

**174TI T87**

C/A Altitude = 973 km

Delivered: May 09, 2012

Start Time	End Time	Prime Activity	Observation Detail	Operational Mode	Telemetry Mode	Comments
2012-317T14:01:00	2012-317T14:41:00	SP Turn to Waypoint	NEG_Y to Titan, NEG_X to NTP	DFPW Normal	S_N_ER_3	
2012-317T14:41:00	C/A-19:26:09	OD Uncertainty Dead Time		DFPW Normal	S_N_ER_3	
C/A-19:26:09	-13:00	CIRS	Template M4 (TC1b)	DFPW Normal	S_N_ER_3	
-13:00	-09:00	VIMS	Template O (TN1a, Specular reflection of lakes -depending on geometry)	DFPW Normal	S_N_ER_3	
-09:00	-07:05	VIMS	Template Q (TN1a, Specular reflection of lakes -depending on geometry)	DFPW Normal	S_N_ER_3	
-07:05	-05:00	VIMS	KA band warm up for NAV Template Q (TN1a, Specular reflection of lakes -depending on geometry)	RSS_K_RWAF	S_N_ER_3	
-05:00	-04:20	SP Turn to Earth for Downlink		RSS_K_RWAF	S_N_ER_3	
-04:20	-01:00	Madrid 34M, NAV/INMS	HGA to Earth, NEG_X to RAM (TC2a)	RSS_K_RWAF	S_N_ER_3	NOTE: NAV/INMS requires early uplink; work transition times with NAV and INMS (riders).
-01:00	-00:39	RWA to RCS Transition (Rider)	HGA to Earth, NEG_X to RAM (TC2a)	RSS3RCS, then RSS2RWAP_Full at -00:39:12 to turn off S-band (Unique: "RSS_K_RCS")	S_N_ER_3	Set deadband to (0.5, 0.5, 2.0 mrad) to save hydrazine. Two-part opmode transition, going from RSSKRWAP-FULL to RSS3RCS in two steps: ORSRWA to ORSRCS, then DFPW_normal to RSS2RWAP-FULL.
-00:39	+00:38	Madrid 34M, NAV/INMS	HGA to Earth, NEG_X to RAM (TC2a)	Unique: "RSS_K_RCS"	S_N_ER_3	
2012-318T10:22:09		CLOSEST APPROACH	XBAND to EARTH, NEG_X to RAM (TC2a)			
+00:38	+00:59	RCS to RWA Transition (Rider)	HGA to Earth, NEG_X to RAM (TC2a)	RSS_K_RWAF	S_N_ER_3	Set deadband to (2.0, 2.0, 2.0 mrad) during outbound. Transition back to RSSKRWAP-FULL in two steps: RSS2RWAP-FULL to RSSKRWAP-FULL, then ORSRCS to ORSRWA.
+00:59	+01:55:51	Madrid 34M, NAV/INMS	HGA to Earth, NEG_X to RAM (TC2a)	RSS_K_RWAF	S_N_ER_3	
+01:55:51	+04:30	Goldstone 34M, NAV/INMS	(TC2a)	RSS_K_RWAF	S_N_ER_3	
+04:30	+05:00	SP Turn to Waypoint	(TC2a)	RSS_K_RWAF	S_N_ER_3	
+05:00	+09:00	VIMS	Template I (TC1a and TN2c)	DFPW Normal	S_N_ER_3	ISS rider
+09:00	+14:00	CIRS	Template C (TN1c)	DFPW Normal	S_N_ER_3	VIMS rider
+14:00	C/A+19:13:51	CIRS	Template A2 (TC1b)	DFPW Normal	S_N_ER_3	ISS rider
C/A+19:13:51	2012-319T05:51:00	OD Uncertainty Dead Time		DFPW Normal	S_N_ER_3	
2012-319T05:51:00	2012-319T06:31:00	SP Turn to Earth for Downlink	XBAND to Earth, NEG_Y to Saturn (0.0, 0.0, -9.5 deg offset)	DFPW Normal	S_N_ER_3	Secondary pointing is MIMI preference
2012-319T06:31:00	2012-319T12:01:00	Madrid 70M		DFPW Normal	RTE_N_SPB	Rolling
2012-319T12:01:00	2012-319T21:46:00	Goldstone 70M		DFPW Normal	RTE_N_SPB	Rolling, Dual Playback for NAV/INMS, -00:30 to +00:30