

1445 dss-25 pre-cal
NOPE Jack
In Ops room: Danny, Don, Elias, John. David R came later
Aseel remotely

fgains
14 SRCP -> 49 (max power during ORT was 43)
14 SLCP -> 31
14 XRCP -> 59
14 XLCP -> 35

25 and 34 XRCP -> 54
25 and 34 KRCP -> 54 (max power during 34 ORT was 49, so 54 is good)

45 XRCP -> 54
45 SRCP -> 41 (max power during ORT was 33)

Prdx 2 way w 2
Then 2 way w 3 for outbound

25 and 34 pointing models updated

Pass 4412
RS Saturn occ
BOT 1615
EOT 2240
Telemetry off. DL only
Monopulse per RS direction
When perform monopulse calibration, have gain values
Enable 4th order blind pointing model. Name?
Enable SNT only on X-band
Enable TLC
Weather?
Wind 4 mph from SW
Temp 47.1 degrees

14 briefing 1515
Pass 4412
BOT 1615
EOT 2200
s/c Off Earth point till 170154 but should be able to lockup before that
SNT disabled on both channels

1532: 25 reporting monopulse gain values
2.556660
2.307998
1.886673

Ingress
Start record 1625
Att auto 1633 (do whatever needed on wvsr [cgain])
SNT measurement 1635
End record 1825

1830 switch prdx

[Egress](#)
[Start recording 2000](#)
[Att auto 2015 canberra only](#)
SNT measurement 2020

1621 25 completed another monopulse cal after NOPE (Lu) asked why they got three different values. New value 2.05

1635 snt measyrement

25K 49.473
25X 23.371
14S 16.7
14X 19.2

1637 disable SNT except for 25X

SLCP fluctuating

1653 NOPE asking 25 on dc06 to configure open-loop and enable fft

1659 intermittent signals

165959 25 x inlock. 14 x

170050 25 ka inlock. Ka-power 48.3

1702 25 enable monopulse
.3 db improvement

1703 Pc/No
14XR 54.34
14XL 8.24 and less
14SR 42.96
14SL 23.55
25K 48.6
25X 48.56

For ingress, David said offsets pretty stable. David proposed a manual offset of +2 mdeg EL and -2 CrossEI

I prefer no manual offsets since don't know if operator at station has experience. Let's wait and see what offsets are when monopulse gets disabled and if they are close enough to what David recommends, then let's keep them and not risk entering manual offsets (last time we asked them, they didn't enter correct numbers and we went back and forth, but we have plenty of time, so if needed, we can ask them to enter)

1754 25 Ka LOS (expected time)

Current offsets are closer to what he wants than to clear them. Current +3/-3.

All agree that better leave what we have and not risk station entering manual offsets

1759 25 X LOS

1800 Danny asking 25 to keep monopulse offsets in system

LOS times (to compare with Essam's timeline)

25 [LOS-X ~175830](#)

25 [LOS-K ~175310](#)

14 LOS-X ~180010

14 [LOS-S ~180717](#)

1805 34 briefing

BOT 193500

EOT 225500

s/c behind planet now. Don't expect signal from you until 211614, but you may signal before monopulse in real-time

enable blind pointing 4th order model

weather: clear, wind 0, equipment green apart from rcvr 6, but since not tlm support, than no effect

1809 ACE getting 14 S-band LOS

-> 180425

Ingress playback 1635 till 1825

1935 45 said xrcp and srcp are connected to 02 output -> Danny said they see it on eDMD (no impact on RSR)

2000 start recording for egress

2015 att auto Canberra only

2020 SNT measurement

25K 56.275

25X 25.303

14S 45.63

14X 21.24

34K 66.256

34X 27.407

45S 38.085

45X 26.902

14 S-band SNT changing. Seeing much higher value than before

-> Probably because elevation down to 33

1225 SNT disable. All channels at 14 and 45, only Ka at 25 and 34

204435 S-band signal started to appear

204737 45 S-band

205031 X-band signal started to appear

205514 Ka-band signal started to appear

2054 34 and 25 in lock on X

2101 NOPE (Lu) asking if we see Ka-band signal -> yes, fluctuating (~25 dB)

2102 34 in lock on Ka. 25 not yet

2103 25 negative acquisition on Ka band

2107 NOPE asking 25 to try Ka acquisition again. If not, init the receiver

2109 NOPE told 25 to halt receiver and after halting to try to acquire.

211040 25 I/L on Ka-band

2115 45 I/L S-band (signal was weak)

Troposphere out was a couple of minutes later than what's in the timeline

14S 211618

14X 211633

2150 Pc/No

25K 45.50

25X 47.13

14SR 41.91

14XR 52.34

14SL 5.28

14XL 26.78

34K 47.94

34X 47.78

45S 33.41

45X 48.54

Elevation at Goldstone is about 17 degrees

2208 monopulse enabled

25 jump .7 dB

34 jump .5-.6

220830 Ka power

25K 45.84 (45.149 to 45.84)

34K 48.27 (47.62 to 48.27)

2211 was supposed to lose signal, but not! Elias said secondary axis change, but primary axis change is not until ~2226, so timeline should have 2226 as LOS

2226 LOS

2239 SNT measurement

25K 118.161

25X 40.760

14X

14S 34.24

34K 49.57

34X 25.069

45X

45S 37.00

2240 release 14 and 25

(Danny thanked them for an excellent support. Everything looked good on our side)

2245 Told Canberra we've completed our data acquisition, thanks for excellent support. The ACE can go ahead and release you now

2246 stop recording

Egress playback 2020 to 2245