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ON THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION'S FY 2011 BUDGET REQUEST

BEFORE THE COMMITTEE ON SCIENCE AND TECHNOLOGY U.S. HOUSE OF REPRESENTATIVES

March 10, 2010

Chairman Gordon, Ranking Member Hall, and Members of the Committee, before I begin my testimony I would like to thank you for your leadership and the generous support you have shown the National Oceanic and Atmospheric Administration. Your continued support for our programs is appreciated as we work to improve our products and services for the American people.

NOAA's mission and priorities support Secretary of Commerce Gary Locke's priorities through innovation in science and technology, services benefitting the economy and ecosystems, and green and blue businesses underscored by a solid foundation of environmental information and stewardship. A healthy environment and a strong economy go hand in hand. Recreational and commercial activities, representing billions of dollars in economic impact, depend on healthy coastal, ocean and fresh water environments and the services they provide. NOAA is assisting communities with the data, tools, technology, training, and essential services and knowledge needed to make decisions in diverse disciplines and sectors – from the innovative management of our natural resources to the investments we make in public infrastructure.

I am honored to be here as the Under Secretary for Oceans and Atmosphere at the National Oceanic and Atmospheric Administration (NOAA), one of the Nation's premiere environmental science and stewardship agencies. I am pleased to speak with you today regarding the President's Fiscal Year (FY) 2011 Budget Request for NOAA.

The FY 2011 President's Budget provides a solid foundation to continue to advance NOAA's mission. This is a critical budget for the Administration and NOAA, and provides support for meeting our most pressing needs. The FY 2011 request is \$5.6 billion, representing an \$806 million increase over the FY 2010 enacted level. After careful consideration of the key issues facing the Nation in which NOAA is mandated to and able to respond, we developed a set of priorities that helped to shape this budget and will guide our actions in the coming years. These priorities include ensuring the continuity of climate, weather, and ocean observations;

eliminating overfishing and ensuring the sustainability of marine fisheries; strengthening climate science and services; promoting healthy and resilient coastal communities and ecosystems; improving weather forecasts and disaster warnings; and strengthening Arctic science and stewardship. Before discussing the details of this budget request, it is important to document some significant areas of progress over the last fiscal year.

FY 2009 ACCOMPLISHMENTS

Climate

In the area of climate, we have continued to provide climate observations and analysis while engaging other federal agencies, the private sector, the science community, and many others on how to strengthen our climates services. In FY 2009, NOAA calculated sea-level trends for an additional 70 global stations. We also deployed ten additional Historical Climate Monitoring sites to provide high resolution regional climate data. Climate studies by NOAA scientists showed that changes in surface temperature, rainfall, and sea level are largely irreversible for more than 1,000 years after carbon dioxide emissions are completely stopped, and Arctic summers may be ice-free in as few as 30 years.

Satellites

We are working to resolve many of the management challenges that will allow us to get our future polar satellite program "back on track." These management challenges go back many years and resulted in significant delays and cost overruns. We still have a great deal of work to do, but this attention is critical to the continuity of the nation's weather and climate information. In FY 2009, our other satellite programs saw major milestones accomplished with the launch of NOAA-19, a polar-orbiting satellite, and GOES-14, a geostationary satellite. These satellites are critical for NOAA's weather-forecasting, storm-tracking, and space- and climate-monitoring missions. NOAA satellites also provided key support in the rescue of 184 people throughout and near the United States during FY 2009, providing their location to emergency responders.

Weather

Concern for public safety drives NOAA to continue to improve the timeliness and accuracy of warnings for all weather-related hazards. NOAA is committed to enhancing timely and accurate weather and climate forecasts through better observations, improved data assimilation, and collaboration with the research community. To this end, NOAA alerted the communities in Upper Mid-West in early February of record flooding they would experience in late March and April in the Red River Valley. NOAA also provided a Winter Outlook in early October which has been spot-on in advising the American public of the conditions expected through February, including the El Nino-driven storms which have swept through the southern tier of the Nation, bringing heavy rains, snow and flooding from California to the Mid-Atlantic since December.

