C192A/MC004 Correlation Report

General information

- Consists of only one science project: **MC004**

- PI: Cui
- Target: 1803+784
- Session info: http://www3.mpifr-bonn.mpg.de/div/vlbi/globalmm/
- Station feedback: http://www3.mpifr-bonn.mpg.de/div/vlbi/globalmm/sessions/oct19/feedback_oct19.asc
- Text files with detailed antenna statistics, scroll down to get to the cumulative statistics for the whole experiment:
  c192a_ALL.antrep

  c192a_PV_ALL.antrep

- Two correlations were done, the main with P3 = Pico Veleta DBBC3 (16 x 32 MHz per pol) and another with PV = Pico Veleta DBBC2 (8 x 64 MHz per pol).
  All files without additional mark refer to the P3 correlation, and those marked with PV -- to the PV one.

Current Status

Correlation finished, data **released to PI** on 14.04.2020.

Fringes

Station	Code	Fringes	Plots	Comments
Ef	B	yes	Fringe overview of all baselines (all of C192A) including this antenna in LL(left for each baseline) and RR (right for each baseline). Legend: white box - scheduled, but no data, blue - no fringe, green -- good fringe, red -- false fringe found by fourfit (detected by very large SBD). c192a_SBD_RfAnt_Ef_LLRR_AllSrc.pdf c192aPV_SBD_RfAnt_Ef_LLRR_AllSrc.pdf Examples of fourfit fringe plots can be found in (all fringe plots with baselines including the given antenna): No0001_Ef.pdf, No0001_PV_Ef.pdf Antenna statistics: c192a_Ef.antrep, c192a_PV_Ef.antrep	3 scans at 3C345, 48 fringes out of 76 baselines, mean SNR 109 37 scans at 1803+784, 456 fringes out of 1104 baselines, mean SNR 36

Station	Code	Fringes	Plots	Comments
			Same for all antennas below unless otherwise noted.	
On	X	yes	c192a_SBD_RfAnt_On_LLRR_AllSrc.pdf c192aPV_SBD_RfAnt_On_LLRR_AllSrc.pdf No0001_On.pdf, No0001_PV_On.pdf c192a_On.antrep, c192a_PV_On.antrep	3 scans at 3C345, 41 fringes out of 76 baselines, mean SNR 103 37 scans at 1803+784, 581 fringes out of 1104 baselines, mean SNR 41
Ys	Y	yes	c192a_SBD_RfAnt_Ys_LLRR_AllSrc.pdf c192aPV_SBD_RfAnt_Ys_LLRR_AllSrc.pdf No0001_Ys.pdf, No0001_PV_Ys.pdf c192a_Ys.antrep, c192a_PV_Ys.antrep	3 scans at 3C345, 34 fringes out of 76 baselines, mean SNR 76 37 scans at 1803+784, 507 fringes out of 1104 baselines, mean SNR 42
Mh	Z	yes	c192a_SBD_RfAnt_Mh_LLRR_AllSrc.pdf c192aPV_SBD_RfAnt_Mh_LLRR_AllSrc.pdf No0001_Mh.pdf, No0001_PV_Mh.pdf c192a_Mh.antrep, c192a_PV_Mh.antrep	3 scans at 3C345, 28 fringes out of 76 baselines, mean SNR 42 37 scans at 1803+784, 313 fringes out of 1104 baselines, mean SNR 18
Pv	P	yes	c192aPV_SBD_RfAnt_Pv_LLRR_AllSrc.pdf No0001_PV_Pv.pdf c192a_PV_Pv.antrep	Pv is Pico Veleta with DBBC2 Due to an undetermined problem both polarization channels recorded RCP and **LCP was completely lost** for the whole experiment. That's why only a secondary correlation was made with this backend, primary production correlation was done with DBBC3 backend, P3. 3 scans at 3C345, 46 fringes out of 76 baselines, mean SNR 106 36 scans at 1803+784, 416 fringes out of 1080 baselines, mean SNR 57 One scan (No0030) is missed in correlation because of problems reading the diskpack
P3	i	yes	c192a_SBD_RfAnt_P3_LLRR_AllSrc.pdf No0001_P3.pdf c192a_P3.antrep	P3 is Pico Veleta with DBBC3 Because of problems with DBBC2 data this was used in the primary production correlation. 3 scans at 3C345, 59 fringes out of 76 baselines, mean SNR 92

Station	Code	Fringes	Plots	Comments
				33 scans at 1803+784, 545 fringes out of 984 baselines, mean SNR 48 Special processing was applied to this data, it is described in detail HERE. 4 scans were not recorded with P3.
GLT: Gl	g	yes	c192a_SBD_RfAnt_Gl_LLRR_AllSrc.pdf c192aPV_SBD_RfAnt_Gl_LLRR_AllSrc.pdf No0001_Gl.pdf, No0001_PV_Gl.pdf c192a_Gl.antrep, c192a_PV_Gl.antrep	6 scans at 3C345, 81 fringes out of 136 baselines, mean SNR 31 34 scans at 1803+784, 581 fringes out of 1074 baselines, mean SNR 23
VLBA: Br	b	yes	c192a_SBD_RfAnt_Br_LLRR_AllSrc.pdf c192aPV_SBD_RfAnt_Br_LLRR_AllSrc.pdf No0001_Br.pdf, No0001_PV_Br.pdf c192a_Br.antrep, c192a_PV_Br.antrep	6 scans at 3C345, 32 fringes out of 136 baselines, mean SNR 15 33 scans at 1803+784, 53 fringes out of 1046 baselines, mean SNR 13 Poorly performed. A detailed report on VLBA's poor performance in this session is given HERE.
VLBA: Fd	f	yes	c192a_SBD_RfAnt_Fd_LLRR_AllSrc.pdf c192aPV_SBD_RfAnt_Fd_LLRR_AllSrc.pdf No0001_Fd.pdf, No0001_PV_Fd.pdf c192a_Fd.antrep, c192a_PV_Fd.antrep	6 scans at 3C345, 15 fringes out of 136 baselines, mean SNR 16 34 scans at 1803+784, 27 fringes out of 1074 baselines, mean SNR 10 Poorly performed. A detailed report on VLBA's poor performance in this session is given HERE.
VLBA: Kp	k	yes	c192a_SBD_RfAnt_Kp_LLRR_AllSrc.pdf c192aPV_SBD_RfAnt_Kp_LLRR_AllSrc.pdf No0001_Kp.pdf, No0001_PV_Kp.pdf c192a_Kp.antrep, c192a_PV_Kp.antrep	6 scans at 3C345, 5 fringes out of 136 baselines, mean SNR 10 34 scans at 1803+784, 10 fringes out of 1074 baselines, mean SNR 17 Poorly performed. A detailed report on VLBA's poor performance in this session is given HERE.
VLBA: La	l	yes	c192a_SBD_RfAnt_La_LLRR_AllSrc.pdf c192aPV_SBD_RfAnt_La_LLRR_AllSrc.pdf No0001_La.pdf, No0001_PV_La.pdf c192a_La.antrep, c192a_PV_La.antrep	6 scans at 3C345, 29 fringes out of 136 baselines, mean SNR 16 33 scans at 1803+784, 38 fringes out of 1046 baselines, mean SNR 19 Poorly performed. A detailed report on VLBA's poor performance in this session is given HERE.
VLBA: Mk	m	yes	c192a_SBD_RfAnt_Mk_LLRR_AllSrc.pdf	5 scans at 3C345, 39 fringes out of 112 baselines, mean SNR 20

Station	Code	Fringes	Plots	Comments
			c192aPV_SBD_RfAnt_Mk_LLRR_AllSrc.pdf No0009_Mk.pdf, No0009_PV_Mk.pdf c192a_Mk.antrep, c192a_PV_Mk.antrep	34 scans at 1803+784, 194 fringes out of 1074 baselines, mean SNR 12 Relatively well performed compared to other VLBA stations. A detailed report on VLBA's poor performance in this session is given HERE.
VLBA: Nl	n	**yes**	c192a_SBD_RfAnt_Nl_LLRR_AllSrc.pdf c192aPV_SBD_RfAnt_Nl_LLRR_AllSrc.pdf No0001_Nl.pdf, No0001_PV_Nl.pdf c192a_Nl.antrep, c192a_PV_Nl.antrep	6 scans at 3C345, 22 fringes out of 136 baselines, mean SNR 12 34 scans at 1803+784, 38 fringes out of 1074 baselines, mean SNR 12 Poorly performed. A detailed report on VLBA's poor performance in this session is given HERE.
VLBA: Ov	o	**yes**	c192a_SBD_RfAnt_Ov_LLRR_AllSrc.pdf c192aPV_SBD_RfAnt_Ov_LLRR_AllSrc.pdf No0001_Ov.pdf, No0001_PV_Ov.pdf c192a_Ov.antrep, c192a_PV_Ov.antrep	6 scans at 3C345, 63 fringes out of 136 baselines, mean SNR 21 34 scans at 1803+784, 105 fringes out of 1074 baselines, mean SNR 15 Poorly performed, but slightly better than others except Mk. A detailed report on VLBA's poor performance in this session is given HERE.
VLBA: Pt	p	**yes**	c192a_SBD_RfAnt_Pt_LLRR_AllSrc.pdf c192aPV_SBD_RfAnt_Pt_LLRR_AllSrc.pdf No0023_Pt.pdf, No0023_PV_Pt.pdf c192a_Pt.antrep, c192a_PV_Pt.antrep	6 scans at 3C345, 18 fringes out of 136 baselines, mean SNR 16 34 scans at 1803+784, 13 fringes out of 1074 baselines, mean SNR 17 Poorly performed. A detailed report on VLBA's poor performance in this session is given HERE. Problems with data in scan No0019, it should be flagged.
KVN: Kt	t	yes	c192a_SBD_RfAnt_Kt_LLRR_AllSrc.pdf c192aPV_SBD_RfAnt_Kt_LLRR_AllSrc.pdf No0041_Kt.pdf, No0041_PV_Kt.pdf c192a_Kt.antrep, c192a_PV_Kt.antrep	KVN observed in 8 x 64 MHz mode for the first time (correlated as 16 x 32 MHz with P3). Some loss of data due to bad weather and operational mistakes, but in general performance is much better than in any previous session, 2 scans at 3C345, 14 fringes out of 44 baselines, mean SNR 97 35 scans at 1803+784, 443 fringes out of 1088 baselines, mean SNR 18
KVN: Ku	u	yes	c192a_SBD_RfAnt_Ku_LLRR_AllSrc.pdf c192aPV_SBD_RfAnt_Ku_LLRR_AllSrc.pdf No0041_Ku.pdf, No0041_PV_Ku.pdf c192a_Ku.antrep, c192a_PV_Ku.antrep	KVN observed in 8 x 64 MHz mode for the first time (correlated as 16 x 32 MHz with P3). Some loss of data due to bad weather and operational mistakes, but in general performance is much better than in any previous session, 2 scans at 3C345, 17 fringes out of 44 baselines, mean SNR 67 34 scans at 1803+784, 323 fringes out of 1058 baselines, mean SNR 15

Station	Code	Fringes	Plots	Comments
KVN: Ky	y	yes	c192a_SBD_RfAnt_Ky_LLRR_AllSrc.pdf c192aPV_SBD_RfAnt_Ky_LLRR_AllSrc.pdf No0041_Ky.pdf, No0041_PV_Ky.pdf c192a_Ky.antrep, c192a_PV_Ky.antrep	KVN observed in 8 x 64 MHz mode for the first time (correlated as 16 x 32 MHz with P3). Some loss of data due to bad weather and operational mistakes, but in general performance is much better than in any previous session, 2 scans at 3C345, 17 fringes out of 44 baselines, mean SNR 87 35 scans at 1803+784, 453 fringes out of 1088 baselines, mean SNR 20

