

Geosci. Model Dev. Discuss., referee comment RC1
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Comment on gmd-2022-27

Stephen M. Griffies (Referee)

Referee comment on "Cloud-based framework for inter-comparing submesoscale-permitting realistic ocean models" by Takaya Uchida et al., Geosci. Model Dev. Discuss., <https://doi.org/10.5194/gmd-2022-27-RC1>, 2022

This is an enjoyable piece of work that documents a tremendous and exciting advance in our ability to analyze ocean models. I fully support publication and offer only minor comments.

line 63: The phrase "we more often than not do not possess" is very awkward. How about "commonly, we do not possess..."

line 112-113: I did not find "absolute dynamic topography" in Gregory et al (2019) paper. Even if ADT is the name used by AVISO, please do connect directly to the now-standard nomenclature in Gregory et al. Furthermore, note that "dynamic topography" is a deprecated term listed in Section 8 of Gregory et al, with three recommended replacements depending on the context. So again, please move to the new nomenclature to avoid confusion.

line 115: where precisely in Gregory et al (2019) are you pointing to? Again, I do not recall us defining "absolute dynamic topography" in Gregory et al, though perhaps I am missing something. And again, "dynamic topography" is not a recommended term since it has multiple meanings depending on the science community.

Figure 2: Some model grid spacing is given in km and others in degrees. In the caption, or in Table A3, it would be useful to see a common approach. Additionally, please provide the number of grid points in the domain in Table A3; i.e., the "resolution" as it is normally meant, say, for a computer screen.

line 133: "interesting". But I think it is "expected", right? If unexpected, then comment.

Figure 4: I failed to find information about the geographical location of this frequency power spectrum.

END OF REVIEW
