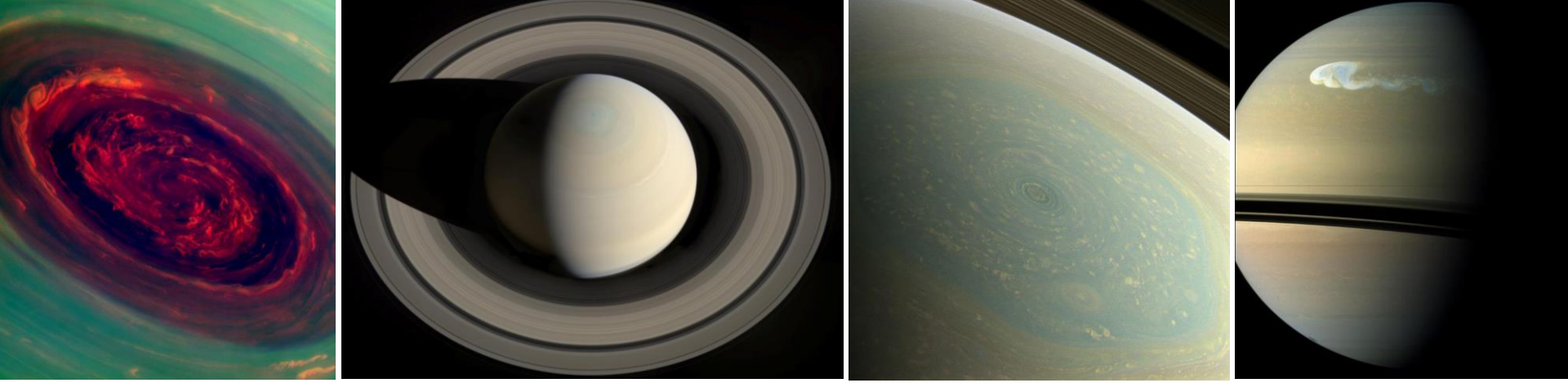

Science Planning & Sequence Team
CASSINI

SATURN TARGET WORKING TEAM

Rev 0/A Segment Legacy Package

Segment Boundary: August 6, 2004 – October 25, 2004
2004-219T15:07:00 – 2004-299T16:31:00 (SCET)

Integration Began 2/11/2002
Segment Delivered to S03/S04/S05 Sequences 7/23/2004
Lead Integrator was Scott Edgington

Legacy Package Assembled by Shawn Boll

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*** N.A. = Slide present but content not available.**

Segment Overview and Final Products

Segment Summary

- Longest Saturn TWT segment at 80 days in length.
- Covered the outbound leg of Rev 0, through Rev A apoapse and ended prior to Rev A Periapse.
- Primarily focused on Saturn atmosphere science, including stratospheric and tropospheric circulation, thermal features in the polar vortex, spectral imaging of auroras and solar wind – aurora correlations.
- Large collection of UVIS System Scans.
- Out of discipline science included observations of the rings, Iapetus (DOY 285-287) and Titan (DOY 297-299).
- Relied heavily on templatized sequences of activities.
- Notable engineering activities included RSS/USO PIM, Probe Checkout and an AACS Flight Software Update.
- Data volume modeling complicated by the version of SMT (v.9.0.1) not being compatible with PROBE_CHK telemetry mode.

Final Sequenced SPASS (1/8)

Request	Riders	Start (SCET)	Start (Epoch)	Duration	End (SCET)	Primary	Secondary	Comments
SATURN revs 0/A Segment		2004-219T13:37:00		080T02:54:00	2004-299T16:31:00			
NAV_000SK_OPNAV191_PRIME	M	2004-219T13:37:00		000T01:29:00	2004-219T15:06:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at NEW waypoint
NAV_000SA_WAYPTTURN191_PRIME	M	2004-219T15:06:00		000T00:01:00	2004-219T15:07:00	ISS_NAC to Saturn	POS_Z to NSP	
NEW WAYPOINT		**2004-219T15:07:00**		**036T20:28:00**	**2004-256T11:35:00**	**ISS_NAC to Saturn**	**POS_Z to NSP**	
UVIS_000ST_ALPVIR003_PRIME	I, M	2004-219T15:07:00		000T02:00:00	2004-219T17:07:00	UVIS_HSP to 201.298/-11.162 (0.0,0.0,-0.285 deg. offset)	POS_X to 261.56/69.95	
CIRS_000SA_MIRCMPSIT009_PRIME	M, V	2004-219T17:07:00		000T10:55:00	2004-220T04:02:00	CIRS_FPB to Saturn	POS_Z to NSP	
SP_000EA_DLTURN220_PRIME	M	2004-220T04:02:00		000T00:35:00	2004-220T04:37:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_000EA_M70METNON220_PRIME	C, M	2004-220T04:37:00		000T09:00:00	2004-220T13:37:00	XBAND to Earth	Rolling/SRU	
NAV_000SK_OPNAV201_PRIME	M	2004-220T13:47:00		000T01:29:00	2004-220T15:16:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_000SA_WAYPTTURN201_PRIME	M	2004-220T15:16:00		000T00:01:00	2004-220T15:17:00	ISS_NAC to Saturn	POS_Z to NSP	
UVIS_000SA_AURORAA028_PRIME	C, I, M, V	2004-220T15:17:00	E000_EOT_DOY219+000T17:55:00	000T10:30:00	2004-221T01:47:00	ISS_NAC to Saturn	POS_Z to NSP	
UVIS_000SA_MOS00SWAA002_PRIME	M	2004-221T01:47:00	E000_EOT_DOY219+001T04:25:00	000T04:55:00	2004-221T06:42:00	UVIS_EUV to Saturn (0.0,0.0,-12.151 deg. offset)	POS_Z to NSP	
UVIS_000SA_AURORAB014_PRIME	C, I, M, V	2004-221T06:42:00	E000_EOT_DOY219+001T09:20:00	000T05:00:00	2004-221T11:42:00	ISS_NAC to Saturn	POS_Z to NSP	
SP_000EA_DLTURN221_PRIME	M	2004-221T11:42:00		000T00:30:00	2004-221T12:12:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_000EA_G34BWGUNQ221_PRIME	C, M	2004-221T12:12:00		000T08:55:00	2004-221T21:07:00	XBAND to Earth	Rolling/SRU	
NAV_000SK_OPNAV211_PRIME	M	2004-221T21:12:00		000T01:29:00	2004-221T22:41:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_000SA_WAYPTTURN211_PRIME	M	2004-221T22:41:00		000T00:01:00	2004-221T22:42:00	ISS_NAC to Saturn	POS_Z to NSP	
UVIS_000SA_MOS00SWAA003_PRIME	M	2004-221T22:42:00	E000_EOT_DOY219+002T01:20:00	000T02:25:00	2004-222T01:07:00	UVIS_EUV to Saturn (3.699,0.0,-12.063 deg. offset)	POS_Z to NSP	
UVIS_000SA_AURORAA027_PRIME	I, M, V	2004-222T01:07:00	E000_EOT_DOY219+002T03:45:00	000T10:30:00	2004-222T11:37:00	ISS_NAC to Saturn	POS_Z to NSP	
SP_000EA_DLTURN222_PRIME	M	2004-222T11:37:00		000T00:30:00	2004-222T12:07:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_000EA_G34BWGNON222_PRIME	M	2004-222T12:07:00		000T09:00:00	2004-222T21:07:00	XBAND to Earth	Rolling/SRU	
NAV_000SK_OPNAV221_PRIME	M	2004-222T21:07:00		000T01:29:00	2004-222T22:36:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_000SA_WAYPTTURN221_PRIME	M	2004-222T22:36:00		000T00:01:00	2004-222T22:37:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_000IA_TRAILSIDE001_PRIME	M, U	2004-222T22:37:00	E000_EOT_DOY222+000T01:30:00	000T01:00:00	2004-222T23:37:00	ISS_NAC to Iapetus	POS_Z to NSP	
UVIS_000SA_MOS00SWAB001_PRIME	I, M	2004-222T23:37:00	E000_EOT_DOY222+000T02:30:00	000T04:25:00	2004-223T04:02:00	UVIS_EUV to Saturn (-3.699,0.0,11.97 deg. offset)	POS_Z to NSP	
SP_000EA_DLTURN223_PRIME	M	2004-223T04:02:00		000T00:30:00	2004-223T04:32:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_000EA_M34BWGNON223_PRIME	M	2004-223T04:32:00		000T08:50:00	2004-223T13:22:00	XBAND to Earth	Rolling/SRU	
NAV_000SK_OPNAV231_PRIME	M	2004-223T13:32:00		000T01:29:00	2004-223T15:01:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_000SA_WAYPTTURN231_PRIME	M	2004-223T15:01:00		000T00:01:00	2004-223T15:02:00	ISS_NAC to Saturn	POS_Z to NSP	
UVIS_000SA_AURORAA026_PRIME	C, I, M, V	2004-223T15:02:00	E000_EOT_DOY222+000T17:55:00	000T10:30:00	2004-224T01:32:00	ISS_NAC to Saturn	POS_Z to NSP	
UVIS_000SA_MOS00SWAB002_PRIME	I, M	2004-224T01:32:00	E000_EOT_DOY222+001T04:25:00	000T04:55:00	2004-224T06:27:00	UVIS_EUV to Saturn (0.0,0.0,11.882 deg. offset)	POS_Z to NSP	
UVIS_000SA_AURORAB013_PRIME	C, I, M, V	2004-224T06:27:00	E000_EOT_DOY222+001T09:20:00	000T05:00:00	2004-224T11:27:00	ISS_NAC to Saturn	POS_Z to NSP	
SP_000EA_DLTURN224_PRIME	M	2004-224T11:27:00		000T00:30:00	2004-224T11:57:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_000EA_G34BWGUNQ224_PRIME	C, M	2004-224T11:57:00		000T08:55:00	2004-224T20:52:00	XBAND to Earth	Rolling/SRU	
NAV_000SK_OPNAV241_PRIME	M	2004-224T20:57:00		000T01:29:00	2004-224T22:26:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_000SA_WAYPTTURN241_PRIME	M	2004-224T22:26:00		000T00:01:00	2004-224T22:27:00	ISS_NAC to Saturn	POS_Z to NSP	
UVIS_000SA_MOS00SWAB003_PRIME	M	2004-224T22:27:00	E000_EOT_DOY222+002T01:20:00	000T02:25:00	2004-225T00:52:00	UVIS_EUV to Saturn (3.699,0.0,11.739 deg. offset)	POS_Z to NSP	
UVIS_000SA_AURORAA025_PRIME	I, M, V	2004-225T00:52:00	E000_EOT_DOY222+002T03:45:00	000T10:30:00	2004-225T11:22:00	ISS_NAC to Saturn	POS_Z to NSP	
SP_000EA_DLTURN225_PRIME	M	2004-225T11:22:00		000T00:30:00	2004-225T11:52:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_000EA_G34BWGNON225_PRIME	M	2004-225T11:52:00		000T09:00:00	2004-225T20:52:00	XBAND to Earth	Rolling/SRU	
NAV_000SK_OPNAV251_PRIME	M	2004-225T20:52:00		000T01:29:00	2004-225T22:21:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_000SA_WAYPTTURN251_PRIME	M	2004-225T22:21:00		000T00:01:00	2004-225T22:22:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_000RI_DIFFUSRNG001_PRIME	C, M	2004-225T22:22:00	E000_EOT_DOY225+000T01:30:00	000T01:00:00	2004-225T23:22:00	ISS_NAC to Rings	POS_Z to NSP	
UVIS_000SA_MOS00SWAC001_PRIME	I, M	2004-225T23:22:00	E000_EOT_DOY225+000T02:30:00	000T04:25:00	2004-226T03:47:00	UVIS_EUV to Saturn (0.0,0.0,-11.673 deg. offset)	POS_Z to NSP	
SP_000EA_DLTURN226_PRIME	M	2004-226T03:47:00		000T00:30:00	2004-226T04:17:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_000EA_M70METNON226_PRIME	M	2004-226T04:17:00		000T09:00:00	2004-226T13:17:00	XBAND to Earth	4_Hr_Rolling to NEP	The secondary is actually to NSP, with the 4-hour rolling CIMS won't accept the change
NAV_000SK_OPNAV261_PRIME	M	2004-226T13:17:00		000T01:29:00	2004-226T14:46:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_000SA_WAYPTTURN261_PRIME	M	2004-226T14:46:00		000T00:01:00	2004-226T14:47:00	ISS_NAC to Saturn	POS_Z to NSP	
UVIS_000SA_AURORAA024_PRIME	C, I, M, V	2004-226T14:47:00	E000_EOT_DOY225+000T17:55:00	000T10:30:00	2004-227T01:17:00	ISS_NAC to Saturn	POS_Z to NSP	
UVIS_000SA_MOS00SWAC002_PRIME	I, M	2004-227T01:17:00	E000_EOT_DOY225+001T04:25:00	000T04:55:00	2004-227T06:12:00	UVIS_EUV to Saturn (-3.699,0.0,-11.673 deg. offset)	POS_Z to NSP	
UVIS_000SA_AURORAB012_PRIME	C, I, M, V	2004-227T06:12:00	E000_EOT_DOY225+001T09:20:00	000T05:00:00	2004-227T11:12:00	ISS_NAC to Saturn	POS_Z to NSP	
SP_000EA_DLTURN227_PRIME	M	2004-227T11:12:00		000T00:30:00	2004-227T11:42:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_000EA_G34BWGNON227_PRIME	C, M	2004-227T11:42:00		000T09:00:00	2004-227T20:42:00	XBAND to Earth	Rolling/SRU	
NAV_000SK_OPNAV271_PRIME	M	2004-227T20:42:00		000T01:29:00	2004-227T22:11:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_000SA_WAYPTTURN271_PRIME	M	2004-227T22:11:00		000T00:01:00	2004-227T22:12:00	ISS_NAC to Saturn	POS_Z to NSP	
UVIS_000SA_MOS00SWAC003_PRIME	M	2004-227T22:12:00	E000_EOT_DOY225+002T01:20:00	000T02:25:00	2004-228T00:37:00	UVIS_EUV to Saturn (3.699,0.0,-11.618 deg. offset)	POS_Z to NSP	
UVIS_000SA_AURORAA023_PRIME	I, M, V	2004-228T00:37:00	E000_EOT_DOY225+002T03:45:00	000T10:30:00	2004-228T11:07:00	ISS_NAC to Saturn	POS_Z to NSP	
SP_000EA_DLTURN228_PRIME	M	2004-228T11:07:00		000T00:31:00	2004-228T11:38:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_000EA_G34BWGNON228_PRIME	M	2004-228T11:38:00		000T09:00:00	2004-228T20:38:00	XBAND to Earth	Rolling/SRU	
NAV_000SK_OPNAV281_PRIME	M	2004-228T20:38:00		000T01:29:00	2004-228T22:07:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_000SA_WAYPTTURN281_PRIME	M	2004-228T22:07:00		000T00:01:00	2004-228T22:08:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_000RI_DIFFUSRNG002_PRIME	C, M	2004-228T22:08:00	E000_EOT_DOY228+000T01:30:00	000T01:00:00	2004-228T23:08:00	ISS_NAC to Rings	POS_Z to NSP	
UVIS_000SA_MOS00SWAD001_PRIME	I, M	2004-228T23:08:00	E000_EOT_DOY228+000T02:30:00	000T04:25:00	2004-229T03:33:00	UVIS_EUV to Saturn (0.0,0.0,11.563 deg. offset)	POS_Z to NSP	
SP_000EA_DLTURN229_PRIME	M	2004-229T03:33:00		000T00:30:00	2004-229T04:03:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_000EA_M70METNON229_PRIME	C, M	2004-229T04:03:00		000T09:00:00	2004-229T13:03:00	XBAND to Earth	Rolling/SRU	
NAV_000SK_OPNAV291_PRIME	M	2004-229T13:03:00		000T01:29:00	2004-229T14:32:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_000SA_WAYPTTURN291_PRIME	M	2004-229T14:32:00		000T00:01:00	2004-229T14:33:00	ISS_NAC to Saturn	POS_Z to NSP	
UVIS_000SA_AURORAA022_PRIME	C, I, M, V	2004-229T14:33:00	E000_EOT_DOY228+000T17:55:00	000T10:30:00	2004-230T01:03:00	ISS_NAC to Saturn	POS_Z to NSP	
UVIS_000SA_MOS00SWAD002_PRIME	I, M	2004-230T01:03:00	E000_EOT_DOY228+001T04:25:00	000T04:55:00	2004-230T05:58:00	UVIS_EUV to Saturn (3.699,0.0,11.509 deg. offset)	POS_Z to NSP	
UVIS_000SA_AURORAB011_PRIME	C, I, M, V	2004-230T05:58:00	E000_EOT_DOY228+001T09:20:00	000T05:00:00	2004-230T10:58:00	ISS_NAC to Saturn	POS_Z to NSP	
SP_000EA_DLTURN230_PRIME	M	2004-230T10:58:00		000T00:30:00	2004-230T11:28:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_000EA_G34HEFNON230_PRIME	C, M	2004-230T11:28:00		000T09:00:00	2004-230T20:28:00	XBAND to Earth	Rolling/SRU	

Final Sequenced SPASS (2/8)

NAV_000SK_OPNAV301_PRIME	M	2004-230T20:28:00		000T01:29:00	2004-230T21:57:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_000SA_WAYPTTURN301_PRIME	M	2004-230T21:57:00		000T00:01:00	2004-230T21:58:00	ISS_NAC to Saturn	POS_Z to NSP	
UVIS_000SA_MOS00SWAD003_PRIME	M	2004-230T21:58:00	E000_EOT_DOY228+002T01:20:00	000T02:25:00	2004-231T00:23:00	UVIS_EUV to Saturn (-3.699,0.0,11.47 deg. offset)	POS_Z to NSP	
UVIS_000SA_AURORAA021_PRIME	I, M, V	2004-231T00:23:00	E000_EOT_DOY228+002T03:45:00	000T10:30:00	2004-231T10:53:00	ISS_NAC to Saturn	POS_Z to NSP	
SP_000EA_DLTURN231_PRIME	M	2004-231T10:53:00		000T00:45:00	2004-231T11:38:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_000EA_G34HEFNON231_PRIME	M	2004-231T11:38:00		000T09:00:00	2004-231T20:38:00	XBAND to Earth	Rolling/SRU	
NAV_000SK_OPNAV311_PRIME	M	2004-231T20:38:00		000T01:29:00	2004-231T22:07:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_000SA_WAYPTTURN311_PRIME	M	2004-231T22:07:00		000T00:01:00	2004-231T22:08:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_000RI_DIFFUSRNG003_PRIME	C, M	2004-231T22:08:00	E000_EOT_DOY231+000T01:30:00	000T01:00:00	2004-231T23:08:00	ISS_NAC to Rings	POS_Z to NSP	
UVIS_000SA_MOS00SWAE001_PRIME	I, M	2004-231T23:08:00	E000_EOT_DOY231+000T02:30:00	000T04:25:00	2004-232T03:33:00	UVIS_EUV to Saturn (-3.699,0.0,-11.426 deg. offset)	POS_Z to NSP	
SP_000EA_DLTURN232_PRIME	M	2004-232T03:33:00		000T00:30:00	2004-232T04:03:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_000EA_M34HEFNON232_PRIME	M	2004-232T04:03:00		000T08:50:00	2004-232T12:53:00	XBAND to Earth	Rolling/SRU	
NAV_000SK_OPNAV321_PRIME	M	2004-232T13:03:00		000T01:29:00	2004-232T14:32:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_000SA_WAYPTTURN321_PRIME	M	2004-232T14:32:00		000T00:01:00	2004-232T14:33:00	ISS_NAC to Saturn	POS_Z to NSP	
UVIS_000SA_AURORAA020_PRIME	C, I, M, V	2004-232T14:33:00	E000_EOT_DOY231+000T17:55:00	000T10:30:00	2004-233T01:03:00	ISS_NAC to Saturn	POS_Z to NSP	
UVIS_000SA_MOS00SWAE002_PRIME	I, M	2004-233T01:03:00	E000_EOT_DOY231+001T04:25:00	000T04:55:00	2004-233T05:58:00	UVIS_EUV to Saturn (0.0,0.0,-11.388 deg. offset)	POS_Z to NSP	
UVIS_000SA_AURORAB010_PRIME	C, I, M, V	2004-233T05:58:00	E000_EOT_DOY231+001T09:20:00	000T05:00:00	2004-233T10:58:00	ISS_NAC to Saturn	POS_Z to NSP	
SP_000EA_DLTURN233_PRIME	M	2004-233T10:58:00		000T00:30:00	2004-233T11:28:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_000EA_G34HEFNON233_PRIME	C, M	2004-233T11:28:00		000T08:55:00	2004-233T20:23:00	XBAND to Earth	Rolling/SRU	
NAV_000SK_OPNAV331_PRIME	M	2004-233T20:28:00		000T01:29:00	2004-233T21:57:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_000SA_WAYPTTURN331_PRIME	M	2004-233T21:57:00		000T00:01:00	2004-233T21:58:00	ISS_NAC to Saturn	POS_Z to NSP	
UVIS_000SA_MOS00SWAE003_PRIME	M	2004-233T21:58:00	E000_EOT_DOY231+002T01:20:00	000T02:25:00	2004-234T00:23:00	UVIS_EUV to Saturn (3.699,0.0,-11.36 deg. offset)	POS_Z to NSP	
UVIS_000SA_AURORAA019_PRIME	I, M, V	2004-234T00:23:00	E000_EOT_DOY231+002T03:45:00	000T10:30:00	2004-234T10:53:00	ISS_NAC to Saturn	POS_Z to NSP	
SP_000EA_DLTURN234_PRIME	M	2004-234T10:53:00		000T00:30:00	2004-234T11:23:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_000EA_G34HEFNON234_PRIME	M	2004-234T11:23:00		000T09:00:00	2004-234T20:23:00	XBAND to Earth	Rolling/SRU	
NAV_000SK_OPNAV341_PRIME	M	2004-234T20:23:00		000T01:29:00	2004-234T21:52:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_000SA_WAYPTTURN341_PRIME	M	2004-234T21:52:00		000T00:01:00	2004-234T21:53:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_000RI_DIFFUSRNG004_PRIME	C, M	2004-234T21:53:00	E000_EOT_DOY234+000T01:30:00	000T01:00:00	2004-234T22:53:00	ISS_NAC to Rings	POS_Z to NSP	
UVIS_000SA_MOS00SWA001_PRIME	I, M	2004-234T22:53:00	E000_EOT_DOY234+000T02:30:00	000T04:25:00	2004-235T03:18:00	UVIS_EUV to Saturn (-3.699,0.0,11.393 deg. offset)	POS_Z to NSP	
SP_000EA_DLTURN235_PRIME	M	2004-235T03:18:00		000T00:35:00	2004-235T03:53:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_000EA_M70METNON235_PRIME	C, M	2004-235T03:53:00		000T09:00:00	2004-235T12:53:00	XBAND to Earth	Rolling/SRU	
NAV_000SK_OPNAV356_PRIME	M	2004-235T12:53:00		000T01:24:00	2004-235T14:17:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_000SA_WAYPTTURN356_PRIME	M	2004-235T14:17:00		000T00:01:00	2004-235T14:18:00	ISS_NAC to Saturn	POS_Z to NSP	
UVIS_000SA_AURORAA009_PRIME	C, I, M, V	2004-235T14:18:00	E000_EOT_DOY234+000T17:55:00	000T10:30:00	2004-236T00:48:00	ISS_NAC to Saturn	POS_Z to NSP	
UVIS_000SA_MOS00SWA002_PRIME	I, M	2004-236T00:48:00	E000_EOT_DOY234+001T04:25:00	000T04:55:00	2004-236T05:43:00	UVIS_EUV to Saturn (0.0,0.0,11.311 deg. offset)	POS_Z to NSP	
UVIS_000SA_AURORAB005_PRIME	C, I, M, V	2004-236T05:43:00	E000_EOT_DOY234+001T09:20:00	000T03:30:00	2004-236T09:13:00	ISS_NAC to Saturn	POS_Z to NSP	
SP_000EA_DLTURN236_PRIME	M	2004-236T09:13:00		000T00:40:00	2004-236T09:53:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_000EA_G34HEFOTP236_PRIME	M, N	2004-236T09:53:00		000T12:00:00	2004-236T21:53:00	XBAND to Earth	POS_X to NSP	
NAV_000SK_OPNAV366_PRIME	M	2004-236T21:53:00		000T01:29:00	2004-236T23:22:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_000SA_WAYPTTURN366_PRIME	M	2004-236T23:22:00		000T00:01:00	2004-236T23:23:00	ISS_NAC to Saturn	POS_Z to NSP	
UVIS_000SA_AURORAA010_PRIME	I, M, V	2004-236T23:23:00	E000_EOT_DOY234+002T03:00:00	000T09:45:00	2004-237T09:08:00	ISS_NAC to Saturn (-0.055,0.0,0.275 deg. offset)	POS_Z to NSP	
SP_000EA_DLTURN237_PRIME	M, V	2004-237T09:08:00		000T00:30:00	2004-237T09:38:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_000EA_G34HEFOTB237_PRIME	M, N	2004-237T09:38:00		000T12:00:00	2004-237T21:38:00	XBAND to Earth	POS_X to NSP	
NAV_000SK_OPNAV376_PRIME	M	2004-237T21:38:00		000T00:59:00	2004-237T22:37:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_000SA_WAYPTTURN376_PRIME	M	2004-237T22:37:00		000T00:01:00	2004-237T22:38:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_000RI_DIFFUSRNG005_PRIME	C, M	2004-237T22:38:00	E000_EOT_DOY237+000T02:30:00	000T01:00:00	2004-237T23:38:00	ISS_NAC to Rings (0.0,-30.25,0.0 deg. offset)	POS_Z to NSP	
UVIS_000SA_MOS00SWB001_PRIME	I, M	2004-237T23:38:00	E000_EOT_DOY237+000T03:30:00	000T03:25:00	2004-238T03:03:00	UVIS_EUV to Saturn (0.0,0.0,-11.283 deg. offset)	POS_Z to NSP	
SP_000EA_DLTURN238_PRIME	M	2004-238T03:03:00		000T00:35:00	2004-238T03:38:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_000EA_M34HEFNON238_PRIME	M	2004-238T03:38:00		000T09:00:00	2004-238T12:38:00	XBAND to Earth	Rolling/SRU	
NAV_000SK_OPNAV386_PRIME	M	2004-238T12:38:00		000T01:24:00	2004-238T14:02:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_000SA_WAYPTTURN386_PRIME	M	2004-238T14:02:00		000T00:01:00	2004-238T14:03:00	ISS_NAC to Saturn	POS_Z to NSP	
UVIS_000SA_AURORAA011_PRIME	C, I, M, V	2004-238T14:03:00	E000_EOT_DOY237+000T17:55:00	000T10:30:00	2004-239T00:33:00	ISS_NAC to Saturn	POS_Z to NSP	
UVIS_000SA_MOS00SWB002_PRIME	I, M	2004-239T00:33:00	E000_EOT_DOY237+001T04:25:00	000T04:55:00	2004-239T05:28:00	UVIS_EUV to Saturn (3.699,0.0,-11.272 deg. offset)	POS_Z to NSP	
UVIS_000SA_AURORAB006_PRIME	C, I, M, V	2004-239T05:28:00	E000_EOT_DOY237+001T09:20:00	000T05:00:00	2004-239T10:28:00	ISS_NAC to Saturn	POS_Z to NSP	
SP_000EA_DLTURN239_PRIME	M	2004-239T10:28:00		000T00:30:00	2004-239T10:58:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_000EA_G34BWGNON239_PRIME	C, M	2004-239T10:58:00		000T09:00:00	2004-239T19:58:00	XBAND to Earth	Rolling/SRU	
NAV_000SK_OPNAV396_PRIME	M	2004-239T19:58:00		000T01:29:00	2004-239T21:27:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_000SA_WAYPTTURN396_PRIME	M	2004-239T21:27:00		000T00:01:00	2004-239T21:28:00	ISS_NAC to Saturn	POS_Z to NSP	
UVIS_000SA_MOS00SWB003_PRIME	M	2004-239T21:28:00	E000_EOT_DOY237+002T01:20:00	000T02:25:00	2004-239T23:53:00	UVIS_EUV to Saturn (-3.699,0.0,-11.272 deg. offset)	POS_Z to NSP	
UVIS_000SA_AURORAA012_PRIME	I, M, V	2004-239T23:53:00	E000_EOT_DOY237+002T03:45:00	000T10:30:00	2004-240T10:23:00	ISS_NAC to Saturn	POS_Z to NSP	
SP_000EA_DLTURN240_PRIME	M	2004-240T10:23:00		000T00:46:00	2004-240T11:09:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_000EA_G34HEFNON240_PRIME	M	2004-240T11:09:00		000T09:00:00	2004-240T20:09:00	XBAND to Earth	Rolling/SRU	
NAV_00ASK_OPNAV401_PRIME	M	2004-240T20:09:00		000T01:29:00	2004-240T21:38:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTTURN401_PRIME	M	2004-240T21:38:00		000T00:01:00	2004-240T21:39:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_00ARI_DIFFUSRNG001_PRIME	M	2004-240T21:39:00	E00A_EOT_DOY240+000T01:30:00	000T01:00:00	2004-240T22:39:00	ISS_NAC to Rings (0.0,-30.25,0.0 deg. offset)	POS_Z to NSP	
UVIS_00ASA_MOS0ASWC001_PRIME	I, M	2004-240T22:39:00	E00A_EOT_DOY240+000T02:30:00	000T04:25:00	2004-241T03:04:00	UVIS_EUV to Saturn (0.0,0.0,11.267 deg. offset)	POS_Z to NSP	
SP_00AEA_DLTURN241_PRIME	M	2004-241T03:04:00		000T00:30:00	2004-241T03:34:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_M34HEFNON241_PRIME	M	2004-241T03:34:00		000T09:00:00	2004-241T12:34:00	XBAND to Earth	Rolling/SRU	
NAV_00ASK_OPNAV411_PRIME	M	2004-241T12:34:00		000T01:29:00	2004-241T14:03:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTTURN411_PRIME	M	2004-241T14:03:00		000T00:01:00	2004-241T14:04:00	ISS_NAC to Saturn	POS_Z to NSP	
UVIS_00ASA_AURORAA001_PRIME	C, I, M, V	2004-241T14:04:00	E00A_EOT_DOY240+000T17:55:00	000T10:30:00	2004-242T00:34:00	ISS_NAC to Saturn	POS_Z to NSP	
UVIS_00ASA_MOS0ASWC002_PRIME	I, M	2004-242T00:34:00	E00A_EOT_DOY240+001T04:25:00	000T04:55:00	2004-242T05:29:00	UVIS_EUV to Saturn (3.699,0.0,11.267 deg. offset)	POS_Z to NSP	
UVIS_00ASA_AURORAB002_PRIME	C, I, M, V	2004-242T05:29:00	E00A_EOT_DOY240+001T09:20:00	000T05:00:00	2004-242T10:29:00	ISS_NAC to Saturn	POS_Z to NSP	

