

Interactive comment on “Revealing the former bed of Thwaites Glacier using sea-floor bathymetry” by Kelly A. Hogan et al.

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We would like to thank the reviewers and Nicholas Holschuh for their comments on the manuscript which will undoubtedly make it a stronger paper. Our responses are detailed in the individual attachments for RC1, RC2 and SC1. Please also note the following minor changes which we have made alongside the specific reviewer comments:

1. We have altered the nomenclature of our troughs to match another paper that will be submitted imminently that uses these same bathymetric data to assess CDW circulation in front of Thwaites Glacier (Wahlin et al., In Prep.). Thus, the main sea floor trough in front of TG is named Thwaites Trough and the small troughs interrupting the high have been renamed here from west to east T1-T4: (see revised Figs. 2 and 8).

C1

2. We have gone through the MS and replaced “grounding line” with “grounding zone” for consistency.

3. We have added one co-author (Anna Wahlin) who has helped us to do some calculations on oceanic heat fluxes through the sea floor troughs; this is fully described in the revised Supplementary Information.

4. We have gone through the text, figures and supplementary information and corrected small errors and typos discovered during the response to review process.

We look forward to hearing from TC in due course.

Interactive comment on The Cryosphere Discuss., <https://doi.org/10.5194/tc-2020-25>, 2020.

C2