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Fisheries and Oceans Subcommittee
Resources Committee
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Good afternoon Chairman Gilchrest and members of the Subcommittee. Thank you for the opportunity to speak about the Coastal Ocean Observing System and testify on HR 1489, the Coastal Ocean Observation System Integration and Implementation Act of 2005. My name is Fred Grassle and I serve as Director of Rutgers University's Institute of Marine and Coastal Sciences, but I am first and foremost an oceanographer. I serve, or have served, on several committees related to the development of the Coastal Ocean Observing System.

The subject of today's hearing, H.R. 1489, represents a first step in integrating the disparate coastal observation systems that have developed from the Rutgers testbed model at the Long-term Ecosystem Observatory site, also known as LEO-15 and the New Jersey Shelf Observing System. LEO-15 is situated in 15 m of water about 10 km off the New Jersey coast. Since 1996, this facility has operated as a national littoral observatory enabling investigators to sample and sense the coastal ocean with a level of precision unmatched by traditional surface-based techniques. Essential elements of the LEO-15 system are the use of fiber-optic cables providing power, interactive system control, and internet connectivity. The system makes possible integration of real-time physical and biological data from chemical, optical, and acoustic sensors, satellites, and a high-frequency radar system for synoptic measurement of surface currents. In 2002, the observing system was expanded to the entire continental shelf off New Jersey through the use of autonomous gliders that oscillate between the surface and bottom to provide subsurface information. The system has been operated to provide biweekly ocean forecasts for the entire New York Bight when funds have been available. Efforts are under way to develop a predictive capability that will enable resource managers and coastal decision makers to use science-based decisions to address management issues.

Real time data from arrays of sensors and forecast models are required to mitigate the effects of flooding and erosion from hurricanes, tsunamis, and other severe storms. Our high-frequency radar surface current information has been shown to improve search and rescue capabilities to save lives. These radar technologies are also being adapted to routinely track and identify ships for homeland security. The sources, fates, and effects of pollutants will be better understood using better means of tracking sediments and pollutants in the ocean. High resolution surveys of ocean habitat using autonomous underwater vehicles, and use of the observing system will allow tracking and sampling of fish populations. The maritime, coastal recreation, and power industries require accurate forecasts to maintain efficient and reliable operations. All mariners and mariners-at-heart will benefit from better observations of our ocean surroundings.

Since I spoke with you last year, the need for Coastal Ocean Observing System legislation is even more apparent and I strongly support the purposes outlined in HR 1489. Under HR 1489, units of the observing system will be designated to transmit well-managed, real time (or near real time) data to users, and to produce forecasts or other appropriate products that will represent ocean conditions and processes. The success of this Act will depend on the criteria used for designation of System units and how the relationships between System units and users will be established. The Secretary of Commerce in consultation with the National Ocean Research Leadership Council must ensure that development of the System goes beyond enhancement of present Federal capabilities and considers the most innovative ideas on system integration and the ability to provide user-defined products.

Regional Associations are not mentioned in the Act, but I believe they will be needed to align observing system units with regional needs and to achieve optimal integration into a coastwide system. User needs and management priorities vary from region to region and the Regional Associations are presently engaging a broad constituency of industries, government at all levels, academic institutions, and the public. It would be very difficult to achieve integration and these levels of engagement from the top down.

I recommend that some portion of funds be allocated for Regional Associations and for the interagency program office, Ocean.US, to provide standards and protocols for System integration, oversee the process for certification of Regional Associations, and assist the National Ocean Partnership Program in developing requests for pilot project proposals.

Without a statement on data policy, Section 6(c) of HR 1489 might be misinterpreted. It is essential that the System emulate the National Weather Service by providing free and open access to data. The Secretary should foster cooperation between the public and private sectors and private-sector development of value-added products from the System.

With regard to funding for HR 1489, I strongly recommend a funding level more in line with the recommendation of the U. S. Commission on Ocean Policy for \$138 million in start-up costs for IOOS in fiscal year 2006.

This bill is a good first step towards an integrated Coastal Ocean Observing System. Passage of HR 1489 will ensure that implementation of the Coastal Ocean Observing System proceeds and that all sectors of our country will soon reap the benefits of the information it provides.