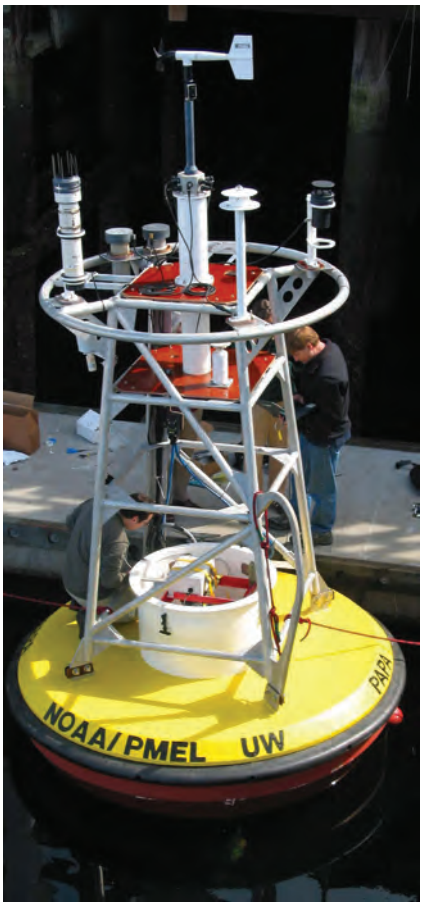
CHAPTER 2

FY 2012 Budget Reorganization

FY 2012 BUDGET REORGANIZATION SUMMARY

Consistent with the Department of Commerce's authority under the National Climate Program Act (15 U.S.C. §2901, *et seq.*), NOAA's Fiscal Year (FY) 2012 Budget Request includes a proposed reorganization that brings together its existing widely dispersed climate capabilities under a single line office management structure, the Climate Service. The principal goal of this reorganization is to better position NOAA to respond to the rapidly increasing demand for climate services. The Climate Service will allow NOAA to more efficiently and effectively provide the reliable and authoritative climate data, information, and decision-support services that Americans seek, and to better coordinate with other agencies and partners.



"Papa" NOAA buoys measure parameters such as air and sea surface temperature, wind, relative humidity, rain rate, and ocean currents and transmit this data via satellite communications multiple times daily in real time to meteorological and science centers for use in weather forecasting and climate study.

Through this reorganization NOAA is also strategically realigning its existing core research line office, the Office of Oceanic and Atmospheric Research (OAR), to strengthen the agency's overall science enterprise and advance the atmospheric and ocean, coastal and Great Lakes research and applied science goals expressed in the America COMPETES Reauthorization Act of 2010. OAR will transfer much of its climate research portfolio to the Climate Service and in doing so renew and expand its role as the focus for long-term research in NOAA; an innovator and incubator of new science, technologies, and application, and an integrator of science and technology across all of NOAA to attain mission objectives.

The reorganization also affects some climate-related programs and activities of the National Environmental Satellite, Data, and Information Service (NESDIS) and National Weather Service (NWS), and reflects some consolidation in NOAA headquarters planning offices. The reorganization does not affect the National Ocean Service (NOS), National Marine Fisheries Service (NMFS), or Office of Marine and Aviation Operations (OMAO).

NOAA will continue to address all of its mission requirements. The budget neutral realignment of resources within the current NOAA budget does not change staffing levels, will not require employee relocations, physical relocation of programs or labs, require any new facilities, and will not increase the size of NOAA overhead. The Climate Service headquarters will be located in Silver Spring, MD.

THE NEED FOR CLIMATE SERVICES

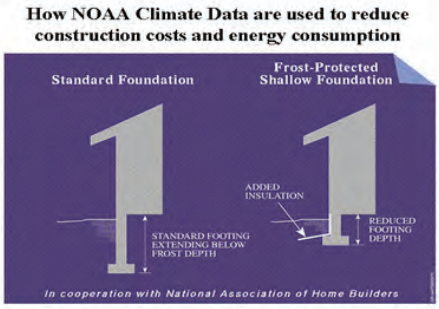
Every place on Earth is sensitive to changes in climate and weather. Up to one-third of the U.S. gross domestic product depends on accurate weather and climate information. Until now, individuals, communities, governments and industry have relied on what we know about the climate in the past to make important decisions about our systems and infrastructure – from agriculture to energy to transportation. Increasing business, industry, government and public sector awareness about the potential impacts of climate variability and change are fueling an exponential growth in the demand for climate services—easily accessible and timely scientific data and information about climate that helps people make informed decisions in their lives, businesses, and communities. Electric utilities, for example, need reliable predictions of future temperature and precipitation in order to invest in new power generation capacity that is appropriately designed to meet projected heating and air conditioning demands and ensure sufficient water for facility cooling purposes.

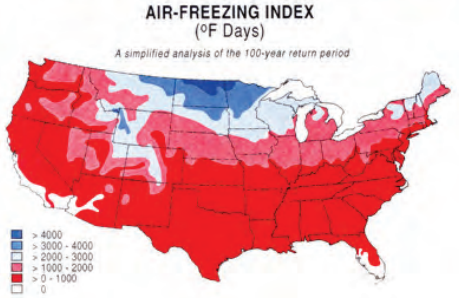
For decades, NOAA and its partners have been providing climate observations, monitoring, modeling, and predictions—underpinned by the best available science. Through its existing laboratories, data centers, programs, and operational assets distributed throughout the agency, NOAA currently responds to millions of annual requests for climate information.

While NOAA has continued to build a suite of climate services within its existing framework, the agency's climate assets are currently distributed across the agency, diminishing NOAA's ability to anticipate, develop and deliver climate science and services that meet the rapidly-increasing demands of users and providers. Similar to a corporation that adjusts its structure to better respond to customer demand, NOAA needs to make adjustments to bring its dispersed assets under a unified leadership structure to efficiently and effectively meet existing and future demands. Americans have come to rely upon authoritative and official forecasts from NOAA's National Weather Service, and now, they are also requesting the same quality of information about climate on many scales, from local to global, monthly to decadal. NOAA must therefore, make adjustments today that will support our long-term commitment to serving the climate service needs of the Nation.

EXAMPLE ACTIVITY: CONSTRUCTION AND CLIMATE

NOAA provides air-freezing index data to the home building industry, which helps it to establish the most cost efficient insulation standards for protecting building foundations from frost. Using up-to-date NOAA climate data, the industry developed new insulation requirements that are resulting in annual building cost savings of $330 million and energy cost savings of 586,000 megawatt-hours.





THE CLIMATE SERVICE IN NOAA

NOAA has spent many months carefully studying alternatives to determine how NOAA can best meet the Nation's growing demand for climate information and has benefited from substantial input from the public, our employees and advisory bodies and the National Academies. For more information on this process, please visit www.noaa.gov/climate.

At the request of Congress, NOAA commissioned the National Academy of Public Administration (NAPA) to study organizational options for delivering climate services, which included its own extensive stakeholder engagement process. On September 14, 2010, NAPA released its final recommendations to NOAA and Congress. The final report contained more than two dozen insightful recommendations on business processes and other aspects of implementing the Climate Service.

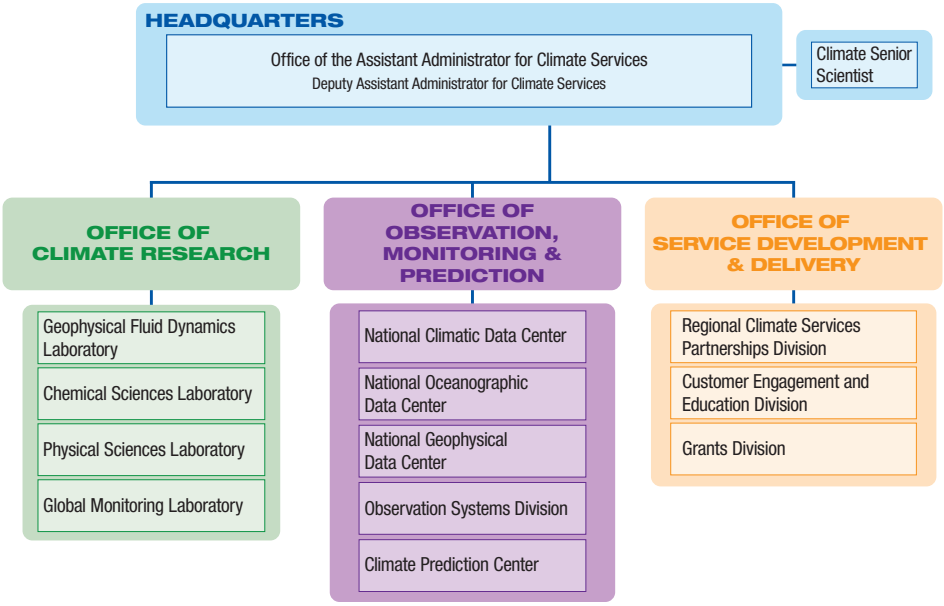
Based on the breadth of input received, the Climate Service brings together NOAA's existing climate research, observations, monitoring, modeling, information product development and delivery, and decision support functions, including:

(1) from NOAA's **Office of Oceanic and Atmospheric Research,** the Geophysical Fluid Dynamics Laboratory, the Climate Program Office, and from the Earth System Research Laboratory – the Chemical Sciences Division, the Global Monitoring Division and the Physical Sciences Division,

(2) from the **National Environmental Satellite, Data and Information Service,** the three data centers - the National Climatic Data Center, the National Oceanographic Data Center and the National Geophysical Data Center, and

(3) from the **National Weather Service,** the Climate Prediction Center, and management responsibilities for climate observing networks including the Tropical Atmosphere Ocean (TAO) array and Historical Climate Network modernization (HCN-m).

PROPOSED CLIMATE SERVICE



The Climate Service integrates longstanding NOAA capabilities -- world-class researchers, observations, monitoring, predictions, assessments, and training -- into a single, more coordinated and efficient organization. The Climate Service will also leverage the existing on-the-ground user engagement and service delivery of many programs across the agency such as National Weather Service forecast offices, Sea Grant, Coastal Services Center, and external partner institutions such as Regional Integrated Science and Assessments and Regional Climate Centers. Similarly, NOAA recognizes that no single agency can fulfill these growing needs. NOAA envisions the new Climate Service as a streamlined and coordinated line office positioned to contribute to and participate fully in federal interagency partnerships, which are vital to fulfilling the demand for climate services.

The new line office will strengthen and expand NOAA's contributions to climate science and services, creating a unified and responsive organization with broader reach than can be achieved today within the limitations of NOAA's existing climate structure. As a result, climate service users, providers, and partners will have a single, highly visible point of entry into NOAA for reliable and authoritative climate data, information and decision-support services. Decision makers, in particular, seek accurate, reliable climate information that will help them evaluate options and make smart investment choices that take into account the impacts of climate variation and change.

NOAA is developing a *Vision and Strategic Framework**, which benefited from a recently-completed public comment period. This framework outlines strategic goals and business practices related to the delivery and development of reliable, timely, and authoritative climate science and services to enable a climate-resilient society to grow and prosper.

OFFICE OF OCEANIC AND ATMOSPHERIC RESEARCH (OAR)

The Office of Oceanic and Atmospheric Research (OAR) serves as NOAA's central research line office that supports and produces preeminent long-term and transformational research and technology innovation that advances NOAA's science, stewardship and service mission.

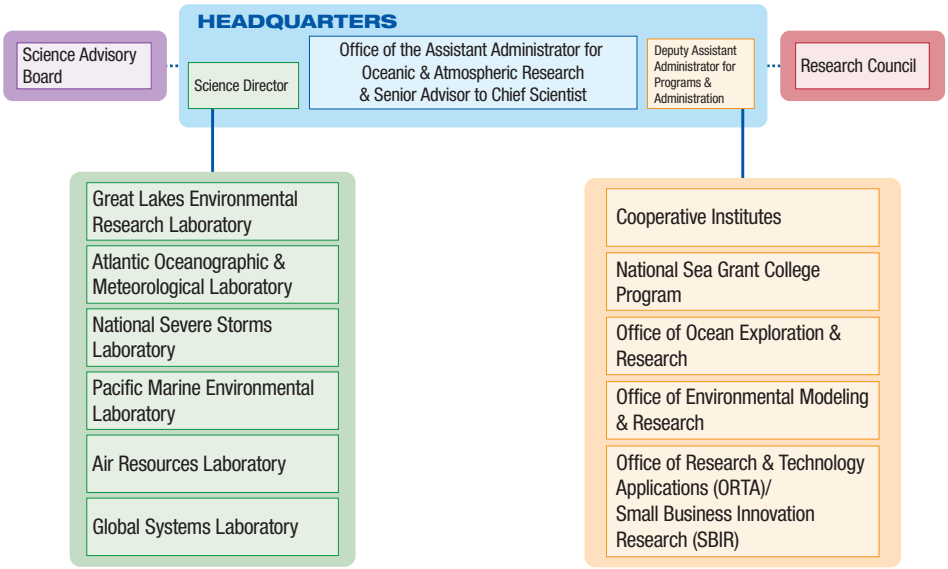
> "All parts of NOAA benefit from OAR's work to incubate fundamentally new approaches to mission-centered science, a capability best sustained by maintaining a nimble, freestanding OAR Line Office."
>
> **NATIONAL ACADEMY OF PUBLIC ADMINISTRATION, SEPTEMBER 2010**

Through this reorganization, NOAA is strategically realigning OAR, recognizing that the climate science enterprise that started in OAR as part of its atmospheric science program has matured to where it is now ready to more closely inform the development of climate services. In transferring much of its climate research portfolio to the Climate Service, OAR will renew its forward-looking research agenda - one that incubates tomorrow's long-term science challenges, integrates an agency-wide science portfolio, and drives science and technology innovation.

In cooperation with other NOAA line offices, including the Climate Service, OAR guides the analysis and direction of NOAA's agency-wide research portfolio. This responsibility includes identifying NOAA's science challenges and gaps, recommending novel approaches to research portfolio management, and integrating research across NOAA's Line Offices to gain a comprehensive understanding of the earth system. In addition, OAR's Assistant Administrator, as a career federal executive, will be designated as the

* http://www.noaa.gov/climateresources/resources/CS_Draft_Vision_Strategic_Framework_v9.0 2010_12_20-1.pdf

PROPOSED OFFICE OF OCEANIC & ATMOSPHERIC RESEARCH (OAR)



Senior Advisor to the NOAA Chief Scientist, and responsible for providing him or her with science program analysis and policy support.

OAR will coordinate and manage emerging and transformational research portfolios including ocean acidification, improved meteorological, oceanic, and climatological observations, modeling, and forecasting to expand the use of renewable energy sources, unmanned air and underwater observing systems, high performance computing, and weather "warn-on-forecast" programs to increase lead time and accuracy for hazardous weather. OAR will also emphasize areas that are important challenges and opportunities for NOAA, such as fostering integrated ecosystem science beyond its current scope to include new tools for sustainable community planning, novel ways to observe the world around us, new ways to conduct fishery assessments, and innovative aquaculture and feed technologies. OAR will help move NOAA toward a fully integrated approach to environmental modeling that spans the full domain of physical, chemical, and biological systems.

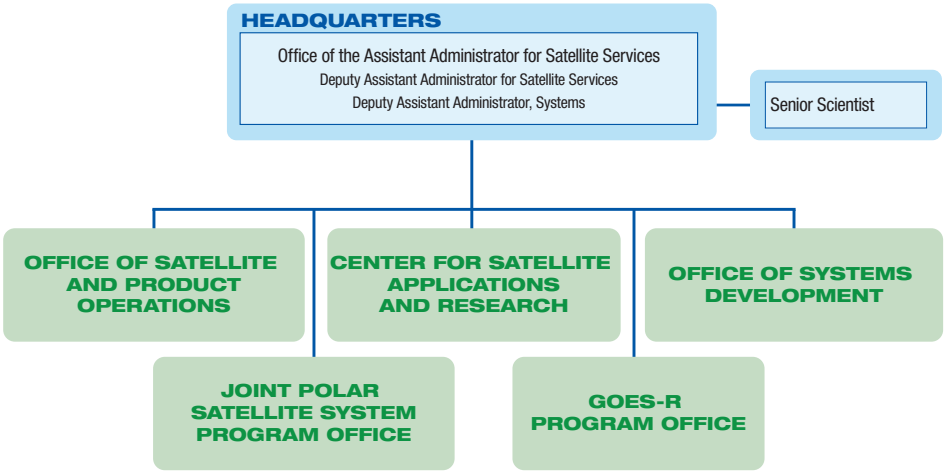
OAR's research programs, conducted at NOAA laboratories throughout the country, at field stations around the globe, and at facilities maintained by an international network of universities and other partners, support the agency's mission — and the broader U.S. environmental, social, and economic sectors — through increased knowledge and novel advances in technologies that benefit society.

NATIONAL ENVIRONMENTAL SATELLITE SERVICE (NESS)

Under the reorganization, the National Environmental Satellite, Data, and Information Service (NESDIS) will be renamed the National Environmental Satellite Service (NESS), and transfer all three of its Data Centers to the Climate Service.

NESS will continue with its ongoing satellite acquisitions, operations, and service delivery to provide timely access to global environmental data from satellites and other sources to promote, protect, and enhance the Nation's economy, security, environment, and quality of life.

PROPOSED NATIONAL ENVIRONMENTAL SATELLITE SERVICE (NESS)



The National Climatic Data Center, the National Oceanographic Data Center and the National Geophysical Data Center will continue to serve their current functions, supporting not only the Climate Service, but all of NOAA. The Climate Service will build on the long tradition of data stewardship that the data centers have established, and provide an opportunity for expanded responsibility with regard to integration with observing systems and related science. NESS will work closely with the Data Centers in the Climate Service to ensure that data and information produced by the satellites are archived and accessible for use by NOAA's internal and external stakeholders.

NATIONAL WEATHER SERVICE (NWS)

NOAA is committed to ensuring cross-line integration to support both the NWS and Climate Service missions. The NWS will work with the Climate Service and other NOAA line offices to ensure a seamless suite of weather and climate services – from minutes to decades – that are easily accessed and understood by our users.

For example, the data collected by NWS each day feeds into the long-standing climate record currently maintained by the National Climatic Data Center (NCDC), now proposed to be part of the Climate Service. NWS will continue to work with the Climate Service (through NCDC) on data standards, continuity of data and our relationship with the Regional Climate Centers. The Climate Service will also house the six new Regional Climate Service Directors in the established NWS Regional Headquarters to ensure coordination between NWS and the Climate Service and leverage the existing relationships in the regions.

NWS will transfer the Climate Prediction Center (CPC) and management oversight for the two climate-focused observing systems (the Tropical Amosphere Ocean (TAO) array, and the Regional US Historical Climatology Network) to the Climate Service. The transfer of CPC will provide enhanced continuity between NOAA's short and long-term climate prediction capabilities. Although the CPC will be moved into the Climate Service it will continue to provide operational seasonal outlooks and predictions, hazard assessments, and inform both NWS and the Climate Service about phenomena that link climate to weather events (e.g., El Niño/La Niña, Madden/Julian Oscillation, teleconnections, etc.). The transfer of the observing systems will allow consolidation of NOAA's climate observing assets under the same management.

NOAA HEADQUARTERS

The reorganization will consolidate the functions of the line office Program Planning and Integration (PPI), and the Office of Program Analysis and Evaluation to form a new NOAA Office of Strategic Planning and Evaluation within the budget sub-activity: NOAA Wide Corporate Services & Agency Management. The NOAA Central Library will move from the National Oceanographic Data Center to the NOAA Office of the Chief Information Officer. These changes will enhance leadership and improve management of all NOAA programs through policy development and planning, and provide efficiencies in staffing planning activities.

CONCLUSION

NOAA believes that this reorganization of our considerable, but distributed climate assets will better meet the growing demands of the public and private sectors for climate services by enhancing NOAA's ability to:

- Connect users to existing climate products and services, while continuing to develop new authoritative, reliable services.
- Transform current science and data into understandable, relevant and accessible information, while continuing to strengthen and expand climate science and research.
- Engage users and partners in service development and dissemination.

Since many sectors and regions served through NOAA's existing core climate capabilities are strongly linked to missions of other federal agencies, the Climate Service will continue to work with federal, state, tribal, and local partners to ensure the best possible set of climate services are delivered to the nation.

Authoritative, timely and reliable information about climate variability and change opens a world of possibilities to build resilient communities, infrastructure, and economies. The Climate Service in NOAA will advance and transform science into useable climate services for the nation.

BENEFITS OF A CLIMATE SERVICE IN NOAA

Authoritative, timely and reliable information about climate variability and change opens a world of possibilities to build resilient communities, infrastructure, and economies. Examples of benefits include:

(1) Supports a new category of economic innovation: entrepreneurs and other businesses that specialize in the provision of services and products based on environmental and climate data.

(2) Cities, tribes, and states will have a primary and authoritative source of information on the likelihood of heat waves, storm surges, and other climate extremes (and related impacts such as poor air quality and flooding) to help them address vulnerabilities and develop adaptation plans.

(3) Coastal communities will become more resilient as Climate Service services enhance state and local policy and planning. These services will include integrating local sea-level trends with global sea-level projections, for example, and assessing the risk of coastal inundation from changes in storm intensity and frequency.

(4) Natural resource management agencies will use Climate Service information to make more informed adaptation decisions in the fulfillment of requirements to protect ecosystems and species.

(5) More durable, resilient, and cost-effective housing, water systems, dams, runways, roads, and bridges will result from Climate Service collaborations with infrastructure planners.