

C192C/MB011B Correlation Report

General information

- Consists of only one science project: **MB011B**
- 2013+370 (277:1445-1701) data from [C192B](#) are also used for MB011B.
For performance of this part see [C192B](#) page, the pclist for the fits of this part see below as mb011b_ADD.fits.
- PI: Bach
- Targets: Cygnus A (including the second phase center Cygnus A2, see Notes section below)
- 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 file with detailed antenna statistics, scroll down to get to the cumulative statistics for the whole experiment:
[c192c ALL.antrep](#)

[c192c 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	<p>Fringe overview of all baselines (all of C192A) including this antenna in LL(left for each baseline) and RR (right for each baseline).</p> <p>Legend: white box - scheduled, but no data, blue - no fringe, green -- good fringe, red -- false fringe found by fourfit (detected by very large SBD).</p> <p>c192c_SBD_RfAnt_Ef_LLRR_AllSrc.pdf</p> <p>c192cPV_SBD_RfAnt_Ef_LLRR_AllSrc.pdf</p> <p>Examples of fourfit fringe plots can be found in: No0048_Ef.pdf, No0048_PV_Ef.pdf</p>	<p>Participated in 77 out of 78 scheduled scans, fringes in 774 out of 1462 expected baselines in || pols, mean SNR 44. See .antrep file for detailed per source and per scan statistics.</p>

Station	Code	Fringes	Plots	Comments
			Antenna statistics: c192c_Ef.antrep , c192c_PV_Ef.antrep Same for all antennas below unless otherwise noted.	
On	X	yes	c192c_SBD_RfAnt_On_LLRR_AllSrc.pdf c192cPV_SBD_RfAnt_On_LLRR_AllSrc.pdf No0056_On.pdf , No0056_PV_On.pdf c192c_On.antrep , c192c_PV_On.antrep	Participated in 80 out of 82 scheduled scans, fringes in 813 out of 1534 expected baselines in || pols, mean SNR 46 . See .antrep file for detailed per source and per scan statistics.
Ys	Y	yes	c192c_SBD_RfAnt_Ys_LLRR_AllSrc.pdf c192cPV_SBD_RfAnt_Ys_LLRR_AllSrc.pdf No0065_Ys.pdf , No0065_PV_Ys.pdf c192c_Ys.antrep , c192c_PV_Ys.antrep	Participated in 78 out of 78 scheduled scans, fringes in 628 out of 1470 expected baselines in || pols, mean SNR 34 . See .antrep file for detailed per source and per scan statistics.
Mh	Z	yes	c192c_SBD_RfAnt_Mh_LLRR_AllSrc.pdf c192cPV_SBD_RfAnt_Mh_LLRR_AllSrc.pdf No0011_Mh.pdf , No0011_PV_Mh.pdf c192c_Mh.antrep , c192c_PV_Mh.antrep	Participated in 82 out of 82 scheduled scans, fringes in 543 out of 1550 expected baselines in || pols, mean SNR 21 . See .antrep file for detailed per source and per scan statistics.
Pv	P	yes	c192cPV_SBD_RfAnt_Pv_LLRR_AllSrc.pdf No0067_PV_Pv.pdf c192c_PV_Pv.antrep	Pv is Pico Veleta with DBBC2 Due to an undetermined problem both polarization channels recorded RCP and LCP was lost for about a quarter of this experiment. Scans No0001-No0024 have this problem, starting from No0025 polarization setup gets to normal: map of good/bad polarization scans is HERE (red = bad, green = good) That's why only a secondary correlation was made with this backend, primary production correlation was done with DBBC3 backend, P3. Participated in 68 out of 73 scheduled scans, fringes in 765 out of 1338 expected baselines in || pols, mean SNR 79 . See .antrep file for detailed per source and per scan statistics.

Station	Code	Fringes	Plots	Comments
P3	i	yes	c192c_SBD_RfAnt_P3_LLRR_AllSrc.pdf No0067_P3.pdf c192c_P3.antrep	<p>P3 is Pico Veleta with DBBC3 (16 x 32MHz per pol)</p> <p>Because of problems with DBBC2 data this was used in the primary production correlation.</p> <p>Participated in 68 out of 73 scheduled scans, fringes in 790 out of 1338 expected baselines in || pols, mean SNR 50. See .antrep file for detailed per source and per scan statistics.</p> <p>Special processing was applied to this data, it is described in detail HERE.</p>
GLT: Gl	g	yes	c192c_SBD_RfAnt_Gl_LLRR_AllSrc.pdf c192cPV_SBD_RfAnt_Gl_LLRR_AllSrc.pdf No0048_Gl.pdf , No0048_PV_Gl.pdf c192c_Gl.antrep , c192c_PV_Gl.antrep	<p>Participated in 117 out of 117 scheduled scans, fringes in 428 out of 2248 expected baselines in || pols, mean SNR 25. See .antrep file for detailed per source and per scan statistics.</p> <p>Observations interrupted by snow stops, some flagging may be necessary.</p>
VLBA: Br	b	yes	c192c_SBD_RfAnt_Br_LLRR_AllSrc.pdf c192cPV_SBD_RfAnt_Br_LLRR_AllSrc.pdf No0044_Br.pdf , No0044_PV_Br.pdf c192c_Br.antrep , c192c_PV_Br.antrep	<p>Participated in 80 out of 80 scheduled scans, fringes in 63 out of 1768 expected baselines in || pols, mean SNR 15. See .antrep file for detailed per source and per scan statistics.</p> <p>Poorly performed. A detailed report on VLBA's poor performance in this session is given HERE.</p>
VLBA: Fd	f	yes	c192c_SBD_RfAnt_Fd_LLRR_AllSrc.pdf c192cPV_SBD_RfAnt_Fd_LLRR_AllSrc.pdf No0080_Fd.pdf No0080_PV_Fd.pdf c192c_Fd.antrep c192c_PV_Fd.antrep	<p>Participated in 80 out of 80 scheduled scans, fringes in 179 out of 1768 expected baselines in || pols, mean SNR 22. See .antrep file for detailed per source and per scan statistics.</p> <p>Poorly performed. A detailed report on VLBA's poor performance in this session is given HERE.</p>
VLBA: Kp	k	yes	c192c_SBD_RfAnt_Kp_LLRR_AllSrc.pdf c192cPV_SBD_RfAnt_Kp_LLRR_AllSrc.pdf No0065_Kp.pdf No0065_PV_Kp.pdf c192c_Kp.antrep	<p>Participated in 76 out of 76 scheduled scans, fringes in 154 out of 1692 expected baselines in || pols, mean SNR 15. See .antrep file for detailed per source and per scan statistics.</p> <p>Poorly performed. A detailed report on VLBA's poor performance in this session is given HERE.</p>

