# Minutes of the

# SAON Committee on Observations and Networks (CON)

# Ottawa, Canada, 9th December 2014

## Opening of the meeting and introductions

The Chair of CON, Lisa Loseto, opened the meeting of the Committee at 09:00h on Tuesday, 9th December 2014. She welcomed the participants noting that this was the first meeting of the Committee and that the goal of the meeting would be to define specific goals and make plans for the work of the Committee. She believed that the Committee should seek to integrate Arctic observational efforts and a establish links to the funding environment. She also believed that the Committee should apply a bottom-up approach and define what value-added activities the Committee should undertake.

The participants introduced themselves. The meeting adopted the agenda as proposed. The agenda is attached as Appendix 1 and the list of participants as Appendix 2. A series of presentations were made during the meeting. A list of these can be found in Appendix 3.

Jan René Larsen (AMAP) presented an overview of the history of SAON and the mandate for CON (Appendix 3, #1). He explained that SAON was established by the Arctic Council and the International Arctic Science Committee (IASC) and that the vision of SAON was to provide users with access to free and open Arctic observational data. This will require an enhancement of Arctic-wide observing activities through coordination and integration, sharing and synthesis of data and related information. In the Terms of Reference for CON, the Committee is asked to prepare overall strategies to improve the situation regarding the collection of data/information from Arctic social, economic, health and environmental sciences and observations, including permission to access geographical areas and platforms, and to present financial options for long term funding of platforms and operations. The Committee is also asked to establish a Circum-Arctic set of early warning indicators, focused initially on indicators of climate change. As examples of activities that had already been conducted in a SAON context to meet these goals, he mentioned the 'Atlas of Community Based Monitoring' and the 'Analysis of the State of Environmental Monitoring in Northern Canada' by the Canadian Polar Commission. He finally introduced the EU-PolarNet, which will develop an integrated European Polar Research Programme. AMAP is involved in three of the tasks and will ask SAON for cooperation when it comes to two of these, namely "Optimisation of existing monitoring and modelling programmes", and "Data management and Interoperability".

To address the two goals of CON presentations were provided to provide examples of existing platforms for consideration for future use/design. Specifically E. Key addressed networking and M. Kenney addressed indicators. In advance of their presentations a talk was given by P. Pulsifer, the lead of the sister committee (ADC) to understand work currently going on and to consider places for partnership and linkages.

## Arctic Data Committee (ADC)

The Chair of the SAON Committee on Information and Data Services (CDIS) Peter Pulsifer (USA) presented the outcome of the first meeting of CDIS, which had been held in November 2014 (Appendix 3, #2). The Committee had decided to define four work packages:

- Documenting and understanding the Arctic data management ecosystem
- Identifying common metadata elements
- Engaging in data citation and publication movement
- Promoting interoperability through action – "interoperability experiment"

The meeting had met with the Data Standing Committee of IASC and had decided to recommend to the SAON Board and to IASC that the two Committees should be joined to the Arctic Data Committee (ADC). Peter Pulsifer expressed the view that a strong working connection should be established between the two SAON Committees.

## Arctic Observing Assessment

Erica Key (USA) made a presentation on the NSF-led activity Arctic Observing Assessment (AOA, Appendix 3, #3). It is an assessment of user needs relevant to priorities and the observing and information science capability available to meet those needs. It had identified 13 areas of societal significance with the first areas assessed being "Food Security", "Freshwater Security", and "Health and Well-Being". The products from the activity would be documents, resources, products, and information sources that will address the areas and be searchable, exportable, and with visualization support. A beta version is available on the ArcticHub under Arctic Observing Viewer for interested persons to test. The full site, with the search engine, visualizer, export function, and crowdsourcing window is schedule to be completed in late spring 2015.

In the discussion following the presentation, Lars-Otto Reiersen (AMAP) asked how historical documents were handled and how the funding of the project would be secured. Erica Key answered that that historical documents were time-stamped, but also noted that the project was funded for a five year period. She explained that the project was linked to the US Global Change Research Program (GCRP) using the same metadata standard. Lisa Loseto wanted to know if the developed platform could be used for other purposes (i.e. projects), and Erica Key answered that is something the platform can do and will eventually do as part of its large initiative. She noted that the activity

was complementary to the map-based Arctic Observing Viewer. Helen Joseph (Canada) finally asked if the two SAON Committees were bridged on this activity, and Jan René Larsen answered that the activity had also been presented at the recent meeting of the CDIS and that this Committee had discussed if it could address the mentioned areas of social significance.

