042/09:07:53
9975	MGS	02-042/09:22:55		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-042/09:07:54
9976	MGS	02-042/09:22:55		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-042/09:07:54
9977	MGS	02-042/09:24:29	45	NOTE: Transmitter Off in 15 minutes		
9978	MGS	02-042/09:37:29	45	Range Modulation Off		
9979	MGS	02-042/09:39:29	45	Transmitter Off		
9980	MGS	02-042/09:44:55		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-042/09:29:54
9981	MGS	02-042/09:44:55		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-042/09:29:54

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
9982	MGS	02-042/10:02:01		NOTE: Begin fixed Sub-Reflector for Radio Science		02-042/09:47:00
9983	MGS	02-042/10:02:34		SSR 2B Data Disable	CSD2BX	02-042/09:47:33
9984	MGS	02-042/10:02:34		SSR Activity: ID=SSR_2B, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-042/09:47:33
9985	MGS	02-042/10:02:34		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-042/09:47:33
9986	MGS	02-042/10:02:34	45	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
9987	MGS	02-042/10:05:08		NOTE: Start Block (MAP_RT)		02-042/09:50:07
9988	MGS	02-042/10:05:09		: 00:28:07, 01:28:15, FALSE, TRUE, FALSE, 00:01:15, 00:07:05, 01:13:05, 00:06:49	AEMINI	02-042/09:50:08
9989	MGS	02-042/10:05:09		Enable sending eclipse ingress script when array power disappears	SWEISE	02-042/09:50:08
9990	MGS	02-042/10:05:09		NOTE: Start EVP data return script		02-042/09:50:08
9991	MGS	02-042/10:05:10		: SE_2A, RTM, 01:13:04, MRC, 2002-042T10:36:36.000	AEMRTI	02-042/09:50:09
9992	MGS	02-042/10:07:01		: 00:06:49, FALSE	RDSCII	02-042/09:52:00
9993	MGS	02-042/10:07:01		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-042/09:52:00
9994	MGS	02-042/10:07:01		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-042/09:52:00
9995	MGS	02-042/10:07:01		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-042/09:52:00
9996	MGS	02-042/10:07:01		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-042/09:52:00
9997	MGS	02-042/10:07:01	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
9998	MGS	02-042/10:07:01	45	NOTE: Carrier Only -- No Telemetry Modulation		
9999	MGS	02-042/10:09:08		NOTE: Enter Planetary Atmosphere 13096		02-042/09:54:06
10000	MGS	02-042/10:10:38		NOTE: Apoapsis 13096 -		02-042/09:55:36
10001	MGS	02-042/10:13:17		NOTE: Enter Earth Occultation 13096		02-042/09:58:15
10002	MGS	02-042/10:13:17	45	NOTE: Loss Of X-Band Signal		
10003	MGS	02-042/10:13:50		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-042/09:58:49
10004	MGS	02-042/10:13:50		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-042/09:58:49
10005	MGS	02-042/10:13:50		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-042/09:58:49
10006	MGS	02-042/10:13:50		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-042/09:58:49
10007	MGS	02-042/10:13:51		Turn off the MOT Exciter and RPA beam	STRPAF	02-042/09:58:50
10008	MGS	02-042/10:13:51		NOTE: End EVP script		02-042/09:58:50
10009	MGS	02-042/10:13:52		NOTE: End Block (MAP_PB)		02-042/09:58:51
10010	MGS	02-042/10:13:55		NOTE: End fixed Sub-Reflector for Radio Science		02-042/09:58:54
10011	MGS	02-042/10:15:09		NOTE: Enter Solar Eclipse 13096		02-042/10:00:07
10012	MGS	02-042/10:15:09		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-042/10:00:08
10013	MGS	02-042/10:20:00	65	Begin Tracking		
10014	MGS	02-042/10:25:27	65	NOTE: Above Uplink Interlock Limit		
10015	MGS	02-042/10:30:00	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
10016	MGS	02-042/10:30:00	45	NOTE: Below Uplink Interlock Limit		
10017	MGS	02-042/10:32:00	65	Range Modulation On: SUP=3.0dB		
10018	MGS	02-042/10:33:00	65	Begin Ranging Acquisition		
10019	MGS	02-042/10:39:31		NOTE: Begin fixed Sub-Reflector for Radio Science		02-042/10:24:29
10020	MGS	02-042/10:39:55		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-042/10:24:54
10021	MGS	02-042/10:39:55		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-042/10:24:54
10022	MGS	02-042/10:40:00	45	End Tracking		
10023	MGS	02-042/10:40:00		Set eclipse egress script address: 019A	SWSEES	02-042/10:24:59
10024	MGS	02-042/10:43:17		: 01:28:15	RPAONX	02-042/10:28:15
10025	MGS	02-042/10:43:17		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-042/10:28:15
10026	MGS	02-042/10:44:32		: 00:00:30, 00:07:05, FALSE	RDSCIE	02-042/10:29:30
10027	MGS	02-042/10:44:32		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-042/10:29:30
10028	MGS	02-042/10:44:32		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-042/10:29:30
10029	MGS	02-042/10:44:32		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-042/10:29:30
10030	MGS	02-042/10:44:32		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-042/10:29:30
10031	MGS	02-042/10:45:04		NOTE: Exit Earth Occultation 13096		02-042/10:30:02
10032	MGS	02-042/10:45:04	65	Acquisition Of X-Band Signal		
10033	MGS	02-042/10:45:04	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
10034	MGS	02-042/10:45:04	65	NOTE: Carrier Only -- No Telemetry Modulation		
10035	MGS	02-042/10:49:31		NOTE: Exit Planetary Atmosphere 13096		02-042/10:34:29

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
10036	MGS	02-042/10:51:37		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-042/10:36:35
10037	MGS	02-042/10:51:37		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-042/10:36:35
10038	MGS	02-042/10:51:37		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-042/10:36:35
10039	MGS	02-042/10:51:37		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-042/10:36:35
10040	MGS	02-042/10:51:37	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
10041	MGS	02-042/10:51:38		: RTM, MRC, 01:13:04, S&E_2A, FALSE, 00:06:50	AEMRT	02-042/10:36:36
10042	MGS	02-042/10:51:38		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-042/10:36:36
10043	MGS	02-042/10:51:38		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-042/10:36:36
10044	MGS	02-042/10:51:38	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
10045	MGS	02-042/10:51:41		NOTE: End fixed Sub-Reflector for Radio Science		02-042/10:36:39
10046	MGS	02-042/10:55:00	45	End Post-Cal		
10047	MGS	02-042/10:55:36		NOTE: Exit Solar Eclipse 13096		02-042/10:40:34
10048	MGS	02-042/11:00:03	65	Acquire D/L: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
10049	MGS	02-042/11:09:11		NOTE: Periapsis 13097 ----------		02-042/10:54:09
10050	MGS	02-042/11:16:35		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-042/11:01:33
10051	MGS	02-042/11:16:35		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-042/11:01:33
10052	MGS	02-042/11:16:36		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-042/11:01:34
10053	MGS	02-042/11:16:36		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-042/11:01:34
10054	MGS	02-042/11:21:41		NOTE: Start Block (SSRMGR)		02-042/11:06:39
10055	MGS	02-042/11:21:41		Sends a one-word SSR command to the XSU command SOB: SSR_1A, SE_1A, RECORD, PART2	STSSRC	02-042/11:06:39
10056	MGS	02-042/11:21:42		SSR 1A Data Enable	CSD1AE	02-042/11:06:40
10057	MGS	02-042/11:21:42		SSR Activity: ID=SSR_1A, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-042/11:06:40
10058	MGS	02-042/11:22:08	65	NOTE: Transmitter Off in 15 minutes		
10059	MGS	02-042/11:35:09	65	Range Modulation Off		
10060	MGS	02-042/11:37:08	65	Transmitter Off		
10061	MGS	02-042/11:38:36		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-042/11:23:34
10062	MGS	02-042/11:38:36		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-042/11:23:34
10063	MGS	02-042/11:48:22		SSR 1B Data Disable	CSD1BX	02-042/11:33:20
10064	MGS	02-042/11:48:22		SSR Activity: ID=SSR_1B, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-042/11:33:20
10065	MGS	02-042/11:48:23		NOTE: End Block (SSRMGR)		02-042/11:33:21
10066	MGS	02-042/11:59:42		NOTE: Begin fixed Sub-Reflector for Radio Science		02-042/11:44:39
10067	MGS	02-042/12:02:51		NOTE: Start EVP data return script		02-042/11:47:49
10068	MGS	02-042/12:04:42		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-042/11:49:40
10069	MGS	02-042/12:04:42		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=2, BITS=20640000, DUR=00:43:00		02-042/11:49:40
10070	MGS	02-042/12:04:42		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-042/11:49:40
10071	MGS	02-042/12:04:42		: 00:06:49, FALSE	RDSCII	02-042/11:49:40
10072	MGS	02-042/12:04:42		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-042/11:49:40
10073	MGS	02-042/12:04:42		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-042/11:49:40
10074	MGS	02-042/12:04:42		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-042/11:49:40
10075	MGS	02-042/12:04:42		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-042/11:49:40
10076	MGS	02-042/12:04:42	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
10077	MGS	02-042/12:04:42	65	NOTE: Carrier Only -- No Telemetry Modulation		
10078	MGS	02-042/12:06:49		NOTE: Enter Planetary Atmosphere 13097		02-042/11:51:47
10079	MGS	02-042/12:08:23		NOTE: Apoapsis 13097 -		02-042/11:53:20
10080	MGS	02-042/12:10:58		NOTE: Enter Earth Occultation 13097		02-042/11:55:55
10081	MGS	02-042/12:10:58	65	NOTE: Loss Of X-Band Signal		
10082	MGS	02-042/12:11:31		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-042/11:56:29
10083	MGS	02-042/12:11:31		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-042/11:56:29
10084	MGS	02-042/12:11:31		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-042/11:56:29
10085	MGS	02-042/12:11:31		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-042/11:56:29
10086	MGS	02-042/12:11:32		NOTE: End EVP script		02-042/11:56:29
10087	MGS	02-042/12:11:32		Turn off the MOT Exciter and RPA beam	STRPAF	02-042/11:56:30
10088	MGS	02-042/12:11:36		NOTE: End fixed Sub-Reflector for Radio Science		02-042/11:56:33
10089	MGS	02-042/12:12:51		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-042/11:57:49

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
10090	MGS	02-042/12:12:51		NOTE: Enter Solar Eclipse 13097		02-042/11:57:49
10091	MGS	02-042/12:15:02		Dump SCP memory to the EDF using physical addressing arguments: 56A4, 240	SCDSCM	02-042/12:00:00
10092	MGS	02-042/12:16:26	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
10093	MGS	02-042/12:18:27	65	Range Modulation On: SUP=3.0dB		
10094	MGS	02-042/12:19:27	65	Begin Ranging Acquisition		
10095	MGS	02-042/12:37:13		NOTE: Begin fixed Sub-Reflector for Radio Science		02-042/12:22:10
10096	MGS	02-042/12:37:36		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-042/12:22:34
10097	MGS	02-042/12:37:36		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-042/12:22:34
10098	MGS	02-042/12:37:41		Set eclipse egress script address: 01DC	SWSEES	02-042/12:22:39
10099	MGS	02-042/12:40:58		: 01:28:15	RPAONX	02-042/12:25:56
10100	MGS	02-042/12:40:58		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-042/12:25:56
10101	MGS	02-042/12:42:13		: 00:00:30, 00:07:05, FALSE	RDSCIE	02-042/12:27:11
10102	MGS	02-042/12:42:13		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-042/12:27:11
10103	MGS	02-042/12:42:13		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-042/12:27:11
10104	MGS	02-042/12:42:13		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-042/12:27:11
10105	MGS	02-042/12:42:13		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-042/12:27:11
10106	MGS	02-042/12:42:46		NOTE: Exit Earth Occultation 13097		02-042/12:27:43
10107	MGS	02-042/12:42:46	65	Acquisition Of X-Band Signal		
10108	MGS	02-042/12:42:46	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
10109	MGS	02-042/12:42:46	65	NOTE: Carrier Only -- No Telemetry Modulation		
10110	MGS	02-042/12:47:11		NOTE: Exit Planetary Atmosphere 13097		02-042/12:32:09
10111	MGS	02-042/12:49:18		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-042/12:34:16
10112	MGS	02-042/12:49:18		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-042/12:34:16
10113	MGS	02-042/12:49:18		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-042/12:34:16
10114	MGS	02-042/12:49:18		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-042/12:34:16
10115	MGS	02-042/12:49:18	65	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
10116	MGS	02-042/12:49:19		: RTM, MRC, 01:13:04, S&E_2A, FALSE, 00:06:50	AEMRT	02-042/12:34:17
10117	MGS	02-042/12:49:19		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-042/12:34:17
10118	MGS	02-042/12:49:19		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-042/12:34:17
10119	MGS	02-042/12:49:19		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=2, BITS=42056000, DUR=00:44:37		02-042/12:34:17
10120	MGS	02-042/12:49:19		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-042/12:34:17
10121	MGS	02-042/12:49:19	65	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
10122	MGS	02-042/12:49:23		NOTE: End fixed Sub-Reflector for Radio Science		02-042/12:34:20
10123	MGS	02-042/12:53:17		NOTE: Exit Solar Eclipse 13097		02-042/12:38:15
10124	MGS	02-042/13:06:54		NOTE: Periapsis 13098 ----------		02-042/12:51:51
10125	MGS	02-042/13:14:16		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-042/12:59:14
10126	MGS	02-042/13:14:16		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-042/12:59:14
10127	MGS	02-042/13:14:17		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-042/12:59:15
10128	MGS	02-042/13:14:17		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-042/12:59:15
10129	MGS	02-042/13:19:54	65	NOTE: Transmitter Off in 15 minutes		
10130	MGS	02-042/13:32:54	65	Range Modulation Off		
10131	MGS	02-042/13:34:54	65	Transmitter Off		
10132	MGS	02-042/13:36:17		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-042/13:21:15
10133	MGS	02-042/13:36:17		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-042/13:21:15
10134	MGS	02-042/13:57:23		NOTE: Begin fixed Sub-Reflector for Radio Science		02-042/13:42:20
10135	MGS	02-042/14:00:37		NOTE: Start EVP data return script		02-042/13:45:35
10136	MGS	02-042/14:02:23		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-042/13:47:21
10137	MGS	02-042/14:02:23		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=2, BITS=77128000, DUR=01:13:04		02-042/13:47:21
10138	MGS	02-042/14:02:23		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-042/13:47:21
10139	MGS	02-042/14:02:23		: 00:06:49, FALSE	RDSCII	02-042/13:47:21
10140	MGS	02-042/14:02:23		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-042/13:47:21
10141	MGS	02-042/14:02:23		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-042/13:47:21
10142	MGS	02-042/14:02:23		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-042/13:47:21
10143	MGS	02-042/14:02:23		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-042/13:47:21

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
10144	MGS	02-042/14:02:23	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
10145	MGS	02-042/14:02:23	65	NOTE: Carrier Only -- No Telemetry Modulation		
10146	MGS	02-042/14:04:35		NOTE: Enter Planetary Atmosphere 13098		02-042/13:49:33
10147	MGS	02-042/14:06:12		NOTE: Apoapsis 13098 -		02-042/13:51:09
10148	MGS	02-042/14:08:43		NOTE: Enter Earth Occultation 13098		02-042/13:53:41
10149	MGS	02-042/14:08:43	65	NOTE: Loss Of X-Band Signal		
10150	MGS	02-042/14:09:12		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-042/13:54:10
10151	MGS	02-042/14:09:12		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-042/13:54:10
10152	MGS	02-042/14:09:12		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-042/13:54:10
10153	MGS	02-042/14:09:12		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-042/13:54:10
10154	MGS	02-042/14:09:13		NOTE: End EVP script		02-042/13:54:10
10155	MGS	02-042/14:09:13		Turn off the MOT Exciter and RPA beam	STRPAF	02-042/13:54:11
10156	MGS	02-042/14:09:17		NOTE: End fixed Sub-Reflector for Radio Science		02-042/13:54:14
10157	MGS	02-042/14:10:37		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-042/13:55:35
10158	MGS	02-042/14:10:37		NOTE: Enter Solar Eclipse 13098		02-042/13:55:35
10159	MGS	02-042/14:14:12	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
10160	MGS	02-042/14:16:12	65	Range Modulation On: SUP=3.0dB		
10161	MGS	02-042/14:17:12	65	Begin Ranging Acquisition		
10162	MGS	02-042/14:34:59		NOTE: Begin fixed Sub-Reflector for Radio Science		02-042/14:19:56
10163	MGS	02-042/14:35:17		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-042/14:20:15
10164	MGS	02-042/14:35:17		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-042/14:20:15
10165	MGS	02-042/14:35:21		Command the PSE with included data word: 3990	SWPSEL	02-042/14:20:19
10166	MGS	02-042/14:35:22		Set eclipse egress script address: 0158	SWSEES	02-042/14:20:20
10167	MGS	02-042/14:38:44		: 01:28:15	RPAONX	02-042/14:23:42
10168	MGS	02-042/14:38:44		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-042/14:23:42
10169	MGS	02-042/14:39:59		: 00:00:30, 00:07:05, FALSE	RDSCIE	02-042/14:24:57
10170	MGS	02-042/14:39:59		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-042/14:24:57
10171	MGS	02-042/14:39:59		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-042/14:24:57
10172	MGS	02-042/14:39:59		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-042/14:24:57
10173	MGS	02-042/14:39:59		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-042/14:24:57
10174	MGS	02-042/14:40:32		NOTE: Exit Earth Occultation 13098		02-042/14:25:29
10175	MGS	02-042/14:40:32	65	Acquisition Of X-Band Signal		
10176	MGS	02-042/14:40:32	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
10177	MGS	02-042/14:40:32	65	NOTE: Carrier Only -- No Telemetry Modulation		
10178	MGS	02-042/14:44:57		NOTE: Exit Planetary Atmosphere 13098		02-042/14:29:55
10179	MGS	02-042/14:47:04		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-042/14:32:02
10180	MGS	02-042/14:47:04		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-042/14:32:02
10181	MGS	02-042/14:47:04		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-042/14:32:02
10182	MGS	02-042/14:47:04		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-042/14:32:02
10183	MGS	02-042/14:47:04	65	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
10184	MGS	02-042/14:47:05		: RTM, MRC, 01:13:04, S&E_2A, FALSE, 00:06:50	AEMRT	02-042/14:32:03
10185	MGS	02-042/14:47:05		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-042/14:32:03
10186	MGS	02-042/14:47:05		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-042/14:32:03
10187	MGS	02-042/14:47:05		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=2, BITS=98584000, DUR=00:44:42		02-042/14:32:03
10188	MGS	02-042/14:47:05		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-042/14:32:03
10189	MGS	02-042/14:47:05	65	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
10190	MGS	02-042/14:47:09		NOTE: End fixed Sub-Reflector for Radio Science		02-042/14:32:06
10191	MGS	02-042/14:51:04		NOTE: Exit Solar Eclipse 13098		02-042/14:36:01
10192	MGS	02-042/15:04:46		NOTE: Periapsis 13099 ----------		02-042/14:49:44
10193	MGS	02-042/15:16:03		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-042/15:01:01
10194	MGS	02-042/15:16:03		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-042/15:01:01
10195	MGS	02-042/15:16:04		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-042/15:01:02
10196	MGS	02-042/15:16:04		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-042/15:01:02
10197	MGS	02-042/15:17:40	65	NOTE: Transmitter Off in 15 minutes		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
10198	MGS	02-042/15:30:41	65	Range Modulation Off		
10199	MGS	02-042/15:32:40	65	Transmitter Off		
10200	MGS	02-042/15:38:04		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-042/15:23:02
10201	MGS	02-042/15:38:04		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-042/15:23:02
10202	MGS	02-042/15:55:09		NOTE: Begin fixed Sub-Reflector for Radio Science		02-042/15:40:06
10203	MGS	02-042/15:58:24		NOTE: Start EVP data return script		02-042/15:43:22
10204	MGS	02-042/16:00:09		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-042/15:45:07
10205	MGS	02-042/16:00:09		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=2, BITS=133656000, DUR=01:13:04		02-042/15:45:07
10206	MGS	02-042/16:00:09		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-042/15:45:07
10207	MGS	02-042/16:00:09		: 00:06:49, FALSE	RDSCII	02-042/15:45:07
10208	MGS	02-042/16:00:09		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-042/15:45:07
10209	MGS	02-042/16:00:09		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-042/15:45:07
10210	MGS	02-042/16:00:09		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-042/15:45:07
10211	MGS	02-042/16:00:09		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-042/15:45:07
10212	MGS	02-042/16:00:09	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
10213	MGS	02-042/16:00:09	65	NOTE: Carrier Only -- No Telemetry Modulation		
10214	MGS	02-042/16:02:23		NOTE: Enter Planetary Atmosphere 13099		02-042/15:47:20
10215	MGS	02-042/16:03:53		NOTE: Apoapsis 13099 -		02-042/15:48:50
10216	MGS	02-042/16:06:31		NOTE: Enter Earth Occultation 13099		02-042/15:51:28
10217	MGS	02-042/16:06:31	65	NOTE: Loss Of X-Band Signal		
10218	MGS	02-042/16:06:58		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-042/15:51:56
10219	MGS	02-042/16:06:58		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-042/15:51:56
10220	MGS	02-042/16:06:58		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-042/15:51:56
10221	MGS	02-042/16:06:58		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-042/15:51:56
10222	MGS	02-042/16:06:59		NOTE: End EVP script		02-042/15:51:56
10223	MGS	02-042/16:06:59		Turn off the MOT Exciter and RPA beam	STRPAF	02-042/15:51:57
10224	MGS	02-042/16:07:03		NOTE: End fixed Sub-Reflector for Radio Science		02-042/15:52:00
10225	MGS	02-042/16:08:24		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-042/15:53:22
10226	MGS	02-042/16:08:24		NOTE: Enter Solar Eclipse 13099		02-042/15:53:22
10227	MGS	02-042/16:11:59	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
10228	MGS	02-042/16:13:59	65	Range Modulation On: SUP=3.0dB		
10229	MGS	02-042/16:14:59	65	Begin Ranging Acquisition		
10230	MGS	02-042/16:32:46		NOTE: Begin fixed Sub-Reflector for Radio Science		02-042/16:17:43
10231	MGS	02-042/16:33:04		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-042/16:18:02
10232	MGS	02-042/16:33:04		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-042/16:18:02
10233	MGS	02-042/16:33:09		Set eclipse egress script address: 019A	SWSEES	02-042/16:18:07
10234	MGS	02-042/16:36:31		: 01:28:15	RPAONX	02-042/16:21:29
10235	MGS	02-042/16:36:31		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-042/16:21:29
10236	MGS	02-042/16:37:46		: 00:00:30, 00:07:05, FALSE	RDSCIE	02-042/16:22:44
10237	MGS	02-042/16:37:46		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-042/16:22:44
10238	MGS	02-042/16:37:46		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-042/16:22:44
10239	MGS	02-042/16:37:46		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-042/16:22:44
10240	MGS	02-042/16:37:46		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-042/16:22:44
10241	MGS	02-042/16:38:20		NOTE: Exit Earth Occultation 13099		02-042/16:23:17
10242	MGS	02-042/16:38:20	65	Acquisition Of X-Band Signal		
10243	MGS	02-042/16:38:20	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
10244	MGS	02-042/16:38:20	65	NOTE: Carrier Only -- No Telemetry Modulation		
10245	MGS	02-042/16:42:45		NOTE: Exit Planetary Atmosphere 13099		02-042/16:27:42
10246	MGS	02-042/16:44:51		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-042/16:29:49
10247	MGS	02-042/16:44:51		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-042/16:29:49
10248	MGS	02-042/16:44:51		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-042/16:29:49
10249	MGS	02-042/16:44:51		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-042/16:29:49
10250	MGS	02-042/16:44:51	65	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
10251	MGS	02-042/16:44:52		: RTM, MRC, 01:13:04, S&E_2A, FALSE, 00:06:50	AEMRT	02-042/16:29:50

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
10252	MGS	02-042/16:44:52		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-042/16:29:50
10253	MGS	02-042/16:44:52		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-042/16:29:50
10254	MGS	02-042/16:44:52		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=2, BITS=155120000, DUR=00:44:43		02-042/16:29:50
10255	MGS	02-042/16:44:52		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-042/16:29:50
10256	MGS	02-042/16:44:52	65	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
10257	MGS	02-042/16:44:56		NOTE: End fixed Sub-Reflector for Radio Science		02-042/16:29:53
10258	MGS	02-042/16:48:51		NOTE: Exit Solar Eclipse 13099		02-042/16:33:48
10259	MGS	02-042/16:55:01		NOTE: Start Block (SSRMGR)		02-042/16:39:59
10260	MGS	02-042/16:55:01		Sends a one-word SSR command to the XSU command SOB: SSR_1B, SE_1A, RECORD, PART2	STSSRC	02-042/16:39:59
10261	MGS	02-042/16:55:02		SSR 1B Data Enable	CSD1BE	02-042/16:40:00
10262	MGS	02-042/16:55:02		SSR Activity: ID=SSR_1B, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-042/16:40:00
10263	MGS	02-042/17:02:31		NOTE: Periapsis 13100 ----------		02-042/16:47:28
10264	MGS	02-042/17:09:51		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-042/16:54:48
10265	MGS	02-042/17:09:51		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-042/16:54:48
10266	MGS	02-042/17:09:52		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-042/16:54:49
10267	MGS	02-042/17:09:52		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-042/16:54:49
10268	MGS	02-042/17:15:26	65	NOTE: Transmitter Off in 15 minutes		
10269	MGS	02-042/17:21:43		SSR 1A Data Disable	CSD1AX	02-042/17:06:40
10270	MGS	02-042/17:21:43		SSR Activity: ID=SSR_1A, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-042/17:06:40
10271	MGS	02-042/17:21:44		NOTE: End Block (SSRMGR)		02-042/17:06:41
10272	MGS	02-042/17:28:26	65	Range Modulation Off		
10273	MGS	02-042/17:30:26	65	Transmitter Off		
10274	MGS	02-042/17:31:52		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-042/17:16:49
10275	MGS	02-042/17:31:52		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-042/17:16:49
10276	MGS	02-042/17:52:57		NOTE: Begin fixed Sub-Reflector for Radio Science		02-042/17:37:53
10277	MGS	02-042/17:56:11		NOTE: Start EVP data return script		02-042/17:41:08
10278	MGS	02-042/17:57:57		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-042/17:42:54
10279	MGS	02-042/17:57:57		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=2, BITS=30192000, DUR=01:02:54		02-042/17:42:54
10280	MGS	02-042/17:57:57		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-042/17:42:54
10281	MGS	02-042/17:57:57		: 00:06:49, FALSE	RDSCII	02-042/17:42:54
10282	MGS	02-042/17:57:57		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-042/17:42:54
10283	MGS	02-042/17:57:57		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-042/17:42:54
10284	MGS	02-042/17:57:57		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-042/17:42:54
10285	MGS	02-042/17:57:57		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-042/17:42:54
10286	MGS	02-042/17:57:57	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
10287	MGS	02-042/17:57:57	65	NOTE: Carrier Only -- No Telemetry Modulation		
10288	MGS	02-042/18:00:09		NOTE: Enter Planetary Atmosphere 13100		02-042/17:45:06
10289	MGS	02-042/18:01:23		NOTE: Apoapsis 13100 -		02-042/17:46:19
10290	MGS	02-042/18:04:17		NOTE: Enter Earth Occultation 13100		02-042/17:49:14
10291	MGS	02-042/18:04:17	65	NOTE: Loss Of X-Band Signal		
10292	MGS	02-042/18:04:46		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-042/17:49:43
10293	MGS	02-042/18:04:46		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-042/17:49:43
10294	MGS	02-042/18:04:46		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-042/17:49:43
10295	MGS	02-042/18:04:46		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-042/17:49:43
10296	MGS	02-042/18:04:47		NOTE: End EVP script		02-042/17:49:43
10297	MGS	02-042/18:04:47		Turn off the MOT Exciter and RPA beam	STRPAF	02-042/17:49:44
10298	MGS	02-042/18:04:51		NOTE: End fixed Sub-Reflector for Radio Science		02-042/17:49:47
10299	MGS	02-042/18:06:11		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-042/17:51:08
10300	MGS	02-042/18:06:11		NOTE: Enter Solar Eclipse 13100		02-042/17:51:08
10301	MGS	02-042/18:09:45	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
10302	MGS	02-042/18:11:46	65	Range Modulation On: SUP=3.0dB		
10303	MGS	02-042/18:12:46	65	Begin Ranging Acquisition		
10304	MGS	02-042/18:30:33		NOTE: Begin fixed Sub-Reflector for Radio Science		02-042/18:15:29
10305	MGS	02-042/18:30:52		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-042/18:15:49

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
10306	MGS	02-042/18:30:52		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-042/18:15:49
10307	MGS	02-042/18:30:57		Set eclipse egress script address: 01DC	SWSEES	02-042/18:15:54
10308	MGS	02-042/18:34:18		: 01:28:15	RPAONX	02-042/18:19:15
10309	MGS	02-042/18:34:18		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-042/18:19:15
10310	MGS	02-042/18:35:33		: 00:00:30, 00:07:05, FALSE	RDSCIE	02-042/18:20:30
10311	MGS	02-042/18:35:33		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-042/18:20:30
10312	MGS	02-042/18:35:33		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-042/18:20:30
10313	MGS	02-042/18:35:33		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-042/18:20:30
10314	MGS	02-042/18:35:33		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-042/18:20:30
10315	MGS	02-042/18:36:06		NOTE: Exit Earth Occultation 13100		02-042/18:21:03
10316	MGS	02-042/18:36:06	65	Acquisition Of X-Band Signal		
10317	MGS	02-042/18:36:06	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
10318	MGS	02-042/18:36:06	65	NOTE: Carrier Only -- No Telemetry Modulation		
10319	MGS	02-042/18:40:32		NOTE: Exit Planetary Atmosphere 13100		02-042/18:25:29
10320	MGS	02-042/18:42:38		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-042/18:27:35
10321	MGS	02-042/18:42:38		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-042/18:27:35
10322	MGS	02-042/18:42:38		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-042/18:27:35
10323	MGS	02-042/18:42:38		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-042/18:27:35
10324	MGS	02-042/18:42:38	65	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
10325	MGS	02-042/18:42:39		: RTM, MRC, 01:13:04, S&E_2A, FALSE, 00:06:50	AEMRT	02-042/18:27:36
10326	MGS	02-042/18:42:39		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-042/18:27:36
10327	MGS	02-042/18:42:39		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-042/18:27:36
10328	MGS	02-042/18:42:39		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=2, BITS=51648000, DUR=00:44:42		02-042/18:27:36
10329	MGS	02-042/18:42:39		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-042/18:27:36
10330	MGS	02-042/18:42:39	65	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
10331	MGS	02-042/18:42:43		NOTE: End fixed Sub-Reflector for Radio Science		02-042/18:27:39
10332	MGS	02-042/18:46:37		NOTE: Exit Solar Eclipse 13100		02-042/18:31:34
10333	MGS	02-042/19:00:14		NOTE: Periapsis 13101 ----------		02-042/18:45:11
10334	MGS	02-042/19:07:37		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-042/18:52:34
10335	MGS	02-042/19:07:37		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-042/18:52:34
10336	MGS	02-042/19:07:38		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-042/18:52:35
10337	MGS	02-042/19:07:38		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-042/18:52:35
10338	MGS	02-042/19:13:09	65	NOTE: Transmitter Off in 15 minutes		
10339	MGS	02-042/19:26:10	65	Range Modulation Off		
10340	MGS	02-042/19:28:09	65	Transmitter Off		
10341	MGS	02-042/19:29:38		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-042/19:14:35
10342	MGS	02-042/19:29:38		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-042/19:14:35
10343	MGS	02-042/19:50:43		NOTE: Begin fixed Sub-Reflector for Radio Science		02-042/19:35:39
10344	MGS	02-042/19:53:55		NOTE: Start EVP data return script		02-042/19:38:52
10345	MGS	02-042/19:55:43		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-042/19:40:40
10346	MGS	02-042/19:55:43		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=2, BITS=86720000, DUR=01:13:04		02-042/19:40:40
10347	MGS	02-042/19:55:43		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-042/19:40:40
10348	MGS	02-042/19:55:43		: 00:06:49, FALSE	RDSCII	02-042/19:40:40
10349	MGS	02-042/19:55:43		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-042/19:40:40
10350	MGS	02-042/19:55:43		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-042/19:40:40
10351	MGS	02-042/19:55:43		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-042/19:40:40
10352	MGS	02-042/19:55:43		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-042/19:40:40
10353	MGS	02-042/19:55:43	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
10354	MGS	02-042/19:55:43	65	NOTE: Carrier Only -- No Telemetry Modulation		
10355	MGS	02-042/19:57:53		NOTE: Enter Planetary Atmosphere 13101		02-042/19:42:49
10356	MGS	02-042/19:58:59		NOTE: Apoapsis 13101 -		02-042/19:43:55
10357	MGS	02-042/20:00:00	25	Begin Pre-Cal		
10358	MGS	02-042/20:00:00	25	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
10359	MGS	02-042/20:00:00	25	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
10360	MGS	02-042/20:00:00	25	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
10361	MGS	02-042/20:00:00	25	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
10362	MGS	02-042/20:00:00	25	At BOT: S/C Tlm Mode: BR=40000.0, FL=10000, SC=HIGH, MI=80.0		
10363	MGS	02-042/20:00:00	25	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
10364	MGS	02-042/20:00:00	25	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
10365	MGS	02-042/20:00:00	25	Config: TGC: DEST=37		
10366	MGS	02-042/20:00:00	25	Config: TGC: BAND=X, BR=40000.000000		
10367	MGS	02-042/20:00:00	25	Config: FSS: CH=2, PRI_FL=10000		
10368	MGS	02-042/20:00:00	25	Config: RSR		
10369	MGS	02-042/20:00:00	25	Config: TXL		
10370	MGS	02-042/20:00:00	25	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
10371	MGS	02-042/20:00:00	25	Config: BVR		
10372	MGS	02-042/20:00:00	25	Config: Doppler Extractor: BIAS=+1MHZ		
10373	MGS	02-042/20:00:00	25	Config: MDA: SMPL=0.1		
10374	MGS	02-042/20:00:00	25	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
10375	MGS	02-042/20:00:00	25	Config: SRA: HIGH=4, LOW=14, SERV=D		
10376	MGS	02-042/20:00:00	25	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
10377	MGS	02-042/20:02:01		NOTE: Enter Earth Occultation 13101		02-042/19:46:58
10378	MGS	02-042/20:02:01	65	NOTE: Loss Of X-Band Signal		
10379	MGS	02-042/20:02:32		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-042/19:47:29
10380	MGS	02-042/20:02:32		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-042/19:47:29
10381	MGS	02-042/20:02:32		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-042/19:47:29
10382	MGS	02-042/20:02:32		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-042/19:47:29
10383	MGS	02-042/20:02:33		NOTE: End EVP script		02-042/19:47:29
10384	MGS	02-042/20:02:33		Turn off the MOT Exciter and RPA beam	STRPAF	02-042/19:47:30
10385	MGS	02-042/20:02:37		NOTE: End fixed Sub-Reflector for Radio Science		02-042/19:47:33
10386	MGS	02-042/20:03:55		NOTE: Enter Solar Eclipse 13101		02-042/19:48:51
10387	MGS	02-042/20:03:55		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-042/19:48:52
10388	MGS	02-042/20:07:30	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
10389	MGS	02-042/20:09:30	65	Range Modulation On: SUP=3.0dB		
10390	MGS	02-042/20:10:30	65	Begin Ranging Acquisition		
10391	MGS	02-042/20:28:17		NOTE: Begin fixed Sub-Reflector for Radio Science		02-042/20:13:13
10392	MGS	02-042/20:28:38		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-042/20:13:35
10393	MGS	02-042/20:28:38		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-042/20:13:35
10394	MGS	02-042/20:28:42		Command the PSE with included data word: 3990	SWPSEL	02-042/20:13:39
10395	MGS	02-042/20:28:43		Set eclipse egress script address: 0158	SWSEES	02-042/20:13:40
10396	MGS	02-042/20:32:02		: 01:28:15	RPAONX	02-042/20:16:59
10397	MGS	02-042/20:32:02		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-042/20:16:59
10398	MGS	02-042/20:33:17		: 00:00:30, 00:07:05, FALSE	RDSCIE	02-042/20:18:14
10399	MGS	02-042/20:33:17		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-042/20:18:14
10400	MGS	02-042/20:33:17		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-042/20:18:14
10401	MGS	02-042/20:33:17		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-042/20:18:14
10402	MGS	02-042/20:33:17		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-042/20:18:14
10403	MGS	02-042/20:33:51		NOTE: Exit Earth Occultation 13101		02-042/20:18:48
10404	MGS	02-042/20:33:51	65	Acquisition Of X-Band Signal		
10405	MGS	02-042/20:33:51	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
10406	MGS	02-042/20:33:51	65	NOTE: Carrier Only -- No Telemetry Modulation		
10407	MGS	02-042/20:38:17		NOTE: Exit Planetary Atmosphere 13101		02-042/20:23:13
10408	MGS	02-042/20:40:22		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-042/20:25:19
10409	MGS	02-042/20:40:22		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-042/20:25:19
10410	MGS	02-042/20:40:22		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-042/20:25:19
10411	MGS	02-042/20:40:22		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-042/20:25:19
10412	MGS	02-042/20:40:22	65	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
10413	MGS	02-042/20:40:23		: RTM, MRC, 01:13:04, S&E_2A, FALSE, 00:06:50	AEMRT	02-042/20:25:20

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
10414	MGS	02-042/20:40:23		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-042/20:25:20
10415	MGS	02-042/20:40:23		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-042/20:25:20
10416	MGS	02-042/20:40:23		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=2, BITS=108160000, DUR=00:44:40		02-042/20:25:20
10417	MGS	02-042/20:40:23		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-042/20:25:20
10418	MGS	02-042/20:40:23	65	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
10419	MGS	02-042/20:40:27		NOTE: End fixed Sub-Reflector for Radio Science		02-042/20:25:23
10420	MGS	02-042/20:44:21		NOTE: Exit Solar Eclipse 13101		02-042/20:29:18
10421	MGS	02-042/20:57:59		NOTE: Periapsis 13102 ----------		02-042/20:42:55
10422	MGS	02-042/21:00:00	25	Begin Tracking		
10423	MGS	02-042/21:00:00	25	Acquire D/L: X/16, 3-Way/65, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
10424	MGS	02-042/21:08:00	65	Range Modulation Off		
10425	MGS	02-042/21:09:20		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-042/20:54:17
10426	MGS	02-042/21:09:20		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-042/20:54:17
10427	MGS	02-042/21:09:21		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-042/20:54:18
10428	MGS	02-042/21:09:21		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-042/20:54:18
10429	MGS	02-042/21:10:00	25	U/L Transfer From DSS-65 to DSS-25: PWR=4.0, BR=125.0, CS=5.82dB		
10430	MGS	02-042/21:10:51	25	NOTE: Transmitter Off in 15 minutes		
10431	MGS	02-042/21:12:00	25	Range Modulation On: SUP=3.0dB		
10432	MGS	02-042/21:13:00	25	Begin Ranging Acquisition		
10433	MGS	02-042/21:20:00	65	End Tracking		
10434	MGS	02-042/21:23:52	25	Range Modulation Off		
10435	MGS	02-042/21:25:51	25	Transmitter Off		
10436	MGS	02-042/21:31:21		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-042/21:16:18
10437	MGS	02-042/21:31:21		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-042/21:16:18
10438	MGS	02-042/21:35:00	65	End Post-Cal		
10439	MGS	02-042/21:40:07	25	Acquire D/L: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
10440	MGS	02-042/21:48:27		NOTE: Begin fixed Sub-Reflector for Radio Science		02-042/21:33:23
10441	MGS	02-042/21:51:37		NOTE: Start EVP data return script		02-042/21:36:34
10442	MGS	02-042/21:53:27		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-042/21:38:24
10443	MGS	02-042/21:53:27		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=2, BITS=143232000, DUR=01:13:04		02-042/21:38:24
10444	MGS	02-042/21:53:27		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-042/21:38:24
10445	MGS	02-042/21:53:27		: 00:06:49, FALSE	RDSCII	02-042/21:38:24
10446	MGS	02-042/21:53:27		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-042/21:38:24
10447	MGS	02-042/21:53:27		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-042/21:38:24
10448	MGS	02-042/21:53:27		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-042/21:38:24
10449	MGS	02-042/21:53:27		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-042/21:38:24
10450	MGS	02-042/21:53:27	25	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
10451	MGS	02-042/21:53:27	25	NOTE: Carrier Only -- No Telemetry Modulation		
10452	MGS	02-042/21:55:35		NOTE: Enter Planetary Atmosphere 13102		02-042/21:40:31
10453	MGS	02-042/21:56:55		NOTE: Apoapsis 13102 -		02-042/21:41:51
10454	MGS	02-042/21:59:44		NOTE: Enter Earth Occultation 13102		02-042/21:44:40
10455	MGS	02-042/21:59:44	25	NOTE: Loss Of X-Band Signal		
10456	MGS	02-042/22:00:16		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-042/21:45:13
10457	MGS	02-042/22:00:16		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-042/21:45:13
10458	MGS	02-042/22:00:16		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-042/21:45:13
10459	MGS	02-042/22:00:16		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-042/21:45:13
10460	MGS	02-042/22:00:17		NOTE: End EVP script		02-042/21:45:13
10461	MGS	02-042/22:00:17		Turn off the MOT Exciter and RPA beam	STRPAF	02-042/21:45:14
10462	MGS	02-042/22:00:21		NOTE: End fixed Sub-Reflector for Radio Science		02-042/21:45:17
10463	MGS	02-042/22:01:37		NOTE: Enter Solar Eclipse 13102		02-042/21:46:33
10464	MGS	02-042/22:01:37		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-042/21:46:34
10465	MGS	02-042/22:05:12	25	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
10466	MGS	02-042/22:07:12	25	Range Modulation On: SUP=3.0dB		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
10467	MGS	02-042/22:08:12	25	Begin Ranging Acquisition		
10468	MGS	02-042/22:25:59		NOTE: Begin fixed Sub-Reflector for Radio Science		02-042/22:10:55
10469	MGS	02-042/22:26:21		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-042/22:11:18
10470	MGS	02-042/22:26:21		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-042/22:11:18
10471	MGS	02-042/22:26:26		Set eclipse egress script address: 019A	SWSEES	02-042/22:11:23
10472	MGS	02-042/22:28:22		NOTE: Start Block (SSRMGR)		02-042/22:13:19
10473	MGS	02-042/22:28:22		Sends a one-word SSR command to the XSU command SOB: SSR_1A, SE_1A, RECORD, PART3	STSSRC	02-042/22:13:19
10474	MGS	02-042/22:28:23		SSR 1A Data Enable	CSD1AE	02-042/22:13:20
10475	MGS	02-042/22:28:23		SSR Activity: ID=SSR_1A, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-042/22:13:20
10476	MGS	02-042/22:29:44		: 01:28:15	RPAONX	02-042/22:14:41
10477	MGS	02-042/22:29:44		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-042/22:14:41
10478	MGS	02-042/22:30:59		: 00:00:30, 00:07:05, FALSE	RDSCIE	02-042/22:15:56
10479	MGS	02-042/22:30:59		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-042/22:15:56
10480	MGS	02-042/22:30:59		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-042/22:15:56
10481	MGS	02-042/22:30:59		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-042/22:15:56
10482	MGS	02-042/22:30:59		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-042/22:15:56
10483	MGS	02-042/22:31:29		Disables autonomous command to send eclipse ingress script	SWEISX	02-042/22:16:26
10484	MGS	02-042/22:31:34		NOTE: Exit Earth Occultation 13102		02-042/22:16:30
10485	MGS	02-042/22:31:34	25	Acquisition Of X-Band Signal		
10486	MGS	02-042/22:31:34	25	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
10487	MGS	02-042/22:31:34	25	NOTE: Carrier Only -- No Telemetry Modulation		
10488	MGS	02-042/22:36:00		NOTE: Exit Planetary Atmosphere 13102		02-042/22:20:56
10489	MGS	02-042/22:38:04		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-042/22:23:01
10490	MGS	02-042/22:38:04		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-042/22:23:01
10491	MGS	02-042/22:38:04		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-042/22:23:01
10492	MGS	02-042/22:38:04		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-042/22:23:01
10493	MGS	02-042/22:38:04	25	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
10494	MGS	02-042/22:38:05		: RTM, MRC, 01:13:04, S&E_2A, FALSE, 00:06:50	AEMRT	02-042/22:23:02
10495	MGS	02-042/22:38:05		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-042/22:23:02
10496	MGS	02-042/22:38:05		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-042/22:23:02
10497	MGS	02-042/22:38:05		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=3, BITS=4656000, DUR=00:09:42		02-042/22:23:02
10498	MGS	02-042/22:38:05		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-042/22:23:02
10499	MGS	02-042/22:38:05	25	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
10500	MGS	02-042/22:38:09		NOTE: End fixed Sub-Reflector for Radio Science		02-042/22:23:05
10501	MGS	02-042/22:42:04		NOTE: Exit Solar Eclipse 13102		02-042/22:27:00
10502	MGS	02-042/22:55:03		SSR 1B Data Disable	CSD1BX	02-042/22:39:59
10503	MGS	02-042/22:55:03		SSR Activity: ID=SSR_1B, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-042/22:39:59
10504	MGS	02-042/22:55:04		NOTE: End Block (SSRMGR)		02-042/22:40:00
10505	MGS	02-042/22:55:33		NOTE: Periapsis 13103 ----------		02-042/22:40:30
10506	MGS	02-042/23:03:02		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-042/22:47:58
10507	MGS	02-042/23:03:02		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-042/22:47:58
10508	MGS	02-042/23:03:03		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-042/22:47:59
10509	MGS	02-042/23:03:03		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-042/22:47:59
10510	MGS	02-042/23:08:22		NOTE: Start Block (SSRMGR)		02-042/22:53:18
10511	MGS	02-042/23:08:22		Sends a one-word SSR command to the XSU command SOB: SSR_1B, SE_1A, RECORD, PART3	STSSRC	02-042/22:53:18
10512	MGS	02-042/23:08:23		SSR 1B Data Enable	CSD1BE	02-042/22:53:19
10513	MGS	02-042/23:08:23		SSR Activity: ID=SSR_1B, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-042/22:53:19
10514	MGS	02-042/23:08:33	25	NOTE: Transmitter Off in 15 minutes		
10515	MGS	02-042/23:21:34	25	Range Modulation Off		
10516	MGS	02-042/23:23:33	25	Transmitter Off		
10517	MGS	02-042/23:25:03		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-042/23:09:59
10518	MGS	02-042/23:25:03		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-042/23:09:59
10519	MGS	02-042/23:35:04		SSR 1A Data Disable	CSD1AX	02-042/23:19:59
10520	MGS	02-042/23:35:04		SSR Activity: ID=SSR_1A, FCN=End Recording, PRT=3, BITS=32000000, DUR=01:06:40		02-042/23:19:59

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
10521	MGS	02-042/23:35:05		NOTE: End Block (SSRMGR)		02-042/23:20:00
10522	MGS	02-042/23:46:09		NOTE: Begin fixed Sub-Reflector for Radio Science		02-042/23:31:05
10523	MGS	02-042/23:49:18		NOTE: Start Block (MAP_PB)		02-042/23:34:13
10524	MGS	02-042/23:49:19		: 00:28:12, 01:28:08, FALSE, TRUE, FALSE, 00:01:15, 00:07:05, 01:12:59, 00:06:48	AEMINI	02-042/23:34:14
10525	MGS	02-042/23:49:19		Enable sending eclipse ingress script when array power disappears	SWEISE	02-042/23:34:14
10526	MGS	02-042/23:49:19		NOTE: Start EVP data return script		02-042/23:34:14
10527	MGS	02-042/23:49:20		: SSR_1A, F42KHZ, PART1, SE_1A, 2002-043T00:20:47.000	AEMPBI	02-042/23:34:15
10528	MGS	02-042/23:51:10		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-042/23:36:05
10529	MGS	02-042/23:51:10		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=3, BITS=20528000, DUR=00:42:46		02-042/23:36:05
10530	MGS	02-042/23:51:10		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-042/23:36:05
10531	MGS	02-042/23:51:10		: 00:06:49, FALSE	RDSCII	02-042/23:36:05
10532	MGS	02-042/23:51:10		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-042/23:36:05
10533	MGS	02-042/23:51:10		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-042/23:36:05
10534	MGS	02-042/23:51:10		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-042/23:36:05
10535	MGS	02-042/23:51:10		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-042/23:36:05
10536	MGS	02-042/23:51:10	25	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
10537	MGS	02-042/23:51:10	25	NOTE: Carrier Only -- No Telemetry Modulation		
10538	MGS	02-042/23:53:18		NOTE: Enter Planetary Atmosphere 13103		02-042/23:38:14
10539	MGS	02-042/23:54:24		NOTE: Apoapsis 13103 -		02-042/23:39:20
10540	MGS	02-042/23:57:26		NOTE: Enter Earth Occultation 13103		02-042/23:42:22
10541	MGS	02-042/23:57:26	25	NOTE: Loss Of X-Band Signal		
10542	MGS	02-042/23:57:59		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-042/23:42:54
10543	MGS	02-042/23:57:59		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-042/23:42:54
10544	MGS	02-042/23:57:59		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-042/23:42:54
10545	MGS	02-042/23:57:59		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-042/23:42:54
10546	MGS	02-042/23:58:00		NOTE: End EVP script		02-042/23:42:55
10547	MGS	02-042/23:58:00		Turn off the MOT Exciter and RPA beam	STRPAF	02-042/23:42:55
10548	MGS	02-042/23:58:01		NOTE: End Block (MAP_RT)		02-042/23:42:56
10549	MGS	02-042/23:58:04		NOTE: End fixed Sub-Reflector for Radio Science		02-042/23:42:59
10550	MGS	02-042/23:59:19		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-042/23:44:14
10551	MGS	02-042/23:59:19		NOTE: Enter Solar Eclipse 13103		02-042/23:44:15
10552	MGS	02-043/00:00:00		Light Time: OWLT = 15:04, RTLT = 30:08		
10553	MGS	02-043/00:02:53	25	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
10554	MGS	02-043/00:04:54	25	Range Modulation On: SUP=3.0dB		
10555	MGS	02-043/00:05:54	25	Begin Ranging Acquisition		
10556	MGS	02-043/00:15:03		NOTE: Start Block (SSRMGR)		02-042/23:59:58
10557	MGS	02-043/00:15:03		Sends a one-word SSR command to the XSU command SOB: SSR_2A, SE_1A, RECORD, PART1	STSSRC	02-042/23:59:58
10558	MGS	02-043/00:15:04		SSR 2A Data Enable	CSD2AE	02-042/23:59:59
10559	MGS	02-043/00:15:04		SSR Activity: ID=SSR_2A, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-042/23:59:59
10560	MGS	02-043/00:23:46		NOTE: Begin fixed Sub-Reflector for Radio Science		02-043/00:08:42
10561	MGS	02-043/00:24:04		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-043/00:08:59
10562	MGS	02-043/00:24:04		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-043/00:08:59
10563	MGS	02-043/00:24:09		Set eclipse egress script address: 01DC	SWSEES	02-043/00:09:04
10564	MGS	02-043/00:27:31		: 01:28:08	RPAONX	02-043/00:12:26
10565	MGS	02-043/00:27:31		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-043/00:12:26
10566	MGS	02-043/00:28:46		: 00:00:30, 00:07:05, FALSE	RDSCIE	02-043/00:13:41
10567	MGS	02-043/00:28:46		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-043/00:13:41
10568	MGS	02-043/00:28:46		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-043/00:13:41
10569	MGS	02-043/00:28:46		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-043/00:13:41
10570	MGS	02-043/00:28:46		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-043/00:13:41
10571	MGS	02-043/00:29:16		NOTE: Exit Earth Occultation 13103		02-043/00:14:12
10572	MGS	02-043/00:29:16	25	Acquisition Of X-Band Signal		
10573	MGS	02-043/00:29:16	25	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
10574	MGS	02-043/00:29:16	25	NOTE: Carrier Only -- No Telemetry Modulation		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
10575	MGS	02-043/00:33:42		NOTE: Exit Planetary Atmosphere 13103		02-043/00:18:38
10576	MGS	02-043/00:35:51		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-043/00:20:46
10577	MGS	02-043/00:35:51		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-043/00:20:46
10578	MGS	02-043/00:35:51		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-043/00:20:46
10579	MGS	02-043/00:35:51		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-043/00:20:46
10580	MGS	02-043/00:35:51		: REC_1A, F42KHZ, PART1, SE_1A, FALSE, 00:11:09	AEMPB	02-043/00:20:46
10581	MGS	02-043/00:35:51		Sends a one-word MOT command to the XSU command SOB: SSR_1A	STMOTC	02-043/00:20:46
10582	MGS	02-043/00:35:51		Sends a one-word SSR command to the XSU command SOB: SSR_1A, F42KHZ, PLYBCK, PART1	STSSRC	02-043/00:20:46
10583	MGS	02-043/00:35:51	25	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
10584	MGS	02-043/00:35:52		SSR 1A Data Enable	CSD1AE	02-043/00:20:47
10585	MGS	02-043/00:35:52		SSR Activity: ID=SSR_1A, FCN=Start Playback, PRT=1, BR=42666		02-043/00:20:47
10586	MGS	02-043/00:35:52	25	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
10587	MGS	02-043/00:35:56		NOTE: End fixed Sub-Reflector for Radio Science		02-043/00:20:52
10588	MGS	02-043/00:39:45		NOTE: Exit Solar Eclipse 13103		02-043/00:24:41
10589	MGS	02-043/00:41:44		SSR 1B Data Disable	CSD1BX	02-043/00:26:39
10590	MGS	02-043/00:41:44		SSR Activity: ID=SSR_1B, FCN=End Recording, PRT=3, BITS=44800000, DUR=01:33:20		02-043/00:26:39
10591	MGS	02-043/00:41:45		NOTE: End Block (SSRMGR)		02-043/00:26:40
10592	MGS	02-043/00:52:53		NOTE: Periapsis 13104 ----------		02-043/00:37:49
10593	MGS	02-043/01:00:45		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-043/00:45:40
10594	MGS	02-043/01:00:45		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-043/00:45:40
10595	MGS	02-043/01:00:46		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-043/00:45:41
10596	MGS	02-043/01:00:46		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-043/00:45:41
10597	MGS	02-043/01:06:16	25	NOTE: Transmitter Off in 15 minutes		
10598	MGS	02-043/01:19:16	25	Range Modulation Off		
10599	MGS	02-043/01:21:16	25	Transmitter Off		
10600	MGS	02-043/01:22:46		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-043/01:07:41
10601	MGS	02-043/01:22:46		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-043/01:07:41
10602	MGS	02-043/01:43:50		NOTE: Begin fixed Sub-Reflector for Radio Science		02-043/01:28:46
10603	MGS	02-043/01:44:30		SSR 1A Data Disable	CSD1AX	02-043/01:29:25
10604	MGS	02-043/01:44:30		SSR Activity: ID=SSR_1A, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-043/01:29:25
10605	MGS	02-043/01:44:30		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-043/01:29:25
10606	MGS	02-043/01:44:30	25	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
10607	MGS	02-043/01:47:03		NOTE: Start EVP data return script		02-043/01:31:58
10608	MGS	02-043/01:47:03		: SSR_1B, F42KHZ, PART1, 2002-043T02:18:31.000	AEMPBU	02-043/01:31:58
10609	MGS	02-043/01:48:50		: 00:06:48, FALSE	RDSCII	02-043/01:33:45
10610	MGS	02-043/01:48:50		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-043/01:33:45
10611	MGS	02-043/01:48:50		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-043/01:33:45
10612	MGS	02-043/01:48:50		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-043/01:33:45
10613	MGS	02-043/01:48:50		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-043/01:33:45
10614	MGS	02-043/01:48:50	25	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
10615	MGS	02-043/01:48:50	25	NOTE: Carrier Only -- No Telemetry Modulation		
10616	MGS	02-043/01:51:02		NOTE: Enter Planetary Atmosphere 13104		02-043/01:35:57
10617	MGS	02-043/01:51:49		NOTE: Apoapsis 13104 -		02-043/01:36:45
10618	MGS	02-043/01:55:09		NOTE: Enter Earth Occultation 13104		02-043/01:40:05
10619	MGS	02-043/01:55:09	25	NOTE: Loss Of X-Band Signal		
10620	MGS	02-043/01:55:38		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-043/01:40:33
10621	MGS	02-043/01:55:38		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-043/01:40:33
10622	MGS	02-043/01:55:38		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-043/01:40:33
10623	MGS	02-043/01:55:38		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-043/01:40:33
10624	MGS	02-043/01:55:39		Turn off the MOT Exciter and RPA beam	STRPAF	02-043/01:40:34
10625	MGS	02-043/01:55:39		NOTE: End EVP script		02-043/01:40:35
10626	MGS	02-043/01:55:43		NOTE: End fixed Sub-Reflector for Radio Science		02-043/01:40:39
10627	MGS	02-043/01:57:03		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-043/01:41:58
10628	MGS	02-043/01:57:03		NOTE: Enter Solar Eclipse 13104		02-043/01:41:59

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
10629	MGS	02-043/02:00:36	25	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
10630	MGS	02-043/02:02:37	25	Range Modulation On: SUP=3.0dB		
10631	MGS	02-043/02:03:37	25	Begin Ranging Acquisition		
10632	MGS	02-043/02:21:30		NOTE: Begin fixed Sub-Reflector for Radio Science		02-043/02:06:26
10633	MGS	02-043/02:21:46		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-043/02:06:41
10634	MGS	02-043/02:21:46		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-043/02:06:41
10635	MGS	02-043/02:21:50		Command the PSE with included data word: 3990	SWPSEL	02-043/02:06:45
10636	MGS	02-043/02:21:51		Set eclipse egress script address: 0158	SWSEES	02-043/02:06:46
10637	MGS	02-043/02:25:15		: 01:28:08	RPAONX	02-043/02:10:10
10638	MGS	02-043/02:25:15		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-043/02:10:10
10639	MGS	02-043/02:26:30		: 00:00:30, 00:07:05, FALSE	RDSCIE	02-043/02:11:25
10640	MGS	02-043/02:26:30		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-043/02:11:25
10641	MGS	02-043/02:26:30		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-043/02:11:25
10642	MGS	02-043/02:26:30		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-043/02:11:25
10643	MGS	02-043/02:26:30		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-043/02:11:25
10644	MGS	02-043/02:27:00		NOTE: Exit Earth Occultation 13104		02-043/02:11:55
10645	MGS	02-043/02:27:00	25	Acquisition Of X-Band Signal		
10646	MGS	02-043/02:27:00	25	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
10647	MGS	02-043/02:27:00	25	NOTE: Carrier Only -- No Telemetry Modulation		
10648	MGS	02-043/02:31:25		NOTE: Exit Planetary Atmosphere 13104		02-043/02:16:20
10649	MGS	02-043/02:33:35		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-043/02:18:30
10650	MGS	02-043/02:33:35		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-043/02:18:30
10651	MGS	02-043/02:33:35		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-043/02:18:30
10652	MGS	02-043/02:33:35		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-043/02:18:30
10653	MGS	02-043/02:33:35		: REC_1B, F42KHZ, PART1, SE_1A, FALSE, 00:11:09	AEMPB	02-043/02:18:30
10654	MGS	02-043/02:33:35		Sends a one-word MOT command to the XSU command SOB: SSR_1B	STMOTC	02-043/02:18:30
10655	MGS	02-043/02:33:35		Sends a one-word SSR command to the XSU command SOB: SSR_1B, F42KHZ, PLYBCK, PART1	STSSRC	02-043/02:18:30
10656	MGS	02-043/02:33:35	25	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
10657	MGS	02-043/02:33:36		SSR 1B Data Enable	CSD1BE	02-043/02:18:31
10658	MGS	02-043/02:33:36		SSR Activity: ID=SSR_1B, FCN=Start Playback, PRT=1, BR=42666		02-043/02:18:31
10659	MGS	02-043/02:33:36	25	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
10660	MGS	02-043/02:33:40		NOTE: End fixed Sub-Reflector for Radio Science		02-043/02:18:36
10661	MGS	02-043/02:37:29		NOTE: Exit Solar Eclipse 13104		02-043/02:22:25
10662	MGS	02-043/02:50:47		NOTE: Periapsis 13105 ----------		02-043/02:35:43
10663	MGS	02-043/03:02:28		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-043/02:47:23
10664	MGS	02-043/03:02:28		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-043/02:47:23
10665	MGS	02-043/03:02:29		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-043/02:47:24
10666	MGS	02-043/03:02:29		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-043/02:47:24
10667	MGS	02-043/03:03:59	25	NOTE: Transmitter Off in 15 minutes		
10668	MGS	02-043/03:17:00	25	Range Modulation Off		
10669	MGS	02-043/03:18:59	25	Transmitter Off		
10670	MGS	02-043/03:24:29		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-043/03:09:24
10671	MGS	02-043/03:24:29		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-043/03:09:24
10672	MGS	02-043/03:41:35		NOTE: Begin fixed Sub-Reflector for Radio Science		02-043/03:26:30
10673	MGS	02-043/03:42:14		SSR 1B Data Disable	CSD1BX	02-043/03:27:09
10674	MGS	02-043/03:42:14		SSR Activity: ID=SSR_1B, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-043/03:27:09
10675	MGS	02-043/03:42:14		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-043/03:27:09
10676	MGS	02-043/03:42:14	25	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
10677	MGS	02-043/03:44:48		NOTE: Start EVP data return script		02-043/03:29:43
10678	MGS	02-043/03:44:48		: SSR_1A, F42KHZ, PART2, 2002-043T04:16:16.000	AEMPBU	02-043/03:29:43
10679	MGS	02-043/03:46:34		: 00:06:48, FALSE	RDSCII	02-043/03:31:29
10680	MGS	02-043/03:46:34		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-043/03:31:29
10681	MGS	02-043/03:46:34		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-043/03:31:29
10682	MGS	02-043/03:46:34		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-043/03:31:29

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
10683	MGS	02-043/03:46:34		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-043/03:31:29
10684	MGS	02-043/03:46:34	25	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
10685	MGS	02-043/03:46:34	25	NOTE: Carrier Only -- No Telemetry Modulation		
10686	MGS	02-043/03:48:46		NOTE: Enter Planetary Atmosphere 13105		02-043/03:33:41
10687	MGS	02-043/03:49:54		NOTE: Apoapsis 13105 -		02-043/03:34:49
10688	MGS	02-043/03:52:54		NOTE: Enter Earth Occultation 13105		02-043/03:37:49
10689	MGS	02-043/03:52:54	25	NOTE: Loss Of X-Band Signal		
10690	MGS	02-043/03:53:22		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-043/03:38:17
10691	MGS	02-043/03:53:22		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-043/03:38:17
10692	MGS	02-043/03:53:22		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-043/03:38:17
10693	MGS	02-043/03:53:22		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-043/03:38:17
10694	MGS	02-043/03:53:23		Turn off the MOT Exciter and RPA beam	STRPAF	02-043/03:38:18
10695	MGS	02-043/03:53:24		NOTE: End EVP script		02-043/03:38:19
10696	MGS	02-043/03:53:28		NOTE: End fixed Sub-Reflector for Radio Science		02-043/03:38:23
10697	MGS	02-043/03:54:48		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-043/03:39:43
10698	MGS	02-043/03:54:49		NOTE: Enter Solar Eclipse 13105		02-043/03:39:44
10699	MGS	02-043/03:58:21	25	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
10700	MGS	02-043/04:00:22	25	Range Modulation On: SUP=3.0dB		
10701	MGS	02-043/04:01:22	25	Begin Ranging Acquisition		
10702	MGS	02-043/04:19:16		NOTE: Begin fixed Sub-Reflector for Radio Science		02-043/04:04:11
10703	MGS	02-043/04:19:29		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-043/04:04:24
10704	MGS	02-043/04:19:29		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-043/04:04:24
10705	MGS	02-043/04:19:34		Set eclipse egress script address: 019A	SWSEES	02-043/04:04:29
10706	MGS	02-043/04:23:00		: 01:28:08	RPAONX	02-043/04:07:55
10707	MGS	02-043/04:23:00		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-043/04:07:55
10708	MGS	02-043/04:24:15		: 00:00:30, 00:07:05, FALSE	RDSCIE	02-043/04:09:10
10709	MGS	02-043/04:24:15		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-043/04:09:10
10710	MGS	02-043/04:24:15		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-043/04:09:10
10711	MGS	02-043/04:24:15		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-043/04:09:10
10712	MGS	02-043/04:24:15		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-043/04:09:10
10713	MGS	02-043/04:24:46		NOTE: Exit Earth Occultation 13105		02-043/04:09:41
10714	MGS	02-043/04:24:46	25	Acquisition Of X-Band Signal		
10715	MGS	02-043/04:24:46	25	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
10716	MGS	02-043/04:24:46	25	NOTE: Carrier Only -- No Telemetry Modulation		
10717	MGS	02-043/04:25:00	25	NOTE: Transmitter Off in 15 minutes		
10718	MGS	02-043/04:29:10		NOTE: Exit Planetary Atmosphere 13105		02-043/04:14:05
10719	MGS	02-043/04:30:00	45	Begin Pre-Cal		
10720	MGS	02-043/04:30:00	45	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
10721	MGS	02-043/04:30:00	45	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
10722	MGS	02-043/04:30:00	45	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
10723	MGS	02-043/04:30:00	45	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
10724	MGS	02-043/04:30:00	45	At BOT: S/C Tlm Mode: BR=42666.7, FL=10000, SC=HIGH, MI=80.0		
10725	MGS	02-043/04:30:00	45	Config: TGC: DEST=37		
10726	MGS	02-043/04:30:00	45	Config: TGC: BAND=X, BR=42666.666667		
10727	MGS	02-043/04:30:00	45	Config: FSS: CH=2, PRI_FL=10000		
10728	MGS	02-043/04:30:00	45	Config: RSR		
10729	MGS	02-043/04:30:00	45	Config: UWV: AMP=XTWM1, MODE=LISTEN ONLY, POL_UL=RCP, POL_DL=RCP		
10730	MGS	02-043/04:30:00	45	Config: BVR		
10731	MGS	02-043/04:30:00	45	Config: Doppler Extractor: BIAS=+1MHZ		
10732	MGS	02-043/04:30:00	45	Config: MDA: SMPL=0.1		
10733	MGS	02-043/04:31:20		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-043/04:16:15
10734	MGS	02-043/04:31:20		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-043/04:16:15
10735	MGS	02-043/04:31:20		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-043/04:16:15
10736	MGS	02-043/04:31:20		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-043/04:16:15

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
10737	MGS	02-043/04:31:20		: REC_1A, F42KHZ, PART2, SE_1A, FALSE, 00:11:09	AEMPB	02-043/04:16:15
10738	MGS	02-043/04:31:20		Sends a one-word MOT command to the XSU command SOB: SSR_1A	STMOTC	02-043/04:16:15
10739	MGS	02-043/04:31:20		Sends a one-word SSR command to the XSU command SOB: SSR_1A, F42KHZ, PLYBCK, PART2	STSSRC	02-043/04:16:15
10740	MGS	02-043/04:31:20	25	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
10741	MGS	02-043/04:31:21		SSR 1A Data Enable	CSD1AE	02-043/04:16:16
10742	MGS	02-043/04:31:21		SSR Activity: ID=SSR_1A, FCN=Start Playback, PRT=2, BR=42666		02-043/04:16:16
10743	MGS	02-043/04:31:21	25	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
10744	MGS	02-043/04:31:26		NOTE: End fixed Sub-Reflector for Radio Science		02-043/04:16:21
10745	MGS	02-043/04:35:15		NOTE: Exit Solar Eclipse 13105		02-043/04:20:10
10746	MGS	02-043/04:38:00	25	Range Modulation Off		
10747	MGS	02-043/04:40:00	25	Transmitter Off		
10748	MGS	02-043/04:49:00		NOTE: Periapsis 13106 ----------		02-043/04:33:55
10749	MGS	02-043/04:52:20	25	NOTE: Below Uplink Interlock Limit		
10750	MGS	02-043/04:56:14		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-043/04:41:09
10751	MGS	02-043/04:56:14		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-043/04:41:09
10752	MGS	02-043/04:56:15		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-043/04:41:10
10753	MGS	02-043/04:56:15		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-043/04:41:10
10754	MGS	02-043/05:00:00	25	End Tracking		
10755	MGS	02-043/05:00:00	45	Begin Tracking		
10756	MGS	02-043/05:00:00	45	Acquire D/L: X/16, 3-Way/25, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
10757	MGS	02-043/05:10:09	45	Acquire D/L: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
10758	MGS	02-043/05:15:00	25	End Post-Cal		
10759	MGS	02-043/05:18:15		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-043/05:03:10
10760	MGS	02-043/05:18:15		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-043/05:03:10
10761	MGS	02-043/05:39:20		NOTE: Begin fixed Sub-Reflector for Radio Science		02-043/05:24:15
10762	MGS	02-043/05:39:59		SSR 1A Data Disable	CSD1AX	02-043/05:24:54
10763	MGS	02-043/05:39:59		SSR Activity: ID=SSR_1A, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-043/05:24:54
10764	MGS	02-043/05:39:59		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-043/05:24:54
10765	MGS	02-043/05:39:59	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
10766	MGS	02-043/05:42:35		NOTE: Start EVP data return script		02-043/05:27:30
10767	MGS	02-043/05:42:35		: SSR_1B, F42KHZ, PART2, 2002-043T06:14:03.000	AEMPBU	02-043/05:27:30
10768	MGS	02-043/05:44:19		: 00:06:48, FALSE	RDSCII	02-043/05:29:14
10769	MGS	02-043/05:44:19		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-043/05:29:14
10770	MGS	02-043/05:44:19		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-043/05:29:14
10771	MGS	02-043/05:44:19		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-043/05:29:14
10772	MGS	02-043/05:44:19		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-043/05:29:14
10773	MGS	02-043/05:44:19	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
10774	MGS	02-043/05:44:19	45	NOTE: Carrier Only -- No Telemetry Modulation		
10775	MGS	02-043/05:46:33		NOTE: Enter Planetary Atmosphere 13106		02-043/05:31:28
10776	MGS	02-043/05:48:13		NOTE: Apoapsis 13106 -		02-043/05:33:08
10777	MGS	02-043/05:48:23		NOTE: Start Block (SSRMGR)		02-043/05:33:18
10778	MGS	02-043/05:48:23		Sends a one-word SSR command to the XSU command SOB: SSR_2B, SE_1A, RECORD, PART1	STSSRC	02-043/05:33:18
10779	MGS	02-043/05:48:24		SSR 2B Data Enable	CSD2BE	02-043/05:33:19
10780	MGS	02-043/05:48:24		SSR Activity: ID=SSR_2B, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-043/05:33:19
10781	MGS	02-043/05:50:41		NOTE: Enter Earth Occultation 13106		02-043/05:35:36
10782	MGS	02-043/05:50:41	45	NOTE: Loss Of X-Band Signal		
10783	MGS	02-043/05:51:07		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-043/05:36:02
10784	MGS	02-043/05:51:07		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-043/05:36:02
10785	MGS	02-043/05:51:07		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-043/05:36:02
10786	MGS	02-043/05:51:07		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-043/05:36:02
10787	MGS	02-043/05:51:08		Turn off the MOT Exciter and RPA beam	STRPAF	02-043/05:36:03
10788	MGS	02-043/05:51:09		NOTE: End EVP script		02-043/05:36:04
10789	MGS	02-043/05:51:13		NOTE: End fixed Sub-Reflector for Radio Science		02-043/05:36:08

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
10790	MGS	02-043/05:52:35		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-043/05:37:30
10791	MGS	02-043/05:52:36		NOTE: Enter Solar Eclipse 13106		02-043/05:37:31
10792	MGS	02-043/06:15:05		SSR 2A Data Disable	CSD2AX	02-043/05:59:59
10793	MGS	02-043/06:15:05		SSR Activity: ID=SSR_2A, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-043/05:59:59
10794	MGS	02-043/06:15:06		NOTE: End Block (SSRMGR)		02-043/06:00:00
10795	MGS	02-043/06:17:03		NOTE: Begin fixed Sub-Reflector for Radio Science		02-043/06:01:58
10796	MGS	02-043/06:17:16		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-043/06:02:10
10797	MGS	02-043/06:17:16		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-043/06:02:10
10798	MGS	02-043/06:17:21		Set eclipse egress script address: 01DC	SWSEES	02-043/06:02:15
10799	MGS	02-043/06:20:48		: 01:28:08	RPAONX	02-043/06:05:42
10800	MGS	02-043/06:20:48		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-043/06:05:42
10801	MGS	02-043/06:22:03		: 00:00:30, 00:07:05, FALSE	RDSCIE	02-043/06:06:57
10802	MGS	02-043/06:22:03		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-043/06:06:57
10803	MGS	02-043/06:22:03		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-043/06:06:57
10804	MGS	02-043/06:22:03		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-043/06:06:57
10805	MGS	02-043/06:22:03		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-043/06:06:57
10806	MGS	02-043/06:22:33		Disables autonomous command to send eclipse ingress script	SWEISX	02-043/06:07:27
10807	MGS	02-043/06:22:33		NOTE: Exit Earth Occultation 13106		02-043/06:07:28
10808	MGS	02-043/06:22:33	45	Acquisition Of X-Band Signal		
10809	MGS	02-043/06:22:33	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
10810	MGS	02-043/06:22:33	45	NOTE: Carrier Only -- No Telemetry Modulation		
10811	MGS	02-043/06:26:58		NOTE: Exit Planetary Atmosphere 13106		02-043/06:11:53
10812	MGS	02-043/06:29:08		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-043/06:14:02
10813	MGS	02-043/06:29:08		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-043/06:14:02
10814	MGS	02-043/06:29:08		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-043/06:14:02
10815	MGS	02-043/06:29:08		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-043/06:14:02
10816	MGS	02-043/06:29:08		: REC_1B, F42KHZ, PART2, SE_1A, FALSE, 00:11:09	AEMPB	02-043/06:14:02
10817	MGS	02-043/06:29:08		Sends a one-word MOT command to the XSU command SOB: SSR_1B	STMOTC	02-043/06:14:02
10818	MGS	02-043/06:29:08		Sends a one-word SSR command to the XSU command SOB: SSR_1B, F42KHZ, PLYBCK, PART2	STSSRC	02-043/06:14:02
10819	MGS	02-043/06:29:08	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
10820	MGS	02-043/06:29:09		SSR 1B Data Enable	CSD1BE	02-043/06:14:03
10821	MGS	02-043/06:29:09		SSR Activity: ID=SSR_1B, FCN=Start Playback, PRT=2, BR=42666		02-043/06:14:03
10822	MGS	02-043/06:29:09	45	D/L Change: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
10823	MGS	02-043/06:29:13		NOTE: End fixed Sub-Reflector for Radio Science		02-043/06:14:08
10824	MGS	02-043/06:33:02		NOTE: Exit Solar Eclipse 13106		02-043/06:17:57
10825	MGS	02-043/06:47:04		NOTE: Periapsis 13107 ----------		02-043/06:31:59
10826	MGS	02-043/06:54:02		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-043/06:38:56
10827	MGS	02-043/06:54:02		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-043/06:38:56
10828	MGS	02-043/06:54:03		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-043/06:38:57
10829	MGS	02-043/06:54:03		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-043/06:38:57
10830	MGS	02-043/07:16:03		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-043/07:00:57
10831	MGS	02-043/07:16:03		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-043/07:00:57
10832	MGS	02-043/07:37:07		NOTE: Begin fixed Sub-Reflector for Radio Science		02-043/07:22:02
10833	MGS	02-043/07:37:47		SSR 1B Data Disable	CSD1BX	02-043/07:22:41
10834	MGS	02-043/07:37:47		SSR Activity: ID=SSR_1B, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-043/07:22:41
10835	MGS	02-043/07:37:47		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-043/07:22:41
10836	MGS	02-043/07:37:47	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
10837	MGS	02-043/07:40:21		NOTE: Start Block (MAP_RT)		02-043/07:25:15
10838	MGS	02-043/07:40:22		: 00:28:12, 01:28:07, FALSE, TRUE, FALSE, 00:01:15, 00:07:05, 01:12:58, 00:06:48	AEMINI	02-043/07:25:16
10839	MGS	02-043/07:40:22		Enable sending eclipse ingress script when array power disappears	SWEISE	02-043/07:25:16
10840	MGS	02-043/07:40:22		NOTE: Start EVP data return script		02-043/07:25:16
10841	MGS	02-043/07:40:23		: SE_2A, RTM, 01:12:57, MRC, 2002-043T08:11:50.000	AEMRTI	02-043/07:25:17
10842	MGS	02-043/07:42:07		: 00:06:48, FALSE	RDSCII	02-043/07:27:01
10843	MGS	02-043/07:42:07		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-043/07:27:01

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
10844	MGS	02-043/07:42:07		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-043/07:27:01
10845	MGS	02-043/07:42:07		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-043/07:27:01
10846	MGS	02-043/07:42:07		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-043/07:27:01
10847	MGS	02-043/07:42:07	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
10848	MGS	02-043/07:42:07	45	NOTE: Carrier Only -- No Telemetry Modulation		
10849	MGS	02-043/07:44:20		NOTE: Enter Planetary Atmosphere 13107		02-043/07:29:15
10850	MGS	02-043/07:46:05		NOTE: Apoapsis 13107 -		02-043/07:31:00
10851	MGS	02-043/07:48:28		NOTE: Enter Earth Occultation 13107		02-043/07:33:23
10852	MGS	02-043/07:48:28	45	NOTE: Loss Of X-Band Signal		
10853	MGS	02-043/07:48:55		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-043/07:33:49
10854	MGS	02-043/07:48:55		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-043/07:33:49
10855	MGS	02-043/07:48:55		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-043/07:33:49
10856	MGS	02-043/07:48:55		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-043/07:33:49
10857	MGS	02-043/07:48:56		Turn off the MOT Exciter and RPA beam	STRPAF	02-043/07:33:50
10858	MGS	02-043/07:48:56		NOTE: End EVP script		02-043/07:33:51
10859	MGS	02-043/07:48:57		NOTE: End Block (MAP_PB)		02-043/07:33:52
10860	MGS	02-043/07:49:00		NOTE: End fixed Sub-Reflector for Radio Science		02-043/07:33:55
10861	MGS	02-043/07:50:22		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-043/07:35:16
10862	MGS	02-043/07:50:22		NOTE: Enter Solar Eclipse 13107		02-043/07:35:17
10863	MGS	02-043/08:14:49		NOTE: Begin fixed Sub-Reflector for Radio Science		02-043/07:59:44
10864	MGS	02-043/08:15:03		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-043/07:59:57
10865	MGS	02-043/08:15:03		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-043/07:59:57
10866	MGS	02-043/08:15:07		Command the PSE with included data word: 3990	SWPSEL	02-043/08:00:01
10867	MGS	02-043/08:15:08		Set eclipse egress script address: 0158	SWSEES	02-043/08:00:02
10868	MGS	02-043/08:18:34		: 01:28:07	RPAONX	02-043/08:03:28
10869	MGS	02-043/08:18:34		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-043/08:03:28
10870	MGS	02-043/08:19:49		: 00:00:30, 00:07:05, FALSE	RDSCIE	02-043/08:04:43
10871	MGS	02-043/08:19:49		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-043/08:04:43
10872	MGS	02-043/08:19:49		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-043/08:04:43
10873	MGS	02-043/08:19:49		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-043/08:04:43
10874	MGS	02-043/08:19:49		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-043/08:04:43
10875	MGS	02-043/08:20:21		NOTE: Exit Earth Occultation 13107		02-043/08:05:15
10876	MGS	02-043/08:20:21	45	Acquisition Of X-Band Signal		
10877	MGS	02-043/08:20:21	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
10878	MGS	02-043/08:20:21	45	NOTE: Carrier Only -- No Telemetry Modulation		
10879	MGS	02-043/08:24:46		NOTE: Exit Planetary Atmosphere 13107		02-043/08:09:41
10880	MGS	02-043/08:26:54		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-043/08:11:48
10881	MGS	02-043/08:26:54		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-043/08:11:48
10882	MGS	02-043/08:26:54		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-043/08:11:48
10883	MGS	02-043/08:26:54		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-043/08:11:48
10884	MGS	02-043/08:26:54	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
10885	MGS	02-043/08:26:55		: RTM, MRC, 01:12:57, S&E_2A, FALSE, 00:06:49	AEMRT	02-043/08:11:49
10886	MGS	02-043/08:26:55		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-043/08:11:49
10887	MGS	02-043/08:26:55		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-043/08:11:49
10888	MGS	02-043/08:26:55	45	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
10889	MGS	02-043/08:26:59		NOTE: End fixed Sub-Reflector for Radio Science		02-043/08:11:54
10890	MGS	02-043/08:30:49		NOTE: Exit Solar Eclipse 13107		02-043/08:15:44
10891	MGS	02-043/08:32:49		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-043/08:17:43
10892	MGS	02-043/08:32:49	45	D/L Change: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
10893	MGS	02-043/08:32:51		NOTE: Start Block (SSRMGR)		02-043/08:17:45
10894	MGS	02-043/08:32:51		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-043/08:17:45
10895	MGS	02-043/08:32:51		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-043/08:17:45
10896	MGS	02-043/08:32:52		Sends a one-word MOT command to the XSU command SOB: SSR_1A	STMOTC	02-043/08:17:46
10897	MGS	02-043/08:32:53		Sends a one-word SSR command to the XSU command SOB: SSR_1A, F42KHZ, PLYBCK, PART3	STSSRC	02-043/08:17:47

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
10898	MGS	02-043/08:32:54		SSR 1A Data Enable	CSD1AE	02-043/08:17:48
10899	MGS	02-043/08:32:54		SSR Activity: ID=SSR_1A, FCN=Start Playback, PRT=3, BR=42666		02-043/08:17:48
10900	MGS	02-043/08:32:54	45	D/L Change: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
10901	MGS	02-043/08:44:42		NOTE: Periapsis 13108 ----------		02-043/08:29:36
10902	MGS	02-043/08:45:21		NOTE: Start Block (SSRMGR)		02-043/08:30:15
10903	MGS	02-043/08:45:21		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-043/08:30:15
10904	MGS	02-043/08:45:21		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-043/08:30:15
10905	MGS	02-043/08:45:22		Sends a one-word MOT command to the XSU command SOB: SSR_1B	STMOTC	02-043/08:30:16
10906	MGS	02-043/08:45:23		Sends a one-word SSR command to the XSU command SOB: SSR_1B, F42KHZ, PLYBCK, PART3	STSSRC	02-043/08:30:17
10907	MGS	02-043/08:45:24		SSR 1A Data Disable	CSD1AX	02-043/08:30:18
10908	MGS	02-043/08:45:24		SSR Activity: ID=SSR_1A, FCN=End Playback, PRT=3, BITS=32000000, DUR=00:12:30		02-043/08:30:18
10909	MGS	02-043/08:45:24		SSR 1B Data Enable	CSD1BE	02-043/08:30:18
10910	MGS	02-043/08:45:24		SSR Activity: ID=SSR_1B, FCN=Start Playback, PRT=3, BR=42666		02-043/08:30:18
10911	MGS	02-043/08:45:24	45	D/L Change: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
10912	MGS	02-043/08:45:25		NOTE: End Block (SSRMGR)		02-043/08:30:19
10913	MGS	02-043/08:55:48		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-043/08:40:42
10914	MGS	02-043/08:55:48		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-043/08:40:42
10915	MGS	02-043/08:55:49		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-043/08:40:43
10916	MGS	02-043/08:55:49		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-043/08:40:43
10917	MGS	02-043/09:02:54		SSR 1B Data Disable	CSD1BX	02-043/08:47:48
10918	MGS	02-043/09:02:54		SSR Activity: ID=SSR_1B, FCN=End Playback, PRT=3, BITS=44800000, DUR=00:17:30		02-043/08:47:48
10919	MGS	02-043/09:02:55		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-043/08:47:49
10920	MGS	02-043/09:02:55		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-043/08:47:49
10921	MGS	02-043/09:02:55		NOTE: End Block (SSRMGR)		02-043/08:47:49
10922	MGS	02-043/09:02:55	45	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
10923	MGS	02-043/09:17:49		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-043/09:02:43
10924	MGS	02-043/09:17:49		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-043/09:02:43
10925	MGS	02-043/09:34:52		NOTE: Begin fixed Sub-Reflector for Radio Science		02-043/09:19:47
10926	MGS	02-043/09:38:05		NOTE: Start EVP data return script		02-043/09:22:59
10927	MGS	02-043/09:39:52		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-043/09:24:46
10928	MGS	02-043/09:39:52		: 00:06:48, FALSE	RDSCII	02-043/09:24:46
10929	MGS	02-043/09:39:52		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-043/09:24:46
10930	MGS	02-043/09:39:52		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-043/09:24:46
10931	MGS	02-043/09:39:52		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-043/09:24:46
10932	MGS	02-043/09:39:52		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-043/09:24:46
10933	MGS	02-043/09:39:52	45	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
10934	MGS	02-043/09:39:52	45	NOTE: Carrier Only -- No Telemetry Modulation		
10935	MGS	02-043/09:42:04		NOTE: Enter Planetary Atmosphere 13108		02-043/09:26:59
10936	MGS	02-043/09:43:30		NOTE: Apoapsis 13108 -		02-043/09:28:24
10937	MGS	02-043/09:46:12		NOTE: Enter Earth Occultation 13108		02-043/09:31:06
10938	MGS	02-043/09:46:12	45	NOTE: Loss Of X-Band Signal		
10939	MGS	02-043/09:46:40		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-043/09:31:34
10940	MGS	02-043/09:46:40		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-043/09:31:34
10941	MGS	02-043/09:46:40		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-043/09:31:34
10942	MGS	02-043/09:46:40		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-043/09:31:34
10943	MGS	02-043/09:46:41		Turn off the MOT Exciter and RPA beam	STRPAF	02-043/09:31:35
10944	MGS	02-043/09:46:41		NOTE: End EVP script		02-043/09:31:36
10945	MGS	02-043/09:46:45		NOTE: End fixed Sub-Reflector for Radio Science		02-043/09:31:40
10946	MGS	02-043/09:48:05		NOTE: Enter Solar Eclipse 13108		02-043/09:32:59
10947	MGS	02-043/09:48:05		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-043/09:32:59
10948	MGS	02-043/10:12:32		NOTE: Begin fixed Sub-Reflector for Radio Science		02-043/09:57:27
10949	MGS	02-043/10:12:49		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-043/09:57:43
10950	MGS	02-043/10:12:49		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-043/09:57:43
10951	MGS	02-043/10:12:54		Set eclipse egress script address: 019A	SWSEES	02-043/09:57:48

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
10952	MGS	02-043/10:16:17		: 01:28:07	RPAONX	02-043/10:01:11
10953	MGS	02-043/10:16:17		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-043/10:01:11
10954	MGS	02-043/10:17:32		: 00:00:30, 00:07:05, FALSE	RDSCIE	02-043/10:02:26
10955	MGS	02-043/10:17:32		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-043/10:02:26
10956	MGS	02-043/10:17:32		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-043/10:02:26
10957	MGS	02-043/10:17:32		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-043/10:02:26
10958	MGS	02-043/10:17:32		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-043/10:02:26
10959	MGS	02-043/10:18:02		Disables autonomous command to send eclipse ingress script	SWEISX	02-043/10:02:56
10960	MGS	02-043/10:18:05		NOTE: Exit Earth Occultation 13108		02-043/10:02:59
10961	MGS	02-043/10:18:05	45	Acquisition Of X-Band Signal		
10962	MGS	02-043/10:18:05	45	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
10963	MGS	02-043/10:18:05	45	NOTE: Carrier Only -- No Telemetry Modulation		
10964	MGS	02-043/10:22:30		NOTE: Exit Planetary Atmosphere 13108		02-043/10:07:24
10965	MGS	02-043/10:24:37		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-043/10:09:31
10966	MGS	02-043/10:24:37		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-043/10:09:31
10967	MGS	02-043/10:24:37		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-043/10:09:31
10968	MGS	02-043/10:24:37		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-043/10:09:31
10969	MGS	02-043/10:24:37	45	D/L Change: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
10970	MGS	02-043/10:24:38		: RTM, MRC, 01:12:57, S&E_2A, FALSE, 00:06:49	AEMRT	02-043/10:09:32
10971	MGS	02-043/10:24:38		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-043/10:09:32
10972	MGS	02-043/10:24:38		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-043/10:09:32
10973	MGS	02-043/10:24:38	45	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
10974	MGS	02-043/10:24:42		NOTE: End fixed Sub-Reflector for Radio Science		02-043/10:09:37
10975	MGS	02-043/10:27:49	45	NOTE: Below Uplink Interlock Limit		
10976	MGS	02-043/10:28:32		NOTE: Exit Solar Eclipse 13108		02-043/10:13:26
10977	MGS	02-043/10:34:31		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-043/10:19:25
10978	MGS	02-043/10:34:31		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-043/10:19:25
10979	MGS	02-043/10:34:31	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
10980	MGS	02-043/10:35:00	45	End Tracking		
10981	MGS	02-043/10:42:03		NOTE: Periapsis 13109 ----------		02-043/10:26:57
10982	MGS	02-043/10:49:30		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-043/10:34:24
10983	MGS	02-043/10:49:30		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-043/10:34:24
10984	MGS	02-043/10:49:31		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-043/10:34:25
10985	MGS	02-043/10:49:31		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-043/10:34:25
10986	MGS	02-043/10:50:00	45	End Post-Cal		
10987	MGS	02-043/11:11:31		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-043/10:56:25
10988	MGS	02-043/11:11:31		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-043/10:56:25
10989	MGS	02-043/11:21:44		NOTE: Start Block (SSRMGR)		02-043/11:06:38
10990	MGS	02-043/11:21:44		Sends a one-word SSR command to the XSU command SOB: SSR_2A, SE_1A, RECORD, PART2	STSSRC	02-043/11:06:38
10991	MGS	02-043/11:21:45		SSR 2A Data Enable	CSD2AE	02-043/11:06:39
10992	MGS	02-043/11:21:45		SSR Activity: ID=SSR_2A, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-043/11:06:39
10993	MGS	02-043/11:32:36		NOTE: Begin fixed Sub-Reflector for Radio Science		02-043/11:17:30
10994	MGS	02-043/11:37:35		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-043/11:22:29
10995	MGS	02-043/11:37:35		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=2, BITS=7600000, DUR=00:15:50		02-043/11:22:29
10996	MGS	02-043/11:37:35		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-043/11:22:29
10997	MGS	02-043/11:37:35		: 00:06:48, FALSE	RDSCII	02-043/11:22:29
10998	MGS	02-043/11:37:35		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-043/11:22:29
10999	MGS	02-043/11:37:35		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-043/11:22:29
11000	MGS	02-043/11:37:35		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-043/11:22:29
11001	MGS	02-043/11:37:35		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-043/11:22:29
11002	MGS	02-043/11:39:44		NOTE: Enter Planetary Atmosphere 13109		02-043/11:24:38
11003	MGS	02-043/11:41:00		NOTE: Apoapsis 13109 -		02-043/11:25:54
11004	MGS	02-043/11:43:52		NOTE: Enter Earth Occultation 13109		02-043/11:28:46
11005	MGS	02-043/11:44:23		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-043/11:29:17

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
11006	MGS	02-043/11:44:23		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-043/11:29:17
11007	MGS	02-043/11:44:23		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-043/11:29:17
11008	MGS	02-043/11:44:23		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-043/11:29:17
11009	MGS	02-043/11:44:24		Turn off the MOT Exciter and RPA beam	STRPAF	02-043/11:29:18
11010	MGS	02-043/11:44:25		NOTE: End EVP script		02-043/11:29:19
11011	MGS	02-043/11:44:26		NOTE: End Block (MAP_RT)		02-043/11:29:20
11012	MGS	02-043/11:44:29		NOTE: End fixed Sub-Reflector for Radio Science		02-043/11:29:23
11013	MGS	02-043/11:45:45		NOTE: Enter Solar Eclipse 13109		02-043/11:30:39
11014	MGS	02-043/11:48:25		SSR 2B Data Disable	CSD2BX	02-043/11:33:19
11015	MGS	02-043/11:48:25		SSR Activity: ID=SSR_2B, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-043/11:33:19
11016	MGS	02-043/11:48:26		NOTE: End Block (SSRMGR)		02-043/11:33:20
11017	MGS	02-043/12:00:34		Disable HGA control mode	SAHGCX	02-043/11:45:28
11018	MGS	02-043/12:00:35		No Operation	SCNOOP	02-043/11:45:29
11019	MGS	02-043/12:00:36		CDU-1 Uplink Rate Select (Based on 3 bit Code): 7	TCC1BS	02-043/11:45:30
11020	MGS	02-043/12:00:36		CDU-2 Uplink Rate Select (Based on 3 bit Code): 7	TCC2BS	02-043/11:45:30
11021	MGS	02-043/12:10:31		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-043/11:55:25
11022	MGS	02-043/12:10:31		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-043/11:55:25
11023	MGS	02-043/12:10:36		Set eclipse egress script address: 01DC	SWSEES	02-043/11:55:30
11024	MGS	02-043/12:15:05		Dump SCP memory to the EDF using physical addressing arguments: 56A4, 240	SCDSCM	02-043/11:59:59
11025	MGS	02-043/12:15:45		NOTE: Exit Earth Occultation 13109		02-043/12:00:39
11026	MGS	02-043/12:20:10		NOTE: Exit Planetary Atmosphere 13109		02-043/12:05:04
11027	MGS	02-043/12:26:12		NOTE: Exit Solar Eclipse 13109		02-043/12:11:06
11028	MGS	02-043/12:39:35		NOTE: Periapsis 13110 ----------		02-043/12:24:29
11029	MGS	02-043/12:47:11		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-043/12:32:04
11030	MGS	02-043/12:47:11		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-043/12:32:04
11031	MGS	02-043/12:47:12		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-043/12:32:05
11032	MGS	02-043/12:47:12		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-043/12:32:05
11033	MGS	02-043/13:09:12		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-043/12:54:05
11034	MGS	02-043/13:09:12		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-043/12:54:05
11035	MGS	02-043/13:37:27		NOTE: Enter Planetary Atmosphere 13110		02-043/13:22:21
11036	MGS	02-043/13:38:52		NOTE: Apoapsis 13110 -		02-043/13:23:46
11037	MGS	02-043/13:41:35		NOTE: Enter Earth Occultation 13110		02-043/13:26:28
11038	MGS	02-043/13:43:29		NOTE: Enter Solar Eclipse 13110		02-043/13:28:23
11039	MGS	02-043/14:08:12		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-043/13:53:05
11040	MGS	02-043/14:08:12		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-043/13:53:05
11041	MGS	02-043/14:08:16		Command the PSE with included data word: 3990	SWPSEL	02-043/13:53:09
11042	MGS	02-043/14:08:17		Set eclipse egress script address: 0158	SWSEES	02-043/13:53:10
11043	MGS	02-043/14:13:29		NOTE: Exit Earth Occultation 13110		02-043/13:58:23
11044	MGS	02-043/14:17:53		NOTE: Exit Planetary Atmosphere 13110		02-043/14:02:47
11045	MGS	02-043/14:23:56		NOTE: Exit Solar Eclipse 13110		02-043/14:08:49
11046	MGS	02-043/14:37:27		NOTE: Periapsis 13111 ----------		02-043/14:22:20
11047	MGS	02-043/14:48:55		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-043/14:33:48
11048	MGS	02-043/14:48:55		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-043/14:33:48
11049	MGS	02-043/14:48:56		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-043/14:33:49
11050	MGS	02-043/14:48:56		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-043/14:33:49
11051	MGS	02-043/15:10:56		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-043/14:55:49
11052	MGS	02-043/15:10:56		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-043/14:55:49
11053	MGS	02-043/15:25:00	65	Begin Pre-Cal		
11054	MGS	02-043/15:25:00	65	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
11055	MGS	02-043/15:25:00	65	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
11056	MGS	02-043/15:25:00	65	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
11057	MGS	02-043/15:25:00	65	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=OFF, EXC=2		
11058	MGS	02-043/15:25:00	65	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
11059	MGS	02-043/15:25:00	65	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
11060	MGS	02-043/15:25:00	65	Config: TGC: DEST=37		
11061	MGS	02-043/15:25:00	65	Config: TGC: BAND=X, BR=8000.000000		
11062	MGS	02-043/15:25:00	65	Config: FSS: CH=2, PRI_FL=10000		
11063	MGS	02-043/15:25:00	65	Config: RSR		
11064	MGS	02-043/15:25:00	65	Config: TXL		
11065	MGS	02-043/15:25:00	65	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
11066	MGS	02-043/15:25:00	65	Config: BVR		
11067	MGS	02-043/15:25:00	65	Config: Doppler Extractor: BIAS=+1MHZ		
11068	MGS	02-043/15:25:00	65	Config: MDA: SMPL=0.1		
11069	MGS	02-043/15:25:00	65	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
11070	MGS	02-043/15:25:00	65	Config: SRA: HIGH=4, LOW=14, SERV=D		
11071	MGS	02-043/15:25:00	65	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
11072	MGS	02-043/15:35:15		NOTE: Enter Planetary Atmosphere 13111		02-043/15:20:09
11073	MGS	02-043/15:36:38		NOTE: Apoapsis 13111 -		02-043/15:21:32
11074	MGS	02-043/15:39:22		NOTE: Enter Earth Occultation 13111		02-043/15:24:15
11075	MGS	02-043/15:41:16		NOTE: Enter Solar Eclipse 13111		02-043/15:26:10
11076	MGS	02-043/15:56:17		Select Automatic HGA control mode	SAHACE	02-043/15:41:10
11077	MGS	02-043/15:56:18		Selects Hign Gain Antenna for downlink, Reconfigures if beam is already on	STUHGA	02-043/15:41:11
11078	MGS	02-043/15:56:19		CDU-1 Uplink Rate Select (Based on 3 bit Code): 3	TCC1BS	02-043/15:41:12
11079	MGS	02-043/15:56:19		CDU-2 Uplink Rate Select (Based on 3 bit Code): 3	TCC2BS	02-043/15:41:12
11080	MGS	02-043/16:05:56		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-043/15:50:49
11081	MGS	02-043/16:05:56		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-043/15:50:49
11082	MGS	02-043/16:06:01		Set eclipse egress script address: 019A	SWSEES	02-043/15:50:54
11083	MGS	02-043/16:11:16		NOTE: Exit Earth Occultation 13111		02-043/15:56:10
11084	MGS	02-043/16:15:41		NOTE: Exit Planetary Atmosphere 13111		02-043/16:00:34
11085	MGS	02-043/16:21:43		NOTE: Exit Solar Eclipse 13111		02-043/16:06:36
11086	MGS	02-043/16:25:00	65	Begin Tracking		
11087	MGS	02-043/16:35:00	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
11088	MGS	02-043/16:35:17		NOTE: Periapsis 13112 ----------		02-043/16:20:10
11089	MGS	02-043/16:42:42		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-043/16:27:35
11090	MGS	02-043/16:42:42		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-043/16:27:35
11091	MGS	02-043/16:42:43		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-043/16:27:36
11092	MGS	02-043/16:42:43		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-043/16:27:36
11093	MGS	02-043/16:48:11	65	NOTE: Transmitter Off in 15 minutes		
11094	MGS	02-043/16:55:05		NOTE: Start Block (SSRMGR)		02-043/16:39:58
11095	MGS	02-043/16:55:05		Sends a one-word SSR command to the XSU command SOB: SSR_2B, SE_1A, RECORD, PART2	STSSRC	02-043/16:39:58
11096	MGS	02-043/16:55:06		SSR 2B Data Enable	CSD2BE	02-043/16:39:59
11097	MGS	02-043/16:55:06		SSR Activity: ID=SSR_2B, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-043/16:39:59
11098	MGS	02-043/17:03:11	65	Transmitter Off		
11099	MGS	02-043/17:04:43		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-043/16:49:36
11100	MGS	02-043/17:04:43		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-043/16:49:36
11101	MGS	02-043/17:21:46		SSR 2A Data Disable	CSD2AX	02-043/17:06:39
11102	MGS	02-043/17:21:46		SSR Activity: ID=SSR_2A, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-043/17:06:39
11103	MGS	02-043/17:21:47		NOTE: End Block (SSRMGR)		02-043/17:06:40
11104	MGS	02-043/17:29:02		NOTE: Start Block (MAP_RT)		02-043/17:13:55
11105	MGS	02-043/17:29:03		: 00:28:12, 01:28:07, FALSE, TRUE, FALSE, 00:01:15, 00:07:05, 01:12:58, 00:06:48	AEMINI	02-043/17:13:56
11106	MGS	02-043/17:29:03		Enable sending eclipse ingress script when array power disappears	SWEISE	02-043/17:13:56
11107	MGS	02-043/17:29:03		NOTE: Start EVP data return script		02-043/17:13:56
11108	MGS	02-043/17:29:04		: SE_2A, RTM, 01:12:57, MRC, 2002-043T18:00:30.000	AEMRTI	02-043/17:13:57
11109	MGS	02-043/17:33:02		NOTE: Enter Planetary Atmosphere 13112		02-043/17:17:56
11110	MGS	02-043/17:34:15		NOTE: Apoapsis 13112 -		02-043/17:19:08
11111	MGS	02-043/17:37:09		NOTE: Enter Earth Occultation 13112		02-043/17:22:02
11112	MGS	02-043/17:39:03		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-043/17:23:56
11113	MGS	02-043/17:39:04		NOTE: Enter Solar Eclipse 13112		02-043/17:23:57

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
11114	MGS	02-043/17:42:35	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
11115	MGS	02-043/17:44:36	65	Range Modulation On: SUP=3.0dB		
11116	MGS	02-043/17:45:36	65	Begin Ranging Acquisition		
11117	MGS	02-043/18:03:31		NOTE: Begin fixed Sub-Reflector for Radio Science		02-043/17:48:24
11118	MGS	02-043/18:03:43		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-043/17:48:36
11119	MGS	02-043/18:03:43		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-043/17:48:36
11120	MGS	02-043/18:03:48		Set eclipse egress script address: 01DC	SWSEES	02-043/17:48:41
11121	MGS	02-043/18:07:15		: 01:28:07	RPAONX	02-043/17:52:08
11122	MGS	02-043/18:07:15		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-043/17:52:08
11123	MGS	02-043/18:08:30		: 00:00:30, 00:07:05, FALSE	RDSCIE	02-043/17:53:23
11124	MGS	02-043/18:08:30		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-043/17:53:23
11125	MGS	02-043/18:08:30		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-043/17:53:23
11126	MGS	02-043/18:08:30		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-043/17:53:23
11127	MGS	02-043/18:08:30		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-043/17:53:23
11128	MGS	02-043/18:09:04		NOTE: Exit Earth Occultation 13112		02-043/17:53:57
11129	MGS	02-043/18:09:04	65	Acquisition Of X-Band Signal		
11130	MGS	02-043/18:09:04	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
11131	MGS	02-043/18:09:04	65	NOTE: Carrier Only -- No Telemetry Modulation		
11132	MGS	02-043/18:13:28		NOTE: Exit Planetary Atmosphere 13112		02-043/17:58:21
11133	MGS	02-043/18:15:35		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-043/18:00:28
11134	MGS	02-043/18:15:35		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-043/18:00:28
11135	MGS	02-043/18:15:35		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-043/18:00:28
11136	MGS	02-043/18:15:35		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-043/18:00:28
11137	MGS	02-043/18:15:35	65	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
11138	MGS	02-043/18:15:36		: RTM, MRC, 01:12:57, S&E_2A, FALSE, 00:06:49	AEMRT	02-043/18:00:29
11139	MGS	02-043/18:15:36		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-043/18:00:29
11140	MGS	02-043/18:15:36		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-043/18:00:29
11141	MGS	02-043/18:15:36		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=2, BITS=38640000, DUR=01:20:30		02-043/18:00:29
11142	MGS	02-043/18:15:36		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-043/18:00:29
11143	MGS	02-043/18:15:36	65	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
11144	MGS	02-043/18:15:41		NOTE: End fixed Sub-Reflector for Radio Science		02-043/18:00:34
11145	MGS	02-043/18:19:30		NOTE: Exit Solar Eclipse 13112		02-043/18:04:23
11146	MGS	02-043/18:32:59		NOTE: Periapsis 13113 ----------		02-043/18:17:52
11147	MGS	02-043/18:40:29		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-043/18:25:22
11148	MGS	02-043/18:40:29		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-043/18:25:22
11149	MGS	02-043/18:40:30		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-043/18:25:23
11150	MGS	02-043/18:40:30		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-043/18:25:23
11151	MGS	02-043/18:45:55	65	NOTE: Transmitter Off in 15 minutes		
11152	MGS	02-043/18:58:56	65	Range Modulation Off		
11153	MGS	02-043/19:00:55	65	Transmitter Off		
11154	MGS	02-043/19:02:31		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-043/18:47:23
11155	MGS	02-043/19:02:31		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-043/18:47:23
11156	MGS	02-043/19:23:34		NOTE: Begin fixed Sub-Reflector for Radio Science		02-043/19:08:27
11157	MGS	02-043/19:26:49		NOTE: Start EVP data return script		02-043/19:11:41
11158	MGS	02-043/19:28:34		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-043/19:13:26
11159	MGS	02-043/19:28:34		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=2, BITS=73656000, DUR=01:12:57		02-043/19:13:26
11160	MGS	02-043/19:28:34		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-043/19:13:26
11161	MGS	02-043/19:28:34		: 00:06:48, FALSE	RDSCII	02-043/19:13:26
11162	MGS	02-043/19:28:34		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-043/19:13:26
11163	MGS	02-043/19:28:34		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-043/19:13:26
11164	MGS	02-043/19:28:34		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-043/19:13:26
11165	MGS	02-043/19:28:34		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-043/19:13:26
11166	MGS	02-043/19:28:34	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
11167	MGS	02-043/19:28:34	65	NOTE: Carrier Only -- No Telemetry Modulation		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
11168	MGS	02-043/19:30:48		NOTE: Enter Planetary Atmosphere 13113		02-043/19:15:41
11169	MGS	02-043/19:31:45		NOTE: Apoapsis 13113 -		02-043/19:16:38
11170	MGS	02-043/19:34:55		NOTE: Enter Earth Occultation 13113		02-043/19:19:47
11171	MGS	02-043/19:34:55	65	NOTE: Loss Of X-Band Signal		
11172	MGS	02-043/19:35:22		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-043/19:20:14
11173	MGS	02-043/19:35:22		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-043/19:20:14
11174	MGS	02-043/19:35:22		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-043/19:20:14
11175	MGS	02-043/19:35:22		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-043/19:20:14
11176	MGS	02-043/19:35:23		Turn off the MOT Exciter and RPA beam	STRPAF	02-043/19:20:15
11177	MGS	02-043/19:35:23		NOTE: End EVP script		02-043/19:20:16
11178	MGS	02-043/19:35:27		NOTE: End fixed Sub-Reflector for Radio Science		02-043/19:20:20
11179	MGS	02-043/19:36:49		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-043/19:21:41
11180	MGS	02-043/19:36:49		NOTE: Enter Solar Eclipse 13113		02-043/19:21:42
11181	MGS	02-043/19:40:21	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
11182	MGS	02-043/19:42:21	65	Range Modulation On: SUP=3.0dB		
11183	MGS	02-043/19:43:21	65	Begin Ranging Acquisition		
11184	MGS	02-043/20:00:00	15	Begin Pre-Cal		
11185	MGS	02-043/20:00:00	15	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
11186	MGS	02-043/20:00:00	15	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
11187	MGS	02-043/20:00:00	15	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
11188	MGS	02-043/20:00:00	15	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
11189	MGS	02-043/20:00:00	15	At BOT: S/C Tlm Mode: BR=40000.0, FL=10000, SC=HIGH, MI=80.0		
11190	MGS	02-043/20:00:00	15	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
11191	MGS	02-043/20:00:00	15	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
11192	MGS	02-043/20:00:00	15	Config: TGC: DEST=37		
11193	MGS	02-043/20:00:00	15	Config: TGC: BAND=X, BR=40000.000000		
11194	MGS	02-043/20:00:00	15	Config: FSS: CH=2, PRI_FL=10000		
11195	MGS	02-043/20:00:00	15	Config: RSR		
11196	MGS	02-043/20:00:00	15	Config: TXL		
11197	MGS	02-043/20:00:00	15	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
11198	MGS	02-043/20:00:00	15	Config: BVR		
11199	MGS	02-043/20:00:00	15	Config: Doppler Extractor: BIAS=+1MHZ		
11200	MGS	02-043/20:00:00	15	Config: MDA: SMPL=0.1		
11201	MGS	02-043/20:00:00	15	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
11202	MGS	02-043/20:00:00	15	Config: SRA: HIGH=4, LOW=14, SERV=D		
11203	MGS	02-043/20:00:00	15	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
11204	MGS	02-043/20:01:16		NOTE: Begin fixed Sub-Reflector for Radio Science		02-043/19:46:09
11205	MGS	02-043/20:01:31		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-043/19:46:23
11206	MGS	02-043/20:01:31		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-043/19:46:23
11207	MGS	02-043/20:01:35		Command the PSE with included data word: 3990	SWPSEL	02-043/19:46:27
11208	MGS	02-043/20:01:36		Set eclipse egress script address: 0158	SWSEES	02-043/19:46:28
11209	MGS	02-043/20:05:01		: 01:28:07	RPAONX	02-043/19:49:53
11210	MGS	02-043/20:05:01		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-043/19:49:53
11211	MGS	02-043/20:06:16		: 00:00:30, 00:07:05, FALSE	RDSCIE	02-043/19:51:08
11212	MGS	02-043/20:06:16		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-043/19:51:08
11213	MGS	02-043/20:06:16		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-043/19:51:08
11214	MGS	02-043/20:06:16		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-043/19:51:08
11215	MGS	02-043/20:06:16		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-043/19:51:08
11216	MGS	02-043/20:06:50		NOTE: Exit Earth Occultation 13113		02-043/19:51:43
11217	MGS	02-043/20:06:50	65	Acquisition Of X-Band Signal		
11218	MGS	02-043/20:06:50	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
11219	MGS	02-043/20:06:50	65	NOTE: Carrier Only -- No Telemetry Modulation		
11220	MGS	02-043/20:11:14		NOTE: Exit Planetary Atmosphere 13113		02-043/19:56:07
11221	MGS	02-043/20:13:21		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-043/19:58:13

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
11222	MGS	02-043/20:13:21		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-043/19:58:13
11223	MGS	02-043/20:13:21		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-043/19:58:13
11224	MGS	02-043/20:13:21		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-043/19:58:13
11225	MGS	02-043/20:13:21	65	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
11226	MGS	02-043/20:13:22		: RTM, MRC, 01:12:57, S&E_2A, FALSE, 00:06:49	AEMRT	02-043/19:58:14
11227	MGS	02-043/20:13:22		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-043/19:58:14
11228	MGS	02-043/20:13:22		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-043/19:58:14
11229	MGS	02-043/20:13:22		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=2, BITS=95160000, DUR=00:44:48		02-043/19:58:14
11230	MGS	02-043/20:13:22		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-043/19:58:14
11231	MGS	02-043/20:13:22	65	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
11232	MGS	02-043/20:13:26		NOTE: End fixed Sub-Reflector for Radio Science		02-043/19:58:19
11233	MGS	02-043/20:17:16		NOTE: Exit Solar Eclipse 13113		02-043/20:02:08
11234	MGS	02-043/20:30:45		NOTE: Periapsis 13114 ----------		02-043/20:15:38
11235	MGS	02-043/20:42:15		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-043/20:27:07
11236	MGS	02-043/20:42:15		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-043/20:27:07
11237	MGS	02-043/20:42:16		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-043/20:27:08
11238	MGS	02-043/20:42:16		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-043/20:27:08
11239	MGS	02-043/20:43:38	65	NOTE: Transmitter Off in 15 minutes		
11240	MGS	02-043/20:56:39	65	Range Modulation Off		
11241	MGS	02-043/20:58:38	65	Transmitter Off		
11242	MGS	02-043/21:00:00	15	Begin Tracking		
11243	MGS	02-043/21:00:00	15	Acquire D/L: X/16, 3-Way/65, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
11244	MGS	02-043/21:04:16		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-043/20:49:08
11245	MGS	02-043/21:04:16		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-043/20:49:08
11246	MGS	02-043/21:20:00	65	End Tracking		
11247	MGS	02-043/21:21:19		NOTE: Begin fixed Sub-Reflector for Radio Science		02-043/21:06:12
11248	MGS	02-043/21:24:32		NOTE: Start EVP data return script		02-043/21:09:24
11249	MGS	02-043/21:26:19		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-043/21:11:11
11250	MGS	02-043/21:26:19		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=2, BITS=130176000, DUR=01:12:57		02-043/21:11:11
11251	MGS	02-043/21:26:19		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-043/21:11:11
11252	MGS	02-043/21:26:19		: 00:06:48, FALSE	RDSCII	02-043/21:11:11
11253	MGS	02-043/21:26:19		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-043/21:11:11
11254	MGS	02-043/21:26:19		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-043/21:11:11
11255	MGS	02-043/21:26:19		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-043/21:11:11
11256	MGS	02-043/21:26:19		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-043/21:11:11
11257	MGS	02-043/21:26:19	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
11258	MGS	02-043/21:26:19	15	NOTE: Carrier Only -- No Telemetry Modulation		
11259	MGS	02-043/21:28:31		NOTE: Enter Planetary Atmosphere 13114		02-043/21:13:23
11260	MGS	02-043/21:29:33		NOTE: Apoapsis 13114 -		02-043/21:14:26
11261	MGS	02-043/21:32:38		NOTE: Enter Earth Occultation 13114		02-043/21:17:30
11262	MGS	02-043/21:32:38	15	NOTE: Loss Of X-Band Signal		
11263	MGS	02-043/21:33:07		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-043/21:17:59
11264	MGS	02-043/21:33:07		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-043/21:17:59
11265	MGS	02-043/21:33:07		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-043/21:17:59
11266	MGS	02-043/21:33:07		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-043/21:17:59
11267	MGS	02-043/21:33:08		Turn off the MOT Exciter and RPA beam	STRPAF	02-043/21:18:00
11268	MGS	02-043/21:33:08		NOTE: End EVP script		02-043/21:18:01
11269	MGS	02-043/21:33:12		NOTE: End fixed Sub-Reflector for Radio Science		02-043/21:18:05
11270	MGS	02-043/21:34:32		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-043/21:19:24
11271	MGS	02-043/21:34:32		NOTE: Enter Solar Eclipse 13114		02-043/21:19:25
11272	MGS	02-043/21:35:00	65	End Post-Cal		
11273	MGS	02-043/21:38:04	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
11274	MGS	02-043/21:40:05	15	Range Modulation On: SUP=3.0dB		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
11275	MGS	02-043/21:41:05	15	Begin Ranging Acquisition		
11276	MGS	02-043/21:58:59		NOTE: Begin fixed Sub-Reflector for Radio Science		02-043/21:43:52
11277	MGS	02-043/21:59:16		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-043/21:44:08
11278	MGS	02-043/21:59:16		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-043/21:44:08
11279	MGS	02-043/21:59:21		Set eclipse egress script address: 019A	SWSEES	02-043/21:44:13
11280	MGS	02-043/22:02:44		: 01:28:07	RPAONX	02-043/21:47:36
11281	MGS	02-043/22:02:44		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-043/21:47:36
11282	MGS	02-043/22:03:59		: 00:00:30, 00:07:05, FALSE	RDSCIE	02-043/21:48:51
11283	MGS	02-043/22:03:59		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-043/21:48:51
11284	MGS	02-043/22:03:59		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-043/21:48:51
11285	MGS	02-043/22:03:59		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-043/21:48:51
11286	MGS	02-043/22:03:59		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-043/21:48:51
11287	MGS	02-043/22:04:29		Disables autonomous command to send eclipse ingress script	SWEISX	02-043/21:49:21
11288	MGS	02-043/22:04:34		NOTE: Exit Earth Occultation 13114		02-043/21:49:27
11289	MGS	02-043/22:04:34	15	Acquisition Of X-Band Signal		
11290	MGS	02-043/22:04:34	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
11291	MGS	02-043/22:04:34	15	NOTE: Carrier Only -- No Telemetry Modulation		
11292	MGS	02-043/22:08:59		NOTE: Exit Planetary Atmosphere 13114		02-043/21:53:51
11293	MGS	02-043/22:11:04		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-043/21:55:56
11294	MGS	02-043/22:11:04		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-043/21:55:56
11295	MGS	02-043/22:11:04		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-043/21:55:56
11296	MGS	02-043/22:11:04		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-043/21:55:56
11297	MGS	02-043/22:11:04	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
11298	MGS	02-043/22:11:05		: RTM, MRC, 01:12:57, S&E_2A, FALSE, 00:06:49	AEMRT	02-043/21:55:57
11299	MGS	02-043/22:11:05		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-043/21:55:57
11300	MGS	02-043/22:11:05		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-043/21:55:57
11301	MGS	02-043/22:11:05		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=2, BITS=151664000, DUR=00:44:46		02-043/21:55:57
11302	MGS	02-043/22:11:05		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-043/21:55:57
11303	MGS	02-043/22:11:05	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
11304	MGS	02-043/22:11:09		NOTE: End fixed Sub-Reflector for Radio Science		02-043/21:56:02
11305	MGS	02-043/22:14:59		NOTE: Exit Solar Eclipse 13114		02-043/21:59:51
11306	MGS	02-043/22:28:26		NOTE: Start Block (SSRMGR)		02-043/22:13:18
11307	MGS	02-043/22:28:26		Sends a one-word SSR command to the XSU command SOB: SSR_2A, SE_1A, RECORD, PART3	STSSRC	02-043/22:13:18
11308	MGS	02-043/22:28:27		SSR 2A Data Enable	CSD2AE	02-043/22:13:19
11309	MGS	02-043/22:28:27		SSR Activity: ID=SSR_2A, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-043/22:13:19
11310	MGS	02-043/22:28:28		NOTE: Periapsis 13115 ----------		02-043/22:13:20
11311	MGS	02-043/22:35:58		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-043/22:20:50
11312	MGS	02-043/22:35:58		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-043/22:20:50
11313	MGS	02-043/22:35:59		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-043/22:20:51
11314	MGS	02-043/22:35:59		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-043/22:20:51
11315	MGS	02-043/22:41:20	15	NOTE: Transmitter Off in 15 minutes		
11316	MGS	02-043/22:54:21	15	Range Modulation Off		
11317	MGS	02-043/22:55:07		SSR 2B Data Disable	CSD2BX	02-043/22:39:59
11318	MGS	02-043/22:55:07		SSR Activity: ID=SSR_2B, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-043/22:39:59
11319	MGS	02-043/22:55:08		NOTE: End Block (SSRMGR)		02-043/22:40:00
11320	MGS	02-043/22:56:20	15	Transmitter Off		
11321	MGS	02-043/22:57:59		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-043/22:42:51
11322	MGS	02-043/22:57:59		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-043/22:42:51
11323	MGS	02-043/23:08:26		NOTE: Start Block (SSRMGR)		02-043/22:53:18
11324	MGS	02-043/23:08:26		Sends a one-word SSR command to the XSU command SOB: SSR_2B, SE_1A, RECORD, PART3	STSSRC	02-043/22:53:18
11325	MGS	02-043/23:08:27		SSR 2B Data Enable	CSD2BE	02-043/22:53:19
11326	MGS	02-043/23:08:27		SSR Activity: ID=SSR_2B, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-043/22:53:19
11327	MGS	02-043/23:19:02		NOTE: Begin fixed Sub-Reflector for Radio Science		02-043/23:03:55
11328	MGS	02-043/23:22:13		NOTE: Start Block (MAP_RT)		02-043/23:07:05

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
11329	MGS	02-043/23:22:14		: 00:28:17, 01:28:01, FALSE, TRUE, FALSE, 00:01:15, 00:07:04, 01:12:54, 00:06:47	AEMINI	02-043/23:07:06
11330	MGS	02-043/23:22:14		Enable sending eclipse ingress script when array power disappears	SWEISE	02-043/23:07:06
11331	MGS	02-043/23:22:14		NOTE: Start EVP data return script		02-043/23:07:06
11332	MGS	02-043/23:22:15		: SE_2A, RTM, 01:12:53, MRC, 2002-043T23:53:44.000	AEMRTI	02-043/23:07:07
11333	MGS	02-043/23:24:02		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-043/23:08:54
11334	MGS	02-043/23:24:02		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=3, BITS=7480000, DUR=00:15:35		02-043/23:08:54
11335	MGS	02-043/23:24:02		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-043/23:08:54
11336	MGS	02-043/23:24:02		: 00:06:48, FALSE	RDSCII	02-043/23:08:54
11337	MGS	02-043/23:24:02		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-043/23:08:54
11338	MGS	02-043/23:24:02		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-043/23:08:54
11339	MGS	02-043/23:24:02		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-043/23:08:54
11340	MGS	02-043/23:24:02		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-043/23:08:54
11341	MGS	02-043/23:24:02	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
11342	MGS	02-043/23:24:02	15	NOTE: Carrier Only -- No Telemetry Modulation		
11343	MGS	02-043/23:26:13		NOTE: Enter Planetary Atmosphere 13115		02-043/23:11:06
11344	MGS	02-043/23:27:21		NOTE: Apoapsis 13115 -		02-043/23:12:13
11345	MGS	02-043/23:30:21		NOTE: Enter Earth Occultation 13115		02-043/23:15:13
11346	MGS	02-043/23:30:21	15	NOTE: Loss Of X-Band Signal		
11347	MGS	02-043/23:30:50		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-043/23:15:42
11348	MGS	02-043/23:30:50		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-043/23:15:42
11349	MGS	02-043/23:30:50		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-043/23:15:42
11350	MGS	02-043/23:30:50		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-043/23:15:42
11351	MGS	02-043/23:30:51		Turn off the MOT Exciter and RPA beam	STRPAF	02-043/23:15:43
11352	MGS	02-043/23:30:51		NOTE: End EVP script		02-043/23:15:44
11353	MGS	02-043/23:30:52		NOTE: End Block (MAP_RT)		02-043/23:15:45
11354	MGS	02-043/23:30:55		NOTE: End fixed Sub-Reflector for Radio Science		02-043/23:15:48
11355	MGS	02-043/23:32:14		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-043/23:17:06
11356	MGS	02-043/23:32:14		NOTE: Enter Solar Eclipse 13115		02-043/23:17:07
11357	MGS	02-043/23:35:07		SSR 2A Data Disable	CSD2AX	02-043/23:19:59
11358	MGS	02-043/23:35:07		SSR Activity: ID=SSR_2A, FCN=End Recording, PRT=3, BITS=32000000, DUR=01:06:40		02-043/23:19:59
11359	MGS	02-043/23:35:08		NOTE: End Block (SSRMGR)		02-043/23:20:00
11360	MGS	02-043/23:35:46	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
11361	MGS	02-043/23:37:47	15	Range Modulation On: SUP=3.0dB		
11362	MGS	02-043/23:38:47	15	Begin Ranging Acquisition		
11363	MGS	02-043/23:56:46		NOTE: Begin fixed Sub-Reflector for Radio Science		02-043/23:41:39
11364	MGS	02-043/23:56:59		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-043/23:41:51
11365	MGS	02-043/23:56:59		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-043/23:41:51
11366	MGS	02-043/23:57:04		Set eclipse egress script address: 01DC	SWSEES	02-043/23:41:56
11367	MGS	02-044/00:00:00		Light Time: OWLT = 15:07, RTLT = 30:15		
11368	MGS	02-044/00:00:31		: 01:28:01	RPAONX	02-043/23:45:23
11369	MGS	02-044/00:00:31		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-043/23:45:23
11370	MGS	02-044/00:01:46		: 00:00:30, 00:07:04, FALSE	RDSCIE	02-043/23:46:38
11371	MGS	02-044/00:01:46		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-043/23:46:38
11372	MGS	02-044/00:01:46		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-043/23:46:38
11373	MGS	02-044/00:01:46		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-043/23:46:38
11374	MGS	02-044/00:01:46		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-043/23:46:38
11375	MGS	02-044/00:02:17		NOTE: Exit Earth Occultation 13115		02-043/23:47:09
11376	MGS	02-044/00:02:17	15	Acquisition Of X-Band Signal		
11377	MGS	02-044/00:02:17	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
11378	MGS	02-044/00:02:17	15	NOTE: Carrier Only -- No Telemetry Modulation		
11379	MGS	02-044/00:06:41		NOTE: Exit Planetary Atmosphere 13115		02-043/23:51:34
11380	MGS	02-044/00:08:50		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-043/23:53:42
11381	MGS	02-044/00:08:50		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-043/23:53:42
11382	MGS	02-044/00:08:50		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-043/23:53:42

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
11383	MGS	02-044/00:08:50		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-043/23:53:42
11384	MGS	02-044/00:08:50	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
11385	MGS	02-044/00:08:51		: RTM, MRC, 01:12:53, S&E_2A, FALSE, 00:06:48	AEMRT	02-043/23:53:43
11386	MGS	02-044/00:08:51		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-043/23:53:43
11387	MGS	02-044/00:08:51		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-043/23:53:43
11388	MGS	02-044/00:08:51		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=3, BITS=28992000, DUR=00:44:49		02-043/23:53:43
11389	MGS	02-044/00:08:51		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-043/23:53:43
11390	MGS	02-044/00:08:51	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
11391	MGS	02-044/00:08:55		NOTE: End fixed Sub-Reflector for Radio Science		02-043/23:53:48
11392	MGS	02-044/00:12:41		NOTE: Exit Solar Eclipse 13115		02-043/23:57:33
11393	MGS	02-044/00:15:06		NOTE: Start Block (SSRMGR)		02-043/23:59:58
11394	MGS	02-044/00:15:06		Sends a one-word SSR command to the XSU command SOB: SSR_1A, SE_1A, RECORD, PART1	STSSRC	02-043/23:59:58
11395	MGS	02-044/00:15:07		SSR 1A Data Enable	CSD1AE	02-043/23:59:59
11396	MGS	02-044/00:15:07		SSR Activity: ID=SSR_1A, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-043/23:59:59
11397	MGS	02-044/00:25:55		NOTE: Periapsis 13116 ----------		02-044/00:10:47
11398	MGS	02-044/00:33:39		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-044/00:18:31
11399	MGS	02-044/00:33:39		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-044/00:18:31
11400	MGS	02-044/00:33:40		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-044/00:18:32
11401	MGS	02-044/00:33:40		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-044/00:18:32
11402	MGS	02-044/00:39:02	15	NOTE: Transmitter Off in 15 minutes		
11403	MGS	02-044/00:41:47		SSR 2B Data Disable	CSD2BX	02-044/00:26:39
11404	MGS	02-044/00:41:47		SSR Activity: ID=SSR_2B, FCN=End Recording, PRT=3, BITS=44800000, DUR=01:33:20		02-044/00:26:39
11405	MGS	02-044/00:41:48		NOTE: End Block (SSRMGR)		02-044/00:26:40
11406	MGS	02-044/00:52:03	15	Range Modulation Off		
11407	MGS	02-044/00:54:02	15	Transmitter Off		
11408	MGS	02-044/00:55:40		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-044/00:40:32
11409	MGS	02-044/00:55:40		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-044/00:40:32
11410	MGS	02-044/01:16:45		NOTE: Begin fixed Sub-Reflector for Radio Science		02-044/01:01:37
11411	MGS	02-044/01:19:58		NOTE: Start EVP data return script		02-044/01:04:49
11412	MGS	02-044/01:21:45		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-044/01:06:36
11413	MGS	02-044/01:21:45		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=31976000, DUR=01:06:37		02-044/01:06:36
11414	MGS	02-044/01:21:45		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-044/01:06:36
11415	MGS	02-044/01:21:45		: 00:06:47, FALSE	RDSCII	02-044/01:06:36
11416	MGS	02-044/01:21:45		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-044/01:06:36
11417	MGS	02-044/01:21:45		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-044/01:06:36
11418	MGS	02-044/01:21:45		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-044/01:06:36
11419	MGS	02-044/01:21:45		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-044/01:06:36
11420	MGS	02-044/01:21:45	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
11421	MGS	02-044/01:21:45	15	NOTE: Carrier Only -- No Telemetry Modulation		
11422	MGS	02-044/01:23:57		NOTE: Enter Planetary Atmosphere 13116		02-044/01:08:49
11423	MGS	02-044/01:24:46		NOTE: Apoapsis 13116 -		02-044/01:09:38
11424	MGS	02-044/01:28:03		NOTE: Enter Earth Occultation 13116		02-044/01:12:55
11425	MGS	02-044/01:28:03	15	NOTE: Loss Of X-Band Signal		
11426	MGS	02-044/01:28:32		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-044/01:13:23
11427	MGS	02-044/01:28:32		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-044/01:13:23
11428	MGS	02-044/01:28:32		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-044/01:13:23
11429	MGS	02-044/01:28:32		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-044/01:13:23
11430	MGS	02-044/01:28:33		Turn off the MOT Exciter and RPA beam	STRPAF	02-044/01:13:24
11431	MGS	02-044/01:28:33		NOTE: End EVP script		02-044/01:13:25
11432	MGS	02-044/01:28:37		NOTE: End fixed Sub-Reflector for Radio Science		02-044/01:13:29
11433	MGS	02-044/01:29:57		NOTE: Enter Solar Eclipse 13116		02-044/01:14:49
11434	MGS	02-044/01:29:58		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-044/01:14:49
11435	MGS	02-044/01:33:28	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
11436	MGS	02-044/01:35:28	15	Range Modulation On: SUP=3.0dB		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
11437	MGS	02-044/01:36:28	15	Begin Ranging Acquisition		
11438	MGS	02-044/01:54:30		NOTE: Begin fixed Sub-Reflector for Radio Science		02-044/01:39:22
11439	MGS	02-044/01:54:41		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-044/01:39:32
11440	MGS	02-044/01:54:41		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-044/01:39:32
11441	MGS	02-044/01:54:45		Command the PSE with included data word: 3990	SWPSEL	02-044/01:39:36
11442	MGS	02-044/01:54:46		Set eclipse egress script address: 0158	SWSEES	02-044/01:39:37
11443	MGS	02-044/01:58:15		: 01:28:01	RPAONX	02-044/01:43:06
11444	MGS	02-044/01:58:15		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-044/01:43:06
11445	MGS	02-044/01:59:30		: 00:00:30, 00:07:04, FALSE	RDSCIE	02-044/01:44:21
11446	MGS	02-044/01:59:30		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-044/01:44:21
11447	MGS	02-044/01:59:30		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-044/01:44:21
11448	MGS	02-044/01:59:30		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-044/01:44:21
11449	MGS	02-044/01:59:30		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-044/01:44:21
11450	MGS	02-044/01:59:59		NOTE: Exit Earth Occultation 13116		02-044/01:44:51
11451	MGS	02-044/01:59:59	15	Acquisition Of X-Band Signal		
11452	MGS	02-044/01:59:59	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
11453	MGS	02-044/01:59:59	15	NOTE: Carrier Only -- No Telemetry Modulation		
11454	MGS	02-044/02:04:23		NOTE: Exit Planetary Atmosphere 13116		02-044/01:49:15
11455	MGS	02-044/02:06:34		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-044/01:51:25
11456	MGS	02-044/02:06:34		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-044/01:51:25
11457	MGS	02-044/02:06:34		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-044/01:51:25
11458	MGS	02-044/02:06:34		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-044/01:51:25
11459	MGS	02-044/02:06:34	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
11460	MGS	02-044/02:06:35		: RTM, MRC, 01:12:53, S&E_2A, FALSE, 00:06:48	AEMRT	02-044/01:51:26
11461	MGS	02-044/02:06:35		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-044/01:51:26
11462	MGS	02-044/02:06:35		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-044/01:51:26
11463	MGS	02-044/02:06:35		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=53496000, DUR=00:44:50		02-044/01:51:26
11464	MGS	02-044/02:06:35		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-044/01:51:26
11465	MGS	02-044/02:06:35	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
11466	MGS	02-044/02:06:39		NOTE: End fixed Sub-Reflector for Radio Science		02-044/01:51:31
11467	MGS	02-044/02:10:23		NOTE: Exit Solar Eclipse 13116		02-044/01:55:15
11468	MGS	02-044/02:23:27		NOTE: Periapsis 13117 ----------		02-044/02:08:18
11469	MGS	02-044/02:35:23		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-044/02:20:14
11470	MGS	02-044/02:35:23		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-044/02:20:14
11471	MGS	02-044/02:35:24		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-044/02:20:15
11472	MGS	02-044/02:35:24		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-044/02:20:15
11473	MGS	02-044/02:36:45	15	NOTE: Transmitter Off in 15 minutes		
11474	MGS	02-044/02:49:46	15	Range Modulation Off		
11475	MGS	02-044/02:51:45	15	Transmitter Off		
11476	MGS	02-044/02:57:24		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-044/02:42:15
11477	MGS	02-044/02:57:24		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-044/02:42:15
11478	MGS	02-044/03:14:28		NOTE: Begin fixed Sub-Reflector for Radio Science		02-044/02:59:20
11479	MGS	02-044/03:17:42		NOTE: Start EVP data return script		02-044/03:02:33
11480	MGS	02-044/03:19:28		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-044/03:04:19
11481	MGS	02-044/03:19:28		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=88480000, DUR=01:12:53		02-044/03:04:19
11482	MGS	02-044/03:19:28		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-044/03:04:19
11483	MGS	02-044/03:19:28		: 00:06:47, FALSE	RDSCII	02-044/03:04:19
11484	MGS	02-044/03:19:28		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-044/03:04:19
11485	MGS	02-044/03:19:28		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-044/03:04:19
11486	MGS	02-044/03:19:28		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-044/03:04:19
11487	MGS	02-044/03:19:28		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-044/03:04:19
11488	MGS	02-044/03:19:28	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
11489	MGS	02-044/03:19:28	15	NOTE: Carrier Only -- No Telemetry Modulation		
11490	MGS	02-044/03:21:40		NOTE: Enter Planetary Atmosphere 13117		02-044/03:06:32

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
11491	MGS	02-044/03:22:27		NOTE: Apoapsis 13117 -		02-044/03:07:19
11492	MGS	02-044/03:25:47		NOTE: Enter Earth Occultation 13117		02-044/03:10:38
11493	MGS	02-044/03:25:47	15	NOTE: Loss Of X-Band Signal		
11494	MGS	02-044/03:26:15		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-044/03:11:06
11495	MGS	02-044/03:26:15		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-044/03:11:06
11496	MGS	02-044/03:26:15		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-044/03:11:06
11497	MGS	02-044/03:26:15		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-044/03:11:06
11498	MGS	02-044/03:26:16		Turn off the MOT Exciter and RPA beam	STRPAF	02-044/03:11:07
11499	MGS	02-044/03:26:16		NOTE: End EVP script		02-044/03:11:08
11500	MGS	02-044/03:26:20		NOTE: End fixed Sub-Reflector for Radio Science		02-044/03:11:12
11501	MGS	02-044/03:27:42		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-044/03:12:33
11502	MGS	02-044/03:27:42		NOTE: Enter Solar Eclipse 13117		02-044/03:12:34
11503	MGS	02-044/03:31:12	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
11504	MGS	02-044/03:33:13	15	Range Modulation On: SUP=3.0dB		
11505	MGS	02-044/03:34:13	15	Begin Ranging Acquisition		
11506	MGS	02-044/03:52:14		NOTE: Begin fixed Sub-Reflector for Radio Science		02-044/03:37:06
11507	MGS	02-044/03:52:24		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-044/03:37:15
11508	MGS	02-044/03:52:24		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-044/03:37:15
11509	MGS	02-044/03:52:29		Set eclipse egress script address: 019A	SWSEES	02-044/03:37:20
11510	MGS	02-044/03:55:59		: 01:28:01	RPAONX	02-044/03:40:50
11511	MGS	02-044/03:55:59		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-044/03:40:50
11512	MGS	02-044/03:57:14		: 00:00:30, 00:07:04, FALSE	RDSCIE	02-044/03:42:05
11513	MGS	02-044/03:57:14		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-044/03:42:05
11514	MGS	02-044/03:57:14		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-044/03:42:05
11515	MGS	02-044/03:57:14		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-044/03:42:05
11516	MGS	02-044/03:57:14		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-044/03:42:05
11517	MGS	02-044/03:57:44		NOTE: Exit Earth Occultation 13117		02-044/03:42:35
11518	MGS	02-044/03:57:44	15	Acquisition Of X-Band Signal		
11519	MGS	02-044/03:57:44	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
11520	MGS	02-044/03:57:44	15	NOTE: Carrier Only -- No Telemetry Modulation		
11521	MGS	02-044/03:57:44		Disables autonomous command to send eclipse ingress script	SWEISX	02-044/03:42:35
11522	MGS	02-044/04:02:07		NOTE: Exit Planetary Atmosphere 13117		02-044/03:46:59
11523	MGS	02-044/04:04:18		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-044/03:49:09
11524	MGS	02-044/04:04:18		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-044/03:49:09
11525	MGS	02-044/04:04:18		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-044/03:49:09
11526	MGS	02-044/04:04:18		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-044/03:49:09
11527	MGS	02-044/04:04:18	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
11528	MGS	02-044/04:04:19		: RTM, MRC, 01:12:53, S&E_2A, FALSE, 00:06:48	AEMRT	02-044/03:49:10
11529	MGS	02-044/04:04:19		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-044/03:49:10
11530	MGS	02-044/04:04:19		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-044/03:49:10
11531	MGS	02-044/04:04:19		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=110008000, DUR=00:44:51		02-044/03:49:10
11532	MGS	02-044/04:04:19		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-044/03:49:10
11533	MGS	02-044/04:04:19	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
11534	MGS	02-044/04:04:23		NOTE: End fixed Sub-Reflector for Radio Science		02-044/03:49:15
11535	MGS	02-044/04:08:08		NOTE: Exit Solar Eclipse 13117		02-044/03:53:00
11536	MGS	02-044/04:21:33		NOTE: Periapsis 13118 ----------		02-044/04:06:24
11537	MGS	02-044/04:25:00	15	NOTE: Transmitter Off in 15 minutes		
11538	MGS	02-044/04:29:07		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-044/04:13:58
11539	MGS	02-044/04:29:07		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-044/04:13:58
11540	MGS	02-044/04:29:08		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-044/04:13:59
11541	MGS	02-044/04:29:08		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-044/04:13:59
11542	MGS	02-044/04:38:00	15	Range Modulation Off		
11543	MGS	02-044/04:40:00	15	Transmitter Off		
11544	MGS	02-044/04:51:08		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-044/04:35:59

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
11545	MGS	02-044/04:51:08		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-044/04:35:59
11546	MGS	02-044/04:52:24	15	NOTE: Below Uplink Interlock Limit		
11547	MGS	02-044/04:58:30		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-044/04:43:21
11548	MGS	02-044/04:58:30		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=136016000, DUR=00:54:11		02-044/04:43:21
11549	MGS	02-044/04:58:30		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-044/04:43:21
11550	MGS	02-044/04:58:30		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-044/04:43:21
11551	MGS	02-044/04:58:30	15	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
11552	MGS	02-044/05:00:00	15	End Tracking		
11553	MGS	02-044/05:12:12		NOTE: Begin fixed Sub-Reflector for Radio Science		02-044/04:57:04
11554	MGS	02-044/05:15:00	15	End Post-Cal		
11555	MGS	02-044/05:17:12		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-044/05:02:03
11556	MGS	02-044/05:17:12		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=144992000, DUR=00:18:42		02-044/05:02:03
11557	MGS	02-044/05:17:12		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-044/05:02:03
11558	MGS	02-044/05:17:12		: 00:06:47, FALSE	RDSCII	02-044/05:02:03
11559	MGS	02-044/05:17:12		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-044/05:02:03
11560	MGS	02-044/05:17:12		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-044/05:02:03
11561	MGS	02-044/05:17:12		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-044/05:02:03
11562	MGS	02-044/05:17:12		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-044/05:02:03
11563	MGS	02-044/05:19:26		NOTE: Enter Planetary Atmosphere 13118		02-044/05:04:17
11564	MGS	02-044/05:20:42		NOTE: Apoapsis 13118 -		02-044/05:05:34
11565	MGS	02-044/05:23:32		NOTE: Enter Earth Occultation 13118		02-044/05:08:24
11566	MGS	02-044/05:23:59		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-044/05:08:50
11567	MGS	02-044/05:23:59		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-044/05:08:50
11568	MGS	02-044/05:23:59		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-044/05:08:50
11569	MGS	02-044/05:23:59		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-044/05:08:50
11570	MGS	02-044/05:24:00		Turn off the MOT Exciter and RPA beam	STRPAF	02-044/05:08:51
11571	MGS	02-044/05:24:00		NOTE: End EVP script		02-044/05:08:52
11572	MGS	02-044/05:24:01		NOTE: End Block (MAP_RT)		02-044/05:08:53
11573	MGS	02-044/05:24:04		NOTE: End fixed Sub-Reflector for Radio Science		02-044/05:08:56
11574	MGS	02-044/05:25:29		NOTE: Enter Solar Eclipse 13118		02-044/05:10:20
11575	MGS	02-044/05:40:19		Disable HGA control mode	SAHGCX	02-044/05:25:10
11576	MGS	02-044/05:40:20		No Operation	SCNOOP	02-044/05:25:11
11577	MGS	02-044/05:40:21		CDU-1 Uplink Rate Select (Based on 3 bit Code): 7	TCC1BS	02-044/05:25:12
11578	MGS	02-044/05:40:21		CDU-2 Uplink Rate Select (Based on 3 bit Code): 7	TCC2BS	02-044/05:25:12
11579	MGS	02-044/05:48:27		NOTE: Start Block (SSRMGR)		02-044/05:33:18
11580	MGS	02-044/05:48:27		Sends a one-word SSR command to the XSU command SOB: SSR_1B, SE_1A, RECORD, PART1	STSSRC	02-044/05:33:18
11581	MGS	02-044/05:48:28		SSR 1B Data Enable	CSD1BE	02-044/05:33:19
11582	MGS	02-044/05:48:28		SSR Activity: ID=SSR_1B, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-044/05:33:19
11583	MGS	02-044/05:50:08		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-044/05:34:59
11584	MGS	02-044/05:50:08		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-044/05:34:59
11585	MGS	02-044/05:50:13		Set eclipse egress script address: 01DC	SWSEES	02-044/05:35:04
11586	MGS	02-044/05:55:31		NOTE: Exit Earth Occultation 13118		02-044/05:40:22
11587	MGS	02-044/05:59:54		NOTE: Exit Planetary Atmosphere 13118		02-044/05:44:45
11588	MGS	02-044/06:05:55		NOTE: Exit Solar Eclipse 13118		02-044/05:50:47
11589	MGS	02-044/06:15:08		SSR 1A Data Disable	CSD1AX	02-044/05:59:59
11590	MGS	02-044/06:15:08		SSR Activity: ID=SSR_1A, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-044/05:59:59
11591	MGS	02-044/06:15:09		NOTE: End Block (SSRMGR)		02-044/06:00:00
11592	MGS	02-044/06:19:44		NOTE: Periapsis 13119 ----------		02-044/06:04:36
11593	MGS	02-044/06:26:54		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-044/06:11:45
11594	MGS	02-044/06:26:54		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-044/06:11:45
11595	MGS	02-044/06:26:55		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-044/06:11:46
11596	MGS	02-044/06:26:55		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-044/06:11:46
11597	MGS	02-044/06:48:55		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-044/06:33:46
11598	MGS	02-044/06:48:55		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-044/06:33:46

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
11599	MGS	02-044/07:17:14		NOTE: Enter Planetary Atmosphere 13119		02-044/07:02:05
11600	MGS	02-044/07:18:53		NOTE: Apoapsis 13119 -		02-044/07:03:44
11601	MGS	02-044/07:21:21		NOTE: Enter Earth Occultation 13119		02-044/07:06:12
11602	MGS	02-044/07:23:16		NOTE: Enter Solar Eclipse 13119		02-044/07:08:07
11603	MGS	02-044/07:47:56		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-044/07:32:46
11604	MGS	02-044/07:47:56		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-044/07:32:46
11605	MGS	02-044/07:48:00		Command the PSE with included data word: 3990	SWPSEL	02-044/07:32:50
11606	MGS	02-044/07:48:01		Set eclipse egress script address: 0158	SWSEES	02-044/07:32:51
11607	MGS	02-044/07:53:19		NOTE: Exit Earth Occultation 13119		02-044/07:38:10
11608	MGS	02-044/07:57:43		NOTE: Exit Planetary Atmosphere 13119		02-044/07:42:34
11609	MGS	02-044/08:03:43		NOTE: Exit Solar Eclipse 13119		02-044/07:48:34
11610	MGS	02-044/08:17:40		NOTE: Periapsis 13120 ----------		02-044/08:02:31
11611	MGS	02-044/08:28:42		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-044/08:13:32
11612	MGS	02-044/08:28:42		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-044/08:13:32
11613	MGS	02-044/08:28:43		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-044/08:13:33
11614	MGS	02-044/08:28:43		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-044/08:13:33
11615	MGS	02-044/08:50:43		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-044/08:35:33
11616	MGS	02-044/08:50:43		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-044/08:35:33
11617	MGS	02-044/09:15:00		NOTE: Enter Planetary Atmosphere 13120		02-044/08:59:51
11618	MGS	02-044/09:16:35		NOTE: Apoapsis 13120 -		02-044/09:01:26
11619	MGS	02-044/09:19:07		NOTE: Enter Earth Occultation 13120		02-044/09:03:58
11620	MGS	02-044/09:21:01		NOTE: Enter Solar Eclipse 13120		02-044/09:05:52
11621	MGS	02-044/09:45:43		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-044/09:30:33
11622	MGS	02-044/09:45:43		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-044/09:30:33
11623	MGS	02-044/09:45:48		Set eclipse egress script address: 019A	SWSEES	02-044/09:30:38
11624	MGS	02-044/09:51:05		NOTE: Exit Earth Occultation 13120		02-044/09:35:56
11625	MGS	02-044/09:55:30		NOTE: Exit Planetary Atmosphere 13120		02-044/09:40:20
11626	MGS	02-044/10:01:28		NOTE: Exit Solar Eclipse 13120		02-044/09:46:19
11627	MGS	02-044/10:15:08		NOTE: Periapsis 13121 ----------		02-044/09:59:59
11628	MGS	02-044/10:22:27		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-044/10:07:17
11629	MGS	02-044/10:22:27		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-044/10:07:17
11630	MGS	02-044/10:22:28		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-044/10:07:18
11631	MGS	02-044/10:22:28		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-044/10:07:18
11632	MGS	02-044/10:44:28		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-044/10:29:18
11633	MGS	02-044/10:44:28		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-044/10:29:18
11634	MGS	02-044/11:12:42		NOTE: Enter Planetary Atmosphere 13121		02-044/10:57:33
11635	MGS	02-044/11:13:56		NOTE: Apoapsis 13121 -		02-044/10:58:46
11636	MGS	02-044/11:16:49		NOTE: Enter Earth Occultation 13121		02-044/11:01:39
11637	MGS	02-044/11:18:43		NOTE: Enter Solar Eclipse 13121		02-044/11:03:33
11638	MGS	02-044/11:21:48		NOTE: Start Block (SSRMGR)		02-044/11:06:38
11639	MGS	02-044/11:21:48		Sends a one-word SSR command to the XSU command SOB: SSR_1A, SE_1A, RECORD, PART2	STSSRC	02-044/11:06:38
11640	MGS	02-044/11:21:49		SSR 1A Data Enable	CSD1AE	02-044/11:06:39
11641	MGS	02-044/11:21:49		SSR Activity: ID=SSR_1A, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-044/11:06:39
11642	MGS	02-044/11:43:28		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-044/11:28:18
11643	MGS	02-044/11:43:28		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-044/11:28:18
11644	MGS	02-044/11:43:33		Set eclipse egress script address: 01DC	SWSEES	02-044/11:28:23
11645	MGS	02-044/11:48:29		SSR 1B Data Disable	CSD1BX	02-044/11:33:19
11646	MGS	02-044/11:48:29		SSR Activity: ID=SSR_1B, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-044/11:33:19
11647	MGS	02-044/11:48:30		NOTE: End Block (SSRMGR)		02-044/11:33:20
11648	MGS	02-044/11:48:48		NOTE: Exit Earth Occultation 13121		02-044/11:33:38
11649	MGS	02-044/11:53:12		NOTE: Exit Planetary Atmosphere 13121		02-044/11:38:02
11650	MGS	02-044/11:59:09		NOTE: Exit Solar Eclipse 13121		02-044/11:44:00
11651	MGS	02-044/12:12:32		NOTE: Periapsis 13122 ----------		02-044/11:57:22
11652	MGS	02-044/12:15:09		Dump SCP memory to the EDF using physical addressing arguments: 56A4, 240	SCDSCM	02-044/11:59:59

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
11653	MGS	02-044/12:20:08		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-044/12:04:58
11654	MGS	02-044/12:20:08		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-044/12:04:58
11655	MGS	02-044/12:20:09		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-044/12:04:59
11656	MGS	02-044/12:20:09		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-044/12:04:59
11657	MGS	02-044/12:25:00	65	Begin Pre-Cal		
11658	MGS	02-044/12:25:00	65	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
11659	MGS	02-044/12:25:00	65	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
11660	MGS	02-044/12:25:00	65	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
11661	MGS	02-044/12:25:00	65	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=OFF, EXC=2		
11662	MGS	02-044/12:25:00	65	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
11663	MGS	02-044/12:25:00	65	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
11664	MGS	02-044/12:25:00	65	Config: TGC: DEST=37		
11665	MGS	02-044/12:25:00	65	Config: TGC: BAND=X, BR=8000.000000		
11666	MGS	02-044/12:25:00	65	Config: FSS: CH=2, PRI_FL=10000		
11667	MGS	02-044/12:25:00	65	Config: RSR		
11668	MGS	02-044/12:25:00	65	Config: TXL		
11669	MGS	02-044/12:25:00	65	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
11670	MGS	02-044/12:25:00	65	Config: BVR		
11671	MGS	02-044/12:25:00	65	Config: Doppler Extractor: BIAS=+1MHZ		
11672	MGS	02-044/12:25:00	65	Config: MDA: SMPL=0.1		
11673	MGS	02-044/12:25:00	65	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
11674	MGS	02-044/12:25:00	65	Config: SRA: HIGH=4, LOW=14, SERV=D		
11675	MGS	02-044/12:25:00	65	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
11676	MGS	02-044/12:42:09		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-044/12:26:59
11677	MGS	02-044/12:42:09		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-044/12:26:59
11678	MGS	02-044/13:06:23		NOTE: Start Block (MAP_PB)		02-044/12:51:13
11679	MGS	02-044/13:06:24		: 00:28:20, 01:27:58, FALSE, TRUE, FALSE, 00:01:15, 00:07:03, 01:12:53, 00:06:46	AEMINI	02-044/12:51:14
11680	MGS	02-044/13:06:24		Enable sending eclipse ingress script when array power disappears	SWEISE	02-044/12:51:14
11681	MGS	02-044/13:06:24		NOTE: Start EVP data return script		02-044/12:51:14
11682	MGS	02-044/13:06:25		: SSR_2A, F42KHZ, PART1, SE_1A, 2002-044T13:37:53.000	AEMPBI	02-044/12:51:15
11683	MGS	02-044/13:10:22		NOTE: Enter Planetary Atmosphere 13122		02-044/12:55:13
11684	MGS	02-044/13:11:42		NOTE: Apoapsis 13122 -		02-044/12:56:32
11685	MGS	02-044/13:14:29		NOTE: Enter Earth Occultation 13122		02-044/12:59:19
11686	MGS	02-044/13:16:24		NOTE: Enter Solar Eclipse 13122		02-044/13:01:14
11687	MGS	02-044/13:16:24		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-044/13:01:14
11688	MGS	02-044/13:25:00	65	Begin Tracking		
11689	MGS	02-044/13:31:26		Select Automatic HGA control mode	SAHACE	02-044/13:16:16
11690	MGS	02-044/13:31:27		Selects Hign Gain Antenna for downlink, Reconfigures if beam is already on	STUHGA	02-044/13:16:17
11691	MGS	02-044/13:31:28		CDU-1 Uplink Rate Select (Based on 3 bit Code): 3	TCC1BS	02-044/13:16:18
11692	MGS	02-044/13:31:28		CDU-2 Uplink Rate Select (Based on 3 bit Code): 3	TCC2BS	02-044/13:16:18
11693	MGS	02-044/13:35:00	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
11694	MGS	02-044/13:37:00	65	Range Modulation On: SUP=3.0dB		
11695	MGS	02-044/13:38:00	65	Begin Ranging Acquisition		
11696	MGS	02-044/13:40:59		NOTE: Begin fixed Sub-Reflector for Radio Science		02-044/13:25:49
11697	MGS	02-044/13:41:09		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-044/13:25:59
11698	MGS	02-044/13:41:09		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-044/13:25:59
11699	MGS	02-044/13:41:13		Command the PSE with included data word: 3990	SWPSEL	02-044/13:26:03
11700	MGS	02-044/13:41:14		Set eclipse egress script address: 0158	SWSEES	02-044/13:26:04
11701	MGS	02-044/13:44:44		: 01:27:58	RPAONX	02-044/13:29:34
11702	MGS	02-044/13:44:44		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-044/13:29:34
11703	MGS	02-044/13:45:59		: 00:00:30, 00:07:03, FALSE	RDSCIE	02-044/13:30:49
11704	MGS	02-044/13:45:59		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-044/13:30:49
11705	MGS	02-044/13:45:59		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-044/13:30:49
11706	MGS	02-044/13:45:59		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-044/13:30:49

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
11707	MGS	02-044/13:45:59		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-044/13:30:49
11708	MGS	02-044/13:46:29		NOTE: Exit Earth Occultation 13122		02-044/13:31:19
11709	MGS	02-044/13:46:29	65	Acquisition Of X-Band Signal		
11710	MGS	02-044/13:46:29	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
11711	MGS	02-044/13:46:29	65	NOTE: Carrier Only -- No Telemetry Modulation		
11712	MGS	02-044/13:50:52		NOTE: Exit Planetary Atmosphere 13122		02-044/13:35:42
11713	MGS	02-044/13:53:02		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-044/13:37:52
11714	MGS	02-044/13:53:02		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-044/13:37:52
11715	MGS	02-044/13:53:02		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-044/13:37:52
11716	MGS	02-044/13:53:02		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-044/13:37:52
11717	MGS	02-044/13:53:02		: REC_2A, F42KHZ, PART1, SE_1A, FALSE, 00:11:01	AEMPB	02-044/13:37:52
11718	MGS	02-044/13:53:02		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-044/13:37:52
11719	MGS	02-044/13:53:02		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, PLYBCK, PART1	STSSRC	02-044/13:37:52
11720	MGS	02-044/13:53:02	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
11721	MGS	02-044/13:53:03		SSR 2A Data Enable	CSD2AE	02-044/13:37:53
11722	MGS	02-044/13:53:03		SSR Activity: ID=SSR_2A, FCN=Start Playback, PRT=1, BR=42666		02-044/13:37:53
11723	MGS	02-044/13:53:03	65	D/L Change: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
11724	MGS	02-044/13:53:07		NOTE: End fixed Sub-Reflector for Radio Science		02-044/13:37:57
11725	MGS	02-044/13:56:50		NOTE: Exit Solar Eclipse 13122		02-044/13:41:40
11726	MGS	02-044/14:05:19	65	Acquire D/L: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
11727	MGS	02-044/14:10:14		NOTE: Periapsis 13123 ----------		02-044/13:55:04
11728	MGS	02-044/14:21:50		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-044/14:06:39
11729	MGS	02-044/14:21:50		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-044/14:06:39
11730	MGS	02-044/14:21:51		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-044/14:06:40
11731	MGS	02-044/14:21:51		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-044/14:06:40
11732	MGS	02-044/14:23:09	65	NOTE: Transmitter Off in 15 minutes		
11733	MGS	02-044/14:36:09	65	Range Modulation Off		
11734	MGS	02-044/14:38:09	65	Transmitter Off		
11735	MGS	02-044/14:43:51		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-044/14:28:40
11736	MGS	02-044/14:43:51		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-044/14:28:40
11737	MGS	02-044/15:00:55		NOTE: Begin fixed Sub-Reflector for Radio Science		02-044/14:45:45
11738	MGS	02-044/15:01:42		SSR 2A Data Disable	CSD2AX	02-044/14:46:31
11739	MGS	02-044/15:01:42		SSR Activity: ID=SSR_2A, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-044/14:46:31
11740	MGS	02-044/15:01:42		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-044/14:46:31
11741	MGS	02-044/15:01:42	65	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
11742	MGS	02-044/15:04:10		NOTE: Start EVP data return script		02-044/14:48:59
11743	MGS	02-044/15:04:10		: SSR_2B, F42KHZ, PART1, 2002-044T15:35:38.000	AEMPBU	02-044/14:48:59
11744	MGS	02-044/15:05:56		: 00:06:46, FALSE	RDSCII	02-044/14:50:45
11745	MGS	02-044/15:05:56		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-044/14:50:45
11746	MGS	02-044/15:05:56		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-044/14:50:45
11747	MGS	02-044/15:05:56		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-044/14:50:45
11748	MGS	02-044/15:05:56		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-044/14:50:45
11749	MGS	02-044/15:05:56	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
11750	MGS	02-044/15:05:56	65	NOTE: Carrier Only -- No Telemetry Modulation		
11751	MGS	02-044/15:08:08		NOTE: Enter Planetary Atmosphere 13123		02-044/14:52:58
11752	MGS	02-044/15:09:32		NOTE: Apoapsis 13123 -		02-044/14:54:22
11753	MGS	02-044/15:12:14		NOTE: Enter Earth Occultation 13123		02-044/14:57:04
11754	MGS	02-044/15:12:14	65	NOTE: Loss Of X-Band Signal		
11755	MGS	02-044/15:12:42		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-044/14:57:31
11756	MGS	02-044/15:12:42		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-044/14:57:31
11757	MGS	02-044/15:12:42		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-044/14:57:31
11758	MGS	02-044/15:12:42		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-044/14:57:31
11759	MGS	02-044/15:12:42		NOTE: End EVP script		02-044/14:57:32
11760	MGS	02-044/15:12:43		Turn off the MOT Exciter and RPA beam	STRPAF	02-044/14:57:32

