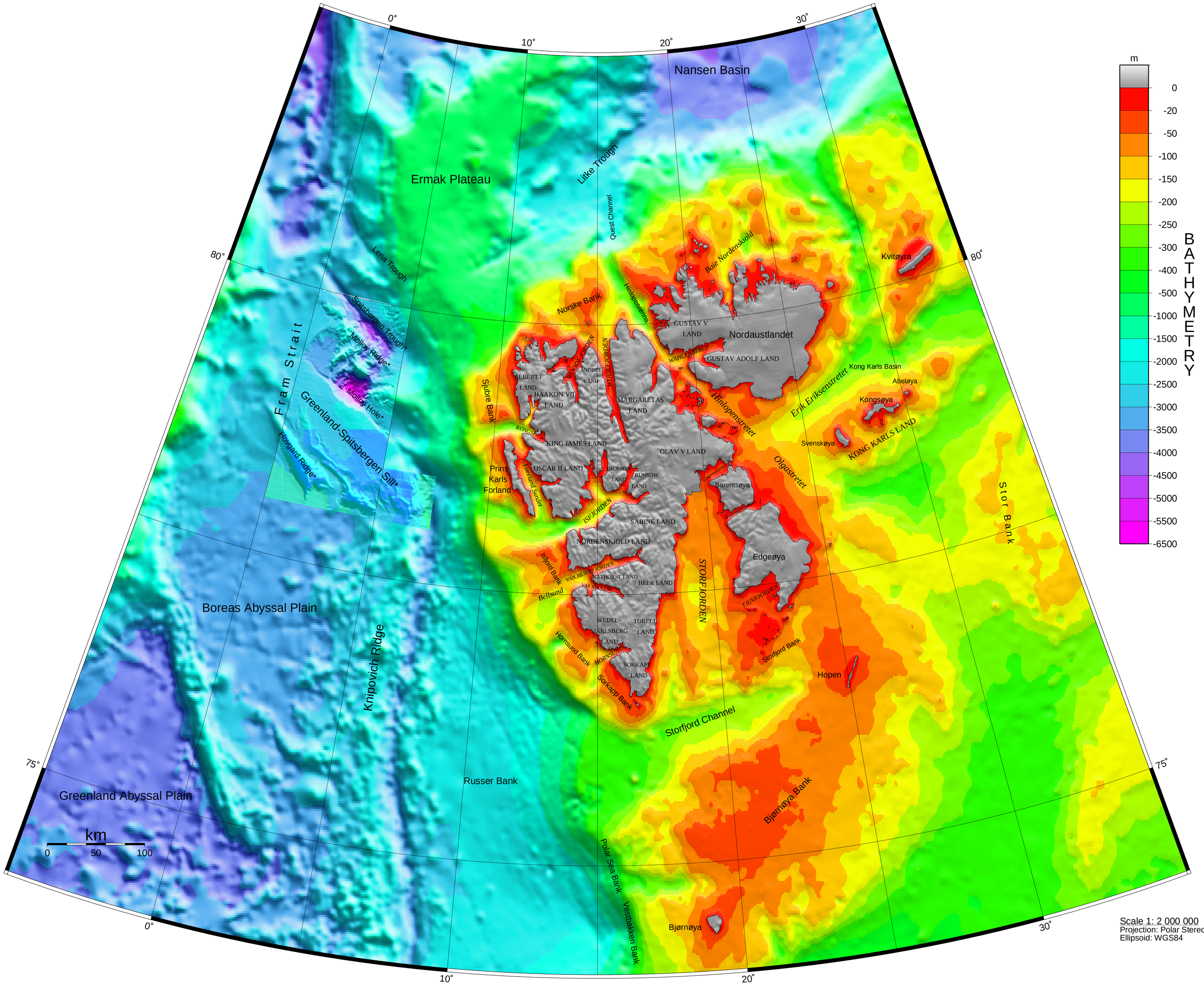

SVALBARD
TOPOGRAPHY AND BATHYMETRY

Compilation made by ZBIGNIEW PERSKI

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DATA SOURCES

BATHYMETRY:

International Bathymetric Chart of the Arctic Ocean (IBCAO). The goal of this initiative is to develop a digital data base that contains all available bathymetric data north of 64 degrees North, for use by mapmakers, researchers, and others whose work requires a detailed and acurate knowledge of the depth and the shape of the Arctic seabed. Initiated in 1997, this undertaking has so far engaged the volunteer efforts of investigators who are affiliated with eleven institutions in eight countries: Canada, Denmark, Germany, Iceland, Norway, Russia, Sweden, and the USA. The activity has also been endorsed and/or supported financially by the Intergovernmental Oceanographic Commission (IOC), the International Arctic Science Committee (IASC), the International Hydrographic Organization (IHO), the US Office of Naval Research (ONR), and the US National Geophysical Data Center (NGDC).
http://www.ngdc.noaa.gov/mgg/bathymetry/arctic/arctic.html

AWI Bathymetric Charts of the Fram Strait (AWI BCFS). Based on data from R/V Polarstern multibeam sonar surveys between 1984 and 1997 we produced a high resolution bathymetry of the central Fram Strait. The area insonified covers approx. 36,500 km^2 between 78^{0}N - 80 ^{0}N and 0^{0}E - 7.5^{0}E. Basic outcome of the investigation is a raster Digital Terrain Model (DTM) with 100 m grid spacing. Martin Klenke, Alfred Wegener Institute for Polar and Marine Research 2003.
http://www.awi-bremerhaven.de/GEO/Bathymetry/framstr/framneu.html

LAND TOPOGRAPHY:

GTOPO30. GTOPO30 is a global digital elevation model (DEM) with a horizontal grid spacing of 30 arc seconds (approximately 1 kilometer). GTOPO30 was derived from several raster and vector sources of topographic information. GTOPO30, completed in late 1996, was developed over a three year period through a collaborative effort led by staff at the U.S. Geological Survey's EROS Data Center (EDC). The following organizations participated by contributing funding or source data: the National Aeronautics and Space Administration (NASA), the United Nations Environment Programme/Global Resource Information Database (UNEP/GRID), the U.S. Agency for International Development (USAID), the Instituto Nacional de Estadistica Geografica e Informatica (INEGI) of Mexico, the Geographical Survey Institute (GSI) of Japan, Manaaki Whenua Landcare Research of New Zealand, and the Scientific Committee on Antarctic Research (SCAR).
http://edcdaac.usgs.gov/gtopo30/gtopo30.html

SHORELINE:

GSHHS - A Global Self-consistent, Hierarchical, High-resolution Shoreline Database. GSHHS is a high-resolution shoreline data set amalgamated from two data bases in the public domain. The data have undergone extensive processing and are free of internal inconsistencies such as erratic points and crossing segments. The shorelines are constructed entirely from hierarchically arranged closed polygons. The data can be used to simplify data searches and data selections, or to study the statistical characteristics of shorelines and land-masses. It comes with access software and routines to facilitate decimation based on a standard line-reduction algorithm.
http://www.ngdc.noaa.gov/mgg/shorelines/gshhs.html

GEOGRAPHIC NAMES:

GEOnet Names Server (GNS) NIMA. The GEOnet Names Server (GNS) provides access to the National Imagery and Mapping Agency's (NIMA) database of foreign geographic feature names. The database is the official repository of foreign place-name decisions approved by the U.S. Board on Geographic Names (US BGN). Approximately 20,000 of the database's features are updated monthly.
http://www.nima.mil/gns/html/index.html

UNDERSEA FEATURE NAMES:

Gazetter of GEBCO Sub-Committee on Undersea Feature Names (SCUFN). The setting up of SCUFN arose from the need for a uniform policy for the handling of geographical names and standardization of undersea feature names, in order to achieve consisten naming on bathymetric maps and nautical charts. All names selected by SCUFN are contained in the GEBCO Gazetteer of Undersea Feature Names. The most recent Gazetteer is that of December 2002.
http://www.ngdc.noaa.gov/mgg/gebco/underseafeatures.html

Fram Strait feature names:
These names marked with * have been proposed in April 2003 by Alfred Wegener Institute for Polar and Marine Research and accepted by SCUFN.

Scale 1: 2 000 000
Projection: Polar Stereographic
Ellipsoid: WGS84