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AOOS Board Meeting

June 29, 2015

Draft Meeting Summary prepared by Darcy Dugan and Holly Kent

Board members present in Anchorage: Ed Fogels (ADNR), Larry Hartig (ADEC), Denby Lloyd (NPRB), Jim Kendall (BOEM), Tara Riemer (ASLC), Carl Markon (USGS), Robert Raye (Shell), Phil Mundy for Doug DeMaster (NOAA AFSC), Angel Corona for Amy Holman (NOAA)

Board members present by phone: Paul Webb (USCG), Paula Cullenberg (ASG), Katrina Hoffman (PWSSC)

AOOS staff present: Molly McCammon, Holly Kent, Darcy Dugan, Carol Janzen and Sijo Smith (intern)

Meeting called to order at 10:00am

Adoption of Agenda:

Action Item: Draft meeting agenda approved unanimously. *Motion by Hartig, second by Mundy.*

Adoption of Board Meeting Summary:

Action Item: April 3, 2015 Board Meeting Summary was approved unanimously with two edits: to add Margaret Williams (WWF) as present in Anchorage and to change Jim Kendall's report about the Shell activities to read: "Shell submitted an exploration plan on March 31. If permits are approved, Shell will be in the field....." *Motion by Hartig, second by Riemer.*

UPDATE by Executive Director

Molly McCammon provided an overview of recent and upcoming AOOS activities and participation in state and national level initiatives.

National Activities:

- ICOOS Act Reauthorization – The legislation has been introduced by Don Young, but appears to be held up in the Senate. Michael Macrander (Shell) is speaking to support ICOOS. There will be a Senate briefing on July 9.
- National Budget – There is a small increase included for the Ocean Acidification program; funding for the LCCs doesn't look good on the House side.

- NSF proposal – AOOS is partnering with UAF/IARC to submit a proposal to provide data management services for NSF Arctic programs.
- Pacific anomalies conference – The conference regarding the “Blob” went well. Two-thirds of the scientists attending agreed that the name was good because it generated publicity. There appears to be a lot of warm water entering the Bering Strait and the Chukchi Sea. There appears to be a lot of potential (though not proven) impacts from the warm waters including: HAB off Kachemak Bay, Fin whale die-off in Kodiak, sea turtles seen in Kodiak and murre die-offs. AOOS has volunteered to set up some kind of blog or website regarding observations surrounding the blob that will be available on the AOOS website.
- Animal Telemetry Network – Molly is participating in a national task team that is developing a plan now being reviewed by federal agencies, including the Navy. The goal is to set standards for QA/QC of data, data ingestion, and public accessibility of data.

Alaska Activities

- Water Level workshop – AOOS hosted this with ADNR, USGS, NOAA, the LCCs, and the USACOE. The goal was to identify what makes the most sense for adding sensors with varying precision for full coverage in Alaska. Nic Kinsman will produce a report by the end of July.
- LCC Resiliency Proposal – AOOS has a small role in a proposal submitted by Agnew Beck in response to a coastal resiliency planning project for the LCCs.
- NOAA Coastal Resiliency – AOOS is developing a proposal on Arctic marine shipping in response to this funding opportunity. It requires a match which is challenging.
- 401K Match for staff – Molly asked if there were any objections to adding this as a benefit, which might result in a \$7K change in the personnel budget. The Board had no objections.
- Observing systems: The Cook Inlet buoy has been deployed and is still in place. The King Island buoy will be deployed by the end of July.
- The YK salmon run timing forecast went well and seems to be matching the actual run timing.

