

## ***Interactive comment on “An improved Antarctic dataset for high resolution numerical ice sheet models (ALBMAP v1)” by A. M. Le Brocq et al.***

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General Comments:

This manuscript nicely summarizes the steps taken by the authors in order to present an Antarctic data set for the ice sheet modelling community. The authors clearly outline each of the data sets, subsequent processing steps (if any) and how they overcame any specific challenges in order to produce a complete and consistent data product that is much better than what currently exists. My only general concern is the lack of error reporting. Instead, the authors leave this for reader to compile from the list of data sources. While I am not an ice sheet modeller, I understand that without a good understanding of the dataset errors it is difficult to understand how good model results are. I would suggest that even a brief summary of reported errors from each of the

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data sources is better than no error reporting at all. Better yet, would be a section on how the processing steps outlined here have affected errors in the data.

#### Technical Corrections:

Edwards, 2008 looks like an interesting paper but I could not find the reference in the reference list. Please double check all references in the text.

Pg. 200, line 11: add an 's' to 'small outlet glacier' and it is unclear what 'coherent enough' means? Does this mean that velocities were not available for these small glaciers or that velocities were not consistent across them?

Pg. 201, line 1: what about using the ICESat-derived grounding line? This gives the location of ice shelf flexure. I believe this has been published by Fricker for many locations (if not the entire ice sheet).

Pg. 202, line 11: Should be "All of the bathymetry datasets. . ."

Pg. 203, line 27: what is "firn data" thickness? density? This is not clear. Ah, I see on the following page you mention the firn "value" of 16.5 m so I assume that the output is thickness. I would say that more clearly and change the word "value" to "thickness".

Pg. 206, line 10: Should be ". . .inherent errors, it is probably. . ."

Pg. 210, line 5: should "was" be "were"?

Pg. 210, 15: perhaps change "leads to" to "identifies"?

Pg. 210: line 26: Change to ". . .ridge appearing at the grounding line of the glacier"?

Pg. 215, line 3: ". . .data provided were interpolated on to. . ."

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Interactive comment on Earth Syst. Sci. Data Discuss., 3, 195, 2010.

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