

OPST-4, 17 June 2021



Meeting chat information

COSS-TT presentation

Paul DiGiacomo Very interesting/exciting directions for COSS-TT; thanks Pierre

Pat Hogan

ARCOM is something I haven't heard of, sounds interesting.

Enrique Alvarez Fanjul

Of course, I agree with Pierre and Fraser... more on ETOOFS at day 3...

Fraser Davidson

Enrique Alvarez is here today... Awesome.

Paul DiGiacomo

Pierre/Villy - let's have a chat in the near future so we can also discuss linkages with CEOS-COAST - thanks...

Pierre-Yves Le Traon

Thanks Pierre. Very good list of activities! What do you need to implement them? New resources? Momentum from CoastPredict?

Villy Kourafalou Paul, absolutely.

Gregory Smith

Collaborating with hydrologists to have real-time estimates of river runoff for the global coastal ocean would be an important leap forward. (1 liked)

Pierre De Mey-Frémaux

Thanks for your comments, we took good note of them

Villy Kourafalou Gregg, I agree, this is one of the first priorities for the hydrology linkage

Laurent Bertino

We also need nutrient loads to the ocean.

Villy Kourafalou

Pat, we had very important activities with ARCOM in past meetings. As far as I know, CAW (Coastal Altimetry Workshops) are not happening anymore, so harder to cross-reference model and data needs.

Villy Kourafalou Laurent, fully agree.

Pat Hogan

Thanks Villy. I think I just didn't recognize the acronym. No argument about the importance of the subject! If there's an active group discussing these issues, I'd be interested in participating.

Gregory Smith for Villy Kourafalou:

FYI, we have a project in Canada to implement real-time streamflow forecasts for all Canadian watersheds (many rivers!), including into the Arctic. the collaboration/cooperation of organizations that control flow through hydroelectric dams is a major issue. We've made good progress on this point recently.

Pierre De Mey-Frémaux for Gregory Smith: Do you have a project name? (For my notes)

Gregory Smith for Pierre De Mey-Frémaux: National Hydrological Services (NHS) Transformation Initiative: Prediction Component

IV-TT presentation

Matthew Martin for Greg and Fabrice:

I was wondering if you have a plan for how you might include ensemble forecasting systems within the Class4 framework as more of them come online over the next few years?

Pierre De Mey-Frémaux for Gregory Smith: thx

Yosuke Fujii

Hi Fabrice. Thank you for your presentation. On the collaboration between IV-TT and SynObs or OS-Eval TT, IV-TT have rich experience on defining Metrics, and building the web system for intercomparison. Sharing those experience is very supportive for us.

Gregory Smith for Matthew Martin:

This is an important point on the agenda for discussion with the IV-TT.

Matthew Martin

Thanks Fabrice and Greg.

Villy Kourafalou

Greg, thanks - great to know. Will keep in mind for a possible participation in a CoastPredict Project (also important for the COSS-TT)

Pierre De Mey-Frémaux and Villy Kourafalou agree Simona Masina Fabrice, can we have access to the page?

Gregory Smith

To follow up on Fabrice's comments regarding the transition of the Class4 activity to ETOOFS, I think it's helpful to look at the equivalent activity with the WMO. A standard set of verification scores was defined, and national services contribute to this activity. What we seek is an equivalent activity for the ocean. So rather than the "IV-TT" asking for resources to contribute to a Class4 "research" effort, the request and set of metrics should be established by ETOOFS making this an operational effort. This should have an impact on how the effort is seen by national services and supported more fully. (1 liked)

Fabrice Hernandez

Hi Simona. There is no monitoring page, as you know, IV-TT participants only upload their metrics into the US-GODAE server. Some centres (e.g. ECCC, BoM, Mercator...) developed internal dedicated monitoring tools for their own usage, but there is no official IV-TT real time monitoring. We never had the resources to do so...

Pierre-Yves Le Traon for Greg and Fabrice:

Good discussion. The operational aspects are indeed the role of national centers and the issue is how the TT interacts with the national centers (most likely in the framework of ET-OOFS). NB : GEO BP could help but only to brainstorm on user oriented metrics.

Gary Brassington

We do have a tool that is online for the CLASS4 data, but we circulate this within the IV-TT. We have migrated this to an AWS platform and have sustained this for a number of years. Happy to explore potential use of this for more general use.

