TOST: Wrap-Up

036TI (T22)

Segment: 2006-345T15:17:00 – 2006-347T07:48:00

Titan C/A: 2006-362T10:05:22, Altitude = 1300 km

Epoch: GMB_E036_Titan22

July 27, 2006

Candy Hansen, Trina Ray, Doug Equils, and Dave Mohr

T22 Science Objectives

RSS –Track the spacecraft from Earth before, during, and after Titan closest approach. We will obtain Doppler and ranging data to deduce details of Titan's gravity field. Also, RSS will determine the existence of an internal ocean by measuring the dynamic Love number, k_2, of Titan.

CIRS - T22 is a far-infrared focused flyby for CIRS, featuring two surface temperature maps and two composition integrations. The former aim to detect surface temperature variations in a window region near 500 cm-1 (20 micron), while the latter are designed to map the spatial variation of CO, H2O, HCN and H20 via far-infrared rotational lines.

Start Time	End Time	Prime Activity	Obs. Detail	Op Mode	TLM Mode
361T14:19	361T14:49	SP Turn to way point	-Y to Titan, -X to Sun	DFPW Norm	S_N_ER_3
361T14:49	345T15:04	OD Uncertainty Dead Time		DFPW Norm	S_N_ER_3
-18:56	-14:00	CIRS	MID IR T MAP	DFPW Norm	S_N_ER_3
-14:00	-08:30	CIRS	FIR Nadir Comp Map	DFPW Norm	S_N_ER_3
-10:00	-8:00	RSS_WU		DFPW Norm then RADAR_WU	S_N_ER_3 then S_N_ER_5a
-08:30	-08:00	RSS Turn to Earth		RADAR_WU	S_N_ER_3
-08:00	-05:30	RSS Gravity Wing			
-05:30	-02:30	CIRS	slow scan for surface T	RADAR_WU	S_N_ER_3
-02:30	+01:30	RSS Gravity		(2,2,2)	S_N_ER_2
+01:30	+03:30	ISS	Regional Map	RADAR_RCS	S_N_ER_2
+03:30	+05:30	CIRS	FIR Nadir Comp Map	RADAR_RCS	S_N_ER_8
+05:30	+08:30	RSS Gravity Wing	-Z to Titan, -X to RAM	RADAR_RCS	S_N_ER_8
+08:30	+11:00	CIRS	FIR Nadir Comp Map	RADAR_RWA	S_N_ER_8
362T21:05	362T21:19	OD Uncertainty Dead Time		DFPW Norm	S_N_ER_3
362T21:19	362T21:49	SP Turn to D/L		DFPW Norm	S_N_ER_3
362T21:49	363T06:49	D/L		DFPW Norm	S_N_ER_3

