

Alaska Ocean Observing System (AOOS) Overview

Alaska Marine Science Symposium

Alaska Marine Research Planning Night

January 28, 2026



AOOS
Alaska Ocean Observing System

Purpose and Rules

- **Connect & Network**

- Professional & personal
- Please sign in!!!

- **Collaborate**

- By knowing who is doing what, when, & where....
- Increase sample size
- Provide opportunity
- Reduce redundancy
- Leverage funding
- Help make it happen when all your plans fall through!

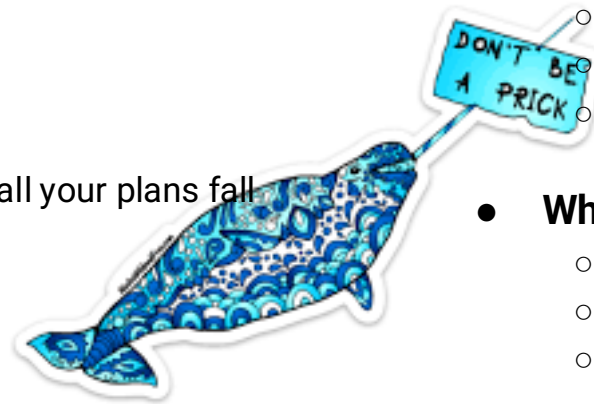
Ground Rules

- **What are you sharing**

- Contact information
- Platform for data collection: vessel, aircraft, bicycle, spacecraft
- Timing
- Start/Stop Points
- Bunk space
- Availability for additional data collection

- **What are you NOT sharing**

- RESULTS
- More than 5 slides
- RESULTS



HAVE FUN!!

Who is AOOs?

- **Integrated Ocean Observing System (IOOS)**
 - NOAA program under National Ocean Service (NOS)
 - IOOS Program Office are NOAA personnel
 - 1 of 11 Regional Associations across U.S. are not
 - Regional Associations operate under 5-year NOAA Cooperative Agreements
 - Operating since 2003
- **AOOs organizational setup**
 - Mission to increase observing & forecasting in all regions of Alaska
 - Board of federal and state agencies, academic institutions, research facilities, industry, non-profits, tribal
 - Operates as a non-profit organization with Alaska SeaLife Center (ASLC) acting as fiscal sponsor
 - 10 staff members (2 hourly)
- **AOOs observing activities are highly leveraged**
 - Partners are essential for successful ocean observing in our region



Board of Directors

- **State Agency**
 - Alaska Department of Environmental Conservation: Megan Kohler
 - Alaska Department of Fish & Game: Toshihide Hamazaki
 - Alaska Department of Natural Resources: John Crowther
- **Federal Agency**
 - NOAA: Cathy Coon
 - U.S. Coast Guard: Jennifer Whitcomb
 - U.S. Geological Survey: Anne Gibbs
 - Bureau of Ocean Energy Management: Christina Bonsell
- **State/Federal**
 - Alaska Sea Grant: Ginny Eckert
- **Industry**
 - Marine Exchange of Alaska: Steve White
 - North Pacific Fishery Management Council: Rudy Tsukada
 - Hilcorp Alaska: Chuck Wheat
- **Research Entities**
 - University of Alaska Fairbanks: Brad Moran
 - North Pacific Research Board: Lynn Palensky
 - Prince William Sound Science Center: Katrina Hoffman
 - NOAA Alaska Fisheries Science Center: Bob Foy
 - U.S. Arctic Research Commission: Cheryl Rosa
 - Alaska SeaLife Center: Wei Ying Wong
- **Environmental NGO**
 - Wildlife Conservation Society: Martin Robards
- **Alaska Native Organizations**
 - Co-Management: Mike Miller, IPCoMM
 - For-Profit: open seat
 - Non-Profit: Karen Pletnikoff, Aleutian Pribilof Islands Association
 - Tribal Authorized Government: Estelle Thomson, Native Village of Paimiut

Overview of AOOs Approach

- **Sustained observations and assets**

- Moorings
- Gliders
- High frequency radars (HFRs)
- Ship surveys

- **Innovative technologies**

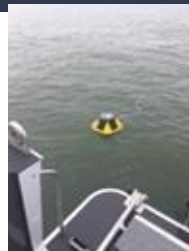
- Coastal hazard assets (water level sensors, Hydroball, GNSS-R)
- Imaging Flow Cytobot (IFCBs) for HABs
- Sofar Ocean Spotter wave buoys (Backyard Buoys)

- **Collaborations and partnerships to find solutions**

- Collaborative networks
- Community sampling programs
- Leverage funding

- **Work with ocean users to collect, use, and show information in meaningful way**

- Data portal
- Incident Response Tools
- Mariner's dashboards
- Other products/services



Collaboration Networks

Alaska Harmful Algal Bloom Network (AHAB)

<https://ahab.aos.org/>



THOMAS

Alaska Water Level Watch (AWLW)

<https://awlw.aos.org/>



TAYLOR

Alaska Ocean Acidification Network (AOAN)

<https://aoan.aos.org/>



DARCY

SHEYNA
OR GINNY



Alaska Marine Policy Forum (AMPF)

<https://aos.org/alaska-issues/alaska-marine-policy-forum/>

<https://alaskaseagrant.org/events/alaska-marine-policy-forum/>

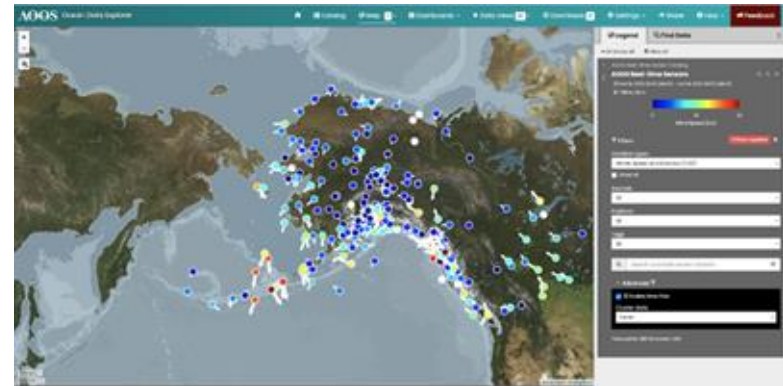
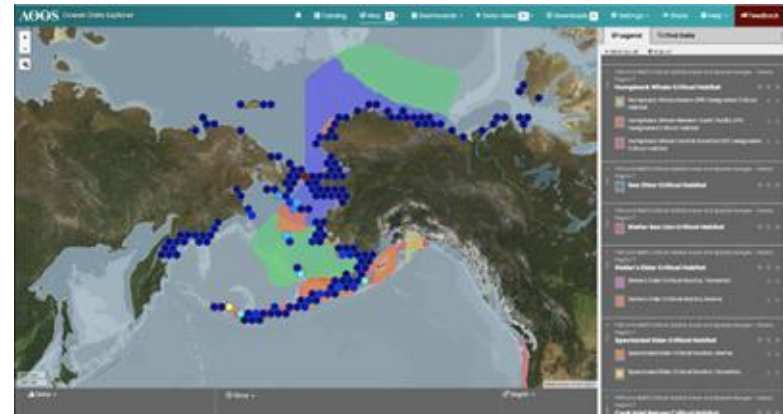
Northeast Pacific Acoustic Telemetry (N-PAct)

<https://npact.aos.org/>



THOMAS

- **Ocean Data Explorer** (<https://portal.aoos.org/>)
- **Map View: Integrates & visualizes data**
 - AOOS funded projects
 - Real-time sensors
 - Moving platforms
 - Data rescue projects
- **Catalog View: Search & data download**
 - 3000 + data layers
 - Search with keywords
 - Download data
- **Data View: Compare different data streams**
- **REACH OUT** if you need something you can't find!



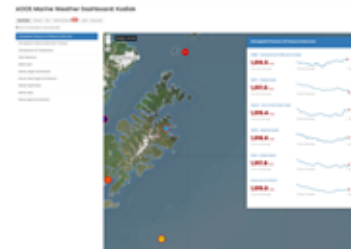
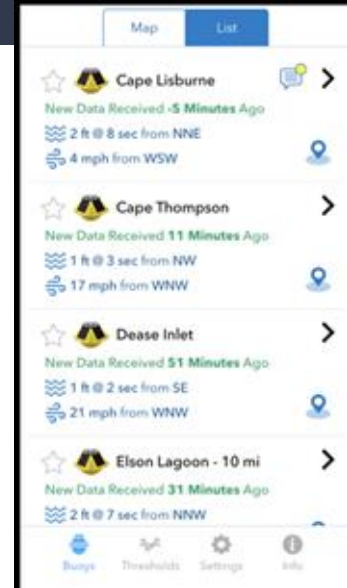
Other Data Resources

