

I commend the authors for a very thorough revision that significantly improved the manuscript and dataset. While all my previous comments have been addressed, further minor revisions are necessary which are outlined in my detailed comments below.

Abstract

Line 23: What does GrTDP stand for? Maybe write it out first and then add the abbreviation in brackets.

Introduction

Line 46: Currently, the Enderlin et al., 2014 and Mouginot et al., 2019 citation are the are incorrect as both discuss ice discharge and not frontal ablation. While similar, they are not the same. I would suggest changing “frontal ablation” to “ice discharge”.

Line 96: Add space between “glaciers” and citation

Line 99: Add space between “adjustment” and citation.

Line 101: Add space between “variability” and citation.

Line 110: Please write out the abbreviation when first used.

Figure 1: Maybe include in the caption for panel a) what the legend means as it might not be obvious to all readers. Also, include a citation for the Basins as I assume that they are the Mouginot et al., 2019 drainage basins.

Data and Methods

The numbering of the headlines is not correct in this section – It goes from 2.1 to 2.4 to 2.3 with 2.2 missing.

Line 148: GEEDiT is an abbreviation and should be written out the first time it is used. Also, the citation for GEEDiT (Lea, 2018) is missing.

Line 152: Add “and” between citation and “were manually downloaded”

Line 152: I am not sure the citation of Rignot and Kanagartnam, 2006 makes sense here. While they are using ASAR in 2004, they are using ERS1/2 for winter 1996 which is not within of the timeframe of the dataset presented here. Consider moving the citation to after the ASRA segment, and please add a citation to the ERS1/2 segment of the sentence.

Line 166: Change “was” to “were” as you are referring to satellite acquisitions.

Lines 177-178: Consider adding a citation to support the statement that glacier retreat at these glaciers is gradual and linear over monthly timescales.

Line 196: remove comma before semi colon.

Line 216: Change “terminus” to “termini”.

Line 230: What auxiliary dataset were used?

Figure 2: I am not sure what the box on the right under Quality Assessment is showing – Either include a description in the caption or consider removing it.

Validation

Line 278: Change “summaries” to “summarize”.

Lines 279 – 280: Repetition of Line 272. Consider removing.

Line 289: Remove “the” before Fig. 3a and c.

Lines 305 -308: The dashed horizontal lines in Fig. 3b and d are very hard to see. Consider choosing a different color. Also, both dashed lines appear to be at 0 so I do not understand how they can emphasize the difference between the two products.

Line 331: Add space between CALFIN and citation.

Line 340: Add space between “offset” and “(>1km)”.

Line 349: change “as the calving” to “at the calving front”.

Line 359: Change “well consistency” to “good consistency”.

Zenodo repository

- In the description, please use citations when referring to other datasets or tools e.g. GEEDiT, TermPicks etc.
- Rename “GrTPD_Centralline.gpkg” to “GrTPD_Centerline.gpkg”
- For Glacier ID101 the glacier name is “Spalteglet” which should be changed to Spaltegletsjer.