

MK016A Correlation Report

General information

- A part of [C202A](#).
- Includes 3mm and 7mm parts
- PI: KADLER
- Targets: Ext.Blaz 2344+514
- Session info: <http://www3.mpifr-bonn.mpg.de/div/vlbi/globalmm/>
- Station feedback: http://www3.mpifr-bonn.mpg.de/div/vlbi/globalmm/sessions/oct20/feedback_oct20.asc
- Text files with detailed antenna statistics, scroll down to get to the cumulative statistics for the whole experiment:

[c202a_ALL_3mm.antrep](#)

[c202a_ALL_7mm.antrep](#)

Current Status

Correlation finished, data **released to PI** on 28.04.2021.

Fringes

Station	Code	Fringes	Plots	Comments
Ef	B	yes	<p>Note: all plots and statistics are done for the whole of c202a</p> <p>Fringe overview of all baselines including this antenna in LL(left for each baseline) and RR (right for each baseline).</p> <p>Legend: white box - scheduled, but no data (or sometimes fourfit had trouble with the particular baseline/pol, so no data in alist), blue - no fringe, shades of green and brown -- fringes of varying quality.</p> <p>c202a_FRINGE_RfAnt_Ef_LLRR_AllSrc_3mm.pdf</p> <p>Examples of fourfit fringe plots can be found in (all fringe plots with baselines including the given antenna):</p> <p>No0189_B_3mm.pdf</p> <p>Antenna statistics:</p> <p>c202a_Ef_3mm.antrep</p> <p>Same for all antennas below unless otherwise noted.</p>	<p>Participated in 100% scans (3mm only), fringes in 16% baselines*||pols, mean SNR 48.</p> <p>bad weather</p>

On	X	yes	c202a FRINGE RfAnt On LLRR AllSrc 3mm.pdf No0131 X 3mm.pdf c202a_On_3mm.antrep	Participated in 100% scans (3mm only), fringes in 23% baselines*||pols, mean SNR 36.
Ys	Y	no	c202a FRINGE RfAnt Ys LLRR AllSrc 3mm.pdf c202a_Ys_3mm.antrep	No fringes in c202a, due to some problem with clocks: fringes found in the fringe test with one clock setting, and in c202b shifted by more than 0.5us. None of these settings produced fringes in c202a and fringe search with a wide window also yielded no result.
Mh	Z	yes	c202a FRINGE RfAnt Mh LLRR AllSrc 3mm.pdf No0087 Z 3mm.pdf c202a_Mh_3mm.antrep	Participated in 100% scans (3mm only), fringes in 10% baselines*||pols, mean SNR 25. bad weather
Pv	P	yes	c202a FRINGE RfAnt Pv LLRR AllSrc 3mm.pdf No0100 P 3mm.pdf c202a_Pv_3mm.antrep	Participated in 100% scans (3mm only), fringes in 35% baselines*||pols, mean SNR 52.
VLBA: Br	b	yes	c202a FRINGE RfAnt Br LLRR AllSrc 3mm.pdf No0128 b 3mm.pdf c202a_Br_3mm.antrep c202a FRINGE RfAnt Br LLRR AllSrc 7mm.pdf No0090 b 7mm.pdf c202a_Br_7mm.antrep	3mm: participated in 100% scans, fringes in 23% baselines*||pols, mean SNR 23. 7mm: participated in 100% scans, fringes in 54% baselines*||pols, mean SNR 99.
VLBA: Fd	f	yes	c202a FRINGE RfAnt Fd LLRR AllSrc 3mm.pdf No0150 f 3mm.pdf c202a_Fd_3mm.antrep c202a FRINGE RfAnt Fd LLRR AllSrc 7mm.pdf No0090 f 7mm.pdf c202a_Fd_7mm.antrep	3mm: participated in 100% scans, fringes in 30% baselines*||pols, mean SNR 33. 7mm: participated in 100% scans, fringes in 63% baselines*||pols, mean SNR 103.

