

EVN Session Overview — FEB03

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Date prepared: 13 February 2003

Last updated: 10 March 2003

Version 1.1

The following information is mainly drawn from station feedback. Please refer to the EVN feedback pages for more details (<http://www.evlbi.org/session/feedback.html>). Stations scheduled and observed successfully (sometimes with minor failures) are indicated by \checkmark . Stations scheduled but failed to observe, or produced no fringes 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 (●). Abbreviations for the most common 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
LO	– incorrect LO frequency
LOCK	– VCs/BBCs unlocked to maser
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
RECE	– receiver fault
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)

1.3cm	Cm	Ef ⁽¹⁾	Jb	Mc	Nt	On	Sh	Ur	Mh	Ro70
F03K1	— ^(2,3) _{RECO}		√ ⁽⁴⁾ _{RECO}	√ ⁽⁵⁾ _{FS}	√ ⁽⁶⁾	√			√ ⁽⁷⁾ _{RECO}	
CL03K1	•		•	√	√ ⁽⁸⁾	√		√	√ ⁽⁹⁾	
GP034			√ ⁽¹⁰⁾	√ ⁽¹¹⁾ _{FS}	√	√				√ ⁽¹²⁾ _{LATE}
N03K1	— ^(2,13) _{RECO}		√	— ⁽¹⁴⁾ _{RECE}	√	√	√	√	√ ^{PARI}	
EI005A	√ ⁽²⁾ _{RECO}		√	√	√ ⁽¹⁵⁾	√			√ ^{PARI}	√

Comments on the 1.3cm session:

1. Ef in 1.3cm session: did not participate because a crack was found in the azimuth track of the telescope.
2. Cm in 1.3cm session: Due to a failure of the headstack, track 30 on the VLBA recorder has been remapped to track 34, i.e. third system track. Also there was an error message from the formatter suggesting an incorrect sampler assignment.
3. Cm in F03K1: fringes were not found at the EVN correlator
4. Jb in F03K1: even and odd numbered tracks were swapped
5. Mc in F03K1: prc file was not properly loaded so schedule could not initialize the system. In particular, VC frequency was not correct. Problem solved starting from 9:31 UT. Two scans were lost.
6. Nt in F03K1: a couple of times the antenna was slightly late on source.
7. Mh in F03K1: constant dry snowfall. Recorder headstack 1 worn to $-20\mu\text{m}$, increased vacuum from 5in to 9in, abandoning thick tape swapping. No phasecal injection. Please use GPS data only starting from 16 Jan. 2003, the date of last adjustment. (Current offset is $-32.5\mu\text{s}$, rate estimate is $+5.26\text{nsec/day}$ or $+0.061\text{psec/s}$.)
8. Nt in CL03K1: Had some problems at the beginning, connected to the non zero wait number of FIVEPT. Resolved modifying the parameters in the pointk.ctl file and after the experiment has gone without other problems.
9. Mh in CL03K1: The strongest taurus-a, ngc7027, and dr21 were seen in fivpt, others only occasionally. With dr21 and ngc7027 Tcal(r) stays in the range 1.0–1.5 (first time for getting dr21 repeatably in fivpt)
10. Jb in GP034: Schedule was stopped and restarted at 19:09 to correct impossible "alt,alt" IFD setting. This was reset to "nor,nor", LOs reset and probably means the polarisations are swapped. PI seems to have used a non-standard (and wrong)

setup. Hence, data probably only good from 19:09 restart. Swapped polarization reported from NRAO.

11. Mc in GP034: Computer problem at 23:48. Schedule interrupted half an hour before the end. Swapped polarizations reported from NRAO.
12. Ro in GP034: following the RAC60 computer crash the system was recovered at 22:19Z; some scans were partly or completely lost due to insufficient slewing time scheduled
13. Cm in N03K1: no fringes reported from JIVE
14. Mc in N03K1: problems with HP-IB bus. Impossible to verify the LO settings. No fringes reported from JIVE
15. Nt in EI005A: some problems with the correction of the subreflector position in the final two hours of the experiment (from 22:00 UT), so it is possible to have focus problems in the final scans.

3.6/13cm	Wb	Mc	Nt	On	Sh	Ur	Hh	Yb
CL03X1	•	✓	✓	✓		✓		✓ ⁽¹⁾
GC023A	•	✓	✓ ⁽²⁾	✓ ⁽³⁾				✓ ⁽⁴⁾ _{MISS}

Comments on the 3.6/13cm session:

1. Yb in CL03X1: Many changes performed to telescope control software to accommodate ONOFF procedures.
2. Nt in GC023A: Due to a wrong frequency setup in the schedule, more than half of the observation was made only in the S-band. The last tape have some X-band data as well (from 10:00 UT to the end).
3. On in GC023A: Problem with tracking during some scans.
4. Yb in GC023A: MANY problems caused because FS computer does not control the telescope movement at Yebes-14m. Software much modified to accomodate new requirements. However the worse problems show up in phase-referencing observations because of unavoidable overhead on changing source which causes loss of few seconds (up to 20) at start of each and every scan. Moreover, telescope computer clock error caused loss of most scans between 041:23:45:00 and 042:08:50:00 UT.

18cm	Wb	Mc	Nt	Jb
N03L1 (Mk5 test)	✓ ⁽¹⁾ _{RFI}	✓	✓ ^{TSYS}	✓ ⁽²⁾ _{RFI}

Comments on the 18cm session:

1. Wb in N03L1: Started late by about a minute; severe RFI at the beginning of the observations
2. Jb in N03L1: Telescope on source till 17:00 UT; some RFI