

TOST: RE-Delivery Package for 045TI (T31)

Segment Boundary 2007-148T03:56:00 to 2007-149T21:21:00

Titan C/A= 2007-148T18:51:55 , Altitude = 2300 km

Epoch = GMB_E045_Titan31, LMB_E045_Titan31

December 6, 2006

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045TI (T31)

- Science to be accomplished during this flyby:
 - RSS
 - Occultation of Titan's atmosphere on ingress, atmosphere and ionosphere on egress.
 - Bistatic scattering measurements at three radio wavelengths to determine the physical properties of Titan's surface, including reflectivity, dielectric constant, and roughness
 - ISS will observe the Huygen's landing site at fairly high resolution taking images that combined with images from later flybys (T35, T37, T39) will provide regional-scale stereo data.

045TI (T31) Timeline

C/A= 2007-148T18:51:55

Start Time	End Time	Prime Activity	Obs. Detail	Op Mode	TLM Mode	Comments
148T03:56:00	148T04:26:00	SP Turn to waypoint		DFPW Normal	S_N_ER_3	NAC to Titan, -X to SUN
148T04:26:00	148T04:42:00	OD Uncertainty Dead Time		DFPW Normal	S_N_ER_3	
-14:09	-13:00	CIRS		DFPW Normal	S_N_ER_3	Template M
-13:00	-10:00	CIRS-FP1		DFPW Normal	S_N_ER_3	Template N
-10:00	-9:00	ISS		DFPW Normal	S_N_ER_3	Template N
-9:00	-5:00	UVIS		DFPW Normal	S_N_ER_3	Template P
-5:00	-3:00	UVIS		DFPW Normal	S_N_ER_3	Template U
-3:00	-1:45	ISS		RSS_WU	S_N_ER_3	Template U
-1:45	-1:15	SP Turn to waypoint		RSS_WU	S_N_ER_3	-Z to Earth, POS_X to NSP
-1:15	+1:07	RSS Occultation		RSS3(RWAF)	S_N_ER_2	
+1:07	+00:40	RSS Bistat Out		RSS3(RWAF)	S_N_ER_2	
+00:40	+1:00	SP Turn to waypoint		DFPW Normal	S_N_ER_3	NAC to Titan, +X to NSP
+1:00	2:00	ISS		DFPW Normal	S_N_ER_3	
2:00	4:00	ISS-reg		DFPW Normal	S_N_ER_3	Template J
4:00	5:00	CIRS		DFPW Normal	S_N_ER_3	Template J
5:00	8:00	VIMS		DFPW Normal	S_N_ER_3	Template I
8:00	9:00	ISS-W		DFPW Normal	S_N_ER_3	Template I
9:00	15:14	CIRS		DFPW Normal	S_N_ER_3	Template C
149T10:05	149T10:21	OD Uncertainty Dead Time		DFPW Normal	S_N_ER_3	
149T10:21	149T10:51	SP Turn to downlink		DFPW Normal	S_N_ER_3	
149T10:51	149T21:21	Downlink over Madrid		DFPW Normal	S_N_ER_3	-Z to Earth, NEG_X to Sun (0,0,10 offset)

