Proposal Title: High-Altitude V/UHF Radar Meteor Observations

ABSTRACT:
Recent observations at the Jicamarca Radio Observatory (JRO) designed to study fragmentation surprisingly point unambiguously to radar meteors at altitudes of up to 180 km. This result will likely prove controversial and, as such, requires additional observations especially designed toward understand the radio science of these meteors. That is, we must understand the scattering mechanism before we can begin to interpret the meteoroid processes involved in creating the necessary plasma. In particular, we have not, to date, noticed these high-altitude events in the Arecibo VHF observations. Is this because we were not explicitly looking for these events and/or is the JRO k-perp-B geometry critical to the detectability of scattering? To this end we request a minimum of two 8-hour”0000-0800 AST” observation sets using both the AO U/VHF radars.

<table>
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<tr>
<th>Name</th>
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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

47 CH receiver 47 radar 430 CH receiver 430 CH radar

Atmospheric Observation Instruments:
Ionosonde

Special Equipment or setup: none

RFI Considerations
Frequency Ranges Planned