

National Environmental Satellite, Data, and Information Service (NESDIS)

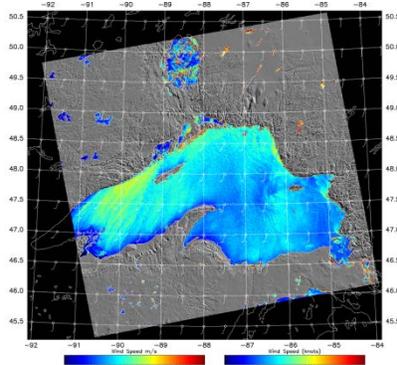
March 2014 Newsletter



Operations – Coastal Winds

Synthetic Aperture Radar and Coastal Winds

NOAA has a unique requirement for synthetic aperture radar (SAR) data which it purchases from Canadian and European commercial entities. In 2013, a SAR coastal wind product was transitioned from research to operational use by NOAA's National Weather Service. These unique wind products are at a 500 m resolution and measure winds right up to the coast and in bays and straits, making these products particularly valuable for safety of coastal transportation and low-flying aircraft in regions with rugged coastal topography. NOAA also uses SAR data to support sea/lake/river ice monitoring and for oil spill mapping. There are emerging applications for SAR wind data products for offshore wind farms and information on the structure of hurricanes and severe storms. The image below is an example of the new operational SAR wind product for Lake Superior, showing higher winds in the northern and western regions of the lake.



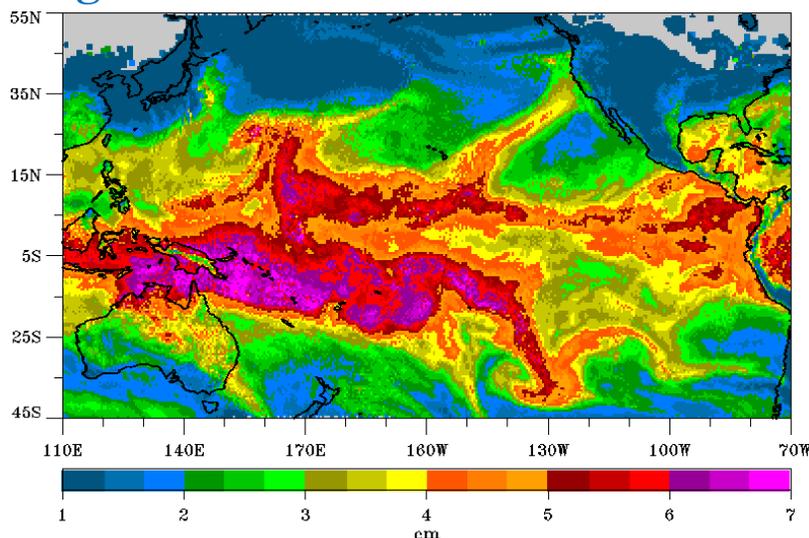
Spotlight – National Oceanographic Data Center

New Maps Added to the Gulf of Mexico Data Atlas

Seventeen new maps were added to the Gulf of Mexico Atlas in 2013, including Recreational Facilities-Marinas & Boat Ramps, Nonindigenous Aquatic Species (lion fish and Asian tiger shrimp), Hurricane Frequency & Intensity, as well as maps with data about important fish species including red snapper, red grouper, and white shrimp. With 235 map plates covering more than 70 topics based on data contributed by over 30 partnering organizations (Federal, State, non-governmental agencies, and academia), the Gulf of Mexico Data Atlas provides answers to questions related to the physical environment, marine resources, and economic activity in the Gulf of Mexico. More maps will be added in 2014, so check the [website](#) often!



Image of the Month



Scientists from NOAA's Office of Oceanic and Atmospheric Research are integrating data from NOAA, EUMETSAT, and DoD polar-orbiting satellites to study the "atmospheric river" phenomenon. This March 6 composite image depicts the "Pineapple Express," a colloquial term which describes the transport of atmospheric moisture from the tropical waters around the Hawaiian Islands that resulted in locally heavy rainfall to the U.S. West Coast.

Message from Mary Kicza, Assistant Administrator for NESDIS

The President's FY 2015 budget request has been submitted, and details of the NOAA request are available [here](#).

Measures have been taken to reshape NESDIS in order to better execute our programs and serve our users with more robust system engineering, common ground services, and consolidated data center administrative services.

