

# Response to the Editor

Colour Key

Reviewer Comment, [Author Response](#), [Enacted Manuscript Change](#)

We would like to thank the editor for reviewing our manuscript and for making helpful suggestions and corrections to further improve the clarity of our work.

## Editor Comments

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

To the authors,

You have done a thorough job responding to the reviewers' comments. While several criticisms of the methodology arose from the reviews, you convincingly responded as well as adapted the methodology where needed. Minor revisions are needed, as outlined below, before the manuscript can be published.

Best regards,  
Alex

Minor comments:

L1: North Sea => The North Sea

[Corrected](#)

L5: sheer => shear

[Corrected](#)

L19: as well as those => as well as by those

[Corrected](#)

L32: focus upon => focus on

[Corrected](#)

L32: during LIG => during the LIG

[Corrected](#)

L72: Delete "by"

[Corrected](#)

L86: dynamical => dynamic

[Corrected](#)

L98: sheer => shear

[Corrected](#)

L99: ensemble => an ensemble

Corrected

L99: sheer => shear [and throughout the text]

Corrected

L112: sheer

Corrected

L115: computation => computational

Corrected

L162: accuracy => accurately

Corrected

L174: upon late => on the late

Corrected

L275: In Figure 2, only three categories are given in panel A, which I believe is the relevant panel here. Perhaps you could add some contours to indicate the independent categorized regions, or explain how they relate to what is shown in the map.

We thank the editor for highlighting this. The original phrasing of this paragraph is confusing. For clarification: Panel A shows only three categories as we don't use the original 5 category map that we describe in the text. We instead use a modified version that has simplified two of these categories into one (three categories, panel A), while also separated out the ice streaming category (panel B) to allow for modification to the extent of ice streaming. This is so if we shrink the extent of ice streaming, we still have a shear stress value underneath to use, whereas the previous map had the ice streaming regions burned in.

We believe that our changes to the text should now clarify this point, and believe that modifications to the figure to include additional contours may act to confuse things slightly, and so we choose to leave the figure as is, but we have modified the figure caption to improve clarity.

Clarified that the original map is a separate piece of work, and merged paragraph to highlight that we used a modified version. Explicitly stated and referenced panels A and B for the 3 sediment categories that underly the map and ice streaming categories respectively.

L279: dynamical => dynamic

Corrected

L403: "less than 3" <= I think what you mean here is "greater than 3". The NROY space you define is less than 3 (as mentioned earlier and pointed out by the reviewer), but here you remove simulations that have values greater than 3. Please check and clarify. As it is written, "less than 3" does not make sense here.

Thank you for correcting this typo, you are correct in that we meant to exclude members with greater than 3 sigma implausibility. This got mixed up when correcting the previous typo throughout the text.

Corrected

L417: is likely reflecting => likely reflects

Corrected

L418: rain show reductions => rain shower reductions [? This phrase is not clear.]

Here we meant the effect of a rain shadow on accumulation.

Corrected typo and clarified sentence in text.

L419: ice-dome dome => ice dome

Corrected

L420: consistent => is consistent

Corrected

L564: "By obtaining ..." <= This sentence is not clear, please revise.

Here we meant that having access to the full ensemble from previous works, rather than just the mean/single ensemble member, would allow for more robust analysis of observation uncertainties.

Changed sentence to clarify this point.