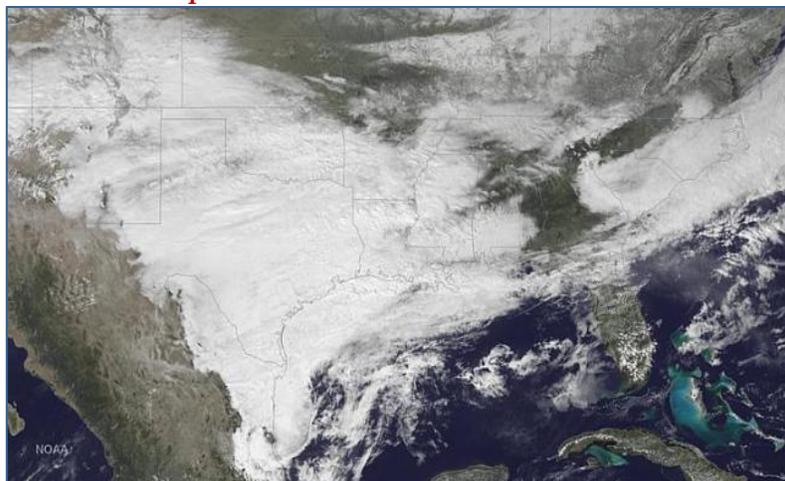


National Environmental Satellite, Data, and Information Service (NESDIS) February 2015 Newsletter



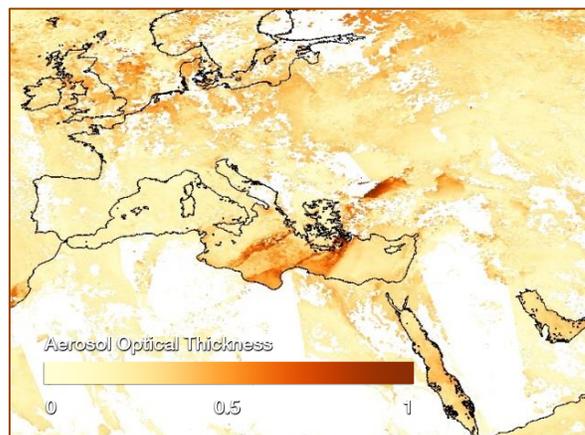
Operations – GOES-13 Satellite Imagery

Ice Storm Impacts the South



A high impact winter storm over the Rockies east to the Southern Plains knocked out power to thousands of people, led to hundreds of traffic accidents, and caused nearly 1,500 flight cancellations nationwide, according to news reports. Snow, Sleet, and Freezing rain resulted in numerous weather hazards impacting millions of people. The image above taken from NOAA's GOES-13 satellite on February 23 at 2:45 PM EST depicts the extent of system that paralyzed much of the south. Forecasters at NOAA's National Weather Service use GOES satellite imagery to more accurately disseminate forecasts and warnings.

Spotlight – Suomi NPP Aerosol Thickness Thick Dust Plumes Blowing Off of Africa From VIIRS



Strong winds during January 2015 created an intense Saharan Air Layer effect, blowing massive amounts of dust across the Mediterranean Sea during the January 26 - February 1, 2015 period. On February 2, orange snow was observed in Saratov, Russia a city about 580 miles or 936 km northeast of Stavropol. The image above from Suomi NPP satellite's VIIRS instrument shows aerosol optical thickness imagery averaged during this time. Areas with the highest aerosol concentrations, such as fine particles like dust, smoke, and other pollutants, are colored orange.

