

S71 Rev 158 Dione (D3) gravity

12/11/11 (1)
DOY 345-346
D3

Shifts: Don - Elias - Aseel - Don

ACE: Bill @ start

NOPE: Lu @ Start
Jack @ 10pm. Sandy @ team

Prdx: RSS generated

Pointing Models: No update
(Per David: 34 is 2mdeg, 25&35 5mdeg)

DSS-34

Weather: Overcast w/ possibility of showers but much improved compared to yesterday. No winds.

0156 Told ACE that if 34 wants to do on-point phase cal when we start the 2-way observation in 0225, then we're ok w/ 10 min → will tell station

0157 ACE told station that if they want to do on-point phase cal in ~20 min that RS give green light → ok. Their 2-way time is ~0227.

0201 34 weather update:

Overcast, wind is light but variable.

If there's a change, they'll let us know.

0210 55 briefing

Bot 0340, 3-way w/ 34 TLM 1d220.

XMTR on 'per SOE.

XMTR 094900

EOT 1300

0534 9C off point

093400 2-way ca only. Bit rate 1896.

equipment: green

weather: overcast. No wind.

then use
gain ~~48~~ 45

0216 NOPE asking 55 how confident they are in phase value used during last CRT. Do they need on-point phase cal.
→ yesterday used -45 deg

0226 NOPE (Lu) asking us to report when we c signal → sure

0227 Told NOPE we c signal

0227 NOPE asking station to do on-pickup
→ already i/L on ka-band. will start cal
→ u have 10 mins

0230 X-band signal level 38.8. Bit rate change
@ 0236 so gain should be ok then

34 gain: X 38
ka 55

023650 34 reporting done w/ cal. Micropulse enabled

023740 Drop in X-band power (change in bit rate)
Now gain is good

12/11/11 (2)
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0240 Pc/No DSS-34
X 31.57
K_a 46.54
SNT X 27.446
SNT K_a 90.411

0241 NOPE (Lu) on phone asking if we saw improvement when monop. was enabled
→ NO. signal bars better but no jump

024240 Nope asking 34 if when they did on-point phase cal if they had to enter any phase
^{Ikhuin Granulu talking}
→ # is imbedded in SIC file & that file has not been updated for a while
24 is # in file. # had put in S1
put last time 76. Suggest ~360 degree rotation w/ ~° ~.

0247 SS completed calibrations:
1st phase -37.955 gain -0.803
2nd -37.887 -0.783
3rd -37.972 -0.801

0240 34 EL ans 24.35
Accum A3 2.19 EL -0.01

55 fgain 1st segment:

X: 38 → 45 for 2nd segment
Ka: 52

0332 SS att auto

0338 SS signal in open loop (as soon as prdx started)
Told NOPE

0340 SS 1/L X

0341 SS 1/L Ka

0342 Asked SS to enable monopulse

034230 Monopulse enabled. ~~NO~~ ^{improvement} ~~jump~~ n) 4dB

Station was @ $n 7^\circ$ EL (should've waited until 10 degrees).

0357	Pc/No	SNT	EL
	34X 30.29	34X 40.37	10.33
	34K 42.60	34K 142.39	
	SSX 29.36	SSX 37.637	9.55°
	SSK 41.04	SSK 89.091	

0400 SS EL is just slightly over 10°

0415 34 EOT

12/11/11 (3)

DOY 345-346

D3

Second segment

TLM bit rate 1896

0933 Asked ACE if he could hold off on briefing for a couple of minutes until we check SS

093630 SS 2-way signal

093710 Asked station to enable monopulse

093745 Monopulse enabled ⇒ NO visible jump

093830 Told ACE things are looking good at SS so to do briefing if he wants to

093840 ACE Briefing 25

Xmtr off 191505 1915 Xfr w/ 34

3-way w/ SS @ BOT

Equipment green

0941 Weather clear & calm w/ 2 dB drop in SS ka-band. SNT jumped. Prob. weather

0943 Asked SS for weather update

overcast & some rain

0943 ka-band power back up .. SNT lower. Correlates w/ SNT so weather related.

0946 SS Xmtr off
w/ 1008 more stable signal @ SS

1017

25 reporting min. gain value:

1st

0.259796

1042 SS P_c/N_o
X 39.22
K_{en} 47.39

SNT
X 23.158
K_{en} 43.528

1044 SS monopulse
Accum Az -1.93

EL ang 33.2
Accum EL -3.47

1100 ZS signal

1101 ZS VL

111730 Astred ZS to enable monopulse

EL n 9.49 deg
⇒ 111745
⇒ n. 6⁷ dB jump in power & signal
more stable
(wanted to wait until ~10° EL & pass C/A).

1230 DSS-ZS P_c/N_o
X 38.40
K_{en} 46.26

SNT
X 26.2
K_{en} 59.64

1231 DSS-ZS monopulse
Accum Az ~~4.74~~

EL ang 23.19
Accum EL -1.21

1235 ZS & SS LOS

1245 told ACE Im done w/ recording @ SS. Feel free to release them & thank them on our behalf.

124630 ACE released SS