

EVN Amplitude Calibration

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JIVE

Joint Institute for VLBI
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NETWORK

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- The following table gives the **mean absolute error** in the antenna gain amplitude. This number will be approximately half the error in the SEFD and is the same that you see in AIPS gain plots. The number in brackets after each entry is the number of experiments that were used.

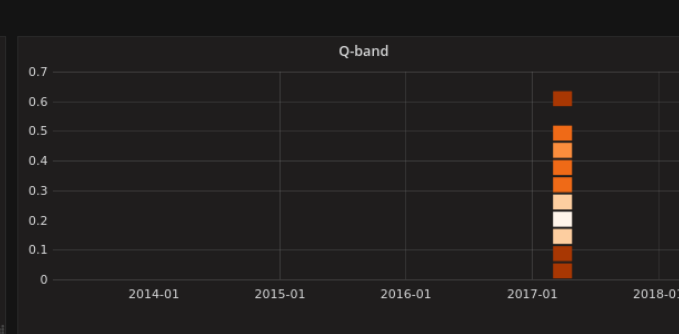
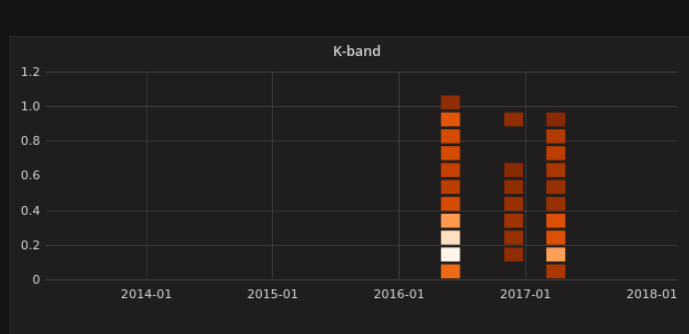
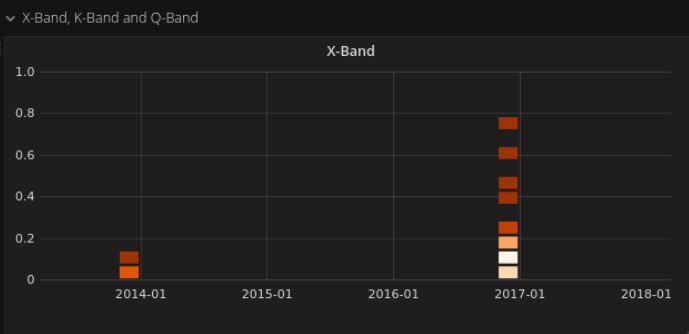
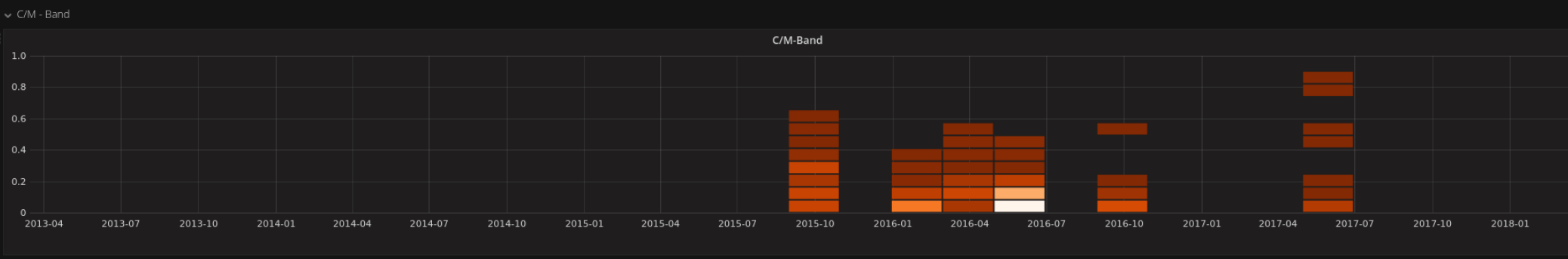
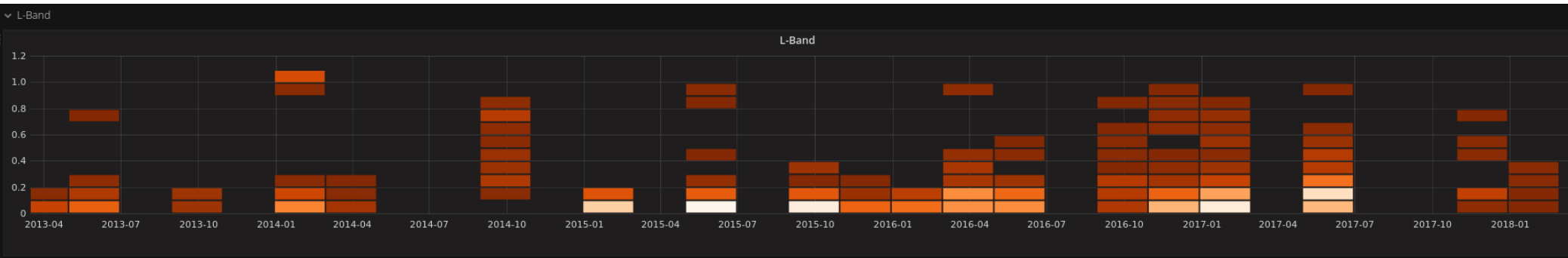
	21cm	18cm	6cm	1.3cm	0.7cm
AR		0.10 (2)	0.09 (2)		
BD	0.54 (1)	0.10 (6)	0.13 (4)	0.45 (4)	
EF	0.07 (2)	0.10 (11)	0.09 (12)	0.40 (4)	0.20 (5)
HH		0.07 (7)	0.12 (12)	0.40 (3)	
IR		0.54 (2)	0.15 (18)		
J1	0.12 (1)	0.40 (10)	0.16 (12)		
J2		0.70 (1)	0.30 (13)	0.51 (6)	
KT				0.20 (5)	0.30 (6)
KU				0.30 (5)	0.30 (4)
KY				0.40 (5)	0.20 (4)
MC	0.20 (1)	0.17 (11)	0.12 (19)	0.40 (6)	
MH				0.46 (5)	0.40 (5)
NT			0.10 (21)	0.40 (6)	
ON	0.08 (2)	0.07 (13)	0.10 (20)	0.30 (5)	0.30 (6)
RO		0.30 (4)			
SV	0.10 (2)	0.09 (8)	0.12 (5)	0.30 (5)	
T6		0.20 (9)	0.12 (13)		
TR		0.30 (6)	0.08 (25)	0.45 (5)	
UR		0.20 (7)	0.15 (4)	0.30 (2)	
WB	0.05 (2)	0.14 (14)	0.12 (23)		
YS			0.14 (25)	0.20 (6)	0.16 (6)
ZC	0.47 (1)	0.05 (3)	0.40 (4)	0.30 (3)	

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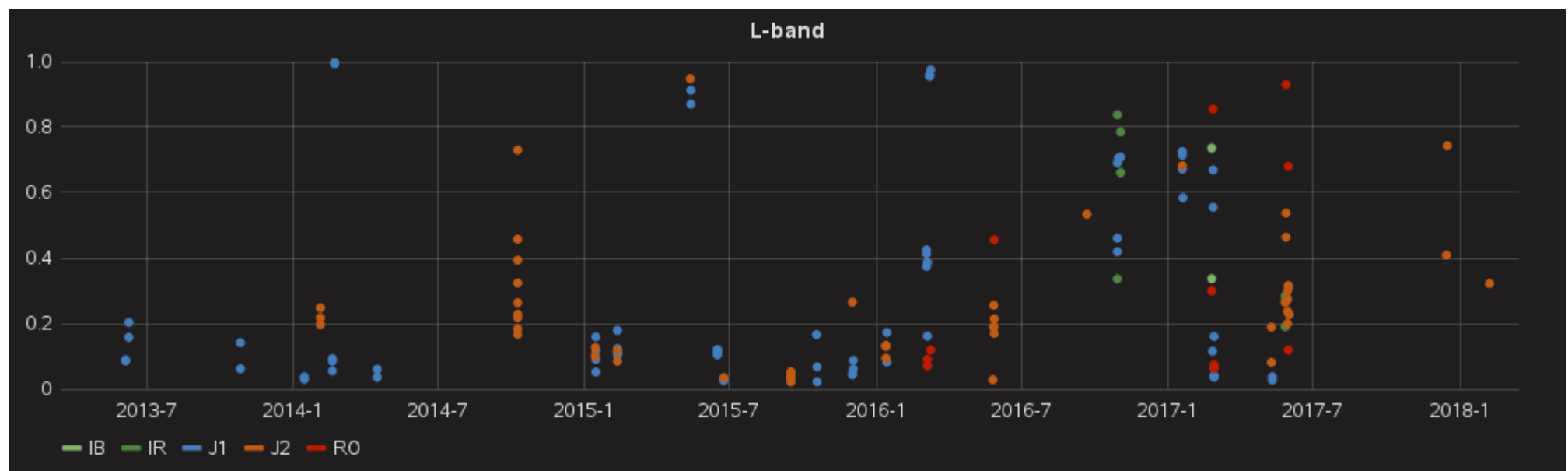
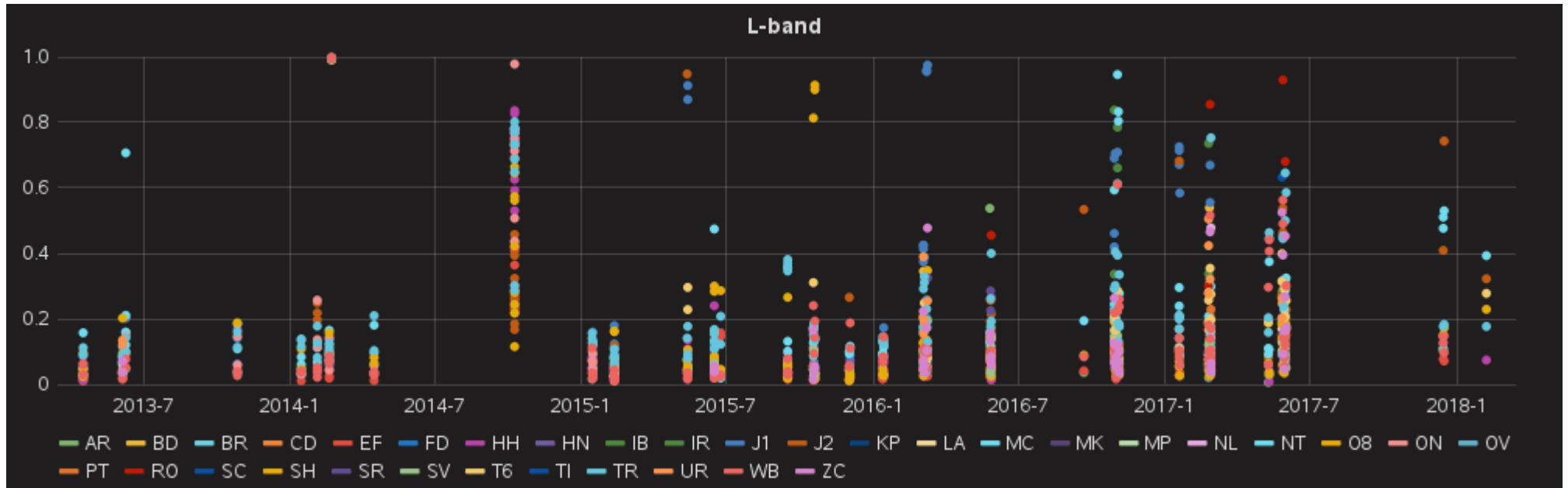
- The following table gives the **mean absolute error** in the antenna gain amplitude. This number will be approximately half the error in the SEFD and is the same that you see in AIPS gain plots. The number in brackets after each entry is the number of experiments that were used.

