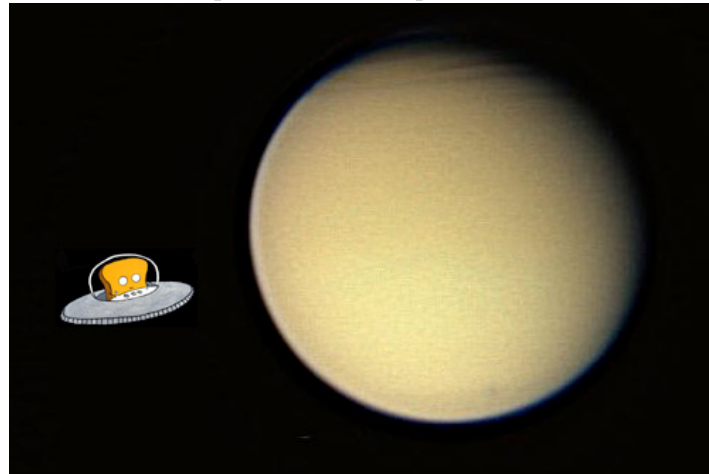


# TOST: Integration 110TI (T54) Wrapup



July 25, 2008

Jo Pitesky, Eleanor Kelly, Trina Ray, Kim Steadman

# Segment Basics

Segment times:

BEG: 2009-125T07:16:00

END: 2009-127T07:16:00

Altitude: 3244 km

Time of C/A: 2009-125T22:54:16

Epoch: GMB\_E110\_Titan54

Sequence: S50

<p>At least 2 weeks prior to the Kickoff Meeting make sure that all requests are in CIMS</p>	<p><b>Kickoff Meeting</b></p> <p><b><u>Present</u></b>  Master Timeline  Draft Op Modes  Draft Telem Modes  Draft RCS Deadband</p> <p><b><u>Discuss</u></b>  Timeline  Op Modes  Telem Modes  Deadbands for RCS</p> <p><b><u>Homework</u></b>  Custom Handoff Attitudes  Unique Op Mode Requirements (SCO)  Turn Assignments  CCRs  High Level Science</p>	<p><b>Detailed Meeting</b></p> <p><b><u>Present</u></b>  Master Timeline  SMT Report  Timeline Graphic  TOL  SPASS  DSN Reports  Dual Playback Science  Draft Data Volume Cuts</p> <p><b><u>Discuss</u></b>  Data Volume Cuts</p> <p><b><u>Homework</u></b>  CCRs  High Level Science Objectives</p>	<p><b>Wrap-up Meeting</b></p> <p><b><u>Present</u></b>  Wrap-up Package  Checklist  High Level Science Objectives</p> <p><b><u>Discuss</u></b>  N/A</p> <p><b><u>Homework</u></b>  N/A</p>
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# High-level Science Objectives (1)

CIRS – Vertical sounding of composition, aerosol and temperature at low latitudes.

ISS – ISS will acquire high-resolution imaging of Titan's trailing hemisphere at high southern latitudes and will ride along with VIMS to monitor clouds.

VIMS – On the inbound, the phase angle is much larger than 90 degrees and VIMS ridealong observations will provide information on Titan's atmosphere composition. After C/A, VIMS will observe the South Pole region and will look for variations at the surface and in the atmosphere. High resolution images at less than 5 km/pixel will allow us to image places that may be lakes. Then VIMS will monitor the tropical clouds in the Southern hemisphere.

UVIS – UVIS will obtain an image cube of Titan's atmosphere at EUV and FUV wavelengths by sweeping its slit across the disk. These cubes provide spectral and spatial information on nitrogen emissions, H emission and absorption, absorption by simple hydrocarbons, and the scattering properties of haze aerosols. This is one of many such cubes gathered over the course of the mission to provide latitude and seasonal coverage of Titan's middle atmosphere and stratosphere.

# High-level Science Objectives (2)

MAPS–

MIMI–Energetic ion and electron energy input to atmosphere--sun obscures  
ENA

MAG – T54 is another flank-out, post-dusk, high altitude flyby that will be a good complement to T52 and T53 in order to characterize the background field for a similar local time with respect to Saturn and different SKR longitudes.

