NOAA Office of Coast Survey

Field season 24/25

LCDR Caroline Wilkinson, NOAA

National Ocean Service (NOS)

National Environmental Satellite, Data, and Information Service (NESDIS)

Office of Marine & Aviation Operations (OMAO)

National Weather Service (NWS)

National Marine Fisheries Service (NMFS)

Office of Oceanic & Atmospheric Research (OAR)



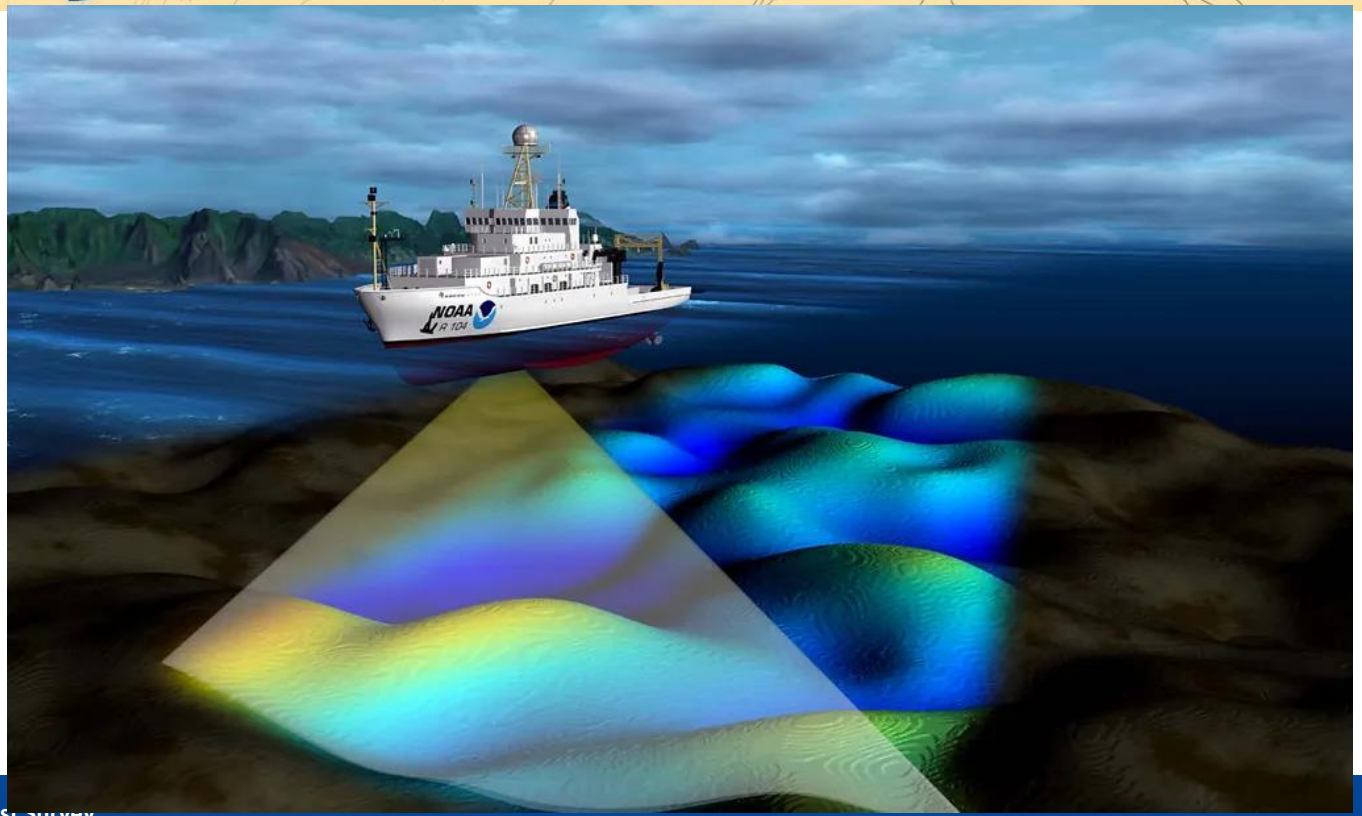









Data collection

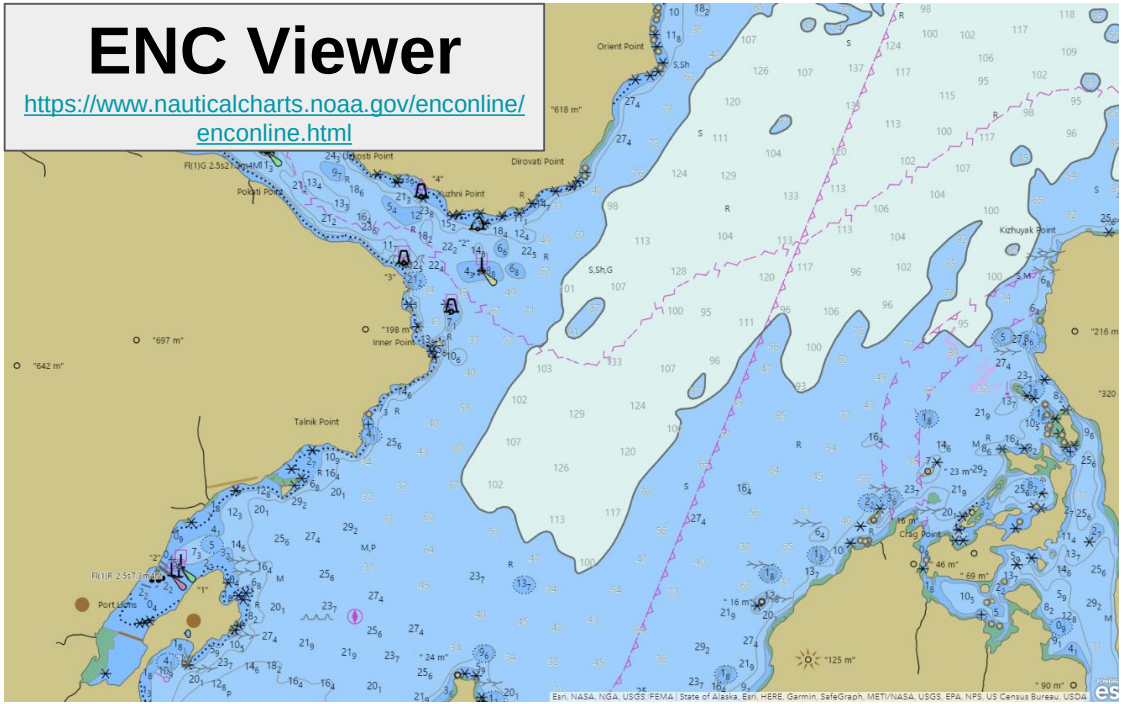


