



Polar Portal - See changes in the Arctic as they occur

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The Arctic is the place on Earth where global warming is having the greatest impact, and changes in the Arctic occur faster than anywhere else on the planet. But information about weather, climate and climate change in the Arctic are spread widely and often not straightforward to assess. Moreover, few people have the opportunity to see these changes with their own eyes.

Therefore, researchers from four Danish institutions involved in research in the Arctic - DMI (Danish Meteorological Institute), GEUS (Geological Survey for Denmark and Greenland), DTU-Space (National Space Institute) and DTU-Byg (Dept. of Civil Engineering, both at the Technical University of Denmark - have launched the Polar Portal (polarportal.org) to report live from climate changes in the Arctic on a daily basis. It is unique that the Polar Portal covers both the Greenland Ice Sheet and the Arctic Ocean.

The Polar Portal has been running for more than four years. It has been extended several times, and in the newest version visitors can follow the evolution of several relevant variables, most of them with animations. The Polar Portal thus gives a unique collection of observations and model-based data. Many of the observations are from a multitude of satellites, but there are also surface-based observations, both along the coasts and on the ice sheet. The newest generation of models is used to calculate e.g. the surface mass balance of the ice sheet and the deep soil temperature.

The Greenland Ice Sheet is represented by surface and total mass balance, albedo, height change and sub-surface temperatures. For the Arctic Ocean, sea ice thickness, volume and temperature as well as the distribution of icebergs along the coasts is shown. Information about weather and climate (and its change) is also available. The Polar Portal, however, does not issue any data about future climate.