



# National Association of Marine Laboratories 2008 Public Policy Agenda

## PROMOTE FEDERAL SUPPORT FOR EXTRAMURAL OCEAN, COASTAL AND GREAT LAKES RESEARCH

NAML strongly urges continued federal commitment to cutting-edge ocean, coastal, and Great Lakes research and education across federal funding agencies. The marine sciences 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. NAML believes that competitive, merit-based research support by all relevant federal agencies is essential to the overall progress of coastal, ocean and Great Lakes science and education. Specifically, NAML supports the research and education programs of the National Science Foundation, the National Oceanic and Atmospheric Administration, the National Aeronautics and Space Administration, and the Environmental Protection Agency.

**National Science Foundation**—NSF provides vital support for basic research and education which enhances public understanding of the Nation's oceans, coastal areas, and the Great Lakes and strengthens the long-term economic competitiveness and national security of our country. NSF support for cutting edge research, cyberinfrastructure, as well as more traditional instrumentation and infrastructure is essential for the health of the Nation's research enterprise. NSF also plays a large role in supporting education and training for the next generation of scientists and engineers and enhancing diversity by attracting and retaining women, minorities and others. Marine labs contribute significantly to this objective through the research and education programming conducted with NSF support. NAML is supportive of proposals from the Administration and the Congress to increase NSF support and urges both to work together to provide those proposed resources—across all NSF directorates—via the budget and appropriations process.

**Environmental Protection Agency**—EPA is a significant source of extramural funding support for marine laboratories and through its own labs is a critical part of the marine science community. Complementary to the intramural marine laboratories within EPA is a suite of extramural research programs at EPA's Office of Research and Development (ORD) and Office of Water that provide essential resources to marine labs nationwide. Among these important programs at EPA is the Science to Achieve Results (STAR) Grants and Cooperative Agreements Program within ORD. The STAR program funds research grants in various environmental science and engineering disciplines and engages the Nation's best scientists and engineers in targeted research that is in complement to EPA and other federal agency research activities. NAML will continue to advocate for a robust EPA budget and support for its marine research programs within the Office of Research and Development and the Office of Water for FY 2009.

**National Oceanic and Atmospheric Administration**—NOAA is a critical player in ocean, coastal and Great Lakes research and education and many NAML labs are co-located with, or linked to, NOAA laboratories. Through its

external investigators at marine labs and universities, NOAA has access to world-class expertise and unique research facilities. In addition, by partnering with the external research and education community, NOAA can leverage funds and facilitate multi-institution cooperation, all for the purpose of promoting the very best science. NAML continues to advocate for a stronger NOAA commitment to extramural research through such programs as the National Sea Grant College Program, the National Undersea Research Program, Ocean Exploration and Research, the National Estuarine Research Reserve System, the Competitive Research Program within NOAA's Climate Program Office, Oceans and Human Health, Coastal Zone Management, the various joint and cooperative institutes, as well as research related to aquaculture and invasive species. In 2007, NOAA released a comprehensive five year research plan<sup>1</sup> that highlights the linkage between NOAA research and the Nation's economic competitiveness. A healthy NOAA budget coupled with solid partnerships with the extramural research and education communities will only strengthen NOAA's research and education capabilities.

**National Aeronautics and Space Administration**—Budgets for NASA earth and space science have declined in recent years despite fervent calls from the community to protect science funding at the agency. The National Academy of Sciences released a report<sup>2</sup> in 2007 calling on NASA to "renew its investment in Earth observing systems and restore its leadership in Earth science and applications." NAML is one of many groups that believe we need a balanced investment in NASA that will maintain a strong and vibrant earth and space science enterprise. NASA's support for earth observations and research is vital in helping us better understand our own planet. NAML will continue to advocate for a robust NASA Earth Science budget for Fiscal Year 2009.

### NAML'S MISSION

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 role that coastal laboratories play in conducting education, outreach, and public service; and

Facilitate the exchange of information and relevant expertise between NAML member institutions, government agencies, and the private sector.

