



FY2008: Regional Integrated Ocean Observing System Development

NOAA continued a merit-based funding process in 2008 to enhance regional ocean observing systems and achieve three long-term outcomes: establishing coordinated regional observing and data management infrastructures, developing applications and products for regional stakeholders, and crafting regional and national data management and communications protocols. In addition, regional associations received planning grant awards designed to assist them in stakeholder engagement, education and outreach, and long-range planning activities.

GULF OF MEXICO REGION

The Gulf of Mexico Region includes the coastal states from Florida to Texas. In 2008, two implementation awards were provided to Texas A&M University totaling \$573,085. The 2008 Regional Association Planning Grant award to this region is \$399,986.

Project Title:

Maintenance and Enhancement of the GCOOS Data Portal: Building toward a Regional Operations Center

Recipient/ Lead Principal Investigator:

Texas A&M University/ Dr. Ann Jochens (ajochens@tamu.edu)

Cost:

Funded: FY 2008 (Year 1) - \$350,000

Proposed (subject to available funds): Year 2 - \$819,786; Year 3 - \$756,779

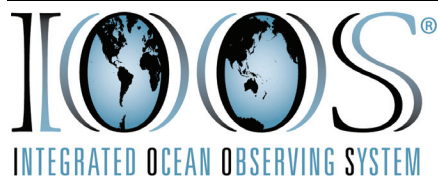
Performance:

The overarching goal of this project is to develop an integrated data framework for data streams, quality assurance procedures, and data delivery. This will be achieved through four objectives to: maintain and enhance the data portal beyond 2008, develop and refine a comprehensive data management system, build a pre-operational Regional Operations Center (ROC), and develop educational resources for significant IOOS outreach efforts. This project builds upon current efforts to design and build a centralized data portal for the Gulf of Mexico Coastal Ocean Observing System Regional Association (GCOOS-RA).

Schedule:

1. Year 1
 - Begin planning for Regional Operations Center (ROC)
 - Plan, formalize, and implement Data Management Policy
 - Assemble education and outreach web resources team and design web resources page
 - Assemble kiosk exhibitory team
2. Years 1-3
 - Roll out data portal for general use; begin collecting usage statistics and refine portal
 - Test and refine data portal: conduct internal and external reviews, establish user web wiki, evaluate user satisfaction results

(over)



- Maintain and enhance data portal
 - Review and revise Data Management Policy
 - Develop and update educational lesson plans
3. Year 2
- Implement Open Geospatial Consortium Sensor Web Enablement suite of standards specifications for use by all data providers
 - Plan pre-operational ROC elements
 - Develop pre-operational ROC: develop metrics, design and construct ROC
 - Add new data providers and new data types to data portal
 - Install educational kiosks at the J.L. Scott Marine Education Center and the Texas State Aquarium
4. Year 3
- Add model output to data portal
 - Complete internal testing and external testing of ROC, refine from user feedback, and develop transition plan from pre-operational to operational
 - Install educational kiosks at the Florida Aquarium, Dauphin Island Sea Lab's Estuarium, and Aquarium of the Americas
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Project Title:

Standardization of Local Data Network Nodes in the Gulf of Mexico Coastal Ocean Observing System Regional Association (GCOOS-RA)

Recipient/ Lead Principal Investigator:

Texas A&M University/ Dr. Ann Jochens (*ajochens@tamu.edu*)

Cost:

Funded: FY 2007 (Year 1) – \$297,868.

FY 2008 (Year 2) – \$223,085

Proposed (subject to available funds): Year 3 – \$300,859

Performance:

This project will standardize elements of the near real-time marine data delivery systems of ten major non-federal data providers of the Gulf of Mexico Coastal Ocean Observing System Regional Association (GCOOS-RA). Uniform data delivery systems will be developed that maximize interoperability within the region, between regions, and with the federal backbone to facilitate the production of operational data and model products in support of the regional and national needs. The three specific objectives are to: 1) establish a single common vocabulary for variables served; 2) serve point and vector data via an Open Geospatial Consortium (OGC) compliant Sensor Web Enablement (SWE) framework comprised of Sensor Observation Service and Observation and Measurement standards; and 3) serve satellite data via a OGC Web Coverage Service (WCS) service interface.

Schedule:

1. Year 1
- Node managers attend one regional DMAC planning and coordination meeting
 - Develop a common data model for and serve near real-time scalar data (e.g., temperature and salinity)
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- Satellite provider nodes select which satellite data to serve
2. Years 1-3
 - Establish a single common vocabulary for variables served by region
 - Node IT staff attend two technical meetings per year on DMAC-centric topics e.g., metadata, ontology, Web Services
 - Implement vocabulary changes at each node
 - Each node participates in the IOOS Regional Observation Registry Program
 3. Year 2
 - Develop a common data model for and serve near real-time vector data (e.g., current speed and direction)
 - Select/develop method for and serve near real-time satellite data through WCS interface
 4. Year 3
 - Node managers attend one regional DMAC planning and coordination meeting
 - Serve archived scalar and vector data via the SWE interface
 - Serve archived satellite data through WCS interface
 - Build Education and Outreach user utility by establishing a working group to train those who will interface with stakeholders on communicating technologies, protocols, and standards
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