

Science at Summit Station, Greenland: Long-Range Plan

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Summit Station (72°36' N, 38°25' W) is a National Science Foundation (NSF)-supported remote field camp located near the highest point of the Greenland ice sheet at an altitude of 10,500 feet. Initially established in 1989 to support the Greenland Ice Sheet Project 2 (GISP 2), Summit Station has established itself over the last 20 years as a world-class research facility. The modern Summit supports research in many disciplines - including meteorology, glaciology, atmospheric chemistry, and astrophysics - and is home to one of the six NOAA Earth System Research Laboratory baseline observatories. Historically, Summit has supported a wide range of campaign and short-term projects, as well as year-round studies. To focus Summit as a NOAA baseline observatory and location for many NSF Arctic Observing Network (AON) projects requiring clean air and snow, the future direction of Summit Station is changing; NSF is transitioning the station to a model focused on long-term measurements. A first step in moving Summit towards this new model is the detailed design for an Atmospheric Watch Observatory – a structure designed to house instrumentation in support of long-term measurements by NOAA and AON projects. Redevelopment of the supporting station infrastructure is in the planning stages, with the goal of establishing a station supported year-round by a small staff with minimal air support.



Figure 1. Rendering of Summit Station 'Model 5'. Image provided by Kumin Assoc.