SOST

Rev C

2005-015T12:00 - 2005-018T10:00

Amanda Hendrix, Bonnie Buratti, Rosaly Lopes

04/07/03

Request	Riders	Start(SCET)	Start(Epoch)	Duration	End(SCET)	Primary Pointing	Secondary Pointing	Comments
SP_00CMI_WAYPTTURN015_PRIME	M	2005-015T17:17:00		000T00:30:00	2005-015T17:47:00	ISS_NAC to Mimas (0.0,22.0,0.0 deg. o	POS_X to NSP	22.9 min turn from MAG TWT attitude; WP safe
NEW WAYPOINT		**2005-015T17:47:00**		**000T19:12:00**	**2005-016T12:59:00**	**ISS_NAC to Mimas (0.0,22.0,0.0 de**	**POS_X to NSP**	
CIRS_00CEN_FP3STARE002_PRIME	M, V	2005-015T17:47:00		000T00:33:00	2005-015T18:20:00	CIRS_FPB to Enceladus	POS_X to NSP	
ISS_00CEN_PHOTOM001_PRIME	C, M, V	2005-015T18:20:00		000T01:00:00	2005-015T19:20:00	ISS_NAC to Enceladus	POS_X to NSP	
ISS_00CMI_PHOTOM001_PRIME	C, M, V	2005-015T19:20:00		000T02:30:00	2005-015T21:50:00	ISS_NAC to Mimas (0.0,20.0,0.0 deg. o	POS_X to NSP	
ISS_00CEN_PHOTOM002_PRIME	C, M, V	2005-015T21:50:00		000T02:15:00	2005-016T00:05:00	ISS_NAC to Enceladus	POS_X to NSP	
ISS_00CRH_REGGEODA001_PRIME	C, M, V	2005-016T00:05:00		000T01:00:00	2005-016T01:05:00	ISS_NAC to Rhea	POS_X to NSP	
VIMS_00CMI_MIMAS002_PRIME	C, I, M, U	2005-016T01:05:00		000T00:25:00	2005-016T01:30:00	VIMS_IR to Mimas	NEG_X to Sun	
UVIS_00CEN_ICYLON010_PRIME	C, I, M, V	2005-016T01:30:00		000T01:00:00	2005-016T02:30:00	ISS_NAC to Enceladus	POS_X to NSP	
VIMS_00CMI_MIMAS001_PRIME	C, I, M, U	2005-016T02:30:00		000T00:27:00	2005-016T02:57:00	VIMS_IR to Mimas	NEG_X to Sun	
SP_00CEA_DLTURN016_PRIME	M	2005-016T02:57:00		000T00:23:00	2005-016T03:20:00	XBAND to Earth	NEG_X to NEP	20.9 min turn
SP_00CEA_G34BWGOTP016_PRIME	M, N	2005-016T03:20:00		000T09:00:00	2005-016T12:20:00	XBAND to Earth	Rolling	OTM-11
SP_00CMI_WAYPTTURN016_PRIME	M	2005-016T12:20:00		000T00:23:00	2005-016T12:43:00	ISS_NAC to 250.0/-50.0	NEG_Z to NSP	split turn; 20.9 min turn
SP_00CMI_WAYPTTURN416_PRIME	M	2005-016T12:43:00		000T00:16:00	2005-016T12:59:00	ISS_NAC to Mimas	NEG_Z to NSP	13.4 min turn; safe WP
NEW WAYPOINT		**2005-016T12:59:00**		**000T03:10:00**	**2005-016T16:09:00**	**ISS_NAC to Mimas**	**NEG_Z to NSP**	
VIMS_00CMI_MIMAS007_PRIME	C, I, U	2005-016T12:59:00		000T00:57:00	2005-016T13:56:00	VIMS_IR to Mimas	NEG_X to Sun	
UVIS_00CEN_ICYLON015_PRIME	C, I, V	2005-016T13:56:00		000T01:04:00	2005-016T15:00:00	ISS_NAC to Enceladus	NEG_Z to NSP	
VIMS_00CMI_MIMAS008_PRIME	C, I, U	2005-016T15:00:00		000T00:32:00	2005-016T15:32:00	VIMS_IR to Mimas	NEG_X to Sun	
SP_00CRH_WAYPTTURN016_PRIME	C	2005-016T15:32:00		000T00:37:00	2005-016T16:09:00	ISS_NAC to Rhea	POS_Z to NSP	34 min turn; safe WP