Final Sequenced SPASS (3/8)

SP_00AEA_DLTURN242_PRIME	M	2004-242T10:29:00		000T00:30:00	2004-242T10:59:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_G34HEFNON242_PRIME	M	2004-242T10:59:00		000T09:00:00	2004-242T19:59:00	XBAND to Earth	Rolling/SRU	
NAV_00ASK_OPNAV421_PRIME	M	2004-242T19:59:00		000T01:29:00	2004-242T21:28:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTURN421_PRIME	M	2004-242T21:28:00		000T00:01:00	2004-242T21:29:00	ISS_NAC to Saturn	POS_Z to NSP	
UVIS_00ASA_MOS0ASWC003_PRIME	M	2004-242T21:29:00	E00A_EOT_DOY240+002T01:20:00	000T02:25:00	2004-242T23:54:00	UVIS_EUV to Saturn (-3.699,0.0,11.278 deg. offset)	POS_Z to NSP	
UVIS_00ASA_AURORAA002_PRIME	I, M, V	2004-242T23:54:00	E00A_EOT_DOY240+002T03:45:00	000T10:30:00	2004-243T10:24:00	ISS_NAC to Saturn	POS_Z to NSP	
SP_00AEA_DLTURN243_PRIME	M	2004-243T10:24:00		000T00:30:00	2004-243T10:54:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_G34HEFNON243_PRIME	C, M	2004-243T10:54:00		000T09:00:00	2004-243T19:54:00	XBAND to Earth	POS_X to NSP	
NAV_00ASK_OPNAV431_PRIME	M	2004-243T21:24:00		000T01:29:00	2004-243T22:53:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTURN431_PRIME	M	2004-243T22:53:00		000T00:01:00	2004-243T22:54:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_00ARI_DIFFUSRNG002_PRIME	M	2004-243T22:54:00	E00A_EOT_DOY243+000T03:00:00	000T01:00:00	2004-243T23:54:00	ISS_NAC to Rings (0.0,-30.25,0.0 deg. offset)	POS_Z to NSP	
UVIS_00ASA_MOS0ASWD001_PRIME	I, M	2004-243T23:54:00	E00A_EOT_DOY243+000T04:00:00	000T02:55:00	2004-244T02:49:00	UVIS_EUV to Saturn (3.699,0.0,-11.289 deg. offset)	POS_Z to NSP	
SP_00AEA_DLTURN244_PRIME	M	2004-244T02:49:00		000T00:30:00	2004-244T03:19:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_M70ARRNON244_PRIME	M	2004-244T03:19:00		000T09:00:00	2004-244T12:19:00	XBAND to Earth	Rolling/SRU	
NAV_00ASK_OPNAV441_PRIME	M	2004-244T12:19:00		000T01:29:00	2004-244T13:48:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTURN441_PRIME	M	2004-244T13:48:00		000T00:01:00	2004-244T13:49:00	ISS_NAC to Saturn	POS_Z to NSP	
UVIS_00ASA_AURORAA003_PRIME	C, I, M, V	2004-244T13:49:00	E00A_EOT_DOY243+000T17:55:00	000T10:30:00	2004-245T00:19:00	ISS_NAC to Saturn	POS_Z to NSP	
UVIS_00ASA_MOS0ASWD002_PRIME	I, M	2004-245T00:19:00	E00A_EOT_DOY243+001T04:25:00	000T04:55:00	2004-245T05:14:00	UVIS_EUV to Saturn (-3.699,0.0,-11.299 deg. offset)	POS_Z to NSP	
UVIS_00ASA_AURORAB003_PRIME	C, I, M, V	2004-245T05:14:00	E00A_EOT_DOY243+001T09:20:00	000T05:00:00	2004-245T10:14:00	ISS_NAC to Saturn	POS_Z to NSP	
SP_00AEA_DLTURN245_PRIME	M	2004-245T10:14:00		000T00:30:00	2004-245T10:44:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_G34HEFNON245_PRIME	C, M	2004-245T10:44:00		000T09:00:00	2004-245T19:44:00	XBAND to Earth	Rolling/SRU	
NAV_00ASK_OPNAV451_PRIME	M	2004-245T19:44:00		000T01:29:00	2004-245T21:13:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTURN451_PRIME	M	2004-245T21:13:00		000T00:01:00	2004-245T21:14:00	ISS_NAC to Saturn	POS_Z to NSP	
UVIS_00ASA_MOS0ASWD003_PRIME	M	2004-245T21:14:00	E00A_EOT_DOY243+002T01:20:00	000T02:25:00	2004-245T23:39:00	UVIS_EUV to Saturn (0.0,0.0,-11.316 deg. offset)	POS_Z to NSP	
UVIS_00ASA_AURORAA004_PRIME	I, M, V	2004-245T23:39:00	E00A_EOT_DOY243+002T03:45:00	000T10:30:00	2004-246T10:09:00	ISS_NAC to Saturn	POS_Z to NSP	
SP_00AEA_DLTURN246_PRIME	M	2004-246T10:09:00		000T00:30:00	2004-246T10:39:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_G34BWGNON246_PRIME	M	2004-246T10:39:00		000T09:00:00	2004-246T19:39:00	XBAND to Earth	Rolling/SRU	
NAV_00ASK_OPNAV461_PRIME	M	2004-246T19:39:00		000T01:29:00	2004-246T21:08:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTURN461_PRIME	M	2004-246T21:08:00		000T00:01:00	2004-246T21:09:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_00ARI_DIFFUSRNG003_PRIME	M	2004-246T21:09:00	E00A_EOT_DOY246+000T01:30:00	000T01:00:00	2004-246T22:09:00	ISS_NAC to Rings (0.0,-30.25,0.0 deg. offset)	POS_Z to NSP	
UVIS_00ASA_MOS0ASWE001_PRIME	I, M	2004-246T22:09:00	E00A_EOT_DOY246+000T02:30:00	000T04:25:00	2004-247T02:34:00	UVIS_EUV to Saturn (3.699,0.0,11.338 deg. offset)	POS_Z to NSP	
SP_00AEA_DLTURN247_PRIME	M	2004-247T02:34:00		000T00:30:00	2004-247T03:04:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_M34HEFNON247_PRIME	M	2004-247T03:04:00		000T09:00:00	2004-247T12:04:00	XBAND to Earth	Rolling/SRU	
NAV_00ASK_OPNAV471_PRIME	M	2004-247T12:04:00		000T01:29:00	2004-247T13:33:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTURN471_PRIME	M	2004-247T13:33:00		000T00:01:00	2004-247T13:34:00	ISS_NAC to Saturn	POS_Z to NSP	
UVIS_00ASA_AURORAA005_PRIME	C, I, M, V	2004-247T13:34:00	E00A_EOT_DOY246+000T17:55:00	000T10:30:00	2004-248T00:04:00	ISS_NAC to Saturn	POS_Z to NSP	
UVIS_00ASA_MOS0ASWE002_PRIME	I	2004-248T00:04:00	E00A_EOT_DOY246+001T04:25:00	000T04:55:00	2004-248T04:59:00	UVIS_EUV to Saturn (-3.699,0.0,11.366 deg. offset)	POS_Z to NSP	
UVIS_00ASA_AURORAB004_PRIME	C, V	2004-248T04:59:00	E00A_EOT_DOY246+001T09:20:00	000T05:00:00	2004-248T09:59:00	ISS_NAC to Saturn	POS_Z to NSP	
SP_00AEA_DLTURN248_PRIME		2004-248T09:59:00		000T00:30:00	2004-248T10:29:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_G34HEFNON248_PRIME	C	2004-248T10:29:00		000T09:00:00	2004-248T19:29:00	XBAND to Earth	POS_X to NSP	
NAV_00ASK_OPNAV481_PRIME		2004-248T19:29:00		000T01:29:00	2004-248T20:58:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTURN481_PRIME		2004-248T20:58:00		000T00:01:00	2004-248T20:59:00	ISS_NAC to Saturn	POS_Z to NSP	
UVIS_00ASA_MOS0ASWE003_PRIME		2004-248T20:59:00	E00A_EOT_DOY246+002T01:20:00	000T02:25:00	2004-248T23:24:00	UVIS_EUV to Saturn (0.0,0.0,11.393 deg. offset)	POS_Z to NSP	
UVIS_00ASA_AURORAA006_PRIME	I, V	2004-248T23:24:00	E00A_EOT_DOY246+002T03:45:00	000T03:30:00	2004-249T02:54:00	ISS_NAC to Saturn	POS_Z to NSP	
CAPS_00AIC_SWCAL001_PRIME		2004-249T02:54:00		000T07:00:00	2004-249T09:54:00	NEG_X to Sun	POS_Z to NEP	rolling about Y axis +/-85 degrees
SP_00AEA_DLTURN249_PRIME		2004-249T09:54:00		000T00:46:00	2004-249T10:40:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_G34HEFNON249_PRIME		2004-249T10:40:00		000T09:00:00	2004-249T19:40:00	XBAND to Earth	Rolling/SRU	
NAV_00ASK_OPNAV491_PRIME		2004-249T19:40:00		000T01:29:00	2004-249T21:09:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTURN491_PRIME		2004-249T21:09:00		000T00:01:00	2004-249T21:10:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_00ARI_DIFFUSRNG004_PRIME		2004-249T21:10:00	E00A_EOT_DOY249+000T01:30:00	000T01:00:00	2004-249T22:10:00	ISS_NAC to Rings (0.0,-30.25,0.0 deg. offset)	POS_Z to NSP	
UVIS_00ASA_MOS0AGEA001_PRIME	I	2004-249T22:10:00	E00A_EOT_DOY249+000T02:30:00	000T04:25:00	2004-250T02:35:00	UVIS_EUV to Saturn (-3.699,0.0,-11.432 deg. offset)	POS_Z to NSP	
SP_00AEA_DLTURN250_PRIME		2004-250T02:35:00		000T00:30:00	2004-250T03:05:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_M70METNON250_PRIME		2004-250T03:05:00		000T09:00:00	2004-250T12:05:00	XBAND to Earth	Rolling/SRU	
NAV_00ASK_OPNAV501_PRIME		2004-250T12:05:00		000T01:29:00	2004-250T13:34:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTURN501_PRIME		2004-250T13:34:00		000T00:01:00	2004-250T13:35:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_00ASA_2X2MOVIEA001_PRIME	C, U, V	2004-250T13:35:00	E00A_EOT_DOY249+000T17:55:00	000T20:25:00	2004-251T10:00:00	ISS_NAC to Saturn	POS_Z to NSP	
SP_00AEA_DLTURN251_PRIME		2004-251T10:00:00		000T00:30:00	2004-251T10:30:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_G34HEFOTP251_PRIME	C, N	2004-251T10:30:00		000T09:00:00	2004-251T19:30:00	XBAND to Earth	POS_X to NSP	
NAV_00ASK_OPNAV511_PRIME		2004-251T19:30:00		000T01:29:00	2004-251T20:59:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTURN511_PRIME		2004-251T20:59:00		000T00:01:00	2004-251T21:00:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_00ASA_2X2MOVIEB001_PRIME	C, U, V	2004-251T21:00:00	E00A_EOT_DOY249+002T01:20:00	000T05:15:00	2004-252T02:15:00	ISS_NAC to Saturn	POS_Z to NSP	
UVIS_00ASA_MOS0AGEA002_PRIME	I	2004-252T02:15:00	E00A_EOT_DOY249+002T06:35:00	000T07:30:00	2004-252T09:45:00	UVIS_EUV to Saturn (0.0,0.0,-11.519 deg. offset)	POS_Z to NSP	
SP_00AEA_DLTURN252_PRIME		2004-252T09:45:00		000T00:40:00	2004-252T10:25:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_G34HEFOTB252_PRIME	N	2004-252T10:25:00		000T09:00:00	2004-252T19:25:00	XBAND to Earth	POS_X to NSP	
NAV_00ASK_OPNAV521_PRIME		2004-252T19:25:00		000T01:29:00	2004-252T20:54:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTURN521_PRIME		2004-252T20:54:00		000T00:01:00	2004-252T20:55:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_00ARI_DIFFUSRNG005_PRIME		2004-252T20:55:00	E00A_EOT_DOY252+000T01:30:00	000T01:00:00	2004-252T21:55:00	ISS_NAC to Rings (0.0,-30.25,0.0 deg. offset)	POS_Z to NSP	
UVIS_00ASA_MOS0AGEB001_PRIME	I	2004-252T21:55:00	E00A_EOT_DOY252+000T02:30:00	000T04:25:00	2004-253T02:20:00	UVIS_EUV to Saturn (-3.699,0.0,11.558 deg. offset)	POS_Z to NSP	
SP_00AEA_DLTURN253_PRIME		2004-253T02:20:00		000T00:30:00	2004-253T02:50:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_M70ARRNON253_PRIME		2004-253T02:50:00		000T04:20:00	2004-253T07:10:00	XBAND to Earth	Rolling/SRU	
SP_00AEA_M34BWGNON253_PRIME		2004-253T07:10:00		000T04:40:00	2004-253T11:50:00	XBAND to Earth	Rolling/SRU	
NAV_00ASK_OPNAV531_PRIME		2004-253T11:50:00		000T01:29:00	2004-253T13:19:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTURN531_PRIME		2004-253T13:19:00		000T00:01:00	2004-253T13:20:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_00ASA_2X2MOVIEA002_PRIME	C, U, V	2004-253T13:20:00	E00A_EOT_DOY252+000T17:55:00	000T20:25:00	2004-254T09:45:00	ISS_NAC to Saturn	POS_Z to NSP	
SP_00AEA_DLTURN254_PRIME		2004-254T09:45:00		000T00:30:00	2004-254T10:15:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_G34HEFSEQ254_PRIME	C	2004-254T10:15:00		000T09:00:00	2004-254T19:15:00	XBAND to Earth	POS_X to NSP	
NAV_00ASK_OPNAV541_PRIME		2004-254T19:15:00		000T01:29:00	2004-254T20:44:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTURN541_PRIME		2004-254T20:44:00		000T00:01:00	2004-254T20:45:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_00ASA_2X2MOVIEB002_PRIME	C, U, V	2004-254T20:45:00	E00A_EOT_DOY252+002T01:20:00	000T05:15:00	2004-255T02:00:00	ISS_NAC to Saturn	POS_Z to NSP	
UVIS_00ASA_MOS0AGEB002_PRIME	I	2004-255T02:00:00	E00A_EOT_DOY252+002T06:35:00	000T07:30:00	2004-255T09:30:00	UVIS_EUV to Saturn (0.0,0.0,11.673 deg. offset)	POS_Z to NSP	
SP_00AEA_DLTURN255_PRIME		2004-255T09:30:00		000T00:40:00	2004-255T10:10:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_G34HEFSEQ255_PRIME		2004-255T10:10:00		000T09:00:00	2004-255T19:10:00	XBAND to Earth	Rolling/SRU	
NAV_00ASK_OPNAV551_PRIME		2004-255T19:10:00		000T01:29:00	2004-255T20:39:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTURN551_PRIME		2004-255T20:39:00		000T00:01:00	2004-255T20:40:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_00ARI_DIFFUSRNG006_PRIME		2004-255T20:40:00	E00A_EOT_DOY255+000T01:30:00	000T01:00:00	2004-255T21:40:00	ISS_NAC to Rings (0.0,-30.25,0.0 deg. offset)	POS_Z to NSP	
UVIS_00ASA_MOS0AGEC001_PRIME	I	2004-255T21:40:00	E00A_EOT_DOY255+000T02:30:00	000T04:25:00	2004-256T02:05:00	UVIS_EUV to Saturn (0.0,0.0,-11.723 deg. offset)	POS_Z to NSP	
SP_00AEA_DLTURN256_PRIME		2004-256T02:05:00		000T00:30:00	2004-256T02:35:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_M70METSEQ256_PRIME	X	2004-256T02:35:00		000T09:00:00	2004-256T11:35:00	XBAND to Earth	3_Hr_Rolling to NEP	secondary is actually POS_X to NSP with a 3-hour roll

Final Sequenced SPASS (4/8)

Sequence S004, length = 36 ...		2004-256T11:35:00	E00A_SEQUENCE_004+000T00:00:00	035T21:55:00	2004-292T09:30:00			
SP_00AEA_S04IVP256_PRIME		2004-256T11:35:00		000T00:05:00	2004-256T11:40:00	XBAND to Earth	POS_X to NSP	
NAV_00ASK_OPNAV561_PRIME		2004-256T11:41:00		000T01:23:00	2004-256T13:04:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at NEW waypoint
NAV_00ASA_WAYPTURN561_PRIME		2004-256T13:04:00		000T00:01:00	2004-256T13:05:00	ISS_NAC to Saturn	POS_Z to NSP	
NEW WAYPOINT		**2004-256T13:05:00**		**005T13:16:00**	**2004-262T02:21:00**	**ISS_NAC to Saturn**	**POS_Z to NSP**	
ISS_00ASA_2X2MOVIEA003_PRIME	C, U, V	2004-256T13:05:00	E00A_EOT_DOY255+000T17:55:00	000T20:25:00	2004-257T09:30:00	ISS_NAC to Saturn	POS_Z to NSP	
SP_00AEA_DLTURN257_PRIME		2004-257T09:30:00		000T00:30:00	2004-257T10:00:00	XBAND to Earth	NEG_X to NEP	SP Turn to Earth
SP_00AEA_G34HEFNON257_PRIME	C	2004-257T10:00:00		000T09:00:00	2004-257T19:00:00	XBAND to Earth	NEG_X to NEP	no rolling per SCR 723
NAV_00ASK_OPNAV571_PRIME		2004-257T19:00:00		000T01:29:00	2004-257T20:29:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTURN571_PRIME		2004-257T20:29:00		000T00:01:00	2004-257T20:30:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_00ASA_2X2MOVIEB003_PRIME	C, U, V	2004-257T20:30:00	E00A_EOT_DOY255+002T01:20:00	000T04:37:00	2004-258T01:07:00	ISS_NAC to Saturn	POS_Z to NSP	
UVIS_00ASA_MOS0AGEC002_PRIME	I	2004-258T01:07:00	E00A_EOT_DOY255+002T05:57:00	000T05:30:00	2004-258T06:37:00	UVIS_EUV to Saturn (3.669,0.0,-11.871 deg. offset)	POS_Z to NSP	
SP_00AEA_DLTURN258_PRIME		2004-258T06:37:00		000T00:30:00	2004-258T07:07:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_M70METNON258_PRIME		2004-258T07:07:00		000T02:04:00	2004-258T09:11:00	XBAND to Earth	POS_X to NSP	
SP_00AEA_G34HEFNON258_PRIME	M	2004-258T09:11:00		000T00:35:00	2004-258T09:46:00	XBAND to Earth	POS_X to NSP	
Probe Check Out #15 - Entir...		2004-258T09:46:00		000T09:15:00	2004-258T19:01:00			
SP_00AEA_G34HEFNON458_PRIME	M	2004-258T19:01:00		000T01:25:00	2004-258T20:26:00	XBAND to Earth	POS_X to NSP	
SP_00AEA_WAYPTURN458_PRIME	M	2004-258T20:26:00		000T00:30:00	2004-258T20:56:00	ISS_NAC to Saturn	POS_Z to NSP	SP Turn to Earth
ISS_00ARI_DIFFUSRNG007_PRIME	M	2004-258T20:56:00	E00A_EOT_DOY258+000T02:00:00	000T01:00:00	2004-258T21:56:00	ISS_NAC to Rings	POS_Z to NSP	
UVIS_00ASA_MOS0AGED001_PRIME	I	2004-258T21:56:00	E00A_EOT_DOY258+000T03:00:00	000T03:55:00	2004-259T01:51:00	UVIS_EUV to Saturn (0.0,0.0,11.937 deg. offset)	POS_Z to NSP	
SP_00AEA_DLTURN259_PRIME		2004-259T01:51:00		000T00:30:00	2004-259T02:21:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_M70ARRNON259_PRIME		2004-259T02:21:00		000T04:45:00	2004-259T07:06:00	XBAND to Earth	Rolling/SRU	
SP_00AEA_M34BWGNON259_PRIME		2004-259T07:06:00		000T04:15:00	2004-259T11:21:00	XBAND to Earth	Rolling/SRU	
NAV_00ASK_OPNAV591_PRIME		2004-259T11:21:00		000T01:29:00	2004-259T12:50:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTURN591_PRIME		2004-259T12:50:00		000T00:01:00	2004-259T12:51:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_00ASA_2X2MOVIEA004_PRIME	C, U, V	2004-259T12:51:00	E00A_EOT_DOY258+000T17:55:00	000T20:25:00	2004-260T09:16:00	ISS_NAC to Saturn	POS_Z to NSP	
SP_00AEA_DLTURN260_PRIME		2004-260T09:16:00		000T00:30:00	2004-260T09:46:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_G34BWGNON260_PRIME	C	2004-260T09:46:00		000T09:00:00	2004-260T18:46:00	XBAND to Earth	Rolling/SRU	
NAV_00ASK_OPNAV601_PRIME		2004-260T18:46:00		000T01:29:00	2004-260T20:15:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTURN601_PRIME		2004-260T20:15:00		000T00:01:00	2004-260T20:16:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_00ASA_2X2MOVIEB004_PRIME	C, U, V	2004-260T20:16:00	E00A_EOT_DOY258+002T01:20:00	000T05:15:00	2004-261T01:31:00	ISS_NAC to Saturn	POS_Z to NSP	
UVIS_00ASA_MOS0AGED002_PRIME	I	2004-261T01:31:00	E00A_EOT_DOY258+002T06:35:00	000T07:30:00	2004-261T09:01:00	UVIS_EUV to Saturn (3.669,0.0,12.2 deg. offset)	POS_Z to NSP	
SP_00AEA_DLTURN261_PRIME		2004-261T09:01:00		000T00:55:00	2004-261T09:56:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_G34HEFNON261_PRIME		2004-261T09:56:00		000T09:00:00	2004-261T18:56:00	XBAND to Earth	Rolling/SRU	
NAV_00ASK_OPNAV611_PRIME		2004-261T18:56:00		000T01:29:00	2004-261T20:25:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTURN611_PRIME		2004-261T20:25:00		000T00:01:00	2004-261T20:26:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_00ARI_DIFFUSRNG008_PRIME	U	2004-261T20:26:00	E00A_EOT_DOY261+000T01:30:00	000T01:00:00	2004-261T21:26:00	ISS_NAC to Rings	POS_Z to NSP	
UVIS_00ASA_MOS0AGEE001_PRIME	I, R	2004-261T21:26:00	E00A_EOT_DOY261+000T02:30:00	000T04:25:00	2004-262T01:51:00	ISS_NAC to Saturn (3.669,0.0,-12.201 deg. offset)	POS_Z to NSP	
SP_00AEA_DLTURN262_PRIME	R	2004-262T01:51:00		000T00:30:00	2004-262T02:21:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
NEW WAYPOINT		**2004-262T02:21:00**		**000T10:30:00**	**2004-262T12:51:00**	**XBAND to Earth**	**POS_X to NSP**	
SP_00AEA_M70METNON262_PRIME	R	2004-262T02:21:00		000T03:00:00	2004-262T05:21:00	XBAND to Earth	POS_X to NSP	RSS USO/PIM/Boresight - No Rolling
RSS_00AEA_BORESIGHT001_PRIME	R	2004-262T05:21:00		000T01:00:00	2004-262T06:21:00	XBAND to Earth	PIC	
SP_00AEA_M70METNON462_PRIME	C	2004-262T06:21:00		000T05:00:00	2004-262T11:21:00	XBAND to Earth	POS_X to NSP	
NAV_00ASK_OPNAV621_PRIME		2004-262T11:21:00		000T01:29:00	2004-262T12:50:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTURN621_PRIME		2004-262T12:50:00		000T00:01:00	2004-262T12:51:00	ISS_NAC to Saturn	POS_Z to NSP	
NEW WAYPOINT		**2004-262T12:51:00**		**013T20:07:00**	**2004-276T08:58:00**	**ISS_NAC to Saturn**	**POS_Z to NSP**	
ISS_00ASA_2X2MOVIEA005_PRIME	C, U, V	2004-262T12:51:00	E00A_EOT_DOY261+000T17:55:00	000T20:25:00	2004-263T09:16:00	ISS_NAC to Saturn	POS_Z to NSP	
SP_00AEA_DLTURN263_PRIME		2004-263T09:16:00		000T00:30:00	2004-263T09:46:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_G34HEFNON263_PRIME	M	2004-263T09:46:00		000T03:09:00	2004-263T12:55:00	XBAND to Earth	POS_X to NSP	
Probe Depassivation - Entir...		2004-263T12:55:00		000T02:10:00	2004-263T15:05:00			
SP_00AEA_G34HEFNON463_PRIME	M	2004-263T15:05:00		000T03:41:00	2004-263T18:46:00	XBAND to Earth	POS_X to NSP	
NAV_00ASK_OPNAV631_PRIME		2004-263T18:46:00		000T01:29:00	2004-263T20:15:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTURN631_PRIME		2004-263T20:15:00		000T00:01:00	2004-263T20:16:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_00ASA_2X2MOVIEB005_PRIME	C, U, V	2004-263T20:16:00	E00A_EOT_DOY261+002T01:20:00	000T05:15:00	2004-264T01:31:00	ISS_NAC to Saturn	POS_Z to NSP	
UVIS_00ASA_MOS0AGEE002_PRIME	I	2004-264T01:31:00	E00A_EOT_DOY261+002T06:35:00	000T07:30:00	2004-264T09:01:00	UVIS_EUV to Saturn (-3.669,0.0,-12.431 deg. offset)	POS_Z to NSP	
SP_00AEA_DLTURN264_PRIME		2004-264T09:01:00		000T00:40:00	2004-264T09:41:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_G34HEFNON264_PRIME		2004-264T09:41:00		000T09:00:00	2004-264T18:41:00	XBAND to Earth	Rolling/SRU	
NAV_00ASK_OPNAV641_PRIME		2004-264T18:41:00		000T01:29:00	2004-264T20:10:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTURN641_PRIME		2004-264T20:10:00		000T00:01:00	2004-264T20:11:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_00ARI_DIFFUSRNG009_PRIME	U	2004-264T20:11:00	E00A_EOT_DOY264+000T01:30:00	000T01:00:00	2004-264T21:11:00	ISS_NAC to Rings	POS_Z to NSP	
UVIS_00ASA_MOS0AGEF001_PRIME	I	2004-264T21:11:00	E00A_EOT_DOY264+000T02:30:00	000T04:25:00	2004-265T01:36:00	UVIS_EUV to Saturn (3.699,0.0,12.524 deg. offset)	POS_Z to NSP	
SP_00AEA_DLTURN265_PRIME		2004-265T01:36:00		000T00:30:00	2004-265T02:06:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_M70METNON265_PRIME		2004-265T02:06:00		000T09:00:00	2004-265T11:06:00	XBAND to Earth	Rolling/SRU	roll reduced by 1 hr 44 min per SCR 723
NAV_00ASK_OPNAV651_PRIME		2004-265T11:06:00		000T01:29:00	2004-265T12:35:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTURN651_PRIME		2004-265T12:35:00		000T00:01:00	2004-265T12:36:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_00ASA_2X2MOVIEA006_PRIME	C, U, V	2004-265T12:36:00	E00A_EOT_DOY264+000T17:55:00	000T20:25:00	2004-266T09:01:00	ISS_NAC to Saturn	POS_Z to NSP	
SP_00AEA_DLTURN266_PRIME		2004-266T09:01:00		000T00:30:00	2004-266T09:31:00	XBAND to Earth	NEG_X to NEP	SP Turn to Earth
SP_00AEA_G34HEFNON266_PRIME	C	2004-266T09:31:00		000T09:00:00	2004-266T18:31:00	XBAND to Earth	NEG_X to NEP	no rolling per SCR 723
NAV_00ASK_OPNAV661_PRIME		2004-266T18:31:00		000T01:29:00	2004-266T20:00:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTURN661_PRIME		2004-266T20:00:00		000T00:01:00	2004-266T20:01:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_00ASA_2X2MOVIEB006_PRIME	C, U, V	2004-266T20:01:00	E00A_EOT_DOY264+002T01:20:00	000T05:15:00	2004-267T01:16:00	ISS_NAC to Saturn	POS_Z to NSP	
UVIS_00ASA_MOS0AGEF002_PRIME	I	2004-267T01:16:00	E00A_EOT_DOY264+002T06:35:00	000T07:30:00	2004-267T08:46:00	UVIS_EUV to Saturn (-3.699,0.0,12.799 deg. offset)	POS_Z to NSP	
SP_00AEA_DLTURN267_PRIME		2004-267T08:46:00		000T00:41:00	2004-267T09:27:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_G34BWGNON267_PRIME		2004-267T09:27:00		000T09:00:00	2004-267T18:27:00	XBAND to Earth	4_Hr_Rolling to N/A	
NAV_00ASK_OPNAV671_PRIME		2004-267T18:27:00		000T01:29:00	2004-267T19:56:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTURN671_PRIME		2004-267T19:56:00		000T00:01:00	2004-267T19:57:00	ISS_NAC to Saturn	POS_Z to NSP	

