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 : 1998, April 30

(2) Proposal title : Continuous monitoring of ecliptic pole source PKS 0637−752

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(5) Proposal Abstract :

The AO2 phase of the VSOP mission is a very favorable period for observing sources which lie close to the south ecliptic pole. This is because the current orbit evolution and sun angle constraints of the HALCA spacecraft allow sources within 10° of the south ecliptic pole to be continuously observed with good u-v coverage. The source PKS 0637−752 (J0635−7516) is ideally located to take advantage of these constraints and conditions. It is also a quasar with strong, flat-spectrum radio emission, a marginally resolved core, and a strong mas-scale jet. Hence, it is one of the few sources in the sky that is suitable for extended monitoring with the VSOP mission. We propose observations of PKS 0637−752 at 4 epochs, spaced at 4 month intervals, over the AO2 period from 1998 November to 1999 December, at 5 GHz. We request each observation to be of 2 days (8 orbits) duration in order to maximise the u-v coverages.

(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: 1

(8) Details of proposed experiments

	Experiment 1	Experiment 2	Experiment 3	Experiment 4
Source name (J*hhmm*±*ddmm*)	J0635−7516			
Alternative name	PKS 0637−752			
RA(J2000) (hh mm ss.ssss)	06 35 46.508			
Dec(J2000) (dd mm ss.ssss)	-75 16 16.816			
Observing frequency band (GHz)	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	128			
Correlator averaging time (sec)				
No. of correlating passes (if >1)				
Total flux density (Jy)	5.9			
Correlated flux (mJy)	4500			
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	4			
Mean interval (days)	120			
Related AO1 proposal code(s)	V115			

(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 :

We request the following array of Southern Hemisphere telescopes: ATCA, Mopra, Hobart, Ceduna, Hartebeestoek. We request 4 epochs of observation, spaced approximately 4 months (120 days) apart, beginning in 1998 November, and ending in 1999 December. We request that each of the 4 observations be of 2 days (8 orbits) duration, so as to better fill the u-v plane with the limited number of Southern Hemisphere ground telescopes.
The 1998 November observation lies 1 – 2 months before the start of the official AO2 period. However, the scientific goals of this proposal can much more easily be met if this observation can be scheduled, so that we can take advantage of the longest monitoring period possible.

(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