MK016C Correlation Report

General information

- A part of C202B.
- Includes 3mm and 7mm parts
- PI: KADLER
- Targets: Ext.Blaz 1959+650
- 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	**Note: all plots and statistics are done for the whole of c202b** Fringe overview of all baselines including this antenna in LL(left for each baseline) and RR (right for each baseline). 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. c202b_FRINGE_RfAnt_Ef_LLRR_AllSrc_3mm.pdf Examples of fourfit fringe plots can be found in (all fringe plots with baselines including the given antenna): No0055_B_3mm.pdf Antenna statistics: c202b_Ef_3mm.antrep **Same for all antennas below unless otherwise noted.**	Participated in 99% scans (3mm only), fringes in 38% baselines*||pols, mean SNR 67. **bad weather**
On	X	yes	c202b_FRINGE_RfAnt_On_LLRR_AllSrc_3mm.pdf No0082_X_3mm.pdf No0283_X_3mm.pdf c202b_On_3mm.antrep	Participated in 100% scans (3mm only), fringes in 39% baselines*||pols, mean SNR 55.

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	3mm: participated in 99% scans, fringes in 37% baselines*||pols, mean SNR 26. 7mm: participated in 99% scans, fringes in 87% baselines*||pols, mean SNR 261.
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	3mm: participated in 80% scans, fringes in 46% baselines*||pols, mean SNR 34. 7mm: participated in 80% scans, fringes in 89% baselines*||pols, mean SNR 217. **dropped out for several scans due to USNO observations**
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	3mm: participated in 96% scans, fringes in 29% baselines*||pols, mean SNR 17. 7mm: participated in 96% scans, fringes in 85% baselines*||pols, mean SNR 176. **dropped out for several scans due to USNO observations**
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	3mm: participated in 100% scans, fringes in 17% baselines*||pols, mean SNR 15. 7mm: participated in 100% scans, fringes in 82% baselines*||pols, mean SNR 167.
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	3mm: participated in 100% scans, fringes in 31% baselines*||pols, mean SNR 25. 7mm: participated in 100% scans, fringes in 72% baselines*||pols, mean SNR 187.
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	3mm: participated in 100% scans, fringes in 20% baselines*||pols, mean SNR 20. 7mm: participated in 100% scans, fringes in 66% baselines*||pols, mean SNR 120. **lots of technical problems, see logs**
VLBA: Hn	h	yes	c202b_FRINGE_RfAnt_Hn_LLRR_AllSrc_7mm.pdf No0154_h_7mm.pdf c202b_7mm_Hn.antrep	Participated in 100% scans (7mm only), fringes in 71% baselines*||pols, mean SNR 106.
VLBA: Sc	c	yes	c202b_FRINGE_RfAnt_Sc_LLRR_AllSrc_7mm.pdf No0154_c_7mm.pdf c202b_7mm_Sc.antrep	Participated in 100% scans (7mm only), fringes in 70% baselines*||pols, mean SNR 94.
KVN: Kt	t	yes	c202b_FRINGE_RfAnt_Kt_LLRR_AllSrc_3mm.pdf No0119_t_3mm.pdf No0162_t_3mm.pdf c202b_Kt_3mm.antrep	Participated in 98% scans (3mm only), fringes in 46% baselines*||pols, mean SNR 98.
KVN: Ku	u	yes	c202b_FRINGE_RfAnt_Ku_LLRR_AllSrc_3mm.pdf No0119_u_3mm.pdf No0162_u_3mm.pdf	Participated in 91% scans (3mm only), fringes in 45% baselines*||pols, mean SNR 96.