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
11761	MGS	02-044/15:12:46		NOTE: End fixed Sub-Reflector for Radio Science		02-044/14:57:36
11762	MGS	02-044/15:14:10		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-044/14:58:59
11763	MGS	02-044/15:14:10		NOTE: Enter Solar Eclipse 13123		02-044/14:59:00
11764	MGS	02-044/15:17:39	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
11765	MGS	02-044/15:19:39	65	Range Modulation On: SUP=3.0dB		
11766	MGS	02-044/15:20:39	65	Begin Ranging Acquisition		
11767	MGS	02-044/15:38:44		NOTE: Begin fixed Sub-Reflector for Radio Science		02-044/15:23:34
11768	MGS	02-044/15:38:51		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-044/15:23:40
11769	MGS	02-044/15:38:51		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-044/15:23:40
11770	MGS	02-044/15:38:56		Set eclipse egress script address: 019A	SWSEES	02-044/15:23:45
11771	MGS	02-044/15:42:30		: 01:27:58	RPAONX	02-044/15:27:19
11772	MGS	02-044/15:42:30		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-044/15:27:19
11773	MGS	02-044/15:43:45		: 00:00:30, 00:07:03, FALSE	RDSCIE	02-044/15:28:34
11774	MGS	02-044/15:43:45		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-044/15:28:34
11775	MGS	02-044/15:43:45		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-044/15:28:34
11776	MGS	02-044/15:43:45		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-044/15:28:34
11777	MGS	02-044/15:43:45		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-044/15:28:34
11778	MGS	02-044/15:44:14		NOTE: Exit Earth Occultation 13123		02-044/15:29:04
11779	MGS	02-044/15:44:14	65	Acquisition Of X-Band Signal		
11780	MGS	02-044/15:44:14	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
11781	MGS	02-044/15:44:14	65	NOTE: Carrier Only -- No Telemetry Modulation		
11782	MGS	02-044/15:48:37		NOTE: Exit Planetary Atmosphere 13123		02-044/15:33:27
11783	MGS	02-044/15:50:48		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-044/15:35:37
11784	MGS	02-044/15:50:48		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-044/15:35:37
11785	MGS	02-044/15:50:48		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-044/15:35:37
11786	MGS	02-044/15:50:48		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-044/15:35:37
11787	MGS	02-044/15:50:48		: REC_2B, F42KHZ, PART1, SE_1A, FALSE, 00:11:01	AEMPB	02-044/15:35:37
11788	MGS	02-044/15:50:48		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-044/15:35:37
11789	MGS	02-044/15:50:48		Sends a one-word SSR command to the XSU command SOB: SSR_2B, F42KHZ, PLYBCK, PART1	STSSRC	02-044/15:35:37
11790	MGS	02-044/15:50:48	65	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
11791	MGS	02-044/15:50:49		SSR 2B Data Enable	CSD2BE	02-044/15:35:38
11792	MGS	02-044/15:50:49		SSR Activity: ID=SSR_2B, FCN=Start Playback, PRT=1, BR=42666		02-044/15:35:38
11793	MGS	02-044/15:50:49	65	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
11794	MGS	02-044/15:50:52		NOTE: End fixed Sub-Reflector for Radio Science		02-044/15:35:42
11795	MGS	02-044/15:54:36		NOTE: Exit Solar Eclipse 13123		02-044/15:39:26
11796	MGS	02-044/16:08:07		NOTE: Periapsis 13124 ----------		02-044/15:52:57
11797	MGS	02-044/16:15:36		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-044/16:00:25
11798	MGS	02-044/16:15:36		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-044/16:00:25
11799	MGS	02-044/16:15:37		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-044/16:00:26
11800	MGS	02-044/16:15:37		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-044/16:00:26
11801	MGS	02-044/16:20:56	65	NOTE: Transmitter Off in 15 minutes		
11802	MGS	02-044/16:33:56	65	Range Modulation Off		
11803	MGS	02-044/16:35:56	65	Transmitter Off		
11804	MGS	02-044/16:37:37		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-044/16:22:26
11805	MGS	02-044/16:37:37		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-044/16:22:26
11806	MGS	02-044/16:55:09		NOTE: Start Block (SSRMGR)		02-044/16:39:58
11807	MGS	02-044/16:55:09		Sends a one-word SSR command to the XSU command SOB: SSR_1B, SE_1A, RECORD, PART2	STSSRC	02-044/16:39:58
11808	MGS	02-044/16:55:10		SSR 1B Data Enable	CSD1BE	02-044/16:39:59
11809	MGS	02-044/16:55:10		SSR Activity: ID=SSR_1B, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-044/16:39:59
11810	MGS	02-044/16:58:41		NOTE: Begin fixed Sub-Reflector for Radio Science		02-044/16:43:30
11811	MGS	02-044/16:59:27		SSR 2B Data Disable	CSD2BX	02-044/16:44:16
11812	MGS	02-044/16:59:27		SSR Activity: ID=SSR_2B, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-044/16:44:16
11813	MGS	02-044/16:59:27		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-044/16:44:16
11814	MGS	02-044/16:59:27	65	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
11815	MGS	02-044/17:01:58		NOTE: Start EVP data return script		02-044/16:46:47
11816	MGS	02-044/17:01:58		: SSR_2A, F42KHZ, PART2, 2002-044T17:33:26.000	AEMPBU	02-044/16:46:47
11817	MGS	02-044/17:03:41		: 00:06:46, FALSE	RDSCII	02-044/16:48:30
11818	MGS	02-044/17:03:41		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-044/16:48:30
11819	MGS	02-044/17:03:41		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-044/16:48:30
11820	MGS	02-044/17:03:41		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-044/16:48:30
11821	MGS	02-044/17:03:41		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-044/16:48:30
11822	MGS	02-044/17:03:41	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
11823	MGS	02-044/17:03:41	65	NOTE: Carrier Only -- No Telemetry Modulation		
11824	MGS	02-044/17:05:56		NOTE: Enter Planetary Atmosphere 13124		02-044/16:50:46
11825	MGS	02-044/17:07:14		NOTE: Apoapsis 13124 -		02-044/16:52:04
11826	MGS	02-044/17:10:02		NOTE: Enter Earth Occultation 13124		02-044/16:54:51
11827	MGS	02-044/17:10:02	65	NOTE: Loss Of X-Band Signal		
11828	MGS	02-044/17:10:27		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-044/16:55:16
11829	MGS	02-044/17:10:27		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-044/16:55:16
11830	MGS	02-044/17:10:27		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-044/16:55:16
11831	MGS	02-044/17:10:27		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-044/16:55:16
11832	MGS	02-044/17:10:28		NOTE: End EVP script		02-044/16:55:17
11833	MGS	02-044/17:10:28		Turn off the MOT Exciter and RPA beam	STRPAF	02-044/16:55:17
11834	MGS	02-044/17:10:32		NOTE: End fixed Sub-Reflector for Radio Science		02-044/16:55:21
11835	MGS	02-044/17:11:57		NOTE: Enter Solar Eclipse 13124		02-044/16:56:47
11836	MGS	02-044/17:11:58		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-044/16:56:47
11837	MGS	02-044/17:15:26	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
11838	MGS	02-044/17:17:26	65	Range Modulation On: SUP=3.0dB		
11839	MGS	02-044/17:18:26	65	Begin Ranging Acquisition		
11840	MGS	02-044/17:21:50		SSR 1A Data Disable	CSD1AX	02-044/17:06:39
11841	MGS	02-044/17:21:50		SSR Activity: ID=SSR_1A, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-044/17:06:39
11842	MGS	02-044/17:21:51		NOTE: End Block (SSRMGR)		02-044/17:06:40
11843	MGS	02-044/17:36:33		NOTE: Begin fixed Sub-Reflector for Radio Science		02-044/17:21:22
11844	MGS	02-044/17:36:37		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-044/17:21:26
11845	MGS	02-044/17:36:37		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-044/17:21:26
11846	MGS	02-044/17:36:42		Set eclipse egress script address: 01DC	SWSEES	02-044/17:21:31
11847	MGS	02-044/17:40:18		: 01:27:58	RPAONX	02-044/17:25:07
11848	MGS	02-044/17:40:18		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-044/17:25:07
11849	MGS	02-044/17:41:33		: 00:00:30, 00:07:03, FALSE	RDSCIE	02-044/17:26:22
11850	MGS	02-044/17:41:33		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-044/17:26:22
11851	MGS	02-044/17:41:33		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-044/17:26:22
11852	MGS	02-044/17:41:33		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-044/17:26:22
11853	MGS	02-044/17:41:33		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-044/17:26:22
11854	MGS	02-044/17:42:02		NOTE: Exit Earth Occultation 13124		02-044/17:26:51
11855	MGS	02-044/17:42:02	65	Acquisition Of X-Band Signal		
11856	MGS	02-044/17:42:02	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
11857	MGS	02-044/17:42:02	65	NOTE: Carrier Only -- No Telemetry Modulation		
11858	MGS	02-044/17:46:25		NOTE: Exit Planetary Atmosphere 13124		02-044/17:31:15
11859	MGS	02-044/17:48:36		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-044/17:33:25
11860	MGS	02-044/17:48:36		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-044/17:33:25
11861	MGS	02-044/17:48:36		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-044/17:33:25
11862	MGS	02-044/17:48:36		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-044/17:33:25
11863	MGS	02-044/17:48:36		: REC_2A, F42KHZ, PART2, SE_1A, FALSE, 00:11:01	AEMPB	02-044/17:33:25
11864	MGS	02-044/17:48:36		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-044/17:33:25
11865	MGS	02-044/17:48:36		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, PLYBCK, PART2	STSSRC	02-044/17:33:25
11866	MGS	02-044/17:48:36	65	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
11867	MGS	02-044/17:48:37		SSR 2A Data Enable	CSD2AE	02-044/17:33:26
11868	MGS	02-044/17:48:37		SSR Activity: ID=SSR_2A, FCN=Start Playback, PRT=2, BR=42666		02-044/17:33:26

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
11869	MGS	02-044/17:48:37	65	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
11870	MGS	02-044/17:48:41		NOTE: End fixed Sub-Reflector for Radio Science		02-044/17:33:30
11871	MGS	02-044/17:52:24		NOTE: Exit Solar Eclipse 13124		02-044/17:37:13
11872	MGS	02-044/18:05:53		NOTE: Periapsis 13125 ----------		02-044/17:50:42
11873	MGS	02-044/18:13:23		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-044/17:58:12
11874	MGS	02-044/18:13:23		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-044/17:58:12
11875	MGS	02-044/18:13:24		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-044/17:58:13
11876	MGS	02-044/18:13:24		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-044/17:58:13
11877	MGS	02-044/18:18:42	65	NOTE: Transmitter Off in 15 minutes		
11878	MGS	02-044/18:31:42	65	Range Modulation Off		
11879	MGS	02-044/18:33:42	65	Transmitter Off		
11880	MGS	02-044/18:35:24		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-044/18:20:13
11881	MGS	02-044/18:35:24		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-044/18:20:13
11882	MGS	02-044/18:56:29		NOTE: Begin fixed Sub-Reflector for Radio Science		02-044/18:41:18
11883	MGS	02-044/18:57:15		SSR 2A Data Disable	CSD2AX	02-044/18:42:04
11884	MGS	02-044/18:57:15		SSR Activity: ID=SSR_2A, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-044/18:42:04
11885	MGS	02-044/18:57:15		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-044/18:42:04
11886	MGS	02-044/18:57:15	65	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
11887	MGS	02-044/18:59:44		NOTE: Start EVP data return script		02-044/18:44:33
11888	MGS	02-044/18:59:44		: SSR_2B, F42KHZ, PART2, 2002-044T19:31:12.000	AEMPBU	02-044/18:44:33
11889	MGS	02-044/19:01:29		: 00:06:46, FALSE	RDSCII	02-044/18:46:18
11890	MGS	02-044/19:01:29		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-044/18:46:18
11891	MGS	02-044/19:01:29		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-044/18:46:18
11892	MGS	02-044/19:01:29		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-044/18:46:18
11893	MGS	02-044/19:01:29		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-044/18:46:18
11894	MGS	02-044/19:01:29	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
11895	MGS	02-044/19:01:29	65	NOTE: Carrier Only -- No Telemetry Modulation		
11896	MGS	02-044/19:03:43		NOTE: Enter Planetary Atmosphere 13125		02-044/18:48:32
11897	MGS	02-044/19:04:45		NOTE: Apoapsis 13125 -		02-044/18:49:34
11898	MGS	02-044/19:07:48		NOTE: Enter Earth Occultation 13125		02-044/18:52:37
11899	MGS	02-044/19:07:48	65	NOTE: Loss Of X-Band Signal		
11900	MGS	02-044/19:08:15		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-044/18:53:04
11901	MGS	02-044/19:08:15		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-044/18:53:04
11902	MGS	02-044/19:08:15		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-044/18:53:04
11903	MGS	02-044/19:08:15		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-044/18:53:04
11904	MGS	02-044/19:08:16		NOTE: End EVP script		02-044/18:53:05
11905	MGS	02-044/19:08:16		Turn off the MOT Exciter and RPA beam	STRPAF	02-044/18:53:05
11906	MGS	02-044/19:08:20		NOTE: End fixed Sub-Reflector for Radio Science		02-044/18:53:09
11907	MGS	02-044/19:09:44		NOTE: Enter Solar Eclipse 13125		02-044/18:54:33
11908	MGS	02-044/19:09:44		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-044/18:54:33
11909	MGS	02-044/19:13:12	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
11910	MGS	02-044/19:15:13	65	Range Modulation On: SUP=3.0dB		
11911	MGS	02-044/19:16:13	65	Begin Ranging Acquisition		
11912	MGS	02-044/19:34:19		NOTE: Begin fixed Sub-Reflector for Radio Science		02-044/19:19:08
11913	MGS	02-044/19:34:24		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-044/19:19:13
11914	MGS	02-044/19:34:24		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-044/19:19:13
11915	MGS	02-044/19:34:28		Command the PSE with included data word: 3990	SWPSEL	02-044/19:19:17
11916	MGS	02-044/19:34:29		Set eclipse egress script address: 0158	SWSEES	02-044/19:19:18
11917	MGS	02-044/19:38:04		: 01:27:58	RPAONX	02-044/19:22:53
11918	MGS	02-044/19:38:04		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-044/19:22:53
11919	MGS	02-044/19:39:19		: 00:00:30, 00:07:03, FALSE	RDSCIE	02-044/19:24:08
11920	MGS	02-044/19:39:19		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-044/19:24:08
11921	MGS	02-044/19:39:19		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-044/19:24:08
11922	MGS	02-044/19:39:19		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-044/19:24:08

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
11923	MGS	02-044/19:39:19		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-044/19:24:08
11924	MGS	02-044/19:39:49		NOTE: Exit Earth Occultation 13125		02-044/19:24:38
11925	MGS	02-044/19:39:49	65	Acquisition Of X-Band Signal		
11926	MGS	02-044/19:39:49	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
11927	MGS	02-044/19:39:49	65	NOTE: Carrier Only -- No Telemetry Modulation		
11928	MGS	02-044/19:39:49		Disables autonomous command to send eclipse ingress script	SWEISX	02-044/19:24:38
11929	MGS	02-044/19:44:12		NOTE: Exit Planetary Atmosphere 13125		02-044/19:29:01
11930	MGS	02-044/19:46:22		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-044/19:31:11
11931	MGS	02-044/19:46:22		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-044/19:31:11
11932	MGS	02-044/19:46:22		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-044/19:31:11
11933	MGS	02-044/19:46:22		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-044/19:31:11
11934	MGS	02-044/19:46:22		: REC_2B, F42KHZ, PART2, SE_1A, FALSE, 00:11:01	AEMPB	02-044/19:31:11
11935	MGS	02-044/19:46:22		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-044/19:31:11
11936	MGS	02-044/19:46:22		Sends a one-word SSR command to the XSU command SOB: SSR_2B, F42KHZ, PLYBCK, PART2	STSSRC	02-044/19:31:11
11937	MGS	02-044/19:46:22	65	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
11938	MGS	02-044/19:46:23		SSR 2B Data Enable	CSD2BE	02-044/19:31:12
11939	MGS	02-044/19:46:23		SSR Activity: ID=SSR_2B, FCN=Start Playback, PRT=2, BR=42666		02-044/19:31:12
11940	MGS	02-044/19:46:23	65	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
11941	MGS	02-044/19:46:27		NOTE: End fixed Sub-Reflector for Radio Science		02-044/19:31:16
11942	MGS	02-044/19:50:10		NOTE: Exit Solar Eclipse 13125		02-044/19:34:59
11943	MGS	02-044/20:00:00	15	Begin Pre-Cal		
11944	MGS	02-044/20:00:00	15	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
11945	MGS	02-044/20:00:00	15	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=ON, RCVR2=ON, TWNC=ON		
11946	MGS	02-044/20:00:00	15	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
11947	MGS	02-044/20:00:00	15	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
11948	MGS	02-044/20:00:00	15	At BOT: S/C Tlm Mode: BR=8000.0, FL=10000, SC=OFF, MI=0.0		
11949	MGS	02-044/20:00:00	15	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
11950	MGS	02-044/20:00:00	15	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
11951	MGS	02-044/20:00:00	15	Config: TGC: DEST=37		
11952	MGS	02-044/20:00:00	15	Config: TGC: BAND=X, BR=8000.000000		
11953	MGS	02-044/20:00:00	15	Config: FSS: CH=2, PRI_FL=10000		
11954	MGS	02-044/20:00:00	15	Config: RSR		
11955	MGS	02-044/20:00:00	15	Config: TXL		
11956	MGS	02-044/20:00:00	15	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
11957	MGS	02-044/20:00:00	15	Config: BVR		
11958	MGS	02-044/20:00:00	15	Config: Doppler Extractor: BIAS=+1MHZ		
11959	MGS	02-044/20:00:00	15	Config: MDA: SMPL=0.1		
11960	MGS	02-044/20:00:00	15	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
11961	MGS	02-044/20:00:00	15	Config: SRA: HIGH=4, LOW=14, SERV=D		
11962	MGS	02-044/20:00:00	15	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
11963	MGS	02-044/20:03:34		NOTE: Periapsis 13126 ----------		02-044/19:48:23
11964	MGS	02-044/20:15:09		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-044/19:59:58
11965	MGS	02-044/20:15:09		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-044/19:59:58
11966	MGS	02-044/20:15:10		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-044/19:59:59
11967	MGS	02-044/20:15:10		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-044/19:59:59
11968	MGS	02-044/20:16:25	65	NOTE: Transmitter Off in 15 minutes		
11969	MGS	02-044/20:29:26	65	Range Modulation Off		
11970	MGS	02-044/20:31:25	65	Transmitter Off		
11971	MGS	02-044/20:37:11		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-044/20:21:59
11972	MGS	02-044/20:37:11		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-044/20:21:59
11973	MGS	02-044/20:54:15		NOTE: Begin fixed Sub-Reflector for Radio Science		02-044/20:39:04
11974	MGS	02-044/20:55:02		SSR 2B Data Disable	CSD2BX	02-044/20:39:50
11975	MGS	02-044/20:55:02		SSR Activity: ID=SSR_2B, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-044/20:39:50
11976	MGS	02-044/20:55:02		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-044/20:39:50

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
11977	MGS	02-044/20:55:02	65	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
11978	MGS	02-044/20:57:27		NOTE: Start Block (MAP_RT)		02-044/20:42:15
11979	MGS	02-044/20:57:28		: 00:28:20, 01:27:57, FALSE, TRUE, FALSE, 00:01:15, 00:07:03, 01:12:52, 00:06:46	AEMINI	02-044/20:42:16
11980	MGS	02-044/20:57:28		Enable sending eclipse ingress script when array power disappears	SWEISE	02-044/20:42:16
11981	MGS	02-044/20:57:28		NOTE: Start EVP data return script		02-044/20:42:16
11982	MGS	02-044/20:57:29		: SE_2A, RTM, 01:12:51, MRC, 2002-044T21:28:56.000	AEMRTI	02-044/20:42:17
11983	MGS	02-044/20:59:16		: 00:06:46, FALSE	RDSCII	02-044/20:44:04
11984	MGS	02-044/20:59:16		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-044/20:44:04
11985	MGS	02-044/20:59:16		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-044/20:44:04
11986	MGS	02-044/20:59:16		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-044/20:44:04
11987	MGS	02-044/20:59:16		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-044/20:44:04
11988	MGS	02-044/20:59:16	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
11989	MGS	02-044/20:59:16	65	NOTE: Carrier Only -- No Telemetry Modulation		
11990	MGS	02-044/21:00:00	15	Begin Tracking		
11991	MGS	02-044/21:00:00	15	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
11992	MGS	02-044/21:00:00	15	NOTE: Carrier Only -- No Telemetry Modulation		
11993	MGS	02-044/21:01:27		NOTE: Enter Planetary Atmosphere 13126		02-044/20:46:16
11994	MGS	02-044/21:02:17		NOTE: Apoapsis 13126 -		02-044/20:47:06
11995	MGS	02-044/21:05:32		NOTE: Enter Earth Occultation 13126		02-044/20:50:21
11996	MGS	02-044/21:05:32	15	NOTE: Loss Of X-Band Signal		
11997	MGS	02-044/21:05:32	65	NOTE: Loss Of X-Band Signal		
11998	MGS	02-044/21:06:02		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-044/20:50:50
11999	MGS	02-044/21:06:02		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-044/20:50:50
12000	MGS	02-044/21:06:02		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-044/20:50:50
12001	MGS	02-044/21:06:02		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-044/20:50:50
12002	MGS	02-044/21:06:02		NOTE: End EVP script		02-044/20:50:51
12003	MGS	02-044/21:06:03		Turn off the MOT Exciter and RPA beam	STRPAF	02-044/20:50:51
12004	MGS	02-044/21:06:03		NOTE: End Block (MAP_PB)		02-044/20:50:52
12005	MGS	02-044/21:06:06		NOTE: End fixed Sub-Reflector for Radio Science		02-044/20:50:55
12006	MGS	02-044/21:07:28		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-044/20:52:16
12007	MGS	02-044/21:07:28		NOTE: Enter Solar Eclipse 13126		02-044/20:52:17
12008	MGS	02-044/21:10:57	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
12009	MGS	02-044/21:12:57	15	Range Modulation On: SUP=3.0dB		
12010	MGS	02-044/21:13:57	15	Begin Ranging Acquisition		
12011	MGS	02-044/21:20:00	65	End Tracking		
12012	MGS	02-044/21:32:03		NOTE: Begin fixed Sub-Reflector for Radio Science		02-044/21:16:52
12013	MGS	02-044/21:32:11		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-044/21:16:59
12014	MGS	02-044/21:32:11		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-044/21:16:59
12015	MGS	02-044/21:32:16		Set eclipse egress script address: 019A	SWSEES	02-044/21:17:04
12016	MGS	02-044/21:35:00	65	End Post-Cal		
12017	MGS	02-044/21:35:48		: 01:27:57	RPAONX	02-044/21:20:36
12018	MGS	02-044/21:35:48		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-044/21:20:36
12019	MGS	02-044/21:37:03		: 00:00:30, 00:07:03, FALSE	RDSCIE	02-044/21:21:51
12020	MGS	02-044/21:37:03		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-044/21:21:51
12021	MGS	02-044/21:37:03		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-044/21:21:51
12022	MGS	02-044/21:37:03		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-044/21:21:51
12023	MGS	02-044/21:37:03		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-044/21:21:51
12024	MGS	02-044/21:37:34		NOTE: Exit Earth Occultation 13126		02-044/21:22:23
12025	MGS	02-044/21:37:34	15	Acquisition Of X-Band Signal		
12026	MGS	02-044/21:37:34	15	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
12027	MGS	02-044/21:37:34	15	NOTE: Carrier Only -- No Telemetry Modulation		
12028	MGS	02-044/21:41:57		NOTE: Exit Planetary Atmosphere 13126		02-044/21:26:46
12029	MGS	02-044/21:44:06		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-044/21:28:54
12030	MGS	02-044/21:44:06		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-044/21:28:54

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
12031	MGS	02-044/21:44:06		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-044/21:28:54
12032	MGS	02-044/21:44:06		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-044/21:28:54
12033	MGS	02-044/21:44:06	15	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
12034	MGS	02-044/21:44:07		: RTM, MRC, 01:12:51, S&E_2A, FALSE, 00:06:47	AEMRT	02-044/21:28:55
12035	MGS	02-044/21:44:07		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-044/21:28:55
12036	MGS	02-044/21:44:07		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-044/21:28:55
12037	MGS	02-044/21:44:07	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
12038	MGS	02-044/21:44:11		NOTE: End fixed Sub-Reflector for Radio Science		02-044/21:29:00
12039	MGS	02-044/21:47:54		NOTE: Exit Solar Eclipse 13126		02-044/21:32:43
12040	MGS	02-044/21:50:00		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-044/21:34:48
12041	MGS	02-044/21:50:00	15	D/L Change: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
12042	MGS	02-044/21:50:02		NOTE: Start Block (SSRMGR)		02-044/21:34:50
12043	MGS	02-044/21:50:02		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-044/21:34:50
12044	MGS	02-044/21:50:02		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-044/21:34:50
12045	MGS	02-044/21:50:03		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-044/21:34:51
12046	MGS	02-044/21:50:04		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, PLYBCK, PART3	STSSRC	02-044/21:34:52
12047	MGS	02-044/21:50:05		SSR 2A Data Enable	CSD2AE	02-044/21:34:53
12048	MGS	02-044/21:50:05		SSR Activity: ID=SSR_2A, FCN=Start Playback, PRT=3, BR=42666		02-044/21:34:53
12049	MGS	02-044/21:50:05	15	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
12050	MGS	02-044/22:01:19		NOTE: Periapsis 13127 ----------		02-044/21:46:08
12051	MGS	02-044/22:02:32		NOTE: Start Block (SSRMGR)		02-044/21:47:20
12052	MGS	02-044/22:02:32		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-044/21:47:20
12053	MGS	02-044/22:02:32		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-044/21:47:20
12054	MGS	02-044/22:02:33		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-044/21:47:21
12055	MGS	02-044/22:02:33		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, ENBSCR, PART1	STSSRC	02-044/21:47:21
12056	MGS	02-044/22:02:34		Sends a one-word SSR command to the XSU command SOB: SSR_2B, F42KHZ, PLYBCK, PART3	STSSRC	02-044/21:47:22
12057	MGS	02-044/22:02:35		SSR 2A Data Disable	CSD2AX	02-044/21:47:23
12058	MGS	02-044/22:02:35		SSR 2B Data Enable	CSD2BE	02-044/21:47:23
12059	MGS	02-044/22:02:35		SSR Activity: ID=SSR_2B, FCN=Start Playback, PRT=3, BR=42666		02-044/21:47:23
12060	MGS	02-044/22:02:36		NOTE: End Block (SSRMGR)		02-044/21:47:24
12061	MGS	02-044/22:08:54		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-044/21:53:42
12062	MGS	02-044/22:08:54		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-044/21:53:42
12063	MGS	02-044/22:08:55		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-044/21:53:43
12064	MGS	02-044/22:08:55		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-044/21:53:43
12065	MGS	02-044/22:14:07	15	NOTE: Transmitter Off in 15 minutes		
12066	MGS	02-044/22:20:05		SSR 2B Data Disable	CSD2BX	02-044/22:04:53
12067	MGS	02-044/22:20:05		SSR Activity: ID=SSR_2B, FCN=End Playback, PRT=3, BITS=44800000, DUR=00:17:30		02-044/22:04:53
12068	MGS	02-044/22:20:06		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-044/22:04:54
12069	MGS	02-044/22:20:06		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-044/22:04:54
12070	MGS	02-044/22:20:06		NOTE: End Block (SSRMGR)		02-044/22:04:54
12071	MGS	02-044/22:20:06	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
12072	MGS	02-044/22:27:08	15	Range Modulation Off		
12073	MGS	02-044/22:28:30		NOTE: Start Block (SSRMGR)		02-044/22:13:18
12074	MGS	02-044/22:28:30		Sends a one-word SSR command to the XSU command SOB: SSR_1A, SE_1A, RECORD, PART3	STSSRC	02-044/22:13:18
12075	MGS	02-044/22:28:31		SSR 1A Data Enable	CSD1AE	02-044/22:13:19
12076	MGS	02-044/22:28:31		SSR Activity: ID=SSR_1A, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-044/22:13:19
12077	MGS	02-044/22:29:07	15	Transmitter Off		
12078	MGS	02-044/22:30:55		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-044/22:15:43
12079	MGS	02-044/22:30:55		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-044/22:15:43
12080	MGS	02-044/22:51:58		NOTE: Begin fixed Sub-Reflector for Radio Science		02-044/22:36:47
12081	MGS	02-044/22:55:10		NOTE: Start EVP data return script		02-044/22:39:58
12082	MGS	02-044/22:55:11		SSR 1B Data Disable	CSD1BX	02-044/22:39:59
12083	MGS	02-044/22:55:11		SSR Activity: ID=SSR_1B, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-044/22:39:59
12084	MGS	02-044/22:55:12		NOTE: End Block (SSRMGR)		02-044/22:40:00

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
12085	MGS	02-044/22:56:58		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-044/22:41:46
12086	MGS	02-044/22:56:58		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=3, BITS=13656000, DUR=00:28:27		02-044/22:41:46
12087	MGS	02-044/22:56:58		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-044/22:41:46
12088	MGS	02-044/22:56:58		: 00:06:46, FALSE	RDSCII	02-044/22:41:46
12089	MGS	02-044/22:56:58		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-044/22:41:46
12090	MGS	02-044/22:56:58		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-044/22:41:46
12091	MGS	02-044/22:56:58		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-044/22:41:46
12092	MGS	02-044/22:56:58		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-044/22:41:46
12093	MGS	02-044/22:56:58	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
12094	MGS	02-044/22:56:58	15	NOTE: Carrier Only -- No Telemetry Modulation		
12095	MGS	02-044/22:59:09		NOTE: Enter Planetary Atmosphere 13127		02-044/22:43:58
12096	MGS	02-044/23:00:12		NOTE: Apoapsis 13127 -		02-044/22:45:01
12097	MGS	02-044/23:03:15		NOTE: Enter Earth Occultation 13127		02-044/22:48:04
12098	MGS	02-044/23:03:15	15	NOTE: Loss Of X-Band Signal		
12099	MGS	02-044/23:03:44		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-044/22:48:32
12100	MGS	02-044/23:03:44		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-044/22:48:32
12101	MGS	02-044/23:03:44		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-044/22:48:32
12102	MGS	02-044/23:03:44		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-044/22:48:32
12103	MGS	02-044/23:03:45		Turn off the MOT Exciter and RPA beam	STRPAF	02-044/22:48:33
12104	MGS	02-044/23:03:45		NOTE: End EVP script		02-044/22:48:34
12105	MGS	02-044/23:03:49		NOTE: End fixed Sub-Reflector for Radio Science		02-044/22:48:38
12106	MGS	02-044/23:05:10		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-044/22:49:58
12107	MGS	02-044/23:05:10		NOTE: Enter Solar Eclipse 13127		02-044/22:49:59
12108	MGS	02-044/23:08:30		NOTE: Start Block (SSRMGR)		02-044/22:53:18
12109	MGS	02-044/23:08:30		Sends a one-word SSR command to the XSU command SOB: SSR_1B, SE_1A, RECORD, PART3	STSSRC	02-044/22:53:18
12110	MGS	02-044/23:08:31		SSR 1B Data Enable	CSD1BE	02-044/22:53:19
12111	MGS	02-044/23:08:31		SSR Activity: ID=SSR_1B, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-044/22:53:19
12112	MGS	02-044/23:08:40	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
12113	MGS	02-044/23:10:40	15	Range Modulation On: SUP=3.0dB		
12114	MGS	02-044/23:11:40	15	Begin Ranging Acquisition		
12115	MGS	02-044/23:29:45		NOTE: Begin fixed Sub-Reflector for Radio Science		02-044/23:14:34
12116	MGS	02-044/23:29:55		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-044/23:14:43
12117	MGS	02-044/23:29:55		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-044/23:14:43
12118	MGS	02-044/23:30:00		Set eclipse egress script address: 01DC	SWSEES	02-044/23:14:48
12119	MGS	02-044/23:33:30		: 01:27:57	RPAONX	02-044/23:18:18
12120	MGS	02-044/23:33:30		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-044/23:18:18
12121	MGS	02-044/23:34:45		: 00:00:30, 00:07:03, FALSE	RDSCIE	02-044/23:19:33
12122	MGS	02-044/23:34:45		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-044/23:19:33
12123	MGS	02-044/23:34:45		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-044/23:19:33
12124	MGS	02-044/23:34:45		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-044/23:19:33
12125	MGS	02-044/23:34:45		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-044/23:19:33
12126	MGS	02-044/23:35:11		SSR 1A Data Disable	CSD1AX	02-044/23:19:59
12127	MGS	02-044/23:35:11		SSR Activity: ID=SSR_1A, FCN=End Recording, PRT=3, BITS=32000000, DUR=01:06:40		02-044/23:19:59
12128	MGS	02-044/23:35:12		NOTE: End Block (SSRMGR)		02-044/23:20:00
12129	MGS	02-044/23:35:15		Disables autonomous command to send eclipse ingress script	SWEISX	02-044/23:20:03
12130	MGS	02-044/23:35:17		NOTE: Exit Earth Occultation 13127		02-044/23:20:06
12131	MGS	02-044/23:35:17	15	Acquisition Of X-Band Signal		
12132	MGS	02-044/23:35:17	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
12133	MGS	02-044/23:35:17	15	NOTE: Carrier Only -- No Telemetry Modulation		
12134	MGS	02-044/23:39:41		NOTE: Exit Planetary Atmosphere 13127		02-044/23:24:29
12135	MGS	02-044/23:41:48		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-044/23:26:36
12136	MGS	02-044/23:41:48		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-044/23:26:36
12137	MGS	02-044/23:41:48		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-044/23:26:36
12138	MGS	02-044/23:41:48		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-044/23:26:36

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
12139	MGS	02-044/23:41:48	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
12140	MGS	02-044/23:41:49		: RTM, MRC, 01:12:51, S&E_2A, FALSE, 00:06:47	AEMRT	02-044/23:26:37
12141	MGS	02-044/23:41:49		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-044/23:26:37
12142	MGS	02-044/23:41:49		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-044/23:26:37
12143	MGS	02-044/23:41:49		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=3, BITS=15984000, DUR=00:33:18		02-044/23:26:37
12144	MGS	02-044/23:41:49		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-044/23:26:37
12145	MGS	02-044/23:41:49	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
12146	MGS	02-044/23:41:53		NOTE: End fixed Sub-Reflector for Radio Science		02-044/23:26:42
12147	MGS	02-044/23:45:37		NOTE: Exit Solar Eclipse 13127		02-044/23:30:25
12148	MGS	02-044/23:58:57		NOTE: Periapsis 13128 ----------		02-044/23:43:45
12149	MGS	02-045/00:00:00		Light Time: OWLT = 15:11, RTLT = 30:23		
12150	MGS	02-045/00:06:36		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-044/23:51:24
12151	MGS	02-045/00:06:36		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-044/23:51:24
12152	MGS	02-045/00:06:37		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-044/23:51:25
12153	MGS	02-045/00:06:37		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-044/23:51:25
12154	MGS	02-045/00:11:49	15	NOTE: Transmitter Off in 15 minutes		
12155	MGS	02-045/00:15:10		NOTE: Start Block (SSRMGR)		02-044/23:59:58
12156	MGS	02-045/00:15:10		Sends a one-word SSR command to the XSU command SOB: SSR_2A, SE_1A, RECORD, PART1	STSSRC	02-044/23:59:58
12157	MGS	02-045/00:15:11		SSR 2A Data Enable	CSD2AE	02-044/23:59:59
12158	MGS	02-045/00:15:11		SSR Activity: ID=SSR_2A, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-044/23:59:59
12159	MGS	02-045/00:24:50	15	Range Modulation Off		
12160	MGS	02-045/00:26:49	15	Transmitter Off		
12161	MGS	02-045/00:28:37		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-045/00:13:25
12162	MGS	02-045/00:28:37		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-045/00:13:25
12163	MGS	02-045/00:41:51		SSR 1B Data Disable	CSD1BX	02-045/00:26:39
12164	MGS	02-045/00:41:51		SSR Activity: ID=SSR_1B, FCN=End Recording, PRT=3, BITS=44800000, DUR=01:33:20		02-045/00:26:39
12165	MGS	02-045/00:41:52		NOTE: End Block (SSRMGR)		02-045/00:26:40
12166	MGS	02-045/00:49:40		NOTE: Begin fixed Sub-Reflector for Radio Science		02-045/00:34:29
12167	MGS	02-045/00:52:51		NOTE: Start Block (MAP_RT)		02-045/00:37:39
12168	MGS	02-045/00:52:52		: 00:28:22, 01:27:55, FALSE, TRUE, FALSE, 00:01:15, 00:07:04, 01:12:49, 00:06:46	AEMINI	02-045/00:37:40
12169	MGS	02-045/00:52:52		Enable sending eclipse ingress script when array power disappears	SWEISE	02-045/00:37:40
12170	MGS	02-045/00:52:52		NOTE: Start EVP data return script		02-045/00:37:40
12171	MGS	02-045/00:52:53		: SE_2A, RTM, 01:12:48, MRC, 2002-045T01:24:23.000	AEMRTI	02-045/00:37:41
12172	MGS	02-045/00:54:40		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-045/00:39:28
12173	MGS	02-045/00:54:40		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=1, BITS=18952000, DUR=00:39:29		02-045/00:39:28
12174	MGS	02-045/00:54:40		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-045/00:39:28
12175	MGS	02-045/00:54:40		: 00:06:46, FALSE	RDSCII	02-045/00:39:28
12176	MGS	02-045/00:54:40		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-045/00:39:28
12177	MGS	02-045/00:54:40		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-045/00:39:28
12178	MGS	02-045/00:54:40		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-045/00:39:28
12179	MGS	02-045/00:54:40		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-045/00:39:28
12180	MGS	02-045/00:54:40	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
12181	MGS	02-045/00:54:40	15	NOTE: Carrier Only -- No Telemetry Modulation		
12182	MGS	02-045/00:56:52		NOTE: Enter Planetary Atmosphere 13128		02-045/00:41:40
12183	MGS	02-045/00:57:46		NOTE: Apoapsis 13128 -		02-045/00:42:35
12184	MGS	02-045/01:00:58		NOTE: Enter Earth Occultation 13128		02-045/00:45:46
12185	MGS	02-045/01:00:58	15	NOTE: Loss Of X-Band Signal		
12186	MGS	02-045/01:01:26		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-045/00:46:14
12187	MGS	02-045/01:01:26		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-045/00:46:14
12188	MGS	02-045/01:01:26		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-045/00:46:14
12189	MGS	02-045/01:01:26		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-045/00:46:14
12190	MGS	02-045/01:01:27		Turn off the MOT Exciter and RPA beam	STRPAF	02-045/00:46:15
12191	MGS	02-045/01:01:27		NOTE: End EVP script		02-045/00:46:16
12192	MGS	02-045/01:01:28		NOTE: End Block (MAP_RT)		02-045/00:46:17

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
12193	MGS	02-045/01:01:31		NOTE: End fixed Sub-Reflector for Radio Science		02-045/00:46:20
12194	MGS	02-045/01:02:52		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-045/00:47:40
12195	MGS	02-045/01:02:52		NOTE: Enter Solar Eclipse 13128		02-045/00:47:40
12196	MGS	02-045/01:06:21	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
12197	MGS	02-045/01:08:21	15	Range Modulation On: SUP=3.0dB		
12198	MGS	02-045/01:09:21	15	Begin Ranging Acquisition		
12199	MGS	02-045/01:27:29		NOTE: Begin fixed Sub-Reflector for Radio Science		02-045/01:12:17
12200	MGS	02-045/01:27:37		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-045/01:12:25
12201	MGS	02-045/01:27:37		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-045/01:12:25
12202	MGS	02-045/01:27:41		Command the PSE with included data word: 3990	SWPSEL	02-045/01:12:29
12203	MGS	02-045/01:27:42		Set eclipse egress script address: 0158	SWSEES	02-045/01:12:30
12204	MGS	02-045/01:31:14		: 01:27:55	RPAONX	02-045/01:16:02
12205	MGS	02-045/01:31:14		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-045/01:16:02
12206	MGS	02-045/01:32:29		: 00:00:30, 00:07:04, FALSE	RDSCIE	02-045/01:17:17
12207	MGS	02-045/01:32:29		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-045/01:17:17
12208	MGS	02-045/01:32:29		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-045/01:17:17
12209	MGS	02-045/01:32:29		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-045/01:17:17
12210	MGS	02-045/01:32:29		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-045/01:17:17
12211	MGS	02-045/01:32:59		NOTE: Exit Earth Occultation 13128		02-045/01:17:47
12212	MGS	02-045/01:32:59	15	Acquisition Of X-Band Signal		
12213	MGS	02-045/01:32:59	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
12214	MGS	02-045/01:32:59	15	NOTE: Carrier Only -- No Telemetry Modulation		
12215	MGS	02-045/01:37:23		NOTE: Exit Planetary Atmosphere 13128		02-045/01:22:11
12216	MGS	02-045/01:39:33		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-045/01:24:21
12217	MGS	02-045/01:39:33		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-045/01:24:21
12218	MGS	02-045/01:39:33		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-045/01:24:21
12219	MGS	02-045/01:39:33		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-045/01:24:21
12220	MGS	02-045/01:39:33	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
12221	MGS	02-045/01:39:34		: RTM, MRC, 01:12:48, S&E_2A, FALSE, 00:06:47	AEMRT	02-045/01:24:22
12222	MGS	02-045/01:39:34		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-045/01:24:22
12223	MGS	02-045/01:39:34		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-045/01:24:22
12224	MGS	02-045/01:39:34		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=1, BITS=40504000, DUR=00:44:54		02-045/01:24:22
12225	MGS	02-045/01:39:34		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-045/01:24:22
12226	MGS	02-045/01:39:34	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
12227	MGS	02-045/01:39:38		NOTE: End fixed Sub-Reflector for Radio Science		02-045/01:24:26
12228	MGS	02-045/01:43:18		NOTE: Exit Solar Eclipse 13128		02-045/01:28:07
12229	MGS	02-045/01:56:18		NOTE: Periapsis 13129 ----------		02-045/01:41:06
12230	MGS	02-045/02:08:17		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-045/01:53:05
12231	MGS	02-045/02:08:17		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-045/01:53:05
12232	MGS	02-045/02:08:18		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-045/01:53:06
12233	MGS	02-045/02:08:18		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-045/01:53:06
12234	MGS	02-045/02:09:31	15	NOTE: Transmitter Off in 15 minutes		
12235	MGS	02-045/02:22:32	15	Range Modulation Off		
12236	MGS	02-045/02:24:31	15	Transmitter Off		
12237	MGS	02-045/02:30:18		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-045/02:15:06
12238	MGS	02-045/02:30:18		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-045/02:15:06
12239	MGS	02-045/02:47:22		NOTE: Begin fixed Sub-Reflector for Radio Science		02-045/02:32:10
12240	MGS	02-045/02:50:35		NOTE: Start EVP data return script		02-045/02:35:23
12241	MGS	02-045/02:52:22		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-045/02:37:10
12242	MGS	02-045/02:52:22		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=1, BITS=75448000, DUR=01:12:48		02-045/02:37:10
12243	MGS	02-045/02:52:22		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-045/02:37:10
12244	MGS	02-045/02:52:22		: 00:06:46, FALSE	RDSCII	02-045/02:37:10
12245	MGS	02-045/02:52:22		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-045/02:37:10
12246	MGS	02-045/02:52:22		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-045/02:37:10

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
12247	MGS	02-045/02:52:22		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-045/02:37:10
12248	MGS	02-045/02:52:22		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-045/02:37:10
12249	MGS	02-045/02:52:22	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
12250	MGS	02-045/02:52:22	15	NOTE: Carrier Only -- No Telemetry Modulation		
12251	MGS	02-045/02:54:35		NOTE: Enter Planetary Atmosphere 13129		02-045/02:39:23
12252	MGS	02-045/02:55:12		NOTE: Apoapsis 13129 -		02-045/02:40:00
12253	MGS	02-045/02:58:40		NOTE: Enter Earth Occultation 13129		02-045/02:43:28
12254	MGS	02-045/02:58:40	15	NOTE: Loss Of X-Band Signal		
12255	MGS	02-045/02:59:09		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-045/02:43:56
12256	MGS	02-045/02:59:09		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-045/02:43:56
12257	MGS	02-045/02:59:09		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-045/02:43:56
12258	MGS	02-045/02:59:09		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-045/02:43:56
12259	MGS	02-045/02:59:10		Turn off the MOT Exciter and RPA beam	STRPAF	02-045/02:43:57
12260	MGS	02-045/02:59:10		NOTE: End EVP script		02-045/02:43:57
12261	MGS	02-045/02:59:14		NOTE: End fixed Sub-Reflector for Radio Science		02-045/02:44:01
12262	MGS	02-045/03:00:36		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-045/02:45:23
12263	MGS	02-045/03:00:36		NOTE: Enter Solar Eclipse 13129		02-045/02:45:24
12264	MGS	02-045/03:04:03	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
12265	MGS	02-045/03:06:04	15	Range Modulation On: SUP=3.0dB		
12266	MGS	02-045/03:07:04	15	Begin Ranging Acquisition		
12267	MGS	02-045/03:25:13		NOTE: Begin fixed Sub-Reflector for Radio Science		02-045/03:10:00
12268	MGS	02-045/03:25:19		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-045/03:10:06
12269	MGS	02-045/03:25:19		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-045/03:10:06
12270	MGS	02-045/03:25:24		Set eclipse egress script address: 019A	SWSEES	02-045/03:10:11
12271	MGS	02-045/03:28:58		: 01:27:55	RPAONX	02-045/03:13:45
12272	MGS	02-045/03:28:58		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-045/03:13:45
12273	MGS	02-045/03:30:13		: 00:00:30, 00:07:04, FALSE	RDSCIE	02-045/03:15:00
12274	MGS	02-045/03:30:13		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-045/03:15:00
12275	MGS	02-045/03:30:13		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-045/03:15:00
12276	MGS	02-045/03:30:13		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-045/03:15:00
12277	MGS	02-045/03:30:13		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-045/03:15:00
12278	MGS	02-045/03:30:42		NOTE: Exit Earth Occultation 13129		02-045/03:15:30
12279	MGS	02-045/03:30:42	15	Acquisition Of X-Band Signal		
12280	MGS	02-045/03:30:42	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
12281	MGS	02-045/03:30:42	15	NOTE: Carrier Only -- No Telemetry Modulation		
12282	MGS	02-045/03:30:43		Disables autonomous command to send eclipse ingress script	SWEISX	02-045/03:15:30
12283	MGS	02-045/03:35:05		NOTE: Exit Planetary Atmosphere 13129		02-045/03:19:53
12284	MGS	02-045/03:37:17		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-045/03:22:04
12285	MGS	02-045/03:37:17		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-045/03:22:04
12286	MGS	02-045/03:37:17		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-045/03:22:04
12287	MGS	02-045/03:37:17		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-045/03:22:04
12288	MGS	02-045/03:37:17	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
12289	MGS	02-045/03:37:18		: RTM, MRC, 01:12:48, S&E_2A, FALSE, 00:06:47	AEMRT	02-045/03:22:05
12290	MGS	02-045/03:37:18		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-045/03:22:05
12291	MGS	02-045/03:37:18		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-045/03:22:05
12292	MGS	02-045/03:37:18		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=1, BITS=97008000, DUR=00:44:55		02-045/03:22:05
12293	MGS	02-045/03:37:18		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-045/03:22:05
12294	MGS	02-045/03:37:18	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
12295	MGS	02-045/03:37:22		NOTE: End fixed Sub-Reflector for Radio Science		02-045/03:22:09
12296	MGS	02-045/03:41:02		NOTE: Exit Solar Eclipse 13129		02-045/03:25:50
12297	MGS	02-045/03:54:07		NOTE: Periapsis 13130 ----------		02-045/03:38:55
12298	MGS	02-045/04:02:01		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-045/03:46:48
12299	MGS	02-045/04:02:01		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-045/03:46:48
12300	MGS	02-045/04:02:02		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-045/03:46:49

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
12301	MGS	02-045/04:02:02		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-045/03:46:49
12302	MGS	02-045/04:07:15	15	NOTE: Transmitter Off in 15 minutes		
12303	MGS	02-045/04:20:15	15	Range Modulation Off		
12304	MGS	02-045/04:22:15	15	Transmitter Off		
12305	MGS	02-045/04:24:02		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-045/04:08:49
12306	MGS	02-045/04:24:02		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-045/04:08:49
12307	MGS	02-045/04:45:06		NOTE: Begin fixed Sub-Reflector for Radio Science		02-045/04:29:53
12308	MGS	02-045/04:50:06		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-045/04:34:53
12309	MGS	02-045/04:50:06		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=1, BITS=131952000, DUR=01:12:48		02-045/04:34:53
12310	MGS	02-045/04:50:06		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-045/04:34:53
12311	MGS	02-045/04:50:06		: 00:06:46, FALSE	RDSCII	02-045/04:34:53
12312	MGS	02-045/04:50:06		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-045/04:34:53
12313	MGS	02-045/04:50:06		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-045/04:34:53
12314	MGS	02-045/04:50:06		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-045/04:34:53
12315	MGS	02-045/04:50:06		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-045/04:34:53
12316	MGS	02-045/04:50:06	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
12317	MGS	02-045/04:50:06	15	NOTE: Carrier Only -- No Telemetry Modulation		
12318	MGS	02-045/04:51:55	15	NOTE: Below Uplink Interlock Limit		
12319	MGS	02-045/04:52:19		NOTE: Enter Planetary Atmosphere 13130		02-045/04:37:07
12320	MGS	02-045/04:53:12		NOTE: Apoapsis 13130 -		02-045/04:38:00
12321	MGS	02-045/04:56:24		NOTE: Enter Earth Occultation 13130		02-045/04:41:12
12322	MGS	02-045/04:56:24	15	NOTE: Loss Of X-Band Signal		
12323	MGS	02-045/04:56:52		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-045/04:41:39
12324	MGS	02-045/04:56:52		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-045/04:41:39
12325	MGS	02-045/04:56:52		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-045/04:41:39
12326	MGS	02-045/04:56:52		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-045/04:41:39
12327	MGS	02-045/04:56:53		Turn off the MOT Exciter and RPA beam	STRPAF	02-045/04:41:40
12328	MGS	02-045/04:56:53		NOTE: End EVP script		02-045/04:41:40
12329	MGS	02-045/04:56:54		NOTE: End Block (MAP_RT)		02-045/04:41:41
12330	MGS	02-045/04:56:57		NOTE: End fixed Sub-Reflector for Radio Science		02-045/04:41:44
12331	MGS	02-045/04:58:21		NOTE: Enter Solar Eclipse 13130		02-045/04:43:09
12332	MGS	02-045/05:00:00	15	End Tracking		
12333	MGS	02-045/05:13:15		Disable HGA control mode	SAHGCX	02-045/04:58:02
12334	MGS	02-045/05:13:16		No Operation	SCNOOP	02-045/04:58:03
12335	MGS	02-045/05:13:17		CDU-1 Uplink Rate Select (Based on 3 bit Code): 7	TCC1BS	02-045/04:58:04
12336	MGS	02-045/05:13:17		CDU-2 Uplink Rate Select (Based on 3 bit Code): 7	TCC2BS	02-045/04:58:04
12337	MGS	02-045/05:15:00	15	End Post-Cal		
12338	MGS	02-045/05:23:02		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-045/05:07:49
12339	MGS	02-045/05:23:02		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-045/05:07:49
12340	MGS	02-045/05:23:07		Set eclipse egress script address: 01DC	SWSEES	02-045/05:07:54
12341	MGS	02-045/05:28:28		NOTE: Exit Earth Occultation 13130		02-045/05:13:16
12342	MGS	02-045/05:32:50		NOTE: Exit Planetary Atmosphere 13130		02-045/05:17:37
12343	MGS	02-045/05:38:47		NOTE: Exit Solar Eclipse 13130		02-045/05:23:35
12344	MGS	02-045/05:48:31		NOTE: Start Block (SSRMGR)		02-045/05:33:18
12345	MGS	02-045/05:48:31		Sends a one-word SSR command to the XSU command SOB: SSR_2B, SE_1A, RECORD, PART1	STSSRC	02-045/05:33:18
12346	MGS	02-045/05:48:32		SSR 2B Data Enable	CSD2BE	02-045/05:33:19
12347	MGS	02-045/05:48:32		SSR Activity: ID=SSR_2B, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-045/05:33:19
12348	MGS	02-045/05:52:20		NOTE: Periapsis 13131 ----------		02-045/05:37:07
12349	MGS	02-045/05:59:47		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-045/05:44:34
12350	MGS	02-045/05:59:47		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-045/05:44:34
12351	MGS	02-045/05:59:48		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-045/05:44:35
12352	MGS	02-045/05:59:48		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-045/05:44:35
12353	MGS	02-045/06:15:12		SSR 2A Data Disable	CSD2AX	02-045/05:59:59
12354	MGS	02-045/06:15:12		SSR Activity: ID=SSR_2A, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-045/05:59:59

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
12355	MGS	02-045/06:15:13		NOTE: End Block (SSRMGR)		02-045/06:00:00
12356	MGS	02-045/06:21:48		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-045/06:06:35
12357	MGS	02-045/06:21:48		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-045/06:06:35
12358	MGS	02-045/06:50:06		NOTE: Enter Planetary Atmosphere 13131		02-045/06:34:53
12359	MGS	02-045/06:51:32		NOTE: Apoapsis 13131 -		02-045/06:36:19
12360	MGS	02-045/06:54:11		NOTE: Enter Earth Occultation 13131		02-045/06:38:58
12361	MGS	02-045/06:56:08		NOTE: Enter Solar Eclipse 13131		02-045/06:40:55
12362	MGS	02-045/07:20:48		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-045/07:05:35
12363	MGS	02-045/07:20:48		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-045/07:05:35
12364	MGS	02-045/07:20:52		Command the PSE with included data word: 3990	SWPSEL	02-045/07:05:39
12365	MGS	02-045/07:20:53		Set eclipse egress script address: 0158	SWSEES	02-045/07:05:40
12366	MGS	02-045/07:26:15		NOTE: Exit Earth Occultation 13131		02-045/07:11:03
12367	MGS	02-045/07:30:37		NOTE: Exit Planetary Atmosphere 13131		02-045/07:15:25
12368	MGS	02-045/07:36:35		NOTE: Exit Solar Eclipse 13131		02-045/07:21:22
12369	MGS	02-045/07:50:25		NOTE: Periapsis 13132 ----------		02-045/07:35:12
12370	MGS	02-045/08:01:33		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-045/07:46:20
12371	MGS	02-045/08:01:33		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-045/07:46:20
12372	MGS	02-045/08:01:34		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-045/07:46:21
12373	MGS	02-045/08:01:34		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-045/07:46:21
12374	MGS	02-045/08:23:34		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-045/08:08:21
12375	MGS	02-045/08:23:34		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-045/08:08:21
12376	MGS	02-045/08:47:53		NOTE: Enter Planetary Atmosphere 13132		02-045/08:32:40
12377	MGS	02-045/08:49:29		NOTE: Apoapsis 13132 -		02-045/08:34:16
12378	MGS	02-045/08:51:59		NOTE: Enter Earth Occultation 13132		02-045/08:36:46
12379	MGS	02-045/08:53:55		NOTE: Enter Solar Eclipse 13132		02-045/08:38:42
12380	MGS	02-045/09:18:34		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-045/09:03:21
12381	MGS	02-045/09:18:34		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-045/09:03:21
12382	MGS	02-045/09:18:39		Set eclipse egress script address: 019A	SWSEES	02-045/09:03:26
12383	MGS	02-045/09:24:03		NOTE: Exit Earth Occultation 13132		02-045/09:08:50
12384	MGS	02-045/09:28:26		NOTE: Exit Planetary Atmosphere 13132		02-045/09:13:13
12385	MGS	02-045/09:34:21		NOTE: Exit Solar Eclipse 13132		02-045/09:19:08
12386	MGS	02-045/09:48:07		NOTE: Periapsis 13133 ----------		02-045/09:32:54
12387	MGS	02-045/09:55:21		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-045/09:40:07
12388	MGS	02-045/09:55:21		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-045/09:40:07
12389	MGS	02-045/09:55:22		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-045/09:40:08
12390	MGS	02-045/09:55:22		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-045/09:40:08
12391	MGS	02-045/10:17:22		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-045/10:02:08
12392	MGS	02-045/10:17:22		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-045/10:02:08
12393	MGS	02-045/10:45:38		NOTE: Enter Planetary Atmosphere 13133		02-045/10:30:25
12394	MGS	02-045/10:46:56		NOTE: Apoapsis 13133 -		02-045/10:31:42
12395	MGS	02-045/10:49:43		NOTE: Enter Earth Occultation 13133		02-045/10:34:30
12396	MGS	02-045/10:51:38		NOTE: Enter Solar Eclipse 13133		02-045/10:36:25
12397	MGS	02-045/11:16:22		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-045/11:01:08
12398	MGS	02-045/11:16:22		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-045/11:01:08
12399	MGS	02-045/11:16:27		Set eclipse egress script address: 01DC	SWSEES	02-045/11:01:13
12400	MGS	02-045/11:21:48		NOTE: Exit Earth Occultation 13133		02-045/11:06:34
12401	MGS	02-045/11:21:52		NOTE: Start Block (SSRMGR)		02-045/11:06:38
12402	MGS	02-045/11:21:52		Sends a one-word SSR command to the XSU command SOB: SSR_2A, SE_1A, RECORD, PART2	STSSRC	02-045/11:06:38
12403	MGS	02-045/11:21:53		SSR 2A Data Enable	CSD2AE	02-045/11:06:39
12404	MGS	02-045/11:21:53		SSR Activity: ID=SSR_2A, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-045/11:06:39
12405	MGS	02-045/11:26:11		NOTE: Exit Planetary Atmosphere 13133		02-045/11:10:57
12406	MGS	02-045/11:32:05		NOTE: Exit Solar Eclipse 13133		02-045/11:16:51
12407	MGS	02-045/11:35:00	65	Begin Pre-Cal		
12408	MGS	02-045/11:35:00	65	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
12409	MGS	02-045/11:35:00	65	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
12410	MGS	02-045/11:35:00	65	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
12411	MGS	02-045/11:35:00	65	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=OFF, EXC=2		
12412	MGS	02-045/11:35:00	65	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
12413	MGS	02-045/11:35:00	65	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
12414	MGS	02-045/11:35:00	65	Config: TGC: DEST=37		
12415	MGS	02-045/11:35:00	65	Config: TGC: BAND=X, BR=0.000000		
12416	MGS	02-045/11:35:00	65	Config: FSS: CH=2, PRI_FL=10000		
12417	MGS	02-045/11:35:00	65	Config: RSR		
12418	MGS	02-045/11:35:00	65	Config: TXL		
12419	MGS	02-045/11:35:00	65	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
12420	MGS	02-045/11:35:00	65	Config: BVR		
12421	MGS	02-045/11:35:00	65	Config: Doppler Extractor: BIAS=+1MHZ		
12422	MGS	02-045/11:35:00	65	Config: MDA: SMPL=0.1		
12423	MGS	02-045/11:35:00	65	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
12424	MGS	02-045/11:35:00	65	Config: SRA: HIGH=4, LOW=14, SERV=D		
12425	MGS	02-045/11:35:00	65	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
12426	MGS	02-045/11:45:28		NOTE: Periapsis 13134 ----------		02-045/11:30:15
12427	MGS	02-045/11:48:33		SSR 2B Data Disable	CSD2BX	02-045/11:33:19
12428	MGS	02-045/11:48:33		SSR Activity: ID=SSR_2B, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-045/11:33:19
12429	MGS	02-045/11:48:34		NOTE: End Block (SSRMGR)		02-045/11:33:20
12430	MGS	02-045/11:53:04		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-045/11:37:50
12431	MGS	02-045/11:53:04		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-045/11:37:50
12432	MGS	02-045/11:53:05		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-045/11:37:51
12433	MGS	02-045/11:53:05		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-045/11:37:51
12434	MGS	02-045/12:15:05		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-045/11:59:51
12435	MGS	02-045/12:15:05		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-045/11:59:51
12436	MGS	02-045/12:15:13		Dump SCP memory to the EDF using physical addressing arguments: 56A4, 240	SCDSCM	02-045/11:59:59
12437	MGS	02-045/12:35:00	65	Begin Tracking		
12438	MGS	02-045/12:39:17		NOTE: Start Block (MAP_PB)		02-045/12:24:03
12439	MGS	02-045/12:39:18		: 00:28:25, 01:27:52, FALSE, TRUE, FALSE, 00:01:15, 00:07:03, 01:12:48, 00:06:45	AEMINI	02-045/12:24:04
12440	MGS	02-045/12:39:18		Enable sending eclipse ingress script when array power disappears	SWEISE	02-045/12:24:04
12441	MGS	02-045/12:39:18		NOTE: Start EVP data return script		02-045/12:24:04
12442	MGS	02-045/12:39:19		: SSR_1A, F42KHZ, PART1, SE_1A, 2002-045T13:10:48.000	AEMPBI	02-045/12:24:05
12443	MGS	02-045/12:43:18		NOTE: Enter Planetary Atmosphere 13134		02-045/12:28:04
12444	MGS	02-045/12:44:21		NOTE: Apoapsis 13134 -		02-045/12:29:08
12445	MGS	02-045/12:47:23		NOTE: Enter Earth Occultation 13134		02-045/12:32:09
12446	MGS	02-045/12:49:18		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-045/12:34:04
12447	MGS	02-045/12:49:18		NOTE: Enter Solar Eclipse 13134		02-045/12:34:05
12448	MGS	02-045/12:52:46	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
12449	MGS	02-045/12:54:46	65	Range Modulation On: SUP=3.0dB		
12450	MGS	02-045/12:55:46	65	Begin Ranging Acquisition		
12451	MGS	02-045/13:04:23		Select Automatic HGA control mode	SAHACE	02-045/12:49:09
12452	MGS	02-045/13:04:24		Selects Hign Gain Antenna for downlink, Reconfigures if beam is already on	STUHGA	02-045/12:49:10
12453	MGS	02-045/13:04:25		CDU-1 Uplink Rate Select (Based on 3 bit Code): 3	TCC1BS	02-045/12:49:11
12454	MGS	02-045/13:04:25		CDU-2 Uplink Rate Select (Based on 3 bit Code): 3	TCC2BS	02-045/12:49:11
12455	MGS	02-045/13:13:58		NOTE: Begin fixed Sub-Reflector for Radio Science		02-045/12:58:45
12456	MGS	02-045/13:14:05		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-045/12:58:51
12457	MGS	02-045/13:14:05		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-045/12:58:51
12458	MGS	02-045/13:14:09		Command the PSE with included data word: 3990	SWPSEL	02-045/12:58:55
12459	MGS	02-045/13:14:10		Set eclipse egress script address: 0158	SWSEES	02-045/12:58:56
12460	MGS	02-045/13:17:43		: 01:27:52	RPAONX	02-045/13:02:29
12461	MGS	02-045/13:17:43		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-045/13:02:29
12462	MGS	02-045/13:18:58		: 00:00:30, 00:07:03, FALSE	RDSCIE	02-045/13:03:44

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
12463	MGS	02-045/13:18:58		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-045/13:03:44
12464	MGS	02-045/13:18:58		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-045/13:03:44
12465	MGS	02-045/13:18:58		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-045/13:03:44
12466	MGS	02-045/13:18:58		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-045/13:03:44
12467	MGS	02-045/13:19:28		NOTE: Exit Earth Occultation 13134		02-045/13:04:14
12468	MGS	02-045/13:19:28	65	Acquisition Of X-Band Signal		
12469	MGS	02-045/13:19:28	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
12470	MGS	02-045/13:19:28	65	NOTE: Carrier Only -- No Telemetry Modulation		
12471	MGS	02-045/13:23:51		NOTE: Exit Planetary Atmosphere 13134		02-045/13:08:37
12472	MGS	02-045/13:26:01		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-045/13:10:47
12473	MGS	02-045/13:26:01		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-045/13:10:47
12474	MGS	02-045/13:26:01		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-045/13:10:47
12475	MGS	02-045/13:26:01		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-045/13:10:47
12476	MGS	02-045/13:26:01		: REC_1A, F42KHZ, PART1, SE_1A, FALSE, 00:10:55	AEMPB	02-045/13:10:47
12477	MGS	02-045/13:26:01		Sends a one-word MOT command to the XSU command SOB: SSR_1A	STMOTC	02-045/13:10:47
12478	MGS	02-045/13:26:01		Sends a one-word SSR command to the XSU command SOB: SSR_1A, F42KHZ, PLYBCK, PART1	STSSRC	02-045/13:10:47
12479	MGS	02-045/13:26:01	65	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
12480	MGS	02-045/13:26:02		SSR 1A Data Enable	CSD1AE	02-045/13:10:48
12481	MGS	02-045/13:26:02		SSR Activity: ID=SSR_1A, FCN=Start Playback, PRT=1, BR=42666		02-045/13:10:48
12482	MGS	02-045/13:26:02	65	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
12483	MGS	02-045/13:26:06		NOTE: End fixed Sub-Reflector for Radio Science		02-045/13:10:53
12484	MGS	02-045/13:29:45		NOTE: Exit Solar Eclipse 13134		02-045/13:14:31
12485	MGS	02-045/13:42:57		NOTE: Periapsis 13135 ----------		02-045/13:27:44
12486	MGS	02-045/13:54:43		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-045/13:39:29
12487	MGS	02-045/13:54:43		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-045/13:39:29
12488	MGS	02-045/13:54:44		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-045/13:39:30
12489	MGS	02-045/13:54:44		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-045/13:39:30
12490	MGS	02-045/13:55:52	65	NOTE: Transmitter Off in 15 minutes		
12491	MGS	02-045/14:08:53	65	Range Modulation Off		
12492	MGS	02-045/14:10:52	65	Transmitter Off		
12493	MGS	02-045/14:16:44		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-045/14:01:30
12494	MGS	02-045/14:16:44		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-045/14:01:30
12495	MGS	02-045/14:33:50		NOTE: Begin fixed Sub-Reflector for Radio Science		02-045/14:18:36
12496	MGS	02-045/14:34:40		SSR 1A Data Disable	CSD1AX	02-045/14:19:26
12497	MGS	02-045/14:34:40		SSR Activity: ID=SSR_1A, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-045/14:19:26
12498	MGS	02-045/14:34:40		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-045/14:19:26
12499	MGS	02-045/14:34:40	65	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
12500	MGS	02-045/14:37:00		NOTE: Start EVP data return script		02-045/14:21:46
12501	MGS	02-045/14:37:00		: SSR_1B, F42KHZ, PART1, 2002-045T15:08:30.000	AEMPBU	02-045/14:21:46
12502	MGS	02-045/14:38:49		: 00:06:45, FALSE	RDSCII	02-045/14:23:35
12503	MGS	02-045/14:38:49		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-045/14:23:35
12504	MGS	02-045/14:38:49		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-045/14:23:35
12505	MGS	02-045/14:38:49		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-045/14:23:35
12506	MGS	02-045/14:38:49		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-045/14:23:35
12507	MGS	02-045/14:38:49	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
12508	MGS	02-045/14:38:49	65	NOTE: Carrier Only -- No Telemetry Modulation		
12509	MGS	02-045/14:41:00		NOTE: Enter Planetary Atmosphere 13135		02-045/14:25:46
12510	MGS	02-045/14:42:10		NOTE: Apoapsis 13135 -		02-045/14:26:57
12511	MGS	02-045/14:45:05		NOTE: Enter Earth Occultation 13135		02-045/14:29:51
12512	MGS	02-045/14:45:05	65	NOTE: Loss Of X-Band Signal		
12513	MGS	02-045/14:45:34		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-045/14:30:20
12514	MGS	02-045/14:45:34		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-045/14:30:20
12515	MGS	02-045/14:45:34		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-045/14:30:20
12516	MGS	02-045/14:45:34		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-045/14:30:20

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
12517	MGS	02-045/14:45:35		Turn off the MOT Exciter and RPA beam	STRPAF	02-045/14:30:21
12518	MGS	02-045/14:45:36		NOTE: End EVP script		02-045/14:30:22
12519	MGS	02-045/14:45:40		NOTE: End fixed Sub-Reflector for Radio Science		02-045/14:30:26
12520	MGS	02-045/14:47:00		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-045/14:31:46
12521	MGS	02-045/14:47:01		NOTE: Enter Solar Eclipse 13135		02-045/14:31:47
12522	MGS	02-045/14:50:28	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
12523	MGS	02-045/14:52:28	65	Range Modulation On: SUP=3.0dB		
12524	MGS	02-045/14:53:28	65	Begin Ranging Acquisition		
12525	MGS	02-045/15:11:41		NOTE: Begin fixed Sub-Reflector for Radio Science		02-045/14:56:27
12526	MGS	02-045/15:11:44		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-045/14:56:30
12527	MGS	02-045/15:11:44		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-045/14:56:30
12528	MGS	02-045/15:11:49		Set eclipse egress script address: 019A	SWSEES	02-045/14:56:35
12529	MGS	02-045/15:15:25		: 01:27:52	RPAONX	02-045/15:00:11
12530	MGS	02-045/15:15:25		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-045/15:00:11
12531	MGS	02-045/15:16:40		: 00:00:30, 00:07:03, FALSE	RDSCIE	02-045/15:01:26
12532	MGS	02-045/15:16:40		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-045/15:01:26
12533	MGS	02-045/15:16:40		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-045/15:01:26
12534	MGS	02-045/15:16:40		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-045/15:01:26
12535	MGS	02-045/15:16:40		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-045/15:01:26
12536	MGS	02-045/15:17:10		NOTE: Exit Earth Occultation 13135		02-045/15:01:56
12537	MGS	02-045/15:17:10	65	Acquisition Of X-Band Signal		
12538	MGS	02-045/15:17:10	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
12539	MGS	02-045/15:17:10	65	NOTE: Carrier Only -- No Telemetry Modulation		
12540	MGS	02-045/15:21:32		NOTE: Exit Planetary Atmosphere 13135		02-045/15:06:19
12541	MGS	02-045/15:23:43		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-045/15:08:29
12542	MGS	02-045/15:23:43		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-045/15:08:29
12543	MGS	02-045/15:23:43		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-045/15:08:29
12544	MGS	02-045/15:23:43		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-045/15:08:29
12545	MGS	02-045/15:23:43		: REC_1B, F42KHZ, PART1, SE_1A, FALSE, 00:10:55	AEMPB	02-045/15:08:29
12546	MGS	02-045/15:23:43		Sends a one-word MOT command to the XSU command SOB: SSR_1B	STMOTC	02-045/15:08:29
12547	MGS	02-045/15:23:43		Sends a one-word SSR command to the XSU command SOB: SSR_1B, F42KHZ, PLYBCK, PART1	STSSRC	02-045/15:08:29
12548	MGS	02-045/15:23:43	65	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
12549	MGS	02-045/15:23:44		SSR 1B Data Enable	CSD1BE	02-045/15:08:30
12550	MGS	02-045/15:23:44		SSR Activity: ID=SSR_1B, FCN=Start Playback, PRT=1, BR=42666		02-045/15:08:30
12551	MGS	02-045/15:23:44	65	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
12552	MGS	02-045/15:23:49		NOTE: End fixed Sub-Reflector for Radio Science		02-045/15:08:35
12553	MGS	02-045/15:27:27		NOTE: Exit Solar Eclipse 13135		02-045/15:12:13
12554	MGS	02-045/15:40:46		NOTE: Periapsis 13136 ----------		02-045/15:25:32
12555	MGS	02-045/15:48:27		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-045/15:33:12
12556	MGS	02-045/15:48:27		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-045/15:33:12
12557	MGS	02-045/15:48:28		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-045/15:33:13
12558	MGS	02-045/15:48:28		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-045/15:33:13
12559	MGS	02-045/15:53:38	65	NOTE: Transmitter Off in 15 minutes		
12560	MGS	02-045/16:06:39	65	Range Modulation Off		
12561	MGS	02-045/16:08:38	65	Transmitter Off		
12562	MGS	02-045/16:10:28		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-045/15:55:13
12563	MGS	02-045/16:10:28		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-045/15:55:13
12564	MGS	02-045/16:31:32		NOTE: Begin fixed Sub-Reflector for Radio Science		02-045/16:16:18
12565	MGS	02-045/16:32:23		SSR 1B Data Disable	CSD1BX	02-045/16:17:08
12566	MGS	02-045/16:32:23		SSR Activity: ID=SSR_1B, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-045/16:17:08
12567	MGS	02-045/16:32:23		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-045/16:17:08
12568	MGS	02-045/16:32:23	65	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
12569	MGS	02-045/16:34:48		NOTE: Start EVP data return script		02-045/16:19:33
12570	MGS	02-045/16:34:48		: SSR_1A, F42KHZ, PART2, 2002-045T17:06:17.000	AEMPBU	02-045/16:19:33

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
12571	MGS	02-045/16:36:32		: 00:06:45, FALSE	RDSCII	02-045/16:21:17
12572	MGS	02-045/16:36:32		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-045/16:21:17
12573	MGS	02-045/16:36:32		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-045/16:21:17
12574	MGS	02-045/16:36:32		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-045/16:21:17
12575	MGS	02-045/16:36:32		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-045/16:21:17
12576	MGS	02-045/16:36:32	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
12577	MGS	02-045/16:36:32	65	NOTE: Carrier Only -- No Telemetry Modulation		
12578	MGS	02-045/16:38:47		NOTE: Enter Planetary Atmosphere 13136		02-045/16:23:33
12579	MGS	02-045/16:39:58		NOTE: Apoapsis 13136 -		02-045/16:24:44
12580	MGS	02-045/16:42:51		NOTE: Enter Earth Occultation 13136		02-045/16:27:37
12581	MGS	02-045/16:42:51	65	NOTE: Loss Of X-Band Signal		
12582	MGS	02-045/16:43:17		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-045/16:28:02
12583	MGS	02-045/16:43:17		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-045/16:28:02
12584	MGS	02-045/16:43:17		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-045/16:28:02
12585	MGS	02-045/16:43:17		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-045/16:28:02
12586	MGS	02-045/16:43:18		Turn off the MOT Exciter and RPA beam	STRPAF	02-045/16:28:03
12587	MGS	02-045/16:43:18		NOTE: End EVP script		02-045/16:28:04
12588	MGS	02-045/16:43:22		NOTE: End fixed Sub-Reflector for Radio Science		02-045/16:28:08
12589	MGS	02-045/16:44:48		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-045/16:29:33
12590	MGS	02-045/16:44:48		NOTE: Enter Solar Eclipse 13136		02-045/16:29:34
12591	MGS	02-045/16:45:00	25	Begin Pre-Cal		
12592	MGS	02-045/16:45:00	25	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
12593	MGS	02-045/16:45:00	25	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
12594	MGS	02-045/16:45:00	25	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
12595	MGS	02-045/16:45:00	25	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
12596	MGS	02-045/16:45:00	25	At BOT: S/C Tlm Mode: BR=42666.7, FL=10000, SC=HIGH, MI=80.0		
12597	MGS	02-045/16:45:00	25	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
12598	MGS	02-045/16:45:00	25	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
12599	MGS	02-045/16:45:00	25	Config: TGC: DEST=37		
12600	MGS	02-045/16:45:00	25	Config: TGC: BAND=X, BR=42666.666667		
12601	MGS	02-045/16:45:00	25	Config: FSS: CH=2, PRI_FL=10000		
12602	MGS	02-045/16:45:00	25	Config: RSR		
12603	MGS	02-045/16:45:00	25	Config: TXL		
12604	MGS	02-045/16:45:00	25	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
12605	MGS	02-045/16:45:00	25	Config: BVR		
12606	MGS	02-045/16:45:00	25	Config: Doppler Extractor: BIAS=+1MHZ		
12607	MGS	02-045/16:45:00	25	Config: MDA: SMPL=0.1		
12608	MGS	02-045/16:45:00	25	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
12609	MGS	02-045/16:45:00	25	Config: SRA: HIGH=4, LOW=14, SERV=D		
12610	MGS	02-045/16:45:00	25	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
12611	MGS	02-045/16:48:14	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
12612	MGS	02-045/16:50:15	65	Range Modulation On: SUP=3.0dB		
12613	MGS	02-045/16:51:15	65	Begin Ranging Acquisition		
12614	MGS	02-045/16:55:13		NOTE: Start Block (SSRMGR)		02-045/16:39:58
12615	MGS	02-045/16:55:13		Sends a one-word SSR command to the XSU command SOB: SSR_2B, SE_1A, RECORD, PART2	STSSRC	02-045/16:39:58
12616	MGS	02-045/16:55:14		SSR 2B Data Enable	CSD2BE	02-045/16:39:59
12617	MGS	02-045/16:55:14		SSR Activity: ID=SSR_2B, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-045/16:39:59
12618	MGS	02-045/17:09:28		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-045/16:54:13
12619	MGS	02-045/17:09:28		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-045/16:54:13
12620	MGS	02-045/17:09:28		NOTE: Begin fixed Sub-Reflector for Radio Science		02-045/16:54:14
12621	MGS	02-045/17:09:33		Set eclipse egress script address: 01DC	SWSEES	02-045/16:54:18
12622	MGS	02-045/17:13:13		: 01:27:52	RPAONX	02-045/16:57:58
12623	MGS	02-045/17:13:13		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-045/16:57:58
12624	MGS	02-045/17:14:28		: 00:00:30, 00:07:03, FALSE	RDSCIE	02-045/16:59:13

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
12625	MGS	02-045/17:14:28		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-045/16:59:13
12626	MGS	02-045/17:14:28		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-045/16:59:13
12627	MGS	02-045/17:14:28		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-045/16:59:13
12628	MGS	02-045/17:14:28		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-045/16:59:13
12629	MGS	02-045/17:14:57		NOTE: Exit Earth Occultation 13136		02-045/16:59:43
12630	MGS	02-045/17:14:57	65	Acquisition Of X-Band Signal		
12631	MGS	02-045/17:14:57	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
12632	MGS	02-045/17:14:57	65	NOTE: Carrier Only -- No Telemetry Modulation		
12633	MGS	02-045/17:19:19		NOTE: Exit Planetary Atmosphere 13136		02-045/17:04:05
12634	MGS	02-045/17:21:31		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-045/17:06:16
12635	MGS	02-045/17:21:31		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-045/17:06:16
12636	MGS	02-045/17:21:31		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-045/17:06:16
12637	MGS	02-045/17:21:31		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-045/17:06:16
12638	MGS	02-045/17:21:31		: REC_1A, F42KHZ, PART2, SE_1A, FALSE, 00:10:55	AEMPB	02-045/17:06:16
12639	MGS	02-045/17:21:31		Sends a one-word MOT command to the XSU command SOB: SSR_1A	STMOTC	02-045/17:06:16
12640	MGS	02-045/17:21:31		Sends a one-word SSR command to the XSU command SOB: SSR_1A, F42KHZ, PLYBCK, PART2	STSSRC	02-045/17:06:16
12641	MGS	02-045/17:21:31	65	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
12642	MGS	02-045/17:21:32		SSR 1A Data Enable	CSD1AE	02-045/17:06:17
12643	MGS	02-045/17:21:32		SSR Activity: ID=SSR_1A, FCN=Start Playback, PRT=2, BR=42666		02-045/17:06:17
12644	MGS	02-045/17:21:32	65	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
12645	MGS	02-045/17:21:36		NOTE: End fixed Sub-Reflector for Radio Science		02-045/17:06:22
12646	MGS	02-045/17:21:54		SSR 2A Data Disable	CSD2AX	02-045/17:06:39
12647	MGS	02-045/17:21:54		SSR Activity: ID=SSR_2A, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-045/17:06:39
12648	MGS	02-045/17:21:55		NOTE: End Block (SSRMGR)		02-045/17:06:40
12649	MGS	02-045/17:25:14		NOTE: Exit Solar Eclipse 13136		02-045/17:10:00
12650	MGS	02-045/17:38:37		NOTE: Periapsis 13137 ----------		02-045/17:23:23
12651	MGS	02-045/17:45:00	25	Begin Tracking		
12652	MGS	02-045/17:45:00	25	Acquire D/L: X/16, 3-Way/65, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
12653	MGS	02-045/17:46:14		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-045/17:30:59
12654	MGS	02-045/17:46:14		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-045/17:30:59
12655	MGS	02-045/17:46:15		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-045/17:31:00
12656	MGS	02-045/17:46:15		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-045/17:31:00
12657	MGS	02-045/17:50:17	25	NOTE: Above Uplink Interlock Limit		
12658	MGS	02-045/17:51:25	25	NOTE: Transmitter Off in 15 minutes		
12659	MGS	02-045/17:53:00	65	Range Modulation Off		
12660	MGS	02-045/17:55:00	25	U/L Transfer From DSS-65 to DSS-25: PWR=4.0, BR=125.0, CS=5.82dB		
12661	MGS	02-045/17:57:00	25	Range Modulation On: SUP=3.0dB		
12662	MGS	02-045/17:58:00	25	Begin Ranging Acquisition		
12663	MGS	02-045/18:04:26	25	Range Modulation Off		
12664	MGS	02-045/18:05:00	65	End Tracking		
12665	MGS	02-045/18:06:25	25	Transmitter Off		
12666	MGS	02-045/18:08:15		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-045/17:53:00
12667	MGS	02-045/18:08:15		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-045/17:53:00
12668	MGS	02-045/18:20:00	65	End Post-Cal		
12669	MGS	02-045/18:25:28	25	Acquire D/L: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
12670	MGS	02-045/18:29:19		NOTE: Begin fixed Sub-Reflector for Radio Science		02-045/18:14:05
12671	MGS	02-045/18:30:10		SSR 1A Data Disable	CSD1AX	02-045/18:14:55
12672	MGS	02-045/18:30:10		SSR Activity: ID=SSR_1A, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-045/18:14:55
12673	MGS	02-045/18:30:10		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-045/18:14:55
12674	MGS	02-045/18:30:10	25	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
12675	MGS	02-045/18:32:35		NOTE: Start EVP data return script		02-045/18:17:20
12676	MGS	02-045/18:32:35		: SSR_1B, F42KHZ, PART2, 2002-045T19:04:04.000	AEMPBU	02-045/18:17:20
12677	MGS	02-045/18:34:19		: 00:06:45, FALSE	RDSCII	02-045/18:19:04

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
12678	MGS	02-045/18:34:19		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-045/18:19:04
12679	MGS	02-045/18:34:19		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-045/18:19:04
12680	MGS	02-045/18:34:19		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-045/18:19:04
12681	MGS	02-045/18:34:19		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-045/18:19:04
12682	MGS	02-045/18:34:19	25	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
12683	MGS	02-045/18:34:19	25	NOTE: Carrier Only -- No Telemetry Modulation		
12684	MGS	02-045/18:36:35		NOTE: Enter Planetary Atmosphere 13137		02-045/18:21:20
12685	MGS	02-045/18:37:37		NOTE: Apoapsis 13137 -		02-045/18:22:22
12686	MGS	02-045/18:40:39		NOTE: Enter Earth Occultation 13137		02-045/18:25:24
12687	MGS	02-045/18:40:39	25	NOTE: Loss Of X-Band Signal		
12688	MGS	02-045/18:41:04		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-045/18:25:49
12689	MGS	02-045/18:41:04		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-045/18:25:49
12690	MGS	02-045/18:41:04		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-045/18:25:49
12691	MGS	02-045/18:41:04		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-045/18:25:49
12692	MGS	02-045/18:41:05		Turn off the MOT Exciter and RPA beam	STRPAF	02-045/18:25:50
12693	MGS	02-045/18:41:05		NOTE: End EVP script		02-045/18:25:51
12694	MGS	02-045/18:41:09		NOTE: End fixed Sub-Reflector for Radio Science		02-045/18:25:55
12695	MGS	02-045/18:42:35		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-045/18:27:20
12696	MGS	02-045/18:42:35		NOTE: Enter Solar Eclipse 13137		02-045/18:27:21
12697	MGS	02-045/18:46:01	25	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
12698	MGS	02-045/18:48:02	25	Range Modulation On: SUP=3.0dB		
12699	MGS	02-045/18:49:02	25	Begin Ranging Acquisition		
12700	MGS	02-045/19:07:15		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-045/18:52:00
12701	MGS	02-045/19:07:15		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-045/18:52:00
12702	MGS	02-045/19:07:15		NOTE: Begin fixed Sub-Reflector for Radio Science		02-045/18:52:01
12703	MGS	02-045/19:07:19		Command the PSE with included data word: 3990	SWPSEL	02-045/18:52:04
12704	MGS	02-045/19:07:20		Set eclipse egress script address: 0158	SWSEES	02-045/18:52:05
12705	MGS	02-045/19:11:00		: 01:27:52	RPAONX	02-045/18:55:45
12706	MGS	02-045/19:11:00		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-045/18:55:45
12707	MGS	02-045/19:12:15		: 00:00:30, 00:07:03, FALSE	RDSCIE	02-045/18:57:00
12708	MGS	02-045/19:12:15		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-045/18:57:00
12709	MGS	02-045/19:12:15		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-045/18:57:00
12710	MGS	02-045/19:12:15		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-045/18:57:00
12711	MGS	02-045/19:12:15		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-045/18:57:00
12712	MGS	02-045/19:12:45		Disables autonomous command to send eclipse ingress script	SWEISX	02-045/18:57:30
12713	MGS	02-045/19:12:45		NOTE: Exit Earth Occultation 13137		02-045/18:57:30
12714	MGS	02-045/19:12:45	25	Acquisition Of X-Band Signal		
12715	MGS	02-045/19:12:45	25	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
12716	MGS	02-045/19:12:45	25	NOTE: Carrier Only -- No Telemetry Modulation		
12717	MGS	02-045/19:17:07		NOTE: Exit Planetary Atmosphere 13137		02-045/19:01:53
12718	MGS	02-045/19:19:18		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-045/19:04:03
12719	MGS	02-045/19:19:18		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-045/19:04:03
12720	MGS	02-045/19:19:18		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-045/19:04:03
12721	MGS	02-045/19:19:18		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-045/19:04:03
12722	MGS	02-045/19:19:18		: REC_1B, F42KHZ, PART2, SE_1A, FALSE, 00:10:55	AEMPB	02-045/19:04:03
12723	MGS	02-045/19:19:18		Sends a one-word MOT command to the XSU command SOB: SSR_1B	STMOTC	02-045/19:04:03
12724	MGS	02-045/19:19:18		Sends a one-word SSR command to the XSU command SOB: SSR_1B, F42KHZ, PLYBCK, PART2	STSSRC	02-045/19:04:03
12725	MGS	02-045/19:19:18	25	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
12726	MGS	02-045/19:19:19		SSR 1B Data Enable	CSD1BE	02-045/19:04:04
12727	MGS	02-045/19:19:19		SSR Activity: ID=SSR_1B, FCN=Start Playback, PRT=2, BR=42666		02-045/19:04:04
12728	MGS	02-045/19:19:19	25	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
12729	MGS	02-045/19:19:23		NOTE: End fixed Sub-Reflector for Radio Science		02-045/19:04:09
12730	MGS	02-045/19:23:02		NOTE: Exit Solar Eclipse 13137		02-045/19:07:47
12731	MGS	02-045/19:36:19		NOTE: Periapsis 13138 ----------		02-045/19:21:05

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
12732	MGS	02-045/19:48:01		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-045/19:32:46
12733	MGS	02-045/19:48:01		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-045/19:32:46
12734	MGS	02-045/19:48:02		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-045/19:32:47
12735	MGS	02-045/19:48:02		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-045/19:32:47
12736	MGS	02-045/19:49:10	25	NOTE: Transmitter Off in 15 minutes		
12737	MGS	02-045/20:02:11	25	Range Modulation Off		
12738	MGS	02-045/20:04:10	25	Transmitter Off		
12739	MGS	02-045/20:10:02		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-045/19:54:47
12740	MGS	02-045/20:10:02		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-045/19:54:47
12741	MGS	02-045/20:27:06		NOTE: Begin fixed Sub-Reflector for Radio Science		02-045/20:11:52
12742	MGS	02-045/20:27:57		SSR 1B Data Disable	CSD1BX	02-045/20:12:42
12743	MGS	02-045/20:27:57		SSR Activity: ID=SSR_1B, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-045/20:12:42
12744	MGS	02-045/20:27:57		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-045/20:12:42
12745	MGS	02-045/20:27:57	25	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
12746	MGS	02-045/20:30:20		NOTE: Start Block (MAP_RT)		02-045/20:15:05
12747	MGS	02-045/20:30:21		: 00:28:25, 01:27:51, FALSE, TRUE, FALSE, 00:01:15, 00:07:03, 01:12:47, 00:06:45	AEMINI	02-045/20:15:06
12748	MGS	02-045/20:30:21		Enable sending eclipse ingress script when array power disappears	SWEISE	02-045/20:15:06
12749	MGS	02-045/20:30:21		NOTE: Start EVP data return script		02-045/20:15:06
12750	MGS	02-045/20:30:22		: SE_2A, RTM, 01:12:46, MRC, 2002-045T21:01:51.000	AEMRTI	02-045/20:15:07
12751	MGS	02-045/20:32:06		: 00:06:45, FALSE	RDSCII	02-045/20:16:51
12752	MGS	02-045/20:32:06		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-045/20:16:51
12753	MGS	02-045/20:32:06		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-045/20:16:51
12754	MGS	02-045/20:32:06		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-045/20:16:51
12755	MGS	02-045/20:32:06		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-045/20:16:51
12756	MGS	02-045/20:32:06	25	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
12757	MGS	02-045/20:32:06	25	NOTE: Carrier Only -- No Telemetry Modulation		
12758	MGS	02-045/20:34:20		NOTE: Enter Planetary Atmosphere 13138		02-045/20:19:05
12759	MGS	02-045/20:35:06		NOTE: Apoapsis 13138 -		02-045/20:19:51
12760	MGS	02-045/20:38:25		NOTE: Enter Earth Occultation 13138		02-045/20:23:10
12761	MGS	02-045/20:38:25	25	NOTE: Loss Of X-Band Signal		
12762	MGS	02-045/20:38:51		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-045/20:23:36
12763	MGS	02-045/20:38:51		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-045/20:23:36
12764	MGS	02-045/20:38:51		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-045/20:23:36
12765	MGS	02-045/20:38:51		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-045/20:23:36
12766	MGS	02-045/20:38:52		Turn off the MOT Exciter and RPA beam	STRPAF	02-045/20:23:37
12767	MGS	02-045/20:38:53		NOTE: End EVP script		02-045/20:23:38
12768	MGS	02-045/20:38:54		NOTE: End Block (MAP_PB)		02-045/20:23:39
12769	MGS	02-045/20:38:57		NOTE: End fixed Sub-Reflector for Radio Science		02-045/20:23:42
12770	MGS	02-045/20:40:21		NOTE: Enter Solar Eclipse 13138		02-045/20:25:06
12771	MGS	02-045/20:40:21		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-045/20:25:06
12772	MGS	02-045/20:43:47	25	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
12773	MGS	02-045/20:45:47	25	Range Modulation On: SUP=3.0dB		
12774	MGS	02-045/20:46:47	25	Begin Ranging Acquisition		
12775	MGS	02-045/21:05:01		NOTE: Begin fixed Sub-Reflector for Radio Science		02-045/20:49:46
12776	MGS	02-045/21:05:02		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-045/20:49:47
12777	MGS	02-045/21:05:02		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-045/20:49:47
12778	MGS	02-045/21:05:07		Set eclipse egress script address: 019A	SWSEES	02-045/20:49:52
12779	MGS	02-045/21:08:46		: 01:27:51	RPAONX	02-045/20:53:31
12780	MGS	02-045/21:08:46		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-045/20:53:31
12781	MGS	02-045/21:10:01		: 00:00:30, 00:07:03, FALSE	RDSCIE	02-045/20:54:46
12782	MGS	02-045/21:10:01		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-045/20:54:46
12783	MGS	02-045/21:10:01		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-045/20:54:46
12784	MGS	02-045/21:10:01		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-045/20:54:46
12785	MGS	02-045/21:10:01		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-045/20:54:46

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
12786	MGS	02-045/21:10:31		NOTE: Exit Earth Occultation 13138		02-045/20:55:17
12787	MGS	02-045/21:10:31	25	Acquisition Of X-Band Signal		
12788	MGS	02-045/21:10:31	25	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
12789	MGS	02-045/21:10:31	25	NOTE: Carrier Only -- No Telemetry Modulation		
12790	MGS	02-045/21:14:54		NOTE: Exit Planetary Atmosphere 13138		02-045/20:59:39
12791	MGS	02-045/21:17:04		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-045/21:01:49
12792	MGS	02-045/21:17:04		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-045/21:01:49
12793	MGS	02-045/21:17:04		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-045/21:01:49
12794	MGS	02-045/21:17:04		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-045/21:01:49
12795	MGS	02-045/21:17:04	25	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
12796	MGS	02-045/21:17:05		: RTM, MRC, 01:12:46, S&E_2A, FALSE, 00:06:46	AEMRT	02-045/21:01:50
12797	MGS	02-045/21:17:05		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-045/21:01:50
12798	MGS	02-045/21:17:05		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-045/21:01:50
12799	MGS	02-045/21:17:05	25	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
12800	MGS	02-045/21:17:09		NOTE: End fixed Sub-Reflector for Radio Science		02-045/21:01:54
12801	MGS	02-045/21:20:47		NOTE: Exit Solar Eclipse 13138		02-045/21:05:32
12802	MGS	02-045/21:22:58		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-045/21:07:43
12803	MGS	02-045/21:22:58	25	D/L Change: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
12804	MGS	02-045/21:23:00		NOTE: Start Block (SSRMGR)		02-045/21:07:45
12805	MGS	02-045/21:23:00		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-045/21:07:45
12806	MGS	02-045/21:23:00		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-045/21:07:45
12807	MGS	02-045/21:23:01		Sends a one-word MOT command to the XSU command SOB: SSR_1A	STMOTC	02-045/21:07:46
12808	MGS	02-045/21:23:02		Sends a one-word SSR command to the XSU command SOB: SSR_1A, F42KHZ, PLYBCK, PART3	STSSRC	02-045/21:07:47
12809	MGS	02-045/21:23:03		SSR 1A Data Enable	CSD1AE	02-045/21:07:48
12810	MGS	02-045/21:23:03		SSR Activity: ID=SSR_1A, FCN=Start Playback, PRT=3, BR=42666		02-045/21:07:48
12811	MGS	02-045/21:23:03	25	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
12812	MGS	02-045/21:34:06		NOTE: Periapsis 13139 ----------		02-045/21:18:51
12813	MGS	02-045/21:35:30		NOTE: Start Block (SSRMGR)		02-045/21:20:15
12814	MGS	02-045/21:35:30		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-045/21:20:15
12815	MGS	02-045/21:35:30		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-045/21:20:15
12816	MGS	02-045/21:35:31		Sends a one-word MOT command to the XSU command SOB: SSR_1B	STMOTC	02-045/21:20:16
12817	MGS	02-045/21:35:32		Sends a one-word SSR command to the XSU command SOB: SSR_1B, F42KHZ, PLYBCK, PART3	STSSRC	02-045/21:20:17
12818	MGS	02-045/21:35:33		SSR 1A Data Disable	CSD1AX	02-045/21:20:18
12819	MGS	02-045/21:35:33		SSR Activity: ID=SSR_1A, FCN=End Playback, PRT=3, BITS=32000000, DUR=00:12:30		02-045/21:20:18
12820	MGS	02-045/21:35:33		SSR 1B Data Enable	CSD1BE	02-045/21:20:18
12821	MGS	02-045/21:35:33		SSR Activity: ID=SSR_1B, FCN=Start Playback, PRT=3, BR=42666		02-045/21:20:18
12822	MGS	02-045/21:35:33	25	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
12823	MGS	02-045/21:35:34		NOTE: End Block (SSRMGR)		02-045/21:20:19
12824	MGS	02-045/21:41:46		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-045/21:26:31
12825	MGS	02-045/21:41:46		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-045/21:26:31
12826	MGS	02-045/21:41:47		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-045/21:26:32
12827	MGS	02-045/21:41:47		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-045/21:26:32
12828	MGS	02-045/21:46:53	25	NOTE: Transmitter Off in 15 minutes		
12829	MGS	02-045/21:53:03		SSR 1B Data Disable	CSD1BX	02-045/21:37:48
12830	MGS	02-045/21:53:03		SSR Activity: ID=SSR_1B, FCN=End Playback, PRT=3, BITS=44800000, DUR=00:17:30		02-045/21:37:48
12831	MGS	02-045/21:53:04		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-045/21:37:49
12832	MGS	02-045/21:53:04		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-045/21:37:49
12833	MGS	02-045/21:53:04		NOTE: End Block (SSRMGR)		02-045/21:37:49
12834	MGS	02-045/21:53:04	25	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
12835	MGS	02-045/21:59:54	25	Range Modulation Off		
12836	MGS	02-045/22:01:53	25	Transmitter Off		
12837	MGS	02-045/22:03:47		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-045/21:48:32
12838	MGS	02-045/22:03:47		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-045/21:48:32
12839	MGS	02-045/22:24:51		NOTE: Begin fixed Sub-Reflector for Radio Science		02-045/22:09:36

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
12840	MGS	02-045/22:28:05		NOTE: Start EVP data return script		02-045/22:12:49
12841	MGS	02-045/22:28:34		NOTE: Start Block (SSRMGR)		02-045/22:13:18
12842	MGS	02-045/22:28:34		Sends a one-word SSR command to the XSU command SOB: SSR_2A, SE_1A, RECORD, PART3	STSSRC	02-045/22:13:18
12843	MGS	02-045/22:28:35		SSR 2A Data Enable	CSD2AE	02-045/22:13:19
12844	MGS	02-045/22:28:35		SSR Activity: ID=SSR_2A, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-045/22:13:19
12845	MGS	02-045/22:29:52		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-045/22:14:36
12846	MGS	02-045/22:29:52		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=3, BITS=616000, DUR=00:01:17		02-045/22:14:36
12847	MGS	02-045/22:29:52		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-045/22:14:36
12848	MGS	02-045/22:29:52		: 00:06:45, FALSE	RDSCII	02-045/22:14:36
12849	MGS	02-045/22:29:52		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-045/22:14:36
12850	MGS	02-045/22:29:52		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-045/22:14:36
12851	MGS	02-045/22:29:52		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-045/22:14:36
12852	MGS	02-045/22:29:52		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-045/22:14:36
12853	MGS	02-045/22:29:52	25	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
12854	MGS	02-045/22:29:52	25	NOTE: Carrier Only -- No Telemetry Modulation		
12855	MGS	02-045/22:32:03		NOTE: Enter Planetary Atmosphere 13139		02-045/22:16:48
12856	MGS	02-045/22:32:51		NOTE: Apoapsis 13139 -		02-045/22:17:36
12857	MGS	02-045/22:36:08		NOTE: Enter Earth Occultation 13139		02-045/22:20:53
12858	MGS	02-045/22:36:08	25	NOTE: Loss Of X-Band Signal		
12859	MGS	02-045/22:36:37		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-045/22:21:21
12860	MGS	02-045/22:36:37		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-045/22:21:21
12861	MGS	02-045/22:36:37		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-045/22:21:21
12862	MGS	02-045/22:36:37		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-045/22:21:21
12863	MGS	02-045/22:36:37		NOTE: End EVP script		02-045/22:21:22
12864	MGS	02-045/22:36:38		Turn off the MOT Exciter and RPA beam	STRPAF	02-045/22:21:22
12865	MGS	02-045/22:36:41		NOTE: End fixed Sub-Reflector for Radio Science		02-045/22:21:26
12866	MGS	02-045/22:38:04		NOTE: Enter Solar Eclipse 13139		02-045/22:22:49
12867	MGS	02-045/22:38:05		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-045/22:22:49
12868	MGS	02-045/22:41:31	25	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
12869	MGS	02-045/22:43:31	25	Range Modulation On: SUP=3.0dB		
12870	MGS	02-045/22:44:31	25	Begin Ranging Acquisition		
12871	MGS	02-045/22:55:15		SSR 2B Data Disable	CSD2BX	02-045/22:39:59
12872	MGS	02-045/22:55:15		SSR Activity: ID=SSR_2B, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-045/22:39:59
12873	MGS	02-045/22:55:16		NOTE: End Block (SSRMGR)		02-045/22:40:00
12874	MGS	02-045/23:02:44		NOTE: Begin fixed Sub-Reflector for Radio Science		02-045/22:47:29
12875	MGS	02-045/23:02:48		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-045/22:47:32
12876	MGS	02-045/23:02:48		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-045/22:47:32
12877	MGS	02-045/23:02:53		Set eclipse egress script address: 01DC	SWSEES	02-045/22:47:37
12878	MGS	02-045/23:06:30		: 01:27:51	RPAONX	02-045/22:51:14
12879	MGS	02-045/23:06:30		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-045/22:51:14
12880	MGS	02-045/23:07:45		: 00:00:30, 00:07:03, FALSE	RDSCIE	02-045/22:52:29
12881	MGS	02-045/23:07:45		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-045/22:52:29
12882	MGS	02-045/23:07:45		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-045/22:52:29
12883	MGS	02-045/23:07:45		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-045/22:52:29
12884	MGS	02-045/23:07:45		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-045/22:52:29
12885	MGS	02-045/23:08:15		Disables autonomous command to send eclipse ingress script	SWEISX	02-045/22:52:59
12886	MGS	02-045/23:08:16		NOTE: Exit Earth Occultation 13139		02-045/22:53:01
12887	MGS	02-045/23:08:16	25	Acquisition Of X-Band Signal		
12888	MGS	02-045/23:08:16	25	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
12889	MGS	02-045/23:08:16	25	NOTE: Carrier Only -- No Telemetry Modulation		
12890	MGS	02-045/23:08:34		NOTE: Start Block (SSRMGR)		02-045/22:53:18
12891	MGS	02-045/23:08:34		Sends a one-word SSR command to the XSU command SOB: SSR_2B, SE_1A, RECORD, PART3	STSSRC	02-045/22:53:18
12892	MGS	02-045/23:08:35		SSR 2B Data Enable	CSD2BE	02-045/22:53:19
12893	MGS	02-045/23:08:35		SSR Activity: ID=SSR_2B, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-045/22:53:19

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
12894	MGS	02-045/23:12:38		NOTE: Exit Planetary Atmosphere 13139		02-045/22:57:23
12895	MGS	02-045/23:14:48		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-045/22:59:32
12896	MGS	02-045/23:14:48		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-045/22:59:32
12897	MGS	02-045/23:14:48		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-045/22:59:32
12898	MGS	02-045/23:14:48		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-045/22:59:32
12899	MGS	02-045/23:14:48	25	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
12900	MGS	02-045/23:14:49		: RTM, MRC, 01:12:46, S&E_2A, FALSE, 00:06:46	AEMRT	02-045/22:59:33
12901	MGS	02-045/23:14:49		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-045/22:59:33
12902	MGS	02-045/23:14:49		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-045/22:59:33
12903	MGS	02-045/23:14:49		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=3, BITS=2992000, DUR=00:06:14		02-045/22:59:33
12904	MGS	02-045/23:14:49		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-045/22:59:33
12905	MGS	02-045/23:14:49	25	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
12906	MGS	02-045/23:14:52		NOTE: End fixed Sub-Reflector for Radio Science		02-045/22:59:37
12907	MGS	02-045/23:18:31		NOTE: Exit Solar Eclipse 13139		02-045/23:03:15
12908	MGS	02-045/23:31:49		NOTE: Periapsis 13140 ----------		02-045/23:16:34
12909	MGS	02-045/23:35:15		SSR 2A Data Disable	CSD2AX	02-045/23:19:59
12910	MGS	02-045/23:35:15		SSR Activity: ID=SSR_2A, FCN=End Recording, PRT=3, BITS=32000000, DUR=01:06:40		02-045/23:19:59
12911	MGS	02-045/23:35:16		NOTE: End Block (SSRMGR)		02-045/23:20:00
12912	MGS	02-045/23:39:30		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-045/23:24:14
12913	MGS	02-045/23:39:30		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-045/23:24:14
12914	MGS	02-045/23:39:31		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-045/23:24:15
12915	MGS	02-045/23:39:31		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-045/23:24:15
12916	MGS	02-045/23:44:35	25	NOTE: Transmitter Off in 15 minutes		
12917	MGS	02-045/23:57:36	25	Range Modulation Off		
12918	MGS	02-045/23:59:35	25	Transmitter Off		
12919	MGS	02-046/00:00:00		Light Time: OWLT = 15:15, RTLT = 30:30		
12920	MGS	02-046/00:00:00	15	Begin Pre-Cal		
12921	MGS	02-046/00:00:00	15	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
12922	MGS	02-046/00:00:00	15	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
12923	MGS	02-046/00:00:00	15	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
12924	MGS	02-046/00:00:00	15	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=OFF, EXC=2		
12925	MGS	02-046/00:00:00	15	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
12926	MGS	02-046/00:00:00	15	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
12927	MGS	02-046/00:00:00	15	Config: TGC: DEST=37		
12928	MGS	02-046/00:00:00	15	Config: TGC: BAND=X, BR=0.000000		
12929	MGS	02-046/00:00:00	15	Config: FSS: CH=2, PRI_FL=10000		
12930	MGS	02-046/00:00:00	15	Config: RSR		
12931	MGS	02-046/00:00:00	15	Config: TXL		
12932	MGS	02-046/00:00:00	15	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
12933	MGS	02-046/00:00:00	15	Config: BVR		
12934	MGS	02-046/00:00:00	15	Config: Doppler Extractor: BIAS=+1MHZ		
12935	MGS	02-046/00:00:00	15	Config: MDA: SMPL=0.1		
12936	MGS	02-046/00:00:00	15	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
12937	MGS	02-046/00:00:00	15	Config: SRA: HIGH=4, LOW=14, SERV=D		
12938	MGS	02-046/00:00:00	15	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
12939	MGS	02-046/00:01:31		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-045/23:46:15
12940	MGS	02-046/00:01:31		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-045/23:46:15
12941	MGS	02-046/00:15:14		NOTE: Start Block (SSRMGR)		02-045/23:59:58
12942	MGS	02-046/00:15:14		Sends a one-word SSR command to the XSU command SOB: SSR_1A, SE_1A, RECORD, PART1	STSSRC	02-045/23:59:58
12943	MGS	02-046/00:15:15		SSR 1A Data Enable	CSD1AE	02-045/23:59:59
12944	MGS	02-046/00:15:15		SSR Activity: ID=SSR_1A, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-045/23:59:59
12945	MGS	02-046/00:22:34		NOTE: Begin fixed Sub-Reflector for Radio Science		02-046/00:07:19
12946	MGS	02-046/00:25:45		NOTE: Start Block (MAP_RT)		02-046/00:10:29
12947	MGS	02-046/00:25:46		: 00:28:27, 01:27:49, FALSE, TRUE, FALSE, 00:01:15, 00:07:03, 01:12:45, 00:06:45	AEMINI	02-046/00:10:30

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
12948	MGS	02-046/00:25:46		Enable sending eclipse ingress script when array power disappears	SWEISE	02-046/00:10:30
12949	MGS	02-046/00:25:46		NOTE: Start EVP data return script		02-046/00:10:30
12950	MGS	02-046/00:25:47		: SE_2A, RTM, 01:12:44, MRC, 2002-046T00:57:17.000	AEMRTI	02-046/00:10:31
12951	MGS	02-046/00:27:35		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-046/00:12:19
12952	MGS	02-046/00:27:35		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=5920000, DUR=00:12:20		02-046/00:12:19
12953	MGS	02-046/00:27:35		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-046/00:12:19
12954	MGS	02-046/00:27:35		: 00:06:45, FALSE	RDSCII	02-046/00:12:19
12955	MGS	02-046/00:27:35		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-046/00:12:19
12956	MGS	02-046/00:27:35		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-046/00:12:19
12957	MGS	02-046/00:27:35		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-046/00:12:19
12958	MGS	02-046/00:27:35		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-046/00:12:19
12959	MGS	02-046/00:27:35	25	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
12960	MGS	02-046/00:27:35	25	NOTE: Carrier Only -- No Telemetry Modulation		
12961	MGS	02-046/00:29:46		NOTE: Enter Planetary Atmosphere 13140		02-046/00:14:30
12962	MGS	02-046/00:30:42		NOTE: Apoapsis 13140 -		02-046/00:15:27
12963	MGS	02-046/00:33:51		NOTE: Enter Earth Occultation 13140		02-046/00:18:35
12964	MGS	02-046/00:33:51	25	NOTE: Loss Of X-Band Signal		
12965	MGS	02-046/00:34:20		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-046/00:19:04
12966	MGS	02-046/00:34:20		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-046/00:19:04
12967	MGS	02-046/00:34:20		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-046/00:19:04
12968	MGS	02-046/00:34:20		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-046/00:19:04
12969	MGS	02-046/00:34:21		NOTE: End EVP script		02-046/00:19:05
12970	MGS	02-046/00:34:21		Turn off the MOT Exciter and RPA beam	STRPAF	02-046/00:19:05
12971	MGS	02-046/00:34:22		NOTE: End Block (MAP_RT)		02-046/00:19:06
12972	MGS	02-046/00:34:25		NOTE: End fixed Sub-Reflector for Radio Science		02-046/00:19:09
12973	MGS	02-046/00:35:46		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-046/00:20:30
12974	MGS	02-046/00:35:46		NOTE: Enter Solar Eclipse 13140		02-046/00:20:31
12975	MGS	02-046/00:39:13	25	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
12976	MGS	02-046/00:41:13	25	Range Modulation On: SUP=3.0dB		
12977	MGS	02-046/00:41:55		SSR 2B Data Disable	CSD2BX	02-046/00:26:39
12978	MGS	02-046/00:41:55		SSR Activity: ID=SSR_2B, FCN=End Recording, PRT=3, BITS=44800000, DUR=01:33:20		02-046/00:26:39
12979	MGS	02-046/00:41:56		NOTE: End Block (SSRMGR)		02-046/00:26:40
12980	MGS	02-046/00:42:13	25	Begin Ranging Acquisition		
12981	MGS	02-046/01:00:00	15	Begin Tracking		
12982	MGS	02-046/01:00:28		NOTE: Begin fixed Sub-Reflector for Radio Science		02-046/00:45:13
12983	MGS	02-046/01:00:31		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-046/00:45:15
12984	MGS	02-046/01:00:31		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-046/00:45:15
12985	MGS	02-046/01:00:35		Command the PSE with included data word: 3990	SWPSEL	02-046/00:45:19
12986	MGS	02-046/01:00:36		Set eclipse egress script address: 0158	SWSEES	02-046/00:45:20
12987	MGS	02-046/01:04:13		: 01:27:49	RPAONX	02-046/00:48:57
12988	MGS	02-046/01:04:13		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-046/00:48:57
12989	MGS	02-046/01:05:28		: 00:00:30, 00:07:03, FALSE	RDSCIE	02-046/00:50:12
12990	MGS	02-046/01:05:28		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-046/00:50:12
12991	MGS	02-046/01:05:28		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-046/00:50:12
12992	MGS	02-046/01:05:28		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-046/00:50:12
12993	MGS	02-046/01:05:28		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-046/00:50:12
12994	MGS	02-046/01:05:58		NOTE: Exit Earth Occultation 13140		02-046/00:50:43
12995	MGS	02-046/01:05:58	15	Acquisition Of X-Band Signal		
12996	MGS	02-046/01:05:58	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
12997	MGS	02-046/01:05:58	15	NOTE: Carrier Only -- No Telemetry Modulation		
12998	MGS	02-046/01:05:58	25	Acquisition Of X-Band Signal		
12999	MGS	02-046/01:05:58	25	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
13000	MGS	02-046/01:05:58	25	NOTE: Carrier Only -- No Telemetry Modulation		
13001	MGS	02-046/01:08:00	25	Range Modulation Off		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
13002	MGS	02-046/01:10:00	15	U/L Transfer From DSS-25 to DSS-15: PWR=20.0, BR=125.0, CS=5.82dB		
13003	MGS	02-046/01:10:21		NOTE: Exit Planetary Atmosphere 13140		02-046/00:55:05
13004	MGS	02-046/01:12:00	15	Range Modulation On: SUP=3.0dB		
13005	MGS	02-046/01:12:31		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-046/00:57:15
13006	MGS	02-046/01:12:31		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-046/00:57:15
13007	MGS	02-046/01:12:31		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-046/00:57:15
13008	MGS	02-046/01:12:31		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-046/00:57:15
13009	MGS	02-046/01:12:31	15	Acquire D/L: X/16, 3-Way/25, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
13010	MGS	02-046/01:12:31	25	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
13011	MGS	02-046/01:12:32		: RTM, MRC, 01:12:44, S&E_2A, FALSE, 00:06:46	AEMRT	02-046/00:57:16
13012	MGS	02-046/01:12:32		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-046/00:57:16
13013	MGS	02-046/01:12:32		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-046/00:57:16
13014	MGS	02-046/01:12:32		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=27496000, DUR=00:44:57		02-046/00:57:16
13015	MGS	02-046/01:12:32		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-046/00:57:16
13016	MGS	02-046/01:12:32	15	D/L Change: X/16, 3-Way/25, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
13017	MGS	02-046/01:12:32	25	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
13018	MGS	02-046/01:12:36		NOTE: End fixed Sub-Reflector for Radio Science		02-046/00:57:21
13019	MGS	02-046/01:13:00	15	Begin Ranging Acquisition		
13020	MGS	02-046/01:16:13		NOTE: Exit Solar Eclipse 13140		02-046/01:00:57
13021	MGS	02-046/01:20:00	25	End Tracking		
13022	MGS	02-046/01:29:19		NOTE: Periapsis 13141 ----------		02-046/01:14:03
13023	MGS	02-046/01:35:00	25	End Post-Cal		
13024	MGS	02-046/01:40:30	15	Acquire D/L: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
13025	MGS	02-046/01:41:12		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-046/01:25:56
13026	MGS	02-046/01:41:12		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-046/01:25:56
13027	MGS	02-046/01:41:13		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-046/01:25:57
13028	MGS	02-046/01:41:13		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-046/01:25:57
13029	MGS	02-046/01:42:17	15	NOTE: Transmitter Off in 15 minutes		
13030	MGS	02-046/01:55:17	15	Range Modulation Off		
13031	MGS	02-046/01:57:17	15	Transmitter Off		
13032	MGS	02-046/02:03:13		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-046/01:47:57
13033	MGS	02-046/02:03:13		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-046/01:47:57
13034	MGS	02-046/02:20:17		NOTE: Begin fixed Sub-Reflector for Radio Science		02-046/02:05:01
13035	MGS	02-046/02:23:28		NOTE: Start EVP data return script		02-046/02:08:12
13036	MGS	02-046/02:25:16		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-046/02:10:00
13037	MGS	02-046/02:25:16		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=62408000, DUR=01:12:44		02-046/02:10:00
13038	MGS	02-046/02:25:16		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-046/02:10:00
13039	MGS	02-046/02:25:16		: 00:06:45, FALSE	RDSCII	02-046/02:10:00
13040	MGS	02-046/02:25:16		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-046/02:10:00
13041	MGS	02-046/02:25:16		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-046/02:10:00
13042	MGS	02-046/02:25:16		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-046/02:10:00
13043	MGS	02-046/02:25:16		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-046/02:10:00
13044	MGS	02-046/02:25:16	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
13045	MGS	02-046/02:25:16	15	NOTE: Carrier Only -- No Telemetry Modulation		
13046	MGS	02-046/02:27:29		NOTE: Enter Planetary Atmosphere 13141		02-046/02:12:13
13047	MGS	02-046/02:28:09		NOTE: Apoapsis 13141 -		02-046/02:12:53
13048	MGS	02-046/02:31:33		NOTE: Enter Earth Occultation 13141		02-046/02:16:18
13049	MGS	02-046/02:31:33	15	NOTE: Loss Of X-Band Signal		
13050	MGS	02-046/02:32:01		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-046/02:16:45
13051	MGS	02-046/02:32:01		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-046/02:16:45
13052	MGS	02-046/02:32:01		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-046/02:16:45
13053	MGS	02-046/02:32:01		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-046/02:16:45
13054	MGS	02-046/02:32:02		Turn off the MOT Exciter and RPA beam	STRPAF	02-046/02:16:46
13055	MGS	02-046/02:32:03		NOTE: End EVP script		02-046/02:16:47

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
13056	MGS	02-046/02:32:07		NOTE: End fixed Sub-Reflector for Radio Science		02-046/02:16:51
13057	MGS	02-046/02:33:28		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-046/02:18:12
13058	MGS	02-046/02:33:29		NOTE: Enter Solar Eclipse 13141		02-046/02:18:13
13059	MGS	02-046/02:36:54	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
13060	MGS	02-046/02:38:55	15	Range Modulation On: SUP=3.0dB		
13061	MGS	02-046/02:39:55	15	Begin Ranging Acquisition		
13062	MGS	02-046/02:58:11		NOTE: Begin fixed Sub-Reflector for Radio Science		02-046/02:42:55
13063	MGS	02-046/02:58:13		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-046/02:42:57
13064	MGS	02-046/02:58:13		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-046/02:42:57
13065	MGS	02-046/02:58:18		Set eclipse egress script address: 019A	SWSEES	02-046/02:43:02
13066	MGS	02-046/03:01:55		: 01:27:49	RPAONX	02-046/02:46:39
13067	MGS	02-046/03:01:55		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-046/02:46:39
13068	MGS	02-046/03:03:10		: 00:00:30, 00:07:03, FALSE	RDSCIE	02-046/02:47:54
13069	MGS	02-046/03:03:10		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-046/02:47:54
13070	MGS	02-046/03:03:10		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-046/02:47:54
13071	MGS	02-046/03:03:10		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-046/02:47:54
13072	MGS	02-046/03:03:10		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-046/02:47:54
13073	MGS	02-046/03:03:40		Disables autonomous command to send eclipse ingress script	SWEISX	02-046/02:48:24
13074	MGS	02-046/03:03:40		NOTE: Exit Earth Occultation 13141		02-046/02:48:25
13075	MGS	02-046/03:03:40	15	Acquisition Of X-Band Signal		
13076	MGS	02-046/03:03:40	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
13077	MGS	02-046/03:03:40	15	NOTE: Carrier Only -- No Telemetry Modulation		
13078	MGS	02-046/03:08:03		NOTE: Exit Planetary Atmosphere 13141		02-046/02:52:47
13079	MGS	02-046/03:10:13		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-046/02:54:57
13080	MGS	02-046/03:10:13		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-046/02:54:57
13081	MGS	02-046/03:10:13		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-046/02:54:57
13082	MGS	02-046/03:10:13		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-046/02:54:57
13083	MGS	02-046/03:10:13	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
13084	MGS	02-046/03:10:14		: RTM, MRC, 01:12:44, S&E_2A, FALSE, 00:06:46	AEMRT	02-046/02:54:58
13085	MGS	02-046/03:10:14		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-046/02:54:58
13086	MGS	02-046/03:10:14		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-046/02:54:58
13087	MGS	02-046/03:10:14		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=83992000, DUR=00:44:58		02-046/02:54:58
13088	MGS	02-046/03:10:14		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-046/02:54:58
13089	MGS	02-046/03:10:14	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
13090	MGS	02-046/03:10:19		NOTE: End fixed Sub-Reflector for Radio Science		02-046/02:55:03
13091	MGS	02-046/03:13:55		NOTE: Exit Solar Eclipse 13141		02-046/02:58:39
13092	MGS	02-046/03:26:45		NOTE: Periapsis 13142 ----------		02-046/03:11:29
13093	MGS	02-046/03:34:53		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-046/03:19:37
13094	MGS	02-046/03:34:53		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-046/03:19:37
13095	MGS	02-046/03:34:54		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-046/03:19:38
13096	MGS	02-046/03:34:54		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-046/03:19:38
13097	MGS	02-046/03:40:00	15	NOTE: Transmitter Off in 15 minutes		
13098	MGS	02-046/03:53:00	15	Range Modulation Off		
13099	MGS	02-046/03:55:00	15	Transmitter Off		
13100	MGS	02-046/03:56:54		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-046/03:41:38
13101	MGS	02-046/03:56:54		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-046/03:41:38
13102	MGS	02-046/04:17:59		NOTE: Begin fixed Sub-Reflector for Radio Science		02-046/04:02:43
13103	MGS	02-046/04:21:12		NOTE: Start Block (MAP_RT)		02-046/04:05:56
13104	MGS	02-046/04:21:13		: 00:28:27, 01:27:49, FALSE, TRUE, FALSE, 00:01:15, 00:07:03, 01:12:45, 00:06:45	AEMINI	02-046/04:05:57
13105	MGS	02-046/04:21:13		Enable sending eclipse ingress script when array power disappears	SWEISE	02-046/04:05:57
13106	MGS	02-046/04:21:13		NOTE: Start EVP data return script		02-046/04:05:57
13107	MGS	02-046/04:21:14		: SE_1A, MRC, 01:12:44, MRC, 2002-046T04:52:44.000	AEMRTI	02-046/04:05:58
13108	MGS	02-046/04:22:58		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-046/04:07:42
13109	MGS	02-046/04:22:58		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=118904000, DUR=01:12:44		02-046/04:07:42

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
13110	MGS	02-046/04:22:58		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-046/04:07:42
13111	MGS	02-046/04:22:58		: 00:06:45, FALSE	RDSCII	02-046/04:07:42
13112	MGS	02-046/04:22:58		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-046/04:07:42
13113	MGS	02-046/04:22:58		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-046/04:07:42
13114	MGS	02-046/04:22:58		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-046/04:07:42
13115	MGS	02-046/04:22:58		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-046/04:07:42
13116	MGS	02-046/04:22:58	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
13117	MGS	02-046/04:22:58	15	NOTE: Carrier Only -- No Telemetry Modulation		
13118	MGS	02-046/04:25:13		NOTE: Enter Planetary Atmosphere 13142		02-046/04:09:57
13119	MGS	02-046/04:25:42		NOTE: Apoapsis 13142 -		02-046/04:10:26
13120	MGS	02-046/04:29:16		NOTE: Enter Earth Occultation 13142		02-046/04:14:00
13121	MGS	02-046/04:29:16	15	NOTE: Loss Of X-Band Signal		
13122	MGS	02-046/04:29:43		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-046/04:14:27
13123	MGS	02-046/04:29:43		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-046/04:14:27
13124	MGS	02-046/04:29:43		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-046/04:14:27
13125	MGS	02-046/04:29:43		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-046/04:14:27
13126	MGS	02-046/04:29:44		Turn off the MOT Exciter and RPA beam	STRPAF	02-046/04:14:28
13127	MGS	02-046/04:29:45		NOTE: End EVP script		02-046/04:14:29
13128	MGS	02-046/04:29:46		NOTE: End Block (MAP_RT)		02-046/04:14:30
13129	MGS	02-046/04:29:49		NOTE: End fixed Sub-Reflector for Radio Science		02-046/04:14:33
13130	MGS	02-046/04:31:13		NOTE: Enter Solar Eclipse 13142		02-046/04:15:57
13131	MGS	02-046/04:31:13		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-046/04:15:57
13132	MGS	02-046/04:51:26	15	NOTE: Below Uplink Interlock Limit		
13133	MGS	02-046/04:55:55		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-046/04:40:38
13134	MGS	02-046/04:55:55		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-046/04:40:38
13135	MGS	02-046/04:55:56		NOTE: Begin fixed Sub-Reflector for Radio Science		02-046/04:40:39
13136	MGS	02-046/04:56:00		Set eclipse egress script address: 01DC	SWSEES	02-046/04:40:43
13137	MGS	02-046/04:59:41		: 01:27:49	RPAONX	02-046/04:44:24
13138	MGS	02-046/04:59:41		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-046/04:44:24
13139	MGS	02-046/05:00:00	15	End Tracking		
13140	MGS	02-046/05:00:00	45	Begin Pre-Cal		
13141	MGS	02-046/05:00:00	45	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
13142	MGS	02-046/05:00:00	45	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
13143	MGS	02-046/05:00:00	45	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
13144	MGS	02-046/05:00:00	45	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
13145	MGS	02-046/05:00:00	45	At BOT: S/C Tlm Mode: BR=8000.0, FL=10000, SC=HIGH, MI=80.0		
13146	MGS	02-046/05:00:00	45	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
13147	MGS	02-046/05:00:00	45	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
13148	MGS	02-046/05:00:00	45	Config: TGC: DEST=37		
13149	MGS	02-046/05:00:00	45	Config: TGC: BAND=X, BR=8000.000000		
13150	MGS	02-046/05:00:00	45	Config: FSS: CH=2, PRI_FL=10000		
13151	MGS	02-046/05:00:00	45	Config: RSR		
13152	MGS	02-046/05:00:00	45	Config: TXL		
13153	MGS	02-046/05:00:00	45	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
13154	MGS	02-046/05:00:00	45	Config: BVR		
13155	MGS	02-046/05:00:00	45	Config: Doppler Extractor: BIAS=+1MHZ		
13156	MGS	02-046/05:00:00	45	Config: MDA: SMPL=0.1		
13157	MGS	02-046/05:00:00	45	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
13158	MGS	02-046/05:00:00	45	Config: SRA: HIGH=4, LOW=14, SERV=D		
13159	MGS	02-046/05:00:00	45	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
13160	MGS	02-046/05:00:56		: 00:00:30, 00:07:03, FALSE	RDSCIE	02-046/04:45:39
13161	MGS	02-046/05:00:56		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-046/04:45:39
13162	MGS	02-046/05:00:56		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-046/04:45:39
13163	MGS	02-046/05:00:56		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-046/04:45:39

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
13164	MGS	02-046/05:00:56		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-046/04:45:39
13165	MGS	02-046/05:01:25		NOTE: Exit Earth Occultation 13142		02-046/04:46:09
13166	MGS	02-046/05:01:26		Disables autonomous command to send eclipse ingress script	SWEISX	02-046/04:46:09
13167	MGS	02-046/05:05:46		NOTE: Exit Planetary Atmosphere 13142		02-046/04:50:30
13168	MGS	02-046/05:07:59		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-046/04:52:42
13169	MGS	02-046/05:07:59		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-046/04:52:42
13170	MGS	02-046/05:07:59		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-046/04:52:42
13171	MGS	02-046/05:07:59		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-046/04:52:42
13172	MGS	02-046/05:08:00		: MRC, MRC, 01:12:44, S&E_1A, FALSE, 00:06:46	AEMRT	02-046/04:52:43
13173	MGS	02-046/05:08:00		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-046/04:52:43
13174	MGS	02-046/05:08:00		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-046/04:52:43
13175	MGS	02-046/05:08:00		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=140512000, DUR=00:45:01		02-046/04:52:43
13176	MGS	02-046/05:08:00		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-046/04:52:43
13177	MGS	02-046/05:08:04		NOTE: End fixed Sub-Reflector for Radio Science		02-046/04:52:47
13178	MGS	02-046/05:11:39		NOTE: Exit Solar Eclipse 13142		02-046/04:56:23
13179	MGS	02-046/05:15:00	15	End Post-Cal		
13180	MGS	02-046/05:24:47		NOTE: Periapsis 13143 ----------		02-046/05:09:31
13181	MGS	02-046/05:32:39		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-046/05:17:22
13182	MGS	02-046/05:32:39		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-046/05:17:22
13183	MGS	02-046/05:32:40		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-046/05:17:23
13184	MGS	02-046/05:32:40		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-046/05:17:23
13185	MGS	02-046/05:48:35		NOTE: Start Block (SSRMGR)		02-046/05:33:18
13186	MGS	02-046/05:48:35		Sends a one-word SSR command to the XSU command SOB: SSR_1B, SE_1A, RECORD, PART1	STSSRC	02-046/05:33:18
13187	MGS	02-046/05:48:36		SSR 1B Data Enable	CSD1BE	02-046/05:33:19
13188	MGS	02-046/05:48:36		SSR Activity: ID=SSR_1B, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-046/05:33:19
13189	MGS	02-046/05:54:40		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-046/05:39:23
13190	MGS	02-046/05:54:40		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-046/05:39:23
13191	MGS	02-046/06:00:00	45	Begin Tracking		
13192	MGS	02-046/06:00:00	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
13193	MGS	02-046/06:15:16		SSR 1A Data Disable	CSD1AX	02-046/05:59:59
13194	MGS	02-046/06:15:16		SSR Activity: ID=SSR_1A, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-046/05:59:59
13195	MGS	02-046/06:15:17		NOTE: End Block (SSRMGR)		02-046/06:00:00
13196	MGS	02-046/06:15:44		NOTE: Begin fixed Sub-Reflector for Radio Science		02-046/06:00:27
13197	MGS	02-046/06:18:59		NOTE: Start Block (MAP_RT)		02-046/06:03:42
13198	MGS	02-046/06:19:00		: 00:28:27, 01:27:49, FALSE, TRUE, FALSE, 00:01:15, 00:07:03, 01:12:45, 00:06:45	AEMINI	02-046/06:03:43
13199	MGS	02-046/06:19:00		Enable sending eclipse ingress script when array power disappears	SWEISE	02-046/06:03:43
13200	MGS	02-046/06:19:00		NOTE: Start EVP data return script		02-046/06:03:43
13201	MGS	02-046/06:19:01		: SE_2A, RTM, 01:12:44, MRC, 2002-046T06:50:30.000	AEMRTI	02-046/06:03:44
13202	MGS	02-046/06:20:44		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-046/06:05:27
13203	MGS	02-046/06:20:44		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=1, BITS=15424000, DUR=00:32:08		02-046/06:05:27
13204	MGS	02-046/06:20:44		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-046/06:05:27
13205	MGS	02-046/06:20:44		: 00:06:45, FALSE	RDSCII	02-046/06:05:27
13206	MGS	02-046/06:20:44		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-046/06:05:27
13207	MGS	02-046/06:20:44		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-046/06:05:27
13208	MGS	02-046/06:20:44		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-046/06:05:27
13209	MGS	02-046/06:20:44		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-046/06:05:27
13210	MGS	02-046/06:20:44	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
13211	MGS	02-046/06:20:44	45	NOTE: Carrier Only -- No Telemetry Modulation		
13212	MGS	02-046/06:22:58		NOTE: Enter Planetary Atmosphere 13143		02-046/06:07:42
13213	MGS	02-046/06:23:54		NOTE: Apoapsis 13143 -		02-046/06:08:37
13214	MGS	02-046/06:27:02		NOTE: Enter Earth Occultation 13143		02-046/06:11:46
13215	MGS	02-046/06:27:02	45	NOTE: Loss Of X-Band Signal		
13216	MGS	02-046/06:27:29		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-046/06:12:12
13217	MGS	02-046/06:27:29		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-046/06:12:12

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
13218	MGS	02-046/06:27:29		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-046/06:12:12
13219	MGS	02-046/06:27:29		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-046/06:12:12
13220	MGS	02-046/06:27:30		NOTE: End EVP script		02-046/06:12:13
13221	MGS	02-046/06:27:30		Turn off the MOT Exciter and RPA beam	STRPAF	02-046/06:12:13
13222	MGS	02-046/06:27:31		NOTE: End Block (MAP_RT)		02-046/06:12:14
13223	MGS	02-046/06:27:34		NOTE: End fixed Sub-Reflector for Radio Science		02-046/06:12:17
13224	MGS	02-046/06:29:00		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-046/06:13:43
13225	MGS	02-046/06:29:00		NOTE: Enter Solar Eclipse 13143		02-046/06:13:43
13226	MGS	02-046/06:32:24	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
13227	MGS	02-046/06:34:24	45	Range Modulation On: SUP=3.0dB		
13228	MGS	02-046/06:35:24	45	Begin Ranging Acquisition		
13229	MGS	02-046/06:53:40		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-046/06:38:23
13230	MGS	02-046/06:53:40		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-046/06:38:23
13231	MGS	02-046/06:53:42		NOTE: Begin fixed Sub-Reflector for Radio Science		02-046/06:38:25
13232	MGS	02-046/06:53:44		Command the PSE with included data word: 3990	SWPSEL	02-046/06:38:27
13233	MGS	02-046/06:53:45		Set eclipse egress script address: 0158	SWSEES	02-046/06:38:28
13234	MGS	02-046/06:57:27		: 01:27:49	RPAONX	02-046/06:42:10
13235	MGS	02-046/06:57:27		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-046/06:42:10
13236	MGS	02-046/06:58:42		: 00:00:30, 00:07:03, FALSE	RDSCIE	02-046/06:43:25
13237	MGS	02-046/06:58:42		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-046/06:43:25
13238	MGS	02-046/06:58:42		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-046/06:43:25
13239	MGS	02-046/06:58:42		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-046/06:43:25
13240	MGS	02-046/06:58:42		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-046/06:43:25
13241	MGS	02-046/06:59:12		NOTE: Exit Earth Occultation 13143		02-046/06:43:55
13242	MGS	02-046/06:59:12	45	Acquisition Of X-Band Signal		
13243	MGS	02-046/06:59:12	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
13244	MGS	02-046/06:59:12	45	NOTE: Carrier Only -- No Telemetry Modulation		
13245	MGS	02-046/07:03:32		NOTE: Exit Planetary Atmosphere 13143		02-046/06:48:16
13246	MGS	02-046/07:05:45		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-046/06:50:28
13247	MGS	02-046/07:05:45		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-046/06:50:28
13248	MGS	02-046/07:05:45		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-046/06:50:28
13249	MGS	02-046/07:05:45		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-046/06:50:28
13250	MGS	02-046/07:05:45	45	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
13251	MGS	02-046/07:05:46		: RTM, MRC, 01:12:44, S&E_2A, FALSE, 00:06:46	AEMRT	02-046/06:50:29
13252	MGS	02-046/07:05:46		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-046/06:50:29
13253	MGS	02-046/07:05:46		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-046/06:50:29
13254	MGS	02-046/07:05:46		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=1, BITS=37040000, DUR=00:45:02		02-046/06:50:29
13255	MGS	02-046/07:05:46		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-046/06:50:29
13256	MGS	02-046/07:05:46	45	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
13257	MGS	02-046/07:05:50		NOTE: End fixed Sub-Reflector for Radio Science		02-046/06:50:33
13258	MGS	02-046/07:09:26		NOTE: Exit Solar Eclipse 13143		02-046/06:54:10
13259	MGS	02-046/07:23:00		NOTE: Periapsis 13144 ----------		02-046/07:07:43
13260	MGS	02-046/07:34:25		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-046/07:19:08
13261	MGS	02-046/07:34:25		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-046/07:19:08
13262	MGS	02-046/07:34:26		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-046/07:19:09
13263	MGS	02-046/07:34:26		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-046/07:19:09
13264	MGS	02-046/07:35:32	45	NOTE: Transmitter Off in 15 minutes		
13265	MGS	02-046/07:48:32	45	Range Modulation Off		
13266	MGS	02-046/07:50:32	45	Transmitter Off		
13267	MGS	02-046/07:56:26		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-046/07:41:09
13268	MGS	02-046/07:56:26		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-046/07:41:09
13269	MGS	02-046/08:13:30		NOTE: Begin fixed Sub-Reflector for Radio Science		02-046/07:58:13
13270	MGS	02-046/08:16:47		NOTE: Start EVP data return script		02-046/08:01:30
13271	MGS	02-046/08:18:30		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-046/08:03:13

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
13272	MGS	02-046/08:18:30		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=1, BITS=71952000, DUR=01:12:44		02-046/08:03:13
13273	MGS	02-046/08:18:30		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-046/08:03:13
13274	MGS	02-046/08:18:30		: 00:06:45, FALSE	RDSCII	02-046/08:03:13
13275	MGS	02-046/08:18:30		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-046/08:03:13
13276	MGS	02-046/08:18:30		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-046/08:03:13
13277	MGS	02-046/08:18:30		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-046/08:03:13
13278	MGS	02-046/08:18:30		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-046/08:03:13
13279	MGS	02-046/08:18:30	45	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
13280	MGS	02-046/08:18:30	45	NOTE: Carrier Only -- No Telemetry Modulation		
13281	MGS	02-046/08:20:46		NOTE: Enter Planetary Atmosphere 13144		02-046/08:05:29
13282	MGS	02-046/08:22:08		NOTE: Apoapsis 13144 -		02-046/08:06:51
13283	MGS	02-046/08:24:50		NOTE: Enter Earth Occultation 13144		02-046/08:09:33
13284	MGS	02-046/08:24:50	45	NOTE: Loss Of X-Band Signal		
13285	MGS	02-046/08:25:15		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-046/08:09:58
13286	MGS	02-046/08:25:15		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-046/08:09:58
13287	MGS	02-046/08:25:15		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-046/08:09:58
13288	MGS	02-046/08:25:15		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-046/08:09:58
13289	MGS	02-046/08:25:16		Turn off the MOT Exciter and RPA beam	STRPAF	02-046/08:09:59
13290	MGS	02-046/08:25:16		NOTE: End EVP script		02-046/08:09:59
13291	MGS	02-046/08:25:20		NOTE: End fixed Sub-Reflector for Radio Science		02-046/08:10:03
13292	MGS	02-046/08:26:47		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-046/08:11:30
13293	MGS	02-046/08:26:47		NOTE: Enter Solar Eclipse 13144		02-046/08:11:31
13294	MGS	02-046/08:30:11	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
13295	MGS	02-046/08:32:12	45	Range Modulation On: SUP=3.0dB		
13296	MGS	02-046/08:33:12	45	Begin Ranging Acquisition		
13297	MGS	02-046/08:51:26		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-046/08:36:09
13298	MGS	02-046/08:51:26		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-046/08:36:09
13299	MGS	02-046/08:51:29		NOTE: Begin fixed Sub-Reflector for Radio Science		02-046/08:36:12
13300	MGS	02-046/08:51:31		Set eclipse egress script address: 019A	SWSEES	02-046/08:36:14
13301	MGS	02-046/08:55:14		: 01:27:49	RPAONX	02-046/08:39:57
13302	MGS	02-046/08:55:14		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-046/08:39:57
13303	MGS	02-046/08:56:29		: 00:00:30, 00:07:03, FALSE	RDSCIE	02-046/08:41:12
13304	MGS	02-046/08:56:29		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-046/08:41:12
13305	MGS	02-046/08:56:29		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-046/08:41:12
13306	MGS	02-046/08:56:29		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-046/08:41:12
13307	MGS	02-046/08:56:29		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-046/08:41:12
13308	MGS	02-046/08:56:59		Disables autonomous command to send eclipse ingress script	SWEISX	02-046/08:41:42
13309	MGS	02-046/08:57:00		NOTE: Exit Earth Occultation 13144		02-046/08:41:43
13310	MGS	02-046/08:57:00	45	Acquisition Of X-Band Signal		
13311	MGS	02-046/08:57:00	45	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
13312	MGS	02-046/08:57:00	45	NOTE: Carrier Only -- No Telemetry Modulation		
13313	MGS	02-046/09:01:21		NOTE: Exit Planetary Atmosphere 13144		02-046/08:46:04
13314	MGS	02-046/09:03:32		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-046/08:48:15
13315	MGS	02-046/09:03:32		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-046/08:48:15
13316	MGS	02-046/09:03:32		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-046/08:48:15
13317	MGS	02-046/09:03:32		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-046/08:48:15
13318	MGS	02-046/09:03:32	45	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
13319	MGS	02-046/09:03:33		: RTM, MRC, 01:12:44, S&E_2A, FALSE, 00:06:46	AEMRT	02-046/08:48:16
13320	MGS	02-046/09:03:33		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-046/08:48:16
13321	MGS	02-046/09:03:33		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-046/08:48:16
13322	MGS	02-046/09:03:33		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=1, BITS=93576000, DUR=00:45:03		02-046/08:48:16
13323	MGS	02-046/09:03:33		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-046/08:48:16
13324	MGS	02-046/09:03:33	45	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
13325	MGS	02-046/09:03:37		NOTE: End fixed Sub-Reflector for Radio Science		02-046/08:48:20

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
13326	MGS	02-046/09:07:14		NOTE: Exit Solar Eclipse 13144		02-046/08:51:57
13327	MGS	02-046/09:20:59		NOTE: Periapsis 13145 ----------		02-046/09:05:42
13328	MGS	02-046/09:28:13		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-046/09:12:56
13329	MGS	02-046/09:28:13		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-046/09:12:56
13330	MGS	02-046/09:28:14		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-046/09:12:57
13331	MGS	02-046/09:28:14		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-046/09:12:57
13332	MGS	02-046/09:33:18	45	NOTE: Transmitter Off in 15 minutes		
13333	MGS	02-046/09:46:18	45	Range Modulation Off		
13334	MGS	02-046/09:48:18	45	Transmitter Off		
13335	MGS	02-046/09:50:14		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-046/09:34:57
13336	MGS	02-046/09:50:14		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-046/09:34:57
13337	MGS	02-046/10:11:17		NOTE: Begin fixed Sub-Reflector for Radio Science		02-046/09:56:00
13338	MGS	02-046/10:16:17		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-046/10:01:00
13339	MGS	02-046/10:16:17		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=1, BITS=128488000, DUR=01:12:44		02-046/10:01:00
13340	MGS	02-046/10:16:17		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-046/10:01:00
13341	MGS	02-046/10:16:17		: 00:06:45, FALSE	RDSCII	02-046/10:01:00
13342	MGS	02-046/10:16:17		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-046/10:01:00
13343	MGS	02-046/10:16:17		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-046/10:01:00
13344	MGS	02-046/10:16:17		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-046/10:01:00
13345	MGS	02-046/10:16:17		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-046/10:01:00
13346	MGS	02-046/10:16:17	45	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
13347	MGS	02-046/10:16:17	45	NOTE: Carrier Only -- No Telemetry Modulation		
13348	MGS	02-046/10:18:32		NOTE: Enter Planetary Atmosphere 13145		02-046/10:03:15
13349	MGS	02-046/10:19:54		NOTE: Apoapsis 13145 -		02-046/10:04:37
13350	MGS	02-046/10:21:15	45	NOTE: Below Uplink Interlock Limit		
13351	MGS	02-046/10:22:37		NOTE: Enter Earth Occultation 13145		02-046/10:07:20
13352	MGS	02-046/10:22:37	45	NOTE: Loss Of X-Band Signal		
13353	MGS	02-046/10:23:02		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-046/10:07:45
13354	MGS	02-046/10:23:02		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-046/10:07:45
13355	MGS	02-046/10:23:02		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-046/10:07:45
13356	MGS	02-046/10:23:02		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-046/10:07:45
13357	MGS	02-046/10:23:03		Turn off the MOT Exciter and RPA beam	STRPAF	02-046/10:07:46
13358	MGS	02-046/10:23:03		NOTE: End EVP script		02-046/10:07:46
13359	MGS	02-046/10:23:04		NOTE: End Block (MAP_RT)		02-046/10:07:47
13360	MGS	02-046/10:23:07		NOTE: End fixed Sub-Reflector for Radio Science		02-046/10:07:50
13361	MGS	02-046/10:24:33		NOTE: Enter Solar Eclipse 13145		02-046/10:09:16
13362	MGS	02-046/10:30:00	45	End Tracking		
13363	MGS	02-046/10:39:29		Disable HGA control mode	SAHGCX	02-046/10:24:12
13364	MGS	02-046/10:39:30		No Operation	SCNOOP	02-046/10:24:13
13365	MGS	02-046/10:39:31		CDU-1 Uplink Rate Select (Based on 3 bit Code): 7	TCC1BS	02-046/10:24:14
13366	MGS	02-046/10:39:31		CDU-2 Uplink Rate Select (Based on 3 bit Code): 7	TCC2BS	02-046/10:24:14
13367	MGS	02-046/10:45:00	45	End Post-Cal		
13368	MGS	02-046/10:49:14		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-046/10:33:57
13369	MGS	02-046/10:49:14		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-046/10:33:57
13370	MGS	02-046/10:49:19		Set eclipse egress script address: 01DC	SWSEES	02-046/10:34:02
13371	MGS	02-046/10:54:46		NOTE: Exit Earth Occultation 13145		02-046/10:39:29
13372	MGS	02-046/10:59:08		NOTE: Exit Planetary Atmosphere 13145		02-046/10:43:51
13373	MGS	02-046/11:04:59		NOTE: Exit Solar Eclipse 13145		02-046/10:49:42
13374	MGS	02-046/11:18:29		NOTE: Periapsis 13146 ----------		02-046/11:03:12
13375	MGS	02-046/11:21:56		NOTE: Start Block (SSRMGR)		02-046/11:06:38
13376	MGS	02-046/11:21:56		Sends a one-word SSR command to the XSU command SOB: SSR_1A, SE_1A, RECORD, PART2	STSSRC	02-046/11:06:38
13377	MGS	02-046/11:21:57		SSR 1A Data Enable	CSD1AE	02-046/11:06:39
13378	MGS	02-046/11:21:57		SSR Activity: ID=SSR_1A, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-046/11:06:39
13379	MGS	02-046/11:25:59		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-046/11:10:41

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
13380	MGS	02-046/11:25:59		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-046/11:10:41
13381	MGS	02-046/11:26:00		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-046/11:10:42
13382	MGS	02-046/11:26:00		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-046/11:10:42
13383	MGS	02-046/11:48:00		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-046/11:32:42
13384	MGS	02-046/11:48:00		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-046/11:32:42
13385	MGS	02-046/11:48:37		SSR 1B Data Disable	CSD1BX	02-046/11:33:19
13386	MGS	02-046/11:48:37		SSR Activity: ID=SSR_1B, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-046/11:33:19
13387	MGS	02-046/11:48:38		NOTE: End Block (SSRMGR)		02-046/11:33:20
13388	MGS	02-046/12:12:14		NOTE: Start Block (MAP_RT)		02-046/11:56:56
13389	MGS	02-046/12:12:15		: 00:28:29, 01:27:45, FALSE, TRUE, FALSE, 00:01:15, 00:07:01, 01:12:43, 00:06:45	AEMINI	02-046/11:56:57
13390	MGS	02-046/12:12:15		Enable sending eclipse ingress script when array power disappears	SWEISE	02-046/11:56:57
13391	MGS	02-046/12:12:15		NOTE: Start EVP data return script		02-046/11:56:57
13392	MGS	02-046/12:12:16		: SE_1A, MRC, 01:12:42, MRC, 2002-046T12:43:44.000	AEMRTI	02-046/11:56:58
13393	MGS	02-046/12:15:17		Dump SCP memory to the EDF using physical addressing arguments: 56A4, 240	SCDSCM	02-046/11:59:59
13394	MGS	02-046/12:16:15		NOTE: Enter Planetary Atmosphere 13146		02-046/12:00:58
13395	MGS	02-046/12:17:15		NOTE: Apoapsis 13146 -		02-046/12:01:58
13396	MGS	02-046/12:20:19		NOTE: Enter Earth Occultation 13146		02-046/12:05:02
13397	MGS	02-046/12:22:15		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-046/12:06:57
13398	MGS	02-046/12:22:15		NOTE: Enter Solar Eclipse 13146		02-046/12:06:58
13399	MGS	02-046/12:37:22		Select Automatic HGA control mode	SAHACE	02-046/12:22:04
13400	MGS	02-046/12:37:23		Selects Hign Gain Antenna for downlink, Reconfigures if beam is already on	STUHGA	02-046/12:22:05
13401	MGS	02-046/12:37:24		CDU-1 Uplink Rate Select (Based on 3 bit Code): 3	TCC1BS	02-046/12:22:06
13402	MGS	02-046/12:37:24		CDU-2 Uplink Rate Select (Based on 3 bit Code): 3	TCC2BS	02-046/12:22:06
13403	MGS	02-046/12:46:59		NOTE: Begin fixed Sub-Reflector for Radio Science		02-046/12:31:42
13404	MGS	02-046/12:47:00		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-046/12:31:42
13405	MGS	02-046/12:47:00		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-046/12:31:42
13406	MGS	02-046/12:47:04		Command the PSE with included data word: 3990	SWPSEL	02-046/12:31:46
13407	MGS	02-046/12:47:05		Set eclipse egress script address: 0158	SWSEES	02-046/12:31:47
13408	MGS	02-046/12:50:44		: 01:27:45	RPAONX	02-046/12:35:26
13409	MGS	02-046/12:50:44		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-046/12:35:26
13410	MGS	02-046/12:51:59		: 00:00:30, 00:07:01, FALSE	RDSCIE	02-046/12:36:41
13411	MGS	02-046/12:51:59		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-046/12:36:41
13412	MGS	02-046/12:51:59		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-046/12:36:41
13413	MGS	02-046/12:51:59		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-046/12:36:41
13414	MGS	02-046/12:51:59		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-046/12:36:41
13415	MGS	02-046/12:52:29		Disables autonomous command to send eclipse ingress script	SWEISX	02-046/12:37:11
13416	MGS	02-046/12:52:29		NOTE: Exit Earth Occultation 13146		02-046/12:37:12
13417	MGS	02-046/12:56:51		NOTE: Exit Planetary Atmosphere 13146		02-046/12:41:34
13418	MGS	02-046/12:59:00		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-046/12:43:42
13419	MGS	02-046/12:59:00		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-046/12:43:42
13420	MGS	02-046/12:59:00		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-046/12:43:42
13421	MGS	02-046/12:59:00		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-046/12:43:42
13422	MGS	02-046/12:59:01		: MRC, MRC, 01:12:42, S&E_1A, FALSE, 00:06:46	AEMRT	02-046/12:43:43
13423	MGS	02-046/12:59:01		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-046/12:43:43
13424	MGS	02-046/12:59:01		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-046/12:43:43
13425	MGS	02-046/12:59:01		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=2, BITS=46592000, DUR=01:37:04		02-046/12:43:43
13426	MGS	02-046/12:59:01		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-046/12:43:43
13427	MGS	02-046/12:59:05		NOTE: End fixed Sub-Reflector for Radio Science		02-046/12:43:48
13428	MGS	02-046/13:00:00	65	Begin Pre-Cal		
13429	MGS	02-046/13:00:00	65	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
13430	MGS	02-046/13:00:00	65	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
13431	MGS	02-046/13:00:00	65	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
13432	MGS	02-046/13:00:00	65	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
13433	MGS	02-046/13:00:00	65	At BOT: S/C Tlm Mode: BR=8000.0, FL=10000, SC=HIGH, MI=80.0		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
13434	MGS	02-046/13:00:00	65	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
13435	MGS	02-046/13:00:00	65	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
13436	MGS	02-046/13:00:00	65	Config: TGC: DEST=37		
13437	MGS	02-046/13:00:00	65	Config: TGC: BAND=X, BR=8000.000000		
13438	MGS	02-046/13:00:00	65	Config: FSS: CH=2, PRI_FL=10000		
13439	MGS	02-046/13:00:00	65	Config: RSR		
13440	MGS	02-046/13:00:00	65	Config: TXL		
13441	MGS	02-046/13:00:00	65	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
13442	MGS	02-046/13:00:00	65	Config: BVR		
13443	MGS	02-046/13:00:00	65	Config: Doppler Extractor: BIAS=+1MHZ		
13444	MGS	02-046/13:00:00	65	Config: MDA: SMPL=0.1		
13445	MGS	02-046/13:00:00	65	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
13446	MGS	02-046/13:00:00	65	Config: SRA: HIGH=4, LOW=14, SERV=D		
13447	MGS	02-046/13:00:00	65	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
13448	MGS	02-046/13:02:41		NOTE: Exit Solar Eclipse 13146		02-046/12:47:24
13449	MGS	02-046/13:15:53		NOTE: Periapsis 13147 ----------		02-046/13:00:35
13450	MGS	02-046/13:27:40		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-046/13:12:22
13451	MGS	02-046/13:27:40		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-046/13:12:22
13452	MGS	02-046/13:27:41		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-046/13:12:23
13453	MGS	02-046/13:27:41		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-046/13:12:23
13454	MGS	02-046/13:49:41		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-046/13:34:23
13455	MGS	02-046/13:49:41		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-046/13:34:23
13456	MGS	02-046/14:00:00	65	Begin Tracking		
13457	MGS	02-046/14:00:00	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
13458	MGS	02-046/14:05:31		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-046/13:50:13
13459	MGS	02-046/14:05:31		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=2, BITS=78512000, DUR=01:06:30		02-046/13:50:13
13460	MGS	02-046/14:05:31		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-046/13:50:13
13461	MGS	02-046/14:05:31		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-046/13:50:13
13462	MGS	02-046/14:05:31	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
13463	MGS	02-046/14:06:43		NOTE: Begin fixed Sub-Reflector for Radio Science		02-046/13:51:26
13464	MGS	02-046/14:09:55		NOTE: Start Block (MAP_PB)		02-046/13:54:37
13465	MGS	02-046/14:09:56		: 00:28:29, 01:27:46, FALSE, TRUE, FALSE, 00:01:15, 00:07:01, 01:12:44, 00:06:45	AEMINI	02-046/13:54:38
13466	MGS	02-046/14:09:56		Enable sending eclipse ingress script when array power disappears	SWEISE	02-046/13:54:38
13467	MGS	02-046/14:09:56		NOTE: Start EVP data return script		02-046/13:54:38
13468	MGS	02-046/14:09:57		: SSR_2A, F42KHZ, PART1, SE_1A, 2002-046T14:41:24.000	AEMPBI	02-046/13:54:39
13469	MGS	02-046/14:11:43		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-046/13:56:25
13470	MGS	02-046/14:11:43		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=2, BITS=81488000, DUR=00:06:12		02-046/13:56:25
13471	MGS	02-046/14:11:43		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-046/13:56:25
13472	MGS	02-046/14:11:43		: 00:06:45, FALSE	RDSCII	02-046/13:56:25
13473	MGS	02-046/14:11:43		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-046/13:56:25
13474	MGS	02-046/14:11:43		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-046/13:56:25
13475	MGS	02-046/14:11:43		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-046/13:56:25
13476	MGS	02-046/14:11:43		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-046/13:56:25
13477	MGS	02-046/14:11:43	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
13478	MGS	02-046/14:11:43	65	NOTE: Carrier Only -- No Telemetry Modulation		
13479	MGS	02-046/14:13:55		NOTE: Enter Planetary Atmosphere 13147		02-046/13:58:37
13480	MGS	02-046/14:14:58		NOTE: Apoapsis 13147 -		02-046/13:59:41
13481	MGS	02-046/14:17:59		NOTE: Enter Earth Occultation 13147		02-046/14:02:41
13482	MGS	02-046/14:17:59	65	NOTE: Loss Of X-Band Signal		
13483	MGS	02-046/14:18:28		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-046/14:03:10
13484	MGS	02-046/14:18:28		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-046/14:03:10
13485	MGS	02-046/14:18:28		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-046/14:03:10
13486	MGS	02-046/14:18:28		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-046/14:03:10
13487	MGS	02-046/14:18:29		Turn off the MOT Exciter and RPA beam	STRPAF	02-046/14:03:11

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
13488	MGS	02-046/14:18:29		NOTE: End EVP script		02-046/14:03:12
13489	MGS	02-046/14:18:30		NOTE: End Block (MAP_RT)		02-046/14:03:13
13490	MGS	02-046/14:18:33		NOTE: End fixed Sub-Reflector for Radio Science		02-046/14:03:16
13491	MGS	02-046/14:19:56		NOTE: Enter Solar Eclipse 13147		02-046/14:04:38
13492	MGS	02-046/14:19:56		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-046/14:04:38
13493	MGS	02-046/14:23:20	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
13494	MGS	02-046/14:25:20	65	Range Modulation On: SUP=3.0dB		
13495	MGS	02-046/14:26:20	65	Begin Ranging Acquisition		
13496	MGS	02-046/14:44:40		NOTE: Begin fixed Sub-Reflector for Radio Science		02-046/14:29:22
13497	MGS	02-046/14:44:41		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-046/14:29:23
13498	MGS	02-046/14:44:41		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-046/14:29:23
13499	MGS	02-046/14:44:46		Set eclipse egress script address: 019A	SWSEES	02-046/14:29:28
13500	MGS	02-046/14:48:25		: 01:27:46	RPAONX	02-046/14:33:07
13501	MGS	02-046/14:48:25		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-046/14:33:07
13502	MGS	02-046/14:49:40		: 00:00:30, 00:07:01, FALSE	RDSCIE	02-046/14:34:22
13503	MGS	02-046/14:49:40		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-046/14:34:22
13504	MGS	02-046/14:49:40		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-046/14:34:22
13505	MGS	02-046/14:49:40		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-046/14:34:22
13506	MGS	02-046/14:49:40		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-046/14:34:22
13507	MGS	02-046/14:50:10		NOTE: Exit Earth Occultation 13147		02-046/14:34:52
13508	MGS	02-046/14:50:10	65	Acquisition Of X-Band Signal		
13509	MGS	02-046/14:50:10	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
13510	MGS	02-046/14:50:10	65	NOTE: Carrier Only -- No Telemetry Modulation		
13511	MGS	02-046/14:54:31		NOTE: Exit Planetary Atmosphere 13147		02-046/14:39:13
13512	MGS	02-046/14:56:41		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-046/14:41:23
13513	MGS	02-046/14:56:41		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-046/14:41:23
13514	MGS	02-046/14:56:41		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-046/14:41:23
13515	MGS	02-046/14:56:41		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-046/14:41:23
13516	MGS	02-046/14:56:41		: REC_2A, F42KHZ, PART1, SE_1A, FALSE, 00:10:51	AEMPB	02-046/14:41:23
13517	MGS	02-046/14:56:41		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-046/14:41:23
13518	MGS	02-046/14:56:41		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, PLYBCK, PART1	STSSRC	02-046/14:41:23
13519	MGS	02-046/14:56:41	65	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
13520	MGS	02-046/14:56:42		SSR 2A Data Enable	CSD2AE	02-046/14:41:24
13521	MGS	02-046/14:56:42		SSR Activity: ID=SSR_2A, FCN=Start Playback, PRT=1, BR=42666		02-046/14:41:24
13522	MGS	02-046/14:56:42	65	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
13523	MGS	02-046/14:56:46		NOTE: End fixed Sub-Reflector for Radio Science		02-046/14:41:28
13524	MGS	02-046/15:00:22		NOTE: Exit Solar Eclipse 13147		02-046/14:45:04
13525	MGS	02-046/15:13:33		NOTE: Periapsis 13148 ----------		02-046/14:58:15
13526	MGS	02-046/15:21:21		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-046/15:06:03
13527	MGS	02-046/15:21:21		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-046/15:06:03
13528	MGS	02-046/15:21:22		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-046/15:06:04
13529	MGS	02-046/15:21:22		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-046/15:06:04
13530	MGS	02-046/15:26:23	65	NOTE: Transmitter Off in 15 minutes		
13531	MGS	02-046/15:39:24	65	Range Modulation Off		
13532	MGS	02-046/15:41:23	65	Transmitter Off		
13533	MGS	02-046/15:43:22		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-046/15:28:04
13534	MGS	02-046/15:43:22		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-046/15:28:04
13535	MGS	02-046/16:04:25		NOTE: Begin fixed Sub-Reflector for Radio Science		02-046/15:49:07
13536	MGS	02-046/16:05:20		SSR 2A Data Disable	CSD2AX	02-046/15:50:02
13537	MGS	02-046/16:05:20		SSR Activity: ID=SSR_2A, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-046/15:50:02
13538	MGS	02-046/16:05:20		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-046/15:50:02
13539	MGS	02-046/16:05:20	65	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
13540	MGS	02-046/16:07:41		NOTE: Start EVP data return script		02-046/15:52:23
13541	MGS	02-046/16:07:41		: SSR_2B, F42KHZ, PART1, 2002-046T16:39:09.000	AEMPBU	02-046/15:52:23

