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: July 31, 2006

(2) Title of Proposal: 43 GHz VLBA positions for SiO-13 and SiO-23

(3) AUTHORS (Add * for new location)	INSTITUTION	E-mail	G/U	Students Only: For Thesis?	Students Only: Ph.D. Year
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Lorant Sjouwerman	NRAO-SOC	lsjouwer@nrao.edu			
Mareki Honma	VERA project office & NAOJ	honmamr@cc.nao.ac.jp			

(4) Related previous or current VLBI proposal(s): (AS 800) ○ Resubmission

(5) Contact author for scheduling: Lorant Sjouwerman
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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: 43 GHz SiO maser lines

(9) Recording format: ○ Default continuum setup (VLBA only), ⊗ VLBA/MkIV, ○ MkIII: Mode ____
Bandwidth per BaseBand channel: 16 MHz
Aggregate bit rate: 256 (4 BB channels at 32 MSamples/sec of ○ 1 bit, ⊗ 2 bit)

(10) ○ Multi-epoch observation: ____ epochs of ____ hours each, separated by ____

(11) Network	Requested antennas	Total time requested
EVN & MERLIN		
VLBA	ALL	1 hour
other NRAO		
Non-VLBI Intruments		

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

After performing a VLA monitor of candidate 43 GHz SiO maser calibrators for future VLBI observations in the Galactic center region (in particular when VERA becomes fully operational, but also for the VLBA), we have obtained two excellent, very strong 43 GHz line calibrator sources at 0.6 and 1.4 degrees from Sgr A*. The only thing missing to make a paper really scientifically useful is an accurate VLBI position relative to Sgr A*, which we propose to measure with the VLBA using one hour of "explore-time" observations.

Scheduler use only

(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: 0.5 s Spectral channels per baseband channel: 256
○ Other special processing: ________________________________

(19) Postprocessing Location: Home institution

(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)	SiO-13 (V=−24)	SiO-23 (V=+10)		
RA (hh mm)	17 47 08.97	17 51 26.77		
Dec (dd.d)	−28 29 56.2	−28 25 36.8		
GST range (Europe)				
GST range (US)	23h-03h	23h-03h		
GST range (Other)				
Band(s)	Q	Q		
Flux density (Total, Jy)	$\gg$10	$\gg$10		
Flux density (correlated, mJy)				
RMS needed (mJy/beam)				
Peak/RMS needed				

(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).