

TOST: Aftermarket Package 047TI (T33)

Segment Boundary 2007-180T02:05:00 – 2007-182T02:35:00

Titan C/A= 2007-180T17:02:41, Altitude = 1948 km

Epoch = GMB_E047_Titan33

January 31, 2007

Kim Steadman

Douglas Equils, Candy Hansen, Trina Ray, and Amanda Hendrix

047TI (T33)

- Science to be accomplished during this flyby:
 - ISS will be performing high-resolution (120-240 m/pixel) imaging of the equatorial bright-dark boundary around 1 N, 215-210 W (low phase angle coverage - 20-15°), and will do regional-scale (240-500 m/pixel) mapping of the equatorial bright-dark boundary around 1 N, 210 W (very low phase angle ~13°).
 - VIMS will obtain a global composition map at nearly full illumination, and will perform monitoring for cloud motion and formation.
 - RSS will perform one of a set of four critical Titan measurements for understanding of interior structure.
 - CIRS will do high spectral resolution measurements of the atmosphere.
 - UVIS will perform EUV/FUV dayside and nightside scans as part of a program to monitor Titan at varying hour angles and solar phase angles.

047TI (T33) Timeline

C/A= 180T17:02:41

Start Time	End Time	Prime Activity	Obs. Detail	Op Mode	TLM Mode	Comments
180T02:05	180T02:35	SP Turn to waypoint	XBAND to EA, +Y to Sun	DFPW Normal	S_N_ER_3	
180T02:35	180T02:50	OD Uncertainty Dead Time		DFPW Normal	S_N_ER_3	
-14:15		begin custom period				
-14:15	-13:00	CIRS		DFPW Normal	S_N_ER_3	Template N
-13:00	-10:00	CIRS	FP1	DFPW Normal/RSS_K_RWAF (at TI-11:00)	S_N_ER_3	Template N; CIRS leaves off at NAC to LAT_LON (10N, 345W, 0km). +X to NTP
-10:00	-09:00	ISS	Photometry	RSS_K_RWAF	S_N_ER_3	Template N
-09:00		end custom period				
-09:00	-05:00	RSS	Gravity	RSS_K_RWAF	S_N_ER_3	
-05:00	-02:00	UVIS	EUVFUV	RSS_K_RWAF	S_N_ER_3	Template U
-02:00	+00:45	RSS	Gravity	RSS_K_RWAF	S_N_ER_2	MAPS specify secondary axis
+00:45		begin custom period				
+00:45	+02:00	ISS		RSS_K_RWAF	S_N_ER_3	
+02:00	+04:00	ISS	Regional Map	RSS_K_RWAF	S_N_ER_3	Template J; ISS leaves off at NAC to Titan, -X to Sun (-22.4, 0, -11.2 offset)
+04:00	+05:15	CIRS		RSS_K_RWAF	S_N_ER_3	Template J
+05:15		end custom period				
+05:15	+08:45	RSS	Gravity	RSS_K_RWAF	S_N_ER_3	Turn to RSS attitude
+08:45	+09:15	SP Turn to waypoint	NAC to Titan, +X to NTP	DFPW Normal	S_N_ER_3	
+09:15	+14:00	CIRS		DFPW Normal	S_N_ER_3	Template C
+14:00	+20:00	VIMS	Global Map	DFPW Normal	S_N_ER_3	Template B (modified)
181T13:06	181T13:21	OD Uncertainty Dead Time		DFPW Normal	S_N_ER_3	
181T13:21	181T13:51	SP Turn to Earth for downlink		DFPW Normal	S_N_ER_3	
181T13:51	182T02:35	Goldstone 70-m		DFPW Normal	RTE_N_SPB	10 hrs needed to return 2 SSRs

Request	Start Time	Epoch	Duration	End Time	Rate	Mb	SPASS Type	Primary Pointing
CDA_047DR_DATA005_RIDER	2007-179T04:05:48		001T01:54:12	2007-180T06:00:00	3668	342.048	Non-SPASS	Primary Pointing
CAPS_047SA_SURVEY002_RIDER	2007-179T15:40:00		000T23:22:41	2007-180T15:02:41	1000	84.161	Non-SPASS	
CDA_047RI_1400RINGM029_RIDER	2007-180T00:57:20		000T02:00:00	2007-180T02:57:20	524	3.773	Non-SPASS	
CDA_047DR_1500DUST217_RIDER	2007-180T02:58:15		000T03:23:29	2007-180T06:21:44	524	6.398	Non-SPASS	
CDA_047RI_1600RINGM031_RIDER	2007-180T06:22:48		000T02:00:00	2007-180T08:22:48	524	3.773	Non-SPASS	
CDA_047DR_1700DUST376_RIDER	2007-180T08:23:50		001T00:17:35	2007-181T08:41:25	314.4	27.496	Non-SPASS	
CAPS_047TI_T33CLOSE001_PRIME	2007-180T15:02:41	GMB_E047_Titan33-000T02:00:00	000T03:00:00	2007-180T18:02:41	16000	172.8	SPASS Rider	
CAPS_047TI_T33OUTBND001_PRIME	2007-180T18:02:41	GMB_E047_Titan33+000T01:00:00	000T01:00:00	2007-180T19:02:41	4000	14.4	SPASS Rider	
CAPS_047SA_SURVEY003_RIDER	2007-180T19:02:41	GMB_E047_Titan33+000T02:00:00	000T21:55:59	2007-181T16:58:40	1000	78.959	Non-SPASS	
CDA_047HY_2400HYORX030_RIDER	2007-181T08:42:27		000T02:00:00	2007-181T10:42:27	524	3.773	Non-SPASS	
CDA_047DR_2500DUST377_RIDER	2007-181T10:43:23		008T22:56:17	2007-190T09:39:40	149.9	115.961	Non-SPASS	
CAPS_047SU_MAGBOUND002_PRIME	2007-181T17:01:00		008T16:53:00	2007-190T09:54:00	3000	2255.94	SPASS Rider	
CIRS_047TI_FIRNADCMP001_PRIME	2007-180T02:47:41	GMB_E047_Titan33-000T14:15:00	000T04:15:00	2007-180T07:02:41	4000	61.2	Prime	CIRS_FP1 to Titan
CIRS_047TI_FIRNADCMP001_SI	2007-180T02:47:41	GMB_E047_Titan33-000T14:15:00	000T04:15:00	2007-180T07:02:41	0	5	SPASS Rider	
CIRS_047TI_PHOTOMWAC001_ISS	2007-180T07:02:41	GMB_E047_Titan33-000T10:00:00	000T01:00:00	2007-180T08:02:41	4000	14.4	SPASS Rider	
CIRS_047TI_EUVFUV001_UVIS	2007-180T12:02:41	GMB_E047_Titan33-000T05:00:00	000T03:00:00	2007-180T15:02:41	4000	43.2	SPASS Rider	
CIRS_047TI_HIRESNAC001_VIMS	2007-180T17:47:41	GMB_E047_Titan33+000T00:45:00	000T01:15:00	2007-180T19:02:41	4000	18	SPASS Rider	
CIRS_047TI_REGMAP001_ISS	2007-180T19:02:41	GMB_E047_Titan33+000T02:00:00	000T02:00:00	2007-180T21:02:41	4000	28.8	SPASS Rider	
CIRS_047TI_FIRNADMAP002_PRIME	2007-180T21:02:41	GMB_E047_Titan33+000T04:00:00	000T01:15:00	2007-180T22:17:41	4000	18	Prime	CIRS_FP1 to Titan
CIRS_047TI_FIRNADMAP002_SI	2007-180T21:02:41	GMB_E047_Titan33+000T04:00:00	000T01:15:00	2007-180T22:17:41	0	1	SPASS Rider	
CIRS_047TI_FIRNADCMP002_PRIME	2007-181T02:17:41	GMB_E047_Titan33+000T09:15:00	000T04:45:00	2007-181T07:02:41	4000	68.4	Prime	CIRS_FP1 to Titan