Final Sequenced SPASS (5/8)

ISS_00ARI_DIFFUSRNG010_PRIME	U	2004-267T19:57:00	E00A_EOT_DOY267+000T01:30:00	000T01:00:00	2004-267T20:57:00	ISS_NAC to Rings	POS_Z to NSP	
UVIS_00ASA_MOS0AGEG001_PRIME	I	2004-267T20:57:00	E00A_EOT_DOY267+000T02:30:00	000T04:25:00	2004-268T01:22:00	UVIS_EUV to Saturn (-3.669,0.0,-12.92 deg. offset)	POS_Z to NSP	
SP_00AEA_DLTURN268_PRIME		2004-268T01:22:00		000T00:30:00	2004-268T01:52:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_M70METNON268_PRIME		2004-268T01:52:00		000T09:00:00	2004-268T10:52:00	XBAND to Earth	5_Hr_Rolling to N/A	5 hr. roll due to RSS/DSN ORT activity (6/7/04)
NAV_00ASK_OPNAV681_PRIME		2004-268T10:52:00		000T01:29:00	2004-268T12:21:00	ISS_NAC to Satellites	POS_X to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTURN681_PRIME		2004-268T12:21:00		000T00:01:00	2004-268T12:22:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_00ASA_2X2MOVIEA007_PRIME	C, U, V	2004-268T12:22:00	E00A_EOT_DOY267+000T17:55:00	000T20:25:00	2004-269T08:47:00	ISS_NAC to Saturn	POS_Z to NSP	
SP_00AEA_DLTURN269_PRIME		2004-269T08:47:00		000T00:30:00	2004-269T09:17:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_G34HEFNON269_PRIME		2004-269T09:17:00		000T01:30:00	2004-269T10:47:00	XBAND to Earth	POS_X to NSP	
Probe Contingency Period - ...		2004-269T10:47:00		000T06:05:00	2004-269T16:52:00			
SP_00AEA_G34HEFUNQ469_PRIME		2004-269T10:47:00		000T06:05:00	2004-269T16:52:00	XBAND to Earth	POS_X to NSP	
SP_00AEA_G34HEFNON569_PRIME		2004-269T16:52:00		000T01:25:00	2004-269T18:17:00	XBAND to Earth	POS_X to NSP	
NAV_00ASK_OPNAV691_PRIME		2004-269T18:17:00		000T01:29:00	2004-269T19:46:00	ISS_NAC to Satellites	POS_X to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTURN691_PRIME		2004-269T19:46:00		000T00:01:00	2004-269T19:47:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_00ASA_2X2MOVIEB007_PRIME	C, U, V	2004-269T19:47:00	E00A_EOT_DOY267+002T01:20:00	000T05:15:00	2004-270T01:02:00	ISS_NAC to Saturn	POS_Z to NSP	
UVIS_00ASA_MOS0AGEG002_PRIME	I	2004-270T01:02:00	E00A_EOT_DOY267+002T06:35:00	000T07:30:00	2004-270T08:32:00	UVIS_EUV to Saturn (0.0,0.0,-13.255 deg. offset)	POS_Z to NSP	
SP_00AEA_DLTURN270_PRIME		2004-270T08:32:00		000T00:55:00	2004-270T09:27:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_G34HEFNON270_PRIME		2004-270T09:27:00		000T01:30:00	2004-270T10:57:00	XBAND to Earth	POS_X to NSP	
Probe Contingency Period - ...		2004-270T10:57:00		000T06:05:00	2004-270T17:02:00			
SP_00AEA_G34HEFUNQ470_PRIME		2004-270T10:57:00		000T06:05:00	2004-270T17:02:00	XBAND to Earth	POS_X to NSP	
SP_00AEA_G34HEFNON570_PRIME		2004-270T17:02:00		000T01:25:00	2004-270T18:27:00	XBAND to Earth	POS_X to NSP	
NAV_00ASK_OPNAV701_PRIME		2004-270T18:27:00		000T01:29:00	2004-270T19:56:00	ISS_NAC to Satellites	POS_X to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTURN701_PRIME		2004-270T19:56:00		000T00:01:00	2004-270T19:57:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_00ARI_DIFFUSRNG011_PRIME	U	2004-270T19:57:00	E00A_EOT_DOY270+000T01:30:00	000T01:00:00	2004-270T20:57:00	ISS_NAC to Rings	POS_Z to NSP	
UVIS_00ASA_MOS0AGEH001_PRIME	I	2004-270T20:57:00	E00A_EOT_DOY270+000T02:30:00	000T04:25:00	2004-271T01:22:00	UVIS_EUV to Saturn (-3.669,0.0,13.398 deg. offset)	POS_Z to NSP	
SP_00AEA_DLTURN271_PRIME		2004-271T01:22:00		000T00:30:00	2004-271T01:52:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_M70METNON271_PRIME		2004-271T01:52:00		000T09:00:00	2004-271T10:52:00	XBAND to Earth	Rolling/SRU	roll reduced by 1 hr. 44 min per SCR 723
NAV_00ASK_OPNAV711_PRIME		2004-271T10:52:00		000T01:29:00	2004-271T12:21:00	ISS_NAC to Satellites	POS_X to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTURN711_PRIME		2004-271T12:21:00		000T00:01:00	2004-271T12:22:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_00ASA_2X2MOVIEA008_PRIME	C, U, V	2004-271T12:22:00	E00A_EOT_DOY270+000T17:55:00	000T20:25:00	2004-272T08:47:00	ISS_NAC to Saturn	POS_Z to NSP	
SP_00AEA_DLTURN272_PRIME		2004-272T08:47:00		000T00:30:00	2004-272T09:17:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_G34HEFNON272_PRIME	C, X	2004-272T09:17:00		000T09:00:00	2004-272T18:17:00	XBAND to Earth	Rolling/SRU	
NAV_00ASK_OPNAV721_PRIME		2004-272T18:17:00		000T01:29:00	2004-272T19:46:00	ISS_NAC to Satellites	POS_X to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTURN721_PRIME		2004-272T19:46:00		000T00:01:00	2004-272T19:47:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_00ASA_2X2MOVIEB008_PRIME	C, U, V	2004-272T19:47:00	E00A_EOT_DOY270+002T01:20:00	000T05:15:00	2004-273T01:02:00	ISS_NAC to Saturn	POS_Z to NSP	
UVIS_00ASA_MOS0AGEH002_PRIME	I	2004-273T01:02:00	E00A_EOT_DOY270+002T06:35:00	000T07:30:00	2004-273T08:32:00	UVIS_EUV to Saturn (0.0,0.0,13.815 deg. offset)	POS_Z to NSP	
SP_00AEA_DLTURN273_PRIME		2004-273T08:32:00		000T00:40:00	2004-273T09:12:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_G34HEFNON273_PRIME	X	2004-273T09:12:00		000T09:00:00	2004-273T18:12:00	XBAND to Earth	Rolling/SRU	
NAV_00ASK_OPNAV731_PRIME		2004-273T18:12:00		000T01:29:00	2004-273T19:41:00	ISS_NAC to Satellites	POS_X to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTURN731_PRIME		2004-273T19:41:00		000T00:01:00	2004-273T19:42:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_00ARI_DIFFUSRNG012_PRIME	U	2004-273T19:42:00	E00A_EOT_DOY273+000T01:30:00	000T01:00:00	2004-273T20:42:00	ISS_NAC to Rings	POS_Z to NSP	
UVIS_00ASA_MOS0AGEI001_PRIME	I	2004-273T20:42:00	E00A_EOT_DOY273+000T02:30:00	000T04:25:00	2004-274T01:07:00	UVIS_EUV to Saturn (0.0,0.0,-13.992 deg. offset)	POS_Z to NSP	
SP_00AEA_DLTURN274_PRIME		2004-274T01:07:00		000T00:30:00	2004-274T01:37:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_M70METNON274_PRIME	X	2004-274T01:37:00		000T09:00:00	2004-274T10:37:00	XBAND to Earth	Rolling/SRU	
NAV_00ASK_OPNAV741_PRIME		2004-274T10:37:00		000T01:29:00	2004-274T12:06:00	ISS_NAC to Satellites	POS_X to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTURN741_PRIME		2004-274T12:06:00		000T00:01:00	2004-274T12:07:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_00ASA_2X2MOVIEA009_PRIME	C, U, V	2004-274T12:07:00	E00A_EOT_DOY273+000T17:55:00	000T20:25:00	2004-275T08:32:00	ISS_NAC to Saturn	POS_Z to NSP	
SP_00AEA_DLTURN275_PRIME		2004-275T08:32:00		000T00:30:00	2004-275T09:02:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_G34HEFNON275_PRIME		2004-275T09:02:00		000T09:00:00	2004-275T18:02:00	XBAND to Earth	Rolling/SRU	roll reduced by 1 hr 44 min per SCR 723
NAV_00ASK_OPNAV751_PRIME		2004-275T18:02:00		000T01:29:00	2004-275T19:31:00	ISS_NAC to Satellites	POS_X to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTURN751_PRIME		2004-275T19:31:00		000T00:01:00	2004-275T19:32:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_00ASA_2X2MOVIEB009_PRIME	C, U, V	2004-275T19:32:00	E00A_EOT_DOY273+002T01:20:00	000T05:15:00	2004-276T00:47:00	ISS_NAC to Saturn	POS_Z to NSP	
UVIS_00ASA_MOS0AGEI002_PRIME	I	2004-276T00:47:00	E00A_EOT_DOY273+002T06:35:00	000T07:30:00	2004-276T08:17:00	UVIS_EUV to Saturn (3.669,0.0,-4.927 deg. offset)	POS_Z to NSP	
SP_00AEA_DLTURN276_PRIME		2004-276T08:17:00		000T00:41:00	2004-276T08:58:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
NEW WAYPOINT		**2004-276T08:58:00**		**003T10:15:00**	**2004-279T19:13:00**	**XBAND to Earth**	**POS_X to NSP**	
SP_00AEA_G34HEFNON276_PRIME	X	2004-276T08:58:00		000T10:35:00	2004-276T19:33:00	XBAND to Earth	POS_X to NSP	
AACS FSW Update		2004-276T19:33:00		000T04:20:00	2004-276T23:53:00	XBAND to Earth	POS_X to NSP	
SP_00AEA_M70METNON277_PRIME	X	2004-276T23:53:00		000T11:30:00	2004-277T11:23:00	XBAND to Earth	POS_X to NSP	
AACS FSW Update		2004-277T11:23:00		000T21:25:00	2004-278T08:48:00	XBAND to Earth	POS_X to NSP	
SP_00AEA_G34HEFNON278_PRIME	X	2004-278T08:48:00		000T09:00:00	2004-278T17:48:00	XBAND to Earth	POS_X to NSP	
AACS FSW Update		2004-278T17:48:00		000T14:55:00	2004-279T08:43:00	XBAND to Earth	POS_X to NSP	
SP_00AEA_G34HEFNON279_PRIME	X	2004-279T08:43:00		000T09:00:00	2004-279T17:43:00	XBAND to Earth	POS_X to NSP	
AACS FSW Update		2004-279T17:43:00		000T07:30:00	2004-280T01:13:00	XBAND to Earth	POS_X to NSP	
Minisequence Begin		2004-279T17:43:00		000T00:01:00	2004-279T17:44:00	XBAND to Earth	POS_X to NSP	
NAV_00ASK_OPNAV791_PRIME		2004-279T17:43:00		000T01:29:00	2004-279T19:12:00	ISS_NAC to Satellites	POS_X to NSP	Starts at Earth point, ends at NEW waypoint
NAV_00ASA_WAYPTURN791_PRIME		2004-279T19:12:00		000T00:01:00	2004-279T19:13:00	ISS_NAC to Saturn	POS_Z to NSP	
NEW WAYPOINT		**2004-279T19:13:00**		**000T16:47:00**	**2004-280T12:00:00**	**ISS_NAC to Saturn**	**POS_Z to NSP**	
ISS_00ARI_DIFFUSRNG014_PRIME		2004-279T19:13:00	E00A_EOT_DOY279+000T01:30:00	000T01:00:00	2004-279T20:13:00	ISS_NAC to Rings	POS_Z to NSP	
UVIS_00ASA_MOS0AGEK001_PRIME		2004-279T20:13:00	E00A_EOT_DOY279+000T02:30:00	000T04:25:00	2004-280T00:38:00	UVIS_EUV to Saturn (-3.669,0.0,-5.317 deg. offset)	POS_Z to NSP	
SP_00AEA_DLTURN280_PRIME		2004-280T00:38:00		000T00:35:00	2004-280T01:13:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
Minisequence End		2004-280T01:12:00		000T00:01:00	2004-280T01:13:00	XBAND to Earth	POS_X to NSP	
SP_00AEA_M70METNON280_PRIME	X	2004-280T01:13:00		000T09:00:00	2004-280T10:13:00	XBAND to Earth	POS_X to NSP	
NAV_00ASK_OPNAV801_PRIME		2004-280T10:30:00		000T01:29:00	2004-280T11:59:00	ISS_NAC to Satellites	POS_X to NSP	Starts at Earth point, ends at NEW waypoint
NAV_00ASA_WAYPTURN801_PRIME		2004-280T11:59:00		000T00:01:00	2004-280T12:00:00	ISS_NAC to Saturn	POS_Z to NSP	
NEW WAYPOINT		**2004-280T12:00:00**		**011T21:30:00**	**2004-292T09:30:00**	**ISS_NAC to Saturn**	**POS_Z to NSP**	
ISS_00AOT_SATELLORB120_PRIME		2004-280T12:00:00		000T00:30:00	2004-280T12:30:00	ISS_NAC to Satellites	POS_Z to NSP	
ISS_00ASA_SATSYSTEM001_PRIME		2004-280T12:30:00		000T03:00:00	2004-280T15:30:00	ISS_NAC to Saturn	POS_Z to NSP	

Final Sequenced SPASS (6/8)

ISS_00AOT_SATELLORB121_PRIME		2004-280T15:30:00		000T00:30:00	2004-280T16:00:00	ISS_NAC to Satellites	POS_Z to NSP	
UVIS_00AST_URXICET001_PRIME		2004-280T16:30:00		000T09:00:00	2004-281T01:30:00	UVIS_FUV to 37.039/8.46	POS_Z to NSP	
SP_00AEA_DLTURN281_PRIME		2004-281T01:30:00		000T00:30:00	2004-281T02:00:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_M34HEFNON281_PRIME	C	2004-281T02:00:00		000T05:50:00	2004-281T07:50:00	XBAND to Earth	Rolling/SRU	
SP_00ASA_WAYPTTURN481_PRIME	C	2004-281T07:50:00		000T00:30:00	2004-281T08:20:00	ISS_NAC to Saturn	POS_Z to NSP	SP Turn to Earth
UVIS_00AST_URXICET002_PRIME	C	2004-281T08:20:00		000T07:20:00	2004-281T15:40:00	UVIS_FUV to 37.039/8.46	POS_Z to NSP	
ISS_00AIA_GLOBCOLA001_PRIME	C, U, V	2004-281T16:26:00		000T01:15:00	2004-281T17:41:00	ISS_NAC to Iapetus	POS_Z to NSP	
NAV_00ASK_OPNAV811_PRIME		2004-281T17:41:00		000T01:30:00	2004-281T19:11:00	ISS_NAC to Satellites	POS_Z to NSP	
ISS_00AOT_SATELLORB124_PRIME		2004-281T20:00:00		000T00:30:00	2004-281T20:30:00	ISS_NAC to Satellites	POS_Z to NSP	
ISS_00APH_002PHO001_PRIME	U	2004-281T20:30:00		000T10:45:00	2004-282T07:15:00	ISS_NAC to Satellites	POS_Z to NSP	
SP_00AEA_DLTURN282_PRIME		2004-282T07:15:00		000T01:29:00	2004-282T08:44:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_G34HEFNON282_PRIME		2004-282T08:44:00		000T09:00:00	2004-282T17:44:00	XBAND to Earth	Rolling/SRU	D/L ends with (0, 0, -3) deg. offset
NAV_00ASK_OPNAV821_PRIME		2004-282T17:44:00		000T01:29:00	2004-282T19:13:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTTURN821_PRIME		2004-282T19:13:00		000T00:01:00	2004-282T19:14:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_00ARI_DIFFUSRNG015_PRIME		2004-282T19:14:00		000T01:00:00	2004-282T20:14:00	ISS_NAC to Rings	POS_Z to NSP	
UVIS_00ASA_MOS0AGEL001_PRIME		2004-282T20:14:00	E00A_EOT_DOY282+000T02:30:00	000T04:15:00	2004-283T00:29:00	UVIS_EUV to Saturn (3.669,0.0,5.74 deg. offset)	POS_Z to NSP	
SP_00AEA_DLTURN283_PRIME		2004-283T00:29:00		000T00:30:00	2004-283T00:59:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_M34HEFNON283_PRIME		2004-283T00:59:00		000T09:00:00	2004-283T09:59:00	XBAND to Earth	Rolling/SRU	reduced roll by 1 hr 44 min per SCR 723
NAV_00ASK_OPNAV831_PRIME		2004-283T09:59:00		000T01:29:00	2004-283T11:28:00	ISS_NAC to Satellites	POS_X to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTTURN831_PRIME		2004-283T11:28:00		000T00:01:00	2004-283T11:29:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_00ASA_2X2MOVIEA011_PRIME	C, M, U, V	2004-283T11:34:00		000T07:00:00	2004-283T18:34:00	ISS_NAC to Saturn	POS_Z to NSP	3 SatOrbs occur during this period
ISS_00AOT_SATELLORB129_PRIME	C, M, V	2004-283T18:34:00		000T00:30:00	2004-283T19:04:00	ISS_NAC to Satellites	POS_Z to NSP	
ISS_00ASA_2X2MOVI2A011_PRIME	C, M, U, V	2004-283T19:04:00		000T04:00:00	2004-283T23:04:00	ISS_NAC to Saturn	POS_Z to NSP	3 SatOrbs occur during this period
ISS_00AOT_SATELLORB130_PRIME	C, V	2004-283T23:04:00		000T00:30:00	2004-283T23:34:00	ISS_NAC to Satellites	POS_Z to NSP	
ISS_00ASA_2X2MOVI3A011_PRIME	C, U, V	2004-283T23:34:00		000T05:30:00	2004-284T05:04:00	ISS_NAC to Saturn	POS_Z to NSP	3 SatOrbs occur during this period
ISS_00AOT_SATELLORB131_PRIME	C, V	2004-284T05:04:00		000T00:30:00	2004-284T05:34:00	ISS_NAC to Satellites	POS_Z to NSP	
ISS_00ASA_2X2MOVI4A011_PRIME	C, U, V	2004-284T05:34:00		000T02:25:00	2004-284T07:59:00	ISS_NAC to Saturn	POS_Z to NSP	3 SatOrbs occur during this period
SP_00AEA_DLTURN284_PRIME		2004-284T07:59:00		000T00:30:00	2004-284T08:29:00	XBAND to Earth (0.0,0.0,3.0 deg. offset)	NEG_X to NEP	SP Turn to Earth
SP_00AEA_G34HEFNON284_PRIME	C	2004-284T08:29:00		000T09:00:00	2004-284T17:29:00	XBAND to Earth (0.0,0.0,3.0 deg. offset)	NEG_X to NEP	no rolling per SCR 723
NAV_00ASK_OPNAV841_PRIME		2004-284T17:29:00		000T01:29:00	2004-284T18:58:00	ISS_NAC to Satellites	POS_X to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTTURN841_PRIME		2004-284T18:58:00		000T00:01:00	2004-284T18:59:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_00AOT_SATELLORB133_PRIME		2004-284T19:59:00		000T00:30:00	2004-284T20:29:00	ISS_NAC to Satellites	POS_Z to NSP	
UVIS_00ASA_MOS0AGEL002_PRIME		2004-284T20:29:00	E00A_EOT_DOY282+002T02:45:00	000T10:50:00	2004-285T07:19:00	UVIS_EUV to Saturn (-3.669,0.0,-6.119 deg. offset)	POS_Z to NSP	
ISS_00AOT_SATELLORB134_PRIME		2004-285T07:19:00		000T00:30:00	2004-285T07:49:00	ISS_NAC to Satellites	POS_Z to NSP	
SP_00AEA_DLTURN285_PRIME		2004-285T07:59:00		000T00:30:00	2004-285T08:29:00	XBAND to Earth (0.0,0.0,3.0 deg. offset)	POS_X to NSP	SP Turn to Earth
SP_00AEA_G34HEFNON285_PRIME		2004-285T08:29:00		000T02:25:00	2004-285T10:54:00	XBAND to Earth (0.0,0.0,3.0 deg. offset)	2_Hr_Rolling to NSP	
Probe Contingency Period - ...		2004-285T10:54:00		000T06:05:00	2004-285T16:59:00			
SP_00AEA_G34HEFUNQ585_PRIME		2004-285T10:54:00		000T06:05:00	2004-285T16:59:00	XBAND to Earth (0.0,0.0,3.0 deg. offset)	POS_X to NSP	
SP_00AEA_G34HEFNON485_PRIME		2004-285T16:59:00		000T00:30:00	2004-285T17:29:00	XBAND to Earth (0.0,0.0,3.0 deg. offset)	POS_X to NSP	
NAV_00ASK_OPNAV851_PRIME		2004-285T17:29:00		000T01:29:00	2004-285T18:58:00	ISS_NAC to Satellites	POS_X to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTTURN851_PRIME		2004-285T18:58:00		000T00:01:00	2004-285T18:59:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_00AIA_GLOBCOLB001_PRIME	C, U, V	2004-285T18:59:00		000T01:15:00	2004-285T20:14:00	ISS_NAC to Iapetus	POS_Z to NSP	
ISS_00AOT_SATELLORB136_PRIME		2004-285T20:14:00		000T00:30:00	2004-285T20:44:00	ISS_NAC to Satellites	POS_Z to NSP	
UVIS_00ASA_MOS0AGEM001_PRIME		2004-285T20:44:00	E00A_EOT_DOY285+000T03:15:00	000T03:30:00	2004-286T00:14:00	UVIS_EUV to Saturn (-3.669,0.0,-6.301 deg. offset)	POS_Z to NSP	
SP_00AEA_DLTURN286_PRIME		2004-286T00:14:00		000T00:30:00	2004-286T00:44:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_M70METNON286_PRIME		2004-286T00:44:00		000T09:00:00	2004-286T09:44:00	XBAND to Earth	Rolling/SRU	roll reduced by 1 hr 44 min per SCR 723
NAV_00ASK_OPNAV861_PRIME		2004-286T09:44:00		000T01:29:00	2004-286T11:13:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTTURN861_PRIME		2004-286T11:13:00		000T00:01:00	2004-286T11:14:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_00ASA_2X2MOVIEA012_PRIME	C, U, V	2004-286T11:14:00		000T06:25:00	2004-286T17:39:00	ISS_NAC to Saturn	POS_Z to NSP	2 SatOrb and 1 Iapetus period occur during this period
ISS_00AOT_SATELLORB139_PRIME	C, V	2004-286T17:39:00		000T00:30:00	2004-286T18:09:00	ISS_NAC to Satellites	POS_Z to NSP	
ISS_00ASA_2X2MOVI2A012_PRIME	C, U, V	2004-286T18:14:00		000T04:40:00	2004-286T22:54:00	ISS_NAC to Saturn	POS_Z to NSP	2 SatOrb and 1 Iapetus period occur during this period
ISS_00AIA_GLOBMAPC001_PRIME	C, U, V	2004-286T22:54:00		000T00:30:00	2004-286T23:24:00	ISS_NAC to Iapetus	POS_Z to NSP	
ISS_00ASA_2X2MOVI3A012_PRIME	C, U, V	2004-286T23:29:00		000T04:40:00	2004-287T04:09:00	ISS_NAC to Saturn	POS_Z to NSP	2 SatOrb and 1 Iapetus period occur during this period
ISS_00AOT_SATELLORB140_PRIME	C, V	2004-287T04:09:00		000T00:30:00	2004-287T04:39:00	ISS_NAC to Satellites	POS_Z to NSP	
ISS_00ASA_2X2MOVI4A012_PRIME	C, U, V	2004-287T04:39:00		000T02:55:00	2004-287T07:34:00	ISS_NAC to Saturn	POS_Z to NSP	2 SatOrb and 1 Iapetus period occur during this period
SP_00AEA_DLTURN287_PRIME		2004-287T07:44:00		000T00:30:00	2004-287T08:14:00	XBAND to Earth	NEG_X to NEP	SP Turn to Earth
SP_00AEA_G34BWGNON287_PRIME	C	2004-287T08:14:00		000T09:00:00	2004-287T17:14:00	XBAND to Earth	NEG_X to NEP	The RSS USO is no longer during this D/L. No rolling per SCR 723.
NAV_00ASK_OPNAV871_PRIME	N	2004-287T17:14:00		000T01:29:00	2004-287T18:43:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTTURN871_PRIME		2004-287T18:43:00		000T00:01:00	2004-287T18:44:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_00AIA_LIMBTOPOD001_PRIME	C, U	2004-287T18:49:00		000T00:30:00	2004-287T19:19:00	ISS_NAC to Iapetus	POS_Z to NSP	
ISS_00AIA_HILLSPHEC001_PRIME	C, U	2004-287T19:19:00		000T01:20:00	2004-287T20:39:00	ISS_NAC to Iapetus	POS_Z to NSP	
ISS_00AOT_SATELLORB142_PRIME		2004-287T20:50:00		000T00:30:00	2004-287T21:20:00	ISS_NAC to Satellites	POS_Z to NSP	
ISS_00ARI_RNGPHOTMA001_PRIME		2004-287T22:00:00		000T00:45:00	2004-287T22:45:00	ISS_NAC to Rings	POS_Z to NSP	
UVIS_00ASA_MOS0AGEM002_PRIME		2004-288T00:04:00	E00A_EOT_DOY285+002T06:35:00	000T07:30:00	2004-288T07:34:00	UVIS_EUV to Saturn (0.0,0.0,-6.827 deg. offset)	POS_Z to NSP	
SP_00AEA_DLTURN288_PRIME		2004-288T07:44:00		000T00:30:00	2004-288T08:14:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_G34BWGUNQ288_PRIME		2004-288T08:14:00		000T02:25:00	2004-288T10:39:00	XBAND to Earth	2_Hr_Rolling to NSP	
Probe Contingency Period - ...		2004-288T10:39:00		000T06:05:00	2004-288T16:44:00			
SP_00AEA_G34BWGUNQ588_PRIME		2004-288T10:39:00		000T06:05:00	2004-288T16:44:00	XBAND to Earth	POS_X to NSP	
SP_00AEA_G34BWGNON488_PRIME		2004-288T16:44:00		000T00:30:00	2004-288T17:14:00	XBAND to Earth	POS_X to NSP	
NAV_00ASK_OPNAV881_PRIME		2004-288T17:14:00		000T01:29:00	2004-288T18:43:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTTURN881_PRIME		2004-288T18:43:00		000T00:01:00	2004-288T18:44:00	ISS_NAC to Saturn	POS_Z to NSP	
UVIS_00ASA_MOS0AGEN001_PRIME		2004-288T18:44:00	E00A_EOT_DOY288+000T01:30:00	000T04:40:00	2004-288T23:24:00	UVIS_EUV to Saturn (-3.669,0.0,7.069 deg. offset)	POS_Z to NSP	
ISS_00ARI_RNGPHOTMA002_PRIME	U, V	2004-288T23:24:00		000T00:45:00	2004-289T00:09:00	ISS_NAC to Rings	POS_Z to NSP	

