

ARP Telecon Notes

Time: 15:00 – 16:20 UTC, 8 June 2020

Participants: Sabrina Speich (co-chair), Paquita Zuidema (co-chair), Walter Robinson (former co-chair and organiser for summer school), Susan Bates, Eric Chassignet, Maria Paz Chidichimo, Gregory Foltz, Eleanor Frakja-Williams, Jeff Knight, Tarron Lamont, Regina Rodrigues, Ingo Richter, Brad de Young and Jing Li (ICPO). **Not present:** Kemgang Ghomsi Franck Eitel,

1. Update on the CLIVAR-FIO Summer School (Walter)

- Rescheduled to 12-17 July 2021.
- Follow-up actions (as the results of a follow-up discussion with Jose after the telecon):
 - Eric and another lecturer might not be available for 2021, thus we need to identify alternatives for the two vacancies;
 - To resend invitation letters to lecturers after being confirmed;
 - To update the event webpage and re-publish the announcement;
 - To check with the applicants to see if they remain interested in participating next year. More applicants are anticipated;
 - Reopen the application (in November/December) until early March.
- The US–China relationship might be a potential impacting factor for the summer school, but it is too early to consider it now.

Action 1: Paquita will send a few names to Walter for the replacement of the lecturers.

2. AMOC Task Team (Eleanor, Eric)

- A [telecon](#) has been organised between representatives from US CLIVAR and CLIVAR ARP in early May, to discuss the coordination/integration of US AMOC Science Team within CLIVAR, as the US AMOC ST will sunset in 2021 (See [US AMOC ST Sunset Plan](#)).
- A **set of activities** to be coordinated after US AMOC ST sunset:
 - To organise international AMOC science meetings;
 - To produce summary reports to describe the priorities for future AMOC scientific researches to provide guidance for funding agencies;
 - To coordinate a review programme regarding AMOC observations;
 - Identify the priority of ARP and materialize it
- The US AMOC Science Team has 11 members (1 chair plus 2 from each of the five task teams). A **subset of ARP for AMOC** is also being created (Eleanor, Eric, Brad, Greg, Tarron, Maria-Paz and Sabrina). There was also some discussion on establishing an AMOC TT under broader CLIVAR community, which was proposed by Eric. As there are strong needs to coordinate the AMOC activities (such as observations and modeling) that have already taken place throughout the Atlantic Ocean, it might be difficult for ARP alone to coordinate all these activities. Thus, it makes more sense to have a broader CLIVAR AMOC TT to fully bridge the AMOC activities across North to South Atlantic.
- There are possible **connections with AtlantOS**, as it has a case study for AMOC and there might be funding opportunities to fund partners on AMOC.

- The missing actions here is to discuss the **priorities of ARP** towards the AMOC researches and to have a telecon with US AMOC Science Team again (in August). The process may encounter some delay by COVID-19.
- A **potential challenge** is that many members of ARP will be rotating off in 3 years, which may affect the continuity of the AMOC TT.
- The AMOC is one of the **important sources for the decadal predictability in the climate system**, which is coupled nicely with the new LHA on 'Explaining and Predicting Earth System Change'. Also, there are some potential resources available in the US, e.g. according to webinar of the National Academies last week, there is potential investment on earth system prediction and predictability. Societal impact of AMOC and coupling might leverage resources on researches.

Action 2: Jing will send the AMOC TT document to Jose to seek the comments from CLIVAR SSG on establishing the AMOC TT, either under CLIVAR or ARP.

Action 3: A telecon will be organised within ARP in mid of July to discuss the ARP's priority towards the AMOC activities, prior to the next telecon with US CLIVAR in August.

3. Progress of the TAOS Review (Sabrina)

- Bill Johns, Sabrina and Walter are drafting the Executive Summary.
- Pathway: OOPC and ARP will be asked to provide revisions and then the document will go to broad community for comments.

Action 4: Sabrina will share the Executive Summary and the revised TAOS Review Report to ARP after completion.

