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Greenland Integrated Observing System

Greenland plays a unique and central role in the global climate system. The purpose of the Greenland Integrated Observing System (GIOS) is to resolve and understand the mechanisms behind climate and environmental change in Greenland and beyond by establishing a long-term observation network of central climate, ecosystem and societal variables at a number of key sites around Greenland representing not only the entire Greenland but also a climate gradient representing the Arctic as a whole. GIOS is an important national research infrastructure linking all institutions and universities currently carrying out Arctic research in the Danish Realm.

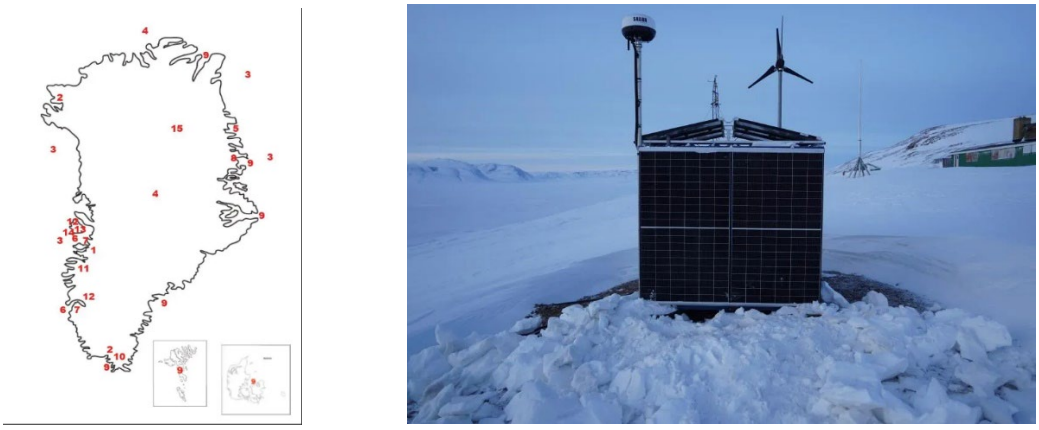

Fig 1. Location of observation station in Greenland and one of the Greenland Gradient stations from Aarhus University

GIOS also represents an important contribution to international Arctic sustainable observation networks. GIOS provides a much-needed data foundation for international remote sensing calibration and modelling efforts that are focused on understanding how changes within and around Greenland will influence global climate, sea level rise and living conditions for both Arctic communities and the population of the Northern Hemisphere and for future sustainable developments. In this poster we present the GIOS network, some of the measurement stations and the data they provide.