Technical Page

Proposal Identification No.: RR2101
Date Received: 2005-May-25 13:06:58

Proposal Type: Regular
General Category: Planetary Radar
Observation Category: Solar System
Total Time Requested: 142.7 Hours

Proposal Title: Proposal for Radar Imaging of Apollo, Phobos, Deimos, and Seven Mainbelt Asteroids

ABSTRACT:

Our intentions include high-resolution imaging and shape reconstruction of the near-Earth asteroid 1862 Apollo; moderate-resolution imaging and shape reconstruction of the main-belt asteroids 3 Juno, 53 Kalypso, and 60 Echo; moderate-resolution imaging and, if the pole directions are suitable, shape reconstruction of the main-belt asteroids 111 Ate, 164 Eva, 711 Boliviana, and 1139 Atami; detection of Deimos and estimation of its surface bulk density; and imaging of Phobos and determination of its radar scattering law. We expect echoes at least several times higher than those achieved for any of the six previously detected targets. For each of our targets, the next radar opportunity as good as the 2005-2006 one is years to decades in the future.

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<thead>
<tr>
<th>Name</th>
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<tbody>
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Service Observing Request

- X None
- All of the observing run.
- Part of the observing run.
- Queue Observing

Remote Observing Request

- X No
- Maybe
- Yes

Instrument Setup

S-Band radar
S-band receiver

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations
Frequency Ranges Planned