Station	Code	Fringes	Plots	Comments
			c192c_PV_Kp.antrep	
VLBA: La	l	yes	c192c_SBD_RfAnt_La_LLRR_AllSrc.pdf c192cPV_SBD_RfAnt_La_LLRR_AllSrc.pdf No0072_La.pdf No0072_PV_La.pdf c192c_La.antrep c192c_PV_La.antrep	<p>Participated in 80 out of 80 scheduled scans, fringes in 171 out of 1768 expected baselines in || pols, mean SNR 19. See .antrep file for detailed per source and per scan statistics.</p> <p>Poorly performed. A detailed report on VLBA's poor performance in this session is given HERE.</p>
VLBA: Mk	m	yes	c192c_SBD_RfAnt_Mk_LLRR_AllSrc.pdf c192cPV_SBD_RfAnt_Mk_LLRR_AllSrc.pdf No0075_Mk.pdf No0075_PV_Mk.pdf c192c_Mk.antrep c192c_PV_Mk.antrep	<p>Participated in 54 out of 54 scheduled scans, fringes in 147 out of 1176 expected baselines in || pols, mean SNR 13. See .antrep file for detailed per source and per scan statistics.</p> <p>Poorly performed. A detailed report on VLBA's poor performance in this session is given HERE.</p>
VLBA: Nl	n	yes	c192c_SBD_RfAnt_Nl_LLRR_AllSrc.pdf c192cPV_SBD_RfAnt_Nl_LLRR_AllSrc.pdf No0117_Nl.pdf No0117_PV_Nl.pdf c192c_Nl.antrep c192c_PV_Nl.antrep 80 80 0.991 99 1768 1768 29 2 10	<p>Participated in 80 out of 80 scheduled scans, fringes in 29 out of 1768 expected baselines in || pols, mean SNR 10. See .antrep file for detailed per source and per scan statistics.</p> <p>Poorly performed. A detailed report on VLBA's poor performance in this session is given HERE.</p>
VLBA: Ov	o	yes	c192c_SBD_RfAnt_Ov_LLRR_AllSrc.pdf c192cPV_SBD_RfAnt_Ov_LLRR_AllSrc.pdf No0070_Ov.pdf No0070_PV_Ov.pdf c192c_Ov.antrep	<p>Participated in 75 out of 76 scheduled scans, fringes in 277 out of 1670 expected baselines in || pols, mean SNR 20. See .antrep file for detailed per source and per scan statistics.</p> <p>Poorly performed. A detailed report on VLBA's poor performance in this session is given HERE.</p>

Station	Code	Fringes	Plots	Comments
			c192c_PV_Ov.antrep	
VLBA: Pt	p	yes	c192c_SBD_RfAnt_Pt_LLRR_AllSrc.pdf c192cPV_SBD_RfAnt_Pt_LLRR_AllSrc.pdf No0072_Pt.pdf No0077_PV_Pt.pdf c192c_Pt.antrep c192c_PV_Pt.antrep	<p>Participated in 80 out of 80 scheduled scans, fringes in 54 out of 1768 expected baselines in || pols, mean SNR 11. See .antrep file for detailed per source and per scan statistics.</p> <p>Poorly performed. A detailed report on VLBA's poor performance in this session is given HERE.</p>
KVN: Kt	t	yes	c192c_SBD_RfAnt_Kt_LLRR_AllSrc.pdf c192cPV_SBD_RfAnt_Kt_LLRR_AllSrc.pdf No0011_Kt.pdf , No0011_PV_Kt.pdf c192c_Kt.antrep , c192c_PV_Kt.antrep	<p>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,</p> <p>Participated in 42 out of 54 scheduled scans, fringes in 258 out of 792 expected baselines in || pols, mean SNR 28. See .antrep file for detailed per source and per scan statistics.</p>
KVN: Ku	u	yes	c192c_SBD_RfAnt_Ku_LLRR_AllSrc.pdf c192cPV_SBD_RfAnt_Ku_LLRR_AllSrc.pdf No0011_Ku.pdf , No0011_PV_Ku.pdf c192c_Ku.antrep , c192c_PV_Ku.antrep	<p>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,</p> <p>Participated in 44 out of 54 scheduled scans, fringes in 273 out of 832 expected baselines in || pols, mean SNR 26. See .antrep file for detailed per source and per scan statistics.</p>
KVN: Ky	y	yes	c192c_SBD_RfAnt_Ky_LLRR_AllSrc.pdf c192cPV_SBD_RfAnt_Ky_LLRR_AllSrc.pdf No0011_Ky.pdf , No0011_PV_Ky.pdf c192c_Ky.antrep , c192c_PV_Ky.antrep	<p>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,</p> <p>Participated in 34 out of 35 scheduled scans, fringes in 320 out of 904 expected baselines in || pols, mean SNR 34. See .antrep file for detailed per source and per scan statistics.</p>

Notes

At PI's request the science target, Cygnus A2, was correlated with two phase centers:

CYG_A (normal position) : RA 19:59:28.3564680 DEC 40:44:02.096078

CYG_A2 : RA 19:59:28.3234500 DEC 40:44:01.913300

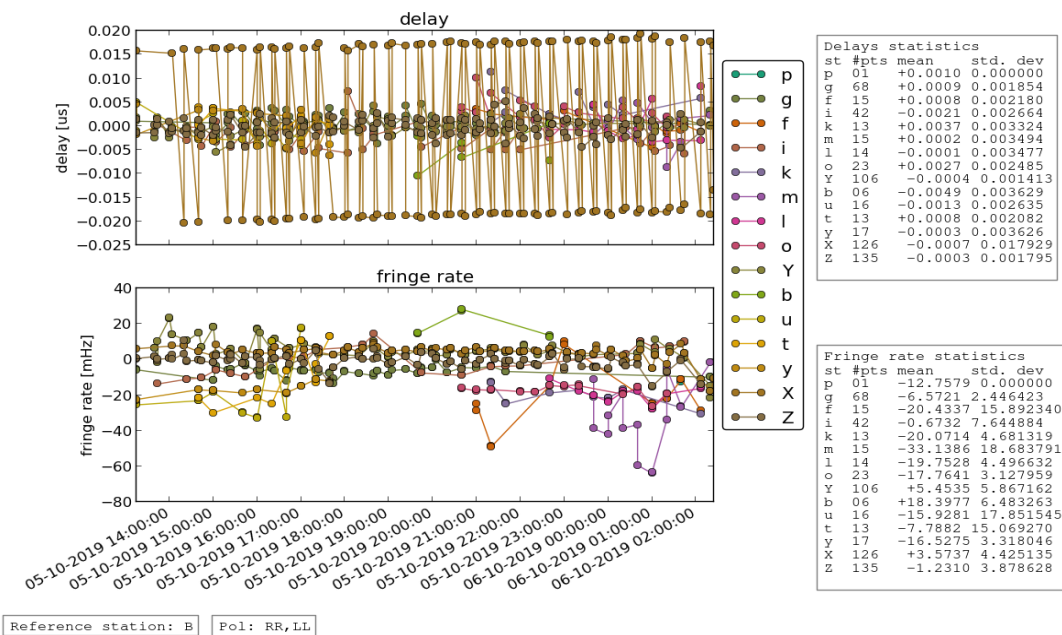
[Special processing of the P3 data](#)

