



OceanPredict OS-Eval Task Team
The 10th web meeting

(Jul. 20th, 2021, 13:00UTC)

★ Today's Agenda (Under Construction)

00:00-00:02: **Introduction**

00:02-00:27: **Presentation:** Current status and future plan of satellite missions related to ocean prediction in ESA (Craig Donlon, ESA) (including discussion)

00:27-00:35: **Report on OPST-4**

00:35-00:55: Discussion on SynObs Activity

00:55-01:00: Communications, rap-up

★ Report on OPST-4 (1)

- ◆ Held at Jun 16th, 17th, 21st, July 7th. OPST members (OP TTs, representatives of national centers, and international groups) participated.
- ◆ Report/Discussion on the UN Decade of Ocean Science
 - ✓ ForeSea and CoastPredict officially endorsed as Decade Programmes
 - ✓ Confirmation of SynObs as a Decade project under ForeSea
 - ✓ OS-Eval TT co-chairs to set up meeting with other OP TT chairs to discuss SynObs support
 - ✓ Decade Projects of ForeSea (other than SynObs) will be identified.
 - ✓ Collaboration with “Digital Twin of the Ocean” (DITTO) and other programmes planned
 - ✓ ForeSea will set up a steering committee
 - ✓ for (1) partner coordination regarding project process and (2) internal project ideas feasibility check
 - ✓ ForeSea will participate in Decade Laboratories ⇒ A Predicted Ocean, September 15th, 16th
 - ✓ Meeting for Satellite Activity (Jul 27th) ⇒ Decade Laboratory (A Predicted Ocean)
 - ✓ Selection of ForeSea Early Career Ocean Professional (ECOP) Group Members and the representative
 - ✓ OP communication committee will cover ForeSea communication (for now)

★ Report on OPST-4 (2)

◆ Collaboration with Other groups

✓ IOC-ETOOFS

- Codesigning Operational Oceanography (OO) framework
- Discussion at IOC-WMO JCB on the OO framework
- Collaboration on IV-TT's activity on the class-4 metrics

✓ G7-Future of the Seas and oceans Initiative (FSOI)

- To bring together G7 digital ocean initiatives (Support DITTO?)
- Augmented observing and forecasting capacity for marine line
- Observing System Evaluation Framework (Support ObsCoDe?)

✓ GEO Blue Planet

★ Report on OPST-4 (3)

◆ Own management of OP

- ✓ **OP Strategic plan** was discussed. (It will be reviewed by external partners.)

- ✓ **OP Communication Committee** is formed (Elisabeth and Kirsten are members)
 - To implement and enhance sustainable communication for OP and ForeSea (internal and external)
 - Current OP communication includes (Programme Office, Website)
 - ⇒ Planned extension to include webinars, publication collection, newsletters
 - To develop a communication plan for ForeSea (website, twitter?)
 - ⇒ Reporting on ForeSea outcomes
 - ⇒ Communication with other Decade programmes
 - Need to develop fundraising plans to support ForeSea and projects

★ Summary of Questionnaire on SynObs Activities

- ◆ Can you contribute to the observing system evaluation or design performed in SynObs?
Yes: 22, Yes but only for state estimation 1, No: 0
- ◆ Targets regions for evaluation: Global Ocean: 11, Tropical Oceans 8, WBC regions: 8, Arctic&Antarctic Oceans: 7, Coastal Seas: 11, Indian Ocean: 1, North Atlantic: 1, South Atlantic: 1
- ◆ Collaboration for evaluations and designs: Multisystem OSE&OSSE: 14, Multi-System Evaluation: 14, Nature run: 8, NRT evaluation: 8, publish reports: 12, Broaden engagement with other groups: 1
- ◆ Can you contribute to DA scheme development for extracting more info from Obs data?
Yes: 17, Maybe: 1, No: 4
- ◆ Collaboration for DA development: Co-development of DA schemes: 8, DA scheme intercomparison: 12, Sharing information 19, Special Seminars for specific sensors with observation specialists, 1.
- ◆ Combination: Altimeters and In-situ: 14, Radiometers and in-situ: 10, SSS: 9, Ocean color: 3, Sea ice: 8, Coastal: 10, Ocean Mixing parameters & TS: 1, CFOSAT and in-situ: 1

★ Targeted Observation system combinations

◆ Targeted observing system combination proposed so far

- a) Satellite Altimetry, SKIM and Argo (and tropical buoy array?)
 - ⇒ including global and tropical oceans and WBC regions
- b) Satellite radiometers, in situ observations of the A-O interface
- c) Satellite SSS and near surface in situ observations
- d) Satellite Ocean color and in-situ observations (BGC Argo)
- e) Sea ice concentration and thickness
- f) Coastal observing platforms (ocean radars etc.), satellite remote sensing, and Argo.

