



Observing Application

Date : Sep, 28 2010
 Proposal ID : VLBA/10B-147
 Legacy ID : BV70
 PI : Alexander van der Horst
 Type : Rapid Response - Target of Opportunity
 Category : Galactic
 Total Time : 30.0

VLBA observations of the new hard X-ray transient MAXI J1659-152

Abstract:

Swift BAT discovered a new transient that was first classified as a gamma-ray burst (GRB 100925A), but later it was re-classified as a new Galactic transient (MAXI J1659-152) because of MAXI observations and the source location which is close to the Galactic bulge. However, the nature of the source is still uncertain. Many facilities are observing this object at the moment, from optical to gamma-ray frequencies. The detection of compact radio emission would provide great insight in the nature of, and the physics behind, this new transient source.

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Related proposals:

RP016 (e-EVN)

Joint:

Not a Joint Proposal

Observing type(s):

Continuum, Monitoring, Phase Referencing, Triggered Transient

VLBA Resources

Name	Wavelength	Processor	Stations	Observing Parameters	Correlation Parameters
VLBA	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: 16 MHz Baseband 8 Channels Sample Rate 32 (Msample/s) Bits/Sample 2 Polarization RCP & Agg. Bit Rate 512 (Mbits/sec)	Full Polarization <input checked="" type="checkbox"/> Pulsar Gate Correlator Passes 1 Integration Period (sec) 2.0 Spectral Points /BBC 32 No of Fields 1

Sources:

Name	Position		Velocity		Group
MAXI_J1659-152	Coordinate System	Equatorial	Convention	Radio	Target
	Equinox	J2000			
	Right Ascension	16:59:01.68 00:00:00.4	Ref. Frame	LSRK	
	Declination	-15:15:28.4 00:00:00.6	Velocity	0.00	

Sessions:

Name	Session Time (hours)	Repeat	Separation	GST minimum	GST maximum	Elevation Minimum
MAXI	6.00	5	2 day	21:00:00	3:00:00	0

Session Constraints:

Name	Constraints	Comments
MAXI	First two epochs between 30 Sep and 4 Oct (e-EVN observations)	Final three epochs depending on source evolution seen in e-EVN data.

Session Source/Resource Pairs:

Session Name	Source	Resource	Time	Figure of Merit
MAXI	MAXI_J1659-152	VLBA	6.0 hour	0.05 mJy/bm

Staff support: Consultation

Plan of Dissertation: no