

We thank Matthew Tankersley for his careful review and helpful suggestions, which have improved the clarity of the revised manuscript.

Comment:

The new description of the gravity processing is good. The only remaining suggestion for this is to clarify the order of your processing. Currently, the order of processing you describe is 1) equivalent source gridding / upward continuation of ICECAP data, 2) deriving gravity disturbances from ground data, 3) merging ground data into gridded ICECAP data, 4) DC shifting each survey separately to ANTGG, and 5) isostatic correction. I assume you actually did the DC-shifting to the pre-merged data; if so, this DC-shifting section should be before the merging section. Did you apply the isostatic correction to the point data before interpolation/merging or to the merged gridded data? Whichever order you did it, describe it in sequence.

Response:

This is a valid comment and we have changed the order of these steps in Section 2 and hope this will clarify the processing steps.

Comment:

Can you add the cyan oval to Figure 5a?

Response:

We added the cyan oval.

Comment:

Line 320: maybe replace "best RMS fit to gravity" with "lowest remaining gravity residual" since gravity can't be compared directly to topography, so this wording is a bit confusing.

Response:

We rephrased it accordingly.

Comment:

Line 323: reference a figure after "shown in the following"

Response:

We added "shown in Section 4" because the statement refers collectively to the results presented across several figures in that section.