

Network Monitoring Report: L-band N11L1

Source: 0234+285, 0528+134, DA193 **Length:** 180 min. **Observing mode:** Mk IV, mode 512-16-2, dual pol.
Reference antenna: Effelsberg **Date of observations:** 24/02/11 **Reference date:** 24/02/11; 055d 12h 00m
Experiment code: N11L1 **Date of report:** 16/06/11 **by:** Mehreen Mahmud

- ⊗ According to expectation, no special remarks ☐ Station did not observe (not scheduled)
 ■ Problem occurred - see enclosed footnote(s) ○ Entry not applicable/investigated

	EVN stations											
	Ef	Jb	Mc	On	Tr	Wb	Zc	Bd	Sv	Hh	Ur	Sh
Station has observed	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Station produced fringes (ftp)	■	⊗	⊗	⊗	■	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Station produced fringes (disk)	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Filled in TRACK	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Logs are available (within 72 hours)	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
GPS data available (within 7 days)	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Disks are available (within 7 days)	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Feedback on www (within 7 days)	⊗	■	⊗	⊗	⊗	⊗	■	■	■	⊗	⊗	⊗
GPS clock estimate gives fringes	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Clock offset in μ sec	5.75	-0.581	-58.425	-23.323	-0.21	66.226	-2.1	-2.7	-2.1	7.364	1.132	70.352
Clock rate in psec/sec	1.00	-0.0271	0.485	0.381	1.26	0.185	0	0	0	-0.0521	0.000626	0.774
Recording okay	■	■	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Polarization setup okay	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	■	⊗	⊗	⊗
Strong signal amplitude	■	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Phase cal aligns phases	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	■	⊗
Sampler statistics okay	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	■	■	⊗	⊗
Please check VC number(s):		⊗	⊗	⊗	⊗	⊗	3,11	⊗	5	4	⊗	⊗
Previous reported problem(s) corrected												
Problem(s) first reported												
See enclosed footnote(s):	a	b		c	d		e	f	g	h	i	

Enclosure: Footnotes L-band N11L1

Footnotes to the Network Monitoring Report: **L-band** N11L1

General:

Fringes to all stations.

- a) Ef, Effelsberg:** One of the MK4 cables that connect the formater and Mark5A was connected to the VLBA port (it was the Set 2, odd connector). This resulted in corrupt headers; the software correlator was unable to correlate the data (thus explaining the absence of fringes in the ftp test). Furthermore the Set 1, odd attenuator on the output port was not connected properly. Standard plots (from correlation with the hardware correlator) show much lower cross-correlation amplitudes in Subbands 6 and 7, with a strange dip in the center of the band. Furthermore, all baselines to Ef (RR, all IFs) show an un-periodic drop in phases (caused by a loose connection?).
- b) Jb, Jodrell Bank:** No fringes between 12:45 - 13:20. This corresponds to the time of a recording glitch noted during the ftp test.
- c) On, Onsala:** Jump in autocorrelations in the center of Subband 0. Cross-correlation RR and LL amplitudes to all baselines in this subband are much lower.
- d) Tr, Torun:** Problems with automatic and manual extraction of data. Fringes found with hardware correlator. However, sampler stats for all BBCs do deviate slightly from the optimum fraction of high to low bits of 36 %.
- e) Zc, Zelenchuskaya:** Cross-correlation LL amplitudes in all Zc baselines are lower than RR amplitudes in Subbands 4 and 5 (corresponding to BBCs 3 and 11).
- f) Bd, Badary:** Subband 5 RCP and LCP (BBC 4 and 7 USB) seems to have a consistent feature of a dip in its bandpass; also, cross polarizations have a different delay (additional 2 lags) from parallel polarizations in this particular IF as noted in previous experiments.
- g) Sv, Svetloe:** BBC 12 and 13 LSB were swapped for the first two ftp scans during the fringe test; the cables were swapped back in time for the next experiment. Subband 1 RCP (BBC 5/USB) has much higher than optimal fraction of high to bits at around 60% (noted in earlier experiments). Sv RR cross-correlation amplitudes to all baselines in this subband are relatively lower.
- h) Hh, Hart:** Subband 2 RCP (BBC 4 LSB) has higher than optimal fraction of high to bits at around 52%.
- i) Ur, Urumqi:** No Pcal signal found in spectrometer (from ftp fringe test report). RFI in BBC 1 (Subband 0).