

Technical Page

Proposal Type: Regular
 General Category: Planetary Radar
 Sub-Category: Radar
 Observation Category: Near Earth Asteroids
 Total Time Requested: 220 Hours
 Minimum Useful Time:

Proposal Title: Arecibo Radar Observations of 24 Near-Earth Asteroids During August 2012 to March 2013

ABSTRACT:

We request 70 observing sessions (150 hours observing + 70 hours setup = 220 hours total) to observe 24 near-Earth asteroids, including two potential human mission targets, one known binary system, at least two contact binary objects, and several asteroids which may show non-gravitational perturbations to their orbits due to the Yarkovsky effect. We have the last opportunity to obtain high-resolution radar images of the large tumbling near-Earth asteroid Toutatis until 2069. Five more of the objects will be suitable for high-resolution shape modeling; we expect that at least one of them is a binary system.

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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

2360 - 2400