CIRS_047TI_FIRNADCMP002_SI	2007-181T02:17:41	GMB_E047_Titan33+000T09:15:00	000T04:45:00	2007-181T07:02:41	0	5	SPASS Rider	
CIRS_047TI_GLOBMAPFA002_VIMS	2007-181T07:02:41	GMB_E047_Titan33+000T14:00:00	000T06:00:00	2007-181T13:02:41	4000	86.4	SPASS Rider	
CIRS_047IC_DSCAL2568_RIDER	2007-181T17:20:00		000T10:00:00	2007-182T03:20:00	4000	144	SPASS Rider	
ENGR_047EA_MECVROPN001_THERM	2007-179T16:15:00		000T00:06:10	2007-179T16:21:10	0	0	Non-SPASS	
ENGR_047SC_ROUTEREU001_CDS	2007-180T15:32:41	GMB_E047_Titan33-000T01:30:00	000T03:00:00	2007-180T18:32:41	227	2.452	Non-SPASS	
ENGR_047SC_CRPCB181_AACS	2007-181T14:01:00		000T00:10:00	2007-181T14:11:00	0	0	Non-SPASS	
ENGR_047SC_DFPW181_PPS	2007-182T02:35:00		000T00:00:30	2007-182T02:35:30	0	0	Non-SPASS	
INMS_047SA_SURVEY005_RIDER	2007-179T17:46:00		000T11:16:41	2007-180T05:02:41	50	2.03	Non-SPASS	
INMS_047TI_T33INBD001_RSS	2007-180T05:02:41	GMB_E047_Titan33-000T12:00:00	000T11:00:00	2007-180T16:02:41	100	3.96	Non-SPASS	
INMS_047TI_T33CLOSE001_CAPS	2007-180T16:02:41	GMB_E047_Titan33-000T01:00:00	000T02:00:00	2007-180T18:02:41	1498	10.786	Non-SPASS	
INMS_047TI_T33OUTBD001_RSS	2007-180T18:02:41	GMB_E047_Titan33+000T01:00:00	000T11:00:00	2007-181T05:02:41	100	3.96	Non-SPASS	
INMS_047SA_SURVEY006_RIDER	2007-181T05:02:41	GMB_E047_Titan33+000T12:00:00	000T12:02:36	2007-181T17:05:17	50	2.168	Non-SPASS	
INMS_047SU_MAGBOUND002_CAPS	2007-181T17:05:13		000T00:40:47	2007-181T17:46:00	100	0.245	Non-SPASS	
INMS_047SU_MAGBOUND005_CAPS	2007-181T17:46:00		000T14:14:00	2007-182T08:00:00	100	5.124	Non-SPASS	
ISS_047TI_FIRNADCMP001_CIRS	2007-180T02:47:41	GMB_E047_Titan33-000T14:15:00	000T04:15:00	2007-180T07:02:41	0	30	SPASS Rider	
ISS_047TI_PHOTOMWAC001_PRIME	2007-180T07:02:41	GMB_E047_Titan33-000T10:00:00	000T01:00:00	2007-180T08:02:41	0	30	Prime	ISS_NAC to Titan
ISS_047TI_EUVFUV001_UVIS	2007-180T12:02:41	GMB_E047_Titan33-000T05:00:00	000T03:00:00	2007-180T15:02:41	0	50	SPASS Rider	
ISS_047TI_HIRESNAC001_VIMS	2007-180T17:47:41	GMB_E047_Titan33+000T00:45:00	000T01:15:00	2007-180T19:02:41	0	306	SPASS Rider	
ISS_047TI_REGMAP001_PRIME	2007-180T19:02:41	GMB_E047_Titan33+000T02:00:00	000T02:00:00	2007-180T21:02:41	0	432	Prime	ISS_NAC to Titan
ISS_047TI_FIRNADMAP002_CIRS	2007-180T21:02:41	GMB_E047_Titan33+000T04:00:00	000T01:15:00	2007-180T22:17:41	0	10	SPASS Rider	
ISS_047TI_FIRNADCMP002_CIRS	2007-181T02:17:41	GMB_E047_Titan33+000T09:15:00	000T04:45:00	2007-181T07:02:41	0	30	SPASS Rider	
ISS_047TI_GLOBMAPFA002_VIMS	2007-181T07:02:41	GMB_E047_Titan33+000T14:00:00	000T06:00:00	2007-181T13:02:41	0	10	SPASS Rider	

