



# FY2009: Regional Integrated Ocean Observing System Development

NOAA continued a merit-based funding process in 2009 to enhance regional coastal ocean observing systems (RCOOSs) 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 2009, two RCOOS implementation awards were provided to Texas A&M University totaling \$573,085. The 2009 Regional Association Planning Grant award to this region is \$399,998.

### 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  
FY 2009 (Year 2) - \$350,000  
Proposed (subject to available funds): Year 3 - \$800,734

### 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
  - Roll out data portal for general use; begin collecting usage statistics
  - Test and refine data portal: conduct internal and external reviews; establish web-based user feedback mechanism; evaluate user satisfaction results
  - Assemble education and outreach web resources team and design web resources page
  - Assemble kiosk exhibitory team
2. Year 2
  - Maintain and enhance data portal as resources allow
  - Add model output to data portal
  - Add new data providers and new data types to data portal

(over)

- Implement Open Geospatial Consortium Sensor Web Enablement suite of standards specifications for use by data providers
  - Develop educational lesson plans and resources
  - Plan, formalize, and implement Data Management Policy
  - Begin planning for pre-operational Regional Operations Center (ROC)
  - Install educational ocean observing kiosks at the Florida Aquarium and the Texas State Aquarium
3. Year 3 (subject to available funds)
- Maintain and enhance data portal as resources allow
  - Continue to add new data and model output to data portal
  - Update educational lesson plans and resources
  - Review and revise Data Management Policy
  - Plan pre-operational ROC elements
  - If funding allows, develop pre-operational ROC: develop metrics; design, construct, and test ROC; and develop transition plan from pre-operational to operational
  - Install educational ocean observing kiosks at the Dauphin Island Sea Lab's Estuarium (AL), the Aquarium of the Americas (LA), and the J.L. Scott Marine Education Center (MS).

**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  
 FY 2009 (Year 3) – \$223,085

**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 production of operational data and model products in support of 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 an OGC Web Coverage Service (WCS) service interface.

**Schedule:**

1. Year 1
  - Establish a single common vocabulary for variables served by region
  - 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)

- Satellite provider nodes select which satellite data to serve
  - Each node serving in-situ data starts participation in the IOOS Regional Observation Registry Program
2. Years 1-3
    - 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
    - Each node serving satellite data starts participation in the IOOS Regional Observation Registry Program, if the Registry has the capability to accept satellite data
  4. Year 3
    - Serve archived scalar and vector data via the SWE interface
    - Serve archived satellite data through WCS interface
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