

Interactive comment on “Monte Carlo ice flow modeling projects a new stable configuration for Columbia Glacier, Alaska, by c. 2020” by W. Colgan et al.

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From the discussion that this thread generated, both in this TCD forum and on Cryolist, it is apparent that there is some disagreement regarding the plausible accumulation rate at Columbia Glacier. We feel our manuscript can substantially contribute to this debate. We intend to increase the prescribed accumulation rate range from 4.5 – 6.0 mWE/a to 3.0 – 6.0 mWE/a in a revised version of our manuscript. The Monte Carlo ensemble selection approach will discard all simulations that do not accurately reproduce pre-retreat geometry and velocity profiles. We intend to calculate the 5th percentile accumulation rate of the selected ensemble of simulations and put this forward as the

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minimum accumulation rate capable of reproducing the observed pre-retreat geometry and velocity profiles of Columbia Glacier. We believe all other comments raised by Dr. Pelto have been addressed in previously posted short comments.

Interactive comment on The Cryosphere Discuss., 6, 893, 2012.