

Progress Report for Year 3
Enhancing
Northwest Association of Networked Ocean Observing Systems (NANOOS)
#NA05NOS4731124

Dec 1, 2005- May 31, 2006

This progress report describes activities carried out in support of enhancing the Northwest Association of Networked Ocean Observing Systems (NANOOS). This report was compiled by Jan Newton, NANOOS Executive Director, and David Martin, NANOOS PI for this grant.

Project Goal and Description/Methodology

The goal of this project is to foster and enhance Pacific Northwest (PNW) Regional Partnerships to grow constituencies and develop and implement governance structures and business plans that will permit official federal certification of NANOOS as the PNW Regional Association and thus allow for the eventual installation and long-term maintenance of a PNW Regional Coastal Ocean Observing System (RCOOS).

Major activities to date:

During this period we used NANOOS resources for the following activities:

- Held a NANOOS Governing Council meeting 23 March in Longview, WA attended by 19 of the 23 NANOOS Governing Council members. The agenda included updates on IOOS, NANOOS, and NANOOS Pilot activities and discussions on the role of the NANOOS Governing Council, Officers, Standing Committees, the NANOOS Website, regional DMAC needs, regional Education/Outreach ideas, NANOOS Business Plan development, and a Communications Strategy for the NANOOS Governing Council.
- Held an election of NANOOS Officers and Standing Committee Chairs. Election results declared on 14 April by Jan Newton, NANOOS Executive Director were:
 - President: David Martin (UW-APL)
 - President-Elect: Antonio Baptista (OHSU)
 - Secretary: Fritz Stahr (Ocean Inquiry Project/UW)
 - Treasurer: Vicki McConnell (State of OR DOGAMI)
 - Data/Information Management & Communications Committee Chair: Jay Pearlman (Boeing Co.)
 - User Products Committee Chair: Jonathan Allan (State of OR DOGAMI)
 - Education and Outreach Committee Chair: Christian Sarason (Ocean Inquiry Project/UW)
 - Science and Technology Committee Chair: Casey Moore (WET Labs)
- The four elected Officers and four elected Standing Committee Chairs, plus an appointed Users Advisory Group Chair (Bob Bohlman, Marine Exchange of Puget Sound) and the NANOOS Executive Director (Jan Newton, UW-APL) make up the Executive Committee of NANOOS.

- Jan Newton participated in the IOOS Public Health workshop in St Petersburg, Florida, on 23-25 January. Jan represented NANOOS both in person and via a poster describing NANOOS activity relative to HABs and BEACH monitoring. She also was asked to give a short presentation to the general audience on the structure of the IOOS RAs and how public health officials can find their RA contact.
- Jan Newton gave a presentation on IOOS and NANOOS to the Council of American Master Mariners on 12 January in Seattle. This resulted in CAMM joining NANOOS, at both the regional and federal levels.
- A regional Stakeholders workshop was held by the NANOOS Pilot in Newport, OR, on 1-2 February. Jan Newton and Antonio Baptista gave introductory talks on IOOS/NANOOS and the Pilot project work, respectively. This was followed by dividing the large audience into 3 break-out groups for discussions of regional needs for data, modeling projections, and information. The needs were collated into workshop proceedings by NANOOS Pilot workshop host, Jonathan Allen.
- Antonio Baptista, David Martin, and Jan Newton represented NANOOS at the Pacific Ocean OOS meeting held before the Ocean Sciences meeting in Honolulu on 19 February. Jan gave a talk summarizing NANOOS activities and lessons learned and Antonio gave a talk on operational modeling.
- NANOOS activity was represented at the IOOS session of the Ocean Sciences Meeting organized by David Martin, Geno Olmi, and Toby Garfield. On 20 February, Antonio Baptista, Al Devol, and Jan Newton all gave talks relaying what has been gained from NANOOS data in terms of data useful to users and for developing ocean observing strategies.
- David Martin and Jan Newton attended the semi-annual NFRA meeting on 9-10 March in Washington, DC.
- NANOOS' contributions to regional needs were highlighted in the Cascadia Publication (Winter 2005), published by a Oregon state public agency, the Oregon Department of Geology & Mineral Industries, describing the prominent role NANOOS is playing in helping the state obtain shoreline information that is useful for a host of issues, including inundation.
- Jan Newton is working with regional experts to get NANOOS data from Washington and Oregon into NOAA's National Estuarine Eutrophication Assessment being conducted by Dr. Suzanne Bricker. Jan, Ron Thom (PNNL), and Greg Murray (State of OR) attended the NEEA workshop in Baltimore, MD on 9-10 May.
- Mike Kosro and Jonathan Allen attended the meeting of the Scientists and Fishermen Exchange (SAFE) on 22 May at the Hatfield Marine Science Center, Newport OR, to talk with fishers, to give them an awareness of NANOOS/IOOS, give them some web locations, and get from them input on information and delivery needs. The general topic of discussion was how information from ocean observing systems could be used by fishermen.
- David Martin and Jan Newton participated in a teleconference call with NOAA regarding regional needs assessment on 26 May. NOAA interviewed all 11 of the RAs for their feedback on useful activities and un-met needs.