# Master Timeline for T54

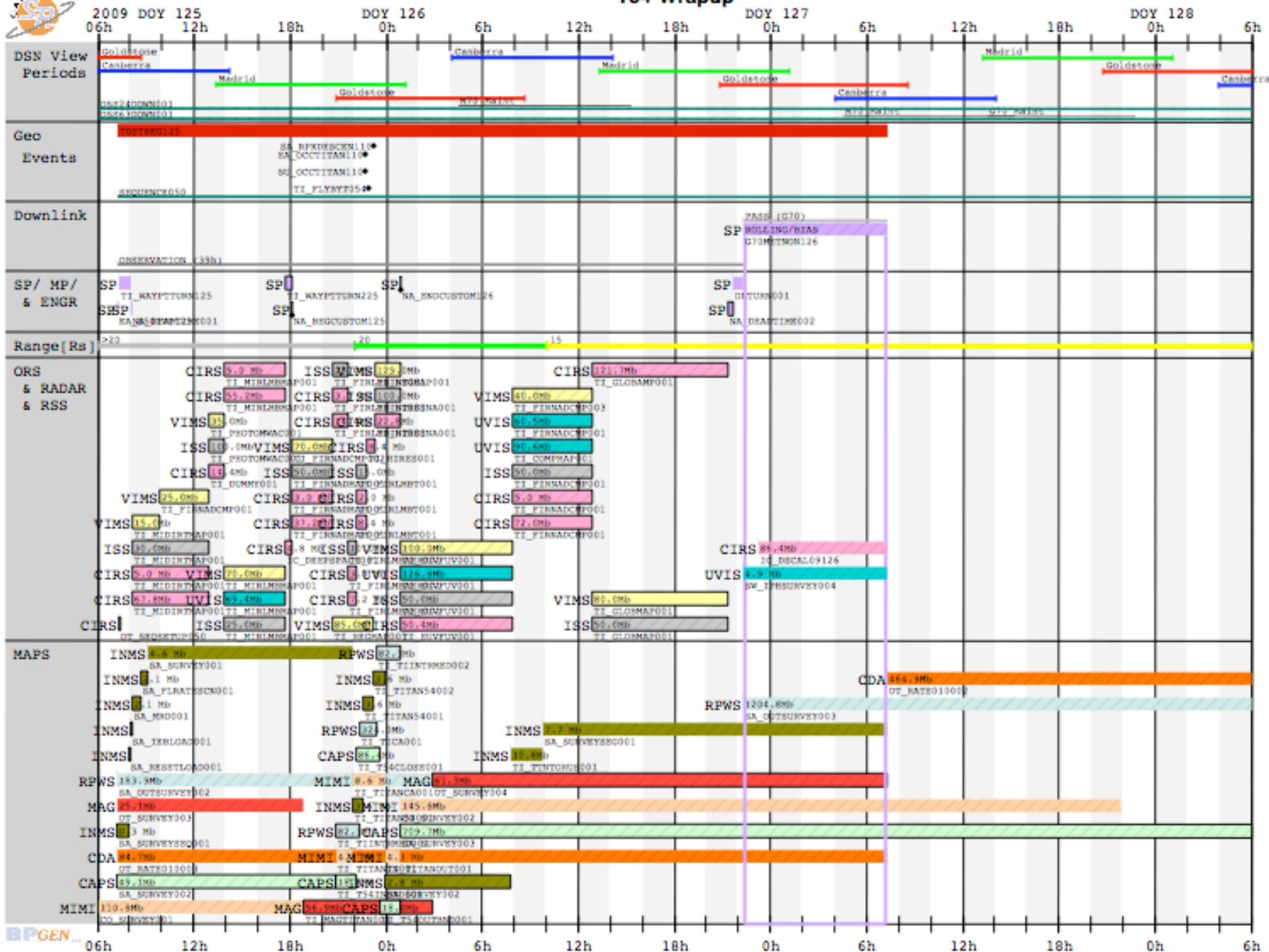
<b>T54</b>	<b>3200</b>
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Start Time	End Time	Prime Activity	Obs. Detail	Op Mode	TLM Mode	Comments
2009-125T07:16:00	2009-125T07:22	IVP Vector Update		DFPW Normal	S_N_ER_3	
2009-125T07:22:00	2009-125T08:02:00	SP Turn to WP	NEG_Y to Titan, NEG_X to Sun	DFPW Normal	S_N_ER_3	
2009-125T08:02:00	C/A - 14:42:29	OD Uncertainty Dead Time		DFPW Normal	S_N_ER_3	
C/A - 14:42:29	-13:00	CIRS	Template M4	DFPW Normal	S_N_ER_3	
-13:00	-10:00	CIRS	Template N	DFPW Normal	S_N_ER_3	
-10:00	-09:00	ISS	Template N	DFPW Normal	S_N_ER_3	
-09:00	-05:10	CIRS	Template R	DFPW Normal	S_N_ER_3	
-05:10	-04:50	SP turn to WP	NEG_Y to Titan, NEG_X to RA/Dec (58, 24)	DFPW Normal	S_N_ER_3	Turn/Accl. Rates: 1.2/1.5/2.5, .008/0.008/02
-04:50		Begin custom period				
-04:50	-02:15	CIRS	Template T	DFPW Normal	S_N_ER_3	
-02:15	0	CIRS		DFPW Normal	S_N_ER_3	
2009-125T22:54:16		<b>CLOSEST APPROACH</b>		DFPW Normal	S_N_ER_3	
0	+00:25	CIRS		DFPW Normal	S_N_ER_3	
+00:25	+02:00	ISS		DFPW Normal	S_N_ER_3	
+02:00		End custom period				
+02:00	+09:00	UVIS	Template X	DFPW Normal	S_N_ER_3	
+09:00	+14:00	CIRS	Template C	DFPW Normal	S_N_ER_3	
+14:00	C/A + 22:27:00	VIMS	Template B	DFPW Normal	S_N_ER_3	
C/A + 22:27:00	2009-126T21:36:00	OD Uncertainty Dead Time		DFPW Normal	S_N_ER_3	
2009-126T21:36:00	2009-126T22:16:00	SP Turn to Earth for downlink	Xband to Earth, NEG_X to NEP	DFPW Normal	S_N_ER_3	
2009-126T22:16:00	2009-127T07:16:00	70-m Array		DFPW Normal	RTE_N_SPB	

