

Interactive comment on “Speedup and fracturing of George VI Ice Shelf, Antarctic Peninsula” by T. O. Holt et al.

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As the other reviews have noted, this is a clearly expressed, thorough and detailed observational analysis of the structure, basic physical characteristics, and structural changes in the GVII Shelf for the observational period. My attached mark-up has numerous comments, all relatively minor, some observations about how citations are used that are important though.

I too noted the lack of features describing bottom crevasses, and would point to Luckman et al., and McGrath et al. studies of Larsen C shelf bottom crevasses. The current description is 'pressure ridges' and the word 'buckling' is used – this is unlikely for ice shelves.

Interactive
Comment

And I think 'fractures' should be dropped, and leave it at crevasses and rifts. The features in the northern ice front area that guided the series of larger retreats are almost certainly 'rifts' with thick infill of fast ice and snow and possibly melange.

In the discussion, the description of the likely future evolution moves toward the possibility of hydrofracture, and I agree with the future possibility of that, but the conclusions does not bring this scenario to the fore at all.

(no Larsen B disintegration has been observed for the GVII)

I think that contours of ice thickness should be included on Figure 8 - from Griggs and Bamber to make it simple (since the ICESat analysis here was a relative thickness change mapping).

nice work, a good reference paper.

Ted S.

Please also note the supplement to this comment:

<http://www.the-cryosphere-discuss.net/7/C67/2013/tcd-7-C67-2013-supplement.pdf>

Interactive comment on The Cryosphere Discuss., 7, 373, 2013.

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