

The manuscript from Goliber et al. collates terminus shapefile from a variety of different published studies into one dataset, complete with metadata, with the ultimate aim that the dataset could be used as training data for machine learning.

I think this is both an excellent manuscript and dataset and I enjoyed having a look through the dataset and the associated Google Earth file. I certainly recommend the publication of this manuscript in The Cryosphere. I do have a few very minor comments which the authors may wish to consider.

Thank you for the positive feedback and comments on the manuscript, and we are glad you enjoyed looking through the data. As we addressed comments, the original line numbers of the text may have changed in the final manuscript. The changed text has been noted in the responses to individual comments. Our responses are in blue below each comment.

Line 91: Why exclude glaciers with less than two authors digitizing them? What is the rationale for this?

- My text here is unclear and overly complicated. We decided to exclude glaciers with only a single trace and therefore no timeseries information. These were generally glaciers that were very small. The text has been changed to “We excluded terminus picks where only one pick was available for the glacier over all authors as well as land-terminating glaciers” for clarity.

Section 3.2: Is there a bias here, in that most of the repeated terminus picks I presume are from the later periods i.e. 2000-2020. Here the imagery is of much superior quality, which would result in a lower error. In particular most of the Landsat-1 scenes have a pretty poor geolocation accuracy and often require a manual correction, could this result in a much larger error?

- Yes, this may be the case and we do find slight difference between errors pre-2000s to post 2000s. However, much of the largest errors (>5k) are in the 2000-10 due to differences in tracing of fractured ice tongues. The figure below is for dates with more than one trace from at least 2 different authors with a Hausdorff distance of <500 m. It shows there is a slight increase in error (<200m) in the 2000s but there are also more duplicated traces during that time overall. These are all the dates pre-removal noted in line 232.

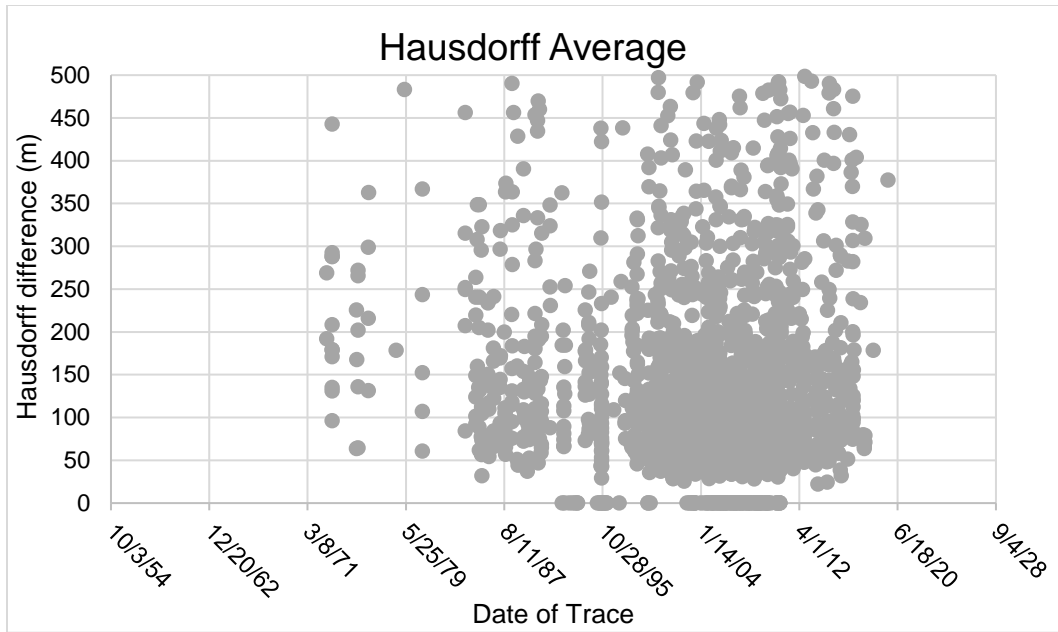


Figure 9: There seems to be a large difference between the authors in this figure in the calculated retreat, but I can not distinguish any difference on the figure due to the thickness of the shapefile. Could the thickness of the shapefiles be reduced to help with this?

- Figure has been updated with new colors, reduced line thickness and opacity to help distinguish the difference.