[Report on the VLBA problems in this session](#)

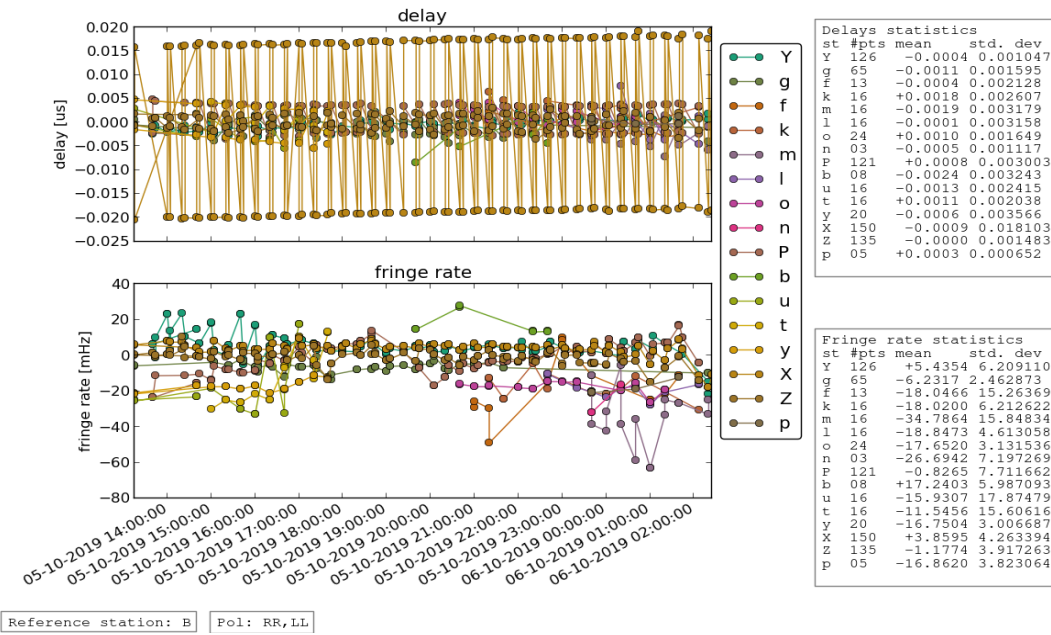
Post-Correlation checks

Residuals

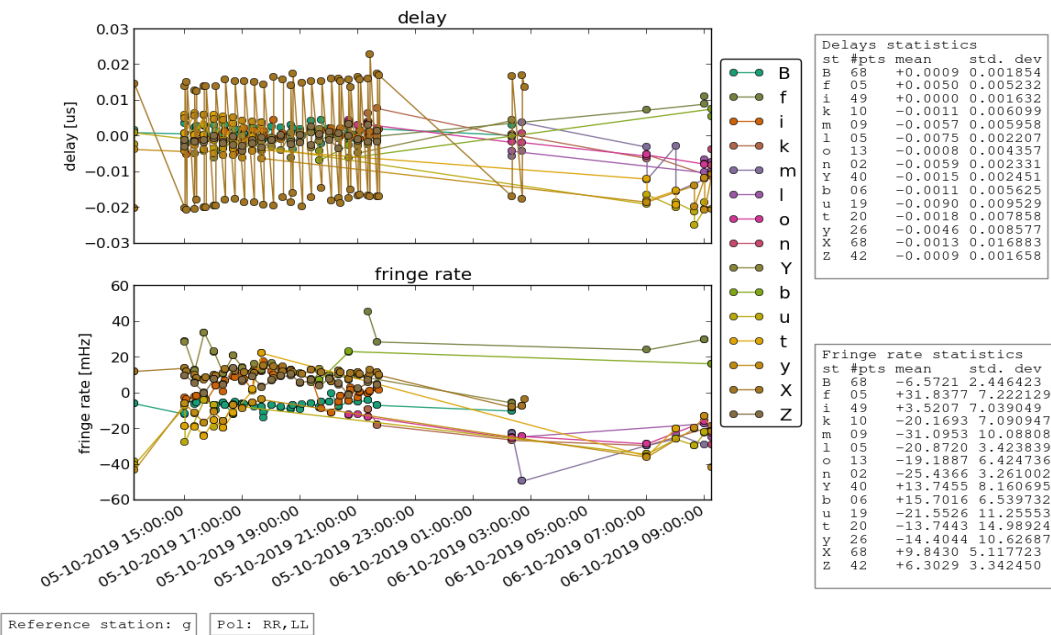
Ef (with $i=P3$):



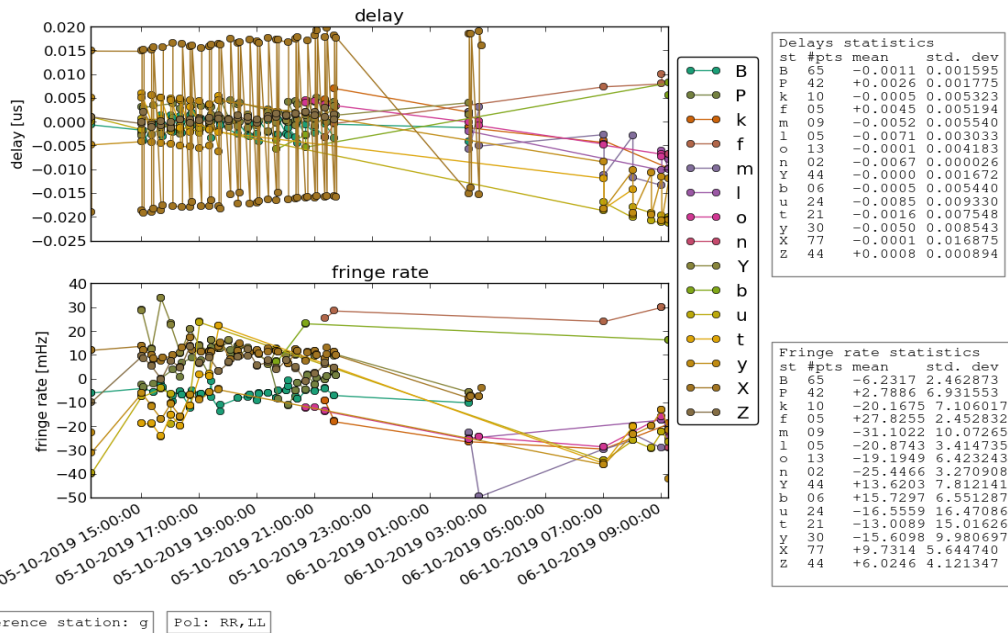
Ef (with P=Pv):



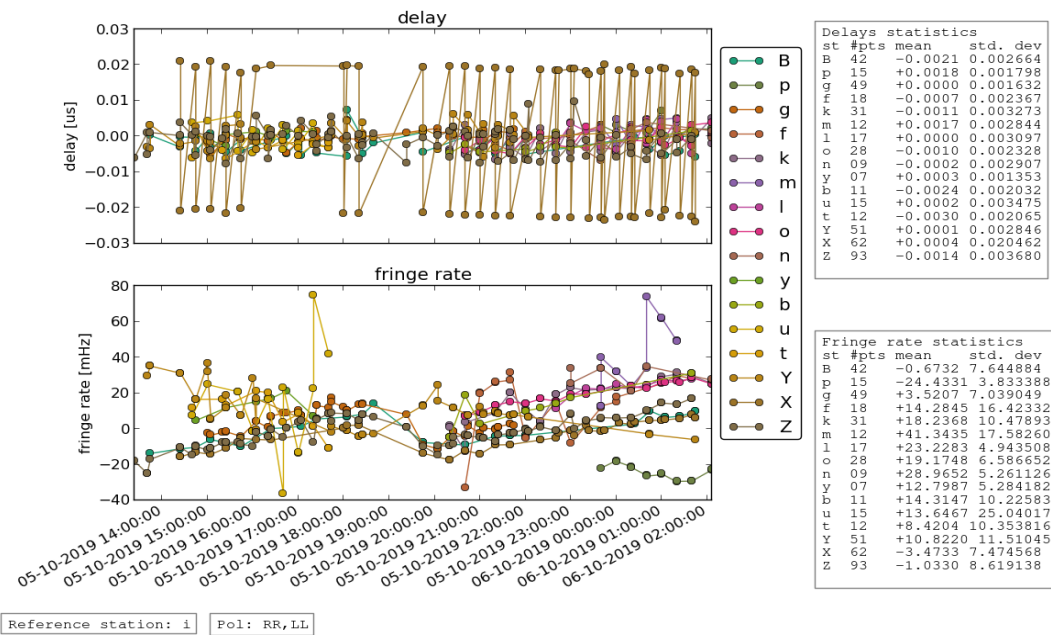
GLT (with i=P3):



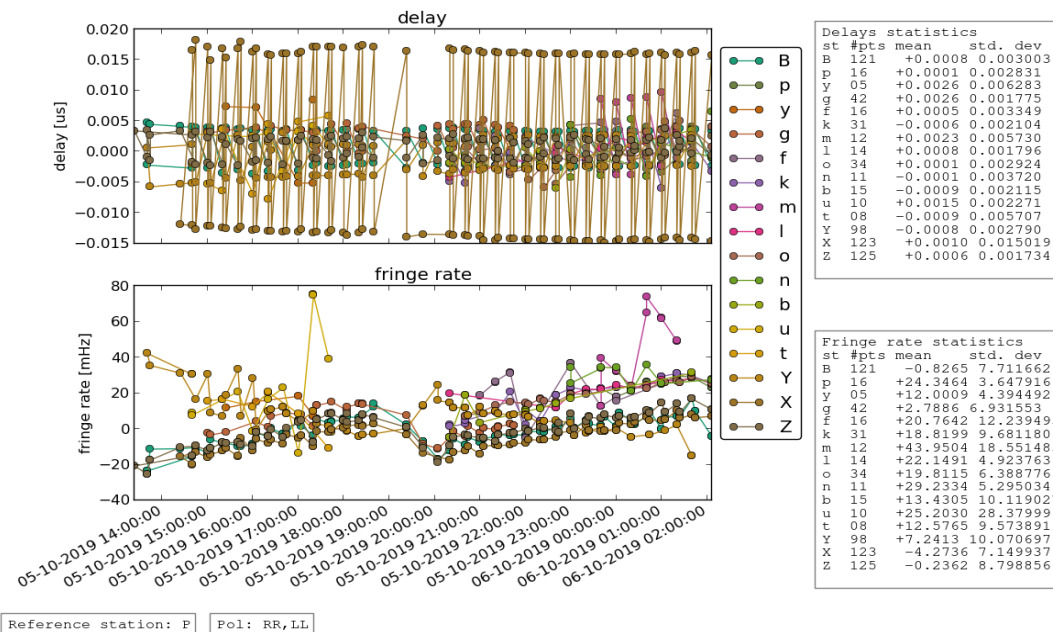
GLT (with $P=P_V$):



Pico Veleta ($i = P3$):



Pico Veleta (P = Pv):



Reference station: P 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

mb011b.fits:

				EF	P3	YS	ON	MH	GL	KY	KU	KT	NL	FD	PT	LA	BR	OV	KP	MK
c192c_001	No0001	2013+370	3mm_ddc	o	o	o	o	o	o	09	19	x	.	.	.	.	.	.	.	.
c192c_002	No0002	CYG_A	3mm_ddc	x	o	96	29	o	o	x	x	x	.	.	.	.	.	.	.	.
c192c_003	No0003	2013+370	3mm_ddc	o	o	o	x	o	o	x	x	x	.	.	.	.	.	.	.	.
c192c_004	No0004	CYG_A	3mm_ddc	o	o	94	x	o	o	x	x	x	.	.	.	.	.	.	.	.
c192c_005	No0005	2013+370	3mm_ddc	o	x	o	o	o	o	x	x	x	.	.	.	.	.	.	.	.
c192c_006	No0006	CYG_A	3mm_ddc	o	x	94	o	o	o	x	x	x	.	.	.	.	.	.	.	.
c192c_007	No0007	2013+370	3mm_ddc	o	x	o	o	o	o	x	x	x	.	.	.	.	.	.	.	.
c192c_008	No0008	CYG_A	3mm_ddc	o	o	98	o	o	o	15	23	23	.	.	.	.	.	.	.	.
c192c_009	No0009	2013+370	3mm_ddc	o	o	o	o	o	o	o	o	o	.	.	.	.	.	.	.	.
c192c_010	No0010	CYG_A	3mm_ddc	o	o	98	o	o	o	o	o	o	.	.	.	.	.	.	.	.
c192c_011	No0011	2013+370	3mm_ddc	o	o	o	o	o	o	o	o	o	.	.	.	.	.	.	.	.
c192c_012	No0012	CYG_A	3mm_ddc	o	o	98	o	o	o	o	o	o	.	.	.	.	.	.	.	.
c192c_013	No0013	2013+370	3mm_ddc	o	o	o	o	o	o	o	x	o	.	.	.	.	.	.	.	.
c192c_014	No0014	CYG_A	3mm_ddc	o	o	98	o	o	o	o	98	o	.	.	.	.	.	.	.	.

c192c_015	No0015	2013+370	3mm_ddc	o	o	o	o	o	o	o	o	.	.	.	.	.	.	.	.	.	.	.	.
c192c_016	No0016	CYG_A	3mm_ddc	o	o	98	o	o	o	o	o	.	.	.	.	.	.	.	.	.	.	.	.
c192c_017	No0017	2013+370	3mm_ddc	o	o	o	o	o	o	o	o	.	.	.	.	.	.	.	.	.	.	.	.
c192c_018	No0018	CYG_A	3mm_ddc	o	o	98	o	o	o	o	o	.	.	.	.	.	.	.	.	.	.	.	.
c192c_019	No0019	2013+370	3mm_ddc	o	o	o	o	o	o	o	o	.	.	.	.	.	.	.	.	.	.	.	.
c192c_020	No0020	CYG_A	3mm_ddc	o	o	98	o	o	o	o	o	.	.	.	.	.	.	.	.	.	.	.	.
c192c_021	No0021	2013+370	3mm_ddc	o	o	o	o	o	o	o	o	.	.	.	.	.	.	.	.	.	.	.	.
c192c_022	No0022	CYG_A	3mm_ddc	o	o	98	o	o	o	o	o	.	.	.	.	.	.	.	.	.	.	.	.
c192c_023	No0023	2013+370	3mm_ddc	o	o	o	o	o	o	o	o	.	.	.	.	.	.	.	.	.	.	.	.
c192c_024	No0024	CYG_A	3mm_ddc	o	o	98	o	o	o	o	o	.	.	.	.	.	.	.	.	.	.	.	.
c192c_025	No0025	2013+370	3mm_ddc	o	o	o	o	o	o	o	o	.	.	.	.	.	.	.	.	.	.	.	.
c192c_026	No0026	CYG_A	3mm_ddc	o	o	98	o	o	o	o	78	o	.	.	.	.	.	.	.	.	.	.	.
c192c_027	No0027	2013+370	3mm_ddc	o	o	o	o	o	o	o	22	o	.	.	.	.	.	.	.	.	.	.	.
c192c_028	No0028	CYG_A	3mm_ddc	o	o	98	o	o	o	70	70	62	.	.	.	.	.	.	.	.	.	.	.
c192c_029	No0029	2013+370	3mm_ddc	o	o	o	o	o	o	o	.	.	.	.	.	.	.	.	.	.	.	.	.
c192c_030	No0030	CYG_A	3mm_ddc	o	o	98	o	o	o	.	.	.	.	.	.	.	.	.	.	.	.	.	.
c192c_031	No0031	2013+370	3mm_ddc	o	o	o	o	o	o	.	.	.	.	.	.	.	.	.	.	.	.	.	.
c192c_032	No0032	CYG_A	3mm_ddc	o	o	98	o	o	o	.	.	.	.	.	.	.	.	.	.	.	.	.	.
c192c_033	No0033	2013+370	3mm_ddc	o	o	o	o	o	o	.	.	.	.	.	.	.	.	.	.	.	.	.	.
c192c_034	No0034	CYG_A	3mm_ddc	o	x	98	o	o	o	.	.	.	.	.	.	.	.	.	.	.	.	.	.
c192c_035	No0035	2013+370	3mm_ddc	o	x	o	o	o	o	.	.	.	.	.	.	.	.	.	.	.	.	.	.
c192c_036	No0036	CYG_A	3mm_ddc	o	.	98	o	o	o	.	.	.	.	.	.	.	.	.	.	.	.	.	.
c192c_037	No0037	BLLAC	3mm_ddc	o	o	o	o	o	o	.	.	.	.	.	.	.	.	.	.	.	.	.	.
c192c_038	No0038	2013+370	3mm_ddc	o	.	o	o	o	o	.	.	.	.	.	.	.	o	o	88	o	o	.	.
c192c_039	No0039	CYG_A	3mm_ddc	o	o	98	o	o	o	.	.	.	.	.	.	.	o	o	o	o	o	o	.
c192c_040	No0040	2013+370	3mm_ddc	o	.	o	o	o	o	.	.	.	.	.	.	.	o	o	o	o	o	o	.
c192c_041	No0041	CYG_A	3mm_ddc	o	o	98	o	o	o	.	.	.	.	.	.	.	o	o	o	o	o	o	.
c192c_042	No0042	2013+370	3mm_ddc	o	o	o	o	o	o	.	.	.	.	.	.	.	o	o	o	o	o	x	o
c192c_043	No0043	CYG_A	3mm_ddc	o	o	98	o	o	o	.	.	.	.	.	.	.	o	o	o	o	o	o	.
c192c_044	No0044	2013+370	3mm_ddc	o	o	o	o	o	o	.	.	.	.	.	.	.	o	o	o	o	o	o	.
c192c_045	No0045	CYG_A	3mm_ddc	o	o	98	o	o	o	.	.	.	.	.	.	.	o	o	o	o	o	o	.
c192c_046	No0046	2013+370	3mm_ddc	o	o	o	o	o	o	.	.	.	.	.	.	.	o	o	o	o	o	o	.
c192c_047	No0047	CYG_A	3mm_ddc	o	o	98	o	o	o	.	.	.	.	.	.	.	o	o	o	o	o	o	.
c192c_048	No0048	2013+370	3mm_ddc	o	o	o	o	o	o	.	.	.	.	.	.	.	o	o	o	o	o	o	.
c192c_049	No0049	CYG_A	3mm_ddc	o	o	98	o	o	o	.	.	.	.	.	.	.	o	o	o	o	o	o	.
c192c_050	No0050	2013+370	3mm_ddc	o	o	o	o	o	o	.	.	.	.	.	.	.	o	o	o	o	o	o	.
c192c_051	No0051	CYG_A	3mm_ddc	o	o	98	o	o	o	.	.	.	.	.	.	.	o	o	o	o	o	o	.
c192c_052	No0052	2013+370	3mm_ddc	o	o	o	o	o	o	.	.	.	.	.	.	.	o	o	o	o	o	o	.
c192c_053	No0053	CYG_A	3mm_ddc	o	o	98	o	o	o	.	.	.	.	.	.	.	o	o	o	o	o	o	.
c192c_054	No0054	2013+370	3mm_ddc	o	o	o	o	o	o	.	.	.	.	.	.	.	o	o	o	o	o	o	.
c192c_055	No0055	CYG_A	3mm_ddc	o	o	98	o	o	o	.	.	.	.	.	.	.	o	o	o	o	o	o	.
c192c_056	No0056	2013+370	3mm_ddc	o	o	o	o	o	o	.	.	.	.	.	.	.	o	o	o	o	o	o	.
c192c_057	No0057	CYG_A	3mm_ddc	o	o	98	o	o	o	.	.	.	.	.	.	.	o	o	o	o	o	o	.
c192c_058	No0058	2013+370	3mm_ddc	o	o	o	o	o	o	.	.	.	.	.	.	.	o	o	o	o	o	o	.
c192c_059	No0059	CYG_A	3mm_ddc	o	o	98	o	o	o	.	.	.	.	.	.	.	o	o	o	o	o	o	.
c192c_060	No0060	2013+370	3mm_ddc	o	o	o	o	o	o	.	.	.	.	.	.	.	o	o	o	o	o	o	.
c192c_061	No0061	CYG_A	3mm_ddc	o	o	98	o	o	o	.	.	.	.	.	.	.	o	o	o	o	o	o	.
c192c_062	No0062	2013+370	3mm_ddc	o	o	o	o	o	o	.	.	.	.	.	.	.	o	o	o	o	o	o	o
c192c_063	No0063	CYG_A	3mm_ddc	o	o	98	o	o	o	.	.	.	.	.	.	.	o	o	o	o	o	o	o
c192c_064	No0064	BLLAC	3mm_ddc	.	.	.	.	.	o	.	.	.	.	.	.	.	o	o	o	o	o	o	.

c192c_065	No0065	2013+370	3mm_ddc	o	o	o	o	o	o	.	.	.	o	o	o	o	o	o	o	o	o
c192c_066	No0066	CYG_A	3mm_ddc	o	o	o	o	o	o	.	.	.	o	o	o	o	o	o	o	o	o
c192c_067	No0067	2013+370	3mm_ddc	o	o	o	o	o	o	.	.	.	o	o	o	o	o	o	o	o	o
c192c_068	No0068	CYG_A	3mm_ddc	o	o	98	o	o	o	.	.	.	o	o	o	o	o	o	o	o	o
c192c_069	No0069	BLLAC	3mm_ddc	.	.	.	.	.	o	.	.	.	o	o	o	o	o	o	o	o	o
c192c_070	No0070	2013+370	3mm_ddc	o	o	o	o	o	o	.	.	.	o	o	o	o	o	o	o	o	o
c192c_071	No0071	CYG_A	3mm_ddc	o	o	23	o	o	o	.	.	.	o	o	o	o	o	o	o	o	o
c192c_072	No0072	2013+370	3mm_ddc	o	o	o	o	o	o	.	.	.	o	o	o	o	o	o	o	o	o
c192c_073	No0073	CYG_A	3mm_ddc	o	o	98	o	o	o	.	.	.	o	o	o	o	o	o	o	o	o
c192c_074	No0074	BLLAC	3mm_ddc	.	.	.	.	.	o	.	.	.	o	o	o	o	o	o	o	o	o
c192c_075	No0075	2013+370	3mm_ddc	o	o	o	o	o	o	.	.	.	o	o	o	o	o	o	o	o	o
c192c_076	No0076	CYG_A	3mm_ddc	o	o	98	o	o	o	.	.	.	o	o	o	o	o	o	o	o	o
c192c_077	No0077	2013+370	3mm_ddc	o	o	o	o	o	o	.	.	.	o	o	o	o	o	o	o	o	o
c192c_078	No0078	CYG_A	3mm_ddc	o	o	98	o	o	o	.	.	.	o	o	o	o	o	o	o	o	o
c192c_079	No0079	BLLAC	3mm_ddc	.	.	.	.	.	o	.	.	.	o	o	o	o	o	o	o	o	o
c192c_080	No0080	3C454.3	3mm_ddc	o	o	o	o	o	o	.	.	.	o	o	o	o	o	o	o	o	.
c192c_081	No0081	2013+370	3mm_ddc	o	.	o	o	o	o	.	.	.	o	o	o	o	o	o	o	o	o
c192c_082	No0082	CYG_A	3mm_ddc	o	.	98	o	o	o	.	.	.	o	o	o	o	o	o	o	o	o
c192c_083	No0083	BLLAC	3mm_ddc	.	.	.	.	.	o	.	.	.	o	o	o	o	o	o	o	o	o
c192c_084	No0084	2013+370	3mm_ddc	.	.	.	o	o	o	.	.	.	o	o	o	o	o	o	o	o	o
c192c_085	No0085	CYG_A	3mm_ddc	.	.	.	o	o	o	.	.	.	o	o	o	o	o	o	o	o	o
c192c_086	No0086	2013+370	3mm_ddc	.	.	.	o	o	o	.	.	.	o	o	o	o	o	o	o	o	o
c192c_087	No0087	CYG_A	3mm_ddc	.	.	.	o	o	o	.	.	.	o	o	o	o	o	o	98	o	o
c192c_088	No0088	2013+370	3mm_ddc	.	.	.	.	.	o	.	.	.	o	o	o	o	o	o	o	o	o
c192c_089	No0089	BLLAC	3mm_ddc	.	.	.	.	.	o	.	.	.	o	o	o	o	o	o	o	o	o
c192c_090	No0090	CYG_A	3mm_ddc	.	.	.	.	.	o	96	x	x	o	o	o	o	o	o	o	o	o
c192c_091	No0091	CYG_A	3mm_ddc	.	.	.	.	.	o	o	x	16	o	o	o	o	o	o	o	o	o
c192c_092	No0092	2013+370	3mm_ddc	.	.	.	.	.	o	o	x	o	o	o	o	o	o	o	o	o	o
c192c_093	No0093	CYG_A	3mm_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o	o	o	o
c192c_094	No0094	CYG_A	3mm_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o	o	o	o
c192c_095	No0095	BLLAC	3mm_ddc	.	.	.	.	.	o	.	.	.	o	o	o	o	o	o	o	o	o
c192c_096	No0096	CYG_A	3mm_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o	o	o	o
c192c_097	No0097	3C454.3	3mm_ddc	.	.	.	.	.	o	.	.	.	o	o	o	o	o	o	o	o	o
c192c_098	No0098	CYG_A	3mm_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o	o	o	o
c192c_099	No0099	CYG_A	3mm_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o	o	o	o
c192c_100	No0100	2013+370	3mm_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o	o	o	o
c192c_101	No0101	CYG_A	3mm_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o	o	o	o
c192c_102	No0102	CYG_A	3mm_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o	o	o	o
c192c_103	No0103	CYG_A	3mm_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o	o	o	o
c192c_104	No0104	BLLAC	3mm_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o	o	o	o
c192c_105	No0105	CYG_A	3mm_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o	o	o	o
c192c_106	No0106	2013+370	3mm_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o	o	o	o
c192c_107	No0107	CYG_A	3mm_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o	o	o	o
c192c_108	No0108	CYG_A	3mm_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o	o	o	o
c192c_109	No0109	BLLAC	3mm_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o	o	o	o
c192c_110	No0110	CYG_A	3mm_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o	o	o	o
c192c_111	No0111	2013+370	3mm_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o	o	o	o
c192c_112	No0112	CYG_A	3mm_ddc	.	.	.	.	.	o	o	o	o	o	o	o	o	o	o	o	o	o
c192c_113	No0113	CYG_A	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o
c192c_114	No0114	BLLAC	3mm_ddc	o	o	o	x	o	o	o	o	o	o	o	o	o