Request	Start Time	Epoch	Duration	End Time	Rate	Mb	SPASS Type	Primary Pointing	Secondary Pointing	Pointing Agreement
CAPS_036SA_SURVEY001_RIDER	2006-356T23:25:31	E036_Apo+000T00:00:00	005T08:34:42	2006-362T08:00:13	1000	462.9	Non-SPASS			
CAPS_036TI_T22INBND001_PRIME	2006-362T08:00:13		000T01:00:00	2006-362T09:00:13	4000	14.4	SPASS Rider			
CAPS_036TI_T22CLOSE001_PRIME	2006-362T09:00:13	E036_Titan22-000T01:00:00	000T02:00:00	2006-362T11:00:13	16000	115.2	SPASS Rider			
CAPS_036TI_T22OUTBND001_PRIME	2006-362T11:00:13	E036_Titan22+000T01:00:00	000T01:00:00	2006-362T12:00:13	4000	14.4	SPASS Rider			
CAPS_036SA_SURVEY003_RIDER	2006-362T12:00:13	E036_Titan22+000T02:00:00	003T12:14:47	2007-001T00:15:00	1000	303.3	Non-SPASS			
CDA_036DR_1430DUST270_RIDER	2006-356T23:50:28		006T20:21:26	2006-363T20:11:54	149.9	88.7	Non-SPASS			
CIRS_036TI_MIDIRTMAP006_PRIME	2006-361T15:09:22	GMB_E036_Titan22-000T18:56:00	000T04:56:00	2006-361T20:05:22	2000	35.5	Prime	CIRS_FPB to Titan	POS_X to North_Pole_Dir	
CIRS_036TI_MIDIRTMAP006_SI	2006-361T15:09:22	GMB_E036_Titan22-000T18:56:00	000T04:56:00	2006-361T20:05:22	0	6.0	SPASS Rider			
CIRS_036TI_FIRNADCMP003_PRIME	2006-361T20:05:22	GMB_E036_Titan22-000T14:00:00	000T05:30:00	2006-362T01:35:22	4000	79.2	Prime	CIRS_FP1 to Titan	NEG_X to Sun	
CIRS_036TI_FIRNADCMP003_SI	2006-361T20:05:22	GMB_E036_Titan22-000T14:00:00	000T05:30:00	2006-362T01:35:22	0	5.0	SPASS Rider			
CIRS_036IC_DSCALSHRT001_RIDER	2006-362T01:35:22	GMB_E036_Titan22-000T08:30:00	000T00:30:00	2006-362T02:05:22	4000	7.2	SPASS Rider			
CIRS_036TI_FIRNADMAP002_PRIME	2006-362T04:35:22	GMB_E036_Titan22-000T05:30:00	000T03:00:00	2006-362T07:35:22	2000	21.6	Prime	CIRS_FP1 to Titan	NEG_X to Sun	
CIRS_036TI_FIRNADMAP002_SI	2006-362T04:35:22	GMB_E036_Titan22-000T05:30:00	000T03:00:00	2006-362T07:35:22	0	4.0	SPASS Rider			
CIRS_036IC_DSCALSHRT002_RIDER	2006-362T07:35:22	GMB_E036_Titan22-000T02:30:00	000T00:30:00	2006-362T08:05:22	4000	7.2	SPASS Rider			
CIRS_036TI_FIRNADMAP004_ISS	2006-362T11:35:22	GMB_E036_Titan22+000T01:30:00	000T02:00:00	2006-362T13:35:22	4000	28.8	SPASS Rider			
