

Summary and Current Status of VLA Polarization Calibrator Monitoring

Particularly in support of calibration of absolute polarization angle (EVPA) of VLBA observations, the VLA is performing regular monitoring of common polarized radio sources from 1-50 GHz. This page contains a summary of ongoing calibrator monitoring efforts to aid current and future observation proposing and observation planning.

Monitoring programs can be summarized in three categories:

1. Regular monitoring and maintenance of standard calibrators (TCAL0009)
2. Monitoring of common secondary and mostly variable polarization angle calibrators (TPOL0003)
3. Ad-hoc monitoring of special requested calibrators in support of VLBA observations under various project codes

Standard Calibrator Monitoring under TCAL0009

Since May 3rd, 2019, the VLA is performing **monthly snapshot observations** of a common set of standard calibrators used for flux density and polarization calibration. The list of sources included in this monitoring and observing bands is summarized in the following table:

#	Target	Bands	Intent
1	J2355+4950	L-Q	Gain
2	3C48	L-Q	Gain
3	3C84	L-Q	Gain
4	3C147	L-Q	Gain
5	J0713+4349	L-Q	Gain, PolLeak
6	3C196	L-Q	Gain
7	J0217+7349	L-Q	Gain
8	J1153+8058	L-Q	Gain
9	J1800+7828	L-Q	Gain
10	3C123	L-Q	Gain
11	3C138	L-Q	Gain
12	J1419+5423	L-X	Gain
13	3C295	L-X	Gain
14	J1419+5423	L-X	Gain
15	3C286	L-Q	Bandpass, Flux Density Scale, PolAngle

Secondary Calibrator Monitoring under TPOL0003

Since about February 2018, a regular monitoring of secondary polarization angle calibrators was resumed, that is meant to resemble the monitoring performed in the pre-EVLA era. Currently, such observations are performed in two separate scheduling blocks and **observed about every 3 months**. Recently, additional targets were added to evaluate potential new standard calibrators in the LST range 16-21 hours.

Current list of observed sources:

POLCAL_1_v2.2 8 bit / 5.5h	POLCAL_2_v3.0 8 bit only / 5.5 h
J0854+2006 (L-Q)	J0136+4751 (L-Q)
J0713+4349 (L-Q)	J2202+4216 (L-Q)
J0521+1638 (L-Q)	J2136+0041 (L-Q)
J0555+3948 (L-Q)	J2355+4950 (L-Q)
J0739+0137 (L-Q)	J2253+1608 (L-Q)
DA240_North (L-Q)	J0136+4751 (L-Q)
J0927+3902 (L-Q)	J0137+3309 (L-Q)

J1310+3220 (L-Q)	J0319+4130 (L-Q)
J1331+3030 (L-Q)	J0359+5057 (L-Q)
J1330+2509 (L-C)	J0542+4951 (L-Q)
J1256-0547 (L-Q)	J0521+1638 (L-Q)
	J1743-0350 (L-Q)
	J1602+3326 (L-Q)
	J2025+3343 (L-Q)
	J2148+0657 (L-Q)
	J2232+1143 (L-Q)

Leakage

Angle

User Requested Monitoring

Ad-hoc observations are performed primarily for VLBA users, if targets are not covered by the above monitoring programs. A summary of recent requests are collected [here](#). We attempt to capture such observations also under TPOL0003. In some instances they are also observed under the requested project code and not immediately publicly available.