

Work Item C

**Gather, prioritize & respond to HO-specific issues/
opportunities regarding national policy/regulations
related to CSB**

Report to CSBWG Intersessional

Virtual Meeting

15 October 2024

By Jennifer Jencks (Work Item Lead)



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Work Item Background

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To gather a better understanding of hydrographic office-specific issues and opportunities related to national policy/ regulations regarding CSB.

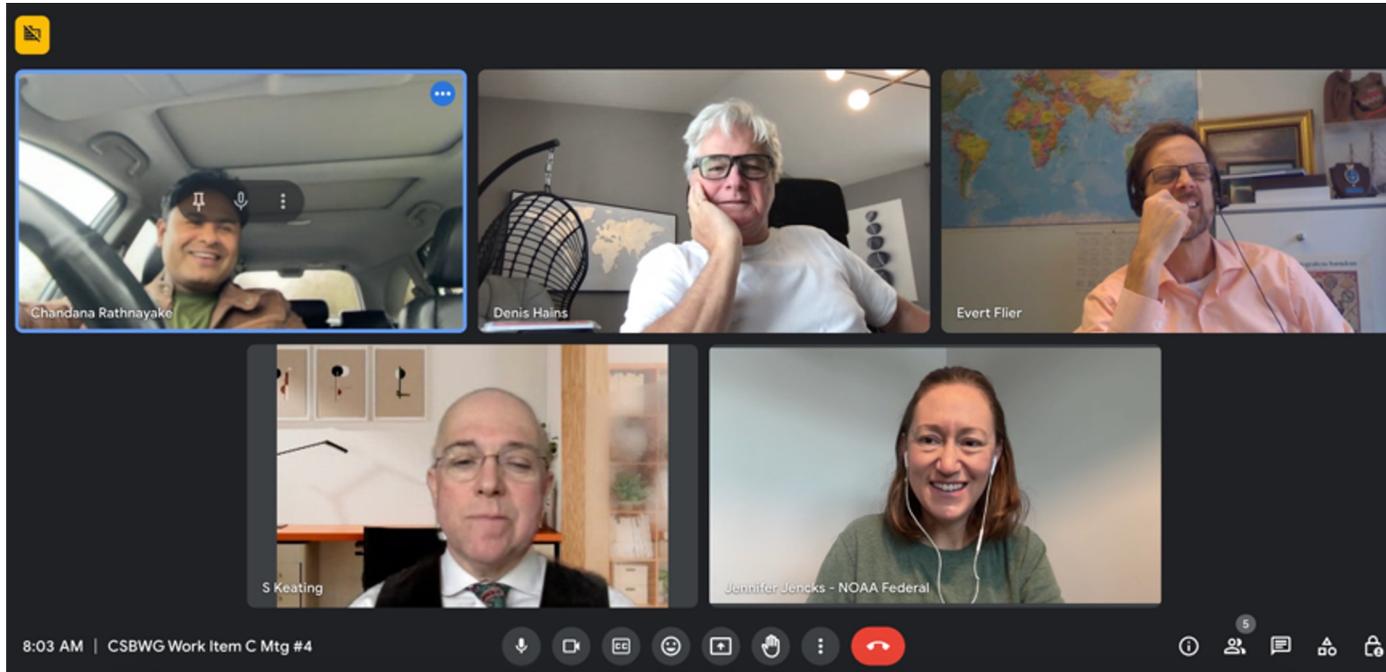
The thought was that only in truly understanding what those issues are, can we begin to develop (and ultimately implement) strategies to overcome them.



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Work Item Team Members

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Jennifer Jencks, Chandana Rathnayake, Denis Hains, Evert Flier & Steve Keating*

**Retiring in January 2025*



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Work Item Purpose

A key purpose was to **capture the** known or perceived **issues** and look into discovering possible "unknown" or untold issues regarding national policy/regulations/culture affecting the endorsement of CSB.

This work has been completed. 

With a better understanding of these issues, the **current purpose** is to **identify and apply potential solutions and/or suggestions** to overcome them.

The **goal** is to see an increase in [positive responses](#) to IHO CL 21/2020 and IRCC CL 01/2020 and/or an increase in coastal State engagement in the discussion and activities surrounding CSB. 

1. National Policies and Regulations
 - CSB Data Collection Confused with Systematic Survey
 - Legal and Liability Issues
2. CSB Data is Unnecessary
3. Data Quality and Accuracy Concerns
4. Standardization and Compatibility
5. Integration with Existing Data Sources
6. Public Awareness and Engagement
7. Resource Constraints
8. Addressing these challenges would require collaborative efforts from governments, stakeholders, and the public.

