

TOST: Wrap-Up (Redelivery)

053TI (T38)

Segment: 2007-338T09:14:00 – 2007-340T09:29:00

Titan C/A: 2007-339T00:07:37, Altitude = 1300 km

Epoch: GMB_E053_Titan38

July 2, 2007

Jo Pitesky , Candy Hansen, Trina Ray, Doug Equils,
and Kim Steadman

High-Level Science Objectives

This flyby was originally allocated to RSS, but was reworked for ORS.

- ISS - High-resolution regional mapping just after closest approach
 - High-resolution (96-245 m/pixel) imaging of the equatorial bright-dark boundary around 0-7 N, 211 W.
 - Opportunity for stereo imaging with earlier flyby.
 - Regional-scale (244-500 m/pixel) mapping of the bright-dark boundary around 7-10 N, 213 W.
 - Opportunity for stereo imaging with earlier flyby.
 - Full-disk, color mosaic (centered at 12 N, 221 W) at 1.4-1.7 km/pixel.
- VIMS - High resolution surface coverage at closest approach. Medium resolution mapping of Titan's southern hemisphere; search for atmospheric and surface changes from early in the mission
- CIRS - Obtain information on surface & tropopause temperatures, and on tropospheric CH₄. Vertical sounding of stratospheric compounds on Titan, including H₂O. Vertical aerosol sounding of Titan's stratosphere.



053TI(T38) Timeline

053TI (T38)

C/A= 2007-339T00:07:37 @ 1300 km; Unilluminated Approach

Start Time	End Time	Prime Activity	Obs. Detail	Op Mode	TLM Mode	Comments
338T09:14	338T09:44	SP Turn to waypoint		DFPW Normal	S_N_ER_3	-Y Titan, (0, -36, 0 offset) -X to Sun TBC
338T09:44	338T09:59	OD Dead Time		DFPW Normal	S_N_ER_3	
-14:07	-10:00	CIRS	FP1	DFPW Normal	S_N_ER_3	Template N (modified)
-10:00	-09:00	ISS	Photometry	DFPW Normal	S_N_ER_3	Template N
-09:00	-05:30	UVIS		DFPW Normal	S_N_ER_3	
-05:30		Begin Custom Period		DFPW Normal	S_N_ER_3	
-05:30	-02:30	CIRS	Nadir	DFPW Normal	S_N_ER_3	
-02:30	-00:15	CIRS		DFPW Normal	S_N_ER_3	
-00:15	+02:00	VIMS		DFPW Normal	S_N_ER_3	Secondary -X to RAM at C/A
+02:00	+04:00	ISS	Reg Map	DFPW Normal	S_N_ER_3	Template J
+04:00	+05:00	CIRS		DFPW Normal	S_N_ER_3	pick up at NAC Titan, NEG_X Sun, offset [-22.4, 0.0, -5.6]
+05:00	+08:00	ISS		DFPW Normal	S_N_ER_3	Template I
+08:00	+09:00	VIMS		DFPW Normal	S_N_ER_3	Template I. Leave at NEG_Y to TITAN, NEG_X to TITAN_SC_RAM
	+09:00	End Custom Period		DFPW Normal	S_N_ER_3	
+09:00	+11:00	CIRS	FP1	DFPW Normal	S_N_ER_3	Template D
+11:00	+13:00	ISS	Mosaic	DFPW Normal	S_N_ER_3	Template D
+13:00	+14:00	VIMS	Reg Map	DFPW Normal	S_N_ER_3	Template D
+14:00	+23:37	CIRS		DFPW Normal	S_N_ER_3	Template A (modified)
339T23:44	339T23:59	OD Dead Time		DFPW Normal	S_N_ER_3	
339T23:59	340T00:29	SP Turn for downlink		DFPW Normal	S_N_ER_3	
340T00:29	340T09:29	Madrid 70-m		DFPW Normal	RTE_N_SPB	



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053TI (T38)