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c192c_115 No0115    CYG_A 3mm_ddc . . . . . o o o x o o o o o o o o
c192c_116 No0116    3C454.3 3mm_ddc . . . . . o o o x o o o o o o o o
c192c_117 No0117    3C454.3 3mm_ddc . . . . . o o o x o o o o o o o o
    
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mb011b_PV.fits:

				EF	PV	YS	ON	MH	GL	KY	KU	KT	NL	FD	PT	LA	BR	OV	KP	MK
c192c_001	No0001	2013+370	3mm_ddc	o	o	o	o	o	o	09	19	x
c192c_002	No0002	CYG_A	3mm_ddc	x	o	96	29	o	o	x	x	x	.	.	.	.	.	.	.	.
c192c_003	No0003	2013+370	3mm_ddc	o	o	o	x	o	o	x	x	x	.	.	.	.	.	.	.	.
c192c_004	No0004	CYG_A	3mm_ddc	o	o	94	x	o	o	x	x	x	.	.	.	.	.	.	.	.
c192c_005	No0005	2013+370	3mm_ddc	o	x	o	o	o	o	x	x	x	.	.	.	.	.	.	.	.
c192c_006	No0006	CYG_A	3mm_ddc	o	x	94	o	o	o	x	x	x	.	.	.	.	.	.	.	.
c192c_007	No0007	2013+370	3mm_ddc	o	x	o	o	o	o	x	x	x	.	.	.	.	.	.	.	.
c192c_008	No0008	CYG_A	3mm_ddc	o	o	98	o	o	o	15	23	23	.	.	.	.	.	.	.	.
c192c_009	No0009	2013+370	3mm_ddc	o	o	o	o	o	o	o	o	o	.	.	.	.	.	.	.	.
c192c_010	No0010	CYG_A	3mm_ddc	o	o	98	o	o	o	o	o	o	.	.	.	.	.	.	.	.
c192c_011	No0011	2013+370	3mm_ddc	o	o	o	o	o	o	o	o	o	.	.	.	.	.	.	.	.
c192c_012	No0012	CYG_A	3mm_ddc	o	o	98	o	o	o	o	o	o	.	.	.	.	.	.	.	.
c192c_013	No0013	2013+370	3mm_ddc	o	o	o	o	o	o	o	x	o	.	.	.	.	.	.	.	.
c192c_014	No0014	CYG_A	3mm_ddc	o	o	98	o	o	o	o	98	o	.	.	.	.	.	.	.	.
c192c_015	No0015	2013+370	3mm_ddc	o	o	o	o	o	o	o	o	o	.	.	.	.	.	.	.	.
c192c_016	No0016	CYG_A	3mm_ddc	o	o	98	o	o	o	o	o	o	.	.	.	.	.	.	.	.
c192c_017	No0017	2013+370	3mm_ddc	o	o	o	o	o	o	o	o	o	.	.	.	.	.	.	.	.
c192c_018	No0018	CYG_A	3mm_ddc	o	o	98	o	o	o	o	o	o	.	.	.	.	.	.	.	.
c192c_019	No0019	2013+370	3mm_ddc	o	o	o	o	o	o	o	o	o	.	.	.	.	.	.	.	.
c192c_020	No0020	CYG_A	3mm_ddc	o	o	98	o	o	o	o	o	o	.	.	.	.	.	.	.	.
c192c_021	No0021	2013+370	3mm_ddc	o	o	o	o	o	o	o	o	o	.	.	.	.	.	.	.	.
c192c_022	No0022	CYG_A	3mm_ddc	o	o	98	o	o	o	o	o	o	.	.	.	.	.	.	.	.
c192c_023	No0023	2013+370	3mm_ddc	o	o	o	o	o	o	o	o	o	.	.	.	.	.	.	.	.
c192c_024	No0024	CYG_A	3mm_ddc	o	o	98	o	o	o	o	o	o	.	.	.	.	.	.	.	.
c192c_025	No0025	2013+370	3mm_ddc	o	o	o	o	o	o	o	o	o	.	.	.	.	.	.	.	.
c192c_026	No0026	CYG_A	3mm_ddc	o	o	98	o	o	o	o	78	o	.	.	.	.	.	.	.	.
c192c_027	No0027	2013+370	3mm_ddc	o	o	o	o	o	o	o	22	o	.	.	.	.	.	.	.	.
c192c_028	No0028	CYG_A	3mm_ddc	o	o	98	o	o	o	70	70	62	.	.	.	.	.	.	.	.
c192c_029	No0029	2013+370	3mm_ddc	o	o	o	o	o	o	.	.	.	.	.	.	.	.	.	.	.
c192c_030	No0030	CYG_A	3mm_ddc	o	o	98	o	o	o	.	.	.	.	.	.	.	.	.	.	.
c192c_031	No0031	2013+370	3mm_ddc	o	o	o	o	o	o	.	.	.	.	.	.	.	.	.	.	.
c192c_032	No0032	CYG_A	3mm_ddc	o	o	98	o	o	o	.	.	.	.	.	.	.	.	.	.	.
c192c_033	No0033	2013+370	3mm_ddc	o	o	o	o	o	o	.	.	.	.	.	.	.	.	.	.	.
c192c_034	No0034	CYG_A	3mm_ddc	o	x	98	o	o	o	.	.	.	.	.	.	.	.	.	.	.
c192c_035	No0035	2013+370	3mm_ddc	o	x	o	o	o	o	.	.	.	.	.	.	.	.	.	.	.
c192c_036	No0036	CYG_A	3mm_ddc	o	.	98	o	o	o	.	.	.	.	.	.	.	.	.	.	.
c192c_037	No0037	BLLAC	3mm_ddc	o	o	o	o	o	o	.	.	.	.	.	.	.	.	.	.	.
c192c_038	No0038	2013+370	3mm_ddc	o	.	o	o	o	o	.	.	.	o	o	88	o	o	.	.	.
c192c_039	No0039	CYG_A	3mm_ddc	o	o	98	o	o	o	.	.	.	o	o	o	o	o	.	.	.
c192c_040	No0040	2013+370	3mm_ddc	o	.	o	o	o	o	.	.	.	o	o	o	o	o	.	.	.
c192c_041	No0041	CYG_A	3mm_ddc	o	o	98	o	o	o	.	.	.	o	o	o	o	o	.	.	.
c192c_042	No0042	2013+370	3mm_ddc	o	o	o	o	o	o	.	.	.	o	o	o	o	o	x	o	.

c192c_043	No0043	CYG_A	3mm_ddc	o	o	98	o	o	o	.	.	.	o	o	o	o	o	o	.
c192c_044	No0044	2013+370	3mm_ddc	o	o	o	o	o	o	.	.	.	o	o	o	o	o	o	.
c192c_045	No0045	CYG_A	3mm_ddc	o	o	98	o	o	o	.	.	.	o	o	o	o	o	o	.
c192c_046	No0046	2013+370	3mm_ddc	o	o	o	o	o	o	.	.	.	o	o	o	o	o	o	.
c192c_047	No0047	CYG_A	3mm_ddc	o	o	98	o	o	o	.	.	.	o	o	o	o	o	o	.
c192c_048	No0048	2013+370	3mm_ddc	o	o	o	o	o	o	.	.	.	o	o	o	o	o	o	.
c192c_049	No0049	CYG_A	3mm_ddc	o	o	98	o	o	o	.	.	.	o	o	o	o	o	o	.
c192c_050	No0050	2013+370	3mm_ddc	o	o	o	o	o	o	.	.	.	o	o	o	o	o	o	.
c192c_051	No0051	CYG_A	3mm_ddc	o	o	98	o	o	o	.	.	.	o	o	o	o	o	o	.
c192c_052	No0052	2013+370	3mm_ddc	o	o	o	o	o	o	.	.	.	o	o	o	o	o	o	.
c192c_053	No0053	CYG_A	3mm_ddc	o	o	98	o	o	o	.	.	.	o	o	o	o	o	o	.
c192c_054	No0054	2013+370	3mm_ddc	o	o	o	o	o	o	.	.	.	o	o	o	o	o	o	.
c192c_055	No0055	CYG_A	3mm_ddc	o	o	98	o	o	o	.	.	.	o	o	o	o	o	o	.
c192c_056	No0056	2013+370	3mm_ddc	o	o	o	o	o	o	.	.	.	o	o	o	o	o	o	.
c192c_057	No0057	CYG_A	3mm_ddc	o	o	98	o	o	o	.	.	.	o	o	o	o	o	o	.
c192c_058	No0058	2013+370	3mm_ddc	o	o	o	o	o	o	.	.	.	o	o	o	o	o	o	.
c192c_059	No0059	CYG_A	3mm_ddc	o	o	98	o	o	o	.	.	.	o	o	o	o	o	o	.
c192c_060	No0060	2013+370	3mm_ddc	o	o	o	o	o	o	.	.	.	o	o	o	o	o	o	.
c192c_061	No0061	CYG_A	3mm_ddc	o	o	98	o	o	o	.	.	.	o	o	o	o	o	o	.
c192c_062	No0062	2013+370	3mm_ddc	o	o	o	o	o	o	.	.	.	o	o	o	o	o	o	.
c192c_063	No0063	CYG_A	3mm_ddc	o	o	98	o	o	o	.	.	.	o	o	o	o	o	o	.
c192c_064	No0064	BLLAC	3mm_ddc	.	.	.	.	.	o	.	.	.	o	o	o	o	o	o	.
c192c_065	No0065	2013+370	3mm_ddc	o	o	o	o	o	o	.	.	.	o	o	o	o	o	o	.
c192c_066	No0066	CYG_A	3mm_ddc	o	o	o	o	o	o	.	.	.	o	o	o	o	o	o	.
c192c_067	No0067	2013+370	3mm_ddc	o	o	o	o	o	o	.	.	.	o	o	o	o	o	o	.
c192c_068	No0068	CYG_A	3mm_ddc	o	o	98	o	o	o	.	.	.	o	o	o	o	o	o	.
c192c_069	No0069	BLLAC	3mm_ddc	.	.	.	.	.	o	.	.	.	o	o	o	o	o	o	.
c192c_070	No0070	2013+370	3mm_ddc	o	o	o	o	o	o	.	.	.	o	o	o	o	o	o	.
c192c_071	No0071	CYG_A	3mm_ddc	o	o	23	o	o	o	.	.	.	o	o	o	o	o	o	.
c192c_072	No0072	2013+370	3mm_ddc	o	o	o	o	o	o	.	.	.	o	o	o	o	o	o	.
c192c_073	No0073	CYG_A	3mm_ddc	o	o	98	o	o	o	.	.	.	o	o	o	o	o	o	.
c192c_074	No0074	BLLAC	3mm_ddc	.	.	.	.	.	o	.	.	.	o	o	o	o	o	o	.
c192c_075	No0075	2013+370	3mm_ddc	o	o	o	o	o	o	.	.	.	o	o	o	o	o	o	.
c192c_076	No0076	CYG_A	3mm_ddc	o	o	98	o	o	o	.	.	.	o	o	o	o	o	o	.
c192c_077	No0077	2013+370	3mm_ddc	o	o	o	o	o	o	.	.	.	o	o	o	o	o	o	.
c192c_078	No0078	CYG_A	3mm_ddc	o	o	98	o	o	o	.	.	.	o	o	o	o	o	o	.
c192c_079	No0079	BLLAC	3mm_ddc	.	.	.	.	.	o	.	.	.	o	o	o	o	o	o	.
c192c_080	No0080	3C454.3	3mm_ddc	o	o	o	o	o	o	.	.	.	o	o	o	o	o	o	.
c192c_081	No0081	2013+370	3mm_ddc	o	.	o	o	o	o	.	.	.	o	o	o	o	o	o	.
c192c_082	No0082	CYG_A	3mm_ddc	o	.	98	o	o	o	.	.	.	o	o	o	o	o	o	.
c192c_083	No0083	BLLAC	3mm_ddc	.	.	.	.	.	o	.	.	.	o	o	o	o	o	o	.
c192c_084	No0084	2013+370	3mm_ddc	.	.	.	o	o	o	.	.	.	o	o	o	o	o	o	.
c192c_085	No0085	CYG_A	3mm_ddc	.	.	.	o	o	o	.	.	.	o	o	o	o	o	o	.
c192c_086	No0086	2013+370	3mm_ddc	.	.	.	o	o	o	.	.	.	o	o	o	o	o	o	.
c192c_087	No0087	CYG_A	3mm_ddc	.	.	.	o	o	o	.	.	.	o	o	o	o	o	98	o
c192c_088	No0088	2013+370	3mm_ddc	.	.	.	.	.	o	.	.	.	o	o	o	o	o	o	.
c192c_089	No0089	BLLAC	3mm_ddc	.	.	.	.	.	o	.	.	.	o	o	o	o	o	o	.
c192c_090	No0090	CYG_A	3mm_ddc	.	.	.	.	.	o	96	x	x	o	o	o	o	o	o	.
c192c_091	No0091	CYG_A	3mm_ddc	.	.	.	.	.	o	o	x	16	o	o	o	o	o	o	.
c192c_092	No0092	2013+370	3mm_ddc	.	.	.	.	.	o	o	x	o	o	o	o	o	o	o	.

