The Cryosphere Discuss., 6, C3096–C3097, 2013
www.the-cryosphere-discuss.net/6/C3096/2013/

The Cryosphere
Discussions

Interactive comment on "Mass balance, runoff and surges of the Bering Glacier, Alaska" *by* W. Tangborn

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Response to Robert McNabb review

Paper has been reorganized with additional sections. Model is now explained before mass balance results.

Section on surges has been expanded. Figure 10 now shows surge relationship to both runoff and snow accumulation on the same plot.

5095-7 mwe now used throughout paper

5096 22-23 Citation has been added for this statement.

5097- 19-22 Explanation removed

5097 23-26 There are some problems with the IASC glossary. See Mass Balance Terminology in the Discussion section.

5098 7-12 More explanation has been added for this section

5099 -14 "files" changed to "fires" Albedo changes of glacier surface are accounted for by snowline elevations calculated within the model (albedo above snowline is much greater than below the snowline) See Tangborn (1999), which is also online at www.ptaagmb.com (see How it Works)

5101 14-19 Citations added

5101 22-24 Comparison removed

5102 1 Ice front changed to lower terminus

5102 5 Citation for surge after 2011

5103 1-9 Conclusions expanded

5106 Figure 1 photo replaced with Google Satellite image of Bering Glacier

5116 Figures 9a and 9b replaced with Figure 10 that shows both runoff and snow accumulation affected by surges

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