NOAA Ship *Fairweather & Rainier*

Data Use

ENC Viewer

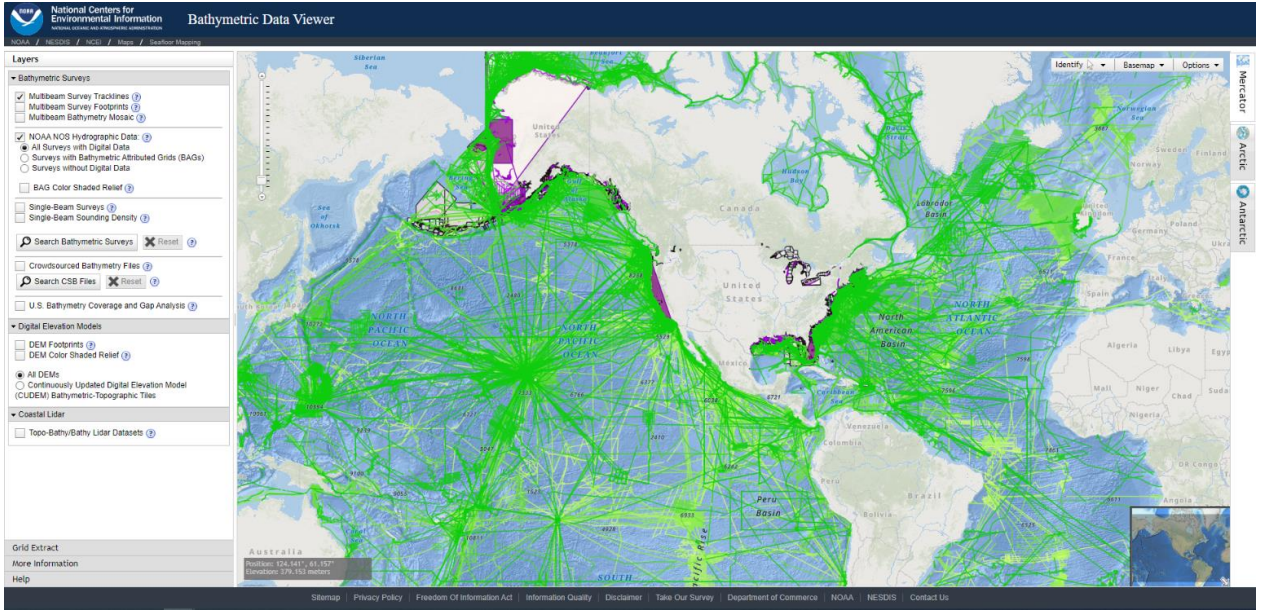
https://www.nauticalcharts.noaa.gov/enconline/enconline.html



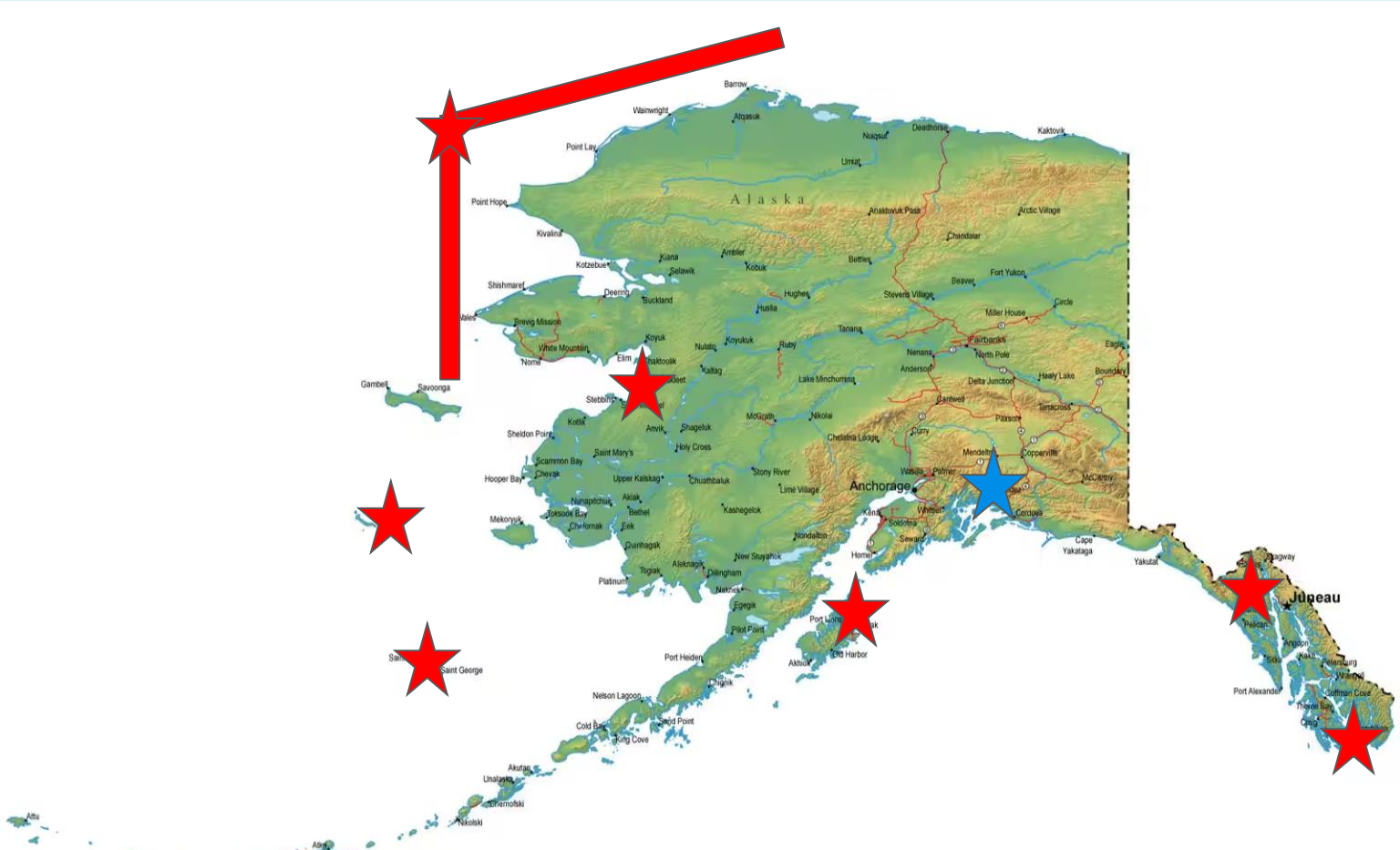
National Center for Environmental Information- NCEI

