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SHARING KNOWLEDGE
ENCOURAGING FISHERMEN TO HELP MAP OUR PLANET

CROWDSOURCED DEPTH INFORMATION

Fishing vessels can participate in increasing our knowledge of the ocean by sharing depth measurements from navigation instruments while transiting to and from fishing grounds. Known as Crowdsourced Bathymetry (CSB), this data can help identify uncharted features such as seamounts and canyons, verify charted information, and help fill the gaps where no data exists. Fishing vessels work the world's coastal areas and oceans, often in areas where data is sparse, out of date, and inaccurate or of poor quality. These are exactly the places where contributions to regional and global seafloor mapping efforts can have the greatest impact.

FISHING VESSELS ARE PROFESSIONALLY CREWED AND WELL EQUIPPED

Most fishing vessels, operated by professional mariners, often sail with equipment that can measure deeper than standard navigation echo sounders. By leveraging equipment that can log depth data, fishermen can help fill vast knowledge gaps, contribute to scientific research and improve navigational safety, which in turn would benefit other mariners and ocean scientists.

To minimise effort on the part of the vessel's crew, data collection and contribution of data can occur by using either built-in navigation software systems that are participating in the CSB initiative or through a small hardware data logger that can be interfaced to the ship's GNSS and depth sounder. Routinely measured parameters such as under keel depth and position can then be stored, uploaded and contributed to local and global mapping initiatives.

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CONTRIBUTING DATA

The IHO's Data Centre for Digital Bathymetry (DCDB) accepts CSB data contributions through organizations, companies or universities that serve as data aggregators and / or liaisons between mariners (data collectors) and the DCDB. These "trusted nodes" help the CSB effort in a variety of ways ranging from supplying data logging equipment or software, providing technical support to vessels, downloading data from data loggers, aggregating collected data and facilitating data transfer. The IHO DCDB will help identify the best-suited "trusted node" type for you.
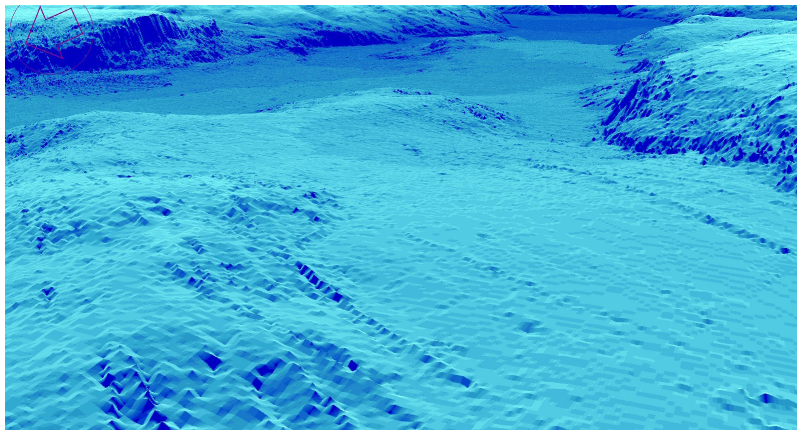
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Contributed data should include depth, position and time stamp. While additional information is encouraged, data does not need to include vessel name, IMO number or anything else with the vessel identification prior to uploading to the IHO DCDB database. By contributing data to the IHO DCDB, the provider will not be held liable for the data submitted.

Further information about collecting or contributing data can be found at the IHO DCDB website **(ngdc. noaa.gov/iho/)**, via the IHO B12 Guidance on CSB document **(iho.int/en/bathymetric-publications)** or by contacting representatives of the IHO CSB Working Group at **bathydata@iho.int**

FIND OUT MORE

GEBCO (The General Bathymetric Chart of the Oceans) aims to provide the most authoritative, publicly available bathymetry data sets for the world's oceans. Nearly 80 percent of our oceans have not been directly measured and many places lack even one depth sounding per 10X10km. The goal set in the **Nippon Foundation-GEBCO Seabed 2030 project** aims to bring together all available bathymetric data to produce the definitive **GEBCO map** of the world ocean floor, by 2030.
Visit **seabed2030.org** to learn more.

NOAA's Bay Hydro II crowdsourced bathymetry test tracks in green overlaid on multibeam survey data demonstrates how changes can be detected.
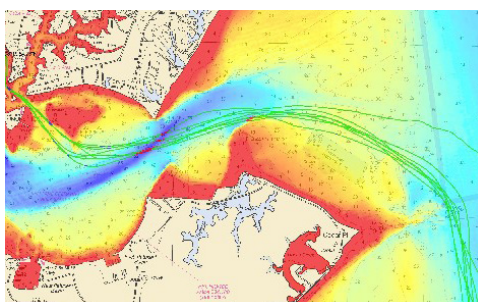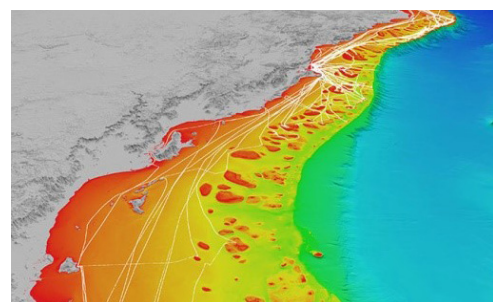

Image courtesy of NOAA

3D view of northern Great Barrier Reef showing all vessel tracks as of December 2019.

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