

# VSOP AO2 PROPOSAL COVER SHEETS

DEADLINE : 8 May, 1998

SEND TO : VSOG, ISAS, 3-1-1 Yoshinodai, Sagamihara, Kanagawa 229-8510, JAPAN

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

(1) Date prepared : 3-May-1998

(2) Proposal title : Monitoring of the BL Lac object OJ287

(3)	INVESTIGATORS	INSTITUTION
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(5) Proposal Abstract :

Our proposal consists in a monitoring program of observations of the BL Lac object OJ287 at 5 GHz (experiment 1), supplemented by a single epoch observation of OJ287 at 1.6 GHz (experiment 2). It is the continuation of the AO1 proposal v078, which is scheduled for late 1998 and early 1999. The major goal of the monitoring observations is to confirm the helical path of the jet which we suspect based on intensive monitoring with 8.4 GHz geodetic VLBI data and more recently with multi-frequency VLBA data. The 1.6 GHz observation is designed to determine the spectral index along 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 ( <i>Jhhmm±ddmm</i> )	J0854+2006	J0854+2006		
Alternative name	OJ287	OJ287		
RA(J2000) (hh mm ss.ssss)	08 54 48.8749	08 54 48.8749		
Dec(J2000) (dd mm ss.ssss)	20 06 30.6409	20 06 30.6409		
Observing frequency band (GHz)	5 GHz	1.6 GHz		
<i>Continuum observations:</i>				
Standard VSOP freq. channels?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Channel A range (MHz)				
Channel B range (MHz)				
<i>Spectral line observations:</i>				
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				
Correlator averaging time (sec)	2	2		
No. of correlating passes (if >1)				
Total flux density (Jy)	1.3	2.2		
Correlated flux (mJy)	800	1200		
<i>Ground Radio Telescopes:</i>				
Suggested array given at Item (10)?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>GRT observing mode:</i>				
128Mbps LCP (standard)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
128Mbps LCP/RCP	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
256Mbps LCP/RCP	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Preferred correlator:</i>				
No preference	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mitaka	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Penticton	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Socorro	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Monitoring programs:</i>				
Number of observations	2			
Mean interval (days)	90			
Related AO1 proposal code(s)	v078			

(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:

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 :

Suggested observing dates (see u-v plot attached):

Experiment 1: 1-May-1999, 1-Nov-1999

Experiment 2: 1-May-1999

Suggested ground VLBI network: VLBA, HH, HO

(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, Sagami-hara  
Kanagawa 229-8510 JAPAN

In addition, e-mail the completed L<sup>A</sup>T<sub>E</sub>X file to [submit@vsop.isas.ac.jp](mailto: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**