Message from Dr. Stephen Volz

Assistant Administrator for NESDIS

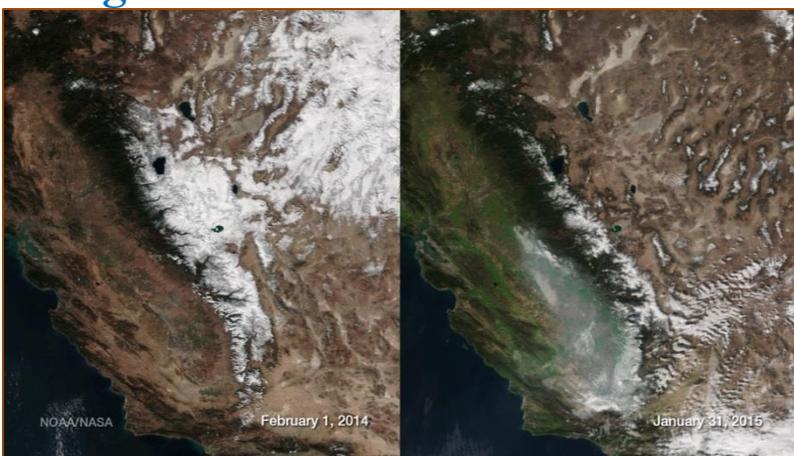
NOAA's Deep Space Climate Observatory ([DSCOVR](#)) satellite successfully launched from Cape Canaveral, Florida on February 11. This satellite will be critical to keeping communities and businesses safe and secure. From its orbit in the "L1" position one million miles away from Earth (which will take the satellite about 110 days to reach), DSCOVR will operate 24/7 to alert forecasters at NOAA's Space Weather Prediction Center ([SWPC](#)) in Boulder, Colorado, to solar storms that may be heading toward our planet. Solar storms have the potential to disrupt the livelihoods of millions of people in the U.S., and according to some estimates, to cause upwards of \$2 trillion in damages to virtually every major public infrastructure system, including transportation, power grids, telecommunications, GPS, and astronauts on board the International Space Station.

The President's FY 2016 [budget](#) request has been submitted, and details of the NOAA request are available on the second page of this newsletter. We are taking measures to reshape NESDIS in order to better execute our programs and serve our users with more robust system engineering, common ground services, and the launch of GOES-R in March 2016, and JPSS-1 in March 2017.

We remain focused on maintaining customary high levels of science, service, and stewardship to our customers and users. The FY 2016 budget request provides us with the necessary resources to continue to fulfill our mission while supporting internal changes that will foster more flexible, robust and cost-effective programs.

I am grateful to Congress for your continued support of our important work. Please contact Josh Jankot (202.482.6140 or Josh.Jankot@noaa.gov) to schedule a briefing on the FY 2016 Budget.

Image of the Month



Sierra Nevada Snowpack Comparison 2014 - 2015

These two images were taken one year apart on February 1, 2014 and January 31, 2015 by the Visible Infrared Imaging Radiometer Suite (VIIRS) instrument on board the Suomi NPP satellite. A series of atmospheric rivers in December 2014 brought much needed precipitation to a drought stricken California. The result is a visibly greener land cover in early 2015 compared to the same time the previous year. However, the Sierra Nevada snowpack remains well below normal for the second straight year. This is likely to contribute to a continuation of the extreme drought conditions into the spring and summer month when snow melt typically becomes the dominant surface water source.



FY 2016 Budget Request Highlights



The FY 2016 President's Budget Request for NESDIS is **\$2,379.6 million**. This includes funds to support operations of current geostationary, polar-orbiting, and deep space satellites, and to maintain acquisition schedules for satellite systems of national significance. The program changes noted below are with respect to the FY 2016 Base (= FY 2015 Enacted + Inflationary Adjustments). Highlights include:

