VSOP AO2 PROPOSAL COVER SHEETS

DEADLINE : 8 May, 1998
SEND TO : VSOG, ISAS, 3-1-1 Yoshinodai, Sagamihara, Kanagawa 229-8510, JAPAN

(1) Date prepared : 8 May, 1998

(2) Proposal title : The Second Epoch Observation of Active CSS 3C 380

(3)	INVESTIGATORS	INSTITUTION
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(5) Proposal Abstract :

We propose the second epoch VSOP observations towards a CSS source 3C 380 at L and C band. This object is unique among CSSs, in which superluminal jet motion and flare at mm-wavelength were reported, and is a good probe for CSS environment. Comparing with the AO1 observations scheduled on 4 and 5 July 1998, we can measure spectral change at the knot component A, which is considered to be interacting with ambient gas shown by our J-net 22 GHz observation. We also measure the change of spectral index from the core to end along the jet, to illustrate synchrotron loss. Furthermore, two epoch observation allow us to detect apparent motion of knot components. We expect to detect a new compont ejected at the flare in 1990, and measure its speed. Comparison of the speed with knot A is important to investigate acceleration region in the jet.

(6) Proposal Category (indicate all that apply):
Object type:
☑ AGN, ☐ Maser, ☐ Stellar, ☐ Pulsar, ☐ Other :
Observation type:
☑ Continuum, ☐ Spectral Line, ☐ Polarization, ☐ Time-critical, ☐ 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 (10).

The number of experiments in this proposal is: 2

(8) Details of proposed experiments

	Experiment 1	Experiment 2	Experiment 3	Experiment 4
Source name (J*hhmm*±*ddmm*)	J1829+4844	J1829+4844		
Alternative name	3C 380	3C 380		
RA(J2000) (hh mm ss.ssss)	18 29 31.7248	18 29 31.7248		
Dec(J2000) (dd mm ss.ssss)	+48 44 46.9515	+48 44 46.9515		
Observing frequency band (GHz)	5	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)				
FWHM of field of view required (mas)	50	50		
Min. spectral channels per IF channel	32	32		
Correlator averaging time (sec)				
No. of correlating passes (if >1)				
Total flux density (Jy)	7.50	14.7 (1.4 GHz)		
Correlated flux (mJy)	1.01	0.40 (2.3 GHz)		
Ground Radio Telescopes:				
Suggested array given at Item (10)?	☑	☑	☐	☐
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 AO1 proposal code(s)	v125b	v125a		

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

- [x] 2 channel x 16 MHz, 2-bit (Standard mode),
- [ ] Other:

Phase calibration tones:

- [x] On (Standard continuum mode),
- [ ] Off (Standard spectral line mode)

(Include justification of any non-standard choice at (10) below)

(10) Additional notes to the scheduler :

To keep identical image quality with AO1 observations, we prefer VLBA plus EB or Y with 15-hour observations.

(11) 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 229-8510 JAPAN

In addition, e-mail the completed LaTeX file 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 8 May 1998