## ENABLE THE NEXT GENERATION OF OCEAN INFRASTRUCTURE

In addition to program support for research at the various federal funding agencies, support for infrastructure and instrumentation—including long term planning for the next generation of infrastructure—is critical to the operation of marine labs. NSF in particular provides important support for basic laboratory facilities, instrumentation, support systems, computing and related cyberinfrastructure, and ship access through the important Major Research Instrumentation (MRI) and the Field Stations and Marine Laboratories (FSML) programs. The U.S. Commission on Ocean Policy's report<sup>3</sup> made several recommendations to develop and enhance ocean, coastal and Great Lakes research infrastructure. NAML recognizes the need for infrastructure investment at all scales, from traditional infrastructure—such as marine laboratories, ships, observation systems, satellites—to next generation infrastructure and technology like genomics, proteomics and environmental genomics, robotics, nanotechnology, and other advanced computational approaches. As federal research budgets grow, so too must support for critical infrastructure required to effectively implement research and education. NAML will continue to urge the Congress and Federal agencies to invest in ocean, coastal and Great Lakes infrastructure as an essential component to the research advancement of this Nation.

For more information, please visit [www.naml.org](http://www.naml.org) or contact:

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## GROW FEDERAL SUPPORT FOR U.S. INNOVATION AND COMPETITIVENESS THROUGH INVESTMENT IN THE MARINE SCIENCES

Despite the unexpected outcome of the fiscal year 2008 appropriations process, NAML will continue to support efforts by the Congress and the Administration to strengthen the nation's position as a world leader in scientific innovation and competitiveness. NAML is encouraged that the Federal government has targeted the "physical sciences" for funding increases in recent years, particularly the National Science Foundation (NSF). However, in order to be truly effective in maintaining and enhancing U.S. leadership, the definition of the "physical sciences" must be comprehensive. The highly bipartisan America COMPETES Act (Public Law 110-069) was enacted in 2007 and recognizes the significant role that many Federal agencies in addition to NSF play in U.S. innovation and competitiveness. The Act promotes the value of other Federal agencies—like NOAA and NASA—to U.S. competitiveness and emphasizes the contributions that these agencies and their disciplines play in innovation by expanding existing initiatives and establishing new programs within the science, technology, engineering, and mathematics (STEM) disciplines. For FY 2009, NAML will continue to support the Administration's American Competitiveness Initiative as well as work toward the implementation of the America COMPETES Act—especially those provisions recognizing the role of marine science and education to U.S. innovation and competitiveness—to ensure that significant progress made by passage of the Act continues.

### SUPPORT OCEAN EDUCATION, LITERACY, DIVERSITY AND WORKFORCE DEVELOPMENT

A strong national ocean policy can only be sustained with the most up to date and reliable scientific information. To ensure that the Nation will continue to generate the very best knowledge, investment is needed today in coastal, ocean, and Great Lakes education programs that support learning at all age levels, by all disciplines, and for all Americans. NAML labs work closely with many programs throughout the Federal government to produce a more ocean-literate populace. These include the Centers for Ocean Science Education Excellence program (COSEE) and the Louis Stokes Alliance for Minority Participation program at NSF, and the Office of Education and National Sea Grant College Program within NOAA. Not only do marine labs serve as excellent training grounds for experiential ocean education, they are also committed to enhancing diversity within the field of ocean, coastal and Great Lakes research and education by fostering relationships with community colleges and minority-serving institutions (MSIs) to provide distinctive learning opportunities for underrepresented groups. At marine laboratories, students achieve a greater understanding of the oceans and coastal ecosystems and take with them a sense of stewardship for these important environments. In 2006, federal and non-federal sponsors convened a national Conference on Ocean Literacy (CoOL)<sup>4</sup>. This watershed event brought together for the first time all of the Federal entities that oversee ocean education and literacy and in its follow-up report issued key recommendations for fostering an ocean-literate society and increasing ocean workforce diversity. Subsequently, in early 2008 NAML developed a whitepaper<sup>5</sup> particularly addressing NOAA's ocean education mission and calling on NOAA to be a strong contributor to the recommendations made within the CoOL report. Given the interdisciplinary nature of the ocean sciences, a continued interagency approach will be needed by the Federal government to foster a truly ocean-literate populace. NAML looks forward to working with the Congress and Federal agencies to implement the CoOL recommendations and bring U.S. ocean education and literacy to the forefront.

### STEWARDSHIP OF OUR OCEANS THROUGH THOUGHTFUL POLICY

Codifying NOAA into law is essential to the continued modernization of the agency. NOAA has an obvious role to play in management, research, education, and technology development as they relate to the oceans and legislation should provide the direction it needs to effectively

address its mission. However, NAML believes that NOAA could more effectively execute its mission and manage its resources with better engagement with the extramural, non-federal research community. NAML will work toward passage of NOAA organic legislation in the 110th Congress and ensure that the act includes language providing an explicit framework or mandate for increased NOAA support for competitive, peer-reviewed research grants for non-federal researchers (i.e. universities and non-federal research laboratories).

NAML believes that public policy with respect to the nation's oceans, coasts and Great Lakes should always be based on sound science and the most up-to-date expertise. A number of high-level reports and recommendations for strengthening national ocean policy and enhancing the Federal investment in ocean research were released during the last few years. The U.S. Commission on Ocean Policy<sup>3</sup> produced a set of bold recommendations for reforming policies governing the Nation's oceans, coasts and Great Lakes—including an organic act for NOAA—while the Joint Subcommittee on Ocean Science and Technology (JSOST) developed an interagency Ocean Research Priorities Plan<sup>6</sup> in 2007 to guide the Federal ocean research investment for the next ten years. NAML supports the implementation of the recommendations of the U.S. Commission on Ocean Policy and the priorities within the Ocean Research Priorities Plan through thoughtful legislation.

Other legislative topics on NAML's Public Policy Agenda in the coming year include action on: ocean acidification and climate change research; reauthorization of the National Sea Grant College Program; authorization of the National Undersea Research Program and Ocean Exploration Program; and the Coastal Zone Management Act, among others.

### WHO IS NAML?

The National Association of Marine Laboratories (NAML) is a nonprofit organization of over 120 marine laboratories 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 in the natural and social sciences, education and outreach.

NAML is composed of three regional associations:

**Northeastern Association of Marine & Great Lakes Laboratories (NEAMGLL)**  
Institutions on the Great Lakes and marine laboratories from the eastern seaboard north of Maryland

**Southern Association of Marine Laboratories (SAML)**  
Marine laboratories from Maryland to Texas including Bermuda and the U.S. Virgin Islands

**Western Association of Marine Laboratories (WAML)**  
Marine laboratories on the west coast of the United States including Hawaii and Guam

<sup>1</sup>Research in NOAA: *Toward Understanding and Predicting Earth's Environment*, National Oceanic and Atmospheric Administration, June 2007.

<sup>2</sup>*Earth Science and Applications from Space: National Imperatives for the Next Decade and Beyond*, Committee on Earth Science and Applications from Space: A Community Assessment and Strategy for the Future, National Research Council, January 2007

<sup>3</sup>*An Ocean Blueprint for the 21st Century*, U.S. Commission on Ocean Policy, April 20, 2004

<sup>4</sup>*Conference on Ocean Literacy Report*, Washington, D.C., June 7-8, 2006

<sup>5</sup>*Ocean Literate America: A Whitepaper in Support of the National Oceanic and Atmospheric Administration's Ocean Education Plan*, National Association of Marine Laboratories, February 2008

<sup>6</sup>*Charting the Course for Ocean Science in the United States for the Next Decade: An Ocean Research Priorities Plan and Implementation Strategy*, NSTC Joint Subcommittee on Ocean Science and Technology, January, 2007