

A collage of images related to polar research, including a person climbing a rope, a close-up of a person's face, and an aircraft.

OFFICE OF
POLAR PROGRAMS

NSF Arctic Sciences Report to the AICC

Frank R. Rack, Ph.D., Program Manager, Arctic Research Support and Logistics Program
NSF Office of Polar Programs, Arctic Sciences Section

Programmatic Directorates and Offices Supporting the NSF Mission





NSF Structure

The Director, Office of Budget, Office of International Science & Engineering, Finance, & Award Management, etc.

Directorate for
Biological Sciences (BIO)

Directorate for
**Geosciences
(GEO)**

Directorate for
Engineering (ENG)

Directorate for
Social, Behavioral & Economic
Sciences (SBE)



Earth Sciences (EAR)



Ocean Sciences (OCE)



Atmospheric and Geospace
Sciences (AGS)



Polar Programs (OPP)



Research, Innovation,
Synergies, and Education
(RISE)

Directorate for
Technology, Innovation and
Partnerships (TIP)



Arctic Natural Sciences (ANS)

“...supports projects focused on hypotheses-driven and process-based science that informs an understanding of the larger Arctic region.”

Rainer Amon, Marc Stieglitz, Kelly Brunt

Arctic Observing Network (AON)

“...supports proposals to make field observations to detect and understand Arctic system change occurring on time scales longer than the duration of a typical NSF research grant.”

Roberto Delgado (dt)

Arctic System Science (ARCSS)

“...proposals that advance our understanding of the Arctic as a coupled system, and how the Arctic system interacts with the Earth System...often interdisciplinary...with emphasis on the interactions among system components.”

Greg Anderson (dt), Colleen Strawhacker

Arctic Social Sciences (ASSP)

“...supports research on Arctic social and cultural systems, present and past, and research relevant to understanding these systems.”

Liam Frink, Erica Hill



Arctic Sciences Section Head: Jennifer Mercer

AAAS Science and Technology Policy

Fellow: [REDACTED]

Science Assistant: Kayla Hubbard

Program Specialist: [REDACTED]

Arctic Research Support and Logistics (RSL)

The RSL Program supports the fieldwork of research projects funded through ARC, as well as on a cost reimbursable basis for other projects. Created to make Arctic fieldwork safer, more efficient, and cost-effective.

*Renee Crain, Frank Rack, Kate Ruck, Katy Smith (c)
Linda Izzard (dt)*

Arctic Policy Program (ARPS)

"...supports short- and long-term efforts to enhance communication, coordination, and collaboration across the research enterprise."

Colleen Strawhacker

Crosscutting Programs

Polar Education: education research to promote an informed citizenry and the next generation of scientists. *Lisa Rom*

Polar Cyberinfrastructure: collaboration between Polar and cyberinfrastructure researchers.

Allen Pope



Welcome To The
**Arctic Research Support & Logistics
Services Gateway**

The background image shows a serene Arctic landscape. In the foreground, a body of water is disturbed by concentric ripples. The water is a deep blue, reflecting the sky. In the middle ground, several large, white icebergs float on the water. The background features snow-covered mountains under a pale, overcast sky.

<https://battlearcticgateway.org/>

NSF/OPP's Arctic Sciences Section and the Arctic Research Support and Logistics (RSL) Program



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Vessel Support

The NSF Arctic Research Support and Logistics (RSL) Program works with NSF OCE and OPP Program Officers, the USCG, national and international vessel operators, and our Arctic logistics contractor (Battelle-ARO) to identify vessel requirements for **funded projects** and then negotiate terms and conditions to acquire ship time on domestic and international icebreakers, vessels of the U.S. Academic Research Fleet (ARF), or commercial charter vessels, to provide support to NSF-funded Arctic Sciences Section and related projects.

USCGC HEALY and other vessels of the U.S. ARF, or foreign research vessels, if applicable, are requested using a **Ship-time & Marine Equipment (SME)** request form that is submitted through the **Marine Facilities Planning (MFP)** application (<https://www.mfp.us/>). The **SME request form** is included as a **Supplementary Document** in research proposals that are submitted to NSF for peer review.

Vessel Operators of the U.S. ARF (and potentially others, like the USCG) use the information provided in the SME request forms to develop and confirm annual vessel schedules. Research project PI's update their SME submissions in the MFP to clarify the source of project funding and status prior to scheduling.

Proposals requesting access to Arctic research vessels and icebreakers should submit proposals two or more years prior to the desired time of the cruise to provide sufficient time for scheduling and planning.

2023 Arctic Cruises (UNOLS, USCG, Chartered US Vessels, Canadian CG, Sweden)

- R/V Sikuliaq – [OPP-2303606](#) - Early Career Researcher Chief Scientist Training Cruise – Emily Eidam and Lauren Juranek (Oregon State Univ.)
- R/V Sikuliaq – [ANS-2135316](#) - Fate of Primary Production in the Chukchi Sea – Kevin Arrigo (Stanford Univ.)
- R/V Sikuliaq – [ANS-2117052](#) - Paleoclimate and Paleoecology of the Late Pleistocene and Holocene Bering Sea Shelf – Sarah Fowell (Univ. Alaska Fairbanks)
- USCGC Healy – [AON-1724523](#) - Nansen and Amundsen Basins Observational Systems – Igor Polyakov (Univ. Alaska Fairbanks)
- USCGC Healy – [AON-1951762](#) – U.S. Interagency Arctic Buoy Program (USIABP) – Ignatius Rigor (Univ. of Washington)
- R/V Norseman II – [AON-2153942](#) - Bering Strait AON – Rebecca Woodgate (Univ. of Washington)
- CCGS Louis S. St-Laurent (Department of Fisheries and Oceans, Canada) – [AON-1950077](#) and [AON-1949881](#) - Joint Ocean Ice Study/Beaufort Gyre Observing System (JOIS/BGOS) NSF-DFO joint cruise – Mary-Louise Timmermans (Yale Univ.) and Andrey Proshutinsky (WHOI)
- CCGC Sir Wilfred Laurier (Department of Fisheries and Oceans, Canada) – [AON-1917469](#) - NSF-DFO joint cruise related to the Distributed Biological Observatory (DBO) – Jackie Grebmeier (UMD-CBL)
- Swedish IB Oden – [ANS-2227313](#) (Penny Vlahos, UCONN-Avery Point), [ANS-2226864](#) (Jessie Creamean, Colorado State Univ.), [AGS-221153](#) (Megan Willis, Colorado State Univ.) - Atmospheric rivers and the onset of sea ice melt (ARTofMELT) – Swedish Polar Research Secretariat.



Arctic Research Planning for the next Decade - Fourth International Conference on Arctic Research Planning (ICARP IV) Process (2022 – 2026)



ICARP IV

INTERNATIONAL CONFERENCE ON
ARCTIC RESEARCH PLANNING

Website: icarp.iasc.info

Email: info@iasc.info



ICARP IV – Fourth International Conference on Arctic Research Planning Process (2022 – 2026)



- **ICARP IV Summit / ASSW 2025** from **21 – 28 March 2025** in **Boulder, Colorado, USA**
- **ICARP IV** = primary tool to determine the **Arctic scientific goals and directions** for the upcoming **Fifth International Polar Year (IPY) 2032 – 2033**



Photo: University of Colorado/Glenn Asakawa



Where Discoveries Begin