Land ice products for climate monitoring

ICEMON

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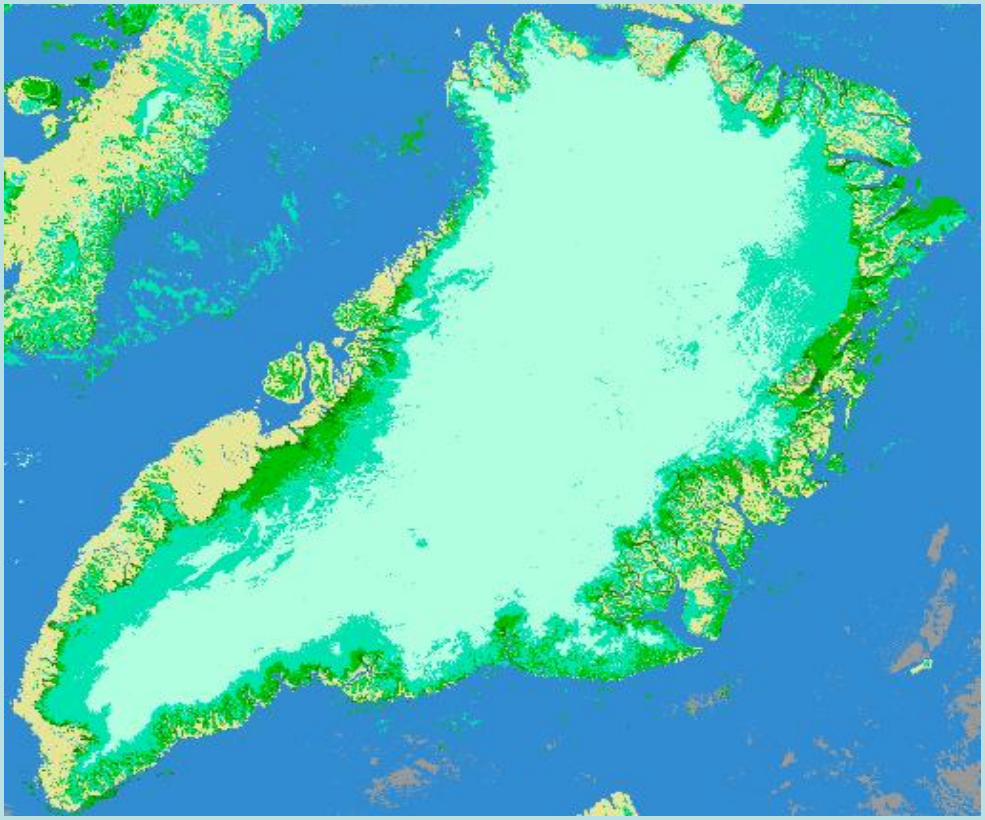

Glacier ice

Superimposed ice

Wet snow

Dry snow

Average Glacier Surface Type (GST) for June 2004.
Glacier Melt Area (GMA) an indicator product based on GST, is the combined area of wet snow, superimposed ice and glacier ice. GMA is here 103,064 km^2

A series of cryospheric climate monitoring products provided by ICEMON is based on a service developed by the FP5 IST project EuroClim. The service monitors sea ice for the whole Arctic Ocean, the Greenland ice sheet, glaciers in Svalbard and seasonal snow in Fennoscandia. A comprehensive set of sea ice, glacier and snow variables are monitored which is the basis for the product portfolio. For all basic variables digital maps are available. There are also products for various types of climate change indicators. These are typically derived from time series of basic variables. The EuroClim service does both long-term regular observations and climate projections for the Arctic and Europe using the observations available to improve climate modelling. The observations are primarily based on satellite data but do also include in situ data when such are available

EuroClim

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ICEMON is supported by ESA GMES

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Platform:	**Terra**
Sensor:	**MODIS**
Spatial Coverage:	**Greenland**
Spatial Resolution:	**1 km^2**
Temporal Coverage:	**From March 2001 until now (except Nov, Dec, Jan, Feb)**
Temporal Resolution:	**Monthly**
Media:	**Web service for search and ordering, FTP for downloading**
Format:	**Hierarchical Data Format (HDF)**
Abstract:	**The MODIS Greenland land ice node products are created as a sequence of products beginning with a single scene and progressing, through spatial and temporal transformations, to a one month re-projected product. The Glacier Surface Type (GST) product for Greenland ice sheet describes the surface classes dry snow, wet snow, super imposed ice and glacier ice. The sensor detect the reflected light from the sun and different threshold values are used for the four surface classes depending on the grain size. A normalised index is then used to get a comparable result between the final product. The Glacier Melt Area (GMA) is derived from GST. It is the combined area of wet snow, superimposed- and glacier ice.**
Applications:	**Climate change monitoring as well as statistical applications**
Data access:	**http://www.euroclim.net**

Geographical regions monitored for the EuroClim climate monitoring service (see other side for general service description)

This product is part of the ICEMON portfolio
which provides monitoring products to the polar research and operations community
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