No Dual Playback



# T54-Wrapup



# T54 Wrapup Telemetry Mode Report

## TELEMETRY MODE REPORT

EPOCH RELATIVE	UTC	DURATION	TELEMETRY MODE	REQUEST
	2009-125T07:16:00.000	001T15:00:00	S_N_ER_3	SP_110NA_G70OBSNON126_NA
	2009-126T22:16:00.000	00:15:00	RTE_N_SPB_124425	SP_110EA_G70METNON126_PRIME
	2009-126T22:31:00.000	01:30:00	RTE_N_SPB_142200	SP_110EA_G70METNON126_PRIME
	2009-127T00:01:00.000	05:30:00	RTE_N_SPB_165900	SP_110EA_G70METNON126_PRIME
	2009-127T05:31:00.000	01:30:00	RTE_N_SPB_142200	SP_110EA_G70METNON126_PRIME
	2009-127T07:01:00.000	00:15:00	RTE_N_SPB_124425	SP_110EA_G70METNON126_PRIME



# T54 Wrapup SMT Report

P5 set to 30 Mb

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

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)	MRGN (Mb)	OPNAV (Mb)	SCI (Mb)	ENGR (Mb)	TOTAL (Mb)	CPACTY (Mb)	MARGN (Mb)	NET_MARGN (Mb)	(%)	CAROVR (Mb)
SP_110EA_G70METNON126_PRIME	126 22:16	127 07:16	0	3323	165	3488	3552	64	0	236	53	3777	4268	490	491	12%	0

# T54 Wrapup SMT Report (continued)

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	125 07:16	126 22:16	248.4	68.9	484.7	37.9	505.0	123.9	130.7	0.0	672.4	350.3	645.0	0.0	31.9	3299.0
OBSERVATION_SI	125 07:16	126 22:16	0.0	0.0	26.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.0
SP_110EA_G70METNON126_PRIME	126 22:16	127 07:16	32.4	15.9	86.4	3.2	0.0	19.4	29.2	0.0	42.4	4.9	0.0	0.0	0.0	233.9
DAILY TOTAL SCIENCE	125 07:16	127 07:16	280.8	84.7	597.1	41.1	505.0	143.3	159.8	0.0	714.9	355.3	645.0	0.0		

	CAPS (Mb)	CDA (Mb)	CIRS (Mb)	INMS (Mb)	ISS (Mb)	MAG (Mb)	MIMI (Mb)	RADAR (Mb)	RPWS (Mb)	UVIS (Mb)	VIMS (Mb)	PROBE (Mb)
TOTAL RECORDED (OPNAV data not included)	280.8	84.7	597.1	41.1	505.0	143.3	159.8	0.0	714.9	355.3	645.0	0.0

# T54 Wrapup DSN Report

CASSINI DOWNLINK/DSN COVERAGE SUMMARY for 110TI\_T54\_080714.apf on 2008-Jul-15 13:41:50  
 (+ = pass overlaps with previous pass; \* = conflicts with DSN maintenance; o = overlaps occultation)

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	LABEL	CNFG
G70METNON126	126T22:16-07:16	126T23:30-08:30	09:00	124,142,165,142,124	14	126T22:16-07:16	126T23:30-08:30	09:00	60 /15	TP	N003

