



**NOAA
FISHERIES**

2025 Aerial Survey Update

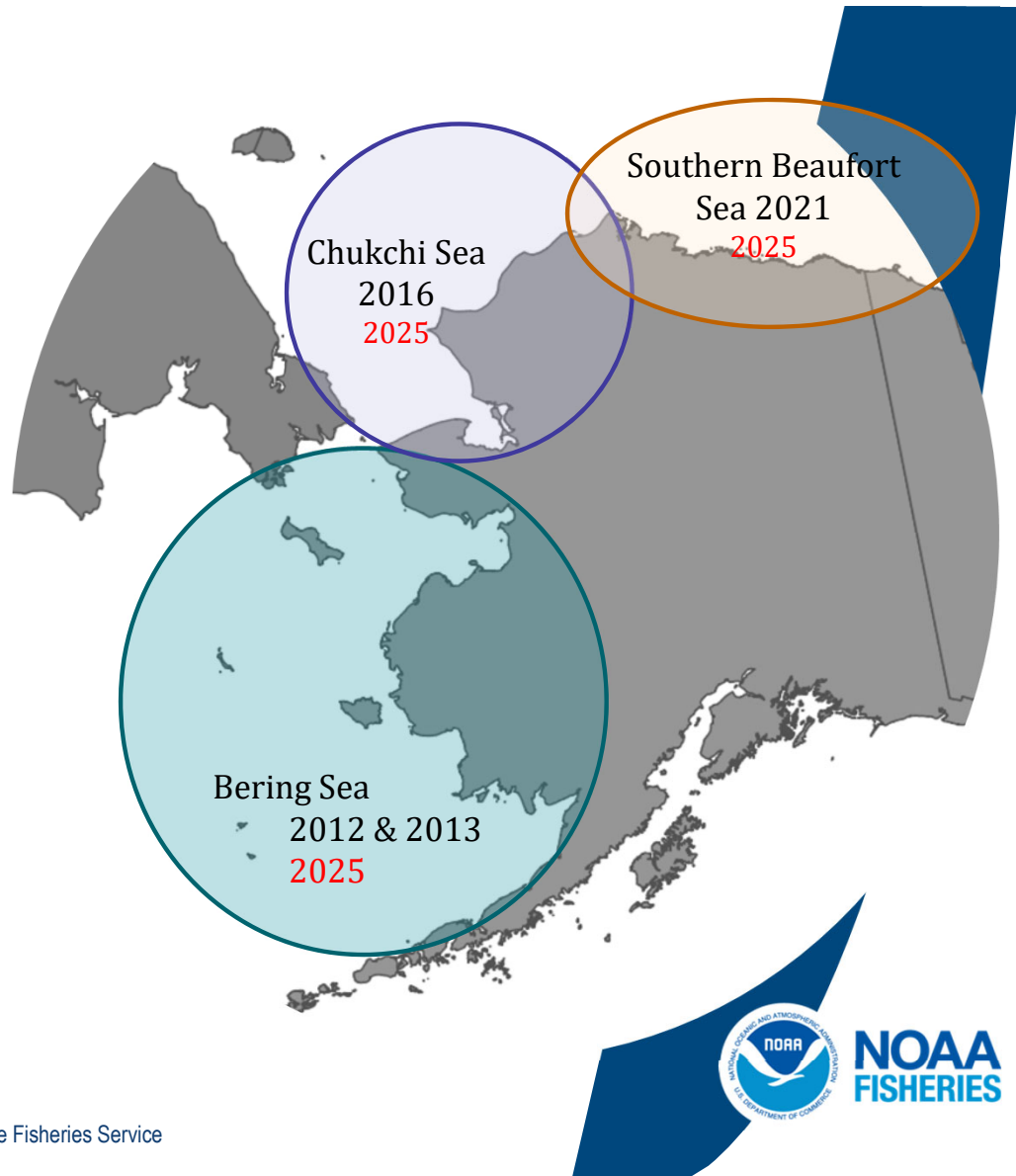


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*Ice Seal Committee
September 30, 2024*

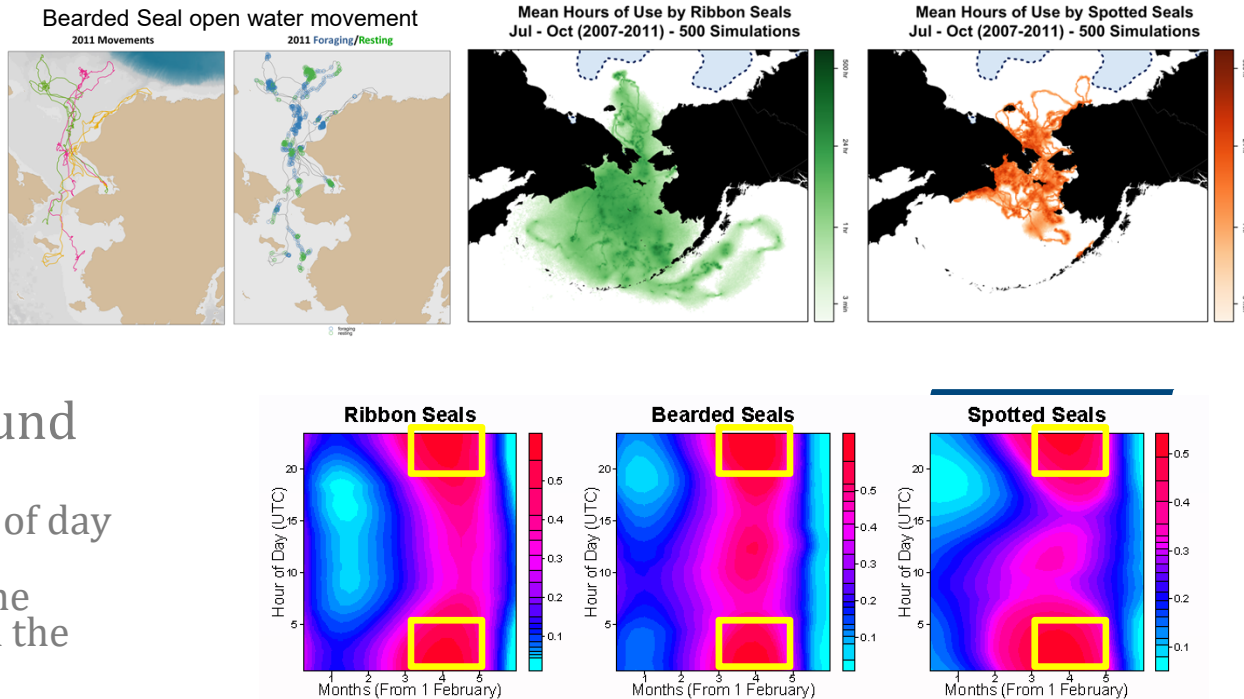
Ice Seal Surveys

- Goal: Determine the abundance and distribution of ringed, bearded, spotted, ribbon seals and polar bears
- It has taken 10 years to survey the sea ice habitat of the Bering, Chukchi, and Beaufort seas
- Surveys occur in the spring when seals are using the ice to pup and molt
- Instrument-based surveys allow us to fly at higher altitudes than traditional surveys
- Discuss with Ice Seal Committee, coastal communities, whaling captains, AK Nannut Co-management Council, Yukon and Northwest Territories, and Inuvialuit-Inupiat Polar Bear Commission.
- Collaborate with USFWS and USGS polar bear researchers.



