

## MG006B Correlation Report

### General information

- Session info: <http://www3.mpifr-bonn.mpg.de/div/vlbi/globalmm/>
- PI: Gomez
- Targets: OJ287
- Stations: VLBA (no GBT), EVN Ef Mh Pv, KVN Kt Ku Ky, GLT; not observed by On and Ys
- Phased arrays: ALMA, NOEMA
- Station feedback: [https://www3.mpifr-bonn.mpg.de/div/vlbi/globalmm/sessions/apr21/feedback\\_apr21.asc](https://www3.mpifr-bonn.mpg.de/div/vlbi/globalmm/sessions/apr21/feedback_apr21.asc)
- Mixed-polarization baselines to ALMA were polconverted to circular using APP QA2 package: mg006b\_OJ287\_a\_03\_TM1-20210610.APP\_DELIVERABLES.tgz
- The final FITS-IDI and HOPS data releases are correlation rev1 polconversion v3
- The included ANTAB files are as provided by the stations, and that of ALMA was generated by PolConvert

### Status

what	date
released	--
packaging and fringe fit of v3, ALMA and other stations ANTAB, antenna reports	10.06.2022
polconversion v3, bugfix to DiFX difx2fits to produce FITS-IDI from d262+d270 mixed input jobs	30.05.2022
polconversion v2	22.02.2022
polconversion v1	01.02.2022
correlation rev1	23.01.2022

### Fringes

Station	Code	Fringes	Plots	Comments
ALMA, NOEMA		yes	<a href="#">No0034 AaNn YL</a>	
Effelsberg		yes	No0039 <a href="#">AaEf YL NnEf LL</a>	
Pico		yes	No0020 <a href="#">PvNn LL</a>	
Onsala		n/a		On did not observe mg006b
Yebes		n/a		Ys did not observe mg006b
Metsähovi		yes	No0020 <a href="#">MhNn RR</a>	
KVN all		yes	No0005 <a href="#">Nn-Kt-Ku-Ky</a> all pols	
Greenland GLT		yes	No0020 <a href="#">GlNn</a> all pols	

Station	Code	Fringes	Plots	Comments
VLBA all		yes	No0042 <a href="#">Aa-Br-Fd-...</a>	before polconvert

**Notes**

Relatively high residual fringe rate on ALMA baselines still part of release rev1v3, should be addressed in AIPS/CASA postprocessing. Origin unclear. Coordinates for ALMA correct.

ALMA VLBI baselines were polconverted using APP QA2 package mg006b\_OJ287\_a\_03\_TM1-20210610.APP\_DELIVERABLES.tgz

The ALMA ANTAB data are as generated by PolConvert for each 64 MHz band.

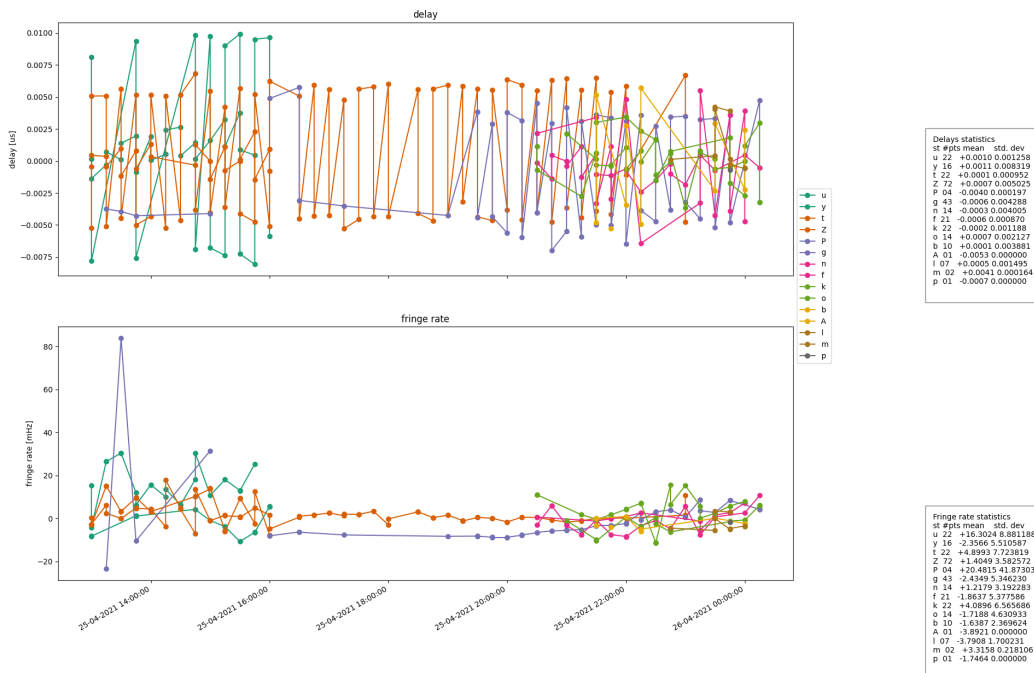
The experiment was correlated in DiFX in two parts to get a 64 MHz FITS-IDI IF bandwidth:

