C182C Correlation Report

General information

- Includes two science projects: the second part of MM015 and MB011A
- Session info: http://www3.mpifr-bonn.mpg.de/div/vlbi/globalmm/
- Station feedback: http://www3.mpifr-bonn.mpg.de/div/vlbi/globalmm/sessions/sep18/feedback_sep18.asc
- Text file with detailed antenna statistics: c182c.antrep

Current Status

Correlation finished, data **released** on 14.03.2019.

Fringes

Station	Code	Fringes	Plots	Comments
Ef	B	**yes**	Fringe overview of all baselines (all of C182C) 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, bright red - false fringe (mostly for baselines to KVN, determined by having exremely large single-band delay, > 0.1us) c182c_SBD_RfAnt_Ef_LLRR_AllSrc.pdf Examples of fourfit fringe plots: c182c_No0007_1633+38_BX_LL.pdf, c182c_No0007_1633+38_BX_LR.pdf, c182c_No0007_1633+38_BX_RL.pdf, c182c_No0007_1633+38_BX_RR.pdf. c182c_No0081_1633+38_BX_LL.pdf, c182c_No0081_1633+38_BX_LR.pdf, c182c_No0081_1633+38_BX_RL.pdf, c182c_No0081_1633+38_BX_RR.pdf. c182c_No0107_3C454.3_BX_LL.pdf, c182c_No0107_3C454.3_BX_RR.pdf, no LR or RL fringes. c182c_No0027_1633+38_BY_RL.pdf, c182c_No0027_1633+38_BY_RR.pdf, no LL or LR fringes. c182c_No0081_1633+38_BY_RL.pdf, c182c_No0081_1633+38_BY_RR.pdf, no LL or LR fringes. c182c_No0007_1633+38_BZ_LL.pdf, c182c_No0007_1633+38_BZ_RL.pdf, c182c_No0007_1633+38_BZ_RR.pdf, no LR fringe. c182c_No0007_1633+38_BP_LL.pdf, c182c_No0007_1633+38_BP_LR.pdf, c182c_No0007_1633+38_BP_RL.pdf, c182c_No0007_1633+38_BP_RR.pdf.	

Station	Code	Fringes	Plots	Comments
			c182c_No0007_1633+38_Bg_LL.pdf, c182c_No0007_1633+38_Bg_LR.pdf, c182c_No0007_1633+38_Bg_RL.pdf, c182c_No0007_1633+38_Bg_RR.pdf. Same for all antennas below unless otherwise noted.	
On	X	**yes**	c182c_SBD_RfAnt_On_LLRR_AllSrc.pdf c182c_No0007_1633+38_BX_LL.pdf, c182c_No0007_1633+38_BX_LR.pdf, c182c_No0007_1633+38_BX_RL.pdf, c182c_No0007_1633+38_BX_RR.pdf. c182c_No0081_1633+38_BX_LL.pdf, c182c_No0081_1633+38_BX_LR.pdf, c182c_No0081_1633+38_BX_RL.pdf, c182c_No0081_1633+38_BX_RR.pdf. c182c_No0107_3C454.3_XP_LL.pdf, c182c_No0107_3C454.3_XP_LR.pdf, c182c_No0107_3C454.3_XP_RL.pdf, c182c_No0107_3C454.3_XP_RR.pdf. c182c_No0107_3C454.3_BX_LL.pdf, c182c_No0107_3C454.3_BX_RR.pdf, no LR or RL fringes. c182c_No0023_1633+38_tX_LL.pdf, c182c_No0023_1633+38_tX_LR.pdf, c182c_No0023_1633+38_tX_RL.pdf, c182c_No0023_1633=38_tX_RR.pdf. c182c_No0019_1633+38_uX_LL.pdf, c182c_No0019_1633+38_uX_LR.pdf, c182c_No0019_1633+38_uX_RL.pdf, c182c_No0019_1633+38_uX_RR.pdf.	
Ys	Y	**yes**	c182c_SBD_RfAnt_Ys_LLRR_AllSrc.pdf c182c_No0027_1633+38_BY_RL.pdf, c182c_No0027_1633+38_BY_RR.pdf, no LL or LR fringes. c182c_No0081_1633+38_BY_RL.pdf, c182c_No0081_1633+38_BY_RR.pdf, no LL or LR fringes. c182c_No0107_3C454.3_PY_LL.pdf, c182c_No0107_3C454.3_PY_LR.pdf, c182c_No0107_3C454.3_PY_RL.pdf, c182c_No0107_3C454.3_PY_RR.pdf.	An amplifier burned out just before the beginning of the session, fixed during the fringe test, but after that the antenna consistently produces fringes only to RCP, while in its typical configuration in should have LCP only, duplicated to both channels. But in this session it appears to have RCP only.
Mh	Z	**yes**	c182c_SBD_RfAnt_Mh_LLRR_AllSrc.pdf c182c_No0007_1633+38_BZ_LL.pdf, c182c_No0007_1633+38_BZ_RL.pdf, c182c_No0007_1633+38_BZ_RR.pdf, no LR fringe. c182c_No0107_3C454.3_ZP_LL.pdf, c182c_No0107_3C454.3_ZP_LR.pdf, c182c_No0107_3C454.3_ZP_RL.pdf, c182c_No0107_3C454.3_ZP_RR.pdf.	
Pv	P	**yes**	c182c_SBD_RfAnt_Pv_LLRR_AllSrc.pdf	Had a small clock jump, see the residual plots.

