



## **The Status of U.S. Operational Satellite Space Environmental Datasets**

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Space physics research greatly benefits from the availability of operational satellite data from the U.S. Departments of Commerce and Defense. These agencies acquire and maintain numerous assets in space that collect space environmental data for a variety of operational purposes. While the needs of the research communities do not and should not drive operational requirements for space environmental data, the availability of such data continues to be leveraged for research purposes. Operational space environmental data have been effectively used both as a stand-alone capability for research and for providing the context for multi-instrument studies of the interconnected sun-earth system. Additionally, the availability of extended historical records of the space environment is valuable to the scientific community since these records provide long-term statistical databases for space and terrestrial climatologies.

In this talk I will review the status of U.S. operational satellite space environmental datasets (past, current and future) that benefit space physics research. Primary sources of data to be discussed include the current Polar and Geostationary Operational Environmental Satellites (POES and GOES) operated by the U.S. National Oceanic and Atmospheric Administration (NOAA) and the Defense Meteorological Satellite Program (DMSP) satellites fielded by the U.S. Air Force (USAF). Retrospective access to operational space environmental datasets will be discussed and demonstrated. Also discussed will be the status of planned operational satellite datasets from the Defense Weather Satellite System (DWSS) and the Joint Polar Satellite System (JPSS) plus the status of other U.S. initiatives to replace the Advanced Composition Explorer (ACE) satellite and the Constellation Observing System for Meteorology, Ionosphere and Climate (COSMIC).