

Sustained Arctic Observing Networks (SAON) Phase II

Survey

The Arctic Council has agreed to establish a formal body, in partnership with IASC and WMO, to continue the development of Sustained Arctic Observing Networks (SAON). This body – the SAON Steering Group (SAON SG) – was formed in May 2009 and consists of national coordinators representing the eight Arctic countries, permanent participants in the Arctic Council, and representatives of the Arctic Council working groups. With the inclusion of representatives from IASC and WMO, the SAON SG is also connected to the Arctic science, observing and data management activities and interests of the non-Arctic countries, as well as to global observing systems.

The SAON SG is the successor to the SAON IG (Initiating Group), which organized a consultative process during International Polar Year 2007-2009 that culminated in a set of recommendations for the development of Sustained Arctic Observing Networks. This survey continues the process of gathering information that will assist the SAON SG as it strives to facilitate the development of SAON and the realisation of Arctic and global value-added services and benefits. The SAON SG relies on information and advice from those who operate observing sites, systems and networks, provide data and information management services, and use the observing data and information.

The survey consists of two questions and an inventory form requesting some basic information about your Arctic observing site, system or network, or data and information management activity. Please take the time to complete the survey and help the SAON SG to best serve the Arctic observing community of operators and users.

- Question 1.**
- a. How can the SAON SG best assist you?
 - b. What do you see as the role of the SAON SG?

The IPA sees SAON as an instrument to answer some of the needs for better observing in the Arctic. The IPA envisions SAON's role as multifaceted. Specifically, the IPA thinks that SAON should use its roots at the Arctic Council to act as a lobbying instrument to promote observing efforts. It sees with realistic expectations SAON being able to use its position to secure funds that should be used to bring up to standards coordination strategies of loosely defined scientific monitoring networks, as well as data management efforts. The IPA does not think that SAON should become a data management effort per se, but that it should use its potential funding program to force upon existing observing efforts to comply with standards and outreach strategies

The International Permafrost Association would expect from SAON to form a venue in which existing or new observing efforts could be inventoried and associated to foster consolidation and integration.

The International Permafrost Association would also expect from SAON to take a strong lead in the production of outreach products based on data visualisation for instance. The IPA sees this a necessary instrument to raise awareness about SAON and secure long-term commitment from the AC members and beyond.

Venue to consolidate/integrate observing

Data visualisation/end products

Question 2. What are the critical issues facing your observing program or data and information management program?

- please limit your response to a brief description of no more than 3 critical issues.

The IPA has successfully maintained and initiated monitoring and observing efforts in a truly international manner. All of its network span the entire Arctic, and involved at an early stage all Arctic countries in the process. The coordination is largely based on individual in-kind efforts and the major obstacle to the development and/or maintenance of these networks is the lack of funds to coordinate the effort as well as to handle the data management.

Inventory of Observing Sites, Systems & Networks

This form is intended to register basic information about observing sites, systems and networks, and data and information management archives/centres, that are interested in contributing to the development of Sustained Arctic Observing Networks (SAON). The information will later become available at the SAON Web site - www.arcticobserving.org The inventory focusses on existing and planned observing sites and networks that are, or have the potential to become, pan-Arctic in scope.

Name and acronym:

International Network of Permafrost Observatories (INPO)

Global Terrestrial Network on Permafrost (GTNP, gtnp.org)

Circumpolar Active Layer Monitoring (CALM, www.udel.edu/Geography/calm/)

Thermal State of Permafrost (TSP)

Arctic Circumpolar Coastal Observatory Network (ACCONet, www.acconet.org)

Arctic Coastal Dynamics (ACD)

Carbon Pools in Permafrost Regions (CAPP, www.geowiss.uni-hamburg.de/i-boden/capp)

Contact person (e-mail)

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GTNP: Sharon Smith (ssmith@NRCan.gc.ca)

CALM: Frederick Nelson (fnelson@udel.edu)

ACCONet: Pier Paul Overduin (Paul.Overduin@awi.de)

CAPP: Peter Kuhry (peter.kuhry@natgeo.su.se)

Web site (if any)

<http://ipa-permafrost.org>

Main objective of the network:

Ground temperature monitoring

Active layer monitoring

Quantification and evolution of carbon permafrost stocks

Quantification of carbon fluxes

Shoreline monitoring

Subsea permafrost monitoring

Member of or connected to a global network; if yes, which:

Observing Systems:

GCOS, GTOS, Coastal module of GOOS

Established partnerships

IASC, IUGS, WMO (WCRP-CLIC), IGBP, LOICZ, IGU, IACS, IUGG, IUSS, SCAR

Type of activity:

- Theme:

- Atmosphere.....

- Terrestrial ecosystem, including freshwater

- Marine ecosystem

- Coastal

- Ocean

- Cryosphere
- Human & socio-economic
- Space physics

- Location(s):.....

Circumpolar

- Community-based:

Largely, depends on the location and the country of activities. A large part of the US and Canadian activities are community-based

- Coordination, e.g. not directly involved in observations, but coordinating data and information (e.g., AMAP):.....

The data management is coordinated by the Standing Committee on Data Information (Chairs: S. Smith and M. Parsons) and Communication of the International Permafrost Association.

Main variables:

Permafrost temperature
 Subsea permafrost temperature
 Active layer depth
 Soil Organic Carbon content
 Surface energy fluxes
 Shoreline erosion rates

When operational (year): Starting 1988

Geographical coverage (countries) Russia, Finland, Sweden, Norway, Greenland, Iceland, Canada, USA

Also: Antarctica, France, Germany, Switzerland, Italy, Austria, Spain, Romania,

Data archive/centre, including Web site:

Frozen Ground Data Center (FGDC), nsidc.org/fgdc

Data availability:

- Metadata only: ...
- All data:
- Charge or no charge for data: See FGDC website for full data offer

Main gaps, e.g., geographic coverage, variables: