Proposal Identification No.: R2296 Date Received: 2007-Jan-15_15:07:14

Technical Page

Proposal Type:	Urgent
General Category:	Planetary Radar
Observation Category:	Solar System
Total Time Requested:	0.5 Hours
Minimum Useful Time:	0.5 hr

Proposal Title: TOO - Interferometric Radar Observations of Asteroid 2006 VV2

ABSTRACT:

Near Earth asteroid 2006 VV2 will approach the Earth to within 0.024 AU in late March-early April 2007 at which time we request a short session to image and do astrometry of this asteroid while it's illuminated by the Arecibo S-Band radar system. We request 30 min of transmit only time on 2007 April 1. A companion proposal has been submitted for matching time at the VLBA and GBT to receive the asteroid's radar echo. Synthesis radar imaging can provide plane-of-sky image and position information orders of magnitude better than other ground-based methods, and which is complementary to standard radar mapping. The asteroid's diameter is likely between 1.5 and 2 km, and we expect a spatial resolution of order 50 m. In addition, by resolving the asteroid's echo in frequency during correlation, we can determine the absolution orientation of its shape and rotation axis.

Name	Institution	E-mail	Phone	Student
Greg Black	University of Virginia	gblack@virginia.edu	434-243-8941	no

Remote Observing Request

☐	Observer will travel to AO
☒	Remote Observing
☐	In Absentia (instructions to operator)

Instrument Setup

S-Band radar

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

2380