



# Observing Application

Date : Aug, 06 2010
Proposal ID : VLA/10B-237
Legacy ID : AS1062
PI : Lorant Sjouwerman
Type : Rapid Response - Exploratory Time
Category : Stellar, Galactic
Total Time : 10.0

## Pilot/test observations detecting 43 GHz SiO masers in MSX sources

### Abstract:

This is a request for pilot/test observations for a previously submitted large proposal (AS1017 or VLA/10A-203), in response to referee concerns. Goals:

- 1) to show our observing strategy yields a detection rate of over 50% in D array with moderate observing conditions (using typical C band weather for Q band observations),
- 2) to test/fine-tune our automated scheduling and data reduction programs with real observing examples,
- 3) to investigate the extra resources when observing in C-type array configurations (e.g. moves, DnC, C, CnB) compared to D array, and
- 4) to investigate whether our observing/weather strategy still holds with these larger C-type arrays and yields comparable detection rates as the original D array proposal.

Note that we are not asking for high-frequency weather and therefore will not compete with other already approved high-frequency programs

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### Related proposals:

AS1017

### Joint:

Not a Joint Proposal

### Observing type(s):

Spectroscopy

### VLA Resources

Name	Conf.	Frontend & Backend	Setup
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Name	Conf.	Frontend & Backend	Setup
msxsio	Any	Q Band 0.7 cm 40000 - 50000 MHz WIDAR OSRO2: 1 Subband/Dual polz	Rest frequencies: 43122.0 MHz Bandwidth: 128.0 MHz No. of Channels: 256 Poln. products: 2.0 Channel Width: 500.0 kHz

### Sources:

Name	Position		Velocity		Group
GalPlane	Coordinate System	Equatorial	Convention	Radio	MSX
	Equinox	J2000			
	Right Ascension	00:00:00.0 12:00:00.0	Ref. Frame	LSRK	
	Declination	+00:00:00 89:59:59	Velocity	0.00	

### Sessions:

Name	Session Time (hours)	Repeat	Separation	LST minimum	LST maximum	Elevation Minimum
someLST	1.00	10	0 day	00:00:00	24:00:00	0

### Session Constraints:

Name	Constraints	Comments
someLST		we'll submit 1hour SBs spread out over LST and the OST can pick whichever

### Session Source/Resource Pairs:

Session Name	Source	Resource	Time	Figure of Merit	Subarray
someLST	GalPlane	msxsio	1.0 hour	15 mJy/bm	

Present for observation: no

Staff support: None

Plan of Dissertation: no