

### Technical Page

This proposal has not been submitted before.

Proposal Type:                      Urgent  
 General Category:                  Planetary Radar  
 Observation Category:          Solar System  
 Total Time Requested:          3 Hours  
 Minimum Useful Time:          2

**Proposal Title:** Radar Observations of Near-Earth Asteroid 2003 DZ15

*ABSTRACT:*

We request one 3-hour observing run (including transmitter warm-up time) to detect the recently recovered asteroid 2003 DZ15 as it approaches within 20 lunar distances of Earth. We expect 2003 DZ15 to be within a factor of two of 100 meters in diameter and will use the radar to refine its size, rotation, and heliocentric orbit. Despite its close approach to Earth, 2003 DZ15 is too small to be categorized as a potentially hazardous asteroid and too large to be considered a human-mission or asteroid-retrieval target. However, it falls in the size range where we see growing evidence for fundamental changes in shape and rotation characteristics of near-Earth asteroids, and therefore is a desirable radar target. If the object shows exceptional characteristics, we may ask for additional time.

| Name             | Institution         | E-mail           | Phone                | Student |
|------------------|---------------------|------------------|----------------------|---------|
| Patrick A Taylor | Arecibo Observatory | ptaylor@naic.edu | 787-878-2612<br>x358 | no      |

#### Remote Observing Request

- 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