

TOST (Delivery) of 023TI (T13)

Segment: 2006-120T04:44 – 2006-121T21:14
Titan C/A: 2006-120T20:53:31, Altitude = 1853 km
Epoch: GMB_E023_Titan13

October 10, 2003

Doug Equils

Scott Bolton, Candy Hansen, Trina Ray, Dave Mohr, Jerod Gross, and Amanda Hendrix

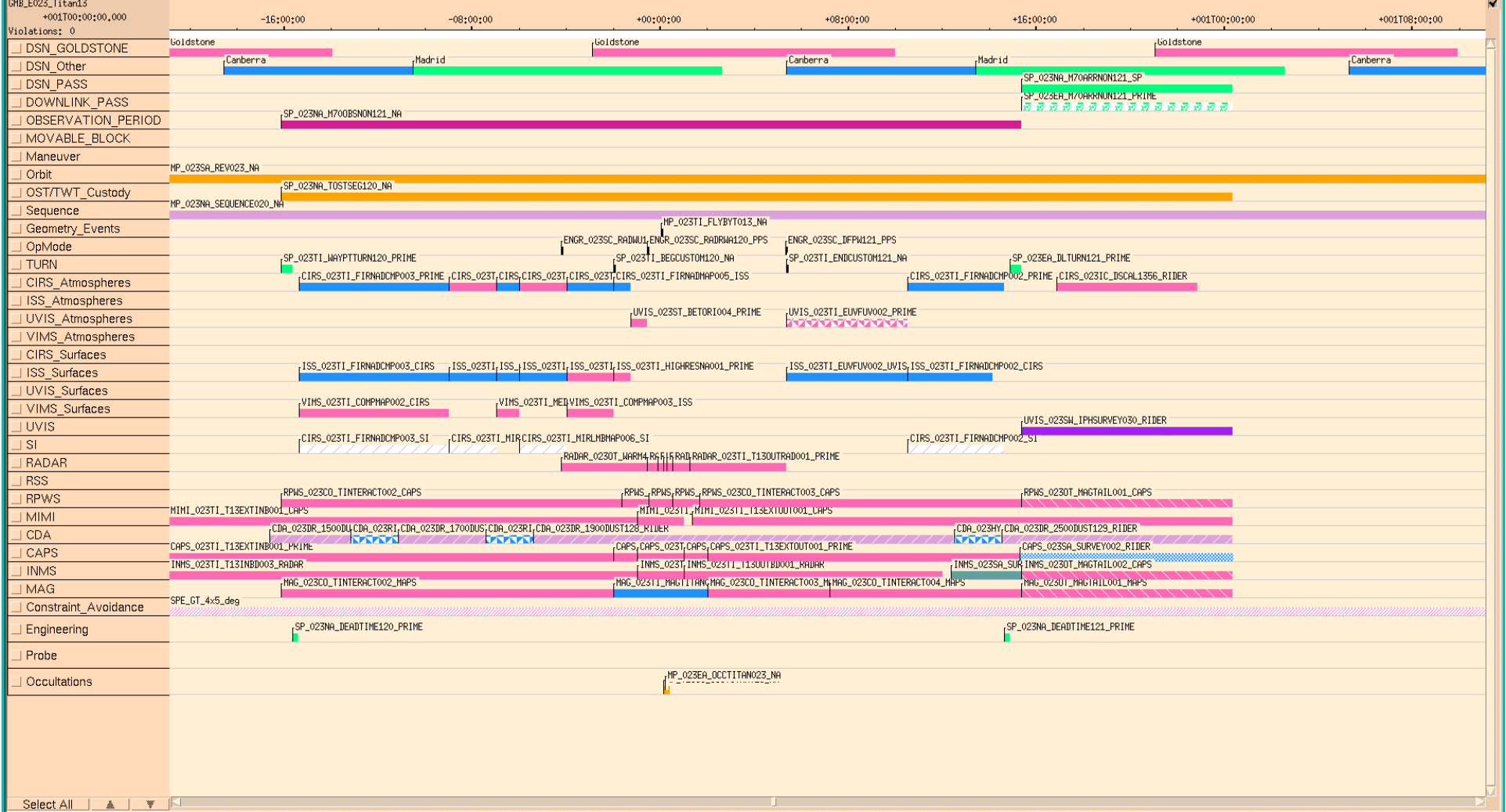
023TI(T13) Timeline

C/A= 2006-120T20:53:31 @ 1853 km

Start Time	End Time	Prime Activity	Obs. Detail	Op Mode	TLM Mode	Comments
120T04:44	120T05:14	SP Turn to waypoint	-Y to Titan, -X to Sun	DFPW Normal	S_N_ER_3	
120T05:14	120T05:29	OD Uncertainty Dead Time		DFPW Normal	S_N_ER_3	
-15:24	-09:00	CIRS	Far-IR Nadir Comp	DFPW Normal	S_N_ER_3	
-09:00	-07:00	CIRS	Mid-IR Limb	DFPW Normal	S_N_ER_3	
-07:00	-06:00	VIMS	Med Res	DFPW Normal	S_N_ER_3	
-06:00	-04:00	CIRS	Mid-IR Limb	DFPW Normal / RADWU	S_N_ER_3, S_N_ER_5a	RADWU and S_N_ER_5a at -04:15; S_N_ER_3 at -04:00
-04:00	-02:00	ISS	Regional Map	RADWU	S_N_ER_3	
-02:00		Begin Custom Period				
-02:00	-01:16	ISS	High Res NAC	RADWU	S_N_ER_3	Leave at UVIS occ attitude
-01:16	-00:35	UVIS	Beta Ori Occ	RADWU	S_N_ER_3	
-00:35	-00:07	RADAR Low-Res SAR	Inbound	RADRWA	S_N_ER_8	Pick up at UVIS occ attitude
-00:07	+00:07	RADAR High-Res SAR	C/A	RADRWA	S_N_ER_8	
+00:07	+00:15	RADAR Low-Res SAR	Outbound	RADRWA	S_N_ER_8	
+00:15	+00:30	RADAR Altimetry	Outbound	RADRWA	S_N_ER_8	
+00:30	+01:15	RADAR Scatterometry	Outbound	RADRWA	S_N_ER_8	
+01:15	+05:20	RADAR Radiometry	Outbound	RADRWA	S_N_ER_8	Leave at waypoint
+05:20		End Custom Period				
+05:20	+10:30	UVIS	EUVFUV	DFPW Normal	S_N_ER_3	
+10:30	+14:07	CIRS	Far-IR Nadir Comp	DFPW Normal	S_N_ER_3	
121T11:31	121T11:46	OD Uncertainty Dead Time		DFPW Normal	S_N_ER_3	
121T11:46	121T12:14	SP Turn to Earth for downlink		DFPW Normal	S_N_ER_3	
121T12:14	121T21:14	Madrid 70-m Array		DFPW Normal	RTE_N_SPB	

