

Technical Page

Proposal Type: Regular
 General Category: Terrestrial Aeronomy
 Sub-Category: Radar
 Observation Category: Prototype Test Time
 Total Time Requested: 44 Hours

Proposal Title: Test Time for 430 MHz Interferometer Project.

ABSTRACT:

The Communications and Space Sciences Laboratory (CSSL) at the Pennsylvania State University is developing a unique receiver system configuration tailored for the Arecibo Observatory (AO) 430 MHz radar facility in order to make it possible to detect the trajectories of objects traveling inside the near field (100km height) of the linefeed main beam. Knowledge about meteor trajectories will provide better global estimates of the amount of extra terrestrial material deposited into the upper atmosphere where aeronomic effects are profound [Mathews et al., 2001]. This project will also test the necessary application of the new IF-sampling digital receivers to be used with the interferometer system.

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Service Observing Request

Remote Observing Request

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

- No
- Maybe
- Yes

Instrument Setup

430 CH receiver 430 CH radar

Atmospheric Observation Instruments:

Special Equipment or setup: CRR3 output must be recorded along with linefeed data. IF-sampling Digital Receivers ECDR GC214 and ECDR GC314.

RFI Considerations

Frequency Ranges Planned

400 - 450