

Dear Dr. Derksen,

Thanks for your comments.

We have changed/removed the text as you suggested. Our detailed response is shown as **blue fonts** in the following.

Comments to the Author:

Thank-you for your revised manuscript. The reviewers have accessed your updated results, and the paper is now suitable for publication in the The Cryosphere. I have noted some minor corrections below. Thanks for your contribution to The Cryosphere.

Chris Derksen

(Note that page and line references are from the tracked changes version of the revised manuscript)

Page 4 line 25: change to "...with the exception of the Atlantic section..."

changed

Page 4 line 27: change to " ...and with the highest annual TP..."

changed

Page 6 line 2: change to "misrepresentation"

changed

Page 7 line 21: remove "as we found"

removed

Page 11 line 28: Not clear why simplified snow and ice thickness in both reanalyses would lead to larger warm bias in ERA5 compared to ERA-I?

We removed the sentence of "It may also be partly attributed to the simplified representation of snow and ice thickness in the reanalyses". Simplified snow and ice thickness may affect the surface heat budget, for example, overestimated conductive heat flux. But without full study, we will not give such a claim in this study.

Page 12 line 21: change to "The effects on ice growth are very small (one the order of the centimeters) during the freezing period.

Changed

Your truly

Caixin Wang

On behalf of all co-authors