Request	Start Time	Epoch	Duration	End Time	Rate	Mb	SPASS Type	Primary Pointing	Secondary Pointing Ag
MP_044NA_SEQUENCE030_NA	2007-124272:00:00	E044_SEQUENCE_030+000T00:00:	0:037T05:10:00	2007-162T03:10:00	0	0	0 SPASS Note		
MP_044SA_REV045_NA	2007-139T01:03:48		0:016T00:12:13	2007-155T01:16:01	0	0	0 Non-SPASS		
MP_045SU_OCCTITAN045_NA	2007-148T18:09:26		0:000T00:31:45	2007-148T18:41:11	0	0	0 Non-SPASS		
MP_045EA_OCCTITAN045_NA	2007-148T18:10:27		0:000T00:32:00	2007-148T18:42:27	0	0	0 Non-SPASS		
MP_045SA_RPXASCEND045_NA	2007-148T18:35:52		0:000T00:00:01	2007-148T18:35:53	0	0	0 Non-SPASS		
MP_045TI_FLYBYT031_NA	2007-148T18:51:55		0:000T00:00:01	2007-148T18:51:56	0	0	0 SPASS Note		
RPWS_045SA_OUTSURVEY002_PRIME	2007-148T03:56:00		0:000T12:55:55	2007-148T16:51:55	1310	60.988	Non-SPASS		
RPWS_045TI_TIIINTRMED001_PRIME	2007-148T16:51:55	GMB_E045_Titan31-000T02:00:00	0:000T01:30:00	2007-148T18:21:55	12499.4	67.497	Non-SPASS		
RPWS_045TI_TICA001_PRIME	2007-148T18:21:55	GMB_E045_Titan31-000T00:30:00	0:000T01:00:00	2007-148T19:21:55	133340.9	480.027	Non-SPASS		
RPWS_045TI_TIIINTRMED002_PRIME	2007-148T19:21:55	GMB_E045_Titan31+000T00:30:00	0:000T01:30:00	2007-148T20:51:55	12499.4	67.497	Non-SPASS		
RPWS_045SA_OUTSURVEY003_PRIME	2007-148T20:51:55	GMB_E045_Titan31+000T02:00:00	0:000T18:38:33	2007-149T15:30:28	1310	87.919	Non-SPASS		
RPWS_045SU_MAGBOUND004_CAPS	2007-149T15:30:00		0:000T05:51:00	2007-149T21:21:00	9000	189.54	Non-SPASS		
RSS_045TI_THERMAL001_RSS	2007-148T15:36:55	GMB_E045_Titan31-000T03:15:00	0:000T02:00:00	2007-148T17:36:55	0	0	0 SPASS Rider		
RSS_045TI_OCC001_PRIME	2007-148T17:36:55	LMB_E045_Titan31-000T01:15:00	0:000T01:21:53	2007-148T18:58:48	0	0	0 Prime	XBAND to Earth	POS_X to NSP
RSS_045TI_BISTATOUT001_PRIME	2007-148T18:58:55	GMB_E045_Titan31+000T00:07:00	0:000T00:33:00	2007-148T19:31:55	0	0	0 Prime	XBAND to Titan	POS_X to NSP
RSS_045TI_KADOWN002_RSS	2007-149T08:46:00		0:000T12:35:00	2007-149T21:21:00	0	0	0 SPASS Rider		
SP_045NA_M70OBSNON149_NA	2007-148T03:56:00		0:001T06:55:00	2007-149T10:51:00	0	0	0 Non-SPASS		
SP_045NA_TOSTSEG148_NA	2007-148T03:56:00		0:001T17:25:00	2007-149T21:21:00	0	0	0 SPASS Note		
