VSOP PROPOSAL COVER SHEETS

ID :

TR :

SR :

DEADLINE : 17 November, 1995
SEND TO : VSOP SOG, ISAS, 3-1-1 Yoshinodai, Sagamihara, Kanagawa 229, JAPAN

Please read Appendix C of Announcement of Opportunity for details on how to fill in this Cover Sheet.

(1) Date prepared : 09-Nov-1995

(2) Proposal title : The "new" point source 1308+328 near 1308+326

(3)	INVESTIGATORS	INSTITUTION
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(4) Principal Investigator (or contact person) details...

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(5) Proposal Abstract :

We wish to make VSOP observations of the "new" radio source 1308+328, which is unresolved on Earth baselines at 8.4 GHz. Measurements at 1.6, 5 and 22 GHz of angular size, or upper limits, together with the observed X-ray emission, will constrain the parameters of the relativistic effects which affect the observed emission. At 1.6 GHz both 1308+328 and the nearby strong compact source 1308+326 (14' away) are within the VSOP primary beam. By switching rapidly between these two sources with GRTs, we hope to be able to "connect" the GRT-VSOP visibility phase as a function of time. Although a priori errors in the VSOP position probably exclude a direct use of this to determine an accurate source separation, it will furnish data for investigating the limits of such space-VLBI astrometry.

(6) Proposal Category (indicate all that apply):

Object type:

☑ AGN, ☐ Masers, ☐ Stellar, ☐ Other :

Experiment type:

☐ Single-observation, ☐ Monitoring, ☐ Polarization,
☐ Time-critical, ☐ Target of Opportunity, ☐ Other :

(7) VSOP spacecraft observing mode (see Section 3 and Table 5 of the VSOP Proposer's Guide):

☑ 2 channel x 16 MHz, 2-bit (Standard mode),
☐ 2 channel x 32 MHz, 1-bit,
☐ 1 channel x 32 MHz, 2-bit

Phase calibration tones:

☑ On (Standard continuum mode),
☐ Off (Standard spectral line mode)

(Include justification of any non-standard choice at (14) below)

(8) Ground radio telescope setup

Polarization :

☑ VSOP Standard (IEEE LCP), ☐ Non-standard :

Recording mode :

☑ As for VSOP spacecraft (Standard), ☐ Other :

(9) Investigator participation in scheduling

☑ PI (or co-I) wishes to participate in scheduling ground radio telescopes
☐ PI (or co-I) wishes to participate in scheduling the space radio telescope

(10) Preferred correlator (see Sections 9.11 and 12 of VSOP Proposer's Guide):

☐ No preference, ☐ Mitaka, ☑ Socorro, ☐ Other :

(11) Preferred post-correlation data analysis location:

☐ Home Institution, ☐ Mitaka, ☐ NRAO AOC, ☑ JIVE, ☐ Other

(12) Post-correlation data analysis assistance required:

☐ None, ☑ Consultation, ☐ Extensive help

(13) Details of proposed experiments

An 'experiment' is one or more observations of one source in one wavelength band.
A request to observe the same source in all 3 wavelength bands requires 3 columns to be filled in.
To observe the same source at the same frequency multiple times – a 'monitoring experiment' – requires only one column to be filled in.
Number of experiments in this proposal: 3

	Experiment 1	Experiment 2	Experiment 3	Experiment 4
Source name	1308+328	1308+328	1308+32C (centroid)	
RA (hh mm ss.s)	13 10 59.4	13 10 59.4	13 10 44.0	
Dec (dd mm ss)	32 33 34	32 33 34	32 26 46	
J2000 or B1950?	J2000	J2000	J2000	
Observing frequency band (GHz)	5.	22.	1.6	
Continuum observations:				
Standard VSOP freq. channels?	☑	☑	☑	☐
Channel A range (MHz)				
Channel B range (MHz)				
Spectral line observations:				
Ch.A spectral line rest freq. (MHz)				
Ch.A LSR velocity (km/s)				
Ch.B spectral line rest freq. (MHz)				
Ch.B LSR velocity (km/s)				
Min. spectral channels per IF channel				
Correlator averaging time (sec)				
FWHM of field of view required (mas)				
No. of correlating passes (if >1)	1	1	2	
Measured total flux density (Jy)	0.8	0.5	1. / "variable"	
Measured correlated flux density on > 5000 km baseline (Jy)	~ 0.6	~ 1	~ 0.35 / "variable"	
Image RMS needed (mJy/beam)	.2	.2	.2	
Ground Radio Telescopes:				
Preferred choice:				
Number of medium telescopes	6	6	6	
Number of large telescopes	2	2	3	
Suggested array given at Item (14)	☑	☑	☑	☐
Minimum acceptable:				
Number of medium telescopes	4	4	4	
Number of large telescopes	2	2	3	
Suggested array given at Item (14)	☐	☐	☐	☐
Length of observation:				
Preferred length (orbits)	2	2	4	
Minimum acceptable length (orbits)	2	2	2	
Scheduling constraints:				
Preferred P.A. of beam *major* axis (deg)			~ -64	
'No holes' (u,v) coverage?	☐	☐	☐	☐
Or maximum resolution (u,v) coverage?	☑	☑	☑	☐
Preferred range of dates for scheduling (for monitoring experiments give range for 1st observation only)	97-06-01 to 97-06-30	97-06-01 to 97-06-30	98-01-01 to 98-01-31	to
For monitoring programs:				
Number of observations				
Mean interval (days)				
Acceptable variance from mean (days)				

(14) Additional notes to the scheduler :

EXP 1 Pref array: VLBA, EF, NR
EXP 2 Pref array: VLBA, EF, GO
EXP 3 Pref array: VLBA, EF, JO, AR

We request that improved orbit determination methods be used for these observations if available.
We would like to participate in the scheduling of the ground array for all the experiments. Two correlation passes are required for the tapes recorded at VSOP in EXP 3. Please contact PI to provide coordinates for the two field centers.

All correlated fluxes provided were derived from ground VLBI observations at 3.6 and 13cm in February 1995.

(15) Attach a scientific and technical justification, not in excess of 2 pages of text and 2 pages of figures. Up to one page of (u,v) plots per source may optionally be included.
(Refer to the VSOP Announcement of Opportunity for detailed instructions.)
Preprints and reprints will not be forwarded to the Scientific Review Committee.

Send two paper copies of the complete proposal to:
VSOP Observing Proposals
VSOP Science Operations Group
Institute of Space and Astronautical Science
3-1-1 Yoshinodai, Sagamihara
Kanagawa 229 JAPAN
In addition, e-mail the completed LaTeX file to submit@vsopgw.isaslan1.isas.ac.jp

Cover Sheets of accepted proposals will be made available to the astronomical community.

Proposals must be received at ISAS by 17 November 1995