Bathymetric Data Viewer

https://www.ncei.noaa.gov/maps/bathymetry/

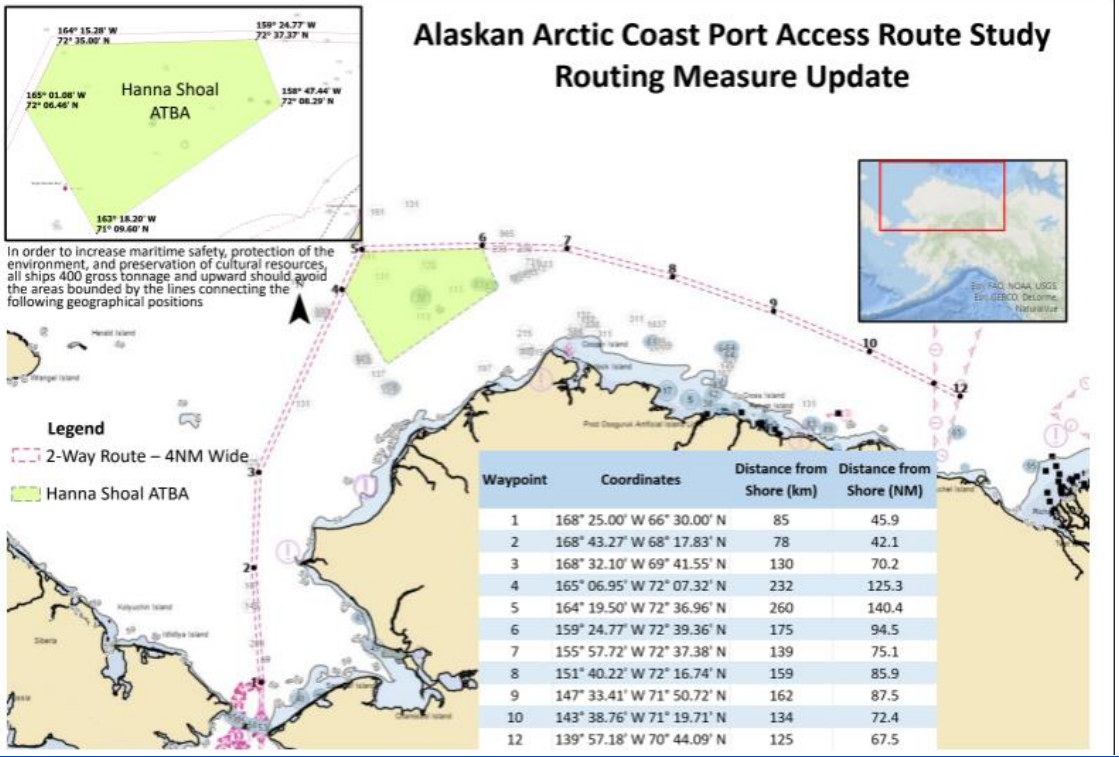


NOAA Office of Coast Survey
2025 Survey Plans



