C181F / MJ001B Correlation Report

General information

- Consists of only one subproject: MJ001B.
- Session info: http://www3.mpifr-bonn.mpg.de/div/vlbi/globalmm/
- Station feedback: http://www3.mpifr-bonn.mpg.de/div/vlbi/globalmm/sessions/apr18/feedback_apr18.asc
- GBT calibration info (Tsys files for download) and other related information for this session can be found here: https://safe.nrao.edu/wiki/bin/view/GB/Observing/WbandVLBACal/C181
- *Special processing* was applied to all data in order to correlate mismatching frequency setups of ALMA and other GMVA stations. See details here.

Current Status

Correlation finished, data **released** on 10/12/2018.

A **second** data release, with a problem, spotted in the original release, corrected, was made on 31/01/2019.

A **third** data release, rerunning PolConvert with the latest (25.06.2019) ALMA QA2 release, was made on 16/09/2019.

Fringes

Station	Code	Fringes	Plots	Comments
VLBA: Br	b	**yes**	Fringe overview of all baselines of this antenna 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. c181f_FRINGE_RfAnt_Br_LLRR_AllSrc.pdf Examples of fourfit fringe plots: c181f_No0002_3C279_bp_LL.pdf, c181f_No0002_3C279_bp_LR.pdf, c181f_No0002_3C279_bp_RL.pdf, c181f_No0002_3C279_bp_RR.pdf c181f_No0042_1921-293_Ab_LL.pdf, c181f_No0042_1921-293_Ab_LR.pdf, c181f_No0042_1921-293_Ab_RL.pdf, c181f_No0042_1921-293_Ab_RR.pdf Same for all antennas below unless otherwise noted.	
VLBA: Fd	f	**yes**	c181f_FRINGE_RfAnt_Fd_LLRR_AllSrc.pdf c181f_No0002_3C279_fp_LL.pdf, c181f_No0002_3C279_fp_LR.pdf, c181f_No0002_3C279_fp_RL.pdf, c181f_No0002_3C279_fp_RR.pdf c181f_No0042_1921-293_Af_LL.pdf, c181f_No0042_1921-293_Af_LR.pdf, c181f_No0042_1921-293_Af_RL.pdf, c181f_No0042_1921-293_Af_RR.pdf	
VLBA: Kp	k	**yes**	c181f_FRINGE_RfAnt_Kp_LLRR_AllSrc.pdf	

Station	Code	Fringes	Plots	Comments
			c181f_No0042_1921-293_Ak_LL.pdf, c181f_No0042_1921-293_Ak_LR.pdf, c181f_No0042_1921-293_Ak_RL.pdf, c181f_No0042_1921-293_Ak_RR.pdf	
VLBA: La	l	yes	c181f_FRINGE_RfAnt_La_LLRR_AllSrc.pdf c181f_No0002_3C279_lp_LL.pdf, c181f_No0002_3C279_lp_LR.pdf, c181f_No0002_3C279_lp_RL.pdf, c181f_No0002_3C279_lp_RR.pdf c181f_No0042_1921-293_Al_LL.pdf, c181f_No0042_1921-293_Al_LR.pdf, c181f_No0042_1921-293_Al_RL.pdf, c181f_No0042_1921-293_Al_RR.pdf	
VLBA: Mk	m	yes	c181f_FRINGE_RfAnt_Mk_LLRR_AllSrc.pdf c181f_No0002_3C279_mp_LL.pdf, c181f_No0002_3C279_mp_LR.pdf, c181f_No0002_3C279_mp_RL.pdf, c181f_No0002_3C279_mp_RR.pdf c181f_No0042_1921-293_Am_LL.pdf, c181f_No0042_1921-293_Am_LR.pdf, c181f_No0042_1921-293_Am_RL.pdf, c181f_No0042_1921-293_Am_RR.pdf	
VLBA: Nl	n	yes	c181f_FRINGE_RfAnt_Nl_LLRR_AllSrc.pdf c181f_No0002_3C279_np_LL.pdf, c181f_No0002_3C279_np_LR.pdf, c181f_No0002_3C279_np_RL.pdf, c181f_No0002_3C279_np_RR.pdf c181f_No0042_1921-293_An_LL.pdf, c181f_No0042_1921-293_An_LR.pdf, c181f_No0042_1921-293_An_RL.pdf, c181f_No0042_1921-293_An_RR.pdf	
VLBA: Ov	o	yes	c181f_FRINGE_RfAnt_Ov_LLRR_AllSrc.pdf c181f_No0002_3C279_op_LL.pdf, c181f_No0002_3C279_op_LR.pdf, c181f_No0002_3C279_op_RL.pdf, c181f_No0002_3C279_op_RR.pdf c181f_No0042_1921-293_Ao_LL.pdf, c181f_No0042_1921-293_Ao_LR.pdf, c181f_No0042_1921-293_Ao_RL.pdf,c181f_No0042_1921-293_Ao_RR.pdf	
VLBA: Pt	p	yes	c181f_FRINGE_RfAnt_Pt_LLRR_AllSrc.pdf c181f_No0042_1921-293_Ap_LL.pdf, c181f_No0042_1921-293_Ap_LR.pdf, c181f_No0042_1921-293_Ap_RL.pdf, c181f_No0042_1921-293_Ap_RR.pdf c181f_No0002_3C279_bp_LL.pdf, c181f_No0002_3C279_bp_LR.pdf, c181f_No0002_3C279_bp_RL.pdf, c181f_No0002_3C279_bp_RR.pdf c181f_No0002_3C279_fp_LL.pdf, c181f_No0002_3C279_fp_LR.pdf, c181f_No0002_3C279_fp_RL.pdf, c181f_No0002_3C279_fp_RR.pdf	Taken out for several scans because of USNO observing.

