The Cryosphere Discussions

The Cryosphere Discuss., author comment AC5
https://doi.org/10.5194/tc-2021-181-AC5, 2021

Amendment to Previous Reply on RC2

Christian J. Taubenberger et al.

Author comment on "Brief communication: Preliminary ICESat-2 (Ice, Cloud and land Elevation Satellite-2) measurements of outlet glaciers reveal heterogeneous patterns of seasonal dynamic thickness change" by Christian J. Taubenberger et al., The Cryosphere Discuss., https://doi.org/10.5194/tc-2021-181-AC5, 2021

In amendment to our previous response, we have confirmed that at this time, we do not have the terminus position data required for comparison to our results. The CALFIN dataset (Cheng et al., 2021) provides terminus positions but only through mid 2019 at this point. The TermPicks dataset (Goliber et al., 2021), which includes the CALFIN data, provides additional terminus positions in 2019 and 2020 but these data are not frequent enough for us to be able to draw conclusions about the timing of glacier dynamic thickness changes at a seasonal timescale. Because of this, we will not be adding terminus position data to our manuscript and we leave this analysis to future work, when additional ICESat-2 and terminus position data will be available.

Reference:

Cheng, D., Hayes, W., Larour, E., Mohajerani, Y., Wood, M., Velicogna, I., and Rignot, E.: Calving Front Machine (CALFIN): Glacial Termini Dataset and Automated Deep Learning Extraction Method for Greenland, 1972–2019, The Cryosphere, https://doi.org/10.5194/tc-15-1663-2021, 2021.

Goliber, S., Black, T., Catania, G., Lea, J. M., Olsen, H., Cheng, D., Bevan, S., Bjørk, A., Bunce, C., Brough, S., Carr, J. R., Cowton, T., Gardner, A., Fahrner, D., Hill, E., Joughin, I., Korsgaard, N., Luckman, A., Moon, T., Murray, T., Sole, A., Wood, M., and Zhang, E.: TermPicks: A century of Greenland glacier terminus data for use in machine learning applications, The Cryosphere Discuss. [preprint], https://doi.org/10.5194/tc-2021-311, in review, 2021.