The Global Ocean Observing System

Session 10, second part: Longer term goals and OCG Objectives

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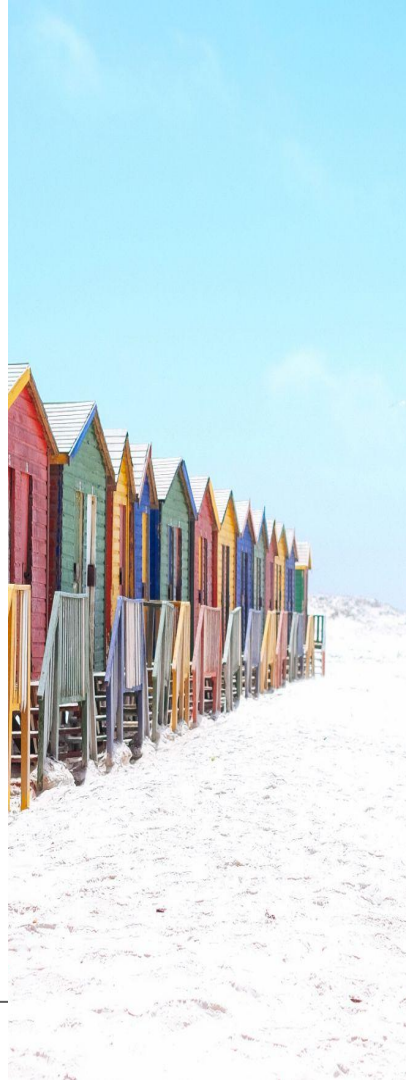
Background

Environment changes

- More demands by more users for ocean data/services
- Observing (knowledge!) solutions of the future will need to be more integrated across platforms, providers, and communities (eg. co-design program activities, ocean carbon, marine ecology, etc)
- Increased Private sector action: networks, data providers, sensors/technology, services
- Increasingly digital environment
- AI and other technological changes
- Opportunity to be seen as critical infrastructure (requires sustained funding, increased support, strengthen system-system efficiency and function).

LINK FOR OCG TORs



Terms of Reference - OCG

well developed | Needs improvement

Terms of Reference

The Observations Coordination Group (OCG) shall:

(a) Coordinate across the designated OCG global ocean observing and emerging networks, associated pilot projects, and appropriate bodies to ensure an effective and integrated global ocean observing system

(b) support the development and implementation of regular processes for reviewing and evaluating the integrated GOOS

(c) Provide at minimum an annual report to the Global Ocean Observing System Steering Committee (GOOS SC) and the WMO Infrastructure Commission (INFCOM) on the effectiveness, coordination and operation of GOOS OCG observing networks, for example on implementation status, performance, progress towards meeting observing system user requirements, implementation of standards and best practices, capacity development, and delivery of data and metadata to designated centers and users.

(d) Provide advice to IOC and WMO, for example on potential innovations, technologies, solutions, and pilot projects towards enhancing earth-system observing.

(e) Encourage technical development within and across existing OCG observing networks and engage with emerging networks and communities of practice, that are the key to better address existing and new requirements and needs;

(f) Develop network specific metrics and targets, reported through OceanOPS, to assess and report observing system performance and implementation, progressing over time towards reporting on system wide metrics;

(g) Advance timely exchange and unrestricted flow of network observational data and metadata to identified systems and users through targeted data management integration and pilot projects, by leveraging community data standards and best practices, and through integration with IOC/IODE and WMO systems;

(h) Improve the availability, completeness and timeliness of metadata through OceanOPS, and through integration with IOC/IODE and WMO systems;

(i) Encourage system-wide integration and quality standards through development and dissemination of community agreed best practices and standards;

(j) Oversight and approval of OceanOPS Work Plan and budget. Support OceanOPS strategic planning and oversight of implementation.

(k) Increase the ability of states and communities to develop their observing capability and access to data, through coordination of capacity development activities and cooperation across the global ocean observing networks, and in conjunction with other IOC and WMO programs and activities

(l) Encourage environmental stewardship across the OCG ocean observing networks

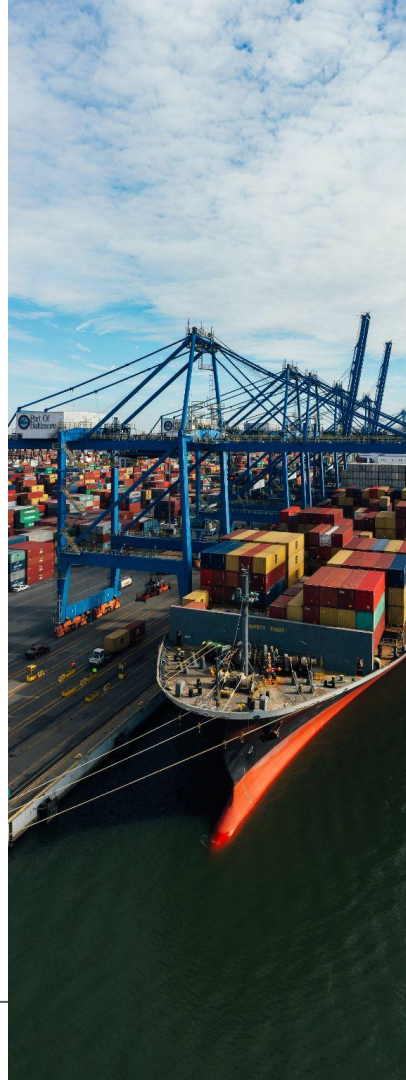
(m) Strengthen and promote diversity and inclusion in ocean observing and OCG activities

(n) maintain appropriate connections and interaction with other parts of the ocean observing and forecasting ecosystem, towards advancing the observing system and connection along the value chain to better serve societal needs.

