

GEBCO

(General Bathymetric Chart of the Oceans)

Improving the GEBCO One Minute Grid in shallow water areas

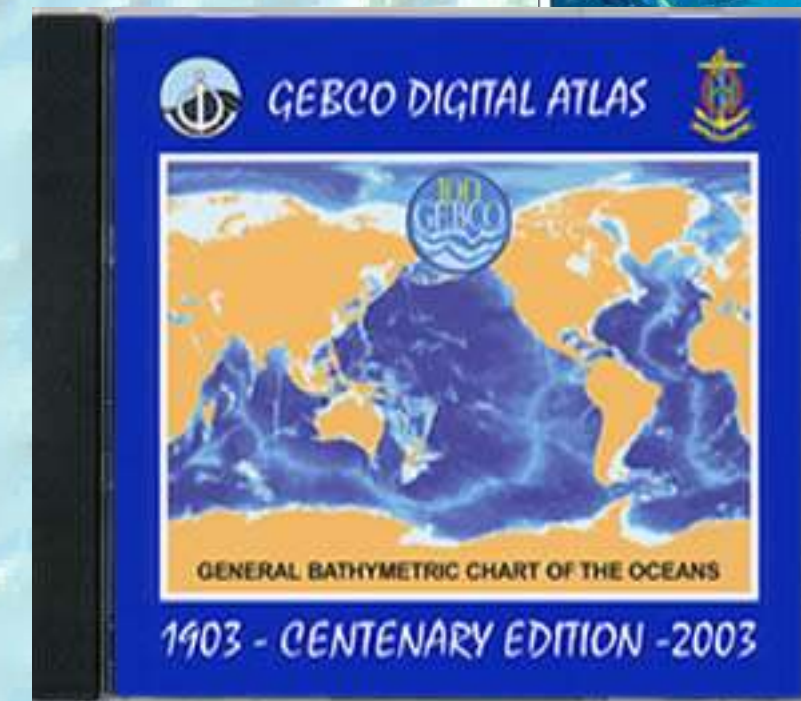
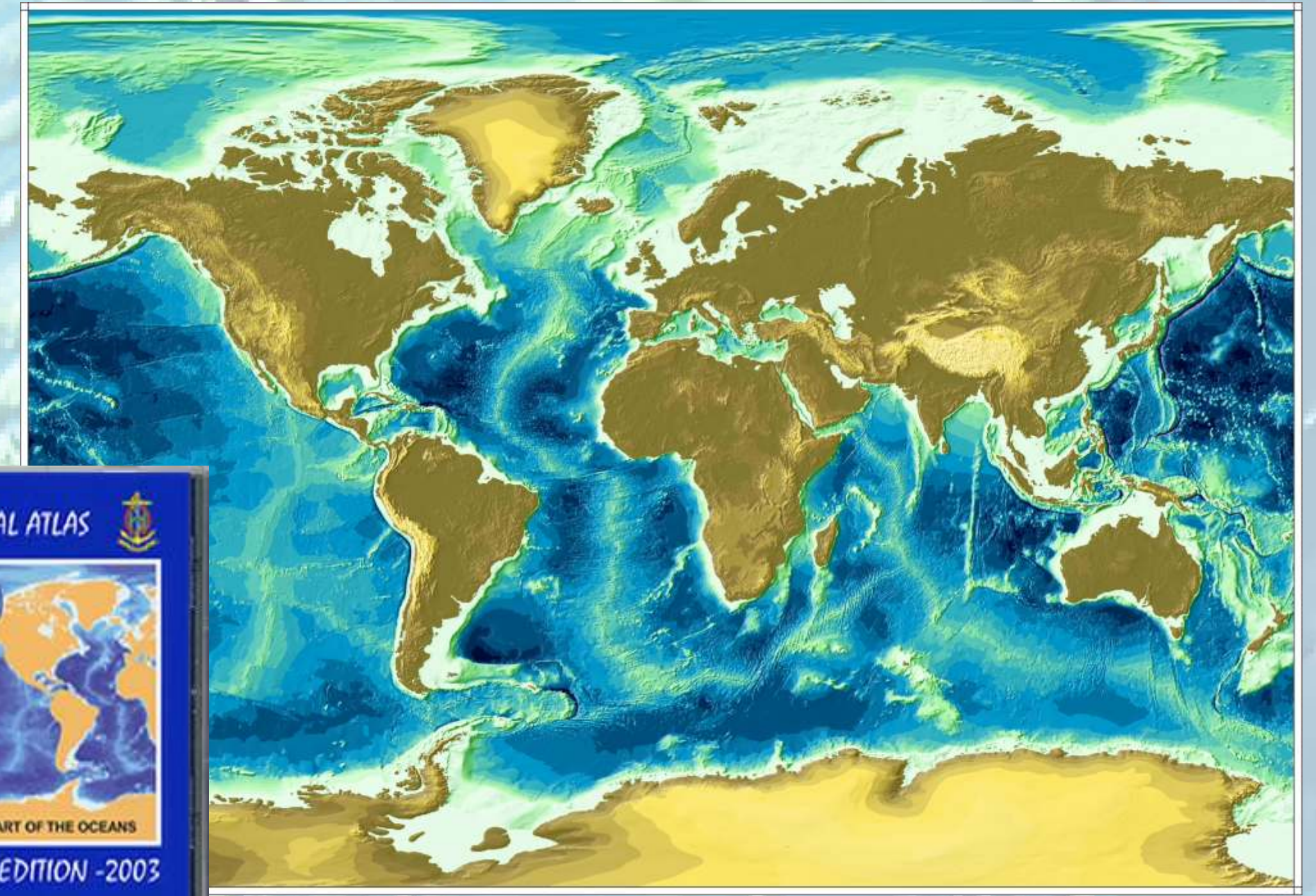
Tony Pharaoh, International Hydrographic Bureau (IHB), Principality of Monaco

