Geological Survey of Denmark and Greenland
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Automatic Weather Stations on the Greenland Ice Sheet

The objective is to provide accurate measurements of the surface and near-surface atmospheric conditions, important for present and future assessment of mass changes of the Greenland ice sheet.

The automatic weather stations contribute to the long term in-situ observations as part of PROMICE – Programme for Monitoring the Greenland Ice Sheet

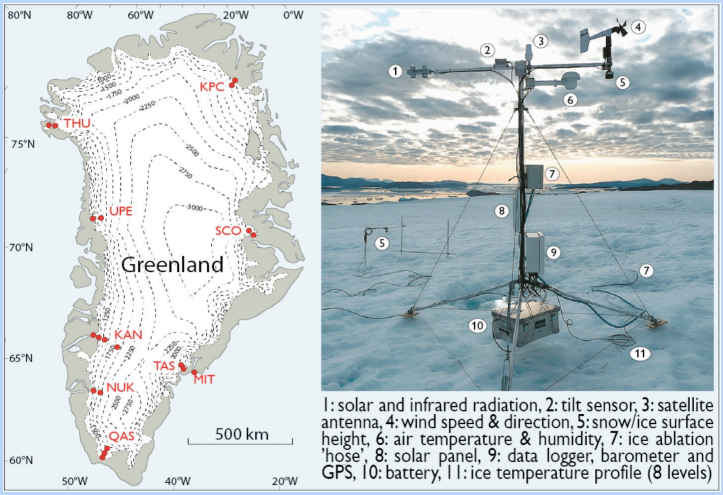

Figure 1. Map of the Greenland Ice Sheet with location of some AWSs and photo of an AWS with all the sensors

Automatic weather stations (AWSs) provide hourly transmissions of weather and ice data from more that 20 sites on the Greenland Ice Sheet.
The AWS data is used for:

- Validating satellite data
- Validating regional climate Models
- Improving weather prediction
- Improving sea level rise models

Data access:
https://doi.org/10.22008/promice/data/aws

Upgrading the PROMICE AWSs

The snow water equivalent (SWE) of a snowpack in Greenland is a major mass budget term. The new data quantifies the mass accumulation as snow during the winter season.

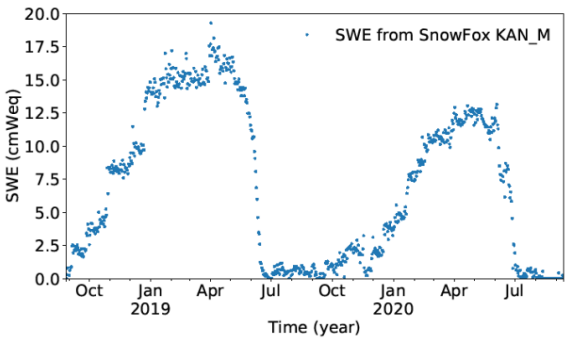

Figure 2. Example of SWE data from Snowfox and KAN_M

Figure 3. Photo of the Snowfox system.

INTAROS has received funding from EU's Horizon 2020 research and innovation programme - Grant Agreement No 727890