

GOES-16: First Uses in the National Weather Service Operations!

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The GOES-R Proving Ground Program was conceived to demonstrate and familiarize forecasters with the next generation geostationary satellite products and capabilities that will be incorporated into National Weather Service (NWS) and National Environmental Satellite, Data, and Information (NESDIS) operations. The Satellite Proving Ground for Marine, Precipitation, and Satellite Analysis (MPS PG) has been an active participant in the larger GOES-R Satellite Proving Ground for about six years and consists of the NWS Ocean Prediction Center (OPC), Weather Prediction Center (WPC), Tropical Analysis and Forecast Branch (TAFB) of the National Hurricane Center, and the NESDIS Satellite Analysis Branch (SAB). The first six years have focused on introducing new GOES-R proxy products to forecasters using current data from GOES, MTSAT, METEOSAT, MODIS (Aqua and Terra), and S-NPP. With the advent of the Himawari-8 Advanced Himawari Imager (AHI) and the GOES-16 Advanced Baseline Imagery (ABI) and Geostationary Lightning Mapper (GLM) into the operational satellite suite at these centers, the forecasters are being introduced to satellite imagery and products at higher spectral, spatial, and temporal resolutions. The ABI consists of 16 channels, many of which are new to forecasters, therefore the PG is in the process of highlighting uses that will build on the official NWS training.

The GOES-R satellite was launched on 11/19/16 and once it achieved orbit at 22,300 miles above Earth, the satellite was renamed GOES-16. It is currently in Beta testing and the data will become provisional around 06/01/17. The final operational position (East/West) will be determined soon and the satellite will officially become operational in November 2017. This presentation seeks to highlight some of the initial success stories and lessons learned from the preliminary, non-operational data that has been used operational at National Weather Service Offices and National Centers.