Gregory Smith for Pierre-Yves Le Traon:

There is a clear need for IV-TT to focus more on user-oriented metrics as part of the UN Decade. The connection to GEOBP is a good point. The transfer of established Class4 activity (SLA, SST, T, S) to ETOOFS is a part of this shift in focus.

Simona Masina

Thanks Fabrice, so you mean there is nothing in <u>https://www.godae.org/Intermet.html</u>? I am sorry but I cannot access it so I cannot check. As you know CMCC is uploading the data since January 2021 on the GODAE server. Maybe I don't remember well but I thought there was a page in the past.

Fabrice Hernandez for Simona:

Maybe in the past you saw monitoring tools proposed by DFO/ECCC, or BoM (Gary juste mentioned it) or by Mercator...

Gregory Smith for Simona Masina and Giovanni Coppini:

There is no centralized webpage for class4. There was an idea in the past to have a certain set of metrics shown on the GOV webpage, but lack of resources hindered the effort. As Gary notes, individual centres have set up their own visualizations. Also, some centres have restrictions regarding the dissemination of results publicly.

Fraser Davidson for Simona:

We have a best effort example of displaying class 4 files... Click on the dots on the map and it will open the profile plots of the various systems with Class4

https://navigator.oceansdata.ca/public/?query=%7B%22center%22%3A%5B%22-

33.7109%22%2C%2251.0536%22%5D%2C%22dataset%22%3A%22giops_day%22%2C%22depth%22%3A0 %2C%22projection%22%3A%22EPSG%3A3857%22%2C%22time%22%3A2255860800%2C%22variable%22 %3A%22votemper%22%2C%22vectorid%22%3A%22class4_20210601_GIOPS_CONCEPTS_3.0_profile%22 %2C%22vectortype%22%3A%22class4%22%2C%22zoom%22%3A4%7D

(1 liked)

MEAP-TT presentation

Villy Kourafalou

Life2030 would be an excellent UN Decade collaboration platform for MEAP-TT

Yosuke Fujii

Thank you Stefano, SynObs also welcome contributions from MEAP-TT since there are few BGC specialists in OSEval TT, so we need your contribution to seek the synergy between satellite ocean colour and in situ observations. Thank you for your introducing a relating paper.

Stefano Ciavatta for Villy:

Noted, thanks!

Stefano Ciavatta for Yosuke:

This is the full ref - Skákala, J., Ford, D., Bruggeman, J., Hull, T., Kaiser, J., King, R.R., Loveday, B., Palmer, M.R., Smyth, T., Williams, C.A. and Ciavatta, S., 2021. Towards a multi-platform assimilative system for North Sea biogeochemistry. *Journal of Geophysical Research: Oceans*, *126*(4), p.e2020JC016649.

Yosuke Fujii

Thank you, Stefano. I copied the reference. I will check it.

DA-TT presentation

Pat Hogan

Coupled covariances will probably improve the results (RMSE, skill) but it's also a cost-benefit analysis, does it improve it enough to justify the cost?

Pierre De Mey-Frémaux

Does the DA-TT want to push JEDI in the national systems in the next ~10yrs?

Andy Moore for Pierre De Mey- Frémaux:

Personally, I think that JEDI is the way forward

Pierre De Mey-Frémaux for Andy Moore:

I agree but how can the DA-TT help with the transition then?

Andy Moore for Pierre De Mey- Frémaux:

I think it is still early days for JEDI and ocean DA, so I am not sure whether DA-TT should take that stance yet. It is a LOT of technical effort to get a model into JEDI, so it is a significant investment of resources for any group.

CP-TT presentation

Kristian Mogensen for Chris Harris: No problem on my side

Eric Bayler

Coupled prediction is highly relevant to the focus on Arctic prediction, particularly given the increasingly ice-free variability.

Pat Hogan for Greg:

.. and coupled to wave models. Different time scales to be sure, but a lot of work left to do there.

Gregory Smith for Pat Hogan:

Excellent point! Coupling with waves will be a significant area of development over the decade. Especially important in polar regions.

OS-Eval TT presentation

Stefano Ciavatta for Yosuke:

The MEAP-TT can contribute to the SynObs goals directly via the H2020 SEAMLESS project that I mentioned : <u>https://seamlessproject.org</u>

Yosuke Fujii

Thank you, Stefano. I love to collaborate with you. Maybe we need to discuss anywhere.