Notes

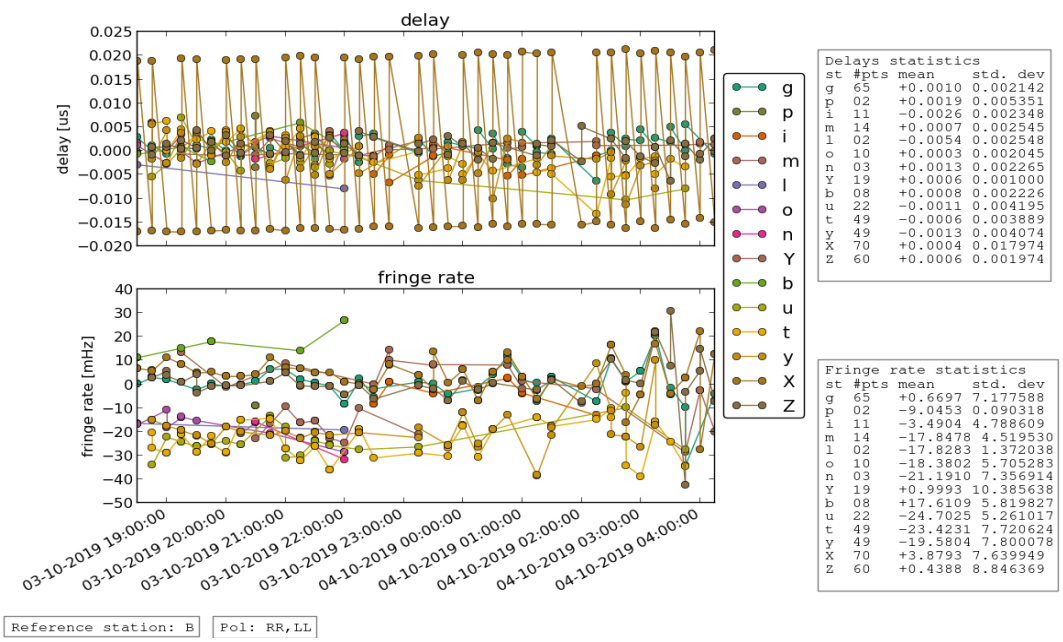
Special processing of the P3 data

Report on the VLBA problems in this session

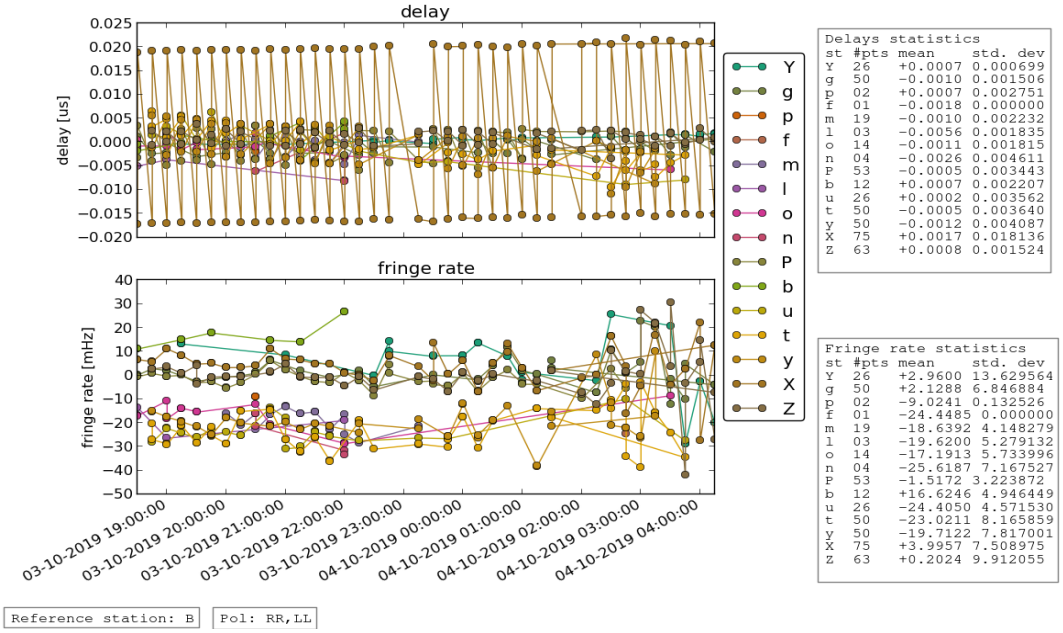
Post-Correlation checks

Residuals

Ef *(with P3 = i)*:



Ef *(with PV = P)*:



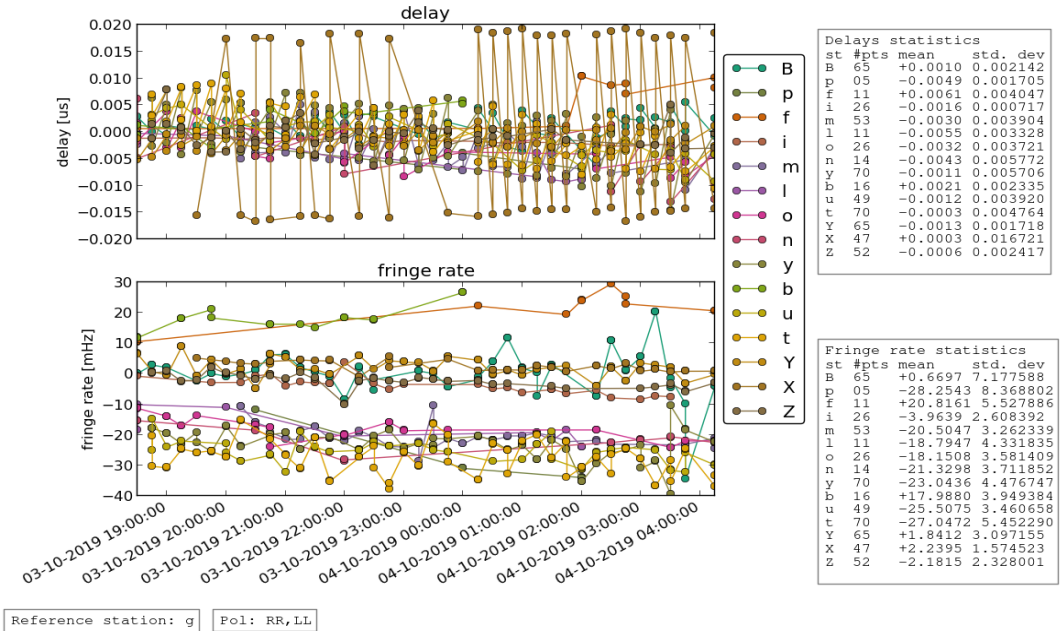
Delays statistics

st	#pts	mean	std. dev
Y	26	+0.0007	0.000699
g	50	-0.0010	0.001506
p	02	+0.0007	0.002751
f	01	-0.0018	0.000000
m	19	-0.0010	0.002232
l	03	-0.0056	0.001835
o	14	-0.0011	0.001815
n	04	-0.0026	0.004611
P	53	-0.0005	0.003443
b	12	+0.0007	0.002207
u	26	+0.0002	0.003562
t	50	-0.0005	0.003640
y	50	-0.0012	0.004087
X	75	+0.0017	0.018136
Z	63	+0.0008	0.001524

Fringe rate statistics

st	#pts	mean	std. dev
Y	26	+2.9600	13.629564
g	50	+2.1288	6.846884
p	02	-9.0241	0.132526
f	01	-24.4485	0.000000
m	19	-18.6392	4.148279
l	03	-19.6200	5.279132
o	14	-17.1913	5.733996
n	04	-25.6187	7.167527
P	53	-1.5172	3.223872
b	12	+16.6246	4.946449
u	26	-24.4050	4.571530
t	50	-23.0211	8.165859
y	50	-19.7122	7.817001
X	75	+3.9957	7.508975
Z	63	+0.2024	9.912055

GLT *(with P3 = i)*:



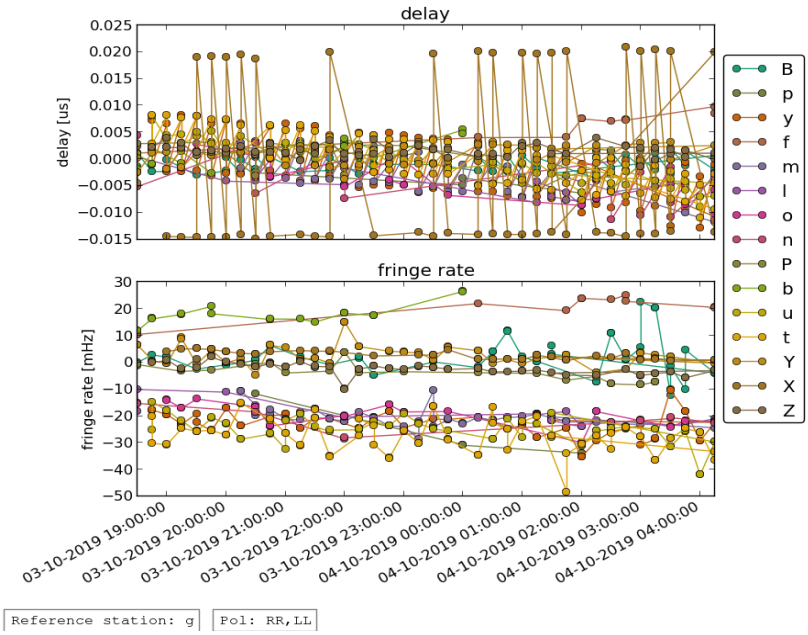
Delays statistics

st	#pts	mean	std. dev
B	65	+0.0010	0.002142
p	05	-0.0049	0.001705
f	11	+0.0061	0.004047
i	26	-0.0016	0.000717
m	53	-0.0030	0.003904
l	11	-0.0055	0.003328
o	26	-0.0032	0.003721
n	14	-0.0043	0.005772
y	70	-0.0011	0.005706
b	16	+0.0021	0.002335
u	49	-0.0012	0.003920
t	70	-0.0003	0.004764
Y	65	-0.0013	0.001718
X	47	+0.0003	0.016721
Z	52	-0.0006	0.002417

Fringe rate statistics

st	#pts	mean	std. dev
B	65	+0.6697	7.177588
p	05	-28.2543	8.368802
f	11	+20.8161	5.527886
i	26	-3.9639	2.608392
m	53	-20.5047	3.262339
l	11	-18.7947	4.331835
o	26	-18.1508	3.581409
n	14	-21.3298	3.711852
y	70	-23.0436	4.476747
b	16	+17.9880	3.949384
u	49	-25.5075	3.460658
t	70	-27.0472	5.452290
Y	65	+1.8412	3.097155
X	47	+2.2395	1.574523
Z	52	-2.1815	2.328001

GLT *(with PV = P)*:

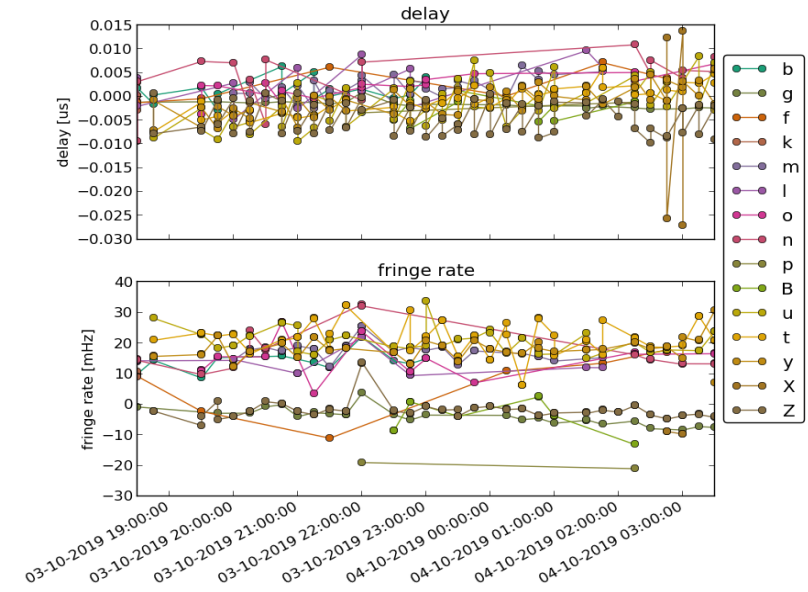



```
Delays statistics
st #pts mean    std. dev
B  50   -0.0010 0.001506
p  05   -0.0050 0.001830
y  72   -0.0013 0.005588
f  11   +0.0061 0.002611
m  53   -0.0026 0.003578
l  11   -0.0050 0.002801
o  25   -0.0034 0.003760
n  14   -0.0044 0.005316
P  23   -0.0000 0.003173
b  18   +0.0013 0.002085
u  64   -0.0005 0.003523
t  72   -0.0003 0.004675
Y  53   +0.0008 0.001707
X  47   -0.0012 0.016508
Z  62   +0.0015 0.001071
```

```
Fringe rate statistics
st #pts mean    std. dev
B  50   +2.1288 6.846884
p  05   -28.2461 8.372330
y  72   -22.7859 4.374072
f  11   +20.2504 4.927022
m  53   -20.5811 3.199118
l  11   -18.8077 4.328546
o  25   -19.4144 3.844190
n  14   -21.3393 3.718077
P  23   -3.7894 3.412786
b  18   +17.8232 3.747812
u  64   -25.0797 4.675372
t  72   -27.1831 5.934235
Y  53   +2.8862 3.823923
X  47   +2.6808 1.474064
Z  62   -2.2510 2.274199
```

