

MK016E Correlation Report

General information

- A part of [C202B](#).
- Includes 3mm and 7mm parts
- PI: KADLER
- Targets: Ext.Blaz OT169
- 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:
[c202b ALL 3mm.antrep](#)
[c202b 7mm ALL.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 c202b</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>c202b 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>No0055 B 3mm.pdf</p> <p>Antenna statistics:</p> <p>c202b Ef 3mm.antrep</p> <p>Same for all antennas below unless otherwise noted.</p>	<p>Participated in 99% scans (3mm only), fringes in 38% baselines*||pols, mean SNR 67.</p> <p>bad weather</p>
On	X	yes	<p>c202b FRINGE RfAnt On LLRR AllSrc 3mm.pdf</p> <p>No0082 X 3mm.pdf</p> <p>No0283 X 3mm.pdf</p> <p>c202b On 3mm.antrep</p>	<p>Participated in 100% scans (3mm only), fringes in 39% baselines*||pols, mean SNR 55.</p>

Ys	Y	yes	c202b FRINGE RfAnt Ys LLRR AllSrc 3mm.pdf No0079_Y_3mm.pdf No0080_Y_3mm.pdf c202b_Ys_3mm.antrep	Participated in 94% scans (3mm only), fringes in 47% baselines*||pols, mean SNR 102.
Mh	Z	yes	c202b FRINGE RfAnt Mh LLRR AllSrc 3mm.pdf No0163_Z_3mm.pdf c202b_Mh_3mm.antrep	Participated in 84% scans (3mm only), fringes in 26% baselines*||pols, mean SNR 26. bad weather
Pv	P	yes	c202b FRINGE RfAnt Pv LLRR AllSrc 3mm.pdf No0079_P_3mm.pdf No0080_P_3mm.pdf c202b_Pv_3mm.antrep	Participated in 100% scans (3mm only), fringes in 61% baselines*||pols, mean SNR 113.
VLBA: Br	b	yes	c202b FRINGE RfAnt Br LLRR AllSrc 3mm.pdf No0079_b_3mm.pdf No0101_b_3mm.pdf c202b_Br_3mm.antrep c202b FRINGE RfAnt Br LLRR AllSrc 7mm.pdf No0154_b_7mm.pdf c202b_7mm_Br.antrep	3mm: participated in 100% scans, fringes in 33% baselines*||pols, mean SNR 22. 7mm: participated in 100% scans, fringes in 83% baselines*||pols, mean SNR 200..
VLBA: Fd	f	yes	c202b FRINGE RfAnt Fd LLRR AllSrc 3mm.pdf No0028_f_3mm.pdf No0117_f_3mm.pdf c202b_Fd_3mm.antrep c202b FRINGE RfAnt Fd LLRR AllSrc 7mm.pdf No0154_f_7mm.pdf c202b_7mm_Fd.antrep	3mm: participated in 99% scans, fringes in 49% baselines*||pols, mean SNR 33. 7mm: participated in 99% scans, fringes in 87% baselines*||pols, mean SNR 238.

VLBA: Kp	k	yes	c202b FRINGE RfAnt Kp LLRR AllSrc 3mm.pdf No0119_k_3mm.pdf c202b_Kp_3mm.antrep c202b FRINGE RfAnt Kp LLRR AllSrc 7mm.pdf No0154_k_7mm.pdf c202b_7mm_Kp.antrep	<p>3mm: participated in 99% scans, fringes in 37% baselines*||pols, mean SNR 26.</p> <p>7mm: participated in 99% scans, fringes in 87% baselines*||pols, mean SNR 261.</p>
VLBA: La	l	yes	c202b FRINGE RfAnt La LLRR AllSrc 3mm.pdf No0070_l_3mm.pdf No0111_l_3mm.pdf c202b_La_3mm.antrep c202b FRINGE RfAnt La LLRR AllSrc 7mm.pdf No0154_l_7mm.pdf c202b_7mm_La.antrep	<p>3mm: participated in 80% scans, fringes in 46% baselines*||pols, mean SNR 34.</p> <p>7mm: participated in 80% scans, fringes in 89% baselines*||pols, mean SNR 217.</p> <p>dropped out for several scans due to USNO observations</p>
VLBA: Mk	m	yes	c202b FRINGE RfAnt Mk LLRR AllSrc 3mm.pdf No0105_m_3mm.pdf c202b_Mk_3mm.antrep c202b FRINGE RfAnt Mk LLRR AllSrc 7mm.pdf No0154_m_7mm.pdf c202b_7mm_Mk.antrep	<p>3mm: participated in 96% scans, fringes in 29% baselines*||pols, mean SNR 17.</p> <p>7mm: participated in 96% scans, fringes in 85% baselines*||pols, mean SNR 176.</p> <p>dropped out for several scans due to USNO observations</p>
VLBA: Nl	n	yes	c202b FRINGE RfAnt Nl LLRR AllSrc 3mm.pdf No0105_n_3mm.pdf c202b_Nl_3mm.antrep c202b FRINGE RfAnt Nl LLRR AllSrc 7mm.pdf No0154_n_7mm.pdf c202b_7mm_Nl.antrep	<p>3mm: participated in 100% scans, fringes in 17% baselines*||pols, mean SNR 15.</p> <p>7mm: participated in 100% scans, fringes in 82% baselines*||pols, mean SNR 167.</p>
VLBA: Ov	o	yes	c202b FRINGE RfAnt Ov LLRR AllSrc 3mm.pdf	.

