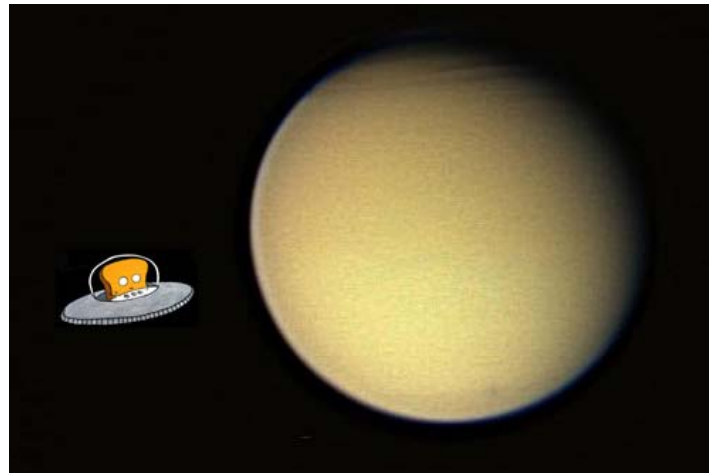




# TOST: Integration 093TI (T47) Wrap-Up Meeting



February 22, 2008

Kim Steadman, Douglas Equils, Trina Ray, Jo Pitesky



# T47 Segment Basics

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## Segment times:

BEG: 2008-323T18:24:00

END: 2008-325T23:25:00

Altitude: 1023km

Time of C/A: 2008-324T15:56:28

Epoch: GMB\_E093\_Titan47



At least 2 weeks prior to the Kickoff Meeting make sure that all requests are in CIMS

## Kickoff Meeting

### Present

Master Timeline

### Discuss

Timeline  
Op Modes  
Telem Modes  
Deadbands for RCS

### Homework

Custom Handoff Attitudes  
Unique Op Mode Requirements (SCO)  
Turn Assignments  
CCRs  
High Value Science

## Detailed Meeting

### Present

Master Timeline  
SMT Report  
Timeline Graphic  
TOL  
SPASS  
DSN Reports  
High Value Science

### Discuss

Data Volume Cuts

### Homework

CCRs  
High Level Science Objectives

## Wrap-up Meeting

### Present

Wrap-up Package  
Checklist  
High Level Science Objectives

### Discuss

N/A

### Homework

N/A



# T47 High-level Science Objectives

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**CIRS** – On T47 CIRS focuses on limb sounding of Titan at low latitudes, designed to measure the spatial variations of trace gas species and isotopic ratios of C, H, N and O, yielding insights into the formation and ongoing evolution of the atmosphere. In addition, CIRS continues its campaign of mapping the planet in the mid and far-infrared to obtain the spatial and temporal variation of temperature and more abundant hydrocarbon and nitrile molecules, which provide information on seasonal changes in weather, climate and chemistry that may be occurring.

**VIMS** – For the first time of the Cassini mission, VIMS will be able to image the Huygens landing site at closest approach with a resolution of less than a kilometer per pixel. It will cover areas that have already been observed with radar allowing for a joint study of geological features including dunes and circular features that are either impact craters or volcanic caldeiras.

During the stellar occultations before and after closest approach, VIMS will get information on the atmospheric composition.



# T47 High-level Science Objectives

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- UVIS** – UVIS will observe two stellar occultations (Eta Ursa Majoris and Beta Canis Majoris). These give vertical profiles of hydrocarbons and aerosols in the high stratosphere and mesosphere, a region that cannot be probed by other instruments. Over the course of the mission and XM UVIS stellar occultations will sample about 12 latitudes and this sampling will help constrain photochemistry, dynamics and aerosol microphysical processes in the upper stratosphere and mesosphere.
- MIMI** – This should be a rare Titan encounter for MIMI for which the INCA FOV remains free of sunlight contamination throughout the pass, good for seeing the energetic ion absorption both inbound and outbound. It is also another opportunity for possibly encountering Titan outside the magnetopause, a condition we have, to date only seen for a partial encounter
- MAG** - T47 is a flank-out flyby with a minimum altitude of 1000 km. The geometry of this flyby makes it complementary to T46 in the study of the draping of the external magnetic field around Titan by covering the dayside hemisphere. T47 takes place in Saturn's near-noon sector (10.5 hours SLT), where Titan could be found in the magnetosheath if the solar wind pressure is high. This is a first priority flyby for MAG.



# Master Timeline for T47

T47		1023km					
Start Time	End Time	Prime Activity	Obs. Detail	Op Mode	TLM Mode	Comments	
2008-323T18:24:00	2008-323T19:04:00	SP Turn to WP	-Y to Titan, -Z to Sun	DFPW Normal			
2008-323T19:04:00	2008-323T19:019:00	OD Uncertainty Dead Time					
2008-323T19:019:00	-13:00	VIMS	Template B	DFPW Normal	S_N_ER_3		
	-13:00	-09:00	VIMS	Template V	DFPW Normal	S_N_ER_3	
	-09:00	-08:00	ISS	Template I	DFPW Normal	S_N_ER_3	
begin custom period							
	-08:00	-05:00	VIMS	Template I	DFPW Normal	S_N_ER_3	
	-05:00	-02:00	VIMS	Template Y	DFPW Normal	S_N_ER_3	
	-02:00	-01:10	VIMS		DFPW Normal	S_N_ER_3	
	-01:10	-00:58	Turn to UVIS Stellar Occ attitude		DFPW Normal	S_N_ER_3	
	-00:58	-00:25	UVIS Stellar Occ		DFPW Normal	S_N_ER_3	
	-00:47	-00:25	RWA to RCS Transition		ORSRCS	S_N_ER_3	
	-00:25	-00:15	Turn to VIMS attitude	extra time goes to VIMS	ORSRCS	S_N_ER_3	
	-00:15	0	VIMS	VIMS must get landing site coverage	ORSRCS	S_N_ER_3	
2008-324T15:56:28			CLOSEST APPROACH	Neg_Y to Titan, Neg_X to Sun w/ Offset (0,50,0)	ORSRCS	S_N_ER_3	
	0	+00:20	VIMS	(T20-like observations)	ORSRCS	S_N_ER_3	
	+00:20	+00:24	Turn to UVIS Stellar Occ attitude	extra time goes to VIMS	ORSRCS	S_N_ER_3	
	+00:24	+01:02	UVIS Stellar Occ	Beta CMA	ORSRCS	S_N_ER_3	
	+00:40	+01:02	RCS to RWA Transition		DFPW Normal	S_N_ER_3	
	+01:02	X	Turn to CIRS attitude	turns done by CIRS	DFPW Normal	S_N_ER_3	
	X	+02:00	CIRS		DFPW Normal	S_N_ER_3	
	+02:00	+05:00	CIRS	Template T	DFPW Normal	S_N_ER_3	
	+05:00	+09:00	CIRS	Template R	DFPW Normal	S_N_ER_3	
	+09:00	+10:00	ISS	Template N	DFPW Normal	S_N_ER_3	
end custom period							
	+10:00	+13:00	CIRS	Template N	DFPW Normal	S_N_ER_3	
	+13:00	+14:00	ISS	Template M2	DFPW Normal	S_N_ER_3	
	+14:00	C/A+16	CIRS	Template M2	DFPW Normal	S_N_ER_3	
C/A+16:00	2008-325T08:10:00	OD Uncertainty Dead Time					
2008-325T08:10:00	2008-325T09:24:00	OpNav		DFPW Normal	S_N_ER_5		
2008-325T09:24:00	2008-325T09:25:00	Nav Turn to Earth for Downlink		DFPW Normal	S_N_ER_5		
2008-325T09:25:00	2008-325T18:25:00	70-m Array		DFPW Normal	RTE_N_SPB	G70	
2008-325T18:25:00	2008-325T23:25:00	Dual Playback				C34	

**Deadband: (0.5,0.5,0.5)**



# T47 Telemetry Mode Report

## TELEMETRY MODE REPORT

EPOCH RELATIVE	UTC	DURATION	TELEMETRY MODE	REQUEST
	2008-323T18:24:00.000	001T13:46:00	S_N_ER_3	SP_093NA_G70OBSNON325_NA
	2008-325T08:10:00.000	01:15:00	S_N_ER_5	SP_093NA_G70OBSNON325_NA
	2008-325T09:25:00.000	00:15:00	RTE_N_SPB_110600	SP_093EA_G70METNON325_PRIME
	2008-325T09:40:00.000	01:15:00	RTE_N_SPB_124425	SP_093EA_G70METNON325_PRIME
	2008-325T10:55:00.000	06:00:00	RTE_N_SPB_142200	SP_093EA_G70METNON325_PRIME
	2008-325T16:55:00.000	01:15:00	RTE_N_SPB_124425	SP_093EA_G70METNON325_PRIME
	2008-325T18:10:00.000	00:15:00	RTE_N_SPB_110600	SP_093EA_G70METNON325_PRIME
	2008-325T18:25:00.000	05:00:00	RTE_N_SPB_27650	SP_094EA_C34BWGNON325_PRIME



# T47 SMT Report

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)	MGRN (Mb)	OPNAV (Mb)	SCI (Mb)	ENGR (Mb)	TOTAL (Mb)	CPACTY (Mb)	MARGN (Mb)	NET_MARGN (Mb)	(%)	CAROVR (Mb)
SP_093EA_G70METNON325_PRIME	325 09:25	325 18:25	0	3152	176	3327	3509	182	21	283	53	3685	3706	21	27	1%	0
SP_094EA_C34BWGNON325_PRIME	325 18:25	325 23:25	0	0	221	221	3509	3288	0	143	29	393	398	5	5	1%	0





# T47 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	323 18:24	325 09:25	248.5	73.6	336.8	34.2	596.0	98.3	157.7	0.0	586.5	193.4	781.0	0.0	42.9	3148.9
OBSERVATION_OPN	323 18:24	325 09:25	0.0	0.0	0.0	0.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.0
OBSERVATION_SI	323 18:24	325 09:25	0.0	0.0	17.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.0
SP_093EA_G70METNON325_PRIME	325 09:25	325 18:25	32.4	17.0	115.2	13.3	0.0	21.3	29.2	0.0	42.4	9.4	0.0	0.0	0.0	280.2
OBSERVATION_NOR	323 18:24	325 18:25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	220.9	220.9
SP_094EA_C34BWGNON325_PRIME	325 18:25	325 23:25	18.0	9.4	57.6	1.8	0.0	11.9	16.2	0.0	23.6	2.7	0.0	0.0	0.0	141.2
DAILY TOTAL SCIENCE	323 18:24	325 23:25	298.9	100.0	526.6	49.3	596.0	131.5	203.0	0.0	652.5	205.6	781.0	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)	298.9	100.0	526.6	49.3	596.0	131.5	203.0	0.0	652.5	205.6	781.0	0.0



# DSN Report

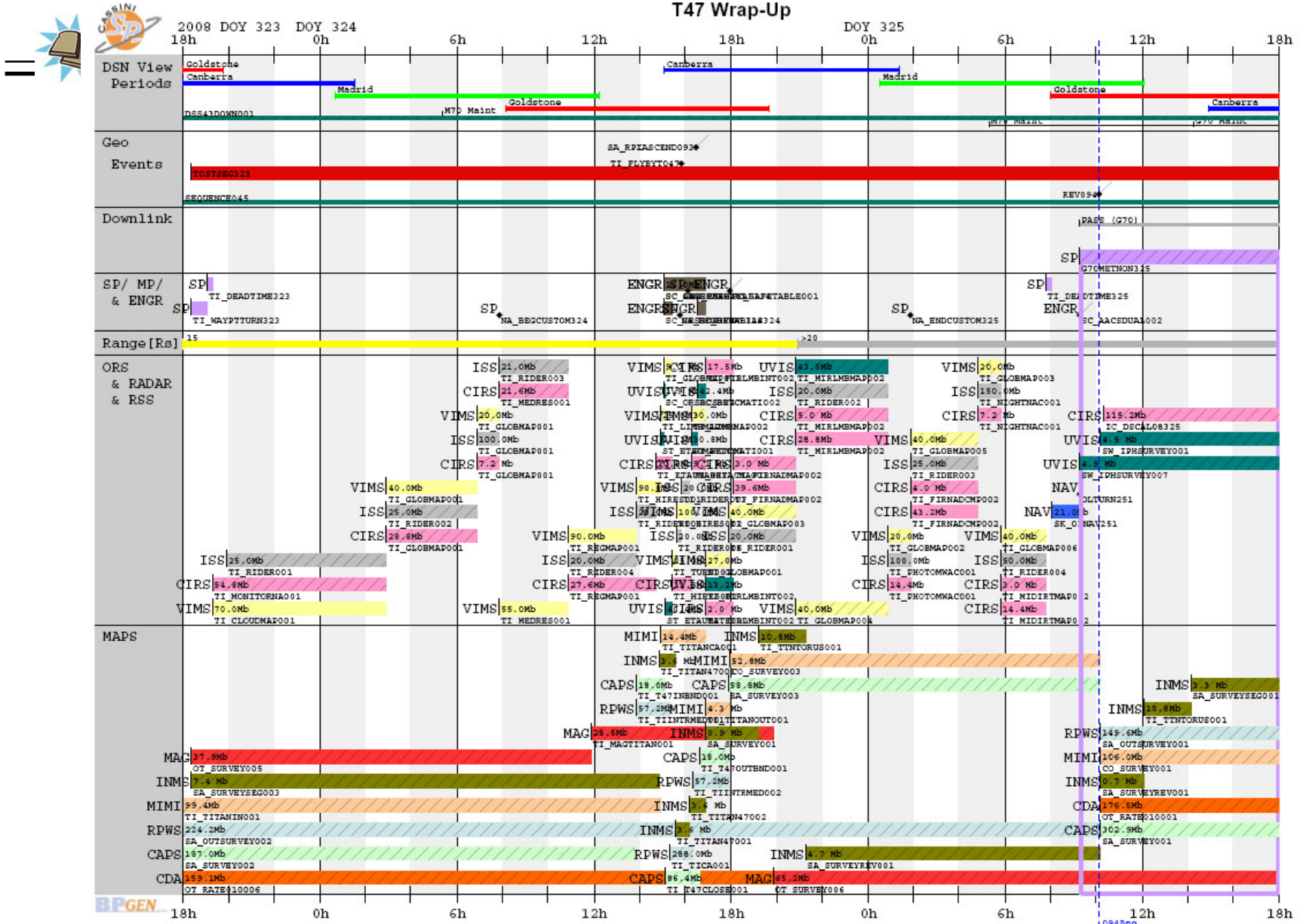
CASSINI DOWNLINK/DSN COVERAGE SUMMARY for 093TI\_T47\_2008-01-22.apf on 2008-Jan-22 13:20:10  
(+ = pass overlaps with previous pass; \* = conflicts with DSN maintenance; o = overlaps occultation)

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
G70METNON325	325T09:25-18:25	325T10:45-19:45	09:00	110,124,142,124,110	14*	325T09:25-18:25	325T10:45-19:45	09:00	60 /15	TP	N003
+C34BWGNON325	325T18:25-23:25	325T19:45-00:45	05:00	27	34	325T18:05-23:25	325T19:25-00:45	05:20	60 /15	TP	N003



Overlaps weekly maintenance by 3 hours.

# T47 Wrap-Up





# TOL for T47 (1 of 3)

Request	AGPEN	Start Time	Epoch	Duration	End Time	Rate	Data Volume	SPASS Type	Primary Pointing	Secondary Pointing	Pointing Agreement
CAPS_093SA_SURVEY002_PRIME	CAPS_16000	2008-322T10:00:00		002T03:56:18	2008-324T13:56:18	1000	186.978	Non-SPASS			
CAPS_093TI_T47INBND001_PRIME	CAPS_16000	2008-324T13:56:28	GMB_E093_Titan47-000T02:00:00	000T01:15:00	2008-324T15:11:28	4000	16	SPASS Rider			
CAPS_093TI_T47CLOSE001_PRIME	CAPS_16000	2008-324T15:11:28	GMB_E093_Titan47-000T00:45:00	000T01:30:00	2008-324T16:41:28	16000	86.4	SPASS Rider			
CAPS_093TI_T47OUTBND001_PRIME	CAPS_16000	2008-324T16:41:28	GMB_E093_Titan47+000T00:45:00	000T01:15:00	2008-324T17:56:28	4000	16	SPASS Rider			
CAPS_093SA_SURVEY003_PRIME	CAPS_16000	2008-324T17:56:18		000T16:20:42	2008-325T10:17:00	1000	58.842	Non-SPASS			
CAPS_094SA_SURVEY001_PRIME	CAPS_16000	2008-325T10:17:00	E094_App+000T00:00:00	003T12:08:00	2008-326T22:25:00	1000	302.88	Non-SPASS			
CDA_093OT_RATE010006_RIDER	CDA_524	2008-321T21:55:00		003T12:22:00	2008-325T10:17:00	524	159.149	Non-SPASS			
CDA_094OT_RATE010001_RIDER	CDA_524	2008-325T10:17:00		003T21:34:59	2008-329T07:51:59	524	176.535	Non-SPASS			
CIRS_093TI_MONITRONA001_VIMS	CIRS_4000	2008-323T19:19:33	GMB_E093_Titan47-000T20:36:55	000T07:36:55	2008-324T02:56:28	2000	54.83	SPASS Rider			
CIRS_093TI_GLOBMAP001_VIMS	CIRS_4000	2008-324T02:56:28	GMB_E093_Titan47-000T13:00:00	000T04:00:00	2008-324T06:56:28	2000	28.8	SPASS Rider			
CIRS_093TI_GLOBMAP001_ISS	CIRS_4000	2008-324T06:56:28	GMB_E093_Titan47-000T09:00:00	000T01:00:00	2008-324T07:56:28	2000	7.2	SPASS Rider			
CIRS_093TI_MEDRES001_VIMS	CIRS_4000	2008-324T07:56:28	GMB_E093_Titan47-000T08:00:00	000T03:00:00	2008-324T10:56:28	2000	21.6	SPASS Rider			
CIRS_093TI_REGMAP001_VIMS	CIRS_4000	2008-324T10:56:28	GMB_E093_Titan47-000T05:00:00	000T03:50:00	2008-324T14:46:28	2000	27.6	SPASS Rider			
CIRS_093TI_ETAU001_UVIS	CIRS_4000	2008-324T14:46:28	GMB_E093_Titan47-000T01:10:00	000T00:45:00	2008-324T15:31:28	4000	10.8	SPASS Rider			
CIRS_093TI_HIRES002_VIMS	CIRS_4000	2008-324T15:31:28	GMB_E093_Titan47-000T00:25:00	000T00:49:00	2008-324T16:20:28	4000	11.76	SPASS Rider			
CIRS_093TI_BETACMAP001_UVIS	CIRS_4000	2008-324T16:20:28	GMB_E093_Titan47+000T00:24:00	000T00:38:00	2008-324T16:58:28	4000	9.12	SPASS Rider			
CIRS_093TI_FIRLMBINT002_PRIME	CIRS_4000	2008-324T16:58:28	GMB_E093_Titan47+000T01:02:00	000T01:13:00	2008-324T18:11:28	4000	17.52	Prime	CIRS_FP1 to Titan	PIC	
CIRS_093TI_FIRLMBINT002_SI	ISS_SUPPORT_IM	2008-324T16:58:28	GMB_E093_Titan47+000T01:02:00	000T01:13:00	2008-324T18:11:28	0	2	SPASS Rider			
CIRS_093TI_FIRNADMAP002_PRIME	CIRS_4000	2008-324T18:11:28	GMB_E093_Titan47+000T02:15:00	000T02:45:00	2008-324T20:56:28	4000	39.6	Prime	CIRS_FP1 to Titan	POS_X to North_Pole_Dir	
CIRS_093TI_FIRNADMAP002_SI	ISS_SUPPORT_IM	2008-324T18:11:28	GMB_E093_Titan47+000T02:15:00	000T02:45:00	2008-324T20:56:28	0	3	SPASS Rider			
CIRS_093TI_MIRLMBMAP002_PRIME	CIRS_4000	2008-324T20:56:28	GMB_E093_Titan47+000T05:00:00	000T04:00:00	2008-325T00:56:28	2000	28.8	Prime	CIRS_FPB to Titan	PIC	
