General Bathymetric Chart of the Oceans (GEBCO) - mapping the global seafloor

www.gebco.net

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About GEBCO

For over one hundred years GEBCO has been at the forefront of producing maps and digital data sets showing the shape of the global seafloor in the deep oceans with the first GEBCO chart series initiated in 1903 by Prince Albert I of Monaco. Today the GEBCO community consists of an international group of experts in seafloor mapping who develop a range of data sets and data products with the aim of providing the most authoritative publicly-available bathymetric data sets for the world's oceans.

GEBCO's latest 30 arc-second interval DTM, GEBCO_2014, has benefited from contributions from many regional mapping projects such as the International Bathymetric Charts of the Arctic Ocean (IBCAO) and Southern Ocean (IBCSO); the Baltic Sea Bathymetry Database and EMODnet for European waters.

Our products

Global Digital Terrain Model (DTM)

GEBCO makes available a global terrain model at 30 arc-second intervals. The latest version, GEBCO_2014, was released in December 2014. It uses depths from bathymetric surveys and depths estimated from satellite altimetry where needed. The grid is accompanied by a Source Identifier (SID) Grid showing which cells are based on soundings and which are interpolated. It marks a significant improvement on the previous release, GEBCO_08.

Below are some comparison plots and details from the new GEBCO_2014 Grid.

GEBCO_2014 Grid compared with the GEBCO_2014 Grid (above)

GEBCO_08 Grid, note the lack of detail in the central Baltic Sea region

The above image shows a section of the grid in the central Baltic Sea region.

The data set is available to view, search and download via the internet in GIS-friendly formats such as shapefile and KML and as a web service.

www.gebco.net/data_and_products/undersea_feature_names/

IHO-IOC GEBCO Cook Book

The Cook Book is a technical reference manual on how to build bathymetric grids. It includes information on: data gathering and cleaning; producing bathymetric grids plus information on some of the software packages available to do this work.

www.gebco.net/data_and_products/gebco_cook_book/

GEBCO world map

A shaded-relief colour map image showing the bathymetry of the world's oceans.

www.gebco.net/data_and_products/gebco_world_map/

Web services

We make available a Web Map Service (WMS) providing imagery from the GEBCO 30 arc-second grid in shaded relief form. It includes a layer showing the SID grid coverage - i.e. those grid cells constrained by measured data in the GEBCO grid.

www.gebco.net/data_and_products/gebco_web_services/web_map_service/

GEBCO Digital Atlas

The GDA is a collection of GEBCO's grids and bathymetric contour data sets on DVD with accompanying viewing and data access software: www.gebco.net/data_and_products/gebco_digital_atlas

Other activities

Nippon Foundation/GEBCO Training Programme

The Nippon Foundation/GEBCO Training Programme is helping to train a new generation of seafloor mappers. The 12 month-course leads to a Postgraduate Certificate in Ocean Bathymetry and has been held at the University of New Hampshire, USA since 2004. Funding for the programme is provided by the Nippon Foundation of Japan.

Since it began over 60 scholars have taken part in the course, representing 32 coastal states — helping to create and strengthen GEBCO's links in all regions.

www.gebco.net/training/