

EVN Performance and Reliability

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[on behalf of Support Scientists]

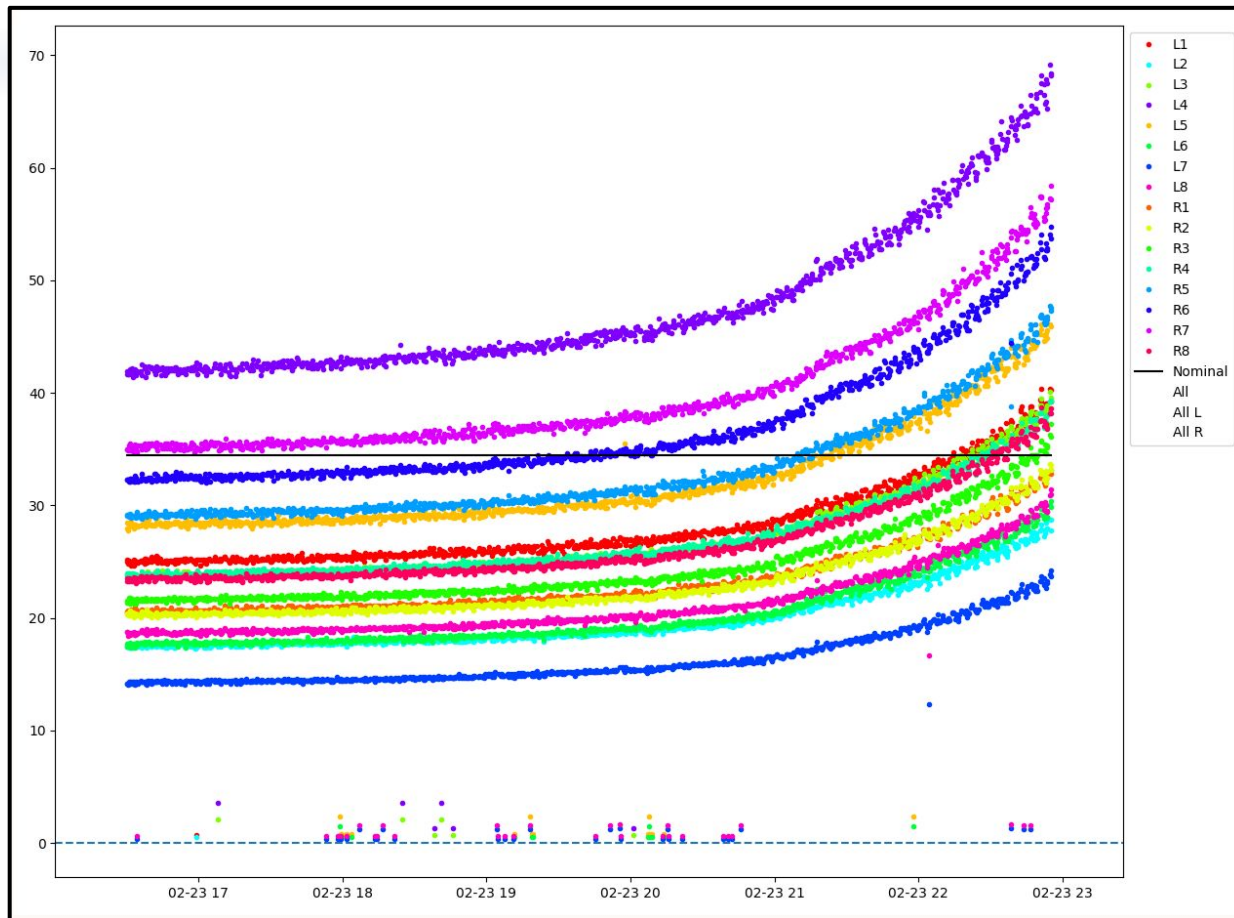
EVN TOG 25 June 2024



2023 s3 ~ 2024 s2 highlights

- + Smooth NMEs
- + **Km** re-joined (2024 s1, s2)
- + **Ur** now provides accurate antab files
- + Grafana back online and updated to the latest version:
<https://services.jive.eu/feedbackplots/>
- + New station (2024 s2~): KVN pyeongchang (**Kc**) - good fringes at **K**
 - vlbeer connection issue
 - antab header issue: **Ir Nt Mh**
 - antab quality issue: **Wb T6**
 - antab time stamp issue: **Hh**





Median absolute error in gain calibration

L

~ Average at L band											
Ar	Bd	Cm	Da	De	Ef	Hh	Ir	J1	J2	Km	Kn
N/A	N/A	0.181	0.2	0.314	0.116	0.113	0.304	0.0862	0.0991	N/A	0.476
Kl	Ku	Ky	Mc	Mh	Nt	Os	Os	Pi	Ro	Sr	Sv
N/A	N/A	N/A	0.0845	N/A	0.314	N/A	0.114	0.230	N/A	N/A	N/A
Tb	Tr	Ur	Wb	Ys	Zc						
0.110	0.125	0.185	0.170	N/A	N/A						

C/M

~ Average at C/M band											
Ar	Bd	Cm	Da	De	Ef	Hh	Ir	J1	J2	Km	Kn
N/A	N/A	0.305	0.149	0.335	0.0709	0.119	0.176	0.113	0.0826	N/A	0.200
Kl	Ku	Ky	Mc	Mh	Nt	Os	Os	Pi	Ro	Sr	Sv
N/A	N/A	N/A	0.0711	N/A	N/A	N/A	0.0996	0.179	N/A	0.164	N/A
Tb	Tr	Ur	Wb	Ys	Zc						
0.0848	0.133	0.0921	0.116	0.0946	N/A						

X

~ Average at X band											
Ar	Bd	Cm	Da	De	Ef	Hh	Ir	J1	J2	Km	Kn
N/A	N/A	N/A	N/A	N/A	0.0724	0.0417	0.0665	N/A	N/A	0.148	N/A
Kl	Ku	Ky	Mc	Mh	Nt	Os	Os	Pi	Ro	Sr	Sv
N/A	N/A	N/A	0.0821	N/A	0.150	0.0766	N/A	N/A	N/A	N/A	N/A
Tb	Tr	Ur	Wb	Ys	Zc						
0.175	0.120	0.0715	0.102	0.0743	N/A						

K

~ Average at K band											
Kl	Bd	Cm	Da	De	Ef	Hh	Ir	J1	J2	Km	Kn
0.178	N/A	N/A	N/A	N/A	0.0932	0.316	N/A	N/A	0.270	N/A	N/A
Tb	Ku	Ky	Mc	Mh	Nt	Os	Os	Pi	Ro	Sr	Sv
0.0738	0.158	0.104	0.115	0.257	N/A	0.194	N/A	N/A	N/A	0.194	N/A
Tr	Ur	Wb	Ys	Zc							
N/A	N/A	N/A	0.389	N/A							

Q

N24Q1	Auto correlations (BBC number)							Cross correlations (SNR, lag offset)								
	Eff	Kc	Kl	Ka	Ky	Mh	O6	Ys	Eff-Kc	Kc-Kl	Kc-Ka	Kc-Ky	Kc-Mh	Kc-O6	Kc-Ys	
	1	3	4	4	4	1	1	1	Eff-Kc	Kc-Kl	Kc-Ka	Kc-Ky	Kc-Mh	Kc-O6	Kc-Ys	
43072.00MHz, LSB, RCP-RCP									5.2AP offset: -219	4.8AP offset: -202	5.1AP offset: 202	5.2AP offset: 160	4.2AP offset: -315	5.2AP offset: 27	5.1AP offset: 229	
43072.00MHz, LSB, RCP-LCP	Cross hands								8.4AP offset: -2	10.8AP offset: -2	13.6AP offset: 2	14.4AP offset: 1	5.8AP offset: 16	5.2AP offset: 27	5.1AP offset: 229	
43072.00MHz, LSB, LCP-LCP	2	2	2	2	2	2	2	2	5.3AP offset: 137	5.3AP offset: 145	5.3AP offset: 103	5.3AP offset: 160	5.8AP offset: 16	5.3AP offset: -34	5.2AP offset: 249	
43072.00MHz, LSB, LCP-RCP	Cross hands								9.2AP offset: 2	14.5AP offset: -2	15.5AP offset: 2	13.8AP offset: -3	5.8AP offset: 16	5.3AP offset: -34	5.2AP offset: 249	
43072.00MHz, USB, RCP-RCP	1	3	4	4	4	1	1	1	4.9AP offset: 50	4.8AP offset: -198	4.8AP offset: 281	5.3AP offset: -16	4.8AP offset: 22	4.5AP offset: -379	5.5AP offset: -205	
43072.00MHz, USB, RCP-LCP	Cross hands								5.3AP offset: 137	5.4AP offset: 145	5.3AP offset: 103	5.3AP offset: 160	5.8AP offset: 16	5.3AP offset: -34	5.2AP offset: 249	
43072.00MHz, USB, LCP-LCP	2	2	2	2	2	2	2	2	5.4AP offset: 46	5.7AP offset: -138	6.8AP offset: 54	5.6AP offset: -18	5.4AP offset: -72	5.2AP offset: 27	5.1AP offset: 109	
43072.00MHz, USB, LCP-RCP	Cross hands								5.4AP offset: 46	5.7AP offset: -138	6.8AP offset: 54	5.6AP offset: -18	5.4AP offset: -72	5.2AP offset: 27	5.1AP offset: 109	
43136.00MHz, LSB, RCP-RCP	2	3	4	4	4	2	2	2	6.0AP offset: -20	5.4AP offset: -178	5.9AP offset: 150	5.5AP offset: 119	5.1AP offset: -119	5.2AP offset: 119	6.0AP offset: -48	
43136.00MHz, LSB, RCP-LCP	Cross hands								6.0AP offset: -20	5.4AP offset: -178	5.9AP offset: 150	5.5AP offset: 119	5.1AP offset: -119	5.2AP offset: 119	6.0AP offset: -48	
43136.00MHz, LSB, LCP-LCP	10	2	2	2	2	10	10	10	6.1AP offset: 4	6.5AP offset: 4	5.6AP offset: -105	5.3AP offset: 61	5.4AP offset: -287	6.1AP offset: 287	5.8AP offset: -13	
43136.00MHz, LSB, LCP-RCP	Cross hands								6.1AP offset: 4	6.5AP offset: 4	5.6AP offset: -105	5.3AP offset: 61	5.4AP offset: -287	6.1AP offset: 287	5.8AP offset: -13	
43136.00MHz, USB, RCP-RCP	2	3	4	4	4	2	2	2	7.7AP offset: -28	14.5AP offset: -2	13.6AP offset: 2	12.5AP offset: 1	6.1AP offset: 287	5.8AP offset: -13	5.1AP offset: 109	
43136.00MHz, USB, RCP-LCP	Cross hands								4.2AP offset: 289	5.8AP offset: 31	7.0AP offset: -31	6.5AP offset: 31	5.3AP offset: 78	5.1AP offset: 247	5.6AP offset: -185	
