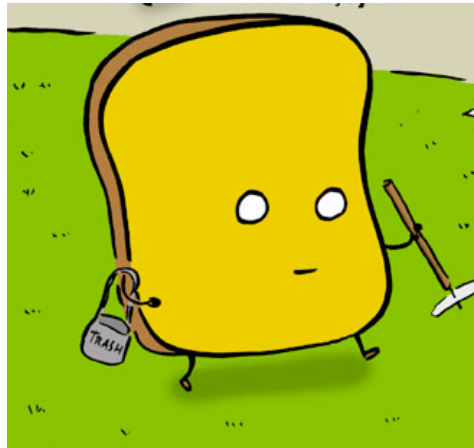




TOST: Integration 123TI (T64) Wrap-up



March 20, 2009

Nora Kelly Alonge, Jo Pitesky, Kim Steadman, Trina Ray



T64 Segment Basics

Segment times:

BEG: 2009-361T09:12:00

END: 2009-364T09:12:00

Altitude: 955 km

Time of C/A: 2009-362T00:16:59

Epoch: GMB_E123_Titan64

Sequence: S56



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

Kickoff Meeting

Present

Master Timeline
Draft Op Modes
Draft Telem Modes
Draft RCS Deadband

Discuss

Timeline
Op Modes
Telem Modes
Deadbands for RCS

Homework

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

Detailed Meeting

Present

Master Timeline
SMT Report
Timeline Graphic
TOL
SPASS
DSN Reports
Dual Playback Science
Draft Data Volume Cuts

Discuss

Data Volume Cuts

Homework

CCRs
High Level Science
Objectives

Wrap-up Meeting

Present

Wrap-up Package
Checklist
High Level Science
Objectives

Discuss

N/A

Homework

N/A



T64 High-level Science Objectives

CIRS – Obtain mid-northern latitude composition and temperature vertical profiles.

ISS – ISS will acquire a full-disk mosaic of Adiri and will ride along with VIMS to observe Adiri at higher-resolution and to monitor clouds. ISS will also monitor Titan to track clouds and the evolution thereof for an extra day after the Titan encounter.

UVIS – UVIS will obtain an image cube of Titan's atmosphere at EUV and FUV wavelengths by sweeping its slit across the disk. These cubes provide spectral and spatial information on nitrogen emissions, H emission and absorption, absorption by simple hydrocarbons, and the scattering properties of haze aerosols. This is one of many such cubes gathered over the course of the mission to provide latitude and seasonal coverage of Titan's middle atmosphere and stratosphere.

VIMS – This flyby will allow VIMS to acquire a mosaic of Titan between 160 and 300 long at a resolution of 20 km/pixel. VIMS will keep monitoring for mid-latitude clouds and will survey the evolution of the North polar hood.

RADAR - Altimetry, ridealong SAR on INMS inbound, SAR outbound, altimetry, HiSAR SAR over North polar lakes to perform stereo and/or seasonal change detection ([this is the only north polar SAR in XM](#))

INMS - INMS is prime on the inbound leg of T64, and riding with RADAR outbound. [This nearly North polar pass is critical when paired with T65](#), which is nearly South polar. The opportunity to view the North and South poles in close temporal proximity to compare the atmosphere and the surface topography. This pass will also help study the seasonal variation that may have occurred in the north pole since the early part of the nominal tour.

MAG – T64 is a north polar, dusk, flyby, with a minimum altitude of 955 km. In nominal upstream conditions, Cassini would explore the north lobe of Titan's magnetic tail, very close to the moon. Due to the location of the point of closest approach, it is potentially important regarding the detection of an intrinsic magnetic field, but not as good as T70. With adequate pointing of MAPS plasma instruments MAG data will be extremely helpful in the identification of escaping particles similar to those that could be seen in T63. If the upstream conditions are similar to T63, T64 will be extremely important to have an idea of the structure of Titan's magnetic tail in the dusk sector.

MIMI – Energetic ion and electron energy input to atmosphere. [*High value*](#)

RPWS - Measure thermal plasmas in Titan's ionosphere and surrounding environment; search for lightning in Titan's atmosphere; investigate the interaction of Titan with Saturn's magnetosphere.



Master Timeline for T64

T64	955					
Start Time	End Time	Prime Activity	Obs. Detail	Op Mode	TLM Mode	Comments
2009-361T09:12:00	2009-361T09:52:00	SP Turn to WP	turn from XBAND to Earth, NEG_X to NEP, Safe 22.8 min	DFPW Normal	S_N_ER_3	NEG_Y to Titan, NEG_X to SUN is safe through entire segment (even caboose)
2009-361T09:52:00	C/A - 14:09:35	OD Uncertainty Dead Time		DFPW Normal	S_N_ER_3	
C/A - 14:09:35	-13:00	CIRS	Template M4	DFPW Normal	S_N_ER_3	
-13:00	-10:00	CIRS	Template N	DFPW Normal	S_N_ER_3	
-10:00	-09:00	ISS	Template N	DFPW Normal	S_N_ER_3	
-09:00	-05:00	CIRS	Template R	DFPW Normal	S_N_ER_3	
-05:00	-02:15	CIRS	Template T	RADWU	S_N_ER_5a for 15 min., then S_N_ER_3	
-02:15	-01:16	CIRS	NEG_Y to Titan, NEG_X to SUN	RADWU	S_N_ER_3	
-01:16	-01:15	RWA to RCS Transition	Transition to RCS @ -01:16 (1 min.)	RADWU > RADRCS @ -01:16	S_N_ER_3	Deadband (0.5,2,0.5)
-01:15	-00:38	CIRS	NEG_Y to Titan, NEG_X to SUN	RADRCS	S_N_ER_3	
begin custom period						
-00:38	-00:30	Turn to RADAR attitude	NEG_Z to Titan, NEG_X to RAM	RADRCS	S_N_ER_8	RADAR ok with (2,2,20) deadband if SCO desires
-00:30	-00:18	RADAR Altimetry	Needed turn time provided by RADAR	RADRCS	S_N_ER_8	
-00:18	-00:12	Turn to INMS attitude	NEG_X to RAM, NEG_Z to Titan	RADRCS	S_N_ER_8	
-00:12	0	INMS	SAR will begin @ C/A - 3 mins	RADRCS	S_N_ER_8	
2009-362T00:16:59		CLOSEST APPROACH	NEG_Z to Titan, NEG_X to RAM			
0	+00:18	RADAR SAR		RADRCS	S_N_ER_8	
+00:18	+00:30	RADAR Altimetry		RADRCS	S_N_ER_8	
+00:30	+00:50	RADAR HISAR		RADRCS	S_N_ER_8	
+00:50	+00:58	Turn to VIMS attitude	NEG_Y to Titan, NEG_X to SUN	RADRCS	S_N_ER_8	
end custom period						
+00:58	+01:22	RCS to RWA Transition		RADRCS > ORSRCS end by +00:58; ORSRCS > DFPW Normal @ +00:58	S_N_ER_3	
+01:22	+02:00	VIMS		DFPW Normal	S_N_ER_3	
+02:00	+05:00	VIMS	Template Y	DFPW Normal	S_N_ER_3	
+05:00	+09:00	CIRS	Template F	DFPW Normal	S_N_ER_3	
+09:00	+12:00	CIRS	Template D2	DFPW Normal	S_N_ER_3	
+12:00	+14:00	ISS	Template D2	DFPW Normal	S_N_ER_3	
+14:00	C/A + 23	VIMS	Template B(Z)	DFPW Normal	S_N_ER_3	
C/A + 23	2009-362T23:32:00	OD Uncertainty Dead Time		DFPW Normal	S_N_ER_3	
2009-362T23:32:00	2009-363T00:12:00	SP Turn to Earth for downlink	21.1 min safe turn to NEG_Y to 263.8/8.1 (DL 2ry)	DFPW Normal	S_N_ER_3	
2009-363T00:12:00	2009-363T09:12:00	DSS-63 (M70, 70m Madrid)	XBAND to Earth; POS_X to NEP	DFPW Normal	RTE_N_SFB	safe attitude
2009-363T09:12:00	2009-363T09:52:00	SP Turn to WP	21.0 min safe turn	DFPW Normal	S_N_ER_3	same WP as above. Or other preferred?
2009-363T09:52:00	2009-363T11:52:00	ISS	Titan cloud monitoring (2 hrs)	DFPW Normal	S_N_ER_3	ISS_NAC to Titan, NEG_X to Sun
2009-363T11:52:00	2009-363T13:52:00	CAPS	MAGBNDPTG (2 hrs)	DFPW Normal	S_N_ER_3	POS_Y to Corot, PIC
2009-363T13:52:00	2009-363T15:32:00	ISS	Titan cloud monitoring (1 hr 40 min)	DFPW Normal	S_N_ER_3	ISS_NAC to Titan, NEG_X to Sun
2009-363T15:32:00	2009-363T23:32:00	CIRS	Titan long integration (VIMS, ISS ride with sit & stare) (8 hrs)	DFPW Normal	S_N_ER_3	CIRS_FPB to Titan, NEG_Z to NSP
2009-363T23:32:00	2009-364T00:12:00	SP Turn to Earth for downlink	22.2 min safe turn to POS_X to NEP DL 2ry	DFPW Normal	S_N_ER_3	
2009-364T00:12:00	2009-364T09:12:00	DSS-65 (34m HEF Madrid)	XBAND to Earth; POS_X to NEP (rolling/SRU)	DFPW Normal	RTE_N_SFB	safe attitude

- Dual playback: C/A - 5 min. to +18 min. (377.6 Mb) currently
- Deadband (0.5, 2, 0.5) for CIRS (SCO prefers to leave this throughout, not to loosen it for RADAR)



T64 Telemetry Mode Report

TELEMETRY MODE REPORT

EPOCH RELATIVE	UTC	DURATION	TELEMETRY MODE	REQUEST
	2009-361T09:12:00.000	10:04:59	S_N_ER_3	SP_123NA_M70OBSNON363_NA
GMB_E123_Titan64-000T05:00:00	2009-361T19:16:59.000	00:15:00	S_N_ER_5A	SP_123NA_M70OBSNON363_NA
GMB_E123_Titan64-000T04:45:00	2009-361T19:31:59.000	04:07:00	S_N_ER_3	SP_123NA_M70OBSNON363_NA
GMB_E123_Titan64-000T00:38:00	2009-361T23:38:59.000	01:36:00	S_N_ER_8	SP_123NA_M70OBSNON363_NA
GMB_E123_Titan64+000T00:58:00	2009-362T01:14:59.000	22:57:01	S_N_ER_3	SP_123NA_M70OBSNON363_NA
	2009-363T00:12:00.000	00:45:00	RTE_N_SPB_99540	SP_123EA_M70METNON363_PRIME
	2009-363T00:57:00.000	01:00:00	RTE_N_SPB_124425	SP_123EA_M70METNON363_PRIME
	2009-363T01:57:00.000	05:45:00	RTE_N_SPB_142200	SP_123EA_M70METNON363_PRIME
	2009-363T07:42:00.000	00:45:00	RTE_N_SPB_124425	SP_123EA_M70METNON363_PRIME
	2009-363T08:27:00.000	00:45:00	RTE_N_SPB_99540	SP_123EA_M70METNON363_PRIME
	2009-363T09:12:00.000	15:00:00	S_N_ER_3	SP_123NA_M34OBSNON364_NA
	2009-364T00:12:00.000	00:15:00	RTE_N_SPB_99540	SP_123EA_M70METNON364_PRIME
	2009-364T00:27:00.000	00:30:00	RTE_N_SPB_110600	SP_123EA_M70METNON364_PRIME
	2009-364T00:57:00.000	00:45:00	RTE_N_SPB_124425	SP_123EA_M70METNON364_PRIME
	2009-364T01:42:00.000	02:30:00	RTE_N_SPB_142200	SP_123EA_M70METNON364_PRIME
	2009-364T04:12:00.000	03:00:00	RTE_N_SPB_35550	SP_123EA_M34HEFNON364_PRIME
	2009-364T07:12:00.000	01:00:00	RTE_N_SPB_33180	SP_123EA_M34HEFNON364_PRIME
	2009-364T08:12:00.000	01:00:00	RTE_N_SPB_27650	SP_123EA_M34HEFNON364_PRIME

Current warnings (ok):

CIRS_123TI_RIDER002_SP

Found an activity whose data are NOT recorded in this telemetry mode "S_N_ER_8" commanded at 2009-361T23:38:59. Volume of 1.92 Mb not given data policing space. (15 min. of S_N_ER_8 for RADAR WU.)

RADAR_123TI_T64WARMUP001_RIDER

Found an activity whose data are NOT recorded in this telemetry mode "S_N_ER_3" commanded at 2009-361T19:31:59. Volume of 7.028237 Mb not given data policing space. (Blind portion of RADAR WU.)

RADAR_123TI_T64OHISAR001_PRIME

Found an activity whose data are NOT recorded in this telemetry mode "S_N_ER_3" commanded at 2009-362T01:14:59. Volume of 2.54e-09 Mb (~0) not given data policing space. (Silly request boundary thing?)



T64 SMT Report

03/18/09 SMT report

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

DOWNLINK PASS NAME	Start doy hh:mm	End doy hh:mm	OBSERVATION_PERIOD							DOWNLINK_PASS							
			P4			P5				RECORDED			PLAYBACK				
			START (Mb)	SCI (Mb)	HK+E (Mb)	TOTAL (Mb)	CPACTY (Mb)	MRGN (Mb)	OPNAV (Mb)	SCI (Mb)	ENGR (Mb)	TOTAL (Mb)	CPACTY (Mb)	MARGN (Mb)	NET_MARGN (Mb)	MARGN (%)	CAROVR (Mb)
SP_123EA_M70METNON363_PRIME	363 00:12	363 09:12	0	3468	181	3648	3551	-97	0	309	53	3913	3601	-313	0	0%	312
SP_123EA_M70METNON364_PRIME	364 00:12	364 04:12	312	1069	441	1822	3551	1729	0	131	24	1976	1586	-391	0	0%	391
SP_123EA_M34HEFNON364_PRIME	364 04:12	364 09:12	391	0	0	391	3551	3160	0	177	29	597	487	-111	0	0%	111

We still need to cut about **10-97 Mb** minimum from the first observation period (2009-361T09:12:00 -- 2009-363T09:12:00), and **111 Mb** from the caboose period (2009-363T09:12:00 -- 2009-364T09:12:00),

OR

208+ Mb from the first period only (it will carry through to solve caboose overages).

Homework from last meeting: CAPS & ISS (and anyone else) to look at possible cuts in caboose period.
CAPS cut 172 Mb. ISS? Anyone?



T64 Data Volume by Instrument

03/18/09 SMT report

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 09:12	363 00:12	396.0	73.3	346.9	24.1	500.0	185.4	150.6	573.9	545.8	165.8	449.5	0.0	47.5	3458.7
OBSERVATION_SI	361 09:12	363 00:12	0.0	0.0	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0
SP_123EA_M70METNON363_PRIME	363 00:12	363 09:12	64.8	11.3	86.4	3.2	0.0	64.0	29.2	0.0	42.4	4.9	0.0	0.0	0.0	306.3
DAILY TOTAL SCIENCE	361 09:12	363 09:12	460.8	84.6	458.3	27.3	500.0	249.4	179.7	573.9	588.3	170.7	449.5	0.0		
OBSERVATION_NOR	363 09:12	364 00:12	108.0	17.0	57.6	5.4	600.0	106.7	48.6	0.0	70.7	0.0	45.0	0.0	389.8	1448.8
SP_123EA_M70METNON364_PRIME	364 00:12	364 04:12	28.8	4.5	32.4	1.4	0.0	28.5	13.0	0.0	18.9	2.2	0.0	0.0	0.0	129.6
SP_123EA_M34HEFNON364_PRIME	364 04:12	364 09:12	36.0	5.7	54.0	1.8	0.0	35.6	16.2	0.0	23.6	2.7	0.0	0.0	0.0	175.6
DAILY TOTAL SCIENCE	363 09:12	364 09:12	172.8	27.2	144.0	8.6	600.0	170.7	77.8	0.0	113.2	4.9	45.0	0.0		
			CAPS (Mb)	CDA (Mb)	CIRS (Mb)	INMS (Mb)	ISS (Mb)	MAG (Mb)	MIMI (Mb)	RADAR (Mb)	RPWS (Mb)	UVIS (Mb)	VIMS (Mb)	PROBE (Mb)		
TOTAL RECORDED (OPNAV data not included)			633.6	111.7	602.3	36.0	1100.0	420.1	257.5	573.9	701.5	175.6	494.5	0.0		