Final Sequenced SPASS (7/8)

SP_00AEA_DLTURN289_PRIME		2004-289T00:09:00		000T00:35:00	2004-289T00:44:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_M70METSEQ289_PRIME		2004-289T00:44:00		000T09:00:00	2004-289T09:44:00	XBAND to Earth	Rolling/SRU	roll reduced by 1 hr 44 min per SCR 723
NAV_00ASK_OPNAV891_PRIME	N	2004-289T09:44:00		000T01:29:00	2004-289T11:13:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTTURN891_PRIME		2004-289T11:13:00		000T00:01:00	2004-289T11:14:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_00ASA_2X2MOVIEA013_PRIME	C, U, V	2004-289T11:14:00		000T06:25:00	2004-289T17:39:00	ISS_NAC to Saturn	POS_Z to NSP	2 SatOrb and 1 Iapetus period occur during this period
ISS_00AOT_SATELLORB147_PRIME	C, V	2004-289T17:39:00		000T00:30:00	2004-289T18:09:00	ISS_NAC to Satellites	POS_Z to NSP	
ISS_00ASA_2X2MOVI2A013_PRIME	C, U, V	2004-289T18:14:00		000T04:25:00	2004-289T22:39:00	ISS_NAC to Saturn	POS_Z to NSP	2 SatOrb and 1 Iapetus period occur during this period
ISS_00AIA_GLOBCOLF001_PRIME	C, U, V	2004-289T22:39:00		000T01:00:00	2004-289T23:39:00	ISS_NAC to Iapetus	POS_Z to NSP	
ISS_00ASA_2X2MOVI3A013_PRIME	C, U, V	2004-289T23:39:00		000T04:30:00	2004-290T04:09:00	ISS_NAC to Saturn	POS_Z to NSP	2 SatOrb and 1 Iapetus period occur during this period
ISS_00AOT_SATELLORB149_PRIME	C, V	2004-290T04:09:00		000T00:30:00	2004-290T04:39:00	ISS_NAC to Satellites	POS_Z to NSP	
ISS_00ASA_2X2MOVI4A013_PRIME	C, U, V	2004-290T04:44:00		000T02:55:00	2004-290T07:39:00	ISS_NAC to Saturn	POS_Z to NSP	2 SatOrb and 1 Iapetus period occur during this period
SP_00AEA_DLTURN290_PRIME		2004-290T07:45:00		000T00:30:00	2004-290T08:15:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_G34HEFSEQ290_PRIME		2004-290T08:15:00		000T09:00:00	2004-290T17:15:00	XBAND to Earth	4_Hr_Rolling to N/A	
NAV_00ASK_OPNAV901_PRIME		2004-290T17:15:00		000T01:29:00	2004-290T18:44:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTTURN901_PRIME		2004-290T18:44:00		000T00:01:00	2004-290T18:45:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_00AIA_LIMBTOPOG001_PRIME	C, U, V	2004-290T18:45:00		000T00:45:00	2004-290T19:30:00	ISS_NAC to Iapetus	POS_Z to NSP	
ISS_00AIA_HILLSPHEF001_PRIME	C, U	2004-290T19:30:00		000T04:00:00	2004-290T23:30:00	ISS_NAC to Iapetus	POS_Z to NSP	
UVIS_00ASA_MOS0AGEN002_PRIME		2004-290T23:49:00	E00A_EOT_DOY288+002T06:35:00	000T07:30:00	2004-291T07:19:00	UVIS_EUV to Saturn (0.0,0.0,7.861 deg. offset)	POS_Z to NSP	
SP_00AEA_DLTURN291_PRIME		2004-291T07:30:00		000T00:30:00	2004-291T08:00:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_G34HEFSEQ291_PRIME		2004-291T08:00:00		000T09:00:00	2004-291T17:00:00	XBAND to Earth	4_Hr_Rolling to N/A	
NAV_00ASK_OPNAV911_PRIME		2004-291T17:00:00		000T01:29:00	2004-291T18:29:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTTURN911_PRIME		2004-291T18:29:00		000T00:01:00	2004-291T18:30:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_00ARI_DIFFUSRNG018_PRIME	U	2004-291T18:45:00		000T01:00:00	2004-291T19:45:00	ISS_NAC to Rings	POS_Z to NSP	
ISS_00AIA_GLOBMAPH001_PRIME	C, U, V	2004-291T19:45:00		000T00:45:00	2004-291T20:30:00	ISS_NAC to Iapetus	POS_Z to NSP	
ISS_00AOT_SATELLORB154_PRIME		2004-291T20:30:00		000T00:30:00	2004-291T21:00:00	ISS_NAC to Satellites	POS_Z to NSP	
UVIS_00ASA_MOS0AGEO001_PRIME		2004-291T21:00:00	E00A_EOT_DOY291+000T04:00:00	000T02:55:00	2004-291T23:55:00	UVIS_EUV to Saturn (0.0,0.0,-8.229 deg. offset)	POS_Z to NSP	
SP_00AEA_DLTURN292_PRIME		2004-292T00:00:00		000T00:30:00	2004-292T00:30:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_M70METSEQ292_PRIME		2004-292T00:30:00		000T09:00:00	2004-292T09:30:00	XBAND to Earth	4_Hr_Rolling to N/A	
Sequence S005, length = 26 ...		2004-292T09:30:00	E00A_SEQUENCE_005+000T00:00:00	027T22:19:00	2004-320T07:49:00			
SP_00AEA_S05IVP292_PRIME		2004-292T09:30:00		000T00:06:00	2004-292T09:36:00	XBAND to Earth	POS_X to NSP	
NAV_00ASK_OPNAV921_PRIME		2004-292T09:36:00		000T01:23:00	2004-292T10:59:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at NEW waypoint
NAV_00ASA_WAYPTTURN921_PRIME		2004-292T10:59:00		000T00:01:00	2004-292T11:00:00	ISS_NAC to Saturn	POS_Z to NSP	
NEW WAYPOINT		**2004-292T11:00:00**		**004T23:46:00**	**2004-297T10:46:00**	**ISS_NAC to Saturn**	**POS_Z to NSP**	
CIRS_00ASA_COMPSITA013_PRIME	I, U, V	2004-292T11:00:00	E00A_EOT_DOY291+000T18:00:00	000T20:25:00	2004-293T07:25:00	CIRS_FP1 to Saturn	POS_Z to NSP	
SP_00AEA_DLTURN293_PRIME		2004-293T07:30:00		000T00:30:00	2004-293T08:00:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_G34HEFNON293_PRIME	C	2004-293T08:00:00		000T09:00:00	2004-293T17:00:00	XBAND to Earth	POS_X to NSP	
NAV_00ASK_OPNAV931_PRIME		2004-293T17:00:00		000T01:29:00	2004-293T18:29:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTTURN931_PRIME		2004-293T18:29:00		000T00:01:00	2004-293T18:30:00	ISS_NAC to Saturn	POS_Z to NSP	
CIRS_00ASA_COMPSITB013_PRIME	I, U, V	2004-293T18:30:00	E00A_EOT_DOY291+002T01:30:00	000T13:00:00	2004-294T07:30:00	CIRS_FP1 to Saturn	POS_Z to NSP	
SP_00AEA_DLTURN294_PRIME		2004-294T07:30:00		000T00:30:00	2004-294T08:00:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_G34HEFNON294_PRIME		2004-294T08:00:00		000T09:00:00	2004-294T17:00:00	XBAND to Earth	4_Hr_Rolling to N/A	
NAV_00ASK_OPNAV941_PRIME		2004-294T17:00:00		000T01:29:00	2004-294T18:29:00	ISS_NAC to Satellites	PIC	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTTURN941_PRIME		2004-294T18:29:00		000T00:01:00	2004-294T18:30:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_00AIA_GRAYLITEK001_PRIME	C, U	2004-294T18:30:00		000T01:00:00	2004-294T19:30:00	ISS_NAC to Iapetus (0.0,40.107,0.0 deg. offset)	POS_Z to NSP	
ISS_00AIA_LIMBTOPOK001_PRIME	C, U	2004-294T19:30:00		000T01:00:00	2004-294T20:30:00	ISS_NAC to Iapetus (0.0,40.107,0.0 deg. offset)	POS_Z to NSP	
ISS_00AOT_SATELLORB163_PRIME		2004-294T20:30:00		000T00:30:00	2004-294T21:00:00	ISS_NAC to Satellites	POS_Z to NSP	
UVIS_00ASA_MOS0AGEP001_PRIME		2004-294T21:00:00	E00A_EOT_DOY294+000T04:00:00	000T02:45:00	2004-294T23:45:00	UVIS_FUV to Saturn (0.0,0.0,10.168 deg. offset)	POS_Z to NSP	
SP_00AEA_DLTURN494_PRIME		2004-294T23:45:00		000T00:30:00	2004-295T00:15:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_M34HEFNON295_PRIME		2004-295T00:15:00		000T09:00:00	2004-295T09:15:00	XBAND to Earth	3_Hr_Rolling to N/A	
NAV_00ASK_OPNAV951_PRIME		2004-295T09:15:00		000T01:29:00	2004-295T10:44:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTTURN951_PRIME		2004-295T10:44:00		000T00:01:00	2004-295T10:45:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_00AIA_LIMBTOPOL001_PRIME	C, U	2004-295T11:45:00		000T01:00:00	2004-295T12:45:00	ISS_NAC to Iapetus (0.0,40.107,0.0 deg. offset)	POS_Z to NSP	
ISS_00AIA_GRAYLITEL001_PRIME	C, U	2004-295T12:45:00		000T01:00:00	2004-295T13:45:00	ISS_NAC to Iapetus (0.0,40.107,0.0 deg. offset)	POS_Z to NSP	
ISS_00AOT_SATELLORB166_PRIME		2004-295T13:45:00		000T00:30:00	2004-295T14:15:00	ISS_NAC to Satellites	POS_Z to NSP	
ISS_00ARI_RNGHAZARD001_PRIME		2004-295T14:46:00		000T16:00:00	2004-296T06:46:00	ISS_NAC to Rings	POS_Z to NSP	
ISS_00AOT_SATELLORB167_PRIME		2004-296T06:46:00		000T00:30:00	2004-296T07:16:00	ISS_NAC to Satellites	POS_Z to NSP	
SP_00AEA_DLTURN296_PRIME		2004-296T07:16:00		000T00:30:00	2004-296T07:46:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_G34HEFNON296_PRIME	C	2004-296T07:46:00		000T09:00:00	2004-296T16:46:00	XBAND to Earth	POS_X to NSP	
NAV_00ASK_OPNAV961_PRIME		2004-296T16:46:00		000T01:29:00	2004-296T18:15:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_00ASA_WAYPTTURN961_PRIME		2004-296T18:15:00		000T00:01:00	2004-296T18:16:00	ISS_NAC to Saturn	POS_Z to NSP	
ISS_00ARI_DIFFUSRNG020_PRIME		2004-296T18:20:00		000T01:00:00	2004-296T19:20:00	ISS_NAC to Rings	POS_Z to NSP	
ISS_00AIA_LIMBTOPOM001_PRIME	C, U	2004-296T19:20:00		000T01:00:00	2004-296T20:20:00	ISS_NAC to Iapetus (0.0,40.107,0.0 deg. offset)	POS_Z to NSP	
ISS_00AIA_GRAYLITEM001_PRIME	C, U	2004-296T20:20:00		000T01:00:00	2004-296T21:20:00	ISS_NAC to Iapetus (0.0,40.107,0.0 deg. offset)	POS_Z to NSP	
ISS_00AIA_DUSTSEAR001_PRIME	C, U	2004-296T21:20:00		000T01:00:00	2004-296T22:20:00	ISS_NAC to Iapetus (0.0,40.107,0.0 deg. offset)	POS_Z to NSP	
UVIS_00ASA_MOS0AGEP002_PRIME		2004-296T22:20:00	E00A_EOT_DOY294+002T05:20:00	000T01:25:00	2004-296T23:45:00	UVIS_FUV to Saturn (0.0,0.0,-12.689 deg. offset)	POS_Z to NSP	
SP_00AEA_DLTURN496_PRIME		2004-296T23:45:00		000T00:31:00	2004-297T00:16:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_00AEA_M34HEFOTP297_PRIME	C, N	2004-297T00:16:00		000T09:00:00	2004-297T09:16:00	XBAND to Earth	POS_X to NSP	
NAV_00ASK_OPNAV971_PRIME		2004-297T09:16:00		000T01:29:00	2004-297T10:45:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at NEW waypoint
NAV_00ATI_WAYPTTURN971_PRIME		2004-297T10:45:00		000T00:01:00	2004-297T10:46:00	ISS_NAC to Titan	POS_Z to NSP	
NEW WAYPOINT		**2004-297T10:46:00**		**002T06:15:00**	**2004-299T17:01:00**	**ISS_NAC to Titan**	**POS_Z to NSP**	
ISS_00ATI_MOVIEA001_PRIME	V	2004-297T10:46:00		000T12:45:00	2004-297T23:31:00	ISS_NAC to Titan	POS_Z to NSP	
SP_00AEA_DLTURN297_PRIME		2004-297T23:31:00		000T00:30:00	2004-298T00:01:00	XBAND to Earth	NEG_X to NSP	SP Turn to Earth

Final Sequenced SPASS (8/8)

SP_00AEA_M70METOTB298_PRIME	N	2004-298T00:01:00	000T09:00:00	2004-298T09:01:00	XBAND to Earth	Rolling	
NAV_00ASK_OPNAV981_PRIME		2004-298T09:01:00	000T01:29:00	2004-298T10:30:00	ISS_NAC to Satellites	POS_Z to NSP	Starts at Earth point, ends at waypoint
NAV_00ATI_WAYPTTURN981_PRIME		2004-298T10:30:00	000T00:01:00	2004-298T10:31:00	ISS_NAC to Titan	POS_Z to NSP	
ISS_00ARI_RADCOLOR001_PRIME	V	2004-298T10:31:00	000T01:30:00	2004-298T12:01:00	ISS_NAC to Rings	POS_Z to NSP	
ISS_00ATI_MOVIEB001_PRIME	V	2004-298T12:01:00	000T11:55:00	2004-298T23:56:00	ISS_NAC to Titan	POS_Z to NSP	
ISS_00ATI_MOVIEB1001_PRIME	R, V	2004-298T23:56:00	000T00:20:00	2004-299T00:16:00	ISS_NAC to Titan (0.086,0.0,0.0 deg. offset)	POS_Z to NSP	
ISS_00ATI_MOVIEB2001_PRIME	R, V	2004-299T00:16:00	000T02:40:00	2004-299T02:56:00	ISS_NAC to Titan (0.086,0.0,0.0 deg. offset)	POS_Z to NSP	
RADAR_00ATI_SOUTH7CAL001_PRIME		2004-299T02:56:00	000T01:20:00	2004-299T04:16:00	NEG_Z to Titan	NEG_Y to North_Pole_Di	RADAR must control primary and secondary axes to obtain correct polarization.
ISS_00ATI_MOVIEB002_PRIME	V	2004-299T04:16:00	000T00:10:00	2004-299T04:26:00	ISS_NAC to Titan (0.086,0.0,0.0 deg. offset)	POS_Z to NSP	
RADAR_00ATI_SOUTHSCAT001_PRIME		2004-299T04:26:00	000T01:40:00	2004-299T06:06:00	NEG_Z to Titan	NEG_Y to North_Pole_Dir	
ISS_00ATI_MOVIEB003_PRIME	V	2004-299T06:06:00	000T00:55:00	2004-299T07:01:00	ISS_NAC to Titan (0.086,0.0,0.0 deg. offset)	POS_Z to NSP	
SP_00AEA_DLTURN299_PRIME		2004-299T07:01:00	000T00:30:00	2004-299T07:31:00	XBAND to Earth	NEG_X to NSP	SP Turn to Earth
SP_00AEA_M70METNON299_PRIME	C	2004-299T07:31:00	000T03:29:00	2004-299T11:00:00	XBAND to Earth	NEG_X to NSP	
SP_00AEA_G34HEFNON299_PRIME	C	2004-299T11:00:00	000T05:31:00	2004-299T16:31:00	XBAND to Earth	NEG_X to NSP	

Final Sequenced SMT and Data Volume (1/11)

DATA VOLUME SUMMARY --- TRANSFER FRAME OVERHEAD INCLUDED (80 BITS PER 8800-BIT FRAME)

			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)	MRGN (Mb)	OPNAV (Mb)	SCI (Mb)	ENGR (Mb)	TOTAL (Mb)	CPACTY (Mb)	MARGN (Mb)	NET_MARGN (Mb)	(%)	CAROVR (Mb)
SP_000EA_M70METNON220_PRIME	220 04:37	220 13:37	0	2461	51	2512	3438	926	35	560	53	3160	3392	232	316	3%	0
SP_000EA_G34BWGUNQ221_PRIME	221 12:12	221 21:07	0	1469	77	1545	3438	1893	35	229	53	1863	751	-1111	84	1%	1112
SP_000EA_G34BWGNON222_PRIME	222 12:07	222 21:07	1112	828	51	1991	3438	1448	35	143	53	2222	694	-1527	84	1%	1528
SP_000EA_M34BWGNON223_PRIME	223 04:32	223 13:22	1528	203	25	1756	3438	1682	35	141	52	1984	680	-1304	84	1%	1304
SP_000EA_G34BWGUNQ224_PRIME	224 11:57	224 20:52	1304	1511	77	2892	3438	546	35	229	53	3209	764	-2445	84	1%	2445
SP_000EA_G34BWGNON225_PRIME	225 11:52	225 20:52	2445	828	51	3324	3438	114	35	143	53	3556	694	-2861	84	1%	2862
SP_000EA_M70METNON226_PRIME	226 04:17	226 13:17	2862	237	25	3124	3438	314	35	143	53	3356	3440	85	84	1%	0
SP_000EA_G34BWGNON227_PRIME	227 11:42	227 20:42	0	1508	76	1584	3438	1854	35	231	53	1903	694	-1208	0	0%	1209
SP_000EA_G34BWGNON228_PRIME	228 11:38	228 20:38	1209	829	51	2088	3438	1350	35	143	53	2320	694	-1625	0	0%	1626
SP_000EA_M70METNON229_PRIME	229 04:03	229 13:03	1626	1348	25	2998	3438	440	35	597	53	3684	3483	-201	0	0%	201
SP_000EA_G34HEFNON230_PRIME	230 11:28	230 20:28	201	1508	76	1785	3438	1653	35	231	53	2104	878	-1226	0	0%	1226
SP_000EA_G34HEFNON231_PRIME	231 11:38	231 20:38	1226	830	51	2108	3438	1330	35	143	53	2340	883	-1457	0	0%	1457
SP_000EA_M34HEFNON232_PRIME	232 04:03	232 12:53	1457	237	25	1720	3438	1719	35	141	52	1948	826	-1121	0	0%	1121
SP_000EA_G34HEFNON233_PRIME	233 11:28	233 20:23	1121	1513	77	2711	3438	727	35	229	53	3028	878	-2150	0	0%	2150
SP_000EA_G34HEFNON234_PRIME	234 11:23	234 20:23	2150	828	51	3029	3438	409	35	143	53	3261	886	-2374	0	0%	2374
SP_000EA_M70METNON235_PRIME	235 03:53	235 12:53	2374	873	25	3272	3438	166	35	452	53	3812	3709	-103	0	0%	103
SP_000EA_G34HEFOTP236_PRIME	236 09:53	236 21:53	103	1453	71	1628	3438	1810	35	191	71	1925	930	-994	0	0%	995
SP_000EA_G34HEFOTB237_PRIME	237 09:38	237 21:38	995	754	40	1789	3438	1650	35	191	71	2086	1049	-1037	13	0%	1037
SP_000EA_M34HEFNON238_PRIME	238 03:38	238 12:38	1037	210	20	1268	3438	2171	18	143	53	1482	861	-620	13	0%	621
SP_000EA_G34BWGNON239_PRIME	239 10:58	239 19:58	621	1507	76	2204	3438	1234	35	231	53	2523	705	-1817	13	0%	1818
SP_000EA_G34HEFNON240_PRIME	240 11:09	240 20:09	1818	831	52	2700	3438	738	35	143	53	2931	896	-2034	13	0%	2035
SP_00AEA_M34HEFNON241_PRIME	241 03:34	241 12:34	2035	221	25	2281	3438	1157	35	142	53	2511	875	-1636	13	0%	1637
SP_00AEA_G34HEFNON242_PRIME	242 10:59	242 19:59	1637	1504	76	3217	3438	221	35	142	53	3447	898	-2548	13	0%	2549
SP_00AEA_G34HEFNON243_PRIME	243 10:54	243 19:54	2549	826	51	3426	3438	13	35	229	53	3743	906	-2837	116	1%	2837
SP_00AEA_M70ARRNON244_PRIME	244 03:19	244 12:19	2837	460	25	3323	3438	116	35	295	53	3706	3891	186	505	4%	0
SP_00AEA_G34HEFNON245_PRIME	245 10:44	245 19:44	0	1504	76	1580	3438	1858	35	229	53	1898	908	-990	320	3%	990
SP_00AEA_G34BWGNON246_PRIME	246 10:39	246 19:39	990	824	51	1864	3438	1574	35	142	53	2095	708	-1386	320	3%	1386
SP_00AEA_M34HEFNON247_PRIME	247 03:04	247 12:04	1386	221	25	1632	3438	1806	35	142	53	1863	887	-975	320	3%	976
SP_00AEA_G34HEFNON248_PRIME	248 10:29	248 19:29	976	1326	76	2378	3438	1060	35	196	53	2663	909	-1753	320	3%	1754
SP_00AEA_G34HEFNON249_PRIME	249 10:40	249 19:40	1754	1103	52	2908	3438	530	35	109	53	3105	914	-2191	320	3%	2191
SP_00AEA_M70METNON250_PRIME	250 03:05	250 12:05	2191	702	25	2918	3438	520	35	465	53	3472	3792	321	516	4%	0
SP_00AEA_G34HEFOTP251_PRIME	251 10:30	251 19:30	0	2271	76	2348	3438	1091	35	196	53	2632	768	-1863	196	2%	1864
SP_00AEA_G34HEFOTB252_PRIME	252 10:25	252 19:25	1864	814	51	2728	3438	710	35	109	53	2925	918	-2007	196	2%	2008
SP_00AEA_M70ARRNON253_PRIME	253 02:50	253 07:10	2008	196	25	2229	3438	1209	35	52	26	2342	1848	-494	196	3%	494
SP_00AEA_M34BWGNON253_PRIME	253 07:10	253 11:50	494	0	0	494	3438	2944	0	56	28	578	372	-206	196	3%	206
SP_00AEA_G34HEFSEQ254_PRIME	254 10:15	254 19:15	206	2271	76	2554	3438	884	35	196	53	2838	913	-1925	196	3%	1925
SP_00AEA_G34HEFSEQ255_PRIME	255 10:10	255 19:10	1925	814	51	2790	3438	649	35	109	53	2987	918	-2069	196	4%	2069
SP_00AEA_M70METSEQ256_PRIME	256 02:35	256 11:35	2069	912	25	3006	3438	432	35	502	53	3596	3792	197	196	5%	0