Station	Code	Fringes	Plots	Comments
			c182c_No0007_1633+38_BP_LL.pdf, c182c_No0007_1633+38_BP_LR.pdf, c182c_No0007_1633+38_BP_RL.pdf, c182c_No0007_1633+38_BP_RR.pdf. c182c_No0107_3C454.3_XP_LL.pdf, c182c_No0107_3C454.3_XP_LR.pdf, c182c_No0107_3C454.3_XP_RL.pdf, c182c_No0107_3C454.3_XP_RR.pdf. c182c_No0107_3C454.3_PY_LL.pdf, c182c_No0107_3C454.3_PY_LR.pdf, c182c_No0107_3C454.3_PY_RL.pdf, c182c_No0107_3C454.3_PY_RR.pdf. c182c_No0107_3C454.3_ZP_LL.pdf, c182c_No0107_3C454.3_ZP_LR.pdf, c182c_No0107_3C454.3_ZP_RL.pdf, c182c_No0107_3C454.3_ZP_RR.pdf. c182c_No0107_3C454.3_gP_LL.pdf, c182c_No0107_3C454.3_gP_LR.pdf, c182c_No0107_3C454.3_gP_RL.pdf, c182c_No0107_3C454.3_gP_RR.pdf. c182c_No0107_3C454.3_bP_LL.pdf, c182c_No0107_3C454.3_bP_RR.pdf, no LR or RL fringes. c182c_No0107_3C454.3_fP_LL.pdf, c182c_No0107_3C454.3_fP_RL.pdf, c182c_No0107_3C454.3_fP_RR.pdf, no LR fringe. c182c_No0107_3C454.3_kP_LL.pdf, c182c_No0107_3C454.3_kP_LR.pdf, c182c_No0107_3C454.3_kP_RL.pdf, c182c_No0107_3C454.3_kP_RR.pdf. c182c_No0107_3C454.3_lP_LL.pdf, c182c_No0107_3C454.3_lP_RR.pdf, no LR or RL fringes. c182c_No0107_3C454.3_nP_LL.pdf, c182c_No0107_3C454.3_nP_RR.pdf, no LR or RL fringes. c182c_No0107_3C454.3_oP_LL.pdf, c182c_No0107_3C454.3_oP_LR.pdf, c182c_No0107_3C454.3_oP_RR.pdf, no RL fringe. c182c_No0023_1633+38_tP_LL.pdf, c182c_No0023_1633+38_tP_LR.pdf, c182c_No0023_1633+38_tP_RL.pdf, c182c_No0023_1633+38_tP_RR.pdf. c182c_No0019_1633+38_uP_LL.pdf, c182c_No0019_1633+38_uP_LR.pdf, c182c_No0019_1633+38_uP_RL.pdf, c182c_No0019_1633+38_uP_RR.pdf. c182c_No0023_1633+38_yP_LL.pdf, c182c_No0023_1633+38_yP_LR.pdf, c182c_No0023_1633+38_yP_RL.pdf, c182c_No0023_1633+38_yP_RR.pdf. c182c_No0058_2013+370_yP_LL.pdf, c182c_No0058_2013+370_yP_LR.pdf, c182c_No0058_2013+370_yP_RL.pdf, c182c_No0058_2013+370_yP_RR.pdf. c182c_No0023_1633+38_yX_LL.pdf, c182c_No0023_1633+38_yX_LR.pdf, c182c_No0023_1633+38_yX_RL.pdf, c182c_No0023_1633+38_yX_RR.pdf.	
GLT: Gl	g	**yes**	c182c_SBD_RfAnt_Gl_LLRR_AllSrc.pdf	The GLT was observing in an unknown polarization configuration, linear or some

Station	Code	Fringes	Plots	Comments
			c182c_No0007_1633+38_Bg_LL.pdf, c182c_No0007_1633+38_Bg_LR.pdf, c182c_No0007_1633+38_Bg_RL.pdf, c182c_No0007_1633+38_Bg_RR.pdf. c182c_No0107_3C454.3_gP_LL.pdf, c182c_No0107_3C454.3_gP_LR.pdf, c182c_No0107_3C454.3_gP_RL.pdf, c182c_No0107_3C454.3_gP_RR.pdf.	elliptic instead of the circular due to a polarizer misalignment. Unless there is a way to recontruct the proper circular polarization, this station must be flagged or used only for the total power measurement.
VLBA: Br	b	**yes**	c182c_SBD_RfAnt_Br_LLRR_AllSrc.pdf c182c_No0008_3C120_bk_LL.pdf, c182c_No0008_3C120_bk_LR.pdf, c182c_No0008_3C120_bk_RL.pdf, c182c_No0008_3C120_bk_RR.pdf. c182c_No0107_3C454.3_bP_LL.pdf, c182c_No0107_3C454.3_bP_RR.pdf, no LR or RL fringes.	All VLBA antennas suffer from the same problem, diminishing the effective observing time in many scans by 30-50%.
VLBA: Fd	f	**yes**	c182c_SBD_RfAnt_Fd_LLRR_AllSrc.pdf c182c_No0010_0420-014_fm_LL.pdf, c182c_No0010_0420-014_fm_RR.pdf, no LR or RL fringes. c182c_No0107_3C454.3_fP_LL.pdf, c182c_No0107_3C454.3_fP_RL.pdf, c182c_No0107_3C454.3_fP_RR.pdf, no LR fringe. c182c_No0010_0420-014_fk_LL.pdf, c182c_No0010_0420-014_fk_RR.pdf, no LR or RL fringes. c182c_No0128_3C454.3_fm_LL.pdf, c182c_No0128_3C454.3_fm_RR.pdf, no LR or RL fringes.	All VLBA antennas suffer from the same problem, diminishing the effective observing time in many scans by 30-50%.
VLBA: Kp	k	**yes**	c182c_SBD_RfAnt_Kp_LLRR_AllSrc.pdf c182c_No0008_3C120_bk_LL.pdf, c182c_No0008_3C120_bk_LR.pdf, c182c_No0008_3C120_bk_RL.pdf, c182c_No0008_3C120_bk_RR.pdf. c182c_No0010_0420-014_fk_LL.pdf, c182c_No0010_0420-014_fk_RR.pdf, no LR or RL fringes. c182c_No0008_3C120_kl_LL.pdf, c182c_No0008_3C120_kl_RR.pdf, no LR or RL fringes. c182c_No0010_0420-014_km_LL.pdf, c182c_No0010_0420-014_km_RR.pdf, no LR or RL fringes. c182c_No0010_0420-014_kn_LL.pdf, c182c_No0010_0420-014_kn_RR.pdf, no LR or RL fringes.	All VLBA antennas suffer from the same problem, diminishing the effective observing time in many scans by 30-50%.

Station	Code	Fringes	Plots	Comments
			c182c_No0008_3C120_ko_LL.pdf, c182c_No0008_3C120_ko_RL.pdf, c182c_No0008_3C120_ko_RR.pdf, no LR fringe. c182c_No0107_3C454.3_kP_LL.pdf, c182c_No0107_3C454.3_kP_LR.pdf, c182c_No0107_3C454.3_kP_RL.pdf, c182c_No0107_3C454.3_kP_RR.pdf.	
VLBA: La	l	**yes**	c182c_SBD_RfAnt_La_LLRR_AllSrc.pdf c182c_No0008_3C120_kl_LL.pdf, c182c_No0008_3C120_kl_RR.pdf, no LR or RL fringes. c182c_No0107_3C454.3_lP_LL.pdf, c182c_No0107_3C454.3_lP_RR.pdf, no LR or RL fringes.	All VLBA antennas suffer from the same problem, diminishing the effective observing time in many scans by 30-50%.
VLBA: Mk	m	**yes**	c182c_SBD_RfAnt_Mk_LLRR_AllSrc.pdf c182c_No0010_0420-014_km_LL.pdf, c182c_No0010_0420-014_km_RR.pdf, no LR or RL fringes. c182c_No0010_0420-014_fm_LL.pdf, c182c_No0010_0420-014_fm_RR.pdf, no LR or RL fringes. c182c_No0128_3C454.3_fm_LL.pdf, c182c_No0128_3C454.3_fm_RR.pdf, no LR or RL fringes.	All VLBA antennas suffer from the same problem, diminishing the effective observing time in many scans by 30-50%.
VLBA: Nl	n	**yes**	c182c_SBD_RfAnt_Nl_LLRR_AllSrc.pdf c182c_No0010_0420-014_kn_LL.pdf, c182c_No0010_0420-014_kn_RR.pdf, no LR or RL fringes. c182c_No0107_3C454.3_nP_LL.pdf, c182c_No0107_3C454.3_nP_RR.pdf, no LR or RL fringes.	All VLBA antennas suffer from the same problem, diminishing the effective observing time in many scans by 30-50%.
VLBA: Ov	o	**yes**	c182c_SBD_RfAnt_Ov_LLRR_AllSrc.pdf c182c_No0008_3C120_ko_LL.pdf, c182c_No0008_3C120_ko_RL.pdf, c182c_No0008_3C120_ko_RR.pdf, no LR fringe. c182c_No0107_3C454.3_oP_LL.pdf, c182c_No0107_3C454.3_oP_LR.pdf, c182c_No0107_3C454.3_oP_RR.pdf, no RL fringe.	All VLBA antennas suffer from the same problem, diminishing the effective observing time in many scans by 30-50%.
VLBA: Pt	p	**no**	c182c_SBD_RfAnt_Pt_LLRR_AllSrc.pdf _____	All Pt data for this whole session lost due to a malfunctioning Mk5 module. We attempted to save it, but the data has proven to be unrecoverable.

Station	Code	Fringes	Plots	Comments
KVN: Kt	t	yes	c182c_SBD_RfAnt_Kt_LLRR_AllSrc.pdf c182c_No0023_1633+38_tP_LL.pdf, c182c_No0023_1633+38_tP_LR.pdf, c182c_No0023_1633+38_tP_RL.pdf, c182c_No0023_1633+38_tP_RR.pdf. c182c_No0023_1633+38_tX_LL.pdf, c182c_No0023_1633+38_tX_LR.pdf, c182c_No0023_1633+38_tX_RL.pdf, c182c_No0023_1633=38_tX_RR.pdf. c182c_No0019_1633+38_tu_LL.pdf, c182c_No0019_1633+38_tu_LR.pdf, c182c_No0019_1633+38_tu_RL.pdf, c182c_No0019_1633+38_tu_RR.pdf. c182c_No0023_1633+38_ty_LL.pdf, c182c_No0023_1633+38_ty_LR.pdf, c182c_No0023_1633+38_ty_RL.pdf, c182c_No0023_1633+38_ty_RR.pdf.	
KVN: Ku	u	yes	c182c_SBD_RfAnt_Ku_LLRR_AllSrc.pdf c182c_No0019_1633+38_uP_LL.pdf, c182c_No0019_1633+38_uP_LR.pdf, c182c_No0019_1633+38_uP_RL.pdf, c182c_No0019_1633+38_uP_RR.pdf. c182c_No0019_1633+38_uX_LL.pdf, c182c_No0019_1633+38_uX_LR.pdf, c182c_No0019_1633+38_uX_RL.pdf, c182c_No0019_1633+38_uX_RR.pdf. c182c_No0019_1633+38_tu_LL.pdf, c182c_No0019_1633+38_tu_LR.pdf, c182c_No0019_1633+38_tu_RL.pdf, c182c_No0019_1633+38_tu_RR.pdf. c182c_No0019_1633+38_uy_LL.pdf, c182c_No0019_1633+38_uy_LR.pdf, c182c_No0019_1633+38_uy_RL.pdf, c182c_No0019_1633+38_uy_RR.pdf.	
KVN: Ky	y	yes	c182c_SBD_RfAnt_Ky_LLRR_AllSrc.pdf c182c_No0023_1633+38_yP_LL.pdf, c182c_No0023_1633+38_yP_LR.pdf, c182c_No0023_1633+38_yP_RL.pdf, c182c_No0023_1633+38_yP_RR.pdf. c182c_No0023_1633+38_yX_LL.pdf, c182c_No0023_1633+38_yX_LR.pdf, c182c_No0023_1633+38_yX_RL.pdf, c182c_No0023_1633+38_yX_RR.pdf. c182c_No0023_1633+38_ty_LL.pdf, c182c_No0023_1633+38_ty_LR.pdf, c182c_No0023_1633+38_ty_RL.pdf, c182c_No0023_1633+38_ty_RR.pdf. c182c_No0058_2013+370_yP_LL.pdf, c182c_No0058_2013+370_yP_LR.pdf, c182c_No0058_2013+370_yP_RL.pdf, c182c_No0058_2013+370_yP_RR.pdf. c182c_No0019_1633+38_uy_LL.pdf, c182c_No0019_1633+38_uy_LR.pdf, c182c_No0019_1633+38_uy_RL.pdf, c182c_No0019_1633+38_uy_RR.pdf.	

Notes

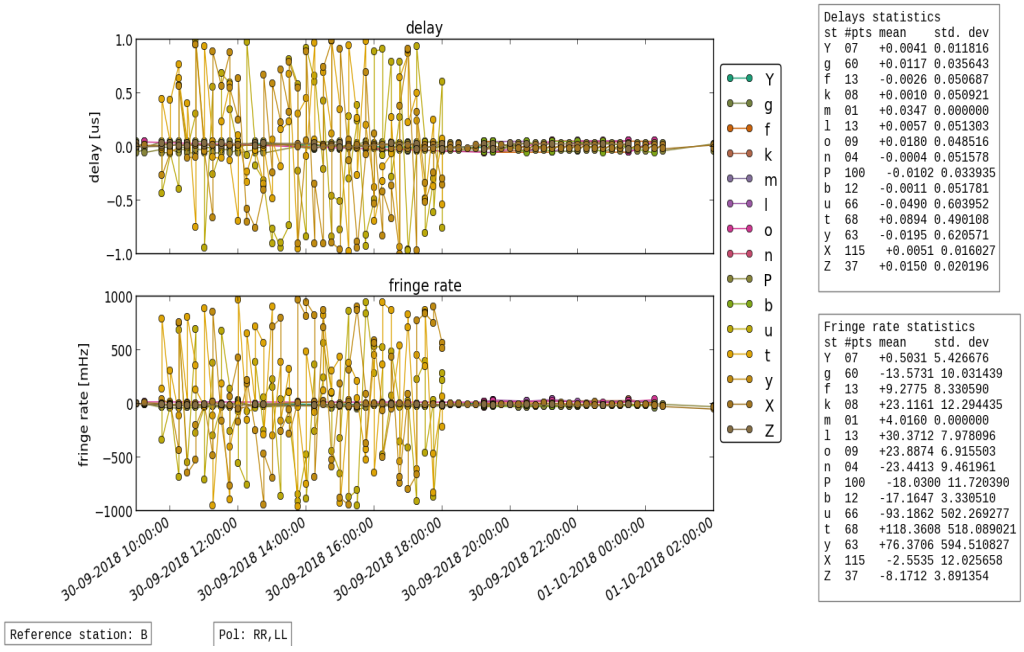
All VLBA antennas are affected by the same problem (probably originating in the control software) during the whole session: for a significant portion of scans the recording starts several seconds or even few minutes late compared with the schedule. This results in effective reduction of observing time by a factor of 30-50%.

For some reason fourfit finds a fringe for every baseline including a KVN antenna. We are stiil looking how to avoid this problem. Meanwhile in the overview tables above the value of single-band delay is used to tell the difference between the considerably fewer real fringes and false positives.

Post-Correlation checks

Residuals

EF (the outliers are due to multiple false fringes in KVN antennas detected by fourfit):



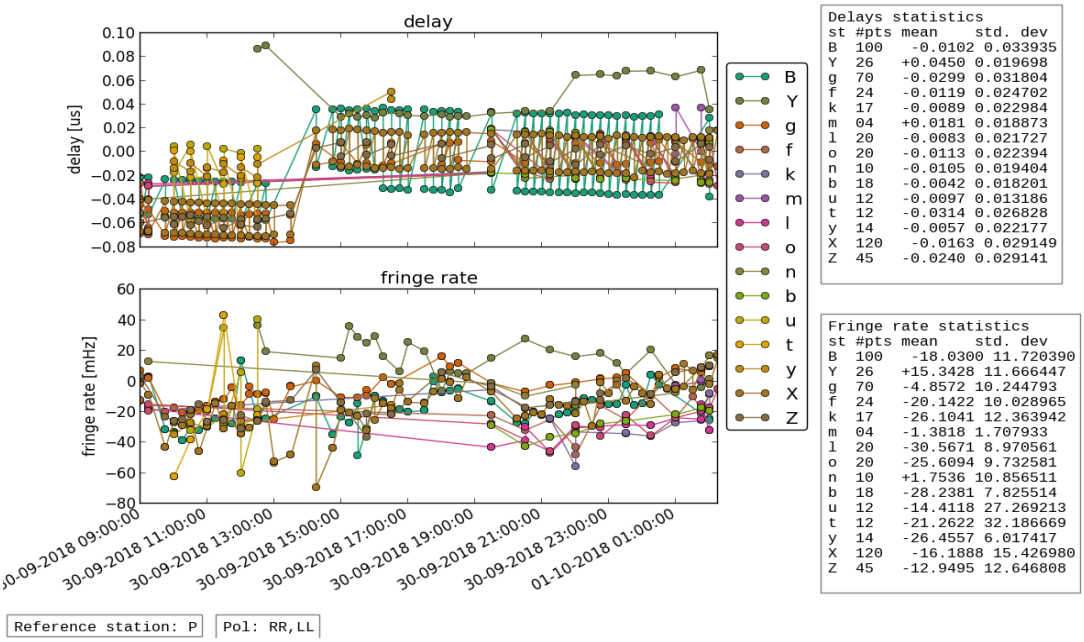
Delays statistics

st	#pts	mean	std. dev
Y	07	+0.0041	0.011816
g	60	+0.0117	0.035643
f	13	-0.0026	0.050687
k	08	+0.0010	0.050921
m	01	+0.0347	0.000000
l	13	+0.0057	0.051303
o	09	+0.0180	0.048516
n	04	-0.0004	0.051578
P	100	-0.0102	0.033935
b	12	-0.0011	0.051781
u	66	-0.0490	0.603952
t	68	+0.0894	0.490108
y	63	-0.0195	0.620571
X	115	+0.0051	0.016027
Z	37	+0.0150	0.020196

Fringe rate statistics

st	#pts	mean	std. dev
Y	07	+0.5031	5.426676
g	60	-13.5731	10.031439
f	13	+9.2775	8.330590
k	08	+23.1161	12.294435
m	01	+4.0160	0.000000
l	13	+30.3712	7.978096
o	09	+23.8874	6.915503
n	04	-23.4413	9.461961
P	100	-18.0300	11.720390
b	12	-17.1647	3.330510
u	66	-93.1862	502.269277
t	68	+118.3608	518.089021
y	63	+76.3706	594.510827
X	115	-2.5535	12.025658
Z	37	-8.1712	3.891354

PV (had a small clock jump):



Delays statistics

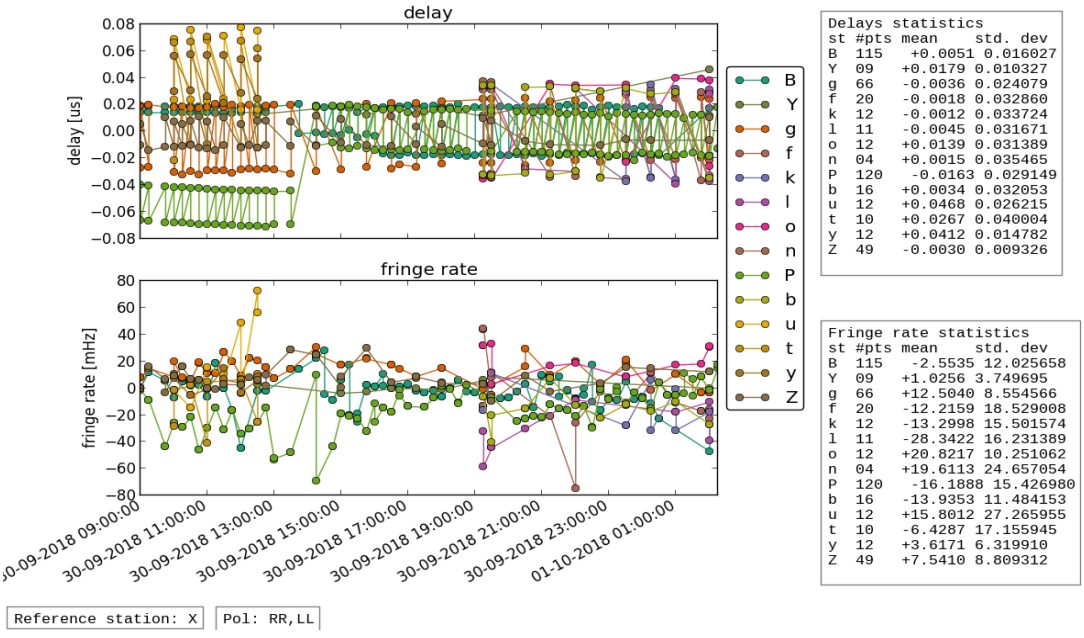
st	#pts	mean	std. dev
B	100	-0.0102	0.033935
Y	26	+0.0450	0.019698
g	70	-0.0299	0.031804
f	24	-0.0119	0.024702
k	17	-0.0089	0.022984
m	04	+0.0181	0.018873
l	20	-0.0083	0.021727
o	20	-0.0113	0.022394
n	10	-0.0105	0.019404
b	18	-0.0042	0.018201
u	12	-0.0097	0.013186
t	12	-0.0314	0.026828
y	14	-0.0057	0.022177
X	120	-0.0163	0.029149
Z	45	-0.0240	0.029141

Fringe rate statistics

st	#pts	mean	std. dev
B	100	-18.0300	11.720390
Y	26	+15.3428	11.666447
g	70	-4.8572	10.244793
f	24	-20.1422	10.028965
k	17	-26.1041	12.363942
m	04	-1.3818	1.707933
l	20	-30.5671	8.970561
o	20	-25.6094	9.732581
n	10	+1.7536	10.856511
b	18	-28.2381	7.825514
u	12	-14.4118	27.269213
t	12	-21.2622	32.186669
y	14	-26.4557	6.017417
X	120	-16.1888	15.426980
Z	45	-12.9495	12.646808

Reference station: P | Pol: RR,LL

ON:



Delays statistics

st	#pts	mean	std. dev
B	115	+0.0051	0.016027
Y	09	+0.0179	0.010327
g	66	-0.0036	0.024079
f	20	-0.0018	0.032860
k	12	-0.0012	0.033724
l	11	-0.0045	0.031671
o	12	+0.0139	0.031389
n	04	+0.0015	0.035465
P	120	-0.0163	0.029149
b	16	+0.0034	0.032053
u	12	+0.0468	0.026215
t	10	+0.0267	0.040004
y	12	+0.0412	0.014782
Z	49	-0.0030	0.009326

Fringe rate statistics

st	#pts	mean	std. dev
B	115	-2.5535	12.025658
Y	09	+1.0256	3.749695
g	66	+12.5040	8.554566
f	20	-12.2159	18.529008
k	12	-13.2998	15.501574
l	11	-28.3422	16.231389
o	12	+20.8217	10.251062
n	04	+19.6113	24.657054
P	120	-16.1888	15.426980
b	16	-13.9353	11.484153
u	12	+15.8012	27.265955
t	10	-6.4287	17.155945
y	12	+3.6171	6.319910
Z	49	+7.5410	8.809312

Reference station: X | 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
```

c182c.fits:

				EF	GL	ON	YS	PV	MH	FD	NL	OV	PT	BR	KP	LA	MK	KY	KU	KT
c182c_001	No0001	3C84	3mm_RDBE	o	o	o	x	o	o	40	40	40	x	40	40	40	40	.	.	.
c182c_002	No0002	3C84	3mm_RDBE	o	o	o	x	o	o	75	75	71	x	71	75	75	71	.	.	.
c182c_003	No0003	0420-014	3mm_RDBE	.	.	.	.	.	.	73	73	73	x	73	73	73	73	.	.	.
c182c_004	No0004	3C120	3mm_RDBE	.	.	.	.	.	.	o	o	o	x	o	o	o	o	.	.	.
c182c_005	No0005	3C345	3mm_RDBE	o	o	o	x	o	o	.	.	.	.	.	.	.	.	o	o	o
c182c_006	No0006	0420-014	3mm_RDBE	.	.	.	.	.	.	o	o	o	x	o	o	o	o	.	.	.
c182c_007	No0007	1633+38	3mm_RDBE	o	o	o	x	o	o	.	.	.	.	.	.	.	.	o	75	75
c182c_008	No0008	3C120	3mm_RDBE	.	.	.	.	.	.	o	o	o	x	o	o	o	o	.	.	.
c182c_009	No0009	3C345	3mm_RDBE	o	o	o	x	o	o	.	.	.	.	.	.	.	.	o	75	75
c182c_010	No0010	0420-014	3mm_RDBE	.	.	.	.	.	.	o	o	o	x	o	o	o	o	.	.	.
c182c_011	No0011	1633+38	3mm_RDBE	o	o	o	x	o	o	.	.	.	.	.	.	.	.	o	75	75
c182c_012	No0012	3C120	3mm_RDBE	.	.	.	.	.	.	o	o	o	x	o	o	o	o	.	.	.
c182c_013	No0013	3C345	3mm_RDBE	o	o	o	x	o	o	.	.	.	.	.	.	.	.	o	75	75
c182c_014	No0014	0420-014	3mm_RDBE	.	.	.	.	.	.	o	o	o	x	o	o	o	o	.	.	.
c182c_015	No0015	1633+38	3mm_RDBE	o	o	o	x	40	o	.	.	.	.	.	.	.	.	o	75	75
c182c_016	No0016	3C120	3mm_RDBE	.	.	.	.	.	.	o	o	o	x	o	o	o	o	.	.	.
c182c_017	No0017	3C345	3mm_RDBE	o	o	o	x	o	o	.	.	.	.	.	.	.	.	o	75	75
c182c_018	No0018	0420-014	3mm_RDBE	.	.	.	.	.	.	o	o	o	x	o	o	o	o	.	.	.
c182c_019	No0019	1633+38	3mm_RDBE	o	o	o	x	o	o	.	.	.	.	.	.	.	.	o	75	75
c182c_020	No0020	3C120	3mm_RDBE	.	.	.	.	.	.	o	o	o	x	o	o	o	o	.	.	.
c182c_021	No0021	3C345	3mm_RDBE	o	o	o	x	o	o	.	.	.	.	.	.	.	.	o	75	75
c182c_022	No0022	0420-014	3mm_RDBE	.	.	.	.	.	.	o	o	o	x	o	o	o	o	.	.	.
c182c_023	No0023	1633+38	3mm_RDBE	o	o	o	x	o	o	.	.	.	.	.	.	.	.	o	75	75
c182c_024	No0024	3C120	3mm_RDBE	.	.	.	.	.	.	o	o	o	x	o	o	o	o	.	.	.
c182c_025	No0025	3C345	3mm_RDBE	o	o	o	x	o	o	.	.	.	.	.	.	.	.	o	75	75
c182c_026	No0026	0420-014	3mm_RDBE	.	.	.	.	.	.	o	o	o	x	o	o	o	o	.	.	.
c182c_027	No0027	1633+38	3mm_RDBE	o	o	o	o	o	o	.	.	.	.	.	.	.	.	o	75	75
c182c_028	No0028	3C120	3mm_RDBE	.	.	.	.	.	.	o	o	o	x	o	o	o	o	.	.	.
c182c_029	No0029	3C345	3mm_RDBE	o	o	o	o	o	o	.	.	.	.	.	.	.	.	o	75	75
c182c_030	No0030	0420-014	3mm_RDBE	.	.	.	.	.	.	o	o	o	x	o	o	o	o	.	.	.
c182c_031	No0031	2013+370	3mm_RDBE	o	o	o	o	48	o	.	.	.	.	.	.	.	.	o	62	71
c182c_032	No0032	3C120	3mm_RDBE	.	.	.	.	.	.	o	o	o	x	o	o	o	o	.	.	.
c182c_033	No0033	CYG_A	3mm_RDBE	o	o	o	o	o	o	.	.	.	.	.	.	.	.	o	75	75
c182c_034	No0034	0420-014	3mm_RDBE	.	.	.	.	.	.	o	o	o	x	o	o	o	o	.	.	.
c182c_035	No0035	2013+370	3mm_RDBE	o	o	o	o	o	o	.	.	.	.	.	.	.	.	o	76	76
c182c_036	No0036	3C120	3mm_RDBE	.	.	.	.	.	.	o	o	o	x	o	o	o	o	.	.	.
c182c_037	No0037	CYG_A	3mm_RDBE	o	o	o	o	o	o	.	.	.	.	.	.	.	.	o	87	87
c182c_038	No0038	0420-014	3mm_RDBE	.	.	.	.	.	.	o	o	o	x	o	o	o	o	.	.	.
c182c_039	No0039	CYG_A	3mm_RDBE	o	o	o	o	o	o	.	.	.	.	.	.	.	.	o	26	26
c182c_040	No0040	3C120	3mm_RDBE	.	.	.	.	.	.	o	o	o	x	o	o	o	o	.	.	.
c182c_041	No0041	2013+370	3mm_RDBE	o	o	o	o	38	o	.	.	.	.	.	.	.	.	o	76	76
c182c_042	No0042	0420-014	3mm_RDBE	.	.	.	.	.	.	70	70	73	x	73	70	70	73	.	.	.
c182c_043	No0043	CYG_A	3mm_RDBE	o	o	o	o	o	o	.	.	.	.	.	.	.	.	o	87	87
c182c_044	No0044	3C120	3mm_RDBE	.	.	.	.	.	.	o	o	o	x	o	o	o	o	.	.	.
c182c_045	No0045	CYG_A	3mm_RDBE	o	o	o	o	o	o	.	.	.	.	.	.	.	.	o	31	26
c182c_046	No0046	2013+370	3mm_RDBE	o	o	o	o	o	o	.	.	.	.	.	.	.	.	o	o	o

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c182c_047 No0047 0420-014 3mm_RDBE .  .  .  .  .  .  o  .  o  x  o  o  o  o  .  .  .
c182c_048 No0048    CYG_A 3mm_RDBE o  o  o  o  o  o  .  .  .  .  .  .  .  .  o  o  o
c182c_049 No0049    3C120 3mm_RDBE .  .  .  .  .  .  o  83 o  x  o  o  o  o  .  .  .