FY 11-15 Budget

The Board considered 3 proposals for additions to the current FY 15 annual work plan:

- **Coastal resiliency proposal**– AK Sea Grant is requesting that AOOS partner with them and ACCAP and NOAA to fund a two-year Sea Grant extension position focusing on coastal resilience. Paula Cullenberg said that the person would not be creating tools, but would help promote understanding of existing tools and help connect communities with them. Molly said that she recommends that AOOS participate in this for \$30K per year for 2 years so long as AOOS has input into the position’s activities and priorities through an advisory committee. There is some unspent funding in the personnel line item that could be used for this. The Board wants to make sure we have clear goals when we fund this position.
Action Item: The Board approved contributing funding at \$30K per year for 2 years unanimously. *Motion by Lloyd, second by Hartig.*
- **OA sensors on Alaska ferries:** AOOS has received requests for OA monitoring on 4 different platforms (AK state ferries, hatcheries, profiling mooring, and ships). The

ferry program would be similar to one funded by the Exxon Valdez Oil Spill Trustee Council and implemented by NOAA/PMEL, which requires significant support. Molly recommends deferring action on this proposal until a winter OA technology workshop can be held which would review the status of OA instrumentation and platforms, lessons learned in last 5 years and develop a more cohesive monitoring vision and priorities.

Action Item: The Board agreed to defer action on this request.

- **Kasper-Weingartner Beaufort Sea water level sensors:** UAF has requested funding to deploy 2 bottom-mounted water level sensors in the Beaufort Sea to gather wave information to be used for Beaufort circulation and storm surge models. Funds are available in the equipment line to cover this. It is a highly leveraged project, with most of the funding coming from UAF.

Action Item: The Board unanimously approved a motion to provide \$42K in funding for this initiative. *Motion by Lloyd, second by Kendall.*

FY 16-20 NOAA Proposal Conceptual Approach

Molly presented two spreadsheets describing staff's proposed conceptual approach for the AOS submission to NOAA for FY 16-20 funding proposal: Funding Scenarios Spreadsheet and Project Descriptions Spreadsheet. The funding scenarios outlined various activities for 3 different scenarios: \$1.5 million a year, \$2.5 million a year, and \$4 million a year. The \$2.5 million scenario is the closest to current AOS funding and is the most realistic. A potential breakdown by geographic region was also included, as well as additional background information for potential new projects.

Data Management Subsystem

The Board discussed the proposed \$350k, \$500k and \$600k scenarios. The Board had questions about how AOS might benefit from Axiom's new contracts with CeNCOOS and SECOORA. Axiom Data Science's Rob Bochenek explained that many of the regions have similar interests as AOS, although they are prioritized differently, but our core costs should be shared among the 3 regions, lowering some of the AOS costs. Even at a \$350k minimum, the AOS system's current capabilities would be maintained and not threatened, but they would not grow or be enhanced.

Products

Molly described a proposed Alaska Coasts and Ocean Report as a potential AOS signature product that could be used to highlight ocean and coastal indicators statewide. Board member Larry Hartig (ADEC) expressed interest in potential impacts of Canadian mines on Alaska waters and asked if AOS had a way to look at watersheds as well. Phil Mundy (NOAA) believes the timing to automate trends is now because of federal requirements to expose their standard metadata records to the web. Resource inventories need to be easy to update since they require constant updating. Phil endorses this project as a pilot project. PICES is contributing salary for a post doc to do something similar for the North Pacific Ocean. Ed Fogels (ADNR) commented that there is a lot of interest in taking the information we have on transboundary watersheds, as well as new information, and have it available for the public. Let the public track what's going on. Molly agreed to add "coastal issues such as watershed mines" or some kind of language in the proposal.

Forecasts, Models and Analysis Subsystem

Molly described the original AOOS mission to “do for the ocean what the NWS does for the atmosphere” in terms of modeling and forecasting ocean conditions in real-time. This has not proved to be realistic. We tried this for Prince William Sound to see if the models could assimilate real-time data and run operationally. However, the models are expensive to run, and given PWS’s complicated shoreline, the models don’t work well without lots of observations.