18cm**6cm****5cm**

AR	0.006 (1)		
BD	0.14 (10)	0.11 (19)	
EF	0.12 (12)	0.30 (14)	0.04 (2)
HH	0.09 (13)	0.11 (18)	
IR	0.20 (2)	0.40 (21)	0.07 (2)
J1	0.03 (2)	0.06 (2)	
J2	0.30 (14)	0.40 (21)	0.80 (2)
KM		0.30 (6)	
MC	0.20 (14)	0.15 (25)	0.04 (2)
NT		0.15 (19)	0.50 (2)
ON	0.10 (15)	0.13 (18)	0.04 (2)
RO	0.58 (3)		
SV	0.10 (10)	0.11 (19)	
T6	0.30 (9)	0.19 (16)	
TR	0.40 (10)	0.20 (19)	0.04 (2)
UR	0.17 (8)	0.15 (9)	
WB	0.20 (14)	0.19 (25)	0.20 (1)
YS		0.09 (25)	0.05 (2)
ZC	0.30 (9)	0.40 (16)	

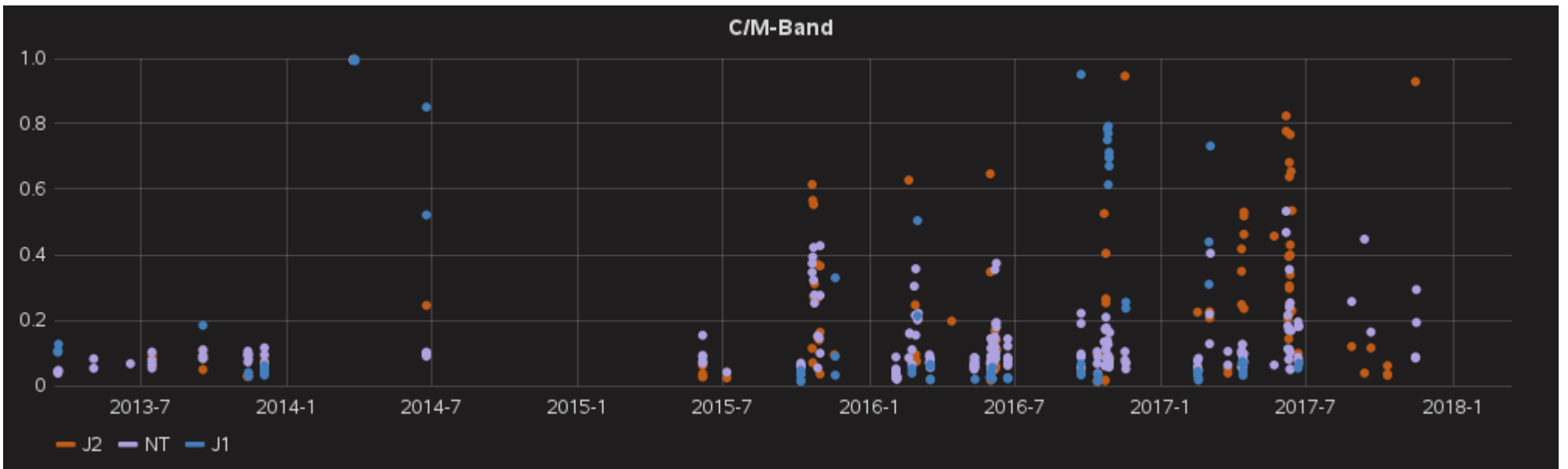
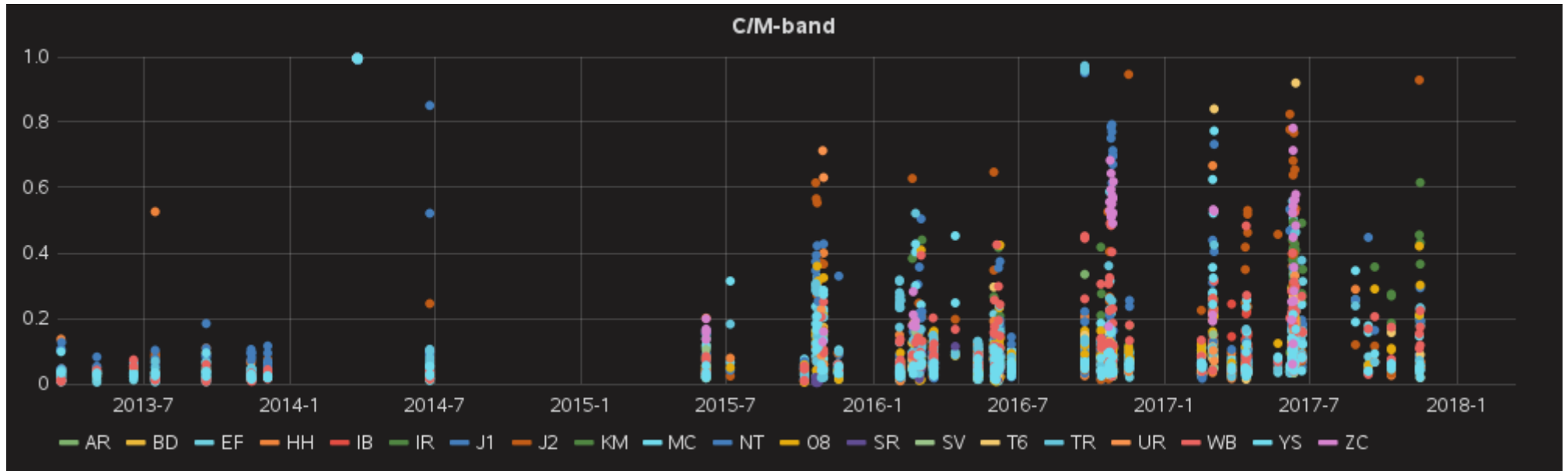


