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Service Change Notice 16-22
National Weather Service Headquarters Washington DC
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From: Dr. William H. Bauman III
 Chief, Aviation and Space Weather Services Branch

Subject: NOAA DSCOVR Spacecraft to Replace NASA ACE at the Space Weather
Prediction Center (SWPC): Effective July 27, 2016

Beginning at 1600 Coordinated Universal Time (UTC) on Wednesday, July 27, 2016, the National Centers for Environmental Prediction (NCEP) Space Weather Prediction Center (SWPC) will begin using data from the Deep Space Climate Observatory (DSCOVR) spacecraft in its operations.

DSCOVR replaces data currently used operationally at SWPC from the National Aeronautics and Space Administration's (NASA's) aging research satellite, the Advanced Composition Explorer (ACE). DSCOVR was launched on February 11, 2015, and reached final orbit on June 8, 2015. DSCOVR is 1 million miles from Earth where the gravitational influence of the Sun and the Earth are in equilibrium. From that point, DSCOVR serves as a distant early-warning sentinel, like a tsunami buoy in space, to alert NOAA of incoming eruptions from the Sun.

DSCOVR's primary space weather sensors are the Faraday Cup plasma sensor, which measures the speed, density and temperature of the solar wind, and a magnetometer, which measures the strength and direction of the solar wind magnetic field. Together, the instruments provide SWPC forecasters with the necessary information to issue geomagnetic storm warnings.

Data from DSCOVR's instrumentation will provide better information to forecasters and allow existing and future forecast models to run more reliably. The improvements will also open new opportunities for researchers to better understand coronal mass ejections along with high-speed solar wind and shocks, and to find ways to improve space weather forecasting.

DSCOVR data will be available in real-time at:

<http://www.swpc.noaa.gov/products/real-time-solar-wind>

From the webpage above, users can download data, create plots, and find links to other ways to access real-time and archived data. These links are currently populated with NASA ACE data. On July 27, 2016, the links will be populated with data from DSCOVR.

Achieved data from DSCOVr (data older than one day) will be available at the NOAA Satellite and Information Service (NESDIS) National Centers for Environmental Information (NCEI) site located at:

<http://www.ngdc.noaa.gov/dscovr/>

For questions regarding the transition to DSCOVr, please contact:

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National Service Change Notices are online at:

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