File Edit Activity Resource Constraints Scheduling Act Display Res Display Help

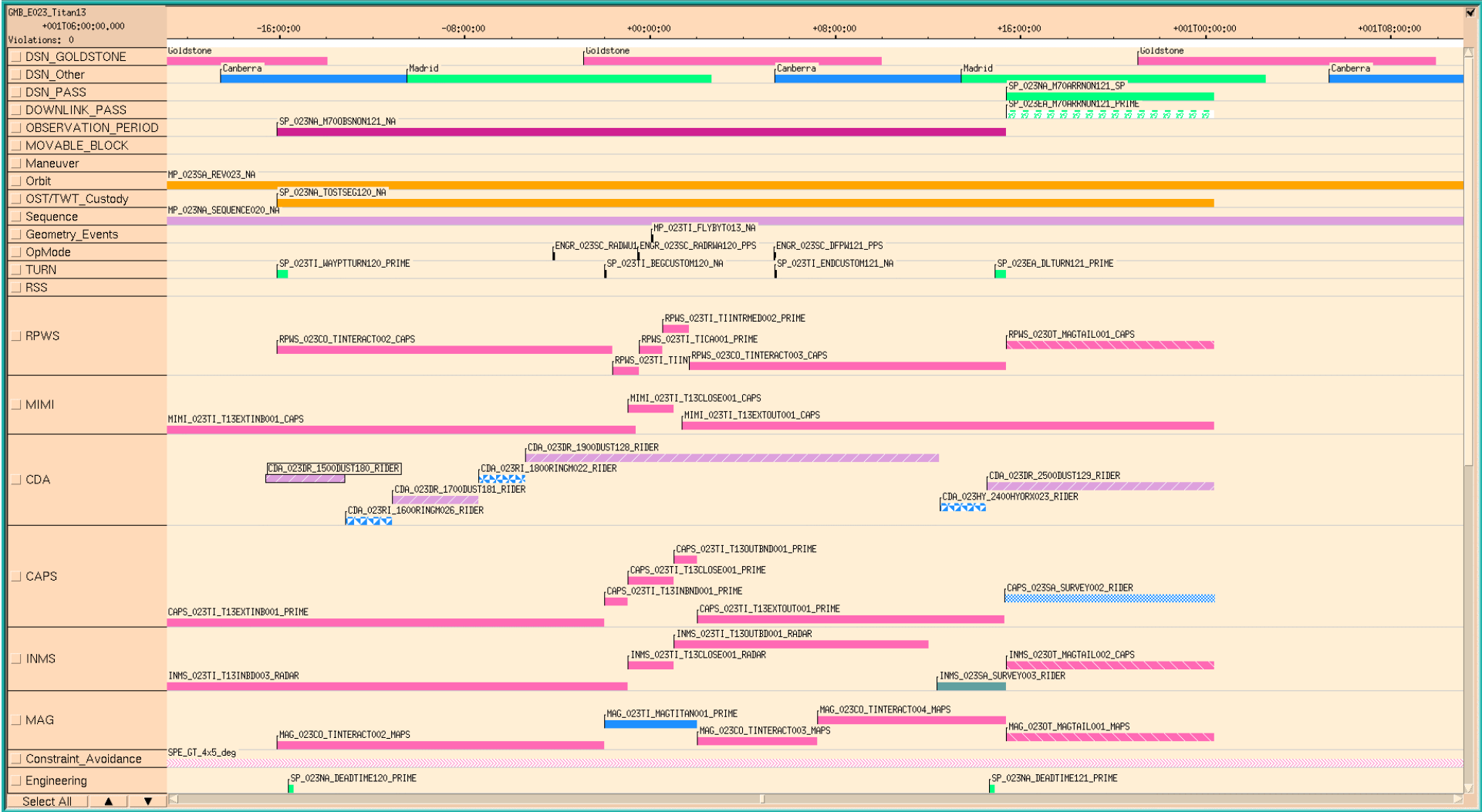
023TI (Titan-13 Flyby) Apgen



Reading file "/home2/sp/djequils/TOST/T13/023TI_T13.apf"...done. JPL

File Edit Activity Resource Constraints Scheduling Act Display Res Display Help

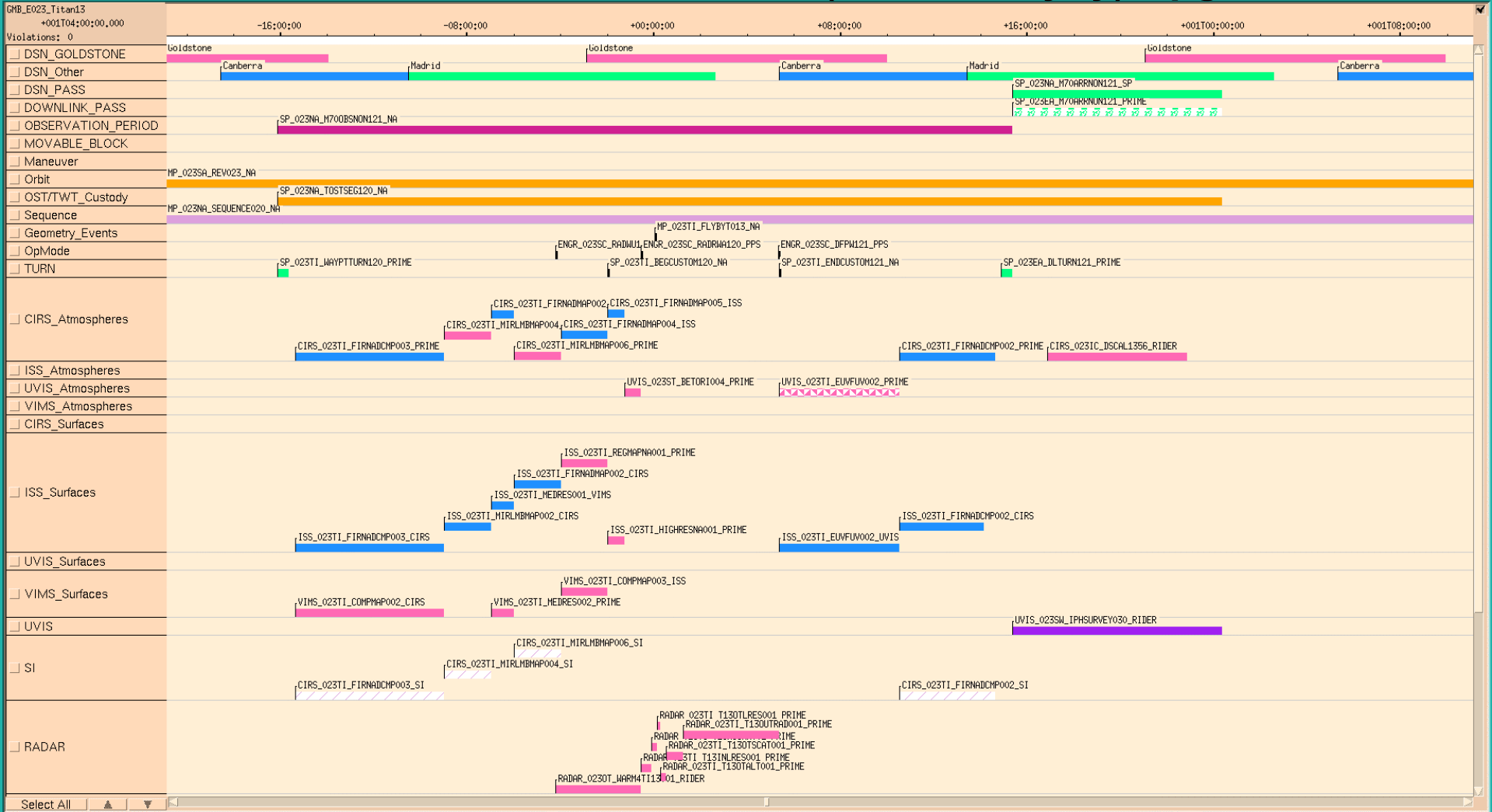
023TI (Titan-13 Flyby) Apgen MAPS



Reading file "/home2/sp/djequils/TOST/T13/023TI_T13.apf"...done.



