

A major activity at the Polish Polar Station Hornsund is to collect meteorological data as input to weather forecasting and climate monitoring. The Hornsund weather station works is part of the Norwegian station network and is registered by the WMO (*World Meteorological Organisation*) as number 01003. Basic meteorological parameters are measured and observed here systematically following WMO standards

The meteorological parameters measured in Hornsund include:

- Air temperature, humidity, wind speed, wind direction, atmospheric pressure, dew point, solar radiation
- Precipitation rain gauges
- Ground temperatures
- Snow cover, snow water equivalent and spatial distribution in the nearby catchment
- Cloudiness, cloud types, cloud base (using 2017 ceilometer)
- Visibility and other weather phenomena

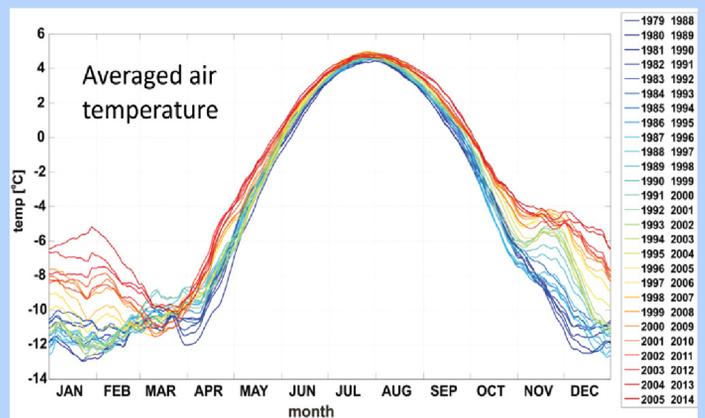


Figure 1. Average air temperature at Hornsund from 1979 to 2014

Meteorological variables collected at Hornsund are important for monitoring the climate variability in this part of the Arctic. The data have for a long time been used in climate studies in the region. Statistical analysis of long-time series indicates that significant positive trend of air temperature is visible for almost every day throughout the year. The largest changes in precipitation are found from August to early November.

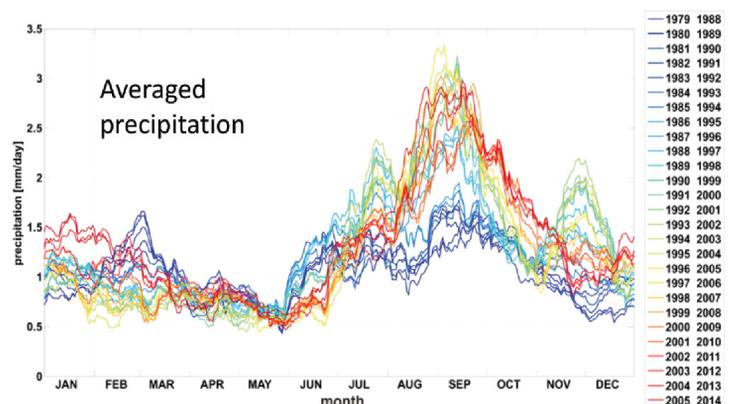


Figure 2. Average precipitation at Hornsund from 1979 to 2014

Link to the station

<https://hornsund.igf.edu.pl/en/>