NEW WAYPOINT		**2005-016T16:09:00**		**000T20:51:00**	**2005-017T13:00:00**	**ISS_NAC to Rhea**	**POS_Z to NSP**	
ISS_00CRH_REGGEODC001_PRIME	C, U	2005-016T16:09:00		000T00:16:00	2005-016T16:25:00	ISS_NAC to Rhea	POS_Z to NSP	
CIRS_00CRH_FP1DAYMAP001_PRIME	U, V	2005-016T16:25:00		000T02:15:00	2005-016T18:40:00	ISS_NAC to Rhea	POS_Z to NSP	
ISS_00CRH_REGGEODD001_PRIME	C, U	2005-016T18:40:00		000T00:15:00	2005-016T18:55:00	ISS_NAC to Rhea	POS_Z to NSP	
CIRS_00CRH_FP1FAZ0P5253_PRIME	U, V	2005-016T18:55:00		000T01:35:00	2005-016T20:30:00	ISS_NAC to Rhea	POS_Z to NSP	
ISS_00CRH_REGGEODE001_PRIME	C, U	2005-016T20:30:00		000T00:15:00	2005-016T20:45:00	ISS_NAC to Rhea	POS_Z to NSP	
CIRS_00CRH_FP3DSKSCN003_PRIME	U, V	2005-016T20:45:00		000T01:35:00	2005-016T22:20:00	ISS_NAC to Rhea	POS_Z to NSP	
ISS_00CRH_REGGEODF001_PRIME	C, U	2005-016T22:20:00		000T00:15:00	2005-016T22:35:00	ISS_NAC to Rhea	POS_Z to NSP	
CIRS_00CRH_FP3DSKSCN004_PRIME	U, V	2005-016T22:35:00		000T01:45:00	2005-017T00:20:00	ISS_NAC to Rhea	POS_Z to NSP	
ISS_00CRH_REGGEODG001_PRIME	C, U	2005-017T00:20:00		000T00:15:00	2005-017T00:35:00	ISS_NAC to Rhea	POS_Z to NSP	
CIRS_00CRH_FP3SCNINT001_PRIME	V	2005-017T00:35:00		000T02:33:00	2005-017T03:08:00	ISS_NAC to Rhea	POS_Z to NSP	
SP_00CEA_DLTURN017_PRIME		2005-017T03:08:00		000T00:22:00	2005-017T03:30:00	XBAND to Earth	NEG_X to NEP	10.8 min turn
SP_00CEA_G70METOTB017_PRIME	N	2005-017T03:30:00		000T09:00:00	2005-017T12:30:00	XBAND to Earth	Rolling	OTM-11 backup
SP_00CSA_WAYPTTURN017_PRIME		2005-017T12:30:00		000T00:30:00	2005-017T13:00:00	ISS_NAC to Saturn	POS_X to NSP	22.2 min turn from -X to NEP; safe WP
NEW WAYPOINT		**2005-017T13:00:00**		**000T21:00:00**	**2005-018T10:00:00**	**ISS_NAC to Saturn**	**POS_X to NSP**	
ISS_00CMI_LONPHA001_PRIME	C	2005-017T13:00:00		000T01:00:00	2005-017T14:00:00	ISS_NAC to Mimas	POS_X to NSP	
ISS_00CDI_094W105PH001_PRIME	C	2005-017T14:00:00		000T01:00:00	2005-017T15:00:00	ISS_NAC to Dione	POS_X to NSP	
ISS_00CTE_LONPHA001_PRIME	C	2005-017T15:00:00		000T00:45:00	2005-017T15:45:00	ISS_NAC to Tethys	POS_X to NSP	
ISS_00CEN_LONPHA001_PRIME	C	2005-017T15:45:00		000T00:45:00	2005-017T16:30:00	ISS_NAC to Enceladus	POS_X to NSP	
ISS_00CTE_094W109PH001_PRIME	C	2005-017T16:30:00		000T00:50:00	2005-017T17:20:00	ISS_NAC to Tethys	POS_X to NSP	
ISS_00CMI_LONPHA002_PRIME	C	2005-017T17:20:00		000T00:40:00	2005-017T18:00:00	ISS_NAC to Mimas	POS_X to NSP	
UVIS_00CSA_AURORA001_PRIME	C	2005-017T18:00:00		000T02:00:00	2005-017T20:00:00	ISS_NAC to Saturn	POS_X to NSP	
