GLOBAL VLBI PROPOSAL COVERSHEET

rcvd:

DEADLINES: Target of Opportunity observations
EMAIL TO: toosoc@nrao.edu

(1) Date Prepared: March 13, 2008

(2) Title of Proposal: ToO Observations of SN2008ax at 1.3cm (re-submittal of BM281)

(3) AUTHORS (Add * for new location)	INSTITUTION	E-mail	Students Only G/U	For Thesis?	Ph.D. Year
J.M.Marcaide, I.Marti-Vidal, J.C.Guirado	Univ. Valencia, Spain	J.M.Marcaide@uv.es			
A.Alberdi, I.I. Shapiro	IAA, CfA				
C. Stockdale/K.W. Weiler/S. Immler	Marquette/NRL/GSFC				
N. Panagia/ S. Van Dyk / R.A. Sramek	ESA-STSI/Caltech/NRAO				
R. Beswick, A. Pedlar	Univ. Manchester, UK				

(4) Related previous or current VLBI proposal(s): ◯ Resubmission

(5) Contact author for scheduling: J.M. Marcaide
Address: Departamento de Astronomía
Universidad de Valencia
E-46100 Burjassot
Valencia, Spain

(6) Telephone: 34 963 543 079 / 078 / 073
Fax: 34 963 543 084

(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: 8_____
Aggregate bit rate: 256 (8 BB channels at 16 MSamples/sec of ◯ 1 bit, ⊗ 2 bit)

(10) ⊗ Multi-epoch observation: 2 epochs of 12 hours each, separated by 1 month

(11) Network	Requested antennas	Total time requested
EVN & MERLIN	Ef	13:00 - 01:00 GST
VLBA	ALL	13:00 - 01:00 GST
other NRAO	Y27, GBT	13:00 - 01:00 GST
DSN		
Non-VLBI Intruments		

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

In this re-submittal of proposal BM281 we request Target-of-Opportunity time to observe the recently discovered type-IIb SN2008ax in NGC4490. At a distance 2.5 times larger than the distance to M81 where SN1993J exploded, this supernova appears similar to SN1993J in some ways. Radio emission has been detected at the VLA, it is rapidly rising at K and X bands, and can be readily compared to the radio emission of SN1993J. It appears that SN2008ax may be a first class target for VLBI studies and it holds promise for detailed studies. Early, high resolution, phase-referenced VLBI observations of SN2008ax are very important to determine the characteristics of the expansion. With this ToO proposal we aim at obtaining early estimates that will guide us in requests for further observing in an attempt to determine the expansion in detail.

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: Valencia

(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)	SN 2008ax	J1224+4335 (calib)	J1225+3914 (calib)	
RA (hh mm)	$12^h\ 30^m\ 40.799^s$	$12^h\ 24^m\ 51.506^s$	$12^h\ 25^m\ 50.570^s$	
Dec (dd.d)	$41^\circ\ 38'\ 14.825''$	$43^\circ\ 35'\ 19.282''$	$39^\circ\ 14'\ 22.681''$	
GST range (Europe)	13:00-01:00			
GST range (US)	13:00-01:00			
GST range (Other)	13:00-01:00			
Band(s)	K (and X)			
Flux density (Total, Jy)	<0.010(K) <0.010(X)	∼0.18 (X)	∼0.30 (X)	
Flux density (correlated, mJy)	<10(K) <10(X)	∼70	∼100	
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).