



National Association of Marine Laboratories

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April 4, 2006

The Honorable John H. Marburger, III
Science Advisor to the President
and Director, Office of Science and Technology Policy
Executive Office of the President
Eisenhower Executive Office Building
Washington, D.C. 20502

Dear Dr. Marburger:

I am pleased to provide the enclosed testimony recently submitted on behalf of the National Association of Marine Laboratories (NAML) to the House and Senate Appropriations Committees. In that statement, NAML provides a strong endorsement of the President's American Competitiveness Initiative (ACI).

As the President of NAML, I want to convey our deep appreciation for the leadership the President and his senior advisors have shown by proposing the ACI and requesting the requisite resources within the FY 2007 budget request to begin to carry out this important initiative. Such a proposal, particularly within the constraints of the current budget environment, demonstrates vital recognition and a bold commitment towards the relationship between research and development and the strengthening of this Nation's economic competitiveness. We are grateful for your personal leadership on this issue and NAML and its individual members will be working actively to support the ACI as the proposal works its way through the Congress in the coming months.

NAML representatives are also actively participating in other OSTP initiatives; particularly the Administration's Ocean Action Plan and the priorities planning process being managed by the Joint Subcommittee on Ocean Science and Technology. We are encouraged by the initial efforts of the Committee on Ocean Policy as the Administration begins to respond to the U.S. Commission on Ocean Policy report. We believe that the Ocean Action Plan and the ACI are highly complementary and that these two activities provide important synergies to strengthen each other.

As you and your colleagues begin the development of the FY 2008 research and development budget, we would like the opportunity to meet with you and other interested science policy makers in the Executive Office of the President to discuss the role and contributions of the marine sciences and education enterprise (and by that I mean ocean, coastal and Great Lakes research and education) in helping this Nation increase its economic competitiveness. The United States has traditionally been the world leader in the marine enterprise, but as you have recognized with the ACI in

The National Association of Marine Laboratories (NAML) is a nonprofit organization of over 120 member institutions representing coastal, marine, and Great Lakes laboratories in every coastal state, stretching from Guam to Bermuda and Alaska to Puerto Rico. Members serve as unique "windows on the sea," providing information on the rich environmental mosaic of coastal habitats as well as offshore oceanic regions and the Great Lakes. NAML member laboratories conduct research and provide a variety of academic, education and public service programs to enable local and regional communities to better understand and manage the ocean, coastal and Great Lake environments. NAML is comprised of three regional associations: the Northeastern Association of Marine and Great Lakes Laboratories (NEAMGLL); the Southern Association of Marine Laboratories (SAML); and the Western Association of Marine Laboratories (WAML).

National Association of Marine Laboratories

other disciplines, global competition is increasing and threatening our stance in the global ocean context.

As we suggest in our testimony, the marine sciences and education have much to offer the Nation as it seeks to strengthen its ability to innovate and compete in today's global economy. Our field is inherently interdisciplinary, pushes the envelope in terms of instrumentation and technology development, tests the boundaries of our data collection and analysis systems, and offers an effective training ground for future scientists and engineers. The benefits of our approaches and our training are both models for many other fields and provide direct benefits to improving our competitiveness in many areas beyond the marine and aquatic sciences. As the Nation focuses on innovation and competitiveness, we would like the opportunity to provide you and your staff with information that will demonstrate the integrated nature of the marine sciences and the contribution they can and do make as part of any long term economic competitiveness strategy.

I hope you will be amenable to such a discussion. We will follow up with your staff in an effort to schedule such a session.

Sincerely,



Anthony F. Michaels
President
National Association of Marine Laboratories

Enclosure



NAML

The National Association of Marine Laboratories

**STATEMENT FOR THE RECORD
DR. ANTHONY F. MICHAELS
PRESIDENT
NATIONAL ASSOCIATION OF MARINE LABORATORIES
BEFORE THE
SUBCOMMITTEE ON COMMERCE, JUSTICE, SCIENCE & RELATED
AGENCIES
COMMITTEE ON APPROPRIATIONS
UNITED STATES SENATE
WASHINGTON, D.C.
MARCH 2006**

Mr. Chairman and Members of the Subcommittee, on behalf of the National Association of Marine Laboratories I am pleased to submit this statement in strong support of the President's American Competitiveness Initiative, as well as the research and education programs under the subcommittee's jurisdiction that are vitally important for a vibrant oceans, coastal, and Great Lakes research and education enterprise. My name is Tony Michaels and I am the Director of the Wrigley Institute for Environmental Studies at the University of Southern California. I am submitting this statement as the President of National Association of Marine Laboratories (NAML).

