VLBA PROPOSAL COVERSHEET

DEADLINES: 1st of Feb., June, Oct.
EMAIL TO: exploresoc@nrao.edu
OR MAIL TO: Director NRAO, Edgemont Rd. Charlottesville, VA 22903-2475, USA

rcvd:

(1) Date Prepared: February 1, 2006

(2) Title of Proposal: NGC 1052, the Key to Explore the Disk-Jet Connection in AGN Continuation of the VLBA Campaign

(3) AUTHORS (Add * for new location)	INSTITUTION	E-mail	Students Only G/U	For Thesis?	Ph.D. Year
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(4) Related previous or current VLBI proposal(s): BL072, BV022, BV024, BR077, BL111, BL123, **BR099** ◯ Resubmission

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(7) Scientific Category: ◯ astrometry & geodesy ◯ galactic ◯ extragalactic ◯ other:
Rapid Response Science: ◯ Known Transient ⊗ Exploratory ◯ Target of Opportunity

(8) Wavelength(s) requested (those not available on the global network are indicated with a small circle):
◯ 90cm ◯ 50cm ∘ 30cm ◯ 21cm ◯ 18cm ◯ 13cm ◯ 6cm ∘ 5cm ◯ 3.6cm ◯ 3.6/13cm
∘ 2cm ⊗ 1.3cm ⊗ 7mm ∘ 3mm
⊗ Global Network standard bands ◯ Special frequencies:________

(9) Recording format: ⊗ Default continuum setup (VLBA only), ◯ VLBA/MkIV, ◯ MkIII: Mode______
Bandwidth per BaseBand channel: ______
Aggregate bit rate:______ (______ BB channels at ______ MSamples/sec of ◯ 1 bit, ◯ 2 bit)

(10) ⊗ Multi-epoch observation: ______ epochs of 6 hours each, separated by 6 weeks

(11) Network	Requested antennas	Total time requested
EVN & MERLIN		
VLBA	ALL	GST 07:00-13:00
other NRAO		
Non-VLBI Intruments		

(12) ABSTRACT (Do not write outside this space. Please type)

Since 2005 March we are performing a multi-mission campaign of observations of NGC 1052, including X-ray spectroscopy, X-ray and radio flux density monitoring, and VLBA phase-referenced observations at 22 and 43 GHz. First results from the first months of our monitoring campaign demonstrate pronounced X-ray spectral variability on time scales of several weeks, comparable with the time scales of the structural changes observed by VLBI. The VLBA project `BR099` ran every 6 weeks until 2006 January, and are complemented by the 15 GHz monitoring of the 2 cm Survey/MOJAVE projects. The aim of those is to identify new jet features and relate their ejection to the changes in the X-ray light curve and spectra. The ultimate goal of this project is to map out the dynamical processes in the disk during and after accretion events, and to identify the immediate trigger of jet production. Herewith we request to continue our monitoring program until a new, regular proposal, to be sent by February 1st and requesting for 9 additional epochs is evaluated.

Scheduler use only
(8/03)

(13) Observation type: ⊗ Interferometry, ◯ Spectroscopy, ◯ Pulsar, ⊗ Phase referencing

(14) Proposal is ⊗ Suitable ◯ Unsuitable for dynamic scheduling.

(15) Polarization: ⊗ Single Polarization ◯ Dual Circular Polarization
Global network standard for single polarization is LCP for all λs except 13cm (RCP) and 3.6cm (RCP).

(16) Tape usage (Show <recording time>/<total time>): ______

(17) Assistance required:
Observation Setup: ⊗ Consultation, ◯ Extensive help, ◯ Observe file preparation
Postprocessing: ⊗ Consultation, ◯ Extensive help, ◯ Calibration service

(18) Processor: ⊗ Socorro, ◯ JIVE, ◯ Haystack, ◯ Bonn, ◯ Washington, ◯ Other______________
Special processing: ◯ XPol, ◯ Pulsar gate, ◯ Multiple Fields: ______
Averaging time: ________ Spectral channels per baseband channel: ________
◯ Other special processing: ____

(19) Postprocessing Location: MPIfR

(20) Source list: ⊗ J2000 ◯ B1950
If more than 4 sources, please attach list. If more than 30, give only selection criteria and GST range(s)

	Source 1	Source 2	Source 3	Source 4
Name(s)	NGC 1052	J0243–0550		
RA (hh mm)	02 41	02 43		
Dec (dd.d)	−08.3	−05.5		
GST range (Europe)				
GST range (US)	07:00-13:00	07:00-13:00		
GST range (Other)				
Band(s)	K, Q	K, Q		
Flux density (Total, Jy)	1	0.6		
Flux density (correlated, mJy)	900	600		
RMS needed (mJy/beam)	0.5	1		
Peak/RMS needed	100	50		

(21) Preferred VLBI session or range of dates for scheduling, and why:

(22) Dates which are NOT acceptable, and why:

(23) Attach a self-contained scientific justification, not in excess of 1000 words.
Preprints or reprints will not be forwarded to the referees.

Information about the capabilities of the VLBA may be found on the World Wide Web by starting at the NRAO home page, http://www.nrao.edu, and selecting the VLBA from "Sites and Telescopes."

A brief summary of the capabilities of the EVN antennas is given in the EVN STATUS TABLE in the EVN USER GUIDE, which may be found at http://www.evlbi.org/user_guide/user_guide.html.

Please include the full postal addresses for first-time users or for those that have moved (if not contact author).