

I would like to thank the authors for the effort they put in the revision of the manuscript. Please find below some minor additional remarks (line numbers refer to the revised manuscript with marked changes):

Point-comments

L105: I would specify the precipitation types that were used from MERRA-2 – e.g. “precipitation rate (convective/large-scale rainfall and snowfall)”

Fig. 1: You added degree symbols to this figure in the author’s response – but they are not present in the final manuscript (maybe you forgot to update this figure).

Table 3: You could refer to Sect. 3.2 here: “Undetectable signals (see Sect. 3.2) are...”

L291: You could move the liquid-to-solid ratio (LTSR) computation to Sect. 2 (Methods and data)

L317: Now, I’m a bit confused. Do you set all grid cells that do not receive enough accumulation to build up a firn layer to NaN? It seems so from Fig. 6. That means that spatial averages (e.g. for FAC) are actually rather computed over the accumulation zone than over the entire GrlS – right? I think it would be useful to state this somewhere explicitly (in case you apply this method...).

L401: Value “52” inconsistent with table 3.

L423: Sorry, I did not notice this during the first review iteration. There seems to be a systematic deviation between the modelled and observed ice slabs – i.e. the observed ice slabs are typically located a bit more towards the interior of the ice sheet (and thus probably buried by firn). Is this an indication that both models underestimate the formation of (such buried) ice slabs?

Typos, phrasing and stylistic comments

L314: “A few areas of missing data exist (see Fig. 6), which is caused by modelling issues in one or both firn models.”

L354: “sine wave” → “sine function”

L435: “than in any other subset”

L436: “models at greater (>10 m) depths.”

L477: “have higher model uncertainties” or “have a higher model uncertainty” (?)

L552: “atmospheric forcing and the variable densification schemes.”

L581: “at greater (>? m) depth.” (?)

L613: “reveal significant differences but also perform well within a reasonable range.” (or similar...)

L656: “required conditions” (?)

Fig. A1: “which falls near many...” → “which agrees well with mean observed surface density.” (it’s probably better to mention this fact in the context of panel (b)).