Geoscientific
Model Development
Discussions

Interactive comment on "Tuning and assessment of the HYCOM-NORWECOM V2.1 modeling system" *by* A. Samuelsen et al.

Anonymous Referee #2

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The paper "Tuning and assessment of the HYCOM-NORWECOM V2.1 modelling system" by Samuelsen et al describes changes and testing of a selection of biogeochemical paramaterisations within the model for Arctic and Barents Sea regions. The subject is appropriate for the journal and while the substance of the paper is fairly weak, the analysis is performed very well, using appropriate statistical metrics. The writing is continuously deteriorating throughout the paper and needs major improvement, which will probably allow to shorten the paper quite a bit. This applies particularly to the discussion, which appears unsorted, repetitive and unclear. Hence I recommend publication after major revision with respect to the writing.

Comments:

Throughout the paper, please be careful with the usage of the word "data". Both model

output and observations are data and sometimes it is rather confusing if "data" is used without further specification, particularly if the application of the word switches between modelled and observational data. I recommend for most cases to replace the word data with the word "observations" (where applicable) and use model data or model output at others.

I would recommend using names for the model versions discussed rather than the use of: the current version, this version, the original version, the version from 1998 . . . .

Revise title to somehow include "Arctic" and "biogeochemical"

Detailed comments:

p8400 l 5 has -have l 7 The model revisions l 13/14 rm sentence "probably as a result... l 24 BGC models are less accurate – what does that mean? 8401 l 5/6 this sentence doesn't make sense 8402 l 8/9 suggest: ...for forecasting and regularly evaluated using in sutu....and sea ice. L 21 derived from GlobalNEWS model output L24 proved ??? => provided? 8403 L5 determine => determines L10 is – are L11 and silicate => and nitrate? L16/17 rephrase L23 the same as - derived from (or add "in") 8404 L20 runs, to limit the computational cots, as the 15km . . . 8405 suggest putting table 3 in an appendix L 5-7 confusing, rephrase L19 In the case that....=> In case of several . . . L20 Rm sentence One caveat...modelled chlorophyll superfluous

2.3 what data???

8406 L9 -11 shorten: A combination of metrics ** and ** was used.. ...are defined as: Eq 6 what is n

Interactive comment on Geosci. Model Dev. Discuss., 7, 8399, 2014.