



# NOAA's Office of Oceanic and Atmospheric Research

## A world leader in observing, understanding, and predicting the Earth system

The Office of Oceanic and Atmospheric Research (OAR) is the primary research arm of NOAA, conducting research and development that increases our knowledge of climate, weather, oceans and coasts. Its work is at the core of NOAA's mission to produce the environmental intelligence people need to live well and safely on this dynamic planet. OAR supports laboratories and programs across the United States and collaborates with both internal and external partners, including 16 NOAA-funded Cooperative Institutes and 33 Sea Grant Institutions. OAR research contributes to accurate weather forecasts, enables communities to plan for and respond to climate events such as drought, and enhances the protection and management of the nation's coastal and ocean resources.

### Climate Research

Individuals, businesses, and communities turn to NOAA as a trusted source for science and information to help them understand and prepare for changes to our planet's climate. NOAA's regional climate tools, which develop and utilize new information about the impacts of climate on natural and managed resources, infrastructure, and public health, are supported by our global climate observation and monitoring networks, world-renowned scientists, and state-of-the-art climate models.



NOAA Carbon Wave Glider deployed in Alaska to help scientists better understand how melting glaciers affect the chemistry of the Prince William Sound.

### Weather and Air Chemistry Research

NOAA not only works to improve current weather forecasting, but also works to anticipate and address the needs of the future. For example, OAR is developing innovative techniques for earlier detection of tornadoes and other severe weather to provide more advanced forecasts to the public.



The NOAA P-3 research aircraft is much like a "flying chemical laboratory," containing specialized instrumentation that can help scientists better understand air quality and climate changes.

### Ocean, Coastal, and Great Lakes Research

NOAA, in collaboration with its research partners, explores and investigates ocean, coastal, and Great Lakes habitats and resources. We provide scientific results to help manage and understand fisheries, conserve and restore our coasts, and build a stronger economy.

Chief Bosun Jerrod Hozendorf watches as ROV Deep Discoverer is deployed from the aft deck of NOAA Ship *Okeanos Explorer*



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





# FY 2017 Budget Request Highlights

The FY 2017 President's Budget request for NOAA's Office of Oceanic and Atmospheric Research is \$519,789,000. This request will allow NOAA to support its activities to provide climate products and information to communities, conduct research to enhance severe weather forecast capability, and to improve our understanding of ocean acidification and its impacts. Highlights include:

- **High Performance Computing Recapitalization (+ \$6.30M)** to establish a new funding model for the recapitalization of NOAA's Research and Development High-Performance Computing (HPC). This leasing mechanism will better enable more regular upgrades to NOAA's computing capacity, the backbone of our weather, climate, and environmental modeling efforts.
- **Research Transition Acceleration Program (+\$10.0M)** to speed the transition of NOAA scientific advances into operations. This new program will identify, prioritize, and fund the transition of the most promising research into operations, applications, and commercialization. Accelerating the transition of successful research ensures that the American public directly realizes the benefit of the previous federal R&D investments.
- **Atmospheric Baseline Observatories (+\$3.0M)** to return all six Atmospheric Baseline Observatories (ABOs) to full operations, continuing the more than 50 years of observations collected at these facilities around the world. ABOs document trends and distributions of atmospheric constituents that influence global climate, ozone depletion, and changes in baseline air quality. More than 500 domestic and international partners rely on these observations.
- **Impacts of Climate on Fish Stocks (+\$5.83M)** to award competitive grants for research that improves understanding of the impacts of climate variability and change on fish stocks, prey availability, and habitat. This research will enable fishery scientists and managers to better incorporate these variables in stock assessment and catch limits.
- **Regional Climate Data and Information (+\$14.44M)** to expand regional research to manage climate risks, support National Climate Assessment efforts, support expansion of NOAA's Arctic Observing Network, and facilitate public online access to NOAA's climate data and services.
- **Improving Airborne Detection and Understanding of Severe Weather (+ \$4.64M)** to research and develop aircraft-based hazardous weather observing systems. Investment in these systems will help NOAA and its partners develop a radar that is capable of doubling the amount of storm detail that can currently be gathered, which in turn will allow NOAA to issue more accurate forecasts and warnings of severe storms.
- **Improving Mid-Range Operational Outlook (+3.94M)** to improve the accuracy of weather outlooks out to three to four weeks (i.e., in the "mid-range"), where expertise does not currently exist. Increasing capability in developing mid-range outlooks will assist decision-makers in sectors ranging from food security and public health to emergency management and national security.
- **Integrated Ocean Acidification (+ \$11.71M)** to improve understanding of ocean acidification (OA) and its impacts on marine resources and coastal economies. This investment will also expand the OA observing network to nearshore waters and aid in the development of tools and OA adaptation strategies for affected stakeholders, such as the U.S. shellfish industry.



**NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION**

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