Ice Seal Surveys, 2025
Ice Seal Committee update, January 2025

The Alaska Fisheries Science Center's Polar Ecosystems Program is planning to conduct aerial surveys of the sea ice habitat of the Bering, Chukchi, and southern Beaufort seas in spring 2025 to estimate the abundance of ringed seals, bearded seals, spotted seals, and ribbon seals. We last surveyed each area in 2021 (Beaufort), 2016 (Chukchi), and 2013 (Bering). Comprehensive surveys are needed to monitor the abundance of each species, their distribution throughout the region, and understand how they are responding to a changing climate.

Our survey methods rely on multispectral imaging (color, thermal, and ultraviolet cameras) to detect animals on the sea ice from higher altitudes than traditional observer based surveys. Our survey altitude (1000 ft) reduces disturbance to wildlife while still providing the necessary image quality to differentiate seal species.

We will use two fixed wing aircraft, a NOAA Twin Otter and a NOAA King Air, and fly out of Dillingham and/or Bethel (depending on the sea ice extent), St. Paul, Nome, Kotzebue, Utqiaġvik, and Deadhorse, Alaska. Aircraft dates and identifying tail numbers are below. The Twin Otter will remain in the area after the ice seal survey to support a number of other projects including Arctic Air, Steller Sea Lion surveys, and the Bowhead survey.

- Twin Otter (tail number: N56RF): April 1 – May 13*
- King Air (tail number: N68RF): April 1 – June 9

The two teams will move between communities to spread out the survey effort in time and space. Our survey approach is dynamic and responsive to the changes in sea ice and weather. The flight lines are drawn the night before each flight using the most current satellite sea ice imagery and the next day's weather forecast. Daily flight plans for each aircraft will be communicated using an email distribution list.

Coordination with Indigenous coastal communities is a high priority for our research in the Arctic. We have maintained strong communication with coastal communities and whaling captains throughout the region to mitigate any potential disruption to subsistence hunting activities. We instruct our pilots to turn the plane around if any people, boats, walrus or eiders are seen on the ice ahead of the aircraft. Our field teams will follow a daily communication protocol to ensure everyone knows where we're planning to fly on any given day and has the ability to communicate directly with the field team if there is a problem. Flight teams are instructed to modify lines to avoid any expressed concern over a distributed flight plan. We are also prepared to bring interested community members along on survey flights. People interested in participating in surveys will need to complete three training modules and sign a waiver prior to flight. Safety equipment will be provided. We will discuss and determine the best way to identify, select and train participants at the ISC board meeting.