Reference station: g | Pol: RR,LL

Pico Veleta *(with P3 = i)*:

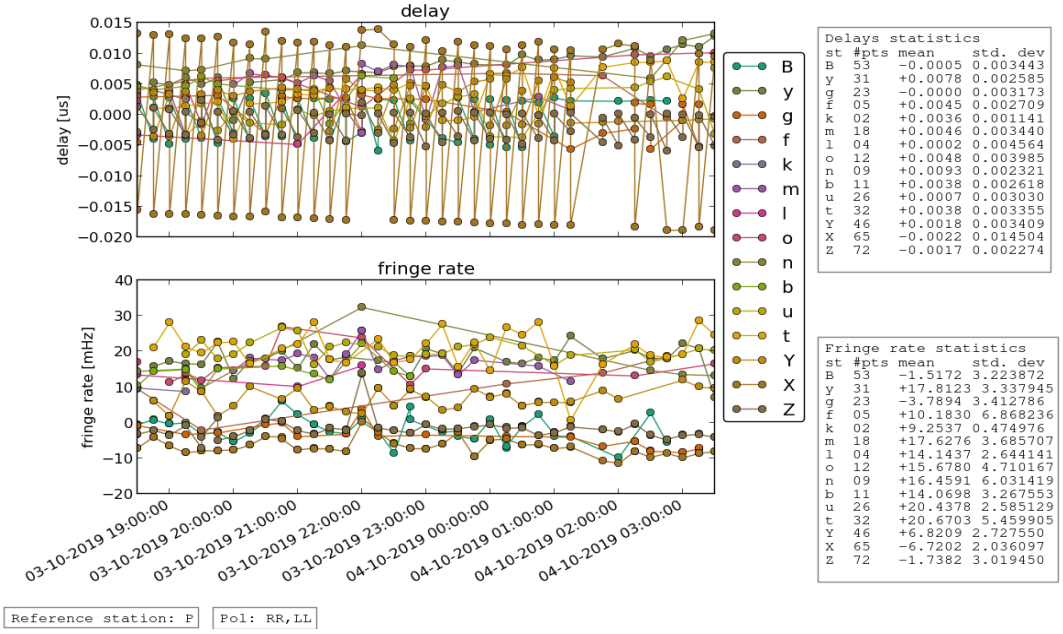



```
Delays statistics
st #pts mean    std. dev
b  18   +0.0012 0.002176
g  26   -0.0016 0.000717
f  08   +0.0027 0.002859
k  02   -0.0013 0.001476
m  35   +0.0016 0.002607
l  12   +0.0027 0.004569
o  19   +0.0023 0.002457
n  17   +0.0037 0.005303
p  02   -0.0023 0.001114
B  11   -0.0026 0.002348
u  51   -0.0017 0.004529
t  57   -0.0009 0.002819
y  53   -0.0008 0.002912
X  04   -0.0066 0.019693
Z  63   -0.0044 0.003327
```

```
Fringe rate statistics
st #pts mean    std. dev
b  18   +14.3769 3.441282
g  26   -3.9639 2.608392
f  08   +8.1272 9.285703
k  02   +9.9701 0.819019
m  35   +17.3960 2.840880
l  12   +13.7641 4.108471
o  19   +15.7884 6.085286
n  17   +17.1771 6.365379
p  02   -19.9398 1.000775
B  11   -3.4904 4.788609
u  51   +20.6141 3.601649
t  57   +21.5295 5.298524
y  53   +17.9174 3.410070
X  04   -9.2414 0.463507
Z  63   -1.8184 3.163462
```

Reference station: i | Pol: RR,LL

Pico Veleta *(with PV = P)*:



FITS completeness (pclist)

legend:

```
o -- station scheduled and fully accounted for in the fits file
42 (or another number) -- station scheduled, but data found
                          only for 42% of the scheduled interval
x -- station scheduled, but corresponding entry not found in the fits file
. -- station not scheduled
```

mc004.fits *(version with P3)*:

				EF	P3	YS	ON	MH	GL	NL	FD	PT	LA	OV	KP	BR	MK	KY	KU	KT
c192a_01	No0001	3C345	3mm_ddc	o	76	o	o	o	o	o	o	33	o	o	o	o	.	.	.	.
c192a_02	No0002	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_03	No0003	1803+784	3mm_ddc	o	x	90	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_04	No0004	1803+784	3mm_ddc	o	x	33	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_05	No0005	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_06	No0006	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_07	No0007	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_08	No0008	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	x	o	o	x	o	o	o	o
c192a_09	No0009	3C345	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	.	.	.
c192a_10	No0010	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_11	No0011	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_12	No0012	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_13	No0013	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o

c192a_14	No0014	1803+784	3mm_ddc	o	o	o	o	o	47	o	o	o	o	o	o	o	o	o	o	o
c192a_15	No0015	3C345	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	.	.	.
c192a_16	No0016	1803+784	3mm_ddc	o	x	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_17	No0017	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_18	No0018	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_19	No0019	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_20	No0020	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_21	No0021	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_22	No0022	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_23	No0023	3C345	3mm_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o	.	.	.
c192a_24	No0024	1803+784	3mm_ddc	o	o	o	o	o	.	.	.	.	.	.	.	.	.	o	o	o
c192a_25	No0025	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	47	o
c192a_26	No0026	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_27	No0027	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	47	o
c192a_28	No0028	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_29	No0029	1803+784	3mm_ddc	o	x	80	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_30	No0030	1803+784	3mm_ddc	o	47	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_31	No0031	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	x	o
c192a_32	No0032	3C345	3mm_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o	o	o
c192a_33	No0033	1803+784	3mm_ddc	o	o	o	o	o	.	.	.	.	.	.	.	.	.	.	.	.
c192a_34	No0034	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	85	o
c192a_35	No0035	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_36	No0036	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_37	No0037	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	09	o
c192a_38	No0038	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_39	No0039	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_40	No0040	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_41	No0041	3C345	3mm_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o	o	o
c192a_42	No0042	1803+784	3mm_ddc	o	o	o	o	o	.	.	.	.	.	.	.	.	.	.	.	.
c192a_43	No0043	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o

mc004_PV.fits *(version with Pv)*:

				EF	PV	YS	ON	MH	GL	NL	FD	PT	LA	OV	KP	BR	MK	KY	KU	KT
c192a_01	No0001	3C345	3mm_ddc	o	80	o	o	o	o	o	o	33	o	o	o	o	.	.	.	.
c192a_02	No0002	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_03	No0003	1803+784	3mm_ddc	o	o	90	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_04	No0004	1803+784	3mm_ddc	o	o	33	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_05	No0005	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_06	No0006	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_07	No0007	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_08	No0008	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	x	o	o	x	o	o	o	o
c192a_09	No0009	3C345	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	.	.	.
c192a_10	No0010	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_11	No0011	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_12	No0012	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_13	No0013	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_14	No0014	1803+784	3mm_ddc	o	o	o	o	o	47	o	o	o	o	o	o	o	o	o	o	o
c192a_15	No0015	3C345	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	.	.	.

c192a_16	No0016	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_17	No0017	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_18	No0018	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_19	No0019	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_20	No0020	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_21	No0021	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_22	No0022	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_23	No0023	3C345	3mm_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o	.	.	.
c192a_24	No0024	1803+784	3mm_ddc	o	o	o	o	o	.	.	.	.	.	.	.	.	.	o	o	o
c192a_25	No0025	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	47	o
c192a_26	No0026	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_27	No0027	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	47	o
c192a_28	No0028	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_29	No0029	1803+784	3mm_ddc	o	o	80	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_30	No0030	1803+784	3mm_ddc	o	x	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_31	No0031	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	x	o
c192a_32	No0032	3C345	3mm_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o	o	o
c192a_33	No0033	1803+784	3mm_ddc	o	o	o	o	o	.	.	.	.	.	.	.	.	.	.	.	.
c192a_34	No0034	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	85	o
c192a_35	No0035	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_36	No0036	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_37	No0037	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	09	o
c192a_38	No0038	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_39	No0039	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_40	No0040	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c192a_41	No0041	3C345	3mm_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o	o	o
c192a_42	No0042	1803+784	3mm_ddc	o	o	o	o	o	.	.	.	.	.	.	.	.	.	.	.	.
c192a_43	No0043	1803+784	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o