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 : Polarization property of stationary jets with superluminal components in-between

(3)	INVESTIGATORS	INSTITUTION
P.I.	Shinji HORIUCHI	NAO, Mitaka, Japan
co-I.	Makoto INOUE	NAO, Mitaka, Japan
co-I.	Nan Rendon	Beijing Obs. , China
co-I.		
co-I.		
co-I.		

(4) Principal Investigator (or contact person) details...

Name : Shinji HORIUCHI
E-mail : horiuchi@hotaka.mtk.nao.ac.jp
Fax : +81-422-34-3869
Phone : +81-422-34-3808

Address :VSOP, NAO
: Osawa 2-21-1, Mitaka
: Tokyo
: Japan
:

(5) Proposal Abstract :

We propose multi-epoch Halca-VLBA observations at 1.6GHz and 5GHz with dual polarization mode toward 3C395. This source is known to have both stationary and superluminal components in their parsec-scale structure. High angular resolution at this frequency allow us to confirm the shock-in-jet model for the stationary jets and understand the role of magnetic field. Observations at these two low frequencies can yield RM (Rotation Measure) map which help us to see, in addition to get electron density and magnetic field strength information, three dimensional structure of the magnetic field surrounding the jet if there is asymmetry in the RM distribution.

(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*)	1901+319	1901+319		
Alternative name	3C395	3C395		
RA(J2000) (hh mm ss.ssss)	19 02 55.93912	19 02 55.93912		
Dec(J2000) (dd mm ss.ssss)	31 59 41.7014	31 59 41.7014		
Observing frequency band (GHz)	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		
Correlator averaging time (sec)	2	2		
No. of correlating passes (if >1)				
Total flux density (Jy)	2.5	2.0		
Correlated flux (mJy)	1400	1000		
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	2	2		
Mean interval (days)	20			
Related AO1 proposal code(s)				

(9) 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),

☑ Other:4 channel x 16 MHz, 2-bit

Phase calibration tones:

☑ 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 :

Any special request for specific ground radio telescopes or observing dates should be included here.

(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