4. EUREC⁴A-OA and ATOMIC (Paquita & Sabrina)

- Overview **papers** are being prepared by end of the summer; Later scientific papers will be produced on many topics (on lower clouds physics and processes, air-sea interactions at the ocean fine-scale, ocean mesoscale and sub-mesoscale processes and circulation).
- **Data papers** are being prepared. The data will be put on open accessed platforms when papers are published.
- **Data:** waiting for the calibration and validation of the data from CTD and other profiling instruments; Sea drone data are in process of calibration and validation including drifters:
- Future meetings:
 - Next ATOMIC telecon next Monday (Jun. 15)
 - In early July, a kick off meeting for the JPI Ocean & Climate EUREC4A-OA project (<http://www.jpi-climate.eu/joint-activities/joint-calls/CPILOud/EUREC4A-OA>) will be organised during two days, 4-4:30 hours per day in the morning (for internal JPI project discussions) and in the afternoon (CEST) to include US ATOMIC colleagues on the observations versus processes achieved during the field experiment. We hope with this meeting to inaugurate a regular EUREC4A-OA/ATOMIC meetings series (on a monthly or bi-monthly basis).
 - On Sep. 30 there will be a PI meeting with all the other JPI Ocean and Climate projects being funded.
- EUREC⁴A and ATOMIC need to move together instead of working separately.

5. Update on AtlantOS (Maria, Brad & Susan)

- The selected **case studies** within AtlantOS include:
 - Mitigating the impact on sargassum in tropical Atlantic
 - AMOC
 - Ocean Carbon Uptake
 - Ecosystem-based management in the fishery system for the Atlantic
 - Marine animal movement and how the protected areas can be linked across the basin scale

The case studies are just vehicles to stimulate particular focus around gaps and areas of interest, but also to demonstrate values from coordinated approaches.

The **AMOC case study** is looking at what role the AtlantOS in particular can play to add value to the existing separate programmes and activities on AMOC. Moving more towards the **societal values and benefits** that the AMOC programmes can offer is a key point here. There were discussions on how to bring together data and results from AMOC researches across the Atlantic Ocean to realise the societal values. Not enough has been achieved so far.

- Susan offered the help to link AtlantOS with the Natural Conservancy (TNC) on the **connection with societal needs**, as TNC also works on marine mammal movement along the east coast and fisheries. TNC has designed a few **coastal resilience tools** (one was co-designed with NOAA) for stakeholders to check, e.g. the habitats changes, the locations and track of marine mammals and fishery populations and to conduct stock assessment, etc. This is a mechanism or idea to provide information to decision makers, which also incorporating the inputs of the community's needs.
- In addition to case studies, there is a wider interest in developing **basin scale observation architectures** through bringing together wider range of programmes and activities, various different approaches, and being closer to the societal needs.
- The **connections to GOOS and GEO Blue Planet** are also being explored. The next AtlantOS meeting will be schedule on Jun. 10, to prepare an application document for recognising AtlantOS as a GOOS entity. AtlantOS will not become a component or regional alliance of GOOS, but can be a project under GOOS, which will allow the AtlantOS to have a status and to be interacted with other national representatives throughout the Atlantic Ocean.
- There are a lot of interests from coastal observing community, US scientists and Euro-GOOS as well, who have made local tours to the open ocean but do not know how to make connections. They are well established and well connected along the coastal lines but want to have such programmes across the shelf breaks.
- Data coordination and data architectures are also to be achieved by AtlantOS.

Action 5: Brad and Susan will have further discussion on linking AtlantOS with societal needs and benefits, and probably identify the areas for future cooperation with TNC.

4. Update from CLIVAR Tropical Basin Interaction (TBI) Research Foci (Ingo Richter)

- The TBI RF started from March 2020, and two telecons have been organised so far, and the group hopes to have the telecons monthly. A small presentation in reviewing some aspects of the TBI science is made at each telecon.
- Discussing about the first TBI workshop, which was originally designed as a physical workshop but may not be possible due to COVID-19. The workshop aims to review the current science on the tropical basin interactions, to provide a platform for people to

present new researches on this topic as well as to discuss experiments designs to address outstanding issues of TBI. The workshop is probably to be organised in late fall of 2020 with an online format. Workshop posters and some other ways to communicate the science may also be considered, depending on the numbers of participants. The call for abstract for the workshop is not available yet.

