U.S. IOOS® is an operational system and a network of regional partners responsible for regional observations, data management, modeling and analysis, education and outreach, and research and development. The overarching purpose of U.S. IOOS is to address regional and national needs for ocean data and information. NOAA continued a merit-based funding process in 2011 to further development of the IOOS regional network. IOOS regional partners provide coordination with regional stakeholders while contributing data and other outputs to the national system – supporting regional priorities while advancing national objectives.

NORTHEAST ATLANTIC REGION

The Northeastern Regional Association of Coastal Ocean Observing Systems (NERACOOS) spans coastal waters from the Canadian Maritime Provinces to the New York Bight. NERACOOS provides weather and ocean data to fishers and commercial vessel operators for use in determining if conditions are safe for passage and to emergency managers issuing storm warnings. NERACOOS is also advancing efforts to use these data for water quality monitoring, harmful algal bloom predictions and warnings, coastal flooding and erosion forecasting, and coastal and marine spatial planning.

NOAA Funding:

Prior to FY 2011, IOOS regional partners received two awards – one for development of the Regional Coastal Ocean Observing System (RCOOS), and one for planning and stakeholder engagement by a Regional Association (RA). In FY 2011, IOOS made a single award to each region for management of these activities. Funds awarded by NOAA since establishment of the U.S. IOOS Program Office are as follows:

FY 2011 - \$1,770,000

FY 2010 - \$1,400,000 RCOOS (plus \$49,000 for High

Frequency Radar support); \$400,000 RA

FY 2009 - \$1,324,787 RCOOS, \$400,000 RA

FY 2008 - \$1,200,000 RCOOS, \$400,000 RA

FY 2007 - \$1,200,000 RCOOS, \$400,000 RA



Regional Priorities:

The Northeast region is geographically complex, with five states and two Canadian provinces, coastal waters and watersheds of the Scotian Shelf, Gulf of Maine, Southern New England Bight, and Long Island Sound. Regional user requirements identified marine operations, inundation, harmful algal blooms, water quality, coastal and offshore renewable energy development and living marine resources as specific concerns in the Northeastern Region.

In 2011, NERACOOS will continue the improvement and integration of the coastal ocean observing system through close collaboration with regional organizations, especially the Northeast Regional Ocean Council (NROC). The

NROC is a state-federal partnership that provides a forum for tackling and prioritizing regional scale problems. This collaboration helps to ensure that NERACOOS directly addresses pressing regional scale issues of societal benefit. To that end, NERACOOS adopted four NROC priority theme areas and formalized the collaboration with a Memorandum of Understanding.

The NROC and NERACOOS key themes- and the associated NERACOOS activities for 2011 - are as follows:

- Maritime Safety and Security NERACOOS will provide real-time observations and forecasts directly for maritime operational safety, inform US and Canadian Coast Guard Search and Rescue Operations, and introduce new and enhance existing ocean forecast products.
- Ocean and Coastal Ecosystem Health NERACOOS will improve harmful algal bloom monitoring and forecasting, enhance monitoring and integration of water quality information, enable ecosystem based fisheries management and marine spatial planning, and monitor ocean acidification.
- Ocean Energy NERACOOS will provide the necessary oceanographic information to facilitate the renewable energy sector and the Data Integration Framework required for a regional approach to facilities siting.
- Coastal Hazards Resiliency NERACOOS will enhance and evaluate street-level inundation forecasting, expand forecasts for coastal flooding and erosion, and support emergency spill response.

Additionally, climate change and Coastal and Marine Spatial Planning are central and cross-cutting themes.

Finally, continued development and implementation of a Data Management and Communication system is central to the delivery of information and products to users of the system; performance and evaluation metrics will enable tracking the return on investment; and education and outreach will engage NERACOOS users to ensure information and products meet their needs.

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