Final Sequenced SMT and Data Volume (2/11)

DATA VOLUME SUMMARY --- TRANSFER FRAME OVERHEAD INCLUDED (80 BITS PER 8800-BIT FRAME)

			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)	MRGN (Mb)	OPNAV (Mb)	SCI (Mb)	ENGR (Mb)	TOTAL (Mb)	CPACTY (Mb)	MARGN (Mb)	NET_MARGN (Mb)	(%)	CAROVR (Mb)
SP_00AEA_G34HEFNON257_PRIME	257 10:00	257 19:00	0	2279	76	2355	3482	1128	35	196	53	2639	915	-1724	0	0%	1724
SP_00AEA_M70METNON258_PRIME	258 07:07	258 09:11	1724	754	41	2520	3482	963	35	24	12	2592	870	-1721	0	0%	1721
SP_00AEA_G34HEFNON258_PRIME	258 09:11	258 09:46	1721	0	0	1721	3482	1761	0	6	3	1731	45	-1685	96	1%	1685
SP_00AEA_G34HEFNON458_PRIME	258 19:01	258 20:26	1685	550	153	2389	3482	1093	0	16	8	2413	106	-2307	96	1%	2307
SP_00AEA_M70ARRNON259_PRIME	259 02:21	259 07:06	2307	173	20	2500	3482	982	0	57	28	2586	2031	-554	96	1%	555
SP_00AEA_M34BWGNON259_PRIME	259 07:06	259 11:21	555	0	0	555	3482	2928	0	51	25	631	338	-292	96	1%	293
SP_00AEA_G34BWGNON260_PRIME	260 09:46	260 18:46	293	2271	76	2640	3482	842	35	196	53	2925	713	-2212	314	3%	2212
SP_00AEA_G34HEFNON261_PRIME	261 09:56	261 18:56	2212	817	51	3080	3482	402	35	111	53	3279	921	-2358	314	3%	2358
SP_00AEA_M70METNON262_PRIME	262 02:21	262 05:21	2358	455	25	2838	3482	645	35	84	18	2975	1231	-1744	314	3%	1744
SP_00AEA_M70METNON462_PRIME	262 06:21	262 11:21	1744	28	3	1776	3482	1707	0	213	29	2018	2114	96	462	4%	0
SP_00AEA_G34HEFNON263_PRIME	263 09:46	263 12:55	0	2271	76	2348	3482	1135	35	36	19	2438	315	-2122	366	3%	2123
SP_00AEA_G34HEFNON463_PRIME	263 15:05	263 18:46	2123	91	36	2249	3482	1233	0	46	22	2317	373	-1944	366	3%	1945
SP_00AEA_G34HEFNON264_PRIME	264 09:41	264 18:41	1945	830	51	2825	3482	657	35	119	53	3032	925	-2107	366	3%	2107
SP_00AEA_M70METNON265_PRIME	265 02:06	265 11:06	2107	984	25	3116	3482	366	35	412	53	3616	3834	218	435	4%	0
SP_00AEA_G34HEFNON266_PRIME	266 09:31	266 18:31	0	2296	76	2372	3482	1110	35	208	53	2668	923	-1745	217	3%	1745
SP_00AEA_G34BWGNON267_PRIME	267 09:27	267 18:27	1745	830	51	2626	3482	857	35	119	53	2833	770	-2062	217	3%	2063
SP_00AEA_M70METNON268_PRIME	268 01:52	268 10:52	2063	949	25	3036	3482	446	35	492	53	3617	3834	217	536	6%	0
SP_00AEA_G34HEFNON269_PRIME	269 09:17	269 10:47	0	2296	76	2372	3482	1110	35	20	9	2436	142	-2293	319	5%	2294
SP_00AEA_G34HEFUNQ469_PRIME	269 10:47	269 16:52	2294	0	0	2294	3482	1189	0	80	36	2410	628	-1781	319	4%	1782
SP_00AEA_G34HEFNON569_PRIME	269 16:52	269 18:17	1782	0	0	1782	3482	1701	0	19	8	1809	136	-1672	558	5%	1673
SP_00AEA_G34HEFNON270_PRIME	270 09:27	270 10:57	1673	833	51	2557	3482	925	35	20	9	2621	145	-2476	558	5%	2476
SP_00AEA_G34HEFUNQ470_PRIME	270 10:57	270 17:02	2476	0	0	2476	3482	1006	0	80	36	2592	628	-1964	558	5%	1964
SP_00AEA_G34HEFNON570_PRIME	270 17:02	270 18:27	1964	0	0	1964	3482	1518	0	19	8	1991	136	-1855	611	4%	1855
SP_00AEA_M70METNON271_PRIME	271 01:52	271 10:52	1855	991	25	2871	3482	611	35	569	53	3528	3848	320	880	6%	0
SP_00AEA_G34HEFNON272_PRIME	272 09:17	272 18:17	0	2298	76	2374	3482	1109	35	206	53	2668	927	-1741	561	4%	1741
SP_00AEA_G34HEFNON273_PRIME	273 09:12	273 18:12	1741	830	51	2622	3482	861	35	119	53	2829	930	-1898	561	4%	1899
SP_00AEA_M70METNON274_PRIME	274 01:37	274 10:37	1899	998	25	2922	3482	561	35	608	53	3618	3857	239	1188	8%	0
SP_00AEA_G34HEFNON275_PRIME	275 09:02	275 18:02	0	2296	76	2372	3482	1110	35	119	53	2579	927	-1652	950	7%	1652
SP_00AEA_G34HEFNON276_PRIME	276 08:58	276 19:33	1652	830	51	2533	3482	950	35	141	62	2772	676	-2095	1316	10%	2096
SP_00AEA_M70METNON277_PRIME	276 23:53	277 11:23	2096	56	15	2166	3482	1316	0	151	68	2385	3874	1489	4621	35%	0
SP_00AEA_G34HEFNON278_PRIME	278 08:48	278 17:48	0	277	73	350	3482	3133	0	119	53	521	930	409	3635	38%	0
SP_00AEA_G34HEFNON279_PRIME	279 08:43	279 17:43	0	205	51	256	3482	3226	0	132	53	441	930	490	3774	41%	0
SP_00AEA_M70METNON280_PRIME	280 01:13	280 10:13	0	172	25	198	3482	3285	35	132	53	418	3882	3464	3464	42%	0
SP_00AEA_M34HEFNON281_PRIME	281 02:00	281 07:50	0	1016	54	1069	3482	2413	35	149	34	1288	602	-685	262	3%	686
SP_00AEA_G34HEFNON282_PRIME	282 08:44	282 17:44	686	967	85	1737	3482	1745	35	132	53	1957	985	-972	262	3%	972
SP_00AEA_M34HEFNON283_PRIME	283 00:59	283 09:59	972	167	25	1164	3482	2318	35	132	53	1385	929	-456	262	3%	456
SP_00AEA_G34HEFNON284_PRIME	284 08:29	284 17:29	456	2575	76	3107	3482	375	35	219	53	3415	1008	-2406	262	4%	2406

Final Sequenced SMT and Data Volume (3/11)

DATA VOLUME SUMMARY --- TRANSFER FRAME OVERHEAD INCLUDED (80 BITS PER 8800-BIT FRAME)

	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)	MRGN (Mb)	OPNAV (Mb)	SCI (Mb)	ENGR (Mb)	TOTAL (Mb)	CPACTY (Mb)	MARGN (Mb)	NET_MARGN (%)	CAROVR (Mb)
SP_00AEA_G34HEFNON285_PRIME	285 08:29	285 10:54	2406	335	51	2792	3482	690	35	35	14	2876	244	-2632	262	4%	2632
SP_00AEA_G34HEFUNQ585_PRIME	285 10:54	285 16:59	2632	0	0	2632	3482	850	0	82	36	2750	628	-2121	361	4%	2122
SP_00AEA_G34HEFNON485_PRIME	285 16:59	285 17:29	2122	0	0	2122	3482	1361	0	7	3	2132	44	-2088	361	3%	2089
SP_00AEA_M70METNON286_PRIME	286 00:44	286 09:44	2089	1008	25	3121	3482	361	35	410	53	3620	3882	263	527	5%	0
SP_00AEA_G34BWGNON287_PRIME	287 08:14	287 17:14	0	2399	76	2475	3482	1007	35	226	53	2789	844	-1945	274	2%	1945
SP_00AEA_G34BWGUNQ288_PRIME	288 08:14	288 10:39	1945	972	52	2969	3482	513	35	36	14	3055	214	-2841	274	3%	2841
SP_00AEA_G34BWGUNQ588_PRIME	288 10:39	288 16:44	2841	0	0	2841	3482	641	0	86	36	2964	583	-2380	274	3%	2380
SP_00AEA_G34BWGNON488_PRIME	288 16:44	288 17:14	2380	0	0	2380	3482	1102	0	8	3	2391	33	-2357	274	3%	2357
SP_00AEA_M70METSEQ289_PRIME	289 00:44	289 09:44	2357	826	25	3209	3482	274	35	333	53	3630	3895	266	581	6%	0
SP_00AEA_G34HEFSEQ290_PRIME	290 08:15	290 17:15	0	2600	77	2677	3482	806	35	139	53	2904	1041	-1862	316	5%	1863
SP_00AEA_G34HEFSEQ291_PRIME	291 08:00	291 17:00	1863	736	50	2649	3482	833	35	140	53	2878	1041	-1837	316	6%	1837
SP_00AEA_M70METSEQ292_PRIME	292 00:30	292 09:30	1837	1061	25	2923	3482	559	35	568	53	3579	3896	317	316	8%	0
SP_00AEA_G34HEFNON293_PRIME	293 08:00	293 17:00	0	2248	76	2324	3471	1147	35	226	53	2638	1046	-1592	170	2%	1593
SP_00AEA_G34HEFNON294_PRIME	294 08:00	294 17:00	1593	1654	51	3298	3471	174	35	139	53	3525	1050	-2474	170	1%	2474
SP_00AEA_M34HEFNON295_PRIME	295 00:15	295 09:15	2474	220	25	2719	3471	752	35	139	53	2946	1027	-1919	170	1%	1919
SP_00AEA_G34HEFNON296_PRIME	296 07:46	296 16:46	1919	996	77	2992	3471	480	35	226	53	3306	1055	-2250	170	1%	2251
SP_00AEA_M34HEFOTP297_PRIME	297 00:16	297 09:16	2251	563	25	2839	3471	632	35	300	53	3228	868	-2359	170	1%	2360
SP_00AEA_M70METOTB298_PRIME	298 00:01	298 09:01	2360	891	50	3301	3471	170	35	213	53	3603	4270	668	866	5%	0
SP_00AEA_M70METNON299_PRIME	299 07:31	299 11:00	0	1515	82	1597	3471	1875	35	68	21	1721	1309	-411	215	1%	412

Final Sequenced SMT and Data Volume (4/11)

DATA VOLUME REPORT --- TRANSFER FRAME OVERHEAD NOT INCLUDED

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	219 13:37	220 04:37	545.5	8.1	157.2	2.7	700.0	106.7	117.6	0.0	540.0	231.1	30.0	0.0	0.0	2438.9
OBSERVATION_OPN	219 13:37	220 04:37	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_000EA_M70METNON220_PRIME	220 04:37	220 13:37	32.4	4.9	86.4	1.6	0.0	64.0	38.9	0.0	324.0	2.5	0.0	0.0	0.0	554.6
DAILY TOTAL SCIENCE	219 13:37	220 13:37	577.9	12.9	243.6	4.3	700.0	170.7	156.5	0.0	864.0	233.6	30.0	0.0		
OBSERVATION_NOR	220 13:37	221 12:12	81.3	12.2	223.2	4.1	434.0	48.8	97.6	0.0	106.5	147.7	300.0	0.0	0.0	1455.3
OBSERVATION_OPN	220 13:37	221 12:12	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_000EA_G34BWGUNQ221_PRIME	221 12:12	221 21:07	32.1	4.8	86.4	1.6	0.0	19.3	38.5	0.0	42.1	2.4	0.0	0.0	0.0	227.2
DAILY TOTAL SCIENCE	220 13:37	221 21:07	113.4	17.0	309.6	5.7	434.0	68.0	136.1	0.0	148.6	150.1	300.0	0.0		
OBSERVATION_NOR	221 21:07	222 12:07	54.0	8.1	0.0	2.7	294.0	32.4	64.8	0.0	70.7	93.5	200.0	0.0	0.0	820.2
OBSERVATION_OPN	221 21:07	222 12:07	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_000EA_G34BWGNON222_PRIME	222 12:07	222 21:07	32.4	4.9	0.0	1.6	0.0	19.4	38.9	0.0	42.4	2.5	0.0	0.0	0.0	142.1
DAILY TOTAL SCIENCE	221 21:07	222 21:07	86.4	12.9	0.0	4.3	294.0	51.8	103.7	0.0	113.2	95.9	200.0	0.0		
OBSERVATION_NOR	222 21:07	223 04:32	26.7	4.0	0.0	3.3	47.7	16.0	32.0	0.0	35.0	36.3	0.0	0.0	0.0	201.0
OBSERVATION_OPN	222 21:07	223 04:32	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_000EA_M34BWGNON223_PRIME	223 04:32	223 13:22	31.8	4.8	0.0	1.6	0.0	19.1	38.2	0.0	41.7	2.4	0.0	0.0	0.0	139.5
DAILY TOTAL SCIENCE	222 21:07	223 13:22	58.5	8.8	0.0	4.9	47.7	35.1	70.2	0.0	76.6	38.7	0.0	0.0		
OBSERVATION_NOR	223 13:22	224 11:57	81.3	12.2	223.2	4.1	475.7	48.8	97.6	0.0	106.5	147.7	300.0	0.0	0.0	1497.0
OBSERVATION_OPN	223 13:22	224 11:57	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_000EA_G34BWGUNQ224_PRIME	224 11:57	224 20:52	32.1	4.8	86.4	1.6	0.0	19.3	38.5	0.0	42.1	2.4	0.0	0.0	0.0	227.2
DAILY TOTAL SCIENCE	223 13:22	224 20:52	113.4	17.0	309.6	5.7	475.7	68.0	136.1	0.0	148.6	150.1	300.0	0.0		
OBSERVATION_NOR	224 20:52	225 11:52	54.0	8.1	0.0	2.7	294.0	32.4	64.8	0.0	70.7	93.5	200.0	0.0	0.0	820.2
OBSERVATION_OPN	224 20:52	225 11:52	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_000EA_G34BWGNON225_PRIME	225 11:52	225 20:52	32.4	4.9	0.0	1.6	0.0	19.4	38.9	0.0	42.4	2.5	0.0	0.0	0.0	142.1
DAILY TOTAL SCIENCE	224 20:52	225 20:52	86.4	12.9	0.0	4.3	294.0	51.8	103.7	0.0	113.2	95.9	200.0	0.0		
OBSERVATION_NOR	225 20:52	226 04:17	26.7	4.0	14.4	1.3	73.7	16.0	32.0	0.0	35.0	31.8	0.0	0.0	0.0	234.9
OBSERVATION_OPN	225 20:52	226 04:17	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_000EA_M70METNON226_PRIME	226 04:17	226 13:17	32.4	4.9	0.0	1.6	0.0	19.4	38.9	0.0	42.4	2.5	0.0	0.0	0.0	142.1
DAILY TOTAL SCIENCE	225 20:52	226 13:17	59.1	8.9	14.4	3.0	73.7	35.5	70.9	0.0	77.4	34.3	0.0	0.0		
OBSERVATION_NOR	226 13:17	227 11:42	80.7	12.1	223.2	4.0	475.7	48.4	96.8	0.0	105.7	147.7	300.0	0.0	0.0	1494.4
OBSERVATION_OPN	226 13:17	227 11:42	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_000EA_G34BWGNON227_PRIME	227 11:42	227 20:42	32.4	4.9	86.4	1.6	0.0	19.4	38.9	0.0	42.4	2.5	0.0	0.0	0.0	228.5
DAILY TOTAL SCIENCE	226 13:17	227 20:42	113.1	16.9	309.6	5.7	475.7	67.9	135.7	0.0	148.2	150.2	300.0	0.0		
OBSERVATION_NOR	227 20:42	228 11:38	53.8	8.1	0.0	4.7	294.0	32.3	64.5	0.0	70.4	93.5	200.0	0.0	0.0	821.1
OBSERVATION_OPN	227 20:42	228 11:38	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_000EA_G34BWGNON228_PRIME	228 11:38	228 20:38	32.4	4.9	0.0	1.6	0.0	19.4	38.9	0.0	42.4	2.5	0.0	0.0	0.0	142.1
DAILY TOTAL SCIENCE	227 20:42	228 20:38	86.2	12.9	0.0	6.3	294.0	51.7	103.4	0.0	112.9	95.9	200.0	0.0		
OBSERVATION_NOR	228 20:38	229 04:03	326.4	4.0	14.4	1.3	632.0	26.4	32.0	0.0	267.0	31.8	0.0	0.0	0.0	1335.3
OBSERVATION_OPN	228 20:38	229 04:03	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_000EA_M70METNON229_PRIME	229 04:03	229 13:03	101.3	4.9	86.4	1.6	0.0	32.0	38.9	0.0	324.0	2.5	0.0	0.0	0.0	591.6
DAILY TOTAL SCIENCE	228 20:38	229 13:03	427.7	8.9	100.8	3.0	632.0	58.4	70.9	0.0	591.0	34.3	0.0	0.0		
OBSERVATION_NOR	229 13:03	230 11:28	80.7	12.1	223.2	4.0	475.7	48.4	96.8	0.0	105.7	147.7	300.0	0.0	0.0	1494.4
OBSERVATION_OPN	229 13:03	230 11:28	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_000EA_G34HEFNON230_PRIME	230 11:28	230 20:28	32.4	4.9	86.4	1.6	0.0	19.4	38.9	0.0	42.4	2.5	0.0	0.0	0.0	228.5
DAILY TOTAL SCIENCE	229 13:03	230 20:28	113.1	16.9	309.6	5.7	475.7	67.9	135.7	0.0	148.2	150.2	300.0	0.0		

Final Sequenced SMT and Data Volume (5/11)

DATA VOLUME REPORT --- TRANSFER FRAME OVERHEAD NOT INCLUDED

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	230 20:28	231 11:38	54.6	8.2	0.0	2.7	294.0	32.8	65.5	0.0	71.5	93.5	200.0	0.0	0.0	822.8
OBSERVATION_OPN	230 20:28	231 11:38	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_000EA_G34HEFNON231_PRIME	231 11:38	231 20:38	32.4	4.9	0.0	1.6	0.0	19.4	38.9	0.0	42.4	2.5	0.0	0.0	0.0	142.1
DAILY TOTAL SCIENCE	230 20:28	231 20:38	87.0	13.0	0.0	4.3	294.0	52.2	104.4	0.0	114.0	95.9	200.0	0.0		
OBSERVATION_NOR	231 20:38	232 04:03	26.7	4.0	14.4	1.3	73.7	16.0	32.0	0.0	35.0	31.8	0.0	0.0	0.0	234.9
OBSERVATION_OPN	231 20:38	232 04:03	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_000EA_M34HEFNON232_PRIME	232 04:03	232 12:53	31.8	4.8	0.0	1.6	0.0	19.1	38.2	0.0	41.7	2.4	0.0	0.0	0.0	139.5
DAILY TOTAL SCIENCE	231 20:38	232 12:53	58.5	8.8	14.4	2.9	73.7	35.1	70.2	0.0	76.6	34.2	0.0	0.0		
OBSERVATION_NOR	232 12:53	233 11:28	81.3	12.2	223.2	6.0	475.7	48.8	97.6	0.0	106.5	147.7	300.0	0.0	0.0	1498.9
OBSERVATION_OPN	232 12:53	233 11:28	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_000EA_G34HEFNON233_PRIME	233 11:28	233 20:23	32.1	4.8	86.4	1.6	0.0	19.3	38.5	0.0	42.1	2.4	0.0	0.0	0.0	227.2
DAILY TOTAL SCIENCE	232 12:53	233 20:23	113.4	17.0	309.6	7.6	475.7	68.0	136.1	0.0	148.6	150.1	300.0	0.0		
OBSERVATION_NOR	233 20:23	234 11:23	54.0	8.1	0.0	2.7	294.0	32.4	64.8	0.0	70.7	93.5	200.0	0.0	0.0	820.2
OBSERVATION_OPN	233 20:23	234 11:23	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_000EA_G34HEFNON234_PRIME	234 11:23	234 20:23	32.4	4.9	0.0	1.6	0.0	19.4	38.9	0.0	42.4	2.5	0.0	0.0	0.0	142.1
DAILY TOTAL SCIENCE	233 20:23	234 20:23	86.4	12.9	0.0	4.3	294.0	51.8	103.7	0.0	113.2	95.9	200.0	0.0		
OBSERVATION_NOR	234 20:23	235 03:53	272.8	4.0	14.4	1.3	273.7	53.4	32.4	0.0	180.8	31.8	0.0	0.0	0.0	864.6
OBSERVATION_OPN	234 20:23	235 03:53	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_000EA_M70METNON235_PRIME	235 03:53	235 12:53	32.4	4.9	86.4	1.6	0.0	64.0	38.9	0.0	217.0	2.5	0.0	0.0	0.0	447.6
DAILY TOTAL SCIENCE	234 20:23	235 12:53	305.2	8.9	100.8	3.0	273.7	117.4	71.3	0.0	397.8	34.3	0.0	0.0		
OBSERVATION_NOR	235 12:53	236 09:53	75.6	11.3	201.6	3.8	475.7	45.4	90.7	0.0	99.0	136.8	300.0	0.0	0.0	1439.9
OBSERVATION_OPN	235 12:53	236 09:53	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_000EA_G34HEFOTP236_PRIME	236 09:53	236 21:53	43.2	6.5	0.0	2.2	0.0	25.9	51.8	0.0	56.6	3.3	0.0	0.0	0.0	189.5
DAILY TOTAL SCIENCE	235 12:53	236 21:53	118.8	17.8	201.6	5.9	475.7	71.3	142.6	0.0	155.6	140.1	300.0	0.0		
OBSERVATION_NOR	236 21:53	237 09:38	42.3	6.3	0.0	2.1	294.0	25.4	50.8	0.0	55.4	70.6	200.0	0.0	0.0	747.0
OBSERVATION_OPN	236 21:53	237 09:38	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_000EA_G34HEFOTB237_PRIME	237 09:38	237 21:38	43.2	6.5	0.0	2.2	0.0	25.9	51.8	0.0	56.6	3.3	0.0	0.0	0.0	189.5
DAILY TOTAL SCIENCE	236 21:53	237 21:38	85.5	12.8	0.0	4.3	294.0	51.3	102.6	0.0	112.0	73.9	200.0	0.0		
OBSERVATION_NOR	237 21:38	238 03:38	21.6	3.2	14.4	3.0	73.7	13.0	25.9	0.0	28.3	25.0	0.0	0.0	0.0	208.1
OBSERVATION_OPN	237 21:38	238 03:38	0.0	0.0	0.0	0.0	17.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.4
SP_000EA_M34HEFNON238_PRIME	238 03:38	238 12:38	32.4	4.9	0.0	1.6	0.0	19.4	38.9	0.0	42.4	2.5	0.0	0.0	0.0	142.1
DAILY TOTAL SCIENCE	237 21:38	238 12:38	54.0	8.1	14.4	4.7	73.7	32.4	64.8	0.0	70.7	27.4	0.0	0.0		
OBSERVATION_NOR	238 12:38	239 10:58	80.4	12.0	223.2	4.0	475.7	48.2	96.5	0.0	105.3	148.2	300.0	0.0	0.0	1493.6
OBSERVATION_OPN	238 12:38	239 10:58	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_000EA_G34BWGNON239_PRIME	239 10:58	239 19:58	32.4	4.9	86.4	1.6	0.0	19.4	38.9	0.0	42.4	2.5	0.0	0.0	0.0	228.5
DAILY TOTAL SCIENCE	238 12:38	239 19:58	112.8	16.9	309.6	5.6	475.7	67.7	135.4	0.0	147.8	150.7	300.0	0.0		
OBSERVATION_NOR	239 19:58	240 11:09	54.7	8.2	0.0	2.7	294.0	32.8	65.6	0.0	71.6	93.7	200.0	0.0	0.0	823.3
OBSERVATION_OPN	239 19:58	240 11:09	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_000EA_G34HEFNON240_PRIME	240 11:09	240 20:09	32.4	4.1	0.0	1.6	0.0	19.4	38.9	0.0	42.4	2.5	0.0	0.0	0.0	141.4
DAILY TOTAL SCIENCE	239 19:58	240 20:09	87.1	12.3	0.0	4.4	294.0	52.2	104.5	0.0	114.0	96.2	200.0	0.0		
OBSERVATION_NOR	240 20:09	241 03:34	26.7	2.7	0.0	1.3	73.7	16.0	32.0	0.0	35.0	31.8	0.0	0.0	0.0	219.2
OBSERVATION_OPN	240 20:09	241 03:34	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_M34HEFNON241_PRIME	241 03:34	241 12:34	32.4	3.2	0.0	1.6	0.0	19.4	38.9	0.0	42.4	2.5	0.0	0.0	0.0	140.5
DAILY TOTAL SCIENCE	240 20:09	241 12:34	59.1	5.9	0.0	3.0	73.7	35.5	70.9	0.0	77.4	34.3	0.0	0.0		

Final Sequenced SMT and Data Volume (6/11)

DATA VOLUME REPORT --- TRANSFER FRAME OVERHEAD NOT INCLUDED

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	241 12:34	242 10:59	80.7	8.1	223.2	4.0	475.7	48.4	96.8	0.0	105.7	147.7	300.0	0.0	0.0	1490.4
OBSERVATION_OPN	241 12:34	242 10:59	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_G34HEFNON242_PRIME	242 10:59	242 19:59	32.4	3.2	0.0	1.6	0.0	19.4	38.9	0.0	42.4	2.5	0.0	0.0	0.0	140.5
DAILY TOTAL SCIENCE	241 12:34	242 19:59	113.1	11.3	223.2	5.7	475.7	67.9	135.7	0.0	148.2	150.2	300.0	0.0		
OBSERVATION_NOR	242 19:59	243 10:54	53.7	5.4	0.0	4.7	294.0	32.2	64.4	0.0	70.3	93.7	200.0	0.0	0.0	818.5
OBSERVATION_OPN	242 19:59	243 10:54	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_G34HEFNON243_PRIME	243 10:54	243 19:54	32.4	3.2	86.4	1.6	0.0	19.4	38.9	0.0	42.4	2.5	0.0	0.0	0.0	226.9
DAILY TOTAL SCIENCE	242 19:59	243 19:54	86.1	8.6	86.4	6.3	294.0	51.7	103.3	0.0	112.8	96.2	200.0	0.0		
OBSERVATION_NOR	243 19:54	244 03:19	149.6	2.7	0.0	1.3	73.7	52.8	32.0	0.0	123.1	21.0	0.0	0.0	0.0	456.1
OBSERVATION_OPN	243 19:54	244 03:19	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_M70ARRNON244_PRIME	244 03:19	244 12:19	32.4	3.2	0.0	1.6	0.0	64.0	38.9	0.0	149.3	2.5	0.0	0.0	0.0	292.0
DAILY TOTAL SCIENCE	243 19:54	244 12:19	182.0	5.9	0.0	3.0	73.7	116.8	70.9	0.0	272.4	23.5	0.0	0.0		
OBSERVATION_NOR	244 12:19	245 10:44	80.7	8.1	223.2	4.0	475.7	48.4	96.8	0.0	105.7	147.7	300.0	0.0	0.0	1490.4
OBSERVATION_OPN	244 12:19	245 10:44	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_G34HEFNON245_PRIME	245 10:44	245 19:44	32.4	3.2	86.4	1.6	0.0	19.4	38.9	0.0	42.4	2.5	0.0	0.0	0.0	226.9
DAILY TOTAL SCIENCE	244 12:19	245 19:44	113.1	11.3	309.6	5.7	475.7	67.9	135.7	0.0	148.2	150.2	300.0	0.0		
OBSERVATION_NOR	245 19:44	246 10:39	53.7	5.4	0.0	2.7	294.0	32.2	64.4	0.0	70.3	93.5	200.0	0.0	0.0	816.2
OBSERVATION_OPN	245 19:44	246 10:39	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_G34BWGNON246_PRIME	246 10:39	246 19:39	32.4	3.2	0.0	1.6	0.0	19.4	38.9	0.0	42.4	2.5	0.0	0.0	0.0	140.5
DAILY TOTAL SCIENCE	245 19:44	246 19:39	86.1	8.6	0.0	4.3	294.0	51.7	103.3	0.0	112.8	95.9	200.0	0.0		
OBSERVATION_NOR	246 19:39	247 03:04	26.7	2.7	0.0	1.3	73.7	16.0	32.0	0.0	35.0	31.8	0.0	0.0	0.0	219.2
OBSERVATION_OPN	246 19:39	247 03:04	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_M34HEFNON247_PRIME	247 03:04	247 12:04	32.4	3.2	0.0	1.6	0.0	19.4	38.9	0.0	42.4	2.5	0.0	0.0	0.0	140.5
DAILY TOTAL SCIENCE	246 19:39	247 12:04	59.1	5.9	0.0	3.0	73.7	35.5	70.9	0.0	77.4	34.3	0.0	0.0		
OBSERVATION_NOR	247 12:04	248 10:29	69.4	8.1	223.2	6.0	335.7	38.0	89.3	0.0	97.0	147.7	300.0	0.0	0.0	1314.4
OBSERVATION_OPN	247 12:04	248 10:29	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_G34HEFNON248_PRIME	248 10:29	248 19:29	22.7	3.2	86.4	1.6	0.0	10.5	32.4	0.0	35.0	2.5	0.0	0.0	0.0	194.3
DAILY TOTAL SCIENCE	247 12:04	248 19:29	92.1	11.3	309.6	7.6	335.7	48.6	121.7	0.0	132.0	150.2	300.0	0.0		
OBSERVATION_NOR	248 19:29	249 10:40	416.3	5.5	0.0	2.7	294.0	17.8	54.7	0.0	59.0	42.8	200.0	0.0	0.0	1092.7
OBSERVATION_OPN	248 19:29	249 10:40	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_G34HEFNON249_PRIME	249 10:40	249 19:40	22.7	3.2	0.0	1.6	0.0	10.5	32.4	0.0	35.0	2.5	0.0	0.0	0.0	107.9
DAILY TOTAL SCIENCE	248 19:29	249 19:40	438.9	8.7	0.0	4.4	294.0	28.3	87.1	0.0	94.0	45.2	200.0	0.0		
OBSERVATION_NOR	249 19:40	250 03:05	269.4	2.7	0.0	1.3	73.7	52.8	26.7	0.0	237.2	31.8	0.0	0.0	0.0	695.5
OBSERVATION_OPN	249 19:40	250 03:05	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_M70METNON250_PRIME	250 03:05	250 12:05	22.7	3.2	0.0	48.5	0.0	64.0	32.4	0.0	287.8	2.5	0.0	0.0	0.0	461.2
DAILY TOTAL SCIENCE	249 19:40	250 12:05	292.0	5.9	0.0	49.9	73.7	116.8	59.1	0.0	525.0	34.3	0.0	0.0		
OBSERVATION_NOR	250 12:05	251 10:30	56.5	8.1	147.0	4.0	1557.0	26.2	80.7	0.0	87.2	74.0	210.0	0.0	0.0	2250.7
OBSERVATION_OPN	250 12:05	251 10:30	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_G34HEFOTP251_PRIME	251 10:30	251 19:30	22.7	3.2	86.4	1.6	0.0	10.5	32.4	0.0	35.0	2.5	0.0	0.0	0.0	194.3
DAILY TOTAL SCIENCE	250 12:05	251 19:30	79.2	11.3	233.4	5.7	1557.0	36.8	113.1	0.0	122.1	76.4	210.0	0.0		
OBSERVATION_NOR	251 19:30	252 10:25	37.6	5.4	75.6	2.7	430.3	17.5	53.7	0.0	58.0	73.0	52.5	0.0	0.0	806.2
OBSERVATION_OPN	251 19:30	252 10:25	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_G34HEFOTB252_PRIME	252 10:25	252 19:25	22.7	3.2	0.0	1.6	0.0	10.5	32.4	0.0	35.0	2.5	0.0	0.0	0.0	107.9
DAILY TOTAL SCIENCE	251 19:30	252 19:25	60.3	8.6	75.6	4.3	430.3	28.0	86.1	0.0	93.0	75.5	52.5	0.0		

Final Sequenced SMT and Data Volume (7/11)

DATA VOLUME REPORT --- TRANSFER FRAME OVERHEAD NOT INCLUDED

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	252 19:25	253 02:50	18.7	2.7	0.0	3.3	73.7	8.7	26.7	0.0	28.8	31.8	0.0	0.0	0.0	194.3
OBSERVATION_OPN	252 19:25	253 02:50	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_M70ARRNON253_PRIME	253 02:50	253 07:10	10.9	1.6	0.0	0.8	0.0	5.1	15.6	0.0	16.8	1.2	0.0	0.0	0.0	52.0
SP_00AEA_M34BWGNON253_PRIME	253 07:10	253 11:50	11.8	1.7	0.0	0.8	0.0	5.5	16.8	0.0	18.1	1.3	0.0	0.0	0.0	56.0
DAILY TOTAL SCIENCE	252 19:25	253 11:50	41.4	5.9	0.0	4.9	73.7	19.2	59.1	0.0	63.8	34.3	0.0	0.0		
OBSERVATION_NOR	253 11:50	254 10:15	56.5	8.1	147.0	4.0	1557.0	26.2	80.7	0.0	87.2	74.0	210.0	0.0	0.0	2250.7
OBSERVATION_OPN	253 11:50	254 10:15	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_G34HEFSEQ254_PRIME	254 10:15	254 19:15	22.7	3.2	86.4	1.6	0.0	10.5	32.4	0.0	35.0	2.5	0.0	0.0	0.0	194.3
DAILY TOTAL SCIENCE	253 11:50	254 19:15	79.2	11.3	233.4	5.7	1557.0	36.8	113.1	0.0	122.1	76.4	210.0	0.0		
OBSERVATION_NOR	254 19:15	255 10:10	37.6	5.4	75.6	2.7	430.3	17.5	53.7	0.0	58.0	73.0	52.5	0.0	0.0	806.2
OBSERVATION_OPN	254 19:15	255 10:10	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_G34HEFSEQ255_PRIME	255 10:10	255 19:10	22.7	3.2	0.0	1.6	0.0	10.5	32.4	0.0	35.0	2.5	0.0	0.0	0.0	107.9
DAILY TOTAL SCIENCE	254 19:15	255 19:10	60.3	8.6	75.6	4.3	430.3	28.0	86.1	0.0	93.0	75.5	52.5	0.0		
OBSERVATION_NOR	255 19:10	256 02:35	269.4	2.7	0.0	40.0	213.0	52.8	26.7	0.0	266.9	31.8	0.0	0.0	0.0	903.2
OBSERVATION_OPN	255 19:10	256 02:35	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_M70METSEQ256_PRIME	256 02:35	256 11:35	22.7	3.2	0.0	48.5	0.0	64.0	32.4	0.0	323.9	2.5	0.0	0.0	0.0	497.2
DAILY TOTAL SCIENCE	255 19:10	256 11:35	292.0	5.9	0.0	88.5	213.0	116.8	59.1	0.0	590.8	34.3	0.0	0.0		
OBSERVATION_NOR	256 11:35	257 10:00	56.5	8.1	147.0	11.2	1557.0	26.2	80.7	0.0	87.2	74.0	210.0	0.0	0.0	2257.8
OBSERVATION_OPN	256 11:35	257 10:00	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_G34HEFNON257_PRIME	257 10:00	257 19:00	22.7	3.2	86.4	1.6	0.0	10.5	32.4	0.0	35.0	2.5	0.0	0.0	0.0	194.3
DAILY TOTAL SCIENCE	256 11:35	257 19:00	79.2	11.3	233.4	12.8	1557.0	36.8	113.1	0.0	122.1	76.4	210.0	0.0		
OBSERVATION_NOR	257 19:00	258 07:07	30.5	4.4	66.5	2.2	430.3	14.2	43.6	0.0	47.1	56.3	52.5	0.0	0.0	747.6
OBSERVATION_OPN	257 19:00	258 07:07	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_M70METNON258_PRIME	258 07:07	258 09:11	5.2	0.7	0.0	0.4	0.0	2.4	7.4	0.0	8.0	0.0	0.0	0.0	0.0	24.2
SP_00AEA_G34HEFNON258_PRIME	258 09:11	258 09:46	1.4	0.1	0.0	0.1	0.0	0.7	1.6	0.0	1.9	0.0	0.0	0.0	0.0	5.8
DAILY TOTAL SCIENCE	257 19:00	258 09:46	37.2	5.2	66.5	2.6	430.3	17.3	52.7	0.0	57.0	56.3	52.5	0.0		
OBSERVATION_NOR	258 09:46	258 19:01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	545.2	0.0	545.2
SP_00AEA_G34HEFNON458_PRIME	258 19:01	258 20:26	3.5	0.5	0.0	0.2	0.0	1.6	4.6	0.0	4.9	0.0	0.0	0.0	0.0	15.4
DAILY TOTAL SCIENCE	258 09:46	258 20:26	3.5	0.5	0.0	0.2	0.0	1.6	4.6	0.0	4.9	0.0	0.0	545.2		
OBSERVATION_NOR	258 20:26	259 02:21	14.9	2.1	0.0	1.1	73.7	6.9	21.3	0.0	23.0	28.2	0.0	0.0	0.0	171.2
SP_00AEA_M70ARRNON259_PRIME	259 02:21	259 07:06	12.0	1.7	0.0	0.9	0.0	5.6	17.1	0.0	18.5	1.3	0.0	0.0	0.0	57.0
SP_00AEA_M34BWGNON259_PRIME	259 07:06	259 11:21	10.7	1.5	0.0	0.8	0.0	5.0	15.3	0.0	16.5	1.2	0.0	0.0	0.0	51.0
DAILY TOTAL SCIENCE	258 20:26	259 11:21	37.6	5.4	0.0	2.7	73.7	17.5	53.7	0.0	58.0	30.7	0.0	0.0		
OBSERVATION_NOR	259 11:21	260 09:46	56.5	8.1	147.0	4.0	1557.0	26.2	80.7	0.0	87.2	74.0	210.0	0.0	0.0	2250.7
OBSERVATION_OPN	259 11:21	260 09:46	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_G34BWGNON260_PRIME	260 09:46	260 18:46	22.7	3.2	86.4	1.6	0.0	10.5	32.4	0.0	35.0	2.5	0.0	0.0	0.0	194.3
DAILY TOTAL SCIENCE	259 11:21	260 18:46	79.2	11.3	233.4	5.7	1557.0	36.8	113.1	0.0	122.1	76.4	210.0	0.0		
OBSERVATION_NOR	260 18:46	261 09:56	38.2	5.5	75.6	2.7	430.3	17.7	54.6	0.0	59.0	73.0	52.5	0.0	0.0	809.1
OBSERVATION_OPN	260 18:46	261 09:56	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_G34HEFNON261_PRIME	261 09:56	261 18:56	22.7	3.2	0.0	3.6	0.0	10.5	32.4	0.0	35.0	2.5	0.0	0.0	0.0	109.9
DAILY TOTAL SCIENCE	260 18:46	261 18:56	60.9	8.7	75.6	6.3	430.3	28.3	87.0	0.0	94.0	75.5	52.5	0.0		
OBSERVATION_NOR	261 18:56	262 02:21	149.6	8.3	0.0	1.3	73.7	26.4	26.7	0.0	114.6	49.8	0.0	0.0	0.0	450.4
OBSERVATION_OPN	261 18:56	262 02:21	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_M70METNON262_PRIME	262 02:21	262 05:21	10.8	3.3	0.0	0.5	0.0	10.7	10.8	0.0	46.4	0.8	0.0	0.0	0.0	83.4
DAILY TOTAL SCIENCE	261 18:56	262 05:21	160.4	11.6	0.0	1.9	73.7	37.1	37.5	0.0	161.0	50.6	0.0	0.0		

Final Sequenced SMT and Data Volume (8/11)

DATA VOLUME REPORT --- TRANSFER FRAME OVERHEAD NOT INCLUDED

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	262 05:21	262 06:21	3.6	1.1	0.0	0.2	0.0	3.6	3.6	0.0	15.5	0.3	0.0	0.0	0.0	27.8
SP_00AEA_M70METNON462_PRIME	262 06:21	262 11:21	18.0	5.6	72.0	0.9	0.0	17.8	18.0	0.0	77.3	1.4	0.0	0.0	0.0	210.9
DAILY TOTAL SCIENCE	262 05:21	262 11:21	21.6	6.7	72.0	1.1	0.0	21.3	21.6	0.0	92.8	1.6	0.0	0.0		
OBSERVATION_NOR	262 11:21	263 09:46	56.5	8.1	147.0	4.0	1557.0	26.2	80.7	0.0	87.2	74.0	210.0	0.0	0.0	2250.7
OBSERVATION_OPN	262 11:21	263 09:46	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_G34HEFNON263_PRIME	263 09:46	263 12:55	7.9	1.1	0.0	0.5	0.0	3.7	10.9	0.0	11.9	0.0	0.0	0.0	0.0	35.9
DAILY TOTAL SCIENCE	262 11:21	263 12:55	64.4	9.1	147.0	4.6	1557.0	29.9	91.6	0.0	99.0	74.0	210.0	0.0		
OBSERVATION_NOR	263 12:55	263 15:05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90.0	0.0	90.0
SP_00AEA_G34HEFNON463_PRIME	263 15:05	263 18:46	13.2	1.3	0.0	0.6	0.0	4.3	12.8	0.0	13.7	0.0	0.0	0.0	0.0	45.9
DAILY TOTAL SCIENCE	263 12:55	263 18:46	13.2	1.3	0.0	0.6	0.0	4.3	12.8	0.0	13.7	0.0	0.0	90.0		
OBSERVATION_NOR	263 18:46	264 09:41	53.7	5.4	75.6	2.7	430.3	17.5	53.7	0.0	58.0	73.0	52.5	0.0	0.0	822.3
OBSERVATION_OPN	263 18:46	264 09:41	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_G34HEFNON264_PRIME	264 09:41	264 18:41	32.4	3.2	0.0	1.6	0.0	10.5	32.4	0.0	35.0	2.5	0.0	0.0	0.0	117.6
DAILY TOTAL SCIENCE	263 18:46	264 18:41	86.1	8.6	75.6	4.3	430.3	28.0	86.1	0.0	93.0	75.5	52.5	0.0		
OBSERVATION_NOR	264 18:41	265 02:06	272.5	8.3	0.0	40.0	173.7	52.8	26.7	0.0	179.7	221.1	0.0	0.0	0.0	974.7
OBSERVATION_OPN	264 18:41	265 02:06	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_M70METNON265_PRIME	265 02:06	265 11:06	32.4	10.0	0.0	48.5	0.0	64.0	32.4	0.0	218.1	2.5	0.0	0.0	0.0	407.9
DAILY TOTAL SCIENCE	264 18:41	265 11:06	304.9	18.3	0.0	88.5	173.7	116.8	59.1	0.0	397.8	223.6	0.0	0.0		
OBSERVATION_NOR	265 11:06	266 09:31	80.7	8.1	147.0	4.0	1557.0	26.2	80.7	0.0	87.2	74.0	210.0	0.0	0.0	2274.9
OBSERVATION_OPN	265 11:06	266 09:31	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_G34HEFNON266_PRIME	266 09:31	266 18:31	32.4	3.2	86.4	3.6	0.0	10.5	32.4	0.0	35.0	2.5	0.0	0.0	0.0	206.0
DAILY TOTAL SCIENCE	265 11:06	266 18:31	113.1	11.3	233.4	7.6	1557.0	36.8	113.1	0.0	122.1	76.4	210.0	0.0		
OBSERVATION_NOR	266 18:31	267 09:27	53.8	5.4	75.6	2.7	430.3	17.5	53.8	0.0	58.1	73.0	52.5	0.0	0.0	822.5
OBSERVATION_OPN	266 18:31	267 09:27	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_G34BWGNON267_PRIME	267 09:27	267 18:27	32.4	3.2	0.0	1.6	0.0	10.5	32.4	0.0	35.0	2.5	0.0	0.0	0.0	117.6
DAILY TOTAL SCIENCE	266 18:31	267 18:27	86.2	8.6	75.6	4.3	430.3	28.0	86.2	0.0	93.1	75.5	52.5	0.0		
OBSERVATION_NOR	267 18:27	268 01:52	272.5	8.3	0.0	40.0	73.7	52.8	26.7	0.0	245.2	221.1	0.0	0.0	0.0	940.2
OBSERVATION_OPN	267 18:27	268 01:52	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_M70METNON268_PRIME	268 01:52	268 10:52	32.4	10.0	0.0	48.5	0.0	64.0	32.4	0.0	297.6	2.5	0.0	0.0	0.0	487.4
DAILY TOTAL SCIENCE	267 18:27	268 10:52	304.9	18.3	0.0	88.5	73.7	116.8	59.1	0.0	542.8	223.6	0.0	0.0		
OBSERVATION_NOR	268 10:52	269 09:17	80.7	8.1	147.0	4.0	1557.0	26.2	80.7	0.0	87.2	74.0	210.0	0.0	0.0	2274.9
OBSERVATION_OPN	268 10:52	269 09:17	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_G34HEFNON269_PRIME	269 09:17	269 10:47	5.4	0.5	0.0	0.3	0.0	1.8	5.4	0.0	5.8	0.4	0.0	0.0	0.0	19.6
SP_00AEA_G34HEFUNQ469_PRIME	269 10:47	269 16:52	21.9	2.2	0.0	1.1	0.0	7.2	21.9	0.0	23.7	1.7	0.0	0.0	0.0	79.6
SP_00AEA_G34HEFNON569_PRIME	269 16:52	269 18:17	5.1	0.5	0.0	0.3	0.0	1.7	5.1	0.0	5.5	0.4	0.0	0.0	0.0	18.5
DAILY TOTAL SCIENCE	268 10:52	269 18:17	113.1	11.3	147.0	5.7	1557.0	36.9	113.1	0.0	122.1	76.4	210.0	0.0		
OBSERVATION_NOR	269 18:17	270 09:27	54.6	5.5	75.6	2.7	430.3	17.7	54.6	0.0	59.0	73.0	52.5	0.0	0.0	825.5
OBSERVATION_OPN	269 18:17	270 09:27	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_G34HEFNON270_PRIME	270 09:27	270 10:57	5.4	0.5	0.0	0.3	0.0	1.8	5.4	0.0	5.8	0.4	0.0	0.0	0.0	19.6
SP_00AEA_G34HEFUNQ470_PRIME	270 10:57	270 17:02	21.9	2.2	0.0	1.1	0.0	7.2	21.9	0.0	23.7	1.7	0.0	0.0	0.0	79.6
SP_00AEA_G34HEFNON570_PRIME	270 17:02	270 18:27	5.1	0.5	0.0	0.3	0.0	1.7	5.1	0.0	5.5	0.4	0.0	0.0	0.0	18.5
DAILY TOTAL SCIENCE	269 18:17	270 18:27	87.0	8.7	75.6	4.4	430.3	28.4	87.0	0.0	94.0	75.5	52.5	0.0		
OBSERVATION_NOR	270 18:27	271 01:52	316.5	8.3	0.0	40.0	73.7	52.8	26.7	0.0	243.0	221.1	0.0	0.0	0.0	982.0
OBSERVATION_OPN	270 18:27	271 01:52	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_M70METNON271_PRIME	271 01:52	271 10:52	111.2	10.0	0.0	48.5	0.0	64.0	32.4	0.0	294.8	2.5	0.0	0.0	0.0	563.5
DAILY TOTAL SCIENCE	270 18:27	271 10:52	427.7	18.3	0.0	88.5	73.7	116.8	59.1	0.0	537.8	223.6	0.0	0.0		

Final Sequenced SMT and Data Volume (9/11)

DATA VOLUME REPORT --- TRANSFER FRAME OVERHEAD NOT INCLUDED

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	271 10:52	272 09:17	80.7	8.1	147.0	6.0	1557.0	26.2	80.7	0.0	87.2	74.0	210.0	0.0	0.0	2276.9
OBSERVATION_OPN	271 10:52	272 09:17	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_G34HEFNON272_PRIME	272 09:17	272 18:17	32.4	3.2	86.4	1.6	0.0	10.5	32.4	0.0	35.0	2.5	0.0	0.0	0.0	204.0
DAILY TOTAL SCIENCE	271 10:52	272 18:17	113.1	11.3	233.4	7.6	1557.0	36.8	113.1	0.0	122.1	76.4	210.0	0.0		
OBSERVATION_NOR	272 18:17	273 09:12	53.7	5.4	75.6	2.7	430.3	17.5	53.7	0.0	58.0	73.0	52.5	0.0	0.0	822.3
OBSERVATION_OPN	272 18:17	273 09:12	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_G34HEFNON273_PRIME	273 09:12	273 18:12	32.4	3.2	0.0	1.6	0.0	10.5	32.4	0.0	35.0	2.5	0.0	0.0	0.0	117.6
DAILY TOTAL SCIENCE	272 18:17	273 18:12	86.1	8.6	75.6	4.3	430.3	28.0	86.1	0.0	93.0	75.5	52.5	0.0		
OBSERVATION_NOR	273 18:12	274 01:37	303.0	8.3	0.0	40.0	73.7	52.8	26.7	0.0	263.7	221.1	0.0	0.0	0.0	989.2
OBSERVATION_OPN	273 18:12	274 01:37	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_M70METNON274_PRIME	274 01:37	274 10:37	124.7	10.0	0.0	48.5	0.0	64.0	32.4	0.0	320.0	2.5	0.0	0.0	0.0	602.2
DAILY TOTAL SCIENCE	273 18:12	274 10:37	427.7	18.3	0.0	88.5	73.7	116.8	59.1	0.0	583.7	223.6	0.0	0.0		
OBSERVATION_NOR	274 10:37	275 09:02	80.7	8.1	147.0	4.0	1557.0	26.2	80.7	0.0	87.2	74.0	210.0	0.0	0.0	2274.9
OBSERVATION_OPN	274 10:37	275 09:02	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_G34HEFNON275_PRIME	275 09:02	275 18:02	32.4	3.2	0.0	1.6	0.0	10.5	32.4	0.0	35.0	2.5	0.0	0.0	0.0	117.6
DAILY TOTAL SCIENCE	274 10:37	275 18:02	113.1	11.3	147.0	5.7	1557.0	36.8	113.1	0.0	122.1	76.4	210.0	0.0		
OBSERVATION_NOR	275 18:02	276 08:58	53.8	5.4	75.6	2.7	430.3	17.5	53.8	0.0	58.1	73.0	52.5	0.0	0.0	822.5
OBSERVATION_OPN	275 18:02	276 08:58	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_G34HEFNON276_PRIME	276 08:58	276 19:33	38.1	3.8	0.0	3.9	0.0	12.4	38.1	0.0	41.1	2.5	0.0	0.0	0.0	139.9
DAILY TOTAL SCIENCE	275 18:02	276 19:33	91.9	9.2	75.6	6.6	430.3	29.9	91.9	0.0	99.2	75.5	52.5	0.0		
OBSERVATION_NOR	276 19:33	276 23:53	15.6	1.6	0.0	0.8	0.0	5.1	15.6	0.0	16.8	0.0	0.0	0.0	0.0	55.5
SP_00AEA_M70METNON277_PRIME	276 23:53	277 11:23	41.4	4.1	0.0	2.1	0.0	13.5	41.4	0.0	44.7	2.5	0.0	0.0	0.0	149.6
DAILY TOTAL SCIENCE	276 19:33	277 11:23	57.0	5.7	0.0	2.9	0.0	18.5	57.0	0.0	61.6	2.5	0.0	0.0		
OBSERVATION_NOR	277 11:23	278 08:48	77.1	7.7	0.0	3.9	0.0	25.1	77.1	0.0	83.3	0.0	0.0	0.0	0.0	274.1
SP_00AEA_G34HEFNON278_PRIME	278 08:48	278 17:48	32.4	3.2	0.0	1.6	0.0	10.5	32.4	0.0	35.0	2.5	0.0	0.0	0.0	117.6
DAILY TOTAL SCIENCE	277 11:23	278 17:48	109.5	11.0	0.0	5.5	0.0	35.6	109.5	0.0	118.3	2.5	0.0	0.0		
OBSERVATION_NOR	278 17:48	279 08:43	53.7	5.4	0.0	2.7	0.0	26.1	50.6	0.0	65.2	0.0	0.0	0.0	0.0	203.6
SP_00AEA_G34HEFNON279_PRIME	279 08:43	279 17:43	32.4	3.2	0.0	1.6	0.0	19.4	29.2	0.0	42.4	2.5	0.0	0.0	0.0	130.8
DAILY TOTAL SCIENCE	278 17:48	279 17:43	86.1	8.6	0.0	4.3	0.0	45.5	79.7	0.0	107.7	2.5	0.0	0.0		
OBSERVATION_NOR	279 17:43	280 01:13	27.0	2.7	0.0	1.4	32.0	16.2	24.3	0.0	35.4	31.8	0.0	0.0	0.0	170.7
OBSERVATION_OPN	279 17:43	280 01:13	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_M70METNON280_PRIME	280 01:13	280 10:13	32.4	3.2	0.0	1.6	0.0	19.4	29.2	0.0	42.4	2.5	0.0	0.0	0.0	130.8
DAILY TOTAL SCIENCE	279 17:43	280 10:13	59.4	5.9	0.0	3.0	32.0	35.6	53.5	0.0	77.8	34.3	0.0	0.0		
OBSERVATION_NOR	280 10:13	281 02:00	56.8	5.7	0.0	2.8	562.2	34.1	51.1	0.0	74.4	219.4	0.0	0.0	0.0	1006.6
OBSERVATION_OPN	280 10:13	281 02:00	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_M34HEFNON281_PRIME	281 02:00	281 07:50	21.0	2.1	62.4	1.1	0.0	12.6	18.9	0.0	27.5	1.6	0.0	0.0	0.0	147.2
DAILY TOTAL SCIENCE	280 10:13	281 07:50	77.8	7.8	62.4	3.9	562.2	46.7	70.0	0.0	101.9	221.0	0.0	0.0		
OBSERVATION_NOR	281 07:50	282 08:44	89.6	9.0	42.0	6.5	335.0	53.8	80.7	0.0	117.4	203.9	20.0	0.0	0.0	957.9
OBSERVATION_OPN	281 07:50	282 08:44	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_G34HEFNON282_PRIME	282 08:44	282 17:44	32.4	3.2	0.0	1.6	0.0	19.4	29.2	0.0	42.4	2.5	0.0	0.0	0.0	130.8
DAILY TOTAL SCIENCE	281 07:50	282 17:44	122.0	12.2	42.0	8.1	335.0	73.2	109.8	0.0	159.9	206.4	20.0	0.0		
OBSERVATION_NOR	282 17:44	283 00:59	26.1	2.6	0.0	1.3	32.0	15.7	23.5	0.0	34.2	30.6	0.0	0.0	0.0	166.0
OBSERVATION_OPN	282 17:44	283 00:59	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_M34HEFNON283_PRIME	283 00:59	283 09:59	32.4	3.2	0.0	1.6	0.0	19.4	29.2	0.0	42.4	2.5	0.0	0.0	0.0	130.8
DAILY TOTAL SCIENCE	282 17:44	283 09:59	58.5	5.9	0.0	2.9	32.0	35.1	52.7	0.0	76.6	33.1	0.0	0.0		