43136.00MHz, USB, LCP-LCP	10	2	2	2	2	10	10	10	6.5AP offset: 56	12.7AP offset: -1	15.3AP offset: -1	10.1AP offset: -1	5.0AP offset: -23	4.8AP offset: 50	4.8AP offset: -111	
43136.00MHz, USB, LCP-RCP	Cross hands								5.6AP offset: 111	4.7AP offset: -142	4.7AP offset: -279	4.8AP offset: 287	5.0AP offset: -23	4.8AP offset: 50	4.8AP offset: -111	
43200.00MHz, LSB, RCP-RCP	3	3	4	4	4	3	3	3	5.2AP offset: 45	5.3AP offset: 244	5.3AP offset: 132	4.1AP offset: 43	5.8AP offset: 60	6.5AP offset: 7	5.2AP offset: -247	
43200.00MHz, LSB, RCP-LCP	Cross hands								5.2AP offset: 45	5.3AP offset: 244	5.3AP offset: 132	4.1AP offset: 43	5.8AP offset: 60	6.5AP offset: 7	5.2AP offset: -247	
43200.00MHz, LSB, LCP-LCP	11	2	2	2	2	11	11	11	7.6AP offset: 201	11.6AP offset: 2	14.6AP offset: 2	15.5AP offset: 1	5.8AP offset: 60	6.5AP offset: 7	5.2AP offset: -247	
43200.00MHz, LSB, LCP-RCP	Cross hands								7.6AP offset: 201	11.6AP offset: 2	14.6AP offset: 2	15.5AP offset: 1	5.8AP offset: 60	6.5AP offset: 7	5.2AP offset: -247	
43200.00MHz, USB, RCP-RCP	3	3	4	4	4	3	3	3	9.2AP offset: 2	13.0AP offset: -3	16.7AP offset: -3	11.0AP offset: -3	4.1AP offset: 43	5.8AP offset: 60	5.2AP offset: -247	
43200.00MHz, USB, RCP-LCP	Cross hands								5.6AP offset: 111	5.6AP offset: 111	5.6AP offset: 111	5.6AP offset: 111	5.8AP offset: 134	5.8AP offset: 134	5.8AP offset: 134	
43200.00MHz, USB, LCP-LCP	11	2	2	2	2	11	11	11	9.1AP offset: 2	9.9AP offset: -2	15.4AP offset: -2	13.7AP offset: -2	5.8AP offset: 60	6.5AP offset: 7	5.2AP offset: -247	
43200.00MHz, USB, LCP-RCP	Cross hands								5.9AP offset: 54	3.9AP offset: -359	5.0AP offset: 59	4.5AP offset: 173	5.4AP offset: 227	6.1AP offset: 28	4.6AP offset: 252	
43264.00MHz, LSB, RCP-RCP	4	3	4	4	4	4	4	4	11.3AP offset: 1	11.3AP offset: 1	12.6AP offset: 3	12.6AP offset: 3	5.8AP offset: 60	6.5AP offset: 7	5.2AP offset: -247	
43264.00MHz, LSB, RCP-LCP	Cross hands								5.3AP offset: 68	5.4AP offset: 138	5.8AP offset: 138	4.9AP offset: -63	5.3AP offset: -63	5.1AP offset: 57	5.4AP offset: 205	
43264.00MHz, LSB, LCP-LCP	12	2	2	2	2	12	12	12	6.5AP offset: 1	14.2AP offset: 1	15.4AP offset: 1	16.0AP offset: 1	5.8AP offset: 60	6.5AP offset: 7	5.2AP offset: -247	
43264.00MHz, LSB, LCP-RCP	Cross hands								6.1AP offset: -18	5.2AP offset: 30	5.7AP offset: 84	5.4AP offset: 21	5.7AP offset: 84	4.3AP offset: -265	5.1AP offset: -265	
43264.00MHz, USB, RCP-RCP	4	3	4	4	4	4	4	4	10.7AP offset: -2	10.7AP offset: -2	15.7AP offset: -2	16.8AP offset: -2	5.8AP offset: 60	6.5AP offset: 7	5.2AP offset: -247	
43264.00MHz, USB, RCP-LCP	Cross hands								5.3AP offset: -93	5.8AP offset: 92	5.5AP offset: 21	6.4AP offset: 70	5.4AP offset: 70	6.6AP offset: -1	5.0AP offset: -107	
43264.00MHz, USB, LCP-LCP	12	2	2	2	2	12	12	12	6.5AP offset: 1	13.5AP offset: 1	11.7AP offset: 1	13.5AP offset: 1	5.8AP offset: 60	6.5AP offset: 7	5.2AP offset: -247	
43264.00MHz, USB, LCP-RCP	Cross hands								5.5AP offset: 68	4.6AP offset: 146	5.0AP offset: 85	5.5AP offset: 85	5.4AP offset: 22	5.1AP offset: 57	5.4AP offset: 311	