CIRS_036TI_FIRNADMAP003_PRIME	2006-362T13:35:22	GMB_E036_Titan22+000T03:30:00	000T02:00:00	2006-362T15:35:22	2000	14.4	Prime	CIRS_FP1 to Titan	NEG_X to Sun	
CIRS_036TI_FIRNADMAP003_SI	2006-362T13:35:22	GMB_E036_Titan22+000T03:30:00	000T02:00:00	2006-362T15:35:22	0	3.0	SPASS Rider			
CIRS_036IC_DSCALSHRT003_RIDER	2006-362T15:35:22	GMB_E036_Titan22+000T05:30:00	000T00:30:00	2006-362T16:05:22	4000	7.2	SPASS Rider			
CIRS_036TI_FIRNADCMP002_PRIME	2006-362T18:35:22	GMB_E036_Titan22+000T08:30:00	000T02:30:00	2006-362T21:05:22	4000	36.0	Prime	CIRS_FP1 to Titan	NEG_X to Sun	
CIRS_036TI_FIRNADCMP002_SI	2006-362T18:35:22	GMB_E036_Titan22+000T08:30:00	000T02:30:00	2006-362T21:05:22	0	3.0	SPASS Rider			
CIRS_036IC_DSCAL1474_RIDER	2006-362T23:00:00		000T06:00:00	2006-363T05:00:00	4000	86.4	SPASS Rider			
ENGR_036SC_RSSKRWAF361_PPS	2006-361T03:14:00		000T00:05:04	2006-361T03:19:04	0	0.0	Non-SPASS			
ENGR_036SC_ROUTEREU002_CDS	2006-362T08:35:22	GMB_E036_Titan22-000T01:30:00	000T03:00:00	2006-362T11:35:22	227	2.5	Non-SPASS			
ENGR_036SC_DFPW363_PPS	2006-363T06:49:00		000T00:00:30	2006-363T06:49:30	0	0.0	Non-SPASS			
INMS_036SA_SURVEY002_RIDER	2006-361T14:19:00		000T07:51:22	2006-361T22:10:22	50	1.4	Non-SPASS			
INMS_036TI_T22INBD001_RSS	2006-361T22:10:22		000T10:49:51	2006-362T09:00:13	100	3.9	Non-SPASS			
INMS_036TI_T22CLOSE001_RSS	2006-362T09:00:13	E036_Titan22-000T01:00:00	000T02:00:00	2006-362T11:00:13	1498	10.8	Non-SPASS			
INMS_036TI_T22OUTBD001_RSS	2006-362T11:00:13	E036_Titan22+000T01:00:00	000T11:00:00	2006-362T22:00:13	100	4.0	Non-SPASS			
INMS_036SA_SURVEY003_RIDER	2006-362T22:00:13	E036_Titan22+000T12:00:00	000T08:48:47	2006-363T06:49:00	50	1.6	Non-SPASS			
ISS_036TI_MIDIRTMAP006_CIRS	2006-361T15:09:22	GMB_E036_Titan22-000T18:56:00	000T04:56:00	2006-361T20:05:22	0	20.0	SPASS Rider			
ISS_036TI_FIRNADMAP002_CIRS	2006-362T04:35:22	GMB_E036_Titan22-000T05:30:00	000T03:00:00	2006-362T07:35:22	0	20.0	SPASS Rider			
ISS_036TI_REGMAPNA001_PRIME	2006-362T11:35:22	GMB_E036_Titan22+000T01:30:00	000T02:00:00	2006-362T13:35:22	0	531.0	Prime	ISS_NAC to Titan	NEG_X to Sun	
