



# 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: August 2, 2005

(2) Title of Proposal: An Explanatory Proposal:  
A Search For Phase Referencing Sources For The W75 Region

(3) AUTHORS (Add * for new location)	INSTITUTION	E-mail	G/U	Students Only	
				For Thesis?	Ph.D. Year
Patrick Palmer	U. of Chicago	ppalmer@oskar.uchicago.edu			
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(4) Related VLA previous proposal number(s):

(5) Contact author  
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Chicago, IL 60637

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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→A				
(9) Wavelength(s) (400, 90, 20, 6, 3.5, 2, 1.3, 0.7 cm)	3.5 cm				
(10) Time requested (hours)	2				

(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 the determination of the location of a potential phase referencing calibrators for VLBA observations of the W75 region. From the NVSS survey we located 13 nearby compact candidates. By observing them with the VLA, we can determine whether they are suitable for the next step: observation with the VLBA. If we find one, we can then write a proposal to continue our research on positional coincidences of 4765 MHz and 1720 MHz OH masers.

(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: 13

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

(18) NAME	Coordinates		Conf.	$\lambda$ (cm)	Corr. mode	Band- width per IF (MHz)	Total Flux (Jy)*	LAS	Required rms (mJy/bm)	Required dynamic range	Time request (hr)
	1950 <input type="radio"/>	2000 <input type="radio"/>									
	RA	Dec.									
	hh mm	$\pm$ xx.x $^{\circ}$									
W75 Region	~20 39, ~42.4		D-A	3.5			~.3	10''	1	1000**	2
(within 5 de- grees)											

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

Notes to the table (if any):  
 \*\*with respect to DR21 (about 20 Jy)

- (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:
- (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).