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**AOOS Board Meeting**  
*March 16, 2016*  
**University of Alaska Fairbanks**  
**Draft Meeting Summary prepared by Carol Janzen and Molly McCammon**

Board members present in Fairbanks Denby Lloyd (NPRB), Tara Riemer (ASLC), Aimee Devaris (USGS), Phil Mundy for Doug DeMaster (NOAA AFSC), Amy Holman (NOAA Region), Ed Page (MXAK), Paul Webb (Coast Guard), Brad Moran (UA), Paula Cullenberg (Alaska Sea Grant)

Board members present by phone: Katrina Hoffman (PWSSC/OSRI), Jim Kendall (BOEM), Duncan Fields (NPFMC) and Ed Fogels (ADNR)

AOOS staff present: Molly McCammon and Carol Janzen

Guests Present: Becci Anderson (USGS Regional Director's Office, Science Advisor), Jacquelyn Overbeck (AK DNR), Nic Kinsman (NOAA National Geodetic Survey), Jamie Robinson (Coast Guard), and Randall "Church" Kee.

**Meeting called to order at 12:45 pm**

**Adoption of Agenda:**

**Action Item:** Draft meeting agenda approved unanimously.

**Adoption of Board Meeting Summary:**

**Action Item:** November 3 2015 Board Meeting Summary was approved unanimously.  
*Motion by Mundy, second by Moran.*

**UPDATE by Executive Director**

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

National Activities:

- Molly is serving as board member of the **Consortium for Ocean Leadership and Ocean Research Advisory Panel**. She has also been asked to serve on an external review committee for **SAON** (Sustained Arctic Observing Network).
- Carol gave two presentations with the support from the AOOS Project Principal Investigators, at the biennial **AGU/ASLO/TOS Ocean Science meeting** in New Orleans, Feb 21-26, 2016.
- **The ICOOS Act Reauthorization** continues to move forward with Congressman Don Young as the primary sponsor of House version for HR 2744. In that bill funding would be capped at past appropriation levels. A House mark-up is expected soon.

Senators Murkowski and Sullivan are co-sponsors of the Senate version of S 1886. It is marked up, and hopefully will get a unanimous vote. The Senate version calls for “such sums as necessary”.

- **Closing Gap Campaign:** IOOS and regions are working together on an initiative to fill high priority gaps in coastal observing. In 2016, gaps in High Frequency Radars (HFRs) were identified in 3-4 regions, plus lack of O&M support for existing aging systems. If the request is included in NOAA’s FY 2017 funding, Alaska is one of the regions that would receive additional HFR resources for monitoring and safety along the Arctic Marine Highway in the Bering Strait region.
- **IOOS Association has adopted new Honorary Directors:** To prepare for the upcoming administration transition. New members include Vice Admiral (US Navy ret) Paul G. Gaffney II, Mary Glackin – The Weather Channel, Norm Dicks – former U.S. Representative for Washington's 6th congressional district, and Vice Admiral (US Navy ret) Conrad Lautenbacher, former NOAA administrator. The Honorary Directors held their first meeting in January.

#### Alaska Activities

- **Update on the Status of the AOOs 5-year Proposal:** AOOs received level funding and the proposal was well received. We will be able to proceed with our current program, but not expand it without funding from other sources.
- **The Pacific Anomalies Workshop (PAWS) II:** The January workshop focused primarily on mechanisms for ocean-atmosphere interactions. AOOs has been asked to develop some climate products and tools. There was some discussion about a potential role for AOOs or some other entity to coordinate a “rapid response” to document potential biological impacts to the Blob (Pacific SST Anomalies). This is within the AOOs mission, but without dedicated funding, could be difficult.
- Carol continues to update the **Blob Tracker Blog** and invite new contributions.
- AOOs held a successful **Ocean Acidification Workshop** in January, which was more of a technical meeting for monitoring entities and not an outreach workshop. Carol is preparing a workshop report, which will be available on the website when completed.
- AOOs submitted a proposal to NOAA for setting up an **Ocean Acidification (OA) Network** to bolster regional OA capacity building and engagement activities. Darcy Dugan is the lead on this effort. *(Note: this was funded.)*
- **Integrated Water Levels (WL) Working Group** continues to finalize the results of last year’s workshop and develop a funding plan for the next 2 years. The two primary goals for WL work in AK: 1. Standardizing measures and 2. Coordinate efforts to prevent duplication. Some existing WL systems are used for tsunami prediction, some are in the National Parks, AOOs supports some and has wave devices in Cook Inlet (active) and in the Bering Strait (seasonal), and there are some academic assets that are more project oriented, so not long-term. The rest are national level NWLON (the Gold Standard). NOAA CO-OPS is trying to establish a tiered data quality level approach to WL measures so more observations can be made and accepted through the national system, though not as precise as NWLON.
- The **Coastal Resiliency Position** within SeaGrant has been hired as of January 2016. AOOs contributed funding to this position.
- AOOs is helping plan for a **Harmful Algal Bloom** workshop with Sea Grant (lead). The HAB workshop intends to bring together all groups working on HAB issues in

the State to try to get more data and information sharing underway and develop a more cohesive approach to HAB activities.

**Update Follow-up:**

1. Discuss further O&M needs for HF radars in Alaska.
2. Discuss further AOS role in rapid response to events such as the Blob.
3. Connect USGS “chemistry wand” with OARC (Ocean Acidification Research Center).

**FY 11-15 Proposed Carryover:**

The current AOS cooperative agreement will have about \$389,000 in unspent funds by the time the agreement ends May 31, 2016 (assuming all subawards fully spend out their awards). A No Cost Extension request will be filed in April.

Line item	Unexpended	Carry forward	Available
Personnel & fringe	\$140,000	\$90,000	\$50,000
Equipment & supplies	\$12,000	0	\$12,000
Travel	\$32,000	\$24,000	\$8,000
Contracts/services	-\$36,000 over	0	0
Subawards	\$204,000	\$200,000	\$4,000
Misc/other	\$37,000	0	\$1,000
<b>TOTAL</b>	<b>\$389,000</b>	<b>\$314,000</b>	<b>\$75,000</b>

- Of that amount \$200,000 under subawards is the amount received from the National Weather Service for water level observations. We are finalizing a plan for its expenditure, and will carryover all unexpended funds for this purpose
- \$140,000 is in personnel and fringe. I am recommending we carry-over \$90,000 to cover 3 months into the next fiscal year as an informal reserve. A few years ago the annual budget was not approved until late August and we were close to not being able to make payroll. That leaves about \$50,000 available for use this year.
- About \$32,000 is unexpended in travel due to extra funding we received for various workshops. I propose we carry forward most of that into the next fiscal year and then reduce the amount of “new” money for travel in FY 16. This leaves \$8,000 available this year.
- The amounts in contracts/services and misc/other essentially cancel each other out, with \$1,000 available this year.
- About \$16,000 will be unexpended in equipment, supplies, and non-NWS subawards. I propose that all of that be available for expenditure this year.

AOS received several requests for additional expenditures this fiscal year. Staff reviewed these and made these recommendations for \$75k in expenditures:

1. \$25,000 for matching funds for a USFWS LCC LIDAR monitoring project for Y-K Delta. (ADNR has proposed they make this contribution on behalf of AOS, and then AOS use these funds for the coastal erosion/water levels project AOS has with ADNR, which is reduced by \$25k in the FY 16 budget proposal.)

2. \$37,000 for engineering costs & shipyard expenses to install an Ocean Acidification monitoring network on an AK ferry (Columbia) with joint funding from the Hakai Institute, a Canadian research group that is also interested in OA monitoring off the British Columbia coast.
3. \$13,000 for a C2O2 sensor (UAF, Winsor/Danielson)

Other projects not recommended for action at this time:

- Piloting OA sensors on glider in Chukchi
- Replacement parts for HF radars in Chukchi/Beaufort

**Action Item:** Defer final action until a review of the fiscal sponsor fees included in the carryover budget, but then take action on these activities in this order depending on availability of funds:

1. LIDAR project
2. OA on the ferry
3. C2O2 instrument

*Motion by Moran, second by Lloyd. Motion approved unanimously.*

### **FY 16 Budget and Proposed Work plan:**

Molly presented a proposed FY 16 budget and work plan for AOOs totaling \$2,466,480.

- Jim Kendell commented the budget was well presented, compact, clear, and he thanked Molly for the effort.

**Action Item:** Motion to approve proposed FY 16 budget and work plan.

*Motion by Lloyd, second by Moran. Motion approved unanimously.*

**Break at 14:00**

**Reconvene at 14:15**

### **Strategic Operations Plan:**

Molly reviewed the AOOs Strategic Operations Plan, which compiles current AOOs activities and policies into a single document. It is largely based on the current FY 16-20 IOOS proposal. Specific board comments included:

- Tara Riemer asked if this was fixed or living document. Answer: living.
- Denby Lloyd asked about AOOs policy for working with environmental groups such as Defenders of Wildlife. Molly explained that AOOs works with any group (including industry and environmental) that supports increasing ocean data and noted that both Shell Oil and World Wildlife Fund serve on the AOOs Board. AOOs also has collaborated with Audubon and other environmental NGOs. The AOOs project with Defenders of Wildlife has to do with getting data into the AOOs data portal for oil spill response efforts, and it will also end up in the NOAA ERMA system. Ed Page suggested broadening language in the plan to include all NGOs, rather than highlighting one institution.
- Brad Moran would like to see an explicit partnership with SFOS in the SOP document given the majority of AOOs observing funding goes to UAF funding SFOS at this time. Molly will consider this.
- Brad also noted the National Ocean Policy statement on page 2 of the SOP and questioned its inclusion as relevant. Molly agreed.

