

Metadata Details

Title
Integrated monitoring of Vestre Broggerbreen glacier , Ny-Alesund, Svalbard, Arctic

Science Keywords

Category	Cryosphere
Topic	Glaciers/Ice Sheets
Expedition Year	2017-2018
ISO Topic	Atmosphere

Summary

Abstract
Integrated Glaciological Monitoring of Vestre Broggerbreen, Ny-Alesund, Svalbard. **SCIENTIFIC AIMS & OBJECTIVES:** Glaciers are using as instrument in moderating, modifying and modulating the weather and climate. The monitored glacier network provides a highly useful tool for monitoring spatial and temporal climate and climate change for reconstructing and modelling past and future climatic scenario. However, the rate of snow accumulation and annual balance of the glacier is important factor for sustaining their health. Glaciers also store information about past climates in the ice as enclosed gas bubbles, layers of dust and ice chemistry. Change in climate scenario has very profound impact in precipitation pattern along and across the Svalbard. The observed global sea level rise is a matter of international concern. The calculated contributions to sea-level rise in 100 year up to 2100 vary from almost zero to about 6 cm by Arctic glaciers (Oerlemans, 2005).

Purpose
Integrated Glaciological Monitoring of Vestre Broggerbreen, Ny-Alesund, Svalbard. **SCIENTIFIC AIMS & OBJECTIVES:** Glaciers are using as instrument in moderating, modifying and modulating the weather and climate. The monitored glacier network provides a highly useful tool for monitoring spatial and temporal climate and climate change for reconstructing and modelling past and future climatic scenario. However, the rate of snow accumulation and annual balance of the glacier is important factor for sustaining their health. Glaciers also store information about past climates in the ice as enclosed gas bubbles, layers of dust and ice chemistry. Change in climate scenario has very profound impact in precipitation pattern along and across the Svalbard. The observed global sea level rise is a matter of international concern. The calculated contributions to sea-level rise in 100 year up to 2100 vary from almost zero to about 6 cm by Arctic glaciers (Oerlemans, 2005).

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