

Latest news from the Alaska Ocean Observing System

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AOOS Fall eNews

New Wave and Current Buoy Deployed Near Nome



Nome wave buoy being deployed (left) in July off the Port of Nome and then retrieved (right) in October; big thanks to Nome Harbormaster Lucas Stotts and his team!

A valuable new maritime safety asset was recently deployed in July 2018 off the Port of Nome jetties. Sitting in about 60 feet of water, the buoy measures wave height, direction and period as well as surface currents and temperature. Data are broadcast through the National Data Buoy Center and the National Weather Service Channel, as well as every 30 minutes via the AOOS Real-Time Sensor map and the Army Corps of Engineers' Coastal Data Information Program (CDIP) website. The Marine Exchange of Alaska is also working to make data available to all mariners through the AIS vessel tracking system. The Nome buoy will be retrieved each fall (October this year) and then redeployed in the spring/summer based on sea ice conditions. Deployment of this buoy is a good example of how AOOS works collaboratively to fill gaps in ocean observing data as support for this buoy and data comes from the Army Corps' CDIP (run by Scripps), the Port of Nome, AOOS and the Marine Exchange of Alaska.



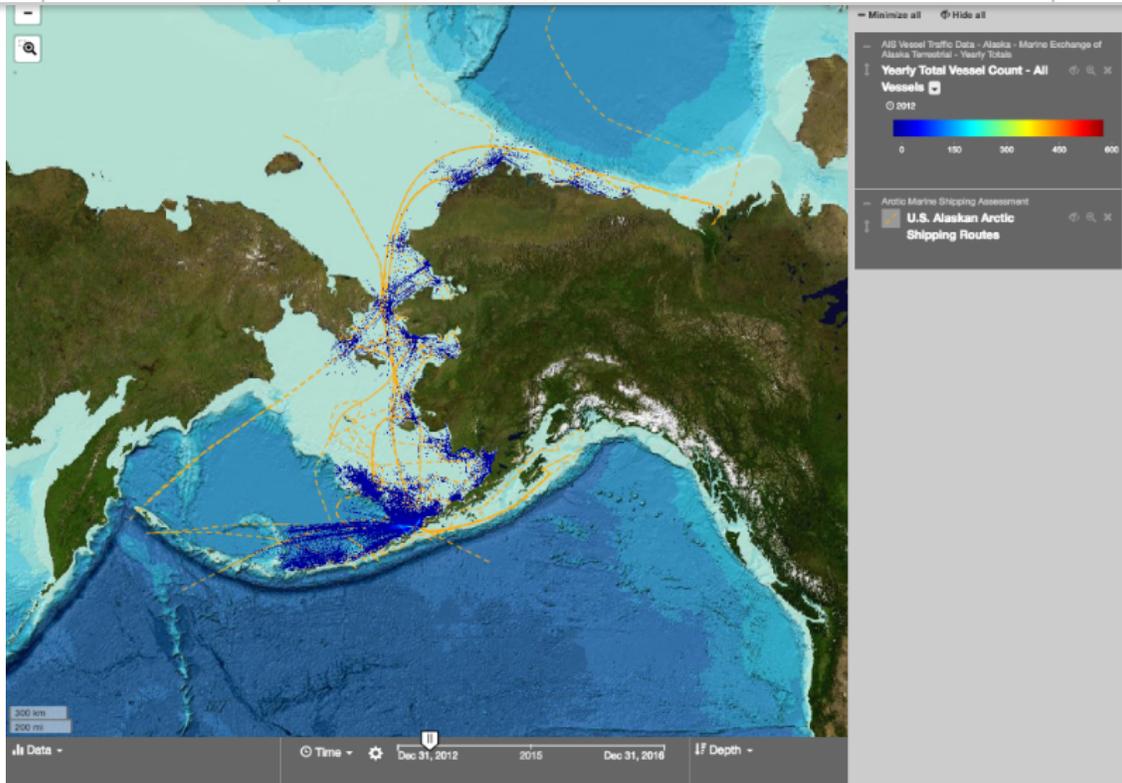
Southeast Alaska residents shared their observations about changes they see in the marine environment in the Sitka region, and what additional monitoring and research would be helpful, at a public session November 2 hosted by AOOS and the Alaska Marine Conservation Council (AMCC). Presentations were given by Lisa Busch (Sitka Sound Science Center) and Esther Kennedy (Sitka Tribe of Alaska) on the current state of the Southeast Alaska marine environment. A discussion of Tribal, commercial fishing, and marine tourism issues was moderated by Mike Miller (AOOS board, Indigenous People's Council for Marine Mammals Chair) and Theresa Peterson (AOOS board member representing North Pacific Fisheries Management Council, of which she is a member, and AMCC Fisheries Policy Director). A report summarizing the information gained from this informative session will be published on the AOOS website in the near future.