Request	Start Time	Epoch	Duration	End Time	Rate	Data Volume	SPASS Type	Primary Pointing	Secondary Pointing	Pointing Agreement
MP 051NA_DSS65DOWN001_NA	2007-302T00:00:00		041T23:59:59	2007-343T23:59:59	0	0	Non-SPASS			
MP 051NA_SEQUENCE035_NA	2007-304T18:40:00	E051_SEQUENCE_035+000T00:00:00	043T21:20:00	2007-348T16:00:00	0	0	SPASS Note			
CAPS_053SA_SURVEY002_RIDER	2007-337T20:05:00		001T02:01:50	2007-338T22:06:50	1000	93.71	Non-SPASS			
INMS_053SA_SURVEY006_RIDER	2007-338T00:07:00		000T11:59:50	2007-338T12:06:50	50	2.16	Non-SPASS			
CDA_0530T_DRATE005_RIDER	2007-338T07:49:54		000T02:00:00	2007-338T09:49:54	3668	26.41	Non-SPASS			
CDA_053R1_1402RINGM001_RIDER	2007-338T07:49:54		000T02:00:00	2007-338T09:49:54	524	3.773	Non-SPASS			
ENGR_053SC_DFPW338_PPS	2007-338T09:14:00		000T00:00:30	2007-338T09:14:30	0	0	Non-SPASS			
MAG_0530T_SURVEY004_PRIME	2007-338T09:14:00		000T10:52:50	2007-338T20:06:50	600	23.502	Non-SPASS			
RPWS_053SA_INSURVEY003_PRIME	2007-338T09:14:00		000T00:56:00	2007-338T10:10:00	1310	4.402	Non-SPASS			
SP_053NA_M700BSNON339_NA	2007-338T09:14:00		001T15:15:00	2007-340T00:29:00	0	0	Non-SPASS			
SP_053NA_TOSTSEG338_NA	2007-338T09:14:00		002T00:15:00	2007-340T09:29:00	0	0	SPASS Note			
SP_053TI_WAYPTTURN338_PRIME	2007-338T09:14:00		000T00:30:00	2007-338T09:44:00	0	0	New Waypoint	NEG Y to Titan	NEG X to Sun	SP Turn to Waypoint
MIMI_053SA_MAGDYNO03_PRIME	2007-338T09:14:01		000T12:52:49	2007-338T22:06:50	900	41.732	SPASS Rider			
SP_053TI_DEADTIME338_PRIME	2007-338T09:44:00		000T00:15:50	2007-338T09:59:50	0	0	Prime	ISS_NAC to Titan	NEG X to Sun	
CDA_053DR_1502DUST400_RIDER	2007-338T09:49:54		006T19:30:39	2007-345T05:20:33	149.9	88.216	Non-SPASS			
CDA_0530T_DRATE006_RIDER	2007-338T09:49:54		000T02:58:06	2007-338T12:48:00	4042.1	43.194	Non-SPASS			
CIRS_053TI_FIRNADCMPO01_PRIME	2007-338T09:59:50	GMB E053 Titan38-000T14:07:00	000T04:07:00	2007-338T14:06:50	4000	59.28	Prime	CIRS_FP1 to Titan	PIC	
CIRS_053TI_FIRNADCMPO01_SI	2007-338T09:59:50	GMB E053 Titan38-000T14:07:00	000T04:07:00	2007-338T14:06:50	0	4	SPASS Rider			
ISS_053TI_FIRNADCMPO01_CIRS	2007-338T09:59:50	GMB E053 Titan38-000T14:07:00	000T04:07:00	2007-338T14:06:50	0	30	SPASS Rider			
UVIS_053TI_FIRNADCMPO01_CIRS	2007-338T09:59:50	GMB E053 Titan38-000T14:07:00	000T04:07:00	2007-338T14:06:50	1006.4	14.915	SPASS Rider			
VIMS_053TI_FIRNADCMPO01_CIRS	2007-338T09:59:50	GMB E053 Titan38-000T14:07:00	000T04:07:00	2007-338T14:06:50	2429.1	36	SPASS Rider			
RPWS_053SA_OUTSURVEY002_PRIME	2007-338T10:10:00		001T23:19:00	2007-340T09:29:00	1310	223.137	Non-SPASS			
INMS_053TI_T38INBD001_RSS	2007-338T12:06:50	GMB E053 Titan38-000T12:00:00	000T10:49:00	2007-338T22:55:50	100	3.894	Non-SPASS			
CIRS_053TI_PHOTOMWAC001_ISS	2007-338T14:06:50	GMB E053 Titan38-000T10:00:00	000T01:00:00	2007-338T15:06:50	2000	7.2	SPASS Rider			
ISS_053TI_PHOTOMWAC001_PRIME	2007-338T14:06:50	GMB E053 Titan38-000T10:00:00	000T01:00:00	2007-338T15:06:50	0	50	Prime	ISS_NAC to Titan	POS X to North_Pole_Dir	
UVIS_053TI_PHOTOMWAC001_ISS	2007-338T14:06:50	GMB E053 Titan38-000T10:00:00	000T01:00:00	2007-338T15:06:50	5032	18.115	SPASS Rider			
VIMS_053TI_PHOTMAP001_ISS	2007-338T14:06:50	GMB E053 Titan38-000T10:00:00	000T01:00:00	2007-338T15:06:50	2777.8	10	SPASS Rider			
UVIS_053TI_EUVFUV001_PRIME	2007-338T15:06:50	GMB E053 Titan38-000T09:00:00	000T03:30:00	2007-338T18:36:50	5032	63.403	Prime	UVIS_FUV to Titan	NEG X to Tethys	
VIMS_053TI_UVSSCAN001_UVIS	2007-338T15:06:50	GMB E053 Titan38-000T09:00:00	000T03:30:00	2007-338T18:36:50	3174.6	40	SPASS Rider			
CIRS_053TI_FIRNADMAP001_PRIME	2007-338T18:36:50	GMB E053 Titan38-000T05:30:00	000T03:00:00	2007-338T21:36:50	4000	43.2	Prime	CIRS_FP1 to Titan	POS X to North_Pole_Dir	
CIRS_053TI_FIRNADMAP001_SI	2007-338T18:36:50	GMB E053 Titan38-000T05:30:00	000T03:00:00	2007-338T21:36:50	0	3	SPASS Rider			
ISS_053TI_FIRNADMAP001_CIRS	2007-338T18:36:50	GMB E053 Titan38-000T05:30:00	000T03:00:00	2007-338T21:36:50	0	5	SPASS Rider			
SP_053NA_BEGCUSTOM338_NA	2007-338T18:36:50	GMB E053 Titan38-000T05:30:00	000T00:00:01	2007-338T18:36:51	0	0	SPASS Note			
VIMS_053TI_FIRNADCMPO02_CIRS	2007-338T18:36:50	GMB E053 Titan38-000T05:30:00	000T03:00:00	2007-338T21:36:50	5000	54	SPASS Rider			
UVIS_053TI_FIRNADMAP001_CIRS	2007-338T19:06:50	GMB E053 Titan38-000T05:00:00	000T02:30:00	2007-338T21:36:50	5032	45.288	SPASS Rider			
MAG_053TI_MAGTITAN001_PRIME	2007-338T20:06:50	GMB E053 Titan38-000T04:00:00	000T08:00:00	2007-339T04:06:50	988	28.454	Non-SPASS			
CIRS_053TI_FIRLMBINT001_PRIME	2007-338T21:36:50	GMB E053 Titan38-000T02:30:00	000T01:15:00	2007-338T22:51:50	4000	18	Prime	CIRS_FP1 to Titan	PIC	
CIRS_053TI_FIRLMBINT001_SI	2007-338T21:36:50	GMB E053 Titan38-000T02:30:00	000T01:15:00	2007-338T22:51:50	0	2	SPASS Rider			
VIMS_053TI_FIRNADCMPO03_CIRS	2007-338T21:36:50	GMB E053 Titan38-000T02:30:00	000T02:15:00	2007-338T23:51:50	3703.7	30	SPASS Rider			
ISS_053TI_FIRLMBINT001_CIRS	2007-338T21:51:50	GMB E053 Titan38-000T02:15:00	000T01:00:00	2007-338T23:51:50	0	10	SPASS Rider			
CAPS_053TI_T38INBND001_PRIME	2007-338T22:06:50	GMB E053 Titan38-000T02:00:00	000T01:00:00	2007-338T23:06:50	4000	14.4	SPASS Rider			
MIMI_053TI_T38INBND001_CAPS	2007-338T22:06:50	GMB E053 Titan38-000T02:00:00	000T01:00:00	2007-338T23:06:50	2000	7.2	SPASS Rider			
RPWS_053TI_TINTRMED001_PRIME	2007-338T22:06:50	GMB E053 Titan38-000T02:00:00	000T01:30:00	2007-338T23:36:50	12499.4	67.497	Non-SPASS			
CIRS_053TI_FIRLMBAR001_PRIME	2007-338T22:51:50	GMB E053 Titan38-000T01:15:00	000T00:30:00	2007-338T23:21:50	4000	7.2	Prime	CIRS_FP1 to Titan	PIC	
CIRS_053TI_FIRLMBAR001_SI	2007-338T22:51:50	GMB E053 Titan38-000T01:15:00	000T00:30:00	2007-338T23:21:50	0	2	SPASS Rider			
ISS_053TI_FIRLMBAR001_CIRS	2007-338T22:51:50	GMB E053 Titan38-000T01:15:00	000T00:30:00	2007-338T23:21:50	0	10	SPASS Rider			
INMS_053TI_T38CLOSE001_RSS	2007-338T22:55:50	GMB E053 Titan38-000T01:11:00	000T02:22:00	2007-339T01:17:50	1498	12.763	Non-SPASS			
CAPS_053TI_T38CLOSE001_PRIME	2007-338T23:06:50	GMB E053 Titan38-000T01:00:00	000T02:00:00	2007-339T01:06:50	16000	115.2	SPASS Rider			
MIMI_053TI_T38CLOSE001_CAPS	2007-338T23:06:50	GMB E053 Titan38-000T01:00:00	000T02:00:00	2007-339T01:06:50	2000	14.4	SPASS Rider			
CIRS_053TI_FIRLMBT001_PRIME	2007-338T23:21:50	GMB E053 Titan38-000T00:45:00	000T00:30:00	2007-338T23:51:50	4000	7.2	Prime	CIRS_FP1 to Titan	PIC	
CIRS_053TI_FIRLMBT001_SI	2007-338T23:21:50	GMB E053 Titan38-000T00:45:00	000T00:30:00	2007-338T23:51:50	0	2	SPASS Rider			
ISS_053TI_FIRLMBT001_CIRS	2007-338T23:21:50	GMB E053 Titan38-000T00:45:00	000T00:30:00	2007-338T23:51:50	0	10	SPASS Rider			
RPWS_053TI_TICA001_PRIME	2007-338T23:36:50	GMB E053 Titan38-000T00:30:00	000T01:00:00	2007-339T00:36:50	86001	309.603	Non-SPASS			
CIRS_053TI_HIRESNAC001_VIMS	2007-338T23:51:50	GMB E053 Titan38-000T00:15:00	000T02:15:00	2007-339T02:06:50	2000	16.2	SPASS Rider			



