



# NOAA's National Weather Service

## Building a Weather-Ready Nation

NOAA's National Weather Service (NWS) is the Nation's official source for weather and water data, forecasts, and warnings. From information accessed on your smartphone to weather programs provided by your local television station – the forecasts and warnings that people, businesses, and communities trust and rely on come from the NWS. All day and every day, the NWS is the first line of defense against extreme weather, water, and climate events – providing forecasts and warnings for hurricanes, tornadoes, wildfires and winter storms; and other hazards such as flash floods, dangerous heat and cold, droughts, and solar storms and geomagnetic activity.

NOAA is committed to building a Weather-Ready Nation capable of improving our nation's readiness for extreme weather and water events. As such, NWS is taking the steps required to evolve into an even more effective agency by meeting nation's growing needs for accurate and timely weather, water, and climate information.

The dedicated and skilled NWS workforce uses advanced technology to understand and predict the weather and produce timely and accurate life-saving forecasts and warnings. More than 4,600 employees in 122 Weather Forecast Offices, 13 River Forecast Centers, 10 National Centers, 21 Aviation Center Weather Services Units, and support offices around the country constitute a local, regional, and national weather prediction and service delivery capability unmatched anywhere in the world.

NWS collects data using satellites, dual-polarization Doppler radars, data buoys, weather balloons, aircraft, and surface observing systems. These data feed sophisticated environmental prediction models running on increasingly more powerful supercomputers. Forecasters use powerful workstations to issue life-saving forecasts and warnings.

NWS uses advances in research from the Office of Oceanic and Atmospheric Research, and community partners, to continuously improve forecast and warning services and implement more sophisticated forecast models. The satellite systems operated by the National Environmental Satellite, Data, and Information Service, provide critical information for NWS forecast models to accurately predict the weather patterns across the globe. NWS

partners with the National Ocean Service to provide information that informs critical decisions related to ecosystem health and resiliency. And, NWS relies on the NOAA Fleet to service critical ocean observing systems. These collaborations routinely demonstrate how NOAA science and service both work together to save lives and provide stewardship of coastal and marine ecosystems and resources.

The impacts of extreme weather, water, and climate events are growing. Destructive and deadly hurricanes and tornadoes, devastating floods, droughts and wildfires, and powerful winter storms impact society more than ever. With a growing population at risk, and an economy that is increasingly vulnerable to weather and weather extremes, an aging infrastructure, and a changing climate, the NWS is evolving to Build a Weather-Ready Nation - a nation where communities are ready, responsive, and resilient to these extreme events.

Through continual improvements in observations, forecasts, and warnings, and the use of other innovative approaches, such as social science to better communicate risk and inform decisions made by the public and local authorities, NWS is working diligently to ensure America has a weather service that is second-to-none.

However, in order to achieve this, NWS needs:

- A modernized observation, information technology, and facility infrastructure.
- A fully integrated forecast process to deliver consistent products and service.
- An organization that is nimble and adaptable to change.
- Faster advancement in its computer models to provide more accurate and reliable forecasts and warnings.
- A workforce trained and organized to meet the growing needs for decision support services and impact communication.
- An active and engaged partnership with its stakeholders to leverage the nation's capacity to build ready, responsive, and resilient communities.

The President's FY 2016 budget proposal lays a solid foundation for a Weather-Ready nation equipped to save more lives and livelihoods, mitigate impacts from extreme weather, water, and climate events, and strengthen the nation's economy.



For more information, please visit:  
[www.noaa.gov](http://www.noaa.gov) and [www.nws.noaa.gov](http://www.nws.noaa.gov)





# FY 2016 Budget Request Highlights

The FY 2016 President's Budget request for NWS is **\$1,098,878,000**. This budget request is critical in our efforts to build a Weather-Ready Nation through supporting NWS' advancements to weather, water, and climate products and services and evolve the NWS service delivery structure and function. In FY 2016, NOAA proposes an \$11.4 million increase (1.1%) from the FY 2015 Omnibus, which includes a \$19.3M increase for Calculated Inflationary Costs and a net decrease of \$7.9M in Program Changes. We thank the Congress for their approval of our FY15 proposals to restructure the NWS budget and reorganize NWS headquarters, enabling more transparency and helping the NWS evolve to deliver more efficient, responsive, and advanced operations to the nation. The program changes noted below are with respect to the FY 2016 Base (= FY 2015 Enacted + Inflationary Adjustments). Highlights include:

- **Next Generation Weather Radar (NEXRAD) Service Life Extension Program (+ \$7.4M)** extends useful life by 15 years of the aging NEXRAD Doppler weather radar infrastructure that underpins severe weather forecast and warning services for high-impact events across the nation. A Service Life Extension Program is required to sustain current weather forecast and warning services until the next generation of weather radars are identified, developed, and deployed. Without this investment, NEXRAD availability will degrade beginning by 2020, resulting in radar outages and gaps and negatively impacting tornado and flash flood warnings.
- **Enhanced Water Prediction Capability (+ \$4.0M)** enhance our centralized water forecasting framework with nationally consistent, street-level, flash flood and flood inundation modeling and mapping. This effort will continue to support the design, development, and testing of a new national hydrologic modeling and forecast system being deployed at the National Water Center in Tuscaloosa, AL. Emergency managers and communities will be able to link prediction information to mapped infrastructure data to assess risks and impacts of predicted flooding at the neighborhood scale.
- **Increase Dissemination Reliability (+\$9.7M)** to reduce single points of failure and increase website capacity due to growing demand for services and to reduce outages during severe weather events. We will acquire alternate communication paths to NWS Field Offices and upgrade web capacity in order to continue providing critical dissemination of timely weather, climate, and hydrologic products to customers worldwide without disruption.
- **Improve Mid-Range Weather and Water Outlooks (+\$5.0M)** to provide actionable 3-4 week outlooks to key decision makers for effective planning and mitigation. NOAA will improve agriculture, transportation, public health, water resource and disaster risk planning with greater lead times. This request is paired with a commensurate research effort of \$4.0M in NOAA's Office of Oceanic & Atmospheric Research.
- **Maintain Space Weather Observations and Improve Predictions (+\$2.5M)** will maintain data access from the Global Oscillation Network Group solar observatories, previously developed and supported by the National Science Foundation. We will also enhance research to operations transition of space weather modeling to provide improved products to key decision makers relating to the ever increasing societal vulnerabilities of space weather events.
- **Weather & Climate Operational Supercomputing System (+\$1.8M)** will maintain increased computing resources made available by the 2014 Disaster Relief Act, to accommodate growing demand for forecasts with improved skill and lead time and reduced error.



**NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION**

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