Pauline Weatherall, Ray Cramer, British Oceanographic Data Centre (BODC), Liverpool, UK

GEBCO's aim is to provide the most authoritative, publicly-available bathymetry for the world's oceans. It operates under the joint auspices of the Intergovernmental Oceanographic Commission (IOC) and the International Hydrographic Organization (IHO).

The GEBCO bathymetric chart series are now maintained in the form of the GEBCO Digital Atlas (GDA). The GDA includes the **GEBCO One Minute Grid** - a global bathymetric grid with a one arc-minute spacing. The GEBCO One Minute Grid is included on the GDA CDROM and is also freely available online.

GEBCO has traditionally depicted the deeper water areas of the world's oceans, i.e. at depths of 200 m and deeper. However, in order to more adequately represent the shape of the ocean floor in all areas, and to serve a wide range of users, the GEBCO community has recognised the importance of improving the existing GEBCO grid in shallow water areas.



Extracting bathymetry data from Electronic Navigation Charts (ENC)



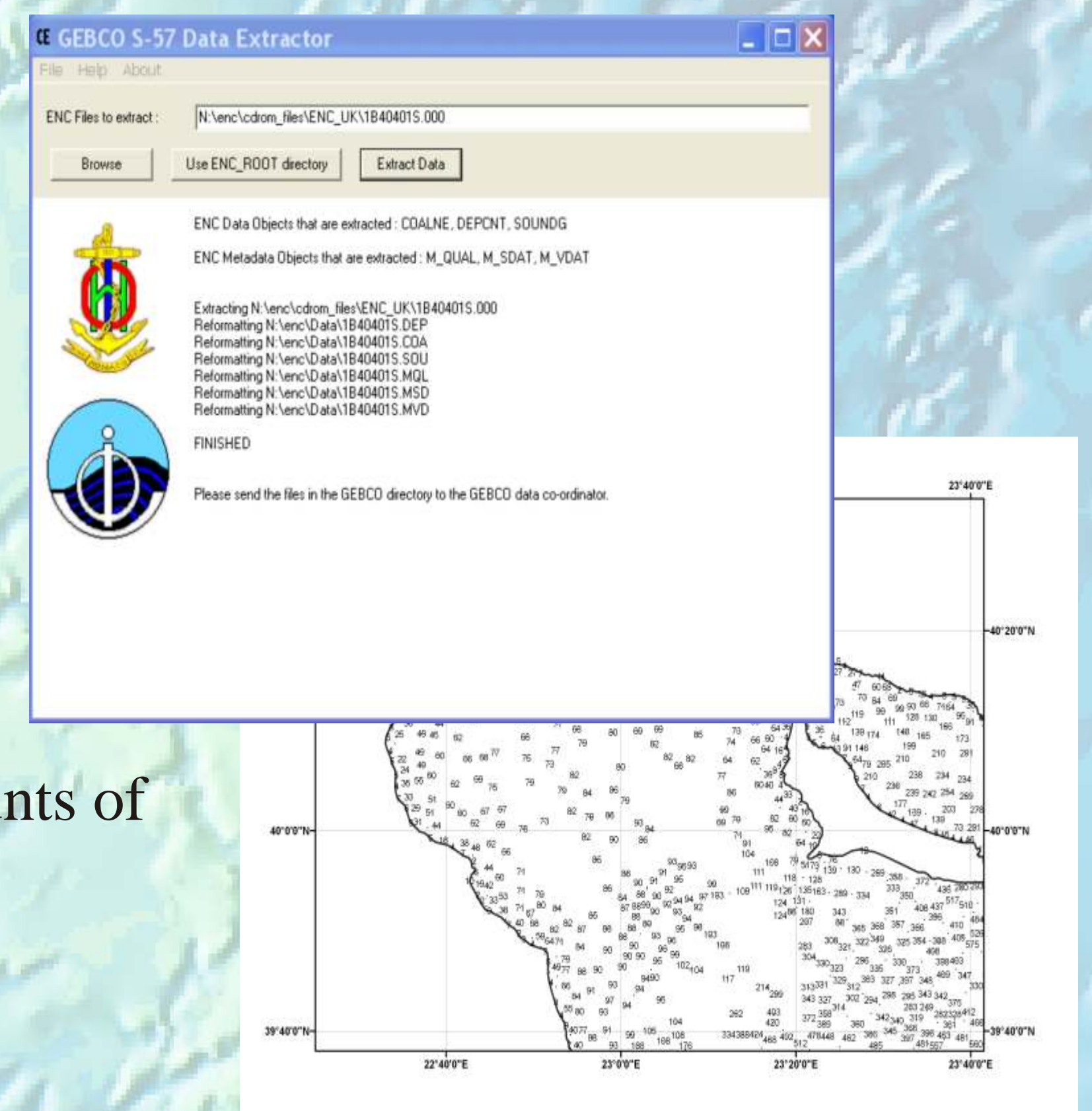
Coverage of sounding point data received from IHO Member States

The bathymetry data held collectively by IHO Member States was recognised as a valuable source of data which could be used to significantly improve the existing and future GEBCO grids in shallow water areas.

A software application was developed at BODC to simplify the extraction of data from ENC files (usage bands 2 and 3). This software package was supplied to IHO Member States on request.

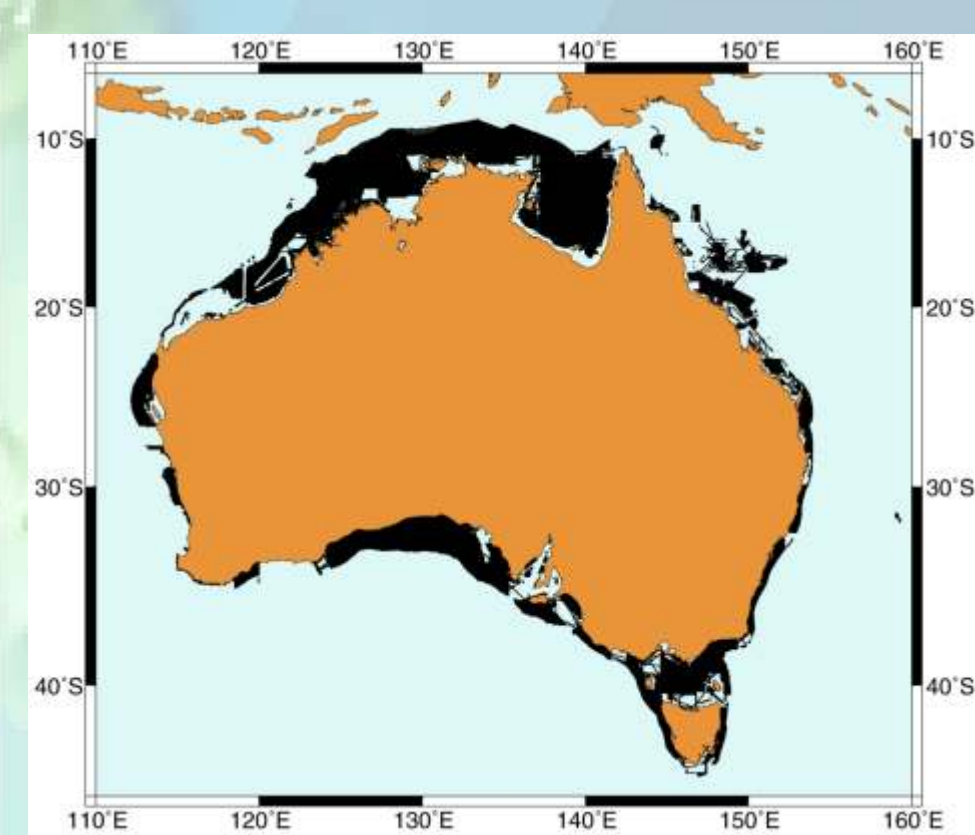
Many Hydrographic Offices have already contributed substantial amounts of shallow water bathymetry data for their coastal zones.

