

Interactive comment on “Estimation of oceanic sub-surface mixing under a severe cyclonic storm using a coupled atmosphere-ocean-wave model” by Kumar Ravi Prakash et al.

Anonymous Referee #1

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Comments on the paper "Estimation of oceanic sub-surface mixing under a severe cyclonic storm using a coupled atmosphere-ocean-wave model"

General comments The authors investigate the effects of sub-surface mixing in the ocean under severe storm conditions. The introduction and the reference give the impression that the authors know very well the relevant publication and the overview they give is very nice. To my understanding the novel approach of the article is the use of a coupled atmosphere-ocean-wave model to investigate to simulate the atmospheric and oceanic properties on a very fine scale. The focus is on the generation, propagation and dissipation of kinetic energy in the ocean. I would definitely recommend the

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publication of the article, although the English is not very well. Almost each sentence is missing an article or the third person "s" is neglected and Ocean is often spelled with capital O. This is not acceptable. In detail: The abstract is much longer than the conclusions which should be the other way around. And there is not substantial note to the model system used in the article although this is a very important point. Without the model, the investigation could not have happened. So the abstract should focus more on the novel approach and the details of the findings should be discussed in the conclusions. Page 3, line 65: NIO is one of the important factors, what are the others? Page 8, line 211: where are the 15m to be seen? The link between the description and the figures is not really strong. Page 9, line 240ff: Unclear that the tidal and near/inertial oscillations are the two dominant frequencies. Line 250/251: sentence not understandable. What are the other processes?

Interactive comment on Ocean Sci. Discuss., <https://doi.org/10.5194/os-2017-83>, 2017.

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