

Technical Page

Proposal Type: Regular
 General Category: Planetary Radar
 Sub-Category: Radar
 Observation Category: Solar System
 Total Time Requested: 80 Hours
 Minimum Useful Time:

Proposal Title: High-Resolution 12.6-cm Radar Mapping of the Nearside of the Moon

ABSTRACT:

We propose to map the near side of the Moon at 12.6-cm radar wavelength, using the Arecibo Observatory transmitter and receivers at the Green Bank Telescope. This map will have an 80-m per pixel spatial resolution, have four radar looks averaged to reduce speckle effects, and will be collected in both senses of reflected circular polarization. We will archive power image data, beam- and noise-corrected calibrated mosaics of large regions, and complex-valued data suitable for Stokes vector analysis with the Planetary Data System (PDS). The result will be a spacecraft-quality dataset for the Moon of use in a wide range of geologic investigations and landing site studies.

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

S-Band radar

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned