

H.R. 958, H.R. 959 and H.R. 984

LEGISLATIVE HEARING

BEFORE THE
SUBCOMMITTEE ON FISHERIES CONSERVATION,
WILDLIFE AND OCEANS
OF THE
COMMITTEE ON RESOURCES
U.S. HOUSE OF REPRESENTATIVES
ONE HUNDRED EIGHTH CONGRESS
FIRST SESSION

Thursday, March 27, 2003

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LEGISLATIVE HEARING ON H.R. 958, A BILL TO AUTHORIZE CERTAIN HYDROGRAPHIC SERVICES PROGRAMS, TO NAME A COVE IN ALASKA IN HONOR OF THE LATE ABLE BODIED SEAMAN ERIC STEINER KOSS, AND FOR OTHER PURPOSES; H.R. 959, A BILL TO IMPROVE THE CONSERVATION AND MANAGEMENT OF COASTAL AND OCEAN RESOURCES BY AUTHORIZING NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION OCEANOGRAPHIC PROGRAMS; AND H.R. 984, A BILL TO IMPROVE THE CONSERVATION AND MANAGEMENT OF COASTAL AND OCEAN RESOURCES BY RE-ENACTING AND CLARIFYING PROVISIONS OF A REORGANIZATION PLAN AUTHORIZING THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION.

**Thursday, March 27, 2003
U.S. House of Representatives
Subcommittee on Fisheries Conservation, Wildlife and Oceans
Committee on Resources
Washington, DC**

The Subcommittee met, pursuant to notice, at 2:04 p.m., in room 1324, Longworth House Office Building, Hon. Wayne T. Gilchrest, [Chairman of the Subcommittee] presiding.

Present: Representatives Gilchrest, Pallone, and Bordallo.

STATEMENT OF THE HON. WAYNE GILCHREST, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MARYLAND

Mr. GILCHREST. The Subcommittee of Fish, Wildlife, and Oceans will come to order. Welcome, everybody, here this afternoon. Admiral Lautenbacher, Dr. Baker, we appreciate your attendance here this afternoon.

The National Oceanic and Atmospheric Administration was created as a result of the recommendations included in the 1969 Stratton Commission report. Those recommendations were designed to create an agency with broad ocean authority and to make several existing programs work together in a more coordinated manner to improve our understanding and management of the ocean and atmosphere. Two of the bills we are considering today, the NOAA Oceanographic Act and the NOAA Act further that purpose.

H.R. 984, the National Oceanic and Atmospheric Administration Act of 2003 updates and replaces the reorganization plan under which NOAA was created in 1970, establishes NOAA's primary mission, and authorizes appropriations for the agency's program support functions. H.R. 959, the National Oceanic and Atmospheric Administration Oceanography Amendments Act of 2003 authorizes appropriation for several of NOAA's coastal and ocean research programs that are not authorized under other statutes. These bills address programs under the joint jurisdiction of the House Science and Resources Committees. These bills provide an up-to-date baseline from which the Committee can work later this year and next year when it considers recommendations of the National Commission on Ocean Policy.

Today we will also hear testimony on H.R. 958, the Hydrographic Services Amendments of 2003. Last year Congress enacted a 5-year reauthorization of Hydrographic Service Improvement Act of 2003. This bill addresses several minor issues on which final action was not taken last year, including authorization of navigation response teams and the joint hydrographic institute and the treatment hydrographic services volunteers. The bill also names a cove in Alaska for Eric Steiner Koss, a crew member of the NOAA ship Rainier who was killed in a work-related accident at that cove last summer. Finally, the bill authorizes NOAA to replace two aging hydrographic survey vessels and three aging fishing survey vessels. These vessels are crucial if we are to ensure safe navigation in U.S. waters and if we are to have the fishery data necessary to make wise ecosystem management decisions.

We look forward to your testimony this morning especially on — all three bills actually, and the details of all three bills. We know that the Ocean Commission has not completed its work, yet the Pew Commission is working to review a number of things that we are also interested in. So as we move through the process of reauthorizing NOAA and dealing with Mr. Saxton's bill and ours as well, we will take much of what they recommend and say into consideration, both prior to bringing this bill to the floor and certainly after.

Dr. Baker and Admiral Lautenbacher, we appreciate your input on these issues today. I yield now to Mr. Pallone.

[The prepared statement of Mr. Gilchrest follows:]

**Statement of The Honorable Wayne T. Gilchrest, Chairman,
Subcommittee on Fisheries Conservation, Wildlife and Oceans, on
H.R. 958, H.R. 959, and H.R. 984**

The National Oceanic and Atmospheric Administration was created as a result of the recommendations included in the 1969 Stratton Commission report. Those recommendations were designed to create an agency with broad ocean authority, and to make several existing programs work together in a more coordinated manner to

improve our understanding and management of the ocean and atmosphere. Two of the bills we are considering today, the NOAA Oceanography Act and the NOAA Act, further that purpose.

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I look forward to the hearing from the distinguished witnesses and I would now recognize the gentleman from New Jersey, Congressman Frank Pallone.

STATEMENT OF THE HON. FRANK PALLONE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY

Mr. PALLONE. Thank you, Mr. Chairman. NOAA's activities and programs obviously are of great interest both to me and the Democratic members of the Subcommittee and I am looking forward to hearing from all of our witnesses or our two witnesses today.

NOAA is tasked with the enormous responsibility of managing our Nation's coastal and ocean resources. However, the Nation's responsibilities for managing our coasts and oceans have changed over the three decades of the agency's existence and our operative policies should accurately reflect this evolution. Therefore I support the intentions of the legislation that we have before us insofar as they mostly modernize and clarify existing authorities. But I must express some apprehension at acting prior to the release of comprehensive reviews of our ocean policy by both the U.S. Commission on Ocean Policy and the Pew Oceans Commission.

In the Oceans Act of 2000, Congress tasked the U.S. Commission on Ocean Policy to complete a comprehensive evaluation of ocean and coastal policies, programs, and activities, and subsequently, to recommend modifications to Federal laws and the structure of Federal agencies. This leads me to question why the Subcommittee at this time is considering legislation to authorize the existing up administration and organizational structure of NOAA which will assuredly fall under this commission's recommendation.

Mr. Chairman, I'm not implying that these bills are without substance or merit. On the contrary, authorization of a program to establish a coordinated ocean and coastal observing system has been warranted for several years, and particularly I have long been a strong supporter of the National Undersea Research Program and the fisheries management oriented research that the program sup-

ports in New Jersey and the Mid-Atlantic region. But before acting to authorize NOAA as a whole, the Subcommittee should first consider the broader context surrounding these issues, and consequently it is my belief that a more thorough vetting of these ideas among States, local governments, and the private sector is essential.

Mr. Chairman, I appreciate your interest in having this hearing today. I look forward to working cooperatively with you and the other members of the Subcommittee to ensure that NOAA remains the Federal Government's pre-eminent ocean authority, and I also look forward to future hearings later this year when the Subcommittee convenes to consider the final recommendations of these two national commissions. Thanks.

Mr. GILCHREST. Thank you, Mr. Pallone. Just one other issue before we get started. Mr. John Rayfield, a staffer who worked on the old Merchant Marine and Fisheries Committee--a Committee which we all hope will be here again sometime soon--is leaving us. From 1995 to the present, John has worked on the Resources Committee. He is not retiring, I do not think. He is going to the Coast Guard Subcommittee of the Committee on Transportation and Infrastructure. So thanks, John, for all of your service on this Committee.

Mr. PALLONE. Mr. Chairman, can I —

Mr. GILCHREST. I yield to the gentleman from New Jersey.

Mr. PALLONE. I just realized that I haven't introduced a new staff person for the Subcommittee, Katherine Ware, who is actually here for the first time today, so we want to welcome her to the Subcommittee as well on the Democratic side. Thank you.

[The prepared statement of Mr. Pallone follows:]

**Statement of The Honorable Frank Pallone, a Representative in Congress
from the State of New Jersey**

Thank you Mr. Chairman. NOAA's activities and programs are of great interest to me and the Democrat members of this Subcommittee. I am looking forward to hearing from our witnesses today. Welcome to you all.

NOAA is tasked with the enormous responsibility of managing our nation's coastal and ocean resources. However, the nation's responsibilities for managing our coasts and oceans has changed over the three decades of the agency's existence, and our operative policies should accurately reflect this evolution.

Therefore, I support the intentions of this legislation in so far as they mostly modernize and clarify existing authorities. But I must express some apprehension at acting prior to the release of comprehensive reviews of our ocean policy by the U.S. Commission on Ocean Policy and the Pew Oceans Commission.

In the Oceans Act of 2000, Congress tasked the U.S. Commission on Ocean Policy to complete a comprehensive evaluation of ocean and coastal policies, programs, and activities, and subsequently to recommend modifications to Federal laws and the structure of Federal agencies. This leaves me to question why this Subcommittee at this time is considering legislation to authorize the existing administration and organizational structure of NOAA, which will assuredly fall under this commission's recommendations.

I am not implying that these bills are without substance or merit. On the contrary, authorization of a program to establish a coordinated ocean and coastal observing system has been warranted for several years. In particular, I have long been a strong supporter of the National Undersea Research Program and the fisheries management oriented research that the program supports in New Jersey and the mid-Atlantic region.

Before acting to authorize NOAA as a whole, the Subcommittee should first consider the broader context surrounding these issues, and consequently, it is my belief that a more thorough vetting of these ideas among states, local governments, and the private sector is essential.

Mr. Chairman, I appreciate your interest in NOAA. I look forward to working cooperatively with you, and with the other members of this Subcommittee, to ensure that NOAA remains the Federal Government's pre-eminent ocean authority. I also look forward to future hearings later this year when this Subcommittee convenes to consider the final recommendations of these two national commissions. Thank you.

Mr. GILCHREST. Thank you, Mr. Pallone. I would also like to ask unanimous consent that the statement will be submitted to the record by Mr. Saxton.

[The prepared statement of Mr. Saxton follows:]

**Statement of The Honorable Jim Saxton, a Representative in Congress
from the State of New Jersey, on H.R. 984, H.R. 958 and H.R. 959**

Mr. Chairman, thank you for holding this hearing today. I commend you for introducing H.R. 984, a bill to authorize NOAA's basic structure and missions. Such legislation is long overdue. This bill provides a baseline from which the Committee can more effectively review the recommendations of the Ocean Commission later this year. I hope you will move it quickly. I also appreciate your including in today's hearing H.R. 959 which authorizes NOAA's oceanographic research programs.

When NOAA was created in 1972, it brought together Federal ocean and environmental monitoring and prediction programs into one agency. The Stratton Commission, which recommended the creation of the agency, believed that bringing these programs into one agency would encourage them to work more effectively together. This has occurred in some areas within the agency. However, budget pressures to support fishery management, weather prediction, and satellite construction, have often left NOAA's ocean, coastal and Great Lakes research programs to fight over whatever budget scraps remain after those larger programs are funded. H.R. 959 provides a separate authorization for these research programs. I hope this bill will highlight the important work done by these programs, and help provide them a fairer slice of NOAA's budget pie.

Of particular concern to me, is the authorization included in the bill for the National Undersea Research Program, popularly known as NURP. There are 6 NURP Centers around the country, most importantly, in my view, is the Mid-Atlantic Bight Center located in Tuckerton, N.J.. This Center works in conjunction with the Navy and the National Science Foundation to operate the Long-term Environmental Observatory at 15 meters (LEO-15). LEO serves as a test-bed for cutting edge undersea research technologies. Once proven, these technologies are used in other locations to establish integrated long-term ocean observing systems. The development and implementation of these systems are crucial if we are to understand the role of the ocean in long-term climate change, if we are to significantly improve weather forecasting, and if we are to understand the natural dynamics that govern marine ecosystems.

The bill also authorizes

- the Coastal Ocean Program which funds the Ecology of Harmful Algal Blooms (ECOHAB) program;
- NOAA's Great Lakes Environmental Research Laboratory, Pacific Marine Environmental Laboratory, and Atlantic Oceanographic and Meteorological Laboratory;
- the Coastal Observing Technology System; and
- the Ocean Exploration Program.

The bill also directs the National Ocean Research Leadership Council to provide Congress with a plan to implement the President's Panel on Ocean Exploration recommendation for a dedicated multi-year, multi-disciplinary voyage of ocean discovery.

Finally, I am pleased to see Don Young's hydrographic services bill on the schedule today. This bill authorizes several important additions to NOAA's navigation services programs. I hope to have a chance later today to ask the Admiral about NOAA's plans expanding implementation of its real time tide and current measurements program, and air-gap and visibility sensors.

Again, Mr. Chairman, thank you for holding this hearing today.

Mr. GILCHREST. Gentlemen, once again thank you coming this afternoon to give us your insight into this upcoming legislation. Admiral, you may begin, sir.

**STATEMENT OF VICE ADMIRAL CONRAD C. LAUTENBACHER,
UNDER SECRETARY FOR OCEANS AND ATMOSPHERE,
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION,
U.S. DEPARTMENT OF COMMERCE**

Admiral LAUTENBACHER. Thank you. Mr. Chairman, Congressman Pallone, distinguished members of the staff, thank you very much for having the opportunity this afternoon to testify on behalf of NOAA and the three bills that are up for discussion this afternoon that will authorized some of our very important activities. I have a lengthier statement which I ask to be submitted for the record and included.

Mr. GILCHREST. Without objection.

Admiral LAUTENBACHER. We will just go over a couple of high points in order to allow more time for questions. I view the issue of NOAA's organization, mission, and role as a very critical one, certainly to the Administration and to Congress and to the country. In one of my first acts as the Administrator of NOAA was to call for a bottom-up fundamental review that would examine the agency's missions, roles, and organizations for the future. We completed that 3 months later.

I had asked three questions which I thought were very pertinent to—and they are pertinent to our discussion today. First of all, is the NOAA organization aligned with its current missions and positioned for future missions? Second of all, are there any significant imbalances in our resources versus requirements? And third, are we being as efficient as possible in meeting current and future mission tasking?

That review was completed and was passed up through my organization, through the Secretary. We issued 68 recommendations from the program review and several of which were then forwarded to Congress for reprogramming authority to change some of our structure, and I am delighted to say it was agreed to. We're very pleased with Congress's support of these changes which have been codified in the bill that we are talking about today. So I am very grateful for that support in both houses of Congress as well as from the Administration. They, I think, are important pieces of building NOAA as a functional organization for the future.

Three of the items that were in there I mentioned that were particularly important I think were the creation of an office of program, planning, and integration to begin to bring down the NOAA stovepipes and build cross-mission tasking and bring what I would call a common corporate practice to government, that of matrix management; allowing us to set up teams to meet the missions requirements of the future. Realignment of permanent positions, 66 of which were brought into important areas such as education, and interagency and intergovernmental coordination. Many of the challenges we face are in building coalitions and partnerships across agencies and within other parts of our Federal and State Governments.

Third, the separation of regulatory and research functions, particularly within our fisheries area where we have taken the science offices and separated them from those that are doing, offices that are doing regulation and management in order to ensure the integrity of the science and the management. Those changes were made based on the reprogramming authority that we received from Congress and we are grateful for that support.

The three bills today before us do represent a comprehensive overview of NOAA and just let me make a couple of comments on each one here. Let me say, we are very grateful for the efforts of the staff and the members to support changes in our authorizing legislation, and the opportunity to build an organic bill for NOAA. It is the support of the staff here and this Committee that allows us to get to this point we are at today and I appreciate that very much.

We want to work with the Committee as we go through this process for all three of the bills that we have today. I think there is a great deal of merit in all three of them and that we can come to a successful conclusion in all of them.

The first bill, the first one on my agenda here, the Hydrographic Services Amendments of 2003, I want to thank the Subcommittee for their support for the reauthorization of our Hydrographic Services Improvement Act last year. This is a very important bill. The efforts over the last several years have allowed NOAA to completely convert our 1,000 paper charts to a computer-based digital system. The bill before us allows us to go even further. It picks up on some of the provisions which were left out of the legislation last year and it is important for us to deal with those issues.

The second bill, H.R. 959, the NOAA Oceanography Amendments Act, which clarifies the roles and responsibilities of NOAA line offices with regard to ocean and coastal responsibilities is extremely important as well. For instance, one of the labs that would be authorized in this bill is the lab that allowed us to predict the 1997, 1998, and the 2002 and 2003 El Nino months in advance. The work done by this laboratory is critical to the country and to the future of our economy. We would ask in this case, because not all of our labs are authorized, we would ask some flexibility in the legislation to allow authorization for our other lab structure as well in order that we can have the flexibility to meet some of the scientific and research challenges that we will meet in the future.

The third bill, the NOAA Administration Act, H.R. 984, extremely important because it lays out the organization of our office and authorizes the functions of the line offices, is extremely important. I am grateful again to the changes that have been made to the bill that we have asked for. I am particularly happy about the inclusion of the assistant administrator for programming, planning and integration. That is an important function that will allow us to meet the challenges of the future. And also the authorization of the science advisory board, another very important key piece which was begun by Dr. Baker and has turned out to be very valuable to our organization.

I do believe that we have a couple of things that we would ask to consult with and work on between the Administration, between the Committee, but I think that this is a great opportunity to move

forward and to provide an organic act as well as the oceanography and the hydrographic services act that we have here to help the agency and help the country.

Again, thank you, Mr. Chairman, for your support, and Congressman Pallone, for the support of the minority as well. I too want to thank John Rayfield, before I close, for his many years of support, dedication, talent, energy that he has put into this whole effort. On behalf of all of the employees at NOAA, we are very grateful to John for his hard work on our behalf. Thank you, Mr. Chairman.

[The prepared statement of Admiral Lautenbacher follows:]

Statement of VADM Conrad C. Lautenbacher, Jr., USN (Ret.), Under Secretary for Oceans and Atmosphere, National Oceanic and Atmospheric Administration, U.S. Department of Commerce

INTRODUCTION

Thank you, Mr. Chairman and Members of the Subcommittee, for this opportunity to appear before you to testify on three bills to reauthorize many of the ocean and coastal programs of the Department of Commerce's National Oceanic and Atmospheric Administration (NOAA). NOAA appreciates your continued support and interest in ensuring that it has the appropriate authorities and organization to address its ocean, coastal missions, as well as its atmospheric and climate prediction responsibilities. My testimony will address the three legislative proposals before the Subcommittee today: H.R. 958, the Hydrographic Services Amendments of 2003; H.R. 959, the National Oceanic and Atmospheric Oceanography Amendments Act of 2003; and H.R. 984, the National Oceanic and Atmospheric Administration Act of 2003. NOAA is pleased to provide initial comments on these three bills, and to work with the Committee as it deliberates.

The three bills would authorize the National Oceanic and Atmospheric Administration and its line and program offices, the Office of Oceanic and Atmospheric Research (NOAA Research), the National Marine Fisheries Service (NOAA Fisheries), the Office Marine and Aircraft Operations (OMAO), and the National Ocean Service (NOS). The legislation would also authorize NOAA programs and laboratories including the Coastal Ocean Program (COP), Great Lakes Environmental Research Laboratory (GLERL), Pacific Marine Environmental Laboratory (PMEL), Atlantic Oceanographic and Meteorological Laboratory (AOML), National Undersea Research Program (NURP), and Office of Ocean Exploration. The bills also authorize NOAA Research to conduct research and monitoring in support of coastal observations and hydrographic related services. They also authorize the Science Advisory Board (SAB) and the Fleet Replacement and Modernization program.

A number of provisions in these bills are currently under review with the Administration, we will work with the Committee, and inform them as positions are developed. For example, the Administration is considering alternative options to the volunteer authority in section 102 of H.R. 958, the Hydrographic Services Amendments.

NOAA is concerned that the language in Sections 3, 6, 7, and 8 of H.R. 984, The National Oceanic and Atmospheric Administration Act of 2003, may unnecessarily restrict the Secretary's ability to manage the agency, and we would be happy to work with the Committee to modify this language. We would also like to work with you regarding some technical changes to the provision dealing with the Director of Marine and Aviation Operations and the Commissioned Officer Corps.

H.R. 984, THE "NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION ACT OF 2003"

NOAA appreciates this opportunity to provide initial comments on this proposed legislation. I commend the Subcommittee for recognizing the need to facilitate the integration of ongoing research and management programs in order to meet diverse national needs and requirements. NOAA has a proud past and a promising future. I look forward to working with the Subcommittee as this bill makes its way through the legislative process. Before I address specific sections of the legislation at hand, I would like to spend a few moments discussing the NOAA Program Review Team report which gathered suggestions on organizational, resource, and business process changes for building a better NOAA to serve the American people.

Upon coming to NOAA, I called for a bottom-up, fundamental review that would examine the Agency's strengths and opportunities for improvement. On February 1, 2002, I asked all NOAA employees to respond to three questions about NOAA and the way we were doing business at that time. These three questions were:

1) Is the NOAA organization aligned with its current missions and future missions? If not, what are your recommendations for change, near-term and/or long-term?

2) Are there significant imbalances in resources versus requirements? If so, what are your recommendations for change, near-term and/or long-term?

3) Are we being as efficient as possible in meeting our current and future mission tasking? If not, what are your recommendations for change near-term and/or long-term?

The Program Review Team (PRT), comprised of 16 representatives of NOAA line and staff offices, deliberated for three months, and made recommendations to address many of the responses. In June 2002, under my signature, NOAA issued 68 recommendations from the Program Review Team process.