VLBA: Kp	k	yes	c202a FRINGE RfAnt Kp LLRR AllSrc 3mm.pdf No0150_k_3mm.pdf c202a_Kp_3mm.antrep c202a FRINGE RfAnt Kp LLRR AllSrc 7mm.pdf No0090_k_7mm.pdf c202a_Kp_7mm.antrep	<p>3mm: participated in 100% scans, fringes in 24% baselines*||pols, mean SNR 24.</p> <p>7mm: participated in 100% scans, fringes in 64% baselines*||pols, mean SNR 118.</p>
VLBA: La	l	yes	c202a FRINGE RfAnt La LLRR AllSrc 3mm.pdf No0131_l_3mm.pdf c202a_La_3mm.antrep c202a FRINGE RfAnt La LLRR AllSrc 7mm.pdf No0090_l_7mm.pdf c202a_La_7mm.antrep	<p>3mm: participated in 94% scans, fringes in 30% baselines*||pols, mean SNR 30.</p> <p>7mm: participated in 92% scans, fringes in 61% baselines*||pols, mean SNR 101.</p> <p>dropped out for several scans due to USNO observations</p>
VLBA: Mk	m	yes	c202a FRINGE RfAnt Mk LLRR AllSrc 3mm.pdf No0150_m_3mm.pdf c202a_Mk_3mm.antrep c202a FRINGE RfAnt Mk LLRR AllSrc 7mm.pdf No0090_m_7mm.pdf c202a_Mk_7mm.antrep	<p>3mm: participated in 97% scans, fringes in 21% baselines*||pols, mean SNR 19.</p> <p>7mm: participated in 97% scans, fringes in 46% baselines*||pols, mean SNR 143.</p> <p>dropped out for several scans due to USNO observations</p>
VLBA: Nl	n	yes	c202a FRINGE RfAnt Nl LLRR AllSrc 3mm.pdf No0122_n_3mm.pdf No0219_n_3mm.pdf c202a_Nl_3mm.antrep c202a FRINGE RfAnt Nl LLRR AllSrc 7mm.pdf No0090_n_7mm.pdf c202a_Nl_7mm.antrep	<p>3mm: participated in 100% scans, fringes in 11% baselines*||pols, mean SNR 15.</p> <p>7mm: participated in 100% scans, fringes in 48% baselines*||pols, mean SNR 88.</p>

VLBA: Ov	o	yes	c202a FRINGE RfAnt Ov LLRR AllSrc 3mm.pdf No0150_o_3mm.pdf No0228_o_3mm.pdf c202a_Ov_3mm.antrep c202a FRINGE RfAnt Ov LLRR AllSrc 7mm.pdf No0090_o_7mm.pdf c202a_Ov_7mm.antrep	<p>3mm: participated in 100% scans, fringes in 27% baselines*||pols, mean SNR 29.</p> <p>7mm: participated in 100% scans, fringes in 53% baselines*||pols, mean SNR 135.</p>
VLBA: Pt	p	yes	c202a FRINGE RfAnt Pt LLRR AllSrc 3mm.pdf No0128_p_3mm.pdf c202a_Pt_3mm.antrep c202a FRINGE RfAnt Pt LLRR AllSrc 7mm.pdf No0090_p_7mm.pdf c202a_Pt_7mm.antrep	<p>3mm: participated in 95% scans, fringes in 13% baselines*||pols, mean SNR 19.</p> <p>7mm: participated in 100% scans, fringes in 12% baselines*||pols, mean SNR 56.</p> <p>lots of technical problems, see logs</p>
VLBA: Hn	h	yes	c202a FRINGE RfAnt Hn LLRR AllSrc 7mm.pdf No0233_h_7mm.pdf c202a_Hn_7mm.antrep	<p>Participated in 46% scans (7mm only), fringes in 3% baselines*||pols, mean SNR 8.</p> <p>mostly out due to AZ wheel damage</p>
VLBA: Sc	c	yes	c202a FRINGE RfAnt Sc LLRR AllSrc 7mm.pdf No0090_c_7mm.pdf c202a_Sc_7mm.antrep	<p>Participated in 100% scans (7mm only), fringes in 23% baselines*||pols, mean SNR 117.</p>
KVN: Kt	t	yes	c202a FRINGE RfAnt Kt LLRR AllSrc 3mm.pdf No0110_t_3mm.pdf c202a_Kt_3mm.antrep	<p>Participated in 99% scans (3mm only), fringes in 29% baselines*||pols, mean SNR 54.</p>
KVN: Ku	u	yes	c202a FRINGE RfAnt Ku LLRR AllSrc 3mm.pdf No0113_u_3mm.pdf c202a_Ku_3mm.antrep	<p>Participated in 86% scans (3mm only), fringes in 25% baselines*||pols, mean SNR 52.</p>

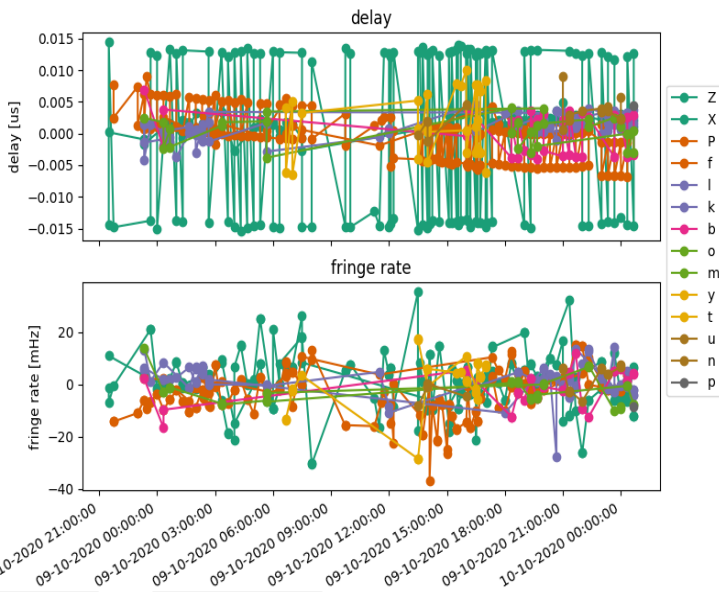
KVN: Ky	y	yes	c202a FRINGE RfAnt Ky LLRR AllSrc 3mm.pdf No0103_y 3mm.pdf No0140_y 3mm.pdf c202a_Ky 3mm.antrep	Participated in 100% scans (3mm only), fringes in 36% baselines* pols, mean SNR 49.
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Notes

Post-Correlation checks

Residuals

Ef as reference (3mm):



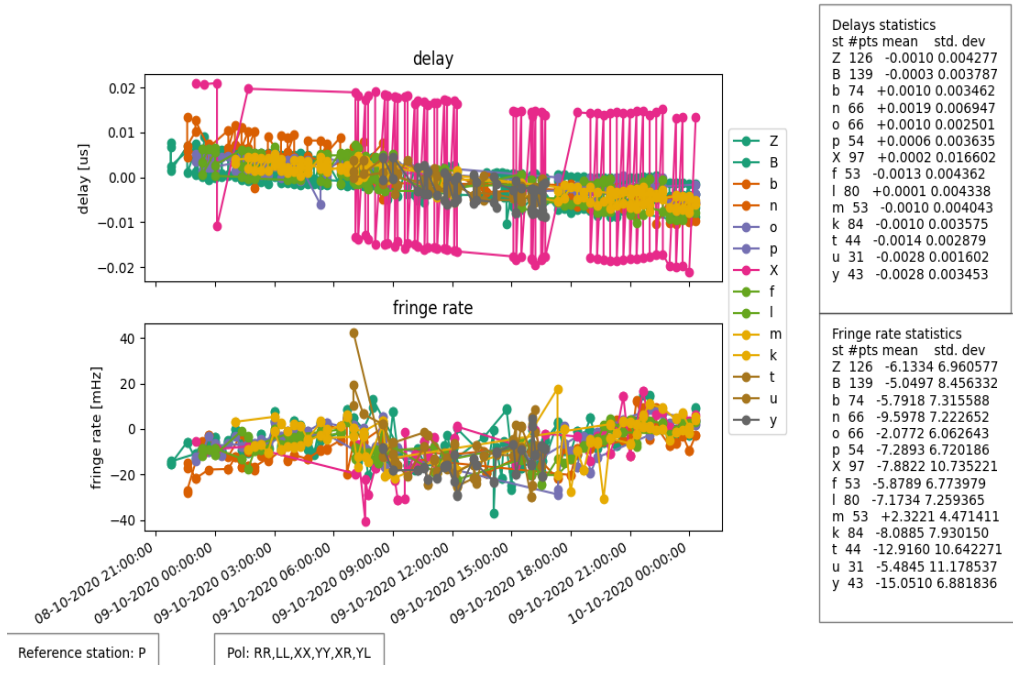
Delays statistics

st	#pts	mean	std. dev
Z	79	+0.0016	0.001297
X	111	-0.0004	0.013588
P	139	-0.0003	0.003787
f	36	+0.0012	0.001384
l	48	+0.0010	0.001798
k	30	+0.0014	0.001910
b	31	+0.0001	0.003335
o	21	-0.0002	0.002188
m	08	+0.0023	0.000985
y	21	+0.0020	0.005695
t	07	+0.0009	0.000546
u	04	+0.0013	0.002228
n	11	+0.0038	0.002108
p	01	+0.0044	0.000000

Fringe rate statistics

st	#pts	mean	std. dev
Z	79	+1.4092	7.041613
X	111	+0.7195	12.271833
P	139	-5.0497	8.456332
f	36	+1.9737	5.111896
l	48	+0.9521	5.965123
k	30	+2.7011	5.975520
b	31	-1.4669	6.826313
o	21	-2.6572	4.813693
m	08	-2.1433	6.452071
y	21	-1.4876	10.598768
t	07	+5.2609	8.999682
u	04	-3.3772	3.366171
n	11	+3.0834	4.545181
p	01	-8.5820	0.000000

Pv as reference (3mm):



