

U.S.A. Report to FARO Meeting – Thursday, March 20, 2025

Dr. Frank Rack, U.S.A. FARO Representative

Dr. Jennifer Mercer, Past FARO Chair

Unfortunately, we can't be with you all today, but we wish you a productive FARO meeting.

Slide #1: The following presentation provides a brief general update on U.S. activities, an overview of planned vessel/icebreaker activities in 2025, and an update on infrastructure modernization efforts to the extent possible based on current knowledge. There is also an announcement for a meeting at ASSW by the U.S. Arctic Marine Resources Capability Committee (ARMCC) which will be on Friday, March 21, at 16:00 in UMC Room 425.

Slide #2: The U.S. National Science Foundation's Office of Polar Programs supports several cruises and projects each year, primarily in Alaskan waters, but also in the Arctic Ocean and surrounding seas utilizing the U.S. Coast Guard Cutter (USCGC) *Healy*, and R/V *Sikuliaq*, which is operated by the University of Alaska-Fairbanks as part of the U.S. Academic Research Fleet. Additional projects are hosted on international icebreakers and chartered coastal or regional vessels. The National Oceanic and Atmospheric Administration (NOAA) has annual projects on the NOAA Ship *Oscar Dyson*, and through a barter arrangement with NSF in 2025, a project on R/V *Sikuliaq*. The map at right shows the extent of 2024 Arctic research cruises supporting NSF-funded projects. A list of vessel movements and project descriptions from past Arctic field seasons are available online at: <https://www.iarppcollaborations.org/research-expeditions.html>.

Slides #3 and #4: A summary of 2025 planned vessel/icebreaker projects are provided on these two slides with: the vessel name, the name of the project, the Principal Investigator(s) and lead institution, the general area of operations, the general dates of each cruise, the starting and ending ports, and the funding agency. International collaborative projects with Canadian Coast Guard Ship(s) (CCGS) *Louis S. St-Laurent* and *Sir Wilfrid Laurier* contribute to the NSF's Arctic Observing Network (AON) Program.

Slide #5: This slide provides a map view of some of the 2025 projects and the vessels that support them, as described in more detail in Slides #3 and #4. The maps summarize the mooring deployments/recovery operations in 2025 (either proposed, or from prior years) and illustrate the area(s) of operations in the northern Bering Sea (lower left), Bering Strait and Chukchi Sea (left center), Beaufort Sea and Alaskan continental margin near Oliktok Point (upper left), Beaufort Gyre (right center), and East Siberian Sea (lower right). Also

shown are the vessels supporting these projects (left to right, R/V *Sikuliaq*, R/V *Norseman II*, CCGS *Louis S. St-Laurent*, and USCGC *Healy*).

Slide #6: International infrastructures include Summit Station in Greenland and Toolik Field Station in Alaska, both stations have reasonable user day rates and can be accessed with sufficiently long lead-time for coordination of planning and proposal preparation. Interactive map resources are available from the Battelle-ARO Arctic Gateway at: <https://battellearcticgateway.org/maps/> to assist with project planning. NSF maintains a relationship with Pituffik Space Base (formerly Thule Air Base) to facilitate logistics for research projects in northeast Greenland.

Slide #7: The proposed Summit Modernization & Recapitalization (SuMR) concept is a planning effort that could lead to the eventual replacement of existing infrastructure at Summit Station with five elevated buildings and two surface level buildings, as shown in the conceptual drawing. The goal of the conceptual design (now at the 60% design stage) would be to provide adequate future heated indoor science and living space for researchers and staff.

Slide #8: As a public announcement and invitation to participate in a discussion of science missions and affiliated science mission requirements for future U.S. federal icebreakers, the Arctic Marine Resources Capability Committee (AMRCC) will be holding a meeting at ASSW on Friday, March 21, at 16:00 in UMC 425 to share community survey findings and gather additional input. If you have questions, please attend the meeting or contact Carin Ashjian (cashjian@whoi.edu).

Slide #9: Contact information is provided for the U.S. FARO Representative and other members of the NSF Arctic Sciences Section's Research Support & Logistics Program (RSL@nsf.gov), as well as other primary logistics and field station contacts. Thank you for your attention. Please enjoy Boulder, CO and the ASSW 2025 and ICARP-IV sessions!!