

**13th Meeting of the Crowdsourced Bathymetry Working Group
10-12th January
&
14th Meeting of the Crowdsourced Bathymetry Working Group
16-18 August**

Contribution to the IHO Work Programme 2023	
Task 3.6.4	Develop general guidelines on the use and collection of Crowdsourced Bathymetry (CSB)

CSBWG13

The working group held its 13th meeting (hybrid), from 10-12 January 2023, hosted by the National Oceanic and Atmospheric Administration in Denver, Colorado, USA. The meeting was led by the Chair and Vice-Chair and attended by ~50 participants (25 in person, ~30 virtual). IHO Assistant Director Sam Harper (Secretary) represented the IHO Secretariat.



In person participants at the CSBWG13 meeting

Following the publication of B-12 Ed. 3.0.0 (which has been the major focus of the CSBWG for the last three years), CSBWG13 focused on a critical review of the groups operating mandate, as set out in the ToRs and RoPs. To achieve this, the CSBWG undertook a number of strategic planning sessions to take stock of the current status quo, review what has worked well and what has not, identify barriers to scaling CSB and build an evidence base to inform future decision making. In doing so, the CSBWG were able to explore potential solutions to overcome these barriers and identify ten high level priority work areas which were used as the basis to develop a new Work Plan. In turn, this work plan was cross referenced with the WGs existing ToRs and an updated version will be prepared for IRCC15 approval. The 10 key priority areas identified were:

1. Maintain the IHO publication B-12 through periodic reviews and updates identified by Member States;

2. Engage with HOs and IHO Member States on matters relating to CSB uses, including but not limited to Nautical Cartography;
3. Monitor Member State and Regional Hydrographic Commission progress regarding development of best practices and CSB initiatives and incorporate into B-12 as appropriate;
4. Investigate ways to foster and facilitate data providers (i.e.: Trusted Nodes), increase data contributions and identify incentives on how and why mariners should become involved;
5. Investigate and promote greater end use of CSB data in and outside the hydrographic community;
6. Provide guidance on data quality and standards for CSB in liaison with appropriate IHO Working Groups;
7. Liaise with other relevant IHO and allied bodies involved with CSB data to improve coordination and promote its use and development;
8. Liaise closely with the IHO Data Centre for Digital Bathymetry (DCDB) as it continues to develop technology to collect, display and distribute CSB data to the public;
9. Encourage and support all aspects of the CSB data life cycle from acquisition through archival to discovery and distribution, emphasizing automation and efficiency whenever possible; and
10. Encourage and expand scholarly discourse regarding the benefits of CSB to support U.N. Decade on Ocean Science and GEBCO objectives by encouraging contributions to scientific, legal, and policy literature.

CSBWG continues to enjoy strong industry participation and this is reflected in the membership of the group. CSBWG13 received sixteen reports on a diverse range CSB related projects from a mixture of industry, academia, member states and civil society. CSBWG13 also discussed a number of outreach events planned for 2023. In late 2022, the IHO signed a cooperation agreement with the *Yacht Club de Monaco* (YCM) to work together to promote CSB within the yachting industry. In March 2023, the implementation of this agreement will be launched at a joint dinner conference hosted by the YCM. This will be the first of a series of events showcasing CSB within this community.

CSBWG14 also considered that Since IRCC14, the number of positive MS respondents to CL21/2020 has risen to 34 with the addition France and Australia. Whilst momentum seems to be growing, there is still the need to consider how to work within the MSR constraints of UNLCLOS within waters under national jurisdiction.

CSBWG14

The working group held its 14th meeting (hybrid), from 14-16 August 2023, hosted by the Norwegian Mapping Authority, Stavanger, Norway. The meeting was led by the Chair and Vice-Chair and attended by ~65 participants (30 in person, ~35 virtual). IHO Assistant Director Sam Harper (Secretary) represented the IHO Secretariat.



In person participants at the CSBWG14 meeting

The Chair provided an update on the report to IRCC15 and her introduction to the work of the group. The history of the work of the group was discussed, noting that it started in 2014 and that the original focus was the creation of IHO Publication B-12, which has now shifted to the future strategy. It was noted that to date 34 coastal states that have replied positively to the CLs and that DCDB CSB data holdings equate to approximately 25GB + 10 trusted nodes. She noted that the WG is at a crossroads where the community is scaling, but posed the question as to whether the WG ready for this. In light of this, the new Work Plan was developed at CSBWG13 to focus activity on what needs to be done. The resultant changes to the ToRs and RoPs and the associated work items had been posed to IRCC. She noted that all requests were approved apart from the frequency of meetings to be 8 months.

With the above in mind, the focus of the CSBWG14 meeting was on monitoring and updating progress against the new work plan. In addition, updates on wider CSB developments were provided by participants. Highlights included:

Submission of IHO CSB Initiative as a UN Decade Action. The various different categories of Ocean Decade activity were discussed. It was noted that it was not immediately obvious which category was the most relevant for the CSB initiative and that the main reason for this is that the initiative itself was not properly defined in terms of its shape and structure. It was agreed that this would be the first step in delivering this work item and a proposal would be submitted to CSBWG15 for consideration.

Gather and prioritize HO-specific issues relating to CSB. A brief was given on the activities conducted concerning the gathering, prioritizing and responding to HO-specific issues/opportunities regarding national policy/regulations related to CSB. The following key items were identified for further work:

- Capture issues regarding national policy/regulations/culture affecting the endorsement of CSB
- Draft proposed rationale to the issuing of a new brief Circular Letter (and Questionnaire) to MS explaining the purpose of IHO CL21/2020 and encouraging a positive response.
- Request the policy framework(s) or guidelines(s) adopted by coastal states who positively responded to IHO CL 21/2020 or IRCC CL 01/2020

- Educate CSBWG members on International Law of the Seas as it pertains to passage sounding collection.

Support CSB/SB2030 Coordinators in their RHC engagement. The work of the CSB regional coordinators had been reviewed and critically appraised. The group reported that three areas for improvement had been identified and that these would form the focus of the work item going forward:

- Revisit and update the CSB/SB2030 Coordinator role, aiming to clearly define responsibilities and provide guidance to minimize the burden and maximize success.
- Work with Coordinators to develop regional strategies aligned with CSBWG and SB2030 goals, recognizing the need for tailored support in different regions.
- Raise awareness of CSB in the IHO Capacity Building Subcommittee, with a focus on identifying potential capacity-building activities.

It was noted that the need to clarify the role of the coordinators was a priority so that it is clearer how the duties of the role should be discharged. A discussion was had relating to how the network of coordinators could be supported and whether links to the IHO CB programme should be strengthened. The idea of a dedicated forum was raised but the Chair reported that IRCC had not supported the creation of a formal group.

Develop a recognition & incentive strategy plan. The group working on this item gave a brief on the analysis undertaken to identify both the stakeholders that may need to be incentivised to take part in the CSB, and the nature of those incentives that would appeal to the various types of data providers. Future work would include validating these initial findings with sector representatives before finalising a reward a recognition strategy for presentation at CSBWG15.

Stakeholder outreach activities and events for 2023. Key events for CSB engagement for the remainder of 2023 included the Monaco Yacht Show conference, COMIT, Seakeapers Round Table at the Monaco Yacht Show, Map the Gaps Symposium, Hydro Conference 2023 and Lakebed 2030.