ACCEPTANCE OF CROWDSOURCED BATHYMETRY ACTIVITIES AND PROVISION OF RESULTANT DATASETS IN NATIONAL WATERS OF JURISDICTION

1. Based on the comments received to the questionnaire in Annex B to IHO CL 11/2019 and to the questionnaire in Enclosure to IHO CL 21/2020, the following table is published as the Positive List to guide potential data gathering and provision activities undertaken by the wider maritime community in waters of national jurisdiction:

Coastal State	Internal	Caveat	Territorial	Caveat	EEZ	Caveat
Argentina	No	-	No	-	Yes	Provide copy of dataset to Hydrographic Office
Australia	No	-	Yes	Prior authorisation required, inform Hydrographic Office of new dataset to allow review of data	Yes	Prior authorisation required, inform Hydrographic Office of new dataset to allow review of data
Belgium	No	-	Yes	Inform Hydrographic Office of new dataset to allow review of data, provide copy of dataset and highlight major variances	Yes	Inform Hydrographic Office of new dataset to allow review of data, provide copy of dataset and highlight major variances



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Work Item Purpose

Activity: Propose solutions regarding national policy/regulations /culture affecting the endorsement of CSB

Proposed Solutions:

- Direct comms/outreach focused on the two main barriers
- Tailor specific uses cases to each audience
- Highlight the support of positive-position CS and the progress of global mapping objectives
- Publications and Presentations

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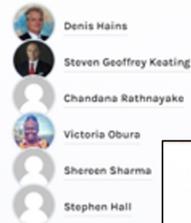
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Progress Since CSBWG15

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Several articles in the International Hydrographic Review (IHR) volume 30(1)

Citizen Hydrospatial Sciences – To csB or not to csB, that is the question!

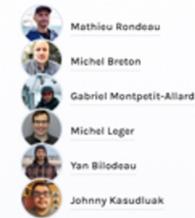


Published
31 May 2024 - 09:34
Last Updated
31 May 2024 - 09:34

Abstract

Citizen science, where it
In the hydrospatial realm
composition and its con
overall introduction and
opportunities for the

From volunteer ping to community map – The CHS' Community Hydrography Program



Published
31 May 2024 - 09:44
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31 May 2024 - 09:44

Abstract

To support coastal communities in collecting and using bathymetric data in the nearshore areas they depend on for travel, hunting, and fishing, the Canadian Hydrographic Service (CHS) launched its Community Hydrography Program in 2022. The Program was

CSB as part of the modern hydrographic toolbox



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Preamble

This paper is intended as a response to a Note by Philip Payne, published in The International Hydrographic Review (IHR, <https://ihr.iho.int/>) in November 2023: Payne, P. (2023). Crowdsourced bathymetry and its use to support resurvey activity in the North Sea region. The International Hydrographic Review, 29(2), pp. 248-253. <https://doi.org/10.58440/ihr-29-2-n16>



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Progress Since CSBWG15

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Presentations on CSB at several RHC meetings.
(coordination with work item E)

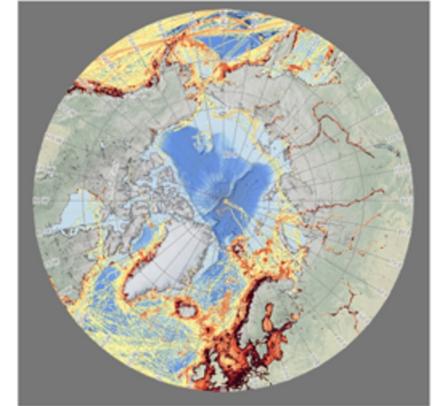


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The ARHC is requested to:

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- Note this presentation
- Actively support the adoption, contribution, publicization, and use of CSB data within this region
- Follow the latest developments of the CSBWG
- Connect with your RHC CSB/Seabed2030 Coordinator
- Take ownership of these data and their potential uses!



Global Maritime Traffic Density Service (GMTDS)



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A CHALLENGE TO THE NIOHC:

Investigate how CSB can be used to support HOs in the NIOHC Region

- *As input to resurvey schemes.*
- *As a data source for lower prioritised areas*

Consider taking ownership of these data and their potential uses!



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Progress Since CSBWG15

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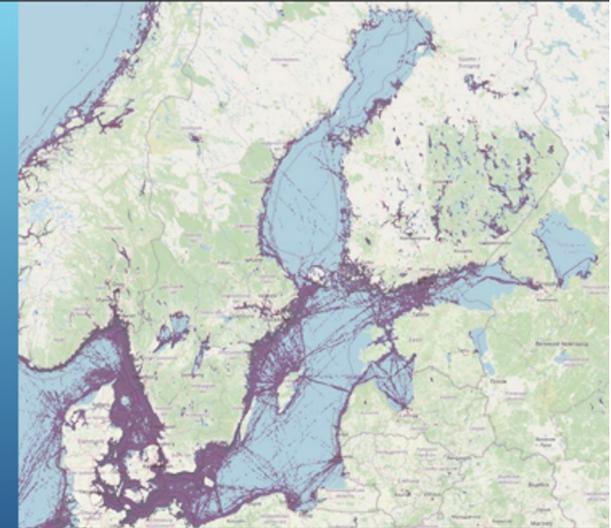
Presentations on CSB at several RHC meetings.
(coordination with work item E)

During BSHC29 several actions was taken that all concerns CSB. The points below was taken from the draft list of actions from the meeting.

- BSHC Chair to add joint GEBCO, EMODNET, CSB item on BSHC30 agenda
- DK will update at BSHC30 in 2025 on the use and experience with Coastal State Approval Tool in DCDB and on general work with CSB at the Danish Geodata Agency.
- MS to revisit the national position on CSB as requested in the IHO-CL 21/2020 and report to Secretariat if changes occur.

CSB-DATA
collected in the
Baltic area, from
just one "Plotter"
manufacturer,
up to 2020.

PROBABLY MUCH MORE
NOW FOUR YEARS LATER.





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Progress Since CSBWG15

Organized a CSB Workshop (26 Apr 2024)

- 107 participants from over 50 coastal States
- Active engagement with over a dozen questions posed, time to provide adequate answers, and positive feedback provided during the event and afterwards
- Several MSs have since reached out reiterating the value of this type of engagement and highlighting that previous modes of communications around the various aspects of CSB had not always been clear.



Crowdsourced Bathymetry (CSB) :
Legal Considerations & Misconceptions
 Inter Regional Coordination Committee Workshop on CSB
 IHO Headquarters, Monaco

Steven G. Keating, United States Observer to the Advisory Board on the Law of the Sea

RÉPUBLIQUE FRANÇAISE
 Liberté
 Égalité
 Fraternité
 SHOM
 L'océan en référence
CROWDSOURCED BATHYMETRY
 FRENCH NATIONAL POSITION
 Workshop on Crowdsourced Bathymetry (CSB)
 Friday 26 April 2024, 13:00 – 15:30 CEST
 Hybrid Event: In-person at the IHO Secretariat – Monaco & Online
 Open to all

3. YCH DINNER CONFERENCE : MAP THE GAP
 OCEAN CONFERENCE
HOW CAN YACHTS HELP MAP OUR OCEANS
 29 MARS 2023 - 19H30
 RESTAURANT 1900 - BOULEVARD DE LA MER
 PARTICIPER GRATUITEMENT
 IHO
 Réservez : Service membres | +377 93 81 63 00 | conference@iho.int

iho.int/en/csbwg-ircc-workshop-2024

Coast Survey
The Utility of Crowdsourced Bathymetry Data
A NOAA Perspective
 Anthony Klemm, NOAA
 Coast Survey Development Lab
 26 April 2024



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Progress Since CSBWG15

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Progress:

S. Keating has developed slides for the WG to use that are authoritative, concise, and provide a response to the two biggest barriers the Work Item team sees with regards to MS (or MS via HO) acceptance today:

- CSB Data Collection Confused with Systematic Survey
- Legal and Liability Issues

Crowdsourced Bathymetry (CSB) : Incidental Passage Soundings that are Essential to Successfully Map the Seabed by 2030



Image from IHO CSBWG
UNCLASSIFIED

What CSB IS...by Official IHO definition

CSB is the collection and sharing of depth measurements from vessels, using **standard navigation instruments (SNI)***, while engaged in **routine maritime operations (RMO)****

*SNI = Compasses, Echosounders, Radar, GPS receivers

**RMO = routine operations like transiting, passenger carriage, towing,



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Progress Since CSBWG15

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Activity: *Identify coastal States who might be willing to share their experience and request their feedback and guidance - deadline: CSBWG16*

Progress: We have identified 5 coastal States who might be willing to share their experience and guidance:

- **Norway:** Positive response with minimal caveats (no MBES). Adopted quickly. May represent what a fast track with minimal government interference might look; confident the national hydrographer will reply to our request
- **Costa Rica:** Positive response with minimal caveats; represents a coastal State response to the IRCC CL
- **Germany:** Straightforward response, adopted quickly; confident the national hydrographer will reply to our request
- **Kiribati:** One of the newest responders; confident the national hydrographer will reply to our request
- **Uruguay:** Feedback may help encourage additional responses in the region



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Reporting

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The team has not measured or reported success to date.

However, we have agreed that a way to do so could involve:

(1) reporting the number of new responses to IHO CL 21/2020 and IRCC CL 01/2020

- [United Kingdom](#)

(2) CSBWG-led activities that are intended to encourage positive CL responses and increased CSB activities.

- ***Workshop, RHC participation, publications***





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Planned Activities

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1. Discuss and propose solutions to Issues 4-8
1. Request from the five identified States to share their experience, feedback and guidance around their adoption of IHO CL 21/2020 or IRCC CL 01/2020, with the intent to share this information to other similar coastal States who may be open to this information. Progress will be reported at CSBWG16.

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Issues/Risks/Concerns/Barriers

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With S. Keating's upcoming retirement (January, 2024), there is the known issue that we will be losing a legal perspective that has been very valuable to the CSBWG.





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Requests to CSBWG

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Proposed Changes to Work Item

There are no proposed changes at this time.

Action to CSBWG

The CSBWG is requested to:

- A. Note** the information provided;
- B. Take** any other actions, as appropriate.