

GOOS SC-12

24 - 27 April 2023

Halifax, Canada

Reports from GOOS components

OOPC

Sabrina Speich, Weidong Yu, Belén Martín Míguez









Achievements and Highlights

Highlight: First physical meeting in 4 years (Darmstadt 20-21 October 2022) and incorporation of 4 new members to the panel after a call for new members (40 applications screened and evaluated).

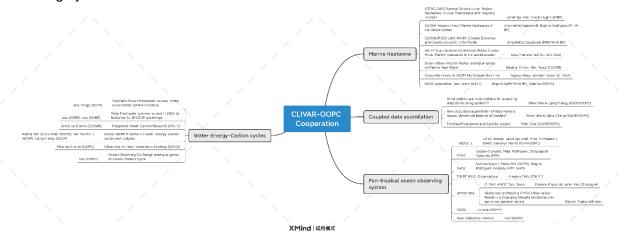
Achievements April 2022-April 2023:

- Boundary Systems Task Team: series of webinars finished, paper with recommendations being prepared, mindful of the connection with Observing Co-Design
- OASIS: funded through SCOR, it becomes a UN Decade Programme coordinating a large international multidisciplinary community to advance our capacity to monitor airsea interactions globally. It aspires to become a cross-GOOS and GCOS activity.
- Ocean Indicators: Cross-GOOS TT, series of interviews and perspective paper in preparation presenting the concept and methodology.
- CLIVAR-GOOS Workshop from Global to Coastal (Aug. 15-17, 2022, ICTP/Trieste, Italy) with one co-chair Weidong Yu serving as the co-chair of its organizing committee.
- 2022 GCOS IP includes 9 Actions to improve the ocean climate observing system and gets a lot of visibility at COP27 with one co-chair (Sabrina Speich) attending. Ocean ECV requirements updated, publicly reviewed and published in 2022.
- Large participation of the ocean community in the 2nd GCOS Climate Observation Conference (Oct. 17-19, 2022, Darmstadt, Germany) with co-chair Sabrina serving as the chair of its organizing committee.
- GOOS/OOPC role recognized by WMO (results from the Study Group on Ocean Observations and Infrastructure (SG-OOIS) and engagement in the Rolling Review of Requirements process lead by WMO Infrastructure department)
- Evaluation of two new EOVs: Bottom Pressure (accepted) and Turbulent Mixing (under review).
- High-level meeting in March 2023 with CLIVAR co-chairs and panel chairs to map areas where both bodies are connected and establish new ways of interacting.

Opportunities

1. Both the 2022 2nd GCOS Climate Observation Conference and the presentation of the 2022 GCOS Implementation Plan at COP27 have provided an opportunity to advocate for a sustained ocean observing system to improve our understanding of and adapt to climate change. The role of the ocean in the climate system is better understood and the need to monitor it too. We have a new opportunity to make sure that enough attention is also given to non-physical variables, by engaging in a timely manner with BGC and BioEco for GCOS Status Report 2026 and GCOS IP 2027.

- 2. The UN *Decade of Ocean* Science for Sustainable Development is bringing a myriad of initiatives. OOPC members are already participating in some of those initiatives and better connections and synergies between the panel and some of those initiatives could be pursued, namely:
- Observing Co-Design exemplars
- ForeSea and SynObs projects related to ocean forecasting: OOPC counts now with several modellers who could help build some bridges between the observations and the modelling communities
- Ocean Decade Coordination Office UN Decade Collaborative Center for Ocean-Climate Nexus and Coordination amongst Decade Implementing Partners in China (DCC-OCC) (https://www.dcc-occ.com). This DCC-OCC is keen to support some co-design actions upon OOPC's prioritizing, such as OOPC/Decade co-design exemplars on Typhoon and/or Marine Heatwaves. There is a suggestion to organise an in-person workshop in Qingdao/China in October 2023 (supported by DCC-OCC together with OOPC) to work out a pilot action plan, which could be accompanied two online discussion workshops.
- Engagement with CLIVAR. Several areas of interaction have been identified through a
 mapping exercise: Work on earth cycles and on marine heatwaves; connections
 between GSOP and OOPC follow up of the GOOS/CLIVAR workshop and pan-tropical
 observing system.



4. We have 4 new members in the panel and a polar expert who will overlap with our Arctic expert for one year, and who will strengthen connections with OCG, Observing Codesign and CLIVAR, and bring complementary modelling capacities to the work of the panel.

Issues or barriers

- Panels support embarking in cross-panel activities, but not much has materialised in concrete outputs so far: why is that? What connection is most efficient, the one happening at panel level (through the chairs/officers) or through the experts?
- OOPC produces many recommendations on how to improve the observing system, but OCG, who are the main implementers, do not find it easy to react/use those recommendations: what happens?
- OOPC is encouraged to engage in the Ocean Decade, which is exciting, but also very time consuming and with no clear return: what could we change so that the process was less heavy and costly in terms of time of our experts?
- is there any **alternative to: let's meet**, let's meet, let's meet? would a potential solution be, instead of investing energy in engaging here and there, try to define and establish more clear limits to our own activities?
- If meeting is the only solution, **more human resources (\$)** are needed to ensure a proper cross-feeding between the discussions held in the meetings.
- The **EOV** specification sheets need to be updated using the new template. This is several days work and it is not clear how to go about this.

Future

There are several on-going activities which are meant to continue as follows:

- The BSTT will submit a Community paper with a set of Recommendations to monitor Boundary Current System and the Activity will likely be merged then with the Observing Co-Design exemplar on Boundary Currents.
- OASIS is a UN Decade Programme as well as a SCOR Working Group and will go on shaping and implementing its strategy. There is a wish to strengthen and formalise the connection with other panels of GOOS, GCOS and WCRP.
- The Ocean Indicators task team will be expanding towards socioeconomic indicators receiving support from G7 FSOI, and with a focus on national stakeholders.

OOPC will be working on a new 2024-2028 Workplan which, besides the aforementioned activities will include:

- Addressing the Actions in GCOS Implementation Plan where input from the panels is sought. These include Actions on sustainability of observing networks,
- Interaction with CLIVAR: building up on the results of the mapping, priorities will be identified. Working on a pan-tropical ocean observing system could be one of them, in collaboration with the CLIVAR regional panels and CLIVAR Tropical basin interaction Research Foci (TBI RF).
- (In planning) Heat and Freshwater storage and transport/regionalization of the cycles.

- There are many opportunities for developing more work around EOVs/ECVs and advancing the observing system around the Observing Co-Design exemplars. But resources for coordination will be needed (see previous section).
- Developing a more intensive and focused interaction with the modelling community to guide the observing system review with new tools.

Now that in-person meetings have resumed, enhancing interaction with other GOOS components will be pursued (e.g. OOPC co-chairs will attend OCG-14 session (Jun. 6-8, 2023, Cape Town, South Africa).

Questions for the Steering Committee

- Priorities: we (GOOS components) are spreading too thin: any advice on where to focus? Should we attempt an exercise of delimiting better who does what. (e.g. OOPC ToR vs. OCG ToR).
- In order to enhance interaction: what can we do beyond attending each other's meetings?
- WMO: what does GOOS SC think of this engagement and is there a need for OOPC to provide specific support to other GOOS elements (ETOOFS)?