

Dear authors,

Thank you for promptly addressing all the points raised during the review process. This is a novel study that clearly documents evidence for multiple episodes of ice streaming across the continental shelf of northwest Greenland. As such, the findings of this study will be a useful target for subsequent modelling efforts.

In implementing the edits, a couple of minor errors have crept into the manuscript. These are documented below and should be resolved as you prepare the final version of the manuscript, but otherwise I am happy to accept this article for publication in The Cryosphere.

Pippa Whitehouse
Associate Editor, The Cryosphere

Minor errors – line numbers refer to manuscript version 4

Line 68: delete one instance of 'that'

Line 102: 'two-way-travel time' (as in the caption to figure 2)

Line 137: 'their' -> 'the MSGL'

Line 138: (Fig. 4a, d) – to bring in line with text on line 145

Line 149: 'displayed' -> 'which are displayed'

Line 163: Text is a little ambiguous following insertion of the extra sentence. Suggest "The interpretation of the corrugated features as MSGL set 5 ..."

Line 168: "The final set of MSGL... has been interpreted as a grounded ice stream" – suggest editing to indicate that the MSGL were produced by/provide evidence for a grounded ice stream

Line 182: Could flag up your contribution – "...means that prior to this study ice stream..."

Line 185: Word missing – "Using the new seismic data, ..."

Line 243: 'each MSGL surfaces' – singular/plural issue