# Updating the GEBCO 08 Grid

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The GEBCO community consists of an international group of experts who work on the development of a range of bathymetric data sets and products with the aim of providing the most authoritative, publiclyavailable bathymetry for the world's oceans.

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

Find out more: www.gebco.net

#### The GEBCO\_08 Grid

This is GEBCO's latest gridded data set and is a continuous terrain model for ocean and land with a spatial resolution of 30 arc-seconds. GEBCO is continually working to improve its grids through data contributions from national and international organisations and regional mapping groups. The following details the update work currently in progress on some of the planned inclusions for the next release of the grid.

#### How to contribute data

We are grateful for contributions of single-beam and/or multibeam survey data, individual soundings or existing grids to help update our gridded data sets and products. We acknowledge the source of contributed data sets in the documentation that accompanies GEBCO's grids. Find out how to contribute data: www.gebco.net/about us/contributing data/

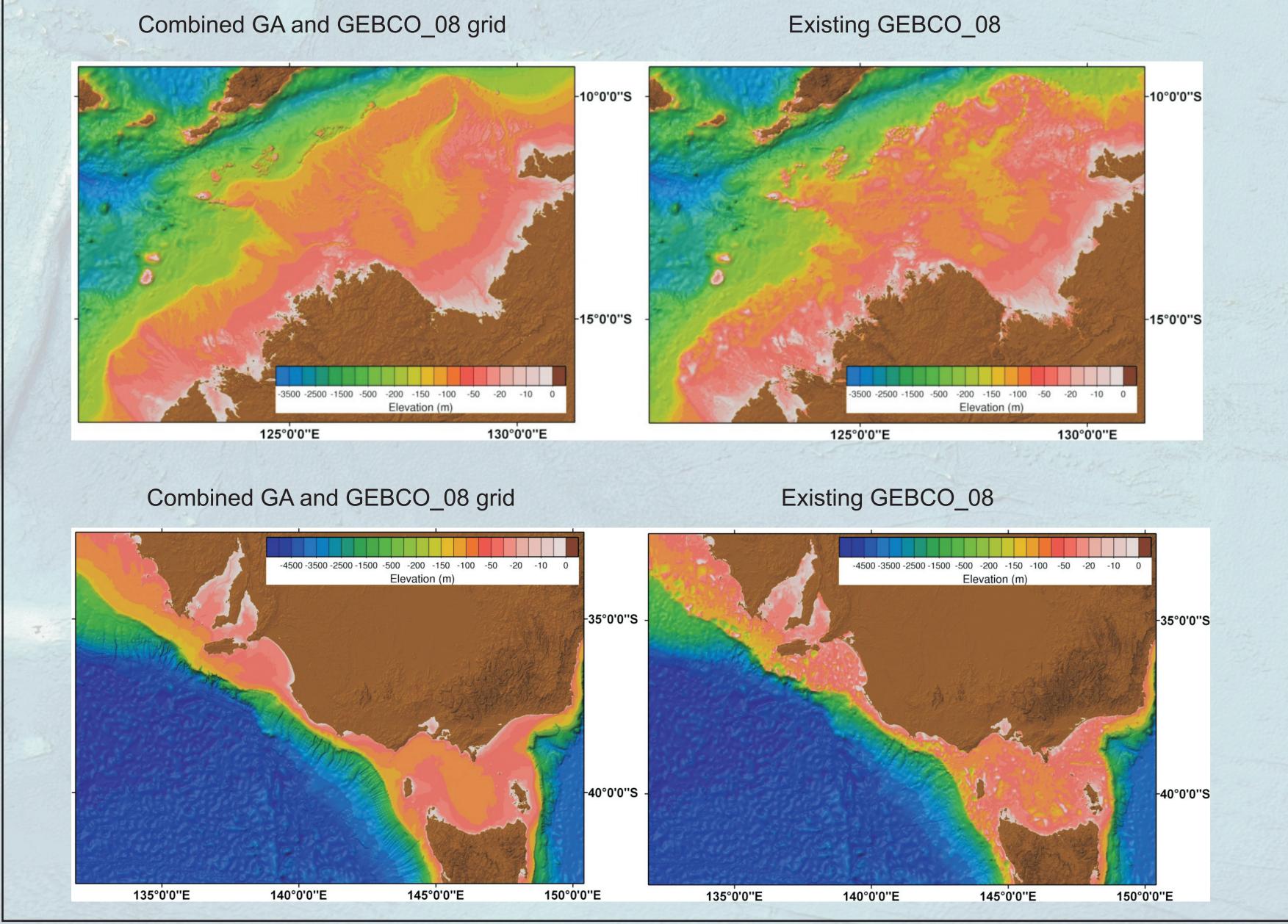
## Update work in progress

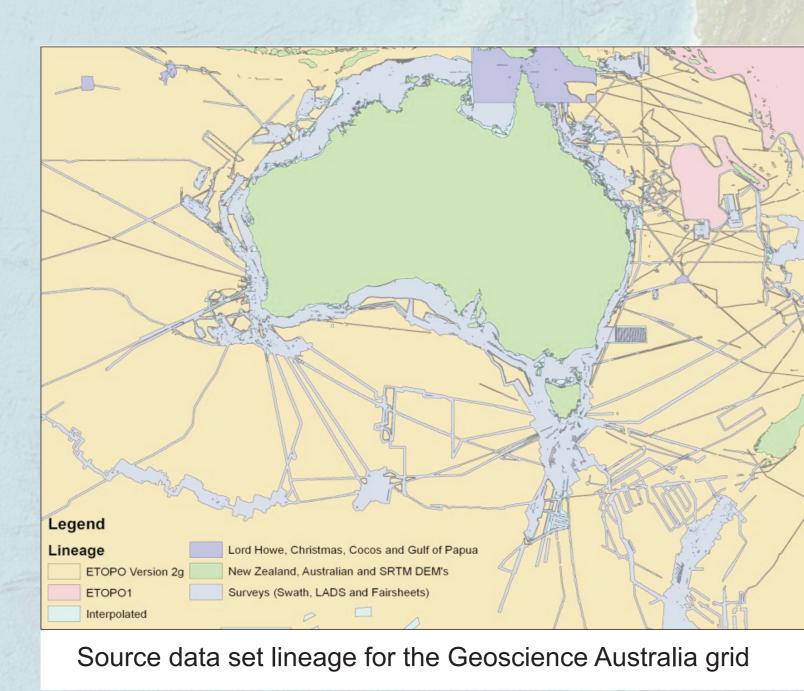
#### Waters around Australia

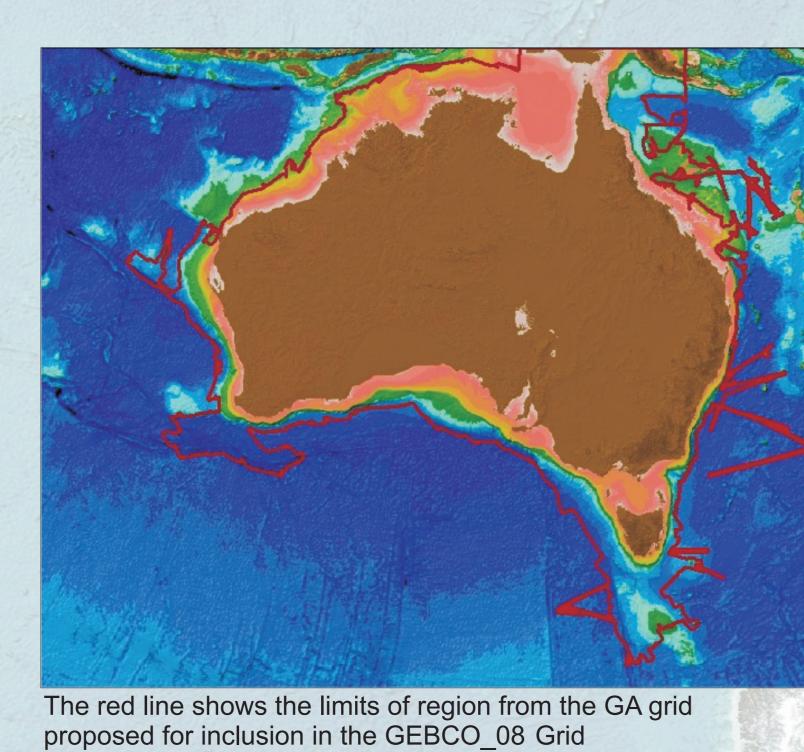
Geoscience Australia have contributed their bathymetric grid: 'Australian Bathymetry and Topography Grid, June 2009' (www.ga.gov.au/meta/ANZCW0703013116.html) for use in updating the GEBCO 08 Grid. The data set covers the area 92°E-172°E; 8°S-60°S and is at 9 arc-second intervals.