Fisheries

We have made important progress in rebuilding our fisheries, recovering protected species and sustaining the livelihoods and communities dependent upon them. We introduced a draft catch share policy and are committed to improving relationships with the recreational and commercial fishing communities. We are exploring ways to improve fisheries enforcement efforts, as well as the science used to inform fisheries management decisions. We are also considering ways to expedite *Endangered Species Act* consultations to allow projects to move forward more quickly while ensuring needed species protections. In FY 2009, NOAA continued to make progress in meeting the mandates of the *Magnuson-Stevens Fishery Conservation and Management Reauthorization Act*. NOAA also commissioned the NOAA Ship *Pisces*, which will support fisheries research in the Gulf of Mexico and the Southeast United States.

Oceans and Coasts

NOAA was fully engaged in the President's Interagency Ocean Policy Task Force, participating in and supporting every public hearing and attending every working group and Task Force meeting. The result of the Task Force's effort was the release of a draft national ocean policy and interim framework for coastal and marine spatial planning, the first time any Administration has so clearly committed to the ideal that "healthy oceans matter." Protecting and restoring critical habitat is essential for healthy oceans. In FY 2009, NOAA's Coastal Estuarine and Land Conservation Program acquired or put under easement over 4,000 coastal acres.

ARRA Stimulus Funding

The distribution and management of funding made available through the *American Recovery and Reinvestment Act of 2009* (ARRA) is a success story for NOAA, as are the results of our projects. NOAA has obligated approximately 70 percent of the \$830 million received. We have met all of our planned milestones and expect to obligate the remaining funds in the coming months. With this funding, we have infused new resources into the economy and also invested in critical infrastructure to meet NOAA's mission needs. I am particularly proud of our efforts to restore habitat, creating jobs as we restore ecosystems. We awarded 50 grants for marine and coastal habitat restoration in 22 states and territories, obligating \$155.4 million. Many of these projects were located in areas of high unemployment and have provided jobs to Americans during a critical phase of our economic recovery. For example, NOAA grant recipients reported creating or saving 372 jobs for the period of October 1 through December 31, 2009.

The progress we have made toward our strategic priorities and the improvements made to NOAA's core functions and infrastructure set the stage for even more success in the years to come.

FY 2011 BUDGET REQUEST HIGHLIGHTS

The FY 2011 Budget reflects NOAA's efforts to focus on program needs leading to measureable outcomes, identify efficiencies, and ensure accountability. The budget includes new research and development investments to strengthen our science (including climate) mission and foster innovation; provides investments to rebuild and improve fisheries and the economies and communities they support; and proposes targeted investments to sustain and enhance satellite observations, including a major realignment of our NPOESS program.

Meeting the Rising Demand for Climate Services

President Obama has made it clear that addressing climate change is a high priority, and that good government depends on and should be informed by strong scientific knowledge. NOAA has become a global leader in reporting on the state of essential climate variables. NOAA proposes to establish a new line office called NOAA Climate Service. This office would bring together NOAA's longstanding and outstanding capabilities — Nobel Peace Prize award-winning researchers and assessments, observations, predictions, training and vital on-the-ground climate services delivery to users in climate-sensitive sectors and economies. A single climate office, rather than the current dispersed structure, will enable NOAA to better address the growing need for climate services. NOAA's FY 2011 request includes \$435 million in support of the U.S. Global Change Research Program, with \$77 million in new increases for core climate services and observations (excluding increases for geostationary and polar-orbiting satellites) needed to enable the Nation to more effectively address the impacts of climate change. Climate science encompasses an immense breadth of topics ranging from those that are well understood and documented, such as greenhouse gases, to those on the cutting edge of knowledge, such as ocean acidification and melting sea ice.

For example, the increasing acidity of the world's oceans has the potential for devastating effects on marine life and ocean ecosystems, but the degree to which various organisms may be capable of adapting to a more acidic environment is uncertain. More investments in ocean acidification are required to reduce this uncertainty and consider means to respond and/or adapt. In FY 2011, NOAA requests an increase of \$6.1 million, for a total of \$11.6 million, to support new technologies and ecosystem monitoring systems to better assess the physiological and ecosystem level effects of ocean acidification on productivity and the distribution of commercial and recreational marine fish stocks.

The impacts of climate change are evident on both a global and local scale. The Arctic, in particular, is an emerging area of international concern, as it continues to experience profound atmospheric, terrestrial, and oceanic changes related to climate variability and change. With an increase of \$3 million, for a total of \$6.3 million requested in FY 2011, NOAA will improve and amplify representation of Arctic climate processes in global climate models, strengthen our network of observations, and provide user-focused research assessments for the region.

