

Comments to the author:

Dear Authors,

I'm pleased by the significant effort and improvements you've made on this manuscript, and am happy to accept it for publication. Thank you.

Ken Mankoff

[Response] Thank you for accepting our article.

Non-public comments to the Author:

Dear Yong,

Thank you for this last round of revisions. I think the manuscript is greatly improved from the original submission and I am happy to accept it for publication.

You are also correct and I am incorrect that the Bland-Altman plots do have the average of the two on the X-axis. I leave it to you to decide if you want to present the current version, which I think may be better as a validator because it does not combine the two products on both axes, only on the Y-axis. But if you prefer to use a standard method (Bland-Altman/Tukey) and not a modified method, then you are welcome to revert to the previous version.

[Response] We completely agree with you, and finally let us keep the current version, please.

More importantly, I do request one change, if possible, before publication. Your validation imagery is not "Google Earth images" as you state in the paper. Google Earth only displays them, it does not acquire them. At the bottom of the Google Earth app, it usually says "Copyright" and then Landsat, or Airbus (Plaides satellite?) or Copernicus (Sentinel satellite?).

[Response] We agree and revised the text referring to the Google Earth app, as you suggested. And responded one by one as below.

So...

L35: Correct use of Google if you derived them in Google Earth. If you used Google basemap in QGIS or Arc, then that should be stated.

[Response] We directly derived the glacial lake boundary in Google Earth app, not using Google basemap in QGIS or Arc. So 'validated by Google Earth-derived lake boundaries' is ok.

L257/283: Incorrect use.

[Response] L257, the sentence has been revised as '...according to Landsat and Sentinel-2 images, and Google Earth at a finer scale overlaying preliminarily lake boundary extraction at the given period.' L283, the sentence has been revised as 'characteristics interpreted from Landsat and Sentinel images, and Google Earth.'

Table 1 and Table 2 caption: Correct.

L365: OK.

L461, 462, 464 - if this could be specific, it would be better. But Landsat is sometimes in Google Earth. This could confuse people. What about "...Our Landsat and the imagery provided by Google Earth..." (at a minimum) or better yet, if the "copyright statement" at the bottom of the scene tells you it is usually Airbus and MAXAR, then state that. If possible.

[Response] A better way is to show earlier in Section 4.5.2, L365-367, the sentence has been revised as ‘... based on the Google Earth images in circa 2020 with a spatial resolution of ~ 2 m acquired from WorldView, GeoEye, Pleiades, etc. satellites (© 2022 Maxar technologies and © 2022 CNES/Airbus)...’ We show that the reference lake data for validating our products were delineated from Google Earth higher spatial resolution images provided by Maxar technologies and CNES/Airbus. We did not use any Landsat images in Google Earth. Hence, we can keep current writing for L461, 462, and 464.

L465/466/467 "Google Earth-derived data" is ok.

Other than that, I have no more issues.

Thank you,

Ken Mankoff

[Response] Thank you again, Chief Editor Mankoff, your comments help us greatly improve our manuscripts.

I would be more than happy to make further adjustments during copyediting and proofing.

Best wishes,

Yong