



NOAA's National Environmental Satellite, Data, and Information Service

The nation's operational weather satellite and information service

NOAA's National Environmental Satellite, Data, and Information Service (NESDIS) collects, processes, distributes, and archives observations of the atmosphere, oceans, and the sun. NOAA satellites and the archives within the National Centers for Environmental Information (NCEI) provide much of the environmental intelligence that is the foundation of NOAA's unique capacity for practical weather prediction. Investments are necessary today to ensure NOAA's fleet of observational platforms are available in the future to meet our mission and support the products and services of tomorrow.

In FY 2017, those investments include the continued development of a new generation of satellites that will continue to improve our life-saving forecasts.

- The Joint Polar Satellite System (JPSS) and Polar Follow On (PFO) will replace the current polar-orbiting satellites and will operate through 2038. The JPSS-1 satellite is scheduled for launch in early 2017.
- The GOES-R Series is the next generation of geostationary satellites with significantly enhanced capabilities, and will operate through 2036. The GOES-R satellite is scheduled for launch in October 2016.
- NOAA and the U.S. Air Force will launch the first six satellites of the Constellation Observing System for Meteorology, Ionosphere and Climate (COSMIC-2A) constellation, and will provide precision radio occultation (RO) soundings to support improved numerical weather prediction model forecasts.
- The Deep Space Climate Observatory (DSCOVR) was launched in February 2015 and supports operational space weather monitoring and forecasting. The Space Weather Follow On initiative will extend solar observations beyond FY 2022.

NOAA Satellites Serve the Nation

- NOAA satellites enable accurate weather forecasts and warnings used by Federal, State, and local officials, and the general public, to make decisions to safeguard lives and property in advance of severe weather.
- Data from NOAA satellites and NCEI are used by all DoD services to support their global mission and operational readiness.
- Telecommunications and public utilities use warnings from the Space Weather Prediction Center to protect electric grids and communications assets from solar flares and geomagnetic storms.

- Since 1982, more than 7,500 boaters, aviators, hikers, and other recreational enthusiasts in the U.S. (and over 39,000 persons worldwide) have been rescued with the aide of the satellite-assisted search and rescue (SARSAT) program.



DSCOVR successfully launched on February 11, 2015 and is America's first operational deep space satellite. It provides higher-quality measurements of solar wind conditions, helping us monitor potentially dangerous space weather events.

Foundational Data That Support NOAA's Mission

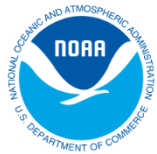
NESDIS supports NOAA Line Offices and their programs. Select examples include:

- **National Weather Service** uses satellite data in its numerical weather prediction models to develop short- and long-term forecasts. NESDIS also provides data to support operational space weather warnings and forecasts.
- **Oceanic and Atmospheric Research** uses satellite data to conduct research and modeling relating to environmental trends such as drought, stratospheric ozone, air quality from wildland fires, and seasonal climate events.
- **National Marine Fisheries Service** uses sea surface temperature data from NOAA's satellites to monitor the distribution of fishery stocks.
- **National Ocean Service** uses satellite data and NCEI to monitor and predict ocean and coastal phenomena, such as harmful algal blooms.
- **Office of Marine and Aviation Operations** use data from NOAA satellites to safely operate their ships and aircraft.



For more information, please visit:
www.noaa.gov and www.nesdis.noaa.gov





FY 2017 Budget Request Highlights

The FY 2017 President's Budget Request for NESDIS is \$2,303.7 million. This request funds operations of current satellites and maintains acquisition and launch schedules for NOAA's flagship satellite programs. The request also ensures reliable and accurate long-term weather, ocean and coastal, and geophysical data and information that are critical for businesses, academic institutions, and government agencies. Highlights include:

- **Geostationary Operational Environmental Satellite Systems-R Series Program (-\$85.1M; total request \$752.8M)** to maintain GOES-R launch in Q1 FY 2017 and maintain development of GOES-S, T, and U.
- **JPSS (-\$21.7M; total request \$787.3M)** to launch JPSS-1 no later than the 2Q FY 2017, continue development of JPSS-2, operate and sustain Suomi NPP as the primary afternoon polar-orbiting satellite, and support ground system development.
- **Polar Follow On (PFO) (+\$23.0M; total request \$393.0M)** to continue PFO/JPSS-3 and PFO/JPSS-4 development activities to ensure the continuity of polar weather observations and to achieve robustness in the constellation as early as FY 2023. The request also includes a modest investment in an Earth Observing Nanosatellite Microwave (EON MW).
- **Commercial Weather Data Pilot (+\$2.0M; total request \$5.0M)** to test, validate, and explore pilot purchases of commercial data to determine the viability of using commercial data to support NOAA's weather modeling and forecasting.
- **Office of Space Commerce (+\$1.4M; total request \$2.0M)** is designated by NOAA's Commercial Space Policy as the entry point to NOAA, and this request will enhance its capacity to support implementation of the NOAA Commercial Space Policy.
- **Commercial Remote Sensing Regulatory Affairs (+\$1.1M; total request \$2.1M)** to support its licensing and enforcement of U.S. commercial remote sensing space systems.
- **COSMIC-2/Global Navigation Satellite System Radio Occultation (GNSS RO) (-\$2.0M; total request \$8.1M)** to complete the development of a global network of ground stations to receive equatorial GNSS RO data from COSMIC-2A.
- **GNSS RO Polar-orbit measurements (+8.1M; total request \$8.1M)** to explore options to obtain GNSS RO data from the polar orbit, either with commercial data if viable or through the continuation of the COSMIC-2 international and interagency partnership.
- **Cooperative Data and Rescue Services (total request \$0.5M)** to support the launch of Argos Advanced Data Collection System (A-DCS) and the Search and Rescue Satellite Aided Tracking (SARSAT) instruments.
- **Space Weather Follow On (+\$1.3M; total request \$2.5M)** to complete planning for the space weather observing system architecture and to continue developing the mission that will provide solar wind data and coronal mass ejection imagery after the DSCOVR satellite reaches the end of its projected mission life in FY 2022.
- **Projects, Planning and Analysis (+ \$8.3M; total request \$33.5M)** to provide three NOAA instruments on the European satellite MetOp-C for launch in early FY 2019. Having these instruments in the polar orbit will better enable the National Weather Service to fulfill its mission for space weather monitoring and prediction.



NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION

For more information, please visit: <http://www.noaa.gov/budget>