C182A/MB010 Correlation Report

General information

- Consists of only one science project: **MB010**
- PI: BOCCARDI
- Targets: NGC315 etc.
- Session info: http://www3.mpifr-bonn.mpg.de/div/vlbi/globalmm/
- Station feedback: http://www3.mpifr-bonn.mpg.de/div/vlbi/globalmm/sessions/sep18/feedback_sep18.asc
- Text file with detailed antenna statistics: c182a.antrep

Current Status

correlation finished, data **released** on 13/03/2019.

Fringes

Station	Code	Fringes	Plots	Comments
Ef	B	**yes**	Fringe overview of all baselines (all of C182A) including this antenna in LL (left for each baseline) and RR (right for each baseline). Legend: white - scheduled, but no data, blue - no fringe, dark red/brown/green - fringes of different quality, bright red - false fringe (mostly for baselines to KVN, determined by having exremely large single-band delay, > 0.1us) c182a_SBD_RfAnt_Ef_LLRR_AllSrc.pdf Examples of fourfit fringe plots: c182a_No0063_0234+285_BX_LL.pdf, c182a_No0063_0234+285_BX_LR.pdf, c182a_No0063_0234+285_BX_RL.pdf, c182a_No0063_0234+285_BX_RR.pdf. c182a_No0063_0234+285_BY_RL.pdf, c182a_No0063_0234+285_BY_RR.pdf, no LL or LR fringes. c182a_No0063_0234+285_BZ_LL.pdf, c182a_No0063_0234+285_BZ_RR.pdf, no LR or RL fringes. c182a_No0063_0234+285_BP_LL.pdf, c182a_No0063_0234+285_BP_LR.pdf, c182a_No0063_0234+285_BP_RL.pdf, c182a_No0063_0234+285_BP_RR.pdf. c182a_No0063_0234+285_Bg_LL.pdf, c182a_No0063_0234+285_Bg_LR.pdf, c182a_No0063_0234+285_Bg_RL.pdf, c182a_No0063_0234+285_Bg_RR.pdf. c182a_No0063_0234+285_bB_LL.pdf, c182a_No0063_0234+285_bB_RR.pdf, no LR or RL fringes. c182a_No0063_0234+285_Bf_LL.pdf, c182a_No0063_0234+285_Bf_RR.pdf, no LR or RL fringes.	

Station	Code	Fringes	Plots	Comments
			c182a_No0063_0234+285_Bk_LL.pdf, c182a_No0063_0234+285_Bk_RR.pdf, no LR or RL fringes. c182a_No0063_0234+285_Bl_LL.pdf, c182a_No0063_0234+285_Bl_LR.pdf, c182a_No0063_0234+285_Bl_RR.pdf, no RL fringe. c182a_No0063_0234+285_Bo_LL.pdf, c182a_No0063_0234+285_Bo_RR.pdf, no LR or RL fringes. c182a_No0020_0234+285_Bt_LL.pdf, c182a_No0020_0234+285_Bt_LR.pdf, c182a_No0020_0234+285_Bt_RR.pdf, no RL fringe. c182a_No0020_0234+285_By_LL.pdf, c182a_No0020_0234+285_By_LR.pdf, no RL or RR fringes, Same for all antennas below unless otherwise noted.	
On	X	**yes**	c182a_SBD_RfAnt_On_LLRR_AllSrc.pdf c182a_No0063_0234+285_BX_LL.pdf, c182a_No0063_0234+285_BX_LR.pdf, c182a_No0063_0234+285_BX_RL.pdf, c182a_No0063_0234+285_BX_RR.pdf.	
Ys	Y	**yes**	c182a_SBD_RfAnt_Ys_LLRR_AllSrc.pdf c182a_No0063_0234+285_BY_RL.pdf, c182a_No0063_0234+285_BY_RR.pdf, no LL or LR fringes.	An amplifier burned out just before the beginning of the session, fixed during the fringe test, but after that the antenna consistently produces fringes only to RCP, while in its typical configuration in should have LCP only, duplicated to both channels. But in this session it appears to have RCP only.
Mh	Z	**yes**	c182a_SBD_RfAnt_Mh_LLRR_AllSrc.pdf c182a_No0063_0234+285_BZ_LL.pdf, c182a_No0063_0234+285_BZ_RR.pdf, no LR or RL fringes.	Swapped polarizations, fixed in correlation, data is not affected.
Pv	P	**yes**	c182a_SBD_RfAnt_Pv_LLRR_AllSrc.pdf c182a_No0063_0234+285_BP_LL.pdf, c182a_No0063_0234+285_BP_LR.pdf, c182a_No0063_0234+285_BP_RL.pdf, c182a_No0063_0234+285_BP_RR.pdf. c182a_No0001_J0102+58_yP_LL.pdf, c182a_No0001_J0102+58_yP_LR.pdf, c182a_No0001_J0102+58_yP_RL.pdf, c182a_No0001_J0102+58_yP_RR.pdf.	

Station	Code	Fringes	Plots	Comments
			c182a_No0014_0234+285_tP_LL.pdf, c182a_No0014_0234+285_tP_LR.pdf, c182a_No0014_0234+285_tP_RL.pdf, c182a_No0014_0234+285_tP_RR.pdf.	
GLT: Gl	g	yes	c182a_SBD_RfAnt_Gl_LLRR_AllSrc.pdf c182a_No0063_0234+285_Bg_LL.pdf, c182a_No0063_0234+285_Bg_LR.pdf, c182a_No0063_0234+285_Bg_RL.pdf, c182a_No0063_0234+285_Bg_RR.pdf.	The GLT was observing in an unknown polarization configuration, linear or some elliptic instead of the circular due to a polarizer misalignment. Unless there is a way to recontruct the proper circular polarization, this station must be flagged or used only for the total power measurement.
VLBA: Br	b	yes	c182a_SBD_RfAnt_Br_LLRR_AllSrc.pdf c182a_No0063_0234+285_bB_LL.pdf, c182a_No0063_0234+285_bB_RR.pdf, no LR or RL fringes.	All VLBA antennas suffer from the same problem, diminishing the effective observing time in many scans by 30-50%.
VLBA: Fd	f	yes	c182a_SBD_RfAnt_Fd_LLRR_AllSrc.pdf c182a_No0063_0234+285_Bf_LL.pdf, c182a_No0063_0234+285_Bf_RR.pdf, no LR or RL fringes.	All VLBA antennas suffer from the same problem, diminishing the effective observing time in many scans by 30-50%.
VLBA: Kp	k	yes	c182a_SBD_RfAnt_Kp_LLRR_AllSrc.pdf c182a_No0063_0234+285_Bk_LL.pdf, c182a_No0063_0234+285_Bk_RR.pdf, no LR or RL fringes. c182a_No0118_3C84_km_LL.pdf, c182a_No0118_3C84_km_RR.pdf, no LR or RL fringes.	All VLBA antennas suffer from the same problem, diminishing the effective observing time in many scans by 30-50%.
VLBA: La	l	yes	c182a_SBD_RfAnt_La_LLRR_AllSrc.pdf c182a_No0063_0234+285_Bl_LL.pdf, c182a_No0063_0234+285_Bl_LR.pdf, c182a_No0063_0234+285_Bl_RR.pdf, no RL fringe.	All VLBA antennas suffer from the same problem, diminishing the effective observing time in many scans by 30-50%.
VLBA: Mk	m	yes	c182a_SBD_RfAnt_Mk_LLRR_AllSrc.pdf c182a_No0118_3C84_km_LL.pdf, c182a_No0118_3C84_km_RR.pdf, no LR or RL fringes. c182a_No0118_3C84_mo_LL.pdf, c182a_No0118_3C84_mo_RR.pdf, no LR or RL fringes.	All VLBA antennas suffer from the same problem, diminishing the effective observing time in many scans by 30-50%. Very few fringes
VLBA: Nl	n	no	c182a_SBD_RfAnt_Nl_LLRR_AllSrc.pdf	All the data for this part of the session is missing, probably recorded on a different Mk5 module and lost in transit. All attempts

