OPST-7 meeting

14-16 Feb 2023

OPST-7 meeting summary & actions

The 7th OceanPredict Science Team meeting took place virtually. The information in this document summaries the discussions and highlights the actions in order of the agenda.

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UN Decade

ForeSea Presented by Eric Chassignet

ForeSea to work closer with GEO Blue Planet.

Action: ForeSea lead to consider adding more projects to ForeSea, e.g. a project on end-user interaction

Presentation link: <u>https://oceanpredict.org/docs/Documents/OPST/Meetings/OPST-7-Jan-</u> 2023/Presentations/ForeSea_OPST7.pdf

DCC & other UN Decade programmes and projects

Capacity development with DCC (ET-OOFS wiki, atlas, tools) and operational readiness level to be accelerated.

Issue with funding for UN Decade activities. Need to look towards common actions and collective work/ funding opportunities. Connect to users.

Adopting AI/ML in programmes is important. DITTO is planning another DITTO summit in Nov 2023 in China. GlobalCoast will be the vehicle to put CoastPredict plans into action. Involvement of regional teams.

Suggestion to all UN Decade contributors: Integrate funded projects to UN Decade programmes (example NECCTON)

Action: Yosuke Fujii to send email to DITTO to explore options for using a common data lake. This could include considering using the US GODAE server for SynObs data sharing.

DCC tries to engage with a large external community and to match up who could work together. The Atlas is being developed and will include a section on applications. User engagement is understood to be very important, and ideally needs to have a structure for communication and exchange. Any interaction with users is easier through funded projects and makes work more efficient. Involving links with existing initiatives can be beneficial, for example interaction with GBP. It will be helpful to also identify common activities with the OP task teams.

Presentation links: https://oceanpredict.org/archived-events/opst-7/#section-presentation

Task teams OS-Eval TT Presented by Elisabeth Remy

OS-Eval TT would be supportive to work with the DA-TT and the CP-TT to support feedback activities on ocean observation needs to WMO/IOC. Yosuke would send an email to the SynObs and OP communities to ask for interest to contribute.

The resolution of the global coupled Nature Run under the NASA/JPL effort has been generated and maybe available this year, but Yosuke stated that they first need to generate the observation /synthesize the observations and it takes time. Maybe it is possible this year.

Presentation link: <u>https://oceanpredict.org/docs/Documents/OPST/Meetings/OPST-7-Jan-2023/Presentations/OPST7-Task-Team-OSEval.pdf</u>

IV-TT

Presented by Fabrice Hernandez

Meeting with US GODAE server rep (Emily Smith) indicated interest to take it forward. Possible to set this up as a cloud service mirroring the US server at MOI. OS-Eval TT and SynObs data needs could also be supported. Plan for an IV-T meeting to discuss the evolution of class-4 with partners. An interface for accessing and assessing the data would be highly desirable.

Data space required for class-4 activities has been growing and would grow further when coastal and/or regional intercomparison would be included. Fabrice is suggesting providing an estimate of needed space (probably less than a TB with international secure access using FTP). A rolling data set that could hold data for some months would be a welcome. Intermediate option could come from FSU (Eric Chassignet).

Need to find out what structure is in place to develop it further. ForeSea can support this effort. There is concern that 24/7 support is not available, but just 5-day week/working hours. Need to specify the exact needs for class-4 and the wider use of the server.

Suggestions to also consider preserve historic long term in-situ data better.

- Meeting with NOAA took place and Emily Smith is interested in taking the initiative forward
- Server requirements need to be discussed/agreed
 - Class 4 data storage capacity (could be less than 1 TB if a rolling data update, e.g. quarterly, would be implemented
 - Service support (it was suggested that a 5-day support regime would be sufficient, no 24/7 support required)
 - User interface for the server would be helpful
 - Consideration of preservation of historic in-situ data
- Plan to mirror the server at MOi
- Recent issues with depositing data on US server related to access /authentication needs attention
- IV-TT to work with OS-Eval/SynObs on use of server and data needs. Request for SynObs data to be hosted on server
- Possibility for (Eric C) to provide alternative server/data capacity at FSU
- DCC maybe able to support this effort to be explored
- Endorsement from IOC/WMO?

Presentation link: <u>https://oceanpredict.org/docs/Documents/OPST/Meetings/OPST-7-Jan-2023/Presentations/OPST-7-TT-IVTT-15Fev2022-v0.pdf</u>

MEAP-TT

Presented by Stefano Ciavatta

An MS Teams group for sharing information about the TT has been set up, and a training session on the use of the SEAMLESS Ensemble and Assimilation Tool (EAT) planned for July 2023.