Specific Project Objectives:

- 1) **Continue to identify and engage the full and expanding spectrum of stakeholders** having significant interests in the waters of the Pacific Northwest to ensure their views and opinions are fully recognized and taken into account in all aspects of planning, science and governance, and that this partnership building effort takes advantage of their scientific, economic, social, cultural and operational expertise.

Activities to Date:

- During this period, NANOOS representatives made numerous contacts with stakeholders and potential users of NANOOS products in either individual or group meetings and presentations, per above, specifically through the NANOOS Pilot workshop in Newport, but also through talks such as with SAFE (fishers), CAMM (ship masters), and via DOGAMI (state coastal managers).
- 2) **Proactively engage the regional ocean science community** in this partnership building project to ensure their expertise helps guide the eventual design and evaluation of the system. This approach will ensure the PNW Regional IOOS evolves to take advantage of new knowledge and technology as they are developed.

Activities to Date:

- During this period, NANOOS representatives actively engaged with the national ocean science community primarily through a very well-attended Ocean Sciences Meeting session on IOOS with 3 NANOOS-related talks, on the overall program and its impacts to date, the Pilot project, and on observing strategies learned from real-time NANOOS data.
 - NANOOS was also discussed within the regional ocean science community via formal and informal talks at UW, OSU, and OHSU.
 - Newton will follow-up further with public health scientists and regional leads, following the IOOS workshop on Public Health; through her participation at the IOOS workshop she was invited to give a talk regarding NANOOS/IOOS at the Annual meeting of the Society for Risk Analysis (SRA) in Baltimore, MD from December 3-6, 2006 in a symposium entitled “Shoreline Management – on the Interface of Oceans and Human Health”.
- 3) **Obtain input about sub-regional scale oceanographic concerns** by engaging with local stakeholders to ensure these factors are addressed at the Regional level. The NANOOS Coordinator will work within these smaller groups to build a sense of community and partnerships at the sub-regional scale and then translate this into strong regional partnerships through larger gatherings and workshops.

Activities to Date:

- The needs from the March NANOOS Pilot workshop in Newport, as well as feedback from SAFE and CAMM are used to guide NANOOS in its development of user products.
- At the March Governing Council Meeting, NANOOS voted to appoint Bob Bohlman, Marine Exchange, to Chair the NANOOS Users Advisory Group (UAG). Bob will work with NANOOS region user community to gain further insights on useful products and information. The UAG does not need to be NANOOS membership, but rather reflect a diversity of user's needs, many of whom may not be familiar with NANOOS, initially.

4) Implement the results of the consensus agreement on the overall process to evolve the Governance structure for a Pacific Northwest Regional Association.

Activities to Date:

- NANOOS now has a fully functioning Governance structure, including a Governing Council composed of over twenty member entities who have signed the NANOOS MOA, elected Officers, elected Standing Committee Chairs who are forming nascent Standing Committees, a Users Advisory Group Chair, an Executive Director.
- NANOOS continues to receive signed MOA documents.

5) Develop and implement a Business Plan in consonance with Ocean.US criteria to guide NANOOS budget formulation, involvement of users, all aspects of linkages between observations and products, research and development decisions, training, and alternate funding opportunities.

Activities to Date:

- During the March NANOOS GC Meeting, we discussed a plan for drafting our Business Plan and identified a number of NANOOS industry partners to assist with this effort. We anticipate vetting the Business Plan by NANOOS stakeholders via web comment period and final approval at the winter 2007 NANOOS meeting.

6) Strengthen international and inter-Regional partnerships by engaging with Canadian colleagues and other western Regional Association efforts to build bridges to these efforts and ensure seamless integration of these efforts. As part of this effort, we will continue to strongly interact with ongoing or planned federal IOOS Coastal Backbone initiatives such as the NOAA Fisheries sponsored Pacific Coastal Ocean Observatories System (PaCOOS) on whose Governing Board both Martin and Barth sit (<http://www.pacoos.org>).

Activities to Date:

- NANOOS actively participated in the Pacific Ocean OOS meeting in Honolulu via Antonio Baptista, David Martin, and Jan Newton. Jan gave a talk summarizing NANOOS activities and lessons learned and Antonio gave a talk on operational modeling. All participated in the break-out sessions to strategize on IOOS directives with respect to Pacific concerns and ideas.
 - NANOOS informally communicates with AOOS, CeNCOOS, SCCOOS and PacIOOS.
- 7) **Continue to engage at the national level** to ensure the PNW activities of NANOOS are fully supportive of the national effort to implement and maintain an IOOS. Martin currently serves as the Chair of the new National Federation of Regional Associations (NFRA) Organizing Committee and PNW representation at the national level remains robust.

Activities to Date:

- Martin and Newton attend the monthly NFRA conference calls and provide NANOOS updates to the collective, as well as hear the other nascent RA updates.
- Martin, as Co Chair of NFRA and participates in NFRA Ex-Com calls.
- Through their participation in the NOAA Needs Assessment interview process, Martin and Newton both contributed the NANOOS perspective and learned of other RAs' feedback on useful activities and un-met needs.
- Newton and Martin continue to attend national IOOS-related meetings, such as the NFRA and IOOS Public Health meetings.

Status of progress

Governance Plan

While we anticipate that NANOOS will become a 501 c3, as described more fully above, NANOOS has fully implemented a Governance system per the NANOOS MOA and election of its officers.

Business Plan

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Stakeholder identification and involvement

More MOAs were signed during this period. We now have a total of 23 NANOOS Partners, representing a very broad spectrum of PNW stakeholders. Additionally, we continue to make informal and formal contacts to a host of stakeholders.

DMAC

We now have an elected DMAC Standing Committee Chair: Dr. Jay Pearlman (Chief Technologist, Boeing Company). Due to travel schedules, Jay plans to convene the DMAC committee in summer.

Through our NANOOS sub-contract with OHSU for DMAC, Dr. Antonio Baptista (OHSU) has leveraged DMAC development efforts funded through the NANOOS Pilot, to assist in the overall NANOOS DMAC capacity. In particular, investigators in the NANOOS DMAC are now using the SOAP services provided by <http://opendap.co-ops.nos.noaa.gov/axis> for acquiring realtime CO-OPS and NDBC data. These web services have proved to be very useful both for realtime data and station metadata. Additionally, we have updated NANOOS Pilot web site links for CO-OPS stations to account for changed NOAA web servers.

Martin serves on the NOAA IOOS RFQ Evaluation Panel which has a focus on DMAC.

Education and Outreach

We now have an elected Education and Outreach Standing Committee Chair: Christian Sarason (Ocean Inquiry Project/UW). Following his election in April, Christian has begun the development of an initial funded NANOOS Education and Outreach program, involving an active Education and Outreach committee