

Review response:

This is a short paper giving a brief overview on the setup of an operational model system for the Baltic Sea. As the model description is the central point, model evaluation is given only in examples. The manuscript is certainly a valuable short reference for later applications. Below find detailed comments.

In general, urls are not a suitable replacement for scientific references. Urls should be replaced where possible.

We fixed this problem, but sometimes there is only reference for the website and there is impossible to put other one.

Nothing is written about re-initialization or data assimilation other than a restoring to climatology. Maybe the authors can make a statement on the possibility of results running away from reality. Individual years differ from the climatology. How long will the model be run without any form of assimilation to recent observation?

There is no assimilation currently. The temperature and salinity are restored in North Sea up to Kattegat with restoring time 30 days. It keeps correct values before the Danish Straits and nothing is done for the main Baltic Sea (East of ~13 degrees). The model was tested for long hindcast scenario with ERA 40 atmospheric forces (40 years simulation) with out any problems.

Page 1857, 11: The sentence "As evidenced by ..." does not make a sense to me. Maybe some words are missing?

Yes, you are right; this sentence does not make sense. We fixed it.

Line 13: Why is not the high resolution version of Era40 used?

Only low resolution is available for public with no charge.

Page 1859, line 18 I cannot see that Fig. 2 describes two model configurations.

There was our mistake, we fixed it and it should be fine now. We are very sorry.

Line 22 etc It remains to the editor to decide if a handbook-like description of the analysis tool is suitable for this journal.

I will leave those lines for editor too.

Page 1860, line 8+9 A measurement cannot be performed by a mixing scheme.

Maybe some words are missing here?

You are right, this sentence has been fixed.

Page 1860, line 10: The Figure-presentation of the three Baltic Sea sections is not acceptable. It should be possible to display identical sections in depth coordinates with somehow comparable topography and identical colorbars.

We do not understand the question? Could you tell us which figures should have the same color bars please?

The question of the quality of the different mixing schemes is a larger one and can probably not answered by presenting just one section at a certain time of the year. But that is not the topic of this paper. However the authors might be willing to share their

insights on the models vertical stratification in some additional sentences? Certainly the KPP is not perfect and it would be interesting to get a glimpse on the overall situation in other regions and other times of the year.

That is true, but it is an example only and comparison of the mixing schemes is not a topic of this paper.

Line 16. Something is wrong with the logic of this sentence. Maybe it is meant like this: Simulations were performed with historical forcing. Resulting fields were then compared with output from other models and with observations?

Markus Meier in his paper did the same comparison and our image looks very similar to his result. It means it is compared with other model and observations.

Line 22 What is meant by "observed regularities"?

We are sorry for misleading sentence, this was corrected.

Line 26: What is meant by "processes were regular"?

We are sorry for misleading sentence, this was corrected.

Page 1862, line 20 Has "daily variability" been evaluated in this paper?

In several parts, the manuscript has severe problems with logics within sentences.

Yes. See figures 7 and 8 and website.

We are sorry for misleading sentence, this was corrected.

GMDD

The paper would benefit from a more careful language. 5, C651–C653, 2012

Interactive comment on Geosci. Model Dev. Discuss., 5, 1851, 2012.

We would like to express our thanks to Reviewer for his/her very instructive and profound comments.