

The IHO Crowdsourced Bathymetry Working Group 9



IHO Crowdsourced Bathymetry Initiative

In 2014, the International Hydrographic Organization (IHO) initiated a collaborative project to enable mariners to collect “crowdsourced bathymetry”.

A Working Group was formed and tasked to develop **B-12 IHO Guidance on Crowdsourced Bathymetry** that states the IHO’s policy towards, and best practices for, the collection and contribution of CSB.

Crowdsourced bathymetry (CSB) is the collection of depth measurements from vessels, using standard navigation instruments, while engaged in routine maritime operations.

NOAA/IHO DCDB built a new data pipeline that allows the public to upload, discover, and download CSB data via a web-based map viewer interface.



IHO CSB Working Group

- 8 meetings; 1 Industry workshop
- Chair (Jennifer Jencks, USA) and Vice-Chair (Marta Pratellesi, Italy)
- **Representatives from 13 Member States:**
 - *Canada, Italy, Nigeria, Norway, Philippines, Denmark, Finland, France, Germany, India, Portugal, UK, & USA*
- **Observers and expert contributors:**
 - *TeamSurv, Olex, Sea-ID, GMATEK, Inc., FarSounder, World Maritime University, World Ocean Council, Fugro, CIDCO, ChartWorld/SevenC's, ONE Data Tech Co, Da Gamma Maritime Ltd, Dongseo U, James Cook U, Teledyne CARIS, PYA, ESRI, JAMSTEC and Seabed 2030*
- **IHO Secretary General Mathias Jonas and Assistant Director David Wyatt**



