Comment on tc-2021-311
Anonymous Referee #2

Referee comment on "TermPicks: A century of Greenland glacier terminus data for use in machine learning applications" by Sophie Goliber et al., The Cryosphere Discuss., https://doi.org/10.5194/tc-2021-311-RC2, 2021

Review: TermPicks: A century of Greenland glacier terminus data for use in machine learning applications

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.

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

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?

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?