T64 DSN Report



CASSINI DOWNLINK/DSN COVERAGE SUMMARY for 123TI_T64_090318.apf on 2009-Mar-18 13:53:05
 (+ = pass overlaps with previous pass; * = conflicts with DSN maintenance; o = overlaps occultation)

DOWNLINK PASS					DSN PASS						
NAME	START_TO_END SCET	START_TO_END ERT	DUR hh:mm	DATA_RATES kbps	ID	START_TO_END SCET	START_TO_END ERT	DUR hh:mm	CALS min	LABEL	CNFG
M70METNON363	363T00:12-09:12	363T01:30-10:30	09:00	99,124,142,124,99	63	363T00:12-09:12	363T01:30-10:30	09:00	60 /15	TP	N003
M70METNON364	364T00:12-04:12	364T01:30-05:30	04:00	99,110,124,142	63	364T00:12-04:17	364T01:30-05:35	04:05	60 /15	TP	N003
+M34HEFNON364	364T04:12-09:12	364T05:30-10:30	05:00	35,33,27	65	364T03:47-09:12	364T05:05-10:30	05:25	60 /15	TP	N003

Madrid 70-meter is in maintenance for part of DOY 364 pass, so we are doing a handover to the HEF.

T64 SPASS



Request	Riders	Start (SCET)	Start (Epoch)	Duration	End (SCET)	Primary	Secondary	Comments
Sequence S56, length = 32 days		2009-356T23:26:00		031T15:34:00	2010-023T15:00:00			
Titan Flyby T64 Segment		2009-361T09:12:00		003T00:00:00	2009-364T09:12:00			
SP_123TI_WAYPTTURN361_PRIME	M	2009-361T09:12:00		000T00:40:00	2009-361T09:52:00	NEG_Y to Titan	NEG_X to Sun	
NEW WAYPOINT		2009-361T09:52:00		002T23:20:00	2009-364T09:12:00	NEG_Y to Titan	NEG_X to Sun	
SP_123TI_DEADTIME361_PRIME	M	2009-361T09:52:00		000T00:15:24	2009-361T10:07:24	NEG_Y to Titan	NEG_X to Sun	
CIRS_123TI_MIDIRMAP001_PRIME	C, M, V	2009-361T10:07:24	GMB_E123_Titan64-000T14:09:35	000T04:09:35	2009-361T14:16:59	CIRS_FP1 to Titan	POS_X to North_Pole_Dir	
ISS_123TI_PHOTOMWAC001_PRIME	C, M, V	2009-361T14:16:59	GMB_E123_Titan64-000T10:00:00	000T01:00:00	2009-361T15:16:59	ISS_NAC to Titan (0.0,0.0,1.5 deg. offset)	NEG_X to Sun	
CIRS_123TI_MIRLMBINT001_PRIME	C, I, M, U, V	2009-361T15:16:59	GMB_E123_Titan64-000T09:00:00	000T04:00:00	2009-361T19:16:59	CIRS_FP1 to Titan	PIC	
CIRS_123TI_FIRNADMAP001_PRIME	C, M, R, U, V	2009-361T19:16:59	GMB_E123_Titan64-000T05:00:00	000T02:45:00	2009-361T22:01:59	CIRS_FP1 to Titan	POS_X to North_Pole_Dir	
CIRS_123TI_FIRLMBINT001_PRIME	C, I, M, R, U, V	2009-361T22:01:59	GMB_E123_Titan64-000T02:15:00	000T00:59:00	2009-361T23:00:59	CIRS_FP1 to Titan	PIC	
ENGR_123SC_RADRCS361_PRIME	I, M, R, U, V	2009-361T23:00:59	GMB_E123_Titan64-000T01:16:00	000T00:01:00	2009-361T23:01:59			Deadband = (0.5,2.0.5)
CIRS_123TI_FIRLMBCON001_PRIME	C, I, M, R, V	2009-361T23:01:59	GMB_E123_Titan64-000T01:15:00	000T00:37:00	2009-361T23:38:59	CIRS_FP1 to Titan	PIC	
RADAR_123TI_T64INALT001_PRIME	M	2009-361T23:38:59	GMB_E123_Titan64-000T00:38:00	000T00:20:00	2009-361T23:58:59	NEG_Z to Titan	NEG_X to Titan_SC_RAM	
RADAR_123TI_T64INSAR001_PRIME	M	2009-361T23:58:59	GMB_E123_Titan64-000T00:18:00	000T00:06:00	2009-362T00:04:59	NEG_Z to Titan	NEG_X to Titan_SC_RAM	Must be at INMS attitude by -0:05:00.
RADAR_123TI_T64RASAR001_PRIME	M	2009-362T00:04:59	GMB_E123_Titan64-000T00:12:00	000T00:12:00	2009-362T00:16:59	NEG_X to Titan_SC_RAM	NEG_Z to Titan	Ride-along.
Begin Dual Playback Science		2009-362T00:11:59	GMB_E123_Titan64-000T00:05:00	000T00:00:01	2009-362T00:12:00			
123TI (t) T64 TITAN Outbo...		2009-362T00:16:59		000T00:00:01	2009-362T00:17:00			
RADAR_123TI_T64OUTSAR001_PRIME	M	2009-362T00:16:59	GMB_E123_Titan64+000T00:00:00	000T00:18:00	2009-362T00:34:59	NEG_Z to Titan	NEG_X to Titan_SC_RAM	
End Dual Playback Science		2009-362T00:34:59	GMB_E123_Titan64+000T00:18:00	000T00:00:01	2009-362T00:35:00			
RADAR_123TI_T64OUTALT001_PRIME	M	2009-362T00:34:59	GMB_E123_Titan64+000T00:18:00	000T00:12:00	2009-362T00:46:59	NEG_Z to Titan	NEG_X to Sun	
RADAR_123TI_T64OHSAR001_PRIME	C, M	2009-362T00:46:59	GMB_E123_Titan64+000T00:30:00	000T00:28:00	2009-362T01:14:59	NEG_Z to Titan	NEG_X to Sun	
ENGR_123SC_DFPW362_PPS	C, M, V	2009-362T01:14:59	GMB_E123_Titan64+000T00:58:00	000T00:21:05	2009-362T01:36:04			Deadband = (2,2,2) default
VIMS_123TI_HIRES001_PRIME	C, I, M	2009-362T01:36:04	GMB_E123_Titan64+000T01:19:05	000T00:40:55	2009-362T02:16:59	VIMS_IR to Titan	NEG_X to Sun	
VIMS_123TI_REGMAP001_PRIME	C, I, M	2009-362T02:16:59	GMB_E123_Titan64+000T02:00:00	000T03:00:00	2009-362T05:16:59	VIMS_IR to Titan	NEG_X to Sun	
CIRS_123TI_MIRLMBMAP002_PRIME	C, M, U, V	2009-362T05:16:59	GMB_E123_Titan64+000T05:00:00	000T04:00:00	2009-362T09:16:59	CIRS_FP1 to Titan	PIC	
CIRS_123TI_FIRNADCMP002_PRIME	C, I, M, U, V	2009-362T09:16:59	GMB_E123_Titan64+000T09:00:00	000T03:00:00	2009-362T12:16:59	CIRS_FP1 to Titan	PIC	
ISS_123TI_MONITORNA001_PRIME	C, M, V	2009-362T12:16:59	GMB_E123_Titan64+000T12:00:00	000T02:00:00	2009-362T14:16:59	ISS_NAC to Titan (0.0,0.0,1.5 deg. offset)	NEG_X to Sun	
VIMS_123TI_GLOBMAP001_PRIME	C, I, M	2009-362T14:16:59	GMB_E123_Titan64+000T14:00:00	000T09:00:00	2009-362T23:16:59	VIMS_IR to Titan	NEG_X to Sun	
SP_123TI_DEADTIME362_PRIME	M	2009-362T23:16:59	GMB_E123_Titan64+000T23:00:00	000T00:15:01	2009-362T23:32:00	NEG_Y to Titan	NEG_X to Sun	
SP_123EA_DLTURN362_PRIME	M	2009-362T23:32:00		000T00:40:00	2009-363T00:12:00	XBAND to Earth	NEG_Y to 263.8/8.1	
SP_123EA_M70METNON363_PRIME	C, M	2009-363T00:12:00		000T09:00:00	2009-363T09:12:00	XBAND to Earth	NEG_Y to 263.8/8.1	
SP_123TI_WAYPTTURN363_PRIME	M	2009-363T09:12:00		000T00:40:00	2009-363T09:52:00	NEG_Y to Titan	NEG_X to Sun	
ISS_123TI_CLOUD001_PRIME	M, V	2009-363T09:52:00		000T02:00:00	2009-363T11:52:00	ISS_NAC to Titan	NEG_X to Sun	Secondary orientation: NEG_X to Sun preferred, but flexible
CAPS_123SA_MAGBNDPTG004_PRIME	M, V	2009-363T11:52:00		000T02:00:00	2009-363T13:52:00	POS_Y to COROT	PIC	
ISS_123TI_CLOUD002_PRIME	M, V	2009-363T13:52:00		000T01:40:00	2009-363T15:32:00	ISS_NAC to Titan	NEG_X to Sun	Secondary orientation: NEG_X to Sun preferred, but flexible
CIRS_123TI_COMPMAP001_PRIME	M, V	2009-363T15:32:00		000T08:00:00	2009-363T23:32:00	CIRS_FP1 to Titan	NEG_Z to NSP	
SP_123EA_DLTURN363_PRIME	M	2009-363T23:32:00		000T00:40:00	2009-364T00:12:00	XBAND to Earth	POS_X to NEP	
Pointer Reset in preparatio...		2009-364T00:12:00		000T00:00:01	2009-364T00:12:01			
SP_123EA_M70METNON364_PRIME	C, M	2009-364T00:12:00		000T04:00:00	2009-364T04:12:00	XBAND to Earth	Rolling	
SP_123EA_M34HEFNON364_PRIME	C, M	2009-364T04:12:00		000T05:00:00	2009-364T09:12:00	XBAND to Earth	Rolling/SRU	