The new project NECCTON will be running a global configuration of a range of models and in sample experiments for high trophic level models (for fishes) to evaluate the uncertainty of the estimates that we can produce for this, and also in climate projections end of the century.

Presentation link: <u>https://oceanpredict.org/docs/Documents/OPST/Meetings/OPST-7-Jan-2023/Presentations/MEAP_OPST7.pdf</u>

COSS-TT

Presented by Pierre De Mey-Frémaux

In support of FA1 (Observing system in the coastal regions, its infrastructure and best practices) the COSS-TT is among other things participating in SynObs and has active links with the OS-Eval-TT.

OP and the TTs are evolving so closer exchanges between OP and the TTs are important. It would be helpful to have better oversight of the outcomes from the online TT a meetings and other events. Better overview of actual ongoings would be very beneficial, including setting up a structure to support communication. More information should come out of OP.

Presentation link: <u>https://oceanpredict.org/docs/Documents/OPST/Meetings/OPST-7-Jan-2023/Presentations/OPST-7-COSSTT-v7.pdf</u>

DA-TT

Presented by Andy Moore

Although there is interested so far projects from DA-TT to support the UN Decade have not been proposed, but discussions are ongoing to consider this. A possible area would be coupled predictions and then CP-TT would be an obvious partner to work with.

Presentation link: <u>https://oceanpredict.org/docs/Documents/OPST/Meetings/OPST-7-Jan-2023/Presentations/Task-Team-slides-Feb2023-DA-TT.pdf</u>

CP-TT Presented by Santha Akella

The CP-TT activities are growing after a period of less activity. Two items were reported:

- Plan to run more CP-TT seminars (one has already been organised) to bring together the community and engage also with external groups

- Closer interaction with the OS-Eval TT and support of SynObs (CP-TT contributed to the SynObs kick-off in Japan (Nov 2022)

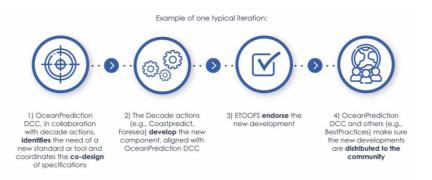
CP-TT is open for discussion with the DA-TT on a coupled prediction project for the UN Decade, but they are still in the process of reviving the CP-TT so timelines for a project are unclear. The next CP-TT member's meeting is planned for March 2023.

No presentation provided

OPST business

ET-OOFS Presented by Enrique Alvarez

ETOOFS as a key element for delivering as one.



DCC in collaboration with decade actions to identify the needs of new standards or tool. Would OP be part of the decade action? ForeSea would be seen as an arm of OP, so suggestions for needs and tools can come from OP via ForeSea.

Presentation link: <u>https://oceanpredict.org/docs/Documents/OPST/Meetings/OPST-7-Jan-2023/Presentations/ETOOFS-recent-developments.pdf</u>

SynObs

Presented by Yosuke Fujii

Argo assessment remain important.

Presentation link: <u>https://oceanpredict.org/docs/Documents/OPST/Meetings/OPST-7-Jan-2023/Presentations/OPST7-SynObs.pdf</u>

Discussion

SynObs website costs and available space to be discussed.

Many different groups (OP, ForeSea, DCC, ETOOFS). It would be helpful to explain the relationships between these groups. The <u>decade implementation plan</u> would help to clarify some of this.

- DCCs to coordinate UN Decade actions
- OP-DCC must communicate with other DCCs
- ETOOFS is endorsement body
- Executing actions side would include ForeSea and SynObs as UN Decade programmes and projects

Updates to the ETOOFS guide via a wiki page, with a calendar to help to know when updates are needed (e.g. updates on BGC and tsunamis). The page to be published in June/July.

It would be helpful to better understand the DCC endorsement process, e.g. with regards to class-4 intercomparison.

Action: DCC and ETOOFS understand ForeSea (and SynObs) as arms of OP. Need to clarify the processes required to make activities and tools developed within OP eligible for endorsement by ETOFFS.

OPOS Working Group

Presented by Fraser Davidson

Discussion needed on what to include in the national reports. Wave modelling info may only include information about the wave modelling size (no of people involved) rather than detailed info on the actual effort (tbc). BGC modelling should also be represented if available, e.g. level of preparation, end-users interaction, but generally common aspects used by most systems.

Presentation link: <u>https://oceanpredict.org/docs/Documents/OPST/Meetings/OPST-7-Jan-2023/Presentations/OPOSWG_OPST7.pdf</u>

OP '24 Symposium

Presented by Eric Chassignet

OP '24 would reflect the 5-year cycle of OP symposiums. The event (18-21 Nov 2024) would be 4 days (Mon-Thu) with the Fri allowing for some internal meetings.