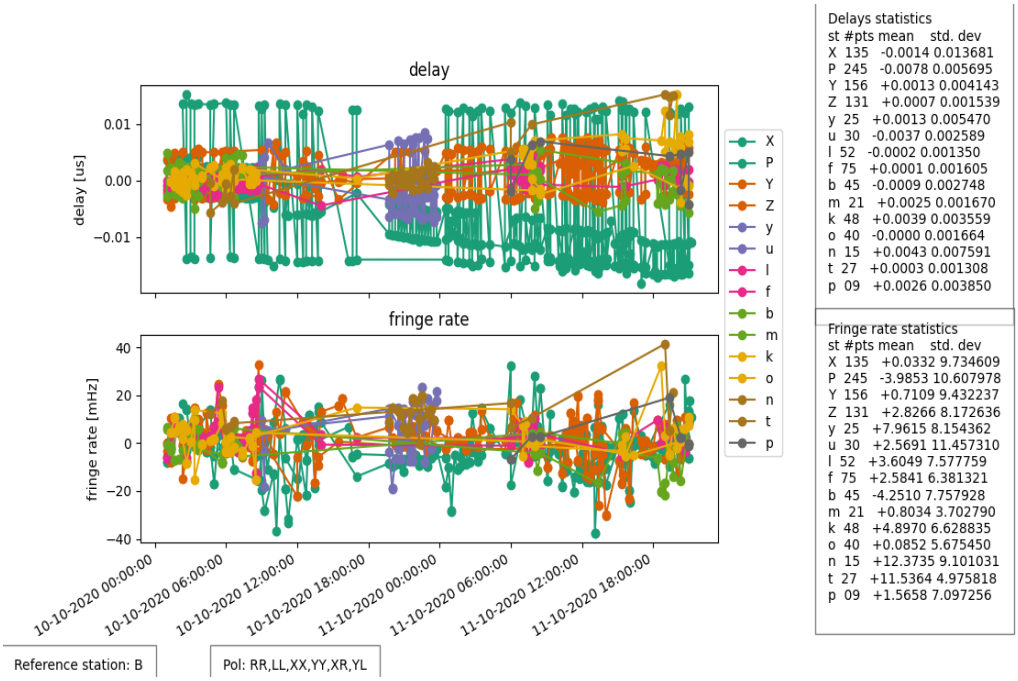
			c202b_Ku_3mm.antrep	
KVN: Ky	y	yes	c202b_FRINGE_RfAnt_Ky_LLRR_AllSrc_3mm.pdf No0117_y_3mm.pdf No0162_y_3mm.pdf c202b_Ky_3mm.antrep _____	Participated in 97% scans (3mm only), fringes in 47% baselines*||pols, mean SNR 99.

Notes

Post-Correlation checks

Residuals

Ef as reference (3mm):



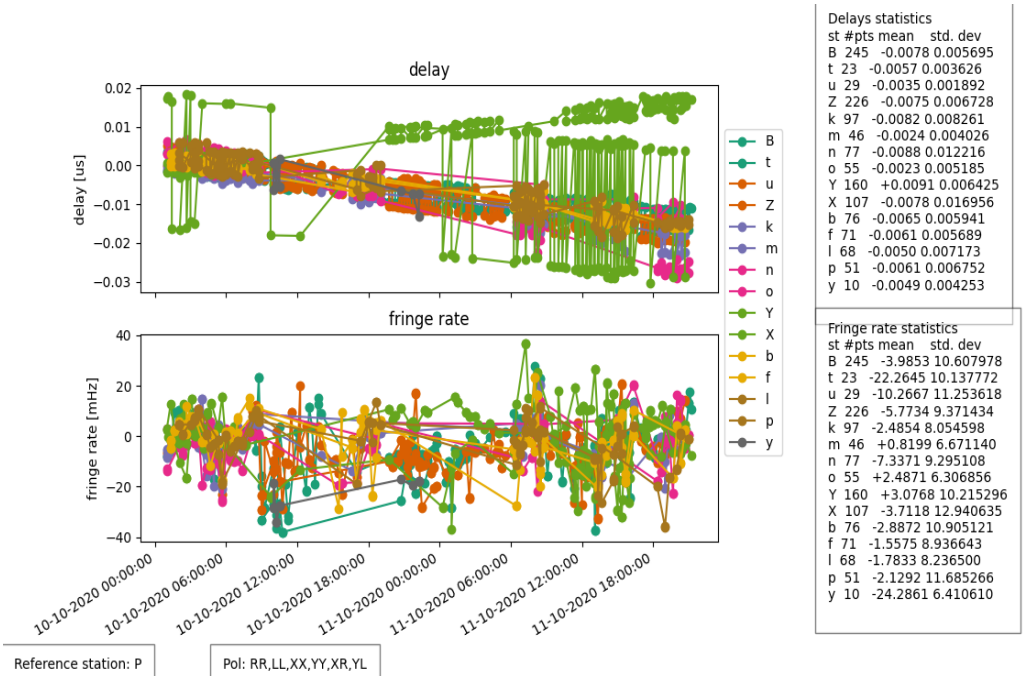
Delays statistics

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):