There are many other PRT management improvements that are crucial to improve the way we do business at NOAA. I look forward to working the Committee to coordinate these activities with your efforts. These include:

- Creation of the Office of Program Planning and Integration, which would be comprised of 10 permanent positions reprogrammed from the Under Secretary and Associate Offices and 13 staff detailed from NOAA's line offices. The creation of this office will result in enhanced research and planning functions, reduce duplication of effort, provide better alignment of missions, and fill voids in NOAA's corporate capabilities.
- Realignment of 66 permanent positions within the Under Secretary and Associate Offices to consolidate NOAA education efforts under the Office of Education and Sustainable Development, and realign interagency and intergovernmental coordination under the Office of Public, Constituent and Intergovernmental Affairs.
- Separating as much as possible regulatory and research functions within the Line Offices. This activity also entails creating a science position within top NOAA Fisheries management, and shifting the reporting of regional Science Center Directors from the Regional Administrators to top management within NOAA Fisheries.
- Developing a formal corporate decision making process by establishing two corporate boards: the NOAA Executive Council (NEC) to review NOAA-wide policy and management issues and NOAA Executive Panel (NEP) to manage NOAA operations and make policy recommendations to the NEC.
- Establishing a sequential planning, programming and budgeting process. A new requirements review of NOAA activities will be part of the programming process.
- Managing cross-cutting programs, such as climate and corals, through a matrix approach that provides managers dual reporting authority and budget authority.
- Instituting needed administrative service improvements. These would, for example, significantly reduce the time needed to award grants to your constituents and would put funding increases into the hands of NOAA program managers within 20 business days after an appropriations bill is signed by the President. We are also working to improve facilities maintenance and safety.
- Establishing a working group to develop an Observing System Architecture.

Implementation of this effort will begin to position NOAA to meet the critical resource and environmental challenges that the Nation will face in the 21st century. It is intended to unlock the full potential of this talented organization by providing an improved management structure and new strategic management processes. These actions will improve integration across our line offices, increase efficiency, provide more management visibility, promote increased responsiveness to customer needs, and be totally supportive of the President's Management Initiatives. By infusing a set of corporate business practices in the near-term and focusing and strengthening capabilities in the long term, NOAA will improve mission delivery and develop a "corporate NOAA" identity.

Section 10. Science Advisory Board

Sec. 10 of H.R. 984 authorizes the Science Advisory Board (SAB) and its activities. The language would authorize the SAB and its operation within NOAA to provide advice to the agency on strategies for research, education, and the application of science to resource management and environmental assessment and prediction. NOAA is pleased to see Congress' recognition of the importance of the SAB. The

Secretary of Commerce initially approved the establishment of the SAB on August 15, 1997. The Board was initially chartered under the Federal Advisory Committee Act (5 U.S.C. App. 2) on September 25, 1997, with the General Services Administration's concurrence. Since its inception, the SAB has operated under a charter that is consistent with that proposed in this legislation.

We request two modifications to Section 10. First, in Section 10 (c) (1), strike "appointed by the Under Secretary" and insert "appointed by the Secretary." Second, in Section 10 (c) (3) (A), strike "and shall serve at the discretion of the Under Secretary" and insert in lieu thereof, "and shall serve at the discretion of the Secretary." With these changes, the Secretary of Commerce will appoint the members of the SAB, SAB members will serve at the discretion of the Secretary, and the Secretary may reappoint SAB members, or not, to additional terms on the SAB. We believe these changes provide the Secretary the appropriate flexibility to ensure that the SAB is effective in its role of advising the Under Secretary on strategies for research, education, and application of science to resource management and environmental assessment and prediction. Also, we believe that the issue of term limits for board members would be better addressed through the charter for the particular board, rather than through legislation.

Section 11. General Authorities, Grants, Contracts and Cooperative Agreements

NOAA requests that H.R. 984 be amended to include alternative language authorizing the Joint and Cooperative Institutes similar to that included in Fiscal Year 2003 appropriations approved by Congress, as follows:

"Provided further, That the Secretary of Commerce may hereafter enter into cooperative agreements with Joint and Cooperative Institutes as designated by the Secretary to use the personnel, services, or facilities of such organizations for research, education, training, and outreach."

As currently drafted, the proposed language may unduly restrict NOAA's ability to pursue additional needed research in other fields with the Joint and Cooperative Institutes in the future. The suggested language allows for greater flexibility that could enhance NOAA's ability to fulfill its mission.

This section allows NOAA to continue to collaborate with Joint and Cooperative Institutes across the country on long-term research programs. Each of these Joint and Cooperative Institutes are formal, collaborative long-term research partnerships established under a Memorandum of Understanding (MOU)/Agreement (MOA) between NOAA, through the Office of the Under Secretary of Oceans and Atmosphere, and participating universities and non-profit research institutions with programs dedicated to oceanographic and/or atmospheric research, education and outreach. By design, most of the Institutes are geographically co-located with one or more NOAA facilities to promote scientific exchange and collaboration. The Joint and Cooperative Institutes bring together the resources of a research-oriented University or institution and NOAA in order to develop and maintain a center of excellence in research relevant to understanding the Earth's oceans, the Great Lakes, inland waters, Arctic regions, solar terrestrial environment, intermountain west, and the atmosphere.

In addition to authorization for NOAA to enter into agreements with Joint and Cooperative Institutes, I would like to call the Committee's attention to NOAA's concerns regarding interagency financing issues for Coastal America and the National Oceanographic Partnership Program (NOPP). An annual appropriations provision that applies to all Federal Agencies restricts these organizations' abilities to obtain contributions from partner agencies for their operations. These two programs provide models for interagency collaboration on environmental and oceanographic projects. NOAA encourages the Committee to consider the broader need for NOAA-wide authorities to facilitate the success of such collaborative efforts and initiatives. I believe that clarifying and updating NOAA's authority to enter into cooperative agreements, contracts, grants, resource-sharing agreements, and joint and cooperative institutes with a single NOAA-wide authority for these purposes will enable NOAA work efficiently with public and private partners, and to keep pace with its evolving responsibilities in this area.

NOAA would prefer this language: "(a) In carrying out the programs and activities authorized for the Administration, the Secretary may enter into grants, contracts, or cooperative agreements with Federal agencies, States, local governments, regional agencies, interstate agencies, Federally-recognized Indian Tribes, commercial organizations, educational institutions, non-profit organizations, or other persons. In addition, to facilitate the implementation of programs and activities authorized for the Administration, the Secretary may apply for, accept, and use grants or funds from other Federal agencies, States, local governments, regional agencies, interstate agencies, or other persons."

The Commissioned Corps of NOAA is one of the seven uniformed services. It is important that legislation relating to NOAA preserve explicitly the special functions of the Commissioned Corps, including its national emergency functions under Sections 251 and 253 of the NOAA Commissioned Officer Corps Act of 2002. Accordingly, we request addition of the following subsection to Section 11, “(d) COMMISSIONED CORPS.—Nothing in this Act shall be construed to supersede or otherwise affect the National Oceanic and Atmospheric Administration Commissioned Officer Corps Act of 2002 (Title II of Public Law 102–372).”

Section 12. Program Support

NOAA generally supports the authorized amounts to be appropriated for Corporate Services under Section 12 (a). These amounts would be sufficient to provide corporate services, including management, administrative support, and policy development. The proposed section authorizing appropriations for Corporate Services for each of the fiscal years 2004–2008 should, however, be consistent with the President’s Fiscal Year 2004–FY 2008 budget requests.

NOAA also supports Section 12 (c) of the proposed legislation, which authorizes appropriations to enable NOAA to carry out activities related to maintenance, repair, safety, and project planning and execution of facilities. Addressing the backlog of facilities maintenance and repair is critical to NOAA’s mission. Since coming to NOAA, I have focused on our greatest asset, our people. Efficient mission delivery is highly dependent on a team of skilled and motivated NOAA employees. In order to attract and retain a competent and productive workforce, NOAA must maintain state-of-the-art facilities to which this workforce reports each and every day.

Section 13. NOAA Fleet and Modernization

NOAA’s fleet of ships and aircraft support a wide range of ocean and atmospheric missions, including oceanographic and fisheries research, nautical charting, habitat mapping and characterization, ocean exploration, climate studies, hurricane research and reconnaissance, and air chemistry studies. Most recently, the NOAA fleet have been supporting the Nation’s homeland security efforts. NOAA’s hydrographic survey ships also have been assisting the U.S. Navy with 100-percent bottom coverage route surveys in strategic ports around the Nation.

In Fiscal Year 2004, assuming the level of funding specified in the President’s Fiscal Year 2004 request, the NOAA fleet will comprise 16 ships (including the reactivation of the FAIRWEATHER) and 13 aircraft. Over 50 percent of NOAA’s funding for ship support will be met through outsourcing and over 40 percent of aircraft funding will go toward aircraft charters. In-house data collection will be supported by 4050 Operating Days on NOAA vessels and 3815 flight hours on NOAA aircraft. As program requirements for ship and aircraft support increase at NOAA, and the age of the fleet increases, it is critical that NOAA document the appropriate mix of outsourcing and in-house data collection and generate a schedule for the modernization and replacement of NOAA platforms. Last fall, I directed NOAA Marine and Aviation Operations to prepare 10-year modernization plans for NOAA ships and aircraft. The plans document program requirements; new and emerging mission areas, such as homeland security; outsourcing efforts; and proposes a schedule for the modernization and replacement of the NOAA fleet. The ship and aircraft plans are currently in review at NOAA.

Section 13 (b). Fleet Modernization Plan

NOAA plans to continue the fleet planning and modernization effort described above, and match it to the budget cycle. As such, it is our intention to develop a 5 year plan that is updated annually. This would allow NOAA to evaluate annual progress to the current status of the fleet modernization plan.

H.R. 959, THE “NATIONAL OCEANIC AND ATMOSPHERIC OCEANOGRAPHY AMENDMENTS ACT OF 2003”

NOAA conducts a wide array of research aimed at meeting its missions of protecting, restoring, and managing the use of coastal and ocean resources through ecosystem management approaches; understanding climate variability and change to enhance society’s ability to plan and respond; serving society’s needs for weather and water information; and supporting the Nation’s commerce with information for safe and efficient transportation. Our people are working worldwide using some of the oldest methods, as well as the most modern, to enhance and further our understanding of our oceans and coasts. Using tools in space, on the surface of the sea, and on the very depths of the ocean bottom, NOAA science has provided valuable information for use by decision-makers and the general public. NOAA is pleased to see Congress’ interest and support of our ocean and coastal programs over the years and in the bills before us, and we look forward to working with you further to en-

sure that the full breadth of our oceanographic research programs are able to continue their critical work. These funds will allow NOAA to continue and enhance cooperative research on ocean and coastal issues with other Federal partners.

