

## ***Interactive comment on “A consistent dataset of Antarctic ice sheet topography, cavity geometry, and global bathymetry” by R. Timmermann et al.***

**Anonymous Referee #2**

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This manuscript brings together several important data sets of ocean bathymetry collected around Antarctica to build a combined self-consistent Antarctic ocean database. This paper is a companion paper to a recently published paper by LeBrocq et al. who reported on a new Antarctica data set for bed topography and ice thickness. The data processing is adequately described and data sources are well cited. My only general comment is that there is no uncertainty reporting? Since this data set is primarily of use to the modelling community, it would be an excellent addition to provide a companion data set of gridded uncertainty values. This would allow modellers to test the strength of their solutions. While this could take a bit of work to compile, it shouldn't be too difficult to add to the existing manuscript.

Finally, At times I find the language a bit too casual but perhaps this is ok for this

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journal? In particular using words like flavour and saying that new data is more than welcome. I think these points could be made in a more formal way. But that is just style. Other technical issues below:

Page 233: line 4: data sets of what? line 5: fields of what?

Page 236: line 4: what is GEBCO? How are these data acquired? It might be good to have a brief description of this data set. line 8: surface height of what? presumably the ocean floor?

Page 237: line 8: do you mean "...keep the best in both datasets"? line 19: "...and can be seen in the..."

Page 239: line 10: define PIG

Page 240: line 10: perhaps a better word than interfered is interacted? or simply "eroded the ocean bottom"

Page 241: line 9: should Entrance be capitalized?

Page 242: sometimes ice shelf is capitalized here and sometimes it's not.

Perhaps Fig. 5 should come after Fig. 6 since the discussion flows that way in the text.

Fig. 6. Labelling PIG and George VI in just one of the panels would improve this figure

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