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VIMS 053TI HIRESNAC001 PRIME	2007-338T23:51:50	GMB E053 Titan38-000T00:15:00	000T02:15:00	2007-339T02:06:50	18518.5	150 Prime	VIMS IR to Titan	NEG X to Sun	Secondary -X to RAM at C/
MP 053TI FLYBYT038 NA	2007-339T00:06:50		000T00:00:01	2007-339T00:06:51	0	0 Non-SPASS			
ISS 053TI HIRESNAC001 VIMS	2007-339T00:36:50	GMB E053 Titan38+000T00:30:00	000T01:30:00	2007-339T02:06:50	0	20 SPASS Rider			
RPWS 053TI TIINTRMED002 PRIME	2007-339T00:36:50	GMB E053 Titan38+000T00:30:00	000T01:30:00	2007-339T02:06:50	12499.4	67.497 Non-SPASS			
CAPS 053TI T38OUTBND001 PRIME	2007-339T01:06:50	GMB E053 Titan38+000T01:00:00	000T01:00:00	2007-339T02:06:50	4000	14.4 SPASS Rider			
MIMI 053TI T38OUTBND001 CAPS	2007-339T01:06:50	GMB E053 Titan38+000T01:00:00	000T01:00:00	2007-339T02:06:50	2000	7.2 SPASS Rider			
INMS 053TI T38OUTBND001 RSS	2007-339T01:17:50	GMB E053 Titan38+000T01:11:00	000T10:49:00	2007-339T12:06:50	100	3.894 Non-SPASS			
CAPS 053SA SURVEY003 RIDER	2007-339T02:06:50	GMB E053 Titan38+000T02:00:00	001T22:08:23	2007-341T00:13:13	1000	166.103 Non-SPASS			
CIRS 053TI REGMAP001 ISS	2007-339T02:06:50	GMB E053 Titan38+000T02:00:00	000T02:00:00	2007-339T04:06:50	2000	14.4 SPASS Rider			
ISS 053TI REGMAP001 PRIME	2007-339T02:06:50	GMB E053 Titan38+000T02:00:00	000T02:00:00	2007-339T04:06:50	0	165 Prime	ISS NAC to Titan	NEG X to Sun	
MIMI 053CO SURVEY004 RIDER	2007-339T02:06:50	GMB E053 Titan38+000T02:00:00	000T21:59:23	2007-340T00:06:13	1025	81.142 Non-SPASS			
VIMS 053TI REGMAP003 ISS	2007-339T02:06:50	GMB E053 Titan38+000T02:00:00	000T02:00:00	2007-339T04:06:50	13888.9	100 SPASS Rider			
MP 053SA RPXASCEND053 NA	2007-339T02:17:32		000T00:00:01	2007-339T02:17:33	0	0 Non-SPASS			
CIRS 053TI FIRNADMAP002 PRIME	2007-339T04:06:50	GMB E053 Titan38+000T04:00:00	000T01:00:00	2007-339T05:06:50	4000	14.4 Prime	CIRS FP1 to Titan	POS X to North_Pole_Dir	Pick up from ISS at ISS NAC to Titan, NEG X to Sun, offset [-22.4, 0.0, -5.6] (degrees)
CIRS 053TI FIRNADMAP002 SI	2007-339T04:06:50	GMB E053 Titan38+000T04:00:00	000T01:00:00	2007-339T05:06:50	0	1 SPASS Rider			
ISS 053TI FIRNADMAP002 CIRS	2007-339T04:06:50	GMB E053 Titan38+000T04:00:00	000T01:00:00	2007-339T05:06:50	0	30 SPASS Rider			
MAG 053OT SURVEY008 PRIME	2007-339T04:06:50	GMB E053 Titan38+000T04:00:00	001T05:22:10	2007-340T09:29:00	600	63.438 Non-SPASS			
VIMS 053TI FIRNADCMP006 CIRS	2007-339T04:06:50	GMB E053 Titan38+000T04:00:00	000T01:00:00	2007-339T05:06:50	5000	18 SPASS Rider			
CIRS 053TI REGMAP002 ISS	2007-339T05:06:50	GMB E053 Titan38+000T05:00:00	000T03:00:00	2007-339T08:06:50	2000	21.6 SPASS Rider			
ISS 053TI GLOBMAP001 PRIME	2007-339T05:06:50	GMB E053 Titan38+000T05:00:00	000T03:00:00	2007-339T08:06:50	0	165 Prime	ISS NAC to Titan	NEG X to Sun	
VIMS 053TI MONITORNA002 ISS	2007-339T05:06:50	GMB E053 Titan38+000T05:00:00	000T03:00:00	2007-339T08:06:50	3333.3	36 SPASS Rider			
CIRS 053TI REGMAP002 VIMS	2007-339T08:06:50	GMB E053 Titan38+000T08:00:00	000T01:00:00	2007-339T09:06:50	2000	7.2 SPASS Rider			
VIMS 053TI GLOBMAP003 PRIME	2007-339T08:06:50	GMB E053 Titan38+000T08:00:00	000T01:00:00	2007-339T09:06:50	5000	18 Prime	ISS NAC to Titan	NEG X to Sun	Leave at NEG Y to TITAN, NEG X to TITAN_SC_RAM
CIRS 053TI FIRNADCMP002 PRIME	2007-339T09:06:50	GMB E053 Titan38+000T09:00:00	000T02:00:00	2007-339T11:06:50	4000	28.8 Prime	CIRS FP1 to Titan	PIC	
CIRS 053TI FIRNADCMP002 SI	2007-339T09:06:50	GMB E053 Titan38+000T09:00:00	000T02:00:00	2007-339T11:06:50	0	2 SPASS Rider			
ISS 053TI FIRNADCMP002 CIRS	2007-339T09:06:50	GMB E053 Titan38+000T09:00:00	000T02:00:00	2007-339T11:06:50	0	17.4 SPASS Rider			
SP 053NA ENDCUSTOM339 NA	2007-339T09:06:50	GMB E053 Titan38+000T09:00:00	000T00:00:01	2007-339T09:06:51	0	0 SPASS Note			
VIMS 053TI FIRNADCMP004 CIRS	2007-339T09:06:50	GMB E053 Titan38+000T09:00:00	000T02:00:00	2007-339T11:06:50	5000	36 SPASS Rider			
CIRS 053TI MONITORNA001 ISS	2007-339T11:06:50	GMB E053 Titan38+000T11:00:00	000T02:00:00	2007-339T13:06:50	2000	14.4 SPASS Rider			
ISS 053TI MONITORNA001 PRIME	2007-339T11:06:50	GMB E053 Titan38+000T11:00:00	000T02:00:00	2007-339T13:06:50	0	300 Prime	ISS NAC to Titan	NEG X to Sun	
VIMS 053TI MONITORNA001 ISS	2007-339T11:06:50	GMB E053 Titan38+000T11:00:00	000T02:00:00	2007-339T13:06:50	4166.7	20 SPASS Rider			
INMS 053SA SURVEY007 RIDER	2007-339T12:06:50	GMB E053 Titan38+000T12:00:00	000T12:00:27	2007-340T00:07:17	50	2.161 Non-SPASS			
CIRS 053TI GLOBMAP002 VIMS	2007-339T13:06:50	GMB E053 Titan38+000T13:00:00	000T01:00:00	2007-339T14:06:50	2000	7.2 SPASS Rider			
ISS 053TI GLOBMAP002 VIMS	2007-339T13:06:50	GMB E053 Titan38+000T13:00:00	000T01:00:00	2007-339T14:06:50	0	35 SPASS Rider			
VIMS 053TI GLOBMAP002 PRIME	2007-339T13:06:50	GMB E053 Titan38+000T13:00:00	000T01:00:00	2007-339T14:06:50	7222.2	26 Prime	ISS NAC to Titan	NEG X to Sun	
CIRS 053TI MIDIRTMAP002 PRIME	2007-339T14:06:50	GMB E053 Titan38+000T14:00:00	000T09:37:00	2007-339T23:43:50	4000	138.48 Prime	CIRS FPB to Titan	POS X to North_Pole_Dir	
CIRS 053TI MIDIRTMAP002 SI	2007-339T14:06:50	GMB E053 Titan38+000T14:00:00	000T09:37:00	2007-339T23:43:50	0	10 SPASS Rider			
ISS 053TI MIDIRTMAP002 CIRS	2007-339T14:06:50	GMB E053 Titan38+000T14:00:00	000T09:37:00	2007-339T23:43:50	0	35 SPASS Rider			
UVIS 053TI MIDIRTMAP002 CIRS	2007-339T14:06:50	GMB E053 Titan38+000T14:00:00	000T09:37:00	2007-339T23:43:50	2918.6	101.041 SPASS Rider			
VIMS 053TI MIRTEMP001 CIRS	2007-339T14:06:50	GMB E053 Titan38+000T14:00:00	000T09:37:00	2007-339T23:43:50	577.7	20 SPASS Rider			
ENGR 053SC RSKRWAF339 PPS	2007-339T22:08:28	GMB E053 Titan38+000T22:01:38	000T00:05:04	2007-339T22:13:32	0	0 Non-SPASS			
RSS 053TI KADOWN002 RSS	2007-339T22:24:00		000T11:05:00	2007-340T09:29:00	0	0 SPASS Rider			
SP 053TI DEADTIME339 PRIME	2007-339T23:43:50	GMB E053 Titan38+000T23:37:00	000T00:15:10	2007-339T23:59:00	0	0 Prime	ISS NAC to Titan	NEG X to Sun	
SP 053EA DLTURN339 PRIME	2007-339T23:59:00		000T00:30:00	2007-340T00:29:00	0	0 Prime	XBAND to Earth	POS X to NSP	SP Turn to Earth
INMS 053SA SURVEY008 RIDER	2007-340T00:06:55		001T17:53:05	2007-341T18:00:00	50	7.539 Non-SPASS			
MIMI 053CO SURVEY007 RIDER	2007-340T00:07:01		001T00:07:56	2007-341T00:14:57	900	78.188 Non-SPASS			
SP 053EA M70METNON340 PRIME	2007-340T00:29:00		000T09:00:00	2007-340T09:29:00	0	0 Prime	XBAND to Earth	POS X to NSP	
SP 053NA M70METNON340 SP	2007-340T00:29:00		000T09:00:00	2007-340T09:29:00	0	0 Non-SPASS			
UVIS 053SW IPHSURVEY019 RIDER	2007-340T00:29:00		000T09:00:00	2007-340T09:29:00	76	2.462 Non-SPASS			
CIRS 053IC DSCAL1651 RIDER	2007-340T01:59:00		000T06:00:00	2007-340T07:59:00	4000	86.4 SPASS Rider			



