

AOS 2016 - Thematic Working Group Process for preparing AOS recommendations and final syntheses

The 3rd biennial Arctic Observing Summit (AOS, www.arcticobservingsummit.org), will be held from 15-18 March at the University of Alaska Fairbanks, Alaska, USA. It will bring together a cross-section of the Arctic community to deliberate on community-driven, science-based guidance for the design, implementation, and coordination of sustained, long-term (decades) operation of an international network of Arctic observing systems. The AOS is a task of the Sustaining Arctic Observing Networks (SAON, www.arcticobserving.org) initiative, which is led jointly by the Arctic Council and the International Arctic Science Committee (IASC). The International Study of Arctic Change (ISAC, at www.arcticchange.org) is responsible for leading the AOS task. The AOS is part of the implementation of the ‘observing change’ component of the ISAC Science Plan, which also encompasses understanding and responding to Arctic change ([Murray et al. 2010](#)).

The AOS2016 addresses six themes:

1. International and national strategies for sustained support of long-term Arctic observing
2. Technology and innovation for sustained Arctic observations
3. Contributions of the Private Sector and Industry to sustained Arctic observations
4. Actor and Stakeholder engagement and needs in sustained Arctic observations
5. Arctic Observations in the context of Global Observing initiatives
6. Interfacing Indigenous Knowledge, Community-based Monitoring and Scientific Methods for sustained Arctic observations

The goal during the Summit is to produce specific recommendations that will facilitate the implementation of needed observing activities and the collaborative networking of existing and planned Arctic observing systems. Over the medium term, an AOS 2016 report and series of peer-reviewed papers will be produced along with plans for the next Summit. The long-term goal of the Arctic Observing Summit is to complement the SAON process in developing sustained dialogue, coordination and implementation of an international Arctic observing network.

The format of the AOS will not follow that of a conventional conference. The scaffolding of the summit is community-driven white papers and short statements, which were tabled several months prior, reviewed, and which are now available for public review at www.arcticobservingsummit.org. Over 80 white papers and statements are posted addressing each of the themes in various ways. In addition, community input includes 120 poster presentations over two sessions at the AOS.

At the Summit, we have created a space for lateral and creative interaction between the participants. To date roughly 300 people have registered as participants. A diverse array of backgrounds are represented including university-based researchers, national, regional and local governments and government agencies, funding agencies, non-profit organizations, research coordination entities, Indigenous organizations and the private sector. Participants come from at least 20 different nations and represent 14 international organizations.

To facilitate interaction, the Summit will be organized around a series of relevant keynote addresses, followed by breakout sessions focused on each theme and on issues that cut across themes (i.e., gaps, collaboration, implementation, support, etc.).

Charge to the Thematic Working Group Co-Chairs

Drawing on the plenaries and white paper syntheses and prior discussion among the working groups, the co-leads of the thematic working groups will organize and run the breakout sessions. Each group will require a moderator and a rapporteur. Early-career scientists supported through IASC and graduate students from the University of Alaska Fairbanks are available to help with note-taking and will be assigned to each working group.

Charge 1

Prioritize findings, questions and ideas for recommendations from the white papers and from working session discussion. Identify a subset of tractable issues that the AOS 2016 will develop into recommendations with clear goals and a defined path for achieving them.

As an example of the types of activities and recommendations derived from prior Observing Summits, consider the set of recommendations focused on an **inventory of community-based observing activities** derived from the AOS 2013. This recommendation was submitted to SAON (<http://www.arcticobserving.org/home/11-networks-projects-and-programs/118-t9-an-international-review-of-community-based-monitoring-in-the-context-of-sustaining-arctic-observing>) with a specific call for action on an inventory study and follow-up work. In addition to the report provided at the SAON website (see prior link), a map server was set up to access the inventory itself (<http://www.arcticcbm.org/index.html>). The latter was then also included in the U.S. Climate Resilience Toolkit (<https://toolkit.climate.gov/tool/atlas-community-based-monitoring-and-traditional-knowledge-changing-arctic>). All of these items were laid out as part of the discussions and recommendations from the AOS 2013 and may serve as an illustration of what can be achieved.

Instructions

1. Begin with the synthesis document and presentations for your assigned theme, and include relevant points from poster presentations.
2. Do the white papers/syntheses accurately identify top priority issues and questions? Suggest conceptual and content modifications. Are there critical and specific elements that are missing? Sort and prioritize recommendations.
3. Identify timescale (short-term, 5-year, 10-year, indeterminate)
4. Identify scope (local, regional, national, international)
- 5. Identify those for which the 2016 AOS can develop concrete plans and actions - these will be the focus of the remaining working sessions and the plenary discussion on Friday March 18.**
6. Flag promising issues for future AOS attention.
7. Identify target audience for recommendations. Who are we directing this to? For AOS 2016, participants of the Senior Arctic Officials Meeting and Arctic Council Working Groups will have an opportunity to review and discuss key recommendations from AOS working groups in the plenary on Friday March 18. Hence, if possible please identify recommendations that are directed at specific Arctic Council Working Groups, SAON or Permanent Participant Organizations.

Charge 2

Identify issues facing international collaboration and coordination of Arctic observing with specific reference to your working group theme. Offer approaches for addressing these challenges.

Instructions

1. Within the context of your theme what are the most pressing needs for international collaboration and coordination (you may emphasize a subset of these areas).
2. Of these needs/challenges, which:
 - Require focused attention at the level of international policy?
 - Can be addressed through agency-level coordination and agreements?
 - Can be addressed by grass-roots organization originating at the level of the performers?
 - What would ideal solutions/outcomes look like (what are our specific goals)?
 - What timescales might be required to initiate solutions? To make substantive progress toward end goals? Prioritize these needs.

Charge 3

What needs to be optimized or added to existing networks to address the questions and needs for information of the stakeholders relevant to your theme? What are the desirable outcomes from an Arctic observing system?

Instructions

1. What additional guiding questions, activities or requirements might guide the system toward better alignment with these needs?
2. Can we identify examples of successful implementation of multi-use Arctic observing systems? What can be learned from these examples? What must be done to move them in this direction?
3. In areas of difficulty, can we distinguish between shortfalls in observing and issues that arise from difficulties in data dissemination, product conceptualization and delivery?

Charge 4

Revise and expand synthesis documents to incorporate results from your working group sessions. Produce draft outline of AOS 2016 findings and recommendations, include those pertaining to cross-cutting issues.

Instructions

1. Focus on the subset of issues identified in the previous working group sessions.
2. For selected recommendations, define clear goals and paths for achieving them (timeline, needed resources, needed expertise, target audience, necessary partners, etc.).
3. Identify issues for involvement by SAON, Arctic Council Working Groups and/or other relevant entities.