

Technical Page

Proposal Type: Urgent
 General Category: Planetary Radar
 Observation Category: Solar System
 Total Time Requested: 17:00 Hours
 Minimum Useful Time:

Proposal Title: Urgent Proposal for Arecibo Radar Imaging of Near-Earth Asteroid 2009 KC3
ABSTRACT:

We propose radar observations of potentially hazardous asteroid 2009 KC3, which will be a strong imaging target during its approach within 19 lunar distances in August, 2009. This object has an absolute magnitude of 17.9, suggesting a diameter within a factor of two of 800 meters. Nothing is known about its physical properties, but its orbital parameters yield a Tisserand parameter of 2.73 that is within the range for Jupiter family comets and outside the normal range for asteroids. Is 2009 KC3 an inactive comet nucleus? That is one of the questions we seek to answer. We propose five days of radar imaging to increase the probability of obtaining thorough rotation coverage, which is critical for estimation of the 3D shape of this object.

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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