

Board members present: Ginny Eckert (ASG), Lynn Palensky (NPRB), Katrina Hoffman (PWSSC), Cheryl Rosa (USARC), Amy Holman (NOAA), Phil Thorne (USCG), Dee Williams (USGS), Meghan Kohler (ADEC)

Board members online: Steve White (MXAK), Bob Foy (NOAA/AFSC), Kenny Down (NPFMC), Jim Kendall (BOEM), Amy Peloza (Hilcorp), John Crowther (ADNR), Katie Howard (ADFG)

Board members not present: Margaret Williams (WWF), Mike Miller (IPCOMM), Brad Moran (UAF), Tara Riemer (ASLC)

AOOS staff present: Sheyna Wisdom, Carol Janzen, Holly Kent, Darcy Dugan, Jill Prewitt, Thomas Farrugia

Guests present: Seth Danielson (UAF), Krisa Arzayus (IOOS)

Guests online: Schuyler Nardellir (IOOS Knauss Fellow)

Meeting called to order at 9am by AOOS Board Chair Katrina Hoffman.

Adoption of Agenda and Board Meeting Summary

- **Action Item:** Motion to approve draft meeting agenda, Board summary from Oct 2021, and ExCom summaries by Cheryl Rosa, second by Dee Williams.

Update on AOOS Activities by AOOS Executive Director Sheyna Wisdom

Sheyna provided an overview of recent and upcoming AOOS activities and participation in state, national, and international level initiatives and reflections on the past year and coming year. (Details in board packet).

IOOS Update from IOOS Deputy Director, Krisa Arzayus

Krisa provided an overview of IOOS priorities with a highlight on the importance of coastal resilience. IOOS works closely with NOS and other NOAA programs and is continuing to diversify, enhancing, and increasing accessibility of IOOS products and services. The requested IOOS FY22 budget was \$69.5M; \$41M was enacted. The budget this year has been slow to move through Congress with a continuing resolution until May 13. The Build Back Better Reconciliation bill is no longer moving. Krisa reported the Blue Economy is predicted to double in size from 2010 to 2030 around \$3 trillion/year. The “New Blue Economy” is a subset of the traditional blue economy with a focus on sustainability, equity, and problem solving and NOS provides foundational support. IOOS Director Carl Gouldman is leading the effort to develop a New Blue Economy road map for NOAA which involves identifying existing capabilities, improving coordination, and integrating efforts to improve service delivery. IOOS is refreshing its Strategic Plan which is out for review and will be finalized by June 30.

The board had some questions about the New Blue Economy and what information services are intended. Krisa noted there is not a formal definition but it's meant to be the knowledge sector; they are repackaging services that NOAA already provides and are in the process of doing an inventory as part of the road map.

Acceptance of New Board Member

AOOS board member Sara Longan of Alaska Department of Natural Resources (DNR) took a new position with the U.S. Army Corps of Engineers (USACE) on Jan 31, 2022. John Crowther is the newest Deputy Commissioner and will serve as her replacement on the AOOS board.

- **Action Item:** Motion to accept John Crowther as the DNR representative on the AOOS board by Cheryl Rosa, second by Phil Thorne.

Nominating Committee

A nominating committee of Dee Williams and Ginny Eckert was identified to provide recommendations for the fall election for the ExCom. Officers will be identified by August 2022 to be brought before the board at the fall board meeting.

- **Action Item:** AOOS will send a description of the Officers to the Board.
- **Action Item:** Board members nominate Board members for the Officers.

Molly's Retirement

Molly McCammon has been phasing out of AOOS as she enters retirement. There will be a retirement party for her in the fall around the time of the fall board meeting. Instead of a gift, she would prefer support for a trip to the Galapagos. A Go Fund Me account has been set up to meet that goal (<https://www.gofundme.com/f/molly-retirement-galapagos-trip/widget/large>).

Current Agreement Updates

Sheyna provided an update on the AOOS FY16-20 Cooperative Agreement (funding from NOAA to AOOS). AOOS submitted a No Cost Extension (NCE) which was approved on April 12 to extend the period of performance through May 31, 2024. This request is to accommodate the extension of three AOOS subawards: 1) Gulf of Alaska (GOA) Ocean Acidification Program (OAP) Cruise, 2) Bering Sea Ecosystem Status Report (ESR) Cruise, and 3) Bering Strait High Frequency Radars (HFRs). The total requested under this NCE is \$613,032. The remaining subawards are all on track for closeout.

FY21-25 Agreement Update

Sheyna provided an update on the IOOS FY21-25 Agreement which included AOOS core projects (sustained observing) and “other projects” (Harmful Algal Blooms [HABs], Regional Ocean Partnership [ROP], OAP, pass-throughs). This process is running smoothly so far. The board packet included additional content and contextual information.

