CHAT – EuroSea/OceanPredict workshop

Day 1 – Session 1 (parts 1, 2 and 3)

29 June 2022

Part 1

[29/06 09:18] Amr Talaat Salama https://oceanpredict.org/events/eurosea-oceanpredict-workshop-on-ocean-prediction-andobserving-system-design/

[29/06 09:41] Hackert, Eric C. (GSFC-6101) Do you get any salinity measurements from fishing fleet and are locations of observations biased by where the fish are? Thanks.

[29/06 09:44] yfujii (ゲスト) What kind of benefits do the fishery people who provide observation data have? I mean they need to have benefits in order to build the partnership.

[29/06 09:45] King, Robert R First Q was regarding depth sampled by fishing nets and various sensors.

[29/06 09:46] King, Robert R Third Q: is there involvement of industrial fleet as well as small-scale fisheries?

[29/06 09:46] Christopher Stokes thankyou

[29/06 09:46] Oke, Peter (O&A, Hobart) Thank you, Robert

[29/06 09:46] Ali Aydogdu Are the profiles taken at the same geographical location or do they drift with the fishing vessel in the horizontal so that they are tilted?

[29/06 09:47] King, Robert R 4th Q: asking for data assimilation details

[29/06 09:47] Miguel Santos (Guest)

Very nice program. we also are developing a similar program here in the Portuguese Institute for the Sea and the Atmosphere. Right now, we have a "ferrybox" in a cod trawler fishing in the Grand Banks of Newfoundland (so we have a transatlantic transept from Portugal Mainland and Newfoundland) and in the future we going to install meteo station and sensors in the fishing gear also [29/06 09:48] Miguel Santos (Guest) I am very interested to talk with you Joao

[29/06 09:48] Christopher Stokes Eric was coming through loud and clear online

[29/06 09:48] Miguel Santos (Guest) my email amsantos@ipma.pt

[29/06 09:50] yfujii (ゲスト) Thank you

[29/06 09:50] Julie Jakoboski

For the questions about the fishing sensor programme that Joao did not have time to answer, I will try to cover them in my presentation tomorrow

[29/06 09:50] Carse, Fiona

Amazing! I would love to come and talk to you and Julie tomorrow - in the UK we have tried to get ' real time fishing gear observations' going for over 10 years and have no success :0)

[29/06 09:52] Julie Jakoboski

Ali, the sensor moves with the fishing gear throughout the water column, so the resulting measurements often do not fit well into a "profile" except for certain types of gear (i.e. potting). We are working through this, especially with regards to sharing via the GTS

[29/06 09:53] Julie Jakoboski To be clear, in the Moana Project programme, fishers can choose whether to share data publicly or not

[29/06 09:54] Ali Aydogdu Thanks Julie.

[29/06 10:08] yfujii (ゲスト)

Maybe the downgrading by using the NRT data are intensified because of the recent abrupt salinity drift. I wonder how large the impact is if you use the NRT data before 2015.

[29/06 10:09] Ali Aydogdu What is the atmospheric forcing you use to run a reanalysis from one month ago?

[29/06 10:10] Philip Browne

Oke, Peter (O&A, Hobart) This suggests that we need to pay very close attention to the QC of argo data in real time assimilation systems? Can we learn from the reprocessing efforts as to how to improve our online QC?

[29/06 10:10] yfujii (ゲスト) Oke, Peter (O&A, Hobart) Thank you for you reply.

[29/06 10:10] Miguel Santos (Guest)

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The ferrybox data on the cod trawler

[29/06 10:12] Carse, Fiona yep it's basic RT QC but is does catch gross errors, spikes, inversions etc

[29/06 10:31] Oke, Peter (O&A, Hobart) Ali Aydogdu (External) What is the atmospheric forcing you use to run a reanalysis from one month ago? We use JRA ... so we are always a few months (3-6 months) behind.

[29/06 10:33] Oke, Peter (O&A, Hobart)

Florent Gasparin ... a lot of work. Well done. Some excellent demonstrations of the impacts of different observing system components in your talk. I wonder if your DA system is tuned to constrain certain scales? Would this have impacted your results do you think?

[29/06 10:35] Oke, Peter (O&A, Hobart) Here too here too here too here too ... 😊

[29/06 10:35] Claire Gourcuff (Invité) It is impossible to hear, at least on my side.

[29/06 10:37] Hackert, Eric C. (GSFC-6101) Nice job Florent, would your results change much if you picked a different period for your experiment (i.e., not an El Nino year, 2015)? Thanks.

[29/06 10:37] Emilia Rizzi no presentation

[29/06 10:38] Florent Gasparin

@Peter, there is a large scale 3DVar bias correction based on only in situ observations, and smaller scale SEEK filter... It might impact results... The system is not tuned to separate scales, but it is on of futures objectives.

[29/06 10:39] Florent Gasparin

#Eric, I don't think that this is dependent on ENSO. Statistics are performed on the 2016-2017 period...

[29/06 10:39] yfujii (ゲスト)

Florent Gasparin Thank you for your presenting comprehensive OSSE results. I am wondering why the large-scale features are not fully recovered by the satellite data. It probably depends on the method of assimilating SSH data. Maybe we need to confirm using multi-system that if Argo data are more effective than the satellite data to constrain the large-scale features.

[29/06 10:39] Hackert, Eric C. (GSFC-6101) Okay thanks

[29/06 10:41] Davidson, Fraser (ECCC)

Florent Gasparin is the scale dependency of the assimilation impact related to geographic coverage density of the different observing systems (satellites tracks are denser (particularly along track) than inter Argo spacing). Very nice talk and as Peter Oke mentioned, a lot of good work behind it

[29/06 10:43] Florent Gasparin

The assimilation of altimetry provides information on subsurface properties based on interrelation from a previous reanalysis, but this can be improved - In situ has a more accurate information on water mass properties.

[29/06 10:45] Miguel Santos (Guest)

João De Souza I am very interested in speaking with you because we have a similar program to use fishing vessels as observing platforms. my email is amsantos@ipma.pt

[29/06 10:46] Florent Gasparin

@Fraser, yes, this scale dependency is likely dependent on other observing system. For instance, we have stronger improvements in mesoscale variability due to in situ when satellites are not assimilated.

[29/06 10:49] Miguel Santos (Guest) João De Souza <u>https://www.ipma.pt/en/media/noticias/news.detail.jsp?f=/en/media/noticias/textos/bacal</u> <u>hoeiroipma.html</u> IPMA - News Detail

[29/06 10:56] João De Souza

Miguel Santos (Guest). Yes, this would be great! Please contact me at j.souza@metocean.co.nz

[29/06 11:00] DURON DIAZ JUAN JAVIER Thanks for the information and thematic exhibitions

Part 2

[29/06 11:24] Wilmer-Becker, Kirsten The recorded presentation from Biswamoy Paul is now available on the website if your audio is not satisfactory: <u>https://oceanpredict.org/docs/Documents/Projects/EuroSea/WS1/Oral/1.4-Paul-Presentation.mp4</u>

[29/06 11:43] Garry Glass (Guest) Online guests need automatically muted

[29/06 12:02] Emilia Rizzi I am the only one not seeing anything?

[29/06 12:03] Femke de Jong same here

[29/06 12:03] Elisabeth Remy It will come...we are setting it here in the room

[29/06 12:17] Ali Aydogdu Sorry if I missed, did you perform any OSEs to calibrate your OSSEs for the existing networks before simulating the synthetic observations from NRs?

[29/06 12:17] yfujii (ゲスト) I missed what "half SWOT" means. And why half SWOT with 5km superobs make the best result?

[29/06 12:19] Alison Fowler How did chose the error correlations to add to your simulated observations?

[29/06 12:20] yfujii (ゲスト) Thank you for your clear answer.

[29/06 12:27] King, Robert R yfujii

I missed what "half SWOT" means. And why half SWOT with 5km superobs make the best result? Hi Yosuke, there are more details on the impact of using half the swath and superobbing in our recent paper: <u>https://os.copernicus.org/articles/17/1791/2021/</u>

Assimilating realistically simulated wide-swath altimeter observations in a high-resolution shelfseas forecasting system

Abstract. The impact of assimilating simulated wide-swath altimetry observations from the upcoming Surface Water and Ocean Topography (SWOT) mission is assessed using observing system simulation ex...

[29/06 12:28] yfujii (ゲスト) King, Robert R Thank you for your introducing the paper. I will check

[29/06 12:39] Philip Browne Nice to see it all tied together Davi 😊

[29/06 12:51] yfujii (ゲスト)

I think the assimilation of the AMOC array observation is not straightforward. Do you consider assimilating individual velocity observations, or the transport across the zonal arrays, or just temperature and salinity profiles observed by the arrays? We can evaluate the data by OSE/OSSE only when the data are assimilated!!

[29/06 12:54] Emilia Rizzi ok thank you

Part 3

[29/06 14:34] Shastri Paturi (Guest) A correction: Memorial University of Newfoundland is in St. John's, NF, Canada

[29/06 14:45] Yongzuo Li (Guest) We are now still in 14:00 - 14:30 30 min Poster introduction session 1?

[29/06 14:46] Martha Dunbar (ICMAN-CSIC) (Invitado) We've moved on to the final 2 presentations of Session 1

[29/06 14:47] Elisabeth Remy Now it is Session 1 - part 3

[29/06 14:52] Yongzuo Li (Guest) Now speaker is 15:10 - 15:30 20 min Andrew Moore University of California?

[29/06 14:53] Martha Dunbar (ICMAN-CSIC) (Invitado) 14:50 - 15:10 20 min Andrew Moore

[29/06 14:53] Martha Dunbar (ICMAN-CSIC) (Invitado) maybe you have an older version of the agenda?

[29/06 15:12] Ali Aydogdu Thanks Andy, how much do you think the dynamics of the California currents impact the % of obs improving the forecast?

[29/06 15:16] yfujii (ゲスト)

I think the interpretation of FSOI is not straightforward since it indicates only 50-60% observations have positive impacts, I think the impacts can change positive to negative if we discard some effective observations..

[29/06 15:19] yfujii (ゲスト) Andy. Thank you for you answer.

[29/06 15:29] Andy (Guest)

For OSSEs, one topic that should probably be discussed is the need for an appropriate community nature run (eg digital ocean) in support of OSSEs

[29/06 15:34] Tomasz Dabrowski Are we starting Session 2 at 16:20, as per the agenda?