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
13542	MGS	02-046/16:09:25		: 00:06:45, FALSE	RDSCII	02-046/15:54:07
13543	MGS	02-046/16:09:25		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-046/15:54:07
13544	MGS	02-046/16:09:25		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-046/15:54:07
13545	MGS	02-046/16:09:25		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-046/15:54:07
13546	MGS	02-046/16:09:25		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-046/15:54:07
13547	MGS	02-046/16:09:25	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
13548	MGS	02-046/16:09:25	65	NOTE: Carrier Only -- No Telemetry Modulation		
13549	MGS	02-046/16:11:40		NOTE: Enter Planetary Atmosphere 13148		02-046/15:56:22
13550	MGS	02-046/16:12:50		NOTE: Apoapsis 13148 -		02-046/15:57:32
13551	MGS	02-046/16:15:44		NOTE: Enter Earth Occultation 13148		02-046/16:00:26
13552	MGS	02-046/16:15:44	65	NOTE: Loss Of X-Band Signal		
13553	MGS	02-046/16:16:10		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-046/16:00:52
13554	MGS	02-046/16:16:10		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-046/16:00:52
13555	MGS	02-046/16:16:10		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-046/16:00:52
13556	MGS	02-046/16:16:10		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-046/16:00:52
13557	MGS	02-046/16:16:11		NOTE: End EVP script		02-046/16:00:53
13558	MGS	02-046/16:16:11		Turn off the MOT Exciter and RPA beam	STRPAF	02-046/16:00:53
13559	MGS	02-046/16:16:15		NOTE: End fixed Sub-Reflector for Radio Science		02-046/16:00:57
13560	MGS	02-046/16:17:41		NOTE: Enter Solar Eclipse 13148		02-046/16:02:23
13561	MGS	02-046/16:17:41		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-046/16:02:23
13562	MGS	02-046/16:21:04	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
13563	MGS	02-046/16:23:05	65	Range Modulation On: SUP=3.0dB		
13564	MGS	02-046/16:24:05	65	Begin Ranging Acquisition		
13565	MGS	02-046/16:42:22		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-046/16:27:04
13566	MGS	02-046/16:42:22		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-046/16:27:04
13567	MGS	02-046/16:42:25		NOTE: Begin fixed Sub-Reflector for Radio Science		02-046/16:27:07
13568	MGS	02-046/16:42:27		Set eclipse egress script address: 01DC	SWSEES	02-046/16:27:09
13569	MGS	02-046/16:46:10		: 01:27:46	RPAONX	02-046/16:30:52
13570	MGS	02-046/16:46:10		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-046/16:30:52
13571	MGS	02-046/16:47:25		: 00:00:30, 00:07:01, FALSE	RDSCIE	02-046/16:32:07
13572	MGS	02-046/16:47:25		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-046/16:32:07
13573	MGS	02-046/16:47:25		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-046/16:32:07
13574	MGS	02-046/16:47:25		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-046/16:32:07
13575	MGS	02-046/16:47:25		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-046/16:32:07
13576	MGS	02-046/16:47:55		NOTE: Exit Earth Occultation 13148		02-046/16:32:37
13577	MGS	02-046/16:47:55	65	Acquisition Of X-Band Signal		
13578	MGS	02-046/16:47:55	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
13579	MGS	02-046/16:47:55	65	NOTE: Carrier Only -- No Telemetry Modulation		
13580	MGS	02-046/16:52:16		NOTE: Exit Planetary Atmosphere 13148		02-046/16:36:58
13581	MGS	02-046/16:54:26		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-046/16:39:08
13582	MGS	02-046/16:54:26		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-046/16:39:08
13583	MGS	02-046/16:54:26		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-046/16:39:08
13584	MGS	02-046/16:54:26		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-046/16:39:08
13585	MGS	02-046/16:54:26		: REC_2B, F42KHZ, PART1, SE_1A, FALSE, 00:10:51	AEMPB	02-046/16:39:08
13586	MGS	02-046/16:54:26		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-046/16:39:08
13587	MGS	02-046/16:54:26		Sends a one-word SSR command to the XSU command SOB: SSR_2B, F42KHZ, PLYBCK, PART1	STSSRC	02-046/16:39:08
13588	MGS	02-046/16:54:26	65	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
13589	MGS	02-046/16:54:27		SSR 2B Data Enable	CSD2BE	02-046/16:39:09
13590	MGS	02-046/16:54:27		SSR Activity: ID=SSR_2B, FCN=Start Playback, PRT=1, BR=42666		02-046/16:39:09
13591	MGS	02-046/16:54:27	65	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
13592	MGS	02-046/16:54:31		NOTE: End fixed Sub-Reflector for Radio Science		02-046/16:39:13
13593	MGS	02-046/16:55:16		NOTE: Start Block (SSRMGR)		02-046/16:39:58
13594	MGS	02-046/16:55:16		Sends a one-word SSR command to the XSU command SOB: SSR_1B, SE_1A, RECORD, PART2	STSSRC	02-046/16:39:58
13595	MGS	02-046/16:55:17		SSR 1B Data Enable	CSD1BE	02-046/16:39:59

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
13596	MGS	02-046/16:55:17		SSR Activity: ID=SSR_1B, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-046/16:39:59
13597	MGS	02-046/16:58:07		NOTE: Exit Solar Eclipse 13148		02-046/16:42:49
13598	MGS	02-046/17:11:26		NOTE: Periapsis 13149 ----------		02-046/16:56:08
13599	MGS	02-046/17:19:06		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-046/17:03:48
13600	MGS	02-046/17:19:06		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-046/17:03:48
13601	MGS	02-046/17:19:07		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-046/17:03:49
13602	MGS	02-046/17:19:07		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-046/17:03:49
13603	MGS	02-046/17:21:57		SSR 1A Data Disable	CSD1AX	02-046/17:06:39
13604	MGS	02-046/17:21:57		SSR Activity: ID=SSR_1A, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-046/17:06:39
13605	MGS	02-046/17:21:58		NOTE: End Block (SSRMGR)		02-046/17:06:40
13606	MGS	02-046/17:24:10	65	NOTE: Transmitter Off in 15 minutes		
13607	MGS	02-046/17:37:11	65	Range Modulation Off		
13608	MGS	02-046/17:39:10	65	Transmitter Off		
13609	MGS	02-046/17:41:08		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-046/17:25:49
13610	MGS	02-046/17:41:08		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-046/17:25:49
13611	MGS	02-046/18:02:10		NOTE: Begin fixed Sub-Reflector for Radio Science		02-046/17:46:52
13612	MGS	02-046/18:03:06		SSR 2B Data Disable	CSD2BX	02-046/17:47:47
13613	MGS	02-046/18:03:06		SSR Activity: ID=SSR_2B, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-046/17:47:47
13614	MGS	02-046/18:03:06		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-046/17:47:47
13615	MGS	02-046/18:03:06	65	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
13616	MGS	02-046/18:05:29		NOTE: Start EVP data return script		02-046/17:50:10
13617	MGS	02-046/18:05:29		: SSR_2A, F42KHZ, PART2, 2002-046T18:36:56.000	AEMPBU	02-046/17:50:10
13618	MGS	02-046/18:07:11		: 00:06:45, FALSE	RDSCII	02-046/17:51:52
13619	MGS	02-046/18:07:11		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-046/17:51:52
13620	MGS	02-046/18:07:11		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-046/17:51:52
13621	MGS	02-046/18:07:11		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-046/17:51:52
13622	MGS	02-046/18:07:11		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-046/17:51:52
13623	MGS	02-046/18:07:11	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
13624	MGS	02-046/18:07:11	65	NOTE: Carrier Only -- No Telemetry Modulation		
13625	MGS	02-046/18:09:28		NOTE: Enter Planetary Atmosphere 13149		02-046/17:54:10
13626	MGS	02-046/18:10:34		NOTE: Apoapsis 13149 -		02-046/17:55:15
13627	MGS	02-046/18:13:31		NOTE: Enter Earth Occultation 13149		02-046/17:58:13
13628	MGS	02-046/18:13:31	65	NOTE: Loss Of X-Band Signal		
13629	MGS	02-046/18:13:56		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-046/17:58:37
13630	MGS	02-046/18:13:56		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-046/17:58:37
13631	MGS	02-046/18:13:56		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-046/17:58:37
13632	MGS	02-046/18:13:56		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-046/17:58:37
13633	MGS	02-046/18:13:56		NOTE: End EVP script		02-046/17:58:38
13634	MGS	02-046/18:13:57		Turn off the MOT Exciter and RPA beam	STRPAF	02-046/17:58:38
13635	MGS	02-046/18:14:00		NOTE: End fixed Sub-Reflector for Radio Science		02-046/17:58:42
13636	MGS	02-046/18:15:28		NOTE: Enter Solar Eclipse 13149		02-046/18:00:10
13637	MGS	02-046/18:15:29		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-046/18:00:10
13638	MGS	02-046/18:18:51	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
13639	MGS	02-046/18:20:52	65	Range Modulation On: SUP=3.0dB		
13640	MGS	02-046/18:21:52	65	Begin Ranging Acquisition		
13641	MGS	02-046/18:40:08		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-046/18:24:49
13642	MGS	02-046/18:40:08		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-046/18:24:49
13643	MGS	02-046/18:40:12		Command the PSE with included data word: 3990	SWPSEL	02-046/18:24:53
13644	MGS	02-046/18:40:12		NOTE: Begin fixed Sub-Reflector for Radio Science		02-046/18:24:54
13645	MGS	02-046/18:40:13		Set eclipse egress script address: 0158	SWSEES	02-046/18:24:54
13646	MGS	02-046/18:43:58		: 01:27:46	RPAONX	02-046/18:28:39
13647	MGS	02-046/18:43:58		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-046/18:28:39
13648	MGS	02-046/18:45:13		: 00:00:30, 00:07:01, FALSE	RDSCIE	02-046/18:29:54
13649	MGS	02-046/18:45:13		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-046/18:29:54

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
13650	MGS	02-046/18:45:13		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-046/18:29:54
13651	MGS	02-046/18:45:13		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-046/18:29:54
13652	MGS	02-046/18:45:13		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-046/18:29:54
13653	MGS	02-046/18:45:43		NOTE: Exit Earth Occultation 13149		02-046/18:30:24
13654	MGS	02-046/18:45:43	65	Acquisition Of X-Band Signal		
13655	MGS	02-046/18:45:43	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
13656	MGS	02-046/18:45:43	65	NOTE: Carrier Only -- No Telemetry Modulation		
13657	MGS	02-046/18:50:04		NOTE: Exit Planetary Atmosphere 13149		02-046/18:34:46
13658	MGS	02-046/18:52:14		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-046/18:36:55
13659	MGS	02-046/18:52:14		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-046/18:36:55
13660	MGS	02-046/18:52:14		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-046/18:36:55
13661	MGS	02-046/18:52:14		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-046/18:36:55
13662	MGS	02-046/18:52:14		: REC_2A, F42KHZ, PART2, SE_1A, FALSE, 00:10:51	AEMPB	02-046/18:36:55
13663	MGS	02-046/18:52:14		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-046/18:36:55
13664	MGS	02-046/18:52:14		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, PLYBCK, PART2	STSSRC	02-046/18:36:55
13665	MGS	02-046/18:52:14	65	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
13666	MGS	02-046/18:52:15		SSR 2A Data Enable	CSD2AE	02-046/18:36:56
13667	MGS	02-046/18:52:15		SSR Activity: ID=SSR_2A, FCN=Start Playback, PRT=2, BR=42666		02-046/18:36:56
13668	MGS	02-046/18:52:15	65	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
13669	MGS	02-046/18:52:18		NOTE: End fixed Sub-Reflector for Radio Science		02-046/18:37:00
13670	MGS	02-046/18:55:55		NOTE: Exit Solar Eclipse 13149		02-046/18:40:37
13671	MGS	02-046/19:09:13		NOTE: Periapsis 13150 ----------		02-046/18:53:55
13672	MGS	02-046/19:20:54		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-046/19:05:35
13673	MGS	02-046/19:20:54		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-046/19:05:35
13674	MGS	02-046/19:20:55		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-046/19:05:36
13675	MGS	02-046/19:20:55		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-046/19:05:36
13676	MGS	02-046/19:21:56	65	NOTE: Transmitter Off in 15 minutes		
13677	MGS	02-046/19:34:57	65	Range Modulation Off		
13678	MGS	02-046/19:36:56	65	Transmitter Off		
13679	MGS	02-046/19:42:55		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-046/19:27:36
13680	MGS	02-046/19:42:55		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-046/19:27:36
13681	MGS	02-046/19:59:58		NOTE: Begin fixed Sub-Reflector for Radio Science		02-046/19:44:39
13682	MGS	02-046/20:00:00	15	Begin Pre-Cal		
13683	MGS	02-046/20:00:00	15	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
13684	MGS	02-046/20:00:00	15	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
13685	MGS	02-046/20:00:00	15	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
13686	MGS	02-046/20:00:00	15	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
13687	MGS	02-046/20:00:00	15	At BOT: S/C Tlm Mode: BR=42666.7, FL=10000, SC=HIGH, MI=80.0		
13688	MGS	02-046/20:00:00	15	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
13689	MGS	02-046/20:00:00	15	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
13690	MGS	02-046/20:00:00	15	Config: TGC: DEST=37		
13691	MGS	02-046/20:00:00	15	Config: TGC: BAND=X, BR=42666.666667		
13692	MGS	02-046/20:00:00	15	Config: FSS: CH=2, PRI_FL=10000		
13693	MGS	02-046/20:00:00	15	Config: RSR		
13694	MGS	02-046/20:00:00	15	Config: TXL		
13695	MGS	02-046/20:00:00	15	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
13696	MGS	02-046/20:00:00	15	Config: BVR		
13697	MGS	02-046/20:00:00	15	Config: Doppler Extractor: BIAS=+1MHZ		
13698	MGS	02-046/20:00:00	15	Config: MDA: SMPL=0.1		
13699	MGS	02-046/20:00:00	15	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
13700	MGS	02-046/20:00:00	15	Config: SRA: HIGH=4, LOW=14, SERV=D		
13701	MGS	02-046/20:00:00	15	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
13702	MGS	02-046/20:00:53		SSR 2A Data Disable	CSD2AX	02-046/19:45:34
13703	MGS	02-046/20:00:53		SSR Activity: ID=SSR_2A, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-046/19:45:34

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
13704	MGS	02-046/20:00:53		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-046/19:45:34
13705	MGS	02-046/20:00:53	65	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
13706	MGS	02-046/20:03:16		NOTE: Start EVP data return script		02-046/19:47:57
13707	MGS	02-046/20:03:16		: SSR_2B, F42KHZ, PART2, 2002-046T20:34:43.000	AEMPBU	02-046/19:47:57
13708	MGS	02-046/20:04:58		: 00:06:45, FALSE	RDSCII	02-046/19:49:39
13709	MGS	02-046/20:04:58		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-046/19:49:39
13710	MGS	02-046/20:04:58		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-046/19:49:39
13711	MGS	02-046/20:04:58		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-046/19:49:39
13712	MGS	02-046/20:04:58		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-046/19:49:39
13713	MGS	02-046/20:04:58	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
13714	MGS	02-046/20:04:58	65	NOTE: Carrier Only -- No Telemetry Modulation		
13715	MGS	02-046/20:07:15		NOTE: Enter Planetary Atmosphere 13150		02-046/19:51:56
13716	MGS	02-046/20:08:05		NOTE: Apoapsis 13150 -		02-046/19:52:47
13717	MGS	02-046/20:11:18		NOTE: Enter Earth Occultation 13150		02-046/19:56:00
13718	MGS	02-046/20:11:18	65	NOTE: Loss Of X-Band Signal		
13719	MGS	02-046/20:11:43		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-046/19:56:24
13720	MGS	02-046/20:11:43		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-046/19:56:24
13721	MGS	02-046/20:11:43		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-046/19:56:24
13722	MGS	02-046/20:11:43		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-046/19:56:24
13723	MGS	02-046/20:11:44		NOTE: End EVP script		02-046/19:56:25
13724	MGS	02-046/20:11:44		Turn off the MOT Exciter and RPA beam	STRPAF	02-046/19:56:25
13725	MGS	02-046/20:11:48		NOTE: End fixed Sub-Reflector for Radio Science		02-046/19:56:29
13726	MGS	02-046/20:13:15		NOTE: Enter Solar Eclipse 13150		02-046/19:57:57
13727	MGS	02-046/20:13:16		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-046/19:57:57
13728	MGS	02-046/20:16:38	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
13729	MGS	02-046/20:18:39	65	Range Modulation On: SUP=3.0dB		
13730	MGS	02-046/20:19:39	65	Begin Ranging Acquisition		
13731	MGS	02-046/20:37:55		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-046/20:22:36
13732	MGS	02-046/20:37:55		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-046/20:22:36
13733	MGS	02-046/20:38:00		NOTE: Begin fixed Sub-Reflector for Radio Science		02-046/20:22:41
13734	MGS	02-046/20:38:00		Set eclipse egress script address: 019A	SWSEES	02-046/20:22:41
13735	MGS	02-046/20:41:45		: 01:27:46	RPAONX	02-046/20:26:26
13736	MGS	02-046/20:41:45		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-046/20:26:26
13737	MGS	02-046/20:43:00		: 00:00:30, 00:07:01, FALSE	RDSCIE	02-046/20:27:41
13738	MGS	02-046/20:43:00		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-046/20:27:41
13739	MGS	02-046/20:43:00		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-046/20:27:41
13740	MGS	02-046/20:43:00		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-046/20:27:41
13741	MGS	02-046/20:43:00		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-046/20:27:41
13742	MGS	02-046/20:43:30		NOTE: Exit Earth Occultation 13150		02-046/20:28:11
13743	MGS	02-046/20:43:30	65	Acquisition Of X-Band Signal		
13744	MGS	02-046/20:43:30	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
13745	MGS	02-046/20:43:30	65	NOTE: Carrier Only -- No Telemetry Modulation		
13746	MGS	02-046/20:43:30		Disables autonomous command to send eclipse ingress script	SWEISX	02-046/20:28:11
13747	MGS	02-046/20:47:51		NOTE: Exit Planetary Atmosphere 13150		02-046/20:32:32
13748	MGS	02-046/20:50:01		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-046/20:34:42
13749	MGS	02-046/20:50:01		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-046/20:34:42
13750	MGS	02-046/20:50:01		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-046/20:34:42
13751	MGS	02-046/20:50:01		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-046/20:34:42
13752	MGS	02-046/20:50:01		: REC_2B, F42KHZ, PART2, SE_1A, FALSE, 00:10:51	AEMPB	02-046/20:34:42
13753	MGS	02-046/20:50:01		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-046/20:34:42
13754	MGS	02-046/20:50:01		Sends a one-word SSR command to the XSU command SOB: SSR_2B, F42KHZ, PLYBCK, PART2	STSSRC	02-046/20:34:42
13755	MGS	02-046/20:50:01	65	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
13756	MGS	02-046/20:50:02		SSR 2B Data Enable	CSD2BE	02-046/20:34:43
13757	MGS	02-046/20:50:02		SSR Activity: ID=SSR_2B, FCN=Start Playback, PRT=2, BR=42666		02-046/20:34:43

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
13758	MGS	02-046/20:50:02	65	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
13759	MGS	02-046/20:50:06		NOTE: End fixed Sub-Reflector for Radio Science		02-046/20:34:47
13760	MGS	02-046/20:53:42		NOTE: Exit Solar Eclipse 13150		02-046/20:38:23
13761	MGS	02-046/21:00:00	15	Begin Tracking		
13762	MGS	02-046/21:00:00	15	Acquire D/L: X/16, 3-Way/65, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
13763	MGS	02-046/21:06:55		NOTE: Periapsis 13151 ----------		02-046/20:51:36
13764	MGS	02-046/21:08:00	65	Range Modulation Off		
13765	MGS	02-046/21:10:00	15	U/L Transfer From DSS-65 to DSS-15: PWR=20.0, BR=125.0, CS=5.82dB		
13766	MGS	02-046/21:12:00	15	Range Modulation On: SUP=3.0dB		
13767	MGS	02-046/21:13:00	15	Begin Ranging Acquisition		
13768	MGS	02-046/21:14:41		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-046/20:59:22
13769	MGS	02-046/21:14:41		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-046/20:59:22
13770	MGS	02-046/21:14:42		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-046/20:59:23
13771	MGS	02-046/21:14:42		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-046/20:59:23
13772	MGS	02-046/21:19:40	15	NOTE: Transmitter Off in 15 minutes		
13773	MGS	02-046/21:20:00	65	End Tracking		
13774	MGS	02-046/21:32:41	15	Range Modulation Off		
13775	MGS	02-046/21:34:40	15	Transmitter Off		
13776	MGS	02-046/21:35:00	65	End Post-Cal		
13777	MGS	02-046/21:36:42		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-046/21:21:23
13778	MGS	02-046/21:36:42		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-046/21:21:23
13779	MGS	02-046/21:40:37	15	Acquire D/L: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
13780	MGS	02-046/21:57:45		NOTE: Begin fixed Sub-Reflector for Radio Science		02-046/21:42:26
13781	MGS	02-046/21:58:40		SSR 2B Data Disable	CSD2BX	02-046/21:43:21
13782	MGS	02-046/21:58:40		SSR Activity: ID=SSR_2B, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-046/21:43:21
13783	MGS	02-046/21:58:40		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-046/21:43:21
13784	MGS	02-046/21:58:40	15	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
13785	MGS	02-046/22:00:59		NOTE: Start Block (MAP_RT)		02-046/21:45:40
13786	MGS	02-046/22:01:00		: 00:28:29, 01:27:45, FALSE, TRUE, FALSE, 00:01:15, 00:07:01, 01:12:43, 00:06:45	AEMINI	02-046/21:45:41
13787	MGS	02-046/22:01:00		Enable sending eclipse ingress script when array power disappears	SWEISE	02-046/21:45:41
13788	MGS	02-046/22:01:00		NOTE: Start EVP data return script		02-046/21:45:41
13789	MGS	02-046/22:01:01		: SE_2A, RTM, 01:12:42, MRC, 2002-046T22:32:27.000	AEMRTI	02-046/21:45:42
13790	MGS	02-046/22:02:45		: 00:06:45, FALSE	RDSCII	02-046/21:47:26
13791	MGS	02-046/22:02:45		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-046/21:47:26
13792	MGS	02-046/22:02:45		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-046/21:47:26
13793	MGS	02-046/22:02:45		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-046/21:47:26
13794	MGS	02-046/22:02:45		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-046/21:47:26
13795	MGS	02-046/22:02:45	15	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
13796	MGS	02-046/22:02:45	15	NOTE: Carrier Only -- No Telemetry Modulation		
13797	MGS	02-046/22:04:59		NOTE: Enter Planetary Atmosphere 13151		02-046/21:49:40
13798	MGS	02-046/22:05:36		NOTE: Apoapsis 13151 -		02-046/21:50:18
13799	MGS	02-046/22:09:03		NOTE: Enter Earth Occultation 13151		02-046/21:53:44
13800	MGS	02-046/22:09:03	15	NOTE: Loss Of X-Band Signal		
13801	MGS	02-046/22:09:30		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-046/21:54:11
13802	MGS	02-046/22:09:30		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-046/21:54:11
13803	MGS	02-046/22:09:30		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-046/21:54:11
13804	MGS	02-046/22:09:30		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-046/21:54:11
13805	MGS	02-046/22:09:31		NOTE: End EVP script		02-046/21:54:12
13806	MGS	02-046/22:09:31		Turn off the MOT Exciter and RPA beam	STRPAF	02-046/21:54:12
13807	MGS	02-046/22:09:32		NOTE: End Block (MAP_PB)		02-046/21:54:13
13808	MGS	02-046/22:09:35		NOTE: End fixed Sub-Reflector for Radio Science		02-046/21:54:16
13809	MGS	02-046/22:11:00		NOTE: Enter Solar Eclipse 13151		02-046/21:55:41
13810	MGS	02-046/22:11:00		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-046/21:55:41

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
13811	MGS	02-046/22:14:23	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
13812	MGS	02-046/22:16:23	15	Range Modulation On: SUP=3.0dB		
13813	MGS	02-046/22:17:23	15	Begin Ranging Acquisition		
13814	MGS	02-046/22:28:37		NOTE: Start Block (SSRMGR)		02-046/22:13:18
13815	MGS	02-046/22:28:37		Sends a one-word SSR command to the XSU command SOB: SSR_1A, SE_1A, RECORD, PART3	STSSRC	02-046/22:13:18
13816	MGS	02-046/22:28:38		SSR 1A Data Enable	CSD1AE	02-046/22:13:19
13817	MGS	02-046/22:28:38		SSR Activity: ID=SSR_1A, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-046/22:13:19
13818	MGS	02-046/22:35:42		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-046/22:20:23
13819	MGS	02-046/22:35:42		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-046/22:20:23
13820	MGS	02-046/22:35:44		NOTE: Begin fixed Sub-Reflector for Radio Science		02-046/22:20:25
13821	MGS	02-046/22:35:47		Set eclipse egress script address: 01DC	SWSEES	02-046/22:20:28
13822	MGS	02-046/22:39:29		: 01:27:45	RPAONX	02-046/22:24:10
13823	MGS	02-046/22:39:29		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-046/22:24:10
13824	MGS	02-046/22:40:44		: 00:00:30, 00:07:01, FALSE	RDSCIE	02-046/22:25:25
13825	MGS	02-046/22:40:44		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-046/22:25:25
13826	MGS	02-046/22:40:44		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-046/22:25:25
13827	MGS	02-046/22:40:44		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-046/22:25:25
13828	MGS	02-046/22:40:44		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-046/22:25:25
13829	MGS	02-046/22:41:14		Disables autonomous command to send eclipse ingress script	SWEISX	02-046/22:25:55
13830	MGS	02-046/22:41:15		NOTE: Exit Earth Occultation 13151		02-046/22:25:57
13831	MGS	02-046/22:41:15	15	Acquisition Of X-Band Signal		
13832	MGS	02-046/22:41:15	15	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
13833	MGS	02-046/22:41:15	15	NOTE: Carrier Only -- No Telemetry Modulation		
13834	MGS	02-046/22:45:36		NOTE: Exit Planetary Atmosphere 13151		02-046/22:30:18
13835	MGS	02-046/22:47:45		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-046/22:32:26
13836	MGS	02-046/22:47:45		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-046/22:32:26
13837	MGS	02-046/22:47:45		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-046/22:32:26
13838	MGS	02-046/22:47:45		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-046/22:32:26
13839	MGS	02-046/22:47:45	15	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
13840	MGS	02-046/22:47:46		: RTM, MRC, 01:12:42, S&E_2A, FALSE, 00:06:46	AEMRT	02-046/22:32:27
13841	MGS	02-046/22:47:46		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-046/22:32:27
13842	MGS	02-046/22:47:46		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-046/22:32:27
13843	MGS	02-046/22:47:46		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=3, BITS=9184000, DUR=00:19:08		02-046/22:32:27
13844	MGS	02-046/22:47:46		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-046/22:32:27
13845	MGS	02-046/22:47:46	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
13846	MGS	02-046/22:47:50		NOTE: End fixed Sub-Reflector for Radio Science		02-046/22:32:31
13847	MGS	02-046/22:51:26		NOTE: Exit Solar Eclipse 13151		02-046/22:36:07
13848	MGS	02-046/22:53:39		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-046/22:38:20
13849	MGS	02-046/22:53:39		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=3, BITS=12008000, DUR=00:05:53		02-046/22:38:20
13850	MGS	02-046/22:53:39		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-046/22:38:20
13851	MGS	02-046/22:53:39	15	D/L Change: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
13852	MGS	02-046/22:53:41		NOTE: Start Block (SSRMGR)		02-046/22:38:22
13853	MGS	02-046/22:53:41		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-046/22:38:22
13854	MGS	02-046/22:53:41		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-046/22:38:22
13855	MGS	02-046/22:53:42		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-046/22:38:23
13856	MGS	02-046/22:53:43		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, PLYBCK, PART3	STSSRC	02-046/22:38:24
13857	MGS	02-046/22:53:44		SSR 2A Data Enable	CSD2AE	02-046/22:38:25
13858	MGS	02-046/22:53:44		SSR Activity: ID=SSR_2A, FCN=Start Playback, PRT=3, BR=42666		02-046/22:38:25
13859	MGS	02-046/22:53:44	15	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
13860	MGS	02-046/22:55:18		SSR 1B Data Disable	CSD1BX	02-046/22:39:59
13861	MGS	02-046/22:55:18		SSR Activity: ID=SSR_1B, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-046/22:39:59
13862	MGS	02-046/22:55:19		NOTE: End Block (SSRMGR)		02-046/22:40:00
13863	MGS	02-046/23:04:39		NOTE: Periapsis 13152 ----------		02-046/22:49:20
13864	MGS	02-046/23:06:11		NOTE: Start Block (SSRMGR)		02-046/22:50:52

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
13865	MGS	02-046/23:06:11		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-046/22:50:52
13866	MGS	02-046/23:06:11		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-046/22:50:52
13867	MGS	02-046/23:06:12		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-046/22:50:53
13868	MGS	02-046/23:06:12		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, ENBSCR, PART1	STSSRC	02-046/22:50:53
13869	MGS	02-046/23:06:13		Sends a one-word SSR command to the XSU command SOB: SSR_2B, F42KHZ, PLYBCK, PART3	STSSRC	02-046/22:50:54
13870	MGS	02-046/23:06:14		SSR 2A Data Disable	CSD2AX	02-046/22:50:55
13871	MGS	02-046/23:06:14		SSR 2B Data Enable	CSD2BE	02-046/22:50:55
13872	MGS	02-046/23:06:14		SSR Activity: ID=SSR_2B, FCN=Start Playback, PRT=3, BR=42666		02-046/22:50:55
13873	MGS	02-046/23:06:15		NOTE: End Block (SSRMGR)		02-046/22:50:56
13874	MGS	02-046/23:08:37		NOTE: Start Block (SSRMGR)		02-046/22:53:18
13875	MGS	02-046/23:08:37		Sends a one-word SSR command to the XSU command SOB: SSR_1B, SE_1A, RECORD, PART3	STSSRC	02-046/22:53:18
13876	MGS	02-046/23:08:38		SSR 1B Data Enable	CSD1BE	02-046/22:53:19
13877	MGS	02-046/23:08:38		SSR Activity: ID=SSR_1B, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-046/22:53:19
13878	MGS	02-046/23:12:25		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-046/22:57:06
13879	MGS	02-046/23:12:25		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-046/22:57:06
13880	MGS	02-046/23:12:26		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-046/22:57:07
13881	MGS	02-046/23:12:26		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-046/22:57:07
13882	MGS	02-046/23:17:23	15	NOTE: Transmitter Off in 15 minutes		
13883	MGS	02-046/23:23:44		SSR 2B Data Disable	CSD2BX	02-046/23:08:25
13884	MGS	02-046/23:23:44		SSR Activity: ID=SSR_2B, FCN=End Playback, PRT=3, BITS=44800000, DUR=00:17:30		02-046/23:08:25
13885	MGS	02-046/23:23:45		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-046/23:08:26
13886	MGS	02-046/23:23:45		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=3, BITS=7256000, DUR=00:15:07		02-046/23:08:26
13887	MGS	02-046/23:23:45		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-046/23:08:26
13888	MGS	02-046/23:23:45		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-046/23:08:26
13889	MGS	02-046/23:23:45		NOTE: End Block (SSRMGR)		02-046/23:08:26
13890	MGS	02-046/23:23:45	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
13891	MGS	02-046/23:30:23	15	Range Modulation Off		
13892	MGS	02-046/23:32:23	15	Transmitter Off		
13893	MGS	02-046/23:34:26		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-046/23:19:07
13894	MGS	02-046/23:34:26		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-046/23:19:07
13895	MGS	02-046/23:35:18		SSR 1A Data Disable	CSD1AX	02-046/23:19:59
13896	MGS	02-046/23:35:18		SSR Activity: ID=SSR_1A, FCN=End Recording, PRT=3, BITS=32000000, DUR=01:06:40		02-046/23:19:59
13897	MGS	02-046/23:35:19		NOTE: End Block (SSRMGR)		02-046/23:20:00
13898	MGS	02-046/23:55:28		NOTE: Begin fixed Sub-Reflector for Radio Science		02-046/23:40:09
13899	MGS	02-046/23:58:41		NOTE: Start Block (MAP_RT)		02-046/23:43:22
13900	MGS	02-046/23:58:42		: 00:28:32, 01:27:44, FALSE, TRUE, FALSE, 00:01:15, 00:07:01, 01:12:43, 00:06:44	AEMINI	02-046/23:43:23
13901	MGS	02-046/23:58:42		Enable sending eclipse ingress script when array power disappears	SWEISE	02-046/23:43:23
13902	MGS	02-046/23:58:42		NOTE: Start EVP data return script		02-046/23:43:23
13903	MGS	02-046/23:58:43		: SE_2A, RTM, 01:12:42, MRC, 2002-047T00:30:13.000	AEMRTI	02-046/23:43:24
13904	MGS	02-047/00:00:00		Light Time: OWLT = 15:19, RTLT = 30:38		
13905	MGS	02-047/00:00:29		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-046/23:45:09
13906	MGS	02-047/00:00:29		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=3, BITS=24880000, DUR=00:36:43		02-046/23:45:09
13907	MGS	02-047/00:00:29		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-046/23:45:09
13908	MGS	02-047/00:00:29		: 00:06:45, FALSE	RDSCII	02-046/23:45:09
13909	MGS	02-047/00:00:29		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-046/23:45:09
13910	MGS	02-047/00:00:29		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-046/23:45:09
13911	MGS	02-047/00:00:29		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-046/23:45:09
13912	MGS	02-047/00:00:29		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-046/23:45:09
13913	MGS	02-047/00:00:29	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
13914	MGS	02-047/00:00:29	15	NOTE: Carrier Only -- No Telemetry Modulation		
13915	MGS	02-047/00:02:42		NOTE: Enter Planetary Atmosphere 13152		02-046/23:47:23
13916	MGS	02-047/00:03:29		NOTE: Apoapsis 13152 -		02-046/23:48:10
13917	MGS	02-047/00:06:46		NOTE: Enter Earth Occultation 13152		02-046/23:51:26
13918	MGS	02-047/00:06:46	15	NOTE: Loss Of X-Band Signal		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
13919	MGS	02-047/00:07:14		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-046/23:51:54
13920	MGS	02-047/00:07:14		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-046/23:51:54
13921	MGS	02-047/00:07:14		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-046/23:51:54
13922	MGS	02-047/00:07:14		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-046/23:51:54
13923	MGS	02-047/00:07:14		NOTE: End EVP script		02-046/23:51:55
13924	MGS	02-047/00:07:15		Turn off the MOT Exciter and RPA beam	STRPAF	02-046/23:51:55
13925	MGS	02-047/00:07:15		NOTE: End Block (MAP_RT)		02-046/23:51:56
13926	MGS	02-047/00:07:18		NOTE: End fixed Sub-Reflector for Radio Science		02-046/23:51:59
13927	MGS	02-047/00:08:42		NOTE: Enter Solar Eclipse 13152		02-046/23:53:23
13928	MGS	02-047/00:08:43		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-046/23:53:23
13929	MGS	02-047/00:12:06	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
13930	MGS	02-047/00:14:06	15	Range Modulation On: SUP=3.0dB		
13931	MGS	02-047/00:15:06	15	Begin Ranging Acquisition		
13932	MGS	02-047/00:15:18		NOTE: Start Block (SSRMGR)		02-046/23:59:58
13933	MGS	02-047/00:15:18		Sends a one-word SSR command to the XSU command SOB: SSR_2A, SE_1A, RECORD, PART1	STSSRC	02-046/23:59:58
13934	MGS	02-047/00:15:19		SSR 2A Data Enable	CSD2AE	02-046/23:59:59
13935	MGS	02-047/00:15:19		SSR Activity: ID=SSR_2A, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-046/23:59:59
13936	MGS	02-047/00:33:27		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-047/00:18:07
13937	MGS	02-047/00:33:27		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-047/00:18:07
13938	MGS	02-047/00:33:29		NOTE: Begin fixed Sub-Reflector for Radio Science		02-047/00:18:10
13939	MGS	02-047/00:33:31		Command the PSE with included data word: 3990	SWPSEL	02-047/00:18:11
13940	MGS	02-047/00:33:32		Set eclipse egress script address: 0158	SWSEES	02-047/00:18:12
13941	MGS	02-047/00:37:15		: 01:27:44	RPAONX	02-047/00:21:55
13942	MGS	02-047/00:37:15		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-047/00:21:55
13943	MGS	02-047/00:38:30		: 00:00:30, 00:07:01, FALSE	RDSCIE	02-047/00:23:10
13944	MGS	02-047/00:38:30		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-047/00:23:10
13945	MGS	02-047/00:38:30		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-047/00:23:10
13946	MGS	02-047/00:38:30		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-047/00:23:10
13947	MGS	02-047/00:38:30		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-047/00:23:10
13948	MGS	02-047/00:38:59		NOTE: Exit Earth Occultation 13152		02-047/00:23:40
13949	MGS	02-047/00:38:59	15	Acquisition Of X-Band Signal		
13950	MGS	02-047/00:38:59	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
13951	MGS	02-047/00:38:59	15	NOTE: Carrier Only -- No Telemetry Modulation		
13952	MGS	02-047/00:41:59		SSR 1B Data Disable	CSD1BX	02-047/00:26:39
13953	MGS	02-047/00:41:59		SSR Activity: ID=SSR_1B, FCN=End Recording, PRT=3, BITS=44800000, DUR=01:33:20		02-047/00:26:39
13954	MGS	02-047/00:42:00		NOTE: End Block (SSRMGR)		02-047/00:26:40
13955	MGS	02-047/00:43:20		NOTE: Exit Planetary Atmosphere 13152		02-047/00:28:01
13956	MGS	02-047/00:45:31		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-047/00:30:11
13957	MGS	02-047/00:45:31		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-047/00:30:11
13958	MGS	02-047/00:45:31		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-047/00:30:11
13959	MGS	02-047/00:45:31		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-047/00:30:11
13960	MGS	02-047/00:45:31	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
13961	MGS	02-047/00:45:32		: RTM, MRC, 01:12:42, S&E_2A, FALSE, 00:06:45	AEMRT	02-047/00:30:12
13962	MGS	02-047/00:45:32		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-047/00:30:12
13963	MGS	02-047/00:45:32		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-047/00:30:12
13964	MGS	02-047/00:45:32		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=1, BITS=14504000, DUR=00:30:13		02-047/00:30:12
13965	MGS	02-047/00:45:32		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-047/00:30:12
13966	MGS	02-047/00:45:32	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
13967	MGS	02-047/00:45:35		NOTE: End fixed Sub-Reflector for Radio Science		02-047/00:30:16
13968	MGS	02-047/00:49:09		NOTE: Exit Solar Eclipse 13152		02-047/00:33:49
13969	MGS	02-047/01:02:19		NOTE: Periapsis 13153 ----------		02-047/00:47:00
13970	MGS	02-047/01:14:08		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-047/00:58:48
13971	MGS	02-047/01:14:08		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-047/00:58:48
13972	MGS	02-047/01:14:09		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-047/00:58:49

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
13973	MGS	02-047/01:14:09		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-047/00:58:49
13974	MGS	02-047/01:15:04	15	NOTE: Transmitter Off in 15 minutes		
13975	MGS	02-047/01:28:05	15	Range Modulation Off		
13976	MGS	02-047/01:30:04	15	Transmitter Off		
13977	MGS	02-047/01:36:09		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-047/01:20:49
13978	MGS	02-047/01:36:09		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-047/01:20:49
13979	MGS	02-047/01:53:14		NOTE: Begin fixed Sub-Reflector for Radio Science		02-047/01:37:54
13980	MGS	02-047/01:56:25		NOTE: Start EVP data return script		02-047/01:41:05
13981	MGS	02-047/01:58:14		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-047/01:42:54
13982	MGS	02-047/01:58:14		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=1, BITS=49400000, DUR=01:12:42		02-047/01:42:54
13983	MGS	02-047/01:58:14		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-047/01:42:54
13984	MGS	02-047/01:58:14		: 00:06:44, FALSE	RDSCII	02-047/01:42:54
13985	MGS	02-047/01:58:14		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-047/01:42:54
13986	MGS	02-047/01:58:14		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-047/01:42:54
13987	MGS	02-047/01:58:14		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-047/01:42:54
13988	MGS	02-047/01:58:14		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-047/01:42:54
13989	MGS	02-047/01:58:14	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
13990	MGS	02-047/01:58:14	15	NOTE: Carrier Only -- No Telemetry Modulation		
13991	MGS	02-047/02:00:24		NOTE: Enter Planetary Atmosphere 13153		02-047/01:45:05
13992	MGS	02-047/02:01:09		NOTE: Apoapsis 13153 -		02-047/01:45:49
13993	MGS	02-047/02:04:28		NOTE: Enter Earth Occultation 13153		02-047/01:49:09
13994	MGS	02-047/02:04:28	15	NOTE: Loss Of X-Band Signal		
13995	MGS	02-047/02:04:58		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-047/01:49:38
13996	MGS	02-047/02:04:58		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-047/01:49:38
13997	MGS	02-047/02:04:58		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-047/01:49:38
13998	MGS	02-047/02:04:58		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-047/01:49:38
13999	MGS	02-047/02:04:59		NOTE: End EVP script		02-047/01:49:39
14000	MGS	02-047/02:04:59		Turn off the MOT Exciter and RPA beam	STRPAF	02-047/01:49:39
14001	MGS	02-047/02:05:03		NOTE: End fixed Sub-Reflector for Radio Science		02-047/01:49:43
14002	MGS	02-047/02:06:24		NOTE: Enter Solar Eclipse 13153		02-047/01:51:05
14003	MGS	02-047/02:06:25		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-047/01:51:05
14004	MGS	02-047/02:09:47	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
14005	MGS	02-047/02:11:48	15	Range Modulation On: SUP=3.0dB		
14006	MGS	02-047/02:12:48	15	Begin Ranging Acquisition		
14007	MGS	02-047/02:31:09		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-047/02:15:49
14008	MGS	02-047/02:31:09		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-047/02:15:49
14009	MGS	02-047/02:31:12		NOTE: Begin fixed Sub-Reflector for Radio Science		02-047/02:15:52
14010	MGS	02-047/02:31:14		Set eclipse egress script address: 019A	SWSEES	02-047/02:15:54
14011	MGS	02-047/02:34:57		: 01:27:44	RPAONX	02-047/02:19:37
14012	MGS	02-047/02:34:57		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-047/02:19:37
14013	MGS	02-047/02:36:12		: 00:00:30, 00:07:01, FALSE	RDSCIE	02-047/02:20:52
14014	MGS	02-047/02:36:12		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-047/02:20:52
14015	MGS	02-047/02:36:12		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-047/02:20:52
14016	MGS	02-047/02:36:12		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-047/02:20:52
14017	MGS	02-047/02:36:12		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-047/02:20:52
14018	MGS	02-047/02:36:41		NOTE: Exit Earth Occultation 13153		02-047/02:21:21
14019	MGS	02-047/02:36:41	15	Acquisition Of X-Band Signal		
14020	MGS	02-047/02:36:41	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
14021	MGS	02-047/02:36:41	15	NOTE: Carrier Only -- No Telemetry Modulation		
14022	MGS	02-047/02:36:42		Disables autonomous command to send eclipse ingress script	SWEISX	02-047/02:21:22
14023	MGS	02-047/02:41:02		NOTE: Exit Planetary Atmosphere 13153		02-047/02:25:43
14024	MGS	02-047/02:43:13		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-047/02:27:53
14025	MGS	02-047/02:43:13		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-047/02:27:53
14026	MGS	02-047/02:43:13		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-047/02:27:53

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
14027	MGS	02-047/02:43:13		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-047/02:27:53
14028	MGS	02-047/02:43:13	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
14029	MGS	02-047/02:43:14		: RTM, MRC, 01:12:42, S&E_2A, FALSE, 00:06:45	AEMRT	02-047/02:27:54
14030	MGS	02-047/02:43:14		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-047/02:27:54
14031	MGS	02-047/02:43:14		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-047/02:27:54
14032	MGS	02-047/02:43:14		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=1, BITS=71000000, DUR=00:45:00		02-047/02:27:54
14033	MGS	02-047/02:43:14		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-047/02:27:54
14034	MGS	02-047/02:43:14	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
14035	MGS	02-047/02:43:18		NOTE: End fixed Sub-Reflector for Radio Science		02-047/02:27:58
14036	MGS	02-047/02:46:50		NOTE: Exit Solar Eclipse 13153		02-047/02:31:31
14037	MGS	02-047/02:59:41		NOTE: Periapsis 13154 ----------		02-047/02:44:22
14038	MGS	02-047/03:07:49		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-047/02:52:29
14039	MGS	02-047/03:07:49		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-047/02:52:29
14040	MGS	02-047/03:07:50		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-047/02:52:30
14041	MGS	02-047/03:07:50		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-047/02:52:30
14042	MGS	02-047/03:12:46	15	NOTE: Transmitter Off in 15 minutes		
14043	MGS	02-047/03:25:47	15	Range Modulation Off		
14044	MGS	02-047/03:27:46	15	Transmitter Off		
14045	MGS	02-047/03:29:50		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-047/03:14:30
14046	MGS	02-047/03:29:50		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-047/03:14:30
14047	MGS	02-047/03:50:56		NOTE: Begin fixed Sub-Reflector for Radio Science		02-047/03:35:36
14048	MGS	02-047/03:54:06		NOTE: Start Block (MAP_RT)		02-047/03:38:46
14049	MGS	02-047/03:54:07		: 00:28:32, 01:27:44, FALSE, TRUE, FALSE, 00:01:15, 00:07:01, 01:12:43, 00:06:44	AEMINI	02-047/03:38:47
14050	MGS	02-047/03:54:07		Enable sending eclipse ingress script when array power disappears	SWEISE	02-047/03:38:47
14051	MGS	02-047/03:54:07		NOTE: Start EVP data return script		02-047/03:38:47
14052	MGS	02-047/03:54:08		: SE_1A, MRC, 01:12:42, MRC, 2002-047T04:25:37.000	AEMRTI	02-047/03:38:48
14053	MGS	02-047/03:55:56		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-047/03:40:36
14054	MGS	02-047/03:55:56		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=1, BITS=105896000, DUR=01:12:42		02-047/03:40:36
14055	MGS	02-047/03:55:56		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-047/03:40:36
14056	MGS	02-047/03:55:56		: 00:06:44, FALSE	RDSCII	02-047/03:40:36
14057	MGS	02-047/03:55:56		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-047/03:40:36
14058	MGS	02-047/03:55:56		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-047/03:40:36
14059	MGS	02-047/03:55:56		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-047/03:40:36
14060	MGS	02-047/03:55:56		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-047/03:40:36
14061	MGS	02-047/03:55:56	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
14062	MGS	02-047/03:55:56	15	NOTE: Carrier Only -- No Telemetry Modulation		
14063	MGS	02-047/03:58:08		NOTE: Enter Planetary Atmosphere 13154		02-047/03:42:48
14064	MGS	02-047/03:58:33		NOTE: Apoapsis 13154 -		02-047/03:43:14
14065	MGS	02-047/04:02:11		NOTE: Enter Earth Occultation 13154		02-047/03:46:51
14066	MGS	02-047/04:02:11	15	NOTE: Loss Of X-Band Signal		
14067	MGS	02-047/04:02:40		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-047/03:47:20
14068	MGS	02-047/04:02:40		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-047/03:47:20
14069	MGS	02-047/04:02:40		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-047/03:47:20
14070	MGS	02-047/04:02:40		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-047/03:47:20
14071	MGS	02-047/04:02:41		NOTE: End EVP script		02-047/03:47:21
14072	MGS	02-047/04:02:41		Turn off the MOT Exciter and RPA beam	STRPAF	02-047/03:47:21
14073	MGS	02-047/04:02:42		NOTE: End Block (MAP_RT)		02-047/03:47:22
14074	MGS	02-047/04:02:45		NOTE: End fixed Sub-Reflector for Radio Science		02-047/03:47:25
14075	MGS	02-047/04:04:07		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-047/03:48:47
14076	MGS	02-047/04:04:08		NOTE: Enter Solar Eclipse 13154		02-047/03:48:48
14077	MGS	02-047/04:07:29	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
14078	MGS	02-047/04:09:30	15	Range Modulation On: SUP=3.0dB		
14079	MGS	02-047/04:10:30	15	Begin Ranging Acquisition		
14080	MGS	02-047/04:25:00	15	NOTE: Transmitter Off in 15 minutes		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
14081	MGS	02-047/04:28:50		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-047/04:13:30
14082	MGS	02-047/04:28:50		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-047/04:13:30
14083	MGS	02-047/04:28:55		NOTE: Begin fixed Sub-Reflector for Radio Science		02-047/04:13:35
14084	MGS	02-047/04:28:55		Set eclipse egress script address: 01DC	SWSEES	02-047/04:13:35
14085	MGS	02-047/04:32:39		: 01:27:44	RPAONX	02-047/04:17:19
14086	MGS	02-047/04:32:39		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-047/04:17:19
14087	MGS	02-047/04:33:54		: 00:00:30, 00:07:01, FALSE	RDSCIE	02-047/04:18:34
14088	MGS	02-047/04:33:54		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-047/04:18:34
14089	MGS	02-047/04:33:54		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-047/04:18:34
14090	MGS	02-047/04:33:54		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-047/04:18:34
14091	MGS	02-047/04:33:54		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-047/04:18:34
14092	MGS	02-047/04:34:24		NOTE: Exit Earth Occultation 13154		02-047/04:19:04
14093	MGS	02-047/04:34:24	15	Acquisition Of X-Band Signal		
14094	MGS	02-047/04:34:24	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
14095	MGS	02-047/04:34:24	15	NOTE: Carrier Only -- No Telemetry Modulation		
14096	MGS	02-047/04:34:24		Disables autonomous command to send eclipse ingress script	SWEISX	02-047/04:19:04
14097	MGS	02-047/04:38:00	15	Range Modulation Off		
14098	MGS	02-047/04:38:44		NOTE: Exit Planetary Atmosphere 13154		02-047/04:23:24
14099	MGS	02-047/04:40:00	15	Transmitter Off		
14100	MGS	02-047/04:40:55		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-047/04:25:35
14101	MGS	02-047/04:40:55		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-047/04:25:35
14102	MGS	02-047/04:40:55		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-047/04:25:35
14103	MGS	02-047/04:40:55		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-047/04:25:35
14104	MGS	02-047/04:40:55	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
14105	MGS	02-047/04:40:56		: MRC, MRC, 01:12:42, S&E_1A, FALSE, 00:06:45	AEMRT	02-047/04:25:36
14106	MGS	02-047/04:40:56		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-047/04:25:36
14107	MGS	02-047/04:40:56		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-047/04:25:36
14108	MGS	02-047/04:40:56		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=1, BITS=127496000, DUR=00:45:00		02-047/04:25:36
14109	MGS	02-047/04:40:56		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-047/04:25:36
14110	MGS	02-047/04:40:56	15	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
14111	MGS	02-047/04:41:01		NOTE: End fixed Sub-Reflector for Radio Science		02-047/04:25:41
14112	MGS	02-047/04:44:33		NOTE: Exit Solar Eclipse 13154		02-047/04:29:14
14113	MGS	02-047/04:50:56	15	NOTE: Below Uplink Interlock Limit		
14114	MGS	02-047/04:57:26		NOTE: Periapsis 13155 ----------		02-047/04:42:06
14115	MGS	02-047/05:00:00	15	End Tracking		
14116	MGS	02-047/05:00:00	45	Begin Pre-Cal		
14117	MGS	02-047/05:00:00	45	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
14118	MGS	02-047/05:00:00	45	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=ON, RCVR2=ON, TWNC=ON		
14119	MGS	02-047/05:00:00	45	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
14120	MGS	02-047/05:00:00	45	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
14121	MGS	02-047/05:00:00	45	At BOT: S/C Tlm Mode: BR=8000.0, FL=10000, SC=OFF, MI=0.0		
14122	MGS	02-047/05:00:00	45	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
14123	MGS	02-047/05:00:00	45	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
14124	MGS	02-047/05:00:00	45	Config: TGC: DEST=37		
14125	MGS	02-047/05:00:00	45	Config: TGC: BAND=X, BR=8000.000000		
14126	MGS	02-047/05:00:00	45	Config: FSS: CH=2, PRI_FL=10000		
14127	MGS	02-047/05:00:00	45	Config: RSR		
14128	MGS	02-047/05:00:00	45	Config: TXL		
14129	MGS	02-047/05:00:00	45	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
14130	MGS	02-047/05:00:00	45	Config: BVR		
14131	MGS	02-047/05:00:00	45	Config: Doppler Extractor: BIAS=+1MHZ		
14132	MGS	02-047/05:00:00	45	Config: MDA: SMPL=0.1		
14133	MGS	02-047/05:00:00	45	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
14134	MGS	02-047/05:00:00	45	Config: SRA: HIGH=4, LOW=14, SERV=D		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
14135	MGS	02-047/05:00:00	45	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
14136	MGS	02-047/05:05:32		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-047/04:50:12
14137	MGS	02-047/05:05:32		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-047/04:50:12
14138	MGS	02-047/05:05:33		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-047/04:50:13
14139	MGS	02-047/05:05:33		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-047/04:50:13
14140	MGS	02-047/05:15:00	15	End Post-Cal		
14141	MGS	02-047/05:27:33		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-047/05:12:13
14142	MGS	02-047/05:27:33		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-047/05:12:13
14143	MGS	02-047/05:48:38		NOTE: Start Block (SSRMGR)		02-047/05:33:18
14144	MGS	02-047/05:48:38		Sends a one-word SSR command to the XSU command SOB: SSR_2B, SE_1A, RECORD, PART1	STSSRC	02-047/05:33:18
14145	MGS	02-047/05:48:39		NOTE: Begin fixed Sub-Reflector for Radio Science		02-047/05:33:19
14146	MGS	02-047/05:48:39		SSR 2B Data Enable	CSD2BE	02-047/05:33:19
14147	MGS	02-047/05:48:39		SSR Activity: ID=SSR_2B, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-047/05:33:19
14148	MGS	02-047/05:51:51		NOTE: Start Block (MAP_RT)		02-047/05:36:31
14149	MGS	02-047/05:51:52		: 00:28:32, 01:27:44, FALSE, TRUE, FALSE, 00:01:15, 00:07:01, 01:12:43, 00:06:44	AEMINI	02-047/05:36:32
14150	MGS	02-047/05:51:52		Enable sending eclipse ingress script when array power disappears	SWEISE	02-047/05:36:32
14151	MGS	02-047/05:51:52		NOTE: Start EVP data return script		02-047/05:36:32
14152	MGS	02-047/05:51:53		: SE_2A, RTM, 01:12:42, MRC, 2002-047T06:23:22.000	AEMRTI	02-047/05:36:33
14153	MGS	02-047/05:53:38		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-047/05:38:18
14154	MGS	02-047/05:53:38		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=1, BITS=2392000, DUR=00:04:59		02-047/05:38:18
14155	MGS	02-047/05:53:38		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-047/05:38:18
14156	MGS	02-047/05:53:38		: 00:06:44, FALSE	RDSCII	02-047/05:38:18
14157	MGS	02-047/05:53:38		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-047/05:38:18
14158	MGS	02-047/05:53:38		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-047/05:38:18
14159	MGS	02-047/05:53:38		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-047/05:38:18
14160	MGS	02-047/05:53:38		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-047/05:38:18
14161	MGS	02-047/05:55:52		NOTE: Enter Planetary Atmosphere 13155		02-047/05:40:32
14162	MGS	02-047/05:56:29		NOTE: Apoapsis 13155 -		02-047/05:41:09
14163	MGS	02-047/05:59:55		NOTE: Enter Earth Occultation 13155		02-047/05:44:35
14164	MGS	02-047/06:00:00	45	Begin Tracking		
14165	MGS	02-047/06:00:22		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-047/05:45:02
14166	MGS	02-047/06:00:22		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-047/05:45:02
14167	MGS	02-047/06:00:22		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-047/05:45:02
14168	MGS	02-047/06:00:22		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-047/05:45:02
14169	MGS	02-047/06:00:23		Turn off the MOT Exciter and RPA beam	STRPAF	02-047/05:45:03
14170	MGS	02-047/06:00:24		NOTE: End EVP script		02-047/05:45:04
14171	MGS	02-047/06:00:25		NOTE: End Block (MAP_RT)		02-047/05:45:05
14172	MGS	02-047/06:00:28		NOTE: End fixed Sub-Reflector for Radio Science		02-047/05:45:08
14173	MGS	02-047/06:01:52		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-047/05:46:32
14174	MGS	02-047/06:01:53		NOTE: Enter Solar Eclipse 13155		02-047/05:46:33
14175	MGS	02-047/06:10:00	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
14176	MGS	02-047/06:12:00	45	Range Modulation On: SUP=3.0dB		
14177	MGS	02-047/06:13:00	45	Begin Ranging Acquisition		
14178	MGS	02-047/06:15:19		SSR 2A Data Disable	CSD2AX	02-047/05:59:59
14179	MGS	02-047/06:15:19		SSR Activity: ID=SSR_2A, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-047/05:59:59
14180	MGS	02-047/06:15:20		NOTE: End Block (SSRMGR)		02-047/06:00:00
14181	MGS	02-047/06:26:33		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-047/06:11:13
14182	MGS	02-047/06:26:33		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-047/06:11:13
14183	MGS	02-047/06:26:37		Command the PSE with included data word: 3990	SWPSEL	02-047/06:11:17
14184	MGS	02-047/06:26:38		Set eclipse egress script address: 0158	SWSEES	02-047/06:11:18
14185	MGS	02-047/06:26:40		NOTE: Begin fixed Sub-Reflector for Radio Science		02-047/06:11:20
14186	MGS	02-047/06:30:25		: 01:27:44	RPAONX	02-047/06:15:04
14187	MGS	02-047/06:30:25		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-047/06:15:04
14188	MGS	02-047/06:31:40		: 00:00:30, 00:07:01, FALSE	RDSCIE	02-047/06:16:19

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
14189	MGS	02-047/06:31:40		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-047/06:16:19
14190	MGS	02-047/06:31:40		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-047/06:16:19
14191	MGS	02-047/06:31:40		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-047/06:16:19
14192	MGS	02-047/06:31:40		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-047/06:16:19
14193	MGS	02-047/06:32:09		NOTE: Exit Earth Occultation 13155		02-047/06:16:49
14194	MGS	02-047/06:32:09	45	Acquisition Of X-Band Signal		
14195	MGS	02-047/06:32:09	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
14196	MGS	02-047/06:32:09	45	NOTE: Carrier Only -- No Telemetry Modulation		
14197	MGS	02-047/06:36:29		NOTE: Exit Planetary Atmosphere 13155		02-047/06:21:09
14198	MGS	02-047/06:38:41		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-047/06:23:20
14199	MGS	02-047/06:38:41		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-047/06:23:20
14200	MGS	02-047/06:38:41		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-047/06:23:20
14201	MGS	02-047/06:38:41		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-047/06:23:20
14202	MGS	02-047/06:38:41	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
14203	MGS	02-047/06:38:42		: RTM, MRC, 01:12:42, S&E_2A, FALSE, 00:06:45	AEMRT	02-047/06:23:21
14204	MGS	02-047/06:38:42		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-047/06:23:21
14205	MGS	02-047/06:38:42		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-047/06:23:21
14206	MGS	02-047/06:38:42		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=1, BITS=24016000, DUR=00:45:03		02-047/06:23:21
14207	MGS	02-047/06:38:42		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-047/06:23:21
14208	MGS	02-047/06:38:42	45	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
14209	MGS	02-047/06:38:46		NOTE: End fixed Sub-Reflector for Radio Science		02-047/06:23:26
14210	MGS	02-047/06:40:40	45	Acquire D/L: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
14211	MGS	02-047/06:42:19		NOTE: Exit Solar Eclipse 13155		02-047/06:26:59
14212	MGS	02-047/06:55:37		NOTE: Periapsis 13156 ----------		02-047/06:40:17
14213	MGS	02-047/07:07:18		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-047/06:51:57
14214	MGS	02-047/07:07:18		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-047/06:51:57
14215	MGS	02-047/07:07:19		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-047/06:51:58
14216	MGS	02-047/07:07:19		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-047/06:51:58
14217	MGS	02-047/07:08:16	45	NOTE: Transmitter Off in 15 minutes		
14218	MGS	02-047/07:21:16	45	Range Modulation Off		
14219	MGS	02-047/07:23:16	45	Transmitter Off		
14220	MGS	02-047/07:29:19		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-047/07:13:58
14221	MGS	02-047/07:29:19		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-047/07:13:58
14222	MGS	02-047/07:46:24		NOTE: Begin fixed Sub-Reflector for Radio Science		02-047/07:31:04
14223	MGS	02-047/07:49:39		NOTE: Start EVP data return script		02-047/07:34:18
14224	MGS	02-047/07:51:24		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-047/07:36:03
14225	MGS	02-047/07:51:24		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=1, BITS=58912000, DUR=01:12:42		02-047/07:36:03
14226	MGS	02-047/07:51:24		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-047/07:36:03
14227	MGS	02-047/07:51:24		: 00:06:44, FALSE	RDSCII	02-047/07:36:03
14228	MGS	02-047/07:51:24		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-047/07:36:03
14229	MGS	02-047/07:51:24		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-047/07:36:03
14230	MGS	02-047/07:51:24		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-047/07:36:03
14231	MGS	02-047/07:51:24		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-047/07:36:03
14232	MGS	02-047/07:51:24	45	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
14233	MGS	02-047/07:51:24	45	NOTE: Carrier Only -- No Telemetry Modulation		
14234	MGS	02-047/07:53:38		NOTE: Enter Planetary Atmosphere 13156		02-047/07:38:18
14235	MGS	02-047/07:54:48		NOTE: Apoapsis 13156 -		02-047/07:39:28
14236	MGS	02-047/07:57:41		NOTE: Enter Earth Occultation 13156		02-047/07:42:21
14237	MGS	02-047/07:57:41	45	NOTE: Loss Of X-Band Signal		
14238	MGS	02-047/07:58:08		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-047/07:42:47
14239	MGS	02-047/07:58:08		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-047/07:42:47
14240	MGS	02-047/07:58:08		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-047/07:42:47
14241	MGS	02-047/07:58:08		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-047/07:42:47
14242	MGS	02-047/07:58:09		Turn off the MOT Exciter and RPA beam	STRPAF	02-047/07:42:48

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
14243	MGS	02-047/07:58:09		NOTE: End EVP script		02-047/07:42:49
14244	MGS	02-047/07:58:13		NOTE: End fixed Sub-Reflector for Radio Science		02-047/07:42:53
14245	MGS	02-047/07:59:39		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-047/07:44:18
14246	MGS	02-047/07:59:40		NOTE: Enter Solar Eclipse 13156		02-047/07:44:19
14247	MGS	02-047/08:03:01	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
14248	MGS	02-047/08:05:01	45	Range Modulation On: SUP=3.0dB		
14249	MGS	02-047/08:06:01	45	Begin Ranging Acquisition		
14250	MGS	02-047/08:24:19		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-047/08:08:58
14251	MGS	02-047/08:24:19		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-047/08:08:58
14252	MGS	02-047/08:24:24		Set eclipse egress script address: 019A	SWSEES	02-047/08:09:03
14253	MGS	02-047/08:24:26		NOTE: Begin fixed Sub-Reflector for Radio Science		02-047/08:09:06
14254	MGS	02-047/08:28:11		: 01:27:44	RPAONX	02-047/08:12:50
14255	MGS	02-047/08:28:11		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-047/08:12:50
14256	MGS	02-047/08:29:26		: 00:00:30, 00:07:01, FALSE	RDSCIE	02-047/08:14:05
14257	MGS	02-047/08:29:26		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-047/08:14:05
14258	MGS	02-047/08:29:26		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-047/08:14:05
14259	MGS	02-047/08:29:26		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-047/08:14:05
14260	MGS	02-047/08:29:26		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-047/08:14:05
14261	MGS	02-047/08:29:56		Disables autonomous command to send eclipse ingress script	SWEISX	02-047/08:14:35
14262	MGS	02-047/08:29:56		NOTE: Exit Earth Occultation 13156		02-047/08:14:36
14263	MGS	02-047/08:29:56	45	Acquisition Of X-Band Signal		
14264	MGS	02-047/08:29:56	45	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
14265	MGS	02-047/08:29:56	45	NOTE: Carrier Only -- No Telemetry Modulation		
14266	MGS	02-047/08:34:16		NOTE: Exit Planetary Atmosphere 13156		02-047/08:18:56
14267	MGS	02-047/08:36:27		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-047/08:21:06
14268	MGS	02-047/08:36:27		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-047/08:21:06
14269	MGS	02-047/08:36:27		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-047/08:21:06
14270	MGS	02-047/08:36:27		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-047/08:21:06
14271	MGS	02-047/08:36:27	45	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
14272	MGS	02-047/08:36:28		: RTM, MRC, 01:12:42, S&E_2A, FALSE, 00:06:45	AEMRT	02-047/08:21:07
14273	MGS	02-047/08:36:28		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-047/08:21:07
14274	MGS	02-047/08:36:28		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-047/08:21:07
14275	MGS	02-047/08:36:28		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=1, BITS=80544000, DUR=00:45:04		02-047/08:21:07
14276	MGS	02-047/08:36:28		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-047/08:21:07
14277	MGS	02-047/08:36:28	45	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
14278	MGS	02-047/08:36:32		NOTE: End fixed Sub-Reflector for Radio Science		02-047/08:21:12
14279	MGS	02-047/08:40:06		NOTE: Exit Solar Eclipse 13156		02-047/08:24:46
14280	MGS	02-047/08:53:45		NOTE: Periapsis 13157 ----------		02-047/08:38:25
14281	MGS	02-047/09:01:05		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-047/08:45:44
14282	MGS	02-047/09:01:05		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-047/08:45:44
14283	MGS	02-047/09:01:06		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-047/08:45:45
14284	MGS	02-047/09:01:06		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-047/08:45:45
14285	MGS	02-047/09:06:03	45	NOTE: Transmitter Off in 15 minutes		
14286	MGS	02-047/09:19:04	45	Range Modulation Off		
14287	MGS	02-047/09:21:03	45	Transmitter Off		
14288	MGS	02-047/09:23:06		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-047/09:07:45
14289	MGS	02-047/09:23:06		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-047/09:07:45
14290	MGS	02-047/09:44:10		NOTE: Begin fixed Sub-Reflector for Radio Science		02-047/09:28:50
14291	MGS	02-047/09:49:10		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-047/09:33:49
14292	MGS	02-047/09:49:10		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=1, BITS=115440000, DUR=01:12:42		02-047/09:33:49
14293	MGS	02-047/09:49:10		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-047/09:33:49
14294	MGS	02-047/09:49:10		: 00:06:44, FALSE	RDSCII	02-047/09:33:49
14295	MGS	02-047/09:49:10		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-047/09:33:49
14296	MGS	02-047/09:49:10		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-047/09:33:49

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
14297	MGS	02-047/09:49:10		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-047/09:33:49
14298	MGS	02-047/09:49:10		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-047/09:33:49
14299	MGS	02-047/09:49:10	45	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
14300	MGS	02-047/09:49:10	45	NOTE: Carrier Only -- No Telemetry Modulation		
14301	MGS	02-047/09:51:26		NOTE: Enter Planetary Atmosphere 13157		02-047/09:36:05
14302	MGS	02-047/09:52:51		NOTE: Apoapsis 13157 -		02-047/09:37:30
14303	MGS	02-047/09:55:29		NOTE: Enter Earth Occultation 13157		02-047/09:40:08
14304	MGS	02-047/09:55:29	45	NOTE: Loss Of X-Band Signal		
14305	MGS	02-047/09:55:54		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-047/09:40:33
14306	MGS	02-047/09:55:54		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-047/09:40:33
14307	MGS	02-047/09:55:54		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-047/09:40:33
14308	MGS	02-047/09:55:54		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-047/09:40:33
14309	MGS	02-047/09:55:55		Turn off the MOT Exciter and RPA beam	STRPAF	02-047/09:40:34
14310	MGS	02-047/09:55:56		NOTE: End EVP script		02-047/09:40:35
14311	MGS	02-047/09:55:57		NOTE: End Block (MAP_RT)		02-047/09:40:36
14312	MGS	02-047/09:56:00		NOTE: End fixed Sub-Reflector for Radio Science		02-047/09:40:39
14313	MGS	02-047/09:57:27		NOTE: Enter Solar Eclipse 13157		02-047/09:42:06
14314	MGS	02-047/10:12:25		Disable HGA control mode	SAHGCX	02-047/09:57:04
14315	MGS	02-047/10:12:26		No Operation	SCNOOP	02-047/09:57:05
14316	MGS	02-047/10:12:27		CDU-1 Uplink Rate Select (Based on 3 bit Code): 7	TCC1BS	02-047/09:57:06
14317	MGS	02-047/10:12:27		CDU-2 Uplink Rate Select (Based on 3 bit Code): 7	TCC2BS	02-047/09:57:06
14318	MGS	02-047/10:19:04	45	NOTE: Below Uplink Interlock Limit		
14319	MGS	02-047/10:22:06		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-047/10:06:45
14320	MGS	02-047/10:22:06		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-047/10:06:45
14321	MGS	02-047/10:22:11		Set eclipse egress script address: 01DC	SWSEES	02-047/10:06:50
14322	MGS	02-047/10:25:00	45	End Tracking		
14323	MGS	02-047/10:27:44		NOTE: Exit Earth Occultation 13157		02-047/10:12:24
14324	MGS	02-047/10:32:05		NOTE: Exit Planetary Atmosphere 13157		02-047/10:16:44
14325	MGS	02-047/10:37:53		NOTE: Exit Solar Eclipse 13157		02-047/10:22:33
14326	MGS	02-047/10:40:00	45	End Post-Cal		
14327	MGS	02-047/10:51:32		NOTE: Periapsis 13158 ----------		02-047/10:36:11
14328	MGS	02-047/10:58:52		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-047/10:43:31
14329	MGS	02-047/10:58:52		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-047/10:43:31
14330	MGS	02-047/10:58:53		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-047/10:43:32
14331	MGS	02-047/10:58:53		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-047/10:43:32
14332	MGS	02-047/11:20:53		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-047/11:05:32
14333	MGS	02-047/11:20:53		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-047/11:05:32
14334	MGS	02-047/11:21:59		NOTE: Start Block (SSRMGR)		02-047/11:06:38
14335	MGS	02-047/11:21:59		Sends a one-word SSR command to the XSU command SOB: SSR_2A, SE_1A, RECORD, PART2	STSSRC	02-047/11:06:38
14336	MGS	02-047/11:22:00		SSR 2A Data Enable	CSD2AE	02-047/11:06:39
14337	MGS	02-047/11:22:00		SSR Activity: ID=SSR_2A, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-047/11:06:39
14338	MGS	02-047/11:48:40		SSR 2B Data Disable	CSD2BX	02-047/11:33:19
14339	MGS	02-047/11:48:40		SSR Activity: ID=SSR_2B, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-047/11:33:19
14340	MGS	02-047/11:48:41		NOTE: End Block (SSRMGR)		02-047/11:33:20
14341	MGS	02-047/11:49:11		NOTE: Enter Planetary Atmosphere 13158		02-047/11:33:50
14342	MGS	02-047/11:50:21		NOTE: Apoapsis 13158 -		02-047/11:35:00
14343	MGS	02-047/11:53:14		NOTE: Enter Earth Occultation 13158		02-047/11:37:53
14344	MGS	02-047/11:55:11		NOTE: Enter Solar Eclipse 13158		02-047/11:39:50
14345	MGS	02-047/12:15:20		Dump SCP memory to the EDF using physical addressing arguments: 56A4, 240	SCDSCM	02-047/11:59:59
14346	MGS	02-047/12:19:53		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-047/12:04:32
14347	MGS	02-047/12:19:53		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-047/12:04:32
14348	MGS	02-047/12:19:57		Command the PSE with included data word: 3990	SWPSEL	02-047/12:04:36
14349	MGS	02-047/12:19:58		Set eclipse egress script address: 0158	SWSEES	02-047/12:04:37
14350	MGS	02-047/12:25:30		NOTE: Exit Earth Occultation 13158		02-047/12:10:09

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
14351	MGS	02-047/12:29:51		NOTE: Exit Planetary Atmosphere 13158		02-047/12:14:30
14352	MGS	02-047/12:35:37		NOTE: Exit Solar Eclipse 13158		02-047/12:20:16
14353	MGS	02-047/12:48:54		NOTE: Periapsis 13159 ----------		02-047/12:33:33
14354	MGS	02-047/12:55:00	65	Begin Pre-Cal		
14355	MGS	02-047/12:55:00	65	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
14356	MGS	02-047/12:55:00	65	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
14357	MGS	02-047/12:55:00	65	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
14358	MGS	02-047/12:55:00	65	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=OFF, EXC=2		
14359	MGS	02-047/12:55:00	65	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
14360	MGS	02-047/12:55:00	65	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
14361	MGS	02-047/12:55:00	65	Config: TGC: DEST=37		
14362	MGS	02-047/12:55:00	65	Config: TGC: BAND=X, BR=0.000000		
14363	MGS	02-047/12:55:00	65	Config: FSS: CH=2, PRI_FL=10000		
14364	MGS	02-047/12:55:00	65	Config: RSR		
14365	MGS	02-047/12:55:00	65	Config: TXL		
14366	MGS	02-047/12:55:00	65	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
14367	MGS	02-047/12:55:00	65	Config: BVR		
14368	MGS	02-047/12:55:00	65	Config: Doppler Extractor: BIAS=+1MHZ		
14369	MGS	02-047/12:55:00	65	Config: MDA: SMPL=0.1		
14370	MGS	02-047/12:55:00	65	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
14371	MGS	02-047/12:55:00	65	Config: SRA: HIGH=4, LOW=14, SERV=D		
14372	MGS	02-047/12:55:00	65	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
14373	MGS	02-047/13:00:37		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-047/12:45:15
14374	MGS	02-047/13:00:37		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-047/12:45:15
14375	MGS	02-047/13:00:38		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-047/12:45:16
14376	MGS	02-047/13:00:38		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-047/12:45:16
14377	MGS	02-047/13:22:38		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-047/13:07:16
14378	MGS	02-047/13:22:38		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-047/13:07:16
14379	MGS	02-047/13:42:51		NOTE: Start Block (MAP_PB)		02-047/13:27:29
14380	MGS	02-047/13:42:52		: 00:28:35, 01:27:41, FALSE, TRUE, FALSE, 00:01:15, 00:07:00, 01:12:42, 00:06:43	AEMINI	02-047/13:27:30
14381	MGS	02-047/13:42:52		Enable sending eclipse ingress script when array power disappears	SWEISE	02-047/13:27:30
14382	MGS	02-047/13:42:52		NOTE: Start EVP data return script		02-047/13:27:30
14383	MGS	02-047/13:42:53		: SSR_1A, F42KHZ, PART1, SE_1A, 2002-047T14:14:20.000	AEMPBI	02-047/13:27:31
14384	MGS	02-047/13:46:51		NOTE: Enter Planetary Atmosphere 13159		02-047/13:31:30
14385	MGS	02-047/13:47:44		NOTE: Apoapsis 13159 -		02-047/13:32:23
14386	MGS	02-047/13:50:54		NOTE: Enter Earth Occultation 13159		02-047/13:35:33
14387	MGS	02-047/13:52:51		NOTE: Enter Solar Eclipse 13159		02-047/13:37:30
14388	MGS	02-047/13:52:52		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-047/13:37:30
14389	MGS	02-047/13:55:00	65	Begin Tracking		
14390	MGS	02-047/14:05:00	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
14391	MGS	02-047/14:07:00	65	Range Modulation On: SUP=3.0dB		
14392	MGS	02-047/14:08:00	65	Begin Ranging Acquisition		
14393	MGS	02-047/14:08:01		Select Automatic HGA control mode	SAHACE	02-047/13:52:39
14394	MGS	02-047/14:08:02		Selects Hign Gain Antenna for downlink, Reconfigures if beam is already on	STUHGA	02-047/13:52:40
14395	MGS	02-047/14:08:03		CDU-1 Uplink Rate Select (Based on 3 bit Code): 3	TCC1BS	02-047/13:52:41
14396	MGS	02-047/14:08:03		CDU-2 Uplink Rate Select (Based on 3 bit Code): 3	TCC2BS	02-047/13:52:41
14397	MGS	02-047/14:17:38		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-047/14:02:16
14398	MGS	02-047/14:17:38		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-047/14:02:16
14399	MGS	02-047/14:17:41		NOTE: Begin fixed Sub-Reflector for Radio Science		02-047/14:02:20
14400	MGS	02-047/14:17:43		Set eclipse egress script address: 019A	SWSEES	02-047/14:02:21
14401	MGS	02-047/14:21:27		: 01:27:41	RPAONX	02-047/14:06:05
14402	MGS	02-047/14:21:27		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-047/14:06:05
14403	MGS	02-047/14:22:42		: 00:00:30, 00:07:00, FALSE	RDSCIE	02-047/14:07:20
14404	MGS	02-047/14:22:42		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-047/14:07:20

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
14405	MGS	02-047/14:22:42		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-047/14:07:20
14406	MGS	02-047/14:22:42		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-047/14:07:20
14407	MGS	02-047/14:22:42		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-047/14:07:20
14408	MGS	02-047/14:23:10		NOTE: Exit Earth Occultation 13159		02-047/14:07:49
14409	MGS	02-047/14:23:10	65	Acquisition Of X-Band Signal		
14410	MGS	02-047/14:23:10	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
14411	MGS	02-047/14:23:10	65	NOTE: Carrier Only -- No Telemetry Modulation		
14412	MGS	02-047/14:27:31		NOTE: Exit Planetary Atmosphere 13159		02-047/14:12:10
14413	MGS	02-047/14:29:42		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-047/14:14:20
14414	MGS	02-047/14:29:42		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-047/14:14:20
14415	MGS	02-047/14:29:42		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-047/14:14:20
14416	MGS	02-047/14:29:42		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-047/14:14:20
14417	MGS	02-047/14:29:42		: REC_1A, F42KHZ, PART1, SE_1A, FALSE, 00:10:47	AEMPB	02-047/14:14:20
14418	MGS	02-047/14:29:42		Sends a one-word MOT command to the XSU command SOB: SSR_1A	STMOTC	02-047/14:14:20
14419	MGS	02-047/14:29:42		Sends a one-word SSR command to the XSU command SOB: SSR_1A, F42KHZ, PLYBCK, PART1	STSSRC	02-047/14:14:20
14420	MGS	02-047/14:29:42	65	D/L Change: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
14421	MGS	02-047/14:29:43		SSR 1A Data Enable	CSD1AE	02-047/14:14:21
14422	MGS	02-047/14:29:43		SSR Activity: ID=SSR_1A, FCN=Start Playback, PRT=1, BR=42666		02-047/14:14:21
14423	MGS	02-047/14:29:43	65	D/L Change: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
14424	MGS	02-047/14:29:46		NOTE: End fixed Sub-Reflector for Radio Science		02-047/14:14:25
14425	MGS	02-047/14:33:17		NOTE: Exit Solar Eclipse 13159		02-047/14:17:56
14426	MGS	02-047/14:35:42	65	Acquire D/L: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
14427	MGS	02-047/14:46:21		NOTE: Periapsis 13160 ----------		02-047/14:30:59
14428	MGS	02-047/14:54:16		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-047/14:38:54
14429	MGS	02-047/14:54:16		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-047/14:38:54
14430	MGS	02-047/14:54:17		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-047/14:38:55
14431	MGS	02-047/14:54:17		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-047/14:38:55
14432	MGS	02-047/14:59:07	65	NOTE: Transmitter Off in 15 minutes		
14433	MGS	02-047/15:12:08	65	Range Modulation Off		
14434	MGS	02-047/15:14:07	65	Transmitter Off		
14435	MGS	02-047/15:16:17		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-047/15:00:55
14436	MGS	02-047/15:16:17		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-047/15:00:55
14437	MGS	02-047/15:37:23		NOTE: Begin fixed Sub-Reflector for Radio Science		02-047/15:22:02
14438	MGS	02-047/15:38:21		SSR 1A Data Disable	CSD1AX	02-047/15:22:59
14439	MGS	02-047/15:38:21		SSR Activity: ID=SSR_1A, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-047/15:22:59
14440	MGS	02-047/15:38:21		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-047/15:22:59
14441	MGS	02-047/15:38:21	65	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
14442	MGS	02-047/15:40:34		NOTE: Start EVP data return script		02-047/15:25:12
14443	MGS	02-047/15:40:34		: SSR_1B, F42KHZ, PART1, 2002-047T16:12:02.000	AEMPBU	02-047/15:25:12
14444	MGS	02-047/15:42:24		: 00:06:43, FALSE	RDSCII	02-047/15:27:02
14445	MGS	02-047/15:42:24		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-047/15:27:02
14446	MGS	02-047/15:42:24		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-047/15:27:02
14447	MGS	02-047/15:42:24		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-047/15:27:02
14448	MGS	02-047/15:42:24		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-047/15:27:02
14449	MGS	02-047/15:42:24	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
14450	MGS	02-047/15:42:24	65	NOTE: Carrier Only -- No Telemetry Modulation		
14451	MGS	02-047/15:44:33		NOTE: Enter Planetary Atmosphere 13160		02-047/15:29:11
14452	MGS	02-047/15:45:29		NOTE: Apoapsis 13160 -		02-047/15:30:07
14453	MGS	02-047/15:48:35		NOTE: Enter Earth Occultation 13160		02-047/15:33:14
14454	MGS	02-047/15:48:35	65	NOTE: Loss Of X-Band Signal		
14455	MGS	02-047/15:49:07		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-047/15:33:45
14456	MGS	02-047/15:49:07		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-047/15:33:45
14457	MGS	02-047/15:49:07		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-047/15:33:45
14458	MGS	02-047/15:49:07		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-047/15:33:45

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
14459	MGS	02-047/15:49:08		NOTE: End EVP script		02-047/15:33:46
14460	MGS	02-047/15:49:08		Turn off the MOT Exciter and RPA beam	STRPAF	02-047/15:33:46
14461	MGS	02-047/15:49:12		NOTE: End fixed Sub-Reflector for Radio Science		02-047/15:33:50
14462	MGS	02-047/15:50:33		NOTE: Enter Solar Eclipse 13160		02-047/15:35:12
14463	MGS	02-047/15:50:34		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-047/15:35:12
14464	MGS	02-047/15:53:54	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
14465	MGS	02-047/15:55:55	65	Range Modulation On: SUP=3.0dB		
14466	MGS	02-047/15:56:55	65	Begin Ranging Acquisition		
14467	MGS	02-047/16:15:17		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-047/15:59:55
14468	MGS	02-047/16:15:17		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-047/15:59:55
14469	MGS	02-047/16:15:22		Set eclipse egress script address: 01DC	SWSEES	02-047/16:00:00
14470	MGS	02-047/16:15:24		NOTE: Begin fixed Sub-Reflector for Radio Science		02-047/16:00:02
14471	MGS	02-047/16:19:09		: 01:27:41	RPAONX	02-047/16:03:47
14472	MGS	02-047/16:19:09		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-047/16:03:47
14473	MGS	02-047/16:20:24		: 00:00:30, 00:07:00, FALSE	RDSCIE	02-047/16:05:02
14474	MGS	02-047/16:20:24		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-047/16:05:02
14475	MGS	02-047/16:20:24		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-047/16:05:02
14476	MGS	02-047/16:20:24		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-047/16:05:02
14477	MGS	02-047/16:20:24		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-047/16:05:02
14478	MGS	02-047/16:20:52		NOTE: Exit Earth Occultation 13160		02-047/16:05:30
14479	MGS	02-047/16:20:52	65	Acquisition Of X-Band Signal		
14480	MGS	02-047/16:20:52	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
14481	MGS	02-047/16:20:52	65	NOTE: Carrier Only -- No Telemetry Modulation		
14482	MGS	02-047/16:25:12		NOTE: Exit Planetary Atmosphere 13160		02-047/16:09:50
14483	MGS	02-047/16:27:24		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-047/16:12:02
14484	MGS	02-047/16:27:24		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-047/16:12:02
14485	MGS	02-047/16:27:24		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-047/16:12:02
14486	MGS	02-047/16:27:24		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-047/16:12:02
14487	MGS	02-047/16:27:24		: REC_1B, F42KHZ, PART1, SE_1A, FALSE, 00:10:47	AEMPB	02-047/16:12:02
14488	MGS	02-047/16:27:24		Sends a one-word MOT command to the XSU command SOB: SSR_1B	STMOTC	02-047/16:12:02
14489	MGS	02-047/16:27:24		Sends a one-word SSR command to the XSU command SOB: SSR_1B, F42KHZ, PLYBCK, PART1	STSSRC	02-047/16:12:02
14490	MGS	02-047/16:27:24	65	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
14491	MGS	02-047/16:27:25		SSR 1B Data Enable	CSD1BE	02-047/16:12:03
14492	MGS	02-047/16:27:25		SSR Activity: ID=SSR_1B, FCN=Start Playback, PRT=1, BR=42666		02-047/16:12:03
14493	MGS	02-047/16:27:25	65	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
14494	MGS	02-047/16:27:29		NOTE: End fixed Sub-Reflector for Radio Science		02-047/16:12:07
14495	MGS	02-047/16:30:59		NOTE: Exit Solar Eclipse 13160		02-047/16:15:37
14496	MGS	02-047/16:44:05		NOTE: Periapsis 13161 ----------		02-047/16:28:43
14497	MGS	02-047/16:51:58		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-047/16:36:36
14498	MGS	02-047/16:51:58		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-047/16:36:36
14499	MGS	02-047/16:51:59		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-047/16:36:37
14500	MGS	02-047/16:51:59		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-047/16:36:37
14501	MGS	02-047/16:55:20		NOTE: Start Block (SSRMGR)		02-047/16:39:58
14502	MGS	02-047/16:55:20		Sends a one-word SSR command to the XSU command SOB: SSR_2B, SE_1A, RECORD, PART2	STSSRC	02-047/16:39:58
14503	MGS	02-047/16:55:21		SSR 2B Data Enable	CSD2BE	02-047/16:39:59
14504	MGS	02-047/16:55:21		SSR Activity: ID=SSR_2B, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-047/16:39:59
14505	MGS	02-047/16:56:53	65	NOTE: Transmitter Off in 15 minutes		
14506	MGS	02-047/17:09:54	65	Range Modulation Off		
14507	MGS	02-047/17:11:53	65	Transmitter Off		
14508	MGS	02-047/17:13:59		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-047/16:58:37
14509	MGS	02-047/17:13:59		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-047/16:58:37
14510	MGS	02-047/17:22:01		SSR 2A Data Disable	CSD2AX	02-047/17:06:39
14511	MGS	02-047/17:22:01		SSR Activity: ID=SSR_2A, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-047/17:06:39
14512	MGS	02-047/17:22:02		NOTE: End Block (SSRMGR)		02-047/17:06:40

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
14513	MGS	02-047/17:35:06		NOTE: Begin fixed Sub-Reflector for Radio Science		02-047/17:19:44
14514	MGS	02-047/17:36:03		SSR 1B Data Disable	CSD1BX	02-047/17:20:41
14515	MGS	02-047/17:36:03		SSR Activity: ID=SSR_1B, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-047/17:20:41
14516	MGS	02-047/17:36:03		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-047/17:20:41
14517	MGS	02-047/17:36:03	65	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
14518	MGS	02-047/17:38:20		NOTE: Start EVP data return script		02-047/17:22:58
14519	MGS	02-047/17:38:20		: SSR_1A, F42KHZ, PART2, 2002-047T18:09:48.000	AEMPBU	02-047/17:22:58
14520	MGS	02-047/17:40:06		: 00:06:43, FALSE	RDSCII	02-047/17:24:44
14521	MGS	02-047/17:40:06		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-047/17:24:44
14522	MGS	02-047/17:40:06		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-047/17:24:44
14523	MGS	02-047/17:40:06		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-047/17:24:44
14524	MGS	02-047/17:40:06		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-047/17:24:44
14525	MGS	02-047/17:40:06	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
14526	MGS	02-047/17:40:06	65	NOTE: Carrier Only -- No Telemetry Modulation		
14527	MGS	02-047/17:42:19		NOTE: Enter Planetary Atmosphere 13161		02-047/17:26:58
14528	MGS	02-047/17:43:18		NOTE: Apoapsis 13161 -		02-047/17:27:56
14529	MGS	02-047/17:46:22		NOTE: Enter Earth Occultation 13161		02-047/17:31:00
14530	MGS	02-047/17:46:22	65	NOTE: Loss Of X-Band Signal		
14531	MGS	02-047/17:46:49		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-047/17:31:27
14532	MGS	02-047/17:46:49		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-047/17:31:27
14533	MGS	02-047/17:46:49		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-047/17:31:27
14534	MGS	02-047/17:46:49		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-047/17:31:27
14535	MGS	02-047/17:46:50		NOTE: End EVP script		02-047/17:31:28
14536	MGS	02-047/17:46:50		Turn off the MOT Exciter and RPA beam	STRPAF	02-047/17:31:28
14537	MGS	02-047/17:46:54		NOTE: End fixed Sub-Reflector for Radio Science		02-047/17:31:32
14538	MGS	02-047/17:48:20		NOTE: Enter Solar Eclipse 13161		02-047/17:32:58
14539	MGS	02-047/17:48:20		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-047/17:32:58
14540	MGS	02-047/17:51:40	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
14541	MGS	02-047/17:53:40	65	Range Modulation On: SUP=3.0dB		
14542	MGS	02-047/17:54:40	65	Begin Ranging Acquisition		
14543	MGS	02-047/18:12:59		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-047/17:57:37
14544	MGS	02-047/18:12:59		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-047/17:57:37
14545	MGS	02-047/18:13:03		Command the PSE with included data word: 3990	SWPSEL	02-047/17:57:41
14546	MGS	02-047/18:13:04		Set eclipse egress script address: 0158	SWSEES	02-047/17:57:42
14547	MGS	02-047/18:13:10		NOTE: Begin fixed Sub-Reflector for Radio Science		02-047/17:57:48
14548	MGS	02-047/18:16:55		: 01:27:41	RPAONX	02-047/18:01:33
14549	MGS	02-047/18:16:55		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-047/18:01:33
14550	MGS	02-047/18:18:10		: 00:00:30, 00:07:00, FALSE	RDSCIE	02-047/18:02:48
14551	MGS	02-047/18:18:10		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-047/18:02:48
14552	MGS	02-047/18:18:10		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-047/18:02:48
14553	MGS	02-047/18:18:10		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-047/18:02:48
14554	MGS	02-047/18:18:10		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-047/18:02:48
14555	MGS	02-047/18:18:39		NOTE: Exit Earth Occultation 13161		02-047/18:03:17
14556	MGS	02-047/18:18:39	65	Acquisition Of X-Band Signal		
14557	MGS	02-047/18:18:39	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
14558	MGS	02-047/18:18:39	65	NOTE: Carrier Only -- No Telemetry Modulation		
14559	MGS	02-047/18:22:58		NOTE: Exit Planetary Atmosphere 13161		02-047/18:07:36
14560	MGS	02-047/18:25:10		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-047/18:09:48
14561	MGS	02-047/18:25:10		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-047/18:09:48
14562	MGS	02-047/18:25:10		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-047/18:09:48
14563	MGS	02-047/18:25:10		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-047/18:09:48
14564	MGS	02-047/18:25:10		: REC_1A, F42KHZ, PART2, SE_1A, FALSE, 00:10:47	AEMPB	02-047/18:09:48
14565	MGS	02-047/18:25:10		Sends a one-word MOT command to the XSU command SOB: SSR_1A	STMOTC	02-047/18:09:48
14566	MGS	02-047/18:25:10		Sends a one-word SSR command to the XSU command SOB: SSR_1A, F42KHZ, PLYBCK, PART2	STSSRC	02-047/18:09:48

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
14567	MGS	02-047/18:25:10	65	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
14568	MGS	02-047/18:25:11		SSR 1A Data Enable	CSD1AE	02-047/18:09:49
14569	MGS	02-047/18:25:11		SSR Activity: ID=SSR_1A, FCN=Start Playback, PRT=2, BR=42666		02-047/18:09:49
14570	MGS	02-047/18:25:11	65	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
14571	MGS	02-047/18:25:15		NOTE: End fixed Sub-Reflector for Radio Science		02-047/18:09:53
14572	MGS	02-047/18:28:46		NOTE: Exit Solar Eclipse 13161		02-047/18:13:24
14573	MGS	02-047/18:41:57		NOTE: Periapsis 13162 ----------		02-047/18:26:35
14574	MGS	02-047/18:53:45		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-047/18:38:23
14575	MGS	02-047/18:53:45		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-047/18:38:23
14576	MGS	02-047/18:53:46		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-047/18:38:24
14577	MGS	02-047/18:53:46		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-047/18:38:24
14578	MGS	02-047/18:54:40	65	NOTE: Transmitter Off in 15 minutes		
14579	MGS	02-047/19:07:40	65	Range Modulation Off		
14580	MGS	02-047/19:09:40	65	Transmitter Off		
14581	MGS	02-047/19:15:46		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-047/19:00:24
14582	MGS	02-047/19:15:46		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-047/19:00:24
14583	MGS	02-047/19:32:52		NOTE: Begin fixed Sub-Reflector for Radio Science		02-047/19:17:30
14584	MGS	02-047/19:33:50		SSR 1A Data Disable	CSD1AX	02-047/19:18:27
14585	MGS	02-047/19:33:50		SSR Activity: ID=SSR_1A, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-047/19:18:27
14586	MGS	02-047/19:33:50		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-047/19:18:27
14587	MGS	02-047/19:33:50	65	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
14588	MGS	02-047/19:36:08		NOTE: Start EVP data return script		02-047/19:20:45
14589	MGS	02-047/19:36:08		: SSR_1B, F42KHZ, PART2, 2002-047T20:07:35.000	AEMPBU	02-047/19:20:45
14590	MGS	02-047/19:37:53		: 00:06:43, FALSE	RDSCII	02-047/19:22:30
14591	MGS	02-047/19:37:53		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-047/19:22:30
14592	MGS	02-047/19:37:53		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-047/19:22:30
14593	MGS	02-047/19:37:53		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-047/19:22:30
14594	MGS	02-047/19:37:53		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-047/19:22:30
14595	MGS	02-047/19:37:53	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
14596	MGS	02-047/19:37:53	65	NOTE: Carrier Only -- No Telemetry Modulation		
14597	MGS	02-047/19:40:07		NOTE: Enter Planetary Atmosphere 13162		02-047/19:24:45
14598	MGS	02-047/19:40:58		NOTE: Apoapsis 13162 -		02-047/19:25:36
14599	MGS	02-047/19:44:09		NOTE: Enter Earth Occultation 13162		02-047/19:28:47
14600	MGS	02-047/19:44:09	65	NOTE: Loss Of X-Band Signal		
14601	MGS	02-047/19:44:36		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-047/19:29:13
14602	MGS	02-047/19:44:36		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-047/19:29:13
14603	MGS	02-047/19:44:36		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-047/19:29:13
14604	MGS	02-047/19:44:36		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-047/19:29:13
14605	MGS	02-047/19:44:36		NOTE: End EVP script		02-047/19:29:14
14606	MGS	02-047/19:44:37		Turn off the MOT Exciter and RPA beam	STRPAF	02-047/19:29:14
14607	MGS	02-047/19:44:40		NOTE: End fixed Sub-Reflector for Radio Science		02-047/19:29:18
14608	MGS	02-047/19:46:07		NOTE: Enter Solar Eclipse 13162		02-047/19:30:45
14609	MGS	02-047/19:46:08		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-047/19:30:45
14610	MGS	02-047/19:49:27	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
14611	MGS	02-047/19:51:28	65	Range Modulation On: SUP=3.0dB		
14612	MGS	02-047/19:52:28	65	Begin Ranging Acquisition		
14613	MGS	02-047/20:00:00	15	Begin Pre-Cal		
14614	MGS	02-047/20:00:00	15	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
14615	MGS	02-047/20:00:00	15	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
14616	MGS	02-047/20:00:00	15	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
14617	MGS	02-047/20:00:00	15	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
14618	MGS	02-047/20:00:00	15	At BOT: S/C Tlm Mode: BR=42666.7, FL=10000, SC=HIGH, MI=80.0		
14619	MGS	02-047/20:00:00	15	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
14620	MGS	02-047/20:00:00	15	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
14621	MGS	02-047/20:00:00	15	Config: TGC: DEST=37		
14622	MGS	02-047/20:00:00	15	Config: TGC: BAND=X, BR=42666.666667		
14623	MGS	02-047/20:00:00	15	Config: FSS: CH=2, PRI_FL=10000		
14624	MGS	02-047/20:00:00	15	Config: RSR		
14625	MGS	02-047/20:00:00	15	Config: TXL		
14626	MGS	02-047/20:00:00	15	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
14627	MGS	02-047/20:00:00	15	Config: BVR		
14628	MGS	02-047/20:00:00	15	Config: Doppler Extractor: BIAS=+1MHZ		
14629	MGS	02-047/20:00:00	15	Config: MDA: SMPL=0.1		
14630	MGS	02-047/20:00:00	15	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
14631	MGS	02-047/20:00:00	15	Config: SRA: HIGH=4, LOW=14, SERV=D		
14632	MGS	02-047/20:00:00	15	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
14633	MGS	02-047/20:10:47		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-047/19:55:24
14634	MGS	02-047/20:10:47		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-047/19:55:24
14635	MGS	02-047/20:10:52		Set eclipse egress script address: 019A	SWSEES	02-047/19:55:29
14636	MGS	02-047/20:10:57		NOTE: Begin fixed Sub-Reflector for Radio Science		02-047/19:55:35
14637	MGS	02-047/20:14:43		: 01:27:41	RPAONX	02-047/19:59:20
14638	MGS	02-047/20:14:43		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-047/19:59:20
14639	MGS	02-047/20:15:58		: 00:00:30, 00:07:00, FALSE	RDSCIE	02-047/20:00:35
14640	MGS	02-047/20:15:58		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-047/20:00:35
14641	MGS	02-047/20:15:58		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-047/20:00:35
14642	MGS	02-047/20:15:58		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-047/20:00:35
14643	MGS	02-047/20:15:58		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-047/20:00:35
14644	MGS	02-047/20:16:26		NOTE: Exit Earth Occultation 13162		02-047/20:01:04
14645	MGS	02-047/20:16:26	65	Acquisition Of X-Band Signal		
14646	MGS	02-047/20:16:26	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
14647	MGS	02-047/20:16:26	65	NOTE: Carrier Only -- No Telemetry Modulation		
14648	MGS	02-047/20:16:28		Disables autonomous command to send eclipse ingress script	SWEISX	02-047/20:01:05
14649	MGS	02-047/20:20:46		NOTE: Exit Planetary Atmosphere 13162		02-047/20:05:24
14650	MGS	02-047/20:22:58		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-047/20:07:35
14651	MGS	02-047/20:22:58		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-047/20:07:35
14652	MGS	02-047/20:22:58		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-047/20:07:35
14653	MGS	02-047/20:22:58		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-047/20:07:35
14654	MGS	02-047/20:22:58		: REC_1B, F42KHZ, PART2, SE_1A, FALSE, 00:10:47	AEMPB	02-047/20:07:35
14655	MGS	02-047/20:22:58		Sends a one-word MOT command to the XSU command SOB: SSR_1B	STMOTC	02-047/20:07:35
14656	MGS	02-047/20:22:58		Sends a one-word SSR command to the XSU command SOB: SSR_1B, F42KHZ, PLYBCK, PART2	STSSRC	02-047/20:07:35
14657	MGS	02-047/20:22:58	65	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
14658	MGS	02-047/20:22:59		SSR 1B Data Enable	CSD1BE	02-047/20:07:36
14659	MGS	02-047/20:22:59		SSR Activity: ID=SSR_1B, FCN=Start Playback, PRT=2, BR=42666		02-047/20:07:36
14660	MGS	02-047/20:22:59	65	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
14661	MGS	02-047/20:23:02		NOTE: End fixed Sub-Reflector for Radio Science		02-047/20:07:40
14662	MGS	02-047/20:26:33		NOTE: Exit Solar Eclipse 13162		02-047/20:11:11
14663	MGS	02-047/20:39:40		NOTE: Periapsis 13163 ----------		02-047/20:24:18
14664	MGS	02-047/20:47:33		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-047/20:32:10
14665	MGS	02-047/20:47:33		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-047/20:32:10
14666	MGS	02-047/20:47:34		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-047/20:32:11
14667	MGS	02-047/20:47:34		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-047/20:32:11
14668	MGS	02-047/20:52:25	65	NOTE: Transmitter Off in 15 minutes		
14669	MGS	02-047/21:00:00	15	Begin Tracking		
14670	MGS	02-047/21:00:00	15	Acquire D/L: X/16, 3-Way/65, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
14671	MGS	02-047/21:05:26	65	Range Modulation Off		
14672	MGS	02-047/21:07:25	65	Transmitter Off		
14673	MGS	02-047/21:09:34		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-047/20:54:11

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
14674	MGS	02-047/21:09:34		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-047/20:54:11
14675	MGS	02-047/21:20:00	65	End Tracking		
14676	MGS	02-047/21:30:39		NOTE: Begin fixed Sub-Reflector for Radio Science		02-047/21:15:17
14677	MGS	02-047/21:31:37		SSR 1B Data Disable	CSD1BX	02-047/21:16:14
14678	MGS	02-047/21:31:37		SSR Activity: ID=SSR_1B, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-047/21:16:14
14679	MGS	02-047/21:31:37		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-047/21:16:14
14680	MGS	02-047/21:31:37	15	D/L Change: X/16, 3-Way/65, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
14681	MGS	02-047/21:33:52		NOTE: Start Block (MAP_RT)		02-047/21:18:29
14682	MGS	02-047/21:33:53		: 00:28:35, 01:27:40, FALSE, TRUE, FALSE, 00:01:15, 00:07:00, 01:12:41, 00:06:43	AEMINI	02-047/21:18:30
14683	MGS	02-047/21:33:53		Enable sending eclipse ingress script when array power disappears	SWEISE	02-047/21:18:30
14684	MGS	02-047/21:33:53		NOTE: Start EVP data return script		02-047/21:18:30
14685	MGS	02-047/21:33:54		: SE_2A, RTM, 01:12:40, MRC, 2002-047T22:05:22.000	AEMRTI	02-047/21:18:31
14686	MGS	02-047/21:35:00	65	End Post-Cal		
14687	MGS	02-047/21:35:40		: 00:06:43, FALSE	RDSCII	02-047/21:20:17
14688	MGS	02-047/21:35:40		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-047/21:20:17
14689	MGS	02-047/21:35:40		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-047/21:20:17
14690	MGS	02-047/21:35:40		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-047/21:20:17
14691	MGS	02-047/21:35:40		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-047/21:20:17
14692	MGS	02-047/21:35:40	15	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
14693	MGS	02-047/21:35:40	15	NOTE: Carrier Only -- No Telemetry Modulation		
14694	MGS	02-047/21:37:53		NOTE: Enter Planetary Atmosphere 13163		02-047/21:22:30
14695	MGS	02-047/21:38:27		NOTE: Apoapsis 13163 -		02-047/21:23:05
14696	MGS	02-047/21:41:55		NOTE: Enter Earth Occultation 13163		02-047/21:26:33
14697	MGS	02-047/21:41:55	15	NOTE: Loss Of X-Band Signal		
14698	MGS	02-047/21:42:23		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-047/21:27:00
14699	MGS	02-047/21:42:23		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-047/21:27:00
14700	MGS	02-047/21:42:23		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-047/21:27:00
14701	MGS	02-047/21:42:23		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-047/21:27:00
14702	MGS	02-047/21:42:23		NOTE: End EVP script		02-047/21:27:01
14703	MGS	02-047/21:42:24		Turn off the MOT Exciter and RPA beam	STRPAF	02-047/21:27:01
14704	MGS	02-047/21:42:24		NOTE: End Block (MAP_PB)		02-047/21:27:02
14705	MGS	02-047/21:42:27		NOTE: End fixed Sub-Reflector for Radio Science		02-047/21:27:05
14706	MGS	02-047/21:43:53		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-047/21:28:30
14707	MGS	02-047/21:43:53		NOTE: Enter Solar Eclipse 13163		02-047/21:28:30
14708	MGS	02-047/21:47:13	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
14709	MGS	02-047/21:49:14	15	Range Modulation On: SUP=3.0dB		
14710	MGS	02-047/21:50:14	15	Begin Ranging Acquisition		
14711	MGS	02-047/22:08:34		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-047/21:53:11
14712	MGS	02-047/22:08:34		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-047/21:53:11
14713	MGS	02-047/22:08:39		Set eclipse egress script address: 01DC	SWSEES	02-047/21:53:16
14714	MGS	02-047/22:08:43		NOTE: Begin fixed Sub-Reflector for Radio Science		02-047/21:53:20
14715	MGS	02-047/22:12:28		: 01:27:40	RPAONX	02-047/21:57:05
14716	MGS	02-047/22:12:28		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-047/21:57:05
14717	MGS	02-047/22:13:43		: 00:00:30, 00:07:00, FALSE	RDSCIE	02-047/21:58:20
14718	MGS	02-047/22:13:43		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-047/21:58:20
14719	MGS	02-047/22:13:43		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-047/21:58:20
14720	MGS	02-047/22:13:43		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-047/21:58:20
14721	MGS	02-047/22:13:43		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-047/21:58:20
14722	MGS	02-047/22:14:13		NOTE: Exit Earth Occultation 13163		02-047/21:58:50
14723	MGS	02-047/22:14:13	15	Acquisition Of X-Band Signal		
14724	MGS	02-047/22:14:13	15	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
14725	MGS	02-047/22:14:13	15	NOTE: Carrier Only -- No Telemetry Modulation		
14726	MGS	02-047/22:18:33		NOTE: Exit Planetary Atmosphere 13163		02-047/22:03:10
14727	MGS	02-047/22:20:43		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-047/22:05:20

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
14728	MGS	02-047/22:20:43		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-047/22:05:20
14729	MGS	02-047/22:20:43		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-047/22:05:20
14730	MGS	02-047/22:20:43		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-047/22:05:20
14731	MGS	02-047/22:20:43	15	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
14732	MGS	02-047/22:20:44		: RTM, MRC, 01:12:40, S&E_2A, FALSE, 00:06:44	AEMRT	02-047/22:05:21
14733	MGS	02-047/22:20:44		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-047/22:05:21
14734	MGS	02-047/22:20:44		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-047/22:05:21
14735	MGS	02-047/22:20:44	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
14736	MGS	02-047/22:20:48		NOTE: End fixed Sub-Reflector for Radio Science		02-047/22:05:25
14737	MGS	02-047/22:24:19		NOTE: Exit Solar Eclipse 13163		02-047/22:08:57
14738	MGS	02-047/22:26:37		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-047/22:11:14
14739	MGS	02-047/22:26:37	15	D/L Change: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
14740	MGS	02-047/22:26:39		NOTE: Start Block (SSRMGR)		02-047/22:11:16
14741	MGS	02-047/22:26:39		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-047/22:11:16
14742	MGS	02-047/22:26:39		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-047/22:11:16
14743	MGS	02-047/22:26:40		Sends a one-word MOT command to the XSU command SOB: SSR_1A	STMOTC	02-047/22:11:17
14744	MGS	02-047/22:26:41		Sends a one-word SSR command to the XSU command SOB: SSR_1A, F42KHZ, PLYBCK, PART3	STSSRC	02-047/22:11:18
14745	MGS	02-047/22:26:42		SSR 1A Data Enable	CSD1AE	02-047/22:11:19
14746	MGS	02-047/22:26:42		SSR Activity: ID=SSR_1A, FCN=Start Playback, PRT=3, BR=42666		02-047/22:11:19
14747	MGS	02-047/22:26:42	15	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
14748	MGS	02-047/22:28:41		NOTE: Start Block (SSRMGR)		02-047/22:13:18
14749	MGS	02-047/22:28:41		Sends a one-word SSR command to the XSU command SOB: SSR_2A, SE_1A, RECORD, PART3	STSSRC	02-047/22:13:18
14750	MGS	02-047/22:28:42		SSR 2A Data Enable	CSD2AE	02-047/22:13:19
14751	MGS	02-047/22:28:42		SSR Activity: ID=SSR_2A, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-047/22:13:19
14752	MGS	02-047/22:37:25		NOTE: Periapsis 13164 ----------		02-047/22:22:03
14753	MGS	02-047/22:39:09		NOTE: Start Block (SSRMGR)		02-047/22:23:46
14754	MGS	02-047/22:39:09		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-047/22:23:46
14755	MGS	02-047/22:39:09		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-047/22:23:46
14756	MGS	02-047/22:39:10		Sends a one-word MOT command to the XSU command SOB: SSR_1B	STMOTC	02-047/22:23:47
14757	MGS	02-047/22:39:11		Sends a one-word SSR command to the XSU command SOB: SSR_1B, F42KHZ, PLYBCK, PART3	STSSRC	02-047/22:23:48
14758	MGS	02-047/22:39:12		SSR 1A Data Disable	CSD1AX	02-047/22:23:49
14759	MGS	02-047/22:39:12		SSR Activity: ID=SSR_1A, FCN=End Playback, PRT=3, BITS=32000000, DUR=00:12:30		02-047/22:23:49
14760	MGS	02-047/22:39:12		SSR 1B Data Enable	CSD1BE	02-047/22:23:49
14761	MGS	02-047/22:39:12		SSR Activity: ID=SSR_1B, FCN=Start Playback, PRT=3, BR=42666		02-047/22:23:49
14762	MGS	02-047/22:39:12	15	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
14763	MGS	02-047/22:39:13		NOTE: End Block (SSRMGR)		02-047/22:23:50
14764	MGS	02-047/22:45:18		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-047/22:29:55
14765	MGS	02-047/22:45:18		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-047/22:29:55
14766	MGS	02-047/22:45:19		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-047/22:29:56
14767	MGS	02-047/22:45:19		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-047/22:29:56
14768	MGS	02-047/22:50:08	15	NOTE: Transmitter Off in 15 minutes		
14769	MGS	02-047/22:55:22		SSR 2B Data Disable	CSD2BX	02-047/22:39:59
14770	MGS	02-047/22:55:22		SSR Activity: ID=SSR_2B, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-047/22:39:59
14771	MGS	02-047/22:55:23		NOTE: End Block (SSRMGR)		02-047/22:40:00
14772	MGS	02-047/22:56:42		SSR 1B Data Disable	CSD1BX	02-047/22:41:19
14773	MGS	02-047/22:56:42		SSR Activity: ID=SSR_1B, FCN=End Playback, PRT=3, BITS=44800000, DUR=00:17:30		02-047/22:41:19
14774	MGS	02-047/22:56:43		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-047/22:41:20
14775	MGS	02-047/22:56:43		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-047/22:41:20
14776	MGS	02-047/22:56:43		NOTE: End Block (SSRMGR)		02-047/22:41:20
14777	MGS	02-047/22:56:43	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
14778	MGS	02-047/23:03:09	15	Range Modulation Off		
14779	MGS	02-047/23:05:08	15	Transmitter Off		
14780	MGS	02-047/23:07:19		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-047/22:51:56
14781	MGS	02-047/23:07:19		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-047/22:51:56

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
14782	MGS	02-047/23:08:41		NOTE: Start Block (SSRMGR)		02-047/22:53:18
14783	MGS	02-047/23:08:41		Sends a one-word SSR command to the XSU command SOB: SSR_2B, SE_1A, RECORD, PART3	STSSRC	02-047/22:53:18
14784	MGS	02-047/23:08:42		SSR 2B Data Enable	CSD2BE	02-047/22:53:19
14785	MGS	02-047/23:08:42		SSR Activity: ID=SSR_2B, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-047/22:53:19
14786	MGS	02-047/23:28:24		NOTE: Begin fixed Sub-Reflector for Radio Science		02-047/23:13:01
14787	MGS	02-047/23:31:36		NOTE: Start EVP data return script		02-047/23:16:13
14788	MGS	02-047/23:33:24		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-047/23:18:01
14789	MGS	02-047/23:33:24		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=3, BITS=11856000, DUR=00:24:42		02-047/23:18:01
14790	MGS	02-047/23:33:24		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-047/23:18:01
14791	MGS	02-047/23:33:24		: 00:06:43, FALSE	RDSCII	02-047/23:18:01
14792	MGS	02-047/23:33:24		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-047/23:18:01
14793	MGS	02-047/23:33:24		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-047/23:18:01
14794	MGS	02-047/23:33:24		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-047/23:18:01
14795	MGS	02-047/23:33:24		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-047/23:18:01
14796	MGS	02-047/23:33:24	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
14797	MGS	02-047/23:33:24	15	NOTE: Carrier Only -- No Telemetry Modulation		
14798	MGS	02-047/23:35:22		SSR 2A Data Disable	CSD2AX	02-047/23:19:59
14799	MGS	02-047/23:35:22		SSR Activity: ID=SSR_2A, FCN=End Recording, PRT=3, BITS=32000000, DUR=01:06:40		02-047/23:19:59
14800	MGS	02-047/23:35:23		NOTE: End Block (SSRMGR)		02-047/23:20:00
14801	MGS	02-047/23:35:36		NOTE: Enter Planetary Atmosphere 13164		02-047/23:20:14
14802	MGS	02-047/23:36:08		NOTE: Apoapsis 13164 -		02-047/23:20:45
14803	MGS	02-047/23:39:39		NOTE: Enter Earth Occultation 13164		02-047/23:24:16
14804	MGS	02-047/23:39:39	15	NOTE: Loss Of X-Band Signal		
14805	MGS	02-047/23:40:07		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-047/23:24:44
14806	MGS	02-047/23:40:07		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-047/23:24:44
14807	MGS	02-047/23:40:07		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-047/23:24:44
14808	MGS	02-047/23:40:07		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-047/23:24:44
14809	MGS	02-047/23:40:08		Turn off the MOT Exciter and RPA beam	STRPAF	02-047/23:24:45
14810	MGS	02-047/23:40:08		NOTE: End EVP script		02-047/23:24:45
14811	MGS	02-047/23:40:12		NOTE: End fixed Sub-Reflector for Radio Science		02-047/23:24:49
14812	MGS	02-047/23:41:36		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-047/23:26:13
14813	MGS	02-047/23:41:37		NOTE: Enter Solar Eclipse 13164		02-047/23:26:14
14814	MGS	02-047/23:44:57	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
14815	MGS	02-047/23:46:57	15	Range Modulation On: SUP=3.0dB		
14816	MGS	02-047/23:47:57	15	Begin Ranging Acquisition		
14817	MGS	02-048/00:00:00		Light Time: OWLT = 15:22, RTLT = 30:45		
14818	MGS	02-048/00:06:19		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-047/23:50:56
14819	MGS	02-048/00:06:19		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-047/23:50:56
14820	MGS	02-048/00:06:23		Command the PSE with included data word: 3990	SWPSEL	02-047/23:51:00
14821	MGS	02-048/00:06:24		Set eclipse egress script address: 0158	SWSEES	02-047/23:51:01
14822	MGS	02-048/00:06:26		NOTE: Begin fixed Sub-Reflector for Radio Science		02-047/23:51:03
14823	MGS	02-048/00:10:11		: 01:27:40	RPAONX	02-047/23:54:48
14824	MGS	02-048/00:10:11		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-047/23:54:48
14825	MGS	02-048/00:11:26		: 00:00:30, 00:07:00, FALSE	RDSCIE	02-047/23:56:03
14826	MGS	02-048/00:11:26		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-047/23:56:03
14827	MGS	02-048/00:11:26		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-047/23:56:03
14828	MGS	02-048/00:11:26		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-047/23:56:03
14829	MGS	02-048/00:11:26		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-047/23:56:03
14830	MGS	02-048/00:11:56		Disables autonomous command to send eclipse ingress script	SWEISX	02-047/23:56:33
14831	MGS	02-048/00:11:57		NOTE: Exit Earth Occultation 13164		02-047/23:56:35
14832	MGS	02-048/00:11:57	15	Acquisition Of X-Band Signal		
14833	MGS	02-048/00:11:57	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
14834	MGS	02-048/00:11:57	15	NOTE: Carrier Only -- No Telemetry Modulation		
14835	MGS	02-048/00:15:21		NOTE: Start Block (SSRMGR)		02-047/23:59:58

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
14836	MGS	02-048/00:15:21		Sends a one-word SSR command to the XSU command SOB: SSR_1A, SE_1A, RECORD, PART1	STSSRC	02-047/23:59:58
14837	MGS	02-048/00:15:22		SSR 1A Data Enable	CSD1AE	02-047/23:59:59
14838	MGS	02-048/00:15:22		SSR Activity: ID=SSR_1A, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-047/23:59:59
14839	MGS	02-048/00:16:17		NOTE: Exit Planetary Atmosphere 13164		02-048/00:00:54
14840	MGS	02-048/00:18:26		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-048/00:03:03
14841	MGS	02-048/00:18:26		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-048/00:03:03
14842	MGS	02-048/00:18:26		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-048/00:03:03
14843	MGS	02-048/00:18:26		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-048/00:03:03
14844	MGS	02-048/00:18:26	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
14845	MGS	02-048/00:18:27		: RTM, MRC, 01:12:40, S&E_2A, FALSE, 00:06:44	AEMRT	02-048/00:03:04
14846	MGS	02-048/00:18:27		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-048/00:03:04
14847	MGS	02-048/00:18:27		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-048/00:03:04
14848	MGS	02-048/00:18:27		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=1480000, DUR=00:03:05		02-048/00:03:04
14849	MGS	02-048/00:18:27		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-048/00:03:04
14850	MGS	02-048/00:18:27	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
14851	MGS	02-048/00:18:31		NOTE: End fixed Sub-Reflector for Radio Science		02-048/00:03:08
14852	MGS	02-048/00:22:03		NOTE: Exit Solar Eclipse 13164		02-048/00:06:40
14853	MGS	02-048/00:35:10		NOTE: Periapsis 13165 ----------		02-048/00:19:47
14854	MGS	02-048/00:42:02		SSR 2B Data Disable	CSD2BX	02-048/00:26:39
14855	MGS	02-048/00:42:02		SSR Activity: ID=SSR_2B, FCN=End Recording, PRT=3, BITS=44800000, DUR=01:33:20		02-048/00:26:39
14856	MGS	02-048/00:42:03		NOTE: End Block (SSRMGR)		02-048/00:26:40
14857	MGS	02-048/00:47:01		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-048/00:31:38
14858	MGS	02-048/00:47:01		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-048/00:31:38
14859	MGS	02-048/00:47:02		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-048/00:31:39
14860	MGS	02-048/00:47:02		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-048/00:31:39
14861	MGS	02-048/00:47:50	15	NOTE: Transmitter Off in 15 minutes		
14862	MGS	02-048/01:00:51	15	Range Modulation Off		
14863	MGS	02-048/01:02:50	15	Transmitter Off		
14864	MGS	02-048/01:09:02		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-048/00:53:39
14865	MGS	02-048/01:09:02		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-048/00:53:39
14866	MGS	02-048/01:26:07		NOTE: Begin fixed Sub-Reflector for Radio Science		02-048/01:10:44
14867	MGS	02-048/01:29:17		NOTE: Start Block (MAP_PB)		02-048/01:13:54
14868	MGS	02-048/01:29:18		: 00:28:36, 01:27:41, FALSE, TRUE, FALSE, 00:01:15, 00:07:00, 01:12:42, 00:06:43	AEMINI	02-048/01:13:55
14869	MGS	02-048/01:29:18		Enable sending eclipse ingress script when array power disappears	SWEISE	02-048/01:13:55
14870	MGS	02-048/01:29:18		NOTE: Start EVP data return script		02-048/01:13:55
14871	MGS	02-048/01:29:19		: SSR_2A, F42KHZ, PART1, SE_1A, 2002-048T02:00:47.000	AEMPBI	02-048/01:13:56
14872	MGS	02-048/01:31:07		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-048/01:15:44
14873	MGS	02-048/01:31:07		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=36360000, DUR=01:12:40		02-048/01:15:44
14874	MGS	02-048/01:31:07		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-048/01:15:44
14875	MGS	02-048/01:31:07		: 00:06:43, FALSE	RDSCII	02-048/01:15:44
14876	MGS	02-048/01:31:07		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-048/01:15:44
14877	MGS	02-048/01:31:07		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-048/01:15:44
14878	MGS	02-048/01:31:07		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-048/01:15:44
14879	MGS	02-048/01:31:07		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-048/01:15:44
14880	MGS	02-048/01:31:07	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
14881	MGS	02-048/01:31:07	15	NOTE: Carrier Only -- No Telemetry Modulation		
14882	MGS	02-048/01:33:19		NOTE: Enter Planetary Atmosphere 13165		02-048/01:17:56
14883	MGS	02-048/01:34:02		NOTE: Apoapsis 13165 -		02-048/01:18:39
14884	MGS	02-048/01:37:21		NOTE: Enter Earth Occultation 13165		02-048/01:21:58
14885	MGS	02-048/01:37:21	15	NOTE: Loss Of X-Band Signal		
14886	MGS	02-048/01:37:50		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-048/01:22:27
14887	MGS	02-048/01:37:50		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-048/01:22:27
14888	MGS	02-048/01:37:50		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-048/01:22:27
14889	MGS	02-048/01:37:50		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-048/01:22:27

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
14890	MGS	02-048/01:37:51		Turn off the MOT Exciter and RPA beam	STRPAF	02-048/01:22:28
14891	MGS	02-048/01:37:52		NOTE: End EVP script		02-048/01:22:28
14892	MGS	02-048/01:37:53		NOTE: End Block (MAP_RT)		02-048/01:22:29
14893	MGS	02-048/01:37:56		NOTE: End fixed Sub-Reflector for Radio Science		02-048/01:22:32
14894	MGS	02-048/01:39:18		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-048/01:23:55
14895	MGS	02-048/01:39:19		NOTE: Enter Solar Eclipse 13165		02-048/01:23:56
14896	MGS	02-048/01:42:39	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
14897	MGS	02-048/01:44:39	15	Range Modulation On: SUP=3.0dB		
14898	MGS	02-048/01:45:39	15	Begin Ranging Acquisition		
14899	MGS	02-048/02:00:00	45	Begin Pre-Cal		
14900	MGS	02-048/02:00:00	45	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
14901	MGS	02-048/02:00:00	45	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
14902	MGS	02-048/02:00:00	45	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
14903	MGS	02-048/02:00:00	45	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
14904	MGS	02-048/02:00:00	45	At BOT: S/C Tlm Mode: BR=42666.7, FL=10000, SC=HIGH, MI=80.0		
14905	MGS	02-048/02:00:00	45	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
14906	MGS	02-048/02:00:00	45	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
14907	MGS	02-048/02:00:00	45	Config: TGC: DEST=37		
14908	MGS	02-048/02:00:00	45	Config: TGC: BAND=X, BR=42666.666667		
14909	MGS	02-048/02:00:00	45	Config: FSS: CH=2, PRI_FL=10000		
14910	MGS	02-048/02:00:00	45	Config: RSR		
14911	MGS	02-048/02:00:00	45	Config: TXL		
14912	MGS	02-048/02:00:00	45	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
14913	MGS	02-048/02:00:00	45	Config: BVR		
14914	MGS	02-048/02:00:00	45	Config: Doppler Extractor: BIAS=+1MHZ		
14915	MGS	02-048/02:00:00	45	Config: MDA: SMPL=0.1		
14916	MGS	02-048/02:00:00	45	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
14917	MGS	02-048/02:00:00	45	Config: SRA: HIGH=4, LOW=14, SERV=D		
14918	MGS	02-048/02:00:00	45	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
14919	MGS	02-048/02:04:03		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-048/01:48:39
14920	MGS	02-048/02:04:03		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-048/01:48:39
14921	MGS	02-048/02:04:08		Set eclipse egress script address: 019A	SWSEES	02-048/01:48:44
14922	MGS	02-048/02:04:10		NOTE: Begin fixed Sub-Reflector for Radio Science		02-048/01:48:47
14923	MGS	02-048/02:07:55		: 01:27:41	RPAONX	02-048/01:52:31
14924	MGS	02-048/02:07:55		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-048/01:52:31
14925	MGS	02-048/02:09:10		: 00:00:30, 00:07:00, FALSE	RDSCIE	02-048/01:53:46
14926	MGS	02-048/02:09:10		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-048/01:53:46
14927	MGS	02-048/02:09:10		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-048/01:53:46
14928	MGS	02-048/02:09:10		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-048/01:53:46
14929	MGS	02-048/02:09:10		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-048/01:53:46
14930	MGS	02-048/02:09:40		NOTE: Exit Earth Occultation 13165		02-048/01:54:17
14931	MGS	02-048/02:09:40	15	Acquisition Of X-Band Signal		
14932	MGS	02-048/02:09:40	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
14933	MGS	02-048/02:09:40	15	NOTE: Carrier Only -- No Telemetry Modulation		
14934	MGS	02-048/02:14:00		NOTE: Exit Planetary Atmosphere 13165		02-048/01:58:37
14935	MGS	02-048/02:16:10		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-048/02:00:46
14936	MGS	02-048/02:16:10		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-048/02:00:46
14937	MGS	02-048/02:16:10		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-048/02:00:46
14938	MGS	02-048/02:16:10		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-048/02:00:46
14939	MGS	02-048/02:16:10		: REC_2A, F42KHZ, PART1, SE_1A, FALSE, 00:10:47	AEMPB	02-048/02:00:46
14940	MGS	02-048/02:16:10		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-048/02:00:46
14941	MGS	02-048/02:16:10		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, PLYBCK, PART1	STSSRC	02-048/02:00:46
14942	MGS	02-048/02:16:10	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
14943	MGS	02-048/02:16:11		SSR 2A Data Enable	CSD2AE	02-048/02:00:47

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
14944	MGS	02-048/02:16:11		SSR Activity: ID=SSR_2A, FCN=Start Playback, PRT=1, BR=42666		02-048/02:00:47
14945	MGS	02-048/02:16:11	15	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
14946	MGS	02-048/02:16:15		NOTE: End fixed Sub-Reflector for Radio Science		02-048/02:00:52
14947	MGS	02-048/02:19:45		NOTE: Exit Solar Eclipse 13165		02-048/02:04:22
14948	MGS	02-048/02:32:42		NOTE: Periapsis 13166 ----------		02-048/02:17:19
14949	MGS	02-048/02:40:44		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-048/02:25:20
14950	MGS	02-048/02:40:44		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-048/02:25:20
14951	MGS	02-048/02:40:45		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-048/02:25:21
14952	MGS	02-048/02:40:45		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-048/02:25:21
14953	MGS	02-048/02:45:32	15	NOTE: Transmitter Off in 15 minutes		
14954	MGS	02-048/02:58:33	15	Range Modulation Off		
14955	MGS	02-048/03:00:00	45	Begin Tracking		
14956	MGS	02-048/03:00:00	45	Acquire D/L: X/16, 3-Way/15, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
14957	MGS	02-048/03:00:32	15	Transmitter Off		
14958	MGS	02-048/03:02:45		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-048/02:47:21
14959	MGS	02-048/03:02:45		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-048/02:47:21
14960	MGS	02-048/03:20:00	15	End Tracking		
14961	MGS	02-048/03:23:52		NOTE: Begin fixed Sub-Reflector for Radio Science		02-048/03:08:29
14962	MGS	02-048/03:24:49		SSR 2A Data Disable	CSD2AX	02-048/03:09:25
14963	MGS	02-048/03:24:49		SSR Activity: ID=SSR_2A, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-048/03:09:25
14964	MGS	02-048/03:24:49		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-048/03:09:25
14965	MGS	02-048/03:24:49	45	D/L Change: X/16, 3-Way/15, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
14966	MGS	02-048/03:27:01		NOTE: Start EVP data return script		02-048/03:11:37
14967	MGS	02-048/03:27:01		: SSR_2B, F42KHZ, PART1, 2002-048T03:58:29.000	AEMPBU	02-048/03:11:37
14968	MGS	02-048/03:28:52		: 00:06:43, FALSE	RDSCII	02-048/03:13:28
14969	MGS	02-048/03:28:52		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-048/03:13:28
14970	MGS	02-048/03:28:52		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-048/03:13:28
14971	MGS	02-048/03:28:52		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-048/03:13:28
14972	MGS	02-048/03:28:52		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-048/03:13:28
14973	MGS	02-048/03:28:52	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
14974	MGS	02-048/03:28:52	45	NOTE: Carrier Only -- No Telemetry Modulation		
14975	MGS	02-048/03:31:02		NOTE: Enter Planetary Atmosphere 13166		02-048/03:15:38
14976	MGS	02-048/03:31:29		NOTE: Apoapsis 13166 -		02-048/03:16:06
14977	MGS	02-048/03:35:00	15	End Post-Cal		
14978	MGS	02-048/03:35:04		NOTE: Enter Earth Occultation 13166		02-048/03:19:40
14979	MGS	02-048/03:35:04	45	NOTE: Loss Of X-Band Signal		
14980	MGS	02-048/03:35:35		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-048/03:20:11
14981	MGS	02-048/03:35:35		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-048/03:20:11
14982	MGS	02-048/03:35:35		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-048/03:20:11
14983	MGS	02-048/03:35:35		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-048/03:20:11
14984	MGS	02-048/03:35:36		Turn off the MOT Exciter and RPA beam	STRPAF	02-048/03:20:12
14985	MGS	02-048/03:35:36		NOTE: End EVP script		02-048/03:20:13
14986	MGS	02-048/03:35:40		NOTE: End fixed Sub-Reflector for Radio Science		02-048/03:20:17
14987	MGS	02-048/03:37:01		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-048/03:21:37
14988	MGS	02-048/03:37:01		NOTE: Enter Solar Eclipse 13166		02-048/03:21:38
14989	MGS	02-048/03:40:21	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
14990	MGS	02-048/03:42:21	45	Range Modulation On: SUP=3.0dB		
14991	MGS	02-048/03:43:21	45	Begin Ranging Acquisition		
14992	MGS	02-048/04:01:45		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-048/03:46:21
14993	MGS	02-048/04:01:45		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-048/03:46:21
14994	MGS	02-048/04:01:50		Set eclipse egress script address: 01DC	SWSEES	02-048/03:46:26
14995	MGS	02-048/04:01:52		NOTE: Begin fixed Sub-Reflector for Radio Science		02-048/03:46:29
14996	MGS	02-048/04:05:37		: 01:27:41	RPAONX	02-048/03:50:13

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
14997	MGS	02-048/04:05:37		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-048/03:50:13
14998	MGS	02-048/04:06:52		: 00:00:30, 00:07:00, FALSE	RDSCIE	02-048/03:51:28
14999	MGS	02-048/04:06:52		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-048/03:51:28
15000	MGS	02-048/04:06:52		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-048/03:51:28
15001	MGS	02-048/04:06:52		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-048/03:51:28
15002	MGS	02-048/04:06:52		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-048/03:51:28
15003	MGS	02-048/04:07:22		NOTE: Exit Earth Occultation 13166		02-048/03:51:59
15004	MGS	02-048/04:07:22	45	Acquisition Of X-Band Signal		
15005	MGS	02-048/04:07:22	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
15006	MGS	02-048/04:07:22	45	NOTE: Carrier Only -- No Telemetry Modulation		
15007	MGS	02-048/04:11:42		NOTE: Exit Planetary Atmosphere 13166		02-048/03:56:19
15008	MGS	02-048/04:13:52		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-048/03:58:28
15009	MGS	02-048/04:13:52		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-048/03:58:28
15010	MGS	02-048/04:13:52		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-048/03:58:28
15011	MGS	02-048/04:13:52		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-048/03:58:28
15012	MGS	02-048/04:13:52		: REC_2B, F42KHZ, PART1, SE_1A, FALSE, 00:10:47	AEMPB	02-048/03:58:28
15013	MGS	02-048/04:13:52		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-048/03:58:28
15014	MGS	02-048/04:13:52		Sends a one-word SSR command to the XSU command SOB: SSR_2B, F42KHZ, PLYBCK, PART1	STSSRC	02-048/03:58:28
15015	MGS	02-048/04:13:52	45	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
15016	MGS	02-048/04:13:53		SSR 2B Data Enable	CSD2BE	02-048/03:58:29
15017	MGS	02-048/04:13:53		SSR Activity: ID=SSR_2B, FCN=Start Playback, PRT=1, BR=42666		02-048/03:58:29
15018	MGS	02-048/04:13:53	45	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
15019	MGS	02-048/04:13:57		NOTE: End fixed Sub-Reflector for Radio Science		02-048/03:58:34
15020	MGS	02-048/04:17:27		NOTE: Exit Solar Eclipse 13166		02-048/04:02:03
15021	MGS	02-048/04:30:03		NOTE: Periapsis 13167 ----------		02-048/04:14:39
15022	MGS	02-048/04:38:26		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-048/04:23:02
15023	MGS	02-048/04:38:26		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-048/04:23:02
15024	MGS	02-048/04:38:27		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-048/04:23:03
15025	MGS	02-048/04:38:27		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-048/04:23:03
15026	MGS	02-048/04:43:15	45	NOTE: Transmitter Off in 15 minutes		
15027	MGS	02-048/04:56:15	45	Range Modulation Off		
15028	MGS	02-048/04:58:15	45	Transmitter Off		
15029	MGS	02-048/05:00:27		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-048/04:45:03
15030	MGS	02-048/05:00:27		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-048/04:45:03
15031	MGS	02-048/05:21:34		NOTE: Begin fixed Sub-Reflector for Radio Science		02-048/05:06:11
15032	MGS	02-048/05:22:31		SSR 2B Data Disable	CSD2BX	02-048/05:07:07
15033	MGS	02-048/05:22:31		SSR Activity: ID=SSR_2B, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-048/05:07:07
15034	MGS	02-048/05:22:31		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-048/05:07:07
15035	MGS	02-048/05:22:31	45	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
15036	MGS	02-048/05:24:45		NOTE: Start EVP data return script		02-048/05:09:21
15037	MGS	02-048/05:24:45		: SSR_2A, F42KHZ, PART2, 2002-048T05:56:13.000	AEMPBU	02-048/05:09:21
15038	MGS	02-048/05:26:34		: 00:06:43, FALSE	RDSCII	02-048/05:11:10
15039	MGS	02-048/05:26:34		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-048/05:11:10
15040	MGS	02-048/05:26:34		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-048/05:11:10
15041	MGS	02-048/05:26:34		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-048/05:11:10
15042	MGS	02-048/05:26:34		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-048/05:11:10
15043	MGS	02-048/05:26:34	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
15044	MGS	02-048/05:26:34	45	NOTE: Carrier Only -- No Telemetry Modulation		
15045	MGS	02-048/05:28:45		NOTE: Enter Planetary Atmosphere 13167		02-048/05:13:22
15046	MGS	02-048/05:28:56		NOTE: Apoapsis 13167 -		02-048/05:13:32
15047	MGS	02-048/05:32:47		NOTE: Enter Earth Occultation 13167		02-048/05:17:23
15048	MGS	02-048/05:32:47	45	NOTE: Loss Of X-Band Signal		
15049	MGS	02-048/05:33:17		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-048/05:17:53
15050	MGS	02-048/05:33:17		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-048/05:17:53

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
15051	MGS	02-048/05:33:17		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-048/05:17:53
15052	MGS	02-048/05:33:17		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-048/05:17:53
15053	MGS	02-048/05:33:18		Turn off the MOT Exciter and RPA beam	STRPAF	02-048/05:17:54
15054	MGS	02-048/05:33:18		NOTE: End EVP script		02-048/05:17:55
15055	MGS	02-048/05:33:22		NOTE: End fixed Sub-Reflector for Radio Science		02-048/05:17:59
15056	MGS	02-048/05:34:45		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-048/05:19:21
15057	MGS	02-048/05:34:45		NOTE: Enter Solar Eclipse 13167		02-048/05:19:22
15058	MGS	02-048/05:38:04	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
15059	MGS	02-048/05:40:04	45	Range Modulation On: SUP=3.0dB		
15060	MGS	02-048/05:41:04	45	Begin Ranging Acquisition		
15061	MGS	02-048/05:48:42		NOTE: Start Block (SSRMGR)		02-048/05:33:18
15062	MGS	02-048/05:48:42		Sends a one-word SSR command to the XSU command SOB: SSR_1B, SE_1A, RECORD, PART1	STSSRC	02-048/05:33:18
15063	MGS	02-048/05:48:43		SSR 1B Data Enable	CSD1BE	02-048/05:33:19
15064	MGS	02-048/05:48:43		SSR Activity: ID=SSR_1B, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-048/05:33:19
15065	MGS	02-048/05:59:27		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-048/05:44:03
15066	MGS	02-048/05:59:27		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-048/05:44:03
15067	MGS	02-048/05:59:31		Command the PSE with included data word: 3990	SWPSEL	02-048/05:44:07
15068	MGS	02-048/05:59:32		Set eclipse egress script address: 0158	SWSEES	02-048/05:44:08
15069	MGS	02-048/05:59:36		NOTE: Begin fixed Sub-Reflector for Radio Science		02-048/05:44:13
15070	MGS	02-048/06:03:21		: 01:27:41	RPAONX	02-048/05:47:57
15071	MGS	02-048/06:03:21		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-048/05:47:57
15072	MGS	02-048/06:04:36		: 00:00:30, 00:07:00, FALSE	RDSCIE	02-048/05:49:12
15073	MGS	02-048/06:04:36		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-048/05:49:12
15074	MGS	02-048/06:04:36		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-048/05:49:12
15075	MGS	02-048/06:04:36		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-048/05:49:12
15076	MGS	02-048/06:04:36		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-048/05:49:12
15077	MGS	02-048/06:05:06		NOTE: Exit Earth Occultation 13167		02-048/05:49:42
15078	MGS	02-048/06:05:06	45	Acquisition Of X-Band Signal		
15079	MGS	02-048/06:05:06	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
15080	MGS	02-048/06:05:06	45	NOTE: Carrier Only -- No Telemetry Modulation		
15081	MGS	02-048/06:09:25		NOTE: Exit Planetary Atmosphere 13167		02-048/05:54:01
15082	MGS	02-048/06:11:36		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-048/05:56:12
15083	MGS	02-048/06:11:36		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-048/05:56:12
15084	MGS	02-048/06:11:36		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-048/05:56:12
15085	MGS	02-048/06:11:36		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-048/05:56:12
15086	MGS	02-048/06:11:36		: REC_2A, F42KHZ, PART2, SE_1A, FALSE, 00:10:47	AEMPB	02-048/05:56:12
15087	MGS	02-048/06:11:36		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-048/05:56:12
15088	MGS	02-048/06:11:36		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, PLYBCK, PART2	STSSRC	02-048/05:56:12
15089	MGS	02-048/06:11:36	45	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
15090	MGS	02-048/06:11:37		SSR 2A Data Enable	CSD2AE	02-048/05:56:13
15091	MGS	02-048/06:11:37		SSR Activity: ID=SSR_2A, FCN=Start Playback, PRT=2, BR=42666		02-048/05:56:13
15092	MGS	02-048/06:11:37	45	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
15093	MGS	02-048/06:11:41		NOTE: End fixed Sub-Reflector for Radio Science		02-048/05:56:18
15094	MGS	02-048/06:15:11		NOTE: Exit Solar Eclipse 13167		02-048/05:59:47
15095	MGS	02-048/06:15:23		SSR 1A Data Disable	CSD1AX	02-048/05:59:59
15096	MGS	02-048/06:15:23		SSR Activity: ID=SSR_1A, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-048/05:59:59
15097	MGS	02-048/06:15:24		NOTE: End Block (SSRMGR)		02-048/06:00:00
15098	MGS	02-048/06:28:01		NOTE: Periapsis 13168 ----------		02-048/06:12:37
15099	MGS	02-048/06:40:10		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-048/06:24:46
15100	MGS	02-048/06:40:10		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-048/06:24:46
15101	MGS	02-048/06:40:11		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-048/06:24:47
15102	MGS	02-048/06:40:11		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-048/06:24:47
15103	MGS	02-048/06:40:59	45	NOTE: Transmitter Off in 15 minutes		
15104	MGS	02-048/06:54:00	45	Range Modulation Off		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
15105	MGS	02-048/06:55:59	45	Transmitter Off		
15106	MGS	02-048/07:02:11		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-048/06:46:47
15107	MGS	02-048/07:02:11		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-048/06:46:47
15108	MGS	02-048/07:19:18		NOTE: Begin fixed Sub-Reflector for Radio Science		02-048/07:03:55
15109	MGS	02-048/07:20:15		SSR 2A Data Disable	CSD2AX	02-048/07:04:51
15110	MGS	02-048/07:20:15		SSR Activity: ID=SSR_2A, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-048/07:04:51
15111	MGS	02-048/07:20:15		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-048/07:04:51
15112	MGS	02-048/07:20:15	45	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
15113	MGS	02-048/07:22:31		NOTE: Start EVP data return script		02-048/07:07:07
15114	MGS	02-048/07:22:31		: SSR_2B, F42KHZ, PART2, 2002-048T07:53:59.000	AEMPBU	02-048/07:07:07
15115	MGS	02-048/07:24:18		: 00:06:43, FALSE	RDSCII	02-048/07:08:54
15116	MGS	02-048/07:24:18		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-048/07:08:54
15117	MGS	02-048/07:24:18		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-048/07:08:54
15118	MGS	02-048/07:24:18		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-048/07:08:54
15119	MGS	02-048/07:24:18		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-048/07:08:54
15120	MGS	02-048/07:24:18	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
15121	MGS	02-048/07:24:18	45	NOTE: Carrier Only -- No Telemetry Modulation		
15122	MGS	02-048/07:26:30		NOTE: Enter Planetary Atmosphere 13168		02-048/07:11:06
15123	MGS	02-048/07:27:04		NOTE: Apoapsis 13168 -		02-048/07:11:40
15124	MGS	02-048/07:30:32		NOTE: Enter Earth Occultation 13168		02-048/07:15:08
15125	MGS	02-048/07:30:32	45	NOTE: Loss Of X-Band Signal		
15126	MGS	02-048/07:31:01		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-048/07:15:37
15127	MGS	02-048/07:31:01		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-048/07:15:37
15128	MGS	02-048/07:31:01		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-048/07:15:37
15129	MGS	02-048/07:31:01		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-048/07:15:37
15130	MGS	02-048/07:31:02		Turn off the MOT Exciter and RPA beam	STRPAF	02-048/07:15:38
15131	MGS	02-048/07:31:02		NOTE: End EVP script		02-048/07:15:39
15132	MGS	02-048/07:31:06		NOTE: End fixed Sub-Reflector for Radio Science		02-048/07:15:43
15133	MGS	02-048/07:32:31		NOTE: Enter Solar Eclipse 13168		02-048/07:17:07
15134	MGS	02-048/07:32:31		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-048/07:17:07
15135	MGS	02-048/07:35:50	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
15136	MGS	02-048/07:37:50	45	Range Modulation On: SUP=3.0dB		
15137	MGS	02-048/07:38:50	45	Begin Ranging Acquisition		
15138	MGS	02-048/07:57:11		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-048/07:41:47
15139	MGS	02-048/07:57:11		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-048/07:41:47
15140	MGS	02-048/07:57:16		Set eclipse egress script address: 019A	SWSEES	02-048/07:41:52
15141	MGS	02-048/07:57:23		NOTE: Begin fixed Sub-Reflector for Radio Science		02-048/07:41:59
15142	MGS	02-048/08:01:07		: 01:27:41	RPAONX	02-048/07:45:43
15143	MGS	02-048/08:01:07		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-048/07:45:43
15144	MGS	02-048/08:02:22		: 00:00:30, 00:07:00, FALSE	RDSCIE	02-048/07:46:58
15145	MGS	02-048/08:02:22		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-048/07:46:58
15146	MGS	02-048/08:02:22		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-048/07:46:58
15147	MGS	02-048/08:02:22		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-048/07:46:58
15148	MGS	02-048/08:02:22		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-048/07:46:58
15149	MGS	02-048/08:02:52		NOTE: Exit Earth Occultation 13168		02-048/07:47:28
15150	MGS	02-048/08:02:52	45	Acquisition Of X-Band Signal		
15151	MGS	02-048/08:02:52	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
15152	MGS	02-048/08:02:52	45	NOTE: Carrier Only -- No Telemetry Modulation		
15153	MGS	02-048/08:02:52		Disables autonomous command to send eclipse ingress script	SWEISX	02-048/07:47:28
15154	MGS	02-048/08:07:11		NOTE: Exit Planetary Atmosphere 13168		02-048/07:51:47
15155	MGS	02-048/08:09:22		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-048/07:53:58
15156	MGS	02-048/08:09:22		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-048/07:53:58
15157	MGS	02-048/08:09:22		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-048/07:53:58
15158	MGS	02-048/08:09:22		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-048/07:53:58

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
15159	MGS	02-048/08:09:22		: REC_2B, F42KHZ, PART2, SE_1A, FALSE, 00:10:47	AEMPB	02-048/07:53:58
15160	MGS	02-048/08:09:22		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-048/07:53:58
15161	MGS	02-048/08:09:22		Sends a one-word SSR command to the XSU command SOB: SSR_2B, F42KHZ, PLYBCK, PART2	STSSRC	02-048/07:53:58
15162	MGS	02-048/08:09:22	45	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
15163	MGS	02-048/08:09:23		SSR 2B Data Enable	CSD2BE	02-048/07:53:59
15164	MGS	02-048/08:09:23		SSR Activity: ID=SSR_2B, FCN=Start Playback, PRT=2, BR=42666		02-048/07:53:59
15165	MGS	02-048/08:09:23	45	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
15166	MGS	02-048/08:09:28		NOTE: End fixed Sub-Reflector for Radio Science		02-048/07:54:04
15167	MGS	02-048/08:12:57		NOTE: Exit Solar Eclipse 13168		02-048/07:57:33
15168	MGS	02-048/08:26:14		NOTE: Periapsis 13169 ----------		02-048/08:10:50
15169	MGS	02-048/08:33:57		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-048/08:18:32
15170	MGS	02-048/08:33:57		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-048/08:18:32
15171	MGS	02-048/08:33:58		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-048/08:18:33
15172	MGS	02-048/08:33:58		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-048/08:18:33
15173	MGS	02-048/08:38:46	45	NOTE: Transmitter Off in 15 minutes		
15174	MGS	02-048/08:51:47	45	Range Modulation Off		
15175	MGS	02-048/08:53:46	45	Transmitter Off		
15176	MGS	02-048/08:55:58		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-048/08:40:33
15177	MGS	02-048/08:55:58		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-048/08:40:33
15178	MGS	02-048/09:17:05		NOTE: Begin fixed Sub-Reflector for Radio Science		02-048/09:01:41
15179	MGS	02-048/09:18:02		SSR 2B Data Disable	CSD2BX	02-048/09:02:37
15180	MGS	02-048/09:18:02		SSR Activity: ID=SSR_2B, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-048/09:02:37
15181	MGS	02-048/09:18:02		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-048/09:02:37
15182	MGS	02-048/09:18:02	45	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
15183	MGS	02-048/09:20:18		NOTE: Start Block (MAP_RT)		02-048/09:04:53
15184	MGS	02-048/09:20:19		: 00:28:36, 01:27:40, FALSE, TRUE, FALSE, 00:01:15, 00:07:00, 01:12:41, 00:06:43	AEMINI	02-048/09:04:54
15185	MGS	02-048/09:20:19		Enable sending eclipse ingress script when array power disappears	SWEISE	02-048/09:04:54
15186	MGS	02-048/09:20:19		NOTE: Start EVP data return script		02-048/09:04:54
15187	MGS	02-048/09:20:20		: SE_2A, RTM, 01:12:40, MRC, 2002-048T09:51:47.000	AEMRTI	02-048/09:04:55
15188	MGS	02-048/09:22:05		: 00:06:43, FALSE	RDSCII	02-048/09:06:40
15189	MGS	02-048/09:22:05		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-048/09:06:40
15190	MGS	02-048/09:22:05		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-048/09:06:40
15191	MGS	02-048/09:22:05		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-048/09:06:40
15192	MGS	02-048/09:22:05		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-048/09:06:40
15193	MGS	02-048/09:22:05	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
15194	MGS	02-048/09:22:05	45	NOTE: Carrier Only -- No Telemetry Modulation		
15195	MGS	02-048/09:24:18		NOTE: Enter Planetary Atmosphere 13169		02-048/09:08:53
15196	MGS	02-048/09:25:21		NOTE: Apoapsis 13169 -		02-048/09:09:57
15197	MGS	02-048/09:28:20		NOTE: Enter Earth Occultation 13169		02-048/09:12:55
15198	MGS	02-048/09:28:20	45	NOTE: Loss Of X-Band Signal		
15199	MGS	02-048/09:28:48		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-048/09:13:23
15200	MGS	02-048/09:28:48		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-048/09:13:23
15201	MGS	02-048/09:28:48		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-048/09:13:23
15202	MGS	02-048/09:28:48		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-048/09:13:23
15203	MGS	02-048/09:28:49		Turn off the MOT Exciter and RPA beam	STRPAF	02-048/09:13:24
15204	MGS	02-048/09:28:49		NOTE: End EVP script		02-048/09:13:25
15205	MGS	02-048/09:28:50		NOTE: End Block (MAP_PB)		02-048/09:13:26
15206	MGS	02-048/09:28:53		NOTE: End fixed Sub-Reflector for Radio Science		02-048/09:13:29
15207	MGS	02-048/09:30:19		NOTE: Enter Solar Eclipse 13169		02-048/09:14:54
15208	MGS	02-048/09:30:19		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-048/09:14:54
15209	MGS	02-048/09:33:37	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
15210	MGS	02-048/09:35:37	45	Range Modulation On: SUP=3.0dB		
15211	MGS	02-048/09:36:37	45	Begin Ranging Acquisition		
15212	MGS	02-048/09:50:00	45	NOTE: Transmitter Off in 15 minutes		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
15213	MGS	02-048/09:54:58		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-048/09:39:33
15214	MGS	02-048/09:54:58		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-048/09:39:33
15215	MGS	02-048/09:55:03		Set eclipse egress script address: 01DC	SWSEES	02-048/09:39:38
15216	MGS	02-048/09:55:10		NOTE: Begin fixed Sub-Reflector for Radio Science		02-048/09:39:45
15217	MGS	02-048/09:58:55		: 01:27:40	RPAONX	02-048/09:43:30
15218	MGS	02-048/09:58:55		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-048/09:43:30
15219	MGS	02-048/10:00:10		: 00:00:30, 00:07:00, FALSE	RDSCIE	02-048/09:44:45
15220	MGS	02-048/10:00:10		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-048/09:44:45
15221	MGS	02-048/10:00:10		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-048/09:44:45
15222	MGS	02-048/10:00:10		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-048/09:44:45
15223	MGS	02-048/10:00:10		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-048/09:44:45
15224	MGS	02-048/10:00:40		Disables autonomous command to send eclipse ingress script	SWEISX	02-048/09:45:15
15225	MGS	02-048/10:00:40		NOTE: Exit Earth Occultation 13169		02-048/09:45:16
15226	MGS	02-048/10:00:40	45	Acquisition Of X-Band Signal		
15227	MGS	02-048/10:00:40	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
15228	MGS	02-048/10:00:40	45	NOTE: Carrier Only -- No Telemetry Modulation		
15229	MGS	02-048/10:03:00	45	Range Modulation Off		
15230	MGS	02-048/10:04:59		NOTE: Exit Planetary Atmosphere 13169		02-048/09:49:35
15231	MGS	02-048/10:05:00	45	Transmitter Off		
15232	MGS	02-048/10:07:10		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-048/09:51:45
15233	MGS	02-048/10:07:10		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-048/09:51:45
15234	MGS	02-048/10:07:10		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-048/09:51:45
15235	MGS	02-048/10:07:10		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-048/09:51:45
15236	MGS	02-048/10:07:10	45	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
15237	MGS	02-048/10:07:11		: RTM, MRC, 01:12:40, S&E_2A, FALSE, 00:06:44	AEMRT	02-048/09:51:46
15238	MGS	02-048/10:07:11		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-048/09:51:46
15239	MGS	02-048/10:07:11		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-048/09:51:46
15240	MGS	02-048/10:07:11	45	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
15241	MGS	02-048/10:07:15		NOTE: End fixed Sub-Reflector for Radio Science		02-048/09:51:50
15242	MGS	02-048/10:10:45		NOTE: Exit Solar Eclipse 13169		02-048/09:55:20
15243	MGS	02-048/10:16:53	45	NOTE: Below Uplink Interlock Limit		
15244	MGS	02-048/10:24:16		NOTE: Periapsis 13170 ----------		02-048/10:08:51
15245	MGS	02-048/10:24:31		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-048/10:09:06
15246	MGS	02-048/10:24:31		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-048/10:09:06
15247	MGS	02-048/10:24:31	45	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
15248	MGS	02-048/10:25:00	45	End Tracking		
15249	MGS	02-048/10:31:44		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-048/10:16:19
15250	MGS	02-048/10:31:44		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-048/10:16:19
15251	MGS	02-048/10:31:45		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-048/10:16:20
15252	MGS	02-048/10:31:45		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-048/10:16:20
15253	MGS	02-048/10:40:00	45	End Post-Cal		
15254	MGS	02-048/10:53:45		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-048/10:38:20
15255	MGS	02-048/10:53:45		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-048/10:38:20
15256	MGS	02-048/11:14:51		NOTE: Begin fixed Sub-Reflector for Radio Science		02-048/10:59:26
15257	MGS	02-048/11:19:51		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-048/11:04:26
15258	MGS	02-048/11:19:51		: 00:06:43, FALSE	RDSCII	02-048/11:04:26
15259	MGS	02-048/11:19:51		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-048/11:04:26
15260	MGS	02-048/11:19:51		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-048/11:04:26
15261	MGS	02-048/11:19:51		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-048/11:04:26
15262	MGS	02-048/11:19:51		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-048/11:04:26
15263	MGS	02-048/11:22:03		NOTE: Start Block (SSRMGR)		02-048/11:06:38
15264	MGS	02-048/11:22:03		Sends a one-word SSR command to the XSU command SOB: SSR_1A, SE_1A, RECORD, PART2	STSSRC	02-048/11:06:38
15265	MGS	02-048/11:22:04		SSR 1A Data Enable	CSD1AE	02-048/11:06:39
15266	MGS	02-048/11:22:04		SSR Activity: ID=SSR_1A, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-048/11:06:39

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
15267	MGS	02-048/11:22:05		NOTE: Enter Planetary Atmosphere 13170		02-048/11:06:40
15268	MGS	02-048/11:23:10		NOTE: Apoapsis 13170 -		02-048/11:07:46
15269	MGS	02-048/11:26:07		NOTE: Enter Earth Occultation 13170		02-048/11:10:42
15270	MGS	02-048/11:26:34		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-048/11:11:09
15271	MGS	02-048/11:26:34		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-048/11:11:09
15272	MGS	02-048/11:26:34		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-048/11:11:09
15273	MGS	02-048/11:26:34		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-048/11:11:09
15274	MGS	02-048/11:26:35		NOTE: End EVP script		02-048/11:11:10
15275	MGS	02-048/11:26:35		Turn off the MOT Exciter and RPA beam	STRPAF	02-048/11:11:10
15276	MGS	02-048/11:26:36		NOTE: End Block (MAP_RT)		02-048/11:11:11
15277	MGS	02-048/11:26:39		NOTE: End fixed Sub-Reflector for Radio Science		02-048/11:11:14
15278	MGS	02-048/11:28:05		NOTE: Enter Solar Eclipse 13170		02-048/11:12:40
15279	MGS	02-048/11:43:06		Disable HGA control mode	SAHGCX	02-048/11:27:41
15280	MGS	02-048/11:43:07		No Operation	SCNOOP	02-048/11:27:42
15281	MGS	02-048/11:43:08		CDU-1 Uplink Rate Select (Based on 3 bit Code): 7	TCC1BS	02-048/11:27:43
15282	MGS	02-048/11:43:08		CDU-2 Uplink Rate Select (Based on 3 bit Code): 7	TCC2BS	02-048/11:27:43
15283	MGS	02-048/11:48:44		SSR 1B Data Disable	CSD1BX	02-048/11:33:19
15284	MGS	02-048/11:48:44		SSR Activity: ID=SSR_1B, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-048/11:33:19
15285	MGS	02-048/11:48:45		NOTE: End Block (SSRMGR)		02-048/11:33:20
15286	MGS	02-048/11:52:45		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-048/11:37:20
15287	MGS	02-048/11:52:45		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-048/11:37:20
15288	MGS	02-048/11:52:49		Command the PSE with included data word: 3990	SWPSEL	02-048/11:37:24
15289	MGS	02-048/11:52:50		Set eclipse egress script address: 0158	SWSEES	02-048/11:37:25
15290	MGS	02-048/11:58:27		NOTE: Exit Earth Occultation 13170		02-048/11:43:03
15291	MGS	02-048/12:02:47		NOTE: Exit Planetary Atmosphere 13170		02-048/11:47:22
15292	MGS	02-048/12:08:31		NOTE: Exit Solar Eclipse 13170		02-048/11:53:06
15293	MGS	02-048/12:15:24		Dump SCP memory to the EDF using physical addressing arguments: 56A4, 240	SCDSCM	02-048/11:59:59
15294	MGS	02-048/12:21:50		NOTE: Periapsis 13171 ----------		02-048/12:06:25
15295	MGS	02-048/12:33:30		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-048/12:18:05
15296	MGS	02-048/12:33:30		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-048/12:18:05
15297	MGS	02-048/12:33:31		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-048/12:18:06
15298	MGS	02-048/12:33:31		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-048/12:18:06
15299	MGS	02-048/12:55:31		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-048/12:40:06
15300	MGS	02-048/12:55:31		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-048/12:40:06
15301	MGS	02-048/13:19:48		NOTE: Enter Planetary Atmosphere 13171		02-048/13:04:23
15302	MGS	02-048/13:20:33		NOTE: Apoapsis 13171 -		02-048/13:05:08
15303	MGS	02-048/13:23:50		NOTE: Enter Earth Occultation 13171		02-048/13:08:25
15304	MGS	02-048/13:25:47		NOTE: Enter Solar Eclipse 13171		02-048/13:10:22
15305	MGS	02-048/13:50:31		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-048/13:35:06
15306	MGS	02-048/13:50:31		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-048/13:35:06
15307	MGS	02-048/13:50:36		Set eclipse egress script address: 019A	SWSEES	02-048/13:35:11
15308	MGS	02-048/13:56:11		NOTE: Exit Earth Occultation 13171		02-048/13:40:46
15309	MGS	02-048/14:00:31		NOTE: Exit Planetary Atmosphere 13171		02-048/13:45:06
15310	MGS	02-048/14:06:13		NOTE: Exit Solar Eclipse 13171		02-048/13:50:48
15311	MGS	02-048/14:19:12		NOTE: Periapsis 13172 ----------		02-048/14:03:47
15312	MGS	02-048/14:27:12		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-048/14:11:47
15313	MGS	02-048/14:27:12		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-048/14:11:47
15314	MGS	02-048/14:27:13		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-048/14:11:48
15315	MGS	02-048/14:27:13		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-048/14:11:48
15316	MGS	02-048/14:49:14		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-048/14:33:48
15317	MGS	02-048/14:49:14		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-048/14:33:48
15318	MGS	02-048/15:17:28		NOTE: Enter Planetary Atmosphere 13172		02-048/15:02:03
15319	MGS	02-048/15:18:10		NOTE: Apoapsis 13172 -		02-048/15:02:44
15320	MGS	02-048/15:21:30		NOTE: Enter Earth Occultation 13172		02-048/15:06:05

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
15321	MGS	02-048/15:23:28		NOTE: Enter Solar Eclipse 13172		02-048/15:08:03
15322	MGS	02-048/15:48:14		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-048/15:32:48
15323	MGS	02-048/15:48:14		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-048/15:32:48
15324	MGS	02-048/15:48:19		Set eclipse egress script address: 01DC	SWSEES	02-048/15:32:53
15325	MGS	02-048/15:53:51		NOTE: Exit Earth Occultation 13172		02-048/15:38:26
15326	MGS	02-048/15:58:11		NOTE: Exit Planetary Atmosphere 13172		02-048/15:42:45
15327	MGS	02-048/16:03:53		NOTE: Exit Solar Eclipse 13172		02-048/15:48:28
15328	MGS	02-048/16:16:48		NOTE: Periapsis 13173 ----------		02-048/16:01:22
15329	MGS	02-048/16:24:53		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-048/16:09:27
15330	MGS	02-048/16:24:53		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-048/16:09:27
15331	MGS	02-048/16:24:54		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-048/16:09:28
15332	MGS	02-048/16:24:54		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-048/16:09:28
15333	MGS	02-048/16:35:00	15	Begin Pre-Cal		
15334	MGS	02-048/16:35:00	15	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
15335	MGS	02-048/16:35:00	15	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
15336	MGS	02-048/16:35:00	15	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
15337	MGS	02-048/16:35:00	15	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=OFF, EXC=2		
15338	MGS	02-048/16:35:00	15	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
15339	MGS	02-048/16:35:00	15	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
15340	MGS	02-048/16:35:00	15	Config: TGC: DEST=37		
15341	MGS	02-048/16:35:00	15	Config: TGC: BAND=X, BR=8000.000000		
15342	MGS	02-048/16:35:00	15	Config: FSS: CH=2, PRI_FL=10000		
15343	MGS	02-048/16:35:00	15	Config: RSR		
15344	MGS	02-048/16:35:00	15	Config: TXL		
15345	MGS	02-048/16:35:00	15	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
15346	MGS	02-048/16:35:00	15	Config: BVR		
15347	MGS	02-048/16:35:00	15	Config: Doppler Extractor: BIAS=+1MHZ		
15348	MGS	02-048/16:35:00	15	Config: MDA: SMPL=0.1		
15349	MGS	02-048/16:35:00	15	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
15350	MGS	02-048/16:35:00	15	Config: SRA: HIGH=4, LOW=14, SERV=D		
15351	MGS	02-048/16:35:00	15	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
15352	MGS	02-048/16:46:54		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-048/16:31:28
15353	MGS	02-048/16:46:54		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-048/16:31:28
15354	MGS	02-048/16:55:24		NOTE: Start Block (SSRMGR)		02-048/16:39:58
15355	MGS	02-048/16:55:24		Sends a one-word SSR command to the XSU command SOB: SSR_1B, SE_1A, RECORD, PART2	STSSRC	02-048/16:39:58
15356	MGS	02-048/16:55:25		SSR 1B Data Enable	CSD1BE	02-048/16:39:59
15357	MGS	02-048/16:55:25		SSR Activity: ID=SSR_1B, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-048/16:39:59
15358	MGS	02-048/17:11:12		NOTE: Start Block (MAP_RT)		02-048/16:55:46
15359	MGS	02-048/17:11:13		: 00:28:38, 01:27:39, FALSE, TRUE, FALSE, 00:01:15, 00:06:58, 01:12:44, 00:06:41	AEMINI	02-048/16:55:47
15360	MGS	02-048/17:11:13		Enable sending eclipse ingress script when array power disappears	SWEISE	02-048/16:55:47
15361	MGS	02-048/17:11:13		NOTE: Start EVP data return script		02-048/16:55:47
15362	MGS	02-048/17:11:14		: SE_2A, RTM, 01:12:43, MRC, 2002-048T17:42:39.000	AEMRTI	02-048/16:55:48
15363	MGS	02-048/17:15:12		NOTE: Enter Planetary Atmosphere 13173		02-048/16:59:47
15364	MGS	02-048/17:16:03		NOTE: Apoapsis 13173 -		02-048/17:00:38
15365	MGS	02-048/17:19:14		NOTE: Enter Earth Occultation 13173		02-048/17:03:48
15366	MGS	02-048/17:21:12		NOTE: Enter Solar Eclipse 13173		02-048/17:05:47
15367	MGS	02-048/17:21:13		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-048/17:05:47
15368	MGS	02-048/17:22:05		SSR 1A Data Disable	CSD1AX	02-048/17:06:39
15369	MGS	02-048/17:22:05		SSR Activity: ID=SSR_1A, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-048/17:06:39
15370	MGS	02-048/17:22:06		NOTE: End Block (SSRMGR)		02-048/17:06:40
15371	MGS	02-048/17:35:00	15	Begin Tracking		
15372	MGS	02-048/17:36:24		Select Automatic HGA control mode	SAHACE	02-048/17:20:58
15373	MGS	02-048/17:36:25		Selects Hign Gain Antenna for downlink, Reconfigures if beam is already on	STUHGA	02-048/17:20:59
15374	MGS	02-048/17:36:26		CDU-1 Uplink Rate Select (Based on 3 bit Code): 3	TCC1BS	02-048/17:21:00

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
15375	MGS	02-048/17:36:26		CDU-2 Uplink Rate Select (Based on 3 bit Code): 3	TCC2BS	02-048/17:21:00
15376	MGS	02-048/17:43:37	15	NOTE: Above Uplink Interlock Limit		
15377	MGS	02-048/17:45:00	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
15378	MGS	02-048/17:45:54		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-048/17:30:28
15379	MGS	02-048/17:45:54		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-048/17:30:28
15380	MGS	02-048/17:45:58		Command the PSE with included data word: 3990	SWPSEL	02-048/17:30:32
15381	MGS	02-048/17:45:59		Set eclipse egress script address: 0158	SWSEES	02-048/17:30:33
15382	MGS	02-048/17:46:06		NOTE: Begin fixed Sub-Reflector for Radio Science		02-048/17:30:40
15383	MGS	02-048/17:47:00	15	Range Modulation On: SUP=3.0dB		
15384	MGS	02-048/17:48:00	15	Begin Ranging Acquisition		
15385	MGS	02-048/17:49:51		: 01:27:39	RPAONX	02-048/17:34:25
15386	MGS	02-048/17:49:51		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-048/17:34:25
15387	MGS	02-048/17:51:06		: 00:00:30, 00:06:58, FALSE	RDSCIE	02-048/17:35:40
15388	MGS	02-048/17:51:06		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-048/17:35:40
15389	MGS	02-048/17:51:06		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-048/17:35:40
15390	MGS	02-048/17:51:06		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-048/17:35:40
15391	MGS	02-048/17:51:06		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-048/17:35:40
15392	MGS	02-048/17:51:36		NOTE: Exit Earth Occultation 13173		02-048/17:36:10
15393	MGS	02-048/17:51:36	15	Acquisition Of X-Band Signal		
15394	MGS	02-048/17:51:36	15	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
15395	MGS	02-048/17:51:36	15	NOTE: Carrier Only -- No Telemetry Modulation		
15396	MGS	02-048/17:55:55		NOTE: Exit Planetary Atmosphere 13173		02-048/17:40:29
15397	MGS	02-048/17:58:04		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-048/17:42:38
15398	MGS	02-048/17:58:04		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-048/17:42:38
15399	MGS	02-048/17:58:04		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-048/17:42:38
15400	MGS	02-048/17:58:04		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-048/17:42:38
15401	MGS	02-048/17:58:04	15	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
15402	MGS	02-048/17:58:05		: RTM, MRC, 01:12:43, S&E_2A, FALSE, 00:06:42	AEMRT	02-048/17:42:39
15403	MGS	02-048/17:58:05		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-048/17:42:39
15404	MGS	02-048/17:58:05		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-048/17:42:39
15405	MGS	02-048/17:58:05		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=2, BITS=30080000, DUR=01:02:40		02-048/17:42:39
15406	MGS	02-048/17:58:05		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-048/17:42:39
15407	MGS	02-048/17:58:05	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
15408	MGS	02-048/17:58:09		NOTE: End fixed Sub-Reflector for Radio Science		02-048/17:42:43
15409	MGS	02-048/18:01:38		NOTE: Exit Solar Eclipse 13173		02-048/17:46:13
15410	MGS	02-048/18:04:01		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-048/17:48:35
15411	MGS	02-048/18:04:01		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=2, BITS=32928000, DUR=00:05:56		02-048/17:48:35
15412	MGS	02-048/18:04:01		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-048/17:48:35
15413	MGS	02-048/18:04:01	15	D/L Change: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
15414	MGS	02-048/18:04:03		NOTE: Start Block (SSRMGR)		02-048/17:48:37
15415	MGS	02-048/18:04:03		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-048/17:48:37
15416	MGS	02-048/18:04:03		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-048/17:48:37
15417	MGS	02-048/18:04:04		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-048/17:48:38
15418	MGS	02-048/18:04:05		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, PLYBCK, PART3	STSSRC	02-048/17:48:39
15419	MGS	02-048/18:04:06		SSR 2A Data Enable	CSD2AE	02-048/17:48:40
15420	MGS	02-048/18:04:06		SSR Activity: ID=SSR_2A, FCN=Start Playback, PRT=3, BR=42666		02-048/17:48:40
15421	MGS	02-048/18:04:06	15	D/L Change: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
15422	MGS	02-048/18:14:41		NOTE: Periapsis 13174 ----------		02-048/17:59:16
15423	MGS	02-048/18:15:51	15	Acquire D/L: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
15424	MGS	02-048/18:16:34		NOTE: Start Block (SSRMGR)		02-048/18:01:08
15425	MGS	02-048/18:16:34		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-048/18:01:08
15426	MGS	02-048/18:16:34		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-048/18:01:08
15427	MGS	02-048/18:16:35		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-048/18:01:09
15428	MGS	02-048/18:16:35		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, ENBSCR, PART1	STSSRC	02-048/18:01:09

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
15429	MGS	02-048/18:16:36		SSR 2A Data Disable	CSD2AX	02-048/18:01:10
15430	MGS	02-048/18:16:36		Sends a one-word SSR command to the XSU command SOB: SSR_2B, F42KHZ, PLYBCK, PART3	STSSRC	02-048/18:01:10
15431	MGS	02-048/18:16:37		NOTE: End Block (SSRMGR)		02-048/18:01:11
15432	MGS	02-048/18:16:37		SSR 2B Data Enable	CSD2BE	02-048/18:01:11
15433	MGS	02-048/18:16:37		SSR Activity: ID=SSR_2B, FCN=Start Playback, PRT=3, BR=42666		02-048/18:01:11
15434	MGS	02-048/18:26:37		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-048/18:11:11
15435	MGS	02-048/18:26:37		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-048/18:11:11
15436	MGS	02-048/18:26:38		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-048/18:11:12
15437	MGS	02-048/18:26:38		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-048/18:11:12
15438	MGS	02-048/18:27:25	15	NOTE: Transmitter Off in 15 minutes		
15439	MGS	02-048/18:34:07		SSR 2B Data Disable	CSD2BX	02-048/18:18:41
15440	MGS	02-048/18:34:07		SSR Activity: ID=SSR_2B, FCN=End Playback, PRT=3, BITS=44800000, DUR=00:17:30		02-048/18:18:41
15441	MGS	02-048/18:34:08		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-048/18:18:42
15442	MGS	02-048/18:34:08		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-048/18:18:42
15443	MGS	02-048/18:34:08		NOTE: End Block (SSRMGR)		02-048/18:18:42
15444	MGS	02-048/18:34:08	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
15445	MGS	02-048/18:40:25	15	Range Modulation Off		
15446	MGS	02-048/18:42:25	15	Transmitter Off		
15447	MGS	02-048/18:48:38		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-048/18:33:12
15448	MGS	02-048/18:48:38		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-048/18:33:12
15449	MGS	02-048/19:05:48		NOTE: Begin fixed Sub-Reflector for Radio Science		02-048/18:50:22
15450	MGS	02-048/19:09:00		NOTE: Start EVP data return script		02-048/18:53:34
15451	MGS	02-048/19:10:48		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-048/18:55:22
15452	MGS	02-048/19:10:48		: 00:06:41, FALSE	RDSCII	02-048/18:55:22
15453	MGS	02-048/19:10:48		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-048/18:55:22
15454	MGS	02-048/19:10:48		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-048/18:55:22
15455	MGS	02-048/19:10:48		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-048/18:55:22
15456	MGS	02-048/19:10:48		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-048/18:55:22
15457	MGS	02-048/19:10:48	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
15458	MGS	02-048/19:10:48	15	NOTE: Carrier Only -- No Telemetry Modulation		
15459	MGS	02-048/19:13:00		NOTE: Enter Planetary Atmosphere 13174		02-048/18:57:35
15460	MGS	02-048/19:13:48		NOTE: Apoapsis 13174 -		02-048/18:58:22
15461	MGS	02-048/19:17:01		NOTE: Enter Earth Occultation 13174		02-048/19:01:36
15462	MGS	02-048/19:17:01	15	NOTE: Loss Of X-Band Signal		
15463	MGS	02-048/19:17:29		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-048/19:02:03
15464	MGS	02-048/19:17:29		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-048/19:02:03
15465	MGS	02-048/19:17:29		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-048/19:02:03
15466	MGS	02-048/19:17:29		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-048/19:02:03
15467	MGS	02-048/19:17:30		NOTE: End EVP script		02-048/19:02:04
15468	MGS	02-048/19:17:30		Turn off the MOT Exciter and RPA beam	STRPAF	02-048/19:02:04
15469	MGS	02-048/19:17:34		NOTE: End fixed Sub-Reflector for Radio Science		02-048/19:02:08
15470	MGS	02-048/19:19:00		NOTE: Enter Solar Eclipse 13174		02-048/19:03:34
15471	MGS	02-048/19:19:00		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-048/19:03:34
15472	MGS	02-048/19:22:17	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
15473	MGS	02-048/19:24:18	15	Range Modulation On: SUP=3.0dB		
15474	MGS	02-048/19:25:18	15	Begin Ranging Acquisition		
15475	MGS	02-048/19:43:38		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-048/19:28:12
15476	MGS	02-048/19:43:38		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-048/19:28:12
15477	MGS	02-048/19:43:43		Set eclipse egress script address: 019A	SWSEES	02-048/19:28:17
15478	MGS	02-048/19:43:53		NOTE: Begin fixed Sub-Reflector for Radio Science		02-048/19:28:27
15479	MGS	02-048/19:47:38		: 01:27:39	RPAONX	02-048/19:32:12
15480	MGS	02-048/19:47:38		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-048/19:32:12
15481	MGS	02-048/19:48:53		: 00:00:30, 00:06:58, FALSE	RDSCIE	02-048/19:33:27
15482	MGS	02-048/19:48:53		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-048/19:33:27

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
15483	MGS	02-048/19:48:53		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-048/19:33:27
15484	MGS	02-048/19:48:53		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-048/19:33:27
15485	MGS	02-048/19:48:53		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-048/19:33:27
15486	MGS	02-048/19:49:24		NOTE: Exit Earth Occultation 13174		02-048/19:33:58
15487	MGS	02-048/19:49:24	15	Acquisition Of X-Band Signal		
15488	MGS	02-048/19:49:24	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
15489	MGS	02-048/19:49:24	15	NOTE: Carrier Only -- No Telemetry Modulation		
15490	MGS	02-048/19:53:43		NOTE: Exit Planetary Atmosphere 13174		02-048/19:38:17
15491	MGS	02-048/19:55:51		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-048/19:40:25
15492	MGS	02-048/19:55:51		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-048/19:40:25
15493	MGS	02-048/19:55:51		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-048/19:40:25
15494	MGS	02-048/19:55:51		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-048/19:40:25
15495	MGS	02-048/19:55:51	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
15496	MGS	02-048/19:55:52		: RTM, MRC, 01:12:43, S&E_2A, FALSE, 00:06:42	AEMRT	02-048/19:40:26
15497	MGS	02-048/19:55:52		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-048/19:40:26
15498	MGS	02-048/19:55:52		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-048/19:40:26
15499	MGS	02-048/19:55:52	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
15500	MGS	02-048/19:55:56		NOTE: End fixed Sub-Reflector for Radio Science		02-048/19:40:30
15501	MGS	02-048/19:59:26		NOTE: Exit Solar Eclipse 13174		02-048/19:44:00
15502	MGS	02-048/20:12:30		NOTE: Periapsis 13175 ----------		02-048/19:57:04
15503	MGS	02-048/20:20:25		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-048/20:04:59
15504	MGS	02-048/20:20:25		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-048/20:04:59
15505	MGS	02-048/20:20:26		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-048/20:05:00
15506	MGS	02-048/20:20:26		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-048/20:05:00
15507	MGS	02-048/20:25:11	15	NOTE: Transmitter Off in 15 minutes		
15508	MGS	02-048/20:38:12	15	Range Modulation Off		
15509	MGS	02-048/20:40:11	15	Transmitter Off		
15510	MGS	02-048/20:42:26		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-048/20:27:00
15511	MGS	02-048/20:42:26		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-048/20:27:00
15512	MGS	02-048/21:03:35		NOTE: Begin fixed Sub-Reflector for Radio Science		02-048/20:48:09
15513	MGS	02-048/21:06:47		NOTE: Start EVP data return script		02-048/20:51:21
15514	MGS	02-048/21:08:35		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-048/20:53:09
15515	MGS	02-048/21:08:35		: 00:06:41, FALSE	RDSCII	02-048/20:53:09
15516	MGS	02-048/21:08:35		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-048/20:53:09
15517	MGS	02-048/21:08:35		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-048/20:53:09
15518	MGS	02-048/21:08:35		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-048/20:53:09
15519	MGS	02-048/21:08:35		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-048/20:53:09
15520	MGS	02-048/21:08:35	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
15521	MGS	02-048/21:08:35	15	NOTE: Carrier Only -- No Telemetry Modulation		
15522	MGS	02-048/21:10:48		NOTE: Enter Planetary Atmosphere 13175		02-048/20:55:21
15523	MGS	02-048/21:11:22		NOTE: Apoapsis 13175 -		02-048/20:55:56
15524	MGS	02-048/21:14:48		NOTE: Enter Earth Occultation 13175		02-048/20:59:22
15525	MGS	02-048/21:14:48	15	NOTE: Loss Of X-Band Signal		
15526	MGS	02-048/21:15:17		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-048/20:59:50
15527	MGS	02-048/21:15:17		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-048/20:59:50
15528	MGS	02-048/21:15:17		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-048/20:59:50
15529	MGS	02-048/21:15:17		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-048/20:59:50
15530	MGS	02-048/21:15:17		NOTE: End EVP script		02-048/20:59:51
15531	MGS	02-048/21:15:18		Turn off the MOT Exciter and RPA beam	STRPAF	02-048/20:59:51
15532	MGS	02-048/21:15:21		NOTE: End fixed Sub-Reflector for Radio Science		02-048/20:59:55
15533	MGS	02-048/21:16:47		NOTE: Enter Solar Eclipse 13175		02-048/21:01:21
15534	MGS	02-048/21:16:48		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-048/21:01:21
15535	MGS	02-048/21:20:04	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
15536	MGS	02-048/21:22:04	15	Range Modulation On: SUP=3.0dB		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
15537	MGS	02-048/21:23:04	15	Begin Ranging Acquisition		
15538	MGS	02-048/21:41:27		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-048/21:26:00
15539	MGS	02-048/21:41:27		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-048/21:26:00
15540	MGS	02-048/21:41:32		Set eclipse egress script address: 01DC	SWSEES	02-048/21:26:05
15541	MGS	02-048/21:41:40		NOTE: Begin fixed Sub-Reflector for Radio Science		02-048/21:26:14
15542	MGS	02-048/21:45:26		: 01:27:39	RPAONX	02-048/21:29:59
15543	MGS	02-048/21:45:26		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-048/21:29:59
15544	MGS	02-048/21:46:41		: 00:00:30, 00:06:58, FALSE	RDSCIE	02-048/21:31:14
15545	MGS	02-048/21:46:41		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-048/21:31:14
15546	MGS	02-048/21:46:41		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-048/21:31:14
15547	MGS	02-048/21:46:41		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-048/21:31:14
15548	MGS	02-048/21:46:41		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-048/21:31:14
15549	MGS	02-048/21:47:11		NOTE: Exit Earth Occultation 13175		02-048/21:31:45
15550	MGS	02-048/21:47:11	15	Acquisition Of X-Band Signal		
15551	MGS	02-048/21:47:11	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
15552	MGS	02-048/21:47:11	15	NOTE: Carrier Only -- No Telemetry Modulation		
15553	MGS	02-048/21:51:30		NOTE: Exit Planetary Atmosphere 13175		02-048/21:36:04
15554	MGS	02-048/21:53:39		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-048/21:38:12
15555	MGS	02-048/21:53:39		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-048/21:38:12
15556	MGS	02-048/21:53:39		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-048/21:38:12
15557	MGS	02-048/21:53:39		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-048/21:38:12
15558	MGS	02-048/21:53:39	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
15559	MGS	02-048/21:53:40		: RTM, MRC, 01:12:43, S&E_2A, FALSE, 00:06:42	AEMRT	02-048/21:38:13
15560	MGS	02-048/21:53:40		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-048/21:38:13
15561	MGS	02-048/21:53:40		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-048/21:38:13
15562	MGS	02-048/21:53:40	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
15563	MGS	02-048/21:53:43		NOTE: End fixed Sub-Reflector for Radio Science		02-048/21:38:17
15564	MGS	02-048/21:57:13		NOTE: Exit Solar Eclipse 13175		02-048/21:41:47
15565	MGS	02-048/22:10:12		NOTE: Periapsis 13176 ----------		02-048/21:54:45
15566	MGS	02-048/22:18:12		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-048/22:02:45
15567	MGS	02-048/22:18:12		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-048/22:02:45
15568	MGS	02-048/22:18:13		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-048/22:02:46
15569	MGS	02-048/22:18:13		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-048/22:02:46
15570	MGS	02-048/22:22:56	15	NOTE: Transmitter Off in 15 minutes		
15571	MGS	02-048/22:28:45		NOTE: Start Block (SSRMGR)		02-048/22:13:18
15572	MGS	02-048/22:28:45		Sends a one-word SSR command to the XSU command SOB: SSR_1A, SE_1A, RECORD, PART3	STSSRC	02-048/22:13:18
15573	MGS	02-048/22:28:46		SSR 1A Data Enable	CSD1AE	02-048/22:13:19
15574	MGS	02-048/22:28:46		SSR Activity: ID=SSR_1A, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-048/22:13:19
15575	MGS	02-048/22:35:56	15	Range Modulation Off		
15576	MGS	02-048/22:37:56	15	Transmitter Off		
15577	MGS	02-048/22:40:13		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-048/22:24:46
15578	MGS	02-048/22:40:13		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-048/22:24:46
15579	MGS	02-048/22:55:26		SSR 1B Data Disable	CSD1BX	02-048/22:39:59
15580	MGS	02-048/22:55:26		SSR Activity: ID=SSR_1B, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-048/22:39:59
15581	MGS	02-048/22:55:27		NOTE: End Block (SSRMGR)		02-048/22:40:00
15582	MGS	02-048/23:01:22		NOTE: Begin fixed Sub-Reflector for Radio Science		02-048/22:45:56
15583	MGS	02-048/23:04:33		NOTE: Start EVP data return script		02-048/22:49:06
15584	MGS	02-048/23:06:23		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-048/22:50:56
15585	MGS	02-048/23:06:23		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=3, BITS=18056000, DUR=00:37:37		02-048/22:50:56
15586	MGS	02-048/23:06:23		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-048/22:50:56
15587	MGS	02-048/23:06:23		: 00:06:41, FALSE	RDSCII	02-048/22:50:56
15588	MGS	02-048/23:06:23		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-048/22:50:56
15589	MGS	02-048/23:06:23		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-048/22:50:56
15590	MGS	02-048/23:06:23		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-048/22:50:56

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
15591	MGS	02-048/23:06:23		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-048/22:50:56
15592	MGS	02-048/23:06:23	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
15593	MGS	02-048/23:06:23	15	NOTE: Carrier Only -- No Telemetry Modulation		
15594	MGS	02-048/23:08:32		NOTE: Enter Planetary Atmosphere 13176		02-048/22:53:06
15595	MGS	02-048/23:08:45		NOTE: Start Block (SSRMGR)		02-048/22:53:18
15596	MGS	02-048/23:08:45		Sends a one-word SSR command to the XSU command SOB: SSR_1B, SE_1A, RECORD, PART3	STSSRC	02-048/22:53:18
15597	MGS	02-048/23:08:46		SSR 1B Data Enable	CSD1BE	02-048/22:53:19
15598	MGS	02-048/23:08:46		SSR Activity: ID=SSR_1B, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-048/22:53:19
15599	MGS	02-048/23:08:52		NOTE: Apoapsis 13176 -		02-048/22:53:26
15600	MGS	02-048/23:12:34		NOTE: Enter Earth Occultation 13176		02-048/22:57:07
15601	MGS	02-048/23:12:34	15	NOTE: Loss Of X-Band Signal		
15602	MGS	02-048/23:13:04		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-048/22:57:37
15603	MGS	02-048/23:13:04		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-048/22:57:37
15604	MGS	02-048/23:13:04		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-048/22:57:37
15605	MGS	02-048/23:13:04		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-048/22:57:37
15606	MGS	02-048/23:13:04		NOTE: End EVP script		02-048/22:57:38
15607	MGS	02-048/23:13:05		Turn off the MOT Exciter and RPA beam	STRPAF	02-048/22:57:38
15608	MGS	02-048/23:13:08		NOTE: End fixed Sub-Reflector for Radio Science		02-048/22:57:42
15609	MGS	02-048/23:14:32		NOTE: Enter Solar Eclipse 13176		02-048/22:59:06
15610	MGS	02-048/23:14:33		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-048/22:59:06
15611	MGS	02-048/23:17:49	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
15612	MGS	02-048/23:19:50	15	Range Modulation On: SUP=3.0dB		
15613	MGS	02-048/23:20:50	15	Begin Ranging Acquisition		
15614	MGS	02-048/23:35:26		SSR 1A Data Disable	CSD1AX	02-048/23:19:59
15615	MGS	02-048/23:35:26		SSR Activity: ID=SSR_1A, FCN=End Recording, PRT=3, BITS=32000000, DUR=01:06:40		02-048/23:19:59
15616	MGS	02-048/23:35:27		NOTE: End Block (SSRMGR)		02-048/23:20:00
15617	MGS	02-048/23:39:13		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-048/23:23:46
15618	MGS	02-048/23:39:13		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-048/23:23:46
15619	MGS	02-048/23:39:17		Command the PSE with included data word: 3990	SWPSEL	02-048/23:23:50
15620	MGS	02-048/23:39:18		Set eclipse egress script address: 0158	SWSEES	02-048/23:23:51
15621	MGS	02-048/23:39:25		NOTE: Begin fixed Sub-Reflector for Radio Science		02-048/23:23:59
15622	MGS	02-048/23:43:11		: 01:27:39	RPAONX	02-048/23:27:44
15623	MGS	02-048/23:43:11		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-048/23:27:44
15624	MGS	02-048/23:44:26		: 00:00:30, 00:06:58, FALSE	RDSCIE	02-048/23:28:59
15625	MGS	02-048/23:44:26		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-048/23:28:59
15626	MGS	02-048/23:44:26		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-048/23:28:59
15627	MGS	02-048/23:44:26		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-048/23:28:59
15628	MGS	02-048/23:44:26		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-048/23:28:59
15629	MGS	02-048/23:44:56		Disables autonomous command to send eclipse ingress script	SWEISX	02-048/23:29:29
15630	MGS	02-048/23:44:57		NOTE: Exit Earth Occultation 13176		02-048/23:29:30
15631	MGS	02-048/23:44:57	15	Acquisition Of X-Band Signal		
15632	MGS	02-048/23:44:57	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
15633	MGS	02-048/23:44:57	15	NOTE: Carrier Only -- No Telemetry Modulation		
15634	MGS	02-048/23:49:16		NOTE: Exit Planetary Atmosphere 13176		02-048/23:33:49
15635	MGS	02-048/23:51:24		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-048/23:35:57
15636	MGS	02-048/23:51:24		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-048/23:35:57
15637	MGS	02-048/23:51:24		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-048/23:35:57
15638	MGS	02-048/23:51:24		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-048/23:35:57
15639	MGS	02-048/23:51:24	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
15640	MGS	02-048/23:51:25		: RTM, MRC, 01:12:43, S&E_2A, FALSE, 00:06:42	AEMRT	02-048/23:35:58
15641	MGS	02-048/23:51:25		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-048/23:35:58
15642	MGS	02-048/23:51:25		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-048/23:35:58
15643	MGS	02-048/23:51:25		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=3, BITS=20472000, DUR=00:42:39		02-048/23:35:58
15644	MGS	02-048/23:51:25		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-048/23:35:58

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
15645	MGS	02-048/23:51:25	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
15646	MGS	02-048/23:51:28		NOTE: End fixed Sub-Reflector for Radio Science		02-048/23:36:02
15647	MGS	02-048/23:54:58		NOTE: Exit Solar Eclipse 13176		02-048/23:39:31
15648	MGS	02-049/00:00:00		Light Time: OWLT = 15:26, RTLT = 30:53		
15649	MGS	02-049/00:07:57		NOTE: Periapsis 13177 ----------		02-048/23:52:31
15650	MGS	02-049/00:15:25		NOTE: Start Block (SSRMGR)		02-048/23:59:58
15651	MGS	02-049/00:15:25		Sends a one-word SSR command to the XSU command SOB: SSR_2A, SE_1A, RECORD, PART1	STSSRC	02-048/23:59:58
15652	MGS	02-049/00:15:26		SSR 2A Data Enable	CSD2AE	02-048/23:59:59
15653	MGS	02-049/00:15:26		SSR Activity: ID=SSR_2A, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-048/23:59:59
15654	MGS	02-049/00:19:57		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-049/00:04:30
15655	MGS	02-049/00:19:57		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-049/00:04:30
15656	MGS	02-049/00:19:58		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-049/00:04:31
15657	MGS	02-049/00:19:58		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-049/00:04:31
15658	MGS	02-049/00:20:38	15	NOTE: Transmitter Off in 15 minutes		
15659	MGS	02-049/00:33:39	15	Range Modulation Off		
15660	MGS	02-049/00:35:38	15	Transmitter Off		
15661	MGS	02-049/00:41:58		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-049/00:26:31
15662	MGS	02-049/00:41:58		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-049/00:26:31
15663	MGS	02-049/00:42:06		SSR 1B Data Disable	CSD1BX	02-049/00:26:39
15664	MGS	02-049/00:42:06		SSR Activity: ID=SSR_1B, FCN=End Recording, PRT=3, BITS=44800000, DUR=01:33:20		02-049/00:26:39
15665	MGS	02-049/00:42:07		NOTE: End Block (SSRMGR)		02-049/00:26:40
15666	MGS	02-049/00:59:08		NOTE: Begin fixed Sub-Reflector for Radio Science		02-049/00:43:41
15667	MGS	02-049/01:02:14		NOTE: Start Block (MAP_PB)		02-049/00:46:47
15668	MGS	02-049/01:02:15		: 00:28:41, 01:27:35, FALSE, TRUE, FALSE, 00:01:15, 00:06:59, 01:12:39, 00:06:41	AEMINI	02-049/00:46:48
15669	MGS	02-049/01:02:15		Enable sending eclipse ingress script when array power disappears	SWEISE	02-049/00:46:48
15670	MGS	02-049/01:02:15		NOTE: Start EVP data return script		02-049/00:46:48
15671	MGS	02-049/01:02:16		: SSR_1A, F42KHZ, PART1, SE_1A, 2002-049T01:33:44.000	AEMPBI	02-049/00:46:49
15672	MGS	02-049/01:04:08		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-049/00:48:41
15673	MGS	02-049/01:04:08		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=1, BITS=23376000, DUR=00:48:42		02-049/00:48:41
15674	MGS	02-049/01:04:08		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-049/00:48:41
15675	MGS	02-049/01:04:08		: 00:06:41, FALSE	RDSCII	02-049/00:48:41
15676	MGS	02-049/01:04:08		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-049/00:48:41
15677	MGS	02-049/01:04:08		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-049/00:48:41
15678	MGS	02-049/01:04:08		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-049/00:48:41
15679	MGS	02-049/01:04:08		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-049/00:48:41
15680	MGS	02-049/01:04:08	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
15681	MGS	02-049/01:04:08	15	NOTE: Carrier Only -- No Telemetry Modulation		
15682	MGS	02-049/01:06:15		NOTE: Enter Planetary Atmosphere 13177		02-049/00:50:48
15683	MGS	02-049/01:06:43		NOTE: Apoapsis 13177 -		02-049/00:51:16
15684	MGS	02-049/01:10:17		NOTE: Enter Earth Occultation 13177		02-049/00:54:50
15685	MGS	02-049/01:10:17	15	NOTE: Loss Of X-Band Signal		
15686	MGS	02-049/01:10:49		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-049/00:55:22
15687	MGS	02-049/01:10:49		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-049/00:55:22
15688	MGS	02-049/01:10:49		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-049/00:55:22
15689	MGS	02-049/01:10:49		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-049/00:55:22
15690	MGS	02-049/01:10:50		NOTE: End EVP script		02-049/00:55:23
15691	MGS	02-049/01:10:50		Turn off the MOT Exciter and RPA beam	STRPAF	02-049/00:55:23
15692	MGS	02-049/01:10:51		NOTE: End Block (MAP_RT)		02-049/00:55:24
15693	MGS	02-049/01:10:54		NOTE: End fixed Sub-Reflector for Radio Science		02-049/00:55:27
15694	MGS	02-049/01:12:15		NOTE: Enter Solar Eclipse 13177		02-049/00:56:48
15695	MGS	02-049/01:12:15		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-049/00:56:48
15696	MGS	02-049/01:15:32	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
15697	MGS	02-049/01:17:33	15	Range Modulation On: SUP=3.0dB		
15698	MGS	02-049/01:18:33	15	Begin Ranging Acquisition		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
15699	MGS	02-049/01:36:58		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-049/01:21:31
15700	MGS	02-049/01:36:58		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-049/01:21:31
15701	MGS	02-049/01:37:03		Set eclipse egress script address: 019A	SWSEES	02-049/01:21:36
15702	MGS	02-049/01:37:11		NOTE: Begin fixed Sub-Reflector for Radio Science		02-049/01:21:44
15703	MGS	02-049/01:40:56		: 01:27:35	RPAONX	02-049/01:25:29
15704	MGS	02-049/01:40:56		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-049/01:25:29
15705	MGS	02-049/01:42:11		: 00:00:30, 00:06:59, FALSE	RDSCIE	02-049/01:26:44
15706	MGS	02-049/01:42:11		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-049/01:26:44
15707	MGS	02-049/01:42:11		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-049/01:26:44
15708	MGS	02-049/01:42:11		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-049/01:26:44
15709	MGS	02-049/01:42:11		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-049/01:26:44
15710	MGS	02-049/01:42:41		NOTE: Exit Earth Occultation 13177		02-049/01:27:14
15711	MGS	02-049/01:42:41	15	Acquisition Of X-Band Signal		
15712	MGS	02-049/01:42:41	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
15713	MGS	02-049/01:42:41	15	NOTE: Carrier Only -- No Telemetry Modulation		
15714	MGS	02-049/01:47:00		NOTE: Exit Planetary Atmosphere 13177		02-049/01:31:33
15715	MGS	02-049/01:49:10		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-049/01:33:43
15716	MGS	02-049/01:49:10		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-049/01:33:43
15717	MGS	02-049/01:49:10		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-049/01:33:43
15718	MGS	02-049/01:49:10		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-049/01:33:43
15719	MGS	02-049/01:49:10		: REC_1A, F42KHZ, PART1, SE_1A, FALSE, 00:10:42	AEMPB	02-049/01:33:43
15720	MGS	02-049/01:49:10		Sends a one-word MOT command to the XSU command SOB: SSR_1A	STMOTC	02-049/01:33:43
15721	MGS	02-049/01:49:10		Sends a one-word SSR command to the XSU command SOB: SSR_1A, F42KHZ, PLYBCK, PART1	STSSRC	02-049/01:33:43
15722	MGS	02-049/01:49:10	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
15723	MGS	02-049/01:49:11		SSR 1A Data Enable	CSD1AE	02-049/01:33:44
15724	MGS	02-049/01:49:11		SSR Activity: ID=SSR_1A, FCN=Start Playback, PRT=1, BR=42666		02-049/01:33:44
15725	MGS	02-049/01:49:11	15	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
15726	MGS	02-049/01:49:15		NOTE: End fixed Sub-Reflector for Radio Science		02-049/01:33:48
15727	MGS	02-049/01:52:41		NOTE: Exit Solar Eclipse 13177		02-049/01:37:14
15728	MGS	02-049/02:05:39		NOTE: Periapsis 13178 ----------		02-049/01:50:12
15729	MGS	02-049/02:13:40		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-049/01:58:13
15730	MGS	02-049/02:13:40		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-049/01:58:13
15731	MGS	02-049/02:13:41		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-049/01:58:14
15732	MGS	02-049/02:13:41		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-049/01:58:14
15733	MGS	02-049/02:18:20	15	NOTE: Transmitter Off in 15 minutes		
15734	MGS	02-049/02:31:21	15	Range Modulation Off		
15735	MGS	02-049/02:33:20	15	Transmitter Off		
15736	MGS	02-049/02:35:41		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-049/02:20:14
15737	MGS	02-049/02:35:41		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-049/02:20:14
15738	MGS	02-049/02:56:49		NOTE: Begin fixed Sub-Reflector for Radio Science		02-049/02:41:22
15739	MGS	02-049/02:57:49		SSR 1A Data Disable	CSD1AX	02-049/02:42:22
15740	MGS	02-049/02:57:49		SSR Activity: ID=SSR_1A, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-049/02:42:22
15741	MGS	02-049/02:57:49		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-049/02:42:22
15742	MGS	02-049/02:57:49	15	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
15743	MGS	02-049/02:59:57		NOTE: Start EVP data return script		02-049/02:44:30
15744	MGS	02-049/02:59:57		: SSR_1B, F42KHZ, PART1, 2002-049T03:31:26.000	AEMPBU	02-049/02:44:30
15745	MGS	02-049/03:01:49		: 00:06:41, FALSE	RDSCII	02-049/02:46:22
15746	MGS	02-049/03:01:49		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-049/02:46:22
15747	MGS	02-049/03:01:49		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-049/02:46:22
15748	MGS	02-049/03:01:49		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-049/02:46:22
15749	MGS	02-049/03:01:49		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-049/02:46:22
15750	MGS	02-049/03:01:49	15	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
15751	MGS	02-049/03:01:49	15	NOTE: Carrier Only -- No Telemetry Modulation		
15752	MGS	02-049/03:03:58		NOTE: Enter Planetary Atmosphere 13178		02-049/02:48:31

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
15753	MGS	02-049/03:04:27		NOTE: Apoapsis 13178 -		02-049/02:49:00
15754	MGS	02-049/03:07:59		NOTE: Enter Earth Occultation 13178		02-049/02:52:32
15755	MGS	02-049/03:07:59	15	NOTE: Loss Of X-Band Signal		
15756	MGS	02-049/03:08:30		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-049/02:53:03
15757	MGS	02-049/03:08:30		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-049/02:53:03
15758	MGS	02-049/03:08:30		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-049/02:53:03
15759	MGS	02-049/03:08:30		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-049/02:53:03
15760	MGS	02-049/03:08:31		NOTE: End EVP script		02-049/02:53:04
15761	MGS	02-049/03:08:31		Turn off the MOT Exciter and RPA beam	STRPAF	02-049/02:53:04
15762	MGS	02-049/03:08:35		NOTE: End fixed Sub-Reflector for Radio Science		02-049/02:53:08
15763	MGS	02-049/03:09:57		NOTE: Enter Solar Eclipse 13178		02-049/02:54:30
15764	MGS	02-049/03:09:57		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-049/02:54:30
15765	MGS	02-049/03:13:14	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
15766	MGS	02-049/03:15:14	15	Range Modulation On: SUP=3.0dB		
15767	MGS	02-049/03:16:14	15	Begin Ranging Acquisition		
15768	MGS	02-049/03:34:41		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-049/03:19:14
15769	MGS	02-049/03:34:41		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-049/03:19:14
15770	MGS	02-049/03:34:46		Set eclipse egress script address: 01DC	SWSEES	02-049/03:19:19
15771	MGS	02-049/03:34:53		NOTE: Begin fixed Sub-Reflector for Radio Science		02-049/03:19:26
15772	MGS	02-049/03:38:38		: 01:27:35	RPAONX	02-049/03:23:11
15773	MGS	02-049/03:38:38		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-049/03:23:11
15774	MGS	02-049/03:39:54		: 00:00:30, 00:06:59, FALSE	RDSCIE	02-049/03:24:26
15775	MGS	02-049/03:39:54		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-049/03:24:26
15776	MGS	02-049/03:39:54		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-049/03:24:26
15777	MGS	02-049/03:39:54		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-049/03:24:26
15778	MGS	02-049/03:39:54		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-049/03:24:26
15779	MGS	02-049/03:40:00	45	Begin Pre-Cal		
15780	MGS	02-049/03:40:00	45	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
15781	MGS	02-049/03:40:00	45	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
15782	MGS	02-049/03:40:00	45	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
15783	MGS	02-049/03:40:00	45	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
15784	MGS	02-049/03:40:00	45	At BOT: S/C Tlm Mode: BR=42666.7, FL=10000, SC=HIGH, MI=80.0		
15785	MGS	02-049/03:40:00	45	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
15786	MGS	02-049/03:40:00	45	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
15787	MGS	02-049/03:40:00	45	Config: TGC: DEST=37		
15788	MGS	02-049/03:40:00	45	Config: TGC: BAND=X, BR=42666.666667		
15789	MGS	02-049/03:40:00	45	Config: FSS: CH=2, PRI_FL=10000		
15790	MGS	02-049/03:40:00	45	Config: RSR		
15791	MGS	02-049/03:40:00	45	Config: TXL		
15792	MGS	02-049/03:40:00	45	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
15793	MGS	02-049/03:40:00	45	Config: BVR		
15794	MGS	02-049/03:40:00	45	Config: Doppler Extractor: BIAS=+1MHZ		
15795	MGS	02-049/03:40:00	45	Config: MDA: SMPL=0.1		
15796	MGS	02-049/03:40:00	45	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
15797	MGS	02-049/03:40:00	45	Config: SRA: HIGH=4, LOW=14, SERV=D		
15798	MGS	02-049/03:40:00	45	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
15799	MGS	02-049/03:40:23		NOTE: Exit Earth Occultation 13178		02-049/03:24:56
15800	MGS	02-049/03:40:23	15	Acquisition Of X-Band Signal		
15801	MGS	02-049/03:40:23	15	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
15802	MGS	02-049/03:40:23	15	NOTE: Carrier Only -- No Telemetry Modulation		
15803	MGS	02-049/03:44:42		NOTE: Exit Planetary Atmosphere 13178		02-049/03:29:15
15804	MGS	02-049/03:46:53		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-049/03:31:25
15805	MGS	02-049/03:46:53		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-049/03:31:25
15806	MGS	02-049/03:46:53		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-049/03:31:25

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
15807	MGS	02-049/03:46:53		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-049/03:31:25
15808	MGS	02-049/03:46:53		: REC_1B, F42KHZ, PART1, SE_1A, FALSE, 00:10:42	AEMPB	02-049/03:31:25
15809	MGS	02-049/03:46:53		Sends a one-word MOT command to the XSU command SOB: SSR_1B	STMOTC	02-049/03:31:25
15810	MGS	02-049/03:46:53		Sends a one-word SSR command to the XSU command SOB: SSR_1B, F42KHZ, PLYBCK, PART1	STSSRC	02-049/03:31:25
15811	MGS	02-049/03:46:53	15	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
15812	MGS	02-049/03:46:54		SSR 1B Data Enable	CSD1BE	02-049/03:31:26
15813	MGS	02-049/03:46:54		SSR Activity: ID=SSR_1B, FCN=Start Playback, PRT=1, BR=42666		02-049/03:31:26
15814	MGS	02-049/03:46:54	15	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
15815	MGS	02-049/03:46:57		NOTE: End fixed Sub-Reflector for Radio Science		02-049/03:31:30
15816	MGS	02-049/03:50:23		NOTE: Exit Solar Eclipse 13178		02-049/03:34:55
15817	MGS	02-049/04:03:02		NOTE: Periapsis 13179 ----------		02-049/03:47:35
15818	MGS	02-049/04:11:22		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-049/03:55:54
15819	MGS	02-049/04:11:22		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-049/03:55:54
15820	MGS	02-049/04:11:23		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-049/03:55:55
15821	MGS	02-049/04:11:23		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-049/03:55:55
15822	MGS	02-049/04:16:02	15	NOTE: Transmitter Off in 15 minutes		
15823	MGS	02-049/04:29:03	15	Range Modulation Off		
15824	MGS	02-049/04:31:02	15	Transmitter Off		
15825	MGS	02-049/04:33:23		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-049/04:17:55
15826	MGS	02-049/04:33:23		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-049/04:17:55
15827	MGS	02-049/04:40:00	45	Begin Tracking		
15828	MGS	02-049/04:40:00	45	Acquire D/L: X/16, 3-Way/15, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
15829	MGS	02-049/04:49:57	15	NOTE: Below Uplink Interlock Limit		
15830	MGS	02-049/04:54:31		NOTE: Begin fixed Sub-Reflector for Radio Science		02-049/04:39:04
15831	MGS	02-049/04:55:32		SSR 1B Data Disable	CSD1BX	02-049/04:40:04
15832	MGS	02-049/04:55:32		SSR Activity: ID=SSR_1B, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-049/04:40:04
15833	MGS	02-049/04:55:32		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-049/04:40:04
15834	MGS	02-049/04:55:32	15	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
15835	MGS	02-049/04:55:32	45	D/L Change: X/16, 3-Way/15, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
15836	MGS	02-049/04:57:41		NOTE: Start EVP data return script		02-049/04:42:13
15837	MGS	02-049/04:57:41		: SSR_1A, F42KHZ, PART2, 2002-049T05:29:09.000	AEMPBU	02-049/04:42:13
15838	MGS	02-049/04:59:32		: 00:06:41, FALSE	RDSCII	02-049/04:44:04
15839	MGS	02-049/04:59:32		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-049/04:44:04
15840	MGS	02-049/04:59:32		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-049/04:44:04
15841	MGS	02-049/04:59:32		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-049/04:44:04
15842	MGS	02-049/04:59:32		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-049/04:44:04
15843	MGS	02-049/04:59:32	15	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
15844	MGS	02-049/04:59:32	15	NOTE: Carrier Only -- No Telemetry Modulation		
15845	MGS	02-049/04:59:32	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
15846	MGS	02-049/04:59:32	45	NOTE: Carrier Only -- No Telemetry Modulation		
15847	MGS	02-049/05:00:00	15	End Tracking		
15848	MGS	02-049/05:01:41		NOTE: Enter Planetary Atmosphere 13179		02-049/04:46:14
15849	MGS	02-049/05:01:51		NOTE: Apoapsis 13179 -		02-049/04:46:24
15850	MGS	02-049/05:05:42		NOTE: Enter Earth Occultation 13179		02-049/04:50:15
15851	MGS	02-049/05:05:42	45	NOTE: Loss Of X-Band Signal		
15852	MGS	02-049/05:06:13		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-049/04:50:45
15853	MGS	02-049/05:06:13		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-049/04:50:45
15854	MGS	02-049/05:06:13		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-049/04:50:45
15855	MGS	02-049/05:06:13		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-049/04:50:45
15856	MGS	02-049/05:06:13		NOTE: End EVP script		02-049/04:50:46
15857	MGS	02-049/05:06:14		Turn off the MOT Exciter and RPA beam	STRPAF	02-049/04:50:46
15858	MGS	02-049/05:06:17		NOTE: End fixed Sub-Reflector for Radio Science		02-049/04:50:50
15859	MGS	02-049/05:07:40		NOTE: Enter Solar Eclipse 13179		02-049/04:52:13

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
15860	MGS	02-049/05:07:41		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-049/04:52:13
15861	MGS	02-049/05:10:56	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
15862	MGS	02-049/05:12:56	45	Range Modulation On: SUP=3.0dB		
15863	MGS	02-049/05:13:56	45	Begin Ranging Acquisition		
15864	MGS	02-049/05:15:00	15	End Post-Cal		
15865	MGS	02-049/05:32:23		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-049/05:16:55
15866	MGS	02-049/05:32:23		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-049/05:16:55
15867	MGS	02-049/05:32:27		Command the PSE with included data word: 3990	SWPSEL	02-049/05:16:59
15868	MGS	02-049/05:32:28		Set eclipse egress script address: 0158	SWSEES	02-049/05:17:00
15869	MGS	02-049/05:32:36		NOTE: Begin fixed Sub-Reflector for Radio Science		02-049/05:17:09
15870	MGS	02-049/05:36:22		: 01:27:35	RPAONX	02-049/05:20:54
15871	MGS	02-049/05:36:22		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-049/05:20:54
15872	MGS	02-049/05:37:37		: 00:00:30, 00:06:59, FALSE	RDSCIE	02-049/05:22:09
15873	MGS	02-049/05:37:37		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-049/05:22:09
15874	MGS	02-049/05:37:37		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-049/05:22:09
15875	MGS	02-049/05:37:37		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-049/05:22:09
15876	MGS	02-049/05:37:37		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-049/05:22:09
15877	MGS	02-049/05:38:06		NOTE: Exit Earth Occultation 13179		02-049/05:22:38
15878	MGS	02-049/05:38:06	45	Acquisition Of X-Band Signal		
15879	MGS	02-049/05:38:06	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
15880	MGS	02-049/05:38:06	45	NOTE: Carrier Only -- No Telemetry Modulation		
15881	MGS	02-049/05:42:24		NOTE: Exit Planetary Atmosphere 13179		02-049/05:26:57
15882	MGS	02-049/05:44:36		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-049/05:29:08
15883	MGS	02-049/05:44:36		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-049/05:29:08
15884	MGS	02-049/05:44:36		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-049/05:29:08
15885	MGS	02-049/05:44:36		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-049/05:29:08
15886	MGS	02-049/05:44:36		: REC_1A, F42KHZ, PART2, SE_1A, FALSE, 00:10:42	AEMPB	02-049/05:29:08
15887	MGS	02-049/05:44:36		Sends a one-word MOT command to the XSU command SOB: SSR_1A	STMOTC	02-049/05:29:08
15888	MGS	02-049/05:44:36		Sends a one-word SSR command to the XSU command SOB: SSR_1A, F42KHZ, PLYBCK, PART2	STSSRC	02-049/05:29:08
15889	MGS	02-049/05:44:36	45	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
15890	MGS	02-049/05:44:37		SSR 1A Data Enable	CSD1AE	02-049/05:29:09
15891	MGS	02-049/05:44:37		SSR Activity: ID=SSR_1A, FCN=Start Playback, PRT=2, BR=42666		02-049/05:29:09
15892	MGS	02-049/05:44:37	45	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
15893	MGS	02-049/05:44:41		NOTE: End fixed Sub-Reflector for Radio Science		02-049/05:29:13
15894	MGS	02-049/05:48:05		NOTE: Exit Solar Eclipse 13179		02-049/05:32:38
15895	MGS	02-049/05:48:46		NOTE: Start Block (SSRMGR)		02-049/05:33:18
15896	MGS	02-049/05:48:46		Sends a one-word SSR command to the XSU command SOB: SSR_2B, SE_1A, RECORD, PART1	STSSRC	02-049/05:33:18
15897	MGS	02-049/05:48:47		SSR 2B Data Enable	CSD2BE	02-049/05:33:19
15898	MGS	02-049/05:48:47		SSR Activity: ID=SSR_2B, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-049/05:33:19
15899	MGS	02-049/06:00:41		NOTE: Periapsis 13180 ----------		02-049/05:45:14
15900	MGS	02-049/06:13:05		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-049/05:57:37
15901	MGS	02-049/06:13:05		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-049/05:57:37
15902	MGS	02-049/06:13:06		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-049/05:57:38
15903	MGS	02-049/06:13:06		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-049/05:57:38
15904	MGS	02-049/06:13:46	45	NOTE: Transmitter Off in 15 minutes		
15905	MGS	02-049/06:15:27		SSR 2A Data Disable	CSD2AX	02-049/05:59:59
15906	MGS	02-049/06:15:27		SSR Activity: ID=SSR_2A, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-049/05:59:59
15907	MGS	02-049/06:15:28		NOTE: End Block (SSRMGR)		02-049/06:00:00
15908	MGS	02-049/06:26:46	45	Range Modulation Off		
15909	MGS	02-049/06:28:46	45	Transmitter Off		
15910	MGS	02-049/06:35:06		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-049/06:19:38
15911	MGS	02-049/06:35:06		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-049/06:19:38
15912	MGS	02-049/06:52:15		NOTE: Begin fixed Sub-Reflector for Radio Science		02-049/06:36:47
15913	MGS	02-049/06:53:15		SSR 1A Data Disable	CSD1AX	02-049/06:37:47

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
15914	MGS	02-049/06:53:15		SSR Activity: ID=SSR_1A, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-049/06:37:47
15915	MGS	02-049/06:53:15		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-049/06:37:47
15916	MGS	02-049/06:53:15	45	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
15917	MGS	02-049/06:55:26		NOTE: Start EVP data return script		02-049/06:39:58
15918	MGS	02-049/06:55:26		: SSR_1B, F42KHZ, PART2, 2002-049T07:26:54.000	AEMPBU	02-049/06:39:58
15919	MGS	02-049/06:57:15		: 00:06:41, FALSE	RDSCII	02-049/06:41:47
15920	MGS	02-049/06:57:15		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-049/06:41:47
15921	MGS	02-049/06:57:15		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-049/06:41:47
15922	MGS	02-049/06:57:15		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-049/06:41:47
15923	MGS	02-049/06:57:15		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-049/06:41:47
15924	MGS	02-049/06:57:15	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
15925	MGS	02-049/06:57:15	45	NOTE: Carrier Only -- No Telemetry Modulation		
15926	MGS	02-049/06:59:25		NOTE: Enter Planetary Atmosphere 13180		02-049/06:43:58
15927	MGS	02-049/06:59:40		NOTE: Apoapsis 13180 -		02-049/06:44:13
15928	MGS	02-049/07:03:26		NOTE: Enter Earth Occultation 13180		02-049/06:47:58
15929	MGS	02-049/07:03:26	45	NOTE: Loss Of X-Band Signal		
15930	MGS	02-049/07:03:56		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-049/06:48:28
15931	MGS	02-049/07:03:56		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-049/06:48:28
15932	MGS	02-049/07:03:56		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-049/06:48:28
15933	MGS	02-049/07:03:56		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-049/06:48:28
15934	MGS	02-049/07:03:57		NOTE: End EVP script		02-049/06:48:29
15935	MGS	02-049/07:03:57		Turn off the MOT Exciter and RPA beam	STRPAF	02-049/06:48:29
15936	MGS	02-049/07:04:01		NOTE: End fixed Sub-Reflector for Radio Science		02-049/06:48:33
15937	MGS	02-049/07:05:25		NOTE: Enter Solar Eclipse 13180		02-049/06:49:58
15938	MGS	02-049/07:05:26		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-049/06:49:58
15939	MGS	02-049/07:08:41	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
15940	MGS	02-049/07:10:41	45	Range Modulation On: SUP=3.0dB		
15941	MGS	02-049/07:11:41	45	Begin Ranging Acquisition		
15942	MGS	02-049/07:30:06		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-049/07:14:38
15943	MGS	02-049/07:30:06		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-049/07:14:38
15944	MGS	02-049/07:30:11		Set eclipse egress script address: 019A	SWSEES	02-049/07:14:43
15945	MGS	02-049/07:30:22		NOTE: Begin fixed Sub-Reflector for Radio Science		02-049/07:14:54
15946	MGS	02-049/07:34:07		: 01:27:35	RPAONX	02-049/07:18:39
15947	MGS	02-049/07:34:07		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-049/07:18:39
15948	MGS	02-049/07:35:22		: 00:00:30, 00:06:59, FALSE	RDSCIE	02-049/07:19:54
15949	MGS	02-049/07:35:22		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-049/07:19:54
15950	MGS	02-049/07:35:22		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-049/07:19:54
15951	MGS	02-049/07:35:22		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-049/07:19:54
15952	MGS	02-049/07:35:22		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-049/07:19:54
15953	MGS	02-049/07:35:51		NOTE: Exit Earth Occultation 13180		02-049/07:20:23
15954	MGS	02-049/07:35:51	45	Acquisition Of X-Band Signal		
15955	MGS	02-049/07:35:51	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
15956	MGS	02-049/07:35:51	45	NOTE: Carrier Only -- No Telemetry Modulation		
15957	MGS	02-049/07:35:52		Disables autonomous command to send eclipse ingress script	SWEISX	02-049/07:20:24
15958	MGS	02-049/07:40:08		NOTE: Exit Planetary Atmosphere 13180		02-049/07:24:41
15959	MGS	02-049/07:42:21		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-049/07:26:53
15960	MGS	02-049/07:42:21		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-049/07:26:53
15961	MGS	02-049/07:42:21		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-049/07:26:53
15962	MGS	02-049/07:42:21		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-049/07:26:53
15963	MGS	02-049/07:42:21		: REC_1B, F42KHZ, PART2, SE_1A, FALSE, 00:10:42	AEMPB	02-049/07:26:53
15964	MGS	02-049/07:42:21		Sends a one-word MOT command to the XSU command SOB: SSR_1B	STMOTC	02-049/07:26:53
15965	MGS	02-049/07:42:21		Sends a one-word SSR command to the XSU command SOB: SSR_1B, F42KHZ, PLYBCK, PART2	STSSRC	02-049/07:26:53
15966	MGS	02-049/07:42:21	45	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
15967	MGS	02-049/07:42:22		SSR 1B Data Enable	CSD1BE	02-049/07:26:54

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
15968	MGS	02-049/07:42:22		SSR Activity: ID=SSR_1B, FCN=Start Playback, PRT=2, BR=42666		02-049/07:26:54
15969	MGS	02-049/07:42:22	45	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
15970	MGS	02-049/07:42:26		NOTE: End fixed Sub-Reflector for Radio Science		02-049/07:26:58
15971	MGS	02-049/07:45:51		NOTE: Exit Solar Eclipse 13180		02-049/07:30:23
15972	MGS	02-049/07:58:50		NOTE: Periapsis 13181 ----------		02-049/07:43:23
15973	MGS	02-049/08:06:50		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-049/07:51:22
15974	MGS	02-049/08:06:50		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-049/07:51:22
15975	MGS	02-049/08:06:51		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-049/07:51:23
15976	MGS	02-049/08:06:51		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-049/07:51:23
15977	MGS	02-049/08:11:31	45	NOTE: Transmitter Off in 15 minutes		
15978	MGS	02-049/08:24:32	45	Range Modulation Off		
15979	MGS	02-049/08:26:31	45	Transmitter Off		
15980	MGS	02-049/08:28:51		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-049/08:13:23
15981	MGS	02-049/08:28:51		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-049/08:13:23
15982	MGS	02-049/08:50:00		NOTE: Begin fixed Sub-Reflector for Radio Science		02-049/08:34:32
15983	MGS	02-049/08:51:00		SSR 1B Data Disable	CSD1BX	02-049/08:35:32
15984	MGS	02-049/08:51:00		SSR Activity: ID=SSR_1B, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-049/08:35:32
15985	MGS	02-049/08:51:00		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-049/08:35:32
15986	MGS	02-049/08:51:00	45	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
15987	MGS	02-049/08:53:11		NOTE: Start Block (MAP_RT)		02-049/08:37:43
15988	MGS	02-049/08:53:12		: 00:28:41, 01:27:34, FALSE, TRUE, FALSE, 00:01:15, 00:06:59, 01:12:38, 00:06:41	AEMINI	02-049/08:37:44
15989	MGS	02-049/08:53:12		Enable sending eclipse ingress script when array power disappears	SWEISE	02-049/08:37:44
15990	MGS	02-049/08:53:12		NOTE: Start EVP data return script		02-049/08:37:44
15991	MGS	02-049/08:53:13		: SE_2A, RTM, 01:12:37, MRC, 2002-049T09:24:41.000	AEMRTI	02-049/08:37:45
15992	MGS	02-049/08:55:00		: 00:06:41, FALSE	RDSCII	02-049/08:39:32
15993	MGS	02-049/08:55:00		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-049/08:39:32
15994	MGS	02-049/08:55:00		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-049/08:39:32
15995	MGS	02-049/08:55:00		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-049/08:39:32
15996	MGS	02-049/08:55:00		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-049/08:39:32
15997	MGS	02-049/08:55:00	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
15998	MGS	02-049/08:55:00	45	NOTE: Carrier Only -- No Telemetry Modulation		
15999	MGS	02-049/08:57:11		NOTE: Enter Planetary Atmosphere 13181		02-049/08:41:43
16000	MGS	02-049/08:57:58		NOTE: Apoapsis 13181 -		02-049/08:42:30
16001	MGS	02-049/09:01:12		NOTE: Enter Earth Occultation 13181		02-049/08:45:44
16002	MGS	02-049/09:01:12	45	NOTE: Loss Of X-Band Signal		
16003	MGS	02-049/09:01:41		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-049/08:46:13
16004	MGS	02-049/09:01:41		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-049/08:46:13
16005	MGS	02-049/09:01:41		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-049/08:46:13
16006	MGS	02-049/09:01:41		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-049/08:46:13
16007	MGS	02-049/09:01:42		NOTE: End EVP script		02-049/08:46:14
16008	MGS	02-049/09:01:42		Turn off the MOT Exciter and RPA beam	STRPAF	02-049/08:46:14
16009	MGS	02-049/09:01:43		NOTE: End Block (MAP_PB)		02-049/08:46:15
16010	MGS	02-049/09:01:46		NOTE: End fixed Sub-Reflector for Radio Science		02-049/08:46:18
16011	MGS	02-049/09:03:12		NOTE: Enter Solar Eclipse 13181		02-049/08:47:44
16012	MGS	02-049/09:03:12		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-049/08:47:44
16013	MGS	02-049/09:05:00	65	Begin Pre-Cal		
16014	MGS	02-049/09:05:00	65	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
16015	MGS	02-049/09:05:00	65	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
16016	MGS	02-049/09:05:00	65	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
16017	MGS	02-049/09:05:00	65	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
16018	MGS	02-049/09:05:00	65	At BOT: S/C Tlm Mode: BR=42666.7, FL=10000, SC=HIGH, MI=80.0		
16019	MGS	02-049/09:05:00	65	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
16020	MGS	02-049/09:05:00	65	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
16021	MGS	02-049/09:05:00	65	Config: TGC: DEST=37		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
16022	MGS	02-049/09:05:00	65	Config: TGC: BAND=X, BR=42666.666667		
16023	MGS	02-049/09:05:00	65	Config: FSS: CH=2, PRI_FL=10000		
16024	MGS	02-049/09:05:00	65	Config: RSR		
16025	MGS	02-049/09:05:00	65	Config: TXL		
16026	MGS	02-049/09:05:00	65	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
16027	MGS	02-049/09:05:00	65	Config: BVR		
16028	MGS	02-049/09:05:00	65	Config: Doppler Extractor: BIAS=+1MHZ		
16029	MGS	02-049/09:05:00	65	Config: MDA: SMPL=0.1		
16030	MGS	02-049/09:05:00	65	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
16031	MGS	02-049/09:05:00	65	Config: SRA: HIGH=4, LOW=14, SERV=D		
16032	MGS	02-049/09:05:00	65	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
16033	MGS	02-049/09:06:27	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
16034	MGS	02-049/09:08:28	45	Range Modulation On: SUP=3.0dB		
16035	MGS	02-049/09:09:28	45	Begin Ranging Acquisition		
16036	MGS	02-049/09:27:51		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-049/09:12:23
16037	MGS	02-049/09:27:51		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-049/09:12:23
16038	MGS	02-049/09:27:56		Set eclipse egress script address: 01DC	SWSEES	02-049/09:12:28
16039	MGS	02-049/09:28:08		NOTE: Begin fixed Sub-Reflector for Radio Science		02-049/09:12:40
16040	MGS	02-049/09:31:53		: 01:27:34	RPAONX	02-049/09:16:25
16041	MGS	02-049/09:31:53		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-049/09:16:25
16042	MGS	02-049/09:33:08		: 00:00:30, 00:06:59, FALSE	RDSCIE	02-049/09:17:40
16043	MGS	02-049/09:33:08		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-049/09:17:40
16044	MGS	02-049/09:33:08		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-049/09:17:40
16045	MGS	02-049/09:33:08		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-049/09:17:40
16046	MGS	02-049/09:33:08		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-049/09:17:40
16047	MGS	02-049/09:33:38		NOTE: Exit Earth Occultation 13181		02-049/09:18:10
16048	MGS	02-049/09:33:38	45	Acquisition Of X-Band Signal		
16049	MGS	02-049/09:33:38	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
16050	MGS	02-049/09:33:38	45	NOTE: Carrier Only -- No Telemetry Modulation		
16051	MGS	02-049/09:37:56		NOTE: Exit Planetary Atmosphere 13181		02-049/09:22:28
16052	MGS	02-049/09:40:07		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-049/09:24:39
16053	MGS	02-049/09:40:07		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-049/09:24:39
16054	MGS	02-049/09:40:07		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-049/09:24:39
16055	MGS	02-049/09:40:07		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-049/09:24:39
16056	MGS	02-049/09:40:07	45	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
16057	MGS	02-049/09:40:08		: RTM, MRC, 01:12:37, S&E_2A, FALSE, 00:06:42	AEMRT	02-049/09:24:40
16058	MGS	02-049/09:40:08		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-049/09:24:40
16059	MGS	02-049/09:40:08		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-049/09:24:40
16060	MGS	02-049/09:40:08	45	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
16061	MGS	02-049/09:40:12		NOTE: End fixed Sub-Reflector for Radio Science		02-049/09:24:44
16062	MGS	02-049/09:43:38		NOTE: Exit Solar Eclipse 13181		02-049/09:28:10
16063	MGS	02-049/09:45:00	45	NOTE: Transmitter Off in 15 minutes		
16064	MGS	02-049/09:46:02		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-049/09:30:34
16065	MGS	02-049/09:46:02	45	D/L Change: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
16066	MGS	02-049/09:46:04		NOTE: Start Block (SSRMGR)		02-049/09:30:36
16067	MGS	02-049/09:46:04		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-049/09:30:36
16068	MGS	02-049/09:46:04		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-049/09:30:36
16069	MGS	02-049/09:46:05		Sends a one-word MOT command to the XSU command SOB: SSR_1A	STMOTC	02-049/09:30:37
16070	MGS	02-049/09:46:06		Sends a one-word SSR command to the XSU command SOB: SSR_1A, F42KHZ, PLYBCK, PART3	STSSRC	02-049/09:30:38
16071	MGS	02-049/09:46:07		SSR 1A Data Enable	CSD1AE	02-049/09:30:39
16072	MGS	02-049/09:46:07		SSR Activity: ID=SSR_1A, FCN=Start Playback, PRT=3, BR=42666		02-049/09:30:39
16073	MGS	02-049/09:46:07	45	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
16074	MGS	02-049/09:57:01		NOTE: Periapsis 13182 ----------		02-049/09:41:33
16075	MGS	02-049/09:58:00	45	Range Modulation Off		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
16076	MGS	02-049/09:58:34		NOTE: Start Block (SSRMGR)		02-049/09:43:06
16077	MGS	02-049/09:58:34		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-049/09:43:06
16078	MGS	02-049/09:58:34		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-049/09:43:06
16079	MGS	02-049/09:58:35		Sends a one-word MOT command to the XSU command SOB: SSR_1B	STMOTC	02-049/09:43:07
16080	MGS	02-049/09:58:36		Sends a one-word SSR command to the XSU command SOB: SSR_1B, F42KHZ, PLYBCK, PART3	STSSRC	02-049/09:43:08
16081	MGS	02-049/09:58:37		SSR 1A Data Disable	CSD1AX	02-049/09:43:09
16082	MGS	02-049/09:58:37		SSR Activity: ID=SSR_1A, FCN=End Playback, PRT=3, BITS=32000000, DUR=00:12:30		02-049/09:43:09
16083	MGS	02-049/09:58:37		SSR 1B Data Enable	CSD1BE	02-049/09:43:09
16084	MGS	02-049/09:58:37		SSR Activity: ID=SSR_1B, FCN=Start Playback, PRT=3, BR=42666		02-049/09:43:09
16085	MGS	02-049/09:58:37	45	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
16086	MGS	02-049/09:58:38		NOTE: End Block (SSRMGR)		02-049/09:43:10
16087	MGS	02-049/10:00:00	45	Transmitter Off		
16088	MGS	02-049/10:04:37		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-049/09:49:09
16089	MGS	02-049/10:04:37		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-049/09:49:09
16090	MGS	02-049/10:04:38		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-049/09:49:10
16091	MGS	02-049/10:04:38		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-049/09:49:10
16092	MGS	02-049/10:05:00	65	Begin Tracking		
16093	MGS	02-049/10:05:00	65	Acquire D/L: X/16, 3-Way/45, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
16094	MGS	02-049/10:09:47	65	NOTE: Above Uplink Interlock Limit		
16095	MGS	02-049/10:14:42	45	NOTE: Below Uplink Interlock Limit		
16096	MGS	02-049/10:16:08		SSR 1B Data Disable	CSD1BX	02-049/10:00:39
16097	MGS	02-049/10:16:08		SSR Activity: ID=SSR_1B, FCN=End Playback, PRT=3, BITS=44800000, DUR=00:17:30		02-049/10:00:39
16098	MGS	02-049/10:16:09		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-049/10:00:40
16099	MGS	02-049/10:16:09		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-049/10:00:40
16100	MGS	02-049/10:16:09		NOTE: End Block (SSRMGR)		02-049/10:00:40
16101	MGS	02-049/10:16:09	45	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
16102	MGS	02-049/10:16:09	65	D/L Change: X/16, 3-Way/45, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
16103	MGS	02-049/10:25:00	45	End Tracking		
16104	MGS	02-049/10:26:39		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-049/10:11:10
16105	MGS	02-049/10:26:39		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-049/10:11:10
16106	MGS	02-049/10:30:56	65	Acquire D/L: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
16107	MGS	02-049/10:40:00	45	End Post-Cal		
16108	MGS	02-049/10:47:45		NOTE: Begin fixed Sub-Reflector for Radio Science		02-049/10:32:17
16109	MGS	02-049/10:51:00		NOTE: Start EVP data return script		02-049/10:35:31
16110	MGS	02-049/10:52:46		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-049/10:37:17
16111	MGS	02-049/10:52:46		: 00:06:41, FALSE	RDSCII	02-049/10:37:17
16112	MGS	02-049/10:52:46		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-049/10:37:17
16113	MGS	02-049/10:52:46		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-049/10:37:17
16114	MGS	02-049/10:52:46		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-049/10:37:17
16115	MGS	02-049/10:52:46		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-049/10:37:17
16116	MGS	02-049/10:52:46	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
16117	MGS	02-049/10:52:46	65	NOTE: Carrier Only -- No Telemetry Modulation		
16118	MGS	02-049/10:54:59		NOTE: Enter Planetary Atmosphere 13182		02-049/10:39:31
16119	MGS	02-049/10:56:05		NOTE: Apoapsis 13182 -		02-049/10:40:37
16120	MGS	02-049/10:59:00		NOTE: Enter Earth Occultation 13182		02-049/10:43:32
16121	MGS	02-049/10:59:00	65	NOTE: Loss Of X-Band Signal		
16122	MGS	02-049/10:59:27		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-049/10:43:58
16123	MGS	02-049/10:59:27		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-049/10:43:58
16124	MGS	02-049/10:59:27		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-049/10:43:58
16125	MGS	02-049/10:59:27		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-049/10:43:58
16126	MGS	02-049/10:59:27		NOTE: End EVP script		02-049/10:43:59
16127	MGS	02-049/10:59:28		Turn off the MOT Exciter and RPA beam	STRPAF	02-049/10:43:59
16128	MGS	02-049/10:59:31		NOTE: End fixed Sub-Reflector for Radio Science		02-049/10:44:03

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
16129	MGS	02-049/11:00:59		NOTE: Enter Solar Eclipse 13182		02-049/10:45:31
16130	MGS	02-049/11:01:00		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-049/10:45:31
16131	MGS	02-049/11:04:15	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
16132	MGS	02-049/11:06:15	65	Range Modulation On: SUP=3.0dB		
16133	MGS	02-049/11:07:15	65	Begin Ranging Acquisition		
16134	MGS	02-049/11:22:07		NOTE: Start Block (SSRMGR)		02-049/11:06:38
16135	MGS	02-049/11:22:07		Sends a one-word SSR command to the XSU command SOB: SSR_2A, SE_1A, RECORD, PART2	STSSRC	02-049/11:06:38
16136	MGS	02-049/11:22:08		SSR 2A Data Enable	CSD2AE	02-049/11:06:39
16137	MGS	02-049/11:22:08		SSR Activity: ID=SSR_2A, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-049/11:06:39
16138	MGS	02-049/11:25:39		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-049/11:10:10
16139	MGS	02-049/11:25:39		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-049/11:10:10
16140	MGS	02-049/11:25:43		Command the PSE with included data word: 3990	SWPSEL	02-049/11:10:14
16141	MGS	02-049/11:25:44		Set eclipse egress script address: 0158	SWSEES	02-049/11:10:15
16142	MGS	02-049/11:25:55		NOTE: Begin fixed Sub-Reflector for Radio Science		02-049/11:10:27
16143	MGS	02-049/11:29:41		: 01:27:34	RPAONX	02-049/11:14:12
16144	MGS	02-049/11:29:41		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-049/11:14:12
16145	MGS	02-049/11:30:56		: 00:00:30, 00:06:59, FALSE	RDSCIE	02-049/11:15:27
16146	MGS	02-049/11:30:56		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-049/11:15:27
16147	MGS	02-049/11:30:56		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-049/11:15:27
16148	MGS	02-049/11:30:56		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-049/11:15:27
16149	MGS	02-049/11:30:56		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-049/11:15:27
16150	MGS	02-049/11:31:26		NOTE: Exit Earth Occultation 13182		02-049/11:15:58
16151	MGS	02-049/11:31:26	65	Acquisition Of X-Band Signal		
16152	MGS	02-049/11:31:26	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
16153	MGS	02-049/11:31:26	65	NOTE: Carrier Only -- No Telemetry Modulation		
16154	MGS	02-049/11:35:44		NOTE: Exit Planetary Atmosphere 13182		02-049/11:20:16
16155	MGS	02-049/11:37:55		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-049/11:22:26
16156	MGS	02-049/11:37:55		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-049/11:22:26
16157	MGS	02-049/11:37:55		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-049/11:22:26
16158	MGS	02-049/11:37:55		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-049/11:22:26
16159	MGS	02-049/11:37:55	65	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
16160	MGS	02-049/11:37:56		: RTM, MRC, 01:12:37, S&E_2A, FALSE, 00:06:42	AEMRT	02-049/11:22:27
16161	MGS	02-049/11:37:56		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-049/11:22:27
16162	MGS	02-049/11:37:56		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-049/11:22:27
16163	MGS	02-049/11:37:56		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=2, BITS=7584000, DUR=00:15:48		02-049/11:22:27
16164	MGS	02-049/11:37:56		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-049/11:22:27
16165	MGS	02-049/11:37:56	65	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
16166	MGS	02-049/11:37:59		NOTE: End fixed Sub-Reflector for Radio Science		02-049/11:22:31
16167	MGS	02-049/11:41:26		NOTE: Exit Solar Eclipse 13182		02-049/11:25:57
16168	MGS	02-049/11:48:48		SSR 2B Data Disable	CSD2BX	02-049/11:33:19
16169	MGS	02-049/11:48:48		SSR Activity: ID=SSR_2B, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-049/11:33:19
16170	MGS	02-049/11:48:49		NOTE: End Block (SSRMGR)		02-049/11:33:20
16171	MGS	02-049/11:54:52		NOTE: Periapsis 13183 ----------		02-049/11:39:24
16172	MGS	02-049/12:06:25		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-049/11:50:56
16173	MGS	02-049/12:06:25		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-049/11:50:56
16174	MGS	02-049/12:06:26		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-049/11:50:57
16175	MGS	02-049/12:06:26		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-049/11:50:57
16176	MGS	02-049/12:07:04	65	NOTE: Transmitter Off in 15 minutes		
16177	MGS	02-049/12:15:28		Dump SCP memory to the EDF using physical addressing arguments: 56A4, 240	SCDSCM	02-049/11:59:59
16178	MGS	02-049/12:20:05	65	Range Modulation Off		
16179	MGS	02-049/12:22:04	65	Transmitter Off		
16180	MGS	02-049/12:28:26		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-049/12:12:57
16181	MGS	02-049/12:28:26		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-049/12:12:57
16182	MGS	02-049/12:45:33		NOTE: Begin fixed Sub-Reflector for Radio Science		02-049/12:30:04

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
16183	MGS	02-049/12:48:44		NOTE: Start EVP data return script		02-049/12:33:15
16184	MGS	02-049/12:50:33		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-049/12:35:04
16185	MGS	02-049/12:50:33		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=2, BITS=42440000, DUR=01:12:37		02-049/12:35:04
16186	MGS	02-049/12:50:33		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-049/12:35:04
16187	MGS	02-049/12:50:33		: 00:06:41, FALSE	RDSCII	02-049/12:35:04
16188	MGS	02-049/12:50:33		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-049/12:35:04
16189	MGS	02-049/12:50:33		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-049/12:35:04
16190	MGS	02-049/12:50:33		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-049/12:35:04
16191	MGS	02-049/12:50:33		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-049/12:35:04
16192	MGS	02-049/12:50:33	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
16193	MGS	02-049/12:50:33	65	NOTE: Carrier Only -- No Telemetry Modulation		
16194	MGS	02-049/12:52:45		NOTE: Enter Planetary Atmosphere 13183		02-049/12:37:17
16195	MGS	02-049/12:53:42		NOTE: Apoapsis 13183 -		02-049/12:38:13
16196	MGS	02-049/12:56:46		NOTE: Enter Earth Occultation 13183		02-049/12:41:18
16197	MGS	02-049/12:56:46	65	NOTE: Loss Of X-Band Signal		
16198	MGS	02-049/12:57:14		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-049/12:41:45
16199	MGS	02-049/12:57:14		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-049/12:41:45
16200	MGS	02-049/12:57:14		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-049/12:41:45
16201	MGS	02-049/12:57:14		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-049/12:41:45
16202	MGS	02-049/12:57:15		NOTE: End EVP script		02-049/12:41:46
16203	MGS	02-049/12:57:15		Turn off the MOT Exciter and RPA beam	STRPAF	02-049/12:41:46
16204	MGS	02-049/12:57:19		NOTE: End fixed Sub-Reflector for Radio Science		02-049/12:41:50
16205	MGS	02-049/12:58:44		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-049/12:43:15
16206	MGS	02-049/12:58:44		NOTE: Enter Solar Eclipse 13183		02-049/12:43:16
16207	MGS	02-049/13:02:00	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
16208	MGS	02-049/13:04:01	65	Range Modulation On: SUP=3.0dB		
16209	MGS	02-049/13:05:01	65	Begin Ranging Acquisition		
16210	MGS	02-049/13:23:26		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-049/13:07:57
16211	MGS	02-049/13:23:26		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-049/13:07:57
16212	MGS	02-049/13:23:31		Set eclipse egress script address: 019A	SWSEES	02-049/13:08:02
16213	MGS	02-049/13:23:40		NOTE: Begin fixed Sub-Reflector for Radio Science		02-049/13:08:11
16214	MGS	02-049/13:27:25		: 01:27:34	RPAONX	02-049/13:11:56
16215	MGS	02-049/13:27:25		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-049/13:11:56
16216	MGS	02-049/13:28:40		: 00:00:30, 00:06:59, FALSE	RDSCIE	02-049/13:13:11
16217	MGS	02-049/13:28:40		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-049/13:13:11
16218	MGS	02-049/13:28:40		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-049/13:13:11
16219	MGS	02-049/13:28:40		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-049/13:13:11
16220	MGS	02-049/13:28:40		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-049/13:13:11
16221	MGS	02-049/13:29:12		NOTE: Exit Earth Occultation 13183		02-049/13:13:43
16222	MGS	02-049/13:29:12	65	Acquisition Of X-Band Signal		
16223	MGS	02-049/13:29:12	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
16224	MGS	02-049/13:29:12	65	NOTE: Carrier Only -- No Telemetry Modulation		
16225	MGS	02-049/13:33:31		NOTE: Exit Planetary Atmosphere 13183		02-049/13:18:02
16226	MGS	02-049/13:35:39		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-049/13:20:10
16227	MGS	02-049/13:35:39		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-049/13:20:10
16228	MGS	02-049/13:35:39		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-049/13:20:10
16229	MGS	02-049/13:35:39		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-049/13:20:10
16230	MGS	02-049/13:35:39	65	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
16231	MGS	02-049/13:35:40		: RTM, MRC, 01:12:37, S&E_2A, FALSE, 00:06:42	AEMRT	02-049/13:20:11
16232	MGS	02-049/13:35:40		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-049/13:20:11
16233	MGS	02-049/13:35:40		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-049/13:20:11
16234	MGS	02-049/13:35:40		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=2, BITS=64096000, DUR=00:45:07		02-049/13:20:11
16235	MGS	02-049/13:35:40		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-049/13:20:11
16236	MGS	02-049/13:35:40	65	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
16237	MGS	02-049/13:35:44		NOTE: End fixed Sub-Reflector for Radio Science		02-049/13:20:15
16238	MGS	02-049/13:39:10		NOTE: Exit Solar Eclipse 13183		02-049/13:23:42
16239	MGS	02-049/13:52:17		NOTE: Periapsis 13184 ----------		02-049/13:36:48
16240	MGS	02-049/14:00:09		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-049/13:44:40
16241	MGS	02-049/14:00:09		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-049/13:44:40
16242	MGS	02-049/14:00:10		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-049/13:44:41
16243	MGS	02-049/14:00:10		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-049/13:44:41
16244	MGS	02-049/14:04:45	65	NOTE: Transmitter Off in 15 minutes		
16245	MGS	02-049/14:17:45	65	Range Modulation Off		
16246	MGS	02-049/14:19:45	65	Transmitter Off		
16247	MGS	02-049/14:22:10		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-049/14:06:41
16248	MGS	02-049/14:22:10		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-049/14:06:41
16249	MGS	02-049/14:43:17		NOTE: Begin fixed Sub-Reflector for Radio Science		02-049/14:27:48
16250	MGS	02-049/14:46:25		NOTE: Start EVP data return script		02-049/14:30:56
16251	MGS	02-049/14:48:17		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-049/14:32:48
16252	MGS	02-049/14:48:17		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=2, BITS=98952000, DUR=01:12:37		02-049/14:32:48
16253	MGS	02-049/14:48:17		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-049/14:32:48
16254	MGS	02-049/14:48:17		: 00:06:41, FALSE	RDSCII	02-049/14:32:48
16255	MGS	02-049/14:48:17		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-049/14:32:48
16256	MGS	02-049/14:48:17		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-049/14:32:48
16257	MGS	02-049/14:48:17		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-049/14:32:48
16258	MGS	02-049/14:48:17		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-049/14:32:48
16259	MGS	02-049/14:48:17	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
16260	MGS	02-049/14:48:17	65	NOTE: Carrier Only -- No Telemetry Modulation		
16261	MGS	02-049/14:50:26		NOTE: Enter Planetary Atmosphere 13184		02-049/14:34:57
16262	MGS	02-049/14:51:02		NOTE: Apoapsis 13184 -		02-049/14:35:33
16263	MGS	02-049/14:54:27		NOTE: Enter Earth Occultation 13184		02-049/14:38:58
16264	MGS	02-049/14:54:27	65	NOTE: Loss Of X-Band Signal		
16265	MGS	02-049/14:54:58		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-049/14:39:29
16266	MGS	02-049/14:54:58		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-049/14:39:29
16267	MGS	02-049/14:54:58		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-049/14:39:29
16268	MGS	02-049/14:54:58		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-049/14:39:29
16269	MGS	02-049/14:54:59		NOTE: End EVP script		02-049/14:39:30
16270	MGS	02-049/14:54:59		Turn off the MOT Exciter and RPA beam	STRPAF	02-049/14:39:30
16271	MGS	02-049/14:55:03		NOTE: End fixed Sub-Reflector for Radio Science		02-049/14:39:34
16272	MGS	02-049/14:56:25		NOTE: Enter Solar Eclipse 13184		02-049/14:40:56
16273	MGS	02-049/14:56:25		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-049/14:40:56
16274	MGS	02-049/14:59:41	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
16275	MGS	02-049/15:01:41	65	Range Modulation On: SUP=3.0dB		
16276	MGS	02-049/15:02:41	65	Begin Ranging Acquisition		
16277	MGS	02-049/15:21:10		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-049/15:05:41
16278	MGS	02-049/15:21:10		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-049/15:05:41
16279	MGS	02-049/15:21:15		Set eclipse egress script address: 01DC	SWSEES	02-049/15:05:46
16280	MGS	02-049/15:21:21		NOTE: Begin fixed Sub-Reflector for Radio Science		02-049/15:05:52
16281	MGS	02-049/15:25:06		: 01:27:34	RPAONX	02-049/15:09:37
16282	MGS	02-049/15:25:06		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-049/15:09:37
16283	MGS	02-049/15:26:21		: 00:00:30, 00:06:59, FALSE	RDSCIE	02-049/15:10:52
16284	MGS	02-049/15:26:21		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-049/15:10:52
16285	MGS	02-049/15:26:21		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-049/15:10:52
16286	MGS	02-049/15:26:21		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-049/15:10:52
16287	MGS	02-049/15:26:21		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-049/15:10:52
16288	MGS	02-049/15:26:53		NOTE: Exit Earth Occultation 13184		02-049/15:11:25
16289	MGS	02-049/15:26:53	65	Acquisition Of X-Band Signal		
16290	MGS	02-049/15:26:53	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
16291	MGS	02-049/15:26:53	65	NOTE: Carrier Only -- No Telemetry Modulation		
16292	MGS	02-049/15:31:12		NOTE: Exit Planetary Atmosphere 13184		02-049/15:15:43
16293	MGS	02-049/15:33:20		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-049/15:17:51
16294	MGS	02-049/15:33:20		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-049/15:17:51
16295	MGS	02-049/15:33:20		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-049/15:17:51
16296	MGS	02-049/15:33:20		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-049/15:17:51
16297	MGS	02-049/15:33:20	65	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
16298	MGS	02-049/15:33:21		: RTM, MRC, 01:12:37, S&E_2A, FALSE, 00:06:42	AEMRT	02-049/15:17:52
16299	MGS	02-049/15:33:21		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-049/15:17:52
16300	MGS	02-049/15:33:21		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-049/15:17:52
16301	MGS	02-049/15:33:21		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=2, BITS=120584000, DUR=00:45:04		02-049/15:17:52
16302	MGS	02-049/15:33:21		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-049/15:17:52
16303	MGS	02-049/15:33:21	65	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
16304	MGS	02-049/15:33:25		NOTE: End fixed Sub-Reflector for Radio Science		02-049/15:17:56
16305	MGS	02-049/15:36:51		NOTE: Exit Solar Eclipse 13184		02-049/15:21:22
16306	MGS	02-049/15:49:41		NOTE: Periapsis 13185 ----------		02-049/15:34:12
16307	MGS	02-049/15:57:49		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-049/15:42:20
16308	MGS	02-049/15:57:49		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-049/15:42:20
16309	MGS	02-049/15:57:50		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-049/15:42:21
16310	MGS	02-049/15:57:50		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-049/15:42:21
16311	MGS	02-049/16:02:25	65	NOTE: Transmitter Off in 15 minutes		
16312	MGS	02-049/16:15:25	65	Range Modulation Off		
16313	MGS	02-049/16:17:25	65	Transmitter Off		
16314	MGS	02-049/16:19:50		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-049/16:04:21
16315	MGS	02-049/16:19:50		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-049/16:04:21
16316	MGS	02-049/16:35:00	25	Begin Pre-Cal		
16317	MGS	02-049/16:35:00	25	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
16318	MGS	02-049/16:35:00	25	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
16319	MGS	02-049/16:35:00	25	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
16320	MGS	02-049/16:35:00	25	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
16321	MGS	02-049/16:35:00	25	At BOT: S/C Tlm Mode: BR=40000.0, FL=10000, SC=HIGH, MI=80.0		
16322	MGS	02-049/16:35:00	25	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
16323	MGS	02-049/16:35:00	25	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
16324	MGS	02-049/16:35:00	25	Config: TGC: DEST=37		
16325	MGS	02-049/16:35:00	25	Config: TGC: BAND=X, BR=40000.000000		
16326	MGS	02-049/16:35:00	25	Config: FSS: CH=2, PRI_FL=10000		
16327	MGS	02-049/16:35:00	25	Config: RSR		
16328	MGS	02-049/16:35:00	25	Config: TXL		
16329	MGS	02-049/16:35:00	25	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
16330	MGS	02-049/16:35:00	25	Config: BVR		
16331	MGS	02-049/16:35:00	25	Config: Doppler Extractor: BIAS=+1MHZ		
16332	MGS	02-049/16:35:00	25	Config: MDA: SMPL=0.1		
16333	MGS	02-049/16:35:00	25	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
16334	MGS	02-049/16:35:00	25	Config: SRA: HIGH=4, LOW=14, SERV=D		
16335	MGS	02-049/16:35:00	25	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
16336	MGS	02-049/16:40:58		NOTE: Begin fixed Sub-Reflector for Radio Science		02-049/16:25:29
16337	MGS	02-049/16:44:07		NOTE: Start EVP data return script		02-049/16:28:37
16338	MGS	02-049/16:45:59		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-049/16:30:29
16339	MGS	02-049/16:45:59		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=2, BITS=155440000, DUR=01:12:37		02-049/16:30:29
16340	MGS	02-049/16:45:59		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-049/16:30:29
16341	MGS	02-049/16:45:59		: 00:06:41, FALSE	RDSCII	02-049/16:30:29
16342	MGS	02-049/16:45:59		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-049/16:30:29
16343	MGS	02-049/16:45:59		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-049/16:30:29
16344	MGS	02-049/16:45:59		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-049/16:30:29

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
16345	MGS	02-049/16:45:59		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-049/16:30:29
16346	MGS	02-049/16:45:59	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
16347	MGS	02-049/16:45:59	65	NOTE: Carrier Only -- No Telemetry Modulation		
16348	MGS	02-049/16:48:07		NOTE: Enter Planetary Atmosphere 13185		02-049/16:32:38
16349	MGS	02-049/16:48:46		NOTE: Apoapsis 13185 -		02-049/16:33:17
16350	MGS	02-049/16:52:08		NOTE: Enter Earth Occultation 13185		02-049/16:36:39
16351	MGS	02-049/16:52:08	65	NOTE: Loss Of X-Band Signal		
16352	MGS	02-049/16:52:40		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-049/16:37:10
16353	MGS	02-049/16:52:40		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-049/16:37:10
16354	MGS	02-049/16:52:40		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-049/16:37:10
16355	MGS	02-049/16:52:40		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-049/16:37:10
16356	MGS	02-049/16:52:40		NOTE: End EVP script		02-049/16:37:11
16357	MGS	02-049/16:52:41		Turn off the MOT Exciter and RPA beam	STRPAF	02-049/16:37:11
16358	MGS	02-049/16:52:44		NOTE: End fixed Sub-Reflector for Radio Science		02-049/16:37:15
16359	MGS	02-049/16:54:07		NOTE: Enter Solar Eclipse 13185		02-049/16:38:37
16360	MGS	02-049/16:54:07		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-049/16:38:37
16361	MGS	02-049/16:55:28		NOTE: Start Block (SSRMGR)		02-049/16:39:58
16362	MGS	02-049/16:55:28		Sends a one-word SSR command to the XSU command SOB: SSR_2B, SE_1A, RECORD, PART2	STSSRC	02-049/16:39:58
16363	MGS	02-049/16:55:29		SSR 2B Data Enable	CSD2BE	02-049/16:39:59
16364	MGS	02-049/16:55:29		SSR Activity: ID=SSR_2B, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-049/16:39:59
16365	MGS	02-049/16:57:22	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
16366	MGS	02-049/16:59:22	65	Range Modulation On: SUP=3.0dB		
16367	MGS	02-049/17:00:22	65	Begin Ranging Acquisition		
16368	MGS	02-049/17:18:51		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-049/17:03:21
16369	MGS	02-049/17:18:51		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-049/17:03:21
16370	MGS	02-049/17:18:55		Command the PSE with included data word: 3990	SWPSEL	02-049/17:03:25
16371	MGS	02-049/17:18:56		Set eclipse egress script address: 0158	SWSEES	02-049/17:03:26
16372	MGS	02-049/17:19:02		NOTE: Begin fixed Sub-Reflector for Radio Science		02-049/17:03:33
16373	MGS	02-049/17:22:09		SSR 2A Data Disable	CSD2AX	02-049/17:06:39
16374	MGS	02-049/17:22:09		SSR Activity: ID=SSR_2A, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-049/17:06:39
16375	MGS	02-049/17:22:10		NOTE: End Block (SSRMGR)		02-049/17:06:40
16376	MGS	02-049/17:22:48		: 01:27:34	RPAONX	02-049/17:07:18
16377	MGS	02-049/17:22:48		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-049/17:07:18
16378	MGS	02-049/17:24:03		: 00:00:30, 00:06:59, FALSE	RDSCIE	02-049/17:08:33
16379	MGS	02-049/17:24:03		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-049/17:08:33
16380	MGS	02-049/17:24:03		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-049/17:08:33
16381	MGS	02-049/17:24:03		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-049/17:08:33
16382	MGS	02-049/17:24:03		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-049/17:08:33
16383	MGS	02-049/17:24:35		NOTE: Exit Earth Occultation 13185		02-049/17:09:06
16384	MGS	02-049/17:24:35	65	Acquisition Of X-Band Signal		
16385	MGS	02-049/17:24:35	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
16386	MGS	02-049/17:24:35	65	NOTE: Carrier Only -- No Telemetry Modulation		
16387	MGS	02-049/17:28:53		NOTE: Exit Planetary Atmosphere 13185		02-049/17:13:23
16388	MGS	02-049/17:31:02		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-049/17:15:32
16389	MGS	02-049/17:31:02		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-049/17:15:32
16390	MGS	02-049/17:31:02		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-049/17:15:32
16391	MGS	02-049/17:31:02		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-049/17:15:32
16392	MGS	02-049/17:31:02	65	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
16393	MGS	02-049/17:31:03		: RTM, MRC, 01:12:37, S&E_2A, FALSE, 00:06:42	AEMRT	02-049/17:15:33
16394	MGS	02-049/17:31:03		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-049/17:15:33
16395	MGS	02-049/17:31:03		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-049/17:15:33
16396	MGS	02-049/17:31:03		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=2, BITS=17072000, DUR=00:35:34		02-049/17:15:33
16397	MGS	02-049/17:31:03		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-049/17:15:33
16398	MGS	02-049/17:31:03	65	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
16399	MGS	02-049/17:31:06		NOTE: End fixed Sub-Reflector for Radio Science		02-049/17:15:37
16400	MGS	02-049/17:34:32		NOTE: Exit Solar Eclipse 13185		02-049/17:19:03
16401	MGS	02-049/17:35:00	25	Begin Tracking		
16402	MGS	02-049/17:35:00	25	Acquire D/L: X/16, 3-Way/65, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
16403	MGS	02-049/17:42:01	25	NOTE: Above Uplink Interlock Limit		
16404	MGS	02-049/17:43:00	65	Range Modulation Off		
16405	MGS	02-049/17:45:00	25	U/L Transfer From DSS-65 to DSS-25: PWR=4.0, BR=125.0, CS=5.82dB		
16406	MGS	02-049/17:47:00	25	Range Modulation On: SUP=3.0dB		
16407	MGS	02-049/17:47:24		NOTE: Periapsis 13186 ----------		02-049/17:31:54
16408	MGS	02-049/17:48:00	25	Begin Ranging Acquisition		
16409	MGS	02-049/17:55:00	65	End Tracking		
16410	MGS	02-049/17:59:31		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-049/17:44:01
16411	MGS	02-049/17:59:31		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-049/17:44:01
16412	MGS	02-049/17:59:32		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-049/17:44:02
16413	MGS	02-049/17:59:32		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-049/17:44:02
16414	MGS	02-049/18:00:10	25	NOTE: Transmitter Off in 15 minutes		
16415	MGS	02-049/18:10:00	65	End Post-Cal		
16416	MGS	02-049/18:13:10	25	Range Modulation Off		
16417	MGS	02-049/18:15:10	25	Transmitter Off		
16418	MGS	02-049/18:15:58	25	Acquire D/L: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
16419	MGS	02-049/18:21:32		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-049/18:06:02
16420	MGS	02-049/18:21:32		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-049/18:06:02
16421	MGS	02-049/18:38:40		NOTE: Begin fixed Sub-Reflector for Radio Science		02-049/18:23:10
16422	MGS	02-049/18:41:53		NOTE: Start EVP data return script		02-049/18:26:23
16423	MGS	02-049/18:43:40		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-049/18:28:10
16424	MGS	02-049/18:43:40		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=2, BITS=51928000, DUR=01:12:37		02-049/18:28:10
16425	MGS	02-049/18:43:40		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-049/18:28:10
16426	MGS	02-049/18:43:40		: 00:06:41, FALSE	RDSCII	02-049/18:28:10
16427	MGS	02-049/18:43:40		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-049/18:28:10
16428	MGS	02-049/18:43:40		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-049/18:28:10
16429	MGS	02-049/18:43:40		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-049/18:28:10
16430	MGS	02-049/18:43:40		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-049/18:28:10
16431	MGS	02-049/18:43:40	25	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
16432	MGS	02-049/18:43:40	25	NOTE: Carrier Only -- No Telemetry Modulation		
16433	MGS	02-049/18:45:53		NOTE: Enter Planetary Atmosphere 13186		02-049/18:30:24
16434	MGS	02-049/18:46:36		NOTE: Apoapsis 13186 -		02-049/18:31:07
16435	MGS	02-049/18:49:54		NOTE: Enter Earth Occultation 13186		02-049/18:34:24
16436	MGS	02-049/18:49:54	25	NOTE: Loss Of X-Band Signal		
16437	MGS	02-049/18:50:21		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-049/18:34:51
16438	MGS	02-049/18:50:21		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-049/18:34:51
16439	MGS	02-049/18:50:21		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-049/18:34:51
16440	MGS	02-049/18:50:21		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-049/18:34:51
16441	MGS	02-049/18:50:22		NOTE: End EVP script		02-049/18:34:52
16442	MGS	02-049/18:50:22		Turn off the MOT Exciter and RPA beam	STRPAF	02-049/18:34:52
16443	MGS	02-049/18:50:26		NOTE: End fixed Sub-Reflector for Radio Science		02-049/18:34:56
16444	MGS	02-049/18:51:53		NOTE: Enter Solar Eclipse 13186		02-049/18:36:23
16445	MGS	02-049/18:51:53		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-049/18:36:23
16446	MGS	02-049/18:55:07	25	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
16447	MGS	02-049/18:57:08	25	Range Modulation On: SUP=3.0dB		
16448	MGS	02-049/18:58:08	25	Begin Ranging Acquisition		
16449	MGS	02-049/19:16:32		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-049/19:01:02
16450	MGS	02-049/19:16:32		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-049/19:01:02
16451	MGS	02-049/19:16:37		Set eclipse egress script address: 019A	SWSEES	02-049/19:01:07

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
16452	MGS	02-049/19:16:49		NOTE: Begin fixed Sub-Reflector for Radio Science		02-049/19:01:19
16453	MGS	02-049/19:20:34		: 01:27:34	RPAONX	02-049/19:05:04
16454	MGS	02-049/19:20:34		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-049/19:05:04
16455	MGS	02-049/19:21:49		: 00:00:30, 00:06:59, FALSE	RDSCIE	02-049/19:06:19
16456	MGS	02-049/19:21:49		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-049/19:06:19
16457	MGS	02-049/19:21:49		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-049/19:06:19
16458	MGS	02-049/19:21:49		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-049/19:06:19
16459	MGS	02-049/19:21:49		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-049/19:06:19
16460	MGS	02-049/19:22:21		NOTE: Exit Earth Occultation 13186		02-049/19:06:51
16461	MGS	02-049/19:22:21	25	Acquisition Of X-Band Signal		
16462	MGS	02-049/19:22:21	25	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
16463	MGS	02-049/19:22:21	25	NOTE: Carrier Only -- No Telemetry Modulation		
16464	MGS	02-049/19:26:39		NOTE: Exit Planetary Atmosphere 13186		02-049/19:11:09
16465	MGS	02-049/19:28:48		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-049/19:13:18
16466	MGS	02-049/19:28:48		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-049/19:13:18
16467	MGS	02-049/19:28:48		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-049/19:13:18
16468	MGS	02-049/19:28:48		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-049/19:13:18
16469	MGS	02-049/19:28:48	25	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
16470	MGS	02-049/19:28:49		: RTM, MRC, 01:12:37, S&E_2A, FALSE, 00:06:42	AEMRT	02-049/19:13:19
16471	MGS	02-049/19:28:49		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-049/19:13:19
16472	MGS	02-049/19:28:49		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-049/19:13:19
16473	MGS	02-049/19:28:49		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=2, BITS=73600000, DUR=00:45:09		02-049/19:13:19
16474	MGS	02-049/19:28:49		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-049/19:13:19
16475	MGS	02-049/19:28:49	25	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
16476	MGS	02-049/19:28:53		NOTE: End fixed Sub-Reflector for Radio Science		02-049/19:13:23
16477	MGS	02-049/19:32:19		NOTE: Exit Solar Eclipse 13186		02-049/19:16:49
16478	MGS	02-049/19:45:17		NOTE: Periapsis 13187 ----------		02-049/19:29:47
16479	MGS	02-049/19:53:18		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-049/19:37:48
16480	MGS	02-049/19:53:18		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-049/19:37:48
16481	MGS	02-049/19:53:19		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-049/19:37:49
16482	MGS	02-049/19:53:19		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-049/19:37:49
16483	MGS	02-049/19:57:57	25	NOTE: Transmitter Off in 15 minutes		
16484	MGS	02-049/20:10:57	25	Range Modulation Off		
16485	MGS	02-049/20:12:57	25	Transmitter Off		
16486	MGS	02-049/20:15:19		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-049/19:59:49
16487	MGS	02-049/20:15:19		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-049/19:59:49
16488	MGS	02-049/20:36:26		NOTE: Begin fixed Sub-Reflector for Radio Science		02-049/20:20:56
16489	MGS	02-049/20:39:40		NOTE: Start EVP data return script		02-049/20:24:10
16490	MGS	02-049/20:41:26		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-049/20:25:56
16491	MGS	02-049/20:41:26		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=2, BITS=108456000, DUR=01:12:37		02-049/20:25:56
16492	MGS	02-049/20:41:26		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-049/20:25:56
16493	MGS	02-049/20:41:26		: 00:06:41, FALSE	RDSCII	02-049/20:25:56
16494	MGS	02-049/20:41:26		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-049/20:25:56
16495	MGS	02-049/20:41:26		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-049/20:25:56
16496	MGS	02-049/20:41:26		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-049/20:25:56
16497	MGS	02-049/20:41:26		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-049/20:25:56
16498	MGS	02-049/20:41:26	25	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
16499	MGS	02-049/20:41:26	25	NOTE: Carrier Only -- No Telemetry Modulation		
16500	MGS	02-049/20:43:41		NOTE: Enter Planetary Atmosphere 13187		02-049/20:28:11
16501	MGS	02-049/20:44:18		NOTE: Apoapsis 13187 -		02-049/20:28:48
16502	MGS	02-049/20:47:41		NOTE: Enter Earth Occultation 13187		02-049/20:32:11
16503	MGS	02-049/20:47:41	25	NOTE: Loss Of X-Band Signal		
16504	MGS	02-049/20:48:07		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-049/20:32:37
16505	MGS	02-049/20:48:07		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-049/20:32:37

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
16506	MGS	02-049/20:48:07		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-049/20:32:37
16507	MGS	02-049/20:48:07		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-049/20:32:37
16508	MGS	02-049/20:48:08		NOTE: End EVP script		02-049/20:32:38
16509	MGS	02-049/20:48:08		Turn off the MOT Exciter and RPA beam	STRPAF	02-049/20:32:38
16510	MGS	02-049/20:48:12		NOTE: End fixed Sub-Reflector for Radio Science		02-049/20:32:42
16511	MGS	02-049/20:49:40		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-049/20:34:10
16512	MGS	02-049/20:49:40		NOTE: Enter Solar Eclipse 13187		02-049/20:34:10
16513	MGS	02-049/20:52:54	25	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
16514	MGS	02-049/20:54:55	25	Range Modulation On: SUP=3.0dB		
16515	MGS	02-049/20:55:55	25	Begin Ranging Acquisition		
16516	MGS	02-049/21:14:19		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-049/20:58:49
16517	MGS	02-049/21:14:19		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-049/20:58:49
16518	MGS	02-049/21:14:24		Set eclipse egress script address: 01DC	SWSEES	02-049/20:58:54
16519	MGS	02-049/21:14:36		NOTE: Begin fixed Sub-Reflector for Radio Science		02-049/20:59:06
16520	MGS	02-049/21:18:21		: 01:27:34	RPAONX	02-049/21:02:51
16521	MGS	02-049/21:18:21		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-049/21:02:51
16522	MGS	02-049/21:19:36		: 00:00:30, 00:06:59, FALSE	RDSCIE	02-049/21:04:06
16523	MGS	02-049/21:19:36		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-049/21:04:06
16524	MGS	02-049/21:19:36		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-049/21:04:06
16525	MGS	02-049/21:19:36		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-049/21:04:06
16526	MGS	02-049/21:19:36		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-049/21:04:06
16527	MGS	02-049/21:20:09		NOTE: Exit Earth Occultation 13187		02-049/21:04:39
16528	MGS	02-049/21:20:09	25	Acquisition Of X-Band Signal		
16529	MGS	02-049/21:20:09	25	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
16530	MGS	02-049/21:20:09	25	NOTE: Carrier Only -- No Telemetry Modulation		
16531	MGS	02-049/21:24:27		NOTE: Exit Planetary Atmosphere 13187		02-049/21:08:57
16532	MGS	02-049/21:26:35		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-049/21:11:05
16533	MGS	02-049/21:26:35		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-049/21:11:05
16534	MGS	02-049/21:26:35		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-049/21:11:05
16535	MGS	02-049/21:26:35		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-049/21:11:05
16536	MGS	02-049/21:26:35	25	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
16537	MGS	02-049/21:26:36		: RTM, MRC, 01:12:37, S&E_2A, FALSE, 00:06:42	AEMRT	02-049/21:11:06
16538	MGS	02-049/21:26:36		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-049/21:11:06
16539	MGS	02-049/21:26:36		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-049/21:11:06
16540	MGS	02-049/21:26:36		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=2, BITS=130136000, DUR=00:45:10		02-049/21:11:06
16541	MGS	02-049/21:26:36		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-049/21:11:06
16542	MGS	02-049/21:26:36	25	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
16543	MGS	02-049/21:26:40		NOTE: End fixed Sub-Reflector for Radio Science		02-049/21:11:10
16544	MGS	02-049/21:30:06		NOTE: Exit Solar Eclipse 13187		02-049/21:14:36
16545	MGS	02-049/21:43:01		NOTE: Periapsis 13188 ----------		02-049/21:27:31
16546	MGS	02-049/21:51:05		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-049/21:35:35
16547	MGS	02-049/21:51:05		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-049/21:35:35
16548	MGS	02-049/21:51:06		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-049/21:35:36
16549	MGS	02-049/21:51:06		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-049/21:35:36
16550	MGS	02-049/21:55:42	25	NOTE: Transmitter Off in 15 minutes		
16551	MGS	02-049/22:08:43	25	Range Modulation Off		
16552	MGS	02-049/22:10:42	25	Transmitter Off		
16553	MGS	02-049/22:13:06		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-049/21:57:36
16554	MGS	02-049/22:13:06		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-049/21:57:36
16555	MGS	02-049/22:28:48		NOTE: Start Block (SSRMGR)		02-049/22:13:18
16556	MGS	02-049/22:28:48		Sends a one-word SSR command to the XSU command SOB: SSR_2A, SE_1A, RECORD, PART3	STSSRC	02-049/22:13:18
16557	MGS	02-049/22:28:49		SSR 2A Data Enable	CSD2AE	02-049/22:13:19
16558	MGS	02-049/22:28:49		SSR Activity: ID=SSR_2A, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-049/22:13:19
16559	MGS	02-049/22:34:13		NOTE: Begin fixed Sub-Reflector for Radio Science		02-049/22:18:43

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
16560	MGS	02-049/22:37:26		NOTE: Start EVP data return script		02-049/22:21:56
16561	MGS	02-049/22:39:13		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-049/22:23:43
16562	MGS	02-049/22:39:13		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=3, BITS=4992000, DUR=00:10:24		02-049/22:23:43
16563	MGS	02-049/22:39:13		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-049/22:23:43
16564	MGS	02-049/22:39:13		: 00:06:41, FALSE	RDSCII	02-049/22:23:43
16565	MGS	02-049/22:39:13		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-049/22:23:43
16566	MGS	02-049/22:39:13		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-049/22:23:43
16567	MGS	02-049/22:39:13		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-049/22:23:43
16568	MGS	02-049/22:39:13		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-049/22:23:43
16569	MGS	02-049/22:39:13	25	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
16570	MGS	02-049/22:39:13	25	NOTE: Carrier Only -- No Telemetry Modulation		
16571	MGS	02-049/22:41:27		NOTE: Enter Planetary Atmosphere 13188		02-049/22:25:57
16572	MGS	02-049/22:41:47		NOTE: Apoapsis 13188 -		02-049/22:26:17
16573	MGS	02-049/22:45:27		NOTE: Enter Earth Occultation 13188		02-049/22:29:57
16574	MGS	02-049/22:45:27	25	NOTE: Loss Of X-Band Signal		
16575	MGS	02-049/22:45:54		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-049/22:30:24
16576	MGS	02-049/22:45:54		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-049/22:30:24
16577	MGS	02-049/22:45:54		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-049/22:30:24
16578	MGS	02-049/22:45:54		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-049/22:30:24
16579	MGS	02-049/22:45:55		NOTE: End EVP script		02-049/22:30:25
16580	MGS	02-049/22:45:55		Turn off the MOT Exciter and RPA beam	STRPAF	02-049/22:30:25
16581	MGS	02-049/22:45:59		NOTE: End fixed Sub-Reflector for Radio Science		02-049/22:30:29
16582	MGS	02-049/22:47:26		NOTE: Enter Solar Eclipse 13188		02-049/22:31:56
16583	MGS	02-049/22:47:26		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-049/22:31:56
16584	MGS	02-049/22:50:40	25	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
16585	MGS	02-049/22:52:41	25	Range Modulation On: SUP=3.0dB		
16586	MGS	02-049/22:53:41	25	Begin Ranging Acquisition		
16587	MGS	02-049/22:55:29		SSR 2B Data Disable	CSD2BX	02-049/22:39:59
16588	MGS	02-049/22:55:29		SSR Activity: ID=SSR_2B, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-049/22:39:59
16589	MGS	02-049/22:55:30		NOTE: End Block (SSRMGR)		02-049/22:40:00
16590	MGS	02-049/23:08:49		NOTE: Start Block (SSRMGR)		02-049/22:53:18
16591	MGS	02-049/23:08:49		Sends a one-word SSR command to the XSU command SOB: SSR_2B, SE_1A, RECORD, PART3	STSSRC	02-049/22:53:18
16592	MGS	02-049/23:08:50		SSR 2B Data Enable	CSD2BE	02-049/22:53:19
16593	MGS	02-049/23:08:50		SSR Activity: ID=SSR_2B, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-049/22:53:19
16594	MGS	02-049/23:12:07		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-049/22:56:36
16595	MGS	02-049/23:12:07		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-049/22:56:36
16596	MGS	02-049/23:12:11		Command the PSE with included data word: 3990	SWPSEL	02-049/22:56:40
16597	MGS	02-049/23:12:12		Set eclipse egress script address: 0158	SWSEES	02-049/22:56:41
16598	MGS	02-049/23:12:22		NOTE: Begin fixed Sub-Reflector for Radio Science		02-049/22:56:52
16599	MGS	02-049/23:16:08		: 01:27:34	RPAONX	02-049/23:00:37
16600	MGS	02-049/23:16:08		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-049/23:00:37
16601	MGS	02-049/23:17:23		: 00:00:30, 00:06:59, FALSE	RDSCIE	02-049/23:01:52
16602	MGS	02-049/23:17:23		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-049/23:01:52
16603	MGS	02-049/23:17:23		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-049/23:01:52
16604	MGS	02-049/23:17:23		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-049/23:01:52
16605	MGS	02-049/23:17:23		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-049/23:01:52
16606	MGS	02-049/23:17:53		Disables autonomous command to send eclipse ingress script	SWEISX	02-049/23:02:22
16607	MGS	02-049/23:17:55		NOTE: Exit Earth Occultation 13188		02-049/23:02:25
16608	MGS	02-049/23:17:55	25	Acquisition Of X-Band Signal		
16609	MGS	02-049/23:17:55	25	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
16610	MGS	02-049/23:17:55	25	NOTE: Carrier Only -- No Telemetry Modulation		
16611	MGS	02-049/23:22:13		NOTE: Exit Planetary Atmosphere 13188		02-049/23:06:43
16612	MGS	02-049/23:24:22		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-049/23:08:51
16613	MGS	02-049/23:24:22		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-049/23:08:51

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
16614	MGS	02-049/23:24:22		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-049/23:08:51
16615	MGS	02-049/23:24:22		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-049/23:08:51
16616	MGS	02-049/23:24:22	25	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
16617	MGS	02-049/23:24:23		: RTM, MRC, 01:12:37, S&E_2A, FALSE, 00:06:42	AEMRT	02-049/23:08:52
16618	MGS	02-049/23:24:23		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-049/23:08:52
16619	MGS	02-049/23:24:23		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-049/23:08:52
16620	MGS	02-049/23:24:23		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=3, BITS=7464000, DUR=00:15:33		02-049/23:08:52
16621	MGS	02-049/23:24:23		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-049/23:08:52
16622	MGS	02-049/23:24:23	25	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
16623	MGS	02-049/23:24:26		NOTE: End fixed Sub-Reflector for Radio Science		02-049/23:08:56
16624	MGS	02-049/23:27:52		NOTE: Exit Solar Eclipse 13188		02-049/23:12:22
16625	MGS	02-049/23:35:30		SSR 2A Data Disable	CSD2AX	02-049/23:19:59
16626	MGS	02-049/23:35:30		SSR Activity: ID=SSR_2A, FCN=End Recording, PRT=3, BITS=32000000, DUR=01:06:40		02-049/23:19:59
16627	MGS	02-049/23:35:31		NOTE: End Block (SSRMGR)		02-049/23:20:00
16628	MGS	02-049/23:40:44		NOTE: Periapsis 13189 ----------		02-049/23:25:14
16629	MGS	02-049/23:52:52		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-049/23:37:21
16630	MGS	02-049/23:52:52		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-049/23:37:21
16631	MGS	02-049/23:52:53		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-049/23:37:22
16632	MGS	02-049/23:52:53		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-049/23:37:22
16633	MGS	02-049/23:53:26	25	NOTE: Transmitter Off in 15 minutes		
16634	MGS	02-050/00:00:00		Light Time: OWLT = 15:30, RTLT = 31:00		
16635	MGS	02-050/00:06:26	25	Range Modulation Off		
16636	MGS	02-050/00:08:26	25	Transmitter Off		
16637	MGS	02-050/00:14:53		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-049/23:59:22
16638	MGS	02-050/00:14:53		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-049/23:59:22
16639	MGS	02-050/00:15:29		NOTE: Start Block (SSRMGR)		02-049/23:59:58
16640	MGS	02-050/00:15:29		Sends a one-word SSR command to the XSU command SOB: SSR_1A, SE_1A, RECORD, PART1	STSSRC	02-049/23:59:58
16641	MGS	02-050/00:15:30		SSR 1A Data Enable	CSD1AE	02-049/23:59:59
16642	MGS	02-050/00:15:30		SSR Activity: ID=SSR_1A, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-049/23:59:59
16643	MGS	02-050/00:31:59		NOTE: Begin fixed Sub-Reflector for Radio Science		02-050/00:16:29
16644	MGS	02-050/00:35:09		NOTE: Start Block (MAP_RT)		02-050/00:19:38
16645	MGS	02-050/00:35:10		: 00:28:45, 01:27:30, FALSE, TRUE, FALSE, 00:01:15, 00:06:57, 01:12:37, 00:06:40	AEMINI	02-050/00:19:39
16646	MGS	02-050/00:35:10		Enable sending eclipse ingress script when array power disappears	SWEISE	02-050/00:19:39
16647	MGS	02-050/00:35:10		NOTE: Start EVP data return script		02-050/00:19:39
16648	MGS	02-050/00:35:11		: SE_2A, RTM, 01:12:36, MRC, 2002-050T01:06:38.000	AEMRTI	02-050/00:19:40
16649	MGS	02-050/00:37:00		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-050/00:21:29
16650	MGS	02-050/00:37:00		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=10320000, DUR=00:21:30		02-050/00:21:29
16651	MGS	02-050/00:37:00		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-050/00:21:29
16652	MGS	02-050/00:37:00		: 00:06:41, FALSE	RDSCII	02-050/00:21:29
16653	MGS	02-050/00:37:00		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-050/00:21:29
16654	MGS	02-050/00:37:00		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-050/00:21:29
16655	MGS	02-050/00:37:00		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-050/00:21:29
16656	MGS	02-050/00:37:00		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-050/00:21:29
16657	MGS	02-050/00:37:00	25	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
16658	MGS	02-050/00:37:00	25	NOTE: Carrier Only -- No Telemetry Modulation		
16659	MGS	02-050/00:39:11		NOTE: Enter Planetary Atmosphere 13189		02-050/00:23:41
16660	MGS	02-050/00:39:23		NOTE: Apoapsis 13189 -		02-050/00:23:52
16661	MGS	02-050/00:42:10		SSR 2B Data Disable	CSD2BX	02-050/00:26:39
16662	MGS	02-050/00:42:10		SSR Activity: ID=SSR_2B, FCN=End Recording, PRT=3, BITS=44800000, DUR=01:33:20		02-050/00:26:39
16663	MGS	02-050/00:42:11		NOTE: End Block (SSRMGR)		02-050/00:26:40
16664	MGS	02-050/00:43:11		NOTE: Enter Earth Occultation 13189		02-050/00:27:41
16665	MGS	02-050/00:43:11	25	NOTE: Loss Of X-Band Signal		
16666	MGS	02-050/00:43:41		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-050/00:28:10
16667	MGS	02-050/00:43:41		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-050/00:28:10

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
16668	MGS	02-050/00:43:41		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-050/00:28:10
16669	MGS	02-050/00:43:41		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-050/00:28:10
16670	MGS	02-050/00:43:41		NOTE: End EVP script		02-050/00:28:11
16671	MGS	02-050/00:43:42		Turn off the MOT Exciter and RPA beam	STRPAF	02-050/00:28:11
16672	MGS	02-050/00:43:42		NOTE: End Block (MAP_RT)		02-050/00:28:12
16673	MGS	02-050/00:43:45		NOTE: End fixed Sub-Reflector for Radio Science		02-050/00:28:15
16674	MGS	02-050/00:45:10		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-050/00:29:39
16675	MGS	02-050/00:45:10		NOTE: Enter Solar Eclipse 13189		02-050/00:29:40
16676	MGS	02-050/00:48:25	25	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
16677	MGS	02-050/00:50:25	25	Range Modulation On: SUP=3.0dB		
16678	MGS	02-050/00:51:25	25	Begin Ranging Acquisition		
16679	MGS	02-050/01:09:53		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-050/00:54:22
16680	MGS	02-050/01:09:53		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-050/00:54:22
16681	MGS	02-050/01:09:58		Set eclipse egress script address: 019A	SWSEES	02-050/00:54:27
16682	MGS	02-050/01:10:10		NOTE: Begin fixed Sub-Reflector for Radio Science		02-050/00:54:40
16683	MGS	02-050/01:13:55		: 01:27:30	RPAONX	02-050/00:58:24
16684	MGS	02-050/01:13:55		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-050/00:58:24
16685	MGS	02-050/01:15:10		: 00:00:30, 00:06:57, FALSE	RDSCIE	02-050/00:59:39
16686	MGS	02-050/01:15:10		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-050/00:59:39
16687	MGS	02-050/01:15:10		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-050/00:59:39
16688	MGS	02-050/01:15:10		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-050/00:59:39
16689	MGS	02-050/01:15:10		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-050/00:59:39
16690	MGS	02-050/01:15:40		NOTE: Exit Earth Occultation 13189		02-050/01:00:10
16691	MGS	02-050/01:15:40	25	Acquisition Of X-Band Signal		
16692	MGS	02-050/01:15:40	25	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
16693	MGS	02-050/01:15:40	25	NOTE: Carrier Only -- No Telemetry Modulation		
16694	MGS	02-050/01:19:58		NOTE: Exit Planetary Atmosphere 13189		02-050/01:04:28
16695	MGS	02-050/01:22:07		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-050/01:06:36
16696	MGS	02-050/01:22:07		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-050/01:06:36
16697	MGS	02-050/01:22:07		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-050/01:06:36
16698	MGS	02-050/01:22:07		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-050/01:06:36
16699	MGS	02-050/01:22:07	25	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
16700	MGS	02-050/01:22:08		: RTM, MRC, 01:12:36, S&E_2A, FALSE, 00:06:41	AEMRT	02-050/01:06:37
16701	MGS	02-050/01:22:08		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-050/01:06:37
16702	MGS	02-050/01:22:08		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-050/01:06:37
16703	MGS	02-050/01:22:08		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=31984000, DUR=00:45:08		02-050/01:06:37
16704	MGS	02-050/01:22:08		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-050/01:06:37
16705	MGS	02-050/01:22:08	25	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
16706	MGS	02-050/01:22:12		NOTE: End fixed Sub-Reflector for Radio Science		02-050/01:06:42
16707	MGS	02-050/01:25:36		NOTE: Exit Solar Eclipse 13189		02-050/01:10:06
16708	MGS	02-050/01:38:29		NOTE: Periapsis 13190 ----------		02-050/01:22:58
16709	MGS	02-050/01:46:35		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-050/01:31:04
16710	MGS	02-050/01:46:35		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-050/01:31:04
16711	MGS	02-050/01:46:36		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-050/01:31:05
16712	MGS	02-050/01:46:36		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-050/01:31:05
16713	MGS	02-050/01:51:08	25	NOTE: Transmitter Off in 15 minutes		
16714	MGS	02-050/02:04:08	25	Range Modulation Off		
16715	MGS	02-050/02:06:08	25	Transmitter Off		
16716	MGS	02-050/02:08:36		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-050/01:53:05
16717	MGS	02-050/02:08:36		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-050/01:53:05
16718	MGS	02-050/02:29:44		NOTE: Begin fixed Sub-Reflector for Radio Science		02-050/02:14:14
16719	MGS	02-050/02:32:52		NOTE: Start EVP data return script		02-050/02:17:21
16720	MGS	02-050/02:34:44		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-050/02:19:13
16721	MGS	02-050/02:34:44		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=66832000, DUR=01:12:36		02-050/02:19:13

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
16722	MGS	02-050/02:34:44		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-050/02:19:13
16723	MGS	02-050/02:34:44		: 00:06:40, FALSE	RDSCII	02-050/02:19:13
16724	MGS	02-050/02:34:44		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-050/02:19:13
16725	MGS	02-050/02:34:44		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-050/02:19:13
16726	MGS	02-050/02:34:44		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-050/02:19:13
16727	MGS	02-050/02:34:44		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-050/02:19:13
16728	MGS	02-050/02:34:44	25	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
16729	MGS	02-050/02:34:44	25	NOTE: Carrier Only -- No Telemetry Modulation		
16730	MGS	02-050/02:36:53		NOTE: Enter Planetary Atmosphere 13190		02-050/02:21:23
16731	MGS	02-050/02:37:18		NOTE: Apoapsis 13190 -		02-050/02:21:47
16732	MGS	02-050/02:40:54		NOTE: Enter Earth Occultation 13190		02-050/02:25:23
16733	MGS	02-050/02:40:54	25	NOTE: Loss Of X-Band Signal		
16734	MGS	02-050/02:41:24		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-050/02:25:53
16735	MGS	02-050/02:41:24		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-050/02:25:53
16736	MGS	02-050/02:41:24		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-050/02:25:53
16737	MGS	02-050/02:41:24		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-050/02:25:53
16738	MGS	02-050/02:41:25		Turn off the MOT Exciter and RPA beam	STRPAF	02-050/02:25:54
16739	MGS	02-050/02:41:25		NOTE: End EVP script		02-050/02:25:55
16740	MGS	02-050/02:41:29		NOTE: End fixed Sub-Reflector for Radio Science		02-050/02:25:59
16741	MGS	02-050/02:42:52		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-050/02:27:21
16742	MGS	02-050/02:42:52		NOTE: Enter Solar Eclipse 13190		02-050/02:27:22
16743	MGS	02-050/02:46:07	25	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
16744	MGS	02-050/02:48:07	25	Range Modulation On: SUP=3.0dB		
16745	MGS	02-050/02:49:07	25	Begin Ranging Acquisition		
16746	MGS	02-050/03:07:36		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-050/02:52:05
16747	MGS	02-050/03:07:36		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-050/02:52:05
16748	MGS	02-050/03:07:41		Set eclipse egress script address: 01DC	SWSEES	02-050/02:52:10
16749	MGS	02-050/03:07:53		NOTE: Begin fixed Sub-Reflector for Radio Science		02-050/02:52:22
16750	MGS	02-050/03:11:37		: 01:27:30	RPAONX	02-050/02:56:06
16751	MGS	02-050/03:11:37		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-050/02:56:06
16752	MGS	02-050/03:12:52		: 00:00:30, 00:06:57, FALSE	RDSCIE	02-050/02:57:21
16753	MGS	02-050/03:12:52		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-050/02:57:21
16754	MGS	02-050/03:12:52		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-050/02:57:21
16755	MGS	02-050/03:12:52		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-050/02:57:21
16756	MGS	02-050/03:12:52		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-050/02:57:21
16757	MGS	02-050/03:13:22		Disables autonomous command to send eclipse ingress script	SWEISX	02-050/02:57:51
16758	MGS	02-050/03:13:23		NOTE: Exit Earth Occultation 13190		02-050/02:57:52
16759	MGS	02-050/03:13:23	25	Acquisition Of X-Band Signal		
16760	MGS	02-050/03:13:23	25	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
16761	MGS	02-050/03:13:23	25	NOTE: Carrier Only -- No Telemetry Modulation		
16762	MGS	02-050/03:17:41		NOTE: Exit Planetary Atmosphere 13190		02-050/03:02:11
16763	MGS	02-050/03:19:49		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-050/03:04:18
16764	MGS	02-050/03:19:49		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-050/03:04:18
16765	MGS	02-050/03:19:49		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-050/03:04:18
16766	MGS	02-050/03:19:49		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-050/03:04:18
16767	MGS	02-050/03:19:49	25	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
16768	MGS	02-050/03:19:50		: RTM, MRC, 01:12:36, S&E_2A, FALSE, 00:06:41	AEMRT	02-050/03:04:19
16769	MGS	02-050/03:19:50		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-050/03:04:19
16770	MGS	02-050/03:19:50		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-050/03:04:19
16771	MGS	02-050/03:19:50		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=88480000, DUR=00:45:06		02-050/03:04:19
16772	MGS	02-050/03:19:50		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-050/03:04:19
16773	MGS	02-050/03:19:50	25	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
16774	MGS	02-050/03:19:55		NOTE: End fixed Sub-Reflector for Radio Science		02-050/03:04:24
16775	MGS	02-050/03:23:18		NOTE: Exit Solar Eclipse 13190		02-050/03:07:47

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
16776	MGS	02-050/03:36:03		NOTE: Periapsis 13191 ----------		02-050/03:20:32
16777	MGS	02-050/03:44:17		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-050/03:28:46
16778	MGS	02-050/03:44:17		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-050/03:28:46
16779	MGS	02-050/03:44:18		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-050/03:28:47
16780	MGS	02-050/03:44:18		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-050/03:28:47
16781	MGS	02-050/03:48:50	25	NOTE: Transmitter Off in 15 minutes		
16782	MGS	02-050/04:01:50	25	Range Modulation Off		
16783	MGS	02-050/04:03:50	25	Transmitter Off		
16784	MGS	02-050/04:06:18		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-050/03:50:47
16785	MGS	02-050/04:06:18		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-050/03:50:47
16786	MGS	02-050/04:27:27		NOTE: Begin fixed Sub-Reflector for Radio Science		02-050/04:11:56
16787	MGS	02-050/04:32:26		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-050/04:16:55
16788	MGS	02-050/04:32:26		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=123328000, DUR=01:12:36		02-050/04:16:55
16789	MGS	02-050/04:32:26		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-050/04:16:55
16790	MGS	02-050/04:32:26		: 00:06:40, FALSE	RDSCII	02-050/04:16:55
16791	MGS	02-050/04:32:26		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-050/04:16:55
16792	MGS	02-050/04:32:26		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-050/04:16:55
16793	MGS	02-050/04:32:26		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-050/04:16:55
16794	MGS	02-050/04:32:26		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-050/04:16:55
16795	MGS	02-050/04:32:26	25	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
16796	MGS	02-050/04:32:26	25	NOTE: Carrier Only -- No Telemetry Modulation		
16797	MGS	02-050/04:34:36		NOTE: Enter Planetary Atmosphere 13191		02-050/04:19:05
16798	MGS	02-050/04:34:47		NOTE: Apoapsis 13191 -		02-050/04:19:16
16799	MGS	02-050/04:38:36		NOTE: Enter Earth Occultation 13191		02-050/04:23:05
16800	MGS	02-050/04:38:36	25	NOTE: Loss Of X-Band Signal		
16801	MGS	02-050/04:39:06		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-050/04:23:35
16802	MGS	02-050/04:39:06		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-050/04:23:35
16803	MGS	02-050/04:39:06		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-050/04:23:35
16804	MGS	02-050/04:39:06		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-050/04:23:35
16805	MGS	02-050/04:39:07		Turn off the MOT Exciter and RPA beam	STRPAF	02-050/04:23:36
16806	MGS	02-050/04:39:08		NOTE: End EVP script		02-050/04:23:37
16807	MGS	02-050/04:39:09		NOTE: End Block (MAP_RT)		02-050/04:23:38
16808	MGS	02-050/04:39:12		NOTE: End fixed Sub-Reflector for Radio Science		02-050/04:23:41
16809	MGS	02-050/04:40:34		NOTE: Enter Solar Eclipse 13191		02-050/04:25:04
16810	MGS	02-050/04:48:53	25	NOTE: Below Uplink Interlock Limit		
16811	MGS	02-050/04:55:00	25	End Tracking		
16812	MGS	02-050/04:55:39		Disable HGA control mode	SAHGCX	02-050/04:40:08
16813	MGS	02-050/04:55:40		No Operation	SCNOOP	02-050/04:40:09
16814	MGS	02-050/04:55:41		CDU-1 Uplink Rate Select (Based on 3 bit Code): 7	TCC1BS	02-050/04:40:10
16815	MGS	02-050/04:55:41		CDU-2 Uplink Rate Select (Based on 3 bit Code): 7	TCC2BS	02-050/04:40:10
16816	MGS	02-050/05:05:18		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-050/04:49:47
16817	MGS	02-050/05:05:18		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-050/04:49:47
16818	MGS	02-050/05:05:22		Command the PSE with included data word: 3990	SWPSEL	02-050/04:49:51
16819	MGS	02-050/05:05:23		Set eclipse egress script address: 0158	SWSEES	02-050/04:49:52
16820	MGS	02-050/05:10:00	25	End Post-Cal		
16821	MGS	02-050/05:11:05		NOTE: Exit Earth Occultation 13191		02-050/04:55:34
16822	MGS	02-050/05:15:23		NOTE: Exit Planetary Atmosphere 13191		02-050/04:59:52
16823	MGS	02-050/05:21:00		NOTE: Exit Solar Eclipse 13191		02-050/05:05:29
16824	MGS	02-050/05:33:23		NOTE: Periapsis 13192 ----------		02-050/05:17:52
16825	MGS	02-050/05:45:59		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-050/05:30:27
16826	MGS	02-050/05:45:59		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-050/05:30:27
16827	MGS	02-050/05:46:00		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-050/05:30:28
16828	MGS	02-050/05:46:00		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-050/05:30:28
16829	MGS	02-050/05:48:50		NOTE: Start Block (SSRMGR)		02-050/05:33:18

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
16830	MGS	02-050/05:48:50		Sends a one-word SSR command to the XSU command SOB: SSR_1B, SE_1A, RECORD, PART1	STSSRC	02-050/05:33:18
16831	MGS	02-050/05:48:51		SSR 1B Data Enable	CSD1BE	02-050/05:33:19
16832	MGS	02-050/05:48:51		SSR Activity: ID=SSR_1B, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-050/05:33:19
16833	MGS	02-050/06:08:00		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-050/05:52:28
16834	MGS	02-050/06:08:00		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-050/05:52:28
16835	MGS	02-050/06:15:31		SSR 1A Data Disable	CSD1AX	02-050/05:59:59
16836	MGS	02-050/06:15:31		SSR Activity: ID=SSR_1A, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-050/05:59:59
16837	MGS	02-050/06:15:32		NOTE: End Block (SSRMGR)		02-050/06:00:00
16838	MGS	02-050/06:32:13		NOTE: Apoapsis 13192 -		02-050/06:16:41
16839	MGS	02-050/06:32:20		NOTE: Enter Planetary Atmosphere 13192		02-050/06:16:48
16840	MGS	02-050/06:36:19		NOTE: Enter Earth Occultation 13192		02-050/06:20:48
16841	MGS	02-050/06:38:18		NOTE: Enter Solar Eclipse 13192		02-050/06:22:47
16842	MGS	02-050/07:03:00		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-050/06:47:28
16843	MGS	02-050/07:03:00		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-050/06:47:28
16844	MGS	02-050/07:03:05		Set eclipse egress script address: 019A	SWSEES	02-050/06:47:33
16845	MGS	02-050/07:08:49		NOTE: Exit Earth Occultation 13192		02-050/06:53:17
16846	MGS	02-050/07:13:06		NOTE: Exit Planetary Atmosphere 13192		02-050/06:57:34
16847	MGS	02-050/07:18:44		NOTE: Exit Solar Eclipse 13192		02-050/07:03:12
16848	MGS	02-050/07:31:17		NOTE: Periapsis 13193 ----------		02-050/07:15:45
16849	MGS	02-050/07:39:43		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-050/07:24:11
16850	MGS	02-050/07:39:43		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-050/07:24:11
16851	MGS	02-050/07:39:44		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-050/07:24:12
16852	MGS	02-050/07:39:44		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-050/07:24:12
16853	MGS	02-050/08:01:44		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-050/07:46:12
16854	MGS	02-050/08:01:44		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-050/07:46:12
16855	MGS	02-050/08:30:04		NOTE: Enter Planetary Atmosphere 13193		02-050/08:14:33
16856	MGS	02-050/08:30:17		NOTE: Apoapsis 13193 -		02-050/08:14:45
16857	MGS	02-050/08:34:04		NOTE: Enter Earth Occultation 13193		02-050/08:18:32
16858	MGS	02-050/08:36:04		NOTE: Enter Solar Eclipse 13193		02-050/08:20:33
16859	MGS	02-050/09:00:44		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-050/08:45:12
16860	MGS	02-050/09:00:44		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-050/08:45:12
16861	MGS	02-050/09:00:49		Set eclipse egress script address: 01DC	SWSEES	02-050/08:45:17
16862	MGS	02-050/09:06:35		NOTE: Exit Earth Occultation 13193		02-050/08:51:03
16863	MGS	02-050/09:10:51		NOTE: Exit Planetary Atmosphere 13193		02-050/08:55:20
16864	MGS	02-050/09:16:30		NOTE: Exit Solar Eclipse 13193		02-050/09:00:58
16865	MGS	02-050/09:29:29		NOTE: Periapsis 13194 ----------		02-050/09:13:58
16866	MGS	02-050/09:37:29		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-050/09:21:57
16867	MGS	02-050/09:37:29		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-050/09:21:57
16868	MGS	02-050/09:37:30		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-050/09:21:58
16869	MGS	02-050/09:37:30		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-050/09:21:58
16870	MGS	02-050/09:59:30		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-050/09:43:58
16871	MGS	02-050/09:59:30		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-050/09:43:58
16872	MGS	02-050/10:27:51		NOTE: Enter Planetary Atmosphere 13194		02-050/10:12:19
16873	MGS	02-050/10:28:35		NOTE: Apoapsis 13194 -		02-050/10:13:03
16874	MGS	02-050/10:31:51		NOTE: Enter Earth Occultation 13194		02-050/10:16:19
16875	MGS	02-050/10:33:51		NOTE: Enter Solar Eclipse 13194		02-050/10:18:19
16876	MGS	02-050/10:58:30		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-050/10:42:58
16877	MGS	02-050/10:58:30		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-050/10:42:58
16878	MGS	02-050/10:58:34		Command the PSE with included data word: 3990	SWPSEL	02-050/10:43:02
16879	MGS	02-050/10:58:35		Set eclipse egress script address: 0158	SWSEES	02-050/10:43:03
16880	MGS	02-050/11:04:22		NOTE: Exit Earth Occultation 13194		02-050/10:48:50
16881	MGS	02-050/11:08:39		NOTE: Exit Planetary Atmosphere 13194		02-050/10:53:07
16882	MGS	02-050/11:14:17		NOTE: Exit Solar Eclipse 13194		02-050/10:58:45
16883	MGS	02-050/11:22:10		NOTE: Start Block (SSRMGR)		02-050/11:06:38

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
16884	MGS	02-050/11:22:10		Sends a one-word SSR command to the XSU command SOB: SSR_1A, SE_1A, RECORD, PART2	STSSRC	02-050/11:06:38
16885	MGS	02-050/11:22:11		SSR 1A Data Enable	CSD1AE	02-050/11:06:39
16886	MGS	02-050/11:22:11		SSR Activity: ID=SSR_1A, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-050/11:06:39
16887	MGS	02-050/11:27:33		NOTE: Periapsis 13195 ----------		02-050/11:12:01
16888	MGS	02-050/11:39:16		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-050/11:23:44
16889	MGS	02-050/11:39:16		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-050/11:23:44
16890	MGS	02-050/11:39:17		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-050/11:23:45
16891	MGS	02-050/11:39:17		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-050/11:23:45
16892	MGS	02-050/11:48:51		SSR 1B Data Disable	CSD1BX	02-050/11:33:19
16893	MGS	02-050/11:48:51		SSR Activity: ID=SSR_1B, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-050/11:33:19
16894	MGS	02-050/11:48:52		NOTE: End Block (SSRMGR)		02-050/11:33:20
16895	MGS	02-050/12:01:18		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-050/11:45:45
16896	MGS	02-050/12:01:18		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-050/11:45:45
16897	MGS	02-050/12:15:32		Dump SCP memory to the EDF using physical addressing arguments: 56A4, 240	SCDSCM	02-050/11:59:59
16898	MGS	02-050/12:21:37		NOTE: Start Block (MAP_RT)		02-050/12:06:04
16899	MGS	02-050/12:21:38		: 00:28:48, 01:27:27, FALSE, TRUE, FALSE, 00:01:15, 00:06:58, 01:12:34, 00:06:39	AEMINI	02-050/12:06:05
16900	MGS	02-050/12:21:38		Enable sending eclipse ingress script when array power disappears	SWEISE	02-050/12:06:05
16901	MGS	02-050/12:21:38		NOTE: Start EVP data return script		02-050/12:06:05
16902	MGS	02-050/12:21:39		: SE_1A, MRC, 01:12:33, MRC, 2002-050T12:53:08.000	AEMRTI	02-050/12:06:06
16903	MGS	02-050/12:25:39		NOTE: Enter Planetary Atmosphere 13195		02-050/12:10:06
16904	MGS	02-050/12:26:28		NOTE: Apoapsis 13195 -		02-050/12:10:56
16905	MGS	02-050/12:29:38		NOTE: Enter Earth Occultation 13195		02-050/12:14:06
16906	MGS	02-050/12:31:37		NOTE: Enter Solar Eclipse 13195		02-050/12:16:05
16907	MGS	02-050/12:31:38		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-050/12:16:05
16908	MGS	02-050/12:46:54		Select Automatic HGA control mode	SAHACE	02-050/12:31:21
16909	MGS	02-050/12:46:55		Selects Hign Gain Antenna for downlink, Reconfigures if beam is already on	STUHGA	02-050/12:31:22
16910	MGS	02-050/12:46:56		CDU-1 Uplink Rate Select (Based on 3 bit Code): 3	TCC1BS	02-050/12:31:23
16911	MGS	02-050/12:46:56		CDU-2 Uplink Rate Select (Based on 3 bit Code): 3	TCC2BS	02-050/12:31:23
16912	MGS	02-050/12:56:18		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-050/12:40:45
16913	MGS	02-050/12:56:18		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-050/12:40:45
16914	MGS	02-050/12:56:23		Set eclipse egress script address: 019A	SWSEES	02-050/12:40:50
16915	MGS	02-050/12:56:41		NOTE: Begin fixed Sub-Reflector for Radio Science		02-050/12:41:08
16916	MGS	02-050/13:00:00	65	Begin Pre-Cal		
16917	MGS	02-050/13:00:00	65	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
16918	MGS	02-050/13:00:00	65	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
16919	MGS	02-050/13:00:00	65	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
16920	MGS	02-050/13:00:00	65	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
16921	MGS	02-050/13:00:00	65	At BOT: S/C Tlm Mode: BR=8000.0, FL=10000, SC=HIGH, MI=80.0		
16922	MGS	02-050/13:00:00	65	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
16923	MGS	02-050/13:00:00	65	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
16924	MGS	02-050/13:00:00	65	Config: TGC: DEST=37		
16925	MGS	02-050/13:00:00	65	Config: TGC: BAND=X, BR=8000.000000		
16926	MGS	02-050/13:00:00	65	Config: FSS: CH=2, PRI_FL=10000		
16927	MGS	02-050/13:00:00	65	Config: RSR		
16928	MGS	02-050/13:00:00	65	Config: TXL		
16929	MGS	02-050/13:00:00	65	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
16930	MGS	02-050/13:00:00	65	Config: BVR		
16931	MGS	02-050/13:00:00	65	Config: Doppler Extractor: BIAS=+1MHZ		
16932	MGS	02-050/13:00:00	65	Config: MDA: SMPL=0.1		
16933	MGS	02-050/13:00:00	65	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
16934	MGS	02-050/13:00:00	65	Config: SRA: HIGH=4, LOW=14, SERV=D		
16935	MGS	02-050/13:00:00	65	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
16936	MGS	02-050/13:00:26		: 01:27:27	RPAONX	02-050/12:44:53
16937	MGS	02-050/13:00:26		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-050/12:44:53

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
16938	MGS	02-050/13:01:41		: 00:00:30, 00:06:58, FALSE	RDSCIE	02-050/12:46:08
16939	MGS	02-050/13:01:41		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-050/12:46:08
16940	MGS	02-050/13:01:41		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-050/12:46:08
16941	MGS	02-050/13:01:41		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-050/12:46:08
16942	MGS	02-050/13:01:41		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-050/12:46:08
16943	MGS	02-050/13:02:10		NOTE: Exit Earth Occultation 13195		02-050/12:46:37
16944	MGS	02-050/13:02:11		Disables autonomous command to send eclipse ingress script	SWEISX	02-050/12:46:38
16945	MGS	02-050/13:06:27		NOTE: Exit Planetary Atmosphere 13195		02-050/12:50:55
16946	MGS	02-050/13:08:39		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-050/12:53:06
16947	MGS	02-050/13:08:39		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-050/12:53:06
16948	MGS	02-050/13:08:39		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-050/12:53:06
16949	MGS	02-050/13:08:39		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-050/12:53:06
16950	MGS	02-050/13:08:40		: MRC, MRC, 01:12:33, S&E_1A, FALSE, 00:06:40	AEMRT	02-050/12:53:07
16951	MGS	02-050/13:08:40		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-050/12:53:07
16952	MGS	02-050/13:08:40		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-050/12:53:07
16953	MGS	02-050/13:08:40		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=2, BITS=51104000, DUR=01:46:28		02-050/12:53:07
16954	MGS	02-050/13:08:40		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-050/12:53:07
16955	MGS	02-050/13:08:44		NOTE: End fixed Sub-Reflector for Radio Science		02-050/12:53:11
16956	MGS	02-050/13:12:03		NOTE: Exit Solar Eclipse 13195		02-050/12:56:31
16957	MGS	02-050/13:25:11		NOTE: Periapsis 13196 ----------		02-050/13:09:38
16958	MGS	02-050/13:33:03		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-050/13:17:30
16959	MGS	02-050/13:33:03		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-050/13:17:30
16960	MGS	02-050/13:33:04		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-050/13:17:31
16961	MGS	02-050/13:33:04		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-050/13:17:31
16962	MGS	02-050/13:55:04		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-050/13:39:31
16963	MGS	02-050/13:55:04		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-050/13:39:31
16964	MGS	02-050/14:00:00	65	Begin Tracking		
16965	MGS	02-050/14:00:00	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
16966	MGS	02-050/14:05:31		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-050/13:49:58
16967	MGS	02-050/14:05:31		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=2, BITS=78392000, DUR=00:56:51		02-050/13:49:58
16968	MGS	02-050/14:05:31		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-050/13:49:58
16969	MGS	02-050/14:05:31		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-050/13:49:58
16970	MGS	02-050/14:05:31	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
16971	MGS	02-050/14:16:13		NOTE: Begin fixed Sub-Reflector for Radio Science		02-050/14:00:40
16972	MGS	02-050/14:19:19		NOTE: Start Block (MAP_PB)		02-050/14:03:46
16973	MGS	02-050/14:19:20		: 00:28:48, 01:27:28, FALSE, TRUE, FALSE, 00:01:15, 00:06:58, 01:12:35, 00:06:39	AEMINI	02-050/14:03:47
16974	MGS	02-050/14:19:20		Enable sending eclipse ingress script when array power disappears	SWEISE	02-050/14:03:47
16975	MGS	02-050/14:19:20		NOTE: Start EVP data return script		02-050/14:03:47
16976	MGS	02-050/14:19:21		: SSR_2A, F42KHZ, PART1, SE_1A, 2002-050T14:50:49.000	AEMPBI	02-050/14:03:48
16977	MGS	02-050/14:21:13		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-050/14:05:40
16978	MGS	02-050/14:21:13		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=2, BITS=85928000, DUR=00:15:42		02-050/14:05:40
16979	MGS	02-050/14:21:13		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-050/14:05:40
16980	MGS	02-050/14:21:13		: 00:06:39, FALSE	RDSCII	02-050/14:05:40
16981	MGS	02-050/14:21:13		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-050/14:05:40
16982	MGS	02-050/14:21:13		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-050/14:05:40
16983	MGS	02-050/14:21:13		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-050/14:05:40
16984	MGS	02-050/14:21:13		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-050/14:05:40
16985	MGS	02-050/14:21:13	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
16986	MGS	02-050/14:21:13	65	NOTE: Carrier Only -- No Telemetry Modulation		
16987	MGS	02-050/14:23:22		NOTE: Enter Planetary Atmosphere 13196		02-050/14:07:50
16988	MGS	02-050/14:23:52		NOTE: Apoapsis 13196 -		02-050/14:08:20
16989	MGS	02-050/14:27:22		NOTE: Enter Earth Occultation 13196		02-050/14:11:50
16990	MGS	02-050/14:27:22	65	NOTE: Loss Of X-Band Signal		
16991	MGS	02-050/14:27:52		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-050/14:12:19

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
16992	MGS	02-050/14:27:52		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-050/14:12:19
16993	MGS	02-050/14:27:52		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-050/14:12:19
16994	MGS	02-050/14:27:52		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-050/14:12:19
16995	MGS	02-050/14:27:53		NOTE: End EVP script		02-050/14:12:20
16996	MGS	02-050/14:27:53		Turn off the MOT Exciter and RPA beam	STRPAF	02-050/14:12:20
16997	MGS	02-050/14:27:54		NOTE: End Block (MAP_RT)		02-050/14:12:21
16998	MGS	02-050/14:27:57		NOTE: End fixed Sub-Reflector for Radio Science		02-050/14:12:24
16999	MGS	02-050/14:29:20		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-050/14:13:47
17000	MGS	02-050/14:29:20		NOTE: Enter Solar Eclipse 13196		02-050/14:13:48
17001	MGS	02-050/14:32:33	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
17002	MGS	02-050/14:34:34	65	Range Modulation On: SUP=3.0dB		
17003	MGS	02-050/14:35:34	65	Begin Ranging Acquisition		
17004	MGS	02-050/14:54:04		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-050/14:38:31
17005	MGS	02-050/14:54:04		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-050/14:38:31
17006	MGS	02-050/14:54:09		Set eclipse egress script address: 01DC	SWSEES	02-050/14:38:36
17007	MGS	02-050/14:54:23		NOTE: Begin fixed Sub-Reflector for Radio Science		02-050/14:38:51
17008	MGS	02-050/14:58:08		: 01:27:28	RPAONX	02-050/14:42:35
17009	MGS	02-050/14:58:08		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-050/14:42:35
17010	MGS	02-050/14:59:23		: 00:00:30, 00:06:58, FALSE	RDSCIE	02-050/14:43:50
17011	MGS	02-050/14:59:23		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-050/14:43:50
17012	MGS	02-050/14:59:23		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-050/14:43:50
17013	MGS	02-050/14:59:23		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-050/14:43:50
17014	MGS	02-050/14:59:23		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-050/14:43:50
17015	MGS	02-050/14:59:53		NOTE: Exit Earth Occultation 13196		02-050/14:44:21
17016	MGS	02-050/14:59:53	65	Acquisition Of X-Band Signal		
17017	MGS	02-050/14:59:53	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
17018	MGS	02-050/14:59:53	65	NOTE: Carrier Only -- No Telemetry Modulation		
17019	MGS	02-050/15:04:11		NOTE: Exit Planetary Atmosphere 13196		02-050/14:48:39
17020	MGS	02-050/15:06:21		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-050/14:50:48
17021	MGS	02-050/15:06:21		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-050/14:50:48
17022	MGS	02-050/15:06:21		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-050/14:50:48
17023	MGS	02-050/15:06:21		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-050/14:50:48
17024	MGS	02-050/15:06:21		: REC_2A, F42KHZ, PART1, SE_1A, FALSE, 00:10:36	AEMPB	02-050/14:50:48
17025	MGS	02-050/15:06:21		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-050/14:50:48
17026	MGS	02-050/15:06:21		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, PLYBCK, PART1	STSSRC	02-050/14:50:48
17027	MGS	02-050/15:06:21	65	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
17028	MGS	02-050/15:06:22		SSR 2A Data Enable	CSD2AE	02-050/14:50:49
17029	MGS	02-050/15:06:22		SSR Activity: ID=SSR_2A, FCN=Start Playback, PRT=1, BR=42666		02-050/14:50:49
17030	MGS	02-050/15:06:22	65	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
17031	MGS	02-050/15:06:26		NOTE: End fixed Sub-Reflector for Radio Science		02-050/14:50:54
17032	MGS	02-050/15:09:46		NOTE: Exit Solar Eclipse 13196		02-050/14:54:13
17033	MGS	02-050/15:22:32		NOTE: Periapsis 13197 ----------		02-050/15:06:59
17034	MGS	02-050/15:30:45		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-050/15:15:12
17035	MGS	02-050/15:30:45		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-050/15:15:12
17036	MGS	02-050/15:30:46		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-050/15:15:13
17037	MGS	02-050/15:30:46		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-050/15:15:13
17038	MGS	02-050/15:35:12	65	NOTE: Transmitter Off in 15 minutes		
17039	MGS	02-050/15:48:12	65	Range Modulation Off		
17040	MGS	02-050/15:50:12	65	Transmitter Off		
17041	MGS	02-050/15:52:46		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-050/15:37:13
17042	MGS	02-050/15:52:46		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-050/15:37:13
17043	MGS	02-050/16:13:57		NOTE: Begin fixed Sub-Reflector for Radio Science		02-050/15:58:24
17044	MGS	02-050/16:15:00		SSR 2A Data Disable	CSD2AX	02-050/15:59:27
17045	MGS	02-050/16:15:00		SSR Activity: ID=SSR_2A, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-050/15:59:27

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
17046	MGS	02-050/16:15:00		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-050/15:59:27
17047	MGS	02-050/16:15:00	65	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
17048	MGS	02-050/16:17:00		NOTE: Start EVP data return script		02-050/16:01:27
17049	MGS	02-050/16:17:00		: SSR_2B, F42KHZ, PART1, 2002-050T16:48:29.000	AEMPBU	02-050/16:01:27
17050	MGS	02-050/16:18:56		: 00:06:39, FALSE	RDSCII	02-050/16:03:23
17051	MGS	02-050/16:18:56		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-050/16:03:23
17052	MGS	02-050/16:18:56		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-050/16:03:23
17053	MGS	02-050/16:18:56		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-050/16:03:23
17054	MGS	02-050/16:18:56		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-050/16:03:23
17055	MGS	02-050/16:18:56	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
17056	MGS	02-050/16:18:56	65	NOTE: Carrier Only -- No Telemetry Modulation		
17057	MGS	02-050/16:21:02		NOTE: Enter Planetary Atmosphere 13197		02-050/16:05:29
17058	MGS	02-050/16:21:22		NOTE: Apoapsis 13197 -		02-050/16:05:49
17059	MGS	02-050/16:25:02		NOTE: Enter Earth Occultation 13197		02-050/16:09:29
17060	MGS	02-050/16:25:02	65	NOTE: Loss Of X-Band Signal		
17061	MGS	02-050/16:25:35		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-050/16:10:02
17062	MGS	02-050/16:25:35		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-050/16:10:02
17063	MGS	02-050/16:25:35		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-050/16:10:02
17064	MGS	02-050/16:25:35		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-050/16:10:02
17065	MGS	02-050/16:25:36		Turn off the MOT Exciter and RPA beam	STRPAF	02-050/16:10:03
17066	MGS	02-050/16:25:37		NOTE: End EVP script		02-050/16:10:04
17067	MGS	02-050/16:25:41		NOTE: End fixed Sub-Reflector for Radio Science		02-050/16:10:08
17068	MGS	02-050/16:27:00		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-050/16:11:27
17069	MGS	02-050/16:27:01		NOTE: Enter Solar Eclipse 13197		02-050/16:11:28
17070	MGS	02-050/16:30:13	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
17071	MGS	02-050/16:32:14	65	Range Modulation On: SUP=3.0dB		
17072	MGS	02-050/16:33:14	65	Begin Ranging Acquisition		
17073	MGS	02-050/16:51:46		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-050/16:36:13
17074	MGS	02-050/16:51:46		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-050/16:36:13
17075	MGS	02-050/16:51:50		Command the PSE with included data word: 3990	SWPSEL	02-050/16:36:17
17076	MGS	02-050/16:51:51		Set eclipse egress script address: 0158	SWSEES	02-050/16:36:18
17077	MGS	02-050/16:52:04		NOTE: Begin fixed Sub-Reflector for Radio Science		02-050/16:36:31
17078	MGS	02-050/16:55:31		NOTE: Start Block (SSRMGR)		02-050/16:39:58
17079	MGS	02-050/16:55:31		Sends a one-word SSR command to the XSU command SOB: SSR_1B, SE_1A, RECORD, PART2	STSSRC	02-050/16:39:58
17080	MGS	02-050/16:55:32		SSR 1B Data Enable	CSD1BE	02-050/16:39:59
17081	MGS	02-050/16:55:32		SSR Activity: ID=SSR_1B, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-050/16:39:59
17082	MGS	02-050/16:55:48		: 01:27:28	RPAONX	02-050/16:40:15
17083	MGS	02-050/16:55:48		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-050/16:40:15
17084	MGS	02-050/16:57:03		: 00:00:30, 00:06:58, FALSE	RDSCIE	02-050/16:41:30
17085	MGS	02-050/16:57:03		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-050/16:41:30
17086	MGS	02-050/16:57:03		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-050/16:41:30
17087	MGS	02-050/16:57:03		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-050/16:41:30
17088	MGS	02-050/16:57:03		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-050/16:41:30
17089	MGS	02-050/16:57:34		NOTE: Exit Earth Occultation 13197		02-050/16:42:01
17090	MGS	02-050/16:57:34	65	Acquisition Of X-Band Signal		
17091	MGS	02-050/16:57:34	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
17092	MGS	02-050/16:57:34	65	NOTE: Carrier Only -- No Telemetry Modulation		
17093	MGS	02-050/17:01:51		NOTE: Exit Planetary Atmosphere 13197		02-050/16:46:18
17094	MGS	02-050/17:04:01		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-050/16:48:28
17095	MGS	02-050/17:04:01		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-050/16:48:28
17096	MGS	02-050/17:04:01		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-050/16:48:28
17097	MGS	02-050/17:04:01		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-050/16:48:28
17098	MGS	02-050/17:04:01		: REC_2B, F42KHZ, PART1, SE_1A, FALSE, 00:10:36	AEMPB	02-050/16:48:28
17099	MGS	02-050/17:04:01		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-050/16:48:28

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
17100	MGS	02-050/17:04:01		Sends a one-word SSR command to the XSU command SOB: SSR_2B, F42KHZ, PLYBCK, PART1	STSSRC	02-050/16:48:28
17101	MGS	02-050/17:04:01	65	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
17102	MGS	02-050/17:04:02		SSR 2B Data Enable	CSD2BE	02-050/16:48:29
17103	MGS	02-050/17:04:02		SSR Activity: ID=SSR_2B, FCN=Start Playback, PRT=1, BR=42666		02-050/16:48:29
17104	MGS	02-050/17:04:02	65	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
17105	MGS	02-050/17:04:07		NOTE: End fixed Sub-Reflector for Radio Science		02-050/16:48:34
17106	MGS	02-050/17:07:26		NOTE: Exit Solar Eclipse 13197		02-050/16:51:53
17107	MGS	02-050/17:20:04		NOTE: Periapsis 13198 ----------		02-050/17:04:31
17108	MGS	02-050/17:22:12		SSR 1A Data Disable	CSD1AX	02-050/17:06:39
17109	MGS	02-050/17:22:12		SSR Activity: ID=SSR_1A, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-050/17:06:39
17110	MGS	02-050/17:22:13		NOTE: End Block (SSRMGR)		02-050/17:06:40
17111	MGS	02-050/17:32:25		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-050/17:16:52
17112	MGS	02-050/17:32:25		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-050/17:16:52
17113	MGS	02-050/17:32:26		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-050/17:16:53
17114	MGS	02-050/17:32:26		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-050/17:16:53
17115	MGS	02-050/17:32:54	65	NOTE: Transmitter Off in 15 minutes		
17116	MGS	02-050/17:45:00	15	Begin Pre-Cal		
17117	MGS	02-050/17:45:00	15	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
17118	MGS	02-050/17:45:00	15	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
17119	MGS	02-050/17:45:00	15	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
17120	MGS	02-050/17:45:00	15	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=OFF, EXC=2		
17121	MGS	02-050/17:45:00	15	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
17122	MGS	02-050/17:45:00	15	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
17123	MGS	02-050/17:45:00	15	Config: TGC: DEST=37		
17124	MGS	02-050/17:45:00	15	Config: TGC: BAND=X, BR=8000.000000		
17125	MGS	02-050/17:45:00	15	Config: FSS: CH=2, PRI_FL=10000		
17126	MGS	02-050/17:45:00	15	Config: RSR		
17127	MGS	02-050/17:45:00	15	Config: TXL		
17128	MGS	02-050/17:45:00	15	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
17129	MGS	02-050/17:45:00	15	Config: BVR		
17130	MGS	02-050/17:45:00	15	Config: Doppler Extractor: BIAS=+1MHZ		
17131	MGS	02-050/17:45:00	15	Config: MDA: SMPL=0.1		
17132	MGS	02-050/17:45:00	15	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
17133	MGS	02-050/17:45:00	15	Config: SRA: HIGH=4, LOW=14, SERV=D		
17134	MGS	02-050/17:45:00	15	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
17135	MGS	02-050/17:45:55	65	Range Modulation Off		
17136	MGS	02-050/17:47:54	65	Transmitter Off		
17137	MGS	02-050/17:54:26		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-050/17:38:53
17138	MGS	02-050/17:54:26		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-050/17:38:53
17139	MGS	02-050/18:11:37		NOTE: Begin fixed Sub-Reflector for Radio Science		02-050/17:56:04
17140	MGS	02-050/18:12:40		SSR 2B Data Disable	CSD2BX	02-050/17:57:07
17141	MGS	02-050/18:12:40		SSR Activity: ID=SSR_2B, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-050/17:57:07
17142	MGS	02-050/18:12:40		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-050/17:57:07
17143	MGS	02-050/18:12:40	65	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
17144	MGS	02-050/18:14:44		NOTE: Start EVP data return script		02-050/17:59:11
17145	MGS	02-050/18:14:44		: SSR_2A, F42KHZ, PART2, 2002-050T18:46:13.000	AEMPBU	02-050/17:59:11
17146	MGS	02-050/18:16:36		: 00:06:39, FALSE	RDSCII	02-050/18:01:03
17147	MGS	02-050/18:16:36		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-050/18:01:03
17148	MGS	02-050/18:16:36		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-050/18:01:03
17149	MGS	02-050/18:16:36		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-050/18:01:03
17150	MGS	02-050/18:16:36		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-050/18:01:03
17151	MGS	02-050/18:16:36	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
17152	MGS	02-050/18:16:36	65	NOTE: Carrier Only -- No Telemetry Modulation		
17153	MGS	02-050/18:18:46		NOTE: Enter Planetary Atmosphere 13198		02-050/18:03:13

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
17154	MGS	02-050/18:19:15		NOTE: Apoapsis 13198 -		02-050/18:03:42
17155	MGS	02-050/18:22:45		NOTE: Enter Earth Occultation 13198		02-050/18:07:12
17156	MGS	02-050/18:22:45	65	NOTE: Loss Of X-Band Signal		
17157	MGS	02-050/18:23:15		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-050/18:07:42
17158	MGS	02-050/18:23:15		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-050/18:07:42
17159	MGS	02-050/18:23:15		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-050/18:07:42
17160	MGS	02-050/18:23:15		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-050/18:07:42
17161	MGS	02-050/18:23:16		Turn off the MOT Exciter and RPA beam	STRPAF	02-050/18:07:43
17162	MGS	02-050/18:23:17		NOTE: End EVP script		02-050/18:07:44
17163	MGS	02-050/18:23:21		NOTE: End fixed Sub-Reflector for Radio Science		02-050/18:07:48
17164	MGS	02-050/18:24:44		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-050/18:09:11
17165	MGS	02-050/18:24:45		NOTE: Enter Solar Eclipse 13198		02-050/18:09:12
17166	MGS	02-050/18:27:56	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
17167	MGS	02-050/18:29:57	65	Range Modulation On: SUP=3.0dB		
17168	MGS	02-050/18:30:57	65	Begin Ranging Acquisition		
17169	MGS	02-050/18:45:00	15	Begin Tracking		
17170	MGS	02-050/18:49:27		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-050/18:33:53
17171	MGS	02-050/18:49:27		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-050/18:33:53
17172	MGS	02-050/18:49:32		Set eclipse egress script address: 019A	SWSEES	02-050/18:33:58
17173	MGS	02-050/18:49:48		NOTE: Begin fixed Sub-Reflector for Radio Science		02-050/18:34:15
17174	MGS	02-050/18:53:00	65	Range Modulation Off		
17175	MGS	02-050/18:53:33		: 01:27:28	RPAONX	02-050/18:37:59
17176	MGS	02-050/18:53:33		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-050/18:37:59
17177	MGS	02-050/18:54:48		: 00:00:30, 00:06:58, FALSE	RDSCIE	02-050/18:39:14
17178	MGS	02-050/18:54:48		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-050/18:39:14
17179	MGS	02-050/18:54:48		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-050/18:39:14
17180	MGS	02-050/18:54:48		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-050/18:39:14
17181	MGS	02-050/18:54:48		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-050/18:39:14
17182	MGS	02-050/18:55:00	15	U/L Transfer From DSS-65 to DSS-15: PWR=20.0, BR=125.0, CS=5.82dB		
17183	MGS	02-050/18:55:17		NOTE: Exit Earth Occultation 13198		02-050/18:39:44
17184	MGS	02-050/18:55:17	15	Acquisition Of X-Band Signal		
17185	MGS	02-050/18:55:17	15	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
17186	MGS	02-050/18:55:17	15	NOTE: Carrier Only -- No Telemetry Modulation		
17187	MGS	02-050/18:55:17	65	Acquisition Of X-Band Signal		
17188	MGS	02-050/18:55:17	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
17189	MGS	02-050/18:55:17	65	NOTE: Carrier Only -- No Telemetry Modulation		
17190	MGS	02-050/18:57:00	15	Range Modulation On: SUP=3.0dB		
17191	MGS	02-050/18:58:00	15	Begin Ranging Acquisition		
17192	MGS	02-050/18:59:34		NOTE: Exit Planetary Atmosphere 13198		02-050/18:44:01
17193	MGS	02-050/19:01:46		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-050/18:46:12
17194	MGS	02-050/19:01:46		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-050/18:46:12
17195	MGS	02-050/19:01:46		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-050/18:46:12
17196	MGS	02-050/19:01:46		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-050/18:46:12
17197	MGS	02-050/19:01:46		: REC_2A, F42KHZ, PART2, SE_1A, FALSE, 00:10:36	AEMPB	02-050/18:46:12
17198	MGS	02-050/19:01:46		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-050/18:46:12
17199	MGS	02-050/19:01:46		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, PLYBCK, PART2	STSSRC	02-050/18:46:12
17200	MGS	02-050/19:01:46	15	Acquire D/L: X/16, 3-Way/65, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
17201	MGS	02-050/19:01:46	65	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
17202	MGS	02-050/19:01:47		SSR 2A Data Enable	CSD2AE	02-050/18:46:13
17203	MGS	02-050/19:01:47		SSR Activity: ID=SSR_2A, FCN=Start Playback, PRT=2, BR=42666		02-050/18:46:13
17204	MGS	02-050/19:01:47	15	D/L Change: X/16, 3-Way/65, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
17205	MGS	02-050/19:01:47	65	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
17206	MGS	02-050/19:01:51		NOTE: End fixed Sub-Reflector for Radio Science		02-050/18:46:18
17207	MGS	02-050/19:05:00	65	End Tracking		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
17208	MGS	02-050/19:05:10		NOTE: Exit Solar Eclipse 13198		02-050/18:49:37
17209	MGS	02-050/19:17:56		NOTE: Periapsis 13199 ----------		02-050/19:02:23
17210	MGS	02-050/19:20:00	65	End Post-Cal		
17211	MGS	02-050/19:26:06	15	Acquire D/L: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
17212	MGS	02-050/19:26:10		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-050/19:10:36
17213	MGS	02-050/19:26:10		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-050/19:10:36
17214	MGS	02-050/19:26:11		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-050/19:10:37
17215	MGS	02-050/19:26:11		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-050/19:10:37
17216	MGS	02-050/19:30:41	15	NOTE: Transmitter Off in 15 minutes		
17217	MGS	02-050/19:43:41	15	Range Modulation Off		
17218	MGS	02-050/19:45:41	15	Transmitter Off		
17219	MGS	02-050/19:48:11		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-050/19:32:37
17220	MGS	02-050/19:48:11		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-050/19:32:37
17221	MGS	02-050/20:09:21		NOTE: Begin fixed Sub-Reflector for Radio Science		02-050/19:53:48
17222	MGS	02-050/20:10:25		SSR 2A Data Disable	CSD2AX	02-050/19:54:51
17223	MGS	02-050/20:10:25		SSR Activity: ID=SSR_2A, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-050/19:54:51
17224	MGS	02-050/20:10:25		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-050/19:54:51
17225	MGS	02-050/20:10:25	15	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
17226	MGS	02-050/20:12:32		NOTE: Start EVP data return script		02-050/19:56:58
17227	MGS	02-050/20:12:32		: SSR_2B, F42KHZ, PART2, 2002-050T20:44:00.000	AEMPBU	02-050/19:56:58
17228	MGS	02-050/20:14:21		: 00:06:39, FALSE	RDSCII	02-050/19:58:47
17229	MGS	02-050/20:14:21		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-050/19:58:47
17230	MGS	02-050/20:14:21		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-050/19:58:47
17231	MGS	02-050/20:14:21		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-050/19:58:47
17232	MGS	02-050/20:14:21		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-050/19:58:47
17233	MGS	02-050/20:14:21	15	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
17234	MGS	02-050/20:14:21	15	NOTE: Carrier Only -- No Telemetry Modulation		
17235	MGS	02-050/20:16:33		NOTE: Enter Planetary Atmosphere 13199		02-050/20:01:00
17236	MGS	02-050/20:17:02		NOTE: Apoapsis 13199 -		02-050/20:01:29
17237	MGS	02-050/20:20:32		NOTE: Enter Earth Occultation 13199		02-050/20:04:59
17238	MGS	02-050/20:20:32	15	NOTE: Loss Of X-Band Signal		
17239	MGS	02-050/20:21:00		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-050/20:05:26
17240	MGS	02-050/20:21:00		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-050/20:05:26
17241	MGS	02-050/20:21:00		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-050/20:05:26
17242	MGS	02-050/20:21:00		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-050/20:05:26
17243	MGS	02-050/20:21:01		Turn off the MOT Exciter and RPA beam	STRPAF	02-050/20:05:27
17244	MGS	02-050/20:21:01		NOTE: End EVP script		02-050/20:05:28
17245	MGS	02-050/20:21:05		NOTE: End fixed Sub-Reflector for Radio Science		02-050/20:05:32
17246	MGS	02-050/20:22:32		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-050/20:06:58
17247	MGS	02-050/20:22:32		NOTE: Enter Solar Eclipse 13199		02-050/20:06:59
17248	MGS	02-050/20:25:43	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
17249	MGS	02-050/20:27:44	15	Range Modulation On: SUP=3.0dB		
17250	MGS	02-050/20:28:44	15	Begin Ranging Acquisition		
17251	MGS	02-050/20:47:11		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-050/20:31:37
17252	MGS	02-050/20:47:11		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-050/20:31:37
17253	MGS	02-050/20:47:16		Set eclipse egress script address: 01DC	SWSEES	02-050/20:31:42
17254	MGS	02-050/20:47:35		NOTE: Begin fixed Sub-Reflector for Radio Science		02-050/20:32:02
17255	MGS	02-050/20:51:20		: 01:27:28	RPAONX	02-050/20:35:46
17256	MGS	02-050/20:51:20		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-050/20:35:46
17257	MGS	02-050/20:52:35		: 00:00:30, 00:06:58, FALSE	RDSCIE	02-050/20:37:01
17258	MGS	02-050/20:52:35		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-050/20:37:01
17259	MGS	02-050/20:52:35		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-050/20:37:01
17260	MGS	02-050/20:52:35		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-050/20:37:01
17261	MGS	02-050/20:52:35		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-050/20:37:01

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
17262	MGS	02-050/20:53:05		NOTE: Exit Earth Occultation 13199		02-050/20:37:31
17263	MGS	02-050/20:53:05	15	Acquisition Of X-Band Signal		
17264	MGS	02-050/20:53:05	15	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
17265	MGS	02-050/20:53:05	15	NOTE: Carrier Only -- No Telemetry Modulation		
17266	MGS	02-050/20:53:05		Disables autonomous command to send eclipse ingress script	SWEISX	02-050/20:37:31
17267	MGS	02-050/20:57:22		NOTE: Exit Planetary Atmosphere 13199		02-050/20:41:48
17268	MGS	02-050/20:59:33		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-050/20:43:59
17269	MGS	02-050/20:59:33		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-050/20:43:59
17270	MGS	02-050/20:59:33		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-050/20:43:59
17271	MGS	02-050/20:59:33		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-050/20:43:59
17272	MGS	02-050/20:59:33		: REC_2B, F42KHZ, PART2, SE_1A, FALSE, 00:10:36	AEMPB	02-050/20:43:59
17273	MGS	02-050/20:59:33		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-050/20:43:59
17274	MGS	02-050/20:59:33		Sends a one-word SSR command to the XSU command SOB: SSR_2B, F42KHZ, PLYBCK, PART2	STSSRC	02-050/20:43:59
17275	MGS	02-050/20:59:33	15	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
17276	MGS	02-050/20:59:34		SSR 2B Data Enable	CSD2BE	02-050/20:44:00
17277	MGS	02-050/20:59:34		SSR Activity: ID=SSR_2B, FCN=Start Playback, PRT=2, BR=42666		02-050/20:44:00
17278	MGS	02-050/20:59:34	15	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
17279	MGS	02-050/20:59:38		NOTE: End fixed Sub-Reflector for Radio Science		02-050/20:44:05
17280	MGS	02-050/21:02:58		NOTE: Exit Solar Eclipse 13199		02-050/20:47:24
17281	MGS	02-050/21:15:47		NOTE: Periapsis 13200 ----------		02-050/21:00:13
17282	MGS	02-050/21:23:57		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-050/21:08:23
17283	MGS	02-050/21:23:57		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-050/21:08:23
17284	MGS	02-050/21:23:58		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-050/21:08:24
17285	MGS	02-050/21:23:58		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-050/21:08:24
17286	MGS	02-050/21:28:27	15	NOTE: Transmitter Off in 15 minutes		
17287	MGS	02-050/21:41:28	15	Range Modulation Off		
17288	MGS	02-050/21:43:27	15	Transmitter Off		
17289	MGS	02-050/21:45:58		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-050/21:30:24
17290	MGS	02-050/21:45:58		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-050/21:30:24
17291	MGS	02-050/22:07:09		NOTE: Begin fixed Sub-Reflector for Radio Science		02-050/21:51:35
17292	MGS	02-050/22:08:12		SSR 2B Data Disable	CSD2BX	02-050/21:52:38
17293	MGS	02-050/22:08:12		SSR Activity: ID=SSR_2B, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-050/21:52:38
17294	MGS	02-050/22:08:12		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-050/21:52:38
17295	MGS	02-050/22:08:12	15	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
17296	MGS	02-050/22:10:18		NOTE: Start Block (MAP_RT)		02-050/21:54:44
17297	MGS	02-050/22:10:19		: 00:28:48, 01:27:27, FALSE, TRUE, FALSE, 00:01:15, 00:06:58, 01:12:34, 00:06:39	AEMINI	02-050/21:54:45
17298	MGS	02-050/22:10:19		Enable sending eclipse ingress script when array power disappears	SWEISE	02-050/21:54:45
17299	MGS	02-050/22:10:19		NOTE: Start EVP data return script		02-050/21:54:45
17300	MGS	02-050/22:10:20		: SE_2A, RTM, 01:12:33, MRC, 2002-050T22:41:48.000	AEMRTI	02-050/21:54:46
17301	MGS	02-050/22:12:08		: 00:06:39, FALSE	RDSCII	02-050/21:56:34
17302	MGS	02-050/22:12:08		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-050/21:56:34
17303	MGS	02-050/22:12:08		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-050/21:56:34
17304	MGS	02-050/22:12:08		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-050/21:56:34
17305	MGS	02-050/22:12:08		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-050/21:56:34
17306	MGS	02-050/22:12:08	15	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
17307	MGS	02-050/22:12:08	15	NOTE: Carrier Only -- No Telemetry Modulation		
17308	MGS	02-050/22:14:21		NOTE: Enter Planetary Atmosphere 13200		02-050/21:58:47
17309	MGS	02-050/22:14:39		NOTE: Apoapsis 13200 -		02-050/21:59:05
17310	MGS	02-050/22:18:20		NOTE: Enter Earth Occultation 13200		02-050/22:02:46
17311	MGS	02-050/22:18:20	15	NOTE: Loss Of X-Band Signal		
17312	MGS	02-050/22:18:47		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-050/22:03:13
17313	MGS	02-050/22:18:47		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-050/22:03:13
17314	MGS	02-050/22:18:47		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-050/22:03:13
17315	MGS	02-050/22:18:47		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-050/22:03:13

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
17316	MGS	02-050/22:18:48		Turn off the MOT Exciter and RPA beam	STRPAF	02-050/22:03:14
17317	MGS	02-050/22:18:49		NOTE: End EVP script		02-050/22:03:15
17318	MGS	02-050/22:18:50		NOTE: End Block (MAP_PB)		02-050/22:03:16
17319	MGS	02-050/22:18:53		NOTE: End fixed Sub-Reflector for Radio Science		02-050/22:03:19
17320	MGS	02-050/22:20:19		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-050/22:04:45
17321	MGS	02-050/22:20:19		NOTE: Enter Solar Eclipse 13200		02-050/22:04:45
17322	MGS	02-050/22:23:30	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
17323	MGS	02-050/22:25:31	15	Range Modulation On: SUP=3.0dB		
17324	MGS	02-050/22:26:31	15	Begin Ranging Acquisition		
17325	MGS	02-050/22:28:52		NOTE: Start Block (SSRMGR)		02-050/22:13:18
17326	MGS	02-050/22:28:52		Sends a one-word SSR command to the XSU command SOB: SSR_1A, SE_1A, RECORD, PART3	STSSRC	02-050/22:13:18
17327	MGS	02-050/22:28:53		SSR 1A Data Enable	CSD1AE	02-050/22:13:19
17328	MGS	02-050/22:28:53		SSR Activity: ID=SSR_1A, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-050/22:13:19
17329	MGS	02-050/22:44:58		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-050/22:29:24
17330	MGS	02-050/22:44:58		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-050/22:29:24
17331	MGS	02-050/22:45:02		Command the PSE with included data word: 3990	SWPSEL	02-050/22:29:28
17332	MGS	02-050/22:45:03		Set eclipse egress script address: 0158	SWSEES	02-050/22:29:29
17333	MGS	02-050/22:45:22		NOTE: Begin fixed Sub-Reflector for Radio Science		02-050/22:29:48
17334	MGS	02-050/22:49:07		: 01:27:27	RPAONX	02-050/22:33:33
17335	MGS	02-050/22:49:07		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-050/22:33:33
17336	MGS	02-050/22:50:22		: 00:00:30, 00:06:58, FALSE	RDSCIE	02-050/22:34:48
17337	MGS	02-050/22:50:22		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-050/22:34:48
17338	MGS	02-050/22:50:22		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-050/22:34:48
17339	MGS	02-050/22:50:22		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-050/22:34:48
17340	MGS	02-050/22:50:22		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-050/22:34:48
17341	MGS	02-050/22:50:52		Disables autonomous command to send eclipse ingress script	SWEISX	02-050/22:35:18
17342	MGS	02-050/22:50:52		NOTE: Exit Earth Occultation 13200		02-050/22:35:19
17343	MGS	02-050/22:50:52	15	Acquisition Of X-Band Signal		
17344	MGS	02-050/22:50:52	15	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
17345	MGS	02-050/22:50:52	15	NOTE: Carrier Only -- No Telemetry Modulation		
17346	MGS	02-050/22:55:09		NOTE: Exit Planetary Atmosphere 13200		02-050/22:39:36
17347	MGS	02-050/22:55:33		SSR 1B Data Disable	CSD1BX	02-050/22:39:59
17348	MGS	02-050/22:55:33		SSR Activity: ID=SSR_1B, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-050/22:39:59
17349	MGS	02-050/22:55:34		NOTE: End Block (SSRMGR)		02-050/22:40:00
17350	MGS	02-050/22:57:20		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-050/22:41:46
17351	MGS	02-050/22:57:20		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-050/22:41:46
17352	MGS	02-050/22:57:20		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-050/22:41:46
17353	MGS	02-050/22:57:20		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-050/22:41:46
17354	MGS	02-050/22:57:20	15	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
17355	MGS	02-050/22:57:21		: RTM, MRC, 01:12:33, S&E_2A, FALSE, 00:06:40	AEMRT	02-050/22:41:47
17356	MGS	02-050/22:57:21		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-050/22:41:47
17357	MGS	02-050/22:57:21		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-050/22:41:47
17358	MGS	02-050/22:57:21		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=3, BITS=13664000, DUR=00:28:28		02-050/22:41:47
17359	MGS	02-050/22:57:21		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-050/22:41:47
17360	MGS	02-050/22:57:21	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
17361	MGS	02-050/22:57:25		NOTE: End fixed Sub-Reflector for Radio Science		02-050/22:41:51
17362	MGS	02-050/23:00:45		NOTE: Exit Solar Eclipse 13200		02-050/22:45:11
17363	MGS	02-050/23:03:15		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-050/22:47:41
17364	MGS	02-050/23:03:15		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=3, BITS=16496000, DUR=00:05:54		02-050/22:47:41
17365	MGS	02-050/23:03:15		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-050/22:47:41
17366	MGS	02-050/23:03:15	15	D/L Change: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
17367	MGS	02-050/23:03:17		NOTE: Start Block (SSRMGR)		02-050/22:47:43
17368	MGS	02-050/23:03:17		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-050/22:47:43
17369	MGS	02-050/23:03:17		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-050/22:47:43

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
17370	MGS	02-050/23:03:18		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-050/22:47:44
17371	MGS	02-050/23:03:19		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, PLYBCK, PART3	STSSRC	02-050/22:47:45
17372	MGS	02-050/23:03:20		SSR 2A Data Enable	CSD2AE	02-050/22:47:46
17373	MGS	02-050/23:03:20		SSR Activity: ID=SSR_2A, FCN=Start Playback, PRT=3, BR=42666		02-050/22:47:46
17374	MGS	02-050/23:03:20	15	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
17375	MGS	02-050/23:08:52		NOTE: Start Block (SSRMGR)		02-050/22:53:18
17376	MGS	02-050/23:08:52		Sends a one-word SSR command to the XSU command SOB: SSR_1B, SE_1A, RECORD, PART3	STSSRC	02-050/22:53:18
17377	MGS	02-050/23:08:53		SSR 1B Data Enable	CSD1BE	02-050/22:53:19
17378	MGS	02-050/23:08:53		SSR Activity: ID=SSR_1B, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-050/22:53:19
17379	MGS	02-050/23:13:28		NOTE: Periapsis 13201 ----------		02-050/22:57:54
17380	MGS	02-050/23:15:47		NOTE: Start Block (SSRMGR)		02-050/23:00:13
17381	MGS	02-050/23:15:47		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-050/23:00:13
17382	MGS	02-050/23:15:47		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-050/23:00:13
17383	MGS	02-050/23:15:48		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-050/23:00:14
17384	MGS	02-050/23:15:48		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, ENBSCR, PART1	STSSRC	02-050/23:00:14
17385	MGS	02-050/23:15:49		Sends a one-word SSR command to the XSU command SOB: SSR_2B, F42KHZ, PLYBCK, PART3	STSSRC	02-050/23:00:15
17386	MGS	02-050/23:15:50		SSR 2A Data Disable	CSD2AX	02-050/23:00:16
17387	MGS	02-050/23:15:50		SSR 2B Data Enable	CSD2BE	02-050/23:00:16
17388	MGS	02-050/23:15:50		SSR Activity: ID=SSR_2B, FCN=Start Playback, PRT=3, BR=42666		02-050/23:00:16
17389	MGS	02-050/23:15:51		NOTE: End Block (SSRMGR)		02-050/23:00:17
17390	MGS	02-050/23:25:44		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-050/23:10:10
17391	MGS	02-050/23:25:44		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-050/23:10:10
17392	MGS	02-050/23:25:45		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-050/23:10:11
17393	MGS	02-050/23:25:45		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-050/23:10:11
17394	MGS	02-050/23:26:12	15	NOTE: Transmitter Off in 15 minutes		
17395	MGS	02-050/23:33:20		SSR 2B Data Disable	CSD2BX	02-050/23:17:46
17396	MGS	02-050/23:33:20		SSR Activity: ID=SSR_2B, FCN=End Playback, PRT=3, BITS=44800000, DUR=00:17:30		02-050/23:17:46
17397	MGS	02-050/23:33:21		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-050/23:17:47
17398	MGS	02-050/23:33:21		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-050/23:17:47
17399	MGS	02-050/23:33:21		NOTE: End Block (SSRMGR)		02-050/23:17:47
17400	MGS	02-050/23:33:21	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
17401	MGS	02-050/23:35:33		SSR 1A Data Disable	CSD1AX	02-050/23:19:59
17402	MGS	02-050/23:35:33		SSR Activity: ID=SSR_1A, FCN=End Recording, PRT=3, BITS=32000000, DUR=01:06:40		02-050/23:19:59
17403	MGS	02-050/23:35:34		NOTE: End Block (SSRMGR)		02-050/23:20:00
17404	MGS	02-050/23:39:13	15	Range Modulation Off		
17405	MGS	02-050/23:41:12	15	Transmitter Off		
17406	MGS	02-050/23:47:45		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-050/23:32:11
17407	MGS	02-050/23:47:45		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-050/23:32:11
17408	MGS	02-051/00:00:00		Light Time: OWLT = 15:33, RTLT = 31:07		
17409	MGS	02-051/00:04:54		NOTE: Begin fixed Sub-Reflector for Radio Science		02-050/23:49:20
17410	MGS	02-051/00:08:03		NOTE: Start Block (MAP_RT)		02-050/23:52:29
17411	MGS	02-051/00:08:04		: 00:28:48, 01:27:28, FALSE, TRUE, FALSE, 00:01:15, 00:06:57, 01:12:36, 00:06:39	AEMINI	02-050/23:52:30
17412	MGS	02-051/00:08:04		Enable sending eclipse ingress script when array power disappears	SWEISE	02-050/23:52:30
17413	MGS	02-051/00:08:04		NOTE: Start EVP data return script		02-050/23:52:30
17414	MGS	02-051/00:08:05		: SE_2A, RTM, 01:12:35, MRC, 2002-051T00:39:32.000	AEMRTI	02-050/23:52:31
17415	MGS	02-051/00:09:54		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-050/23:54:20
17416	MGS	02-051/00:09:54		: 00:06:39, FALSE	RDSCII	02-050/23:54:20
17417	MGS	02-051/00:09:54		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-050/23:54:20
17418	MGS	02-051/00:09:54		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-050/23:54:20
17419	MGS	02-051/00:09:54		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-050/23:54:20
17420	MGS	02-051/00:09:54		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-050/23:54:20
17421	MGS	02-051/00:09:54	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
17422	MGS	02-051/00:09:54	15	NOTE: Carrier Only -- No Telemetry Modulation		
17423	MGS	02-051/00:12:06		NOTE: Enter Planetary Atmosphere 13201		02-050/23:56:32

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
17424	MGS	02-051/00:12:08		NOTE: Apoapsis 13201 -		02-050/23:56:34
17425	MGS	02-051/00:15:32		NOTE: Start Block (SSRMGR)		02-050/23:59:58
17426	MGS	02-051/00:15:32		Sends a one-word SSR command to the XSU command SOB: SSR_2A, SE_1A, RECORD, PART1	STSSRC	02-050/23:59:58
17427	MGS	02-051/00:15:33		SSR 2A Data Enable	CSD2AE	02-050/23:59:59
17428	MGS	02-051/00:15:33		SSR Activity: ID=SSR_2A, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-050/23:59:59
17429	MGS	02-051/00:16:05		NOTE: Enter Earth Occultation 13201		02-051/00:00:31
17430	MGS	02-051/00:16:05	15	NOTE: Loss Of X-Band Signal		
17431	MGS	02-051/00:16:33		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-051/00:00:59
17432	MGS	02-051/00:16:33		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-051/00:00:59
17433	MGS	02-051/00:16:33		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-051/00:00:59
17434	MGS	02-051/00:16:33		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-051/00:00:59
17435	MGS	02-051/00:16:34		Turn off the MOT Exciter and RPA beam	STRPAF	02-051/00:01:00
17436	MGS	02-051/00:16:34		NOTE: End EVP script		02-051/00:01:00
17437	MGS	02-051/00:16:35		NOTE: End Block (MAP_RT)		02-051/00:01:01
17438	MGS	02-051/00:16:38		NOTE: End fixed Sub-Reflector for Radio Science		02-051/00:01:04
17439	MGS	02-051/00:18:04		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-051/00:02:30
17440	MGS	02-051/00:18:04		NOTE: Enter Solar Eclipse 13201		02-051/00:02:30
17441	MGS	02-051/00:21:16	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
17442	MGS	02-051/00:23:16	15	Range Modulation On: SUP=3.0dB		
17443	MGS	02-051/00:24:16	15	Begin Ranging Acquisition		
17444	MGS	02-051/00:42:13		SSR 1B Data Disable	CSD1BX	02-051/00:26:39
17445	MGS	02-051/00:42:13		SSR Activity: ID=SSR_1B, FCN=End Recording, PRT=3, BITS=44800000, DUR=01:33:20		02-051/00:26:39
17446	MGS	02-051/00:42:14		NOTE: End Block (SSRMGR)		02-051/00:26:40
17447	MGS	02-051/00:42:45		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-051/00:27:11
17448	MGS	02-051/00:42:45		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-051/00:27:11
17449	MGS	02-051/00:42:50		Set eclipse egress script address: 019A	SWSEES	02-051/00:27:16
17450	MGS	02-051/00:43:08		NOTE: Begin fixed Sub-Reflector for Radio Science		02-051/00:27:33
17451	MGS	02-051/00:46:52		: 01:27:28	RPAONX	02-051/00:31:18
17452	MGS	02-051/00:46:52		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-051/00:31:18
17453	MGS	02-051/00:48:07		: 00:00:30, 00:06:57, FALSE	RDSCIE	02-051/00:32:33
17454	MGS	02-051/00:48:07		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-051/00:32:33
17455	MGS	02-051/00:48:07		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-051/00:32:33
17456	MGS	02-051/00:48:07		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-051/00:32:33
17457	MGS	02-051/00:48:07		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-051/00:32:33
17458	MGS	02-051/00:48:39		NOTE: Exit Earth Occultation 13201		02-051/00:33:04
17459	MGS	02-051/00:48:39	15	Acquisition Of X-Band Signal		
17460	MGS	02-051/00:48:39	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
17461	MGS	02-051/00:48:39	15	NOTE: Carrier Only -- No Telemetry Modulation		
17462	MGS	02-051/00:52:55		NOTE: Exit Planetary Atmosphere 13201		02-051/00:37:21
17463	MGS	02-051/00:55:04		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-051/00:39:30
17464	MGS	02-051/00:55:04		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-051/00:39:30
17465	MGS	02-051/00:55:04		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-051/00:39:30
17466	MGS	02-051/00:55:04		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-051/00:39:30
17467	MGS	02-051/00:55:04	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
17468	MGS	02-051/00:55:05		: RTM, MRC, 01:12:35, S&E_2A, FALSE, 00:06:40	AEMRT	02-051/00:39:31
17469	MGS	02-051/00:55:05		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-051/00:39:31
17470	MGS	02-051/00:55:05		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-051/00:39:31
17471	MGS	02-051/00:55:05		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=1, BITS=18976000, DUR=00:39:32		02-051/00:39:31
17472	MGS	02-051/00:55:05		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-051/00:39:31
17473	MGS	02-051/00:55:05	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
17474	MGS	02-051/00:55:10		NOTE: End fixed Sub-Reflector for Radio Science		02-051/00:39:35
17475	MGS	02-051/00:58:30		NOTE: Exit Solar Eclipse 13201		02-051/00:42:56
17476	MGS	02-051/01:11:14		NOTE: Periapsis 13202 ----------		02-051/00:55:40
17477	MGS	02-051/01:19:30		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-051/01:03:55

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
17478	MGS	02-051/01:19:30		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-051/01:03:55
17479	MGS	02-051/01:19:31		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-051/01:03:56
17480	MGS	02-051/01:19:31		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-051/01:03:56
17481	MGS	02-051/01:23:55	15	NOTE: Transmitter Off in 15 minutes		
17482	MGS	02-051/01:36:55	15	Range Modulation Off		
17483	MGS	02-051/01:38:55	15	Transmitter Off		
17484	MGS	02-051/01:41:31		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-051/01:25:56
17485	MGS	02-051/01:41:31		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-051/01:25:56
17486	MGS	02-051/02:02:41		NOTE: Begin fixed Sub-Reflector for Radio Science		02-051/01:47:06
17487	MGS	02-051/02:05:48		NOTE: Start EVP data return script		02-051/01:50:13
17488	MGS	02-051/02:07:41		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-051/01:52:06
17489	MGS	02-051/02:07:41		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=1, BITS=53816000, DUR=01:12:35		02-051/01:52:06
17490	MGS	02-051/02:07:41		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-051/01:52:06
17491	MGS	02-051/02:07:41		: 00:06:39, FALSE	RDSCII	02-051/01:52:06
17492	MGS	02-051/02:07:41		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-051/01:52:06
17493	MGS	02-051/02:07:41		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-051/01:52:06
17494	MGS	02-051/02:07:41		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-051/01:52:06
17495	MGS	02-051/02:07:41		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-051/01:52:06
17496	MGS	02-051/02:07:41	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
17497	MGS	02-051/02:07:41	15	NOTE: Carrier Only -- No Telemetry Modulation		
17498	MGS	02-051/02:09:49		NOTE: Enter Planetary Atmosphere 13202		02-051/01:54:15
17499	MGS	02-051/02:09:56		NOTE: Apoapsis 13202 -		02-051/01:54:21
17500	MGS	02-051/02:13:48		NOTE: Enter Earth Occultation 13202		02-051/01:58:14
17501	MGS	02-051/02:13:48	15	NOTE: Loss Of X-Band Signal		
17502	MGS	02-051/02:14:20		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-051/01:58:45
17503	MGS	02-051/02:14:20		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-051/01:58:45
17504	MGS	02-051/02:14:20		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-051/01:58:45
17505	MGS	02-051/02:14:20		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-051/01:58:45
17506	MGS	02-051/02:14:21		Turn off the MOT Exciter and RPA beam	STRPAF	02-051/01:58:46
17507	MGS	02-051/02:14:21		NOTE: End EVP script		02-051/01:58:46
17508	MGS	02-051/02:14:25		NOTE: End fixed Sub-Reflector for Radio Science		02-051/01:58:50
17509	MGS	02-051/02:15:48		NOTE: Enter Solar Eclipse 13202		02-051/02:00:13
17510	MGS	02-051/02:15:48		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-051/02:00:13
17511	MGS	02-051/02:18:59	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
17512	MGS	02-051/02:21:00	15	Range Modulation On: SUP=3.0dB		
17513	MGS	02-051/02:22:00	15	Begin Ranging Acquisition		
17514	MGS	02-051/02:40:31		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-051/02:24:56
17515	MGS	02-051/02:40:31		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-051/02:24:56
17516	MGS	02-051/02:40:36		Set eclipse egress script address: 01DC	SWSEES	02-051/02:25:01
17517	MGS	02-051/02:40:51		NOTE: Begin fixed Sub-Reflector for Radio Science		02-051/02:25:16
17518	MGS	02-051/02:44:36		: 01:27:28	RPAONX	02-051/02:29:01
17519	MGS	02-051/02:44:36		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-051/02:29:01
17520	MGS	02-051/02:45:51		: 00:00:30, 00:06:57, FALSE	RDSCIE	02-051/02:30:16
17521	MGS	02-051/02:45:51		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-051/02:30:16
17522	MGS	02-051/02:45:51		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-051/02:30:16
17523	MGS	02-051/02:45:51		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-051/02:30:16
17524	MGS	02-051/02:45:51		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-051/02:30:16
17525	MGS	02-051/02:46:21		Disables autonomous command to send eclipse ingress script	SWEISX	02-051/02:30:46
17526	MGS	02-051/02:46:23		NOTE: Exit Earth Occultation 13202		02-051/02:30:48
17527	MGS	02-051/02:46:23	15	Acquisition Of X-Band Signal		
17528	MGS	02-051/02:46:23	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
17529	MGS	02-051/02:46:23	15	NOTE: Carrier Only -- No Telemetry Modulation		
17530	MGS	02-051/02:50:40		NOTE: Exit Planetary Atmosphere 13202		02-051/02:35:05
17531	MGS	02-051/02:52:48		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-051/02:37:13

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
17532	MGS	02-051/02:52:48		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-051/02:37:13
17533	MGS	02-051/02:52:48		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-051/02:37:13
17534	MGS	02-051/02:52:48		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-051/02:37:13
17535	MGS	02-051/02:52:48	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
17536	MGS	02-051/02:52:49		: RTM, MRC, 01:12:35, S&E_2A, FALSE, 00:06:40	AEMRT	02-051/02:37:14
17537	MGS	02-051/02:52:49		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-051/02:37:14
17538	MGS	02-051/02:52:49		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-051/02:37:14
17539	MGS	02-051/02:52:49		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=1, BITS=75480000, DUR=00:45:08		02-051/02:37:14
17540	MGS	02-051/02:52:49		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-051/02:37:14
17541	MGS	02-051/02:52:49	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
17542	MGS	02-051/02:52:53		NOTE: End fixed Sub-Reflector for Radio Science		02-051/02:37:18
17543	MGS	02-051/02:56:13		NOTE: Exit Solar Eclipse 13202		02-051/02:40:39
17544	MGS	02-051/03:08:57		NOTE: Periapsis 13203 ----------		02-051/02:53:22
17545	MGS	02-051/03:17:12		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-051/03:01:37
17546	MGS	02-051/03:17:12		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-051/03:01:37
17547	MGS	02-051/03:17:13		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-051/03:01:38
17548	MGS	02-051/03:17:13		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-051/03:01:38
17549	MGS	02-051/03:21:37	15	NOTE: Transmitter Off in 15 minutes		
17550	MGS	02-051/03:34:37	15	Range Modulation Off		
17551	MGS	02-051/03:36:37	15	Transmitter Off		
17552	MGS	02-051/03:39:13		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-051/03:23:38
17553	MGS	02-051/03:39:13		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-051/03:23:38
17554	MGS	02-051/04:00:24		NOTE: Begin fixed Sub-Reflector for Radio Science		02-051/03:44:49
17555	MGS	02-051/04:05:24		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-051/03:49:49
17556	MGS	02-051/04:05:24		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=1, BITS=110320000, DUR=01:12:35		02-051/03:49:49
17557	MGS	02-051/04:05:24		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-051/03:49:49
17558	MGS	02-051/04:05:24		: 00:06:39, FALSE	RDSCII	02-051/03:49:49
17559	MGS	02-051/04:05:24		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-051/03:49:49
17560	MGS	02-051/04:05:24		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-051/03:49:49
17561	MGS	02-051/04:05:24		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-051/03:49:49
17562	MGS	02-051/04:05:24		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-051/03:49:49
17563	MGS	02-051/04:05:24	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
17564	MGS	02-051/04:05:24	15	NOTE: Carrier Only -- No Telemetry Modulation		
17565	MGS	02-051/04:07:32		NOTE: Enter Planetary Atmosphere 13203		02-051/03:51:57
17566	MGS	02-051/04:07:43		NOTE: Apoapsis 13203 -		02-051/03:52:08
17567	MGS	02-051/04:11:31		NOTE: Enter Earth Occultation 13203		02-051/03:55:56
17568	MGS	02-051/04:11:31	15	NOTE: Loss Of X-Band Signal		
17569	MGS	02-051/04:12:03		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-051/03:56:28
17570	MGS	02-051/04:12:03		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-051/03:56:28
17571	MGS	02-051/04:12:03		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-051/03:56:28
17572	MGS	02-051/04:12:03		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-051/03:56:28
17573	MGS	02-051/04:12:04		Turn off the MOT Exciter and RPA beam	STRPAF	02-051/03:56:29
17574	MGS	02-051/04:12:04		NOTE: End EVP script		02-051/03:56:29
17575	MGS	02-051/04:12:05		NOTE: End Block (MAP_RT)		02-051/03:56:30
17576	MGS	02-051/04:12:08		NOTE: End fixed Sub-Reflector for Radio Science		02-051/03:56:33
17577	MGS	02-051/04:13:30		NOTE: Enter Solar Eclipse 13203		02-051/03:57:55
17578	MGS	02-051/04:16:41	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
17579	MGS	02-051/04:20:00	15	NOTE: Transmitter Off in 15 minutes		
17580	MGS	02-051/04:28:37		Disable HGA control mode	SAHGCX	02-051/04:13:02
17581	MGS	02-051/04:28:38		No Operation	SCNOOP	02-051/04:13:03
17582	MGS	02-051/04:28:39		CDU-1 Uplink Rate Select (Based on 3 bit Code): 7	TCC1BS	02-051/04:13:04
17583	MGS	02-051/04:28:39		CDU-2 Uplink Rate Select (Based on 3 bit Code): 7	TCC2BS	02-051/04:13:04
17584	MGS	02-051/04:35:00	15	Transmitter Off		
17585	MGS	02-051/04:38:13		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-051/04:22:38

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
17586	MGS	02-051/04:38:13		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-051/04:22:38
17587	MGS	02-051/04:38:17		Command the PSE with included data word: 3990	SWPSEL	02-051/04:22:42
17588	MGS	02-051/04:38:18		Set eclipse egress script address: 0158	SWSEES	02-051/04:22:43
17589	MGS	02-051/04:44:05		NOTE: Exit Earth Occultation 13203		02-051/04:28:30
17590	MGS	02-051/04:48:22		NOTE: Exit Planetary Atmosphere 13203		02-051/04:32:48
17591	MGS	02-051/04:48:58	15	NOTE: Below Uplink Interlock Limit		
17592	MGS	02-051/04:53:55		NOTE: Exit Solar Eclipse 13203		02-051/04:38:20
17593	MGS	02-051/04:55:00	15	End Tracking		
17594	MGS	02-051/05:00:00	45	Begin Pre-Cal		
17595	MGS	02-051/05:00:00	45	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
17596	MGS	02-051/05:00:00	45	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
17597	MGS	02-051/05:00:00	45	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
17598	MGS	02-051/05:00:00	45	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=OFF, EXC=2		
17599	MGS	02-051/05:00:00	45	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
17600	MGS	02-051/05:00:00	45	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
17601	MGS	02-051/05:00:00	45	Config: TGC: DEST=37		
17602	MGS	02-051/05:00:00	45	Config: TGC: BAND=X, BR=0.000000		
17603	MGS	02-051/05:00:00	45	Config: FSS: CH=2, PRI_FL=10000		
17604	MGS	02-051/05:00:00	45	Config: RSR		
17605	MGS	02-051/05:00:00	45	Config: TXL		
17606	MGS	02-051/05:00:00	45	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
17607	MGS	02-051/05:00:00	45	Config: BVR		
17608	MGS	02-051/05:00:00	45	Config: Doppler Extractor: BIAS=+1MHZ		
17609	MGS	02-051/05:00:00	45	Config: MDA: SMPL=0.1		
17610	MGS	02-051/05:00:00	45	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
17611	MGS	02-051/05:00:00	45	Config: SRA: HIGH=4, LOW=14, SERV=D		
17612	MGS	02-051/05:00:00	45	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
17613	MGS	02-051/05:06:23		NOTE: Periapsis 13204 ----------		02-051/04:50:49
17614	MGS	02-051/05:10:00	15	End Post-Cal		
17615	MGS	02-051/05:18:54		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-051/05:03:19
17616	MGS	02-051/05:18:54		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-051/05:03:19
17617	MGS	02-051/05:18:55		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-051/05:03:20
17618	MGS	02-051/05:18:55		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-051/05:03:20
17619	MGS	02-051/05:40:55		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-051/05:25:20
17620	MGS	02-051/05:40:55		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-051/05:25:20
17621	MGS	02-051/05:48:53		NOTE: Start Block (SSRMGR)		02-051/05:33:18
17622	MGS	02-051/05:48:53		Sends a one-word SSR command to the XSU command SOB: SSR_2B, SE_1A, RECORD, PART1	STSSRC	02-051/05:33:18
17623	MGS	02-051/05:48:54		SSR 2B Data Enable	CSD2BE	02-051/05:33:19
17624	MGS	02-051/05:48:54		SSR Activity: ID=SSR_2B, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-051/05:33:19
17625	MGS	02-051/06:00:00	45	Begin Tracking		
17626	MGS	02-051/06:01:11		NOTE: Start Block (MAP_PB)		02-051/05:45:36
17627	MGS	02-051/06:01:12		: 00:28:49, 01:27:25, FALSE, TRUE, FALSE, 00:01:15, 00:06:57, 01:12:34, 00:06:38	AEMINI	02-051/05:45:37
17628	MGS	02-051/06:01:12		Enable sending eclipse ingress script when array power disappears	SWEISE	02-051/05:45:37
17629	MGS	02-051/06:01:12		NOTE: Start EVP data return script		02-051/05:45:37
17630	MGS	02-051/06:01:13		: SSR_1A, F42KHZ, PART1, SE_1A, 2002-051T06:32:39.000	AEMPBI	02-051/05:45:38
17631	MGS	02-051/06:05:09		NOTE: Apoapsis 13204 -		02-051/05:49:34
17632	MGS	02-051/06:05:15		NOTE: Enter Planetary Atmosphere 13204		02-051/05:49:40
17633	MGS	02-051/06:09:14		NOTE: Enter Earth Occultation 13204		02-051/05:53:39
17634	MGS	02-051/06:11:12		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-051/05:55:37
17635	MGS	02-051/06:11:13		NOTE: Enter Solar Eclipse 13204		02-051/05:55:38
17636	MGS	02-051/06:14:23	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
17637	MGS	02-051/06:15:34		SSR 2A Data Disable	CSD2AX	02-051/05:59:59
17638	MGS	02-051/06:15:34		SSR Activity: ID=SSR_2A, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-051/05:59:59
17639	MGS	02-051/06:15:35		NOTE: End Block (SSRMGR)		02-051/06:00:00

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
17640	MGS	02-051/06:16:23	45	Range Modulation On: SUP=3.0dB		
17641	MGS	02-051/06:17:23	45	Begin Ranging Acquisition		
17642	MGS	02-051/06:26:29		Select Automatic HGA control mode	SAHACE	02-051/06:10:54
17643	MGS	02-051/06:26:30		Selects Hign Gain Antenna for downlink, Reconfigures if beam is already on	STUHGA	02-051/06:10:55
17644	MGS	02-051/06:26:31		CDU-1 Uplink Rate Select (Based on 3 bit Code): 3	TCC1BS	02-051/06:10:56
17645	MGS	02-051/06:26:31		CDU-2 Uplink Rate Select (Based on 3 bit Code): 3	TCC2BS	02-051/06:10:56
17646	MGS	02-051/06:35:55		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-051/06:20:20
17647	MGS	02-051/06:35:55		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-051/06:20:20
17648	MGS	02-051/06:36:00		Set eclipse egress script address: 019A	SWSEES	02-051/06:20:25
17649	MGS	02-051/06:36:17		NOTE: Begin fixed Sub-Reflector for Radio Science		02-051/06:20:42
17650	MGS	02-051/06:40:01		: 01:27:25	RPAONX	02-051/06:24:26
17651	MGS	02-051/06:40:01		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-051/06:24:26
17652	MGS	02-051/06:41:16		: 00:00:30, 00:06:57, FALSE	RDSCIE	02-051/06:25:41
17653	MGS	02-051/06:41:16		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-051/06:25:41
17654	MGS	02-051/06:41:16		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-051/06:25:41
17655	MGS	02-051/06:41:16		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-051/06:25:41
17656	MGS	02-051/06:41:16		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-051/06:25:41
17657	MGS	02-051/06:41:47		NOTE: Exit Earth Occultation 13204		02-051/06:26:12
17658	MGS	02-051/06:41:47	45	Acquisition Of X-Band Signal		
17659	MGS	02-051/06:41:47	45	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
17660	MGS	02-051/06:41:47	45	NOTE: Carrier Only -- No Telemetry Modulation		
17661	MGS	02-051/06:46:04		NOTE: Exit Planetary Atmosphere 13204		02-051/06:30:29
17662	MGS	02-051/06:48:13		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-051/06:32:38
17663	MGS	02-051/06:48:13		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-051/06:32:38
17664	MGS	02-051/06:48:13		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-051/06:32:38
17665	MGS	02-051/06:48:13		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-051/06:32:38
17666	MGS	02-051/06:48:13		: REC_1A, F42KHZ, PART1, SE_1A, FALSE, 00:10:34	AEMPB	02-051/06:32:38
17667	MGS	02-051/06:48:13		Sends a one-word MOT command to the XSU command SOB: SSR_1A	STMOTC	02-051/06:32:38
17668	MGS	02-051/06:48:13		Sends a one-word SSR command to the XSU command SOB: SSR_1A, F42KHZ, PLYBCK, PART1	STSSRC	02-051/06:32:38
17669	MGS	02-051/06:48:13	45	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
17670	MGS	02-051/06:48:14		SSR 1A Data Enable	CSD1AE	02-051/06:32:39
17671	MGS	02-051/06:48:14		SSR Activity: ID=SSR_1A, FCN=Start Playback, PRT=1, BR=42666		02-051/06:32:39
17672	MGS	02-051/06:48:14	45	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
17673	MGS	02-051/06:48:19		NOTE: End fixed Sub-Reflector for Radio Science		02-051/06:32:44
17674	MGS	02-051/06:51:38		NOTE: Exit Solar Eclipse 13204		02-051/06:36:03
17675	MGS	02-051/07:03:56		NOTE: Periapsis 13205 ----------		02-051/06:48:21
17676	MGS	02-051/07:12:36		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-051/06:57:01
17677	MGS	02-051/07:12:36		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-051/06:57:01
17678	MGS	02-051/07:12:37		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-051/06:57:02
17679	MGS	02-051/07:12:37		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-051/06:57:02
17680	MGS	02-051/07:17:02	45	NOTE: Transmitter Off in 15 minutes		
17681	MGS	02-051/07:30:03	45	Range Modulation Off		
17682	MGS	02-051/07:32:02	45	Transmitter Off		
17683	MGS	02-051/07:34:38		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-051/07:19:02
17684	MGS	02-051/07:34:38		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-051/07:19:02
17685	MGS	02-051/07:55:48		NOTE: Begin fixed Sub-Reflector for Radio Science		02-051/07:40:13
17686	MGS	02-051/07:56:53		SSR 1A Data Disable	CSD1AX	02-051/07:41:17
17687	MGS	02-051/07:56:53		SSR Activity: ID=SSR_1A, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-051/07:41:17
17688	MGS	02-051/07:56:53		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-051/07:41:17
17689	MGS	02-051/07:56:53	45	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
17690	MGS	02-051/07:58:58		NOTE: Start EVP data return script		02-051/07:43:22
17691	MGS	02-051/07:58:58		: SSR_1B, F42KHZ, PART1, 2002-051T08:30:24.000	AEMPBU	02-051/07:43:22
17692	MGS	02-051/08:00:48		: 00:06:38, FALSE	RDSCII	02-051/07:45:12
17693	MGS	02-051/08:00:48		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-051/07:45:12

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
17694	MGS	02-051/08:00:48		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-051/07:45:12
17695	MGS	02-051/08:00:48		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-051/07:45:12
17696	MGS	02-051/08:00:48		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-051/07:45:12
17697	MGS	02-051/08:00:48	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
17698	MGS	02-051/08:00:48	45	NOTE: Carrier Only -- No Telemetry Modulation		
17699	MGS	02-051/08:02:51		NOTE: Apoapsis 13205 -		02-051/07:47:16
17700	MGS	02-051/08:02:59		NOTE: Enter Planetary Atmosphere 13205		02-051/07:47:24
17701	MGS	02-051/08:06:57		NOTE: Enter Earth Occultation 13205		02-051/07:51:22
17702	MGS	02-051/08:06:57	45	NOTE: Loss Of X-Band Signal		
17703	MGS	02-051/08:07:26		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-051/07:51:50
17704	MGS	02-051/08:07:26		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-051/07:51:50
17705	MGS	02-051/08:07:26		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-051/07:51:50
17706	MGS	02-051/08:07:26		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-051/07:51:50
17707	MGS	02-051/08:07:27		Turn off the MOT Exciter and RPA beam	STRPAF	02-051/07:51:51
17708	MGS	02-051/08:07:27		NOTE: End EVP script		02-051/07:51:52
17709	MGS	02-051/08:07:31		NOTE: End fixed Sub-Reflector for Radio Science		02-051/07:51:56
17710	MGS	02-051/08:08:57		NOTE: Enter Solar Eclipse 13205		02-051/07:53:22
17711	MGS	02-051/08:08:58		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-051/07:53:22
17712	MGS	02-051/08:12:07	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
17713	MGS	02-051/08:14:07	45	Range Modulation On: SUP=3.0dB		
17714	MGS	02-051/08:15:07	45	Begin Ranging Acquisition		
17715	MGS	02-051/08:33:38		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-051/08:18:02
17716	MGS	02-051/08:33:38		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-051/08:18:02
17717	MGS	02-051/08:33:43		Set eclipse egress script address: 01DC	SWSEES	02-051/08:18:07
17718	MGS	02-051/08:34:02		NOTE: Begin fixed Sub-Reflector for Radio Science		02-051/08:18:27
17719	MGS	02-051/08:37:47		: 01:27:25	RPAONX	02-051/08:22:11
17720	MGS	02-051/08:37:47		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-051/08:22:11
17721	MGS	02-051/08:39:02		: 00:00:30, 00:06:57, FALSE	RDSCIE	02-051/08:23:26
17722	MGS	02-051/08:39:02		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-051/08:23:26
17723	MGS	02-051/08:39:02		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-051/08:23:26
17724	MGS	02-051/08:39:02		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-051/08:23:26
17725	MGS	02-051/08:39:02		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-051/08:23:26
17726	MGS	02-051/08:39:32		NOTE: Exit Earth Occultation 13205		02-051/08:23:57
17727	MGS	02-051/08:39:32	45	Acquisition Of X-Band Signal		
17728	MGS	02-051/08:39:32	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
17729	MGS	02-051/08:39:32	45	NOTE: Carrier Only -- No Telemetry Modulation		
17730	MGS	02-051/08:43:48		NOTE: Exit Planetary Atmosphere 13205		02-051/08:28:13
17731	MGS	02-051/08:45:59		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-051/08:30:23
17732	MGS	02-051/08:45:59		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-051/08:30:23
17733	MGS	02-051/08:45:59		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-051/08:30:23
17734	MGS	02-051/08:45:59		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-051/08:30:23
17735	MGS	02-051/08:45:59		: REC_1B, F42KHZ, PART1, SE_1A, FALSE, 00:10:34	AEMPB	02-051/08:30:23
17736	MGS	02-051/08:45:59		Sends a one-word MOT command to the XSU command SOB: SSR_1B	STMOTC	02-051/08:30:23
17737	MGS	02-051/08:45:59		Sends a one-word SSR command to the XSU command SOB: SSR_1B, F42KHZ, PLYBCK, PART1	STSSRC	02-051/08:30:23
17738	MGS	02-051/08:45:59	45	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
17739	MGS	02-051/08:46:00		SSR 1B Data Enable	CSD1BE	02-051/08:30:24
17740	MGS	02-051/08:46:00		SSR Activity: ID=SSR_1B, FCN=Start Playback, PRT=1, BR=42666		02-051/08:30:24
17741	MGS	02-051/08:46:00	45	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
17742	MGS	02-051/08:46:04		NOTE: End fixed Sub-Reflector for Radio Science		02-051/08:30:29
17743	MGS	02-051/08:49:23		NOTE: Exit Solar Eclipse 13205		02-051/08:33:47
17744	MGS	02-051/09:00:00	65	Begin Pre-Cal		
17745	MGS	02-051/09:00:00	65	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
17746	MGS	02-051/09:00:00	65	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=ON, RCVR2=ON, TWNC=ON		
17747	MGS	02-051/09:00:00	65	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
17748	MGS	02-051/09:00:00	65	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
17749	MGS	02-051/09:00:00	65	At BOT: S/C Tlm Mode: BR=8000.0, FL=10000, SC=OFF, MI=0.0		
17750	MGS	02-051/09:00:00	65	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
17751	MGS	02-051/09:00:00	65	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
17752	MGS	02-051/09:00:00	65	Config: TGC: DEST=37		
17753	MGS	02-051/09:00:00	65	Config: TGC: BAND=X, BR=8000.000000		
17754	MGS	02-051/09:00:00	65	Config: FSS: CH=2, PRI_FL=10000		
17755	MGS	02-051/09:00:00	65	Config: RSR		
17756	MGS	02-051/09:00:00	65	Config: TXL		
17757	MGS	02-051/09:00:00	65	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
17758	MGS	02-051/09:00:00	65	Config: BVR		
17759	MGS	02-051/09:00:00	65	Config: Doppler Extractor: BIAS=+1MHZ		
17760	MGS	02-051/09:00:00	65	Config: MDA: SMPL=0.1		
17761	MGS	02-051/09:00:00	65	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
17762	MGS	02-051/09:00:00	65	Config: SRA: HIGH=4, LOW=14, SERV=D		
17763	MGS	02-051/09:00:00	65	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
17764	MGS	02-051/09:02:02		NOTE: Periapsis 13206 ----------		02-051/08:46:27
17765	MGS	02-051/09:10:22		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-051/08:54:46
17766	MGS	02-051/09:10:22		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-051/08:54:46
17767	MGS	02-051/09:10:23		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-051/08:54:47
17768	MGS	02-051/09:10:23		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-051/08:54:47
17769	MGS	02-051/09:14:47	45	NOTE: Transmitter Off in 15 minutes		
17770	MGS	02-051/09:27:48	45	Range Modulation Off		
17771	MGS	02-051/09:29:47	45	Transmitter Off		
17772	MGS	02-051/09:32:23		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-051/09:16:47
17773	MGS	02-051/09:32:23		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-051/09:16:47
17774	MGS	02-051/09:53:33		NOTE: Begin fixed Sub-Reflector for Radio Science		02-051/09:37:58
17775	MGS	02-051/09:54:38		SSR 1B Data Disable	CSD1BX	02-051/09:39:02
17776	MGS	02-051/09:54:38		SSR Activity: ID=SSR_1B, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-051/09:39:02
17777	MGS	02-051/09:54:38		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-051/09:39:02
17778	MGS	02-051/09:54:38	45	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
17779	MGS	02-051/09:56:44		NOTE: Start EVP data return script		02-051/09:41:08
17780	MGS	02-051/09:56:44		: SSR_1A, F42KHZ, PART2, 2002-051T10:28:10.000	AEMPBU	02-051/09:41:08
17781	MGS	02-051/09:58:33		: 00:06:38, FALSE	RDSCII	02-051/09:42:57
17782	MGS	02-051/09:58:33		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-051/09:42:57
17783	MGS	02-051/09:58:33		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-051/09:42:57
17784	MGS	02-051/09:58:33		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-051/09:42:57
17785	MGS	02-051/09:58:33		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-051/09:42:57
17786	MGS	02-051/09:58:33	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
17787	MGS	02-051/09:58:33	45	NOTE: Carrier Only -- No Telemetry Modulation		
17788	MGS	02-051/10:00:00	65	Begin Tracking		
17789	MGS	02-051/10:00:00	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
17790	MGS	02-051/10:00:00	65	NOTE: Carrier Only -- No Telemetry Modulation		
17791	MGS	02-051/10:00:45		NOTE: Enter Planetary Atmosphere 13206		02-051/09:45:09
17792	MGS	02-051/10:01:06		NOTE: Apoapsis 13206 -		02-051/09:45:30
17793	MGS	02-051/10:04:43		NOTE: Enter Earth Occultation 13206		02-051/09:49:08
17794	MGS	02-051/10:04:43	45	NOTE: Loss Of X-Band Signal		
17795	MGS	02-051/10:04:43	65	NOTE: Loss Of X-Band Signal		
17796	MGS	02-051/10:05:11		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-051/09:49:35
17797	MGS	02-051/10:05:11		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-051/09:49:35
17798	MGS	02-051/10:05:11		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-051/09:49:35
17799	MGS	02-051/10:05:11		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-051/09:49:35
17800	MGS	02-051/10:05:12		Turn off the MOT Exciter and RPA beam	STRPAF	02-051/09:49:36
17801	MGS	02-051/10:05:12		NOTE: End EVP script		02-051/09:49:37

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
17802	MGS	02-051/10:05:16		NOTE: End fixed Sub-Reflector for Radio Science		02-051/09:49:41
17803	MGS	02-051/10:05:23	65	NOTE: Above Uplink Interlock Limit		
17804	MGS	02-051/10:06:44		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-051/09:51:08
17805	MGS	02-051/10:06:44		NOTE: Enter Solar Eclipse 13206		02-051/09:51:09
17806	MGS	02-051/10:10:00	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
17807	MGS	02-051/10:10:21	45	NOTE: Below Uplink Interlock Limit		
17808	MGS	02-051/10:12:00	65	Range Modulation On: SUP=3.0dB		
17809	MGS	02-051/10:13:00	65	Begin Ranging Acquisition		
17810	MGS	02-051/10:20:00	45	End Tracking		
17811	MGS	02-051/10:31:23		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-051/10:15:47
17812	MGS	02-051/10:31:23		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-051/10:15:47
17813	MGS	02-051/10:31:27		Command the PSE with included data word: 3990	SWPSEL	02-051/10:15:51
17814	MGS	02-051/10:31:28		Set eclipse egress script address: 0158	SWSEES	02-051/10:15:52
17815	MGS	02-051/10:31:48		NOTE: Begin fixed Sub-Reflector for Radio Science		02-051/10:16:13
17816	MGS	02-051/10:35:00	45	End Post-Cal		
17817	MGS	02-051/10:35:33		: 01:27:25	RPAONX	02-051/10:19:57
17818	MGS	02-051/10:35:33		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-051/10:19:57
17819	MGS	02-051/10:36:48		: 00:00:30, 00:06:57, FALSE	RDSCIE	02-051/10:21:12
17820	MGS	02-051/10:36:48		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-051/10:21:12
17821	MGS	02-051/10:36:48		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-051/10:21:12
17822	MGS	02-051/10:36:48		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-051/10:21:12
17823	MGS	02-051/10:36:48		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-051/10:21:12
17824	MGS	02-051/10:37:19		NOTE: Exit Earth Occultation 13206		02-051/10:21:44
17825	MGS	02-051/10:37:19	65	Acquisition Of X-Band Signal		
17826	MGS	02-051/10:37:19	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
17827	MGS	02-051/10:37:19	65	NOTE: Carrier Only -- No Telemetry Modulation		
17828	MGS	02-051/10:41:35		NOTE: Exit Planetary Atmosphere 13206		02-051/10:25:59
17829	MGS	02-051/10:43:45		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-051/10:28:09
17830	MGS	02-051/10:43:45		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-051/10:28:09
17831	MGS	02-051/10:43:45		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-051/10:28:09
17832	MGS	02-051/10:43:45		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-051/10:28:09
17833	MGS	02-051/10:43:45		: REC_1A, F42KHZ, PART2, SE_1A, FALSE, 00:10:34	AEMPB	02-051/10:28:09
17834	MGS	02-051/10:43:45		Sends a one-word MOT command to the XSU command SOB: SSR_1A	STMOTC	02-051/10:28:09
17835	MGS	02-051/10:43:45		Sends a one-word SSR command to the XSU command SOB: SSR_1A, F42KHZ, PLYBCK, PART2	STSSRC	02-051/10:28:09
17836	MGS	02-051/10:43:45	65	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
17837	MGS	02-051/10:43:46		SSR 1A Data Enable	CSD1AE	02-051/10:28:10
17838	MGS	02-051/10:43:46		SSR Activity: ID=SSR_1A, FCN=Start Playback, PRT=2, BR=42666		02-051/10:28:10
17839	MGS	02-051/10:43:46	65	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
17840	MGS	02-051/10:43:50		NOTE: End fixed Sub-Reflector for Radio Science		02-051/10:28:15
17841	MGS	02-051/10:47:10		NOTE: Exit Solar Eclipse 13206		02-051/10:31:34
17842	MGS	02-051/11:00:14		NOTE: Periapsis 13207 ----------		02-051/10:44:38
17843	MGS	02-051/11:12:09		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-051/10:56:33
17844	MGS	02-051/11:12:09		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-051/10:56:33
17845	MGS	02-051/11:12:10		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-051/10:56:34
17846	MGS	02-051/11:12:10		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-051/10:56:34
17847	MGS	02-051/11:12:35	65	NOTE: Transmitter Off in 15 minutes		
17848	MGS	02-051/11:22:14		NOTE: Start Block (SSRMGR)		02-051/11:06:38
17849	MGS	02-051/11:22:14		Sends a one-word SSR command to the XSU command SOB: SSR_2A, SE_1A, RECORD, PART2	STSSRC	02-051/11:06:38
17850	MGS	02-051/11:22:15		SSR 2A Data Enable	CSD2AE	02-051/11:06:39
17851	MGS	02-051/11:22:15		SSR Activity: ID=SSR_2A, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-051/11:06:39
17852	MGS	02-051/11:25:35	65	Range Modulation Off		
17853	MGS	02-051/11:27:35	65	Transmitter Off		
17854	MGS	02-051/11:34:10		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-051/11:18:34
17855	MGS	02-051/11:34:10		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-051/11:18:34

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
17856	MGS	02-051/11:48:55		SSR 2B Data Disable	CSD2BX	02-051/11:33:19
17857	MGS	02-051/11:48:55		SSR Activity: ID=SSR_2B, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-051/11:33:19
17858	MGS	02-051/11:48:56		NOTE: End Block (SSRMGR)		02-051/11:33:20
17859	MGS	02-051/11:51:19		NOTE: Begin fixed Sub-Reflector for Radio Science		02-051/11:35:44
17860	MGS	02-051/11:52:24		SSR 1A Data Disable	CSD1AX	02-051/11:36:48
17861	MGS	02-051/11:52:24		SSR Activity: ID=SSR_1A, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-051/11:36:48
17862	MGS	02-051/11:52:24		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-051/11:36:48
17863	MGS	02-051/11:52:24	65	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
17864	MGS	02-051/11:54:31		NOTE: Start EVP data return script		02-051/11:38:55
17865	MGS	02-051/11:54:31		: SSR_1B, F42KHZ, PART2, 2002-051T12:25:57.000	AEMPBU	02-051/11:38:55
17866	MGS	02-051/11:56:19		: 00:06:38, FALSE	RDSCII	02-051/11:40:43
17867	MGS	02-051/11:56:19		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-051/11:40:43
17868	MGS	02-051/11:56:19		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-051/11:40:43
17869	MGS	02-051/11:56:19		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-051/11:40:43
17870	MGS	02-051/11:56:19		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-051/11:40:43
17871	MGS	02-051/11:56:19	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
17872	MGS	02-051/11:56:19	65	NOTE: Carrier Only -- No Telemetry Modulation		
17873	MGS	02-051/11:58:33		NOTE: Enter Planetary Atmosphere 13207		02-051/11:42:57
17874	MGS	02-051/11:59:16		NOTE: Apoapsis 13207 -		02-051/11:43:40
17875	MGS	02-051/12:02:31		NOTE: Enter Earth Occultation 13207		02-051/11:46:56
17876	MGS	02-051/12:02:31	65	NOTE: Loss Of X-Band Signal		
17877	MGS	02-051/12:02:57		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-051/11:47:21
17878	MGS	02-051/12:02:57		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-051/11:47:21
17879	MGS	02-051/12:02:57		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-051/11:47:21
17880	MGS	02-051/12:02:57		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-051/11:47:21
17881	MGS	02-051/12:02:58		Turn off the MOT Exciter and RPA beam	STRPAF	02-051/11:47:22
17882	MGS	02-051/12:02:58		NOTE: End EVP script		02-051/11:47:23
17883	MGS	02-051/12:03:02		NOTE: End fixed Sub-Reflector for Radio Science		02-051/11:47:27
17884	MGS	02-051/12:04:31		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-051/11:48:55
17885	MGS	02-051/12:04:31		NOTE: Enter Solar Eclipse 13207		02-051/11:48:56
17886	MGS	02-051/12:07:41	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
17887	MGS	02-051/12:09:41	65	Range Modulation On: SUP=3.0dB		
17888	MGS	02-051/12:10:41	65	Begin Ranging Acquisition		
17889	MGS	02-051/12:15:35		Dump SCP memory to the EDF using physical addressing arguments: 56A4, 240	SCDSCM	02-051/11:59:59
17890	MGS	02-051/12:29:10		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-051/12:13:34
17891	MGS	02-051/12:29:10		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-051/12:13:34
17892	MGS	02-051/12:29:15		Set eclipse egress script address: 019A	SWSEES	02-051/12:13:39
17893	MGS	02-051/12:29:35		NOTE: Begin fixed Sub-Reflector for Radio Science		02-051/12:14:00
17894	MGS	02-051/12:33:20		: 01:27:25	RPAONX	02-051/12:17:44
17895	MGS	02-051/12:33:20		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-051/12:17:44
17896	MGS	02-051/12:34:35		: 00:00:30, 00:06:57, FALSE	RDSCIE	02-051/12:18:59
17897	MGS	02-051/12:34:35		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-051/12:18:59
17898	MGS	02-051/12:34:35		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-051/12:18:59
17899	MGS	02-051/12:34:35		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-051/12:18:59
17900	MGS	02-051/12:34:35		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-051/12:18:59
17901	MGS	02-051/12:35:05		Disables autonomous command to send eclipse ingress script	SWEISX	02-051/12:19:29
17902	MGS	02-051/12:35:07		NOTE: Exit Earth Occultation 13207		02-051/12:19:31
17903	MGS	02-051/12:35:07	65	Acquisition Of X-Band Signal		
17904	MGS	02-051/12:35:07	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
17905	MGS	02-051/12:35:07	65	NOTE: Carrier Only -- No Telemetry Modulation		
17906	MGS	02-051/12:39:24		NOTE: Exit Planetary Atmosphere 13207		02-051/12:23:48
17907	MGS	02-051/12:41:32		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-051/12:25:56
17908	MGS	02-051/12:41:32		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-051/12:25:56
17909	MGS	02-051/12:41:32		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-051/12:25:56

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
17910	MGS	02-051/12:41:32		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-051/12:25:56
17911	MGS	02-051/12:41:32		: REC_1B, F42KHZ, PART2, SE_1A, FALSE, 00:10:34	AEMPB	02-051/12:25:56
17912	MGS	02-051/12:41:32		Sends a one-word MOT command to the XSU command SOB: SSR_1B	STMOTC	02-051/12:25:56
17913	MGS	02-051/12:41:32		Sends a one-word SSR command to the XSU command SOB: SSR_1B, F42KHZ, PLYBCK, PART2	STSSRC	02-051/12:25:56
17914	MGS	02-051/12:41:32	65	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
17915	MGS	02-051/12:41:33		SSR 1B Data Enable	CSD1BE	02-051/12:25:57
17916	MGS	02-051/12:41:33		SSR Activity: ID=SSR_1B, FCN=Start Playback, PRT=2, BR=42666		02-051/12:25:57
17917	MGS	02-051/12:41:33	65	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
17918	MGS	02-051/12:41:38		NOTE: End fixed Sub-Reflector for Radio Science		02-051/12:26:02
17919	MGS	02-051/12:44:57		NOTE: Exit Solar Eclipse 13207		02-051/12:29:21
17920	MGS	02-051/12:58:09		NOTE: Periapsis 13208 ----------		02-051/12:42:33
17921	MGS	02-051/13:05:56		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-051/12:50:20
17922	MGS	02-051/13:05:56		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-051/12:50:20
17923	MGS	02-051/13:05:57		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-051/12:50:21
17924	MGS	02-051/13:05:57		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-051/12:50:21
17925	MGS	02-051/13:10:21	65	NOTE: Transmitter Off in 15 minutes		
17926	MGS	02-051/13:23:21	65	Range Modulation Off		
17927	MGS	02-051/13:25:21	65	Transmitter Off		
17928	MGS	02-051/13:27:57		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-051/13:12:21
17929	MGS	02-051/13:27:57		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-051/13:12:21
17930	MGS	02-051/13:49:07		NOTE: Begin fixed Sub-Reflector for Radio Science		02-051/13:33:31
17931	MGS	02-051/13:50:11		SSR 1B Data Disable	CSD1BX	02-051/13:34:35
17932	MGS	02-051/13:50:11		SSR Activity: ID=SSR_1B, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-051/13:34:35
17933	MGS	02-051/13:50:11		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-051/13:34:35
17934	MGS	02-051/13:50:11	65	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
17935	MGS	02-051/13:52:15		NOTE: Start Block (MAP_RT)		02-051/13:36:39
17936	MGS	02-051/13:52:16		: 00:28:49, 01:27:24, FALSE, TRUE, FALSE, 00:01:15, 00:06:57, 01:12:33, 00:06:38	AEMINI	02-051/13:36:40
17937	MGS	02-051/13:52:16		Enable sending eclipse ingress script when array power disappears	SWEISE	02-051/13:36:40
17938	MGS	02-051/13:52:16		NOTE: Start EVP data return script		02-051/13:36:40
17939	MGS	02-051/13:52:17		: SE_2A, RTM, 01:12:32, MRC, 2002-051T14:23:43.000	AEMRTI	02-051/13:36:41
17940	MGS	02-051/13:54:06		: 00:06:38, FALSE	RDSCII	02-051/13:38:30
17941	MGS	02-051/13:54:06		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-051/13:38:30
17942	MGS	02-051/13:54:06		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-051/13:38:30
17943	MGS	02-051/13:54:06		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-051/13:38:30
17944	MGS	02-051/13:54:06		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-051/13:38:30
17945	MGS	02-051/13:54:06	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
17946	MGS	02-051/13:54:06	65	NOTE: Carrier Only -- No Telemetry Modulation		
17947	MGS	02-051/13:56:19		NOTE: Enter Planetary Atmosphere 13208		02-051/13:40:43
17948	MGS	02-051/13:56:58		NOTE: Apoapsis 13208 -		02-051/13:41:22
17949	MGS	02-051/14:00:18		NOTE: Enter Earth Occultation 13208		02-051/13:44:42
17950	MGS	02-051/14:00:18	65	NOTE: Loss Of X-Band Signal		
17951	MGS	02-051/14:00:45		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-051/13:45:08
17952	MGS	02-051/14:00:45		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-051/13:45:08
17953	MGS	02-051/14:00:45		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-051/13:45:08
17954	MGS	02-051/14:00:45		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-051/13:45:08
17955	MGS	02-051/14:00:46		Turn off the MOT Exciter and RPA beam	STRPAF	02-051/13:45:09
17956	MGS	02-051/14:00:46		NOTE: End EVP script		02-051/13:45:10
17957	MGS	02-051/14:00:47		NOTE: End Block (MAP_PB)		02-051/13:45:11
17958	MGS	02-051/14:00:50		NOTE: End fixed Sub-Reflector for Radio Science		02-051/13:45:14
17959	MGS	02-051/14:02:17		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-051/13:46:40
17960	MGS	02-051/14:02:17		NOTE: Enter Solar Eclipse 13208		02-051/13:46:40
17961	MGS	02-051/14:05:26	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
17962	MGS	02-051/14:07:27	65	Range Modulation On: SUP=3.0dB		
17963	MGS	02-051/14:08:27	65	Begin Ranging Acquisition		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
17964	MGS	02-051/14:26:58		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-051/14:11:21
17965	MGS	02-051/14:26:58		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-051/14:11:21
17966	MGS	02-051/14:27:03		Set eclipse egress script address: 01DC	SWSEES	02-051/14:11:26
17967	MGS	02-051/14:27:21		NOTE: Begin fixed Sub-Reflector for Radio Science		02-051/14:11:44
17968	MGS	02-051/14:31:06		: 01:27:24	RPAONX	02-051/14:15:29
17969	MGS	02-051/14:31:06		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-051/14:15:29
17970	MGS	02-051/14:32:21		: 00:00:30, 00:06:57, FALSE	RDSCIE	02-051/14:16:44
17971	MGS	02-051/14:32:21		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-051/14:16:44
17972	MGS	02-051/14:32:21		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-051/14:16:44
17973	MGS	02-051/14:32:21		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-051/14:16:44
17974	MGS	02-051/14:32:21		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-051/14:16:44
17975	MGS	02-051/14:32:54		NOTE: Exit Earth Occultation 13208		02-051/14:17:17
17976	MGS	02-051/14:32:54	65	Acquisition Of X-Band Signal		
17977	MGS	02-051/14:32:54	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
17978	MGS	02-051/14:32:54	65	NOTE: Carrier Only -- No Telemetry Modulation		
17979	MGS	02-051/14:37:10		NOTE: Exit Planetary Atmosphere 13208		02-051/14:21:34
17980	MGS	02-051/14:39:18		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-051/14:23:41
17981	MGS	02-051/14:39:18		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-051/14:23:41
17982	MGS	02-051/14:39:18		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-051/14:23:41
17983	MGS	02-051/14:39:18		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-051/14:23:41
17984	MGS	02-051/14:39:18	65	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
17985	MGS	02-051/14:39:19		: RTM, MRC, 01:12:32, S&E_2A, FALSE, 00:06:39	AEMRT	02-051/14:23:42
17986	MGS	02-051/14:39:19		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-051/14:23:42
17987	MGS	02-051/14:39:19		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-051/14:23:42
17988	MGS	02-051/14:39:19	65	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
17989	MGS	02-051/14:39:23		NOTE: End fixed Sub-Reflector for Radio Science		02-051/14:23:46
17990	MGS	02-051/14:42:42		NOTE: Exit Solar Eclipse 13208		02-051/14:27:06
17991	MGS	02-051/14:45:14		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-051/14:29:37
17992	MGS	02-051/14:45:14	65	D/L Change: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
17993	MGS	02-051/14:45:16		NOTE: Start Block (SSRMGR)		02-051/14:29:39
17994	MGS	02-051/14:45:16		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-051/14:29:39
17995	MGS	02-051/14:45:16		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-051/14:29:39
17996	MGS	02-051/14:45:17		Sends a one-word MOT command to the XSU command SOB: SSR_1A	STMOTC	02-051/14:29:40
17997	MGS	02-051/14:45:18		Sends a one-word SSR command to the XSU command SOB: SSR_1A, F42KHZ, PLYBCK, PART3	STSSRC	02-051/14:29:41
17998	MGS	02-051/14:45:19		SSR 1A Data Enable	CSD1AE	02-051/14:29:42
17999	MGS	02-051/14:45:19		SSR Activity: ID=SSR_1A, FCN=Start Playback, PRT=3, BR=42666		02-051/14:29:42
18000	MGS	02-051/14:45:19	65	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
18001	MGS	02-051/14:55:37		NOTE: Periapsis 13209 ----------		02-051/14:40:00
18002	MGS	02-051/14:57:46		NOTE: Start Block (SSRMGR)		02-051/14:42:09
18003	MGS	02-051/14:57:46		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-051/14:42:09
18004	MGS	02-051/14:57:46		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-051/14:42:09
18005	MGS	02-051/14:57:47		Sends a one-word MOT command to the XSU command SOB: SSR_1B	STMOTC	02-051/14:42:10
18006	MGS	02-051/14:57:48		Sends a one-word SSR command to the XSU command SOB: SSR_1B, F42KHZ, PLYBCK, PART3	STSSRC	02-051/14:42:11
18007	MGS	02-051/14:57:49		SSR 1B Data Enable	CSD1BE	02-051/14:42:12
18008	MGS	02-051/14:57:49		SSR Activity: ID=SSR_1B, FCN=Start Playback, PRT=3, BR=42666		02-051/14:42:12
18009	MGS	02-051/14:57:49		SSR 1A Data Disable	CSD1AX	02-051/14:42:12
18010	MGS	02-051/14:57:49		SSR Activity: ID=SSR_1A, FCN=End Playback, PRT=3, BITS=32000000, DUR=00:12:30		02-051/14:42:12
18011	MGS	02-051/14:57:49	65	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
18012	MGS	02-051/14:57:50		NOTE: End Block (SSRMGR)		02-051/14:42:13
18013	MGS	02-051/15:03:42		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-051/14:48:05
18014	MGS	02-051/15:03:42		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-051/14:48:05
18015	MGS	02-051/15:03:43		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-051/14:48:06
18016	MGS	02-051/15:03:43		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-051/14:48:06
18017	MGS	02-051/15:08:02	65	NOTE: Transmitter Off in 15 minutes		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
18018	MGS	02-051/15:15:19		SSR 1B Data Disable	CSD1BX	02-051/14:59:42
18019	MGS	02-051/15:15:19		SSR Activity: ID=SSR_1B, FCN=End Playback, PRT=3, BITS=44800000, DUR=00:17:30		02-051/14:59:42
18020	MGS	02-051/15:15:20		NOTE: End Block (SSRMGR)		02-051/14:59:43
18021	MGS	02-051/15:15:20		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-051/14:59:43
18022	MGS	02-051/15:15:20		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-051/14:59:43
18023	MGS	02-051/15:15:20	65	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
18024	MGS	02-051/15:21:02	65	Range Modulation Off		
18025	MGS	02-051/15:23:02	65	Transmitter Off		
18026	MGS	02-051/15:25:43		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-051/15:10:06
18027	MGS	02-051/15:25:43		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-051/15:10:06
18028	MGS	02-051/15:46:51		NOTE: Begin fixed Sub-Reflector for Radio Science		02-051/15:31:14
18029	MGS	02-051/15:49:58		NOTE: Start EVP data return script		02-051/15:34:21
18030	MGS	02-051/15:51:51		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-051/15:36:14
18031	MGS	02-051/15:51:51		: 00:06:38, FALSE	RDSCII	02-051/15:36:14
18032	MGS	02-051/15:51:51		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-051/15:36:14
18033	MGS	02-051/15:51:51		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-051/15:36:14
18034	MGS	02-051/15:51:51		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-051/15:36:14
18035	MGS	02-051/15:51:51		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-051/15:36:14
18036	MGS	02-051/15:51:51	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
18037	MGS	02-051/15:51:51	65	NOTE: Carrier Only -- No Telemetry Modulation		
18038	MGS	02-051/15:54:00		NOTE: Enter Planetary Atmosphere 13209		02-051/15:38:24
18039	MGS	02-051/15:54:18		NOTE: Apoapsis 13209 -		02-051/15:38:41
18040	MGS	02-051/15:57:59		NOTE: Enter Earth Occultation 13209		02-051/15:42:23
18041	MGS	02-051/15:57:59	65	NOTE: Loss Of X-Band Signal		
18042	MGS	02-051/15:58:29		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-051/15:42:52
18043	MGS	02-051/15:58:29		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-051/15:42:52
18044	MGS	02-051/15:58:29		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-051/15:42:52
18045	MGS	02-051/15:58:29		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-051/15:42:52
18046	MGS	02-051/15:58:30		Turn off the MOT Exciter and RPA beam	STRPAF	02-051/15:42:53
18047	MGS	02-051/15:58:30		NOTE: End EVP script		02-051/15:42:53
18048	MGS	02-051/15:58:34		NOTE: End fixed Sub-Reflector for Radio Science		02-051/15:42:57
18049	MGS	02-051/15:59:58		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-051/15:44:21
18050	MGS	02-051/15:59:58		NOTE: Enter Solar Eclipse 13209		02-051/15:44:22
18051	MGS	02-051/16:03:08	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
18052	MGS	02-051/16:05:08	65	Range Modulation On: SUP=3.0dB		
18053	MGS	02-051/16:06:08	65	Begin Ranging Acquisition		
18054	MGS	02-051/16:24:43		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-051/16:09:06
18055	MGS	02-051/16:24:43		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-051/16:09:06
18056	MGS	02-051/16:24:47		Command the PSE with included data word: 3990	SWPSEL	02-051/16:09:10
18057	MGS	02-051/16:24:48		Set eclipse egress script address: 0158	SWSEES	02-051/16:09:11
18058	MGS	02-051/16:25:02		NOTE: Begin fixed Sub-Reflector for Radio Science		02-051/16:09:25
18059	MGS	02-051/16:28:47		: 01:27:24	RPAONX	02-051/16:13:10
18060	MGS	02-051/16:28:47		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-051/16:13:10
18061	MGS	02-051/16:30:02		: 00:00:30, 00:06:57, FALSE	RDSCIE	02-051/16:14:25
18062	MGS	02-051/16:30:02		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-051/16:14:25
18063	MGS	02-051/16:30:02		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-051/16:14:25
18064	MGS	02-051/16:30:02		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-051/16:14:25
18065	MGS	02-051/16:30:02		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-051/16:14:25
18066	MGS	02-051/16:30:36		NOTE: Exit Earth Occultation 13209		02-051/16:14:59
18067	MGS	02-051/16:30:36	65	Acquisition Of X-Band Signal		
18068	MGS	02-051/16:30:36	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
18069	MGS	02-051/16:30:36	65	NOTE: Carrier Only -- No Telemetry Modulation		
18070	MGS	02-051/16:34:52		NOTE: Exit Planetary Atmosphere 13209		02-051/16:19:16
18071	MGS	02-051/16:36:59		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-051/16:21:22

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
18072	MGS	02-051/16:36:59		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-051/16:21:22
18073	MGS	02-051/16:36:59		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-051/16:21:22
18074	MGS	02-051/16:36:59		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-051/16:21:22
18075	MGS	02-051/16:36:59	65	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
18076	MGS	02-051/16:37:00		: RTM, MRC, 01:12:32, S&E_2A, FALSE, 00:06:39	AEMRT	02-051/16:21:23
18077	MGS	02-051/16:37:00		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-051/16:21:23
18078	MGS	02-051/16:37:00		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-051/16:21:23
18079	MGS	02-051/16:37:00	65	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
18080	MGS	02-051/16:37:04		NOTE: End fixed Sub-Reflector for Radio Science		02-051/16:21:27
18081	MGS	02-051/16:40:23		NOTE: Exit Solar Eclipse 13209		02-051/16:24:47
18082	MGS	02-051/16:53:00		NOTE: Periapsis 13210 ----------		02-051/16:37:24
18083	MGS	02-051/16:55:35		NOTE: Start Block (SSRMGR)		02-051/16:39:58
18084	MGS	02-051/16:55:35		Sends a one-word SSR command to the XSU command SOB: SSR_2B, SE_1A, RECORD, PART2	STSSRC	02-051/16:39:58
18085	MGS	02-051/16:55:36		SSR 2B Data Enable	CSD2BE	02-051/16:39:59
18086	MGS	02-051/16:55:36		SSR Activity: ID=SSR_2B, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-051/16:39:59
18087	MGS	02-051/17:05:23		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-051/16:49:46
18088	MGS	02-051/17:05:23		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-051/16:49:46
18089	MGS	02-051/17:05:24		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-051/16:49:47
18090	MGS	02-051/17:05:24		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-051/16:49:47
18091	MGS	02-051/17:05:41	65	NOTE: Transmitter Off in 15 minutes		
18092	MGS	02-051/17:18:42	65	Range Modulation Off		
18093	MGS	02-051/17:20:41	65	Transmitter Off		
18094	MGS	02-051/17:22:16		SSR 2A Data Disable	CSD2AX	02-051/17:06:39
18095	MGS	02-051/17:22:16		SSR Activity: ID=SSR_2A, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-051/17:06:39
18096	MGS	02-051/17:22:17		NOTE: End Block (SSRMGR)		02-051/17:06:40
18097	MGS	02-051/17:27:24		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-051/17:11:47
18098	MGS	02-051/17:27:24		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-051/17:11:47
18099	MGS	02-051/17:44:32		NOTE: Begin fixed Sub-Reflector for Radio Science		02-051/17:28:55
18100	MGS	02-051/17:47:39		NOTE: Start EVP data return script		02-051/17:32:02
18101	MGS	02-051/17:49:32		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-051/17:33:55
18102	MGS	02-051/17:49:32		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=2, BITS=25888000, DUR=00:53:56		02-051/17:33:55
18103	MGS	02-051/17:49:32		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-051/17:33:55
18104	MGS	02-051/17:49:32		: 00:06:38, FALSE	RDSCII	02-051/17:33:55
18105	MGS	02-051/17:49:32		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-051/17:33:55
18106	MGS	02-051/17:49:32		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-051/17:33:55
18107	MGS	02-051/17:49:32		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-051/17:33:55
18108	MGS	02-051/17:49:32		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-051/17:33:55
18109	MGS	02-051/17:49:32	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
18110	MGS	02-051/17:49:32	65	NOTE: Carrier Only -- No Telemetry Modulation		
18111	MGS	02-051/17:51:41		NOTE: Enter Planetary Atmosphere 13210		02-051/17:36:04
18112	MGS	02-051/17:52:03		NOTE: Apoapsis 13210 -		02-051/17:36:27
18113	MGS	02-051/17:55:40		NOTE: Enter Earth Occultation 13210		02-051/17:40:03
18114	MGS	02-051/17:55:40	65	NOTE: Loss Of X-Band Signal		
18115	MGS	02-051/17:56:10		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-051/17:40:33
18116	MGS	02-051/17:56:10		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-051/17:40:33
18117	MGS	02-051/17:56:10		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-051/17:40:33
18118	MGS	02-051/17:56:10		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-051/17:40:33
18119	MGS	02-051/17:56:11		Turn off the MOT Exciter and RPA beam	STRPAF	02-051/17:40:34
18120	MGS	02-051/17:56:11		NOTE: End EVP script		02-051/17:40:34
18121	MGS	02-051/17:56:15		NOTE: End fixed Sub-Reflector for Radio Science		02-051/17:40:38
18122	MGS	02-051/17:57:39		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-051/17:42:02
18123	MGS	02-051/17:57:39		NOTE: Enter Solar Eclipse 13210		02-051/17:42:02
18124	MGS	02-051/18:00:48	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
18125	MGS	02-051/18:02:49	65	Range Modulation On: SUP=3.0dB		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
18126	MGS	02-051/18:03:49	65	Begin Ranging Acquisition		
18127	MGS	02-051/18:22:24		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-051/18:06:47
18128	MGS	02-051/18:22:24		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-051/18:06:47
18129	MGS	02-051/18:22:29		Set eclipse egress script address: 019A	SWSEES	02-051/18:06:52
18130	MGS	02-051/18:22:43		NOTE: Begin fixed Sub-Reflector for Radio Science		02-051/18:07:06
18131	MGS	02-051/18:26:28		: 01:27:24	RPAONX	02-051/18:10:51
18132	MGS	02-051/18:26:28		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-051/18:10:51
18133	MGS	02-051/18:27:43		: 00:00:30, 00:06:57, FALSE	RDSCIE	02-051/18:12:06
18134	MGS	02-051/18:27:43		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-051/18:12:06
18135	MGS	02-051/18:27:43		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-051/18:12:06
18136	MGS	02-051/18:27:43		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-051/18:12:06
18137	MGS	02-051/18:27:43		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-051/18:12:06
18138	MGS	02-051/18:28:17		NOTE: Exit Earth Occultation 13210		02-051/18:12:40
18139	MGS	02-051/18:28:17	65	Acquisition Of X-Band Signal		
18140	MGS	02-051/18:28:17	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
18141	MGS	02-051/18:28:17	65	NOTE: Carrier Only -- No Telemetry Modulation		
18142	MGS	02-051/18:32:33		NOTE: Exit Planetary Atmosphere 13210		02-051/18:16:56
18143	MGS	02-051/18:34:40		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-051/18:19:03
18144	MGS	02-051/18:34:40		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-051/18:19:03
18145	MGS	02-051/18:34:40		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-051/18:19:03
18146	MGS	02-051/18:34:40		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-051/18:19:03
18147	MGS	02-051/18:34:40	65	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
18148	MGS	02-051/18:34:41		: RTM, MRC, 01:12:32, S&E_2A, FALSE, 00:06:39	AEMRT	02-051/18:19:04
18149	MGS	02-051/18:34:41		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-051/18:19:04
18150	MGS	02-051/18:34:41		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-051/18:19:04
18151	MGS	02-051/18:34:41		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=2, BITS=47560000, DUR=00:45:09		02-051/18:19:04
18152	MGS	02-051/18:34:41		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-051/18:19:04
18153	MGS	02-051/18:34:41	65	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
18154	MGS	02-051/18:34:45		NOTE: End fixed Sub-Reflector for Radio Science		02-051/18:19:08
18155	MGS	02-051/18:38:04		NOTE: Exit Solar Eclipse 13210		02-051/18:22:28
18156	MGS	02-051/18:50:43		NOTE: Periapsis 13211 ----------		02-051/18:35:06
18157	MGS	02-051/18:59:03		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-051/18:43:26
18158	MGS	02-051/18:59:03		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-051/18:43:26
18159	MGS	02-051/18:59:04		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-051/18:43:27
18160	MGS	02-051/18:59:04		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-051/18:43:27
18161	MGS	02-051/19:03:26	65	NOTE: Transmitter Off in 15 minutes		
18162	MGS	02-051/19:16:27	65	Range Modulation Off		
18163	MGS	02-051/19:18:26	65	Transmitter Off		
18164	MGS	02-051/19:21:04		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-051/19:05:27
18165	MGS	02-051/19:21:04		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-051/19:05:27
18166	MGS	02-051/19:42:13		NOTE: Begin fixed Sub-Reflector for Radio Science		02-051/19:26:36
18167	MGS	02-051/19:45:25		NOTE: Start EVP data return script		02-051/19:29:48
18168	MGS	02-051/19:47:13		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-051/19:31:36
18169	MGS	02-051/19:47:13		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=2, BITS=82376000, DUR=01:12:32		02-051/19:31:36
18170	MGS	02-051/19:47:13		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-051/19:31:36
18171	MGS	02-051/19:47:13		: 00:06:38, FALSE	RDSCII	02-051/19:31:36
18172	MGS	02-051/19:47:13		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-051/19:31:36
18173	MGS	02-051/19:47:13		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-051/19:31:36
18174	MGS	02-051/19:47:13		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-051/19:31:36
18175	MGS	02-051/19:47:13		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-051/19:31:36
18176	MGS	02-051/19:47:13	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
18177	MGS	02-051/19:47:13	65	NOTE: Carrier Only -- No Telemetry Modulation		
18178	MGS	02-051/19:49:27		NOTE: Enter Planetary Atmosphere 13211		02-051/19:33:50
18179	MGS	02-051/19:49:54		NOTE: Apoapsis 13211 -		02-051/19:34:17

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
18180	MGS	02-051/19:53:25		NOTE: Enter Earth Occultation 13211		02-051/19:37:48
18181	MGS	02-051/19:53:25	65	NOTE: Loss Of X-Band Signal		
18182	MGS	02-051/19:53:51		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-051/19:38:14
18183	MGS	02-051/19:53:51		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-051/19:38:14
18184	MGS	02-051/19:53:51		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-051/19:38:14
18185	MGS	02-051/19:53:51		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-051/19:38:14
18186	MGS	02-051/19:53:52		Turn off the MOT Exciter and RPA beam	STRPAF	02-051/19:38:15
18187	MGS	02-051/19:53:52		NOTE: End EVP script		02-051/19:38:15
18188	MGS	02-051/19:53:56		NOTE: End fixed Sub-Reflector for Radio Science		02-051/19:38:19
18189	MGS	02-051/19:55:25		NOTE: Enter Solar Eclipse 13211		02-051/19:39:48
18190	MGS	02-051/19:55:25		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-051/19:39:48
18191	MGS	02-051/19:58:33	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
18192	MGS	02-051/20:00:00	15	Begin Pre-Cal		
18193	MGS	02-051/20:00:00	15	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
18194	MGS	02-051/20:00:00	15	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
18195	MGS	02-051/20:00:00	15	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
18196	MGS	02-051/20:00:00	15	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
18197	MGS	02-051/20:00:00	15	At BOT: S/C Tlm Mode: BR=40000.0, FL=10000, SC=HIGH, MI=80.0		
18198	MGS	02-051/20:00:00	15	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
18199	MGS	02-051/20:00:00	15	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
18200	MGS	02-051/20:00:00	15	Config: TGC: DEST=37		
18201	MGS	02-051/20:00:00	15	Config: TGC: BAND=X, BR=40000.000000		
18202	MGS	02-051/20:00:00	15	Config: FSS: CH=2, PRI_FL=10000		
18203	MGS	02-051/20:00:00	15	Config: RSR		
18204	MGS	02-051/20:00:00	15	Config: TXL		
18205	MGS	02-051/20:00:00	15	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
18206	MGS	02-051/20:00:00	15	Config: BVR		
18207	MGS	02-051/20:00:00	15	Config: Doppler Extractor: BIAS=+1MHZ		
18208	MGS	02-051/20:00:00	15	Config: MDA: SMPL=0.1		
18209	MGS	02-051/20:00:00	15	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
18210	MGS	02-051/20:00:00	15	Config: SRA: HIGH=4, LOW=14, SERV=D		
18211	MGS	02-051/20:00:00	15	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
18212	MGS	02-051/20:00:34	65	Range Modulation On: SUP=3.0dB		
18213	MGS	02-051/20:01:34	65	Begin Ranging Acquisition		
18214	MGS	02-051/20:20:04		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-051/20:04:27
18215	MGS	02-051/20:20:04		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-051/20:04:27
18216	MGS	02-051/20:20:09		Set eclipse egress script address: 01DC	SWSEES	02-051/20:04:32
18217	MGS	02-051/20:20:30		NOTE: Begin fixed Sub-Reflector for Radio Science		02-051/20:04:52
18218	MGS	02-051/20:24:14		: 01:27:24	RPAONX	02-051/20:08:37
18219	MGS	02-051/20:24:14		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-051/20:08:37
18220	MGS	02-051/20:25:29		: 00:00:30, 00:06:57, FALSE	RDSCIE	02-051/20:09:52
18221	MGS	02-051/20:25:29		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-051/20:09:52
18222	MGS	02-051/20:25:29		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-051/20:09:52
18223	MGS	02-051/20:25:29		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-051/20:09:52
18224	MGS	02-051/20:25:29		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-051/20:09:52
18225	MGS	02-051/20:26:02		NOTE: Exit Earth Occultation 13211		02-051/20:10:25
18226	MGS	02-051/20:26:02	65	Acquisition Of X-Band Signal		
18227	MGS	02-051/20:26:02	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
18228	MGS	02-051/20:26:02	65	NOTE: Carrier Only -- No Telemetry Modulation		
18229	MGS	02-051/20:30:18		NOTE: Exit Planetary Atmosphere 13211		02-051/20:14:41
18230	MGS	02-051/20:32:27		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-051/20:16:49
18231	MGS	02-051/20:32:27		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-051/20:16:49
18232	MGS	02-051/20:32:27		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-051/20:16:49
18233	MGS	02-051/20:32:27		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-051/20:16:49

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
18234	MGS	02-051/20:32:27	65	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
18235	MGS	02-051/20:32:28		: RTM, MRC, 01:12:32, S&E_2A, FALSE, 00:06:39	AEMRT	02-051/20:16:50
18236	MGS	02-051/20:32:28		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-051/20:16:50
18237	MGS	02-051/20:32:28		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-051/20:16:50
18238	MGS	02-051/20:32:28		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=2, BITS=104088000, DUR=00:45:14		02-051/20:16:50
18239	MGS	02-051/20:32:28		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-051/20:16:50
18240	MGS	02-051/20:32:28	65	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
18241	MGS	02-051/20:32:32		NOTE: End fixed Sub-Reflector for Radio Science		02-051/20:16:54
18242	MGS	02-051/20:35:51		NOTE: Exit Solar Eclipse 13211		02-051/20:20:13
18243	MGS	02-051/20:48:36		NOTE: Periapsis 13212 ----------		02-051/20:32:59
18244	MGS	02-051/20:55:00	65	NOTE: Transmitter Off in 15 minutes		
18245	MGS	02-051/20:56:50		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-051/20:41:12
18246	MGS	02-051/20:56:50		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-051/20:41:12
18247	MGS	02-051/20:56:51		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-051/20:41:13
18248	MGS	02-051/20:56:51		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-051/20:41:13
18249	MGS	02-051/21:00:00	15	Begin Tracking		
18250	MGS	02-051/21:00:00	15	Acquire D/L: X/16, 3-Way/65, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
18251	MGS	02-051/21:08:00	65	Range Modulation Off		
18252	MGS	02-051/21:10:00	65	Transmitter Off		
18253	MGS	02-051/21:18:51		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-051/21:03:13
18254	MGS	02-051/21:18:51		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-051/21:03:13
18255	MGS	02-051/21:20:00	65	End Tracking		
18256	MGS	02-051/21:35:00	65	End Post-Cal		
18257	MGS	02-051/21:40:00		NOTE: Begin fixed Sub-Reflector for Radio Science		02-051/21:24:22
18258	MGS	02-051/21:41:14	15	Acquire D/L: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
18259	MGS	02-051/21:43:13		NOTE: Start EVP data return script		02-051/21:27:35
18260	MGS	02-051/21:45:00		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-051/21:29:22
18261	MGS	02-051/21:45:00		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=2, BITS=138904000, DUR=01:12:32		02-051/21:29:22
18262	MGS	02-051/21:45:00		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-051/21:29:22
18263	MGS	02-051/21:45:00		: 00:06:38, FALSE	RDSCII	02-051/21:29:22
18264	MGS	02-051/21:45:00		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-051/21:29:22
18265	MGS	02-051/21:45:00		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-051/21:29:22
18266	MGS	02-051/21:45:00		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-051/21:29:22
18267	MGS	02-051/21:45:00		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-051/21:29:22
18268	MGS	02-051/21:45:00	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
18269	MGS	02-051/21:45:00	15	NOTE: Carrier Only -- No Telemetry Modulation		
18270	MGS	02-051/21:47:15		NOTE: Enter Planetary Atmosphere 13212		02-051/21:31:37
18271	MGS	02-051/21:47:37		NOTE: Apoapsis 13212 -		02-051/21:32:00
18272	MGS	02-051/21:51:13		NOTE: Enter Earth Occultation 13212		02-051/21:35:35
18273	MGS	02-051/21:51:13	15	NOTE: Loss Of X-Band Signal		
18274	MGS	02-051/21:51:38		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-051/21:36:00
18275	MGS	02-051/21:51:38		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-051/21:36:00
18276	MGS	02-051/21:51:38		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-051/21:36:00
18277	MGS	02-051/21:51:38		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-051/21:36:00
18278	MGS	02-051/21:51:39		Turn off the MOT Exciter and RPA beam	STRPAF	02-051/21:36:01
18279	MGS	02-051/21:51:39		NOTE: End EVP script		02-051/21:36:01
18280	MGS	02-051/21:51:43		NOTE: End fixed Sub-Reflector for Radio Science		02-051/21:36:05
18281	MGS	02-051/21:53:12		NOTE: Enter Solar Eclipse 13212		02-051/21:37:35
18282	MGS	02-051/21:53:13		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-051/21:37:35
18283	MGS	02-051/21:56:20	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
18284	MGS	02-051/21:58:21	15	Range Modulation On: SUP=3.0dB		
18285	MGS	02-051/21:59:21	15	Begin Ranging Acquisition		
18286	MGS	02-051/22:17:51		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-051/22:02:13

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
18287	MGS	02-051/22:17:51		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-051/22:02:13
18288	MGS	02-051/22:17:55		Command the PSE with included data word: 3990	SWPSEL	02-051/22:02:17
18289	MGS	02-051/22:17:56		Set eclipse egress script address: 0158	SWSEES	02-051/22:02:18
18290	MGS	02-051/22:18:17		NOTE: Begin fixed Sub-Reflector for Radio Science		02-051/22:02:39
18291	MGS	02-051/22:22:02		: 01:27:24	RPAONX	02-051/22:06:24
18292	MGS	02-051/22:22:02		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-051/22:06:24
18293	MGS	02-051/22:23:17		: 00:00:30, 00:06:57, FALSE	RDSCIE	02-051/22:07:39
18294	MGS	02-051/22:23:17		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-051/22:07:39
18295	MGS	02-051/22:23:17		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-051/22:07:39
18296	MGS	02-051/22:23:17		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-051/22:07:39
18297	MGS	02-051/22:23:17		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-051/22:07:39
18298	MGS	02-051/22:23:50		NOTE: Exit Earth Occultation 13212		02-051/22:08:13
18299	MGS	02-051/22:23:50	15	Acquisition Of X-Band Signal		
18300	MGS	02-051/22:23:50	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
18301	MGS	02-051/22:23:50	15	NOTE: Carrier Only -- No Telemetry Modulation		
18302	MGS	02-051/22:28:06		NOTE: Exit Planetary Atmosphere 13212		02-051/22:12:29
18303	MGS	02-051/22:28:56		NOTE: Start Block (SSRMGR)		02-051/22:13:18
18304	MGS	02-051/22:28:56		Sends a one-word SSR command to the XSU command SOB: SSR_2A, SE_1A, RECORD, PART3	STSSRC	02-051/22:13:18
18305	MGS	02-051/22:28:57		SSR 2A Data Enable	CSD2AE	02-051/22:13:19
18306	MGS	02-051/22:28:57		SSR Activity: ID=SSR_2A, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-051/22:13:19
18307	MGS	02-051/22:30:14		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-051/22:14:36
18308	MGS	02-051/22:30:14		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-051/22:14:36
18309	MGS	02-051/22:30:14		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-051/22:14:36
18310	MGS	02-051/22:30:14		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-051/22:14:36
18311	MGS	02-051/22:30:14	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
18312	MGS	02-051/22:30:15		: RTM, MRC, 01:12:32, S&E_2A, FALSE, 00:06:39	AEMRT	02-051/22:14:37
18313	MGS	02-051/22:30:15		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-051/22:14:37
18314	MGS	02-051/22:30:15		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-051/22:14:37
18315	MGS	02-051/22:30:15		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=3, BITS=624000, DUR=00:01:18		02-051/22:14:37
18316	MGS	02-051/22:30:15		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-051/22:14:37
18317	MGS	02-051/22:30:15	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
18318	MGS	02-051/22:30:19		NOTE: End fixed Sub-Reflector for Radio Science		02-051/22:14:41
18319	MGS	02-051/22:33:38		NOTE: Exit Solar Eclipse 13212		02-051/22:18:01
18320	MGS	02-051/22:46:21		NOTE: Periapsis 13213 ----------		02-051/22:30:44
18321	MGS	02-051/22:55:37		SSR 2B Data Disable	CSD2BX	02-051/22:39:59
18322	MGS	02-051/22:55:37		SSR Activity: ID=SSR_2B, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-051/22:39:59
18323	MGS	02-051/22:55:38		NOTE: End Block (SSRMGR)		02-051/22:40:00
18324	MGS	02-051/22:58:37		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-051/22:42:59
18325	MGS	02-051/22:58:37		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-051/22:42:59
18326	MGS	02-051/22:58:38		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-051/22:43:00
18327	MGS	02-051/22:58:38		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-051/22:43:00
18328	MGS	02-051/22:58:59	15	NOTE: Transmitter Off in 15 minutes		
18329	MGS	02-051/23:08:56		NOTE: Start Block (SSRMGR)		02-051/22:53:18
18330	MGS	02-051/23:08:56		Sends a one-word SSR command to the XSU command SOB: SSR_2B, SE_1A, RECORD, PART3	STSSRC	02-051/22:53:18
18331	MGS	02-051/23:08:57		SSR 2B Data Enable	CSD2BE	02-051/22:53:19
18332	MGS	02-051/23:08:57		SSR Activity: ID=SSR_2B, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-051/22:53:19
18333	MGS	02-051/23:11:59	15	Range Modulation Off		
18334	MGS	02-051/23:13:59	15	Transmitter Off		
18335	MGS	02-051/23:20:38		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-051/23:05:00
18336	MGS	02-051/23:20:38		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-051/23:05:00
18337	MGS	02-051/23:35:37		SSR 2A Data Disable	CSD2AX	02-051/23:19:59
18338	MGS	02-051/23:35:37		SSR Activity: ID=SSR_2A, FCN=End Recording, PRT=3, BITS=32000000, DUR=01:06:40		02-051/23:19:59
18339	MGS	02-051/23:35:38		NOTE: End Block (SSRMGR)		02-051/23:20:00
18340	MGS	02-051/23:37:47		NOTE: Begin fixed Sub-Reflector for Radio Science		02-051/23:22:09

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
18341	MGS	02-051/23:40:59		NOTE: Start EVP data return script		02-051/23:25:21
18342	MGS	02-051/23:42:47		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-051/23:27:09
18343	MGS	02-051/23:42:47		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=3, BITS=16240000, DUR=00:33:50		02-051/23:27:09
18344	MGS	02-051/23:42:47		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-051/23:27:09
18345	MGS	02-051/23:42:47		: 00:06:38, FALSE	RDSCII	02-051/23:27:09
18346	MGS	02-051/23:42:47		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-051/23:27:09
18347	MGS	02-051/23:42:47		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-051/23:27:09
18348	MGS	02-051/23:42:47		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-051/23:27:09
18349	MGS	02-051/23:42:47		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-051/23:27:09
18350	MGS	02-051/23:42:47	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
18351	MGS	02-051/23:42:47	15	NOTE: Carrier Only -- No Telemetry Modulation		
18352	MGS	02-051/23:45:01		NOTE: Enter Planetary Atmosphere 13213		02-051/23:29:23
18353	MGS	02-051/23:45:07		NOTE: Apoapsis 13213 -		02-051/23:29:29
18354	MGS	02-051/23:48:59		NOTE: Enter Earth Occultation 13213		02-051/23:33:21
18355	MGS	02-051/23:48:59	15	NOTE: Loss Of X-Band Signal		
18356	MGS	02-051/23:49:25		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-051/23:33:47
18357	MGS	02-051/23:49:25		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-051/23:33:47
18358	MGS	02-051/23:49:25		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-051/23:33:47
18359	MGS	02-051/23:49:25		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-051/23:33:47
18360	MGS	02-051/23:49:26		Turn off the MOT Exciter and RPA beam	STRPAF	02-051/23:33:48
18361	MGS	02-051/23:49:26		NOTE: End EVP script		02-051/23:33:48
18362	MGS	02-051/23:49:30		NOTE: End fixed Sub-Reflector for Radio Science		02-051/23:33:52
18363	MGS	02-051/23:50:59		NOTE: Enter Solar Eclipse 13213		02-051/23:35:21
18364	MGS	02-051/23:50:59		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-051/23:35:21
18365	MGS	02-051/23:54:07	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
18366	MGS	02-051/23:56:07	15	Range Modulation On: SUP=3.0dB		
18367	MGS	02-051/23:57:07	15	Begin Ranging Acquisition		
18368	MGS	02-052/00:00:00		Light Time: OWLT = 15:37, RTLT = 31:15		
18369	MGS	02-052/00:15:36		NOTE: Start Block (SSRMGR)		02-051/23:59:58
18370	MGS	02-052/00:15:36		Sends a one-word SSR command to the XSU command SOB: SSR_1A, SE_1A, RECORD, PART1	STSSRC	02-051/23:59:58
18371	MGS	02-052/00:15:37		SSR 1A Data Enable	CSD1AE	02-051/23:59:59
18372	MGS	02-052/00:15:37		SSR Activity: ID=SSR_1A, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-051/23:59:59
18373	MGS	02-052/00:15:38		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-052/00:00:00
18374	MGS	02-052/00:15:38		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-052/00:00:00
18375	MGS	02-052/00:15:43		Set eclipse egress script address: 019A	SWSEES	02-052/00:00:05
18376	MGS	02-052/00:16:03		NOTE: Begin fixed Sub-Reflector for Radio Science		02-052/00:00:25
18377	MGS	02-052/00:19:48		: 01:27:24	RPAONX	02-052/00:04:10
18378	MGS	02-052/00:19:48		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-052/00:04:10
18379	MGS	02-052/00:21:03		: 00:00:30, 00:06:57, FALSE	RDSCIE	02-052/00:05:25
18380	MGS	02-052/00:21:03		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-052/00:05:25
18381	MGS	02-052/00:21:03		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-052/00:05:25
18382	MGS	02-052/00:21:03		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-052/00:05:25
18383	MGS	02-052/00:21:03		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-052/00:05:25
18384	MGS	02-052/00:21:33		Disables autonomous command to send eclipse ingress script	SWEISX	02-052/00:05:55
18385	MGS	02-052/00:21:37		NOTE: Exit Earth Occultation 13213		02-052/00:05:59
18386	MGS	02-052/00:21:37	15	Acquisition Of X-Band Signal		
18387	MGS	02-052/00:21:37	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
18388	MGS	02-052/00:21:37	15	NOTE: Carrier Only -- No Telemetry Modulation		
18389	MGS	02-052/00:25:53		NOTE: Exit Planetary Atmosphere 13213		02-052/00:10:15
18390	MGS	02-052/00:28:00		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-052/00:12:22
18391	MGS	02-052/00:28:00		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-052/00:12:22
18392	MGS	02-052/00:28:00		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-052/00:12:22
18393	MGS	02-052/00:28:00		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-052/00:12:22
18394	MGS	02-052/00:28:00	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
18395	MGS	02-052/00:28:01		: RTM, MRC, 01:12:32, S&E_2A, FALSE, 00:06:39	AEMRT	02-052/00:12:23
18396	MGS	02-052/00:28:01		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-052/00:12:23
18397	MGS	02-052/00:28:01		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-052/00:12:23
18398	MGS	02-052/00:28:01		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=5952000, DUR=00:12:24		02-052/00:12:23
18399	MGS	02-052/00:28:01		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-052/00:12:23
18400	MGS	02-052/00:28:01	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
18401	MGS	02-052/00:28:05		NOTE: End fixed Sub-Reflector for Radio Science		02-052/00:12:27
18402	MGS	02-052/00:31:24		NOTE: Exit Solar Eclipse 13213		02-052/00:15:47
18403	MGS	02-052/00:42:17		SSR 2B Data Disable	CSD2BX	02-052/00:26:39
18404	MGS	02-052/00:42:17		SSR Activity: ID=SSR_2B, FCN=End Recording, PRT=3, BITS=44800000, DUR=01:33:20		02-052/00:26:39
18405	MGS	02-052/00:42:18		NOTE: End Block (SSRMGR)		02-052/00:26:40
18406	MGS	02-052/00:44:03		NOTE: Periapsis 13214 ----------		02-052/00:28:25
18407	MGS	02-052/00:52:23		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-052/00:36:45
18408	MGS	02-052/00:52:23		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-052/00:36:45
18409	MGS	02-052/00:52:24		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-052/00:36:46
18410	MGS	02-052/00:52:24		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-052/00:36:46
18411	MGS	02-052/00:56:43	15	NOTE: Transmitter Off in 15 minutes		
18412	MGS	02-052/01:09:43	15	Range Modulation Off		
18413	MGS	02-052/01:11:43	15	Transmitter Off		
18414	MGS	02-052/01:14:24		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-052/00:58:46
18415	MGS	02-052/01:14:24		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-052/00:58:46
18416	MGS	02-052/01:35:33		NOTE: Begin fixed Sub-Reflector for Radio Science		02-052/01:19:55
18417	MGS	02-052/01:38:42		NOTE: Start Block (MAP_PB)		02-052/01:23:04
18418	MGS	02-052/01:38:43		: 00:28:53, 01:27:25, FALSE, TRUE, FALSE, 00:01:15, 00:06:57, 01:12:34, 00:06:38	AEMINI	02-052/01:23:05
18419	MGS	02-052/01:38:43		Enable sending eclipse ingress script when array power disappears	SWEISE	02-052/01:23:05
18420	MGS	02-052/01:38:43		NOTE: Start EVP data return script		02-052/01:23:05
18421	MGS	02-052/01:38:44		: SSR_2A, F42KHZ, PART1, SE_1A, 2002-052T02:10:11.000	AEMPBI	02-052/01:23:06
18422	MGS	02-052/01:40:33		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-052/01:24:55
18423	MGS	02-052/01:40:33		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=40768000, DUR=01:12:32		02-052/01:24:55
18424	MGS	02-052/01:40:33		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-052/01:24:55
18425	MGS	02-052/01:40:33		: 00:06:38, FALSE	RDSCII	02-052/01:24:55
18426	MGS	02-052/01:40:33		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-052/01:24:55
18427	MGS	02-052/01:40:33		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-052/01:24:55
18428	MGS	02-052/01:40:33		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-052/01:24:55
18429	MGS	02-052/01:40:33		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-052/01:24:55
18430	MGS	02-052/01:40:33	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
18431	MGS	02-052/01:40:33	15	NOTE: Carrier Only -- No Telemetry Modulation		
18432	MGS	02-052/01:42:39		NOTE: Apoapsis 13214 -		02-052/01:27:01
18433	MGS	02-052/01:42:45		NOTE: Enter Planetary Atmosphere 13214		02-052/01:27:07
18434	MGS	02-052/01:46:43		NOTE: Enter Earth Occultation 13214		02-052/01:31:05
18435	MGS	02-052/01:46:43	15	NOTE: Loss Of X-Band Signal		
18436	MGS	02-052/01:47:11		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-052/01:31:33
18437	MGS	02-052/01:47:11		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-052/01:31:33
18438	MGS	02-052/01:47:11		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-052/01:31:33
18439	MGS	02-052/01:47:11		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-052/01:31:33
18440	MGS	02-052/01:47:12		Turn off the MOT Exciter and RPA beam	STRPAF	02-052/01:31:34
18441	MGS	02-052/01:47:12		NOTE: End EVP script		02-052/01:31:34
18442	MGS	02-052/01:47:13		NOTE: End Block (MAP_RT)		02-052/01:31:35
18443	MGS	02-052/01:47:16		NOTE: End fixed Sub-Reflector for Radio Science		02-052/01:31:38
18444	MGS	02-052/01:48:43		NOTE: Enter Solar Eclipse 13214		02-052/01:33:05
18445	MGS	02-052/01:48:43		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-052/01:33:05
18446	MGS	02-052/01:51:51	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
18447	MGS	02-052/01:53:52	15	Range Modulation On: SUP=3.0dB		
18448	MGS	02-052/01:54:52	15	Begin Ranging Acquisition		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
18449	MGS	02-052/02:13:24		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-052/01:57:46
18450	MGS	02-052/02:13:24		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-052/01:57:46
18451	MGS	02-052/02:13:29		Set eclipse egress script address: 01DC	SWSEES	02-052/01:57:51
18452	MGS	02-052/02:13:51		NOTE: Begin fixed Sub-Reflector for Radio Science		02-052/01:58:13
18453	MGS	02-052/02:17:36		: 01:27:25	RPAONX	02-052/02:01:58
18454	MGS	02-052/02:17:36		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-052/02:01:58
18455	MGS	02-052/02:18:51		: 00:00:30, 00:06:57, FALSE	RDSCIE	02-052/02:03:13
18456	MGS	02-052/02:18:51		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-052/02:03:13
18457	MGS	02-052/02:18:51		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-052/02:03:13
18458	MGS	02-052/02:18:51		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-052/02:03:13
18459	MGS	02-052/02:18:51		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-052/02:03:13
18460	MGS	02-052/02:19:22		NOTE: Exit Earth Occultation 13214		02-052/02:03:44
18461	MGS	02-052/02:19:22	15	Acquisition Of X-Band Signal		
18462	MGS	02-052/02:19:22	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
18463	MGS	02-052/02:19:22	15	NOTE: Carrier Only -- No Telemetry Modulation		
18464	MGS	02-052/02:23:38		NOTE: Exit Planetary Atmosphere 13214		02-052/02:08:00
18465	MGS	02-052/02:25:48		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-052/02:10:10
18466	MGS	02-052/02:25:48		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-052/02:10:10
18467	MGS	02-052/02:25:48		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-052/02:10:10
18468	MGS	02-052/02:25:48		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-052/02:10:10
18469	MGS	02-052/02:25:48		: REC_2A, F42KHZ, PART1, SE_1A, FALSE, 00:10:34	AEMPB	02-052/02:10:10
18470	MGS	02-052/02:25:48		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-052/02:10:10
18471	MGS	02-052/02:25:48		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, PLYBCK, PART1	STSSRC	02-052/02:10:10
18472	MGS	02-052/02:25:48	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
18473	MGS	02-052/02:25:49		SSR 2A Data Enable	CSD2AE	02-052/02:10:11
18474	MGS	02-052/02:25:49		SSR Activity: ID=SSR_2A, FCN=Start Playback, PRT=1, BR=42666		02-052/02:10:11
18475	MGS	02-052/02:25:49	15	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
18476	MGS	02-052/02:25:53		NOTE: End fixed Sub-Reflector for Radio Science		02-052/02:10:15
18477	MGS	02-052/02:29:08		NOTE: Exit Solar Eclipse 13214		02-052/02:13:30
18478	MGS	02-052/02:41:47		NOTE: Periapsis 13215 ----------		02-052/02:26:09
18479	MGS	02-052/02:50:07		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-052/02:34:29
18480	MGS	02-052/02:50:07		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-052/02:34:29
18481	MGS	02-052/02:50:08		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-052/02:34:30
18482	MGS	02-052/02:50:08		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-052/02:34:30
18483	MGS	02-052/02:54:25	15	NOTE: Transmitter Off in 15 minutes		
18484	MGS	02-052/03:07:25	15	Range Modulation Off		
18485	MGS	02-052/03:09:25	15	Transmitter Off		
18486	MGS	02-052/03:12:09		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-052/02:56:30
18487	MGS	02-052/03:12:09		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-052/02:56:30
18488	MGS	02-052/03:33:22		NOTE: Begin fixed Sub-Reflector for Radio Science		02-052/03:17:44
18489	MGS	02-052/03:34:28		SSR 2A Data Disable	CSD2AX	02-052/03:18:49
18490	MGS	02-052/03:34:28		SSR Activity: ID=SSR_2A, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-052/03:18:49
18491	MGS	02-052/03:34:28		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-052/03:18:49
18492	MGS	02-052/03:34:28	15	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
18493	MGS	02-052/03:36:26		NOTE: Start EVP data return script		02-052/03:20:47
18494	MGS	02-052/03:36:26		: SSR_2B, F42KHZ, PART1, 2002-052T04:07:53.000	AEMPBU	02-052/03:20:47
18495	MGS	02-052/03:38:23		: 00:06:38, FALSE	RDSCII	02-052/03:22:44
18496	MGS	02-052/03:38:23		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-052/03:22:44
18497	MGS	02-052/03:38:23		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-052/03:22:44
18498	MGS	02-052/03:38:23		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-052/03:22:44
18499	MGS	02-052/03:38:23		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-052/03:22:44
18500	MGS	02-052/03:38:23	15	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
18501	MGS	02-052/03:38:23	15	NOTE: Carrier Only -- No Telemetry Modulation		
18502	MGS	02-052/03:40:27		NOTE: Enter Planetary Atmosphere 13215		02-052/03:24:49

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
18503	MGS	02-052/03:40:33		NOTE: Apoapsis 13215 -		02-052/03:24:55
18504	MGS	02-052/03:44:26		NOTE: Enter Earth Occultation 13215		02-052/03:28:48
18505	MGS	02-052/03:44:26	15	NOTE: Loss Of X-Band Signal		
18506	MGS	02-052/03:45:01		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-052/03:29:22
18507	MGS	02-052/03:45:01		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-052/03:29:22
18508	MGS	02-052/03:45:01		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-052/03:29:22
18509	MGS	02-052/03:45:01		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-052/03:29:22
18510	MGS	02-052/03:45:01		NOTE: End EVP script		02-052/03:29:23
18511	MGS	02-052/03:45:02		Turn off the MOT Exciter and RPA beam	STRPAF	02-052/03:29:23
18512	MGS	02-052/03:45:05		NOTE: End fixed Sub-Reflector for Radio Science		02-052/03:29:27
18513	MGS	02-052/03:46:25		NOTE: Enter Solar Eclipse 13215		02-052/03:30:47
18514	MGS	02-052/03:46:26		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-052/03:30:47
18515	MGS	02-052/03:49:34	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
18516	MGS	02-052/03:51:34	15	Range Modulation On: SUP=3.0dB		
18517	MGS	02-052/03:52:34	15	Begin Ranging Acquisition		
18518	MGS	02-052/04:00:00	45	Begin Pre-Cal		
18519	MGS	02-052/04:00:00	45	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
18520	MGS	02-052/04:00:00	45	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
18521	MGS	02-052/04:00:00	45	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
18522	MGS	02-052/04:00:00	45	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
18523	MGS	02-052/04:00:00	45	At BOT: S/C Tlm Mode: BR=42666.7, FL=10000, SC=HIGH, MI=80.0		
18524	MGS	02-052/04:00:00	45	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
18525	MGS	02-052/04:00:00	45	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
18526	MGS	02-052/04:00:00	45	Config: TGC: DEST=37		
18527	MGS	02-052/04:00:00	45	Config: TGC: BAND=X, BR=42666.666667		
18528	MGS	02-052/04:00:00	45	Config: FSS: CH=2, PRI_FL=10000		
18529	MGS	02-052/04:00:00	45	Config: RSR		
18530	MGS	02-052/04:00:00	45	Config: TXL		
18531	MGS	02-052/04:00:00	45	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
18532	MGS	02-052/04:00:00	45	Config: BVR		
18533	MGS	02-052/04:00:00	45	Config: Doppler Extractor: BIAS=+1MHZ		
18534	MGS	02-052/04:00:00	45	Config: MDA: SMPL=0.1		
18535	MGS	02-052/04:11:09		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-052/03:55:30
18536	MGS	02-052/04:11:09		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-052/03:55:30
18537	MGS	02-052/04:11:13		Command the PSE with included data word: 3990	SWPSEL	02-052/03:55:34
18538	MGS	02-052/04:11:14		Set eclipse egress script address: 0158	SWSEES	02-052/03:55:35
18539	MGS	02-052/04:11:33		NOTE: Begin fixed Sub-Reflector for Radio Science		02-052/03:55:55
18540	MGS	02-052/04:15:19		: 01:27:25	RPAONX	02-052/03:59:40
18541	MGS	02-052/04:15:19		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-052/03:59:40
18542	MGS	02-052/04:16:34		: 00:00:30, 00:06:57, FALSE	RDSCIE	02-052/04:00:55
18543	MGS	02-052/04:16:34		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-052/04:00:55
18544	MGS	02-052/04:16:34		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-052/04:00:55
18545	MGS	02-052/04:16:34		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-052/04:00:55
18546	MGS	02-052/04:16:34		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-052/04:00:55
18547	MGS	02-052/04:17:05		NOTE: Exit Earth Occultation 13215		02-052/04:01:27
18548	MGS	02-052/04:17:05	15	Acquisition Of X-Band Signal		
18549	MGS	02-052/04:17:05	15	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
18550	MGS	02-052/04:17:05	15	NOTE: Carrier Only -- No Telemetry Modulation		
18551	MGS	02-052/04:20:00	15	NOTE: Transmitter Off in 15 minutes		
18552	MGS	02-052/04:21:21		NOTE: Exit Planetary Atmosphere 13215		02-052/04:05:43
18553	MGS	02-052/04:23:31		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-052/04:07:52
18554	MGS	02-052/04:23:31		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-052/04:07:52
18555	MGS	02-052/04:23:31		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-052/04:07:52
18556	MGS	02-052/04:23:31		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-052/04:07:52

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
18557	MGS	02-052/04:23:31		: REC_2B, F42KHZ, PART1, SE_1A, FALSE, 00:10:34	AEMPB	02-052/04:07:52
18558	MGS	02-052/04:23:31		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-052/04:07:52
18559	MGS	02-052/04:23:31		Sends a one-word SSR command to the XSU command SOB: SSR_2B, F42KHZ, PLYBCK, PART1	STSSRC	02-052/04:07:52
18560	MGS	02-052/04:23:31	15	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
18561	MGS	02-052/04:23:32		SSR 2B Data Enable	CSD2BE	02-052/04:07:53
18562	MGS	02-052/04:23:32		SSR Activity: ID=SSR_2B, FCN=Start Playback, PRT=1, BR=42666		02-052/04:07:53
18563	MGS	02-052/04:23:32	15	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
18564	MGS	02-052/04:23:35		NOTE: End fixed Sub-Reflector for Radio Science		02-052/04:07:57
18565	MGS	02-052/04:26:51		NOTE: Exit Solar Eclipse 13215		02-052/04:11:12
18566	MGS	02-052/04:33:00	15	Range Modulation Off		
18567	MGS	02-052/04:35:00	15	Transmitter Off		
18568	MGS	02-052/04:39:24		NOTE: Periapsis 13216 ----------		02-052/04:23:46
18569	MGS	02-052/04:45:00	45	Begin Tracking		
18570	MGS	02-052/04:45:00	45	Acquire D/L: X/16, 3-Way/15, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
18571	MGS	02-052/04:48:28	15	NOTE: Below Uplink Interlock Limit		
18572	MGS	02-052/04:51:50		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-052/04:36:11
18573	MGS	02-052/04:51:50		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-052/04:36:11
18574	MGS	02-052/04:51:51		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-052/04:36:12
18575	MGS	02-052/04:51:51		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-052/04:36:12
18576	MGS	02-052/04:52:06	45	NOTE: Transmitter Off in 15 minutes		
18577	MGS	02-052/04:55:00	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
18578	MGS	02-052/04:55:00	15	End Tracking		
18579	MGS	02-052/05:06:16	45	Acquire D/L: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
18580	MGS	02-052/05:07:06	45	Transmitter Off		
18581	MGS	02-052/05:10:00	15	End Post-Cal		
18582	MGS	02-052/05:13:51		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-052/04:58:12
18583	MGS	02-052/05:13:51		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-052/04:58:12
18584	MGS	02-052/05:26:16	45	Acquire D/L: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
18585	MGS	02-052/05:31:05		NOTE: Begin fixed Sub-Reflector for Radio Science		02-052/05:15:26
18586	MGS	02-052/05:32:10		SSR 2B Data Disable	CSD2BX	02-052/05:16:31
18587	MGS	02-052/05:32:10		SSR Activity: ID=SSR_2B, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-052/05:16:31
18588	MGS	02-052/05:32:10		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-052/05:16:31
18589	MGS	02-052/05:32:10	45	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
18590	MGS	02-052/05:34:08		NOTE: Start EVP data return script		02-052/05:18:29
18591	MGS	02-052/05:34:08		: SSR_2A, F42KHZ, PART2, 2002-052T06:05:35.000	AEMPBU	02-052/05:18:29
18592	MGS	02-052/05:36:05		: 00:06:38, FALSE	RDSCII	02-052/05:20:26
18593	MGS	02-052/05:36:05		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-052/05:20:26
18594	MGS	02-052/05:36:05		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-052/05:20:26
18595	MGS	02-052/05:36:05		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-052/05:20:26
18596	MGS	02-052/05:36:05		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-052/05:20:26
18597	MGS	02-052/05:36:05	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
18598	MGS	02-052/05:36:05	45	NOTE: Carrier Only -- No Telemetry Modulation		
18599	MGS	02-052/05:38:07		NOTE: Apoapsis 13216 -		02-052/05:22:29
18600	MGS	02-052/05:38:10		NOTE: Enter Planetary Atmosphere 13216		02-052/05:22:32
18601	MGS	02-052/05:42:08		NOTE: Enter Earth Occultation 13216		02-052/05:26:30
18602	MGS	02-052/05:42:08	45	NOTE: Loss Of X-Band Signal		
18603	MGS	02-052/05:42:43		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-052/05:27:04
18604	MGS	02-052/05:42:43		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-052/05:27:04
18605	MGS	02-052/05:42:43		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-052/05:27:04
18606	MGS	02-052/05:42:43		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-052/05:27:04
18607	MGS	02-052/05:42:44		NOTE: End EVP script		02-052/05:27:05
18608	MGS	02-052/05:42:44		Turn off the MOT Exciter and RPA beam	STRPAF	02-052/05:27:05
18609	MGS	02-052/05:42:48		NOTE: End fixed Sub-Reflector for Radio Science		02-052/05:27:09

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
18610	MGS	02-052/05:44:07		NOTE: Enter Solar Eclipse 13216		02-052/05:28:29
18611	MGS	02-052/05:44:08		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-052/05:28:29
18612	MGS	02-052/05:47:15	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
18613	MGS	02-052/05:48:57		NOTE: Start Block (SSRMGR)		02-052/05:33:18
18614	MGS	02-052/05:48:57		Sends a one-word SSR command to the XSU command SOB: SSR_1B, SE_1A, RECORD, PART1	STSSRC	02-052/05:33:18
18615	MGS	02-052/05:48:58		SSR 1B Data Enable	CSD1BE	02-052/05:33:19
18616	MGS	02-052/05:48:58		SSR Activity: ID=SSR_1B, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-052/05:33:19
18617	MGS	02-052/06:08:51		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-052/05:53:12
18618	MGS	02-052/06:08:51		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-052/05:53:12
18619	MGS	02-052/06:08:56		Set eclipse egress script address: 019A	SWSEES	02-052/05:53:17
18620	MGS	02-052/06:09:16		NOTE: Begin fixed Sub-Reflector for Radio Science		02-052/05:53:37
18621	MGS	02-052/06:13:01		: 01:27:25	RPAONX	02-052/05:57:22
18622	MGS	02-052/06:13:01		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-052/05:57:22
18623	MGS	02-052/06:14:16		: 00:00:30, 00:06:57, FALSE	RDSCIE	02-052/05:58:37
18624	MGS	02-052/06:14:16		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-052/05:58:37
18625	MGS	02-052/06:14:16		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-052/05:58:37
18626	MGS	02-052/06:14:16		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-052/05:58:37
18627	MGS	02-052/06:14:16		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-052/05:58:37
18628	MGS	02-052/06:14:47		NOTE: Exit Earth Occultation 13216		02-052/05:59:08
18629	MGS	02-052/06:14:47	45	Acquisition Of X-Band Signal		
18630	MGS	02-052/06:14:47	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
18631	MGS	02-052/06:14:47	45	NOTE: Carrier Only -- No Telemetry Modulation		
18632	MGS	02-052/06:15:38		SSR 1A Data Disable	CSD1AX	02-052/05:59:59
18633	MGS	02-052/06:15:38		SSR Activity: ID=SSR_1A, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-052/05:59:59
18634	MGS	02-052/06:15:39		NOTE: End Block (SSRMGR)		02-052/06:00:00
18635	MGS	02-052/06:19:03		NOTE: Exit Planetary Atmosphere 13216		02-052/06:03:25
18636	MGS	02-052/06:21:13		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-052/06:05:34
18637	MGS	02-052/06:21:13		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-052/06:05:34
18638	MGS	02-052/06:21:13		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-052/06:05:34
18639	MGS	02-052/06:21:13		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-052/06:05:34
18640	MGS	02-052/06:21:13		: REC_2A, F42KHZ, PART2, SE_1A, FALSE, 00:10:34	AEMPB	02-052/06:05:34
18641	MGS	02-052/06:21:13		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-052/06:05:34
18642	MGS	02-052/06:21:13		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, PLYBCK, PART2	STSSRC	02-052/06:05:34
18643	MGS	02-052/06:21:13	45	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
18644	MGS	02-052/06:21:14		SSR 2A Data Enable	CSD2AE	02-052/06:05:35
18645	MGS	02-052/06:21:14		SSR Activity: ID=SSR_2A, FCN=Start Playback, PRT=2, BR=42666		02-052/06:05:35
18646	MGS	02-052/06:21:14	45	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
18647	MGS	02-052/06:21:18		NOTE: End fixed Sub-Reflector for Radio Science		02-052/06:05:39
18648	MGS	02-052/06:24:32		NOTE: Exit Solar Eclipse 13216		02-052/06:08:54
18649	MGS	02-052/06:36:45		NOTE: Periapsis 13217 ----------		02-052/06:21:07
18650	MGS	02-052/06:45:31		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-052/06:29:52
18651	MGS	02-052/06:45:31		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-052/06:29:52
18652	MGS	02-052/06:45:32		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-052/06:29:53
18653	MGS	02-052/06:45:32		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-052/06:29:53
18654	MGS	02-052/06:49:49	45	NOTE: Transmitter Off in 15 minutes		
18655	MGS	02-052/07:04:49	45	Transmitter Off		
18656	MGS	02-052/07:07:32		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-052/06:51:53
18657	MGS	02-052/07:07:32		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-052/06:51:53
18658	MGS	02-052/07:28:47		NOTE: Begin fixed Sub-Reflector for Radio Science		02-052/07:13:08
18659	MGS	02-052/07:29:52		SSR 2A Data Disable	CSD2AX	02-052/07:14:13
18660	MGS	02-052/07:29:52		SSR Activity: ID=SSR_2A, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-052/07:14:13
18661	MGS	02-052/07:29:52		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-052/07:14:13
18662	MGS	02-052/07:29:52	45	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
18663	MGS	02-052/07:31:51		NOTE: Start EVP data return script		02-052/07:16:12

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
18664	MGS	02-052/07:31:51		: SSR_2B, F42KHZ, PART2, 2002-052T08:03:18.000	AEMPBU	02-052/07:16:12
18665	MGS	02-052/07:33:47		: 00:06:38, FALSE	RDSCII	02-052/07:18:08
18666	MGS	02-052/07:33:47		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-052/07:18:08
18667	MGS	02-052/07:33:47		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-052/07:18:08
18668	MGS	02-052/07:33:47		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-052/07:18:08
18669	MGS	02-052/07:33:47		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-052/07:18:08
18670	MGS	02-052/07:33:47	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
18671	MGS	02-052/07:33:47	45	NOTE: Carrier Only -- No Telemetry Modulation		
18672	MGS	02-052/07:35:33		NOTE: Apoapsis 13217 -		02-052/07:19:55
18673	MGS	02-052/07:35:53		NOTE: Enter Planetary Atmosphere 13217		02-052/07:20:14
18674	MGS	02-052/07:39:51		NOTE: Enter Earth Occultation 13217		02-052/07:24:12
18675	MGS	02-052/07:39:51	45	NOTE: Loss Of X-Band Signal		
18676	MGS	02-052/07:40:25		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-052/07:24:46
18677	MGS	02-052/07:40:25		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-052/07:24:46
18678	MGS	02-052/07:40:25		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-052/07:24:46
18679	MGS	02-052/07:40:25		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-052/07:24:46
18680	MGS	02-052/07:40:26		NOTE: End EVP script		02-052/07:24:47
18681	MGS	02-052/07:40:26		Turn off the MOT Exciter and RPA beam	STRPAF	02-052/07:24:47
18682	MGS	02-052/07:40:30		NOTE: End fixed Sub-Reflector for Radio Science		02-052/07:24:51
18683	MGS	02-052/07:41:51		NOTE: Enter Solar Eclipse 13217		02-052/07:26:12
18684	MGS	02-052/07:41:51		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-052/07:26:12
18685	MGS	02-052/07:44:57	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
18686	MGS	02-052/08:06:32		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-052/07:50:53
18687	MGS	02-052/08:06:32		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-052/07:50:53
18688	MGS	02-052/08:06:37		Set eclipse egress script address: 01DC	SWSEES	02-052/07:50:58
18689	MGS	02-052/08:06:59		NOTE: Begin fixed Sub-Reflector for Radio Science		02-052/07:51:20
18690	MGS	02-052/08:10:44		: 01:27:25	RPAONX	02-052/07:55:05
18691	MGS	02-052/08:10:44		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-052/07:55:05
18692	MGS	02-052/08:11:59		: 00:00:30, 00:06:57, FALSE	RDSCIE	02-052/07:56:20
18693	MGS	02-052/08:11:59		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-052/07:56:20
18694	MGS	02-052/08:11:59		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-052/07:56:20
18695	MGS	02-052/08:11:59		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-052/07:56:20
18696	MGS	02-052/08:11:59		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-052/07:56:20
18697	MGS	02-052/08:12:29		Disables autonomous command to send eclipse ingress script	SWEISX	02-052/07:56:50
18698	MGS	02-052/08:12:30		NOTE: Exit Earth Occultation 13217		02-052/07:56:51
18699	MGS	02-052/08:12:30	45	Acquisition Of X-Band Signal		
18700	MGS	02-052/08:12:30	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
18701	MGS	02-052/08:12:30	45	NOTE: Carrier Only -- No Telemetry Modulation		
18702	MGS	02-052/08:16:45		NOTE: Exit Planetary Atmosphere 13217		02-052/08:01:06
18703	MGS	02-052/08:18:56		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-052/08:03:17
18704	MGS	02-052/08:18:56		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-052/08:03:17
18705	MGS	02-052/08:18:56		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-052/08:03:17
18706	MGS	02-052/08:18:56		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-052/08:03:17
18707	MGS	02-052/08:18:56		: REC_2B, F42KHZ, PART2, SE_1A, FALSE, 00:10:34	AEMPB	02-052/08:03:17
18708	MGS	02-052/08:18:56		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-052/08:03:17
18709	MGS	02-052/08:18:56		Sends a one-word SSR command to the XSU command SOB: SSR_2B, F42KHZ, PLYBCK, PART2	STSSRC	02-052/08:03:17
18710	MGS	02-052/08:18:56	45	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
18711	MGS	02-052/08:18:57		SSR 2B Data Enable	CSD2BE	02-052/08:03:18
18712	MGS	02-052/08:18:57		SSR Activity: ID=SSR_2B, FCN=Start Playback, PRT=2, BR=42666		02-052/08:03:18
18713	MGS	02-052/08:18:57	45	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
18714	MGS	02-052/08:19:01		NOTE: End fixed Sub-Reflector for Radio Science		02-052/08:03:22
18715	MGS	02-052/08:22:16		NOTE: Exit Solar Eclipse 13217		02-052/08:06:37
18716	MGS	02-052/08:34:35		NOTE: Periapsis 13218 ----------		02-052/08:18:56
18717	MGS	02-052/08:43:14		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-052/08:27:35

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
18718	MGS	02-052/08:43:14		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-052/08:27:35
18719	MGS	02-052/08:43:15		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-052/08:27:36
18720	MGS	02-052/08:43:15		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-052/08:27:36
18721	MGS	02-052/08:47:32	45	NOTE: Transmitter Off in 15 minutes		
18722	MGS	02-052/09:02:32	45	Transmitter Off		
18723	MGS	02-052/09:05:15		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-052/08:49:36
18724	MGS	02-052/09:05:15		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-052/08:49:36
18725	MGS	02-052/09:26:30		NOTE: Begin fixed Sub-Reflector for Radio Science		02-052/09:10:51
18726	MGS	02-052/09:27:36		SSR 2B Data Disable	CSD2BX	02-052/09:11:56
18727	MGS	02-052/09:27:36		SSR Activity: ID=SSR_2B, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-052/09:11:56
18728	MGS	02-052/09:27:36		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-052/09:11:56
18729	MGS	02-052/09:27:36	45	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
18730	MGS	02-052/09:31:31		: 00:06:38, FALSE	RDSCII	02-052/09:15:51
18731	MGS	02-052/09:31:31		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-052/09:15:51
18732	MGS	02-052/09:31:31		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-052/09:15:51
18733	MGS	02-052/09:31:31		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-052/09:15:51
18734	MGS	02-052/09:31:31		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-052/09:15:51
18735	MGS	02-052/09:31:31	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
18736	MGS	02-052/09:31:31	45	NOTE: Carrier Only -- No Telemetry Modulation		
18737	MGS	02-052/09:33:33		NOTE: Apoapsis 13218 -		02-052/09:17:54
18738	MGS	02-052/09:33:38		NOTE: Enter Planetary Atmosphere 13218		02-052/09:17:59
18739	MGS	02-052/09:37:35		NOTE: Enter Earth Occultation 13218		02-052/09:21:56
18740	MGS	02-052/09:37:35	45	NOTE: Loss Of X-Band Signal		
18741	MGS	02-052/09:38:09		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-052/09:22:29
18742	MGS	02-052/09:38:09		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-052/09:22:29
18743	MGS	02-052/09:38:09		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-052/09:22:29
18744	MGS	02-052/09:38:09		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-052/09:22:29
18745	MGS	02-052/09:38:09		NOTE: End EVP script		02-052/09:22:30
18746	MGS	02-052/09:38:10		Turn off the MOT Exciter and RPA beam	STRPAF	02-052/09:22:30
18747	MGS	02-052/09:38:10		NOTE: End Block (MAP_PB)		02-052/09:22:31
18748	MGS	02-052/09:38:13		NOTE: End fixed Sub-Reflector for Radio Science		02-052/09:22:34
18749	MGS	02-052/09:39:36		NOTE: Enter Solar Eclipse 13218		02-052/09:23:57
18750	MGS	02-052/09:40:00	45	NOTE: Transmitter Off in 15 minutes		
18751	MGS	02-052/09:42:42	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
18752	MGS	02-052/09:54:46		Disable HGA control mode	SAHGCX	02-052/09:39:06
18753	MGS	02-052/09:54:47		No Operation	SCNOOP	02-052/09:39:07
18754	MGS	02-052/09:54:48		CDU-1 Uplink Rate Select (Based on 3 bit Code): 7	TCC1BS	02-052/09:39:08
18755	MGS	02-052/09:54:48		CDU-2 Uplink Rate Select (Based on 3 bit Code): 7	TCC2BS	02-052/09:39:08
18756	MGS	02-052/09:55:00	45	Transmitter Off		
18757	MGS	02-052/10:04:16		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-052/09:48:36
18758	MGS	02-052/10:04:16		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-052/09:48:36
18759	MGS	02-052/10:04:20		Command the PSE with included data word: 3990	SWPSEL	02-052/09:48:40
18760	MGS	02-052/10:04:21		Set eclipse egress script address: 0158	SWSEES	02-052/09:48:41
18761	MGS	02-052/10:08:11	45	NOTE: Below Uplink Interlock Limit		
18762	MGS	02-052/10:10:16		NOTE: Exit Earth Occultation 13218		02-052/09:54:36
18763	MGS	02-052/10:14:30		NOTE: Exit Planetary Atmosphere 13218		02-052/09:58:51
18764	MGS	02-052/10:15:00	45	End Tracking		
18765	MGS	02-052/10:20:01		NOTE: Exit Solar Eclipse 13218		02-052/10:04:22
18766	MGS	02-052/10:30:00	45	End Post-Cal		
18767	MGS	02-052/10:32:47		NOTE: Periapsis 13219 ----------		02-052/10:17:08
18768	MGS	02-052/10:45:01		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-052/10:29:21
18769	MGS	02-052/10:45:01		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-052/10:29:21
18770	MGS	02-052/10:45:02		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-052/10:29:22
18771	MGS	02-052/10:45:02		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-052/10:29:22

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
18772	MGS	02-052/11:07:02		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-052/10:51:22
18773	MGS	02-052/11:07:02		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-052/10:51:22
18774	MGS	02-052/11:22:18		NOTE: Start Block (SSRMGR)		02-052/11:06:38
18775	MGS	02-052/11:22:18		Sends a one-word SSR command to the XSU command SOB: SSR_1A, SE_1A, RECORD, PART2	STSSRC	02-052/11:06:38
18776	MGS	02-052/11:22:19		SSR 1A Data Enable	CSD1AE	02-052/11:06:39
18777	MGS	02-052/11:22:19		SSR Activity: ID=SSR_1A, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-052/11:06:39
18778	MGS	02-052/11:31:24		NOTE: Enter Planetary Atmosphere 13219		02-052/11:15:45
18779	MGS	02-052/11:31:52		NOTE: Apoapsis 13219 -		02-052/11:16:13
18780	MGS	02-052/11:35:22		NOTE: Enter Earth Occultation 13219		02-052/11:19:43
18781	MGS	02-052/11:37:23		NOTE: Enter Solar Eclipse 13219		02-052/11:21:44
18782	MGS	02-052/11:48:59		SSR 1B Data Disable	CSD1BX	02-052/11:33:19
18783	MGS	02-052/11:48:59		SSR Activity: ID=SSR_1B, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-052/11:33:19
18784	MGS	02-052/11:49:00		NOTE: End Block (SSRMGR)		02-052/11:33:20
18785	MGS	02-052/12:02:02		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-052/11:46:22
18786	MGS	02-052/12:02:02		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-052/11:46:22
18787	MGS	02-052/12:02:07		Set eclipse egress script address: 019A	SWSEES	02-052/11:46:27
18788	MGS	02-052/12:08:03		NOTE: Exit Earth Occultation 13219		02-052/11:52:23
18789	MGS	02-052/12:12:18		NOTE: Exit Planetary Atmosphere 13219		02-052/11:56:38
18790	MGS	02-052/12:15:39		Dump SCP memory to the EDF using physical addressing arguments: 56A4, 240	SCDSCM	02-052/11:59:59
18791	MGS	02-052/12:17:49		NOTE: Exit Solar Eclipse 13219		02-052/12:02:09
18792	MGS	02-052/12:30:52		NOTE: Periapsis 13220 ----------		02-052/12:15:13
18793	MGS	02-052/12:38:48		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-052/12:23:08
18794	MGS	02-052/12:38:48		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-052/12:23:08
18795	MGS	02-052/12:38:49		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-052/12:23:09
18796	MGS	02-052/12:38:49		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-052/12:23:09
18797	MGS	02-052/13:00:49		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-052/12:45:09
18798	MGS	02-052/13:00:49		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-052/12:45:09
18799	MGS	02-052/13:29:12		NOTE: Enter Planetary Atmosphere 13220		02-052/13:13:32
18800	MGS	02-052/13:29:49		NOTE: Apoapsis 13220 -		02-052/13:14:09
18801	MGS	02-052/13:33:10		NOTE: Enter Earth Occultation 13220		02-052/13:17:30
18802	MGS	02-052/13:35:10		NOTE: Enter Solar Eclipse 13220		02-052/13:19:30
18803	MGS	02-052/13:59:49		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-052/13:44:09
18804	MGS	02-052/13:59:49		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-052/13:44:09
18805	MGS	02-052/13:59:54		Set eclipse egress script address: 01DC	SWSEES	02-052/13:44:14
18806	MGS	02-052/14:05:51		NOTE: Exit Earth Occultation 13220		02-052/13:50:11
18807	MGS	02-052/14:10:06		NOTE: Exit Planetary Atmosphere 13220		02-052/13:54:26
18808	MGS	02-052/14:15:35		NOTE: Exit Solar Eclipse 13220		02-052/13:59:55
18809	MGS	02-052/14:28:34		NOTE: Periapsis 13221 ----------		02-052/14:12:54
18810	MGS	02-052/14:36:34		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-052/14:20:54
18811	MGS	02-052/14:36:34		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-052/14:20:54
18812	MGS	02-052/14:36:35		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-052/14:20:55
18813	MGS	02-052/14:36:35		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-052/14:20:55
18814	MGS	02-052/14:58:35		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-052/14:42:55
18815	MGS	02-052/14:58:35		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-052/14:42:55
18816	MGS	02-052/15:26:56		NOTE: Enter Planetary Atmosphere 13221		02-052/15:11:16
18817	MGS	02-052/15:27:16		NOTE: Apoapsis 13221 -		02-052/15:11:35
18818	MGS	02-052/15:30:54		NOTE: Enter Earth Occultation 13221		02-052/15:15:14
18819	MGS	02-052/15:32:53		NOTE: Enter Solar Eclipse 13221		02-052/15:17:13
18820	MGS	02-052/15:57:36		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-052/15:41:55
18821	MGS	02-052/15:57:36		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-052/15:41:55
18822	MGS	02-052/15:57:40		Command the PSE with included data word: 3990	SWPSEL	02-052/15:41:59
18823	MGS	02-052/15:57:41		Set eclipse egress script address: 0158	SWSEES	02-052/15:42:00
18824	MGS	02-052/16:03:35		NOTE: Exit Earth Occultation 13221		02-052/15:47:55
18825	MGS	02-052/16:07:51		NOTE: Exit Planetary Atmosphere 13221		02-052/15:52:11

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
18826	MGS	02-052/16:13:18		NOTE: Exit Solar Eclipse 13221		02-052/15:57:38
18827	MGS	02-052/16:25:55		NOTE: Periapsis 13222 ----------		02-052/16:10:15
18828	MGS	02-052/16:38:18		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-052/16:22:37
18829	MGS	02-052/16:38:18		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-052/16:22:37
18830	MGS	02-052/16:38:19		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-052/16:22:38
18831	MGS	02-052/16:38:19		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-052/16:22:38
18832	MGS	02-052/16:45:00	65	Begin Pre-Cal		
18833	MGS	02-052/16:45:00	65	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
18834	MGS	02-052/16:45:00	65	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
18835	MGS	02-052/16:45:00	65	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
18836	MGS	02-052/16:45:00	65	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=OFF, EXC=2		
18837	MGS	02-052/16:45:00	65	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
18838	MGS	02-052/16:45:00	65	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
18839	MGS	02-052/16:45:00	65	Config: TGC: DEST=37		
18840	MGS	02-052/16:45:00	65	Config: TGC: BAND=X, BR=8000.000000		
18841	MGS	02-052/16:45:00	65	Config: FSS: CH=2, PRI_FL=10000		
18842	MGS	02-052/16:45:00	65	Config: RSR		
18843	MGS	02-052/16:45:00	65	Config: TXL		
18844	MGS	02-052/16:45:00	65	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
18845	MGS	02-052/16:45:00	65	Config: BVR		
18846	MGS	02-052/16:45:00	65	Config: Doppler Extractor: BIAS=+1MHZ		
18847	MGS	02-052/16:45:00	65	Config: MDA: SMPL=0.1		
18848	MGS	02-052/16:55:39		NOTE: Start Block (SSRMGR)		02-052/16:39:58
18849	MGS	02-052/16:55:39		Sends a one-word SSR command to the XSU command SOB: SSR_1B, SE_1A, RECORD, PART2	STSSRC	02-052/16:39:58
18850	MGS	02-052/16:55:40		SSR 1B Data Enable	CSD1BE	02-052/16:39:59
18851	MGS	02-052/16:55:40		SSR Activity: ID=SSR_1B, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-052/16:39:59
18852	MGS	02-052/17:00:19		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-052/16:44:38
18853	MGS	02-052/17:00:19		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-052/16:44:38
18854	MGS	02-052/17:20:32		NOTE: Start Block (MAP_RT)		02-052/17:04:51
18855	MGS	02-052/17:20:33		: 00:28:57, 01:27:15, FALSE, TRUE, FALSE, 00:01:15, 00:06:56, 01:12:25, 00:06:38	AEMINI	02-052/17:04:52
18856	MGS	02-052/17:20:33		Enable sending eclipse ingress script when array power disappears	SWEISE	02-052/17:04:52
18857	MGS	02-052/17:20:33		NOTE: Start EVP data return script		02-052/17:04:52
18858	MGS	02-052/17:20:34		: SE_2A, RTM, 01:12:24, MRC, 2002-052T17:52:02.000	AEMRTI	02-052/17:04:53
18859	MGS	02-052/17:22:20		SSR 1A Data Disable	CSD1AX	02-052/17:06:39
18860	MGS	02-052/17:22:20		SSR Activity: ID=SSR_1A, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-052/17:06:39
18861	MGS	02-052/17:22:21		NOTE: End Block (SSRMGR)		02-052/17:06:40
18862	MGS	02-052/17:24:36		NOTE: Enter Planetary Atmosphere 13222		02-052/17:08:56
18863	MGS	02-052/17:24:41		NOTE: Apoapsis 13222 -		02-052/17:09:00
18864	MGS	02-052/17:28:34		NOTE: Enter Earth Occultation 13222		02-052/17:12:53
18865	MGS	02-052/17:30:00	65	Begin Tracking		
18866	MGS	02-052/17:30:33		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-052/17:14:52
18867	MGS	02-052/17:30:33		NOTE: Enter Solar Eclipse 13222		02-052/17:14:53
18868	MGS	02-052/17:40:00	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
18869	MGS	02-052/17:45:54		Select Automatic HGA control mode	SAHACE	02-052/17:30:13
18870	MGS	02-052/17:45:55		Selects Hign Gain Antenna for downlink, Reconfigures if beam is already on	STUHGA	02-052/17:30:14
18871	MGS	02-052/17:45:56		CDU-1 Uplink Rate Select (Based on 3 bit Code): 3	TCC1BS	02-052/17:30:15
18872	MGS	02-052/17:45:56		CDU-2 Uplink Rate Select (Based on 3 bit Code): 3	TCC2BS	02-052/17:30:15
18873	MGS	02-052/17:55:19		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-052/17:39:38
18874	MGS	02-052/17:55:19		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-052/17:39:38
18875	MGS	02-052/17:55:24		Set eclipse egress script address: 019A	SWSEES	02-052/17:39:43
18876	MGS	02-052/17:55:45		NOTE: Begin fixed Sub-Reflector for Radio Science		02-052/17:40:05
18877	MGS	02-052/17:59:30		: 01:27:15	RPAONX	02-052/17:43:49
18878	MGS	02-052/17:59:30		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-052/17:43:49
18879	MGS	02-052/18:00:45		: 00:00:30, 00:06:56, FALSE	RDSCIE	02-052/17:45:04

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
18880	MGS	02-052/18:00:45		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-052/17:45:04
18881	MGS	02-052/18:00:45		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-052/17:45:04
18882	MGS	02-052/18:00:45		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-052/17:45:04
18883	MGS	02-052/18:00:45		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-052/17:45:04
18884	MGS	02-052/18:01:15		Disables autonomous command to send eclipse ingress script	SWEISX	02-052/17:45:34
18885	MGS	02-052/18:01:15		NOTE: Exit Earth Occultation 13222		02-052/17:45:35
18886	MGS	02-052/18:01:15	65	Acquisition Of X-Band Signal		
18887	MGS	02-052/18:01:15	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
18888	MGS	02-052/18:01:15	65	NOTE: Carrier Only -- No Telemetry Modulation		
18889	MGS	02-052/18:05:31		NOTE: Exit Planetary Atmosphere 13222		02-052/17:49:50
18890	MGS	02-052/18:07:41		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-052/17:52:00
18891	MGS	02-052/18:07:41		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-052/17:52:00
18892	MGS	02-052/18:07:41		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-052/17:52:00
18893	MGS	02-052/18:07:41		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-052/17:52:00
18894	MGS	02-052/18:07:41	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
18895	MGS	02-052/18:07:42		: RTM, MRC, 01:12:24, S&E_2A, FALSE, 00:06:39	AEMRT	02-052/17:52:01
18896	MGS	02-052/18:07:42		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-052/17:52:01
18897	MGS	02-052/18:07:42		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-052/17:52:01
18898	MGS	02-052/18:07:42		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=2, BITS=34576000, DUR=01:12:02		02-052/17:52:01
18899	MGS	02-052/18:07:42		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-052/17:52:01
18900	MGS	02-052/18:07:42	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
18901	MGS	02-052/18:07:46		NOTE: End fixed Sub-Reflector for Radio Science		02-052/17:52:06
18902	MGS	02-052/18:10:58		NOTE: Exit Solar Eclipse 13222		02-052/17:55:18
18903	MGS	02-052/18:11:20	65	Acquire D/L: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
18904	MGS	02-052/18:13:36		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-052/17:57:55
18905	MGS	02-052/18:13:36		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=2, BITS=37408000, DUR=00:05:54		02-052/17:57:55
18906	MGS	02-052/18:13:36		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-052/17:57:55
18907	MGS	02-052/18:13:36	65	D/L Change: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
18908	MGS	02-052/18:13:38		NOTE: Start Block (SSRMGR)		02-052/17:57:57
18909	MGS	02-052/18:13:38		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-052/17:57:57
18910	MGS	02-052/18:13:38		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-052/17:57:57
18911	MGS	02-052/18:13:39		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-052/17:57:58
18912	MGS	02-052/18:13:40		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, PLYBCK, PART3	STSSRC	02-052/17:57:59
18913	MGS	02-052/18:13:41		SSR 2A Data Enable	CSD2AE	02-052/17:58:00
18914	MGS	02-052/18:13:41		SSR Activity: ID=SSR_2A, FCN=Start Playback, PRT=3, BR=42666		02-052/17:58:00
18915	MGS	02-052/18:13:41	65	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
18916	MGS	02-052/18:23:24		NOTE: Periapsis 13223 ----------		02-052/18:07:44
18917	MGS	02-052/18:26:09		NOTE: Start Block (SSRMGR)		02-052/18:10:28
18918	MGS	02-052/18:26:09		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-052/18:10:28
18919	MGS	02-052/18:26:09		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-052/18:10:28
18920	MGS	02-052/18:26:10		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-052/18:10:29
18921	MGS	02-052/18:26:10		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, ENBSCR, PART1	STSSRC	02-052/18:10:29
18922	MGS	02-052/18:26:11		SSR 2A Data Disable	CSD2AX	02-052/18:10:30
18923	MGS	02-052/18:26:11		Sends a one-word SSR command to the XSU command SOB: SSR_2B, F42KHZ, PLYBCK, PART3	STSSRC	02-052/18:10:30
18924	MGS	02-052/18:26:12		NOTE: End Block (SSRMGR)		02-052/18:10:31
18925	MGS	02-052/18:26:12		SSR 2B Data Enable	CSD2BE	02-052/18:10:31
18926	MGS	02-052/18:26:12		SSR Activity: ID=SSR_2B, FCN=Start Playback, PRT=3, BR=42666		02-052/18:10:31
18927	MGS	02-052/18:31:57		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-052/18:16:16
18928	MGS	02-052/18:31:57		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-052/18:16:16
18929	MGS	02-052/18:31:58		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-052/18:16:17
18930	MGS	02-052/18:31:58		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-052/18:16:17
18931	MGS	02-052/18:36:10	65	NOTE: Transmitter Off in 15 minutes		
18932	MGS	02-052/18:43:42		SSR 2B Data Disable	CSD2BX	02-052/18:28:01
18933	MGS	02-052/18:43:42		SSR Activity: ID=SSR_2B, FCN=End Playback, PRT=3, BITS=44800000, DUR=00:17:30		02-052/18:28:01

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
18934	MGS	02-052/18:43:43		NOTE: End Block (SSRMGR)		02-052/18:28:02
18935	MGS	02-052/18:43:43		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-052/18:28:02
18936	MGS	02-052/18:43:43		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-052/18:28:02
18937	MGS	02-052/18:43:43	65	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
18938	MGS	02-052/18:51:10	65	Transmitter Off		
18939	MGS	02-052/18:53:58		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-052/18:38:17
18940	MGS	02-052/18:53:58		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-052/18:38:17
18941	MGS	02-052/19:15:06		NOTE: Begin fixed Sub-Reflector for Radio Science		02-052/18:59:26
18942	MGS	02-052/19:18:15		NOTE: Start Block (MAP_RT)		02-052/19:02:34
18943	MGS	02-052/19:18:16		: 00:28:57, 01:27:15, FALSE, TRUE, FALSE, 00:01:15, 00:06:56, 01:12:25, 00:06:38	AEMINI	02-052/19:02:35
18944	MGS	02-052/19:18:16		Enable sending eclipse ingress script when array power disappears	SWEISE	02-052/19:02:35
18945	MGS	02-052/19:18:16		NOTE: Start EVP data return script		02-052/19:02:35
18946	MGS	02-052/19:18:17		: SE_2A, RTM, 01:12:24, MRC, 2002-052T19:49:45.000	AEMRTI	02-052/19:02:36
18947	MGS	02-052/19:20:06		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-052/19:04:25
18948	MGS	02-052/19:20:06		: 00:06:38, FALSE	RDSCII	02-052/19:04:25
18949	MGS	02-052/19:20:06		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-052/19:04:25
18950	MGS	02-052/19:20:06		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-052/19:04:25
18951	MGS	02-052/19:20:06		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-052/19:04:25
18952	MGS	02-052/19:20:06		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-052/19:04:25
18953	MGS	02-052/19:20:06	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
18954	MGS	02-052/19:20:06	65	NOTE: Carrier Only -- No Telemetry Modulation		
18955	MGS	02-052/19:22:18		NOTE: Enter Planetary Atmosphere 13223		02-052/19:06:38
18956	MGS	02-052/19:22:31		NOTE: Apoapsis 13223 -		02-052/19:06:50
18957	MGS	02-052/19:26:16		NOTE: Enter Earth Occultation 13223		02-052/19:10:35
18958	MGS	02-052/19:26:16	65	NOTE: Loss Of X-Band Signal		
18959	MGS	02-052/19:26:44		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-052/19:11:03
18960	MGS	02-052/19:26:44		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-052/19:11:03
18961	MGS	02-052/19:26:44		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-052/19:11:03
18962	MGS	02-052/19:26:44		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-052/19:11:03
18963	MGS	02-052/19:26:45		Turn off the MOT Exciter and RPA beam	STRPAF	02-052/19:11:04
18964	MGS	02-052/19:26:45		NOTE: End EVP script		02-052/19:11:05
18965	MGS	02-052/19:26:46		NOTE: End Block (MAP_RT)		02-052/19:11:06
18966	MGS	02-052/19:26:49		NOTE: End fixed Sub-Reflector for Radio Science		02-052/19:11:09
18967	MGS	02-052/19:28:16		NOTE: Enter Solar Eclipse 13223		02-052/19:12:35
18968	MGS	02-052/19:28:16		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-052/19:12:35
18969	MGS	02-052/19:31:22	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
18970	MGS	02-052/19:52:58		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-052/19:37:17
18971	MGS	02-052/19:52:58		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-052/19:37:17
18972	MGS	02-052/19:53:03		Set eclipse egress script address: 01DC	SWSEES	02-052/19:37:22
18973	MGS	02-052/19:53:28		NOTE: Begin fixed Sub-Reflector for Radio Science		02-052/19:37:47
18974	MGS	02-052/19:57:13		: 01:27:15	RPAONX	02-052/19:41:32
18975	MGS	02-052/19:57:13		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-052/19:41:32
18976	MGS	02-052/19:58:28		: 00:00:30, 00:06:56, FALSE	RDSCIE	02-052/19:42:47
18977	MGS	02-052/19:58:28		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-052/19:42:47
18978	MGS	02-052/19:58:28		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-052/19:42:47
18979	MGS	02-052/19:58:28		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-052/19:42:47
18980	MGS	02-052/19:58:28		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-052/19:42:47
18981	MGS	02-052/19:58:58		NOTE: Exit Earth Occultation 13223		02-052/19:43:17
18982	MGS	02-052/19:58:58	65	Acquisition Of X-Band Signal		
18983	MGS	02-052/19:58:58	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
18984	MGS	02-052/19:58:58	65	NOTE: Carrier Only -- No Telemetry Modulation		
18985	MGS	02-052/20:00:00	25	Begin Pre-Cal		
18986	MGS	02-052/20:00:00	25	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
18987	MGS	02-052/20:00:00	25	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
18988	MGS	02-052/20:00:00	25	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
18989	MGS	02-052/20:00:00	25	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
18990	MGS	02-052/20:00:00	25	At BOT: S/C Tlm Mode: BR=40000.0, FL=10000, SC=HIGH, MI=80.0		
18991	MGS	02-052/20:00:00	25	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
18992	MGS	02-052/20:00:00	25	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
18993	MGS	02-052/20:00:00	25	Config: TGC: DEST=37		
18994	MGS	02-052/20:00:00	25	Config: TGC: BAND=X, BR=40000.000000		
18995	MGS	02-052/20:00:00	25	Config: FSS: CH=2, PRI_FL=10000		
18996	MGS	02-052/20:00:00	25	Config: RSR		
18997	MGS	02-052/20:00:00	25	Config: TXL		
18998	MGS	02-052/20:00:00	25	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
18999	MGS	02-052/20:00:00	25	Config: BVR		
19000	MGS	02-052/20:00:00	25	Config: Doppler Extractor: BIAS=+1MHZ		
19001	MGS	02-052/20:00:00	25	Config: MDA: SMPL=0.1		
19002	MGS	02-052/20:00:00	25	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
19003	MGS	02-052/20:00:00	25	Config: SRA: HIGH=4, LOW=14, SERV=D		
19004	MGS	02-052/20:00:00	25	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
19005	MGS	02-052/20:03:13		NOTE: Exit Planetary Atmosphere 13223		02-052/19:47:32
19006	MGS	02-052/20:05:24		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-052/19:49:43
19007	MGS	02-052/20:05:24		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-052/19:49:43
19008	MGS	02-052/20:05:24		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-052/19:49:43
19009	MGS	02-052/20:05:24		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-052/19:49:43
19010	MGS	02-052/20:05:24	65	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
19011	MGS	02-052/20:05:25		: RTM, MRC, 01:12:24, S&E_2A, FALSE, 00:06:39	AEMRT	02-052/19:49:44
19012	MGS	02-052/20:05:25		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-052/19:49:44
19013	MGS	02-052/20:05:25		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-052/19:49:44
19014	MGS	02-052/20:05:25	65	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
19015	MGS	02-052/20:05:29		NOTE: End fixed Sub-Reflector for Radio Science		02-052/19:49:48
19016	MGS	02-052/20:08:41		NOTE: Exit Solar Eclipse 13223		02-052/19:53:00
19017	MGS	02-052/20:21:14		NOTE: Periapsis 13224 ----------		02-052/20:05:33
19018	MGS	02-052/20:29:40		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-052/20:13:59
19019	MGS	02-052/20:29:40		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-052/20:13:59
19020	MGS	02-052/20:29:41		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-052/20:14:00
19021	MGS	02-052/20:29:41		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-052/20:14:00
19022	MGS	02-052/20:33:56	65	NOTE: Transmitter Off in 15 minutes		
19023	MGS	02-052/20:48:56	65	Transmitter Off		
19024	MGS	02-052/20:51:41		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-052/20:36:00
19025	MGS	02-052/20:51:41		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-052/20:36:00
19026	MGS	02-052/21:00:00	25	Begin Tracking		
19027	MGS	02-052/21:00:00	25	Acquire D/L: X/16, 3-Way/65, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
19028	MGS	02-052/21:12:49		NOTE: Begin fixed Sub-Reflector for Radio Science		02-052/20:57:08
19029	MGS	02-052/21:16:03		NOTE: Start EVP data return script		02-052/21:00:22
19030	MGS	02-052/21:17:49		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-052/21:02:08
19031	MGS	02-052/21:17:49		: 00:06:38, FALSE	RDSCII	02-052/21:02:08
19032	MGS	02-052/21:17:49		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-052/21:02:08
19033	MGS	02-052/21:17:49		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-052/21:02:08
19034	MGS	02-052/21:17:49		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-052/21:02:08
19035	MGS	02-052/21:17:49		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-052/21:02:08
19036	MGS	02-052/21:17:49	25	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
19037	MGS	02-052/21:17:49	25	NOTE: Carrier Only -- No Telemetry Modulation		
19038	MGS	02-052/21:17:49	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
19039	MGS	02-052/21:17:49	65	NOTE: Carrier Only -- No Telemetry Modulation		
19040	MGS	02-052/21:19:59	65	NOTE: Below Uplink Interlock Limit		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
19041	MGS	02-052/21:20:00	65	End Tracking		
19042	MGS	02-052/21:20:06		NOTE: Enter Planetary Atmosphere 13224		02-052/21:04:25
19043	MGS	02-052/21:20:20		NOTE: Apoapsis 13224 -		02-052/21:04:39
19044	MGS	02-052/21:24:03		NOTE: Enter Earth Occultation 13224		02-052/21:08:22
19045	MGS	02-052/21:24:03	25	NOTE: Loss Of X-Band Signal		
19046	MGS	02-052/21:24:27		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-052/21:08:46
19047	MGS	02-052/21:24:27		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-052/21:08:46
19048	MGS	02-052/21:24:27		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-052/21:08:46
19049	MGS	02-052/21:24:27		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-052/21:08:46
19050	MGS	02-052/21:24:28		NOTE: End EVP script		02-052/21:08:47
19051	MGS	02-052/21:24:28		Turn off the MOT Exciter and RPA beam	STRPAF	02-052/21:08:47
19052	MGS	02-052/21:24:32		NOTE: End fixed Sub-Reflector for Radio Science		02-052/21:08:51
19053	MGS	02-052/21:26:03		NOTE: Enter Solar Eclipse 13224		02-052/21:10:22
19054	MGS	02-052/21:26:03		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-052/21:10:22
19055	MGS	02-052/21:29:08	25	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
19056	MGS	02-052/21:31:08	25	Range Modulation On: SUP=3.0dB		
19057	MGS	02-052/21:32:08	25	Begin Ranging Acquisition		
19058	MGS	02-052/21:35:00	65	End Post-Cal		
19059	MGS	02-052/21:50:41		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-052/21:35:00
19060	MGS	02-052/21:50:41		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-052/21:35:00
19061	MGS	02-052/21:50:45		Command the PSE with included data word: 3990	SWPSEL	02-052/21:35:04
19062	MGS	02-052/21:50:46		Set eclipse egress script address: 0158	SWSEES	02-052/21:35:05
19063	MGS	02-052/21:51:15		NOTE: Begin fixed Sub-Reflector for Radio Science		02-052/21:35:34
19064	MGS	02-052/21:55:00		: 01:27:15	RPAONX	02-052/21:39:19
19065	MGS	02-052/21:55:00		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-052/21:39:19
19066	MGS	02-052/21:56:15		: 00:00:30, 00:06:56, FALSE	RDSCIE	02-052/21:40:34
19067	MGS	02-052/21:56:15		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-052/21:40:34
19068	MGS	02-052/21:56:15		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-052/21:40:34
19069	MGS	02-052/21:56:15		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-052/21:40:34
19070	MGS	02-052/21:56:15		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-052/21:40:34
19071	MGS	02-052/21:56:45		NOTE: Exit Earth Occultation 13224		02-052/21:41:04
19072	MGS	02-052/21:56:45	25	Acquisition Of X-Band Signal		
19073	MGS	02-052/21:56:45	25	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
19074	MGS	02-052/21:56:45	25	NOTE: Carrier Only -- No Telemetry Modulation		
19075	MGS	02-052/22:01:00		NOTE: Exit Planetary Atmosphere 13224		02-052/21:45:19
19076	MGS	02-052/22:03:11		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-052/21:47:30
19077	MGS	02-052/22:03:11		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-052/21:47:30
19078	MGS	02-052/22:03:11		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-052/21:47:30
19079	MGS	02-052/22:03:11		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-052/21:47:30
19080	MGS	02-052/22:03:11	25	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
19081	MGS	02-052/22:03:12		: RTM, MRC, 01:12:24, S&E_2A, FALSE, 00:06:39	AEMRT	02-052/21:47:31
19082	MGS	02-052/22:03:12		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-052/21:47:31
19083	MGS	02-052/22:03:12		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-052/21:47:31
19084	MGS	02-052/22:03:12	25	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
19085	MGS	02-052/22:03:16		NOTE: End fixed Sub-Reflector for Radio Science		02-052/21:47:35
19086	MGS	02-052/22:06:28		NOTE: Exit Solar Eclipse 13224		02-052/21:50:47
19087	MGS	02-052/22:19:05		NOTE: Periapsis 13225 ----------		02-052/22:03:24
19088	MGS	02-052/22:29:00		NOTE: Start Block (SSRMGR)		02-052/22:13:18
19089	MGS	02-052/22:29:00		Sends a one-word SSR command to the XSU command SOB: SSR_1A, SE_1A, RECORD, PART3	STSSRC	02-052/22:13:18
19090	MGS	02-052/22:29:01		SSR 1A Data Enable	CSD1AE	02-052/22:13:19
19091	MGS	02-052/22:29:01		SSR Activity: ID=SSR_1A, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-052/22:13:19
19092	MGS	02-052/22:31:28		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-052/22:15:46
19093	MGS	02-052/22:31:28		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-052/22:15:46
19094	MGS	02-052/22:31:29		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-052/22:15:47

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
19095	MGS	02-052/22:31:29		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-052/22:15:47
19096	MGS	02-052/22:31:43	25	NOTE: Transmitter Off in 15 minutes		
19097	MGS	02-052/22:44:43	25	Range Modulation Off		
19098	MGS	02-052/22:46:43	25	Transmitter Off		
19099	MGS	02-052/22:53:29		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-052/22:37:47
19100	MGS	02-052/22:53:29		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-052/22:37:47
19101	MGS	02-052/22:55:41		SSR 1B Data Disable	CSD1BX	02-052/22:39:59
19102	MGS	02-052/22:55:41		SSR Activity: ID=SSR_1B, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-052/22:39:59
19103	MGS	02-052/22:55:42		NOTE: End Block (SSRMGR)		02-052/22:40:00
19104	MGS	02-052/23:09:00		NOTE: Start Block (SSRMGR)		02-052/22:53:18
19105	MGS	02-052/23:09:00		Sends a one-word SSR command to the XSU command SOB: SSR_1B, SE_1A, RECORD, PART3	STSSRC	02-052/22:53:18
19106	MGS	02-052/23:09:01		SSR 1B Data Enable	CSD1BE	02-052/22:53:19
19107	MGS	02-052/23:09:01		SSR Activity: ID=SSR_1B, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-052/22:53:19
19108	MGS	02-052/23:10:37		NOTE: Begin fixed Sub-Reflector for Radio Science		02-052/22:54:55
19109	MGS	02-052/23:13:51		NOTE: Start EVP data return script		02-052/22:58:09
19110	MGS	02-052/23:15:37		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-052/22:59:55
19111	MGS	02-052/23:15:37		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=3, BITS=3168000, DUR=00:06:36		02-052/22:59:55
19112	MGS	02-052/23:15:37		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-052/22:59:55
19113	MGS	02-052/23:15:37		: 00:06:38, FALSE	RDSCII	02-052/22:59:55
19114	MGS	02-052/23:15:37		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-052/22:59:55
19115	MGS	02-052/23:15:37		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-052/22:59:55
19116	MGS	02-052/23:15:37		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-052/22:59:55
19117	MGS	02-052/23:15:37		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-052/22:59:55
19118	MGS	02-052/23:15:37	25	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
19119	MGS	02-052/23:15:37	25	NOTE: Carrier Only -- No Telemetry Modulation		
19120	MGS	02-052/23:17:53		NOTE: Enter Planetary Atmosphere 13225		02-052/23:02:12
19121	MGS	02-052/23:17:58		NOTE: Apoapsis 13225 -		02-052/23:02:17
19122	MGS	02-052/23:21:50		NOTE: Enter Earth Occultation 13225		02-052/23:06:09
19123	MGS	02-052/23:21:50	25	NOTE: Loss Of X-Band Signal		
19124	MGS	02-052/23:22:15		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-052/23:06:33
19125	MGS	02-052/23:22:15		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-052/23:06:33
19126	MGS	02-052/23:22:15		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-052/23:06:33
19127	MGS	02-052/23:22:15		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-052/23:06:33
19128	MGS	02-052/23:22:16		NOTE: End EVP script		02-052/23:06:34
19129	MGS	02-052/23:22:16		Turn off the MOT Exciter and RPA beam	STRPAF	02-052/23:06:34
19130	MGS	02-052/23:22:20		NOTE: End fixed Sub-Reflector for Radio Science		02-052/23:06:38
19131	MGS	02-052/23:23:50		NOTE: Enter Solar Eclipse 13225		02-052/23:08:09
19132	MGS	02-052/23:23:51		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-052/23:08:09
19133	MGS	02-052/23:26:55	25	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
19134	MGS	02-052/23:28:55	25	Range Modulation On: SUP=3.0dB		
19135	MGS	02-052/23:29:55	25	Begin Ranging Acquisition		
19136	MGS	02-052/23:35:41		SSR 1A Data Disable	CSD1AX	02-052/23:19:59
19137	MGS	02-052/23:35:41		SSR Activity: ID=SSR_1A, FCN=End Recording, PRT=3, BITS=32000000, DUR=01:06:40		02-052/23:19:59
19138	MGS	02-052/23:35:42		NOTE: End Block (SSRMGR)		02-052/23:20:00
19139	MGS	02-052/23:48:29		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-052/23:32:47
19140	MGS	02-052/23:48:29		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-052/23:32:47
19141	MGS	02-052/23:48:34		Set eclipse egress script address: 019A	SWSEES	02-052/23:32:52
19142	MGS	02-052/23:49:03		NOTE: Begin fixed Sub-Reflector for Radio Science		02-052/23:33:21
19143	MGS	02-052/23:52:48		: 01:27:15	RPAONX	02-052/23:37:06
19144	MGS	02-052/23:52:48		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-052/23:37:06
19145	MGS	02-052/23:54:03		: 00:00:30, 00:06:56, FALSE	RDSCIE	02-052/23:38:21
19146	MGS	02-052/23:54:03		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-052/23:38:21
19147	MGS	02-052/23:54:03		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-052/23:38:21
19148	MGS	02-052/23:54:03		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-052/23:38:21

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
19149	MGS	02-052/23:54:03		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-052/23:38:21
19150	MGS	02-052/23:54:32		NOTE: Exit Earth Occultation 13225		02-052/23:38:51
19151	MGS	02-052/23:54:32	25	Acquisition Of X-Band Signal		
19152	MGS	02-052/23:54:32	25	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
19153	MGS	02-052/23:54:32	25	NOTE: Carrier Only -- No Telemetry Modulation		
19154	MGS	02-052/23:54:33		Disables autonomous command to send eclipse ingress script	SWEISX	02-052/23:38:51
19155	MGS	02-052/23:58:48		NOTE: Exit Planetary Atmosphere 13225		02-052/23:43:06
19156	MGS	02-053/00:00:00		Light Time: OWLT = 15:41, RTLT = 31:22		
19157	MGS	02-053/00:00:00	15	Begin Pre-Cal		
19158	MGS	02-053/00:00:00	15	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
19159	MGS	02-053/00:00:00	15	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
19160	MGS	02-053/00:00:00	15	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
19161	MGS	02-053/00:00:00	15	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
19162	MGS	02-053/00:00:00	15	At BOT: S/C Tlm Mode: BR=40000.0, FL=10000, SC=HIGH, MI=80.0		
19163	MGS	02-053/00:00:00	15	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
19164	MGS	02-053/00:00:00	15	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
19165	MGS	02-053/00:00:00	15	Config: TGC: DEST=37		
19166	MGS	02-053/00:00:00	15	Config: TGC: BAND=X, BR=40000.000000		
19167	MGS	02-053/00:00:00	15	Config: FSS: CH=2, PRI_FL=10000		
19168	MGS	02-053/00:00:00	15	Config: RSR		
19169	MGS	02-053/00:00:00	15	Config: TXL		
19170	MGS	02-053/00:00:00	15	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
19171	MGS	02-053/00:00:00	15	Config: BVR		
19172	MGS	02-053/00:00:00	15	Config: Doppler Extractor: BIAS=+1MHZ		
19173	MGS	02-053/00:00:00	15	Config: MDA: SMPL=0.1		
19174	MGS	02-053/00:00:00	15	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
19175	MGS	02-053/00:00:00	15	Config: SRA: HIGH=4, LOW=14, SERV=D		
19176	MGS	02-053/00:00:00	15	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
19177	MGS	02-053/00:00:59		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-052/23:45:17
19178	MGS	02-053/00:00:59		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-052/23:45:17
19179	MGS	02-053/00:00:59		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-052/23:45:17
19180	MGS	02-053/00:00:59		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-052/23:45:17
19181	MGS	02-053/00:00:59	25	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
19182	MGS	02-053/00:01:00		: RTM, MRC, 01:12:24, S&E_2A, FALSE, 00:06:39	AEMRT	02-052/23:45:18
19183	MGS	02-053/00:01:00		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-052/23:45:18
19184	MGS	02-053/00:01:00		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-052/23:45:18
19185	MGS	02-053/00:01:00		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=3, BITS=24952000, DUR=00:45:23		02-052/23:45:18
19186	MGS	02-053/00:01:00		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-052/23:45:18
19187	MGS	02-053/00:01:00	25	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
19188	MGS	02-053/00:01:04		NOTE: End fixed Sub-Reflector for Radio Science		02-052/23:45:22
19189	MGS	02-053/00:04:16		NOTE: Exit Solar Eclipse 13225		02-052/23:48:34
19190	MGS	02-053/00:15:40		NOTE: Start Block (SSRMGR)		02-052/23:59:58
19191	MGS	02-053/00:15:40		Sends a one-word SSR command to the XSU command SOB: SSR_2A, SE_1A, RECORD, PART1	STSSRC	02-052/23:59:58
19192	MGS	02-053/00:15:41		SSR 2A Data Enable	CSD2AE	02-052/23:59:59
19193	MGS	02-053/00:15:41		SSR Activity: ID=SSR_2A, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-052/23:59:59
19194	MGS	02-053/00:16:47		NOTE: Periapsis 13226 ----------		02-053/00:01:05
19195	MGS	02-053/00:25:15		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-053/00:09:33
19196	MGS	02-053/00:25:15		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-053/00:09:33
19197	MGS	02-053/00:25:16		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-053/00:09:34
19198	MGS	02-053/00:25:16		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-053/00:09:34
19199	MGS	02-053/00:29:28	25	NOTE: Transmitter Off in 15 minutes		
19200	MGS	02-053/00:42:21		SSR 1B Data Disable	CSD1BX	02-053/00:26:39
19201	MGS	02-053/00:42:21		SSR Activity: ID=SSR_1B, FCN=End Recording, PRT=3, BITS=44800000, DUR=01:33:20		02-053/00:26:39
19202	MGS	02-053/00:42:22		NOTE: End Block (SSRMGR)		02-053/00:26:40

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
19203	MGS	02-053/00:42:28	25	Range Modulation Off		
19204	MGS	02-053/00:44:28	25	Transmitter Off		
19205	MGS	02-053/00:47:16		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-053/00:31:34
19206	MGS	02-053/00:47:16		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-053/00:31:34
19207	MGS	02-053/01:00:00	15	Begin Tracking		
19208	MGS	02-053/01:00:00	15	Acquire D/L: X/16, 3-Way/25, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
19209	MGS	02-053/01:08:24		NOTE: Begin fixed Sub-Reflector for Radio Science		02-053/00:52:42
19210	MGS	02-053/01:11:35		NOTE: Start Block (MAP_PB)		02-053/00:55:53
19211	MGS	02-053/01:11:36		: 00:28:58, 01:27:19, FALSE, TRUE, FALSE, 00:01:15, 00:06:55, 01:12:31, 00:06:37	AEMINI	02-053/00:55:54
19212	MGS	02-053/01:11:36		Enable sending eclipse ingress script when array power disappears	SWEISE	02-053/00:55:54
19213	MGS	02-053/01:11:36		NOTE: Start EVP data return script		02-053/00:55:54
19214	MGS	02-053/01:11:37		: SSR_1A, F42KHZ, PART1, SE_1A, 2002-053T01:43:03.000	AEMPBI	02-053/00:55:55
19215	MGS	02-053/01:13:24		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-053/00:57:42
19216	MGS	02-053/01:13:24		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=1, BITS=27704000, DUR=00:57:43		02-053/00:57:42
19217	MGS	02-053/01:13:24		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-053/00:57:42
19218	MGS	02-053/01:13:24		: 00:06:38, FALSE	RDSCII	02-053/00:57:42
19219	MGS	02-053/01:13:24		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-053/00:57:42
19220	MGS	02-053/01:13:24		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-053/00:57:42
19221	MGS	02-053/01:13:24		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-053/00:57:42
19222	MGS	02-053/01:13:24		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-053/00:57:42
19223	MGS	02-053/01:13:24	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
19224	MGS	02-053/01:13:24	15	NOTE: Carrier Only -- No Telemetry Modulation		
19225	MGS	02-053/01:13:24	25	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
19226	MGS	02-053/01:13:24	25	NOTE: Carrier Only -- No Telemetry Modulation		
19227	MGS	02-053/01:15:27		NOTE: Apoapsis 13226 -		02-053/00:59:45
19228	MGS	02-053/01:15:39		NOTE: Enter Planetary Atmosphere 13226		02-053/00:59:57
19229	MGS	02-053/01:19:36		NOTE: Enter Earth Occultation 13226		02-053/01:03:54
19230	MGS	02-053/01:19:36	15	NOTE: Loss Of X-Band Signal		
19231	MGS	02-053/01:19:36	25	NOTE: Loss Of X-Band Signal		
19232	MGS	02-053/01:20:00	25	End Tracking		
19233	MGS	02-053/01:20:02		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-053/01:04:20
19234	MGS	02-053/01:20:02		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-053/01:04:20
19235	MGS	02-053/01:20:02		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-053/01:04:20
19236	MGS	02-053/01:20:02		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-053/01:04:20
19237	MGS	02-053/01:20:03		NOTE: End EVP script		02-053/01:04:21
19238	MGS	02-053/01:20:03		Turn off the MOT Exciter and RPA beam	STRPAF	02-053/01:04:21
19239	MGS	02-053/01:20:04		NOTE: End Block (MAP_RT)		02-053/01:04:22
19240	MGS	02-053/01:20:07		NOTE: End fixed Sub-Reflector for Radio Science		02-053/01:04:25
19241	MGS	02-053/01:21:36		NOTE: Enter Solar Eclipse 13226		02-053/01:05:54
19242	MGS	02-053/01:21:36		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-053/01:05:54
19243	MGS	02-053/01:24:41	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
19244	MGS	02-053/01:26:41	15	Range Modulation On: SUP=3.0dB		
19245	MGS	02-053/01:27:41	15	Begin Ranging Acquisition		
19246	MGS	02-053/01:35:00	25	End Post-Cal		
19247	MGS	02-053/01:46:16		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-053/01:30:34
19248	MGS	02-053/01:46:16		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-053/01:30:34
19249	MGS	02-053/01:46:21		Set eclipse egress script address: 01DC	SWSEES	02-053/01:30:39
19250	MGS	02-053/01:46:49		NOTE: Begin fixed Sub-Reflector for Radio Science		02-053/01:31:07
19251	MGS	02-053/01:50:34		: 01:27:19	RPAONX	02-053/01:34:52
19252	MGS	02-053/01:50:34		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-053/01:34:52
19253	MGS	02-053/01:51:49		: 00:00:30, 00:06:55, FALSE	RDSCIE	02-053/01:36:07
19254	MGS	02-053/01:51:49		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-053/01:36:07
19255	MGS	02-053/01:51:49		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-053/01:36:07

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
19256	MGS	02-053/01:51:49		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-053/01:36:07
19257	MGS	02-053/01:51:49		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-053/01:36:07
19258	MGS	02-053/01:52:19		NOTE: Exit Earth Occultation 13226		02-053/01:36:37
19259	MGS	02-053/01:52:19	15	Acquisition Of X-Band Signal		
19260	MGS	02-053/01:52:19	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
19261	MGS	02-053/01:52:19	15	NOTE: Carrier Only -- No Telemetry Modulation		
19262	MGS	02-053/01:56:34		NOTE: Exit Planetary Atmosphere 13226		02-053/01:40:52
19263	MGS	02-053/01:58:44		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-053/01:43:02
19264	MGS	02-053/01:58:44		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-053/01:43:02
19265	MGS	02-053/01:58:44		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-053/01:43:02
19266	MGS	02-053/01:58:44		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-053/01:43:02
19267	MGS	02-053/01:58:44		: REC_1A, F42KHZ, PART1, SE_1A, FALSE, 00:10:30	AEMPB	02-053/01:43:02
19268	MGS	02-053/01:58:44		Sends a one-word MOT command to the XSU command SOB: SSR_1A	STMOTC	02-053/01:43:02
19269	MGS	02-053/01:58:44		Sends a one-word SSR command to the XSU command SOB: SSR_1A, F42KHZ, PLYBCK, PART1	STSSRC	02-053/01:43:02
19270	MGS	02-053/01:58:44	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
19271	MGS	02-053/01:58:45		SSR 1A Data Enable	CSD1AE	02-053/01:43:03
19272	MGS	02-053/01:58:45		SSR Activity: ID=SSR_1A, FCN=Start Playback, PRT=1, BR=42666		02-053/01:43:03
19273	MGS	02-053/01:58:45	15	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
19274	MGS	02-053/01:58:49		NOTE: End fixed Sub-Reflector for Radio Science		02-053/01:43:07
19275	MGS	02-053/02:02:01		NOTE: Exit Solar Eclipse 13226		02-053/01:46:19
19276	MGS	02-053/02:14:33		NOTE: Periapsis 13227 ----------		02-053/01:58:51
19277	MGS	02-053/02:23:00		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-053/02:07:18
19278	MGS	02-053/02:23:00		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-053/02:07:18
19279	MGS	02-053/02:23:01		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-053/02:07:19
19280	MGS	02-053/02:23:01		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-053/02:07:19
19281	MGS	02-053/02:27:11	15	NOTE: Transmitter Off in 15 minutes		
19282	MGS	02-053/02:40:11	15	Range Modulation Off		
19283	MGS	02-053/02:42:11	15	Transmitter Off		
19284	MGS	02-053/02:45:01		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-053/02:29:19
19285	MGS	02-053/02:45:01		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-053/02:29:19
19286	MGS	02-053/03:06:15		NOTE: Begin fixed Sub-Reflector for Radio Science		02-053/02:50:33
19287	MGS	02-053/03:07:23		SSR 1A Data Disable	CSD1AX	02-053/02:51:41
19288	MGS	02-053/03:07:23		SSR Activity: ID=SSR_1A, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-053/02:51:41
19289	MGS	02-053/03:07:23		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-053/02:51:41
19290	MGS	02-053/03:07:23	15	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
19291	MGS	02-053/03:09:19		NOTE: Start EVP data return script		02-053/02:53:37
19292	MGS	02-053/03:09:19		: SSR_1B, F42KHZ, PART1, 2002-053T03:40:46.000	AEMPBU	02-053/02:53:37
19293	MGS	02-053/03:11:15		: 00:06:37, FALSE	RDSCII	02-053/02:55:33
19294	MGS	02-053/03:11:15		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-053/02:55:33
19295	MGS	02-053/03:11:15		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-053/02:55:33
19296	MGS	02-053/03:11:15		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-053/02:55:33
19297	MGS	02-053/03:11:15		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-053/02:55:33
19298	MGS	02-053/03:11:15	15	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
19299	MGS	02-053/03:11:15	15	NOTE: Carrier Only -- No Telemetry Modulation		
19300	MGS	02-053/03:13:11		NOTE: Apoapsis 13227 -		02-053/02:57:30
19301	MGS	02-053/03:13:22		NOTE: Enter Planetary Atmosphere 13227		02-053/02:57:40
19302	MGS	02-053/03:17:19		NOTE: Enter Earth Occultation 13227		02-053/03:01:37
19303	MGS	02-053/03:17:19	15	NOTE: Loss Of X-Band Signal		
19304	MGS	02-053/03:17:52		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-053/03:02:10
19305	MGS	02-053/03:17:52		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-053/03:02:10
19306	MGS	02-053/03:17:52		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-053/03:02:10
19307	MGS	02-053/03:17:52		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-053/03:02:10
19308	MGS	02-053/03:17:53		NOTE: End EVP script		02-053/03:02:11
19309	MGS	02-053/03:17:53		Turn off the MOT Exciter and RPA beam	STRPAF	02-053/03:02:11

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
19310	MGS	02-053/03:17:57		NOTE: End fixed Sub-Reflector for Radio Science		02-053/03:02:15
19311	MGS	02-053/03:19:19		NOTE: Enter Solar Eclipse 13227		02-053/03:03:37
19312	MGS	02-053/03:19:19		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-053/03:03:37
19313	MGS	02-053/03:22:24	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
19314	MGS	02-053/03:24:25	15	Range Modulation On: SUP=3.0dB		
19315	MGS	02-053/03:25:25	15	Begin Ranging Acquisition		
19316	MGS	02-053/03:44:01		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-053/03:28:19
19317	MGS	02-053/03:44:01		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-053/03:28:19
19318	MGS	02-053/03:44:05		Command the PSE with included data word: 3990	SWPSEL	02-053/03:28:23
19319	MGS	02-053/03:44:06		Set eclipse egress script address: 0158	SWSEES	02-053/03:28:24
19320	MGS	02-053/03:44:32		NOTE: Begin fixed Sub-Reflector for Radio Science		02-053/03:28:50
19321	MGS	02-053/03:48:17		: 01:27:19	RPAONX	02-053/03:32:35
19322	MGS	02-053/03:48:17		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-053/03:32:35
19323	MGS	02-053/03:49:32		: 00:00:30, 00:06:55, FALSE	RDSCIE	02-053/03:33:50
19324	MGS	02-053/03:49:32		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-053/03:33:50
19325	MGS	02-053/03:49:32		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-053/03:33:50
19326	MGS	02-053/03:49:32		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-053/03:33:50
19327	MGS	02-053/03:49:32		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-053/03:33:50
19328	MGS	02-053/03:50:03		NOTE: Exit Earth Occultation 13227		02-053/03:34:21
19329	MGS	02-053/03:50:03	15	Acquisition Of X-Band Signal		
19330	MGS	02-053/03:50:03	15	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
19331	MGS	02-053/03:50:03	15	NOTE: Carrier Only -- No Telemetry Modulation		
19332	MGS	02-053/03:54:18		NOTE: Exit Planetary Atmosphere 13227		02-053/03:38:36
19333	MGS	02-053/03:56:27		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-053/03:40:45
19334	MGS	02-053/03:56:27		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-053/03:40:45
19335	MGS	02-053/03:56:27		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-053/03:40:45
19336	MGS	02-053/03:56:27		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-053/03:40:45
19337	MGS	02-053/03:56:27		: REC_1B, F42KHZ, PART1, SE_1A, FALSE, 00:10:30	AEMPB	02-053/03:40:45
19338	MGS	02-053/03:56:27		Sends a one-word MOT command to the XSU command SOB: SSR_1B	STMOTC	02-053/03:40:45
19339	MGS	02-053/03:56:27		Sends a one-word SSR command to the XSU command SOB: SSR_1B, F42KHZ, PLYBCK, PART1	STSSRC	02-053/03:40:45
19340	MGS	02-053/03:56:27	15	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
19341	MGS	02-053/03:56:28		SSR 1B Data Enable	CSD1BE	02-053/03:40:46
19342	MGS	02-053/03:56:28		SSR Activity: ID=SSR_1B, FCN=Start Playback, PRT=1, BR=42666		02-053/03:40:46
19343	MGS	02-053/03:56:28	15	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
19344	MGS	02-053/03:56:32		NOTE: End fixed Sub-Reflector for Radio Science		02-053/03:40:50
19345	MGS	02-053/03:59:44		NOTE: Exit Solar Eclipse 13227		02-053/03:44:02
19346	MGS	02-053/04:00:00	45	Begin Pre-Cal		
19347	MGS	02-053/04:00:00	45	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
19348	MGS	02-053/04:00:00	45	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
19349	MGS	02-053/04:00:00	45	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
19350	MGS	02-053/04:00:00	45	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
19351	MGS	02-053/04:00:00	45	At BOT: S/C Tlm Mode: BR=42666.7, FL=10000, SC=HIGH, MI=80.0		
19352	MGS	02-053/04:00:00	45	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
19353	MGS	02-053/04:00:00	45	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
19354	MGS	02-053/04:00:00	45	Config: TGC: DEST=37		
19355	MGS	02-053/04:00:00	45	Config: TGC: BAND=X, BR=42666.666667		
19356	MGS	02-053/04:00:00	45	Config: FSS: CH=2, PRI_FL=10000		
19357	MGS	02-053/04:00:00	45	Config: RSR		
19358	MGS	02-053/04:00:00	45	Config: TXL		
19359	MGS	02-053/04:00:00	45	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
19360	MGS	02-053/04:00:00	45	Config: BVR		
19361	MGS	02-053/04:00:00	45	Config: Doppler Extractor: BIAS=+1MHZ		
19362	MGS	02-053/04:00:00	45	Config: MDA: SMPL=0.1		
19363	MGS	02-053/04:12:16		NOTE: Periapsis 13228 ----------		02-053/03:56:34

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
19364	MGS	02-053/04:20:00	15	NOTE: Transmitter Off in 15 minutes		
19365	MGS	02-053/04:24:43		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-053/04:09:01
19366	MGS	02-053/04:24:43		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-053/04:09:01
19367	MGS	02-053/04:24:44		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-053/04:09:02
19368	MGS	02-053/04:24:44		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-053/04:09:02
19369	MGS	02-053/04:33:00	15	Range Modulation Off		
19370	MGS	02-053/04:35:00	15	Transmitter Off		
19371	MGS	02-053/04:45:00	45	Begin Tracking		
19372	MGS	02-053/04:45:00	45	Acquire D/L: X/16, 3-Way/15, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
19373	MGS	02-053/04:46:44		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-053/04:31:02
19374	MGS	02-053/04:46:44		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-053/04:31:02
19375	MGS	02-053/04:47:57	15	NOTE: Below Uplink Interlock Limit		
19376	MGS	02-053/04:55:00	15	End Tracking		
19377	MGS	02-053/05:03:58		NOTE: Begin fixed Sub-Reflector for Radio Science		02-053/04:48:16
19378	MGS	02-053/05:05:07		SSR 1B Data Disable	CSD1BX	02-053/04:49:24
19379	MGS	02-053/05:05:07		SSR Activity: ID=SSR_1B, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-053/04:49:24
19380	MGS	02-053/05:05:07		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-053/04:49:24
19381	MGS	02-053/05:05:07	45	D/L Change: X/16, 3-Way/15, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
19382	MGS	02-053/05:06:24	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
19383	MGS	02-053/05:07:02		NOTE: Start EVP data return script		02-053/04:51:19
19384	MGS	02-053/05:07:02		: SSR_1A, F42KHZ, PART2, 2002-053T05:38:28.000	AEMPBU	02-053/04:51:19
19385	MGS	02-053/05:08:59		: 00:06:37, FALSE	RDSCII	02-053/04:53:16
19386	MGS	02-053/05:08:59		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-053/04:53:16
19387	MGS	02-053/05:08:59		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-053/04:53:16
19388	MGS	02-053/05:08:59		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-053/04:53:16
19389	MGS	02-053/05:08:59		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-053/04:53:16
19390	MGS	02-053/05:08:59	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
19391	MGS	02-053/05:08:59	45	NOTE: Carrier Only -- No Telemetry Modulation		
19392	MGS	02-053/05:10:00	15	End Post-Cal		
19393	MGS	02-053/05:11:02		NOTE: Apoapsis 13228 -		02-053/04:55:20
19394	MGS	02-053/05:11:04		NOTE: Enter Planetary Atmosphere 13228		02-053/04:55:22
19395	MGS	02-053/05:15:02		NOTE: Enter Earth Occultation 13228		02-053/04:59:20
19396	MGS	02-053/05:15:02	45	NOTE: Loss Of X-Band Signal		
19397	MGS	02-053/05:15:36		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-053/04:59:53
19398	MGS	02-053/05:15:36		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-053/04:59:53
19399	MGS	02-053/05:15:36		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-053/04:59:53
19400	MGS	02-053/05:15:36		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-053/04:59:53
19401	MGS	02-053/05:15:36		NOTE: End EVP script		02-053/04:59:54
19402	MGS	02-053/05:15:37		Turn off the MOT Exciter and RPA beam	STRPAF	02-053/04:59:54
19403	MGS	02-053/05:15:40		NOTE: End fixed Sub-Reflector for Radio Science		02-053/04:59:58
19404	MGS	02-053/05:17:01		NOTE: Enter Solar Eclipse 13228		02-053/05:01:19
19405	MGS	02-053/05:17:02		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-053/05:01:19
19406	MGS	02-053/05:20:06	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
19407	MGS	02-053/05:41:45		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-053/05:26:02
19408	MGS	02-053/05:41:45		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-053/05:26:02
19409	MGS	02-053/05:41:50		Set eclipse egress script address: 019A	SWSEES	02-053/05:26:07
19410	MGS	02-053/05:42:14		NOTE: Begin fixed Sub-Reflector for Radio Science		02-053/05:26:32
19411	MGS	02-053/05:46:00		: 01:27:19	RPAONX	02-053/05:30:17
19412	MGS	02-053/05:46:00		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-053/05:30:17
19413	MGS	02-053/05:47:15		: 00:00:30, 00:06:55, FALSE	RDSCIE	02-053/05:31:32
19414	MGS	02-053/05:47:15		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-053/05:31:32
19415	MGS	02-053/05:47:15		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-053/05:31:32
19416	MGS	02-053/05:47:15		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-053/05:31:32

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
19417	MGS	02-053/05:47:15		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-053/05:31:32
19418	MGS	02-053/05:47:45		NOTE: Exit Earth Occultation 13228		02-053/05:32:03
19419	MGS	02-053/05:47:45	45	Acquisition Of X-Band Signal		
19420	MGS	02-053/05:47:45	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
19421	MGS	02-053/05:47:45	45	NOTE: Carrier Only -- No Telemetry Modulation		
19422	MGS	02-053/05:49:01		NOTE: Start Block (SSRMGR)		02-053/05:33:18
19423	MGS	02-053/05:49:01		Sends a one-word SSR command to the XSU command SOB: SSR_2B, SE_1A, RECORD, PART1	STSSRC	02-053/05:33:18
19424	MGS	02-053/05:49:02		SSR 2B Data Enable	CSD2BE	02-053/05:33:19
19425	MGS	02-053/05:49:02		SSR Activity: ID=SSR_2B, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-053/05:33:19
19426	MGS	02-053/05:52:01		NOTE: Exit Planetary Atmosphere 13228		02-053/05:36:19
19427	MGS	02-053/05:54:10		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-053/05:38:27
19428	MGS	02-053/05:54:10		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-053/05:38:27
19429	MGS	02-053/05:54:10		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-053/05:38:27
19430	MGS	02-053/05:54:10		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-053/05:38:27
19431	MGS	02-053/05:54:10		: REC_1A, F42KHZ, PART2, SE_1A, FALSE, 00:10:30	AEMPB	02-053/05:38:27
19432	MGS	02-053/05:54:10		Sends a one-word MOT command to the XSU command SOB: SSR_1A	STMOTC	02-053/05:38:27
19433	MGS	02-053/05:54:10		Sends a one-word SSR command to the XSU command SOB: SSR_1A, F42KHZ, PLYBCK, PART2	STSSRC	02-053/05:38:27
19434	MGS	02-053/05:54:10	45	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
19435	MGS	02-053/05:54:11		SSR 1A Data Enable	CSD1AE	02-053/05:38:28
19436	MGS	02-053/05:54:11		SSR Activity: ID=SSR_1A, FCN=Start Playback, PRT=2, BR=42666		02-053/05:38:28
19437	MGS	02-053/05:54:11	45	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
19438	MGS	02-053/05:54:14		NOTE: End fixed Sub-Reflector for Radio Science		02-053/05:38:32
19439	MGS	02-053/05:57:26		NOTE: Exit Solar Eclipse 13228		02-053/05:41:44
19440	MGS	02-053/06:09:46		NOTE: Periapsis 13229 ----------		02-053/05:54:04
19441	MGS	02-053/06:15:42		SSR 2A Data Disable	CSD2AX	02-053/05:59:59
19442	MGS	02-053/06:15:42		SSR Activity: ID=SSR_2A, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-053/05:59:59
19443	MGS	02-053/06:15:43		NOTE: End Block (SSRMGR)		02-053/06:00:00
19444	MGS	02-053/06:18:26		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-053/06:02:43
19445	MGS	02-053/06:18:26		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-053/06:02:43
19446	MGS	02-053/06:18:27		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-053/06:02:44
19447	MGS	02-053/06:18:27		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-053/06:02:44
19448	MGS	02-053/06:22:35	45	NOTE: Transmitter Off in 15 minutes		
19449	MGS	02-053/06:37:35	45	Transmitter Off		
19450	MGS	02-053/06:40:27		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-053/06:24:44
19451	MGS	02-053/06:40:27		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-053/06:24:44
19452	MGS	02-053/07:01:41		NOTE: Begin fixed Sub-Reflector for Radio Science		02-053/06:45:58
19453	MGS	02-053/07:02:49		SSR 1A Data Disable	CSD1AX	02-053/06:47:06
19454	MGS	02-053/07:02:49		SSR Activity: ID=SSR_1A, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-053/06:47:06
19455	MGS	02-053/07:02:49		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-053/06:47:06
19456	MGS	02-053/07:02:49	45	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
19457	MGS	02-053/07:04:44		NOTE: Start EVP data return script		02-053/06:49:01
19458	MGS	02-053/07:04:44		: SSR_1B, F42KHZ, PART2, 2002-053T07:36:10.000	AEMPBU	02-053/06:49:01
19459	MGS	02-053/07:06:41		: 00:06:37, FALSE	RDSCII	02-053/06:50:58
19460	MGS	02-053/07:06:41		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-053/06:50:58
19461	MGS	02-053/07:06:41		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-053/06:50:58
19462	MGS	02-053/07:06:41		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-053/06:50:58
19463	MGS	02-053/07:06:41		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-053/06:50:58
19464	MGS	02-053/07:06:41	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
19465	MGS	02-053/07:06:41	45	NOTE: Carrier Only -- No Telemetry Modulation		
19466	MGS	02-053/07:08:29		NOTE: Apoapsis 13229 -		02-053/06:52:47
19467	MGS	02-053/07:08:47		NOTE: Enter Planetary Atmosphere 13229		02-053/06:53:05
19468	MGS	02-053/07:12:44		NOTE: Enter Earth Occultation 13229		02-053/06:57:02
19469	MGS	02-053/07:12:44	45	NOTE: Loss Of X-Band Signal		
19470	MGS	02-053/07:13:18		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-053/06:57:35

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
19471	MGS	02-053/07:13:18		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-053/06:57:35
19472	MGS	02-053/07:13:18		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-053/06:57:35
19473	MGS	02-053/07:13:18		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-053/06:57:35
19474	MGS	02-053/07:13:19		NOTE: End EVP script		02-053/06:57:36
19475	MGS	02-053/07:13:19		Turn off the MOT Exciter and RPA beam	STRPAF	02-053/06:57:36
19476	MGS	02-053/07:13:23		NOTE: End fixed Sub-Reflector for Radio Science		02-053/06:57:40
19477	MGS	02-053/07:14:44		NOTE: Enter Solar Eclipse 13229		02-053/06:59:01
19478	MGS	02-053/07:14:44		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-053/06:59:01
19479	MGS	02-053/07:17:48	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
19480	MGS	02-053/07:39:27		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-053/07:23:44
19481	MGS	02-053/07:39:27		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-053/07:23:44
19482	MGS	02-053/07:39:32		Set eclipse egress script address: 01DC	SWSEES	02-053/07:23:49
19483	MGS	02-053/07:39:57		NOTE: Begin fixed Sub-Reflector for Radio Science		02-053/07:24:14
19484	MGS	02-053/07:43:42		: 01:27:19	RPAONX	02-053/07:27:59
19485	MGS	02-053/07:43:42		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-053/07:27:59
19486	MGS	02-053/07:44:57		: 00:00:30, 00:06:55, FALSE	RDSCIE	02-053/07:29:14
19487	MGS	02-053/07:44:57		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-053/07:29:14
19488	MGS	02-053/07:44:57		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-053/07:29:14
19489	MGS	02-053/07:44:57		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-053/07:29:14
19490	MGS	02-053/07:44:57		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-053/07:29:14
19491	MGS	02-053/07:45:27		Disables autonomous command to send eclipse ingress script	SWEISX	02-053/07:29:44
19492	MGS	02-053/07:45:28		NOTE: Exit Earth Occultation 13229		02-053/07:29:45
19493	MGS	02-053/07:45:28	45	Acquisition Of X-Band Signal		
19494	MGS	02-053/07:45:28	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
19495	MGS	02-053/07:45:28	45	NOTE: Carrier Only -- No Telemetry Modulation		
19496	MGS	02-053/07:49:43		NOTE: Exit Planetary Atmosphere 13229		02-053/07:34:00
19497	MGS	02-053/07:51:52		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-053/07:36:09
19498	MGS	02-053/07:51:52		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-053/07:36:09
19499	MGS	02-053/07:51:52		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-053/07:36:09
19500	MGS	02-053/07:51:52		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-053/07:36:09
19501	MGS	02-053/07:51:52		: REC_1B, F42KHZ, PART2, SE_1A, FALSE, 00:10:30	AEMPB	02-053/07:36:09
19502	MGS	02-053/07:51:52		Sends a one-word MOT command to the XSU command SOB: SSR_1B	STMOTC	02-053/07:36:09
19503	MGS	02-053/07:51:52		Sends a one-word SSR command to the XSU command SOB: SSR_1B, F42KHZ, PLYBCK, PART2	STSSRC	02-053/07:36:09
19504	MGS	02-053/07:51:52	45	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
19505	MGS	02-053/07:51:53		SSR 1B Data Enable	CSD1BE	02-053/07:36:10
19506	MGS	02-053/07:51:53		SSR Activity: ID=SSR_1B, FCN=Start Playback, PRT=2, BR=42666		02-053/07:36:10
19507	MGS	02-053/07:51:53	45	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
19508	MGS	02-053/07:51:57		NOTE: End fixed Sub-Reflector for Radio Science		02-053/07:36:14
19509	MGS	02-053/07:55:08		NOTE: Exit Solar Eclipse 13229		02-053/07:39:26
19510	MGS	02-053/08:07:13		NOTE: Periapsis 13230 ----------		02-053/07:51:30
19511	MGS	02-053/08:16:07		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-053/08:00:24
19512	MGS	02-053/08:16:07		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-053/08:00:24
19513	MGS	02-053/08:16:08		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-053/08:00:25
19514	MGS	02-053/08:16:08		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-053/08:00:25
19515	MGS	02-053/08:20:17	45	NOTE: Transmitter Off in 15 minutes		
19516	MGS	02-053/08:35:17	45	Transmitter Off		
19517	MGS	02-053/08:38:08		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-053/08:22:25
19518	MGS	02-053/08:38:08		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-053/08:22:25
19519	MGS	02-053/08:59:23		NOTE: Begin fixed Sub-Reflector for Radio Science		02-053/08:43:40
19520	MGS	02-053/09:00:31		SSR 1B Data Disable	CSD1BX	02-053/08:44:48
19521	MGS	02-053/09:00:31		SSR Activity: ID=SSR_1B, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-053/08:44:48
19522	MGS	02-053/09:00:31		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-053/08:44:48
19523	MGS	02-053/09:00:31	45	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
19524	MGS	02-053/09:02:27		NOTE: Start Block (MAP_RT)		02-053/08:46:44

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
19525	MGS	02-053/09:02:28		: 00:28:57, 01:27:15, FALSE, TRUE, FALSE, 00:01:15, 00:06:56, 01:12:25, 00:06:38	AEMINI	02-053/08:46:45
19526	MGS	02-053/09:02:28		Enable sending eclipse ingress script when array power disappears	SWEISE	02-053/08:46:45
19527	MGS	02-053/09:02:28		NOTE: Start EVP data return script		02-053/08:46:45
19528	MGS	02-053/09:02:29		: SE_1A, MRC, 01:12:24, MRC, 2002-053T09:33:55.000	AEMRTI	02-053/08:46:46
19529	MGS	02-053/09:04:23		: 00:06:37, FALSE	RDSCII	02-053/08:48:40
19530	MGS	02-053/09:04:23		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-053/08:48:40
19531	MGS	02-053/09:04:23		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-053/08:48:40
19532	MGS	02-053/09:04:23		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-053/08:48:40
19533	MGS	02-053/09:04:23		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-053/08:48:40
19534	MGS	02-053/09:04:23	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
19535	MGS	02-053/09:04:23	45	NOTE: Carrier Only -- No Telemetry Modulation		
19536	MGS	02-053/09:06:03		NOTE: Apoapsis 13230 -		02-053/08:50:21
19537	MGS	02-053/09:06:31		NOTE: Enter Planetary Atmosphere 13230		02-053/08:50:48
19538	MGS	02-053/09:10:28		NOTE: Enter Earth Occultation 13230		02-053/08:54:45
19539	MGS	02-053/09:10:28	45	NOTE: Loss Of X-Band Signal		
19540	MGS	02-053/09:11:00		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-053/08:55:17
19541	MGS	02-053/09:11:00		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-053/08:55:17
19542	MGS	02-053/09:11:00		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-053/08:55:17
19543	MGS	02-053/09:11:00		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-053/08:55:17
19544	MGS	02-053/09:11:01		NOTE: End EVP script		02-053/08:55:18
19545	MGS	02-053/09:11:01		Turn off the MOT Exciter and RPA beam	STRPAF	02-053/08:55:18
19546	MGS	02-053/09:11:02		NOTE: End Block (MAP_PB)		02-053/08:55:19
19547	MGS	02-053/09:11:05		NOTE: End fixed Sub-Reflector for Radio Science		02-053/08:55:22
19548	MGS	02-053/09:12:28		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-053/08:56:45
19549	MGS	02-053/09:12:28		NOTE: Enter Solar Eclipse 13230		02-053/08:56:45
19550	MGS	02-053/09:15:31	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
19551	MGS	02-053/09:37:08		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-053/09:21:25
19552	MGS	02-053/09:37:08		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-053/09:21:25
19553	MGS	02-053/09:37:12		Command the PSE with included data word: 3990	SWPSEL	02-053/09:21:29
19554	MGS	02-053/09:37:13		Set eclipse egress script address: 0158	SWSEES	02-053/09:21:30
19555	MGS	02-053/09:37:40		NOTE: Begin fixed Sub-Reflector for Radio Science		02-053/09:21:57
19556	MGS	02-053/09:40:00	45	NOTE: Transmitter Off in 15 minutes		
19557	MGS	02-053/09:41:25		: 01:27:15	RPAONX	02-053/09:25:42
19558	MGS	02-053/09:41:25		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-053/09:25:42
19559	MGS	02-053/09:42:40		: 00:00:30, 00:06:56, FALSE	RDSCIE	02-053/09:26:57
19560	MGS	02-053/09:42:40		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-053/09:26:57
19561	MGS	02-053/09:42:40		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-053/09:26:57
19562	MGS	02-053/09:42:40		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-053/09:26:57
19563	MGS	02-053/09:42:40		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-053/09:26:57
19564	MGS	02-053/09:43:10		Disables autonomous command to send eclipse ingress script	SWEISX	02-053/09:27:27
19565	MGS	02-053/09:43:12		NOTE: Exit Earth Occultation 13230		02-053/09:27:29
19566	MGS	02-053/09:43:12	45	Acquisition Of X-Band Signal		
19567	MGS	02-053/09:43:12	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
19568	MGS	02-053/09:43:12	45	NOTE: Carrier Only -- No Telemetry Modulation		
19569	MGS	02-053/09:47:26		NOTE: Exit Planetary Atmosphere 13230		02-053/09:31:43
19570	MGS	02-053/09:49:32		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-053/09:33:49
19571	MGS	02-053/09:49:34		NOTE: Start Block (SSRMGR)		02-053/09:33:51
19572	MGS	02-053/09:49:34		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-053/09:33:51
19573	MGS	02-053/09:49:34		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-053/09:33:51
19574	MGS	02-053/09:49:35		Sends a one-word MOT command to the XSU command SOB: SSR_1A	STMOTC	02-053/09:33:52
19575	MGS	02-053/09:49:36		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-053/09:33:53
19576	MGS	02-053/09:49:36		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-053/09:33:53
19577	MGS	02-053/09:49:36		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-053/09:33:53
19578	MGS	02-053/09:49:36		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-053/09:33:53

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
19579	MGS	02-053/09:49:36		Sends a one-word SSR command to the XSU command SOB: SSR_1A, F42KHZ, PLYBCK, PART3	STSSRC	02-053/09:33:53
19580	MGS	02-053/09:49:36	45	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
19581	MGS	02-053/09:49:37		: MRC, MRC, 01:12:24, S&E_1A, FALSE, 00:06:39	AEMRT	02-053/09:33:54
19582	MGS	02-053/09:49:37		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-053/09:33:54
19583	MGS	02-053/09:49:37		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-053/09:33:54
19584	MGS	02-053/09:49:37		SSR 1A Data Enable	CSD1AE	02-053/09:33:54
19585	MGS	02-053/09:49:37		SSR Activity: ID=SSR_1A, FCN=Start Playback, PRT=3, BR=42666		02-053/09:33:54
19586	MGS	02-053/09:49:41		NOTE: End fixed Sub-Reflector for Radio Science		02-053/09:33:58
19587	MGS	02-053/09:52:53		NOTE: Exit Solar Eclipse 13230		02-053/09:37:10
19588	MGS	02-053/09:55:00	45	Transmitter Off		
19589	MGS	02-053/10:02:04		NOTE: Start Block (SSRMGR)		02-053/09:46:21
19590	MGS	02-053/10:02:04		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-053/09:46:21
19591	MGS	02-053/10:02:04		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-053/09:46:21
19592	MGS	02-053/10:02:05		Sends a one-word MOT command to the XSU command SOB: SSR_1B	STMOTC	02-053/09:46:22
19593	MGS	02-053/10:02:06		Sends a one-word SSR command to the XSU command SOB: SSR_1B, F42KHZ, PLYBCK, PART3	STSSRC	02-053/09:46:23
19594	MGS	02-053/10:02:07		SSR 1B Data Enable	CSD1BE	02-053/09:46:24
19595	MGS	02-053/10:02:07		SSR Activity: ID=SSR_1B, FCN=Start Playback, PRT=3, BR=42666		02-053/09:46:24
19596	MGS	02-053/10:02:07		SSR 1A Data Disable	CSD1AX	02-053/09:46:24
19597	MGS	02-053/10:02:07		SSR Activity: ID=SSR_1A, FCN=End Playback, PRT=3, BITS=32000000, DUR=00:12:30		02-053/09:46:24
19598	MGS	02-053/10:02:07	45	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
19599	MGS	02-053/10:02:08		NOTE: End Block (SSRMGR)		02-053/09:46:25
19600	MGS	02-053/10:05:15		NOTE: Periapsis 13231 ----------		02-053/09:49:32
19601	MGS	02-053/10:06:01	45	NOTE: Below Uplink Interlock Limit		
19602	MGS	02-053/10:14:31		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-053/09:58:48
19603	MGS	02-053/10:14:31		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-053/09:58:48
19604	MGS	02-053/10:14:31	45	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
19605	MGS	02-053/10:15:00	45	End Tracking		
19606	MGS	02-053/10:17:52		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-053/10:02:09
19607	MGS	02-053/10:17:52		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-053/10:02:09
19608	MGS	02-053/10:17:53		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-053/10:02:10
19609	MGS	02-053/10:17:53		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-053/10:02:10
19610	MGS	02-053/10:19:37		SSR 1B Data Disable	CSD1BX	02-053/10:03:54
19611	MGS	02-053/10:19:37		SSR Activity: ID=SSR_1B, FCN=End Playback, PRT=3, BITS=44800000, DUR=00:17:30		02-053/10:03:54
19612	MGS	02-053/10:19:38		NOTE: End Block (SSRMGR)		02-053/10:03:55
19613	MGS	02-053/10:30:00	45	End Post-Cal		
19614	MGS	02-053/10:39:53		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-053/10:24:10
19615	MGS	02-053/10:39:53		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-053/10:24:10
19616	MGS	02-053/10:57:02		NOTE: Begin fixed Sub-Reflector for Radio Science		02-053/10:41:18
19617	MGS	02-053/11:02:01		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-053/10:46:18
19618	MGS	02-053/11:02:01		: 00:06:38, FALSE	RDSCII	02-053/10:46:18
19619	MGS	02-053/11:02:01		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-053/10:46:18
19620	MGS	02-053/11:02:01		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-053/10:46:18
19621	MGS	02-053/11:02:01		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-053/10:46:18
19622	MGS	02-053/11:02:01		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-053/10:46:18
19623	MGS	02-053/11:04:15		NOTE: Apoapsis 13231 -		02-053/10:48:32
19624	MGS	02-053/11:04:17		NOTE: Enter Planetary Atmosphere 13231		02-053/10:48:34
19625	MGS	02-053/11:08:13		NOTE: Enter Earth Occultation 13231		02-053/10:52:30
19626	MGS	02-053/11:08:39		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-053/10:52:56
19627	MGS	02-053/11:08:39		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-053/10:52:56
19628	MGS	02-053/11:08:39		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-053/10:52:56
19629	MGS	02-053/11:08:39		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-053/10:52:56
19630	MGS	02-053/11:08:40		Turn off the MOT Exciter and RPA beam	STRPAF	02-053/10:52:57
19631	MGS	02-053/11:08:41		NOTE: End EVP script		02-053/10:52:57
19632	MGS	02-053/11:08:42		NOTE: End Block (MAP_RT)		02-053/10:52:58

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
19633	MGS	02-053/11:08:45		NOTE: End fixed Sub-Reflector for Radio Science		02-053/10:53:01
19634	MGS	02-053/11:10:15		NOTE: Enter Solar Eclipse 13231		02-053/10:54:32
19635	MGS	02-053/11:22:21		NOTE: Start Block (SSRMGR)		02-053/11:06:38
19636	MGS	02-053/11:22:21		Sends a one-word SSR command to the XSU command SOB: SSR_2A, SE_1A, RECORD, PART2	STSSRC	02-053/11:06:38
19637	MGS	02-053/11:22:22		SSR 2A Data Enable	CSD2AE	02-053/11:06:39
19638	MGS	02-053/11:22:22		SSR Activity: ID=SSR_2A, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-053/11:06:39
19639	MGS	02-053/11:25:26		Disable HGA control mode	SAHGCX	02-053/11:09:43
19640	MGS	02-053/11:25:27		No Operation	SCNOOP	02-053/11:09:44
19641	MGS	02-053/11:25:28		CDU-1 Uplink Rate Select (Based on 3 bit Code): 7	TCC1BS	02-053/11:09:45
19642	MGS	02-053/11:25:28		CDU-2 Uplink Rate Select (Based on 3 bit Code): 7	TCC2BS	02-053/11:09:45
19643	MGS	02-053/11:34:54		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-053/11:19:10
19644	MGS	02-053/11:34:54		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-053/11:19:10
19645	MGS	02-053/11:34:59		Set eclipse egress script address: 019A	SWSEES	02-053/11:19:15
19646	MGS	02-053/11:40:59		NOTE: Exit Earth Occultation 13231		02-053/11:25:15
19647	MGS	02-053/11:45:13		NOTE: Exit Planetary Atmosphere 13231		02-053/11:29:29
19648	MGS	02-053/11:49:03		SSR 2B Data Disable	CSD2BX	02-053/11:33:19
19649	MGS	02-053/11:49:03		SSR Activity: ID=SSR_2B, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-053/11:33:19
19650	MGS	02-053/11:49:04		NOTE: End Block (SSRMGR)		02-053/11:33:20
19651	MGS	02-053/11:50:40		NOTE: Exit Solar Eclipse 13231		02-053/11:34:57
19652	MGS	02-053/12:03:27		NOTE: Periapsis 13232 ----------		02-053/11:47:44
19653	MGS	02-053/12:11:39		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-053/11:55:55
19654	MGS	02-053/12:11:39		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-053/11:55:55
19655	MGS	02-053/12:11:40		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-053/11:55:56
19656	MGS	02-053/12:11:40		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-053/11:55:56
19657	MGS	02-053/12:15:43		Dump SCP memory to the EDF using physical addressing arguments: 56A4, 240	SCDSCM	02-053/11:59:59
19658	MGS	02-053/12:33:40		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-053/12:17:56
19659	MGS	02-053/12:33:40		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-053/12:17:56
19660	MGS	02-053/13:02:04		NOTE: Enter Planetary Atmosphere 13232		02-053/12:46:21
19661	MGS	02-053/13:02:29		NOTE: Apoapsis 13232 -		02-053/12:46:45
19662	MGS	02-053/13:06:01		NOTE: Enter Earth Occultation 13232		02-053/12:50:18
19663	MGS	02-053/13:08:02		NOTE: Enter Solar Eclipse 13232		02-053/12:52:19
19664	MGS	02-053/13:32:40		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-053/13:16:56
19665	MGS	02-053/13:32:40		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-053/13:16:56
19666	MGS	02-053/13:32:45		Set eclipse egress script address: 01DC	SWSEES	02-053/13:17:01
19667	MGS	02-053/13:38:47		NOTE: Exit Earth Occultation 13232		02-053/13:23:03
19668	MGS	02-053/13:43:01		NOTE: Exit Planetary Atmosphere 13232		02-053/13:27:18
19669	MGS	02-053/13:48:27		NOTE: Exit Solar Eclipse 13232		02-053/13:32:44
19670	MGS	02-053/14:01:26		NOTE: Periapsis 13233 ----------		02-053/13:45:43
19671	MGS	02-053/14:09:27		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-053/13:53:43
19672	MGS	02-053/14:09:27		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-053/13:53:43
19673	MGS	02-053/14:09:28		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-053/13:53:44
19674	MGS	02-053/14:09:28		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-053/13:53:44
19675	MGS	02-053/14:31:28		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-053/14:15:44
19676	MGS	02-053/14:31:28		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-053/14:15:44
19677	MGS	02-053/14:59:51		NOTE: Enter Planetary Atmosphere 13233		02-053/14:44:07
19678	MGS	02-053/15:00:15		NOTE: Apoapsis 13233 -		02-053/14:44:31
19679	MGS	02-053/15:03:48		NOTE: Enter Earth Occultation 13233		02-053/14:48:04
19680	MGS	02-053/15:05:47		NOTE: Enter Solar Eclipse 13233		02-053/14:50:04
19681	MGS	02-053/15:30:28		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-053/15:14:44
19682	MGS	02-053/15:30:28		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-053/15:14:44
19683	MGS	02-053/15:30:32		Command the PSE with included data word: 3990	SWPSEL	02-053/15:14:48
19684	MGS	02-053/15:30:33		Set eclipse egress script address: 0158	SWSEES	02-053/15:14:49
19685	MGS	02-053/15:36:33		NOTE: Exit Earth Occultation 13233		02-053/15:20:50
19686	MGS	02-053/15:40:48		NOTE: Exit Planetary Atmosphere 13233		02-053/15:25:05

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
19687	MGS	02-053/15:46:13		NOTE: Exit Solar Eclipse 13233		02-053/15:30:29
19688	MGS	02-053/15:58:57		NOTE: Periapsis 13234 ----------		02-053/15:43:13
19689	MGS	02-053/16:11:12		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-053/15:55:28
19690	MGS	02-053/16:11:12		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-053/15:55:28
19691	MGS	02-053/16:11:13		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-053/15:55:29
19692	MGS	02-053/16:11:13		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-053/15:55:29
19693	MGS	02-053/16:33:13		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-053/16:17:29
19694	MGS	02-053/16:33:13		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-053/16:17:29
19695	MGS	02-053/16:55:42		NOTE: Start Block (SSRMGR)		02-053/16:39:58
19696	MGS	02-053/16:55:42		Sends a one-word SSR command to the XSU command SOB: SSR_2B, SE_1A, RECORD, PART2	STSSRC	02-053/16:39:58
19697	MGS	02-053/16:55:43		SSR 2B Data Enable	CSD2BE	02-053/16:39:59
19698	MGS	02-053/16:55:43		SSR Activity: ID=SSR_2B, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-053/16:39:59
19699	MGS	02-053/16:57:33		NOTE: Enter Planetary Atmosphere 13234		02-053/16:41:49
19700	MGS	02-053/16:57:36		NOTE: Apoapsis 13234 -		02-053/16:41:52
19701	MGS	02-053/17:01:30		NOTE: Enter Earth Occultation 13234		02-053/16:45:46
19702	MGS	02-053/17:03:29		NOTE: Enter Solar Eclipse 13234		02-053/16:47:45
19703	MGS	02-053/17:22:23		SSR 2A Data Disable	CSD2AX	02-053/17:06:39
19704	MGS	02-053/17:22:23		SSR Activity: ID=SSR_2A, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-053/17:06:39
19705	MGS	02-053/17:22:24		NOTE: End Block (SSRMGR)		02-053/17:06:40
19706	MGS	02-053/17:28:13		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-053/17:12:29
19707	MGS	02-053/17:28:13		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-053/17:12:29
19708	MGS	02-053/17:28:18		Set eclipse egress script address: 019A	SWSEES	02-053/17:12:34
19709	MGS	02-053/17:34:16		NOTE: Exit Earth Occultation 13234		02-053/17:18:32
19710	MGS	02-053/17:38:31		NOTE: Exit Planetary Atmosphere 13234		02-053/17:22:47
19711	MGS	02-053/17:43:54		NOTE: Exit Solar Eclipse 13234		02-053/17:28:10
19712	MGS	02-053/17:56:20		NOTE: Periapsis 13235 ----------		02-053/17:40:35
19713	MGS	02-053/18:04:54		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-053/17:49:09
19714	MGS	02-053/18:04:54		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-053/17:49:09
19715	MGS	02-053/18:04:55		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-053/17:49:10
19716	MGS	02-053/18:04:55		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-053/17:49:10
19717	MGS	02-053/18:26:55		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-053/18:11:10
19718	MGS	02-053/18:26:55		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-053/18:11:10
19719	MGS	02-053/18:55:13		NOTE: Enter Planetary Atmosphere 13235		02-053/18:39:29
19720	MGS	02-053/18:55:19		NOTE: Apoapsis 13235 -		02-053/18:39:34
19721	MGS	02-053/18:59:10		NOTE: Enter Earth Occultation 13235		02-053/18:43:26
19722	MGS	02-053/19:01:10		NOTE: Enter Solar Eclipse 13235		02-053/18:45:26
19723	MGS	02-053/19:25:55		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-053/19:10:10
19724	MGS	02-053/19:25:55		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-053/19:10:10
19725	MGS	02-053/19:26:00		Set eclipse egress script address: 01DC	SWSEES	02-053/19:10:15
19726	MGS	02-053/19:31:57		NOTE: Exit Earth Occultation 13235		02-053/19:16:12
19727	MGS	02-053/19:36:11		NOTE: Exit Planetary Atmosphere 13235		02-053/19:20:26
19728	MGS	02-053/19:41:35		NOTE: Exit Solar Eclipse 13235		02-053/19:25:51
19729	MGS	02-053/19:54:00		NOTE: Periapsis 13236 ----------		02-053/19:38:15
19730	MGS	02-053/20:02:34		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-053/19:46:49
19731	MGS	02-053/20:02:34		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-053/19:46:49
19732	MGS	02-053/20:02:35		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-053/19:46:50
19733	MGS	02-053/20:02:35		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-053/19:46:50
19734	MGS	02-053/20:24:35		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-053/20:08:50
19735	MGS	02-053/20:24:35		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-053/20:08:50
19736	MGS	02-053/20:52:59		NOTE: Enter Planetary Atmosphere 13236		02-053/20:37:14
19737	MGS	02-053/20:53:11		NOTE: Apoapsis 13236 -		02-053/20:37:27
19738	MGS	02-053/20:56:55		NOTE: Enter Earth Occultation 13236		02-053/20:41:11
19739	MGS	02-053/20:58:56		NOTE: Enter Solar Eclipse 13236		02-053/20:43:11
19740	MGS	02-053/21:23:35		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-053/21:07:50

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
19741	MGS	02-053/21:23:35		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-053/21:07:50
19742	MGS	02-053/21:23:39		Command the PSE with included data word: 3990	SWPSEL	02-053/21:07:54
19743	MGS	02-053/21:23:40		Set eclipse egress script address: 0158	SWSEES	02-053/21:07:55
19744	MGS	02-053/21:29:42		NOTE: Exit Earth Occultation 13236		02-053/21:13:57
19745	MGS	02-053/21:33:56		NOTE: Exit Planetary Atmosphere 13236		02-053/21:18:11
19746	MGS	02-053/21:39:21		NOTE: Exit Solar Eclipse 13236		02-053/21:23:36
19747	MGS	02-053/21:51:54		NOTE: Periapsis 13237 ----------		02-053/21:36:09
19748	MGS	02-053/22:04:20		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-053/21:48:35
19749	MGS	02-053/22:04:20		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-053/21:48:35
19750	MGS	02-053/22:04:21		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-053/21:48:36
19751	MGS	02-053/22:04:21		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-053/21:48:36
19752	MGS	02-053/22:26:21		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-053/22:10:36
19753	MGS	02-053/22:26:21		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-053/22:10:36
19754	MGS	02-053/22:29:03		NOTE: Start Block (SSRMGR)		02-053/22:13:18
19755	MGS	02-053/22:29:03		Sends a one-word SSR command to the XSU command SOB: SSR_2A, SE_1A, RECORD, PART3	STSSRC	02-053/22:13:18
19756	MGS	02-053/22:29:04		SSR 2A Data Enable	CSD2AE	02-053/22:13:19
19757	MGS	02-053/22:29:04		SSR Activity: ID=SSR_2A, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-053/22:13:19
19758	MGS	02-053/22:50:47		NOTE: Enter Planetary Atmosphere 13237		02-053/22:35:02
19759	MGS	02-053/22:50:55		NOTE: Apoapsis 13237 -		02-053/22:35:10
19760	MGS	02-053/22:54:43		NOTE: Enter Earth Occultation 13237		02-053/22:38:58
19761	MGS	02-053/22:55:44		SSR 2B Data Disable	CSD2BX	02-053/22:39:59
19762	MGS	02-053/22:55:44		SSR Activity: ID=SSR_2B, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-053/22:39:59
19763	MGS	02-053/22:55:45		NOTE: End Block (SSRMGR)		02-053/22:40:00
19764	MGS	02-053/22:56:43		NOTE: Enter Solar Eclipse 13237		02-053/22:40:58
19765	MGS	02-053/23:09:03		NOTE: Start Block (SSRMGR)		02-053/22:53:18
19766	MGS	02-053/23:09:03		Sends a one-word SSR command to the XSU command SOB: SSR_2B, SE_1A, RECORD, PART3	STSSRC	02-053/22:53:18
19767	MGS	02-053/23:09:04		SSR 2B Data Enable	CSD2BE	02-053/22:53:19
19768	MGS	02-053/23:09:04		SSR Activity: ID=SSR_2B, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-053/22:53:19
19769	MGS	02-053/23:21:21		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-053/23:05:36
19770	MGS	02-053/23:21:21		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-053/23:05:36
19771	MGS	02-053/23:21:26		Set eclipse egress script address: 019A	SWSEES	02-053/23:05:41
19772	MGS	02-053/23:27:29		NOTE: Exit Earth Occultation 13237		02-053/23:11:44
19773	MGS	02-053/23:31:44		NOTE: Exit Planetary Atmosphere 13237		02-053/23:15:59
19774	MGS	02-053/23:35:44		SSR 2A Data Disable	CSD2AX	02-053/23:19:59
19775	MGS	02-053/23:35:44		SSR Activity: ID=SSR_2A, FCN=End Recording, PRT=3, BITS=32000000, DUR=01:06:40		02-053/23:19:59
19776	MGS	02-053/23:35:45		NOTE: End Block (SSRMGR)		02-053/23:20:00
19777	MGS	02-053/23:37:08		NOTE: Exit Solar Eclipse 13237		02-053/23:21:23
19778	MGS	02-053/23:49:40		NOTE: Periapsis 13238 ----------		02-053/23:33:55
19779	MGS	02-053/23:58:07		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-053/23:42:22
19780	MGS	02-053/23:58:07		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-053/23:42:22
19781	MGS	02-053/23:58:08		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-053/23:42:23
19782	MGS	02-053/23:58:08		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-053/23:42:23
19783	MGS	02-054/00:00:00		Light Time: OWLT = 15:45, RTLT = 31:30		
19784	MGS	02-054/00:00:00	25	Begin Pre-Cal		
19785	MGS	02-054/00:00:00	25	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
19786	MGS	02-054/00:00:00	25	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
19787	MGS	02-054/00:00:00	25	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
19788	MGS	02-054/00:00:00	25	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=OFF, EXC=2		
19789	MGS	02-054/00:00:00	25	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
19790	MGS	02-054/00:00:00	25	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
19791	MGS	02-054/00:00:00	25	Config: TGC: DEST=37		
19792	MGS	02-054/00:00:00	25	Config: TGC: BAND=X, BR=8000.000000		
19793	MGS	02-054/00:00:00	25	Config: FSS: CH=2, PRI_FL=10000		
19794	MGS	02-054/00:00:00	25	Config: RSR		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
19795	MGS	02-054/00:00:00	25	Config: TXL		
19796	MGS	02-054/00:00:00	25	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
19797	MGS	02-054/00:00:00	25	Config: BVR		
19798	MGS	02-054/00:00:00	25	Config: Doppler Extractor: BIAS=+1MHZ		
19799	MGS	02-054/00:00:00	25	Config: MDA: SMPL=0.1		
19800	MGS	02-054/00:00:00	25	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
19801	MGS	02-054/00:00:00	25	Config: SRA: HIGH=4, LOW=14, SERV=D		
19802	MGS	02-054/00:00:00	25	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
19803	MGS	02-054/00:15:43		NOTE: Start Block (SSRMGR)		02-053/23:59:58
19804	MGS	02-054/00:15:43		Sends a one-word SSR command to the XSU command SOB: SSR_1A, SE_1A, RECORD, PART1	STSSRC	02-053/23:59:58
19805	MGS	02-054/00:15:44		SSR 1A Data Enable	CSD1AE	02-053/23:59:59
19806	MGS	02-054/00:15:44		SSR Activity: ID=SSR_1A, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-053/23:59:59
19807	MGS	02-054/00:20:08		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-054/00:04:23
19808	MGS	02-054/00:20:08		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-054/00:04:23
19809	MGS	02-054/00:42:25		SSR 2B Data Disable	CSD2BX	02-054/00:26:39
19810	MGS	02-054/00:42:25		SSR Activity: ID=SSR_2B, FCN=End Recording, PRT=3, BITS=44800000, DUR=01:33:20		02-054/00:26:39
19811	MGS	02-054/00:42:26		NOTE: End Block (SSRMGR)		02-054/00:26:40
19812	MGS	02-054/00:44:29		NOTE: Start Block (MAP_RT)		02-054/00:28:43
19813	MGS	02-054/00:44:30		: 00:29:02, 01:27:15, FALSE, TRUE, FALSE, 00:01:15, 00:06:54, 01:12:29, 00:06:36	AEMINI	02-054/00:28:44
19814	MGS	02-054/00:44:30		Enable sending eclipse ingress script when array power disappears	SWEISE	02-054/00:28:44
19815	MGS	02-054/00:44:30		NOTE: Start EVP data return script		02-054/00:28:44
19816	MGS	02-054/00:44:31		: SE_2A, RTM, 01:12:28, MRC, 2002-054T01:15:57.000	AEMRTI	02-054/00:28:45
19817	MGS	02-054/00:48:26		NOTE: Apoapsis 13238 -		02-054/00:32:41
19818	MGS	02-054/00:48:33		NOTE: Enter Planetary Atmosphere 13238		02-054/00:32:48
19819	MGS	02-054/00:52:29		NOTE: Enter Earth Occultation 13238		02-054/00:36:44
19820	MGS	02-054/00:54:30		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-054/00:38:44
19821	MGS	02-054/00:54:30		NOTE: Enter Solar Eclipse 13238		02-054/00:38:44
19822	MGS	02-054/01:00:00	25	Begin Tracking		
19823	MGS	02-054/01:09:54		Select Automatic HGA control mode	SAHACE	02-054/00:54:08
19824	MGS	02-054/01:09:55		Selects Hign Gain Antenna for downlink, Reconfigures if beam is already on	STUHGA	02-054/00:54:09
19825	MGS	02-054/01:09:56		CDU-1 Uplink Rate Select (Based on 3 bit Code): 3	TCC1BS	02-054/00:54:10
19826	MGS	02-054/01:09:56		CDU-2 Uplink Rate Select (Based on 3 bit Code): 3	TCC2BS	02-054/00:54:10
19827	MGS	02-054/01:10:00	25	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
19828	MGS	02-054/01:12:00	25	Range Modulation On: SUP=3.0dB		
19829	MGS	02-054/01:13:00	25	Begin Ranging Acquisition		
19830	MGS	02-054/01:19:09		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-054/01:03:23
19831	MGS	02-054/01:19:09		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-054/01:03:23
19832	MGS	02-054/01:19:14		Set eclipse egress script address: 01DC	SWSEES	02-054/01:03:28
19833	MGS	02-054/01:19:47		NOTE: Begin fixed Sub-Reflector for Radio Science		02-054/01:04:01
19834	MGS	02-054/01:23:32		: 01:27:15	RPAONX	02-054/01:07:46
19835	MGS	02-054/01:23:32		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-054/01:07:46
19836	MGS	02-054/01:24:47		: 00:00:30, 00:06:54, FALSE	RDSCIE	02-054/01:09:01
19837	MGS	02-054/01:24:47		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-054/01:09:01
19838	MGS	02-054/01:24:47		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-054/01:09:01
19839	MGS	02-054/01:24:47		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-054/01:09:01
19840	MGS	02-054/01:24:47		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-054/01:09:01
19841	MGS	02-054/01:25:17		NOTE: Exit Earth Occultation 13238		02-054/01:09:31
19842	MGS	02-054/01:25:17	25	Acquisition Of X-Band Signal		
19843	MGS	02-054/01:25:17	25	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
19844	MGS	02-054/01:25:17	25	NOTE: Carrier Only -- No Telemetry Modulation		
19845	MGS	02-054/01:29:31		NOTE: Exit Planetary Atmosphere 13238		02-054/01:13:45
19846	MGS	02-054/01:31:41		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-054/01:15:55
19847	MGS	02-054/01:31:41		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-054/01:15:55
19848	MGS	02-054/01:31:41		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-054/01:15:55

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
19849	MGS	02-054/01:31:41		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-054/01:15:55
19850	MGS	02-054/01:31:41	25	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
19851	MGS	02-054/01:31:42		: RTM, MRC, 01:12:28, S&E_2A, FALSE, 00:06:37	AEMRT	02-054/01:15:56
19852	MGS	02-054/01:31:42		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-054/01:15:56
19853	MGS	02-054/01:31:42		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-054/01:15:56
19854	MGS	02-054/01:31:42		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=36456000, DUR=01:15:57		02-054/01:15:56
19855	MGS	02-054/01:31:42		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-054/01:15:56
19856	MGS	02-054/01:31:42	25	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
19857	MGS	02-054/01:31:46		NOTE: End fixed Sub-Reflector for Radio Science		02-054/01:16:00
19858	MGS	02-054/01:34:55		NOTE: Exit Solar Eclipse 13238		02-054/01:19:10
19859	MGS	02-054/01:41:30	25	Acquire D/L: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
19860	MGS	02-054/01:47:22		NOTE: Periapsis 13239 ----------		02-054/01:31:36
19861	MGS	02-054/01:55:54		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-054/01:40:08
19862	MGS	02-054/01:55:54		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-054/01:40:08
19863	MGS	02-054/01:55:55		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-054/01:40:09
19864	MGS	02-054/01:55:55		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-054/01:40:09
19865	MGS	02-054/01:59:58	25	NOTE: Transmitter Off in 15 minutes		
19866	MGS	02-054/02:12:59	25	Range Modulation Off		
19867	MGS	02-054/02:14:58	25	Transmitter Off		
19868	MGS	02-054/02:17:55		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-054/02:02:09
19869	MGS	02-054/02:17:55		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-054/02:02:09
19870	MGS	02-054/02:39:10		NOTE: Begin fixed Sub-Reflector for Radio Science		02-054/02:23:24
19871	MGS	02-054/02:42:14		NOTE: Start EVP data return script		02-054/02:26:28
19872	MGS	02-054/02:44:10		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-054/02:28:24
19873	MGS	02-054/02:44:10		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=71240000, DUR=01:12:28		02-054/02:28:24
19874	MGS	02-054/02:44:10		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-054/02:28:24
19875	MGS	02-054/02:44:10		: 00:06:36, FALSE	RDSCII	02-054/02:28:24
19876	MGS	02-054/02:44:10		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-054/02:28:24
19877	MGS	02-054/02:44:10		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-054/02:28:24
19878	MGS	02-054/02:44:10		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-054/02:28:24
19879	MGS	02-054/02:44:10		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-054/02:28:24
19880	MGS	02-054/02:44:10	25	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
19881	MGS	02-054/02:44:10	25	NOTE: Carrier Only -- No Telemetry Modulation		
19882	MGS	02-054/02:45:57		NOTE: Apoapsis 13239 -		02-054/02:30:11
19883	MGS	02-054/02:46:18		NOTE: Enter Planetary Atmosphere 13239		02-054/02:30:32
19884	MGS	02-054/02:50:14		NOTE: Enter Earth Occultation 13239		02-054/02:34:28
19885	MGS	02-054/02:50:14	25	NOTE: Loss Of X-Band Signal		
19886	MGS	02-054/02:50:46		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-054/02:35:00
19887	MGS	02-054/02:50:46		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-054/02:35:00
19888	MGS	02-054/02:50:46		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-054/02:35:00
19889	MGS	02-054/02:50:46		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-054/02:35:00
19890	MGS	02-054/02:50:47		Turn off the MOT Exciter and RPA beam	STRPAF	02-054/02:35:01
19891	MGS	02-054/02:50:47		NOTE: End EVP script		02-054/02:35:01
19892	MGS	02-054/02:50:51		NOTE: End fixed Sub-Reflector for Radio Science		02-054/02:35:05
19893	MGS	02-054/02:52:14		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-054/02:36:28
19894	MGS	02-054/02:52:14		NOTE: Enter Solar Eclipse 13239		02-054/02:36:29
19895	MGS	02-054/02:55:16	25	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
19896	MGS	02-054/02:57:16	25	Range Modulation On: SUP=3.0dB		
19897	MGS	02-054/02:58:16	25	Begin Ranging Acquisition		
19898	MGS	02-054/03:16:55		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-054/03:01:09
19899	MGS	02-054/03:16:55		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-054/03:01:09
19900	MGS	02-054/03:16:59		Command the PSE with included data word: 3990	SWPSEL	02-054/03:01:13
19901	MGS	02-054/03:17:00		Set eclipse egress script address: 0158	SWSEES	02-054/03:01:14
19902	MGS	02-054/03:17:31		NOTE: Begin fixed Sub-Reflector for Radio Science		02-054/03:01:45

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
19903	MGS	02-054/03:21:16		: 01:27:15	RPAONX	02-054/03:05:30
19904	MGS	02-054/03:21:16		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-054/03:05:30
19905	MGS	02-054/03:22:31		: 00:00:30, 00:06:54, FALSE	RDSCIE	02-054/03:06:45
19906	MGS	02-054/03:22:31		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-054/03:06:45
19907	MGS	02-054/03:22:31		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-054/03:06:45
19908	MGS	02-054/03:22:31		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-054/03:06:45
19909	MGS	02-054/03:22:31		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-054/03:06:45
19910	MGS	02-054/03:23:01		Disables autonomous command to send eclipse ingress script	SWEISX	02-054/03:07:15
19911	MGS	02-054/03:23:02		NOTE: Exit Earth Occultation 13239		02-054/03:07:16
19912	MGS	02-054/03:23:02	25	Acquisition Of X-Band Signal		
19913	MGS	02-054/03:23:02	25	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
19914	MGS	02-054/03:23:02	25	NOTE: Carrier Only -- No Telemetry Modulation		
19915	MGS	02-054/03:27:16		NOTE: Exit Planetary Atmosphere 13239		02-054/03:11:30
19916	MGS	02-054/03:29:25		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-054/03:13:39
19917	MGS	02-054/03:29:25		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-054/03:13:39
19918	MGS	02-054/03:29:25		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-054/03:13:39
19919	MGS	02-054/03:29:25		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-054/03:13:39
19920	MGS	02-054/03:29:25	25	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
19921	MGS	02-054/03:29:26		: RTM, MRC, 01:12:28, S&E_2A, FALSE, 00:06:37	AEMRT	02-054/03:13:40
19922	MGS	02-054/03:29:26		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-054/03:13:40
19923	MGS	02-054/03:29:26		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-054/03:13:40
19924	MGS	02-054/03:29:26		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=92968000, DUR=00:45:16		02-054/03:13:40
19925	MGS	02-054/03:29:26		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-054/03:13:40
19926	MGS	02-054/03:29:26	25	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
19927	MGS	02-054/03:29:30		NOTE: End fixed Sub-Reflector for Radio Science		02-054/03:13:44
19928	MGS	02-054/03:32:39		NOTE: Exit Solar Eclipse 13239		02-054/03:16:54
19929	MGS	02-054/03:45:06		NOTE: Periapsis 13240 ----------		02-054/03:29:20
19930	MGS	02-054/03:57:38		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-054/03:41:52
19931	MGS	02-054/03:57:38		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-054/03:41:52
19932	MGS	02-054/03:57:39		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-054/03:41:53
19933	MGS	02-054/03:57:39		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-054/03:41:53
19934	MGS	02-054/03:57:40	25	NOTE: Transmitter Off in 15 minutes		
19935	MGS	02-054/04:10:41	25	Range Modulation Off		
19936	MGS	02-054/04:12:40	25	Transmitter Off		
19937	MGS	02-054/04:19:39		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-054/04:03:53
19938	MGS	02-054/04:19:39		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-054/04:03:53
19939	MGS	02-054/04:36:54		NOTE: Begin fixed Sub-Reflector for Radio Science		02-054/04:21:08
19940	MGS	02-054/04:39:55		NOTE: Start Block (MAP_RT)		02-054/04:24:09
19941	MGS	02-054/04:39:56		: 00:29:04, 01:27:09, FALSE, TRUE, FALSE, 00:01:15, 00:06:54, 01:12:22, 00:06:37	AEMINI	02-054/04:24:10
19942	MGS	02-054/04:39:56		Enable sending eclipse ingress script when array power disappears	SWEISE	02-054/04:24:10
19943	MGS	02-054/04:39:56		NOTE: Start EVP data return script		02-054/04:24:10
19944	MGS	02-054/04:39:57		: SE_1A, MRC, 01:12:21, MRC, 2002-054T05:11:25.000	AEMRTI	02-054/04:24:11
19945	MGS	02-054/04:41:54		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-054/04:26:08
19946	MGS	02-054/04:41:54		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=127752000, DUR=01:12:28		02-054/04:26:08
19947	MGS	02-054/04:41:54		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-054/04:26:08
19948	MGS	02-054/04:41:54		: 00:06:36, FALSE	RDSCII	02-054/04:26:08
19949	MGS	02-054/04:41:54		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-054/04:26:08
19950	MGS	02-054/04:41:54		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-054/04:26:08
19951	MGS	02-054/04:41:54		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-054/04:26:08
19952	MGS	02-054/04:41:54		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-054/04:26:08
19953	MGS	02-054/04:41:54	25	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
19954	MGS	02-054/04:41:54	25	NOTE: Carrier Only -- No Telemetry Modulation		
19955	MGS	02-054/04:43:49		NOTE: Apoapsis 13240 -		02-054/04:28:03
19956	MGS	02-054/04:44:00		NOTE: Enter Planetary Atmosphere 13240		02-054/04:28:14

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
19957	MGS	02-054/04:46:52	25	NOTE: Below Uplink Interlock Limit		
19958	MGS	02-054/04:47:57		NOTE: Enter Earth Occultation 13240		02-054/04:32:11
19959	MGS	02-054/04:47:57	25	NOTE: Loss Of X-Band Signal		
19960	MGS	02-054/04:48:30		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-054/04:32:44
19961	MGS	02-054/04:48:30		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-054/04:32:44
19962	MGS	02-054/04:48:30		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-054/04:32:44
19963	MGS	02-054/04:48:30		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-054/04:32:44
19964	MGS	02-054/04:48:31		Turn off the MOT Exciter and RPA beam	STRPAF	02-054/04:32:45
19965	MGS	02-054/04:48:31		NOTE: End EVP script		02-054/04:32:45
19966	MGS	02-054/04:48:32		NOTE: End Block (MAP_RT)		02-054/04:32:46
19967	MGS	02-054/04:48:35		NOTE: End fixed Sub-Reflector for Radio Science		02-054/04:32:49
19968	MGS	02-054/04:49:56		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-054/04:34:10
19969	MGS	02-054/04:49:57		NOTE: Enter Solar Eclipse 13240		02-054/04:34:11
19970	MGS	02-054/04:55:00	25	End Tracking		
19971	MGS	02-054/05:00:00	45	Begin Pre-Cal		
19972	MGS	02-054/05:00:00	45	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
19973	MGS	02-054/05:00:00	45	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
19974	MGS	02-054/05:00:00	45	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
19975	MGS	02-054/05:00:00	45	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
19976	MGS	02-054/05:00:00	45	At BOT: S/C Tlm Mode: BR=8000.0, FL=10000, SC=HIGH, MI=80.0		
19977	MGS	02-054/05:00:00	45	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
19978	MGS	02-054/05:00:00	45	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
19979	MGS	02-054/05:00:00	45	Config: TGC: DEST=37		
19980	MGS	02-054/05:00:00	45	Config: TGC: BAND=X, BR=8000.000000		
19981	MGS	02-054/05:00:00	45	Config: FSS: CH=2, PRI_FL=10000		
19982	MGS	02-054/05:00:00	45	Config: RSR		
19983	MGS	02-054/05:00:00	45	Config: TXL		
19984	MGS	02-054/05:00:00	45	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
19985	MGS	02-054/05:00:00	45	Config: BVR		
19986	MGS	02-054/05:00:00	45	Config: Doppler Extractor: BIAS=+1MHZ		
19987	MGS	02-054/05:00:00	45	Config: MDA: SMPL=0.1		
19988	MGS	02-054/05:00:00	45	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
19989	MGS	02-054/05:00:00	45	Config: SRA: HIGH=4, LOW=14, SERV=D		
19990	MGS	02-054/05:00:00	45	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
19991	MGS	02-054/05:05:10		Disable HGA control mode	SAHGCX	02-054/04:49:24
19992	MGS	02-054/05:05:11		No Operation	SCNOOP	02-054/04:49:25
19993	MGS	02-054/05:05:12		CDU-1 Uplink Rate Select (Based on 3 bit Code): 7	TCC1BS	02-054/04:49:26
19994	MGS	02-054/05:05:12		CDU-2 Uplink Rate Select (Based on 3 bit Code): 7	TCC2BS	02-054/04:49:26
19995	MGS	02-054/05:05:21		Select Automatic HGA control mode	SAHACE	02-054/04:49:35
19996	MGS	02-054/05:05:22		Selects Hign Gain Antenna for downlink, Reconfigures if beam is already on	STUHGA	02-054/04:49:36
19997	MGS	02-054/05:05:23		CDU-1 Uplink Rate Select (Based on 3 bit Code): 3	TCC1BS	02-054/04:49:37
19998	MGS	02-054/05:05:23		CDU-2 Uplink Rate Select (Based on 3 bit Code): 3	TCC2BS	02-054/04:49:37
19999	MGS	02-054/05:10:00	25	End Post-Cal		
20000	MGS	02-054/05:14:39		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-054/04:58:53
20001	MGS	02-054/05:14:39		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-054/04:58:53
20002	MGS	02-054/05:14:44		Set eclipse egress script address: 019A	SWSEES	02-054/04:58:58
20003	MGS	02-054/05:15:16		NOTE: Begin fixed Sub-Reflector for Radio Science		02-054/04:59:30
20004	MGS	02-054/05:19:00		: 01:27:09	RPAONX	02-054/05:03:14
20005	MGS	02-054/05:19:00		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-054/05:03:14
20006	MGS	02-054/05:20:15		: 00:00:30, 00:06:54, FALSE	RDSCIE	02-054/05:04:29
20007	MGS	02-054/05:20:15		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-054/05:04:29
20008	MGS	02-054/05:20:15		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-054/05:04:29
20009	MGS	02-054/05:20:15		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-054/05:04:29
20010	MGS	02-054/05:20:15		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-054/05:04:29

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
20011	MGS	02-054/05:20:45		Disables autonomous command to send eclipse ingress script	SWEISX	02-054/05:04:59
20012	MGS	02-054/05:20:45		NOTE: Exit Earth Occultation 13240		02-054/05:04:59
20013	MGS	02-054/05:25:00		NOTE: Exit Planetary Atmosphere 13240		02-054/05:09:14
20014	MGS	02-054/05:27:09		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-054/05:11:23
20015	MGS	02-054/05:27:09		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-054/05:11:23
20016	MGS	02-054/05:27:09		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-054/05:11:23
20017	MGS	02-054/05:27:09		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-054/05:11:23
20018	MGS	02-054/05:27:10		: MRC, MRC, 01:12:21, S&E_1A, FALSE, 00:06:38	AEMRT	02-054/05:11:24
20019	MGS	02-054/05:27:10		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-054/05:11:24
20020	MGS	02-054/05:27:10		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-054/05:11:24
20021	MGS	02-054/05:27:10		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=149480000, DUR=00:45:16		02-054/05:11:24
20022	MGS	02-054/05:27:10		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-054/05:11:24
20023	MGS	02-054/05:27:15		NOTE: End fixed Sub-Reflector for Radio Science		02-054/05:11:29
20024	MGS	02-054/05:30:22		NOTE: Exit Solar Eclipse 13240		02-054/05:14:36
20025	MGS	02-054/05:42:46		NOTE: Periapsis 13241 ----------		02-054/05:27:00
20026	MGS	02-054/05:49:04		NOTE: Start Block (SSRMGR)		02-054/05:33:18
20027	MGS	02-054/05:49:04		Sends a one-word SSR command to the XSU command SOB: SSR_1B, SE_1A, RECORD, PART1	STSSRC	02-054/05:33:18
20028	MGS	02-054/05:49:05		SSR 1B Data Enable	CSD1BE	02-054/05:33:19
20029	MGS	02-054/05:49:05		SSR Activity: ID=SSR_1B, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-054/05:33:19
20030	MGS	02-054/05:51:20		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-054/05:35:34
20031	MGS	02-054/05:51:20		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-054/05:35:34
20032	MGS	02-054/05:51:21		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-054/05:35:35
20033	MGS	02-054/05:51:21		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-054/05:35:35
20034	MGS	02-054/06:00:00	45	Begin Tracking		
20035	MGS	02-054/06:00:00	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
20036	MGS	02-054/06:05:25		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-054/05:49:39
20037	MGS	02-054/06:05:25		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=1, BITS=7840000, DUR=00:16:20		02-054/05:49:39
20038	MGS	02-054/06:05:25		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-054/05:49:39
20039	MGS	02-054/06:05:27		NOTE: Start Block (SSRMGR)		02-054/05:49:41
20040	MGS	02-054/06:05:27		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-054/05:49:41
20041	MGS	02-054/06:05:27		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-054/05:49:41
20042	MGS	02-054/06:05:28		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-054/05:49:42
20043	MGS	02-054/06:05:29		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, PLYBCK, PART3	STSSRC	02-054/05:49:43
20044	MGS	02-054/06:05:30		SSR 2A Data Enable	CSD2AE	02-054/05:49:44
20045	MGS	02-054/06:05:30		SSR Activity: ID=SSR_2A, FCN=Start Playback, PRT=3, BR=42666		02-054/05:49:44
20046	MGS	02-054/06:05:30	45	D/L Change: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
20047	MGS	02-054/06:13:21		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-054/05:57:35
20048	MGS	02-054/06:13:21		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-054/05:57:35
20049	MGS	02-054/06:15:45		SSR 1A Data Disable	CSD1AX	02-054/05:59:59
20050	MGS	02-054/06:15:45		SSR Activity: ID=SSR_1A, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-054/05:59:59
20051	MGS	02-054/06:15:46		NOTE: End Block (SSRMGR)		02-054/06:00:00
20052	MGS	02-054/06:17:57		NOTE: Start Block (SSRMGR)		02-054/06:02:11
20053	MGS	02-054/06:17:57		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-054/06:02:11
20054	MGS	02-054/06:17:57		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-054/06:02:11
20055	MGS	02-054/06:17:58		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-054/06:02:12
20056	MGS	02-054/06:17:58		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, ENBSCR, PART1	STSSRC	02-054/06:02:12
20057	MGS	02-054/06:17:59		Sends a one-word SSR command to the XSU command SOB: SSR_2B, F42KHZ, PLYBCK, PART3	STSSRC	02-054/06:02:13
20058	MGS	02-054/06:18:00		SSR 2A Data Disable	CSD2AX	02-054/06:02:14
20059	MGS	02-054/06:18:00		SSR 2B Data Enable	CSD2BE	02-054/06:02:14
20060	MGS	02-054/06:18:00		SSR Activity: ID=SSR_2B, FCN=Start Playback, PRT=3, BR=42666		02-054/06:02:14
20061	MGS	02-054/06:18:01		NOTE: End Block (SSRMGR)		02-054/06:02:15
20062	MGS	02-054/06:34:32		NOTE: Begin fixed Sub-Reflector for Radio Science		02-054/06:18:46
20063	MGS	02-054/06:35:30		SSR 2B Data Disable	CSD2BX	02-054/06:19:44
20064	MGS	02-054/06:35:30		SSR Activity: ID=SSR_2B, FCN=End Playback, PRT=3, BITS=44800000, DUR=00:17:30		02-054/06:19:44

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
20065	MGS	02-054/06:35:31		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-054/06:19:45
20066	MGS	02-054/06:35:31		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-054/06:19:45
20067	MGS	02-054/06:35:31		NOTE: End Block (SSRMGR)		02-054/06:19:45
20068	MGS	02-054/06:35:31	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
20069	MGS	02-054/06:37:37		NOTE: Start Block (MAP_PB)		02-054/06:21:51
20070	MGS	02-054/06:37:38		: 00:29:04, 01:27:10, FALSE, TRUE, FALSE, 00:01:15, 00:06:54, 01:12:23, 00:06:37	AEMINI	02-054/06:21:52
20071	MGS	02-054/06:37:38		Enable sending eclipse ingress script when array power disappears	SWEISE	02-054/06:21:52
20072	MGS	02-054/06:37:38		NOTE: Start EVP data return script		02-054/06:21:52
20073	MGS	02-054/06:37:39		: SSR_2A, F42KHZ, PART1, SE_1A, 2002-054T07:09:06.000	AEMPBI	02-054/06:21:53
20074	MGS	02-054/06:39:31		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-054/06:23:45
20075	MGS	02-054/06:39:31		: 00:06:37, FALSE	RDSCII	02-054/06:23:45
20076	MGS	02-054/06:39:31		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-054/06:23:45
20077	MGS	02-054/06:39:31		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-054/06:23:45
20078	MGS	02-054/06:39:31		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-054/06:23:45
20079	MGS	02-054/06:39:31		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-054/06:23:45
20080	MGS	02-054/06:39:31	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
20081	MGS	02-054/06:39:31	45	NOTE: Carrier Only -- No Telemetry Modulation		
20082	MGS	02-054/06:41:28		NOTE: Apoapsis 13241 -		02-054/06:25:42
20083	MGS	02-054/06:41:43		NOTE: Enter Planetary Atmosphere 13241		02-054/06:25:57
20084	MGS	02-054/06:45:39		NOTE: Enter Earth Occultation 13241		02-054/06:29:53
20085	MGS	02-054/06:45:39	45	NOTE: Loss Of X-Band Signal		
20086	MGS	02-054/06:46:08		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-054/06:30:22
20087	MGS	02-054/06:46:08		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-054/06:30:22
20088	MGS	02-054/06:46:08		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-054/06:30:22
20089	MGS	02-054/06:46:08		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-054/06:30:22
20090	MGS	02-054/06:46:09		Turn off the MOT Exciter and RPA beam	STRPAF	02-054/06:30:23
20091	MGS	02-054/06:46:10		NOTE: End EVP script		02-054/06:30:24
20092	MGS	02-054/06:46:11		NOTE: End Block (MAP_RT)		02-054/06:30:25
20093	MGS	02-054/06:46:14		NOTE: End fixed Sub-Reflector for Radio Science		02-054/06:30:28
20094	MGS	02-054/06:47:38		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-054/06:31:52
20095	MGS	02-054/06:47:39		NOTE: Enter Solar Eclipse 13241		02-054/06:31:52
20096	MGS	02-054/06:50:40	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
20097	MGS	02-054/06:52:40	45	Range Modulation On: SUP=3.0dB		
20098	MGS	02-054/06:53:40	45	Begin Ranging Acquisition		
20099	MGS	02-054/07:12:22		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-054/06:56:35
20100	MGS	02-054/07:12:22		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-054/06:56:35
20101	MGS	02-054/07:12:27		Set eclipse egress script address: 01DC	SWSEES	02-054/06:56:40
20102	MGS	02-054/07:12:58		NOTE: Begin fixed Sub-Reflector for Radio Science		02-054/06:57:11
20103	MGS	02-054/07:16:43		: 01:27:10	RPAONX	02-054/07:00:56
20104	MGS	02-054/07:16:43		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-054/07:00:56
20105	MGS	02-054/07:17:58		: 00:00:30, 00:06:54, FALSE	RDSCIE	02-054/07:02:11
20106	MGS	02-054/07:17:58		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-054/07:02:11
20107	MGS	02-054/07:17:58		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-054/07:02:11
20108	MGS	02-054/07:17:58		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-054/07:02:11
20109	MGS	02-054/07:17:58		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-054/07:02:11
20110	MGS	02-054/07:18:27		NOTE: Exit Earth Occultation 13241		02-054/07:02:41
20111	MGS	02-054/07:18:27	45	Acquisition Of X-Band Signal		
20112	MGS	02-054/07:18:27	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
20113	MGS	02-054/07:18:27	45	NOTE: Carrier Only -- No Telemetry Modulation		
20114	MGS	02-054/07:22:42		NOTE: Exit Planetary Atmosphere 13241		02-054/07:06:55
20115	MGS	02-054/07:24:52		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-054/07:09:05
20116	MGS	02-054/07:24:52		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-054/07:09:05
20117	MGS	02-054/07:24:52		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-054/07:09:05
20118	MGS	02-054/07:24:52		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-054/07:09:05

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
20119	MGS	02-054/07:24:52		: REC_2A, F42KHZ, PART1, SE_1A, FALSE, 00:10:22	AEMPB	02-054/07:09:05
20120	MGS	02-054/07:24:52		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-054/07:09:05
20121	MGS	02-054/07:24:52		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, PLYBCK, PART1	STSSRC	02-054/07:09:05
20122	MGS	02-054/07:24:52	45	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
20123	MGS	02-054/07:24:53		SSR 2A Data Enable	CSD2AE	02-054/07:09:06
20124	MGS	02-054/07:24:53		SSR Activity: ID=SSR_2A, FCN=Start Playback, PRT=1, BR=42666		02-054/07:09:06
20125	MGS	02-054/07:24:53	45	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
20126	MGS	02-054/07:24:57		NOTE: End fixed Sub-Reflector for Radio Science		02-054/07:09:10
20127	MGS	02-054/07:28:03		NOTE: Exit Solar Eclipse 13241		02-054/07:12:17
20128	MGS	02-054/07:40:08		NOTE: Periapsis 13242 ----------		02-054/07:24:21
20129	MGS	02-054/07:49:03		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-054/07:33:16
20130	MGS	02-054/07:49:03		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-054/07:33:16
20131	MGS	02-054/07:49:04		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-054/07:33:17
20132	MGS	02-054/07:49:04		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-054/07:33:17
20133	MGS	02-054/07:53:04	45	NOTE: Transmitter Off in 15 minutes		
20134	MGS	02-054/08:06:05	45	Range Modulation Off		
20135	MGS	02-054/08:08:04	45	Transmitter Off		
20136	MGS	02-054/08:11:04		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-054/07:55:17
20137	MGS	02-054/08:11:04		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-054/07:55:17
20138	MGS	02-054/08:32:15		NOTE: Begin fixed Sub-Reflector for Radio Science		02-054/08:16:28
20139	MGS	02-054/08:33:31		SSR 2A Data Disable	CSD2AX	02-054/08:17:44
20140	MGS	02-054/08:33:31		SSR Activity: ID=SSR_2A, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-054/08:17:44
20141	MGS	02-054/08:33:31		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-054/08:17:44
20142	MGS	02-054/08:33:31	45	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
20143	MGS	02-054/08:35:22		NOTE: Start EVP data return script		02-054/08:19:35
20144	MGS	02-054/08:35:22		: SSR_2B, F42KHZ, PART1, 2002-054T09:06:49.000	AEMPBU	02-054/08:19:35
20145	MGS	02-054/08:37:15		: 00:06:37, FALSE	RDSCII	02-054/08:21:28
20146	MGS	02-054/08:37:15		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-054/08:21:28
20147	MGS	02-054/08:37:15		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-054/08:21:28
20148	MGS	02-054/08:37:15		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-054/08:21:28
20149	MGS	02-054/08:37:15		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-054/08:21:28
20150	MGS	02-054/08:37:15	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
20151	MGS	02-054/08:37:15	45	NOTE: Carrier Only -- No Telemetry Modulation		
20152	MGS	02-054/08:38:54		NOTE: Apoapsis 13242 -		02-054/08:23:07
20153	MGS	02-054/08:39:26		NOTE: Enter Planetary Atmosphere 13242		02-054/08:23:40
20154	MGS	02-054/08:43:22		NOTE: Enter Earth Occultation 13242		02-054/08:27:35
20155	MGS	02-054/08:43:22	45	NOTE: Loss Of X-Band Signal		
20156	MGS	02-054/08:43:52		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-054/08:28:05
20157	MGS	02-054/08:43:52		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-054/08:28:05
20158	MGS	02-054/08:43:52		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-054/08:28:05
20159	MGS	02-054/08:43:52		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-054/08:28:05
20160	MGS	02-054/08:43:53		Turn off the MOT Exciter and RPA beam	STRPAF	02-054/08:28:06
20161	MGS	02-054/08:43:53		NOTE: End EVP script		02-054/08:28:06
20162	MGS	02-054/08:43:57		NOTE: End fixed Sub-Reflector for Radio Science		02-054/08:28:10
20163	MGS	02-054/08:45:22		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-054/08:29:35
20164	MGS	02-054/08:45:22		NOTE: Enter Solar Eclipse 13242		02-054/08:29:35
20165	MGS	02-054/08:48:22	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
20166	MGS	02-054/08:50:23	45	Range Modulation On: SUP=3.0dB		
20167	MGS	02-054/08:51:23	45	Begin Ranging Acquisition		
20168	MGS	02-054/08:55:00	65	Begin Pre-Cal		
20169	MGS	02-054/08:55:00	65	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
20170	MGS	02-054/08:55:00	65	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
20171	MGS	02-054/08:55:00	65	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
20172	MGS	02-054/08:55:00	65	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
20173	MGS	02-054/08:55:00	65	At BOT: S/C Tlm Mode: BR=42666.7, FL=10000, SC=HIGH, MI=80.0		
20174	MGS	02-054/08:55:00	65	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
20175	MGS	02-054/08:55:00	65	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
20176	MGS	02-054/08:55:00	65	Config: TGC: DEST=37		
20177	MGS	02-054/08:55:00	65	Config: TGC: BAND=X, BR=42666.666667		
20178	MGS	02-054/08:55:00	65	Config: FSS: CH=2, PRI_FL=10000		
20179	MGS	02-054/08:55:00	65	Config: RSR		
20180	MGS	02-054/08:55:00	65	Config: TXL		
20181	MGS	02-054/08:55:00	65	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
20182	MGS	02-054/08:55:00	65	Config: BVR		
20183	MGS	02-054/08:55:00	65	Config: Doppler Extractor: BIAS=+1MHZ		
20184	MGS	02-054/08:55:00	65	Config: MDA: SMPL=0.1		
20185	MGS	02-054/08:55:00	65	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
20186	MGS	02-054/08:55:00	65	Config: SRA: HIGH=4, LOW=14, SERV=D		
20187	MGS	02-054/08:55:00	65	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
20188	MGS	02-054/09:10:04		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-054/08:54:17
20189	MGS	02-054/09:10:04		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-054/08:54:17
20190	MGS	02-054/09:10:08		Command the PSE with included data word: 3990	SWPSEL	02-054/08:54:21
20191	MGS	02-054/09:10:09		Set eclipse egress script address: 0158	SWSEES	02-054/08:54:22
20192	MGS	02-054/09:10:41		NOTE: Begin fixed Sub-Reflector for Radio Science		02-054/08:54:54
20193	MGS	02-054/09:14:26		: 01:27:10	RPAONX	02-054/08:58:39
20194	MGS	02-054/09:14:26		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-054/08:58:39
20195	MGS	02-054/09:15:41		: 00:00:30, 00:06:54, FALSE	RDSCIE	02-054/08:59:54
20196	MGS	02-054/09:15:41		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-054/08:59:54
20197	MGS	02-054/09:15:41		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-054/08:59:54
20198	MGS	02-054/09:15:41		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-054/08:59:54
20199	MGS	02-054/09:15:41		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-054/08:59:54
20200	MGS	02-054/09:16:10		NOTE: Exit Earth Occultation 13242		02-054/09:00:23
20201	MGS	02-054/09:16:10	45	Acquisition Of X-Band Signal		
20202	MGS	02-054/09:16:10	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
20203	MGS	02-054/09:16:10	45	NOTE: Carrier Only -- No Telemetry Modulation		
20204	MGS	02-054/09:20:24		NOTE: Exit Planetary Atmosphere 13242		02-054/09:04:37
20205	MGS	02-054/09:22:35		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-054/09:06:48
20206	MGS	02-054/09:22:35		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-054/09:06:48
20207	MGS	02-054/09:22:35		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-054/09:06:48
20208	MGS	02-054/09:22:35		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-054/09:06:48
20209	MGS	02-054/09:22:35		: REC_2B, F42KHZ, PART1, SE_1A, FALSE, 00:10:22	AEMPB	02-054/09:06:48
20210	MGS	02-054/09:22:35		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-054/09:06:48
20211	MGS	02-054/09:22:35		Sends a one-word SSR command to the XSU command SOB: SSR_2B, F42KHZ, PLYBCK, PART1	STSSRC	02-054/09:06:48
20212	MGS	02-054/09:22:35	45	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
20213	MGS	02-054/09:22:36		SSR 2B Data Enable	CSD2BE	02-054/09:06:49
20214	MGS	02-054/09:22:36		SSR Activity: ID=SSR_2B, FCN=Start Playback, PRT=1, BR=42666		02-054/09:06:49
20215	MGS	02-054/09:22:36	45	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
20216	MGS	02-054/09:22:40		NOTE: End fixed Sub-Reflector for Radio Science		02-054/09:06:53
20217	MGS	02-054/09:25:46		NOTE: Exit Solar Eclipse 13242		02-054/09:10:00
20218	MGS	02-054/09:35:00	45	NOTE: Transmitter Off in 15 minutes		
20219	MGS	02-054/09:37:53		NOTE: Periapsis 13243 ----------		02-054/09:22:06
20220	MGS	02-054/09:48:00	45	Range Modulation Off		
20221	MGS	02-054/09:50:00	45	Transmitter Off		
20222	MGS	02-054/09:50:45		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-054/09:34:58
20223	MGS	02-054/09:50:45		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-054/09:34:58
20224	MGS	02-054/09:50:46		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-054/09:34:59
20225	MGS	02-054/09:50:46		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-054/09:34:59
20226	MGS	02-054/09:55:00	65	Begin Tracking		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
20227	MGS	02-054/09:55:00	65	Acquire D/L: X/16, 3-Way/45, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
20228	MGS	02-054/09:58:49	65	NOTE: Above Uplink Interlock Limit		
20229	MGS	02-054/10:03:51	45	NOTE: Below Uplink Interlock Limit		
20230	MGS	02-054/10:12:46		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-054/09:56:59
20231	MGS	02-054/10:12:46		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-054/09:56:59
20232	MGS	02-054/10:15:00	45	End Tracking		
20233	MGS	02-054/10:21:33	65	Acquire D/L: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
20234	MGS	02-054/10:29:58		NOTE: Begin fixed Sub-Reflector for Radio Science		02-054/10:14:11
20235	MGS	02-054/10:30:00	45	End Post-Cal		
20236	MGS	02-054/10:31:14		SSR 2B Data Disable	CSD2BX	02-054/10:15:27
20237	MGS	02-054/10:31:14		SSR Activity: ID=SSR_2B, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-054/10:15:27
20238	MGS	02-054/10:31:14		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-054/10:15:27
20239	MGS	02-054/10:31:14	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
20240	MGS	02-054/10:33:07		NOTE: Start EVP data return script		02-054/10:17:20
20241	MGS	02-054/10:33:07		: SSR_2A, F42KHZ, PART2, 2002-054T11:04:34.000	AEMPBU	02-054/10:17:20
20242	MGS	02-054/10:34:58		: 00:06:37, FALSE	RDSCII	02-054/10:19:11
20243	MGS	02-054/10:34:58		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-054/10:19:11
20244	MGS	02-054/10:34:58		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-054/10:19:11
20245	MGS	02-054/10:34:58		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-054/10:19:11
20246	MGS	02-054/10:34:58		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-054/10:19:11
20247	MGS	02-054/10:34:58	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
20248	MGS	02-054/10:34:58	65	NOTE: Carrier Only -- No Telemetry Modulation		
20249	MGS	02-054/10:36:49		NOTE: Apoapsis 13243 -		02-054/10:21:02
20250	MGS	02-054/10:37:10		NOTE: Enter Planetary Atmosphere 13243		02-054/10:21:23
20251	MGS	02-054/10:41:06		NOTE: Enter Earth Occultation 13243		02-054/10:25:19
20252	MGS	02-054/10:41:06	65	NOTE: Loss Of X-Band Signal		
20253	MGS	02-054/10:41:35		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-054/10:25:48
20254	MGS	02-054/10:41:35		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-054/10:25:48
20255	MGS	02-054/10:41:35		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-054/10:25:48
20256	MGS	02-054/10:41:35		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-054/10:25:48
20257	MGS	02-054/10:41:36		Turn off the MOT Exciter and RPA beam	STRPAF	02-054/10:25:49
20258	MGS	02-054/10:41:36		NOTE: End EVP script		02-054/10:25:49
20259	MGS	02-054/10:41:40		NOTE: End fixed Sub-Reflector for Radio Science		02-054/10:25:53
20260	MGS	02-054/10:43:07		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-054/10:27:20
20261	MGS	02-054/10:43:07		NOTE: Enter Solar Eclipse 13243		02-054/10:27:20
20262	MGS	02-054/10:46:07	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
20263	MGS	02-054/10:48:07	65	Range Modulation On: SUP=3.0dB		
20264	MGS	02-054/10:49:07	65	Begin Ranging Acquisition		
20265	MGS	02-054/11:07:46		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-054/10:51:59
20266	MGS	02-054/11:07:46		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-054/10:51:59
20267	MGS	02-054/11:07:51		Set eclipse egress script address: 019A	SWSEES	02-054/10:52:04
20268	MGS	02-054/11:08:26		NOTE: Begin fixed Sub-Reflector for Radio Science		02-054/10:52:39
20269	MGS	02-054/11:12:11		: 01:27:10	RPAONX	02-054/10:56:24
20270	MGS	02-054/11:12:11		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-054/10:56:24
20271	MGS	02-054/11:13:26		: 00:00:30, 00:06:54, FALSE	RDSCIE	02-054/10:57:39
20272	MGS	02-054/11:13:26		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-054/10:57:39
20273	MGS	02-054/11:13:26		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-054/10:57:39
20274	MGS	02-054/11:13:26		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-054/10:57:39
20275	MGS	02-054/11:13:26		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-054/10:57:39
20276	MGS	02-054/11:13:55		NOTE: Exit Earth Occultation 13243		02-054/10:58:09
20277	MGS	02-054/11:13:55	65	Acquisition Of X-Band Signal		
20278	MGS	02-054/11:13:55	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
20279	MGS	02-054/11:13:55	65	NOTE: Carrier Only -- No Telemetry Modulation		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
20280	MGS	02-054/11:18:08		NOTE: Exit Planetary Atmosphere 13243		02-054/11:02:21
20281	MGS	02-054/11:20:20		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-054/11:04:33
20282	MGS	02-054/11:20:20		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-054/11:04:33
20283	MGS	02-054/11:20:20		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-054/11:04:33
20284	MGS	02-054/11:20:20		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-054/11:04:33
20285	MGS	02-054/11:20:20		: REC_2A, F42KHZ, PART2, SE_1A, FALSE, 00:10:22	AEMPB	02-054/11:04:33
20286	MGS	02-054/11:20:20		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-054/11:04:33
20287	MGS	02-054/11:20:20		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, PLYBCK, PART2	STSSRC	02-054/11:04:33
20288	MGS	02-054/11:20:20	65	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
20289	MGS	02-054/11:20:21		SSR 2A Data Enable	CSD2AE	02-054/11:04:34
20290	MGS	02-054/11:20:21		SSR Activity: ID=SSR_2A, FCN=Start Playback, PRT=2, BR=42666		02-054/11:04:34
20291	MGS	02-054/11:20:21	65	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
20292	MGS	02-054/11:20:25		NOTE: End fixed Sub-Reflector for Radio Science		02-054/11:04:38
20293	MGS	02-054/11:22:25		NOTE: Start Block (SSRMGR)		02-054/11:06:38
20294	MGS	02-054/11:22:25		Sends a one-word SSR command to the XSU command SOB: SSR_1A, SE_1A, RECORD, PART2	STSSRC	02-054/11:06:38
20295	MGS	02-054/11:22:26		SSR 1A Data Enable	CSD1AE	02-054/11:06:39
20296	MGS	02-054/11:22:26		SSR Activity: ID=SSR_1A, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-054/11:06:39
20297	MGS	02-054/11:23:32		NOTE: Exit Solar Eclipse 13243		02-054/11:07:45
20298	MGS	02-054/11:36:04		NOTE: Periapsis 13244 ----------		02-054/11:20:17
20299	MGS	02-054/11:44:31		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-054/11:28:44
20300	MGS	02-054/11:44:31		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-054/11:28:44
20301	MGS	02-054/11:44:32		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-054/11:28:45
20302	MGS	02-054/11:44:32		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-054/11:28:45
20303	MGS	02-054/11:48:34	65	NOTE: Transmitter Off in 15 minutes		
20304	MGS	02-054/11:49:06		SSR 1B Data Disable	CSD1BX	02-054/11:33:19
20305	MGS	02-054/11:49:06		SSR Activity: ID=SSR_1B, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-054/11:33:19
20306	MGS	02-054/11:49:07		NOTE: End Block (SSRMGR)		02-054/11:33:20
20307	MGS	02-054/12:01:34	65	Range Modulation Off		
20308	MGS	02-054/12:03:34	65	Transmitter Off		
20309	MGS	02-054/12:06:32		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-054/11:50:45
20310	MGS	02-054/12:06:32		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-054/11:50:45
20311	MGS	02-054/12:15:46		Dump SCP memory to the EDF using physical addressing arguments: 56A4, 240	SCDSCM	02-054/11:59:59
20312	MGS	02-054/12:27:43		NOTE: Begin fixed Sub-Reflector for Radio Science		02-054/12:11:56
20313	MGS	02-054/12:28:59		SSR 2A Data Disable	CSD2AX	02-054/12:13:12
20314	MGS	02-054/12:28:59		SSR Activity: ID=SSR_2A, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-054/12:13:12
20315	MGS	02-054/12:28:59		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-054/12:13:12
20316	MGS	02-054/12:28:59	65	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
20317	MGS	02-054/12:30:53		NOTE: Start EVP data return script		02-054/12:15:06
20318	MGS	02-054/12:30:53		: SSR_2B, F42KHZ, PART2, 2002-054T13:02:20.000	AEMPBU	02-054/12:15:06
20319	MGS	02-054/12:32:43		: 00:06:37, FALSE	RDSCII	02-054/12:16:56
20320	MGS	02-054/12:32:43		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-054/12:16:56
20321	MGS	02-054/12:32:43		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-054/12:16:56
20322	MGS	02-054/12:32:43		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-054/12:16:56
20323	MGS	02-054/12:32:43		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-054/12:16:56
20324	MGS	02-054/12:32:43	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
20325	MGS	02-054/12:32:43	65	NOTE: Carrier Only -- No Telemetry Modulation		
20326	MGS	02-054/12:34:57		NOTE: Enter Planetary Atmosphere 13244		02-054/12:19:10
20327	MGS	02-054/12:35:08		NOTE: Apoapsis 13244 -		02-054/12:19:21
20328	MGS	02-054/12:38:53		NOTE: Enter Earth Occultation 13244		02-054/12:23:05
20329	MGS	02-054/12:38:53	65	NOTE: Loss Of X-Band Signal		
20330	MGS	02-054/12:39:20		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-054/12:23:33
20331	MGS	02-054/12:39:20		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-054/12:23:33
20332	MGS	02-054/12:39:20		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-054/12:23:33
20333	MGS	02-054/12:39:20		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-054/12:23:33

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
20334	MGS	02-054/12:39:21		Turn off the MOT Exciter and RPA beam	STRPAF	02-054/12:23:34
20335	MGS	02-054/12:39:21		NOTE: End EVP script		02-054/12:23:34
20336	MGS	02-054/12:39:25		NOTE: End fixed Sub-Reflector for Radio Science		02-054/12:23:38
20337	MGS	02-054/12:40:53		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-054/12:25:06
20338	MGS	02-054/12:40:54		NOTE: Enter Solar Eclipse 13244		02-054/12:25:07
20339	MGS	02-054/12:43:54	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
20340	MGS	02-054/12:45:54	65	Range Modulation On: SUP=3.0dB		
20341	MGS	02-054/12:46:54	65	Begin Ranging Acquisition		
20342	MGS	02-054/13:05:32		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-054/12:49:45
20343	MGS	02-054/13:05:32		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-054/12:49:45
20344	MGS	02-054/13:05:37		Set eclipse egress script address: 01DC	SWSEES	02-054/12:49:50
20345	MGS	02-054/13:06:12		NOTE: Begin fixed Sub-Reflector for Radio Science		02-054/12:50:25
20346	MGS	02-054/13:09:57		: 01:27:10	RPAONX	02-054/12:54:10
20347	MGS	02-054/13:09:57		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-054/12:54:10
20348	MGS	02-054/13:11:12		: 00:00:30, 00:06:54, FALSE	RDSCIE	02-054/12:55:25
20349	MGS	02-054/13:11:12		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-054/12:55:25
20350	MGS	02-054/13:11:12		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-054/12:55:25
20351	MGS	02-054/13:11:12		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-054/12:55:25
20352	MGS	02-054/13:11:12		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-054/12:55:25
20353	MGS	02-054/13:11:42		Disables autonomous command to send eclipse ingress script	SWEISX	02-054/12:55:55
20354	MGS	02-054/13:11:43		NOTE: Exit Earth Occultation 13244		02-054/12:55:56
20355	MGS	02-054/13:11:43	65	Acquisition Of X-Band Signal		
20356	MGS	02-054/13:11:43	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
20357	MGS	02-054/13:11:43	65	NOTE: Carrier Only -- No Telemetry Modulation		
20358	MGS	02-054/13:15:56		NOTE: Exit Planetary Atmosphere 13244		02-054/13:00:09
20359	MGS	02-054/13:18:06		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-054/13:02:19
20360	MGS	02-054/13:18:06		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-054/13:02:19
20361	MGS	02-054/13:18:06		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-054/13:02:19
20362	MGS	02-054/13:18:06		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-054/13:02:19
20363	MGS	02-054/13:18:06		: REC_2B, F42KHZ, PART2, SE_1A, FALSE, 00:10:22	AEMPB	02-054/13:02:19
20364	MGS	02-054/13:18:06		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-054/13:02:19
20365	MGS	02-054/13:18:06		Sends a one-word SSR command to the XSU command SOB: SSR_2B, F42KHZ, PLYBCK, PART2	STSSRC	02-054/13:02:19
20366	MGS	02-054/13:18:06	65	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
20367	MGS	02-054/13:18:07		SSR 2B Data Enable	CSD2BE	02-054/13:02:20
20368	MGS	02-054/13:18:07		SSR Activity: ID=SSR_2B, FCN=Start Playback, PRT=2, BR=42666		02-054/13:02:20
20369	MGS	02-054/13:18:07	65	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
20370	MGS	02-054/13:18:12		NOTE: End fixed Sub-Reflector for Radio Science		02-054/13:02:24
20371	MGS	02-054/13:21:19		NOTE: Exit Solar Eclipse 13244		02-054/13:05:32
20372	MGS	02-054/13:34:11		NOTE: Periapsis 13245 ----------		02-054/13:18:24
20373	MGS	02-054/13:42:19		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-054/13:26:31
20374	MGS	02-054/13:42:19		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-054/13:26:31
20375	MGS	02-054/13:42:20		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-054/13:26:32
20376	MGS	02-054/13:42:20		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-054/13:26:32
20377	MGS	02-054/13:46:21	65	NOTE: Transmitter Off in 15 minutes		
20378	MGS	02-054/13:59:21	65	Range Modulation Off		
20379	MGS	02-054/14:01:21	65	Transmitter Off		
20380	MGS	02-054/14:04:20		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-054/13:48:32
20381	MGS	02-054/14:04:20		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-054/13:48:32
20382	MGS	02-054/14:25:30		NOTE: Begin fixed Sub-Reflector for Radio Science		02-054/14:09:42
20383	MGS	02-054/14:26:46		SSR 2B Data Disable	CSD2BX	02-054/14:10:58
20384	MGS	02-054/14:26:46		SSR Activity: ID=SSR_2B, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-054/14:10:58
20385	MGS	02-054/14:26:46		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-054/14:10:58
20386	MGS	02-054/14:26:46	65	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
20387	MGS	02-054/14:28:40		NOTE: Start Block (MAP_RT)		02-054/14:12:52

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
20388	MGS	02-054/14:28:41		: 00:29:04, 01:27:09, FALSE, TRUE, FALSE, 00:01:15, 00:06:54, 01:12:22, 00:06:37	AEMINI	02-054/14:12:53
20389	MGS	02-054/14:28:41		Enable sending eclipse ingress script when array power disappears	SWEISE	02-054/14:12:53
20390	MGS	02-054/14:28:41		NOTE: Start EVP data return script		02-054/14:12:53
20391	MGS	02-054/14:28:42		: SE_2A, RTM, 01:12:21, MRC, 2002-054T15:00:08.000	AEMRTI	02-054/14:12:54
20392	MGS	02-054/14:30:30		: 00:06:37, FALSE	RDSCII	02-054/14:14:42
20393	MGS	02-054/14:30:30		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-054/14:14:42
20394	MGS	02-054/14:30:30		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-054/14:14:42
20395	MGS	02-054/14:30:30		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-054/14:14:42
20396	MGS	02-054/14:30:30		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-054/14:14:42
20397	MGS	02-054/14:30:30	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
20398	MGS	02-054/14:30:30	65	NOTE: Carrier Only -- No Telemetry Modulation		
20399	MGS	02-054/14:32:44		NOTE: Enter Planetary Atmosphere 13245		02-054/14:16:57
20400	MGS	02-054/14:33:10		NOTE: Apoapsis 13245 -		02-054/14:17:23
20401	MGS	02-054/14:36:40		NOTE: Enter Earth Occultation 13245		02-054/14:20:53
20402	MGS	02-054/14:36:40	65	NOTE: Loss Of X-Band Signal		
20403	MGS	02-054/14:37:07		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-054/14:21:19
20404	MGS	02-054/14:37:07		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-054/14:21:19
20405	MGS	02-054/14:37:07		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-054/14:21:19
20406	MGS	02-054/14:37:07		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-054/14:21:19
20407	MGS	02-054/14:37:08		Turn off the MOT Exciter and RPA beam	STRPAF	02-054/14:21:20
20408	MGS	02-054/14:37:08		NOTE: End EVP script		02-054/14:21:20
20409	MGS	02-054/14:37:09		NOTE: End Block (MAP_PB)		02-054/14:21:21
20410	MGS	02-054/14:37:12		NOTE: End fixed Sub-Reflector for Radio Science		02-054/14:21:24
20411	MGS	02-054/14:38:41		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-054/14:22:53
20412	MGS	02-054/14:38:41		NOTE: Enter Solar Eclipse 13245		02-054/14:22:53
20413	MGS	02-054/14:41:41	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
20414	MGS	02-054/14:43:42	65	Range Modulation On: SUP=3.0dB		
20415	MGS	02-054/14:44:42	65	Begin Ranging Acquisition		
20416	MGS	02-054/15:03:20		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-054/14:47:32
20417	MGS	02-054/15:03:20		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-054/14:47:32
20418	MGS	02-054/15:03:24		Command the PSE with included data word: 3990	SWPSEL	02-054/14:47:36
20419	MGS	02-054/15:03:25		Set eclipse egress script address: 0158	SWSEES	02-054/14:47:37
20420	MGS	02-054/15:04:00		NOTE: Begin fixed Sub-Reflector for Radio Science		02-054/14:48:12
20421	MGS	02-054/15:07:45		: 01:27:09	RPAONX	02-054/14:51:57
20422	MGS	02-054/15:07:45		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-054/14:51:57
20423	MGS	02-054/15:09:00		: 00:00:30, 00:06:54, FALSE	RDSCIE	02-054/14:53:12
20424	MGS	02-054/15:09:00		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-054/14:53:12
20425	MGS	02-054/15:09:00		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-054/14:53:12
20426	MGS	02-054/15:09:00		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-054/14:53:12
20427	MGS	02-054/15:09:00		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-054/14:53:12
20428	MGS	02-054/15:09:31		NOTE: Exit Earth Occultation 13245		02-054/14:53:43
20429	MGS	02-054/15:09:31	65	Acquisition Of X-Band Signal		
20430	MGS	02-054/15:09:31	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
20431	MGS	02-054/15:09:31	65	NOTE: Carrier Only -- No Telemetry Modulation		
20432	MGS	02-054/15:13:44		NOTE: Exit Planetary Atmosphere 13245		02-054/14:57:57
20433	MGS	02-054/15:15:54		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-054/15:00:06
20434	MGS	02-054/15:15:54		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-054/15:00:06
20435	MGS	02-054/15:15:54		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-054/15:00:06
20436	MGS	02-054/15:15:54		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-054/15:00:06
20437	MGS	02-054/15:15:54	65	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
20438	MGS	02-054/15:15:55		: RTM, MRC, 01:12:21, S&E_2A, FALSE, 00:06:38	AEMRT	02-054/15:00:07
20439	MGS	02-054/15:15:55		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-054/15:00:07
20440	MGS	02-054/15:15:55		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-054/15:00:07
20441	MGS	02-054/15:15:55	65	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
20442	MGS	02-054/15:15:59		NOTE: End fixed Sub-Reflector for Radio Science		02-054/15:00:11
20443	MGS	02-054/15:19:06		NOTE: Exit Solar Eclipse 13245		02-054/15:03:19
20444	MGS	02-054/15:31:58		NOTE: Periapsis 13246 ----------		02-054/15:16:10
20445	MGS	02-054/15:44:05		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-054/15:28:17
20446	MGS	02-054/15:44:05		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-054/15:28:17
20447	MGS	02-054/15:44:05	65	NOTE: Transmitter Off in 15 minutes		
20448	MGS	02-054/15:44:06		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-054/15:28:18
20449	MGS	02-054/15:44:06		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-054/15:28:18
20450	MGS	02-054/15:57:06	65	Range Modulation Off		
20451	MGS	02-054/15:59:05	65	Transmitter Off		
20452	MGS	02-054/16:06:06		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-054/15:50:18
20453	MGS	02-054/16:06:06		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-054/15:50:18
20454	MGS	02-054/16:23:16		NOTE: Begin fixed Sub-Reflector for Radio Science		02-054/16:07:28
20455	MGS	02-054/16:26:25		NOTE: Start EVP data return script		02-054/16:10:37
20456	MGS	02-054/16:28:16		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-054/16:12:28
20457	MGS	02-054/16:28:16		: 00:06:37, FALSE	RDSCII	02-054/16:12:28
20458	MGS	02-054/16:28:16		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-054/16:12:28
20459	MGS	02-054/16:28:16		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-054/16:12:28
20460	MGS	02-054/16:28:16		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-054/16:12:28
20461	MGS	02-054/16:28:16		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-054/16:12:28
20462	MGS	02-054/16:28:16	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
20463	MGS	02-054/16:28:16	65	NOTE: Carrier Only -- No Telemetry Modulation		
20464	MGS	02-054/16:30:29		NOTE: Enter Planetary Atmosphere 13246		02-054/16:14:42
20465	MGS	02-054/16:30:40		NOTE: Apoapsis 13246 -		02-054/16:14:53
20466	MGS	02-054/16:34:25		NOTE: Enter Earth Occultation 13246		02-054/16:18:38
20467	MGS	02-054/16:34:25	65	NOTE: Loss Of X-Band Signal		
20468	MGS	02-054/16:34:53		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-054/16:19:05
20469	MGS	02-054/16:34:53		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-054/16:19:05
20470	MGS	02-054/16:34:53		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-054/16:19:05
20471	MGS	02-054/16:34:53		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-054/16:19:05
20472	MGS	02-054/16:34:54		Turn off the MOT Exciter and RPA beam	STRPAF	02-054/16:19:06
20473	MGS	02-054/16:34:54		NOTE: End EVP script		02-054/16:19:06
20474	MGS	02-054/16:34:58		NOTE: End fixed Sub-Reflector for Radio Science		02-054/16:19:10
20475	MGS	02-054/16:36:25		NOTE: Enter Solar Eclipse 13246		02-054/16:20:37
20476	MGS	02-054/16:36:25		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-054/16:20:37
20477	MGS	02-054/16:39:25	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
20478	MGS	02-054/16:41:26	65	Range Modulation On: SUP=3.0dB		
20479	MGS	02-054/16:42:26	65	Begin Ranging Acquisition		
20480	MGS	02-054/16:55:46		NOTE: Start Block (SSRMGR)		02-054/16:39:58
20481	MGS	02-054/16:55:46		Sends a one-word SSR command to the XSU command SOB: SSR_1B, SE_1A, RECORD, PART2	STSSRC	02-054/16:39:58
20482	MGS	02-054/16:55:47		SSR 1B Data Enable	CSD1BE	02-054/16:39:59
20483	MGS	02-054/16:55:47		SSR Activity: ID=SSR_1B, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-054/16:39:59
20484	MGS	02-054/17:01:06		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-054/16:45:18
20485	MGS	02-054/17:01:06		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-054/16:45:18
20486	MGS	02-054/17:01:11		Set eclipse egress script address: 019A	SWSEES	02-054/16:45:23
20487	MGS	02-054/17:01:44		NOTE: Begin fixed Sub-Reflector for Radio Science		02-054/16:45:56
20488	MGS	02-054/17:05:29		: 01:27:09	RPAONX	02-054/16:49:41
20489	MGS	02-054/17:05:29		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-054/16:49:41
20490	MGS	02-054/17:06:44		: 00:00:30, 00:06:54, FALSE	RDSCIE	02-054/16:50:56
20491	MGS	02-054/17:06:44		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-054/16:50:56
20492	MGS	02-054/17:06:44		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-054/16:50:56
20493	MGS	02-054/17:06:44		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-054/16:50:56
20494	MGS	02-054/17:06:44		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-054/16:50:56
20495	MGS	02-054/17:07:16		NOTE: Exit Earth Occultation 13246		02-054/16:51:28

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
20496	MGS	02-054/17:07:16	65	Acquisition Of X-Band Signal		
20497	MGS	02-054/17:07:16	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
20498	MGS	02-054/17:07:16	65	NOTE: Carrier Only -- No Telemetry Modulation		
20499	MGS	02-054/17:11:30		NOTE: Exit Planetary Atmosphere 13246		02-054/16:55:42
20500	MGS	02-054/17:13:38		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-054/16:57:50
20501	MGS	02-054/17:13:38		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-054/16:57:50
20502	MGS	02-054/17:13:38		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-054/16:57:50
20503	MGS	02-054/17:13:38		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-054/16:57:50
20504	MGS	02-054/17:13:38	65	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
20505	MGS	02-054/17:13:39		: RTM, MRC, 01:12:21, S&E_2A, FALSE, 00:06:38	AEMRT	02-054/16:57:51
20506	MGS	02-054/17:13:39		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-054/16:57:51
20507	MGS	02-054/17:13:39		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-054/16:57:51
20508	MGS	02-054/17:13:39		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=2, BITS=8576000, DUR=00:17:52		02-054/16:57:51
20509	MGS	02-054/17:13:39		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-054/16:57:51
20510	MGS	02-054/17:13:39	65	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
20511	MGS	02-054/17:13:43		NOTE: End fixed Sub-Reflector for Radio Science		02-054/16:57:55
20512	MGS	02-054/17:16:50		NOTE: Exit Solar Eclipse 13246		02-054/17:01:02
20513	MGS	02-054/17:22:27		SSR 1A Data Disable	CSD1AX	02-054/17:06:39
20514	MGS	02-054/17:22:27		SSR Activity: ID=SSR_1A, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-054/17:06:39
20515	MGS	02-054/17:22:28		NOTE: End Block (SSRMGR)		02-054/17:06:40
20516	MGS	02-054/17:29:20		NOTE: Periapsis 13247 ----------		02-054/17:13:32
20517	MGS	02-054/17:37:49		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-054/17:22:01
20518	MGS	02-054/17:37:49		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-054/17:22:01
20519	MGS	02-054/17:37:50		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-054/17:22:02
20520	MGS	02-054/17:37:50		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-054/17:22:02
20521	MGS	02-054/17:41:45	65	NOTE: Transmitter Off in 15 minutes		
20522	MGS	02-054/17:54:45	65	Range Modulation Off		
20523	MGS	02-054/17:56:45	65	Transmitter Off		
20524	MGS	02-054/17:59:50		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-054/17:44:02
20525	MGS	02-054/17:59:50		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-054/17:44:02
20526	MGS	02-054/18:21:00		NOTE: Begin fixed Sub-Reflector for Radio Science		02-054/18:05:12
20527	MGS	02-054/18:24:05		NOTE: Start EVP data return script		02-054/18:08:17
20528	MGS	02-054/18:26:00		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-054/18:10:12
20529	MGS	02-054/18:26:00		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=2, BITS=43304000, DUR=01:12:21		02-054/18:10:12
20530	MGS	02-054/18:26:00		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-054/18:10:12
20531	MGS	02-054/18:26:00		: 00:06:37, FALSE	RDSCII	02-054/18:10:12
20532	MGS	02-054/18:26:00		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-054/18:10:12
20533	MGS	02-054/18:26:00		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-054/18:10:12
20534	MGS	02-054/18:26:00		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-054/18:10:12
20535	MGS	02-054/18:26:00		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-054/18:10:12
20536	MGS	02-054/18:26:00	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
20537	MGS	02-054/18:26:00	65	NOTE: Carrier Only -- No Telemetry Modulation		
20538	MGS	02-054/18:28:02		NOTE: Apoapsis 13247 -		02-054/18:12:14
20539	MGS	02-054/18:28:09		NOTE: Enter Planetary Atmosphere 13247		02-054/18:12:21
20540	MGS	02-054/18:32:05		NOTE: Enter Earth Occultation 13247		02-054/18:16:17
20541	MGS	02-054/18:32:05	65	NOTE: Loss Of X-Band Signal		
20542	MGS	02-054/18:32:37		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-054/18:16:49
20543	MGS	02-054/18:32:37		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-054/18:16:49
20544	MGS	02-054/18:32:37		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-054/18:16:49
20545	MGS	02-054/18:32:37		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-054/18:16:49
20546	MGS	02-054/18:32:38		Turn off the MOT Exciter and RPA beam	STRPAF	02-054/18:16:50
20547	MGS	02-054/18:32:38		NOTE: End EVP script		02-054/18:16:50
20548	MGS	02-054/18:32:42		NOTE: End fixed Sub-Reflector for Radio Science		02-054/18:16:54
20549	MGS	02-054/18:34:05		NOTE: Enter Solar Eclipse 13247		02-054/18:18:17

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
20550	MGS	02-054/18:34:05		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-054/18:18:17
20551	MGS	02-054/18:37:05	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
20552	MGS	02-054/18:39:06	65	Range Modulation On: SUP=3.0dB		
20553	MGS	02-054/18:40:06	65	Begin Ranging Acquisition		
20554	MGS	02-054/18:58:50		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-054/18:43:02
20555	MGS	02-054/18:58:50		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-054/18:43:02
20556	MGS	02-054/18:58:55		Set eclipse egress script address: 01DC	SWSEES	02-054/18:43:07
20557	MGS	02-054/18:59:24		NOTE: Begin fixed Sub-Reflector for Radio Science		02-054/18:43:36
20558	MGS	02-054/19:03:09		: 01:27:09	RPAONX	02-054/18:47:21
20559	MGS	02-054/19:03:09		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-054/18:47:21
20560	MGS	02-054/19:04:24		: 00:00:30, 00:06:54, FALSE	RDSCIE	02-054/18:48:36
20561	MGS	02-054/19:04:24		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-054/18:48:36
20562	MGS	02-054/19:04:24		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-054/18:48:36
20563	MGS	02-054/19:04:24		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-054/18:48:36
20564	MGS	02-054/19:04:24		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-054/18:48:36
20565	MGS	02-054/19:04:56		NOTE: Exit Earth Occultation 13247		02-054/18:49:08
20566	MGS	02-054/19:04:56	65	Acquisition Of X-Band Signal		
20567	MGS	02-054/19:04:56	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
20568	MGS	02-054/19:04:56	65	NOTE: Carrier Only -- No Telemetry Modulation		
20569	MGS	02-054/19:09:10		NOTE: Exit Planetary Atmosphere 13247		02-054/18:53:22
20570	MGS	02-054/19:11:18		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-054/18:55:30
20571	MGS	02-054/19:11:18		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-054/18:55:30
20572	MGS	02-054/19:11:18		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-054/18:55:30
20573	MGS	02-054/19:11:18		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-054/18:55:30
20574	MGS	02-054/19:11:18	65	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
20575	MGS	02-054/19:11:19		: RTM, MRC, 01:12:21, S&E_2A, FALSE, 00:06:38	AEMRT	02-054/18:55:31
20576	MGS	02-054/19:11:19		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-054/18:55:31
20577	MGS	02-054/19:11:19		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-054/18:55:31
20578	MGS	02-054/19:11:19		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=2, BITS=65056000, DUR=00:45:19		02-054/18:55:31
20579	MGS	02-054/19:11:19		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-054/18:55:31
20580	MGS	02-054/19:11:19	65	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
20581	MGS	02-054/19:11:23		NOTE: End fixed Sub-Reflector for Radio Science		02-054/18:55:35
20582	MGS	02-054/19:14:30		NOTE: Exit Solar Eclipse 13247		02-054/18:58:42
20583	MGS	02-054/19:26:46		NOTE: Periapsis 13248 ----------		02-054/19:10:58
20584	MGS	02-054/19:35:28		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-054/19:19:40
20585	MGS	02-054/19:35:28		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-054/19:19:40
20586	MGS	02-054/19:35:29		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-054/19:19:41
20587	MGS	02-054/19:35:29		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-054/19:19:41
20588	MGS	02-054/19:39:25	65	NOTE: Transmitter Off in 15 minutes		
20589	MGS	02-054/19:50:00	25	Begin Pre-Cal		
20590	MGS	02-054/19:50:00	25	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
20591	MGS	02-054/19:50:00	25	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
20592	MGS	02-054/19:50:00	25	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
20593	MGS	02-054/19:50:00	25	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=OFF, EXC=2		
20594	MGS	02-054/19:50:00	25	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
20595	MGS	02-054/19:50:00	25	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
20596	MGS	02-054/19:50:00	25	Config: TGC: DEST=37		
20597	MGS	02-054/19:50:00	25	Config: TGC: BAND=X, BR=0.000000		
20598	MGS	02-054/19:50:00	25	Config: FSS: CH=2, PRI_FL=10000		
20599	MGS	02-054/19:50:00	25	Config: RSR		
20600	MGS	02-054/19:50:00	25	Config: TXL		
20601	MGS	02-054/19:50:00	25	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
20602	MGS	02-054/19:50:00	25	Config: BVR		
20603	MGS	02-054/19:50:00	25	Config: Doppler Extractor: BIAS=+1MHZ		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
20604	MGS	02-054/19:50:00	25	Config: MDA: SMPL=0.1		
20605	MGS	02-054/19:50:00	25	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
20606	MGS	02-054/19:50:00	25	Config: SRA: HIGH=4, LOW=14, SERV=D		
20607	MGS	02-054/19:50:00	25	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
20608	MGS	02-054/19:52:26	65	Range Modulation Off		
20609	MGS	02-054/19:54:25	65	Transmitter Off		
20610	MGS	02-054/19:57:29		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-054/19:41:41
20611	MGS	02-054/19:57:29		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-054/19:41:41
20612	MGS	02-054/20:18:41		NOTE: Begin fixed Sub-Reflector for Radio Science		02-054/20:02:52
20613	MGS	02-054/20:21:47		NOTE: Start EVP data return script		02-054/20:05:58
20614	MGS	02-054/20:23:41		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-054/20:07:52
20615	MGS	02-054/20:23:41		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=2, BITS=99784000, DUR=01:12:21		02-054/20:07:52
20616	MGS	02-054/20:23:41		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-054/20:07:52
20617	MGS	02-054/20:23:41		: 00:06:37, FALSE	RDSCII	02-054/20:07:52
20618	MGS	02-054/20:23:41		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-054/20:07:52
20619	MGS	02-054/20:23:41		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-054/20:07:52
20620	MGS	02-054/20:23:41		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-054/20:07:52
20621	MGS	02-054/20:23:41		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-054/20:07:52
20622	MGS	02-054/20:23:41	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
20623	MGS	02-054/20:23:41	65	NOTE: Carrier Only -- No Telemetry Modulation		
20624	MGS	02-054/20:25:47		NOTE: Apoapsis 13248 -		02-054/20:09:59
20625	MGS	02-054/20:25:51		NOTE: Enter Planetary Atmosphere 13248		02-054/20:10:02
20626	MGS	02-054/20:29:46		NOTE: Enter Earth Occultation 13248		02-054/20:13:58
20627	MGS	02-054/20:29:46	65	NOTE: Loss Of X-Band Signal		
20628	MGS	02-054/20:30:18		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-054/20:14:29
20629	MGS	02-054/20:30:18		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-054/20:14:29
20630	MGS	02-054/20:30:18		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-054/20:14:29
20631	MGS	02-054/20:30:18		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-054/20:14:29
20632	MGS	02-054/20:30:19		Turn off the MOT Exciter and RPA beam	STRPAF	02-054/20:14:30
20633	MGS	02-054/20:30:19		NOTE: End EVP script		02-054/20:14:30
20634	MGS	02-054/20:30:23		NOTE: End fixed Sub-Reflector for Radio Science		02-054/20:14:34
20635	MGS	02-054/20:31:47		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-054/20:15:58
20636	MGS	02-054/20:31:47		NOTE: Enter Solar Eclipse 13248		02-054/20:15:59
20637	MGS	02-054/20:34:46	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
20638	MGS	02-054/20:36:47	65	Range Modulation On: SUP=3.0dB		
20639	MGS	02-054/20:37:47	65	Begin Ranging Acquisition		
20640	MGS	02-054/20:50:00	25	Begin Tracking		
20641	MGS	02-054/20:56:30		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-054/20:40:41
20642	MGS	02-054/20:56:30		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-054/20:40:41
20643	MGS	02-054/20:56:34		Command the PSE with included data word: 3990	SWPSEL	02-054/20:40:45
20644	MGS	02-054/20:56:35		Set eclipse egress script address: 0158	SWSEES	02-054/20:40:46
20645	MGS	02-054/20:57:06		NOTE: Begin fixed Sub-Reflector for Radio Science		02-054/20:41:17
20646	MGS	02-054/20:58:00	65	Range Modulation Off		
20647	MGS	02-054/21:00:00	25	U/L Transfer From DSS-65 to DSS-25: PWR=4.0, BR=125.0, CS=5.82dB		
20648	MGS	02-054/21:00:51		: 01:27:09	RPAONX	02-054/20:45:02
20649	MGS	02-054/21:00:51		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-054/20:45:02
20650	MGS	02-054/21:02:00	25	Range Modulation On: SUP=3.0dB		
20651	MGS	02-054/21:02:06		: 00:00:30, 00:06:54, FALSE	RDSCIE	02-054/20:46:17
20652	MGS	02-054/21:02:06		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-054/20:46:17
20653	MGS	02-054/21:02:06		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-054/20:46:17
20654	MGS	02-054/21:02:06		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-054/20:46:17
20655	MGS	02-054/21:02:06		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-054/20:46:17
20656	MGS	02-054/21:02:38		NOTE: Exit Earth Occultation 13248		02-054/20:46:49
20657	MGS	02-054/21:02:38	25	Acquisition Of X-Band Signal		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
20658	MGS	02-054/21:02:38	25	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
20659	MGS	02-054/21:02:38	25	NOTE: Carrier Only -- No Telemetry Modulation		
20660	MGS	02-054/21:02:38	65	Acquisition Of X-Band Signal		
20661	MGS	02-054/21:02:38	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
20662	MGS	02-054/21:02:38	65	NOTE: Carrier Only -- No Telemetry Modulation		
20663	MGS	02-054/21:03:00	25	Begin Ranging Acquisition		
20664	MGS	02-054/21:06:51		NOTE: Exit Planetary Atmosphere 13248		02-054/20:51:02
20665	MGS	02-054/21:09:00		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-054/20:53:11
20666	MGS	02-054/21:09:00		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-054/20:53:11
20667	MGS	02-054/21:09:00		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-054/20:53:11
20668	MGS	02-054/21:09:00		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-054/20:53:11
20669	MGS	02-054/21:09:00	25	Acquire D/L: X/16, 3-Way/65, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
20670	MGS	02-054/21:09:00	65	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
20671	MGS	02-054/21:09:01		: RTM, MRC, 01:12:21, S&E_2A, FALSE, 00:06:38	AEMRT	02-054/20:53:12
20672	MGS	02-054/21:09:01		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-054/20:53:12
20673	MGS	02-054/21:09:01		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-054/20:53:12
20674	MGS	02-054/21:09:01		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=2, BITS=121544000, DUR=00:45:20		02-054/20:53:12
20675	MGS	02-054/21:09:01		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-054/20:53:12
20676	MGS	02-054/21:09:01	25	D/L Change: X/16, 3-Way/65, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
20677	MGS	02-054/21:09:01	65	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
20678	MGS	02-054/21:09:05		NOTE: End fixed Sub-Reflector for Radio Science		02-054/20:53:16
20679	MGS	02-054/21:10:00	65	End Tracking		
20680	MGS	02-054/21:12:12		NOTE: Exit Solar Eclipse 13248		02-054/20:56:23
20681	MGS	02-054/21:24:31		NOTE: Periapsis 13249 ----------		02-054/21:08:43
20682	MGS	02-054/21:25:00	65	End Post-Cal		
20683	MGS	02-054/21:31:36	25	Acquire D/L: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
20684	MGS	02-054/21:37:11		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-054/21:21:22
20685	MGS	02-054/21:37:11		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-054/21:21:22
20686	MGS	02-054/21:37:11	25	NOTE: Transmitter Off in 15 minutes		
20687	MGS	02-054/21:37:12		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-054/21:21:23
20688	MGS	02-054/21:37:12		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-054/21:21:23
20689	MGS	02-054/21:50:12	25	Range Modulation Off		
20690	MGS	02-054/21:52:11	25	Transmitter Off		
20691	MGS	02-054/21:59:12		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-054/21:43:23
20692	MGS	02-054/21:59:12		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-054/21:43:23
20693	MGS	02-054/22:16:22		NOTE: Begin fixed Sub-Reflector for Radio Science		02-054/22:00:33
20694	MGS	02-054/22:19:34		NOTE: Start EVP data return script		02-054/22:03:45
20695	MGS	02-054/22:21:22		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-054/22:05:33
20696	MGS	02-054/22:21:22		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=2, BITS=156272000, DUR=01:12:21		02-054/22:05:33
20697	MGS	02-054/22:21:22		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-054/22:05:33
20698	MGS	02-054/22:21:22		: 00:06:37, FALSE	RDSCII	02-054/22:05:33
20699	MGS	02-054/22:21:22		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-054/22:05:33
20700	MGS	02-054/22:21:22		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-054/22:05:33
20701	MGS	02-054/22:21:22		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-054/22:05:33
20702	MGS	02-054/22:21:22		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-054/22:05:33
20703	MGS	02-054/22:21:22	25	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
20704	MGS	02-054/22:21:22	25	NOTE: Carrier Only -- No Telemetry Modulation		
20705	MGS	02-054/22:23:38		NOTE: Enter Planetary Atmosphere 13249		02-054/22:07:49
20706	MGS	02-054/22:23:38		NOTE: Apoapsis 13249 -		02-054/22:07:49
20707	MGS	02-054/22:27:33		NOTE: Enter Earth Occultation 13249		02-054/22:11:44
20708	MGS	02-054/22:27:33	25	NOTE: Loss Of X-Band Signal		
20709	MGS	02-054/22:27:59		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-054/22:12:10
20710	MGS	02-054/22:27:59		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-054/22:12:10
20711	MGS	02-054/22:27:59		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-054/22:12:10