To contribute data contact Tony Pharaoh: apharaoh@ihb.mc



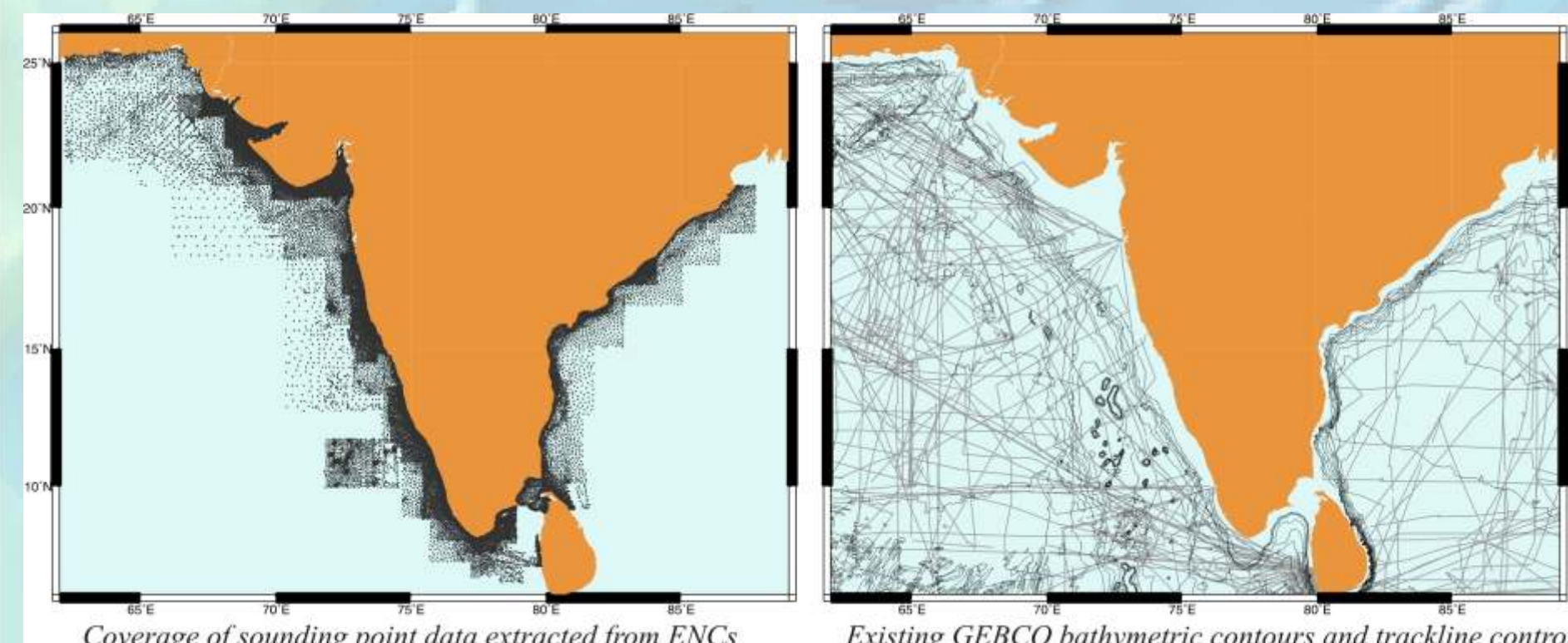
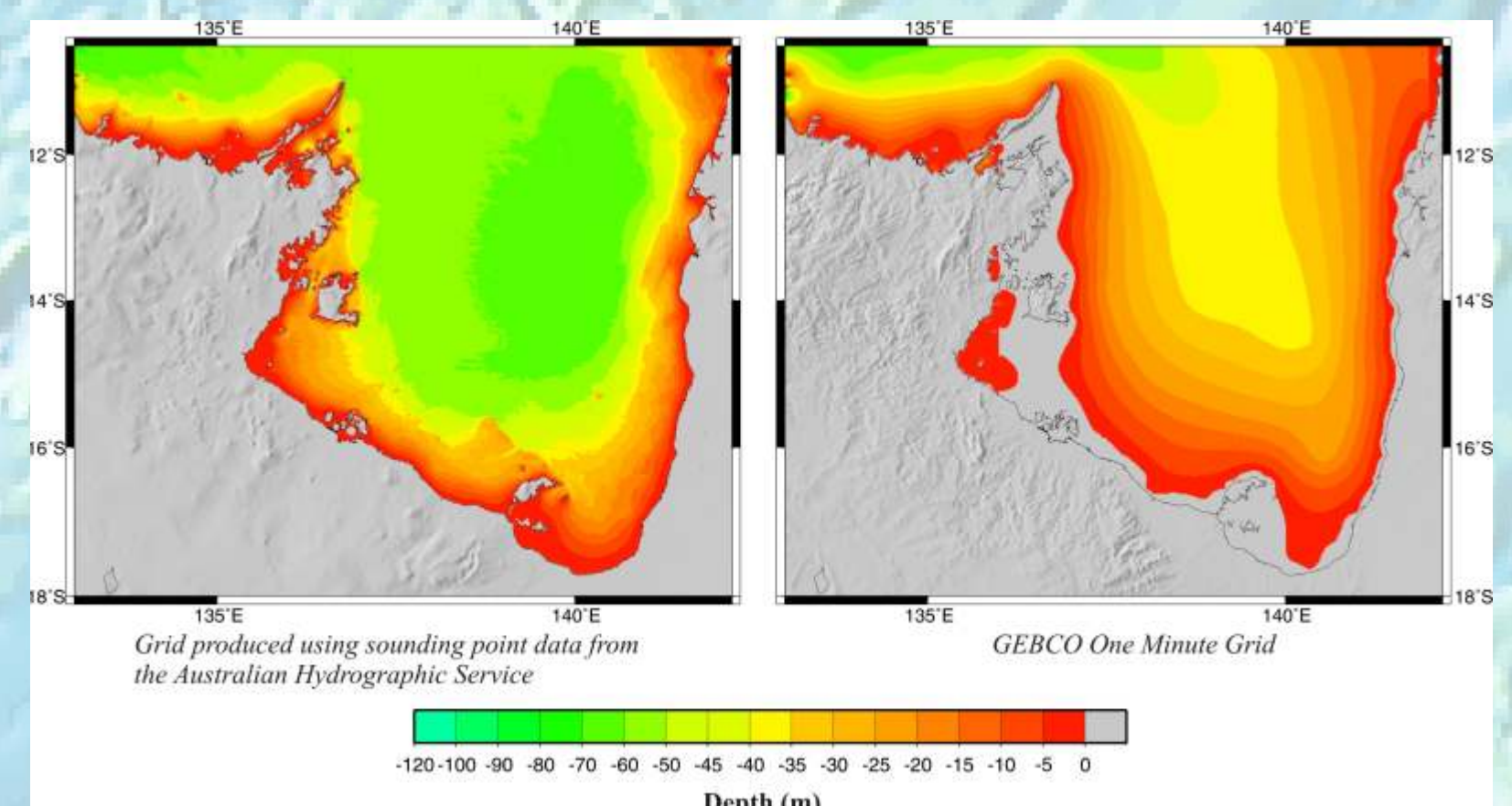
Updating the GEBCO One Minute Grid in shallow water areas

Example test grids have been produced to show how the sounding point data received so far have significantly improved the existing GEBCO One Minute Grid in shallow water areas.



