



Arctic Observing Open Science Meeting

Community Achievements, Goals, and Advancements Toward a Thriving, Collaborative Network of Arctic Observations



MEETING GOALS

Significant investments in Arctic observing have produced a broad, multi-disciplinary data set of unprecedented scope spanning land, ice, ocean, atmosphere and human systems. The 2015 Arctic Observing Open Science Meeting provided a forum to discuss advances supported by sustained, broad, contemporaneous observations and to identify areas for improved integration into an Interagency Arctic Observing Network. Specific goals were to:

- Present and document new understanding achieved through Arctic observing.
- Illustrate the breadth and scope of existing Arctic observing activities.
- Strengthen the goals, identity and activities of an integrated Interagency Arctic Observing Network.

MEETING OUTCOMES

Atmospheric measurements have led to an understanding of the sources, sinks, and seasonality of trace gases and found consistent variability in cloud properties, pointing to paths for consistent representation in models.

Arctic Ocean measurements have documented variability in freshwater storage and release, and provided a basis for understanding the underlying mechanisms.

Advances in understanding the processes that govern **sea ice** variability stem from a loosely organized network of individual projects.

Terrestrial networks address both science and products to decision makers. Networks increasingly include measurements collected by community-based observers.

Participants also identified important opportunities, for example:

- Decision makers will need data for planning responses to environmental change, and these needs will drive some elements of the network
- Advances in autonomous platforms and sensors should complement existing efforts
- An evaluation of atmospheric re-analyses could be used to define the core atmospheric measurements needed
- Scaling issues were common, as participants discussed the balance between distributed observing and more concentrated efforts at 'super-sites', and the need to understand how to upscale effort
- Other common concerns included network optimization, development of useful products, and funding needs to support critical measurements.

POST-MEETING SURVEY RESULTS

A survey was sent to all meeting attendees to assess the effectiveness and success of AOOSM. % positive indicates all responses marked "agree" or "strongly agree".

Success/usefulness measure	% Positive
Meeting goals achieved	94%
Plenary and panel talks	97%
Parallel Session talks	96%
Parallel Session discussion period	75%
Poster session useful	91%
Venue and location	99%
Early career connections	91%



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SCIENCE THEMES

- Robust Autonomous Observations ~ Ice Sheets and Glaciers ~ Human Dimensions ~ Meeting the Needs of Managers and Decision Makers ~ Ocean Circulation and Mixing ~ Terrestrial Arctic ~ Community Based Monitoring ~ Marine Ecosystems ~ Applications to Global Climate Modeling ~ The Fate of Sea Ice ~ & Arctic Atmosphere



AOOSM

17 - 19 November 2015
Seattle, WA

206 ATTENDEES

99 PARALLEL SESSION PRESENTATIONS

42 POSTERS

SEARCH AT THE 2016 ARCTIC OBSERVING SUMMIT

SEARCH is engaged in Arctic Observing efforts through a variety of projects. See our white papers, short statements, and posters here at AOS:

Sea Ice Action Team

- Communicating why sea ice matters: A focus of the SEARCH Sea Ice Action Team
- Poster: Sea Ice Matters: Science Communication through the SEARCH Sea Ice Action Team

Permafrost Action Team

- Permafrost Action Team: Short Statement for ASSW 2016

Land Ice Action Team

- Greenland Ice Sheet Ocean Observing System



SEARCH - AON PRODUCTS

- The SEARCH Arctic Observing Framework, available online, proposes an Integrated Arctic Observing System organized through a framework of "Arctic Services"



MEETING PRODUCTS

- Presentation files and abstracts currently available on the SEARCH website
- Meeting Report including parallel session discussion summaries currently in progress
- Arctic Observing Open Science Meeting Short Statment at AOS
- Peer-reviewed publications on select meeting topics forthcoming



ORGANIZING COMMITTEE

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