

## **Testimony Before the United States Commission on Ocean Policy**

By

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Good morning. Thank you very much for the opportunity to come and speak with you today about the importance of ocean sciences and the essential role of partnerships in advancing marine research, education, and development of public policy. I am Dr. Madilyn Fletcher, President of the the National Association of Marine Laboratories (NAML). Also here today is the President of the Southern Association of Marine Laboratories, Dr. Robert Van Dolah. NAML is a nonprofit organization of 120 member institutions that encompass a variety of academic, research, and public service programs. Our 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. We represent an extraordinarily diverse range of laboratories, from the major oceanographic institutions, to a variety of coastal laboratories, to remote field stations. NAML embraces three regional organizations, which provide access to local communities and legislative representatives at the grassroots level. These regional components are the Northeastern Association of Marine and Great Lakes Laboratories (NEAMGLL), which covers the area from Delaware to Duluth; the Southern Association of Marine Laboratories (SAML), covering laboratories from Maryland through the Gulf of Mexico, and including Bermuda, the Palmer Station in Antarctica, and the U.S. Caribbean Islands; and the Western Association of Marine Laboratories (WAML), which includes the west coast states, Hawaii, and the U.S. Pacific Islands.

NAML was created 16 years ago when a core group of laboratory directors recognized that there was much to be gained through the sharing of experience when dealing with the complex array of problems presented by

laboratory, field station, and shipboard operations. Since then, the value of the NAML alliance has more than proved itself and resulted in the current national and regional organizations and their expansive membership. We communicate frequently, meet regularly, and provide a network for problem solving and capacity building. Recognizing the unique force that the NAML partnership provides, we have developed several key initiatives, primarily in the areas of minority participation in the ocean sciences and the technological connectivity of marine laboratories. Our programs LabNet and Cast-Net are creating new approaches and capabilities for the sharing and integration of the enormous environmental data bases housed at our member laboratories. These activities have demonstrated the unique strengths of the NAML partnership and our capacity for working together towards goals that benefit the oceanic and Great Lakes research, education, and outreach communities as a whole.

Not only is NAML unusual in its high degree of networking among its member institutions, but we have numerous synergetic interactions with other national and regional organizations, such as the Consortium for Oceanographic Research and Education (CORE), the National Association of State Universities and Land-Grant Colleges (NASULGC), the Organization for Biological Field Stations (OBFS), and National Sea Grant Programs. Furthermore, many of our laboratories have very strong ties to the community, and effective relationships with the general public and legislators have evolved from long histories of information-sharing and public service. Thus, the NAML network goes beyond the conventional boundaries of academia and government agency, and meshes with the private sector and public community in a variety of ways. We believe that these linkages are increasingly vital as we address the scientific and management issues so important to the future of this nation's oceans.

The members of NAML are strongly supportive of the work of the Oceans Commission, and we would like to offer our assistance to the Commission as it addresses this nation's needs for future coastal and ocean policies.

The NAML institutions have identified four key issues that we believe need to be considered by the Oceans Commission as it develops its recommendations:

1. **There is a serious need to ensure that ocean and coastal policy decisions are based on sound science.** Increasingly we are faced

with problems affecting human health, environmental vigor, coastal industries, and port security; these include, for example, harmful algal blooms, invasive species, coastal development impact, coastal erosion, loss of essential habitat, and contamination of our drinking water supplies, fisheries, and recreational areas. These issues require scientific research to identify solutions and provide the strong information base required for good policy decisions. We strongly urge that ocean science funding be increased to support this critical research. The NAML laboratories are well placed to enhance interactions among laboratory scientists, local resource managers, stakeholders, and government officers. We advocate and actively promote the development of new mechanisms and opportunities that strengthen interactions and constructive exchange of information among NAML laboratories and these community representatives.

2. **There is a critical need to invest in the infrastructure of our nations' coastal and Great Lakes laboratories.** Support for basic laboratory facilities, instrumentation, support systems, computing facilities, and ship access are all essential items, for which currently available funds are woefully inadequate. Maintenance and replacement costs for field equipment are particularly high at coastal laboratories, which see high user demand and exposure to harsh environmental conditions.
3. **There is a national need for sustained and integrated observations of our coastal waters.** Such a system would provide critical information on coastal processes necessary for addressing a range of coastal issues, such as health of humans and marine life, weather and climate nowcasts and forecasts, homeland security, and resource management. Coastal and marine laboratories have for many years been addressing this need through long-term monitoring of coastal and estuarine systems, but funding for such sustained efforts is often difficult to secure. NAML supports increased funding for a sustained coastal and ocean observing system that incorporates the long-term monitoring efforts of this nation's coastal and marine laboratories. NAML can play a critical role in the establishment of a national observing system because of its collective, diverse array of observing platforms and programs, its strong and effective communication network, and specific connectivity projects, such as LabNet and Cast-Net.

4. **The nation must invest in ocean and coastal science education.** If the nation's citizens are to be able to address ocean and coastal issues appropriately, we need a well-trained workforce and informed community at large. Education programs need to be enhanced and supported at all levels, ranging from K-12, to undergraduate, and graduate higher education levels. The study of aquatic systems requires that students integrate basic physics, chemistry, biology, geology, and mathematics in a manner that illustrates their connectivity in the real world. A looming need is the replacement of retiring marine scientists in academic and federal agencies. The next generation of scientists must be encouraged to enter this field of study through well supported outreach programs and funding for graduate fellowships and research assistantships. The NAML laboratories are a major platform for training marine biologists and oceanographers, and their capacity must be enhanced to meet these future needs.

In closing, NAML would like to express its strong support of the Oceans Commission and the important undertaking with which you are now engaged. We offer our enthusiastic support and would welcome the opportunity to provide assistance in any way we can. Our laboratories can provide you with a wealth of information and access to the grassroots community, and we stand ready to provide assistance as you work to ensure the long-term welfare of our nation's oceans and coastal resources.