antab header issue

```
! Amplitude calibration data for IR in em164h.
! For use with AIPS task ANTAB.
! Waveband(s) = 22.2cm.
! RXG files used for each LO:
!   Setup 01
!     LO=1350.00 MHz lcp l.rwg 2016 04 09
!     LO=1350.00 MHz rcp l.rwg 2016 04 09
! DBBC used in mode DDC
Produced on 20240319 using antabfs.py version: 20191011
GAIN IR ELEV DPFU=0.0971,0.0975 FREQ=1578.49,1738.49 POLY=0.9165642737,0.0033715230,0.00003415
00 /
/
!TSYS IR FT = 1.0 TIMEOFF=0
INDEX= 'R1','R2','R3','R4','L1','L2','L3','L4'
/
!
! Setup 01
! Calibration mode: SINGLE
!
!Column 1 = R1: ifA, bbc01, 1610.49 MHz , LSB, BW= 32.00 MHz, Tcal=5.00 K
!Column 2 = R2: ifA, bbc01, 1642.49 MHz , USB, BW= 32.00 MHz, Tcal=5.00 K
!Column 3 = R3: ifA, bbc02, 1674.49 MHz , LSB, BW= 32.00 MHz, Tcal=5.00 K
!Column 4 = R4: ifA, bbc02, 1706.49 MHz , USB, BW= 32.00 MHz, Tcal=5.00 K
!Column 5 = L1: ifC, bbc09, 1610.49 MHz , LSB, BW= 32.00 MHz, Tcal=6.30 K
!Column 6 = L2: ifC, bbc09, 1642.49 MHz , USB, BW= 32.00 MHz, Tcal=6.30 K
!Column 7 = L3: ifC, bbc10, 1674.49 MHz , LSB, BW= 32.00 MHz, Tcal=6.30 K
!Column 8 = L4: ifC, bbc10, 1706.49 MHz , USB, BW= 32.00 MHz, Tcal=6.30 K
! 068 13:11.47: scanNum=0001 scanName=no0001 source=j1037+5711
! 068 13:29.97 176.0 79.9 67.7 89.9 92.9 67.2 64.5 65.5
068 13:30.25 175.7 82.2 67.7 90.0 93.2 67.5 64.5 65.6
068 13:30.50 212.8 82.6 67.8 90.1 89.6 67.2 64.4 65.6
068 13:30.75 185.4 79.5 67.6 90.0 92.3 67.6 64.5 65.6
068 13:31.00 238.4 85.6 67.8 90.3 99.3 68.1 64.5 65.7
068 13:31.25 178.5 80.2 67.7 90.0 96.2 67.7 64.5 65.7
```

antab header issue **Nt** (C band)

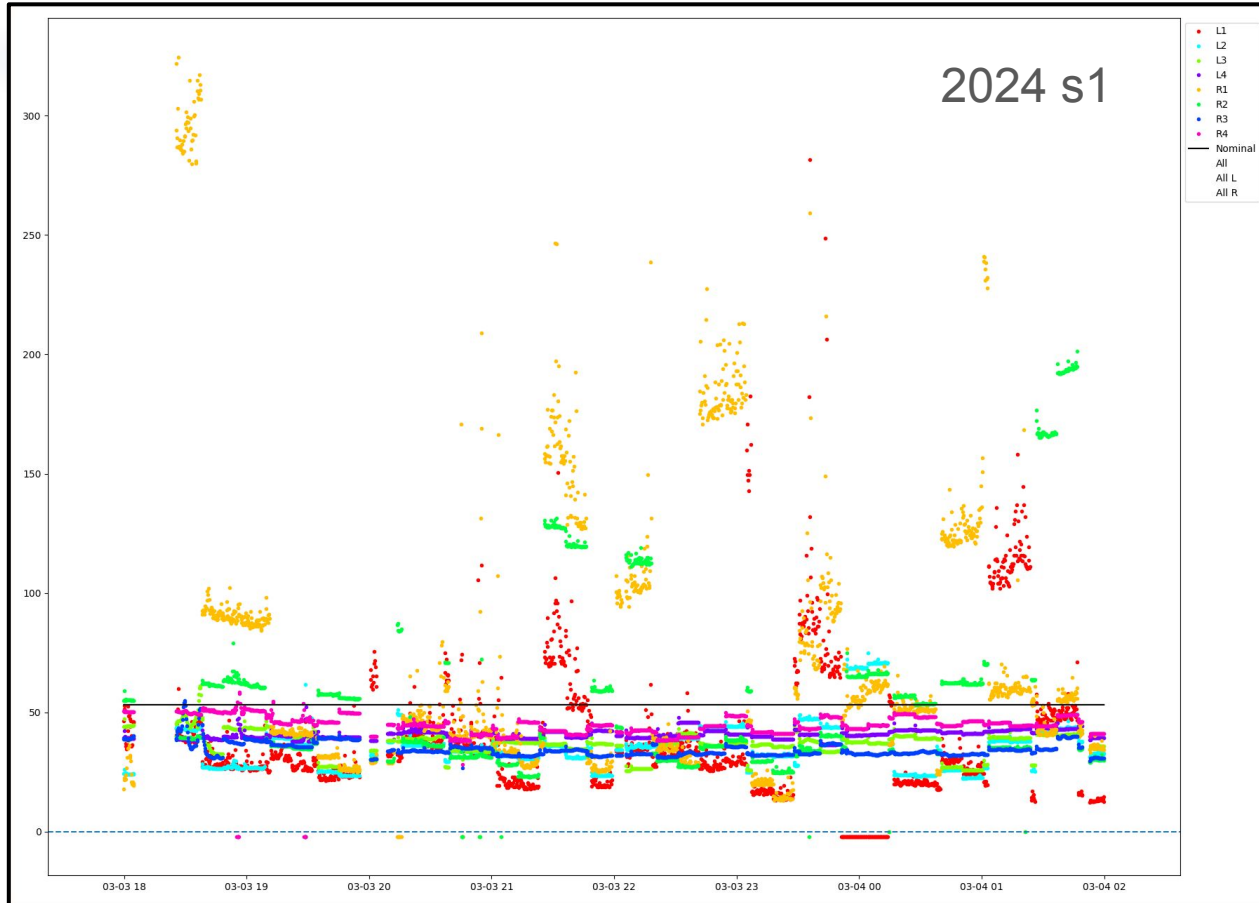
```
! Amplitude calibration data for -F in n23c1nt.  
! For use with AIPS task ANTAB.  
! Waveband(s) = 6.5cm.  
! RXG files used for each LO:  
!   Setup 01  
!     LO=4600.00 MHz lcp c.rxg 2014 06 10  
!     LO=4600.00 MHz rcp c.rxg 2014 06 10  
!   Setup ac  
!     LO=4600.00 MHz lcp c.rxg 2014 06 10  
!     LO=4600.00 MHz rcp c.rxg 2014 06 10  
! DBBC used in mode DDC  
! Produced on 2023-02-24 using antabfs.py version: 2019-10-11  
GAIN -F ELEV DPFU=0.139541746095,0.137136187858 FREQ=4584.00,5128.00 POLY=0.934422290759,0.003  
21146830547,-3.93173654272e-05 /  
/  
TSYS -F FT = 1.0 TIMEOFF=0  
INDEX= 'R1','R2','R3','R4','R5','R6','R7','R8','R9','R10','R11','R12','R13','R14','R15','R16',  
'L1','L2','L3','L4','L5','L6','L7','L8','L9','L10','L11','L12','L13','L14','L15','L16'  
/  
!  
! Setup 01  
! Calibration mode: CONT  
!
```


