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OVERSIGHT OF THE PRESIDENT'S FISCAL YEAR 2014 BUDGET REQUESTS FOR COAST GUARD AND NOAA

HEARING

BEFORE THE

SUBCOMMITTEE ON OCEANS, ATMOSPHERE, FISHERIES, AND COAST GUARD

OF THE

COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION
UNITED STATES SENATE

ONE HUNDRED THIRTEENTH CONGRESS

FIRST SESSION

APRIL 23, 2013

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ONE HUNDRED THIRTEENTH CONGRESS

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OVERSIGHT OF THE PRESIDENT'S FISCAL YEAR 2014 BUDGET REQUESTS FOR COAST GUARD AND NOAA

TUESDAY, APRIL 23, 2013

U.S. SENATE,
SUBCOMMITTEE ON OCEANS, ATMOSPHERE, FISHERIES, AND COAST GUARD,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
Washington, DC.

The Subcommittee met, pursuant to notice, at 10:08 a.m. in room SR–253, Russell Senate Office Building, Hon. Mark Begich, Chairman of the Subcommittee, presiding.

OPENING STATEMENT OF HON. MARK BEGICH, U.S. SENATOR FROM ALASKA

Senator BEGICH. I will call the Senate Committee on Commerce, Science, and Transportation Subcommittee on Oceans, Fisheries, and Coast Guard to order today.

Thank you very much, both of you, for attending.

We will be covering the Coast Guard and NOAA's operating budget and oversight hearing today. So thank you all, again, for being here.

Again, welcome, Admiral Papp, Commandant of the United States Coast Guard; and Dr. Kathryn Sullivan, Acting Administrator of the National Oceanic and Atmospheric Administration. Thank you for both being here.

Both the Coast Guard and NOAA perform vital services for our nation. The 41,000 men and women in the U.S. Coast Guard carry out a wide array of civil and military responsibilities, which touch every aspect of the U.S. maritime sector. They protect the Nation's maritime economy and environment, defend our maritime borders, safeguard our ports, and save those in peril on the sea.

Last year, the Coast Guard responded to some 20,000 search and rescue cases nationwide, and saved more than 3,500 lives. They saved millions of dollars in property, stopped thousands of undocumented migrants from illegally entering the country, and seized hundreds of tons of drugs.

The Coast Guard also deploys forces in support of our troops overseas, conducts humanitarian missions, and leads the response to pollution incidents.

Perhaps nowhere is their importance better known than in my own home state of Alaska—where we will say, also, we have a great TV show about the Coast Guard, too—where our economy is

based on the fishing industry, the safe transportation of oil and other maritime commerce, and recreational boating.

We're proud to be the home of the Nation's largest Coast Guard base in Kodiak, Alaska, and with cutters and air stations, small boat stations, and many dedicated and talented guards—men and women—throughout the state.

Last year, the Coast Guard's Operation Arctic Shield was an unprecedented deployment of personnel, cutters, and aircraft above the Arctic Circle to respond to the increased shipping and energy activity in that fast-changing environment.

To honor the service and sacrifice of its men and women, Congress should ensure that the Coast Guard has the tools they need to do all we ask them to do. While our nation struggles with finding a responsible balance of fiscal restraint with a budget that meets our needs and responsibilities, I'm quite concerned about the nearly $1 billion reduction proposed in the Coast Guard Fiscal Year 2014 budget.

Last year, we passed an authorization bill for the Coast Guard that authorized over $700 million more in discretionary funding than the President's request would provide. The Act's funding level represented a strong consensus of support in both houses of Congress for the Coast Guard and the need to fund the essential missions and perform.

I'm worried what lowered funding would mean not only for our readiness today, but for the significant cuts slated for the acquisitions, what that means for our preparedness for future activities, including the need to replace our polar class icebreakers.

I look forward to discussing this with the Admiral Papp today.

NOAA also plays a vital role for our nation, and I welcome Dr. Sullivan in today's hearing.

NOAA's accurate observations and forecasts are essential to the Nation's weather-dependent industries, like agriculture, aviation, and shipping, and, of course, in my state, fishing.

For these sectors, weather forecast means more than just planning a picnic. Economic vitality, critical business decisions, and, indeed, lives depend on their accuracy.

I commend NOAA for its response to the increasing incidences of severe weather our nation has experienced. The accurate forecast of the severity of the course of Hurricane Sandy last year gave advance warning, which saved lives and property from the devastating superstorm. And in the wake of the storm, NOAA's hydrographic survey vessels immediately went to work to ensure that the shipping channels impacted by the storm remained clear and open to bring in needed supplies and restore commerce along the Atlantic seaboard.

Our nation's fishermen also depend on NOAA's assessment of fish stock status to ensure their harvest, which drives the economy of so many coastal communities nationwide, and making sure it is sustainable. And I'd also like to brag, as producer of over half the Nation's seafood, this is critical for Alaska.

Also critical is the work on timely review and permitting of oil and gas activities to ensure its compatibility with marine mammal population, upon which Alaska native people depend on as a traditional source of nutrition.

I'm pleased the administration has proposed a modest increase to the NOAA Fiscal Year 2014 budget. Most is to maintain vital satellite tracking capabilities, but also others for ocean observation, fish stock assessments, and basic research into climate and marine debris, among other programs.

But I share concerns about the programs which are being cut to afford these, and the impact of furloughs on NOAA personnel and maintaining essential services.

I look forward to today's discussion, again, with Dr. Sullivan.

Before we turn to the witness, let me ask my Ranking Member, Senator Rubio, to make his opening statement.

STATEMENT OF HON. MARCO RUBIO,
U.S. SENATOR FROM FLORIDA

Senator RUBIO. Thank you, Chairman.

And I want to thank our witnesses here at the Subcommittee today. And particularly, I want to thank you, Admiral Papp, for being here.

Last year, the Coast Guard responded to close to 20,000 search and rescue cases and saved more than 3,500 lives, and it played such an important role in so many areas. And coming from a state like Florida, I just want to say that we very much appreciate your service to our country.

And I also want to thank the Chairman for holding this hearing today. As I think is well-known, we live in a time of record deficits, and maintaining the right policy priorities is more important than ever.

And I appreciate the opportunity to hear today what the administration's priorities are for the upcoming fiscal year for both the Coast Guard and for NOAA.

And specifically, I'm interested in hearing from the Coast Guard about the status of their recapitalization efforts. This program is vital to our national security, so I was disappointed to see in the latest budget proposal that the effort is being scaled back, and I will have a few questions on that topic.

Additionally, I understand the President's budget proposal shifts our Navy assets in the Western Hemisphere to the Pacific. Now, as the Ranking Member on the East Asian and Pacific Affairs Subcommittee, I recognize the importance of and support a strong U.S. presence in that region. However, I'm going to have several questions about the reduction of our presence in the Western Hemisphere and the implications of this reduction on the counter-illicit trafficking mission of our Joint Interagency Task Force South.

As for the NOAA budget, I've long called for increased and improved data collection to support the proper management of our nation's fisheries, and I'm encouraged by the increased emphasis on expanding stock assessments in the President's budget. However, I'm equally disappointed to see the continued diversion of money from the Saltonstall-Kennedy Grant Program, and I'll have a few questions for Dr. Sullivan on this topic.

Additionally, NOAA has recently proposed to list 66 species of coral under the Endangered Species Act, several of which are found off the coast of Florida. And I'm concerned about the implication of this listing and how it will impact many of the vital industries

in the state of Florida, such as commercial and recreational fishing industries. I'll be interested to hear how the agency intends to move forward with this listing.

And finally, the President recently released his implementation plan for the National Ocean Policy, and I'm concerned about the unintended consequences that may result from the President's implementation plan. Too often, this administration puts forth "voluntary," quote-unquote, documents like the National Ocean Policy that, when all is said and done, we're faced with a new regulatory regime with questionable value and severe economic consequences.

Last Congress, I requested an oversight hearing on this policy, and I'm hopeful that the Committee will renew its focus on this initiative in the coming year.

With that, I want to again thank you, Mr. Chairman, and the witnesses for being here with us today, and I look forward to your testimony.

Senator BEGICH. Thank you very much, Senator Rubio.

Let me go ahead and we'll start with Commandant Papp.

We thank you very much for being here, and it's always a pleasure to see you. And I know the folks in Alaska, when you come visit the stations there, always appreciate the visit from the folks in D.C., so thank you for doing that on a regular basis.

STATEMENT OF ADMIRAL ROBERT J. PAPP, JR., COMMANDANT, U.S. COAST GUARD

Admiral PAPP. Thank you, Chairman Begich, and we will be back.

Thank you, sir. It's great to be here before you.

And, Senator Rubio, it's great to appear before you the first time and this subcommittee, because it's my honor to be here to talk about our Coast Guard, and in particular, the FY14 budget.

I'd like to begin by thanking all of you for the tremendous support we received over the last year for the FY13 budget and also the emergency supplemental for Hurricane Sandy. It enables us to continue to recapitalize our aging fleet, to sustain our frontline operations, and to care for our people. These were hard-earned gains that I hope to sustain in spite of the uncertain and stormy seas caused by the current fiscal environment.

Yesterday in Boston, the Nation began to pay tribute and final respects to those killed in last week's senseless violence. The collective hearts of our Coast Guard family go out to the people of Boston and all the families that have been harmed by this tragedy.

But they also go out because the Coast Guard is a part of that community in Boston, and we were able to respond immediately with boats and crews, an armed helicopter, vessel boarding teams, and overall enhancement of the maritime transportation security posture.

Our ability to respond like this, not only in Boston but in all our ports, is a direct result of the support that we've received from the Congress and the administration over the last 12 years.

The results of that support were also demonstrated during Hurricane Sandy, when we rescued 14 crewmembers from the sailing ship HMS Bounty in 30-foot seas and 60-knot winds 80 miles offshore.

We're also a part of the community in New York and New Jersey, so we were pleased to be able to get the port running again after the storm, and we worked across government and industry to reopen the port to the vital commerce that it provides.

Last year, to meet the growing demands in the Arctic, we completed Operation Arctic Shield, a 9 month interagency effort including deployment of a national security cutter, two ice-capable buoy tenders, and two helicopters 300 miles above the Arctic Circle. Given the lack of shore infrastructure and the extreme conditions, the capabilities provided by our national security cutter were very critical.

In executing the Department of Homeland Security layered security strategy, the Coast Guard detected and interdicted threats as far from our shores as possible. Targeting Central America coastal trafficking routes, our cutters and aircraft teamed with interagency aircraft to detect and interdict drug-smuggling vessels carrying 107 metric tons of cocaine, a street value of nearly $15 billion, and we also disrupted transnational criminal organizations. Closer to shore, we responded to the growing threat of the small go-fast vessels that smugglers are using to avoid increased security along the southwest border.

Drug smuggling, human trafficking, and other illicit maritime activity continues to threaten our nation. Those engaged in this trade are growing smarter, bolder, and they're taking greater risks and increasing danger to our homeland. Transnational criminal organizations in Central America and Mexico are financed by narcotics that arrive by way of the sea, leaving behind a wave of crime and instability in their wake.

In December, we were reminded of the dangers of our duties as I presided at the memorial service for Senior Chief Boatswain's Mate Terrell Horne III of the Coast Guard Cutter Halibut. He was killed by smugglers when they rammed his Coast Guard pursuit boat near San Diego. Our commitment to the Nation and our duty to honor the memory of Senior Chief Horne strengthens our resolve to defeat these threats.

Unfortunately, much like the weather and the seas that we encounter on a daily basis, the Coast Guard cannot control the fiscal environment in which we operate. We will make the best use of the resources you provide to safely and effectively conduct operations in the areas of greatest risk to the Nation while recapitalizing our cutters, boats, and aircraft to address current and emerging threats, particularly in the offshore environment.

This past year, we made great strides in recapitalizing the Coast Guard's aging fleet. In October we'll christen the fourth national security cutter, the Hamilton. Number five is under construction. We're about ready to award the contract on number six. And we've taken delivery of five new fast-response cutter patrol boats, 14 HC–144 aircraft, and we've also contracted for the ninth HC–130J, and completed the midlife availability of our other patrol boats and are nearly complete with the midlife availability on our medium-endurance cutters at the Coast Guard Yard.

Despite these successes, we have a long way to go to recapitalize the Coast Guard with the ships, boats, and aircraft the Nation needs. The capital investment plan, which has been delivered re-

cently to Congress, should help to inform the discussion on the years ahead.

As the Department of Defense rebalances to the Pacific, maritime activity increases in the Arctic, and our nation focuses on the Southwest border, offshore demand for Coast Guard capabilities and authorities is increasing.

Our 378-foot high endurance cutters have ably served the offshore environment for 50 years, but as I've testified in the past, they are at the end of their service lives. So I'm very happy to report that I received strong support from the Secretary and the President on my absolute highest acquisition priorities, including the funding for the seventh national security cutter in the 2014 budget.

The FY14 budget sustains the most critical frontline operations while funding the most critical acquisition projects. In the current fiscal environment, this required tough decisions to be informed by my highest priorities. These were difficult decisions for me and the service, but they were the best decisions to ensure we provide the next generation of Coast Guardsmen the tools required to protect our nation.

While realistic and mindful of the current fiscal environment, I remain optimistic about the future of the Coast Guard. It's my duty to look beyond the annual budget cycle and to prepare and adapt the service and keep it moving forward to address the greatest maritime safety and security risk to the Nation now and in the future.

The men and women of the Coast Guard give their all and make sacrifices every day putting their country first. We owe them our very best efforts to provide them the support that they need.

This subcommittee has long supported the men and women of the Coast Guard, recognizing their sacrifice. And on behalf of all my Coast Guard shipmates, I want to thank you, and I look forward to answering your questions.

[The prepared statement of Admiral Papp follows:]

PREPARED STATEMENT OF ADMIRAL ROBERT J. PAPP, JR., COMMANDANT, U.S. COAST GUARD

Introduction

Good morning Mr. Chairman and distinguished members of the Committee. Thank you for the continuing support you have shown to the men and women of the United States Coast Guard, including the funding provided in the *Consolidated and Further Continuing Appropriations Act, 2013* to recapitalize the aging fleet and sustain front-line operations.

This year marks our 223rd year of protecting those on the sea, protecting the Nation from threats delivered by the sea, and protecting the sea itself. The Coast Guard is the Nation's maritime first responder. We are vested with unique authorities, equipped with capable cutters, boats, aircraft and infrastructure, and are composed of the best people the Nation has to offer. We are *Semper Paratus*—"Always Ready" to meet the Nation's evolving maritime safety, security and stewardship needs. We are locally based, nationally deployed and globally connected.

I am here today to discuss the Coast Guard's FY 2014 Budget Request. Before discussing the details of the request, I would like to take this opportunity to highlight some of the Coast Guard's recent operational successes, and our value and role in the Department of Homeland Security (DHS) and in service to the Nation.

Over the past year, Coast Guard men and women (Active Duty, Reserve, Civilian and Auxiliarists), with strong support from our families, continued to deliver premier service to the public. When Hurricane Sandy threatened the eastern seaboard, the Coast Guard acted with the speed, agility and courage that America expects

during natural disasters. In advance of the storm's landfall, we worked with the interagency, industry and state and local partners to ensure our ports and maritime transportation system were prepared. As the storm raged, our aircrews and cutters responded to the foundering HMS BOUNTY, rescuing 14 crewmembers from the 30-foot seas and 60-knot winds. In the Port Authority of New York and New Jersey, Coast Guard personnel restored the aids to navigation system within days; worked with U.S. Customs and Border Protection, the Army Corps of Engineers, local government and industry to reopen the port to commerce; helped de-water flooded tunnels leading to Manhattan, and contained 378,000 gallons of diesel fuel that had spilled into the Arthur Kill waterway when the storm surge caused the failure of shoreside fuel storage tanks.

To prepare to meet the emerging challenges in the Arctic, we successfully completed *Operation Arctic Shield,* a nine-month interagency effort to assess our capabilities, including the deployment of a National Security Cutter and two of our ocean going, light ice capable buoy tenders, as well as the temporary assignment of two H–60 helicopters 300 miles north of the Arctic Circle.

Last year, the Coast Guard responded to 19,790 search-and-rescue cases and saved more than 3,500 lives; seized over 107 metric tons of cocaine and 56 metric tons of marijuana destined for the United States; seized 70 vessels, and detained 352 suspected smugglers; conducted more than 11,600 annual inspections of U.S.-flagged vessels; conducted 4,600 marine casualty investigations; conducted more than 9,000 Port State Control and Security examinations on foreign-flagged vessels; and responded to 3,300 pollution incidents.

This past year we made great strides in recapitalizing the Coast Guard's aging fleet. In October we will christen the fourth National Security Cutter, Coast Guard Cutter HAMILTON. In addition to providing us off-shore presence in the Arctic during heightened summer activity, these remarkable ships have excelled in interdicting drug and migrant smuggling in the eastern Pacific and have enabled the Coast Guard to provide command and control, helicopter, and boat capabilities from the farthest reaches of the Pacific to the Bering Sea. I am also very pleased with our new Fast Response Cutters (FRC's). To date, we have taken delivery of five of these new highly capable patrol boats. We have also taken delivery of 14 new HC–144 medium range surveillance aircraft, contracted for the ninth HC–130J and have nearly completed the H–60 conversion project. At the Coast Guard Yard, we completed work on the Patrol Boat Mission Effectiveness Project, extending the service lives of our 110-foot patrol boats, and continued work on the sustainment projects for our fleet of Medium Endurance Cutters. We also recently completed an overhaul of the Cutter POLAR STAR, returning the Nation's only heavy icebreaker to active service. None of these critical recapitalization milestones would have been reached without the strong support of the Administration and the Committees.

As a military service, we provide unique, specialized capabilities as part of the Joint Force. But the Coast Guard is much more. We are the maritime arm of the DHS. We seek to prevent dangerous or illicit maritime activities, and if undesirable or unlawful events do occur, (whether deliberate or accidental), to rapidly respond in order to protect the Nation, minimize the impact, and recover.

Every day the Coast Guard acts to prevent and respond to an array of threats that, if left unchecked, could disrupt regional and global security, the economies of partner nations, access to resources and international trade. All of these are vital elements to our national prosperity. And it is this prosperity that spurs investment and global development, provides jobs, and provides the resources to pay for both our national security and our national defense. It is Coast Guard men and women, working every day in the maritime domain, who enhance our security, reinforce the rule of law, support stability at home and abroad, and increase our prosperity.

The Coast Guard protects:

- *Those on* the sea: *leading responses to maritime disasters and threats, ensuring a safe and secure Maritime Transportation System, preventing incidents, and rescuing those in distress.*
- *The Nation* from threats delivered by sea: *enforcing laws and treaties, securing our ocean resources, and ensuring the integrity of our maritime domain from illegal activity.*
- *The sea* itself: *regulating hazardous cargo transportation, holding responsible parties accountable for environmental damage and cleanup, and protecting living marine and natural resources.*

FY 2014 Request

The Coast Guard's FY 2014 Budget continues the critical balance between investment in current operations and recapitalization. The FY 2014 Budget strategically allocates resources to best mitigate current and long-term operational risks, while investing in new cutters, boats, aircraft, systems and infrastructure necessary to ensure the viability of the Coast Guard in the future.

The Coast Guard's FY 2014 strategic and budget priorities are to:

1. Build Essential Coast Guard Capability for the Nation;
2. Strengthen Resource and Operational Stewardship; and
3. Sustain the Most Critical Front-Line Operations

Highlights from our request are included in Appendix I.

Build Essential Coast Guard Capability for the Nation

Recapitalization is essential for the long term viability of the Coast Guard. The condition and serviceability of the Coast Guard's in-service surface fleet, the aging of fixed and rotary wing air assets, and the projected timelines to replace these assets require continued investment in surface and air recapitalization programs to maintain the capability to operate. To strengthen DHS' layered security approach offshore, the FY 2014 budget provides for the acquisition of a seventh National Security Cutter and two more Fast Response Cutters, and continues pre-acquisition activities for the Offshore Patrol Cutter and Polar Icebreaker. The budget also continues sustainment and conversion work on fixed wing and rotary wing aircraft, procurement of cutter boats, and investment in Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) systems.

Strengthen Resource and Operational Stewardship

In FY 2014, Coast Guard will decommission two High Endurance Cutters (WHECs) that are being replaced by more capable National Security Cutters. The Coast Guard will also consolidate regional assets where overlapping capabilities exist by closing Air Facilities in Newport, OR and Charleston, SC. The 2014 budget ensures that our resources are aligned to our nation's highest priorities in a manner that balances key investments for the future with sustaining essential investment in today's missions and capabilities that provide the highest return on investment.

Sustain the Most Critical Front-Line Operations

The FY 2014 budget sustains the most critical front-line operations, including maintaining search and rescue coverage, protecting critical infrastructure and key resources, supporting safe navigation, safeguarding natural resources, protecting the environment, detecting and interdicting drugs and individuals attempting to enter the United States illegally, and supporting the Nation's foreign policy objectives.

Conclusion

The United States is a maritime nation. Foreign trade relies upon the safety and security of our Nation's ports and waterways. Coast Guard missions, authorities and capabilities are crucial to providing for that safety and security and preserving our national interests. We ensure the safe and secure flow of commerce, patrol our vast exclusive economic zone, fight maritime drug smuggling and human trafficking, provide the Nation's maritime first response force to both natural and manmade disasters, and protect our shores against transnational criminals, extremists, and others who seek to do us harm. We remain focused on protecting the United States as the strong maritime arm of the DHS. The Coast Guard's FY 2014 budget request allocates resources to the highest priority initiatives to counter the most emergent threats, mitigate risks, and keep the maritime domain safe and secure. I request your full support for the funding requested for the Coast Guard in the President's FY 2014 Budget. Again, thank you for the opportunity to testify before you today. I am pleased to answer your questions.

APPENDIX I—FISCAL YEAR 2014 BUDGET REQUEST

Build Essential Coast Guard Capability for the Nation

- *Surface Assets $743.0M (0 FTE)*
  The budget provides $743.0 million for surface assets, including the following surface asset recapitalization and sustainment initiatives:
  - *National Security Cutter (NSC)*—Provides funding for the seventh NSC; NSCs will replace the aging fleet of High Endurance Cutters, first commissioned in 1967. The acquisition of NSC–7 is vital for performing DHS missions in the

far off-shore regions, including the harsh operating environment of the Pacific Ocean, Bering Sea, and Arctic as well as providing for robust homeland security contingency response.

- *Fast Response Cutter (FRC)*—Provides production funding to procure two FRCs. These assets replace the aging fleet of 110-foot patrol boats, and provide the coastal capability to conduct Search and Rescue operations, enforce border security, interdict drugs, uphold immigration laws, prevent terrorism, and enhance resiliency to disasters.
- *Offshore Patrol Cutter (OPC)*—Supports continued initial acquisition work and design of the OPC. The OPC will replace the Medium Endurance Cutter class to conduct missions on the high seas and coastal approaches.
- *Polar Ice Breaker (WAGB)*—Continues funding for pre-acquisition activities for a new Coast Guard polar icebreaker. This cutter will provide continued heavy icebreaking capability to the Nation for missions in the Arctic and Antarctic following the projected end of service life of the POLAR STAR on or about 2022.
- *Cutter Boats*—Provides continued funding for production of multi-mission cutter small boats that will be fielded on the Coast Guard's major cutter fleet beginning with the NSC.
- *In-Service Vessel Sustainment*—Continues to fund sustainment projects on 140-foot ice breaking tugs (WTGB), 225-foot seagoing buoy tenders, and the training Barque EAGLE (WIX).
- *Survey and Design*—Builds upon previous years to continue multi-year engineering and design work for multiple cutter classes in support of future sustainment and acquisition projects.

- *Air Assets $28.0M (0 FTE)*
The budget provides $28.0 million for the following air asset recapitalization or enhancement initiatives:
  - *HH–65*—Continues modernization and sustainment of the Coast Guard's fleet of HH–65 helicopters, converting them to MH–65 Short Range Recovery (SRR) helicopters. The modernization effort includes reliability & sustainability improvements, where obsolete components are replaced with modernized sub-systems, including an integrated cockpit and sensor suite.
  - *C–130H/J*—Funds sustainment of avionics systems on existing C–130H aircraft. The Avionics 1 Upgrade (A1U) installations on C–130H aircraft enhances the capability of the C–130H fleet by replacing aging/obsolete equipment, and updating avionics to comply with Communications Navigation Surveillance/Air Traffic Management (CNS/ATM) requirements.
- *Other (Asset Recapitalization) $59.9M (0 FTE)*
The budget provides $59.9 million for asset recapitalization, including the following equipment and services:
  - *Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR)*—Provides design, development, upgrades and assistance on C4ISR hardware and software of new and in service assets.
  - *CG-Logistics Information Management System*—Continues development and deployment to Coast Guard operational assets and support facilities.
  - *Nationwide Automatic Identification System (NAIS)*—Completes deployment of the permanent transceive system to recapitalize the existing interim NAIS capability in 58 ports and 11 coastal areas.
- *Shore Units and Aids to Navigation (ATON) $5.0M (0 FTE)*
The budget provides $5.0 million to recapitalize shore infrastructure for safe, functional, and modern facilities that support Coast Guard assets and personnel:
  - *Specific Project*—Completes Phase One of Base Miami Beach waterfront facilities.
  - *ATON Infrastructure*—Maintains transportation safety on Federal waterways through construction and improvements to short-range aids and infrastructure to improve the safety of maritime transportation.
- *Personnel and Management $115.8M (818 FTE)*
The budget provides $115.8 million to provide pay and benefits for the Coast Guard's acquisition workforce.

Strengthen Resource and Operational Stewardship

FY 2014 Major Decreases:

- *Asset Decommissionings*
  In FY 2014 the Coast Guard will make targeted operational reductions to prioritize front-line operational capacity and invest in critical recapitalization initiatives.
  - *High Endurance Cutter (WHEC) Decommissionings –$14.2M (–184 FTE)*
    The FY 2014 budget decommissions the fifth and sixth High Endurance Cutters (WHECs). National Security Cutters, including the seventh NSC which is fully funded in this budget request, replace the aging HEC fleet.
  - *Cutter Shoreside Support Personnel Reduction –$0.8 M (–10 FTE)*
    Reduces WHEC Maintenance Augmentation Team (MAT) and Surface Forces Logistics Center (SFLC) billets associated with the decommissioning of two WHECs.
  - *HU–25 Aircraft Retirements –$9.4M (–36 FTE)*
    Retires the eight remaining HU–25 aircraft assigned to Coast Guard Air Station Corpus Christi, TX; Aviation Logistics Center, Elizabeth City, NC; and, Aviation Training Center, Mobile, AL. This will allow for the transition to HC–144A aircraft.
  - *HC–130 Aircraft Retirements –$7.7M (–29 FTE)*
    This initiative eliminates funding and personnel associated with two HC–130H aircraft. The newly acquired HC–130J aircraft will provide increased operational reliability.
  - *Close Air Facilities –$5.1M (–28 FTE)*
    The Coast Guard will close AIRFACs at Charleston, SC and Newport, OR. The Search and Rescue response times within the AIRFAC areas of responsibility will remain within national standards.
- *Programmatic Reductions*
  The budget proposes targeted reductions in several base program areas. These base adjustments recognize changes in requirements need for selected activities and prioritizes sustainable investment in recapitalization programs.
  - *CG Headquarters Staffing –$6.7M (–53 FTE)*
    Reflects the anticipated reduction in Coast Guard Headquarters personnel as a result of the existing hiring freeze and normal workforce attrition.
  - *Targeted Intelligence Program –$1.5M (–14 FTE)*
    Scales intelligence activities across the Service by consolidating analysts at centers, Areas, and Districts; consolidating IT support positions at headquarters; and, eliminating the 24/7 call-in maritime watch at the El Paso Intelligence Center (EPIC) that provides services that will remain available through a different watch floor.
  - *Port State Control Examinations –$1.7M (–20 FTE)*
    Reduces Port State Control personnel by limiting examination activities aboard some foreign flagged vessels assessed as lower risk.
  - *Coast Guard Training –$43.2M (–153 FTE)*
    Leverages web-based distance learning and reduces schoolhouse throughput. Specialty and technical training schools will group into centers of expertise to leverage available resources. Educational benefits will be focused on enlisted personnel who are pursuing an initial undergraduate degree. Reduces accessions and support staffs as well as operational and maintenance funds at the Coast Guard Academy, Leadership Development Center, and Officer Candidate School commensurate with anticipated reduction in out-year accession projections based on reduced workforce levels.
  - *Other Targeted Program Reductions –$1.2M (–26 FTE)*
    The Coast Guard will make targeted reductions to Auxiliary Program Management, the International Port Security Program, and District Drug and Alcohol Program Inspectors (DAPI). Routine DAPI functions will shift to Coast Guard Marine Inspectors and Investigators.

Sustain the Most Critical Front Line Operations

- *Pay & Allowances $43.9M (0 FTE)*
  The budget provides $43.9 million to fund the civilian pay raise and maintain parity of with DOD for military pay, allowances, and health care. As a branch of the Armed Forces of the United States, the Coast Guard is subject to the pro-

visions of the National Defense Authorization Act, which include pay and personnel benefits for the military workforce.

- *Operating and Maintenance Funds for New Assets $64.7M (213 FTE)*
The budget provides a total of $64.7 million to fund operations and maintenance of shore facilities and cutters, boats, aircraft, and associated C4ISR subsystems delivered through acquisition efforts. Funding is requested for the following assets and systems:
  - *Shore Facilities*—Funding for the operation and maintenance of shore facility projects scheduled for completion prior to FY 2014.
  - *Response Boat-Medium*—Funding for operation, maintenance and support of 30 RB-Ms as well as personnel for maintenance support requirements and instructors to support fleet training requirements.
  - *Rescue 21 (R21)*—Funding for the support of the R21 System as well as maintenance of Coast Guard leased and owned towers, Western Rivers communications sites, and encrypted communications for over-the-air-re-key (OTAR).
  - *FRC*—Operating and maintenance funding for FRCs #10–12 and funding for personnel to operate and maintain hulls #11–12, homeported in Key West, FL as well as the first two San Juan, PR hulls.
  - *NSC*—Operating and maintenance funding for NSC #4 to be homeported in Charleston, SC. The initiative also provides personnel to operate NSCs #4–5.
  - *HC–144A MPA*—Operating and maintenance and personnel funding to operate and support aircraft #16–17 that will be assigned to Air Station Corpus Christi, TX. Also funds maintenance of the first 17 Mission System Pallets (MSPs)—the sensor package for each operational HC–144A.
  - *Manned Covert Surveillance Aircraft (MCSA)*—Operating, maintenance and personnel funding to operate and support the first aircraft which is planned to operate out of Miami, FL and provide an additional 1,000 hours of maritime surveillance capacity.
  - *Air Station Corpus Christi Transition*—Provides funding for the transition from operating HU–25 aircraft to operation of HC–144A aircraft.
- *Financial Systems Modernization $29.5M (0 FTE)*
Provides funding to support the Financial Management Service Improvement Initiative (FMSII) for Coast Guard and Transportation Security Administration (TSA). This initiative will plan, prepare, configure, test, and migrate the Coast Guard's and TSA's financial management system (FMS) including the financial, contract, and asset accountability management systems to a shared service provider (SSP).

Senator BEGICH. Thank you very much, Commandant.

Let me move now to Dr. Sullivan, again, Acting Director for NOAA.

Thank you very much for being here.

STATEMENT OF KATHRYN SULLIVAN, PH.D., ACTING UNDER SECRETARY OF COMMERCE FOR OCEANS AND ATMOSPHERE AND ACTING ADMINISTRATOR, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, U.S. DEPARTMENT OF COMMERCE

Dr. SULLIVAN. Thank you, Mr. Chairman, Ranking Member Rubio, and members of the Committee.