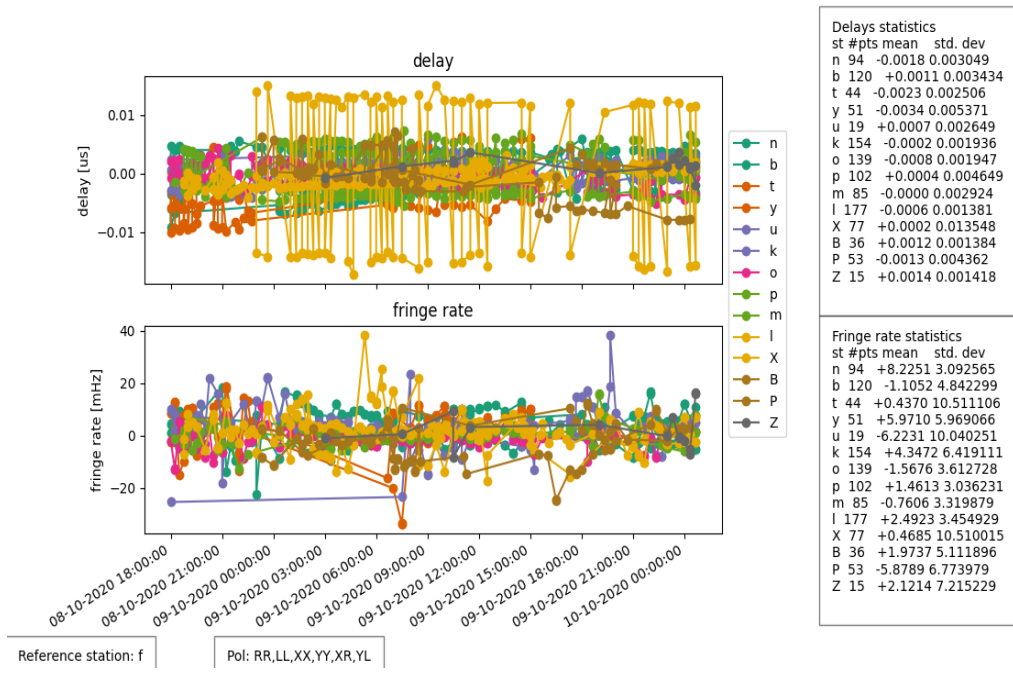
Delays statistics

st	#pts	mean	std. dev
Z	126	-0.0010	0.004277
B	139	-0.0003	0.003787
b	74	+0.0010	0.003462
n	66	+0.0019	0.006947
o	66	+0.0010	0.002501
p	54	+0.0006	0.003635
X	97	+0.0002	0.016602
f	53	-0.0013	0.004362
l	80	+0.0001	0.004338
m	53	-0.0010	0.004043
k	84	-0.0010	0.003575
t	44	-0.0014	0.002879
u	31	-0.0028	0.001602
y	43	-0.0028	0.003453

Fringe rate statistics

st	#pts	mean	std. dev
Z	126	-6.1334	6.960577
B	139	-5.0497	8.456332
b	74	-5.7918	7.315588
n	66	-9.5978	7.222652
o	66	-2.0772	6.062643
p	54	-7.2893	6.720186
X	97	-7.8822	10.735221
f	53	-5.8789	6.773979
l	80	-7.1734	7.259365
m	53	+2.3221	4.471411
k	84	-8.0885	7.930150
t	44	-12.9160	10.642271
u	31	-5.4845	11.178537
y	43	-15.0510	6.881836

Fd as reference (3mm):



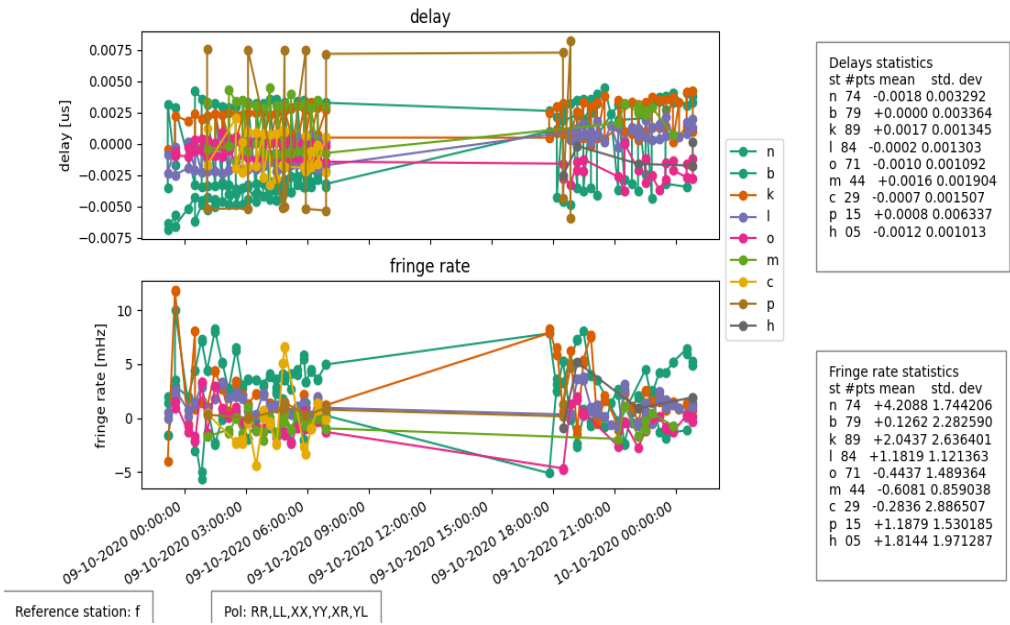
Delays statistics

st	#pts	mean	std. dev
n	94	-0.0018	0.003049
b	120	+0.0011	0.003434
t	44	-0.0023	0.002506
y	51	-0.0034	0.005371
u	19	+0.0007	0.002649
k	154	-0.0002	0.001936
o	139	-0.0008	0.001947
p	102	+0.0004	0.004649
m	85	-0.0000	0.002924
l	177	-0.0006	0.001381
X	77	+0.0002	0.013548
B	36	+0.0012	0.001384
P	53	-0.0013	0.004362
Z	15	+0.0014	0.001418

Fringe rate statistics

st	#pts	mean	std. dev
n	94	+8.2251	3.092565
b	120	-1.1052	4.842299
t	44	+0.4370	10.511106
y	51	+5.9710	5.969066
u	19	-6.2231	10.040251
k	154	+4.3472	6.419111
o	139	-1.5676	3.612728
p	102	+1.4613	3.036231
m	85	-0.7606	3.319879
l	177	+2.4923	3.454929
X	77	+0.4685	10.510015
B	36	+1.9737	5.111896
P	53	-5.8789	6.773979
Z	15	+2.1214	7.215229

Fd as reference (7mm):



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

mk016a.fits (3mm):

				FD	NL	OV	PT	BR	KP	MK	LA	KY	KU	KT	EF	ON	YS	PV	MH	
c202a_016	No0016	BLLAC	3mm_ddc	.	.	.	.	.	.	.	.	.	.	.	.	o	o	o	o	o
c202a_018	No0018	BLLAC	3mm_ddc	.	.	.	.	.	.	.	.	.	.	.	.	o	o	o	o	o
c202a_020	No0020	2344+514	3mm_ddc	.	.	.	.	.	.	.	.	.	.	.	.	o	o	o	o	o
c202a_022	No0022	2344+514	3mm_ddc	.	.	.	.	.	.	.	.	.	.	.	.	o	o	o	o	o
c202a_024	No0024	BLLAC	3mm_ddc	.	o	.	.	o	.	.	.	.	.	.	.	o	o	o	o	o
c202a_025	No0025	2344+514	3mm_ddc	.	o	.	.	o	.	.	.	.	.	.	.	o	o	o	o	o
c202a_027	No0027	BLLAC	3mm_ddc	o	o	o	o	o	o	.	o	.	.	.	.	o	o	o	o	o
c202a_028	No0028	2344+514	3mm_ddc	o	o	o	o	o	o	.	o	.	.	.	.	o	o	o	o	o
c202a_029	No0030	0102+584	3mm_ddc	o	o	o	o	o	o	.	o	.	.	.	.	o	.	o	o	o
c202a_030	No0031	2344+514	3mm_ddc	o	o	o	o	o	o	.	o	.	.	.	.	o	o	o	o	o
c202a_031	No0033	0102+584	3mm_ddc	o	o	o	o	o	o	.	o	.	.	.	.	o	o	o	o	o
c202a_032	No0034	2344+514	3mm_ddc	o	o	o	o	o	o	.	o	.	.	.	.	o	o	o	o	o
c202a_033	No0035	0102+584	3mm_ddc	o	o	o	o	o	o	.	o	.	.	.	.	o	o	o	o	o
c202a_034	No0036	2344+514	3mm_ddc	o	o	o	o	o	o	.	o	.	.	.	.	o	o	o	o	o
c202a_035	No0038	0102+584	3mm_ddc	o	o	o	o	o	o	.	o	.	.	.	.	o	o	o	o	o
c202a_036	No0039	2344+514	3mm_ddc	o	o	o	o	o	o	.	o	.	.	.	.	o	o	o	o	o
c202a_037	No0041	0102+584	3mm_ddc	o	o	o	o	o	o	.	o	.	.	.	.	o	o	o	o	o

c202a_038	No0042	2344+514	3mm_ddc	o	o	o	o	o	o	o	.	o	.	.	.	o	o	o	o	o
c202a_039	No0044	BLLAC	3mm_ddc	o	o	o	o	o	o	o	o	.	.	.	.	o	o	o	o	o
c202a_040	No0046	0102+584	3mm_ddc	o	o	o	o	o	o	o	.	o	.	.	.	o	o	o	o	o
c202a_041	No0047	2344+514	3mm_ddc	o	o	o	o	o	o	o	.	o	.	.	.	o	o	o	o	o
c202a_042	No0049	0102+584	3mm_ddc	o	o	o	o	o	o	o	.	o	.	.	.	o	o	o	o	o
c202a_043	No0050	2344+514	3mm_ddc	o	o	o	o	o	o	o	.	o	.	.	.	o	o	o	o	o
c202a_044	No0052	0102+584	3mm_ddc	o	o	o	o	o	o	o	.	o	.	.	.	o	o	o	o	o
c202a_045	No0053	2344+514	3mm_ddc	o	o	o	o	o	o	o	.	o	.	.	.	o	o	o	o	o
c202a_046	No0055	0102+584	3mm_ddc	o	o	o	o	o	o	o	.	o	.	.	.	o	o	o	o	o
c202a_047	No0056	2344+514	3mm_ddc	o	o	o	o	o	o	o	.	o	.	.	.	o	o	o	o	o
c202a_048	No0058	0102+584	3mm_ddc	o	o	o	o	o	o	o	o	.	.	.	.	o	o	o	o	o
c202a_049	No0059	2344+514	3mm_ddc	o	o	o	o	o	o	o	o	.	.	.	.	o	o	o	o	o
c202a_050	No0061	BLLAC	3mm_ddc	o	o	o	o	o	o	o	o	.	.	.	.	o	o	o	o	o
c202a_051	No0063	0102+584	3mm_ddc	o	o	o	o	o	o	o	o	.	.	.	.	o	o	o	o	o
c202a_052	No0064	2344+514	3mm_ddc	o	o	o	o	o	o	o	o	.	.	.	.	o	o	o	o	o
c202a_053	No0066	0102+584	3mm_ddc	o	o	o	o	o	o	o	o	.	.	.	.	o	o	o	o	o
c202a_054	No0067	2344+514	3mm_ddc	o	o	o	o	o	o	o	o	.	.	.	.	o	o	o	o	o
c202a_055	No0069	0102+584	3mm_ddc	o	o	o	o	o	o	o	o	.	.	.	.	o	o	o	o	o
c202a_056	No0070	2344+514	3mm_ddc	o	o	o	o	o	o	o	o	.	.	.	.	o	o	o	o	o
c202a_057	No0072	0102+584	3mm_ddc	o	o	o	o	o	o	o	o	.	.	.	.	o	o	o	o	o
c202a_058	No0073	2344+514	3mm_ddc	o	o	o	o	o	o	o	o	.	.	.	.	o	o	o	o	o
c202a_059	No0075	0102+584	3mm_ddc	o	o	o	o	o	o	o	o	.	.	.	.	o	o	o	o	o
c202a_060	No0076	2344+514	3mm_ddc	o	o	o	o	o	o	o	o	.	.	.	.	o	o	o	o	o
c202a_061	No0079	BLLAC	3mm_ddc	o	o	o	o	o	o	o	o	.	.	.	.	.	.	.	.	.
c202a_062	No0080	2344+514	3mm_ddc	o	o	o	o	o	o	o	o	.	.	.	.	.	.	.	.	.
c202a_063	No0082	0102+584	3mm_ddc	.	.	.	.	.	.	.	.	.	.	.	.	o	o	o	o	o
c202a_064	No0083	2344+514	3mm_ddc	.	.	.	.	.	.	.	.	.	.	.	.	o	o	o	o	o
c202a_065	No0084	0102+584	3mm_ddc	o	o	o	o	o	o	o	o	.	.	.	.	o	o	o	o	o
c202a_066	No0085	2344+514	3mm_ddc	o	o	o	o	o	o	o	o	.	.	.	.	o	o	o	o	o
c202a_067	No0087	0102+584	3mm_ddc	o	o	o	o	o	o	o	o	.	.	.	.	o	o	o	o	o
c202a_068	No0088	2344+514	3mm_ddc	o	o	o	o	o	o	o	o	.	.	.	.	o	o	o	o	o
c202a_069	No0091	0102+584	3mm_ddc	o	o	o	o	o	o	o	o	.	.	.	.	o	o	o	o	o
c202a_070	No0092	2344+514	3mm_ddc	o	o	o	o	o	o	o	o	.	.	.	.	o	o	o	o	o
c202a_071	No0094	0102+584	3mm_ddc	o	o	o	o	o	o	o	o	.	.	.	.	o	o	o	o	o
c202a_072	No0095	2344+514	3mm_ddc	o	o	o	o	o	o	o	o	.	.	.	.	o	o	o	o	o
c202a_073	No0097	0102+584	3mm_ddc	o	o	o	o	o	o	o	o	o	88	x	o	o	o	o	o	o
c202a_074	No0098	2344+514	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o
c202a_075	No0100	0102+584	3mm_ddc	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o	o

mk016a.fits (7mm):

				FD	NL	OV	PT	BR	KP	MK	LA	HN	SC
c202a_01	No0029	2344+514	7mm_ddc	o	o	o	o	o	o	.	o	x	o
c202a_02	No0032	2344+514	7mm_ddc	o	o	o	o	o	o	.	o	x	o
c202a_03	No0037	2344+514	7mm_ddc	o	o	o	o	o	o	.	o	x	o
c202a_04	No0040	2344+514	7mm_ddc	o	o	o	o	o	o	.	o	x	o
c202a_05	No0043	2344+514	7mm_ddc	o	o	o	o	o	o	.	o	x	o
c202a_06	No0045	BLLAC	7mm_ddc	o	o	o	o	o	o	o	o	x	o
c202a_07	No0048	2344+514	7mm_ddc	o	o	o	o	o	o	o	o	x	o

c202a_08	No0051	2344+514	7mm_ddc	o	o	o	o	o	o	o	o	x	o
c202a_09	No0054	2344+514	7mm_ddc	o	o	o	o	o	o	o	o	x	o
c202a_10	No0057	2344+514	7mm_ddc	o	o	o	o	o	o	o	o	x	o
c202a_11	No0060	2344+514	7mm_ddc	o	o	o	o	o	o	o	o	x	o
c202a_12	No0062	BLLAC	7mm_ddc	o	o	o	o	o	o	o	o	x	o
c202a_13	No0065	2344+514	7mm_ddc	o	o	o	o	o	o	o	o	x	o
c202a_14	No0068	2344+514	7mm_ddc	o	o	o	o	o	o	o	o	x	o
c202a_15	No0071	2344+514	7mm_ddc	o	o	o	o	o	o	o	o	x	o
c202a_16	No0074	2344+514	7mm_ddc	o	o	o	o	o	o	o	o	x	o
c202a_17	No0077	2344+514	7mm_ddc	o	o	o	o	o	o	o	o	x	o
c202a_18	No0078	BLLAC	7mm_ddc	o	o	o	o	o	o	o	o	x	o
c202a_19	No0081	2344+514	7mm_ddc	o	o	o	o	o	o	o	o	x	o
c202a_20	No0086	2344+514	7mm_ddc	o	o	o	o	o	o	o	o	x	o
c202a_21	No0089	2344+514	7mm_ddc	o	o	o	o	o	o	o	o	x	o
c202a_22	No0090	0102+584	7mm_ddc	o	o	o	o	o	o	o	o	x	o
c202a_23	No0093	2344+514	7mm_ddc	o	o	o	o	o	o	o	o	x	o
c202a_24	No0096	2344+514	7mm_ddc	o	o	o	o	o	o	o	o	x	o
c202a_25	No0099	0102+584	7mm_ddc	o	o	o	o	o	o	o	o	x	o