

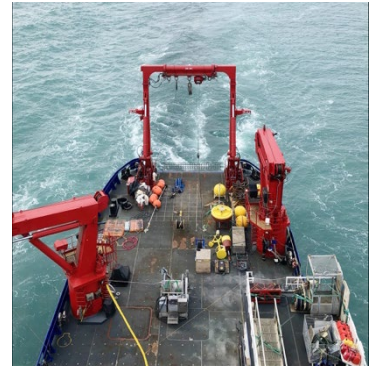
HIGHLIGHTS

Office Shutdown –AOOS office staff continues to abide to Anchorage and Alaska guidelines in response to COVID-19. For the near future we will all continue to work from home. If you need to reach one of us, please look on our website for our email and cell phone contact information.

Sikuliaq embarks on limited research cruise – AOOS PI Russ Hopcroft and a small team of researchers left Seward on May 4 on the UNOLS research vessel for a week-long cruise to gather oceanographic data along the Seward Line. The team had to get special permission from the state of Alaska, the University of Alaska Fairbanks and NSF to engage in research activities that will continue the longest oceanographic time series in Alaska waters during the spring bloom, one of the most critical biological times of the year. [More information.](#)

Reviewing Project Ideas to Add to Our 5-Year 2021-26 IOOS Proposal – AOOS is soliciting stakeholders and scientists working in our region for project ideas to include in our upcoming 2021-2026 proposal to the Integrated Ocean Observing System (IOOS). The proposal is due in late December 2020 and requests an overall annual program cost at two funding levels, ~\$2.5 million (which is close to our current IOOS funding level) and \$6 million (which is more aspirational). To learn more about this effort, visit our [website](#).

AOOS is simultaneously updating the regional build-out plans for Alaska observing initiatives, to identify critical observing gaps and data needs. In preparation, AOOS is developing a process for external review of our current suite of activities, as well as potential new projects and observing activities. The external review committee is scheduled to meet the first week of June 2020. We encourage all stakeholder input to be submitted to AOOS by the end of May to be included in this process, but there will be opportunities to provide input throughout the proposal process. Thank you for your participation in our program development activities, and we look forward to hearing from you!



ADMINISTRATIVE

Board orientation – Staff briefed new board members Katie Howard (ADF&G), Kenny Down (NPFMC) and Lynn Palensky (NPRB) on April 8.

Upcoming board meeting – The AOOS Board will meet virtually May 14 from 1-4pm to review the work plan for Year 5 of the AOOS cooperative agreement with NOAA that begins June 1, 2020.

Proposals submitted – AOOS submitted 2 proposals this month: one led by UAF's Seth Danielson and Hank Statscewich with the National Marine Fisheries Service and University of Washington. This project will provide glider support for the NOAA International Year of the Salmon cruise in the Gulf Alaska next winter (2021).

AOOS is also collaborating on a proposal with Jihye Park from Oregon State University on an NSF Arctic Observing Network proposal aimed at developing an Arctic water level observing network using GNSS-R, a technology piloted by AOOS over the last three years demonstrating its efficacy at making quality water level observations. This project will advance the data processing for this promising technology and establish several permanent GNSS-R water level observing stations in Arctic communities currently lacking any real time water level capability.

CONFERENCES/MEETINGS/PRESENTATIONS

Arctic Observing Summit – Molly participated in 3 days of a virtual AOS March 31 – April 2. The summit was originally scheduled to be held in Iceland with about 500 attendees; instead, it was held on zoom over multiple time zones spanning Asia, North America and Europe with 300 participants. The summit used 5 working groups with a focus on the SAON (Sustained Arctic Observing Network) ROADS (Roadmap for Arctic Observing and Data Systems). Molly participated largely in WG 5: Arctic Observations in the context of Global Observing Initiatives. That group recommended initiating new discussions regarding development of an Arctic GOOS (Global Ocean Observing System), and the need to encourage other global networks, such as those for ocean acidification and HABS, to have a larger presence in the Arctic. Read the [draft conference statement, white papers and other materials](#).

IOOS FAC – Molly serves on the Federal Advisory Committee for the IOOS program. The FAC met virtually April 7 to continue preparations for a larger meeting to be held in person in Monterey, CA or virtually August 4-6. The FAC primarily discussed action items stemming from the last in-person meeting in January.

Sustaining ocean observing planning – Molly continues to participate in planning for a National Academy of Sciences' workshop on Sustaining Ocean Observations, now being planned for a virtual session over three days Sept 16-18. The workshop will look at ways to sustain ocean observing in the future, focusing on governance/organizational structures, messaging/communications, and funding/resources.

COLLABORATIONS

Alaska Water Level Watch (AWLW) Annual Meeting – The AWLW, a collaborative group working to improve the quality, coverage, and accessibility to water level observations in Alaska's coastal zone, met for its 4th [annual meeting](#) via webinar on April 29. The 3-hour workshop featured presentation updates on regional water level initiatives, including the status of the AWLW Data Portal development, and build-out plans for 2020-2021 water level observing activities. The water level build-out map was updated and now includes information where water level and datum needs exist as of 2020. The AWLW collaboration was also formalized with establishment of a Steering Committee. We received approval from 22 organizations to become official AWLW members and will be releasing the official AWLW Guidance Plan in the months to come. More information on AWLW activities, observing, and planning is available on the [AWLW website](#).

Alaska OA Network – One of the priorities of the Alaska OA Network has been to create a webpage listing known OA datasets with links to available data. This effort is now complete and you can view the webpage here: [Alaska OA Data page](#). Network researchers convened by phone on April 3 to discuss the status of research and monitoring plans impacted by COVID-19. Many efforts scheduled for the first half of the summer are postponed or cancelled; much in the second half is TBD. Burke-o-Lators (shoreside CO2 measurement systems) are continuing to operate. The network is also working to strengthen community monitoring collaboration between the 20+ communities taking water samples for OA; water samplers will get a chance to meet their counterparts from around the state in May via Zoom.

Alaska HAB Network – The HAB Network met by phone on April 9 to discuss changes in monitoring and research plans due to COVID-19. Much of the monitoring work was uncertain, though it appeared that community sampling was continuing to take place. In the positive news department, a statewide ECOHAB proposal led by Kathi Lefebvre (NOAA) and Don Anderson (WHOI) was funded which incorporates a large group of interdisciplinary collaborators. The project, titled *Trophic Transfer & Effects of HAB toxins in Alaskan Marine Food Webs*, involves a food web study with sample collection on cruises of opportunity.

Environmental Intelligence Collaboration Team (EICT) – As one of the co-leads of the IARPC Environmental Intelligence Collaboration Team, Molly helped host a joint video conference meeting April 22 with the IARPC Marine Ecosystems CT and NSF's Logistics WG on 2020 research cruise plans for the US Arctic. The original goal of the planning session was to enhance collaboration among the cruise science teams but changed to focus primarily on discussions on which cruises had been cancelled, postponed, or changed due to the coronavirus, and how best to meet state and local requirements for entering ports and communities. AOOS is working with IARPC and NSF to create and maintain a comprehensive list of the status of planned research cruises which will be posted on the AOOS website as well other locations. Already all April and May cruises in the Arctic have been cancelled. Most others are still tentatively scheduled to proceed, but that may change. Several of the cruises have contingency plans that would keep them at sea for the entirety of the cruise, and not dock within Alaska. For more information, you can contact Jill Prewitt: prewitt@aoos.org.

DATA MANAGEMENT

Bering Ocean Data Sharing Initiative – Molly and Jill have been working with ACCAP (Rick Thoman and Heather McFarland) and various scientists to put together the Spring Bering Sea report which provides updates from recent research in the Bering Region. The report will be distributed in late May/early June via mail to P.O. boxholders in smaller communities, and electronically to hub communities in the Bering region. The next researcher call will be focused on hearing from community members in western and northern Alaska about what biological/physical changes they are seeing and experiencing this year.

Jill has been working with Axiom to develop the project website, and the Bering Region data portal. Additionally, Jill is putting together a project Facebook page to maximize the ability to share information with communities in western Alaska.

v1.2 of IOOS Metadata Profile – Why do we at AOOS care about metadata? It describes data about data, information like who collected it, when, for what purpose, and the level of quality. **Metadata** is essential for maintaining historical records of long-term data sets, making up for inconsistencies that can occur in documenting data, personnel and methods. Comprehensive **metadata** can also enable data sets designed for a single purpose to be reused for other purposes and over the longer term.

The [IOOS Metadata profile](#) is a compound profile that builds off of the [NOAA NCEI NetCDF Templates](#), which in turn build off of the [Attribute Convention for Data Discovery \(ACDD\)](#) and [Climate and Forecast \(CF\) Conventions](#). Version 1.2 of the metadata profile, now implemented by AOOS, incorporates feedback from the IOOS community, and includes updates such as:

- Complete overhaul of documentation and examples, for clarity and simplicity
- Improvements to attribution fields, for more consistent attribution in IOOS national products
- New section on how to describe results of QARTOD testing
- Overhaul of *platform* section, including CF Discrete Sampling Geometry recommendations for different deployment scenarios, with examples
- Guidance on dataset requirements to enable GTS ingest by IOOS/NOAA

New CF Standard Names for Describing QC/QARTOD Tests- The IOOS QARTOD project, implemented by AOOS and other IOOS Regional Associations, promotes standards for real-time quality control procedures. One missing piece in this process was how to specify the "QC" data variables in a dataset. To fill this gap, [IOOS worked with the Climate and Forecast \(CF\) Conventions group](#) to add QC standard names to the CF Standard Name table. These names are generic enough to apply to any QC process, not just QARTOD. By using the *ancillary_variables* attribute on the data variable, and the QC standard name on the QC variable, users of the dataset can clearly understand which tests were run for each parameter. For more information, see the [Metadata profile documentation QARTOD section](#) and [the CF Standard Name Table v72](#).

Work on the IOOS Metadata Profile and CF Standard Names for QARTOD/QC was performed by the IOOS Program Office in collaboration with Axiom Data Science using AOOS datasets to test the new implementations.

UPCOMING EVENTS

May 5-6	NOAA Ecosystem Services Management WG (Molly) – by video conference
May 13`	Gulf Watch Alaska Spring PI meeting (Carol) - by teleconference
May 14	AOOS Board meeting: Year 5 work plan – by video conference
June 2-3	AOOS Core Program Project Ideas/Proposals review committee - by video conference
Aug 4-6	IOOS Federal Advisory Committee, Monterey CA, but likely virtual (Molly)
Sept 16-18	Sustaining Ocean Observations workshop, virtual (Molly)
Oct 23-26	UN Decade of Ocean Science Arctic session, Copenhagen, but likely virtual (Molly)

Molly McCammon, Carol Janzen, Holly Kent, Darcy Dugan, and Jill Prewitt, and our data team at Axiom Data Science