

## Technical Page

This proposal has not been submitted before.

Proposal Type:                   Urgent  
 General Category:               Planetary Radar  
     Observation Category:      Solar System  
 Total Time Requested:        2 Hours  
 Minimum Useful Time:         2 hrs

**Proposal Title:** Observation of Near-Earth Asteroid 2020LV

*ABSTRACT:*

We request one 2 hour observing track (including transmitter warm-up time) to observe recently discovered near-Earth object (NEO) 2020LV, on Tuesday, June 23rd 2020 from 07:30 to 09:30 (AST). This NEO has its closest approach on June 22 at a distance of 0.0137 AU, and is currently on the Sentry Impact list (2097-06-21.52), 2020LV has an absolute magnitude (H) of 25, an estimated diameter of 33 m and an expected bandwidth of 3.6Hz. For observation on June 23: RRT: 14.1 sec, RA: 2.4 hours, DEC +6 degrees and an SNR/day of 133. NEOs are high priorities of the NASA funded Planetary Radar Science group at the Arecibo Observatory (AO), this year 39 newly discovered NEOs have been observed using the planetary radar system at AO. Usually not much is known about recently discovered NEOs, except for their orbital parameters. Radar observations allows to refine their orbits, helping in permanent tracking of these objects. In addition, radar also allows us to estimate of object sizes, rotation states, and provides limits on surface properties.

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### Remote Observing Request

- Observer will travel to AO
- Remote Observing
- In Absentia (instructions to operator)

### Instrument Setup

S-band receiver

### Atmospheric Observation Instruments:

**Special Equipment or setup:** none

**RFI Considerations**

**Frequency Ranges Planned**