Alaska Ocean Observing System

September 2018 Monthly Update

HIGHLIGHTS

Welcome Kayla – This month, AOOS welcomed Sea Grant Fellowship Kayla Schommer to the team. Born and raised in Anchorage, Kayla spent her last three years working with the ADFG Division of Subsistence, while also completing her master's in Marine Affairs from the University of Washington. Kayla is the first Alaska Sea Grant fellow to be dually appointed during her fellowship and will be splitting her time between Alaska Harmful Algal Bloom coordination through AOOS, and communications work through Alaska Grant.

ADMINISTRATIVE

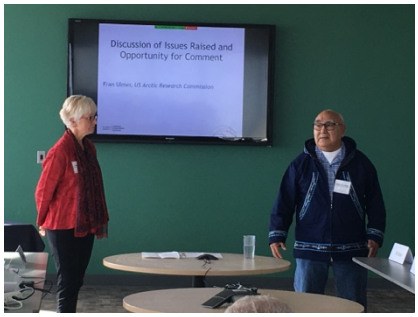
OAP data synthesis workshop – Darcy Dugan traveled to Silver Spring, MD Sept 12-14 to attend an ocean acidification data synthesis and tool development workshop hosted by NOAA's Ocean Acidification Program. The workshop examined how existing and upcoming data could be turned into products to better inform decision making. Darcy gave a presentation on Alaska stakeholder needs and was part of a panel with other regional OA network coordinators.

AOOS Fall Board Meeting – The meeting will be held in Sitka on November 2 on the Sitka Fine Arts Campus and will incorporate a stakeholder listening session. A combination of speakers and facilitated discussions will help identify and highlight key stakeholder concerns and needs, as well as some key gaps in ecosystem monitoring and ecosystem-based fisheries observing that could help support this goal. Stay tuned for a detailed agenda.

PARTNERSHIPS AND COLLABORATIONS

IOOS Association & program office meeting – Molly and AOOS Board Chair Katrina Hoffman joined the IOOS Program Office and other IOOS RA Directors for the fall meeting at the Chesapeake Bay Foundation building in Annapolis, MD September 18-19. A large focus of the meeting was on how to integrate biology into the IOOS data systems. AOOS is a leader in this effort, thanks largely to the fact that we – and our data partner Axiom Data Science – provide data management services for several multi-disciplinary ecosystem projects such as Gulf Watch Alaska, NPRB's Arctic Research Program, and the Arctic Marine Biodiversity Observing Network. The organization also celebrated the fact that all 11 Regional Associations are now fully certified by NOAA.

INTAROS review panel – Molly was in Brussels, Belgium on Sept 21 as part of a panel conducting the 18-month external review of the European Commission's Integrated Arctic Observing System project (INTAROS). This is a 5-year effort to develop Europe's contribution to developing SAON – a pan-Arctic, Sustained Arctic Observing Network. UAF is one of the consortium partners in this project.



National Academy of Sciences in Alaska – Molly and AOOS Board Members Brad Moran, Katrina Hoffman and Jim Kendall participated in 3 days of meetings in Fairbanks Sept. 10-12 held by the NAS Ocean Studies Board (Brad is a member) and the Polar Research Board. Molly presented on ecosystem observations in Alaska at the OSB, and then participated in a panel at the joint OSB-PRB session focused on Arctic marine infrastructure needs. The 2 panels are scoping the potential for a future academy study on that topic. This tied in with a separate session on Arctic infrastructure needs hosted by Sandia National Labs and UAF.

Climate Action Leadership Team – The team presented its final draft climate change policy and action plan recommendations to Governor Walker on Wednesday, Sept 26. Molly is on the team and serves as co-chair of its Science Advisory Panel along with UAF's Larry Hinzman. See here for more information.

ADAC conference – Carol participated in a workshop held by the Arctic Domain Awareness Center in Anchorage Sept 18-20 to address North American Arctic Maritime & Environmental Security. The purpose of the workshop was to gather Arctic minded experts from regional communities, government, maritime operators, academics and industry principally from Canada and the U.S. to collaboratively assess security issues and provide solutions focused on the North American Arctic maritime region.

PROJECT HIGHLIGHTS

High Frequency Radar Operations and Maintenance – AOOS has an ongoing project with Seth Danielson at the University of Fairbanks College of Fisheries and Ocean Sciences (UAF-CFOS) supporting the installation, operation and maintenance of three long-range high-frequency radar (HFR) sites on the northwest coast of Alaska located in Wainwright, Point Barrow, and Cape Simpson. Coastal erosion in the Arctic severely impacted the infrastructure for Cape Simpson, almost resulting in a total loss of equipment and requiring relocation of the site. The Wainwright site has access to grid power and consists of antennae cabled to an electronics chassis while the other two sites do not have access to grid power and, therefore, need to be remotely powered with 4 small wind turbines, a solar array, and a battery bank. Principal Investigator Seth Danielson and Project Assistant Hank Statscewich developed a very cool feat of innovation, engineering and implementation to relocate the Cape Simpson unit and now have a way of moving these units in the future as needed.

Freeze-up Detection – Another AOOS ongoing project with Peter Winsor at UAF-CFOS is supporting the development and testing of an economical sensor package for detecting freeze-up on Arctic shelves. The freeze-up detection buoy that was deployed earlier this summer, and then stopped transmitting within a few days, was successfully retrieved by a later ship in the area. Apparently it had been dragged by an ice floe and resulted in a flooded system.