Station	Code	Fringes	Plots	Comments
			c181f_No0002_3C279_lp_LL.pdf, c181f_No0002_3C279_lp_LR.pdf, c181f_No0002_3C279_lp_RL.pdf, c181f_No0002_3C279_lp_RR.pdf c181f_No0002_3C279_mp_LL.pdf, c181f_No0002_3C279_mp_LR.pdf, c181f_No0002_3C279_mp_RL.pdf, c181f_No0002_3C279_mp_RR.pdf c181f_No0002_3C279_np_LL.pdf, c181f_No0002_3C279_np_LR.pdf, c181f_No0002_3C279_np_RL.pdf, c181f_No0002_3C279_np_RR.pdf c181f_No0002_3C279_op_LL.pdf, c181f_No0002_3C279_op_LR.pdf, c181f_No0002_3C279_op_RL.pdf, c181f_No0002_3C279_op_RR.pdf	
GBT: Gb	G	no	----------	unrecoverable read error of the Mk5 module, logs indicate bad weather, so this loss is considered non-critical
ALMA: Aa	A	**yes**	In this case bright red indicates false fringes (detected as the ones having abnormally high single-band delay) that fourfit in this particular case finds for all baselines for which there is no true fringe as a result of a glitch. c181f_SBD_RfAnt_Aa_LLRR_AllSrc.pdf c181f_No0002_3C279_Ap_LL.pdf, c181f_No0002_3C279_Ap_LR.pdf, c181f_No0002_3C279_Ap_RL.pdf, c181f_No0002_3C279_Ap_RR.pdf c181f_No0042_1921-293_Ab_LL.pdf, c181f_No0042_1921-293_Ab_LR.pdf, c181f_No0042_1921-293_Ab_RL.pdf, c181f_No0042_1921-293_Ab_RR.pdf c181f_No0042_1921-293_Af_LL.pdf, c181f_No0042_1921-293_Af_LR.pdf, c181f_No0042_1921-293_Af_RL.pdf, c181f_No0042_1921-293_Af_RR.pdf c181f_No0042_1921-293_Ak_LL.pdf, c181f_No0042_1921-293_Ak_LR.pdf, c181f_No0042_1921-293_Ak_RL.pdf, c181f_No0042_1921-293_Ak_RR.pdf c181f_No0042_1921-293_Al_LL.pdf, c181f_No0042_1921-293_Al_LR.pdf, c181f_No0042_1921-293_Al_RL.pdf, c181f_No0042_1921-293_Al_RR.pdf c181f_No0042_1921-293_Am_LL.pdf, c181f_No0042_1921-293_Am_LR.pdf, c181f_No0042_1921-293_Am_RL.pdf, c181f_No0042_1921-293_Am_RR.pdf c181f_No0042_1921-293_An_LL.pdf, c181f_No0042_1921-293_An_LR.pdf, c181f_No0042_1921-293_An_RL.pdf, c181f_No0042_1921-293_An_RR.pdf c181f_No0042_1921-293_Ao_LL.pdf, c181f_No0042_1921-293_Ao_LR.pdf, c181f_No0042_1921-293_Ao_RL.pdf, c181f_No0042_1921-293_Ao_RR.pdf	Observed in linear polarization, converted to circular polarization in post-correlation uning PolConvert. For technical reasons the atmospheric correction was applied twice -- both in original ALMA data and during the correlation. Although a special procedure was developed to compensate for this, we found that its application leads to other difficulties, in particular to abnormally high fringe rate jumps, so in the final production run the double atmospheric correction was left as is.

