

Network Monitoring Report: **K-band** N08K4

Source: 3C345, 3C454.3, ... (see below) **Length:** 360 min. **Observing mode:** Mk IV, mode 256-8-2, dual pol.
Reference antenna: Effelsberg **Date of observations:** 03/11/08 **Reference date:** 03/11/08; 308d 13h 00m
Experiment code: N08K4 **Date of report:** 25/02/09 **by:** Stefanie Muehle

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

	Cm	Ef	Jb	Mc	Nt	On	Sh	Tr	Ur	Wb	Ar	Hh	Mh	Ys	Wz	Ro
Station has observed	⊗	⊗	⊗	⊗	⊗	⊗	⊗						⊗	⊗		
Station produced fringes (ftp)	⊗	⊗	⊗	⊗	⊗	⊗	■						■	■		
Station produced fringes (disk)	⊗	⊗	⊗	⊗	⊗	⊗	■						⊗	■		
Filled in TRACK	⊗	⊗	⊗	⊗	⊗	⊗	⊗						⊗	⊗		
Logs are available	⊗	⊗	⊗	⊗	⊗	⊗	⊗						⊗	⊗		
GPS data available	⊗	⊗	⊗	⊗	⊗	⊗	⊗						⊗	⊗		
Disks are available	⊗	⊗	⊗	⊗	⊗	⊗	⊗						⊗	⊗		
Feedback on www (within 7 days)	■	⊗	■	■	■	⊗	⊗						⊗	⊗		
GPS clock estimate gives fringes	⊗	⊗	⊗	⊗	⊗	⊗	○						⊗	○		
Clock offset in μ sec	950.901	-31.015	-0.161697	-8.30387	-6.75232	-31.4959							-2.17204			
Clock rate in psec/sec	-0.116	-0.104	-0.116	0.868	1.75	-0.347							-0.0046			
Recording okay	⊗	⊗	⊗	⊗	⊗	⊗	⊗						⊗	⊗		
Polarization setup okay	⊗	⊗	⊗	⊗	■	⊗	○						⊗	○		
Strong signal amplitude	⊗	⊗	■	⊗	⊗	⊗	○						⊗	○		
Phase cal aligns phases	⊗	⊗	⊗	⊗	⊗	⊗	○						⊗	○		
Sampler statistics okay	⊗	⊗	■	■	⊗	⊗	○						■	⊗		
Please check VC number(s):			all	7	all RCP								1,3,4			
Previous reported problem(s) corrected	○	○	○	○	○	○	○						○	○		
Problem(s) first reported																
See enclosed footnote(s):	a		b	c	d		e						f	g		

Enclosure: Footnotes K-band N08K4

Footnotes to the Network Monitoring Report: **K-band** N08K4

General: This Network Monitoring Experiment consists of 3 parts: The first part is the regular NME at 22GHz with a setup similar to the user experiment EB037E (mode 1). The last 1.5 hours of the experiment were dedicated to tests of the new VLBA 24GHz continuum setup (mode 2) and an NH₃ spectral line setup (mode 4). Nt, Sh and Mh participated only in the first part. The full source list is:

mode 1: J1751+09, 3C345, 2037+511, 3C454.3, J2254+1341, RCAS, UHER

mode 2: 3C454.3

mode 4: 3C454.3, W51MASER, J1930+1532

a) **Cm, Cambridge:** signal seems to be in the following BBCs: mode 1: BBC03, BBC04, mode 2: BBC01-04, mode 4: BBC01-02 and ???

b) **Jb, Jodrell Bank:** fraction of high bits close to zero in all BBCs and all modes, possibly due to fault in the high-patch channel; RFI-like symptoms; in order to salvage as much information as possible, data recorrelated with Jb as a 1-bit station, therefore reduced sensitivity; RCP amplitudes tend to be significantly weaker than the LCP amplitudes in the cross-correlations, in particular in mode 2

c) **Mc, Medicina:** Since the start of the observations at 24GHz, fraction of high bits decreasing in BBC07 down to only half of the optimum value

d) **Nt, Noto:** no RCP; fed LCP into all BBCs

e) **Sh, Shanghai:** pointing of the antenna was off due to a fault in the elevation axle

f) **Mh, Metsähovi:** network problems, no connection to the outside world during the NME; fraction of high bits at about 70% of the optimum value in all BBCs except for BBC02

g) **Ys, Yebes:** no fringes in any of the modes; exchange of an IF LO prior to the user experiment EB037E seems to have fixed the problem