OCG longer term goals

Some ideas we heard on Monday - seed the discussion:

- **Cross-network design planning around issues** - not go it alone, focus on key applications, map key value chains (break down silos modelling/obs), cross cutting OSSEs requested/planned (OceanPredict, Co-Design, GRAs), requirements by EOV/regions
- **Focus on impact for users** - connected communication on this? Vital for sustained funding
- **Private sector**:
  - work on having some process to set 'bar' manufacturers need to meet, test in network, approve as network suitable suppliers, metrology/testing centres? how integrate low cost tech - evaluate new low cost sensors
  - Collaborate on sensors
  - Ocean Enterprise initiative
  - Commercial viability of sensors / hardware for networks (related to 1 & 2)
  - Shipping companies
- How show how we contribute to key data products...(GLOSS SL?)
- Express the complementarity and reliance across the system - it really is not a network of networks but closer to a mesh. Cross reference with reference networks, service provided to other networks - metrics
- Support for data/metadata - how define and seek this - how assist in federation



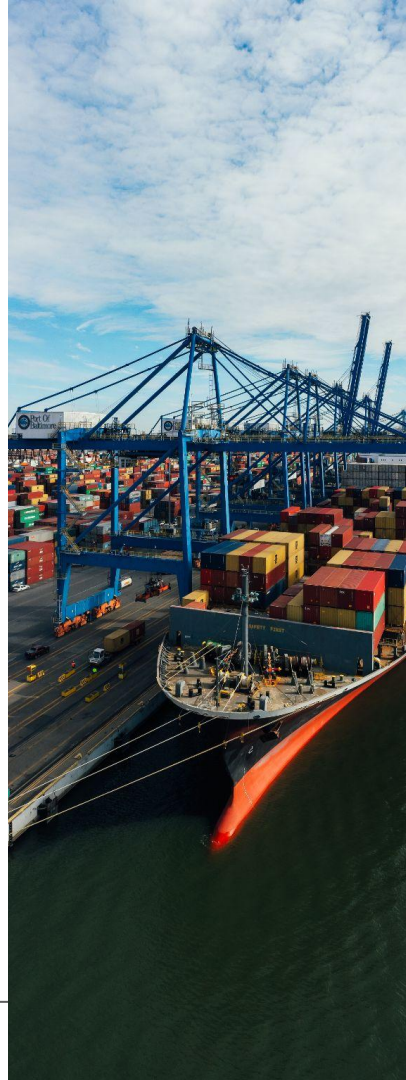
OCG longer term questions: 2030+

Observations for products and services (intersects with GOOS)

- How should the EOV framework intersect/guide/enable OCG activities?
- What is OCG role in working with modelers (e.g. should OCG help shape modeling feedback to networks on impacts, etc)?
- Do networks change their target/design as new observing/modeling capabilities evolve? What about integration of observing networks around EOVs?
- What is OCG's role in identifying ocean observing priorities (e.g. for GBON)? Should we be more directional in filling gaps/future gaps in observing?

Embracing Innovation

- How will AI influence the observing landscape? What IS the vision for OCG roles in the world of rapidly changing technologies and private sector investment?
- In the growing world of more portals and inter-operable services, what is future vision for OceanOPS?
- Does the digital future change our work today/how do we think of evolution or future proofing?
- How does GOOS support and encourage “operationalisation”?



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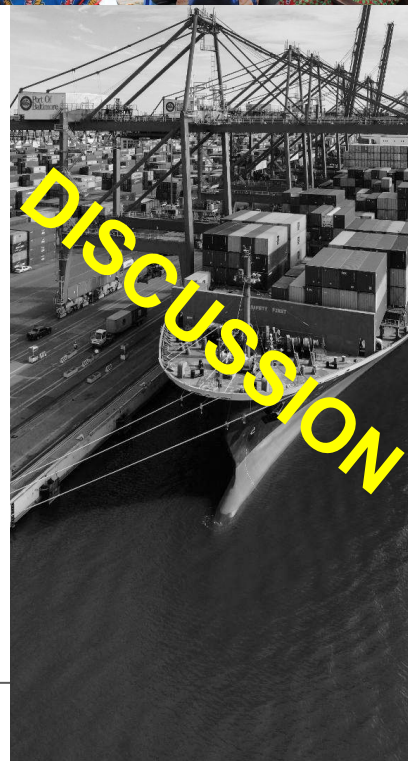

Session 10 - revisit after discussions

1) Translate the discussion into a set of long-range goals.

2) Discussion/decision on which of these are of highest interest to the networks?

3) Present these to GOOS.

4) Provide sense of initial actions; and

5) Do we need to consider our ToRs for the next years

TORs that need more focus/action / New ToRs

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The Global Ocean Observing System

Thank you

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Intergovernmental Oceanographic Commission

WORLD METEOROLOGICAL ORGANIZATION

UN environment programme

International Science Council