

Interactive comment on “A range correction for ICESat and its potential impact on ice sheet mass balance studies” by A. A. Borsa et al.

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This study is a thorough and useful contribution to the field. Just a brief comment to note an inaccuracy in the introduction:

Lines 1-4 of page 4290 says "Furthermore, researchers estimating ice mass balance using ICESat data have taken different approaches with respect to inter-campaign biases, with some choosing not to correct for them (Pritchard et al., 2009..."

I'd like to point out that this study did not estimate ice sheet mass balance, in fact, with the exception of one drainage basin, we deliberately avoided doing this because of the uncertainty in the density of the observed volume changes, which is large compared to the bias reported here. Furthermore, we detected dynamic thinning by looking at the

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relative changes on neighbouring fast and slow-flowing ice - both of these would be affected in the same way by uncorrected intercampaign bias so by looking at relative change, these results are immune to this bias, which is anyway at least one order of magnitude smaller than the changes that we focussed on. Finally, no estimate of intercampaign bias was available at the time, otherwise for completeness we would have attempted a correction, even if it was small.

Interactive comment on The Cryosphere Discuss., 7, 4287, 2013.

TCD

7, C2152–C2153, 2013

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