Year 2 Core Funding

AOOS received the funding letter for core funding in January for the amount of \$2.7M, revised the spend plan, and gathered information from PIs. The plan was reviewed by AOOS ExCom in Feb and the full package was submitted to NOAA April 18. It has been initially approved, and now under formal grants management review. Non-core funding should be transferred next week.

- **Action Item:** Motion to approve Year 2 core spend plan by Jim Kendall, second by Cheryl Rosa

Year 2 Other Funding

AOOS has not yet received the funding letter for non-core funding but have been working to put together a spend plan for each of the expected line items (HABs, ROP, OAP, pass-throughs).

- **Action Item:** Motion to approve conceptual HABs spend plan by Dee Williams, second by Cheryl Rosa. Final approval required by ExCom.
- **Action Item:** Motion to approve conceptual ROP spend plan by Lynn Palensky, second by Bob Foy. Final approval required by ExCom.

Infrastructure and Investment Jobs Act (IIJA)

NOAA has funding in the IIJA, but the amount is currently unknown. We have put together a spend plan based on information we have been given. We included upgrades to gliders, HFRs, and eco-moorings and specific projects under the ROP.

- **Action Item:** *Motion to approve conceptual ROP spend plan by Jim Kendall, second by Phil Thorne. Final approval required by ExCom.*

External Grants/Awards

Sheyna provided and update on awards to AOOS, including the spend plan and activities for (1) the NSF convergence accelerator, (2) the WWF/NPS Bering Sea Transboundary Incident Response Tool, (3) the retiring award EVOS (*Exxon Valdez Oil Spill*) Data Management Program (Exxon Valdez Oil Spill Trustees Council), and (4) the Building Coupled Storm Surge and Wave Operational Forecasting Capacity for Western Alaska award.

The board watched a short video about the convergence accelerator project. It also got a tour of the Mariner's Data Dashboard by Jill and Sheyna.

Approval of Micropurchase Limit Increase

The board packet included additional content and contextual information for approval of increase for micropurchase limit.

- **Action item:** *Motion to raise the AOOS micropurchase limit from \$10K to \$50K as long as AOOS remains low risk by Cheryl Rosa, second by Lynn Palensky.*

AOOS Proposals

The board was provided with details of six proposals AOOS has been involved in the past 6 months. (spreadsheet included in board packet). AOOS holds partner roles in these proposals and did not serve as lead submitter for any proposal.

New AOOS Awards

EVOSTC Data Management

AOOS and Axiom have been providing data management for the Exxon Valdez Oil Spill Trustee Council. In the past three years EVOS has asked AOOS/Axiom to take on other programs outside GulfWatch and requested a separate proposal to continue data management of these other projects for the next 10 years. This proposed scope has evolved over the past 8 months and AOOS has submitted 10 different budgets. AOOS is looking for board acceptance of AOOS subaward amount. Axiom will address their subaward directly to save on indirect and overhead.

- **Action item:** *Motion to accept EVOS award by Phil Thorne, second Jim Kendall.*

PI Updates

Mary-Anne Bishop - PWSSC

Mary-Anne gave an update on a subaward from AOOS on "Long-term Weather and Fish Monitoring." This subaward includes three projects: (1) the conductivity sensor at the NOAA tidal station, which is the only tide station with near real-time salinity data (available on the AOOS portal); (2) maintenance of SNOTEL stations and these long-term datasets that are available real-time on the AOOS portal; and (3) the maintenance and replacement parts/sensors for the Ocean Tracking Network (OTN) receivers at the

entrances to Prince William Sound that track tagged fish movements (primarily herring, but other tagged fish have been detected).

Seth Danielson - UAF CFOS

Seth gave the board an update from his AOOS-funded projects including ecosystem moorings and gliders. The ecosystem moorings include the Chukchi Ecosystem Observatory (CEO) since 2014 and the Gulf of Alaska Ecosystem Observatory (GEO) since 2019. These include sensors and observations from all trophic levels from physical parameters through acoustic receivers to detect marine mammals. Seth noted that the build-out plans have been achieved for both CEO and GEO, and they continue to add sensors as new funding becomes available, such as trace metal samplers and a benthic time lapse camera. These ecosystem observatories both take a consortium approach to keep them at a sustainable level of effort. The CEO is funded by AOOS, NPPR and AMBON (through the BOEM/NOAA NOPP). The GEO is funded through AOOS/IOOS and the NSF NGA LTER.

Carol Janzen -(AOOS) Alaska Water Level Watch and glider activity.

Carol provided an update on the JOA Surveys - water level station installations, GNSS-R data analysis, datum computations, steering committee of AWLW and gliders this year.

