

Interactive comment on “Bedmap2: improved ice bed, surface and thickness datasets for Antarctica” by P. Fretwell et al.

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Received and published: 17 December 2012

This is an excellent, well-written synopsis of a complex integration of several data types and scores of data sets into a highly useful, well-constructed data compilation. The authors have a clear view of how to assemble the data such that it is of maximum use to modelers, field geophysics efforts, and armchair geoscientists seeking to integrate Antarctica into global assessments of the structure and composition of the Earth. I was impressed with the clarity of the description, and the careful editing (very few glitches noted below). The approach to blending the data sets was both meticulous and pragmatic.

In the conclusions, I would like to see you stress the importance of better sub-shelf bathymetry, i.e. seabed topography beneath the shelves. This lack caused issues
C2505

for the compilation of both Bedmaps, and is a big problem for models of Holocene ice retreat of the LGM Antarctic ice sheet. Please make the case (2-4 sentences) for better mapping of the cavity and seabed below ice shelves. I see (after writing this) that another commenter feels similarly.

Nothing else to say. Well done.

Bedmap 2 - P4316 L04 – period required after Kapitsa reference. P4321 L23 – place 'into a 1 km grid' in parentheses for easier reading. Delete 'together'.

Fig5 legend: should be ICESat

Interactive comment on The Cryosphere Discuss., 6, 4305, 2012.