◆ Possibility of additional targets

- g) NRT evaluation and emergency responses (i.e., those for Argo fast salinity drifts)
- f) Tropical Pacific Observing System ⇒ included in a)?
- h) Observation impacts on S2S predictions ⇒ included in a)?

◆ Maybe, a) can be separated into several categories, e.g.,

- a-1) Tropical oceans and S2S predictions
- a-2) Western boundary currents and meso-scale eddies (mainly for “pure” ocean predictions)

★ Coordination of SynObs

◆ Steering Team

1. Co-chairs (OS-Eval TT co-chairs double as the co-chairs of SynObs steering team? Or share the role with other TTs?)
 2. Coordinator(s) for each targeted combination (The coordinator(s) mainly coordinate the activity for the targeted combination. We will select the coordinators near future.)
 3. Representative of related UN programme or communities (CP, ObsCode, other OP TTs)
- But I would like to make most discussions for the coordination of SynObs in a regular web meeting which all SynObs participants can be attend.

◆ Regular web meeting for SynObs

- ✓ Transform OS-Eval web meeting (this meeting) to SynObs regular web meeting (Invite all participants of SynObs!!).
 - ✓ Do we need to change the style of the meeting?
- ## ◆ OS-Eval TT co-chairs plan to have a web meeting with co-chairs of other TTs for the coordination of SynObs activities in September.

★ Initiation and web page

◆ How do we declare the initiation of SynObs?

- ✓ Declare at the regular web meeting and the web page(?) (Inform IOC?)

◆ Web Page

- ✓ Most activities of OS-Eval TT will become a part of SynObs.
- ✓ So, is it efficient to transform the current OS-Eval TT web page to the common web page for SynObs and OS-Eval. (Is it appropriate?)
- ✓ We would like to ask the management of the web page to the OP project office (i.e. Kirsten) at least for the first several months.
- ✓ It is preferable to get SynObs's own fund to manage the web page (and coordination of the project). Are there any possibility?

◆ Symposium

- ✓ We plan to have a OS-Eval & CP TTs joint meeting at Nov. 15-18th, 2022 in Japan. We consider it is the fast (kick-off) symposium for SynObs. We will invite all contributors and supporters of SynObs.

★ SynObs Activities

- ◆ Multi-System OSE, OSSE or evaluation is supported by most people.
 - ✓ How do we use the new metrics (such as DSOI, EFSOI and DFS) with OSE/OSSE?
- ◆ Nature Run
 - ✓ Not many people supported this idea. It is possible to collaborate for preparing a common Nature Run for global ocean and some common targeted oceans.
- ◆ Workshops or Seminars for DA scheme development of specific sensors.
 - ✓ We can invite the specialist of the sensor and discuss the design of the observation platform, the assimilation method, and error statistics.
- ◆ Observation Impact Report.
 - ✓ We aim to publish reports on ocean observation impacts (our achievement) regularly.
 - ✓ It is not clearly decided but we probably need to submit some report to UN Decade programmes we belong to (ForeSea, CoastPredict, ObsCode) and maybe to IOC.
 - ✓ We aim to contribute the authorized report of ocean observation requirement suggested in ObsCode.
- ◆ Need to keep OS-Eval TT activities if all of them do not fit into SynObs.
 - ⇒ Try to fit all OS-Eval TT's activities to SynObs if possible.



Symposium toward Synergistic Observation Networks for Ocean and Earth System Predictions

~~10-13 Nov, 2020, Tsukuba Japan~~



~~30 Nov – 3 Dec, 2021~~



15-18 Nov., 2022

- ◆ Planned as the regular face-to-face meeting of OS-Eval Task Team, and jointed with the coupled prediction task team.
- ◆ But now, we consider to transform it as the fast SynObs Symposium
- ◆ Open for all researchers who are contributing to SynObs
- ◆ Having a presentation about the evaluation/design of ocean observation networks, DA development for effective use of observations, and earth system predictions.

★ Communications

◆ OSE for Argo salinity drift

➤ Current proposal:

https://docs.google.com/document/d/11a7Srmw8AcWNP_XyPq1Rgd3PtX0vklYdChWHvMik9T8/edit

➤ Does each group diagnose their own results?

➤ When and how we summarize the results and how we publish the report?

◆ Next Meeting

➤ Probably the end of September after the web meeting with OP TT co-chairs for SynObs activities.

➤ It will be held probably as the kickoff meeting of SynObs (we will invite all SynObs participants.)