



## CLIMATE SERVICE FY 2012 BUDGET HIGHLIGHTS

Climate Service requests \$346.2M in FY 2012 for a proposed new line office, reflecting a net decrease of \$7.1M from the FY 2012 Base level. The proposed Climate Service will bring together NOAA's existing climate research, observations, monitoring, modeling, information product development and delivery, and decision support functions from NOAA's Office of Oceanic and Atmospheric Research, the National Weather Service, and the National Environmental Satellite, Data, and Information Service, which will be renamed the National Environmental Satellite Service. The FY 2012 budget request supports the steps needed to improve our climate services and better understand and characterize the nation's vulnerability to climate change.

**Earth System Modeling: Urgent Climate Issues +\$7.0M:** Improving earth system models will reduce uncertainties in sea level rise projections, address gaps in the understanding of the Arctic climate system, reduce uncertainties in the terrestrial carbon cycle and future biogeochemical feedbacks on climate, and augment decadal climate predictions and abrupt climate change.

**Water Resources Research to Operations: +\$7.7M:** Because of the importance of extreme events in the climate system, this effort will help meet key societal challenges and service delivery needs related to water resources and extreme events. NOAA will reduce regional precipitation observation and forecasts errors and increase the number of detailed stream and river forecast available to communities.

**Monitoring Atmospheric Carbon Sources: +\$4.7M:** As the need for more information about greenhouse gas emissions increases, NOAA's monitoring, modeling, and analysis capabilities must include the ability to separate human from natural influences. NOAA will work with universities and the Department of Energy's Lawrence Livermore National Laboratory to increase 14CO2 measurements at NOAA sampling sites.

**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. NOAA will complete and sustain an observation and analysis system to determine regional uptake and emissions of greenhouse gases across North America.

**Regional Climate Services +\$3.0M:** The Regional Climate Centers (RCCs) are critical partners in NOAA's Regional Climate Services Program. Each

### CS FY 2012 Budget Request (\$ Millions)

	FY 2010 Enacted	FY 2012 Base	FY 2012 Request	FY 2012 Request vs. FY 2012 Base
ORF	\$0	\$316.9	\$321.8	\$4.9
PAC	\$0	\$36.4	\$24.4	(\$12.0)
<b>TOTAL</b>	<b>\$0</b>	<b>\$353.3</b>	<b>\$346.2</b>	<b>(\$7.1)</b>

competitively selected center will function as trans-boundary experts working to identify stakeholder needs and match these needs with the emerging science developed through Climate Service core capabilities.

**Assessment Services +\$1.0M:** Assessment processes are a proven way to conduct effective dialogue between users and producers of climate change information. NOAA will lead the National Climate Assessment by providing regional and sectoral leadership and coordination and support for regional modeling activities and scenario development.

**NOAA Climate Services Portal +\$1.5M:** NOAA must expand and improve the way it communicates, educates, and engages with public stakeholders to better meet the nation's needs for timely, authoritative climate data and information. A Climate Services Portal program will provide the public with a broad array of climate communications, outreach, and education materials.

**Arctic Watch +\$3.0M:** 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 +\$1.4M:** NOAA will continue implementation of the Global Ocean Observing System (GOOS), with an emphasis on improving sea level rise monitoring and understanding.

**Data Center Operations +\$2.0M:** NOAA will enable users to search for and acquire archived data by seamlessly connecting the Comprehensive Large Array-data Stewardship System (CLASS) IT infrastructure capabilities with the Data Center archive management system.

**Climate Data Records +\$8.0M:** NOAA will transform raw satellite data into unified and coherent long-term environmental observations and products, building upon multi-decadal, historical climate information records.



NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION