



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.

PACIFIC NORTHWEST REGION

The Pacific Northwest Region includes the coastal states of Washington, Oregon, and northern California. The 2008 implementation award to this region is \$1,500,000. The 2008 Regional Association Planning Grant award to this region is \$400,000.

Project Title:

Enhancing the Pacific Northwest Regional Coastal Ocean Observing System 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
Proposed (subject to available funds): Year 3 - \$3,500,000

Performance:

This project to develop the Northwest region will be executed in four subcomponents: 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 with new HF radar sites by extending the current radar array with additional operation, maintenance, and products; 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. Year 1
 - Survey and obtain permits for three Washington HF radar sites
 - Develop conceptual systems architecture design in compliance with IOOS standards and protocols, network engineering design, and Web interface specifications

(over)



- 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
2. Years 1 - 3
- Maintain Oregon HF Radar sites
 - Maintain 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
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; user products web interface design initial nodes at UW, Boeing, OHSU, and OSU
 - NANOOS Education and Outreach specialist works with NANOOS administration, E&O Standing Committee, User Products Standing Committee, and other stakeholders
 - Initiate delivery of marine education material via web (Ed-Web); specifically focus on enhancing ongoing Pacific Northwest marine education efforts
 - Continue development of education materials for two 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
- Maintain OrCOOS buoy in Newport line for hypoxia/anoxia alerts
 - Maintain quarterly topographic profiles (47 sites) and 3-D topographic beach surface mapping of beach (16 sites), maintain expanded NANOOS pilot efforts at 46 sites
 - Maintain Oregon HF radar sites, and purchase one long range HF system
 - Install three Washington HF radar systems
 - Purchase and install one X-Band port radar system at second priority port
 - Continue development, testing, and use of cross-shore profile change models and probabilistic shoreline change models at OSU
 - Move 24/7 operational modeling center to fully developed status and confirm federal/state organizations for operational transition; focus on oil spill applications
 - Stabilize fully mature NANOOS DMAC systems architecture across NANOOS domain; ensure exportability to other RA efforts and national enterprise
 - Continue work by NANOOS E&O specialist; liaise with stakeholders to assess efficacy of E&O efforts, continue outreach of materials in four NANOOS focus areas
 - Focus on state agencies and others for coastal hazards
 - Expand development of products based on user input
 - Continue training of prioritized target groups throughout the region

NOAA Contacts:

NOAA Coastal Services Center: Mary Culver (*Mary.Culver@noaa.gov*)

NOAA IOOS Program Office: Jennie Lyons (*Jennie.Lyons@noaa.gov*)
