

S42 Rev79 Saturn <sup>Rings</sup> Occ  
DOY 217 / Aug 4

S42 Rev79 ①  
8/4  
DOY 217

ACE:

NOPE: Sandy

RS Ops: Aseel, Danny, Don

David R by phone

Passes

DSS-55 Pre 0940, BOT 1110, EOT 1430, #3957

DSS-63 Pre 0910, BOT 1010, EOT 1430, #3957

0943 Briefing for 55

#3957. BOT 111000, EOT 143000

Pass per SOE & Bm

Weather clear sky

Equipment using CM2

1010 Briefing for 63

Wind speed 0-2 km/hr

#3957 RS Saturn Rings Occ

BOT 111000, EOT 143000

Sluff Earth until 115000. No command or TLM req't

Disable SNT on both DC channels.

LOS ~ 123456.

Gain: DSS-55X 54 }  
55Ka 54 } RCP  
63X 60 }  
63S 48 }  
55X 30 }  
55Ka 36 } LCP  
63X 37 }  
63S 35 }

⇒ Use 47 next time

Prox: 1-way

ffHi a L

fftna 2 15

1103 David Rochblatt called. He's setup & ready. Will call back in ~ 40 min (he is monitoring from home).

1115 Start recording. All autos

## 1130 SNT measurement

63X 20.1  
63S 18.1  
55X 28.5  
55Ka ~~40.1~~ 56.7

1136 Asked stations to disable SNT on all except 55X.

~1144 Weak interm. s-band signal

~114610 x-band weak

~114630 weak Ka-band

114730 Told stations we see strong signals at cell bands in Openloop RVR

1148 63 1/L on both

114830 55 1/L on both

114930 55 enabled monopulse .. drop in Ka-band!

115020 Told 55 to disable monopulse  
⇒ monopulse disabled. Trying to re-acquire.

1152 Asked 55 if they are having problems w/ monopulse  
⇒ Did call during pre-call. When enabled signal dropped.

1158 Asked NOPE to check that switch 43 is in A position for 55 ⇒ yes

1201 Asked station for monopulse status  
⇒ maintenance people working on it

1205 55 said ~~station~~ <sup>station</sup> wants to do on-pant phase cal, is it possible  
⇒ Told them we have 10 minutes. If they can be done in 10, yes.

12000 Asked if pre-call calls gave them different values, said to standby but didn't get back

1218 Station said monopulse now working & enabled. Had to change phase from 120 to 150, & also gain  
 ⇒ Small offsets. David said to clear.

1220 Told station monopulse offsets look small so disable & clear

1221 Station said monopulse disabled & offsets cleared

⇒ But thank you for your work on monopulse. We needed to check that offsets were small.

1223 Asked 55 to put switch 43 in B position  
 ⇒ Ka-band signal jumped !! Expected it to drop. Now at 42 !!

1229 SNR Reading

	SNR	Gain
63X	54.9	60
63S	39.5	48
55X	48.5	54
55Ka	46.1	54

1228 Told NOPS that we need to review IF configuration for 55. Expect KCP to be lower but it's not. Not this pass since LCP is not prime.

LCP:

63X	33.3	37
63S	21.5	35
55X	15.6	30
55Ka	42.0	36 → 54

1235 Both stations LOS both channels

123740 55 configured in Open-loop mode while in ring B.

⇒ They didn't do it

124020 Nope reminded them to configure D/L Channel to open loop

⇒ done in 124055

1245 63 1/L on both (per Nope's request)

124530 55 1/L on X-band per Nope's request  
(they've been 1/L on Ka).

125645 Nope asking 55 to configure DCB in  
open-loop.

1304 55 1/L Ka-band

1304 63 1/L both

130440 Nope asking 55 to acquire X-band signal

1315 SNR reading

63X 54.9

63S 39.5

55X 48.7

55Ka 46.1

LCP

63X 32.3

63S 22.0

55X 16.2

55Ka 42.3

1325 Asked 55 to put switch 43 in A position  
(in prep for monopulse).

⇒ Ka-LCP power dropped ~4 dBs.

132730 Monopulse enabled

⇒ no improvement at all!  
in strength or smoothness  
-1.0 & smaller offsets!!

~133030 LOS

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DR for manipulse M104975

1348 Asked 63 & 55 to enable SNTF

63X	20.0
63S	19.4
55X	27.2
55Kn	54.9

Playback 217/1120 - 217/1350