T64 Wrap-up March 19, 2009

2009 DOY 361
08h

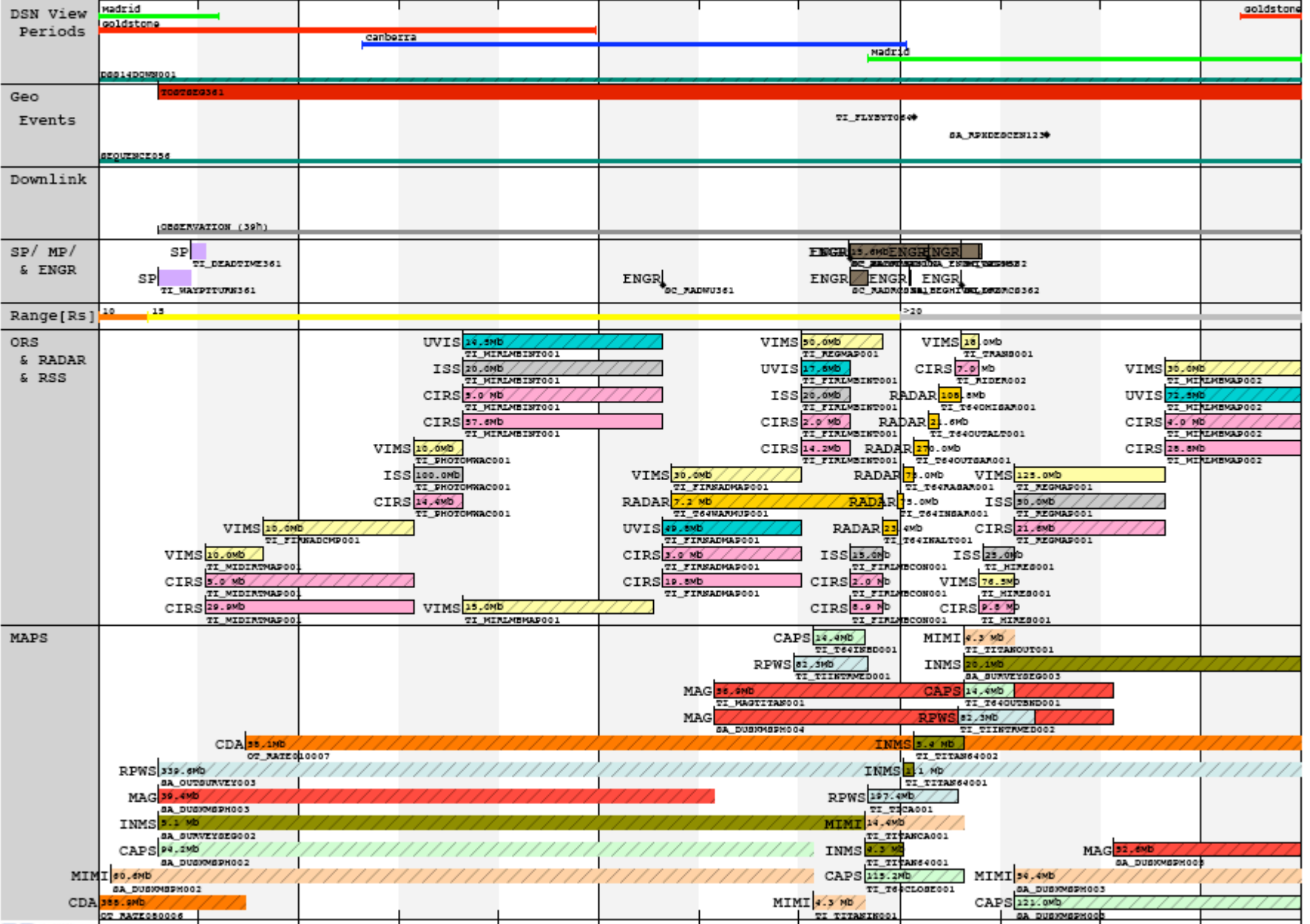
DOY 362
0h

12h

18h

6h

8h



08h

12h

18h

0h

6h

8h



T64 Wrap-up March 19, 2009

2009 DOY 362
8h

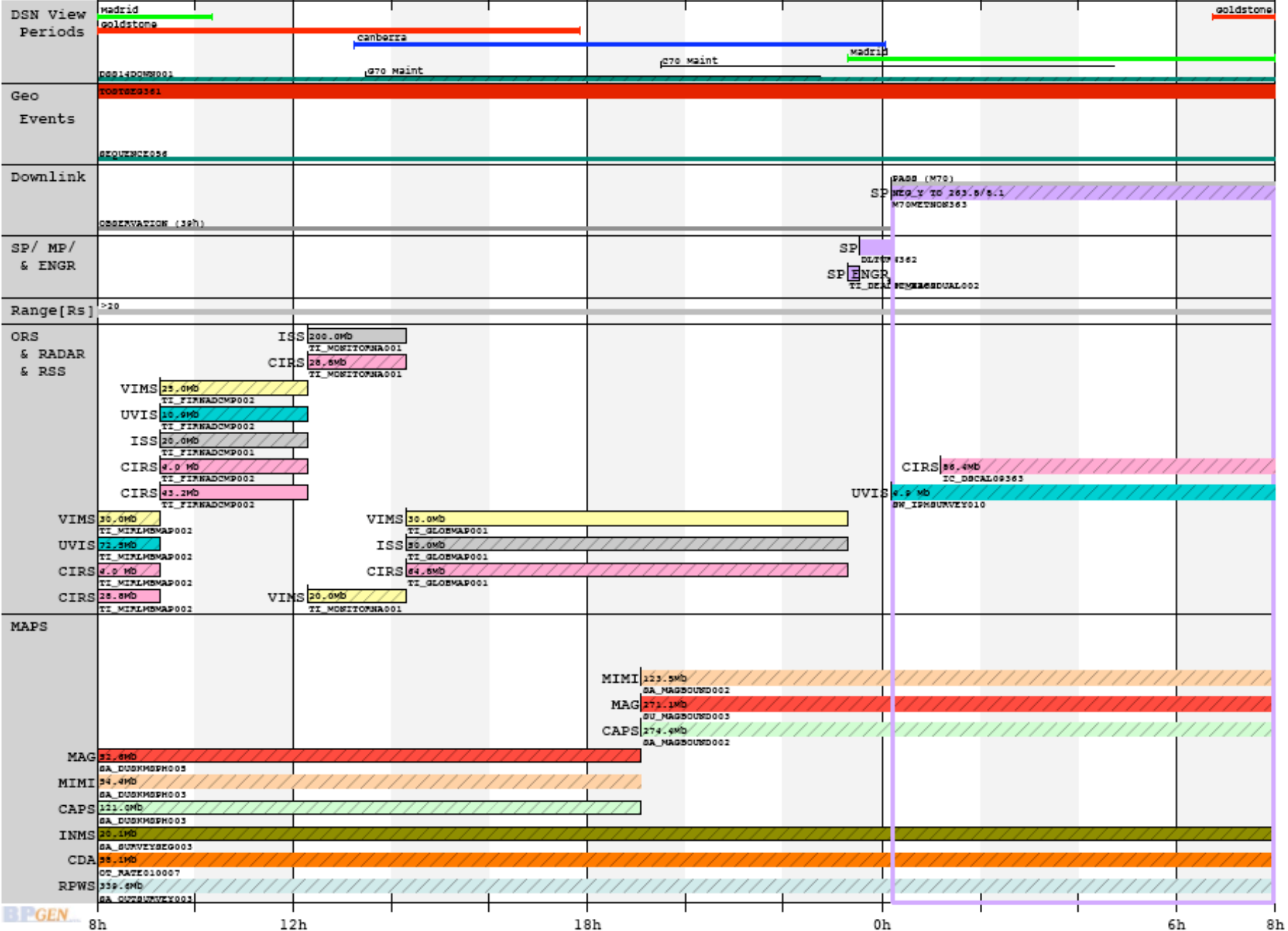
12h

18h

DOY 363
0h

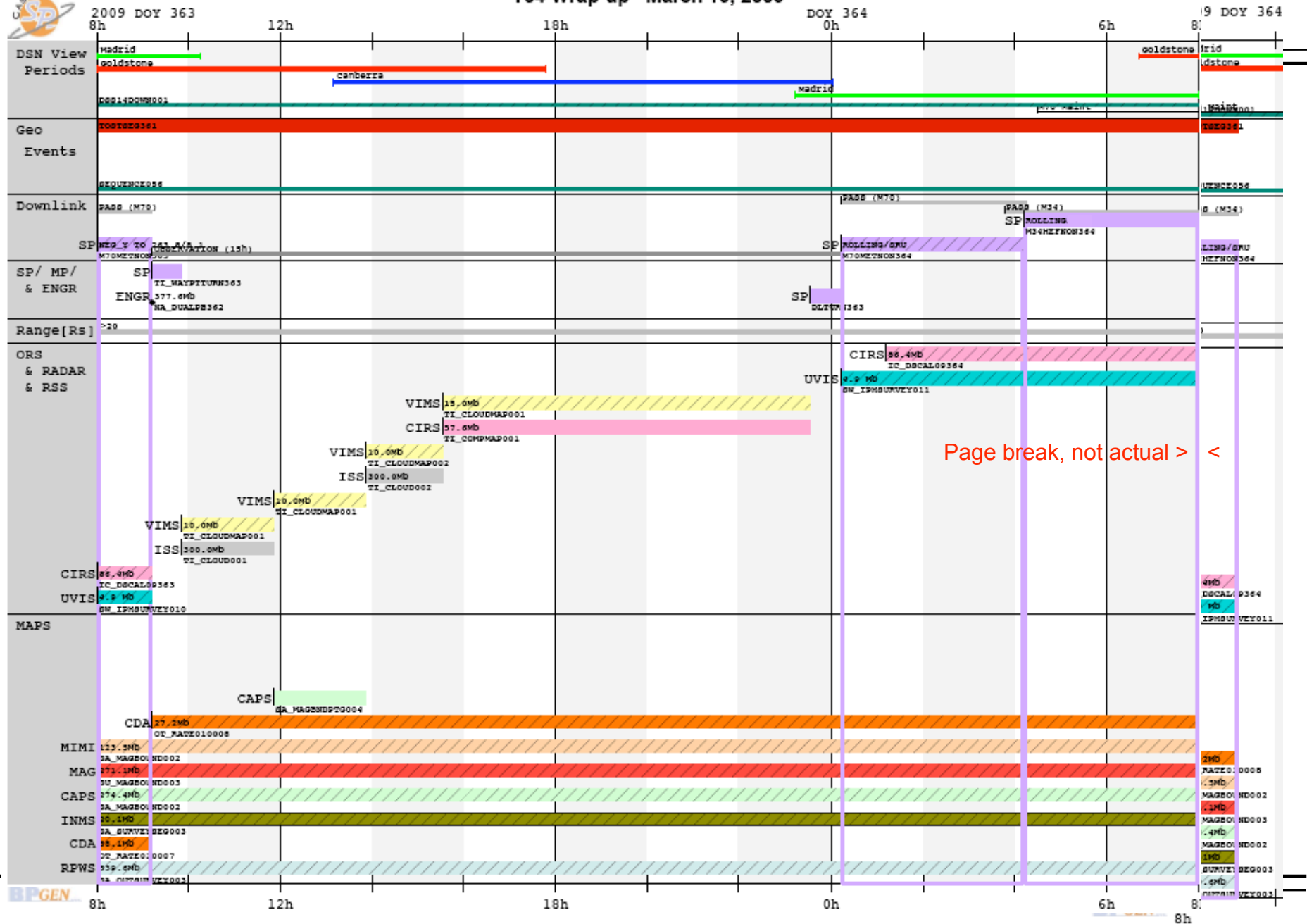
6h

8h





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Request	Start Time	Epoch	Duration	End Time	Rate	Data Volume	SPASS Type	Primary Pointing	Secondary Pointing	Pointing Agreement
MP 119NA DSS14DOWN001 NA	2009-275T22:33:19		212T00:12:49	2010-122T22:46:08	0	0	Non-SPASS			
MP 123NA SEQUENCE056 NA	2009-356T23:26:00		031T15:34:00	2010-023T15:00:00	0	0	SPASS Note			
CDA 123OT RATE080006 RIDER	2009-360T09:11:12		001T01:46:00	2009-361T10:57:12	4192	388.85	Non-SPASS			
MIMI 123SA DUSKMSPH002 RIDER	2009-361T08:15:00		000T14:02:00	2009-361T22:17:00	1200	60.624	SPASS Rider			
CAPS 123SA DUSKMSPH002 PRIME	2009-361T09:12:00		000T13:04:59	2009-361T22:16:59	2000	94.198	SPASS Rider			
INMS 123SA SURVEYSEG002 INMS	2009-361T09:12:00		000T14:04:59	2009-361T23:16:59	100	5.07	Non-SPASS			
MAG 123SA DUSKMSPH003 MAPS	2009-361T09:12:00		000T11:04:59	2009-361T20:16:59	988	39.42	Non-SPASS			
RPWS 123SA OUTSURVEY003 PRIME	2009-361T09:12:00		003T00:00:00	2009-364T09:12:00	1310	339.555	Non-SPASS			
SP 123NA M700BSNON363 NA	2009-361T09:12:00		001T15:00:00	2009-363T00:12:00	0	0	Non-SPASS			
SP 123NA TOSTSEG361 NA	2009-361T09:12:00		003T00:00:00	2009-364T09:12:00	0	0	SPASS Note			
SP 123TI WAYPTTURN361 PRIME	2009-361T09:12:00		000T00:40:00	2009-361T09:52:00	0	0	New Waypoint	NEG Y to Titan	NEG X to Sun	
SP 123TI DEADTIME361 PRIME	2009-361T09:52:00		000T00:15:24	2009-361T10:07:24	0	0	Prime	NEG Y to Titan	NEG X to Sun	
CIRS 123TI MIDIRTMAP001 PRIME	2009-361T10:07:24	GMB E123 Titan64-000T14:09:35	000T04:09:35	2009-361T14:16:59	2000	29.95	Prime	CIRS FPB to Titan	POS X to North Pole Dir	
CIRS 123TI MIDIRTMAP001 SI	2009-361T10:07:24	GMB E123 Titan64-000T14:09:35	000T04:09:35	2009-361T14:16:59	0	5	SPASS Rider			
VIMS 123TI MIDIRTMAP001 CIRS	2009-361T10:07:24	GMB E123 Titan64-000T14:09:35	000T01:09:35	2009-361T11:16:59	2395.2	10	SPASS Rider			
CDA 123OT RATE010007 RIDER	2009-361T10:57:12		001T22:14:48	2009-363T09:12:00	349	58.102	Non-SPASS			
VIMS 123TI FIRNADCM001 CIRS	2009-361T11:16:59	GMB E123 Titan64-000T13:00:00	000T03:00:00	2009-361T14:16:59	925.9	10	SPASS Rider			
CIRS 123TI PHOTOMWAC001 ISS	2009-361T14:16:59	GMB E123 Titan64-000T10:00:00	000T01:00:00	2009-361T15:16:59	4000	14.4	SPASS Rider			
ISS 123TI PHOTOMWAC001 PRIME	2009-361T14:16:59	GMB E123 Titan64-000T10:00:00	000T01:00:00	2009-361T15:16:59	0	100	Prime	ISS_NAC to Titan (0.0,0.0,1.5 deg. offset)	NEG X to Sun	
