Workshop: Building long term observing systems in the Arctic – requirements and challenges

05 MAY 2017
0900-1700

The workshop is hosted by EuroGOOS (European Global Ocean Observing System) in their premises in Brussel. Address: Avenue Louise 231, 1050 Brussels, Belgium. Website: www.eurogoos.eu.

Agenda

08.30-09.00	Arrival + coffee	Presenters
09.00	Welcome	Erik Buch, EuroGOOS
09.10	INTAROS overview and objective of the workshop	Stein Sandven, NERSC/INTAROS
09.30	Sustainable Arctic Observation Network: a key network established by Arctic Council and IASC (15 min presentation + 5 m questions)	Christine Daae Olseng, chair of SAON
09.50	Arctic Monitoring and Assessment Programme, what have we learned from 20 years of monitoring ? (15 min presentation + 5 m questions)	Lars-Otto Reiersen, AMAP
10.10	Copernicus in-situ data requirements for the Arctic (15 min presentation + 5 m questions)	Henrik Steen Andersen, EEA
10.30 – 11.00	Coffee break	
11.00	Stakeholder interaction in the EU-Polarnet project (15 min presentation + 5 m questions)	Nicole Biebow, Eu PolarNet/AWI
11.20	Data bases and interoperability: what are the barriers and challenges ? (15 min presentation + 5 m questions)	Øystein Godøy, SIOS/Met.no
11.40	Requirements from local communities (15 min presentation + 5 m questions)	Lisbeth Iversen, INTAROS/NERSC
12.00-13.00	Lunch	
13.00	Requirements from atmospheric themes (2x10 min presentation + discussion)	Thomas Jung, YOPP/AWI Cathrine Lund Myhre, ACTRIS/NILU
14.00	Requirements from ocean themes (incl. marine ecosystem and sea ice (2x10 min presentation + discussion)	Antonio Reppucci, Mercator/CMEMS Inigo Martinez / ICES
15.00-15.30	Coffee	
15.30	Requirements from terrestrial themes (incl. snow and glaciers (2x10 min presentation + discussion)	Michael Zemp, WGMS Elmer Topp Jørgensen, INTERACT
16.30	Requirements from the Commission, including benefit analysis of an Arctic observing system	Atillio Gambardella, EC
16.45	Wrap-up of the workshop and contribution to the INTAROS requirement document	E. Buch
17.00	Closure	

Workshop objectives

The objective of the workshop is to review and update the requirements for observational data in the Arctic within the thematic areas described above. Furthermore, the workshop will elaborate on ways ahead to develop and operate long-term observing systems. Satellite earth observation data, especially through meteorological missions and the new Copernicus programme, has secured long-term funding and is therefore relative sustainable. However, most of the in situ data collected in the Arctic are funded by research projects with duration of a few years and are therefore not necessarily sustainable. The workshop is the first in a series of events under INTAROS to develop a Roadmap for building and maintaining sustainable Arctic observing systems.

The workshop will have ca. 20-25 participants representing organisations, agencies, programmes and observing systems which are operating today and are expected to be drivers for sustainable observing systems in the future.

Key challenges that INTAROS will address and the workshop will discuss are:

(1) Coordination and collaboration between data providers and stakeholders in the pan-Arctic region in order to better use existing systems and resources

(2) Improvement of the observing platforms and sensors, filling of gaps in the observing network and facilitate for year-round operation

(3) Data sampling, transmission, calibration, processing, archiving and retrieval of required variables and building distributed and connected databases

(4) How to develop sustainability of the observing systems

The observation system includes the following thematic areas: 1) Atmosphere, 2) Ocean and seafloor, 3) Sea ice, 4) Marine Ecosystem, 5) Terrestrial data, 6) Glaciology, 7) Natural hazards, and 8) Community-based monitoring.

Summary of INTAROS

The **INT**egrated **ARct**ic **O**bservation **S**ystem (INTAROS) is a 5 year EU H2020 research project with the overall objective is to build an efficient integrated Arctic Observation System (iAOS) by extending, improving and unifying existing systems in the different regions of the Arctic. This overall objective is translated into 9 specific objectives:

1. *Establish a Pan-Arctic forum to support formulation of agreements and collaboration between organization involved in developing Arctic observing systems across EU member states, non-EU countries and transnational organizations*
2. *Develop a Roadmap for future implementation of a sustainable Arctic Observing System*
3. *Exploit existing observing systems and databases of atmosphere, ocean, cryosphere, and terrestrial themes as the backbone of an integrated Arctic Observing System (iAOS) platform*
4. *Contribute to fill gaps of the in situ observing system by use of robust technologies suitable for the Arctic*.
5. *Add value to observations through assimilation into models in collaboration with Blue Action and other related projects*.
6. *Enhance community-based observing programmes by building capacity of scientists and community members to participate in community based research*
7. *Develop and implement the iAOS platform for integration and analysis of multidisciplinary with distributed data repositories.*
8. *Demonstrate benefit of the iAOS to selected stakeholders*.
9. *Develop professional skills in using the iAOS platform and new data products within industry, education and science*.

In addressing these objectives, it is mandatory to establish a good dialog with relevant Arctic stakeholder groups to collect a good overview of requirements to a future Arctic observations systems.

Project website: http://intaros.eu