



# FY2009: Regional Integrated Ocean Observing System Development

NOAA continued a merit-based funding process in 2009 to enhance regional coastal ocean observing systems (RCOOS) 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.

## PACIFIC NORTHWEST REGION

The Pacific Northwest Region includes the coastal states of Washington, Oregon, and northern California. The 2009 RCOOS award to this region is \$1,500,000. The 2009 Regional Association Planning Grant award to this region is \$400,000.

### Project Title:

Enhancing the Pacific Northwest Regional Coastal Ocean Observing System (RCOOS) of the Northwest Association of Networked Ocean Observing Systems (NANOOS)

### Recipient/ Lead Principal Investigator:

University of Washington/ Dr. David Martin (*dmartin@apl.washington.edu*)

### Cost:

Funded: FY 2007 (Year 1) - \$1,500,000  
FY 2008 (Year 2) - \$1,500,000  
FY 2009 (Year 3) - \$1,500,000

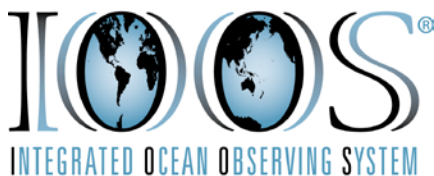
### Performance:

To progress on the NANOOS regional priorities of maritime operations, fisheries, ecosystem impacts, and coastal hazards, this project will develop the essential subcomponents of the Pacific Northwest RCOOS: observing systems, modeling and products, data management and communications (DMAC), and education and outreach. The work will be applied in four observational domains: coastal ocean shelf, coastal ocean surface currents, estuaries, and shorelines. The primary goals of the project are to: 1) maintain existing surface current mapping capabilities and expand to include short-term forecasting at a priority port location; 2) expand coverage and range of observations on the coastal ocean shelf in coordination with emerging national programs with fixed buoys and gliders that will provide information on hypoxia/anoxia and harmful algal blooms (HABs); 3) maintain and expand observations in estuaries through improved maintenance and staff support, including partnerships at local, state, and federal levels, and; 4) maintain and expand core elements of existing beach and shoreline observing programs in Oregon and Washington.

### Schedule:

1. Years 1 - 3
  - Maintain Oregon High Frequency (HF) Radar sites
  - Maintain coastal buoy in Newport, Oregon, line for hypoxia/anoxia alerts

(over)



- Maintain some moorings in Puget Sound, Columbia River, Willapa Bay, Gray's Harbor, and South Slough
  - Maintain quarterly topographic profiles and 3-D topographic beach surface mapping
2. Year 1
- Develop conceptual systems architecture design in compliance with IOOS standards and protocols, network engineering design, and Web interface specifications
  - Hire a full-time NANOOS Education and Outreach Specialist; develop education materials for NANOOS focus areas
  - Purchase equipment for coastal buoy at Juan de Fuca eddy for HAB warning focus
3. Year 2
- Purchase and install one X-Band port radar system at high priority port
  - Purchase equipment to refurbish Oregon buoy
  - Continue to refine and implement NANOOS DMAC systems architecture across NANOOS domain with initial nodes at UW, Boeing, OHSU, and OSU
  - Continue NANOOS Education and Outreach Specialist work with NANOOS administration, E&O Standing Committee, User Products Standing Committee, and other stakeholders to derive high-priority, user-driven products
  - Initiate delivery of marine education material via web (Ed-Web); specifically focus on enhancing ongoing Pacific Northwest marine education efforts
  - Continue development of materials for NANOOS focus areas according to stakeholder prioritization between fisheries, maritime operations, coastal hazards, and ecosystem impacts; implement training of prioritized target groups throughout the region
4. Year 3
- Support glider operations off Newport, Oregon, line for hypoxia/anoxia alerts
  - Stabilize fully mature NANOOS DMAC systems architecture across NANOOS domain; ensure exportability to other regional association efforts and national enterprise
  - Continue work by NANOOS Education and Outreach specialist; liaise with stakeholders to assess efficacy of education and outreach efforts, continue outreach of materials in four NANOOS focus areas
  - Focus on development with state agencies and others for coastal hazards
  - Expand development of products based on user input
  - Continue training of prioritized target groups throughout the region
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