Timeline for Cassini Rev 47 RSS Saturn Atmospheric Occultations on June 27/28, 2007 (DOY 178/179)

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	ERT UTC	SCET OWLT = 1:22:18	PDT ERT-7hrs 7:00:00	Comments
DSS-25, 26: Start Precals	22:15:00	20:52:42	15:15:00	
DSS-14: Start Precals	22:45:00	21:22:42	15:45:00	
DSS-14 Begin of Track	23:45:00	22:22:42	16:45:00	Blind pointing is used throughout this experiment
DSS-25, 26 Begin of Track	0:00:00	22:37:42	17:00:00	Blind pointing is used throughout this experiment
Cassini is Behind Saturn				No Downlink from Cassini
Start turn from waypoint to Saturn's limb	0:30:49	23:08:31	17:30:49	HGA is Earth pointed but signals are blocked by Saturn
TLM OFF	0:30:55	23:08:37	17:30:55	
Start egress limb-track	0:33:43	23:11:25	17:33:43	Signals may still be nondetectable at this time
Weak S-band signal (~1.55° Bending Angle)	0:38:33	23:16:15	17:38:33	Increasing and scintillating S-band signal intensity
Weak X-band signal (~1.35° BA)	0:39:36	23:17:18	17:39:36	Increasing and scintillating X-band signal intensity
Weak Ka-band signal (~1.15° BA)	0:40:37	23:18:19	17:40:37	Increasing and scintillating Ka-band signal intensity
Tropopause (~0.1° BA)	0:45:38	23:23:20	17:45:38	All three signals near full strength; scintillations
Troposphere out	0:46:48	23:24:30	17:46:48	Possible ionospheric multipath (signal level > free-space)
Stratosphere + ionosphere				PC/N0 (X70, X34, K34, S70) = ~54, 48, 48, 41 dB
Top of the ionosphere (~68,000 km)	0:59:30	23:37:12	17:59:30	All three signals at nearly free-space strength
End of baseline; TLM ON	1:05:45	23:43:27	18:05:45	Shortened baseline to enable dust avoidance maneuver
Start S/C Turn for dust-hazarad avoidance	1:05:49	23:43:31	18:05:49	End of the RSS experiment
DSS-25, 26, & 14 End of Track	1:15:00	23:52:42	18:15:00	
DSS-25, 26, & 14 End of Postcals	1:30:00	0:07:42	18:30:00	

Atmospheric event times are based on reference trajectory 070209 (< 1 sec deifference from rev 47 LUB OD)

Indicates DSN Related Activities