BACKYARD BUOYS

Equipping Indigenous Communities with Ocean Intelligence Platforms

UNHER BRYNNE

ARCUS Community & Citizen Science of the Far North April 17, 2024 Sheyna Wisdom, AOOS Martin Edwardsen, UIC Science Jenny Evans, AEWC Lindsay Cameron, UIC Science John Hopson Jr., AEWC Michael Quuniq Donovan, AEWC Duncan Mactavish, Sofar Ocean

Backyard Buoys

To empower Indigenous and other coastal communities to collect, steward, and use wave data that complements their existing knowledge to support their safety at sea and blue economy.









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The Convergence Team



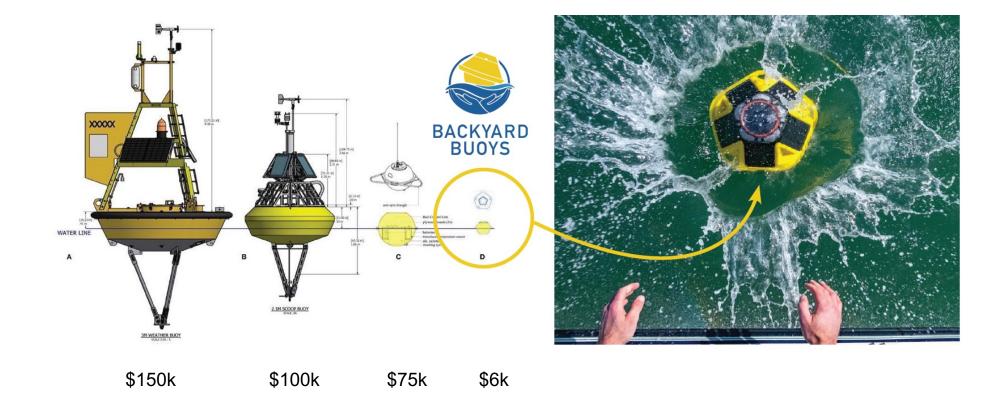
Indigenous / Community Partners

Educational / Technical Partners

Ocean Observing Partners



Community-accessible technology









Co-designed with inclusivity at every step



- 1. Proposal development
- 2. Identify buoy placement
- 3. Buoy deployment
- 4. Data tools
- 5. Data sharing
- 6. Knowledge sharing across regions







1. Proposal development



- Funding included in NSF proposal
 - Whaling Captains Associations

for all 11 whaling villages

- AEWC staff (labor & travel)
- Whaling captains (travel)







2. Identify buoy placement

- Workshops at AEWC meetings
 - Dec 2021 Dec 2022
 - Feb 2022 Feb 2023
 - Jul 2022





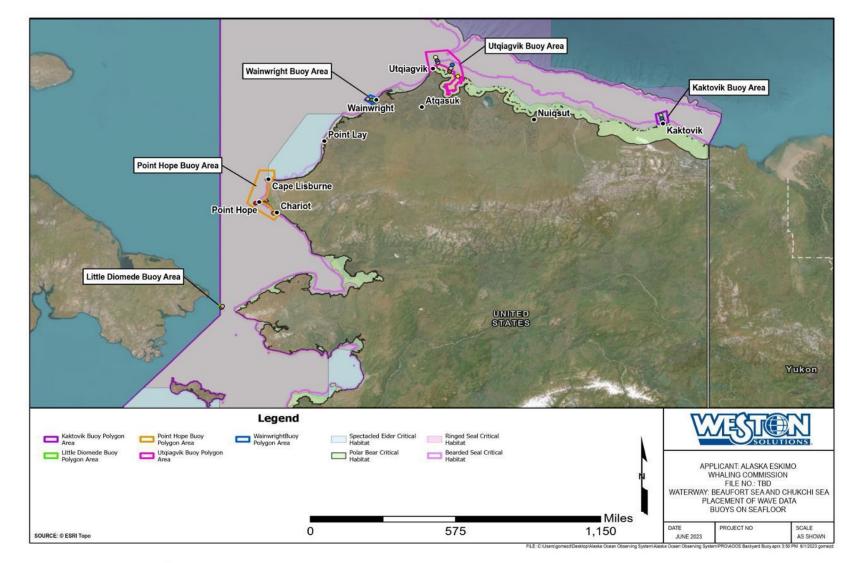


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2023 Locations

- 2 Little Diomede
- 3 Point Hope
- 3 Wainwright
- 7 Utqiaġvik
- 3 Kaktovik









3. Buoy deployment

- AEWC contracted UIC Science (Martin Edwardsen) as lead in Mar 2023
- AEWC hired village facilitators in each village
 - Per buoy stipend
 - Fuel reimbursement
 - Travel support
- Key accomplishments:
 - Martin participated in training by Sofar Ocean in April
 - Led in-person and virtual training for facilitators
 - Ordered all supplies

SK **A** E S K

WHALING COMMISSION





ALASKA ESKIMO WHALING COMMISSION

The Alaska Eskimo Whaling Commission is hiring a part-time Wave Buoy Village Facilitator to work with the AEWC to deploy wave buoys in Little Diomede, Pt. Hope, Wainwright, Utqiagvik, and Kaktovik. For more information, scan the QR code above, visit the AEWC website, or call the AEWC office.