Request	Start Time	Epoch	Duration	End Time	Rate	Mb	SPASS Type	Primary Pointing
MAG_047OT_SURVEY004_PRIME	2007-180T02:05:00		000T12:57:41	2007-180T15:02:41	600	27.997	Non-SPASS	
MAG_047TI_MAGTITAN001_PRIME	2007-180T15:02:41	GMB_E047_Titan33-000T02:00:00	000T04:00:00	2007-180T19:02:41	1976	28.454	Non-SPASS	
MAG_047OT_SURVEY005_PRIME	2007-180T19:02:41	GMB_E047_Titan33+000T02:00:00	000T16:32:15	2007-181T11:34:56	600	35.721	Non-SPASS	
MAG_047SU_MAGBOUND001_MAPS	2007-181T11:34:56		000T15:00:04	2007-182T02:35:00	1976	106.712	Non-SPASS	
MIMI_047CO_SURVEY008_RIDER	2007-179T17:46:01		000T21:16:40	2007-180T15:02:41	900	68.94	Non-SPASS	
MIMI_047TI_T33INBND001_CAPS	2007-180T15:02:41	GMB_E047_Titan33-000T02:00:00	000T01:00:00	2007-180T16:02:41	2000	7.2	SPASS Rider	
MIMI_047TI_T33CLOSE001_CAPS	2007-180T16:02:41	GMB_E047_Titan33-000T01:00:00	000T02:00:00	2007-180T18:02:41	2000	14.4	SPASS Rider	
MIMI_047TI_T33OUTBND001_CAPS	2007-180T18:02:41	GMB_E047_Titan33+000T01:00:00	000T00:55:59	2007-180T18:58:40	2000	6.718	SPASS Rider	
MIMI_047CO_SURVEY005_RIDER	2007-180T19:01:00		000T16:33:56	2007-181T11:34:56	1200	71.563	Non-SPASS	
MIMI_047SU_MAGBOUND002_RIDER	2007-181T11:34:56		000T06:11:04	2007-181T17:46:00	1814	40.387	SPASS Rider	
MIMI_047SU_MAGBOUND003_RIDER	2007-181T17:46:01		000T08:48:59	2007-182T02:35:00	1800	57.13	SPASS Rider	
MP_046NA_SEQUENCE031_NA	2007-162T03:10:00	E046_SEQUENCE_031+000T00:00:00	1032T21:56:00	2007-195T01:06:00	0	0	SPASS Note	
MP_046NA_DSS63DOWN002_NA	2007-163T00:00:00		096T23:59:59	2007-259T23:59:59	0	0	Non-SPASS	
MP_046NA_DSS63DOWN003_NA	2007-163T00:00:00		097T00:00:00	2007-260T00:00:00	0	0	Non-SPASS	
MP_046SA_REV047_NA	2007-171T01:15:51		019T08:49:51	2007-190T10:05:42	0	0	Non-SPASS	
MP_047TI_FLYBYT033_NA	2007-180T17:02:41		000T00:00:01	2007-180T17:02:42	0	0	SPASS Note	
RPWS_047SA_INSURVEY004_PRIME	2007-180T02:05:00		000T01:10:00	2007-180T03:15:00	1310	5.502	Non-SPASS	
RPWS_047SA_OUTSURVEY002_PRIME	2007-180T03:15:00		001T08:19:56	2007-181T11:34:56	1310	152.48	Non-SPASS	
RPWS_047TI_TIINTRMED001_PRIME	2007-180T15:02:41	GMB_E047_Titan33-000T02:00:00	000T01:30:00	2007-180T16:32:41	12499	67.497	Non-SPASS	
RPWS_047TI_TICA001_PRIME	2007-180T16:32:41	GMB_E047_Titan33-000T00:30:00	000T01:00:00	2007-180T17:32:41	1E+05	360.004	Non-SPASS	
RPWS_047TI_TIINTRMED002_PRIME	2007-180T17:32:41	GMB_E047_Titan33+000T00:30:00	000T01:30:00	2007-180T19:02:41	12499	67.497	Non-SPASS	
RPWS_047SU_MAGBOUND003_CAPS	2007-181T11:34:56		000T15:00:04	2007-182T02:35:00	9000	486.036	Non-SPASS	
RSS_047TI_THERMAL001_RSS	2007-180T06:02:41	GMB_E047_Titan33-000T11:00:00	000T02:00:00	2007-180T08:02:41	0	0	SPASS Rider	
RSS_047TI_GRAVITY001_PRIME	2007-180T08:02:41	GMB_E047_Titan33-000T09:00:00	000T04:00:00	2007-180T12:02:41	0	0	Prime	XBAND to Earth
RSS_047TI_THERMAL002_RSS	2007-180T13:02:41	GMB_E047_Titan33-000T04:00:00	000T02:00:00	2007-180T15:02:41	0	0	SPASS Rider	
RSS_047TI_GRAVITY002_PRIME	2007-180T15:02:41	GMB_E047_Titan33-000T02:00:00	000T02:45:00	2007-180T17:47:41	0	0	Prime	XBAND to Earth
RSS_047TI_THERMAL003_RSS	2007-180T20:17:41	GMB_E047_Titan33+000T03:15:00	000T02:00:00	2007-180T22:17:41	0	0	SPASS Rider	
RSS_047TI_GRAVITY003_PRIME	2007-180T22:17:41	GMB_E047_Titan33+000T05:15:00	000T03:30:00	2007-181T01:47:41	0	0	Prime	XBAND to Earth
RSS_047TI_KADOWN002_RSS	2007-181T11:46:00		000T04:49:00	2007-181T16:35:00	0	0	SPASS Rider	
RSS_047TI_KADOWN003_RSS	2007-181T14:08:00		000T12:30:00	2007-182T02:38:00	0	0	SPASS Rider	
SP_047NA_G34BWGRSS179_SP	2007-179T16:03:00		000T10:05:00	2007-180T02:08:00	0	0	Non-SPASS	
SP_047EA_WAYPTTURN481_PRIME	2007-180T02:05:00		000T00:30:00	2007-180T02:35:00	0	0	New Waypoint	XBAND to Earth
SP_047NA_G70OBSNON181_NA	2007-180T02:05:00		001T11:46:00	2007-181T13:51:00	0	0	Non-SPASS	
SP_047NA_TOSTSEG180_NA	2007-180T02:05:00		002T00:30:00	2007-182T02:35:00	0	0	SPASS Note	
SP_047TI_DEADTIME180_PRIME	2007-180T02:35:00		000T00:12:41	2007-180T02:47:41	0	0	Prime	NEG_Z to Earth
SP_047NA_BEGCUSTOM180_NA	2007-180T02:47:41	GMB_E047_Titan33-000T14:15:00	000T00:01:00	2007-180T02:48:41	0	0	SPASS Note	
SP_047NA_C34BWGRSS180_SP	2007-180T04:41:00		000T03:48:00	2007-180T08:29:00	0	0	Non-SPASS	
SP_047NA_M34BWGRSS180_SP	2007-180T07:52:00		000T10:23:00	2007-180T18:15:00	0	0	Non-SPASS	
SP_047NA_ENDCUSTOM180_NA	2007-180T08:02:41	GMB_E047_Titan33-000T09:00:00	000T00:01:00	2007-180T08:03:41	0	0	SPASS Note	
SP_047NA_G34BWGRSS182_SP	2007-180T15:23:00		000T11:15:00	2007-181T02:38:00	0	0	Non-SPASS	
SP_047NA_BEGCUSTOM580_NA	2007-180T17:47:41	GMB_E047_Titan33+000T00:45:00	000T00:01:00	2007-180T17:48:41	0	0	SPASS Note	
SP_047NA_G34BWG2ND180_SP	2007-180T21:38:00		000T05:00:00	2007-181T02:38:00	0	0	Non-SPASS	
SP_047NA_ENDCUSTOM580_NA	2007-180T22:17:41	GMB_E047_Titan33+000T05:15:00	000T00:01:00	2007-180T22:18:41	0	0	SPASS Note	
SP_047NA_C34BWGRSS181_SP	2007-180T23:28:00		000T03:10:00	2007-181T02:38:00	0	0	Non-SPASS	
SP_047TI_WAYPTTURN181_PRIME	2007-181T01:47:41	GMB_E047_Titan33+000T08:45:00	000T00:30:00	2007-181T02:17:41	0	0	New Waypoint	ISS_NAC to Titan
SP_047TI_DEADTIME181_PRIME	2007-181T13:02:41	GMB_E047_Titan33+000T20:00:00	000T00:18:19	2007-181T13:21:00	0	0	Prime	ISS_NAC to Titan
SP_047EA_DLTURN181_PRIME	2007-181T13:21:00		000T00:30:00	2007-181T13:51:00	0	0	Prime	XBAND to Earth
SP_047NA_M34BWGRSS181_SP	2007-181T13:48:00		000T03:00:00	2007-181T16:48:00	0	0	Non-SPASS	
SP_047EA_M34HEFNON181_PRIME	2007-181T13:51:00		000T02:44:00	2007-181T16:35:00	0	0	Prime	XBAND to Earth
SP_047NA_M34HEFNON181_SP	2007-181T13:51:00		000T02:54:00	2007-181T16:45:00	0	0	Non-SPASS	
SP_047NA_G70ARR2ND181_SP	2007-181T16:15:00		000T10:20:00	2007-182T02:35:00	0	0	Non-SPASS	
SP_047EA_G70ARRNON181_PRIME	2007-181T16:35:00		000T10:00:00	2007-182T02:35:00	0	0	Prime	XBAND to Earth
SP_047NA_G70ARRNON181_SP	2007-181T16:35:00		000T10:00:00	2007-182T02:35:00	0	0	Non-SPASS	

Request	Start Time	Epoch	Duration	End Time	Rate	Mb	SPASS Type	Primary Pointing
UVIS_047TI_FIRNADCMP001_CIRS	2007-180T02:02:41	GMB_E047_Titan33-000T15:00:00	000T05:00:00	2007-180T07:02:41	1006	18.115	SPASS Rider	
UVIS_047SA_PHOTOMWAC001_ISS	2007-180T07:02:41	GMB_E047_Titan33-000T10:00:00	000T01:00:00	2007-180T08:02:41	1006	3.623	SPASS Rider	
UVIS_047TI_EUVFUV001_PRIME	2007-180T12:02:41	GMB_E047_Titan33-000T05:00:00	000T03:00:00	2007-180T15:02:41	5032	54.346	Prime	ISS_NAC to Titan
UVIS_047SA_REGMAP001_ISS	2007-180T19:02:41	GMB_E047_Titan33+000T02:00:00	000T02:00:00	2007-180T21:02:41	5032	36.23	SPASS Rider	
UVIS_047TI_FIRNADMAP002_CIRS	2007-180T21:02:41	GMB_E047_Titan33+000T04:00:00	000T01:15:00	2007-180T22:17:41	1006	4.529	SPASS Rider	
UVIS_047TI_FIRNADCMP002_CIRS	2007-181T02:17:41	GMB_E047_Titan33+000T09:15:00	000T04:45:00	2007-181T07:02:41	1006	17.209	SPASS Rider	
UVIS_047TI_GLOMAPFA002_VIMS	2007-181T07:02:41	GMB_E047_Titan33+000T14:00:00	000T06:00:00	2007-181T13:02:41	1006	21.738	SPASS Rider	
UVIS_047SW_IPHSURVEY019_RIDER	2007-181T16:35:00		000T10:00:00	2007-182T02:35:00	76	2.735	Non-SPASS	
VIMS_047TI_TEMPMP001_CIRS	2007-180T02:47:41	GMB_E047_Titan33-000T14:15:00	000T04:15:00	2007-180T07:02:41	2092	32	SPASS Rider	
VIMS_047TI_FIRNADCMP001_CIRS	2007-180T04:02:41	GMB_E047_Titan33-000T13:00:00	000T03:00:00	2007-180T07:02:41	3333	36	SPASS Rider	
VIMS_047TI_PHOT001_ISS	2007-180T07:02:41	GMB_E047_Titan33-000T10:00:00	000T01:00:00	2007-180T08:02:41	11111	40	SPASS Rider	
VIMS_047TI_HIRESNAC001_PRIME	2007-180T17:47:41	GMB_E047_Titan33+000T00:45:00	000T01:15:00	2007-180T19:02:41	8889	40	Prime	VIMS_IR to Titan
VIMS_047TI_REGMAP003_ISS	2007-180T19:02:41	GMB_E047_Titan33+000T02:00:00	000T02:00:00	2007-180T21:02:41	11111	80	SPASS Rider	
VIMS_047TI_FIRNADMAP002_CIRS	2007-180T21:02:41	GMB_E047_Titan33+000T04:00:00	000T01:15:00	2007-180T22:17:41	6667	30	SPASS Rider	
VIMS_047TI_MIRLMBINT001_CIRS	2007-181T02:02:41	GMB_E047_Titan33+000T09:00:00	000T04:45:00	2007-181T06:47:41	3158	54	SPASS Rider	
VIMS_047TI_GLOMAPFA002_PRIME	2007-181T07:02:41	GMB_E047_Titan33+000T14:00:00	000T06:00:00	2007-181T13:02:41	5556	120	Prime	ISS_NAC to Titan

