Network Monitoring Report: **L-band** # 03/VI

Source: DA193, 3C84 **Length:** 13×22 min. **Observing mode:** Mk IV, mode 256-8-2, dual pol.
Reference antenna: Effelsberg **Date of observations:** 07/11/03 **Reference date:** 07/11/03; 311d 21h 00m
Experiment code: N03L3 **Date of report:** 21/11/03 **by:** Z. Paragi

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

	EVN stations															Affiliated	
	Cm	Ef	Jb	Mc	Nt	On	Sh	Tr	Ur	Wb	Ar	Hh	Mh	Yb	Wz	Ro	Sm
Station has observed	■	⊗	⊗	⊗	⊗	⊗	⊗	■	⊗	⊗	⊗	⊗					
Station produced fringes	○	⊗	⊗	⊗	⊗	⊗	⊗	○	⊗	⊗	⊗	⊗					
Logs are available (within 72 hours)	○	⊗	⊗	⊗	⊗	⊗	⊗	○	⊗	⊗	⊗	⊗					
GPS data available (within 7 days)	○	⊗	⊗	⊗	⊗	⊗	⊗	○	⊗	⊗	⊗	⊗					
Tapes are available (within 7 days)	○	⊗	⊗	⊗	⊗	⊗	⊗	○	⊗	⊗	⊗	⊗					
Feedback on www (within 7 days)	○	⊗	⊗	⊗	⊗	⊗	⊗	○	⊗	⊗	⊗	⊗					
GPS clock estimate gives fringes	○	⊗	⊗	⊗	⊗	⊗	⊗	○	⊗	⊗	⊗	⊗					
Clock offset in μsec		33.852	−11.065	−110.368	−14.927	−1.296	78.914		1.998	1029.196	0.645	−11.590					
Clock rate in psec/sec		5.28	−0.193	0.475	−0.897	0.370	−1.580		−0.374	0.191	0.132	−0.900					
Tape footage okay	○	⊗	⊗	⊗	⊗	⊗	⊗	○	⊗	⊗	⊗	⊗					
Tape speed okay	○	⊗	⊗	⊗	⊗	⊗	⊗	○	⊗	⊗	⊗	⊗					
Forward passes okay	○	⊗	⊗	⊗	■	⊗	⊗	○	⊗	⊗	⊗	⊗					
Reverse passes okay	○	⊗	⊗	⊗	■	⊗	⊗	○	■	⊗	○	⊗					
Parity error $< 10^{-3}$	○	⊗	⊗	⊗	■	⊗	⊗	○	■	⊗	⊗	⊗					
Polarization setup okay	○	⊗	⊗	⊗	⊗	⊗	⊗	○	⊗	⊗	⊗	⊗					
Strong signal amplitude	○	⊗	⊗	⊗	⊗	■	⊗	○	⊗	⊗	⊗	⊗					
Phase cal aligns phases	○	○	○	○	○	○	○	○	○	○	○	○					
Please check VC number(s):																	
All 13 scans correlated	○	○	○	○	○	○	○	○	○	○	○	○					
Clear from RFI	○	⊗	⊗	■	⊗	■	■	○	■	⊗	⊗	■					
Previous reported problem(s) corrected	○	○	○	○	○	○	○	○	○	○	○	○					
Problem(s) first reported																	
See enclosed footnote(s):	**a**	**b**		**c**	**d**	**e**	**f**	**g**	**h**	**i**		**j**					

Enclosure: Footnotes L-band # 03/VI

Footnotes to the Network Monitoring Report: **L-band** # 03/VI

General: Place a general comment here

The following stations did not fill in TRACK: Arecibo, Onsala, Effelsberg, Westerbork.

a) Cm, Cambridge: Did not observe due to telescope control problems.

b) Ef, Effelsberg: The reference clock used (33.852 μs) was from an experiment a couple of days earlier. This was because the GPS data were not available on the day of observation, when the vexfile was made for software correlation of the ftp data. The real GPS-formatter value was 36.118 μs which was not inserted to the vexfile before clock-searching this NME. All other clocks listed above were affected by this.

c) Mc, Medicina: Some RFI was seen in the data.

d) Nt, Noto: The lower sidebands of BBCs 1 and 3 have significantly higher amplitudes than the rest of the channels. These two channels were related to the dead tracks 2 and 3.

e) On, Onsala: The autocorrelation amplitude was very low ($\sim 0.2 - 0.3$), even lower than in session 2/2003. This was due to not ideal sampler statistics (number of highs bits was $\sim 6\%$ instead of the ideal $\sim 36\%$). All experiments in the session were probably affected, because the problem was present in F03X1 and N03C1 as well. Some RFI can be seen in the data.

f) Sh, Shanghai: RCP amplitudes are 50% weaker than the LCP ones. There was a strong RFI at 1636.803 MHz (in RCP only) which may have reduced the sensitivity.

g) Tr, Torun: Did not observe because the tape recorder was broken.

h) Ur, Urumqi: The upper sidebands of BBCs 2 and 4 have lower amplitude signal. These channels also had a very low autocorrelation amplitude, which is due to not ideal sampler statistics. This was unrelated to recording, or to BBC power level settings. There was probably bad cabling between the BBC and the formatter. This problem affected all experiments that used BBCs 2 and 4 (also seen in N03C1 data). Reverse pass parity errors were about 1e-3, otherwise playback was good. There was weak RFI in the data.

i) Wb, Westerbork: BBC2 seemed to have higher leakage ($\sim 10\%$); in general the polarization leakage was very low ($< 5\%$).

j) Hh, Hartebeesthoek: Strong RFI was seen at 1643.053 MHz, in both LCP and RCP.

Questions? paragi@jive.nl

Report ends