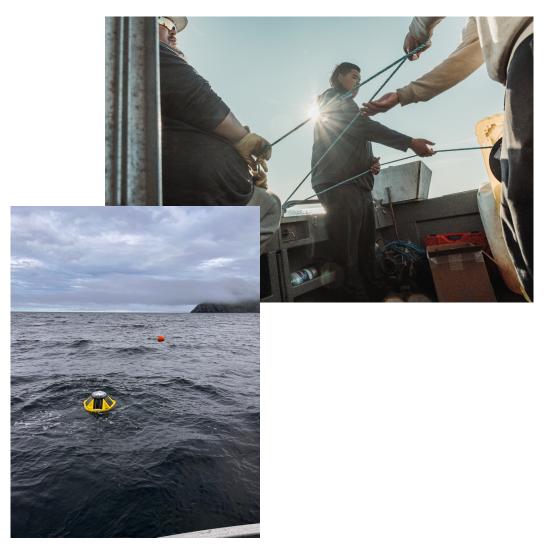
> Call (907) 852-2392 for more information. Visit www.aewc-alaska.com for more information.

> > ALASKAESKIMO WHALING COMMISSION



2023 Season

- Permits
 - 18 buoys permitted
 - Polygons instead of points so that buoys could be moved easily
- Deployments
 - Point Hope: 3 buoys
 - Wainwright: 3 buoys
 - Utqiaģvik: 7 buoys
- Retrievals
 - Point Hope: 2 buoys (1 on walkabout)
 - Wainwright: 3 buoys
 - Utqiagvik: 5 buoys (2 pulled underwater)





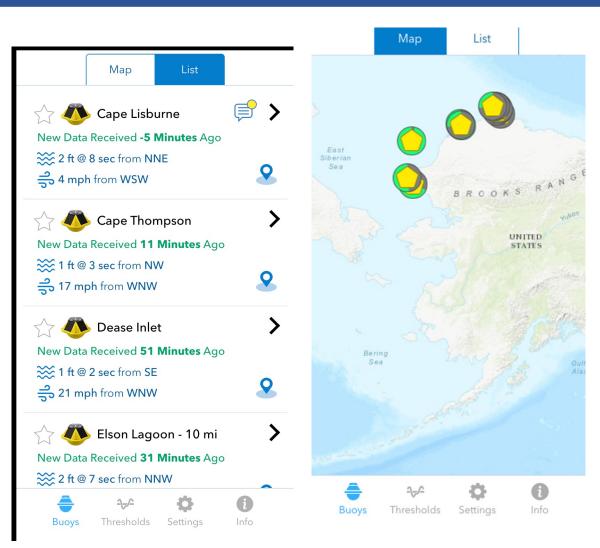




4. Data tools app

- Designed by Univ of Washington
- Input from all Indigenous partners
- Used by boat users in 2023







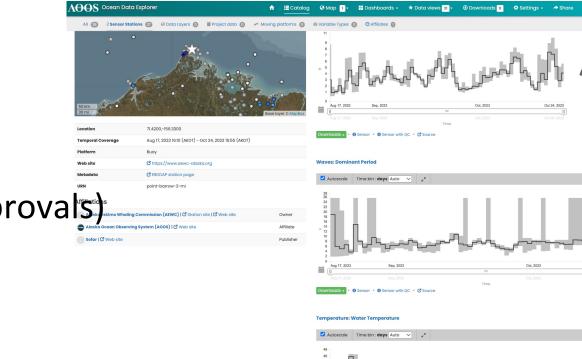


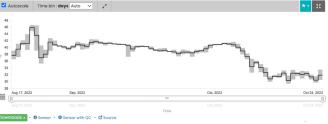


5. Data sharing

- Voted by AEWC to share data
 publicly (took 2 years to get approvalisity)
- Goal to include in NWS marine weather forecasts

https://portal.aoos.org/?ls=FZHczS0I#metadata/2346/affiliate











6. Knowledge Sharing

- Monthly Working Groups (virtual)
- Quarterly All-Hands meetings (virtual)
- Workshop in Utqiagvik with partners in Aug 2022
- Workshop in Honolulu with all partners in Feb 2024



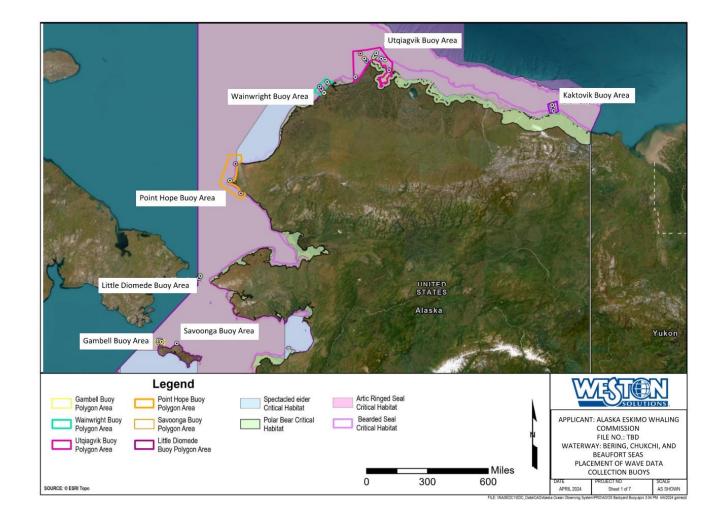






Next steps

- 2024 planning underway
 - 4 Gambell
 - 1 Savoonga
 - 2 Little Diomede
 - 3 Point Hope
 - 6 Wainwright
 - 10 Utqiaģvik
 - 3 Kaktovik
- Updated moorings
- AOOS will continue to fund for 3 more years (2026-2028)



• Deployment of buoys by Nalaquq in 2025 near Kwinhagak







Quyanakpak!

Sheyna Wisdom | AOOS wisdom@aoos.org | 907-748-5864 Martin Edwardsen | UIC Science martin.edwardsen@uiccs.com | 907-947-8612

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