Dr. Jane Lubchenco
Under Secretary of Commerce for
Oceans and Atmosphere

IMPLEMENTING THE NOAA NEXT GENERATION STRATEGIC PLAN:

ANNUAL GUIDANCE MEMORANDUM

NOVEMBER 2011

The Next Generation Strategic Plan (NGSP) defines NOAA's long-term vision, goals, and objectives. The purpose of this Annual Guidance Memorandum (AGM) is to focus the agency and partners on priorities that will allow us to make the greatest progress in implementing NOAA's strategy for meeting the Nation's pressing needs over the next several years given our mandates, stakeholder priorities, the fiscal outlook, and our ability to execute. In particular, this AGM establishes the programmatic priorities that will shape NOAA's execution focus in FY 2012, its preparations for FY 2013 and plans for FY 2014-18.

Letter from the Administrator

NOAA's mission of science, service and stewardship is critical to the future well being of our nation and our planet. NOAA is America's oldest science agency, and our reach extends from the surface of the sun to the bottom of the sea. We study, monitor, predict, and forecast the Earth's environment, and provide critical environmental information to the nation. We are stewards of our nation's fisheries, coasts and oceans.

Our work makes a difference in the lives of each and every American, every day:

- Every day, businesses large and small depend on NOAA's weather forecasts to make important decisions.
- Every day, fishermen and ship captains go to sea with the benefit of NOAA's charts and forecasts. Our nation's ports, through which 90 percent of the nation's imports and exports travel, are safer thanks to NOAA information and services.
- Every day, Americans enjoy fresh seafood caught or grown sustainably in our waters.
- Every day, coastal tourism thrives because of NOAA's work to protect healthy marine ecosystems that support recreational fishing and boating, bird and whale watching, snorkeling on coral reefs and spending time at the beach.
- Every day, military leaders, emergency managers, farmers, airline pilots, and so many others depend on NOAA for vital information about weather and weather-related disasters.

This vibrant, integrated mission is now more important than ever.

Consider 2011, a year unlike any other. Record-breaking floods, drought, wildfires, heat, tornadoes, hurricanes and other extreme weather caused tragic loss of life and devastating personal and economic hardship. Our weather warnings undoubtedly saved thousands of lives, but we can do more to achieve a nation that is weather-ready and -resilient.

Last April, I toured the devastation following the tornado outbreak in Tuscaloosa, Alabama. Amid the unimaginable destruction I met and spoke with survivors determined to rebuild their homes, communities and businesses. I visited the Colera Weather Forecast Office to thank the NOAA team for its efforts, telling them "your work saved lives."

Yes, NOAA's work saves lives, as we saw throughout this year of extreme weather. NOAA also helps American businesses succeed and spur the innovation we need to keep our nation moving forward. And, it contributes to our personal well-being and national security.

NOAA's mission makes a difference. We are partnering with fishermen from Morro Bay to Mobile to Cape Cod to innovate and succeed in making fishing sustainable and profitable. We are streamlining access to federal data and information on marine ecosystems so that businesses can be smarter about where to conduct activities in the oceans, coasts and Great Lakes instead of spending their time navigating government bureaucracy. We are establishing policies and practices that maintain U.S. scientific leadership internationally by fostering a culture of integrity and relevancy. We are partnering with states and industry to provide the climate science and services needed to help build healthy and resilient communities and economies. And, through our recently launched new polar-orbiting satellite, we are shaping the future of weather and climate forecasting and the next generation of NOAA environmental satellites.

One of NOAA's greatest assets is its people. NOAA is located throughout the nation, indeed in every state. We partner with local governments and businesses, with emergency managers and public health officials, with other federal agencies and internationally. Times are tough across the federal government and NOAA is prepared to meet the fiscal challenge. Thoughtful planning, creative ways to be efficient and innovative partnerships will help us focus on our core mission and deliver the science, information and services, and stewardship that our nation has come to value and depend on. We get the job done, making the most of limited resources, thanks to the creativity, innovation and passion of our people.

Some of the most pressing issues require us to integrate capabilities across the agency. For example, our data and research are supporting renewable wind and solar energy generation. Our science is informing decision-making for new development and uses of Arctic resources. And, our efforts with other federal and state agencies have helped jump-start restoration on behalf of Gulf Coast communities.

In my visits with businesses, communities, local governments and scientists across the country, I see the tangible fruits of our labor. It is hard to imagine life without NOAA's science, service and stewardship. We keep people safe. We keep the economy strong. We keep our coasts and fisheries healthy.

The demand for NOAA's science, service and stewardship has never been greater. And our mission has never been more central to the prosperity, security and well-being of the nation.

To that end, the following guidance will shape NOAA's FY 2012 execution and out-year planning efforts.

Climate: *Through collaborative strategies, continue to advance the observations, modeling, and research necessary to understand climate change and its impacts; and transition mature climate science into regular, reliable, and relevant information services.* Sustain NOAA's focus on linking climate science and modeling efforts into services, maintain continuity in climate observations and climate records, and strengthen service capabilities at seasonal and longer timescales. Given the complexity of climate science and the growing public demand for useful information, leverage climate research and service delivery capabilities through more effective internal collaboration and by developing broader partnerships with the private sector and other external organizations.

"NOAA's long-range climate forecasting capabilities are critical to our strategic planning, and will pay huge dividends to our agency in helping us prepare for this and future fire seasons."
-- Tom Spencer, Head of Predictive Services, Texas Forest Service

Key FY 12 deliverables: Expand the drought observations network as part of developing a sustained drought early warning system (NIDIS) beyond

the pilot program phase; assess the causes of recent extreme weather events and variations in national and regional seasonal temperature, precipitation, and drought; provide expanded inundation tools via the Digital Coast that include sea level rise and coastal flood impacts visualizations, focusing on the Southeastern United States.

Weather: *NOAA will build a "Weather-ready" nation by preserving and improving its ability to provide timely and accurate forecasts and warnings for the protection of life and property through science, technology, infrastructure improvements and collaborative efforts with partners.* NOAA will initiate innovative pilot projects to test and subsequently implement new decision support services and the underlying science and technology to support them. NOAA will support and act upon the results of the National Academy of Science (NAS) study on potential operational improvements to improve the public's awareness of and response to extreme weather-dependent events. NOAA will leverage National Weather Service infrastructure to improve NOAA's capacity for environmental information delivery, including consolidating, integrating, and modernizing IT infrastructure and data systems to develop an agency-wide approach to data integration and sharing.

"We would like to thank the National Weather Service for providing incident meteorologists and support in response to the April 2011 tornado outbreak. ... Their necessary and timely reports helped ensure the safety and operational effectiveness of state and federal staff and volunteers working on this disaster."
-- Alabama EMA Director Art Faulkner and Executive Operations Officer Jeff Byard

Key FY 12 deliverables: (1) Deploy and implement Advanced Weather Interactive Processing System II (AWIPS II) and dual polarization technologies and (2) examine and test new decision support services and communication methods though pilot projects.

Oceans: *NOAA will advance our efforts to ensure the long-term sustainability of marine fisheries and recovery of protected species and their habitats.* NOAA will apply capabilities and expertise in ecosystem science and stewardship to address core mandates and key aspects of the National Ocean Policy. NOAA will sustain efforts to end overfishing and rebuild and maintain fish stocks at sustainable levels to optimize fishing opportunities, jobs, and ecosystem services. NOAA will harmonize agency-wide habitat-related efforts to achieve habitat conservation.

Key FY 12 deliverables: (1) Complete implementation of annual catch limits and continue to assess economic and community impacts of these new management regimes ; and (2) develop and implement a NOAA-wide, integrated Habitat Blueprint to increase the efficiency and effectiveness of habitat protection and restoration.

"The Catch Share programs implemented [by NOAA] in the Gulf of Mexico have rescued our fishing industry. For the first time in modern history we have a sustainable year-round fishery and real jobs. Because of our rebuilding progress, in 2012 both recreational and commercial sectors will get increased quotas, another first in history. This is good not only for fishermen, but also for the 98.5% of taxpayers whose access to this resource is through the Commercial and Charter fishing industry." *-- Gulf Fisherman's Association and Shareholders Alliance*

Coasts: *NOAA will deliver integrated data, information, products, and services needed to support resilient coastal communities and economies.* NOAA will continue to innovate solutions to improve coastal management and science-based services and strengthen place-based initiatives (such as sentinel sites) to reduce the vulnerability of coastal communities to risks such as storm surge and sea level rise. NOAA will deliver integrated geospatial data, socioeconomic analysis and decision-support tools for coastal and marine spatial planning in order to improve the ability of coastal

states and communities to manage risks. NOAA will provide science, data, and support for the development of regional ocean partnerships and to advance the objectives of the National Ocean Policy. NOAA will harmonize habitat-related efforts to achieve long-term habitat protection and coastal resiliency.

"Our next challenge once the weather [from Hurricane Irene] abated was to assess the region for damage and then rapidly reopen the port for business. With two areas of possible shoaling, hundreds of millions of dollars in economic loss hung in the balance. [NOAA's] ... immediate action allowed commerce to begin to flow just 17 hours after the storm passed." -- *Captain M.S. Ogle, USCG Sector Commander, Hampton*

Key FY 12 deliverables: (1) Continue to execute NOAA's data integration and access plan; (2) Build out the NOAA data registry (such as including data from NOAA's integrated ocean and coastal mapping system); (3) Develop the National Information Management System (Ocean.Data.gov); and (4) Collaborate with partners in testing approaches to coastal and marine spatial planning through a limited number of priority regional pilots.

Science and Technology: *NOAA will focus on developing systems-level understanding of ecosystems and phenomena—across missions and disciplines—with the goal of increasing the resilience of ecosystems, economies, and communities.* NOAA will review the entire research and development portfolio to ensure NOAA has the science and technology needed to advance core mission capabilities and improve the Nation's understanding of ecosystem processes, conditions, and vulnerabilities. NOAA will prioritize and preserve our highest value observational assets including the fleet and aircraft, and leverage domestic and international observing infrastructure and data sharing partnerships. Where possible, NOAA will deploy more efficient autonomous data-collection platforms that improve performance and reduce the escalating costs of Earth observations.

"[NOAA's] scientific findings clearly demonstrate that ships off our coast now emit significantly less sulfur pollution than in the past... This is good news for California and for the Nation. When the federal regulations kick in for ships to use low-sulfur fuel, communities throughout America that live near shipping lanes and next to ports will see clean air benefits." -- *California Air Resources Board Chairman Mary D. Nichols*

Key FY 12 deliverables: (1) Implement the Scientific Integrity Policy; (2) Review NOAA's research portfolio as a part of NOAA's overall effort to strengthen its R&D Enterprise; (3) Design and evaluate prototypes of next generation forecasts, tools, and technologies; and (4) Develop a roadmap for integrating unmanned observing system platforms into NOAA's air and ship fleets and a roadmap for the evolution of NOAA's environmental modeling activities. .

Engagement: *NOAA will expand efforts to listen and respond to our customers' and stakeholders' concerns and better relate NOAA mission responsibilities and activities to those concerns.* NOAA will work to deepen the relevance of our products and services to stakeholders' needs and priorities; communicate our goals throughout the organization; and motivate our workforce and partners to unite capabilities, leverage expertise, and generate collaborative solutions.

Key FY 12 deliverable: Leverage external partner capabilities and expand NOAA's ability to connect the public with NOAA science and services through regular dialog, outreach and education programs, exhibits, web tools, and other mechanisms.

Organization and Administration: *NOAA will further capitalize on recent initiatives to cut costs and improve effectiveness*. NOAA will focus on more effective corporate purchasing strategies, more cost-effective use of our facility assets, and standardize IT and other enterprise functions to maintain or improve performance while finding savings.

Key FY 12 deliverables: (1) Develop an integrated set of options for a more cost-effective facility portfolio and (2) develop and implement enterprise-based IT solutions to reduce costs and increase performance.

In the coming months NOAA's Line Offices will focus on ensuring the efficient delivery of these and related FY 12 deliverables, while internal planning teams will assess how NOAA can achieve these priorities over the longer term given the full breadth of NOAA's mission responsibilities and realistic fiscal assumptions. Early this winter NOAA will use these internal assessments, adjusted to account for developments in NOAA's FY 12 and FY 13 budgets, to decide how best to pursue these priorities in FY 14 through FY 18. These decisions will inform subsequent budgeting, execution, and evaluation efforts.