I am very pleased, also, to be here today to be talking to you about the President's——

Senator BEGICH. Is your microphone on?

Dr. SULLIVAN. Now it's on. My apologies.

Senator BEGICH. Thank you.

Dr. SULLIVAN. I'm pleased to be here to present the President's FY14 budget request for NOAA to you today.

This budget builds on a year of considerable achievement for NOAA, made possible by the dedicated work of our superb employees and the many partners who help us achieve our mission.

This past year provided, again, evidence of the tremendous value that NOAA delivers to the American public. Thanks to the agency's unique mix of oceanic and atmospheric science, service, and stewardship, and the strong ability we have developed through our 40 year long history to mobilize and fuse these diverse elements effectively in response to both the issue of the moment and the challenges of our times.

The value of this integrated One NOAA approach was demonstrated vividly this past October, as Hurricane Sandy bore down on the Caribbean and the United States East Coast. NOAA mobilized programs and efforts from across the agency to help Americans prepare for, respond to, and recover from this devastating storm.

Our people, products, and services made absolutely vital contributions to emergency managers and communities throughout the affected regions, from forecasting the storm's track and impacts, which varied from upland snows to record storm surges days in advance; to surveying ports just hours after storm passage to enable delivery of critical supplies and the timely resumption of maritime commerce; to remapping devastated shorelines and coastal communities so that recovery assistance could be sped to the scene.

Our FY14 budget proposal advances NOAA's ability to help communities across the country safeguard the lives of their citizens, prepare for extreme weather events, adapt to a changing world, ensure their environment is sustainable, and enhance the economic prosperity of their communities.

My written testimony provides more detailed information about our request. For now, I wish to emphasize three important precepts that underlie our proposed budget.

First, focus on core missions and fiscal discipline within our programs. Second, make targeted investments in key areas that improve the balance among our diverse and vital programs. And third, continue to promote efficiencies in program operations.

Our focus on these precepts was reinforced by concerns expressed by the Congress and many of our partners over the past year. We listened, and we believe this budget lays out a path forward that addresses those concerns.

The most notable example of our commitment to core missions and to fiscal discipline lies in the suite of changes we proposed to the Joint Polar Satellite System. NOAA, working closely with our partners at NASA, has sharpened the program's focus on our weather missions while ensuring the continuity of the space-based climate record through 2021.

We have identified more than $1 billion in lifecycle cost savings, we have strengthened program management, and we have decreased the possibility of a gap in data by moving the launch date of the second satellite forward to 2021.

Fisheries management, as you point out, Mr. Chairman, is another core NOAA mission. We propose to increase our investments in fishery science in the stock assessments, surveys, and monitoring needed to underpin successful management of these pro-

grams to ensure that we have the information needed both to end overfishing and to realize the economic opportunities that restored stocks represent.

With respect to achieving a better mission balance, this budget proposes a carefully chosen set of targeted investments that improve the balance between our oceanic and our atmospheric programs, our extramural and our intramural funding, our research and operational activities, and the resulting long-term and immediate benefits the Nation receives.

In the interest of time, I will highlight just two of the many points that are salient here.

First is the great importance of our extramural partnerships in research, in data acquisition, and conservation action. NOAA could simply not accomplish its mission without the talents and capacities of our external partners.

Second, as the President has stated on numerous occasions, we must not let immediate fiscal pressures kill all of our investments in the future. This budget proposes targeted investments in habitat restoration, basic research, and other activities that set the stage for long-term environmental sustainability, economic vitality, and future NOAA service enhancements.

In sum, this budget proposal makes important strides toward a healthier balance of investment among and across our diverse mission domains and between the urgent needs of today and the important demands of tomorrow.

Finally, we remain committed to good government—to using the taxpayer dollars that we are appropriated both effectively and efficiently. We have made significant progress on this front in recent years by consolidating activities, streamlining programs, adopting more efficient acquisition vehicles, and carefully controlling discretionary expenditures. This budget continues those efforts and proposes additional efficiencies in corporate services, in IT savings, consolidations, and termination by tough decision of some lower priority programs.

In closing, NOAA is a science-based, interdisciplinary, integrated agency that provides essential environmental intelligence to citizens, communities, and businesses. The work of NOAA's people and partners touches the life of every American every single day, and this budget enables us to continue and improve this important work in service to our nation.

I thank you again for the privilege of appearing before you today and look forward to your questions.

[The prepared statement of Dr. Sullivan follows:]

PREPARED STATEMENT OF KATHRYN SULLIVAN, PH.D., ACTING UNDER SECRETARY OF COMMERCE FOR OCEANS AND ATMOSPHERE AND ACTING ADMINISTRATOR, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, U.S. DEPARTMENT OF COMMERCE

Chairman Begich, Ranking Member Rubio, and members of the Committee, thank you for your leadership and the continued support you have shown the Department of Commerce's National Oceanic and Atmospheric Administration (NOAA). As the Acting Under Secretary of Commerce for Oceans and Atmosphere and the Acting Administrator for NOAA, I am honored to be here to discuss the FY 2014 President's Budget. The FY 2014 budget proposal represents a focused and balanced commitment to our core mission of science, service, and stewardship. The proposal better positions NOAA to help communities across the country safeguard lives, prepare

for extreme weather events, adapt to a changing world, ensure environmental sustainability, and enhance economic prosperity.

Let me begin with the bottom line: NOAA was very effective last year providing environmental intelligence to help American citizens, businesses, and governments make smart decisions on a range of issues on local to global scales. The real testament to NOAA's value is not found in a spreadsheet; it is seen in the services rendered to the American people.

For example, this past October, NOAA mobilized programs and efforts from across the agency to help the public prepare for, respond to, and recover from Hurricane/Post-Tropical Cyclone Sandy (Sandy). In the weeks prior to Sandy, NOAA used models informed by satellite, aircraft, and other weather observations to predict the path of the storm. NOAA gave emergency personnel and the public an accurate track forecast a full four days before the October 29 U.S. landfall. We also provided forecasts of total rainfall, storm surge, wave height, and other phenomena that would impact the mid-Atlantic and northeastern states. Our accurate predictions enabled emergency managers to more precisely evacuate coastal areas in the path of this unprecedented storm, saving countless resources and lives.

Once the storm passed through the Northeast, NOAA coordinated with Federal, State, and local agencies to aid on-the-ground responders to help communities get back on their feet. For example, NOAA vessels were instrumental in identifying and clearing marine hazards blocking New York and New Jersey ports, enabling ships to provide critical fuel resupply just days after the storm. Maritime traffic resumed more quickly thanks in good part to NOAA regional navigation managers embedded within command centers and survey assets we mobilized rapidly after the storm passed. In addition, NOAA planes and scientists conducted aerial surveys of the affected coastlines and immediately published the photos online, allowing emergency managers and residents to examine the damage even before ground inspections were permitted. More than 3,000 miles of coastline were surveyed, and more than 10,000 images processed to document coastal damage and impacts to navigation.

NOAA is now working to help affected communities recover. The President recently signed into law the Sandy Supplemental bill, appropriating $326 million to NOAA that will enhance our ability to help coastal States recover from the impacts of Sandy. The technical tools and information coastal programs provide—such as coastal inundation products, maps, and storm surge modeling capabilities—are helping communities rebuild in a manner that is smarter and safer, and improvements in our forecasting capabilities will ensure that we are better prepared for similar events in the future. NOAA's integrated response to Sandy demonstrates how our agency leverages its diverse capabilities to support the Nation from preparedness to response to recovery: *data* collected from a spectrum of platforms enables the development of *environmental intelligence* from science-based models to support a suite of *products* to provide decision support to individuals, communities, and governments. I thank you for recognizing NOAA as a key agency supporting the preparedness, response, and recovery efforts surrounding this extreme weather event.

As mentioned previously, a primary focus in the President's FY 2014 budget request is to move towards a balanced approach to our core missions on several fronts: balancing ocean and atmospheric investments, internal and external funding, research and operational advancements, and short-term and long-term goals. The President's budget rejects the notion of "wet side" programs being pitted against "dry side" programs. We instead embrace both because in reality the success of either is advanced by the achievements throughout the organization. We have evidence from NOAA's 40+ years in operation that our effectiveness and value to the American public stems from rich cross-pollination and effective fusion of capacities and information across all agency programs.

This budget requests support for both work done within NOAA and the work performed by a variety of external partners. This balanced approach allows us to draw from the best expertise no matter where it is found. Similarly, the request better balances our investments in "research and development" and "operations" and supports action to transition R&D to operations, ensuring that long-term scientific inquiry is applied to improve our service to the Nation.

These investments also reflect a commitment to the final facet of balance: short-term and long-term. Today's priorities may require surges in resource for immediate action, but we cannot ignore the investments in habitat restoration, basic research, and other programs that set the stage for long-term environmental sustainability and future service advancements. The President's budget proposal moves toward equilibrium between the push-pull of responding today and preparing for tomorrow by putting a down payment toward balance in NOAA's activities.

FY 2012 Accomplishments

NOAA accomplished many noteworthy milestones and outcomes in FY 2012 in each of our mission areas. Natural disasters—Hurricane Isaac, tornadoes, blizzards, droughts, and wildfires—affected communities across the United States, exacting a tremendous toll on life and property. In advance of these events, the National Weather Service (NWS) provided timely and accurate forecasts and extensive decision support services. In the coming years, we expect to provide even better advance warnings due to implementing major improvements to our Global Forecast System that will produce more accurate forecasts out to 16 days.

NOAA's Office of Oceanic and Atmospheric Research (OAR) developed a new-generation weather research model, the High Resolution Rapid Refresh model (HRRR) to improve the reliability and accuracy of NOAA forecasts for high-impact weather events. The potential public safety benefits of this advancement were apparent in the June 29, 2012 Derecho event. Running on research supercomputers in our Earth Systems Research Laboratory, the HRRR model predicted the storm's development and path in excellent detail.

NOAA also further advanced its drought forecasts and services—helping the communities and people most affected by the record drought conditions. 2012 ended as one of the driest years on record with over 60 percent of the contiguous United States in moderate to extreme drought. The National Integrated Drought Information System (NIDIS), an interagency partnership led by NOAA, provided drought information and early warning throughout this crisis. NIDIS was actively engaged throughout the drought to provide the right information to the people who needed it most via its drought portal (*Drought.gov*) and regular interactions with people in affected counties. NIDIS products gained attention in national media, including the *Wall Street Journal* on January 2, 2012, which carried one of the outlooks created by NIDIS.

On October 28, 2011, NOAA and NASA successfully launched and commissioned the Suomi National Polar-orbiting Partnership (Suomi NPP) environmental satellite. This satellite carries five new instruments, including the Advanced Technology Microwave Sounder (ATMS) that captures atmospheric temperature and water vapor information used to predict weather. Just seven months after Suomi NPP launched, the NWS began using ATMS data in its operational numerical weather prediction models; this is more than three times faster than operational use of similar data in previous missions.

NOAA's National Ocean Service (NOS) continued mapping missions of the Arctic extended continental shelf, mapping more than 600,000 square nautical miles of the ocean bottom that could enable the United States to lay claim to natural resources estimated to be worth $1.2 trillion. NOAA's Physical Oceanographic Real-Time System (PORTS®) improves the safety and efficiency of maritime commerce by integrating real-time environmental observations, forecasts, and other information for mariners transiting the Nation's major ports. In FY 2012, two new PORTS® were brought online—one in Humboldt Bay, CA and the other in New London, CT—benefiting commercial, military, and recreational ship traffic. NOAA is planning to bring two additional PORTS® online in FY 2013–2014.

Our Nation's fisheries are a valuable component of the U.S. economy; commercial and recreational saltwater fishing generated more than $199 billion in sales and supported nearly 1.7 million jobs in 2011.[1] In FY 2012, NOAA declared six fish stocks rebuilt—the most in a single year. Overall data show a decrease in the number of both overfished stocks and stocks experiencing overfishing.[2] These results underscore the strength of NOAA's science-based management process and clearly demonstrate that we are actively turning the corner on ending overfishing and rebuilding our Nation's fisheries.

All of these accomplishments set the stage for our FY 2014 request.

FY 2014 Budget Request

The NOAA FY 2014 budget request totals $5.4 billion. The topline number is an increase of $541 million over the FY 2012 Spend Plan. This increase during difficult budget times demonstrates the Administration's response to Congressional and stakeholder feedback on the need to achieve a balanced portfolio within NOAA's

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[1] *Fisheries Economics of the United States 2011,* available at: *http://www.st.nmfs.noaa.gov/economics/publications/feus/fisheries_economics_2011*

[2] An "overfished" stock refers to a stock with a population that is too low, below a prescribed threshold. A stock experiencing "overfishing" refers to a stock experiencing a rate of removal that is too high. *Status of Stocks: Report on the Status of U.S. Fisheries for 2011,* available at: *http://www.nmfs.noaa.gov/stories/2012/05/docs/status_of_stocks_2011_report.pdf.*

budget. It also shows confidence that NOAA has strategically focused on its core, essential missions—and that these public funds will be spent to benefit the Nation.

We are proposing changes to specific programs within this top line number that demonstrate our commitment to NOAA's multiple missions and needs. We are making targeted investments in ocean and coastal programs while continuing to invest in weather and satellites. We are investing in initiatives to expand and accelerate the transition of weather research to operations ($15 million). We are also continuing to leverage external expertise to support cutting edge research ($184 million), while maintaining our internal abilities to maintain our research portfolio to meet our mission requirements. We are investing in our immediate needs, such as continuing development activities within the GOES–R program, and providing adequate funding for NWS labor, while supporting longer-term goals like funding marine debris research ($6 million) and habitat conservation and restoration ($47 million) to ensure the health of NOAA trust resources.

The FY 2014 budget request also reflects thrift and savings, with a targeted $4.2 million in agency-wide administrative savings. Most notably, we have reconfigured the JPSS satellite program resulting in a reduction of approximately $1.6 billion when compared to the FY 2013 President's Budget life-cycle cost estimate of $12.9 billion. An additional $3.2 million reduction is requested for NOAA's Corporate Services. Trimming costs and working smarter makes appropriated dollars go farther and fulfills our obligation to taxpayers.

This proposed budget reflects NOAA's priority investment in three focus areas within our larger mission: Weather-Ready Nation, satellites, and vibrant coastal communities and economies.

Weather-Ready Nation: Ready, Responsive, and Resilient Communities

When it comes to severe weather preparedness, near-term investments to improve forecasts' accuracy and lead-times can produce dramatic future savings of life, property, and habitat. The great need for such investments was demonstrated over the past two years when 1,500 Americans perished as a direct result of weather-related events. Last year alone, the U.S. experienced 11 disasters, each of which reached the $1 billion threshold in losses, including Sandy, Hurricane Isaac, tornado outbreaks across the Great Plains, Texas, and Southeast/Ohio Valley, the most extensive drought since the 1930s, and wildfires that burned more than 9.2 million acres.[3] Countless other weather events not in the "billion dollar" category caused widespread damage throughout the country. More and more leaders in various sectors of the U.S. economy are looking for ways to increase their resilience to severe weather and reduce the potential for significant societal and economic impacts. NOAA's "Weather-Ready Nation" initiative supports actions that help society prepare for, and respond to, extreme weather-related events.

One of NOAA's paramount obligations to the Nation is the ability to issue accurate, timely, impact-focused weather forecasts and life-saving warnings for communities across the country. Increasing societal and economic impacts of extreme weather demand that NOAA continue to improve forecasting capabilities. The FY 2014 budget requests $1,050.1 million for the NWS and supports the highest priority activities necessary to produce and deliver cost-effective and trustworthy forecasts and warnings that promote preparedness and resilience to weather-related impacts. Specifically, a total of $658.2 million is requested that will fully fund existing field staffing and ongoing operations.

NOAA also continues to assess options for improving efficiencies within our operations. The 2012 National Academy of Sciences report, *Weather Services to the Nation: Becoming Second to None,* found that the current structure of the NWS primarily reflects the functions of the weather, water, and climate enterprise in the 1990s. The current, outdated service delivery model has redundancies and inconsistencies, and significant benefits can be realized through modernization of functions and operational models. Becoming more agile and efficient and promoting wise use of taxpayer dollars is the essence of good government.

As a first step, the NWS has identified improvements and efficiencies to be realized in the delivery of IT support services to field. NOAA proposes to reorganize the current 122 office-specific ITOs to a regional team approach consisting of 24 positions, enabled through commonplace IT industry hardware and software practices that foster innovation and collaboration. NOAA recognizes that any changes to staff structure will affect our employees and their families. Working with our employees' union, we will make every effort to modify the current ITO staffing structure through repurposing into other positions, reducing through attrition, or reassigning to other vacancies to minimize the impact to our affected employees.

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[3] *http://www.ncdc.noaa.gov/billions/events.pdf*

The Japan earthquake and Pacific tsunami highlighted the need for advancing tsunami preparedness and forecasting. A total request of $26.9 million expands NOAA's partner funding for tsunami education and awareness programs and, additionally, ensures funding for sustaining the Deep-ocean Assessment and Reporting of Tsunamis (DART) buoy network.

Our forecasters must have robust, 24/7 environmental data to fulfill our mission. To provide this and also accommodate increases in future weather data from new satellites and other observations, NOAA proposes to invest $16.2 million in the NWS Telecommunications Gateway, the communications hub that collects and distributes weather data and products. An investment of $15.4 million in the Ground Readiness Project will expand the capacity of the organization's current IT infrastructure to ensure critical data is available to forecasters. NOAA also proposes in this budget to formally establish the National Mesonet Program, with a request of $5.5 million to promote the use of mesonet data. This request enables NWS to procure and use surface and near-surface, localized weather data in forecasts and warnings of small-scale, high impact weather events that can quickly threaten lives and property.

The FY 2014 NWS request also recognizes the importance of discovery and innovation, and strengthens our ability to transition advances into operational forecasts. A total request for $94.7 million will help to expand and accelerate R&D on improving global weather prediction models, accelerating data assimilation techniques, and developing new computing platforms. In addition, a request for $44.2 million for weather supercomputing will increase the accuracy and timeliness of operational weather predictions and, along with proposed investments in data assimilation and modeling, will help ensure that the United States keeps pace with the major international weather centers, such as the European Center for Medium Range Weather Forecasts and the United Kingdom Office of Meteorology.

Additional R&D funds that support the NWS mission are requested for the Office of Oceanic and Atmospheric Research (OAR). OAR's atmospheric programs oversee the scientific investments needed to ensure NOAA's weather and climate information is state-of-the-art.

OAR research continually improves our weather warning systems and predictive capacity with the next generation of observing platforms, such as multifunction phased array radar and unmanned aircraft systems. The FY 2014 budget requests $18 million to support the development and use of these observing platforms, and for system assessment methodologies to ensure that NOAA has the most cost effective mix of observing assets for weather forecasting and related missions. The FY 2014 request also includes $13.6 million to develop Regional Drought Early Warning Information Systems by supporting drought impacts research and developing applications for underserved regions in the United States. And finally, an investment of $2.9 million is requested to improve weather forecasts through wind layer boundary research. Better forecasts can provide certainty, and therefore opportunities, to the clean energy industry.

The FY 2014 budget also recognizes a need to continue improving our understanding of climate change and its impacts on society. NOAA requests $65 million for our climate research laboratories and Cooperative Institutes to implement climate research and activities that align with the U.S. Global Change Research Program priorities, such as monitoring the deep ocean, better understanding carbon sources and sinks, and developing hydroclimate models for drought prediction. Research in these areas will improve our ability to assess current and future states of climate systems that in turn helps people across the country consider and develop mitigation and adaptation choices. The increased demand for projections of climate change at regional scales requires greater resolution, realism, and reliability in models. OAR requests $9.6 million to improve modeling and predictions, including developing state-of-the-art earth system models to better address urgent climate issues, such as Arctic climate change and sea level rise.

Satellites: Global Environmental Observations that Help Protect Lives and Property

NOAA's satellites provide critical and unique data. Americans rely on satellite observations every day: from providing warnings for severe weather, to enabling safe transportation, to understanding ecological systems, and even contributing directly to life-saving rescue missions. NOAA appreciates the Congressional support we have received for the Nation's operational weather satellite programs, and we are committed to maintaining and managing them well to ensure life-and property-saving forecasts to the Nation.

NOAA's operational weather satellite programs are composed of satellites in geostationary and polar orbits, supporting the wide array of services alluded to above, but with a primary purpose of weather forecasting. Data from the geostationary sat-

ellites are vital to short-term weather surveillance and warnings. Instruments aboard the polar-orbiters provide the data—chiefly global atmospheric profiles of temperature and moisture—that are critical to numerical weather prediction and longer-range forecasting. Data from both are needed to deliver complete global weather monitoring. These systems support the NWS, the U.S. military, Federal and State agencies, local emergency management and the commercial weather industry, enabling advance warnings and tracking of developing severe weather, such as hurricanes, flash floods, tsunamis, winter storms, and wildfires. Along with the skill of NOAA meteorologists, NOAA's satellites are vital to the success of our weather enterprise—both the public and private sector elements. But, in addition to their key role in weather prediction, they also provide a myriad of other benefits. Satellite observations assist the NOS in monitoring coastal ecosystem health, such as coral bleaching, harmful algal blooms, and identifying and monitoring potential maritime hazards from sea ice. The National Marine Fisheries Service (NMFS) designates critical habitat for endangered species by using satellites to track migratory movements and identify critical feeding and breeding areas. Partner agencies such as the U.S. Geological Survey use NOAA satellites to relay vital information from thousands of river flood gauges and seismic monitoring stations in remote, inaccessible areas.

The FY 2014 President's Budget Request of approximately $2.2 billion for the National Environmental Satellite Data and Information Service (NESDIS) supports the highest priority and most essential satellite missions that generate the environmental intelligence our Nation needs to make sound decisions. The request reflects the result of an integrated, requirements-based strategic planning process with the goal to deliver disciplined focus on top-priority requirements and to optimize resources. The FY 2014 request continues development of NOAA's two most critical satellite programs, the Joint Polar Satellite System (JPSS) and the Geostationary Operational Environmental Satellite-R Series (GOES–R). The overall FY 2014 request also provides $9.6 million to support data processing and distribution for the Suomi NPP satellite; $37 million for NOAA's satellite altimetry mission, Jason-3; and $23.7 million for NOAA's operational space weather mission, the Deep Space Climate Observatory (DSCOVR).

NOAA is proposing $954.8 million for GOES–R. The FY 2014 President's Budget request is necessary to continue satellite and instruments engineering development and continue the ramp-up of the ground system integration and test activities. The GOES–R Series satellites will include upgraded technology, such as an Advanced Baseline Imager (ABI), which will provide faster and higher-resolution image scans, covering a larger geographic area. Enhanced ABI capabilities will help decrease weather forecast errors and expand the list of products NOAA offers. For example, the new ABI technology is expected to enhance volcanic ash plume tracking, so pilots can receive advance warning and safely re-route around the damaging and deadly plumes.[4] Other economic sectors will also benefit, including the agricultural industry that can use the improved forecasts to develop more efficient crop irrigation plans, potentially gaining water and energy savings.[5] Overall, the combined annual economic benefit from GOES–R is projected to exceed $1.2 billion.[6] NOAA recognizes these potentially significant benefits to society of the GOES satellites and has prioritized accordingly.

The FY 2014 JPSS request totals $824 million and will enable NOAA to meet a launch readiness date in the second quarter of FY 2017. This request reflects feedback received over the past year, including from Congress and the July 2012 Independent Review Team (IRT) report, concluding that NOAA should refocus the program on the weather mission. NOAA continuously re-examines its satellite programs to improve performance and control costs, but the IRT, Congressional, and Administration concerns galvanized even more urgent action over the past year. As a result of these findings, and these concerns, we have taken steps to improve the JPSS program:

- *Sharpened our focus on the weather mission.* The FY 2014 President's Budget proposes reducing the scope of JPSS–2, and transfers select climate sensors formerly planned for JPSS–2 and Free Flyer-2 to NASA . The budget request also proposes transferring the Free Flyer-1 mission out of the JPSS program to stand as a separate program within the NESDIS line office, so that the JPSS program can focus on its primary weather mission.

[4-6] Centrec Consulting Group, LLC. *An Investigation of the Economic and Social Value of Selected NOAA Data and Products for Geostationary Operational Environmental Satellites (GOES).* Report to NOAA's National Climatic Data Center. Savoy, IL. (February 27, 2007; *http://www.centrec.com/resources/reports/GOES%20Economic%20Value%20Report.pdf*).

- *Reduced the cost of JPSS.* The Administration, the Department of Commerce, and NOAA have assessed the JPSS mission scope to propose a more economical polar satellite program. The results from the assessment identified $1.6 billion in reductions from the FY 2013 President's Budget life cycle cost estimate of $12.9 billion through year 2028. The new life cycle cost is $11.3 billion or less through year 2025.
- *Improved program management.* NOAA has increased emphasis on systems engineering and common ground services and has improved risk management integration.

NOAA has also taken steps to mitigate the effects of a possible gap in polar orbiter data by adopting more aggressive strategies:

- Accelerating the launch of JPSS–2 to calendar year 2021 to reduce the likelihood of a data gap between the JPSS–1 and JPSS–2 satellites.
- Investing in other activities to mitigate potentially degraded forecasts if a polar satellite data gap occurs. NOAA commissioned an independent analysis of gap mitigation options.[7] The Sandy supplemental appropriation provided $111 million to fund the actions highlighted in this study including: using existing data from the Defense Meteorological Satellite Program and observed wind information and expanding the use of data from aircraft observations, unmanned aerial systems, and other satellites including COSMIC–2 and satellites operated by our international partners. NOAA will also invest in data assimilation, observing system simulation experiments to measure the contribution of new observation data, and new processes to incorporate data on model performance.
- Accelerating High Performance Computing upgrades to enable top-priority mitigation measures within the weather forecast enterprise. The NWS and OAR plan for complementary investments in research and operational high performance computing will enable next-generation weather modeling with improved transition of proven models from research to operations.

We believe this new program addresses the main concerns of Congress, the IRT, and the Administration, and we welcome the opportunity for further dialogue to ensure the continued viability of this critical satellite program. NESDIS will continue to efficiently achieve its goals by pursuing collaborative opportunities with other national and international agencies and organizations, and partnering with industry, academia, and other research and development agencies. These partnerships will bring robust information and service delivery to our customers and invest in effective relationships with stakeholders. One particularly noteworthy example is our partnership with the European Organization for the Exploitation of Meteorological Satellites for polar-orbiting satellites. This partnership gives each party responsibility for maintaining a fixed orbit and ensures sharing of 100 percent of each orbit's data, essentially allowing each party to receive all the data while only paying for half. These types of efficiencies are a win-win situation.

Vibrant Coastal Communities and Economies

NOAA's third core mission area, Vibrant Coastal Communities and Economies, encompasses vital work that advances the economic and environmental health of America's coastal zones; areas where the majority of Americans live and work. Coastal watershed counties were home to 163.8 million people (52 percent of the U.S. population) in 2010, and this number is expected to increase by more than 15 million by 2020.[8] NOAA plays a critical role in supporting healthy ocean and coastal habitats that benefit coastal industries and jobs through economic engines, such as tourism and fisheries. By investing in the management of vital coastal activities now, NOAA works to ensure these resources will contribute to thriving communities and their economies long into the future.

Commercial and recreational fishing industries depend on healthy and abundant fish stocks, and NOAA's science and management work has been vital to turning the corner on overfishing and getting fisheries onto a sustainable and profitable path. In FY 2014 NOAA requests $929.3 million for NMFS for targeted investments in fisheries science, fisheries observers, and habitat restoration and conservation programs. This includes investments of $69.3 million to expand stock assessments and $24.8 million for survey and monitoring projects. Funding will focus on high-priority commercially and recreationally valuable stocks and those that were previously experiencing overfishing (to verify that overfishing has, indeed, ended).

[7] Riverside Technology, Inc., *JPSS Gap Mitigation Analysis of Alternatives Report,* February 15, 2013.

[8] *National Coastal Population Report,* available at: *http://stateofthecoast.noaa.gov*

Funds will be used to improve fishery-independent surveys through advanced sampling technologies such as optical and acoustical methods. The FY 2014 President's Budget includes a request for $43.6 million for the National Observer Program. The requested increase will support observing and monitoring for fisheries currently under catch share management and those expected to transition to catch shares in FY 2014. This funding will allow NOAA to provide coverage in approximately 48 fisheries nationwide that benefit from the knowledge gained by observers.

However, short-term management is for naught unless accompanied by habitat conservation measures that assure long-term viability of the fish populations and marine ecosystems. Overall, this budget proposes $47 million to continue long-term investments in habitat restoration that support species recovery and sustainable fisheries. Through NOAA's Habitat Blueprint, and ongoing coordination with interagency landscape-scale conservation initiatives, we are prioritizing our work to maximize benefits to trust resources and responsibilities.

NOAA does not undertake these actions alone and relies on the considerable expertise and observations of local external partners. For example, NOAA is requesting $17.8 million in FY 2014 to support the Species Recovery Grant program, which draws on local expertise and provides support to States, tribes, and other partners for cost-effective projects to benefit endangered species and their habitats. The Species Recovery Grant program, and other habitat conservation and restoration efforts will be administered in close coordination with the Pacific Coastal Salmon Recovery Fund ($50 million) to achieve conservation benefits on a national scale. By targeting our work in priority areas and leveraging actions of local partners, NOAA can achieve greater results.

Additionally, if we are to achieve long-term sustainability, we must understand fishery trends within the context of long-term changes in our climate. Record-high sea surface temperatures were recorded in 2012 in the Northeast, as well as above-average temperatures from the ocean bottom to the surface across the region. The annual spring plankton bloom was intense, starting earlier and lasting longer than normal, and Atlantic cod continued to shift northeastward in distribution. These changes have economic consequences for the fisheries and communities that depend on them. To better understand these connections, OAR requests $10 million in support of extramural research on climate impacts on fish stocks, with a focus on the Northeast groundfish region.

With a FY 2014 Request of $529.2 million for the National Ocean Service, NOAA will increase its investment in observing, measuring, assessing, and managing the Nation's coastal, ocean and Great Lakes areas, providing critical navigation products and services, and conducting response and restoration activities to protect vital coastal resources. NOAA will support the Integrated Ocean Observing System Regional Observations with a total investment of $34.5 million. This investment will provide additional funding for high-priority ocean and coastal observing efforts, including a competitive grant program for the development, demonstration, testing, and evaluation of marine sensor technologies that will provide real-time ecosystem data to inform a range of management decisions that can affect fisheries, tourism, public health, and much more. NOS is also requesting $175.7 million to invest in NOAA's Coastal Services Center, Coastal Zone Management Program, the National Estuarine Research Reserves and the National Marine Sanctuary Program, all of which work with their local partners to provide the information and tools needed to help coastal communities make smart decisions as they plan for their future. The FY 2014 request will support NOAA Procurement, Acquisition, and Construction (PAC) programs for the NOS. These funds will support construction and land acquisition in the National Estuarine Research Reserves, capital maintenance on infrastructure and vessels that support our National Marine Sanctuaries, and grants to state and local governments to protect and restore important coastal and estuarine areas through the Coastal and Estuarine Land Conservation Program (CELCP).

NOAA's Navigation Response Teams (NRT) program is sustained at $2 million. Ports and harbors around our coastline rely on NOAA's NRTs to collect data that ensure nautical charts are up-to-date and that navigational waterways are clear and safe. In addition to providing routine support, our 6 NRT's also provide 24/7 emergency hydrographic survey support to the U.S. Coast Guard, port officials, and other first responders in the wake of accidents and natural events that create navigation hazards, which impede safe and efficient marine transportation and commerce. For example, the underwater obstruction surveys completed by the NRT's in the Port of New York and New Jersey after Sandy were instrumental in helping the port quickly reopen, restoring the flow of fuel, relief supplies, and over half a billion dollars' worth of trade that moves through the port daily. As another example, over $1.3 billion worth of foreign trade moves through the four major Gulf Coast ports

on a daily basis, emphasizing the importance of NRT's in maintaining safe and efficient maritime commerce.