NOAA's ocean and coastal research efforts are wide-ranging and have many significant impacts. Just a few examples include:

- The Coastal Ocean Program (COP) is an important competitive, peer-reviewed research program focused on long-term, large-scale ecosystem studies necessary to develop alternative strategies for improving the condition of the coastal ocean. Major research areas of this program include: coastal fisheries ecosystems, cumulative coastal impacts, and harmful algal blooms/eutrophication.
- The Center for Environmental Health and Biomolecular Research (CCEHBR) at Charleston, South Carolina, is responsible for research that leads to the development and improvement in the ecological indicators from the molecular to the ecosystem level. Major research areas include: marine toxins and harmful algal blooms; environmental quality and coastal ecosystem health; land use and presence of chemical contaminants in the marine environment; and genetic characterization of fish and shellfish.
- The Tsunami Hazard Mitigation Program has had several accomplishments in recent years for hazard assessment, warning, and mitigation. For example, tsunami inundation maps were completed for 25 additional communities in Alaska, California, Hawaii, Oregon and Washington in fiscal year 02. Evacuation maps are being standardized so that colors and legends are consistent from state to state for evacuation brochures. The array of six deep ocean tsunami detectors was maintained in Fiscal Year 2002 with 98 percent data return using the NOAA research vessel Kai'moana. A false alarm was avoided on January 21, 2003 when a large earthquake on the Mexico coastline produced a 1.2 meter tsunami in Manzanillo Bay. A tsunami forecast model is now in place to begin producing tsunami wave forecasts for selective cities. Investments in tsunami evacuation maps and state level mitigation plans have raised the awareness of coastal residents and local decision makers for tsunami hazards and appropriate response.
- Studies are conducted at the Pacific Marine Environmental Laboratory (PMEL) to improve our understanding of the complex physical and geochemical processes operating in the world oceans, to define the forcing functions and the processes driving ocean circulation and the global climate system, and to improve environmental forecasting capabilities and other supporting services for marine commerce and fisheries.
- The Atlantic Oceanographic and Meteorological Laboratory (AOML) has addressed such critical issues as rapid hurricane intensification and helped improve the accuracy of hurricane forecasts, helping to save lives along the U.S. coastline by contributing significantly to better warnings and emergency management.

NOAA LABORATORIES

Sec. 5. Oceanography Programs

NOAA is pleased to see that H.R. 959 includes specific authorization for facilities such as NOAA's Great Lakes Environmental Research Laboratory (GLERL), and general authorization for activities related to coastal environmental health and biomolecular research. Among these activities is research such as that conducted at the Center for Environmental Health and Biomolecular Research (CCEHBR), which was not specifically authorized in this legislation. We appreciate the interest in NOAA's laboratories. NOAA also requests that Congress provide language allowing the agency flexibility to create new laboratories and programs, or reassign tasks as needed, to better meet its mission as new needs may arise. For example, the NOAA

Environmental Technology Laboratory conducts research into remote sensing technologies for studying fisheries, and is not mentioned in the legislation.

NOAA is concerned about the authorization of appropriations in Sec. 208(2) that provides \$12 million for ocean and coastal research activities of laboratories and joint institutes, other than activities related to GLERL, for fiscal years 2004 through 2008. The President's Fiscal Year 2004 request for these activities among AOML, PMEL, and the Environmental Technology Laboratory (ETL) is \$11.716 million. Holding the authorization steady at \$12 million would curtail the activities specified by this section in coming years due to inflationary costs alone. The allowance for GLERL in the authorization of \$10 million for fiscal years 2004 through 2008 may also not allow for necessary inflationary increases. NOAA requests that H.R. 959 be amended to provide authorization levels consistent with the President's Budget.

In Fiscal Year 2002 appropriations, Congress directed NOAA to fund seven university-based programs engaged in the collection and management of coastal ocean

data and in the development and verification of sensor technologies. Collectively referred to as the Coastal Observation Technology System, these awards totaled almost \$13 M. In addition, NOAA received \$475K for program development under the title of Coastal Observation Technology System. Two of the awards were administered by NOAA Research and five were administered by NOS. NOAA worked with these partners to ensure that system development and data management protocols would be compatible with the national Integrated Ocean Observing System plan under development at the Ocean.US office (under the guidance of the National Ocean Research Leadership Council).

In the Fiscal Year 2003 appropriations, Congress has directed NOAA to continue supporting six of the projects funded in Fiscal Year 2002 plus two new related projects, totaling \$14.26 M (all in the NOS budget in fiscal year 03). NOAA receives \$1.69 M for program development under the Coastal Observation Technology title.

It is important to note that elements across NOAA are working with various partners on issues related to collecting, processing, and applying observations of the coastal environment. The Coastal Observation Technology System is but one component of this effort. While working with these programs, NOAA has also assisted Ocean.US in the development of a plan for a national coastal ocean observing system.

RESEARCH PROGRAMS

Sec. 4. Ocean Exploration Program

NOAA would like to suggest one change to the authorities of the Ocean Exploration Program (OE) highlighted in the new Sec. 206(c)(3). The language suggests that OE should conduct public education and outreach activities “in conjunction” with the National Sea Grant College Program (Sea Grant) and the National Science Foundation Centers for Ocean Science Education Excellence (COSEE). NOAA would prefer that the language specify “cooperation” rather than “conjunction.” This would allow OE to continue to sponsor and conduct public education and outreach activities that are complementary to Sea Grant and COSEE’s work without having to conduct each activity with them each time, which might not be the most efficient use of available resources.

NOAA also recommends amending Sec. 206(c)(4) by adding the word “services” to the list of donations that OE can accept. This would allow for individuals with particular expertise in NOAA’s issues to contribute their knowledge to assisting our mission.

Ocean Observations

H.R. 959 also authorizes appropriations for other exciting ocean and coastal research programs in NOAA. ARGO floats are authorized for \$9M from fiscal years 2004 through 2008. ARGO is part of a larger observational network dedicated to describing, understanding, and predicting the earth’s climate system. NOAA’s climate observation program is built on the recognition that national and international partnerships are essential to success. A global observing system by definition crosses international boundaries and the potential exists for both benefits and burdens to be shared by many nations. The climate observation program supports both ocean and atmospheric components, but the ocean has received the most attention to date because climate research has left ocean observing system legacies that must be transitioned to an operational framework. Today NOAA laboratories, university partners, and volunteer observing ships operate about 60 percent of the in-situ ocean observing system for climate.

NOAA conducts observations in the deep as well as coastal oceans using a variety of tools. While H.R. 959 discusses in the new Sec. 207 a Coastal Observation Technology System, the only open ocean observing system authorized by H.R. 959 appears to be ARGO. As part of the larger system needed to understand our climate and improve the management of our Nation’s coastal and ocean resources, ARGO relies on other critical components that may be distinct from technologies used in coastal ocean observing systems. NOAA requests that these components and efforts also be recognized and authorized as it continues implementing a global ocean observing system. Together, the coastal and deep ocean observing technologies paint a much stronger picture of our environment and its variability that will be of much greater value to decision-makers.

Arctic Research

H.R. 959 authorizes funding for Arctic research partnership programs. The Arctic Research Office (ARO) serves as a focal point for NOAA’s research activities in the Arctic, Bering Sea, North Pacific and North Atlantic regions. The office manages the Arctic Research Initiative, the Study of Environmental Arctic Change Program

(SEARCH), and other funds allocated to it, supporting both internal NOAA and extramural research. It represents NOAA on the Interagency Arctic Research Policy Committee, leads U.S. involvement in the Arctic Monitoring and Assessment Program, and provides a point of contact between NOAA and the Cooperative Institute for Arctic Research and the International Arctic Research Center at the University of Alaska Fairbanks.

NOAA is concerned that authorized appropriations in H.R. 959 do not meet the request currently in the Fiscal Year 2004 budget. As noted previously for our laboratories, the funding level of \$4 million authorized in the bill is just above the total requested levels for Arctic research programs and SEARCH. Fiscal year 2004 funding for SEARCH is actually at \$2.074 million, above the \$2 million level authorized by H.R. 959. We would request that the authorization levels be consistent with the President's Budget.

H.R. 958, THE "THE HYDROGRAPHIC SERVICES AMENDMENTS OF 2003"

I appreciate and thank the Chairman and members of the Subcommittee for their continued support for NOAA's hydrographic services, including your successful efforts in the last Congress to reauthorize these programs for five years. The efforts of this Subcommittee have been an essential reason for significant new investment in these programs. The base budget for these services has increased 80 percent in seven years from \$71 million in fiscal year 96 to \$128M in the President's fiscal year 04 request.

NOAA has used increased support to completely convert to a computer-based, digital system for maintaining our suite of 1,000 paper charts. This has allowed us to keep our chart suite updated on an almost daily basis. It also resulted in the availability of the raster digital chart, which is basically a digital version of the paper chart. NOAA has developed new ways of getting this updated information to mariners. For example, instead of buying a paper chart that gets more and more outdated every day it sits on a shelf, we have introduced "print-on-demand" whereby a chart is printed from our constantly updated database when it is ordered.

Of course, the advent of new technologies is allowing for development of a much more dynamic digital chart than a computerized rendition of the historic paper chart. The objective, as established by the International Maritime Organization, is for nations to provide a truly digital, vector chart based on internationally agreed upon standards. NOAA's IMO-compliant product is called the Electronic Navigational Chart or ENC. NOAA has prioritized development of these charts beginning with major ports and waterways. To date, about 240 have been produced and are being regularly updated and maintained. They are being provided at no cost to the public via the Internet. More than 430,000 have been downloaded since we first posted them on the Web in July of 2001.

NOAA has made similar progress in our efforts to reduce the backlog of survey requirements, implement real-time oceanographic systems, and improve the capability to utilize GPS through the National Spatial Reference System. Over this same period, we have increasingly relied on the private sector to achieve our program goals. For example, more than half of our funding for hydrographic surveys is dedicated to contracting.

Section 103(a) Quality Assurance Program

This section would essentially require NOAA to promote acceptance by other nations and international organizations private sector products certified by NOAA. As was noted in the Administration's views letter of June 26, 2002, the foreign policy objectives of this section should be advisory and be included in the Committee Report on the bill.

Section 103(b) Implementation of Executive Order and OMB Circular

As was noted in the Administration's views letter of June 26, 2002, this section should be advisory and be included in the Committee report on the bill. The Department is aware of, and currently implementing, its Executive Branch policies on geospatial information.

Section 104 Plan Regarding Photogrammetry and Remote Sensing

As was noted in the Administration's views letter of June 26, 2002, this reporting requirement is unnecessary because NOAA is already planning to increase outsourcing for these services. Development of the plan has included consulting with relevant private sector organizations.

Section 105 Acquisition of Hydrographic Survey Vessel

Congress has already provided sufficient authority to acquire hydrographic vessels, including the authority to procure and lease hydrographic vessels under Section 303(b)(1) of the Hydrographic Services Improvement Act.