ISS_00CMI_310W121PH001_PRIME	C	2005-017T20:00:00		000T00:45:00	2005-017T20:45:00	ISS_NAC to Mimas	POS_X to NSP	
ISS_00CMI_LONPHA003_PRIME	C	2005-017T20:45:00		000T00:45:00	2005-017T21:30:00	ISS_NAC to Mimas	POS_X to NSP	
ISS_00CEN_LONPHA002_PRIME	C	2005-017T21:30:00		000T00:40:00	2005-017T22:10:00	ISS_NAC to Enceladus	POS_X to NSP	
ISS_00CTE_LONPHA002_PRIME	C	2005-017T22:10:00		000T00:30:00	2005-017T22:40:00	ISS_NAC to Tethys	POS_X to NSP	
UVIS_00CRI_IMPACT001_PRIME	C, I, V	2005-017T22:40:00		000T02:00:00	2005-018T00:40:00	UVIS_HSP to L_ANSA_B	POS_X to NSP	
SP_00CEA_DLTURN018_PRIME	C	2005-018T00:40:00		000T00:30:00	2005-018T01:10:00	XBAND to Earth	POS_X to NSP	26.4 min turn
SP_00CEA_G70METNON018_PRIME	C	2005-018T01:10:00		000T08:50:00	2005-018T10:00:00	XBAND to Earth	Rolling	CIRS DSCAL

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SSR MANAGEMENT TOOL (SMT) VERSION: SMT-V02-D9.0
REPORT FOR revC_030403_v2.apf
USING DICTIONARY FILE  /cas/msspath/MSS.D9.0/base/mss_sw/smt/dict/dict.txt
AND SSR CONFIGURATION TABLE /cas/msspath/MSS.D9.0/base/mss_sw/smt/tables/double_ssr.conf
```

ACTIVITIES OUTSIDE EXECUTION PERIOD

ACTIVITY NAME	ACTIVITY TYPE	START TIME
MAG_00COT_PROBESEQ001_RIDER	MAG_1976	2005-006T11:53:00.000
MIMI_00CCO_OFFPROBE002_RIDER	MIMI_8000	2005-006T11:53:00.000
CDA_00CDR_RNGMAR001_RIDER	CDA_524	2005-015T08:00:00.000

SPECIAL ACTIVITIES REPORT

ACTIVITY NAME	ACTIVITY TYPE	START TIME	DATA CLASS	NOTIFICATION

TELEMETRY MODE REPORT

SCET	TELEMETRY MODE	REQUEST
2005-015T18:00:00	S_N_ER_3	SP_00CNA_G34OBSOTP016_NA
2005-016T03:20:00	RTE_N_SPB_41475	SP_00CEA_G34BWGOTP016_PRIME
2005-016T10:38:00	RTE_N_SPB_35550	SP_00CEA_G34BWGOTP016_PRIME
2005-016T11:53:00	RTE_N_SPB_33180	SP_00CEA_G34BWGOTP016_PRIME
2005-016T12:20:00	S_N_ER_3	SP_00CNA_G70OBSOTB017_NA
2005-017T03:30:00	RTE_N_SPB_165900	SP_00CEA_G70METOTB017_PRIME
2005-017T10:38:00	RTE_N_SPB_142200	SP_00CEA_G70METOTB017_PRIME
2005-017T11:38:00	RTE_N_SPB_124425	SP_00CEA_G70METOTB017_PRIME
2005-017T12:08:00	RTE_N_SPB_110600	SP_00CEA_G70METOTB017_PRIME
2005-017T12:23:00	RTE_N_SPB_99540	SP_00CEA_G70METOTB017_PRIME
2005-017T12:30:00	S_N_ER_3	SP_00CNA_G70OBSNON018_NA
2005-018T01:10:00	RTE_N_SPB_124425	SP_00CEA_G70METNON018_PRIME
2005-018T01:23:00	RTE_N_SPB_142200	SP_00CEA_G70METNON018_PRIME
2005-018T02:23:00	RTE_N_SPB_165900	SP_00CEA_G70METNON018_PRIME

DATA VOLUME SUMMARY

			OBSERVATION_PERIOD								DOWNLINK_PASS							
			P4							P5	RECORDED		PLAYBACK					
DOWNLINK PASS NAME	Start doy hh:mm	End doy hh:mm	START (Mb)	SCI (Mb)	HK+E (Mb)	TOTAL (Mb)	CPACTY (Mb)	MARGIN (Mb)	MARGIN (%)	OPNAV (Mb)	SCI (Mb)	ENGR (Mb)	TOTAL (Mb)	CPACTY (Mb)	MARGIN (Mb)	MARGIN (%)	CAROVR (Mb)	
