Country Profile: Greenland

Country Profile (PDF)

Country Resources

Topographic

Series	Publisher	Scale	Years	Sheets
Greenland 1:250,000 Scale Topographic Map (Denmark)	GID	1:250,000	1974 – 1995	21
Greenland 1:250,000 Scale Topographic Maps	TAGE	1:250,000	1991 – 2004	20

Geoscientific

Series	Publisher	Scale	Years	Sheets
Greenland 1:100,000 Scale Geological Maps	GGU	1:100,000	1967 – 2022	62
Greenland 1:500,000 Geological Maps	GGU	1:500,000	1960 – 1984	5
Greenland 1:1,000,000 Scale Aeromagnetic Anomaly Maps	GGU	1:1,000,000	1988	4

Thematic

Series	Publisher	Scale	Years	Sheets
The World 1:30,000,000 Scale Topographic Map Series 1145 (NGA)	DMA	1:30,000,000		2

Global Census Archive: GIS Census Data

East View Geospatial has an ongoing effort to add GIS census data to our Global Census Archive program. Please contact us for the status and availability of Greenland census resources.

Global Resources

Topographic

Series	Publisher	Scale	Years	Sheets
Soviet Military City Plans	VTU GSh	Varies	1944 – 2003	3,021
Soviet Military 1:100,000 Scale Topographic Maps	VTU GSh	1:100,000	1947 – 1999	24,897
Soviet Military 1:200,000 Scale Topographic Maps	VTU GSh	1:200,000	1949 – 2009	17,799
Soviet Military 1:500,000 Scale Topographic Maps	VTU GSh	1:500,000	1953 – 1998	3,093
Soviet Military 1:1,000,000 Scale Topographic Maps	VTU GSh	1:1,000,000	1948 – 1994	1,089

Nautical

Series	Publisher	Scale	Years	Sheets
NGA Nautical Charts POD Certified (All Scales)	NGA	Varies	1943 – 2013	4,517

Aeronautical

Series	Publisher	Scale	Years	Sheets
Joint Operations Graphic (JOG 1501A) 1:250,000 – Aeronautical	DMA	1:250,000	1958 – 2007	6,380
Tactical Pilotage Chart (TPC) 1:500,000 Scale – Aeronautical	DMA	1:500,000	1967 – 2006	618

Operational Navigation Chart (ONC) 1:1,000,000 Scale – Aeronautical	DMA	1:1,000,000	1969 – 2001	248
Jet Navigation Chart (JNC) 1:2,000,000 Scale – Aeronautical	DMA	1:2,000,000	1971 – 1999	117
Global Navigation and Planning Chart (GNC) 1:5,000,000 Scale – Aeronautical	DMA	1:5,000,000	1981 – 1999	27

Note: East View Geospatial is continuously sourcing new resources that may not yet be listed in Global Explorer. Please contact us if you have geodata needs beyond what is listed above and we will be happy to discuss available off-the-shelf and custom solutions.

Shop all products in Global Explorer

Historical Country Mapping Information

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Country Profile (PDF)

Topographic

Greenland was given home rule in 1979 and acquired the status of a district nation within the Kingdom of Denmark. Although the Danish government decided to map Greenland as early as 1878, the first genuine topographic surveys were conducted by the **Lauge Koch** expeditions to the north of Greenland from 1917 to 1923, in 18 sheets at 1:300,000 scale.

The **Geodetic Institute of Denmark** (now **Kort-og Matrikelstyrelsen (KMS)**) began surveying the settled coastal areas in 1927 which led to the production of a series of 1:250,000 scale topographic sheets, which remain the basic mapping for most of the island. A primary geodetic network was established based on an astronomical station at Qoornoq. Originally, map detail was provided by plane table survey, but from 1932 to 1938 an extensive air survey was made of the coastal areas from which photogrammetric compilation of subsequent sheets was made. By 1964, the ice-free areas of the country had all been photographed, and sheets have been completed for almost all these areas. Early sheets showed relief by hill shading, and contours with a brown tone for upland and green for lowland. Later sheets have a revised specification, with no relief shading, although a green tone is retained for lowland, and ice-free upland is shown in pale yellow. Contours are at 50 m intervals. The projection is Lambert conformal conical with one standard parallel, or UTM, based on the International ellipsoid, and the datum, originally the Qoornoq Datum, is being changed to North American Datum 1984. Place names are in Inuit and Danish. Sheets in the series each cover 1° of latitude, with west coast sheets identified by a prefix V and east coast with a prefix Ø. Revision of these sheets is limited to important corrections. A new aerotriangulation of Greenland was completed in 1998.

Soviet military topographic mapping of Greenland is available at the following scales: 1:1,000,000 (22 sheets, complete coverage, published 1954-1983); 1:500,000 (47, primarily coastal coverage, published 1962-1980) and 1:200,000 (264 sheets, primarily coastal coverage, published 1955-1967). These products are available in print, digital raster and digital vector GIS formats from **East View Geospatial**.