Science talks around themes including the TTs area of science. PDM would be interested in the TT to get involved and will provide name proposal for the committee. Kristian would like to represent the CP-TT. Also, the OS-Eval TT, would want to get involved, especially with results from SynObs. IV-TT also likes to contribute.

Identification and workings of societal benefits through operational oceanography should be reflected by various groups taking part in the symposium, e.g. GEO Blue Plant, OP-DCC, etc.

To connect with and involve representatives from social sciences (economics, sociology, politics, etc.) with OP is desirable and it is considered to invite them to the symposium, but it would need consideration of specific sessions reflecting possible interaction between OP and social science.

Involvement of OPAS in the organising/science committee is very welcome with regards to their expertise and funding options. It will be important to provide a budget for the event in order to go on with soliciting financial support.

Presentation link: <u>https://oceanpredict.org/docs/Documents/OPST/Meetings/OPST-7-Jan-2023/Presentations/OP-24-pres.pdf</u>

OPST-8 meeting preparation

Presented by D-Seong Byun

Early provision of the OPST-8 agenda can help with participants to argue for travelling to Busan. Hybrid participation is possible.

Presentation link: <u>https://oceanpredict.org/docs/Documents/OPST/Meetings/OPST-7-Jan-2023/Presentations/OPST7_20230216_Do-Seong_Byun.pdf</u>

Actions and housekeeping

Presented by Kirsten Wilmer-Becker

Summary of general activities in the programme office including actions from last meeting which are ongoing.

Ongoing actions from OPST-6:

Action: OPOS-WG co-chairs to decide whether to include the observation community as members of the OPOS-WG.

Action: OPST chairs & TT co-chairs to set up working group to explore solutions for a common nature run, considering working with DITTO, and /or exploring what is used in the wider community. Kristian to share ECMWF project details on nature run use.

Action: OP communication committee to revise current PO communication plan (publish articles in popular science, info graphics, videos, etc. and OPST community to suggest ideas, and options for resources and funding communication plans.

Action: ForeSea and SynObs chairs to develop a plan for ForeSea and SynObs funding by learning from and/or work with other groups (e.g. Ocean Observing Co-Design)

Action: OPST and ForeSea chairs to set up an OP'24 organising committee by end of summer

Action: IV-TT co-chairs and OPOS-WG co-chairs to set up an across OP working group to explore solutions for class-4 server continuation working with OPOS-WG, ETOOFS and DCC

Presentation link: <u>https://oceanpredict.org/docs/Documents/OPST/Meetings/OPST-7-Jan-2023/Presentations/OPST-7-housekeeping-v1.pdf</u>

Agenda

Day 1 – Tuesday, 14 February 2023 (MS Teams) – 120 min

Participants can join up to 5 min before the meeting. Chat is open to everyone, and the meeting will be recorded.

Time	Description	Meeting chair and presenters	Shared material, comments	
Day 1 is cl	Day 1 is chaired by Fraser and Vinay			
15 min	Introduction			
5 min	Welcome	Fraser		
10 min	Brief overview / introduction to the big picture of OPST plans	Fraser		
30 min	OP/FORESEA integration with DCC (Fraser,	/Vinay)		
15 min	ForeSea: Current status, issues and next steps	Eric Chassignet/ PN Vinayachandran	Presentation	
15 min	Decade Collaborative Centre (DCC) update and plans for integration with OP	Enrique Alvarez	Presentation	
25 min	OP/FORESEA integration with UN program	imes (Fraser/Vinay)		
5 min	DITTO - Digital Twins of the Ocean	Martin Visbeck	Presentation	
5 min	Ocean Observing Co-Design	Sabrina Speich	Presentation	
5 min	CoastPredict	Villy Kourafalou	Presentation	
5 min	Marine Life	Frank Muller-Karger	Presentation	
5 min	Geo Blue Planet	Emily Smail	Presentation	
45 min	OP/ForeSea, DCC and UN Decade programme collaboration discussion			
45 min	Discussion about how DCC can develop a strong working relationship, integration and interaction with OP (collaborations, communications, promotion, technical facilities,) and the UN Decade programmes	Fraser/Vinay	Discussion	
5 min	Adjourn / recap	ТВС		

Day 2 – Wednesday, 15 February 2023 (MS Teams) – 120 min

Participants can join up to 5 min before the meeting. Chat is open to everyone, and the meeting will be recorded.

