

### Technical Page

Proposal Type: Regular  
 General Category: Planetary Radar  
 Sub-Category: Radar  
 Observation Category: Solar System  
 Total Time Requested: 11 Hours  
 Minimum Useful Time:

**Proposal Title:** Arecibo-GBT 70-cm Radar Mapping of the Moon’s Northwest Limb

*ABSTRACT:*

We request a total of 11 hours of Arecibo-GBT time to acquire a 70-cm wavelength, dual-polarization radar backscatter map of the Moon’s north-central and northwestern limb. This area has not been visible under favorable conditions of lunar libration since we initiated our program of mapping the entire near side. Beyond filling a gap in the overall map, these observations are important to ongoing studies of resource-rich pyroclastic deposits on the Aristarchus Plateau, analysis of an enormous “halo” of pulverized rock that appears to surround Orientale Basin, and to the search for patches of ancient basalt now covered by thin parts of the Orientale ejecta blanket.

Name	Institution	E-mail	Phone	Student
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#### Remote Observing Request

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

#### Instrument Setup

430 CH receiver 430 CH radar

#### Atmospheric Observation Instruments:

**Description of Observer Equipment:** We typically do not record data at Arecibo, using the GBT receivers instead.

**Special Equipment or setup:** none

#### RFI Considerations

## Frequency Ranges Planned

430 MHz