Proposal Identification No.: R2297 Date Received: 2007-Jan-30_11:01:19

Technical Page

Proposal Type:	Urgent
General Category:	Planetary Radar
Observation Category:	Solar System
Total Time Requested:	6 Hours
Minimum Useful Time:	

Proposal Title: Radar Imaging of a Fast-Rotating Near-Earth Asteroid

ABSTRACT:

Based on its visual brightness, asteroid 2006 AM4 is about 150m in size. It was recently discovered to be rotating in just over five minutes, extremely fast for such a large object, indicating that it is a single solid body. This object will be observable at Arecibo with enough SNR for imaging on 2007 Feb 1-3. We request Feb 1, the highest SNR date, for high-resolution imaging, and either Feb 2 or 3 for better aspect coverage. We have a well-determined rotation period of 304.9+-0.2 s, so we can co-add obervations over multiple rotations of the asteroid.

Name	Institution	E-mail	Phone	Student
Michael C Nolan	Arecibo Observatory	nolan@naic.edu		no

Remote Observing Request

- [X] Observer will travel to AO
- [ ] Remote Observing
- [ ] In Absentia (instructions to operator)

Instrument Setup

S-Band radar S-band receiver

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

2360-2380 MHz