



B-12 Guidance on Crowdsourced Bathymetry ***Data Contribution***

Discussion Topics

19 January 2022



IHO

Discussion Topic #1: List example users; free/public vs open

From: 1. Data Contribution to the IHO DCDB

These data will in turn be made freely and publicly available through the IHO DCDB Map Viewer.

Suggestion 1: These data will in turn be made openly available through the IHO DCDB Map Viewer for use by various sectors of the community. This could include, but is not limited to the xyz....

Suggestion 2: These data will in turn be made openly available through the IHO DCDB Map Viewer for use by various sectors of the community such as fishing, hydrographic offices, super yachts, cruise ships, marine scientific research, marine contractors, and others. **(added to rev_5 doc)**

Points for discussion:

- Steve Monk (SM): Do we want to add in examples of who might use it? Electronic chart providers etc?
- MaryRose Sheldon (MRS): could mention each of our flyer targets as user examples
- Denmark (DK) **(new)**: Agrees with Suggestion 2
- David Millar **(new)**: I personally prefer “freely and publicly” instead of “openly”. I think it is clearer and less ambiguous. The data are available free of charge to anyone. I am not sure that is clear with the term “openly”.
- **Note: CSBWG11 agreed to change to “openly”.**



IHO

Discussion Topic #1: List example users; free/public vs open

From: 1. Data Contribution to the IHO DCDB

These data will in turn be made freely and publicly available through the IHO DCDB Map Viewer.

Additional input:

- Giuseppe Masetti (GM): Suggestion 3 looks very different than suggestion 1. Requested clarification on differences. Jennifer Jencks (JJ) requested tabling “freely and publicly” for now and acknowledged the addition of more sectors (commercial shipping and recreational boating)
 - ***Post meeting: GM is right. JJ accidentally combined two suggestions made by DM from two different sentences. Have tried to correct in these slides post meeting. Please review and provide feedback. Time for discussion on these changes will be made at CSBWG12.***
- JJ: Review of “freely and publicly”. Previously agreed to change to “openly”. Denis Hains (DH) and DM prefer “freely and publicly”, less ambiguous than “openly”. But fine to keep decision made at CSBWG11.



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Discussion Topic #1: List example users; free/public vs open

From: 1. Data Contribution to the IHO DCDB

These data will in turn be made freely and publicly available through the IHO DCDB Map Viewer.

Decisions/Next Steps

- Consensus - continue to use “openly” rather than “freely and publicly”. To be reviewed for consistency with other sections.
- Suggestion (**new; JJ**) - Do not list users in this sentence. Instead list user is following sentence (next slide). Have sentence read:

These data will in turn be made openly available through the IHO DCDB Map Viewer.



IHO

Discussion Topic #2: List example users; term “mariners”

From: 1.1 IHO Data Centre for Digital Bathymetry -

The Centre archives and shares, openly and without restriction, depth data contributed by mariners and others from across the world.

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NOTE: The terms mariners and contributors have been highlighted throughout B12. No matter the decided term, there is a need for consistency and, as suggested, perhaps a definition.

Suggestion 1 (**new**): *The Centre archives and shares, openly and without restriction, depth data contributed by vessel owner/operators or their authorized agents from across the world. The contributors of these bathymetric data, like the beneficiaries, can come from various sectors of the community, such as fishing, commercial shipping, hydrographic offices, recreational boating, super yachts, cruise ships, marine scientific research, marine contractors and others and in the context of this document are referred to as Crowdsourced Bathymetry (CSB) data contributors.*

Points for discussion:

- Paul Holthus (PH): Do we need more definition of ‘mariners and others’, or some examples of sources?
- **CSBWG11 Draft Report (new):** Replace ‘mariners’ with ‘vessels or other platforms’; Agreed where appropriate
- David Millar (DM) (**new**): Suggest commercial shipping and recreational boaters be added to this list. I am okay with “mariners or others”, but if the group feels that more definition is required, then what about the following (Suggestion 1):
- JJ (**new**): change crowdsourced bathymetry to lowercase



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Additional input:

- DM: Had proposed suggestion 1 rewording to emphasize the give/take collaborative environment. Beneficiaries are also potential contributors.
- Pete Wills (PW): likes additions, but would like to revisit rationale for adding additional sectors. Is it meant to identify sectors we are focusing on for outreach documents? Where does it end?
- DM: looking for consistency with communities trying to reach through outreach fliers (ie: our 2 pagers)
- Belin Jimenez (BJ): first use of word “beneficiaries”. Could “users” be more inclusive?
- DM: could refer to them as “users”, but see these users as benefiting from their use. No problem to change for consistency. DH agrees with use of “beneficiaries” but ok either way.
- BJ: Good observation, but for this document “user” seems more appropriate, less judgement
- No objections to the addition of commercial shipping and recreational boating to list of sensors
- GM: Asked about the order of the sectors. Chair and David Millar (DM) did not place sectors in any particular order. Open to reordering.



