# Network Monitoring Report: **X-band** N11X1

**Source:** J0237+2848 and J0530+1331 **Length:** 180 min. **Observing mode:** Mk IV, mode 512-8-2, RCP & LCP.
**Reference antenna:** Effelsberg **Date of observations:** 14/03/11 **Reference date:** 14/03/11; 73d 12h 00m
**Experiment code:** N11X1 **Date of report:** 23/05/11 **by:** Jun Yang

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

| | Bd | Ef | Zc | Mc | Nt | On | Sh | Sv | Ur | Wb | Ed | Hh | Mh | Ys |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 $\mu$sec | −2.663 | 5.373 | −1.790 | −57.565 | | −26.674 | 71.575 | −1.974 | 1.467 | 68.518 | 7.397 | 7.402 | | −0.817 |
| Clock rate in psec/sec | ○ | −0.752 | ○ | 0.328 | | 0.416 | 0.802 | ○ | −0.006 | 0.190 | −0.752 | −0.272 | | 0.195 |
| Recording okay | ⊗ | ⊗ | ⊗ | ⊗ | | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ | | ⊗ |
| Polarization setup okay | ⊗ | ■ | ⊗ | ⊗ | | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ | ■ | ⊗ | | ⊗ |
| Strong signal amplitude | ⊗ | ⊗ | ⊗ | ⊗ | | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ | | ⊗ |
| Phase cal aligns phases | ○ | ○ | ○ | ○ | | ○ | | ○ | ○ | ○ | ○ | ○ | | ○ |
| Sampler statistics okay | ⊗ | ⊗ | ⊗ | ⊗ | | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ | ⊗ | | ⊗ |
| Please check VC number(s): | | | | | | | | | | | | | | |
| Previous reported problem(s) corrected | | | | | | | | | | | | | | |
| Problem(s) first reported | | | | | | | | | | | | | | |
| See enclosed footnote(s): | | **a** | | | | | | | | **b** | **c** | | | |

**Enclosure:** Footnotes X-band N11X1

# Footnotes to the Network Monitoring Report: **X-band** N11X1

**General:** In the last scan, a new mode 1024-16-2 in RCP only was tested. The test went successfull for most stations. As the limitation of the TADUmax, Wb is supposted to show fringes in half channels. On the baselines to Wb, fringes were seen only in IF2. There was no fringes to Bd as it was still in 8MHz/subband mode. No fringes found on the baselines to Zc. All the problems were most likely operational mistakes and should not affect the future observations with the new mode. Moreover, the Kunming 40m radio telescope particpated in the experiment to test its new backend, a Mark4 backend upgraded with a Mark5B recorder. The new system works well except for a minor problem: high and variable DC component in most subbands.

**a) Ef, Effelsberg:** Polarisations swap was found in the first ftp scan and then fixed after scan 6.

**b) Wb, Westerbork:** BBC 3-6 USBs had much larger delay. The problem was not seen in the following user experiment EM085.

**c) Ed, Effelsberg DBBC backend:** DBBC fringe SNR is getting close to module BBCs. Bandpass mispatch at the edge of subbands was seen on the baselines to the EVN stations with module BBCs.

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Report ends