Edit to RC1 (from Reviewer #1)
Anonymous Referee #1

Referee comment on "GloLakes: a database of global lake water storage dynamics from 1984 to present derived using laser and radar altimetry and optical remote sensing" by Jiawei Hou et al., Earth Syst. Sci. Data Discuss.,
https://doi.org/10.5194/essd-2022-266-RC2, 2022

I wanted to lightly addend my review, specifically about the latency of ICESat-2, as I just learned about the existence of ICESat-2 Quick Look, low-latency products (https://nsidc.org/data/user-resources/help-center/faqs-icesat-2-quick-looks). My comments about the limited value of ICESat-2 for NRT data due to its 91 day repeat cycle still apply, but the existence of these quick look products does mean that it is technically possible to use the data within a few days after collection. I apologize for not acknowledging this before.

If the authors are to continue to use ICESat-2 data for their NRT dataset, I would advise explicitly discussing the quick look data as well as its advantages/disadvantages relative to the final product. Similarly, while the other two datasets mentioned in the NRT section (G-REALM and BLUEDOT) are relatively easy to download and process into lake height/area (since they already come processed to individual lake height/area) doing so with ICESat-2 is significantly more complicated as it requires choices around how to aggregate different tracks, filter out poor quality or outlier water level observations, etc. This additional difficulty should be described in the manuscript with additional details on how the authors process the ICESat-2 data automatically.