

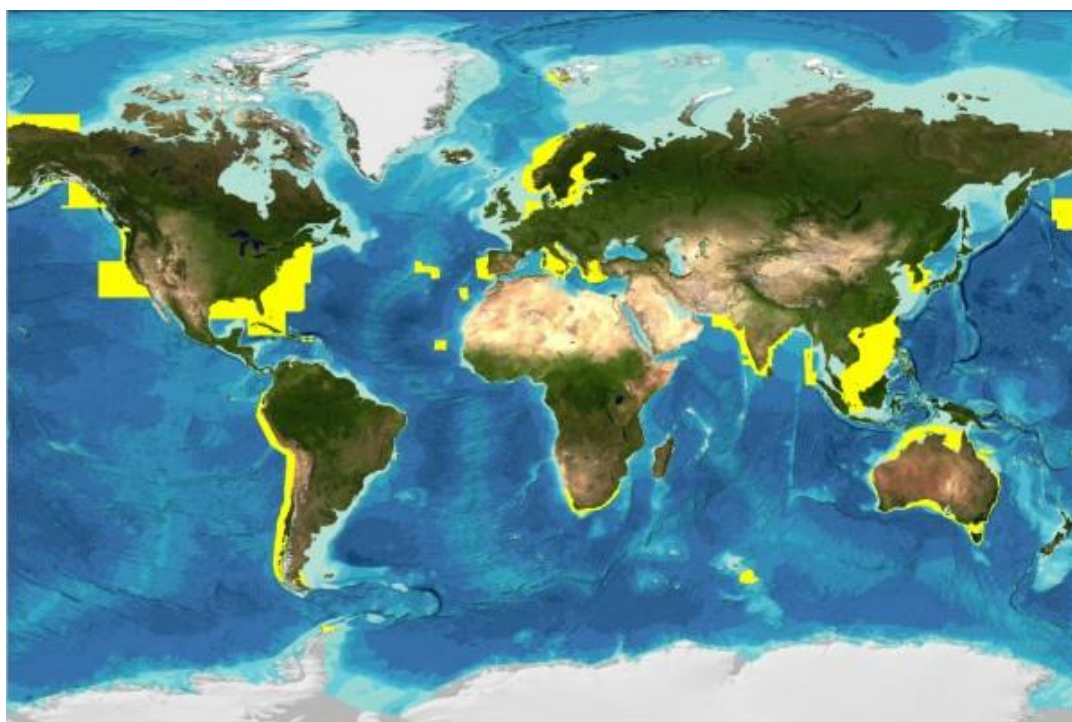
RSAHC6-18.1 - IMPROVING GEBCO'S BATHYMETRIC GRIDS IN SHALLOWER WATER AREAS

1. Traditionally, GEBCO's data sets and maps have shown the bathymetry of the deeper water regions of the world's oceans – i.e. at depths of 200 m and deeper. So that GEBCO can more accurately model the shape of the ocean floor in all areas and serve a wider user community, they have been working to improve our gridded bathymetric data sets in shallower water.

Electronic Navigation Charts (ENCs)

2. The bathymetry data held in the world wide coverage of Electronic Nautical Charts (ENCs), collectively produced by IHO Member States, has proven to be a valuable data source and are being used to significantly improve GEBCO's bathymetric grids in shallow water regions.

Many Hydrographic Offices and hydrographic organizations have already contributed substantial amounts of shallow water bathymetry data for their coastal zones. Generally these are from ENCs in small scale 'General' and 'Coastal' navigational purpose bands. The data have resulted in significant improvements in the bathymetry for some shallow water areas and are helping GEBCO to produce a better generalized bathymetric model that seamlessly extends across oceans from shore to shore.



Data contributors

3. The following is a list of IHO Member States and organisations that have contributed shallow water bathymetric data to GEBCO.

Australian Hydrographic Service
(RAN), Australia

Bundesamt für Seeschifffahrt und
Hydrographie, Germany

Directorate of Hydrography and

Instituto Oceanográfico de la Armada,
Ecuador

Instituto Idrografico Della Marina, Italy

Instituto Hidrografico, Portugal

Navigation, Peru

East Asia Hydrographic Commission

Finnish Hydrographic Office, Finland

Flemish Hydrography, Belgium

Hellenic Navy Hydrographic Service,
Greece

Hydrographic service office of the
Kingdom of Bahrain

Hydrographic Service, Maritime
Administration of Latvia

Hydrographic Office of the Polish
Navy, Poland

Hydrographic Office, South Africa

Korea Hydrographic and Oceanographic
Administration, Korea (Republic of)

National Hydrographic Office, India

National Ocean Service, USA

Netherlands Hydrographic Office, The
Netherlands

Norwegian Mapping Authority, Norway

Servicio Hidrográfico y Oceanográfico de la
Armada, Chile

Swedish Maritime Administration, Sweden

How to contribute ENC data

4. A software application has been developed to simplify the extraction of data from ENCs into simple ASCII files and is available on request. For further details on how to contribute ENC and shallow water bathymetry data to help us improve our bathymetric models, please contact Assistant Director Tony Pharaoh (adtdt@iho.int) at the International Hydrographic Bureau.

5. GEBCO is continually working to improve its bathymetric data sets and welcomes data contributions for **all ocean regions**. Further details are available on [how to contribute data](#) to help improve GEBCO's grids.

Updating the GEBCO_08 Grid in shallow water areas

6. Many of the ENC data sets for the above regions have already been incorporated into the GEBCO_08 Grid. The new version of the GEBCO grid, GEBCO_2014, was released in December. It marks a significant update to the previous grid (GEBCO_08) and includes a number of new data sets, e.g. the latest IBCAO, IBCSO, EMODnet, LDEO GMRT, Baltic Sea Bathymetry Database; North western Pacific Ocean region plus many other additional data sets. Further details from the accompanying documentation: http://www.gebco.net/data_and_products/gridded_bathymetry_data/documents/gebco_2014.pdf

8. The grid is currently available in netCDF form (from BODC's web site) – linked from GEBCO's web site: http://www.gebco.net/data_and_products/gridded_bathymetry_data/. Work is underway to provide export in additional formats (Esri ASCII raster and data Geotiff) – it is planned that these will become available early in 2015. It is also planned to provide access to the application/data download directly from GEBCO's web site.

10. The meeting is requested to:

- a. Note this report;
- b. Consider making data available to the DCDB and IHO-IOC GEBCO, in particular in the 0-200 metre zone, to enhance the data coverage and improve the GEBCO products.
- c. Take any other action deemed appropriate.