CIRS_093TI_MIRLMBMAP002_SI	ISS_SUPPORT_IM	2008-324T20:56:28	GMB_E093_Titan47+000T05:00:00	000T04:00:00	2008-325T00:56:28	0	5	SPASS Rider			
CIRS_093TI_PHOTOMWACC001_ISS	CIRS_4000	2008-325T00:56:28	GMB_E093_Titan47+000T09:00:00	000T01:00:00	2008-325T01:56:28	4000	14.4	SPASS Rider			
CIRS_093TI_FIRNADCMF002_PRIME	CIRS_4000	2008-325T01:56:28	GMB_E093_Titan47+000T10:00:00	000T03:00:00	2008-325T04:56:28	4000	43.2	Prime	CIRS_FP1 to Titan	PIC	
CIRS_093TI_FIRNADCMF002_SI	ISS_SUPPORT_IM	2008-325T01:56:28	GMB_E093_Titan47+000T10:00:00	000T03:00:00	2008-325T04:56:28	0	4	SPASS Rider			
CIRS_093TI_NIGHTNACC001_ISS	CIRS_4000	2008-325T04:56:28	GMB_E093_Titan47+000T13:00:00	000T01:00:00	2008-325T05:56:28	2000	7.2	SPASS Rider			
CIRS_093TI_MIDIRTMAP002_PRIME	CIRS_4000	2008-325T05:56:28	GMB_E093_Titan47+000T14:00:00	000T02:00:00	2008-325T07:56:28	2000	14.4	Prime	CIRS_FPB to Titan	POS_X to North_Pole_Dir	
CIRS_093TI_MIDIRTMAP002_SI	ISS_SUPPORT_IM	2008-325T05:56:28	GMB_E093_Titan47+000T14:00:00	000T02:00:00	2008-325T07:56:28	0	3	SPASS Rider			
CIRS_094IC_DSCAL08325_SP	CIRS_4000	2008-325T10:25:00		000T08:00:00	2008-325T18:25:00	4000	115.2	SPASS Rider			
CIRS_094IC_DSCAL08725_SP	CIRS_4000	2008-325T19:25:00		000T04:00:00	2008-325T23:25:00	4000	57.6	SPASS Rider			
ENGR_093SC_AACSDUAL001_CDS	ENGR_1638	2008-324T15:06:28	GMB_E093_Titan47-000T00:50:00	000T01:52:00	2008-324T16:58:28	1638	11.007	Non-SPASS			
ENGR_093SC_ORSRC324_PPS	OpMode	2008-324T15:09:28	GMB_E093_Titan47-000T00:47:00	000T00:20:51	2008-324T15:30:19	0	0	Non-SPASS			
ENGR_093SC_ORSRC324_PRIME	MILESTONE	2008-324T15:09:28	GMB_E093_Titan47-000T00:47:00	000T00:01:00	2008-324T15:10:28	0	0	Prime	UVIS_FUV to 206.885/49.313 (0.082,0.0,0.0 deg. offset)	NEG_Z to NTP	
ENGR_093SC_DFPWBIAS324_PPS	OpMode	2008-324T16:36:28	GMB_E093_Titan47+000T00:40:00	000T00:22:00	2008-324T16:58:28	0	0	Prime	UVIS_FUV to 95.675/-17.956	POS_Z to North_Pole_Dir	
ENGR_093SC_SAFETABLE001_AACS	MILESTONE	2008-324T18:00:00		000T00:01:00	2008-324T18:01:00	0	0	Non-SPASS			
ENGR_093SC_AACSDUAL002_CDS	MILESTONE	2008-325T09:24:47		000T00:00:02	2008-325T09:24:49	0	0	Non-SPASS			
ENGR_094NA_DUALPB324_SP	ENGR_1638	2008-325T18:25:00		000T00:00:01	2008-325T18:25:01	2.21E+08	220.923	SPASS Note			
INMS_093SA_SURVEYSEG003_INMS	INMS_1498	2008-323T18:24:00		000T20:32:28	2008-324T14:56:28	100	7.395	Non-SPASS			
INMS_093TI_TITAN47001_INMS	INMS_1498	2008-324T14:56:28	GMB_E093_Titan47-000T01:00:00	000T00:40:00	2008-324T15:36:28	1498	3.595	Non-SPASS			
INMS_093TI_TITAN47001_RIDER	INMS_1498	2008-324T15:36:28	GMB_E093_Titan47-000T00:20:00	000T00:40:00	2008-324T16:16:28	1498	3.595	Non-SPASS			
INMS_093TI_TITAN47002_INMS	INMS_1498	2008-324T16:16:28	GMB_E093_Titan47+000T00:20:00	000T00:40:00	2008-324T16:56:28	1498	3.595	Non-SPASS			
INMS_093SA_SURVEY001_INMS	INMS_1498	2008-324T16:56:28	GMB_E093_Titan47+000T01:00:00	000T02:23:32	2008-324T19:20:00	100	0.861	Non-SPASS			
INMS_093TI_TINTORUS001_INMS	INMS_1498	2008-324T19:20:00		000T02:00:00	2008-324T21:20:00	1498	10.786	Non-SPASS			
INMS_093SA_SURVEYREV001_INMS	INMS_1498	2008-324T21:20:00		000T12:57:00	2008-325T10:17:00	100	4.662	Non-SPASS			
INMS_094SA_SURVEYREV001_INMS	INMS_1498	2008-325T10:17:00		000T01:58:00	2008-325T12:15:00	100	0.708	Non-SPASS			
INMS_094TI_TINTORUS001_INMS	INMS_1498	2008-325T12:15:00		000T02:00:00	2008-325T14:15:00	1498	10.786	Non-SPASS			
INMS_094SA_SURVEYSEG001_INMS	INMS_1498	2008-325T14:15:00		000T09:10:00	2008-325T23:25:00	100	3.3	Non-SPASS			



