

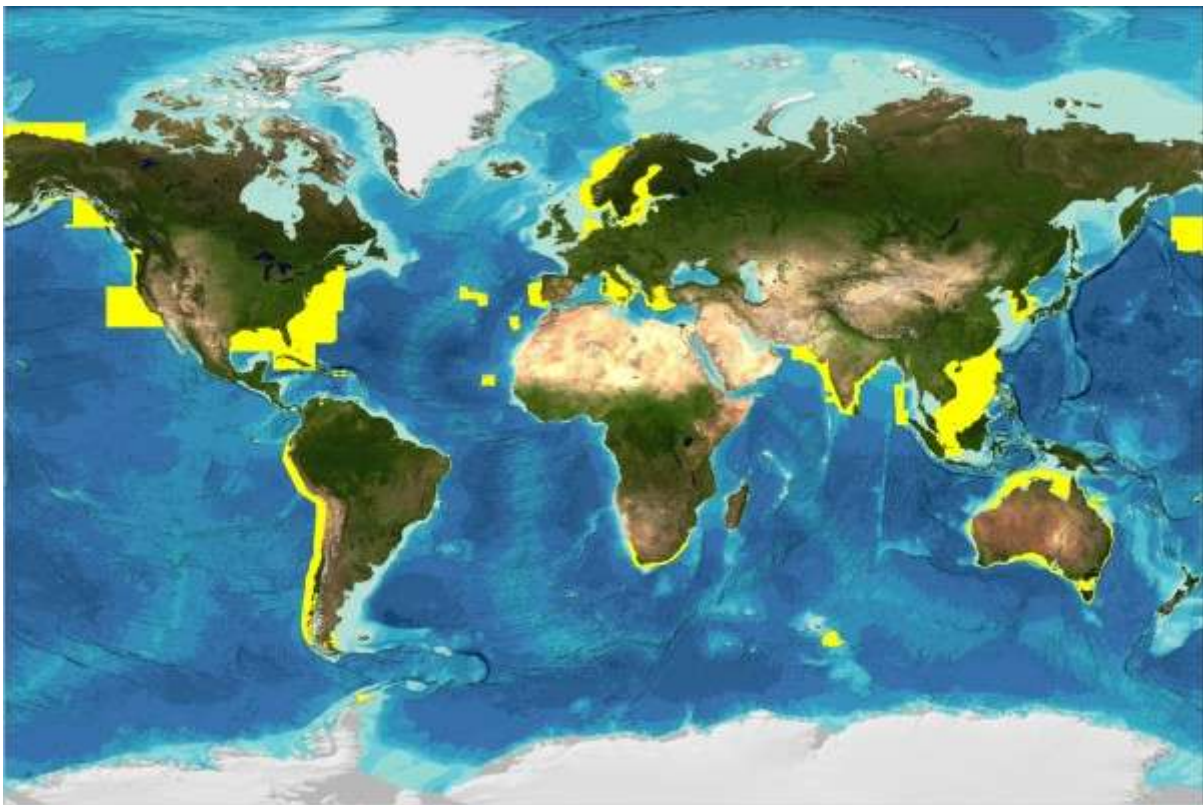
IMPROVING GEBCO'S BATHYMETRIC GRIDS IN SHALLOWER WATER AREAS

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

Instituto Oceanográfico de la Armada,
Ecuador
Istituto Idrografico Della Marina, Italy

Hydrographie, Germany	Instituto Hidrografico, Portugal
Directorate of Hydrography and Navigation, Peru	Korea Hydrographic and Oceanographic Administration, Korea (Republic of)
East Asia Hydrographic Commission	National Hydrographic Office, India
Finnish Hydrographic Office, Finland	National Ocean Service, USA
Flemish Hydrography, Belgium	Netherlands Hydrographic Office, The Netherlands
Hellenic Navy Hydrographic Service, Greece	Norwegian Mapping Authority, Norway
Hydrographic service office of the Kingdom of Bahrain	Servicio Hidrográfico y Oceanográfico de la Armada, Chile
Hydrographic Service, Maritime Administration of Latvia	Swedish Maritime Administration, Sweden
Hydrographic Office of the Polish Navy, Poland	
Hydrographic Office, South Africa	

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 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.
7. 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.