



OCEANIC & ATMOSPHERIC RESEARCH FY 2011 BUDGET HIGHLIGHTS

The Office of Oceanic & Atmospheric Research (OAR) requests \$464.9M in FY 2011, reflecting a net increase of \$15.7M over FY 2010 Enacted. This budget request supports the Department of Commerce's goals of providing improved climate products and services; weather and air quality research; computing and modeling; and management tools needed for our changing ecosystems.

NOAA Climate Services Portal +\$1.5M: NOAA will develop an online Climate Services Portal program to provide the public with a broad array of climate communications, outreach, and education materials. The Portal will be a central component of NOAA's commitment to the integration and delivery of climate services by providing readily accessible climate data and information.

Earth System Modeling: Urgent Climate Issues +\$7.0M: Numerical earth system models are essential to understand past climates and predict future climates. NOAA will accelerate development and use of state-of-the-art models to address such urgent climate issues as: sea-level rise, feedbacks in global carbon cycle, Arctic climate change, and decadal prediction of extreme events.

Assessment Services +\$10.0M: NOAA will develop and produce climate assessments at national and regional scales to meet an increasing demand for climate change decision support. The assessments will synthesize, evaluate, and report on climate change research findings, effects of climate variability in different regions, and climate vulnerabilities and uncertainties for the U.S.

Carbon Observing and Analysis System +\$8.0M: An accurate, reliable, and independent system for tracking sources and sinks of carbon dioxide and other greenhouse gases is needed to evaluate mitigation strategies and predict future climate change and its impacts, including ocean acidification. NOAA will complete and sustain an observation and analysis system to determine regional uptake and emissions of greenhouse gases across North America.

Arctic Watch +\$3.0M: The Arctic region is undergoing profound air, land, and sea changes related to climate change. NOAA will establish with international partners an Arctic Observing Network that integrates observations from new and existing atmospheric, coastal, and oceanographic observatories; ocean moorings; ice buoys and stations; and ship transects.

Global Ocean Observing System +\$4.8M: A sustained global observing system is the foundation of all climate research and services. NOAA will

OAR FY 2011 Budget Request (\$ Millions)

	FY 2009 Enacted	FY 2010 Enacted	FY 2011 Request	FY 2011 Request vs. FY 2010 Enacted
ORF	\$396.7	\$438.8	\$454.5	\$15.7
PAC	\$11.6	\$10.4	\$10.4	\$0
TOTAL	\$408.3	\$449.1	\$464.9	\$15.7

continue implementation of the Global Ocean Observing System (GOOS), with an emphasis on improving sea level rise monitoring and understanding.

Water Resources Research to Operations +\$7.7M: OAR and NWS will develop and transition to operations water forecasting services via improved quantitative monitoring and predicting of extreme precipitation events, river and stream flow, flash flooding, and storm surges.

Multi-function Phased Array Radar +\$6.0M: NOAA working in collaboration with the FAA seeks to demonstrate that Multi-function Phased Array Radar technology can cost-effectively replace aging operational weather and aircraft-tracking radars while offering such significant service improvements, such as longer lead times for tornado warnings.

National Sea Grant College Program: Hazards and Extreme Events +\$2.0M: Sea Grant will support regional research, training, and technology transfer to enhance coastal community resilience to both persistent natural hazards and extreme events.

Sea Grant Marine Aquaculture Initiative +\$2.7M: Sea Grant will advance sustainable, domestic aquaculture through extension outreach to the community and competitive research addressing high priority aquaculture issues.

Integrated Ocean Acidification (OA) +\$6.1M: NOAA will enhance its long-term monitoring and physiological assessments of OA effects on fisheries by developing forecasting capabilities and technologies, and adaptive strategies for improved management of impacted ecosystems.



NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION