

Rev 10 Cassini Radio Science Occultation: Event Times on DOY 177-178, 2005

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	SCET UTC	ERT UTC OWLT = 1:23:17	Pacific Time GMT-7hrs 7:00:00	Comments
DSS-26: Begin-of-Track	15:56:43	17:20:00	10:20:00	Cassini HGA is not Earth pointed
DSS-25: Begin-of-Track	16:11:43	17:35:00	10:35:00	Cassini HGA is not Earth pointed
Start LMB	16:29:00	17:52:17	10:52:17	Cassini HGA Earth pointing starts
DSS-26: Enable Monopulse	16:29:43	17:53:00	10:53:00	Enable monopulse ASAP after BOT
Start Baseline	16:52:30	18:15:47	11:15:47	Start of the RSS occultation experiment
Ring F	17:19:58	18:43:15	11:43:15	Rings F is only detectable in postprocessing
Ring A in	17:25:24	18:48:41	11:48:41	Sudden drop in signal level
Enke Gap	17:29:58	18:53:15	11:53:15	Brief recovery of strong signal level
Ring A out	17:46:07	19:09:24	12:09:24	Strong signal expected in the Cassini Div
DSS-26: Disable Monopulse	17:51:50	19:15:07	12:15:07	Monopulse offset used to reinitialize blind pntng
Ring B in	17:52:20	19:15:37	12:15:37	Signal level drops substantially
Ring B out	18:26:17	19:49:34	12:49:34	Signal level throughout Ring B is small
DSS-26: Enable Monopulse	18:26:47	19:50:04	12:50:04	Monopulse enabled ~30 s after exit from Ring B
Ring C out	18:49:00	20:12:17	13:12:17	High signal level but with fast fluctuations
DSS-26: Disable Monopulse	18:56:00	20:19:17	13:19:17	Monopulse offset used to reinitialize blind pntng
Ionosphere in	18:57:58	20:21:15	13:21:15	Strong signal level
Troposphere in	19:07:28	20:30:45	13:30:45	Signal level drops systematically
Ka-Band signal loss	19:13:28	20:36:45	13:36:45	Likely disappearance of the Ka-band signal
X-band signal loss	19:14:58	20:38:15	13:38:15	Likely disappearance of the X-band signal
S-band signal loss	19:16:08	20:39:25	13:39:25	Likely disappearance of the S-band signal
End of Ingress	19:37:30	21:00:47	14:00:47	End of Saturn ingress occultation
Behind Saturn				

Behind Saturn				
Start of Egress	21:09:30	22:32:47	15:32:47	Start of Saturn egress occultation
Expected weak S-Band signal	21:31:50	22:55:07	15:55:07	S-Band starts to build up systematically
Expected weak X-band signal	21:33:00	22:56:17	15:56:17	X-Band level starts to build up systematically
Expected weak Ka-band signal	21:34:29	22:57:46	15:57:46	Ka-Band level starts to build up systematically
Troposphere out	21:40:29	23:03:46	16:03:46	Blind pointing error may affect signal level
Ionosphere out	21:49:49	23:13:06	16:13:06	Strong signal level
DSS-26: Enable Monopulse	21:51:00	23:14:17	16:14:17	Monopulse enabled ~3 m before Ring C
Ring C in	21:53:43	23:17:00	16:17:00	Strong dynamically changing signal level
DSS-26: Disable Monopulse	22:15:29	23:38:46	16:38:46	Monopulse offset used to reinitialize blind
Ring B in	22:15:59	23:39:16	16:39:16	Signal level drops substantially
Ring B out	22:48:34	0:11:51	17:11:51	Signal level is small in Ring B
DSS-26: Enable Monopulse	22:49:04	0:12:21	17:12:21	Monopulse enabled ~30 s after exit from Ring B
Ring A in	22:54:24	0:17:41	17:17:41	Signal level comes back up in the Cassini Division
Enke Gap	23:09:20	0:32:37	17:32:37	Clear dynamic signal throughout most of Ring A
Ring A out	23:13:29	0:36:46	17:36:46	Sudden transition to free-space signal level
Ring F	23:18:23	0:41:40	17:41:40	Rings F is only detectable in postprocessing
End of Baseline	23:51:00	1:14:17	18:14:17	End of the rev 10 radio occultation experiment
End LMB	0:20:06	1:43:23	18:43:23	End of Earth pointing period
DSS-26: End-of-Track	0:46:43	2:10:00	19:10:00	

Note: Some Ring Edges are known to be noncircular, which will affect event times above
Pointing Strategy at DSS-25 is still TBD