

Status Report on SAON Presented to International Symposium on Arctic Research December 2010 - Tokyo, Japan

Derived from work of the SAON Steering Group

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SAON Initiating Group – January 2007 – April 2009

SAON Steering Group – May 2009 – May 2011

SAON Operational Program – June 2011- indef. (Proposed)





SAON Initiating Group

Arctic Council (represented by AMAP)

Arctic Ocean Sciences Board (AOSB)

Climate and Cryosphere (World Climate Research Program/WMO)

Forum of Arctic Research Operators (FARO)

Indigenous Peoples Secretariat (IPS)

International Arctic Science Committee (IASC)

International Arctic Social Science Association (IASSA)

International Polar Year (IPY)

International Study of Arctic Change (ISAC)

National Science Foundation (NSF, USA)

Global Ocean Observing System (GOOS)

International Permafrost Association (IPA)

European Polar Board (EPB)

Association of Polar Early-Career Scientists























The SAON vision is that users should have access to free, open and high quality data that will realize pan-Arctic and global value-added services and provide societal benefits.

To attain the vision, SAON's goal is to enhance Arctic-wide observing activities through <u>coordination</u> and <u>integration</u> and to promote <u>sharing</u> and <u>synthesis</u> of data and information.



Outcome of the SAON IG

After three large community workshops to explore the need for and scope of SAON, the IG agreed the proposed role of SAON was worthy and produced 4 recommendations:

- 1. Arctic Council should take the lead role in further development of SAON;
- 2. AC member states should sustain and increase their efforts for Arctic observing and data management;
- 3. Each Arctic state should create a national inter-agency group to promote internal coordination and cooperation;
- 4. Arctic states should welcome non-Arctic states to take part in SAON.



Arctic Council Response

The AC accepted the recommendations of the SAON IG and agreed to form the SAON Steering Group to carry things forward.

The AC determined that the SG should consist of the AC, the IASC, and the WMO. Each AC member state, each interested Permanent Participant and each interested AC working group should be represented on the SG. The WMO assigned the Chair of the EC-PORS. The AC and the IASC should co-chair the SG.



Work of SAON SG

The SAON SG agreed on 5 priority actions:

- 1. Enhance SAON website (www.arcticobserving.org);
- 2. Prepare national inventory of on-going Arctic observing activities in the eight Arctic countries;
- Engage practitioners of community-based-monitoring and explore its role in SAON;
- 4. Engage officials of funding and implementing agencies to determine their views and priorities for SAON;
- 5. Engage the data management community to determine gaps and priorities for SAON consideration.



1. Enhanced SAON website

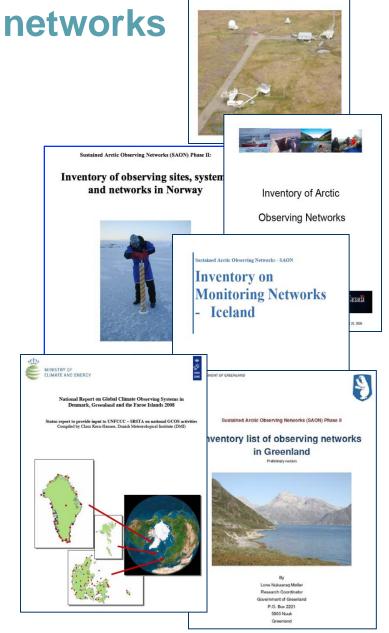




2. Inventory of national observing networks

All 8 Arctic countries have provided an inventory of established networks and data archives.

- Focus on long-term networks initially;
- Information available on the SAON web site;
- New and updated information will be added to this list on an ongoing basis;
- Expand list to include other observing and data management activities.



Sustained Arctic Observing Networks (SAON) Surve

United States of America



3. Community-based monitoring

- Subgroup of SAON Steering Group collected information on existing CBM and local/traditional knowledge activities;
- Explore map-based registry developed by ELOKA for SAON inventory and website;
- Collaboration with the Inuit Circumpolar
 Council and Aleut International
 Association and other indigenous peoples organizations.











4. Discussions on funding/governance

SAON-SG sponsored a workshop in Miami in March 2010 focused on defining benefits from and means to improve coordination and collaboration in funding and performing Arctic observations.

SAON obtained the views and support of the many funding and implementing organizations that deal with observations on the Arctic region.





5. Data access and sharing

- IPY State of Polar Data Report reviews current state of technology and support for discovering, accessing, and sharing polar/Arctic data;
- What processes should be used to design and implement the optimal (minimal?) system for single entry, Arctic-wide data discovery, access, and sharing?
- SAON and IPY Data Management Committee hosted a joint workshop at Oslo IPY OSC in June 2010 to:
 - Promote interoperability of observing and data management systems and identify improvements;
 - Identify useful approach for developing "union catalog" of data sets (e.g. Polar Information Commons, ICSU, CODATA Task Group, WMO Information System, etc).



Guidance from Arctic Council and SAON Response

Following discussions at the SAO meeting of April 2010 and at the Deputy Ministers Meeting of May 2010, the SAON Steering Group proposes that SAON undergo a transition from a planning process to an operational program.

Both the AC and the IASC will be asked to co-sponsor the operational SAON, which is proposed to be created outside of both the IASC and the AC, but operate with oversight from both.

AC and IASC will decide in spring 2011 on this proposal.