The FY 2014 budget request of $472.4 million for the Office of Oceanic and Atmospheric Research provides critical environmental information and tools through climate, weather, ocean, coastal, and Great Lakes research, technology development, and related services. NOAA science is focused on an integrated earth-systems approach that examines the connectivity among our oceans, atmosphere, natural resources, and economy, all within the context of climate variability. This enhanced understanding will allows us to evolve management approaches and services into the future.

NOAA requests $10 million for an ocean "Grand Challenge", as part of President Obama's Strategy for American Innovation. NOAA is launching this challenge as a way to focus innovative thinkers on exploration, mapping, and observing needs that would further NOAA's missions. The challenge model allows us to leverage our funds to spur even greater investments from the academic community and industry. New technologies in these fields that modernize our at sea research, monitoring, and application methods will save us money in the future.

We are requesting $72.7 million to fund high priority ocean, coastal, and climate research and development through OAR's National Sea Grant College program and $8.4 million for ocean acidification research and development to improve our understanding of its ecological drivers, its impacts on fisheries and other marine organisms, and the best means of adapting to and mitigating this emerging ocean hazard. $9.3 million is also requested for the Great Lakes Environmental Research laboratory, which supports internal and external research to advance understanding of the physical, chemical, and biological processes in the Great Lakes and how these ecosystem dynamics affect Great Lakes communities. NOAA's FY 2014 budget request includes $29.1 for OAR's Ocean Exploration Program to support ocean exploration and mapping of our U.S. extended continental shelf.

NOAA missions—from mapping the seafloor to measuring snow pack—depend upon ship and aircraft fleets as essential observational platforms. We are investing significantly in these important assets to increase use and mission readiness. NOAA is requesting a total of $176.6 million for Marine Operation and Maintenance. This will fund 3,517 Days at Sea to carry out critical missions to support fisheries and marine mammal surveys, nautical charting, and studies related to climate and ocean health. This is an increase of 1,386 Days at Sea above FY 2012 levels increasing the fleet utilization rate to about 94 percent. To maintain fleet readiness efficiency, we are investing $11.7 million to establish a Progressive Lifecycle Maintenance Fund for the Fleet. The stabilization of capital investments is critical to extending fleet life. Without timely periodic refurbishments, ship operations can be suspended and costs increased. Finally, we expect to complete FSV 6, our newest fisheries survey vessel, and to begin deploying it for fisheries research off the coast of California.

In addition to NOAA's marine fleet, we are requesting $31.5 million in Aircraft Services for an estimated 2,760 flight hours to support scientific endeavors studying global climate change and air quality, assessing marine mammal populations, surveying coastal erosion, investigating oil spills, conducting coastal mapping, surveying snowpack levels, and improving hurricane prediction models. The re-winging of the Hurricane Hunters will be staggered, beginning in FY 2015, and we expect them to continue operations until FY 2033 and FY 2034. We are also investing $1 million for a third-party study to investigate the next-generation of aerial observations; we seek to be ready to transition this vital research to new platforms when these aircraft are no longer airworthy.

This budget also reflects the importance this agency places STEM education. In FY 2014, NOAA will increase its investment in the Office of Education for a total of $16.3 million. The increased funding will support the Environmental Partnership Program, a program that specifically targets minority-serving institutions of higher education. NOAA supports the Administration's efforts to strengthen STEM education and will stay engaged to work toward the success of the proposed FY 2014 STEM consolidation initiative. The Budget terminates NOAA funding for specific STEM components of NOAA's Sea Grant, Ocean Exploration, and Office of Education programs, as well as the Teacher at Sea program and the Nancy Foster Scholarship Program, as part of this initiative.

Conclusion

Overall, NOAA's FY 2014 Budget Request reflects the commitment Deputy Secretary of Commerce Blank and I have made to the President to growing a strong economy that is built to last, while being fiscally responsible and focusing on priority initiatives. NOAA is a vital component of the U.S. Government, helping to

maximize U.S. competitiveness, enable economic growth, foster science and technological leadership, and promote environmental stewardship. Americans—civilians, the military, and businesses—rely upon the services NOAA provides on a daily basis. The resources that are requested in this budget are critical to the ongoing success of NOAA's mission in creating a Weather-Ready Nation, sustaining high-tech satellite observations, and achieving vibrant coastal communities. Essential to each of these focus areas is ongoing research and development, as well as restoring investments across NOAA's programs. I look forward to working with the members of this Committee and our partners and constituents to achieve the goals I articulated through the implementation of the FY 2014 budget. Thank you for the opportunity to present NOAA's FY 2014 Budget Request. I am happy to respond to any questions from the Committee.

Senator BEGICH. Thank you very much, Dr. Sullivan.

What I'd like to do is I'll start with the Ranking Member, Senator Rubio, and then we'll go through the list from that point.

Senator RUBIO. Thank you, Mr. Chairman.

Admiral Papp, my question, I alluded to it in my opening statement, it's about the shift of focus to the Eastern Pacific, which I think is important to do, but I'm worried about the impact it has on the place we're shifting from. So in particular, how will the mission be impacted by the loss of the gray hull, such as the U.S. Navy frigates, which have been heavily utilized in the SOUTHCOM area of responsibility and are now being retired?

The LCS, the littoral combat ship, will be the replacement for the frigates, but we don't expect to see them home-ported in Florida and fully operational in the Western Hemisphere until 2018.

So if you could comment on the impact that will have on operations in the Western Hemisphere, and the Caribbean in particular?

Admiral PAPP. Senator, the Western Hemisphere has been a particular focus of mine since becoming Commandant.

The country is absolutely right in terms of this focus towards the Pacific and toward Asia, and the Coast Guard, I think, could provide contributions, and we have, in fact, provided contributions there in the past. There are many nations, including China, that are looking to the U.S. Coast Guard as a role model for the type of maritime force that they should be building that controls the rule of law at sea, and I think we could serve a great purpose out there.

Unfortunately, with the reduction of resources, my highest focus is for the Western Hemisphere, the Arctic, closer to our shores, and most notably, in the Caribbean and the Eastern Pacific, where we have the drug trafficking routes.

In years past, the Navy has been a force multiplier for us. They work primarily for Joint Interagency Task Force South in the detection and monitoring mission, and they carry Coast Guard law enforcement attachments. So in fact, we can change operational control to a Coast Guard commander when we detect a drug smuggler and use that just the same as a Coast Guard cutter because we have our Coast Guard people embarked on that Navy ship.

So the loss of the Navy ships in the Caribbean ultimately is just going to result in more drugs that are making it through.

I know, talking to Joint Interagency Task Force South, because we have a good Coast Guard representation—in fact, its director is a Coast Guard admiral—that right now we're only intercepting

about one-third of the tracks that we are aware of and people smuggling drugs toward Central America.

Last year, we interdicted 107 metric tons. That's 107 metric tons of pure cocaine that didn't make it into Central America to make its way across our borders. By comparison, all the law enforcement agencies in the 48 states only interdicted 40 metric tons of cocaine, and that's after it's broken down, as well.

So more drugs, and we'll have fewer assets that we can redivert to other missions, like migrant interdiction and other Coast Guard activities in those areas.

Senator RUBIO. So, I mean, the gist of it is, it's not that the pivot is a bad idea. It's the fact that it's not being replaced by anything that creates these problems. And they sound, at least until 2018, to be pretty significant.

Admiral PAPP. Yes, sir. And even though the Navy has held out that the littoral combat ships will be out there, it's going to take a while for them to get there. We don't know what the budget is going to portend for the Navy in the out-years.

So right now, we're only capable of—I'm glad to give you a classified briefing on the numbers of ships that we provide down there on a regular basis, but because of sequestration and then future effects on the fleet with the Navy, we are well below the numbers of ships that we need down there to interdict.

Senator RUBIO. And, Dr. Sullivan, I wanted to ask you about the Saltonstall-Kennedy Grant Program. I guess the budget includes $8.2 million, so I guess the question I have is what's the percent of this amount compared to the total amount of receipts your agency received from the U.S. Department of Agriculture under this program?

My notes tell me that $123 million of the amount—was diverted elsewhere, so the percentage that's being kept in this program is about 6.25 percent. Is that accurate?

Dr. SULLIVAN. Senator, those figures correspond to the numbers that I have. We received some $132 million in transfer from the Department of Agriculture, of which some $8.2 million will be applied specifically to the Saltonstall-Kennedy Grant activities, and the remainder transferred to the NOAA activities, which, I would point out, are very much the same activities that fishermen across the country are clamoring for more of—cooperative research, stock assessment, monitoring, and surveying.

Senator RUBIO. OK. The second thing, because my time's going to run out, I wanted to ask about that 66 coral species endangered that are being put into this protective status. My understanding is that the budget asks for, if I'm not mistaken, it's about $1 million to implement it in the first year. Is that correct, roughly?

Dr. SULLIVAN. I don't have a budget figure for first year implementation at my fingertips.

Senator RUBIO. We'll confer on that. I guess my bigger question is, how much do we think this is going to cost over time? Is this a program that we think is going to increase in cost as the years go on, as the workload and as the industries get impacted by this listing?

I'm not saying the listing is a good or bad idea, but I'm just focusing on the cost of it. The first year costs, from my notes—and

if I'm mistaken we'll correct that later in the record—is that it's about $1 million in the first year. Do you have any estimates of what that's going to look like moving forward in the future years and how that workload will grow?

Dr. SULLIVAN. The out-year profile on this I do not have an estimate for. It will depend on which of the stocks really come through in a final listing decision.

We're working very hard to get things right. This is a very significant decision. So as you know, we've extended the analysis period. We've extended the public comment period. We're, in anticipation of a final ruling a year from now, already reaching out to potentially affected communities and industries to work with them and be sure we get a good assessment of what sorts of impacts might be.

Senator BEGICH. Thank you very much.

And we'll do a second round. I know we'll have time.

Senator Wicker is next on the list.

Senator Wicker?

STATEMENT OF HON. ROGER F. WICKER,
U.S. SENATOR FROM MISSISSIPPI

Senator WICKER. Well, thank you, Mr. Chairman. I appreciate it.

Let me start with Admiral Papp, and thank you both for your testimony and for your service.

Over the last several years, there has been a lot of discussion about the new national security cutters. Now that the first three cutters are operational, first of all, tell us how they're performing. Particularly, how do they compare with the vintage high endurance cutters, which are being replaced?

And then let me just go ahead and ask why the President's budget only included funding for long lead-time materials for the seventh national security cutter with no mention of funding for the eighth when the Coast Guard has, in fact, said that eight are the minimum required to replace the 12 aging high endurance cutters?

Admiral PAPP. Thank you, Senator Wicker, and it's good to see you again, sir.

The national security cutter is absolutely the best-performing Coast Guard cutter we've ever had in our history. It is heads above the ship that it's replacing. And I say that fully acknowledging that the 378-foot high endurance cutter was a superb ship. It's just old, structurally unsound, and environmentally unfriendly, and just not up to taking on the missions that we do today.

So the national security cutter has been a vast improvement, really performing, I think, above and beyond what we asked of it.

Greatest example I have is that one of the national security cutters was operating up in the Bering Sea, where we will primarily employ these ships, and in 20-foot seas and 60-knot winds, it was able to launch its helicopter and recover its helicopter and conduct boat drills.

That's the major capability we need. We need to be able to put boats in the water to do boardings, and we need to get helicopters out to do rescues and surveillance.

It has an engineering plant that will drive it at higher speeds at greater fuel efficiency and give us a range of combinations of en-

gines and propulsion that allow us to either loiter or sprint, depending upon what the mission calls for. It has greater sensors capability. It has a skiff that we can do intelligence work.

And then probably one of the things that's nearest and dearest to my heart, we finally have a ship that appropriately recognizes the young patriots that step forward to serve our country and gives them the habitability that they deserve. Rather than being in dank, dark berthing areas stacked three high like cordwood, they now have appropriate living spaces because the internal capacity of the ship allows us to expand out and a smaller crew gives us more room and better ability to take care of them. So I'm a big fan of the national security cutter.

And you're right, sir. It has been my number one priority since I've become Commandant. The capital investment plan should be up here. If it's not, I really can't talk about the next year's budget. But what I would say is, last year, I was answering questions to you why national security cutter number seven was not in the FY14 budget, as exhibited in the 5 year plan.

Senator WICKER. The program of record has not changed, then, has it?

Admiral PAPP. It has not changed, no, sir.

Senator WICKER. And so are you telling this subcommittee that we should feel optimistic and comfortable about the eighth cutter?

Admiral PAPP. Yes, sir.

I need to make a correction: It's the construction—long lead money for number seven—you said long lead? That was put in the FY13 budget, so we had that already. We got the construction money for number seven in the 2014 budget that's before the Congress right now.

Senator WICKER. So it was actually the long lead for the eighth that caused me concern, because I don't see it there.

Admiral PAPP. Yes, sir. And you're exactly right. It's not there.

No one is more disappointed than I am, but with the current fiscal constraints, I was confronted with a lot of very tough decisions to make, and we have other acquisition projects that are ongoing that needed to be sustained at least at minimum levels as well. And that's why the long lead money is not in there.

Senator WICKER. Well, you made a very strong and clear statement about the value of this program, and I appreciate it. I also appreciate your assurance that we can feel relatively comfortable about getting the eighth.

Let me just pivot real quickly, then, Ms. Sullivan, to the weather satellite issue. Would you like to comment about that, particularly the significant overrun in original cost estimates resulting in shrinking of other program budgets within NOAA, including many that are important to my state of Mississippi and Senator Rubio's state of Florida?

How would NOAA's FY 2014 budget request rein in excessive costs in this satellite acquisition? And will NOAA strive to ensure that acquisition of a weather satellite does not negatively impact other core missions?

Dr. SULLIVAN. Good morning, Senator Wicker. It's good to appear before you.

The short answer to your question, sir, is we have been working terribly hard over the last 2 years to be sure that we get the JPSS program, which is the successor to the fatally flawed NPOESS program. That program, as you'll recall, was unwound, dismantled in 2009. It exists no more.

The JPSS program we have today is a far cry from that fatally flawed program. It has been hitting its schedule and its budget targets on the J–1 satellite mission quite regularly for the last 12 months. We see increasing confirmatory evidence in that, as does the GAO, that we now have a well-managed program that is gaining its stride and is on track.

Senator WICKER. Why was it fatally flawed?

Dr. SULLIVAN. There was a very convoluted management construct, and, by most reckoning, fatally flawed early estimates, overly optimistic estimates of scope and budget that then failed to get sufficient attention and response early enough in the program, early enough in its lifetime.

But the JPSS program, as now constituted, is in sound management hands. Our GAO investigators and auditors confirm that.

This budget proposes to substantially restructure and refocus the program in response to concerns by this committee and others on the Hill as well as seven different independent reviews conducted over the past year that urged a sharp focus on clear requirements focused on this core weather mission. We're doing that with this budget. We've reduced the lifecycle cost by over $1 billion.

We very much appreciate the concern you raise, Senator, about the necessary healthy balance among and across the different mission areas of NOAA.

Our ocean and coastal missions are just as vital to the country as our satellite and weather missions. We've worked very hard over the last year and in this budget proposal to move that balance to a healthier point and are committed to ensuring that stays true in the future.

Senator WICKER. Thank you very much. And other Senators are here. Let me just say, I look forward to working with you on the Gulf Coast Ecosystem Restoration Council, which is part of the RESTORE Act, to make sure that it aligns with state priorities.

And I look forward to visiting with you again, perhaps in my office or your office, about that.

Thank you.

Dr. SULLIVAN. I look forward to that.

Senator WICKER. And thank you, Mr. Chairman.

Senator BEGICH. Thank you very much.

And again, we'll probably have a second round for those that would like to ask additional questions.

Next on the list is Senator Klobuchar.

STATEMENT OF HON. AMY KLOBUCHAR, U.S. SENATOR FROM MINNESOTA

Senator KLOBUCHAR. Thank you very much, Chairman, and thank you, Senator Rubio, for holding this hearing. Very important.

You might not think of Coast Guard when you think of Minnesota, but as Admiral Papp—thank you. He just said, "I do." He mouthed the words, like we were getting married.

[Laughter.]

Senator KLOBUCHAR. Thank you.

But, Admiral Papp and Acting Administrator Sullivan, thank you for being here.

And I think, Admiral, you know the importance of Duluth as a port and the work that's done there, especially some of the icebreaking issues that we have and other things. So I appreciate the help that you've given us there, as well as the issue that we had on some of the guide service issues, which I'm not getting into today.

But today, I really wanted to focus on the floods that we're seeing in the Red River Valley. The National Weather Service's North Central River Forecast Center is very important for us to predict the height and time of the river crest.

And just to give you a sense of this, 2 weekends ago, I went home, and it was 70-some degrees in Washington and we had a foot of snow. Governor Dayton and I and Senator Franken had to head down to southwestern Minnesota, where we literally have a disaster area from so many icicles taking down hundreds of thousands of trees and putting out power for days.

Then last weekend, I went home and we had another foot of snow, and today we got another half-foot of snow in the middle of April. It's something that is unheard of, and so we're very concerned.

For quite a while, we thought the Fargo-Moorhead area was going to be fine. The chance of a flood was low. And there is now a 40 percent chance that this flood will set a new record, and a 75 percent chance it will be at least the second highest on record.

And if anyone remembered, this was the point where we were so close to losing Moorhead—it's Minnesota—and Fargo, which is in North Dakota.

I was just up there and met with the mayor, Mayor Mark Voxland, the mayor of Moorhead, to discuss flood preparations.

As you know, cities and local officials base their flood prediction, planning, and preparation on the predictions that come from the National Weather Service. I know literally in Fargo and Moorhead, they are literally adjusting resources according to how high they anticipate the water to crest with this unforeseen problem of all this snow.

They're well prepared, but again, they need this information.

My question is, in addition to the modeling and predictions the Weather Service provides, Dr. Sullivan, how is NOAA working with local officials to ensure that they have appropriate resources in place?

Dr. SULLIVAN. Senator, I think you've just quashed any Washingtonians' complaints about it trying to be spring in Washington.

Senator KLOBUCHAR. OK, thank you.

Dr. SULLIVAN. We are working very closely with the state-level and local-level officials in your state.

We began biweekly coordination with Federal, State, and also tribal and local officials, including cross-border into Canada, back in February. We've been holding at least weekly briefings, more often if they request, since last month.

We just briefed both the North Dakota and Minnesota congressional delegations, including your office, last week.

We monitor the snowpack and river conditions very carefully, in concert with our U.S. Geological Survey partners, to make sure that we're bringing the best and most current data possible into those forecasts and prediction models.

And we're planning—I think we may even have moved out now—on embedding emergency response specialists in the appropriate locations, to be sure that mayors, Governors have right at hand timely, and focused on their questions, information that they need.

Senator KLOBUCHAR. And we know, with sequestration, there may be furloughs, or are furloughs with some of your personnel. Will this affect the emergency efforts that you may have to make coming up in the next few weeks?

Dr. SULLIVAN. Senator, the National Weather Service and the services we provide to the country through that unit are among the most important obligations that NOAA has.

The Weather Service, our satellite control operators, some of our law enforcement personnel, our oil spill response personnel, these are all pockets of critical response capability that we know we have to provide a tailored approach and some flexibility for as we deal with the realities of sequestration.

The plan with which we are now in consultation with our employee units, and which we will bring forward in due course to our appropriators for discussion and approval, is one that we have moved to, in fact, because the impacts per the sequestration law per se would have been more severe on the Weather Service without the adjustments that we are making.

We're unhappy about sequester and the sort of harsh and blunt realities that it imposes on us, but we're pleased that we've been able to soften the blow on the order of up to—I emphasize "up to"—4 days of furlough agency-wide. That's part of what has let us take the impact off of the Weather Service.

That's still a tough thing to do, but it brings the furlough impact down to a level that managers throughout the agency commonly deal with in dealing with employee illness or vacation levels.

And in those critical areas that I cited, we will make sure that we provide our managers with the flexibility needed to adapt to emerging situations, urgent situations.

Senator KLOBUCHAR. So you have that flexibility to put extra people on the ground if necessary in the Fargo-Moorhead area?

Dr. SULLIVAN. We will make sure that we have a tailored approach to our core critical services so that those go uninterrupted to the American people.

Senator KLOBUCHAR. Very good.

I know that the folks at the North Central River Forecast Center in Chanhassen, Minnesota, provide important data that the National Weather Service uses in forecasting river levels, river basin modeling, hydrologic forecast and guidance. Their work is especially crucial.

Can you tell me about how this process works and how the data is gathered through hydrologic remote sensing? How is that helpful in flooding? Because, obviously, we're not just worried about this

one area, which is incredibly difficult right now, Fargo-Moorhead, but also all the way down the rivers into Minnesota.

Dr. SULLIVAN. Senator, let me give you a brief answer here, and we'll be happy to follow up with a longer discussion, if you would find that helpful, in your office.

There are a combination of input data sources to these forecasts, from snowpack surveys, some of which are done by *in situ* instrumentation, some of which are done by measurements made from NOAA aircraft.

The United States Geological Survey, our sister agency, has the primary responsibility for operating the stream gauge networks that provide critical information for the models. Those data are relayed to the data ingest sites, actually, most commonly through NOAA geostationary overhead satellites.

So we scavenge data via satellite relay link. We make direct measurements on the ground. And we make airborne measurements in field campaigns. All of which go into informing both the physics in the models for the hydrological prediction and then the actual status of the environment at a moment that let us add some precision and accuracy to an immediate forecast, such as the ones we're giving to your constituents now.

Senator KLOBUCHAR. And is it true that this warm-up rate matters, how quickly the ice and snow melt? I mean, we're afraid we have feet of snow in northern Minnesota, and we're suddenly going to have an 80-degree day, and we're never going to see anything like this, because it usually doesn't happen that way, especially with the temperatures at night.

Dr. SULLIVAN. The timing of snowmelt and the speed of melt through the spring season matter critically to the severity of flooding in the downstream basins, yes, ma'am.

Senator KLOBUCHAR. OK. Well, thank you. I appreciate your work. I appreciate that you're willing to devote the personnel with some hard budget times that I hope will change if we can get a deal here going. But I want to thank you for what you've done.

Admiral Papp, you're off the hook now. I know I'm usually asking you about various issues. I'll put some questions in the record about dredging. And if we need your help up there, the Coast Guard comes to the rivers, then we're really in trouble. That's what I think.

So thank you very much.

Senator BEGICH. Thank you very much, Senator Klobuchar.

Let me go through my questions, and then, again, if folks have additional ones, we'll allow that after this.

For Admiral Papp, let me ask you, I know in the capital investment plan, I did look at it, and you have, for the icebreakers, you have about $2 million, I think, to continue planning.

I'm a little nervous, to be very frank with you. I know you have had to battle to get dollars into the system just to start the process. Can you tell me, in your words, where do you see that program going?

As you know, I mean, you just heard, even in the Minnesota region, icebreaker needs, but really, in Alaska, what will be necessary to manage and alleviate potential risk.

As we know, 2 years ago, a little less than 2 years ago, the work you all did to help us with Nome, Alaska, receiving incredible fuel, which was critical for their survival through the winter.

Tell me how you see that plan. I'm concerned, as you can imagine, but give me some thoughts there on what you're thinking in the long term on it.

Admiral PAPP. I feel really good where we're at, Senator.

Three years ago, when I first testified before this subcommittee, I laid out four things that I needed to do to provide icebreaking capability for the country.

The first was to get the operating funds for the icebreakers back in the Coast Guard budget. That has been accomplished. We have the operating funds now.

Second was to get a heavy icebreaker back in service. We selected the POLAR STAR because POLAR STAR had probably the least work that needed to be done.

And I'm very proud to report that POLAR STAR is ready for operations. We expect to send POLAR STAR up to the Arctic this summer, so that we can regain their proficiency. It has been a long time since these crews have been out there breaking ice, so we need to send them up to the Arctic to get some experience this summer. And it's my goal to send POLAR STAR to the Antarctic to break out McMurdo in February 2013 for the National Science Foundation.

Senator BEGICH. Can I ask you a quick question on that?

Admiral PAPP. Sure.

Senator BEGICH. What was the cost on that POLAR STAR to get? I know it was renovations, and so forth. Do you remember roughly what that was?

Admiral PAPP. It was in the vicinity of $65 million to get it reactivated.

Senator BEGICH. How long will you be able to, at this point now, see the lifespan of that?

Admiral PAPP. Well, we have the operating funds back in the budget now for POLAR STAR, so that will help us.

Our plan is to keep POLAR STAR sustained for at least 10 years——

Senator BEGICH. OK.

Admiral PAPP.—until we get a new polar icebreaker.

So keep HEALY running, because she was the only icebreaker we had, get the money back in our budget, get POLAR STAR reactivated, and then start the process for a new icebreaker, which I thought was going to be the most difficult thing to do.

The President put the money in, to start this process, in the 2013 budget.

Now, I realize it causes some concern when people look at $2 million in the 2014 budget. That's simply because the 2013 budget was enacted halfway through the year. We haven't had a chance to spend any of that money, because we didn't have it. So as a good steward, we said we can extend some of that money into the FY14 spending, along with the $2 million, to keep this process going.

And right now, what we're doing is a very thoughtful, deliberate process to make sure we reach out, not only to the Department of Defense, but the National Science Foundation, NOAA, and other

agencies, because this is not just a Coast Guard icebreaker, it's a United States icebreaker. And we need to make sure that we take into account all the requirements that are going to be important to this very significant investment.

Senator BEGICH. Very good. Let me follow up.

As you know, about a month and a half ago, we had a hearing, about 2 months ago, in Alaska that I conducted regarding the Bering Sea and the amount of traffic moving through there.

And District 17 gave a great presentation. They did a great job. I give them, you know, a lot of extra credit points. Not only do they do it on the ground, but when stuck in front of a committee, they do a good job in presenting the risk that is growing, and the risk in regards to the amount of traffic moving through there and not really knowing a lot about it, in the case of foreign vessels, and some of the work that needs to be done there.

Do you share that same level—I mean, obviously, when you're on the ground in the district, it's always elevated because you're there watching it. Do you share that same concern that we've got to really start opening our eyes to what's going on there in the Bering Sea and the amount of traffic that is unclear, sometimes its cargo or its structure of those ships?

Admiral PAPP. Absolutely, Mr. Chairman. Yes, it's almost a funny situation.

When I appear with the Chief of Naval Operations, he generally puts up a chart of the world and shows all the significant chokepoints in the world that the Navy is responsible for.

Senator BEGICH. Except the Bering Sea.

Admiral PAPP. Except for the Bering Strait. And he has now started putting a symbol on the Bering Strait, because I continually remind him.

While drilling poses some challenges, really, my biggest concern right now is the increase of traffic through the Bering Strait. And Russia is firmly intent on opening that North Sea route as a major route for commerce.

We've seen a fourfold increase of traffic going through the Bering Strait, and the potential for disaster, pollution disaster, is really, I think, more likely from ships colliding or a ship running aground, being caught in a storm and becoming disabled. That's the thing, I think, that I worry about the most.

Good thing is, because of the Coast Guard and our nature and the way we're able to operate, we represent the United States at the International Maritime Organization. We're involved with the Russians in the North Pacific Coast Guard Forum. We are working with coming up with traffic schemes for the Bering Strait that I think will work to improve security in the years to come as that route becomes vital to the entire world.

Senator BEGICH. Very good.

Admiral PAPP. Sir.

Senator BEGICH. Let me end with one more question, and I'll see if Senator Rubio has some additional, then I'll come back. And I have some questions for NOAA.

But as you know, I'm a big proponent of making sure at some point we have some access—maybe a deepwater port in the Arctic

region. And I say "region," because it's a very large area in comparison to the lower 48 and some of the regions of coastal areas.

And we have had inquiries from, I know, Port Clarence and the Bering Straits Corporation there in trying to resolve some issues there.

It seems like District 17 is very interested in transferring some land there, but it's held up here somewhere in the national level here in D.C.

I don't know how much you know about this issue, but I want to put it on your radar screen. Would you be able to give a commitment or at least a willingness to have the Bering Straits Native Corporation come in, meet with your folks, and try to negotiate a resolution to this issue to the betterment, obviously, to the long-term issue of a deepwater port, but also to the needs that the Coast Guard will need in projecting out 10, 15, 20 years from now?

Admiral PAPP. Yes, sir. Two things, if I may.

First of all, I think we're going to be the first Federal agency, first service to have an Arctic strategy. I'm very proud of this. It's on Secretary Napolitano's desk right now.

And I think it's only right that the Coast Guard take point on this, in order to start a strategy that can build into a national strategy. And a deepwater port is a part of that. We recognize it. It's difficult for us to have to go all the way to Dutch Harbor to refuel our ships. We would clearly prefer to have something closer to where the action is going to be.

In terms of Port Clarence, that's a new issue for me, the specific issue. I'm aware of the broader structure of divesting ourselves of all the sea property that we have throughout Alaska and other places.

Senator BEGICH. This is one of those.

Admiral PAPP. So we will commit to meeting with your constituents.

Senator BEGICH. Fantastic.

Admiral PAPP. Clearly, there are, I think, mutual things that we need to talk about, because we don't know what our long-range plans on the terrestrial side are either.

Senator BEGICH. Very good. And I'll just end on that one issue and just say that I think if there's anything we can do to help make sure, we'll be happy to participate. I think they clearly understand that there is an obligation to the Coast Guard to make sure what your long-term—and—when I say "long-term" I mean your long-term reach, not just 1 or 2 years but, you know, many, many years to come, because that's critical to have infrastructure there.

Admiral PAPP. Yes, sir.

Senator BEGICH. Let me turn to Senator Rubio.

Senator RUBIO. Thank you.

I just had one question, and it was for Dr. Sullivan.

I wanted to ask a little bit about the budget proposal that funds about 3,500 days at sea to carry out missions to support fishery surveys, among other things.

This proposal represents an increase of almost 1,400 days at sea above the Fiscal Year 2012 levels, and that's a good thing.

But what are you doing to ensure that the ship time is going to be distributed fairly, in the sense that it's distributed according to need among the different regions? What are we doing to balance those days to ensure that all the areas are getting the attention that they think is appropriate?

Dr. SULLIVAN. Senator, in the last year, we've been through one unique exercise that will underpin part of that answer, and then we have a standing process that we rely on for that.

The one-time exercise, as it were, was a very thorough and rigorous reassessment and revalidation of our at-sea observing requirements. This is not our requirement for days at sea, but really an exercise to make sure that we broke down to the level of what are the parameters that we need to observe specifically at sea in order to fulfill our missions so that we, as we go forward and look at ship allocations and potentially alternative technologies that might augment or replace ship assets, we can really trace from a specific observation that needs to be made to whatever mixture of ways to make it may be available to us and provide the best balanced approach to fulfilling those needs.

We've called that our fleet composition plan. It's just been buttoned up in the last few weeks. And we look forward to bringing that forward to discuss with you in the months ahead. That will be one underpinning.

And then second, we have a fleet allocation and fleet planning process that is operated by Rear Admiral Devany, head of the NOAA Corps, and his officers and staff, with complete and direct participation of all of our major line office mission and science managers. And it is in that forum that we trace the available ship capabilities, the equipment, and particularities of each vessel to the sort of mission needs, region-by-region and priority-by-priority.

Senator RUBIO. And, Admiral, I had a question, and I don't mean to inject you in another controversial issue, but——

Senator BEGICH. What the heck.