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Nautical

Hydrographic charting is undertaken by the **Hydrographic Office**, Søkortkontoret, which is now part of **KMS**. An extensive series of 1:80,000 scale charts is available for the west coast of Greenland.

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Geological/Scientific

A program of geological mapping has been carried out over many years by the **Geological Survey of Greenland**, founded after the Second World War. In 1995, the survey merged with the **Danish Geological Survey** to become **Dan-marks og Grønlands Geologiske**

Undersøgelse (GEUS), and currently mapping and other geoscience research are carried out within a policy framework agreed between Greenland Home Rule and the Danish government.

Geological mapping began in western Greenland, but extended to eastern Greenland in the late 1960s and later to North Greenland in cooperation with the **KMS** orthophotomapping project. The basic series are restricted to the ice-free coastal zone and comprise a series of 1:100,000 scale sheets, and a more extensive series of bedrock and quaternary sheets, mostly at 1:500,000 scale. Some sheets are accompanied by descriptive texts. The program is continuing, and most 1:500,000 scales sheets are now available on CD-ROM.

In 1970, a large tectonic/geological map was published showing the whole island in a single sheet at 1:2,500,000 scale. A companion map of quaternary geology was published the following year. A revised edition of the tectonic/ geological map was published in 1995, and a monograph to accompany this map is in preparation.

Current work by **GEUS** in Greenland also includes systematic geochemical mapping based on stream sediment analysis, and a *Geochemical atlas of West and South Greenland* has been in preparation, containing a set of chemical element distribution maps at 1:4,000,000 scale.

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Imagery

In 1977, approval was given for a major survey of the coastal areas of northern Greenland (north of 78° in western Greenland and north of 76° in eastern Greenland). High altitude photography was flown in 1978 using a camera with a superwide angle lens to give an image scale of 1:150,000. Color infrared photos were taken at the same time to be used in support of future geological mapping. The resulting maps are contoured 1:100,000 scale orthophotomaps on a UTM projection using North American Datum 1983. The series of 99 sheets is still in progress. Sheets are numbered in the style of the 1:250,000 map, but with the addition of a compass quarter. It is planned eventually to extend the 1:250,000 map series to this area, deriving the sheets from the 1:100,000 scale data.

Smaller-scale maps of Greenland include a 1:1,000,000 (ICAO series), a 10-color 1:2,000,000 scale wall map, and a 1:5,000,000 scale general reference map showing settlements, weather stations, municipal and provincial boundaries and shaded relief. The second edition of the 1:5,000,000 scale map was published in 1996 on a UTM projection, WGS 84.

Mapping of the surface relief of the Greenland Ice Sheet has been accomplished using satellite radar altimetry acquired by the Seasat satellite in 1986, and more recently from ERS-1 SAR imagery acquired in 1992. Simple black and white contour maps accompany the NASA report on the earlier project, but the data set of surface elevations is available. The 1992 data have been released on a CD-ROM as a digital SAR mosaic combined with a digital elevation model derived from conventional Danish survey sources and compiled by **KMS**. The SAR mosaic was prepared by the **Jet Propulsion Laboratory** and **Goddard Space Flight Center** in the United States.

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Atlas

The *Kalaallit Nunaat atlas Greenland*, published by **Pilersuiffik** in 1990, is an educational atlas designed for schools and colleges. There are parallel texts in Inuit and English. The atlas provides an excellent summary of the Greenland environment and includes a selection of 1:250,000 scale maps of the settled districts. The satellite image atlas of Greenland, published in the **United States Geological Survey (USGS)** *Satellite image atlas of the World* series, includes LANDSAT imagery and aerial photographs of the ice sheet, local ice caps and glaciers and provides a description of the geography, climatology and glaciology of these features. A folded 1:2,500,000 map is included, which shows the inland ice, outlet glaciers, local ice caps, and the principal towns. Place names in Greenland are of Inuit and European (mainly Danish) origin. The Greenland Place Name Committee is working to reinstate many names and to bring Greenlandic spellings into conformity with the 1973 spelling reform.

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Tourist/Reference

A series of 20 maps at 1:250,000 scale has been published of tourist areas under the imprint **Saga Maps**, produced by **Tage Schött** and based on the maps of the **Danish Survey**. A new series of mainly 1:100,000 scale hiking maps is being published by **Greenland Tourism**, Nuuk. These maps are compiled using original photogrammetry by **Harvey Map Services**, Scotland and are produced by **Compukort**, Mårslet, Denmark. Thirteen sheets have so far been published with further sheets planned. The maps are of high quality, with layer colored relief and contours at 25 m intervals, and the reverse of the maps contains both general and route information in English.

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