MG005B Correlation Report

General information

- A part of C191C
- PI: Gomez
- Targets: 3C345, 1633+38, 1749+096
- Session info: http://www3.mpifr-bonn.mpg.de/div/vlbi/globalmm/
- Station feedback: http://www3.mpifr-bonn.mpg.de/div/vlbi/globalmm/sessions/apr19/feedback_apr19.asc
- Text file with detailed antenna statistics, scroll down to get to the cumulative statistics for the whole experiment:
  c191c.antrep

Current Status

correlation finished, data **released** on 19/09/2019.

the **second release** was made on 18/01/2020 to fix the double autocorrelation issue.

Fringes

Fourfit fringe plots with fringes to multiple antennas:

Scan No0097, source 3C345, fringes to all stations: No0097_all.pdf

Station	Code	Fringes	Plots	Comments
Ef	B	**yes**	Fringe overview of all baselines (all of C191C) including this antenna in LL (left for each baseline) and RR (right for each baseline). Legend: white - scheduled, but no data, blue - no fringe, dark red/ brown/green - fringes of different quality. c191c_FRINGE_RfAnt_Ef_LLRR_AllSrc.pdf Examples of fourfit fringe plots: No0097_all.pdf **Same for all antennas below unless otherwise noted.**	weather mixed, everything from clear sky to light rain
On	X	**yes**	c191c_FRINGE_RfAnt_On_LLRR_AllSrc.pdf No0097_all.pdf	
Ys	Y	**yes**	c191c_FRINGE_RfAnt_Ys_LLRR_AllSrc.pdf No0097_all.pdf	

Station	Code	Fringes	Plots	Comments
Mh	Z	yes	c191c_FRINGE_RfAnt_Mh_LLRR_AllSrc.pdf No0097_all.pdf	
Pv	P	no	c191c_FRINGE_RfAnt_Pv_LLRR_AllSrc.pdf	did not observe due to bad weather
GLT: Gl	g	yes	c191c_FRINGE_RfAnt_Gl_LLRR_AllSrc.pdf No0097_all.pdf	confirmed correct polarization configuration for this session
GBT: Gb	G	yes	c191c_FRINGE_RfAnt_Gb_LLRR_AllSrc.pdf No0097_all.pdf	broken Cal-Wheel, no Tsys, cloudy and rainy weather
VLBA: Br	b	yes	c191c_FRINGE_RfAnt_Br_LLRR_AllSrc.pdf No0097_all.pdf	cloudy conditions, precipitation
VLBA: Fd	f	yes	c191c_FRINGE_RfAnt_Fd_LLRR_AllSrc.pdf No0097_all.pdf	High winds. Dropped out for technical reasons, both briefly and for significant lengths of time.
VLBA: Kp	k	yes	c191c_FRINGE_RfAnt_Kp_LLRR_AllSrc.pdf No0097_all.pdf	cloudy confitions
VLBA: La	l	yes	c191c_FRINGE_RfAnt_La_LLRR_AllSrc.pdf No0097_all.pdf	
VLBA: Mk	m	no	c191c_FRINGE_RfAnt_Mk_LLRR_AllSrc.pdf	Out for 3mm receiver repair. No scans recorded.
VLBA: Nl	n	yes	c191c_FRINGE_RfAnt_Nl_LLRR_AllSrc.pdf No0097_all.pdf	cloudy conditions, receiver slightly warm
VLBA: Ov	o	yes	c191c_FRINGE_RfAnt_Ov_LLRR_AllSrc.pdf No0097_all.pdf	high winds, cloudy conditions
VLBA: Pt	p	yes	c191c_FRINGE_RfAnt_Pt_LLRR_AllSrc.pdf	High winds, cloudy conditions.

Station	Code	Fringes	Plots	Comments
			No0097_all.pdf	Taken out for several scans because of USNO observing. Also briefly parked to check cryos.