Section 106 Koss Cove

The NOAA family is very grateful for Section 106, which memorializes an Alaskan cove in honor of Able Bodied Seaman Eric Steiner Koss of the NOAA Vessel RAINIER, who died in the performance of a nautical charting mission off the coast of Alaska. As this cove appears to be in state waters, NOAA would be happy to work with the Committee to ascertain that the State of Alaska has agreed to the name change.

Section 107 Depiction of Same Shorelines on Charts and Mapping Products

To reflect the merger of the Federal Emergency Management Agency into the Department of Homeland Security, in section 107 strike, "Federal Emergency Management Agency," and insert in lieu thereof, "Secretary of Homeland Security."

In conclusion, NOAA stands ready to work with the Subcommittee staff to make the necessary changes to the draft bills to reach our mutual goal of improving NOAA's service to the Nation. This concludes my testimony, and I would be pleased to respond to any questions you may have.

Mr. GILCHREST. Thank you, Admiral.
Dr. Baker.

**STATEMENT OF D. JAMES BAKER, PRESIDENT AND CHIEF
EXECUTIVE OFFICER, ACADEMY OF NATURAL SCIENCES**

Mr. BAKER. Mr. Chairman, Mr. Pallone, thank you very much for the opportunity to testify. I am pleased to have served as Under Secretary for Oceans and Atmosphere and as Administrator of NOAA from 1993 to 2001, and especially pleased to see the excellent job that Admiral Lautenbacher has done as my successor. I am also serving as chair of the International Steering Committee for the Global Ocean Observing System. I believe it is very important for NOAA to have an organic act, and I am pleased to testify in favor of both resolutions, 984 and 959, which provide that necessary legislation. This will provide strength to the vital programs that NOAA carries out.

NOAA has had an important impact on the conduct of national and world affairs since it was formed in 1970. During my tenure I was pleased to see Congress support these missions and increase the budget substantially. Today NOAA leads in civil satellite operations, in ocean exploration, and in coastal conservation. Yet at critical times in these and other national policy debates there have been questions about NOAA's mission and authority, especially where NOAA's programs appear to overlap that of other agencies. An organic act would help avoid these unnecessary debates and allow NOAA to carry out its mission.

I like what I see here about ocean exploration and believe that it encompasses well the national mission and role of NOAA. I agree with Congress that a strong ocean exploration program is critical for the country and I am pleased that thanks to Congressional support NOAA has taken the lead in ocean exploration in the United States and real progress is being made. As you know, the National Research Council was charged by Congress with assessing the feasibility and value of implementing a major coordinated international program of ocean exploration and discovery.

I am convinced that NOAA will play a critical leadership role in recommending and implementing whatever program is recommended and finally funded.

In terms of ocean observing systems, I was pleased to see the emphasis on both coastal and global observing systems. From my point of view as chair of the International Global Ocean Observing System Steering Committee I can say that NOAA's leadership in coastal and global operations is critical to success for using ocean data for a variety of purposes. Under the leadership of Dr. Worth Nowlin at Texas A&M an international plan has been developed and is being implemented with strong support through the multi-agency Ocean.US office ably headed by Dr. Eric Lindstrom. I also want to emphasize the leadership of Dr. Tom Malone of the University of Maryland who has been instrumental in putting together the Coastal Ocean Observing Program, which will need strong support at the upcoming Intergovernmental Oceanic Commission meeting.

I was also pleased to see a specific mention of ARGO floats. As you know, Mr. Chairman, when I was head of NOAA I worked with you and your colleagues to develop a comprehensive ocean observing system with ARGO floats as a key component. Today the ARGO program is being supported by the United States and 15 other countries around the world, and observations are routinely available. More than 20 percent of the total proposed global array is operating and that funding is coming at a rate almost sufficient to complete the global array of 3,000 floats in a few years. I especially commend the new Administrator, Admiral Lautenbacher, and Dr. Stan Wilson who have continued to support and develop the program.

Let me say also that as we look to the future it will be critical to have other ocean observations; namely, the satellites that measure the shape of the ocean, altimeter satellites such as the multinational JASON-2 program; more tropical moored buoys such as the TOGA-TAO array that gives us information for forecasting the El Nino; coastal moorings, sea-level gauges, surface drifting buoys, and measurements from ships of opportunity. These are all critical for understanding the ocean. Such observations coupled with data management are critical for dealing with coastal and global issues.

Let me conclude with a word about details of the legislation. From my experience, I would suggest that is important to have the Under Secretary report directly to the Secretary with no intermediary. This is critical for functioning of the agency. I notice that the assistant administrators are to be appointed by the Secretary. I believe that this appointment authority should be delegated to the Under Secretary.

Finally, I was pleased to see the strong support provided to the Science Advisory Board. This has been a critical element for NOAA as it reaches out to a broader community. With the excellent leadership of Dr. Al Beeton, that group was able to provide very good guidance for a variety of programs and I am glad to see that it will continue.

Mr. Chairman, H.R. 959 speaks strongly about the need to have a heightened scientific literacy and public appreciation of the oceans and the need for NOAA to conduct public education and out-

reach activities that improve public understanding of ocean science, resources, and processes. I believe this can best be done in collaboration with existing institutions, and there are many institutions that NOAA reaches out to today.

Among those are my own institution, The Academy of Natural Sciences, where we carry out environmental research on a national scale as well as in Pennsylvania and on the Chesapeake Bay. Our laboratories work closely with NOAA on a variety of issues and we depend, as does the general public, on a healthy Federal research structure as exemplified by NOAA. Our Estuarine Research Center works closely with NOAA's Chesapeake Bay office, with the University of Maryland, and with other local and regional institutions. We believe that by working together we can find a way to bring our strengths to bear on the important issues that you have shown leadership on for such a long time. We hope we can develop some new public programs in Maryland and Philadelphia to build the scientific literacy that is highlighted in the bill, and we look forward to working with NOAA to improve the public understanding of oceans.

We are looking to reinvent our natural history museum to show the excitement and commitment of this important research. I am looking for ideas about how we might do this, and we are talking to you and your colleagues and the staff about what might be done. Our two institutions, NOAA and The Academy actually do have a connection and it comes through Thomas Jefferson because, of course, it was Thomas Jefferson who established the original coast survey that started NOAA, and it was Thomas Jefferson who in fact sent Lewis and Clark out on their famous expedition. At The Academy of Natural Sciences we have all of the original plant specimens from Lewis and Clark. So if you will pardon me for putting in a plug for an exhibit in November 2004, I want to say that we will have the first bicentennial exhibit of the Lewis and Clark exhibit in Philadelphia. It will also be coming to Washington in 2006.

So thank you for the opportunity to be here today, and let me also say a word in praise of John Rayfield. Most of what I know about how to deal with Congress I learned from John over the many years that I was working with him before I came to NOAA and while I was at NOAA. John, thank you for your help and congratulations on your new job with the Coast Guard. Thank you, Mr. Chairman.

[The prepared statement of Mr. Baker follows:]

Statement of D. James Baker, President and Chief Executive Officer, Academy of Natural Sciences, Philadelphia, Pennsylvania, on H.R. 959 and H.R. 984

1. Introduction

Mr. Chairman, thank you for this opportunity to testify at this important hearing. I am D. James Baker, President and Chief Executive Officer at the Academy of Natural Sciences in Philadelphia. I am pleased to have served as Under Secretary for Oceans and Atmosphere and as the Administrator of the National Oceanic and Atmospheric Administration (NOAA) from 1993 to 2001. I am also serving as the Chair of the international Steering Committee for the Global Ocean Observing System sponsored by the Intergovernmental Oceanographic Commission of UNESCO, the World Meteorological Organization, the United Nations Environment Program, and the International Council for Science. I believe that it is very important for

NOAA to have an Organic Act, and I am pleased to testify in favor of House Resolutions 984 and 959 which provide the necessary legislation. The Congress has always strongly supported NOAA, and I hope that this resolution will also pass, because it will provide strength to the vital programs NOAA carries out.

From weather and climate to fisheries and coastal zone management, NOAA has had an important impact on the conduct of national and world affairs since it was formed in 1970. During my tenure, I was pleased to see Congress support these critical missions and increase the budget substantially. Today NOAA leads in civil satellite operations, in ocean exploration, and in coastal conservation among other issues. Yet at critical times in these and other national policy debates there have been questions about NOAA's mission and authority especially where NOAA's programs appeared to overlap that of other agencies. An organic act would help avoid these unnecessary debates and allow NOAA to carry out its mission. I would like to divide my testimony into three parts: (1) the importance of NOAA nationally in ocean exploration, (2) the role of NOAA in coastal and global ocean observations, and (3) the need for NOAA to make its case to the public.

1. Ocean Exploration

I like what has been written here about ocean exploration, and believe that it encompasses well the national mission and role of NOAA. I agree with the Congress that a strong ocean exploration program is critical for the country. Thanks to Congressional support, NOAA has taken the lead in ocean exploration in the United States, and real progress is being made. As you know, the National Research Council has been charged by Congress with assessing the feasibility and value of implementing a major, coordinated, international program of ocean exploration and discovery. I am convinced that NOAA will play a critical role in implementing whatever program is recommended and finally funded.

2. Ocean Observing Systems

In terms of ocean observing systems, I was pleased to see the emphasis on both coastal and global observing systems. From my point of view as Chair of the International GOOS Steering Committee, I can say that NOAA's leadership in coastal and global observations is critical to success for understanding, predicting, and using ocean data for a variety of purposes. Under the leadership of Dr. Worth Nowlin at Texas A&M University, an international GOOS strategic plan has been developed and is being implemented with strong U.S. support through the multi-agency Ocean.US office, ably headed by Dr. Eric Lindstrom. I want also to emphasize the leadership of Dr. Tom Malone of the University of Maryland who has been instrumental in putting together the Coastal Ocean Observations Program, which will need strong support at the upcoming IOC meeting.

I was pleased to see a specific mention of ARGO floats. As you know, Mr. Chairman, while I was head of NOAA I worked with you and your colleagues to develop a comprehensive ocean observing system with ARGO floats as a key component. Today, the ARGO program is being supported by the U.S. and 15 other countries around the world, and observations are routinely available. I understand that more than 20 percent of the total proposed global array is operating, and that funding is coming at a rate almost sufficient to complete the global array of 3000 floats in a few years. I especially commend the new Administrator and Under Secretary, Admiral Lautenbacher, and Dr. Stan Wilson, who have continued to support and develop the program.

Let me say also that as we look to the future, it will be critical to have other ocean observations—namely the satellites that measure the shape of the ocean, altimeter satellites such as the multinational JASON-2 program, tropical moored buoys such as the TOGA-TAO array and coastal moorings, sea level gauges, surface drifting buoys, and measurements from ships of opportunity. Such observations, coupled with data management, are critical for dealing with both coastal and global issues.