# TOL for T54 (1 of 2)

Request	Start Time	Epoch	Duration	End Time	Rate	Data Volume	SPASS Type	Primary Pointing	Secondary Pointing	Pointing Agreement
MP_107NA_DSS24DOWN001_NA	2009-088T22:49:39		062T23:52:11	2009-151T22:41:50	0	0	Non-SPASS			
MP_110NA_DSS63DOWN001_NA	2009-123T22:46:27		090T23:47:40	2009-214T22:34:07	0	0	Non-SPASS			
MIMI_110CO_SURVEY001_RIDER	2009-124T10:42:00		001T10:12:16	2009-125T20:54:16	900	110.822	Non-SPASS			
CAPS_110SA_SURVEY002_PRIME	2009-125T07:16:00	E110_SEQUENCE_050+000T00:00:00	000T13:38:16	2009-125T20:54:16	1000	49.096	Non-SPASS			
CDA_1100T_RATE010003_RIDER	2009-125T07:16:00		002T00:00:00	2009-127T07:16:00	490.4	84.743	Non-SPASS			
INMS_110SA_SURVEYSEQ001_INMS	2009-125T07:16:00	E110_SEQUENCE_050+000T00:00:00	000T00:43:00	2009-125T07:59:00	100	0.258	Non-SPASS			
MAG_1100T_SURVEY003_PRIME	2009-125T07:16:00		000T11:38:16	2009-125T18:54:16	600	25.138	Non-SPASS			
MP_110NA_SEQUENCE050_NA	2009-125T07:16:00		038T21:25:00	2009-164T04:41:00	0	0	SPASS Note			
RPWS_110SA_OUTSURVEY002_PRIME	2009-125T07:16:00		001T15:00:00	2009-126T22:16:00	1310	183.926	Non-SPASS			
SP_110EA_S50IVP125_PRIME	2009-125T07:16:00		000T00:06:00	2009-125T07:22:00	0	0	Prime	XBAND to Earth	POS_X to NEP	S50 IVP Gap
SP_110NA_G70OBSNON126_NA	2009-125T07:16:00		001T15:00:00	2009-126T22:16:00	0	0	Non-SPASS			
SP_110NA_TOSTSEG125_NA	2009-125T07:16:00		002T00:00:00	2009-127T07:16:00	0	0	SPASS Note			
CIRS_1100T_SEQSETUP050_PRIME	2009-125T07:21:00	E110_SEQUENCE_050+000T00:05:00	000T00:02:00	2009-125T07:23:00	0	0	Non-SPASS			
SP_110TI_WAYPTTURN125_PRIME	2009-125T07:22:00		000T00:40:00	2009-125T08:02:00	0	0	New Waypoint	NEG_Y to Titan	NEG_X to Sun	
INMS_110SA_RESETOAD001_INMS	2009-125T07:59:00	E110_SEQUENCE_050+000T00:43:00	000T00:07:00	2009-125T08:06:00	1	0	Non-SPASS			
SP_110NA_DEADTIME001_PRIME	2009-125T08:02:00		000T00:09:47	2009-125T08:11:47	0	0	Prime	NEG_Y to Titan	NEG_X to Sun	
INMS_110SA_IEBLOAD001_INMS	2009-125T08:06:00	E110_SEQUENCE_050+000T00:50:00	000T00:05:00	2009-125T08:11:00	1	0	Non-SPASS			
INMS_110SA_MRO001_INMS	2009-125T08:11:00	E110_SEQUENCE_050+000T00:55:00	000T00:33:00	2009-125T08:44:00	1044	2.067	Non-SPASS			
CIRS_110TI_MIDIRTMAP001_PRIME	2009-125T08:11:47	GMB_E110_Titan54-000T14:42:29	000T04:42:29	2009-125T12:54:16	4000	67.796	Prime	CIRS_FP1 to Titan	POS_X to North_Pole_Dir	
CIRS_110TI_MIDIRTMAP001_SI	2009-125T08:11:47	GMB_E110_Titan54-000T14:42:29	000T04:42:29	2009-125T12:54:16	0	5	SPASS Rider			
ISS_110TI_MIDIRTMAP001_CIRS	2009-125T08:11:47	GMB_E110_Titan54-000T14:42:29	000T04:42:29	2009-125T12:54:16	0	30	SPASS Rider			
VIMS_110TI_MIDIRTMAP001_CIRS	2009-125T08:11:47	GMB_E110_Titan54-000T14:42:29	000T01:42:29	2009-125T09:54:16	2439.4	15	SPASS Rider			
INMS_110SA_FLRATESCN001_INMS	2009-125T08:44:00	E110_SEQUENCE_050+000T01:28:00	000T00:22:59	2009-125T09:06:59	1498	2.066	Non-SPASS			
INMS_110SA_SURVEY001_INMS	2009-125T09:06:59		000T12:47:17	2009-125T21:54:16	100	4.604	Non-SPASS			
VIMS_110TI_FIRNADCMPO01_CIRS	2009-125T09:54:16	GMB_E110_Titan54-000T13:00:00	000T03:00:00	2009-125T12:54:16	2314.8	25	SPASS Rider			
CIRS_110TI_DUMMY001_ISS	2009-125T12:54:16	GMB_E110_Titan54-000T10:00:00	000T01:00:00	2009-125T13:54:16	4000	14.4	SPASS Rider			