Senator RUBIO. What the heck. We're here anyway.

No, really, it has to do with—obviously there's been a lot of discussion in the context of immigration reform about border security, and particularly the southern border.

But as many of us who live in areas where there's water understand in particular, the entire coastal region is potentially a border sector. And obviously, it's a little bit more difficult, because there are risks associated with crossing that over an extended period, but we've seen that.

In South Florida, for example, we've seen the cottage industry that emerged not so long ago of migrant smugglers that were going into Cuba and bringing people back on fast boats. And even now, from time to time, it's not rare to hear the story of a raft washing up or what have you. A very dangerous mission, and we should discourage it.

Any trends in those migration patterns that we've seen? And more importantly, I just want to understand what our capabilities are if, in fact, there is a—let me back up.

Those migration patterns have spiked in the past as a result of instability in Haiti or the Dominican Republic, or, an example, Cuba, and in other places. What are the risks realistically of a fu-

ture migration spike if, for example, the southern border is secured and it becomes a less viable entry point, or if there is some sort of upheaval in the Caribbean sector that could lead to a waypoint for people to come through there?

I mean, what's your view on our capacity to deal with that now and moving forward, given some of these budget constraints that are being put in place?

Admiral PAPP. I think we have adequate capacity right now, Senator.

And I think what the Coast Guard does is we have a deterrent value. One of the reasons you haven't seen—and I was out there during the mid-1990s for the Haitian mass migrations and for the Cuban mass migration that occurred at the same time. It's a terrible business to have to do, and we need to persuade people to stay in their lands, so they don't try to take that dangerous voyage to try and reach the United States.

We do direct repatriations of Haitians right now, and our numbers have trended fairly stable, and we haven't seen a spike in a long time. Part of that is because they're still recovering from the earthquake, and they haven't had the wherewithal. Part of it is the economy.

An improving economy in the United States tends to attract people as well, and we just haven't seen that. But we monitor those numbers very carefully.

And we have a strong presence in the Windward Passage and in the Straits of Florida.

The thing that troubles me the most is the smugglers who do this for profit who are taking creative routes either up through the Bahamas. We're seeing Haitians being run over to Puerto Rico right now. So it's a constant battle as the smugglers get a little bit smarter and more daring.

But once again, there are smaller numbers than the land border, and it's because of the deterrent value.

Senator RUBIO. Is the smuggler industry, for lack of a better term, is that on the increase? Is that on the decrease? I mean, it's an expensive undertaking. My understanding is they charge thousands of dollars per person that they bring.

But is that something we've seen an increase in, a decrease in? And if there has been a decrease, is that due to economic factors, enforcement, both?

And the other question I would have is, how do we spot these? I mean, it sounds to me like a fast boat through the middle of the Caribbean is not necessarily something we would necessarily stop. I mean, what are the indications that we look for?

Admiral PAPP. I think flow of migrants is similar to the flow of drugs. People are very creative.

And yes, we've seen an increase in those people that are doing it for profit. And it is expensive, but it's expensive for those poor, unfortunate people that they lure to transport them. And it's also a dangerous business.

As the Southwest border constricts and gets a little bit more secure, there is a tendency for like a balloon. You squeeze something, and it's going to find another direction to go in.

So I'm increasingly concerned about the Southwest border on the California side. Right now, we're seeing an increase of drug smuggling going around the border, trying to get into California. We've seen some migrants coming that route.

We haven't seen a commensurate rise on the Gulf of Mexico side between Texas and Mexico, but I think that's another natural place to start looking for it.

Senator BEGICH. Thank you very much.

And before I go to Senator Cowan, let me ask a couple questions.

Dr. Sullivan, I really appreciate you being here.

One of the first is, and I think you answered this a little bit in your opening, and that was, and some other the question, you received about, I think it was about $100 million in the Sandy component, and, if I remember right, in the supplemental to mitigate the expected gap in the Polar Satellites.

Can you just give me a quick again how you're using that? And has that become valuable in the sense of keeping things on track? Just give me a sense there real quick, and then I've got a couple more.

Dr. SULLIVAN. Yes, Senator. The $111 million appropriated by the Congress in the Sandy supplemental—and let me express my thanks to both chambers for that appropriation—was focused not on preventing a gap in the satellite constellation, but should there be one, on identifying actions that could be taken to mitigate the degradation of forecast accuracy and reliability.

We commissioned an external study to reach far and wide into the agency, into academia, into the private sector, really call for best technically viable ideas, assess those.

They brought forward a set of recommendations to us that boil down to six prongs. One is there are a couple of sources of data that are not currently used because of technical problems either with the data source or computing capacity limitations. Look at using those.

There are some kinds of data we currently purchase. Aircraft-based data is one great example. We buy certain segments of those data.

There are other coverage patterns we could look at, run a sensitivity study, be sure you understand which new purchases might be of greatest value to sustaining the forecast.

Improvements in how we take the data in, a process called data assimilation, which boils down to being sure that you're using the right data, using it well, and getting a handle on the errors that are necessarily in any line of data.

Some future sources of data that we should pay attention to and consider using.

Leveraging models that other entities run, in particular the European Centre for Mid-Range Weather Forecasting, their techniques to blend outputs of models. We do some of that now, but be more ambitious.

Underpinning all of what we propose to do in response to this with the funds provided in the Sandy supplemental are two things. Some of what this independent brought forward are ideas we're well familiar with but have not been able to take aboard and do because of limitations in our operational supercomputer capacity.

The investments we proposed in the Sandy supplemental spend plan coupled with investments proposed in this budget put us on track to make a fourfold increase in the capacity of our operational supercomputers by 2015. This will let us move back to par on data assimilation and modeling capability with the leading outfits in the world and accelerate the transition of these critical research capabilities into operation.

Senator BEGICH. Very good. Thank you.

And I would only pitch—because you said it; it jogged my memory—as you deal with supercomputers, we have a beautiful one in Fairbanks, Alaska. So I'll just leave that as a thought for you.

Also, this is an issue, as you know, we've talked about before with some of your folks within your agency, and this is the monitoring of groundfish in Alaska, but really around the country, and how to use electronic monitoring.

I'm going to be banging on your head forever on this, because for all the things you just said about satellite, technology, computer, supercomputer, all of the technology utilized to really help critically determine weather patterns and other things, the system we use today is a system for counting fish that—it's changed a little bit, but it's people.

And electronic monitoring—and I know the excuse is, "Well, it's not accurate." Well, Canada uses it, and it seems logical that we should be trying somewhere instead of getting more personnel to put onto operations or on ships that may not have the capacity to do it, where electronic monitoring just seems so logical. I've seen not only in Alaska but actually in Senator Cowan's state, meeting with some of the folks there, and the technology being developed is impressive.

And I know the habit of the Federal Government is to study things to death, and I get it. The best study is get it out in the water sooner than later and in large volume. Because if I look at Massachusetts, I can tell you their assessments have significant problems, as you know, because the length of time between assessments is creating huge gaps in their fishing capacity and understanding their fisheries.

We're fortunate. We do them every year. We have also state dollars to pledge to them. We put in a lot of money.

But it would just seem that we should step this up. It seems like every 3 months, I have this conversation with someone from NOAA or Fisheries sitting where you are.

And you're the top dog in this, so I'm looking to you to say, let's get on with the show, and let's use the technology.

And I know what everyone is going to say. I can write the script. "Well, we're not sure how accurate it is."

Well, I'll tell you right now, if I go to Massachusetts, it's not working out so well the way they're doing their system now that for the last 2 decades has been operational and in certain fisheries that we have.

So I'm just asking you to accelerate this. And even if it means we're going to pick one or two areas to do a high concentration of testing on this technology versus humans doing the testing in the sense of assessments.

We know Canada's been doing it. And there are some differences, and I get that. But it seems in this world where we can put a thing on Mars and watch us kick up dirt and know exactly what's there and find out there was actually water at one time, it just seems we can do this.

And I would challenge you to accelerate this as an opportunity for cost savings, but also engaging the technology of this country onto something that I think is desperate for a food supply that needs to have more accurate assessments.

Can you quickly respond to that? And I didn't mean to get on a rant, but I just get so frustrated. It's just like I'm afraid that I'm going to see fishermen today. I'm not sure I want to, because I know what they're going to ask me.

Dr. SULLIVAN. Senator, we hear your concerns. We share your interest in the possibility of electronic monitoring becoming both more effective and efficient than the observer system we use today.

We're familiar with the work that's being done in Canada, the use that's being made there. My assistant secretary for conservation and management and our director of the Fisheries Service have been up to see the Archipelago corporation, make sure we're familiar with the best gear that's out there.

As you know, we launched pilot studies in your home-state waters this past year. This budget includes $2.5 million to keep those on track and keep moving forward.

So we share your interest. We understand clearly the concerns and the interest that this represents for your constituents. And I promise you, we will stay on top of it.

Senator BEGICH. Good. Accelerate the opportunity.

Let me turn to Senator Cowan, and then I'll have Senator Nelson next.

STATEMENT OF HON. WILLIAM COWAN,
U.S. SENATOR FROM MASSACHUSETTS

Senator COWAN. Thank you, Chairman Begich. Thanks for referencing the fishing industry in the great Commonwealth of Massachusetts in your commentary with Administrator Sullivan, and thank you for conducting this hearing.

For the sake of time, Dr. Sullivan, just a few questions for you.

And you heard Chairman Begich reference the challenges and the concerns we have in the Commonwealth, which I trust you know well.

I'll preface my question with this, because I just want to be candid with you. Right now, there is not a great deal of faith and trust in the Commonwealth about the decisions and the actions of NOAA. There are many in the fishing industry who, frankly, believe that NOAA just doesn't care about the fishing industry in Massachusetts anymore and is content to see that fishing industry go away.

I trust you understand I am not one of those people.

This fishing industry is 300 years strong in Massachusetts, and it needs to be there for the next 300 years.

As I look at your budget, the fundamental, the primary question that comes to mind, how does this budget, how does this budget proposal for 2014, support, aid the fishing industry in the great

Commonwealth of Massachusetts? To that end, if you could also address, in light of the fact that just last year Acting Secretary Blank issued a declaration of emergency for the fishing industry, and we're still waiting for that funding, why is there not funding proposed in this budget to address that emergency?

Dr. SULLIVAN. Thank you, Senator.

Let me assure you, I'm with you on not wanting to see New England fisheries and Massachusetts fisheries disappear from the Earth either. And I assure you, no one in the National Marine Fisheries Service is aiming in that direction.

It's a very tough situation in New England, with both depleted stocks and apparently changing climate conditions. Our regional director, John Bullard, has been in the towns and on the docks every day since he came aboard, working with your constituents and your fishermen trying to employ every degree of flexibility that we have to help them through this very difficult time. And we will continue to do that.

This budget proposes modest increases but significant increases that will go a long way to improving our stock assessment, survey, and monitoring work. Those will be prioritized toward the highest value, most critical economic species, of which New England fisheries will certainly be some.

It includes additional investments. Twenty-one million dollars in ship time so that we can be at sea and collect the data that are needed to improve the science that underpins the management actions that we're charged with taking. And importantly, and we're very pleased, it includes a $10 million request for research into the interaction and consequences of changing climate conditions on both fish stocks and prey availability, with a focus on the New England ground fish issues.

Senator COWAN. And as for the question about the emergency disaster relief funding, was there a particular reason or rationale that that is not proposed in this budget when it has been clear, at least certainly from our side of the table, meaning in the Commonwealth and New England, that there's a need, and NOAA has expressed—at least claimed that they appreciate the need.

I'm just curious why you would not seize this opportunity to put it in there, when that need is increasing by the day, particularly since the fishing industry in Massachusetts, we're facing a 77 percent cut next week. We've got a problem. What is NOAA's proposed solution?

Dr. SULLIVAN. We did, as you know, Senator, lean forward and actively and preemptively issue a disaster declaration for the New England fisheries for just that reason. There is not a fund or normally a request from an administration attached to a fisheries declaration. The declaration is made by the Executive Branch and then funds are appropriated by the legislative branch as the Congress sees fit.

Senator COWAN. But these aren't normal times, you agree?

Dr. SULLIVAN. They are challenging times.

Senator COWAN. So let me ask you this, and some of your colleagues from NOAA testified before this committee very recently, and I sent them a letter posing some of these questions, Dr. Sul-

livan, and asking for a written response by April 15, which was 8 days ago. Are you familiar with that letter?

Dr. SULLIVAN. I am not familiar with that letter, Senator.

Senator COWAN. All right. Well, I'm still waiting for a written response.

And I'm wondering, since this is your agency, you're in charge of this agency, the top dog, as the Chairman referenced, is there any particular reason why, if you know at this time, why NOAA decided not to respond to this Senator's written request for information?

Dr. SULLIVAN. I don't know the answer to that, Senator, but I will surely look into it at the end of this hearing.

Senator COWAN. Can I have your word that I'll get a response by the close of this week?

Dr. SULLIVAN. I have wickets that my responses need to go through, too, Senator. I can assure you, we will get on top of it.

Senator COWAN. All right.

Senator NELSON. I bet you get an answer today.

Senator COWAN. I was going to give you to the end of the week.

Senator BEGICH. You're new.

Senator COWAN. Well, I would appreciate your follow-up on that, Dr. Sullivan.

And frankly, I would appreciate your commitment that NOAA will continue to work hard to help find a solution to what ails the fishing industry in Massachusetts. There is some trust that needs to be rebuilt there, and NOAA needs to attend to that posthaste.

Dr. SULLIVAN. We recognize that, Senator, and we will work on it.

Senator COWAN. Thank you.

Senator BEGICH. Thank you very much.

Senator Nelson?

STATEMENT OF HON. BILL NELSON,
U.S. SENATOR FROM FLORIDA

Senator NELSON. Mr. Chairman.

Admiral.

Admiral PAPP. Senator.

Senator NELSON. Madam Secretary.

Admiral, if we had another BP spill today, who's in charge?

Admiral PAPP. The Coast Guard is in charge for response to the spill, sir.

Senator NELSON. Does that mean you?

Admiral PAPP. Yes, sir.

Senator NELSON. You would be the authority?

Admiral PAPP. It's certainly my responsibility. I may assign people who might be the primary response person, whether it's the district commander or an area incident commander.

Senator NELSON. What happened after the BP spill that it was described to me by the Coast Guard that the Coast Guard is in charge 51 percent and BP is in charge 49 percent?

Admiral PAPP. Sir, I've heard various quotes like that, and I don't know who to attribute them to specifically.

I think when people are being interviewed, either in hearings or in press conferences and other things, one of the things that the

Coast Guard does traditionally in order to be prepared for incident responses is to partner both with the Federal, State, and local agencies, and, from time to time, industry, because industry will have to pay for and come up with the ultimate solution.

We bear the responsibility to direct industry. So as far as I'm concerned, it's 100 percent the responsibility of the Coast Guard, shared with other Federal agencies along the way, depending upon the regulations or what particular impacts there are for the incident.

But we hold the companies accountable for the cleanup. If they don't have the wherewithal, we can authorize expenditures from our oil pollution response fund. But the Coast Guard will take lead, will take point on this.

Senator NELSON. In your mind, as the head of the Coast Guard, was there a lesson learned from the BP spill with regard to who is in charge?

Admiral PAPP. I think that it's more the way we talk about it. And once again, in order to be prepared in the way the Oil Pollution Act of 1990 was constructed, it puts the Coast Guard responsible for the cleanup, it puts us responsible for response plans and holding people accountable to get the cleanups done.

And for many years, we worked in partnership with countries, whether it's the oil spill response companies, the petroleum companies, the shipping companies. In order to move forward and come up with safe designs, safe practices, we need to work in partnership.

So I think, unfortunately, that is within our vernacular, and that's the way we talk about it from time to time. And I know people were put off by the fact that we talked, some of my people that were responding at the time, talked about our partners in industry.

We clearly know and we have learned a lesson that we are in charge. We hold people accountable for cleanup.

And that, I think, is one of the many lessons we learned from that.

Senator NELSON. Well, I would respectfully suggest to you that, on the basis of your response, that the administration—and I'm not just speaking of the Coast Guard—has not learned the lessons, because on a daily unfolding disaster of the magnitude that was the BP disaster, the arrangement that was occurring, where there was so much deference to the oil company, it led to the oil company basically being in charge, and with a delay over and over of getting our arms around the problem.

And I'll just give you an example. You remember that the oil company wanted us to think that there were less than 1,000 barrels a day that were gushing from the well. And it was not until this committee and the Environment Committee of the Senate insisted otherwise that we get the actual video, the live streaming video, of what was occurring 5,000 feet below the surface that then scientists could calculate the flow rate and see that it wasn't 1,000 barrels a day. And each of those were revised upwards by BP trying to keep the minimum. And ultimately, it was close to 50,000 barrels a day.

And a lot of mistakes were made like that, mistakes that have been made with comments coming out of the White House that

there is no oil left after the well was capped, I think beg for a changed command structure, one that is a military command structure in an unfolding disaster of the proportions that occurred there.

And I simply share this with you, Admiral, the admirable Admiral, that, from your comments, it doesn't sound like that is being instituted and understood.

Madam Secretary, let me ask you, as a result of this beneficence that we now find recoverable oil on shore, not only the natural gas, but the onshore oil that is producing all kinds of new reserves, to what degree is that true?

And number two, does that in any way lessen the pressure to drill offshore because of the new oil reserves on shore?

Dr. SULLIVAN. Senator, I'm really not conversant with the recent estimates for either onshore or offshore oil. That's more in the domain of our colleagues over at BOEM [Bureau of Ocean Energy Management] and the offshore energy group at the Department of Interior. We'd be happy to follow up with your staff on those particulars, if you'd like, but I don't have figures at hand.

Senator NELSON. OK.

Admiral, let me ask you about the budget. The fact that last year, on the maritime oil spill program, we had a budget of $289 million, and this year it's being proposed at $238 million.

Are we prepared for the next *Deepwater Horizon* spill with that kind of funding?

Admiral PAPP. Sir, the specifics of the amounts in the budget, I'm not at that level of detail to be able to respond what, in fact, that does for us.

We've had reductions across the board in the Coast Guard, so it does not surprise me to see something that's about a quarter of a million dollars being reduced to some extent while we're reducing expenditures for building ships, aircraft, boats, and losing people at the same time.

So while I can't explain the difference in what's probably about $10 million or $20 million in that particular line item, what I can say is that we are working very closely with the Department of Interior.

The Department of Interior is the one that permits drilling, and we've learned a lot through the *Deepwater Horizon* process. They will evaluate. We'll work with the Department of Interior to look at response plans for the companies and the safety of the drilling evolutions, and those lessons are the things that we're carrying forward.

Senator NELSON. OK.

Mr. Chairman, last year's level was $289 million for the oil spill response. It's a part of the Coast Guard budget. And they are proposing to fund it from $289 million to $238 million.

This committee deserves an answer as to whether or not, in fact, that's enough, and why was it cut in light of the fact that we could face another *Deepwater Horizon* oil spill?

Senator BEGICH. Senator Nelson, let me, if I can—I just got some information I'm just looking at very quickly here—but correct me if I'm wrong here, but also it begs the question Senator Nelson's asking—2012, you had about $213 million, give or take. It's now 2013, $289 million; and then 2014, $238 million.

And I think it does beg the question, first off, it's more than 2012, which is good. Less than 2013, which is bad, I think we would say.

And that gap, the question I think Senator Nelson, and I think I would agree with, and that is, what is the operational impact of that in a spill of a magnitude equal or greater than what occurred in the Gulf, when you have that kind of differential occur over one year over the next?

And I think that's an important question, because if we're lowering the funding in anticipation of not a catastrophic, which of course we would never want, does that create a problem operationally for you as you are moving forward in dealing with an oil spill that could happen in the Gulf? That gap is a sizable amount; it's almost 15 percent of your budget, of that unit.

Admiral PAPP. Mr. Chairman, anything I give you right now is pure speculation.

Senator BEGICH. OK.

Admiral PAPP. There are so many ups and downs in this budget, inconsistencies in the budget as we've faced these reductions, making tough decisions based upon the limited funds available, and also the fact that the 2013 budget was enacted 6 months into the fiscal year, many times we made judgments, OK, we're going to have to carry over money or there will be money that we'll not be able to spend, or we can transfer things around. And that affects the levels we asked for in 2014 as well.

So rather than sit here and speculate, what I'd rather do is give you an answer for the record, which you deserve.

Senator BEGICH. I think that would be appropriate. And then maybe you could draw back a year to 2012, kind of starting there, so we understand this kind of longer flow, because if there was that carryover or whatever occurred, I think the detail would be helpful for both Senator Nelson and myself, as well as others who may be interested in this.

[The information requested follows:]

Coast Guard/Admiral Papp response:

The Maritime Oil Spill Program (MOSP) estimates are made up of three components: Emergency Fund expenditures (oil spill removal); Claims expenditures; and payments to the Oil Spill Recovery Institute which is located at the Prince William Sound Science Center. The table below shows the source of the decrease in total projected expenditures from $289 million in FY13 to $238 million in FY14. The projection anticipates the completion of the majority of the removal operations associated with Deepwater Horizon (DWH) and the return to a projection in line with historical Emergency Fund expenditures prior to DWH. Claims normally lag the response operations. The estimate predicts a slight increase in claims expenditures associated with Natural Resource Damage claims from DWH.

$ in millions	FY13 Estimates	FY14 Estimates
Emergency Fund Expenditures	$111.3M	$50.0M
Claims Expenditures	$177.4M	$188.0M
Oil Spill Recovery Institute Expenditure	$0.6	$0.6M
Total:	$289.30M	$238.60M

The Coast Guard's ability to respond to the next *Deepwater Horizon*-like spill is not related to the projections in the table above. Each year the Coast Guard receives

an appropriation of $50 million (funding is available until expended) for the response to oil spills. To the extent that this amount is not adequate, the Oil Pollution Act of 1990 (as amended) provides that the Coast Guard may obtain an advance from the Principal Fund up to $100 million with notification to Congress within 30 days (and if this increased amount is not adequate, a legislative remedy would be pursued). Finally, there are limits on Oil Spill Liability Trust Fund (OSLTF) use per oil pollution incident. The maximum amount that may be paid from the OSLTF for any one incident is $1 billion.

Senator Nelson?

Senator NELSON. Mr. Chairman, may we expect the answer to that by the end of the week?

Senator BEGICH. He's given you a lot of extra time, because I was expecting by the end of the day, based on Senator Cowan's. But what do you think your timetable——

Admiral PAPP. A question like that we can have by the end of the day.

Senator BEGICH. Fantastic. How's that?

We should ask for a week all the time, and their response is the end of day.

Thank you very much, Admiral, for that.

And, Senator Nelson, does that satisfy the request? Fantastic.

I have some questions for the record, but if I could just do two quick ones, one for you, Admiral, or, actually, two.

One is, I know you have made a big effort in regards to housing for your men and women of the Coast Guard, which I give you huge credit for, because I have seen some of that housing, and you actually had to live in it at times, and I know that, and there is a great need there.

I noticed there is no or limited funding in 2014 for housing. Obviously, that has impact. And that's probably one of those things you said you've got to push off, because of budget issues.

Besides more money, is this still in your priority list, understanding money, putting money aside, is this a pretty important thing that you believe we should be focused on also, along with you?

Admiral PAPP. Absolutely. And I think you know, having been in Alaska with me and Linda.

Senator BEGICH. Yes.

Admiral PAPP. It has been really one of our highest priorities for our families, to improve housing.

We're really grateful that the Congress gave us $10 million in the FY13 budget, and I'm really happy to report to you that that's going to construct extra homes in Kodiak, where we have the highest need. It's going to construct about 10 homes out of the 20 that we need to construct. And I'd like to be able to construct more, and we've got other places where we need it, as well.

It's a continuing issue for me. In terms of the 2014 budget, it was a reasoned response, faced with the fiscal realities of this year, and also the workload of my people.

The Congress gave us in excess of $250 million for storm repairs for Hurricane Sandy. That work and getting that executed is a huge workload for our civil engineers and our contracting people, so we'll be fully engaged with trying to get ourselves reconstructed. And it was just a reasonable decision to make to defer housing this

particular year, because of that other money that needs to be spent.

Senator BEGICH. And I might have mentioned this to you once before on housing—honestly, I can't remember our final response, or if we just had more of a discussion—and that is I know the military has done some very successful on-base housing partnerships with the private sector, who went in there with their capital dollars and designed long-term—I think in some cases maybe 50-year contracts. I may be wrong about the term. And then operated them so the quality of the housing dramatically—as you know, on some of the military bases in Alaska, the quality of housing has dramatically changed.

They're more winter-prone type of housing, and they're also a lot more designed for the family of today versus the family of 50 years ago.

Is that something the Coast Guard would entertain, or are you limited by legislation that you can't even really go down that path, as they have done with the military bases?

Admiral PAPP. It's actually three issues there. First of all, public-private ventures for housing is a good thing. The Department of Defense is deeply invested in it but they have mass that they——

Senator BEGICH. Huge units.

Admiral PAPP. They have huge units. Elmendorf-Richardson being one of them.

Senator BEGICH. Hundreds.

Admiral PAPP. And the reality is, we get to leverage that. We have Coast Guard people that are living at Elmendorf in beautiful housing that they enjoy.

Same thing happens in Hawaii, where the Department of Defense is heavily invested in public-private ventures, and numerous other locations around the country.

I have many people on my staff in headquarters that live down at Fort Belvoir in public-private housing. I myself live in public-private housing on the Air Force base here in town over at Bolling. So I'm a big believer in it.

The challenge, however, for the Coast Guard is, first of all, our housing areas are generally very small. It doesn't make it economically feasible for a company to come in and make an investment for something so small.

And then just the really practical point is that, because of the way the laws are written right now you have to upfront score money in advance, huge levels of money that we would not be able to absorb within our budget.

Senator BEGICH. You just reminded me, as you were saying that, this is the CBO classic.

Admiral PAPP. Yes, sir.

Senator BEGICH. Yes. Which makes no sense. You don't have to say that. I can say that.

I think sometimes—well, I'll just leave it at that. I won't get into my commentary about CBO.

But you're right. I forgot about that scoring aspect, that you have to actually show it on the frontend, when in reality, it's a 50-year or longer term project.

Admiral PAPP. Sir.

Senator BEGICH. OK. That's something we should work on, on this end.

I'll have a question here, I'll give it for the record, for the HC–144s that you don't have right now funding but you had some interest, I know, with the Air Force on their C–27Js. I'll just submit that for the record. A little more conversation on that, if there's something we can help you——

Admiral PAPP. That's very important to us, Senator.

Senator BEGICH. I agree, and I know there's some effort maybe we could help on a combination of budget units that we're reviewing.

So I'll send that in. If you could respond to that, that'd be great.

Admiral PAPP. Yes, sir.

Senator BEGICH. Last thing, again, Dr. Sullivan, I'll have a couple more for the record, but just one.

And I first want to thank you. I know the delegation came to you from Alaska regarding the issues of the environmental impact statement on oil and gas, and I would argue—and I was hoping Senator Nelson would stay. I'd say yes, we still need to do Arctic development and oil and gas development offshore, if done the right way. And I think that's the critical thing that we all want to do with potentially 40 billion or more barrels of oil up there as well as gas.

But I notice in the supplemental draft it issued a few weeks—that the definition of drilling program seems to be limited to the company to be able to drill one well at a time in either theater, the Chukchi and Beaufort. There are over 600 leases in that area.

My worry is that, between that and the mitigation measures, which reduce the timetable they can drill, it really is putting a stranglehold on their ability to be successful in striking in one of the largest oil fields in the country once hit.

Can you give me your assurances that the design of the program is not intended to restrict their capacity from an economic standpoint? Because that's the worry they have. X company does one well, they're done, and a lot of the exploration is done in multiple—sometimes two or three, especially in the Arctic.

Help me understand that restriction, which I think is a pretty tight restriction.

Dr. SULLIVAN. Senator, my understanding about the draft EIS is it is still a bit incomplete, quite frankly. We will follow up with you on this.

But my understanding about the supplemental is that it, in fact, does add some flexibility, in terms of how many wells and in which theater or combination of theaters, and could there be a floater. But let me get the additional details to you and follow up, if I may, for the record.

Senator BEGICH. Would you do that? I know the companies have put kind of a pause on this season. But, obviously, you know how our seasons work, now is the time to kind of resolve a lot of these issues, so we can move into the next season.

So I appreciate that.

Again, let me end and just say thank you very much. We've had a good attendance today of members coming in and out and asking,

I think, very important questions to both of you, both respectfully to your employees that work for you.

Your employees do incredible work every day. And I know sometimes we sit in these hearings, we bang on your head a little bit to try to get some answers, and you are very responsive. But I know sometimes it's frustrating to sit there and have to take it from us at times.

But I will tell you, your employees do an exceptional job. I can speak from Alaska's experience but also around the country.

There may be differences at times, and may we have individual incidents at times. I can only say that we have a great work force, and you should be proud of both your teams that are out there every day literally on the water, on the land, and in the air.

So thank you very much, both of you.

The record will be open for two weeks. The record will be open for two more additional weeks for any additional questions for the record that we'll be sending to you.

And again, thank you both for attending today.

This hearing is adjourned.

[Whereupon, at 11:38 a.m., the hearing was adjourned.]

A P P E N D I X

PREPARED STATEMENT OF HON. JOHN D. ROCKEFELLER IV, CHAIRMAN, U.S. SENATE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION AND U.S. SENATOR FROM WEST VIRGINIA

Today we will be hearing from Admiral Robert J. Papp, Jr., Commandant of the United States Coast Guard and Dr. Kathryn D. Sullivan, Acting Administrator of the National Oceanic and Atmospheric Administration on their budget requests for Fiscal Year 2014.

NOAA and the Coast Guard provide critical services to the Nation—protecting lives and property, facilitating maritime commerce, and ensuring sound stewardship of coastal and marine resources. Though we live in fiscally-constrained times, funding for these agencies should be a top priority.

I appreciate that the President's budget request for NOAA represents an earnest effort to address my concerns with last year's proposed budget, which proposed to pay for essential investments in weather satellites largely out of the hide of the agency's ocean, coastal fisheries, and research services and operations.

This year's request of $5.45 billion for NOAA is largely in line with the advice the Committee has provided, and is a good first step in attempting to balance funding priorities for the agency.

That said, the Committee has yet to receive the agency's final Fiscal Year 2013 figures, much less all the details for Fiscal Year 2014. As the tough impacts of the Sequester are felt across the nation, the Committee will continue working to keep NOAA's programs on task and on budget.

We also need to take a hard look at the President's budget request for the Coast Guard. As one of five military services which make up the Armed Forces, the Coast Guard is our Nation's maritime first responder.

From savings lives at sea, fighting maritime drug smuggling and human trafficking on the high seas, and ensuring the safe and secure flow of maritime commerce at our ports to protecting our waters from the discharge of oil and hazardous substances, enforcing U.S. fisheries treaties on the high seas, and safeguarding sensitive marine habitats, the Coast Guard provides great value to our Nation.

This year's Coast Guard budget *is shortsighted and risky.* It's hamstringing one of the most cost-efficient organizations in government.

I am deeply troubled with this budget. The Coast Guard does not have adequate funding to do everything we expect them to do.

An antiquated and obsolete fleet of cutters (some over 43 years old), boats, and aircraft need to be replaced.

The current investment and replacement of these old assets cannot keep pace with the rate of ship decommissionings and aircraft retirements, forcing the Service to make risky operational tradeoffs.

Last year alone, to illustrate just a few of the Coast Guard's eleven statutory missions, the Service:

- saved more than 3,500 lives,
- seized more than 107 metric tons of cocaine bound for our streets,
- detained 352 suspected smugglers, and
- responded to 3,300 pollution incidents.