VIMS 123TI PHOTOMWAC001 ISS	2009-361T14:16:59	GMB E123 Titan64-000T10:00:00	000T01:00:00	2009-361T15:16:59	2777.8	10	SPASS Rider			
CIRS 123TI MIRLMBINT001 PRIME	2009-361T15:16:59	GMB E123 Titan64-000T09:00:00	000T04:00:00	2009-361T19:16:59	4000	57.6	Prime	CIRS FPB to Titan	PIC	
CIRS 123TI MIRLMBINT001 SI	2009-361T15:16:59	GMB E123 Titan64-000T09:00:00	000T04:00:00	2009-361T19:16:59	0	5	SPASS Rider			
ISS 123TI MIRLMBINT001 CIRS	2009-361T15:16:59	GMB E123 Titan64-000T09:00:00	000T04:00:00	2009-361T19:16:59	0	20	SPASS Rider			
UVIS 123TI MIRLMBINT001 CIRS	2009-361T15:16:59	GMB E123 Titan64-000T09:00:00	000T04:00:00	2009-361T19:16:59	1006.4	14.492	SPASS Rider			
VIMS 123TI MIRLMBMAP001 CIRS	2009-361T15:16:59	GMB E123 Titan64-000T09:00:00	000T03:50:00	2009-361T19:06:59	1087	15	SPASS Rider			
CIRS 123TI FIRNADMAP001 PRIME	2009-361T19:16:59	GMB E123 Titan64-000T05:00:00	000T02:45:00	2009-361T22:01:59	2000	19.8	Prime	CIRS FP1 to Titan	POS X to North Pole Dir	
CIRS 123TI FIRNADMAP001 SI	2009-361T19:16:59	GMB E123 Titan64-000T05:00:00	000T02:45:00	2009-361T22:01:59	0	3	SPASS Rider			
ENGR 123SC RADWU361 PPS	2009-361T19:16:59	GMB E123 Titan64-000T05:00:00	000T00:00:07	2009-361T19:17:06	0	0	Non-SPASS			
UVIS 123TI FIRNADMAP001 CIRS	2009-361T19:16:59	GMB E123 Titan64-000T05:00:00	000T02:45:00	2009-361T22:01:59	5032	49.817	SPASS Rider			
RADAR 123TI T64WARMUP001 RIDER	2009-361T19:26:59	GMB E123 Titan64-000T04:50:00	000T04:12:00	2009-361T23:38:59	474.2	7.171	SPASS Rider			
VIMS 123TI FIRNADMAP001 CIRS	2009-361T19:26:59	GMB E123 Titan64-000T04:50:00	000T02:35:00	2009-361T22:01:59	3225.8	30	SPASS Rider			
MAG 123SA DUSKMSPH004 MAPS	2009-361T20:16:59	GMB E123 Titan64-000T04:00:00	000T08:00:00	2009-362T04:16:59	0	0	Non-SPASS			
MAG 123TI MAGTITAN001 PRIME	2009-361T20:16:59	GMB E123 Titan64-000T04:00:00	000T08:00:00	2009-362T04:16:59	1976	56.909	Non-SPASS			
RPWS 123TI TIINTRMED001 PRIME	2009-361T21:52:59	GMB E123 Titan64-000T02:24:00	000T01:30:00	2009-361T23:22:59	15232	82.253	Non-SPASS			
CIRS 123TI FIRLMBINT001 PRIME	2009-361T22:01:59	GMB E123 Titan64-000T02:15:00	000T00:59:00	2009-361T23:00:59	4000	14.16	Prime	CIRS FP1 to Titan	PIC	
CIRS 123TI FIRLMBINT001 SI	2009-361T22:01:59	GMB E123 Titan64-000T02:15:00	000T00:59:00	2009-361T23:00:59	0	2	SPASS Rider			
ISS 123TI FIRLMBINT001 CIRS	2009-361T22:01:59	GMB E123 Titan64-000T02:15:00	000T01:00:00	2009-361T23:01:59	0	20	SPASS Rider			
UVIS 123TI FIRLMBINT001 CIRS	2009-361T22:01:59	GMB E123 Titan64-000T02:15:00	000T00:59:00	2009-361T23:00:59	5032	17.813	SPASS Rider			
