

SEARCH: Study of Environmental Arctic Change

Scientific Understanding and Projections to Help Society Respond to a Rapidly Changing Arctic

Hajo Eicken, University of Alaska Fairbanks, SEARCH Science Steering Committee Chair; Helen Wiggins, Arctic Research Consortium of the U.S. (ARCUS); on behalf of the SEARCH Science Steering Committee

What is SEARCH?

SEARCH is a U.S. multi-agency effort to understand the nature and future development of arctic environmental change.

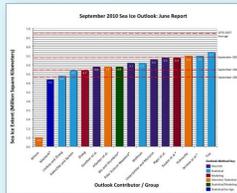


- ❖ **Multi-agency sponsorship:** National Science Foundation (NSF), National Oceanic and Atmospheric Administration (NOAA), National Aeronautics and Space Administration (NASA), Department of Defense, Department of Energy, Department of the Interior, Smithsonian Institution, and the U.S. Department of Agriculture.
- ❖ **Over 100 projects and activities:** Address observing, understanding, and responding to change science.
- ❖ **Observing Change:** Integrated observing networks across the arctic system. Implementation is well underway with the U.S. **Arctic Observing Network (AON)** and links to international efforts.
- ❖ **Understanding Change:** Modeling and analysis; synthesis; Sea Ice Outlook.
- ❖ **Responding to Change:** Stakeholder-driven efforts; decision-support tools; Sea Ice for Walrus Outlook.

Activity Highlight: Sea Ice Outlook & Sea Ice for Walrus Outlook

Sea Ice Outlook

- ❖ **Overview:** The SEARCH Sea Ice Outlook provides online monthly reports during the summer that synthesize estimates from the science community of the expected September arctic sea ice minimum, at both pan-arctic and regional scales.
- ❖ **2010 Season:** A post-season report for 2010 is now available online:
 - Outlook estimates for September 2010 in the last monthly report had a mean value of 5.0 million square kilometers—the observed minimum was 4.9 million square kilometers.
 - The post-season report discusses this year's sea ice season and meteorology, outlook methods, and lessons learned.
- ❖ **Funding:** The Outlook is supported by NSF and NOAA, and through volunteer efforts by research community participants.
- ❖ **Website:** <http://www.arcus.org/search/seaiceoutlook>



Sea Ice for Walrus Outlook

- ❖ **Overview:** A resource for Alaska Native subsistence hunters, coastal communities, and others interested in sea ice and walrus. Launched in 2010.
- ❖ **Report Content:** Weekly online reports during walrus hunting season (April-June) provide information on sea ice conditions relevant to walrus in the Northern Bering Sea and southern Chukchi Sea regions of Alaska. Reports include:
 - Current ice conditions.
 - 5- and 10-day outlook of wind conditions.
 - Up-to-date satellite imagery.
 - Observations of ice development from Alaska Native hunters and other sea-ice experts.
- ❖ **Partners:** Forecasters and researchers at NOAA, the National Weather Service, and the University of Alaska; the Arctic Research Consortium of the U.S. (with funding from NSF); the Eskimo Walrus Commission; and Alaska Native sea-ice and walrus experts.
- ❖ **Website:** <http://www.arcus.org/search/siwo>



www.arcus.org/SEARCH

Contact: Helen Wiggins: helen@arcus.org, SEARCH Project Office, Arctic Research Consortium of the U.S. (ARCUS)

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