

Interactive comment on “Energetics of Surface Melt in West Antarctica” by Madison L. Ghiz et al.

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Manuscript Revision Overview

The three referees collectively have a positive response to our manuscript, find its topic appropriate for the journal, and find that the overall analysis and conclusions are sound. The referees also give several helpful suggestions that when addressed will lead to a stronger final paper. The seven major revisions suggested by the reviewers can be summarized as follows:

1. Provide more background in relation to the existing literature.
2. Make the results section and discussion of the case studies more quantitative.
3. Add synoptic maps to support the meteorological discussions of the case studies.

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4. Reorganize presentation of the case studies, both in the text and in the combinations of figures.
5. Investigate the influence of the Amundsen Sea Low on the cases.
6. Revise Figure 1 (map) to include more information.
7. Amplify the discussion of cloud phase and its influence on surface melting.

These major revisions are all entirely doable, and generation of the suggested synoptic maps is already underway.

In addition, the referees collectively give (by our count) 95 minor suggestions and technical/editorial corrections, all of which can also be easily addressed.

In summary, we look forward to revising the manuscript according to the above, and we thank the three referees for their thorough and very helpful reviews.

Interactive comment on The Cryosphere Discuss., <https://doi.org/10.5194/tc-2020-311>, 2020.

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