It is based on data from a number of sources. Work is underway to incorporate sections of the grid based upon multibeam data; fairsheets (1:250,000 Series) and Laser Airborne Depth Sounder (LADS) data into the GEBCO 08 Grid.

#### **Examples of updated areas**



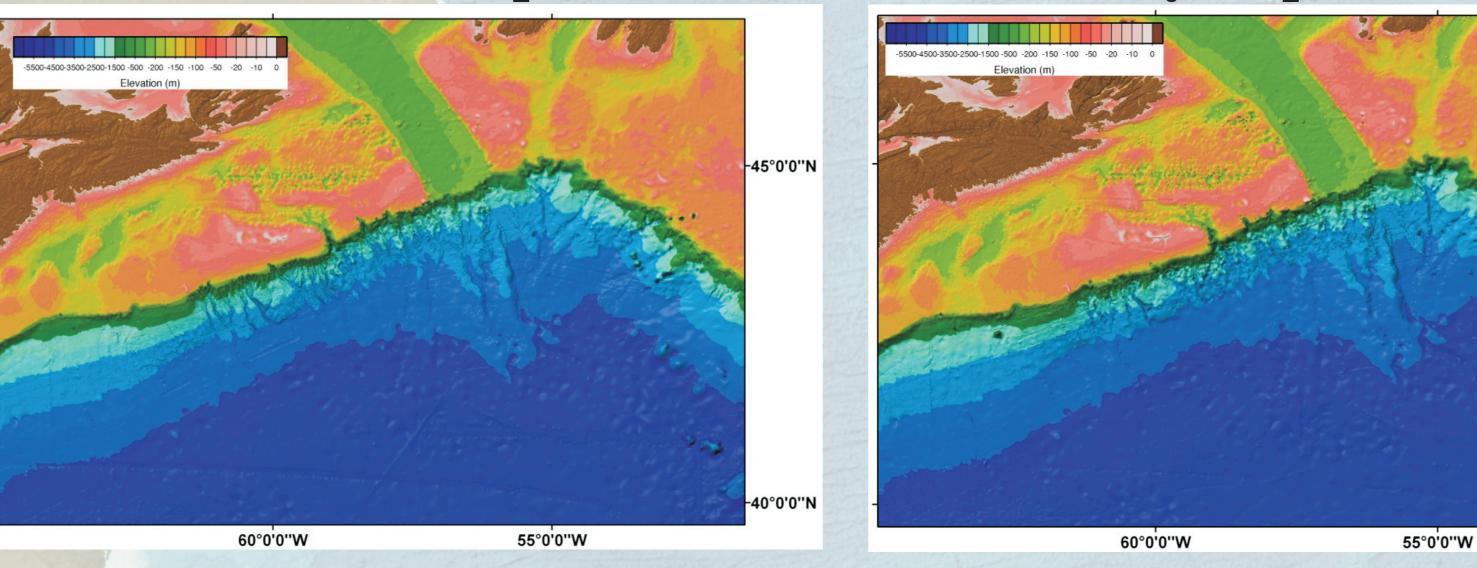


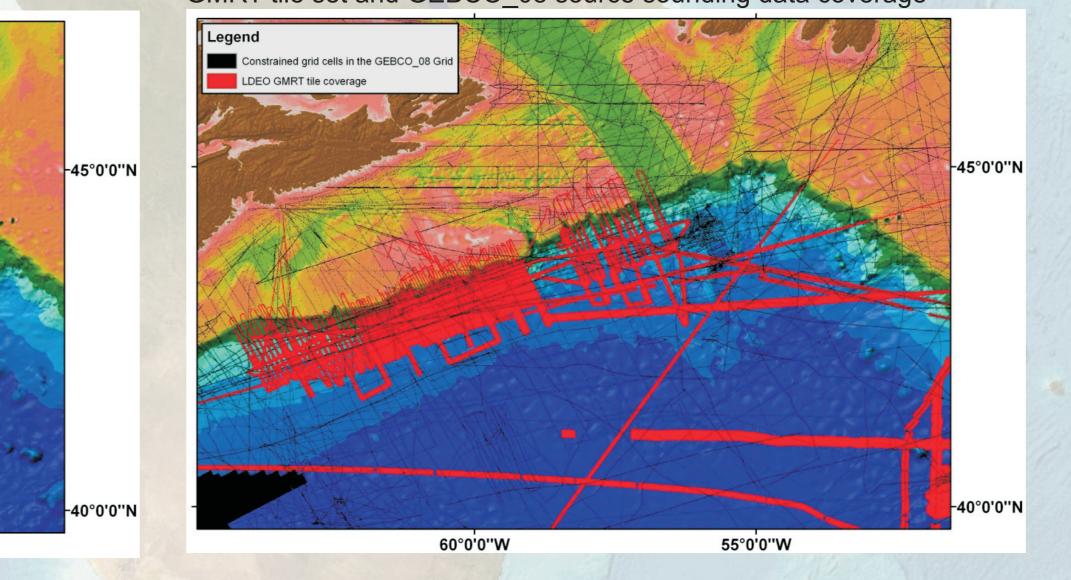


#### Lamont-Doherty Earth Observatory (LDEO) Global Multi-Resolution Topography (GMRT) synthesis

The LDEO GMRT synthesis makes use of sonar data collected by scientists and institutions worldwide, merging them into a single continuously updated compilation of high-resolution seafloor topography. http://www.marine-geo.org/portals/gmrt/.

LDEO have provided data tiles from their GMRT tile set (400m resolution) for updating GEBCO's grid, with coverage in all ocean regions. Work is underway to investigate include data from the tile set into the GEBCO 08 Grid.

