

Technical Page

This proposal has not been submitted before.

Proposal Type: Urgent
 General Category: Planetary Radar
 Observation Category: Solar System
 Total Time Requested: 3.5 Hours
 Minimum Useful Time: 2.0

Proposal Title: Radar Observations of Small Near-Earth Asteroids 2015 KQ120 and 2015 KM57
ABSTRACT:

We request one 3.5-hour observing track (including transmitter warm-up time) to detect recently discovered near-Earth asteroids 2015 KQ120 and 2015 KM57. Asteroid 2015 KQ120 is an NHATS object of interest to NASA as a possible future robotic or crewed mission target. Both asteroids are very small, expected to have diameters of roughly 10 to 30 meters, a size range poorly sampled by radar. Observations will refine the orbits and provide estimates of the size, spin, and surface characteristics of these small bodies. The requested time, 2015 June 4, 04:00-07:30 AST, is currently occupied by P1693 and X111 time. The transmitter could begin warming up during P2030, but ALFA would then have to be covered at 04:30.

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