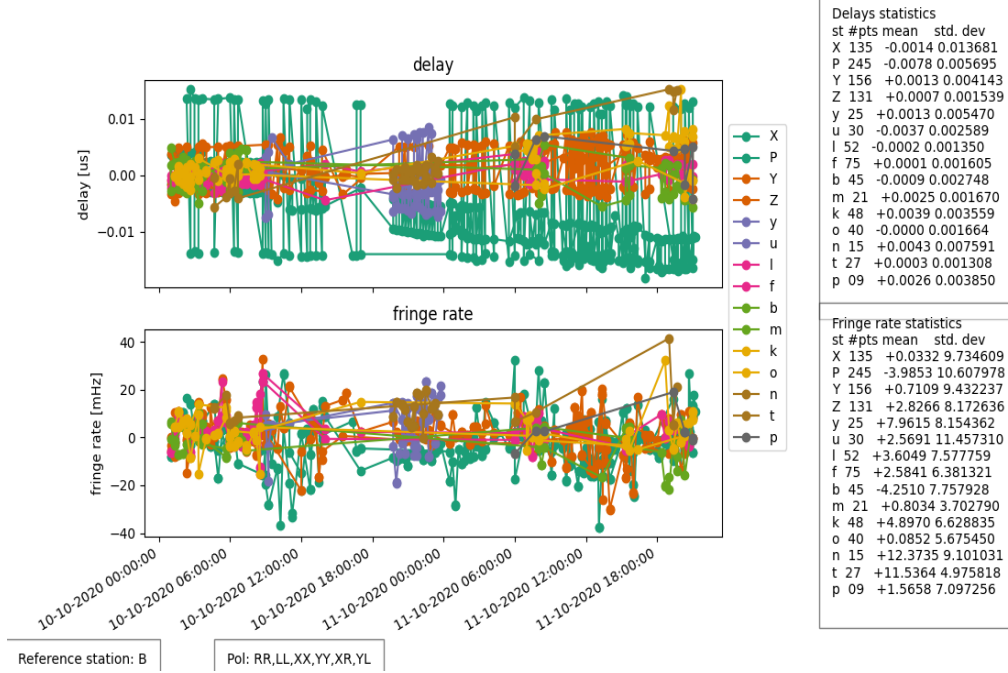
			No0103_o_3mm.pdf No0277_o_3mm.pdf c202b_Ov_3mm.antrep c202b_FRINGE_RfAnt_Ov_LLRR_AllSrc_7mm.pdf No0154_o_7mm.pdf c202b_7mm_Ov.antrep	<p>3mm: participated in 100% scans, fringes in 31% baselines*||pols, mean SNR 25.</p> <p>7mm: participated in 100% scans, fringes in 72% baselines*||pols, mean SNR 187.</p>
VLBA: Pt	p	yes	c202b_FRINGE_RfAnt_Pt_LLRR_AllSrc_3mm.pdf No0113_p_3mm.pdf c202b_Pt_3mm.antrep c202b_FRINGE_RfAnt_Pt_LLRR_AllSrc_7mm.pdf No0154_p_7mm.pdf c202b_7mm_Pt.antrep	<p>3mm: participated in 100% scans, fringes in 20% baselines*||pols, mean SNR 20.</p> <p>7mm: participated in 100% scans, fringes in 66% baselines*||pols, mean SNR 120.</p> <p>lots of technical problems, see logs</p>
VLBA: Hn	h	yes	c202b_FRINGE_RfAnt_Hn_LLRR_AllSrc_7mm.pdf No0154_h_7mm.pdf c202b_7mm_Hn.antrep	<p>Participated in 100% scans (7mm only), fringes in 71% baselines*||pols, mean SNR 106.</p>
VLBA: Sc	c	yes	c202b_FRINGE_RfAnt_Sc_LLRR_AllSrc_7mm.pdf No0154_c_7mm.pdf c202b_7mm_Sc.antrep	<p>Participated in 100% scans (7mm only), fringes in 70% baselines*||pols, mean SNR 94.</p>