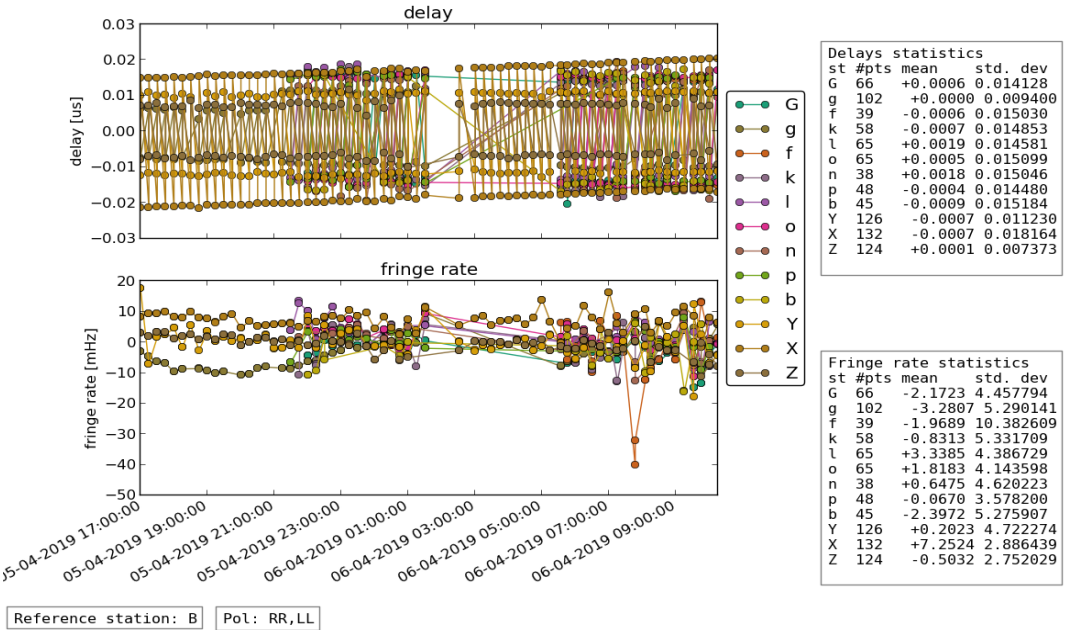
Notes

ALMA was supposed to take part in this experiment, but did not participate because of extremely harsh weather.

Post-Correlation checks

Residuals

Ef:



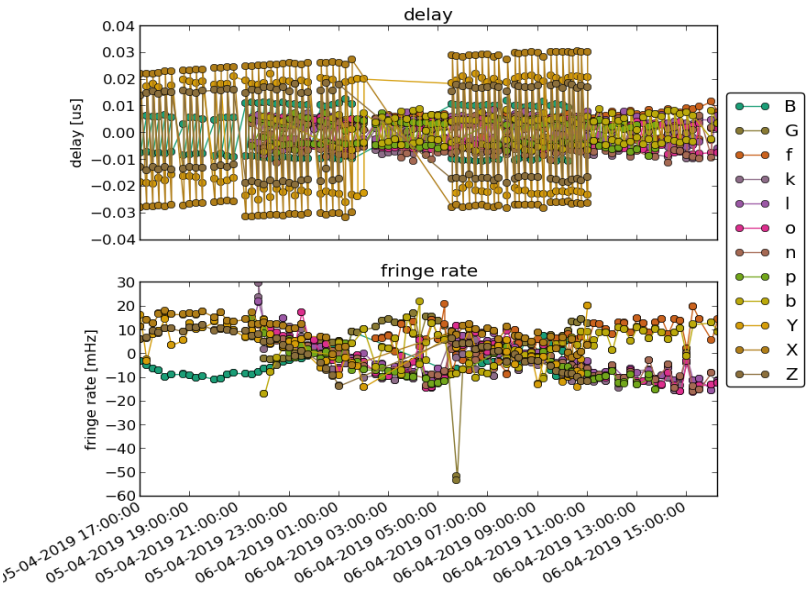
Delays statistics

st	#pts	mean	std. dev
G	66	+0.0006	0.014128
g	102	+0.0000	0.009400
f	39	-0.0006	0.015030
k	58	-0.0007	0.014853
l	65	+0.0019	0.014581
o	65	+0.0005	0.015099
n	38	+0.0018	0.015046
p	48	-0.0004	0.014480
b	45	-0.0009	0.015184
Y	126	-0.0007	0.011230
X	132	-0.0007	0.018164
Z	124	+0.0001	0.007373

Fringe rate statistics

st	#pts	mean	std. dev
G	66	-2.1723	4.457794
g	102	-3.2807	5.290141
f	39	-1.9689	10.382609
k	58	-0.8313	5.331709
l	65	+3.3385	4.386729
o	65	+1.8183	4.143598
n	38	+0.6475	4.620223
p	48	-0.0670	3.578200
b	45	-2.3972	5.275907
Y	126	+0.2023	4.722274
X	132	+7.2524	2.886439
Z	124	-0.5032	2.752029

GLT:



Delays statistics

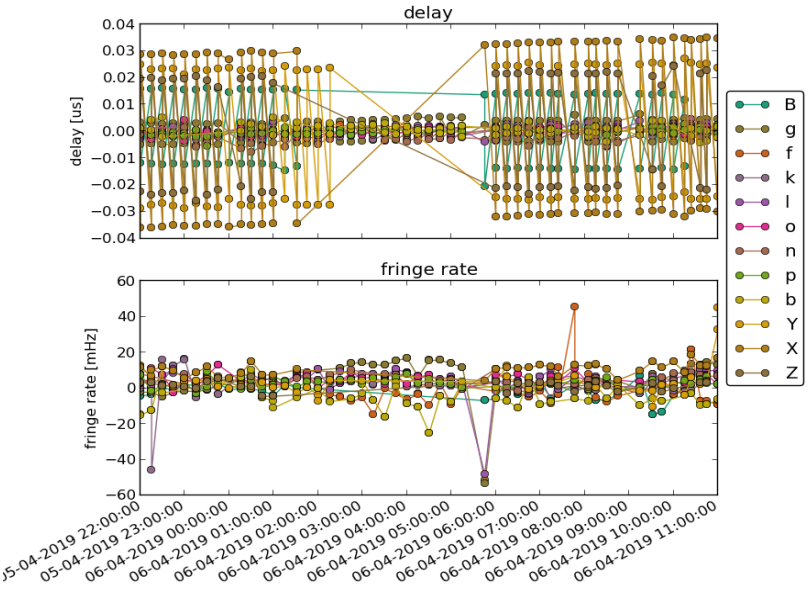
st	#pts	mean	std. dev
B	102	+0.0000	0.009400
G	100	+0.0001	0.003914
f	110	+0.0018	0.005104
k	116	-0.0018	0.005122
l	143	+0.0006	0.004797
o	146	-0.0007	0.005057
n	119	-0.0023	0.005318
p	111	-0.0003	0.004685
b	117	+0.0010	0.005214
Y	111	-0.0009	0.020415
X	110	-0.0007	0.027505
Z	104	+0.0001	0.016515

Fringe rate statistics

st	#pts	mean	std. dev
B	102	-3.2807	5.290141
G	100	+4.9308	10.253874
f	110	+6.4989	6.777827
k	116	-3.7166	7.833780
l	143	-1.4367	7.240880
o	146	-3.1119	8.013663
n	119	-3.1419	5.990071
p	111	-4.3266	6.124096
b	117	+2.6527	7.452123
Y	111	+2.4757	7.854985
X	110	+9.5803	5.451302
Z	104	+1.8461	7.152695

Reference station: g | Pol: RR,LL

GBT:



Delays statistics

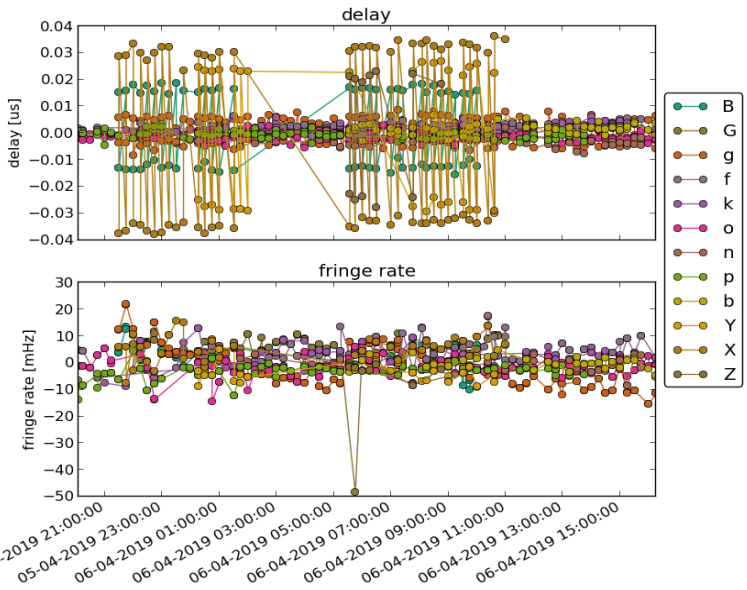
st	#pts	mean	std. dev
B	66	+0.0006	0.014128
g	100	+0.0001	0.003914
f	46	+0.0009	0.001090
k	94	-0.0008	0.001437
l	99	+0.0008	0.001596
o	100	-0.0003	0.001331
n	77	-0.0020	0.002049
p	84	-0.0001	0.001177
b	74	+0.0006	0.001964
Y	77	-0.0014	0.025161
X	71	+0.0001	0.032201
Z	57	-0.0002	0.021308

Fringe rate statistics

st	#pts	mean	std. dev
B	66	-2.1723	4.457794
g	100	+4.9308	10.253874
f	46	-1.0480	9.819723
k	94	+2.3108	6.673803
l	99	+5.0048	6.266232
o	100	+4.8518	2.919979
n	77	+4.4974	3.015293
p	84	+2.9928	2.397345
b	74	-5.5403	6.700978
Y	77	+3.0053	6.991135
X	71	+10.8021	3.298410
Z	57	+1.3303	2.642240

Reference station: G | Pol: RR,LL

La:



Delays statistics

st	#pts	mean	std. dev
B	65	+0.0019	0.014581
G	99	+0.0008	0.001596
g	143	+0.0006	0.004797
f	113	+0.0021	0.001384
k	74	+0.0018	0.001952
o	138	-0.0015	0.001494
n	52	-0.0030	0.002210
p	105	-0.0009	0.001430
b	59	+0.0015	0.001886
Y	33	-0.0011	0.025853
X	67	-0.0019	0.032849
Z	12	+0.0018	0.022534

Fringe rate statistics

st	#pts	mean	std. dev
B	65	+3.3385	4.386729
G	99	+5.0048	6.266232
g	143	-1.4367	7.240880
f	113	+3.5988	4.159129
k	74	+3.0658	4.082910
o	138	-1.6122	3.487062
n	52	-1.3212	2.813363
p	105	-3.3481	2.793264
b	59	-0.4468	2.191115
Y	33	-3.8162	3.743984
X	67	+5.1841	4.375958
Z	12	-3.0369	2.568453

Reference station: l Pol: RR,LL

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
```

mg005b.fits:

```
                                 EF ON YS PV MH GL NL FD OV PT BR KP MK LA GB
c191c_048 No0059    3C345 3mm_RDBE o  o  o  x  o  .  .  .  .  .  .  .  .  .
c191c_050 No0061    3C345 3mm_RDBE o  o  o  x  o  .  .  .  .  .  .  .  .  .
c191c_052 No0064  1633+38 3mm_RDBE o  o  o  x  o  .  .  .  .  .  .  .  .  .
c191c_054 No0066    3C345 3mm_RDBE o  o  o  x  o  .  .  .  .  .  .  .  .  .
c191c_056 No0069    3C345 3mm_RDBE o  o  o  x  o  .  .  .  .  .  .  .  .  .
c191c_058 No0071 1749+096 3mm_RDBE o  o  o  x  o  .  .  .  .  .  .  .  .  .
c191c_060 No0074 1749+096 3mm_RDBE o  o  o  x  o  .  .  .  .  .  .  .  .  .
c191c_062 No0076 1749+096 3mm_RDBE o  o  o  x  o  .  .  .  .  .  .  .  .  .
c191c_064 No0079    3C345 3mm_RDBE o  o  o  x  o  .  .  .  .  .  .  .  .  .
c191c_066 No0081    3C345 3mm_RDBE o  o  o  x  o  .  .  .  .  .  .  .  .  .
c191c_068 No0084  1633+38 3mm_RDBE o  o  o  x  o  .  .  .  .  .  .  .  .  .
c191c_070 No0086    3C345 3mm_RDBE o  o  o  x  o  .  .  .  .  .  .  .  .  .
c191c_071 No0088    3C345 3mm_RDBE o  o  o  x  o  o  o  o  o  x  o  o  .  o  o
c191c_072 No0089    3C345 3mm_RDBE o  o  o  x  o  o  o  o  o  x  o  o  .  o  o
c191c_073 No0090    3C345 3mm_RDBE o  o  o  x  o  o  o  o  o  x  o  o  .  o  o
c191c_074 No0091    3C345 3mm_RDBE o  o  o  x  o  o  o  o  o  x  o  o  .  o  o
c191c_075 No0093    3C345 3mm_RDBE o  o  o  x  o  o  o  o  o  x  o  o  .  o  o
```

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c191c_076 No0094  1633+38 3mm_RDBE o  o  o  x  o  o  o  o  o  x  o  o  .  o  o
c191c_077 No0095    3C345 3mm_RDBE o  o  o  x  o  o  o  o  o  x  o  o  .  o  o
c191c_078 No0097    3C345 3mm_RDBE o  o  o  x  o  o  o  o  o  o  o  o  .  o  o
c191c_079 No0098    3C345 3mm_RDBE o  o  o  x  o  o  o  o  o  o  06 o  .  o  o
c191c_080 No0100 1749+096 3mm_RDBE o  o  o  x  o  o  o  o  o  o  o  o  .  o  o
c191c_081 No0102    3C345 3mm_RDBE o  o  o  x  o  o  o  o  o  o  o  o  x  o  o
c191c_082 No0103    3C345 3mm_RDBE o  o  o  x  o  o  o  o  o  o  o  o  x  o  o
c191c_083 No0104    3C345 3mm_RDBE o  o  o  x  o  o  o  o  o  o  o  o  x  o  o
c191c_084 No0106    3C345 3mm_RDBE o  o  o  x  o  o  o  o  o  o  o  o  x  o  o
c191c_085 No0107    3C345 3mm_RDBE o  o  o  x  o  o  o  o  o  o  o  o  x  o  .
c191c_086 No0109 1749+096 3mm_RDBE o  o  o  x  .  o  o  o  o  o  o  o  .  o  o
c191c_087 No0111    3C345 3mm_RDBE o  o  o  x  o  o  o  o  o  o  o  o  x  o  o
c191c_088 No0112    3C345 3mm_RDBE o  o  o  x  o  o  o  o  o  o  o  o  x  o  o
c191c_089 No0113    3C345 3mm_RDBE o  o  o  x  o  o  o  o  o  o  o  o  x  o  o
c191c_090 No0115  1633+38 3mm_RDBE o  o  o  x  o  o  o  o  o  o  o  o  x  o  o
c191c_091 No0116    3C345 3mm_RDBE o  o  o  x  o  o  o  o  o  o  o  o  x  o  o
c191c_092 No0117    3C345 3mm_RDBE o  o  o  x  o  o  o  o  o  o  o  o  x  o  o
c191c_093 No0118    3C345 3mm_RDBE o  o  o  x  o  o  o  o  o  o  o  o  x  o  o
c191c_094 No0119    3C345 3mm_RDBE .  o  o  .  o  o  o  o  o  o  o  o  x  o  o
c191c_095 No0120    3C345 3mm_RDBE .  .  .  .  .  o  o  o  o  o  o  o  x  o  .
c191c_096 No0121  1633+38 3mm_RDBE .  .  .  .  .  o  o  o  o  o  o  o  x  o  .
c191c_097 No0122    3C345 3mm_RDBE .  .  .  .  .  o  o  o  o  o  o  o  x  o  .
c191c_098 No0123 1749+096 3mm_RDBE .  .  .  .  .  o  o  o  o  o  o  o  x  o  .
c191c_099 No0124  1633+38 3mm_RDBE .  .  .  .  .  o  o  o  o  o  o  o  x  o  .
c191c_100 No0125    3C345 3mm_RDBE .  .  .  .  .  o  o  o  o  o  o  o  x  o  .
c191c_101 No0126 1749+096 3mm_RDBE .  .  .  .  .  o  o  o  o  o  o  o  x  o  .
c191c_102 No0127  1633+38 3mm_RDBE .  .  .  .  .  o  o  o  o  o  o  o  x  o  .
c191c_103 No0128    3C345 3mm_RDBE .  .  .  .  .  o  o  o  o  o  o  o  x  o  .
c191c_104 No0129 1749+096 3mm_RDBE .  .  .  .  .  o  o  o  o  o  o  o  x  o  .
c191c_105 No0130  1633+38 3mm_RDBE .  .  .  .  .  o  o  o  o  o  70 o  x  o  .
c191c_106 No0131    3C345 3mm_RDBE .  .  .  .  .  o  o  o  o  o  o  o  x  o  .
c191c_107 No0132 1749+096 3mm_RDBE .  .  .  .  .  o  o  o  o  o  66 o  x  o  .
c191c_108 No0133  1633+38 3mm_RDBE .  .  .  .  .  o  o  o  o  o  o  o  x  o  .
c191c_109 No0134    3C345 3mm_RDBE .  .  .  .  .  o  o  o  o  x  o  o  x  o  .
c191c_110 No0135 1749+096 3mm_RDBE .  .  .  .  .  o  o  o  o  x  o  o  x  o  .
c191c_111 No0136  1633+38 3mm_RDBE .  .  .  .  .  o  o  o  o  x  o  o  x  o  .
c191c_112 No0137    3C345 3mm_RDBE .  .  .  .  .  o  o  o  o  x  o  o  x  o  .
c191c_113 No0138 1749+096 3mm_RDBE .  .  .  .  .  .  o  o  o  x  o  o  x  o  .
c191c_114 No0139  1633+38 3mm_RDBE .  .  .  .  .  o  o  o  o  x  o  o  x  o  .
c191c_115 No0140    3C345 3mm_RDBE .  .  .  .  .  o  o  o  o  x  o  o  x  o  .
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