Journal of Glaciology

Surface mass balance and energy balance of the 79N Glacier (Nioghalvfjerdsfjorden, NE Greenland) modeled by linking COSIPY and Polar WRF – CORRIGENDUM

M. T. Blau, J. V. Turton, T. Sauter and T. Mölg

Corrigendum

Cite this article: Blau MT, Turton JV, Sauter T, Mölg T (2023). Surface mass balance and energy balance of the 79N Glacier (Nioghalvfjerdsfjorden, NE Greenland) modeled by linking COSIPY and Polar WRF – CORRIGENDUM. *Journal of Glaciology* 1–1. https://doi.org/10.1017/jog.2023.96

Doi: 10.1017/jog.2021.56, published by Cambridge University Press on behalf of The International Glaciological Society, 25 October 2023

There is a mistyped multiple of the unit in the Results sections (3.2. and 3.3) where we report terms of the surface mass balance (SMB) and internal mass balance (IMB) as glacier-wide quantities in the dimension mass per time. Wherever the mass multiple 10^6 kg appears, it should be 10^{12} kg or gigatons (Gt). Figure 6 must therefore be corrected (see below). The numbers in Gt have the same order of magnitude as those of annual mass balance terms known for other large outlet glaciers in Greenland (e.g., Howat and others, 2011). All SMB and IMB terms that are given as specific units in the dimension mass per area per time in the article (Figs. 5 and 7) are correct and not affected by the issue. The major conclusion of the article, which is the role of climatic variables for interannual SMB variability, is likewise not affected by the present correction.

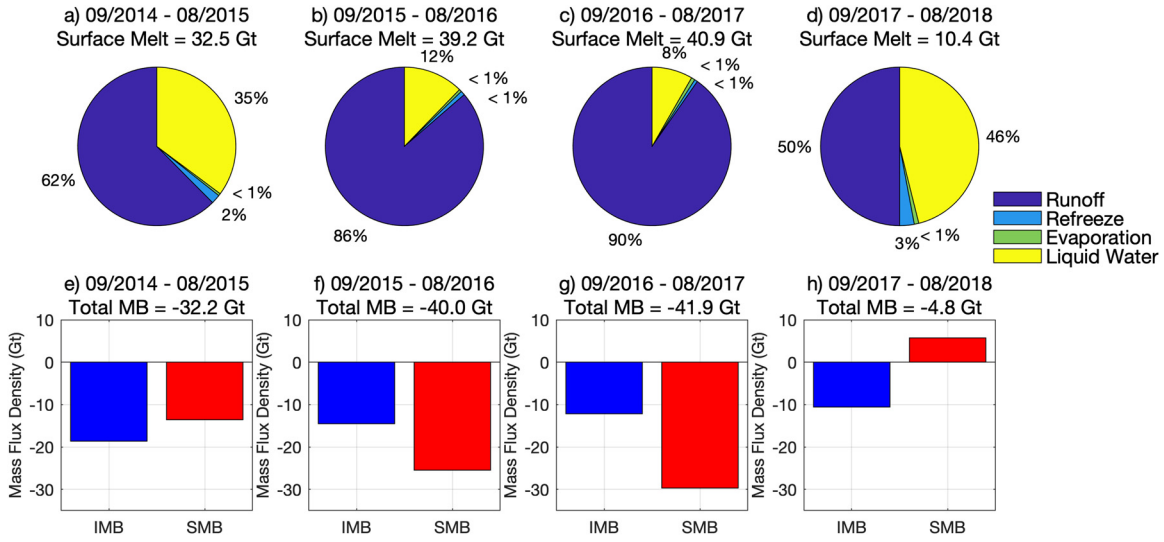

Figure 6. The ratio of surface melt water that contributes to runoff, refreeze, evaporation, or rains in the snow layer as liquid water content from September to August of the following year starting 2014 (a), 2015 (b), 2016 (c), and 2017 (d). The bottom panels show the contribution of SMB and IMB to the TMB of the same periods starting 2014 (e), 2015 (f), 2016 (g), and 2017 (h).

References

Blau M, Turton J, Sauter T, and Mölg T (2021) Surface mass balance and energy balance of the 79N Glacier (Nioghalvfjerdsfjorden, NE Greenland) modeled by linking COSIPY and Polar WRF. *Journal of Glaciology* **67**(266), 1093-1107. doi:10.1017/jog.2021.56

Howat I and 5 others (2011) Mass balance of Greenland's three largest outlet glaciers, 2000–2010. *Geophysical Research Letters* **38**, L12501. doi:10.1029/2011GL047565