

NASA Goddard Space Flight Center Space Weather Activities

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The NASA Goddard Space Flight Center's Heliophysics Science Division (HSD) conducts research on the Sun, its extended solar-system environment (the heliosphere), and interactions of Earth, other planets, small bodies, and interstellar gas with the heliosphere. Division research also encompasses geospace -- Earth's uppermost atmosphere, the ionosphere, and the magnetosphere -- and the changing environmental conditions throughout the coupled heliosphere. Scientists in the HSD develop models, spacecraft missions and instruments, and systems to manage and disseminate heliophysical data. They interpret and evaluate data gathered from instruments, draw comparisons with computer simulations and theoretical models, and publish the results. The Division also conducts education and public outreach programs to communicate the excitement and social value of NASA heliophysics.

Space weather is a major part of HSD activities and the Division is the home for entities such as Community Coordinated Modeling Center and Space Physics Data Facility. HSD scientists work in close collaboration with federal partner organizations such as NOAA, USGS and Air Force to help transition the latest scientific information into space weather operations. HSD scientists are also supporting many of the National Space Weather Action Plan goals and play significant role in a variety of international space weather efforts. In this talk, we will provide a general introduction to HSD and its many activities that pertain to space weather. We also discuss our views for future directions of space weather and opportunities for enhanced collaborations.

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