SP_045TI_WAYPTTURN148_PRIME	2007-148T03:56:00		0:000T00:30:00	2007-148T04:26:00	0	0	0 New Waypoint	ISS_NAC to Titan	NEG_X to Sun
SP_045NA_DEADTIME148_PRIME	2007-148T04:26:00		0:000T00:16:55	2007-148T04:42:55	0	0	0 Prime	ISS_NAC to Titan	NEG_X to Sun
SP_045NA_M34BWGNON148_SP	2007-148T16:41:27		0:000T03:30:00	2007-148T20:11:27	0	0	0 Non-SPASS		
SP_045NA_M70METRSS148_SP	2007-148T16:41:27		0:000T03:30:00	2007-148T20:11:27	0	0	0 Non-SPASS		
SP_045EA_WAYPTTURN448_PRIME	2007-148T17:06:55	GMB_E045_Titan31-000T01:45:00	0:000T00:30:00	2007-148T17:36:55	0	0	0 New Waypoint	NEG_Z to Earth	POS_X to NSP
SP_045NA_G34BWG2ND148_SP	2007-148T17:16:00		0:000T03:00:00	2007-148T20:16:00	0	0	0 Non-SPASS		
SP_045NA_G34BWGRSS148_SP	2007-148T17:16:00		0:000T03:00:00	2007-148T20:16:00	0	0	0 Non-SPASS		
SP_045NA_G70METRSS148_SP	2007-148T17:16:00		0:000T03:00:00	2007-148T20:16:00	0	0	0 Non-SPASS		
SP_045TI_WAYPTTURN149_PRIME	2007-148T19:31:55	GMB_E045_Titan31+000T00:40:00	0:000T00:19:32	2007-148T19:51:27	0	0	0 New Waypoint	ISS_NAC to Titan	POS_X to NSP
SP_045NA_DEADTIME149_PRIME	2007-149T10:05:55	GMB_E045_Titan31+000T15:14:00	0:000T00:15:05	2007-149T10:21:00	0	0	0 Prime	ISS_NAC to Titan	POS_X to NSP
SP_045EA_DLTURN149_PRIME	2007-149T10:21:00		0:000T00:30:00	2007-149T10:51:00	0	0	0 Prime	XBAND to Earth (0.	NEG_X to Sun
SP_045EA_M70ARRNON149_PRIME	2007-149T10:51:00		0:000T10:30:00	2007-149T21:21:00	0	0	0 Prime	XBAND to Earth (0.	NEG_X to Sun
SP_045NA_M34BWGRSS149_SP	2007-149T10:51:00		0:000T10:30:00	2007-149T21:21:00	0	0	0 Non-SPASS		
SP_045NA_M70ARRNON149_SP	2007-149T10:51:00		0:000T10:30:00	2007-149T21:21:00	0	0	0 Non-SPASS		
UVIS_045TI_FIRNADCP001_CIRS	2007-148T04:42:55	GMB_E045_Titan31-000T14:09:00	0:000T04:09:00	2007-148T08:51:55	1107	16.539	SPASS Rider		
UVIS_045TI_PHOTOMWAC001_ISS	2007-148T08:51:55	GMB_E045_Titan31-000T10:00:00	0:000T01:00:00	2007-148T09:51:55	1006.4	3.623	SPASS Rider		
UVIS_045TI_EUVFUV001_PRIME	2007-148T09:51:55	GMB_E045_Titan31-000T09:00:00	0:000T06:00:00	2007-148T15:51:55	5032	108.891	Prime	ISS_NAC to Titan	POS_X to North_Pole_
