

Technical Page

This proposal has not been submitted before.

Proposal Type: Urgent
 General Category: Planetary Radar
 Observation Category: Solar System
 Total Time Requested: 2.75 Hours
 Minimum Useful Time: 1.0

Proposal Title: Radar Observations of Potentially Hazardous Near-Earth Asteroid 2017 CS
ABSTRACT:

We request at least 2.75 hours of telescope time on June 4 to observe potentially hazardous near-Earth asteroid 2017 CS. This specific time is requested to overlap with already-scheduled observations at with the Goldstone Solar System Radar in California. The asteroid is known to rotate in 40 hours, which means the echo will not be adequately resolved in Doppler frequency using Arecibo alone. Instead, we wish to perform bistatic observations where Goldstone transmits and Arecibo receives the echo. This will remove the constraint on the frequency resolution and provide better radar images. Our specific time request would require bumping project P3137 and covering ALFA before P3114. We may request an additional one or two observing sessions (3.5 to 7 hours of telescope time) between June 5 and June 19 as followup while the asteroid recedes from Earth.

Name	Institution	E-mail	Phone	Student
Patrick A Taylor	Arecibo Observatory	ptaylor@naic.edu	787-878-2612 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