

C172C Correlation Report

General information

- Session info: <http://www3.mpifr-bonn.mpg.de/div/vlbi/globalmm/>
- Station feedback: http://www3.mpifr-bonn.mpg.de/div/vlbi/globalmm/sessions/sep17/feedback_sep17.asc
- C172C consists of only one subproject: MM012.
- Initial correlation was started with all stations and done up to and including scan No0126, second correlation (fixing Effelsberg incorrect channel order) was done without Mh and the KVN stations due to local cluster data loss and these stations having deleted their own copies of the data. Final version is a combination of these two correlations, with non-Ef baselines taken from the initial unfinished correlation and Ef baselines -- from the later one with Mh and the KVN stations missing. Thus there are no Ef-Mh baseline, and Mh is only present up to and including scan No0124. Since the KVN stations were starting later in the experiment than scan No0126, they were lost completely.

Fringes

Station	Code	Fringes	Plots	Comments
Ef	B	yes	<p>Fringe overview of all baselines including Ef in LL (left for each baseline) and RR (right for each baseline). Legend: white - scheduled, but no data, blue - no fringe, red-green - fringes of different quality. D -- fourfit error, in this case due to mixing upper and lower subbands in the KVN compatibility mode, no real problem with the data.</p> <p>c172c FRINGE RfAnt_Ef_LLRR_AllSrc.pdf</p> <p>Examples of fourfit fringe plots:</p> <p>EfGb, all pols:</p> <p>c172c_No0016_BLLAC_BG_LL.pdf, c172c_No0016_BLLAC_BG_LR.pdf, c172c_No0016_BLLAC_BG_RL.pdf, c172c_No0016_BLLAC_BG_RR.pdf</p> <p>EfGb, all pols, different source and time of the session:</p> <p>c172c_No0206_3C345_BG_LL.pdf, c172c_No0206_3C345_BG_LR.pdf, c172c_No0206_3C345_BG_RL.pdf, c172c_No0206_3C345_BG_RR.pdf</p> <p>EfPt, all pols:</p> <p>c172c_No0243_CTA102_Bp_LL.pdf, c172c_No0243_CTA102_Bp_LR.pdf, c172c_No0243_CTA102_Bp_RL.pdf, c172c_No0243_CTA102_Bp_RR.pdf</p>	<p>See general info about the missing Ef-Mh baseline. Effelsberg recorded with DBBC (Ef) and RDBE (Eb), but only Ef was correlated.</p> <p>Weather: very cloudy to overcast, some rain</p>
On	X	yes	<p>Fringe overview (see Ef for explanations):</p> <p>c172c FRINGE RfAnt_On_LLRR_AllSrc.pdf</p> <p>Examples of fourfit fringe plots:</p> <p>EfOn, all pols:</p>	<p>See station feedback for detailed comments.</p>

Station	Code	Fringes	Plots	Comments
			<p>c172c_No0007_3C454.3_BX_LL.pdf, c172c_No0007_3C454.3_BX_LR.pdf, c172c_No0007_3C454.3_BX_RL.pdf, c172c_No0007_3C454.3_BX_RR.pdf</p> <p>GbOn, all pols:</p> <p>c172c_No0340_OJ287_GX_LL.pdf, c172c_No0340_OJ287_GX_LR.pdf, c172c_No0340_OJ287_GX_RL.pdf, c172c_No0340_OJ287_GX_RR.pdf</p>	
Ys	Y	yes	<p>Fringe overview (see Ef for explanations):</p> <p>c172c_FRINGE_RfAnt_Ys_LLRR_AllSrc.pdf</p> <p>Examples of fourfit fringe plots:</p> <p>EfYs, all pols:</p> <p>c172c_No0198_3C345_BY_LL.pdf, c172c_No0198_3C345_BY_LR.pdf, c172c_No0198_3C345_BY_RL.pdf, c172c_No0198_3C345_BY_RR.pdf</p> <p>PtYs, LL and LR only:</p> <p>c172c_No0026_BLLAC_pY_LL.pdf, c172c_No0026_BLLAC_pY_LR.pdf</p>	<p>As usual, Ys observed LCP only, but it was also recorded as fake RCP, that's why there are common Ys "right" to other antenna's left fringes.</p> <p>Possible problems by the end of the experiment.</p>
Mh	Z	yes	<p>Fringe overview (see Ef for explanations):</p> <p>c172c_FRINGE_RfAnt_Mh_LLRR_AllSrc.pdf</p> <p>Examples of fourfit fringe plots:</p> <p>MhPv, all pols:</p> <p>c172c_No0114_1055+018_ZP_LL.pdf, c172c_No0114_1055+018_ZP_LR.pdf, c172c_No0114_1055+018_ZP_RL.pdf, c172c_No0114_1055+018_ZP_RR.pdf</p> <p>GbMh, || pols:</p> <p>c172c_No0031_BLLAC_GZ_LL.pdf, c172c_No0031_BLLAC_GZ_RR.pdf</p>	<p>Present only up to scan No0124, see general info.</p>
Gb	G	yes	<p>Fringe overview (see Ef for explanations):</p> <p>c172c_FRINGE_RfAnt_Gb_LLRR_AllSrc.pdf</p> <p>Examples of fourfit fringe plots:</p> <p>GbNl, all pols:</p> <p>c172c_No0031_BLLAC_Gn_LL.pdf, c172c_No0031_BLLAC_Gn_LR.pdf, c172c_No0031_BLLAC_Gn_RL.pdf, c172c_No0031_BLLAC_Gn_RR.pdf</p> <p>GbOn, all pols:</p>	<p>See station feedback for detailed comments.</p>

Station	Code	Fringes	Plots	Comments
			c172c_No0231_3C454.3_GX_LL.pdf , c172c_No0231_3C454.3_GX_LR.pdf , c172c_No0231_3C454.3_GX_RL.pdf , c172c_No0231_3C454.3_GX_RR.pdf	
Pv	P	yes	<p>Fringe overview (see Ef for explanations):</p> <p>c172c_FRINGE_RfAnt_Pv_LLRR_AllSrc.pdf</p> <p>Examples of fourfit fringe plots:</p> <p>EfPv, all pols:</p> <p>c172c_No0174_3C345_BP_LL.pdf, c172c_No0174_3C345_BP_LR.pdf, c172c_No0174_3C345_BP_RL.pdf, c172c_No0174_3C345_BP_RR.pdf</p> <p>PtPv, all pols:</p> <p>c172c_No0264_3C454.3_pP_LL.pdf, c172c_No0264_3C454.3_pP_LR.pdf, c172c_No0264_3C454.3_pP_RL.pdf, c172c_No0264_3C454.3_pP_RR.pdf</p>	For a significant part of the experiment very cloudy to overcast. PWV ~10mm by the end of the experiment.
Br	b	yes	<p>Fringe overview (see Ef for explanations):</p> <p>c172c_FRINGE_RfAnt_Br_LLRR_AllSrc.pdf</p> <p>Examples of fourfit fringe plots:</p> <p>BrEf, all pols:</p> <p>c172c_No0238_CTA102_bB_LL.pdf, c172c_No0238_CTA102_bB_LR.pdf, c172c_No0238_CTA102_bB_RL.pdf, c172c_No0238_CTA102_bB_RR.pdf</p> <p>BrKp, all pols:</p> <p>c172c_No0264_3C454.3_bk_LL.pdf, c172c_No0264_3C454.3_bk_LR.pdf, c172c_No0264_3C454.3_bk_RL.pdf, c172c_No0264_3C454.3_bk_RR.pdf</p>	
Fd	f	yes	<p>Fringe overview (see Ef for explanations):</p> <p>c172c_FRINGE_RfAnt_Fd_LLRR_AllSrc.pdf</p> <p>Examples of fourfit fringe plots:</p> <p>FdGb, all pols:</p> <p>c172c_No0473_1510-089_fG_LL.pdf, c172c_No0473_1510-089_fG_LR.pdf, c172c_No0473_1510-089_fG_RL.pdf, c172c_No0473_1510-089_fG_RR.pdf</p> <p>FdLa, || pols:</p> <p>c172c_No0452_1510-089_fl_LL.pdf, c172c_No0452_1510-089_fl_RR.pdf</p>	<p>For the most part of the experiment communications were out and antenna was not properly pointed. Only the last several scans (beginning with No0438) are good.</p> <p>LCP Tsys higher than RCP.</p>

Station	Code	Fringes	Plots	Comments
Kp	k	yes	<p>Fringe overview (see Ef for explanations):</p> <p>c172c FRINGE RfAnt Kp LLRR AllSrc.pdf</p> <p>Examples of fourfit fringe plots:</p> <p>EfKp, || pols:</p> <p>c172c No0233 CTA102 Bk LL.pdf, c172c No0233 CTA102 Bk RR.pdf</p> <p>KpOv, all pols:</p> <p>c172c No0264 3C454.3 ko LL.pdf, c172c No0264 3C454.3 ko LR.pdf, c172c No0264 3C454.3 ko RL.pdf, c172c No0264 3C454.3 ko RR.pdf</p>	Commercial power outage for several scans (No0435 - No0452), antenna stowed.
La	l	yes	<p>Fringe overview (see Ef for explanations):</p> <p>c172c FRINGE RfAnt La LLRR AllSrc.pdf</p> <p>Examples of fourfit fringe plots:</p> <p>EfLa, all pols:</p> <p>c172c No0238 CTA102 Bl LL.pdf, c172c No0238 CTA102 Bl LR.pdf, c172c No0238 CTA102 Bl RL.pdf, c172c No0238 CTA102 Bl RR.pdf</p> <p>LaPt, all pols:</p> <p>c172c No0097 3C120 lp LL.pdf, c172c No0097 3C120 lp LR.pdf, c172c No0097 3C120 lp RL.pdf, c172c No0097 3C120 lp RR.pdf</p>	Some rain (~274d00h12m)
Mk	m	yes	<p>Fringe overview (see Ef for explanations):</p> <p>c172c FRINGE RfAnt Mk LLRR AllSrc.pdf</p> <p>Examples of fourfit fringe plots:</p> <p>EfMk, || pols:</p> <p>c172c No0203 3C345 Bm LL.pdf, c172c No0203 3C345 Bm RR.pdf</p> <p>GbMk, all pols:</p> <p>c172c No0281 CTA102 Gm LL.pdf, c172c No0281 CTA102 Gm LR.pdf, c172c No0281 CTA102 Gm RL.pdf, c172c No0281 CTA102 Gm RR.pdf</p>	Taken out for a few scans because of USNO observing.
Nl	n	yes	<p>Fringe overview (see Ef for explanations):</p> <p>c172c FRINGE RfAnt Nl LLRR AllSrc.pdf</p>	

Station	Code	Fringes	Plots	Comments
			<p>Examples of fourfit fringe plots:</p> <p>NlOn, all pols:</p> <p>c172c_No0238_CTA102_nX_LL.pdf, c172c_No0238_CTA102_nX_LR.pdf, c172c_No0238_CTA102_nX_RL.pdf, c172c_No0238_CTA102_nX_RR.pdf</p> <p>NlOv, || pols:</p> <p>c172c_No0097_3C120_no_LL.pdf, c172c_No0097_3C120_no_RR.pdf</p>	
Ov	o	yes	<p>Fringe overview (see Ef for explanations):</p> <p>/c172c_FRINGE_RfAnt_Ov_LLRR_AllSrc.pdf</p> <p>Examples of fourfit fringe plots:</p> <p>GbOv, all pols:</p> <p>c172c_No0046_BLLAC_Go_LL.pdf, c172c_No0046_BLLAC_Go_LR.pdf, c172c_No0046_BLLAC_Go_RL.pdf, c172c_No0046_BLLAC_Go_RR.pdf</p> <p>LaOv, all pols:</p> <p>c172c_No0189_3C345_lo_LL.pdf, c172c_No0189_3C345_lo_LR.pdf, c172c_No0189_3C345_lo_RL.pdf, c172c_No0189_3C345_lo_RR.pdf</p>	High RCP Tsys
Pt	p	yes	<p>Fringe overview (see Ef for explanations):</p> <p>c172c_FRINGE_RfAnt_Pt_LLRR_AllSrc.pdf</p> <p>Examples of fourfit fringe plots:</p> <p>GbPt, all pols:</p> <p>c172c_No0046_BLLAC_Gp_LL.pdf, c172c_No0046_BLLAC_Gp_LR.pdf, c172c_No0046_BLLAC_Gp_RL.pdf, c172c_No0046_BLLAC_Gp_RR.pdf</p> <p>EfPt, all pols:</p> <p>c172c_No0243_CTA102_Bp_LL.pdf, c172c_No0243_CTA102_Bp_LR.pdf, c172c_No0243_CTA102_Bp_RL.pdf, c172c_No0243_CTA102_Bp_RR.pdf</p>	Taken out for several scans because of USNO observing.
KVN: Kt, Ku, Ky	t, u, y	yes	-	There were some fringes found during the pre-correlation clock search, but due to the local cluster data loss and the stations deleting their own copies of the data (see the General Information above), no KVN data was included in the final correlation product.

