

Technical Page

Proposal Type: Regular
 General Category: Terrestrial Aeronomy
 Sub-Category: Optical
 Observation Category: Exosphere
 Total Time Requested: 100 Hours
 Minimum Useful Time: 4

Proposal Title: Swarm EFI Data Products Validation Using Incoherent Scatter Radars
ABSTRACT:

This proposal addresses validation of Swarm EFI (including Thermal Ion Imager and Langmuir Probe) data products through comparison with ground-based incoherent scatter radar (ISR) measurements of line-of-sight plasma drift velocity, plasma density, and ion and electron temperatures. While ISR signals are inherently noisy, there is a mature theory of the associated measurement errors. Assessment of EFI performance can be carried out statistically through repeated coincident measurements; we aim to obtain of the order of 100 such comparisons (more if possible) using ISR facilities located in Canada, Europe, the US, and South America

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Remote Observing Request

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

Instrument Setup

430 CH receiver

Atmospheric Observation Instruments:

Fabry-Perot Ionosonde

Special Equipment or setup: if the conditions are appropriate for optical observing, the data will be useful

RFI Considerations

Frequency Ranges Planned