Technical Page

Proposal Type: Terrestrial Aeronomy
Sub-Category: Optical
Observation Category: Ionospheric
Total Time Requested: 24 Hours

Proposal Title: Arecibo Observations of Gravity Waves Associated with Solar Eclipse Ionospheric Depletion

ABSTRACT:

The observation will determine the strength of gravity waves that may be induced by a solar eclipse. The ionospheric perturbation caused cooling, recombination, and diffusion is expected to leave a wake of the lunar shadow which propagates away in a gravity wave mode. The incoherent scatter radar at Arecibo is ideally located to detect these gravity waves and provide valuable information on the ionospheric response.

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<tr>
<th>Name</th>
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<th>Phone</th>
<th>Student</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

Atmospheric Observation Instruments:
- Ionosonde

Description of Observer Equipment: Four high speed radar processors to be supplied by F. T.

Djuth

Special Equipment or setup: Special setup: Software needs: Principal observing programs are CLOP (1 microsec baud), POWRD, and MRACF. Media needs:

RFI Considerations
Frequency Ranges Planned

see proposal