Fifteenth Observations Coordination Group meeting (OCG-15) Final Report

Executive Summary

The Fifteenth Observations Coordination Group meeting (OCG-15) was a strategically important session. It set the course for the global ocean observing networks and OceanOPS, with regard to working together towards an integrated, mature and fit for purpose ocean observing system that is understood as critical infrastructure.

The OCG discussed developing and communicating clearly observing network status and operational health, evolving and supporting the OceanOPS center in light of a growing number of OCG networks, working across GOOS towards identifying priorities for ocean observing investment, and working toward an integrated data/metadata infrastructure, as well as considering the current opportunities and challenges across the ocean observing networks, and the entrance of 'new' emerging networks into the GOOS. A summary of the key topics is below. The OCG extends our thanks to Ocean Networks Canada for hosting the meeting, and contributing towards key topics.

The GOOS OCG observing network attributes, which define the key qualifications expected of OCG approved ocean observing networks have been an important aspirational benchmark or roadmap for the 'emerging' networks and helped other networks towards maturity. The Ocean Observing System Report Card regularly notes networks achievement against key attributes in data and best practices. OCG-15 decided to strengthen this framework by agreeing to work on defining pilot and mature network status, in line with the attributes and concepts outlined in the FOO. Additionally, OCG decided to work on the
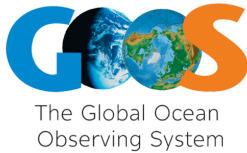
development of an observing network health index, to provide a snapshot of the 'health' of each network.

The Fishing vessel Observing Network (FVON), SmartCables and Surface Ocean CO2 Reference Network (SOCONET) were all adopted as 'emerging' networks at OCG-15. This advances global ocean observing capacity as each of these emerging networks will deliver unique observing benefits within an integrated system. This designation means they commit to working with OCG and the other observing networks towards achieving a mature and integrated observing system. It is interesting to note that all 3 also use existing ocean infrastructure - fishing vessels, submarine telecommunications cables and existing observing platforms - and so additionally represent efficient use of existing marine assets.

OceanOPS provided an update on its restructuring (necessary in part due to changing financial situation) and intentions to better position itself to better support the networks, OCG, GOOS and WMO, into the future - which is increasingly digital and federated. OCG made a key decision towards an improved management practice whereby OceanOPS will work with the ocean observing networks towards defining tiers of OceanOPS services, provided to the networks, and implementing service level agreements. These actions will support funding requests of the future.

The OCG also considered observing priorities from the GOOS Expert Panels. A clear priority noted by the Biogeochemistry Panel is to consider the viability of expanding oxygen observations across existing networks; near-term actions were discussed. The BioEco Panel prioritized working with specific existing networks in expanding their scope, e.g. Bio GO-SHIP, AniBOS (animal tracking) and FVON (as they develop into a full OCG network).

The OCG cross-network Data Implementation Strategy released earlier in 2024, catalyzed OCG-15 discussion on the networks individually and how to develop and leverage their implementation pathways. In addition, the launch of WMO's WIS2.0 system (replacing the GTS in 2027) is underway and a specific session focused on understanding the data and metadata connections between OceanOPS, networks and the the future WIS2.0 system which could help the OCG advance the cross network data implementation strategy and improve overall GOOS digital ecosystem planning.

Engagement with the GOOS-MTS Ocean Enterprise Initiative, the evolution of the Dialogues with Industry was welcomed, and there will be further interaction between the networks, GOOS Panels, industry and government with this initiative.

The OCG will undergo a change in leadership as the current OCG Chair, David Legler, indicated his intention to step down. The IOC and WMO will put out a call for his

replacement in 2024. David, from NOAA, has made a huge contribution to the OCG, to GOOS and many projects and people across his 10 years of OCG leadership. The OCG Leadership team will also lose Juliet Hermes of SAEON, who has served as Vice Chair of Standards and Best Practices and been the GOOS interface to the Ocean Best Practice System and had a major impact on developing best practices across the networks in her 7 years of work with OCG. Finally, the Team will also be replacing Zulfika Begg, who has been a voice for less oceanographically developed nations at the OCG, and Ting Yu, our support seconded from China Ministry of natural Resources. So the OCG will have an opportunity to bring in refreshed leadership and members in the coming year. GOOS offers a big thank you to all these great individuals for their contributions.

Below is a summary of the key decisions from OCG-15, the full report can be accessed here.

No.	Summary	Priority
2	Create a new OCG Data Task Team, that will report on progress at OCG-16 (tasks discussed in the OCG-15 full report).	High
16	FVON, SmartCables and SOCONET join the OCG and are endorsed as 'emerging' GOOS ocean observing networks.	High
17	OCG commended the USV group in its progress and advances towards being an emerging observing network. OCG noted that the USV community can offer a unique contribution to ocean observing and encouraged the group to progress towards becoming an emerging network and present progress at OCG-16 in 2025.	High-Med
18	OCG Metrics Task Team is extended to continue their work, with guidance to develop definitions of pilot and mature, with reference to the FOO but based on the OCG Attributes, and to lead development of a draft network 'health index' and present it to OCG in 2024/5.	High
24	OCG to create an OCG OceanOPS Task Team to develop OceanOPS services concepts, network Service Level Agreements, and to help set priorities for OceanOPS. The Task Team is to report regularly on progress at OCG Roundtables in 2024/2025.	High
30	OCG Exec to develop and publish an authoritative list of GOOS OCG ocean observing networks, with a very brief explanation of the list.	High