Timeline for Cassini Rev 72 RSS Saturn Atmospheric Occultation
on June 16, 2008 (DOY 168)

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	ERT UTC OWLT = 1:20:14	SCET	PDT ERT-7hrs 7:00:00	Comments
RSS3a Op-Mode start	2:34:24	1:14:10	19:34:24	
DSS-14 Start Precal	2:45:00	1:24:46	19:45:00	
DSS-43 Start Precal	2:55:00	1:34:46	19:55:00	
DSS-25 & 26 Start Precal	3:00:00	1:39:46	20:00:00	
DSS-14 Begin of Track	3:45:00	2:24:46	20:45:00	
DSS-25 & 26 Begin of Track	4:00:00	2:39:46	21:00:00	
DSS-34 & 43: Begin of Track	4:00:00	2:39:46	21:00:00	
SNT Measurement (all bands)	TBD			
DSS-47: Begin of Track	4:30:00	3:09:46	21:30:00	
TWNC ON	4:39:35	3:19:21	21:39:35	
TLM OFF	4:39:40	3:19:26	21:39:40	End of SP turn to Earth (1 hr 7 min turn)
Start Live Moveable Block (LMB)	4:39:43	3:19:29	21:39:43	PC/N0 (X70, X&Ka34, S70) = ~54, 48, 48, and 42 dB
DSS-25 & 26 Enable Monopulse	4:40:00	3:19:46	21:40:00	Enable monopulse once receivers are in lock
DSS-34 Enable Monopulse	4:40:00	3:19:46	21:40:00	Enable monopulse once receiever is in lock
DSS-25 & 26 Disable Monopulse	TBD			Real-Time decision to leave or remove the offsets
DSS-34 Disable Monopulse	TBD			Real-Time decision to leave or remove the offset
Start Free-Space Baseline	4:56:19	3:36:05	21:56:19	PC/N0 (X70, X&Ka34, S70) = ~54, 48, 48, and 42 dB
Top of the ionosphere (@~68,000 km)	5:09:42	3:49:28	22:09:42	Ionosphere primarily affects signal frequency
Troposphere in (~0.1° BA)	5:20:34	4:00:20	22:20:34	S/X/Ka signal intensities start to drop and scintillate
Likely loss of Ka-band signal (~1.15° BA)	5:23:36	4:03:22	22:23:36	Approximate time (clear of the rings)
Likely loss of X-band signal (~1.35° BA)	5:24:35	4:04:21	22:24:35	Approximate time (clear of the rings)
Likely loss of S-band signal (~1.55° BA)	5:25:14	4:05:00	22:25:14	Approximate time (clear of the rings)
DSS-47: End of Track	5:30:00			
Cassini is Behind Saturn SNT Measurement (all bands)				No S/X/Ka downlink detectable

Weak S-band signal (~1.55° BA)	6:26:50	5:06:36	23:26:50	Weak but increasing and scintillating S-band signal
Weak X-band signal (~1.35° BA)	6:27:28	5:07:14	23:27:28	Weak but increasing and scintillating X-band signal
Weak Ka-band signal (~1.15° BA)	6:28:06	5:07:52	23:28:06	Weak but increasing and scintillating Ka-band signal
Troposphere Out (~0.1° BA)	6:31:22	5:11:08	23:31:22	PC/N0 (X70, X&Ka34, S70) = ~54, 48, 48, and 42 dB
DSS-14, 25, & 26: End of Track	6:35:00	5:14:46	23:35:00	
SNT Measurements (all bands)	TBD			
Ionosphere Out (~68,000 km)	6:45:25	5:25:11	23:45:25	Ionosphere primarily affects signal frequency
DSS-14, 25, & 26: Postcal	6:50:00	5:29:46	23:50:00	
End of Free-Space Baseline	6:58:19	5:38:05	23:58:19	
DSS-34: Enable Monopulse	7:09:00	5:48:46		
End of Live Moveable Block (LMB)	7:11:14	5:51:00	0:11:14	
Loss of all three signals	7:11:14	5:51:00	0:11:14	Cassini turns away from Earth point
TLM ON	7:11:16	5:51:02	0:11:16	
TWNC OFF	7:11:20	5:51:06	0:11:20	
RSS3a Op-Mode End	7:11:24	5:51:10	0:11:24	
SNT Measurement (all bands)	TBD			
DSS-34 & 43 End of Track	8:00:00	6:39:46	1:00:00	
DSS-34 & 43 Postacl	8:15:00	6:54:46	1:15:00	

DSS-14, 25, & 26 Activities
DSS-34 & 43 Activities
DSS-47 (Narrabri) Activities
All times are based on Rev 72 Live Update OD published on June 09, 2008
Monopulse strategy is preliminary and may be modified in real-time