antab header issue **Mh**

```
! Amplitude calibration data for MH in n24k1.^M
! For use with AIPS task ANTAB.^M
! Waveband(s) = 1.4cm.^M
! RXG files used for each LO:^M
!   Setup 01.^M
!   LO=21480.00 MHz lcp k.rxg 2002 11 20.^M
!   LO=21480.00 MHz rcp k.rxg 2002 11 20.^M
! DBBC used in mode DDC.^M
! Produced on 2024-03-19 using antabfs.py version: 2019-10-11.^M
! Fixed incorrect cont_cal; DM 2024-03-19.^M ?

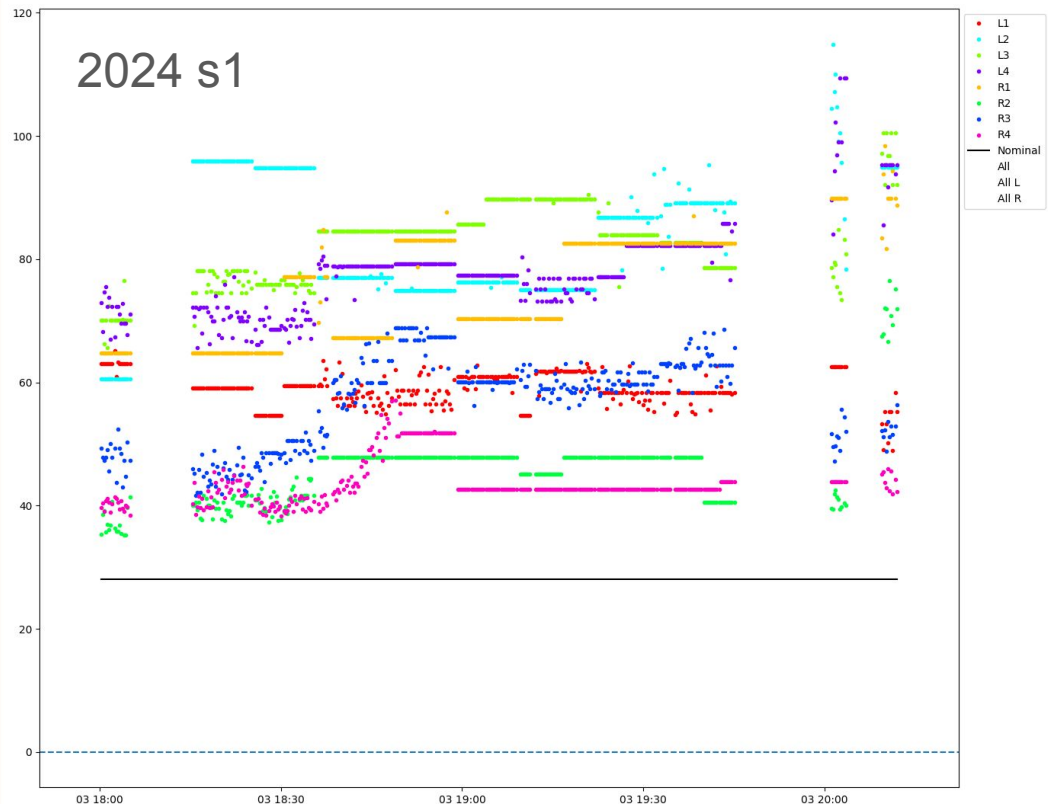
071 13:59.98 92.2 90.0 88.0 89.6 91.0 88.8 88.7 92.6 95.4 91.1 85.7 78.6 76.4 98.2 148.5 220.8
83.4 83.6 86.9 89.7 88.5 79.7 70.1 69.2 86.2 118.7 146.9 147.5 148.4 149.9 160.6 373.5.^M
071 14:05.98 91.7 89.7 87.3 88.8 90.4 88.2 88.2 91.8 94.5 90.5 85.1 78.0 75.7 97.2 147.8 219.5
82.9 83.4 86.3 88.8 87.7 79.1 69.5 68.8 86.5 120.8 150.0 150.7 153.8 157.6 167.0 408.0.^M
071 14:20.98 90.9 88.9 87.0 88.5 90.0 87.7 87.5 91.7 94.3 90.3 84.8 77.6 75.5 96.6 146.8 216.2
82.1 82.7 85.9 88.8 87.4 78.7 69.0 68.5 84.0 113.7 138.5 137.2 135.4 135.9 144.2 282.5.^M
071 14:35.98 90.6 88.5 86.7 88.2 89.3 87.0 86.9 91.4 93.6 89.8 84.4 77.1 75.0 96.6 146.4 210.8
81.7 82.3 85.5 88.6 87.3 78.3 68.8 68.1 84.9 116.9 144.4 143.6 145.5 147.5 156.9 358.9.^M
071 14:50.98 89.3 87.0 84.8 86.2 87.5 85.3 85.2 89.5 91.8 88.0 82.5 75.6 73.6 95.0 144.4 214.2
80.4 80.9 83.6 86.5 85.5 76.8 67.5 66.8 83.9 116.5 144.5 144.9 147.8 150.7 160.6 399.9.^M
071 15:05.98 88.5 86.3 84.3 85.4 86.6 84.6 84.5 88.8 90.9 87.1 81.7 74.8 72.8 94.2 143.2 205.9
79.9 80.4 83.1 85.8 84.5 76.1 66.8 66.2 80.6 110.0 135.2 134.4 133.7 134.8 144.2 317.7.^M
071 15:20.98 88.1 85.7 83.7 85.1 86.3 84.0 84.0 88.0 90.6 86.7 81.2 74.4 72.6 93.8 142.3 211.3
79.3 79.8 82.7 85.7 84.4 75.8 66.7 66.0 82.1 114.1 142.3 142.5 145.9 148.3 158.6 409.1.^M
071 15:35.98 94.5 91.8 89.5 91.2 92.2 89.9 89.9 94.3 96.9 92.8 87.0 79.7 77.9 100.8 153.2 224.
8 85.0 85.2 88.3 91.2 90.2 81.2 71.2 70.3 87.6 122.0 151.3 151.5 155.4 158.4 169.2 432.5.^M
071 15:50.98 93.1 91.0 88.7 90.3 91.2 88.6 88.8 93.4 95.7 91.5 85.8 78.7 76.8 99.6 150.9 214.8
83.5 84.1 87.5 90.4 88.9 79.9 70.1 69.4 83.9 112.0 135.5 134.6 131.8 131.7 140.4 260.5.^M
071 16:05.98 92.1 89.6 87.3 88.3 89.4 87.2 87.5 91.8 94.2 90.0 84.5 77.4 75.6 98.3 149.2 218.4
82.4 82.9 86.1 88.8 87.7 78.9 69.1 68.4 87.8 124.3 154.7 156.4 163.7 168.7 178.6 477.7.^M
071 16:20.98 90.9 88.4 86.0 87.1 87.9 85.9 86.2 90.3 92.8 88.9 83.2 76.3 74.6 97.0 147.1 215.7
81.3 81.8 85.0 87.6 86.5 77.6 68.2 67.4 86.0 121.4 151.6 153.1 160.5 165.7 176.2 503.8.^M
071 16:35.98 90.1 87.6 85.6 86.2 87.3 85.0 85.2 89.4 91.9 87.9 82.4 75.4 74.0 96.4 146.2 214.1
80.6 81.2 84.1 87.2 85.8 77.3 67.5 66.8 81.9 112.1 138.6 137.9 139.2 141.6 150.6 326.9.^M
/^M
```