Notes

Post-Correlation checks

Residuals

Ef as reference (3mm):



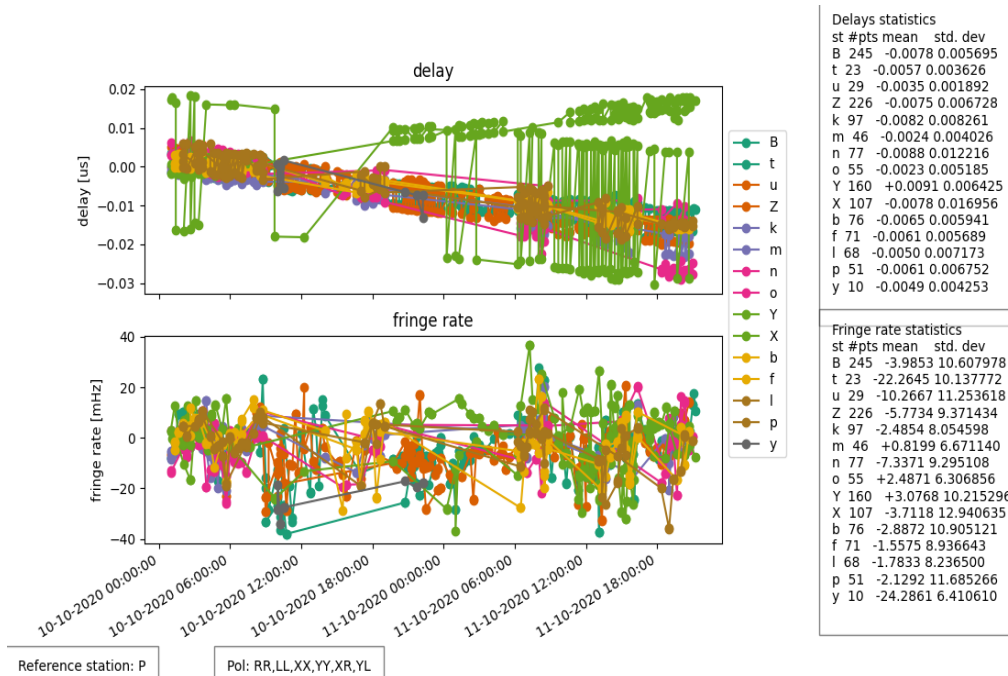
Delays statistics

st	#pts	mean	std. dev
X	135	-0.0014	0.013681
P	245	-0.0078	0.005695
Y	156	+0.0013	0.004143
Z	131	+0.0007	0.001539
y	25	+0.0013	0.005470
u	30	-0.0037	0.002589
l	52	-0.0002	0.001350
f	75	+0.0001	0.001605
b	45	-0.0009	0.002748
m	21	+0.0025	0.001670
k	48	+0.0039	0.003559
o	40	-0.0000	0.001664
n	15	+0.0043	0.007591
t	27	+0.0003	0.001308
p	09	+0.0026	0.003850

Fringe rate statistics

st	#pts	mean	std. dev
X	135	+0.0332	9.734609
P	245	-3.9853	10.607978
Y	156	+0.7109	9.432237
Z	131	+2.8266	8.172636
y	25	+7.9615	8.154362
u	30	+2.5691	11.457310
l	52	+3.6049	7.577759
f	75	+2.5841	6.381321
b	45	-4.2510	7.757928
m	21	+0.8034	3.702790
k	48	+4.8970	6.628835
o	40	+0.0852	5.675450
n	15	+12.3735	9.101031
t	27	+11.5364	4.975818
p	09	+1.5658	7.097256

Pv as reference (3mm):



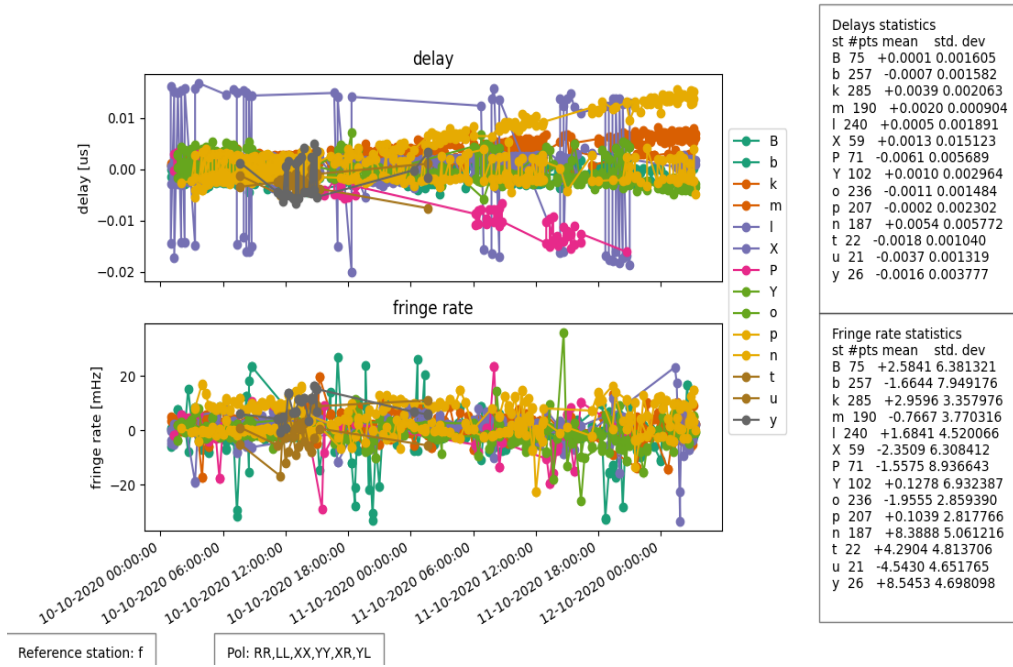
Delays statistics

st	#pts	mean	std. dev
B	245	-0.0078	0.005695
t	23	-0.0057	0.003626
u	29	-0.0035	0.001892
Z	226	-0.0075	0.006728
k	97	-0.0082	0.008261
m	46	-0.0024	0.004026
n	77	-0.0088	0.012216
o	55	-0.0023	0.005185
Y	160	+0.0091	0.006425
X	107	-0.0078	0.016956
b	76	-0.0065	0.005941
f	71	-0.0061	0.005689
l	68	-0.0050	0.007173
p	51	-0.0061	0.006752
y	10	-0.0049	0.004253

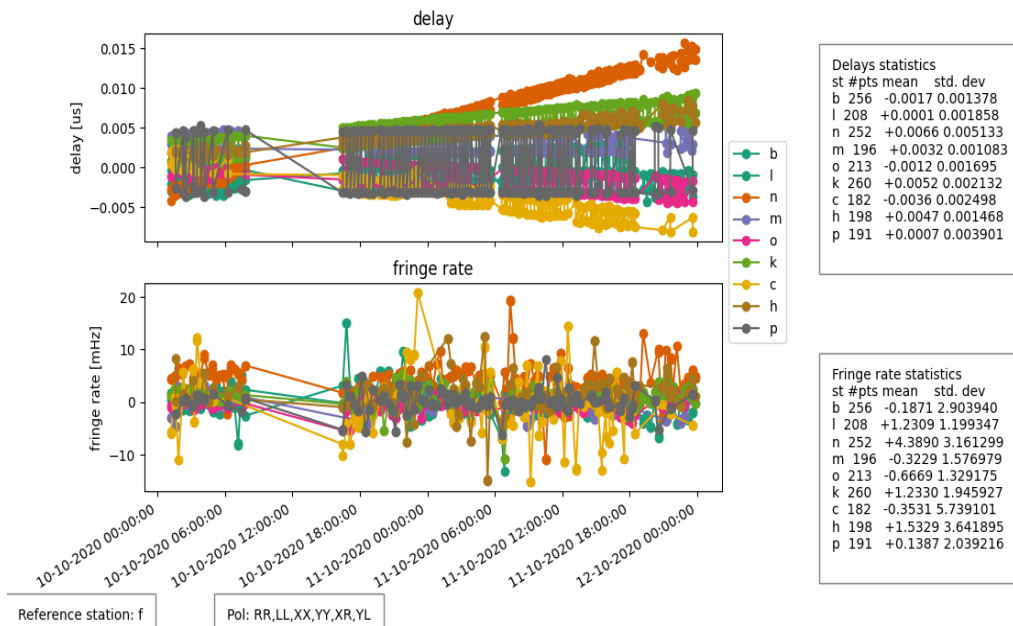
Fringe rate statistics

st	#pts	mean	std. dev
B	245	-3.9853	10.607978
t	23	-22.2645	10.137772
u	29	-10.2667	11.253618
Z	226	-5.7734	9.371434
k	97	-2.4854	8.054598
m	46	+0.8199	6.671140
n	77	-7.3371	9.295108
o	55	+2.4871	6.306856
Y	160	+3.0768	10.215296
X	107	-3.7118	12.940635
b	76	-2.8872	10.905121
f	71	-1.5575	8.936643
l	68	-1.7833	8.236500
p	51	-2.1292	11.685266
y	10	-24.2861	6.410610

Fd as reference (3mm):



Fd as reference (7mm):



FITS completeness (plist)

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

mk016e.fits (3mm):

				FD	NL	OV	PT	BR	KP	MK	LA	EF	ON	YS	PV	MH
c202b_278	No0390	1749+096	3mm_ddc	.	.	.	.	.	.	.	.	o	o	o	o	o
c202b_279	No0391	OT169	3mm_ddc	.	.	.	.	.	.	.	.	o	o	o	o	o
c202b_282	No0395	1749+096	3mm_ddc	.	.	.	.	.	.	.	.	o	o	o	o	o
c202b_283	No0396	OT169	3mm_ddc	.	.	.	.	.	.	.	.	o	o	o	o	o
c202b_286	No0401	1749+096	3mm_ddc	.	.	.	.	.	.	.	.	o	o	o	o	o
c202b_287	No0402	OT169	3mm_ddc	.	.	.	.	.	.	.	.	o	o	o	o	o
c202b_290	No0406	1749+096	3mm_ddc	.	.	.	.	.	.	.	.	o	o	o	o	o
c202b_291	No0407	OT169	3mm_ddc	.	.	.	.	.	.	.	.	o	o	o	o	o
c202b_292	No0408	3C345	3mm_ddc	o	o	o	o	o	o	.	x	o	o	o	o	o
c202b_293	No0410	1749+096	3mm_ddc	o	o	o	o	o	o	.	x	o	o	o	o	o
c202b_294	No0411	OT169	3mm_ddc	o	o	o	o	o	o	.	x	o	o	o	o	o
c202b_295	No0413	1749+096	3mm_ddc	o	o	o	o	o	o	.	x	o	o	o	o	o
c202b_296	No0414	OT169	3mm_ddc	o	o	o	o	o	80	.	x	o	o	o	o	o
c202b_297	No0416	1749+096	3mm_ddc	o	o	o	o	o	o	.	x	o	o	o	o	o
c202b_298	No0417	OT169	3mm_ddc	o	o	o	o	o	o	.	x	o	o	o	o	o
c202b_299	No0419	1749+096	3mm_ddc	o	o	o	o	o	o	.	x	o	o	o	o	o
c202b_300	No0420	OT169	3mm_ddc	o	93	o	o	o	o	.	x	o	o	o	o	o
c202b_301	No0422	1749+096	3mm_ddc	o	o	o	o	o	o	.	x	o	o	o	o	o
c202b_302	No0423	OT169	3mm_ddc	o	o	o	o	o	o	.	x	o	o	o	o	o
c202b_303	No0425	1749+096	3mm_ddc	o	o	o	o	o	o	.	x	o	o	o	o	o
c202b_304	No0426	OT169	3mm_ddc	o	o	o	o	o	o	.	x	o	o	o	o	o
c202b_305	No0428	1749+096	3mm_ddc	o	o	o	o	o	o	.	x	o	o	o	o	o
c202b_306	No0429	OT169	3mm_ddc	o	o	o	o	o	o	.	x	o	o	o	o	o
c202b_307	No0431	1749+096	3mm_ddc	o	o	o	o	o	o	.	x	o	o	o	o	.
c202b_308	No0432	OT169	3mm_ddc	o	o	o	o	o	o	x	x	o	o	o	o	o
c202b_309	No0434	OT169	3mm_ddc	o	o	o	o	o	o	o	x	o	o	o	o	.
c202b_310	No0436	3C345	3mm_ddc	o	o	o	o	o	o	o	x	.	.	.	.	.
c202b_311	No0438	1749+096	3mm_ddc	o	o	o	o	o	o	o	x	.	.	.	.	.
c202b_312	No0439	OT169	3mm_ddc	o	o	o	o	o	o	o	x	.	.	.	.	.
c202b_313	No0441	1749+096	3mm_ddc	o	o	o	o	o	o	o	x	.	.	.	.	.
c202b_314	No0442	OT169	3mm_ddc	o	o	o	o	o	o	o	x	.	.	.	.	.
c202b_315	No0444	1749+096	3mm_ddc	o	o	o	o	o	o	o	x	.	.	.	.	.
c202b_316	No0445	OT169	3mm_ddc	o	o	o	o	o	o	o	x	.	.	.	.	.
c202b_317	No0447	3C345	3mm_ddc	o	o	o	o	o	o	o	x	.	.	.	.	.
c202b_318	No0448	OT169	3mm_ddc	o	o	o	o	o	93	o	x	.	.	.	.	.
c202b_319	No0450	1749+096	3mm_ddc	o	o	o	o	o	o	o	x	.	.	.	.	.
c202b_320	No0451	OT169	3mm_ddc	o	o	o	o	o	o	o	x	.	.	.	.	.
c202b_321	No0453	1749+096	3mm_ddc	o	o	o	o	o	o	o	x	.	.	.	.	.
c202b_322	No0454	OT169	3mm_ddc	o	o	o	o	o	o	o	x	.	.	.	.	.
c202b_323	No0457	3C345	3mm_ddc	o	o	o	o	o	o	o	x	.	.	.	.	.
c202b_324	No0458	OT169	3mm_ddc	o	o	o	o	o	o	o	x	.	.	.	.	.

mk016e.fits (7mm):

			FD	NL	OV	PT	BR	KP	MK	LA	HN	SC
c202b_117	No0409	3C345	7mm_ddc	o	o	o	o	o	.	x	o	o
c202b_118	No0412	OT169	7mm_ddc	o	o	o	o	o	.	x	o	o
c202b_119	No0415	OT169	7mm_ddc	o	o	o	o	o	.	x	o	o
c202b_120	No0418	OT169	7mm_ddc	o	o	o	o	o	.	x	o	o
c202b_121	No0421	OT169	7mm_ddc	o	o	o	o	o	.	x	o	o
c202b_122	No0424	OT169	7mm_ddc	o	o	o	o	o	.	x	o	o
c202b_123	No0427	OT169	7mm_ddc	o	o	o	o	o	.	x	o	o
c202b_124	No0430	OT169	7mm_ddc	o	o	o	o	o	.	x	o	o
c202b_125	No0433	OT169	7mm_ddc	o	o	o	o	o	o	x	o	o
c202b_126	No0435	OT169	7mm_ddc	o	o	o	o	o	o	x	o	o
c202b_127	No0437	3C345	7mm_ddc	o	o	o	o	o	o	x	o	o
c202b_128	No0440	OT169	7mm_ddc	o	o	o	o	o	o	x	o	o
c202b_129	No0443	OT169	7mm_ddc	o	o	o	o	o	o	x	o	o
c202b_130	No0446	OT169	7mm_ddc	o	o	o	o	o	o	x	o	o
c202b_131	No0449	OT169	7mm_ddc	o	o	o	o	o	o	x	o	o
c202b_132	No0452	OT169	7mm_ddc	o	o	o	o	o	o	x	o	o
c202b_133	No0455	OT169	7mm_ddc	o	o	o	o	o	o	x	o	o
c202b_134	No0456	3C345	7mm_ddc	o	o	o	o	o	o	x	o	o
c202b_135	No0459	OT169	7mm_ddc	o	o	o	o	o	o	x	o	o