

About the Occultation

- S42 Rev 75 Saturn atmospheric occultation
 - First science experiment in extended mission
 - Telemetry OFF, 1-way mode
 - Covered by Canberra and Madrid
- From Essam Marouf:
 - ...

DSN Antennas

- DSN Coverage

Station	Pre-cal	BOT	EOT	Post-Cal
DSS-43	189/0815	189/0845	189/1255	189/1310
DSS-55	189/0740	189/0840	189/1025	189/1040
DSS-45	189/0830	189/0900	189/1025	189/1040
DSS-63	189/0845	189/0945	189/2115	189/2130
DSS-47	189/0830	189/0900	189/1000	189/1030

First time DSS-45 is used during an RSS occultation. D/L only. Originally DSS-34
 DSS-45 will provide backup X- and S-band support to DSS-43

- Receivers scheduled

- 2 closed-loop receivers per antenna (except Narrabri)
- All open-loop receivers at each complex are scheduled, RSR at Narrabri
 - Total: 15 open-loop receivers
- Open-loop data are prime. Closed-loop data are backup

- Antennas Band and Polarization Capabilities

DSS-43

X-RCP
X-LCP

S-RCP
S-LCP

DSS-63

X-RCP
X-LCP

S-RCP
S-LCP

DSS-55

X-RCP
X-LCP

K-RCP
K-LCP

Either KLCP (switch 43 in B position)
 or monopulse (switch 43 in A position)

- LCP data are enhancement. Prime are RCP

RSR/VSR/WVSR Assignment

Danny: VOCA

DSS	Operator	Station	Open-Loop Receiver	RSR Assignment
43	Elias	rsops2	RSR1	RSR1A -> XRCP
				RSR1B -> SRCP
63	Elias	rsops2	RSR1	RSR1A -> XRCP
				RSR1B -> SRCP
47	Danny	rsops1	RSR2	RSR2A -> KRCP
45	Danny	rsops1	VSR1	VSR1A -> XRCP
				VSR1B -> SRCP
55	Don	rsops3	RSR2	RSR2A -> XRCP
				RSR2B -> KRCP
63/55 LCP	Don	rsops3	WVSR1 & VSR1	63 WVSR1A -> XLCP
				63 WVSR1B -> SLCP
				55 VSR1A -> XLCP
				55 VSR1B -> KLCP

RSSG will be in RS Ops Room at 12:00 am on Monday 7/7/08 (189/0700)

ORTs

GSE/ORT on DOY 181 (June 29) over DSS-55, X- and Ka-band

08 181 1000 1130 2030 2045 DSS-55 CAS TP RSR74-KADWN1 3921 N750 1A1

08 181 1030 1130 2030 2045 DSS-63 CAS TKG PASS 3921 N003 1A1

- DSS-63 prime
- Collect pointing data (monopulse) to update the 4th-order blind pointing model

GSE/ORT on DOY 183 (July 1) over DSS-55, X- and Ka-band

08 183 0855 1100 2030 2045 DSS-55 CAS RS74-KDN ARRAY-R 3923 N650 1A1 A

08 183 1000 1100 2030 2045 DSS-63 CAS T/P ARRAY-S 3923 N003 1A1 A

- DSS-63 prime
- Collect pointing data (monopulse) to update the 4th-order blind pointing model

ORT on DOY 186 (July 4) over DSS-45, X-band

08 185 1715 1845 0345 0400 DSS-25 CAS TP RSR74-OCCORT1 3925 N748 1A1

08 186 0015 0115 0320 0335 DSS-45 CAS TP RSR74-OCCORT1 3926 1654 1A1

- DSS-25 prime
- Verify X-band

ORT on DOY 187 (July 5) over DSS-63 and DSS-43, X- and S-band

08 187 1745 1845 0345 0400 DSS-14 CAS TP RSR75-OCCORT1 3927 1639 1A1

08 187 1745 1845 1945 2000 DSS-63 CAS TP RSR75-OCCORT1 3927 1639 1A1

08 188 0000 0100 0350 0405 DSS-43 CAS TP RSR75-OCCORT1 3928 1639 1A1

- DSS-25 prime
- DSS-63 and DSS-43 verify S-band and X-band (RCP and LCP)

Misc

Oscillations at DSS-55

Plan for Cassini Specific 4th Order Pointing Models

SNT

- Enable X only at DSS-45 and DSS-55 throughout
- Conduct SNT measurements

DSS-43 and DSS-63 Microwave Configuration

- Configure SRCP low noise to the SP MASER to the 01 output
- Configure SLCP through the diplexer to the SB HEMT to the 02 output