UVIS_045TI_HIRESNAC001_VIMS	2007-148T19:51:55	GMB_E045_Titan31+000T01:00:00	0:000T01:00:00	2007-148T20:51:55	10630.2	38.269	SPASS Rider		
UVIS_045TI_FIRNADMAP004_CIRS	2007-148T22:51:55	GMB_E045_Titan31+000T04:00:00	0:000T01:00:00	2007-148T23:51:55	5032	18.115	SPASS Rider		
UVIS_045SA_PHOTOMWAC002_ISS	2007-149T03:31:55	GMB_E045_Titan31+000T08:40:00	0:000T00:20:00	2007-149T03:51:55	1006.4	1.208	SPASS Rider		
UVIS_045TI_FIRNADCP002_CIRS	2007-149T03:51:55	GMB_E045_Titan31+000T09:00:00	0:000T06:14:00	2007-149T10:05:55	1107	24.842	SPASS Rider		
VIMS_045TI_MAPMONITO001_CIRS	2007-148T04:42:55	GMB_E045_Titan31-000T14:09:00	0:000T01:09:00	2007-148T05:51:55	4347.8	18	SPASS Rider		
VIMS_045TI_MAPMONITO002_CIRS	2007-148T05:51:55	GMB_E045_Titan31-000T13:00:00	0:000T03:00:00	2007-148T08:51:55	3333.3	36	SPASS Rider		
VIMS_045TI_MAPMONITO003_ISS	2007-148T08:51:55	GMB_E045_Titan31-000T10:00:00	0:000T01:00:00	2007-148T09:51:55	11111.1	40	SPASS Rider		
VIMS_045TI_TEMPLATE001_UVIS	2007-148T09:51:55	GMB_E045_Titan31-000T09:00:00	0:000T04:00:00	2007-148T13:51:55	2569.4	37	SPASS Rider		
VIMS_045TI_TEMPLATEU002_UVIS	2007-148T13:51:55	GMB_E045_Titan31+000T05:00:00	0:000T02:00:00	2007-148T15:51:55	5555.6	40	SPASS Rider		
VIMS_045TI_MEDRESMAP002_ISS	2007-148T15:51:55	GMB_E045_Titan31-000T03:00:00	0:000T01:00:00	2007-148T16:51:55	11111.1	40	SPASS Rider		
VIMS_045TI_HIRESNAC001_PRIME	2007-148T19:51:55	GMB_E045_Titan31+000T01:00:00	0:000T01:00:00	2007-148T20:51:55	11111.1	40	Prime	VIMS_IR to Titan	NEG_X to Sun
VIMS_045TI_REGMAP001_ISS	2007-148T20:51:55	GMB_E045_Titan31+000T02:00:00	0:000T02:00:00	2007-148T22:51:55	11111.1	80	SPASS Rider		
VIMS_045TI_REGMAP002_CIRS	2007-148T22:51:55	GMB_E045_Titan31+000T04:00:00	0:000T01:00:00	2007-148T23:51:55	8333.3	30	SPASS Rider		
VIMS_045TI_MEDRES001_PRIME	2007-148T23:51:55	GMB_E045_Titan31+000T05:00:00	0:000T02:00:00	2007-149T01:51:55	5555.6	40	Prime	ISS_NAC to Titan	NEG_X to Sun
VIMS_045TI_GLOBMAP003_ISS	2007-149T02:51:55	GMB_E045_Titan31+000T08:00:00	0:000T01:00:00	2007-149T03:51:55	10555.6	38	SPASS Rider		
VIMS_045TI_TEMPMAP003_CIRS	2007-149T03:51:55	GMB_E045_Titan31+000T09:00:00	0:000T05:00:00	2007-149T08:51:55	3000	54	SPASS Rider		

045TI T31 Attitude Strategy

Request	Riders	Start (SCET)	Start (Epoch)	Duration	End (SCET)	Primary
TOST rev 45 Segment		2007-148T03:56:00		001T17:25:00	2007-149T21:21:00	
SP_045TI_WAYPTTURN148_PRIME	C, M	2007-148T03:56:00		000T00:30:00	2007-148T04:26:00	ISS_NAC to Titan
NEW WAYPOINT		2007-148T04:26:00		000T13:10:55	2007-148T17:36:55	ISS_NAC to Titan
SP_045NA_DEADTIME148_PRIME	M	2007-148T04:26:00		000T00:16:55	2007-148T04:42:55	ISS_NAC to Titan
CIRS_045TI_FIRNADCMP001_PRIME	C, I, M, U, \	2007-148T04:42:55	GMB_E045_Titan31-000T14:0	000T04:09:00	2007-148T08:51:55	CIRS_FP1 to Titan
ISS_045TI_PHOTOMWAC001_PRIME	C, M, U, V	2007-148T08:51:55	GMB_E045_Titan31-000T10:0	000T01:00:00	2007-148T09:51:55	ISS_NAC to Titan
UVIS_045TI_EUVFUV001_PRIME	C, I, M, R, \	2007-148T09:51:55	GMB_E045_Titan31-000T09:0	000T06:00:00	2007-148T15:51:55	ISS_NAC to Titan
ISS_045TI_NIGHTWAC001_PRIME	C, M, R, V	2007-148T15:51:55	GMB_E045_Titan31-000T03:0	000T01:15:00	2007-148T17:06:55	ISS_NAC to Titan
SP_045EA_WAYPTTURN448_PRIME	C, M, R	2007-148T17:06:55	GMB_E045_Titan31-000T01:4	000T00:30:00	2007-148T17:36:55	NEG_Z to Earth
NEW WAYPOINT		2007-148T17:36:55		000T02:14:32	2007-148T19:51:27	NEG_Z to Earth
RSS_045TI_OCC001_PRIME	M	2007-148T17:36:55	LMB_E045_Titan31-000T01:1	000T01:21:53	2007-148T18:58:48	XBAND to Earth
45TI (t) T31 TITAN outboun...		2007-148T18:51:55		000T00:00:01	2007-148T18:51:56	
RSS_045TI_BISTATOUT001_PRIME	M	2007-148T18:58:55	GMB_E045_Titan31+000T00:0	000T00:33:00	2007-148T19:31:55	XBAND to Titan
SP_045TI_WAYPTTURN149_PRIME	C, M	2007-148T19:31:55	GMB_E045_Titan31+000T00:0	000T00:19:32	2007-148T19:51:27	ISS_NAC to Titan
NEW WAYPOINT		2007-148T19:51:27		001T01:29:33	2007-149T21:21:00	ISS_NAC to Titan
VIMS_045TI_HIRESNAC001_PRIME	C, I, M, U	2007-148T19:51:55	GMB_E045_Titan31+000T01:0	000T01:00:00	2007-148T20:51:55	VIMS_IR to Titan
ISS_045TI_REGMAP001_PRIME	C, M, V	2007-148T20:51:55	GMB_E045_Titan31+000T02:0	000T02:00:00	2007-148T22:51:55	ISS_NAC to Titan
CIRS_045TI_FIRNADMAP004_PRIME	C, I, M, U, \	2007-148T22:51:55	GMB_E045_Titan31+000T04:0	000T01:00:00	2007-148T23:51:55	CIRS_FP1 to Titan
VIMS_045TI_MEDRES001_PRIME	C, I, M	2007-148T23:51:55	GMB_E045_Titan31+000T05:0	000T02:00:00	2007-149T01:51:55	ISS_NAC to Titan
ISS_045TI_GLOBMAP001_PRIME	C, M, V	2007-149T01:51:55	GMB_E045_Titan31+000T07:0	000T01:40:00	2007-149T03:31:55	ISS_NAC to Titan
ISS_045TI_PHOTOMWAC002_PRIME	C, M, U, V	2007-149T03:31:55	GMB_E045_Titan31+000T08:0	000T00:20:00	2007-149T03:51:55	ISS_NAC to Titan
CIRS_045TI_FIRNADCMP002_PRIME	C, I, M, R, \	2007-149T03:51:55	GMB_E045_Titan31+000T09:0	000T06:14:00	2007-149T10:05:55	CIRS_FP1 to Titan
SP_045NA_DEADTIME149_PRIME	M, R	2007-149T10:05:55	GMB_E045_Titan31+000T15:0	000T00:15:05	2007-149T10:21:00	ISS_NAC to Titan
SP_045EA_DLTRN149_PRIME	M, R	2007-149T10:21:00		000T00:30:00	2007-149T10:51:00	XBAND to Earth (0.0,0.0,10.0 deg.)
SP_045EA_M70ARRNON149_PRIME	C, M, R	2007-149T10:51:00		000T10:30:00	2007-149T21:21:00	XBAND to Earth (0.0,0.0,10.0 deg.)