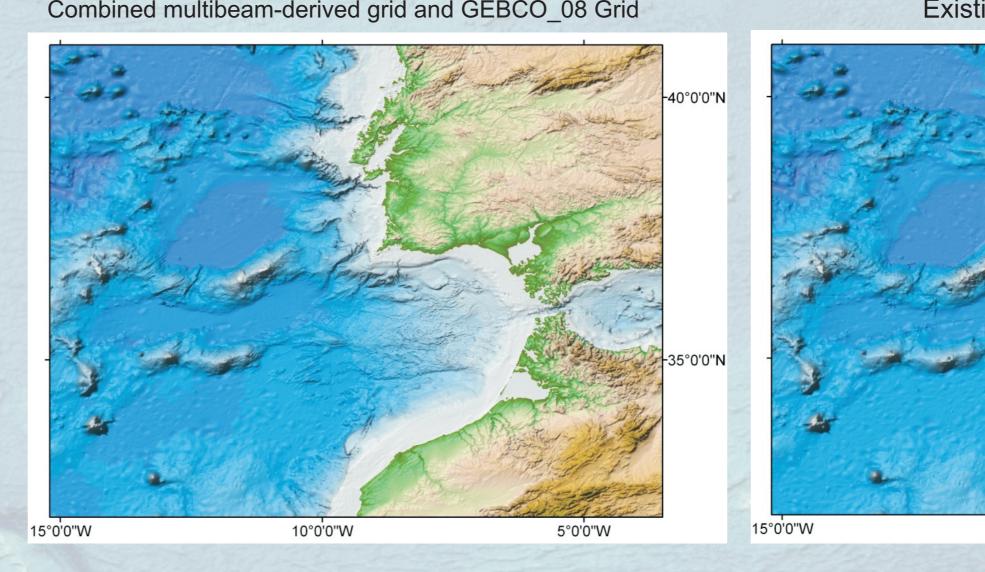


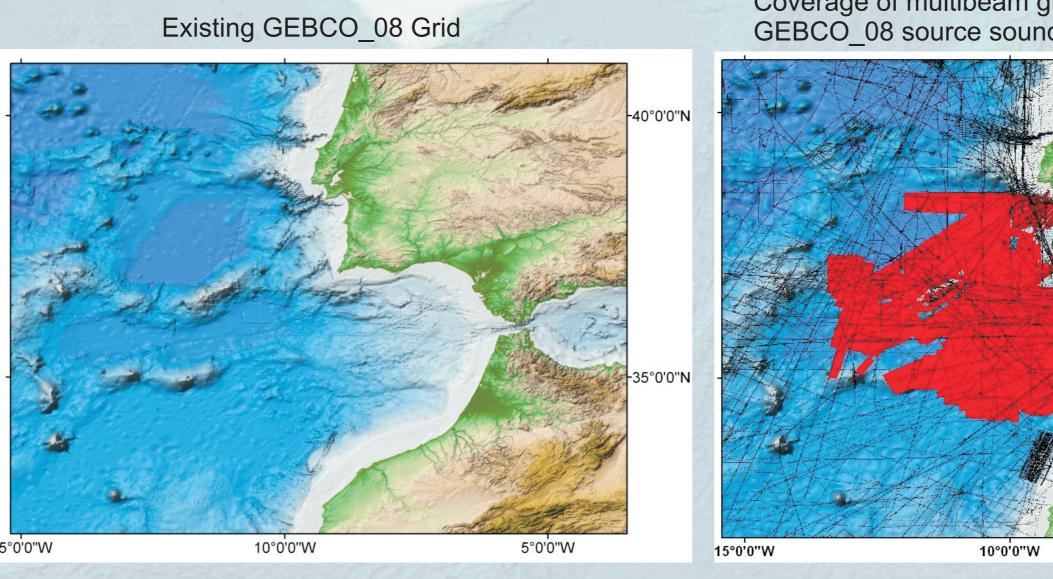


#### North Atlantic Ocean - Gulf of Cadiz region

Work is being done to include a multibeam-based grid, developed as part of a study into