ISS_110TI_PHOTOMWAC001_PRIME	2009-125T12:54:16	GMB_E110_Titan54-000T10:00:00	000T01:00:00	2009-125T13:54:16	0	100	Prime	ISS_NAC to Titan	NEG_X to Sun	
VIMS_110TI_PHOTOMWAC001_ISS	2009-125T12:54:16	GMB_E110_Titan54-000T10:00:00	000T01:00:00	2009-125T13:54:16	9722.2	35	SPASS Rider			
CIRS_110TI_MIRLMBMAP001_PRIME	2009-125T13:54:16	GMB_E110_Titan54-000T09:00:00	000T03:50:00	2009-125T17:44:16	4000	55.2	Prime	CIRS_FP1 to Titan	PIC	
CIRS_110TI_MIRLMBMAP001_SI	2009-125T13:54:16	GMB_E110_Titan54-000T09:00:00	000T03:50:00	2009-125T17:44:16	0	5	SPASS Rider			
ISS_110TI_MIRLMBMAP001_CIRS	2009-125T13:54:16	GMB_E110_Titan54-000T09:00:00	000T03:50:00	2009-125T17:44:16	0	25	SPASS Rider			
UVIS_110TI_MIRLMBMAP001_CIRS	2009-125T13:54:16	GMB_E110_Titan54-000T09:00:00	000T03:50:00	2009-125T17:44:16	5032	69.442	SPASS Rider			
VIMS_110TI_MIRLMBMAP001_CIRS	2009-125T13:54:16	GMB_E110_Titan54-000T09:00:00	000T03:50:00	2009-125T17:44:16	5072.5	70	SPASS Rider			
CIRS_110TI_DEEPSPACE001_SP	2009-125T17:44:16	GMB_E110_Titan54-000T05:10:00	000T00:20:00	2009-125T18:04:16	4000	4.8	SPASS Rider			
SP_110TI_WAYPTTURN225_PRIME	2009-125T17:44:16	GMB_E110_Titan54-000T05:10:00	000T00:20:00	2009-125T18:04:16	0	0	New Waypoint	NEG_Y to Titan	NEG_X to 58.0/24.0	
CIRS_110TI_FIRNADMAP001_PRIME	2009-125T18:04:16	GMB_E110_Titan54-000T04:50:00	000T02:35:00	2009-125T20:39:16	4000	37.2	Prime	CIRS_FP1 to Titan	POS_X to North_Pole_Dir	Pickup at waypoint
CIRS_110TI_FIRNADMAP001_SI	2009-125T18:04:16	GMB_E110_Titan54-000T04:50:00	000T02:35:00	2009-125T20:39:16	0	3	SPASS Rider			
ISS_110TI_FIRNADMAP001_CIRS	2009-125T18:04:16	GMB_E110_Titan54-000T04:50:00	000T02:35:00	2009-125T20:39:16	0	50	SPASS Rider			
SP_110NA_BEGCUSTOM125_PRIME	2009-125T18:04:16	GMB_E110_Titan54-000T04:50:00	000T00:00:01	2009-125T18:04:17	0	0	SPASS Note			
VIMS_110TI_FIRNADCMPO02_CIRS	2009-125T18:04:16	GMB_E110_Titan54-000T04:50:00	000T02:35:00	2009-125T20:39:16	7526.9	70	SPASS Rider			
MAG_110TI_MAGTITAN001_PRIME	2009-125T18:54:16	GMB_E110_Titan54-000T04:00:00	000T08:00:00	2009-126T02:54:16	1976	56.909	Non-SPASS			
CIRS_110TI_FIRLMBINT001_PRIME	2009-125T20:39:16	GMB_E110_Titan54-000T02:15:00	000T01:00:00	2009-125T21:39:16	4000	14.4	Prime	CIRS_FP1 to Titan	PIC	Add custom info
CIRS_110TI_FIRLMBINT001_SI	2009-125T20:39:16	GMB_E110_Titan54-000T02:15:00	000T01:00:00	2009-125T21:39:16	0	3	SPASS Rider			
ISS_110TI_FIRLMBINT001_CIRS	2009-125T20:39:16	GMB_E110_Titan54-000T02:15:00	000T01:00:00	2009-125T21:39:16	0	25	SPASS Rider			
VIMS_110TI_REGMAP001_CIRS	2009-125T20:39:16	GMB_E110_Titan54-000T02:15:00	000T02:30:00	2009-125T23:09:16	9444.4	85	SPASS Rider			Line up with Prime
CAPS_110TI_T54INBND001_PRIME	2009-125T20:54:16	GMB_E110_Titan54-000T02:00:00	000T01:15:00	2009-125T22:09:16	4000	18	SPASS Rider			
MIMI_110TI_TITANIN001_RIDER	2009-125T20:54:16		000T01:00:00	2009-125T21:54:16	1200	4.32	SPASS Rider			
RPWS_110TI_TIIINTRMED001_PRIME	2009-125T20:54:16	GMB_E110_Titan54-000T02:00:00	000T01:30:00	2009-125T22:24:16	15232	82.253	Non-SPASS			
CIRS_110TI_FIRLMBAR001_PRIME	2009-125T21:39:16	GMB_E110_Titan54-000T01:15:00	000T00:30:00	2009-125T22:09:16	4000	7.2	Prime	CIRS_FP1 to Titan	PIC	Add custom info

# TOL for T54 (2 of 2)

Request	Start Time	Epoch	Duration	End Time	Rate	Data Volume	SPASS Type	Primary Pointing	Secondary Pointing	Pointing Agreement
CIRS_110TI_FIRLMBAR001_SI	2009-125T21:39:16	GMB_E110_Titan54-000T01:15:00	000T00:30:00	2009-125T22:09:16	0	3	SPASS Rider			
ISS_110TI_FIRLMBAR001_CIRS	2009-125T21:39:16	GMB_E110_Titan54-000T01:15:00	000T00:30:00	2009-125T22:09:16	0	10	SPASS Rider			
INMS_110TI_TITAN54001_INMS	2009-125T21:54:16	GMB_E110_Titan54-000T01:00:00	000T00:40:00	2009-125T22:34:16	1498	3.595	Non-SPASS			
MIMI_110TI_TITANCA001_RIDER	2009-125T21:54:16		000T02:00:00	2009-125T23:54:16	1200	8.64	SPASS Rider			
CAPS_110TI_T54CLOSE001_PRIME	2009-125T22:09:16	GMB_E110_Titan54-000T00:45:00	000T01:30:00	2009-125T23:39:16	16000	86.4	SPASS Rider			
CIRS_110TI_FIRLMBT001_PRIME	2009-125T22:09:16	GMB_E110_Titan54-000T00:45:00	000T00:35:00	2009-125T22:44:16	4000	8.4	Prime	CIRS_FP1 to Titan	PIC	
CIRS_110TI_FIRLMBT001_SI	2009-125T22:09:16	GMB_E110_Titan54-000T00:45:00	000T00:35:00	2009-125T22:44:16	0	2	SPASS Rider			
ISS_110TI_FIRLMBT001_CIRS	2009-125T22:09:16	GMB_E110_Titan54-000T00:45:00	000T00:35:00	2009-125T22:44:16	0	15	SPASS Rider			
RPWS_110TI_TICA001_PRIME	2009-125T22:24:16	GMB_E110_Titan54-000T00:30:00	000T01:00:00	2009-125T23:24:16	90002.8	324.01	Non-SPASS			
INMS_110TI_TITAN54001_RIDER	2009-125T22:34:16	GMB_E110_Titan54-000T00:20:00	000T00:40:00	2009-125T23:14:16	1498	3.595	Non-SPASS			
MP_110EA_OCCTITAN110_NA	2009-125T22:38:15		000T00:00:01	2009-125T22:38:16	0	0	Non-SPASS			
MP_110SU_OCCTITAN110_NA	2009-125T22:40:22		000T00:00:01	2009-125T22:40:23	0	0	Non-SPASS			
CIRS_110TI_HIRES001_PRIME	2009-125T22:44:16	GMB_E110_Titan54-000T00:10:00	000T00:35:00	2009-125T23:19:16	4000	8.4	Prime	CIRS_FP1 to Titan	PIC	
MP_110TI_FLYBYT054_NA	2009-125T22:54:16		000T00:00:01	2009-125T22:54:17	0	0	SPASS Note			
MP_110SA_RPXDESCEN110_NA	2009-125T23:13:14		000T00:00:01	2009-125T23:13:15	0	0	Non-SPASS			
INMS_110TI_TITAN54002_INMS	2009-125T23:14:16	GMB_E110_Titan54+000T00:20:00	000T00:40:00	2009-125T23:54:16	1498	3.595	Non-SPASS			
CIRS_110TI_HIRESNA001_ISS	2009-125T23:19:16	GMB_E110_Titan54+000T00:25:00	000T01:35:00	2009-126T00:54:16	4000	22.8	SPASS Rider			
ISS_110TI_HIRESNA001_PRIME	2009-125T23:19:16	GMB_E110_Titan54+000T00:25:00	000T01:35:00	2009-126T00:54:16	0	100	Prime	ISS_NAC to Titan	NEG_X to Sun	Add custom info
VIMS_110TI_REGMAP001_ISS	2009-125T23:19:16	GMB_E110_Titan54+000T00:25:00	000T01:35:00	2009-126T00:54:16	21929.8	125	SPASS Rider			
RPWS_110TI_TINTRMED002_PRIME	2009-125T23:24:16	GMB_E110_Titan54+000T00:30:00	000T01:30:00	2009-126T00:54:16	15232	82.253	Non-SPASS			
CAPS_110TI_T54OUTBND001_PRIME	2009-125T23:39:16	GMB_E110_Titan54+000T00:45:00	000T01:15:00	2009-126T00:54:16	4000	18	SPASS Rider			
INMS_110SA_SURVEY002_INMS	2009-125T23:54:16	GMB_E110_Titan54+000T01:00:00	000T07:50:44	2009-126T07:45:00	100	2.824	Non-SPASS			
MIMI_110TI_TITANOUT001_RIDER	2009-125T23:54:16		000T01:00:00	2009-126T00:54:16	1200	4.32	SPASS Rider			
CAPS_110SA_SURVEY003_PRIME	2009-126T00:54:16	GMB_E110_Titan54+000T02:00:00	008T05:07:44	2009-134T06:02:00	1000	709.664	Non-SPASS			
CIRS_110TI_EUVFUV001_UVIS	2009-126T00:54:16	GMB_E110_Titan54+000T02:00:00	000T07:00:00	2009-126T07:54:16	2000	50.4	SPASS Rider			
ISS_110TI_EUVFUV001_UVIS	2009-126T00:54:16	GMB_E110_Titan54+000T02:00:00	000T07:00:00	2009-126T07:54:16	0	50	SPASS Rider			
MIMI_110CO_SURVEY002_RIDER	2009-126T00:54:16		001T21:00:13	2009-127T21:54:29	900	145.812	Non-SPASS			
SP_110NA_ENDCUSTOM126_PRIME	2009-126T00:54:16	GMB_E110_Titan54+000T02:00:00	000T00:00:01	2009-126T00:54:17	0	0	SPASS Note			
UVIS_110TI_EUVFUV001_PRIME	2009-126T00:54:16	GMB_E110_Titan54+000T02:00:00	000T07:00:00	2009-126T07:54:16	5032	126.806	Prime	UVIS_FUV to Titan	NEG_X to Sun	
VIMS_110TI_EUVFUV001_UVIS	2009-126T00:54:16	GMB_E110_Titan54+000T02:00:00	000T07:00:00	2009-126T07:54:16	3968.3	100	SPASS Rider			
MAG_110OT_SURVEY004_PRIME	2009-126T02:54:16	GMB_E110_Titan54+000T04:00:00	001T04:21:44	2009-127T07:16:00	600	61.262	Non-SPASS			
INMS_110TI_TINTORUS001_INMS	2009-126T07:45:00		000T02:00:00	2009-126T09:45:00	1498	10.786	Non-SPASS			
CIRS_110TI_FIRNADCMP001_PRIME	2009-126T07:54:16	GMB_E110_Titan54+000T09:00:00	000T05:00:00	2009-126T12:54:16	4000	72	Prime	CIRS_FP1 to Titan	PIC	
CIRS_110TI_FIRNADCMP001_SI	2009-126T07:54:16	GMB_E110_Titan54+000T09:00:00	000T05:00:00	2009-126T12:54:16	0	5	SPASS Rider			
ISS_110TI_FIRNADCMP001_CIRS	2009-126T07:54:16	GMB_E110_Titan54+000T09:00:00	000T05:00:00	2009-126T12:54:16	0	50	SPASS Rider			
UVIS_109TI_COMPMP001_CIRS	2009-126T07:54:16	GMB_E110_Titan54+000T09:00:00	000T05:00:00	2009-126T12:54:16	5032	90.576	SPASS Rider			
UVIS_110TI_FIRNADCMP001_CIRS	2009-126T07:54:16	GMB_E110_Titan54+000T09:00:00	000T05:00:00	2009-126T12:54:16	3359.9	60.478	SPASS Rider			
VIMS_110TI_FIRNADCMP003_CIRS	2009-126T07:54:16	GMB_E110_Titan54+000T09:00:00	000T05:00:00	2009-126T12:54:16	2222.2	40	SPASS Rider			
INMS_110SA_SURVEYSEG001_INMS	2009-126T09:45:00		000T21:31:00	2009-127T07:16:00	100	7.746	Non-SPASS			
CIRS_110TI_GLOBAMP001_VIMS	2009-126T12:54:16	GMB_E110_Titan54+000T14:00:00	000T08:27:00	2009-126T21:21:16	4000	121.68	SPASS Rider			
ISS_110TI_GLOBAMP001_VIMS	2009-126T12:54:16	GMB_E110_Titan54+000T14:00:00	000T08:27:00	2009-126T21:21:16	0	50	SPASS Rider			
VIMS_110TI_GLOBAMP001_PRIME	2009-126T12:54:16	GMB_E110_Titan54+000T14:00:00	000T08:27:00	2009-126T21:21:16	2629.8	80	Prime	NEG_Y to Titan	NEG_X to Sun	
SP_110NA_DEADTIME002_PRIME	2009-126T21:21:16	GMB_E110_Titan54+000T22:27:00	000T00:14:44	2009-126T21:36:00	0	0	Prime	NEG_Y to Titan	NEG_X to 58.0/24.0	
SP_110EA_DLTURN001_PRIME	2009-126T21:36:00		000T00:40:00	2009-126T22:16:00	0	0	Prime	XBAND to Earth	NEG_X to NEP	
RPWS_110SA_OUTSURVEY003_PRIME	2009-126T22:16:00		010T15:28:00	2009-137T13:44:00	1310	1204.793	Non-SPASS			
SP_110EA_G7OMETNON126_PRIME	2009-126T22:16:00		000T09:00:00	2009-127T07:16:00	0	0	Prime	XBAND to Earth	Rolling/Bias	NEG_X to NEP
SP_110NA_G7OMETNON126_SP	2009-126T22:16:00		000T09:00:00	2009-127T07:16:00	0	0	Non-SPASS			
UVIS_110SW_IPHSURVEY004_RIDER	2009-126T22:16:00		000T09:00:00	2009-127T07:16:00	152.5	4.94	Non-SPASS			
CIRS_110IC_DSCAL09126_SP	2009-126T23:16:00		000T08:00:00	2009-127T07:16:00	3000	86.4	SPASS Rider			
CDA_110OT_RATE010002_RIDER	2009-127T07:16:00		010T06:28:00	2009-137T13:44:00	524	464.935	Non-SPASS			

