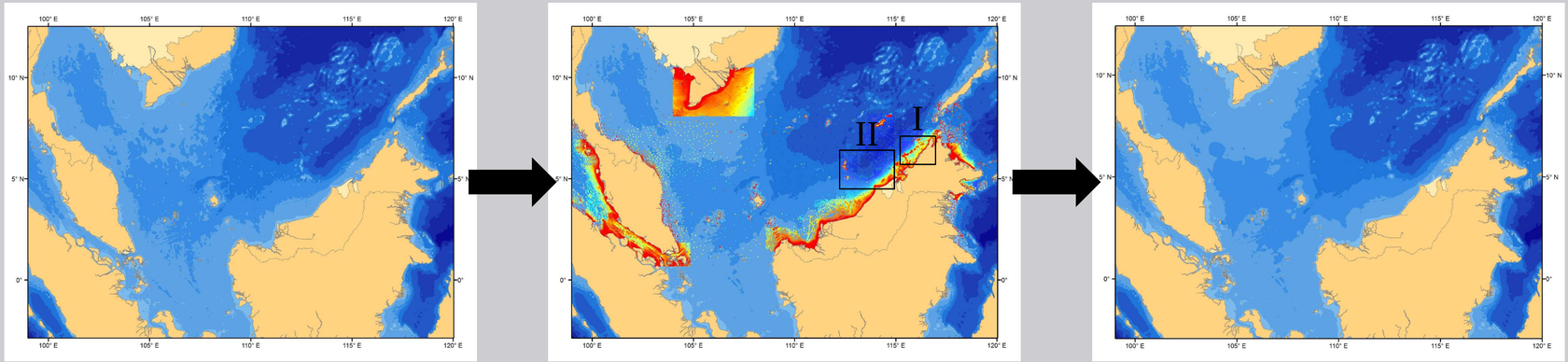
A REGIONAL MAPPING CONTRIBUTION: IMPROVING THE GEBCO GLOBAL GRID DATA FROM NATIONAL HYDROGRAPHIC CENTRE OF ROYAL MALAYSIAN NAVY

Norhizam Hassan (NHC) and Rochelle Wigley (UNH)

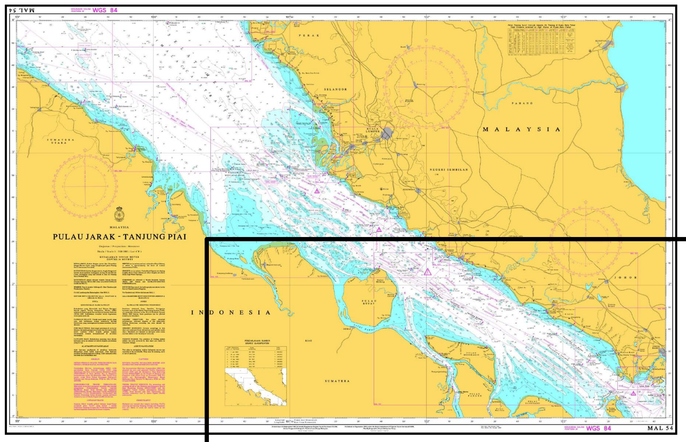
The addition of bathymetric data from the Royal Malaysia Navy National Hydrographic Center into the GEBCO grid improved the overall quality of the GEBCO dataset, but also provides additional important morphological information on the shelf in the Malaysian waters

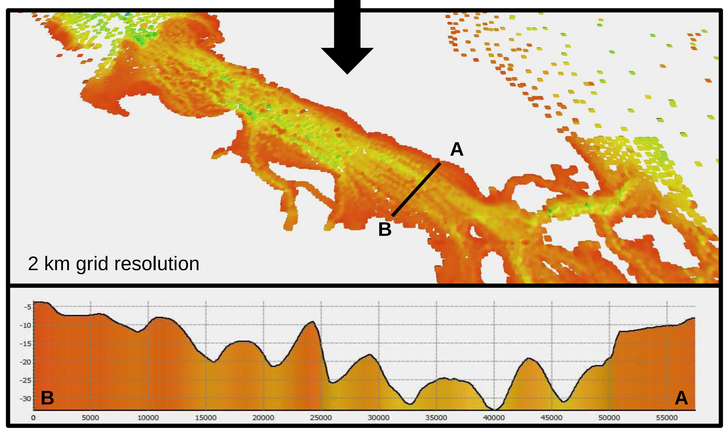


The GEBCO_2014 Grid — a global 30 arc-second grid

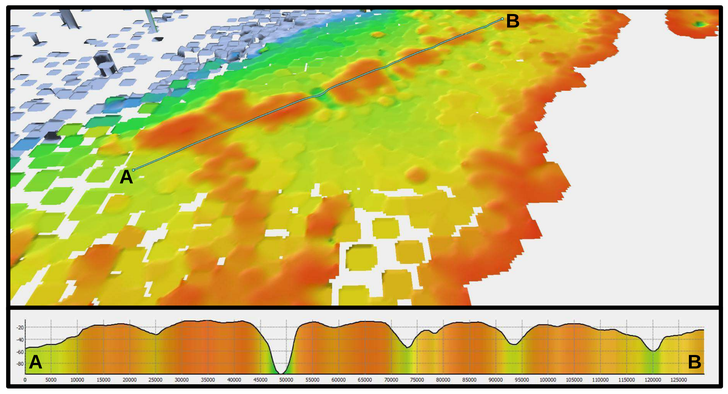
Largely generated by combining quality-controlled ship depth soundings with interpolation between sounding points guided by satellite-derived gravity data

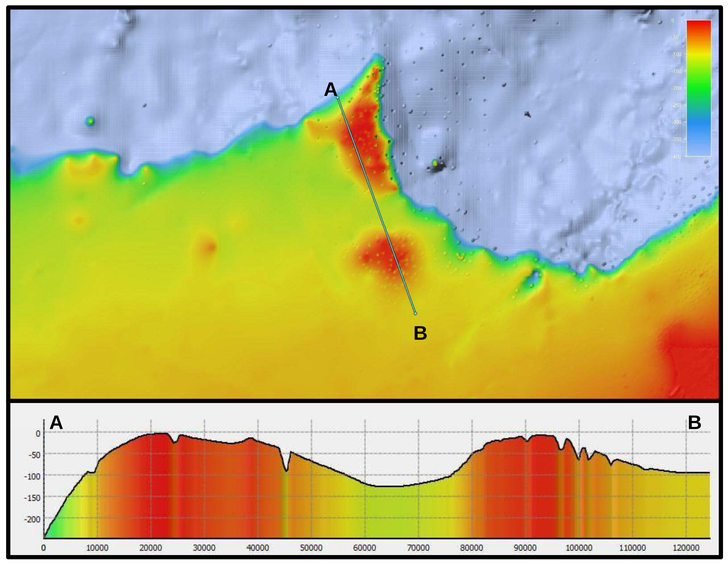
Extracted nautical chart data in the Strait of Malacca from National Hydrographic Center clearly demonstrates how shallow water data can benefit the GEBCO grid by providing more detailed information on characteristics of the sea-floor.



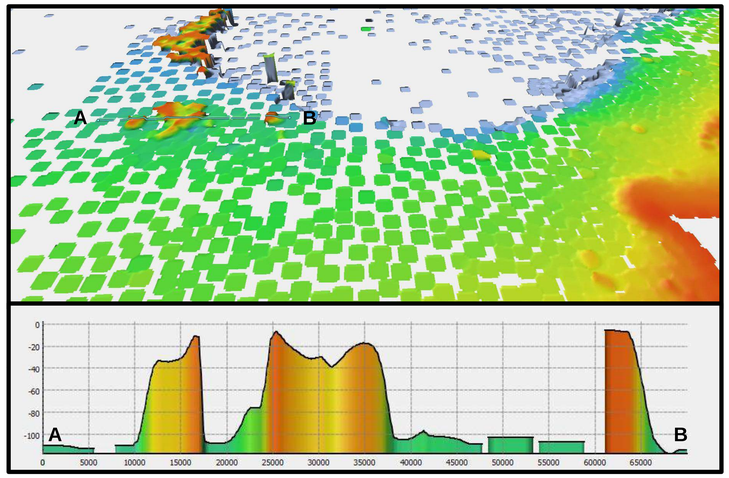


I Detailed bathymetry shows outcrops and complex sea-floor morphology on the inner shelf north of Sarawak.





II The improved resolution bathymetric data supplied by the NHC for the shelf area north of Sarawak emphasizes the importance of understanding the morphology on the continental shelf area, as shoals of less than 10 m below sea surface are identified on the outer shelf area. These morphologic details are important for fine-tuning oceanographic models that can, in turn, have important socio-economic impacts.



ACKNOWLEDGEMENTS:

- National Hydrographic Centre of Royal Malaysia navy for supplying data
- Thanh Nguyen for supplying digitized Vietnamese nautical charts