Scientific assessments are integral for enhancing our understanding of climate — both to determine how and why climate is changing, but also what the changing conditions mean to our

lives and livelihoods. NOAA will provide climate assessments on both the regional and national levels to meet society's increasing demand for climate data and information. A requested increase of \$10 million will establish regional and national assessments that will synthesize, evaluate, and report on climate change research findings, evaluate the effects of climate variability and change for different regions, and identify climate risks and vulnerabilities.

Strong scientific assessments incorporate information provided by NOAA's climate models and carbon observing systems. Climate models are the only means of estimating the effects of increasing greenhouse gases on future global climate. In FY 2011, NOAA requests an increase of \$7.0 million, for a total of \$9.6 million, to continue development of Earth system models to address urgent climate issues such as sea level rise, feedbacks in the global carbon cycle, and decadal predictability of extreme events. An increase of \$8.0 million, for a total of \$20.9 million, will allow NOAA to continue implementation of the Carbon Tracker Observing and Analysis System, which is an observational and analysis network that measures carbon dioxide and other greenhouse gases. This system will serve as the backbone for verifying greenhouse gas emission reduction and mitigation efforts in North America.

Improve Satellite Observations and Management

NOAA's satellites provide the data and information that are vital to every citizen in our Nation – from weather forecasts, to safe air, land, and marine transportation and emergency rescue missions, we all use satellite products in our everyday life. One of the greatest challenges that NOAA faces today is ensuring continuity of satellite data and operations to provide state-of-the-art, unbroken coverage that supports weather and marine forecasting; climate assessments and change predictions; and space weather forecasts. With the FY 2011 budget request, we will invest in multiple satellite acquisition programs for the continuity of critical weather, climate, and oceanographic data.

A funding increase of \$678.6 million, for a total of \$1.1 billion, is requested to support the Administration decision to restructure the NPOESS program and create within NOAA the Joint Polar Satellite System. This large increase reflects the Administration's determination that beginning in FY 2011, NOAA will fully support within its own budget the procurement and development of the assets for the afternoon orbit. Restructuring the NPOESS program will allow NOAA to continue the development of critical earth observing instruments for the afternoon orbit, which are required for improving weather forecasts, climate monitoring, and warning lead times of severe storms. The restructured program separates civilian and military satellite procurements, but retains sharing of common assets such as the ground system and data. The National Aeronautics and Space Administration (NASA) will serve as the lead acquisition agent for NOAA, continuing the long and effective partnership on all of our polar-orbiting and geostationary satellite programs to date. There is still much work that remains, but NOAA is committed to working with our partners to ensure a smooth transition to assure the continuity of Earth observations from space.

NOAA is requesting an increase of \$62.5 million, for a total of \$730 million, to continue the development of the Geostationary Operational Environmental Satellite – Series R (GOES-R) program. This increase will provide for the continued development of six GOES-R satellite

instruments, the spacecraft, and ground systems to be prepared for launch near the end of 2015. The acquisition of NOAA's GOES-R series, in partnership with NASA, is progressing on track. The new satellites will carry improved environmental sensors to enable NOAA's forecasters to enhance the timeliness and accuracy of their severe weather warnings. Also, this next generation of GOES satellites will provide advances in NOAA's observation capabilities, including improvements to coastal ecosystems, space weather, and lightning observations through continued funding of instruments such as the Advanced Baseline Imager, Solar Ultra Violet Imager, Extreme Ultra Violet Sensor/X-Ray Sensor Irradiance Sensor, Space Environmental In-Situ, and Geostationary Lightning Mapper.

Global sea level rise directly threatens coastal communities and ecosystems through increased exposure and erosion, more frequent storm-surge and tidal flooding, and loss of natural habitat due to drowned wetlands. NOAA's budget requests an additional \$30.0 million for a total of \$50 million to continue development of the Jason-3 satellite that will provide continuity of sea surface height measurements, thus ensuring an uninterrupted climate record of over 20 years. The Jason-3 mission is a joint U.S. – European partnership with U.S. and European funding.

NOAA requests a \$3.7 million increase to partner with the Taiwan National Space Organization for the launch of 12 satellites to replenish and upgrade the Constellation Observing System for Meteorology, Ionosphere, and Climate (COSMIC) satellite constellation. This program is a cost effective means of obtaining information about the temperature and moisture in the atmosphere around the globe that will improve forecasting accuracy.

