

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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Our responses to this anonymous reviewer's comments are presented in the order they appear in the review text:

- 1.) With regard to our assessment of the impact of the G-C correction on the Ross and Filchner-Ronne ice shelves, we originally chose to average dh/dt measurements for simplicity. However, we agree that to provide a more relevant comparison to other studies of ice shelf mass balance, we should account for differences in sampling density via a proper area weighting. We will redo our analysis in the final manuscript and report area-weighted results instead.
- 2.) We acknowledge that the intercampaign biases referenced in Urban et al. 2012

C2716

are not available through the cited abstract. We will contact the authors of that study and will compile a table of all biases (and associated trends) for which we receive permission.

3.) The equations in the appendix were presented in a fully-expanded form in an attempt to maximize readers' ability to verify the conclusions we draw from the mathematical analysis. Rereading the appendix with this review's concerns in mind, we agree that the end result is needlessly complex. We will simplify the presentation in the final manuscript.

4.) To increase the utility of Figure 4, we will follow the reviewer's suggestion to include lines showing the 25th and 75th percentile boundaries of the G-C offset point cloud. Similarly, for Figure 6, we will include a line showing the mean value of the power spectrum throughout its range.

We thank this anonymous reviewer for these comments and the improvement they bring to the manuscript.

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

C2717