

Answer to Referee #1

We would like to thank the referee for their time and comments.

We have included "partially" in the abstract.

We agree that the sentence in the methodology saying "We inject a constant freshwater flux of 0.1 Sv (1 Sv = $10^6 \text{ m}^3 \text{ s}^{-1}$) averaged freshwater flux during the melting months" may lead to misunderstanding, as it could be interpreted as meaning that the flux is constant during those months. Therefore, we have rewritten the sentence to read "We inject a freshwater flux during the melting months (May-September, according to Bamber et al., 2018), which peaks in July (see Fig. 1a). The average over these five months is 0.1 Sv (1 Sv = $10^6 \text{ m}^3 \text{ s}^{-1}$), equivalent to an annual average of 0.0419 Sv or a total of $1322 \text{ km}^3 \text{ yr}^{-1}$ ".