

## Report #1

Submitted on 05 Nov 2024	
Anonymous referee #1	
<b>Anonymous during peer-review: Yes No</b>	
<b>Anonymous in acknowledgements of published article: Yes No</b>	
<b>Checklist for reviewers</b>	
<b>1) Scientific significance</b> Does the manuscript represent a substantial contribution to scientific progress within the scope of this journal (substantial new concepts, ideas, methods, or data)?	Excellent Good Fair Poor
<b>2) Scientific quality</b> Are the scientific approach and applied methods valid? Are the results discussed in an appropriate and balanced way (consideration of related work, including appropriate references)?	Excellent <b>Good</b> Fair Poor
<b>3) Presentation quality</b> Are the scientific results and conclusions presented in a clear, concise, and well structured way (number and quality of figures/tables, appropriate use of English language)?	Excellent <b>Good</b> Fair Poor
<b>For final publication, the manuscript should be</b>	
accepted as is	
accepted subject to technical corrections	
accepted subject to minor revisions	
reconsidered after major revisions	
rejected	
<b>Were a revised manuscript to be sent for another round of reviews:</b>	
<b>I would be willing to review the revised manuscript.</b>	
I would not be willing to review the revised manuscript.	

## Report #2

Submitted on 14 Nov 2024	
Anonymous referee #2	
<b>Anonymous during peer-review: Yes No</b>	
<b>Anonymous in acknowledgements of published article: Yes No</b>	
<b>Checklist for reviewers</b>	
<b>1) Scientific significance</b> Does the manuscript represent a substantial contribution to scientific progress within the scope of this journal (substantial new concepts, ideas, methods, or data)?	Excellent <b>Good</b> Fair Poor
<b>2) Scientific quality</b> Are the scientific approach and applied methods valid? Are the results discussed in an appropriate and balanced way (consideration of related work, including appropriate references)?	Excellent <b>Good</b> Fair Poor
<b>3) Presentation quality</b> Are the scientific results and conclusions presented in a clear, concise, and well structured way (number and quality of figures/tables, appropriate use of English language)?	Excellent <b>Good</b> Fair Poor
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<b>I would be willing to review the revised manuscript.</b>	
I would not be willing to review the revised manuscript.	
<b>Suggestions for revision or reasons for rejection</b> (visible to the public if the article is accepted and published)	
The authors have answered all my comments, I recommend publication of this work.	

## Suggestions for revision or reasons for rejection

(visible to the public if the article is accepted and published)

Second review of "Benefits of a second tandem flight phase between two successive satellite altimetry missions for assessing the instrumental stability" by Ablain et al. The authors present a validation method to assess the instrumental drifts in the global and regional mean sea level trends based on the implementation of a second tandem phase between two successive satellites. The topic is a significant scientific contribution and, after the authors implemented all the changes to the manuscript, the methods and the results are valid and presented in a clear and well structured way. There are still a few small and mainly technical things that should be corrected, but other than that I recommend accepting this manuscript.

Here is a list of corrections that should still be made in order of appearance:

L55, L70-71 There should be no parentheses around the year.

Corrected

L103 It would be better to use the word line instead of curve. Curve implies that a line is curved, and this one is not.

Corrected

L130 tree -> three

Corrected

L167 There is a citation missing.

Maybe a problem when the pdf file was exported, because the citation is not missing.

L195 space missing

Corrected

L203 space missing

Corrected

L268, L272 There seem to be extra spaces between the opening brackets and the numbers.

Corrected

L278 extra space

Corrected

L296 extra space twice

Corrected

L297-298 It does not really make sense to write "as a function of the time spent between... (2 years and 9 months)". Either it is a function of time, or it is for a fixed time of 2 years and 9 months. Perhaps you would like to say something like: "as a function of time..., with special focus on 2 years and 9 months as in the adopted scenario"?

Corrected by removing the text "(2 years and 9 months)" which is not useful in this sentence.

L341 This is the only time in the manuscript you refer to Jason-3 as J3, except in the figures. Since you use the whole name everywhere else, it would be better to use it here too (or to use the abbreviation throughout the manuscript).

Corrected

Fig 2 For (c) caption says J3/S6-MF, but in the figure it is J3/S6A

Corrected

Figs 3-6 have "Uncertainties at 68 % CL (1sigma)" in the legend. That is rather confusing, especially in Fig 6, where you also show the envelopes. It would be better if you moved this to the y axis label (deltaRMSE trend uncertainty at 68 % CL...).

Corrected

Fig 4 There should be no space between the degree symbol and the number.

Corrected

Fig 6 It says differences twice in the caption.

Corrected

Table 2 Thank you for providing those uncertainties in the reply, but it would be better to also have them in the table. In Table 1 you provide values for all three mission pairs, even though you only use one, so it is strange that here you only provide the values for one grid box size, even though you use all of them.

Corrected