Notes

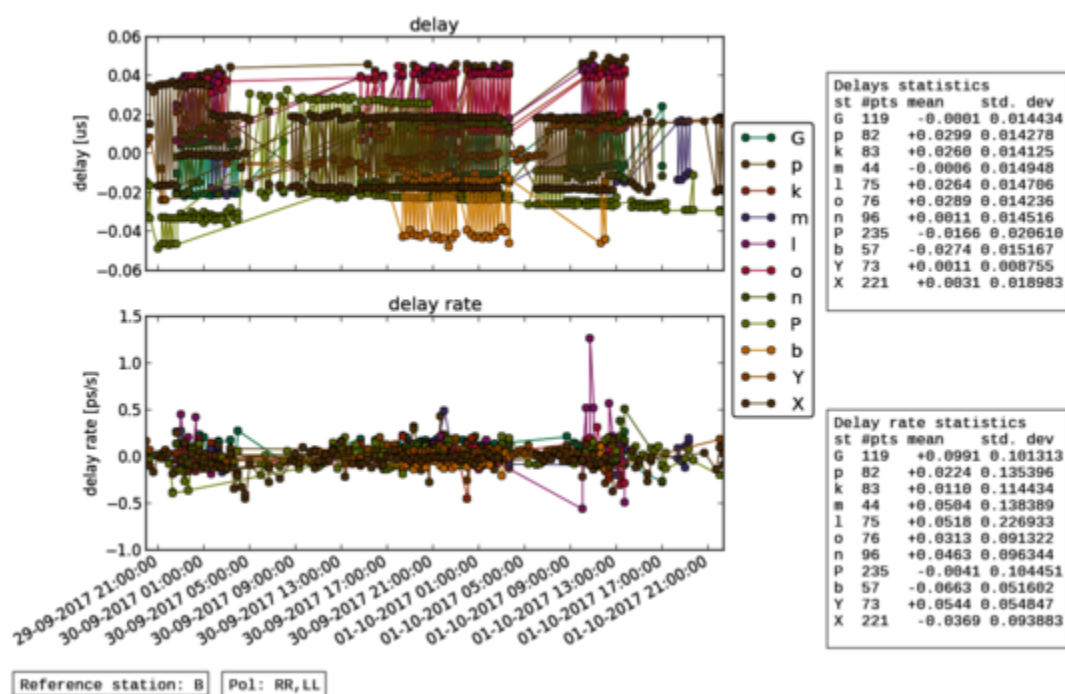
Precorrelation

- OV - in the beginning only two modules (JOD+0090 JOD+0096) arrived, containing scans up to No0232, 10nov17 P. Perley confirmed a third OV module was found and it was sent to MPIfR.
- KVN : some fringes inside KVN within $\pm 32\mu\text{sec}$ and $\pm 1\text{sec}$; station positions and freq setup appear correct
- KVN Ky : transferred files are those of Ulsan rather than Yonsei (retransferred)
- KVN Kt : no fringes (asked for operator log files, the automatic log files show no error)

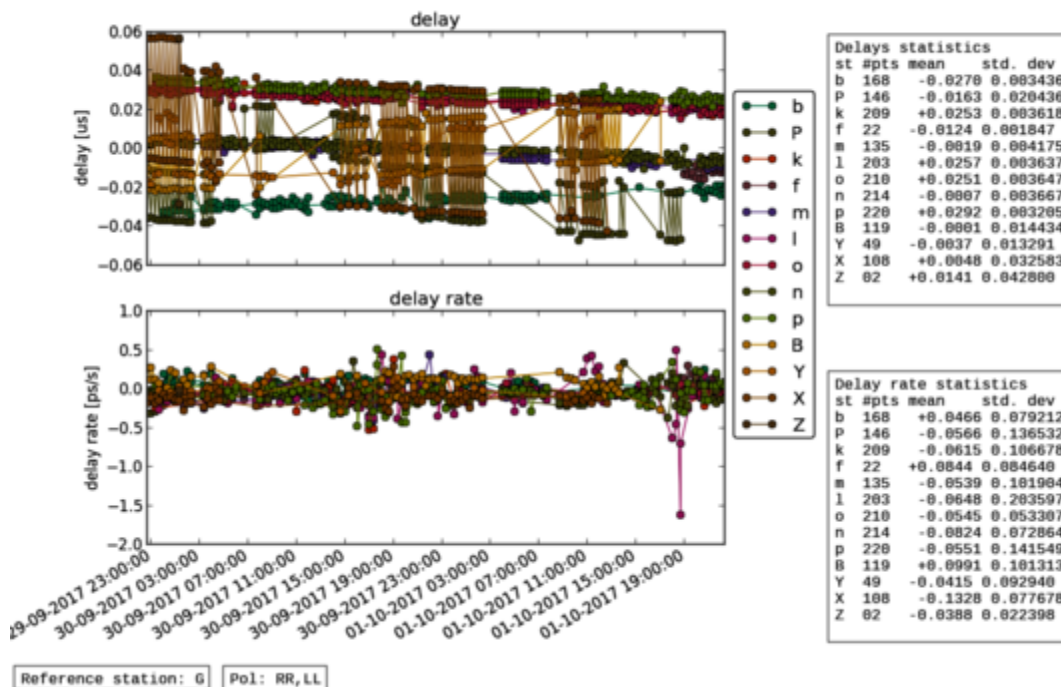
Post-Correlation checks

Residuals

Reference B (Ef), RR and LL:



Reference G (Gb), RR and LL:



FITS completeness (plist)

		EB	EF	ON	YS	PV	MH	GB	FD	NL	OV	PT	BR	KP	LA	MK	KY	KU	KT
No0001	BLLAC 3mm_RDBE	x	x	x	x	x	x	.	.	.	.	.	.	.	.	.	.	.	.
No0002	BLLAC 3mm_RDBE	x	x	x	x	x	x	.	.	.	.	.	.	.	.	.	.	.	.
No0003	BLLAC 3mm_RDBE	x	x	x	x	x	x	.	.	.	.	.	.	.	.	.	.	.	.
No0004	BLLAC 3mm_RDBE	x	x	x	x	x	x	.	.	.	.	.	.	.	.	.	.	.	.
No0005	BLLAC 3mm_RDBE	x	x	x	x	x	x	.	.	.	.	.	.	.	.	.	.	.	.
No0006	3C454.3 3mm_RDBE	x	x	x	x	x	x	.	.	.	.	.	.	.	.	.	.	.	.
No0007	3C454.3 3mm_RDBE	x	x	x	x	x	x	.	.	.	.	.	.	.	.	.	.	.	.
No0008	BLLAC 3mm_RDBE	x	x	x	x	x	x	.	.	.	.	.	.	.	.	.	.	.	.
No0009	BLLAC 3mm_RDBE	x	x	x	x	x	x	.	.	.	.	.	.	.	.	.	.	.	.
No0010	BLLAC 3mm_RDBE	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.
No0011	BLLAC 3mm_RDBE	x	x	x	x	x	x	x	x	x	x	x	x	x	x	.	.	.	.
No0012	BLLAC 3mm_RDBE	.	.	.	.	.	.	.	x	x	x	x	x	x	x	.	.	.	.
No0013	BLLAC 3mm_RDBE	x	x	x	x	x	x	x	x	x	x	x	x	x	x	.	.	.	.
No0014	BLLAC 3mm_RDBE	.	.	.	.	.	.	.	x	x	x	x	x	x	x	.	.	.	.
No0015	BLLAC 3mm_RDBE	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.
No0016	BLLAC 3mm_RDBE	x	x	x	x	x	x	x	x	x	x	x	x	x	x	.	.	.	.
No0017	BLLAC 3mm_RDBE	.	.	.	.	.	.	.	x	x	x	x	x	x	x	.	.	.	.
No0018	BLLAC 3mm_RDBE	x	x	x	x	x	x	x	x	x	x	x	x	x	x	.	.	.	.
No0019	BLLAC 3mm_RDBE	.	.	.	.	.	.	.	x	x	x	x	x	x	x	.	.	.	.
No0020	BLLAC 3mm_RDBE	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.
No0021	BLLAC 3mm_RDBE	x	x	x	x	x	x	x	x	x	x	x	x	x	x	.	.	.	.
No0022	BLLAC 3mm_RDBE	.	.	.	.	.	.	.	x	x	x	x	x	x	x	.	.	.	.
No0023	BLLAC 3mm_RDBE	x	x	x	x	x	x	x	x	x	x	x	x	x	x	.	.	.	.
No0024	BLLAC 3mm_RDBE	.	.	.	.	.	.	.	x	x	x	x	x	x	x	.	.	.	.
No0025	BLLAC 3mm_RDBE	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.
No0026	BLLAC 3mm_RDBE	x	x	x	x	x	x	x	x	x	x	x	x	x	x	.	.	.	.

No0427	1510-089	3mm_RDBE	.	.	.	.	.	.	.	.	x	x	.	x	.	x	x	.	.	.	.
No0428	0716+714	3mm_RDBE	x	x	x	.	.	x	.	.	.	.	x	.	x	.	.	x	x	x	x
No0429	0716+714	3mm_RDBE	.	.	.	.	.	.	.	.	.	.	x	.	x	.	.	x	x	x	x
No0430	1510-089	3mm_RDBE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
No0431	1510-089	3mm_RDBE	.	.	.	x	x	.	x	x	x	x	x	x	x	x	x	.	.	.	.
No0432	1510-089	3mm_RDBE	.	.	.	.	.	.	.	.	.	x	x	x	x	x	x	.	.	.	.
No0433	0716+714	3mm_RDBE	x	x	x	.	.	x	.	.	.	.	.	.	.	.	.	x	x	x	x
No0434	1510-089	3mm_RDBE	.	.	.	x	x	.	x	x	x	x	x	x	x	x	x	.	.	.	.
No0435	1510-089	3mm_RDBE	.	.	.	.	.	.	.	.	.	x	x	x	x	x	x	.	.	.	.
No0436	0716+714	3mm_RDBE	x	x	x	.	.	x	.	.	.	.	.	.	.	.	.	x	x	x	x
No0437	1510-089	3mm_RDBE	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
No0438	1510-089	3mm_RDBE	.	.	.	.	.	.	x	x	x	x	x	x	x	x	x	.	.	.	.
No0439	1510-089	3mm_RDBE	.	.	.	.	.	.	.	.	.	x	x	x	x	x	x	.	.	.	.
No0440	0716+714	3mm_RDBE	x	x	x	x	x	x	.	.	.	.	.	.	.	.	.	x	x	x	x
No0441	1510-089	3mm_RDBE	.	.	.	.	.	.	x	x	x	x	x	x	x	x	x	.	.	.	.
No0442	1510-089	3mm_RDBE	.	.	.	.	.	.	.	.	.	x	x	x	x	x	x	.	.	.	.
No0443	0716+714	3mm_RDBE	x	x	x	x	x	x	.	.	.	.	.	.	.	.	.	x	x	x	x
No0444	1510-089	3mm_RDBE	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.
No0445	1510-089	3mm_RDBE	.	.	.	.	.	.	x	x	x	x	x	x	x	x	x	.	.	.	.
No0446	1510-089	3mm_RDBE	.	.	.	.	.	.	.	.	.	x	x	x	x	x	x	.	.	.	.
No0447	0716+714	3mm_RDBE	x	x	x	x	x	x	.	.	.	.	.	.	.	.	.	x	x	x	x
No0448	1510-089	3mm_RDBE	.	.	.	.	.	.	x	x	x	x	x	x	x	x	x	.	.	.	.
No0449	1510-089	3mm_RDBE	.	.	.	.	.	.	.	.	.	x	x	x	x	x	x	.	.	.	.
No0450	0716+714	3mm_RDBE	x	x	x	x	x	x	.	.	.	.	.	.	.	.	.	x	x	x	x
No0451	1510-089	3mm_RDBE	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.
No0452	1510-089	3mm_RDBE	.	.	.	.	.	.	x	x	x	x	x	x	x	x	x	.	.	.	.
No0453	1510-089	3mm_RDBE	.	.	.	.	.	.	.	.	.	x	x	x	x	x	x	.	.	.	.
No0454	0716+714	3mm_RDBE	x	x	x	x	x	x	.	.	.	.	.	.	.	.	.	x	x	x	x
No0455	1510-089	3mm_RDBE	.	.	.	.	.	.	x	x	x	x	x	x	x	x	x	.	.	.	.
No0456	1510-089	3mm_RDBE	.	.	.	.	.	.	.	.	.	x	x	x	x	x	x	.	.	.	.
No0457	0716+714	3mm_RDBE	x	x	x	x	x	x	.	.	.	.	.	.	.	.	.	x	x	x	x
No0458	1510-089	3mm_RDBE	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.
No0459	1510-089	3mm_RDBE	.	.	.	.	.	.	x	x	x	x	x	x	x	x	x	.	.	.	.
No0460	1510-089	3mm_RDBE	.	.	.	.	.	.	.	.	.	x	x	x	x	x	x	.	.	.	.
No0461	0716+714	3mm_RDBE	x	x	x	x	x	x	.	.	.	.	.	.	.	.	.	x	x	x	x
No0462	1510-089	3mm_RDBE	.	.	.	.	.	.	x	x	x	x	x	x	x	x	x	.	.	.	.
No0463	1510-089	3mm_RDBE	.	.	.	.	.	.	.	.	.	x	x	x	x	x	x	.	.	.	.
No0464	0716+714	3mm_RDBE	x	x	x	x	x	x	.	.	.	.	.	.	.	.	.	x	x	x	x
No0465	1510-089	3mm_RDBE	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.
No0466	1510-089	3mm_RDBE	.	.	.	.	.	.	x	x	x	x	x	x	x	x	x	.	.	.	.
No0467	1510-089	3mm_RDBE	.	.	.	.	.	.	.	.	.	x	x	x	x	x	x	.	.	.	.
No0468	0716+714	3mm_RDBE	x	x	x	x	x	x	.	.	.	.	.	.	.	.	.	x	x	x	x
No0469	1510-089	3mm_RDBE	.	.	.	.	.	.	x	x	x	x	x	x	x	x	x	.	.	.	.
No0470	1510-089	3mm_RDBE	.	.	.	.	.	.	.	.	.	x	x	x	x	x	x	.	.	.	.
No0471	0716+714	3mm_RDBE	x	x	x	x	x	x	.	.	.	.	.	.	.	.	.	x	x	x	x
No0472	1510-089	3mm_RDBE	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.
No0473	1510-089	3mm_RDBE	.	.	.	.	.	.	x	x	x	x	x	x	x	x	x	.	.	.	.
No0474	0716+714	3mm_RDBE	x	x	x	x	x	x	.	.	.	.	.	.	.	.	.	x	x	x	x