ISS_036TI_FIRNADMAP003_CIRS	2006-362T13:35:22	GMB_E036_Titan22+000T03:30:00	000T02:00:00	2006-362T15:35:22	0	201.0	SPASS Rider			
ISS_036TI_FIRNADCMP003_CIRS	2006-362T18:35:22	GMB_E036_Titan22+000T08:30:00	000T02:30:00	2006-362T21:05:22	0	300.0	SPASS Rider			
MAG_036OT_SURVEY001_PRIME	2006-361T14:19:00		000T17:41:13	2006-362T08:00:13	600	38.2	Non-SPASS			
MAG_036TI_MAGTITAN001_PRIME	2006-362T08:00:13	E036_Titan22-000T02:00:00	000T04:00:00	2006-362T12:00:13	1976	28.5	Non-SPASS			
MAG_036OT_SURVEY004_PRIME	2006-362T12:00:13	E036_Titan22+000T02:00:00	000T18:48:47	2006-363T06:49:00	600	40.6	Non-SPASS			
MIMI_036CO_SURVEY004_RIDER	2006-361T05:00:01		001T03:05:21	2006-362T08:05:22	900	87.8	Non-SPASS			
MIMI_036TI_T22INBND002_CAPS	2006-362T08:05:22	GMB_E036_Titan22-000T02:00:00	000T01:00:00	2006-362T09:05:22	2000	7.2	SPASS Rider			
MIMI_036TI_T22CLOSE002_CAPS	2006-362T09:05:22	GMB_E036_Titan22-000T01:00:00	000T02:00:00	2006-362T11:05:22	2000	14.4	SPASS Rider			
MIMI_036TI_T22OUTBND002_CAPS	2006-362T11:05:22	GMB_E036_Titan22+000T01:00:00	000T01:00:00	2006-362T12:05:22	2000	7.2	SPASS Rider			
MIMI_036CO_SURVEY002_RIDER	2006-362T12:05:22	GMB_E036_Titan22+000T02:00:00	000T19:59:47	2006-363T08:05:09	900	64.8	Non-SPASS			
MP_033NA_SEQUENCE026_NA	2006-328T16:30:00	E033_SEQUENCE_026+00	041T21:20:00	2007-005T13:50:00	0	0.0	SPASS Note			
MP_035SA_REV036_NA	2006-356T23:11:46		016T05:27:33	2007-008T04:39:19	0	0.0	Non-SPASS			
MP_036TI_FLYBYT022_NA	2006-362T10:05:22		000T00:00:01	2006-362T10:05:23	0	0.0	SPASS Note			
MP_036SA_RPXDESCEN036_NA	2006-362T10:30:24		000T00:00:01	2006-362T10:30:25	0	0.0	Non-SPASS			
RPWS_036SA_OUTSURVEY003_PRIME	2006-361T14:19:00		001T16:30:00	2006-363T06:49:00	1310	191.0	Non-SPASS			
RPWS_036TI_TIINTRMED001_PRIME	2006-362T08:00:13	E036_Titan22-000T02:00:00	000T01:30:00	2006-362T09:30:13	12499.4	67.5	Non-SPASS			
RPWS_036TI_TICA001_PRIME	2006-362T09:30:13	E036_Titan22-000T00:30:00	000T01:00:00	2006-362T10:30:13	200002.2	720.0	Non-SPASS			
RPWS_036TI_TIINTRMED002_PRIME	2006-362T10:30:13	E036_Titan22+000T00:30:00	000T01:30:00	2006-362T12:00:13	12499.4	67.5	Non-SPASS			