TOL (by Team)

053TI (T38)

Request	Start Time	Epoch	Duration	End Time	Rate	Data Volume	SPASS Type	Primary Pointing	Secondary Pointing	Pointing Agreement
CAPS 053SA SURVEY002 RIDER	2007-337720:05:00		001T02:01:50	2007-338722:06:50	1000	93.71	Non-SPASS			
CAPS 053SA SURVEY003 RIDER	2007-339702:06:50	GMB E053 Titan38+000T02:00:00	001T22:08:23	2007-340721:15:13	1000	166.103	Non-SPASS			
CAPS 053TI T38CLOSE001 PRIME	2007-338723:06:50	GMB E053 Titan38-000T01:00:00	000T02:00:00	2007-339701:06:50	16000	115.2	SPASS Rider			
CAPS 053TI T38INBND001 PRIME	2007-338722:06:50	GMB E053 Titan38-000T02:00:00	000T01:00:00	2007-338723:06:50	4000	14.4	SPASS Rider			
CAPS 053TI T38OUTBND001 PRIME	2007-339701:06:50	GMB E053 Titan38+000T01:00:00	000T01:00:00	2007-339702:06:50	4000	14.4	SPASS Rider			
CDA 053DR 1502DUST400 RIDER	2007-338709:49:54		006T19:30:39	2007-345705:20:33	149.9	88.216	Non-SPASS			
CDA 053OT DRATE005 RIDER	2007-338707:49:54		000T02:00:00	2007-338709:49:54	3668	26.41	Non-SPASS			
CDA 053OT DRATE006 RIDER	2007-338709:49:54		000T02:58:06	2007-338712:48:00	4042.1	43.194	Non-SPASS			
CDA 053RI 1402RINGM001 RIDER	2007-338707:49:54		000T02:00:00	2007-338709:49:54	524	3.773	Non-SPASS			
CIRS 053IC DSCAL1651 RIDER	2007-340701:59:00		000T06:00:00	2007-340707:59:00	4000	86.4	SPASS Rider			
CIRS 053TI FIRLMBEAER001 PRIME	2007-338722:51:50	GMB E053 Titan38-000T01:15:00	000T00:30:00	2007-338723:21:50	4000	7.2	Prime	CIRS FP1 to Titan	PIC	
CIRS 053TI FIRLMBEAER001 SI	2007-338722:51:50	GMB E053 Titan38-000T01:15:00	000T00:30:00	2007-338723:21:50	0	2	SPASS Rider			
CIRS 053TI FIRLMBINT001 PRIME	2007-338721:36:50	GMB E053 Titan38-000T02:30:00	000T01:15:00	2007-338722:51:50	4000	18	Prime	CIRS FP1 to Titan	PIC	
CIRS 053TI FIRLMBINT001 SI	2007-338721:36:50	GMB E053 Titan38-000T02:30:00	000T01:15:00	2007-338722:51:50	0	2	SPASS Rider			
CIRS 053TI FIRLMBT001 PRIME	2007-338723:21:50	GMB E053 Titan38-000T00:45:00	000T00:30:00	2007-338723:51:50	4000	7.2	Prime	CIRS FP1 to Titan	PIC	
CIRS 053TI FIRLMBT001 SI	2007-338723:21:50	GMB E053 Titan38-000T00:45:00	000T00:30:00	2007-338723:51:50	0	2	SPASS Rider			
CIRS 053TI FIRNADCM001 PRIME	2007-338709:59:50	GMB E053 Titan38-000T14:07:00	000T04:07:00	2007-338714:06:50	4000	59.28	Prime	CIRS FP1 to Titan	PIC	
CIRS 053TI FIRNADCM001 SI	2007-338709:59:50	GMB E053 Titan38-000T14:07:00	000T04:07:00	2007-338714:06:50	0	4	SPASS Rider			
CIRS 053TI FIRNADCM002 PRIME	2007-339709:06:50	GMB E053 Titan38+000T09:00:00	000T02:00:00	2007-339711:06:50	4000	28.8	Prime	CIRS FP1 to Titan	PIC	
CIRS 053TI FIRNADCM002 SI	2007-339709:06:50	GMB E053 Titan38+000T09:00:00	000T02:00:00	2007-339711:06:50	0	2	SPASS Rider			
CIRS 053TI FIRNADMAP001 PRIME	2007-338718:36:50	GMB E053 Titan38-000T05:30:00	000T03:00:00	2007-338721:36:50	4000	43.2	Prime	CIRS FP1 to Titan	POS X to North Pole Dir	
CIRS 053TI FIRNADMAP001 SI	2007-338718:36:50	GMB E053 Titan38-000T05:30:00	000T03:00:00	2007-338721:36:50	0	3	SPASS Rider			
CIRS 053TI FIRNADMAP002 PRIME	2007-339704:06:50	GMB E053 Titan38+000T04:00:00	000T01:00:00	2007-339705:06:50	4000	14.4	Prime	CIRS FP1 to Titan	POS X to North Pole Dir	Pick up from ISS at ISS_NAC to Titan, NEG X to Sun, offset [-22.4, 0.0, -5.6] (degrees)
CIRS 053TI FIRNADMAP002 SI	2007-339704:06:50	GMB E053 Titan38+000T04:00:00	000T01:00:00	2007-339705:06:50	0	1	SPASS Rider			
CIRS 053TI GLOBMAP002 VIMS	2007-339713:06:50	GMB E053 Titan38+000T13:00:00	000T01:00:00	2007-339714:06:50	2000	7.2	SPASS Rider			
CIRS 053TI HRESNAC001 VIMS	2007-338723:51:50	GMB E053 Titan38-000T01:15:00	000T02:15:00	2007-339702:06:50	2000	16.2	SPASS Rider			