- Scans without ALMA were correlated under DiFX 2.6.2, using 64 MHz zoom bands
- Scans where ALMA participated i.e. No0027--No0058 (ALMA: 62.5 MHz recordings) were correlated under DiFX 2.7.0 (equiv. to DiFX 2.7.1) and the "outputbands" feature synthesized 64 MHz wide bands
- The two (sub)correlations were merged into correlation rev1

Bugs were identified in polconversion v1 with DiFX 2.6.2 PolConvert. Polconversion v2 was done in more recent VGOS PolConvert. Final polconversion v3 was in the most recent DiFX 2.7.1 PolConvert.

**Post-Correlation checks**

**Residuals**

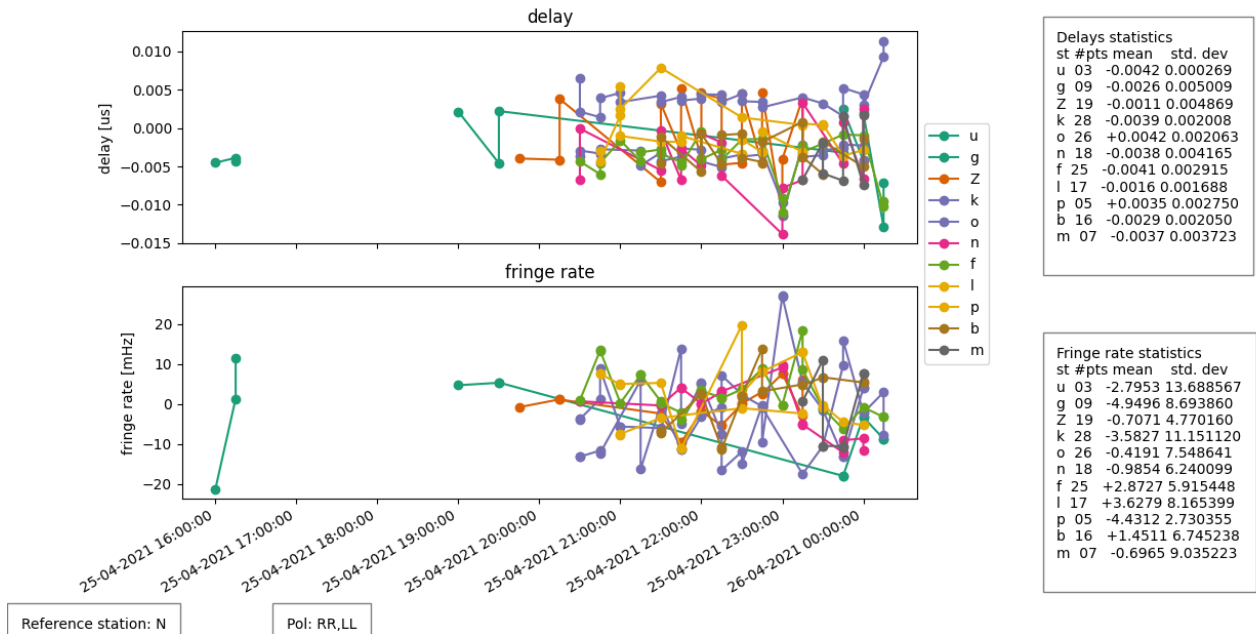


Reference station: B

Pol: RR,LL

Reference station

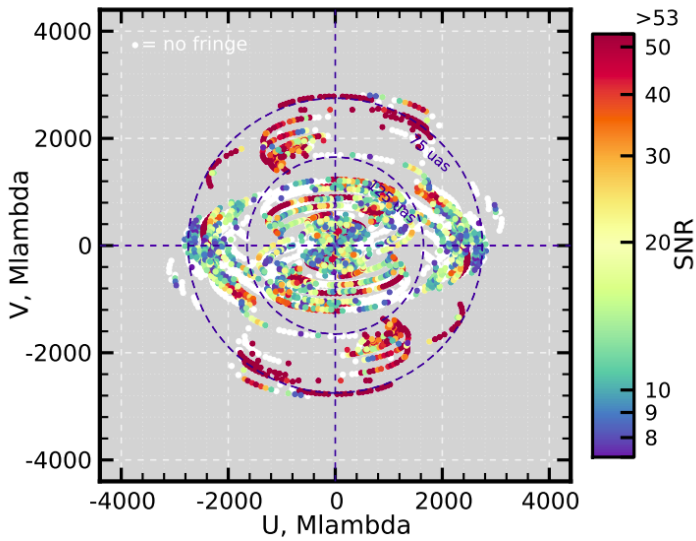
Relative to Effelsberg



Relative to NOEMA

**Attained SNR and uv coverage**

UV cov.: all sources, all antennas, RR.



