VLA OBSERVING APPLICATION

A

rcvd:

DEADLINES: 1st of Feb., June., Oct. for next configuration following review
INSTRUCTIONS: Each numbered item must have an entry or N/A
E-MAIL TO: propsoc@nrao.edu (different for some Rapid Response Science)
OR MAIL TO: Director NRAO, 520 Edgemont Rd., Charlottesville, VA 22903-2475

(1) Date Prepared: December 4, 2005

(2) Title of Proposal: **Localization and Characterization of Rotating Radio Transients**

(3) AUTHORS (Add * for new location)	INSTITUTION	E-mail	G/U	Students Only For Thesis?	Ph.D. Year
P. Brian Cameron	Caltech	pbc@astro.caltech.edu	G	Yes	2007
Dale Frail	NRAO	dfrail@nrao.edu			
S. R. Kulkarni	Caltech	srk@astro.caltech.edu			

(4) Related VLA previous proposal number(s):

(5) Contact author for scheduling: P. B. Cameron
address: Caltech, MC 105-24
Pasadena, CA 91125

(6) Telephone: (626) 395-4051
E-mail: pbc@astro.caltech.edu
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(7) Scientific Category: ○ solar system ⊗ galactic ○ extragalactic ○ other:
Rapid Response Science: ○ Known Transient ⊗ Exploratory ○ Target of Opportunity

(8) Configurations (one per column) (A+Pt, A, B, C, D, BnA, CnB, DnC, Any)	D				
(9) Wavelength(s) (400, 90, 20, 6, 3.5, 2, 1.3, 0.7 cm)	20, 6				
(10) Time requested (hours)	3				

(11) Type of observation: ○ continuum ○ spectroscopy ⊗ multichannel continuum ○ polarimetry ○ solar
(check all that apply) ⊗ pulsar ⊗ high-time resolution ○ Pie Town link ○ other:

(12) Suitable for dynamic scheduling? ⊗ Suitable ○ Unsuitable

(13) ABSTRACT (do not write outside this space)

We propose exploratory observations of three newly identified objects known as Rotating Radio Transients (RRATs). These objects are thought to be representative of a larger new class of neutron stars that have recently been uncovered. VLA observations of two of these transients will provide arcsecond positions for follow-up at other wavelengths in order to determine the nature of these objects. The third will provide an insight into the mechanism causing the coherent radio emission.

NRAO use only
(08/03)

(14) Observer present for observations? ○ Yes ⊗ No Data analysis at? ⊗ Home ○ AOC or CV (2 weeks notice)

(15) Help required: ⊗ None ○ Consultation ○ Friend (extensive help)

(16) Spectroscopy only	line 1	line 2	line 3	line 4
Transition (HI, OH, etc.)				
Rest Frequency (MHz)				
Velocity (km/s)				
Observing frequency (MHz)				
Correlator mode				
IF bandwidth(s) (MHz)				
Hanning smoothing (y/n)				
Number of channels per IF				
Frequency Resolution (kHz/channel)				
Rms noise (mJy/bm, nat. weight., 1 hr)				
Rms noise (K, nat. weight., 1 hr)				

(17) Number of sources:	**3**

(If more than 10 please attach list. If more than 30 give only selection criteria and LST range(s).)

(18) NAME	Coordinates 1950 ○ 2000 ○ RA hh mm Dec. ± xx.x°	Conf.	λ (cm)	Corr. mode	Band-width per IF (MHz)	Total Flux (Jy)*	LAS	Required rms (mJy/bm)	Required dynamic range	Time request (hr)
J1819−1458	18 19, -14 58	D	20		50	~ 1.0	$1''$	3		0.5
		D	6		50	0.03	$1''$	3		0.5
J1846−02	18 46, -02 56	D	20		50	0.45	$14'$	3		1.0
J1911+00	19 11, +00 37	D	20		50	0.25	$14'$	3		1.0

*For spectral line, this should be the total flux at the peak of the line

Notes to the table (if any):

(19) Restrictions to elevation (other than hardware limits) or HA range (give reason):

(20) Preferred range of dates for scheduling (give reason):

(21) Dates which are not acceptable:

(22) Special hardware, software, or operating requirements: Require override status over low priority programs (see text for details).

(23) Please attach a self-contained Scientific Justification **not in excess of 1000 words.** (Preprints or reprints will be ignored.) Please include the full addresses (postal and e-mail) for first-time users or for those that have moved (if not contact author). When your proposal is scheduled, the contents of the cover sheets become public information (Any supporting pages are for refereeing only).

v4.2 8/03