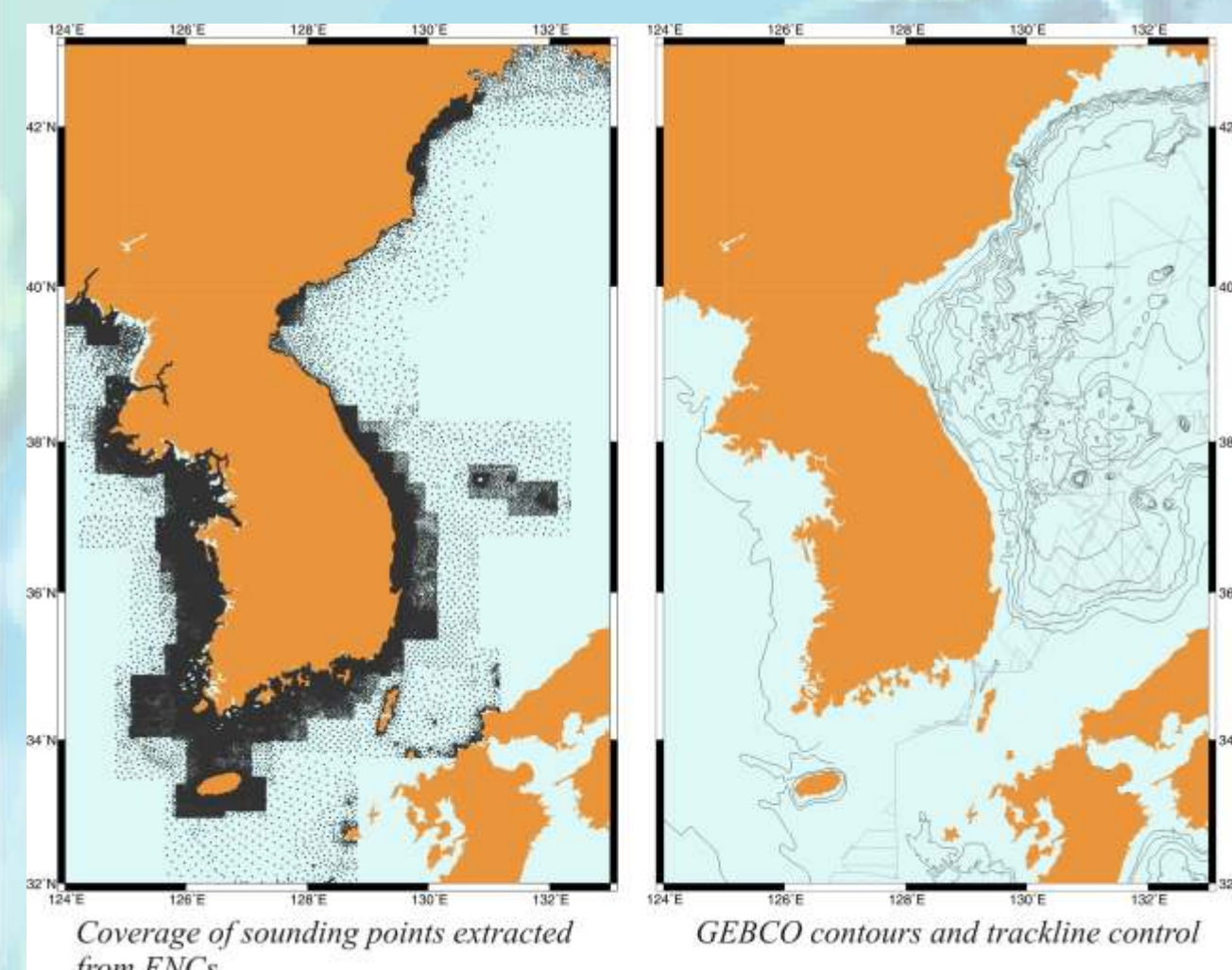
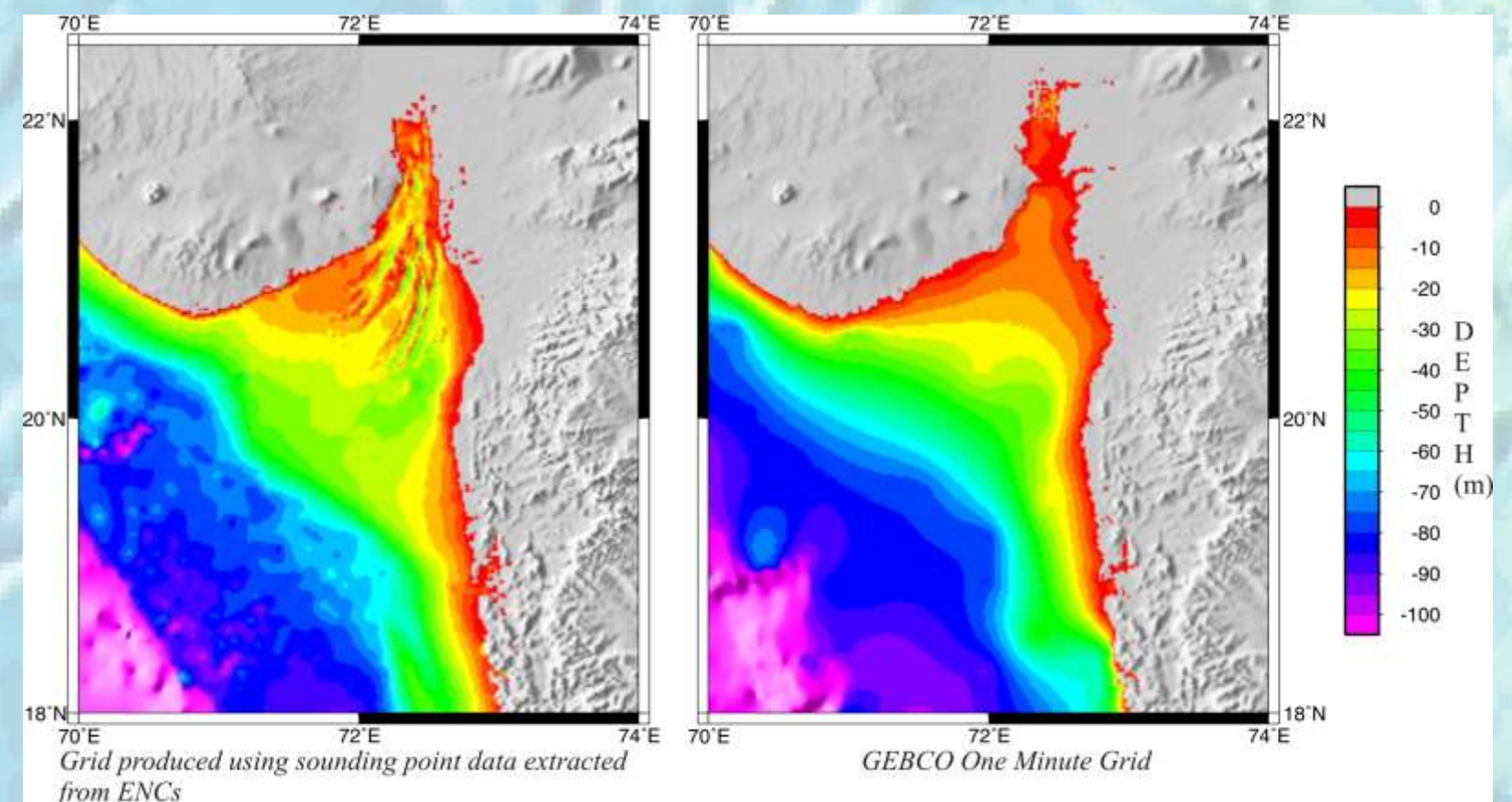
Bathymetry data for the area around Australia