These are remarkable accomplishments that underscore Coast Guard's responsiveness, adaptability, resourcefulness, and professionalism.

The Coast Guard missions, capabilities, and authorities, are absolutely crucial to our national security, economic security, public safety, and environment.

If we expect the Coast Guard to perform all we ask them to do, we need to fund them properly.

PREPARED STATEMENT OF HON. FRANK R. LAUTENBERG,
U.S. SENATOR FROM NEW JERSEY

Mr. Chairman, this hearing is about two agencies that are critical to the health and security of my home state of New Jersey. Our coastline is a major driver of our economy, and the Coast Guard and NOAA ensure it remains strong and vibrant. Both agencies were crucial in helping New Jersey respond to and recover from Superstorm Sandy, and Congress must support them so that we are better prepared for future storms.

The Coast Guard protects our shores and economy. The Port of New York and New Jersey is the largest port on the East Coast, and it supports more than 270,000 jobs and $11 billion in earnings for families. The port is within an area that includes an airport, chemical plants, refineries, and railways and has been called the most at-risk area for a terrorist attack in the country. An attack in this area would affect more than 12 million people. The Coast Guard protects lives and the economy in the high-risk region, and we are safer because of their service.

And just as they serve us unflinchingly, we must serve them with the same level of dedication. Unfortunately, year after year, we ask the men and women of the Coast Guard to do more with less. This needs to change.

Time and again, the Coast Guard proves its exceptional ability to be agile and responsive when disasters strike. In New Jersey, as Superstorm Sandy devastated our shores, we experienced the Coast Guard's heroism and courage first hand. Yet, while we know that disasters like Sandy will only become more frequent, sequestration and continued pressure to "cut at any cost" is a threat to the Coast Guard. It is time that we give them the resources they need to keep us safe.

Now, just as Sandy made it clear how critical the Coast Guard is to New Jersey, the storm also showed us how important NOAA is to our recovery and ability to avoid future disasters. We know that climate change is making hurricanes stronger and more intense. As a result, powerful storms like Sandy will no longer be rare, so it is critical that we invest in better weather forecasting so we can prevent widespread damage to communities and property. We also need to expand our research into climate change so we better understand the coming impacts, and how to mitigate them.

Furthermore, the carbon pollution that causes climate change threatens our ocean ecosystems and the industries—and jobs—that depend on them. When the oceans absorb this carbon pollution, they become more acidic, which makes it harder and harder for shellfish and other marine life to thrive. If we stay on our current track, ocean acidity by the end of the century will reach its highest levels in 20 million years. I'm proud to have written the only Federal law on ocean acidification—"The Federal Ocean Acidification Research and Monitoring Act"—which brought Federal agencies together to coordinate research on harmful ocean acidification, develop a national plan to assess the environmental and economic impacts, and recommend solutions.

As we move forward, we must fully fund this effort to better understand—and deal with—the impact that climate change has on shellfish, fisheries, coastal reefs, and aquaculture. The combination of growing acidity and more frequent storms means our current path not only threatens marine life, but also the 54,000 jobs in New Jersey's $8.3 billion fishing industry. We must meet this challenge with our full commitment.

Mr. Chairman, as a coastal state, New Jersey learned from Sandy how critical—and difficult—it is to protect our coast. So while we consider funding levels for the Coast Guard and NOAA, we must give them our full support so we can foster sustainable fisheries, enhance the science behind climate change and weather forecasting, and make sure our coastal communities are safe and secure. Our top priorities must be rebuilding our coast and continuing to protect its communities.

Thank you, Mr. Chairman, for calling this hearing on issues so important to New Jersey, and I thank the witnesses for coming to speak today on the needs of the Coast Guard and NOAA.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. JOHN D. ROCKEFELLER IV
TO ADMIRAL ROBERT J. PAPP, JR.

Question 1. Admiral Papp, if Congress were to simply fund the Coast Guard's AC&I budget requests we've received in recent years, with no modifications, the Coast Guard would have only minimal deep water capabilities of the type necessary to execute its statutory missions, and upon which other Federal agencies and military services are counting for their own operational purposes. The woefully inadequate AC&I funding levels and misguided surface asset acquisition priorities we

have seen requested in recent years seem to confirm the widespread rumor that a couple of low-to-mid-level career bureaucrats at the Office of Management and Budget have their own agenda for the Coast Guard, which is vastly different from that of virtually everyone else who has done any serious thinking about the Coast Guard's role as a military service and the Nation's lead maritime regulatory and law enforcement entity. What will it take for OMB to accept the vision that Congress, the Department of Homeland Security, the U.S. Navy, and everyone else has for the Coast Guard as a service with both deep-water and littoral capabilities?

Answer. The Department of Homeland Security (DHS) has commenced a comprehensive portfolio review in 2013 that will help develop revised Acquisition Program Baselines (APBs) to reflect acquisition priorities and operational requirements achievable within the funding projections contained in the 2014 CIP report. A performance analysis will also be conducted for the legacy IDS acquisition program that includes the use of a campaign-level modeling tool, such as that used for the recent cost-constrained DHS Cutter Study, to identify an acquisition portfolio that optimizes mission performance within available resources.

Question 2. Can you please describe what the Coast Guard would cease to do in each of its 11 statutory missions if it were to no longer have deep water capabilities?

Answer. If the Coast Guard were to no longer have Deepwater capabilities (*i.e.,* all existing major cutters, including NSCs, HECs, and MECs, ceased to exist) the activities significantly impacted would include those conducted far offshore for the following missions/areas: Counter Drug (CD), Alien Migrant Interdiction Operations (AMIO), Living Marine Resources (LMR), Search and Rescue (SAR), Other Law Enforcement missions (OLE) and Defense Readiness (DR).

Question 3. What other services and agencies would be impacted if Coast Guard had only littoral capabilities, and how would they be impacted?

Answer. Coast Guard deepwater assets support the core missions of other agencies with deepwater maritime responsibilities, including the Navy, NOAA, and NSF. Some types of Coast Guard deepwater assistance are provided on a reimbursable basis, but reimbursement levels are not sufficient to sustain the total cost of the asset. Thus, these support services could not be rendered by Coast Guard if their deepwater assets were eliminated.

Question 4. Admiral Papp, we've heard for some time now about the potential for the Coast Guard to receive as many as 21 C27–J fixed-wing aircraft which have been determined by the Air Force to be surplus to its needs. Non-armed service entities, most notably the Forest Service, have expressed an interest as well, and section 1091 of the most recently enacted National Defense Authorization Act (NDAA) is intended to give the Forest Service a right of first refusal for the first seven of these surplus planes. National Defense Authorization Act for Fiscal Year 2013, Pub. L. No. 112–239, 126 Stat. 1632, 1971–1972 (2013). Notwithstanding section 1091 of NDAA, 10 U.S.C. 2571 provides that "If either of the Secretaries concerned requests it and the other approves, supplies may be transferred, without compensation, from one armed force to another." 10 U.S.C. 2571(a). The term "Secretary concerned" is defined to mean, among others, the Secretary of the Air Force and "the Secretary of Homeland Security, with respect to matters concerning the Coast Guard when it is not operating as a service in the Department of the Navy." 10 U.S.C. 101(a)(9). The term "supplies" "includes material, equipment, and stores of all kinds." 10 U.S.C. 101(a)(14). The term "armed forces" is defined to mean "the Army, Navy, Air Force, Marine Corps, and Coast Guard." 10 U.S.C. 101(a)(4). It is also worth noting that another subsection of 10 U.S.C. 2571 provides that "No agency or official of the Executive Branch of the Federal Government may establish any regulation, program, or policy or take any other action which precludes, directly or indirectly, the Secretaries concerned from exercising the authority provided in this section." 10 U.S.C. 2571(d). Under the NDAA provision, unless and until the Secretary of Defense makes a determination that the aircraft are excess to the needs of DOD (and other requisite conditions of the NDAA provision are satisfied), the Forest Service does not get the right of first refusal to the first 7 aircraft under section 1091 of NDAA FY 2013. In the meantime, as I read 10 U.S.C. 2571, if either the Secretary of Homeland Security or the Secretary concerned requests it and the other approves, any of the 21 aircraft can be transferred without compensation from the Air Force to the Coast Guard, and that agreement cannot be undone or overridden by any other Executive Branch agency or official. Will you ask the Secretary of Homeland Security to exercise her authority under 10 U.S.C. 2571 in order to provide the Coast Guard with the fixed-wing air craft it needs? If not, please explain why.

Answer. Pursuant to Section 1091 of the National Defense Authorization Act for Fiscal Year 2013, the Secretary of Homeland Security sent a memorandum to the Secretary of Defense requesting a direct military-to-military transfer of up to twen-

ty-one C–27J aircraft, along with associated spare parts and support equipment, in accordance with 10 U.S.C. 2571, 14 U.S.C. 1, 48 CFR Chapter 1, Subpart 2.101 "Supplies", and 41 CFR 102–36.145(d). The request also specified that while a transfer of twenty-one C–27J aircraft is preferable to fully meet USCG operational requirements, fourteen C–27J aircraft are the minimum number of aircraft necessary in order to justify the costs associated with accepting and operating C–27J aircraft.

Question 5. The Rescue21 system is a Coast Guard success story. The system improves outcomes and increases efficiency by directly, and immediately, guiding SAR assets to those who need help most. It is my understanding that persistent UMVs have been used as communications relay platforms. Has the Coast Guard considered the use of UMVs to augment Rescue21 capabilities in high-traffic offshore regions or those areas with poor reception?

Answer. Rescue 21 is meeting its requirements as the primary command, control, and communications system for all Coast Guard missions in the coastal zone. Therefore, other capabilities, including Unmanned Maritime Vehicles (UMVs) have not been considered.

Question 6. While the Coast Guard commands the Joint Interagency Task Force, budgetary and operational considerations may impact its ability to maintain current levels of maritime domain awareness. Has the Coast Guard considered use of persistent UMVs to watch over remote areas of the sea?

Answer. The Coast Guard is continuing to investigate the use of unmanned vehicles as a sensor platform for improving operational effectiveness. In FY 2012, the Coast Guard established an Underwater Strategic Investment Team to investigate the requirements for a range of underwater safety, security, and stewardship roles. The team's follow-on work includes identifying potential applications to the Coast Guard's missions and producing preliminary functional requirements.

The Coast Guard is developing plans to participate in an Arctic oil spill exercise scheduled for September 2013. As part of this exercise, the Coast Guard intends to deploy (1) an unmanned underwater vehicle (UUV) to search, detect, and map the ice flow from below; and (2) a ROV to monitor simulated oil recovery progress and completeness.

Question 7. There appear to be significant efficiencies in the use of UMVs for offshore environmental response activities, and various scientific and industrial organizations are using them for pollution monitoring. Has the Coast Guard considered the opportunity to leverage available assets from industry to obtain immediate efficiencies?

Answer. The Coast Guard is continuing to investigate the use of unmanned vehicles as sensor platforms for improving operational effectiveness. In Fiscal Year 2012 the Coast Guard established an Underwater Strategic Investment Team to investigate the requirements for a range of underwater safety, security, and stewardship roles. The team's follow-on work includes identifying potential applications to the Coast Guard's missions and producing preliminary functional requirements. In Fiscal Year 2013, as part of an oil-in-ice demonstration in the Great Lakes, the Coast Guard tested a remotely operated vehicle (ROV) equipped with a sonar and camera and an autonomous unmanned vehicle (AUV) equipped with an ice detection sensor.

The Coast Guard is developing plans to participate in an Arctic oil spill exercise scheduled for September 2013. For this exercise, the Coast Guard intends to deploy an unmanned underwater vehicle (UUV) to search, detect, and map the ice flow from below and a ROV to monitor simulated oil recovery progress and completeness. Additionally, the Coast Guard has been conducting market research with universities and has technical interchange discussions planned to take place by then end of Fiscal Year 2013 with the Office of Naval Research to explore the use of underwater wave gliders.

Through sensor exploitation and analyses, the Program's ongoing UAS projects are also increasing the Coast Guard's understanding of the benefits of deploying unmanned vehicles. The Coast Guard continues to test and observe electro-optical/infrared sensors, radars, and communication technologies on these platforms, the results of which may be used to formulate UMV strategy and decision-making, particularly related to how and what sensors to exploit.

Question 8. The Coast Guard's capability for Airborne Use of Force comes in three forms—Ports, Waterways & Coastal Security (PWCS), Counter-Drug (CD), and Counter-Terror (CT). What are the Coast Guard's plans with the Airborne Use of Force (AUF) capability? How many units does the Coast Guard intend to maintain on each coast with the PWCS, CD, and CT capability? Does the Coast Guard intend to keep the AUF capability regional or deployable? Do units that maintain both the AUF and Search and Rescue capability have the resources it needs to maintain pro-

ficiency? What is the Coast Guard doing to mitigate the risk for these highly training intensive capabilities?

Answer. The Coast Guard will maintain deployable AUF—CD from a single unit in Jacksonville, FL. The Coast Guard will maintain regional AUF–PWCS from Air Station San Francisco, CA on the west coast and from Air Station Cape Cod, MA on the east coast. All H–65 and H–60 aircraft stationed throughout the country can be configured for both AUF mission sets and piloted by crews qualified to perform the mission thereby providing a capability that can be planned and executed anywhere.

All H–60 units provide basic fast roping capability to support AUF–CT training to deployable forces. Tactics, techniques, & procedures (TTP) along with policy continue to support an AUF–CT capability, but the Coast Guard does not maintain aviation related training for the capability.

All Coast Guard units are provided the appropriate resources to support all assigned missions including training required for proficiency. AUF typically requires additional aircraft maintenance when compared to traditional missions and units assigned this capability have additional maintenance support personnel to maintain these capabilities. Special mission units have been consolidated, where able, to ensure resources and proficiency can be maintained in the most efficient manner. For example, AUF–CD aircrew assigned to Jacksonville, FL, focus on one skill set (*i.e.,* maintaining a basic hoist qualification) to increase proficiency and do not perform traditional Search and Rescue. AUF–PWCS is restricted to pilots that have more experience in the airframe and have upgraded beyond the basic Co-Pilot designation. AUF–PWCS pilots continue to maintain Search and Rescue capability because these mission sets have complementary components.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. MARK BEGICH TO ADMIRAL ROBERT J. PAPP, JR.

Question 1. The Administration proposes to cut the Coast Guard's acquisition budget 41 percent below FY13 levels even while the current fleet of ships, aircraft, small boats is antiquated and obsolete and need of immediate replacement. Admiral Papp, what I see here is either one of two things—an effort by the Administration to change the nature of what the Coast Guard does for this Nation, or an extremely short-sighted and risky reaction to the current fiscal environment—neither of these reasons are acceptable to this Subcommittee. I can assure you that this Subcommittee does not support these disproportionate cuts to the Coast Guard. What will be the greatest impacts as a result of this reduced funding, particularly with regard to missions in the Arctic, fisheries enforcement, and drug & migrant interdiction? Are there any operational tradeoffs that are unacceptable to you?

Answer. The Department and the Coast Guard made decisions by looking at past investments and the relative condition of each acquisition program along with assessing current operational priorities. The FY 2014 Budget fully funds the Coast Guard's highest priority needs.

Question 2. Challenges in recapitalizing the service's aging assets are exacerbated by the Coast Guard's unrealistic budget planning for out years. Admiral Papp, there are massive differences between the FY14 acquisition line item in the FY13–17 Capital Investment Plan and this year's budget. It appears that the Administration made lopsided and undeserved cuts to Coast Guard acquisitions. These cuts appear to be ill-advised and risky. How will these very substantial budget cuts impact the future of the Service?

Answer. The Department and the Coast Guard made decisions by looking at past investments and the relative condition of each acquisition program along with assessing current operational priorities. The FY 2014 Budget fully funds the Coast Guard's highest priority needs.

Question 3. As a way to maximize the NSC's time at sea without burdening personnel, the Coast Guard originally intended to implement the Crew Rotational Concept (CRC)—a model that assigns ships to crews instead of crews to ships—for the NSC. This concept was a way to increase cutter utilization and justification for the replacement of 12 HECs with eight NSCs. How realistic is the Crew Rotational Concept for the NSC? Is this the only way to achieve 225 days away from home port for the NSC?

Answer. The Coast Guard is committed to increasing cutter utilization through maximum use of our assets. The first two NSCs achieved 200 DAFHP in FY 2012, and they are on track to achieve 210 DAFHP in FY 2013. An average of 210 DAFHP represents the first step towards achieving the long-term goal.

The Coast Guard continues to look at all options to increase cutter utilization and effectiveness and is committed to achieving 230 DAFHP.

Question 4. The President's Budget proposed a sizable reduction to the Reserve workforce—given the disasters to which they have helped the Coast Guard respond to over the past decade (*e.g.,* Hurricane Sandy, Deepwater Horizon, Haiti Earthquake, and Hurricane). Admiral Papp, given the fact this budget proposes a sizable reduction to the Coast Guard's Reserve workforce (decrease of 1050 positions), what will this do to the Reserve force's ability to respond to future events? How will this impact the Coast Guard if another major natural or manmade disaster strikes?

Answer. The Coast Guard Reserve workforce will remain ready to respond to both natural disasters and terrorist threats.

Question 5. The Fast Response Cutter (FRC) is a new Coast Guard patrol boat that replaces the aging fleet of 110-foot patrol boats. The FRC acquisition is critical to the Coast Guard's ability to conduct missions in the coastal environment. The current patrol boat gap hinders the Coast Guard's ability to successfully and efficiently complete all potential missions, and this key FRC acquisition will help address these identified needs. The FY 2014 budget provides funding to procure only two FRCs. However, under the current contract, the minimum production order remains four FRCs resulting in a higher acquisition cost. What are the fiscal and operational impacts associated with acquiring two FRCs per year as proposed in this year's budget versus six FRCs as proposed in last year's projections for FY14? How much more will it cost to purchase the FRC as a result of not procuring the minimum number of ships stipulated in the contract?

Answer. The FY 2014 Request supports the Coast Guard's highest priority recapitalization needs and maintains funding for critical frontline personnel. Notwithstanding sequestration, the Coast Guard received sufficient funding in the FY 2013 appropriation to award a contract for 4 FRCs in FY 2013 and, when combined with the FY 2014 Request, award a contract for another 4 in FY 2014. The base order under the current contract is 4 FRCs per year.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. FRANK R. LAUTENBERG TO ADMIRAL ROBERT J. PAPP, JR.

Question 1. In recent years, the Coast Guard has proven its exceptional ability to be responsive during critical missions, most recently during Superstorm Sandy. Even as the Coast Guard is taking on more missions, its fleet of ships, aircraft, and small boats is aging. The FY 2014 budget proposes a reduction of $619 million for the Coast Guard's discretionary funding. Will this limit the Coast Guard's ability to respond to emergency situations or homeland security threats, especially in the New York-New Jersey region, which includes a two-mile stretch that the FBI considers the most at-risk area for terrorism?

Answer. The Coast Guard is part of the New York/New Jersey community, and in the Port of New York/New Jersey, the Coast Guard works across government and industry to counter the most emergent threats, mitigate risks, and keep the maritime domain safe and secure.

The FY 2014 budget sustains the most critical front-line operations while funding our most critical acquisition projects. The Coast Guard will make best use of its resources to safely and effectively conduct operations in the areas of greatest risk to the nation, while recapitalizing our cutters, boats and aircraft to address current and emerging threats, particularly in the offshore environment. The Coast Guard will continue to quickly respond to emergency situations and homeland security threats that include the New York-New Jersey region.

Question 2. According to the Navy and Coast Guard, the U.S. intercepts just one-third of the drug shipments and other illegal traffic that it knows about because they lack the assets to intercept most of the boats and aircraft that intelligence identifies. At an April 16, 2013 House Homeland Security Committee hearing, you said the Coast Guard will need to reduce its drug interdiction role as a result of budget cuts. If the Coast Guard's funding in FY 2014 is reduced, what will be the impact on the U.S.'s ability to prevent drugs from entering the country?

Answer. Coast Guard operational commanders allocate resources to address the highest threats and operational priorities. The FY 2014 budget submission will provide the Coast Guard with funding for the 7th National Security Cutter and two more Fast Response Cutters. These new assets, coupled with robust interagency and international coordination will enable the United States and partner nations to best mitigate threats throughout the maritime domain.

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. MARK WARNER TO ADMIRAL ROBERT J. PAPP, JR.

Question. Admiral Papp, I understand that the Coast Guard has called into question a 2008 Outer Continental Shelf Lands Act (OCSLA) activity determination regarding maintenance service to the "BP–GOM" undersea cable system in the Gulf of Mexico. This has created uncertainty with regard to servicing the system as well as other commercial problems for U.S.-based servicers of undersea cable communications systems. Will the Coast Guard re-affirm the 2008 OCSLA policy? If so, when do you expect a decision to be made? Would you commit to working with me to ensure that this issue is resolved promptly so that marine services commitments of U.S. operators can be met?

Answer. The Coast Guard made a final determination on July 22, 2013 regarding an individual company's request for determination of OCSLA activity. The same company had previously requested a determination in 2008, however, the current request had a much more expansive and prospective scope of work. After careful consideration, the Coast Guard determined the proposed activity was fully within the regulatory definition of Outer Continental Shelf Activity and therefore, unless an exemption is granted, must comply with OCSLA regulations.

This determination does not preclude repairing or maintaining the undersea cable communications systems in question. The Coast Guard remains available to discuss the resolution of this issue.

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. AMY KLOBUCHAR TO ADMIRAL ROBERT J. PAPP, JR.

Question. Admiral Papp, I wanted to get your thoughts on the issue of dredging. Ports and harbors are critical to my state, providing an important link to move commodities and goods to market. The Port of Duluth, part of the Great Lakes navigation system, handles an average of 40 million short tons of cargo and nearly 1,000 vessel visits each year. Since 1997, the ending balance of the Harbor Maintenance Trust Fund has exceeded yearly collections and as a result there is a significant backlog of dredging projects. Vessels have to light-load leading to millions of dollars in losses, freighters are getting stuck in channels, and harbors are closing or being threatened with closure. The Senate may soon consider legislation to require that all revenues and interest the Trust Fund collects in one year be spent on harbor maintenance and operations, primarily dredging. I support the ability of the Army Corps to prioritize navigation projects funded with appropriations from the Trust Fund based on the need to maintain the authorized width and depth of those projects. How do you work with the Corps on harbor and port issues? Particularly how do dredging and other projects impact operations in the Great Lakes?

Answer. The U.S. Coast Guard partners with the U.S. Army Corps of Engineers (USACE) to ensure safety and efficient port operations. One aspect of this partnership is a Memorandum of Understanding outlining our cooperative responsibilities with respect to navigation improvement projects. Early and effective communication between the Coast Guard and USACE during planning, preconstruction engineering and design, and construction phases of navigation improvement projects enables the Coast Guard aids to navigation managers to temporarily or permanently move aids to navigation to accommodate the safe transit of vessels. If needed, the Coast Guard communicates where and when dredging operations are occurring, as well as any temporary measures in place to facilitate navigation for waterway users.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. RICHARD BLUMENTHAL TO ADMIRAL ROBERT J. PAPP, JR.

Question 1. SouthCom Commander, General Kelly, recently testified before the Armed Services Committee about the effects sequestration will have on our ability to conduct effective drug trafficking interdiction. In his testimony he touched on how the Coast Guard must curtail air and surface operations. Seizing 107 metric tons of cocaine and 56 metric tons of marijuana is no easy task and it doesn't happen by chance. Interagency cooperation and coordination, and the ability to be present, is paramount. Presence is an effective deterrent and I fear that with our inability to get our fiscal house in order, our declining presence removes one of the most effective tools. Can you talk about the real dangers we will face as a nation if sequestration is not reversed, as well as the set-backs in intelligence and interagency cooperation that will be degraded?

Answer. It is difficult to make a prediction based on one quarter of data. Several factors beyond interdiction rates (*e.g.,* increased border security, trends in cocaine demand) complicate the picture.

In general, the current Interdiction Continuum, involving cooperation across the interagency and with partner nations, is a cycle of seizures and subsequent prosecutions that produce new intelligence and advanced investigations into major trafficking organizations. This leads to more actionable intelligence on future events, producing follow-on seizures. If drug seizures significantly decline for any reason, then prosecutions and investigations can stall, resulting in fewer cases with intelligence that can be exploited for future tactical success.

We have not yet detected any significant change in Transnational Criminal Organization (TCO) smuggling patterns; however, past experience suggests that TCOs will adapt their routes and modus operandi based on their perception of law enforcement operations and the path of least resistance.

Question 2. The Coast Guard's presence is also hinged on its air and surface fleets. In your testimony you spoke of the great strides in recapitalizing the aging fleet, in particular the H–60 conversion project. Can you give us an update and any slowdowns that have occurred as a result of sequestration?

Answer. As a result of sequestration the Coast Guard has modified acquisition spend plans to avoid immediate negative schedule impact but has deferred the purchase of some spare parts which may negatively impact future asset performance or operational availability.

Question 3. We know that storms are growing in severity. We also know that given our population dense coast lines—especially on the east coast—the damage caused by these storms is growing in cost. It is during these storms that the Coast Guard is at the tip of the spear. Admiral Papp, can you outline the growing operations costs that are being shouldered in the Coast Guards budget as a result of these storms or are those funds offset by disaster relief funds?

Answer. Coast Guard Operational Commander's utilize all available resources to safeguard life and property during and after natural disasters. The multimission capability of assets and people enable Coast Guard to surge resources within budget for smaller events and for short periods during major. Some recent responses include the Haiti Earthquake, flooding in the central United States, and Hurricane Sandy. While initial response costs are funded from within the Coast Guard base budget, costs for major events are typically replenished with disaster relief funds or supplemental appropriations.

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. BRIAN SCHATZ TO ADMIRAL ROBERT J. PAPP, JR.

Question. Through its eleven statutory missions, the U.S. Coast Guard provides invaluable service to the Nation, and in particular to the State of Hawaii. Hawaii's maritime domain is the lifeblood of the State, supporting every major sector of the economy. As a result, we rely on the Coast Guard not only to support marine safety and search and rescue, but also fisheries enforcement and broader marine environmental protection that are essential to protecting the State's economy. Of course, the current budget environment will put added pressure on the Coast Guard to prioritize those eleven statutory missions, and could put at risk important missions like fisheries enforcement and marine environmental protection. Could you please explain to the Committee how the Coast Guard will continue to support its eleven statutory missions in the face of budget uncertainty and increasing fiscal pressure, particularly missions related to fisheries enforcement and marine environmental protection?

Answer. Coast Guard operations are scalable due to the multimission capability of our assets and the risk-based approach applied to deploying those assets. The FY 2014 Budget sustains the most critical frontline operations for our core missions that include maintaining search and rescue coverage, protecting critical infrastructure and key resources, supporting safe navigation, safeguarding natural resources, protecting the environment, detecting and interdicting drugs and individuals attempting to enter the United States illegally, and supporting homeland security objectives.

Coast Guard Area, District, and Sector Operational Commanders retain the authority to direct resources to address their greatest risk mission areas, including fisheries enforcement and marine environmental protection.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. JOHN D. ROCKEFELLER IV TO KATHRYN SULLIVAN, PH.D.

MSA Reauthorization

This Committee will soon begin to delve into the reauthorization of the Magnuson-Stevens Fishery Conservation and Management Act. With the last reauthorization of the Act in 2006, Congress authorized amounts to be appropriated for seven fiscal years, ending with $396,875,000 authorized to be appropriated for Fiscal Year 2013.

Question 1. Roughly how much (in dollars) of your Fiscal Year 2014 budget request is intended to be used to carry out the provisions of the Magnuson-Stevens Act?

Answer. In the FY 2014 President's Budget, NOAA requested $509.4 million to implement and enforce provisions of the Magnuson-Stevens Fishery Conservation and Management Act. This figure is displayed on page 171 of the Department of Commerce Budget in Brief.

Question 2. What would you recommend Congress authorize to be appropriated in order to carry out the provisions of the Act in each of Fiscal Years 2014 through 2020?

Answer. In the FY 2014 President's Budget, NOAA requested $509.4 million to implement and enforce provisions of the Magnuson-Stevens Fishery Conservation and Management Act. In the long-term planning for future years, NMFS is focused on continuing progress toward implementing successful strategies for sustainable fisheries and fishing communities. NMFS approaches these mandates with goals of focusing limited resources to maximize national benefit, working closely with our partners, making strategic choices and identifying critical factors to measure success. NMFS has successfully carried out the mandates of the 2006 Magnuson-Stevens Act Reauthorization, but there still remain significant gaps in realizing our long-term goals economically and ecologically. Building on NMFS' current progress still requires enhancement of our scientific understanding of stock status, fisheries data and ecosystem health. This increase in data can help support a more robust understanding of environmental, social and economic drivers to inform regulatory choices and enhance access to healthy stocks. Combining these needs with increased efforts to simplify regulations for fishermen, efficiency and compliance should also help fishermen and coastal communities realize the benefits of rebuilt stocks and sustainable fisheries, such as making it easier and more efficient for them to access healthy stocks. NOAA revisits the funding needs each year in achieving these goals to maximize the potential return in the most efficient way possible.

Electronic Monitoring

As we face mounting budget constraints in all areas of the Federal Government, one means of dealing with them is through improved efficiencies. Historically, as our economy and society have matured, a key to our continued economic vitality has been technological innovation. Outward shifts in our technology curve—resulting, for example, from such innovations as the personal computer, the Internet, and smart phones—allow us to remain economically competitive because of the improved efficiencies they bring with them. In the area of fishery management, a clear outward shift in our technology curve that can help the National Marine Fisheries Service realize significant savings in its fishery observer work is electronic monitoring. Congress sought to facilitate the incorporation of electronic monitoring into Federal fishery management as a part of the last reauthorization of the Magnuson-Stevens Act in 2006. There have been at least two dozen electronic monitoring pilot programs around the country to-date, but we hear from fishermen that NMFS has been slow to embrace it, or is even resisting its adoption, on a broader scale. Meanwhile, other countries such as Canada already have successfully incorporated electronic monitoring as a complement to observers in fisheries such as the British Columbia ground fish fishery.

Question 3. Do you agree that electronic monitoring can help NMFS and fishermen realize improved efficiencies and significant savings in observer coverage?

Answer. Electronic technologies, including electronic reporting (ER) and electronic monitoring (EM), have been implemented in a number of U.S. fisheries to improve timeliness and accuracy of data reporting and create more efficient data collection programs. NOAA supports the integration of EM into the Observer Program and is working with the Regional Fishery Management Councils (Councils) and the fishing industry towards this goal. NMFS continues to pursue opportunities to implement electronic technology solutions where they make sense and are cost-effective. One important element to which NOAA is paying close attention is ensuring that EM

is in fact a cheaper alternative to human observers because in some cases it is not. Costs associated with EM implementation are uncertain and vary depending on the overall monitoring system design, the complexity of equipment installation and maintenance, requirements for reviewing video records, and infrastructure required to collect, process, manage and analyze resulting data. While EM-based solutions are perceived to be more cost-effective than conventional approaches to collect data on full catch, this perception has not yet been validated by NOAA. The agency remains fully committed to supporting observer programs nationwide while developing and implementing EM, and NMFS is currently considering how to complement the biological data human observers currently collect.

NMFS has initiated an aggressive approach to move forward with the use of ER and EM, advancing from pilot programs to implementation where the technology can meet the monitoring needs of the fishery. NMFS will work with the Councils to develop regional implementation plans for ER/EM by the end of 2014. In many cases, implementation of these technologies will require regulatory changes and possibly other changes to operations (*e.g.,* catch handling) that NMFS will work in partnership with the Councils and industry to address. These efforts are intended to improve the efficiency of data collection programs while still capturing the key data needed for management and stock assessments.

Question 4. What impediments, if any, are preventing incorporation of electronic monitoring into fishery management plans on a broader basis?

Answer. Electronic monitoring (EM) has the potential to be used for multiple purposes within fisheries management. Currently, in U.S. fisheries, EM has been implemented in three fisheries to monitor compliance, ensuring that weights are properly recorded, and catch is not sorted or certain species discarded before they have been counted. NMFS agrees that electronic monitoring has the potential to be a helpful tool and continues to work with the Councils and industry to address these identified challenges.

At the present time, electronic monitoring does not provide the fishery data equivalent to that collected by observers. Thus, it may be necessary to change the way in which a fishery is managed if electronic monitoring is to be implemented. There are also some remaining technical issues, including the difficulty of collecting biological information, difficulty in species identification, system reliability, and susceptibility to tampering, all of which have the potential to negatively impact stock assessments and management flexibility. Cost also remains an issue. NMFS will be working to better quantify the costs associated with various EM models and evaluating the cost-benefit analysis for both industry and NMFS.

Improving Hurricane Forecasting and Prediction

Hurricane Sandy provides a sobering reminder of the importance of improving our ability to forecast severe weather events, in order to reduce risks to human life and property. I believe that that we should harness the use of innovative technologies to improve hurricane intensity monitoring and forecasting. Improved hurricane intensity data transmitted in real time could vastly improve NOAA's ability to understand, monitor, model, and predict extreme weather events in the future.

Question 5. Would improved hurricane intensity forecasting and monitoring capabilities allow us to make better judgments on evacuations and also more wisely deploy resources for post-storm response? Could this lead to cost efficiencies?

Answer. Yes, improved hurricane intensity forecasts would result in longer lead times, better warning precision, and higher confidence in forecasts. This would allow for significant evacuation cost efficiencies and reductions as well as reduced economic impacts, such as advanced preparation activities.

The Nation's vulnerability to tropical storms and hurricanes is rapidly increasing due to higher population density and economic activity along the coast. The 2010 study, "State of Knowledge of Economic Value of Current and Improved Hurricane Forecasts," by Daniel Sutter of University of Texas and Bradley Ewing of Texas Tech University, funded by NWS' Hurricane Forecast Improvement Project (HFIP), provides examples of how improved hurricane intensity forecast would result in reduced evacuation costs. For example, in 1995 when Hurricane Opal was forecast to strengthen (intensify) to category 3 prior to striking Pensacola, Florida, evacuations occurred 12 hours before landfall. Analysis indicates that a longer lead time evacuation of 24 hours would have reduced costs by 80 percent or $15 million for 50,000 coastal households.

While the aforementioned warning precision will lead to cost savings, the impact of a reduced evacuation area varies depending on county preparation costs, population densities, and infrastructure. For example, coastal population densities vary widely, from over 3,200 persons per square mile in Pinellas County, Florida to only 0.25 in Kenedy County, Texas. The decision-making criteria used for hurricane re-

sponse by emergency managers and community decision makers needs to be examined on a community by community basis.

Question 6. Are there inter-agency agreements NOAA could consider to capitalize on new innovative technologies that could improve our capacity to predict and monitor storm pathway and intensity?

Answer. Through HFIP, NOAA has entered into agreements with the United States Navy, National Science Foundation, and the National Center for Atmospheric Research (NCAR) to cooperate on hurricane track and intensity forecast error reduction. Additionally, universities and the National Aeronautics and Space Administration (NASA) partner in these efforts. The NASA collaboration focuses on using the innovative Global Hawk aircraft to monitor hurricanes. These collaborations focused on solving major technical challenges and have proven instrumental in advancing NWS' hurricane prediction capability.

These multi-agency collaborations, facilitated by HFIP, have resulted in the following operational upgrades:

- In 2012, HFIP contributed in part to NWS' global data assimilation system, which ingests global environmental data for use in computer-based numerical weather prediction (NWP) models.
- HFIP provides annual upgrades to the Hurricane Weather Research and Forecasting Model (H–WRF) resulting in track and intensity forecast skill improvements over the previous operational model performance. In a research demonstration, the most recent H–WRF upgrade was shown to have a 20–25 percent improvement in track.

Question 7. To what extent is NOAA working to conduct sea-surface observations inside of hurricanes?

Answer. NOAA takes sea surface observations inside a hurricane from satellites, dropsondes, and aircrafts. These data platforms collect information including wave height, wind speed, turbidity, air pressure, surface current strength and direction, and sea surface height, which complement NOAA's atmospheric observations to help NOAA understand what is happening, and what will happen, during a hurricane.

From polar-orbiting operational satellites, NOAA takes Sea Surface Temperature (SST) and sea surface height measurements that are used to calculate Ocean Heat Content (OHC). By combining SST and sea surface height measurements and ingesting them in Numerical Weather Prediction (NWP) models, NOAA is able to determine the probability of hurricanes gathering energy as it passes over warm water.

NOAA obtains oceanic observations directly from the hurricane environment by utilizing aircraft that deploy dropsondes and ocean probes directly within the hurricane providing vertical profiles of temperature (including SST), salinity and current within the upper ocean. These upper ocean measurements are the most effective way to observe the changes in SST and OHC directly in the storm and to calibrate and validate the satellite derived OHC estimates. These aircraft also carry sophisticated remote sensing instruments that can provide direct estimates of surface wind speed within a hurricane that are relayed to forecasters and can be used to calibrate satellite sensors. Additionally, NOAA ships and buoys measure SSTs outside of the hurricane that are used to calculate OHC and ingested in NWP models.

The National Hurricane Center does not have an operational requirement for additional oceanic measurements in hurricanes at this time. However, NOAA believes improvements in ocean modeling and the use of ocean data is critical for improving hurricane forecasting. The research community is continuing to investigate the value of additional ocean observations for hurricane forecasts.

Question 8. NOAA is prioritizing funding for modeling efforts towards Global Earth Models being developed in the Environmental Research Laboratory in Boulder, CO. Is it accurate to say this largely differs from the intent of the supplemental funding provided for hurricane research?

Answer. Although the increase in funding for models requested in FY 2014 and the supplemental funding will enhance our predictive capability in the future, the FY 2014 request focuses on filling gaps in our current climate models, while the supplemental funding will focus on short-term severe weather events.

For FY 2014, NOAA requests a $7 million increase, as part of OAR's Climate Competitive Research Program, Project and Activity (PPA), to continue development and use of Earth System Models to address climate issues that occur over years to decades. This funding will support research to reduce uncertainties in sea-level rise projections, employ more realistic model treatment of terrestrial biosphere, create a new modeling framework for Arctic climate change, support evaluation of decadal

climate prediction models, and assess the predictability of high-impact climate extremes such as heat waves and flooding.

The FY 2013 supplemental funding is a one-time appropriation for NOAA "to improve weather forecasting and hurricane intensity forecasting capabilities . . .," and, "for laboratories and cooperative institutes research activities associated with sustained observations weather research programs, and ocean and coastal research . . ." The appropriation provides, in part, funding for research in atmospheric and ocean observations in NOAA's laboratories and cooperative institutes, which will quickly and greatly improve NOAA's forecasting of dangerous storms, such as Hurricane Sandy. A number of current activities in OAR's laboratories and cooperative institutes that can advance weather prediction capabilities will be accelerated and made available many years earlier than otherwise possible. These actions will significantly increase the lead time and accuracy of predictions of hurricanes, tornado outbreaks, and severe winter storms. This will allow more time for the public to better prepare for these devastating storms, which in turn saves lives and more effectively protects property.

Included within this supplemental appropriation NOAA will fund improvements to, and research on, model forecasting to achieve the next generation global atmospheric and oceanic modeling system. This research will advance and evaluate a new generation of assimilation and forecast models under the auspices of the inter-agency Earth System Prediction Capability, which will offer improved prediction of severe weather, such as hurricanes, tornado outbreaks, and winter storms. In addition, NOAA will be evaluating the ability of the models to make skillful extended weather predictions for the period from about two weeks to several months out from a severe storm event.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. MARK BEGICH TO KATHRYN SULLIVAN, PH.D.

Keeping Satellites On Track: GOES–R

Requested increases in acquisition funding for FY 2014 would primarily support Geostationary Operational Environmental Satellite R-Series (GOES–R) launch readiness for the first quarter of FY 2016. Approximately $954.8 million is requested for the GOES–R system. However, GOES–R satellite funds from the FY 2013 Continuing Resolution were for $618.9 million, as opposed to the $802.0 million requested. This funding deficit has increased uncertainty in the program's ability to meet its next launch date.

Question 1. Dr. Sullivan, at a hearing last week, you indicated that NOAA's next-generation polar-orbiting satellite program, JPSS, once plagued by cost overruns, is finally running within a revised budget, and its launch date has stabilized. This is great news. Today, however, I am concerned about the acquisition program for another satellite, GOES–R. It's my understanding that funding deficits for GOES–R have injected significant uncertainty into the program and it now faces significant risk of suffering slippage to its launch date. How significant is the risk?

Answer. The GOES–R program was impacted by the enacted FY 2013 appropriations bill via sequestration and rescission. NOAA's FY 2013 Spend Plan proposed a $54 million reduction below the President's Budget request of $802 million to accommodate these cuts. As a result of the reduction, the program has severely reduced FY 2013 budget reserves to zero percent, delayed FY 2013 work to FY 2014, and delayed planned work for FY 2014 into FY 2015. While the GOES–R team continues to work towards a first quarter of FY 2016 launch readiness date, the program currently estimates delays of a minimum of three months for both the GOES–R and GOES–S launches.

If the GOES–R Series Program does not receive the full $954.8 million as requested in the President's FY 2014 Budget request, this would likely necessitate another re-planning of the space segment, ground segment, and launch activities. This would likely result in additional delays and cost growth, depending on the amount appropriated. Any additional delays could likely result in a gap in availability of an on-orbit GOES backup satellite in FY 2016.

In order to minimize the schedule delays for GOES–R and -S, and to minimize life cycle cost growth, full funding of the FY 2014 request of $954.8 million is necessary.

Question 2. Is there a change of a data gap similar to what we may face with our polar-orbing satellites?

Answer. There are currently two operational GOES satellites, GOES-East and GOES-West, and one satellite in on-orbit storage (GOES–14). The current plan is

to launch GOES–R and after post-launch checkout and calibration/validation, place it into the on-orbit storage position where the satellite can be moved into operations within days if the primary operational satellite malfunctions. By having a fully functional on-orbit spare (currently GOES–14), NOAA can quickly address anomalies with existing operational satellites should they occur.

Our initial assessment for the schedule impact of the sequestration and rescission reductions is a minimum 3 month delay to the GOES–R and -S launch readiness dates. This would move the GOES–R launch readiness date from the first quarter of FY 2016 to the second quarter of FY 2016, while the GOES–S launch readiness date would move from the second quarter of FY 2017 to the third quarter of FY 2017.

The importance of having the on-orbit spare satellite in storage was demonstrated in October of 2012, the second time in less than a year, when the GOES–13 spacecraft (GOES-East) had to be taken out of service due to technical issues with motor vibration that caused a lubricant buildup and impacted the sounder instrument. NOAA immediately configured GOES–15 (GOES-West) to provide additional coverage of the eastern United States and part of the Atlantic Ocean and within a few hours, NOAA activated its on-orbit spare satellite, GOES–14, to cover East Coast observation. NOAA then began moving GOES–14 towards the position where GOES–13 was situated. Once the issue was resolved by the team of engineers from NOAA, Boeing and ITT, NOAA returned the GOES–14 to its earlier status as the on-orbit spare. GOES–13 has covered the U.S. East Coast since April 14, 2010. Without the on-orbit spare, NOAA would have had limited coverage to monitor hurricanes and other severe weather conditions.

Question 3. What options do we have to bolster confidence in the GOES–R schedule and program?

Answer. The most important option to bolster confidence in the GOES–R Series Program is to provide the program with budget stability, including adhering to the planned outyear profile laid out in the FY 2014 Budget request. This will allow the program to stay within its cost, schedule, and performance baselines. It is critical that the GOES–R Series Program maintain its development schedule to ensure that the GOES–R satellite is ready for launch by FY 2016 so that NOAA can maintain its operational configuration of having two operational GOES spacecraft (GOES-East and GOES-West) and an on-orbit spare. This includes fully funding the FY 2014 budget request, and ensuring that the future budget requests as outlined in the President's Budget are appropriated.

Despite the funding constraints from the FY 2013 rescission, the program has maintained close scrutiny of the development of the GOES–R Series Program to minimize any additional impacts to the program's mission success.

Independent Cost Estimates for Polar Satellites (JPSS)

I commend NOAA for convening an Independent Review Team to review your satellite programs. One of the IRT's key recommendations was for there to be an independent cost estimate for JPSS. To quote their report:

> "A common question is why JPSS cost so much . . . Considerable attention was given to this question during the review, with a total lack of success in achieving an understanding as to the answer."

Question 4. Has NOAA gotten an independent cost estimate yet for JPSS yet? If not, why not?

Answer. Yes. The independent cost estimate for the JPSS Program in support of the President's FY 2014 Budget request was completed in April 2013. NOAA officials stand ready to brief the Senate Commerce Committee Members and staff. The results were briefed to Appropriations Committee staff on May 16, 2013, during the Quarterly Appropriations meeting.

Ongoing Challenges as National Weather Service

Last year it became public knowledge that mismanagement at various levels within the agency and department resulted in an illegal reprogramming of appropriated funding to shore up gaps in National Weather Service basic service operations, transferring funding from accounts intended to pay for forecasting equipment to cover accounts needed for day-to-day weather operations. Following this revelation, Congress provided the NWS with reprogramming authority for $36 million of its budget to stave off looming furloughs and layoffs that would have impacted 5,000 weather service employees. NOAA and the Department of Commerce have since initiated a number of management and accounting controls at the National Weather Service yet, difficulties continue. In the wake of the Sequester, NOAA announced on April 15 it would be forced furlough employees across the agency, including at

the NWS, in order to address budget shortfalls, and has indicated that it will likely soon need to request an additional reprogramming of the NWS' operations budget for FY 2013 to shore up budget shortfalls in employee salaries.

Question 5. It is my understanding that NOAA will need another reprogramming of appropriations to cover the costs of basic operations for the National Weather Service. Why does this issue keep cropping up? How do we solve this problem?

Answer. The FY 2012 Reprogramming for NWS was a one-time reprogramming of funding that occurred after the NOAA FY 2012 and FY 2013 Budget Requests were submitted. The FY 2013 spend plan was first based on a continuing resolution and then subject to a sequester. Sequestration required NOAA to make significant cuts to the budget for the remainder of this fiscal year. There were tough decisions and choices, but all of those decisions were aimed at mitigating effects on critical missions and services, and employees. NOAA has implemented a hiring freeze, limited travel and training, and cut grant and contract funding. The Approved FY 2013 spend plan avoids all furloughs in NOAA. This was possible because of the flexibility to reprogram funds within NWS and across NOAA.

As directed by Congress in the FY 2013 Omnibus, NWS is determining what it takes to operate the NWS, including staffing levels and the optimal mix of positions. The FY 2014 President's Budget requests funding to address NWS staffing needs to maintain the current level of services and ongoing operations. In addition, The NWS Assistant Administrator, Dr. Louis W. Uccellini, has initiated a new process to ensure the effective execution of funds in 2014 with the objective of improving performance and accountability.

Question 6. How would an additional reprogramming affect other funding priorities and projects at the National Weather Service, in addition to those in other line offices?

Answer. NOAA's goal for the FY 2013 reprogramming request is to ensure critical NOAA functions are appropriately funded and negative impacts to operations are minimized. In preparing for the impacts of the reductions necessitated by the final Appropriation amounts, NOAA offices reviewed and analyzed current operations and implemented substantial reductions to operations across NOAA. The reductions included, but were not limited to, major reductions to contracts for products and services in all areas of NOAA operations, significant reductions to grants and cooperative institutes, reductions to Information Technology security, travel and conferences, training, as well as reductions to financial system operations and education programs. NOAA also took reductions for analytical work and assessments that support the Seafood Inspection Program, reductions to research and observing programs, reductions to visitor center hours, reductions to spill response training and facilitation activities, reductions to Hurricane Forecast Improvement Program models and data assimilation program development, reductions to the high performance computing and Advanced Weather Interactive Processing System (AWIPS II) initiatives, reductions to the operational support for deployed satellites, reductions to the number of days at sea and flight hours, deferred maintenance of operational and scientific equipment, and for protected species stock assessments. These program reductions are significant; however, NOAA preserved its core mission capability by maintaining funding for programs at a level that allows individual programs to meet core requirements.

Question 7. Before an agency-wide four day furlough was proposed, the Weather Service was facing a potential 10 day furlough to shore up its budget. To what degree are Weather Service woes taking down the agency's other line offices and missions?

Answer. FY 2013 funding levels affected all line offices and NOAA took an enterprise approach to ensure critical functions were appropriately funded with minimum impacts to NOAA's mission. NOAA considered every option possible to manage and balance resources for each Line Office. NOAA will continue to prioritize our most critical missions and essential operations.

Magnuson-Stevens National Standard 1 Revisions

On May 3, 2012, NOAA announced an advance notice of proposed rulemaking and requested comments on potential adjustments to existing administrative guidelines for National Standard 1 under section 301(a) of the Magnuson-Stevens Act. National Standard 1 requires Federal fishery management plans to prevent overfishing while achieving, on a continuing basis, optimum yield for the United States fishing industry. The notice solicited comments on 11 different major aspects of the National Standard 1 Guidelines, and it comes just at a time when Congress is due to take up reauthorization of Magnuson-Stevens and other important domestic fisheries laws.

Question 8. Is this the right time to be thinking about a potentially broad revision to the National Standard 1 Guidelines, given that Congress is likely to make at least some changes to the underlying statute on which they are based?

Answer. NMFS feels that it is appropriate to consider revisions to the National Standard 1 guidelines, and that the effort would be complementary to considering changes to the Magnuson-Stevens Act. From 2007 to 2012, the 46 Federal Fishery Management Plans have been amended to implement annual catch limits and accountability measures to end and prevent overfishing. This has been a transformative process for Federal fisheries, and during the course of implementation a number of issues have been identified that may warrant revision of the National Standard 1 guidelines. NMFS published an Advanced Notice of Proposed Rulemaking in the Federal Register on May 3, 2012, to request public comment on potential adjustments to the National Standard 1 guidelines. The comments (all of which are publicly available at *regulations.gov*) reflect the diversity of U.S. fisheries and the need for flexibility in any guidelines developed. NMFS is currently reviewing the comments and considering various approaches to address some of the issues raised. It is anticipated that some issues could be addressed through revisions to the National Standard 1 guidelines, whereas others could be addressed through technical guidance, policy directives, or Magnuson-Stevens Act reauthorization. Any revisions to the National Standard 1 guidelines will be made through a long-term rulemaking process. NMFS plans to engage the regional Fishery Management Councils, members of Congress, commercial and recreational fishing groups, NGOs, and the public before publishing a proposed rule.

Question 9. The comment period for the advance notice of proposed rulemaking on National Standard 1 Guidelines closed on October 12, 2012. Will the action NOAA ultimately takes be able to incorporate some of the subsequent thinking that has occurred or will occur in the near future—such as at the Managing Our Nation's Fisheries conference in early May, or growing out of congressional hearings on issues related to MSA?

Answer. NMFS is currently reviewing the comments received on the Advanced Notice of Proposed Rulemaking, and engaging with the public in various venues, including the Managing Our Nation's Fisheries 3 conference held May 7–9, 2013. NOAA is reviewing this information, as well as information stemming from Congressional hearings related to the Magnuson-Stevens Act, and considering various approaches to address some of the issues raised. Any action that NMFS takes regarding National Standard 1 will incorporate our past experiences and our plans to engage the regional Fishery Management Councils, members of Congress, commercial and recreational fishing groups, NGOs, and the public before publishing a proposed rule.

NOAA Fleet Sea Days

Question 10. I'm pleased the administration has listened to my recommendations to focus on basic services like fishery surveys and sea days for the NOAA fleet—the data they collect are the underpinnings of so much of what you do. NOAA plans to increase sea days by 1,600 days, for a total of 3,500 days. Can you tell me how this increase in sea days will impact agency data-collection efforts? What improvements can we expect to see?

Answer. NOAA has requested an increase of $21 million to support additional days at sea (DAS) for fishery, hydrographic and marine ecosystems surveys. The final allocation of ship time for FY 2014 will be determined by NOAA's Fleet Council using the Prioritization, Allocation and Scheduling (PAS) process and will be dependent on final appropriations. Each NOAA Line Office (LO) is represented during this process and RADM Devany, Director of NOAA's Office of Marine and Aviation Operations, serves as Chair of the Fleet Council. NOAA LOs each provide a prioritized list of projects for consideration from which a NOAA cross-LO prioritized list of projects is developed with input from NOAA Leadership. The process ensures NOAA's highest priority programs are supported and projects are assigned to assets that provide the best value to the Government. Additional ship time will result in the expansion of DAS available for currently supported projects and the ability to provide DAS for projects that were previously not supported by the NOAA Fleet.

Increased sea time capacity will improve the understanding of marine resources and earth systems by expanding the amount of data collected and the number of observations made, which will increase confidence in NOAA decision making tools. Additional DAS in the NOAA Fleet also enhance the agency's ability to meet legislative at sea data collection requirements mandated by the Magnuson-Stevens Act, the Marine Mammal Protection Act, and the National Marine Sanctuaries Act, among others.

An example of the effect of increased sea time capacity in the NOAA Fleet is evident with fisheries observations. NOAA vessels have unique technical capabilities that support multidisciplinary research and allow for better quality data collection when compared to non-NOAA vessels. These capabilities include multi-beam and split-beam sonar which allow for better classification of fish by size and sophisticated noise reduction technologies that result in fewer fish fleeing the area of observation. Better quality and larger quantities of information on the size and number of fish through increased DAS on NOAA vessels will reduce uncertainty in stock abundance estimates and result in more accurate catch quotas, ensuring the most optimal utilization of the resource by fisherman now and into the future.

Other results from increased DAS are the ability to conduct additional linear nautical miles of hydrographic surveys and increased sea time for in-situ oceanographic and climate observations.

Question 11. How does Alaska fare in sea days for fisheries surveys? I note that Alaska catches more than half of the domestically consumed seafood, yet we have only one ship assigned to cover Alaska fisheries surveys, while other areas like the Gulf of Mexico have three ships. Do we have adequate fishery survey power in Alaska?

Answer. Presently, one NOAA fishery survey vessel, *Oscar Dyson,* operates full time in Alaska. The Alaska Fisheries Science Center (AFSC) also charters commercial fishing vessels to meet its annual survey needs. A comprehensive accounting in 2009 showed that Alaska had over 800 survey days at sea. For context, the Southeast had the next highest days at sea with 657. In 2012, Alaska again had over 800 days at sea and the Southeast had over 1,000. Ultimately the need for survey power fluctuates. Also, while only one NOAA ship is assigned to Alaska waters for fishery surveys, AFSC's charter days more than double those of the Southeast Fisheries Science Center (SEFSC), while the SEFSC often utilizes more than double the NOAA ship days as the AFSC.

NOAA is currently completing the NOAA Ship Composition Plan 2012–2027 in which at sea observation requirements, including those for Alaska, are assessed and validated. This Plan will assist NOAA in making investment decisions to ensure continued survey coverage in Alaska.

NOAA Education Programs Transfer and Consolidation

As part of a larger initiative across government to restructure Federal education programs, the President's budget for NOAA proposes a substantial reorganization of NOAA's Office of Education and associated programs, as well as the termination of the Knauss Sea Grant Fellowship Program and other scholarship programs. Funding from these programs would be transferred to the Department of Education, the National Science Foundation, and the Smithsonian Institute. While the cuts have been messaged as a consolidation or transfer, the administration has not outlined with any detail what the new STEM program proposal would entail.

Question 12. What data, indicators, or performance metrics drove the formulation of this proposed reorganization of education programs?

Answer. While individual members of CoSTEM did not provide direct input in the initial phases of the EOP-led 2014 Budget formulation process and were not privy to what degree data, indicators, or performance metrics informed the proposal, efforts were made by EOP to factor in program evaluations and existing evidence as part of the analysis. In formulating the STEM-education reorganization proposals contained in the President's 2014 Budget, CoSTEM's deliberations and documents were important inputs to the EOP-led process. The Administration also actively sought input from CoSTEM agencies on program consolidations, eliminations, and new initiatives through the 2014 Budget process. Moving forward, evaluation, evidence-building, and data use will be integrated into reorganization initiatives.

Question 13. Last year's budget proposal contained similar cuts to NOAA education programs, though they were packaged as straights cuts rather than part of a larger restructuring of Federal education initiatives. Should we be taking this proposal at face value, or does it mean death by another means for these programs?

Answer. STEM education is a high priority for the President. While the 2014 Budget proposes to terminate several NOAA education programs, it redirects these resources outside of their current agencies and in fact, provides an increase of 6 percent over 2012 for STEM education in total. Although these programs would be terminated, the goal of the reorganization initiatives is to preserve core functions and goals of eliminated programs. The new framework consolidates core functions into three lead agencies—the Department of Education (ED) will lead K–12 Education; the National Science Foundation (NSF) will lead undergraduate education and graduate fellowships; and the Smithsonian Institution will become a one-stop-shop for

materials and resources, and lead informal education activities. NOAA and other relevant agencies will continue to have input on reorganization initiatives in each area. The FY14 President's Budget request also maintains funding within NOAA to sustain the Educational Partnership Program (EPP) and the Hollings Scholarship program.

Question 14. Under the America COMPETES Act of 2007, the Administrator of NOAA is required to "develop, support, promote, and coordinate formal and informal educational activities at all levels to enhance public awareness and understanding of ocean, coastal, Great Lakes, and atmospheric science and stewardship by the general public . . ." Dr. Sullivan, how will this proposed reorganization of NOAA education programs support those requirements?

Answer. Under the proposed reorganization, NOAA will continue to administer the Educational Partnership Program (EPP) and the Hollings Scholarship program. These programs directly support the implementation of NOAA's Education Strategic Plan and also contribute towards NOAA's America COMPETES Act mandated responsibilities.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. BARBARA BOXER TO KATHRYN SULLIVAN, PH.D.

Consolidation of the Northwest and Southwest Regional Offices

Question 1. Please provide a detailed assessment of the cost savings achieved by the planned consolidation of the Northwest and Southwest Regional Offices, including: an explanation of how Full Time Equivalents (FTEs) will be eliminated, relocated, or have their workloads redistributed, and any programmatic activities, such as science or stock assessments, that will be scaled back or eliminated.

Answer. Currently, we do not have a detailed assessment of the cost savings that will be achieved through the consolidation of the Northwest and Southwest Regional offices. The numbers provided in the FY 2014 budget request were estimates based on a reduction in leadership positions and a smaller reduction in staff positions. The reduction will be achieved mainly through attrition. For example, NMFS has already made initial decisions and transferred the former Southwest Regional Administrator into the vacant Director of International Fisheries position. In addition, the Northwest Region has three branch chief positions that are or will become vacant this year due to retirements. Those positions will not be filled and staff who report to those positions will be reassigned to balance supervisor-to-staff ratios. In all cases, workload will be redistributed as much as possible to remaining staff.

The consolidation is to the Regional offices, not the Science centers, therefore it will not impact science or stock assessments. However, it may impact programmatic management activities conducted by the Regional offices and potentially compound impacts already occurring through the recent FY 2012 and FY 2013 reductions of 17.5 percent to funding for ESA Pacific Salmon activities. The biggest risk will be to pre-consultation interaction with constituents, leading to a reduction in the early pre-application efforts at identifying and resolving issues which might arise in the permitting process. This could potentially lead to increased complexities and timing delays in consultation and permitting processes. NMFS is considering this issue and how to mitigate potential impacts as it develops the staffing plan.

Question 2. How will NOAA ensure that stakeholders in each of the West Coast states maintain access to top-level decision-makers if some of these officials are eliminated or relocated?

Answer. The new West Coast Region will have senior leadership distributed across the states of California, Oregon, Idaho, and Washington. Stakeholders will have access to the top-level decision makers in their state. Additionally, the Regional Administrator will maintain offices and presence in both Seattle and Sacramento and will have a presence in all office locations.

Question 3. What is NOAA's current rate of timeliness in completing ESA consultations? How would ESA consultation speed be affected by the consolidation? What amount of funding and how many of the FTEs proposed for elimination would need to be retained to maintain the current speed of ESA consultations?

Answer. As stated previously, NMFS capability to process Endangered Species Act (ESA) consultations has been reduced due to the reductions in appropriated funds over the past two years, particularly the reductions in the Pacific Salmon line, which has decreased 17.5 percent from $65.9 million in 2011 to $54.4 million in 2013. These reductions equate to personnel and have already resulted in a decrease in the on-time consultation rate from an initial performance milestone goal of 55 percent on time to 50 percent on time. Funding at close to the FY 2011 enacted level

would allow the agency to maintain consultation timing at the previous 55 percent target level.

No positions for staff biologists who conduct Section 7 consultations are being eliminated due to the consolidation. The new West Coast Region will strive to find efficiencies to minimize ESA consultation impacts in the process of regulatory permitting that result from recent reductions in the enacted budget.

Question 4. Would the proposed merger affect the number, frequency or duration of stock assessments for coastal pelagic species off the coast of California? If so, specifically which fisheries would be affected? What amount of funding and how many of the FTEs proposed for elimination would need to be retained to maintain the current level of stock assessments and administrative/management capacities relating to coastal pelagic species?

Answer. Stock assessments on coastal pelagic species would not be affected, because they are conducted by scientific staff at NMFS' Southwest Fisheries Science Center (SWFSC) in La Jolla, CA. The SWFSC is not a part of the consolidation and thus no change in the number or frequency of these assessments is anticipated. The administrative/management capacities and capabilities relating to coastal pelagic species are handled out of the Southwest Regional Office in Long Beach. Reductions in workforce levels are not expected, so there should be no change in the range and scope of current management duties and responsibilities.

Question 5. The Southwest Region handles many complex international fisheries issues involving highly migratory species, including tuna, sharks, and marine mammals. Would any staff currently handling those issues be eliminated under the proposed merger, and if so, who would assume those responsibilities? What amount of funding and how many of the FTEs proposed for elimination would need to be retained to maintain the current level of engagement on international fisheries issues?

Answer. NMFS staff dealing with highly migratory species and protected resources are located in the Sustainable Fisheries and Protected Resources Divisions in Long Beach, CA, respectively. None of these responsibilities are expected to change because reductions in staff are not anticipated. While administrative reporting lines may change for senior management, very little change in the current level of engagement and participation on international fisheries issues for the North Pacific Ocean are expected.

Question 6. Would any California staff to the Pacific Fisheries Management Council be eliminated under the consolidation? If so, what issues and geographic areas do those staff handle, and who would assume their responsibilities?

Answer. California staff supporting Pacific Fishery Management Council management and advisory functions operates out of the Southwest Regional offices in Long Beach, CA. The levels of staff participation as well as specific personnel assigned to these duties in Long Beach are not expected to change. We are still determining the level of senior management engagement that will be possible on these issues.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. FRANK R. LAUTENBERG TO KATHRYN SULLIVAN, PH.D.

Superstorm Sandy Fisheries Disaster Funding

Superstorm Sandy caused significant damage to New Jersey's fishing industry, including extensive damage to marinas, docks, boat slips, and other coastal infrastructure. This prompted the Commerce Department to declare a Federal fisheries disaster. According to NOAA's initial assessment, New Jersey's fishing industry sustained total uninsured losses of $78 million to $121 million. The Sandy supplemental disaster appropriations legislation included $5 million to begin addressing these needs in New Jersey and New York. However, NOAA has yet to release any of these funds to the states.

