

Author Responses

Surface circulation in the Gulf of Thailand from remotely sensed observations: seasonal and interannual timescales

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The author comment is presented in the following sequence: (1) itemized comments from the editor in black, (2) author's response in red, (3) the revised text is in red italic.

Thank to the editor and the reviewer for your helpful comments.

Comments to the author:

Editor comments (as already sent to you)

The author was not aware of the comments and had missed them. The author apologizes for not taking care of these comment earlier.

I agree with the referee comment that figure captions would be clearer if panel labels (a), (b) etc. came before the description of their content. It may help that figure captions do not have to be complete sentences (verbs are not required).

As one referee commented, some of your sentences are very long and the manuscript could be easier to read if you divided long sentences into two or three shorter ones. If you want to link the parts, you can use “;” rather than “.” between the two or three parts.

The author is sincerely thankful to both the editor and the reviewer for your suggestions to improve the manuscript. The author tried the new caption format and breaking down long sentences.

Line 159. In relation to Reviewer 1 comment 7, you have not said why you ignore CEOF modes 3, 4, . . . This would be strange if mode 3 accounted for 13.9% of the variance. An empirical criterion is given by the trend in variance accounted for by modes 173, 172, . . . 5, 4, 3, 2, 1. Which of the modes 1, 2, 3, . . . clearly account for more variance than would be estimated by extrapolating the trend from the higher modes?

The first few modes of the CEOF computed from the OSCAR circulation accounts for 28%, 14%, 10%, 7.4%, etc. The text has been updated to clarify this point.

(L169) The first few CEOF modes explain 28%, 14%, 10%, and 7.4% of the surface current variance, respectively. Therefore, only the first 2 modes are considered to represent the dominating GoT circulation patterns (Figure 3).

Line 162. “the seasons.” Maybe “these seasons” or state which seasons.

The accordant change has been implemented.

Line 210. “both” tends to suggest the winds in two monsoon states and not necessarily the current. Maybe “. . . influence of monsoon winds and of the current . . .” if you want to include the current as an influence.

The author thanks the editor for pointing this out. The change has been made to make the sentence clearer.

Figure 8 caption lines 5, 6. I think the boxes are blue, not maroon. [I think you cite figure 8 before figure 9 – and many times before the second mention of figure 9 – so their order seems logical.]

The figure caption has been updated accordingly.

Referee comments

The manuscript is responsive to the criticism raised by the reviewers of the initial submission.

I suggest the equation (7) be moved to methodology.

Equation (7) has been moved to methodology.

In response to this reviewer the author stated “the author tried to emphasize the significance of this study better in abstract...”. I would suggest adding a closing sentence that summarises the main results and their implications.

A sentence has been added to highlight the main finding of the study.

(L13) The results highlight the complex circulation pattern as being contributed by different dynamics over each region of the GoT.

The new version mentions eastern coast of Malaysia (L28) but there is not indication of where Malaysia is located in Figure 1.

The author thanks the reviewer for bringing up this point. As Malaysian northern border is $\sim 6.7^\circ$ N, Figure 1 does not include Malaysia. However, the text has been updated to mention the location of Malaysia.

(L20) Although the GoT circulation also heavily dependent on inflows from the SCS, e.g., along the eastern coast of Malaysia located to the south of $\sim 6.7^\circ$ N and around the southern coast of Vietnam, these currents are also mainly driven by the monsoon winds (e.g. Wyrcki, 1961; Akhir, 2012).

Quality of Figure 3 could be improved.

Figure 3 has been modified: lines are thickened and dots are enlarged. The figure is also enlarged.

The manuscript needs editing to correct errors in grammar, language usage, clarity, etc. [Editor note: “minor revision” means that I will look at it again; moreover, it will be copy-edited by the publisher Copernicus]

The text has been updated to correct as much language errors to the best of the author’s ability.