Observational Infrastructure

- **Polar Follow On (+ \$380.0M; total request of \$380.0M)** to initiate the Polar Follow On (PFO). This investment is critical to ensure the continuity of polar weather observations and to achieve robustness in the constellation as early as FY 2023. The request will initiate development to support launch readiness dates of FY 2024 for JPSS-3 and FY 2026 for JPSS-4; will develop an option for a JPSS-3 contingency mission with critical sounder instruments only; and will invest in an advanced technology nanosatellite microwave sounder (EON).
- **COSMIC-2 / Global Navigation Satellite System Radio Occultation (GNSS RO) Ground System and RO Sensors (+ \$13.2M; total request of \$20.0M)** will continue development of ground reception and processing capability of GNSS RO satellite data. This ground system allows NOAA to acquire RO data from COSMIC-2 missions and from foreign and commercial sources. The first set of 6 satellites planned for launch in FY 2016 is currently in production. The FY 2016 Budget initiative will also support procurement of the second set of 6 RO sensors planned for launch in FY 2018. The COSMIC-2 constellation will consist of 12 total RO sensors to ensure continued access to timely and quality RO data that are critical to maintain NWS forecast skill and serve as an important component of satellite gap mitigation strategies.
- **Space Weather Follow On (+ \$2.5M; total request of \$2.5M)** will analyze options from the Analysis of Alternatives (AoA) for critical space weather observations and initiate development of the Space Weather Follow On program. The request will support studies and plans needed in FY 2016 to ensure data continuity following the end of life of DSCOVR 5-year mission in FY 2019. Securing the future of space weather observations is critical to NOAA's ability to provide timely and accurate geomagnetic storm warnings.
- **JPSS Program (- \$107.3M; total request of \$809.0M)** planned decreases will support continued development of weather-focused satellites JPSS-1 and JPSS-2 that will provide data continuity for NWS numerical weather prediction models. JPSS-1 remains on-schedule for launch in FY 2017, and JPSS-2 in FY 2022.
- **GOES-R Series Program (- \$109.0M; total request of \$871.8M)** planned decreases will support continued space and ground development in preparation for launch of the first satellite, GOES-R, in FY 2016, GOES-S in FY 2017, and maintain development of GOES-T and GOES-U.

Observational Infrastructure Support Systems

- **Satellite and Product Operations (+ \$4.6M; total request of \$93.1M)** will operate and maintain the Comprehensive Large Array-Data Stewardship System (CLASS). The request will fund the transition of CLASS from a test and development environment to full operations. CLASS provides NOAA with required long-term safe archival storage capacity and assures the general public's access to the preserved climatological, oceanographic and geophysical data.
- **National Centers for Environmental Information (formerly National Environmental Information Office) (+ \$1.1M; total request of \$59.2M)** will enable NOAA's contribution to the Administration's Big Earth Data initiative which will support efforts to increase the accessibility and interoperability of NOAA's high-value environmental observations for use by public and private sector users. Remaining funds are needed for operations of the U.S. official data management entity for climatological, oceanographic, and geophysical data. It will also provide for ingest of global data into its archives in order to support development of products such as the Annual State of the Climate Report, World Ocean Atlas, and World Magnetic Model.
- **Satellite Ground Services (+ \$2.7M; total request of \$58.5M)** will continue planning and transition of independent ground services into a unified set of common ground services for NOAA's environmental satellite systems. FY 2016 funding will sustain critical activities implemented within the FY 2015 reorganization to leverage existing ground systems to provide new product and services and to set the foundation for an enterprise ground system that can be executed across satellite systems.
- **Projects, Planning, and Analysis (+ \$5.3M; total request of \$30.5M)** to continue project management, on orbit anomaly support and sustainment of existing operational systems, and to support NOAA's observation requirements, analysis and validation processes. This funding request supports NOAA activities to prepare critical instruments for launch on the EUMETSAT satellite, MetOp C in FY 2019.
- **System Architecture and Advanced Planning (+ \$1.6M; total request of \$4.9M)** to continue enterprise-level system architecture, advanced system and technology planning, management and technology policies and procedures. The request will support activities to establish and lead the system and engineering processes necessary to meet NESDIS' mission assurance needs.
- **Commercial Remote Sensing Regulatory Affairs (+ \$0.2M; total request of \$1.2M)** will support a consistent and transparent regulatory process for licensing commercial remote sensing systems.
- **Office of Space Commercialization (+ \$0.4M; total request of \$1.0M)** will support commercial space policy activities within the Department of Commerce, and participate in government-wide discussions of space policy issues as well as internal efforts to increase NOAA's use of commercial space solutions.