Finally, a requested increase of \$9.5 million will support, in cooperation with NASA, the refurbishment of the existing NASA Deep Space Climate Observatory (DSCOVR) satellite, its solar wind sensors, and the development of a Coronal Mass Ejection (CME) Imager. The data and information provided by DSCOVR will support the operations of the National Weather Service Space Weather Prediction Center, which generates accurate and timely 1-4 day forecasts and warnings of geomagnetic storms that could adversely affect power grids, telecommunications, the health and safety of astronauts, and the viability of satellite systems.

Transform Fisheries and Recover Protected Species

Ending overfishing, improving fisheries management and putting fisheries on a path to sustainability and profitability are still challenges for NOAA. I would like to highlight areas in the FY 2011 budget that support targeted investments to continue fulfilling NOAA's responsibilities under the *Magnuson-Stevens Fishery Conservation and Management Reauthorization Act*, and that will help to sustain local communities while restoring a number of vital fisheries stocks and habitats.

NOAA recently released a draft catch share policy to encourage the consideration and adoption of catch shares wherever appropriate in fishery management and ecosystem plans and amendments, and will support the design, implementation, and monitoring of catch share programs. Catch share programs give fishermen a stake in the benefits of well-managed fisheries, and therefore greater incentive to ensure effective management. To support NOAA's policy, this budget includes an increase of \$36.6 million, for a total request of \$54 million, to establish a National Catch Share Program. This program will provide a national framework to develop, manage, and improve catch share programs in fisheries across the Nation. This increase will also continue the transition of the Northeast ground fish (multispecies) fishery to sector management as well as support new voluntary catch share programs in the Mid-Atlantic, Gulf of Mexico, and Pacific Coast regions.

Managing fisheries to their full potential requires additional efforts focused on habitat condition and ecosystem functioning, which provide the foundation for species recruitment and survival. The FY 2011 budget request includes investments in this area through three vital NOAA programs that are focused on threatened and endangered species, but will have a resonating impact across broad goals for enhancing ecosystem integrity and health. First, through the Community Based Restoration Program, NOAA plans to increase fish passage and spawning and rearing habitat by implementing larger-scale ecological restoration in targeted areas such as wetlands. NOAA is requesting an increase of \$10.4 million for a total of \$23.8 million for this effort in FY 2011. Second, we will continue supporting the Species Recovery Grants Program in FY 2011 with a requested increase of \$9.6 million, for a total of \$20.8 million. This will allow NOAA to provide grants to conduct priority recovery actions for threatened and endangered species, including restoring habitat, monitoring population trends, developing conservation plans, and educating the public. Third, with a total request of \$65 million, the Pacific Coastal Salmon Recovery Grants Program will continue to leverage federal, state, and tribal resources in the Pacific Coast region to implement projects that restore and protect salmonid populations and their habitats.

Another highlight of the FY 2011 request includes support for the restoration and protection of the Nation's largest estuary, the Chesapeake Bay. NOAA supports the President's Executive Order to restore the Chesapeake Bay by providing enhanced understanding of the relationships between the Bay's living resources and habitat, coordinating protection and restoration of key species and habitats across jurisdictional lines, and supporting a coordinated system of monitoring platforms distributed across the Bay. We are requesting an increase of \$5 million, for a total of \$7.1 million, for regional studies in the Bay. This investment will ensure NOAA has state-of-the-art field and laboratory equipment in place in FY 2011, which will be used to address the mandates of the President's Executive Order in FY 2011 and beyond.

In addition to expanding scientific understanding in the Chesapeake Bay, NOAA scientists are developing integrated ecosystem assessments (IEA), a critical tool for understanding the interactions between multiple species and for helping to manage and sustain critical stocks and habitats. IEAs allow managers to weigh trade-offs between sectoral uses and evaluate the socioeconomic implications of management actions. Most importantly, IEAs provide guidance to ensure the most cost-effective and informed resource management decisions. In FY 2011, NOAA is requesting an increase of \$5.4 million, for a total \$7.5 million investment, to focus primarily on the California Current Ecosystem, but to also engage work on the Gulf of Mexico and Northeast Shelf IEAs.

Vibrant Coastal Communities and Economies

It was estimated that in 2003, approximately 153 million people — or 53 percent of the Nation's population — lived in the 673 U.S. coastal counties, an increase of 33 million people since 1980. It is estimated that this number will increase by 12 million people by 2015. In addition, over half of the U.S. Gross Domestic Product is generated in coastal counties, highlighting their critical importance to the Nation's economy. This population increase is straining the limited land area of coastal counties. Coupled with the important economies of coastal areas and the demands for ecosystem services, it is becoming increasingly difficult to manage coastal resources in the context of competing uses. NOAA's FY 2011 budget provides key investments to promote sustainable, safe use of coastal areas and to support the economies of these coastal areas.

As stated in the interim report of the Interagency Ocean Policy Task Force, current and future uses of ocean, coastal, and Great Lakes ecosystems and resources should be managed and effectively balanced. I would like to highlight areas in our request that support this goal and other Administration priorities.

Human uses of ocean resources are accelerating faster than our ability to manage them. Increasing conflicts are unavoidable as demands increase for ocean-based energy, marine aquaculture, commercial and recreational fishery products, shipping and navigation services, and other activities. The Administration's Interagency Ocean Policy Task Force released the Interim Framework for Effective Coastal and Marine Spatial Planning in December 2009, which is aimed at enhancing and streamlining ocean management decisions to ensure the health of vital ocean ecosystems as human uses increase. Current management approaches are ad hoc and fragmented at the federal, state, and local levels. NOAA is a leader in providing tools and services that support coastal and marine spatial planning efforts. Our existing programs have established a foundation for coastal and marine spatial planning that could be used governmentwide across jurisdictions and sectors. In FY 2011, NOAA requests an increase of \$6.8 million to support coastal and marine spatial planning, which will enhance existing efforts for sustainable fisheries, safe navigation, improved water quality, living marine resources and critical habitat protection.

NOAA's request further supports coastal and marine spatial planning efforts with a \$2 million increase to support the Gulf of Mexico Coastal and Marine Elevation Pilot to a develop robust geospatial framework, including high-resolution topographic and bathymetric datasets. These datasets will provide a better understanding of baseline variables needed to enhance coastal community resilience, wetland loss and erosion, and the potential for degradation of key ecosystem services. This pilot will begin in the Gulf of Mexico and be extended to other regions and applications over time.

The Nation's coastal communities and economies depend on healthy coastal resources, which are threatened by fragmented planning and management of societal use of coastal lands and waters. Regional ocean governance mechanisms facilitate the effective management of ocean and coastal resources across jurisdictional boundaries by improving communications, aligning priorities, and enhancing resource sharing between local, state, and federal agencies. Our request of a \$20

million increase will establish a competitive grants program to advance effective ocean management (including coastal and marine spatial planning) through regional ocean governance. The program will help support priority actions, in association with states, identified in plans of the existing regional ocean partnerships. Support for these partnerships will also encourage development of comprehensive, coastal and marine spatial plans, which are consistent with the President's Ocean Policy Task Force Interim Framework for Effective Coastal and Marine Spatial Planning.

To better protect the public health of our coastal citizens and tourists, NOAA requests an increase of \$9.5 million, for a total of \$12.5 million, to support research into technologies that better detect, identify, characterize, and quantify disease-causing microbes, toxins, and contaminants in marine waters. These funds will be used to target sensor development, which will support ocean and coastal related Health Early Warning Systems, identify risks, and promote public health.

In addition to public health hazards, coastal communities are vulnerable to hardship and costs associated with episodic and chronic natural hazards, such as hurricanes, sea-level rise, and coastal erosion. Our request of a \$4 million increase will support the development of tools, such as web portals, Geographic Information System (GIS) products, and forecast models, to help coastal communities mitigate the impacts of climate and weather hazards.

Ensure Timely Weather Forecasts

Weather impacts our lives and the economy. The United States experiences a broader variety of severe weather than any other Nation on Earth, from hurricanes in the south, east, and west, to arctic storms in the north. Each year, NOAA provides 76 billion observations, 1.5 million forecasts, and 50,000 warnings to mitigate the impact of weather events and protect life and property. The FY 2011 Budget Request proposes important increases in both weather operations and weather research.

Weather is a factor in over 70 percent of air-traffic delays, costing approximately \$29 billion annually¹. Two thirds of all weather delays are preventable with more accurate and timely weather information. To meet the rising demands of air transportation, NOAA is involved in a collaborative partnership with the Federal Aviation Administration to create the Next Generation Air Transportation System. NOAA requests an increase of \$15.1 million, for a total of \$26.7 million, to modernize our aviation weather forecasts and warnings. This funding will provide much needed improvements to processing systems and models, as well as new products for pilots.

NOAA is dedicated to continually upgrading existing weather tools to keep up with growing needs and improved technologies, as well as investing in research to develop new products. NOAA requests an increase of \$3.2 million, for a total of \$11.1 million, to install additional components to the Nation's fleet of NEXRAD Doppler weather radars to improve their accuracy

¹ See the Federal Aviation Administration's Research, Engineering and Development Advisory Committee's *Report* of the Weather-ATM Integration Working Group, 3 Oct, 2007; available at http://www.jpdo.gov/library/FAA_REDAC_Report.pdf.

in determining the quantity and type of precipitation. Doppler weather radar is the primary tool used to issue local storm warnings for flash floods, tornadoes, and severe thunderstorms. Looking to the future, NOAA also requests an additional \$6 million, for a total of \$10 million, to continue developing Multi-Function Phased Array Radar technology, which shows great promise as the next major improvement in weather detection. These funds will examine the benefits and efficiencies associated with this next-generation radar technology. Multi-Function Phased Array Radar's ability to rapidly scan large areas could provide an enormous advantage to radar meteorologists over current capabilities, and in turn enhance weather and climate warnings for the public.

Water resource and precipitation monitoring and forecasting have become a particular challenge with increases in population, drought, and frequent changes in commercial shipping needs. On an annual basis, the majority of federally declared disasters are due to flooding. In FY 2011, NOAA requests an increase of \$7.7 million for a total of \$12.9 million, to research, develop, and deliver water forecasting services for river, estuary, and coastal areas that do not currently have these capabilities.

In addition, the FY 2011 Budget includes \$2 million, for a total of \$13 million, for the national Space Weather Prediction Center (SWPC). Millions of precision Global Positioning System users, satellite operators, commercial and military space and aviation activities, and power grid operations will be vulnerable to a new round of solar storms during the predicted upcoming solar maximum. This investment will improve information technology systems at the SWPC and enhance space weather alerts and warnings to avoid potential disruptions to the Nation's shared infrastructure on which the public relies.

Finally, NOAA requests an additional \$2.2 million, for a total of \$14.5 million, to provide a necessary technology refresh and frequency conversion for our network of wind profilers. This 20-year-old system provides high-frequency wind data for severe weather warnings and watches of tornadoes, flash floods, and winter storms, short-term forecasts, and detection of volcanic ash plumes.

Program Support

In order to deliver sound science and services, NOAA must continue to invest in its information technology (IT) infrastructure, the quality and construction of NOAA facilities, and recapitalization. NOAA experiences thousands of cyber attacks every month. A requested increase of \$8.7 million will enhance security monitoring and response capabilities, and consolidate our IT infrastructure into a single enterprise network. In addition, NOAA needs to continue to replace key facilities to ensure employee safety and maintain mission continuity. This budget includes an increase of \$14 million for the Pacific Regional Center which brings together NOAA programs on Oahu, Hawaii. While the *ARRA* funds we received in FY 2009 helped fund basic construction of the facility, additional funding is needed in FY 2011 to procure and install the information technology infrastructure for the new facility. The budget also includes an increase of \$5 million to support the replacement of the bulkhead at NOAA's Atlantic Marine Operations Center.

NOAA's fleet plays an essential role in accomplishing NOAA's environmental and scientific missions. The FY 2011 budget continues the recapitalization of NOAA's fleet, critical for data collection to meet fisheries management mandates. A \$6.2 million increase is requested to address vessel maintenance backlog, and to increase preventative maintenance rates for the fleet. An additional \$7.4 million is requested to accelerate a planned FY 2013 Major Repair Period to address structural, mechanical, and electrical breakdowns of the *Miller Freeman*. Lack of repair to this valuable ship would result in lost days at sea and impact NOAA research. Finally, we request \$3 million towards the design of a fishery survey vessel to replace the OREGON II, an aging fishery survey vessel operating in the Gulf of Mexico. Another \$1.4 million is requested for project management of a new fishery survey vessel that is being built using ARRA funding.

CONCLUSION

Overall, NOAA's FY 2011 Budget Request reflects the commitment of the President and the Secretary to public safety, a healthy environment, sound science underpinning decision making, and job creation. These resources are critical to the future success of meeting our needs in climate, fisheries, coasts, and oceans. I look forward to working with you, the Members of this Committee, and our constituents to achieve the goals I've laid out here through the implementation of the FY 2011 budget.

Thank you for the opportunity to present NOAA's FY 2011 Budget Request. I am happy to respond to any questions the Committee may have.