

S74 Rev 169 DOY 204  
Saturn Rings & Atm (Ingress)

Rev 169  
DOY 204 (1)

July 20-21, 2012

DSS-43 & DSS-34

NOPE: Lu

ACE: Herlen

Ops Room: Elias, Don, Danny  
Aseel there @ 12:05 am

David @  
Madrid. Can't  
support.

DSS-43 Pre-cool fgain X 60 S 50  
equip green (but Chro plate fixed @ 45°)

Weather ~~Clear~~ <sup>fine</sup> clear. Wind 16.1 km/hr  
Preceding DSS-14 track. XMTR off 0520 (DKF has XFr but change)

DSS-34 Pre-Cool fgain 55 for both  
equip green  
Weather ~~Overcast~~ <sup>Slightly</sup> overcast. Wind 6.2 km/hr

NOPE & 34 about Ka-band prdx. NOPE sent  
prdx to station

0446 DSS-43 X-band in RSR

050000 Start rec DSS-~~43~~ X 1-way

0600 43 Xmtron 17.952 kWatt

070003 DSS-34 X-band in RSR 3-way/14

071700 Ka-band in RSR 3-way/14

073130 34 ~~asking~~ 1/L. Asking if enable monopulse  
→ wait (monitor a bit. Not BOT yet)

070126 34 start rec X 1 kHz

070749 34 start rec ka 1 kHz

Special prodx generated

WVSR  
SFOR: from plots that Don & Elias generated

X  $+ 2.73185 \times 10^6$  Hz  
S  $+ 7.45050 \times 10^5$  Hz  
Ka  $+ 1.0381 \times 10^7$  Hz

074845 Asked 34 to enable monopulse  
from  $n 49.83 \rightarrow 50.0$   $n.2$  dB Jump

Lu said 0.5? I told him let's  
say 0.3 dB.

0755 Lu called

Said 34 got two sets of X & no Ka..  
sometimes happens  
He is there w/ Mitch

0758 Start recording all

075830 SNT

43X	21.027
43S	20.162
34X	22.684
34Ka	38.962

080010 Asked 43 & 34 to disable SNT except  
X @ 34

0801 SNT off, except X@34

0803 Switch to l-waves

0803 Att auto

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0807 WVR2 A s/c 4 not responding  
X 1-way 100K  
can't open more. Got limit!  
Don't worry about it. OK w/o one.

081627 Suband on

081630 TLM off

0820 P<sub>c</sub>/N<sub>o</sub> (1-way)

43X 55.42

43S 44.08

34X 49.2

34 Ka 50.4 (16 KHz. 48 m 1K)

0840 Asked 34 for update on weather

Overcast  $\Rightarrow$  we see fluctuations @ Ka-band  
wind 1.9 km/hr assume due to weather

0844 Switch to 2-way

084645 34 reporting to RS gone through mode  
change & mono re-enabled

09... Lu ask station if shift change  $\rightarrow$  yes. Now D. before B

0935 43 Xmitr off

0951 P. No. 2-way

43X 55.32

43S 43.71

34X 49.2

34Ka 50.4

Ka-band looking  
better

1005 Told 34 that starting to go through rings  
if lose lock & mono disabled, let us know &  
we'll decide to re-enable or not

1020 Station X Don report - mono stopped & rcvrs  
out of lock mono affects #3 w/ EL close to 0  
→ Told station will keep disabled until exit  
ring B after 1100

1028 Lu asked 34 to try to re-acquire Ka-band  
→ already did

1030 Don reporting mono updating  
→ checking w/ station...  
34 → Seems like mono re-enabled itself  
when re-acquired  
me → Is it enabled now?  
34 → Just disabled it - (1031 IS)  
(!! could've checked w/ us first!!)

#3 1.4  
EL 0.1

1035 Ka off

1040 Asked Lu to ask 34 to configure  
Open-bop

Lu → Already did.

me → Sorry didn't hear it. Stepped out for few mins.

Ring B .. Intermittent 1-way .. A period of ~4 mins ...

1102 Asked Lu if 34 can configure back, out of Ring B  
Lu → Station has been I/L for ~3 min Oh!

110325 34 enable mono

A3 1.92

EL -0.22

(C108898)

112230 Nope asking 34 for prdx problem DR  
Package sent to station was X only, & no Ka  
& had to re-transmit. Open to SPS

11224 Pc/No

43X 54.29

43S 43.13

34X 48.67

34Ka 49.3

11224 residuals 

due to atmosphere?  
due to ramp

Suggest that it is <sup>A ramps</sup> due to bee. Danny can't see it.

Freq. deviation s  
Good tracking signal through atmosphere

Danny's looks cleaner

Scallops

Danny's set superior

1151 34 report LOS on Ka-band  
w/1151 LOS Ka-band

1153 43 LOS X  
w/115430 X-band LOS

1155 43 LOS S

115515 43 1-way signal  
w/115630 saw last 43 S 1-way signal

S-band all 0800 - 1220

43 X Subch1 0500 - 1220  
Other 0800 - 1220

34 X Subch1 0702 - 1220  
Other 0800 - 1220

Ka Subch1 0708 - 1220  
Other 0800 - 1220

WVSR  
all  
0800-1220

121835 Asked 48 & 34 to enable SNT on all

121930 SNT

43 X	30.570
43 S	27.232
34 X	28.093
34 Ka	58.025

EL 18.61°

1230 Thanked station. Done.