CIRS 053TI MIDIRTMAP002 PRIME	2007-339714:06:50	GMB E053 Titan38+000T14:00:00	000T09:37:00	2007-339723:43:50	4000	138.48	Prime	CIRS FPB to Titan	POS X to North Pole Dir	
CIRS 053TI MIDIRTMAP002 SI	2007-339714:06:50	GMB E053 Titan38+000T14:00:00	000T09:37:00	2007-339723:43:50	0	10	SPASS Rider			
CIRS 053TI MONITORNA001 ISS	2007-339711:06:50	GMB E053 Titan38+000T11:00:00	000T02:00:00	2007-339713:06:50	2000	14.4	SPASS Rider			
CIRS 053TI PHOTOMWAC001 ISS	2007-338714:06:50	GMB E053 Titan38-000T10:00:00	000T01:00:00	2007-338715:06:50	2000	7.2	SPASS Rider			
CIRS 053TI REGMAP001 ISS	2007-339702:06:50	GMB E053 Titan38+000T02:00:00	000T02:00:00	2007-339704:06:50	2000	14.4	SPASS Rider			
CIRS 053TI REGMAP002 ISS	2007-339705:06:50	GMB E053 Titan38+000T05:00:00	000T03:00:00	2007-339708:06:50	2000	21.6	SPASS Rider			
CIRS 053TI REGMAP002 VIMS	2007-339708:06:50	GMB E053 Titan38+000T08:00:00	000T01:00:00	2007-339709:06:50	2000	7.2	SPASS Rider			
ENGR 053SC DFPWF338 PPS	2007-338709:14:00		000T00:00:00	2007-338709:14:30	0	0	Non-SPASS			
ENGR 053SC RSSKRWF339 PPS	2007-339722:08:28	GMB E053 Titan38+000T22:01:38	000T00:05:04	2007-339722:13:32	0	0	Non-SPASS			
INMS 053SA SURVEY006 RIDER	2007-338700:07:00		000T11:59:50	2007-338712:06:50	50	2.16	Non-SPASS			
INMS 053SA SURVEY007 RIDER	2007-339712:06:50	GMB E053 Titan38+000T12:00:00	000T12:00:27	2007-340700:07:17	50	2.161	Non-SPASS			
INMS 053SA SURVEY008 RIDER	2007-340700:06:55		001T17:53:05	2007-341718:00:00	50	7.539	Non-SPASS			
INMS 053TI T38CLOSE001 RSS	2007-338722:55:50	GMB E053 Titan38-000T01:11:00	000T02:22:00	2007-339701:17:50	1498	12.763	Non-SPASS			
INMS 053TI T38INBND001 RSS	2007-338712:06:50	GMB E053 Titan38-000T12:00:00	000T10:49:00	2007-338722:55:50	100	3.894	Non-SPASS			
INMS 053TI T38OUTBND001 RSS	2007-339701:17:50	GMB E053 Titan38+000T01:11:00	000T10:49:00	2007-339712:06:50	100	3.894	Non-SPASS			
ISS 053TI FIRLMBEAER001 CIRS	2007-338722:51:50	GMB E053 Titan38-000T01:15:00	000T00:30:00	2007-338723:21:50	0	10	SPASS Rider			
ISS 053TI FIRLMBINT001 CIRS	2007-338721:51:50	GMB E053 Titan38-000T02:15:00	000T01:00:00	2007-338722:51:50	0	10	SPASS Rider			
ISS 053TI FIRLMBT001 CIRS	2007-338723:21:50	GMB E053 Titan38-000T00:45:00	000T00:30:00	2007-338723:51:50	0	5	SPASS Rider			
ISS 053TI FIRNADCM001 CIRS	2007-338709:59:50	GMB E053 Titan38-000T14:07:00	000T04:07:00	2007-338714:06:50	0	30	SPASS Rider			
ISS 053TI FIRNADCM002 CIRS	2007-339709:06:50	GMB E053 Titan38+000T09:00:00	000T02:00:00	2007-339711:06:50	0	17.4	SPASS Rider			
ISS 053TI FIRNADMAP001 CIRS	2007-338718:36:50	GMB E053 Titan38-000T05:30:00	000T03:00:00	2007-338721:36:50	0	5	SPASS Rider			
ISS 053TI FIRNADMAP002 CIRS	2007-339704:06:50	GMB E053 Titan38+000T04:00:00	000T01:00:00	2007-339705:06:50	0	30	SPASS Rider			
ISS 053TI GLOBMAP001 PRIME	2007-339705:06:50	GMB E053 Titan38+000T05:00:00	000T03:00:00	2007-339708:06:50	0	165	Prime	ISS_NAC to Titan	NEG X to Sun	
ISS 053TI GLOBMAP002 VIMS	2007-339713:06:50	GMB E053 Titan38+000T13:00:00	000T01:00:00	2007-339714:06:50	0	35	SPASS Rider			
ISS 053TI HRESNAC001 VIMS	2007-339700:36:50	GMB E053 Titan38+000T00:30:00	000T01:30:00	2007-339702:06:50	0	20	SPASS Rider			
ISS 053TI MIDIRTMAP002 CIRS	2007-339714:06:50	GMB E053 Titan38+000T14:00:00	000T09:37:00	2007-339723:43:50	0	35	SPASS Rider			
ISS 053TI MONITORNA001 PRIME	2007-339711:06:50	GMB E053 Titan38+000T11:00:00	000T02:00:00	2007-339713:06:50	0	300	Prime	ISS_NAC to Titan	NEG X to Sun	
ISS 053TI PHOTOMWAC001 PRIME	2007-338714:06:50	GMB E053 Titan38-000T10:00:00	000T01:00:00	2007-338715:06:50	0	50	Prime	ISS_NAC to Titan	POS X to North Pole Dir	
ISS 053TI REGMAP001 PRIME	2007-339702:06:50	GMB E053 Titan38+000T02:00:00	000T02:00:00	2007-339704:06:50	0	165	Prime	ISS_NAC to Titan	NEG X to Sun	



