



Arctic Observing Summit 2014

Helsinki, Finland

University of Helsinki

9-11 April 2013

Program

Day 1 – Wednesday, 9 April 2014

Introduction

8:15 **Welcome and Opening Comments**

Keynote 1: New Approaches to Observation

Doug Wallace, Dalhousie University, Canada

Keynote 2: Observing Systems: Arctic to Global Perspectives

Jacqueline MacGlade, UNEP

Session 1. Stakeholders and Arctic Observation

The session will explore stakeholder needs and experiences in Arctic observing, including system design, implementation and operation, and information dissemination. Keynote speakers and a panel discussion will present views from an array of different stakeholders, including scientists, government agencies, Indigenous peoples and industry. The session will also include a focus presentation and discussions on experiences and views from European indigenous peoples, including scientific- and traditional knowledge use in salmon management.

Keynote: Perspectives on Monitoring from Alaska (TBC)

11:15-11:45 **Focus Presentation:** Best practices and monitoring experiences from the Snowchange Cooperative and Siberian Indigenous partners.

Tero Mustonen, Snowchange Cooperative, Finland
Vyacheslav Shadrin, Chief, Yukaghir Council of Elders, Russian Federation

11:45-12:15 **Focus Dialogue:** The use of science and traditional knowledge in salmon management.

Moderator: Tero Mustonen, Snowchange Cooperative, Finland

- *Eero Niemelä, Finnish Game and Fisheries Research Institute, Finland*
- *Pauliina Feodoroff, Saa'mi Nue'tt Skolt Sámi Cultural Organization, Finland*

12:15-13:15 **Lunch**

13:15-14:45 **Panel:** Stakeholder Integration in Arctic Observation

In this panel the focus is on ways in which stakeholder knowledge can be utilized in Arctic observing system design, implementation and operation, including dissemination of collected information and data. There will be short presentations from the panelists, followed by a moderated discussion.

Moderator: Eva Krümmel, Circumpolar Inuit Council

- *Eduard Zdor, Association of Tradition Marine Mammal Hunters of Chukotka*
- *Nellie Pokiak, Inuvialuit Settlement Region, Canada*
- *Thomas Jung, AWI, Year of Polar Predictions*
- *Tero Vauraste, Arctic Shipping, Finland*

Session 2: Science Coordination for Improved Arctic Observing

In this session, major national and international coordination efforts to support Arctic observing will be presented and discussed. An introductory keynote will highlight the need for better coordination and efficiencies, and be followed by panelists' short presentations and a moderated discussion.

15:15 **Opening Remarks:** *Volker Rachold, International Arctic Science Committee (IASC)*

15:20 **Keynote:** Science Coordination Towards an Arctic Observing System
David Hik, IASC, and University of Alberta, Canada

15:45-17:45 **Panel:** Perspectives on Coordination

Moderator: Tom Armstrong, U.S. Global Change Research Program, Executive Office of the President

- Cynan Ellis-Evans, Head, NERC Arctic Office, United Kingdom
- Franz Immler, EC DG Research, European Union
- Kirsten Broch Mathisen, Research Council of Norway, Norway
- Sergey Priamikov, Arctic and Antarctic Research Institute, Russian Federation
- Hiroyuki Enomoto, National Institute of Polar Research, Japan
- Kelly Falkner, National Science Foundation, USA
- Markku Kulmala, Pan-Eurasian Experiment PEEEX, University of Helsinki, Finland

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Session 3. Technology and Innovation

This session on Technology and Innovation is organized by the Forum of Arctic Research Operators (FARO) in collaboration with the European Polar Board (EPB) and the International Arctic Science Committee (IASC), as a contribution to the AOS 2014 and ICARP III. The session will address ways to improve and promote dialogue and cooperation between the arctic research community and those engaged in the innovation and development of environmental observing technologies.

9:00 **Opening Remarks:** *Magnus Tannerfeldt, FARO/Swedish Polar Research Secretariat, Sweden*

Keynotes:

9:10 Current Issues and the Future of Polar Technology
Simon Stephenson, National Science Foundation, USA

9:30 New Frontiers for Remotely Operated and Unmanned Aerial Vehicles
Rune Storvold, Northern Research Institute Tromsø, Norway

9:50 Reducing the Environmental Footprint of Data Collection in the Field
Kim Holmén, Norwegian Polar Institute, Norway

10:10 State-of-the-art in Deep Field Communications
Matthew Lazzara, University of Wisconsin-Madison, USA

10:30 **Coffee Break**

10:45-12:00 **Panel:** Perspectives on Technology

Panelists will address barriers to sharing technology in Arctic research, and the technologies that

need to be developed to advance knowledge. Panelist perspectives will be followed by questions and general discussion with the audience.

Moderator: Cynan Ellis-Evans, NERC, UK

- *Hyoung Chul Shin, Korean Polar Research Institute, South Korea*
- *Aaron Fisk, Ocean Tracking Network, Canada*
- *Jennifer Mercer, US National Science Foundation*
- *Simon Stephenson, US National Science Foundation*
- *Rune Storvold, Northern Research Institute, Norway*
- *Kim Holmén, Norwegian Polar Institute, Norway*
- *Matthew Lazzara, University of Wisconsin-Madison, USA*

12:00-13:30 **Technology Poster Session**

This poster and display session will allow participants and attendees to highlight their work in any area related to polar and observing technologies. There will be an opportunity to mingle with speakers, panelists and other participants. Lunch will be served.

Session 4. Remote Sensing Solutions

14:00 **Keynote:** Earth Observation for Terrestrial Arctic Applications
Diane Wickland, NASA, USA

14:30 **Panel:** Key Issues of Remote Sensing

Panel discussion will focus on key issues of remote sensing for arctic observation including: gaps in current and future EO missions, readiness for operational use of Arctic satellite data; co-financing of missions; space observation may serve the people on the ground; and identification of the most pressing observing requirements of the scientific community.

Moderator: Mark Drinkwater, European Space Agency

- *Jouni Pulliainen, Arctic Research, Finnish Meteorological Institute*
- *Oleg Falomeev, Arctic and Antarctic Research Institute, Russian Federation*
- *Anders Oskal, International Centre for Reindeer Husbandry*
- *Diane Wickland, NASA, USA*

Session 5: Data Management

16:00-17:30 **Panel:** Key Issues of Data Management

Improved data management to facilitate maximal access and use remains high on the arctic research agenda highlighted recently during both the International Polar Year, and throughout Arctic Observing Summit 2013. Data management is a cross-cutting issue and as such panelists will consider matters raised during both the AOS 2013 and the preceding sessions of the AOS 2014. They will present various perspectives and insights on established or emerging solutions to the challenges of mobilizing data, information and knowledge derived from global, and arctic/polar observing systems. Topics range from innovative policy solutions, to emerging coordination networks, relevant advances in technology and knowledge sharing and transfer.

Moderator: Peter Pulsifer, National Snow and Ice Data Center, USA

- *Ryan Mazan, Director of the Nunavut Bureau of Statistics, Canada*
- *Peter Pulsifer, National Snow and Ice Data Center, USA*
- *Igor Ashik, Arctic and Antarctic Research Institute, Russia*
- *Iain Shepard, DG Maritime Affairs and Fisheries, European Commission*
- *David Stanners, International Cooperation, European Environment Agency*
- *Molly McCammon, Alaska Ocean Observing System, USA*
- *Yubao Qiu, Group on Earth Observations*

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Session 6. Engaging with Policy Makers and Implementation Agencies

9:00 **Recommendations**
Results from the AOS 2014

9:45 **Panel:** How can the Arctic Observing System deliver more?

Panelists representing upper levels of governments and governing bodies will address the question of why we need an Arctic Observing System. Panelists are asked to consider five key needs identified during the AOS 2014 and that are presented during the prior Conclusion and Recommendations discussion. Specifically panelists will reflect on: 1) Challenges in addressing identified needs; and 2) How to improve the situation so as to address the needs identified.

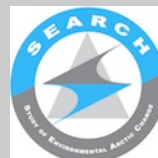
Moderator: Petteri Taalas, Finnish Meteorological Institute

- *Olli-Pekka Heinonen, Prime Minister's Office, Finland*
- *Leona Aglukkaq, Arctic Minister represented by Ambassador of Canada*
- *Volker Liebig, European Space Agency (TBC)*
- *Barbara Ryan, Director, Group on Earth Observations Secretariat*
- *Ivan Frolov, Arctic and Antarctic Research Institute, Russia*
- *Franz Immler, European Commission*

11:20 Panelists' initiatives to improve the Arctic Observing System

11:50 Conclusion

12:00 End



European Environment Agency

