



Observing Application

Date : Jan, 15 2010
 Proposal ID : VLBA/09C-148
 Legacy ID : BJ71
 PI : Ken Johnston
 Type : Rapid Response -
 Exploratory Time
 Category : Astrometry/Geodesy
 Total Time : 1.0

BJ068 addendum: AGN Core Wander and the Stability of the ICRF

Abstract:

The sixth and final session of BJ068 was observed in December 2009. Because the submitted file bj068f.key was inadvertently replaced by bj068d.key, we did not obtain the small amount of X-band data inserted in this final session. We, thus, request one hour of time as soon as possible in order to obtain this data. The first five sessions have been fully reduced and analyzed, and we have determined the structure evolution and relative positions with 10 microsec e/w accuracy of four close radio sources at 23 GHz and 43 GHz using phase referencing. Each session was about seven hours in length. For the sixth session, we included about 45 min of 8.4-GHz phase referencing data in order to obtain structures and positions of the sources for additional comparison of the frequency dependent structure and position of these quasars. While images for these four sources at 8 GHz are available in ICRF data base, two sources have not been observed for many years, and the positional registration of the ICRF may differ by over 100 microsec from the 23 and 43 GHz images.

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Related proposals:

BJ066

Joint:

Not a Joint Proposal

Observing type(s):

Phase Referencing

VLBA Resources

Name	Wavelength	Processor	Stations	Observing Parameters	Correlation Parameters

Name	Wavelength	Processor	Stations	Observing Parameters	Correlation Parameters
Xband	3.6 cm	Socorro-DiFX	VLBA <input checked="" type="checkbox"/> Br <input checked="" type="checkbox"/> Fd <input checked="" type="checkbox"/> Hn <input checked="" type="checkbox"/> Kp <input checked="" type="checkbox"/> La <input checked="" type="checkbox"/> Mk <input checked="" type="checkbox"/> Kp <input checked="" type="checkbox"/> Ov <input checked="" type="checkbox"/> Pt <input checked="" type="checkbox"/> Sc <input checked="" type="checkbox"/> <hr/> HSA Ar Ef GBT VLA-Y27 <hr/> VLA-Y1 <hr/> Geodetic	Bandwidth: 8 MHz Baseband 4 Channels Sample Rate 16 (Msample/s) Bits/Sample 2 Polarization RCP Agg. Bit Rate 128 (Mbits/sec)	Full Polarization Pulsar Gate Correlator Passes 1 Integration Period (sec) 2.0 Spectral Points /BBC 16

Sources:

Name	RA / RA Range	Dec / Dec Range	Epoch	Velocity / z	Group
0547+234	05:50:47.0 00:00:00.0	+23:26:48 00:00:00	J2000	Velocity : 0.00	ICRF-4
0554+242	05:57:04.0 00:00:00.0	+24:13:55 00:00:00	J2000	Velocity : 0.00	ICRF-4
0556+238	05:59:32.0 00:00:00.0	+23:53:53 00:00:00	J2000	Velocity : 0.00	ICRF-4
0601+245	06:04:55.0 00:00:00.0	+24:29:55 00:00:00	J2000	Velocity : 0.00	ICRF-4

Sessions:

Name	Session Time (hours)	Repeat	Separation	GST minimum	GST maximum	Elevation Minimum
Xband	1.00	1	0 day	20:00:00	24:00:00	0

Session Constraints:

Name	Constraints	Comments
Xband		As soon as possible for good comparison with Dec 2009 23 GHz and 43 GHz images

Session Source/Resource Pairs:

Session Name	Source	Resource	Time	Figure of Merit
Xband	0547+234 0554+242 0556+238 0601+245	Xband	1.0 hour	1.0 mJy/bm

Staff support: None

Plan of Dissertation: no