The Scope of SAON

The SG proposes that:

- SAON <u>will not</u> undertake observations, conduct research, perform scientific analysis or assessment, nor be a source of funding for these activities. Responsibilities for this work are well established;
- SAON will identify issues, gaps and opportunities related to Arctic observing and data sharing and take a multi-national approach to identify and demonstrate improvements to the current situation. But, routine implementation of useful improvements will revert to the relevant observing and data management organizations;
- SAON will operate on a task basis, with voluntary participants providing the needed resources; central funding is not proposed; and
- SAON will work with a broadly defined Arctic observing community and with national and multi-national organizations and non-governmental partners to define and undertake its tasks.

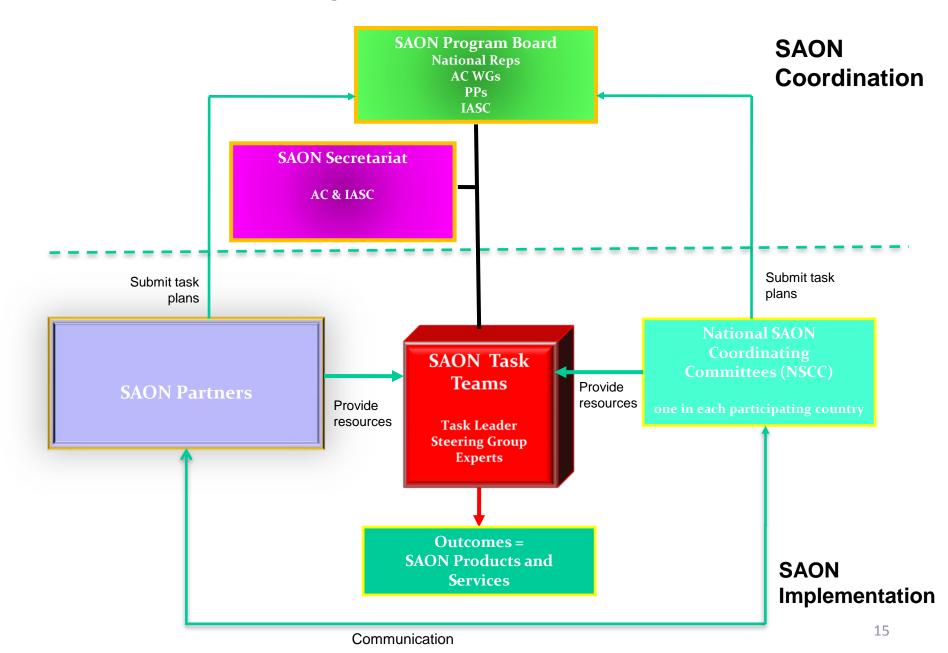


Focus of Immediate Future SAON Work

(based on Task proposals submitted to date)

- metadata standards and interoperability of metadata bases;
- data integration, access and visualization;
- decision-support tools;
- workshops aimed at improving the state of Arctic observing and data management.

Proposed SAON Structure





Potential Partner Organizations

- √ Observing Networks (SAON "Building Blocks")
- **V** IASC Working Groups
- International Arctic Science Organizations (CliC, IASSA, etc)
- √ International Global Science Organizations (WMO, IOC, UNEP, GEO, etc)
- √ Private Industry
- √ Non-profit organizations
- √ Sub-national governments



Points to Consider

SAON is proposed to operate on a voluntary, task-by-task basis;

The proposal allows all interested countries (Arctic and Non-Arctic) to participate on an equal basis, with national priorities and resources controlling the level of involvement.

These are key reasons why SAON cannot function under either AC or IASC rules.



- SAON SG will facilitate further development of task statements into actionable proposals, consulting with original authors and national observing/data coordinating bodies;
- SG will meet Jan. 17-18, 2011 in Oslo to prepare its final Implementation Plan. AC Observer States and IASC Members are invited to send an expert to this meeting;
- SG will ask formally that IASC and AC accept the SAON Implementation Plan at their next decision-making meeting;
- Assuming positive decision by AC and IASC, SG will arrange initial meeting of SAON Board (June November, 2011).



Final Points

SAON is intended to encourage actions considered beneficial by the participants

Task-based approach allows those with interests in common to work together for mutual benefit

SAON is open to all who want to participate, on voluntary basis, but participants must cover the costs of the work

IASC member countries strongly encouraged to send a representative to SAON SG meeting in January – conveniently scheduled just following IASC workshops in Potsdam. Check with IASC delegate. (Applies to Arctic members of IASC too!)

Thank You!

Task Statements Submitted

Proposed Tasks

- Enhance data access and data sharing capability
- Prepare a formal SAON/polar metadata profile and common vocabulary
- Conduct workshops on topics of interest
- Demonstration of improved data integration and visualization capabilities

Enhance data access and data sharing capability

- Coordination of existing Arctic relevant metadatabases and project directories
- Enable direct access to data from Arctic atmospheric observatory network
- Integrate existing data sets from GAW sites
- Integrate existing data sets from Arctic Ocean observations during the IPY period
- Integrate existing data sets on hazardous substances in the Arctic environment

Demonstration of improved data integration and visualization capabilities for decision-makers

- Demonstration of use of SAON databases for development of ecosystem services
- Demonstration of integration and visualization of data related to sea ice and permafrost

Conduct workshops on topics of interest

- Principals and practices for polar data and information management
- Advances in observing technologies
- Community-based monitoring
- SAON observing summit