

The Cryosphere Discuss., author comment AC1
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Reply on RC1

Isolde A. Glissenaar et al.

Author comment on "Impacts of snow data and processing methods on the interpretation of long-term changes in Baffin Bay early spring sea ice thickness" by Isolde A. Glissenaar et al., The Cryosphere Discuss., <https://doi.org/10.5194/tc-2021-135-AC1>, 2021

We thank the anonymous referee for their quick and useful comments. We appreciate the time and effort dedicated to providing feedback on our manuscript and are grateful for the comments. We believe we have been able to address each of them.

L314: "different for different" suggest to change to "vary for different"

Thank you for this suggestion. We have made this change.

Figure 6/8: While from what I understood, the CryoSat-2 CCI product mainly plays a role in the supplementary data, and I could probably guess correctly which uncertainty envelope belongs to which data set it can not directly be identified from the Figure or the legend as at least in my print out, they look exactly the same. I would encourage the authors to change this in some way or at least add a hint in the figure caption for clarification.

Thank you for pointing this out. We have changed the colours of the two CryoSat-2 envelopes to make them more distinct. We hope this will make it easier to distinguish the two.

L354 and L379: In several occasions, I find a change between "east-west" and "west-east" asymmetry in sea ice thickness in the manuscript. Now I am unsure whether I missed something or this is the lack of me being not a native speaker but this appears inconsistent to me and I suggest to change this.

We have changed this to consistently call it 'west-east' asymmetry.

L366: I assume this refers to the CS-2 LARM product? Please clarify.

Yes, this is the CS-2 LARM product, we have clarified this in the text.

Figure 9c: I find the colormap choice not ideal with white at the high end and the general range up to 25 weeks. The resulting maps already appears to be rather "step"-ish, hence, I would suggest to use either something more qualitative or limit the number of classes depending on the exact values to week ranges for an overall better readability.

We have made the colormap qualitative and gave the high end a light blue colour instead of white.

L416: Same as comment for L366.

This is true for both the CS2-LARM and the CS2-CCI product. We have clarified this in the text.