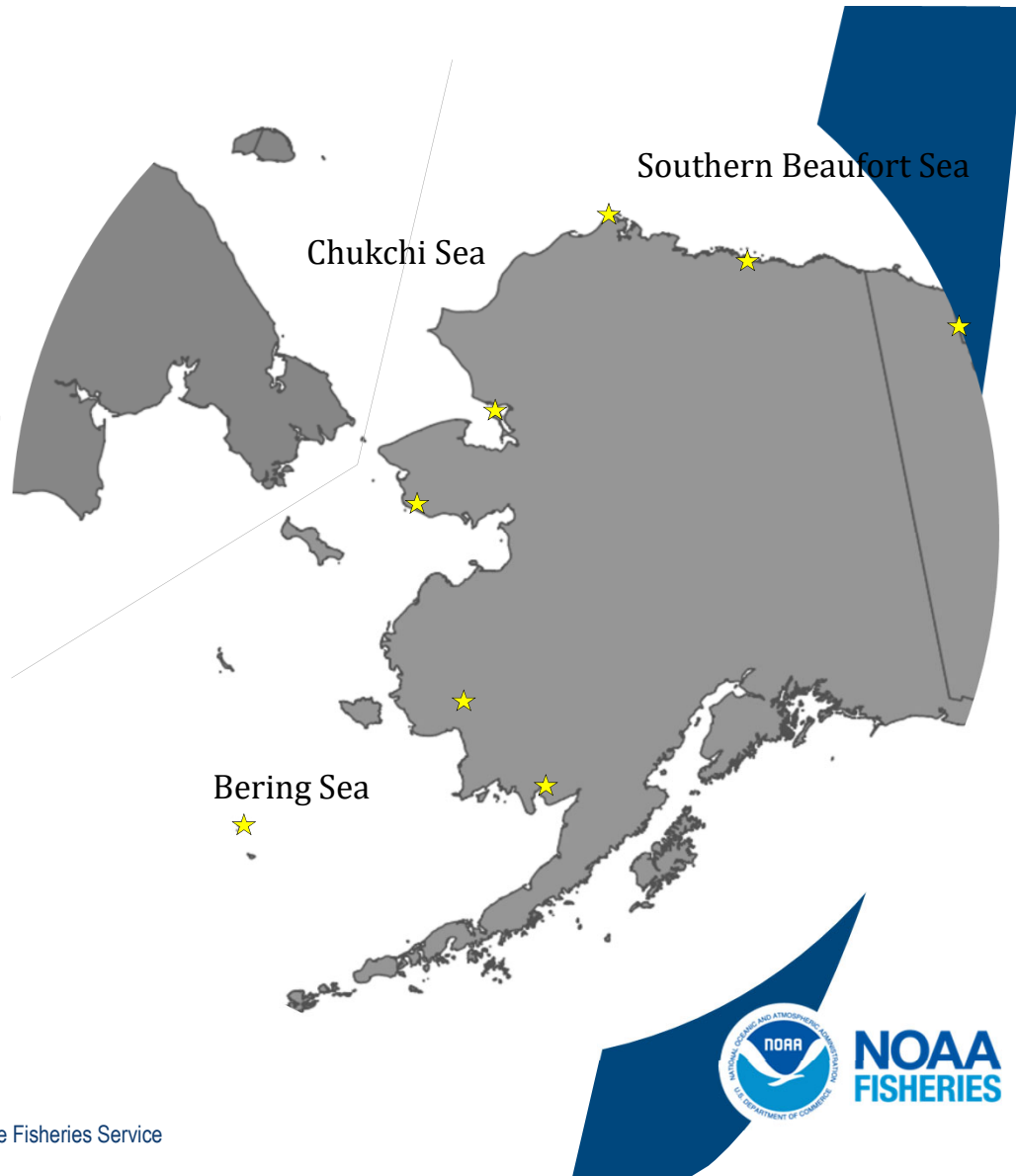
Satellite tags and traditional knowledge tell us:

- Seals follow the ice north and move between seas
 - This tells us we typically need to complete a survey effort before the ice retreats
 - **Surveying all seas at once relieves us of this burden.**
- Seals haul out on the ice around solar noon
 - This helps us determine the time of day that we fly a survey line.
 - We also use this information in the analysis to account for animals in the water during the survey.



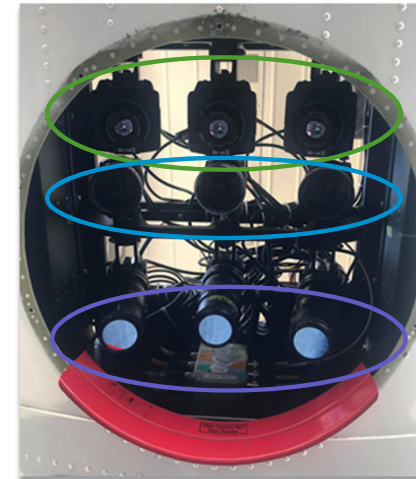
2025 Ice Seal Surveys

- April 6 – June 15, 2025
- Survey Bering, Chukchi, Beaufort seas all together
- Flights out of Bethel, St. Paul, Nome, Kotzebue, Utqiagvik, Deadhorse (refueling in Inuvik)
- Flights are planned the night before using current satellite sea ice imagery
- Flight lines extend out from shore 100-300 miles and then return to the same or another airport
- Flight lines should be spread out over space and time.
 - Two flights may occur anywhere in the area on any given day
 - Flights will not occur on days with low fog, required pilot rest days, or days when aircraft maintenance is required (1-2 weeks)



2025 Ice Seal Surveys

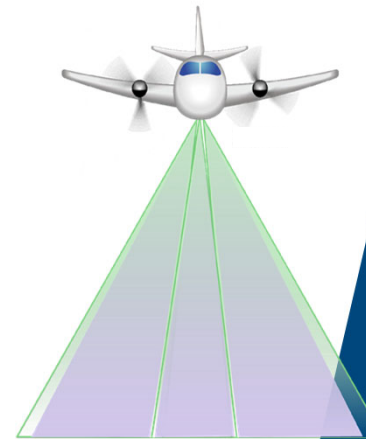
- 2 Aircraft: NOAA Twin Otter and King Air
- Altitude: 1000-1200 feet
- Survey speed: 120 - 150 kts
- Flight lines are 25-50 km apart (15-30 miles)
- Collecting images continuously while over sea ice



Thermal (IR) cameras

Color cameras

Ultraviolet (UV) cameras



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Mitigation Strategies

- Shift to cameras allows higher and faster flight, minimizing impact
- Pilots are instructed to turn around if they see people on the ice or in small boats ahead of the aircraft
- Pilots are instructed to not fly over large groups of walruses and eiders (per FWS permit)
- Pilots monitor marine radio frequencies
- Daily flight plans are distributed to hundreds of people across the region – this includes a direct phone line to the flight team.
 - If the team receives a call indicating that the planned flight line is a problem for a community, they will adjust the flight plan accordingly and recirculate the updated plan.
- We have maintained 30 mile buffers around communities but these seem more problematic than helpful:
 - Communities may be located in areas important to include in the survey
 - Communities identify the lack of coverage as problematic
 - It would only take around 30 minutes of flight time to include these areas
 - BWCA has approved dissolving the Utqiagvik buffer citing that other mitigation efforts are adequate to avoid an issue.



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[NOAA_survey_daily-plan] NOAA N68RF, June 9, 2024 > [Inbox x]

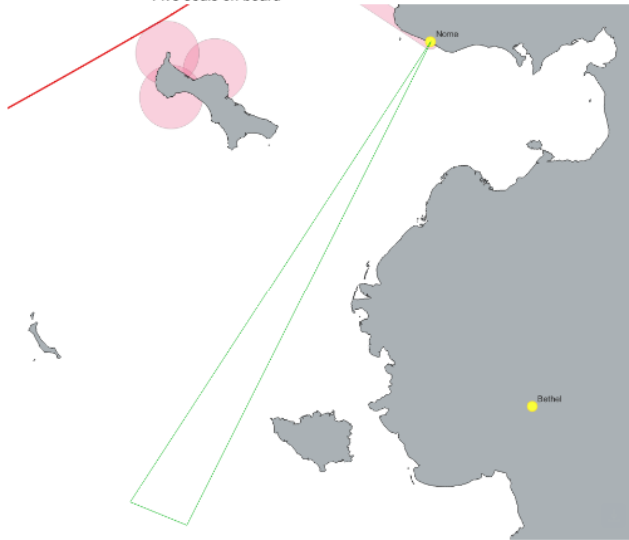


NOAA_survey_daily-plan <noaa_survey_daily-plan@googlegroups.com>
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Plan of the Day

