

## Buccino, Dustin R (332K)

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**From:** Barbinis, Elias (332K) <elias.barbinis@jpl.nasa.gov>  
**Sent:** Monday, August 26, 2013 2:01 PM  
**To:** rs  
**Subject:** RE: Cassini Report: S80, 2013/238 DSS-34 Occultation ORT - DR #

Following up on the DR for the DSS-34 Ka-Band spurs on DOY 238, the DR # is C109513.

Best regards,

Elias

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**From:** Barbinis, Elias (332K) [elias.barbinis@jpl.nasa.gov]  
**Sent:** Sunday, August 25, 2013 11:51 PM  
**To:** rs  
**Subject:** Cassini Report: S80, 2013/238 DSS-34 Occultation ORT

DSS-34 Occultation ORT

13 238 0000 0130 1030 1045 DSS-34 CAS RS196-OCCORT MC 5810 N750 1A1

Shadow DSS-43

13 238 0030 0130 1030 1045 DSS-43 CAS TKG PASS 5810 N003 1A1

DSS-34

X -band (DCC 4) and Ka-band (DCC 6)

- Weather: Fine, 9.9 kph wind.
- Equipment: Green.
- X-band 1-way signal present before BOT
- Ka-band 1-way signal present at BOT
- Bandwidths for X-band: 1, 16, 50, 100 KHz, Record 1 KHz
- Bandwidths for Ka-Band: 1, 2, 16, 50 KHz, Record 1, 2 KHz during 1-way, 1 KHz during 2-way
- Ka-Band resid ~ 160 at BOT, applied "sfro 1 -200"
- fgain X 38, Ka 55
  
- S/C not rolling
  
- DSS-43 Transmitter on at 238/01:40:00
  
- Monopulse was enabled at 01:33:17, a jump of ~ 0.25 dB in the Ka-band PcNo was observed.
  
- At 04:25:35, prior to switching 3-way/43, monopulse was disabled and offsets were kept.
  
- Switched to 3-way/43 and monopulse was enabled at 04:33:40, no jump in the Ka-band PcNo was observed.
  
- Ka-Band spurs were observed throughout the 1-way and 3-way/43 (about +/-180 Hz from the carrier, as on DOY 236).

See attachments. Station also observed these spurs and they are investigating. DR pending.

- 1-way referenced to AUX OSC
- 1-way signal drifting:  
0132 x resid 41, ka resid 156  
0430 x resid -39, ka resid -150
- SNT at 05:12, for X-band: 24.022, for Ka-band: 37.508
- At 05:14, Elevation: 63.34, Azimuth: 30.22, El Corr: 3.76, Az Corr: -6.64

Operator left at 06:45 (11:45 p.m.) after queueing the RSRs.

Data will be played back to endo and placed at /rssg/data/CAS/2013\_238/ORT/RSR

DSS-34:

X-band:  
RSR2A1  
1KHz, 16 bits  
Start: 238/01:20:00  
Stop: 238/10:35:00

Ka-band:  
RSR2B1  
1KHz, 16 bits  
Start: 238/01:20:00  
Stop: 238/10:35:00

Ka-band:  
RSR2B2  
2KHz, 16 bits  
Start: 238/01:20:00  
Stop: 238/04:30:45

DSS-43:

X-band:  
RSR1A1  
1KHz, 16 bits  
Start: 238/01:20:00  
Stop: 238/10:35:00

