

Technical Page

This proposal has not been submitted before.

Proposal Type: Regular
 General Category: Terrestrial Aeronomy
 Observation Category: Thermosphere
 Total Time Requested: 50 Hours
 Minimum Useful Time:

Proposal Title: FIELD ALIGNED CURRENTS AND PHOTOELECTRONS DURING THE LOCAL AND CONJUGATE REGION SUNRISE AND SUNSET.

ABSTRACT:

Arecibo provides differences in the times of local and conjugate region sunrise and sunsets. These were utilized to distinguish the local and conjugate region E-fields. While the E-field effects could be well explained using the conventional electric circuits comprising the dynamo regions as well as the polarization fields of the F regions for both local and conjugate regions, there are clear evidences that the photoelectrons from both local and conjugate regions become substantial in providing the electron fluxes at both the local and conjugate region transitions. With the data taking and analysis procedures improvement for plasma line measurements, such register can be done over almost the entire ionosphere, offering the possibility of measuring the electron drift near the sunrise and sunset terminators at different altitudes and clearly identify the local and conjugate region photoelectrons and their contributions to the sunrise and sunset ionosphere.

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Remote Observing Request

- Observer will travel to AO
- Remote Observing
- In Absentia (instructions to operator)

Instrument Setup

430 Xmit

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned