



The Negribreen glacier submarine surge system, eastern Svalbard

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Many Svalbard glaciers are of surge-type, undergoing brief rapid advances followed by decades of stagnation and retreat. The detailed seafloor morphology in front of Negribreen that terminate in relatively open-marine settings in eastern Svalbard will be presented. This is based on swath-bathymetric data (10 m grid) collected by the Norwegian Hydrographic Service. The Negribreen drains from the ice cap covering most of Olav V Land in eastern Spitsbergen (fed from a basin of about 1,200 km²) and has retreated about 20 km since the last surge advance in the 1930s. The seafloor morphology beyond present glacier termini is very well preserved, providing a suite of glacial landforms related to the last surge cycle of the glacier drainage basin. The assemblage and relative chronology of the landforms are presented, together with a simple model of a full surge cycle for the glacier