the fault system at the plate boundary between Eurasia and Africa, into the GEBCO 08 Grid.

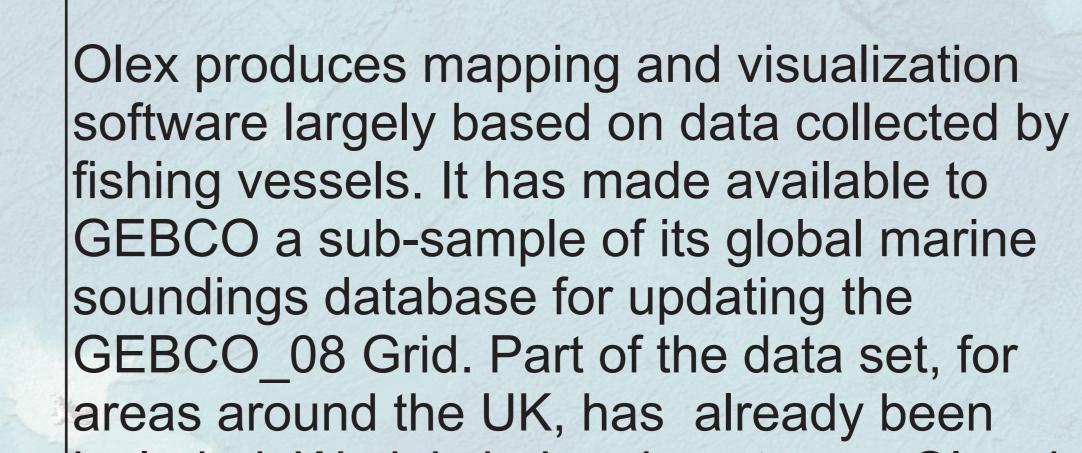
Further information about the data set can be found from: doi:10.1016/j.epsl.2008.12.005.