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Additional input:

- DH: Fine with ordering. Suggests consideration of word “vessel”. Suggests addition or replacement with “platform” to capture remote or aerial/satellite systems for earth observation community. JJ suggests tabling for next slide.
- DH: Earth & Oceans Observation + Aerial communities of data gatherers from other platforms (satellite, airplane, drones,...) should be included... here or possibly later in the doc as you said.
- JJ requested feedback on single sentence vs. multiple.
- DH: Suggestion 1 is ok, but different means (aerial, etc) are not reflected. Reads as still being water/ship based. Can live with it, but should make it clear that we are open to all types of data gathering. JJ that it would only be open to bathymetry gathering. DH countered with shoreline depiction, satellite-derived bathymetry etc. JJ counters that these would come in through different pipelines, i.e. lidar and would not be considered CSB right now. This discussion may change in the future but for now perhaps could be deferred
- DM: I understand what Denis is saying, but this document seems very focused on vessel based collection. Maybe addressing USVs as a capture method, however.
- IHO: Are we straying from CSB into the sharing of data from systematic surveys?



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Discussion Topic #2: List example users; term “mariners”

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The Centre archives and shares, openly and without restriction, depth data contributed by mariners and others from across the world.

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Additional input:

- DM: Maybe we can suggest that a vessel can be a crewed vessel or autonomous / uncrewed vehicle upfront
- JJ: adding sectors to document would be minor edits, would not need to go before IRCC. IHO supports.
- PW: trying to make document tech agnostic.
- PW: questions “openly and without restriction” in light of geographic filter. JJ is not opposed to removing “without restriction”, instead focus on “openly”

Decisions/Next Steps

- Consensus - “beneficiaries” should become “users”; Consensus - suggested list (Suggestion 1) of users should remain; remove “without restriction”, proceed with suggestion 1, slightly amended:

The Centre archives and shares, openly, depth data contributed by vessel owner/operators or their authorized agents from across the world. The contributors of these bathymetric data, like the users, can come from various sectors of the community, such as fishing, commercial shipping, hydrographic offices, recreational boating, super yachts, cruise ships, marine scientific research, marine contractors and others and in the context of this document are referred to as crowdsourced bathymetry (CSB) data contributors.



IHO

Discussion Topic #3: How to actually become a Trusted Node is still unclear

From: 1.2 Contributing CSB Data to the IHO DCDB

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Suggestion 1: Addition of new section: **1.4 Submitting Data as a Trusted Node** (*added to rev_5 doc*)

Suggestion 2 (**new**): *A Trusted Node Submission Form will be provided to all potentially interested Trusted Nodes. This document captures the frequency of data submissions, potential data transfer solutions, data formatting, licensing agreements and confirms the understanding that these data will be made publicly available unless identified as “restricted” by the geographic filter described in Section 1.2. If both parties are in agreement, the Trusted Node Submission Form will be signed thus establishing the CSB data contributor as an IHO CSB Trusted Node. An example of the current Trusted Node Submission Form can be found in Annex X.*

Points for discussion:

- PH: This text in this section conveys the important role and responsibilities of the Trusted Node. Based on the title of the section, I was thinking this was going to be more of a “How to” section for those that want to collect and contribute data. Maybe that appears later in the doc?
- SM & Denmark (DK): still lacks HOW to become a Trusted Node.
- DM (**new**): I think this is a reasonable addition that adequately addresses Topic 3.
- DK (**new**): “a conversation” sounds quite vague. Can we be more specific about the type of information exchange that will be needed? Is the conversation the only way to do this? Or is it also possible to apply for becoming a Trusted Node through the submission form? (**Suggestion 2 is in response to this comment**)



IHO

Discussion Topic #3: How to actually become a Trusted Node is still unclear

From: 1.2 Contributing CSB Data to the IHO DCDB

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Additional input:

- BJ: Suggestion 2 resolves concern over vague language. Asked for additional time to review.
- PW: How does this capture how to become a suggested node? JJ clarified that there is a full new section, only a brief portion is on the slide. “How” is now captured in the document including a link to external documents
- DH queried in chat whether there can be submissions from none TN contributors. PW clarified that yes there can be individual contributors

Decisions/Next Steps

- Consensus: Addition of new section: 1.4 Submitting Data as a Trusted Node (added to rev_5 doc) with amended text (Suggestion 2)

A Trusted Node Submission Form will be provided to all potentially interested Trusted Nodes. This document captures the frequency of data submissions, potential data transfer solutions, data formatting, licensing agreements and confirms the understanding that these data will be made publicly available unless identified as “restricted” by the geographic filter described in Section 1.2. If both parties are in agreement, the Trusted Node Submission Form will be signed thus establishing the CSB data contributor as an IHO CSB Trusted Node. An example of the current Trusted Node Submission Form can be found in Annex X.



IHO

Discussion Topic #4: Meaning/use of the word “systematic”

From: 1.2 Contributing CSB Data to the IHO DCDB

An IHO DCDB Trusted Node is an approved organization or individual who systematically receives CSB data collected by vessels or other platforms and delivers them to the IHO DCDB.

Points for discussion:

- Question over the use of the word systematic to describe a trusted node.
- A feeling from Sea ID and JPH that it provides context as to why the TNs are necessary
- Counter argument is that it is a superfluous term that has unhelpful connotations and that the fact that trusted Nodes are ‘approved’, negates the need for further characterization in the document.
- **CSBWG11 Draft Report (new): DW proposed the word ‘routinely’ instead of ‘systematically’; Agreed to use ‘Routinely’**
- **DK (new):** It is important to differentiate the role of the TN, which systematically receives and delivers CSB data, from one-time submissions.
- **DM (new):** I am quite okay with the use of the term “systematically” here. I think it does help provide context and emphasize the importance of trusted nodes. They have systems and processes to receive, handle and pass on data to the DCDB.



IHO

Discussion Topic #4: Meaning/use of the word “systematic”

From: 1.2 Contributing CSB Data to the IHO DCDB

An IHO DCDB Trusted Node is an approved organization or individual who systematically receives CSB data collected by vessels or other platforms and delivers them to the IHO DCDB.

Additional input:

- DH: I'm ok with the word systematically
- IHO: DW did suggest word “routinely”, but how well considered the suggestion was I don't know.
- PW: DW's suggestion was not in context of TNs putting data in pipe. Was instead trying to get at systematically vs. innocently collected data. Feels that “routinely” here was taken out of context. IHO supports, it was a general agreement that where possible we should differentiate between systematic collection (survey) and CSB (byproduct of vessel operations)
- DM: But this is referring to the systematic receipt of data versus the systematic collection of data
- IHO: Could replace systematically with routinely but may lose some of the meaning. JJ agrees with hesitation to have language included at all, but it gives context to why we are promoting the use of TNs. IHO agrees with DM that this is referring to the systematic receipt.
- JJ asked Denmark for HO perspective on the use of “systematic”. BJ feels that in this context the use of the same word for systematic receipt of the data and sharing is the most appropriate, DK supports the continued use of the word “systematic”
- PW feels that this is largely editorial, better word could be “consistently”



IHO

Discussion Topic #4: Meaning/use of the word “systematic”

From: 1.2 Contributing CSB Data to the IHO DCDB

An IHO DCDB Trusted Node is an approved organization or individual who systematically receives CSB data collected by vessels or other platforms and delivers them to the IHO DCDB.