Question 1. When will NOAA release this funding to help New Jersey's fishing communities recover?

Answer. NOAA recognizes the urgent need for funding to assist fishing communities in their recovery from Superstorm Sandy. Currently, the Governors of both New York and New Jersey are working with their agencies to develop spending plans that reflect their highest priority fisheries-related needs. These spending plans will be submitted to NOAA in the form of grant applications, which will then be reviewed by NOAA. The agency's timeline is to make disaster funding awards to the states within 90 days of receiving spending plans that meet disaster program and grant requirements. We will continue to work closely with the States of New York and New Jersey on this issue. We have been in close contact with both states since the appropriation was announced.

Question 2. What additional recovery activities in New Jersey could NOAA support if Congress appropriated additional fisheries disaster recovery funds?

Answer. After the storm, a team from NOAA surveyed the damage with a special focus on how commercial and recreational fishing infrastructure, vessels, and services were affected. The report serves as a basis for the states to form proposals for how to use the appropriated funds. Should Congress appropriate additional fishery disaster funds, we would support the award and use of the funds pursuant to the authority under which they are granted (Section 308(d) of the Interjurisdictional Fisheries Act and Section 315 of the Magnuson-Stevens Fishery Conservation and Management Act) or direction specified in the appropriation.

Enhancing Storm Intensity Prediction

The weather predictions for Superstorm Sandy succeeded in predicting the path of the storm, but significantly underestimated the intensity of the storm when it made landfall. Improving the accuracy of hurricane intensity predictions would better prepare communities and first responders to avoid the worst impacts of severe hurricanes.

Question 3. How could the Integrated Ocean Observing System (IOOS) be used to improve hurricane and other weather forecasting, including better predictions of hurricane intensity?

Answer. NOAA's Hurricane Forecast Improvement Program (HFIP) is actively reviewing and evaluating its use of observations to improve hurricane forecasts, with particular focus on improving forecasts of hurricane intensity. As part of this evaluation, HFIP will examine data sets available from Integrated Ocean Observing System (IOOS) Regions for potential future use. Of particular interest for intensity forecasts are data sets that describe below-surface conditions and surface conditions in sparsely sampled areas. As these evaluations proceed, NOAA will incorporate IOOS data into operational forecast models as appropriate.

Ocean Acidification Impacts

According to NOAA, ocean acidity has increased 30 percent in the last 100 years as carbon emissions from burning fossil fuels have increased and settled in the oceans. If oceans become too acidic, the shells of scallops, clams, crabs, plankton, corals, and other marine life begin to dissolve. This presents a serious threat to New Jersey's shellfish industry, where sea scallops and clams are some of the state's most valuable fisheries—valued at $121 million, according to NOAA.

Question 4. If carbon emissions continue at their current rate, what will be the likely economic and environmental impact on shellfish fisheries in the Mid-Atlantic over the next decade?

Answer. Climate change is affecting the entire oceanic ecosystem. Ocean acidification is one component of climate change. Others include altered water temperatures, salinity and sea level rise. Although there are numerous projections and predictions about what ocean acidification means for sea life, studies are just beginning to examine the problem, understand the drivers, and quantify effects.

The oceanic uptake of carbon dioxide is expected to increase in the future. Approximately half of global carbon dioxide emissions from human activities are absorbed by the world's oceans. This absorption is expected to reduce surface ocean pH by 0.3–0.5 units over the next century, making it more acidic. This would be the largest pH change in the last 20 to 200 million years.

Generally, increased acidity may affect the ability of marine life (some phytoplankton, zooplankton, shellfish, mollusks, corals, even fish) to grow the calcium-based hard protective coverings and skeletons they need. Problems with plankton at the base of the food web would have follow-on effects throughout the ecosystem, with implications for seabirds, marine mammals and fish. Given the social and economic importance of living marine resources on the Northeast U.S. continental shelf, the potential large-scale and long-term impacts of ocean acidification must be evaluated.

NOAA has prioritized research to gain a better understanding of how changes in climate and seawater chemistry are affecting marine life. The NMFS Northeast Fisheries Science Center has a study plan that targets regional species. It is intended to assess various species sensitivity to ocean acidification and to develop ways to forecast the effects of altered carbon dioxide concentrations in the marine environment.

For example, surf clams and sea scallops are commercially important fishery species with protracted free-swimming larval stages during which initial shells are built out of aragonite, the more soluble form of calcium carbonate. Thus, larvae of these species might be particularly vulnerable to ocean acidification, which could therefore affect survival of young animals to adult stages. The Northeast Fisheries

Science Center's Milford Laboratory is collaborating with researchers at Woods Hole Oceanographic Institution to better understand how calcification processes in early life stages of these mollusks are affected by past, present, and possible future levels of acidity in seawater.

One hypothesis is that the calcium carbonate used to build shell is derived from within cells rather than from the bicarbonate ions from outside cells. Laboratory-based work at the Northeast Fisheries Science Center has shown some support for this hypothesis with phytoplankton, at least in culture. While not definitive, this is a reminder that other aspects of climate change should also be thoroughly investigated.

For example, the warming trends that are symptomatic of climate change, thought to be influenced strongly by greenhouse gasses released into the atmosphere by fossil fuel combustion, may also have important consequences for marine life. In both coastal and estuarine waters, unusually warm conditions over the last decade are without a doubt causing shifts in phenology—the seasonal confluence of animals at various life stages, their food sources, parasites, and pathogens.

Some phenomena clearly caused by the current warming trend have already been documented, including multiple annual spawning events in bivalves that previously spawned only once a year and the northward spread of parasitic diseases in oysters. The warming trend on the U.S. East Coast may turn out to have more influence than changes in carbonate chemistry on sea scallop and surfclam populations, and thus landings, in the mid-Atlantic.

The Physical Oceanographic Real-Time System

NOAA maintains the Physical Oceanographic Real-Time System (PORTS), which provides real-time forecasts and observations of water levels, currents, salinity, and other meteorological data. It is used at 17 sites nationwide—including the Port of New York and New Jersey—to pilot ships, promote navigational safety, improve the operational efficiency of ports, and protect local marine environments.

The cost of supporting the operation and maintenance of all PORTS sites nationwide is $4 million annually. However, NOAA has never included this program in its budget request, despite it being reauthorized in 2002. As a result, the full cost has been borne by local sponsors, many of whom are no longer able to maintain this funding.

Question 5. What would be the impact on navigational safety and economic activity at our Nation's ports if the PORTS program is not funded?

Answer. In general, if a PORTS® system were to shut down as a result of an interruption in partner funding, the useable capacity of the affected port would decrease as mariners were forced to increase their margins of safety or divert larger ships to other ports. In addition, the risk of ship groundings would increase. Recent studies have shown substantial benefits of individual PORTS® far exceeding their operating costs. A 2005 study of the Tampa Bay PORTS® [1] documented up to a 50 percent reduction in accidents and quantifiable annual benefits of $7 million. A 2007 study of the Houston Galveston PORTS® [2] documented more than a 50 percent reduction in accidents and quantifiable annual benefits of $15.6 million. A 2009 study on the NY/NJ PORTS® [3] estimated annual benefits of $10 million and 50 percent reduction in accidents. A 2010 study of the Columbia River PORTS® [4] showed over $7 million in benefits. These studies illustrate the scale of economic and safety benefits that would be lost as a result of an interruption in PORTS® services.

Sandy Hook Lab

NOAA's National Marine Fisheries Service (NMFS) manages the James J. Howard Laboratory in Sandy Hook, NJ. Its unique research setting allows the lab to study the effects of human populations on fisheries and the ocean environment. However, the laboratory sustained heavy damage during Superstorm Sandy, which is now being repaired.

Question 6. Following repairs to the Sandy Hook lab to fix damaged caused by Superstorm Sandy, what laboratory improvements would help the lab sustain and enhance its research mission over the next decade?

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[1] Kite-Powell. Estimating *Economic Benefits from NOAA PORTS Information: A Case Study of Tampa Bay,* 2005.

[2] Kite-Powell. Estimating *Economic Benefits from NOAA PORTS Information: A Case Study of Houston/Galveston,* 2007.

[3] Kite-Powell. Estimating *Economic Benefits from NOAA PORTS Information: A Case Study of the Port of New York/New Jersey,* 2009.

[4] Kite-Powell. Estimating *Economic Benefits from NOAA PORTS Information: A Case Study of the Columbia River,* 2010.

Answer. An important objective of NMFS Northeast Fisheries Science Center's mission is to better integrate ecosystem and climate change considerations in the fisheries and protected resources assessment. With 11 seawater research labs and a research setting near urban NY/NJ, the James J. Howard Marine Sciences Laboratory in Sandy Hook, NJ has unique research capabilities and contributes significantly to supporting the Northeast Fisheries Science Center mission.

In the coming years, some activities within the Howard Lab research portfolio will remain high priorities and will focus on integration of ecosystem and climate considerations in stock assessments. Other research activities may be re-prioritized and directed to better support the Center's mission. An important objective for the Howard Lab is to provide the capability to directly support the needs of the Mid-Atlantic Fishery Management Council for stock assessments and regulatory support while developing the capacity for better understanding the impacts of changing environmental factors on fish stocks, fisheries and coastal communities.

The Howard Lab will conduct a broad range of research and analytical activities that support the Center's strategic plan and are consistent with the Center's priorities including ecosystem research to inform stock assessments; research on climate impacts on regional fisheries; and research on the effects of pelagic and benthic habitat change on fisheries. The delivery of high quality seawater and the ability to control experimental conditions such as lighting, temperature, salinity and pH are critical for the success of Lab research particularly on effects of ocean acidification, climate change, and environmental condition on growth and survival of managed finfish and shellfish.

Aging infrastructure at the Lab continues to limit our scientific capabilities. The State of New Jersey owns the facility that houses the Lab, and NOAA leases those premises from the State. In addition to NOAA's tenant improvements to be made at the Lab necessitated by damage caused by Superstorm Sandy, key facility repairs and instrumentation upgrades are necessary. These include:

- Process Chillers replacement—critical for seawater quality
- Hot Water Heaters replacement—critical for seawater quality
- Replace Emergency Generator Repair—critical for integrity of experiments and survival of fish
- Temperature control rooms HVAC improvement—critical for ocean acidification research
- Fume hoods and air handling upgrade—personnel safety concerns/original equipment outdated.
- Phone System replacement—current system is antiquated and unreliable
- Replace Walk in Freezer installation—current freezer insufficient
- Organic Chemistry instrumentation upgrades—critical for contaminant analyses
- Lab Foundation—repair cracks

Completion of these improvements would allow the Laboratory to better to support Northeast Fisheries Science Center research priorities, especially in the Mid-Atlantic region. However, while NOAA may fund improvements to its phone systems, it is not authorized to fund repairs to the facilities owned by the state.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. RICHARD BLUMENTHAL TO KATHRYN SULLIVAN, PH.D.

Aquaculture

Question 1. NOAA announced an Aquaculture Policy and a Shellfish Initiative last year, but did not devote any funds to either. What is NOAA's plan to implement these?

Answer. NOAA's Aquaculture Policy provides a national approach to guide the agency's aquaculture-related activities over multiple budget years. Since June 2011, when the policy was released, NOAA has been aligning its aquaculture activities with the policy and pursuing public and private partnerships to leverage available resources to address the priorities identified in the policy.

Implementation of the policy is being coordinated by the NOAA Fisheries Office of Aquaculture, which was established in 2011 to better integrate aquaculture among NOAA Fisheries ocean stewardship roles, coordinate NOAA-wide aquaculture activities including those at the National Sea Grant College Program and the National Ocean Service, work with other Federal agencies through the Interagency Working Group on Aquaculture (the Federal agency coordinating committee

formerly called the Joint Subcommittee on Aquaculture), and identify and pursue partnerships in the public and private sector.

NOAA has focused on three major initiatives since the policy was issued in 2011:

- A National Shellfish Initiative to increase shellfish farming and restoration of shellfish habitats and populations
- Implementation of the Gulf of Mexico Fishery Management Plan for Aquaculture to make permits available for aquaculture in Federal waters
- A Technology Transfer Initiative to foster partnerships that showcase innovative practices, jump start private sector investments, and create employment opportunities in coastal communities.

The President's FY 2014 budget request includes an increase of $1.1 million for aquaculture research at NOAA Fisheries to help implement the 2011 NOAA and Department of Commerce Aquaculture Policies. Half of this increase will support the National Shellfish Initiative, which focuses on restoring and expanding shellfish resources in order to promote clean-water industries and create jobs. The other half of the increase will be used to develop tools for siting and management of finfish aquaculture operations and developing new aquaculture feeds using ingredients such as soy and fish processing trimmings to reduce reliance on fish meal and fish oil. These tools will be important to guide sustainable development of domestic aquaculture in both coastal and Federal waters.

NOAA intends to continue to use the policy to guide research, regulatory, and management activities throughout the agency and inform future agency budget requests and budget allocation decisions. NOAA will also continue to form new partnerships and strengthen existing partnerships in order to leverage resources in pursuit of policy priorities.

Question 2. Moreover, as a result of the growing half-shell market in Connecticut and the region, fishermen and others are starting new oyster farms up and down the east coast. The Connecticut industry alone employs approximately 300 people. Unfortunately, the National Marine Fisheries Service spent .07 percent last year on aquaculture research. That represents around $5.5 million out of a budget of almost $5 billion. What else can and should NOAA be doing to support this critical industry? We need more fundamental science from places such as NOAA's Milford lab. This is a jobs issue as much as it is a food security issues—shellfish aquaculture can help with both.

Answer. NOAA agrees that the development of shellfish aquaculture and other types of aquaculture in the United States can contribute more to the Nation's economy and food security. We also recognize the important ecosystem services provided by shellfish in terms of nutrient removal, water quality, habitat restoration, and shoreline protection, and we understand the industry's concern over the potential impact of ocean acidification on shellfish. Work conducted at NMFS' Milford, CT Laboratory is an important component of NOAA's overall effort to foster sustainable aquaculture in the U.S.

In addition to supporting research at the Milford Lab and elsewhere, NOAA is assisting the development of shellfish aquaculture in the United States through our regulatory and outreach activities. We work internally and with our federal, state, local, and tribal partners to improve permitting processes for marine aquaculture and to provide models, decision tools, and the best available science for efficient and effective regulatory decisions. We also provide information to increase public understanding about shellfish aquaculture and the potential to provide both economic and ecological benefits to the Nation. We are proud that, due in part to NOAA's efforts over the past several years, shellfish aquaculture is increasing along the East Coast. We intend to continue these efforts.

The NOAA Aquaculture Policy (2011), which was developed with significant stakeholder input, provides a list of priorities in the areas of science and research; regulation; innovation, partnerships and outreach; and international cooperation. The National Ocean Policy Implementation Plan (April 2013) has identified a set of actions to be addressed by NOAA and other Federal agencies through 2016 relating to the National Shellfish Initiative, jobs and innovation, science, permitting efficiencies, and the effects of ocean acidification. We are coordinating with our Federal partners on these actions.

In FY 2014, NOAA has requested an additional $1.1 million for aquaculture research, half of which would fund research in support of the National Shellfish Initiative. While specific funding allocations have not yet been worked out, we expect some portion of this funding to be directed to the Milford Lab to expand their research capability.

Question 3. Can you address NOAA's efforts to support the growing shellfish aquaculture industry? And more specifically, can you discuss NOAA's budget as it relates to shellfish aquaculture research?

Answer. NOAA has engaged with the shellfish industry for decades to help them on research on policy matters to increase sustainable production. For example, NOAA Fisheries' Milford, CT laboratory has provided important support to the East Coast shellfish growers since it began operations in 1931. In 2011, NOAA launched its National Shellfish Initiative to provide focus and additional support for its efforts to support shellfish aquaculture. Through this initiative, NOAA leverages existing staff, regulatory authorities, and grant programs; coordinates with other Federal agencies; and reaches out to industry, restoration groups, academia, states, tribes, and other stakeholders. This effort takes into account recommendations provided by industry and professional scientific shellfish associations based on recent surveys of their membership; research priorities and restoration strategies identified by industry associations, restoration groups, states, tribes, and others; and priorities for NOAA grant competitions.

Efforts are underway with partners in several states to expand opportunities for shellfish farming and restoration. For example, NOAA worked with the U.S. Army Corps of Engineers, the State of Maryland and other partners to successfully implement an oyster lease program in Chesapeake Bay that has resulted in dozens of approved permits for new shellfish operations, many of which are owned by current or former fishermen. Also, a shellfish initiative launched in Washington State is a comprehensive federal, state, and industry partnership that promote new economic opportunities, restoration, improved water quality, and science on the impacts of ocean acidification on local oysters.

In FY 2013, NOAA's dedicated funding for aquaculture includes $5.3 million at NMFS for in-house research and management activities for all forms of aquaculture, including shellfish. This includes $823 thousand for research at the Milford Lab, focused primarily on shellfish aquaculture research. In addition, NOAA's Office of Oceanic and Atmospheric Research funding includes $4.3 million for competitive grants for aquaculture research and state extension programs, much of which supports the shellfish aquaculture industry.

Ocean acidification is increasingly recognized as a growing threat to the shellfish aquaculture industry, especially in the Pacific Northwest where periodic oceanic acidification events are a significant cause of larval production failures in some commercial hatcheries. The NOAA Office of Oceanic and Atmospheric Research Pacific Marine Environmental Laboratory, working with other partners, invested $170 thousand in 2013 to support real-time advanced monitoring technologies to help hatchery managers monitor oceanic acidification events and develop adaptive strategies to minimize impacts. NOAA is working to develop a forecast capability to provide advanced warning of conditions harmful to shellfish. This is a key objective of establishing an Ocean Acidification Monitoring Network as called for under the Federal Ocean Acidification Research and Monitoring Act. In FY 2013, the NOAA Ocean Acidification Program will invest over $2 million towards these activities including working with NMFS to study oceanic acidification impacts on a range of species including Pacific Oyster. The U.S. Integrated Ocean Observing System (IOOS) will provide $604 thousand to test monitoring prototypes for broad-scale distribution develop and apply state of the art technologies for monitoring important to shellfish hatcheries and growers, and train onsite technical and data management personnel.

In FY 2014, NOAA has requested an additional $1.1 million for aquaculture research, half of which would fund research in support of the National Shellfish Initiative. While specific funding allocations have not yet been worked out, we expect some portion of this funding to be directed to the Milford Lab to expand their research capability. At the Office of Oceanic and Atmospheric Research, the Ocean Acidification Program is seeking to invest an additional $2 million in FY 2014 to advance research improving our understanding of enhanced coastal acidification and the impacts to coastal marine resources; and to develop tools and adaptive strategies for affected industries and stakeholders.

Community-based Restoration Program

NOAA's Community-based Restoration Program (CRP) has been highly successful at improving the health of coastal habitats across the nation, benefiting both the environment and the economy through partnerships.

By working collaboratively with more than 1,500 organizations—including several in Connecticut—CRP has funded more than 2,300 small- to mid-scale on-the-ground projects to restore over 97,000 acres of habitat. This work has involved more than 290,000 volunteers in projects, contributing more than 1 million volunteer hours.

Question 4. Given CRP's record of success is largely attributable to its partnership model and community focus, why is NOAA seeking to change the funding decision making process from a bottoms-up (community-driven) to top-down (federally driven) approach to select habitat restoration projects for local estuaries and bays?

Answer. NOAA has not changed the funding decision making process for our Community-based Restoration Program. The Program is still a competitive funding solicitation that calls for proposals from local communities, tribes, NGOs, regional governments and state governments. As in previous years, we recognize that every coastal community has locally important habitat restoration needs and local stakeholders have a critical role in the development, implementation, and maintenance of coastal and marine habitat restoration throughout the U.S.

This year, NOAA did modify our funding opportunity announcement—but did not de-emphasize the important role of local partnerships. Rather, the funding opportunity emphasized that potential applicants should propose locally and regionally driven restoration efforts that advance NOAA goals for recovering threatened and endangered species and contributing to sustainable fisheries. These are goals that NOAA shares with stakeholders and coastal communities.

Partnerships established through this funding announcement will not only advance NOAA's efforts to foster species recovery and increase fish production, but will also directly benefit communities and address the local needs that they are requesting support for in their proposals. This approach emphasizes NOAA's science-based approach to habitat conservation while still maintaining the strong local involvement necessary for any restoration investment. NOAA highly values the expertise that our partners bring to helping us achieve our habitat conservation goals, and we feel that this has consistently been reflected in our funding model.

Question 5. And given limited resources and past success engaging community volunteers, why is NOAA directing limited resources to larger scale habitat restoration projects through the community-based restoration program that would no longer be able to engage community volunteers?

Answer. As described above, this year NOAA encouraged applicants to submit proposals that advance shared priorities for regional habitat conservation that foster species recovery and increase fish production. Community/stakeholder engagement is still a critical component of the evaluation criteria (as outlined in the Federal Funding Opportunity Announcement) and the success and sustainability of the restoration projects that we support. In many instances, these projects are still of a scale that can and will engage community volunteers.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. BRIAN SCHATZ TO KATHRYN SULLIVAN, PH.D.

Fisheries Science Investments

I applaud the President's Fiscal Year 2014 budget request for prioritizing fisheries science and making targeted investments in fisheries research and management. As you know, these research efforts are essential to promoting marine conservation and protection, and generating the sound science and tools that enable NOAA to improve the health and productivity of marine life. Investing in these efforts will help bring a better balance to NOAA's portfolio and reinforce the administration's mission to support the sustainable use of America's oceans.

Question 1. Could you please explain to the Committee why NOAA's investment in fisheries science is important to the administration's mission, and how the additional funding request for FY 2014 will help improve NOAA's ability to a better steward of America's maritime domain?

Answer. A healthy marine environment provides significant economic benefits to our Nation. NOAA is the primary Federal agency responsible for enabling and promoting the sustainable, safe, and efficient use of coastal resources and coastal places. NMFS is an acknowledged international leader in fishery science and it is vital that we continue to invest in our science enterprise.

Progress in making fisheries management more effective is based on the principle that management is based on sound science. Stock assessments provide the scientific basis for sustainable fisheries management. While we face challenges to securing accurate, precise, and timely data for stock assessments, on balance, our science-based management has consistently proven to provide better resource management than without this advice. This has, in turn, led to improved productivity and sustainability of fisheries and fishery-dependent businesses. For example, an economic study in Alaska showed that maintaining annual frequency of fishery-independent surveys, compared to reducing to biennial surveys, allowed for rapid

detection of increases in stock abundance and tens of millions of dollars in added value of the catch.

Sustainability of our Nation's fisheries is based on continual monitoring of fish catch and fish stock abundance, which provides the data needed for stock assessments. Because this data-intensive endeavor is costly, NMFS and our partners have always focused on getting the most, highest-priority, and highest-quality data by fully implementing the funds Congress has provided for this vital work. This funding and the work it supports enable us to sustain and enhance our fisheries. NMFS continues to make substantial progress toward improving the quality of the science available to effectively manage commercial and recreational fisheries, benefiting coastal communities and the U.S. economy both today and for the future. We greatly appreciate the increased funding that Congress has provided to make U.S. fishery management and its preeminence worldwide, possible.

Proposed funding increases in Fisheries Research and Management include: $4.9 million to strengthen data collection capabilities for fisheries stock assessments through advanced sampling technologies; $2.6 million to expand our ability to sustain fishery-independent survey and fishery monitoring projects; $2.5 million to restore Interjurisdictional Fisheries Grants to promote research and management of fisheries that cross state boundaries; and $1 million for reducing bycatch. Additional investments include $4.1 million for Fisheries Habitat Restoration to implement larger-scale habitat restoration in targeted areas that help recover protected species and rebuild fisheries; and $4.1 million to increase capacity in fisheries enforcement, observers and observer training. We also propose to use at least $1 million of the proposed FY 2014 increase in the Expand Annual Stock Assessments line to initiate a Territorial Science Initiative. NOAA's desire under this initiative is to improve the quality of science necessary to implement the Magnuson-Stevens Reauthorization Act in the Western Pacific and Caribbean territories.

The quality of scientific advice provided to management has been a major reason the United States has become a model of responsible fisheries management. Direction provided by the Magnuson-Stevens Fishery Conservation and Management Act has been crucial to NOAA's scientific program. The additional funding requested for FY 2014 will help maintain the progress we have made, and will provide targeted increases in key areas that will improve our ability to provide scientific advice to fisheries managers that is more accurate, precise, and timely, and available for more stocks.

Proposed MPA Program Consolidation

I understand that the Administration is consolidating the National Marine Protected Areas Center with the Office of National Marine Sanctuaries to streamline those activities and create a single more efficient and effective program, allowing NOAA to save money. However, I am concerned that NOAA's request for a decrease of nearly $3 million dollars in FY 2014 for its Sanctuaries and Marine Protected Areas Program will compromise its ability to meet its obligations to state partners who work with NOAA to manage these sanctuaries. In Hawaii, for example, NOAA and the State of Hawaii cooperate together under a Memorandum of Understanding to safeguard Hawaii's Humpback Whale population.

Question 2. In developing your budget, did NOAA consider the potential impact that the proposed cuts to its Sanctuaries and Marine Protected Areas program might have on its ability to fulfill its obligations to its state partners?

Answer. At the requested funding level, NOAA will support the highest priority management actions in the National Marine Sanctuary System, which includes continued robust partnerships with States and engagement of coastal stakeholders. NOAA also proposes to reduce contract labor support and extramural grant support through the National Fish and Wildlife Foundation for MPA collaboration activities.

Question 3. Can you describe the efforts NOAA will take to help ensure it meets its obligations to state and local partners?

Answer. At this funding level NOAA will continue to support its highest priority goals, maintain its unique capabilities, and continue engaging coastal communities and stakeholders. As stated in the FY 2014 request, NOAA intends to develop or expand partnerships with local communities and businesses and expand public outreach activities in relation to designated areas.

Proposed Sea Grant Fellowship Elimination

NOAA is proposing to eliminate its National Sea Grant Fellowship as part of the administration's reorganization of its STEM education programs. This fellowship has played an important role in bridging the divide between science and public policy by giving marine science students an opportunity to engage in policy development in the Executive and Legislative branches.

Question 4. Can you describe for the Committee the decision to eliminate the National Sea Grant Fellowship and how the proposed reorganization of NOAA's STEM education programs will help continue to bridge the gap between science and public policy?

Answer. The President has placed a very high priority on improving outcomes in STEM education. However, the current fragmented approach to investing in STEM education has made it difficult to ensure that Federal efforts are coherent, strategic, and leveraged for greatest impact. The Administration is proposing to reorganize investments to more effectively streamline delivery of STEM.

The National Sea Grant College Program's Dean John A. Knauss Marine Policy Fellowship (Sea Grant Knauss Fellowship) has provided graduate students who have training in ocean, coastal and Great Lakes science, policy, or law with an opportunity to develop skills in the national policy arena. The Sea Grant Knauss Fellowship advances the marine-related educational and career goals of participating students and enhances the partnerships between universities and government. As such, the Sea Grant Knauss Fellowship was deemed a STEM program under the Administration's proposal and included in the consolidation plan.

The new framework consolidates core functions into three lead agencies—the Department of Education (ED), the National Science Foundation (NSF), and the Smithsonian Institution. The Sea Grant Knauss Fellowship would be consolidated into NSF since it is listed within the category of undergraduate/graduate education. The lead agencies have already conducted or are in the process of convening meetings with other science agencies to identify modes of cooperation through which valuable assets and activities from programs that would be eliminated under the reorganization could be brought to bear more broadly and effectively across the government going forward, as well as to discuss agency-mission-specific needs that might be met by STEM education and engagement efforts supported by the leads. While it is premature to define exactly how these interactions will work in the long run, as agencies are currently working to determine how best to structure these collaborations, all lead agencies are committed to engaging the collaborating agencies to leverage their expertise, unique resources, institutional knowledge, and existing relationships as described in the STEM Strategic Plan released in May.

National Ocean Policy Implementation Plan

I was glad to see the National Ocean Policy Implementation Plan released. The National Ocean Policy is incredibly important to Hawaii, as the ocean is central to our economy and our identity. The policy and the new implementation plan coordinate efforts across agencies, governments, and regions leading to efficiencies, and put states like mine in the driver's seat of the management and conservation of the ocean off our shores. NOAA's ocean portfolio means you are the leader on much of the implementation of the policy. Your testimony has indicated that your budget this year takes a more balanced approach, ensuring investments in your ocean programs.

Question 5. Can you expand on this balance and how it benefits ocean programs that are essential to the implementation of the ocean policy?

Answer. There are several dimensions to our balanced approach which include ocean and coastal as well as atmospheric and satellite programs, immediate needs vs. long term investments, and intramural and extramural support. With the FY 2014 President's Request, NOAA is seeking to provide the proper balance between these dimensions while supporting our critical core missions and partnerships. In recent years, NOAA has approached critical launch dates for satellites, and our satellite budget has grown accordingly, which has meant that the relative funding of our atmospheric and oceanic programs has been skewed in recent years. Through strategic investments in ocean and coastal programs, we seek to regain balance throughout NOAA's budget, as we continue to support our core mission. These investments support the broad NOAA goal of vibrant coastal communities and economies by supporting sustainable fisheries, protected resources, habitat conservation and restoration, coastal science, and research and development.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. JOHN THUNE TO ADMIRAL ROBERT J. PAPP, JR.

Question 1. Can the Coast Guard provide an estimated annual cost to the service of operating and maintaining the C–27J aircraft? How would the costs of operating the C–27J compare to the costs of operating Coast Guard's existing fixed-wing assets, and would per-aircraft maintenance costs vary with the total number of C–27J aircraft acquired?

Answer. Below are the annual costs for current assets and an estimate for the C–27J. Currently, HC–130s are programmed for 800 hours annually per operational aircraft, and the HC–144 is programmed for 1,200 hours annually. The C–27J is calculated for 1,000 programmed hours annually.

HC–130H	Cost
Personnel (crew):	$2.663M
O&M @ 800 hrs:	$5.694M
Total:	$8.357M

HC–130J	Cost
Personnel (crew):	$2.849M
O&M @ 800 hrs:	$4.678M
Total:	$7.527M

HC–144A	Cost
Personnel (crew):	$2.940M
O&M @ 1200 hrs:	$4.049M
Total:	$6.989M

C–27J	Cost
Personnel (crew):	$2.790M
O&M @ 1000 hrs:	$4.405M
Total:	$7.195M

The per hour maintenance costs for each aircraft would decrease with more C–27Js, as overhead and support costs would be distributed across a larger fleet.

Note: Table only represents O&M costs. Acquisition of C–27 would require missionization of aircraft, sparing, product line standup, along with training and shore infrastructure improvements.

Question 2. Has the Coast Guard discussed the possibility of sharing C–27J maintenance costs in partnership with the U.S. Forest Service, were both agencies to acquire some of the aircraft?

Answer. Yes, the Coast Guard had a preliminary meeting with the Forest Service and discussed the possibility of shared C–27J maintenance and support costs, however, no specific agreement was reached.

Question 3. What is the status of the potential transfer of a number of C–27J aircraft from the Department of Defense to the Coast Guard?

Answer. U.S. Coast Guard and U.S. Air Force staffs have been discussing the possibility of transferring excess C–27J aircraft from the Air Force to the Coast Guard. A formal letter of intent was sent from the Coast Guard to the Air Force in March of 2013 explaining that the Coast Guard stands ready to immediately accept all excess C–27J aircraft, spares and support equipment.