SP_00CEA_G34BWGOTP016_PRIME	016 03:20	016 12:20	0	844	34	878	3567	2689	75%	0	593	53	1524	892	-632	-71%	632	
SP_00CEA_G70METOTB017_PRIME	017 03:30	017 12:30	632	1214	51	1896	3568	1672	47%	0	142	53	2091	4343	2252	52%	0	
SP_00CEA_G70METNON018_PRIME	018 01:10	018 10:00	0	986	43	1029	3566	2537	71%	0	212	52	1292	4382	3090	71%	0	

SSR PARTITION SIZE SUMMARY - SELECTED SSR CONFIGURATION: DOUBLE

OBSERVATION PERIOD	SSR A/B P4 Size (Frames)	P5 Size (Frames)	P6 Size (Frames)
SP_00CNA_G34OBSOTP016_NA	202871	283	25596
SP_00CNA_G70OBSOTB017_NA	202871	283	25596
SP_00CNA_G70OBSNON018_NA	202826	328	25596

DATA VOLUME REPORT

Event	Start doy hh:mm	End doy hh:mm	CAPS (Mb)	CDA (Mb)	CIRS (Mb)	INMS (Mb)	ISS (Mb)	MAG (Mb)	MIMI (Mb)	RADAR (Mb)	RPWS (Mb)	UVIS (Mb)	VIMS (Mb)	PROBE (Mb)	ENGR (Mb)	TOTAL (Mb)
OBSERVATION_NOR	015 17:17	016 03:20	36.2	17.6	120.1	1.7	419.4	21.7	32.2	0.0	77.5	37.7	80.0	0.0	0.0	844.1
SP_00CEA_G34BWGOTP016_PRIME	016 03:20	016 12:20	32.4	17.0	0.0	1.6	0.0	19.4	38.2	0.0	484.8	0.0	0.0	0.0	0.0	593.5
OBSERVATION_NOR	016 12:20	017 03:30	54.6	28.6	157.3	2.7	300.0	32.8	50.8	0.0	204.3	201.7	180.7	0.0	0.0	1213.5
SP_00CEA_G70METOTB017_PRIME	017 03:30	017 12:30	32.4	17.0	0.0	1.6	0.0	19.4	29.2	0.0	42.4	0.0	0.0	0.0	0.0	142.0
OBSERVATION_NOR	017 12:30	018 01:10	45.6	8.9	130.8	2.3	567.2	27.4	41.0	0.0	59.7	83.4	20.0	0.0	0.0	986.3
SP_00CEA_G70METNON018_PRIME	018 01:10	018 10:00	31.8	4.8	84.0	1.6	0.0	19.1	28.6	0.0	41.7	0.0	0.0	0.0	0.0	211.5
TOTAL (OPNAV data not included)			233.0	93.8	492.2	11.5	1286.6	139.8	220.0	0.0	910.5	322.8	280.8			

AVERAGE DATA RATE REPORT (calculated over observation periods and downlink passes)

Event	Start doy hh:mm	End doy hh:mm	CAPS (bps)	CDA (bps)	INMS (bps)	MAG (bps)	MIMI (bps)	RPWS (bps)	UVIS (bps)
SP_00CNA_G34OBSOTP016_NA	015 17:17	016 03:20	1000.0	486.6	46.4	600.0	889.3	2141.5	1043.1
SP_00CEA_G34BWGOTP016_PRIME	016 03:20	016 12:20	1000.0	524.0	50.0	600.0	1180.0	14963.2	0.0
SP_00CNA_G70OBSOTB017_NA	016 12:20	017 03:30	1000.0	524.0	50.0	600.0	929.7	3742.5	3693.8
SP_00CEA_G70METOTB017_PRIME	017 03:30	017 12:30	1000.0	524.0	50.0	600.0	900.0	1310.0	0.0
SP_00CNA_G70OBSNON018_NA	017 12:30	018 01:10	1000.0	194.2	50.0	600.0	900.0	1310.0	1828.4
SP_00CEA_G70METNON018_PRIME	018 01:10	018 10:00	1000.0	149.9	50.0	600.0	900.0	1310.0	0.0

DATA POLICING TABLES

Event	Start doy hh:mm	End doy hh:mm	CAPS (Pkts)	CDA (Pkts)	CIRS (Pkts)	INMS (Pkts)	ISS (Pkts)	MAG (Pkts)	MIMI (Pkts)	RADAR (Pkts)	RPWS (Pkts)	UVIS (Pkts)	VIMS (Pkts)	DPT #