Time	Description	Meeting chair and presenters	Shared material, comments		
Day 2 is ch	Day 2 is chaired by TBC				
	Presentations from the Task teams (20 min each). TT co-chairs to provide the following information				
 (2) TT issue discuss questio (3) NB: Iter potenti this. Please discuss potenti 	 Overall status and plans of TT activity (5 min) TT issues and/or questions to discuss with the OPST (email to collect high priority questions and discussion items before meeting). Could be related to UN Decade contributions, internal TT questions, collaboration between the TTs and the OPST, etc. NB: Items in the topics column have been added by the OPST co-chairs (not for all TTs) as potential topic(s) to be covered by the TT presentation, but it will be up to TT co-chairs to decide this. Please check, and if you have decided to cover a certain topic, please put it in bold font, so we keep it on the agenda. 				
(120 min)	Task Team reports (Fraser)	TT co-chairs	Topics covered in the TT presentation		
20 min	OS-Eval TT	Elisabeth Remy and Yosuke Fujii	Presentation		
20 min	IV-TT	Fabrice Hernandez and Greg Smith	Presentation GODAE Server, Operationalisation discussion, future intercomparison exercises		
20 min	MEAP-TT	Stefano Ciavatta and Marjy Friedrichs	Presentation NECCTON project		
20 min	COSS-TT	Pierre De-Mey Frémaux, Villy Kourafalou and Alexander Kurapov	Presentation Objectives of the upcoming Montréal COSS-TT meeting Collaboration of TT with UN Decade Programmes and Decade Collaborative Centers		
20 min	DA-TT	Matt Martin and Andy Moore	Presentation		
20 min	CP-TT	Santha Akella, Chris Harris and Kristian Mogensen	Presentation		
	Adjourn	Co-Chairs			

Day 3 – Thursday, 16 February 2023 (MS Teams) – 120 min

Participants can join up to 5 min before the meeting. Chat is open to everyone, and the meeting will be recorded.

Time	Description	Meeting chair and presenters	Shared material, comments		
Day 3 is	Day 3 is chaired by Marie Drevillon				
50 min	ETOOFS, SynObs				
15 min	ETOOFS update and plans for integration with OP (plus reference to day 1 DCC presentation)	Bahurel/ Alvarez	Presentation		
15 min	SynObs: current status, issues and next steps	Yosuke Fujii	Presentation		
20 min	ETOOFS, DCC and SynObs discussion (including DCC interaction with ETOOFS and OP)	твс	Discussion		
65 min Internal topics					
15 min	OPOS-WG progress, plans and discussion	OPOS-WG chairs	Presentation + discussion		
20 min	OP '24 – next OP symposium: current status and plans + discussion	OP '24 organiser(s)	Presentation + discussion		
20 min	OPST-8 meeting: introduction to current ocean science efforts and update of venue/meeting info	Do-Seong Byun and others	Presentation		
10 min	Actions and Housekeeping	Fraser/Kirsten	Presentation		
5 min	Close of meeting	PN Vinayachandran			

Attendance

No	Name	Name	Affiliation	
1	Santha	Akella	NASA	
2	Enrique	Alvarez	MOi	
3	Eric	Bayler	NOAA	
4	Laurent	Bertino	NERSC	
5	Do-Seong	Byun	КНОА	
6	Eric	Chassignet	Florida State Univresity	
7	Stefano	Ciavatta	MOi	
8	Fraser	Davidson	ECCC	
9	Pierre	De Mey-Frémaux	LEGOS/CNRS	
10	Paul	DiGiacomo	NOAA	
11	Marie	Drevillon	MOI	
12	Yann	Drillet	MOi	
13	Dmitry	Dukhovskoy	NOAA	
14	David	Ford	Met Office	
15	Yosuke	Fujii	MRI-JMA	
16	Isabelle	Gaboury	DFO	
17	Chris	Harris	Met Office	
18	Fabrice	Hernandez	IRD/MOi	
19	Pat	Hogan	NOAA	
20	Vassiliki H.	Kourafalou	University of Miami	
21	Alexander	Kurapov	NOAA	
22	Pierre-Yves	Le Traon	МОі	
23	Yang	Liu	NMEFC	
24	Simona	Masina	СМСС	
25	Kristian	Mogensen	ECMWF	
26	Andy	Moore	UCSC	
27	Frank	Muller-Karger	University of South Florida	
28	Elisabeth	Remy	MOi	
29	Hal	Ritchie	ECCC	
30	Grace	Roskar	NOAA	
31	Andreas	Schiller	unaffiliated	
32	Emily	Smail	NOAA	
33	Gregory	Smith	ECCC	
34	Sabrina	Speich	LMD/ENS	
35	Clemente	Tanajura	UFBA	
36	PN	Vinayachandran	Indian Institute of Science	
37	Martin	Visbeck	GEOMAR	
38	Liying	Wan	NMEFC	
39	Kirsten	Wilmer-Becker	Wilmer-Becker, Kirsten	
40	Goro	Yamanaka	MRI-JMA	