045TI (T31) Telemetry Modes

TELEMETRY MODE REPORT

EPOCH RELATIVE	UTC	DURATION	TELEMETRY MODE	REQUEST
	2007-148T03:56:00.000	13:40:55	S_N_ER_3	SP_045NA_M70OBSNON149_NA
GMB_E045_Titan31-000T01:15:00	2007-148T17:36:55.000	01:55:00	S_N_ER_2	SP_045NA_M70OBSNON149_NA
GMB_E045_Titan31+000T00:40:00	2007-148T19:31:55.000	15:19:05	S_N_ER_3	SP_045NA_M70OBSNON149_NA
	2007-149T10:51:00.000	00:50:00	RTE_N_SPB_110600	SP_045EA_M70ARRNON149_PRIME
	2007-149T11:41:00.000	02:00:00	RTE_N_SPB_142200	SP_045EA_M70ARRNON149_PRIME
	2007-149T13:41:00.000	01:45:00	RTE_N_SPB_165900	SP_045EA_M70ARRNON149_PRIME
	2007-149T15:26:00.000	04:45:00	RTE_N_SPB_142200	SP_045EA_M70ARRNON149_PRIME
	2007-149T20:11:00.000	01:10:00	RTE_N_SPB_99540	SP_045EA_M70ARRNON149_PRIME

DSN Requests

CASSINI DOWNLINK/DSN COVERAGE SUMMARY for CIMS_045TI_T31_2006-12-05.xml on 2006-Dec-05 10:40:22
 (+ = 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	DATA_RATES hh:mm kbps	ID	START_TO_END SCET	START_TO_END ERT	DUR	CALS	LABEL	CNFG
M34BWGNON148	-----	-----	----	(no downlink)	55	148T16:41-20:11	148T18:00-21:35	03:35	180/60	RSS TI B	N748
M70METRSS148	-----	-----	----	(no downlink)	63	148T16:41-20:11	148T18:00-21:35	03:35	180/60	TI Bista	N655
G34BWG2ND148	-----	-----	----	(no downlink)	26	148T17:16-20:16	148T18:35-21:35	03:00	180/60	TP RSS T	N748
G34BWGRSS148	-----	-----	----	(no downlink)	25	148T17:16-20:16	148T18:35-21:35	03:00	180/60	TP RSS T	N750
G70METRSS148	-----	-----	----	(no downlink)	14*	148T17:16-20:16	148T18:35-21:35	03:00	195/60	TP RSS T	N655
M70ARRNON149	149T10:51-21:21	149T12:10-22:40	10:30	110,142,165,142,99	55	149T10:51-21:21	149T12:10-22:40	10:30	90/15	RSS Ka-d	N750
				^-- and also -->	63	149T10:51-21:21	149T12:10-22:40	10:30	60/15	TKG Pass	N003

045TI (T31) Data Volume

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

DOWNLINK PASS NAME	OBSERVATION_PERIOD		DOWNLINK_PASS															
	Start doy hh:mm	End doy hh:mm	P4							P5	RECORDED		PLAYBACK					
			START (Mb)	SCI (Mb)	HK+E (Mb)	TOTAL (Mb)	CPACTY (Mb)	MRGN (Mb)	OPNAV (Mb)	SCI (Mb)	ENGR (Mb)	TOTAL (Mb)	CPACTY (Mb)	MARGN (Mb)	NET_MARGN (Mb)	(%)	CAROVN (Mb)	
SP_045EA_M70ARRNON149_PRIME	149 10:51	149 21:21	0	3460	108	3568	3569	1	0	445	62	4073	4442	369	369	8%	0	

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	148 03:56	149 10:51	241.0	34.6	402.7	20.0	1051.0	106.4	116.0	0.0	742.0	211.3	493.0	0.0	2.5	3420.4
OBSERVATION_SI	148 03:56	149 10:51	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_045EA_M70ARRNON149_PRIME	149 10:51	149 21:21	37.8	10.6	86.4	2.9	0.0	51.7	40.4	0.0	211.5	0.0	0.0	0.0	0.0	441.3
DAILY TOTAL SCIENCE	148 03:56	149 21:21	278.8	45.3	500.1	22.9	1051.0	158.1	156.4	0.0	953.5	211.3	493.0	0.0		
TOTAL RECORDED (OPNAV data not included)			278.8	45.3	500.1	22.9	1051.0	158.1	156.4	0.0	953.5	211.3	493.0	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	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"/> 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 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 T31 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?	Yes	

(DOUBLE-CLICK TO MAKE CHANGES)