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Poster
The Geospace model, part of the Space Weather Modeling Framework (SWMF) developed at the University of Michigan, has been utilized operationally at NOAA's Space Weather Prediction Center (SWPC) since 2016. Driven by observations at the L1 Lagrange point (1.5 million km upstream from Earth), Geospace provides predictions for the magnetospheric response to incoming solar wind drivers and resulting ground-level magnetic perturbations with a 30-60 minute lead time for geomagnetic disturbances. Operational output from the model--in the form of binary files and product images--is continuously archived and stored internally at NOAA. This poster provides an overview of current and future research and validation aimed at using the Geospace model to improve space weather forecasting and services through innovative ways to increase lead time and by coupling the Geospace model with the Geoelectric model to create a predictive version of Geoelectric. Additionally, we highlight work to make the Geospace model operational output--such as ground-level magnetic perturbations, plasma properties in the magnetosphere, and model Kp/Dst--more accessible to the research community. By serving the research community with operational data, operations will benefit from their assessments of model output, comparisons with other model results and the development of new innovative techniques for improving model performance.

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