Network Monitoring Report: **L-band 18/21cm** N22L2

Source: J0956+2515
Reference antenna: Effelsberg
Experiment code: N22L2

Length: 180 min.
Date of observations: 26/05/22
Date of report: 26/09/25

Observing mode: 1024 Mbps at 8x32 MHz, 512 Mbps at 16x8 MHz
Reference date: 146d 12h 00m
by: Gabor Orosz

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

	Jb2	Wb	Ef	Mc	Nt	O8	T6	Ur	Tr	Hh	Cm	Da	Kn	Pi	De
Station has observed	⊗	⊗	⊗	⊗	■	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Station produced fringes (ftp)	⊗	⊗	⊗	⊗	⬚	■	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Station produced fringes (disk)	⊗	⊗	⊗	⊗	⬚	■	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	■
Logs are available (within 72 h)	⊗	⊗	⊗	⊗	⬚	⊗	■	⊗	⊗	⊗	■	■	■	■	■
Antabs on vlbeer (within 7 days)	⊗	⊗	⊗	⊗	⬚	⊗	■	■	■	⊗	■	■	■	■	■
Feedback on www (within 7 days)	⊗	⊗	⊗	⊗	⊗	⊗	■	⊗	⊗	⊗	■	■	■	■	■
GPS clock estimate gives fringes	⊗	⊗	⊗	⊗	⬚	⬚	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⬚
Clock rate in psec/sec	0.11	0.07	−0.13	−0.03	–	–	0.81	−0.96	0.00	0.05	0.11	0.11	0.11	0.11	–
Recording okay	⊗	⊗	⊗	⊗	⬚	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	■
Polarization setup okay	⊗	⊗	⊗	⊗	⬚	⬚	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Strong signal amplitude	⊗	⊗	⊗	⊗	⬚	⬚	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Sampler statistics okay	■	■	■	⊗	⬚	⊗	■	⊗	■	⊗	⊗	⊗	⊗	⊗	⊗
Please check BBC number(s):	notes	notes	notes				notes		notes						
Previous problem(s) corrected															
Problem(s) first reported															
See enclosed footnote(s):	a	b	c		d	e	f	g	h		i	i	i	i	i/j

Enclosure: Footnotes L-band 18/21cm N22L2

Footnotes to the Network Monitoring Report: **L-band 18/21cm** N22L2

General:
1) The NME included two frequency setups: L1024 mode at 18cm (1595–1723 MHz, 4x32MHz dual pol) for standard EVN operations (with eMERLIN using 512 Mbps), and H512 mode at 21cm (1362–1426 MHz, 8x8MHz dual pol) for compatibility testing for global observations.
2) Strong RFI interference was observed across the L-band frequencies as typical for this range, especially for H512 mode. A priori amplitude correction is within 10% for most stations, with the exception of a few cases (see standard plots on archive). In general, L1024 performed better than H512.

a) Jb2, Jodrell Bank Mark 2: Unusual threshold settings observed at 1370.25 MHz USB channels in H512 mode (BBCs 01/09), resulting in broader sampling distribution than other telescopes.
b) Wb, Westerbork: Inverted sampling distributions at 1626.49 MHz (both polarizations) in L1024 mode (BBCs 01/09). Asymmetric sampling at 1418.25 MHz USB LCP in H512 mode (BBC 12). Strong polarization leakage across all subbands, resulting in elevated RL/LR values.
c) Ef, Effelsberg: Asymmetric sampling at 1386.25 MHz LSB LCP in H512 mode (BBC 10).
d) Nt, Noto: Did not participate due to secondary mirror movement system failure.
e) O8, Onsala: Telescope was stowed for the entire session due to strong winds. No useful data recorded.
f) T6, Tianma: Observed linears, polconverted. Highly asymmetric sampling distributions at 1402.25MHz and 1418.25MHz (all polarizations) in H512 mode (BBCs 03/11 and 04/12). Missing log files and antab information.
g) Ur, Urumqi: Seemed to have observed linears, polconverted. Conversion of IF4 in L1024 mode failed. Missing antab information.
h) Tr, Torun: Phase instabilities observed every 15 minutes, continuing from previous experiments. Sampling imbalance at 1626.49MHz USB RCP in L1024 mode (BBC 01). Missing antab information.
i) Cm/Da/Kn/Pi/De, eMERLIN stations: No www feedback. Missing log files and antab information due to current system limitations. eMERLIN telescopes had an error in the mode change to H512 and didn't observe the proper frequencies in the 21cm section.
j) De, Defford: Station dropped in disk correlation, but produced fringes during the FTP test. Possible data transfer issues?