May 27, 2009
The Honorable Barbara A. Mikulski
The Honorable Richard C. Shelby
Committee on Appropriations Subcommittee on Commerce, Justice and Science
SD-144 Dirksen Senate Office Building
Washington, DC 20510

Dear Chairwoman Mikulski and Ranking Member Shelby:

On behalf of the members of the Consortium for Ocean Leadership, I am writing to share our recommendations for the FY2010 Commerce, Justice, Science and Related Agencies Appropriations Act. Ocean Leadership represents the nation’s leading public and private ocean research and education institutions, aquaria and industry. We very much appreciate your support for science and education programs in the FY09 bill and the American Recovery and Reinvestment Act.

As you know, the ocean is the most dominant natural feature on the planet, encompassing 99 percent of Earth’s habitat and most of the planet’s species; it is truly the life-blood of the planet. Just the top ten feet of the ocean holds as much heat as the entire atmosphere – demonstrating the ocean’s critical role in the global climate system. Yet, despite making the planet habitable for life, we have a very limited understanding of the ocean. This is particularly disturbing given the challenges that climate change is placing on society and our ocean resources.

More than half of all Americans live in coastal communities, which contribute tremendously to our economy, quality of life and national security. In fact, the ocean economy, which includes those businesses that rely directly upon oceans and their resources, employs over 2.3 million people and contributes over $138 billion to the nation’s GDP. Protection and wise management of these assets requires a better understanding of how the ocean and coastal environments respond to a rapidly changing environment (e.g. warming, sea level rise and acidification). We respectfully recommend the following allocations.

**National Science Foundation (NSF)**
NSF is the largest federal source for ocean research and education programs. We appreciate your support for science funding in the American Recovery and Reinvestment Act including construction support for the Ocean Observatories Initiative and the Alaska Regional Research Vessel, which will provide unparalleled access to critical areas of the ocean, effectively transforming the field of oceanography. We encourage you to provide no less than the President’s budget request of $7.045 billion for NSF, including $5.73 billion for research activities.

We support the request for the Geosciences Directorate (GEO) and the Division of Ocean Sciences (OCE), which fund vital research to understand the role and effects of a changing ocean. We believe the proposed emphasis on climate change, including integrated climate responses, adaptation, ocean acidification, scientific ocean drilling and ocean observing are wise investments. NSF supported research in the Arctic is particularly critical given the region’s pivotal role in the climate system and the international implications for navigation and commerce in an ice-free Arctic.

**National Oceanic and Atmospheric Administration (NOAA)**
NOAA is a vital science and resource management agency, with responsibilities stretching from the bottom of the ocean to the surface of the sun. NOAA’s mandates and responsibilities continue to grow at a rate that far exceeds the budget necessary to meet these requirements. We respectfully request that NOAA receive no less than $5 billion in FY2009. Moreover, if NOAA is going to be the lead agency for gathering, managing and disseminating climate data and services, the agency’s budget needs to grow significantly to meet all of its mandates and requirements.
The President is requesting a 10 percent cut for the National Ocean Service (NOS), which we believe is unwise given the increased pressures on our coastal resources. Within NOS, Ocean Leadership supports funding for the Integrated Ocean Observing System (IOOS) extramural grant line of $50 million for competitive regional ocean observing projects, in addition to $10 million for internal NOAA IOOS coordination and management activities. These funds will provide federal, state, and local decision makers with access to the information, products, and services needed to manage our coastal resources. The U.S. Commission on Ocean Policy recommended an annual budget of $150 million for IOOS. Current funding levels cannot build a national system and have in fact led to a reduction in services and loss of assets at sea.

The President’s FY10 request for Oceanic and Atmospheric Research (OAR) is still below the FY05 funding level, which is woefully inadequate to provide the information necessary to manage our coastal and ocean resources. Ocean Leadership is encouraged by the Administration’s request for increased funding for competitive climate change research, including funding for ocean acidification monitoring and research. However, these funds are far less than what is needed to effectively monitor acidification in our ocean and coastal environments (which are geographically variable). We should be placing carbon dioxide and pH sensors on all of our ocean and coastal assets—not merely 20 moorings. Furthermore, carbon cycling and studies of ecosystem response to acidification need to be expanded. Consequently, we respectfully request an additional $25 million above the President’s request for competitive climate change research.

NOAA’s Earth observing satellites provide critical data for operational weather predictions. A global understanding of climate change requires increased capabilities for providing environmental observations and forecasts. We desperately need an integrated set of observations of physical and biological processes of both ocean and atmosphere. We are pleased with the $20 million request for the Jason-3 altimetry mission, yet we continue to be concerned with the cost overruns and delays in the geostationary and polar orbiting satellites. Most notably, the VIIRS sensor on NPOESS will not provide sufficient quality ocean color data, which will lead to a substantial gap in ocean color measurements that are essential for determining the effect of climate change on ocean productivity. NOAA needs to develop a plan to ensure continuity of the observing record, as well as develop a new global-scale mission to measure ocean color.

Lastly, we strongly support the NOAA education programs that are essential for developing responsible ocean and coastal stewards, as well as cultivating future scientists. We respectfully request $45 million for NOAA’s office of education—which is merely one percent of the total budget request for NOAA. We recommend the development of a summer internship program to provide high school students with opportunities to work in an exciting research setting at a university, marine laboratory or at sea. This may entice students to pursue degrees and careers in the ocean sciences, so that they can help society better manage our resources and adapt to a rapidly changing environment. This program should complement a robust set of fellowships, traineeships and internships for graduate study in the marine and climate sciences.

**National Aeronautics and Space Administration (NASA)**

NASA provides critical support for Earth science and oceanographic remote sensing, which have greatly advanced our ability to forecast weather, make climate projections and better understand Earth ecosystems on a global scale. While the President’s budget provides funds to respond to the recommendations of the Earth Science Decadal Survey, the proposed allocations will not meet the schedule proposed by the Survey. The result of this budget shortfall will be the loss of time-series observations that are essential for monitoring and building environmental models and forecasts. We encourage you to provide additional funds to address our most pressing needs in the acquisition of ocean color, sea-surface wind and sea-surface temperature data. This information is essential for understanding the biology, chemistry and physics of the ocean, including improving climate models, predicting hurricanes and detecting changes in ocean life. In addition, NASA should be supported in replacing the capabilities of the lost Orbiting Carbon Observatory mission, which can provide essential data on the sources and sinks for carbon dioxide over the Earth’s oceans.

We greatly appreciate your past support for ocean research and education programs and look forward to working with you throughout the FY10 process to produce a bill that improves our ability to understand, manage and conserve our ocean and coastal resources. Thank you for considering our requests.

Sincerely,

Robert B. Gagosian, Ph.D
President and CEO
Consortium for Ocean Leadership