VSOP AO3 PROPOSAL COVER SHEETS

DEADLINE : 1 October, 1999
SEND TO : VSOG, ISAS, 3-1-1 Yoshinodai, Sagamihara, Kanagawa 229-8510, JAPAN

(1) Date prepared : September 29, 1999

(2) Proposal title : Brightness Temperatures of Third EGRET Catalog Blazars

(3)	INVESTIGATORS	INSTITUTION
P.I.	Ian Avruch	ISAS Japan
co-I.	Phil Edwards	ISAS Japan
co-I.		
co-I.		
co-I.		
co-I.		
co-I.		
co-I.		
co-I.		

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

Name : Ian Avruch
E-mail : avruch@vsop.isas.ac.jp
Fax : 81 427598340
Phone : 81 427598346

Address : ISAS
:3–1–1 Yoshinodai
:Sagamihara-shi, Kanagawa-ken
: 229 Japan
:

(5) Proposal Abstract :

We propose to observe with VSOP a set of radio-loud AGN identified by the EGRET telescope to be bright gamma-ray sources. They constitute the set of identified radio couterparts to Third EGRET Catalog (3EG) sources which have not been yet observed by VSOP, are bright enough to be detected on space baselines, and situated so as to offer good *uv* coverage during the first quarter of 2000. Comparison of the VSOP-derived brightness tempertures of these strongly beamed sources with those of γ-ray quiet AGN will help elucidate the statistical result that radio core flux and γ-ray flux are correlated.

(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 (11).

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*)	J1221+2813	J1319+5148		
Alternative name	1219+285	1317+520		
RA(J2000) (hh mm ss.ssss)	12 21 31.691	13 19 46.1960		
Dec(J2000) (dd mm ss.ssss)	28 13 58.50	51 48 05.762		
Observing frequency band (GHz)	5	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)				
No. of correlating passes (if >1)				
Total flux density (Jy)	1.09	0.8		
Correlated flux (mJy)	156	125		
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 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 (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 :

(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 1 October 1999