The current Program of Record (POR) for the Coast Guard's HC–130 and HC–144 aircraft is 22 and 36 airframes, respectively. The transfer of C–27J aircraft to the Coast Guard may reduce the total number of HC–144 and C–130J aircraft required under the current program of record per the table below:

C–27J Transferred	C–130J Required	C–144A Required
21	19	18
20	19	19
19	19	20
18	19	21
17	19	23

C–27J Transferred	C–130J Required	C–144A Required
16	19	23
15	19	24
14	19	25

The Coast Guard will accept a minimum of 14 C–27J aircraft. Actual operational assessment of the C–27J may allow for further adjustments to the above numbers.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. MARCO RUBIO TO ADMIRAL ROBERT J. PAPP, JR.

Question 1. As you know, Coast Guard or other law enforcement presence on Navy ships is crucial in supporting the counter illicit trafficking mission of Joint Interagency Task Force (JIAFT) South. With the reduction of Navy ships and the dramatic drop in availabilities for other Navy ships in the Western Hemisphere, how has the burden shifted to the Coast Guard? What has been and will be the impact on Coast Guard operations in the Caribbean and Eastern Pacific? How have traffickers altered their patterns?

Answer. With the projected decommissioning of the U.S. Navy's (USN) Guided Missile Frigates (FFG), as well as reduced deployments due to sequestration, the U.S. Coast Guard (USCG) and SOUTHCOM are exploring the use of alternative platforms for LEDET deployments to the JIATF–S to embark that include entering into agreements with other Partner Nations deploying in support of counter drug operations.

In terms of USCG operations, the reduction in the FFG ships will have little effect on the deployments of USCG surface and air assets. JIATF–S will continue to position USCG and other assets under their tactical control based on actionable intelligence to most effectively combat Transnational Criminal Organizations (TCOs) conducting illicit activities.

We have not detected any significant change in TCO smuggling patterns. As in the past, we will continue to adapt operations based on actionable intelligence.

Question 2. With the proposed reduction in the Coast Guard's acquisition funding, and slowing of the Fast Response Cutter delivery schedule, how will the delayed delivery of those ships impact maritime security and Coast Guard missions closer to our coasts, in the Exclusive Economic Zone? What will the impact be on securing the vast maritime border of the United States?

Answer. Coast Guard operational commanders allocate resources to address the highest threats and operational priorities. The Coast Guard also continues to leverage interagency and international partnerships to secure the maritime border. The Fiscal Year 2014 budget submission will provide the Coast Guard with funding for two additional Fast Response Cutters (FRC). These new assets, coupled with robust interagency and international coordination will enable the United States and partner nations to best mitigate threats throughout the maritime domain.

FRCs replace the aging fleet of 110-foot patrol boats, and provide increased capability to conduct search and rescue operations, enforce border security, interdict drugs, uphold immigration laws, prevent terrorism, and ensure resiliency to disasters.

Question 3. What is the Coast Guard's position with regard to reimbursement for providing assistance to mariners in distress on the sea? Do you believe the Coast Guard should be reimbursed, and what are the implications of reimbursement for SAR within the maritime community?

Answer. In accordance with 46 U.S.C. 2110(a)(5), the Coast Guard is prohibited from collecting fees for the conduct of SAR operations:

> The Secretary may not collect a fee or charge under this subsection for any search or rescue service.[1]

Additionally, the Coast Guard does not recommend seeking cost reimbursement associated with SAR[2] operations from the recipients of those services for two reasons:

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[1] As defined in 46 U.S.C. 2101(34), "Secretary" means the Secretary of the Department in which the Coast Guard is operating.

[2] Medical evacuations (MEDEVAC) are considered SAR; the Coast Guard will not seek reimbursement for the conduct of MEDEVACs.

1. Financial considerations may keep persons in distress from reporting their condition and seeking assistance in the early stages of the distress. The earlier the Coast Guard is notified of a distress at sea, the greater the opportunity to conduct a rescue and save someone's life. If financial considerations became a factor in a person's decision to notify the Coast Guard of a maritime distress, then the Coast Guard may get fewer calls, or calls in the later stages of the distress, causing greater risk to those in distress, as well as to the Coast Guard search and rescue (SAR) units conducting the rescue.
2. If the Coast Guard charged survivor(s) for their rescue, there is the possibility of having financial considerations affect search planning and execution decisions, as well as open the Coast Guard to future liability. In addition, it would be extremely difficult to develop an objective test for deciding when persons in distress are financially capable of bearing the cost of their rescue.

Question 4. Are you aware of any countries that charge for maritime assistance? Would this set a dangerous precedent where other countries would start charging for such services and potentially create rescue operations for profit?

Answer. No. The Coast Guard is unaware of any nation that, as a matter of policy, charges survivors for search and rescue (SAR) services.

The Coast Guard is considered an international leader in SAR and has advocated internationally that governments absorb costs associated with SAR and refrain from seeking reimbursement from SAR survivors. Any change to this position would open the opportunity for other nations to begin charging for SAR services as well as promote rescue operations for profit.

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. KELLY AYOTTE TO ADMIRAL ROBERT J. PAPP, JR.

Question. Admiral Papp, I understand that the Coast Guard is considering a reversal of a 2008 policy decision regarding the application of the Outer Continental Shelf Lands Act (OSLA) to certain marine activities in the Gulf of Mexico. This reversal would have a negative impact on the competitiveness of American companies and our ability to thrive in a global marketplace. Has a final decision been made as to the official Coast Guard policy regarding the OSLA policy? If not, when do you expect a final determination to be made? Would you commit to working with me to ensure that this issue is resolved promptly so that marine services commitments of operators from my state can be met?

Answer. A final determination has not yet been made on this policy decision. The Coast Guard expects a final decision to be made on or before June 30 of this year. The Coast Guard will work with Congress on this issue.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. MARCO RUBIO TO KATHRYN SULLIVAN, PH.D.

Question 1. How much of your budget is used to fund activities related to implementing the President's National Ocean Policy?

Answer. NOAA supports many activities that are aligned with the National Ocean Policy; however, there is not specific funding in NOAA related to the implementation of the National Ocean Policy. The National Ocean Policy directs agencies to use resources more efficiently by identifying shared priorities, sharing data, working through potential conflicts, coordinating decision-making, and eliminating duplication. For example, by prioritizing shared data and agency collaboration to achieve efficiencies, the Policy helps to maximize appropriated funds to the benefit of ocean and Great Lakes users coastal communities, and taxpayers. The Implementation Plan integrates and coordinates existing activities and missions under the umbrella of the National Ocean Policy. The idea is to work together to better leverage our resources, coordinate on decision-making, and work together in a way that benefits Americans.

Question 2. Your agency recently proposed listing 66 coral species as endangered species by estimating the health of the species over the next 100 years. While I understand we are in the early stages of the process, how much money does the budget propose to implement this new listing? Do you expect that number to remain the same over time—for example, in the budget requests over the next five to ten years? If not, what future outlays are you anticipating?

Answer. After reviewing the best available scientific and commercial data and a public engagement process, NOAA proposed to list 66 species of reef building corals under the Endangered Species Act (ESA). An extended public comment period ended

on April 6 and we are reviewing input. We will carefully review and evaluate all of the information received as we determine whether corals will be listed in December 2013.

Should a number of corals be listed, it would significantly increase the number of ESA Section 7 consultations to assess the effects of Federal activities on those corals. NOAA will provide technical assistance to action agencies (those proposing Federal activities) prior to any listings to ensure their activities would not jeopardize corals, and are conducting conferences as appropriate with a goal of reducing the number of re-initiations and new consultations if corals are listed. The FY 2014 budget proposal includes $31.8 million for all Section 7consultation work on all listed species under NMFS jurisdiction. It is not possible at this time to estimate how much of that funding would need to be allocated to conducting consultations on corals as allocation depends on the final listing decision.

In addition, all eligible states and territories will be able to apply for Species Recovery Grant funding to support conservation of all of these coral species. The final FY 2013 Spend Plan amount for that program is funded at $4.0 million, but the FY 2014 budget request includes $17.8 million for the Species Recovery Grant program. To be eligible, states and territories must enter into an agreement with NMFS pursuant to Section 6 of the ESA. Currently, 23 states and territories—including the U.S. Virgin Islands, Puerto Rico, and Commonwealth of Northern Mariana Islands—hold Section 6 agreements and are thus eligible. Only American Samoa, Guam, Connecticut, New Hampshire, Rhode Island and Pennsylvania have yet to enter into agreements; however, the process of developing an agreement is underway for American Samoa and Guam. It is important to note that species recovery grants are awarded through a national competition that supports recovery of all ESA listed species under NMFS jurisdiction, with the exception of Pacific salmonids. There are currently 64 listed species eligible for funding under this program.

When the listing decision concerning corals is initially made the consultation and recovery workload will not be immediate, but there will be an immediate need for ESA Section 10 permits to allow coral researchers to continue work. NMFS is already developing streamlined permitting. Research permits will be "batched" together under umbrella permits to make the process as efficient as possible and to address permitting workload within resources provided. Finally, the NOAA Coral Reef Conservation Program continues to fund science and projects for the conservation of corals, including those that are proposed for listing under the ESA.

Future outlays and budget requests specific to the corals listing are unknown at this time.

Question 3. I understand that the President's budget eliminated the National Undersea Research Program, including funding for the Aquarius Reef Base. How is the agency moving forward in decommissioning this unique laboratory? Please keep my office updated on the progress of this transition.

Answer. The FY 2014 President's budget requests a decrease of $4 million within the Office of Oceanic and Atmospheric Research (OAR) for the termination of the National Undersea Research Program (NURP). However, the proposal to terminate NURP was a carry forward request from the FY 2013 President's Budget which was subsequently passed through the Continuing and Further Appropriations Act, 2013 (P.L. 113–6). This decrease ends NOAA funding to the three NURP Centers and the operations of NOAA-owned assets such as the *Aquarius* Undersea Habitat, *Pisces V* submersible, and Autonomous Undersea Vehicles. NOAA is currently working to transition assets as appropriate. The University of North Carolina Wilmington (UNC–W) held the grant to conduct *Aquarius* operations and maintenance from 1990—2012. The recent grant period ended in December 2012 and UNC–W chose not to renew. Florida International University (FIU), which is part of the Cooperative Institute for Marine and Atmospheric Studies (CIMAS), was awarded a grant to maintain *Aquarius* during the FY13 Continuing Resolution period from January—March 2013. With FY13 appropriations, NOAA's Office of Ocean Exploration and Research will provide some additional funding (at least $200K) to FIU to continue maintenance through December 31, 2013. FIU has expressed interest in acquiring this asset and the additional funding will provide them with time required to make that decision as to whether to proceed. If FIU does not pursue acquisition, NOAA will proceed with selling or disposing of the asset in accordance with law.

Question 4. The budget proposal funds 3,517 Days at Sea to carry out missions to support fisheries surveys, among other things. This proposal represents an increase of 1,386 Days at Sea above the FY 2012 levels. Please provide more details on how the agency will ensure that ship time will be distributed fairly, and according to need, among different regions.

Answer. The final allocation of annual ship time is determined by NOAA's Fleet Council using the Prioritization, Allocation and Scheduling (PAS) process. Each NOAA Line Office (LO) is represented and the Director of the Office of Marine and Aviation Operations is the Council Chair. The PAS process ensures NOAA's highest priority programs are supported and that projects are assigned to ships that provide the best value to the Government.

The PAS process is informed at the onset by an evaluation of fleet composition, maintenance requirements, and estimated funds available for the upcoming fiscal year. Each NOAA LO provides a prioritized list of projects for consideration. Then a cross-LO prioritized list of projects is developed with input from NOAA Leadership for OMAO to use in allocating best value assets to each project. From this, the Fleet Working Group, facilitated by OMAO, schedules projects on the Fleet Allocation Plan (FAP). The draft FAP developed by OMAO and the Fleet Working Group is approved by the Fleet Council and becomes final. After the initial FAP is created at the President's Budget level, subsequent revisions are made to reflect the final enacted budget.

The FAP is typically completed in the fall and the FY 2014 plan will likely be complete in September or October of 2013.

Question 5. What percentage of the budget for the National Weather Service goes to labor costs?

Answer. Based on FY 2012 Actuals, 61 percent of the NWS budget went to labor costs.

Question 6. I understand that that National Weather Service is unionized. How has the size of the workforce changed since the Weather Service modernization was implemented in 2000?

Answer. Overall, the size of the NWS workforce has not changed much from 2000 to the FY 2014 budget request. The NWS modernization in 2000 called for 4,700 positions, whereas in FY 2012 NWS had 4,912 actual positions, and the FY 2014 President's Budget for NWS requests 4,779 positions. Approximately 3,600 (or 75 percent) of the NWS workforce, mainly field staff, is represented by the National Weather Service Employees Organization.

Question 7. Please provide an update of the agency's actions thus far and planned for the immediate future regarding implementation of the RESTORE Act.

Answer. NOAA has been working in partnership with other Commerce bureaus to contribute to the development of the Gulf Coast Ecosystem Restoration Council's draft Comprehensive Plan. NOAA is also charged with developing a Gulf Coast Ecosystem Restoration Science, Observation, Monitoring, and Technology Program ("Gulf Coast Ecosystem Restoration Science Program" for short) "to carry out research, observation, and monitoring to support the long term sustainability of the ecosystem, fish stocks, fish habitat, and the recreational, commercial, and charter fishing industry in the Gulf of Mexico." U.S. Fish and Wildlife Service (FWS) representatives are also on the program team.

In consultation with partners and key stakeholders, NOAA and USFWS have developed a framework for this new program. An engagement process was initiated early in program development and continues as NOAA moves towards implementation to ensure that NOAA utilizes the expertise of the scientific community in the Gulf of Mexico, and links it to the region's science needs. This will be a "matrixed" NOAA program, which will be administratively located within NOS but which will work across NOAA line offices and programs. The Oversight Board, which met for the first time in February, consists of senior NOAA science leadership across all line offices, USFWS representatives, and NOAA finance representatives.

NOAA is following a series of steps to implement the Program including:

- Conducting a review and assessment of science needs for the region that have been determined previously;
- Developing a Science Plan framework that describes the program and lists a set of draft Goals for consideration to assist engagement with partners and stakeholders;
- Engaging partners to identify and prioritize ecosystem and management science requirements and gaps, including but not limited to coordination with other Trust Fund recipients;
- Identifying strategic early investments to assist the integration and synthesis of science priorities and to address known priority gaps;
- Developing competitive processes for issuing awards for addressing the science needs; and,

- Continuing refinement of Science plan in coordination with partners through the life of the Program.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. ROGER F. WICKER TO KATHRYN SULLIVAN, PH.D.

NOAA Satellites

Question 1. How would NOAA's FY 2014 budget request rein in the excessive costs incurred by the mismanagement of NOAA's satellite acquisition?

Answer. In February 2010, when the Administration announced its intent to restructure the National Polar-orbiting Operational Environmental Satellite System (NPOESS) and to begin the Joint Polar Satellite System (JPSS), a number of changes were put in place within JPSS to address the systemic deficiencies that were the primary factors resulting in the ineffectiveness of the NPOESS program. The lessons learned from the NPOESS and other space programs' experiences were used to establish JPSS with streamlined management and acquisition excellence to achieve its mission. The FY 2014 budget request builds upon these factors . . . NOAA uses four major pillars for managing these programs:

- Single NOAA manager with clear lines of authority and responsibility for decision-making related to program requirements, funding, and program direction. Where multiple partners are involved, each party is responsible for discrete deliverables and the effective and timely coordination of those deliverables based on an approved integrated schedule acceptable to all parties.
- Partners with a proven government aerospace acquisition agency (NASA), with access to leading space system technical and program management experts and acquisition authorities providing capacity and capability to ensure mission success.
- Use of realistic cost estimates at appropriate confidence levels to ensure that sufficient resources are identified, substantiated and budgeted to address development challenges before they overwhelm the viability of the program.
- Frequent programmatic and technical reviews to ensure issues are addressed and risks are effectively identified, assessed and managed and in a timely manner; additionally, Program Management Council meetings to verify and validate program activities are within scope, cost and on schedule based on the approved baseline and to provide help resolving issues and risks outside the control of the program, are held monthly.

During the development of the FY 2014 Budget Request, NOAA performed an additional review of its programs to identify areas where significant program changes could be implemented that would reduce overall costs, while improving the robustness of its acquisition programs. Much of the cost savings were found within the JPSS Program, specifically by reducing:

- Select program management costs
- Some of the science and algorithm requirements for lower priority data products
- Operations and Sustainment costs, especially in the outyears
- Instrument development cost, where applicable

In July 2012, an Independent Review Team concluded that NOAA should refocus the JPSS program on its weather mission. The FY 2014 Budget request refocuses the JPSS program on NOAA's core weather mission to strengthen the likelihood of mission success and to ensure the National Weather Service receives polar weather satellite observations in a timely manner. The FY 2013 Budget had proposed a life cycle cost estimate of $12.9 billion through 2028. With the FY 2014 Budget request, NOAA proposes a new lifecycle cost (LCC) of $11.3 billion or less through 2025, a $1.6 billion reduction from the FY 2013 Budget, largely because several climate measurement responsibilities were transitioned to NASA. Additionally, to decrease the risk of future gaps in polar weather data the Budget proposes to accelerate the development of JPSS–2 to prepare for a Q1 FY 2021 launch. NOAA will continue to work to find opportunities for cost savings.

Question 2. Will NOAA strive to ensure acquisition of a weather satellite does not negatively impact other core missions—including important work carried out in the Gulf in collaboration with Mississippi's research universities?

Answer. NOAA forecasts, warnings, and community-based preparedness programs are vital in enhancing the economy and saving lives. As NOAA approaches critical launch dates for the Geostationary Operational Environmental Satellite R Series

(GOES–R) and the Joint Polar Satellite System (JPSS), the budget requests for these programs increased to accommodate the necessary instrument and spacecraft development, integration and testing, and launch services, among many other activities, that will secure their planned launch dates. It's important to note that there are aspects of these satellites that contribute to Gulf Coast work. For example, the Suomi-National Polar-orbiting Partnership (Suomi-NPP) satellite, the predecessor of JPSS, carries the Visible/Infrared Imager Radiometer Suite, which can detect Ocean Color. This is useful to the Gulf in identifying specific areas experiencing Harmful Algal Blooms that impact both local communities and the Gulf ecosystem.

The FY 2014 budget request continues to prioritize NOAA assets and functions in addition to satellites. All of NOAA's missions, including understanding and predict changes in climate, weather, oceans, and coasts, sharing that knowledge and information with others, and conserving and managing coastal and marine ecosystems and resources, require targeted investments across NOAA's various offices and grants programs. Specifically, NOAA has targeted investments in the NMFS Community Based Restoration Program and Species Recovery Grants, NOS Marine Sensors Research and Development, Competitive Research and increased mapping and charting activities, and OAR Climate and Ocean Research, continuing important work in the Gulf and other coastal areas.

RESTORE Act

Question 3. How will NOAA work with Gulf States, represented by the Gulf Coast Ecosystem Restoration Council, to ensure RESTORE Act projects align with state priorities and are not held back by bureaucratic hurdles?

Answer. NOAA is working with the Gulf Coast States and other entities to help ensure a coordinated and collaborative approach to restoration that will help to avoid duplication and maximize the benefits to the Gulf States and the entire region. The Gulf Coast Ecosystem Restoration Council (Council) has already been working diligently to ensure that it is ready to move efficiently and effectively once funds are received. The Council recently released its Draft Initial Comprehensive Plan and Draft Programmatic Environmental Assessment for public comment. Additionally, NOAA has been working within the Council and with the States to look at its regulatory responsibilities as a consulting and commenting agency under statutes such as the Magnuson-Stevens Act and Endangered Species Act. NOAA believes that by looking at these issues upfront we can make regulatory processes associated with restoration projects more efficient and to help avoid unnecessary delays down the road.

The Gulf Coast Ecosystem Restoration Science Program, administered by NOAA, is also already coordinating with the States and stakeholders in the Gulf to maximize the benefits to the Gulf of projects funded under this Program, once funds are determined. NOAA and FWS have had over 100 meetings with stakeholders and partners throughout the process of developing the Gulf Coast Ecosystem Restoration Science Program. This includes consultation with Gulf States Marine Fisheries Commission, Gulf of Mexico Fishery Management Council, and other regional, state, academic, and non-profit entities. These meetings shaped the Program's current framework, and continued engagement over the coming months will inform the Program's goals and priorities.

Question 4. Can NOAA adapt existing programs to build on RESTORE Act projects that could then achieve greater environmental and economic recovery in the Gulf? Is this reflected in NOAA's FY 2014 budget request?

Answer. The important programs which NOAA administers across the country also benefit the Gulf Coast directly. Since the oil spill, NOAA has been active in the Gulf, monitoring and evaluating the health of the environment and local species as part of the NOAA mission. In the FY 2014 President's Budget request there are many programs that will focus existing programs on the Gulf of Mexico region. For example, NOS plans to fill critical NWLON gaps in the upcoming years and will prioritize the Gulf and East Coast which are most vulnerable to extreme storm events. In the FY 2014 President's Budget, NOS has also specifically identified the Gulf of Mexico as a region to which they will provide baseline ecological assessments, harmful algal bloom and hypoxic condition forecasts, and socioeconomic monitoring of restoration projects to estimate benefits. Many programs are similarly prioritizing work in the Gulf of Mexico.

In addition to all this work, some NOAA programs are specifically focusing on coordinating normal operations with RESTORE Act activities. For example, the NOAA Restoration Center Staff will coordinate NOAA's NRDA restoration planning and implementation with RESTORE Act activities to ensure a coordinated approach to restoration and recovery of the Gulf Coast Region. Being within NOAA allows the Gulf Coast Ecosystem Restoration Science Program to integrate well with existing

NOAA activities, including programmatic and NRDA activities. Through coordination with the Gulf States, partners, and stakeholders NOAA seeks to maximize the benefit of all RESTORE Act projects.

National Data Buoy Center (at Stennis)

Question 5. Regarding NOAA's FY 2013 plan to deal with sequestration, will cuts to the National Weather Service significantly impact the mission of the National Data Buoy Center at Stennis Space Center?

Answer. Yes, significant mission impacts are being realized at the National Data Buoy Center at the Stennis Space Center located in South Mississippi due to sequestration. Reduced funding levels under sequestration for the National Data Buoy Center (NDBC) have forced a significant reduction of contract workforce and deferment of maintenance activities for the remainder of FY 2013.

Due to current FY 2013 budget constraints, the NOAA National Data Buoy Center must defer annual maintenance of its coastal and offshore weather buoys that gather weather and ocean observations. This affects 101 buoys stationed miles off the U.S. coastline.

Additionally, NOAA must defer annual maintenance of its Coastal-Marine Automated Network (C–MAN) weather observation network located on stationary coastal locations such as lighthouses and piers. This affects 47 C–MAN stations nationwide.

While buoys are important observational assets, NOAA had to prioritize within the Local Warnings and Forecast base to sustain operational requirements such as the NWS workforce, dissemination infrastructure, and upper air observations. The reduction to buoy maintenance was proposed in order to lessen the impact of sequestration on the provision of warnings and forecasts that protect life and property. While there are no easy or painless options available, this plan represents NOAA's best effort to ensure that critical public services are protected and employee and mission impacts are minimized.

Question 6. What percentage of NDBC's budget will be cut to deal with for sequestration?

Answer. The approved spend plan for FY 2013 reduces NDBC's budget by approximately 40 percent from the FY 2012 level. (This does not include tsunami funding). In FY 2012, NDBC was funded at a level of $25.5M, while the level for FY 2013 is $14.7M.

Question 7. How does this cut compare to other programs within the National Weather Service?

Answer. All NOAA programs were reduced due to the sequestration. In this budget environment, NOAA has to make decisions that least impact our operational goals. The reduction to buoy maintenance was proposed in order to lessen the impact of sequestration on the provision of warnings and forecasts that protect life and property. While there are no easy or painless options available, this plan represents NOAA's best effort to ensure that critical public services are protected and employee and mission impacts are minimized. The percentage decrease between the FY 2012 and FY 2013 Spend Plan is 4.3 percent.

National Institute for Undersea Science and Technology

Question 8. How does NOAA view the importance of university research and partnership in the Gulf of Mexico and how is that reflected in the President's FY 2014 budget?

Answer. It is a high priority for NOAA to continue to leverage external university partnerships to optimize NOAA's research portfolio through integration of the academic community's cutting edge technical abilities. One of the most effective mechanisms for this support and leverage is NOAA's network of 18 Cooperative Institutes.

One of these, the Northern Gulf Institute (NGI) is a particularly effective partnership among Mississippi State University, the University of Southern Mississippi, Florida State University, Louisiana State University, the Alabama Dauphin Island Sea Laboratory, and NOAA. NGI conducts research that builds an integrated, comprehensive understanding of natural and human impacts on northern Gulf of Mexico ecosystems and associated economies to improve its management. In the FY 2014 President's Budget Request, NOAA requests an increase of approximately $11 million for Cooperative Institutes within the Office of Oceanic and Atmospheric Research (OAR). These increases are proposed across OAR's three budget sub-activities: Climate Research; Weather and Air Chemistry Research; and Oceans, Coastal and Great Lakes Research.

Although NURP funding for the National Institute for Undersea Science and Technology (NIUST), was terminated as part of the Continuing and Further Appropriations Act, 2013 (P.L. 113–6), NIUST partner universities are encouraged to apply for other funding opportunities through NOAA and the Office of Ocean Explo-

ration and Research (OER). In FY 2013, the language in the Consolidated and Further Continuing Appropriations Act, 2013 (Public Law No. 113–06) directs NOAA to, ". . . competitively award the funding provided above the request to preserve the work for the top centers it determines most valuable and consolidate this effort with the Ocean Exploration program, as appropriate." OER is providing FY 2013 funding to its Gulf of Mexico partners, including NIUST, using a competitive process designed to integrate the former NURP Center expertise to enhance Ocean Exploration external partnerships in the region.

Question 9. Will NOAA strive to maintain and support external partnerships and research programs in the Gulf to leverage resources and local expertise?

Answer. NOAA strives to maintain, support, and balance its internal and external partnerships and research programs including those in the Gulf, and does so through a number of mechanisms. Although NURP funding for the NIUST was terminated as part of the Continuing and Further Appropriations Act, 2013 (P.L. 113–6), NIUST partner universities are encouraged to apply for other funding opportunities through NOAA and OER. OER is providing FY 2013 funding to its Gulf of Mexico partners, including NIUST, using a competitive process designed to integrate the former NURP Center expertise to enhance ocean exploration external partnerships in the region.

NOAA's external partnerships in the Gulf of Mexico region also include NGI, one of NOAA's 18 Cooperative Institutes. NGI conducts research that builds an integrated, comprehensive understanding of natural and human impacts on northern Gulf of Mexico ecosystems and associated economies to improve its management. In the FY 2014 President's Budget Request, NOAA requests an increase of approximately $11 million for Cooperative Institutes within OAR. Additionally, the RESTORE Act (33 U.S.C. 1321) provides funding for research to restore ecosystems damaged by the Deepwater Horizon oil spill. This Act provides funding for Gulf Coast ecosystem restoration science, observation, monitoring, and technology programs, along with funding to establish centers of excellence to conduct targeted research in the Gulf Coast region.

The FY 2014 President's budget request for OER is designed to increase grants and competitive funding to support external partnerships for ocean exploration in priority regions, including the Gulf of Mexico. Partnership efforts will focus on: assessments and characterizations of unknown and poorly known ocean areas and phenomena; locating and assessing historically important submerged cultural resources such as shipwrecks; the development of advanced undersea technologies focused on accelerating the pace and efficiency of ocean exploration; and conducting focused exploration on targets identified in the potential U.S. Extended Continental Shelf.

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. KELLY AYOTTE TO KATHRYN SULLIVAN, PH.D.

Question. Dr. Sullivan, as you know, I have opposed NOAA's policy decision to prohibit interim measures in 2013 for Gulf of Maine cod and Gulf of Maine haddock. Without interim measures our small boat fleet in New Hampshire is in danger of extinction. Fishing is an historic and honorable trade that has been in many New Hampshire families for generations, and sustains the livelihood of fishing communities across New England. Current law directs NOAA to sustain both fish stocks and fishing communities. In the absence of interim measures, what action is NOAA prepared to take in 2013 to sustain our fishing industry in New Hampshire? How can New Hampshire fishermen be assured that they will not be forced out of business in the coming fishing year?

Answer. NMFS understands Northeast fishing communities face serious challenges due to the condition of groundfish stocks, and we are committed to doing everything we can to help them through these difficult times. For example, at the Council's request we removed a prohibition that now enables groundfish sectors to request through their annual sector operations plans access for their vessels to portions of year-round groundfish closed areas. With this prohibition now removed, we will be able to consider sector access requests on a case by case basis through a separate rule that is currently under development. NOAA is working to ensure that there is a mechanism in place for fishing operations to obtain and pay for required monitoring for the 2013 fishing year, as well as in the future, as monitoring costs eventually transition to the industry. However, our support for monitoring will not apply to special exemptions from fishery regulations that require 100 percent at-sea monitoring coverage. For example, Northeast groundfish sectors can request an exemption from the current minimum mesh size to target redfish, but would be re-

quired to pay for the 100 percent observer coverage needed to monitor bycatch in this fishery.

When we implemented interim measures to reduce, but not end, overfishing in 2012 for GOM cod, we notified the Council that it must end overfishing for this stock by May 1, 2013. At the request of the Council, we recently reviewed this determination. Based on this review, and upon advice of NOAA General Counsel, we have found no basis for changing last year's determination that we eliminate overfishing this year. To be consistent with the plain meaning of relevant provisions in the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), and in light of the clear mandate to end overfishing, a second year of interim measures that do not eliminate overfishing for GOM cod cannot be justified unless a change in circumstances has created a new emergency situation. At this time, there are no new circumstances that would give rise to a new set of interim measures. In addition, setting aside legal restrictions, allowing overfishing on this stock for another year would contribute to its declining status and inability to support a healthy and profitable fishing industry.

On September 13, 2012, Dr. Rebecca Blank, Acting Secretary of Commerce, determined a commercial fishery failure due to a fishery resource disaster for the 2013 fishing year. The Department of Commerce and NOAA will continue to work with Congress through existing mechanisms to develop additional measures to ease this transition.

To provide immediate assistance to small fishing communities like New Hampshire, we are providing greater access to more abundant fish stocks. In the fishing rules that went into effect on May 1, 2013, we laid the groundwork, providing potential access to some areas that have been closed to fishing, so fishermen can sustainably harvest healthy stocks like Georges Bank haddock and redfish in a way that still provides protections for other vulnerable groundfish stocks, habitat, and protected species.

We also increased quotas on white hake and winter flounder. The quota on winter flounder, alone, could generate an estimated $5.4 million in added revenue for fishermen this year. We lowered some groundfish sizes so fishermen can land and sell fish they were previously throwing overboard dead. We allowed some carryover of fish quota from last year that had not been caught. We are covering the costs of observers on fishing trips, an expense that was to be covered by the industry.

We made it easier in some areas to fish for monkfish, for which there are ready markets. Other measures make it easier for groundfish fishermen to fish for abundant stocks of spiny dogfish, skates and pollock, species that the U.S. public is just beginning to learn about.

Together with the New England Fishery Management Council, fishermen and others who want to help the groundfish fishery, NOAA is exploring every responsible way to help the fishing communities get through this difficult time, transition to healthier stocks and add value and improve marketing of these fisheries. We're reaching out to our partners in Congress and other Federal agencies for assistance, including the Small Business Administration, the USDA and others. The Economic Development Administration (EDA), also within the Department of Commerce, recently worked with cities in the region to create community development plans. The EDA plans can be a blueprint to assist State and local leaders to identify transition assistance for investments to sustain coastal communities. We will continue to work with the Council, Congress, the fishing industry, Federal and state agencies and other stakeholders to sustain the fishery, and the communities that depend on it, while continuing to rebuild groundfish resources. It will take a collective effort to find ways to keep both the fishery and the businesses that support it viable while these stocks recover.