antab quality issue Wb

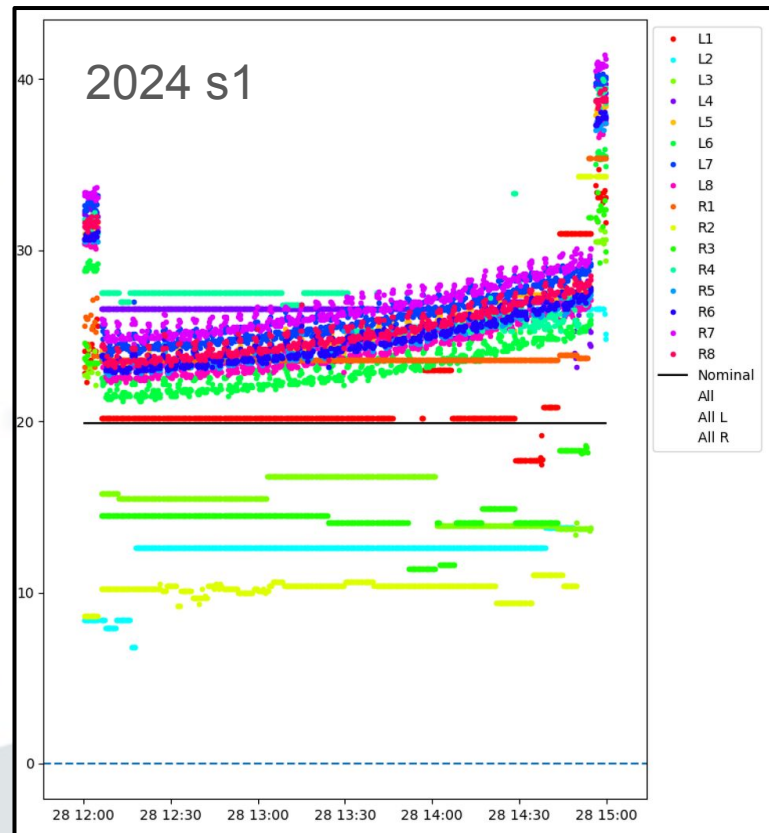


antab quality issue T6

2024 s1



2024 s1



antab time stamp issue Hh (L C K band)

```
GAIN HH  
ELEV  
DPFU = 0.0679, 0.0679  
FREQ = 4782.49, 5070.49  
POLY = 0.92039411, 0.0019596593, -1.2060241e-05  
/  
TSYS HH  
FT = 0.85  
TIMEOFF = 0.0
```

```
INDEX = 'L1', 'L2', 'L3', 'L4', 'L5', 'L6', 'L7', 'L8', 'R1', 'R2', 'R3', 'R4', 'R5', 'R6', 'R7', 'R8'
```

```
/  
059 11:30:04 40.1 40.8 39.7 40.1 40.0 40.5 41.7 42.3 40.59 12:59.86 53.3 53.2 52.1 51.3 50.4 52.1 52.1 53.1 47.3 48.9 47.7 48.5 48.6 48.1 49.6 51.0  
059 11:30:06 39.8 40.8 39.1 39.5 39.8 41.2 41.8 42.5 40.59 12:59.88 53.6 52.2 52.4 50.6 51.4 51.6 53.0 52.9 47.2 48.9 47.4 48.3 48.4 47.7 48.7 50.3  
059 11:30:07 40.2 40.7 39.8 39.6 40.4 40.2 41.2 42.1 40.59 12:59.91 53.2 51.9 51.5 51.5 52.1 52.0 53.2 52.1 48.2 49.3 47.8 48.3 48.2 48.3 48.9 51.1  
059 11:30:07 39.8 41.0 39.9 39.8 40.0 40.0 42.0 41.0 40.59 12:59.93 52.1 52.6 51.4 52.0 51.9 52.3 52.9 52.3 47.6 48.0 47.4 48.0 48.4 47.4 49.8 50.2  
059 11:30:08 39.9 40.8 39.8 39.1 41.0 40.1 41.2 41.4 40.59 12:59.95 52.9 52.5 52.2 51.6 50.8 51.3 52.2 51.6 47.2 49.0 48.0 48.2 48.6 48.4 50.1 51.8  
059 11:30:10 39.7 40.2 40.2 39.7 40.3 40.1 41.4 42.3 40.59 12:59.96 52.6 51.5 51.4 51.9 51.1 51.9 52.0 52.1 47.0 47.6 47.3 47.9 47.7 48.2 49.9 50.8  
059 11:30:11 39.7 40.7 39.8 39.0 40.2 40.6 41.6 42.5 40.59 12:59.98 53.4 52.0 52.1 51.7 51.3 51.1 52.4 52.2 47.9 48.4 47.9 48.0 47.7 48.5 49.2 49.8  
059 11:30:13 39.9 40.4 39.8 39.8 40.3 40.7 41.2 41.4 40.59 12:59.98 52.3 51.7 52.0 51.0 50.3 50.5 51.4 52.9 47.0 48.9 48.1 48.1 48.3 47.4 50.8 51.8  
059 11:30:13 40.3 40.3 40.2 39.4 40.2 40.4 41.4 41.7 40.59 13:00.01 53.0 52.1 52.0 51.6 51.1 51.6 52.5 52.5 47.3 48.6 47.6 48.2 48.2 48.0 49.7 50.8  
059 11:30:15 40.2 41.0 39.8 39.1 39.7 41.0 41.1 41.0 40.59 13:00.03 53.3 51.6 52.2 51.8 51.2 51.7 52.8 52.1 47.3 48.4 47.4 47.9 48.1 47.4 50.0 50.5  
059 11:30:16 39.8 41.0 39.6 40.9 40.3 39.9 40.5 42.5 40.59 13:00.05 52.4 52.4 52.0 52.2 51.0 50.9 53.3 53.0 47.5 48.6 47.3 48.5 49.7 48.4 50.6 50.8  
059 11:30:17 40.0 39.9 39.3 39.2 40.8 40.9 42.5 42.0 40.59 13:00.06 53.5 52.3 52.1 50.7 50.5 50.2 51.8 52.4 47.8 48.5 48.2 47.6 48.3 47.4 49.0 51.3  
059 11:30:18 39.8 41.3 40.6 40.9 40.3 39.8 41.7 42.8 40.59 13:00.08 52.9 50.6 51.2 52.2 50.3 51.4 53.1 52.2 46.5 49.2 46.6 48.1 49.2 47.7 49.6 51.3  
059 11:30:19 40.4 41.4 40.0 40.4 39.1 41.2 41.5 41.3 40.59 13:00.10 53.1 51.4 52.0 51.7 50.7 50.8 53.3 52.2 47.6 48.9 47.1 47.0 47.6 47.3 49.8 50.3  
059 11:30:21 40.2 40.4 39.4 40.2 40.0 40.0 41.9 42.1 40.59 13:00.11 52.0 52.4 52.4 52.3 51.1 51.2 52.3 52.7 47.4 48.7 47.5 47.2 48.5 48.3 49.8 52.0  
059 11:30:22 39.5 40.2 39.4 40.3 39.7 40.6 41.5 41.5 40.59 13:00.13 52.7 52.3 52.0 50.2 51.1 51.9 52.0 52.4 47.0 48.5 48.3 47.9 48.4 47.6 49.0 50.6  
059 11:30:23 39.8 41.0 39.4 39.8 40.0 39.8 42.0 41.9 45.3 44.1 43.6 43.0 42.8 42.9 42.9 43.5  
059 11:30:23 39.4 40.3 40.5 39.9 40.6 40.5 41.6 42.1 43.6 42.4 42.9 43.2 41.3 41.7 44.0 43.7  
059 11:30:25 39.5 40.9 39.4 39.8 40.2 40.2 41.8 42.9 43.3 42.9 42.3 42.4 42.9 43.5 43.5 43.9  
059 11:30:26 39.7 41.4 38.8 39.5 40.8 39.5 42.2 42.8 44.0 44.6 43.2 42.7 42.1 42.6 43.2 43.2  
059 11:30:26 39.5 40.7 39.7 39.8 40.0 39.8 42.5 42.9 43.7 43.8 43.2 42.9 42.1 42.4 43.2 43.7  
059 11:30:28 39.7 41.0 40.2 39.7 39.9 39.8 42.1 41.7 43.6 43.2 43.2 42.5 42.1 43.3 44.0 42.7
```

antab time stamp issue Hh (L C K band)