- **Backyard Buoys Wave Buoy App**
 - Designed by University of Washington
 - **App is now live on Apple and Android to download!!!**
 - Friends of Backyard Buoys: at <https://backyardbuoys.org/data/> to get your Sofar Spotter buoy data on our app!
- **Mariner's Dashboard**
 - Portal (desktop version): <https://aoss.org/portal-highlights-2/real-time-information-for-current-maritime-conditions>
 - Dashboard (mobile version): <https://aoss-demo.thedigteam.tech/>
- **Working on more products outside of data portal**
New water level?
- **Would love feedback!!!**

App links



PORTAL



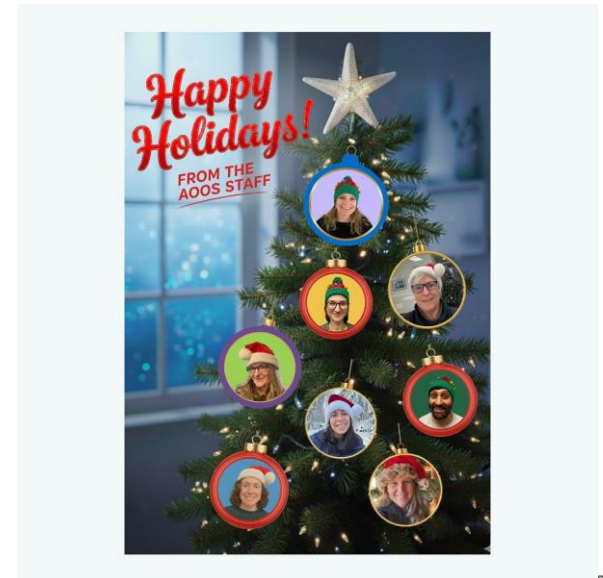
Highlights for 2025!!!

- IOOS Reauthorization Act: led by Republican congressional delegates
- Funding
 - FY25 (Jul 2024-Jun 2025; Year 4) received!
 - FY26 (Jul 2025-Jun 2026; Year 5) received!
 - Bipartisan Infrastructure Law (Jun 2025-May 2027; Years 3-4) received!
 - Year 5 will not be received
 - Inflation Reduction Act (IRA) funding (Aug 2024-Jul 2029) safe (so far)
- Staffing
 - Lisa Sheffield Guy Nov 2024, Regional Ocean Partnership Program Manager
 - Taylor Borgfeldt May 2025, Alaska Water Level Watch Coordinator
- Education:
 - Ocean Tech Demo Day at Bartlett High School, ANSEP Middle School Academy, Tsunami Bowl
- Workshops, conferences, field trips, meetings, reports, amendments, administration, meetings, emails, Congressional outreach, meetings, interviews, newsletters, updates, meetings.....
- 21st anniversary party!
- Financial Summary
 - \$40M in awards (2021-2026)
 - \$31M to subs (78%)
 - 133 total subrecipients



What's Next?

- FY26-31 Proposal
 - NOFO delayed, so no mechanism for receipt of funding yet. This is BAD.
 - Because of this extreme delay & uncertainty, Board voted to not put out call for proposals and just go with same priorities as previous proposal. So all proposals included were either part of previous core or IRA competitive process.
- Federal data recertification (2027-2031)
- Transition to AOOS as standalone entity
 - ASLC has been fiscal sponsor since inception
 - ASLC will continue to be fiscal sponsor for existing grants
 - AOOS will become our own non-profit organization for new grants
 - New Board structure
 - **MEMBERSHIP – so we will be reaching out for your help**



Questions & Contacts

AOOS Staff

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Taylor Borgfeldt, Alaska Water Level Watch Coordinator,
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- **Backyard Buoys**

- 3 wave buoys near Quinhagak in Kuskokwim Bay by Nalaquq
- Up to 20 wave buoys: Gambell, Savoonga, Point Hope, Wainwright, Utqiagvik, Kaktovik by AEWK
- 1 buoy near Port of Nome
- 1 buoy near Kodiak by Native Village of Afognak
- 1 buoy near Kasitsna Bay Lab

- **Imaging Flow Cytobots (IFCBs)**

- 3 purchased, 1 additional from CDS Murkowski
- Deployed on R/V *Sikuliaq*, *Tiglax*, *Norseman II*
- *THOMAS*

- **Water Level Sensors**

- Port of Alaska
- *TAYLOR*