Final Sequenced SMT and Data Volume (10/11)

DATA VOLUME REPORT --- TRANSFER FRAME OVERHEAD NOT INCLUDED

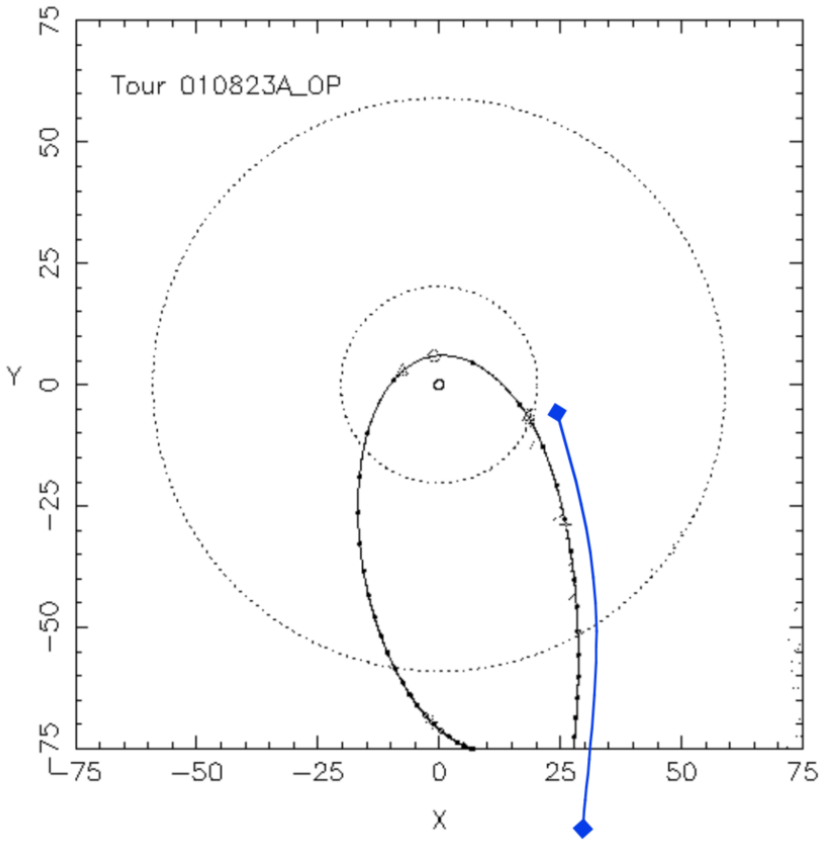
Event	Start doy hh:mm	End doy hh:mm	CAPS (Mb)	CDA (Mb)	CIRS (Mb)	INMS (Mb)	ISS (Mb)	MAG (Mb)	MIMI (Mb)	RADAR (Mb)	RPWS (Mb)	UVIS (Mb)	VIMS (Mb)	PROBE (Mb)	ENGR (Mb)	TOTAL (Mb)
OBSERVATION_NOR	283 09:59	284 08:29	269.1	8.1	147.0	4.1	1617.0	48.6	72.9	0.0	106.1	68.5	210.0	0.0	0.0	2551.4
OBSERVATION_OPN	283 09:59	284 08:29	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_G34HEFNON284_PRIME	284 08:29	284 17:29	32.4	3.2	86.4	1.6	0.0	19.4	29.2	0.0	42.4	2.5	0.0	0.0	0.0	217.2
DAILY TOTAL SCIENCE	283 09:59	284 17:29	301.5	11.3	233.4	5.7	1617.0	68.0	102.1	0.0	148.6	71.0	210.0	0.0		
OBSERVATION_NOR	284 17:29	285 08:29	54.0	5.4	0.0	2.7	40.0	32.4	48.6	0.0	70.7	78.0	0.0	0.0	0.0	331.8
OBSERVATION_OPN	284 17:29	285 08:29	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_G34HEFNON285_PRIME	285 08:29	285 10:54	8.7	0.8	0.0	0.4	0.0	5.2	7.8	0.0	11.4	0.0	0.0	0.0	0.0	34.3
SP_00AEA_G34HEFUNQ585_PRIME	285 10:54	285 16:59	21.9	0.0	0.0	0.0	0.0	10.8	19.7	0.0	28.7	0.0	0.0	0.0	0.0	81.1
SP_00AEA_G34HEFNON485_PRIME	285 16:59	285 17:29	1.8	0.2	0.0	0.1	0.0	1.1	1.9	0.0	2.4	0.0	0.0	0.0	0.0	7.4
DAILY TOTAL SCIENCE	284 17:29	285 17:29	86.4	6.4	0.0	3.2	40.0	49.5	78.0	0.0	113.2	78.0	0.0	0.0		
OBSERVATION_NOR	285 17:29	286 00:44	254.7	8.1	18.0	39.1	315.0	51.6	28.7	0.0	157.8	86.1	40.0	0.0	0.0	999.1
OBSERVATION_OPN	285 17:29	286 00:44	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_M70METNON286_PRIME	286 00:44	286 09:44	49.6	10.0	0.0	48.5	0.0	64.0	35.6	0.0	195.9	2.5	0.0	0.0	0.0	406.1
DAILY TOTAL SCIENCE	285 17:29	286 09:44	304.3	18.1	18.0	87.6	315.0	115.6	64.4	0.0	353.6	88.6	40.0	0.0		
OBSERVATION_NOR	286 09:44	287 08:14	81.0	8.1	149.4	6.0	1608.5	48.6	89.1	0.0	106.1	69.9	210.0	0.0	0.0	2376.7
OBSERVATION_OPN	286 09:44	287 08:14	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_G34BWGNON287_PRIME	287 08:14	287 17:14	32.4	3.2	86.4	1.6	0.0	19.4	35.6	0.0	42.4	2.5	0.0	0.0	0.0	223.6
DAILY TOTAL SCIENCE	286 09:44	287 17:14	113.4	11.3	235.8	7.6	1608.5	68.0	124.7	0.0	148.6	72.4	210.0	0.0		
OBSERVATION_NOR	287 17:14	288 08:14	54.0	5.4	26.4	2.7	350.0	32.4	59.4	300.0	70.7	62.3	0.0	0.0	0.0	963.3
OBSERVATION_OPN	287 17:14	288 08:14	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_G34BWGUNQ288_PRIME	288 08:14	288 10:39	8.7	0.8	0.0	0.4	0.0	5.2	9.6	0.0	11.4	0.0	0.0	0.0	0.0	36.1
SP_00AEA_G34BWGUNQ588_PRIME	288 10:39	288 16:44	21.9	0.0	0.0	0.0	0.0	10.8	24.1	0.0	28.7	0.0	0.0	0.0	0.0	85.5
SP_00AEA_G34BWGNON488_PRIME	288 16:44	288 17:14	1.8	0.2	0.0	0.1	0.0	1.1	2.0	0.0	2.4	0.0	0.0	0.0	0.0	7.5
DAILY TOTAL SCIENCE	287 17:14	288 17:14	86.4	6.4	26.4	3.2	350.0	49.5	95.0	300.0	113.2	62.3	0.0	0.0		
OBSERVATION_NOR	288 17:14	289 00:44	272.8	8.4	0.0	1.4	149.0	53.4	29.7	0.0	153.1	120.8	30.0	0.0	0.0	818.4
OBSERVATION_OPN	288 17:14	289 00:44	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_M70METSEQ289_PRIME	289 00:44	289 09:44	32.4	10.0	0.0	1.6	0.0	64.0	35.6	0.0	183.7	2.5	0.0	0.0	0.0	329.9
DAILY TOTAL SCIENCE	288 17:14	289 09:44	305.2	18.4	0.0	3.0	149.0	117.4	65.3	0.0	336.8	123.3	30.0	0.0		
OBSERVATION_NOR	289 09:44	290 08:15	81.1	8.1	154.2	4.1	1789.5	48.6	89.2	0.0	106.2	70.6	225.0	0.0	0.0	2576.5
OBSERVATION_OPN	289 09:44	290 08:15	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_G34HEFSEQ290_PRIME	290 08:15	290 17:15	32.4	3.2	0.0	1.6	0.0	19.4	35.6	0.0	42.4	2.5	0.0	0.0	0.0	137.2
DAILY TOTAL SCIENCE	289 09:44	290 17:15	113.5	11.4	154.2	5.7	1789.5	68.1	124.8	0.0	148.6	73.1	225.0	0.0		
OBSERVATION_NOR	290 17:15	291 08:00	53.1	5.3	68.4	2.7	350.0	31.9	58.4	0.0	69.6	75.5	15.0	0.0	0.0	729.8
OBSERVATION_OPN	290 17:15	291 08:00	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_G34HEFSEQ291_PRIME	291 08:00	291 17:00	32.4	3.2	0.0	3.6	0.0	19.4	35.6	0.0	42.4	2.5	0.0	0.0	0.0	139.2
DAILY TOTAL SCIENCE	290 17:15	291 17:00	85.5	8.6	68.4	6.2	350.0	51.3	94.0	0.0	112.0	78.0	15.0	0.0		
OBSERVATION_NOR	291 17:00	292 00:30	324.0	8.4	10.8	40.4	166.0	53.4	29.7	0.0	248.1	155.5	15.0	0.0	0.0	1051.3
OBSERVATION_OPN	291 17:00	292 00:30	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_M70METSEQ292_PRIME	292 00:30	292 09:30	104.0	10.0	0.0	48.5	0.0	64.0	35.6	0.0	297.7	2.5	0.0	0.0	0.0	562.4
DAILY TOTAL SCIENCE	291 17:00	292 09:30	428.0	18.4	10.8	89.0	166.0	117.4	65.3	0.0	545.8	158.0	15.0	0.0		
OBSERVATION_NOR	292 09:30	293 08:00	81.0	8.1	294.0	11.2	915.1	48.6	89.1	0.0	106.1	74.0	600.0	0.0	0.0	2227.2
OBSERVATION_OPN	292 09:30	293 08:00	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_G34HEFNON293_PRIME	293 08:00	293 17:00	32.4	3.2	86.4	1.6	0.0	19.4	35.6	0.0	42.4	2.5	0.0	0.0	0.0	223.6
DAILY TOTAL SCIENCE	292 09:30	293 17:00	113.4	11.3	380.4	12.8	915.1	68.0	124.7	0.0	148.6	76.4	600.0	0.0		

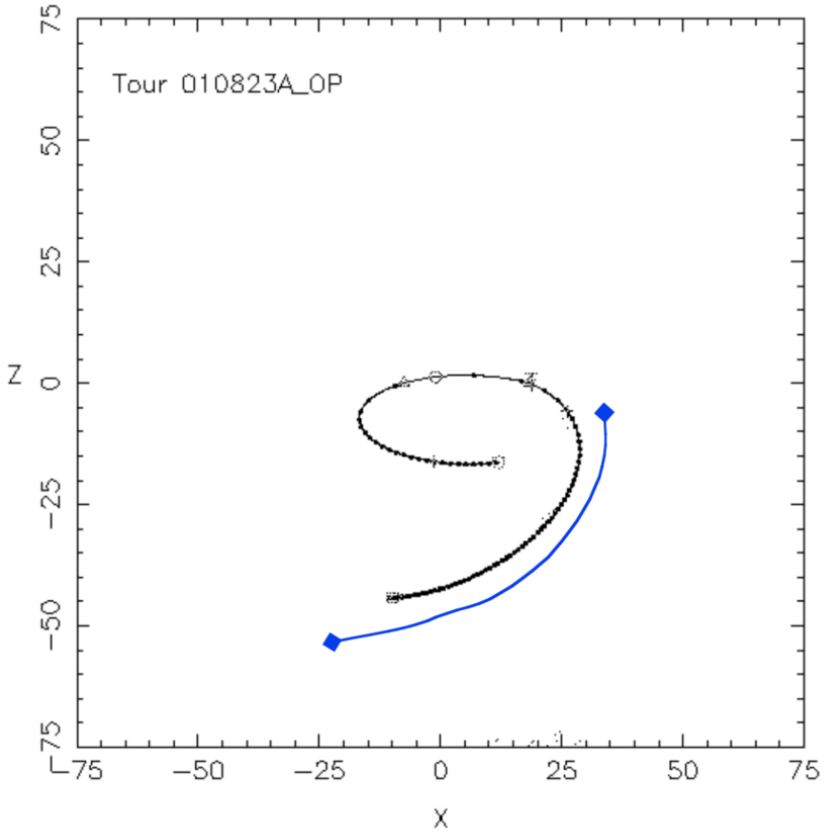
Final Sequenced SMT and Data Volume (11/11)

DATA VOLUME REPORT --- TRANSFER FRAME OVERHEAD NOT INCLUDED

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	293 17:00	294 08:00	54.0	5.4	187.2	2.7	580.3	32.4	59.4	0.0	70.7	47.1	600.0	0.0	0.0	1639.3
OBSERVATION_OPN	293 17:00	294 08:00	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_G34HEFNON294_PRIME	294 08:00	294 17:00	32.4	3.2	0.0	1.6	0.0	19.4	35.6	0.0	42.4	2.5	0.0	0.0	0.0	137.2
DAILY TOTAL SCIENCE	293 17:00	294 17:00	86.4	8.6	187.2	4.3	580.3	51.8	95.0	0.0	113.2	49.6	600.0	0.0		
OBSERVATION_NOR	294 17:00	295 00:15	26.1	2.6	28.8	1.3	52.0	15.7	28.7	0.0	34.2	28.9	0.0	0.0	0.0	218.2
OBSERVATION_OPN	294 17:00	295 00:15	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_M34HEFNON295_PRIME	295 00:15	295 09:15	32.4	3.2	0.0	1.6	0.0	19.4	35.6	0.0	42.4	2.5	0.0	0.0	0.0	137.2
DAILY TOTAL SCIENCE	294 17:00	295 09:15	58.5	5.9	28.8	2.9	52.0	35.1	64.4	0.0	76.6	31.3	0.0	0.0		
OBSERVATION_NOR	295 09:15	296 07:46	81.1	8.1	28.8	4.1	612.0	48.6	89.2	0.0	106.2	9.1	0.0	0.0	0.0	987.1
OBSERVATION_OPN	295 09:15	296 07:46	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_G34HEFNON296_PRIME	296 07:46	296 16:46	32.4	3.2	86.4	1.6	0.0	19.4	35.6	0.0	42.4	2.5	0.0	0.0	0.0	223.6
DAILY TOTAL SCIENCE	295 09:15	296 16:46	113.5	11.4	115.2	5.7	612.0	68.1	124.8	0.0	148.6	11.5	0.0	0.0		
OBSERVATION_NOR	296 16:46	297 00:16	149.9	2.7	43.2	1.4	194.0	26.7	48.6	0.0	67.6	23.8	0.0	0.0	0.0	557.8
OBSERVATION_OPN	296 16:46	297 00:16	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_M34HEFOTP297_PRIME	297 00:16	297 09:16	32.4	3.2	86.4	1.6	0.0	32.0	58.3	0.0	81.1	2.5	0.0	0.0	0.0	297.6
DAILY TOTAL SCIENCE	296 16:46	297 09:16	182.3	5.9	129.6	3.0	194.0	58.7	106.9	0.0	148.7	26.2	0.0	0.0		
OBSERVATION_NOR	297 09:16	298 00:01	53.1	5.3	0.0	2.7	491.0	52.5	95.6	0.0	132.9	0.0	50.0	0.0	0.0	883.1
OBSERVATION_OPN	297 09:16	298 00:01	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_M70METOTB298_PRIME	298 00:01	298 09:01	32.4	3.2	0.0	1.6	0.0	32.0	58.3	0.0	81.1	2.5	0.0	0.0	0.0	211.2
DAILY TOTAL SCIENCE	297 09:16	298 09:01	85.5	8.6	0.0	4.3	491.0	84.5	153.9	0.0	214.0	2.5	50.0	0.0		
OBSERVATION_NOR	298 09:01	299 07:31	56.7	8.1	0.0	4.1	680.2	26.5	60.7	496.6	87.5	0.0	80.7	0.0	0.0	1501.1
OBSERVATION_OPN	298 09:01	299 07:31	0.0	0.0	0.0	0.0	34.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.8
SP_00AEA_M70METNON299_PRIME	299 07:31	299 11:00	8.8	1.3	28.6	0.6	0.0	4.1	9.4	0.0	13.5	1.0	0.0	0.0	0.0	67.2
SP_00AEA_G34HEFNON299_PRIME	299 11:00	299 16:31	13.9	2.0	57.8	1.0	0.0	6.5	14.9	0.0	21.4	1.5	0.0	0.0	0.0	119.1
DAILY TOTAL SCIENCE	298 09:01	299 16:31	79.4	11.3	86.4	5.7	680.2	37.0	85.0	496.6	122.5	2.5	80.7	0.0		

Segment Geometry (1 of 6)





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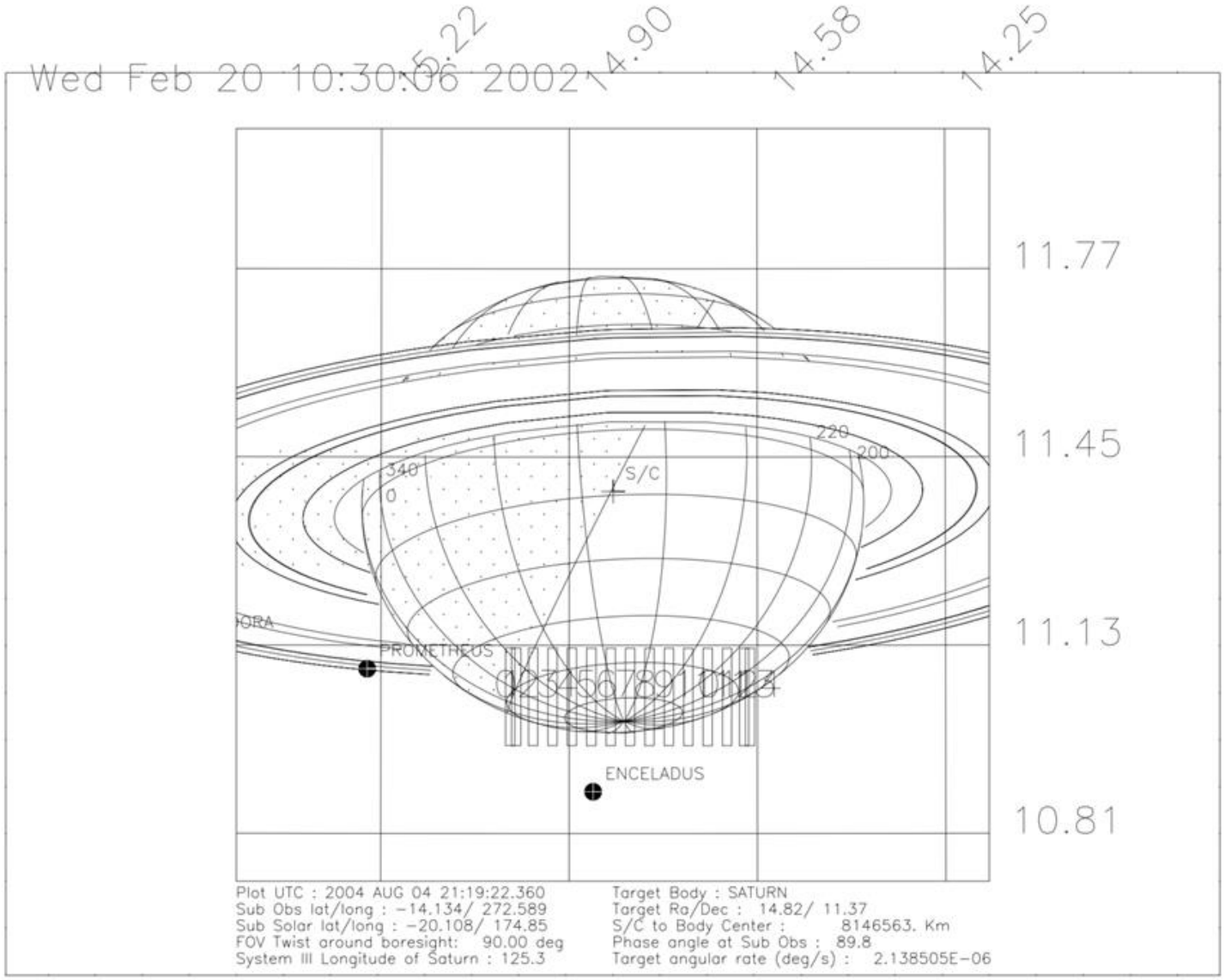
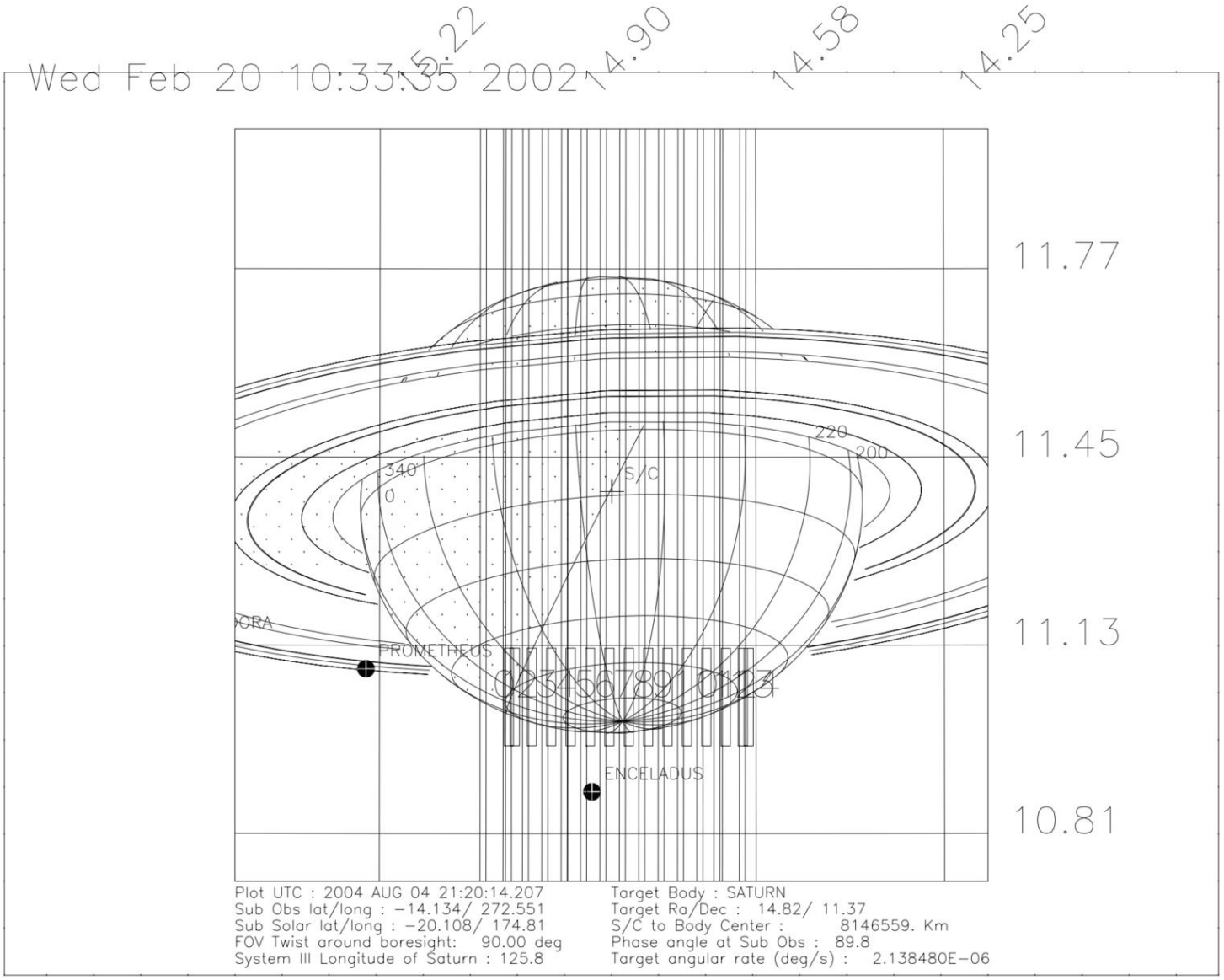


Segment Geometry (3 of 6)



