VSOP AO4 PROPOSAL COVER SHEETS

DEADLINE : 2 October, 2000
SEND TO : VSOG, ISAS, 3-1-1 Yoshinodai, Sagamihara, Kanagawa 229-8510, JAPAN

(1) Date prepared : 29 sep 2000

(2) Proposal title : Three "missing" 2cm survey sources

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(5) Proposal Abstract :

An on-going multi-epoch survey of 132 strong compact Active Galactic Nuclei (AGN) is being made at 2cm (15 GHz) with the VLBA and 85 Program. We propose for simultaneous 1.6 and 5 GHz VSOP observations, which will be matched with contemporaneous 2cm survey observations to measure the brightness temperatures and spectral index distributions of these sources. The three sources increase the 2cm Survey/VSOP Survey overlap, and have been carefully selected to make the most of the excellent (u,v) coverage in 2001 and to provide strong detections on baselines to HALCA.

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

Object type:

☑ AGN, ☐ Maser, ☐ Stellar, ☐ Pulsar, ☐ Other :

Observation type:

☑ Continuum, ☐ Spectral Line, ☐ Polarization, ☐ Time critical,
☐ Phase-reference, ☐ Other :

(7) Number of proposed experiments

An 'experiment' is one or more observations of one source at a fixed HALCA set-up. A request to observe the same source at 1.6 GHz and separately at 5 GHz requires two columns to be filled in in item (8) below. A request to observe the same source with HALCA simultaneously observing at 1.6 GHz and 5 GHz requires one column to be filled in. Multi-epoch observations of the same source at the same frequency – a 'monitoring experiment' – requires only one column to be filled in. Suggested observing dates, especially for for time-critical and monitoring experiments, should be specified in item (11).

The number of experiments in this proposal is: 3

(8) Details of proposed experiments

	Experiment 1	Experiment 2	Experiment 3	Experiment 4
Source name (J*hhmm*±*ddmm*)	J1800+3848	J2007+4029	J2023+3153	
Alternative name	1758+388	2005+403	2021+317	
RA(J2000) (hh mm ss.ssss)	18 00 24.765	20 07 44.945	20 23 19.018	
Dec(J2000) (dd mm ss.sss)	38 48 30.70	40 29 48.61	31 53 02.31	
Observing frequency band (GHz)	1.6/5	1.6/5	1.6/5	
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)				
FWHM of field of view required (mas)				
Min. spectral channels per IF channel	32	32	32	
Correlator averaging time (sec)				
No. of correlating passes (if >1)				
Total flux density (Jy)	0.74	3.70	3.05	
Correlated flux (mJy)	500	1000	1000	
Ground Radio Telescopes:				
Suggested array given at Item (11)?	☑	☑	☑	☐
GRT observing mode:				
128Mbps LCP (standard)	☑	☑	☑	☐
128Mbps LCP/RCP	☐	☐	☐	☐
256Mbps LCP/RCP	☐	☐	☐	☐
Preferred correlator:				
No preference	☐	☐	☐	☐
Mitaka	☐	☐	☐	☐
Penticton	☐	☐	☐	☐
Socorro	☑	☑	☑	☐
Monitoring programs:				
Number of observations				
Mean interval (days)				
Related VSOP proposal code(s)				

(9) VSOP spacecraft observing mode (see Section 3 and Table 2 of the VSOP Proposer's Guide):

☑ 2 channel x 16 MHz, 2-bit (Standard mode),
☐ Other:

Phase calibration tones:

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

(Include justification of any non-standard choice at (11) below)

(10) Assistance with preparation of ground telescope schedule files:

☐ VSOG assistance requested, ☐ Consultation desired, ☑ No assistance required

(11) Additional notes to the scheduler :

VLBA requested to allow simultaneous 1.6/5.0 GHz observing.
Correlated flux densities estimates based on 2cm survey data (kellermann et al. 1998).

(12) Attach a scientific and technical justification, not in excess of 2 pages of text and 2 pages of figures. Refer to the VSOP Announcement of Opportunity for detailed instructions. Preprints and reprints will not be forwarded to the Scientific Review Committee.

EITHER e-mail the completed LaTeX file to submit@vsop.isas.ac.jp and 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 229-8510 JAPAN

OR e-mail the completed LaTeX Cover Sheets file and, in a separate e-mail, the postscript file of the scientific and technical justification, to submit@vsop.isas.ac.jp

Information from the Cover Sheets of scheduled proposals will be made available from the VSOP WWW site.

Proposals must be received at ISAS by 2 October 2000