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Ocean Science
Discussions

Interactive comment on "Technical Note: Two types of absolute dynamic ocean topography" *by* Peter C. Chu

P. Chu

pcchu@nps.edu

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Reviewer #2 (Prof. C.K. Shun) 's outstanding review and encouragement are highly appreciated. The comments are extremely useful for the revision. Below are my responses to these comments.

Assessment:

" . . . As a result, the author concluded more studies need to be done based on the finding which indicated that "the satellite determined DOT does not conform with the basic physical oceanography principle of geostrophic currents". While this original study may be unconventional, but the hypothesis stated and the approach based on the first principle to reveal the differences of the two types of DOTs commonly used is novel,

I recommend publications with minor revisions. See the attached annotation of the manuscript."

Thank you very much for your encouragement and support.

Annotated Comments in Supplement

The annotated comments are extremely important. My responses are listed as follows.

(1) "The terms 'geoid' (or 'marine geoid') and DOT (or MDOT) in the text, have been used interchangeably, causing a bit of confusion. Please check and make sure that there were not errors."

Done.

(2) "DOTs are NOT equal to marine geoid? please clarify the question. It is apparent that you are contrasting two types of DOTs (not contrasting DOTs and geoids?). May be you mean AND the differences of the two types of geoids. Please make it more clear (Line 119 in original version)."

I revised: "Do the horizontal gradients of the second type MDOT ( ) represent the absolute surface geostrophic currents?" See Lines 117-118.

(3) Marked editorial corrections

Done.

Please also note the supplement to this comment:
https://www.ocean-sci-discuss.net/os-2018-51/os-2018-51-AC3-supplement.pdf

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