

## **tc-2021-46-comments-to-author**

Thank you for your submission to be considered for publication in The Cryosphere. The authors addressed all main points in their review, which now includes the final released version of the AVHRR GAC dataset. Some of the main criticism highlighted the absence of a snow map, a lack of description of the product and a weak analysis of the performance.

In their response, the authors did add a map, and I think the analysis of the performance of the dataset based on elevation steps really improves the paper. However, it would have been interesting to see the results of the evaluation in the review provided which would help further understand the performance of the dataset as a function of topography.

I therefore feel all main concerns have been addressed and the paper can be published.

Regards,

Prof. Dr. Alexandre Langlois

Associate editor, The Cryosphere

Dear Alexandre Langlois

Thanks a lot for your response to our review comment. We appreciate your comment about inclusion of the evaluation on elevational dependence in the review. However, we added all new figures in our authors responses. Furthermore, the restructured paper holds a new sub-chapter called “4.2.2 Pixel-based comparison and potential influential factors on accuracy” in which the elevational dependence and interplay with land cover, slope, aspect and topographical variability is analysed and discussed in depth.

We are thus now looking forward to submit our final revised paper and thank you for the consideration of our article being published in The Cryosphere.

Kind regards

Xiaodan Wu