18/21cm ampcal vs time



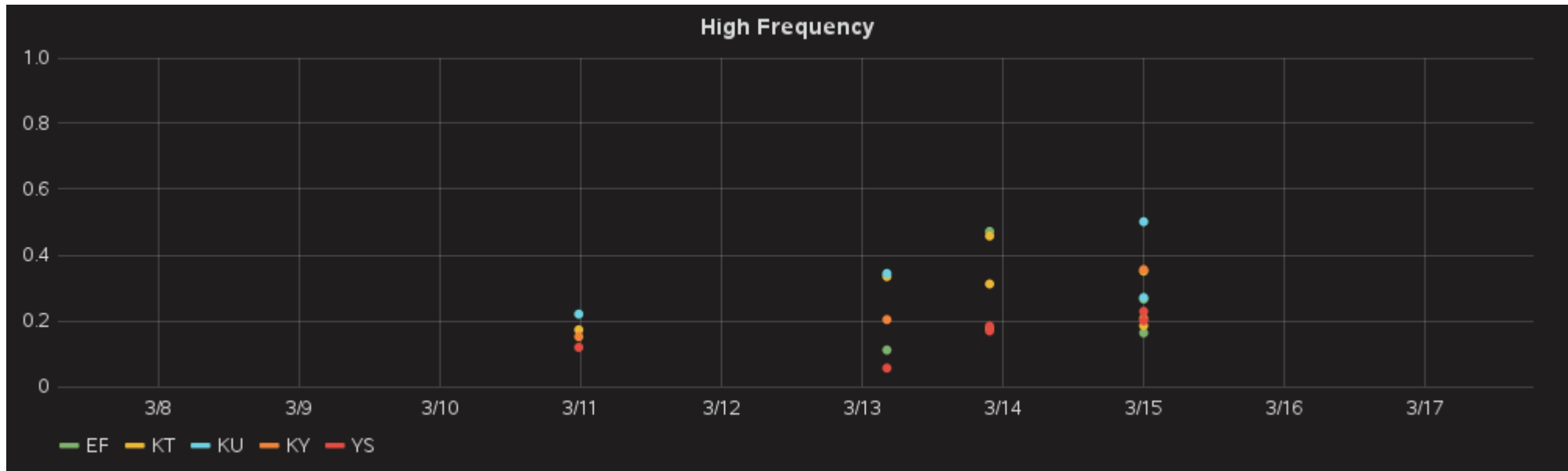
Ib J1 J2 Ro

5/6cm ampcal vs time



J1 J2 Nt

1.3cm/0.7cm amp cal vs time



Antabfs and feedback shame

- **JB**

- No antabfs, no feedback.
 - But progress!
- Almost Everyone??!



Network Monitoring Report: **L-Band** N17L1

Source: J0237+2848, J0956+2515, J0854+2006 **Length:** 180 min. **Observing mode:** Mk V, mode 512-16-2, dual pol.
Reference antenna: Ef **Date of observations:** 17/02/25 **Reference date:** 17/02/25; 056d 19h 00m
Experiment code: N17L1 **Date of report:** 23/06/17 **by:** Ross Burns

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

	Jb1	Wb	Ef	Mc	O8	T6	Ur	Tr	Sv	Zc	Bd	Hh	Ir	Ar	Cm	Ro
Station has observed	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	■	⊗	■	⊗
Station produced fringes (ftp)	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	○	⊗	○	■
Station produced fringes (disk)	⊗	⊗	⊗	⊗	⊗	⊗	⊗	■	⊗	⊗	⊗	⊗	○	⊗	○	⊗
Logs are available (within 72 hours)	⊗	⊗	■	⊗	⊗	■	⊗	⊗	■	■	■	⊗	○	■	○	■
Feedback on www (within 7 days)	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	○	⊗	○	⊗
GPS clock estimate gives fringes	⊗	⊗	⊗	⊗	⊗	⊗	■	■	⊗	⊗	⊗	⊗	○	⊗	○	⊗
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Recording okay	⊗	⊗	⊗	⊗	⊗	⊗	⊗	■	⊗	⊗	⊗	⊗	○	⊗	○	⊗
Polarization setup okay	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	○	⊗	○	⊗
Strong signal amplitude	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	○	⊗	○	⊗
Sampler statistics okay	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	○	■	○	⊗
Please check BBC number(s):	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
Previous reported problem(s) corrected																
Problem(s) first reported																
See enclosed footnote(s):	1															

Enclosure: Footnotes L-Band N17L1

Network Monitoring Report: C-band N17C2

Source: J0927+3902 and J0815+3635 **Length:** 180 min. **Observing mode:** Mk V, mode 512-16-2 and 2048-16-2, dual pol.
Reference antenna: Ys **Date of observations:** 07/06/17 **Reference date:** 07/06/17; 158d 12h 00m
Experiment code: N17C2 **Date of report:** 17/01/18 **by:** Benito Marcote

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

	Jb	Wb	Ef	Mc	Nt	O8	T6	Ur	Tr	Ys	Sv	Zc	Bd	Hh	Ir	Cm	Da	Kn	Ta	Km
Station has observed	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	■	⊗	⊗	⊗	⊗	⊗
Station produced fringes (ftp)	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	■	⊗	⊗	⊗	⊗	⊗
Station produced fringes (disk)	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	■	⊗	⊗	⊗	⊗	⊗
Logs are available (within 72 hours)	⊗	⊗	■	⊗	⊗	⊗	⊗	⊗	⊗	⊗	■	■	■	⊗	■	■	■	■	■	■
Feedback on www (within 7 days)	■	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	■	■	■	■	■
GPS clock estimate gives fringes	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	■	⊗	⊗	⊗	⊗	⊗
Clock rate in psec/sec	-0.0374	0.09822	-0.0463	-1.32e-14	-0.7224	-0.267	-1.551	-2.725	-22.0	-0.407	-0.75	-0.12	-0.22	0.0628	-0.889	-0.0374	-0.0374	-0.0374	-0.0374	1.17
Recording okay	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	■	⊗	⊗	⊗	⊗	⊗
Polarization setup okay	⊗	⊗	■	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	■	⊗	⊗	⊗	⊗	⊗
Strong signal amplitude	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	■	⊗	⊗	⊗	⊗	⊗
Sampler statistics okay	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	■	■	■	■	■	⊗
Please check BBC number(s):																				
Previous reported problem(s) corrected																				
Problem(s) first reported																				
See enclosed footnote(s):	a		b						c	d					e	f	f	f	f	g

Enclosure: Footnotes C-band N17C2

Network Monitoring Report: Q-band N17Q1

Source: 1928+738 and J2005+7752 **Length:** 180 min. **Observing mode:** Mk V, mode 1024-16-2, dual
Reference antenna: Yebes **Date of observations:** 14/03/17 **Reference date:** 14/03/17; 73d 09h 00m
Experiment code: N17Q1 **Date of report:** 19/07/17 **by:** Jay Blanchard

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

	Ef	Ys	Kt	Ku	Ky	Mh	O6	NT
Station has observed	⊗	⊗	⊗	⊗	⊗	⊗	⊗	■
Station produced fringes (ftp)	⊗	⊗	⊗	■	⊗	■	⊗	○
Station produced fringes (disk)	⊗	⊗	⊗	⊗	⊗	⊗	⊗	○
Logs are available (within 72 hours)	⊗	⊗	⊗	⊗	⊗	⊗	⊗	○
Feedback on www (within 7 days)	⊗	⊗	■	■	■	■	⊗	■
GPS clock estimate gives fringes	⊗	⊗	⊗	⊗	⊗	⊗	⊗	○
	0.093	-0.54	-0.41	-0.48	=0.32	0.028	0.0.25	0.66
Recording okay	⊗	⊗	⊗	⊗	⊗	⊗	⊗	○
Polarization setup okay	■	⊗	⊗	⊗	⊗	⊗	⊗	○
Strong signal amplitude	⊗	⊗	⊗	⊗	⊗	⊗	⊗	○
Sampler statistics okay	⊗	⊗	⊗	⊗	⊗	⊗	⊗	○
Please check BBC number(s):								
Previous reported problem(s) corrected	LCP							
Problem(s) first reported	LCP							
See enclosed footnote(s):	a		b	b, c	b	b, d		b, e

Enclosure: Footnotes Q-band N17Q1

Network Monitoring Report: **M-band** N17M1

Source: J0319+4130 and J1927+7358 **Length:** 180 min. **Observing mode:** Mk V, mode 128-16-2, dual pol.
Reference antenna: Effelsberg **Date of observations:** 05/06/17 **Reference date:** 05/06/17; 156d 12h 00m
Experiment code: N17M1 **Date of report:** 09/01/18 **by:** Jay Blanchard

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

	Jb	Wb	Ef	Mc	Nt	O8	Tr	Ys	Ir
Station has observed	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Station produced fringes (ftp)	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Station produced fringes (disk)	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Logs are available (within 72 hours)	■	⊗	⊗	■	■	■	■	⊗	⊗
Feedback on www (within 7 days)	■	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
GPS clock estimate gives fringes	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
	-0.0248	-0.176	0.0694	0.0556	-0.557	-0.266	-22.2	-0.397	-0.894
Recording okay	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Polarization setup okay	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Strong signal amplitude	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Sampler statistics okay	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
Please check BBC number(s):									
Previous reported problem(s) corrected									
Problem(s) first reported									
See enclosed footnote(s):		a			b				

Enclosure: Footnotes M-band N17M1