

S41 Rev 70
Saturn Atm. Occ

6/1/08
Rev 70 ①
DOY 153

ACE: Grant

NOPE: Lu

RS Ops: Danny, Elias, Don, Aseel (bruised)

DSS-25 Pre-Cal 153/2000, BOT 2130, EOT 0130, Pass # 3893

26

2030

2130

0130

14

2145

Goldstone weather: Partly cloudy, 10 mph wind

Fgain: DSS-14 S50 X61
DSS-25 X56 K56
DSS-25 X56 K56

LCP DSS-14 X37 S35

* use 48
next time
~~~~~

Prdx: 3-way w/ 3

fftia ↓

fftma 215

Ka-band RSR configuration 1, 2, 16, 50 kHz to capture signal drift. Also, FRC in 1K + 400, 2K + 700

~2137 signal in open-loop. Told stations

2139 26 1/L

2140 26 monopulse enabled

2140 25 1/L

214030 25 monopulse enabled

~21430 w/10 db drop in ka-band at 25 & 26. Monopulse or Bias? .. checking

2145 Asked 25 to disable monopulse, clear offsets, & re-enable.

Bias  $153/202310 = 153/203926$  SET

214.8

2157 ERT

2154 Told NOPE that we confirmed that fluctuations are due to BW bias

26 monopulse offsets updating nominally

25 slow sometimes (top 5)

2204 Bias complete (longer than expected)

2206 P<sub>r</sub>/N<sub>0</sub> values, TLM on

|     |       |      |                      |
|-----|-------|------|----------------------|
| 14X | 45.79 | 14XL | 10.0                 |
| 14S | 40.15 | 14SL | 24.5                 |
| 25X | 39.97 | 26XL | 10.7                 |
| 25K | 48.67 | 26KL | 28.0 (error channel) |
| 26X | 40.0  |      |                      |
| 26K | 49.82 |      |                      |

2211 Asked station to enable SNT on all d/L channels

|     |      |
|-----|------|
| 14X | 20.7 |
| 14S | 18.3 |
| 25X | 25.1 |
| 25K | 55.0 |
| 26X | 27.0 |
| 26K | 42.7 |

221330 Told stations done w/ SNT measurement, to disable SNT on all except 26 X-band

25 X SNT still updating.

2215 Told 25 to enable & disable SNT again

221540 Nope told 25 to update their default SNT to 26.6

David suggesting plan:

25 w/ monopulse, & 26 disable monopulse  
& clear offsets  
26 seems to be holding on better to ..

2218 25 Clear skies, wind speed 5 mph  
weather  
update:

2220 26 monopulse disabled, off-sets clear.

2221 Told 25 plan: monopulse enabled during entry,  
likely enter manual offset for exit, & then do  
exit w/ monop disabled.

~~2230 Pc/No reading (TLM off)~~

2231 Asked 26 to put switch 43 in B position

2230 Pc/No reading (TLM off)

|     |       |      |      |      |        |
|-----|-------|------|------|------|--------|
| 14X | 55.45 | (61) | 14XL | 16.3 |        |
| 14S | 40.52 | (50) | 14SL | 24.6 |        |
| 25X | 49.01 | (56) | 26XL | 20.0 |        |
| 25K | 48.96 | (56) | 26KL | 10.0 | (KLOP) |
| 26X | 49.12 | (56) |      |      |        |
| 26K | 50.0  | (56) |      |      |        |

2252 Signal (Ka) drifting in right direction.  
Couldnt have kept it in 1K during ingress (but  
OK for egress).

2255 26 LOS Ka-band

2255 all stations LOS on X-band

2255 Nope asked 26, did channel E for open-loop rx/tx mode  
to configure

2256 14 LOS S-band

2258 Nope called 25 to disable monopulse

2203 David's recommendation:  
Clear offsets

+6.0 mdeg in Az,  $\emptyset$  in elevation

Monopulse system currently has

Az 5.59, EL -0.49

Suggested to David that we use them & not risk station making an error in manual offsets  
⇒ OK

2204 Confirmed w/ station that offsets are true  
⇒ yes.

2326 FTO change

2327 Asked stations to enable SNT

| 2330 | SNT   | 00:30 P/No | 01:00 | SNT                   |
|------|-------|------------|-------|-----------------------|
| 14X  | 19.35 | 14XR 56.01 | 14X   | 18.7                  |
| 14S  | 15.87 | 14SR 40.27 | 14S   | 16.01                 |
| 25X  | 21.01 | 25XR 49.1  | 25X   | 23.0                  |
| 25K  | 53.19 | 25KR 48.18 | 25K   | <del>23.0</del> 49.33 |
| 26X  | 25.59 | 26XR 49.25 | 26X   | 25.28                 |
| 26K  | 38.30 | 26KR 50.0  | 26K   | 37.67                 |
|      |       | 14XL 29.36 |       |                       |
|      |       | 14SL 23.57 |       |                       |
|      |       | 26XL 21.23 |       |                       |
|      |       | 26KL 11.08 |       |                       |

2331 All stations SNT disabled except 26X

2345 Danny takes over notes. Aseel goes to hospital to check wounds for bicycle accident.

00:06 All stations Lock up

00:32 S+Ka LOS!! 10 min earlier than expected. There were 2 DFPW commands in PEF + the earlier one turned off the equipment but the latter one was shown on the timeline.

01:00 Enable SNT ALL 01:05 Release Stations