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
20712	MGS	02-054/22:27:59		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-054/22:12:10
20713	MGS	02-054/22:28:00		Turn off the MOT Exciter and RPA beam	STRPAF	02-054/22:12:11
20714	MGS	02-054/22:28:00		NOTE: End EVP script		02-054/22:12:11
20715	MGS	02-054/22:28:04		NOTE: End fixed Sub-Reflector for Radio Science		02-054/22:12:15
20716	MGS	02-054/22:29:07		NOTE: Start Block (SSRMGR)		02-054/22:13:18
20717	MGS	02-054/22:29:07		Sends a one-word SSR command to the XSU command SOB: SSR_1A, SE_1A, RECORD, PART3	STSSRC	02-054/22:13:18
20718	MGS	02-054/22:29:08		SSR 1A Data Enable	CSD1AE	02-054/22:13:19
20719	MGS	02-054/22:29:08		SSR Activity: ID=SSR_1A, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-054/22:13:19
20720	MGS	02-054/22:29:34		NOTE: Enter Solar Eclipse 13249		02-054/22:13:45
20721	MGS	02-054/22:29:34		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-054/22:13:45
20722	MGS	02-054/22:32:32	25	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
20723	MGS	02-054/22:34:33	25	Range Modulation On: SUP=3.0dB		
20724	MGS	02-054/22:35:33	25	Begin Ranging Acquisition		
20725	MGS	02-054/22:54:12		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-054/22:38:23
20726	MGS	02-054/22:54:12		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-054/22:38:23
20727	MGS	02-054/22:54:17		Set eclipse egress script address: 019A	SWSEES	02-054/22:38:28
20728	MGS	02-054/22:54:53		NOTE: Begin fixed Sub-Reflector for Radio Science		02-054/22:39:04
20729	MGS	02-054/22:55:48		SSR 1B Data Disable	CSD1BX	02-054/22:39:59
20730	MGS	02-054/22:55:48		SSR Activity: ID=SSR_1B, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-054/22:39:59
20731	MGS	02-054/22:55:49		NOTE: End Block (SSRMGR)		02-054/22:40:00
20732	MGS	02-054/22:58:38		: 01:27:09	RPAONX	02-054/22:42:49
20733	MGS	02-054/22:58:38		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-054/22:42:49
20734	MGS	02-054/22:59:53		: 00:00:30, 00:06:54, FALSE	RDSCIE	02-054/22:44:04
20735	MGS	02-054/22:59:53		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-054/22:44:04
20736	MGS	02-054/22:59:53		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-054/22:44:04
20737	MGS	02-054/22:59:53		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-054/22:44:04
20738	MGS	02-054/22:59:53		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-054/22:44:04
20739	MGS	02-054/23:00:23		Disables autonomous command to send eclipse ingress script	SWEISX	02-054/22:44:34
20740	MGS	02-054/23:00:24		NOTE: Exit Earth Occultation 13249		02-054/22:44:36
20741	MGS	02-054/23:00:24	25	Acquisition Of X-Band Signal		
20742	MGS	02-054/23:00:24	25	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
20743	MGS	02-054/23:00:24	25	NOTE: Carrier Only -- No Telemetry Modulation		
20744	MGS	02-054/23:04:37		NOTE: Exit Planetary Atmosphere 13249		02-054/22:48:49
20745	MGS	02-054/23:06:47		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-054/22:50:58
20746	MGS	02-054/23:06:47		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-054/22:50:58
20747	MGS	02-054/23:06:47		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-054/22:50:58
20748	MGS	02-054/23:06:47		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-054/22:50:58
20749	MGS	02-054/23:06:47	25	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
20750	MGS	02-054/23:06:48		: RTM, MRC, 01:12:21, S&E_2A, FALSE, 00:06:38	AEMRT	02-054/22:50:59
20751	MGS	02-054/23:06:48		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-054/22:50:59
20752	MGS	02-054/23:06:48		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-054/22:50:59
20753	MGS	02-054/23:06:48		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=3, BITS=18080000, DUR=00:37:40		02-054/22:50:59
20754	MGS	02-054/23:06:48		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-054/22:50:59
20755	MGS	02-054/23:06:48	25	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
20756	MGS	02-054/23:06:52		NOTE: End fixed Sub-Reflector for Radio Science		02-054/22:51:03
20757	MGS	02-054/23:09:07		NOTE: Start Block (SSRMGR)		02-054/22:53:18
20758	MGS	02-054/23:09:07		Sends a one-word SSR command to the XSU command SOB: SSR_1B, SE_1A, RECORD, PART3	STSSRC	02-054/22:53:18
20759	MGS	02-054/23:09:08		SSR 1B Data Enable	CSD1BE	02-054/22:53:19
20760	MGS	02-054/23:09:08		SSR Activity: ID=SSR_1B, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-054/22:53:19
20761	MGS	02-054/23:09:58		NOTE: Exit Solar Eclipse 13249		02-054/22:54:10
20762	MGS	02-054/23:22:24		NOTE: Periapsis 13250 ----------		02-054/23:06:35
20763	MGS	02-054/23:30:58		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-054/23:15:09
20764	MGS	02-054/23:30:58		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-054/23:15:09
20765	MGS	02-054/23:30:59		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-054/23:15:10

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
20766	MGS	02-054/23:30:59		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-054/23:15:10
20767	MGS	02-054/23:34:58	25	NOTE: Transmitter Off in 15 minutes		
20768	MGS	02-054/23:35:48		SSR 1A Data Disable	CSD1AX	02-054/23:19:59
20769	MGS	02-054/23:35:48		SSR Activity: ID=SSR_1A, FCN=End Recording, PRT=3, BITS=32000000, DUR=01:06:40		02-054/23:19:59
20770	MGS	02-054/23:35:49		NOTE: End Block (SSRMGR)		02-054/23:20:00
20771	MGS	02-054/23:47:58	25	Range Modulation Off		
20772	MGS	02-054/23:49:58	25	Transmitter Off		
20773	MGS	02-054/23:52:59		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-054/23:37:10
20774	MGS	02-054/23:52:59		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-054/23:37:10
20775	MGS	02-055/00:00:00		Light Time: OWLT = 15:48, RTLT = 31:37		
20776	MGS	02-055/00:14:09		NOTE: Begin fixed Sub-Reflector for Radio Science		02-054/23:58:20
20777	MGS	02-055/00:15:47		NOTE: Start Block (SSRMGR)		02-054/23:59:58
20778	MGS	02-055/00:15:47		Sends a one-word SSR command to the XSU command SOB: SSR_2A, SE_1A, RECORD, PART1	STSSRC	02-054/23:59:58
20779	MGS	02-055/00:15:48		SSR 2A Data Enable	CSD2AE	02-054/23:59:59
20780	MGS	02-055/00:15:48		SSR Activity: ID=SSR_2A, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-054/23:59:59
20781	MGS	02-055/00:17:20		NOTE: Start Block (MAP_PB)		02-055/00:01:31
20782	MGS	02-055/00:17:21		: 00:29:06, 01:27:12, FALSE, TRUE, FALSE, 00:01:15, 00:06:53, 01:12:28, 00:06:35	AEMINI	02-055/00:01:32
20783	MGS	02-055/00:17:21		Enable sending eclipse ingress script when array power disappears	SWEISE	02-055/00:01:32
20784	MGS	02-055/00:17:21		NOTE: Start EVP data return script		02-055/00:01:32
20785	MGS	02-055/00:17:22		: SSR_1A, F42KHZ, PART1, SE_1A, 2002-055T00:48:47.000	AEMPBI	02-055/00:01:33
20786	MGS	02-055/00:19:09		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-055/00:03:20
20787	MGS	02-055/00:19:09		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=1, BITS=1608000, DUR=00:03:21		02-055/00:03:20
20788	MGS	02-055/00:19:09		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-055/00:03:20
20789	MGS	02-055/00:19:09		: 00:06:37, FALSE	RDSCII	02-055/00:03:20
20790	MGS	02-055/00:19:09		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-055/00:03:20
20791	MGS	02-055/00:19:09		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-055/00:03:20
20792	MGS	02-055/00:19:09		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-055/00:03:20
20793	MGS	02-055/00:19:09		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-055/00:03:20
20794	MGS	02-055/00:19:09	25	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
20795	MGS	02-055/00:19:09	25	NOTE: Carrier Only -- No Telemetry Modulation		
20796	MGS	02-055/00:21:18		NOTE: Apoapsis 13250 -		02-055/00:05:29
20797	MGS	02-055/00:21:25		NOTE: Enter Planetary Atmosphere 13250		02-055/00:05:36
20798	MGS	02-055/00:25:20		NOTE: Enter Earth Occultation 13250		02-055/00:09:31
20799	MGS	02-055/00:25:20	25	NOTE: Loss Of X-Band Signal		
20800	MGS	02-055/00:25:46		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-055/00:09:57
20801	MGS	02-055/00:25:46		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-055/00:09:57
20802	MGS	02-055/00:25:46		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-055/00:09:57
20803	MGS	02-055/00:25:46		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-055/00:09:57
20804	MGS	02-055/00:25:47		Turn off the MOT Exciter and RPA beam	STRPAF	02-055/00:09:58
20805	MGS	02-055/00:25:47		NOTE: End EVP script		02-055/00:09:58
20806	MGS	02-055/00:25:48		NOTE: End Block (MAP_RT)		02-055/00:09:59
20807	MGS	02-055/00:25:51		NOTE: End fixed Sub-Reflector for Radio Science		02-055/00:10:02
20808	MGS	02-055/00:27:21		NOTE: Enter Solar Eclipse 13250		02-055/00:11:32
20809	MGS	02-055/00:27:21		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-055/00:11:32
20810	MGS	02-055/00:30:19	25	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
20811	MGS	02-055/00:32:20	25	Range Modulation On: SUP=3.0dB		
20812	MGS	02-055/00:33:20	25	Begin Ranging Acquisition		
20813	MGS	02-055/00:42:28		SSR 1B Data Disable	CSD1BX	02-055/00:26:39
20814	MGS	02-055/00:42:28		SSR Activity: ID=SSR_1B, FCN=End Recording, PRT=3, BITS=44800000, DUR=01:33:20		02-055/00:26:39
20815	MGS	02-055/00:42:29		NOTE: End Block (SSRMGR)		02-055/00:26:40
20816	MGS	02-055/00:51:59		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-055/00:36:10
20817	MGS	02-055/00:51:59		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-055/00:36:10
20818	MGS	02-055/00:52:04		Set eclipse egress script address: 01DC	SWSEES	02-055/00:36:15
20819	MGS	02-055/00:52:42		NOTE: Begin fixed Sub-Reflector for Radio Science		02-055/00:36:53

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
20820	MGS	02-055/00:56:27		: 01:27:12	RPAONX	02-055/00:40:38
20821	MGS	02-055/00:56:27		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-055/00:40:38
20822	MGS	02-055/00:57:42		: 00:00:30, 00:06:53, FALSE	RDSCIE	02-055/00:41:53
20823	MGS	02-055/00:57:42		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-055/00:41:53
20824	MGS	02-055/00:57:42		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-055/00:41:53
20825	MGS	02-055/00:57:42		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-055/00:41:53
20826	MGS	02-055/00:57:42		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-055/00:41:53
20827	MGS	02-055/00:58:12		NOTE: Exit Earth Occultation 13250		02-055/00:42:23
20828	MGS	02-055/00:58:12	25	Acquisition Of X-Band Signal		
20829	MGS	02-055/00:58:12	25	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
20830	MGS	02-055/00:58:12	25	NOTE: Carrier Only -- No Telemetry Modulation		
20831	MGS	02-055/01:02:25		NOTE: Exit Planetary Atmosphere 13250		02-055/00:46:36
20832	MGS	02-055/01:04:35		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-055/00:48:46
20833	MGS	02-055/01:04:35		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-055/00:48:46
20834	MGS	02-055/01:04:35		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-055/00:48:46
20835	MGS	02-055/01:04:35		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-055/00:48:46
20836	MGS	02-055/01:04:35		: REC_1A, F42KHZ, PART1, SE_1A, FALSE, 00:10:25	AEMPB	02-055/00:48:46
20837	MGS	02-055/01:04:35		Sends a one-word MOT command to the XSU command SOB: SSR_1A	STMOTC	02-055/00:48:46
20838	MGS	02-055/01:04:35		Sends a one-word SSR command to the XSU command SOB: SSR_1A, F42KHZ, PLYBCK, PART1	STSSRC	02-055/00:48:46
20839	MGS	02-055/01:04:35	25	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
20840	MGS	02-055/01:04:36		SSR 1A Data Enable	CSD1AE	02-055/00:48:47
20841	MGS	02-055/01:04:36		SSR Activity: ID=SSR_1A, FCN=Start Playback, PRT=1, BR=42666		02-055/00:48:47
20842	MGS	02-055/01:04:36	25	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
20843	MGS	02-055/01:04:40		NOTE: End fixed Sub-Reflector for Radio Science		02-055/00:48:51
20844	MGS	02-055/01:07:46		NOTE: Exit Solar Eclipse 13250		02-055/00:51:57
20845	MGS	02-055/01:20:06		NOTE: Periapsis 13251 ----------		02-055/01:04:17
20846	MGS	02-055/01:28:45		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-055/01:12:56
20847	MGS	02-055/01:28:45		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-055/01:12:56
20848	MGS	02-055/01:28:46		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-055/01:12:57
20849	MGS	02-055/01:28:46		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-055/01:12:57
20850	MGS	02-055/01:32:43	25	NOTE: Transmitter Off in 15 minutes		
20851	MGS	02-055/01:45:44	25	Range Modulation Off		
20852	MGS	02-055/01:47:43	25	Transmitter Off		
20853	MGS	02-055/01:50:46		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-055/01:34:57
20854	MGS	02-055/01:50:46		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-055/01:34:57
20855	MGS	02-055/02:12:03		NOTE: Begin fixed Sub-Reflector for Radio Science		02-055/01:56:14
20856	MGS	02-055/02:13:14		SSR 1A Data Disable	CSD1AX	02-055/01:57:25
20857	MGS	02-055/02:13:14		SSR Activity: ID=SSR_1A, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-055/01:57:25
20858	MGS	02-055/02:13:14		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-055/01:57:25
20859	MGS	02-055/02:13:14	25	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
20860	MGS	02-055/02:15:06		NOTE: Start EVP data return script		02-055/01:59:17
20861	MGS	02-055/02:15:06		: SSR_1B, F42KHZ, PART1, 2002-055T02:46:32.000	AEMPBU	02-055/01:59:17
20862	MGS	02-055/02:17:03		: 00:06:35, FALSE	RDSCII	02-055/02:01:14
20863	MGS	02-055/02:17:03		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-055/02:01:14
20864	MGS	02-055/02:17:03		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-055/02:01:14
20865	MGS	02-055/02:17:03		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-055/02:01:14
20866	MGS	02-055/02:17:03		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-055/02:01:14
20867	MGS	02-055/02:17:03	25	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
20868	MGS	02-055/02:17:03	25	NOTE: Carrier Only -- No Telemetry Modulation		
20869	MGS	02-055/02:18:47		NOTE: Apoapsis 13251 -		02-055/02:02:57
20870	MGS	02-055/02:19:11		NOTE: Enter Planetary Atmosphere 13251		02-055/02:03:22
20871	MGS	02-055/02:23:06		NOTE: Enter Earth Occultation 13251		02-055/02:07:17
20872	MGS	02-055/02:23:06	25	NOTE: Loss Of X-Band Signal		
20873	MGS	02-055/02:23:38		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-055/02:07:49

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
20874	MGS	02-055/02:23:38		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-055/02:07:49
20875	MGS	02-055/02:23:38		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-055/02:07:49
20876	MGS	02-055/02:23:38		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-055/02:07:49
20877	MGS	02-055/02:23:39		NOTE: End EVP script		02-055/02:07:50
20878	MGS	02-055/02:23:39		Turn off the MOT Exciter and RPA beam	STRPAF	02-055/02:07:50
20879	MGS	02-055/02:23:43		NOTE: End fixed Sub-Reflector for Radio Science		02-055/02:07:54
20880	MGS	02-055/02:25:06		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-055/02:09:17
20881	MGS	02-055/02:25:07		NOTE: Enter Solar Eclipse 13251		02-055/02:09:18
20882	MGS	02-055/02:28:05	25	Acquire U/L: X/16, PWR=4.0, BR=125.0, CS=5.82dB		
20883	MGS	02-055/02:30:06	25	Range Modulation On: SUP=3.0dB		
20884	MGS	02-055/02:31:06	25	Begin Ranging Acquisition		
20885	MGS	02-055/02:49:47		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-055/02:33:57
20886	MGS	02-055/02:49:47		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-055/02:33:57
20887	MGS	02-055/02:49:51		Command the PSE with included data word: 3990	SWPSEL	02-055/02:34:01
20888	MGS	02-055/02:49:52		Set eclipse egress script address: 0158	SWSEES	02-055/02:34:02
20889	MGS	02-055/02:50:27		NOTE: Begin fixed Sub-Reflector for Radio Science		02-055/02:34:38
20890	MGS	02-055/02:54:13		: 01:27:12	RPAONX	02-055/02:38:23
20891	MGS	02-055/02:54:13		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-055/02:38:23
20892	MGS	02-055/02:55:28		: 00:00:30, 00:06:53, FALSE	RDSCIE	02-055/02:39:38
20893	MGS	02-055/02:55:28		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-055/02:39:38
20894	MGS	02-055/02:55:28		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-055/02:39:38
20895	MGS	02-055/02:55:28		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-055/02:39:38
20896	MGS	02-055/02:55:28		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-055/02:39:38
20897	MGS	02-055/02:55:58		NOTE: Exit Earth Occultation 13251		02-055/02:40:09
20898	MGS	02-055/02:55:58	25	Acquisition Of X-Band Signal		
20899	MGS	02-055/02:55:58	25	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
20900	MGS	02-055/02:55:58	25	NOTE: Carrier Only -- No Telemetry Modulation		
20901	MGS	02-055/03:00:12		NOTE: Exit Planetary Atmosphere 13251		02-055/02:44:22
20902	MGS	02-055/03:02:21		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-055/02:46:31
20903	MGS	02-055/03:02:21		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-055/02:46:31
20904	MGS	02-055/03:02:21		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-055/02:46:31
20905	MGS	02-055/03:02:21		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-055/02:46:31
20906	MGS	02-055/03:02:21		: REC_1B, F42KHZ, PART1, SE_1A, FALSE, 00:10:25	AEMPB	02-055/02:46:31
20907	MGS	02-055/03:02:21		Sends a one-word MOT command to the XSU command SOB: SSR_1B	STMOTC	02-055/02:46:31
20908	MGS	02-055/03:02:21		Sends a one-word SSR command to the XSU command SOB: SSR_1B, F42KHZ, PLYBCK, PART1	STSSRC	02-055/02:46:31
20909	MGS	02-055/03:02:21	25	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
20910	MGS	02-055/03:02:22		SSR 1B Data Enable	CSD1BE	02-055/02:46:32
20911	MGS	02-055/03:02:22		SSR Activity: ID=SSR_1B, FCN=Start Playback, PRT=1, BR=42666		02-055/02:46:32
20912	MGS	02-055/03:02:22	25	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
20913	MGS	02-055/03:02:25		NOTE: End fixed Sub-Reflector for Radio Science		02-055/02:46:36
20914	MGS	02-055/03:05:32		NOTE: Exit Solar Eclipse 13251		02-055/02:49:42
20915	MGS	02-055/03:17:52		NOTE: Periapsis 13252 ----------		02-055/03:02:02
20916	MGS	02-055/03:30:26	25	NOTE: Transmitter Off in 15 minutes		
20917	MGS	02-055/03:30:31		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-055/03:14:41
20918	MGS	02-055/03:30:31		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-055/03:14:41
20919	MGS	02-055/03:30:32		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-055/03:14:42
20920	MGS	02-055/03:30:32		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-055/03:14:42
20921	MGS	02-055/03:35:00	45	Begin Pre-Cal		
20922	MGS	02-055/03:35:00	45	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
20923	MGS	02-055/03:35:00	45	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
20924	MGS	02-055/03:35:00	45	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
20925	MGS	02-055/03:35:00	45	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=OFF, EXC=2		
20926	MGS	02-055/03:35:00	45	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
20927	MGS	02-055/03:35:00	45	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
20928	MGS	02-055/03:35:00	45	Config: TGC: DEST=37		
20929	MGS	02-055/03:35:00	45	Config: TGC: BAND=X, BR=8000.000000		
20930	MGS	02-055/03:35:00	45	Config: FSS: CH=2, PRI_FL=10000		
20931	MGS	02-055/03:35:00	45	Config: RSR		
20932	MGS	02-055/03:35:00	45	Config: TXL		
20933	MGS	02-055/03:35:00	45	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
20934	MGS	02-055/03:35:00	45	Config: BVR		
20935	MGS	02-055/03:35:00	45	Config: Doppler Extractor: BIAS=+1MHZ		
20936	MGS	02-055/03:35:00	45	Config: MDA: SMPL=0.1		
20937	MGS	02-055/03:35:00	45	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
20938	MGS	02-055/03:35:00	45	Config: SRA: HIGH=4, LOW=14, SERV=D		
20939	MGS	02-055/03:35:00	45	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
20940	MGS	02-055/03:43:27	25	Range Modulation Off		
20941	MGS	02-055/03:45:26	25	Transmitter Off		
20942	MGS	02-055/03:52:32		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-055/03:36:42
20943	MGS	02-055/03:52:32		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-055/03:36:42
20944	MGS	02-055/04:09:48		NOTE: Begin fixed Sub-Reflector for Radio Science		02-055/03:53:59
20945	MGS	02-055/04:11:00		SSR 1B Data Disable	CSD1BX	02-055/03:55:10
20946	MGS	02-055/04:11:00		SSR Activity: ID=SSR_1B, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-055/03:55:10
20947	MGS	02-055/04:11:00		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-055/03:55:10
20948	MGS	02-055/04:11:00	25	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
20949	MGS	02-055/04:12:51		NOTE: Start EVP data return script		02-055/03:57:01
20950	MGS	02-055/04:12:51		: SSR_1A, F42KHZ, PART2, 2002-055T04:44:16.000	AEMPBU	02-055/03:57:01
20951	MGS	02-055/04:14:49		: 00:06:35, FALSE	RDSCII	02-055/03:58:59
20952	MGS	02-055/04:14:49		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-055/03:58:59
20953	MGS	02-055/04:14:49		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-055/03:58:59
20954	MGS	02-055/04:14:49		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-055/03:58:59
20955	MGS	02-055/04:14:49		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-055/03:58:59
20956	MGS	02-055/04:14:49	25	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
20957	MGS	02-055/04:14:49	25	NOTE: Carrier Only -- No Telemetry Modulation		
20958	MGS	02-055/04:16:27		NOTE: Apoapsis 13252 -		02-055/04:00:38
20959	MGS	02-055/04:16:54		NOTE: Enter Planetary Atmosphere 13252		02-055/04:01:05
20960	MGS	02-055/04:20:50		NOTE: Enter Earth Occultation 13252		02-055/04:05:00
20961	MGS	02-055/04:20:50	25	NOTE: Loss Of X-Band Signal		
20962	MGS	02-055/04:21:24		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-055/04:05:34
20963	MGS	02-055/04:21:24		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-055/04:05:34
20964	MGS	02-055/04:21:24		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-055/04:05:34
20965	MGS	02-055/04:21:24		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-055/04:05:34
20966	MGS	02-055/04:21:25		NOTE: End EVP script		02-055/04:05:35
20967	MGS	02-055/04:21:25		Turn off the MOT Exciter and RPA beam	STRPAF	02-055/04:05:35
20968	MGS	02-055/04:21:29		NOTE: End fixed Sub-Reflector for Radio Science		02-055/04:05:39
20969	MGS	02-055/04:22:50		NOTE: Enter Solar Eclipse 13252		02-055/04:07:01
20970	MGS	02-055/04:22:51		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-055/04:07:01
20971	MGS	02-055/04:35:00	45	Begin Tracking		
20972	MGS	02-055/04:45:00	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
20973	MGS	02-055/04:46:22	25	NOTE: Below Uplink Interlock Limit		
20974	MGS	02-055/04:47:00	45	Range Modulation On: SUP=3.0dB		
20975	MGS	02-055/04:47:32		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-055/04:31:42
20976	MGS	02-055/04:47:32		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-055/04:31:42
20977	MGS	02-055/04:47:37		Set eclipse egress script address: 019A	SWSEES	02-055/04:31:47
20978	MGS	02-055/04:48:00	45	Begin Ranging Acquisition		
20979	MGS	02-055/04:48:12		NOTE: Begin fixed Sub-Reflector for Radio Science		02-055/04:32:22
20980	MGS	02-055/04:51:57		: 01:27:12	RPAONX	02-055/04:36:07
20981	MGS	02-055/04:51:57		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-055/04:36:07

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
20982	MGS	02-055/04:53:12		: 00:00:30, 00:06:53, FALSE	RDSCIE	02-055/04:37:22
20983	MGS	02-055/04:53:12		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-055/04:37:22
20984	MGS	02-055/04:53:12		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-055/04:37:22
20985	MGS	02-055/04:53:12		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-055/04:37:22
20986	MGS	02-055/04:53:12		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-055/04:37:22
20987	MGS	02-055/04:53:43		NOTE: Exit Earth Occultation 13252		02-055/04:37:53
20988	MGS	02-055/04:53:43	25	Acquisition Of X-Band Signal		
20989	MGS	02-055/04:53:43	25	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
20990	MGS	02-055/04:53:43	25	NOTE: Carrier Only -- No Telemetry Modulation		
20991	MGS	02-055/04:53:43	45	Acquisition Of X-Band Signal		
20992	MGS	02-055/04:53:43	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
20993	MGS	02-055/04:53:43	45	NOTE: Carrier Only -- No Telemetry Modulation		
20994	MGS	02-055/04:55:00	25	End Tracking		
20995	MGS	02-055/04:57:56		NOTE: Exit Planetary Atmosphere 13252		02-055/04:42:07
20996	MGS	02-055/05:00:05		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-055/04:44:15
20997	MGS	02-055/05:00:05		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-055/04:44:15
20998	MGS	02-055/05:00:05		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-055/04:44:15
20999	MGS	02-055/05:00:05		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-055/04:44:15
21000	MGS	02-055/05:00:05		: REC_1A, F42KHZ, PART2, SE_1A, FALSE, 00:10:25	AEMPB	02-055/04:44:15
21001	MGS	02-055/05:00:05		Sends a one-word MOT command to the XSU command SOB: SSR_1A	STMOTC	02-055/04:44:15
21002	MGS	02-055/05:00:05		Sends a one-word SSR command to the XSU command SOB: SSR_1A, F42KHZ, PLYBCK, PART2	STSSRC	02-055/04:44:15
21003	MGS	02-055/05:00:05	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
21004	MGS	02-055/05:00:06		SSR 1A Data Enable	CSD1AE	02-055/04:44:16
21005	MGS	02-055/05:00:06		SSR Activity: ID=SSR_1A, FCN=Start Playback, PRT=2, BR=42666		02-055/04:44:16
21006	MGS	02-055/05:00:06	45	D/L Change: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
21007	MGS	02-055/05:00:10		NOTE: End fixed Sub-Reflector for Radio Science		02-055/04:44:20
21008	MGS	02-055/05:03:15		NOTE: Exit Solar Eclipse 13252		02-055/04:47:25
21009	MGS	02-055/05:10:00	25	End Post-Cal		
21010	MGS	02-055/05:15:36		NOTE: Periapsis 13253 ----------		02-055/04:59:46
21011	MGS	02-055/05:16:39	45	Acquire D/L: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
21012	MGS	02-055/05:24:14		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-055/05:08:24
21013	MGS	02-055/05:24:14		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-055/05:08:24
21014	MGS	02-055/05:24:15		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-055/05:08:25
21015	MGS	02-055/05:24:15		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-055/05:08:25
21016	MGS	02-055/05:28:08	45	NOTE: Transmitter Off in 15 minutes		
21017	MGS	02-055/05:41:09	45	Range Modulation Off		
21018	MGS	02-055/05:43:08	45	Transmitter Off		
21019	MGS	02-055/05:46:15		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-055/05:30:25
21020	MGS	02-055/05:46:15		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-055/05:30:25
21021	MGS	02-055/05:49:08		NOTE: Start Block (SSRMGR)		02-055/05:33:18
21022	MGS	02-055/05:49:08		Sends a one-word SSR command to the XSU command SOB: SSR_2B, SE_1A, RECORD, PART1	STSSRC	02-055/05:33:18
21023	MGS	02-055/05:49:09		SSR 2B Data Enable	CSD2BE	02-055/05:33:19
21024	MGS	02-055/05:49:09		SSR Activity: ID=SSR_2B, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-055/05:33:19
21025	MGS	02-055/06:07:33		NOTE: Begin fixed Sub-Reflector for Radio Science		02-055/05:51:43
21026	MGS	02-055/06:08:44		SSR 1A Data Disable	CSD1AX	02-055/05:52:54
21027	MGS	02-055/06:08:44		SSR Activity: ID=SSR_1A, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-055/05:52:54
21028	MGS	02-055/06:08:44		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-055/05:52:54
21029	MGS	02-055/06:08:44	45	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
21030	MGS	02-055/06:10:32		NOTE: Start EVP data return script		02-055/05:54:42
21031	MGS	02-055/06:10:32		: SSR_1B, F42KHZ, PART2, 2002-055T06:41:57.000	AEMPBU	02-055/05:54:42
21032	MGS	02-055/06:12:33		: 00:06:35, FALSE	RDSCII	02-055/05:56:43
21033	MGS	02-055/06:12:33		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-055/05:56:43
21034	MGS	02-055/06:12:33		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-055/05:56:43
21035	MGS	02-055/06:12:33		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-055/05:56:43

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
21036	MGS	02-055/06:12:33		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-055/05:56:43
21037	MGS	02-055/06:12:33	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
21038	MGS	02-055/06:12:33	45	NOTE: Carrier Only -- No Telemetry Modulation		
21039	MGS	02-055/06:14:20		NOTE: Apoapsis 13253 -		02-055/05:58:31
21040	MGS	02-055/06:14:37		NOTE: Enter Planetary Atmosphere 13253		02-055/05:58:47
21041	MGS	02-055/06:15:49		SSR 2A Data Disable	CSD2AX	02-055/05:59:59
21042	MGS	02-055/06:15:49		SSR Activity: ID=SSR_2A, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-055/05:59:59
21043	MGS	02-055/06:15:50		NOTE: End Block (SSRMGR)		02-055/06:00:00
21044	MGS	02-055/06:18:32		NOTE: Enter Earth Occultation 13253		02-055/06:02:43
21045	MGS	02-055/06:18:32	45	NOTE: Loss Of X-Band Signal		
21046	MGS	02-055/06:19:08		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-055/06:03:18
21047	MGS	02-055/06:19:08		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-055/06:03:18
21048	MGS	02-055/06:19:08		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-055/06:03:18
21049	MGS	02-055/06:19:08		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-055/06:03:18
21050	MGS	02-055/06:19:09		NOTE: End EVP script		02-055/06:03:19
21051	MGS	02-055/06:19:09		Turn off the MOT Exciter and RPA beam	STRPAF	02-055/06:03:19
21052	MGS	02-055/06:19:13		NOTE: End fixed Sub-Reflector for Radio Science		02-055/06:03:23
21053	MGS	02-055/06:20:32		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-055/06:04:42
21054	MGS	02-055/06:20:32		NOTE: Enter Solar Eclipse 13253		02-055/06:04:43
21055	MGS	02-055/06:23:31	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
21056	MGS	02-055/06:25:32	45	Range Modulation On: SUP=3.0dB		
21057	MGS	02-055/06:26:32	45	Begin Ranging Acquisition		
21058	MGS	02-055/06:45:15		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-055/06:29:25
21059	MGS	02-055/06:45:15		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-055/06:29:25
21060	MGS	02-055/06:45:20		Set eclipse egress script address: 01DC	SWSEES	02-055/06:29:30
21061	MGS	02-055/06:45:53		NOTE: Begin fixed Sub-Reflector for Radio Science		02-055/06:30:03
21062	MGS	02-055/06:49:38		: 01:27:12	RPAONX	02-055/06:33:48
21063	MGS	02-055/06:49:38		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-055/06:33:48
21064	MGS	02-055/06:50:53		: 00:00:30, 00:06:53, FALSE	RDSCIE	02-055/06:35:03
21065	MGS	02-055/06:50:53		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-055/06:35:03
21066	MGS	02-055/06:50:53		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-055/06:35:03
21067	MGS	02-055/06:50:53		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-055/06:35:03
21068	MGS	02-055/06:50:53		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-055/06:35:03
21069	MGS	02-055/06:51:23		Disables autonomous command to send eclipse ingress script	SWEISX	02-055/06:35:33
21070	MGS	02-055/06:51:25		NOTE: Exit Earth Occultation 13253		02-055/06:35:36
21071	MGS	02-055/06:51:25	45	Acquisition Of X-Band Signal		
21072	MGS	02-055/06:51:25	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
21073	MGS	02-055/06:51:25	45	NOTE: Carrier Only -- No Telemetry Modulation		
21074	MGS	02-055/06:55:39		NOTE: Exit Planetary Atmosphere 13253		02-055/06:39:49
21075	MGS	02-055/06:57:46		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-055/06:41:56
21076	MGS	02-055/06:57:46		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-055/06:41:56
21077	MGS	02-055/06:57:46		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-055/06:41:56
21078	MGS	02-055/06:57:46		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-055/06:41:56
21079	MGS	02-055/06:57:46		: REC_1B, F42KHZ, PART2, SE_1A, FALSE, 00:10:25	AEMPB	02-055/06:41:56
21080	MGS	02-055/06:57:46		Sends a one-word MOT command to the XSU command SOB: SSR_1B	STMOTC	02-055/06:41:56
21081	MGS	02-055/06:57:46		Sends a one-word SSR command to the XSU command SOB: SSR_1B, F42KHZ, PLYBCK, PART2	STSSRC	02-055/06:41:56
21082	MGS	02-055/06:57:46	45	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
21083	MGS	02-055/06:57:47		SSR 1B Data Enable	CSD1BE	02-055/06:41:57
21084	MGS	02-055/06:57:47		SSR Activity: ID=SSR_1B, FCN=Start Playback, PRT=2, BR=42666		02-055/06:41:57
21085	MGS	02-055/06:57:47	45	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
21086	MGS	02-055/06:57:51		NOTE: End fixed Sub-Reflector for Radio Science		02-055/06:42:01
21087	MGS	02-055/07:00:57		NOTE: Exit Solar Eclipse 13253		02-055/06:45:07
21088	MGS	02-055/07:13:08		NOTE: Periapsis 13254 ----------		02-055/06:57:18
21089	MGS	02-055/07:21:56		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-055/07:06:06

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
21090	MGS	02-055/07:21:56		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-055/07:06:06
21091	MGS	02-055/07:21:57		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-055/07:06:07
21092	MGS	02-055/07:21:57		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-055/07:06:07
21093	MGS	02-055/07:25:50	45	NOTE: Transmitter Off in 15 minutes		
21094	MGS	02-055/07:38:50	45	Range Modulation Off		
21095	MGS	02-055/07:40:50	45	Transmitter Off		
21096	MGS	02-055/07:43:57		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-055/07:28:07
21097	MGS	02-055/07:43:57		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-055/07:28:07
21098	MGS	02-055/08:05:14		NOTE: Begin fixed Sub-Reflector for Radio Science		02-055/07:49:24
21099	MGS	02-055/08:06:25		SSR 1B Data Disable	CSD1BX	02-055/07:50:35
21100	MGS	02-055/08:06:25		SSR Activity: ID=SSR_1B, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-055/07:50:35
21101	MGS	02-055/08:06:25		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-055/07:50:35
21102	MGS	02-055/08:06:25	45	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
21103	MGS	02-055/08:08:13		NOTE: Start Block (MAP_RT)		02-055/07:52:23
21104	MGS	02-055/08:08:14		: 00:29:06, 01:27:11, FALSE, TRUE, FALSE, 00:01:15, 00:06:53, 01:12:27, 00:06:35	AEMINI	02-055/07:52:24
21105	MGS	02-055/08:08:14		Enable sending eclipse ingress script when array power disappears	SWEISE	02-055/07:52:24
21106	MGS	02-055/08:08:14		NOTE: Start EVP data return script		02-055/07:52:24
21107	MGS	02-055/08:08:15		: SE_2A, RTM, 01:12:26, MRC, 2002-055T08:39:40.000	AEMRTI	02-055/07:52:25
21108	MGS	02-055/08:10:14		: 00:06:35, FALSE	RDSCII	02-055/07:54:24
21109	MGS	02-055/08:10:14		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-055/07:54:24
21110	MGS	02-055/08:10:14		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-055/07:54:24
21111	MGS	02-055/08:10:14		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-055/07:54:24
21112	MGS	02-055/08:10:14		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-055/07:54:24
21113	MGS	02-055/08:10:14	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
21114	MGS	02-055/08:10:14	45	NOTE: Carrier Only -- No Telemetry Modulation		
21115	MGS	02-055/08:11:48		NOTE: Apoapsis 13254 -		02-055/07:55:58
21116	MGS	02-055/08:12:20		NOTE: Enter Planetary Atmosphere 13254		02-055/07:56:30
21117	MGS	02-055/08:16:15		NOTE: Enter Earth Occultation 13254		02-055/08:00:25
21118	MGS	02-055/08:16:15	45	NOTE: Loss Of X-Band Signal		
21119	MGS	02-055/08:16:49		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-055/08:00:59
21120	MGS	02-055/08:16:49		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-055/08:00:59
21121	MGS	02-055/08:16:49		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-055/08:00:59
21122	MGS	02-055/08:16:49		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-055/08:00:59
21123	MGS	02-055/08:16:50		NOTE: End EVP script		02-055/08:01:00
21124	MGS	02-055/08:16:50		Turn off the MOT Exciter and RPA beam	STRPAF	02-055/08:01:00
21125	MGS	02-055/08:16:51		NOTE: End Block (MAP_PB)		02-055/08:01:01
21126	MGS	02-055/08:16:54		NOTE: End fixed Sub-Reflector for Radio Science		02-055/08:01:04
21127	MGS	02-055/08:18:14		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-055/08:02:24
21128	MGS	02-055/08:18:15		NOTE: Enter Solar Eclipse 13254		02-055/08:02:25
21129	MGS	02-055/08:21:12	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
21130	MGS	02-055/08:23:13	45	Range Modulation On: SUP=3.0dB		
21131	MGS	02-055/08:24:13	45	Begin Ranging Acquisition		
21132	MGS	02-055/08:42:57		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-055/08:27:07
21133	MGS	02-055/08:42:57		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-055/08:27:07
21134	MGS	02-055/08:43:01		Command the PSE with included data word: 3990	SWPSEL	02-055/08:27:11
21135	MGS	02-055/08:43:02		Set eclipse egress script address: 0158	SWSEES	02-055/08:27:12
21136	MGS	02-055/08:43:36		NOTE: Begin fixed Sub-Reflector for Radio Science		02-055/08:27:46
21137	MGS	02-055/08:47:20		: 01:27:11	RPAONX	02-055/08:31:30
21138	MGS	02-055/08:47:20		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-055/08:31:30
21139	MGS	02-055/08:48:35		: 00:00:30, 00:06:53, FALSE	RDSCIE	02-055/08:32:45
21140	MGS	02-055/08:48:35		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-055/08:32:45
21141	MGS	02-055/08:48:35		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-055/08:32:45
21142	MGS	02-055/08:48:35		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-055/08:32:45
21143	MGS	02-055/08:48:35		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-055/08:32:45

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
21144	MGS	02-055/08:49:05		Disables autonomous command to send eclipse ingress script	SWEISX	02-055/08:33:15
21145	MGS	02-055/08:49:07		NOTE: Exit Earth Occultation 13254		02-055/08:33:17
21146	MGS	02-055/08:49:07	45	Acquisition Of X-Band Signal		
21147	MGS	02-055/08:49:07	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
21148	MGS	02-055/08:49:07	45	NOTE: Carrier Only -- No Telemetry Modulation		
21149	MGS	02-055/08:53:21		NOTE: Exit Planetary Atmosphere 13254		02-055/08:37:31
21150	MGS	02-055/08:55:28		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-055/08:39:38
21151	MGS	02-055/08:55:28		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-055/08:39:38
21152	MGS	02-055/08:55:28		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-055/08:39:38
21153	MGS	02-055/08:55:28		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-055/08:39:38
21154	MGS	02-055/08:55:28	45	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
21155	MGS	02-055/08:55:29		: RTM, MRC, 01:12:26, S&E_2A, FALSE, 00:06:36	AEMRT	02-055/08:39:39
21156	MGS	02-055/08:55:29		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-055/08:39:39
21157	MGS	02-055/08:55:29		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-055/08:39:39
21158	MGS	02-055/08:55:29	45	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
21159	MGS	02-055/08:55:34		NOTE: End fixed Sub-Reflector for Radio Science		02-055/08:39:44
21160	MGS	02-055/08:58:39		NOTE: Exit Solar Eclipse 13254		02-055/08:42:49
21161	MGS	02-055/09:01:23		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-055/08:45:33
21162	MGS	02-055/09:01:23	45	D/L Change: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
21163	MGS	02-055/09:01:25		NOTE: Start Block (SSRMGR)		02-055/08:45:35
21164	MGS	02-055/09:01:25		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-055/08:45:35
21165	MGS	02-055/09:01:25		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-055/08:45:35
21166	MGS	02-055/09:01:26		Sends a one-word MOT command to the XSU command SOB: SSR_1A	STMOTC	02-055/08:45:36
21167	MGS	02-055/09:01:27		Sends a one-word SSR command to the XSU command SOB: SSR_1A, F42KHZ, PLYBCK, PART3	STSSRC	02-055/08:45:37
21168	MGS	02-055/09:01:28		SSR 1A Data Enable	CSD1AE	02-055/08:45:38
21169	MGS	02-055/09:01:28		SSR Activity: ID=SSR_1A, FCN=Start Playback, PRT=3, BR=42666		02-055/08:45:38
21170	MGS	02-055/09:01:28	45	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
21171	MGS	02-055/09:10:29		NOTE: Periapsis 13255 ----------		02-055/08:54:39
21172	MGS	02-055/09:13:56		NOTE: Start Block (SSRMGR)		02-055/08:58:05
21173	MGS	02-055/09:13:56		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-055/08:58:05
21174	MGS	02-055/09:13:56		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-055/08:58:05
21175	MGS	02-055/09:13:57		Sends a one-word MOT command to the XSU command SOB: SSR_1B	STMOTC	02-055/08:58:06
21176	MGS	02-055/09:13:58		Sends a one-word SSR command to the XSU command SOB: SSR_1B, F42KHZ, PLYBCK, PART3	STSSRC	02-055/08:58:07
21177	MGS	02-055/09:13:59		SSR 1A Data Disable	CSD1AX	02-055/08:58:08
21178	MGS	02-055/09:13:59		SSR Activity: ID=SSR_1A, FCN=End Playback, PRT=3, BITS=32000000, DUR=00:12:30		02-055/08:58:08
21179	MGS	02-055/09:13:59		SSR 1B Data Enable	CSD1BE	02-055/08:58:08
21180	MGS	02-055/09:13:59		SSR Activity: ID=SSR_1B, FCN=Start Playback, PRT=3, BR=42666		02-055/08:58:08
21181	MGS	02-055/09:13:59	45	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
21182	MGS	02-055/09:14:00		NOTE: End Block (SSRMGR)		02-055/08:58:09
21183	MGS	02-055/09:23:33	45	NOTE: Transmitter Off in 15 minutes		
21184	MGS	02-055/09:23:38		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-055/09:07:47
21185	MGS	02-055/09:23:38		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-055/09:07:47
21186	MGS	02-055/09:23:39		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-055/09:07:48
21187	MGS	02-055/09:23:39		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-055/09:07:48
21188	MGS	02-055/09:31:29		SSR 1B Data Disable	CSD1BX	02-055/09:15:38
21189	MGS	02-055/09:31:29		SSR Activity: ID=SSR_1B, FCN=End Playback, PRT=3, BITS=44800000, DUR=00:17:30		02-055/09:15:38
21190	MGS	02-055/09:31:30		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-055/09:15:39
21191	MGS	02-055/09:31:30		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-055/09:15:39
21192	MGS	02-055/09:31:30		NOTE: End Block (SSRMGR)		02-055/09:15:39
21193	MGS	02-055/09:31:30	45	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
21194	MGS	02-055/09:36:33	45	Range Modulation Off		
21195	MGS	02-055/09:38:33	45	Transmitter Off		
21196	MGS	02-055/09:45:39		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-055/09:29:48
21197	MGS	02-055/09:45:39		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-055/09:29:48

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
21198	MGS	02-055/10:01:42	45	NOTE: Below Uplink Interlock Limit		
21199	MGS	02-055/10:02:56		NOTE: Begin fixed Sub-Reflector for Radio Science		02-055/09:47:06
21200	MGS	02-055/10:07:56		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-055/09:52:05
21201	MGS	02-055/10:07:56		: 00:06:35, FALSE	RDSCII	02-055/09:52:05
21202	MGS	02-055/10:07:56		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-055/09:52:05
21203	MGS	02-055/10:07:56		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-055/09:52:05
21204	MGS	02-055/10:07:56		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-055/09:52:05
21205	MGS	02-055/10:07:56		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-055/09:52:05
21206	MGS	02-055/10:07:56	45	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
21207	MGS	02-055/10:07:56	45	NOTE: Carrier Only -- No Telemetry Modulation		
21208	MGS	02-055/10:09:16		NOTE: Apoapsis 13255 -		02-055/09:53:26
21209	MGS	02-055/10:10:00	45	End Tracking		
21210	MGS	02-055/10:10:03		NOTE: Enter Planetary Atmosphere 13255		02-055/09:54:13
21211	MGS	02-055/10:13:58		NOTE: Enter Earth Occultation 13255		02-055/09:58:08
21212	MGS	02-055/10:14:31		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-055/09:58:40
21213	MGS	02-055/10:14:31		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-055/09:58:40
21214	MGS	02-055/10:14:31		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-055/09:58:40
21215	MGS	02-055/10:14:31		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-055/09:58:40
21216	MGS	02-055/10:14:32		Turn off the MOT Exciter and RPA beam	STRPAF	02-055/09:58:41
21217	MGS	02-055/10:14:32		NOTE: End EVP script		02-055/09:58:42
21218	MGS	02-055/10:14:33		NOTE: End Block (MAP_RT)		02-055/09:58:43
21219	MGS	02-055/10:14:36		NOTE: End fixed Sub-Reflector for Radio Science		02-055/09:58:46
21220	MGS	02-055/10:15:59		NOTE: Enter Solar Eclipse 13255		02-055/10:00:09
21221	MGS	02-055/10:25:00	45	End Post-Cal		
21222	MGS	02-055/10:31:14		Disable HGA control mode	SAHGCX	02-055/10:15:23
21223	MGS	02-055/10:31:15		No Operation	SCNOOP	02-055/10:15:24
21224	MGS	02-055/10:31:16		CDU-1 Uplink Rate Select (Based on 3 bit Code): 7	TCC1BS	02-055/10:15:25
21225	MGS	02-055/10:31:16		CDU-2 Uplink Rate Select (Based on 3 bit Code): 7	TCC2BS	02-055/10:15:25
21226	MGS	02-055/10:40:39		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-055/10:24:48
21227	MGS	02-055/10:40:39		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-055/10:24:48
21228	MGS	02-055/10:40:44		Set eclipse egress script address: 019A	SWSEES	02-055/10:24:53
21229	MGS	02-055/10:46:51		NOTE: Exit Earth Occultation 13255		02-055/10:31:01
21230	MGS	02-055/10:51:04		NOTE: Exit Planetary Atmosphere 13255		02-055/10:35:13
21231	MGS	02-055/10:56:23		NOTE: Exit Solar Eclipse 13255		02-055/10:40:33
21232	MGS	02-055/11:08:27		NOTE: Periapsis 13256 ----------		02-055/10:52:37
21233	MGS	02-055/11:17:22		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-055/11:01:31
21234	MGS	02-055/11:17:22		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-055/11:01:31
21235	MGS	02-055/11:17:23		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-055/11:01:32
21236	MGS	02-055/11:17:23		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-055/11:01:32
21237	MGS	02-055/11:22:29		NOTE: Start Block (SSRMGR)		02-055/11:06:38
21238	MGS	02-055/11:22:29		Sends a one-word SSR command to the XSU command SOB: SSR_2A, SE_1A, RECORD, PART2	STSSRC	02-055/11:06:38
21239	MGS	02-055/11:22:30		SSR 2A Data Enable	CSD2AE	02-055/11:06:39
21240	MGS	02-055/11:22:30		SSR Activity: ID=SSR_2A, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-055/11:06:39
21241	MGS	02-055/11:39:23		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-055/11:23:32
21242	MGS	02-055/11:39:23		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-055/11:23:32
21243	MGS	02-055/11:49:10		SSR 2B Data Disable	CSD2BX	02-055/11:33:19
21244	MGS	02-055/11:49:10		SSR Activity: ID=SSR_2B, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-055/11:33:19
21245	MGS	02-055/11:49:11		NOTE: End Block (SSRMGR)		02-055/11:33:20
21246	MGS	02-055/12:07:24		NOTE: Apoapsis 13256 -		02-055/11:51:34
21247	MGS	02-055/12:07:49		NOTE: Enter Planetary Atmosphere 13256		02-055/11:51:58
21248	MGS	02-055/12:11:44		NOTE: Enter Earth Occultation 13256		02-055/11:55:53
21249	MGS	02-055/12:13:45		NOTE: Enter Solar Eclipse 13256		02-055/11:57:54
21250	MGS	02-055/12:15:50		Dump SCP memory to the EDF using physical addressing arguments: 56A4, 240	SCDSCM	02-055/11:59:59
21251	MGS	02-055/12:20:00	65	Begin Pre-Cal		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
21252	MGS	02-055/12:20:00	65	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
21253	MGS	02-055/12:20:00	65	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
21254	MGS	02-055/12:20:00	65	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
21255	MGS	02-055/12:20:00	65	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=OFF, EXC=2		
21256	MGS	02-055/12:20:00	65	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
21257	MGS	02-055/12:20:00	65	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
21258	MGS	02-055/12:20:00	65	Config: TGC: DEST=37		
21259	MGS	02-055/12:20:00	65	Config: TGC: BAND=X, BR=0.000000		
21260	MGS	02-055/12:20:00	65	Config: FSS: CH=2, PRI_FL=10000		
21261	MGS	02-055/12:20:00	65	Config: RSR		
21262	MGS	02-055/12:20:00	65	Config: TXL		
21263	MGS	02-055/12:20:00	65	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
21264	MGS	02-055/12:20:00	65	Config: BVR		
21265	MGS	02-055/12:20:00	65	Config: Doppler Extractor: BIAS=+1MHZ		
21266	MGS	02-055/12:20:00	65	Config: MDA: SMPL=0.1		
21267	MGS	02-055/12:20:00	65	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
21268	MGS	02-055/12:20:00	65	Config: SRA: HIGH=4, LOW=14, SERV=D		
21269	MGS	02-055/12:20:00	65	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
21270	MGS	02-055/12:29:12		Select Automatic HGA control mode	SAHACE	02-055/12:13:21
21271	MGS	02-055/12:29:13		Selects Hign Gain Antenna for downlink, Reconfigures if beam is already on	STUHGA	02-055/12:13:22
21272	MGS	02-055/12:29:14		CDU-1 Uplink Rate Select (Based on 3 bit Code): 3	TCC1BS	02-055/12:13:23
21273	MGS	02-055/12:29:14		CDU-2 Uplink Rate Select (Based on 3 bit Code): 3	TCC2BS	02-055/12:13:23
21274	MGS	02-055/12:38:23		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-055/12:22:32
21275	MGS	02-055/12:38:23		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-055/12:22:32
21276	MGS	02-055/12:38:28		Set eclipse egress script address: 01DC	SWSEES	02-055/12:22:37
21277	MGS	02-055/12:44:38		NOTE: Exit Earth Occultation 13256		02-055/12:28:47
21278	MGS	02-055/12:48:50		NOTE: Exit Planetary Atmosphere 13256		02-055/12:32:59
21279	MGS	02-055/12:54:10		NOTE: Exit Solar Eclipse 13256		02-055/12:38:19
21280	MGS	02-055/13:06:40		NOTE: Periapsis 13257 ----------		02-055/12:50:50
21281	MGS	02-055/13:15:09		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-055/12:59:18
21282	MGS	02-055/13:15:09		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-055/12:59:18
21283	MGS	02-055/13:15:10		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-055/12:59:19
21284	MGS	02-055/13:15:10		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-055/12:59:19
21285	MGS	02-055/13:20:00	65	Begin Tracking		
21286	MGS	02-055/13:37:10		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-055/13:21:19
21287	MGS	02-055/13:37:10		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-055/13:21:19
21288	MGS	02-055/14:01:31		NOTE: Start Block (MAP_RT)		02-055/13:45:40
21289	MGS	02-055/14:01:32		: 00:29:06, 01:27:11, FALSE, TRUE, FALSE, 00:01:15, 00:06:53, 01:12:27, 00:06:35	AEMINI	02-055/13:45:41
21290	MGS	02-055/14:01:32		Enable sending eclipse ingress script when array power disappears	SWEISE	02-055/13:45:41
21291	MGS	02-055/14:01:32		NOTE: Start EVP data return script		02-055/13:45:41
21292	MGS	02-055/14:01:33		: SE_2A, RTM, 01:12:26, MRC, 2002-055T14:32:57.000	AEMRTI	02-055/13:45:42
21293	MGS	02-055/14:05:36		NOTE: Enter Planetary Atmosphere 13257		02-055/13:49:45
21294	MGS	02-055/14:05:41		NOTE: Apoapsis 13257 -		02-055/13:49:50
21295	MGS	02-055/14:09:31		NOTE: Enter Earth Occultation 13257		02-055/13:53:40
21296	MGS	02-055/14:11:32		NOTE: Enter Solar Eclipse 13257		02-055/13:55:41
21297	MGS	02-055/14:11:32		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-055/13:55:41
21298	MGS	02-055/14:14:29	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
21299	MGS	02-055/14:16:29	65	Range Modulation On: SUP=3.0dB		
21300	MGS	02-055/14:17:29	65	Begin Ranging Acquisition		
21301	MGS	02-055/14:36:10		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-055/14:20:19
21302	MGS	02-055/14:36:10		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-055/14:20:19
21303	MGS	02-055/14:36:14		Command the PSE with included data word: 3990	SWPSEL	02-055/14:20:23
21304	MGS	02-055/14:36:15		Set eclipse egress script address: 0158	SWSEES	02-055/14:20:24
21305	MGS	02-055/14:36:53		NOTE: Begin fixed Sub-Reflector for Radio Science		02-055/14:21:02

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
21306	MGS	02-055/14:40:38		: 01:27:11	RPAONX	02-055/14:24:47
21307	MGS	02-055/14:40:38		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-055/14:24:47
21308	MGS	02-055/14:41:53		: 00:00:30, 00:06:53, FALSE	RDSCIE	02-055/14:26:02
21309	MGS	02-055/14:41:53		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-055/14:26:02
21310	MGS	02-055/14:41:53		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-055/14:26:02
21311	MGS	02-055/14:41:53		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-055/14:26:02
21312	MGS	02-055/14:41:53		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-055/14:26:02
21313	MGS	02-055/14:42:26		NOTE: Exit Earth Occultation 13257		02-055/14:26:35
21314	MGS	02-055/14:42:26	65	Acquisition Of X-Band Signal		
21315	MGS	02-055/14:42:26	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
21316	MGS	02-055/14:42:26	65	NOTE: Carrier Only -- No Telemetry Modulation		
21317	MGS	02-055/14:46:38		NOTE: Exit Planetary Atmosphere 13257		02-055/14:30:47
21318	MGS	02-055/14:48:46		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-055/14:32:55
21319	MGS	02-055/14:48:46		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-055/14:32:55
21320	MGS	02-055/14:48:46		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-055/14:32:55
21321	MGS	02-055/14:48:46		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-055/14:32:55
21322	MGS	02-055/14:48:46	65	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
21323	MGS	02-055/14:48:47		: RTM, MRC, 01:12:26, S&E_2A, FALSE, 00:06:36	AEMRT	02-055/14:32:56
21324	MGS	02-055/14:48:47		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-055/14:32:56
21325	MGS	02-055/14:48:47		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-055/14:32:56
21326	MGS	02-055/14:48:47		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=2, BITS=99016000, DUR=03:26:17		02-055/14:32:56
21327	MGS	02-055/14:48:47		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-055/14:32:56
21328	MGS	02-055/14:48:47	65	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
21329	MGS	02-055/14:48:51		NOTE: End fixed Sub-Reflector for Radio Science		02-055/14:33:00
21330	MGS	02-055/14:51:57		NOTE: Exit Solar Eclipse 13257		02-055/14:36:06
21331	MGS	02-055/15:04:42		NOTE: Periapsis 13258 ----------		02-055/14:48:51
21332	MGS	02-055/15:16:51	65	NOTE: Transmitter Off in 15 minutes		
21333	MGS	02-055/15:16:56		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-055/15:01:05
21334	MGS	02-055/15:16:56		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-055/15:01:05
21335	MGS	02-055/15:16:57		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-055/15:01:06
21336	MGS	02-055/15:16:57		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-055/15:01:06
21337	MGS	02-055/15:29:51	65	Range Modulation Off		
21338	MGS	02-055/15:31:51	65	Transmitter Off		
21339	MGS	02-055/15:38:58		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-055/15:23:06
21340	MGS	02-055/15:38:58		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-055/15:23:06
21341	MGS	02-055/15:56:14		NOTE: Begin fixed Sub-Reflector for Radio Science		02-055/15:40:22
21342	MGS	02-055/15:59:19		NOTE: Start EVP data return script		02-055/15:43:27
21343	MGS	02-055/16:01:14		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-055/15:45:22
21344	MGS	02-055/16:01:14		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=2, BITS=133784000, DUR=01:12:26		02-055/15:45:22
21345	MGS	02-055/16:01:14		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-055/15:45:22
21346	MGS	02-055/16:01:14		: 00:06:35, FALSE	RDSCII	02-055/15:45:22
21347	MGS	02-055/16:01:14		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-055/15:45:22
21348	MGS	02-055/16:01:14		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-055/15:45:22
21349	MGS	02-055/16:01:14		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-055/15:45:22
21350	MGS	02-055/16:01:14		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-055/15:45:22
21351	MGS	02-055/16:01:14	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
21352	MGS	02-055/16:01:14	65	NOTE: Carrier Only -- No Telemetry Modulation		
21353	MGS	02-055/16:03:23		NOTE: Enter Planetary Atmosphere 13258		02-055/15:47:32
21354	MGS	02-055/16:03:30		NOTE: Apoapsis 13258 -		02-055/15:47:39
21355	MGS	02-055/16:07:18		NOTE: Enter Earth Occultation 13258		02-055/15:51:27
21356	MGS	02-055/16:07:18	65	NOTE: Loss Of X-Band Signal		
21357	MGS	02-055/16:07:49		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-055/15:51:57
21358	MGS	02-055/16:07:49		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-055/15:51:57
21359	MGS	02-055/16:07:49		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-055/15:51:57

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
21360	MGS	02-055/16:07:49		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-055/15:51:57
21361	MGS	02-055/16:07:50		NOTE: End EVP script		02-055/15:51:58
21362	MGS	02-055/16:07:50		Turn off the MOT Exciter and RPA beam	STRPAF	02-055/15:51:58
21363	MGS	02-055/16:07:54		NOTE: End fixed Sub-Reflector for Radio Science		02-055/15:52:02
21364	MGS	02-055/16:09:18		NOTE: Enter Solar Eclipse 13258		02-055/15:53:27
21365	MGS	02-055/16:09:19		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-055/15:53:27
21366	MGS	02-055/16:12:15	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
21367	MGS	02-055/16:14:16	65	Range Modulation On: SUP=3.0dB		
21368	MGS	02-055/16:15:16	65	Begin Ranging Acquisition		
21369	MGS	02-055/16:33:58		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-055/16:18:06
21370	MGS	02-055/16:33:58		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-055/16:18:06
21371	MGS	02-055/16:34:03		Set eclipse egress script address: 019A	SWSEES	02-055/16:18:11
21372	MGS	02-055/16:34:40		NOTE: Begin fixed Sub-Reflector for Radio Science		02-055/16:18:48
21373	MGS	02-055/16:38:25		: 01:27:11	RPAONX	02-055/16:22:33
21374	MGS	02-055/16:38:25		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-055/16:22:33
21375	MGS	02-055/16:39:40		: 00:00:30, 00:06:53, FALSE	RDSCIE	02-055/16:23:48
21376	MGS	02-055/16:39:40		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-055/16:23:48
21377	MGS	02-055/16:39:40		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-055/16:23:48
21378	MGS	02-055/16:39:40		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-055/16:23:48
21379	MGS	02-055/16:39:40		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-055/16:23:48
21380	MGS	02-055/16:40:13		NOTE: Exit Earth Occultation 13258		02-055/16:24:21
21381	MGS	02-055/16:40:13	65	Acquisition Of X-Band Signal		
21382	MGS	02-055/16:40:13	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
21383	MGS	02-055/16:40:13	65	NOTE: Carrier Only -- No Telemetry Modulation		
21384	MGS	02-055/16:44:26		NOTE: Exit Planetary Atmosphere 13258		02-055/16:28:34
21385	MGS	02-055/16:46:33		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-055/16:30:41
21386	MGS	02-055/16:46:33		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-055/16:30:41
21387	MGS	02-055/16:46:33		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-055/16:30:41
21388	MGS	02-055/16:46:33		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-055/16:30:41
21389	MGS	02-055/16:46:33	65	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
21390	MGS	02-055/16:46:34		: RTM, MRC, 01:12:26, S&E_2A, FALSE, 00:06:36	AEMRT	02-055/16:30:42
21391	MGS	02-055/16:46:34		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-055/16:30:42
21392	MGS	02-055/16:46:34		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-055/16:30:42
21393	MGS	02-055/16:46:34		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=2, BITS=155544000, DUR=00:45:20		02-055/16:30:42
21394	MGS	02-055/16:46:34		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-055/16:30:42
21395	MGS	02-055/16:46:34	65	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
21396	MGS	02-055/16:46:38		NOTE: End fixed Sub-Reflector for Radio Science		02-055/16:30:46
21397	MGS	02-055/16:49:43		NOTE: Exit Solar Eclipse 13258		02-055/16:33:52
21398	MGS	02-055/16:55:50		NOTE: Start Block (SSRMGR)		02-055/16:39:58
21399	MGS	02-055/16:55:50		Sends a one-word SSR command to the XSU command SOB: SSR_2B, SE_1A, RECORD, PART2	STSSRC	02-055/16:39:58
21400	MGS	02-055/16:55:51		SSR 2B Data Enable	CSD2BE	02-055/16:39:59
21401	MGS	02-055/16:55:51		SSR Activity: ID=SSR_2B, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-055/16:39:59
21402	MGS	02-055/17:02:16		NOTE: Periapsis 13259 ----------		02-055/16:46:25
21403	MGS	02-055/17:10:42		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-055/16:54:50
21404	MGS	02-055/17:10:42		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-055/16:54:50
21405	MGS	02-055/17:10:43		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-055/16:54:51
21406	MGS	02-055/17:10:43		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-055/16:54:51
21407	MGS	02-055/17:14:33	65	NOTE: Transmitter Off in 15 minutes		
21408	MGS	02-055/17:22:31		SSR 2A Data Disable	CSD2AX	02-055/17:06:39
21409	MGS	02-055/17:22:31		SSR Activity: ID=SSR_2A, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-055/17:06:39
21410	MGS	02-055/17:22:32		NOTE: End Block (SSRMGR)		02-055/17:06:40
21411	MGS	02-055/17:27:34	65	Range Modulation Off		
21412	MGS	02-055/17:29:33	65	Transmitter Off		
21413	MGS	02-055/17:32:43		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-055/17:16:51

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
21414	MGS	02-055/17:32:43		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-055/17:16:51
21415	MGS	02-055/17:54:00		NOTE: Begin fixed Sub-Reflector for Radio Science		02-055/17:38:08
21416	MGS	02-055/17:57:01		NOTE: Start EVP data return script		02-055/17:41:09
21417	MGS	02-055/17:59:00		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-055/17:43:08
21418	MGS	02-055/17:59:00		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=2, BITS=30312000, DUR=01:03:09		02-055/17:43:08
21419	MGS	02-055/17:59:00		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-055/17:43:08
21420	MGS	02-055/17:59:00		: 00:06:35, FALSE	RDSCII	02-055/17:43:08
21421	MGS	02-055/17:59:00		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-055/17:43:08
21422	MGS	02-055/17:59:00		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-055/17:43:08
21423	MGS	02-055/17:59:00		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-055/17:43:08
21424	MGS	02-055/17:59:00		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-055/17:43:08
21425	MGS	02-055/17:59:00	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
21426	MGS	02-055/17:59:00	65	NOTE: Carrier Only -- No Telemetry Modulation		
21427	MGS	02-055/18:00:53		NOTE: Apoapsis 13259 -		02-055/17:45:01
21428	MGS	02-055/18:01:06		NOTE: Enter Planetary Atmosphere 13259		02-055/17:45:15
21429	MGS	02-055/18:05:01		NOTE: Enter Earth Occultation 13259		02-055/17:49:10
21430	MGS	02-055/18:05:01	65	NOTE: Loss Of X-Band Signal		
21431	MGS	02-055/18:05:35		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-055/17:49:43
21432	MGS	02-055/18:05:35		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-055/17:49:43
21433	MGS	02-055/18:05:35		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-055/17:49:43
21434	MGS	02-055/18:05:35		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-055/17:49:43
21435	MGS	02-055/18:05:36		NOTE: End EVP script		02-055/17:49:44
21436	MGS	02-055/18:05:36		Turn off the MOT Exciter and RPA beam	STRPAF	02-055/17:49:44
21437	MGS	02-055/18:05:40		NOTE: End fixed Sub-Reflector for Radio Science		02-055/17:49:48
21438	MGS	02-055/18:07:01		NOTE: Enter Solar Eclipse 13259		02-055/17:51:09
21439	MGS	02-055/18:07:01		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-055/17:51:09
21440	MGS	02-055/18:09:58	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
21441	MGS	02-055/18:11:58	65	Range Modulation On: SUP=3.0dB		
21442	MGS	02-055/18:12:58	65	Begin Ranging Acquisition		
21443	MGS	02-055/18:31:43		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-055/18:15:51
21444	MGS	02-055/18:31:43		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-055/18:15:51
21445	MGS	02-055/18:31:48		Set eclipse egress script address: 01DC	SWSEES	02-055/18:15:56
21446	MGS	02-055/18:32:22		NOTE: Begin fixed Sub-Reflector for Radio Science		02-055/18:16:30
21447	MGS	02-055/18:36:07		: 01:27:11	RPAONX	02-055/18:20:15
21448	MGS	02-055/18:36:07		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-055/18:20:15
21449	MGS	02-055/18:37:22		: 00:00:30, 00:06:53, FALSE	RDSCIE	02-055/18:21:30
21450	MGS	02-055/18:37:22		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-055/18:21:30
21451	MGS	02-055/18:37:22		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-055/18:21:30
21452	MGS	02-055/18:37:22		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-055/18:21:30
21453	MGS	02-055/18:37:22		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-055/18:21:30
21454	MGS	02-055/18:37:56		NOTE: Exit Earth Occultation 13259		02-055/18:22:04
21455	MGS	02-055/18:37:56	65	Acquisition Of X-Band Signal		
21456	MGS	02-055/18:37:56	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
21457	MGS	02-055/18:37:56	65	NOTE: Carrier Only -- No Telemetry Modulation		
21458	MGS	02-055/18:42:09		NOTE: Exit Planetary Atmosphere 13259		02-055/18:26:17
21459	MGS	02-055/18:44:15		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-055/18:28:23
21460	MGS	02-055/18:44:15		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-055/18:28:23
21461	MGS	02-055/18:44:15		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-055/18:28:23
21462	MGS	02-055/18:44:15		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-055/18:28:23
21463	MGS	02-055/18:44:15	65	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
21464	MGS	02-055/18:44:16		: RTM, MRC, 01:12:26, S&E_2A, FALSE, 00:06:36	AEMRT	02-055/18:28:24
21465	MGS	02-055/18:44:16		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-055/18:28:24
21466	MGS	02-055/18:44:16		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-055/18:28:24
21467	MGS	02-055/18:44:16		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=2, BITS=52040000, DUR=00:45:16		02-055/18:28:24

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
21468	MGS	02-055/18:44:16		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-055/18:28:24
21469	MGS	02-055/18:44:16	65	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
21470	MGS	02-055/18:44:20		NOTE: End fixed Sub-Reflector for Radio Science		02-055/18:28:28
21471	MGS	02-055/18:47:25		NOTE: Exit Solar Eclipse 13259		02-055/18:31:34
21472	MGS	02-055/18:59:38		NOTE: Periapsis 13260 ----------		02-055/18:43:46
21473	MGS	02-055/19:08:24		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-055/18:52:32
21474	MGS	02-055/19:08:24		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-055/18:52:32
21475	MGS	02-055/19:08:25		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-055/18:52:33
21476	MGS	02-055/19:08:25		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-055/18:52:33
21477	MGS	02-055/19:12:12	65	NOTE: Transmitter Off in 15 minutes		
21478	MGS	02-055/19:25:13	65	Range Modulation Off		
21479	MGS	02-055/19:27:12	65	Transmitter Off		
21480	MGS	02-055/19:30:25		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-055/19:14:33
21481	MGS	02-055/19:30:25		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-055/19:14:33
21482	MGS	02-055/19:51:42		NOTE: Begin fixed Sub-Reflector for Radio Science		02-055/19:35:50
21483	MGS	02-055/19:54:41		NOTE: Start EVP data return script		02-055/19:38:49
21484	MGS	02-055/19:56:42		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-055/19:40:50
21485	MGS	02-055/19:56:42		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=2, BITS=86808000, DUR=01:12:26		02-055/19:40:50
21486	MGS	02-055/19:56:42		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-055/19:40:50
21487	MGS	02-055/19:56:42		: 00:06:35, FALSE	RDSCII	02-055/19:40:50
21488	MGS	02-055/19:56:42		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-055/19:40:50
21489	MGS	02-055/19:56:42		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-055/19:40:50
21490	MGS	02-055/19:56:42		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-055/19:40:50
21491	MGS	02-055/19:56:42		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-055/19:40:50
21492	MGS	02-055/19:56:42	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
21493	MGS	02-055/19:56:42	65	NOTE: Carrier Only -- No Telemetry Modulation		
21494	MGS	02-055/19:58:29		NOTE: Apoapsis 13260 -		02-055/19:42:37
21495	MGS	02-055/19:58:46		NOTE: Enter Planetary Atmosphere 13260		02-055/19:42:54
21496	MGS	02-055/20:02:41		NOTE: Enter Earth Occultation 13260		02-055/19:46:49
21497	MGS	02-055/20:02:41	65	NOTE: Loss Of X-Band Signal		
21498	MGS	02-055/20:03:17		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-055/19:47:25
21499	MGS	02-055/20:03:17		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-055/19:47:25
21500	MGS	02-055/20:03:17		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-055/19:47:25
21501	MGS	02-055/20:03:17		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-055/19:47:25
21502	MGS	02-055/20:03:18		NOTE: End EVP script		02-055/19:47:26
21503	MGS	02-055/20:03:18		Turn off the MOT Exciter and RPA beam	STRPAF	02-055/19:47:26
21504	MGS	02-055/20:03:22		NOTE: End fixed Sub-Reflector for Radio Science		02-055/19:47:30
21505	MGS	02-055/20:04:41		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-055/19:48:49
21506	MGS	02-055/20:04:41		NOTE: Enter Solar Eclipse 13260		02-055/19:48:49
21507	MGS	02-055/20:07:38	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
21508	MGS	02-055/20:09:38	65	Range Modulation On: SUP=3.0dB		
21509	MGS	02-055/20:10:38	65	Begin Ranging Acquisition		
21510	MGS	02-055/20:29:25		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-055/20:13:33
21511	MGS	02-055/20:29:25		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-055/20:13:33
21512	MGS	02-055/20:29:29		Command the PSE with included data word: 3990	SWPSEL	02-055/20:13:37
21513	MGS	02-055/20:29:30		Set eclipse egress script address: 0158	SWSEES	02-055/20:13:38
21514	MGS	02-055/20:30:02		NOTE: Begin fixed Sub-Reflector for Radio Science		02-055/20:14:10
21515	MGS	02-055/20:33:47		: 01:27:11	RPAONX	02-055/20:17:55
21516	MGS	02-055/20:33:47		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-055/20:17:55
21517	MGS	02-055/20:35:02		: 00:00:30, 00:06:53, FALSE	RDSCIE	02-055/20:19:10
21518	MGS	02-055/20:35:02		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-055/20:19:10
21519	MGS	02-055/20:35:02		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-055/20:19:10
21520	MGS	02-055/20:35:02		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-055/20:19:10
21521	MGS	02-055/20:35:02		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-055/20:19:10

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
21522	MGS	02-055/20:35:32		Disables autonomous command to send eclipse ingress script	SWEISX	02-055/20:19:40
21523	MGS	02-055/20:35:36		NOTE: Exit Earth Occultation 13260		02-055/20:19:45
21524	MGS	02-055/20:35:36	65	Acquisition Of X-Band Signal		
21525	MGS	02-055/20:35:36	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
21526	MGS	02-055/20:35:36	65	NOTE: Carrier Only -- No Telemetry Modulation		
21527	MGS	02-055/20:39:49		NOTE: Exit Planetary Atmosphere 13260		02-055/20:23:57
21528	MGS	02-055/20:41:55		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-055/20:26:03
21529	MGS	02-055/20:41:55		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-055/20:26:03
21530	MGS	02-055/20:41:55		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-055/20:26:03
21531	MGS	02-055/20:41:55		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-055/20:26:03
21532	MGS	02-055/20:41:55	65	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
21533	MGS	02-055/20:41:56		: RTM, MRC, 01:12:26, S&E_2A, FALSE, 00:06:36	AEMRT	02-055/20:26:04
21534	MGS	02-055/20:41:56		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-055/20:26:04
21535	MGS	02-055/20:41:56		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-055/20:26:04
21536	MGS	02-055/20:41:56		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=2, BITS=108520000, DUR=00:45:14		02-055/20:26:04
21537	MGS	02-055/20:41:56		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-055/20:26:04
21538	MGS	02-055/20:41:56	65	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
21539	MGS	02-055/20:42:00		NOTE: End fixed Sub-Reflector for Radio Science		02-055/20:26:08
21540	MGS	02-055/20:45:06		NOTE: Exit Solar Eclipse 13260		02-055/20:29:14
21541	MGS	02-055/20:50:00	65	NOTE: Transmitter Off in 15 minutes		
21542	MGS	02-055/20:57:14		NOTE: Periapsis 13261 ----------		02-055/20:41:22
21543	MGS	02-055/21:03:00	65	Range Modulation Off		
21544	MGS	02-055/21:05:00	65	Transmitter Off		
21545	MGS	02-055/21:10:04		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-055/20:54:12
21546	MGS	02-055/21:10:04		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-055/20:54:12
21547	MGS	02-055/21:10:05		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-055/20:54:13
21548	MGS	02-055/21:10:05		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-055/20:54:13
21549	MGS	02-055/21:13:32		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-055/20:57:40
21550	MGS	02-055/21:13:32		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=2, BITS=123688000, DUR=00:31:36		02-055/20:57:40
21551	MGS	02-055/21:13:32		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-055/20:57:40
21552	MGS	02-055/21:13:32		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-055/20:57:40
21553	MGS	02-055/21:13:32	65	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
21554	MGS	02-055/21:15:00	65	End Tracking		
21555	MGS	02-055/21:30:00	65	End Post-Cal		
21556	MGS	02-055/21:32:05		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-055/21:16:13
21557	MGS	02-055/21:32:05		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-055/21:16:13
21558	MGS	02-055/21:49:22		NOTE: Begin fixed Sub-Reflector for Radio Science		02-055/21:33:30
21559	MGS	02-055/21:54:22		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-055/21:38:30
21560	MGS	02-055/21:54:22		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=2, BITS=143288000, DUR=00:40:50		02-055/21:38:30
21561	MGS	02-055/21:54:22		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-055/21:38:30
21562	MGS	02-055/21:54:22		: 00:06:35, FALSE	RDSCII	02-055/21:38:30
21563	MGS	02-055/21:54:22		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-055/21:38:30
21564	MGS	02-055/21:54:22		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-055/21:38:30
21565	MGS	02-055/21:54:22		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-055/21:38:30
21566	MGS	02-055/21:54:22		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-055/21:38:30
21567	MGS	02-055/21:56:24		NOTE: Apoapsis 13261 -		02-055/21:40:31
21568	MGS	02-055/21:56:31		NOTE: Enter Planetary Atmosphere 13261		02-055/21:40:39
21569	MGS	02-055/22:00:25		NOTE: Enter Earth Occultation 13261		02-055/21:44:33
21570	MGS	02-055/22:00:57		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-055/21:45:05
21571	MGS	02-055/22:00:57		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-055/21:45:05
21572	MGS	02-055/22:00:57		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-055/21:45:05
21573	MGS	02-055/22:00:57		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-055/21:45:05
21574	MGS	02-055/22:00:58		NOTE: End EVP script		02-055/21:45:06
21575	MGS	02-055/22:00:58		Turn off the MOT Exciter and RPA beam	STRPAF	02-055/21:45:06

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
21576	MGS	02-055/22:00:59		NOTE: End Block (MAP_RT)		02-055/21:45:07
21577	MGS	02-055/22:01:02		NOTE: End fixed Sub-Reflector for Radio Science		02-055/21:45:10
21578	MGS	02-055/22:02:26		NOTE: Enter Solar Eclipse 13261		02-055/21:46:34
21579	MGS	02-055/22:17:43		Disable HGA control mode	SAHGCX	02-055/22:01:50
21580	MGS	02-055/22:17:44		No Operation	SCNOOP	02-055/22:01:51
21581	MGS	02-055/22:17:45		CDU-1 Uplink Rate Select (Based on 3 bit Code): 7	TCC1BS	02-055/22:01:52
21582	MGS	02-055/22:17:45		CDU-2 Uplink Rate Select (Based on 3 bit Code): 7	TCC2BS	02-055/22:01:52
21583	MGS	02-055/22:27:06		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-055/22:11:13
21584	MGS	02-055/22:27:06		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-055/22:11:13
21585	MGS	02-055/22:27:11		Set eclipse egress script address: 019A	SWSEES	02-055/22:11:18
21586	MGS	02-055/22:29:11		NOTE: Start Block (SSRMGR)		02-055/22:13:18
21587	MGS	02-055/22:29:11		Sends a one-word SSR command to the XSU command SOB: SSR_2A, SE_1A, RECORD, PART3	STSSRC	02-055/22:13:18
21588	MGS	02-055/22:29:12		SSR 2A Data Enable	CSD2AE	02-055/22:13:19
21589	MGS	02-055/22:29:12		SSR Activity: ID=SSR_2A, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-055/22:13:19
21590	MGS	02-055/22:33:21		NOTE: Exit Earth Occultation 13261		02-055/22:17:29
21591	MGS	02-055/22:37:33		NOTE: Exit Planetary Atmosphere 13261		02-055/22:21:41
21592	MGS	02-055/22:42:51		NOTE: Exit Solar Eclipse 13261		02-055/22:26:58
21593	MGS	02-055/22:55:08		NOTE: Periapsis 13262 ----------		02-055/22:39:16
21594	MGS	02-055/22:55:52		SSR 2B Data Disable	CSD2BX	02-055/22:39:59
21595	MGS	02-055/22:55:52		SSR Activity: ID=SSR_2B, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-055/22:39:59
21596	MGS	02-055/22:55:53		NOTE: End Block (SSRMGR)		02-055/22:40:00
21597	MGS	02-055/23:03:50		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-055/22:47:57
21598	MGS	02-055/23:03:50		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-055/22:47:57
21599	MGS	02-055/23:03:51		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-055/22:47:58
21600	MGS	02-055/23:03:51		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-055/22:47:58
21601	MGS	02-055/23:09:11		NOTE: Start Block (SSRMGR)		02-055/22:53:18
21602	MGS	02-055/23:09:11		Sends a one-word SSR command to the XSU command SOB: SSR_2B, SE_1A, RECORD, PART3	STSSRC	02-055/22:53:18
21603	MGS	02-055/23:09:12		SSR 2B Data Enable	CSD2BE	02-055/22:53:19
21604	MGS	02-055/23:09:12		SSR Activity: ID=SSR_2B, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-055/22:53:19
21605	MGS	02-055/23:25:51		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-055/23:09:58
21606	MGS	02-055/23:25:51		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-055/23:09:58
21607	MGS	02-055/23:35:52		SSR 2A Data Disable	CSD2AX	02-055/23:19:59
21608	MGS	02-055/23:35:52		SSR Activity: ID=SSR_2A, FCN=End Recording, PRT=3, BITS=32000000, DUR=01:06:40		02-055/23:19:59
21609	MGS	02-055/23:35:53		NOTE: End Block (SSRMGR)		02-055/23:20:00
21610	MGS	02-055/23:54:09		NOTE: Apoapsis 13262 -		02-055/23:38:17
21611	MGS	02-055/23:54:19		NOTE: Enter Planetary Atmosphere 13262		02-055/23:38:26
21612	MGS	02-055/23:58:13		NOTE: Enter Earth Occultation 13262		02-055/23:42:20
21613	MGS	02-056/00:00:00		Light Time: OWLT = 15:52, RTLT = 31:44		
21614	MGS	02-056/00:00:14		NOTE: Enter Solar Eclipse 13262		02-055/23:44:21
21615	MGS	02-056/00:15:51		NOTE: Start Block (SSRMGR)		02-055/23:59:58
21616	MGS	02-056/00:15:51		Sends a one-word SSR command to the XSU command SOB: SSR_1A, SE_1A, RECORD, PART1	STSSRC	02-055/23:59:58
21617	MGS	02-056/00:15:52		SSR 1A Data Enable	CSD1AE	02-055/23:59:59
21618	MGS	02-056/00:15:52		SSR Activity: ID=SSR_1A, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-055/23:59:59
21619	MGS	02-056/00:24:51		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-056/00:08:58
21620	MGS	02-056/00:24:51		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-056/00:08:58
21621	MGS	02-056/00:24:56		Set eclipse egress script address: 01DC	SWSEES	02-056/00:09:03
21622	MGS	02-056/00:31:09		NOTE: Exit Earth Occultation 13262		02-056/00:15:16
21623	MGS	02-056/00:35:21		NOTE: Exit Planetary Atmosphere 13262		02-056/00:19:29
21624	MGS	02-056/00:40:38		NOTE: Exit Solar Eclipse 13262		02-056/00:24:46
21625	MGS	02-056/00:42:32		SSR 2B Data Disable	CSD2BX	02-056/00:26:39
21626	MGS	02-056/00:42:32		SSR Activity: ID=SSR_2B, FCN=End Recording, PRT=3, BITS=44800000, DUR=01:33:20		02-056/00:26:39
21627	MGS	02-056/00:42:33		NOTE: End Block (SSRMGR)		02-056/00:26:40
21628	MGS	02-056/00:52:57		NOTE: Periapsis 13263 ----------		02-056/00:37:04
21629	MGS	02-056/01:01:37		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-056/00:45:44

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
21630	MGS	02-056/01:01:37		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-056/00:45:44
21631	MGS	02-056/01:01:38		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-056/00:45:45
21632	MGS	02-056/01:01:38		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-056/00:45:45
21633	MGS	02-056/01:23:38		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-056/01:07:45
21634	MGS	02-056/01:23:38		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-056/01:07:45
21635	MGS	02-056/01:51:43		NOTE: Apoapsis 13263 -		02-056/01:35:50
21636	MGS	02-056/01:52:06		NOTE: Enter Planetary Atmosphere 13263		02-056/01:36:13
21637	MGS	02-056/01:56:00		NOTE: Enter Earth Occultation 13263		02-056/01:40:07
21638	MGS	02-056/01:58:00		NOTE: Enter Solar Eclipse 13263		02-056/01:42:08
21639	MGS	02-056/02:22:38		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-056/02:06:45
21640	MGS	02-056/02:22:38		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-056/02:06:45
21641	MGS	02-056/02:22:42		Command the PSE with included data word: 3990	SWPSEL	02-056/02:06:49
21642	MGS	02-056/02:22:43		Set eclipse egress script address: 0158	SWSEES	02-056/02:06:50
21643	MGS	02-056/02:28:56		NOTE: Exit Earth Occultation 13263		02-056/02:13:03
21644	MGS	02-056/02:33:08		NOTE: Exit Planetary Atmosphere 13263		02-056/02:17:16
21645	MGS	02-056/02:38:25		NOTE: Exit Solar Eclipse 13263		02-056/02:22:32
21646	MGS	02-056/02:45:00	45	Begin Pre-Cal		
21647	MGS	02-056/02:45:00	45	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
21648	MGS	02-056/02:45:00	45	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
21649	MGS	02-056/02:45:00	45	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
21650	MGS	02-056/02:45:00	45	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=OFF, EXC=2		
21651	MGS	02-056/02:45:00	45	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
21652	MGS	02-056/02:45:00	45	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
21653	MGS	02-056/02:45:00	45	Config: TGC: DEST=37		
21654	MGS	02-056/02:45:00	45	Config: TGC: BAND=X, BR=8000.000000		
21655	MGS	02-056/02:45:00	45	Config: FSS: CH=2, PRI_FL=10000		
21656	MGS	02-056/02:45:00	45	Config: RSR		
21657	MGS	02-056/02:45:00	45	Config: TXL		
21658	MGS	02-056/02:45:00	45	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
21659	MGS	02-056/02:45:00	45	Config: BVR		
21660	MGS	02-056/02:45:00	45	Config: Doppler Extractor: BIAS=+1MHZ		
21661	MGS	02-056/02:45:00	45	Config: MDA: SMPL=0.1		
21662	MGS	02-056/02:45:00	45	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
21663	MGS	02-056/02:45:00	45	Config: SRA: HIGH=4, LOW=14, SERV=D		
21664	MGS	02-056/02:45:00	45	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
21665	MGS	02-056/02:50:38		NOTE: Periapsis 13264 ----------		02-056/02:34:45
21666	MGS	02-056/03:03:24		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-056/02:47:31
21667	MGS	02-056/03:03:24		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-056/02:47:31
21668	MGS	02-056/03:03:25		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-056/02:47:32
21669	MGS	02-056/03:03:25		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-056/02:47:32
21670	MGS	02-056/03:25:25		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-056/03:09:32
21671	MGS	02-056/03:25:25		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-056/03:09:32
21672	MGS	02-056/03:45:00	45	Begin Tracking		
21673	MGS	02-056/03:45:44		NOTE: Start Block (MAP_PB)		02-056/03:29:51
21674	MGS	02-056/03:45:45		: 00:29:12, 01:27:04, FALSE, TRUE, FALSE, 00:01:15, 00:06:52, 01:12:22, 00:06:34	AEMINI	02-056/03:29:52
21675	MGS	02-056/03:45:45		Enable sending eclipse ingress script when array power disappears	SWEISE	02-056/03:29:52
21676	MGS	02-056/03:45:45		NOTE: Start EVP data return script		02-056/03:29:52
21677	MGS	02-056/03:45:46		: SSR_2A, F42KHZ, PART1, SE_1A, 2002-056T04:17:12.000	AEMPBI	02-056/03:29:53
21678	MGS	02-056/03:49:12		NOTE: Apoapsis 13264 -		02-056/03:33:19
21679	MGS	02-056/03:49:50		NOTE: Enter Planetary Atmosphere 13264		02-056/03:33:57
21680	MGS	02-056/03:53:45		NOTE: Enter Earth Occultation 13264		02-056/03:37:52
21681	MGS	02-056/03:55:45		NOTE: Enter Solar Eclipse 13264		02-056/03:39:52
21682	MGS	02-056/03:55:45		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-056/03:39:52
21683	MGS	02-056/03:58:41	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
21684	MGS	02-056/04:00:41	45	Range Modulation On: SUP=3.0dB		
21685	MGS	02-056/04:01:41	45	Begin Ranging Acquisition		
21686	MGS	02-056/04:11:13		Select Automatic HGA control mode	SAHACE	02-056/03:55:20
21687	MGS	02-056/04:11:14		Selects Hign Gain Antenna for downlink, Reconfigures if beam is already on	STUHGA	02-056/03:55:21
21688	MGS	02-056/04:11:15		CDU-1 Uplink Rate Select (Based on 3 bit Code): 3	TCC1BS	02-056/03:55:22
21689	MGS	02-056/04:11:15		CDU-2 Uplink Rate Select (Based on 3 bit Code): 3	TCC2BS	02-056/03:55:22
21690	MGS	02-056/04:20:25		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-056/04:04:32
21691	MGS	02-056/04:20:25		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-056/04:04:32
21692	MGS	02-056/04:20:30		Set eclipse egress script address: 019A	SWSEES	02-056/04:04:37
21693	MGS	02-056/04:21:12		NOTE: Begin fixed Sub-Reflector for Radio Science		02-056/04:05:19
21694	MGS	02-056/04:24:57		: 01:27:04	RPAONX	02-056/04:09:04
21695	MGS	02-056/04:24:57		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-056/04:09:04
21696	MGS	02-056/04:26:12		: 00:00:30, 00:06:52, FALSE	RDSCIE	02-056/04:10:19
21697	MGS	02-056/04:26:12		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-056/04:10:19
21698	MGS	02-056/04:26:12		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-056/04:10:19
21699	MGS	02-056/04:26:12		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-056/04:10:19
21700	MGS	02-056/04:26:12		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-056/04:10:19
21701	MGS	02-056/04:26:42		NOTE: Exit Earth Occultation 13264		02-056/04:10:49
21702	MGS	02-056/04:26:42	45	Acquisition Of X-Band Signal		
21703	MGS	02-056/04:26:42	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
21704	MGS	02-056/04:26:42	45	NOTE: Carrier Only -- No Telemetry Modulation		
21705	MGS	02-056/04:30:54		NOTE: Exit Planetary Atmosphere 13264		02-056/04:15:01
21706	MGS	02-056/04:33:04		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-056/04:17:11
21707	MGS	02-056/04:33:04		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-056/04:17:11
21708	MGS	02-056/04:33:04		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-056/04:17:11
21709	MGS	02-056/04:33:04		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-056/04:17:11
21710	MGS	02-056/04:33:04		: REC_2A, F42KHZ, PART1, SE_1A, FALSE, 00:10:18	AEMPB	02-056/04:17:11
21711	MGS	02-056/04:33:04		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-056/04:17:11
21712	MGS	02-056/04:33:04		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, PLYBCK, PART1	STSSRC	02-056/04:17:11
21713	MGS	02-056/04:33:04	45	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
21714	MGS	02-056/04:33:05		SSR 2A Data Enable	CSD2AE	02-056/04:17:12
21715	MGS	02-056/04:33:05		SSR Activity: ID=SSR_2A, FCN=Start Playback, PRT=1, BR=42666		02-056/04:17:12
21716	MGS	02-056/04:33:05	45	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
21717	MGS	02-056/04:33:09		NOTE: End fixed Sub-Reflector for Radio Science		02-056/04:17:16
21718	MGS	02-056/04:36:10		NOTE: Exit Solar Eclipse 13264		02-056/04:20:17
21719	MGS	02-056/04:48:23		NOTE: Periapsis 13265 ----------		02-056/04:32:30
21720	MGS	02-056/04:57:09		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-056/04:41:15
21721	MGS	02-056/04:57:09		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-056/04:41:15
21722	MGS	02-056/04:57:10		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-056/04:41:16
21723	MGS	02-056/04:57:10		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-056/04:41:16
21724	MGS	02-056/05:00:56	45	NOTE: Transmitter Off in 15 minutes		
21725	MGS	02-056/05:13:57	45	Range Modulation Off		
21726	MGS	02-056/05:15:56	45	Transmitter Off		
21727	MGS	02-056/05:19:10		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-056/05:03:16
21728	MGS	02-056/05:19:10		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-056/05:03:16
21729	MGS	02-056/05:40:27		NOTE: Begin fixed Sub-Reflector for Radio Science		02-056/05:24:33
21730	MGS	02-056/05:41:44		SSR 2A Data Disable	CSD2AX	02-056/05:25:50
21731	MGS	02-056/05:41:44		SSR Activity: ID=SSR_2A, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-056/05:25:50
21732	MGS	02-056/05:41:44		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-056/05:25:50
21733	MGS	02-056/05:41:44	45	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
21734	MGS	02-056/05:43:28		NOTE: Start EVP data return script		02-056/05:27:34
21735	MGS	02-056/05:43:28		: SSR_2B, F42KHZ, PART1, 2002-056T06:14:54.000	AEMPBU	02-056/05:27:34
21736	MGS	02-056/05:45:27		: 00:06:34, FALSE	RDSCII	02-056/05:29:33
21737	MGS	02-056/05:45:27		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-056/05:29:33

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
21738	MGS	02-056/05:45:27		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-056/05:29:33
21739	MGS	02-056/05:45:27		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-056/05:29:33
21740	MGS	02-056/05:45:27		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-056/05:29:33
21741	MGS	02-056/05:45:27	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
21742	MGS	02-056/05:45:27	45	NOTE: Carrier Only -- No Telemetry Modulation		
21743	MGS	02-056/05:47:02		NOTE: Apoapsis 13265 -		02-056/05:31:09
21744	MGS	02-056/05:47:33		NOTE: Enter Planetary Atmosphere 13265		02-056/05:31:40
21745	MGS	02-056/05:49:12		NOTE: Start Block (SSRMGR)		02-056/05:33:18
21746	MGS	02-056/05:49:12		Sends a one-word SSR command to the XSU command SOB: SSR_1B, SE_1A, RECORD, PART1	STSSRC	02-056/05:33:18
21747	MGS	02-056/05:49:13		SSR 1B Data Enable	CSD1BE	02-056/05:33:19
21748	MGS	02-056/05:49:13		SSR Activity: ID=SSR_1B, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-056/05:33:19
21749	MGS	02-056/05:51:28		NOTE: Enter Earth Occultation 13265		02-056/05:35:35
21750	MGS	02-056/05:51:28	45	NOTE: Loss Of X-Band Signal		
21751	MGS	02-056/05:52:01		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-056/05:36:07
21752	MGS	02-056/05:52:01		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-056/05:36:07
21753	MGS	02-056/05:52:01		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-056/05:36:07
21754	MGS	02-056/05:52:01		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-056/05:36:07
21755	MGS	02-056/05:52:02		NOTE: End EVP script		02-056/05:36:08
21756	MGS	02-056/05:52:02		Turn off the MOT Exciter and RPA beam	STRPAF	02-056/05:36:08
21757	MGS	02-056/05:52:06		NOTE: End fixed Sub-Reflector for Radio Science		02-056/05:36:12
21758	MGS	02-056/05:53:28		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-056/05:37:34
21759	MGS	02-056/05:53:28		NOTE: Enter Solar Eclipse 13265		02-056/05:37:35
21760	MGS	02-056/05:56:24	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
21761	MGS	02-056/05:58:24	45	Range Modulation On: SUP=3.0dB		
21762	MGS	02-056/05:59:24	45	Begin Ranging Acquisition		
21763	MGS	02-056/06:15:53		SSR 1A Data Disable	CSD1AX	02-056/05:59:59
21764	MGS	02-056/06:15:53		SSR Activity: ID=SSR_1A, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-056/05:59:59
21765	MGS	02-056/06:15:54		NOTE: End Block (SSRMGR)		02-056/06:00:00
21766	MGS	02-056/06:18:10		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-056/06:02:16
21767	MGS	02-056/06:18:10		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-056/06:02:16
21768	MGS	02-056/06:18:15		Set eclipse egress script address: 01DC	SWSEES	02-056/06:02:21
21769	MGS	02-056/06:18:55		NOTE: Begin fixed Sub-Reflector for Radio Science		02-056/06:03:01
21770	MGS	02-056/06:22:40		: 01:27:04	RPAONX	02-056/06:06:46
21771	MGS	02-056/06:22:40		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-056/06:06:46
21772	MGS	02-056/06:23:55		: 00:00:30, 00:06:52, FALSE	RDSCIE	02-056/06:08:01
21773	MGS	02-056/06:23:55		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-056/06:08:01
21774	MGS	02-056/06:23:55		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-056/06:08:01
21775	MGS	02-056/06:23:55		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-056/06:08:01
21776	MGS	02-056/06:23:55		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-056/06:08:01
21777	MGS	02-056/06:24:25		NOTE: Exit Earth Occultation 13265		02-056/06:08:32
21778	MGS	02-056/06:24:25	45	Acquisition Of X-Band Signal		
21779	MGS	02-056/06:24:25	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
21780	MGS	02-056/06:24:25	45	NOTE: Carrier Only -- No Telemetry Modulation		
21781	MGS	02-056/06:28:38		NOTE: Exit Planetary Atmosphere 13265		02-056/06:12:45
21782	MGS	02-056/06:30:47		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-056/06:14:53
21783	MGS	02-056/06:30:47		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-056/06:14:53
21784	MGS	02-056/06:30:47		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-056/06:14:53
21785	MGS	02-056/06:30:47		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-056/06:14:53
21786	MGS	02-056/06:30:47		: REC_2B, F42KHZ, PART1, SE_1A, FALSE, 00:10:18	AEMPB	02-056/06:14:53
21787	MGS	02-056/06:30:47		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-056/06:14:53
21788	MGS	02-056/06:30:47		Sends a one-word SSR command to the XSU command SOB: SSR_2B, F42KHZ, PLYBCK, PART1	STSSRC	02-056/06:14:53
21789	MGS	02-056/06:30:47	45	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
21790	MGS	02-056/06:30:48		SSR 2B Data Enable	CSD2BE	02-056/06:14:54
21791	MGS	02-056/06:30:48		SSR Activity: ID=SSR_2B, FCN=Start Playback, PRT=1, BR=42666		02-056/06:14:54

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
21792	MGS	02-056/06:30:48	45	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
21793	MGS	02-056/06:30:52		NOTE: End fixed Sub-Reflector for Radio Science		02-056/06:14:58
21794	MGS	02-056/06:33:53		NOTE: Exit Solar Eclipse 13265		02-056/06:17:59
21795	MGS	02-056/06:46:05		NOTE: Periapsis 13266 ----------		02-056/06:30:11
21796	MGS	02-056/06:54:52		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-056/06:38:58
21797	MGS	02-056/06:54:52		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-056/06:38:58
21798	MGS	02-056/06:54:53		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-056/06:38:59
21799	MGS	02-056/06:54:53		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-056/06:38:59
21800	MGS	02-056/06:58:38	45	NOTE: Transmitter Off in 15 minutes		
21801	MGS	02-056/07:11:39	45	Range Modulation Off		
21802	MGS	02-056/07:13:38	45	Transmitter Off		
21803	MGS	02-056/07:16:53		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-056/07:00:59
21804	MGS	02-056/07:16:53		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-056/07:00:59
21805	MGS	02-056/07:38:09		NOTE: Begin fixed Sub-Reflector for Radio Science		02-056/07:22:15
21806	MGS	02-056/07:39:26		SSR 2B Data Disable	CSD2BX	02-056/07:23:32
21807	MGS	02-056/07:39:26		SSR Activity: ID=SSR_2B, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-056/07:23:32
21808	MGS	02-056/07:39:26		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-056/07:23:32
21809	MGS	02-056/07:39:26	45	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
21810	MGS	02-056/07:41:10		NOTE: Start EVP data return script		02-056/07:25:16
21811	MGS	02-056/07:41:10		: SSR_2A, F42KHZ, PART2, 2002-056T08:12:36.000	AEMPBU	02-056/07:25:16
21812	MGS	02-056/07:43:09		: 00:06:34, FALSE	RDSCII	02-056/07:27:15
21813	MGS	02-056/07:43:09		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-056/07:27:15
21814	MGS	02-056/07:43:09		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-056/07:27:15
21815	MGS	02-056/07:43:09		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-056/07:27:15
21816	MGS	02-056/07:43:09		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-056/07:27:15
21817	MGS	02-056/07:43:09	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
21818	MGS	02-056/07:43:09	45	NOTE: Carrier Only -- No Telemetry Modulation		
21819	MGS	02-056/07:44:46		NOTE: Apoapsis 13266 -		02-056/07:28:52
21820	MGS	02-056/07:45:16		NOTE: Enter Planetary Atmosphere 13266		02-056/07:29:22
21821	MGS	02-056/07:49:10		NOTE: Enter Earth Occultation 13266		02-056/07:33:17
21822	MGS	02-056/07:49:10	45	NOTE: Loss Of X-Band Signal		
21823	MGS	02-056/07:49:43		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-056/07:33:49
21824	MGS	02-056/07:49:43		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-056/07:33:49
21825	MGS	02-056/07:49:43		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-056/07:33:49
21826	MGS	02-056/07:49:43		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-056/07:33:49
21827	MGS	02-056/07:49:44		NOTE: End EVP script		02-056/07:33:50
21828	MGS	02-056/07:49:44		Turn off the MOT Exciter and RPA beam	STRPAF	02-056/07:33:50
21829	MGS	02-056/07:49:48		NOTE: End fixed Sub-Reflector for Radio Science		02-056/07:33:54
21830	MGS	02-056/07:51:10		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-056/07:35:16
21831	MGS	02-056/07:51:10		NOTE: Enter Solar Eclipse 13266		02-056/07:35:16
21832	MGS	02-056/07:54:05	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
21833	MGS	02-056/07:56:06	45	Range Modulation On: SUP=3.0dB		
21834	MGS	02-056/07:57:06	45	Begin Ranging Acquisition		
21835	MGS	02-056/08:15:53		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-056/07:59:59
21836	MGS	02-056/08:15:53		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-056/07:59:59
21837	MGS	02-056/08:15:57		Command the PSE with included data word: 3990	SWPSEL	02-056/08:00:03
21838	MGS	02-056/08:15:58		Set eclipse egress script address: 0158	SWSEES	02-056/08:00:04
21839	MGS	02-056/08:16:37		NOTE: Begin fixed Sub-Reflector for Radio Science		02-056/08:00:43
21840	MGS	02-056/08:20:22		: 01:27:04	RPAONX	02-056/08:04:28
21841	MGS	02-056/08:20:22		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-056/08:04:28
21842	MGS	02-056/08:21:37		: 00:00:30, 00:06:52, FALSE	RDSCIE	02-056/08:05:43
21843	MGS	02-056/08:21:37		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-056/08:05:43
21844	MGS	02-056/08:21:37		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-056/08:05:43
21845	MGS	02-056/08:21:37		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-056/08:05:43

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
21846	MGS	02-056/08:21:37		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-056/08:05:43
21847	MGS	02-056/08:22:07		NOTE: Exit Earth Occultation 13266		02-056/08:06:14
21848	MGS	02-056/08:22:07	45	Acquisition Of X-Band Signal		
21849	MGS	02-056/08:22:07	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
21850	MGS	02-056/08:22:07	45	NOTE: Carrier Only -- No Telemetry Modulation		
21851	MGS	02-056/08:26:20		NOTE: Exit Planetary Atmosphere 13266		02-056/08:10:26
21852	MGS	02-056/08:28:29		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-056/08:12:35
21853	MGS	02-056/08:28:29		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-056/08:12:35
21854	MGS	02-056/08:28:29		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-056/08:12:35
21855	MGS	02-056/08:28:29		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-056/08:12:35
21856	MGS	02-056/08:28:29		: REC_2A, F42KHZ, PART2, SE_1A, FALSE, 00:10:18	AEMPB	02-056/08:12:35
21857	MGS	02-056/08:28:29		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-056/08:12:35
21858	MGS	02-056/08:28:29		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, PLYBCK, PART2	STSSRC	02-056/08:12:35
21859	MGS	02-056/08:28:29	45	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
21860	MGS	02-056/08:28:30		SSR 2A Data Enable	CSD2AE	02-056/08:12:36
21861	MGS	02-056/08:28:30		SSR Activity: ID=SSR_2A, FCN=Start Playback, PRT=2, BR=42666		02-056/08:12:36
21862	MGS	02-056/08:28:30	45	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
21863	MGS	02-056/08:28:34		NOTE: End fixed Sub-Reflector for Radio Science		02-056/08:12:40
21864	MGS	02-056/08:31:34		NOTE: Exit Solar Eclipse 13266		02-056/08:15:41
21865	MGS	02-056/08:43:28		NOTE: Periapsis 13267 ----------		02-056/08:27:34
21866	MGS	02-056/08:50:00	65	Begin Pre-Cal		
21867	MGS	02-056/08:50:00	65	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
21868	MGS	02-056/08:50:00	65	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
21869	MGS	02-056/08:50:00	65	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
21870	MGS	02-056/08:50:00	65	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=OFF, EXC=2		
21871	MGS	02-056/08:50:00	65	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
21872	MGS	02-056/08:50:00	65	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
21873	MGS	02-056/08:50:00	65	Config: TGC: DEST=37		
21874	MGS	02-056/08:50:00	65	Config: TGC: BAND=X, BR=8000.000000		
21875	MGS	02-056/08:50:00	65	Config: FSS: CH=2, PRI_FL=10000		
21876	MGS	02-056/08:50:00	65	Config: RSR		
21877	MGS	02-056/08:50:00	65	Config: TXL		
21878	MGS	02-056/08:50:00	65	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
21879	MGS	02-056/08:50:00	65	Config: BVR		
21880	MGS	02-056/08:50:00	65	Config: Doppler Extractor: BIAS=+1MHZ		
21881	MGS	02-056/08:50:00	65	Config: MDA: SMPL=0.1		
21882	MGS	02-056/08:50:00	65	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
21883	MGS	02-056/08:50:00	65	Config: SRA: HIGH=4, LOW=14, SERV=D		
21884	MGS	02-056/08:50:00	65	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
21885	MGS	02-056/08:56:20	45	NOTE: Transmitter Off in 15 minutes		
21886	MGS	02-056/08:56:33		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-056/08:40:39
21887	MGS	02-056/08:56:33		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-056/08:40:39
21888	MGS	02-056/08:56:34		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-056/08:40:40
21889	MGS	02-056/08:56:34		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-056/08:40:40
21890	MGS	02-056/09:09:21	45	Range Modulation Off		
21891	MGS	02-056/09:11:20	45	Transmitter Off		
21892	MGS	02-056/09:18:34		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-056/09:02:40
21893	MGS	02-056/09:18:34		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-056/09:02:40
21894	MGS	02-056/09:35:51		NOTE: Begin fixed Sub-Reflector for Radio Science		02-056/09:19:57
21895	MGS	02-056/09:37:08		SSR 2A Data Disable	CSD2AX	02-056/09:21:14
21896	MGS	02-056/09:37:08		SSR Activity: ID=SSR_2A, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-056/09:21:14
21897	MGS	02-056/09:37:08		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-056/09:21:14
21898	MGS	02-056/09:37:08	45	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
21899	MGS	02-056/09:38:53		NOTE: Start EVP data return script		02-056/09:22:59

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
21900	MGS	02-056/09:38:53		: SSR_2B, F42KHZ, PART2, 2002-056T10:10:19.000	AEMPBU	02-056/09:22:59
21901	MGS	02-056/09:40:51		: 00:06:34, FALSE	RDSCII	02-056/09:24:57
21902	MGS	02-056/09:40:51		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-056/09:24:57
21903	MGS	02-056/09:40:51		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-056/09:24:57
21904	MGS	02-056/09:40:51		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-056/09:24:57
21905	MGS	02-056/09:40:51		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-056/09:24:57
21906	MGS	02-056/09:40:51	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
21907	MGS	02-056/09:40:51	45	NOTE: Carrier Only -- No Telemetry Modulation		
21908	MGS	02-056/09:42:11		NOTE: Apoapsis 13267 -		02-056/09:26:17
21909	MGS	02-056/09:42:59		NOTE: Enter Planetary Atmosphere 13267		02-056/09:27:05
21910	MGS	02-056/09:46:53		NOTE: Enter Earth Occultation 13267		02-056/09:30:59
21911	MGS	02-056/09:46:53	45	NOTE: Loss Of X-Band Signal		
21912	MGS	02-056/09:47:25		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-056/09:31:31
21913	MGS	02-056/09:47:25		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-056/09:31:31
21914	MGS	02-056/09:47:25		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-056/09:31:31
21915	MGS	02-056/09:47:25		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-056/09:31:31
21916	MGS	02-056/09:47:26		NOTE: End EVP script		02-056/09:31:32
21917	MGS	02-056/09:47:26		Turn off the MOT Exciter and RPA beam	STRPAF	02-056/09:31:32
21918	MGS	02-056/09:47:30		NOTE: End fixed Sub-Reflector for Radio Science		02-056/09:31:36
21919	MGS	02-056/09:48:53		NOTE: Enter Solar Eclipse 13267		02-056/09:32:59
21920	MGS	02-056/09:48:53		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-056/09:32:59
21921	MGS	02-056/09:50:00	65	Begin Tracking		
21922	MGS	02-056/09:54:29	65	NOTE: Above Uplink Interlock Limit		
21923	MGS	02-056/09:59:33	45	NOTE: Below Uplink Interlock Limit		
21924	MGS	02-056/10:00:00	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
21925	MGS	02-056/10:02:00	65	Range Modulation On: SUP=3.0dB		
21926	MGS	02-056/10:03:00	65	Begin Ranging Acquisition		
21927	MGS	02-056/10:10:00	45	End Tracking		
21928	MGS	02-056/10:13:34		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-056/09:57:40
21929	MGS	02-056/10:13:34		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-056/09:57:40
21930	MGS	02-056/10:13:39		Set eclipse egress script address: 019A	SWSEES	02-056/09:57:45
21931	MGS	02-056/10:14:20		NOTE: Begin fixed Sub-Reflector for Radio Science		02-056/09:58:26
21932	MGS	02-056/10:18:05		: 01:27:04	RPAONX	02-056/10:02:11
21933	MGS	02-056/10:18:05		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-056/10:02:11
21934	MGS	02-056/10:19:20		: 00:00:30, 00:06:52, FALSE	RDSCIE	02-056/10:03:26
21935	MGS	02-056/10:19:20		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-056/10:03:26
21936	MGS	02-056/10:19:20		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-056/10:03:26
21937	MGS	02-056/10:19:20		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-056/10:03:26
21938	MGS	02-056/10:19:20		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-056/10:03:26
21939	MGS	02-056/10:19:50		NOTE: Exit Earth Occultation 13267		02-056/10:03:56
21940	MGS	02-056/10:19:50	65	Acquisition Of X-Band Signal		
21941	MGS	02-056/10:19:50	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
21942	MGS	02-056/10:19:50	65	NOTE: Carrier Only -- No Telemetry Modulation		
21943	MGS	02-056/10:19:50		Disables autonomous command to send eclipse ingress script	SWEISX	02-056/10:03:56
21944	MGS	02-056/10:24:02		NOTE: Exit Planetary Atmosphere 13267		02-056/10:08:08
21945	MGS	02-056/10:25:00	45	End Post-Cal		
21946	MGS	02-056/10:26:12		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-056/10:10:18
21947	MGS	02-056/10:26:12		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-056/10:10:18
21948	MGS	02-056/10:26:12		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-056/10:10:18
21949	MGS	02-056/10:26:12		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-056/10:10:18
21950	MGS	02-056/10:26:12		: REC_2B, F42KHZ, PART2, SE_1A, FALSE, 00:10:18	AEMPB	02-056/10:10:18
21951	MGS	02-056/10:26:12		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-056/10:10:18
21952	MGS	02-056/10:26:12		Sends a one-word SSR command to the XSU command SOB: SSR_2B, F42KHZ, PLYBCK, PART2	STSSRC	02-056/10:10:18
21953	MGS	02-056/10:26:12	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
21954	MGS	02-056/10:26:13		SSR 2B Data Enable	CSD2BE	02-056/10:10:19
21955	MGS	02-056/10:26:13		SSR Activity: ID=SSR_2B, FCN=Start Playback, PRT=2, BR=42666		02-056/10:10:19
21956	MGS	02-056/10:26:13	65	D/L Change: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
21957	MGS	02-056/10:26:17		NOTE: End fixed Sub-Reflector for Radio Science		02-056/10:10:23
21958	MGS	02-056/10:29:17		NOTE: Exit Solar Eclipse 13267		02-056/10:13:23
21959	MGS	02-056/10:31:47	65	Acquire D/L: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
21960	MGS	02-056/10:41:08		NOTE: Periapsis 13268 ----------		02-056/10:25:14
21961	MGS	02-056/10:50:16		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-056/10:34:22
21962	MGS	02-056/10:50:16		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-056/10:34:22
21963	MGS	02-056/10:50:17		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-056/10:34:23
21964	MGS	02-056/10:50:17		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-056/10:34:23
21965	MGS	02-056/10:54:04	65	NOTE: Transmitter Off in 15 minutes		
21966	MGS	02-056/11:07:04	65	Range Modulation Off		
21967	MGS	02-056/11:09:04	65	Transmitter Off		
21968	MGS	02-056/11:12:18		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-056/10:56:23
21969	MGS	02-056/11:12:18		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-056/10:56:23
21970	MGS	02-056/11:22:33		NOTE: Start Block (SSRMGR)		02-056/11:06:38
21971	MGS	02-056/11:22:33		Sends a one-word SSR command to the XSU command SOB: SSR_1A, SE_1A, RECORD, PART2	STSSRC	02-056/11:06:38
21972	MGS	02-056/11:22:34		SSR 1A Data Enable	CSD1AE	02-056/11:06:39
21973	MGS	02-056/11:22:34		SSR Activity: ID=SSR_1A, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-056/11:06:39
21974	MGS	02-056/11:33:35		NOTE: Begin fixed Sub-Reflector for Radio Science		02-056/11:17:40
21975	MGS	02-056/11:34:52		SSR 2B Data Disable	CSD2BX	02-056/11:18:57
21976	MGS	02-056/11:34:52		SSR Activity: ID=SSR_2B, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-056/11:18:57
21977	MGS	02-056/11:34:52		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-056/11:18:57
21978	MGS	02-056/11:34:52	65	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
21979	MGS	02-056/11:36:38		NOTE: Start Block (MAP_RT)		02-056/11:20:43
21980	MGS	02-056/11:36:39		: 00:29:12, 01:27:03, FALSE, TRUE, FALSE, 00:01:15, 00:06:52, 01:12:21, 00:06:34	AEMINI	02-056/11:20:44
21981	MGS	02-056/11:36:39		Enable sending eclipse ingress script when array power disappears	SWEISE	02-056/11:20:44
21982	MGS	02-056/11:36:39		NOTE: Start EVP data return script		02-056/11:20:44
21983	MGS	02-056/11:36:40		: SE_2A, RTM, 01:12:20, MRC, 2002-056T12:08:05.000	AEMRTI	02-056/11:20:45
21984	MGS	02-056/11:38:35		: 00:06:34, FALSE	RDSCII	02-056/11:22:40
21985	MGS	02-056/11:38:35		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-056/11:22:40
21986	MGS	02-056/11:38:35		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-056/11:22:40
21987	MGS	02-056/11:38:35		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-056/11:22:40
21988	MGS	02-056/11:38:35		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-056/11:22:40
21989	MGS	02-056/11:38:35	65	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
21990	MGS	02-056/11:38:35	65	NOTE: Carrier Only -- No Telemetry Modulation		
21991	MGS	02-056/11:40:00		NOTE: Apoapsis 13268 -		02-056/11:24:06
21992	MGS	02-056/11:40:43		NOTE: Enter Planetary Atmosphere 13268		02-056/11:24:49
21993	MGS	02-056/11:44:37		NOTE: Enter Earth Occultation 13268		02-056/11:28:43
21994	MGS	02-056/11:44:37	65	NOTE: Loss Of X-Band Signal		
21995	MGS	02-056/11:45:09		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-056/11:29:14
21996	MGS	02-056/11:45:09		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-056/11:29:14
21997	MGS	02-056/11:45:09		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-056/11:29:14
21998	MGS	02-056/11:45:09		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-056/11:29:14
21999	MGS	02-056/11:45:10		NOTE: End EVP script		02-056/11:29:15
22000	MGS	02-056/11:45:10		Turn off the MOT Exciter and RPA beam	STRPAF	02-056/11:29:15
22001	MGS	02-056/11:45:11		NOTE: End Block (MAP_PB)		02-056/11:29:16
22002	MGS	02-056/11:45:14		NOTE: End fixed Sub-Reflector for Radio Science		02-056/11:29:19
22003	MGS	02-056/11:46:38		NOTE: Enter Solar Eclipse 13268		02-056/11:30:44
22004	MGS	02-056/11:46:39		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-056/11:30:44
22005	MGS	02-056/11:49:14		SSR 1B Data Disable	CSD1BX	02-056/11:33:19
22006	MGS	02-056/11:49:14		SSR Activity: ID=SSR_1B, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-056/11:33:19
22007	MGS	02-056/11:49:15		NOTE: End Block (SSRMGR)		02-056/11:33:20

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
22008	MGS	02-056/11:49:32	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
22009	MGS	02-056/11:51:32	65	Range Modulation On: SUP=3.0dB		
22010	MGS	02-056/11:52:32	65	Begin Ranging Acquisition		
22011	MGS	02-056/12:11:18		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-056/11:55:23
22012	MGS	02-056/12:11:18		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-056/11:55:23
22013	MGS	02-056/12:11:23		Set eclipse egress script address: 01DC	SWSEES	02-056/11:55:28
22014	MGS	02-056/12:12:06		NOTE: Begin fixed Sub-Reflector for Radio Science		02-056/11:56:11
22015	MGS	02-056/12:15:51		: 01:27:03	RPAONX	02-056/11:59:56
22016	MGS	02-056/12:15:51		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-056/11:59:56
22017	MGS	02-056/12:15:54		Dump SCP memory to the EDF using physical addressing arguments: 56A4, 240	SCDSCM	02-056/11:59:59
22018	MGS	02-056/12:17:06		: 00:00:30, 00:06:52, FALSE	RDSCIE	02-056/12:01:11
22019	MGS	02-056/12:17:06		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-056/12:01:11
22020	MGS	02-056/12:17:06		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-056/12:01:11
22021	MGS	02-056/12:17:06		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-056/12:01:11
22022	MGS	02-056/12:17:06		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-056/12:01:11
22023	MGS	02-056/12:17:35		NOTE: Exit Earth Occultation 13268		02-056/12:01:41
22024	MGS	02-056/12:17:35	65	Acquisition Of X-Band Signal		
22025	MGS	02-056/12:17:35	65	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
22026	MGS	02-056/12:17:35	65	NOTE: Carrier Only -- No Telemetry Modulation		
22027	MGS	02-056/12:21:47		NOTE: Exit Planetary Atmosphere 13268		02-056/12:05:52
22028	MGS	02-056/12:23:58		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-056/12:08:03
22029	MGS	02-056/12:23:58		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-056/12:08:03
22030	MGS	02-056/12:23:58		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-056/12:08:03
22031	MGS	02-056/12:23:58		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-056/12:08:03
22032	MGS	02-056/12:23:58	65	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
22033	MGS	02-056/12:23:59		: RTM, MRC, 01:12:20, S&E_2A, FALSE, 00:06:35	AEMRT	02-056/12:08:04
22034	MGS	02-056/12:23:59		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-056/12:08:04
22035	MGS	02-056/12:23:59		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-056/12:08:04
22036	MGS	02-056/12:23:59		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=2, BITS=29480000, DUR=01:01:25		02-056/12:08:04
22037	MGS	02-056/12:23:59		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-056/12:08:04
22038	MGS	02-056/12:23:59	65	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
22039	MGS	02-056/12:24:03		NOTE: End fixed Sub-Reflector for Radio Science		02-056/12:08:08
22040	MGS	02-056/12:27:03		NOTE: Exit Solar Eclipse 13268		02-056/12:11:08
22041	MGS	02-056/12:29:52		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-056/12:13:57
22042	MGS	02-056/12:29:52		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=2, BITS=32304000, DUR=00:05:53		02-056/12:13:57
22043	MGS	02-056/12:29:52		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-056/12:13:57
22044	MGS	02-056/12:29:52	65	D/L Change: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
22045	MGS	02-056/12:29:54		NOTE: Start Block (SSRMGR)		02-056/12:13:59
22046	MGS	02-056/12:29:54		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-056/12:13:59
22047	MGS	02-056/12:29:54		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-056/12:13:59
22048	MGS	02-056/12:29:55		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-056/12:14:00
22049	MGS	02-056/12:29:56		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, PLYBCK, PART3	STSSRC	02-056/12:14:01
22050	MGS	02-056/12:29:57		SSR 2A Data Enable	CSD2AE	02-056/12:14:02
22051	MGS	02-056/12:29:57		SSR Activity: ID=SSR_2A, FCN=Start Playback, PRT=3, BR=42666		02-056/12:14:02
22052	MGS	02-056/12:29:57	65	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
22053	MGS	02-056/12:39:17		NOTE: Periapsis 13269 ----------		02-056/12:23:22
22054	MGS	02-056/12:42:24		NOTE: Start Block (SSRMGR)		02-056/12:26:29
22055	MGS	02-056/12:42:24		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-056/12:26:29
22056	MGS	02-056/12:42:24		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-056/12:26:29
22057	MGS	02-056/12:42:25		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-056/12:26:30
22058	MGS	02-056/12:42:25		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, ENBSCR, PART1	STSSRC	02-056/12:26:30
22059	MGS	02-056/12:42:26		Sends a one-word SSR command to the XSU command SOB: SSR_2B, F42KHZ, PLYBCK, PART3	STSSRC	02-056/12:26:31
22060	MGS	02-056/12:42:27		SSR 2B Data Enable	CSD2BE	02-056/12:26:32
22061	MGS	02-056/12:42:27		SSR Activity: ID=SSR_2B, FCN=Start Playback, PRT=3, BR=42666		02-056/12:26:32

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
22062	MGS	02-056/12:42:27		SSR 2A Data Disable	CSD2AX	02-056/12:26:32
22063	MGS	02-056/12:42:28		NOTE: End Block (SSRMGR)		02-056/12:26:33
22064	MGS	02-056/12:48:02		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-056/12:32:07
22065	MGS	02-056/12:48:02		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-056/12:32:07
22066	MGS	02-056/12:48:03		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-056/12:32:08
22067	MGS	02-056/12:48:03		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-056/12:32:08
22068	MGS	02-056/12:51:50	65	NOTE: Transmitter Off in 15 minutes		
22069	MGS	02-056/12:59:57		SSR 2B Data Disable	CSD2BX	02-056/12:44:02
22070	MGS	02-056/12:59:57		SSR Activity: ID=SSR_2B, FCN=End Playback, PRT=3, BITS=44800000, DUR=00:17:30		02-056/12:44:02
22071	MGS	02-056/12:59:58		NOTE: End Block (SSRMGR)		02-056/12:44:03
22072	MGS	02-056/12:59:58		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-056/12:44:03
22073	MGS	02-056/12:59:58		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-056/12:44:03
22074	MGS	02-056/12:59:58	65	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
22075	MGS	02-056/13:04:50	65	Range Modulation Off		
22076	MGS	02-056/13:06:50	65	Transmitter Off		
22077	MGS	02-056/13:10:03		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-056/12:54:08
22078	MGS	02-056/13:10:03		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-056/12:54:08
22079	MGS	02-056/13:31:19		NOTE: Begin fixed Sub-Reflector for Radio Science		02-056/13:15:24
22080	MGS	02-056/13:34:25		NOTE: Start EVP data return script		02-056/13:18:30
22081	MGS	02-056/13:36:19		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-056/13:20:24
22082	MGS	02-056/13:36:19		: 00:06:34, FALSE	RDSCII	02-056/13:20:24
22083	MGS	02-056/13:36:19		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-056/13:20:24
22084	MGS	02-056/13:36:19		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-056/13:20:24
22085	MGS	02-056/13:36:19		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-056/13:20:24
22086	MGS	02-056/13:36:19		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-056/13:20:24
22087	MGS	02-056/13:36:19	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
22088	MGS	02-056/13:36:19	65	NOTE: Carrier Only -- No Telemetry Modulation		
22089	MGS	02-056/13:38:18		NOTE: Apoapsis 13269 -		02-056/13:22:24
22090	MGS	02-056/13:38:30		NOTE: Enter Planetary Atmosphere 13269		02-056/13:22:35
22091	MGS	02-056/13:42:24		NOTE: Enter Earth Occultation 13269		02-056/13:26:29
22092	MGS	02-056/13:42:24	65	NOTE: Loss Of X-Band Signal		
22093	MGS	02-056/13:42:53		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-056/13:26:58
22094	MGS	02-056/13:42:53		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-056/13:26:58
22095	MGS	02-056/13:42:53		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-056/13:26:58
22096	MGS	02-056/13:42:53		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-056/13:26:58
22097	MGS	02-056/13:42:54		NOTE: End EVP script		02-056/13:26:59
22098	MGS	02-056/13:42:54		Turn off the MOT Exciter and RPA beam	STRPAF	02-056/13:26:59
22099	MGS	02-056/13:42:58		NOTE: End fixed Sub-Reflector for Radio Science		02-056/13:27:03
22100	MGS	02-056/13:44:25		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-056/13:28:30
22101	MGS	02-056/13:44:25		NOTE: Enter Solar Eclipse 13269		02-056/13:28:31
22102	MGS	02-056/13:47:19	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
22103	MGS	02-056/13:49:19	65	Range Modulation On: SUP=3.0dB		
22104	MGS	02-056/13:50:19	65	Begin Ranging Acquisition		
22105	MGS	02-056/14:09:03		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-056/13:53:08
22106	MGS	02-056/14:09:03		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-056/13:53:08
22107	MGS	02-056/14:09:07		Command the PSE with included data word: 3990	SWPSEL	02-056/13:53:12
22108	MGS	02-056/14:09:08		Set eclipse egress script address: 0158	SWSEES	02-056/13:53:13
22109	MGS	02-056/14:09:52		NOTE: Begin fixed Sub-Reflector for Radio Science		02-056/13:53:57
22110	MGS	02-056/14:13:37		: 01:27:03	RPAONX	02-056/13:57:42
22111	MGS	02-056/14:13:37		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-056/13:57:42
22112	MGS	02-056/14:14:52		: 00:00:30, 00:06:52, FALSE	RDSCIE	02-056/13:58:57
22113	MGS	02-056/14:14:52		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-056/13:58:57
22114	MGS	02-056/14:14:52		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-056/13:58:57
22115	MGS	02-056/14:14:52		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-056/13:58:57

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
22116	MGS	02-056/14:14:52		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-056/13:58:57
22117	MGS	02-056/14:15:23		NOTE: Exit Earth Occultation 13269		02-056/13:59:28
22118	MGS	02-056/14:15:23	65	Acquisition Of X-Band Signal		
22119	MGS	02-056/14:15:23	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
22120	MGS	02-056/14:15:23	65	NOTE: Carrier Only -- No Telemetry Modulation		
22121	MGS	02-056/14:19:34		NOTE: Exit Planetary Atmosphere 13269		02-056/14:03:39
22122	MGS	02-056/14:21:44		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-056/14:05:49
22123	MGS	02-056/14:21:44		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-056/14:05:49
22124	MGS	02-056/14:21:44		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-056/14:05:49
22125	MGS	02-056/14:21:44		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-056/14:05:49
22126	MGS	02-056/14:21:44	65	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
22127	MGS	02-056/14:21:45		: RTM, MRC, 01:12:20, S&E_2A, FALSE, 00:06:35	AEMRT	02-056/14:05:50
22128	MGS	02-056/14:21:45		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-056/14:05:50
22129	MGS	02-056/14:21:45		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-056/14:05:50
22130	MGS	02-056/14:21:45	65	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
22131	MGS	02-056/14:21:49		NOTE: End fixed Sub-Reflector for Radio Science		02-056/14:05:54
22132	MGS	02-056/14:24:50		NOTE: Exit Solar Eclipse 13269		02-056/14:08:55
22133	MGS	02-056/14:37:27		NOTE: Periapsis 13270 ----------		02-056/14:21:32
22134	MGS	02-056/14:49:37	65	NOTE: Transmitter Off in 15 minutes		
22135	MGS	02-056/14:49:49		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-056/14:33:54
22136	MGS	02-056/14:49:49		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-056/14:33:54
22137	MGS	02-056/14:49:50		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-056/14:33:55
22138	MGS	02-056/14:49:50		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-056/14:33:55
22139	MGS	02-056/15:02:38	65	Range Modulation Off		
22140	MGS	02-056/15:04:37	65	Transmitter Off		
22141	MGS	02-056/15:11:50		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-056/14:55:55
22142	MGS	02-056/15:11:50		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-056/14:55:55
22143	MGS	02-056/15:29:05		NOTE: Begin fixed Sub-Reflector for Radio Science		02-056/15:13:10
22144	MGS	02-056/15:32:12		NOTE: Start EVP data return script		02-056/15:16:17
22145	MGS	02-056/15:34:05		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-056/15:18:10
22146	MGS	02-056/15:34:05		: 00:06:34, FALSE	RDSCII	02-056/15:18:10
22147	MGS	02-056/15:34:05		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-056/15:18:10
22148	MGS	02-056/15:34:05		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-056/15:18:10
22149	MGS	02-056/15:34:05		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-056/15:18:10
22150	MGS	02-056/15:34:05		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-056/15:18:10
22151	MGS	02-056/15:34:05	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
22152	MGS	02-056/15:34:05	65	NOTE: Carrier Only -- No Telemetry Modulation		
22153	MGS	02-056/15:36:17		NOTE: Enter Planetary Atmosphere 13270		02-056/15:20:23
22154	MGS	02-056/15:36:25		NOTE: Apoapsis 13270 -		02-056/15:20:30
22155	MGS	02-056/15:40:12		NOTE: Enter Earth Occultation 13270		02-056/15:24:17
22156	MGS	02-056/15:40:12	65	NOTE: Loss Of X-Band Signal		
22157	MGS	02-056/15:40:39		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-056/15:24:44
22158	MGS	02-056/15:40:39		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-056/15:24:44
22159	MGS	02-056/15:40:39		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-056/15:24:44
22160	MGS	02-056/15:40:39		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-056/15:24:44
22161	MGS	02-056/15:40:40		NOTE: End EVP script		02-056/15:24:45
22162	MGS	02-056/15:40:40		Turn off the MOT Exciter and RPA beam	STRPAF	02-056/15:24:45
22163	MGS	02-056/15:40:44		NOTE: End fixed Sub-Reflector for Radio Science		02-056/15:24:49
22164	MGS	02-056/15:42:12		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-056/15:26:17
22165	MGS	02-056/15:42:12		NOTE: Enter Solar Eclipse 13270		02-056/15:26:18
22166	MGS	02-056/15:45:06	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
22167	MGS	02-056/15:47:07	65	Range Modulation On: SUP=3.0dB		
22168	MGS	02-056/15:48:07	65	Begin Ranging Acquisition		
22169	MGS	02-056/16:06:50		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-056/15:50:55

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
22170	MGS	02-056/16:06:50		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-056/15:50:55
22171	MGS	02-056/16:06:55		Set eclipse egress script address: 019A	SWSEES	02-056/15:51:00
22172	MGS	02-056/16:07:39		NOTE: Begin fixed Sub-Reflector for Radio Science		02-056/15:51:44
22173	MGS	02-056/16:11:24		: 01:27:03	RPAONX	02-056/15:55:29
22174	MGS	02-056/16:11:24		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-056/15:55:29
22175	MGS	02-056/16:12:39		: 00:00:30, 00:06:52, FALSE	RDSCIE	02-056/15:56:44
22176	MGS	02-056/16:12:39		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-056/15:56:44
22177	MGS	02-056/16:12:39		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-056/15:56:44
22178	MGS	02-056/16:12:39		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-056/15:56:44
22179	MGS	02-056/16:12:39		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-056/15:56:44
22180	MGS	02-056/16:13:11		NOTE: Exit Earth Occultation 13270		02-056/15:57:16
22181	MGS	02-056/16:13:11	65	Acquisition Of X-Band Signal		
22182	MGS	02-056/16:13:11	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
22183	MGS	02-056/16:13:11	65	NOTE: Carrier Only -- No Telemetry Modulation		
22184	MGS	02-056/16:17:23		NOTE: Exit Planetary Atmosphere 13270		02-056/16:01:28
22185	MGS	02-056/16:19:31		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-056/16:03:36
22186	MGS	02-056/16:19:31		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-056/16:03:36
22187	MGS	02-056/16:19:31		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-056/16:03:36
22188	MGS	02-056/16:19:31		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-056/16:03:36
22189	MGS	02-056/16:19:31	65	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
22190	MGS	02-056/16:19:32		: RTM, MRC, 01:12:20, S&E_2A, FALSE, 00:06:35	AEMRT	02-056/16:03:37
22191	MGS	02-056/16:19:32		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-056/16:03:37
22192	MGS	02-056/16:19:32		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-056/16:03:37
22193	MGS	02-056/16:19:32	65	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
22194	MGS	02-056/16:19:36		NOTE: End fixed Sub-Reflector for Radio Science		02-056/16:03:41
22195	MGS	02-056/16:22:37		NOTE: Exit Solar Eclipse 13270		02-056/16:06:42
22196	MGS	02-056/16:35:18		NOTE: Periapsis 13271 ----------		02-056/16:19:23
22197	MGS	02-056/16:43:36		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-056/16:27:41
22198	MGS	02-056/16:43:36		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-056/16:27:41
22199	MGS	02-056/16:43:37		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-056/16:27:42
22200	MGS	02-056/16:43:37		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-056/16:27:42
22201	MGS	02-056/16:47:22	65	NOTE: Transmitter Off in 15 minutes		
22202	MGS	02-056/16:55:53		NOTE: Start Block (SSRMGR)		02-056/16:39:58
22203	MGS	02-056/16:55:53		Sends a one-word SSR command to the XSU command SOB: SSR_1B, SE_1A, RECORD, PART2	STSSRC	02-056/16:39:58
22204	MGS	02-056/16:55:54		SSR 1B Data Enable	CSD1BE	02-056/16:39:59
22205	MGS	02-056/16:55:54		SSR Activity: ID=SSR_1B, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-056/16:39:59
22206	MGS	02-056/17:00:23	65	Range Modulation Off		
22207	MGS	02-056/17:02:22	65	Transmitter Off		
22208	MGS	02-056/17:05:37		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-056/16:49:42
22209	MGS	02-056/17:05:37		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-056/16:49:42
22210	MGS	02-056/17:22:34		SSR 1A Data Disable	CSD1AX	02-056/17:06:39
22211	MGS	02-056/17:22:34		SSR Activity: ID=SSR_1A, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-056/17:06:39
22212	MGS	02-056/17:22:35		NOTE: End Block (SSRMGR)		02-056/17:06:40
22213	MGS	02-056/17:26:52		NOTE: Begin fixed Sub-Reflector for Radio Science		02-056/17:10:57
22214	MGS	02-056/17:29:57		NOTE: Start EVP data return script		02-056/17:14:02
22215	MGS	02-056/17:31:52		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-056/17:15:57
22216	MGS	02-056/17:31:52		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=2, BITS=17264000, DUR=00:35:58		02-056/17:15:57
22217	MGS	02-056/17:31:52		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-056/17:15:57
22218	MGS	02-056/17:31:52		: 00:06:34, FALSE	RDSCII	02-056/17:15:57
22219	MGS	02-056/17:31:52		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-056/17:15:57
22220	MGS	02-056/17:31:52		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-056/17:15:57
22221	MGS	02-056/17:31:52		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-056/17:15:57
22222	MGS	02-056/17:31:52		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-056/17:15:57
22223	MGS	02-056/17:31:52	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
22224	MGS	02-056/17:31:52	65	NOTE: Carrier Only -- No Telemetry Modulation		
22225	MGS	02-056/17:34:01		NOTE: Apoapsis 13271 -		02-056/17:18:06
22226	MGS	02-056/17:34:03		NOTE: Enter Planetary Atmosphere 13271		02-056/17:18:08
22227	MGS	02-056/17:37:57		NOTE: Enter Earth Occultation 13271		02-056/17:22:02
22228	MGS	02-056/17:37:57	65	NOTE: Loss Of X-Band Signal		
22229	MGS	02-056/17:38:26		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-056/17:22:31
22230	MGS	02-056/17:38:26		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-056/17:22:31
22231	MGS	02-056/17:38:26		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-056/17:22:31
22232	MGS	02-056/17:38:26		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-056/17:22:31
22233	MGS	02-056/17:38:27		NOTE: End EVP script		02-056/17:22:32
22234	MGS	02-056/17:38:27		Turn off the MOT Exciter and RPA beam	STRPAF	02-056/17:22:32
22235	MGS	02-056/17:38:31		NOTE: End fixed Sub-Reflector for Radio Science		02-056/17:22:36
22236	MGS	02-056/17:39:57		NOTE: Enter Solar Eclipse 13271		02-056/17:24:02
22237	MGS	02-056/17:39:57		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-056/17:24:02
22238	MGS	02-056/17:42:51	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
22239	MGS	02-056/17:44:52	65	Range Modulation On: SUP=3.0dB		
22240	MGS	02-056/17:45:52	65	Begin Ranging Acquisition		
22241	MGS	02-056/18:04:38		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-056/17:48:42
22242	MGS	02-056/18:04:38		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-056/17:48:42
22243	MGS	02-056/18:04:43		Set eclipse egress script address: 01DC	SWSEES	02-056/17:48:47
22244	MGS	02-056/18:05:24		NOTE: Begin fixed Sub-Reflector for Radio Science		02-056/17:49:29
22245	MGS	02-056/18:09:10		: 01:27:03	RPAONX	02-056/17:53:14
22246	MGS	02-056/18:09:10		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-056/17:53:14
22247	MGS	02-056/18:10:25		: 00:00:30, 00:06:52, FALSE	RDSCIE	02-056/17:54:29
22248	MGS	02-056/18:10:25		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-056/17:54:29
22249	MGS	02-056/18:10:25		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-056/17:54:29
22250	MGS	02-056/18:10:25		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-056/17:54:29
22251	MGS	02-056/18:10:25		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-056/17:54:29
22252	MGS	02-056/18:10:56		NOTE: Exit Earth Occultation 13271		02-056/17:55:01
22253	MGS	02-056/18:10:56	65	Acquisition Of X-Band Signal		
22254	MGS	02-056/18:10:56	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
22255	MGS	02-056/18:10:56	65	NOTE: Carrier Only -- No Telemetry Modulation		
22256	MGS	02-056/18:15:00	15	Begin Pre-Cal		
22257	MGS	02-056/18:15:00	15	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
22258	MGS	02-056/18:15:00	15	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
22259	MGS	02-056/18:15:00	15	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
22260	MGS	02-056/18:15:00	15	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
22261	MGS	02-056/18:15:00	15	At BOT: S/C Tlm Mode: BR=40000.0, FL=10000, SC=HIGH, MI=80.0		
22262	MGS	02-056/18:15:00	15	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
22263	MGS	02-056/18:15:00	15	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
22264	MGS	02-056/18:15:00	15	Config: TGC: DEST=37		
22265	MGS	02-056/18:15:00	15	Config: TGC: BAND=X, BR=40000.000000		
22266	MGS	02-056/18:15:00	15	Config: FSS: CH=2, PRI_FL=10000		
22267	MGS	02-056/18:15:00	15	Config: RSR		
22268	MGS	02-056/18:15:00	15	Config: TXL		
22269	MGS	02-056/18:15:00	15	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
22270	MGS	02-056/18:15:00	15	Config: BVR		
22271	MGS	02-056/18:15:00	15	Config: Doppler Extractor: BIAS=+1MHZ		
22272	MGS	02-056/18:15:00	15	Config: MDA: SMPL=0.1		
22273	MGS	02-056/18:15:00	15	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
22274	MGS	02-056/18:15:00	15	Config: SRA: HIGH=4, LOW=14, SERV=D		
22275	MGS	02-056/18:15:00	15	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
22276	MGS	02-056/18:15:09		NOTE: Exit Planetary Atmosphere 13271		02-056/17:59:14
22277	MGS	02-056/18:17:17		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-056/18:01:21

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
22278	MGS	02-056/18:17:17		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-056/18:01:21
22279	MGS	02-056/18:17:17		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-056/18:01:21
22280	MGS	02-056/18:17:17		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-056/18:01:21
22281	MGS	02-056/18:17:17	65	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
22282	MGS	02-056/18:17:18		: RTM, MRC, 01:12:20, S&E_2A, FALSE, 00:06:35	AEMRT	02-056/18:01:22
22283	MGS	02-056/18:17:18		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-056/18:01:22
22284	MGS	02-056/18:17:18		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-056/18:01:22
22285	MGS	02-056/18:17:18		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=2, BITS=39064000, DUR=00:45:25		02-056/18:01:22
22286	MGS	02-056/18:17:18		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-056/18:01:22
22287	MGS	02-056/18:17:18	65	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
22288	MGS	02-056/18:17:21		NOTE: End fixed Sub-Reflector for Radio Science		02-056/18:01:26
22289	MGS	02-056/18:20:22		NOTE: Exit Solar Eclipse 13271		02-056/18:04:26
22290	MGS	02-056/18:32:43		NOTE: Periapsis 13272 ----------		02-056/18:16:47
22291	MGS	02-056/18:41:21		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-056/18:25:25
22292	MGS	02-056/18:41:21		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-056/18:25:25
22293	MGS	02-056/18:41:22		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-056/18:25:26
22294	MGS	02-056/18:41:22		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-056/18:25:26
22295	MGS	02-056/18:45:02	65	NOTE: Transmitter Off in 15 minutes		
22296	MGS	02-056/18:58:03	65	Range Modulation Off		
22297	MGS	02-056/19:00:02	65	Transmitter Off		
22298	MGS	02-056/19:03:22		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-056/18:47:26
22299	MGS	02-056/19:03:22		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-056/18:47:26
22300	MGS	02-056/19:15:00	15	Begin Tracking		
22301	MGS	02-056/19:15:00	15	Acquire D/L: X/16, 3-Way/65, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
22302	MGS	02-056/19:24:38		NOTE: Begin fixed Sub-Reflector for Radio Science		02-056/19:08:42
22303	MGS	02-056/19:27:38		NOTE: Start EVP data return script		02-056/19:11:42
22304	MGS	02-056/19:29:38		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-056/19:13:42
22305	MGS	02-056/19:29:38		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=2, BITS=73784000, DUR=01:12:20		02-056/19:13:42
22306	MGS	02-056/19:29:38		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-056/19:13:42
22307	MGS	02-056/19:29:38		: 00:06:34, FALSE	RDSCII	02-056/19:13:42
22308	MGS	02-056/19:29:38		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-056/19:13:42
22309	MGS	02-056/19:29:38		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-056/19:13:42
22310	MGS	02-056/19:29:38		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-056/19:13:42
22311	MGS	02-056/19:29:38		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-056/19:13:42
22312	MGS	02-056/19:29:38	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
22313	MGS	02-056/19:29:38	15	NOTE: Carrier Only -- No Telemetry Modulation		
22314	MGS	02-056/19:29:38	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
22315	MGS	02-056/19:29:38	65	NOTE: Carrier Only -- No Telemetry Modulation		
22316	MGS	02-056/19:31:21		NOTE: Apoapsis 13272 -		02-056/19:15:25
22317	MGS	02-056/19:31:44		NOTE: Enter Planetary Atmosphere 13272		02-056/19:15:48
22318	MGS	02-056/19:35:00	65	End Tracking		
22319	MGS	02-056/19:35:38		NOTE: Enter Earth Occultation 13272		02-056/19:19:43
22320	MGS	02-056/19:35:38	15	NOTE: Loss Of X-Band Signal		
22321	MGS	02-056/19:36:12		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-056/19:20:16
22322	MGS	02-056/19:36:12		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-056/19:20:16
22323	MGS	02-056/19:36:12		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-056/19:20:16
22324	MGS	02-056/19:36:12		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-056/19:20:16
22325	MGS	02-056/19:36:13		NOTE: End EVP script		02-056/19:20:17
22326	MGS	02-056/19:36:13		Turn off the MOT Exciter and RPA beam	STRPAF	02-056/19:20:17
22327	MGS	02-056/19:36:17		NOTE: End fixed Sub-Reflector for Radio Science		02-056/19:20:21
22328	MGS	02-056/19:37:38		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-056/19:21:42
22329	MGS	02-056/19:37:38		NOTE: Enter Solar Eclipse 13272		02-056/19:21:42
22330	MGS	02-056/19:40:32	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
22331	MGS	02-056/19:42:32	15	Range Modulation On: SUP=3.0dB		
22332	MGS	02-056/19:43:32	15	Begin Ranging Acquisition		
22333	MGS	02-056/19:50:00	65	End Post-Cal		
22334	MGS	02-056/20:02:22		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-056/19:46:26
22335	MGS	02-056/20:02:22		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-056/19:46:26
22336	MGS	02-056/20:02:26		Command the PSE with included data word: 3990	SWPSEL	02-056/19:46:30
22337	MGS	02-056/20:02:27		Set eclipse egress script address: 0158	SWSEES	02-056/19:46:31
22338	MGS	02-056/20:03:05		NOTE: Begin fixed Sub-Reflector for Radio Science		02-056/19:47:09
22339	MGS	02-056/20:06:50		: 01:27:03	RPAONX	02-056/19:50:54
22340	MGS	02-056/20:06:50		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-056/19:50:54
22341	MGS	02-056/20:08:05		: 00:00:30, 00:06:52, FALSE	RDSCIE	02-056/19:52:09
22342	MGS	02-056/20:08:05		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-056/19:52:09
22343	MGS	02-056/20:08:05		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-056/19:52:09
22344	MGS	02-056/20:08:05		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-056/19:52:09
22345	MGS	02-056/20:08:05		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-056/19:52:09
22346	MGS	02-056/20:08:38		NOTE: Exit Earth Occultation 13272		02-056/19:52:42
22347	MGS	02-056/20:08:38	15	Acquisition Of X-Band Signal		
22348	MGS	02-056/20:08:38	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
22349	MGS	02-056/20:08:38	15	NOTE: Carrier Only -- No Telemetry Modulation		
22350	MGS	02-056/20:12:50		NOTE: Exit Planetary Atmosphere 13272		02-056/19:56:54
22351	MGS	02-056/20:14:57		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-056/19:59:01
22352	MGS	02-056/20:14:57		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-056/19:59:01
22353	MGS	02-056/20:14:57		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-056/19:59:01
22354	MGS	02-056/20:14:57		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-056/19:59:01
22355	MGS	02-056/20:14:57	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
22356	MGS	02-056/20:14:58		: RTM, MRC, 01:12:20, S&E_2A, FALSE, 00:06:35	AEMRT	02-056/19:59:02
22357	MGS	02-056/20:14:58		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-056/19:59:02
22358	MGS	02-056/20:14:58		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-056/19:59:02
22359	MGS	02-056/20:14:58		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=2, BITS=95544000, DUR=00:45:20		02-056/19:59:02
22360	MGS	02-056/20:14:58		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-056/19:59:02
22361	MGS	02-056/20:14:58	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
22362	MGS	02-056/20:15:02		NOTE: End fixed Sub-Reflector for Radio Science		02-056/19:59:06
22363	MGS	02-056/20:18:02		NOTE: Exit Solar Eclipse 13272		02-056/20:02:07
22364	MGS	02-056/20:30:07		NOTE: Periapsis 13273 ----------		02-056/20:14:11
22365	MGS	02-056/20:42:42	15	NOTE: Transmitter Off in 15 minutes		
22366	MGS	02-056/20:43:01		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-056/20:27:05
22367	MGS	02-056/20:43:01		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-056/20:27:05
22368	MGS	02-056/20:43:02		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-056/20:27:06
22369	MGS	02-056/20:43:02		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-056/20:27:06
22370	MGS	02-056/20:55:43	15	Range Modulation Off		
22371	MGS	02-056/20:57:42	15	Transmitter Off		
22372	MGS	02-056/21:05:02		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-056/20:49:06
22373	MGS	02-056/21:05:02		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-056/20:49:06
22374	MGS	02-056/21:22:18		NOTE: Begin fixed Sub-Reflector for Radio Science		02-056/21:06:22
22375	MGS	02-056/21:25:19		NOTE: Start EVP data return script		02-056/21:09:23
22376	MGS	02-056/21:27:18		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-056/21:11:22
22377	MGS	02-056/21:27:18		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=2, BITS=130264000, DUR=01:12:20		02-056/21:11:22
22378	MGS	02-056/21:27:18		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-056/21:11:22
22379	MGS	02-056/21:27:18		: 00:06:34, FALSE	RDSCII	02-056/21:11:22
22380	MGS	02-056/21:27:18		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-056/21:11:22
22381	MGS	02-056/21:27:18		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-056/21:11:22
22382	MGS	02-056/21:27:18		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-056/21:11:22
22383	MGS	02-056/21:27:18		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-056/21:11:22
22384	MGS	02-056/21:27:18	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
22385	MGS	02-056/21:27:18	15	NOTE: Carrier Only -- No Telemetry Modulation		
22386	MGS	02-056/21:29:04		NOTE: Apoapsis 13273 -		02-056/21:13:08
22387	MGS	02-056/21:29:25		NOTE: Enter Planetary Atmosphere 13273		02-056/21:13:29
22388	MGS	02-056/21:33:19		NOTE: Enter Earth Occultation 13273		02-056/21:17:23
22389	MGS	02-056/21:33:19	15	NOTE: Loss Of X-Band Signal		
22390	MGS	02-056/21:33:52		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-056/21:17:56
22391	MGS	02-056/21:33:52		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-056/21:17:56
22392	MGS	02-056/21:33:52		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-056/21:17:56
22393	MGS	02-056/21:33:52		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-056/21:17:56
22394	MGS	02-056/21:33:53		NOTE: End EVP script		02-056/21:17:57
22395	MGS	02-056/21:33:53		Turn off the MOT Exciter and RPA beam	STRPAF	02-056/21:17:57
22396	MGS	02-056/21:33:57		NOTE: End fixed Sub-Reflector for Radio Science		02-056/21:18:01
22397	MGS	02-056/21:35:19		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-056/21:19:23
22398	MGS	02-056/21:35:19		NOTE: Enter Solar Eclipse 13273		02-056/21:19:24
22399	MGS	02-056/21:38:12	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
22400	MGS	02-056/21:40:13	15	Range Modulation On: SUP=3.0dB		
22401	MGS	02-056/21:41:13	15	Begin Ranging Acquisition		
22402	MGS	02-056/22:00:02		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-056/21:44:06
22403	MGS	02-056/22:00:02		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-056/21:44:06
22404	MGS	02-056/22:00:07		Set eclipse egress script address: 019A	SWSEES	02-056/21:44:11
22405	MGS	02-056/22:00:46		NOTE: Begin fixed Sub-Reflector for Radio Science		02-056/21:44:50
22406	MGS	02-056/22:04:31		: 01:27:03	RPAONX	02-056/21:48:35
22407	MGS	02-056/22:04:31		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-056/21:48:35
22408	MGS	02-056/22:05:46		: 00:00:30, 00:06:52, FALSE	RDSCIE	02-056/21:49:50
22409	MGS	02-056/22:05:46		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-056/21:49:50
22410	MGS	02-056/22:05:46		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-056/21:49:50
22411	MGS	02-056/22:05:46		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-056/21:49:50
22412	MGS	02-056/22:05:46		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-056/21:49:50
22413	MGS	02-056/22:06:16		Disables autonomous command to send eclipse ingress script	SWEISX	02-056/21:50:20
22414	MGS	02-056/22:06:19		NOTE: Exit Earth Occultation 13273		02-056/21:50:23
22415	MGS	02-056/22:06:19	15	Acquisition Of X-Band Signal		
22416	MGS	02-056/22:06:19	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
22417	MGS	02-056/22:06:19	15	NOTE: Carrier Only -- No Telemetry Modulation		
22418	MGS	02-056/22:10:30		NOTE: Exit Planetary Atmosphere 13273		02-056/21:54:34
22419	MGS	02-056/22:12:38		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-056/21:56:42
22420	MGS	02-056/22:12:38		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-056/21:56:42
22421	MGS	02-056/22:12:38		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-056/21:56:42
22422	MGS	02-056/22:12:38		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-056/21:56:42
22423	MGS	02-056/22:12:38	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
22424	MGS	02-056/22:12:39		: RTM, MRC, 01:12:20, S&E_2A, FALSE, 00:06:35	AEMRT	02-056/21:56:43
22425	MGS	02-056/22:12:39		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-056/21:56:43
22426	MGS	02-056/22:12:39		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-056/21:56:43
22427	MGS	02-056/22:12:39		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=2, BITS=152032000, DUR=00:45:21		02-056/21:56:43
22428	MGS	02-056/22:12:39		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-056/21:56:43
22429	MGS	02-056/22:12:39	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
22430	MGS	02-056/22:12:43		NOTE: End fixed Sub-Reflector for Radio Science		02-056/21:56:47
22431	MGS	02-056/22:15:44		NOTE: Exit Solar Eclipse 13273		02-056/21:59:48
22432	MGS	02-056/22:27:49		NOTE: Periapsis 13274 ----------		02-056/22:11:53
22433	MGS	02-056/22:29:14		NOTE: Start Block (SSRMGR)		02-056/22:13:18
22434	MGS	02-056/22:29:14		Sends a one-word SSR command to the XSU command SOB: SSR_1A, SE_1A, RECORD, PART3	STSSRC	02-056/22:13:18
22435	MGS	02-056/22:29:15		SSR 1A Data Enable	CSD1AE	02-056/22:13:19
22436	MGS	02-056/22:29:15		SSR Activity: ID=SSR_1A, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-056/22:13:19
22437	MGS	02-056/22:36:42		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-056/22:20:46
22438	MGS	02-056/22:36:42		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-056/22:20:46