047Ti T33 Attitude Strategy

Request	Riders	Start (SCET)	Start (Epoch)	Duration	End (SCET)	Primary
Sequence S031, length = 33 ...		2007-162T03:10:00	E046_SEQUENCE_031+000T	032T21:56:00	2007-195T01:06:00	
TOST rev 47 Segment		2007-180T02:05:00		002T00:30:00	2007-182T02:35:00	
SP_047EA_WAYPTTURN481_PRIME	U	2007-180T02:05:00		000T00:30:00	2007-180T02:35:00	XBAND to Earth
NEW WAYPOINT		2007-180T02:35:00		000T23:42:41	2007-181T02:17:41	XBAND to Earth
SP_047TI_DEADTIME180_PRIME	U	2007-180T02:35:00		000T00:12:41	2007-180T02:47:41	NEG_Z to Earth
Begin Custom Period		2007-180T02:47:41	GMB_E047_Titan33-000T14:	000T00:01:00	2007-180T02:48:41	XBAND to Earth
CIRS_047TI_FIRNADCMP001_PRIME	C, I, R, U, V	2007-180T02:47:41	GMB_E047_Titan33-000T14:1	000T04:15:00	2007-180T07:02:41	CIRS_FP1 to Titan
ISS_047TI_PHOTOMWAC001_PRIME	C, R, U, V	2007-180T07:02:41	GMB_E047_Titan33-000T10:0	000T01:00:00	2007-180T08:02:41	ISS_NAC to Titan
End Custom Period		2007-180T08:02:41	GMB_E047_Titan33-000T09:	000T00:01:00	2007-180T08:03:41	XBAND to Earth
RSS_047TI_GRAVITY001_PRIME		2007-180T08:02:41	GMB_E047_Titan33-000T09:0	000T04:00:00	2007-180T12:02:41	XBAND to Earth
UVIS_047TI_EUVFUV001_PRIME	C, I, R	2007-180T12:02:41	GMB_E047_Titan33-000T05:0	000T03:00:00	2007-180T15:02:41	ISS_NAC to Titan
RSS_047TI_GRAVITY002_PRIME	M	2007-180T15:02:41	GMB_E047_Titan33-000T02:0	000T02:45:00	2007-180T17:47:41	XBAND to Earth
47TI (t) T33 TITAN outboun...		2007-180T17:02:41		000T00:00:01	2007-180T17:02:42	
Begin Custom Period		2007-180T17:47:41	GMB_E047_Titan33+000T00:	000T00:01:00	2007-180T17:48:41	XBAND to Earth
VIMS_047TI_HIRESNAC001_PRIME	C, I, M	2007-180T17:47:41	GMB_E047_Titan33+000T00:0	000T01:15:00	2007-180T19:02:41	VIMS_IR to Titan
ISS_047TI_REGMAP001_PRIME	C, R, U, V	2007-180T19:02:41	GMB_E047_Titan33+000T02:0	000T02:00:00	2007-180T21:02:41	ISS_NAC to Titan
CIRS_047TI_FIRNADMAP002_PRIME	C, I, R, U, V	2007-180T21:02:41	GMB_E047_Titan33+000T04:0	000T01:15:00	2007-180T22:17:41	CIRS_FP1 to Titan
End Custom Period		2007-180T22:17:41	GMB_E047_Titan33+000T05:	000T00:01:00	2007-180T22:18:41	XBAND to Earth
RSS_047TI_GRAVITY003_PRIME		2007-180T22:17:41	GMB_E047_Titan33+000T05:0	000T03:30:00	2007-181T01:47:41	XBAND to Earth
SP_047TI_WAYPTTURN181_PRIME	V	2007-181T01:47:41	GMB_E047_Titan33+000T08:0	000T00:30:00	2007-181T02:17:41	ISS_NAC to Titan
NEW WAYPOINT		2007-181T02:17:41		001T00:17:19	2007-182T02:35:00	ISS_NAC to Titan
CIRS_047TI_FIRNADCMP002_PRIME	C, I, U, V	2007-181T02:17:41	GMB_E047_Titan33+000T09:0	000T04:45:00	2007-181T07:02:41	CIRS_FP1 to Titan
VIMS_047TI_GLOBMAPFA002_PRIME	C, I, M, R, L	2007-181T07:02:41	GMB_E047_Titan33+000T14:1	000T06:00:00	2007-181T13:02:41	ISS_NAC to Titan
SP_047TI_DEADTIME181_PRIME	M, R	2007-181T13:02:41	GMB_E047_Titan33+000T20:	000T00:18:19	2007-181T13:21:00	ISS_NAC to Titan
SP_047EA_DLTURN181_PRIME	M, R	2007-181T13:21:00		000T00:30:00	2007-181T13:51:00	XBAND to Earth
SP_047EA_M34HEFNON181_PRIME	M, R	2007-181T13:51:00		000T02:44:00	2007-181T16:35:00	XBAND to Earth
SP_047EA_G70ARRNON181_PRIME	C, M, R	2007-181T16:35:00		000T10:00:00	2007-182T02:35:00	XBAND to Earth

047TI (T33) Telemetry Modes

TELEMETRY MODE REPORT

EPOCH RELATIVE	UTC	DURATION	TELEMETRY MODE	REQUEST
	2007-180T02:05:00.000	12:57:41	S_N_ER_3	SP_047NA_G70OBSNON181_NA
GMB_E047_Titan33-000T02:00:00	2007-180T15:02:41.000	02:45:00	S_N_ER_2	SP_047NA_G70OBSNON181_NA
GMB_E047_Titan33+000T00:45:00	2007-180T17:47:41.000	20:03:19	S_N_ER_3	SP_047NA_G70OBSNON181_NA
	2007-181T13:51:00.000	02:44:00	RTE_N_SPB_33180	SP_047EA_M34HEFNON181_PRIME
	2007-181T16:35:00.000	00:15:00	RTE_N_SPB_110600	SP_047EA_G70ARRNON181_PRIME
	2007-181T16:50:00.000	00:33:00	RTE_N_SPB_124425	SP_047EA_G70ARRNON181_PRIME
	2007-181T17:23:00.000	08:15:00	RTE_N_SPB_142200	SP_047EA_G70ARRNON181_PRIME
	2007-182T01:38:00.000	00:42:00	RTE_N_SPB_124425	SP_047EA_G70ARRNON181_PRIME
	2007-182T02:20:00.000	00:15:00	RTE_N_SPB_110600	SP_047EA_G70ARRNON181_PRIME

DSN Requests

CASSINI DOWNLINK/DSN COVERAGE SUMMARY for 047TI_T33_2007-01-25_1.xml on 2007-Jan-25 13:23:02

(+ = pass overlaps with previous pass; * = conflicts with DSN weekly maintenance; o = overlaps occultation)

DOWNLINK PASS					DSN PASS						
NAME	START_TO_END	START_TO_END	DUR	DATA_RATES	ID	START_TO_END	START_TO_END	DUR	CALS	LABEL	CNFG
	SCET	ERT		hh:mm kbps		SCET	ERT			hh:mm min	
G34BWGRSS179	-----	-----	----	(no downlink)	25	179T16:03-02:08	179T17:25-03:30	10:05	90/15	RSS Ka-d	N748
C34BWGRSS180	-----	-----	----	(no downlink)	34	180T04:41-08:29	180T06:00-09:55	03:55	90/15	TP RSS T	N750
M34BWGRSS180	-----	-----	----	(no downlink)	55	180T07:52-18:15	180T09:10-19:40	10:30	75/15	TP RSS T	N750
G34BWGRSS182	-----	-----	----	(no downlink)	25	180T15:23-02:38	180T16:45-04:00	11:15	90/15	TP RSS T	N748
G34BWG2ND180	-----	-----	----	(no downlink)	26	180T21:38-02:38	180T23:00-04:00	05:00	90/15	TP RSS T	N750
C34BWGRSS181	-----	-----	----	(no downlink)	34	180T23:28-02:38	181T00:50-04:00	03:10	90/15	TP RSS T	N750
M34HEFNON181	181T13:51-16:35	181T15:13-17:57	02:44	33	55	181T13:48-16:48	181T15:10-18:10	03:00	90/15	RSS Ka-d	N750
				^-- and also -->	65	181T13:51-16:45	181T15:10-18:10	03:00	60/15	TKG pass	N003
+G70ARRNON181	181T16:35-02:35	181T17:57-03:57	10:00	110,124,142,124,110	25	181T16:15-02:35	181T17:35-04:00	10:25	90/15	TKG pass	N748
				^-- and also -->	14	181T16:20-02:35	181T17:40-04:00	10:20	60/15	Ranging_ X_up_on	

047TI (T33) Data Volume

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							
			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)	
																	P4
SP_047EA_M34HEFNON181_PRIME	181 13:51	181 16:35	0	3420	124	3545	3563	19	0	139	16	3697	258	-3440	0	0%	3439
SP_047EA_G70ARRNON181_PRIME	181 16:35	182 02:35	3439	0	0	3439	3563	124	0	716	59	4215	4215	0	0	0%	0

047TI (T33) Data Volume

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	180 02:05	181 13:51	301.6	96.5	338.4	20.8	898.0	149.5	156.7	0.0	829.0	155.7	432.0	0.0	2.5	3380.6
OBSERVATION_SI	180 02:05	181 13:51	0.0	0.0	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0
SP_047EA_M34HEFNON181_PRIME	181 13:51	181 16:35	9.8	1.5	0.0	0.5	0.0	19.4	17.8	0.0	88.6	0.0	0.0	0.0	0.0	137.7
SP_047EA_G70ARRNON181_PRIME	181 16:35	182 02:35	104.7	5.4	133.2	3.5	0.0	71.1	64.9	0.0	324.0	2.7	0.0	0.0	0.0	709.6
DAILY TOTAL SCIENCE	180 02:05	182 02:35	416.1	103.4	482.6	24.8	898.0	240.1	239.4	0.0	1241.6	158.4	432.0	0.0		
TOTAL RECORDED (OPNAV data not included)			416.1	103.4	482.6	24.8	898.0	240.1	239.4	0.0	1241.6	158.4	432.0	0.0		

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	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. <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"/> VIMS Each Prime Instrument agrees to accept a reduction in observation time during implementation if problems arise.	C		
3. Custom handoffs limited to:	N/A		
A. ±3 hours from targeted Icy Satellite flyby	V	custom periods away from C/A are needed because the Sun is so close to Titan	
B. ±3 hours from targeted Titan Flyby	N/A		
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 T33 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 90° RWA turns and/or 10 min. for RCS turns?	Yes	

(DOUBLE-CLICK TO MAKE CHANGES)