Bathymetric soundings contributed by the the Australian Hydrographic Service illustrate the improvement that this data has made to the existing GEBCO grid in the area of the Gulf of Carpentaria.



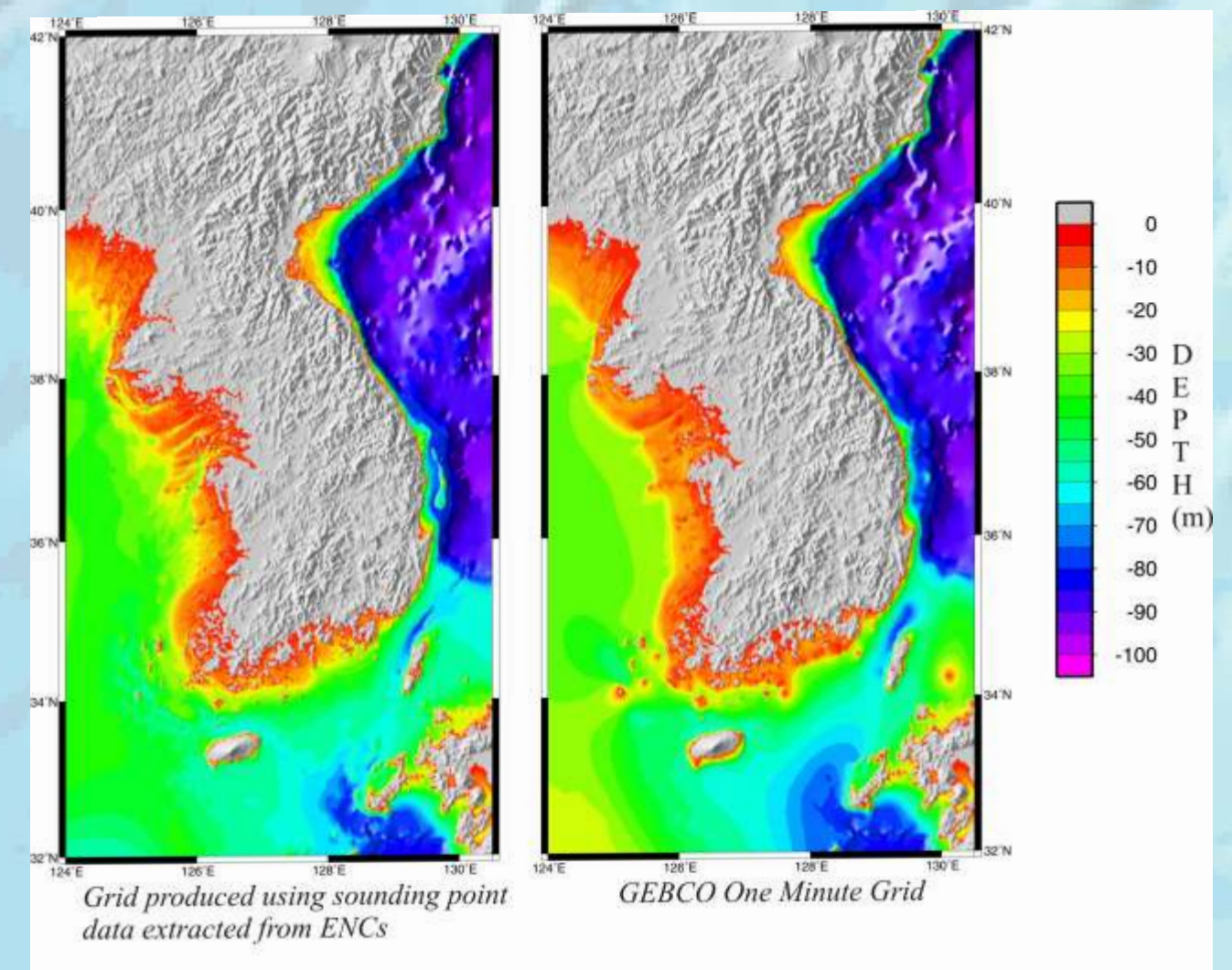
Bathymetry data for the area around India

The Indian Hydrographic Office have contributed soundings from their ENC files, providing a substantial amount of data in shallow water areas. This can be used to improve the GEBCO grid in, for example, the Gulf of Khambhat region.



Bathymetry data for the area around Korea

Bathymetric soundings contributed by The National Oceanographic Research Institute, Republic of Korea can be used to improve the existing GEBCO grid around the Korean Peninsula.



Find out more about GEBCO:

- GEBCO web site: www.gebco.net
- GEBCO Digital Atlas: www.bodc.ac.uk/products/bodc_products/gebco/
- GEBCO One Minute Grid: www.bodc.ac.uk/data/online_delivery/gebco/

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Displayed at the XVIIth International Hydrographic Conference (7-11 May 2007)

