The Global Ocean
Observing System

Observations Coordination Group

Network Attributes, Commitments, and Benefits
- What it means to be an OCG Network -

The Observations Coordination Group (OCG) of the Global Ocean Observing System (GOOS) works to **operate, maintain and coordinate** an **efficient** and **integrated** comprehensive in-situ global ocean observing system, across the major, sustained and global oceanographic and marine meteorological observing networks. OCG has developed the following attributes to define the characteristics of an OCG 'global' Ocean Observing Network.

Contact information

goos@unesco.org

OCG Network attributes

Networks are encouraged to be at least 'Pilot' level in all attributes, with a roadmap to maturing in all areas. A new network will be provisionally designated as an 'emerging' OCG network until mature across sufficient attributes and formally accepted as an OCG global network. The OCG actively works in many of these attribute areas at a cross-network level, and supports networks in achieving maturity.

OCG Network attributes

	**Global in scale -** Greater than regional, and as far as feasible, intention to be global.
	**Observes one or more EOVs or ECVs -** Contributes to meeting requirements through observing one or more of the GOOS Essential Ocean Variables or GCOS[1] Essential Climate Variables.
	**Observations are sustained -** Sustained over multiple years, beyond time-span of single research or experimental projects, undertaking routine, systematic and essential ocean observations
	**Community of Practice -** Has an identified governance structure that provides a means of developing a multi-year strategy and implementation plan.
	**Maintains network mission and targets -** A role in the GOOS is defined and progress towards targets can be tracked and progress assessed.
	**Delivers data that are free, open, and available in a timely manner -** Has a defined data management infrastructure that provides data on a free and unrestricted basis, in real time where possible, as well as FAIR-compliant[2] data services for real time and delayed mode data.
	**Ensures metadata quality and delivery -** Complete platform metadata is submitted to OceanOPS in a timely manner.
	**Develops and follows Standards and Best Practices -** Make accessible, develop, document, follow, and update best practices encompassing the observation lifecycle[3].
	**Undertakes capacity development and technology transfer -** Development of activities that enable new (developing and disadvantaged) communities of ocean observers and supports inclusivity and diversity in its members.
	**Environmental stewardship awareness -** Actively develops ideas to minimize environmental footprint and contributes positively towards a healthy ocean.

Networks are encouraged to be at least 'Pilot' level in all aspects of the FOO[4] (Requirements, Observing Systems, Data Management) and WIGOS[5] Observing System Network design Principles with a roadmap to maturing in all areas.

Benefits of the OCG network

[1] Global Climate Observing System (https://gcos.wmo.int/en/home)
[2] Findable, accessible, interoperable and reusable (Wilkinson et al., 2016)
[3] Deployment and sampling/SOP/operations, pre-mission preparation (e.g., calibration and validation), data retrieval and formatting, primary quality control and secondary quality control
[4] http://www.oceanobs09.net/foo/
[5] WMO Integrated Global Observing System (https://public.wmo.int/en/programmes/wigos)

- Support for network sustainability; through OCG as recognised GOOS global observing network, with a demonstrated global role in the GOOS
- Visibility through OCG, for example through the OceanOPS Report Card, Specification Sheets, website etc.
- Support from OCG in areas of cross-network coordination, including standards and best practices, data management, new technology adoption, EEZ, etc.
- Strengthening of the network for delivery through focus on OCG network attributes
- Technical coordination and metadata support through OceanOPS (basic or as funded by network)
- Representation at a global level with IOC, WMO, GOOS, GCOS for issues of relevance

Network Commitment

- Actively support the implementation of the agreed OCG Work Plan actions[6]
- Attend and contribute to OCG annual meetings, quarterly calls and provision of routine updates on the status and evolution of the networkSupport the monitoring of the overall system status, progress, data flow, and development through OceanOPS (depending on financial contributions)
- Coordinate with and support the activities of other OCG networks
- Networks are required to conduct yearly self-assessments. 'Emerging' networks are encouraged to request additional help from the OCG Executive Committee to assist with self-assessments until formally recognized as a Network. The annual self-assessments are reflected in the annual Ocean Observing System Report Card[7].

Process for becoming an OCG network:

Candidate networks can be brought to the attention of OCG through elements of GOOS or may approach OCG directly. The network should meet a sufficient number of attributes and have plans to address deficiencies. A network will be provisionally designated as an 'emerging' OCG network until formal acceptance of the network, which is through approval by the GOOS Steering Committee, supported by OCG. Progress of emerging networks is reviewed at the OCG annual meeting, until such time the network is fully accepted and/or the OCG determines the network is not making progress and it is removed from consideration.

[6] Agreed with networks at annual or other regular OCG meetings
[7] www.ocean-ops.org/reportcard

Current OCG Networks

Global Ocean Observing Networks

Argo

DBCP

SOT

GLOSS

OceanSITES

GO-SHIP

Emerging global observing networks

OceanGLIDERS

HF Radar

ANiBOS

Relevant information

https://goosocean.org/index.php?option=com_content&view=article&id=32&Itemid=72
https://www.ocean-ops.org/board
http://www.ocean-ops.org/reportcard/
http://www.ocean-ops.org/strategy/