Proposal Title: Observations of two NEAs by extending scheduled radar time on March 23 and 24.

ABSTRACT:

We propose to extend existing scheduled planetary radar time to observe two NEAs: 2010 SV3 and 2012 BT23 on March 23, 24, 2012. These objects will be bright enough for astrometry to improve the orbit determination, and possibly get a rough shape determination. The positions of these objects are known well enough that pointing will not be a problem. 2010 SV3 is expected to be 200-400m in diameter, and should be detectable at SNR 3-5 per run, assuming rapid rotation. If it rotates more slowly, the SNR will be higher. 2012 BT23, discovered in early February, is expected to be 400-1000 m in diameter, and should be detectable at SNR at least 8 per run. The availability of these objects in a time already scheduled for planetary radar avoids the need for (separately) warming up the transmitter, makes efficient use of the radar transmitter with minimal impact on the existing schedule. If for some reason we do not detect 2012 BT23, the scheduled project (A2645) can run as planned in the remaining time.

Remote Observing Request

- [X] 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

2380 MHz