

Authors' Response to Review Round 2

The multilayer ocean circulation melting the 79N Glacier ice tongue
by Markus Reinert, Claudia Wekerle, Knut Klingbeil, Marvin Lorenz, Hans Burchard

We received one report by Jonathan Wiskandt on 04 Aug 2026 for our revised manuscript. This document contains the report (in blue) and our response (in black).

Report #1

Dear Markus and Authors,

thanks for taking the time to revise the manuscript based on my suggestions. While I would be very interested in seeing channelized subglacial discharge I understand that that would need a whole new simulation and would probably warrant another article so I appreciate your honest reflection and discussion of the matter.

I would like to suggest a minor technical correction and that is to stay consistent in your usage of units. Specifically you change from using mSv for Qmelt and Qrunoff in section 3 to using m3s-1 in line 472. While this is not wrong I suggest to stick to one.

Along the same line of argument, I dont think it necessary to define mSv in line 471 again after you already introduced it in section 3.1.

Thanks again for your work.

Cheers, Jonathan

Dear Jonathan Wiskandt,

Thank you very much for your review of our revised manuscript.

We agree that channelized subglacial discharge would probably warrant another paper. We are glad that you appreciate the detailed discussion on the matter in the revised manuscript.

As suggested, we now made the usage of units consistent throughout the paper. We use mSv instead of m³/s everywhere. This is the same unit as in the paper by Schaffer et al. (2020), which we refer to in several places, so it is now easier for the reader to compare with their results. Furthermore, the usage of mSv avoids 5-digit numbers, so it improves readability.

We define the unit mSv now only at the first time it is used, which is in Sect. 2.3.

Thanks for reviewing our work again and pointing out these two good points!

Best regards,
Markus Reinert on behalf of the Authors