Technical Page

This proposal has not been submitted before.

Proposal Identification No.: R3102

Date Received: 2016-Jul-13 12:13:01

Proposal Type: Urgent

General Category: Planetary Radar

Observation Category: spacecraft

Total Time Requested: 4.25 Hours

Minimum Useful Time: 2 hours

Proposal Title: Bistatic Arecibo and GBT Radar observations of spacecraft Chandrayaan-1 and Ouna

ABSTRACT:

Maintaining the orbital knowledge of old spacecraft that are still orbiting the Moon is important because these spacecraft pose a potential impact hazard for the future human missions. In particular, the Orion spacecraft will be using Moon’s gravity assist on its way to the cis-lunar space. Chandrayaan-1 and Ouna were considered lost along their respective tracks until we detected Chandrayaan-1 with Goldstone and GBT in early July of 2016. We now seek to re-observe Chandrayaan-1 and to detect Ouna for the first time with radar.

<table>
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</tbody>
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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