Additional input:

- GMD: supports use of “systematic”. Gives more robustness to TN in process, reminder that word could be perceived differently by non-English speaker
- DM: What if we say, "... An IHO DCDB Trusted Node is an approved organization or individual who has standardized systems and processes to receive CSB data collected ..."
- PW: not hung up on word “systematically” in this context. Suggests we are getting hung up, should move forward.
- JJ: Suggests that this remains an open topic, leave for decision by greater working group. Leave it as 3 options, move it forward to main working group:
 - Current text (already approved by member states)
 - Watered down replacement for routinely
 - Accept DM’s suggestion: "... An IHO DCDB Trusted Node is an approved organization or individual who has standardized systems and processes to receive CSB data collected ..."
- IHO suggests that this is not a major change, no major disagreement with “systematically”. Leave it as original text, more important topics to move forward. All in agreement with continuing the use of “systematically”



IHO

Discussion Topic #4: Meaning/use of the word “systematic”

From: 1.2 Contributing CSB Data to the IHO DCDB

An IHO DCDB Trusted Node is an approved organization or individual who systematically receives CSB data collected by vessels or other platforms and delivers them to the IHO DCDB.

Decisions/Next Steps

- Consensus - continue the use of “systematic”, no additional review or actions necessary



IHO

Discussion Topic #5: The term “contributor”

From: 1.2 Contributing CSB Data to the IHO DCDB (v4: 1.3 The Trusted Node Model) - *The concept of 'Trusted Node' came from the understanding that it would not be feasible for every individual mariner/contributor to approach the DCDB to discuss their data exchange individually and be expected to learn about data formats, how to formulate metadata, how to establish a data transfer, etc.*

Points for discussion:

- PH: Although nicely concise, this seems a very broad term. Do we need to define this earlier to refer to something like “vessel owners or operators who are willing and able to provide crowdsourced bathymetric data”, and then refer to them as something like “CSB data contributors”?
- Is “collector” and “contributor” synonymous?
- Use of these two terms is sometimes unclear, sometimes used interchangeably...but are they the same thing?
- Mathieu Rondeau (MR) suggested that since all collectors are contributors so just use contributors
- **CSBWG11 Draft Report (new):** It is suggested that since all collectors are contributors, so just use contributors; Agreed but section leads to consider context in making changes
- DK (**new**): Contributor is more inclusive term than Mariner, as one does not need to be a mariner to contribute CSB data.
- DM (**new**): Per my earlier comment, maybe this can now be referred to as “**CSB data contributor**”.



IHO

Discussion Topic #5: The term “contributor”

From: 1.2 Contributing CSB Data to the IHO DCDB (v4: 1.3 The Trusted Node Model) - The concept of 'Trusted Node' came from the understanding that it would not be feasible for every individual mariner/contributor to approach the DCDB to discuss their data exchange individually and be expected to learn about data formats, how to formulate metadata, how to establish a data transfer, etc.

Additional input:

- DH: on addition to this very topic; I notice the use of ..."vessels or other platforms"... this is great and capturing my earlier point. If ..."and other platforms"... is always added to the term "vessels" throughout the Doc, it's great and cove my concern...
- DH supports mariner/contributor
- JJ clarifies that we are trying to move away from mariner/contributor, instead replace with “CSB data contributor” throughout document
- BJ, DH agree to CSB data contributor

Decisions/Next Steps

- Consensus - replace mariner/contributor with “CSB data contributor” throughout document



IHO

Discussion Topic #6: Suggested Text from Denmark

From: 1.2 Contributing CSB Data to the IHO DCDB

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Suggestion 1: When CSB data is collected within a country's jurisdiction, the Trusted Node receives and redistributes CSB data in agreement with national legislation and caveats. (added to rev_5 doc)

Suggestion 2 (new): When CSB data is collected within a country's jurisdiction, the Trusted Node receives and redistributes CSB data in a manner that is consistent with national legislation and related caveats as communicated to and via the IHO."

Points for discussion:

- DCDB: Is this realistic to expect of Trusted Nodes? For example, a participating navigational software company will not have control over how their customers operate their software. These data are already, and will continue to be, collected throughout the waters of the world. This is why we've put the onus on the DCDB to filter out the data in accordance to national positions.
- Is the burden also on the person that passes the data outside of the region or nation that has jurisdiction?
- BJ (**CSBWG11 draft report**) observed that it felt like there is still a difference of understanding on what the role of the Trusted Node is, and what they are expected to do.
- David Wyatt (**CSBWG11 draft report**) recalled that no MS had objected to the data being sent to the DCDB where the decision would be made centrally as to what data may needed to be removed due to restrictions in waters of national jurisdiction



IHO

Discussion Topic #6: Suggested Text from Denmark

From: 1.2 Contributing CSB Data to the IHO DCDB

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Additional input:

- JJ as DCDB does not want to include suggested text. Do not believe this is reasonable to expect from a TN. Means a TN needs to be aware of all caveats and handle data accordingly. For ex., Rosepoint will not control where ships are and what they are contributing.
- DH: Proposed language is restrictive. Agrees with Jennifer "all" should go in DCDB without restrictions, but some data might not go out depending on national legislation...
- BJ: This would depend on TN business model. If they are taking the role of collecting the data and passing it on they should be aware of responses to national jurisdiction and caveats. If someone uses their data to pass data to DCDB it is different, Rosepoint is in less of a TN role. Hard to see how this sentence is a conflict. Should be taken for granted that you have to meet the legislation. Need to consider how we will facilitate that by making caveats more understandable to all readers. DK stands behind suggestion 2.
- GM: From the new proposed annex, "A. Creative Commons 1.0 Universal Public Domain Dedication (CC0)" paragraph: "By signing this TN Agreement, the Trusted Node indicates that it has sufficient legal authority over the CSB data it provides to accept these terms". This sentence seems in agreement with DK proposed addition.
- JJ would like to hold on CC0 discussion for conversation later today.
- IHO: have we really looked at where responsibility for ensuring conformity is placed in other crowdsourced activities? Could be a disincentive to engage in the project, but this issue likely occurs in other crowdsourced projects. Could we learn from a more developed project



IHO

Discussion Topic #6: Suggested Text from Denmark

From: 1.2 Contributing CSB Data to the IHO DCDB

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Additional input:

- JJ concerned with word “redistributes data”. Feels strongly that the responsibility to redistribute data should not fall on TN. All current TNs have sent data in “no” countries. This was the intent behind the development of the filter. Understand the importance here, but would like to remove “redistributes in accordance with”
- PW: supports querying what other crowdsourced projects do. Could also review national policies for handling data (say 3rd party got ahold of Olex data and provided to DCDB). Perhaps need to add “lawful contribution”
- DM: TNs would have to see if they are protected. This phrase protects nations but does not protect TNs. This is a necessary decision, perhaps outside the scope of this document.
- DH: When CSB data is collected and contravenes with a country's jurisdiction this data will be kept in DCDB and will not be released...
- JJ: DK approves suggestion 2. Proposes moving forward suggestion 2 to greater group for input.
- BJ: intention is not to scare TNs, but to acknowledge that there are national caveats that need to be taken into account. Agrees that filter should be last option, not placing all responsibility. Should inform everyone about all of these things. Pointed again to additional contributions, inclusion of language there. Saying collect wherever you want, responsibility is on DCDB would not be acceptable to DK.
- JJ: Does not agree with suggestion 2 but sees that something like this should be included in document. Most concerned with “redistributes”



IHO

Discussion Topic #6: Suggested Text from Denmark

From: 1.2 Contributing CSB Data to the IHO DCDB

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Additional input:

- DM: I agree. This is an important sentence and needs to be there. Happy to reword slightly, if necessary
- JJ: do not want a TN to opt out of project because they would need to ensure they are up-to-date on caveats. Could become a barrier to entry. Do agree with BJ and GM that they do need to be aware of caveats, but need to find middle ground to not prevent them joining
- DM: can we change "redistributes" to "forwards CSB to DCDB in a manner ..."
- BJ: thinks that DM's text could work. Could also change to "operates" in manner that is consistent with national jurisdiction
- DH: When CSB data is collected within a country's jurisdiction, the Trusted Node receives and channel through DCDB to be filtered for national legislation consistency...
- BJ: DK does not like, puts it all on DCDB still and is still cumbersome
- PW: What is the wording in the proposed TN form? Should be consistent
- BJ: "receives and submits to the DCDB" would work for DK
- DH: We want the data somewhere... not sitting, so DCDB becomes the watchdog...



IHO

Discussion Topic #6: Suggested Text from Denmark

From: 1.2 Contributing CSB Data to the IHO DCDB

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Additional input:

- IHO: any person or organization engaged in CSB agree to do so within legal framework.
- JJ: review alongside discussion topic 9. Need a catch-all sentence in one area, perhaps using what is in discussion topic 9. BJ says it could perhaps work for DK but would require review in context of whole document. BJ emphasized that all should be aware, full burden should not be on DCDB, but do not want to deter TNs
- IHO: fundamental legal principle is that if you do something illegal, it is illegal. Don't want to scare TNs off, but it is the way it works.
- JJ: should consider larger section along lines of discussion topic 9, with shorter refined section as we are discussing in other portions of the document
- **IHO: this is not a legal document, not our responsibility to capture all legal requirements and aspects**
- BJ: emphasis should be on informing users. Modify language to be more informative and less "we will go after you". This is not enforcing any law.
- JJ: softer language would be good but do need to inform TNs
- DM: This is about awareness and disclosure. The collector and Trusted Nodes will need to evaluate the liabilities and their actions..



IHO

Discussion Topic #6: Suggested Text from Denmark

From: 1.2 Contributing CSB Data to the IHO DCDB

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Decisions/Next Steps

- **ACTION:** JJ and IHO to review strategies used by other crowdsourced project
- **ACTION:** BJ, JJ, IHO to review via email, create proposal to send to this group before passing to broader working group



IHO

Discussion Topic #7: Confusion over message

From: 1.2 Contributing CSB Data to the IHO DCDB

At present, individual data contributors are considered on a case-by-case basis but are encouraged to join an existing Trusted Node if possible.

Suggestion 1: While individual data contributions may be accepted, contributors will be encouraged to join an existing Trusted Node if possible. (added to rev_5 doc)

Points for discussion:

- PH: It doesn't seem clear to me whether this sentence is referring to individual contributors being considered as to: 1) Their contribution of data, or 2) Their interest to become part of a Trusted node. (In both cases, I would suggest that there is a need for more "How to" text, e.g. "Who can be part of a Trusted Node and How to apply/join".
- DK (**new**): Agree with suggested text.
- DM (**new**): I feel like these two paragraphs reasonably address the concern raised in Topic 7.



IHO

Discussion Topic #7: Confusion over message

From: 1.2 Contributing CSB Data to the IHO DCDB

At present, individual data contributors are considered on a case-by-case basis but are encouraged to join an existing Trusted Node if possible.

Additional input:

- DH: Why not “will be accepted”. JJ clarified that there could be many reasons to not accept from individuals. DCDB could not handle submissions from just individuals. There may be circumstances where we will require use of a TN.
- DH: OK... understood... but it shouldn't be interpreted as you have to be a trusted node...

Decisions/Next Steps

- Consensus, proceed with suggestion 1



IHO

Discussion Topic #8: Confusion over how to become a TN

From: 1.2.1 Transmission Protocol

Entire Section 1.2.1.

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Suggestion 1: Removed current text, wrote new section: 1.4 Submitting Data as a Trusted Node (added to rev_5 doc)

Points for discussion:

- PH: Is the text mainly meant to inform contributors re sending data to the Trusted Node, or for the Trusted Node re sending data to DCDB . If it's the former, but I am not seeing simple, clear "How to" information that I can use with a shipping company to explain how their bathymetric data would be contributed.
- DK (**new**): Agree with suggested text.



IHO

Discussion Topic #8: Confusion over how to become a TN

From: 1.2.1 Transmission Protocol

Entire Section 1.2.1.

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Additional input:

-

Decisions/Next Steps

- Consensus, proceed with suggestion 1



IHO

Discussion Topic #9: Data collection in national jurisdiction areas

From: 1.3 Overview of CSB Data Flow

Further details of which coastal states support the provision of CSB data collected within their waters of national jurisdiction, along with any caveats they have articulated, is available from the IHO website.

Points for discussion:

- PH: This text is straightforward, but conveys a red flag/risk for commercial operators with vessels which might collect and contribute data. There is a need for guidance on “How to” navigate this patchwork of countries that do or don’t agree with CSB data collection in their national jurisdictions.
- DK (**new**): Would it be possible for DCDB to provide a layer with national caveats in the Map Viewer?
- DM (**new**): While this link takes the reader to the list of countries that support CSB and their caveats, I agree with Paul that it is complicated and intimidating for commercial operators. From my experience, commercial operators don’t want to deal with such complications and assume any potential associated liabilities. I believe this will be one of our biggest challenges in scaling up CSB within the commercial sector. It is a big challenge and this document alone may not be able to alleviate their concerns. If not already clear, we need to make it clear that the DCDB and trusted nodes are here to help and reduce the risk. I think there is still a real and legitimate concern that clipping data at an EEZ boundary is not sufficient, however, and there is potential risk in simply collecting the data within the EEZ of some jurisdictions.
- DM (**new**): I think there is still a real and legitimate concern that clipping data at an EEZ boundary is not sufficient, however, and there is potential risk in simply collecting the data within the EEZ of some jurisdictions. The lack of clarity on this issue in some jurisdictions is a real or perceived risk to commercial operators.



IHO

Discussion Topic #9: Data collection in national jurisdiction areas

From: 1.3 Overview of CSB Data Flow

Further details of which coastal states support the provision of CSB data collected within their waters of national jurisdiction, along with any caveats they have articulated, is available from the IHO website.

Additional input:

- DM: not suggesting that anything needs to be changed, but we should manage expectations. This is complicated and beyond what we can do as a WG. These are national jurisdiction issues. Must point people to the information, but this is a significant challenge for us as a community. Maybe words do not need to be changed in the document, but this should be raised as a concern that we will continue to struggle with. There is potential risk, particularly for commercial operators. Quite different from recreational vessel. Commercial operator needs permission to operate in national jurisdiction
- SM: Agrees with DM. Need to put information out there, but we do not know how deep the problem may be. Why spend hours trying to find solution. Could write an entire document around this sentence.
- JJ: DCDB has on our wish list that we would like a layer with national caveats on the map viewer. In response to DK, yes, we want to do this. Timeline not known.
- BJ: Appreciates DM's comments. Some will not care, but those in middle may feel safer if they see overlay of national caveats

Decisions/Next Steps

- Consensus - leave language as shown. DCDB to consider adding layer showing national caveats in the future.



IHO

Discussion Topic #10: Data Package contents

From: 1.3.2 Accessing CSB data

When data retrieval and preparation are complete, the user is notified via email and is provided with a URL where they can retrieve the data package.

Suggestion #1: When data retrieval and preparation are complete, the user is notified via email and is provided with a URL where they can retrieve the data package. The data package will include the actual geojson and/or csv data files. The XX data license will be included in the license field of the metadata. More information on the IHO licensing guidance for CSB data can be found in Section 4: Additional Considerations. [\(added to rev 5 doc\)](#)

Points for discussion:

- DK: What is the content of the data package? Does it contain the data license?
- DCDB: the actual geojson and/or csv data files. No, there is no data license included.
- GM suggested that even where data is open access, it still needs a license.
- Brian Calder (BC): some users will not accept data without a license because there is no statement of legal parameters
- IHO/DW suggested a generic license could be created that gave free and open access to the IHO MS' data held in the DCDB
- DK (**new**): Agree with new text in section 1.4 Suggestion to also add a reference to national caveats to ensure the user is informed.
- DM (**new**): Is this correct? Is it to be completed or what does XX data license mean? Otherwise I think this additional text reasonably addresses the concerns raised in Topic 10. **Chair Reply:** "XX" is a placeholder. Appropriate data license is being discussed in the Additional Cons. Drafting Team.



IHO

Discussion Topic #10: Data Package contents

From: 1.3.2 Accessing CSB data

When data retrieval and preparation are complete, the user is notified via email and is provided with a URL where they can retrieve the data package.

Additional input:

- JJ: DK looking for addition of link to national caveats on website? BJ agrees that this would be acceptable
-

Decisions/Next Steps

- Consensus, proceed with suggestion 1 with the addition of the URL to national caveats



IHO

Discussion Topic #11a: Miscellaneous (NEW)

From: 1.2 Overview of CSB Data Flow

When CSB data is collected within a country's jurisdiction, the IHO DCDB receives and redistributes the data in agreement with national legislation and caveats

Suggestion 1: When CSB data is collected within a country's jurisdiction, the IHO DCDB receives and redistributes the data in a manner that is consistent with national legislation and related caveats as communicated to and via the IHO."

Additional input:

- DM: need to ensure consistency
- BJ: Original text suggested by DK during CSBWG11. Suggestion 1 is a revised suggestion from DM. DK agrees with modified suggestion 1.

Decisions/Next Steps

- Consensus on suggestion 1



IHO

Discussion Topic #11b: Miscellaneous (NEW)

From: 1.2 Overview of CSB Data Flow

Further details of which coastal states support the provision of CSB data collected within their waters of national jurisdiction, along with any caveats they have articulated, are available from the IHO website

Suggestion 1: Further details of which coastal states support the distribution and access of CSB data collected within their waters of national jurisdiction, along with any caveats they have articulated, are available from the IHO website.

Additional input:

- DM: ambiguity is with regards to the collection and provision. By saying distribution and access, those are addressed in circular letter responses so can constrain to distribution and access here.
- JJ: fully supports modifications

Decisions/Next Steps

- Consensus on suggestion 1



IHO

Discussion Topic #12: DCDB Description

1.1 IHO Data Centre for Digital Bathymetry

All data hosted by the DCDB on behalf of the IHO are discoverable and accessible online via the IHO DCDB Map Viewer.

Suggestion 1: Replace “hosted” with “archived”

Suggestion 2: Delete sentence.

Points for discussion:

- NOAA: Recommend clarifying this. NOAA/NCEI hosts the DCDB. DCDB doesn't "host" data. It stores it, correct? As the DCDB was created by the IHO, all data in the DCDB is in some in IHO's custody and control. The present formulation is a bit confusing.
- DCDB: Recommend deleting this sentence as the reality is that some data is indeed archived only and not made discoverable and accessible. Think the paragraph is still informative without the last sentence.



IHO

Discussion Topic #12: DCDB Description

1.1 IHO Data Centre for Digital Bathymetry

All data hosted by the DCDB on behalf of the IHO are discoverable and accessible online via the IHO DCDB Map Viewer.

Additional Input

- PW: if data is hosted at the DCDB, is the existence of that data made available to the external visitor? JJ said no, data is not discoverable or accessible if it's not in agreement with filter. PW is fine with replacing hosted with archived.
- DM: I think it is important that we state early in the document that the data are discoverable and accessible online ... So my preference is not to delete the sentence if possible, prefer replacing "hosted" with "archived"
- Steve Monk (SM): 'Archived' works for the reasons discussed

Decision/Next Steps

- Consensus, proceed with suggestion 1 (replace "hosted" with "archived")

**IHO**

Discussion Topic #13: Area vs High Seas

1.2 Overview of CSB Data Flow

CSB data, identified as belonging to the high seas (as defined in UNCLOS as “the area”), will be ingested into the DCDB database and made publicly discoverable and accessible without restrictions on its further reuse. When CSB data is collected within a country’s jurisdiction, the IHO DCDB receives and redistributes the data in agreement with national legislation and caveats. Figure 1 illustrates possible scenarios that may be applied to contributed data, collected within waters of national jurisdiction, that may include a geographical location checking process and potential subsequent distribution actions.

Suggestion 1: CSB data identified as being of the seabed and ocean floor beyond the limits of national jurisdiction will be ingested into the DCDB database and made publicly discoverable and accessible without restriction on its use. When CSB data is collected within a country’s jurisdiction, the IHO DCDB receives and redistributes the data in agreement with national legislation and caveats. Figure 1 illustrates possible scenarios that may be applied to contributed CSB data that is acquired within maritime zones subject to national jurisdiction.

Points for discussion:

- NOAA: Under UNCLOS, the “high seas” and the “Area” are not synonymous. UNCLOS Art. 1(1) defines the “Area” as “the seabed and ocean floor and subsoil thereof beyond the limits of national jurisdiction.” The “high seas” as used in LOSC Part VII refers to “all parts of the sea that are not included in the exclusive economic zone, in the territorial sea or in the internal waters of a State, or in the archipelagic waters of an archipelagic State.” UNCLOS Art. 86.



IHO

Discussion Topic #13: Area vs High Seas

International
Hydrographic
Organization

Additional Input

- Group did not have time to review prior to call. Can proceed with suggestion 1 or table for later discussion.
- SM: Surely legal wins every time
- IHO: Thinks language is good in suggestion 1. Do not need to table it. If group comfortable with inclusion and replacing text, just draw attention to it as a significant change to broader group.
- DM, BJ: agree with proposal
- PW: agreement, but reiterate previous point. Is national legislation and related caveats cover all the law that applies to the data? Is there international law that would apply in high seas (eg: intellectual property). Antarctica had some international considerations also.

Decision/Next Steps

- Consensus with Suggestion 1. Draw attention to it as a significant change to the broader group
- Review point from PW: Is national legislation and related caveats cover all the law that applies to the data? Is there international law that would apply in high seas (eg: intellectual property). Antarctica had some international considerations also.