## USGCRP National Climate Indicators

Melissa A. Kenney (USA) presented the 'National Climate Indicators System', which is designed to be a system of physical, ecological, and societal indicators that communicate key aspects of the climate changes, impacts, vulnerabilities, and preparedness (Appendix 3, #4). It will report climate-relevant measures about the status, rates, and trends of key physical, ecological, and societal variables and values. It is meant to inform decision makers at multiple scales, but it will also offer analytical tools by which user communities can derive their own indicators for particular purposes.

Melissa A. Kenney described the different processes that had led to the production of a particular indicator. This included, among other things data preparation, the design of the indicator, the preparation of a graphics template and the organization of indicator metadata for traceability and broader utility.

Lars-Otto Reiersen noted that indicators are not the same for scientists and politicians, and that indicators will not help in comparing for instance eutrophication and contaminants. He was also concerned about the term 'early warning' and Melissa A. Kenney agreed that care should be taken in using this term.

Vito Vitale (Italy) saw activities like this as being focused on the public and to be of too little interest for the scientific community. He believed that it was more important to focus on organizing good and reliable data since indicators cannot be produced without. He added that there is a need to provide more information to the politicians, but he saw indicators as the end of the work. He believed that such an initiative is a road, starting from the end, and that there is need to go back to the beginning.

## Pave the way forward; Discuss and finalize a workplan/milestones for 2015

Volker Rachold (IASC) explained that the Committees had been meant to undertake general, overarching tasks. Eva Kruemmel added that SAON should establish connections and act as a hub for Arctic observational activities. Helen Joseph noted that from the beginning, SAON had put emphasis on 'Tasks'/'Building Blocks' and thereby taken a bottom-up approach. She believed that it was time for top-down directions.

Mike Gill (Canada) argued that the activities of SAON and the Committees should be requirement driven and that it would be necessary to understand policy needs. It was necessary to discuss who the audience is, and what the requirements are.

Volker Rachold believed that the first task of the Committee should be to revisit the national and network oriented inventories that had been organized earlier. This could also be at task for CDIS to investigate how nations and networks organize observational data. He also believed that there was a need for a top-down approach in SAON and that this would involve some prioritization. It would also require an understanding of what activities are sustained, and what needs to be sustained.

Lars-Otto Reiersen added that networks should be investigated for gaps (scientifically or from at political point of view) and this could be brought to the attention of the Arctic Council with a message that that these gaps should be filled. He also saw a need for more technical interoperability among disparate project directories.

David Hik (SAON vice-Chair) explained that SAON had been seen as an opportunity to bring together many existing observational networks. SAON was meant to promote interoperability and dialogue. He believed that there was a need to go back to these early objectives and encourage the creation of networks. From the Arctic Circle Assembly (November 2014), the message was that the politicians and industry all need this information, and that the private sector is willing to contribute. Inventories could be of value, but should have less focus, and should basically be routine by now.

Lisa Loseto asked if it would be relevant to define societal needs as a driver for organizing inventories and asked if there were any Arctic Council initiatives that CON could support, perhaps through support to the Arctic Observing Assessment. Simon Wilson (AMAP) proposed that a single theme should be selected, for instance food security.

Carolina Behe asked for initiatives that could make CON a platform that could bring different observational activities like AMAP and CBMP closer together. She believed that Traditional Knowledge could play a role in this context. In the context of food security she noted that existing initiatives are not connected to each other and that there was a need to ensure interoperability, also among such initiatives.

Lisa Loseto thanked the participants for a fruitful discussion and offered to summarize the inputs given to a plan for future CON activities. She closed the meeting at 12:30h.

# Appendix 1: Agenda

**SAON Committee on Observations and Networks (CON)**
**First Face-to-Face Meeting**
**Arctic Change Room #106**
**Tuesday Dec 09th, 2014, 9:00 – 12:00 EST**

**AGENDA**

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**Meeting Objective:** Develop a refined objective, direction and milestones for 2015 for SAON CON.