TOL (con't)

RSS_036TI_THERMAL001_RSS	2006-362T00:05:22	GMB_E036_Titan22-000T10:00:00	000T02:00:00	2006-362T02:05:22	0	0.0	SPASS Rider			
RSS_036TI_GRAVITY001_PRIME	2006-362T01:35:22	GMB_E036_Titan22-000T08:30:00	000T03:00:00	2006-362T04:35:22	0	0.0	Prime	XBAND to Earth	NEG_X to NEP	In case of SRU violations: "...If it is not possible to suspend Star ID, we will be forced to return to the MAPS-unfriendly -X to Sun 2nd axis, which we know to be SRU-safe."
RSS_036TI_THERMAL002_RSS	2006-362T06:05:22	GMB_E036_Titan22-000T04:00:00	000T02:00:00	2006-362T08:05:22	0	0.0	SPASS Rider			
RSS_036TI_GRAVITY002_PRIME	2006-362T07:35:22	GMB_E036_Titan22-000T02:30:00	000T04:00:00	2006-362T11:35:22	0	0.0	Prime	XBAND to Earth	NEG_X to NEP	In case of SRU violations: "...If it is not possible to suspend Star ID, we will be forced to return to the MAPS-unfriendly -X to Sun 2nd axis, which we know to be SRU-safe."
RSS_036TI_THERMAL003_RSS	2006-362T14:05:22	GMB_E036_Titan22+000T04:00:00	000T02:00:00	2006-362T16:05:22	0	0.0	SPASS Rider			
RSS_036TI_GRAVITY003_PRIME	2006-362T15:35:22	GMB_E036_Titan22+000T05:30:00	000T03:00:00	2006-362T18:35:22	0	0.0	Prime	XBAND to Earth	NEG_X to NEP	In case of SRU violations: "...If it is not possible to suspend Star ID, we will be forced to return to the MAPS-unfriendly -X to Sun 2nd axis, which we know to be SRU-safe."
RSS_036TI_KADOWN002_RSS	2006-362T19:44:00		000T11:05:00	2006-363T06:49:00	0	0.0	SPASS Rider			
SP_036NA_M70OBSNON362_NA	2006-361T14:19:00		001T07:30:00	2006-362T21:49:00	0	0.0	Non-SPASS			
SP_036NA_TOSTSEG361_NA	2006-361T14:19:00		001T16:30:00	2006-363T06:49:00	0	0.0	SPASS Note			
SP_036TI_WAYPTTURN361_PRIME	2006-361T14:19:00		000T00:30:00	2006-361T14:49:00	0	0.0	New Waypoint	ISS_NAC to Titan	NEG_X to Sun	
SP_036NA_DEADTIME361_PRIME	2006-361T14:49:00		000T00:15:13	2006-361T15:04:13	0	0.0	Prime	ISS_NAC to Titan	NEG_X to Sun	
SP_036NA_M34BWGRSS361_SP	2006-361T21:08:00		000T08:10:00	2006-362T05:18:00	0	0.0	Non-SPASS			
SP_036NA_G34BWGRSS362_SP	2006-362T04:08:00		000T07:56:00	2006-362T12:04:00	0	0.0	Non-SPASS			
SP_036NA_C34BWGRSS362_SP	2006-362T12:08:00		000T06:50:00	2006-362T18:58:00	0	0.0	Non-SPASS			
SP_036NA_DEADTIME362_PRIME	2006-362T21:05:22	GMB_E036_Titan22+000T11:00:00	000T00:18:47	2006-362T21:24:09	0	0.0	Prime	ISS_NAC to Titan	NEG_X to Sun	
SP_036EA_DLTURN362_PRIME	2006-362T21:19:00		000T00:30:00	2006-362T21:49:00	0	0.0	Prime	XBAND to Earth	NEG_X to Sun	
SP_036EA_M70METNON362_PRIME	2006-362T21:49:00		000T09:00:00	2006-363T06:49:00	0	0.0	Prime	XBAND to Earth	Rolling	
SP_036NA_M34BWGRSS362_SP	2006-362T21:49:00		000T09:00:00	2006-363T06:49:00	0	0.0	Non-SPASS			
SP_036NA_M70METNON362_SP	2006-362T21:49:00		000T09:00:00	2006-363T06:49:00	0	0.0	Non-SPASS			
UVIS_036TI_FIRNADCMP003_CIRS	2006-361T20:05:22	GMB_E036_Titan22-000T14:00:00	000T05:30:00	2006-362T01:35:22	387.5	7.7	SPASS Rider			
UVIS_036TI_FIRNADMAP002_CIRS	2006-362T04:35:22	GMB_E036_Titan22-000T05:30:00	000T03:00:00	2006-362T07:35:22	1006.4	10.9	SPASS Rider			
UVIS_036TI_REGMAPNA001_ISS	2006-362T11:35:22	GMB_E036_Titan22+000T01:30:00	000T02:00:00	2006-362T13:35:22	5032	36.2	SPASS Rider			
UVIS_036TI_FIRNADMAP003_CIRS	2006-362T13:35:22	GMB_E036_Titan22+000T03:30:00	000T02:00:00	2006-362T15:35:22	1006.4	7.2	SPASS Rider			
UVIS_036TI_FIRNADCMP002_CIRS	2006-362T18:35:22	GMB_E036_Titan22+000T08:30:00	000T02:30:00	2006-362T21:05:22	1006.4	9.1	SPASS Rider			
UVIS_036SW_IPHSURVEY018_RIDER	2006-362T21:49:00		000T09:00:00	2006-363T06:49:00	76	2.5	Non-SPASS			
VIMS_036TI_NADIRCOMP001_CIRS	2006-361T20:05:22	GMB_E036_Titan22-000T14:00:00	000T05:30:00	2006-362T01:35:22	3434.3	68.0	SPASS Rider			
VIMS_036TI_TEMPMAP001_CIRS	2006-362T04:35:22	GMB_E036_Titan22-000T05:30:00	000T03:00:00	2006-362T07:35:22	3333.3	36.0	SPASS Rider			
VIMS_036TI_REGMAP001_ISS	2006-362T11:35:22	GMB_E036_Titan22+000T01:30:00	000T02:00:00	2006-362T13:35:22	13888.9	100.0	SPASS Rider			
VIMS_036TI_REGMAP002_CIRS	2006-362T13:35:22	GMB_E036_Titan22+000T03:30:00	000T02:00:00	2006-362T15:35:22	20833.3	150.0	SPASS Rider			
VIMS_036TI_FP1STARE001_CIRS	2006-362T18:35:22	GMB_E036_Titan22+000T08:30:00	000T02:30:00	2006-362T21:05:22	9444.4	85.0	SPASS Rider			