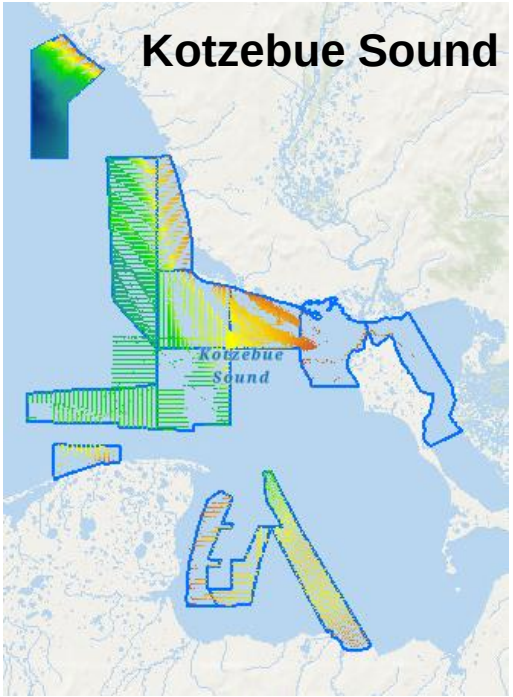
Arctic PARS

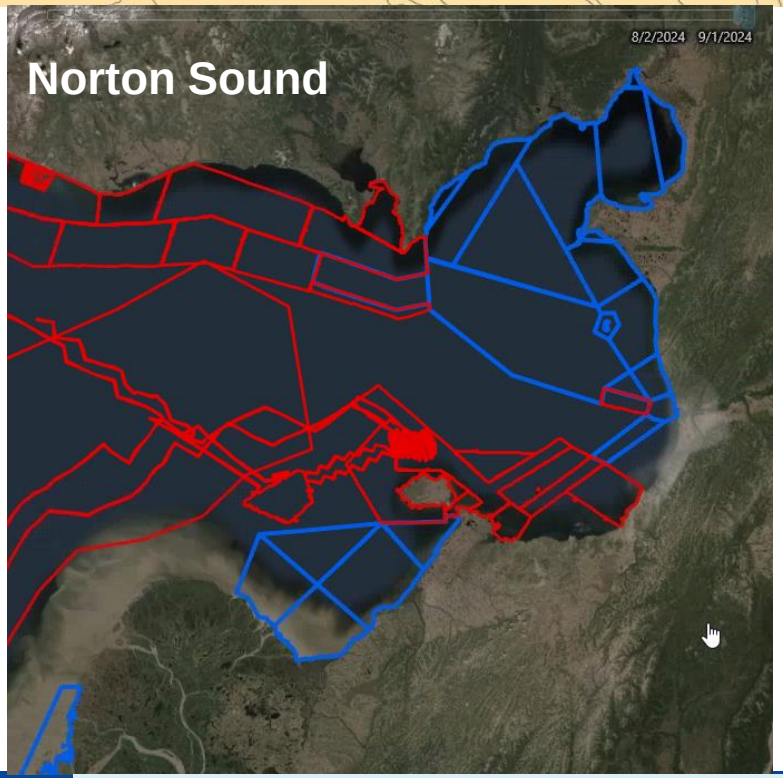
Alaskan Arctic Coast Port Access Route Study
Routing Measure Update