3. Legislation

Let me say a word about the details of the legislation in H.R. 984. From my experience I would suggest that it be made clear that the Under Secretary report directly to the Secretary with no intermediary—this is critical for functioning of the agency. I noticed that the Assistant Administrators are to be appointed by the Secretary—I would suggest that this be done with the advice of the Under Secretary. Finally, I was pleased to see the strong support provided to the Science Advisory Board. This has been a critical element for NOAA as it reaches out to a broader community. I established the first such Board, and with the able and excellent leadership of Dr. Alfred Beeton, it was able to provide very good guidance for a variety of programs. I am glad to see that it will continue.

4. Public Programs

Mr. Chairman, H.R. 959 speaks strongly about the need to achieve a heightened scientific literacy and public appreciation of the oceans, and the need for NOAA to conduct public education and outreach activities that improve the public understanding of ocean science, resources, and processes. I believe that this can best be done in collaboration with existing institutions. At the Academy of Natural Sciences, we carry out environmental research on a national scale as well as in Pennsylvania and on Chesapeake Bay. We carry out research in systematic and evolutionary biology, we care for major collections, and we operate a major public museum. Our laboratories work closely with NOAA on a variety of issues and we depend, as does the general public, on a healthy Federal research structure as exemplified by NOAA. In Maryland our Estuarine Research Center works closely with NOAA's Chesapeake Bay Office, with the University of Maryland, and with other local and regional institutions. We believe that by working together, we can find a way to bring our strengths to bear on the important issues that you have shown leadership on for such a long time.

We also hope that we can find ways to develop new public programs both in Maryland and in Philadelphia to build the scientific literacy that is highlighted in the bill, and we look forward to working with NOAA to improve the public understanding of oceans and their resources to show our many audiences the importance of this work. We want to re-invent our natural history museum to show the excitement and commitment of this important research. I'm looking for ideas for exhibits and programs, and will be talking to you, your colleagues, and your staff about what might be done.

Thank you for the opportunity to be here today. I appreciate the opportunity to testify, and look forward to successful passage of the legislation.

Mr. GILCHREST. Thank you, Dr. Baker.

I think what we will do is we will—I think we just lost the gentlelady from Guam. Maybe we will go back and forth, Frank. I will take about five, you take you five.

Admiral and Dr. Baker, I would like to ask a few questions where you feel free to both respond. Admiral, you made reference to just a couple items in the legislation that we can work through. Could you just mention one or two of those items that you think we might want to change in the language that we have now?

Admiral LAUTENBACHER. There are a few things in the—I guess it depends on which legislation you would like to go through, because there are a couple of comments that we have for each one of these.

Mr. GILCHREST. H.R. 984.

Admiral LAUTENBACHER. Let me get to my page here with those. I think the issue of designating—again we are still working through this within the Administration—designating specific positions for whether they are SES, general positions, that we would like to work on language that keeps flexibility for the Administration yet provides the intent of Congress to ensure that we have the right organizational set up. So the specificity of whether positions are SES, general, political, whatever, we would like to talk about which ones fit into various categories instead of designating each one. So those are some changes that we would like to—

Mr. GILCHREST. So the language as it stands right now as far as designating the specificity of positions is a little too restrictive?

Admiral LAUTENBACHER. Yes, that is the Administration's current position at this point. But I believe that we can work this out with some conversation back and forth as we go through this.

There are some issues, as Dr. Baker mentioned, about whether the Secretary appoints people or whether it is delegated to the Under Secretary. The Administration's position would be that the

Secretary, levels of appointments should be, in the authorizing language, at the Secretarial level and then allow the executive branch to redelegate as necessary. There are many things that work that way now internal to the Department of Commerce where the Secretary is named in legislation to be responsible for something which is in the NOAA purview and then it is relegated from the Secretary and that works fine. So I think those are, again, areas where we can discuss specifically.

Again, the Science Advisory Board we would like to have it say it is authorized or appointed by the Secretary because that is the normal way the rest of the boards are set up within the Department of Commerce. I think this is just a language issue. So we are not talking about major substantive changes. I am talking about language changes to ensure that the flexibility and prerogatives of both Congress and the Administration are properly safeguarded as we go through this.

There are a couple of things here regarding joint and cooperative institutes, language in Section 11. We would like to see language which is probably fairly close to what the appropriations language has now that we have been working under because that will give us the most flexibility in terms of having these partnerships, very productive partnerships with universities to create joint institutes for research together. That has been a productive area for us.

We would also like to call the Committee's attention to some concerns regarding our interagency financing issues for two programs that I think are really good; the Coastal American Program and the NOPP, the National Oceanographic Partnership Program. There is some restrictive legislation that causes us an issue when we try to get interagency support for these programs. In other words, these are interagency programs that try to leverage the various expertise that is available across a wide variety of agencies to help with regional problems, and to help with research in the case of NOPP. Right now we have difficulty setting up those agreements to allow other agencies to contribute. This is a mechanical issue more than it is anything else, but we are in need of some help in that area if we are to realize the benefits from Coastal America and the Oceanographic Partnership Program.

Mr. GILCHREST. I might just ask, Admiral Lautenbacher, in Dr. Baker's testimony he made a suggestion that it be made clear that the Under Secretary report directly to the Secretary with no intermediary; critical for the functioning of the agency. Is that something that you would agree with? I do not know how we would put something like that in the legislation. I guess we could do almost anything.

Admiral LAUTENBACHER. Yes, sir.

Mr. GILCHREST. Or try. Would you like to comment on that and then maybe a clarification from Dr. Baker?

Admiral LAUTENBACHER. Yes, sir. I believe that I feel that I do work for the Secretary. I do not see—in the situation that I have come into in the current Administration if feel that that is the system that we have in place so I am not—I agree with Dr. Baker in a sense that the Under Secretary should report to the Secretary. That is in fact the right way to do business and it is the way we

do it today. I do not have a formal comment as the how to set that up in legislation itself. Let me pass to Dr. Baker.

Mr. GILCHREST. Dr. Baker.

Mr. BAKER. Having had experience with four Secretaries, I can say that I had a variety of different interactions. What I would say is there is that some Secretaries are great in terms of delegating the responsibilities of the agency to the head of the agency; everything works fine. Other Secretaries would like to step in and make decisions sometimes which are not justified. I think it is important that you have a statement something like: "the Under Secretary for Oceans and Atmosphere shall be the Department of Commerce official responsible for all ocean and atmosphere issues." In this way there is not a tendency to set up an unofficial adviser through which the Under Secretary has go through in order to get to the Secretary.

The only reason I mention this, is that this has happened to me, and it has happened to previous administrators. So some statement about the fact that this responsibility for ocean and atmosphere, this is the official responsible for it, I think would be a useful thing to have. I think some language could be worked up along those lines.

Mr. GILCHREST. Thank you, Dr. Baker. That is interesting and we will take that into consideration. I think some of the other areas, Admiral, that you have some concerns with probably, I would guess, can be worked through ourselves and with the staff.

I yield now to the gentleman from New Jersey, Mr. Pallone.

Mr. PALLONE. Thank you, Mr. Chairman.

Gentlemen, you heard in my opening statement that I mentioned the two national commissions, the National Commission on Ocean Policy and the Pew Oceans Commission which are scheduled—both are scheduled to release a broad series of recommendations to modernize our ocean policy in the foreseeable future. So my questions really relate to that. The Subcommittee, obviously, has three bills collectively that would authorize NOAA's organizational and administrative framework. The question really is, knowing that these other two commissions are going to come out with their reports, should Congress consider this legislation now, should we defer action on these bills until these commissions transmit their recommendations to Congress? Either one of you or both of you.

Admiral LAUTENBACHER. Yes, sir. I am very aware of the deliberations by the Oceans Commission, President's commission and the Pew Commission. I have been a supporter of the legislation and the role that they are performing and I am looking forward to hearing their recommendations and to working to do whatever we can to improve the situation based on those recommendations.

I do believe, however, that there is a need to consider the bills that we have today in today's context and to use that as a baseline. NOAA is an extremely important organization or agency to this country. It has been working very hard over many years under a piecemeal authorization type of situation. Dr. Baker said it very eloquently as he talked about the need to ensure that our missions and roles are characterized in today's world as the rights ones and that we are empowered to be able to do them both in context with the Administration and Congress.

I also think it would be beneficial as the commission gives their report, and we already know that the President's commission will be late and probably later this year before we even see the report, which means that this could take awhile to get through the system. That having the work that this Committee has done set up as a baseline from which to compare and work would probably be a good benchmark. Do not try to bite off the whole thing at once; let us work in stages and this is a good stage to set as the next floor from which to work. So I would support continuing to deliberate on these bills. Thank you.

Mr. PALLONE. Dr. Baker.

Mr. BAKER. Congressman Pallone, having watched NOAA for a long time, and worked with Congress and the agency and been part of it, I believe that it very important for the United States to have a strong ocean agency. I think the issues are important. We work best in our system by having a single agency with a single responsibility. Frankly, I think the best thing that we could have is an independent NOAA with an Oceans Committee in Congress. That is really what we ought to be working for. If we could direct our legislation to help us get there, that would be great. I do not know what these commissions are going to recommend. I have told them, both commissions, that that is really what we ought to be aiming toward, because we are only going to be able to address oceans issues in the United States with a very strong NOAA. NOAA is the agency that has these things. NOAA has the expertise and it is the place to reach out and make it happen. So the more that we can do in terms of outlining roles and mission, and focusing, I think the closer we will get to that goal.

Mr. PALLONE. I am not going to be able to—I am not going to ask you about the congressional Committee because, as you know, Mr. Chairman, I was not an advocate for abolishing the Merchant Marine and Fisheries Committee. When I heard your idea about re-establishing it, it certainly sounds good. But I know that is going to have to be the Republicans since they are in the majority. They are going to make that decision so I will not go there today.

Mr. GILCHREST. If the gentlemen would yield just for a second.

Mr. PALLONE. Of course.

Mr. GILCHREST. I will give you my line to the former Speaker on that issue before the swearing-in ceremony of 1995. It was from Oliver Cromwell's last moments where he said, I beseech you in the bowels of Christ, think it possible you might be mistaken. So that phrase was used to preserve the Merchant Marine, Fisheries Committee and it will be reenacted, we hope, in the coming sessions.

Mr. PALLONE. I wish you luck. I always felt the only reason it was abolished was because the Speaker, who was then Gingrich, felt he had to abolish some Committees and a lot of emphasis was not placed on which ones to abolish.

But in any case, you mentioned that you would support an independent agency. In other words, have NOAA be similar to, say, the EPA as an independent agency. Can I ask, Admiral, would you comment on that as well? Would you favor a similar type of thing?

Admiral LAUTENBACHER. The Administration has not been developed a clear position on that at this point. It is not a recommendation of the commission yet. We have testified, Dr. Bodman has tes-

tified to the Ocean Commission and I have testified to the Ocean Commission that there are pros and cons on both sides of that issue. Obviously, as Dr. Baker said, there is a very strong argument to have an independent NOAA in terms of having a strong ocean agency with the empowerment and independence to work in those areas which are so vital to our country.

