



IHO

International
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CITIZEN SOURCED DATA © CCOM/JHC, University of New Hampshire

HELP REVEAL THE DEEP AND SHARE YOUR DATA

CROWDSOURCED DEPTH INFORMATION

Government, University, and private research vessels involved in scientific research or even transits can participate in increasing our knowledge of the ocean by sharing depth measurements from navigation instruments. 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.

RESEARCH AND ACADEMIC SHIPS

By the nature of their work, academic and research ships often operate in poorly explored and understood, remote regions of the world. These are exactly the places where there is often very limited bathymetric information and therefore where contributions to global seafloor mapping efforts can have the greatest impact.

Research ships often have sophisticated scientific echosounders capable of working to full ocean depth, although they are often turned off when the objective of the expedition is not seabed related research. To minimise effort on the part of the ship's crew and/or

science party, data collection and contribution could occur from an Electronic Chart System participating in the CSB initiative or through a small hardware data logger that can be interfaced to the ship's NMEA data bus. Routinely measured parameters, such as depth and position, can then be stored, uploaded and contributed to local and global mapping initiatives. In addition to improving the global knowledge of the seafloor, these contributions could also benefit navigational safety, detect unknown hazards, and aid other scientists in planning their research.

Data from ships with more sophisticated scientific sonars (e.g., multibeam) are also welcome if available.



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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.”



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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.

FIND OUT MORE

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 bathymetry@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.

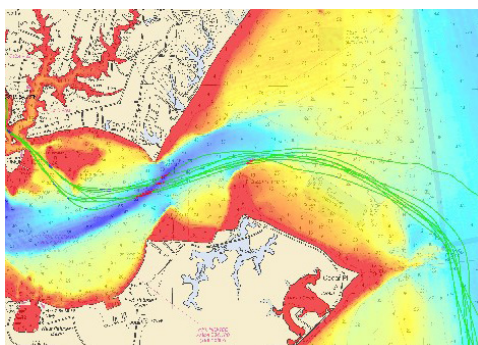
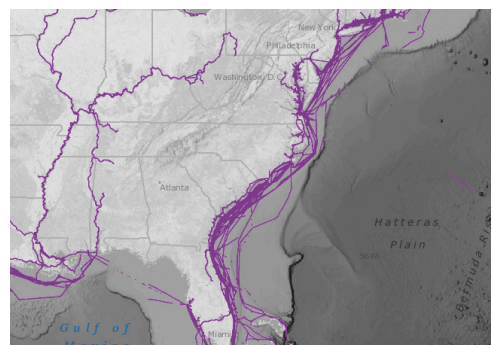


Image courtesy of NOAA

Data Centre for Digital Bathymetry (DCDB) Viewer showing vessel tracks of crowdsourced bathymetry data collected off the east coast of the United States and contributed via the IHO DCDB.



IHO DCDB



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