

## ***Interactive comment on “Activation of the operational ecohydrodynamic model (3-D CEMBS) – the hydrodynamic part” by L. Dzierzbicka-Głowacka et al.***

### **Anonymous Referee #2**

Received and published: 6 September 2012

Review of “Activation of the operational ecohydrodynamic model (3-D CEMBS) – the hydrodynamic part” by L. Dzierzbicka-Głowacka, J. Jakacki, M. Janecki, and A. Nowicki

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.

Nothing is written about re-initialization or data assimilation other than a restoring to C651

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?

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

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

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

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

Page 1860, line 8+9 A measurement cannot be performed by a mixing scheme. Maybe some words are missing here?

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.

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.

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 ?

Line 22 What is meant by "observed regularities"?

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

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

In serveral parts, the manuscript has severe problems with logics within sentences.  
The paper would benefit from a more careful language.

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

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