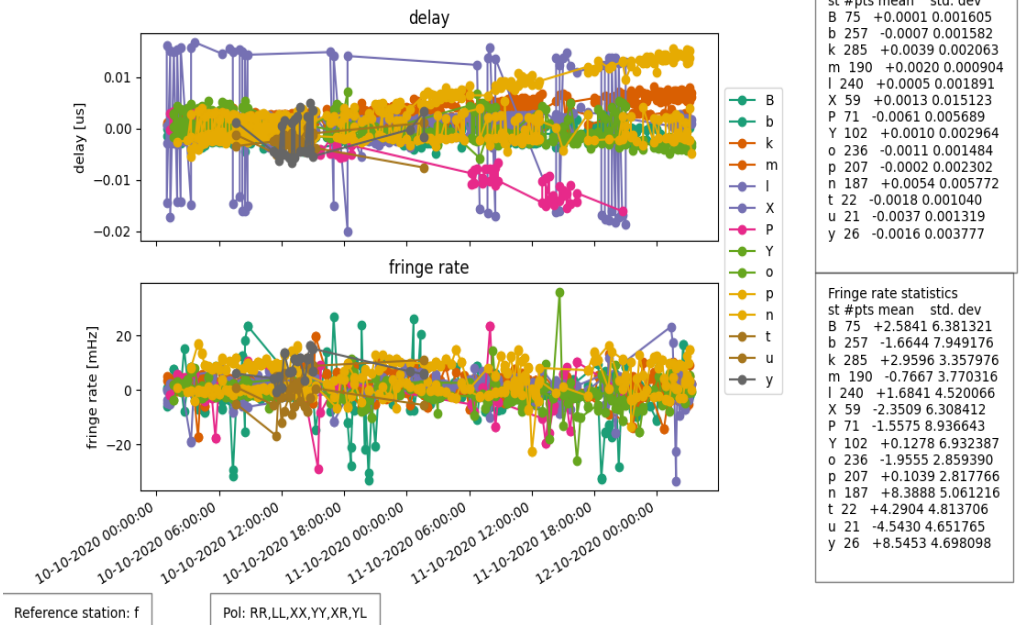
Delays statistics

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):