- Ed Page thought we should add “minimize impact from shipping increase in the Bering/Arctic,” and suggested AOOs continue to flesh that out. Maybe add something about this in the SOP. Molly said we do that by referring to the fact AOOs works toward and provides decision support tools. Molly will reconsider this language.
- Reverse order of plan so that priorities areas are first, and then the AOOs systems are last.
- Molly welcomes this and additional SOP feedback and input, but requested the Board’s general blessing, as she wants to finalize this document by June 1, 2016. The Board can continue to read it and send comments to Molly in the meantime.

**Action item:** This plan does not require formal approval since it is just a compilation of existing plans and largely drawn from the FY2016-20 IOOS proposal. The Board gave its conceptual approval of the draft Strategic Operations Plan with some minor revisions. Molly agreed to make those changes and then send to the board for additional review.

**14:30 ADAC update, Jamie Robinson, USCG Arctic Coordinator** - Senior civilian for district commander with an Arctic portfolio

Robinson provided the board with a brief overview of the Department of Homeland Security grant (Science and technology) to UAA to establish the Arctic Domain Awareness Center. It has gone through a significant growth curve this past year, and now the lead PI is Doug Causey and the Executive Director is Randy "Church" Kee, Major General (US Air Force, ret). Some highlights from Robinson’s presentation:

- The US Coast Guard (USCG) is the primary customer for this program.
- Program is developing and they are now in their Year 2 review.
- Year 3 projection - 16 levels of effort in various research arenas.
  - Gliders and unmanned aerial systems will be key.
  - Would like to answer the question of how things can be done to mitigate the tyranny of time and distance using machines or information fusion to improve speed and efficacy of response.
- Gen. Kee is bringing in more partners and trying to find ways the center can pull in data streams and then push them out for use by others (like aircraft, fishing boat, fleet).
- Jamie stressed the ADAC’s purpose is to push data out to users. The university will have open access portals for this endeavor.

AOOS Board Chair Ed Page said it is important that ADAC bridge better with AOOs, so there is no redundancy, and that the two work together to make sure there are no gaps but also no needless duplication of effort, so as to get the most out of the limited resources we all share.

### **15:00 Executive Director FY 16 work Plan**

Molly reviewed proposed work plan as an informational item.

Molly asked the Board to think about where AOOs should be directing its efforts now and for the next 5 years, as many of the program premises have changed. 10 years ago:

- There were no portals. Now everybody wants to create a portal.
- Collaboration was poor amongst agencies, now it is much better.

- Stakeholder engagement by agencies was less, but has now increased.

We need to ask these questions:

- Are we relevant?
- Do we need to make changes?

Aimee Devaris, Ed Page, Phil Mundy, Brad Moran and Jim Kendell volunteered to work with Molly in the next few months in developing some long-term strategies for AOOs' future.

### **15:00-16:00 Presentations of AOOs Funded Research Activities by UAF Principal Investigators:**

- Natalie Monnaci presented on the Ocean Acidification Research Center at UAF and gave a summary and status report of the OA monitoring efforts in Alaska, including the removal of OA sensors from two of the four moorings, and a summary of the 8 years of Seward Line OA results.
- Hank Statscewich presented on the current status and future of HF radar activities in Alaska, and included discussions on the successes and difficulties with running these systems in remote Alaska.
- Peter Winsor presented on the Chuckchi Sea Marine Mammal Glider activities and updated on Year 3 outcomes, including a 60-day glider deployment six times longer than previous years' deployments.
- Peter Winsor presented on the IOOS supported project to develop a low-cost ice freeze-up detection buoy, how it worked, and what the future for this project might be.
- Seth Danielson presented on the Chukchi Sea Ecosystem project and provided a status report on the Year 1 data, Year 2 deployment, and plans for Year 3.
- Russ Hopcroft presented results of long-term monitoring along the Seward Line, and updated how this work is funded, and what they would like to continue doing as well as how they propose extending the effort further offshore.

### **Executive Director Randy "Church" Kee, Major General (US Air Force, ret):**

Briefly discussed the next phase of ADAC, and what they hope to do in the coming months in terms of building relationships and better collaborations, working with all the players in the Arctic, and building a system that benefits everybody. He is looking for all potential partners and relationships to help guide the next phase of ADAC.

### **17:00 AOOs Board Adjourned**