

Technical Page

This proposal has not been submitted before.

Proposal Type: Urgent
 General Category: Planetary Radar
 Sub-Category: Radar
 Observation Category:
 Total Time Requested: 6 Hours
 Minimum Useful Time: 1

Proposal Title: Radar Observations of Potentially Hazardous Asteroid 2017 YE5

ABSTRACT:

We request two 3.5-hour observing tracks (including transmitter warm-up time) to observe the potentially hazardous asteroid 2017 YE5, which could be approximately 860 m in diameter. The Tisserand parameter of 2.875 suggests that the object could be an extinct Jupiter family comet. 2017 YE5 is visible from Arecibo only from June 22-26, making its closest approach to Earth within 0.04 AU on June 21st. It would be the first time that this object is observed with the Arecibo planetary radar system, with the possibility to obtain images, refine its orbit, and assist in the characterization of the target. We are requesting to take the time that is currently assigned to P1693 and X111 on June 23rd and 24th. On June 23h the target rises at 3:53am (AST) and sets at 6:32am (AST), and on June 24th it rises at 3:22am (AST) and sets at 6:00am (AST).

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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