Data Volume

			OBSERVATION_PERIOD							DOWNLINK_PASS							
			P4						P5	RECORDED		PLAYBACK					
DOWNLINK PASS NAME	Start doy hh:mm	End doy hh:mm	START (Mb)	SCI (Mb)	HK+E (Mb)	TOTAL (Mb)	CPACTY (Mb)	MRGN (Mb)	OPNAV (Mb)	SCI (Mb)	ENGR (Mb)	TOTAL (Mb)	CPACTY (Mb)	MARGN (Mb)	NET_MARGN (Mb)	(%)	CAROVR (Mb)
SP_036EA_M34BWGNON362_PRIME	362 21:49	363 03:49	0	3361	110	3470	3569	99	0	159	35	3662	613	-3050	0	0%	3050
SP_036EA_G70METNON363_PRIME	363 03:49	363 06:49	3050	0	0	3050	3569	519	0	62	18	3129	1232	-1898	0	0%	1897

Rings will accept 1904Mb !

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	361 14:19	362 21:49	243.0	17.0	237.7	20.0	1072.0	87.9	117.9	0.0	1003.6	71.1	439.0	0.0	2.5	3311.5
OBSERVATION_SI	361 14:19	362 21:49	0.0	0.0	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.0
SP_036EA_M34BWGNON362_PRIME	362 21:49	363 03:49	21.6	3.2	69.4	1.1	0.0	13.0	19.4	0.0	28.3	1.6	0.0	0.0	0.0	157.6
SP_036EA_G70METNON363_PRIME	363 03:49	363 06:49	10.8	1.6	17.0	0.5	0.0	6.5	9.7	0.0	14.1	0.8	0.0	0.0	0.0	61.2
DAILY TOTAL SCIENCE	361 14:19	363 06:49	275.4	21.9	345.1	21.6	1072.0	107.3	147.1	0.0	1046.0	73.5	439.0	0.0		

