

Paper Number: 3558

## Surges of outlet glaciers from the Drangajökull ice cap, northwest Iceland

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Surface elevation and volume changes of the Drangajökull surge-type glaciers, Reykjarfjarðarjökull and Leirufjarðarjökull, were studied by differencing digital elevation models that pre-date and post-date their most recent surges. Average ice velocities were also estimated on the basis of annual glacier-frontal measurements during their last surge. The observations show a distinct ice discharge, most from the upper reservoir areas, down to the receiving areas during the surges. The surface draw-down in the reservoir areas was usually 10-30 m during the surges, while the thickening of the receiving areas was significantly more variable, in order of 10-120 m. Despite a negative geodetic net mass balance derived from the digital elevation models, the reservoir areas have been gaining mass since the surge terminations. This surface thickening along with a considerable ablation of the receiving areas will most likely return the glacier surface profiles to the pre-surge stage. Our results indicate that (a) the greatest surface thinning occurs in the upper reservoir areas and (b) the development of Drangajökull surges that resembles Svalbard surge-type glaciers rather than Vatnajökull surge-type glaciers, could be explained by differences in glacier geometry, topography and substratum of the Drangajökull and Vatnajökull surge-type glaciers.

