

Project Details

ROSES ID: NNH13ZDA001N

Selection Year: 2013

Program Element: Focused Science Topic

Topic: Thermospheric wind dynamics during geomagnetic storms and their influence on the coupled magnetosphere-ionosphere-thermosphere system

Project Title:

Thermospheric wind and the evolution of the ionospheric and magnetospheric electron and ion densities at altitudes below 4000 km during geomagnetic storms

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Project Member(s):

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Summary:

We propose a four-year data analysis and numerical simulation program to study how thermospheric winds influence the evolution of the ionospheric and magnetospheric electron and ion (H^+ , He^+ , O^+) densities during geomagnetic storms. We will use whistler mode radio sounding data and ray tracing simulations to obtain electron and ion densities and field aligned irregularities (FAI) at