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Chair: Lisa Loseto, Canada

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| 09:00 – 9:30 | Welcome<br>• Introductions<br>• Approve agenda and meeting objective |
| 9:30 – 9:45 | Arctic Data Committee (ADC) - Sister SAON Committee – Peter Pulsifer |
| 9:45 – 10:00 | Erica Key, NSF – Arctic Observing Assessment (AOA) Data Platform<br>• Discuss the approach used to define Networking and Observations |
| 10:00 – 10:15 | Health Break |
| 10:15 – 10:30 | SAON Historical Perspectives and Consideration for Future Directions – David Hik and Lisa Loseto |
| 10:30 – 10:45 | Melissa Kenney, U of Maryland – USGCRP National Climate Indicators System<br>• Discuss the approach used to define and showcase indicators |
| 10:45 – 11:00 | Other Business (Jan Rene Larsen) |
| 11:00 – 11:30 | Pave the way forward: Open Discussion (L. Loseto) |
| 11:30 – 12:00 | Discuss and finalize at workplan/ milestones for 2015 (L. Loseto) |

# Appendix 2: List of Participants

| Name | Affiliation | Email | Country/Organisation |
|---|---|---|---|
| Chairmanship | | | |
| Lisa Loseto | Fisheries and Oceans, Canada | lisa.loseto@dfo-mpo.gc.ca | Chair |
| Countries | | | |
| Helen Joseph | Consultant / expert | helen@hcjconsulting.ca | Canada |
| Jennie Knopp | Program Coordinator, Inuvialuit Settlement Region - Community-Based Monitoring Program (ISR-CBMP) | jenniferknopp@trentu.ca; | Canada |
| Mike Gill | Environment Canada, CAFF CBMP, Canada | Mike.Gill@ec.gc.ca; | Canada |
| Russel Shearer | Aboriginal Affairs and Northern Development Canada (AANDC) | Russel.Shearer@aadnc-aandc.gc.ca | Canada |
| Sonja Ostertag | DFO | Sonja.Ostertag@dfo-mpo.gc.ca | Canada |
| Sure Carie Hoover | DFO | Carie.Hoover@dfo-mpo.gc.ca | Canada |
| Signe Bech Andersen 1) | Project lead for the Programme for Monitoring of the Greenland Ice Sheet (PROMICE ), nominated by the Geological Survey of Denmark and Greenland (GEUS ) | siba@geus.dk | Denmark |
| Tom Christensen 1) | Bioscience, University of Aarhus, Denmark. Co-lead for Circumpolar Biodiversity Monitoring Programme (CBMP) | toch@dmu.dk | Denmark |

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| Name | Affiliation | Email | Country/Organisation |
|---|---|---|---|
| Vito Vitale | Institute of Atmospheric Science and Climate (ISAC-CNR) | v.vitale@isac.cnr.it; | Italy |
| Dr. Uchida | National Institute of Polar Research | uchida@nipr.ac.jp | Japan |
| Tetsou Sueyoshi | National Institute of Polar Research | sueyoshi.tetsuo@nipr.ac.jp | Japan |
| Roland Neubar 1) | AWI | Roland.Neuber@awi.de | Germany |
| Kjetil Tørseth, | Norwegian Institute for Air Research | Kjetil.Torseth@nilu.no | Norway |
| Reidar Hindrum 1) | Norwegian Environment Agency | reidar.hindrum@miljodir.no | Norway |
| Erica Key 1) | NSF | ekey@nsf.gov | USA |
| Libby Larsen | NASA | - | USA |
| Melissa Kenny 1) | NOAA | melissa.kenney@noaa.gov | USA |
| Organisations | | | |
| Jan Rene Larsen | AMAP | Jan.rene.larsen@amap.no | AMAP |
| Lars Otto Reiersen | AMAP | lars-otto.reiersen@amap.no | AMAP |
| Simon Wilson | AMAP | s.wilson@inter.nl.net | AMAP |
| Volker Rachold | IASC | volker.rachold@iasc.info | IASC |

| Name | Affiliation | Email | Country/Organisation |
|---|---|---|---|
| Eva Kruemmel | ICC-Canada | EKruemmel@inuitcircumpolar.com | ICC-Canada |
| Carolina Behe | ICC-Alaska | Carolinabehe@gmail.com | ICC-USA |
| David Hik | University of Alberta, Canada | david.hik@ualberta.ca | SAON vice-Chair |
| Peter Pulsifer | University of Colorado, USA | Peter.Pulsifer@Colorado.EDU | CDIS Chair |

1) Attending remotely. Due to technical problems, the remote connection was closed after approximately an hour.

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# Appendix 3: List of presentations

| No | Title | Presenter |
|---|---|---|
| 1 | SAON | Jan René Larsen |
| 2 | Recent Developments in International Polar Data Management | Peter Pulsifer |
| 3 | Societally Significant Observing – Meeting Needs Now for a More Resilient Future | Erica Key |
| 4 | Proposed U.S. National Climate Indicator System and Implementation Considerations | Melissa A. Kenney |