

Toward an Arctic GOOS Regional Alliance

Prepared by GOOS Project Office, IOC/UNESCO and EuroGOOS



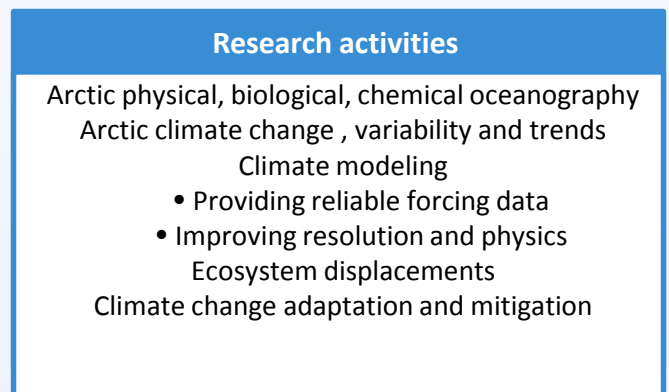
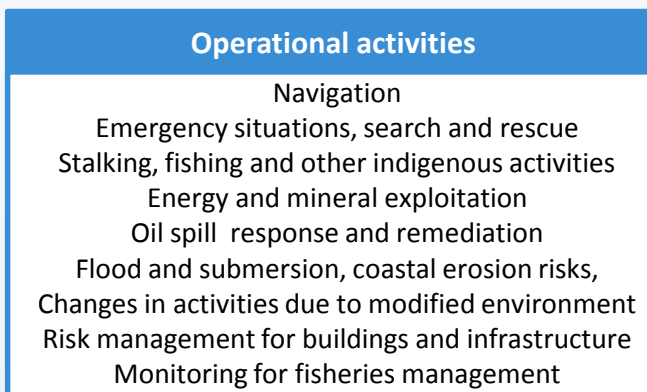
The need for sustained ocean observations in the Arctic

Oceanic observation efforts in the Arctic have historically been hindered by its remote location and harsh climate, along with the presence of a perennial sea ice cover that renders access difficult. The last decades have shown an Arctic undergoing rapid changes: a warming climate that transforms the physical environment, but also allows increased human presence in the area. These changes are increasing pressures on populations (human and ecosystems), environment, and industries, and drive the need for improved oceanographic operational and climate services.



research

Require services in support of



The GOOS Advantage

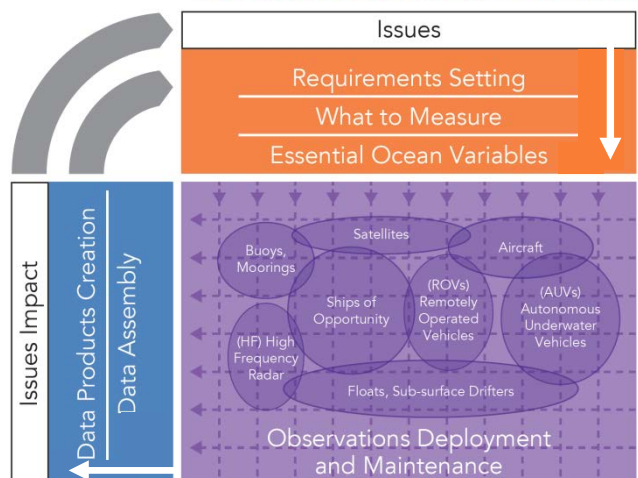
- International and intergovernmental coordination of sustained ocean observations
- A platform for generation and dissemination of oceanographic products and services
- A forum for interaction between research, operational and user communities

A Framework for Ocean Observing:

Designed to be flexible and to adapt to evolving scientific, technological and societal needs, the Framework (www.oceanobs09.net/foo) helps to deliver an integrated ocean observing system with maximized user base and societal impact.

It guides the path from the science-driven requirements resulting from societal issues, to the data treatment and products that will address those issues.

Framework for Ocean Observing Process Diagram



United Nations Educational, Scientific and Cultural Organization



Intergovernmental Oceanographic Commission



EuroGOOS
European Global Ocean Observing System



The Global Ocean Observing System



What is a GOOS Regional Alliance?

GOOS Regional Alliances (GRAs) are an important part of GOOS, as they help

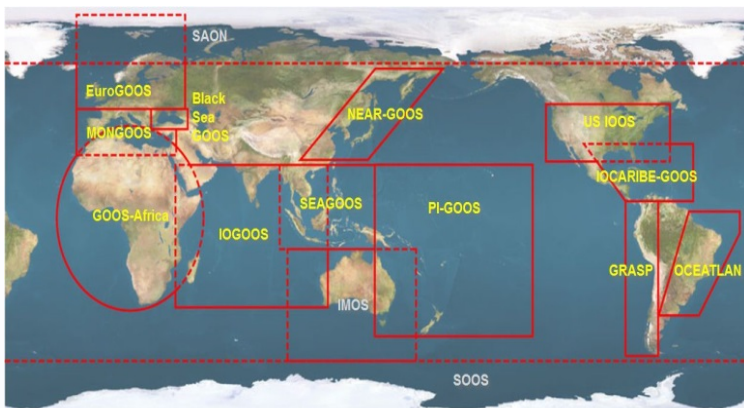
identify, enable, and develop sustained GOOS ocean monitoring and services to meet regional and national priorities.

They are formed of national and institutional organizations that come together at the regional scale to share in the advancement of GOOS.

The GRAs meet through the biennial GOOS Regional Forum. This Forum allows the GRAs to collaborate and plan joint activities for GOOS.

As part of the GOOS, the GRAs

- Uphold GOOS principles and implement the Framework for Ocean Observing
- Serve as a regional platform for coordination and facilitation of GOOS
- Promote and manage programmes on developing regional capacity



Black Sea GOOS

EuroGOOS

GOOS-Africa

GRASP: GOOS Regional Alliance of the SE Pacific

IOCARIBE GOOS: Wider Caribbean GOOS

IMOS: Integrated Marine Observing System (Aus)

IOCOOS: Indian Ocean GOOS

MONGOOS: Mediterranean Operational Network for GOOS

NEAR-GOOS: NE Asia Regional GOOS

OCEATLAN: Upper SW & Tropical Pacific

PIGOOS: Pacific Islands GOOS

SEAGOOS: SE Asia GOOS

US IOOS: US Integrated Ocean Observing System

Not GRA, but related:

SAON: Sustained Arctic Obs. Network

SOOS: Southern Ocean Obs. Network

An Arctic GRA will integrate pre-existing observing efforts:

Observing networks	Observing elements	Local observing actors
<p>Sustaining Arctic Observing Networks <i>Initiated by the Arctic Council, aims at supporting and strengthening sustained and societally-relevant observations</i></p> <p>Arctic Regional Ocean Observing System <i>Part of EuroGOOS, 19 institutions from 10 European countries that collaborate on ocean observation and modeling for the Arctic Ocean and adjacent seas</i></p>	<p>Satellite observational efforts in the Arctic</p> <p>Ship observations: research, volunteer observing ships</p> <p>Tide gauges</p> <p>Floats, drifters, sea ice buoys</p>	<p>Indigenous people</p> <p>Industrial partners</p> <p>Shipping industry</p>

Benefits of creating a GRA

Strategic investment / added –value for efforts
 Visibility and association with international process
 GOOS support and facilitation

- data management and sharing,
- data-derived products and services
- collaboration (governmental, non-governmental, industrial, academic)

Shared knowledge on best practices, standards, successes
 Increased capacity building

Next steps for an Arctic GRA

1. Commitment from principal actors: *Arctic and other interested states, Arctic Council, academic and industrial partners*
2. Signature of a Memorandum of Understanding
3. Establishment of basic organization and financial structure
4. Proposition to IOC



Contact us for more information!

<http://www.ioc-goos.org/>

<http://eurogoos.eu/>