



# Observing Application

Date : Nov, 24 2010  
 Proposal ID : VLA/10C-232  
 Legacy ID : AM1079  
 PI : Travis McIntyre  
 Type : Rapid Response -  
 Exploratory Time  
 Category : Extragalactic  
 Total Time : 3.0

## EVLA Rapid Response Request for Newly Detected, Potential Local Group Galaxy

### Abstract:

The Arecibo L-Band Feed Array Zone of Avoidance Survey made a recent discovery of a possible Local Group galaxy at a heliocentric velocity of +286 km/s. The distance to this galaxy cannot be determined accurately using Hubble's Law because of the small recessional velocity. We request use of the EVLA during C-configuration time in order to provide a position for this galaxy accurate enough for follow-up with a large optical telescope. We could also use the C to CnB move time and/or CnB time. A large optical telescope can then be used to obtain a redshift-independent distance to this galaxy by measuring the tip of its red giant branch. Obtaining this distance will determine group membership as well as neutral hydrogen mass content. This will allow us to determine the gravitational influence of this nearby galaxy on the Local Group. Use of the EVLA will also provide HI morphology and a velocity field in order to determine galaxy type.

### Authors:

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### Related proposals:

### 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
J1952+1429	C	L Band 20 cm 1000 - 2000 MHz WIDAR OSRO2: 1 Subband/Dual polz	Rest frequencies: 1420.40575 MHz Bandwidth: 2.0 MHz No. of Channels: 256 Poln. products: 2.0 Channel Width: 7.813 kHz

### Sources:

Name	Position		Velocity		Group
J1952+1429	Coordinate System	Equatorial	Convention	Optical	Rapid Response
	Equinox	J2000			
	Right Ascension	19:52:10.4 00:00:00.0	Ref. Frame	Barycentric	
	Declination	+14:29:01.0 00:00:00.0	Velocity	286.00	

### Sessions:

Name	Session Time (hours)	Repeat	Separation	LST minimum	LST maximum	Elevation Minimum
1	1.00	3	0 day	14:30:00	01:30:00	15

### Session Constraints:

Name	Constraints	Comments
1		The rms noise value assumes 2 hours of on-source time after 3x1 hour sessions.

### Session Source/Resource Pairs:

Session Name	Source	Resource	Time	Figure of Merit	Subarray
1	J1952+1429	J1952+1429	1.0 hour	1.9 mJy/bm	

Present for observation: no

Staff support: None

Plan of Dissertation: no