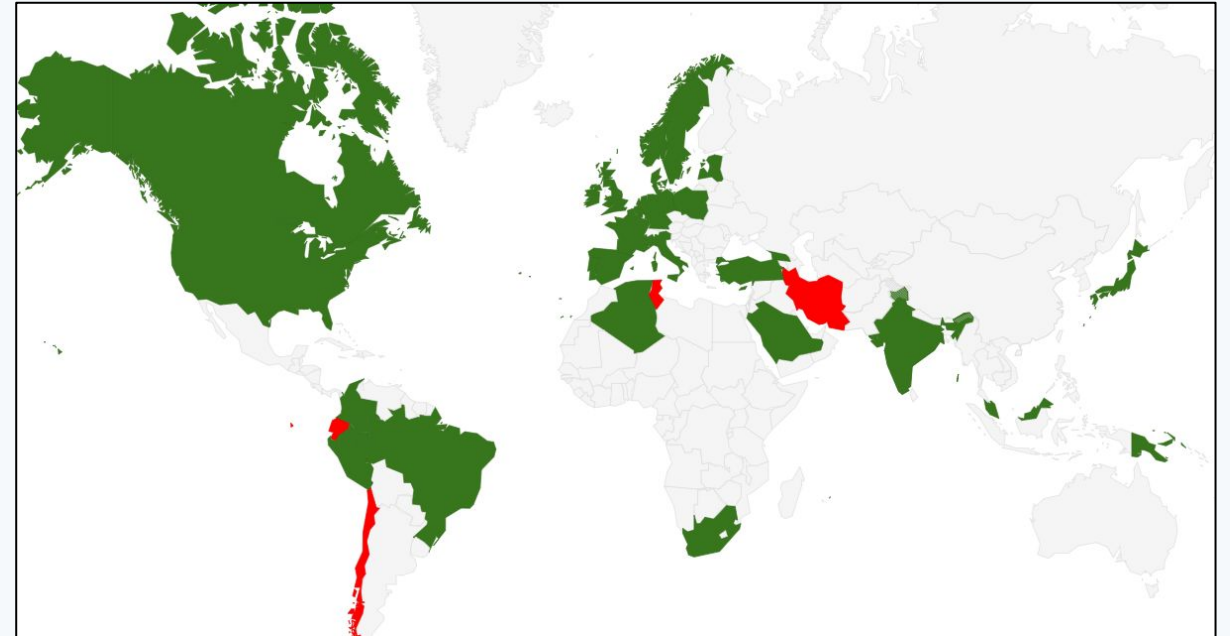
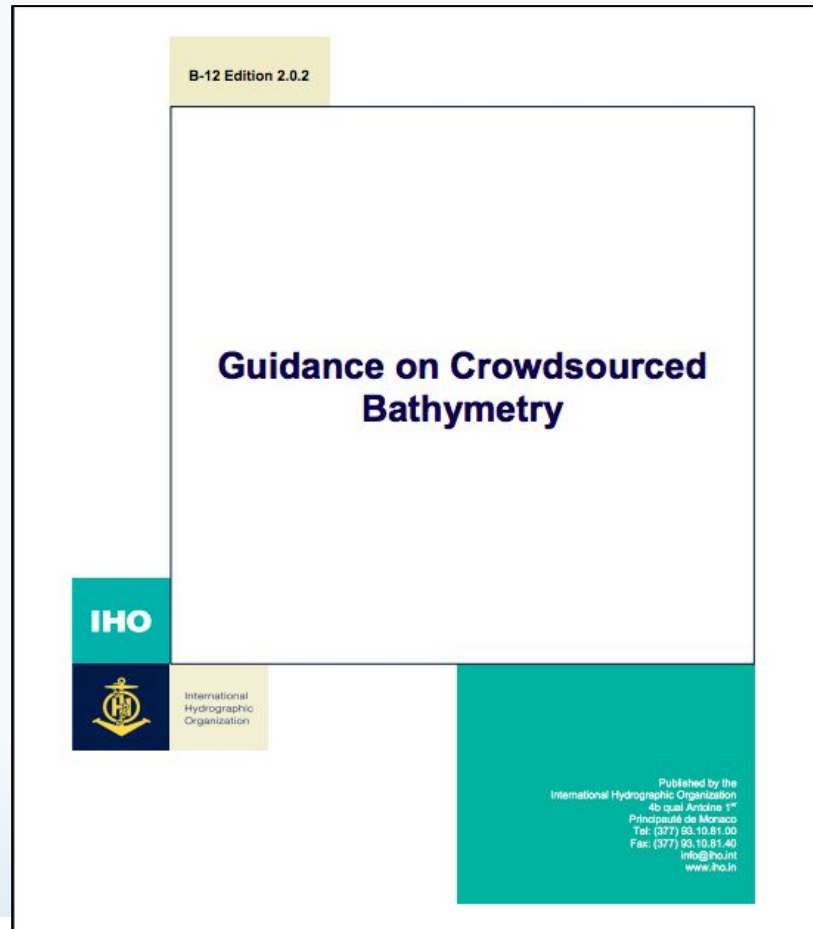
CSBWG2: 10-11 Jan 2016
Boulder, Colorado, USA



CWBWG8: 23-25 Oct 2019
Monaco



“CALL FOR APPROVAL OF EDITION 2.0.0 OF IHO PUBLICATION B-12”



35 Member States approved the adoption of B-12 out of 38 replies.

IHO CL 11/2019 Annex B

“ACCEPTANCE OF CROWDSOURCED BATHYMETRY ACTIVITIES IN NATIONAL WATERS OF JURISDICTION”

- 15 IHO MS replied “positive”
 - CL 47/2019 provides a summary analysis of positive responses ==>
- The initial results showed two things:
 - The ask was not clear
 - We as a WG have a lot of work to do to help in convince nations of the value and importance of CSB



Summary analysis of positive responses

1. Based on the comments received to the questionnaire in Annex B to IHO CL 11/2019, the following table will be published as the Positive List to guide potential data gathering activities undertaken by the wider maritime community in waters of national jurisdiction:

Member State	Area	Specific actions required
Argentina	EEZ only	Provide copy of dataset to Hydrographic Office
Brazil	EEZ only	Provide copy of dataset to Hydrographic Office
Cyprus	All waters	Provide copy of dataset to Hydrographic Office
Denmark	All waters	Inform Hydrographic Office of any variance with published chart
Georgia	All waters	Provide copy of dataset to Hydrographic Office
Germany	All waters	Inform Hydrographic Office of new dataset
Monaco	All waters	Provide copy of dataset to Hydrographic Office
Netherlands	All waters	Inform Hydrographic Office of new dataset
New Zealand	All waters	Inform Hydrographic Office of new dataset
Norway	All waters – no multibeam activity without prior permission	Inform Hydrographic Office of new dataset
Philippines	Shipping routes and transit passages only	None
South Africa	EEZ only	Provide copy of dataset to Hydrographic Office
Sweden	EEZ only	Inform Hydrographic Office of new dataset
USA	All waters	None

B-12 is published...now what are we supposed to do?

CSBWG Terms of Reference

- A. Maintain the IHO publication B-12 through periodic reviews and updates identified by Member States;
- B. Monitor Member State and Regional progress regarding development of best practices and CSB initiatives and incorporate into B-12 as appropriate;
- C. Investigate and [highlight / promote] ways to increase data contributions and incentives on how and why mariners should become involved.
- D. Define potential uses of CSB for Hydrographic offices (HOs) with examples and useful land equivalents;
- E. Provide guidance on data quality and standards for CSB in liaison with appropriate IHO Working Groups;
- F. Liaise with other relevant IHO subordinate bodies involved with CSB data to promote its use and development; and
- G. Liaise closely with the IHO Data Centre for Digital Bathymetry (DCDB) as it continues to develop technology to collect and distribute CSB to the public.



Day 1: *Understanding where we are*

Current DCDB Work and IHO Projects

- DCDB Pipeline (current contributors, next steps)
- ECC Recommendations (Action 4)
- Database of polygons (Action 5)
- Regional Pilot Projects
- UNH Project

Panel Discussion of Current CSB Efforts

- Discussion of lessons learned
- Q&A for current projects



Day 2: *Improve our messaging*

Messaging & Coordination

- Clarification of relationship between IHO CSBWG, Seabed 2030 and GEBCO
- GEBCO GC Intersessional Meeting: Brief out and next steps
- Seabed 2030 and GEBCO Coordination (Action 10, 14)
- World Ocean Council Coordination (Action 13)
- Data Quality Working Group
- CSB Wiki (Action 12)
- Outreach to IHO RHCs (Actions 15, 16, 17, 20)



Day 2 cont. : *Improve our messaging*

CSB Guidance

- IHO DCDB Website (Action 1)
- Review “pain points” for contributors
- Summary Guide of B-12 (Action 3)
 - Who Is the audience? Review work to date; next steps
- Guidance on Roles/Responsibilities of Trusted Nodes (Action 22)
- Guidelines of CSB Use for HOs (Action 9)
- Review work to date; next steps

Optional Happy Hour Beer, Coffee or Tea online



Day 3: *Improve our Outreach Strategy*

How do we Outreach?

- Concrete actions to increase contributions by sector (Read ahead)
- Revisit role of sector ambassadors.

Close



It's Virtual!! So how do we do this?

- Use a headset to avoid interferences;
- **Mute** your microphone & turn **camera OFF** when you're not speaking;
- To speak, either (a) turn camera ON and raise your hand, or (b) request to speak in the chat window
 - Please wait for the Chair or Vice Chair to give you the floor
 - After speaking, please **mute** the microphone even if you plan to ask the floor again;
 - Please turn off camera when you are done with the conversation
- The chat window will be available during the meeting and the Secretariat will monitor it, questions may be asked here.
- If you plan to share your screen, please contact the Chair and Secretary; and
- Focus on the agenda item being considered, avoiding distraction.



Introductions & Group Photo

- There are over 40 of us here today, so let's make this quick!
- When Marta reads your name aloud, please turn your **camera and microphone on** and state:
 - NAME, ORGANIZATION, AFFILIATION WITH WG (ie: member, observer, expert contributor)
- Please turn camera and mic off afterwards.
- After the introductions are completed, Marta will ask that **EVERYONE turn their cameras on** for a group photo/screengrab!
- Finally, turn those cameras and mics back off and let's get going!