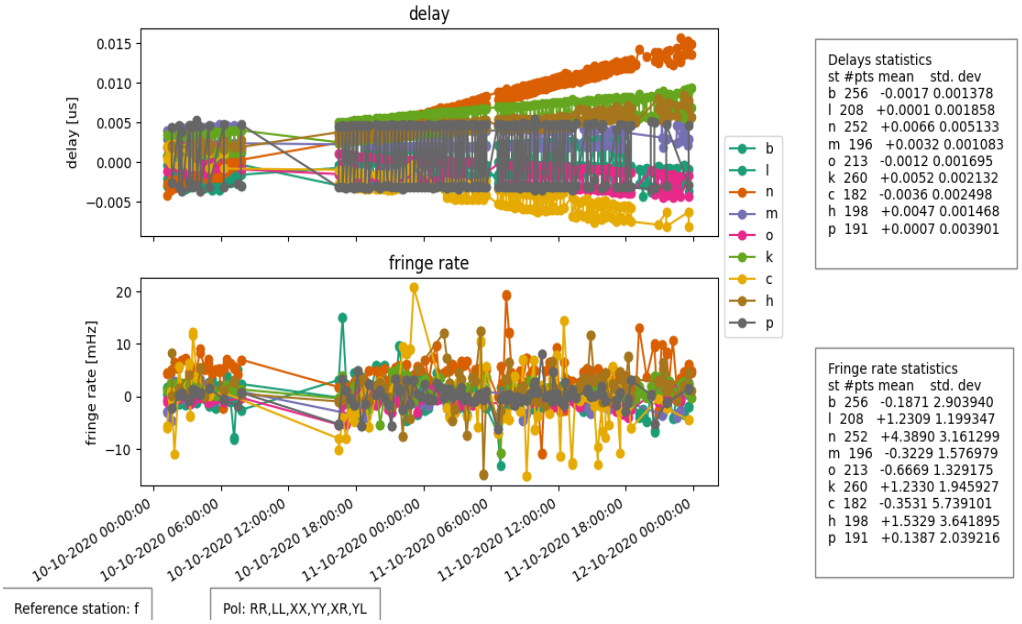
Delays statistics

st	#pts	mean	std. dev
B	75	+0.0001	0.001605
b	257	-0.0007	0.001582
k	285	+0.0039	0.002063
m	190	+0.0020	0.000904
l	240	+0.0005	0.001891
X	59	+0.0013	0.015123
P	71	-0.0061	0.005689
Y	102	+0.0010	0.002964
o	236	-0.0011	0.001484
p	207	-0.0002	0.002302
n	187	+0.0054	0.005772
t	22	-0.0018	0.001040
u	21	-0.0037	0.001319
y	26	-0.0016	0.003777

Fringe rate statistics

st	#pts	mean	std. dev
B	75	+2.5841	6.381321
b	257	-1.6644	7.949176
k	285	+2.9596	3.357976
m	190	-0.7667	3.770316
l	240	+1.6841	4.520066
X	59	-2.3509	6.308412
P	71	-1.5575	8.936643
Y	102	+0.1278	6.932387
o	236	-1.9555	2.859390
p	207	+0.1039	2.817766
n	187	+8.3888	5.061216
t	22	+4.2904	4.813706
u	21	-4.5430	4.651765
y	26	+8.5453	4.698098

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
```

mk016c.fits (3mm):

```
                                FD NL OV PT BR KP MK LA EF ON YS PV MH KY KU KT
c202b_001 No0001     BLLAC 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  .  .  .
c202b_002 No0002 1959+650 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  .  .  .
c202b_003 No0004     3C345 3mm_ddc .  .  .  .  .  .  .  .  .  .  .  .  .  o  28 o
c202b_004 No0005     BLLAC 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  .  .  .
c202b_005 No0006 1959+650 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  x  o
c202b_006 No0009     BLLAC 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  .  .  .
c202b_007 No0010 1959+650 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  x  o
c202b_008 No0012     BLLAC 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  .  .  .
c202b_009 No0013 1959+650 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  x  o
c202b_010 No0016     3C345 3mm_ddc .  .  .  .  .  .  .  .  .  .  .  .  .  20 o  o
c202b_011 No0017     BLLAC 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  .  .  .
c202b_012 No0018 1959+650 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o
c202b_013 No0020     BLLAC 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  .  .  .
c202b_014 No0021 1959+650 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o
c202b_015 No0023     BLLAC 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  .  .  .
c202b_016 No0024 1959+650 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o
c202b_017 No0027     3C345 3mm_ddc .  .  .  .  .  .  .  .  .  .  .  .  .  60 40 66
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c202b_018 No0028    BLLAC 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  .  .  .
c202b_019 No0029 1959+650 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o
c202b_020 No0031    BLLAC 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  .  .  .
c202b_021 No0032 1959+650 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o
c202b_022 No0034 0102+584 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  .  .  .
c202b_023 No0035 1959+650 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o
c202b_024 No0037    3C345 3mm_ddc .  .  .  .  .  .  .  .  .  .  .  .  .  60 06 53
c202b_025 No0038 0102+584 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  .  .  .
c202b_026 No0039 1959+650 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o
c202b_027 No0041 0102+584 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  .  .  .
c202b_028 No0042 1959+650 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  o  o  o
c202b_029 No0045 0102+584 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  .  .  .
c202b_030 No0046 1959+650 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  .  o  o  o  o
c202b_031 No0048    3C345 3mm_ddc .  .  .  .  .  .  .  .  .  .  .  .  .  60 60 53
c202b_032 No0049 0102+584 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  .  .  .
c202b_033 No0050 1959+650 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  .  o  o  o  o
c202b_034 No0052 0102+584 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  .  .  .
c202b_035 No0053 1959+650 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  .  o  o  o  o
c202b_036 No0055 0102+584 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  .  .  .
c202b_037 No0056 1959+650 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  .  o  o  o  o
c202b_038 No0059    3C345 3mm_ddc .  .  .  .  .  .  .  .  .  .  .  .  .  93 93 86
c202b_039 No0060 0102+584 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  .  .  .
c202b_040 No0061 1959+650 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  .  o  o  o  o
c202b_041 No0063 0102+584 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  .  .  .
c202b_042 No0064 1959+650 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  .  o  o  o  o
c202b_043 No0066 0102+584 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  o  o  .  .  .
c202b_044 No0067 1959+650 3mm_ddc o  o  o  o  o  o  o  o  o  o  o  .  o  o  o  o
c202b_046 No0070 0102+584 3mm_ddc o  o  o  o  o  o  88 o  o  o  o  o  o  .  .  .
c202b_047 No0071 1959+650 3mm_ddc o  o  o  o  o  o  x  o  o  o  o  .  o  o  o  o
c202b_048 No0073    BLLAC 3mm_ddc o  o  o  o  o  o  x  o  .  .  .  .  .  o  o  o
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mk016c.fits (7mm):

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                                FD NL OV PT BR KP MK LA HN SC
c202b_001 No0003 1959+650 7mm_ddc o  o  o  o  o  o  o  o  o  o
c202b_002 No0007 1959+650 7mm_ddc o  o  o  o  o  o  o  o  o  o
c202b_003 No0008    BLLAC 7mm_ddc o  o  o  o  o  o  o  o  o  o
c202b_004 No0011 1959+650 7mm_ddc o  o  o  o  o  o  o  o  o  o
c202b_005 No0014 1959+650 7mm_ddc o  o  o  o  o  o  o  o  o  o
c202b_006 No0015    BLLAC 7mm_ddc o  o  o  o  o  o  o  o  o  o
c202b_007 No0019 1959+650 7mm_ddc o  o  o  o  o  o  o  o  o  o
c202b_008 No0022 1959+650 7mm_ddc o  o  o  o  o  o  o  o  o  o
c202b_009 No0025 1959+650 7mm_ddc o  o  o  o  o  o  o  o  o  o
c202b_010 No0026    BLLAC 7mm_ddc o  o  o  o  o  o  o  o  o  o
c202b_011 No0030 1959+650 7mm_ddc o  o  o  o  o  o  o  o  o  o
c202b_012 No0033 1959+650 7mm_ddc o  o  o  o  o  o  o  o  o  o
c202b_013 No0036 1959+650 7mm_ddc o  o  o  o  o  o  o  o  o  o
c202b_014 No0040 1959+650 7mm_ddc o  o  o  o  o  o  o  o  o  o
c202b_015 No0043 1959+650 7mm_ddc o  o  o  o  o  o  o  o  o  o
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c202b_016 No0044 0102+584 7mm_ddc o  o  o  o  o  o  o  o  o  o
c202b_017 No0047 1959+650 7mm_ddc o  o  o  o  o  o  o  o  o  o
c202b_018 No0051 1959+650 7mm_ddc o  o  o  o  o  o  o  o  o  o
c202b_019 No0054 1959+650 7mm_ddc o  o  o  o  o  o  o  o  o  o
c202b_020 No0057 1959+650 7mm_ddc o  o  o  o  o  o  o  o  o  .
c202b_021 No0058 0102+584 7mm_ddc o  o  o  o  o  o  o  o  o  o
c202b_022 No0062 1959+650 7mm_ddc o  o  o  o  o  o  o  o  o  .
c202b_023 No0065 1959+650 7mm_ddc o  o  o  o  o  o  o  o  o  .
c202b_024 No0068 1959+650 7mm_ddc o  o  o  o  o  o  o  o  o  .
c202b_025 No0072 1959+650 7mm_ddc o  o  o  o  o  o  x  o  o  .
c202b_026 No0074    BLLAC 7mm_ddc o  o  o  o  o  o  x  o  o  .
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