The UK Natural Environment Research Council (NERC) funds work at BODC and NOC for

maintaining, updating and delivering GEBCO's gridded data sets on behalf of GEBCO.

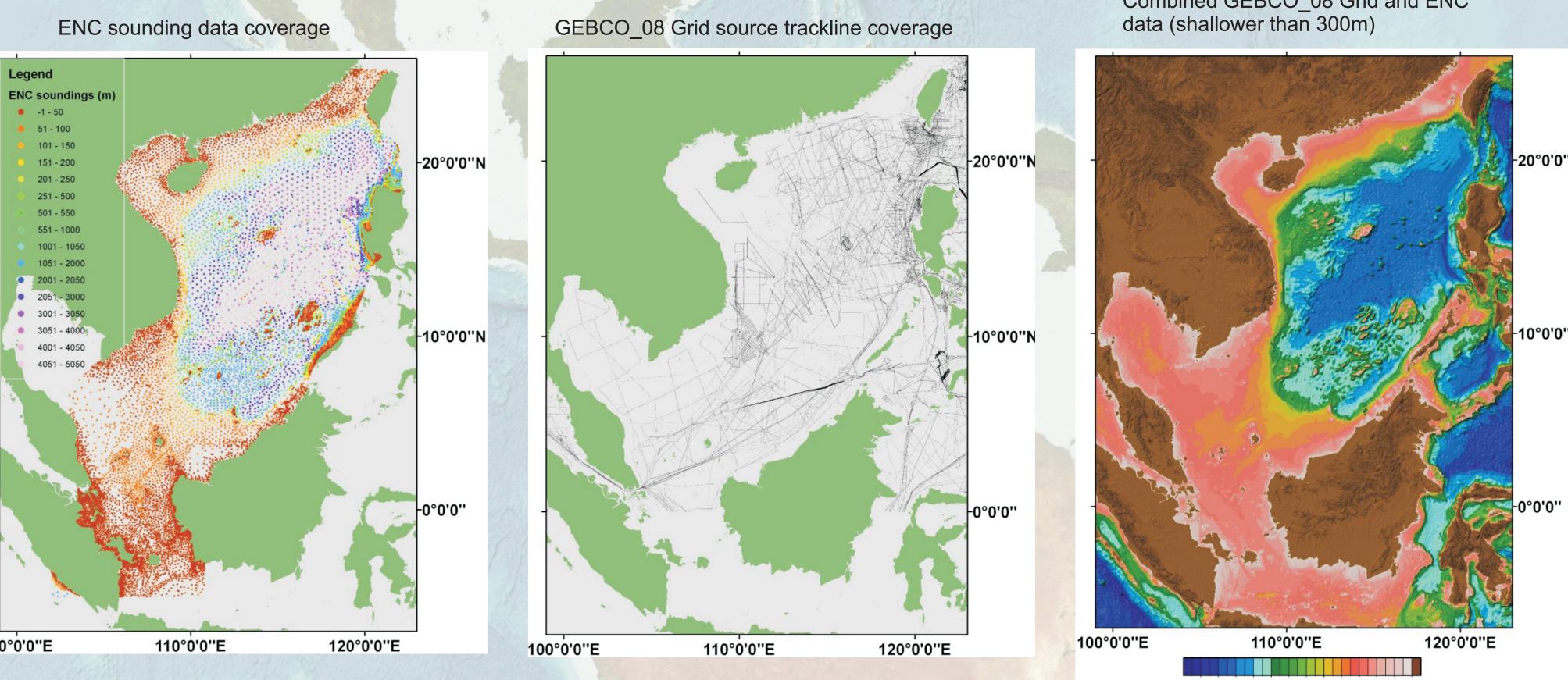


included. Work is being done to use Olex data to update the GEBCO 08 Grid for other the coastal regions, for example, off the west coast of Africa.