TOL (by Team)

053TI (T38)

MAG 0530T SURVEY004 PRIME	2007-338T09:14:00		000T10:52:50	2007-338T20:06:50	600	23,502	Non-SPASS				
MAG 0530T SURVEY008 PRIME	2007-339T04:06:50	GMB E053 Titan38+000T04:00:00	001T05:22:10	2007-340T09:29:00	600	63,438	Non-SPASS				
MAG 053TI MAGTITAN001 PRIME	2007-338T20:06:50	GMB E053 Titan38-000T04:00:00	000T08:00:00	2007-339T04:06:50	968	28,454	Non-SPASS				
MIMI 053CO SURVEY004 RIDER	2007-339T02:06:50	GMB E053 Titan38+000T02:00:00	000T21:59:23	2007-340T00:06:13	1025	81,142	Non-SPASS				
MIMI 053CO SURVEY007 RIDER	2007-340T00:07:01		001T00:07:56	2007-341T00:14:57	900	78,188	Non-SPASS				
MIMI 053SA MAGOYN003 PRIME	2007-338T09:14:01		000T12:52:49	2007-338T22:06:50	900	41,732	SPASS Rider				
MIMI 053TI T38CLOSE001 CAPS	2007-338T23:06:50	GMB E053 Titan38-000T01:00:00	000T02:00:00	2007-339T01:06:50	2000	14.4	SPASS Rider				
MIMI 053TI T38INBND001 CAPS	2007-338T22:06:50	GMB E053 Titan38-000T02:00:00	000T01:00:00	2007-338T23:06:50	2000	7.2	SPASS Rider				
MIMI 053TI T38OUTBND001 CAPS	2007-339T01:06:50	GMB E053 Titan38+000T01:00:00	000T01:00:00	2007-339T02:06:50	2000	7.2	SPASS Rider				
MP 051NA DSS65DOWN001 NA	2007-302T00:00:00		041T23:59:59	2007-343T23:59:59	0	0	Non-SPASS				
MP 051NA SEQUENCE035 NA	2007-304T18:40:00	E051 SEQUENCE_035+000T00:00:00	043T21:20:00	2007-348T16:00:00	0	0	SPASS Note				
MP 053SA RPKASCEN003 NA	2007-339T02:17:32		000T00:00:01	2007-339T02:17:33	0	0	Non-SPASS				
MP 053TI FLYBYT038 NA	2007-339T00:06:50		000T00:00:01	2007-339T00:06:51	0	0	Non-SPASS				
RPWS 053SA INSURVEY003 PRIME	2007-338T09:14:00		000T00:56:00	2007-338T10:10:00	1310	4,402	Non-SPASS				
RPWS 053SA OUTSURVEY002 PRIME	2007-338T10:10:00		001T23:19:00	2007-340T09:29:00	1310	223,137	Non-SPASS				
RPWS 053TI TICAO01 PRIME	2007-338T23:36:50	GMB E053 Titan38-000T00:30:00	000T01:00:00	2007-339T00:36:50	86001	309,603	Non-SPASS				
RPWS 053TI TIINTRMED001 PRIME	2007-338T22:06:50	GMB E053 Titan38-000T02:00:00	000T01:30:00	2007-338T23:36:50	12499.4	67.497	Non-SPASS				
RPWS 053TI TIINTRMED002 PRIME	2007-339T00:36:50	GMB E053 Titan38+000T00:30:00	000T01:30:00	2007-339T02:06:50	12499.4	67.497	Non-SPASS				
RSS 053TI KADOWN002 RSS	2007-339T22:24:00		000T11:05:00	2007-340T09:29:00	0	0	SPASS Rider				
SP 053EA DLTURN339 PRIME	2007-339T23:59:00		000T00:30:00	2007-340T00:29:00	0	0	Prime				
SP 053EA M70METNON340 PRIME	2007-340T00:29:00		000T09:00:00	2007-340T09:29:00	0	0	Prime				
SP 053NA BEGCUSTOM338 NA	2007-338T18:36:50	GMB E053 Titan38-000T05:30:00	000T00:00:01	2007-338T18:36:51	0	0	SPASS Note				
SP 053NA ENDCUSTOM339 NA	2007-339T09:06:50	GMB E053 Titan38+000T09:00:00	000T00:00:01	2007-339T09:06:51	0	0	SPASS Note				
SP 053NA M70METNON340 SP	2007-340T00:29:00		000T09:00:00	2007-340T09:29:00	0	0	Non-SPASS				
SP 053NA M70OBSNON339 NA	2007-338T09:14:00		001T15:15:00	2007-340T00:29:00	0	0	Non-SPASS				
SP 053NA TOSTSEG338 NA	2007-338T09:14:00		002T00:15:00	2007-340T09:29:00	0	0	SPASS Note				
SP 053TI DEADTIME338 PRIME	2007-338T09:44:00		000T00:15:50	2007-338T09:59:50	0	0	Prime				
SP 053TI DEADTIME339 PRIME	2007-339T23:43:50	GMB E053 Titan38+000T23:37:00	000T00:15:10	2007-339T23:59:00	0	0	Prime				
SP 053TI WAYPTTURN338 PRIME	2007-338T09:14:00		000T00:30:00	2007-338T09:44:00	0	0	New Waypoint				
UVIS 053SW IPHSURVEY019 RIDER	2007-340T00:29:00		000T09:00:00	2007-340T09:29:00	76	2,462	Non-SPASS				
UVIS 053TI EUVFLU001 PRIME	2007-338T15:06:50	GMB E053 Titan38-000T09:00:00	000T03:30:00	2007-338T18:36:50	5032	63,403	Prime				
UVIS 053TI FIRNADCP001 CIRS	2007-338T09:59:50	GMB E053 Titan38-000T14:07:00	000T04:07:00	2007-338T14:06:50	1006.4	14,915	SPASS Rider				
UVIS 053TI FIRNADMAP001 CIRS	2007-338T19:06:50	GMB E053 Titan38-000T05:00:00	000T02:30:00	2007-338T21:36:50	5032	45,288	SPASS Rider				
UVIS 053TI MIDIRTMAP002 CIRS	2007-339T14:06:50	GMB E053 Titan38+000T14:00:00	000T09:37:00	2007-339T23:43:50	2918.6	101,041	SPASS Rider				
UVIS 053TI PHOTOMWAC001 ISS	2007-338T14:06:50	GMB E053 Titan38-000T10:00:00	000T01:00:00	2007-338T15:06:50	5032	18,115	SPASS Rider				
VIMS 053TI FIRNADCP001 CIRS	2007-338T09:59:50	GMB E053 Titan38-000T14:07:00	000T04:07:00	2007-338T14:06:50	2429.1	36	SPASS Rider				
VIMS 053TI FIRNADCP002 CIRS	2007-338T18:36:50	GMB E053 Titan38-000T05:30:00	000T03:00:00	2007-338T21:36:50	5000	54	SPASS Rider				
VIMS 053TI FIRNADCP003 CIRS	2007-338T21:36:50	GMB E053 Titan38-000T02:30:00	000T02:15:00	2007-338T23:51:50	3703.7	30	SPASS Rider				
VIMS 053TI FIRNADCP004 CIRS	2007-339T09:06:50	GMB E053 Titan38+000T09:00:00	000T02:00:00	2007-339T11:06:50	5000	36	SPASS Rider				
VIMS 053TI FIRNADCP006 CIRS	2007-339T04:06:50	GMB E053 Titan38+000T04:00:00	000T01:00:00	2007-339T05:06:50	5000	18	SPASS Rider				
VIMS 053TI GLOBMAP002 PRIME	2007-339T13:06:50	GMB E053 Titan38+000T13:00:00	000T01:00:00	2007-339T14:06:50	7222.2	26	Prime				
VIMS 053TI GLOBMAP003 PRIME	2007-339T08:06:50	GMB E053 Titan38+000T08:00:00	000T01:00:00	2007-339T09:06:50	5000	18	Prime				
VIMS 053TI HIRESNAC001 PRIME	2007-338T23:51:50	GMB E053 Titan38-000T00:15:00	000T02:15:00	2007-339T02:06:50	18518.5	150	Prime				
VIMS 053TI MIRTPEM001 CIRS	2007-339T14:06:50	GMB E053 Titan38+000T14:00:00	000T09:37:00	2007-339T23:43:50	577.7	20	SPASS Rider				
VIMS 053TI MONITORNA001 ISS	2007-339T11:06:50	GMB E053 Titan38+000T11:00:00	000T02:00:00	2007-339T13:06:50	4166.7	30	SPASS Rider				
VIMS 053TI MONITORNA002 ISS	2007-339T05:06:50	GMB E053 Titan38+000T05:00:00	000T03:00:00	2007-339T08:06:50	3333.3	36	SPASS Rider				
VIMS 053TI PHOTMAP001 ISS	2007-338T14:06:50	GMB E053 Titan38-000T10:00:00	000T01:00:00	2007-338T15:06:50	2777.8	10	SPASS Rider				
VIMS 053TI REGMAP003 ISS	2007-339T02:06:50	GMB E053 Titan38+000T02:00:00	000T02:00:00	2007-339T04:06:50	13888.9	100	SPASS Rider				
VIMS 053TI UVISSCAN001 UVIS	2007-338T15:06:50	GMB E053 Titan38-000T09:00:00	000T03:30:00	2007-338T18:36:50	3174.6	40	SPASS Rider				



