SAON
SUSTAINING ARCTIC OBSERVING NETWORKS

(IASC) - SAON ADC (Arctic Data Committee): Updates

Peter L. Pulsifer, Stein Tronstad, Marten Tacoma, Lisa L Loseto, Jan Rene Larsen, SAON Secretariat

SAON Board Meeting, May 2016

,

SAON
SUSTAINING ARCTIC OBSERVING NETWORKS

Updates since AOS/ASSW meeting

- Community Response to OGC RFI Arctic Spatial Data Pilot
- Support of Canadian ADN initiative
- Engagement with GEO & GEOCRI
- Development of Arctic Data Ecosystem Initiative
- SciDataCon Session
- Organizing ”Polar Connections” Workshop

SAON
SUSTAINING ARCTIC OBSERVING NETWORKS

Community Response to OGC

Polar Knowledge Canada | Savoir polaire Canada

Response to the

Open Geospatial Consortium

Request for Information on

Arctic Spatial Data

by the

Polar Data Community

March 24, 2016

SAON
SUSTAINING ARCTIC OBSERVING NETWORKS

Support of Canadian Arctic Data Network

ARCTICDATACOMMITTEE IASC SAON

Dr. Maribeth Murray
Executive Director, Arctic Institute of North America
University of Calgary
2500 University Drive NW, ES-1040
Calgary, AB T2N 1N4

April 25, 2016

Dear Dr. Murray,

As a representative of the IASC-SAON Arctic Data Committee[1] I am writing to express our interest in engaging in the proposed project "*Sharing Arctic Knowledge across Cultural, Disciplinary, National and Technical Boundaries: The Arctic Data Network (ADN)*" should it be funded.

The International Arctic Science Committee (IASC) and the Sustaining Arctic Observing Networks (SAON www.arcticobserving.org) program established the ADC in November of 2014 (see http://arcticdc.org). The ADC comprises national and organizational representatives, and engaged parties across the arctic research community as well as residents of the Arctic. The ADC's mandate includes making all kinds of Arctic data more discoverable, accessible and usable within and across domains. Under our terms of reference and current work plan, we are working to document the Arctic data network, establish common metadata elements, inform and engage the community on data publication and citation. The objectives of ADN are consistent with ADC activities and overall mandate, and in particular, making data available, developing standards, promoting interoperability, and contributing to the development of best practices.

As Chair of the ADC I can confirm that as part of our mandate, and within the boundaries of available resources we will engage with the ADN as representatives of the polar data and research community. A strong connection already exists between the CCADI team and the ADC. Julie Friddell of the Canadian Cryospheric Information Network and Polar Data Catalogue is the Canadian representative to the ADC and leads the metadata interoperability initiative, and Shannon Vossepoel of the Arctic Institute is an active member. The ADC Executive and I will inform the ADC of ADN activities, actively encourage ADC members to work with AND to understand user requirements and constructively influence design, and to ensure that ADN participants are aware of ADC activities. If successful, ADN stands to make significant and substantial contributions to improving arctic data discovery, access and synthesis.

I would conservatively estimate 50 days of collective effort over the four year period of the project. These days will be contribute by the most appropriate committee member for a given task or subject

We wish you and your team success, and we look forward to working with you in the near future.

Sincerely

Peter L. Pulsfier, PhD
Chair
IASC-SAON Arctic Data Committee
Potsdam, Germany (IASC), Oslo, Norway (SAON)

SAON
SUSTAINING ARCTIC OBSERVING NETWORKS

Engagement with GEO & GEOCRI

Summary Response from SAON to GEO Cold Regions Program Work Plan

SAON
SUSTAINING ARCTIC OBSERVING NETWORKS

3 May 2016

Response compiled by Peter L. Pulsifer (Chair, IASC-SAON Arctic Data Committee); Lisa Loseto, (Chair SAON CON); Jan René Larsen (SAON Executive Secretary)

Introduction:

The Executive and Committee Chairs of the Sustaining Arctic Observing Networks initiative welcomes the invitation by the leads of the GEO Cold Regions Initiative (GEOCRI) to provide input on the draft *GEO Cold Regions Initiative (GEOCRI) Implementation Plan* (26 April 2016). GEOCRI has the potential to complement SAON activities and vice-versa. This effort is timely as during a recent meeting of the SAON Board in Fairbanks, Alaska, GEO Secretariat Director presented the idea that SAON should be established as the Arctic GEO. On April 11th, Ryan and SAON Executive Secretary met to further the conversation. In this discussion, Ryan suggested that SAON investigate models of other regional GEOs, and made specific reference to GEO/Balkan: www.i-bec.org and AfriGEOSS: GEO/Africa: www.earthobservations.org/afrigeoss.php.

The invitation to comment on the *GEO Cold Regions Initiative (GEOCRI) Implementation Plan* provides an opportunity to further explore possible connections between SAON, GEOCRI and GEO more broadly. This document provides preliminary feedback on the Implementation Plan. For reference, background information on SAON is provided. This is followed by an indication of possible connections between SAON activities and proposed GEO tasks. Lastly, general comments are provide for consideration by the GEOCRI leads.

Background: SAON

The mandate and role of SAON in Arctic observing and data management was recently highlighted during the Arctic Observing Summit held in Fairbanks, Alaska (see http://www.arcticobservingsummit.org/aos-2016-conference-statement-0). The purpose of SAON is to support and strengthen the development and multinational engagement for

DRAFT

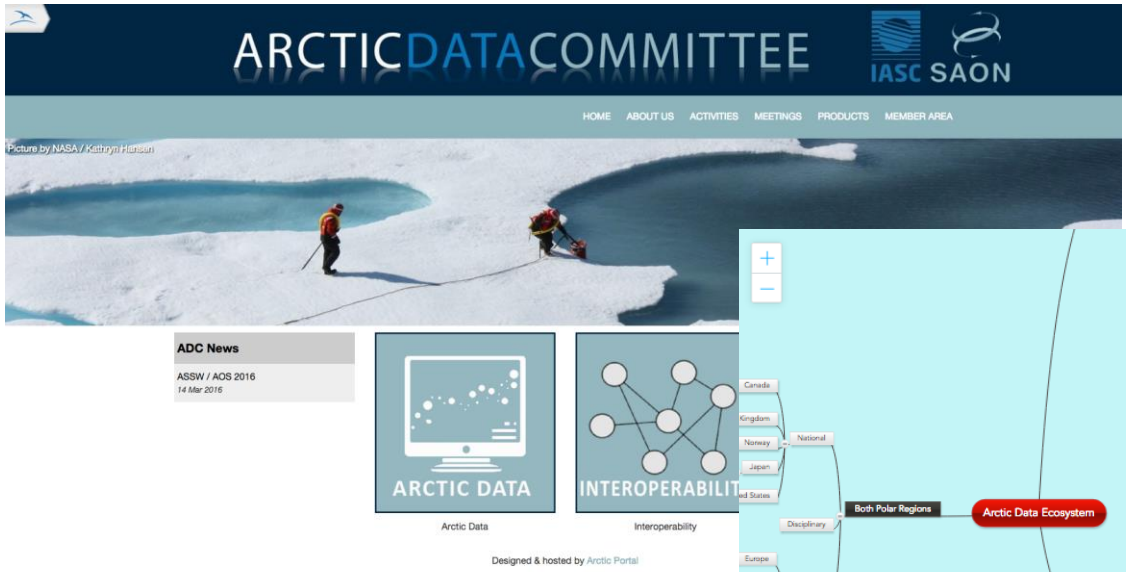
2016 GEO Work Programme Symposium

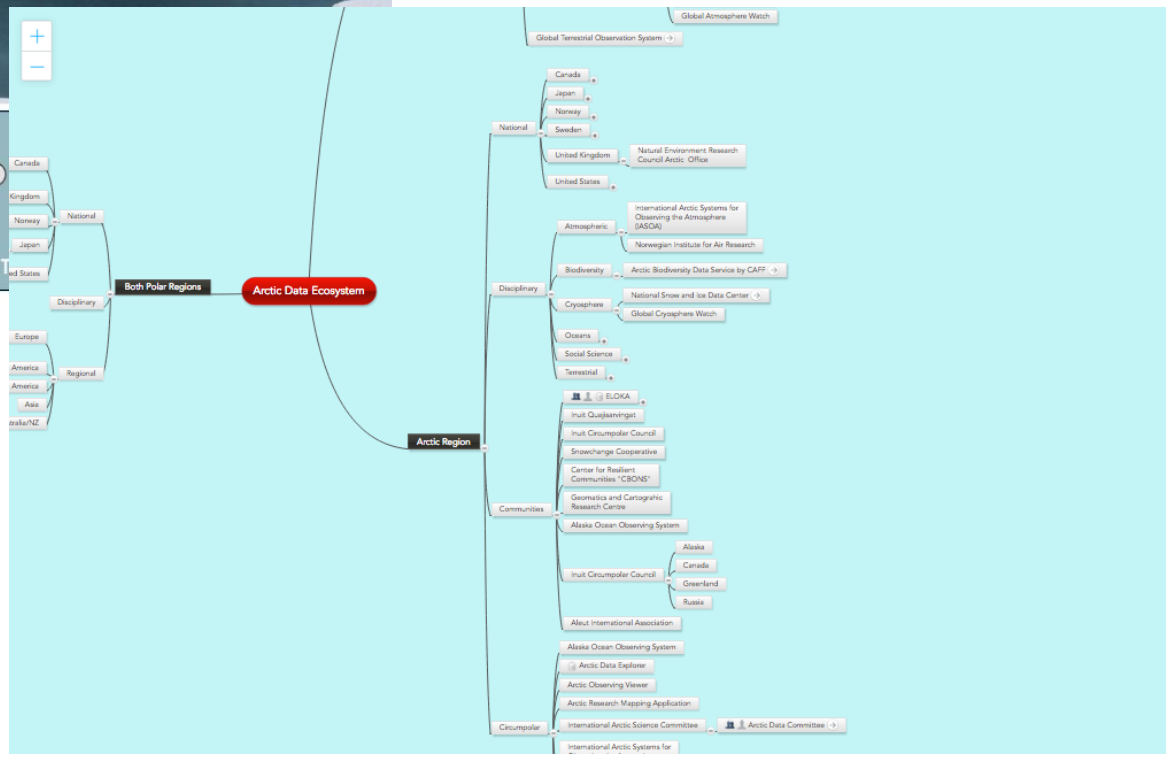
- Geneva, Switzerland, 2-4 May
- Attended by Peter Pulsifer (SAON ADC) and Hannele Savela (SAON CON)
  - Structure and discussions of the GEO Work Programme 2017-2019
  - Bacground discussions between PP and HS about SAON ADC and SAON CON, and their potential contribution in GEO Cold Regions Initiative (GEO CRI)
- GEO CRI Side meeting 4th May
  - GEO CRI Implementation Plan in focus (deadline 27th May) > Tasks, activities, milestones and deliverables of GEO CRI in 2017-2019
  - SAON contribution to GEO CRI, and inputs to the Implementation Plan

> Summary provided by JRL, LL and PP

> Incorporated to the Implementation Plan by HS

Arctic Data Ecosystem

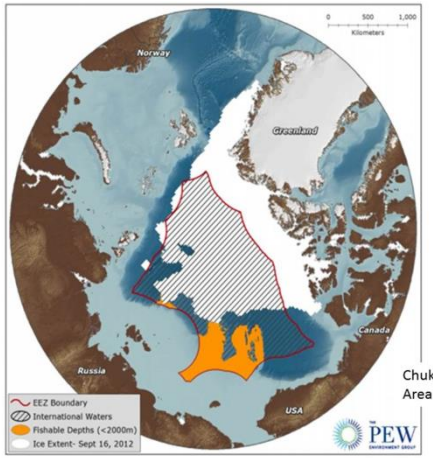




http://arcticdc.org/

2. Themes – Joint with CON

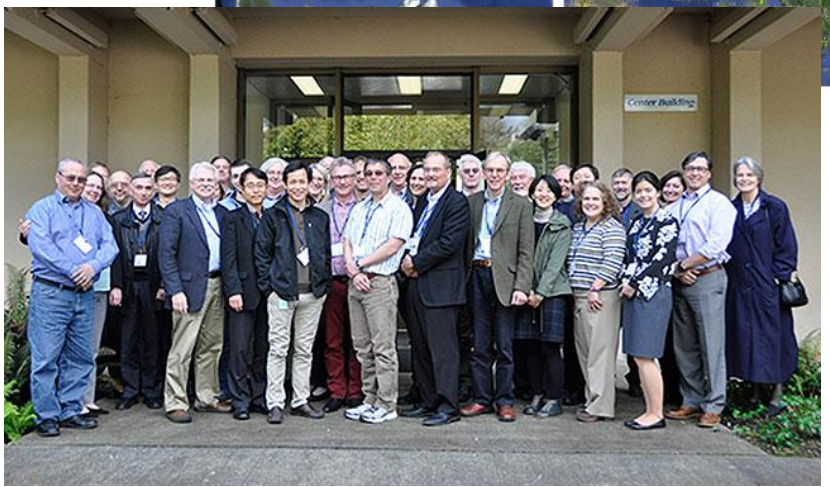
- Arctic Fisheries: ‘Scientific Experts on Fish Stocks in the Central Arctic Ocean’ and ICES/AMAP/CAFF/PAME Workshop on Integrated Ecosystem Assessment Central Arctic Ocean (WKICA)



Chukchi Borderlands
Area is shown in orange

- [Atmosphere: With WMO and IASOA]

- [Global Terrestrial Network for Permafrost]



SAON
SUSTAINING ARCTIC OBSERVING NETWORKS

SciDataCon Session – Joint with SCADM & others

SciDataCon 2016

"Sharing Across Scales and Domains: Polar Data in the Global System"

SAON
SUSTAINING ARCTIC OBSERVING NETWORKS

- Organizing Polar Connections Workshop + 3rd ADC Meeting

Polar Connections Interoperability Workshop

The importance of data and its proper management are increasingly being recognized by governments, the science community, and society. The polar science community has unprecedented opportunities for science based on open, networked, digital, and ubiquitous communication technologies. This presents an urgent need for the community, Arctic residents, and other stakeholders to establish a clear global vision, strategy, and action plan to ensure effective stewardship of and access to valuable Arctic and Antarctic data and information resources. This includes meeting the needs of society and science through promotion of open data and effective data stewardship, establishing sharing and interoperability of data at a variety of levels, developing trusted data management systems, and ensuring long-term data preservation.

The International Polar Year 2007-08 initiated significant momentum with respect to polar data management. More recently, a number of meetings and reports have clarified the issues and priorities in this domain. Specifically, the Second Polar Data Forum held in October of 2015, the Arctic Observing Summit (http://www.arcticobservingsummit.org/aos-2016-conference-statement-0) and a soon to be published report from the European Space Agency's Polaris project have made significant contributions to the field. In all cases, data and system ***interoperability*** has been identified as one of the primary goals and challenges of interest to the broader polar and global community. Interoperability can be defined as properties of data and information systems that allow them to work and share with other information products or systems, present or future, without unintended restrictions. Moving towards interoperable polar information systems that are connected to the global information system is important and urgent considering the rate of environmental and social change being observed in the Polar Regions.

Data and information systems are evolving rapidly and there are many interrelated , maturing and new models and paradigms (e.g. Cloud Computing, Big Data, Semantic Web). Understanding and harnessing the most appropriate models and paradigms is a high priority for the polar data community and decisions made now may have implications for decades to come.

The Arctic Data Committee (http://arcticdc.org), a body of the International Arctic Science Committee and the Sustaining Arctic Observing Systems Program and the Standing Committee on Antarctic Data Management, along with Polar View Earth Observations and other co-sponsors[1] are proposing the Polar Connection Interoperability Workshop. In

[1] At the time of writing representatives from the **GEO Cold Regions Program (GEOCRI),** the Open Geospatial Consortium, the European Space Agency, and others have been approached about co-sponsorship and have responded with great interest.

Draft

SAON
SUSTAINING ARCTIC OBSERVING NETWORKS

Next Steps…

- Focus on Polar Connections Workshop
- Arctic Data Ecosystem initiative
- Linking to complementary initiatives (SOOS, GEO, GOOS etc.)

SAON
SUSTAINING ARCTIC OBSERVING NETWORKS

Thank you