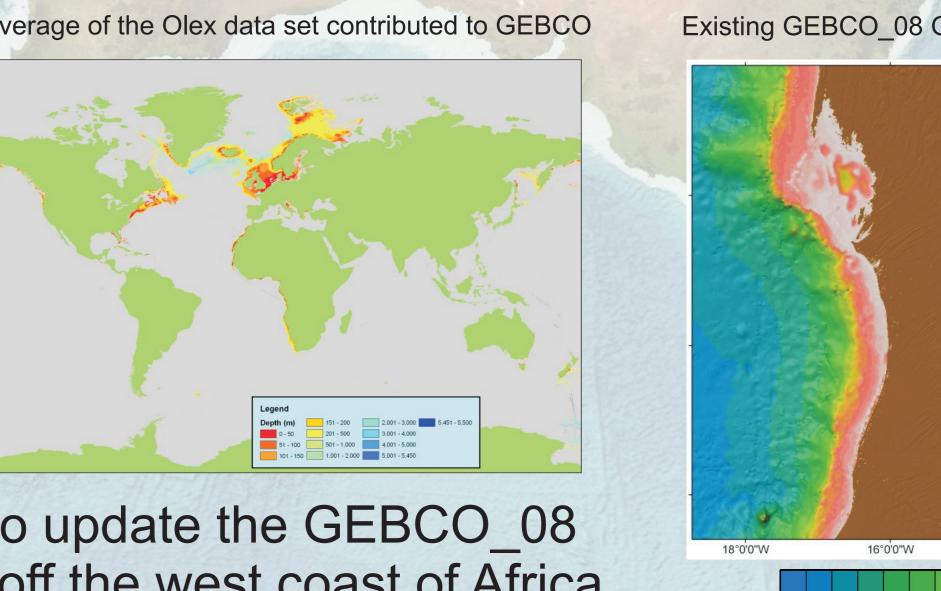
### South China Sea region

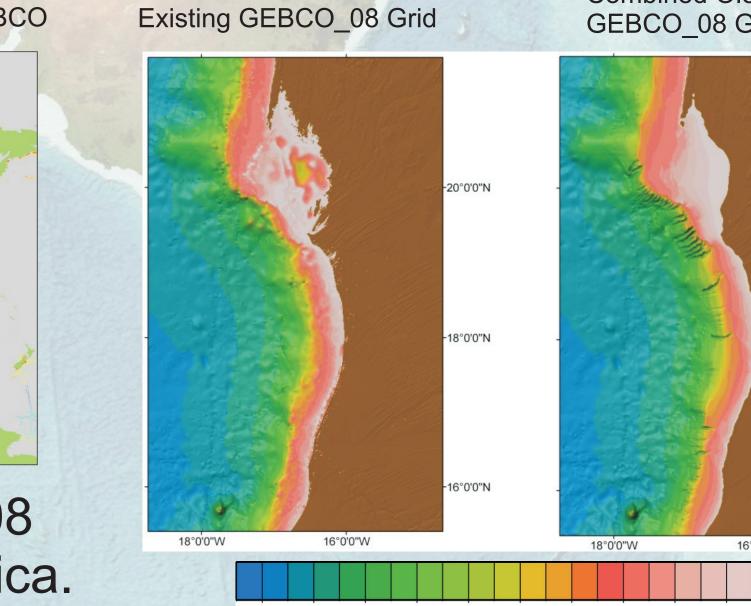
As part of the initiative to request shallow water bathymetry data from hydrographic organisations to help improve GEBCO's grids in shallower water regions, bathymetry data, extracted from Electronic Navigation Charts (ENCs), has been received from the East Asia Hydrographic Commission for part of the South China Sea region.

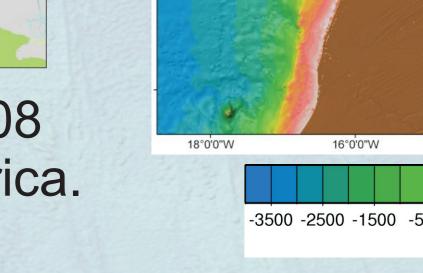
Over 8,500 soundings were received in waters of a depth of 200m or shallower. These are being used to update the GEBCO 08 Grid.











#### Olex data