Data Volume 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_053EA_M70METNON340_PRIME	340 00:29	340 09:29	0	3432	134	3566	3569	3	0	221	53	3840	3562	-278	0	0%	277

Rings has agreed to take the carryover

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	338 09:14	340 00:29	270.9	73.1	404.8	23.3	877.4	96.0	152.9	0.0	629.7	242.8	604.0	0.0	0.0	3374.7
OBSERVATION_SI	338 09:14	340 00:29	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_053EA_M70METNON340_PRIME	340 00:29	340 09:29	32.4	4.9	86.4	1.6	0.0	19.4	29.2	0.0	42.4	2.5	0.0	0.0	0.0	218.8
DAILY TOTAL SCIENCE	338 09:14	340 09:29	303.3	77.9	517.2	24.9	877.4	115.4	182.0	0.0	672.1	245.2	604.0	0.0		



T38 SPASS

Request	Riders	Start (SCET)	Start (Epoch)	Duration	End (SCET)	Primary	Secondary	Comments
Sequence S035, length = 42 ...		2007-304T18:40:00	E051_SEQUENCE_035+000T00:0043T21:20:00	002T00:15:00	2007-348T16:00:00			
TOST rev 53 Segment		2007-338T09:14:00		000T00:30:00	2007-340T09:29:00			
SP_053TI_WAYPTTURN338_PRIME	M	2007-338T09:14:00		000T00:30:00	2007-338T09:44:00	ISS_NAC to Titan (0.0, -36.0, 0.0 offset)	POS_X to NTP	SP Turn to Waypoint
NEW WAYPOINT		2007-338T09:44:00		000T05:52:50	2007-338T15:36:50	ISS_NAC to Titan (0.0, -36.0, 0.0 offset)	POS_X to NTP	
SP_053TI_DEADTIME338_PRIME	M	2007-338T09:44:00		000T00:15:50	2007-338T09:59:50	ISS_NAC to Titan	NEG_X to Sun	
CIRS_053TI_FIRNADCMP001_PRIME	C, I, M, R, U	2007-338T09:59:50	GMB_E053_Titan38-000T14:07:0000T04:07:00	000T00:15:00	2007-338T14:06:50	CIRS_FP1 to Titan	PIC	
ISS_053TI_PHOTOMWAC001_PRIME	C, M, R, V	2007-338T14:06:50	GMB_E053_Titan38-000T10:00:0000T01:00:00	000T00:15:00	2007-338T15:06:50	ISS_NAC to Titan	POS_X to North_Pole_Dir	
SP_053TI_WAYPTTURN438_PRIME	M	2007-338T15:06:50	GMB_E053_Titan38-000T09:00:0000T00:30:00	000T00:15:00	2007-338T15:36:50	NEG_Z to Earth	NEG_Y to NEP	
NEW WAYPOINT		2007-338T15:36:50		000T17:30:00	2007-339T09:06:50	NEG_Z to Earth	NEG_Y to NEP	
RSS_053TI_GRAVITY001_PRIME	M	2007-338T15:36:50	GMB_E053_Titan38-000T08:30:0000T03:00:00	000T00:15:00	2007-338T18:36:50	XBAND to Earth	NEG_Y to NEP	
Begin Custom Period		2007-338T18:36:50	GMB_E053_Titan38-000T05:30:0000T00:00:01	000T00:00:00	2007-338T18:36:51			
CIRS_053TI_FIRNADMAP001_PRIME	C, I, M, U, V	2007-338T18:36:50	GMB_E053_Titan38-000T05:30:0000T03:00:00	000T00:00:00	2007-338T21:36:50	CIRS_FP1 to Titan	POS_X to North_Pole_Dir	Pick up at NEG_Z to Earth, NEG_Y to NEP; Hand off at CIRS_FP1 to Titan, POS_X to North_Pole_Dir.
RSS_053TI_GRAVITY002_PRIME	M	2007-338T21:36:50	GMB_E053_Titan38-000T02:30:0000T03:00:00	000T00:00:00	2007-339T00:36:50	XBAND to Earth	POS_X to NSP	Pick up at CIRS_FP1 to Titan, POS_X to North_Pole_Dir; Hand off at XBAND to Earth, POS_X to NSP.
ISS_053TI_HIRESNAC001_PRIME	C, M, V	2007-339T00:36:50	GMB_E053_Titan38+000T00:30:0000T01:30:00	000T00:00:00	2007-339T02:06:50	ISS_NAC to Titan	NEG_X to Sun	Pick up at NEG_Z to Earth, POS_X to NSP; Hand off at ISS_NAC to Titan, NEG_X to Sun. pick up at -Z to Earth, +X to NSP
ISS_053TI_REGMAP001_PRIME	C, V	2007-339T02:06:50	GMB_E053_Titan38+000T02:00:0000T02:00:00	000T00:00:00	2007-339T04:06:50	ISS_NAC to Titan	NEG_X to Sun	Pick up at ISS_NAC to Titan, NEG_X to Sun; Hand off at ISS_NAC to Titan (-22.4,0.0,-5.6 deg. offset), NEG_X to Sun.
CIRS_053TI_FIRNADMAP002_PRIME	C, I, V	2007-339T04:06:50	GMB_E053_Titan38+000T04:00:0000T01:00:00	000T00:00:00	2007-339T05:06:50	CIRS_FP1 to Titan	POS_X to North_Pole_Dir	Pick up at ISS_NAC to Titan (-22.4,0.0,-5.6 deg. offset), NEG_X to Sun; Hand off at CIRS_FP1 to Titan, POS_X to North_Pole_Dir. Pick up from ISS at ISS_NAC to Titan, NEG_X to Sun, offset [-22.4, 0.0, -5.6] (degrees)
For each flyby, we need tra...		2007-339T05:06:50	GMB_E053_Titan38+000T05:00:0000T03:30:00	000T00:00:00	2007-339T08:36:50	XBAND to Earth		RSS Gravity Pass 3
SP_053TI_DLTURN339_PRIME		2007-339T05:06:50	GMB_E053_Titan38+000T05:00:0000T00:30:00	000T00:00:00	2007-339T05:36:50	XBAND to Earth	POS_X to NEP	Pick up at CIRS_FP1 to Titan, POS_X to North_Pole_Dir; Hand off at XBAND to Earth, POS_X to NEP.