NAML is a nonprofit organization of over 120 member institutions employing more than 10,000 scientists, engineers, and professionals and representing ocean, coastal and Great Lakes laboratories stretching from Maine to the Gulf of Mexico to the west coast, from Guam to Bermuda and from Alaska to Puerto Rico. NAML labs support the conduct of high quality ocean, coastal and Great Lakes research and education in the natural and social sciences and the effective use of that science for decision-making on the important issues that face our country. Through national and regional networks, NAML labs –

- Promote and support basic and applied research of the highest quality from the unique perspective of coastal laboratories;
- Assist local, regional and state entities with information related to the use and conservation of marine and coastal resources using ecosystem-based management approaches;
- Recognize, encourage and support the unique and significant role that coastal laboratories play in workforce development, enhancing science/ocean literacy, and in conducting education, outreach, and public service programs for K-12 audiences; and
- Facilitate the exchange of information and relevant expertise between NAML member institutions, government agencies, and the private sector.

AMERICAN COMPETITIVENESS INITIATIVE-- NAML strongly supports the President's FY 2007 American Competitiveness Initiative (ACI) for research and education along with the accompanying Presidential budget request which includes a doubling of the Federal commitment to basic research programs in the physical sciences over the next 10 years. NAML expressly supports the President's FY 2007 request of \$6.02 billion for the NSF.

While not officially part of the President's ACI, NAML also urges the Subcommittee to recognize and support the vital research programs of the National Oceanic and Atmospheric Administration (NOAA) and calls on the subcommittee to fund NOAA at a level of \$4.5 billion which would enable NOAA to carry out its multiple missions on behalf of the American people.

OCEAN, COASTAL AND GREAT LAKES RESEARCH -- NAML strongly supports enhanced support for cutting edge ocean, coastal, and Great Lakes research in the natural and social sciences, education, outreach, and related infrastructure. The marine sciences have much to offer the Nation as it seeks to strengthen its ability to innovate and compete in today's global economy. They are inherently interdisciplinary, push the envelope in terms of technology development, test the boundaries of our data collection and analysis systems, and offer an effective training ground for future scientists and engineers. As the Nation seeks to augment its investment in the physical sciences to increase its international competitiveness, NAML calls on policy makers to recognize the integrated nature of the marine sciences and to support an enhanced investment in these as well as other science and engineering disciplines as part of any long term economic competitiveness policy.

NAML supports increased federal funding for the National Science Foundation (NSF) consistent with the President's budget for FY 2007. Basic research and the transfer and use of the knowledge developed through research are vital for the long term economic competitiveness and national security of this Nation. It is increasingly important for the Nation to maintain - and enhance - its scientific edge in a global community with emerging new capacities for scientific research. NSF provides vital support for basic research and education which enhances public understanding of the Nation's oceans, coastal areas, and the Great Lakes. NSF also provides important support for basic laboratory facilities, instrumentation, support systems, computing and related cyberinfrastructure, and ship access. The final report of the U.S. Commission on Ocean Policy makes several recommendations on the need to develop and enhance ocean, coastal and Great Lakes research infrastructure. That infrastructure includes research vessels, ocean observing systems, and the shore-based instrumentation and equipment needed to collect and analyze the data and observations made by research vessels and the observing systems. For that reason, NAML strongly supports the NSF proposal to initiate support for the development of the Ocean Observatories Initiative in the FY 2007 budget request. NAML also urges the Congress to provide \$5 million for the expansion of the NSF's Field Stations and Marine Laboratories program. This modest program provides researchers with access to state of the art instrumentation for research and education and necessary cyberinfrastructure and data management systems that complement the Ocean Observatories Initiative.

NOAA is one of the premier science agencies in the Federal Government, providing decision makers with important data, products and services that promote and enhance the nation's economy, security, environment, and quality of life. It was NOAA -- and its underlying science enterprise -- that enabled the delivery of accurate and timely information regarding the impending landfall of Hurricane Katrina in 2005, a forecast that saved tens of thousands of lives.

The \$4.5 billion recommended for NOAA would fully fund the President's FY'07 budget request, restore funding for core programs, and address all the areas of concern and priority that have traditionally been supported by Congress. It would allow enhancements in the development of an integrated ocean and atmospheric observing system; increased research and education activities and expanded ocean conservation and management programs; and provide critical improvements in infrastructure (satellites, ships, high performance computers, facilities), and data management.

In August 2004, a Congressionally requested study of NOAA's research programs, entitled, *Review of the Organization and Management of Research in NOAA* concluded that extramural research is critical to accomplishing NOAA's mission. The access to such enhanced research capacities provides NOAA with world class expertise not found in NOAA laboratories; connectivity with planning and conduct of global science; means to leverage external funding sources; facilitation of multi-institution cooperation; access to vast and unique research facilities; and access to graduate and undergraduate students. Academic scientists also benefit from working with NOAA, in part, by learning to make their research more directly relevant to management and policy. It is an important two-way interaction and exchange of information and value.

NAML strongly supports a robust NOAA extramural research activity and calls on the subcommittee to support the National Sea Grant Program, the National Undersea Research Program, the Ocean Exploration Initiative, as well as research related to aquaculture, invasive species, harmful algal blooms and the various joint and cooperative institutes at levels envisioned in last year's Senate version of the Commerce-Justice-State Appropriations bill. These partnership programs are not only consistent with the findings of the August 2004 review of NOAA research, but are also consistent with the NOAA strategic plan and enable NOAA to carry out its mission at the state and local level.

OCEAN, COASTAL AND GREAT LAKES EDUCATION AND OUTREACH -- A strong national ocean policy can only be sustained through the development of high-quality coastal, ocean, and Great Lakes education programs that support learning at all age levels and by all disciplines. Through such efforts, NAML can highlight the relevance and utility of coastal, ocean and Great Lakes resources and demonstrate and increase the value of incorporating science-based decisions in a public policy process designed to protect and enhance these resources. For that reason, NAML strongly supports the NSF Centers for Ocean Science Education Excellence program (COSEE), NSF education and human resources generally, and NOAA's Office of Education. Such programs provide a rich environment within which partnerships flourish. A greater understanding of the oceans and coastal ecosystems will instill a sense of stewardship for these important environments. These programs also yield a more diverse workforce that includes a significant participation by underrepresented groups. Preparing these cultural bridges would allow us to capitalize upon diverse national strengths, ensuring the flow of intellectual talent into ocean, coastal, and Great Lakes-related fields.

OCEAN COMMISSION AND INTERAGENCY RESPONSE -- NAML strongly supports implementation of the recommendations from the U.S. Commission on Ocean Policy and the initial efforts of the Administration's Interagency Committee on Ocean Policy to develop a response to the Commission's recommendations. The Commission's analysis

of policies governing oceans, coasts, and Great Lakes has resulted in a collection of bold and broad-reaching recommendations for reform. Implementation of these recommendations by the Federal government will enable the U.S. to maintain and strengthen its role as a world leader in protecting and sustaining the planet's oceans, coasts, and Great Lakes. NAML is particularly supportive of the Commission's recommendation to re-align NOAA's functions to support ecosystem-based management approaches. In addition, we fully endorse the Commission's recommendations to double the federal investment in ocean, coastal, and Great Lakes research as well as its recommendation to promote a strong federal investment in ocean, coastal, and Great Lakes education, outreach, and stewardship. The Commission's recommendations are important first steps in addressing the nation's ocean, coastal, and Great Lakes needs.

NAML is supportive of the initial steps taken by the Administration in response to the Commission's report – including the creation of Committee on Ocean Policy established in December 2004 by Executive Order. NAML is committed to working with the interagency Joint Subcommittee on Ocean Science and Technology and to commenting on the forthcoming Ocean Research Priorities Plan and Implementation Strategy.

INTEGRATED OCEAN, COASTAL & GREAT LAKES OBSERVING SYSTEMS -

- Integrated observations offer critical information on coastal processes necessary for addressing issues, such as the health of humans and marine life, weather and climate nowcasts and forecasts, homeland security, and resource management. Coastal and marine laboratories have been addressing this need. However, funding for existing subsystems is difficult to sustain, and significant additional funding is required to implement the national integrated system. Although efforts have been made in the past to coordinate Federal agencies involved in ocean and coastal research and national and international programs regarding coastal, ocean, and Great Lakes observing systems, further investment and strengthened cooperation at all levels is still needed to ensure that these systems are sustained and that they incorporate the long-term monitoring efforts of the nation's coastal and marine laboratories. NAML enthusiastically supports the development of a sustained integrated ocean observing system to be managed by NOAA.

CONCLUSION -- NAML recognizes the extraordinary fiscal constraints and difficult choices the Subcommittee must make. Nevertheless, the research and education programs under the Subcommittee's jurisdiction are vital investments in the future of this Nation and deserve the maximum support possible. Thank you for the opportunity to submit these recommendations.