Waypoint	Coordinates	Distance from Shore (km)	Distance from Shore (NM)
1	168° 25.00' W 66° 30.00' N	85	45.9
2	168° 43.27' W 68° 17.83' N	78	42.1
3	168° 32.10' W 69° 41.55' N	130	70.2
4	165° 06.95' W 72° 07.32' N	232	125.3
5	164° 19.50' W 72° 36.96' N	260	140.4
6	159° 24.77' W 72° 39.36' N	175	94.5
7	155° 57.72' W 72° 37.38' N	139	75.1
8	151° 40.22' W 72° 16.74' N	159	85.9
9	147° 33.41' W 71° 50.72' N	162	87.5
10	143° 38.76' W 71° 19.71' N	134	72.4
12	139° 57.18' W 70° 44.09' N	125	67.5

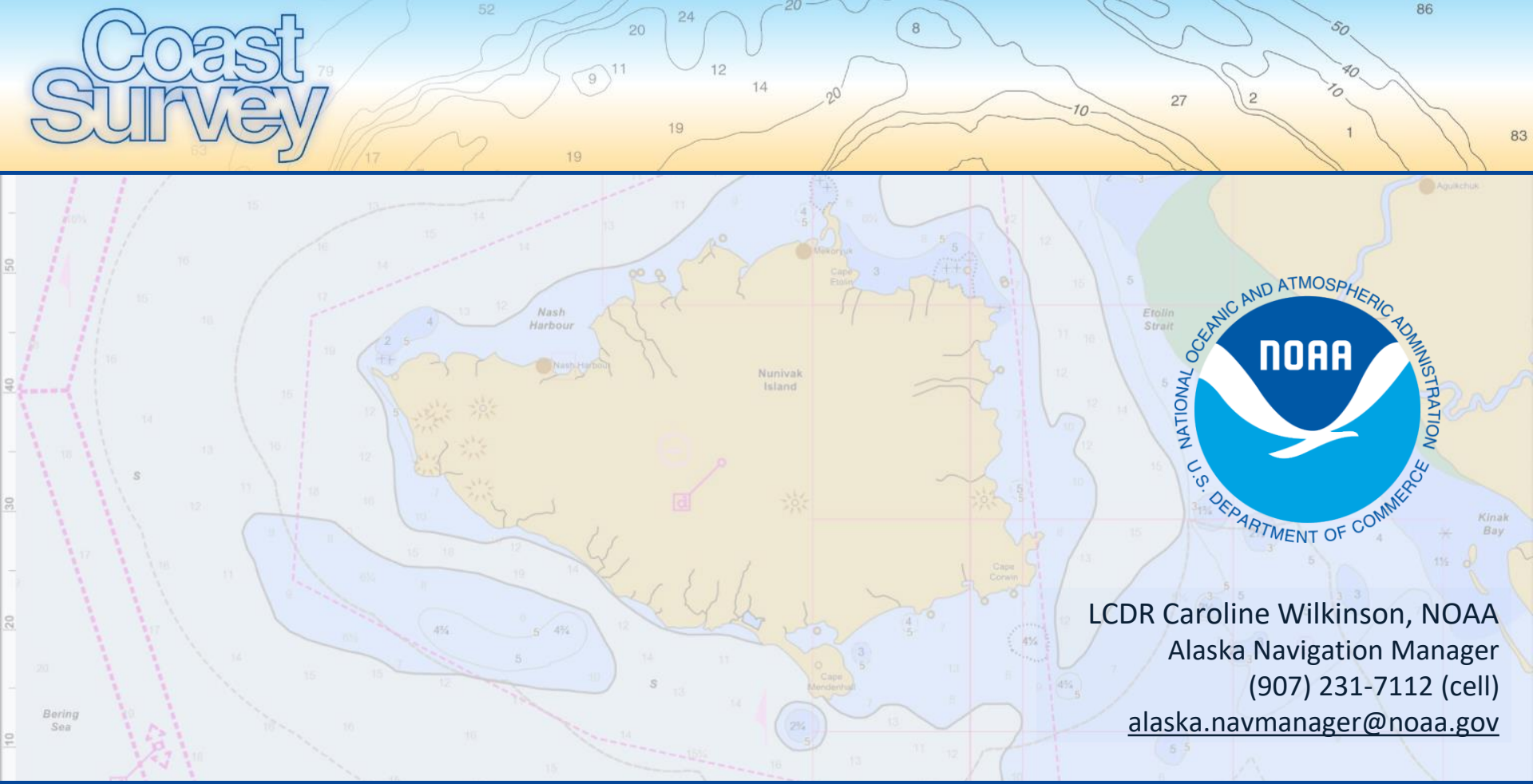
Other work- 2024/2025





Red=Done Blue=planned

Coast Survey



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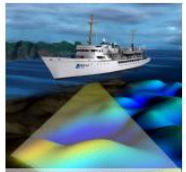
Sonar 200+ Hz

Final Programmatic Environmental Impact Statement (PEIS) for Surveying and Mapping Projects in U.S. Waters for Coastal and Marine Data Acquisition

Underwater Sound and Marine Mammals

- Underwater sound from human activities adds to the ambient sound level of the ocean which includes sounds from natural biological sources such as marine life and natural physical sounds such as weather.
- NOS activities that produce underwater sound include vessel operations and use of active acoustic equipment such as echo sounders and Acoustic Doppler Current Profilers (ADCPs).



Multibeam Echo Sounder

Marine mammals are sensitive to increasing sounds in the ocean because they use sound for biological functions such as communicating, navigating, searching for food, and avoiding danger.

Sound from human activities has the potential to interfere with these functions when there is an overlap between the manmade sound source and the frequencies of sound used by animals for biological functions. Masking occurs when interfering sounds reduce an animal's ability to hear sounds required for biological functions.

Approximate Underwater Hearing Range of Marine Mammals in U.S. Waters

Cetaceans	Pinnipeds	Sirenians	Fissipeds	
Whales, dolphins, and porpoises	Seals, sea lions, and walrus	Manatees	Sea otters	Polar bears
High Frequency: 275 Hz - 160 kHz **Mid Frequency:** 150 Hz - 160 kHz **Low Frequency:** 7 Hz - 35 kHz	75 Hz - 75 kHz	5 kHz - 60 kHz	< 32 kHz	< 25 kHz
				

FORM 11US (POP)

MARINE MAMMAL SIGHTING

NOAA/NMFS/AFSC/NMML
Platforms of Opportunity
7600 Sand Point Way NE
Seattle, WA 98115

Observer(s)	Vessel Name	Cruise Number	Permit Number
Jon Sirry	Poseidon		

year: 24 | month: 07 | day: 08 | local time (24 hr. clock): 1100 | +/- GMT: | latitude: 66° 42.19' N | longitude: 163° 45.26' E

Sighting Conditions: ☑ excellent ☐ good ☐ fair ☐ poor | Beaufort: 1 | +/- water temp.: 4.4 °C | Species (Please fill out a form for each species): Seal | confidence: ☑ sure ☐ likely ☐ unsure

Sighting Cue: The seal's head surfaced and looked @ us for a few seconds before diving under water | Closest Approach (in meters): 100 | Number Sighted: best estimate: 1 | minimum no. | maximum no.

Narrative: Make identifications only on specific features seen. Mention them here. Include body features, markings and coloration, associated organisms, elaborate on behaviors, etc. The most valuable sightings contain a good amount of detailed information.

Seal's head popped up out of the water about 120 meters off the starboard bow. After a few seconds the seal dove under the water and was not seen again.

Sketches: When possible, make a sketch noting pigmentation, anatomical features, scarring, posture, anatomical anomalies, group positioning, etc. (*see silhouettes on other side*).

Photos/Video (optional)

☐ photographs (list filenames) _____

BODY LENGTH ESTIMATE

☑ <3m (10')
☐ 3-8 m (10-25')
☐ 8-16 m (25-50')
☐ 16-26 m (50-80')
☐ >26 m (>80')

Some common behaviors

(check all that apply)

SMALL CETACEANS

☐ Bow riding
☐ Leaping entirely out of water
☐ Porpoising (swimming fast, body out of the water)
☐ Rooster-tailing (usually a Dall's porpoise cue)
☐ Slow rolling

LARGE CETACEANS

☐ Blow visible from a distance
☐ Breaching
☐ Flipper slapping
☐ Group feeding
☐ Lob-tailing
☐ Spy-hopping
☐ Tail raised on dive
☐ Side wake riding
☐ Stem wake riding

PINNIPEDS

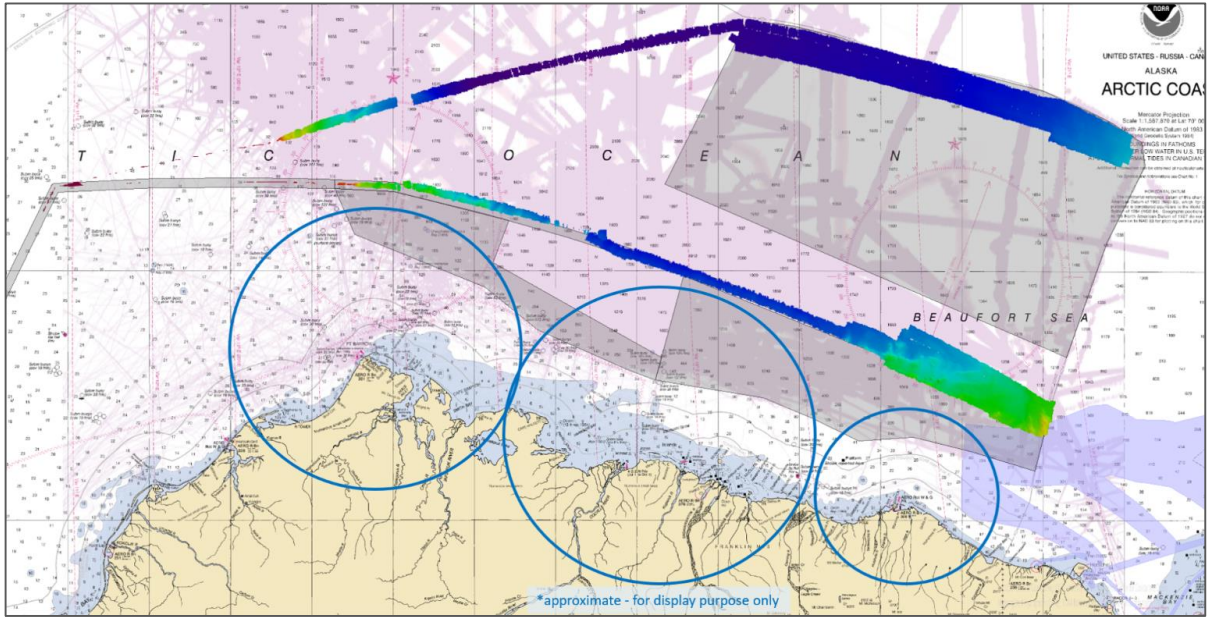
☐ Jug handle (flippers in air)
☐ Porpoising (swimming fast, at least partially out of the water)
☐ Rafting
☐ Spooked from haulout
☐ Vocalizing

Fishing Interactions

Please fill out the Marine Mammal Interaction and Specimen Form for all fishing interactions

☐ Contact with gear
☐ Contact with vessel
☐ Entangled in gear
☐ Feeding on discards
☐ Feeding from gear

PARS Data



HLY2402 PARS = 2794 LNM

HLY2403 ECS = 1104 LNM

~50% unmapped (per bathy gap analysis)
https://gis.charttools.noaa.gov/bathy-coverage-report/

Blog post: https://nauticalcharts.noaa.gov/updates/interagency-science-team-collects-ocean-and-weather-data-in-the-arctic-aboard-u-s-coast-guard-cutter-healy/

Volcanic-like Feature