Darcy Dugan (AOOS) - Alaska Ocean Acidification Network

The Alaska OA Network is about to launch a new website with new content on species response and conditions around the state. Recent activities have included a 4-part spring discussion series, meetings with legislators in Juneau, and presentations at ATCEM, ComFish, Fishermen's Expo, AMSS, and United Fishermen of Alaska. The podcast on carbon policy and Alaska's oceans which launched before last fall's board meeting has had over 1,000 listeners. The network has put out new outreach products on red king crab and salmon and tried a social media intensive during the month of February as an experiment. Darcy will be moving to the Black Forest in Germany with her family for a year and will continue to work on OA part time in collaboration with a new OA coordinator (job position on the street).

<https://aoos.org/aoos-is-hiring/>

Rob Bochenek - Axiom Data Science Update

Rob provided an overview of data management, new products such as SIWO, the Mariner's Dashboard, and a vessel traffic product, and discussed the acquisition of Axiom by Tetra Tech. He did not anticipate noticeable changes with Axiom's relationship to AOOS or data portal users.

Discussion of AOOS going forward

Members of the board offered observations and suggestions. Some of the thoughts are below:

- AOOS has excellent programs and outreach; make sure to address staffing to avoid burnout and keep morale high. AOOS can't be all things to all people and all industry groups.
- Costs are continuing to increase; smaller tech lends opportunities.
- Accumulation of data is important and useful but keep the long term vision of how can data be integrated into system for predicting health of future fisheries.
- Keep thinking about what we would do if our budget changed. Doing more of same is one approach; continue tracking shifts in stakeholders.
- From the National perspective there is a desperate need for observing leadership in the Arctic. Should AOOS be at the table for expanding the observations, take advantage of this administration?

- Keep thinking about AOOS' niche - going after important data that others aren't gathering, filling the gaps, etc.
- Lean on partnerships - AOOS doesn't have to do it all. Our key role is to keep data coming and communicate its availability to public and researchers. Engagement and data management!
- Keep AOOS as a place where people go to bring their data; what language can we give to people for RFPs, what can we give others to help them bring the data to AOOS.
- who will be the leader in ocean observing with Indigenous knowledge - is that something that AOOS can be very involved in?
- Help support Alaskans in how they operate in changing environment.

Ocean Roundtable

Board members shared news and activities from their organizations.

- **PWSSC (Katrina Hoffman):** Installing cameras in the region. Using AI to determine where fish are going. New center will be open this summer!
- **USCG (Phil Thorne):** USCG moving forward to delivering services in the Arctic. Inspections in April/May. Will have 80-100 USCG personnel in arctic communities this summer. We work with tribal leadership at a level not known for other agencies. Open to sharing resources with others going to communities.
- **AFSC (Bob Foy):** 2022 surveys are all moving forward with a focus on snow crab crash as well as pollock fishery movement patterns. Limitations with surveys around Russia EEZ. Finished ice seal survey just now. Doing acoustic survey this fall with R/V *Dyson*. Consultation improvements are happening. Continuing in beluga whale stock assessments in Bering Sea. Starting an outreach trip. We had a lot of hope for increases in FY22 budget, but only got a small bump. Initiative to build predictive models for ecosystem nationally but it was not approved. Hopefully will be in the FY23 President's Budget. Excellent onramps with AOOS.
- **ASG (Ginny Eckert):** A lot of momentum to grow mariculture (seaweed & shellfish) – opportunity for partnership with AOOS. There is a lot of interest in Prince William Sound/Kachemak Bay/Kodiak – look to connect gaps with AOOS. AOOS could get involved with Alaska Mariculture Research Training Center and Alaska Mariculture Alliance.
- **NPRB (Lynn Palensky):** NPRB shares suite with AOOS – appreciates the energy we bring. As NPRB moves into Bering Sea IEP, lots of opportunities for synergy. Would like to find ways to make NPRB data more discoverable on our AOOS data portal.
- **MXAK (Steve White):** Have heard from marine pilots how much the weather stations on AIS sites are used for real time data, as well as how NWS is using this information in weather forecasts. Starting to develop Artic Watch – working with WWF – to have a dynamic real time exchange with vessel operators int eh region. Could also be used for spill response.
- **NPFMC (Kenny Down):** Enjoying participating in AOOS and working with familiar folks. NPFMC is meeting in hybrid format now, so encourage AOOS and Board to join and see how data are used, maybe even see how we can show gaps in their data. Snow carab rebuilding plan will look at EFH for arctic. Proposal could be outfall habitat areas of concern. Encourage participation.

Meeting Adjournment

- **Action item:** Motion to Adjourn. *Motion: Cheryl Rosa, second Bob Foy.*

The meeting adjourned at 3:45pm.