Depart Nome: 1:30 pm
Arrive Nome: 5:30 pm

Today's flight will focus on exploring the long range capabilities of the King Air in the Bering Sea. Altitudes will range from 1,000' to 18,000'. The science team will focus on software testing and ocean imagery collection.
Monitoring Air VHF 121.5 and 133.3
Five souls on board



The green line shows our initial flight plan. These lines may be adjusted in flight based on observed weather conditions.

Project phone number: 907-572-6068
Project email: nmfs.afsc.mml.sealsurvey@noaa.gov
2-page project brief: <https://www.fisheries.noaa.gov/resource/outreach-materials/2024-aerial-survey-ice-seals-bering-sea>
Marine Mammal Laboratory Field Work: <https://www.fisheries.noaa.gov/alaska/population-assessments/alaska-marine-mammal-field-work>

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2024 Survey Communication

Dec. 12: Anchorage

- Alaska Eskimo Whaling Commission (AEWC)

Jan. 31-Feb. 3: Utqiagvik

- AEWC Whaling Captains' Convention

Feb. 28 - Mar 3: Anchorage

- Alaska Native Ice Seal Committee (ISC)

Mar. 8: *virtual*

- Bristol Bay RAC*

Mar. 22: *virtual*

- Seward Peninsula RAC*

Apr. 4-6: YK-Delta

- Native Village of Scammon Bay
- YK-Delta RAC
- Assoc. of Village Council Presidents (AVCP)*

May 8-10: Nome

- Nome Eskimo Community
- IPCoMM: Radio program - KNOM
- Kawerak, ADF&G, NSEDC, others
- Native Villages of Gambell & Savoonga*

- Nome Nugget Interview

- Native Village of Teller*

May 25-26: Dillingham

- Qayassiq Walrus Commission (QWC)*
- Bristol Bay Marine Mammal Council (BBMMC)

June 10: Nome

- Nome Nugget Interview
- KNOM Interview

June 30 (*delayed*): *virtual*

- Native Village of Shishmaref*

July 8: Nome

- KNOM Interview*

August 15: Victoria, BC

- Inuvialuit-Inupiat Commission

September 5: Utqiagvik

- Barrow Whaling Captains Association

**virtual*



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Survey Communication Plan

Planning Stage

- Ice Seal Committee
- AEW, ABW, EW, BBMM, Nanuut, RAC's
- Visits to communities
- Keep ANOs informed
- Community meetings
- Contact tribal councils prior to survey start
- Distribute project plan using Flyers & Radio

During Survey

- Email/fax daily flight plans to distribution list
- Email/fax periodic project updates
- Provide project cell phone directly to survey team
- Establish community points of contact
- Closer approaches require tighter communication
- Arrange community meetings and school visits as possible
- Use local time in email/fax updates
- Distribute project updates using Flyers & Radio

Follow up

- Presentations to organizations
- Strait Science presentations
- Reports available on-line
- Community meetings and school visits
- Distribute project summary using Flyers & Radio



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Native Alaskan Participation

- The NOAA Twin Otter has room for an additional team member to fly on surveys (April 6 – May 15)
 - NOAA Aircraft Operations Center allows guests to participate in 3 flights with the completion of three online training modules (~ 2hrs)
 - Full participation beyond 3 flights requires a 2-day egress training
 - We have experience with both approaches.
 - Either way will work but both require lead time.
 - Guest flights: 1 week
 - Full participant: 3 months



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Questions & Discussion



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