Request	Riders	Start (SCET)	Start (Epoch)	Duration	End (SCET)	Primary	Secondary	Comments
Sequence S026, length = 42 ...		2006-328T16:30:00	E033_SEQUENCE_026+00	041T21:20:00	2007-005T13:50:00			
TOST rev 36 Segment		2006-361T14:19:00		001T16:30:00	2006-363T06:49:00			
SP_036TI_WAYPTTURN361_PRIME		2006-361T14:19:00		000T00:30:00	2006-361T14:49:00	ISS_NAC to Titan	NEG_X to Sun	
NEW WAYPOINT		**2006-361T14:49:00**		**001T16:00:00**	**2006-363T06:49:00**	**ISS_NAC to Titan**	**NEG_X to Sun**	
SP_036NA_DEADTIME361_PRIME		**2006-361T14:49:00**		**000T00:15:13**	**2006-361T15:04:13**	**ISS_NAC to Titan**	**NEG_X to Sun**	
CIRS_036TI_MIDIRTMAP006_PRIME	C, I	2006-361T15:04:22	GMB_E036_Titan22-000T19:01:00	000T05:01:00	2006-361T20:05:22	CIRS_FPB to Titan	POS_X to North_Pole_Dir	
CIRS_036TI_FIRNADCMP003_PRIME	C, R, U, V	2006-361T20:05:22	GMB_E036_Titan22-000T14:00:00	000T05:30:00	2006-362T01:35:22	CIRS_FP1 to Titan	NEG_X to Sun	
RSS_036TI_GRAVITY001_PRIME	C, R	2006-362T01:35:22	GMB_E036_Titan22-000T08:30:00	000T03:00:00	2006-362T04:35:22	XBAND to Earth	NEG_X to NEP	In case of SRU violations: "...If it is not possible to suspend Star ID, we will be forced to return to the MAPS-unfriendly -X to Sun 2nd axis, which we know to be SRU-safe."
CIRS_036TI_FIRNADMAP002_PRIME	C, I, R, U, V	2006-362T04:35:22	GMB_E036_Titan22-000T05:30:00	000T03:00:00	2006-362T07:35:22	CIRS_FP1 to Titan	NEG_X to Sun	
RSS_036TI_GRAVITY002_PRIME	C, M, R	2006-362T07:35:22	GMB_E036_Titan22-000T02:30:00	000T04:00:00	2006-362T11:35:22	XBAND to Earth	NEG_X to NEP	In case of SRU violations: "...If it is not possible to suspend Star ID, we will be forced to return to the MAPS-unfriendly -X to Sun 2nd axis, which we know to be SRU-safe."
36TI (t) T22 TITAN Inbound...		2006-362T10:05:22		000T00:00:01	2006-362T10:05:23			
ISS_036TI_REGMAPNA001_PRIME	C, M, U, V	2006-362T11:35:22	GMB_E036_Titan22+000T01:30:00	000T02:00:00	2006-362T13:35:22	ISS_NAC to Titan	NEG_X to Sun	
CIRS_036TI_FIRNADMAP003_PRIME	C, I, R, U, V	2006-362T13:35:22	GMB_E036_Titan22+000T03:30:00	000T02:00:00	2006-362T15:35:22	CIRS_FP1 to Titan	NEG_X to Sun	
RSS_036TI_GRAVITY003_PRIME	C, R	2006-362T15:35:22	GMB_E036_Titan22+000T05:30:00	000T03:00:00	2006-362T18:35:22	XBAND to Earth	NEG_X to NEP	In case of SRU violations: "...If it is not possible to suspend Star ID, we will be forced to return to the MAPS-unfriendly -X to Sun 2nd axis, which we know to be SRU-safe."
CIRS_036TI_FIRNADCMP002_PRIME	C, I, R, U, V	2006-362T18:35:22	GMB_E036_Titan22+000T08:30:00	000T02:30:00	2006-362T21:05:22	CIRS_FP1 to Titan	NEG_X to Sun	
SP_036NA_DEADTIME362_PRIME	**R**	**2006-362T21:05:22**	**GMB_E036_Titan22+000T11:00:00**	**000T00:13:38**	**2006-362T21:19:00**	**ISS_NAC to Titan**	**NEG_X to Sun**	
SP_036EA_DLTURN362_PRIME	R	2006-362T21:19:00		000T00:30:00	2006-362T21:49:00	XBAND to Earth	NEG_X to Sun	
SP_036EA_M34BWGNON362_PRIME	C, R	2006-362T21:49:00		000T06:00:00	2006-363T03:49:00	XBAND to Earth	Rolling	
SP_036EA_G70METNON363_PRIME	C, R	2006-363T03:49:00		000T03:00:00	2006-363T06:49:00	XBAND to Earth	Rolling	