5. Update on the UN Ocean Decade (Sabrina)

- Implementation Plan of the UN Ocean Decade has been sent out for review and actually is being revised.
- A kick-off meeting for the UN Ocean Decade will be organised at the end of May, 2021 in Berlin, Germany;
- Sabrina, Maria Paz together with Detlef Stammer (Chair of WCRP JSC) and others are in the 'A Predicted Ocean' part and will keep ARP members posted on this.

6. OOPC follow up of OceanObs'19 Living Action Plan (Sabrina)

- Action plan on OceanObs'19: Coordinating regional network plans with global platform plans. OO19 brought together 1500 scientists who developed more than 50 reports outlining the status and 10-year forward plans for the global ocean observing system. The OOPC was taking the lead in bring together during its annual meeting (OOPC-23) representatives of the regional networks and the global platform plans to ensure that the 10-year forward plans are coordinated and optimized. As OOPC-23 did not take place last March in South Africa as consequence of the Covid-19 pandemic, OOPC will organize webinar series to begin in late 2020 very likely late October early November. The first step in this programme development is to review the relevant Community White Papers to highlight areas of planning and implementation requiring a particular focus for targeted webinars. Review begun June 2020.

7. Pan-CLIVAR workshop and panel meeting in Trieste in 2021 (Maria)

The workshop is planned in May 2021 in Trieste, Italy, but of course it will depend on the COVID-19 situation. The idea of the workshop is to connect the coastal area to open ocean by hearing the ideas from the national initiatives and moving to a better sustained observing system. The workshop was initiated by Lisa Beal from Indian Ocean Region Panel of CLIVAR together with Riccardo Farneti from Southern Ocean Region Panel. Maria is representing ARP in the Scientific Organising Committee of the workshop, together with representatives from other CLIVAR panels. The OOPC, GOOS and JCOMM will also join in the organisation of the workshop. 100 participants are expected. CLIVAR SSG-26 and meetings of different panels/RFs will be organised along the workshop. There are already funds guaranteed from different sources for the workshop.

8. Other issues

(1) Updates from WCRP (Jing)

In Feb 2020, WCRP High-level Science Questions and Flagship Workshop took place in Hamburg, Germany, During the meeting, **5 Lighthouse Activities (LHAs)** have been proposed and agreed. The initial plan for each activity has been prepared after the meeting, which is available at [workshop report](#) and [slides](#). The 5 LHAs are:

- Explaining and Predicting Earth System Change
- My Climate Risk
- Safe Landing Climates
- Digital Earths
- WCRP Academy (the detailed plan is being prepared)

The [JSC-41](#) took place virtually from May 18-20, 2020. During this meeting, the implementation strategy and new structure of WCRP were discussed. The documents and presentations for JSC-41 are available at <https://www.wcrp-climate.org/jsc41-documents>. The main uptakes from the meeting are:

- Regional consultation will be organized to refine the LHAs and WCRP;
- The '**Homes**' have been proposed as the new fundamental structure of WCRP, which will include the four core projects (CLIVAR, CliC, GEWEX and SPARC) + Regional Climate Information for Society + Earth System Model and Data Infrastructure. Therefore, the names for the core projects may be changed in the future to reflect the new 'Homes' of WCRP;

(2) ARP Membership

Eric and Sabrina will rotate off from ARP, need to think about the candidate to fill in the gaps.

(3) Some interesting topics for ARP:

- Atlantic Ocean and climate related extremes: Extremes in weather and ocean variability are intensifying and increasingly affecting the Atlantic Ocean communities (hurricanes, storms, flooding, intense precipitation events, coastal erosion, ocean heat waves). Such extremes start to be included in societal issues linked with ocean observing (e.g. in TAOS for example, or in the European H2020 projects such as EuroSea) and modelling activities (many national meteorological offices, ECMWF, and projects) and of course IPCC SRs like SROCC or the IPCC AR6. It is perhaps important that CLIVAR ARP addresses such processes at the basin scale as well as tackling more in depth climate change and impacts within the basin and the Atlantic coastal countries. Many operational and scientific centers (e.g., ECMWF, CMCC, NOAA?) start to address the problem of adaptation to climate change developing seamless prediction systems (with ocean-atmosphere-sea ice coupled models) to address the full spectrum of time scales (from weather to seasonal and Decadal prediction).