Minutes of AOOS DMAC PWS Technical Subcommittee Teleconference

11/09/2004, 1400-1600 PST

Participating: Allen Macklin, Bern Megrey, Peter Olsson, Rob Bochenek, Yi Chao, Carl Schoch, Molly McCammon

1. Current status of AOOS PWS pilot project - Schoch, Olsson, Chao, McCammon

   Carl Schoch – The OSRI Board met in October and approved the work plan for 2005 but not the five-year science plan. The Board will consider it again in spring. Apparently, the holdup in approval is not about the observing system. The 2005 work plan permits use of the congressional appropriation from last year and this year's transfer of funds from EVOSTC, totaling more than $1 million, to support PWSOOS. This will buy subsurface moorings at Hinchinbrook Entrance and Montague Island (not telemetered) and enhanced NDBO buoys with ADCPs and CPs that will be telemetered. The subsurface moorings will be rotated each 6 months so data will be at a 1/2-yr lag. Mooring data will be downloaded in Cordova. There is a plan to try an acoustic link to the subsurface moorings that may enable telemetry in the future. Six sea-level stations will be upgraded to SnoTel status, telemetered via MeteorBurst. Some locations are being modified for power and backup communication considerations. More weather stations are to be deployed at tree line: two this summer and five in the future. The plan is to post the real-time data to the web immediately and leave it in place for 45 days. Then the data will be further QA/QC'd before being archived in short- and long-term archival versions.

   Yi Chao – The PWS ROMS modeling contract is not yet in place. Personnel have identified the model developer. When the contract is in place, they will begin to configure the model. Communications have been established with Peter Olsson, and transfer of real-time data from RAM is working well. The ROMS modeling project needs a contact at UAF or AEFF to provide interface for ROMS output display. Was Kate Hedstrom going to work to develop those displays? Yi will contact her. Yi's shop uses Live Access Server and lots of home-grown display software. Yi is preparing the report from the PWS Modeling Workshop and will be distributing a final copy soon.

   Peter Olsson – Peter will be under contract to PWS on January 1. He will hire a part-time data person who will design and build the PWS web presence, develop the node, and assume data management responsibilities for the archive. Peter has an effective long-term solution for personnel, but short-term is the problem. Project hardware (server) is in place.

   Molly McCammon – Funding may be forthcoming for this FY soon. Molly is working on proposals for operations and internal staffing. She will attend a regional observing system meeting next week in Charleston. That meeting may offer national-level advice for AOOS.

2. Plans for overall data collection, dissemination and archival: potential architecture –

All

The AOOS system will consist of a central server and archive at UAF with a data manager and visual information specialist. Specific AOOS regions and projects will develop and host regional nodes, and have their own data managers and visualization specialists. For this pilot study, AEFF will develop a web page and archive for the PWS region. Data and metadata would be delivered from a map accessible through the web. As data tools are developed, they will be centrally archived in a data management and display toolbox for use by the regional nodes. Presently, UAF has money to hire a data manager and data visualization programmer. The data manager could be onboard as soon as February. When will the visualist be hired? UAF will be the data center, archive and disseminator for all of AOOS. Thus, raw data from PWSOOS downloaded at Cordova will be sent to UAF for development and dissemination. QA/QC will probably take place at UAF by scripts. A useful analog to develop this system is the NDBC data management and communications example in operation at http://www.ndbc.noaa.gov/.

The Data manager (DM) will have responsibilities for designing the data management system consistent with DMAC guidelines, collect raw data, perform QA/QC, and manage long- and short-term archiving.

The Data Visualization Specialist will have responsibilities to design and build web pages to present data and products, build visualization tools relevant to different parameters (e.g., current velocities are visualized differently than SSTs) and interact with users to develop the toolbox.

Yi – How do we determine users' needs for products? An effective method is to develop a first cut based on our current knowledge of user needs, and then seek feedback. It would be useful to canvass super-users (oil spill stakeholders, air traffic, tugs and commercial shipping, commercial and charter fishing vessels, etc.) directly for their input on how products should look and be most useable. Transportation groups are the primary super-user. After super-users, then lower tier users will be approached.

3. Access to PWS metadata - How to assemble it? Who to assemble it?

Many metadata are available already from the NDBC (http://www.ndbc.noaa.gov/), SnoTel (http://www.wcc.nrcs.usda.gov/snotel/Alaska/alaska.html) and PWSOOS (http://www.pwsoos.org/) websites. The AOOS DMAC Technical subcommittee will provide PWSOOS with a list of required variables needing metadata description. The data manager to be hired by Peter will have the task of compiling the metadata for the PWS pilot study.

Carl suggested developing a metadata dictionary to hold basic information on sensors. This will be useful because the universe of available sensors is finite. In this way, it would be easy to generate a generic page for a specific piece of instrumentation. Then we can go into more detail if needed.

4. DMAC standards and protocols

    a. Status of NSF proposal by Stephanie Watson, MBARI, et al.

       The proposal to examine metadata standards for marine science data has been funded by NSF. A working website (http://marinemetadata.org) is being developed by John Graybeal at MBARI. Ecological Metadata Language (EML), which has been adopted by EVOSTC GEM program, is one of the metadata standards to be examined. The project will hold a Town Meeting at AGU on December 15.

    b. Determining options for metadata description, data discovery, on-line browse, data transport and data archival

       Allen suggested exploration of various options for these data management elements by the AOOS DMAC committee at a workshop during the Alaska Marine Symposium in January.

    c. DMAC cannot wait for IOOS-sponsored workshops to help with metadata issues. We need standards now to get data management efforts started. Does AOOS need a mix of EML and OpENDAP (or something else) for gridded data, in situ data, and real-time data feeds?

5. Next steps

    a. AOOS DMAC workshop at Alaska Marine Symposium: "DMAC for AOOS – Options for metadata description, data discovery, on-line browse, data transport and data archival" for technically oriented scientists, data managers and interested parties". This workshop will be scheduled tentatively for January 27 and will be developed by the AOOS DMAC committee.

    b. All-hands meeting in the spring for AOOS PWS Pilot Study – This important meeting will communicate progress on the AOOS PWS Pilot Study to stakeholders, participants, and the public. Scheduling of the meeting is dependent on having the data manager and visualization specialist under contract.

    c. Date for AOOS DMAC PWS Technical Subcommittee meeting

       Because half of the technical subcommittee was not participating in the teleconference at the time this item was discussed, Allen will e-mail the query to sub committee members.

6. Action items

    a. Molly – Determine particulars of hiring of data visualization specialist at UAF.

    b. Yi – Is Kate Hedstrom the go-between for ROMS?

c. Allen or Molly – Send copy of Watson NSF proposal to Yi Chao.

d. DMAC Technical Subcommittee – Provide a list of metadata elements for AOOS PWS Pilot Study and draft a DMAC timeline for implementation.

e. Rob – Compile a basic list of metadata elements that AOOS will require, regardless of the metadata language to be used.

f. Bern/Allen - Contact the AOOS DMAC committee about planning a workshop at the Alaska Marine Symposium – topic to be options for metadata, data transport, browse, etc.

g. Bern/Allen – Determine the next meeting date for the DMAC Technical Subcommittee on PWS.