Telemetry Mode Report

EPOCH RELATIVE	UTC	DURATION	TELEMETRY MODE	REQUEST
	2006-361T14:19:00.000	19:16:22	S_N_ER_3	SP_036NA_M70OBSNON362_NA
GMB_E036_Titan22-000T00:30:00	2006-362T09:35:22.000	01:00:00	S_N_ER_2	SP_036NA_M70OBSNON362_NA
GMB_E036_Titan22+000T00:30:00	2006-362T10:35:22.000	11:13:38	S_N_ER_3	SP_036NA_M70OBSNON362_NA
	2006-362T21:49:00.000	00:45:00	RTE_N_SPB_33180	SP_036EA_M34BWGNON362_PRIME
	2006-362T22:34:00.000	05:15:00	RTE_N_SPB_35550	SP_036EA_M34BWGNON362_PRIME
	2006-363T03:49:00.000	00:15:00	RTE_N_SPB_82950	SP_036EA_G70METNON363_PRIME
	2006-363T04:04:00.000	00:30:00	RTE_N_SPB_99540	SP_036EA_G70METNON363_PRIME
	2006-363T04:34:00.000	00:15:00	RTE_N_SPB_124425	SP_036EA_G70METNON363_PRIME
	2006-363T04:49:00.000	01:00:00	RTE_N_SPB_142200	SP_036EA_G70METNON363_PRIME
	2006-363T05:49:00.000	01:00:00	RTE_N_SPB_165900	SP_036EA_G70METNON363_PRIME

T22 DSN

CASSINI DOWNLINK/DSN COVERAGE SUMMARY for T22_recrec.apf on 2006-Jul-27 16:39:18
(+ = 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
M34BWGRSS361	----------	----------	-----	(no downlink)	55	361T21:08-05:18	361T22:15-06:30	08:15	90/15	RSS TI G N750
G34BWGRSS362	----------	----------	-----	(no downlink)	25	362T04:08-12:04	362T05:15-13:15	08:00	90/15	RSS TI g N748
C34BWGRSS362	----------	----------	-----	(no downlink)	34	362T12:08-18:58	362T13:15-20:10	06:55	90/15	RSS TI G N750
M34BWGNON362	362T21:49-03:49	362T23:00-05:00	06:00	33,35	55	362T21:49-06:49	362T23:00-08:00	09:00	90/15	RSS Ka d N750
+G70METNON363	363T03:49-06:49	363T05:00-08:00	03:00	82,99,124,142,165	14	363T03:49-06:49	363T05:00-08:00	03:00	60/15	Ranging_ X_up_on

NAV

CASSINI NAVIGATION SUMMARY for T22_recrec.apf on 2006-Jul-27 16:39:36
(+ = pass overlaps with previous pass; * = conflicts with DSN weekly maintenance; o = overlaps occultation)

ON EARTH-LINE FOR DOWNLINK			TRACKING SUPPORT						
NAME	START_TO_END SCET	DUR hh:mm	ID	BOT_TO_EOT UTC	GND_UPLINK UTC	ARRIV_SC SCET	RCV_GND ERT	2-WAY hh:mm	DOP OK?	RNG OK?
-(missing)--	----------	-----	gap in doppler data of 35 hours						NO	NO
M34BWGNON362	362T21:49-03:49	06:00	55	362T23:00-08:00	23:10-07:55	00:21-03:49	01:32-05:00	03:28	Y?	YES
+G70METNON363	363T03:49-06:49	03:00	14	363T05:00-08:00	05:10-07:55	06:21-06:49	07:32-08:00	00:28	NO	Y?

Open Issues

- None

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.	C		
B. All initial downlink attitudes have been checked as waypoints.	C		
2. All turns to and from waypoints checked for violations and margins. ☐CAPS ☐CDA ☐CIRS ☐INMS ☐ISS ☐MIMI ☐MAG ☐NAV ☐RADAR ☐RPWS ☐RSS ☐UVIS ☐VIMS 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	N/A		
B. ±3 hours from targeted Titan Flyby	C		
C. OpNavs preceding/following a downlink	N/A		
4. Minimum 30. min SPASS Prime request duration outside ±5 min. 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 T21 is 15 min. according to memo dated .	
6. Waypoints changes are ?3 per day	C		
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 90º RWA turns and/or 10 min. for RCS turns?	No	9 min was used for an RCS turn

(DOUBLE-CLICK TO MAKE CHANGES)