

# About the Gravity Observation

- S43 Rev80 Enceladus Gravity Observation
  - Telemetry ON, Coherent mode (2-way and 3-way)
  - Two segments
    - First on DOY 224, Covered by Madrid
    - Second on DOY 225, covered by Canberra, Narrabri and Madrid
- From Nicole Rappaport:

The gravity passes in the wings of the Enceladus flyby on Rev 80 will be used in conjunction with the passes on Revs 91 and 130 to determine Enceladus' gravity field up to degree 2. The main gravity flyby is on Rev 130, but the observations on Revs 80 and 91 will be used to improve our knowledge of Enceladus' ephemerides and the GM. In the Solstice mission, two more flybys will be used to look for a diapir under the South pole of Enceladus.

# DSN Antennas

- DSN Coverage

Station	Pre-cal	BOT	EOT	Post-Cal
DSS-25	223/1515	223/1645	224/0145	224/0200 GSE
DSS-14	223/1545	223/1645	224/0145	224/0200
DSS-55	224/0900	224/1030	224/1740	224/1755
DSS-63	224/1215	224/1315	224/1740	224/1755
DSS-45	224/2340	225/0040	225/0825	225/0840
DSS-47	225/0330	225/0400	225/0730	225/0800
DSS-55	225/0610	225/0740	225/0940	225/0955
DSS-25	225/1455	225/1625	226/0130	226/0145 GSE
DSS-14	225/1525	225/1625	226/0130	226/0145

- Receivers scheduled

- 2 closed-loop receivers per BWG antenna
- Open-loop receivers
- Closed-loop data are prime. Open-loop data are backup
- LCP not required. Only RCP

# ORTs

ORT on DOY 220 (August 7) over DSS-55 and DSS-25, X- and Ka-band

08 220 1515 1645 0145 0200 DSS-25 CAS TP RSR79-OCCORT4 3960 N748 1A1

08 220 1515 1645 1940 1955 DSS-55 CAS TP RSR79-OCCORT4 3960 N750 1A1

08 220 1545 1645 0145 0200 DSS-14 CAS TKG PASS 3960 N003 1A1

- DSS-14 is prime
- Verify monopulse at DSS-55 (and DSS-25)

# Misc

Status of:  
DSS-55 monopulse

Pointing plan: Use monopulse at DSS-55  
Watch for early monopulse enable (low elevation angles) during second segment

SNT - Enable at all throughout

SPS Predicts – Unramped?

RSS will be in Ops room around 2 am on Monday 8/11 for first segment, and around 4:30 pm for second segment