VIMS 123TI REGMAP001 CIRS	2009-361T22:01:59	GMB E123 Titan64-000T02:15:00	000T01:37:00	2009-361T23:38:59	8591.1	50	SPASS Rider			
CAPS 123TI T64INBD001 PRIME	2009-361T22:16:59	GMB E123 Titan64-000T02:00:00	000T01:00:00	2009-361T23:16:59	4000	14.4	SPASS Rider			
MIMI 123TI TITANIN001 RIDER	2009-361T22:17:00		000T01:00:00	2009-361T23:17:00	1200	4.32	SPASS Rider			
ENGR 123SC AACSDUAL001 CDS	2009-361T22:57:59	GMB E123 Titan64-000T01:19:00	000T02:39:00	2009-362T01:36:59	1638	15.627	Non-SPASS			
ENGR 123SC RADRCS361 PPS	2009-361T23:00:59	GMB E123 Titan64-000T01:16:00	000T00:20:50	2009-361T23:21:49	0	0	Non-SPASS			
ENGR 123SC RADRCS361 PRIME	2009-361T23:00:59	GMB E123 Titan64-000T01:16:00	000T00:01:00	2009-361T23:01:59	0	0	Prime			Deadband = (0.5,2,0.5)
CIRS 123TI FIRLMBCON001 PRIME	2009-361T23:01:59	GMB E123 Titan64-000T01:15:00	000T00:37:00	2009-361T23:38:59	4000	8.88	Prime	CIRS FP1 to Titan	PIC	
CIRS 123TI FIRLMBCON001 SI	2009-361T23:01:59	GMB E123 Titan64-000T01:15:00	000T00:37:00	2009-361T23:38:59	0	2	SPASS Rider			
ISS 123TI FIRLMBCON001 CIRS	2009-361T23:01:59	GMB E123 Titan64-000T01:15:00	000T00:37:00	2009-361T23:38:59	0	15	SPASS Rider			
CAPS 123TI T64CLOSE001 PRIME	2009-361T23:16:59	GMB E123 Titan64-000T01:00:00	000T02:00:00	2009-362T01:16:59	16000	115.2	SPASS Rider			
INMS 123TI TITAN64001 INMS	2009-361T23:16:59	GMB E123 Titan64-000T01:00:00	000T00:48:00	2009-362T00:04:59	1498	4.314	Non-SPASS			
MIMI 123TI TITANCA001 RIDER	2009-361T23:17:00		000T02:00:00	2009-362T01:17:00	2000	14.4	SPASS Rider			
RPWS 123TI TITACA001 PRIME	2009-361T23:22:59	GMB E123 Titan64-000T00:54:00	000T01:48:00	2009-362T01:10:59	30464.1	197.407	Non-SPASS			
RADAR 123TI T64INALT001 PRIME	2009-361T23:38:59	GMB E123 Titan64-000T00:38:00	000T00:20:00	2009-361T23:58:59	19498.6	23.398	Prime	NEG Z to Titan	NEG X to Titan_SC_RAM	
RADAR 123TI T64INSAR001 PRIME	2009-361T23:58:59	GMB E123 Titan64-000T00:18:00	000T00:06:00	2009-362T00:04:59	208333.6	75	Prime	NEG Z to Titan	NEG X to Titan_SC_RAM	Must be at INMS attitude by -0:05:00.
INMS 123TI TITAN64001 PRIME	2009-362T00:04:59	GMB E123 Titan64-000T00:12:00	000T00:12:00	2009-362T00:16:59	1498	1.079	SPASS Rider			
RADAR 123TI T64RASAR001 PRIME	2009-362T00:04:59	GMB E123 Titan64-000T00:12:00	000T00:12:00	2009-362T00:16:59	104168.6	75.001	Prime	NEG X to Titan_SC_RAM	NEG Z to Titan	Ride-along.
ENGR 123NA BEGHIVAL362 CDS	2009-362T00:11:59	GMB E123 Titan64-000T00:05:00	000T00:00:01	2009-362T00:12:00	0	0	SPASS Note			
INMS 123TI TITAN64002 INMS	2009-362T00:16:59	GMB E123 Titan64-000T00:00:00	000T01:00:00	2009-362T01:16:59	1498	5.393	Non-SPASS			
MP 123TI FLYBYT064 NA	2009-362T00:16:59		000T00:00:01	2009-362T00:17:00	0	0	SPASS Note			

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Request	Start Time	Epoch	Duration	End Time	Rate	Data Volume	SPASS Type	Primary Pointing	Secondary Pointing	Pointing Agreement
MP 123TI FLYBYT064 NA	2009-362T00:16:59		000T00:00:01	2009-362T00:17:00	0	0	SPASS Note			
RADAR 123TI T64OUTSAR001 PRIME	2009-362T00:16:59	GMB E123 Titan64+000T00:00:00	000T00:18:00	2009-362T00:34:59	250001.1	270.001	Prime	NEG Z to Titan	NEG X to Titan SC RAM	
ENGR 123NA ENDHIVAL362 CDS	2009-362T00:34:59	GMB E123 Titan64+000T00:18:00	000T00:00:01	2009-362T00:35:00	0	0	SPASS Note			
RADAR 123TI T64OUTALT001 PRIME	2009-362T00:34:59	GMB E123 Titan64+000T00:18:00	000T00:12:00	2009-362T00:46:59	30001.2	21.601	Prime	NEG Z to Titan	NEG X to Sun	
RADAR 123TI T64OHISAR001 PRIME	2009-362T00:46:59	GMB E123 Titan64+000T00:30:00	000T00:28:00	2009-362T01:14:59	64762.9	108.802	Prime	NEG Z to Titan	NEG X to Sun	
CIRS 123TI RIDER002 SP	2009-362T01:06:59	GMB E123 Titan64+000T00:50:00	000T00:29:05	2009-362T01:36:04	4000	6.98	SPASS Rider			
RPWS 123TI TIINTRMED002 PRIME	2009-362T01:10:59	GMB E123 Titan64+000T00:54:00	000T01:30:00	2009-362T02:40:59	15232	82.253	Non-SPASS			
ENGR 123SC ORSRC362 PPS	2009-362T01:14:51	GMB E123 Titan64+000T00:57:52	000T00:00:06	2009-362T01:14:57	0	0	Non-SPASS			
ENGR 123SC DFPW362 PPS	2009-362T01:14:59	GMB E123 Titan64+000T00:58:00	000T00:21:05	2009-362T01:36:04	0	0	Prime			Deadband = (2,2,2) default
VIMS 123TI TRANS001 ENGR	2009-362T01:14:59	GMB E123 Titan64+000T00:58:00	000T00:21:05	2009-362T01:36:04	14229.2	18	SPASS Rider			
CAPS 123TI T64OUTBND001 PRIME	2009-362T01:16:59	GMB E123 Titan64+000T01:00:00	000T01:00:00	2009-362T02:16:59	4000	14.4	SPASS Rider			
INMS 123SA SURVEYSEG003 INMS	2009-362T01:16:59	GMB E123 Titan64+000T01:00:00	002T07:55:00	2009-364T09:11:59	100	20.13	Non-SPASS			
MIMI 123TI TITANOUT001 RIDER	2009-362T01:17:00		000T01:00:00	2009-362T02:17:00	1200	4.32	SPASS Rider			
CIRS 123TI HIRES001 VIMS	2009-362T01:36:04	GMB E123 Titan64+000T01:19:05	000T00:40:55	2009-362T02:16:59	4000	9.82	SPASS Rider			
VIMS 123TI HIRES001 PRIME	2009-362T01:36:04	GMB E123 Titan64+000T01:19:05	000T00:40:55	2009-362T02:16:59	31160.9	76.5	Prime	VIMS IR to Titan	NEG X to Sun	
ISS 123TI HIRES001 VIMS	2009-362T01:38:59	GMB E123 Titan64+000T01:22:00	000T00:38:00	2009-362T02:16:59	0	25	SPASS Rider			
CAPS 123SA DUSKMSPH003 PRIME	2009-362T02:16:59	GMB E123 Titan64+000T02:00:00	000T16:48:01	2009-362T19:05:00	2000	120.962	SPASS Rider			
CIRS 123TI REGMAP001 VIMS	2009-362T02:16:59	GMB E123 Titan64+000T02:00:00	000T03:00:00	2009-362T05:16:59	2000	21.6	SPASS Rider			
ISS 123TI REGMAP001 VIMS	2009-362T02:16:59	GMB E123 Titan64+000T02:00:00	000T03:00:00	2009-362T05:16:59	0	50	SPASS Rider			
VIMS 123TI REGMAP001 PRIME	2009-362T02:16:59	GMB E123 Titan64+000T02:00:00	000T03:00:00	2009-362T05:16:59	11574.1	125	Prime	VIMS IR to Titan	NEG X to Sun	
MIMI 123SA DUSKMSPH003 RIDER	2009-362T02:17:00		000T16:48:00	2009-362T19:05:00	900	54.432	SPASS Rider			
MP 123SA RFXDESCEN123 NA	2009-362T02:57:03		000T00:00:01	2009-362T02:57:04	0	0	Non-SPASS			
MAG 123SA DUSKMSPH005 MAPS	2009-362T04:16:59	GMB E123 Titan64+000T04:00:00	000T14:48:01	2009-362T19:05:00	988	52.642	Non-SPASS			
CIRS 123TI MIRLMBMAP002 PRIME	2009-362T05:16:59	GMB E123 Titan64+000T05:00:00	000T04:00:00	2009-362T09:16:59	2000	28.8	Prime	CIRS FPB to Titan	PIC	
CIRS 123TI MIRLMBMAP002 SI	2009-362T05:16:59	GMB E123 Titan64+000T05:00:00	000T04:00:00	2009-362T09:16:59	0	4	SPASS Rider			
UVIS 123TI MIRLMBMAP002 CIRS	2009-362T05:16:59	GMB E123 Titan64+000T05:00:00	000T04:00:00	2009-362T09:16:59	5032	72.461	SPASS Rider			
VIMS 123TI MIRLMBMAP002 CIRS	2009-362T05:16:59	GMB E123 Titan64+000T05:00:00	000T04:00:00	2009-362T09:16:59	2083.3	30	SPASS Rider			
CIRS 123TI FIRNADCM002 PRIME	2009-362T09:16:59	GMB E123 Titan64+000T09:00:00	000T03:00:00	2009-362T12:16:59	4000	43.2	Prime	CIRS FP1 to Titan	PIC	
CIRS 123TI FIRNADCM002 SI	2009-362T09:16:59	GMB E123 Titan64+000T09:00:00	000T03:00:00	2009-362T12:16:59	0	4	SPASS Rider			
ISS 123TI FIRNADCM001 CIRS	2009-362T09:16:59	GMB E123 Titan64+000T09:00:00	000T03:00:00	2009-362T12:16:59	0	20	SPASS Rider			
UVIS 123TI FIRNADCM002 CIRS	2009-362T09:16:59	GMB E123 Titan64+000T09:00:00	000T03:00:00	2009-362T12:16:59	1006.4	10.869	SPASS Rider			
VIMS 123TI FIRNADCM002 CIRS	2009-362T09:16:59	GMB E123 Titan64+000T09:00:00	000T03:00:00	2009-362T12:16:59	2314.8	25	SPASS Rider			
CIRS 123TI MONITORNA001 ISS	2009-362T12:16:59	GMB E123 Titan64+000T12:00:00	000T02:00:00	2009-362T14:16:59	4000	28.8	SPASS Rider			
ISS 123TI MONITORNA001 PRIME	2009-362T12:16:59	GMB E123 Titan64+000T12:00:00	000T02:00:00	2009-362T14:16:59	0	200	Prime	ISS NAC to Titan (0.0,0.0,1.5 deg. offset)	NEG X to Sun	