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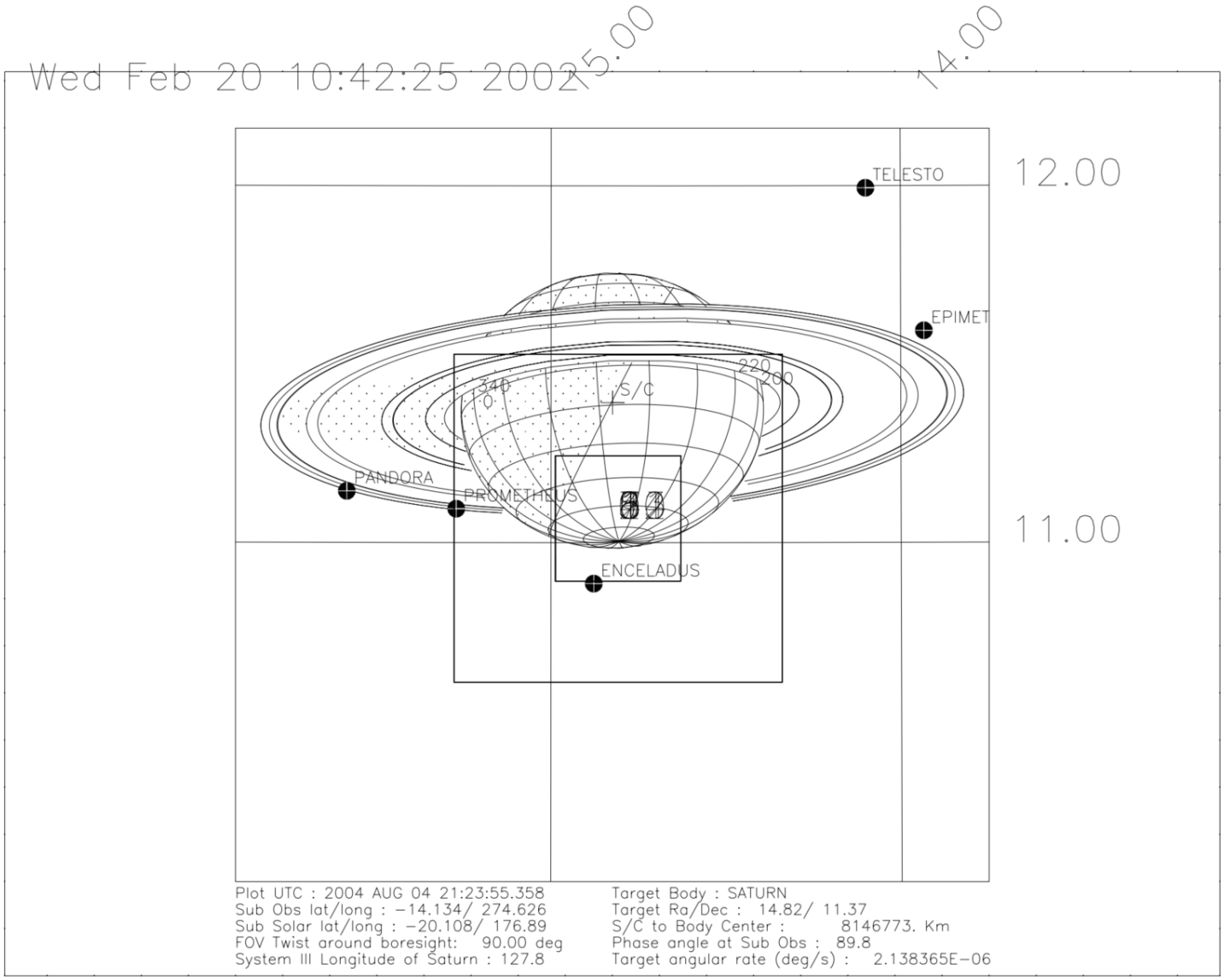
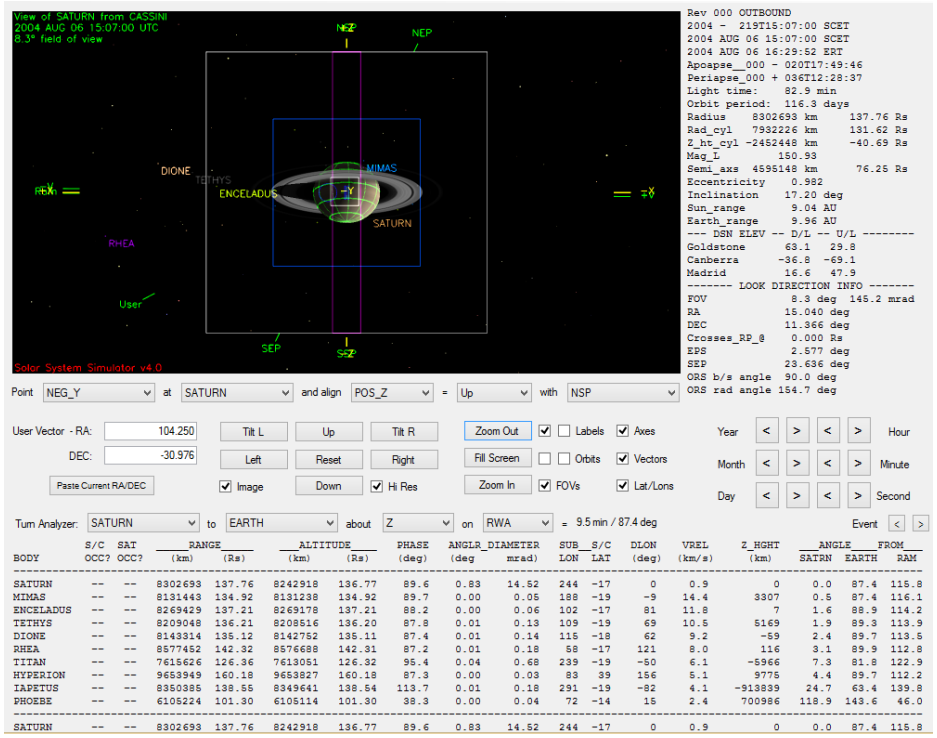


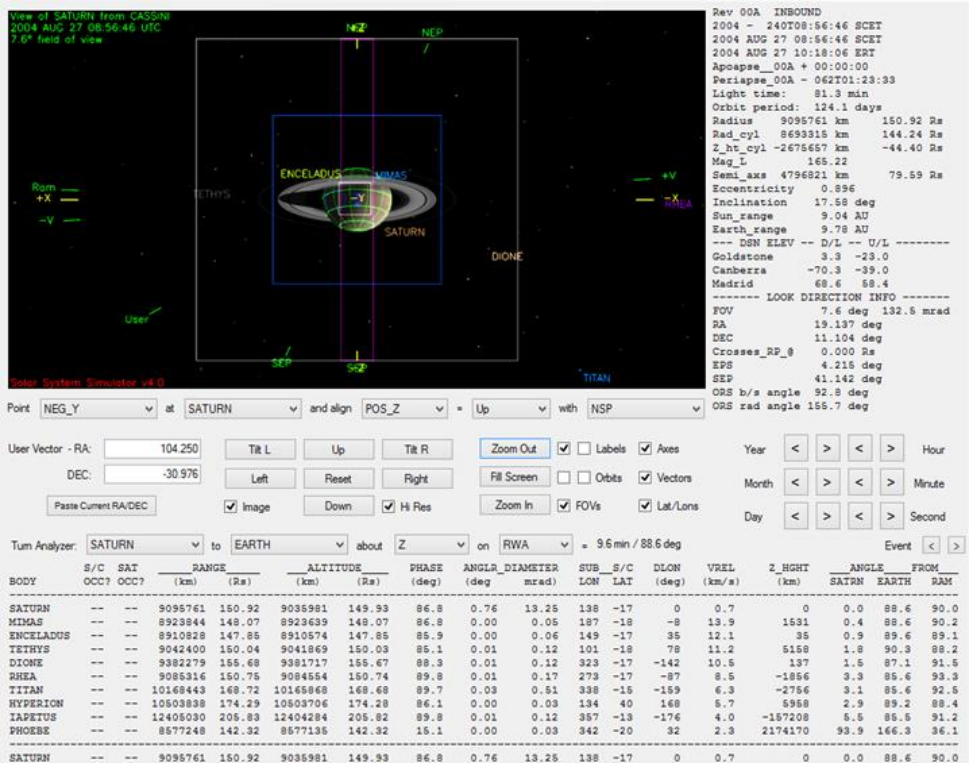
Segment Geometry (5 of 6)



BODY	S/C OCC?	SAT OCC?	RANGE (km)	RANGE (Rs)	ALTITUDE (km)	ALTITUDE (Rs)	PHASE (deg)	ANGLR_DIAMETER (deg)	ANGLR_DIAMETER mrad	SUB_S/C LON	SUB_S/C LAT	DLON (deg)	VREL (km/s)	Z_HGHT (km)	ANGLE FROM SATRN	ANGLE FROM EARTH	ANGLE FROM RAM
SATURN	--	--	8302693	137.76	8242918	136.77	89.6	0.83	14.52	244	-17	0	0.9	0	0.0	87.4	115.8
MIMAS	--	--	8131443	134.92	8131238	134.92	89.7	0.00	0.05	188	-19	-9	14.4	3307	0.5	87.4	116.1
ENCELADUS	--	--	8269429	137.21	8269178	137.21	88.2	0.00	0.06	102	-17	81	11.8	7	1.6	88.9	114.2
TETHYS	--	--	8209048	136.21	8208516	136.20	87.8	0.01	0.13	109	-19	69	10.5	5169	1.9	89.3	113.9
DIONE	--	--	8143314	135.12	8142752	135.11	87.4	0.01	0.14	115	-18	62	9.2	-59	2.4	89.7	113.5
RHEA	--	--	8577452	142.32	8576688	142.31	87.2	0.01	0.18	58	-17	121	8.0	116	3.1	89.9	112.8
TITAN	--	--	7615626	126.36	7613051	126.32	95.4	0.04	0.68	239	-19	-50	6.1	-5966	7.3	81.8	122.9
HYPERION	--	--	9653949	160.18	9653827	160.18	87.3	0.00	0.03	83	39	156	5.1	9775	4.4	89.7	112.2
IAPETUS	--	--	8350385	138.55	8349641	138.54	113.7	0.01	0.18	291	-19	-82	4.1	-913839	24.7	63.4	139.8
PHOEBE	--	--	6105224	101.30	6105114	101.30	38.3	0.00	0.04	72	-14	15	2.4	700986	118.9	143.6	46.0
SATURN	--	--	8302693	137.76	8242918	136.77	89.6	0.83	14.52	244	-17	0	0.9	0	0.0	87.4	115.8

Seg Start

Rev A Apoapse

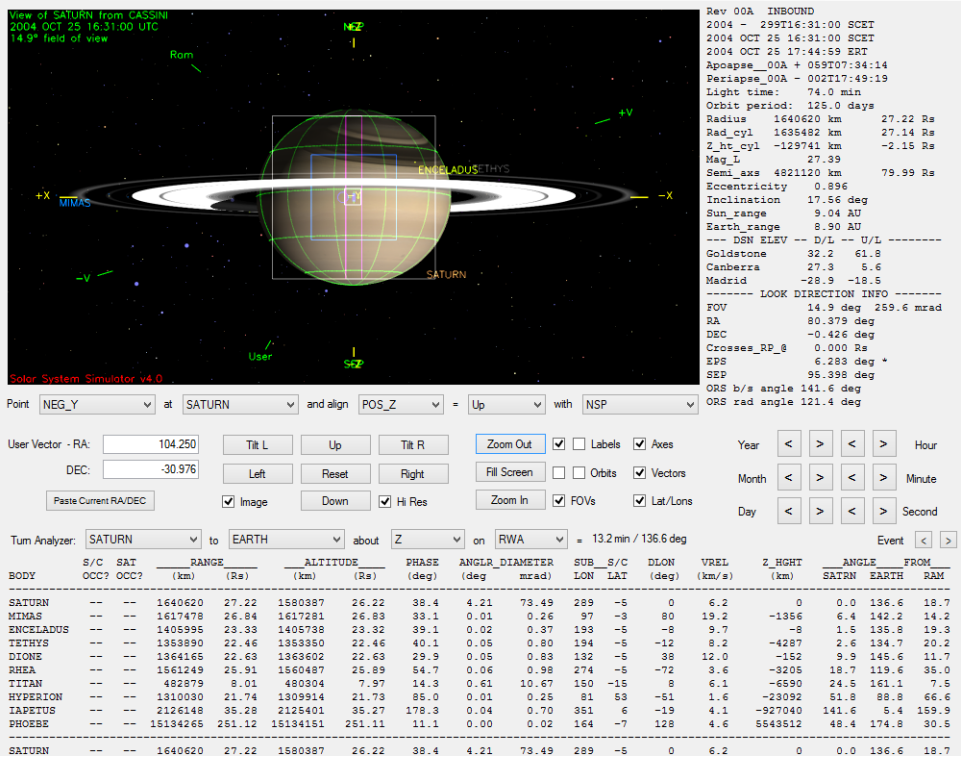


BODY	S/C OCC?	SAT OCC?	RANGE (km)	RANGE (Rs)	ALTITUDE (km)	ALTITUDE (Rs)	PHASE (deg)	ANGLR_DIAMETER (deg	ANGLR_DIAMETER mrad)	SUB_S/C LON	SUB_S/C LAT	DLON (deg)	VREL (km/s)	Z_HGHT (km)	ANGLE FROM SATRN	ANGLE FROM EARTH	ANGLE FROM RAM
SATURN	--	--	9095761	150.92	9035981	149.93	86.8	0.76	13.25	138	-17	0	0.7	0	0.0	88.6	90.0
MIMAS	--	--	8923844	148.07	8923639	148.07	86.8	0.00	0.05	187	-18	-8	13.9	1531	0.4	88.6	90.2
ENCELADUS	--	--	8910828	147.85	8910574	147.85	85.9	0.00	0.06	149	-17	35	12.1	35	0.9	89.6	89.1
TETHYS	--	--	9042400	150.04	9041869	150.03	86.1	0.01	0.12	101	-18	78	11.2	5158	1.8	90.3	88.2
DIONE	--	--	9382279	155.68	9381717	155.67	88.3	0.01	0.12	323	-17	-142	10.5	137	1.5	87.1	91.5
RHEA	--	--	9085316	150.75	9084554	150.74	89.8	0.01	0.17	273	-17	-87	8.5	-1856	3.3	85.6	93.3
TITAN	--	--	10168443	168.72	10165868	168.68	89.7	0.03	0.51	338	-15	-159	6.3	-2756	3.1	85.6	92.5
HYPERION	--	--	10503838	174.29	10503706	174.28	86.1	0.00	0.03	134	40	168	5.7	5958	2.9	89.2	88.4
IAPETUS	--	--	12405030	205.83	12404284	205.82	89.8	0.01	0.12	357	-13	-176	4.0	-157208	5.5	85.5	91.2
PHOEBE	--	--	8577248	142.32	8577135	142.32	15.1	0.00	0.03	342	-20	32	2.3	2174170	93.9	166.3	36.1
SATURN	--	--	9095761	150.92	9035981	149.93	86.8	0.76	13.25	138	-17	0	0.7	0	0.0	88.6	90.0

	Saturn Range	Phase Angle	Sub-S/C Lat.
Segment Start	137.76	89.6	-17
Apoapse	150.92	86.8	-17
Segment End	27.22	38.4	-5

Segment Geometry (6 of 6)

Segment End



BODY	S/C OCC?	SAT OCC?	RANGE (km)	RANGE (Rs)	ALTITUDE (km)	ALTITUDE (Rs)	PHASE (deg)	ANGLR DIAMETER (deg)	ANGLR DIAMETER mrad)	SUB S/C LON	SUB S/C LAT	DLON (deg)	VREL (km/s)	Z_HGHT (km)	ANGLE FROM SATRN	ANGLE FROM EARTH	ANGLE FROM RAM
SATURN	--	--	1640620	27.22	1580387	26.22	38.4	4.21	73.49	289	-5	0	6.2	0	0.0	136.6	18.7
MIMAS	--	--	1617478	26.84	1617281	26.83	33.1	0.01	0.26	97	-3	80	19.2	-1356	6.4	142.2	14.2
ENCELADUS	--	--	1405995	23.33	1405738	23.32	39.1	0.02	0.37	193	-5	-8	9.7	-8	1.5	135.8	19.3
TETHYS	--	--	1353890	22.46	1353350	22.46	40.1	0.05	0.80	194	-5	-12	8.2	-4287	2.6	134.7	20.2
DIONE	--	--	1364165	22.63	1363602	22.63	29.9	0.05	0.83	132	-5	38	12.0	-152	9.9	145.6	11.7
RHEA	--	--	1561249	25.91	1560487	25.89	54.7	0.06	0.98	274	-5	-72	3.6	-3205	18.7	119.6	35.0
TITAN	--	--	482879	8.01	480304	7.97	14.3	0.61	10.67	150	-15	8	6.1	-6590	24.5	161.1	7.5
HYPERION	--	--	1310030	21.74	1309914	21.73	85.0	0.01	0.25	81	53	-51	1.6	-23092	51.8	88.8	66.6
IAPETUS	--	--	2126148	35.28	2125401	35.27	178.3	0.04	0.70	351	6	-19	4.1	-927040	141.6	5.4	159.9
PHOEBE	--	--	15134265	251.12	15134151	251.11	11.1	0.00	0.02	164	-7	128	4.6	5543512	48.4	174.8	30.5
SATURN	--	--	1640620	27.22	1580387	26.22	38.4	4.21	73.49	289	-5	0	6.2	0	0.0	136.6	18.7

Science Highlights

Week Ending 08/13/04: Unavailable

Week Ending 08/20/04: On board activities included uplink and execution of a Cosmic Dust Analyzer (CDA) flight software checkout mini-sequence, memory readouts of the Command & Data Subsystem action log and non-interfering error log, and uplink of files to unmask the helium latch valve driver assembly fault protection monitors and to update the default main engine thrust value from 450 Newtons to 443 Newtons prior to Orbit Trim Maneuver(OTM) #2, aka the Periapsis Raise Maneuver (PRM).

Week Ending 08/27/04: Science activities this week included optical remote sensing (ORS) scans of Saturn's south pole as well as Ultraviolet Imaging Spectrograph mosaics of Saturn's magnetosphere. Imaging Science Subsystem (ISS) performed mosaics and movies of the rings and Saturn's south pole. Magnetospheric Imaging Instrument (MIMI) imaged the magnetosphere and observed the solar winds and pickup ions while the ORS instruments simultaneously observed Saturn's aurora. Magnetospheric and Plasma Science (MAPS) continued its campaign to study the influence of the solar wind on Saturn's aurora.

Week Ending 09/03/04: Cassini passed apoapsis, the farthest point from Saturn in its orbit, and in this case, in the entire tour. It also marked the transition between Rev 0 and Rev A - Rev being another term for orbit - and marks the start of Cassini's approach to Titan for the Titan-a encounter in October. At its present position, Cassini is outside Saturn's magnetosphere. From this vantage point the Magnetospheric and Plasma Science (MAPS) instruments continued their campaign to study the influence of the solar wind on Saturn's aurora. The combination of this large distance and the quality of the imaging subsystem allows an opportunity to obtain mosaics and movies over large areas that will be used to study storms and dynamics in Saturn's atmosphere. This week the optical remote sensing (ORS) instruments scanned Saturn's south pole, obtained ultraviolet mosaics of Saturn's magnetosphere, and observed Saturn's aurora. The imaging cameras obtained mosaics and movies of the rings and Saturn's south pole, and the Magnetospheric Imaging Instrument (MIMI) imaged the magnetosphere and observed the solar wind and pickup ions.

Week Ending 09/10/04: Science activities this week included optical remote sensing (ORS) scans and movies of Saturn's south pole to observe waves and storms at southern latitudes, ultraviolet mosaics of Saturn's magnetosphere, and mosaics of the rings and Saturn's south pole. The Magnetospheric and plasma science (MAPS) instruments continue observations of the solar wind, and the Cassini Plasma Spectrometer (CAPS) performed a solar wind beam calibration.

Week Ending 09/17/04: S04 continues many instrument observation campaigns from the S03 sequence. This includes a near-global Saturn atmospheric campaign, which observes wave propagation, spot merges, and eruption and evolution of convective storms. Ultraviolet imaging is also being used to examine polar hazes and to look for possible lightning on the night side of Saturn. Optical Navigation (OPNAV) images have recently been taken twice a day to refine Cassini's trajectory and improve knowledge of the satellites' orbits.

Week Ending 09/24/04: On Sunday, the first battery depassivation sequence was executed on the Huygens probe. The purpose of the depassivation activity is to remove the thin layer that forms within the lithium-sulphur-dioxide battery cells on the surface of their electrodes. This layer, which builds up naturally over time, helps the cells to retain their charge during the long Cassini cruise phase but is undesirable for operations during the Probe mission. Other on-board activities this week included a Radio Science Subsystem (RSS) Periodic Instrument Maintenance activity, a characterization of the Ultra-Stable Oscillator, and a calibration of the High-Gain Antenna boresight. This is the first time RSS has used an Inertial Vector Definition file to produce and implement an actual spacecraft activity. The activity was performed successfully. The Imaging Science Subsystem (ISS) focused on long duration movies looking for ring 'spokes.' Magnetospheric and Plasma Science (MAPS) instruments continued to search for upstream plasma activity and monitored the solar wind. Optical Navigation took images twice a day to refine Cassini's trajectory and improve knowledge of the satellites' orbits.

Week Ending 10/01/04: On-board activities this week included the continuation of Ultraviolet Imaging Spectrograph (UVIS) mosaics of Saturn's magnetosphere and solar wind measurements by the Magnetospheric and Plasma Science instruments. Cassini's Optical Navigation team took images twice a day to help refine Cassini's trajectory and improve knowledge of the satellites' orbits. The Imaging Science Subsystem (ISS) also obtained Saturn mosaics and recorded long-duration ring spoke movies.

Week Ending 10/08/04: This week, the Spacecraft Operations Office performed a checkout of the updated version of the Attitude Control Subsystem (ACS) flight software. ACS version A8.7.1 prepares Cassini for Huygens Probe release on December 24, 2004 and the remainder of tour operations. The checkout was a simulated probe release using the spun-up reaction wheels to impart a torque for the thruster system to respond to. Both ACS computers are now up and running on A8.7.1. After the checkout was successfully completed, a science mini-sequence was uplinked and began execution to continue S04 on-going observational campaigns. This included movies looking for spoke formations in Saturn's rings, ultraviolet imaging of Saturn's magnetosphere, and solar wind measurements by the Magnetospheric and Plasma Science (MAPS) instruments.

Science Highlights

Week Ending 10/15/04: On-board activities this week featured more varied Imaging Science Subsystem (ISS) observations than in previous weeks. In addition to movies of Saturn's rings, ISS performed a global color map of Iapetus, numerous observations of small satellites used for orbit determination, diffuse ring images, and Phoebe spectrophotometry. The Ultraviolet Imaging Spectrograph (UVIS) observed a stellar occultation interior to the B ring, which provided a high-resolution study of low optical depth regions.

Week Ending 10/22/04: This week saw the conclusion of the 35 day S04 background sequence. Science activity included movies of Saturn's rings by ISS, solar wind measurements by the Magnetospheric and Plasma Science (MAPS) instruments, a RADAR engineering test of diagnostic modes used on the instrument, and the start of the Iapetus distant flyby campaign for high-priority Gm Doppler data collection. S05 began execution on Monday, October 18. Initial science activities included observations to determine the composition of Saturn's stratosphere and troposphere as a function of latitude by the CIRS, ISS, UVIS, and VIMS instruments. The MAPS instruments continued their survey of the interplanetary medium and Saturn's outer magnetosphere. Toward the end of the week, a series of Iapetus observations began that will continue through next week.

Week Ending 10/29/04: Orbital trim maneuver #4 (OTM-4), the Titan-A approach maneuver, was successfully completed on the spacecraft on Saturday, October 23. This maneuver was performed to ensure accurate trajectory control to Titan.

Solar Geometry Concerns

No ORS Boresight Solar Constraints on Science Pointing Noted

Segment Integration Planning

Timeline Gaps and Suggested Observations

Some Key Observations Discussed:

- ISS/ DelGenio atmosphere movie.
- CIRS/ Composition (2004-293T00:00:00, 33:00 hr duration, 4 kbps)
  - The purpose of the COMPSIT is to measure oxygen compounds (H2O, CO2) in stratosphere as a function of latitude to determine whether rings are the source.
  - Search for new tropospheric species (HCP, H2S, H2Se, Halides) and stratospheric hydrocarbons (C3H4, C4H2). Search for variations of the hydrogen dimers and PH3 at ~10-15 degree spatial resolution. Determine isotopic ratios (HD/H2, CH3D/CH4 and 12C/13C). The block can be broken into 11hr segments, if needed. Range 50-70 Rs.
- ISS/ Diffuse Rings Search & Titan Movie (2004-298T00:00 [Oct 24])
  - 21-hour (with turn times) segment meant to create Titan movie and search for diffuse rings in the low phase, low tilt angle geometry, approximately out to the orbit of Rhea.
  - 540 Mbits
- ISS/ Rings Photometry Observation (2004-288T01:00 [Oct 14])
  - Geometrical Constraints: 60-65 phase, and a low tilt (between -3 and -15 sub s/c latitude)
  - If the range varies substantially, then the data volume and duration may vary too.
  - Either 3x3 NACs in 3 colors on right ansa (110 Mbits; 35 min); repeated to get 6 colors
- Iapetus observation (DOY 281–)
  - Daily observations after DOY 285
- Heliosphere “gray light” observation (DOY 286–289)
  - CIRS will ride along
- RSS USO PIM (DOY ???)
  - Goldstone DSS-25 needed
  - 4 hrs
- UVIS Ring Occulations
  - DOY 280–281
- OTMs (DOY 297-298)
  - Madrid passes required

Initial SMT and Data Volume

No Initial SMT Report Available

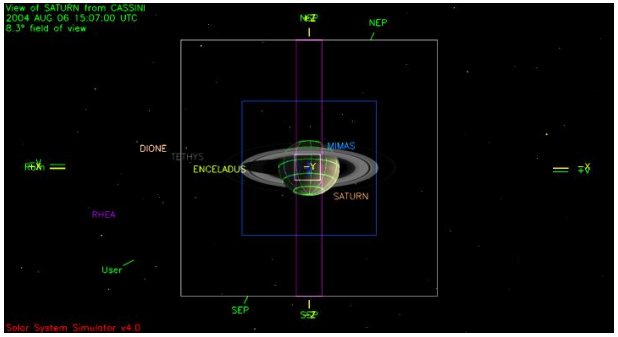
Waypoint Options

No Waypoint Selection Info Available

Waypoints Chosen

Waypoint of **ISS_NAC to Saturn; POS_Z to NSP** was chosen for the entire segment, except for the last day of Titan focused observations.

Start



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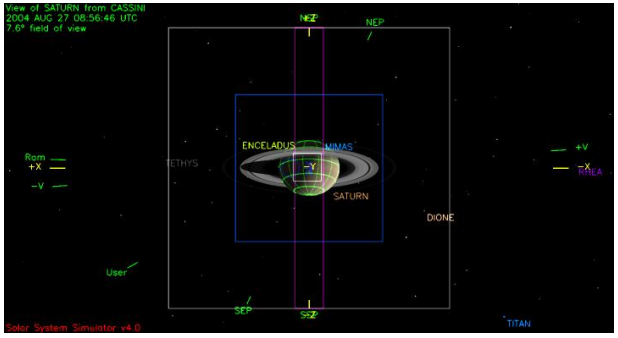
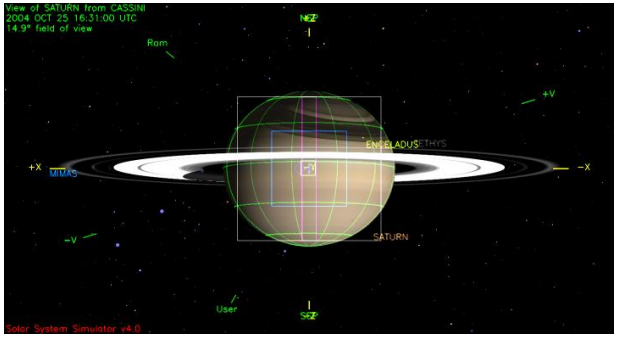


End



Saturn Rev 0/A Open Issues

- **Pointing Issues**
  - No rolling allowed during passes with Probe activities or the RSS/USO PIM
- **Data Volume Issues**
  - Some DSN stations are under maintenance. Since DSS 14 (Goldstone 70m) is down for most of the segment, MP has stated that up to 4 hours of overlap with maintenance is acceptable. This may need to be reworked should problems arise with this strategy.
  - SMT 9.0.1 does not correctly model bits to SSR when the PROBE_CHK telemetry mode is active. Either perform the calculation with a corrected version of SMT or All instruments must have a gap during these periods
- **Telemetry Mode Issues**
  - The transition to S&ER-5A for RADAR warmup on DOY 298 takes place during an ISS Titan Movie. The proposed solution is to break up the ISS movie into 2 pieces with a separation of 20 minutes such that RADAR can have 20 minutes in S&ER-5A. ISS should do this ASAP.
- **CIMS Issues**
  - ISS needs to correctly time their interleaved activities on DOY 286-287 and DOY 289-290.
- **Power/OPMODE Issues**
  - None
- **Flight Rule/Mission Planning Guideline and Constraint Issues**
  - The RSS/USO PIM requirse “quiet” spacecraft conditions although MP Constraint PRESAT-C11 only applies to cruise.
- **Other Issues**
  - Special activities include a RSS USO&PIM, 3 OTMs, several AACS Desats, and 4 Probe Activities
  - 4 Probe contingency windows need to be designated. The placement of these windows still need to determined.
  - The DSN station coverage of the RSS/USO PIM needs the correct parameters set in CIMS.