Global Bathymetric Data Sets - General Bathymetric Chart of the Oceans (GEBCO) www.gebco.net

On behalf of GEBCO: Pauline Weatherall, BODC, UK (paw@bodc.ac.uk); Karen M. Marks, NOAA, USA (karen.marks@noaa.gov); Martin Jakobsson, Univ. of Stockholm, Sweden (martin.jakobsson@geo.su.se) and Lesley Rickards, BODC, UK (ljr@bodc.ac.uk)

The GEBCO community consists of an international group of experts in seafloor mapping who develop and make available 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.

Find out more about our data sets and products: **www.gebco.net/data_and_products/**

Global Digital Terrain Model (DTM)

The **GEBCO_2014 Grid** is a global terrain model at 30 arc-second intervals and was released in December 2014.

It is largely based on a database of ship-track soundings with interpolation between soundings guided by satellite-derived gravity data. Where they improve on this model, data sets generated by other methods have been included.

Recognising the importance of regional mapping expertise to help improve its global grid, GEBCO is building collaborations with regional mapping efforts to help encourage the incorporation of their compilations into GEBCO.

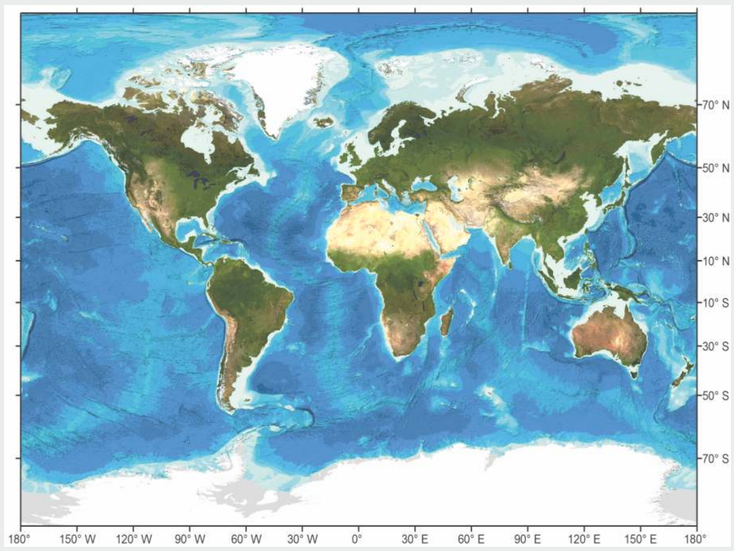

Fig. 1 - The GEBCO_2014 Grid

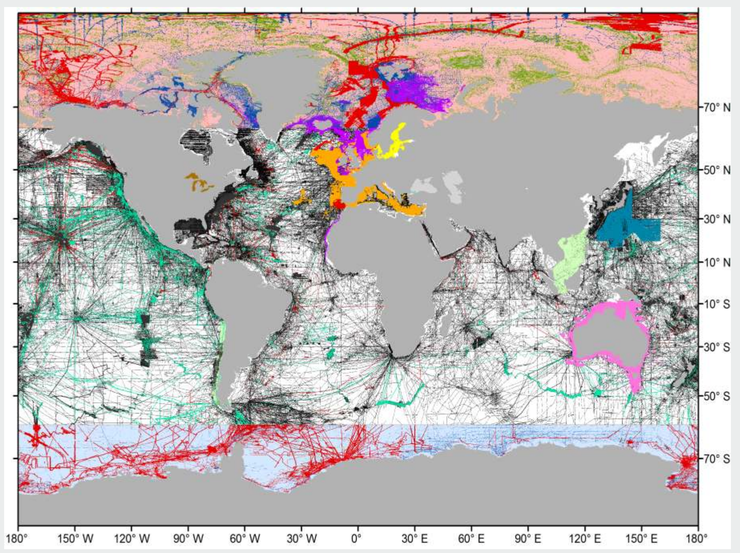

Fig. 2 - Source Identifier (SID) grid which references the source data set to the corresponding grid cell in GEBCO_2014

The GEBCO_2014 grid includes contributions from many regional mapping projects and data contributors such as the International Bathymetric Charts of the Arctic Ocean (IBCAO) and Southern Ocean (IBCSO); the Baltic Sea Bathymetry Database and EMODnet 2013 for European waters.

The grid is accompanied by a Source Identifier (SID) Grid showing which cells are based on soundings or pre-gridded data sets and which are interpolated.

GEBCO's grids can be download from the internet in netCDF (CF Compliant), Esri ASCII raster or data GeoTiff formats.

Find out more: **www.gebco.net/data_and_products/gridded_bathymetry_data/**

Region taken from IBCAO V3	Single beam bathymetry
Region taken from IBCSO V1	Bathymetric contours from charts
EMODNet 2013	North American Great Lakes bathymetry
Baltic Sea Bathymetry Database	Coastal area updated using ENC soundings
Geoscience Australia Grid 2009	Regions based on pre-prepared grids, (first included in the GEBCO_08 Grid)
Japan Oceanographic Data Center (JODC) of the Japan Coast Guard Grid	Trackline control information from the SRTM30_plus (v5) base grid
Olex AS data	Region based on interpolation guided by satellite-derived gravity data within the SRTM30_plus (v5) base grid
LDEO Global Multi-Resolution Topography Synthesis	
Multibeam bathymetry	

Table 1 - Key for SID Grid - identifying the source data sets included in the GEBCO_2014 Grid

Undersea Feature Names

The GEBCO Sub-Committe on Undersea Feature Names (SCUFN) maintains and makes available a gazetteer giving the name, geographic location and extent of features on the seafloor.

The data set contains over 3,900 features and is available to view, search and download via the internet in a number of formats including comma separated text, spreadsheet and shapefile.

Via its web pages, SCUFN provides information on undersea feature terms and definitions and details on how to propose names for newly-discovered seafloor features.

www.gebco.net/data_and_products/undersea_feature_names/

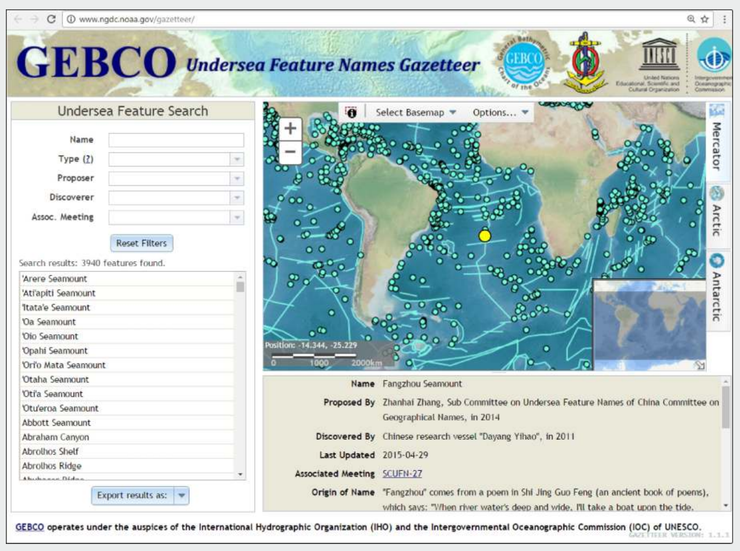

Fig. 3 - The GEBCO Gazetteer of Undersea Feature Names web site

Other products

Web services

We make available a Web Map Service (WMS) providing imagery based on the GEBCO 30 arc-second grid. It also includes a layer showing the SID grid coverage - i.e. identifying those grid cells in the GEBCO_2014 grid constrained by measured data or pre-gridded data sets, or based on interpolation.
www.gebco.net/data_and_products/gebco_web_services/web_map_service/

IHO-IOC GEBCO Cook Book

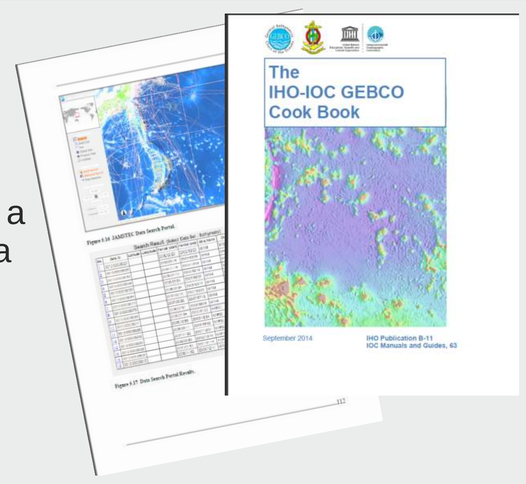

Fig. 4 - the IHO-IOC GEBCO Cook Book

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 and including names for seafloor features from the GEBCO Gazetteer.
www.gebco.net/data_and_products/printable_maps/gebco_world_map/

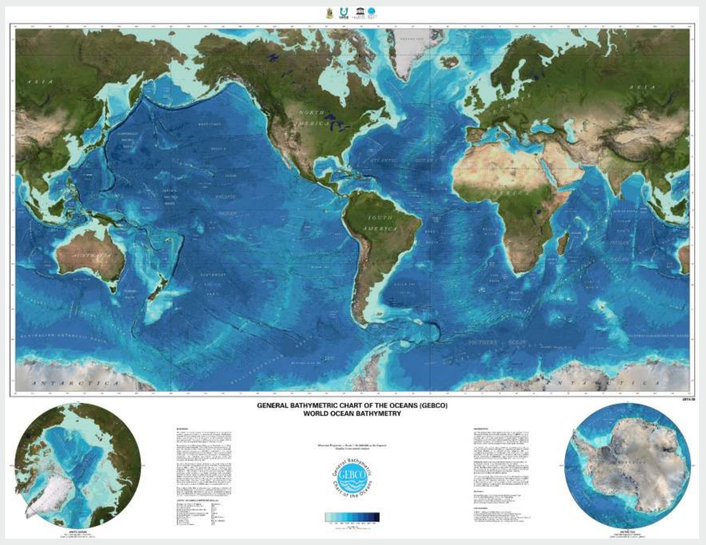

Fig. 5 - GEBCO World map

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/

GEBCO operates under the joint auspices of the International Hydrographic Organization (IHO) and the Intergovernmental Oceanographic Commission (IOC) of UNESCO