On the other hand, an agency to be strong and function independently needs to have a certain level of resources, a level of scope and span of control, a certain empowerment at a level where they can compete in terms of working with OMB, working with the President, working with the Committees, the structure in Congress.

Mr. PALLONE. So it would have to be different, in other words, if it is going to be independent.

Admiral LAUTENBACHER. I think we need to think about that very carefully, when you make an independent NOAA, what it would contain and how it would function as an independent agency versus being under the wing of the Commerce Department. So that there are models on both sides and I have expressed my opinion that we need to think carefully which model makes sense. Obviously, the Administration will be prepared to comment when the Ocean Commission comes out with their—we will work through that inside the Administration.

Mr. PALLONE. Thank you, both.

Mr. GILCHREST. Thank you, Mr. Pallone. Intriguing questions; thoughts for our future road map.

Admiral, I would like to ask just a couple of questions on—you made a comment about separating the regulatory arm of NOAA and the research arm of NOAA. I was wondering if you could tell us how that might work, let's say with the Magnuson Act. There has been a great deal of discussion up here on the Magnuson Act over the last 2 years. We are going to try to reauthorize it in this Congress. Some people's comments about the Magnuson Act would be that the Magnuson Act is an Act that regulates fishing. It is not an environmental act. I would not agree with that but that is a certain understanding from many members up here.

In the Magnuson Act it deals—it is highly dependent upon a great deal of understanding about how the ocean works which comes from the research arm as far as the habitat needs of the fishery. It also depends and will continue to—the Magnuson Act that will be reauthorized will emphasize more than it has in the past on pursuing an ecosystem approach to managing the fisheries, which seems that the regulatory arm and the research arm would have to be collaborating. So if you could just comment in general on separating the research arm from the regulatory arm, and then in specifics about how it might work with Magnuson.

Admiral LAUTENBACHER. Yes, sir, I hear you. It is an important question. The specific instance I was talking about was just with regard to our national marine fisheries service science centers. The marine fisheries service is basically a regionalized, decentralized type of operation. It has a number of regional offices and then each region has a science center. The way that has worked in the past is the science center has been reporting to the regional office, and the regional office is the office that supports the local councils, does

much of the work in helping them build the plans, and is involved daily in regulatory matters and the functioning of the council with regard to its mandatory responsibilities under Magnuson-Stevens.

We have a research arm that does a great deal of the research for both oceans, mostly oceans and atmosphere. Not so much living marine resources, but some. In the other line offices we also have specific research. So the objective here is to ensure that the research that we have is done on a basis which is recognized, completely recognized as sound science by the entire scientific community, everybody that is involved, to ensure that our science is the best available and is done in an environment in which there is no pressure from outside sources to corrupt that to meet some parochial need along the way. So that is the higher level issue that we have.

We have set up a research council now that includes all of our lines, and a head of that council to build policies and directives that are going to keep this, I think, at a level where it needs to be for sound science.

Mr. GILCHREST. I am sure that would be very helpful in the process of the council meetings.

Dr. Baker, do you want to comment on that at all?

Mr. BAKER. Let me just say a couple of words. One is that I think it is a good idea to do this kind of separation. I saw that tension when I was at NOAA and I am glad to see a separation happening. But I think there two other issues in terms of management of marine fisheries, particularly commercial fisheries, that are important. One is not necessarily doing the science. I think NOAA does a good job of doing the science. But it is translating the issues of science to policymakers, to the Deputy Secretary and Secretary of Commerce, to the White House, to Members of Congress, trying to make sure that it is fully understood what the scientists are trying to say.

Mr. GILCHREST. You are saying that is difficult?

Mr. BAKER. That is difficult. It is very difficult. I had a hard time—

Mr. GILCHREST. Why is that difficult?

Mr. BAKER. Well, I am a scientist. I am a physical oceanographer, not a biologist, but I had a hard time understanding what some of the fishery scientists are trying to tell me because it was too complicated. I had to get them to simplify so that I can understand what are the things where you really understand, where are the uncertainties, how can we make the case that we are trying to make, what is the case you are trying to make, and how do we make it to the Secretary so that we can have the right kind of quota for spiny dogfish, for example.

Mr. GILCHREST. And then to the fisherman in Gloucester.

Mr. BAKER. It is the same thing.

Mr. GILCHREST. Right, on both sides.

Mr. BAKER. I think we have a big issue of translation of science. We do a lot of good things in science but there are complex issues and I think we have to work on this problem. That is why I think it is good that we have regulatory and science issues in the same agency so that somebody like the Admiral can think about how you bring these two things together.

Mr. GILCHREST. I would like to volunteer my wife for that. If my wife can understand it then it would probably be OK.

Mr. BAKER. This would be good. You should sign her up.

Mr. GILCHREST. I go home and try to explain things and I try to have the patience of Christ when I do that. Actually, part of this is comical, but when I sat in Gloucester at the last New England Fishery Management Council meeting and I heard the scientist explaining a whole range of issues dealing with the health of the stock, whether it was cod or what have you, I sat there with all my faculties and tried to understand what they were talking about, having some limited experience in the process. And it was difficult, if not impossible.

So the ability to communicate that kind of information to the Secretary, to the President, to the fishermen—and you mentioned something, you made reference to that in your testimony about the need to communicate this through the educational process is really vital. We have that same situation where we try to explain these kinds of things to members. So a goal that is oriented toward that kind of critical communication certainly would be worthy.

Mr. BAKER. Absolutely. One of the things we are doing in our museum in Philadelphia is setting up what we call a town square for translation of science issues, and we are focusing on that question. What are the tough problems? How can we explain where we are in terms of science, and then how do we bring people together? I think you have put your finger on exactly what the issue is there.

Mr. GILCHREST. Thank you, Dr. Baker.

Mr. Pallone.

Mr. PALLONE. Thank you. I am listening very attentively here to the translation as well as the comments about when you go home because I do not try to explain anything if I can avoid it.

I wanted to ask about the National Undersea Research Program. This is to the Admiral. In H.R. 959, the bill provides authorization for several important NOAA programs including the National Undersea Research Program and also the Ocean Exploration Program, which is relatively new. I just wanted to ask about the distinction, Admiral. What is the distinction between the two? And whether the programs should be combined.

Admiral LAUTENBACHER. As a matter of fact, it is interesting, in our matrix management scheme we are managing them together now. So that is a good point that you bring up because they are complementary, in a sense. The Undersea Research Program has been fairly well-established and it includes a great deal of specific types of deep diving expeditions and coverage of a variety of issues but, generally speaking, confined to deep diving technologies that go with it and then what I would call undersea observatories. Those pieces, in fact one in New Jersey is one of our prime stars of the system. So the NURP program has been focused in those areas.

The Ocean Exploration Program has been designed on a much broader scale to cover the entire ocean for that matter. This is a large-scale program. We know more about the dark side of the moon than we do about the bottom of the ocean. So we are talking in ocean exploration about the organization of what I would call large-scale expeditions that only an organization like NOAA in

company with NSF and the Navy and other large organizations can put together to explore Mid-Atlantic ridges, to look at new life forms, to look at seismic activity at the bottom of the ocean, to map the bottom of the ocean, to look at habitat, specific ecosystem habitats in the ocean. It is a very large-scale program.

Your point about them being managed together is a good one because part of my matrix management initiative for NOAA includes managing those together to ensure that they are complementary and supportive of each other, not duplicative.

Mr. PALLONE. I wanted to ask about submersibles, too. Basically, what is the appropriate role for NOAA in the encouragement and development of new generations of the underwater submersibles, both the manned and the unmanned, if you would comment on that?

Admiral LAUTENBACHER. Yes, I think NOAA has a very important role in the area. We have in the past been a leader in the technologies and we have done that in collaboration and partnership with the major oceanographic institutions of this country, academic and otherwise, such as Woods Hole and Scripps, independent organizations. But those partnerships are very important. So NOAA has a role in working on the technology, working on sponsoring large-scale expeditions, and working on the empowerment of a large-scale partnership to ensure that the country has a lead and has the proper lead in oceanographic exploration.

Mr. BAKER. I wonder if I could just make a comment about that.

The NURP program, the National Undersea Research Program I think is a very important program for NOAA, has been for a long time and it has developed in a strong way. But it has never reached the potential that was really identified for it at the beginning. One of those things was to develop the technology for doing the kinds of things that the ocean exploration program talks about doing on a global scale. The NURP program has worked well as far as it has gone but it really needs substantially more funding to provide the kinds of ocean technology so that we have really do all these things that we are talking about.

I would love to see here a stronger NURP program that underpins the ocean exploration program. I think they do need to go together, but if we could get back to the original goals of NURP and provide that kind of support then NOAA could play this role as the civil ocean technology agency, that it was envisioned when it was first set up in the 1970's.

Mr. PALLONE. I agree. I think funding is a major issue there. Dr. Baker, I wanted to ask you a question too. In the previous Administration under President Clinton there was a reinventing government initiative and there was a proposal to abolish the NOAA Corps and mothball the NOAA fleet. Now conversely, legislation passed last Congress and legislation before the Subcommittee today provides authorization to modernize the fleet and construct new vessels. So first of all, why has the attitude changed toward NOAA's fleet of research vessels in both the Congress and at NOAA? Can you give us any insight into that?

Mr. BAKER. There were two pieces to the question. One is the NOAA Corps. It was my belief and the belief of the Administration, that the NOAA ships, the operations of NOAA could be carried out

just as well by civilians as by a uniformed corps. We believed that the functions had to be carried out but we did not see the need of a small uniformed corps. We tried to see if we could make arrangements whereby we could transfer the functions of the NOAA Corps over to a civilian group. In the end, a lot of things did not work and we were not able to make that happen.

But I was always, and the Administration was always in support of having sea-going capability for NOAA, and we looked at a variety of ways of doing that. One of those was to improve the quality and number of NOAA ships. We put in a number of requests. I think we in fact got some of the first money for new NOAA ships in the Clinton Administration. We also looked at ways of leasing so we could engage the private sector. That has not gone as far as the question of trying to provide new ships. But the whole idea of providing, for example, four to six new fishery vessels is something that started under the Clinton Administration. We were strong supporters of that and I am glad to see that that is now continuing because I think the fisheries service needs those new quiet ships for stock assessment. And we need the new hydrographic ships; same thing.

I do not think there is a change. When I came on board there was a NOAA ship replacement plan. In 1993 we adjusted that and changed it. We turned it in, in fact to, I think, a reality in terms of getting commitment for new fisheries vessels and I see the new Administration is supporting that. So I think there has been a continuing commitment from the agency and from Congress in providing modern sea-going capability for NOAA.

Mr. PALLONE. Mr. Chairman, related to that I just one more question about whether there should be a limit imposed on the amount of contracting or chartering of ships by NOAA, and whether that kind of limit would impede or hinder your data-gathering responsibilities.