Integrating Subsistence Use, Vessel Traffic, and Spill Trajectories



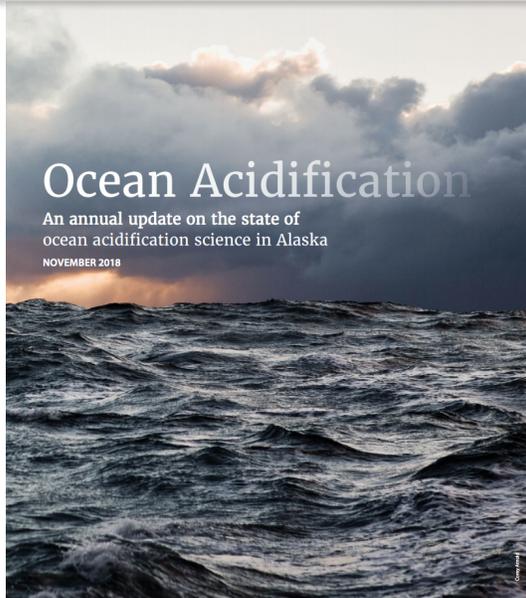
In 2016 the Alaska Ocean Observing System was awarded a National Academy of Sciences Synthesis award on the topic "Synthesizing AIS ship tracking data, GNOME oil spill model results, and subsistence use information into a unique, interactive tool to aid research and planning in coastal communities bordering the Alaska Beaufort Sea". Working with Axiom Data Science and Stephen R. Braund & Associates (SRB&A), the project will be completed in November 2018. The study integrated data products describing vessel traffic patterns, subsistence use data from the North Slope communities of Utqiagvik, Nuiqsut, and Kaktovik, and results from over 90,000 hypothetical oil spill simulations to generate relative risk maps by month and subsistence resource for these communities. More information and interactive maps can be found at https://portal.aoots.org/?portal_id=114

AIS PAC: AIS Data for Prioritizing Arctic Charting



The Arctic Domain Awareness Center's Arctic-related Incidents of National Significance (Arctic IoNS) workshop in June 2016 highlighted the need to improve awareness and understanding of nearshore bathymetry across the Arctic and in particular, the North American Arctic. This led to a project by AOOS, Axiom Data Science and the Marine Exchange of Alaska designed to address that need and provide access to recent historical vessel tracking data and data products from the Arctic. During this project, the capability to significantly reduce the execution time for handling and analyzing extremely large collections of AIS vessel tracking data enabled the investigating team to produce a variety of AIS-derived data products that now can be used by the NOAA OCS Hydrographic Health Model to identify vessel safety risk areas, such as those with outdated bathymetry or insufficient coastal detail for safe passage of vessel traffic, as well as other products for stakeholders. A project website provides more details on the project, including methods employed, and links directly to a project data portal hosted by AOOS where end users can access the 5-year historical record of arctic AIS data and view this information with other GIS data hosted by the AOOS data portals. Carol Janzen and Ed Page from the Marine Exchange of Alaska will be presenting the final project transition plans to the Department of Homeland Security in Washington, DC in early December. For more information, please visit <https://www.aos.org/ais-4-bathy/> for or information.

Alaska Ocean Acidification Network Publishes First Annual State of the Science Report



describing the latest research on biological species response in the lab, current forecasting efforts, and what we know so far about regional drivers and influences.

[Read the full report here](#)

Hydrographic Services Review Panel Meets in Juneau

The poster has a blue gradient background. At the top, it reads "Growing an Alaska Water Level Network" in large bold letters, followed by "Data Management, Access, Innovation & Partnerships" in smaller bold letters. Below this, it says "Joint Meeting of Hydrographic Services Review Panel and IOOS Federal Advisory Committee, Juneau, Alaska, August 28, 2018". At the bottom, it lists "Molly McCammon, Executive Director, Alaska Ocean Observing System". At the very bottom are three logos: Axiom DATA SCIENCE, AOOS Alaska Ocean Observing System, and NOAA.

NOAA's Hydrographic Services Review Panel (HSRP) held a joint meeting with the Integrated Ocean Observing System Advisory Committee (IOOSAC) in Juneau in late August. Executive Director Molly McCammon spoke during an HSRP special session on Alaska Water Level Partnerships highlighting the data management, access, innovation and partnerships needed to grow the Alaska Water Level Watch network. AOOS is piloting a data portal that will integrate Tier A, B and C water level data for stakeholder use (Tier A being the highest accuracy but not as

increased ocean observations, recommendations for addressing Arctic challenges, as well as from NOAA Acting Administrator Admiral Timothy Gallaudet and Acting Assistant Administrator for the National Ocean Service Nicole Leboeuf.

Equipment Used in AOOS Funded Project Rescued From Coastal Erosion



AOOS has an ongoing project with 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 in Wainwright, Point Barrow, and Cape Simpson. 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 are powered by a CFOS-built remote power module made up of 4 small wind turbines, a solar array, and a battery bank. Last winter's coastal erosion in the Arctic severely impacted the Cape Simpson coastline, risking the loss of the HFR equipment and requiring relocation of the site infrastructure. Principal Investigator Seth Danielson, project engineer Hank Statscewich, and a local welding shop together undertook a cool feat of innovation, engineering and implementation to relocate the Cape Simpson unit. They now have a reliable way of moving these units in the future as needed.

Staff Update

This month, AOOS welcomed Alaska Sea Grant Fellow Kayla Schommer to the team. Born and raised in Anchorage, Kayla spent her last three years working with the ADF&G Division of Subsistence, while also completing a masters degree in Marine Affairs from the University of Washington. Kayla will be spending her time helping to coordinate the Alaska Harmful Algal Bloom Network.



*Best regards from Molly McCammon, Carol Janzen, Darcy Dugan, Holly Kent, and Rob Bochenek
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