c182c_050 No0050    CYG_A 3mm_RDBE o  o  o  o  o  o  .  .  .  .  .  .  .  .  o  o  o
c182c_051 No0051 0420-014 3mm_RDBE .  .  .  .  .  .  o  .  o  x  o  o  o  o  .  .  .
c182c_052 No0052 2013+370 3mm_RDBE o  o  o  o  o  o  .  .  .  .  .  .  .  .  o  o  o
c182c_053 No0053    3C120 3mm_RDBE .  .  .  .  .  .  o  .  o  x  o  o  o  o  .  .  .
c182c_054 No0054    CYG_A 3mm_RDBE o  o  o  o  o  o  .  .  .  .  .  .  .  .  o  o  o
c182c_055 No0055    OJ287 3mm_RDBE .  .  .  .  .  .  o  76 o  x  o  o  o  o  .  .  .
c182c_056 No0056    CYG_A 3mm_RDBE o  o  o  o  o  o  .  .  .  .  .  .  .  .  o  o  o
c182c_057 No0057    OJ287 3mm_RDBE .  .  .  .  .  .  o  o  o  x  o  o  o  o  .  .  .
c182c_058 No0058 2013+370 3mm_RDBE o  o  o  o  o  o  .  .  .  .  .  .  .  .  o  o  o
c182c_059 No0059    OJ287 3mm_RDBE .  .  .  .  .  .  o  o  o  x  o  o  o  o  .  .  .
c182c_060 No0060    CYG_A 3mm_RDBE o  o  o  o  o  o  .  .  .  .  .  .  .  .  o  o  o
c182c_061 No0061    OJ287 3mm_RDBE .  .  .  .  .  .  o  o  o  x  o  o  o  o  .  .  .
c182c_062 No0062    CYG_A 3mm_RDBE o  o  o  o  o  o  .  .  .  .  .  .  .  .  o  o  o
c182c_063 No0063    OJ287 3mm_RDBE .  .  .  .  .  .  o  o  o  x  o  o  o  o  .  .  .
c182c_064 No0064 2013+370 3mm_RDBE o  o  o  o  o  o  .  .  .  .  .  .  .  .  o  o  o
c182c_065 No0065    OJ287 3mm_RDBE .  .  .  .  .  .  o  o  o  x  o  o  o  o  .  .  .
c182c_066 No0066    CYG_A 3mm_RDBE 39 o  o  o  o  o  .  .  .  .  .  .  .  .  o  o  o
c182c_067 No0067    OJ287 3mm_RDBE .  .  .  .  .  .  o  o  o  x  o  o  o  o  .  .  .
c182c_068 No0068    CYG_A 3mm_RDBE o  o  o  o  o  o  .  .  .  .  .  .  .  .  o  35 o
c182c_069 No0069    OJ287 3mm_RDBE .  .  .  .  .  .  o  o  o  x  o  o  o  o  .  .  .
c182c_070 No0070 2013+370 3mm_RDBE o  o  o  o  o  o  .  .  .  .  .  .  .  .  o  04 o
c182c_071 No0071    OJ287 3mm_RDBE .  .  .  .  .  .  o  o  o  x  o  o  o  o  .  .  .
c182c_072 No0072    CYG_A 3mm_RDBE o  o  o  o  o  o  .  o  .  .  .  .  .  .  .  .  .
c182c_073 No0073    OJ287 3mm_RDBE .  .  .  .  .  .  o  .  o  x  o  o  o  o  o  30 o
c182c_074 No0074    CYG_A 3mm_RDBE o  o  o  o  o  o  .  93 .  .  .  .  .  .  .  .  .
c182c_075 No0075    OJ287 3mm_RDBE .  .  .  .  .  .  o  .  o  x  o  o  o  o  o  26 o
c182c_076 No0076    CYG_A 3mm_RDBE o  x  o  o  o  o  .  93 .  .  .  .  .  .  .  .  .
c182c_077 No0077    OJ287 3mm_RDBE .  .  .  .  .  .  o  .  o  x  o  o  o  o  o  x  o
c182c_078 No0078    CYG_A 3mm_RDBE o  o  o  o  44 o  .  71 .  .  .  .  .  .  .  .  .
c182c_079 No0079    OJ287 3mm_RDBE .  .  .  .  .  .  o  .  o  x  o  o  o  o  o  80 o
c182c_080 No0080  1633+38 3mm_RDBE o  o  o  o  o  o  o  57 o  x  o  o  o  .  .  .  .
c182c_081 No0081  1633+38 3mm_RDBE o  o  o  o  o  o  57 57 57 x  57 57 57 .  .  .  .
c182c_082 No0082    CYG_A 3mm_RDBE o  o  o  o  .  o  66 66 .  x  61 .  66 .  .  .  .
c182c_083 No0083    CYG_A 3mm_RDBE o  o  o  o  o  o  81 81 o  x  75 81 81 .  .  .  .
c182c_084 No0084    CYG_A 3mm_RDBE o  o  o  o  o  o  93 93 93 x  93 93 93 .  .  .  .
c182c_085 No0085 2013+370 3mm_RDBE o  o  o  o  o  o  71 71 95 x  66 71 71 .  .  .  .
c182c_086 No0086    CYG_A 3mm_RDBE o  o  o  o  o  o  75 75 78 x  78 75 75 .  .  .  .
c182c_087 No0087    CYG_A 3mm_RDBE o  o  o  o  o  o  93 93 93 x  93 93 93 .  .  .  .
c182c_088 No0088 2013+370 3mm_RDBE o  o  o  o  o  o  61 61 61 x  61 61 61 .  .  .  .
c182c_089 No0089    CYG_A 3mm_RDBE o  o  o  o  o  o  75 75 75 x  75 75 75 .  .  .  .
c182c_090 No0090    CYG_A 3mm_RDBE o  o  o  o  o  o  93 93 93 x  93 93 93 .  .  .  .
c182c_091 No0091 2013+370 3mm_RDBE o  o  o  o  o  o  61 61 61 x  61 61 61 .  .  .  .
c182c_092 No0092    CYG_A 3mm_RDBE o  o  o  o  o  o  75 75 75 x  75 75 75 .  .  .  .
c182c_093 No0093    CYG_A 3mm_RDBE o  o  o  o  o  o  93 93 93 x  93 93 93 .  .  .  .
c182c_094 No0094 2013+370 3mm_RDBE o  o  o  o  o  o  61 61 61 x  61 61 61 .  .  .  .
c182c_095 No0095    CYG_A 3mm_RDBE o  o  o  o  o  o  78 78 75 x  75 78 78 .  .  .  .
c182c_096 No0096    CYG_A 3mm_RDBE o  o  o  o  o  o  93 93 93 x  93 93 93 .  .  .  .
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c182c_097 No0097 2013+370 3mm_RDBE o  o  o  o  o  o  66 66 61 x  61 66 66 .  .  .  .
c182c_098 No0098    CYG_A 3mm_RDBE o  o  o  o  o  o  78 78 75 x  75 78 78 75 .  .  .
c182c_099 No0099    CYG_A 3mm_RDBE o  o  o  o  o  o  93 93 93 x  93 93 93 93 .  .  .
c182c_100 No0100 2013+370 3mm_RDBE o  o  o  o  o  o  66 66 61 x  61 66 66 61 .  .  .
c182c_101 No0101    CYG_A 3mm_RDBE o  o  o  o  o  o  81 81 78 x  78 81 81 78 .  .  .
c182c_102 No0102    CYG_A 3mm_RDBE o  o  o  o  o  o  93 93 93 x  93 93 93 93 .  .  .
c182c_103 No0103 2013+370 3mm_RDBE o  o  o  o  o  o  66 66 66 x  66 66 66 66 .  .  .
c182c_104 No0104    CYG_A 3mm_RDBE o  o  o  o  o  o  81 81 78 x  78 81 81 78 .  .  .
c182c_105 No0105    CYG_A 3mm_RDBE o  o  o  o  o  o  93 93 93 x  93 93 93 93 .  .  .
c182c_106 No0106 2013+370 3mm_RDBE o  o  o  o  o  o  66 66 66 x  66 66 66 66 .  .  .
c182c_107 No0107  3C454.3 3mm_RDBE o  o  o  o  o  o  61 61 61 x  61 61 61 .  .  .  .
c182c_108 No0108    CYG_A 3mm_RDBE o  o  o  o  o  o  84 84 84 x  84 84 84 84 .  .  .
c182c_109 No0109    CYG_A 3mm_RDBE o  o  o  o  .  o  o  o  93 x  93 o  o  93 .  .  .
c182c_110 No0110 2013+370 3mm_RDBE o  o  .  .  .  .  o  o  66 x  66 o  o  66 .  .  .
c182c_111 No0111    CYG_A 3mm_RDBE .  o  .  .  .  .  81 81 81 x  81 81 81 81 .  .  .
c182c_112 No0112    CYG_A 3mm_RDBE .  o  .  .  .  .  93 93 o  x  o  93 93 o  .  .  .
c182c_113 No0113 2013+370 3mm_RDBE .  o  .  .  .  .  93 93 o  x  o  93 93 o  .  .  .
c182c_114 No0114    CYG_A 3mm_RDBE .  o  .  .  .  .  93 93 o  x  o  93 93 o  .  .  .
c182c_115 No0115    CYG_A 3mm_RDBE .  o  .  .  .  .  93 93 o  x  o  93 93 o  o  x  o
c182c_116 No0116 2013+370 3mm_RDBE .  o  .  .  .  .  93 93 o  x  o  93 93 o  o  x  o
c182c_117 No0117    CYG_A 3mm_RDBE .  o  .  .  .  .  93 93 o  x  o  93 93 o  o  87 o
c182c_118 No0118    CYG_A 3mm_RDBE .  o  .  .  .  .  93 93 o  x  o  93 93 o  o  o  o
c182c_119 No0119 2013+370 3mm_RDBE .  o  .  .  .  .  93 93 o  x  o  93 93 o  o  o  o
c182c_120 No0120    CYG_A 3mm_RDBE .  o  .  .  .  .  93 93 o  x  o  93 93 o  o  o  o
c182c_121 No0121    CYG_A 3mm_RDBE .  o  .  .  .  .  93 93 o  x  o  93 93 o  o  o  o
c182c_122 No0122 2013+370 3mm_RDBE .  o  .  .  .  .  93 93 o  x  o  93 93 o  o  o  o
c182c_123 No0123    CYG_A 3mm_RDBE .  o  .  .  .  .  o  o  o  x  o  o  o  o  o  o  o
c182c_124 No0124    CYG_A 3mm_RDBE .  o  .  .  .  .  93 93 o  x  o  93 93 o  o  o  o
c182c_125 No0125 2013+370 3mm_RDBE .  o  .  .  .  .  93 93 o  x  o  93 93 o  o  o  o
c182c_126 No0126    CYG_A 3mm_RDBE .  o  .  .  .  .  93 93 o  x  o  93 93 o  o  o  o
c182c_127 No0127    CYG_A 3mm_RDBE .  o  .  .  .  .  92 92 o  x  o  92 92 o  o  o  o
c182c_128 No0128  3C454.3 3mm_RDBE .  o  .  .  .  .  66 66 o  x  o  66 66 o  .  .  .
c182c_129 No0129    CYG_A 3mm_RDBE .  o  .  .  .  .  75 75 81 x  81 75 75 81 o  o  o
c182c_130 No0130    CYG_A 3mm_RDBE .  o  .  .  .  .  93 93 93 x  93 93 93 93 o  o  o
c182c_131 No0131 2013+370 3mm_RDBE .  o  .  .  .  .  93 93 93 x  93 93 93 93 o  o  o
c182c_132 No0132    CYG_A 3mm_RDBE .  o  .  .  .  .  o  o  o  x  o  o  o  o  o  o  o
c182c_133 No0133    CYG_A 3mm_RDBE .  o  .  .  .  .  o  o  66 x  66 o  o  66 93 o  93
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