

Supplemental Figures

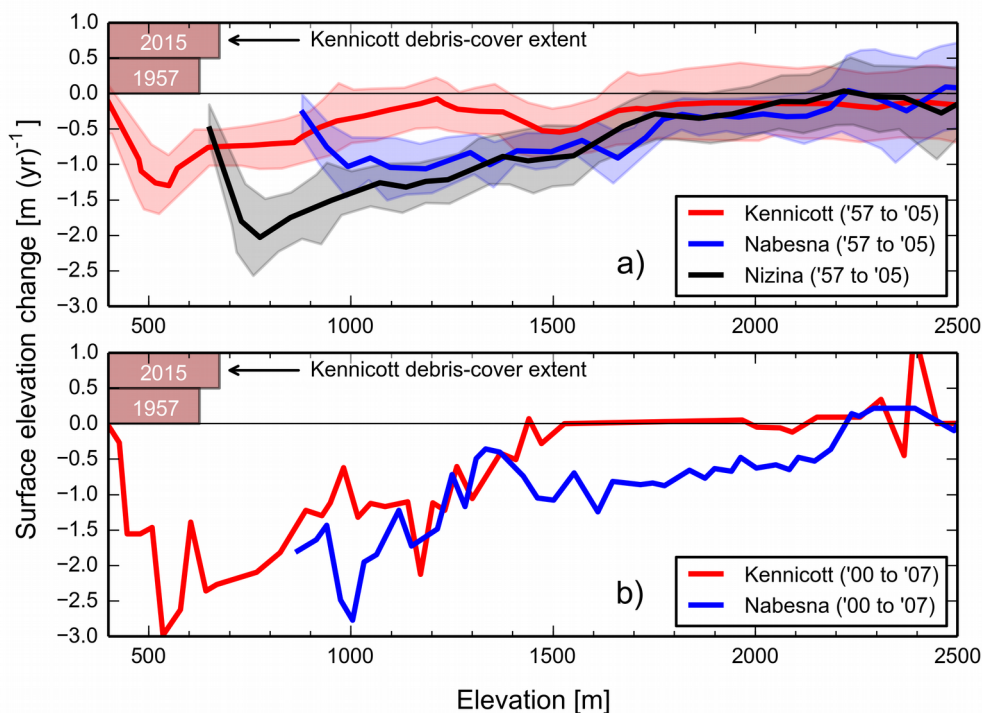


Figure S1. Surface elevation change from three of the largest glaciers in the Wrangell mountains. Surface elevation change data are from Das et al. (2014). Elevations on the x-axis are mean elevation between 1957 and 2005 digital elevation models (DEMs) used to produce the surface elevation change data. Take care in comparing these data to those presented in other figures as they are referenced to the 2015 glacier surface. The Kennicott Glacier is the only glacier presented above with a continuous debris-cover spanning its entire width. The Nabesna and Nizina glaciers have individual medial moraines at the terminus but the majority of the glaciers' termini are debris-free. a) Surface elevation change derived from the difference between DEMs from Das et al. (2014). The shaded areas reflect the standard deviation of DEM differencing (see Das et al., 2014). b) Surface elevation change derived from repeat laser altimetry profiles. See Das et al. (2014) for the laser altimetry paths.

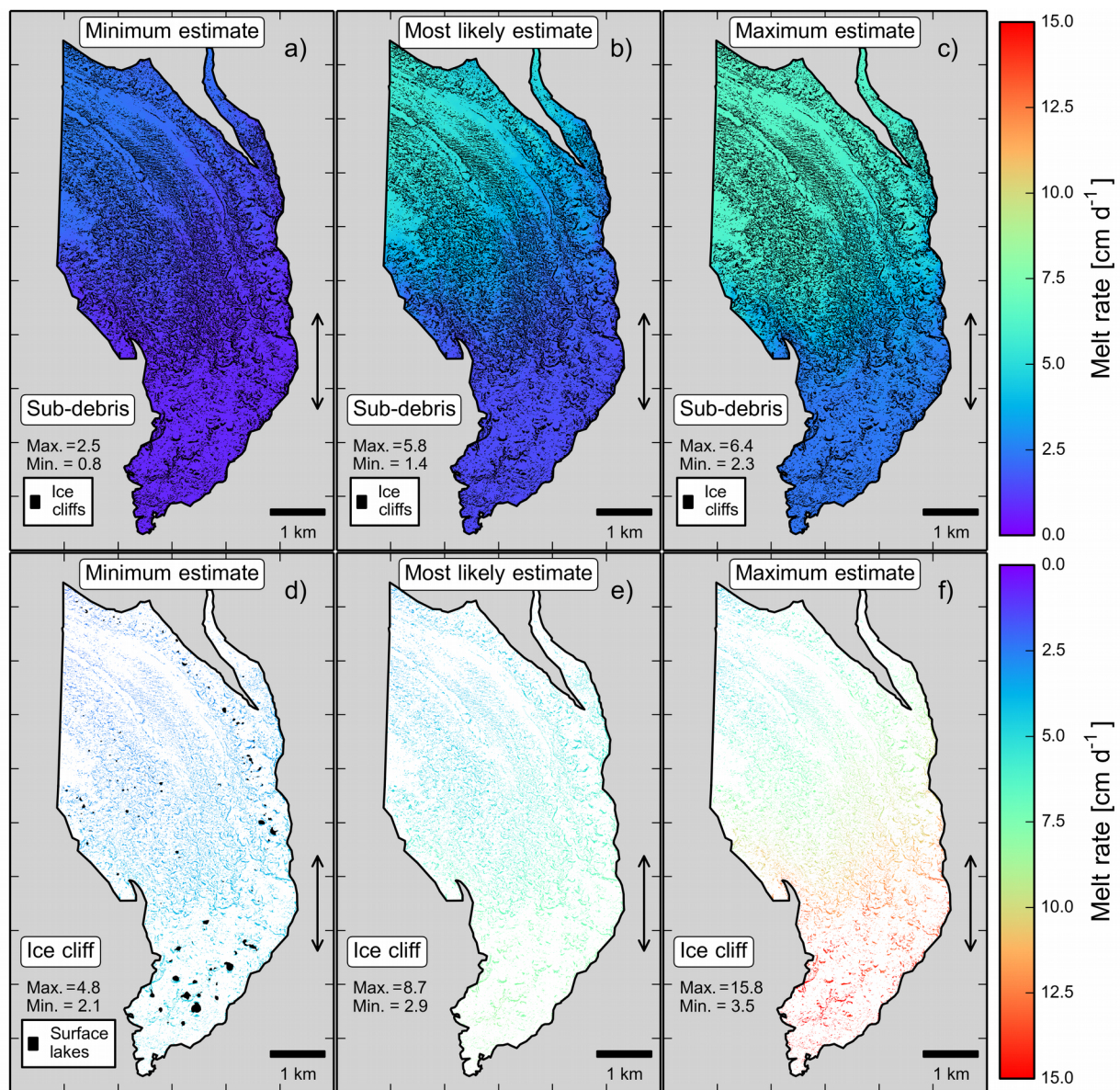


Figure S2. Extrapolated ablation based on elevation across the study area. Note that in this figure maximum melt is positive and minimum melt is towards zero. a-c: Sub-debris ablation. d-f: Ice cliff ablation. The minimum and maximum extrapolated ablation rate for each panel is shown in cm d^{-1} . The zone of maximum thinning (*ZMT*) is defined by the double-headed arrows in each panel. Panel d) also shows the extent of surface lakes in the 2009 WorldView image.