

## Timeline for Cassini Rev 64 RSS Occultation of Saturn's Rings on April 11, 2008 (DOY 102)

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	ERT UTC OWLT = 1:11:39	SCET	PST ERT-8hrs 7:00:00	Comments
Spacecraft HGA is Earth Pointed	5:15:39	4:04:00	22:15:39	HGA is Earth pointed during the RSS warmup period
DSS-43: Start Precal	5:40:00	4:28:21	22:40:00	
DSS-34: Start Precal	5:45:00	4:33:21	22:45:00	
DSS-14 & DSS-25 Precal	5:45:00	4:33:21	22:45:00	
DSS-14 & DSS-25 Begin of Track	6:45:00	5:33:21	23:45:00	
DSS-34 & 43 Begin of Track	6:45:00	5:33:21	23:45:00	
DSS-34: Enable Monopulse	6:45:05	5:33:26	23:45:05	Enable monopulse when instructed by Radio Science
DSS-25: Enable Monopulse	6:45:05	5:33:26	23:45:05	
DSS-25: Disable Monopulse	TBD			Real-time decision
DSS-34: Disable Monopulse	TBD			Real-time decision
DSS-34 & 43: SNT Measurement	TBD			All diodes should be off at end of measurement
DSS-14 & 25: SNT Measurement	TBD			All diodes should be off at end of measurement
TWNC ON/ RNG OFF/ TLM OFF	7:30:29	6:18:50	0:30:29	
Start Free-Space Baseline	7:30:39	6:19:00	0:30:39	Pc/N0 (X70, X34, Ka34, S70) = ~55, 49, 49, and 43 dB
Ring F	7:54:18	6:42:38	0:54:18	Rings F is only detectable in postprocessing
Ring A in	7:55:14	6:43:35	0:55:14	Detectable signals over most of Ring A
Enke Gap	7:56:02	6:44:23	0:56:02	Signals are back very briefly to full strength
Ring A out	7:58:59	6:47:20	0:58:59	Relatively strong signals in the Cassini Division
Ring B in	8:00:11	6:48:31	1:00:11	Signals may be detectable over inner region of Ring B
Ring C in	8:07:33	6:55:54	1:07:33	Signals detectable but briefly blocked by dense ringlets
Ring C out	8:14:40	7:03:00	1:14:40	Pc/N0 (X70, X34, Ka34, S70) = ~55, 49, 49, and 43 dB

Top of ionosphere (~68,000 km)	8:22:49	7:11:10	1:22:49	The upper ionosphere will be mixed with the rings
Ring C in	8:26:35	7:14:56	1:26:35	All ring features occultes again in reverse order
Ring B in	8:33:42	7:22:03	1:33:42	Signals likely absent over most of Ring B
Ring B out	8:41:04	7:29:25	1:41:04	Relatively strong signals in the Cassini Division
Ring A in	8:42:16	7:30:37	1:42:16	Detectable signals over most of Ring A
Encke gap	8:45:13	7:33:34	1:45:13	Signals are back very briefly to full strength
Ring A out	8:46:01	7:34:22	1:46:01	Pc/N0 (X70, X34, Ka34, S70) = ~55, 49, 49, and 43 dB
Ring F	8:46:57	7:35:18	1:46:57	Rings F is only detectable in postprocessing
At Lowest Ionosphere Radius (62,010 km)	8:56:28	7:44:49	1:56:28	
Back at Top of the Ionosphere (~68,000 km)	9:30:09	8:18:30	2:30:09	
Start Free-Space Baseline	9:30:10	8:18:31	2:30:10	
End of Rev 64 RSS Observations	10:31:39	9:20:00	3:31:39	"Official" end of the Rev 64 RSS ring occultation
TLM ON/ TWNC OFF/ RNG LOW	10:31:43	9:20:04	3:31:43	
DSS-14 & 25: SNT Measurements	TBD			
DSS-34 & 43: SNT Measurements	TBD			
DSS-14 & 25: End of Track	10:45:00	9:33:21	3:45:00	
DSS-14 & 25: End of Postcal	11:00:00	9:48:21	4:00:00	
DSS-34 & 43: End of Track	11:20:00	10:08:21	4:20:00	
DSS-34 & 43: End of Postcal	11:35:00	10:23:21	4:35:00	

Indicates DSS-14 & 25 Related Activities

Indicates DSS-34 & 43 Related Activities

All times are based on reference trajectory 070918

Some Ring Edges are known to be noncircular, which will affect ring event times above

Monopulse strategy is to be decided in real-time