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
22439	MGS	02-056/22:36:43		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-056/22:20:47
22440	MGS	02-056/22:36:43		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-056/22:20:47
22441	MGS	02-056/22:40:28	15	NOTE: Transmitter Off in 15 minutes		
22442	MGS	02-056/22:53:28	15	Range Modulation Off		
22443	MGS	02-056/22:55:28	15	Transmitter Off		
22444	MGS	02-056/22:55:55		SSR 1B Data Disable	CSD1BX	02-056/22:39:59
22445	MGS	02-056/22:55:55		SSR Activity: ID=SSR_1B, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-056/22:39:59
22446	MGS	02-056/22:55:56		NOTE: End Block (SSRMGR)		02-056/22:40:00
22447	MGS	02-056/22:58:43		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-056/22:42:47
22448	MGS	02-056/22:58:43		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-056/22:42:47
22449	MGS	02-056/23:09:14		NOTE: Start Block (SSRMGR)		02-056/22:53:18
22450	MGS	02-056/23:09:14		Sends a one-word SSR command to the XSU command SOB: SSR_1B, SE_1A, RECORD, PART3	STSSRC	02-056/22:53:18
22451	MGS	02-056/23:09:15		SSR 1B Data Enable	CSD1BE	02-056/22:53:19
22452	MGS	02-056/23:09:15		SSR Activity: ID=SSR_1B, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-056/22:53:19
22453	MGS	02-056/23:19:59		NOTE: Begin fixed Sub-Reflector for Radio Science		02-056/23:04:03
22454	MGS	02-056/23:23:04		NOTE: Start Block (MAP_PB)		02-056/23:07:08
22455	MGS	02-056/23:23:05		: 00:29:14, 01:27:03, FALSE, TRUE, FALSE, 00:01:15, 00:06:51, 01:12:22, 00:06:34	AEMINI	02-056/23:07:09
22456	MGS	02-056/23:23:05		Enable sending eclipse ingress script when array power disappears	SWEISE	02-056/23:07:09
22457	MGS	02-056/23:23:05		NOTE: Start EVP data return script		02-056/23:07:09
22458	MGS	02-056/23:23:06		: SSR_1A, F42KHZ, PART1, SE_1A, 2002-056T23:54:30.000	AEMPBI	02-056/23:07:10
22459	MGS	02-056/23:24:59		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-056/23:09:03
22460	MGS	02-056/23:24:59		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=3, BITS=7552000, DUR=00:15:44		02-056/23:09:03
22461	MGS	02-056/23:24:59		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-056/23:09:03
22462	MGS	02-056/23:24:59		: 00:06:34, FALSE	RDSCII	02-056/23:09:03
22463	MGS	02-056/23:24:59		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-056/23:09:03
22464	MGS	02-056/23:24:59		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-056/23:09:03
22465	MGS	02-056/23:24:59		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-056/23:09:03
22466	MGS	02-056/23:24:59		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-056/23:09:03
22467	MGS	02-056/23:24:59	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
22468	MGS	02-056/23:24:59	15	NOTE: Carrier Only -- No Telemetry Modulation		
22469	MGS	02-056/23:26:55		NOTE: Apoapsis 13274 -		02-056/23:10:59
22470	MGS	02-056/23:27:11		NOTE: Enter Planetary Atmosphere 13274		02-056/23:11:15
22471	MGS	02-056/23:31:05		NOTE: Enter Earth Occultation 13274		02-056/23:15:09
22472	MGS	02-056/23:31:05	15	NOTE: Loss Of X-Band Signal		
22473	MGS	02-056/23:31:33		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-056/23:15:37
22474	MGS	02-056/23:31:33		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-056/23:15:37
22475	MGS	02-056/23:31:33		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-056/23:15:37
22476	MGS	02-056/23:31:33		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-056/23:15:37
22477	MGS	02-056/23:31:34		NOTE: End EVP script		02-056/23:15:38
22478	MGS	02-056/23:31:34		Turn off the MOT Exciter and RPA beam	STRPAF	02-056/23:15:38
22479	MGS	02-056/23:31:35		NOTE: End Block (MAP_RT)		02-056/23:15:39
22480	MGS	02-056/23:31:38		NOTE: End fixed Sub-Reflector for Radio Science		02-056/23:15:42
22481	MGS	02-056/23:33:05		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-056/23:17:09
22482	MGS	02-056/23:33:06		NOTE: Enter Solar Eclipse 13274		02-056/23:17:10
22483	MGS	02-056/23:35:55		SSR 1A Data Disable	CSD1AX	02-056/23:19:59
22484	MGS	02-056/23:35:55		SSR Activity: ID=SSR_1A, FCN=End Recording, PRT=3, BITS=32000000, DUR=01:06:40		02-056/23:19:59
22485	MGS	02-056/23:35:56		NOTE: End Block (SSRMGR)		02-056/23:20:00
22486	MGS	02-056/23:35:58	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
22487	MGS	02-056/23:37:58	15	Range Modulation On: SUP=3.0dB		
22488	MGS	02-056/23:38:58	15	Begin Ranging Acquisition		
22489	MGS	02-056/23:57:43		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-056/23:41:47
22490	MGS	02-056/23:57:43		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-056/23:41:47
22491	MGS	02-056/23:57:48		Set eclipse egress script address: 01DC	SWSEES	02-056/23:41:52
22492	MGS	02-056/23:58:35		NOTE: Begin fixed Sub-Reflector for Radio Science		02-056/23:42:39

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
22493	MGS	02-057/00:00:00		Light Time: OWLT = 15:56, RTLT = 31:52		
22494	MGS	02-057/00:02:19		: 01:27:03	RPAONX	02-056/23:46:23
22495	MGS	02-057/00:02:19		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-056/23:46:23
22496	MGS	02-057/00:03:34		: 00:00:30, 00:06:51, FALSE	RDSCIE	02-056/23:47:38
22497	MGS	02-057/00:03:34		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-056/23:47:38
22498	MGS	02-057/00:03:34		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-056/23:47:38
22499	MGS	02-057/00:03:34		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-056/23:47:38
22500	MGS	02-057/00:03:34		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-056/23:47:38
22501	MGS	02-057/00:04:05		NOTE: Exit Earth Occultation 13274		02-056/23:48:09
22502	MGS	02-057/00:04:05	15	Acquisition Of X-Band Signal		
22503	MGS	02-057/00:04:05	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
22504	MGS	02-057/00:04:05	15	NOTE: Carrier Only -- No Telemetry Modulation		
22505	MGS	02-057/00:08:16		NOTE: Exit Planetary Atmosphere 13274		02-056/23:52:20
22506	MGS	02-057/00:10:25		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-056/23:54:29
22507	MGS	02-057/00:10:25		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-056/23:54:29
22508	MGS	02-057/00:10:25		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-056/23:54:29
22509	MGS	02-057/00:10:25		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-056/23:54:29
22510	MGS	02-057/00:10:25		: REC_1A, F42KHZ, PART1, SE_1A, FALSE, 00:10:18	AEMPB	02-056/23:54:29
22511	MGS	02-057/00:10:25		Sends a one-word MOT command to the XSU command SOB: SSR_1A	STMOTC	02-056/23:54:29
22512	MGS	02-057/00:10:25		Sends a one-word SSR command to the XSU command SOB: SSR_1A, F42KHZ, PLYBCK, PART1	STSSRC	02-056/23:54:29
22513	MGS	02-057/00:10:25	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
22514	MGS	02-057/00:10:26		SSR 1A Data Enable	CSD1AE	02-056/23:54:30
22515	MGS	02-057/00:10:26		SSR Activity: ID=SSR_1A, FCN=Start Playback, PRT=1, BR=42666		02-056/23:54:30
22516	MGS	02-057/00:10:26	15	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
22517	MGS	02-057/00:10:31		NOTE: End fixed Sub-Reflector for Radio Science		02-056/23:54:35
22518	MGS	02-057/00:13:30		NOTE: Exit Solar Eclipse 13274		02-056/23:57:34
22519	MGS	02-057/00:15:55		NOTE: Start Block (SSRMGR)		02-056/23:59:58
22520	MGS	02-057/00:15:55		Sends a one-word SSR command to the XSU command SOB: SSR_2A, SE_1A, RECORD, PART1	STSSRC	02-056/23:59:58
22521	MGS	02-057/00:15:56		SSR 2A Data Enable	CSD2AE	02-056/23:59:59
22522	MGS	02-057/00:15:56		SSR Activity: ID=SSR_2A, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-056/23:59:59
22523	MGS	02-057/00:25:42		NOTE: Periapsis 13275 ----------		02-057/00:09:46
22524	MGS	02-057/00:34:30		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-057/00:18:33
22525	MGS	02-057/00:34:30		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-057/00:18:33
22526	MGS	02-057/00:34:31		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-057/00:18:34
22527	MGS	02-057/00:34:31		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-057/00:18:34
22528	MGS	02-057/00:38:15	15	NOTE: Transmitter Off in 15 minutes		
22529	MGS	02-057/00:42:36		SSR 1B Data Disable	CSD1BX	02-057/00:26:39
22530	MGS	02-057/00:42:36		SSR Activity: ID=SSR_1B, FCN=End Recording, PRT=3, BITS=44800000, DUR=01:33:20		02-057/00:26:39
22531	MGS	02-057/00:42:37		NOTE: End Block (SSRMGR)		02-057/00:26:40
22532	MGS	02-057/00:51:15	15	Range Modulation Off		
22533	MGS	02-057/00:53:15	15	Transmitter Off		
22534	MGS	02-057/00:56:31		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-057/00:40:34
22535	MGS	02-057/00:56:31		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-057/00:40:34
22536	MGS	02-057/01:17:48		NOTE: Begin fixed Sub-Reflector for Radio Science		02-057/01:01:52
22537	MGS	02-057/01:19:05		SSR 1A Data Disable	CSD1AX	02-057/01:03:08
22538	MGS	02-057/01:19:05		SSR Activity: ID=SSR_1A, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-057/01:03:08
22539	MGS	02-057/01:19:05		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-057/01:03:08
22540	MGS	02-057/01:19:05	15	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
22541	MGS	02-057/01:20:53		NOTE: Start EVP data return script		02-057/01:04:56
22542	MGS	02-057/01:20:53		: SSR_1B, F42KHZ, PART1, 2002-057T01:52:17.000	AEMPBU	02-057/01:04:56
22543	MGS	02-057/01:22:48		: 00:06:34, FALSE	RDSCII	02-057/01:06:51
22544	MGS	02-057/01:22:48		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-057/01:06:51
22545	MGS	02-057/01:22:48		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-057/01:06:51
22546	MGS	02-057/01:22:48		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-057/01:06:51

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
22547	MGS	02-057/01:22:48		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-057/01:06:51
22548	MGS	02-057/01:22:48	15	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
22549	MGS	02-057/01:22:48	15	NOTE: Carrier Only -- No Telemetry Modulation		
22550	MGS	02-057/01:24:37		NOTE: Apoapsis 13275 -		02-057/01:08:41
22551	MGS	02-057/01:24:59		NOTE: Enter Planetary Atmosphere 13275		02-057/01:09:03
22552	MGS	02-057/01:28:52		NOTE: Enter Earth Occultation 13275		02-057/01:12:56
22553	MGS	02-057/01:28:52	15	NOTE: Loss Of X-Band Signal		
22554	MGS	02-057/01:29:22		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-057/01:13:25
22555	MGS	02-057/01:29:22		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-057/01:13:25
22556	MGS	02-057/01:29:22		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-057/01:13:25
22557	MGS	02-057/01:29:22		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-057/01:13:25
22558	MGS	02-057/01:29:23		Turn off the MOT Exciter and RPA beam	STRPAF	02-057/01:13:26
22559	MGS	02-057/01:29:23		NOTE: End EVP script		02-057/01:13:27
22560	MGS	02-057/01:29:27		NOTE: End fixed Sub-Reflector for Radio Science		02-057/01:13:31
22561	MGS	02-057/01:30:53		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-057/01:14:56
22562	MGS	02-057/01:30:53		NOTE: Enter Solar Eclipse 13275		02-057/01:14:57
22563	MGS	02-057/01:33:45	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
22564	MGS	02-057/01:35:46	15	Range Modulation On: SUP=3.0dB		
22565	MGS	02-057/01:36:46	15	Begin Ranging Acquisition		
22566	MGS	02-057/01:55:31		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-057/01:39:34
22567	MGS	02-057/01:55:31		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-057/01:39:34
22568	MGS	02-057/01:55:35		Command the PSE with included data word: 3990	SWPSEL	02-057/01:39:38
22569	MGS	02-057/01:55:36		Set eclipse egress script address: 0158	SWSEES	02-057/01:39:39
22570	MGS	02-057/01:56:22		NOTE: Begin fixed Sub-Reflector for Radio Science		02-057/01:40:26
22571	MGS	02-057/02:00:07		: 01:27:03	RPAONX	02-057/01:44:10
22572	MGS	02-057/02:00:07		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-057/01:44:10
22573	MGS	02-057/02:01:22		: 00:00:30, 00:06:51, FALSE	RDSCIE	02-057/01:45:25
22574	MGS	02-057/02:01:22		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-057/01:45:25
22575	MGS	02-057/02:01:22		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-057/01:45:25
22576	MGS	02-057/02:01:22		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-057/01:45:25
22577	MGS	02-057/02:01:22		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-057/01:45:25
22578	MGS	02-057/02:01:53		NOTE: Exit Earth Occultation 13275		02-057/01:45:56
22579	MGS	02-057/02:01:53	15	Acquisition Of X-Band Signal		
22580	MGS	02-057/02:01:53	15	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
22581	MGS	02-057/02:01:53	15	NOTE: Carrier Only -- No Telemetry Modulation		
22582	MGS	02-057/02:06:04		NOTE: Exit Planetary Atmosphere 13275		02-057/01:50:08
22583	MGS	02-057/02:08:13		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-057/01:52:16
22584	MGS	02-057/02:08:13		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-057/01:52:16
22585	MGS	02-057/02:08:13		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-057/01:52:16
22586	MGS	02-057/02:08:13		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-057/01:52:16
22587	MGS	02-057/02:08:13		: REC_1B, F42KHZ, PART1, SE_1A, FALSE, 00:10:18	AEMPB	02-057/01:52:16
22588	MGS	02-057/02:08:13		Sends a one-word MOT command to the XSU command SOB: SSR_1B	STMOTC	02-057/01:52:16
22589	MGS	02-057/02:08:13		Sends a one-word SSR command to the XSU command SOB: SSR_1B, F42KHZ, PLYBCK, PART1	STSSRC	02-057/01:52:16
22590	MGS	02-057/02:08:13	15	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
22591	MGS	02-057/02:08:14		SSR 1B Data Enable	CSD1BE	02-057/01:52:17
22592	MGS	02-057/02:08:14		SSR Activity: ID=SSR_1B, FCN=Start Playback, PRT=1, BR=42666		02-057/01:52:17
22593	MGS	02-057/02:08:14	15	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
22594	MGS	02-057/02:08:18		NOTE: End fixed Sub-Reflector for Radio Science		02-057/01:52:22
22595	MGS	02-057/02:11:18		NOTE: Exit Solar Eclipse 13275		02-057/01:55:21
22596	MGS	02-057/02:23:26		NOTE: Periapsis 13276 ----------		02-057/02:07:30
22597	MGS	02-057/02:36:00	15	NOTE: Transmitter Off in 15 minutes		
22598	MGS	02-057/02:36:17		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-057/02:20:20
22599	MGS	02-057/02:36:17		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-057/02:20:20
22600	MGS	02-057/02:36:18		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-057/02:20:21

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
22601	MGS	02-057/02:36:18		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-057/02:20:21
22602	MGS	02-057/02:49:01	15	Range Modulation Off		
22603	MGS	02-057/02:51:00	15	Transmitter Off		
22604	MGS	02-057/02:58:18		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-057/02:42:21
22605	MGS	02-057/02:58:18		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-057/02:42:21
22606	MGS	02-057/03:15:35		NOTE: Begin fixed Sub-Reflector for Radio Science		02-057/02:59:39
22607	MGS	02-057/03:16:52		SSR 1B Data Disable	CSD1BX	02-057/03:00:55
22608	MGS	02-057/03:16:52		SSR Activity: ID=SSR_1B, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-057/03:00:55
22609	MGS	02-057/03:16:52		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-057/03:00:55
22610	MGS	02-057/03:16:52	15	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
22611	MGS	02-057/03:18:39		NOTE: Start EVP data return script		02-057/03:02:42
22612	MGS	02-057/03:18:39		: SSR_1A, F42KHZ, PART2, 2002-057T03:50:03.000	AEMPBU	02-057/03:02:42
22613	MGS	02-057/03:20:35		: 00:06:34, FALSE	RDSCII	02-057/03:04:38
22614	MGS	02-057/03:20:35		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-057/03:04:38
22615	MGS	02-057/03:20:35		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-057/03:04:38
22616	MGS	02-057/03:20:35		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-057/03:04:38
22617	MGS	02-057/03:20:35		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-057/03:04:38
22618	MGS	02-057/03:20:35	15	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
22619	MGS	02-057/03:20:35	15	NOTE: Carrier Only -- No Telemetry Modulation		
22620	MGS	02-057/03:22:06		NOTE: Apoapsis 13276 -		02-057/03:06:09
22621	MGS	02-057/03:22:45		NOTE: Enter Planetary Atmosphere 13276		02-057/03:06:48
22622	MGS	02-057/03:26:38		NOTE: Enter Earth Occultation 13276		02-057/03:10:42
22623	MGS	02-057/03:26:38	15	NOTE: Loss Of X-Band Signal		
22624	MGS	02-057/03:27:09		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-057/03:11:12
22625	MGS	02-057/03:27:09		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-057/03:11:12
22626	MGS	02-057/03:27:09		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-057/03:11:12
22627	MGS	02-057/03:27:09		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-057/03:11:12
22628	MGS	02-057/03:27:10		Turn off the MOT Exciter and RPA beam	STRPAF	02-057/03:11:13
22629	MGS	02-057/03:27:10		NOTE: End EVP script		02-057/03:11:14
22630	MGS	02-057/03:27:14		NOTE: End fixed Sub-Reflector for Radio Science		02-057/03:11:18
22631	MGS	02-057/03:28:39		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-057/03:12:42
22632	MGS	02-057/03:28:39		NOTE: Enter Solar Eclipse 13276		02-057/03:12:42
22633	MGS	02-057/03:31:31	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
22634	MGS	02-057/03:33:32	15	Range Modulation On: SUP=3.0dB		
22635	MGS	02-057/03:34:32	15	Begin Ranging Acquisition		
22636	MGS	02-057/03:53:18		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-057/03:37:21
22637	MGS	02-057/03:53:18		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-057/03:37:21
22638	MGS	02-057/03:53:23		Set eclipse egress script address: 019A	SWSEES	02-057/03:37:26
22639	MGS	02-057/03:54:08		NOTE: Begin fixed Sub-Reflector for Radio Science		02-057/03:38:12
22640	MGS	02-057/03:57:53		: 01:27:03	RPAONX	02-057/03:41:56
22641	MGS	02-057/03:57:53		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-057/03:41:56
22642	MGS	02-057/03:59:08		: 00:00:30, 00:06:51, FALSE	RDSCIE	02-057/03:43:11
22643	MGS	02-057/03:59:08		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-057/03:43:11
22644	MGS	02-057/03:59:08		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-057/03:43:11
22645	MGS	02-057/03:59:08		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-057/03:43:11
22646	MGS	02-057/03:59:08		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-057/03:43:11
22647	MGS	02-057/03:59:39		NOTE: Exit Earth Occultation 13276		02-057/03:43:43
22648	MGS	02-057/03:59:39	15	Acquisition Of X-Band Signal		
22649	MGS	02-057/03:59:39	15	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
22650	MGS	02-057/03:59:39	15	NOTE: Carrier Only -- No Telemetry Modulation		
22651	MGS	02-057/04:03:51		NOTE: Exit Planetary Atmosphere 13276		02-057/03:47:54
22652	MGS	02-057/04:05:59		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-057/03:50:02
22653	MGS	02-057/04:05:59		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-057/03:50:02
22654	MGS	02-057/04:05:59		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-057/03:50:02

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
22655	MGS	02-057/04:05:59		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-057/03:50:02
22656	MGS	02-057/04:05:59		: REC_1A, F42KHZ, PART2, SE_1A, FALSE, 00:10:18	AEMPB	02-057/03:50:02
22657	MGS	02-057/04:05:59		Sends a one-word MOT command to the XSU command SOB: SSR_1A	STMOTC	02-057/03:50:02
22658	MGS	02-057/04:05:59		Sends a one-word SSR command to the XSU command SOB: SSR_1A, F42KHZ, PLYBCK, PART2	STSSRC	02-057/03:50:02
22659	MGS	02-057/04:05:59	15	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
22660	MGS	02-057/04:06:00		SSR 1A Data Enable	CSD1AE	02-057/03:50:03
22661	MGS	02-057/04:06:00		SSR Activity: ID=SSR_1A, FCN=Start Playback, PRT=2, BR=42666		02-057/03:50:03
22662	MGS	02-057/04:06:00	15	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
22663	MGS	02-057/04:06:04		NOTE: End fixed Sub-Reflector for Radio Science		02-057/03:50:08
22664	MGS	02-057/04:09:03		NOTE: Exit Solar Eclipse 13276		02-057/03:53:07
22665	MGS	02-057/04:10:00	34	Begin Pre-Cal		
22666	MGS	02-057/04:10:00	34	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
22667	MGS	02-057/04:10:00	34	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
22668	MGS	02-057/04:10:00	34	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
22669	MGS	02-057/04:10:00	34	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
22670	MGS	02-057/04:10:00	34	At BOT: S/C Tlm Mode: BR=42666.7, FL=10000, SC=HIGH, MI=80.0		
22671	MGS	02-057/04:10:00	34	Config: TGC: DEST=37		
22672	MGS	02-057/04:10:00	34	Config: TGC: BAND=X, BR=42666.666667		
22673	MGS	02-057/04:10:00	34	Config: FSS: CH=2, PRI_FL=10000		
22674	MGS	02-057/04:10:00	34	Config: RSR		
22675	MGS	02-057/04:10:00	34	Config: UWV: AMP=XHEMT, MODE=LISTEN ONLY, POL_UL=RCP, POL_DL=RCP		
22676	MGS	02-057/04:10:00	34	Config: BVR		
22677	MGS	02-057/04:10:00	34	Config: Doppler Extractor: BIAS=+1MHZ		
22678	MGS	02-057/04:10:00	34	Config: MDA: SMPL=0.1		
22679	MGS	02-057/04:20:00	15	NOTE: Transmitter Off in 15 minutes		
22680	MGS	02-057/04:21:09		NOTE: Periapsis 13277 ----------		02-057/04:05:13
22681	MGS	02-057/04:30:02		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-057/04:14:05
22682	MGS	02-057/04:30:02		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-057/04:14:05
22683	MGS	02-057/04:30:03		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-057/04:14:06
22684	MGS	02-057/04:30:03		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-057/04:14:06
22685	MGS	02-057/04:33:00	15	Range Modulation Off		
22686	MGS	02-057/04:35:00	15	Transmitter Off		
22687	MGS	02-057/04:40:00	34	Begin Tracking		
22688	MGS	02-057/04:40:00	34	Acquire D/L: X/16, 3-Way/15, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
22689	MGS	02-057/04:45:55	15	NOTE: Below Uplink Interlock Limit		
22690	MGS	02-057/04:50:00	15	End Tracking		
22691	MGS	02-057/04:52:03		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-057/04:36:06
22692	MGS	02-057/04:52:03		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-057/04:36:06
22693	MGS	02-057/05:05:00	15	End Post-Cal		
22694	MGS	02-057/05:06:53	34	Acquire D/L: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
22695	MGS	02-057/05:13:22		NOTE: Begin fixed Sub-Reflector for Radio Science		02-057/04:57:25
22696	MGS	02-057/05:14:38		SSR 1A Data Disable	CSD1AX	02-057/04:58:41
22697	MGS	02-057/05:14:38		SSR Activity: ID=SSR_1A, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-057/04:58:41
22698	MGS	02-057/05:14:38		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-057/04:58:41
22699	MGS	02-057/05:14:38	34	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
22700	MGS	02-057/05:16:22		NOTE: Start EVP data return script		02-057/05:00:25
22701	MGS	02-057/05:16:22		: SSR_1B, F42KHZ, PART2, 2002-057T05:47:46.000	AEMPBU	02-057/05:00:25
22702	MGS	02-057/05:18:21		: 00:06:34, FALSE	RDSCII	02-057/05:02:24
22703	MGS	02-057/05:18:21		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-057/05:02:24
22704	MGS	02-057/05:18:21		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-057/05:02:24
22705	MGS	02-057/05:18:21		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-057/05:02:24
22706	MGS	02-057/05:18:21		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-057/05:02:24
22707	MGS	02-057/05:18:21	34	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
22708	MGS	02-057/05:18:21	34	NOTE: Carrier Only -- No Telemetry Modulation		
22709	MGS	02-057/05:19:41		NOTE: Apoapsis 13277 -		02-057/05:03:44
22710	MGS	02-057/05:20:29		NOTE: Enter Planetary Atmosphere 13277		02-057/05:04:32
22711	MGS	02-057/05:24:22		NOTE: Enter Earth Occultation 13277		02-057/05:08:25
22712	MGS	02-057/05:24:22	34	NOTE: Loss Of X-Band Signal		
22713	MGS	02-057/05:24:55		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-057/05:08:58
22714	MGS	02-057/05:24:55		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-057/05:08:58
22715	MGS	02-057/05:24:55		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-057/05:08:58
22716	MGS	02-057/05:24:55		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-057/05:08:58
22717	MGS	02-057/05:24:56		Turn off the MOT Exciter and RPA beam	STRPAF	02-057/05:08:59
22718	MGS	02-057/05:24:57		NOTE: End EVP script		02-057/05:09:00
22719	MGS	02-057/05:25:01		NOTE: End fixed Sub-Reflector for Radio Science		02-057/05:09:04
22720	MGS	02-057/05:26:22		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-057/05:10:25
22721	MGS	02-057/05:26:23		NOTE: Enter Solar Eclipse 13277		02-057/05:10:26
22722	MGS	02-057/05:49:15		NOTE: Start Block (SSRMGR)		02-057/05:33:18
22723	MGS	02-057/05:49:15		Sends a one-word SSR command to the XSU command SOB: SSR_2B, SE_1A, RECORD, PART1	STSSRC	02-057/05:33:18
22724	MGS	02-057/05:49:16		SSR 2B Data Enable	CSD2BE	02-057/05:33:19
22725	MGS	02-057/05:49:16		SSR Activity: ID=SSR_2B, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-057/05:33:19
22726	MGS	02-057/05:51:03		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-057/05:35:06
22727	MGS	02-057/05:51:03		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-057/05:35:06
22728	MGS	02-057/05:51:08		Set eclipse egress script address: 01DC	SWSEES	02-057/05:35:11
22729	MGS	02-057/05:51:52		NOTE: Begin fixed Sub-Reflector for Radio Science		02-057/05:35:55
22730	MGS	02-057/05:55:36		: 01:27:03	RPAONX	02-057/05:39:39
22731	MGS	02-057/05:55:36		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-057/05:39:39
22732	MGS	02-057/05:56:51		: 00:00:30, 00:06:51, FALSE	RDSCIE	02-057/05:40:54
22733	MGS	02-057/05:56:51		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-057/05:40:54
22734	MGS	02-057/05:56:51		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-057/05:40:54
22735	MGS	02-057/05:56:51		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-057/05:40:54
22736	MGS	02-057/05:56:51		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-057/05:40:54
22737	MGS	02-057/05:57:21		Disables autonomous command to send eclipse ingress script	SWEISX	02-057/05:41:24
22738	MGS	02-057/05:57:24		NOTE: Exit Earth Occultation 13277		02-057/05:41:27
22739	MGS	02-057/05:57:24	34	Acquisition Of X-Band Signal		
22740	MGS	02-057/05:57:24	34	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
22741	MGS	02-057/05:57:24	34	NOTE: Carrier Only -- No Telemetry Modulation		
22742	MGS	02-057/06:01:35		NOTE: Exit Planetary Atmosphere 13277		02-057/05:45:38
22743	MGS	02-057/06:03:42		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-057/05:47:45
22744	MGS	02-057/06:03:42		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-057/05:47:45
22745	MGS	02-057/06:03:42		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-057/05:47:45
22746	MGS	02-057/06:03:42		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-057/05:47:45
22747	MGS	02-057/06:03:42		: REC_1B, F42KHZ, PART2, SE_1A, FALSE, 00:10:18	AEMPB	02-057/05:47:45
22748	MGS	02-057/06:03:42		Sends a one-word MOT command to the XSU command SOB: SSR_1B	STMOTC	02-057/05:47:45
22749	MGS	02-057/06:03:42		Sends a one-word SSR command to the XSU command SOB: SSR_1B, F42KHZ, PLYBCK, PART2	STSSRC	02-057/05:47:45
22750	MGS	02-057/06:03:42	34	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
22751	MGS	02-057/06:03:43		SSR 1B Data Enable	CSD1BE	02-057/05:47:46
22752	MGS	02-057/06:03:43		SSR Activity: ID=SSR_1B, FCN=Start Playback, PRT=2, BR=42666		02-057/05:47:46
22753	MGS	02-057/06:03:43	34	D/L Change: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
22754	MGS	02-057/06:03:48		NOTE: End fixed Sub-Reflector for Radio Science		02-057/05:47:51
22755	MGS	02-057/06:06:47		NOTE: Exit Solar Eclipse 13277		02-057/05:50:50
22756	MGS	02-057/06:15:56		SSR 2A Data Disable	CSD2AX	02-057/05:59:59
22757	MGS	02-057/06:15:56		SSR Activity: ID=SSR_2A, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-057/05:59:59
22758	MGS	02-057/06:15:57		NOTE: End Block (SSRMGR)		02-057/06:00:00
22759	MGS	02-057/06:18:54		NOTE: Periapsis 13278 ----------		02-057/06:02:57
22760	MGS	02-057/06:27:46		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-057/06:11:49
22761	MGS	02-057/06:27:46		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-057/06:11:49

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
22762	MGS	02-057/06:27:47		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-057/06:11:50
22763	MGS	02-057/06:27:47		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-057/06:11:50
22764	MGS	02-057/06:49:48		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-057/06:33:50
22765	MGS	02-057/06:49:48		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-057/06:33:50
22766	MGS	02-057/07:11:05		NOTE: Begin fixed Sub-Reflector for Radio Science		02-057/06:55:08
22767	MGS	02-057/07:12:22		SSR 1B Data Disable	CSD1BX	02-057/06:56:24
22768	MGS	02-057/07:12:22		SSR Activity: ID=SSR_1B, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-057/06:56:24
22769	MGS	02-057/07:12:22		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-057/06:56:24
22770	MGS	02-057/07:12:22	34	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
22771	MGS	02-057/07:14:04		NOTE: Start Block (MAP_RT)		02-057/06:58:06
22772	MGS	02-057/07:14:05		: 00:29:14, 01:27:02, FALSE, TRUE, FALSE, 00:01:15, 00:06:51, 01:12:21, 00:06:34	AEMINI	02-057/06:58:07
22773	MGS	02-057/07:14:05		Enable sending eclipse ingress script when array power disappears	SWEISE	02-057/06:58:07
22774	MGS	02-057/07:14:05		NOTE: Start EVP data return script		02-057/06:58:07
22775	MGS	02-057/07:14:06		: SE_2A, RTM, 01:12:20, MRC, 2002-057T07:45:29.000	AEMRTI	02-057/06:58:08
22776	MGS	02-057/07:16:05		: 00:06:34, FALSE	RDSCII	02-057/07:00:07
22777	MGS	02-057/07:16:05		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-057/07:00:07
22778	MGS	02-057/07:16:05		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-057/07:00:07
22779	MGS	02-057/07:16:05		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-057/07:00:07
22780	MGS	02-057/07:16:05		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-057/07:00:07
22781	MGS	02-057/07:16:05	34	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
22782	MGS	02-057/07:16:05	34	NOTE: Carrier Only -- No Telemetry Modulation		
22783	MGS	02-057/07:17:36		NOTE: Apoapsis 13278 -		02-057/07:01:39
22784	MGS	02-057/07:18:11		NOTE: Enter Planetary Atmosphere 13278		02-057/07:02:14
22785	MGS	02-057/07:22:05		NOTE: Enter Earth Occultation 13278		02-057/07:06:08
22786	MGS	02-057/07:22:05	34	NOTE: Loss Of X-Band Signal		
22787	MGS	02-057/07:22:39		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-057/07:06:41
22788	MGS	02-057/07:22:39		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-057/07:06:41
22789	MGS	02-057/07:22:39		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-057/07:06:41
22790	MGS	02-057/07:22:39		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-057/07:06:41
22791	MGS	02-057/07:22:40		Turn off the MOT Exciter and RPA beam	STRPAF	02-057/07:06:42
22792	MGS	02-057/07:22:40		NOTE: End EVP script		02-057/07:06:43
22793	MGS	02-057/07:22:41		NOTE: End Block (MAP_PB)		02-057/07:06:44
22794	MGS	02-057/07:22:44		NOTE: End fixed Sub-Reflector for Radio Science		02-057/07:06:47
22795	MGS	02-057/07:24:05		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-057/07:08:07
22796	MGS	02-057/07:24:05		NOTE: Enter Solar Eclipse 13278		02-057/07:08:08
22797	MGS	02-057/07:48:48		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-057/07:32:50
22798	MGS	02-057/07:48:48		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-057/07:32:50
22799	MGS	02-057/07:48:52		Command the PSE with included data word: 3990	SWPSEL	02-057/07:32:54
22800	MGS	02-057/07:48:53		Set eclipse egress script address: 0158	SWSEES	02-057/07:32:55
22801	MGS	02-057/07:49:34		NOTE: Begin fixed Sub-Reflector for Radio Science		02-057/07:33:37
22802	MGS	02-057/07:53:19		: 01:27:02	RPAONX	02-057/07:37:21
22803	MGS	02-057/07:53:19		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-057/07:37:21
22804	MGS	02-057/07:54:34		: 00:00:30, 00:06:51, FALSE	RDSCIE	02-057/07:38:36
22805	MGS	02-057/07:54:34		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-057/07:38:36
22806	MGS	02-057/07:54:34		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-057/07:38:36
22807	MGS	02-057/07:54:34		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-057/07:38:36
22808	MGS	02-057/07:54:34		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-057/07:38:36
22809	MGS	02-057/07:55:04		Disables autonomous command to send eclipse ingress script	SWEISX	02-057/07:39:06
22810	MGS	02-057/07:55:07		NOTE: Exit Earth Occultation 13278		02-057/07:39:09
22811	MGS	02-057/07:55:07	34	Acquisition Of X-Band Signal		
22812	MGS	02-057/07:55:07	34	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
22813	MGS	02-057/07:55:07	34	NOTE: Carrier Only -- No Telemetry Modulation		
22814	MGS	02-057/07:59:19		NOTE: Exit Planetary Atmosphere 13278		02-057/07:43:21
22815	MGS	02-057/08:01:25		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-057/07:45:27

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
22816	MGS	02-057/08:01:25		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-057/07:45:27
22817	MGS	02-057/08:01:25		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-057/07:45:27
22818	MGS	02-057/08:01:25		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-057/07:45:27
22819	MGS	02-057/08:01:25	34	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
22820	MGS	02-057/08:01:26		: RTM, MRC, 01:12:20, S&E_2A, FALSE, 00:06:35	AEMRT	02-057/07:45:28
22821	MGS	02-057/08:01:26		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-057/07:45:28
22822	MGS	02-057/08:01:26		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-057/07:45:28
22823	MGS	02-057/08:01:26	34	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
22824	MGS	02-057/08:01:30		NOTE: End fixed Sub-Reflector for Radio Science		02-057/07:45:33
22825	MGS	02-057/08:04:29		NOTE: Exit Solar Eclipse 13278		02-057/07:48:32
22826	MGS	02-057/08:07:20		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-057/07:51:22
22827	MGS	02-057/08:07:20	34	D/L Change: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
22828	MGS	02-057/08:07:22		NOTE: Start Block (SSRMGR)		02-057/07:51:24
22829	MGS	02-057/08:07:22		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-057/07:51:24
22830	MGS	02-057/08:07:22		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-057/07:51:24
22831	MGS	02-057/08:07:23		Sends a one-word MOT command to the XSU command SOB: SSR_1A	STMOTC	02-057/07:51:25
22832	MGS	02-057/08:07:24		Sends a one-word SSR command to the XSU command SOB: SSR_1A, F42KHZ, PLYBCK, PART3	STSSRC	02-057/07:51:26
22833	MGS	02-057/08:07:25		SSR 1A Data Enable	CSD1AE	02-057/07:51:27
22834	MGS	02-057/08:07:25		SSR Activity: ID=SSR_1A, FCN=Start Playback, PRT=3, BR=42666		02-057/07:51:27
22835	MGS	02-057/08:07:25	34	D/L Change: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
22836	MGS	02-057/08:16:28		NOTE: Periapsis 13279 ----------		02-057/08:00:31
22837	MGS	02-057/08:19:52		NOTE: Start Block (SSRMGR)		02-057/08:03:54
22838	MGS	02-057/08:19:52		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-057/08:03:54
22839	MGS	02-057/08:19:52		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-057/08:03:54
22840	MGS	02-057/08:19:53		Sends a one-word MOT command to the XSU command SOB: SSR_1B	STMOTC	02-057/08:03:55
22841	MGS	02-057/08:19:54		Sends a one-word SSR command to the XSU command SOB: SSR_1B, F42KHZ, PLYBCK, PART3	STSSRC	02-057/08:03:56
22842	MGS	02-057/08:19:55		SSR 1A Data Disable	CSD1AX	02-057/08:03:57
22843	MGS	02-057/08:19:55		SSR Activity: ID=SSR_1A, FCN=End Playback, PRT=3, BITS=32000000, DUR=00:12:30		02-057/08:03:57
22844	MGS	02-057/08:19:55		SSR 1B Data Enable	CSD1BE	02-057/08:03:57
22845	MGS	02-057/08:19:55		SSR Activity: ID=SSR_1B, FCN=Start Playback, PRT=3, BR=42666		02-057/08:03:57
22846	MGS	02-057/08:19:55	34	D/L Change: X/20, 1-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
22847	MGS	02-057/08:19:56		NOTE: End Block (SSRMGR)		02-057/08:03:58
22848	MGS	02-057/08:29:29		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-057/08:13:31
22849	MGS	02-057/08:29:29		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-057/08:13:31
22850	MGS	02-057/08:29:30		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-057/08:13:32
22851	MGS	02-057/08:29:30		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-057/08:13:32
22852	MGS	02-057/08:37:25		SSR 1B Data Disable	CSD1BX	02-057/08:21:27
22853	MGS	02-057/08:37:25		SSR Activity: ID=SSR_1B, FCN=End Playback, PRT=3, BITS=44800000, DUR=00:17:30		02-057/08:21:27
22854	MGS	02-057/08:37:26		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-057/08:21:28
22855	MGS	02-057/08:37:26		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-057/08:21:28
22856	MGS	02-057/08:37:26		NOTE: End Block (SSRMGR)		02-057/08:21:28
22857	MGS	02-057/08:37:26	34	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
22858	MGS	02-057/08:51:30		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-057/08:35:32
22859	MGS	02-057/08:51:30		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-057/08:35:32
22860	MGS	02-057/09:08:46		NOTE: Begin fixed Sub-Reflector for Radio Science		02-057/08:52:49
22861	MGS	02-057/09:13:46		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-057/08:57:48
22862	MGS	02-057/09:13:46		: 00:06:34, FALSE	RDSCII	02-057/08:57:48
22863	MGS	02-057/09:13:46		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-057/08:57:48
22864	MGS	02-057/09:13:46		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-057/08:57:48
22865	MGS	02-057/09:13:46		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-057/08:57:48
22866	MGS	02-057/09:13:46		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-057/08:57:48
22867	MGS	02-057/09:13:46	34	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
22868	MGS	02-057/09:13:46	34	NOTE: Carrier Only -- No Telemetry Modulation		
22869	MGS	02-057/09:15:06		NOTE: Apoapsis 13279 -		02-057/08:59:08

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
22870	MGS	02-057/09:15:54		NOTE: Enter Planetary Atmosphere 13279		02-057/08:59:56
22871	MGS	02-057/09:19:47		NOTE: Enter Earth Occultation 13279		02-057/09:03:50
22872	MGS	02-057/09:19:47	34	NOTE: Loss Of X-Band Signal		
22873	MGS	02-057/09:20:20		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-057/09:04:22
22874	MGS	02-057/09:20:20		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-057/09:04:22
22875	MGS	02-057/09:20:20		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-057/09:04:22
22876	MGS	02-057/09:20:20		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-057/09:04:22
22877	MGS	02-057/09:20:21		Turn off the MOT Exciter and RPA beam	STRPAF	02-057/09:04:23
22878	MGS	02-057/09:20:21		NOTE: End EVP script		02-057/09:04:24
22879	MGS	02-057/09:20:22		NOTE: End Block (MAP_RT)		02-057/09:04:25
22880	MGS	02-057/09:20:25		NOTE: End fixed Sub-Reflector for Radio Science		02-057/09:04:28
22881	MGS	02-057/09:21:47		NOTE: Enter Solar Eclipse 13279		02-057/09:05:50
22882	MGS	02-057/09:37:07		Disable HGA control mode	SAHGCX	02-057/09:21:09
22883	MGS	02-057/09:37:08		No Operation	SCNOOP	02-057/09:21:10
22884	MGS	02-057/09:37:09		CDU-1 Uplink Rate Select (Based on 3 bit Code): 7	TCC1BS	02-057/09:21:11
22885	MGS	02-057/09:37:09		CDU-2 Uplink Rate Select (Based on 3 bit Code): 7	TCC2BS	02-057/09:21:11
22886	MGS	02-057/09:46:30		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-057/09:30:32
22887	MGS	02-057/09:46:30		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-057/09:30:32
22888	MGS	02-057/09:46:35		Set eclipse egress script address: 019A	SWSEES	02-057/09:30:37
22889	MGS	02-057/09:52:49		NOTE: Exit Earth Occultation 13279		02-057/09:36:51
22890	MGS	02-057/09:57:00		NOTE: Exit Planetary Atmosphere 13279		02-057/09:41:03
22891	MGS	02-057/09:57:23	34	NOTE: Below Uplink Interlock Limit		
22892	MGS	02-057/10:02:11		NOTE: Exit Solar Eclipse 13279		02-057/09:46:13
22893	MGS	02-057/10:05:00	34	End Tracking		
22894	MGS	02-057/10:13:48		NOTE: Periapsis 13280 ----------		02-057/09:57:50
22895	MGS	02-057/10:20:00	34	End Post-Cal		
22896	MGS	02-057/10:23:10		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-057/10:07:12
22897	MGS	02-057/10:23:10		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-057/10:07:12
22898	MGS	02-057/10:23:11		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-057/10:07:13
22899	MGS	02-057/10:23:11		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-057/10:07:13
22900	MGS	02-057/10:45:11		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-057/10:29:13
22901	MGS	02-057/10:45:11		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-057/10:29:13
22902	MGS	02-057/11:12:31		NOTE: Apoapsis 13280 -		02-057/10:56:33
22903	MGS	02-057/11:13:37		NOTE: Enter Planetary Atmosphere 13280		02-057/10:57:40
22904	MGS	02-057/11:17:30		NOTE: Enter Earth Occultation 13280		02-057/11:01:33
22905	MGS	02-057/11:19:31		NOTE: Enter Solar Eclipse 13280		02-057/11:03:33
22906	MGS	02-057/11:22:36		NOTE: Start Block (SSRMGR)		02-057/11:06:38
22907	MGS	02-057/11:22:36		Sends a one-word SSR command to the XSU command SOB: SSR_2A, SE_1A, RECORD, PART2	STSSRC	02-057/11:06:38
22908	MGS	02-057/11:22:37		SSR 2A Data Enable	CSD2AE	02-057/11:06:39
22909	MGS	02-057/11:22:37		SSR Activity: ID=SSR_2A, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-057/11:06:39
22910	MGS	02-057/11:44:11		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-057/11:28:13
22911	MGS	02-057/11:44:11		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-057/11:28:13
22912	MGS	02-057/11:44:16		Set eclipse egress script address: 01DC	SWSEES	02-057/11:28:18
22913	MGS	02-057/11:49:17		SSR 2B Data Disable	CSD2BX	02-057/11:33:19
22914	MGS	02-057/11:49:17		SSR Activity: ID=SSR_2B, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-057/11:33:19
22915	MGS	02-057/11:49:18		NOTE: End Block (SSRMGR)		02-057/11:33:20
22916	MGS	02-057/11:50:32		NOTE: Exit Earth Occultation 13280		02-057/11:34:34
22917	MGS	02-057/11:54:43		NOTE: Exit Planetary Atmosphere 13280		02-057/11:38:45
22918	MGS	02-057/11:59:55		NOTE: Exit Solar Eclipse 13280		02-057/11:43:57
22919	MGS	02-057/12:11:42		NOTE: Periapsis 13281 ----------		02-057/11:55:44
22920	MGS	02-057/12:15:57		Dump SCP memory to the EDF using physical addressing arguments: 56A4, 240	SCDSCM	02-057/11:59:59
22921	MGS	02-057/12:20:53		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-057/12:04:55
22922	MGS	02-057/12:20:53		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-057/12:04:55
22923	MGS	02-057/12:20:54		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-057/12:04:56

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
22924	MGS	02-057/12:20:54		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-057/12:04:56
22925	MGS	02-057/12:42:54		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-057/12:26:56
22926	MGS	02-057/12:42:54		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-057/12:26:56
22927	MGS	02-057/13:10:35		NOTE: Apoapsis 13281 -		02-057/12:54:37
22928	MGS	02-057/13:11:22		NOTE: Enter Planetary Atmosphere 13281		02-057/12:55:24
22929	MGS	02-057/13:15:15		NOTE: Enter Earth Occultation 13281		02-057/12:59:17
22930	MGS	02-057/13:17:17		NOTE: Enter Solar Eclipse 13281		02-057/13:01:19
22931	MGS	02-057/13:41:55		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-057/13:25:56
22932	MGS	02-057/13:41:55		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-057/13:25:56
22933	MGS	02-057/13:41:59		Command the PSE with included data word: 3990	SWPSEL	02-057/13:26:00
22934	MGS	02-057/13:42:00		Set eclipse egress script address: 0158	SWSEES	02-057/13:26:01
22935	MGS	02-057/13:48:18		NOTE: Exit Earth Occultation 13281		02-057/13:32:20
22936	MGS	02-057/13:52:29		NOTE: Exit Planetary Atmosphere 13281		02-057/13:36:30
22937	MGS	02-057/13:57:41		NOTE: Exit Solar Eclipse 13281		02-057/13:41:43
22938	MGS	02-057/14:09:55		NOTE: Periapsis 13282 ----------		02-057/13:53:56
22939	MGS	02-057/14:15:00	65	Begin Pre-Cal		
22940	MGS	02-057/14:15:00	65	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
22941	MGS	02-057/14:15:00	65	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
22942	MGS	02-057/14:15:00	65	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
22943	MGS	02-057/14:15:00	65	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=OFF, EXC=2		
22944	MGS	02-057/14:15:00	65	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
22945	MGS	02-057/14:15:00	65	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
22946	MGS	02-057/14:15:00	65	Config: TGC: DEST=37		
22947	MGS	02-057/14:15:00	65	Config: TGC: BAND=X, BR=0.000000		
22948	MGS	02-057/14:15:00	65	Config: FSS: CH=2, PRI_FL=10000		
22949	MGS	02-057/14:15:00	65	Config: RSR		
22950	MGS	02-057/14:15:00	65	Config: TXL		
22951	MGS	02-057/14:15:00	65	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
22952	MGS	02-057/14:15:00	65	Config: BVR		
22953	MGS	02-057/14:15:00	65	Config: Doppler Extractor: BIAS=+1MHZ		
22954	MGS	02-057/14:15:00	65	Config: MDA: SMPL=0.1		
22955	MGS	02-057/14:15:00	65	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
22956	MGS	02-057/14:15:00	65	Config: SRA: HIGH=4, LOW=14, SERV=D		
22957	MGS	02-057/14:15:00	65	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
22958	MGS	02-057/14:22:40		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-057/14:06:41
22959	MGS	02-057/14:22:40		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-057/14:06:41
22960	MGS	02-057/14:22:41		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-057/14:06:42
22961	MGS	02-057/14:22:41		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-057/14:06:42
22962	MGS	02-057/14:44:41		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-057/14:28:42
22963	MGS	02-057/14:44:41		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-057/14:28:42
22964	MGS	02-057/15:05:03		NOTE: Start Block (MAP_RT)		02-057/14:49:04
22965	MGS	02-057/15:05:04		: 00:29:17, 01:26:59, FALSE, TRUE, FALSE, 00:01:15, 00:06:51, 01:12:19, 00:06:33	AEMINI	02-057/14:49:05
22966	MGS	02-057/15:05:04		Enable sending eclipse ingress script when array power disappears	SWEISE	02-057/14:49:05
22967	MGS	02-057/15:05:04		NOTE: Start EVP data return script		02-057/14:49:05
22968	MGS	02-057/15:05:05		: SE_2A, RTM, 01:12:18, MRC, 2002-057T15:36:30.000	AEMRTI	02-057/14:49:06
22969	MGS	02-057/15:08:54		NOTE: Apoapsis 13282 -		02-057/14:52:55
22970	MGS	02-057/15:09:09		NOTE: Enter Planetary Atmosphere 13282		02-057/14:53:11
22971	MGS	02-057/15:13:03		NOTE: Enter Earth Occultation 13282		02-057/14:57:04
22972	MGS	02-057/15:15:00	65	Begin Tracking		
22973	MGS	02-057/15:15:04		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-057/14:59:05
22974	MGS	02-057/15:15:04		NOTE: Enter Solar Eclipse 13282		02-057/14:59:05
22975	MGS	02-057/15:25:00	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
22976	MGS	02-057/15:27:00	65	Range Modulation On: SUP=3.0dB		
22977	MGS	02-057/15:28:00	65	Begin Ranging Acquisition		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
22978	MGS	02-057/15:30:35		Select Automatic HGA control mode	SAHACE	02-057/15:14:36
22979	MGS	02-057/15:30:36		Selects Hign Gain Antenna for downlink, Reconfigures if beam is already on	STUHGA	02-057/15:14:37
22980	MGS	02-057/15:30:37		CDU-1 Uplink Rate Select (Based on 3 bit Code): 3	TCC1BS	02-057/15:14:38
22981	MGS	02-057/15:30:37		CDU-2 Uplink Rate Select (Based on 3 bit Code): 3	TCC2BS	02-057/15:14:38
22982	MGS	02-057/15:39:41		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-057/15:23:42
22983	MGS	02-057/15:39:41		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-057/15:23:42
22984	MGS	02-057/15:39:46		Set eclipse egress script address: 019A	SWSEES	02-057/15:23:47
22985	MGS	02-057/15:40:36		NOTE: Begin fixed Sub-Reflector for Radio Science		02-057/15:24:37
22986	MGS	02-057/15:44:21		: 01:26:59	RPAONX	02-057/15:28:22
22987	MGS	02-057/15:44:21		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-057/15:28:22
22988	MGS	02-057/15:45:36		: 00:00:30, 00:06:51, FALSE	RDSCIE	02-057/15:29:37
22989	MGS	02-057/15:45:36		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-057/15:29:37
22990	MGS	02-057/15:45:36		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-057/15:29:37
22991	MGS	02-057/15:45:36		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-057/15:29:37
22992	MGS	02-057/15:45:36		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-057/15:29:37
22993	MGS	02-057/15:46:06		NOTE: Exit Earth Occultation 13282		02-057/15:30:07
22994	MGS	02-057/15:46:06	65	Acquisition Of X-Band Signal		
22995	MGS	02-057/15:46:06	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
22996	MGS	02-057/15:46:06	65	NOTE: Carrier Only -- No Telemetry Modulation		
22997	MGS	02-057/15:50:16		NOTE: Exit Planetary Atmosphere 13282		02-057/15:34:18
22998	MGS	02-057/15:52:27		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-057/15:36:28
22999	MGS	02-057/15:52:27		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-057/15:36:28
23000	MGS	02-057/15:52:27		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-057/15:36:28
23001	MGS	02-057/15:52:27		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-057/15:36:28
23002	MGS	02-057/15:52:27	65	D/L Change: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
23003	MGS	02-057/15:52:28		: RTM, MRC, 01:12:18, S&E_2A, FALSE, 00:06:34	AEMRT	02-057/15:36:29
23004	MGS	02-057/15:52:28		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-057/15:36:29
23005	MGS	02-057/15:52:28		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-057/15:36:29
23006	MGS	02-057/15:52:28		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=2, BITS=129520000, DUR=04:29:50		02-057/15:36:29
23007	MGS	02-057/15:52:28		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-057/15:36:29
23008	MGS	02-057/15:52:28	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
23009	MGS	02-057/15:52:32		NOTE: End fixed Sub-Reflector for Radio Science		02-057/15:36:33
23010	MGS	02-057/15:55:28		NOTE: Exit Solar Eclipse 13282		02-057/15:39:30
23011	MGS	02-057/15:56:57	65	Acquire D/L: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
23012	MGS	02-057/16:07:58		NOTE: Periapsis 13283 ----------		02-057/15:52:00
23013	MGS	02-057/16:16:27		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-057/16:00:28
23014	MGS	02-057/16:16:27		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-057/16:00:28
23015	MGS	02-057/16:16:28		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-057/16:00:29
23016	MGS	02-057/16:16:28		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-057/16:00:29
23017	MGS	02-057/16:20:07	65	NOTE: Transmitter Off in 15 minutes		
23018	MGS	02-057/16:33:08	65	Range Modulation Off		
23019	MGS	02-057/16:35:07	65	Transmitter Off		
23020	MGS	02-057/16:38:28		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-057/16:22:29
23021	MGS	02-057/16:38:28		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-057/16:22:29
23022	MGS	02-057/16:55:57		NOTE: Start Block (SSRMGR)		02-057/16:39:58
23023	MGS	02-057/16:55:57		Sends a one-word SSR command to the XSU command SOB: SSR_2B, SE_1A, RECORD, PART2	STSSRC	02-057/16:39:58
23024	MGS	02-057/16:55:58		SSR 2B Data Enable	CSD2BE	02-057/16:39:59
23025	MGS	02-057/16:55:58		SSR Activity: ID=SSR_2B, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-057/16:39:59
23026	MGS	02-057/16:59:46		NOTE: Begin fixed Sub-Reflector for Radio Science		02-057/16:43:47
23027	MGS	02-057/17:02:50		NOTE: Start EVP data return script		02-057/16:46:51
23028	MGS	02-057/17:04:46		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-057/16:48:47
23029	MGS	02-057/17:04:46		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=2, BITS=4224000, DUR=00:08:48		02-057/16:48:47
23030	MGS	02-057/17:04:46		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-057/16:48:47
23031	MGS	02-057/17:04:46		: 00:06:33, FALSE	RDSCII	02-057/16:48:47

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
23032	MGS	02-057/17:04:46		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-057/16:48:47
23033	MGS	02-057/17:04:46		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-057/16:48:47
23034	MGS	02-057/17:04:46		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-057/16:48:47
23035	MGS	02-057/17:04:46		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-057/16:48:47
23036	MGS	02-057/17:04:46	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
23037	MGS	02-057/17:04:46	65	NOTE: Carrier Only -- No Telemetry Modulation		
23038	MGS	02-057/17:06:46		NOTE: Apoapsis 13283 -		02-057/16:50:48
23039	MGS	02-057/17:06:57		NOTE: Enter Planetary Atmosphere 13283		02-057/16:50:58
23040	MGS	02-057/17:10:50		NOTE: Enter Earth Occultation 13283		02-057/16:54:51
23041	MGS	02-057/17:10:50	65	NOTE: Loss Of X-Band Signal		
23042	MGS	02-057/17:11:19		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-057/16:55:20
23043	MGS	02-057/17:11:19		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-057/16:55:20
23044	MGS	02-057/17:11:19		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-057/16:55:20
23045	MGS	02-057/17:11:19		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-057/16:55:20
23046	MGS	02-057/17:11:20		Turn off the MOT Exciter and RPA beam	STRPAF	02-057/16:55:21
23047	MGS	02-057/17:11:20		NOTE: End EVP script		02-057/16:55:21
23048	MGS	02-057/17:11:24		NOTE: End fixed Sub-Reflector for Radio Science		02-057/16:55:25
23049	MGS	02-057/17:12:50		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-057/16:56:51
23050	MGS	02-057/17:12:50		NOTE: Enter Solar Eclipse 13283		02-057/16:56:51
23051	MGS	02-057/17:15:41	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
23052	MGS	02-057/17:17:41	65	Range Modulation On: SUP=3.0dB		
23053	MGS	02-057/17:18:41	65	Begin Ranging Acquisition		
23054	MGS	02-057/17:22:38		SSR 2A Data Disable	CSD2AX	02-057/17:06:39
23055	MGS	02-057/17:22:38		SSR Activity: ID=SSR_2A, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-057/17:06:39
23056	MGS	02-057/17:22:39		NOTE: End Block (SSRMGR)		02-057/17:06:40
23057	MGS	02-057/17:37:28		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-057/17:21:29
23058	MGS	02-057/17:37:28		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-057/17:21:29
23059	MGS	02-057/17:37:33		Set eclipse egress script address: 01DC	SWSEES	02-057/17:21:34
23060	MGS	02-057/17:38:22		NOTE: Begin fixed Sub-Reflector for Radio Science		02-057/17:22:23
23061	MGS	02-057/17:42:07		: 01:26:59	RPAONX	02-057/17:26:08
23062	MGS	02-057/17:42:07		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-057/17:26:08
23063	MGS	02-057/17:43:22		: 00:00:30, 00:06:51, FALSE	RDSCIE	02-057/17:27:23
23064	MGS	02-057/17:43:22		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-057/17:27:23
23065	MGS	02-057/17:43:22		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-057/17:27:23
23066	MGS	02-057/17:43:22		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-057/17:27:23
23067	MGS	02-057/17:43:22		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-057/17:27:23
23068	MGS	02-057/17:43:53		NOTE: Exit Earth Occultation 13283		02-057/17:27:54
23069	MGS	02-057/17:43:53	65	Acquisition Of X-Band Signal		
23070	MGS	02-057/17:43:53	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
23071	MGS	02-057/17:43:53	65	NOTE: Carrier Only -- No Telemetry Modulation		
23072	MGS	02-057/17:48:05		NOTE: Exit Planetary Atmosphere 13283		02-057/17:32:06
23073	MGS	02-057/17:50:13		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-057/17:34:14
23074	MGS	02-057/17:50:13		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-057/17:34:14
23075	MGS	02-057/17:50:13		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-057/17:34:14
23076	MGS	02-057/17:50:13		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-057/17:34:14
23077	MGS	02-057/17:50:13	65	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
23078	MGS	02-057/17:50:14		: RTM, MRC, 01:12:18, S&E_2A, FALSE, 00:06:34	AEMRT	02-057/17:34:15
23079	MGS	02-057/17:50:14		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-057/17:34:15
23080	MGS	02-057/17:50:14		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-057/17:34:15
23081	MGS	02-057/17:50:14		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=2, BITS=26048000, DUR=00:45:28		02-057/17:34:15
23082	MGS	02-057/17:50:14		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-057/17:34:15
23083	MGS	02-057/17:50:14	65	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
23084	MGS	02-057/17:50:18		NOTE: End fixed Sub-Reflector for Radio Science		02-057/17:34:19
23085	MGS	02-057/17:53:15		NOTE: Exit Solar Eclipse 13283		02-057/17:37:16

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
23086	MGS	02-057/18:05:36		NOTE: Periapsis 13284 ----------		02-057/17:49:37
23087	MGS	02-057/18:14:13		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-057/17:58:14
23088	MGS	02-057/18:14:13		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-057/17:58:14
23089	MGS	02-057/18:14:14		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-057/17:58:15
23090	MGS	02-057/18:14:14		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-057/17:58:15
23091	MGS	02-057/18:17:50	65	NOTE: Transmitter Off in 15 minutes		
23092	MGS	02-057/18:30:51	65	Range Modulation Off		
23093	MGS	02-057/18:32:50	65	Transmitter Off		
23094	MGS	02-057/18:36:14		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-057/18:20:15
23095	MGS	02-057/18:36:14		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-057/18:20:15
23096	MGS	02-057/18:57:32		NOTE: Begin fixed Sub-Reflector for Radio Science		02-057/18:41:33
23097	MGS	02-057/19:00:32		NOTE: Start EVP data return script		02-057/18:44:33
23098	MGS	02-057/19:02:32		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-057/18:46:33
23099	MGS	02-057/19:02:32		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=2, BITS=60752000, DUR=01:12:18		02-057/18:46:33
23100	MGS	02-057/19:02:32		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-057/18:46:33
23101	MGS	02-057/19:02:32		: 00:06:33, FALSE	RDSCII	02-057/18:46:33
23102	MGS	02-057/19:02:32		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-057/18:46:33
23103	MGS	02-057/19:02:32		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-057/18:46:33
23104	MGS	02-057/19:02:32		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-057/18:46:33
23105	MGS	02-057/19:02:32		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-057/18:46:33
23106	MGS	02-057/19:02:32	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
23107	MGS	02-057/19:02:32	65	NOTE: Carrier Only -- No Telemetry Modulation		
23108	MGS	02-057/19:04:11		NOTE: Apoapsis 13284 -		02-057/18:48:11
23109	MGS	02-057/19:04:40		NOTE: Enter Planetary Atmosphere 13284		02-057/18:48:41
23110	MGS	02-057/19:08:33		NOTE: Enter Earth Occultation 13284		02-057/18:52:34
23111	MGS	02-057/19:08:33	65	NOTE: Loss Of X-Band Signal		
23112	MGS	02-057/19:09:05		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-057/18:53:06
23113	MGS	02-057/19:09:05		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-057/18:53:06
23114	MGS	02-057/19:09:05		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-057/18:53:06
23115	MGS	02-057/19:09:05		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-057/18:53:06
23116	MGS	02-057/19:09:06		Turn off the MOT Exciter and RPA beam	STRPAF	02-057/18:53:07
23117	MGS	02-057/19:09:06		NOTE: End EVP script		02-057/18:53:07
23118	MGS	02-057/19:09:10		NOTE: End fixed Sub-Reflector for Radio Science		02-057/18:53:11
23119	MGS	02-057/19:10:32		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-057/18:54:33
23120	MGS	02-057/19:10:33		NOTE: Enter Solar Eclipse 13284		02-057/18:54:34
23121	MGS	02-057/19:13:24	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
23122	MGS	02-057/19:15:24	65	Range Modulation On: SUP=3.0dB		
23123	MGS	02-057/19:16:24	65	Begin Ranging Acquisition		
23124	MGS	02-057/19:35:14		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-057/19:19:15
23125	MGS	02-057/19:35:14		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-057/19:19:15
23126	MGS	02-057/19:35:18		Command the PSE with included data word: 3990	SWPSEL	02-057/19:19:19
23127	MGS	02-057/19:35:19		Set eclipse egress script address: 0158	SWSEES	02-057/19:19:20
23128	MGS	02-057/19:36:05		NOTE: Begin fixed Sub-Reflector for Radio Science		02-057/19:20:05
23129	MGS	02-057/19:39:49		: 01:26:59	RPAONX	02-057/19:23:50
23130	MGS	02-057/19:39:49		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-057/19:23:50
23131	MGS	02-057/19:41:04		: 00:00:30, 00:06:51, FALSE	RDSCIE	02-057/19:25:05
23132	MGS	02-057/19:41:04		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-057/19:25:05
23133	MGS	02-057/19:41:04		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-057/19:25:05
23134	MGS	02-057/19:41:04		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-057/19:25:05
23135	MGS	02-057/19:41:04		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-057/19:25:05
23136	MGS	02-057/19:41:37		NOTE: Exit Earth Occultation 13284		02-057/19:25:38
23137	MGS	02-057/19:41:37	65	Acquisition Of X-Band Signal		
23138	MGS	02-057/19:41:37	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
23139	MGS	02-057/19:41:37	65	NOTE: Carrier Only -- No Telemetry Modulation		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
23140	MGS	02-057/19:45:48		NOTE: Exit Planetary Atmosphere 13284		02-057/19:29:49
23141	MGS	02-057/19:47:55		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-057/19:31:56
23142	MGS	02-057/19:47:55		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-057/19:31:56
23143	MGS	02-057/19:47:55		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-057/19:31:56
23144	MGS	02-057/19:47:55		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-057/19:31:56
23145	MGS	02-057/19:47:55	65	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
23146	MGS	02-057/19:47:56		: RTM, MRC, 01:12:18, S&E_2A, FALSE, 00:06:34	AEMRT	02-057/19:31:57
23147	MGS	02-057/19:47:56		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-057/19:31:57
23148	MGS	02-057/19:47:56		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-057/19:31:57
23149	MGS	02-057/19:47:56		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=2, BITS=82544000, DUR=00:45:24		02-057/19:31:57
23150	MGS	02-057/19:47:56		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-057/19:31:57
23151	MGS	02-057/19:47:56	65	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
23152	MGS	02-057/19:48:01		NOTE: End fixed Sub-Reflector for Radio Science		02-057/19:32:01
23153	MGS	02-057/19:50:57		NOTE: Exit Solar Eclipse 13284		02-057/19:34:58
23154	MGS	02-057/19:55:00	15	Begin Pre-Cal		
23155	MGS	02-057/19:55:00	15	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
23156	MGS	02-057/19:55:00	15	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
23157	MGS	02-057/19:55:00	15	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
23158	MGS	02-057/19:55:00	15	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
23159	MGS	02-057/19:55:00	15	At BOT: S/C Tlm Mode: BR=40000.0, FL=10000, SC=HIGH, MI=80.0		
23160	MGS	02-057/19:55:00	15	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
23161	MGS	02-057/19:55:00	15	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
23162	MGS	02-057/19:55:00	15	Config: TGC: DEST=37		
23163	MGS	02-057/19:55:00	15	Config: TGC: BAND=X, BR=40000.000000		
23164	MGS	02-057/19:55:00	15	Config: FSS: CH=2, PRI_FL=10000		
23165	MGS	02-057/19:55:00	15	Config: RSR		
23166	MGS	02-057/19:55:00	15	Config: TXL		
23167	MGS	02-057/19:55:00	15	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
23168	MGS	02-057/19:55:00	15	Config: BVR		
23169	MGS	02-057/19:55:00	15	Config: Doppler Extractor: BIAS=+1MHZ		
23170	MGS	02-057/19:55:00	15	Config: MDA: SMPL=0.1		
23171	MGS	02-057/19:55:00	15	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
23172	MGS	02-057/19:55:00	15	Config: SRA: HIGH=4, LOW=14, SERV=D		
23173	MGS	02-057/19:55:00	15	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
23174	MGS	02-057/20:02:57		NOTE: Periapsis 13285 ----------		02-057/19:46:58
23175	MGS	02-057/20:15:30	65	NOTE: Transmitter Off in 15 minutes		
23176	MGS	02-057/20:15:57		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-057/19:59:57
23177	MGS	02-057/20:15:57		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-057/19:59:57
23178	MGS	02-057/20:15:58		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-057/19:59:58
23179	MGS	02-057/20:15:58		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-057/19:59:58
23180	MGS	02-057/20:28:30	65	Range Modulation Off		
23181	MGS	02-057/20:30:30	65	Transmitter Off		
23182	MGS	02-057/20:37:58		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-057/20:21:58
23183	MGS	02-057/20:37:58		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-057/20:21:58
23184	MGS	02-057/20:55:00	15	Begin Tracking		
23185	MGS	02-057/20:55:00	15	Acquire D/L: X/16, 3-Way/65, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
23186	MGS	02-057/20:55:15		NOTE: Begin fixed Sub-Reflector for Radio Science		02-057/20:39:15
23187	MGS	02-057/20:58:14		NOTE: Start EVP data return script		02-057/20:42:14
23188	MGS	02-057/21:00:15		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-057/20:44:15
23189	MGS	02-057/21:00:15		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=2, BITS=117248000, DUR=01:12:18		02-057/20:44:15
23190	MGS	02-057/21:00:15		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-057/20:44:15
23191	MGS	02-057/21:00:15		: 00:06:33, FALSE	RDSCII	02-057/20:44:15
23192	MGS	02-057/21:00:15		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-057/20:44:15

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
23193	MGS	02-057/21:00:15		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-057/20:44:15
23194	MGS	02-057/21:00:15		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-057/20:44:15
23195	MGS	02-057/21:00:15		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-057/20:44:15
23196	MGS	02-057/21:00:15	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
23197	MGS	02-057/21:00:15	15	NOTE: Carrier Only -- No Telemetry Modulation		
23198	MGS	02-057/21:00:15	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
23199	MGS	02-057/21:00:15	65	NOTE: Carrier Only -- No Telemetry Modulation		
23200	MGS	02-057/21:01:40		NOTE: Apoapsis 13285 -		02-057/20:45:41
23201	MGS	02-057/21:02:20		NOTE: Enter Planetary Atmosphere 13285		02-057/20:46:21
23202	MGS	02-057/21:06:13		NOTE: Enter Earth Occultation 13285		02-057/20:50:14
23203	MGS	02-057/21:06:13	15	NOTE: Loss Of X-Band Signal		
23204	MGS	02-057/21:06:13	65	NOTE: Loss Of X-Band Signal		
23205	MGS	02-057/21:06:48		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-057/20:50:48
23206	MGS	02-057/21:06:48		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-057/20:50:48
23207	MGS	02-057/21:06:48		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-057/20:50:48
23208	MGS	02-057/21:06:48		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-057/20:50:48
23209	MGS	02-057/21:06:49		Turn off the MOT Exciter and RPA beam	STRPAF	02-057/20:50:49
23210	MGS	02-057/21:06:49		NOTE: End EVP script		02-057/20:50:49
23211	MGS	02-057/21:06:53		NOTE: End fixed Sub-Reflector for Radio Science		02-057/20:50:53
23212	MGS	02-057/21:08:13		NOTE: Enter Solar Eclipse 13285		02-057/20:52:14
23213	MGS	02-057/21:08:14		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-057/20:52:14
23214	MGS	02-057/21:11:04	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
23215	MGS	02-057/21:13:04	15	Range Modulation On: SUP=3.0dB		
23216	MGS	02-057/21:14:04	15	Begin Ranging Acquisition		
23217	MGS	02-057/21:15:00	65	End Tracking		
23218	MGS	02-057/21:30:00	65	End Post-Cal		
23219	MGS	02-057/21:32:58		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-057/21:16:58
23220	MGS	02-057/21:32:58		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-057/21:16:58
23221	MGS	02-057/21:33:03		Set eclipse egress script address: 019A	SWSEES	02-057/21:17:03
23222	MGS	02-057/21:33:46		NOTE: Begin fixed Sub-Reflector for Radio Science		02-057/21:17:46
23223	MGS	02-057/21:37:31		: 01:26:59	RPAONX	02-057/21:21:31
23224	MGS	02-057/21:37:31		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-057/21:21:31
23225	MGS	02-057/21:38:46		: 00:00:30, 00:06:51, FALSE	RDSCIE	02-057/21:22:46
23226	MGS	02-057/21:38:46		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-057/21:22:46
23227	MGS	02-057/21:38:46		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-057/21:22:46
23228	MGS	02-057/21:38:46		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-057/21:22:46
23229	MGS	02-057/21:38:46		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-057/21:22:46
23230	MGS	02-057/21:39:17		NOTE: Exit Earth Occultation 13285		02-057/21:23:18
23231	MGS	02-057/21:39:17	15	Acquisition Of X-Band Signal		
23232	MGS	02-057/21:39:17	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
23233	MGS	02-057/21:39:17	15	NOTE: Carrier Only -- No Telemetry Modulation		
23234	MGS	02-057/21:43:28		NOTE: Exit Planetary Atmosphere 13285		02-057/21:27:29
23235	MGS	02-057/21:45:37		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-057/21:29:37
23236	MGS	02-057/21:45:37		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-057/21:29:37
23237	MGS	02-057/21:45:37		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-057/21:29:37
23238	MGS	02-057/21:45:37		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-057/21:29:37
23239	MGS	02-057/21:45:37	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
23240	MGS	02-057/21:45:38		: RTM, MRC, 01:12:18, S&E_2A, FALSE, 00:06:34	AEMRT	02-057/21:29:38
23241	MGS	02-057/21:45:38		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-057/21:29:38
23242	MGS	02-057/21:45:38		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-057/21:29:38
23243	MGS	02-057/21:45:38		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=2, BITS=139032000, DUR=00:45:23		02-057/21:29:38
23244	MGS	02-057/21:45:38		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-057/21:29:38
23245	MGS	02-057/21:45:38	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
23246	MGS	02-057/21:45:42		NOTE: End fixed Sub-Reflector for Radio Science		02-057/21:29:42

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
23247	MGS	02-057/21:48:37		NOTE: Exit Solar Eclipse 13285		02-057/21:32:38
23248	MGS	02-057/22:00:29		NOTE: Periapsis 13286 ----------		02-057/21:44:30
23249	MGS	02-057/22:09:36		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-057/21:53:36
23250	MGS	02-057/22:09:36		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-057/21:53:36
23251	MGS	02-057/22:09:37		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-057/21:53:37
23252	MGS	02-057/22:09:37		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-057/21:53:37
23253	MGS	02-057/22:13:12	15	NOTE: Transmitter Off in 15 minutes		
23254	MGS	02-057/22:26:13	15	Range Modulation Off		
23255	MGS	02-057/22:28:12	15	Transmitter Off		
23256	MGS	02-057/22:29:18		NOTE: Start Block (SSRMGR)		02-057/22:13:18
23257	MGS	02-057/22:29:18		Sends a one-word SSR command to the XSU command SOB: SSR_2A, SE_1A, RECORD, PART3	STSSRC	02-057/22:13:18
23258	MGS	02-057/22:29:19		SSR 2A Data Enable	CSD2AE	02-057/22:13:19
23259	MGS	02-057/22:29:19		SSR Activity: ID=SSR_2A, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-057/22:13:19
23260	MGS	02-057/22:31:37		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-057/22:15:37
23261	MGS	02-057/22:31:37		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-057/22:15:37
23262	MGS	02-057/22:52:56		NOTE: Begin fixed Sub-Reflector for Radio Science		02-057/22:36:56
23263	MGS	02-057/22:55:57		NOTE: Start EVP data return script		02-057/22:39:57
23264	MGS	02-057/22:55:59		SSR 2B Data Disable	CSD2BX	02-057/22:39:59
23265	MGS	02-057/22:55:59		SSR Activity: ID=SSR_2B, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-057/22:39:59
23266	MGS	02-057/22:56:00		NOTE: End Block (SSRMGR)		02-057/22:40:00
23267	MGS	02-057/22:57:56		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-057/22:41:56
23268	MGS	02-057/22:57:56		SSR Activity: ID=SSR_2A, FCN=End Old Recording Rate, PRT=3, BITS=13736000, DUR=00:28:37		02-057/22:41:56
23269	MGS	02-057/22:57:56		SSR Activity: ID=SSR_2A, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-057/22:41:56
23270	MGS	02-057/22:57:56		: 00:06:33, FALSE	RDSCII	02-057/22:41:56
23271	MGS	02-057/22:57:56		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-057/22:41:56
23272	MGS	02-057/22:57:56		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-057/22:41:56
23273	MGS	02-057/22:57:56		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-057/22:41:56
23274	MGS	02-057/22:57:56		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-057/22:41:56
23275	MGS	02-057/22:57:56	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
23276	MGS	02-057/22:57:56	15	NOTE: Carrier Only -- No Telemetry Modulation		
23277	MGS	02-057/22:59:35		NOTE: Apoapsis 13286 -		02-057/22:43:35
23278	MGS	02-057/23:00:04		NOTE: Enter Planetary Atmosphere 13286		02-057/22:44:04
23279	MGS	02-057/23:03:57		NOTE: Enter Earth Occultation 13286		02-057/22:47:57
23280	MGS	02-057/23:03:57	15	NOTE: Loss Of X-Band Signal		
23281	MGS	02-057/23:04:29		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-057/22:48:29
23282	MGS	02-057/23:04:29		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-057/22:48:29
23283	MGS	02-057/23:04:29		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-057/22:48:29
23284	MGS	02-057/23:04:29		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-057/22:48:29
23285	MGS	02-057/23:04:30		Turn off the MOT Exciter and RPA beam	STRPAF	02-057/22:48:30
23286	MGS	02-057/23:04:30		NOTE: End EVP script		02-057/22:48:30
23287	MGS	02-057/23:04:34		NOTE: End fixed Sub-Reflector for Radio Science		02-057/22:48:34
23288	MGS	02-057/23:05:57		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-057/22:49:57
23289	MGS	02-057/23:05:57		NOTE: Enter Solar Eclipse 13286		02-057/22:49:58
23290	MGS	02-057/23:08:47	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
23291	MGS	02-057/23:09:18		NOTE: Start Block (SSRMGR)		02-057/22:53:18
23292	MGS	02-057/23:09:18		Sends a one-word SSR command to the XSU command SOB: SSR_2B, SE_1A, RECORD, PART3	STSSRC	02-057/22:53:18
23293	MGS	02-057/23:09:19		SSR 2B Data Enable	CSD2BE	02-057/22:53:19
23294	MGS	02-057/23:09:19		SSR Activity: ID=SSR_2B, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-057/22:53:19
23295	MGS	02-057/23:10:47	15	Range Modulation On: SUP=3.0dB		
23296	MGS	02-057/23:11:47	15	Begin Ranging Acquisition		
23297	MGS	02-057/23:30:37		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-057/23:14:37
23298	MGS	02-057/23:30:37		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-057/23:14:37
23299	MGS	02-057/23:30:42		Set eclipse egress script address: 01DC	SWSEES	02-057/23:14:42
23300	MGS	02-057/23:31:29		NOTE: Begin fixed Sub-Reflector for Radio Science		02-057/23:15:29

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
23301	MGS	02-057/23:35:14		: 01:26:59	RPAONX	02-057/23:19:14
23302	MGS	02-057/23:35:14		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-057/23:19:14
23303	MGS	02-057/23:35:59		SSR 2A Data Disable	CSD2AX	02-057/23:19:59
23304	MGS	02-057/23:35:59		SSR Activity: ID=SSR_2A, FCN=End Recording, PRT=3, BITS=32000000, DUR=01:06:40		02-057/23:19:59
23305	MGS	02-057/23:36:00		NOTE: End Block (SSRMGR)		02-057/23:20:00
23306	MGS	02-057/23:36:29		: 00:00:30, 00:06:51, FALSE	RDSCIE	02-057/23:20:29
23307	MGS	02-057/23:36:29		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-057/23:20:29
23308	MGS	02-057/23:36:29		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-057/23:20:29
23309	MGS	02-057/23:36:29		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-057/23:20:29
23310	MGS	02-057/23:36:29		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-057/23:20:29
23311	MGS	02-057/23:36:59		Disables autonomous command to send eclipse ingress script	SWEISX	02-057/23:20:59
23312	MGS	02-057/23:37:01		NOTE: Exit Earth Occultation 13286		02-057/23:21:01
23313	MGS	02-057/23:37:01	15	Acquisition Of X-Band Signal		
23314	MGS	02-057/23:37:01	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
23315	MGS	02-057/23:37:01	15	NOTE: Carrier Only -- No Telemetry Modulation		
23316	MGS	02-057/23:41:12		NOTE: Exit Planetary Atmosphere 13286		02-057/23:25:12
23317	MGS	02-057/23:43:20		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-057/23:27:20
23318	MGS	02-057/23:43:20		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-057/23:27:20
23319	MGS	02-057/23:43:20		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-057/23:27:20
23320	MGS	02-057/23:43:20		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-057/23:27:20
23321	MGS	02-057/23:43:20	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
23322	MGS	02-057/23:43:21		: RTM, MRC, 01:12:18, S&E_2A, FALSE, 00:06:34	AEMRT	02-057/23:27:21
23323	MGS	02-057/23:43:21		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-057/23:27:21
23324	MGS	02-057/23:43:21		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-057/23:27:21
23325	MGS	02-057/23:43:21		SSR Activity: ID=SSR_2B, FCN=End Old Recording Rate, PRT=3, BITS=16336000, DUR=00:34:02		02-057/23:27:21
23326	MGS	02-057/23:43:21		SSR Activity: ID=SSR_2B, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-057/23:27:21
23327	MGS	02-057/23:43:21	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
23328	MGS	02-057/23:43:25		NOTE: End fixed Sub-Reflector for Radio Science		02-057/23:27:25
23329	MGS	02-057/23:46:21		NOTE: Exit Solar Eclipse 13286		02-057/23:30:22
23330	MGS	02-057/23:58:22		NOTE: Periapsis 13287 ----------		02-057/23:42:23
23331	MGS	02-058/00:00:00		Light Time: OWLT = 15:59, RTLT = 31:59		
23332	MGS	02-058/00:07:20		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-057/23:51:20
23333	MGS	02-058/00:07:20		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-057/23:51:20
23334	MGS	02-058/00:07:21		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-057/23:51:21
23335	MGS	02-058/00:07:21		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-057/23:51:21
23336	MGS	02-058/00:10:59	15	NOTE: Transmitter Off in 15 minutes		
23337	MGS	02-058/00:15:58		NOTE: Start Block (SSRMGR)		02-057/23:59:58
23338	MGS	02-058/00:15:58		Sends a one-word SSR command to the XSU command SOB: SSR_1A, SE_1A, RECORD, PART1	STSSRC	02-057/23:59:58
23339	MGS	02-058/00:15:59		SSR 1A Data Enable	CSD1AE	02-057/23:59:59
23340	MGS	02-058/00:15:59		SSR Activity: ID=SSR_1A, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-057/23:59:59
23341	MGS	02-058/00:24:00	15	Range Modulation Off		
23342	MGS	02-058/00:25:59	15	Transmitter Off		
23343	MGS	02-058/00:29:21		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-058/00:13:21
23344	MGS	02-058/00:29:21		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-058/00:13:21
23345	MGS	02-058/00:42:39		SSR 2B Data Disable	CSD2BX	02-058/00:26:39
23346	MGS	02-058/00:42:39		SSR Activity: ID=SSR_2B, FCN=End Recording, PRT=3, BITS=44800000, DUR=01:33:20		02-058/00:26:39
23347	MGS	02-058/00:42:40		NOTE: End Block (SSRMGR)		02-058/00:26:40
23348	MGS	02-058/00:50:39		NOTE: Begin fixed Sub-Reflector for Radio Science		02-058/00:34:39
23349	MGS	02-058/00:53:43		NOTE: Start Block (MAP_PB)		02-058/00:37:43
23350	MGS	02-058/00:53:44		: 00:29:19, 01:26:59, FALSE, TRUE, FALSE, 00:01:15, 00:06:51, 01:12:20, 00:06:32	AEMINI	02-058/00:37:44
23351	MGS	02-058/00:53:44		Enable sending eclipse ingress script when array power disappears	SWEISE	02-058/00:37:44
23352	MGS	02-058/00:53:44		NOTE: Start EVP data return script		02-058/00:37:44
23353	MGS	02-058/00:53:45		: SSR_2A, F42KHZ, PART1, SE_1A, 2002-058T01:25:10.000	AEMPBI	02-058/00:37:45
23354	MGS	02-058/00:55:39		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-058/00:39:39

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
23355	MGS	02-058/00:55:39		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=1, BITS=19040000, DUR=00:39:40		02-058/00:39:39
23356	MGS	02-058/00:55:39		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=1, BR=8000, SRC=SE_1A		02-058/00:39:39
23357	MGS	02-058/00:55:39		: 00:06:33, FALSE	RDSCII	02-058/00:39:39
23358	MGS	02-058/00:55:39		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-058/00:39:39
23359	MGS	02-058/00:55:39		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-058/00:39:39
23360	MGS	02-058/00:55:39		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-058/00:39:39
23361	MGS	02-058/00:55:39		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-058/00:39:39
23362	MGS	02-058/00:55:39	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
23363	MGS	02-058/00:55:39	15	NOTE: Carrier Only -- No Telemetry Modulation		
23364	MGS	02-058/00:57:23		NOTE: Apoapsis 13287 -		02-058/00:41:23
23365	MGS	02-058/00:57:52		NOTE: Enter Planetary Atmosphere 13287		02-058/00:41:52
23366	MGS	02-058/01:01:44		NOTE: Enter Earth Occultation 13287		02-058/00:45:44
23367	MGS	02-058/01:01:44	15	NOTE: Loss Of X-Band Signal		
23368	MGS	02-058/01:02:12		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-058/00:46:12
23369	MGS	02-058/01:02:12		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-058/00:46:12
23370	MGS	02-058/01:02:12		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-058/00:46:12
23371	MGS	02-058/01:02:12		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-058/00:46:12
23372	MGS	02-058/01:02:13		Turn off the MOT Exciter and RPA beam	STRPAF	02-058/00:46:13
23373	MGS	02-058/01:02:13		NOTE: End EVP script		02-058/00:46:13
23374	MGS	02-058/01:02:14		NOTE: End Block (MAP_RT)		02-058/00:46:14
23375	MGS	02-058/01:02:17		NOTE: End fixed Sub-Reflector for Radio Science		02-058/00:46:17
23376	MGS	02-058/01:03:44		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-058/00:47:44
23377	MGS	02-058/01:03:45		NOTE: Enter Solar Eclipse 13287		02-058/00:47:45
23378	MGS	02-058/01:06:34	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
23379	MGS	02-058/01:08:34	15	Range Modulation On: SUP=3.0dB		
23380	MGS	02-058/01:09:34	15	Begin Ranging Acquisition		
23381	MGS	02-058/01:25:00	45	Begin Pre-Cal		
23382	MGS	02-058/01:25:00	45	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
23383	MGS	02-058/01:25:00	45	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
23384	MGS	02-058/01:25:00	45	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
23385	MGS	02-058/01:25:00	45	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=ON, EXC=2		
23386	MGS	02-058/01:25:00	45	At BOT: S/C Tlm Mode: BR=42666.7, FL=10000, SC=HIGH, MI=80.0		
23387	MGS	02-058/01:25:00	45	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
23388	MGS	02-058/01:25:00	45	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
23389	MGS	02-058/01:25:00	45	Config: TGC: DEST=37		
23390	MGS	02-058/01:25:00	45	Config: TGC: BAND=X, BR=42666.666667		
23391	MGS	02-058/01:25:00	45	Config: FSS: CH=2, PRI_FL=10000		
23392	MGS	02-058/01:25:00	45	Config: RSR		
23393	MGS	02-058/01:25:00	45	Config: TXL		
23394	MGS	02-058/01:25:00	45	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
23395	MGS	02-058/01:25:00	45	Config: BVR		
23396	MGS	02-058/01:25:00	45	Config: Doppler Extractor: BIAS=+1MHZ		
23397	MGS	02-058/01:25:00	45	Config: MDA: SMPL=0.1		
23398	MGS	02-058/01:25:00	45	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
23399	MGS	02-058/01:25:00	45	Config: SRA: HIGH=4, LOW=14, SERV=D		
23400	MGS	02-058/01:25:00	45	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
23401	MGS	02-058/01:28:21		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-058/01:12:21
23402	MGS	02-058/01:28:21		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-058/01:12:21
23403	MGS	02-058/01:28:25		Command the PSE with included data word: 3990	SWPSEL	02-058/01:12:25
23404	MGS	02-058/01:28:26		Set eclipse egress script address: 0158	SWSEES	02-058/01:12:26
23405	MGS	02-058/01:29:19		NOTE: Begin fixed Sub-Reflector for Radio Science		02-058/01:13:19
23406	MGS	02-058/01:33:03		: 01:26:59	RPAONX	02-058/01:17:03
23407	MGS	02-058/01:33:03		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-058/01:17:03
23408	MGS	02-058/01:34:18		: 00:00:30, 00:06:51, FALSE	RDSCIE	02-058/01:18:18

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
23409	MGS	02-058/01:34:18		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-058/01:18:18
23410	MGS	02-058/01:34:18		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-058/01:18:18
23411	MGS	02-058/01:34:18		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-058/01:18:18
23412	MGS	02-058/01:34:18		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-058/01:18:18
23413	MGS	02-058/01:34:48		NOTE: Exit Earth Occultation 13287		02-058/01:18:48
23414	MGS	02-058/01:34:48	15	Acquisition Of X-Band Signal		
23415	MGS	02-058/01:34:48	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
23416	MGS	02-058/01:34:48	15	NOTE: Carrier Only -- No Telemetry Modulation		
23417	MGS	02-058/01:38:59		NOTE: Exit Planetary Atmosphere 13287		02-058/01:22:59
23418	MGS	02-058/01:41:09		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-058/01:25:09
23419	MGS	02-058/01:41:09		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-058/01:25:09
23420	MGS	02-058/01:41:09		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-058/01:25:09
23421	MGS	02-058/01:41:09		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-058/01:25:09
23422	MGS	02-058/01:41:09		: REC_2A, F42KHZ, PART1, SE_1A, FALSE, 00:10:14	AEMPB	02-058/01:25:09
23423	MGS	02-058/01:41:09		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-058/01:25:09
23424	MGS	02-058/01:41:09		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, PLYBCK, PART1	STSSRC	02-058/01:25:09
23425	MGS	02-058/01:41:09	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
23426	MGS	02-058/01:41:10		SSR 2A Data Enable	CSD2AE	02-058/01:25:10
23427	MGS	02-058/01:41:10		SSR Activity: ID=SSR_2A, FCN=Start Playback, PRT=1, BR=42666		02-058/01:25:10
23428	MGS	02-058/01:41:10	15	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
23429	MGS	02-058/01:41:15		NOTE: End fixed Sub-Reflector for Radio Science		02-058/01:25:15
23430	MGS	02-058/01:44:09		NOTE: Exit Solar Eclipse 13287		02-058/01:28:09
23431	MGS	02-058/01:56:13		NOTE: Periapsis 13288 ----------		02-058/01:40:12
23432	MGS	02-058/02:08:46	15	NOTE: Transmitter Off in 15 minutes		
23433	MGS	02-058/02:09:07		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-058/01:53:07
23434	MGS	02-058/02:09:07		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-058/01:53:07
23435	MGS	02-058/02:09:08		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-058/01:53:08
23436	MGS	02-058/02:09:08		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-058/01:53:08
23437	MGS	02-058/02:21:46	15	Range Modulation Off		
23438	MGS	02-058/02:23:46	15	Transmitter Off		
23439	MGS	02-058/02:25:00	45	Begin Tracking		
23440	MGS	02-058/02:25:00	45	Acquire D/L: X/16, 3-Way/15, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
23441	MGS	02-058/02:31:09		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-058/02:15:08
23442	MGS	02-058/02:31:09		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-058/02:15:08
23443	MGS	02-058/02:45:00	15	End Tracking		
23444	MGS	02-058/02:48:30		NOTE: Begin fixed Sub-Reflector for Radio Science		02-058/02:32:30
23445	MGS	02-058/02:49:49		SSR 2A Data Disable	CSD2AX	02-058/02:33:48
23446	MGS	02-058/02:49:49		SSR Activity: ID=SSR_2A, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-058/02:33:48
23447	MGS	02-058/02:49:49		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-058/02:33:48
23448	MGS	02-058/02:49:49	45	D/L Change: X/16, 3-Way/15, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
23449	MGS	02-058/02:51:32		NOTE: Start EVP data return script		02-058/02:35:31
23450	MGS	02-058/02:51:32		: SSR_2B, F42KHZ, PART1, 2002-058T03:22:57.000	AEMPBU	02-058/02:35:31
23451	MGS	02-058/02:53:30		: 00:06:32, FALSE	RDSCII	02-058/02:37:29
23452	MGS	02-058/02:53:30		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-058/02:37:29
23453	MGS	02-058/02:53:30		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-058/02:37:29
23454	MGS	02-058/02:53:30		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-058/02:37:29
23455	MGS	02-058/02:53:30		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-058/02:37:29
23456	MGS	02-058/02:53:30	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
23457	MGS	02-058/02:53:30	45	NOTE: Carrier Only -- No Telemetry Modulation		
23458	MGS	02-058/02:54:59		NOTE: Apoapsis 13288 -		02-058/02:38:58
23459	MGS	02-058/02:55:39		NOTE: Enter Planetary Atmosphere 13288		02-058/02:39:39
23460	MGS	02-058/02:59:31		NOTE: Enter Earth Occultation 13288		02-058/02:43:31
23461	MGS	02-058/02:59:31	45	NOTE: Loss Of X-Band Signal		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
23462	MGS	02-058/03:00:00	15	End Post-Cal		
23463	MGS	02-058/03:00:02		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-058/02:44:01
23464	MGS	02-058/03:00:02		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-058/02:44:01
23465	MGS	02-058/03:00:02		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-058/02:44:01
23466	MGS	02-058/03:00:02		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-058/02:44:01
23467	MGS	02-058/03:00:03		Turn off the MOT Exciter and RPA beam	STRPAF	02-058/02:44:02
23468	MGS	02-058/03:00:03		NOTE: End EVP script		02-058/02:44:03
23469	MGS	02-058/03:00:07		NOTE: End fixed Sub-Reflector for Radio Science		02-058/02:44:07
23470	MGS	02-058/03:01:32		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-058/02:45:31
23471	MGS	02-058/03:01:32		NOTE: Enter Solar Eclipse 13288		02-058/02:45:32
23472	MGS	02-058/03:04:21	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
23473	MGS	02-058/03:06:21	45	Range Modulation On: SUP=3.0dB		
23474	MGS	02-058/03:07:21	45	Begin Ranging Acquisition		
23475	MGS	02-058/03:26:09		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-058/03:10:08
23476	MGS	02-058/03:26:09		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-058/03:10:08
23477	MGS	02-058/03:26:14		Set eclipse egress script address: 019A	SWSEES	02-058/03:10:13
23478	MGS	02-058/03:27:06		NOTE: Begin fixed Sub-Reflector for Radio Science		02-058/03:11:06
23479	MGS	02-058/03:30:51		: 01:26:59	RPAONX	02-058/03:14:50
23480	MGS	02-058/03:30:51		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-058/03:14:50
23481	MGS	02-058/03:32:06		: 00:00:30, 00:06:51, FALSE	RDSCIE	02-058/03:16:05
23482	MGS	02-058/03:32:06		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-058/03:16:05
23483	MGS	02-058/03:32:06		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-058/03:16:05
23484	MGS	02-058/03:32:06		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-058/03:16:05
23485	MGS	02-058/03:32:06		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-058/03:16:05
23486	MGS	02-058/03:32:36		NOTE: Exit Earth Occultation 13288		02-058/03:16:36
23487	MGS	02-058/03:32:36	45	Acquisition Of X-Band Signal		
23488	MGS	02-058/03:32:36	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
23489	MGS	02-058/03:32:36	45	NOTE: Carrier Only -- No Telemetry Modulation		
23490	MGS	02-058/03:36:47		NOTE: Exit Planetary Atmosphere 13288		02-058/03:20:46
23491	MGS	02-058/03:38:57		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-058/03:22:56
23492	MGS	02-058/03:38:57		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-058/03:22:56
23493	MGS	02-058/03:38:57		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-058/03:22:56
23494	MGS	02-058/03:38:57		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-058/03:22:56
23495	MGS	02-058/03:38:57		: REC_2B, F42KHZ, PART1, SE_1A, FALSE, 00:10:14	AEMPB	02-058/03:22:56
23496	MGS	02-058/03:38:57		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-058/03:22:56
23497	MGS	02-058/03:38:57		Sends a one-word SSR command to the XSU command SOB: SSR_2B, F42KHZ, PLYBCK, PART1	STSSRC	02-058/03:22:56
23498	MGS	02-058/03:38:57	45	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
23499	MGS	02-058/03:38:58		SSR 2B Data Enable	CSD2BE	02-058/03:22:57
23500	MGS	02-058/03:38:58		SSR Activity: ID=SSR_2B, FCN=Start Playback, PRT=1, BR=42666		02-058/03:22:57
23501	MGS	02-058/03:38:58	45	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
23502	MGS	02-058/03:39:02		NOTE: End fixed Sub-Reflector for Radio Science		02-058/03:23:02
23503	MGS	02-058/03:41:56		NOTE: Exit Solar Eclipse 13288		02-058/03:25:56
23504	MGS	02-058/03:53:54		NOTE: Periapsis 13289 ----------		02-058/03:37:54
23505	MGS	02-058/04:02:55		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-058/03:46:54
23506	MGS	02-058/04:02:55		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-058/03:46:54
23507	MGS	02-058/04:02:56		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-058/03:46:55
23508	MGS	02-058/04:02:56		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-058/03:46:55
23509	MGS	02-058/04:06:31	45	NOTE: Transmitter Off in 15 minutes		
23510	MGS	02-058/04:19:31	45	Range Modulation Off		
23511	MGS	02-058/04:21:31	45	Transmitter Off		
23512	MGS	02-058/04:24:56		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-058/04:08:55
23513	MGS	02-058/04:24:56		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-058/04:08:55
23514	MGS	02-058/04:46:17		NOTE: Begin fixed Sub-Reflector for Radio Science		02-058/04:30:17
23515	MGS	02-058/04:47:36		SSR 2B Data Disable	CSD2BX	02-058/04:31:35

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
23516	MGS	02-058/04:47:36		SSR Activity: ID=SSR_2B, FCN=End Playback, PRT=1, BITS=172810240, DUR=01:07:40		02-058/04:31:35
23517	MGS	02-058/04:47:36		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-058/04:31:35
23518	MGS	02-058/04:47:36	45	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
23519	MGS	02-058/04:49:17		NOTE: Start EVP data return script		02-058/04:33:16
23520	MGS	02-058/04:49:17		: SSR_2A, F42KHZ, PART2, 2002-058T05:20:42.000	AEMPBU	02-058/04:33:16
23521	MGS	02-058/04:51:17		: 00:06:32, FALSE	RDSCII	02-058/04:35:16
23522	MGS	02-058/04:51:17		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-058/04:35:16
23523	MGS	02-058/04:51:17		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-058/04:35:16
23524	MGS	02-058/04:51:17		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-058/04:35:16
23525	MGS	02-058/04:51:17		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-058/04:35:16
23526	MGS	02-058/04:51:17	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
23527	MGS	02-058/04:51:17	45	NOTE: Carrier Only -- No Telemetry Modulation		
23528	MGS	02-058/04:52:27		NOTE: Apoapsis 13289 -		02-058/04:36:26
23529	MGS	02-058/04:53:24		NOTE: Enter Planetary Atmosphere 13289		02-058/04:37:23
23530	MGS	02-058/04:57:17		NOTE: Enter Earth Occultation 13289		02-058/04:41:16
23531	MGS	02-058/04:57:17	45	NOTE: Loss Of X-Band Signal		
23532	MGS	02-058/04:57:49		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-058/04:41:48
23533	MGS	02-058/04:57:49		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-058/04:41:48
23534	MGS	02-058/04:57:49		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-058/04:41:48
23535	MGS	02-058/04:57:49		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-058/04:41:48
23536	MGS	02-058/04:57:50		Turn off the MOT Exciter and RPA beam	STRPAF	02-058/04:41:49
23537	MGS	02-058/04:57:50		NOTE: End EVP script		02-058/04:41:50
23538	MGS	02-058/04:57:54		NOTE: End fixed Sub-Reflector for Radio Science		02-058/04:41:54
23539	MGS	02-058/04:59:17		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-058/04:43:16
23540	MGS	02-058/04:59:17		NOTE: Enter Solar Eclipse 13289		02-058/04:43:16
23541	MGS	02-058/05:02:06	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
23542	MGS	02-058/05:04:06	45	Range Modulation On: SUP=3.0dB		
23543	MGS	02-058/05:05:06	45	Begin Ranging Acquisition		
23544	MGS	02-058/05:23:56		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-058/05:07:55
23545	MGS	02-058/05:23:56		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-058/05:07:55
23546	MGS	02-058/05:24:01		Set eclipse egress script address: 01DC	SWSEES	02-058/05:08:00
23547	MGS	02-058/05:24:51		NOTE: Begin fixed Sub-Reflector for Radio Science		02-058/05:08:51
23548	MGS	02-058/05:28:36		: 01:26:59	RPAONX	02-058/05:12:35
23549	MGS	02-058/05:28:36		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-058/05:12:35
23550	MGS	02-058/05:29:51		: 00:00:30, 00:06:51, FALSE	RDSCIE	02-058/05:13:50
23551	MGS	02-058/05:29:51		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-058/05:13:50
23552	MGS	02-058/05:29:51		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-058/05:13:50
23553	MGS	02-058/05:29:51		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-058/05:13:50
23554	MGS	02-058/05:29:51		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-058/05:13:50
23555	MGS	02-058/05:30:22		NOTE: Exit Earth Occultation 13289		02-058/05:14:21
23556	MGS	02-058/05:30:22	45	Acquisition Of X-Band Signal		
23557	MGS	02-058/05:30:22	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
23558	MGS	02-058/05:30:22	45	NOTE: Carrier Only -- No Telemetry Modulation		
23559	MGS	02-058/05:34:33		NOTE: Exit Planetary Atmosphere 13289		02-058/05:18:32
23560	MGS	02-058/05:36:42		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-058/05:20:41
23561	MGS	02-058/05:36:42		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-058/05:20:41
23562	MGS	02-058/05:36:42		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-058/05:20:41
23563	MGS	02-058/05:36:42		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-058/05:20:41
23564	MGS	02-058/05:36:42		: REC_2A, F42KHZ, PART2, SE_1A, FALSE, 00:10:14	AEMPB	02-058/05:20:41
23565	MGS	02-058/05:36:42		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-058/05:20:41
23566	MGS	02-058/05:36:42		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, PLYBCK, PART2	STSSRC	02-058/05:20:41
23567	MGS	02-058/05:36:42	45	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
23568	MGS	02-058/05:36:43		SSR 2A Data Enable	CSD2AE	02-058/05:20:42
23569	MGS	02-058/05:36:43		SSR Activity: ID=SSR_2A, FCN=Start Playback, PRT=2, BR=42666		02-058/05:20:42

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
23570	MGS	02-058/05:36:43	45	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
23571	MGS	02-058/05:36:47		NOTE: End fixed Sub-Reflector for Radio Science		02-058/05:20:47
23572	MGS	02-058/05:39:41		NOTE: Exit Solar Eclipse 13289		02-058/05:23:40
23573	MGS	02-058/05:49:19		NOTE: Start Block (SSRMGR)		02-058/05:33:18
23574	MGS	02-058/05:49:19		Sends a one-word SSR command to the XSU command SOB: SSR_1B, SE_1A, RECORD, PART1	STSSRC	02-058/05:33:18
23575	MGS	02-058/05:49:20		SSR 1B Data Enable	CSD1BE	02-058/05:33:19
23576	MGS	02-058/05:49:20		SSR Activity: ID=SSR_1B, FCN=Start Recording, PRT=1, BR=8000, SRC=SE_1A		02-058/05:33:19
23577	MGS	02-058/05:51:40		NOTE: Periapsis 13290 ----------		02-058/05:35:39
23578	MGS	02-058/06:00:40		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-058/05:44:39
23579	MGS	02-058/06:00:40		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-058/05:44:39
23580	MGS	02-058/06:00:41		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-058/05:44:40
23581	MGS	02-058/06:00:41		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-058/05:44:40
23582	MGS	02-058/06:04:13	45	NOTE: Transmitter Off in 15 minutes		
23583	MGS	02-058/06:16:00		SSR 1A Data Disable	CSD1AX	02-058/05:59:59
23584	MGS	02-058/06:16:00		SSR Activity: ID=SSR_1A, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-058/05:59:59
23585	MGS	02-058/06:16:01		NOTE: End Block (SSRMGR)		02-058/06:00:00
23586	MGS	02-058/06:17:14	45	Range Modulation Off		
23587	MGS	02-058/06:19:13	45	Transmitter Off		
23588	MGS	02-058/06:22:41		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-058/06:06:40
23589	MGS	02-058/06:22:41		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-058/06:06:40
23590	MGS	02-058/06:44:03		NOTE: Begin fixed Sub-Reflector for Radio Science		02-058/06:28:02
23591	MGS	02-058/06:45:21		SSR 2A Data Disable	CSD2AX	02-058/06:29:20
23592	MGS	02-058/06:45:21		SSR Activity: ID=SSR_2A, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-058/06:29:20
23593	MGS	02-058/06:45:21		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-058/06:29:20
23594	MGS	02-058/06:45:21	45	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
23595	MGS	02-058/06:46:59		NOTE: Start EVP data return script		02-058/06:30:58
23596	MGS	02-058/06:46:59		: SSR_2B, F42KHZ, PART2, 2002-058T07:18:24.000	AEMPBU	02-058/06:30:58
23597	MGS	02-058/06:49:02		: 00:06:32, FALSE	RDSCII	02-058/06:33:01
23598	MGS	02-058/06:49:02		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-058/06:33:01
23599	MGS	02-058/06:49:02		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-058/06:33:01
23600	MGS	02-058/06:49:02		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-058/06:33:01
23601	MGS	02-058/06:49:02		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-058/06:33:01
23602	MGS	02-058/06:49:02	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
23603	MGS	02-058/06:49:02	45	NOTE: Carrier Only -- No Telemetry Modulation		
23604	MGS	02-058/06:50:14		NOTE: Apoapsis 13290 -		02-058/06:34:13
23605	MGS	02-058/06:51:07		NOTE: Enter Planetary Atmosphere 13290		02-058/06:35:06
23606	MGS	02-058/06:55:00		NOTE: Enter Earth Occultation 13290		02-058/06:38:59
23607	MGS	02-058/06:55:00	45	NOTE: Loss Of X-Band Signal		
23608	MGS	02-058/06:55:34		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-058/06:39:33
23609	MGS	02-058/06:55:34		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-058/06:39:33
23610	MGS	02-058/06:55:34		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-058/06:39:33
23611	MGS	02-058/06:55:34		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-058/06:39:33
23612	MGS	02-058/06:55:35		Turn off the MOT Exciter and RPA beam	STRPAF	02-058/06:39:34
23613	MGS	02-058/06:55:36		NOTE: End EVP script		02-058/06:39:35
23614	MGS	02-058/06:55:40		NOTE: End fixed Sub-Reflector for Radio Science		02-058/06:39:39
23615	MGS	02-058/06:56:59		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-058/06:40:58
23616	MGS	02-058/06:57:00		NOTE: Enter Solar Eclipse 13290		02-058/06:40:59
23617	MGS	02-058/06:59:49	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
23618	MGS	02-058/07:01:50	45	Range Modulation On: SUP=3.0dB		
23619	MGS	02-058/07:02:50	45	Begin Ranging Acquisition		
23620	MGS	02-058/07:21:41		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-058/07:05:40
23621	MGS	02-058/07:21:41		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-058/07:05:40
23622	MGS	02-058/07:21:45		Command the PSE with included data word: 3990	SWPSEL	02-058/07:05:44
23623	MGS	02-058/07:21:46		Set eclipse egress script address: 0158	SWSEES	02-058/07:05:45

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
23624	MGS	02-058/07:22:34		NOTE: Begin fixed Sub-Reflector for Radio Science		02-058/07:06:33
23625	MGS	02-058/07:26:18		: 01:26:59	RPAONX	02-058/07:10:17
23626	MGS	02-058/07:26:18		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-058/07:10:17
23627	MGS	02-058/07:27:33		: 00:00:30, 00:06:51, FALSE	RDSCIE	02-058/07:11:32
23628	MGS	02-058/07:27:33		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-058/07:11:32
23629	MGS	02-058/07:27:33		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-058/07:11:32
23630	MGS	02-058/07:27:33		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-058/07:11:32
23631	MGS	02-058/07:27:33		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-058/07:11:32
23632	MGS	02-058/07:28:03		Disables autonomous command to send eclipse ingress script	SWEISX	02-058/07:12:02
23633	MGS	02-058/07:28:06		NOTE: Exit Earth Occultation 13290		02-058/07:12:05
23634	MGS	02-058/07:28:06	45	Acquisition Of X-Band Signal		
23635	MGS	02-058/07:28:06	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
23636	MGS	02-058/07:28:06	45	NOTE: Carrier Only -- No Telemetry Modulation		
23637	MGS	02-058/07:32:17		NOTE: Exit Planetary Atmosphere 13290		02-058/07:16:16
23638	MGS	02-058/07:34:24		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-058/07:18:23
23639	MGS	02-058/07:34:24		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-058/07:18:23
23640	MGS	02-058/07:34:24		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-058/07:18:23
23641	MGS	02-058/07:34:24		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-058/07:18:23
23642	MGS	02-058/07:34:24		: REC_2B, F42KHZ, PART2, SE_1A, FALSE, 00:10:14	AEMPB	02-058/07:18:23
23643	MGS	02-058/07:34:24		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-058/07:18:23
23644	MGS	02-058/07:34:24		Sends a one-word SSR command to the XSU command SOB: SSR_2B, F42KHZ, PLYBCK, PART2	STSSRC	02-058/07:18:23
23645	MGS	02-058/07:34:24	45	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
23646	MGS	02-058/07:34:25		SSR 2B Data Enable	CSD2BE	02-058/07:18:24
23647	MGS	02-058/07:34:25		SSR Activity: ID=SSR_2B, FCN=Start Playback, PRT=2, BR=42666		02-058/07:18:24
23648	MGS	02-058/07:34:25	45	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
23649	MGS	02-058/07:34:30		NOTE: End fixed Sub-Reflector for Radio Science		02-058/07:18:29
23650	MGS	02-058/07:37:24		NOTE: Exit Solar Eclipse 13290		02-058/07:21:23
23651	MGS	02-058/07:49:22		NOTE: Periapsis 13291 ----------		02-058/07:33:21
23652	MGS	02-058/08:01:55	45	NOTE: Transmitter Off in 15 minutes		
23653	MGS	02-058/08:02:23		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-058/07:46:22
23654	MGS	02-058/08:02:23		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-058/07:46:22
23655	MGS	02-058/08:02:24		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-058/07:46:23
23656	MGS	02-058/08:02:24		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-058/07:46:23
23657	MGS	02-058/08:14:56	45	Range Modulation Off		
23658	MGS	02-058/08:16:55	45	Transmitter Off		
23659	MGS	02-058/08:24:24		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-058/08:08:23
23660	MGS	02-058/08:24:24		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-058/08:08:23
23661	MGS	02-058/08:41:45		NOTE: Begin fixed Sub-Reflector for Radio Science		02-058/08:25:44
23662	MGS	02-058/08:43:03		SSR 2B Data Disable	CSD2BX	02-058/08:27:02
23663	MGS	02-058/08:43:03		SSR Activity: ID=SSR_2B, FCN=End Playback, PRT=2, BITS=172810240, DUR=01:07:40		02-058/08:27:02
23664	MGS	02-058/08:43:03		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-058/08:27:02
23665	MGS	02-058/08:43:03	45	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
23666	MGS	02-058/08:44:41		NOTE: Start Block (MAP_RT)		02-058/08:28:40
23667	MGS	02-058/08:44:42		: 00:29:14, 01:27:02, FALSE, TRUE, FALSE, 00:01:15, 00:06:51, 01:12:21, 00:06:34	AEMINI	02-058/08:28:41
23668	MGS	02-058/08:44:42		Enable sending eclipse ingress script when array power disappears	SWEISE	02-058/08:28:41
23669	MGS	02-058/08:44:42		NOTE: Start EVP data return script		02-058/08:28:41
23670	MGS	02-058/08:44:43		: SE_1A, MRC, 01:12:20, MRC, 2002-058T09:16:02.000	AEMRTI	02-058/08:28:42
23671	MGS	02-058/08:46:44		: 00:06:32, FALSE	RDSCII	02-058/08:30:43
23672	MGS	02-058/08:46:44		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-058/08:30:43
23673	MGS	02-058/08:46:44		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-058/08:30:43
23674	MGS	02-058/08:46:44		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-058/08:30:43
23675	MGS	02-058/08:46:44		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-058/08:30:43
23676	MGS	02-058/08:46:44	45	D/L Change: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
23677	MGS	02-058/08:46:44	45	NOTE: Carrier Only -- No Telemetry Modulation		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
23678	MGS	02-058/08:48:01		NOTE: Apoapsis 13291 -		02-058/08:32:00
23679	MGS	02-058/08:48:49		NOTE: Enter Planetary Atmosphere 13291		02-058/08:32:48
23680	MGS	02-058/08:52:42		NOTE: Enter Earth Occultation 13291		02-058/08:36:41
23681	MGS	02-058/08:52:42	45	NOTE: Loss Of X-Band Signal		
23682	MGS	02-058/08:53:16		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-058/08:37:15
23683	MGS	02-058/08:53:16		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-058/08:37:15
23684	MGS	02-058/08:53:16		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-058/08:37:15
23685	MGS	02-058/08:53:16		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-058/08:37:15
23686	MGS	02-058/08:53:17		Turn off the MOT Exciter and RPA beam	STRPAF	02-058/08:37:16
23687	MGS	02-058/08:53:18		NOTE: End EVP script		02-058/08:37:17
23688	MGS	02-058/08:53:19		NOTE: End Block (MAP_PB)		02-058/08:37:18
23689	MGS	02-058/08:53:22		NOTE: End fixed Sub-Reflector for Radio Science		02-058/08:37:21
23690	MGS	02-058/08:54:42		NOTE: Enter Solar Eclipse 13291		02-058/08:38:41
23691	MGS	02-058/08:54:42		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-058/08:38:41
23692	MGS	02-058/08:57:31	45	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
23693	MGS	02-058/08:59:31	45	Range Modulation On: SUP=3.0dB		
23694	MGS	02-058/09:00:31	45	Begin Ranging Acquisition		
23695	MGS	02-058/09:19:25		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-058/09:03:23
23696	MGS	02-058/09:19:25		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-058/09:03:23
23697	MGS	02-058/09:19:30		Set eclipse egress script address: 019A	SWSEES	02-058/09:03:28
23698	MGS	02-058/09:20:11		NOTE: Begin fixed Sub-Reflector for Radio Science		02-058/09:04:10
23699	MGS	02-058/09:23:57		: 01:27:02	RPAONX	02-058/09:07:55
23700	MGS	02-058/09:23:57		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-058/09:07:55
23701	MGS	02-058/09:25:12		: 00:00:30, 00:06:51, FALSE	RDSCIE	02-058/09:09:10
23702	MGS	02-058/09:25:12		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-058/09:09:10
23703	MGS	02-058/09:25:12		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-058/09:09:10
23704	MGS	02-058/09:25:12		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-058/09:09:10
23705	MGS	02-058/09:25:12		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-058/09:09:10
23706	MGS	02-058/09:25:42		Disables autonomous command to send eclipse ingress script	SWEISX	02-058/09:09:40
23707	MGS	02-058/09:25:48		NOTE: Exit Earth Occultation 13291		02-058/09:09:47
23708	MGS	02-058/09:25:48	45	Acquisition Of X-Band Signal		
23709	MGS	02-058/09:25:48	45	Acquire D/L: X/20, 1-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
23710	MGS	02-058/09:25:48	45	NOTE: Carrier Only -- No Telemetry Modulation		
23711	MGS	02-058/09:29:59		NOTE: Exit Planetary Atmosphere 13291		02-058/09:13:58
23712	MGS	02-058/09:30:00	45	NOTE: Transmitter Off in 15 minutes		
23713	MGS	02-058/09:32:03		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-058/09:16:01
23714	MGS	02-058/09:32:03		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-058/09:16:01
23715	MGS	02-058/09:32:03		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-058/09:16:01
23716	MGS	02-058/09:32:03		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-058/09:16:01
23717	MGS	02-058/09:32:03	45	Acquire D/L: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
23718	MGS	02-058/09:32:04		: MRC, MRC, 01:12:20, S&E_1A, FALSE, 00:06:35	AEMRT	02-058/09:16:02
23719	MGS	02-058/09:32:04		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-058/09:16:02
23720	MGS	02-058/09:32:04		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-058/09:16:02
23721	MGS	02-058/09:32:07		NOTE: End fixed Sub-Reflector for Radio Science		02-058/09:16:06
23722	MGS	02-058/09:33:01		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-058/09:16:59
23723	MGS	02-058/09:33:03		NOTE: Start Block (SSRMGR)		02-058/09:17:01
23724	MGS	02-058/09:33:03		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-058/09:17:01
23725	MGS	02-058/09:33:03		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-058/09:17:01
23726	MGS	02-058/09:33:04		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-058/09:17:02
23727	MGS	02-058/09:33:05		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, PLYBCK, PART3	STSSRC	02-058/09:17:03
23728	MGS	02-058/09:33:06		SSR 2A Data Enable	CSD2AE	02-058/09:17:04
23729	MGS	02-058/09:33:06		SSR Activity: ID=SSR_2A, FCN=Start Playback, PRT=3, BR=42666		02-058/09:17:04
23730	MGS	02-058/09:33:06	45	D/L Change: X/16, 2-Way, BW=10, BR=42666.7, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
23731	MGS	02-058/09:35:06		NOTE: Exit Solar Eclipse 13291		02-058/09:19:05

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
23732	MGS	02-058/09:43:00	45	Range Modulation Off		
23733	MGS	02-058/09:45:00	45	Transmitter Off		
23734	MGS	02-058/09:45:33		NOTE: Start Block (SSRMGR)		02-058/09:29:31
23735	MGS	02-058/09:45:33		XSU PGC Bit 0,1,2,3 Side 1: 15	CXSPG1	02-058/09:29:31
23736	MGS	02-058/09:45:33		XSU PGC Bit 0,1,2,3 Side 2: 15	CXSPG2	02-058/09:29:31
23737	MGS	02-058/09:45:34		Sends a one-word MOT command to the XSU command SOB: SSR_2	STMOTC	02-058/09:29:32
23738	MGS	02-058/09:45:34		Sends a one-word SSR command to the XSU command SOB: SSR_2A, F42KHZ, ENBSCR, PART1	STSSRC	02-058/09:29:32
23739	MGS	02-058/09:45:35		Sends a one-word SSR command to the XSU command SOB: SSR_2B, F42KHZ, PLYBCK, PART3	STSSRC	02-058/09:29:33
23740	MGS	02-058/09:45:36		SSR 2A Data Disable	CSD2AX	02-058/09:29:34
23741	MGS	02-058/09:45:36		SSR 2B Data Enable	CSD2BE	02-058/09:29:34
23742	MGS	02-058/09:45:36		SSR Activity: ID=SSR_2B, FCN=Start Playback, PRT=3, BR=42666		02-058/09:29:34
23743	MGS	02-058/09:45:37		NOTE: End Block (SSRMGR)		02-058/09:29:35
23744	MGS	02-058/09:46:48		NOTE: Periapsis 13292 ----------		02-058/09:30:47
23745	MGS	02-058/09:55:15	45	NOTE: Below Uplink Interlock Limit		
23746	MGS	02-058/09:56:05		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-058/09:40:03
23747	MGS	02-058/09:56:05		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-058/09:40:03
23748	MGS	02-058/09:56:06		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-058/09:40:04
23749	MGS	02-058/09:56:06		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-058/09:40:04
23750	MGS	02-058/10:03:06		SSR 2B Data Disable	CSD2BX	02-058/09:47:04
23751	MGS	02-058/10:03:06		SSR Activity: ID=SSR_2B, FCN=End Playback, PRT=3, BITS=44800000, DUR=00:17:30		02-058/09:47:04
23752	MGS	02-058/10:03:07		NOTE: End Block (SSRMGR)		02-058/09:47:05
23753	MGS	02-058/10:04:31		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-058/09:48:29
23754	MGS	02-058/10:04:31		Sends a one-word MOT command to the XSU command SOB: SE_1A	STMOTC	02-058/09:48:29
23755	MGS	02-058/10:04:31	45	D/L Change: X/16, 2-Way, BW=10, BR=8000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
23756	MGS	02-058/10:05:00	45	End Tracking		
23757	MGS	02-058/10:08:07		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-058/09:52:05
23758	MGS	02-058/10:08:07		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-058/09:52:05
23759	MGS	02-058/10:18:06		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-058/10:02:04
23760	MGS	02-058/10:18:06		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-058/10:02:04
23761	MGS	02-058/10:20:00	45	End Post-Cal		
23762	MGS	02-058/10:39:23		NOTE: Begin fixed Sub-Reflector for Radio Science		02-058/10:23:22
23763	MGS	02-058/10:44:24		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-058/10:28:22
23764	MGS	02-058/10:44:24		: 00:06:34, FALSE	RDSCII	02-058/10:28:22
23765	MGS	02-058/10:44:24		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-058/10:28:22
23766	MGS	02-058/10:44:24		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-058/10:28:22
23767	MGS	02-058/10:44:24		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-058/10:28:22
23768	MGS	02-058/10:44:24		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-058/10:28:22
23769	MGS	02-058/10:45:28		NOTE: Apoapsis 13292 -		02-058/10:29:26
23770	MGS	02-058/10:46:33		NOTE: Enter Planetary Atmosphere 13292		02-058/10:30:31
23771	MGS	02-058/10:50:25		NOTE: Enter Earth Occultation 13292		02-058/10:34:24
23772	MGS	02-058/10:50:58		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-058/10:34:56
23773	MGS	02-058/10:50:58		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-058/10:34:56
23774	MGS	02-058/10:50:58		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-058/10:34:56
23775	MGS	02-058/10:50:58		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-058/10:34:56
23776	MGS	02-058/10:50:58		NOTE: End EVP script		02-058/10:34:57
23777	MGS	02-058/10:50:59		Turn off the MOT Exciter and RPA beam	STRPAF	02-058/10:34:57
23778	MGS	02-058/10:50:59		NOTE: End Block (MAP_RT)		02-058/10:34:58
23779	MGS	02-058/10:51:02		NOTE: End fixed Sub-Reflector for Radio Science		02-058/10:35:01
23780	MGS	02-058/10:52:25		NOTE: Enter Solar Eclipse 13292		02-058/10:36:24
23781	MGS	02-058/11:07:46		Disable HGA control mode	SAHGCX	02-058/10:51:44
23782	MGS	02-058/11:07:47		No Operation	SCNOOP	02-058/10:51:45
23783	MGS	02-058/11:07:48		CDU-1 Uplink Rate Select (Based on 3 bit Code): 7	TCC1BS	02-058/10:51:46
23784	MGS	02-058/11:07:48		CDU-2 Uplink Rate Select (Based on 3 bit Code): 7	TCC2BS	02-058/10:51:46
23785	MGS	02-058/11:17:06		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-058/11:01:04

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
23786	MGS	02-058/11:17:06		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-058/11:01:04
23787	MGS	02-058/11:17:11		Set eclipse egress script address: 01DC	SWSEES	02-058/11:01:09
23788	MGS	02-058/11:22:40		NOTE: Start Block (SSRMGR)		02-058/11:06:38
23789	MGS	02-058/11:22:40		Sends a one-word SSR command to the XSU command SOB: SSR_1A, SE_1A, RECORD, PART2	STSSRC	02-058/11:06:38
23790	MGS	02-058/11:22:41		SSR 1A Data Enable	CSD1AE	02-058/11:06:39
23791	MGS	02-058/11:22:41		SSR Activity: ID=SSR_1A, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-058/11:06:39
23792	MGS	02-058/11:23:31		NOTE: Exit Earth Occultation 13292		02-058/11:07:29
23793	MGS	02-058/11:27:41		NOTE: Exit Planetary Atmosphere 13292		02-058/11:11:39
23794	MGS	02-058/11:32:48		NOTE: Exit Solar Eclipse 13292		02-058/11:16:47
23795	MGS	02-058/11:44:22		NOTE: Periapsis 13293 ----------		02-058/11:28:20
23796	MGS	02-058/11:49:21		SSR 1B Data Disable	CSD1BX	02-058/11:33:19
23797	MGS	02-058/11:49:21		SSR Activity: ID=SSR_1B, FCN=End Recording, PRT=1, BITS=172800000, DUR=06:00:00		02-058/11:33:19
23798	MGS	02-058/11:49:22		NOTE: End Block (SSRMGR)		02-058/11:33:20
23799	MGS	02-058/11:53:48		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-058/11:37:46
23800	MGS	02-058/11:53:48		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-058/11:37:46
23801	MGS	02-058/11:53:49		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-058/11:37:47
23802	MGS	02-058/11:53:49		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-058/11:37:47
23803	MGS	02-058/12:15:49		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-058/11:59:47
23804	MGS	02-058/12:15:49		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-058/11:59:47
23805	MGS	02-058/12:16:01		Dump SCP memory to the EDF using physical addressing arguments: 56A4, 240	SCDSCM	02-058/11:59:59
23806	MGS	02-058/12:43:11		NOTE: Apoapsis 13293 -		02-058/12:27:09
23807	MGS	02-058/12:44:17		NOTE: Enter Planetary Atmosphere 13293		02-058/12:28:15
23808	MGS	02-058/12:48:09		NOTE: Enter Earth Occultation 13293		02-058/12:32:07
23809	MGS	02-058/12:50:10		NOTE: Enter Solar Eclipse 13293		02-058/12:34:08
23810	MGS	02-058/13:14:49		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-058/12:58:47
23811	MGS	02-058/13:14:49		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-058/12:58:47
23812	MGS	02-058/13:14:53		Command the PSE with included data word: 3990	SWPSEL	02-058/12:58:51
23813	MGS	02-058/13:14:54		Set eclipse egress script address: 0158	SWSEES	02-058/12:58:52
23814	MGS	02-058/13:21:15		NOTE: Exit Earth Occultation 13293		02-058/13:05:14
23815	MGS	02-058/13:25:25		NOTE: Exit Planetary Atmosphere 13293		02-058/13:09:23
23816	MGS	02-058/13:30:34		NOTE: Exit Solar Eclipse 13293		02-058/13:14:32
23817	MGS	02-058/13:42:28		NOTE: Periapsis 13294 ----------		02-058/13:26:26
23818	MGS	02-058/13:55:32		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-058/13:39:30
23819	MGS	02-058/13:55:32		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-058/13:39:30
23820	MGS	02-058/13:55:33		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-058/13:39:31
23821	MGS	02-058/13:55:33		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-058/13:39:31
23822	MGS	02-058/14:17:33		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-058/14:01:31
23823	MGS	02-058/14:17:33		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-058/14:01:31
23824	MGS	02-058/14:41:26		NOTE: Apoapsis 13294 -		02-058/14:25:24
23825	MGS	02-058/14:42:03		NOTE: Enter Planetary Atmosphere 13294		02-058/14:26:01
23826	MGS	02-058/14:45:55		NOTE: Enter Earth Occultation 13294		02-058/14:29:53
23827	MGS	02-058/14:47:57		NOTE: Enter Solar Eclipse 13294		02-058/14:31:55
23828	MGS	02-058/15:12:33		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-058/14:56:31
23829	MGS	02-058/15:12:33		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-058/14:56:31
23830	MGS	02-058/15:12:38		Set eclipse egress script address: 019A	SWSEES	02-058/14:56:36
23831	MGS	02-058/15:19:03		NOTE: Exit Earth Occultation 13294		02-058/15:03:00
23832	MGS	02-058/15:23:12		NOTE: Exit Planetary Atmosphere 13294		02-058/15:07:10
23833	MGS	02-058/15:28:21		NOTE: Exit Solar Eclipse 13294		02-058/15:12:19
23834	MGS	02-058/15:40:40		NOTE: Periapsis 13295 ----------		02-058/15:24:37
23835	MGS	02-058/15:49:20		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-058/15:33:17
23836	MGS	02-058/15:49:20		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-058/15:33:17
23837	MGS	02-058/15:49:21		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-058/15:33:18
23838	MGS	02-058/15:49:21		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-058/15:33:18
23839	MGS	02-058/16:11:21		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-058/15:55:18

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
23840	MGS	02-058/16:11:21		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-058/15:55:18
23841	MGS	02-058/16:39:36		NOTE: Apoapsis 13295 -		02-058/16:23:34
23842	MGS	02-058/16:39:51		NOTE: Enter Planetary Atmosphere 13295		02-058/16:23:48
23843	MGS	02-058/16:40:00	65	Begin Pre-Cal		
23844	MGS	02-058/16:40:00	65	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
23845	MGS	02-058/16:40:00	65	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
23846	MGS	02-058/16:40:00	65	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
23847	MGS	02-058/16:40:00	65	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=OFF, EXC=2		
23848	MGS	02-058/16:40:00	65	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
23849	MGS	02-058/16:40:00	65	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		
23850	MGS	02-058/16:40:00	65	Config: TGC: DEST=37		
23851	MGS	02-058/16:40:00	65	Config: TGC: BAND=X, BR=0.000000		
23852	MGS	02-058/16:40:00	65	Config: FSS: CH=2, PRI_FL=10000		
23853	MGS	02-058/16:40:00	65	Config: RSR		
23854	MGS	02-058/16:40:00	65	Config: TXL		
23855	MGS	02-058/16:40:00	65	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
23856	MGS	02-058/16:40:00	65	Config: BVR		
23857	MGS	02-058/16:40:00	65	Config: Doppler Extractor: BIAS=+1MHZ		
23858	MGS	02-058/16:40:00	65	Config: MDA: SMPL=0.1		
23859	MGS	02-058/16:40:00	65	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
23860	MGS	02-058/16:40:00	65	Config: SRA: HIGH=4, LOW=14, SERV=D		
23861	MGS	02-058/16:40:00	65	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
23862	MGS	02-058/16:43:43		NOTE: Enter Earth Occultation 13295		02-058/16:27:41
23863	MGS	02-058/16:45:44		NOTE: Enter Solar Eclipse 13295		02-058/16:29:42
23864	MGS	02-058/16:56:01		NOTE: Start Block (SSRMGR)		02-058/16:39:58
23865	MGS	02-058/16:56:01		Sends a one-word SSR command to the XSU command SOB: SSR_1B, SE_1A, RECORD, PART2	STSSRC	02-058/16:39:58
23866	MGS	02-058/16:56:02		SSR 1B Data Enable	CSD1BE	02-058/16:39:59
23867	MGS	02-058/16:56:02		SSR Activity: ID=SSR_1B, FCN=Start Recording, PRT=2, BR=8000, SRC=SE_1A		02-058/16:39:59
23868	MGS	02-058/17:01:18		Select Automatic HGA control mode	SAHACE	02-058/16:45:15
23869	MGS	02-058/17:01:19		Selects Hign Gain Antenna for downlink, Reconfigures if beam is already on	STUHGA	02-058/16:45:16
23870	MGS	02-058/17:01:20		CDU-1 Uplink Rate Select (Based on 3 bit Code): 3	TCC1BS	02-058/16:45:17
23871	MGS	02-058/17:01:20		CDU-2 Uplink Rate Select (Based on 3 bit Code): 3	TCC2BS	02-058/16:45:17
23872	MGS	02-058/17:10:21		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-058/16:54:18
23873	MGS	02-058/17:10:21		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-058/16:54:18
23874	MGS	02-058/17:10:26		Set eclipse egress script address: 01DC	SWSEES	02-058/16:54:23
23875	MGS	02-058/17:16:51		NOTE: Exit Earth Occultation 13295		02-058/17:00:48
23876	MGS	02-058/17:21:01		NOTE: Exit Planetary Atmosphere 13295		02-058/17:04:58
23877	MGS	02-058/17:22:42		SSR 1A Data Disable	CSD1AX	02-058/17:06:39
23878	MGS	02-058/17:22:42		SSR Activity: ID=SSR_1A, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-058/17:06:39
23879	MGS	02-058/17:22:43		NOTE: End Block (SSRMGR)		02-058/17:06:40
23880	MGS	02-058/17:26:08		NOTE: Exit Solar Eclipse 13295		02-058/17:10:06
23881	MGS	02-058/17:38:35		NOTE: Periapsis 13296 ----------		02-058/17:22:32
23882	MGS	02-058/17:40:00	65	Begin Tracking		
23883	MGS	02-058/17:47:07		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-058/17:31:04
23884	MGS	02-058/17:47:07		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-058/17:31:04
23885	MGS	02-058/17:47:08		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-058/17:31:05
23886	MGS	02-058/17:47:08		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-058/17:31:05
23887	MGS	02-058/17:50:00	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
23888	MGS	02-058/17:50:39	65	NOTE: Transmitter Off in 15 minutes		
23889	MGS	02-058/18:05:39	65	Transmitter Off		
23890	MGS	02-058/18:09:08		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-058/17:53:05
23891	MGS	02-058/18:09:08		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-058/17:53:05
23892	MGS	02-058/18:33:28		NOTE: Start Block (MAP_RT)		02-058/18:17:25
23893	MGS	02-058/18:33:29		: 00:29:19, 01:26:58, FALSE, TRUE, FALSE, 00:01:15, 00:06:51, 01:12:19, 00:06:32	AEMINI	02-058/18:17:26

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
23894	MGS	02-058/18:33:29		Enable sending eclipse ingress script when array power disappears	SWEISE	02-058/18:17:26
23895	MGS	02-058/18:33:29		NOTE: Start EVP data return script		02-058/18:17:26
23896	MGS	02-058/18:33:30		: SE_2A, RTM, 01:12:18, MRC, 2002-058T19:04:53.000	AEMRTI	02-058/18:17:27
23897	MGS	02-058/18:37:17		NOTE: Apoapsis 13296 -		02-058/18:21:15
23898	MGS	02-058/18:37:37		NOTE: Enter Planetary Atmosphere 13296		02-058/18:21:34
23899	MGS	02-058/18:41:29		NOTE: Enter Earth Occultation 13296		02-058/18:25:27
23900	MGS	02-058/18:43:29		NOTE: Enter Solar Eclipse 13296		02-058/18:27:26
23901	MGS	02-058/18:43:29		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-058/18:27:26
23902	MGS	02-058/18:46:17	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
23903	MGS	02-058/18:48:17	65	Range Modulation On: SUP=3.0dB		
23904	MGS	02-058/18:49:17	65	Begin Ranging Acquisition		
23905	MGS	02-058/19:08:08		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-058/18:52:05
23906	MGS	02-058/19:08:08		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-058/18:52:05
23907	MGS	02-058/19:08:12		Command the PSE with included data word: 3990	SWPSEL	02-058/18:52:09
23908	MGS	02-058/19:08:13		Set eclipse egress script address: 0158	SWSEES	02-058/18:52:10
23909	MGS	02-058/19:09:03		NOTE: Begin fixed Sub-Reflector for Radio Science		02-058/18:53:00
23910	MGS	02-058/19:12:48		: 01:26:58	RPAONX	02-058/18:56:45
23911	MGS	02-058/19:12:48		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-058/18:56:45
23912	MGS	02-058/19:14:03		: 00:00:30, 00:06:51, FALSE	RDSCIE	02-058/18:58:00
23913	MGS	02-058/19:14:03		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-058/18:58:00
23914	MGS	02-058/19:14:03		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-058/18:58:00
23915	MGS	02-058/19:14:03		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-058/18:58:00
23916	MGS	02-058/19:14:03		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-058/18:58:00
23917	MGS	02-058/19:14:37		NOTE: Exit Earth Occultation 13296		02-058/18:58:34
23918	MGS	02-058/19:14:37	65	Acquisition Of X-Band Signal		
23919	MGS	02-058/19:14:37	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
23920	MGS	02-058/19:14:37	65	NOTE: Carrier Only -- No Telemetry Modulation		
23921	MGS	02-058/19:18:47		NOTE: Exit Planetary Atmosphere 13296		02-058/19:02:45
23922	MGS	02-058/19:20:54		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-058/19:04:51
23923	MGS	02-058/19:20:54		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-058/19:04:51
23924	MGS	02-058/19:20:54		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-058/19:04:51
23925	MGS	02-058/19:20:54		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-058/19:04:51
23926	MGS	02-058/19:20:54	65	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
23927	MGS	02-058/19:20:55		: RTM, MRC, 01:12:18, S&E_2A, FALSE, 00:06:33	AEMRT	02-058/19:04:52
23928	MGS	02-058/19:20:55		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-058/19:04:52
23929	MGS	02-058/19:20:55		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-058/19:04:52
23930	MGS	02-058/19:20:55		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=2, BITS=69544000, DUR=02:24:53		02-058/19:04:52
23931	MGS	02-058/19:20:55		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-058/19:04:52
23932	MGS	02-058/19:20:55	65	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
23933	MGS	02-058/19:20:59		NOTE: End fixed Sub-Reflector for Radio Science		02-058/19:04:56
23934	MGS	02-058/19:23:53		NOTE: Exit Solar Eclipse 13296		02-058/19:07:50
23935	MGS	02-058/19:36:02		NOTE: Periapsis 13297 ----------		02-058/19:19:59
23936	MGS	02-058/19:48:20	65	NOTE: Transmitter Off in 15 minutes		
23937	MGS	02-058/19:48:52		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-058/19:32:49
23938	MGS	02-058/19:48:52		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-058/19:32:49
23939	MGS	02-058/19:48:53		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-058/19:32:50
23940	MGS	02-058/19:48:53		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-058/19:32:50
23941	MGS	02-058/19:55:00	15	Begin Pre-Cal		
23942	MGS	02-058/19:55:00	15	At BOT: S/C Antenna Status: U/L=HGA, D/L=HGA		
23943	MGS	02-058/19:55:00	15	At BOT: S/C Receiver Status: RCVR1=ON, TWNC=OFF, RCVR2=ON, TWNC=OFF		
23944	MGS	02-058/19:55:00	15	At BOT: S/C Ranging Mode: RNG=ON, DOR=OFF		
23945	MGS	02-058/19:55:00	15	At BOT: S/C Transmitter Status: PWR=OFF, EXC=1, PWR=OFF, EXC=2		
23946	MGS	02-058/19:55:00	15	Config: CPA SRC=SFOC, BUF=1, BR=125.000000		
23947	MGS	02-058/19:55:00	15	Config: CPA Buffers: B0=5.82dB, B1=1.95dB		

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
23948	MGS	02-058/19:55:00	15	Config: TGC: DEST=37		
23949	MGS	02-058/19:55:00	15	Config: TGC: BAND=X, BR=0.000000		
23950	MGS	02-058/19:55:00	15	Config: FSS: CH=2, PRI_FL=10000		
23951	MGS	02-058/19:55:00	15	Config: RSR		
23952	MGS	02-058/19:55:00	15	Config: TXL		
23953	MGS	02-058/19:55:00	15	Config: UWV: AMP=XTWM1, MODE=DIPLEX, POL_UL=RCP, POL_DL=RCP		
23954	MGS	02-058/19:55:00	15	Config: BVR		
23955	MGS	02-058/19:55:00	15	Config: Doppler Extractor: BIAS=+1MHZ		
23956	MGS	02-058/19:55:00	15	Config: MDA: SMPL=0.1		
23957	MGS	02-058/19:55:00	15	Config: SRA: SUP= 3.0dB, T1=62, T2=3, T3=0		
23958	MGS	02-058/19:55:00	15	Config: SRA: HIGH=4, LOW=14, SERV=D		
23959	MGS	02-058/19:55:00	15	Config: SRA: CHOP=E, MDL=SIN, DRVD=0		
23960	MGS	02-058/20:01:20	65	Range Modulation Off		
23961	MGS	02-058/20:03:20	65	Transmitter Off		
23962	MGS	02-058/20:10:53		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-058/19:54:50
23963	MGS	02-058/20:10:53		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-058/19:54:50
23964	MGS	02-058/20:28:13		NOTE: Begin fixed Sub-Reflector for Radio Science		02-058/20:12:10
23965	MGS	02-058/20:31:10		NOTE: Start EVP data return script		02-058/20:15:07
23966	MGS	02-058/20:33:13		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-058/20:17:10
23967	MGS	02-058/20:33:13		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=2, BITS=104248000, DUR=01:12:18		02-058/20:17:10
23968	MGS	02-058/20:33:13		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-058/20:17:10
23969	MGS	02-058/20:33:13		: 00:06:32, FALSE	RDSCII	02-058/20:17:10
23970	MGS	02-058/20:33:13		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-058/20:17:10
23971	MGS	02-058/20:33:13		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-058/20:17:10
23972	MGS	02-058/20:33:13		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-058/20:17:10
23973	MGS	02-058/20:33:13		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-058/20:17:10
23974	MGS	02-058/20:33:13	65	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
23975	MGS	02-058/20:33:13	65	NOTE: Carrier Only -- No Telemetry Modulation		
23976	MGS	02-058/20:34:37		NOTE: Apoapsis 13297 -		02-058/20:18:34
23977	MGS	02-058/20:35:18		NOTE: Enter Planetary Atmosphere 13297		02-058/20:19:15
23978	MGS	02-058/20:39:11		NOTE: Enter Earth Occultation 13297		02-058/20:23:08
23979	MGS	02-058/20:39:11	65	NOTE: Loss Of X-Band Signal		
23980	MGS	02-058/20:39:45		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-058/20:23:42
23981	MGS	02-058/20:39:45		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-058/20:23:42
23982	MGS	02-058/20:39:45		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-058/20:23:42
23983	MGS	02-058/20:39:45		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-058/20:23:42
23984	MGS	02-058/20:39:46		Turn off the MOT Exciter and RPA beam	STRPAF	02-058/20:23:43
23985	MGS	02-058/20:39:46		NOTE: End EVP script		02-058/20:23:43
23986	MGS	02-058/20:39:50		NOTE: End fixed Sub-Reflector for Radio Science		02-058/20:23:47
23987	MGS	02-058/20:41:10		NOTE: Enter Solar Eclipse 13297		02-058/20:25:07
23988	MGS	02-058/20:41:10		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-058/20:25:07
23989	MGS	02-058/20:43:58	65	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
23990	MGS	02-058/20:45:58	65	Range Modulation On: SUP=3.0dB		
23991	MGS	02-058/20:46:58	65	Begin Ranging Acquisition		
23992	MGS	02-058/20:55:00	15	Begin Tracking		
23993	MGS	02-058/21:03:00	65	Range Modulation Off		
23994	MGS	02-058/21:05:00	15	U/L Transfer From DSS-65 to DSS-15: PWR=20.0, BR=125.0, CS=5.82dB		
23995	MGS	02-058/21:05:53		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-058/20:49:50
23996	MGS	02-058/21:05:53		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-058/20:49:50
23997	MGS	02-058/21:05:58		Set eclipse egress script address: 019A	SWSEES	02-058/20:49:55
23998	MGS	02-058/21:06:44		NOTE: Begin fixed Sub-Reflector for Radio Science		02-058/20:50:41
23999	MGS	02-058/21:07:00	15	Range Modulation On: SUP=3.0dB		
24000	MGS	02-058/21:08:00	15	Begin Ranging Acquisition		
24001	MGS	02-058/21:10:29		: 01:26:58	RPAONX	02-058/20:54:26

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
24002	MGS	02-058/21:10:29		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-058/20:54:26
24003	MGS	02-058/21:11:44		: 00:00:30, 00:06:51, FALSE	RDSCIE	02-058/20:55:41
24004	MGS	02-058/21:11:44		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-058/20:55:41
24005	MGS	02-058/21:11:44		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-058/20:55:41
24006	MGS	02-058/21:11:44		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-058/20:55:41
24007	MGS	02-058/21:11:44		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-058/20:55:41
24008	MGS	02-058/21:12:19		NOTE: Exit Earth Occultation 13297		02-058/20:56:16
24009	MGS	02-058/21:12:19	15	Acquisition Of X-Band Signal		
24010	MGS	02-058/21:12:19	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
24011	MGS	02-058/21:12:19	15	NOTE: Carrier Only -- No Telemetry Modulation		
24012	MGS	02-058/21:12:19	65	Acquisition Of X-Band Signal		
24013	MGS	02-058/21:12:19	65	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
24014	MGS	02-058/21:12:19	65	NOTE: Carrier Only -- No Telemetry Modulation		
24015	MGS	02-058/21:15:00	65	End Tracking		
24016	MGS	02-058/21:16:29		NOTE: Exit Planetary Atmosphere 13297		02-058/21:00:26
24017	MGS	02-058/21:18:35		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-058/21:02:32
24018	MGS	02-058/21:18:35		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-058/21:02:32
24019	MGS	02-058/21:18:35		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-058/21:02:32
24020	MGS	02-058/21:18:35		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-058/21:02:32
24021	MGS	02-058/21:18:35	15	Acquire D/L: X/16, 3-Way/65, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
24022	MGS	02-058/21:18:36		: RTM, MRC, 01:12:18, S&E_2A, FALSE, 00:06:33	AEMRT	02-058/21:02:33
24023	MGS	02-058/21:18:36		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-058/21:02:33
24024	MGS	02-058/21:18:36		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-058/21:02:33
24025	MGS	02-058/21:18:36		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=2, BITS=126032000, DUR=00:45:23		02-058/21:02:33
24026	MGS	02-058/21:18:36		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=2, BR=8000, SRC=SE_1A		02-058/21:02:33
24027	MGS	02-058/21:18:36	15	D/L Change: X/16, 3-Way/65, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
24028	MGS	02-058/21:18:40		NOTE: End fixed Sub-Reflector for Radio Science		02-058/21:02:37
24029	MGS	02-058/21:21:34		NOTE: Exit Solar Eclipse 13297		02-058/21:05:31
24030	MGS	02-058/21:30:00	65	End Post-Cal		
24031	MGS	02-058/21:33:26		NOTE: Periapsis 13298 ----------		02-058/21:17:22
24032	MGS	02-058/21:37:06	15	Acquire D/L: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
24033	MGS	02-058/21:42:33		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-058/21:26:30
24034	MGS	02-058/21:42:33		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-058/21:26:30
24035	MGS	02-058/21:42:34		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-058/21:26:31
24036	MGS	02-058/21:42:34		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-058/21:26:31
24037	MGS	02-058/21:46:00	15	NOTE: Transmitter Off in 15 minutes		
24038	MGS	02-058/21:59:00	15	Range Modulation Off		
24039	MGS	02-058/22:01:00	15	Transmitter Off		
24040	MGS	02-058/22:04:34		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-058/21:48:31
24041	MGS	02-058/22:04:34		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-058/21:48:31
24042	MGS	02-058/22:25:55		NOTE: Begin fixed Sub-Reflector for Radio Science		02-058/22:09:51
24043	MGS	02-058/22:28:52		NOTE: Start EVP data return script		02-058/22:12:48
24044	MGS	02-058/22:29:22		NOTE: Start Block (SSRMGR)		02-058/22:13:18
24045	MGS	02-058/22:29:22		Sends a one-word SSR command to the XSU command SOB: SSR_1A, SE_1A, RECORD, PART3	STSSRC	02-058/22:13:18
24046	MGS	02-058/22:29:23		SSR 1A Data Enable	CSD1AE	02-058/22:13:19
24047	MGS	02-058/22:29:23		SSR Activity: ID=SSR_1A, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-058/22:13:19
24048	MGS	02-058/22:30:55		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-058/22:14:51
24049	MGS	02-058/22:30:55		SSR Activity: ID=SSR_1A, FCN=End Old Recording Rate, PRT=3, BITS=736000, DUR=00:01:32		02-058/22:14:51
24050	MGS	02-058/22:30:55		SSR Activity: ID=SSR_1A, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-058/22:14:51
24051	MGS	02-058/22:30:55		: 00:06:32, FALSE	RDSCII	02-058/22:14:51
24052	MGS	02-058/22:30:55		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-058/22:14:51
24053	MGS	02-058/22:30:55		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-058/22:14:51
24054	MGS	02-058/22:30:55		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-058/22:14:51
24055	MGS	02-058/22:30:55		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-058/22:14:51

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
24056	MGS	02-058/22:30:55	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
24057	MGS	02-058/22:30:55	15	NOTE: Carrier Only -- No Telemetry Modulation		
24058	MGS	02-058/22:32:21		NOTE: Apoapsis 13298 -		02-058/22:16:18
24059	MGS	02-058/22:32:59		NOTE: Enter Planetary Atmosphere 13298		02-058/22:16:56
24060	MGS	02-058/22:36:51		NOTE: Enter Earth Occultation 13298		02-058/22:20:48
24061	MGS	02-058/22:36:51	15	NOTE: Loss Of X-Band Signal		
24062	MGS	02-058/22:37:27		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-058/22:21:23
24063	MGS	02-058/22:37:27		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-058/22:21:23
24064	MGS	02-058/22:37:27		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-058/22:21:23
24065	MGS	02-058/22:37:27		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-058/22:21:23
24066	MGS	02-058/22:37:28		Turn off the MOT Exciter and RPA beam	STRPAF	02-058/22:21:24
24067	MGS	02-058/22:37:28		NOTE: End EVP script		02-058/22:21:24
24068	MGS	02-058/22:37:32		NOTE: End fixed Sub-Reflector for Radio Science		02-058/22:21:28
24069	MGS	02-058/22:38:51		NOTE: Enter Solar Eclipse 13298		02-058/22:22:48
24070	MGS	02-058/22:38:52		Starts a Script for immediate execution: 1, YES, NO, NO, NO, BUS, 00B1, , , , , , , , ,	SCSSCR	02-058/22:22:48
24071	MGS	02-058/22:41:38	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
24072	MGS	02-058/22:43:39	15	Range Modulation On: SUP=3.0dB		
24073	MGS	02-058/22:44:39	15	Begin Ranging Acquisition		
24074	MGS	02-058/22:56:03		SSR 1B Data Disable	CSD1BX	02-058/22:39:59
24075	MGS	02-058/22:56:03		SSR Activity: ID=SSR_1B, FCN=End Recording, PRT=2, BITS=172800000, DUR=06:00:00		02-058/22:39:59
24076	MGS	02-058/22:56:04		NOTE: End Block (SSRMGR)		02-058/22:40:00
24077	MGS	02-058/23:03:35		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, -0.6108652	SALMTA	02-058/22:47:31
24078	MGS	02-058/23:03:35		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 1.8325957	SALPTA	02-058/22:47:31
24079	MGS	02-058/23:03:40		Set eclipse egress script address: 01DC	SWSEES	02-058/22:47:36
24080	MGS	02-058/23:04:26		NOTE: Begin fixed Sub-Reflector for Radio Science		02-058/22:48:22
24081	MGS	02-058/23:08:11		: 01:26:58	RPAONX	02-058/22:52:07
24082	MGS	02-058/23:08:11		Turn on RPA Beam and MOT Exciter for the selected configuration	STRPAN	02-058/22:52:07
24083	MGS	02-058/23:09:22		NOTE: Start Block (SSRMGR)		02-058/22:53:18
24084	MGS	02-058/23:09:22		Sends a one-word SSR command to the XSU command SOB: SSR_1B, SE_1A, RECORD, PART3	STSSRC	02-058/22:53:18
24085	MGS	02-058/23:09:23		SSR 1B Data Enable	CSD1BE	02-058/22:53:19
24086	MGS	02-058/23:09:23		SSR Activity: ID=SSR_1B, FCN=Start Recording, PRT=3, BR=8000, SRC=SE_1A		02-058/22:53:19
24087	MGS	02-058/23:09:26		: 00:00:30, 00:06:51, FALSE	RDSCIE	02-058/22:53:22
24088	MGS	02-058/23:09:26		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-058/22:53:22
24089	MGS	02-058/23:09:26		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-058/22:53:22
24090	MGS	02-058/23:09:26		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-058/22:53:22
24091	MGS	02-058/23:09:26		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-058/22:53:22
24092	MGS	02-058/23:09:56		Disables autonomous command to send eclipse ingress script	SWEISX	02-058/22:53:52
24093	MGS	02-058/23:10:00		NOTE: Exit Earth Occultation 13298		02-058/22:53:56
24094	MGS	02-058/23:10:00	15	Acquisition Of X-Band Signal		
24095	MGS	02-058/23:10:00	15	Acquire D/L: X/20, 1-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
24096	MGS	02-058/23:10:00	15	NOTE: Carrier Only -- No Telemetry Modulation		
24097	MGS	02-058/23:14:09		NOTE: Exit Planetary Atmosphere 13298		02-058/22:58:06
24098	MGS	02-058/23:16:17		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-058/23:00:13
24099	MGS	02-058/23:16:17		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-058/23:00:13
24100	MGS	02-058/23:16:17		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-058/23:00:13
24101	MGS	02-058/23:16:17		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-058/23:00:13
24102	MGS	02-058/23:16:17	15	Acquire D/L: X/16, 2-Way, BW=10, BR=0.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
24103	MGS	02-058/23:16:18		: RTM, MRC, 01:12:18, S&E_2A, FALSE, 00:06:33	AEMRT	02-058/23:00:14
24104	MGS	02-058/23:16:18		Sends a one-word MOT command to the XSU command SOB: SE_2A	STMOTC	02-058/23:00:14
24105	MGS	02-058/23:16:18		Sends a block of payload commands to the PDS: PDS, [3986]	SCPDSC	02-058/23:00:14
24106	MGS	02-058/23:16:18		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=3, BITS=3320000, DUR=00:06:55		02-058/23:00:14
24107	MGS	02-058/23:16:18		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-058/23:00:14
24108	MGS	02-058/23:16:18	15	D/L Change: X/16, 2-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=ON, MI=80.0, ANT=HGA		
24109	MGS	02-058/23:16:22		NOTE: End fixed Sub-Reflector for Radio Science		02-058/23:00:18

ITEM	S/C	GND TIME (GMT)	STN	ACTIVITY/EVENT DESCRIPTION	CMD	SCET
24110	MGS	02-058/23:19:15		NOTE: Exit Solar Eclipse 13298		02-058/23:03:12
24111	MGS	02-058/23:31:08		NOTE: Periapsis 13299 ----------		02-058/23:15:04
24112	MGS	02-058/23:36:03		SSR 1A Data Disable	CSD1AX	02-058/23:19:59
24113	MGS	02-058/23:36:03		SSR Activity: ID=SSR_1A, FCN=End Recording, PRT=3, BITS=32000000, DUR=01:06:40		02-058/23:19:59
24114	MGS	02-058/23:36:04		NOTE: End Block (SSRMGR)		02-058/23:20:00
24115	MGS	02-058/23:40:14		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 0.5235988	SALMTA	02-058/23:24:10
24116	MGS	02-058/23:40:14		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, 0.6981317	SALPTA	02-058/23:24:10
24117	MGS	02-058/23:40:15		Select manual SAM control mode (GDE is in rate mode)	SAMRCE	02-058/23:24:11
24118	MGS	02-058/23:40:15		Select manual SAP control mode (GDE is in rate mode)	SAPRCE	02-058/23:24:11
24119	MGS	02-058/23:43:45	15	NOTE: Transmitter Off in 15 minutes		
24120	MGS	02-058/23:56:45	15	Range Modulation Off		
24121	MGS	02-058/23:58:45	15	Transmitter Off		
24122	MGS	02-059/00:00:00		Light Time: OWLT = 16:03, RTLT = 32:07		
24123	MGS	02-059/00:02:15		SAM azi/ele target angles (rad) in manual rate mode only: -0.511381, 1.7453293	SALMTA	02-058/23:46:11
24124	MGS	02-059/00:02:15		SAP azi/ele target angles (rad) in manual rate mode only: 0.5235988, -0.5235988	SALPTA	02-058/23:46:11
24125	MGS	02-059/00:23:36		NOTE: Begin fixed Sub-Reflector for Radio Science		02-059/00:07:32
24126	MGS	02-059/00:28:36		Sends a block of payload commands to the PDS: PDS, [3983]	SCPDSC	02-059/00:12:32
24127	MGS	02-059/00:28:36		SSR Activity: ID=SSR_1B, FCN=End Old Recording Rate, PRT=3, BITS=38024000, DUR=01:12:18		02-059/00:12:32
24128	MGS	02-059/00:28:36		SSR Activity: ID=SSR_1B, FCN=Start New Recording Rate, PRT=3, BR=8000, SRC=SE_1A		02-059/00:12:32
24129	MGS	02-059/00:28:36		: 00:06:32, FALSE	RDSCII	02-059/00:12:32
24130	MGS	02-059/00:28:36		MOT 1 Two-Way Non-Coherent Mode Enable	TCM12E	02-059/00:12:32
24131	MGS	02-059/00:28:36		MOT 2 Two-Way Non-Coherent Mode Enable	TCM22E	02-059/00:12:32
24132	MGS	02-059/00:28:36		MOT 1 Telemetry Signal Path To X-Band Phase Mod Off	TCM1MF	02-059/00:12:32
24133	MGS	02-059/00:28:36		MOT 2 Telemetry Signal Path To X-Band Phase Mod Off	TCM2MF	02-059/00:12:32
24134	MGS	02-059/00:28:36	15	D/L Change: X/20, 1-Way, BW=10, BR=40000.0, FL=10000, SC=HIGH, MOD=OFF, MI=80.0, ANT=HGA		
24135	MGS	02-059/00:28:36	15	NOTE: Carrier Only -- No Telemetry Modulation		
24136	MGS	02-059/00:30:14		NOTE: Apoapsis 13299 -		02-059/00:14:10
24137	MGS	02-059/00:30:45		NOTE: Enter Planetary Atmosphere 13299		02-059/00:14:41
24138	MGS	02-059/00:34:37		NOTE: Enter Earth Occultation 13299		02-059/00:18:33
24139	MGS	02-059/00:34:37	15	NOTE: Loss Of X-Band Signal		
24140	MGS	02-059/00:35:08		MOT 1 Telemetry Signal Path To X-Band Phase Mod On	TCM1MN	02-059/00:19:04
24141	MGS	02-059/00:35:08		MOT 2 Telemetry Signal Path To X-Band Phase Mod On	TCM2MN	02-059/00:19:04
24142	MGS	02-059/00:35:08		MOT 1 Two-Way Non-Coherent Mode Disabled	TCM12X	02-059/00:19:04
24143	MGS	02-059/00:35:08		MOT 2 Two-Way Non-Coherent Mode Disabled	TCM22X	02-059/00:19:04
24144	MGS	02-059/00:35:09		Turn off the MOT Exciter and RPA beam	STRPAF	02-059/00:19:05
24145	MGS	02-059/00:35:09		NOTE: End EVP script		02-059/00:19:05
24146	MGS	02-059/00:35:10		NOTE: End Block (MAP_RT)		02-059/00:19:06
24147	MGS	02-059/00:35:13		NOTE: End fixed Sub-Reflector for Radio Science		02-059/00:19:09
24148	MGS	02-059/00:36:37		NOTE: Enter Solar Eclipse 13299		02-059/00:20:34
24149	MGS	02-059/00:39:23	15	Acquire U/L: X/16, PWR=20.0, BR=125.0, CS=5.82dB		
24150	MGS	02-059/00:42:43		SSR 1B Data Disable	CSD1BX	02-059/00:26:39
24151	MGS	02-059/00:42:43		SSR Activity: ID=SSR_1B, FCN=End Recording, PRT=3, BITS=44800000, DUR=01:33:20		02-059/00:26:39
24152	MGS	02-059/00:42:44		NOTE: End Block (SSRMGR)		02-059/00:26:40