Sea Ice Prediction Network — Phase 2 (SIPN2) 2018 - 2022

A Multi-disciplinary Approach to Improve Sea Ice Predictions

Main Activities

- Evaluate economic value of sea-ice forecasts for Alaska shipping industry
- Investigate the sensitivity of sea-ice predictability to oceanic heat
- Generate Sea Ice Outlook forecasts for September minima
- Develop new observation-based sea ice products
- Assess the accuracy of the Sea Ice Outlook
- Engage the public

Sea Ice Outlook
Since 2008, the annual Sea Ice Outlook (SIO) has provided an open process to share ideas about the September minimum sea ice extent.

Regional Sea Ice Extent
Annual cycle of sea ice extent in the Chukchi and Beaufort seas for 1981–2017 (grey), 2018 (red), and 1981–2010 median (black) [left]. Sea ice concentration for the Bering, Chukchi, and Beaufort seas up to 20 August 2019.

Sea Ice Forecasts for Alaska Marine Shipping Industry
Sea surface temperature (from NOAA dOISST) and ice concentration (NSIDC NRT passive microwave) for Sunday, 11 August 2019. The locations of two UpTempO drifting buoys are marked as 1 (top left in map) and 7 (center-left in map). Image sourced from NOAA dOISST, NSIDC Near-Real-Time (NRT) passive microwave, and UpTempO data.

Interdisciplinary Collaborations—Lessons Learned
1. Successful collaboration requires skills & knowledge from a variety of disciplines.
2. There are many different, valid collaboration models & identifying the type of collaboration best for your goals is important.
3. Successful collaborations require well-designed processes & unique leadership skills.
4. Successful collaboration takes time & it is easy to underestimate the time, funding, & other resources needed.
5. Tensions that exist between diverse perspectives, cultures, & goals require attention, sensitivity, & consideration to manage effectively.

SIPN2 is a collaborative project, primarily funded by NSF with contributions from other agencies. SIPN2 is led and managed by 20-member team from several universities and organizations, with an expanded network of collaborators, participants, and partners.

https://www.arcus.org/sipn

If you would like to collaborate and become part of the SIPN2 network, please contact Betsy Turner-Bogren (betsy@arcus.org)