We remain focused on maintaining customary high levels of science, service, and stewardship to our customers and users. The FY 2015 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. If you would like to receive more details on the FY 2015 budget request, I am happy to meet with you. Please contact Sierra Jones to set up a time ([202.482.6140](tel:202.482.6140) or sierra.jones@noaa.gov).

www.nesdis.noaa.gov



FY 2015 Budget Request Highlights



The FY 2015 President's Budget request for NESDIS is **\$2,247,926,000**. This includes a proposed Program, Project, and Activity (PPA) restructure that would provide NESDIS with the ability to improve management of its programs. The program changes noted below are with respect to the FY 2015 Base (= FY 2014 Enacted + Inflationary Adjustments). Highlights include:

Mission Critical Infrastructure

- **Satellite and Product Operations (\$92.8M)** will support command and control of NOAA's current satellites, NOAA's contribution to the interagency National Ice Center, and SARSAT Mission Control Center. These funds will support 24x7 data processing and distribution of products that are used by the NWS and its forecast offices nation-wide.
- **Product Development, Readiness & Application (\$26M)** will support operations-oriented research that provides constant quality assurance of satellite data and its products; applications-focused research that will develop and evaluate prototype products, algorithms, and pre-operational products to improve existing operational satellite products; and services using data from current and next generation environmental satellites. Work performed enhances the accuracy of current satellite products and develops new satellite products to meet user requirements. Activities range from planning new satellite instruments to developing new satellite products and applications. This includes transitioning new satellite products to operations, improving satellite products as instruments degrade, and performing calibration/validation activities between instruments.
- **National Environmental Information Office (+ \$2M; total request of \$69.1M)** will be the official data management entity for weather, climate, oceanographic, and geophysical information from both U.S. and international sources. NEIO will merge funding for the following: National Climatic Data Center, National Oceanographic Data Center, National Geophysical Data Center, Coastal Data Development, Regional Climate Services, and Environmental Data Systems Modernization. This is a new PPA. The FY 2015 budget request includes funds for 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.
- **GOES-R Series Program (+ \$38.9M, total request of \$980.8M)** 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 continued development of GOES-T and GOES-U. FY 2015 funds are required to maintain current development schedules.
- **Jason-3 (+ \$7.2M; total request of \$25.7M)** is the United States' contribution to a 50:50 joint United States-European program to continue this important satellite oceanographic mission used for climate measurements and monitoring hurricane intensity. U.S. Navy is a key user of these data.
- **JPSS Program (+ \$95.4M; total request of \$916.3M)** will support continued development of a weather-focused program which will provide data continuity for NWS numerical weather prediction models after NOAA POES and Suomi NPP satellites. JPSS-1 is scheduled for launch in FY 2017, and JPSS-2 by the 1st quarter of FY

2022. FY 2015 funds are required to maintain current development schedules for JPSS-1 and JPSS-2 satellite missions. Additionally, these funds enable JPSS to pursue the procurement of ATMS and CrIS spares to reduce the risk to the JPSS-2 schedule.

- **Solar Irradiance, Data and Rescue (SIDAR; + \$15M)** formerly known as the Polar Free Flyer Program. FY 2015 funds will support the accommodation and launch of the already purchased and built Total Spectral and Solar Irradiance Sensor (TSIS). TSIS will provide measurements of the variability in the Sun's total output and contribute to maintaining the accuracy of the TSI climate data record. The SIDAR project will also provide continued support of two international partnerships: satellite-assisted search and rescue via the Search and Rescue Satellite Aided Tracking system (SARSAT) and environmental data collection and relay via the Advanced Data Collection System (A-DCS). Both SARSAT and A-DCS are being provided by French and Canadian partners.

Scientific and Programmatic Innovation

- **Satellite Ground Services (+ \$2.9M; total request of \$52.7M)** will plan, acquire, develop, integrate, transition to operations, and sustain common ground services for NOAA's environmental systems. SGS will merge funding for the following former PPAs: Earth Observation Systems (EOS) and Advanced Polar Data Processing, Distribution and, Archiving Systems; Critical Infrastructure Protection (CIP) - Single Point of Failure; Comprehensive Large Array Data Stewardship System (CLASS); NPOESS Preparatory Data Exploitation (NDE); and the Enterprise Ground System, as well as portions of other major satellite acquisition programs (legacy systems: GOES-N and POES, and next generation systems: GOES-R and JPSS). This is a new PPA.
- **COSMIC-2 / Global Navigation Satellite System Radio Occultation (GNSS RO) Ground System (+ \$4.8M; total request of \$6.8M)** will support the continued development of a ground reception and processing capability of data for National Weather Service use for weather forecasting from GNSS RO satellites provided by joint COSMIC-2 mission between Taiwan and the U.S. Air Force. There are two scheduled COSMIC-2 launches in FY 2016 and FY 2018, respectively. The ground system will also have the capability of ingesting GNSS RO data from foreign satellites and from commercial satellites.
- **System Architecture and Advanced Planning (\$4.6M)** will provide enterprise-level system architecture, advanced system and technology planning, management and technology policies and procedures; and system validation, assurance, and adjudication to ensure the comprehensive solutions meet the mission objective. This is a new PPA.
- **Projects, Planning, and Analysis (\$33.5M)** will provide a project management foci for opportunities for flight projects data exploitation (foreign and/or domestic data) and execution of domestic, international, and commercial partnerships in order to meet NOAA observation requirements. OPPA will assume the responsibilities, with modifications, of the previous Office of Systems Development (OSD). This is a new PPA.

For additional information, please contact Sierra Jones at (202) 482-6140 or at Sierra.Jones@noaa.gov