Station	Code	Fringes	Plots	Comments
			_____	to track down the fate of this portion of the data failed.
VLBA: Ov	o	**yes**	c182a_SBD_RfAnt_Ov_LLRR_AllSrc.pdf c182a_No0063_0234+285_Bo_LL.pdf, c182a_No0063_0234+285_Bo_RR.pdf, no LR or RL fringes. c182a_No0118_3C84_mo_LL.pdf, c182a_No0118_3C84_mo_RR.pdf, no LR or RL fringes.	All VLBA antennas suffer from the same problem, diminishing the effective observing time in many scans by 30-50%.
VLBA: Pt	p	**no**	c182a_SBD_RfAnt_Pt_LLRR_AllSrc.pdf _____	All Pt data for this whole session lost due to a malfunctioning Mk5 module. We attempted to save it, but the data has proven to be unrecoverable. The antenna was included into the production correlation of the first part of this experiment, but this should be ignored and **all the baselines for this antenna must be flagged.**.
KVN: Kt	t	**yes**	c182a_SBD_RfAnt_Kt_LLRR_AllSrc.pdf c182a_No0020_0234+285_Bt_LL.pdf, c182a_No0020_0234+285_Bt_LR.pdf, c182a_No0020_0234+285_Bt_RR.pdf, no RL fringe. c182a_No0014_0234+285_tP_LL.pdf, c182a_No0014_0234+285_tP_LR.pdf, c182a_No0014_0234+285_tP_RL.pdf, c182a_No0014_0234+285_tP_RR.pdf. c182a_No0118_3C84_tu_LL.pdf, c182a_No0118_3C84_tu_LR.pdf, c182a_No0118_3C84_tu_RL.pdf, c182a_No0118_3C84_tu_RR.pdf.	very few real fringes (although fourfit finds a false fringe for many baselines)
KVN: Ku	u	**yes**	c182a_SBD_RfAnt_Ku_LLRR_AllSrc.pdf c182a_No0118_3C84_tu_LL.pdf, c182a_No0118_3C84_tu_LR.pdf, c182a_No0118_3C84_tu_RL.pdf, c182a_No0118_3C84_tu_RR.pdf. c182a_No0118_3C84_uy_LL.pdf, c182a_No0118_3C84_uy_LR.pdf, c182a_No0118_3C84_uy_RL.pdf, c182a_No0118_3C84_uy_RR.pdf.	very few real fringes (although fourfit finds a false fringe for many baselines)
KVN: Ky	y	**yes**	c182a_SBD_RfAnt_Ky_LLRR_AllSrc.pdf 182a_No0020_0234+285_By_LL.pdf, c182a_No0020_0234+285_By_LR.pdf, no RL or RR fringes,	very few real fringes (although fourfit finds a false fringe for many baselines)

Station	Code	Fringes	Plots	Comments
			c182a_No0001_J0102+58_yP_LL.pdf, c182a_No0001_J0102+58_yP_LR.pdf, c182a_No0001_J0102+58_yP_RL.pdf, c182a_No0001_J0102+58_yP_RR.pdf. c182a_No0118_3C84_uy_LL.pdf, c182a_No0118_3C84_uy_LR.pdf, c182a_No0118_3C84_uy_RL.pdf, c182a_No0118_3C84_uy_RR.pdf.	

Notes

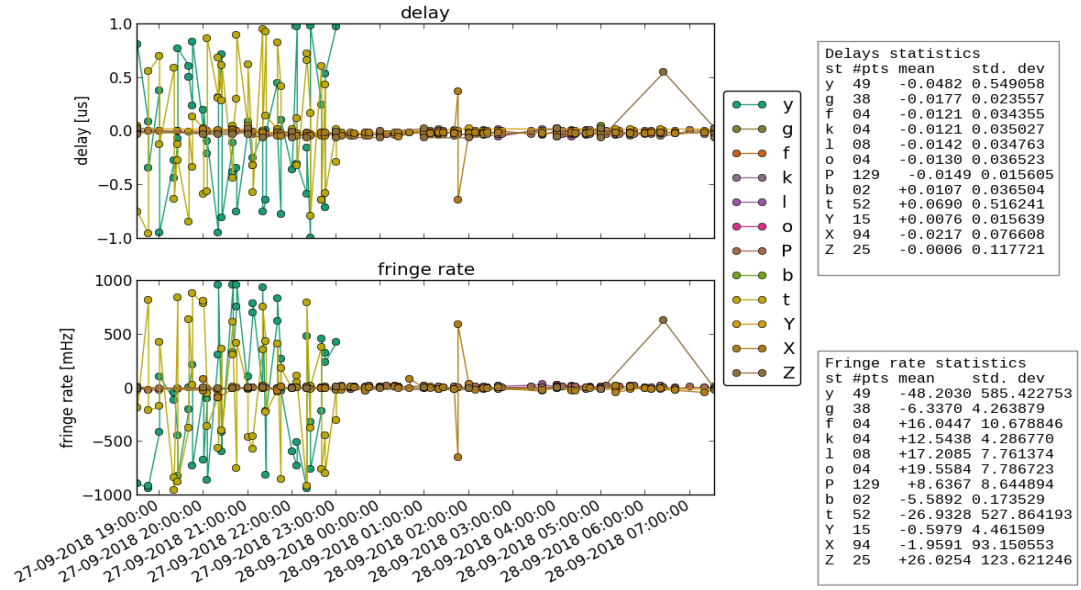
All VLBA antennas are affected by the same problem (probably originating in the control software) during the whole session: for a significant portion of scans the recording starts several seconds or even few minutes late compared with the schedule. This results in effective reduction of observing time by a factor of 30-50%.