053	14:17.26	260.8	128.2	104.0	100.5	98.7	94.9	88.5	84.4	81.9	79.9	78.7	74.9
053	14:17.51	261.9	128.8	104.6	101.1	99.4	95.5	89.2	85.1	82.6	80.7	79.4	75.6
053	14:17.76	261.4	128.4	105.3	100.9	99.3	95.4	89.0	85.1	82.5	80.5	79.3	75.4
053	14:18.01	261.8	128.4	105.2	100.8	99.3	95.3	89.0	84.9	82.3	80.3	79.1	75.2
053	14:18.26	261.4	128.5	104.7	100.9	99.3	95.3	89.0	84.9	82.4	80.3	79.2	75.3
053	14:18.51	261.4	128.6	104.3	100.9	99.2	95.3	88.9	84.8	82.3	80.4	79.2	75.3
053	14:18.76	261.3	128.7	104.4	101.0	99.2	95.4	89.0	84.9	82.5	80.5	79.3	75.4
053	14:19.01	261.0	128.5	104.3	100.9	99.2	95.3	88.9	84.9	82.4	80.4	79.2	75.4
053	14:19.26	261.4	128.6	104.3	100.9	99.2	95.3	89.0	84.9	82.5	80.6	79.3	75.5
053	14:19.51	261.7	128.5	104.4	100.8	99.2	95.2	88.9	84.7	82.3	80.2	79.0	75.2
053	14:19.76	261.5	128.3	104.6	100.6	99.0	95.2	88.8	84.7	82.2	80.2	79.0	75.2
053	14:20.02	262.1	128.7	104.4	100.9	99.2	95.3	88.9	84.8	82.4	80.3	79.1	75.3
053	14:20.27	261.6	128.6	104.2	100.9	99.1	95.2	88.9	84.8	82.3	80.5	79.2	75.4
053	14:20.52	261.3	128.5	104.2	100.8	99.1	95.3	88.9	84.8	82.3	80.4	79.2	75.4
053	14:20.77	261.6	128.5	104.1	100.7	98.9	95.2	88.7	84.7	82.2	80.3	79.1	75.3
053	14:21.02	260.9	128.5	104.2	100.7	98.9	95.1	88.8	84.7	82.2	80.2	79.0	75.2
053	14:21.27	261.0	128.1	104.1	100.5	98.8	94.9	88.6	84.5	82.0	80.2	78.9	75.1
053	14:21.52	260.9	128.2	103.9	100.5	98.7	95.0	88.5	84.6	82.1	80.3	79.0	75.2
053	14:21.77	261.2	128.4	104.2	100.7	98.9	95.0	88.6	84.5	82.0	79.8	78.6	74.9
053	14:22.02	260.9	128.3	104.0	100.6	98.8	95.0	88.5	84.4	82.0	79.9	78.7	74.9
053	14:22.27	260.8	128.3	104.0	100.6	98.8	94.9	88.5	84.3	81.9	79.7	78.5	74.8
053	14:22.52	260.4	128.1	103.9	100.5	98.7	94.9	88.4	84.4	81.9	79.8	78.6	74.8
053	14:22.77	261.1	128.4	104.1	100.5	98.7	94.9	88.4	84.3	81.8	79.6	78.4	74.7
053	14:23.02	260.7	128.3	104.1	100.6	98.7	94.9	88.5	84.3	81.8	79.5	78.4	74.6
053	14:23.27	260.6	128.1	103.8	100.4	98.5	94.7	88.3	84.1	81.6	79.4	78.2	74.5
053	14:23.52	260.7	128.0	103.7	100.2	98.4	94.6	88.1	84.0	81.5	79.3	78.1	74.4
053	14:23.77	261.3	128.2	103.9	100.4	98.6	94.7	88.3	84.1	81.7	79.4	78.3	74.5
053	14:24.02	260.5	128.1	103.8	100.3	98.5	94.7	88.3	84.1	81.7	79.5	78.4	74.6
053	14:24.27	260.5	128.1	103.7	100.2	98.4	94.5	88.1	84.0	81.4	79.2	78.1	74.3
053	14:24.52	260.5	128.0	103.7	100.2	98.5	94.7	88.2	84.1	81.6	79.5	78.4	74.6
053	14:24.77	260.5	127.8	103.5	100.0	98.2	94.5	88.0	83.9	81.5	79.4	78.3	74.5
053	14:25.02	260.0	127.8	103.5	100.0	98.2	94.5	88.1	84.1	81.7	79.8	78.6	74.7
053	14:25.27	259.5	127.5	103.8	99.9	98.2	94.5	88.1	84.1	81.6	79.8	78.6	74.7
053	14:25.52	260.0	127.7	103.6	99.9	98.2	94.5	88.1	84.1	81.6	79.8	78.6	74.7
053	14:25.77	260.1	127.5	103.6	99.7	98.0	94.3	88.0	83.9	81.5	79.7	78.4	74.6
053	14:26.02	260.1	127.4	103.4	99.7	98.0	94.3	87.8	83.8	81.4	79.5	78.3	74.5
053	14:26.27	259.3	127.5	103.2	99.7	97.9	94.2	87.8	83.7	81.2	79.1	78.0	74.1
053	14:26.52	259.0	127.4	103.1	99.7	97.9	94.2	87.8	83.8	81.3	79.5	78.3	74.4
053	14:26.77	259.6	127.5	103.2	99.7	97.9	94.2	87.9	83.8	81.3	79.4	78.2	74.4

X band is fine



New antabfs.py (20240612)

Bug fix: version display in antabfs file

e.g. (20210504)

“Produced on 2024-03-05 using antabfs.py version: 2019-10-11”

available at:

<https://github.com/evn-vlbi/VLBI-utilities/blob/master/antabfs.py>



Kind requests from the support scientists

- Please leave station feedback
- Please upload antab/log files to vlbeer
- Update local scripts
- Communication:

Please let us know if there are any changes

Join mattermost chat during NMEs and e-EVN runs



Discussion items

- Block schedule posting process / format
- Adding extra short test scans before each experiment into the block schedule (e.g.)

