Arctic Observing Open Science Meeting

AOOSM 2015

17-19 November - Seattle, Washington

https://www.arcus.org/search-program/meetings/2015/aoosm

MEETING SUMMARY

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Meeting Goals

◆ Present and discuss scientific findings and advances resulting from Arctic observing projects;

◆ Discuss operational and technological achievements of observing science efforts;

◆ Explore how well new observational achievements meet major science goals;

◆ Identify opportunities for collaboration to develop high impact scientific synthesis products and papers; and

◆ Strengthen the goals, identity, and activities of an integrated Arctic Observing System.

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Meeting Structure

- ◆ Keynote presentations

- ◆ Interagency observing panel

- ◆ 99 Parallel session presentations

- ◆ 41 Posters presented

- ◆ 206 Attendees

Parallel Session Themes

Robust autonomous observations

Ice sheets and glaciers

Human dimensions

Meeting the needs of managers and decision makers
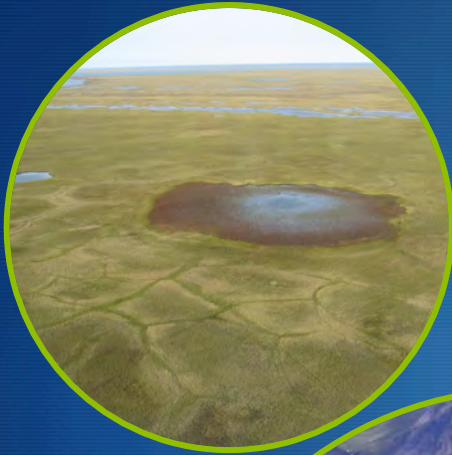
Ocean circulation and mixing

Terrestrial Arctic

Community based monitoring

Marine ecosystems

Applications to global climate modeling

The fate of sea ice

Arctic atmosphere

Parallel Session Highlights

◆ **Atmospheric** measurements have lead 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 underlying mechanisms.

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

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

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What makes a great observing network?

Network Characteristic	Description
The human component	*Linked instruments and measurements are necessary; but the linkages among a broad range of experts, institutions, and stakeholders converging around common objectives are ultimately responsible for network success.*
A cohesive question	*Network engagement and participation is facilitated by a clear, unifying question or theme.*
Sustained funding	*The funding model for observing networks should be flexible, with the ability to build on successes and adapt to new scenarios.*
Early-career scientists	*Networks that support and mentor early career scientists benefit from their increased capacity and availability, skills in communication and networking, and more interdisciplinary focus.*
Data accessibility	*Network data and products that are accessible are more likely to benefit from novel usage and collaboration.*
Scale	*Temporally, networks benefit from long-term time series data to detect trends and shifts in systems, to understand what drives them, and to improve models. Spatially, repeat sampling with complementary platforms is key to robust results and understanding trends.*

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Post-meeting Survey

Survey Results

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%

Critiques & Suggestions

- Directly address funding issues and changing AON structure

- Increase diversity on panels and among attendees

- Longer poster session in a more open area

- Reduce length of parallel session discussion period & remove guiding questions

- Add an event for early-career scientists

AOOSM Products

https://www.arcus.org/search-program/meetings/2015/aoosm/products

- Presentation abstracts and slides

- Parallel session summaries

- Arctic Observing Summit poster and white paper

- Final meeting report

- Related articles, presentations and reports

Future Arctic observing open meetings

- 2-3 year intervals

- Next meeting will have cross-disciplinary focus
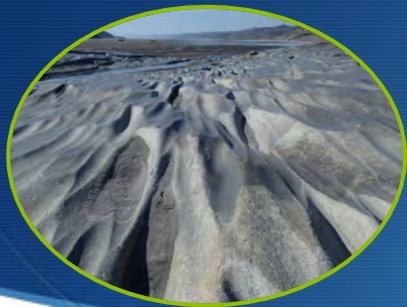
Acknowledgements

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