Technical Page

Proposal Type: Regular
General Category: Planetary Radar
Sub-Category: Radar
Observation Category: Solar System
Total Time Requested: 32 Hours

Proposal Title: Radar Observations of Mercury in 2001

ABSTRACT:

This is a proposal to make several S-band radar imaging observations of Mercury in June-July 2001. A major objective is to study the large non-polar radar features in the Mariner-unimaged hemisphere. This will include follow-up observations to last year's successful imaging of midlatitude features A and B, as well as the first post-upgrade observations at the longitudes of feature C. We also plan an observation of the Mariner-imaged hemisphere near inferior conjunction, which will fill another coverage gap as well as serve as a radar demonstration for the Arecibo Single-Dish Radio Astronomy Summer School. Although the primary objective is the non-polar features, some of these observations will enable us to image the north pole at sub-Earth aspects different from those of the 1998-2000 observations; among other things, this can provide new data on the lowest-latitude “ice” features.

<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
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<tbody>
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I do NOT want to do remote observing.

Instrument Setup

S-Band radar S-band receiver

Atmospheric Optical Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

2380