**FITS completeness (plist)**

				EF	ON	YS	PV	NN	NN	MH	KY	KU	KT	GL	AA	FD	NL
OV	PT	BR	KP	LA	MK												
mg006b_01	No0001	OJ287	86ghz	o	x	x	o	o	o	o	42	42	42	.	.	.	.
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mg006b_02	No0002	OJ287	86ghz	o	x	x	o	o	o	o	o	o	o	.	.	.	.
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mg006b_03	No0003	OJ287	86ghz	o	x	x	o	o	o	o	o	o	.	.	.	.
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mg006b_04	No0004	OJ287	86ghz	o	x	x	o	o	o	o	o	o	.	.	.	.
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mg006b_05	No0005	OJ287	86ghz	o	x	x	o	o	o	o	o	o	.	.	.	.
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mg006b_06	No0006	OJ287	86ghz	o	x	x	o	o	o	o	o	o	.	.	.	.
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mg006b_07	No0007	OJ287	86ghz	o	x	x	o	o	o	o	o	o	.	.	.	.
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mg006b_08	No0008	OJ287	86ghz	o	x	x	o	o	o	o	o	o	.	.	.	.
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mg006b_09	No0009	OJ287	86ghz	o	x	x	o	o	o	o	o	o	.	.	.	.
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mg006b_10	No0010	OJ287	86ghz	o	x	x	o	o	o	o	o	o	.	.	.	.
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mg006b_11	No0011	OJ287	86ghz	o	x	x	o	o	o	o	o	o	.	.	.	.
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mg006b_12	No0012	OJ287	86ghz	o	x	x	o	o	o	o	o	o	.	.	.	.
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mg006b_13	No0013	OJ287	86ghz	o	x	x	o	o	o	o	o	o	o	.	.	.
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mg006b_14	No0014	OJ287	86ghz	o	x	x	o	o	o	o	o	o	o	.	.	.
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mg006b_15	No0015	OJ287	86ghz	o	x	x	o	o	o	o	.	.	.	o	.	.
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mg006b_16	No0016	OJ287	86ghz	o	x	x	o	o	o	o	.	.	.	o	.	.
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mg006b_17	No0017	OJ287	86ghz	o	x	x	o	o	o	o	.	.	.	o	.	.
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mg006b_18	No0018	OJ287	86ghz	o	x	x	o	o	o	o	.	.	.	o	.	.
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mg006b_19	No0019	1055+018	86ghz	o	x	x	o	o	o	o	.	.	.	.	.	.
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mg006b_20	No0020	OJ287	86ghz	o	x	x	o	o	o	o	.	.	.	o	.	.
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mg006b_21	No0021	OJ287	86ghz	o	x	x	o	o	o	o	.	.	.	o	.	.
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mg006b_22	No0022	OJ287	86ghz	o	x	x	o	o	o	o	.	.	.	o	.	.
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mg006b_23	No0023	OJ287	86ghz	o	x	x	o	o	o	o	.	.	.	o	.	.
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mg006b_24	No0024	OJ287	86ghz	o	x	x	o	o	o	o	.	.	.	o	.	.
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mg006b_25	No0025	OJ287	86ghz	o	x	x	o	o	o	o	.	.	.	o	.	.
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mg006b_26	No0026	1055+018	86ghz	o	x	x	o	o	o	o	.	.	.	.	.	.
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mg006b_27	No0027	OJ287	86ghz	o	x	x	o	o	o	o	.	.	.	o	o	.
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mg006b_28	No0028	OJ287	86ghz	o	x	x	o	o	o	o	.	.	.	o	x	.	.
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mg006b_29	No0029	OJ287	86ghz	o	x	x	o	o	o	o	.	.	.	o	x	.	.
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mg006b_30	No0030	OJ287	86ghz	o	x	x	o	o	o	o	.	.	.	o	x	.	.
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mg006b_31	No0031	OJ287	86ghz	o	x	x	o	o	o	o	.	.	.	o	o	o	o
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mg006b_32	No0032	OJ287	86ghz	o	x	x	o	o	o	o	.	.	.	o	x	o	o
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mg006b_33	No0033	OJ287	86ghz	o	x	x	o	o	o	o	.	.	.	o	o	o	o
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mg006b_34	No0034	OJ287	86ghz	o	x	x	o	o	o	o	.	.	.	o	o	o	o
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mg006b_35	No0035	OJ287	86ghz	o	x	x	o	o	o	o	.	.	.	o	o	o	o
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mg006b_36	No0036	OJ287	86ghz	o	x	x	o	o	o	o	.	.	.	o	o	o	o
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mg006b_37	No0037	OJ287	86ghz	o	x	x	o	o	o	o	.	.	.	o	o	o	o
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mg006b_38	No0038	OJ287	86ghz	o	x	x	o	o	o	o	.	.	.	o	o	o	o
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mg006b_39	No0039	OJ287	86ghz	o	x	x	o	o	o	o	.	.	.	o	o	o	o
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mg006b_40	No0040	OJ287	86ghz	o	x	x	o	o	o	o	.	.	.	o	o	o	o
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mg006b_41	No0041	1055+018	86ghz	o	x	x	o	o	o	o	.	.	.	o	o	o	o
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mg006b_42	No0042	OJ287	86ghz	o	x	x	o	o	o	o	.	.	.	o	o	o	o
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mg006b_43	No0043	OJ287	86ghz	o	x	x	o	o	o	o	.	.	.	o	o	o	o
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mg006b_44	No0044	OJ287	86ghz	o	x	x	o	o	o	o	.	.	.	o	o	o	o
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mg006b_45	No0045	OJ287	86ghz	o	x	x	o	o	o	o	.	.	.	o	o	o	o
o	o	o	o	o	o	.	.	.	.	.	.	.	.	.	.	.	.
mg006b_46	No0046	1055+018	86ghz	o	x	x	o	o	o	.	.	.	.	o	o	o	o
o	o	o	o	o	.	.	.	.	.	.	.	.	.	.	.	.	.
mg006b_47	No0047	OJ287	86ghz	.	x	x	o	.	.	.	.	.	.	o	o	o	o
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mg006b_48	No0048	OJ287	86ghz	.	.	.	.	.	.	.	.	.	.	o	o	o	o
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mg006b_49	No0049	OJ287	86ghz	.	.	.	.	.	.	.	.	.	.	o	o	o	o
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mg006b_50	No0050	OJ287	86ghz	.	.	.	.	.	.	.	.	.	.	o	o	o	o
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mg006b_51	No0051	1055+018	86ghz	.	.	.	.	.	.	.	.	.	.	o	o	o	o
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mg006b_52	No0052	OJ287	86ghz	.	.	.	.	.	.	.	.	.	.	o	o	o	o
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Note: Onsala, Yebes did not observe