

Technical Page

Proposal Type: Regular
 General Category: Terrestrial Aeronomy
 Sub-Category: Radar
 Observation Category: Ionosphere
 Total Time Requested: 126 Hours

Proposal Title: Investigations of sporadic E layers and quasiperiodic echoes using Arecibo and a coherent scatter radar

ABSTRACT:

We have been funded by the NSF/CEDAR program to carry out simultaneous observations of sporadic E layers above Puerto Rico using the Arecibo 430 MHz incoherent scatter radar and a 30 MHz coherent scatter radar that will be installed on St. Croix by Clemson University. The common volume observations will allow us to investigate the horizontal structure of quasiperiodic echoing regions, as well as the role of electric fields and neutral winds in the development of the instabilities, in a way that has not been possible in previous studies. This proposal requests radar observing time for the main phase of the project which is to be carried out during June and July of 2002.

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I might want to do remote observing.

Instrument Setup

430 CH radar

Atmospheric Optical Instruments:

Ionosonde Lidar

Special Equipment or setup: We would like to use the dual-beam capability for the 430 MHz radar if available.

RFI Considerations

Frequency Ranges Planned