SP_053EA_M70METNON339_PRIME		2007-339T05:36:50	GMB_E053_Titan38+000T05:30:0000T03:00:00	000T00:00:00	2007-339T08:36:50	XBAND to Earth	POS_X to NEP	Pick up at NEG_Z to Earth, POS_X to NEP; Hand off at NEG_Z to Earth, NEG_Y to NEP.
End Custom Period		2007-339T08:36:50	GMB_E053_Titan38+000T08:00:0000T00:00:01	000T00:00:00	2007-339T08:36:51			
SP_053TI_WAYPTTURN339_PRIME		2007-339T08:36:50	GMB_E053_Titan38+000T08:30:0000T00:30:00	000T00:00:00	2007-339T09:06:50	NEG_Y to Titan	NEG_X to Sun	
NEW WAYPOINT		2007-339T09:06:50		001T00:22:10	2007-340T09:29:00	NEG_Y to Titan	NEG_X to Sun	
CIRS_053TI_FIRNADCMP002_PRIME	C, I, V	2007-339T09:06:50	GMB_E053_Titan38+000T09:00:0000T02:00:00	000T00:00:00	2007-339T11:06:50	CIRS_FP1 to Titan	PIC	
ISS_053TI_MONITORNA001_PRIME	C, V	2007-339T11:06:50	GMB_E053_Titan38+000T11:00:0000T02:00:00	000T00:00:00	2007-339T13:06:50	ISS_NAC to Titan	NEG_X to Sun	
VIMS_053TI_GLOBMAP002_PRIME	C, I	2007-339T13:06:50	GMB_E053_Titan38+000T13:00:0000T01:00:00	000T00:00:00	2007-339T14:06:50	ISS_NAC to Titan	NEG_X to Sun	
CIRS_053TI_MIDIRMAP002_PRIME	C, I, U, V	2007-339T14:06:50	GMB_E053_Titan38+000T14:00:0000T09:37:00	000T00:00:00	2007-339T23:43:50	CIRS_FP1 to Titan	POS_X to North_Pole_Dir	
SP_053TI_DEADTIME339_PRIME		2007-339T23:43:50	GMB_E053_Titan38+000T23:00:00T00:15:32	000T00:15:32	2007-339T23:59:22	ISS_NAC to Titan	NEG_X to Sun	
SP_053EA_DLTURN339_PRIME		2007-339T23:59:00	000T00:30:00	000T00:30:00	2007-340T00:29:00	XBAND to Earth	POS_X to NSP	SP Turn to Earth
SP_053EA_M70METNON340_PRIME	C	2007-340T00:29:00	000T00:00:00	000T00:00:00	2007-340T09:29:00	XBAND to Earth	POS_X to NSP	



Telemetry Modes

TELEMETRY MODE REPORT

EPOCH RELATIVE	UTC	DURATION	TELEMETRY MODE	REQUEST
	2007-338T09:14:00.000	001T15:15:00	S_N_ER_3	SP_053NA_M70OBSNON339_NA
	2007-340T00:29:00.000	00:45:00	RTE_N_SPB_110600	SP_053EA_M70METNON340_PRIME
	2007-340T01:14:00.000	01:00:00	RTE_N_SPB_124425	SP_053EA_M70METNON340_PRIME
	2007-340T02:14:00.000	05:00:00	RTE_N_SPB_142200	SP_053EA_M70METNON340_PRIME
	2007-340T07:14:00.000	01:15:00	RTE_N_SPB_124425	SP_053EA_M70METNON340_PRIME
	2007-340T08:29:00.000	01:00:00	RTE_N_SPB_99540	SP_053EA_M70METNON340_PRIME



DSN

CASSINI DOWNLINK/DSN COVERAGE SUMMARY for 053TI_T38_070628.apf on 2007-Jun-28 12:30:01

(+ = pass overlaps with previous pass; * = conflicts with DSN weekly 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
M70METNON340	340T00:29-09:29	340T01:45-10:45	09:00	124,142,124,110	63*	340T00:29-09:29	340T01:45-10:45	09:00	60/15	TP	N003

Conflict with start of DSN weekly maintenance:

Overlaps 3 hours

Request shortening and/or rescheduling of maintenance period (especially since this segment eliminated other 70m passes)

Open Issues

- Handoff from CIRS to VIMS within the custom period initially used PIC for the secondary axis. Confirm that CIRS and VIMS have an agreement for how to handle this, (CIRS says handoff will be to NEG_Y to Titan, NEG_X to Titan_SC_RAM) and that the specific agreement is documented in CIMS.
- Reworked waypoint strategy still awaiting confirmation from ISS and VIMS.
- False resource checker detection (for “Continuity broken between CIRS_053TI_FIRNADMAP001_PRIME and CIRS_053TI_FIRLMBINT001_PRIME”)



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 type="checkbox"/> ISS <input type="checkbox"/> MIMI <input type="checkbox"/> MAG <input type="checkbox"/> NAV <input type="checkbox"/> RADAR <input type="checkbox"/> RPWS <input type="checkbox"/> RSS <input type="checkbox"/> UVIS <input type="checkbox"/> VIM S Each Prime Instrument agrees to accept a reduction in observation time during implementation if problems arise.	C		
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		
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.	C	K. Klaasen's margin for flyby T38 is 15 min. according to memo dated .	
6. Waypoints changes are ≤3 per day A. All turns that accomplish the waypoint strategy are requested by SP or OpNav.	C		
7. Live Movable Blocks limited to the following orbits: 7, 8, 9, 10, 12, 28, 51, 56, 57, 60, 63, 64	N/A		

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

(DOUBLE-CLICK TO MAKE CHANGES)