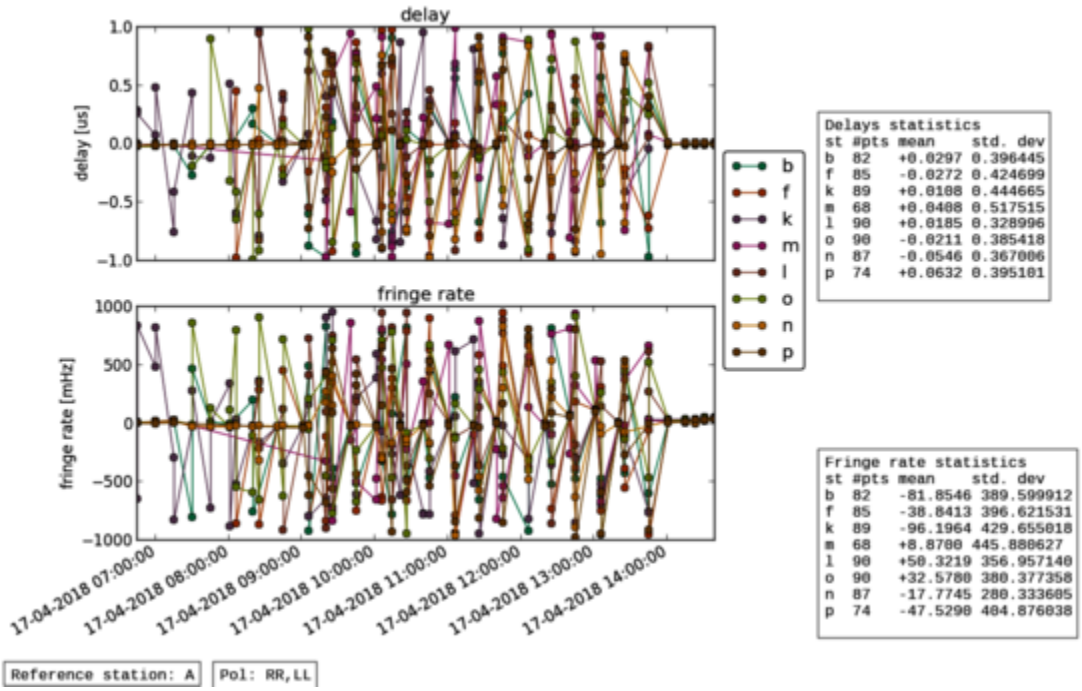
Station	Code	Fringes	Plots	Comments
			c181f_No0042_1921-293_Ap_LL.pdf, c181f_No0042_1921-293_Ap_LR.pdf, c181f_No0042_1921-293_Ap_RL.pdf, c181f_No0042_1921-293_Ap_RR.pdf	

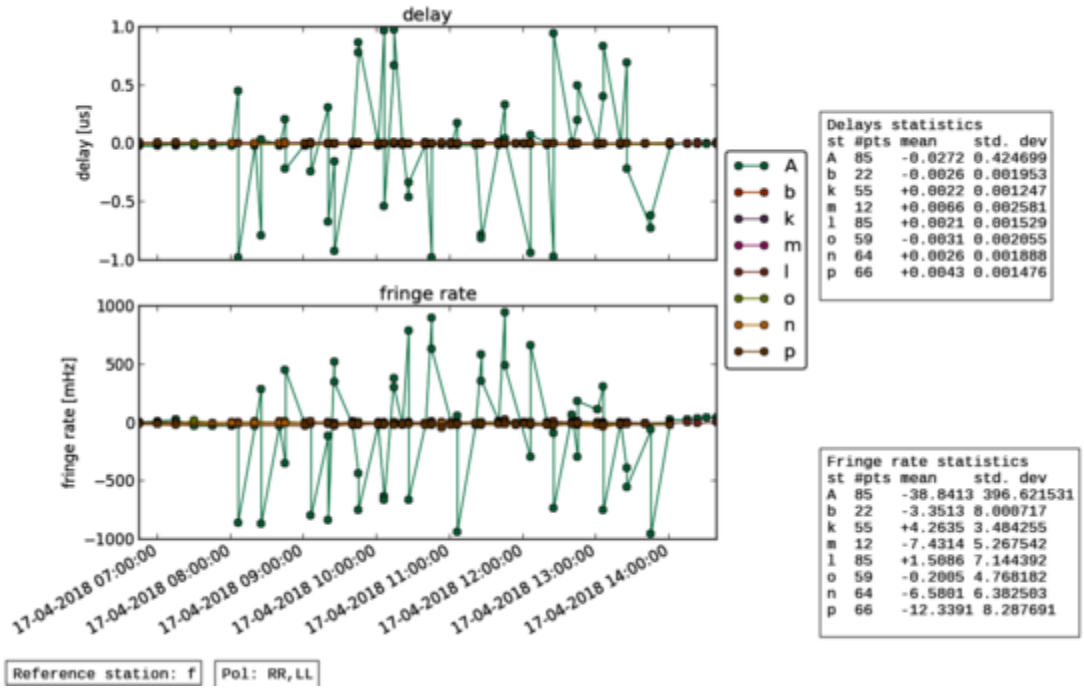
Notes

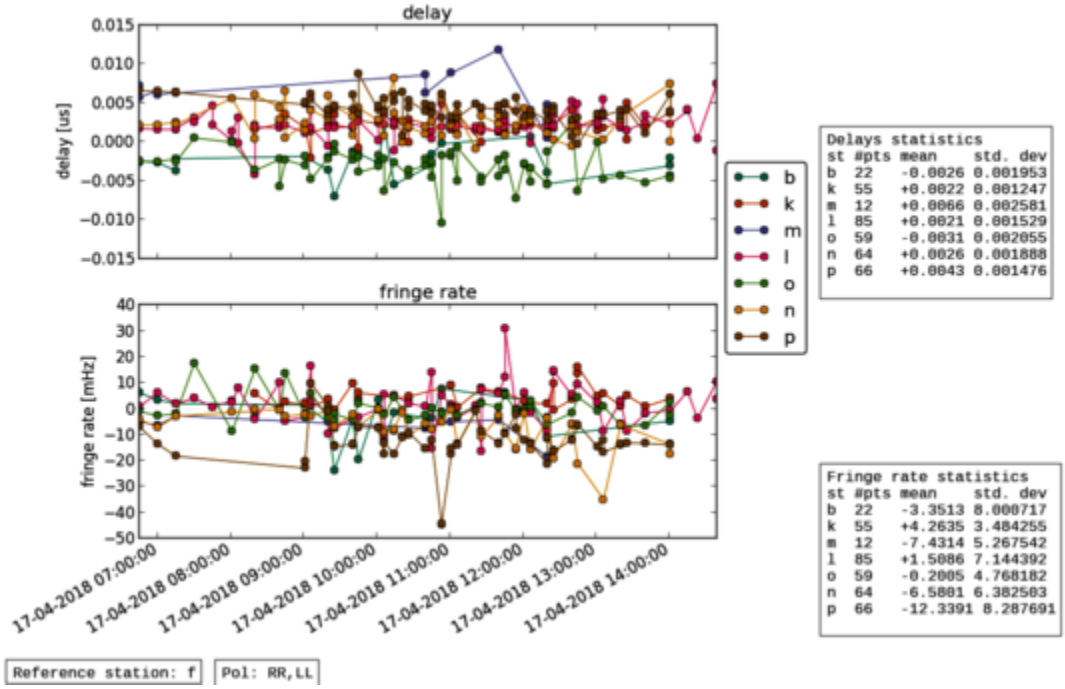
Post-Correlation checks

Residuals

Due to fourfit problems there are false fringes to ALMA that create outliers in the plots of residuals. The bottom plot has ALMA removed to show the residuals at normal scale.