Instead of funding individual models, staff is proposing that AOOS establish a modeling testbed, similar to the Modeling Testbed run by the national IOOS program. It would involve a competitive process, set criteria, and identify what models are out there that need short-term fix or could be improved. AOOS would not take on operation or long-term maintenance of the models. Molly described the difference between the test bed (add value, fix problem) and the proposed Modeling Evaluation Tool (if you have 2 circulation models, which one operates better under these conditions). Rob Raye said he is more interested in putting effort into observations and looking to other entities to fund models. Katrina Hoffman asked what would it mean for other projects in the proposal if we pulled back from funding the PWS/GOA ROMS model. If it is not continually updated, it would become obsolete. Phil Mundy noted that circulation models used for oil spill trajectory without real-time data are not very accurate. Oil is driven by wind, requires real-time data. If there is not demand from OSRI and PWSRCAC, Phil wonders about long-term maintenance of the ROMS model.

Observing Subsystem

Molly described the current observing system projects. She noted that a placeholder for potential contaminants monitoring was included. The Board had concerns about starting a new observing project, but thought AOOS might be able to do something with the AOOS data system. Larry Hartig noted that mercury is the state’s highest priority. ADEC has been growing a contaminant database opportunistically for a long time, but it is not developed so that trends can be easily spotted and tracked.

Overall Board questions and comments

The Board had a lot of questions and comments about the proposed scenarios. These are some highlights:

- Program management vs data management. Rather than have program management 600K all the way through, should we allow program management to be at 600K the first few years and then seek grant funding to keep the personnel going? Should more staff be added at the \$4million scenario? But after year 2, put 150K into data management to bring it up to 500K.
- Denby Lloyd expressed concern over flat funding of Program Management throughout the 3 funding scenarios. It was suggested that one option was to reduce funding of the Program Management in the \$1.5 mil scenario with the balance returned to assets/activities, such as the signature DMAC for AOOS.
- Jim Kendall noted that AOOS is a small enough operation that it is not cost effective to slash staff and hope things will continue to work effectively, even in a reduced funding scenario. Costs should be cut elsewhere. He also noted that losing experience from the team that would occur with staff cuts would end up costing

more in the end, and was supportive of keeping the program staffing levels consistent throughout each funding scenario.

- Molly suggested cuts in Program Management could be made in other areas, and she iterated that maintaining current activities or increasing them even slightly with reduced staff would be difficult.
- Larry Hartig asked for language for southeast Alaska cumulative impacts and for marine invasives, especially for data integration.
- Phil Mundy asked if the \$4M scenario fills all the holes in the statewide observing system, or are we still looking opportunistically at filling gaps. Molly responded that our priorities are still the Central Gulf of Alaska and the Arctic. Board members suggested that we emphasize that although our priorities might be the Arctic and GOA, if we received \$4M, then it would increase the geographic expansion (wave buoys, etc).

Action Item: The Board unanimously approved adopting the AOS conceptual approach to the FY 16-20 proposal as described by Molly, with the following changes:

- Reduce program management in the \$1.5 million scenarios to \$500k, keep at \$600k in the \$2.5 million scenario, and increase to \$700k in the \$4 million scenario.
- Increase core Data Management to \$450k in \$1.5 million scenario, and keep at \$500k in \$2.5 million and \$600k in \$4 million.
- Reduce target observations funding in \$4 million scenario from \$1.8 million to \$1.7 million.

The Board directed Molly to move forward with the proposal submission without another meeting of the Board, but asked that the draft be circulated to them in advance for any additional review and comments.

Motion by Lloyd, second by Riemer.

Ocean Observing Roundtable

- Larry Hartig (ADEC) circulated a notebook of marine debris photos and described a major event July 16 in Kodiak to highlight marine debris awareness and collection activities.
- Tara Riemer (ASLC): Jeff Corwin and Ocean Mysteries program is coming to Alaska to film. If anyone has ideas for them (they like animals but might be interested in other activities as well, especially if hands on), contact Tara in the next 6 months.
- Denby Lloyd: NPRB is having its fall Board meeting in Kodiak in October.

The meeting adjourned at 2:30 pm.