

Interactive comment on “An updated seabed bathymetry beneath Larsen C Ice Shelf, west Antarctic” by Alex Brisbourne et al.

Anonymous Referee #3

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This study presents new bathymetric information derived from seismic shots beneath the Larsen-C Ice cover. The Significance of new information has no doubt concerning ocean circulation and global climatological issues. However, it is not very clear to me up to which level your new data improve previous datasets. The main global comment that I may have from reading the paper several time is that further care should be taken on making the difference on the contribution of the existing data and the motivation/input from the new data. Specific comments - Location of previous work: I believe that a table giving summary statistics of the previous dataset would be valuable (columns could be like: survey name, survey date, type/sensor, number of measurements, estimated vertical accuracy, estimated horizontal accuracy. - Using the table proposed above you can detail the new dataset - It is not very clear to me how the gridding methodology is

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done. I understand you've used natural neighbour interpolation. You should provide a schema of your procedure in which we could see the data flow, the different steps (data preparation, gridding process, corrections) and the parameters used. - Your gridding correction steps (line 2-5, p6) is not clear. It looks to me as some sort of data tweaking. Please see reviewers #2 on this point. - Concerning the two last points I believe that the minimal aim of your paper and more specifically section 4 is to enable any readers/data user to be able to reconstruct the bathymetric grid. Therefore I suggest being more explicit in your gridding methodology. Algorithm, implementation, software, parameters ...

I do not pretend to be able to comment on the English or the style; however I would suggest limiting the vagueness to its minimum. You should be more explicit and limit yourself from using terms like "relatively", "more reliable", "where required", "consistent", "much lower", "further uncertainty", ...

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