

EVN Session Overview — MAY02

Prepared by Zsolt Paragi

Date prepared: 12 June 2002

Last modified: 5 July 2002

Version 1.2

The following information is mainly drawn from station feedback. Please refer to the EVN feedback pages for more details (<http://www.evlbi.org/cgi-bin/jiveese>). Stations scheduled and observed successfully (sometimes with minor failures) are indicated by \checkmark . Stations scheduled but failed to observe for some reasons are indicated by a dash (-), no feedback from a station by the date of this report is indicated by a black dot (\bullet). Abbreviations for the most common minor failures are listed below. Please send suggestions or additional info to Zsolt Paragi (zparagi@jive.nl).

A list of abbreviations:

- FS** – Field System errors/crash
- HIGH** – T_{sys} higher than usual (e.g. because of weather)
- LATE** – late start of observation
- LINK** – problems with the microwave link between Cm and Jb
- HA-E** – some scans missed due to HA or elevation limit
- PARI** – high parity errors
- PCAL** – various problems with phasecal (unstable, high, missing)
- PHAS** – problems with phasing up some of the telescopes at Wb, mostly RTC and RTD (longest baselines)
- POIN** – pointing problems, some data may be affected or lost
- RECO** – problems with recorder, some data may be lost
- RFI** – RFI reported
- SLEW** – data loss due to limitations in slewing the telescope
- TSYS** – T_{sys} data are corrupted or missing in one or more channels
- WIND** – part of the experiment missed due to severe weather conditions (e.g. gusting winds, snowstorm etc.)
- MISS** – small parts of the experiment were missed due to any other reasons not included above (e.g. operator error)

6cm	Cm	Ef	Jb ¹	Mc	Nt	On	Sh	Tr	Wb	Ur	Hh
F02C1	✓ ⁽²⁾	✓ ^{LATE}	✓	✓	✓	•	✓	✓ ^{HIGH}	✓	✓	
GB042C		✓	✓ ⁽³⁾ WIND	✓	✓ ⁽⁴⁾ MISS	✓			✓		
EG024	✓	✓ ⁽⁵⁾ MISS	✓ ^{PCAL}	✓	✓ ⁽⁶⁾ MISS	✓		✓	✓ ^{HA-E}		
ER014	✓ ⁽⁷⁾ FS	✓ ^{SLEW}	✓ ^{PCAL}	✓ ^{WIND}	✓	✓		✓ ⁽⁸⁾ MISS	✓ ⁽⁹⁾ PHAS		
EG026	✓	✓	✓ ^{PCAL}	✓	✓ ^{FS}	✓ ⁽¹⁰⁾ MISS	✓ ⁽¹¹⁾ MISS	✓	✓ ^{HA-E}	✓ ⁽¹²⁾ HIGH	
EL029A	✓ ⁽¹³⁾ FS	✓ ⁽¹⁴⁾ POIN	✓ ⁽¹⁵⁾ FS	✓	✓ ^{FS}	✓	✓	✓ ⁽¹⁶⁾ HIGH	✓ ⁽¹⁷⁾ RFI	✓ ^{HIGH}	✓ ⁽¹⁸⁾ PARI
GAH5		✓	✓	✓	✓		✓		✓ ^{HA-E}		
DAH3		✓ ⁽¹⁹⁾ TSYS	✓		✓		✓		✓	✓ ^{HIGH}	
EG025	✓	✓ ⁽²⁰⁾	✓ ⁽²¹⁾	✓	✓	✓		✓ ⁽²²⁾ MISS	✓		
EF009A		✓ ⁽²³⁾	✓ ⁽²⁴⁾	✓	✓	✓		✓	•		
N02C1 ⁽²⁵⁾	✓	✓ ^{PCAL}	✓ ⁽²⁶⁾	✓	✓	✓	✓	✓ ⁽²⁷⁾	✓ ⁽²⁸⁾ PHAS	✓ ^{FS} HIGH	✓
GF010		✓	✓ ⁽²⁹⁾	✓	✓	✓	✓	✓ ⁽²⁷⁾	✓ ^{HA-E}	✓ ^{FS} HIGH	

Comments on the 6cm session:

- Jb power supply failure probably affected all experiments in the 6cm session, expect no fringes**
- Cm in F02C1: data only in BBCs 2 and 3; BBCs 1 and 4 failed
- Jb in GB042C: high winds prevented observing until start of 2nd tape at 23:13 UT (only 1 tape sent to correlator); no phasecal present
- Nt in GB042C: scan lost at 00:50
- Ef in EG024: two scans skipped for pointing
- Nt in EG024: lost scan from 08:00–08:22 due to a tape problem
- Cm in ER014: FS computer had serious crash about 23:45 UT; restarted at 02:02 UT
- Nt in ER014: antenna control lost between 12:56–13:20 due to a power shortage
- Wb in ER014: poor phase stability; rephased at about 22:04
- On in EG026: missed first 10 minutes in RCP (and LCP had varying attenuation) due to a bad cable on patch panel

11. Sh in EG026: missed first five scans
12. Ur in EG026: H-maser is unlocked at 00:20, 01:00, and 01:25 UT; T_{sys} is a little high
13. Cm in EL029A: FS had serious crash at about 09:25 UT; restarted at 10:07 UT
14. Ef in EL029A: 60" pointing error between 06:35–07:00 UT; lost data between 13:30–14:01 UT and 14:17–14:55 UT due to receiver frontend problems
15. Jb in EL029A: FS crash at 09:25 UT, restarted at 14:23 UT; no phasecal
16. Tr in EL029A: intermittent high levels in BBC6
17. Wb in EL029A: RTC and RTD switched out of the array (12 telescopes used), phase stability still poor sometimes; some RFI at 6cm!
18. Hh in EL029A: pass 14 on tape 1 partially overwrote pass 1 (head calibration has been adjusted); track 32 seems to have high parity errors
19. Ef in DAH3: bad T_{sys} between 22:30–23:40 UT, no data between 23:40–01:03 UT (receiver frontend control problem)
20. Ef in EG025: by accident, the cal was switched on until 08:00 UT
21. Jb in EG025: VC03 unlocked and swapped for VC14 at about 09:06 UT
22. Tr in EG025: recorder stopped because the 1st tape was badly packed (08:39–09:08 UT); 2nd tape was somewhat better; BBC6 was unstable
23. Ef in EF009A: problem with the frontend control unit — no cal signal until 17:30 UT
24. Jb in EF009A: VCs sometimes losing lock (power shortage); VC08 unlocked and swapped with VC09 at about 21:12 UT; by 22:00 UT VCs 2, 3, 4, 5 and 6 losing lock for substantial period of time
25. Arecibo participated N02C1, but could not track the source (the scan available for Ar was too short to correct tracking)
26. Jb in N02C1: power supply problem — VCs losing lock at least in the first 45 mins.; seems to be stabilised after 09:37 UT
27. Tr in N02C1 and GF010: BBC7 unlocked all the time
28. Wb in N02C1: all BBCs used because a single BBC cannot do 8 MHz LSB and USB for the tied array; the highest frequency does not have both polarizations (due to the bandwidth limitation); ~4 micron head position errors reported (did not appear during single-head recordings)
29. Jb in GF010: still had power supply problems; some VCs may had intermittently lost lock

3.6/13cm	Ef	Mc	Nt	On	Sh	Ur	Hh	Yb	Wz
ES044 ⁽¹⁾	√ _{WIND} ⁽²⁾	✓	✓	✓	✓	✓		√ _{TSYS} ⁽³⁾	•
EC017A ⁽⁴⁾	√ ⁽⁵⁾	✓	✓	√ _{PCAL} ⁽⁶⁾	✓	✓	✓		•

Comments on the 3.6/13cm session:

1. Matera geodetic station also participated in ES044, no feedback
2. Ef in ES044: stopped between 20:58–21:55 UT and 13:45–16:00 UT because of thunderstorm and very strong rain
3. Yb in ES044: track 19 seems to be broken
4. Algonquin successfully participated in EC017A, no feedback from Robledo
5. Ef in EC017A: sometimes VC02 had an overflow
6. On in EC017A: first tape wound off the spool 1 hour before end

18cm	Ef	Jb	Mc	Nt	On	Sh	Tr	Wb	Ur	Ar	Hh
EG023	✓	✓ ⁽¹⁾ _{PCAL}	✓	✓	✓	✓ ⁽²⁾ _{MISS}	✓ ⁽³⁾ _{WIND}	✓ ^{RFI} _{HA-E}	✓		
N02L2	✓ ⁽⁴⁾ _{LATE}	✓	✓	✓	✓	✓ ⁽⁵⁾	✓ ⁽⁶⁾	✓ ⁽⁷⁾	✓	✓	✓
EF010	✓	✓	✓	✓	✓	✓ ⁽⁸⁾ _{MISS}	✓ ⁽⁶⁾	✓ ⁽⁹⁾ _{RFI}	✓		✓ ⁽¹⁰⁾ _{RFI}

Comments on the 18cm session:

1. Jb in EG023: telescope was parked between 14:44–15:20 UT and 15:39–16:15 UT to check problem with amplitude cal diode; phasecal high, switched off
2. Sh in EG023: lost scan between 19:44–19:50 UT
3. Tr in EG023: telescope parked till 14:00 due to strong wind
4. Ef in N02L2: due to problems with the focus, could not start before 07:53 UT
5. Sh in N02L2: recorded only LCP, because the RCP receiver was broken down
6. Tr in N02L2 and EF010: BBC 7 is out of order
7. Wb in N02L2: 4 micron head position error reported, it was only seen in two head observations (but seemed to be OK when the tape was not recording); fake 8MHz LSB+USB by using 16 instead of 8 BBCs; two of the tracks will have the wrong polarization
8. Sh in EF010: recorded only LCP, because the RCP receiver was broken down; missed 10:50–11:01 UT due to low room temperature
9. Wb in EF010: some very strong RFI at 1623 & 1649 MHz
10. Hh in EF010: RFI at 1462 MHz affecting VC01 & VC02