For some reason fourfit finds a fringe for every baseline including a KVN antenna. We are stiil looking how to avoid this problem. Meanwhile in the overview tables above the value of single-band delay is used to tell the difference between the considerably fewer real fringes and false positives.

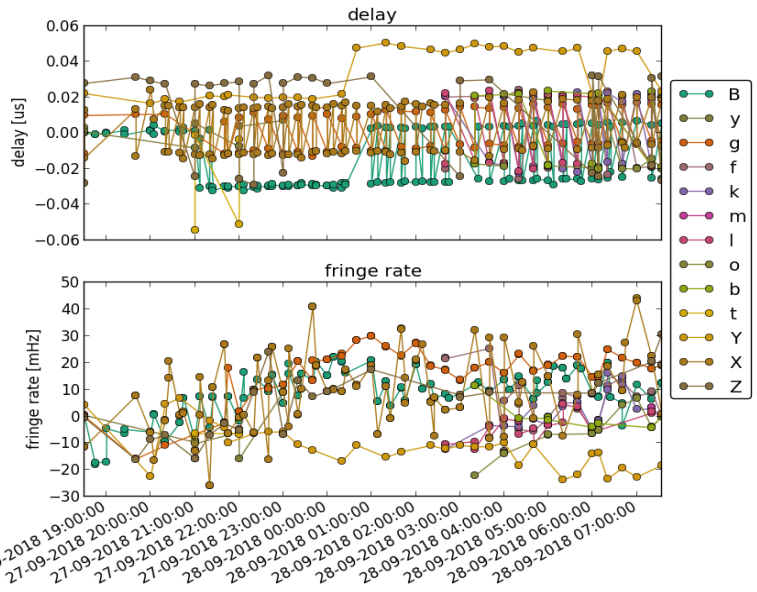
Post-Correlation checks

Residuals

EF (the outliers are due to multiple false fringes in KVN antennas detected by fourfit):



PV:




```
Delays statistics
st #pts mean    std. dev
B  129   -0.0149 0.015605
y  07    +0.0005 0.005702
g  69    +0.0022 0.010726
f  27    +0.0011 0.020570
k  27    +0.0015 0.019980
m  02    -0.0004 0.018838
l  25    +0.0024 0.019757
o  14    -0.0047 0.018773
b  13    +0.0032 0.020155
t  04    -0.0276 0.025322
Y  32    +0.0337 0.013799
X  113    +0.0026 0.013613
Z  31    +0.0121 0.025466
```

```
Fringe rate statistics
st #pts mean    std. dev
B  129    +8.6367 8.644894
y  07    -4.6312 7.758035
g  69    +16.9590 9.024604
f  27    +5.5191 9.118406
k  27    +1.2438 6.421145
m  02    +3.3826 0.083254
l  25    -3.6774 4.728325
o  14    -5.7185 7.251002
b  13    -0.0894 5.225535
t  04    -6.6048 0.254895
Y  32    -11.6378 7.806395
X  113    +9.3277 13.996639
Z  31    +4.8496 12.125392
```

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
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mb010.fits:

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                                  EF GL ON YS PV MH KY KU KT FD NL OV PT BR KP LA MK
c182a_001 No0001 J0102+58 3mm_RDBE o  o  o  o  o  o  o  x  o  .  .  .  .  .  .  .  .
c182a_002 No0002  NGC0315 3mm_RDBE o  o  o  o  80 o  o  x  o  .  .  .  .  .  .  .  .
c182a_003 No0003  NGC0315 3mm_RDBE o  o  o  o  o  o  o  x  o  .  .  .  .  .  .  .  .
c182a_004 No0004 J0152+22 3mm_RDBE o  o  o  o  o  o  o  x  o  .  .  .  .  .  .  .  .
c182a_005 No0005  NGC0315 3mm_RDBE o  o  o  o  o  o  o  x  o  .  .  .  .  .  .  .  .
c182a_006 No0006 J0152+22 3mm_RDBE o  o  o  o  o  o  o  x  o  .  .  .  .  .  .  .  .
c182a_007 No0007  NGC0315 3mm_RDBE o  o  o  o  o  o  o  x  o  .  .  .  .  .  .  .  .
c182a_008 No0008 J0152+22 3mm_RDBE o  o  o  o  o  o  o  x  o  .  .  .  .  .  .  .  .
c182a_009 No0009  NGC0315 3mm_RDBE o  o  o  o  o  o  o  x  o  .  .  .  .  .  .  .  .
c182a_010 No0010 J0152+22 3mm_RDBE o  o  o  o  o  o  o  x  o  .  .  .  .  .  .  .  .
c182a_011 No0011  NGC0315 3mm_RDBE o  o  o  o  o  o  o  x  o  .  .  .  .  .  .  .  .
c182a_012 No0012 J0152+22 3mm_RDBE o  o  o  o  o  o  o  x  o  .  .  .  .  .  .  .  .
c182a_013 No0013  NGC0315 3mm_RDBE o  o  o  o  o  o  o  x  o  .  .  .  .  .  .  .  .
c182a_014 No0014 0234+285 3mm_RDBE o  o  o  o  o  o  o  x  o  .  .  .  .  .  .  .  .
c182a_015 No0015  NGC0315 3mm_RDBE o  o  o  o  o  o  o  x  o  .  .  .  .  .  .  .  .
c182a_016 No0016 J0152+22 3mm_RDBE o  o  o  o  o  o  o  x  o  .  .  .  .  .  .  .  .
c182a_017 No0017  NGC0315 3mm_RDBE o  o  o  o  o  o  o  x  o  .  .  .  .  .  .  .  .
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c182a_018 No0018 J0152+22 3mm_RDBE o  o  o  o  o  o  o  x  o  .  .  .  .  .  .  .  .
c182a_019 No0019  NGC0315 3mm_RDBE o  o  o  o  o  o  o  x  o  .  .  .  .  .  .  .  .
c182a_020 No0020 0234+285 3mm_RDBE o  o  o  o  o  o  o  x  o  .  .  .  .  .  .  .  .
c182a_021 No0021  NGC0315 3mm_RDBE o  o  o  o  o  o  o  x  o  .  .  .  .  .  .  .  .
c182a_022 No0022 J0152+22 3mm_RDBE o  o  o  o  o  o  o  x  o  .  .  .  .  .  .  .  .
c182a_023 No0023  NGC0315 3mm_RDBE o  o  o  o  o  o  o  x  o  .  .  .  .  .  .  .  .
c182a_024 No0024 J0152+22 3mm_RDBE o  o  o  o  o  o  o  x  o  .  .  .  .  .  .  .  .
c182a_025 No0025  NGC0315 3mm_RDBE o  o  o  o  o  o  o  x  o  .  .  .  .  .  .  .  .
c182a_026 No0026 0234+285 3mm_RDBE o  o  o  o  o  o  o  x  o  .  .  .  .  .  .  .  .
c182a_027 No0027  NGC0315 3mm_RDBE o  o  o  o  o  o  .  .  .  .  .  .  .  .  .  .  .
c182a_028 No0028 J0152+22 3mm_RDBE o  o  o  o  o  o  .  .  .  .  .  .  .  .  .  .  .
c182a_029 No0029  NGC0315 3mm_RDBE o  o  o  o  o  o  .  .  .  .  .  .  .  .  .  .  .
c182a_030 No0030 J0152+22 3mm_RDBE o  o  o  o  o  o  .  .  .  .  .  .  .  .  .  .  .
c182a_031 No0031  NGC0315 3mm_RDBE o  o  o  o  o  o  .  .  .  .  .  .  .  .  .  .  .
c182a_032 No0032 0234+285 3mm_RDBE o  o  o  o  o  o  .  .  .  .  .  .  .  .  .  .  .
c182a_033 No0033  NGC0315 3mm_RDBE o  o  o  o  o  o  .  .  .  .  .  .  .  .  .  .  .
c182a_034 No0034 J0152+22 3mm_RDBE o  o  o  o  o  o  .  .  .  .  .  .  .  .  .  .  .
c182a_035 No0035  NGC0315 3mm_RDBE o  o  o  o  o  o  .  .  .  .  .  .  .  .  .  .  .
c182a_036 No0036 J0152+22 3mm_RDBE o  o  o  o  o  o  .  .  .  .  .  .  .  .  .  .  .
c182a_037 No0037  NGC0315 3mm_RDBE o  o  o  o  o  o  .  .  .  .  .  .  .  .  .  .  .
c182a_038 No0038 0234+285 3mm_RDBE o  o  o  o  o  o  .  .  .  .  .  .  .  .  .  .  .
c182a_039 No0039  NGC0315 3mm_RDBE o  o  o  o  93 o  .  .  .  .  .  .  .  .  .  .  .
c182a_040 No0040 J0152+22 3mm_RDBE o  o  o  o  o  o  .  .  .  .  .  .  .  .  .  .  .
c182a_041 No0041  NGC0315 3mm_RDBE o  o  o  o  o  o  .  .  .  .  .  .  .  .  .  .  .
c182a_042 No0042 J0152+22 3mm_RDBE o  o  o  o  o  o  .  .  .  .  .  .  .  .  .  .  .
c182a_043 No0043  NGC0315 3mm_RDBE o  o  o  o  o  o  .  .  .  .  .  .  .  .  .  .  .
c182a_044 No0044 0234+285 3mm_RDBE o  o  o  o  o  o  .  .  .  .  .  .  .  .  .  .  .
c182a_045 No0045  NGC0315 3mm_RDBE o  o  o  o  o  o  .  .  .  .  .  .  .  .  .  .  .
c182a_046 No0046 J0152+22 3mm_RDBE o  o  o  o  o  o  .  .  .  .  .  .  .  .  .  .  .
c182a_047 No0047  NGC0315 3mm_RDBE o  o  o  o  o  o  .  .  .  .  .  .  .  .  .  .  .
c182a_048 No0048  3C454.3 3mm_RDBE .  .  .  .  .  .  .  .  .  46 x  40 46 40 46 46 .
c182a_049 No0049 J0152+22 3mm_RDBE o  o  o  o  o  o  .  .  .  o  x  o  o  o  o  o  .
c182a_050 No0050  NGC0315 3mm_RDBE o  o  o  o  o  o  .  .  .  o  x  o  96 o  o  o  .
c182a_051 No0051 J0102+58 3mm_RDBE o  o  o  o  o  o  .  .  .  x  x  x  55 x  x  x  .
c182a_052 No0052  NGC0315 3mm_RDBE o  o  o  o  o  o  .  .  .  80 x  80 36 80 80 80 .
c182a_053 No0053 J0152+22 3mm_RDBE o  o  o  o  o  o  .  .  .  11 x  o  33 o  11 11 .
c182a_054 No0054  NGC0315 3mm_RDBE o  o  o  o  o  o  .  .  .  o  x  o  56 o  o  o  .
c182a_055 No0055 J0152+22 3mm_RDBE o  o  o  o  o  o  .  .  .  11 x  11 55 11 11 11 .
c182a_056 No0056  NGC0315 3mm_RDBE o  o  o  o  o  o  .  .  .  o  x  o  32 o  o  o  .
c182a_057 No0057 0234+285 3mm_RDBE o  o  o  o  o  o  .  .  .  53 x  46 60 46 53 53 .
c182a_058 No0058  NGC0315 3mm_RDBE o  o  o  o  o  o  .  .  .  o  x  o  33 o  o  o  .
c182a_059 No0059 J0152+22 3mm_RDBE o  o  o  o  o  o  .  .  .  11 x  22 33 22 11 11 .
c182a_060 No0060  NGC0315 3mm_RDBE o  o  o  o  o  o  .  .  .  o  x  o  24 o  o  o  .
c182a_061 No0061 J0152+22 3mm_RDBE o  o  o  o  o  o  .  .  .  11 x  22 11 22 11 11 .
c182a_062 No0062  NGC0315 3mm_RDBE o  o  o  o  o  o  .  .  .  o  x  o  o  o  o  o  x
c182a_063 No0063 0234+285 3mm_RDBE o  o  o  o  o  o  .  .  .  53 x  46 53 46 53 53 .
c182a_064 No0064  NGC0315 3mm_RDBE o  o  o  o  o  o  .  .  .  o  x  o  o  o  o  o  .
c182a_065 No0065 J0152+22 3mm_RDBE o  o  o  o  o  o  .  .  .  22 x  11 22 11 22 22 .
c182a_066 No0066  NGC0315 3mm_RDBE o  o  o  o  o  o  .  .  .  o  x  o  o  o  o  o  o
c182a_067 No0067 J0152+22 3mm_RDBE o  o  o  o  o  o  .  .  .  22 x  11 22 11 22 22 11
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c182a_068 No0068  NGC0315 3mm_RDBE o  o  o  o  o  o  .  .  .  o  x  o  o  o  o  o  o
c182a_069 No0069     3C84 3mm_RDBE o  o  o  o  o  o  .  .  .  46 x  46 46 46 46 46 .
c182a_070 No0070     3C84 3mm_RDBE o  o  o  o  o  o  .  .  .  66 x  66 66 66 66 66 .
c182a_071 No0071 J0152+22 3mm_RDBE o  o  o  o  o  o  .  .  .  22 x  22 22 22 22 22 22
c182a_072 No0072  NGC0315 3mm_RDBE o  o  o  o  o  o  .  .  .  o  x  o  o  o  o  o  o
c182a_073 No0073 J0152+22 3mm_RDBE o  o  o  o  o  o  .  .  .  22 x  22 22 22 22 22 22
c182a_074 No0074  NGC0315 3mm_RDBE o  o  o  o  o  o  .  .  .  o  x  o  o  o  o  o  o
c182a_075 No0075 J0152+22 3mm_RDBE o  o  o  o  o  o  .  .  .  22 x  22 22 22 22 22 22
c182a_076 No0076  NGC0315 3mm_RDBE o  o  o  o  o  o  .  .  .  o  x  o  o  o  o  o  o
c182a_077 No0077 0234+285 3mm_RDBE o  o  o  o  o  o  .  .  .  53 x  53 53 53 53 53 53
c182a_078 No0078     3C84 3mm_RDBE o  o  o  o  o  o  .  .  .  53 x  53 53 53 53 53 53
c182a_079 No0079 J0152+22 3mm_RDBE .  .  .  .  .  .  .  .  .  22 x  22 22 22 22 22 22
c182a_080 No0080  NGC0315 3mm_RDBE .  .  .  .  .  .  .  .  .  o  x  o  o  o  o  o  o
c182a_081 No0081 J0152+22 3mm_RDBE .  .  .  .  .  .  .  .  .  o  x  o  o  o  o  o  o
c182a_082 No0082  NGC0315 3mm_RDBE .  .  .  .  .  .  .  .  .  o  x  o  o  o  o  o  o
c182a_083 No0083 J0152+22 3mm_RDBE .  .  .  .  .  .  .  .  .  88 x  o  88 o  88 88 o
c182a_084 No0084  NGC0315 3mm_RDBE .  .  .  .  .  .  .  .  .  o  x  o  x  o  o  o  o
c182a_085 No0085 J0152+22 3mm_RDBE .  .  .  .  .  .  .  .  .  88 x  o  x  o  88 88 o
c182a_086 No0086  NGC0315 3mm_RDBE .  .  .  .  .  .  .  .  .  o  x  o  x  o  o  o  o
c182a_087 No0087 0234+285 3mm_RDBE .  .  .  .  .  .  .  .  .  93 x  93 x  93 93 93 93
c182a_088 No0088  NGC0315 3mm_RDBE .  .  .  .  .  .  .  .  .  o  x  o  x  o  o  o  o
c182a_089 No0089 J0152+22 3mm_RDBE .  .  .  .  .  .  .  .  .  66 x  o  x  o  66 66 o
c182a_090 No0090  NGC0315 3mm_RDBE .  .  .  .  .  .  .  .  .  o  x  o  x  o  o  o  o
c182a_091 No0091 J0152+22 3mm_RDBE .  .  .  .  .  .  .  .  .  88 x  88 x  88 88 88 88
c182a_092 No0092  NGC0315 3mm_RDBE .  .  .  .  .  .  o  81 o  o  x  o  x  o  o  o  o
c182a_093 No0093 0234+285 3mm_RDBE .  .  .  .  .  .  .  .  .  93 x  93 x  93 93 93 93
c182a_094 No0094  NGC0315 3mm_RDBE .  .  .  .  .  .  o  o  o  o  x  o  x  o  o  o  o
c182a_095 No0095 J0152+22 3mm_RDBE .  .  .  .  .  .  44 55 .  66 x  66 x  66 66 66 66
c182a_096 No0096  NGC0315 3mm_RDBE .  .  .  .  .  .  o  o  o  o  x  o  x  o  o  o  o
c182a_097 No0097 J0152+22 3mm_RDBE .  .  .  .  .  .  66 77 77 88 x  88 x  88 88 88 88
c182a_098 No0098  NGC0315 3mm_RDBE .  .  .  .  .  .  o  o  o  o  x  o  x  o  o  o  o
c182a_099 No0099 0234+285 3mm_RDBE .  .  .  .  .  .  o  o  o  93 x  93 x  93 93 93 93
c182a_100 No0100  NGC0315 3mm_RDBE .  .  .  .  .  .  o  o  o  o  x  o  x  o  o  o  o
c182a_101 No0101 J0152+22 3mm_RDBE .  .  .  .  .  .  44 55 55 66 x  66 x  66 66 66 66
c182a_102 No0102  NGC0315 3mm_RDBE .  .  .  .  .  .  o  o  o  o  x  o  x  o  o  o  o
c182a_103 No0103 J0152+22 3mm_RDBE .  .  .  .  .  .  55 66 x  88 x  88 x  88 88 88 88
c182a_104 No0104  NGC0315 3mm_RDBE .  .  .  .  .  .  o  o  o  o  x  o  x  o  o  o  o
c182a_105 No0105 0234+285 3mm_RDBE .  .  .  .  .  .  o  o  o  93 x  93 x  93 93 93 93
c182a_106 No0106  NGC0315 3mm_RDBE .  .  .  .  .  .  o  o  o  o  x  o  x  o  o  o  o
c182a_107 No0107 J0152+22 3mm_RDBE .  .  .  .  .  .  44 44 55 66 x  66 x  66 66 66 66
c182a_108 No0108  NGC0315 3mm_RDBE .  .  .  .  .  .  o  o  o  o  x  o  x  o  o  o  o
c182a_109 No0109 J0152+22 3mm_RDBE .  .  .  .  .  .  66 66 66 88 x  88 x  88 88 88 88
c182a_110 No0110  NGC0315 3mm_RDBE .  .  .  .  .  .  o  o  o  o  x  o  x  o  o  o  o
c182a_111 No0111 0234+285 3mm_RDBE .  .  .  .  .  .  o  o  o  93 x  93 x  93 93 93 93
c182a_112 No0112  NGC0315 3mm_RDBE .  .  .  .  .  .  o  o  o  o  x  o  x  o  o  o  o
c182a_113 No0113 J0152+22 3mm_RDBE .  .  .  .  .  .  x  x  55 66 x  66 x  66 66 66 66
c182a_114 No0114  NGC0315 3mm_RDBE .  .  .  .  .  .  o  o  o  o  x  o  x  o  o  o  o
c182a_115 No0115 J0152+22 3mm_RDBE .  .  .  .  .  .  66 66 11 88 x  88 x  88 88 88 88
c182a_116 No0116  NGC0315 3mm_RDBE .  .  .  .  .  .  o  o  o  o  x  o  x  o  o  o  o
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c182a_117 No0117 0234+285 3mm_RDBE .  .  .  .  .  .  o  o  o  93 x  93 x  93 93 93 93
c182a_118 No0118     3C84 3mm_RDBE .  .  .  .  .  .  93 o  o  o  x  o  x  o  o  o  o
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