FITS completeness (pclist)

			AA	AA	NL	FD	PT	LA	OV	KP	BR	MK	GB
c181f_01D2D	No0001	3C279	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	.
c181f_02D2D	No0002	3C279	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	.
c181f_03D2D	No0003	3C279	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	.
c181f_04D2D	No0005	NRAO530	3mm_RDBE	o	o	o	o	x	o	o	o	o	.	x
c181f_05D2D	No0006	NRAO530	3mm_RDBE	o	o	o	o	x	o	o	o	o	.	x
c181f_06D2D	No0008	NRAO530	3mm_RDBE	o	o	o	o	x	o	o	o	o	.	x

c181f_07D2D No0009	SGR_A	3mm_RDBE	o	o	o	o	x	o	o	o	.	.	x
c181f_08D2D No0010	NRAO530	3mm_RDBE	o	o	o	o	x	o	o	o	o	.	x
c181f_09D2D No0011	SGR_A	3mm_RDBE	o	o	o	o	x	o	o	o	.	.	x
c181f_10D2D No0012	NRAO530	3mm_RDBE	o	o	o	o	x	o	o	o	o	.	x
c181f_11D2D No0013	SGR_A	3mm_RDBE	o	o	o	o	x	o	o	o	.	.	x
c181f_12D2D No0015	NRAO530	3mm_RDBE	o	o	o	o	77	o	o	o	o	.	x
c181f_13D2D No0016	SGR_A	3mm_RDBE	o	o	o	o	o	o	o	o	o	.	x
c181f_14D2D No0017	NRAO530	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	x
c181f_15D2D No0018	SGR_A	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	x
c181f_16D2D No0019	NRAO530	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	x
c181f_17D2D No0020	SGR_A	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	x
c181f_18D2D No0022	NRAO530	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	x
c181f_19D2D No0023	SGR_A	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	x
c181f_20D2D No0024	SGR_A	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	.
c181f_21D2D No0026	1921-293	3mm_RDBE	o	o	o	o	o	o	o	o	.	.	x
c181f_22D2D No0027	SGR_A	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	x
c181f_23D2D No0028	NRAO530	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	x
c181f_24D2D No0029	SGR_A	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	x
c181f_25D2D No0030	SGR_A	3mm_RDBE	.	.	o	o	o	o	o	o	o	o	.
c181f_26D2D No0032	NRAO530	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	x
c181f_27D2D No0033	SGR_A	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	.
c181f_28D2D No0035	1921-293	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	x
c181f_29D2D No0036	SGR_A	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	x
c181f_30D2D No0037	NRAO530	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	x
c181f_31D2D No0038	SGR_A	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	x
c181f_32D2D No0039	SGR_A	3mm_RDBE	.	.	o	o	o	o	o	o	o	o	x
c181f_33D2D No0040	NRAO530	3mm_RDBE	x	x	o	o	o	o	o	o	o	o	.
c181f_34D2D No0041	SGR_A	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	.
c181f_35D2D No0042	1921-293	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	.
c181f_36D2D No0043	SGR_A	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	.
c181f_37D2D No0044	NRAO530	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	.
c181f_38D2D No0045	SGR_A	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	.
c181f_39D2D No0046	NRAO530	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	.
c181f_40D2D No0047	SGR_A	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	.
c181f_41D2D No0048	1921-293	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	.
c181f_42D2D No0049	SGR_A	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	.
c181f_43D2D No0050	NRAO530	3mm_RDBE	.	.	o	o	o	o	o	o	o	o	.
c181f_44D2D No0051	SGR_A	3mm_RDBE	o	o	.	o	o	o	o	o	o	o	.
c181f_45D2D No0052	1921-293	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	.
c181f_46D2D No0053	1921-293	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	.
c181f_47D2D No0054	1921-293	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	.
c181f_48D2D No0055	1921-293	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	.
c181f_49D2D No0056	1921-293	3mm_RDBE	o	o	o	o	o	o	o	o	o	o	.