# T54 Wrapup SPASS

Request	Riders	Start (SCET)	Start (Epoch)	Duration	End (SCET)	Primary	Secondary	Comments
Sequence S50, length = 39 days		2009-125T07:16:00		038T21:25:00	2009-164T04:41:00			
Titan Flyby T54 Segment		2009-125T07:16:00		002T00:00:00	2009-127T07:16:00			
SP_110EA_S50IVP125_PRIME		2009-125T07:16:00		000T00:06:00	2009-125T07:22:00	XBAND to Earth	POS_X to NEP	S50 IVP Gap
SP_110TI_WAYPTTURN125_PRIME		2009-125T07:22:00		000T00:40:00	2009-125T08:02:00	NEG_Y to Titan	NEG_X to Sun	
<b>NEW WAYPOINT</b>		<b>2009-125T08:02:00</b>		<b>000T10:02:16</b>	<b>2009-125T18:04:16</b>	<b>NEG_Y to Titan</b>	<b>NEG_X to Sun</b>	
<b>SP_110NA_DEADTIME001_PRIME</b>		<b>2009-125T08:02:00</b>		<b>000T00:09:47</b>	<b>2009-125T08:11:47</b>	<b>NEG_Y to Titan</b>	<b>NEG_X to Sun</b>	
CIRS_110TI_MIDIRMAP001_PRIME	C, I, V	2009-125T08:11:47	GMB_E110_Titan54-000T14:42:2000T04:42:29	2009-125T12:54:16	2009-125T12:54:16	CIRS_FP1 to Titan	POS_X to North_Pole_Dir	
ISS_110TI_PHOTOMWAC001_PRIME	C, V	2009-125T12:54:16	GMB_E110_Titan54-000T10:00:0000T01:00:00	2009-125T13:54:16	2009-125T13:54:16	ISS_NAC to Titan	NEG_X to Sun	
CIRS_110TI_MIRLMBMAP001_PRIME	C, I, U, V	2009-125T13:54:16	GMB_E110_Titan54-000T09:00:0000T03:50:00	2009-125T17:44:16	2009-125T17:44:16	CIRS_FP1 to Titan	PIC	
SP_110TI_WAYPTTURN225_PRIME	C	2009-125T17:44:16	GMB_E110_Titan54-000T05:10:0000T00:20:00	2009-125T18:04:16	2009-125T18:04:16	NEG_Y to Titan	NEG_X to 58.0/24.0	
<b>NEW WAYPOINT</b>		<b>2009-125T18:04:16</b>		<b>001T13:11:44</b>	<b>2009-127T07:16:00</b>	<b>NEG_Y to Titan</b>	<b>NEG_X to 58.0/24.0</b>	
<b>Begin Custom</b>		<b>2009-125T18:04:16</b>	<b>GMB_E110_Titan54-000T04:5000T00:00:01</b>	<b>2009-125T18:04:17</b>				
CIRS_110TI_FIRNADMAP001_PRIME	C, I, V	2009-125T18:04:16	GMB_E110_Titan54-000T04:50:0000T02:35:00	2009-125T20:39:16	2009-125T20:39:16	CIRS_FP1 to Titan	POS_X to North_Pole_Dir	Pick up at CIRS_FP1 to Titan, PIC; Hand off at CIRS_FP1 to Titan, PIC.
CIRS_110TI_FIRLMBINT001_PRIME	C, I, M, V	2009-125T20:39:16	GMB_E110_Titan54-000T02:15:0000T01:00:00	2009-125T21:39:16	2009-125T21:39:16	CIRS_FP1 to Titan	PIC	Pick up at unknown, unknown; Hand off at unknown, unknown.
CIRS_110TI_FIRLMBAR001_PRIME	C, I, M, V	2009-125T21:39:16	GMB_E110_Titan54-000T01:15:0000T00:30:00	2009-125T22:09:16	2009-125T22:09:16	CIRS_FP1 to Titan	PIC	Pick up at unknown, unknown; Hand off at unknown, unknown.
CIRS_110TI_FIRLMBT001_PRIME	C, I, M, V	2009-125T22:09:16	GMB_E110_Titan54-000T00:45:0000T00:35:00	2009-125T22:44:16	2009-125T22:44:16	CIRS_FP1 to Titan	PIC	Pick up at CIRS_FP1 to Titan, PIC; Hand off at CIRS_FP1 to Titan, PIC.
CIRS_110TI_HIRES001_PRIME	M, V	2009-125T22:44:16	GMB_E110_Titan54-000T00:10:0000T00:35:00	2009-125T23:19:16	2009-125T23:19:16	CIRS_FP1 to Titan	PIC	Pick up at CIRS_FP1 to Titan, PIC; Hand off at ISS_NAC to Titan, NEG_X to Sun.
110TI (t) T54 TITAN Inbou...		2009-125T22:54:16		000T00:00:01	2009-125T22:54:17			
ISS_110TI_HIRESNA001_PRIME	C, M, V	2009-125T23:19:16	GMB_E110_Titan54+000T00:25:0000T01:35:00	2009-126T00:54:16	2009-126T00:54:16	ISS_NAC to Titan	NEG_X to Sun	Pick up at unknown, unknown; Hand off at unknown, unknown.
<b>End Custom</b>		<b>2009-126T00:54:16</b>	<b>GMB_E110_Titan54+000T02:0000T00:00:01</b>	<b>2009-126T00:54:17</b>				
UVIS_110TI_EUVFUV001_PRIME	C, I, V	2009-126T00:54:16	GMB_E110_Titan54+000T02:00:0000T07:00:00	2009-126T07:54:16	2009-126T07:54:16	UVIS_FUV to Titan	NEG_X to Sun	
CIRS_110TI_FIRNADCMP001_PRIME	C, I, U, V	2009-126T07:54:16	GMB_E110_Titan54+000T09:00:0000T05:00:00	2009-126T12:54:16	2009-126T12:54:16	CIRS_FP1 to Titan	PIC	
VIMS_110TI_GLOBMAP001_PRIME	C, I	2009-126T12:54:16	GMB_E110_Titan54+000T14:00:0000T08:27:00	2009-126T21:21:16	2009-126T21:21:16	NEG_Y to Titan	NEG_X to Sun	
<b>SP_110NA_DEADTIME002_PRIME</b>		<b>2009-126T21:21:16</b>	<b>GMB_E110_Titan54+000T22:0000T00:14:44</b>	<b>2009-126T21:36:00</b>	<b>2009-126T21:36:00</b>	<b>NEG_Y to Titan</b>	<b>NEG_X to 58.0/24.0</b>	
SP_110EA_DLTURN001_PRIME		2009-126T21:36:00		000T00:40:00	2009-126T22:16:00	XBAND to Earth	NEG_X to NEP	
SP_110EA_G70METNON126_PRIME	C	2009-126T22:16:00		000T09:00:00	2009-127T07:16:00	XBAND to Earth	Rolling/Bias	NEG_X to NEP

CIRS, ISS to edit custom period information

# T54 Wrapup Open Issues

- VIMS to edit timing of VIMS\_110TI\_REGMAP001\_CIRS to line up with primes
- CIRS to add custom period information to
  - CIRS\_110TI\_FIRLMBBAER001\_PRIME
  - CIRS\_110TI\_FIRNADMAP001\_PRIME
  - CIRS\_110TI\_FIRLMBINT001\_PRIME
- ISS to add custom period information to
  - ISS\_110TI\_HIRESNA001\_PRIME

LIENS: None

- Notes for Handoff: