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IMPLEMENTING THE NOAA NEXT GENERATION STRATEGIC PLAN:

ANNUAL GUIDANCE MEMORANDUM

SEPTEMBER 2012

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's corporate attention on near-term execution challenges and a balanced implementation of NOAA's strategy across mission areas given our mandates, stakeholder priorities, and the fiscal outlook.

INTRODUCTION

For more than 40 years, NOAA has delivered the science, services, and stewardship that have made a difference in the lives of Americans. This core mission is at the heart of the work we do to ensure a bright future for our Nation and our planet.

Just like many American families and other government agencies, NOAA is making hard choices and sacrifices in the face of a challenging budget environment. Despite the tough budget, last year NOAA achieved significant accomplishments worth highlighting. For example we:

- **Turned the corner in ending overfishing**, which will optimize fishing opportunities and jobs;
- **Created a more level playing field for U.S. fishermen** by combating pirate illegal, unreported and unregulated fishing practices in U.S. waters and on the high seas;
- **Created jobs and improved coastal economies** by restoring and protecting important marine and coastal habitats;
- **Increased efficiency and safety for the maritime industry** by adding new instruments to Physical Oceanographic Real-Time Systems (PORTS), increasing the miles of coastal waters surveyed, and updating nautical charts;
- Delivered **lifesaving weather forecasts and warnings** during record breaking and extreme weather;
- Provided **next generation climate information and products** to help businesses and communities prepare for the challenges that come with a changing climate; and
- Provided more **certainty for the transportation, agriculture and renewable energy industries** with improved weather models and forecasts.

NOAA in the Gulf of Mexico

NOAA continues to contribute to the recovery of the Gulf and the long-term sustainability of Gulf Coast communities by protecting wildlife, restoring habitat, and providing scientific advice for coastal and fisheries management. NOAA will participate in developing a comprehensive plan to improve the ecosystems and economy of the Gulf as required by the RESTORE Act. Also under the Act, NOAA will establish a Gulf Coast Ecosystem Restoration Science, Observation, Monitoring, and Technology Program to support long-term sustainability of the ecosystem, fish stocks, their habitat and the fishing industry that depends on them.

NOAA in the Arctic

NOAA is helping to address environmental, social, economic, and safety issues emerging in the fragile Arctic region. NOAA continues to expand our science and data sharing capabilities through innovative partnerships with the Department of the Interior, industry, and local communities. With limited new resources, NOAA recently launched a web-based Environmental Response Management Application to assist emergency responders and resource managers. NOAA conducted a hydrographic reconnaissance survey to support safer Arctic navigation, and is working with external partners on sea ice forecasts and longer term outlooks. NOAA is also participating in the Distributed Biological Observatory, an international effort to better understand the impacts of changes in climate and the ecosystem on subsistence cultures and living marine resources in the Arctic region.

Our commitment remains strong to NOAA's core mission and our vision of healthy ecosystems, communities, and economies that are resilient in the face of change. NOAA will also be resilient in the face of change by listening to and working with our stakeholders and national and international partners, and by being more innovative in how we accomplish our mission. Furthermore, we will continue to improve the effectiveness and efficiency of our functions and continue to make the tough choices necessary to deliver on our core mission and responsibilities in an uncertain and likely constrained budget environment.

NEAR-TERM EXECUTION IMPERATIVES

Increasing costs, coupled with uncertain budgets, puts at risk NOAA's ability to sustain all of our critical responsibilities and the balance among our science, service, and stewardship missions. As we work hard to deliver on all of our core missions, NOAA will focus on the following three near-term execution imperatives to ensure NOAA's weather services, operational satellite capabilities, and infrastructure are both cost-effective and positioned for the future. Managing these costs will preserve our ability to continue to invest and improve other NOAA core mission areas as well.

Evolve NOAA's weather services to become more effective, efficient, and agile

The threat to public safety and the impacts of extreme and severe weather are increasing. America needs to be better prepared for and responsive to these and other types of weather-dependent events. To make America a "Weather-Ready Nation," NOAA's weather services need to evolve in order to address challenges such as meeting, in a cost effective manner, expanding user needs with improved services and products, and partnering with an increasingly capable weather enterprise. NOAA will improve its management of National Weather Service (NWS) resources to ensure the provision of critical services. We will use results of National Academy of Sciences studies, as well as other assessments and active engagement with Congress, emergency managers, other stakeholders, and NOAA's employees, to improve and streamline operations and create an NWS that continues to lead the Nation's weather preparedness in the 21st century. We will develop and implement long-term plans for critical infrastructure needs to support the changing weather, apply NOAA's research capacity to advance NOAA's weather services in collaboration with the research community, and use social science methods to develop and test service enhancements to motivate and support better human responses to warnings.

Cost-effectively sustain NOAA's operational satellite capabilities

NOAA's operational satellites provide life-saving information about hurricanes and other severe storms, as well as data to monitor the Earth. However, NOAA's satellites are aging, and the capabilities they provide will degrade over time increasing the risk of gaps in critical satellite data. Loss of these data could lead to less accurate weather forecasts resulting in hundreds of millions of dollars in increased costs to agriculture, electricity, and transportation. We will work with stakeholders to ensure the JPSS and GOES-R replacement missions and other NOAA satellite missions meet their most critical needs within budget constraints. NOAA will seek out international and commercial-sector partnerships to help mitigate and avoid data gaps, and assess all viable options to cost-effectively meet future satellite data requirements.

Re-engineer a sustainable suite of NOAA's core infrastructure

NOAA's infrastructure (e.g., facilities, IT, observation platforms) provides the foundation for all that NOAA accomplishes. However, rising costs and decaying infrastructure are an increasing challenge to the development and delivery of critical science and services that the Nation needs for safety, job creation, economic growth, and a healthy environment. We will apply proven standards and best practices to re-engineer our core infrastructure. NOAA will continue to "right-size" facility footprints, consolidating where appropriate. We will fully implement the IT Portfolio Management Policy through an integrated and consolidated approach to IT. In doing so, we will strengthen our ability to improve efficiency and service delivery, manage IT spending efficiently and effectively, and achieve IT cost reductions though commodity IT, shared services, cloud computing, virtualization, blanket purchase agreements and streamlined acquisitions. NOAA's secure enterprise solutions will observe, ingest, assimilate and model, process, disseminate, and archive environmental information. Additionally, we will assess and prioritize our observing requirements and portfolio (e.g., atmospheric, oceanic, and space observation sensors and platforms, including ships, aircraft, and satellites).

FOCUS AREAS FOR PLANNING

While NOAA addresses these near-term imperatives, we will maintain focus on the science, services, and stewardship that we provide the Nation every day. We also will build on our successes to improve our core mission operations and plan for their evolution. In particular, NOAA will:

Strengthen the production and delivery of climate information and services to inform the management of climate-related risks

NOAA will continue to engage stakeholders and provide integrated science-based climate information, services, and tools to more effectively help communities, governments, the private sector, and others understand and plan for the impacts of a variable and changing climate. We will sustain fundamental capabilities, including research to advance understanding of the Earth system and key processes, preserve and build the climate data record by monitoring changes in the Earth's atmosphere and ocean , and improving predictive capabilities across time scales. NOAA will continue to provide world class global climate models, while building information and resources that inform decision making at regional scales. In particular, we will focus cross-line office efforts and partnerships to increase access to authoritative information about the regional-scale impacts of a variable and changing climate on the key societal challenges of water resources, coastal inundation, weather and climate extremes, and marine ecosystems.

Improve ocean and coastal stewardship by focusing habitat efforts in priority areas and demonstrating landscape-scale results

NOAA will increase focus of its expertise and resources for science and conservation actions in targeted areas to maximize benefits to marine resources and communities, especially in fostering economic vitality. The NOAA Habitat Blueprint is the framework for NOAA to integrate better, focus its efforts, and leverage internal and external collaborations to achieve measurable benefits within key habitats — such as coral reefs and wetlands. We will improve the delivery of science to decision makers to facilitate complementary habitat conservation actions across federal, state and local levels. We will leverage and expand local, inter-agency and NGO partnership efforts in targeted/priority areas to achieve measurable conservation results. NOAA will assess and deliver sea level rise impact information in Sentinel Sites to enable more effective management responses.

Advance NOAA's data integration and services to support resilient coastal communities and economies

NOAA generates a wealth of information that helps drive smart business and planning decisions to support stewardship-based economies. We will integrate disparate data sets and deliver innovative tools and services to advance the next generation of coastal applications. NOAA will provide data integration and a decision support framework to help state, regional and other partners understand and reduce their vulnerability to risks, including reducing risks from marine accidents, coastal hazards, and changing climate conditions (e.g., Port Tomorrow). Through the National Ocean Policy, we will leverage our core strengths in navigation and positioning, stewardship, and the efforts of our federal partners to advance effectively integrated coastal and place-based management and marine planning efforts. NOAA will demonstrate place-based capabilities in the U.S. Arctic region in response to the multitude of stakeholders interested in activities in the region and the multiple uses of its resources. We will also improve the integration of new data and the access to real-time information about the coastal zone in support of safe and efficient marine transportation and safe and sustainable use of ocean resources in the Arctic.

Improve the methodologies to assess and manage fish stocks and protected resources

Working in partnership with the Fishery Management Councils, NOAA has turned the corner in ending overfishing and rebuilding depleted fish stocks through the implementation of annual catch limits, accountability measures, and rebuilding plans. Support for implementation of locally designed catch share programs is complementing catch limits and rebuilding plans. To continue to meet management needs in this resource-constrained environment, NOAA will implement further improvements and efficiencies in fisheries science that informs management through advanced sampling techniques and next generation stock assessments. We will advance efficient methods to quickly transform available data streams into scientific advice for evaluating and adjusting management measures. NOAA will find new ways to implement protected resource programs effectively and efficiently, while meeting regulatory responsibilities. To do so, we will conduct organizational workflow, policy, and procedures analyses to develop options for prioritizing and executing regulatory responsibilities more efficiently. NOAA will also continue international efforts to end overfishing, enhance development of sustainable aquaculture and provide enhanced compliance assistance as a part of a concerted effort to level the playing field, and optimize fishing opportunities and jobs.

Enhance research and modeling to advance NOAA's mission

Increasingly, NOAA's mission depends on interdisciplinary science to understand and predict periodic events and long-term conditions of the Earth system and the impacts of these events and conditions on the ecosystem (including humans). NOAA will define, prioritize, and optimize its R&D portfolio to advance NOAA's missions where they will yield the greatest benefit for users and improve the efficiency of operations. We will enhance research on the Earth system and the diverse stressors that can affect ecosystem function and processes. NOAA will determine and forecast socio-economic benefits provided by ecosystems and the impacts of management actions on ecosystems and ecosystem services. We will continually improve our environmental modeling capabilities, focusing on regional climate, high impact weather, and ecological forecasting. We will also improve data assimilation techniques to increase prediction skill and the return on the Nation's observing investments.

FISCAL ASSUMPTIONS AND NEXT STEPS

Over the next several months, NOAA will develop FY 2013 operating and implementation plans to address the guidance in this memorandum, as well the full breadth of NOAA's mission responsibilities, with the following fiscal assumptions:

- For FY 2013, we will assume the realigned[1] FY2013 President's top line budget level amounts for both ORF and PAC for the whole year, but we will use the Continuing Resolution level (2012 Enacted) to plan milestones in first 6 months ; and
- For FY 2014-2019, we will assume zero percent growth in the realigned FY 2013 President's top line ORF and PAC budget level amounts, except we will assume the planned satellite PAC increases above the FY 2013 top line for GOES-R and JPSS.

NOAA will use these plans, adjusted as appropriate to account for developments in NOAA's FY 2013 and FY 2014 budgets, to decide how best to pursue priorities. These decisions will inform subsequent budgeting, execution, and evaluation efforts.

[1] A realigned 2013 President's Budget was provided to Congress to address NWS mission needs.