

Arctic Sea Ice Predictability & the Sea Ice Prediction Network (SIPN)

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www.arcus.org/sipn

Project Background

- Decline in the extent and thickness of Arctic sea ice is an active area of scientific effort and one with significant implications for ecosystems and communities.
- Forecasting for seasonal timescales (i.e., the summer and into fall) is of particular interest to many stakeholders.
- However, seasonal forecasting is challenging due to the variable nature of weather and ocean behavior over that timescale as well as current limits to data and modeling capabilities.
- The Sea Ice Prediction Network (SIPN), funded in 2013, is developing a collaborative network of scientists and stakeholders to advance research on sea ice prediction and communicate sea ice knowledge and tools.

Project Objectives

- Coordinate and evaluate activities to predict sea ice
- Integrate, assess, and guide observations
- Synthesize predictions and observations
- Disseminate predictions and engage key stakeholders

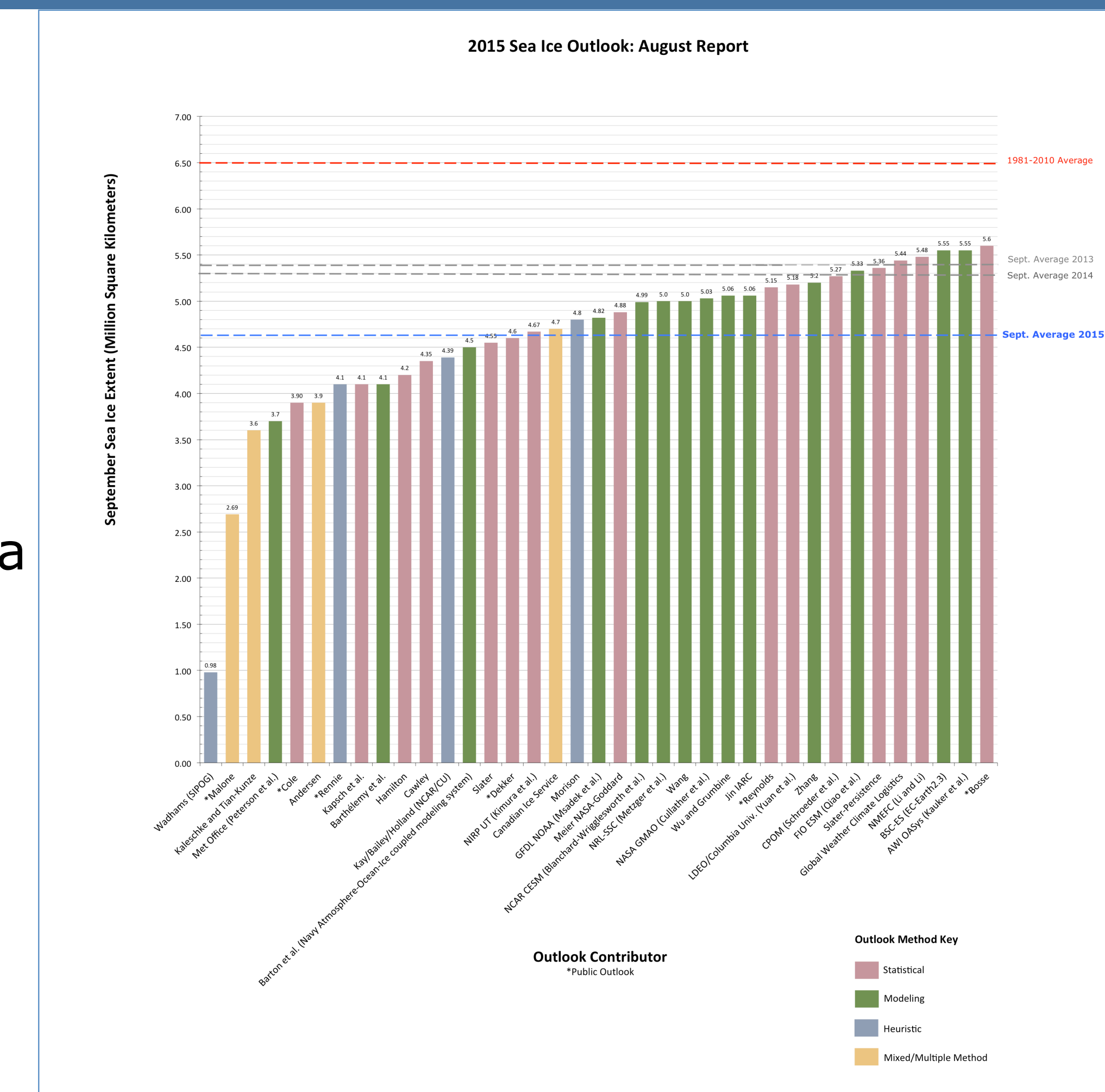
Join the Network!

Project collaborators and network participants of all disciplines and interests are invited to join the network. Ways to participate range from simply signing up for the mailing list to joining a SIPN Action Team, which are small groups convened to develop a specific product or task.

Sign up for the SIPN mailing list or send in an interest form for joining the network through the website: <http://www.arcus.org/sipn>

Current Project Highlights

The 2015 Sea Ice Outlook (SIO): SIO provides online reports during the summer melt season that synthesize different projections of the Arctic sea ice minimum at both pan-arctic and regional scales. Monthly reports in June, July, and August include a summary of those predictions and discussion about the range of predictive methods, concurrent Arctic sea ice and weather conditions, and other variables that affect sea ice. The 2015 SIO received 105 submissions from June through August focused on pan-Arctic conditions and a total of three regional submissions. The August median Outlook for September Arctic sea ice extent was 4.8 million square kilometers (M km²). The observed September sea ice extent was 4.63 M km² according to National Snow and Ice Data Center estimates.



Look for the 2015 Post-Season Report online: <http://www.arcus.org/sipn/sea-ice-outlook>

SIPN Action Teams: SIPN Action Teams are comprised of members of the sea ice prediction community and are convened on an ad hoc basis.

- The 2015 Sea Ice Modeling Action Team participated in and reviewed the SIO Initial Condition Experiment based on 1 May 2015 conditions and PIOMAS.
- The 2014 and 2015 SIO Action Teams developed the SIO post-season reports to assess processes that affected sea ice dynamics during the melt seasons, discuss the various outlook methods, and recommend changes and improvements to the SIO and calls for contributions.

2015 SIPN Webinar Series: These presentations provided overviews of topics relevant to the sea ice research community including sea ice modeling, sea ice observations, and stakeholder needs. Webinars archives are available online. <http://www.arcus.org/sipn/meetings/webinars>

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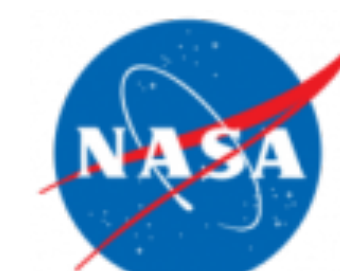
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National Aeronautics and Space Administration (NASA)



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A contribution to the Study of Environmental Arctic Change (SEARCH)