These two project incidents just highlight the challenges of deploying instruments in the Arctic!

OUTREACH

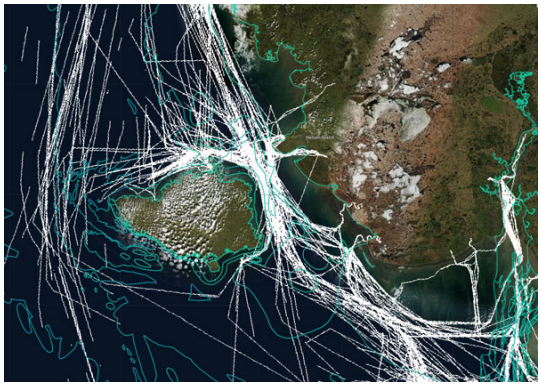
Website Remodel – Work is progressing on revamping the AOOS website. Working with the contractor, staff has decided on a new look and feel to the site and will be working with Axiom next to better integrate the data portal with the website.

IOOS Outreach Committee – The meeting for this month included a discussion on some results from the recent round of data portal surveys conducted by the regional associations. The surveys have provided a lot of information and the group is looking at how to incorporate these results into future actions to increase the relevancy of each organization.

Ocean Acidification eNews – The Alaska OA Network puts out a monthly eNews and you can read the September edition here. The highlights for this month include a scientist interview with Darren Pilcher about modeling OA in Alaska, research on clams conducted by UAF at Alutiiq Pride Shellfish Hatchery in Seward, recommendations on OA from the Governor's Climate Action Leadership Team, and a newly funded multi-disciplinary project on OA and Alaska salmon.

Can Ocean Acidification be slowed down or reversed? - In the latest edition of the Alaska OA Network's "Ask a Scientist", Brad Warren, the founder and director of Global Ocean Health, takes on this question from the public in 5 minutes. Watch the video.

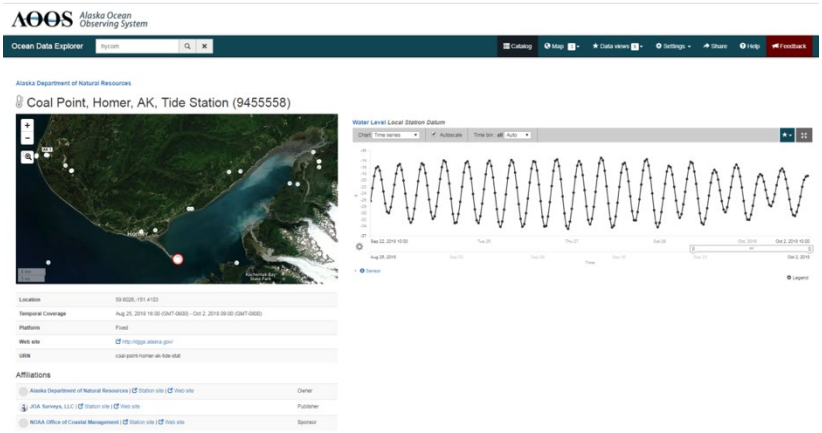
DATA MANAGEMENT



The heatmaps available in the AIS PAC portal represent cumulative vessel traffic in an area over a given period of time, and are raster data that can be downloaded as GeoTIFF or NetCDF, in various resolutions and projections.

New AIS portal for Prioritizing Arctic Charting (PAC) – Axiom Data Science together with AOOS and the Marine Exchange of Alaska (MXAK) have created vessel tracking and information data products to support the NOAA Office of Coast Survey (NOAA OCS) on prioritizing where modern bathymetric surveys are needed in the U.S. Arctic. These data products will also inform decision-making about vessel traffic and safety in a rapidly changing Arctic environment. The Automatic Identification System (AIS) PAC data portal provides access to a 5-year historical record (2013-2017) of Arctic MXAK AIS information, subset vessel type queries and the tools needed to visualize ship traffic information with spatial data of interest by production of Vessel Traffic Heatmaps.

New tides stations – Real-time water level information is now available in the Ocean Data Explorer for two new tide stations located at Chinitna Bay in lower Cook Inlet and Coal Point in Kachemak Bay. The tide stations are owned by the National Park Service and AK Dept of Natural Resources, respectively, and maintained by JOA Surveys, LLC.



UPCOMING EVENTS

Oct 4	ADAC AIS project quarterly review
Oct 5	AMSS 2019 abstracts due
Oct 11	ADAC Customer's and Partner's Roundtable
Oct 11-12	Women in Climate Change meeting, Seattle (McCammon)
Oct 17	EVOS Trustee Council Meeting, Anchorage (Janzen)
Oct 22-25	OCEANS'19, Charleston, SC
Oct 23-25	Oceanology International, Qingdao, China (McCammon, invited keynote)
Oct 24-26	Consortium for Ocean Leadership, Washington DC
Nov 2	AOOS Board meeting, Sitka (all staff)
Nov 14-16	Herring Research Monitoring (HRM) and Gulf Watch Alaska (GWA) PI Meeting, Anchorage (Janzen)
Nov 17-19	Pacific Marine Expo, Seattle (Dugan)
Dec 4-6	ADAC Annual Meeting, Washington DC (Janzen)
Dec 10-14	AGU, Washington DC (McCammon)

Molly, Carol, Holly, Darcy, and Stacey