Mr. BAKER. I have always felt that you want a mix of capabilities for an agency like NOAA. I think in some cases contracted fisheries vessels can collect information on fisheries, and we had a number of discussion and I know those are ongoing, about using commercial fishing vessels for collecting such information.

On the other hand, I think it is also important for the agency to have its own independent capability. But I would not try to put a limit on this. I think, in the end, a mix of private and public facilities is always the best way to go. It is always the most cost-effective way to go.

Mr. PALLONE. Thank you.

Mr. GILCHREST. Thank you, Mr. Pallone. Do you want to comment on that, Admiral?

Admiral LAUTENBACHER. I agree with Dr. Baker in just about everything that he said there. In terms of the plan, we are building a plan and we are continuing on with the object of modernizing the fleet. I believe that the country needs a core oceanographic capability to cut across the various science disciplines that are contained within the NOAA organization. We need to be the leaders in this area as this country progresses into the future. So there is a need for this core capability.

Now we look at the most efficient way to do business and a great deal of what came out of working on the NOAA Corps issue that happened during Dr. Baker's tenure, the Corps is a lot leaner, it is more efficient today, it provides a service that is comparable in cost to a civilian organization. So thanks to the work that has been done, it is a very cost-efficient organization. So they are doing well in terms of providing the kinds of support we need for our core capabilities.

But we also have—half of our support is contracted out and, in certain circumstances, that makes a lot of sense. We do it based on a cost-effectiveness basis for the future. Our plan, looking at modernizing our fleet, is taking the same things into account. What is the best way to do it? Is this a mission that has to be a NOAA Corps capability or can it be done more efficiently and more effectively by civilian contracts? So we are right in step with that.

Mr. GILCHREST. So a mix of NOAA Corps and leasing is the order of the day?

Admiral LAUTENBACHER. Yes, sir.

Mr. GILCHREST. If there is anything we can do in the legislation to hold onto that capability or help emphasize that capability we would like to work with you on that as well.

Mr. Saxton had a couple of questions that I will ask on his behalf. The first one is, what is NOAA's current expansion plan for the PORTS, the Physical Oceanographic Real-Time Systems, and does NOAA have a strategic plan to pursue a nationwide PORTS program for all commercial ports? What's the timeframe to accomplish that goal and the estimated cost?

Admiral LAUTENBACHER. The PORTS program, as I think everybody is aware, until the passing of the most recent legislation has been a collaborative partnership program in which NOAA provides technical out and the set-up, initial capitalization of much of the equipment. But the operations, maintenance, day-to-day and support has been provided by each local port. The Hydrologic Improvement Services Improvement Act gave in order to—has asked the Nation, essentially, to fund the whole operation.

That Act was passed late in the year. When we did our Fiscal Year 2004 budget that was not part of the program. So we are working on that in Fiscal Year 2005. I have not had a chance to bring these, what I would call major policy and funding issues, up through the Administration yet to get a reading on how we are going to deal with that. Obviously there is a resource impact here, and there is also an operational concept impact because of the partnerships that been set up now across the country.

So I think it is a legitimate point of view to look at whether the Nation should provide that type of support whether it should be provided locally and regionally. It is again a partnership issue.

In terms of spreading, we are trying to take the PORTS technology and move it to every place that it makes sense. We have new PORTS systems in operation now. We plan to put four more in operation in 2003, and we have plans on the table to keep expanding this technology. We also asked for money this year to improve our water level network, national water level network, which is the tide gauges, et cetera. That is the that goes into these systems to make them work. We have asked for some money to im-

prove the modeling so that we can tell you what is going to happen in the future needs in each port instead of giving you a now-cast of all the conditions that pilots to bring ships into port safely. We will be developing models which will give you the forecast so that you will be able to plan even better in the future how to manage port operations in an efficient way.

So those are the things that are going on. We are very excited about the support of Congress for this program and we will be working, deliberating on it in Fiscal Year 2005.

Mr. GILCHREST. Thank you, Admiral.

The second question, when will NOAA implement operational air gap and visibility sensors? This is a Mr. Saxton question.

Admiral LAUTENBACHER. Say that one again. That is a good one.

Mr. GILCHREST. When will NOAA implement operational air gap and visibility sensors? Maybe we can get back to that. I see some staff smiling behind you, Admiral, so—

Admiral LAUTENBACHER. That does not ring a bell with me off-hand, what he is getting at.

Mr. GILCHREST. It does not ring a bell them either, I do not think. That is fine.

Admiral LAUTENBACHER. We have an interpretation if you have the patience to listen to it for a second.

Mr. GILCHREST. Sure, absolutely.

Admiral LAUTENBACHER. We believe that the air gap we are talking about is the air gap between the bridges and cargo that has fairly extreme height limitations. We have that famous picture of the cranes being brought underneath the Golden Gate Bridge into San Francisco and it shows 27 inches clearances. You have to know pretty precisely about height modernization, so that is part of the geodetic business that we do and we are involved in trying to improve our height data reference network around the country, and we are actively pursuing that. It is important to us and that type of analysis will be put into these new models I mentioned to ensure that people will understand what the future—if you know the tides and the winds and the currents and you can project that into the future you have a good chance to schedule it so it comes through at the right time.

Mr. GILCHREST. Very good. We will pass that on to Mr. Saxton. Thank you.

Just one other last quick question to Dr. Baker. This really does not have anything to do with the legislation before us but in your testimony you talked about environmental research on a national scale including Pennsylvania and Maryland and you are looking for new public programs in Maryland and Philadelphia to build a scientific literacy that is highlighted in this and other pieces of legislation.

I find those statements fascinating because for a little while now some of us in Maryland have been looking to set aside some public land, maybe some private land. We have already designated some public land but have not gotten too far with local officials to set aside this public land in some way, but not the same as an estuarine research center where you would have the land and water interface become an ecological study area, so you could see in areas where you set this aside how the natural flora and fauna reacted,

how far succession, based on its location, evolved. And maybe, depending upon a strict interpretation of the concept of island ecology, since some of this land is on the Chesapeake Bay and it is also surrounded by farms it makes it almost a small island in this particular vicinity similar to an island would be in the ocean as the evolution of the plants and animals on it.

So there are a number of interesting sites that we would like to work with your center in Philadelphia with the state of Maryland and perhaps Washington College near or in Kent County, and even the University of Maryland for some other locations.

You also mentioned the natural history museum, to reinvent the natural history museum, which I assume would be in Philadelphia, and/or maybe the one here in Washington. Some of these places could then be actually a part of that reinvention of a natural history museum so that they could be an ecological study area for students and people to visit and have some understanding about how the flora and fauna in their region, which is not impacted directly, evolves and functions.

Mr. BAKER. Mr. Chairman, you have taken this idea further than I had and I love what you are talking about. I think this is something we could think about not just in Maryland and Pennsylvania but also New Jersey and Delaware as a multistate activity. One of the things that has always struck me is that six million people per year go through the National Museum of Natural History here in Washington and yet we do not have a single exhibit that really reflects the excitement and commitment of things about the ocean and the coast that we are talking about—six million people. So if we could just develop some exhibits and we could do what you are talking about with set aside of lands and show how these two things work together I think we would have a much better sense from the public about the importance of what we do.

Mr. GILCHREST. We would want include New Jersey in this, not only for Mr. Pallone but certainly the flyway.

Mr. PALLONE. The other place that has it is at the zoo, because I take my kids there sometimes. They have that—

Mr. GILCHREST. The Philadelphia zoo?

Mr. PALLONE. No, in Washington, the zoo has that building where they have some ocean exhibits and you can look at the different coral and sea plants. But that is over at the Washington zoo, not at the natural history museum.

Mr. BAKER. I think a combination of using the zoo and the fact that you can see a whole habitat there, the Amazonia habitat and there are other such habitats, I think one has to think of these two things together really, the zoos and the natural history museums. They offer an untapped resource to get the public excited about the things that we do. We are not doing it now, so I thought this would be a good sequel for me, having been administrator of NOAA, to go into the public programs business and see if we could not get the public really excited about the things that we are all excited about it.

Mr. PALLONE. It sounds good.

Mr. GILCHREST. And the aquarium in Baltimore could be a part of this because the National Aquarium in Baltimore does have some extraordinary exhibits there reflecting the Chesapeake Bay.

Mr. PALLONE. You have the aquarium at the Commerce Department too but that needs to be upgraded. Mr. Chairman, Mr. Kildee wanted me to ask a question to inquire about what NOAA is doing to ensure sufficient funds are available for water level measurements in the Great Lakes. I guess that is for the Admiral.

Admiral LAUTENBACHER. Yes. We have \$1.5 million dollars increase in our water level network measurement, water level observing network system, and that includes modernizing the stations in the Great Lakes as well. So we are very much interested in the Great Lakes. They have all the characteristics of coasts and small oceans and they are part of our portfolio. We are interested in ensuring that they have what they need and we have what we need from the scientific data to handle our responsibilities, so it is very important to us.

Mr. PALLONE. Thank you. Thank you, Mr. Chairman.

Mr. GILCHREST. Thank you, Mr. Pallone.

The gentlelady from Guam.

Ms. BORDALLO. Thank you very much, Mr. Chairman. I am sorry for coming in and departing, and coming back again but it is the way it is I am learning.

Good afternoon, Admiral, and all of the others who are here to testify. Mine is not so much a question but just to thank you. I represent the territory of Guam and I would like to thank you and NOAA for committing a research vessel to Guam and the Marianas this summer. I understand that NOAA's Oscar Sette research vessel, I believe that is what it is named, will be spending roughly 39 days in the Western Pacific area this August. Am I correct in that?

Admiral LAUTENBACHER. I believe you are. I will check that for the record but the last time I looked they will be in that area.

[Information from NOAA follows:]

The OSCAR ELTON SETTE will be in the Western Pacific area during August and September of 2003 spending 40 operating days conducting coral reef research around the Northern Mariana Islands. The vessel will have two port calls in Northern Marianas' ports in late August and mid-September.

Ms. BORDALLO. I just want to thank you again for that. We truly appreciate it. I believe the last time we had a NOAA research vessel out to the Marianas was in 1984. I would like to ask you, Admiral, to please keep up the research effort in Guam and the area around the Marianas. It would be great if we could see a NOAA research vessel visit Guam every 2 years, if that is possible.

Admiral LAUTENBACHER. Thank you. I appreciate that. We will try to do our best. Thank you.

Mr. GILCHREST. I thank the gentlelady. Admiral Lautenbacher and Dr. Baker, thank you so much for your time that you spent with us here this afternoon. Your testimony has been very valuable to us to develop this legislation and we look forward to working to you further on a number of issues. Thank you very much.

Admiral LAUTENBACHER. Thank you, sir.

Mr. GILCHREST. The hearing is adjourned.

[Whereupon at 3:12 p.m. the Subcommittee was adjourned.]

