

Second review for “REMA reveals spatial variability within the Dotson Melt Channel”

The authors have done an excellent job responding to reviewer comments. I have only minor suggestions for clarification and a few typographical catches, detailed below.

Also, for future reference (I do not think it’s necessary to update for this study), there is a newer DTU MDT model available - <https://ftp.space.dtu.dk/pub/DTU22/MDT/>

### **Points of clarification**

L. 143 – Please add a brief justification for the 30m filtering threshold. It seems that this might filter out the advection of some large crevasses, but as the authors indicate later, these are not the focus of the study.

L. 219 – is the “fourth criterion” referenced here described in the previous sentence that begins with “Likewise”? If so, please add “(iv)” somewhere in that sentence.

L. 223 – Please add a brief description of how the “yearly median DEM” is produced. Is this the same as the yearly mosaics shown in Fig. 3 and Fig. 4E?

L. 224 – Please add a brief clarification on how the tri-yearly linear trend is defined. Based on the later references to it and Fig. 6, it seems like the 2010/11-2014/15 map in Fig. 6d, for example, is produced from all possible combinations of yearly mosaics in that time period.

L. 261-264 – Please consider adding a brief statement on accounting for the flow-shifting of ice across the grounding line. Do you consider the vertical component of velocity there as the ice flows down steep slopes?

L. 353 – Please indicate what the distance 10-15 km refers to (I assume it is distance along cross-section B-BB)

### **Typographical suggestions**

L. 154 – consider “...related to surface processes, monthly surface mass balance values ( $M_s$  in eq. (4)) are obtained...”

L. 164 – “This also means that we have applied...” → “This also means that we apply” for tense consistency

L. 187 – Consider “...regardless of tides etc.” → “...regardless of variations in sea level”

L. 193 – I don’t think the sentence beginning with “Possible implications...” is needed.

L. 216 – “1 and 2” → “(i) and (ii)” for consistency. Why is criterion (ii) self-referenced here?

L. 217 – “...sufficient amount of REMA...” → “...sufficient number of REMA...”

L. 269 & 282 – add “eq.” with “(4)”

L. 278 - → “...DEM mosaics is then obtained...”

L. 309 - → “...eastern zone”

L. 342 - → “Dotson Main Channel” for consistency