



FY2012: Regional Integrated Ocean Observing System Development

U.S. IOOS[®] is envisioned to be 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 data, information, and products to the regional stakeholders while contributing data and other outputs to the national system—supporting regional priorities while advancing national objectives.

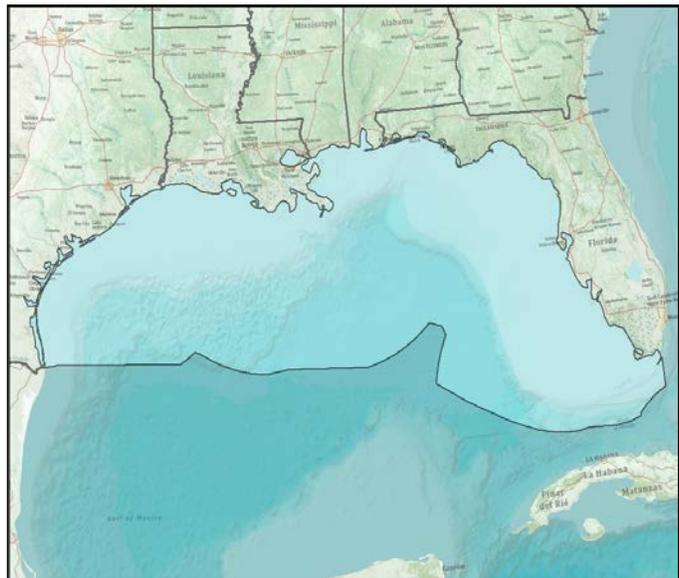
GULF OF MEXICO REGION

The Gulf of Mexico Coastal Ocean Observing System Regional Association (GCOOS-RA), established in January 2005, is building a sustained, integrated, operational observing system through a partnership of many organizations—from federal, state, and local governments to industry to NGOs to academia to educators—to provide data, information, and products on the marine, coastal, and estuarine systems of the Gulf of Mexico to a wide range of users. The region covers the entire U.S. Gulf of Mexico, extending from the Florida Keys westward to the southern tip of Texas and encompassing over 17,000 miles of tidal shoreline in five U.S. states—Texas, Louisiana, Mississippi, Alabama, and Florida. It includes the coastal zone that extends inland to the end of tidal effects in estuaries, bays, and rivers, and offshore to the boundaries of the U.S. Exclusive Economic Zone (EEZ) of the Gulf of Mexico.

NOAA Funding:

Prior to FY 2011, IOOS regional partners received at least two awards – including separate funding for development of the Regional Coastal Ocean Observing System (RCOOS) and for planning and stakeholder engagement by a Regional Association (RA). Starting 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 2012 - \$1,440,586
- FY 2011 - \$1,400,000
- FY 2010 - \$1,000,000 RCOOS, \$399,960 RA
- FY 2009 - \$573,085 RCOOS, \$399,998 RA
- FY 2008 - \$573,085 RCOOS, \$399,986 RA



Regional Priorities:

The Gulf of Mexico region provides our Nation with many valuable resources: energy from oil, gas, wind and waves; abundant fish and shellfish resources; major transportation waterways and ports; beautiful beaches and extraordinary recreational activities; vibrant coastal communities; and a complex and diverse ecosystem with many unique habitats supporting a rich array of sea life. It has endured both natural and manmade catastrophes, including Hurricane Katrina in 2005 and the Deepwater Horizon Macondo well blowout in 2010. Being a region of vital economic importance to our nation, a thriving Gulf Coast economy is critical for humans. However, if urban development and

human growth and activities are not balanced by excellent environmental stewardship, the health of ecosystems, the quality of the water, and the effectiveness of the natural ecosystem functions will be compromised.

To empower people, communities, and businesses to improve decision making about their lives, work, and play along the Nation's Gulf Coast requires access to science-based information, including biological, chemical, physical, and geological data. It also requires tools to generate forecasts, graphics and products to inform the impacted stakeholder community. The GCOOS-RA worked over the past decade to identify the needs of the stakeholders for data, information, and products about the Gulf of Mexico, its resources, and its ecosystem. These results were used to identify the key elements to make up the observing system, the GCOOS. Ranging from vulnerability of community infrastructure to risks to life, property, and ecosystems, the major societal priorities of the GCOOS-RA are:

- Safe and Efficient Marine Operations,
- Mitigation of Effects of Coastal Hazards,
- Public Health and Safety, and
- Healthy Ecosystems and Water Quality

All include impacts from *Climate Change* as sea level rises and land subsides in the Gulf. The GCOOS is being developed to integrate the measurements already being made by the GCOOS-RA partners, to identify and fill gaps in observations where necessary to meet regional, as well as national, requirements, and to serve freely shared and easily accessed data, information, and products needed by Gulf communities and our Nation's people.

The efforts of the GCOOS-RA have had two major results. First is a growing partnership of interests in the Gulf of Mexico that focuses on jointly meeting regional challenges to the benefit of all. Second is the development of the GCOOS Data Portal that integrates resources to improve decision-making by partners and the public. For FY 2012, the GCOOS-RA will work to:

- Maintain RA governance and stakeholder engagement, including interactions with IOOS partners, the Gulf of Mexico Alliance, and the Mexico/U.S. Gulf of Mexico Large Marine Ecosystem project;
- Maintain data management and data/products portal capability;
- Maintain outreach and education capability;
- Maintain the flow of real-time data, currently being provided by non-Federal entities (local data nodes) into the IOOS data stream;
- Add new, non-Federal real-time data providers willing to provide their data and provide support to help them meet IOOS standards;
- Provide support for key regional real-time observation systems, including the High-Frequency radar network, Harmful Algal Bloom Integrated Observing System, and Hypoxia Monitoring System;
- Develop ecosystem modeling project on nutrients to support marine resource decision-makers
- Work with the U.S. IOOS Program on a pilot project-establishing common data content standards for certain biological data; and
- Support to maintain the capability of three satellite processing centers to serve their products in an IOOS DMAC-compliant way.

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