

COMMENTS ON THE DRAFT EDITION 1.0.0
OF NEW IHO PUBLICATION B-12
CROWDSOURCED BATHYMETRY GUIDANCE DOCUMENT

Reference:

CIRCULAR LETTER 49/2017 - (29th August 2017)

Brazilian Comments on the publication “Guidance on Crowdsourced Bathymetry”

Page 10 Introduction

III. Document structure

... provides information about how to send crowdsourced bathymetry to the IHO Data Centre for Digital Bathymetry (DCDB), **via trusted nodes. (suggest to add).**

Page 12

1. Data Contribution

1.1.

1.2. The Trusted node model

The DCDB works with each Trusted Node to standardize metadata and data formats and define data delivery requirements. **(This is very important and we advocate that all CSB data should be submitted through a Trusted Node).**

In the future... **(we hope in a very distant future).**

Parties interested... **(Which is (are) the requirement(s) to become a trusted node? Maybe IHO can issue either a publication or an annex to this publication concerned to “guidance/policies to become and operate as a Trusted Node).**

Page 14

1.3 Individual Contributors

... individual data contributors are encouraged to join existing Trusted Nodes. **(We strongly recommend keeping this procedure).**

1.4 Overview of CSB Data flow through IHO DCDB

1.4.1 Submitting CSB data to DCDB

... The verification confirms that the data are from a trusted node... **(We strongly recommend keeping this procedure).**

Page 15

1.4.2 Accessing CSB data

...(unless the vessel chooses to remain anonymous)... (What would be a reason for a vessel choose to remain anonymous? We believe that if it happens it will weaken the metadata. Further, as far as go our understanding S-100 registry requires the “platform information” (see Annex 8, item 8.D-1.11)).

Page 17

1.3. Hardware and Software

1.3.1. Data Loggers

Vessels that do not possess a suitable navigation system or data logging software will need to install a standalone logger. (We understand that this must be a requirement to a vessel to be a CSB contributor. Further, we strongly recommend that the standalone logger should be locked and controlled by a Trusted Node).

Trusted Nodes can provide... (Trusted nodes must play a key role in all this process).

Page 18

2.2.2.2 Echo-sounder NMEA Sentences

Stripping data from an NMEA sentence and only saving parts of it is not recommended. Saving the data in its original format will help validate sensor readings and troubleshoot potential anomalies in the data (We fully support this statement!).

Pages 39/40

4.3 Uncertainty Guidance for User Groups

4.3.1 Data Correction and Depth Calibrations

4th Paragraph – Environmental changes... .. can be found in IHO publication C-13 Manual of Hydrography. (It must be taken into account that this document is an introduction guidelines for non-Hydrographers).

Page 42

4.3.3 – uncertainty for trusted Nodes

1st Paragraph – Trusted Nodes are in an ideal position... .. This can greatly increase the value of crowdsourced bathymetry sent to DCDB. (This is one of the reasons we advocate that **all data must pass through and assessed by a Trusted Node** before is sent to DCDB).

5th Paragraph – Trusted nodes can also make dataset corrections... .., might be able to establish, from data taken in masse, a plausible buffer to add to the uncertainty budget to represent those corrections. (Perhaps one may consider the possibility of issuing a **“Guidelines Manual for Trusted Nodes Dealing with Data from CSB”**. This can be an Annex of this Guidelines).

Pages 43/44

4.3.4 – Database Users

2nd Paragraph – Users Beware. The DCDB provides no guarantee of the correctness of crowdsourced bathymetry observations. (Then we reinforce the necessity of CSB data pass through and is assessed by a Trusted Node before reach DCDB). some Trusted Nodes might provide stronger guarantees for data that they aggregate. (The better the Trusted Node, more confident the data. A guidelines for Trusted Nodes dealing with CSB, as referred comments above, can start best practices, standardize processes and improve the confidence of data).

Pages 46/47/48

5. Legal Consideratons

5.1. Introduction

5.2. Maritime Jurisdiction

1st Paragraph – Under international law, as reflected in the 1982 United Nation Convention on the Law of the Sea (UNCLOS). Coastal States may have differing views on wheter collecting bathymetric data on passage and providing it to the IHO DCDB for the common good is considered acceptable within the framework of the restrictions they impose under UNCLOS, with special regards to its Article 40. (suggest to add). In this context....

5.3 Rights and Responsibilities

1st Paragraph - ... in support of global initiatives such as the GEBCO Project... (We don't think it is usual to produce GEBCO lines in "National Jurisdiction Waters". Brazil defended position in Intergovernmental Oceanographic Commission of UNESCO (IOC/UNESCO) at its 29th Assembly keeping the rights of coastal states as stated in UNCLOS).

2nd Paragraph – It is important that all parties participating in the IHO CSB programme carefully consider their rights and responsibilities in relation to the various legal jurisdictions under which they are operating. **(Great! We strongly support this statement).**

3rd Paragraph - Data supplied to the IHO DCDB by vessels ~~directly or~~ (we suggest to remove this from the wording) through Trusted Nodes is licensed ~~in accordance~~ in accordance with... (We insist that CSB data is submitted to DCDB through trusted nodes, only).

Page 48

5.3.2 Trusted Nodes

~~If the~~ (suggest to remove) The bathymetric data collected by a CBS collector ~~is~~ (suggest to remove) must be (suggest to add) passed to the IHO DCDB through a Trusted Node. ~~then~~ (suggest to remove) Then the free-use of the data provided under.....

Final Remmarks (document as a whole)

We encourage supplementary methods for collecting bathymetric data, such as, crowdsourced bathymetry. Even for nautical chart improvement, crowdsourced bathymetry can be useful for such things as identifying, otherwise unknown, navigational hazards, for validating the depths shown on existing charts, for identifying changes in depths on published charts, and for confirming that nautical charts are covering the most used routes. Anyway, it is needed to consider some very important aspects:

1st a “*Metadata*” structure for crowd-sourced bathymetry datasets, in order to facilitates the efficient exchange and use of the data;

2nd quality control by a Hydrographic Office or a recognized Trust Node, in order to grant the reliability of datasets; and

3rd “*Legal Considerations*” (UNCLO, for example) have to be taken into account before engaging in CSB activities.