VIMS 123TI MONITORNA001 ISS	2009-362T12:16:59	GMB E123 Titan64+000T12:00:00	000T02:00:00	2009-362T14:16:59	2777.8	20	SPASS Rider			
CIRS 123TI GLOBMAP001 VIMS	2009-362T14:16:59	GMB E123 Titan64+000T14:00:00	000T09:00:00	2009-362T23:16:59	2000	64.8	SPASS Rider			
ISS 123TI GLOBMAP001 VIMS	2009-362T14:16:59	GMB E123 Titan64+000T14:00:00	000T09:00:00	2009-362T23:16:59	0	50	SPASS Rider			
VIMS 123TI GLOBMAP001 PRIME	2009-362T14:16:59	GMB E123 Titan64+000T14:00:00	000T09:00:00	2009-362T23:16:59	925.9	30	Prime	VIMS IR to Titan	NEG X to Sun	
CAPS 123SA MAGBOUND002 PRIME	2009-362T19:05:00		001T14:07:00	2009-364T09:12:00	2000	274.44	SPASS Rider			
MAG 123SU MAGBOUND003 MAPS	2009-362T19:05:00		001T14:07:00	2009-364T09:12:00	1976	271.147	Non-SPASS			
MIMI 123SA MAGBOUND002 RIDER	2009-362T19:05:00		001T14:07:00	2009-364T09:12:00	900	123.498	SPASS Rider			
SP 123TI DEADTIME362 PRIME	2009-362T23:16:59	GMB E123 Titan64+000T23:00:00	000T00:15:01	2009-362T23:32:00	0	0	Prime	NEG Y to Titan	NEG X to Sun	
SP 123EA DLTURN362 PRIME	2009-362T23:32:00		000T00:40:00	2009-363T00:12:00	0	0	Prime	XBAND to Earth	NEG Y to 263.8/8.1	
ENGR 123SC AACSDUAL002 CDS	2009-363T00:11:47		000T00:00:02	2009-363T00:11:49	0	0	Non-SPASS			
SP 123EA M70METNON363 PRIME	2009-363T00:12:00		000T09:00:00	2009-363T09:12:00	0	0	Prime	XBAND to Earth	NEG Y to 263.8/8.1	
SP 123NA M70METNON363 SP	2009-363T00:12:00		000T09:00:00	2009-363T09:12:00	0	0	Non-SPASS			
UVIS 123SW IPHSURVEY010 RIDER	2009-363T00:12:00		000T09:00:00	2009-363T09:12:00	152.5	4.94	Non-SPASS			
CIRS 123IC DSCAL09363 SP	2009-363T01:12:00		000T08:00:00	2009-363T09:12:00	3000	86.4	SPASS Rider			
CDA 123OT RATE010008 RIDER	2009-363T09:12:00		001T00:00:00	2009-364T09:12:00	314.4	27.164	Non-SPASS			
ENGR 123NA DUALPB362 CDS	2009-363T09:12:00		000T00:00:01	2009-363T09:12:01	377561344	377.561	SPASS Note			
SP 123NA M34OBSNON364 NA	2009-363T09:12:00		000T15:00:00	2009-364T00:12:00	0	0	Non-SPASS			
SP 123TI WAYPTTURN363 PRIME	2009-363T09:12:00		000T00:40:00	2009-363T09:52:00	0	0	Prime	NEG Y to Titan	NEG X to Sun	
ISS 123TI CLOUD001 PRIME	2009-363T09:52:00		000T02:00:00	2009-363T11:52:00	0	300	Prime	ISS NAC to Titan	NEG X to Sun	
VIMS 123TI CLOUDMAP001 ISS	2009-363T09:52:00		000T02:00:00	2009-363T11:52:00	1388.9	10	SPASS Rider			Secondary orientation: NEG X to Sun preferred, but flexible
CAPS 123SA MAGBNDPTG004 PRIME	2009-363T11:52:00		000T02:00:00	2009-363T13:52:00	0	0	Prime	POS Y to COROT	PIC	
VIMS 123TI CLOUDMAP001 CAPS	2009-363T11:52:00		000T02:00:00	2009-363T13:52:00	1388.9	10	SPASS Rider			
ISS 123TI CLOUD002 PRIME	2009-363T13:52:00		000T01:40:00	2009-363T15:32:00	0	300	Prime	ISS NAC to Titan	NEG X to Sun	
VIMS 123TI CLOUDMAP002 ISS	2009-363T13:52:00		000T01:40:00	2009-363T15:32:00	1666.7	10	SPASS Rider			Secondary orientation: NEG X to Sun preferred, but flexible
CIRS 123TI COMPMAP001 PRIME	2009-363T15:32:00		000T08:00:00	2009-363T23:32:00	2000	57.6	Prime	CIRS FPB to Titan	NEG Z to NSP	
VIMS 123TI CLOUDMAP001 CIRS	2009-363T15:32:00		000T08:00:00	2009-363T23:32:00	520.8	15	SPASS Rider			
SP 123EA DLTURN363 PRIME	2009-363T23:32:00		000T00:40:00	2009-364T00:12:00	0	0	Prime	XBAND to Earth	POS X to NEP	
SP 123EA M70METNON364 PRIME	2009-364T00:12:00		000T04:00:00	2009-364T04:12:00	0	0	Prime	XBAND to Earth	Rolling	
SP 123NA M70METNON364 SP	2009-364T00:12:00		000T04:05:00	2009-364T04:17:00	0	0	Non-SPASS			
UVIS 123SW IPHSURVEY011 RIDER	2009-364T00:12:00		000T09:00:00	2009-364T09:12:00	152.5	4.94	Non-SPASS			
CIRS 123IC DSCAL09364 SP	2009-364T01:12:00		000T08:00:00	2009-364T09:12:00	3000	86.4	SPASS Rider			
SP 123NA M34HEFNON364 SP	2009-364T03:47:00		000T05:25:00	2009-364T09:12:00	0	0	Non-SPASS			
SP 123EA M34HEFNON364 PRIME	2009-364T04:12:00		000T05:00:00	2009-364T09:12:00	0	0	Prime	XBAND to Earth	Rolling/SRU	



T64 Open Issues

- Data Volume - see p.7
- Inbound transition to RCS: CIRS/ENGR pointing coordination will need to take place

CIMS Edits:

- RADAR_123TI_T64WARMUP001_RIDER should start at GMB_E123_Titan64-000T05:00:00

Check riders for alignment with primes

- VIMS_123TI_MIDIRTMAP001_CIRS @ 2009-361T10:07:24 (GMB_E123_Titan64-000T14:09:35)
- VIMS_123TI_MIRLMBMAP001_CIRS @ 2009-361T15:16:59 (GMB_E123_Titan64-000T09:00:00)
- VIMS_123TI_FIRNADMAP001_CIRS @ 2009-361T19:26:59 (GMB_E123_Titan64-000T04:50:00)
- **ok?** VIMS_123TI_REGMAP001_CIRS @ 2009-361T22:01:59 (GMB_E123_Titan64-000T02:15:00)

- ISS_123TI_FIRLMBINT001_CIRS @ 2009-361T22:01:59 (GMB_E123_Titan64-000T02:15:00)
- ISS_123TI_HIRES001_VIMS @ 2009-362T01:38:59 (GMB_E123_Titan64+000T01:22:00)