



IHO Crowdsourced Bathymetry Working Group 101

Everything you wanted to know about the IHO CSBWG but didn't know to ask!

1. What is the IHO CSBWG?

The Crowdsourced Bathymetry Working Group ([CSBWG](#)) is a working group of the International Hydrographic Organization ([IHO](#)) that reports annually to the IHO Inter-Regional Coordination Committee ([IRCC](#)). In addition to passionate members from national hydrographic offices, there are many expert contributors and observers from all sectors of industry (hardware and software companies) academia, NGOs, yachting communities, etc. The working group provides a forum for people interested in the end-to-end process of crowdsourced bathymetry (from collection, to data management, to application), to get together and discuss new technologies and projects and to pinpoint issues and try to find solutions to overcome them. These members, expert contributors and observers serve as important liaisons between the Working Group and their communities, highlighting any local or regional considerations and presenting the results of the work.

2. Why and when was it established?

In 2014, the IHO, at its Fifth Extraordinary International Hydrographic Conference, recognized that survey vessels alone could not solve data deficiency issues and agreed there was a need to encourage and support all mariners in an effort to “map the gaps.” One outcome of the conference was an initiative to support and enable mariners to collect crowdsourced bathymetry (CSB). Another outcome was to establish a working group, composed of international scientific, hydrographic and industry experts, and to task them to draft a guidance document for mariners to collect and contribute CSB data.

3. What has the group been up to?

As per the Group's mission, it initially focused on the drafting, publishing and maintaining of the IHO Guidance Document on Crowdsourced Bathymetry – referred to as B-12. B-12 was initially published in 2019 and defined CSB as the collection and sharing of depth measurements from vessels, using standard navigation instruments, while engaged in routine maritime operations. It



also describes what constitutes CSB, the installation and use of data loggers, preferred data formats, and instructions for submitting data to the [IHO Data Centre for Digital Bathymetry](#) (DCDB). It also provides information to help data collectors and data users better understand quality and accuracy issues with CSB.

[Edition 3.0](#) was approved in October 2022 and includes updates such as incorporating feedback from operational use and experience, making the document more "equipment agnostic", simplifying the document and making it more accessible to all readers (e.g.: data collectors, providers and users). The latest edition also takes into account a wider representation of hydrographic authorities, addressing specific issues such as quality assessment of the data and legal considerations in waters of national jurisdiction.

It is worth noting that this document provides technical guidance only. This in no way supersedes national or international laws and regulations.

4. What else has the Working Group been doing?

Over the last several years, while the core task has been the IHO Guidance Document on Crowdsourced Bathymetry (B-12), there has also been a lot going on with regards to the sharing of operational experiences. Today, the CSBWG focuses on investigating and highlighting use cases of CSB data, providing guidance on data quality and standards in liaison with the IHO Data Quality Working Group and considering incentives to increase data contributions by mariners. The CSBWG is tasked to work in cooperation and coordination with other IHO bodies, including the 15 regional hydrographic commissions and relevant industry stakeholders, to understand regional perspectives, technical capabilities and to encourage a harmonized approach to data gathering and the resultant datasets. Thanks to the active participation of the CSBWG members, a comprehensive [work plan](#) has been established and efforts are underway to build a bridge between stakeholders' needs, identified challenges and the operationalisation of CSB supported by the development of open source tools.

5. Is this group only for CSB supporters? Can I participate in the WG if I am unsure of my position towards CSB?

All are welcome! The CSBWG is a great way to learn about crowdsourcing depth data. There is active participation from representatives of hardware and software companies along with scientists and hydrographers eager to collect and use these data. There is also a lot of skepticism



around CSB. We find that perspective very useful in the discussions, as all aspects of CSB which are seen as a challenge need to be identified so they can be addressed by the group. If you want to learn more about the technology, progress of ongoing projects, and new projects or if you or your Hydrographic Offices have questions or concerns about CSB data collection or sharing, consider joining or just attending the CSBWG.

6. I can't always (or ever) travel, can I still participate?

Of course. While we can not ensure full hybrid capability for every annual meeting, we strive to always allow for virtual participation.

7. Is the WG for government representatives only?

Not at all. As mentioned above, the CSBWG is composed of members (representatives from national hydrographic authorities), expert contributors and observers. All are welcome!