CITIZEN SOURCED DATA

HELP REVEAL THE DEEP AND SHARE YOUR DATA

CROWDSOURCED DEPTH INFORMATION

Most modern electronic navigational hardware and software systems have the capability to allow their customers to participate in increasing our knowledge of the ocean by sharing depth measurements from their navigation instruments while out at sea. Known as Crowdsourced Bathymetry (CSB), this information can help identify uncharted features such as seamounts and canyons, verify charted information, and help fill the gaps where no data exists.

MARINE NAVIGATION EQUIPMENT MANUFACTURERS

Many non-traditional survey vessels operate in areas where data is sparse, non-existent, or of poor quality. Other vessels operate in rapidly changing coastal areas where survey vessels are unable to regularly visit. These are exactly the places where contributions to local and global seafloor mapping efforts can have the greatest impact.

The marine navigation software and equipment market (both leisure and professional) has an opportunity to play a key role in helping to fill vast knowledge gaps, contribute to scientific research and improve navigational safety, which would in turn benefit both their customers and other mariners. Many of these companies already provide the ability to collect data from integrated depth and position sensors.

If manufacturers would enable and allow their customers to store, upload and make publicly available parameters such as depth or position think of the impact that hundreds, if not thousands, of mariners could make in participating in the ongoing global efforts to map our ocean floor !
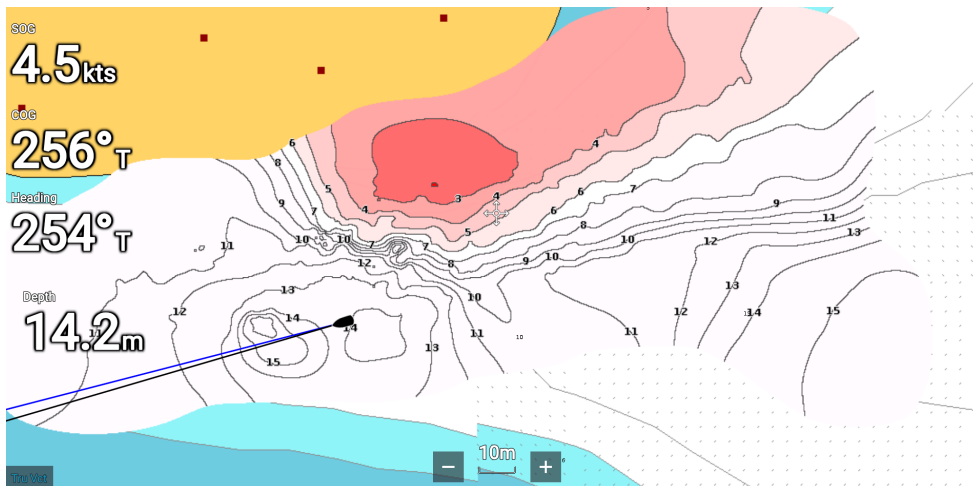
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DR. MATHIAS JONAS
IHO SECRETARY-GENERAL

"Getting to know the ocean is the greatest mapping adventure of our times. Many underwater mountain ranges, volcanoes, canyons have yet to be discovered and named."

BECOMING A 'TRUSTED NODE'

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 providing technical support, downloading data from data loggers, aggregating collected data, and facilitating data transfer directly to the IHO DCDB.

A navigation software or hardware manufacturer would be a natural "trusted node", in a position to select what data to contribute to the IHO DCDB while maintaining its independence and direct contact with its end users.

© Tony Pervan, sail boat in Stockholm archipelado

Contributed data should include depth, position and time stamp. While additional information is encouraged, data does not need to include vessel name, or anything else with the vessel identification prior to uploading to the DCDB database.
Further information can be found in the IHO B-12 Guidance on CSB document:
iho.int/en/bathymetric-publications

By contributing data to the IHO DCDB, the provider will not be held liable for the data submitted.

FIND OUT MORE

Further information about collecting or contributing data can be found at the IHO DCDB website **(ngdc.noaa.gov/iho/)** or by contacting representatives of the IHO Crowdsourced Bathymetry Working Group at **bathydata@iho.int**

Visit **seabed2030.org** to learn more about the Nippon Foundation-GEBCO Seabed 2030 project, which aims to bring together all available bathymetric data to produce the definitive map of the **world ocean floor by 2030.**

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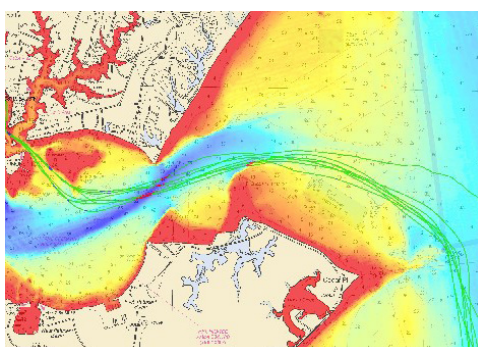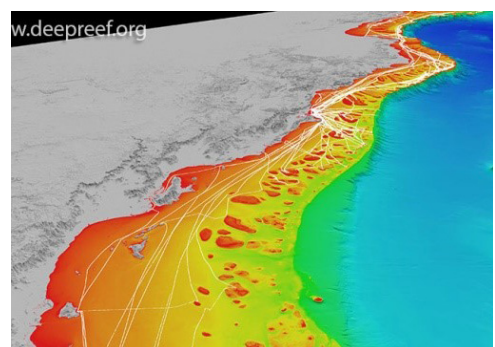

Image courtesy of NOAA

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

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International Hydrographic Organization