

Response to reviewer 3

We thank Kenichi Matsuoka for his comments and suggestions. We have addressed the suggested revisions to the text and figures. Below we show the reviewer comments in black, and our response in red.

This is a concise manuscript reporting the first ice thickness measurement in one of the least known glaciated regions. It articulates the measurements and results well. I suggest following to increase clarity of the manuscript: 1. Legend in Fig. 2 says "depth(m a.s.l.)", which is confusing. I assume that it is "bed elevation (m a.s.l.)". 2. Figure 3 can be scaled for the horizontal distance.

Yes, that is correct. We have updated the text and figure.

Separately, the meta data at Pangaea needs a few more clarifications. 1. elevation (column 6), is this ice surface or bed surface? Clarify. 2. Latitude/longitude (columns 8 and 9), is this decimal degree? Clarify.

Column 6 is Surface Elevation and Latitude/Longitude are in decimal degrees. We have requested to Pangaea to update the header data.

Similar measurements over the rest of the glacier using airplane and bathymetry measurements in the proglacial lake are very useful and the former is mentioned by the authors. I hope such expanded work will be done in the near future to have a better understanding of this remote region in Southern America.

Airborne measurements are considered to be made. As mentioned in answers to reviewer 1, in 2018 a group of scientists (co-authors of this manuscript) carried out bathymetry measurements in the lake, a full description of these results are in preparation to be published.