# TOL for T47 (2 of 3)

Request	AGPEN	Start Time	Epoch	Duration	End Time	Rate	Data Volume	SPASS Type	Primary Pointing	Secondary Pointing	Pointing Agreement
ISS_093TI_RIDER001_VIMS	ISS_Phot_1_by_1	2008-323T19:56:28	GMB_E093_Titan47-000T20:00:00	000T07:00:00	2008-324T02:56:28	0	25	SPASS Rider			
ISS_093TI_RIDER002_VIMS	ISS_Phot_1_by_1	2008-324T02:56:28	GMB_E093_Titan47-000T13:00:00	000T04:00:00	2008-324T06:56:28	0	25	SPASS Rider			
ISS_093TI_GLOBMAP001_PRIME	ISS_Phot_1_by_1	2008-324T06:56:28	GMB_E093_Titan47-000T09:00:00	000T01:00:00	2008-324T07:56:28	0	100	Prime	ISS_NAC to Titan	NEG_X to Sun	
ISS_093TI_RIDER003_VIMS	ISS_Phot_1_by_1	2008-324T07:56:28	GMB_E093_Titan47-000T08:00:00	000T03:00:00	2008-324T10:56:28	0	21	SPASS Rider			
ISS_093TI_RIDER004_VIMS	ISS_Phot_1_by_1	2008-324T10:56:28	GMB_E093_Titan47-000T05:00:00	000T03:00:00	2008-324T13:56:28	0	20	SPASS Rider			
ISS_093TI_RIDER005_VIMS	ISS_Phot_1_by_1	2008-324T13:56:28	GMB_E093_Titan47-000T02:00:00	000T00:50:00	2008-324T14:46:28	0	20	SPASS Rider			
ISS_093TI_RIDER006_VIMS	ISS_Phot_1_by_1	2008-324T15:41:28	GMB_E093_Titan47-000T00:15:00	000T00:15:00	2008-324T15:56:28	0	20	SPASS Rider			
ISS_093TI_RIDER007_VIMS	ISS_Phot_1_by_1	2008-324T15:56:28	GMB_E093_Titan47-000T00:00:00	000T00:20:00	2008-324T16:16:28	0	20	SPASS Rider			
ISS_093TI_RIDER001_CIRS	ISS_Phot_1_by_1	2008-324T17:56:28	GMB_E093_Titan47-000T02:00:00	000T03:00:00	2008-324T20:56:28	0	20	SPASS Rider			
ISS_093TI_RIDER002_CIRS	ISS_Phot_1_by_1	2008-324T20:56:28	GMB_E093_Titan47-000T05:00:00	000T04:00:00	2008-325T00:56:28	0	20	SPASS Rider			
ISS_093TI_PHOTOMWAC001_PRIME	ISS_Phot_1_by_1	2008-325T00:56:28	GMB_E093_Titan47-000T09:00:00	000T01:00:00	2008-325T01:56:28	0	100	Prime	ISS_NAC to Titan	NEG_X to Sun	
ISS_093TI_RIDER003_CIRS	ISS_Phot_1_by_1	2008-325T01:56:28	GMB_E093_Titan47-000T10:00:00	000T03:00:00	2008-325T04:56:28	0	25	SPASS Rider			
ISS_093TI_NIGHTNAC001_PRIME	ISS_Phot_1_by_1	2008-325T04:56:28	GMB_E093_Titan47-000T13:00:00	000T01:00:00	2008-325T05:56:28	0	150	Prime	ISS_NAC to Titan	NEG_X to Sun	
ISS_093TI_RIDER004_CIRS	ISS_Phot_1_by_1	2008-325T05:56:28	GMB_E093_Titan47-000T14:00:00	000T02:00:00	2008-325T07:56:28	0	50	SPASS Rider			
MAG_0930T_SURVEY005_PRIME	MAG_1976	2008-323T18:24:00		000T17:32:28	2008-324T11:56:28	600	37.889	Non-SPASS			
MAG_093TI_MAGTITAND01_PRIME	MAG_1976	2008-324T11:56:28	GMB_E093_Titan47-000T04:00:00	000T08:00:00	2008-324T19:56:28	988	28.454	Non-SPASS			
MAG_0930T_SURVEY006_PRIME	MAG_1976	2008-324T19:56:28	GMB_E093_Titan47-000T04:00:00	001T03:28:32	2008-325T23:25:00	658.7	65.15	Non-SPASS			
MIMI_093TI_TITANIND01_RIDER	MIMI_8000	2008-323T16:00:00		000T23:00:00	2008-324T15:00:00	1200	99.36	SPASS Rider			
MIMI_093TI_TITANCA001_RIDER	MIMI_8000	2008-324T15:00:00		000T02:00:00	2008-324T17:00:00	2000	14.4	SPASS Rider			
MIMI_093TI_TITANOUT001_RIDER	MIMI_8000	2008-324T17:00:00		000T01:00:00	2008-324T18:00:00	1200	4.32	SPASS Rider			
MIMI_093C0_SURVEY003_RIDER	MIMI_8000	2008-324T18:00:00		000T16:17:00	2008-325T10:17:00	900	52.758	Non-SPASS			
MIMI_094C0_SURVEY001_RIDER	MIMI_8000	2008-325T10:17:00	E094_Apo+000T00:00:00	001T08:43:00	2008-326T19:00:00	900	106.002	Non-SPASS			
MP_087NA_DSS43DOWN001_NA	MILESTONE	2008-273T00:00:00		181T23:59:59	2009-088T23:59:59	0	0	Non-SPASS			
MP_089NA_SEQUENCE045_NA	MILESTONE	2008-292T20:21:00		038T21:34:00	2008-331T17:55:00	0	0	SPASS Note			
MP_093TI_FLYBYT047_NA	MILESTONE	2008-324T15:56:28		000T00:00:01	2008-324T15:56:29	0	0	SPASS Note			
MP_093SA_RPXASCEND093_NA	MILESTONE	2008-324T16:32:25		000T00:00:01	2008-324T16:32:26	0	0	Non-SPASS			
MP_093SA_APOAPSE094_NA	MILESTONE	2008-325T10:14:21		000T00:00:01	2008-325T10:14:22	0	0	SPASS Note			
MP_093SA_REV094_NA	MILESTONE	2008-325T10:14:21		000T00:00:01	2008-325T10:14:22	0	0	Non-SPASS			
NAV_093SK_OPNAV251_PRIME	ISS_Sats_1_by_1	2008-325T08:10:00		000T01:14:00	2008-325T09:24:00	0	21	Prime	ISS_NAC to Satellites	POS_Z to NSP	Start at Waypoint, end at Earth
NAV_093EA_DLTURN251_PRIME	MILESTONE	2008-325T09:24:00		000T00:01:00	2008-325T09:25:00	0	0	Prime	XBAND to Earth	POS_X to NEP	
RPWS_093SA_OUTSURVEY002_PRIME	RPWS_30464	2008-323T10:45:00		001T23:32:00	2008-325T10:17:00	1310	224.189	Non-SPASS			
RPWS_093TI_TIINTRMED001_PRIME	RPWS_30464	2008-324T13:56:28		000T01:30:00	2008-324T15:26:00	10601.5	57.248	Non-SPASS			
RPWS_093TI_TICA001_PRIME	RPWS_182784	2008-324T15:26:00		000T01:00:00	2008-324T16:26:00	80004.6	288.016	Non-SPASS			
RPWS_093TI_TIINTRMED002_PRIME	RPWS_30464	2008-324T16:26:00		000T01:30:00	2008-324T17:56:00	10601.5	57.248	Non-SPASS			
RPWS_094SA_OUTSURVEY001_PRIME	RPWS_30464	2008-325T10:17:00		001T07:43:00	2008-326T18:00:00	1310	149.577	Non-SPASS			



# TOL for T47 (3 of 3)

Request	AGPEN	Start Time	Epoch	Duration	End Time	Rate	Data Volume	SPASS Type	Primary Pointing	Secondary Pointing	Pointing Agreement
SP_093NA_G700BSNON325_NA	OBSERVATION_P	2008-323T18:24:00		001T15:01:00	2008-325T09:25:00	0	0	Non-SPASS			
SP_093NA_TOSTSEG323_NA	MILESTONE	2008-323T18:24:00		002T05:01:00	2008-325T23:25:00	0	0	SPASS Note			
SP_093TI_WAYPTTURN323_PRIME	MILESTONE	2008-323T18:24:00		000T00:40:00	2008-323T19:04:00	0	0	New Waypoint	NEG_Y to Titan	NEG_Z to Sun	Neg_Y to Titan, Neg_Z to Sun
SP_093TI_DEADTIME323_PRIME	MILESTONE	2008-323T19:04:00		000T00:15:00	2008-323T19:19:00	0	0	Prime	NEG_Y to Titan	POS_X to NTP	
SP_093NA_BEGCUSTOM324_NA	MILESTONE	2008-324T07:56:28	GMB_E093_Titan47-000T08:00:00	000T00:00:01	2008-324T07:56:29	0	0	SPASS Note			
SP_093NA_BEGHIVAL324_NA	MILESTONE	2008-324T15:51:28	GMB_E093_Titan47-000T00:05:00	000T00:00:01	2008-324T15:51:29	0	0	SPASS Note			
SP_093NA_ENDHIVAL324_NA	MILESTONE	2008-324T16:11:28	GMB_E093_Titan47+000T00:15:00	000T00:00:01	2008-324T16:11:29	0	0	SPASS Note			
SP_093NA_ENDCUSTOM325_NA	MILESTONE	2008-325T01:56:28	GMB_E093_Titan47+000T10:00:00	000T00:00:01	2008-325T01:56:29	0	0	SPASS Note			
SP_093TI_DEADTIME325_PRIME	MILESTONE	2008-325T07:56:28	GMB_E093_Titan47+000T16:00:00	000T00:13:32	2008-325T08:10:00	0	0	Prime	NEG_Y to Titan	POS_X to NTP	
SP_093EA_G70METNON325_PRIME	DOWNLINK_PASS	2008-325T09:25:00		000T09:00:00	2008-325T18:25:00	0	0	Prime	XBAND to Earth	Rolling	POS_X to NEP
SP_093NA_G70METNON325_SP	DSN_PASS	2008-325T09:25:00		000T09:00:00	2008-325T18:25:00	0	0	Non-SPASS			
SP_094NA_C34BWGNON325_SP	DSN_PASS	2008-325T18:05:00		000T05:20:00	2008-325T23:25:00	0	0	Non-SPASS			
SP_094EA_C34BWGNON325_PRIME	DOWNLINK_PASS	2008-325T18:25:00		000T05:00:00	2008-325T23:25:00	0	0	Prime	XBAND to Earth	POS_X to NEP	DSCAL over dual playback
UVIS_093ST_ETAUAMAT001_PRIME	UVIS_32096	2008-324T14:58:28	GMB_E093_Titan47-000T00:58:00	000T00:11:00	2008-324T15:09:28	32096	21.183	Prime	UVIS_FUV to 206.885/49.313 (0.082,0.0,0.0 deg. offset)	NEG_Z to NTP	
UVIS_093SC_ORSRCS324_ENGR	UVIS_32096	2008-324T15:09:28	GMB_E093_Titan47-000T00:47:00	000T00:01:00	2008-324T15:10:28	32096	1.926	SPASS Rider			
UVIS_093ST_ETAUAMAT002_PRIME	UVIS_32096	2008-324T15:10:28	GMB_E093_Titan47-000T00:46:00	000T00:21:00	2008-324T15:31:28	32096	40.441	Prime	UVIS_FUV to 206.885/49.313 (0.082,0.0,0.0 deg. offset)	NEG_Z to NTP	
UVIS_093ST_BETCMAT001_PRIME	UVIS_32096	2008-324T16:20:28	GMB_E093_Titan47+000T00:24:00	000T00:16:00	2008-324T16:36:28	32096	30.812	Prime	UVIS_FUV to 95.675/-17.956	POS_Z to North_Pole_Dir	UVIS_FUV to star Beta CMA, P
UVIS_093SC_BETCMAT002_ENGR	UVIS_32096	2008-324T16:36:28	GMB_E093_Titan47+000T00:40:00	000T00:22:00	2008-324T16:58:28	32096	42.367	SPASS Rider			
UVIS_093TI_FIRLMBINT002_CIRS	UVIS_5032	2008-324T16:58:28	GMB_E093_Titan47+000T01:02:00	000T01:13:00	2008-324T18:11:28	3019.2	13.224	SPASS Rider			
UVIS_093TI_MIRLMBMAP002_CIRS	UVIS_5032	2008-324T20:56:28	GMB_E093_Titan47+000T05:00:00	000T04:00:00	2008-325T00:56:28	3019.2	43.476	SPASS Rider			
UVIS_093SW_IPHSURVEY007_RIDER	UVIS_5032	2008-325T09:25:00		000T09:00:00	2008-325T18:25:00	152.5	4.94	Non-SPASS			
UVIS_094SW_IPHSURVEY001_RIDER	UVIS_5032	2008-325T10:17:00		000T08:08:00	2008-325T18:25:00	152.5	4.464	Non-SPASS			
UVIS_094SW_IPHSURVEY002_RIDER	UVIS_5032	2008-325T18:25:00		000T05:00:00	2008-325T23:25:00	152.5	2.744	Non-SPASS			
YIMS_093TI_CLOUDMAP001_PRIME	YIMS_18432	2008-323T19:19:00	GMB_E093_Titan47-000T20:37:28	000T07:37:28	2008-324T02:56:28	2550.3	70	Prime	VIMS_IR to Titan		
YIMS_093TI_GLOBMAP001_PRIME	YIMS_18432	2008-324T02:56:28	GMB_E093_Titan47-000T13:00:00	000T04:00:00	2008-324T06:56:28	2777.8	40	Prime	VIMS_IR to Titan	NEG_X to Sun	
YIMS_093TI_GLOBMAP001_ISS	YIMS_18432	2008-324T06:56:28	GMB_E093_Titan47-000T09:00:00	000T01:00:00	2008-324T07:56:28	5555.6	20	SPASS Rider			
YIMS_093TI_MEDRES001_PRIME	YIMS_18432	2008-324T07:56:28	GMB_E093_Titan47-000T08:00:00	000T03:00:00	2008-324T10:56:28	5092.6	55	Prime	VIMS_IR to Titan	NEG_X to Sun	
YIMS_093TI_REGMAP001_PRIME	YIMS_18432	2008-324T10:56:28	GMB_E093_Titan47-000T05:00:00	000T03:00:00	2008-324T13:56:28	8333.3	90	Prime	VIMS_IR to Titan	NEG_X to Sun	
YIMS_093TI_HIRES001_PRIME	YIMS_18432	2008-324T13:56:28	GMB_E093_Titan47-000T02:00:00	000T01:02:00	2008-324T14:58:28	24193.5	90	Prime	VIMS_IR to Titan	NEG_X to Sun	
YIMS_093TI_LIMBMAP001_UVIS	YIMS_18432	2008-324T14:58:28	GMB_E093_Titan47-000T00:58:00	000T00:11:00	2008-324T15:09:28	37878.8	25	SPASS Rider			
YIMS_093TI_GLOBMAP001_ENGR	YIMS_18432	2008-324T15:09:28	GMB_E093_Titan47-000T00:47:00	000T00:22:00	2008-324T15:31:28	6818.2	9	SPASS Rider			
YIMS_093TI_TURN001_PRIME	YIMS_18432	2008-324T15:31:28	GMB_E093_Titan47-000T00:25:00	000T00:10:00	2008-324T15:41:28	41866.7	25	Prime	VIMS_IR to Titan	POS_Z to SC_RAM	
YIMS_093TI_HIRES002_PRIME	YIMS_18432	2008-324T15:41:28	GMB_E093_Titan47+000T00:15:00	000T00:39:00	2008-324T16:20:28	42735	100	Prime	VIMS_IR to Titan	POS_Z to SC_RAM	
YIMS_093TI_LIMBMAP002_UVIS	YIMS_18432	2008-324T16:20:28	GMB_E093_Titan47+000T00:24:00	000T00:38:00	2008-324T16:58:28	13157.9	30	SPASS Rider			
YIMS_093TI_GLOBMAP001_CIRS	YIMS_18432	2008-324T16:58:28	GMB_E093_Titan47+000T01:02:00	000T00:58:00	2008-324T17:56:28	7758.6	27	SPASS Rider			
YIMS_093TI_GLOBMAP003_CIRS	YIMS_18432	2008-324T17:56:28	GMB_E093_Titan47+000T02:00:00	000T03:00:00	2008-324T20:56:28	3703.7	40	SPASS Rider			
YIMS_093TI_GLOBMAP004_CIRS	YIMS_18432	2008-324T20:56:28	GMB_E093_Titan47+000T05:00:00	000T04:00:00	2008-325T00:56:28	2777.8	40	SPASS Rider			
YIMS_093TI_GLOBMAP002_ISS	YIMS_18432	2008-325T00:56:28	GMB_E093_Titan47+000T09:00:00	000T01:00:00	2008-325T01:56:28	5555.6	20	SPASS Rider			
YIMS_093TI_GLOBMAP005_CIRS	YIMS_18432	2008-325T01:56:28	GMB_E093_Titan47+000T10:00:00	000T03:00:00	2008-325T04:56:28	3703.7	40	SPASS Rider			
YIMS_093TI_GLOBMAP003_ISS	YIMS_18432	2008-325T04:56:28	GMB_E093_Titan47+000T13:00:00	000T01:00:00	2008-325T05:56:28	5555.6	20	SPASS Rider			
YIMS_093TI_GLOBMAP006_CIRS	YIMS_18432	2008-325T05:56:28	GMB_E093_Titan47+000T14:00:00	000T02:00:00	2008-325T07:56:28	5555.6	40	SPASS Rider			

# T47 SPASS



Request	Riders	Start (SCET)	Start (Epoch)	Duration	End (SCET)	Primary	Secondary	Comments
Sequence S45, length = 39 days		2008-292T20:21:00		038T21:34:00	2008-331T17:55:00			
Titan Flyby T47 Segment		2008-323T18:24:00		002T05:01:00	2008-325T23:25:00			
SP_093TI_WAYPTTURN323_PRIME	M	2008-323T18:24:00		000T00:40:00	2008-323T19:04:00	NEG_Y to Titan	NEG_Z to Sun	Neg_Y to Titan, Neg_Z to Sun
<b>NEW WAYPOINT</b>		<b>2008-323T19:04:00</b>		<b>002T04:21:00</b>	<b>2008-325T23:25:00</b>	<b>NEG_Y to Titan</b>	<b>NEG_Z to Sun</b>	
<b>SP_093TI_DEADTIME323_PRIME</b>	<b>M</b>	<b>2008-323T19:04:00</b>		<b>000T00:15:00</b>	<b>2008-323T19:19:00</b>	<b>NEG_Y to Titan</b>	<b>POS_X to NTP</b>	
VIMS_093TI_CLOUDMAP001_PRIME	C, I, M	2008-323T19:19:00	GMB_E093_Titan47-000T20:37:28	000T07:37:28	2008-324T02:56:28	VIMS_IR to Titan	NEG_Z to North_Pole_Dir	
VIMS_093TI_GLOBMAP001_PRIME	C, I, M	2008-324T02:56:28	GMB_E093_Titan47-000T13:00:00	000T04:00:00	2008-324T06:56:28	VIMS_IR to Titan	NEG_X to Sun	
ISS_093TI_GLOBMAP001_PRIME	C, M, V	2008-324T06:56:28	GMB_E093_Titan47-000T09:00:00	000T01:00:00	2008-324T07:56:28	ISS_NAC to Titan	NEG_X to Sun	
<b>Begin Custom Period</b>		<b>2008-324T07:56:28</b>	<b>GMB_E093_Titan47-000T08:00:00</b>	<b>000T00:00:01</b>	<b>2008-324T07:56:29</b>	<b>NEG_Y to Titan</b>	<b>NEG_Z to Sun</b>	
VIMS_093TI_MEDRES001_PRIME	C, I, M	2008-324T07:56:28	GMB_E093_Titan47-000T08:00:00	000T03:00:00	2008-324T10:56:28	VIMS_IR to Titan	NEG_X to Sun	Pick up at NEG_Y to Titan, NEG_Z to Sun; Hand off at NEG_Y to Titan, NEG_Z to Sun.
VIMS_093TI_REGMAP001_PRIME	C, I, M	2008-324T10:56:28	GMB_E093_Titan47-000T05:00:00	000T03:00:00	2008-324T13:56:28	VIMS_IR to Titan	NEG_X to Sun	Pick up at NEG_Y to Titan, NEG_Z to Sun; Hand off at NEG_Y to Titan, NEG_Z to Sun.
VIMS_093TI_HIRES001_PRIME	C, I, M	2008-324T13:56:28	GMB_E093_Titan47-000T02:00:00	000T01:02:00	2008-324T14:58:28	VIMS_IR to Titan	NEG_X to Sun	Pick up at NEG_Y to Titan, NEG_Z to Sun; Hand off at UVIS_FUV to 206.885/49.313 (0.082,0.0,0.0 deg. offset), NEG_Z to NTP.
UVIS_093ST_ETAUMATI001_PRIME	C, M, V	2008-324T14:58:28	GMB_E093_Titan47-000T00:58:00	000T00:11:00	2008-324T15:09:28	UVIS_FUV to 206.885/49.313 (0.08 NEG_Z to NTP)		Pick up at UVIS_FUV to 206.885/49.313 (0.082,0.0,0.0 deg. offset), NEG_Z to NTP; Hand off at UVIS_FUV to 206.885/49.313 (0.082,0.0,0.0 deg. offset), NEG_Z to NTP.
ENGR_093SC_ORSRCS324_PRIME	C, M, U, V	2008-324T15:09:28	GMB_E093_Titan47-000T00:47:00	000T00:01:00	2008-324T15:10:28	UVIS_FUV to 206.885/49.313 (0.08 NEG_Z to NTP)		Pick up at UVIS_FUV to 206.885/49.313 (0.082,0.0,0.0 deg. offset), NEG_Z to NTP; Hand off at UVIS_FUV to 206.885/49.313 (0.082,0.0,0.0 deg. offset), NEG_Z to NTP.
UVIS_093ST_ETAUMATI002_PRIME	C, M, V	2008-324T15:10:28	GMB_E093_Titan47-000T00:46:00	000T00:21:00	2008-324T15:31:28	UVIS_FUV to 206.885/49.313 (0.08 NEG_Z to NTP)		Pick up at UVIS_FUV to 206.885/49.313 (0.082,0.0,0.0 deg. offset), NEG_Z to NTP; Hand off at UVIS_FUV to 206.885/49.313 (0.082,0.0,0.0 deg. offset), NEG_Z to NTP.
VIMS_093TI_TURN001_PRIME	C, M	2008-324T15:31:28	GMB_E093_Titan47-000T00:25:00	000T00:10:00	2008-324T15:41:28	VIMS_IR to Titan	POS_Z to SC_RAM	Pick up at UVIS_FUV to 206.885/49.313 (0.082,0.0,0.0 deg. offset), NEG_Z to NTP; Hand off at VIMS_IR to Titan, POS_Z to SC_RAM.
VIMS_093TI_HIRES002_PRIME	C, I, M	2008-324T15:41:28	GMB_E093_Titan47-000T00:15:00	000T00:39:00	2008-324T16:20:28	VIMS_IR to Titan	POS_Z to SC_RAM	Pick up at VIMS_IR to Titan, POS_Z to SC_RAM; Hand off at UVIS_FUV to 95.675/ 17.956, POS_Z to North_Pole_Dir.
Begin Dual Playback Science		2008-324T15:51:28	GMB_E093_Titan47-000T00:05:00	000T00:00:01	2008-324T15:51:29			
93TI (t) T47 TITAN Outbou...		2008-324T15:56:28		000T00:00:01	2008-324T15:56:29			
End Dual Playback Science		2008-324T16:11:28	GMB_E093_Titan47+000T00:15:00	000T00:00:01	2008-324T16:11:29			

# T47 SPASS page 2



Request	Riders	Start (SCET)	Start (Epoch)	Duration	End (SCET)	Primary	Secondary	Comments
Sequence S45, length = 39 days		2008-292T20:21:00		038T21:34:00	2008-331T17:55:00			
Titan Flyby T47 Segment		2008-323T18:24:00		002T05:01:00	2008-325T23:25:00			
UVIS_093ST_BETCMAT1001_PRIME	C, M, V	2008-324T16:20:28	GMB_E093_Titan47+000T00:24:00	000T00:16:00	2008-324T16:36:28	UVIS_FUV to 95.675/-17.956	POS_Z to North_Pole_Dir	Pick up at UVIS_FUV to 95.675/-17.956, POS_Z to North_Pole_Dir; Hand off at UVIS_FUV to 95.675/-17.956, POS_Z to North_Pole_Dir. UVIS_FUV to star Beta CMA, Pos_Z to North_Pole_Dir
ENGR_093SC_DFPWBIAS324_PPS	C, M, U, V	2008-324T16:36:28	GMB_E093_Titan47+000T00:40:00	000T00:22:00	2008-324T16:58:28	UVIS_FUV to 95.675/-17.956	POS_Z to North_Pole_Dir	Pick up at UVIS_FUV to 95.675/-17.956, POS_Z to North_Pole_Dir; Hand off at UVIS_FUV to 95.675/-17.956, POS_Z to North_Pole_Dir.
CIRS_093TI_FIRLMBINT002_PRIME	C, M, U, V	2008-324T16:58:28	GMB_E093_Titan47+000T01:02:00	000T01:13:00	2008-324T18:11:28	CIRS_FP1 to Titan	PIC	Pick up at UVIS_FUV to 95.675/-17.956, POS_Z to North_Pole_Dir; Hand off at CIRS_FP1 to Titan, PIC.
CIRS_093TI_FIRNADMAP002_PRIME	C, I, V	2008-324T18:11:28	GMB_E093_Titan47+000T02:15:00	000T02:45:00	2008-324T20:56:28	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_093TI_MIRLMBMAP002_PRIME	C, I, U, V	2008-324T20:56:28	GMB_E093_Titan47+000T05:00:00	000T04:00:00	2008-325T00:56:28	CIRS_FPB to Titan	PIC	Pick up at CIRS_FP1 to Titan, PIC; Hand off at NEG_Y to Titan, POS_X to North_Pole_Dir.
ISS_093TI_PHOTOMWAC001_PRIME	C, V	2008-325T00:56:28	GMB_E093_Titan47+000T09:00:00	000T01:00:00	2008-325T01:56:28	ISS_NAC to Titan	NEG_X to Sun	Pick up at NEG_Y to Titan, POS_X to North_Pole_Dir; Hand off at NEG_Y to Titan, NEG_Z to Sun.
<b>End Custom Period</b>		<b>2008-325T01:56:28</b>	<b>GMB_E093_Titan47+000T10:00:00</b>	<b>000T00:00:01</b>	<b>2008-325T01:56:29</b>	<b>NEG_Y to Titan</b>	<b>NEG_Z to Sun</b>	
CIRS_093TI_FIRNADCMP002_PRIME	C, I, V	2008-325T01:56:28	GMB_E093_Titan47+000T10:00:00	000T03:00:00	2008-325T04:56:28	CIRS_FP1 to Titan	PIC	
ISS_093TI_NIGHTNAC001_PRIME	C, V	2008-325T04:56:28	GMB_E093_Titan47+000T13:00:00	000T01:00:00	2008-325T05:56:28	ISS_NAC to Titan	NEG_X to Sun	
CIRS_093TI_MIDIRMAP002_PRIME	C, I, V	2008-325T05:56:28	GMB_E093_Titan47+000T14:00:00	000T02:00:00	2008-325T07:56:28	CIRS_FPB to Titan	POS_X to North_Pole_Dir	
<b>SP_093TI_DEADTIME325_PRIME</b>		<b>2008-325T07:56:28</b>	<b>GMB_E093_Titan47+000T16:00:00</b>	<b>000T00:13:32</b>	<b>2008-325T08:10:00</b>	<b>NEG_Y to Titan</b>	<b>POS_X to NTP</b>	
NAV_093SK_OPNAV251_PRIME		2008-325T08:10:00		000T01:14:00	2008-325T09:24:00	ISS_NAC to Satellites	POS_Z to NSP	Start at Waypoint, end at Earth point
NAV_093EA_DLTURN251_PRIME		2008-325T09:24:00		000T00:01:00	2008-325T09:25:00	XBAND to Earth	POS_X to NEP	
SP_093EA_G70METNON325_PRIME	C	2008-325T09:25:00		000T09:00:00	2008-325T18:25:00	XBAND to Earth	Rolling	POS_X to NEP
Apoapse Per = 8.0 d, inc =...		2008-325T10:14:21		000T00:00:01	2008-325T10:14:22			
Pointer Reset in preparatio...		2008-325T18:25:00		000T00:00:01	2008-325T18:25:01			
SP_094EA_C34BWGNON325_PRIME	C	2008-325T18:25:00		000T05:00:00	2008-325T23:25:00	XBAND to Earth	POS_X to NEP	DSCAL over dual playback



# T47 Open Issues

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- Titan Spin Rate

- VIMS is targeting the Huygens landing site. Their noodle is ~30km across and the new RADAR spin rate would change the Huygens landing site by ~100km. So, we will need to get a new landing site location in the old ephemeris for VIMS to target. VIMS is trying to calculate the location using Saturn 0 degree longitude something or other, RADAR should be able to calculate using their new spin, and then they should be able to use T41 to confirm.
- There is an ECR in the system for this issue (ECR 107673). Usually, ECRs like this would just go through the OTL and TOST wouldn't see them (or even need to). But this item is of particular interest to the Titan Surface folks, in particular for the VIMS

T47 noodle. Please take a look and make sure we've got everything right.

- Need to waive DSN maintenance for G70 on DOY 325.