023TI (Titan-13 Flyby) Apgen ORS



Reading file "/home2/sp/djequils/TOST/T13/023TI_T13.apf"...done. JPL

Request	Start Time	Epoch Relative Start Time	Duration	EndTime	Effective Rate	Data Volume (10*6 bits)	SPASS Type	Primary Pointing	Secondary Pointing	Agreement
CAPS_023TI_T13EXTINB001_PRIME	2006-119T15:45:04		001T03:08:27	2006-120T18:53:31	3480	340.02	SPASS Rider			
CAPS_023TI_T13INBND001_PRIME	2006-120T18:53:31	GMB_E023_Titan13-000T02:00:00	000T01:00:00	2006-120T19:53:31	4000	14.4	SPASS Rider			
CAPS_023TI_T13CLOSE001_PRIME	2006-120T19:53:31	GMB_E023_Titan13-000T01:00:00	000T02:00:00	2006-120T21:53:31	16000	115.2	SPASS Rider			
CAPS_023TI_T13OUTBND001_PRIME	2006-120T21:53:31	GMB_E023_Titan13+000T01:00:00	000T01:00:00	2006-120T22:53:31	4000	14.4	SPASS Rider			
CAPS_023TI_T13EXTOUT001_PRIME	2006-120T22:53:31	GMB_E023_Titan13+000T02:00:00	000T13:16:37	2006-121T12:10:08	2957	141.334	SPASS Rider			
CAPS_023SA_SURVEY002_RIDER	2006-121T12:10:08	GMB_E023_Titan13+000T15:16:37	000T09:04:52	2006-121T21:15:00	1000	32.692	Non-SPASS			
CDA_023DR_1500DUST180_RIDER	2006-120T04:16:06		000T03:25:37	2006-120T07:41:43	524	6.465	Non-SPASS			
CDA_023RI_1600RINGM026_RIDER	2006-120T07:42:44		000T01:59:59	2006-120T09:42:43	524	3.772	Non-SPASS			
CDA_023DR_1700DUST181_RIDER	2006-120T09:43:43		000T03:42:53	2006-120T13:26:36	524	7.007	Non-SPASS			
CDA_023RI_1800RINGM022_RIDER	2006-120T13:27:37		000T01:59:59	2006-120T15:27:36	524	3.772	Non-SPASS			
CDA_023DR_1900DUST128_RIDER	2006-120T15:28:37		000T17:53:10	2006-121T09:21:47	149.9	9.65	Non-SPASS			
CDA_023HY_2400HYORX023_RIDER	2006-121T09:22:48		000T01:59:59	2006-121T11:22:47	524	3.772	Non-SPASS			
CDA_023DR_2500DUST129_RIDER	2006-121T11:23:47		000T09:50:13	2006-121T21:14:00	149.9	5.307	Non-SPASS			
CIRS_023TI_FIRNADCMP003_PRIME	2006-120T05:29:31	GMB_E023_Titan13-000T15:24:00	000T06:24:00	2006-120T11:53:31	4000	92.16	Prime	CIRS_FP1 to Titan	PIC	
CIRS_023TI_FIRNADCMP003_SI	2006-120T05:29:31	GMB_E023_Titan13-000T15:24:00	000T06:24:00	2006-120T11:53:31	0	7	SPASS Rider			
CIRS_023TI_MIRLMBMAP004_PRIME	2006-120T11:53:31	GMB_E023_Titan13-000T09:00:00	000T02:00:00	2006-120T13:53:31	2000	14.4	Prime	CIRS_FPB to Titan	PIC	
CIRS_023TI_MIRLMBMAP004_SI	2006-120T11:53:31	GMB_E023_Titan13-000T09:00:00	000T02:00:00	2006-120T13:53:31	0	5	SPASS Rider			
CIRS_023TI_FIRNADMAP002_VIMS	2006-120T13:53:31	GMB_E023_Titan13-000T07:00:00	000T01:00:00	2006-120T14:53:31	2000	7.2	SPASS Rider			
CIRS_023TI_MIRLMBMAP006_PRIME	2006-120T14:53:31	GMB_E023_Titan13-000T06:00:00	000T02:00:00	2006-120T16:53:31	2000	14.4	Prime	CIRS_FPB to Titan	PIC	
CIRS_023TI_MIRLMBMAP006_SI	2006-120T14:53:31	GMB_E023_Titan13-000T06:00:00	000T02:00:00	2006-120T16:53:31	0	5	SPASS Rider			
CIRS_023TI_FIRNADMAP004_ISS	2006-120T16:53:31	GMB_E023_Titan13-000T04:00:00	000T02:00:00	2006-120T18:53:31	2000	14.4	SPASS Rider			
CIRS_023TI_FIRNADMAP005_ISS	2006-120T18:53:31	GMB_E023_Titan13-000T02:00:00	000T00:44:00	2006-120T19:37:31	2000	5.28	SPASS Rider			
CIRS_023TI_FIRNADCMP002_PRIME	2006-121T07:23:31	GMB_E023_Titan13+000T10:30:00	000T04:07:00	2006-121T11:30:31	4000	59.28	Prime	CIRS_FP1 to Titan	PIC	
CIRS_023TI_FIRNADCMP002_SI	2006-121T07:23:31	GMB_E023_Titan13+000T10:30:00	000T04:07:00	2006-121T11:30:31	0	5	SPASS Rider			
CIRS_023IC_DSCAL1356_RIDER	2006-121T13:44:00		000T06:00:00	2006-121T19:44:00	4000	86.4	SPASS Rider			
ENGR_023SC_RADWU120_PPS	2006-120T16:38:31	GMB_E023_Titan13-000T04:15:00	000T00:00:07	2006-120T16:38:38	0	0	Non-SPASS			
ENGR_023SC_RADRWA120_PPS	2006-120T20:18:31	GMB_E023_Titan13-000T00:35:00	000T00:00:44	2006-120T20:19:15	0	0	Non-SPASS			
ENGR_023SC_DFPW121_PPS	2006-121T02:12:54	GMB_E023_Titan13+000T05:19:23	000T00:00:37	2006-121T02:13:31	0	0	Non-SPASS			
INMS_023TI_T13INBD003_RADAR	2006-119T21:15:00		000T22:38:31	2006-120T19:53:31	100	8.151	Non-SPASS			
INMS_023TI_T13CLOSE001_RADAR	2006-120T19:53:31	GMB_E023_Titan13-000T01:00:00	000T02:00:00	2006-120T21:53:31	1498	10.786	Non-SPASS			
INMS_023TI_T13OUTBD001_RADAR	2006-120T21:53:31	GMB_E023_Titan13+000T01:00:00	000T11:00:00	2006-121T08:53:31	50	1.98	Non-SPASS			
INMS_023SA_SURVEY003_RIDER	2006-121T09:14:43		000T03:00:17	2006-121T12:15:00	50	0.541	Non-SPASS			
INMS_023OT_MAGTAIL002_CAPS	2006-121T12:15:00		000T08:59:00	2006-121T21:14:00	100	3.234	Non-SPASS			
ISS_023TI_FIRNADCMP003_CIRS	2006-120T05:29:31	GMB_E023_Titan13-000T15:24:00	000T06:24:00	2006-120T11:53:31	0	80	SPASS Rider			
ISS_023TI_MIRLMBMAP002_CIRS	2006-120T11:53:31	GMB_E023_Titan13-000T09:00:00	000T02:00:00	2006-120T13:53:31	0	24	SPASS Rider			
ISS_023TI_MEDRES001_VIMS	2006-120T13:53:31	GMB_E023_Titan13-000T07:00:00	000T01:00:00	2006-120T14:53:31	0	20	SPASS Rider			
ISS_023TI_FIRNADMAP002_CIRS	2006-120T14:53:31	GMB_E023_Titan13-000T06:00:00	000T02:00:00	2006-120T16:53:31	0	20	SPASS Rider			
ISS_023TI_REGMAPNA001_PRIME	2006-120T16:53:31	GMB_E023_Titan13-000T04:00:00	000T02:00:00	2006-120T18:53:31	0	297	Prime	ISS_NAC to Titan	NEG_X to Sun	
ISS_023TI_HIGHRESNA001_PRIME	2006-120T18:53:31	GMB_E023_Titan13-000T02:00:00	000T00:44:00	2006-120T19:37:31	0	270	Prime	ISS_NAC to Titan	NEG_X to Sun	Leave at UVIS_FUV to 78.6345/-8.2014, NEG_X to Sun
ISS_023TI_EUVFUV002_UVIS	2006-121T02:13:31	GMB_E023_Titan13+000T05:20:00	000T05:10:00	2006-121T07:23:31	0	50	SPASS Rider			
ISS_023TI_FIRNADCMP002_CIRS	2006-121T07:23:31	GMB_E023_Titan13+000T10:30:00	000T03:37:00	2006-121T11:00:31	0	20	SPASS Rider			

Request	Start Time	Epoch Relative Start Time	Duration	EndTime	Effective Rate (bps)	Data Volume (10 ⁶ bits)	SPASS Type	Primary Pointing	Secondary Pointing	Agreement
MAG_023CO_TINTERACT002_MAPS	2006-120T04:44:00		000T14:09:31	2006-120T18:53:31	1976	100.719	Non-SPASS			
MAG_023TI_MAGTITAND01_PRIME	2006-120T18:53:31	GMB_E023_Titan13-000T02:00:00	000T04:00:00	2006-120T22:53:31	1976	28.454	Non-SPASS			
MAG_023CO_TINTERACT003_MAPS	2006-120T22:53:31	GMB_E023_Titan13+000T02:00:00	000T05:12:13	2006-121T04:05:44	1976	37.016	Non-SPASS			
MAG_023CO_TINTERACT004_MAPS	2006-121T04:05:44		000T08:09:12	2006-121T12:14:56	988	29	Non-SPASS			
MAG_023OT_MAGTAIL001_MAPS	2006-121T12:14:56		000T08:59:04	2006-121T21:14:00	1976	63.912	Non-SPASS			
MIMI_023TI_T13EXTINB001_CAPS	2006-119T21:15:01		000T23:00:00	2006-120T20:15:01	1200	99.36	SPASS Rider			
MIMI_023TI_T13CLOSE001_CAPS	2006-120T19:53:31	GMB_E023_Titan13-000T01:00:00	000T02:00:00	2006-120T21:53:31	2000	14.4	SPASS Rider			
MIMI_023TI_T13EXTOUT001_CAPS	2006-120T22:15:00		000T22:59:00	2006-121T21:14:00	1200	99.288	SPASS Rider			
MP_023SA_REV023_NA	2006-099T09:56:28		031T06:30:08	2006-130T16:26:36	0	0	Non-SPASS			
MP_023NA_SEQUENCE020_NA	2006-112T05:15:00	E023_SEQUENCE_020+000T00:00:00	041T21:24:00	2006-154T02:39:00	0	0	SPASS Note			
MP_023TI_FLYBYT013_NA	2006-120T20:53:31		000T00:00:01	2006-120T20:53:32	0	0	Non-SPASS			
MP_023SU_OCCTITAND023_NA	2006-120T21:00:12		000T00:16:29	2006-120T21:16:41	0	0	Non-SPASS			
MP_023EA_OCCTITAND023_NA	2006-120T21:05:42		000T00:07:27	2006-120T21:13:09	0	0	Non-SPASS			
RADAR_023OT_WARM4T13001_RIDER	2006-120T16:38:31	GMB_E023_Titan13-000T04:15:00	000T03:40:00	2006-120T20:18:31	218.9	2.889	SPASS Rider			
RADAR_023TI_T13INLRES001_PRIME	2006-120T20:18:31	GMB_E023_Titan13-000T00:35:00	000T00:28:00	2006-120T20:46:31	55705	93.584	Prime	NEG_Z to Titan	POS_X to Titan_SC_RAM	Pick up at UVIS_FUV to 78.635/8.201, NEG_X to Sun
RADAR_023TI_T13HISAR001_PRIME	2006-120T20:46:31	GMB_E023_Titan13-000T00:07:00	000T00:14:00	2006-120T21:00:31	364800	306.432	Prime	NEG_Z to Titan	POS_X to Titan_SC_RAM	
RADAR_023TI_T13OTLRES001_PRIME	2006-120T21:00:31	GMB_E023_Titan13+000T00:07:00	000T00:08:00	2006-120T21:08:31	194985.6	93.593	Prime	NEG_Z to Titan	POS_X to Titan_SC_RAM	
RADAR_023TI_T13OTALT001_PRIME	2006-120T21:08:31	GMB_E023_Titan13+000T00:15:00	000T00:15:00	2006-120T21:23:31	29986.6	26.988	Prime	NEG_Z to Titan	POS_X to North_Pole_Dir	
RADAR_023TI_T13OTSCAT001_PRIME	2006-120T21:23:31	GMB_E023_Titan13+000T00:30:00	000T00:45:00	2006-120T22:08:31	31993	86.381	Prime	NEG_Z to Titan	POS_X to North_Pole_Dir	
RADAR_023TI_T13OUTRAD001_PRIME	2006-120T22:08:31	GMB_E023_Titan13+000T01:15:00	000T04:05:00	2006-121T02:13:31	4596.5	67.568	Prime	NEG_Z to Titan	POS_X to North_Pole_Dir	Leave at ISS_NAC to Titan, NEG_X to Sun.
RPWS_023CO_TINTERACT002_CAPS	2006-120T04:44:00		000T14:29:31	2006-120T19:13:31	3500	182.599	Non-SPASS			
RPWS_023TI_TINTRMED001_PRIME	2006-120T19:13:31		000T01:10:00	2006-120T20:23:31	12499.4	52.497	Non-SPASS			
RPWS_023TI_TICAD01_PRIME	2006-120T20:23:31	GMB_E023_Titan13-000T00:30:00	000T01:00:00	2006-120T21:23:31	30470.1	109.692	Non-SPASS			
RPWS_023TI_TINTRMED002_PRIME	2006-120T21:23:31	E023_Titan13+000T00:30:00	000T01:10:00	2006-120T22:33:31	12499.4	52.497	Non-SPASS			
RPWS_023CO_TINTERACT003_CAPS	2006-120T22:33:31		000T13:41:29	2006-121T12:15:00	3500	172.512	Non-SPASS			
RPWS_023OT_MAGTAIL001_CAPS	2006-121T12:15:00		000T08:59:00	2006-121T21:14:00	5000	161.7	Non-SPASS			
SP_023NA_M70OBSNON121_NA	2006-120T04:44:00		001T07:30:00	2006-121T12:14:00	0	0	Non-SPASS			
SP_023NA_TOSTSEG120_NA	2006-120T04:44:00		001T16:30:00	2006-121T21:14:00	0	0	SPASS Note			
SP_023TI_WAYPTTURN120_PRIME	2006-120T04:44:00		000T00:30:00	2006-120T05:14:00	0	0	New Waypoint	ISS_NAC to Titan	NEG_X to Sun	
SP_023NA_DEADTIME120_PRIME	2006-120T05:14:00		000T00:15:00	2006-120T05:29:00	0	0	Prime	ISS_NAC to Titan	NEG_X to Sun	
SP_023TI_BEGCUSTOM120_NA	2006-120T18:53:31	GMB_E023_Titan13-000T02:00:00	000T00:01:00	2006-120T18:54:31	0	0	SPASS Note			
SP_023TI_ENDCUSTOM121_NA	2006-121T02:13:31	GMB_E023_Titan13+000T05:20:00	000T00:01:00	2006-121T02:14:31	0	0	SPASS Note			
SP_023NA_DEADTIME121_PRIME	2006-121T11:31:00		000T00:15:00	2006-121T11:46:00	0	0	Prime	ISS_NAC to Titan	NEG_X to Sun	
SP_023EA_DLTURN121_PRIME	2006-121T11:46:00		000T00:28:00	2006-121T12:14:00	0	0	Prime	XBAND to Earth	POS_X to NEP	
SP_023EA_M70ARRNON121_PRIME	2006-121T12:14:00		000T09:00:00	2006-121T21:14:00	0	0	Prime	XBAND to Earth	Rolling	
SP_023NA_M70ARR2ND121_SP	2006-121T12:14:00		000T09:00:00	2006-121T21:14:00	0	0	Non-SPASS			
SP_023NA_M70ARRNON121_SP	2006-121T12:14:00		000T09:00:00	2006-121T21:14:00	0	0	Non-SPASS			
UVIS_023ST_BETORID04_PRIME	2006-120T19:37:31	GMB_E023_Titan13-000T01:16:00	000T00:41:00	2006-120T20:18:31	32096	78.956	Prime	UVIS_FUV to Star	NEG_X to Sun	Preceding ISS to leave UVIS_FUV to 78.6345/8.2014, NEG_X to Sun.
UVIS_023TI_EUVFUV002_PRIME	2006-121T02:13:31	GMB_E023_Titan13+000T05:20:00	000T05:10:00	2006-121T07:23:31	5032	93.595	Prime	UVIS_FUV to Titan	NEG_X to Sun	
UVIS_023SW_IPHSURVEY030_RIDER	2006-121T12:14:00		000T09:00:00	2006-121T21:14:00	76	2.462	Non-SPASS			
VIMS_023TI_COMPMAP002_CIRS	2006-120T05:29:31	GMB_E023_Titan13-000T15:24:00	000T06:24:00	2006-120T11:53:31	781.3	18	SPASS Rider			
VIMS_023TI_MEDRES002_PRIME	2006-120T13:53:31	GMB_E023_Titan13-000T07:00:00	000T01:00:00	2006-120T14:53:31	10000	36	Prime	ISS_NAC to Titan	NEG_X to Sun	
VIMS_023TI_COMPMAP003_ISS	2006-120T16:53:31	GMB_E023_Titan13-000T04:00:00	000T02:00:00	2006-120T18:53:31	6388.9	46	SPASS Rider			

SPASS (Attitude Strategy Spreadsheet)

Request	Riders	Start(SCET)	Start(Epoch)	Duration	End(SCET)	Primary Pointing	Secondary Pointing	Comments
Sequence S020, length = 42 ...		2006-112T05:15:00	E023_SEQUENCE_020+000	041T21:24:00	2006-154T02:39:00			
TOST rev 23 Segment		2006-120T04:44:00		001T16:30:00	2006-121T21:14:00			
SP_023TI_WAYPTTURN120_PRIME	M	2006-120T04:44:00		000T00:30:00	2006-120T05:14:00	ISS_NAC to Titan	NEG_X to Sun	
NEW WAYPOINT		2006-120T05:14:00		001T16:00:00	2006-121T21:14:00	ISS_NAC to Titan	NEG_X to Sun	
SP_023NA_DEADTIME120_PRIME	M	2006-120T05:14:00		000T00:15:00	2006-120T05:29:00	ISS_NAC to Titan	NEG_X to Sun	
CIRS_023TI_FIRNADCOMP003_PRIME	C, I, M, V	2006-120T05:29:31	GMB_E023_Titan13-000T15:2000T06:24:00	2006-120T11:53:31	2006-120T11:53:31	CIRS_FP1 to Titan	PIC	
CIRS_023TI_MIRLMBMAP004_PRIME	C, I, M	2006-120T11:53:31	GMB_E023_Titan13-000T09:0000T02:00:00	2006-120T13:53:31	2006-120T13:53:31	CIRS_FP2 to Titan	PIC	
VIMS_023TI_MEDRES002_PRIME	C, I, M	2006-120T13:53:31	GMB_E023_Titan13-000T07:0000T01:00:00	2006-120T14:53:31	2006-120T14:53:31	ISS_NAC to Titan	NEG_X to Sun	
CIRS_023TI_MIRLMBMAP006_PRIME	C, I, M, R	2006-120T14:53:31	GMB_E023_Titan13-000T06:0000T02:00:00	2006-120T16:53:31	2006-120T16:53:31	CIRS_FP2 to Titan	PIC	
ISS_023TI_REGMAPNA001_PRIME	C, M, R, V	2006-120T16:53:31	GMB_E023_Titan13-000T04:0000T02:00:00	2006-120T18:53:31	2006-120T18:53:31	ISS_NAC to Titan	NEG_X to Sun	
Begin Custom Period		2006-120T18:53:31	GMB_E023_Titan13-000T02:0000T01:00:00	2006-120T18:54:31				
ISS_023TI_HIGHRESNA001_PRIME	C, M, R	2006-120T18:53:31	GMB_E023_Titan13-000T02:0000T00:44:00	2006-120T19:37:31	2006-120T19:37:31	ISS_NAC to Titan	NEG_X to Sun	Leave at UVIS_FUV to 78.6345/8.2014, NEG_X to Sun
UVIS_023ST_BETOR1004_PRIME	M, R	2006-120T19:37:31	GMB_E023_Titan13-000T01:1000T00:41:00	2006-120T20:18:31	2006-120T20:18:31	UVIS_FUV to Star	NEG_X to Sun	Preceding ISS to leave UVIS_FUV to 78.6345/8.2014, NEG_X to Sun.
RADAR_023TI_T13INLRES001_PRIME	M	2006-120T20:18:31	GMB_E023_Titan13-000T00:3000T00:28:00	2006-120T20:46:31	2006-120T20:46:31	NEG_Z to Titan	POS_X to Titan_SC_RAM	Pick up at UVIS_FUV to 78.635/8.201, NEG_X to Sun
RADAR_023TI_T13HISAR001_PRIME	M	2006-120T20:46:31	GMB_E023_Titan13-000T00:0000T00:14:00	2006-120T21:00:31	2006-120T21:00:31	NEG_Z to Titan	POS_X to Titan_SC_RAM	
RADAR_023TI_T13OTLRES001_PRIME	M	2006-120T21:00:31	GMB_E023_Titan13+000T00:0000T00:08:00	2006-120T21:08:31	2006-120T21:08:31	NEG_Z to Titan	POS_X to Titan_SC_RAM	
RADAR_023TI_T13OTALT001_PRIME	M	2006-120T21:08:31	GMB_E023_Titan13+000T00:0000T00:15:00	2006-120T21:23:31	2006-120T21:23:31	NEG_Z to Titan	POS_X to North_Pole_Dir	
RADAR_023TI_T13OTSCAT001_PRIME	M	2006-120T21:23:31	GMB_E023_Titan13+000T00:0000T00:45:00	2006-120T22:08:31	2006-120T22:08:31	NEG_Z to Titan	POS_X to North_Pole_Dir	
RADAR_023TI_T13OUTRAD001_PRIME	M	2006-120T22:08:31	GMB_E023_Titan13+000T01:0000T04:05:00	2006-121T02:13:31	2006-121T02:13:31	NEG_Z to Titan	POS_X to North_Pole_Dir	Leave at ISS_NAC to Titan, NEG_X to Sun.
End Custom Period		2006-121T02:13:31	GMB_E023_Titan13+000T05:0000T00:01:00	2006-121T02:14:31				
UVIS_023TI_EUVFUV002_PRIME	I, M	2006-121T02:13:31	GMB_E023_Titan13+000T05:0000T05:10:00	2006-121T07:23:31	2006-121T07:23:31	UVIS_FUV to Titan	NEG_X to Sun	
CIRS_023TI_FIRNADCOMP002_PRIME	C, I, M	2006-121T07:23:31	GMB_E023_Titan13+000T10:0000T04:07:00	2006-121T11:30:31	2006-121T11:30:31	CIRS_FP1 to Titan	PIC	
SP_023NA_DEADTIME121_PRIME	M	2006-121T11:31:00		000T00:15:00	2006-121T11:46:00	ISS_NAC to Titan	NEG_X to Sun	
SP_023EA_DLTURN121_PRIME	M	2006-121T11:46:00		000T00:28:00	2006-121T12:14:00	XBAND to Earth	POS_X to NEP	
SP_023EA_M70ARRNON121_PRIME	C, M	2006-121T12:14:00		000T09:00:00	2006-121T21:14:00	XBAND to Earth	Rolling	

Currently in CIMS

WPs Checked - ISS_NAC to TITAN, NEG_X to SUN

- X-Band to Earth, POS_X to NEP for Downlink

SP checked turns to and from Titan

Data Volume Summary 10/8

DATA VOLUME SUMMARY

DOWNLINK PASS NAME	Start doy hh:mm	End doy hh:mm	OBSERVATION_PERIOD						DOWNLINK_PASS								
			P4			P5			RECORDED		PLAYBACK						
			START (Mb)	SCI (Mb)	HK+E (Mb)	TOTAL (Mb)	CPACTY (Mb)	MARGIN (%)	OPNAV (Mb)	SCI (Mb)	ENGR (Mb)	TOTAL (Mb)	CPACTY (Mb)	MARGIN (%)	CAROVR (Mb)		
SP_023EA_M70ARRNON121_PRIME	121 12:14	121 21:14	0	3380	109	3489	3566	76	2%	0	394	53	3936	4307	371	9%	0

DATA VOLUME REPORT

Event	Start doy hh:mm	End doy hh:mm	CAPS (Mb)	CDA (Mb)	CIRS (Mb)	INMS (Mb)	ISS (Mb)	MAG (Mb)	MIMI (Mb)	RADAR (Mb)	RPWS (Mb)	UVIS (Mb)	VIMS (Mb)	PROBE (Mb)	ENGR (Mb)	TOTAL (Mb)
OBSERVATION_NOR	120 04:44	121 12:14	462.9	34.0	207.1	18.8	781.0	195.1	141.8	674.7	569.6	172.6	100.0	0.0	0.0	3357.7
OBSERVATION_SI	120 04:44	121 12:14	0.0	0.0	22.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.0
SP_023EA_M70ARRNON121_PRIME	121 12:14	121 21:14	32.4	4.9	86.4	3.2	0.0	64.0	38.9	0.0	161.9	2.5	0.0	0.0	0.0	394.1
DAILY TOTAL SCIENCE	120 04:44	121 21:14	495.3	38.9	315.5	22.0	781.0	259.1	180.7	674.7	731.5	175.0	100.0	0.0	0.0	

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

Event	Start doy hh:mm	End doy hh:mm	CAPS (bps)	CDA (bps)	INMS (bps)	MAG (bps)	MIMI (bps)	RPWS (bps)	UVIS (bps)
SP_023NA_M70OBSNON121_NA	120 04:44	121 12:14	4082.4	299.9	165.4	1720.8	1250.8	5022.8	1521.6
SP_023EA_M70ARRNON121_PRIME	121 12:14	121 21:14	1000.0	149.9	99.9	1974.3	1200.0	4997.2	76.0

Telemetry Mode Report

TELEMETRY MODE REPORT

SCET	TELEMETRY MODE	REQUEST
2006-120T04:44:00.000	"S_N_ER_3"	SP_023NA_M70OBSNON121_NA
2006-120T16:38:31.000	"S_N_ER_5A"	SP_023NA_M70OBSNON121_NA
2006-120T16:53:31.000	"S_N_ER_3"	SP_023NA_M70OBSNON121_NA
2006-120T20:18:31.000	"S_N_ER_8"	SP_023NA_M70OBSNON121_NA
2006-121T02:13:31.000	"S_N_ER_3"	SP_023NA_M70OBSNON121_NA
2006-121T12:14:00.000	"RTE_N_SPB_124425"	SP_023EA_M70ARRNON121_PRIME
2006-121T12:29:00.000	"RTE_N_SPB_142200"	SP_023EA_M70ARRNON121_PRIME
2006-121T13:59:00.000	"RTE_N_SPB_165900"	SP_023EA_M70ARRNON121_PRIME
2006-121T19:44:00.000	"RTE_N_SPB_142200"	SP_023EA_M70ARRNON121_PRIME

NOTE: SMT Flags a warning with the RADAR request which goes from 120T16:38:31 to 120T20:18:31. S_N_ER_3 begins at 120T16:53:31 and thus only the first 15 minutes of this request will be recorded. RADAR is OK with this.

DSN Report

CASSINI DOWNLINK/DSN COVERAGE SUMMARY for 023TI_T13.apf generated on 2003-Oct-08 11:14:50
 (+ = pass overlaps with previous pass; * = in conflict with DSN weekly maintenance)

DOWNLINK PASS					DSN PASS								
NAME	START_TO_END SCET	START_TO_END ERT	DUR hh:mm	DATA_RATES kbps	ID	START_TO_END SCET	START_TO_END ERT	DUR hh:mm	CALS min	RADIO_CONFIG R UD D UD MAR			
M70ARRNON121	121T12:14-21:14	121T13:30-22:30	09:00	124,142,165,142	54	121T12:14-21:14	121T13:30-22:30	09:00	15/15	R XX	-	--	--0
				^-- and also -->	63	121T12:14-21:14	121T13:30-22:30	09:00	15/15	R XX	-	--	--0

Open Issues

- **Pointing**
 - Waypoint is FR-safe
 - SP Turns are FR-safe and have sufficient time allocated
 - Custom turns have been modeled by ISS & RADAR; no problems
- **Data Volume**
 - No issues. P4 has 2% margin, and there is 9% margin on the downlink.
- **CIMS**
 - None. Some RPWS non-Prime requests are intentionally in the non-GMB epoch.
- **Power Issues**
 - RADAR warm-up intentionally begins more than 3 hours prior to start of RADAR observing. Current start of warm-up at -04:15 allows RADAR to record first 15 minutes of warm-up in S_N_ER_5a before ISS begins prime observing in S_N_ER_3 at -04:00. This strategy poses no problems or issues, but is different than the usual strategy.
- **MP Guidelines and Constraints**
 - DSN Requests are free of maintenance conflicts.
 - Flyby altitude is 1853 km, so no RCS usage is required

TWT/OST Integration Constraint and Guideline Checklist

Below are Target Working Team (TWT) and Orbiter Science Team (OST) constraints that must be followed during segment implementation. Any exceptions to constraint numbers 3, 4, 6, or 7 must be approved by the Science Planning Manager.

Constraint	C=Comply V=Violate N/A=Not Applicable	Comments	Disposition
1. A. SP has checked all waypoints turns to and from waypoints. B. All initial downlink attitudes have been checked as waypoints.	C		
2. All turns to and from waypoints checked for violations and margins. <input type="checkbox"/> CAPS <input type="checkbox"/> CDA <input type="checkbox"/> CIRS <input type="checkbox"/> INMS <input checked="" type="checkbox"/> ISS <input type="checkbox"/> MIMI <input type="checkbox"/> MAG <input type="checkbox"/> NAV <input checked="" type="checkbox"/> RADAR <input type="checkbox"/> RPWS <input type="checkbox"/> RSS <input type="checkbox"/> UVIS <input type="checkbox"/> VIMS Each Prime Instrument agrees to accept a reduction in observation time during implementation if problems arise.	C	SP also checked turns; no problems found.	
3. Custom handoffs limited to: A. ±3 hours from targeted Icy Satellite flyby B. ±3 hours from targeted Titan Flyby C. OpNavs preceding/following a downlink	N/A		
	C	RADAR and ISS checked custom period; no issues.	
	N/A		
4. Minimum 30 min SPASS Prime request duration outside ±5 hours from targeted satellite flyby (5 min. integer duration if >30 min.)	C		
5. Live and Ground Movable Blocks include appropriate time margins.	N/A	K. Klaasen's margin for flyby T13 is 15 min. according to memo dated Jan 7, 2003.	
6. Waypoints changes are ?3 per day A. All turns that accomplish the waypoint strategy are requested by SP or OpNav.	C		
	C		
7. Live Movable Blocks limited to the following orbits: 7, 8, 9, 10, 12, 28, 51, 56, 57, 60, 63, 64	C		

Guideline	Yes / No	Comments
1. Were repeatable/reusable templates used where possible?	No	
2. During Pre-Integration: Was 30 min. used for 90° RWA turns and/or 10 min. for RCS turns?	Yes	

(DOUBLE-CLICK TO MAKE CHANGES)