OBSERVATION_NOR	015 17:17	016 03:20	4600	4200	15100	500	55100	2800	4100	0	10200	4400	13600	1
SP_00CEA_G34BWGOTP016_PRIME	016 03:20	016 12:20	4100	4100	0	500	0	2500	4800	0	63700	0	0	2
OBSERVATION_NOR	016 12:20	017 03:30	6900	6900	19700	800	39400	4200	6400	0	26900	23200	30700	3
SP_00CEA_G70METOTB017_PRIME	017 03:30	017 12:30	4100	4100	0	500	0	2500	3700	0	5600	0	0	4
OBSERVATION_NOR	017 12:30	018 01:10	5700	2200	16400	700	74500	3500	5200	0	7900	9600	3400	5
SP_00CEA_G70METNON018_PRIME	018 01:10	018 10:00	4000	1200	10500	500	0	2500	3600	0	5500	0	0	6

CASSINI DSN COVERAGE SUMMARY for revC_030407_v2.apf generated on 2003-Apr-07 12:18:58
(+ = pass overlaps with previous pass; * = in conflict with DSN weekly maintenance)

C	ANT	ID	BOT_TO_EOT ERT	DUR hh:mm	XMT_AT ERT	2WAY_PERIOD ERT	DUR hh:mm	DL_PERIOD ERT	DL_PERIOD SCET	DUR hh:mm	NOT	CALS min	RADIO_CONFG UD	D	UD	MAR	DATA_RATES kbps
C	34HEF	45	015T14:00-18:15	04:15	015T14:10	16:24-18:15	01:51	----------	----------	-----	---	15/15	XX	-	--	--0	
+M	34HEF	65	015T18:00-04:30	10:30	015T18:10	20:24-04:30	08:06	----------	----------	-----	---	15/15	XX	-	--	--0	
G	34BWG	25	016T04:25-13:30	09:05	016T04:35	06:49-13:27	06:38	016T04:27-13:27	016T03:20-12:20	09:00	OTP	15/15	XX	-	--	--0	41,35,33
G	70MET	14	017T04:35-13:40	09:05	017T04:45	06:59-13:37	06:38	017T04:37-13:37	017T03:30-12:30	09:00	OTB	15/15	XX	-	--	--0	165,142,124,110,99
G	70MET	14	018T02:15-11:10	08:55	018T02:25	04:39-11:07	06:28	018T02:17-11:07	018T01:10-10:00	08:50	---	15/15	XX	-	--	--0	124,142,165

Issues

- The SOST Rev C timeline nominally starts at 015T17:17 SCET, and will be uplinked after a “go” decision from the Probe team, which should be received by 015T15:07 SCET.
- The entire segment is laid out as follows
  - Mini sequence #1: 015T12:00 - 016T12:20
    - This sequence includes key scientific observations of Mimas and Enceladus at longitudes and phase angles not obtained at such close range any other time during the tour.
  - Mini sequence #2: 016T12:20 - 017T12:30
    - This sequence includes key scientific observations primarily of Rhea, in addition to Mimas and Enceladus, at longitudes and phase angles not obtained at such close range any other time during the tour.
  - Background sequence : 017T12:30 - 018T10:00
- If a “no-go” decision is received from the probe team at 015T15:07 SCET, SOST requests that mini-sequence #1 (only) is pulled
- If another “no-go” decision is received by ~016T10:00, mini-sequence #2 may be pulled.
- The attitude strategy in the SOST segment safely allows for a start time of 015T17:17, 016T12:20, or 017T12:30.