



Jennifer Jencks - NOAA Federal &lt;jennifer.jencks@noaa.gov&gt;

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**CSB corrections from GEBCO, EMODNET and SHOM**

1 message

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**Thierry Schmitt** <thierry.schmitt@shom.fr>  
To: Jennifer Jencks <jennifer.jencks@noaa.gov>

Mon, May 22, 2017 at 9:13 AM

Dear Jennifer,

Please find an updated version of the CSB document with comments and propositions in the text. These are the results from questions brought from the GEBCO and EMODNET Bathymetry communities (see emails). I also submitted this version internally to two colleagues: Christophe Vrignaud who is in charge of management of the performances/precision of our acquisition system. As he will be leading the S-44 update "task force", and that they are considering adapting the future S44 classification also to CSB data, we thought it could be wise to get his comments; Patrick Michaux who has been part of the previous S-44 edition (edition 5 2008) and who was in charge of our office in the Pacific area (with mainly single beam).

Finally, on a cosmetic point of view, I had the following comments:

- the justification is not the same all along the document (fully justified up to page 13 and then left justified after page 13)
- it appears that the referencing of some of the figures in the text is not correct.

You will see that they are some comments concerning the Figures with the drawing of the boats and effect of biais, give me a week and I'll have them updated.

I leave you managing the next steps you want to undertake for the corrections.

If need be, we can set up a conference call, so that we can provide precisions where they are needed.

TS

PS: as the document is quite heavy and that we have strengthen our spam rules can you acknowledge that you have received the doc file.

--

Thierry Schmitt - Expert en bathymétrie et produits numériques  
SHOM -- French HO

NEW PHONE NUMBER -- 02 56 31 21 95

----- Forwarded message -----

From: Martin Verlaan <HRSM-group@emodnet-bathymetry.eu>  
To: "HRSM-group@emodnet-bathymetry.eu" <HRSM-group@emodnet-bathymetry.eu>  
Cc:  
Bcc:  
Date: Wed, 26 Apr 2017 14:22:55 +0000  
Subject: Re: Review of the Crowd Source bathymetry working group draft document  
Hi Thierry,

I am no expert in this, but I would expect a knob on the echo sounder to tune the local speed of sound, but private ship owners will not typically carry out ctd's.  
Would it be possible/useful to record the used setting for speed of sound?

Best regards,

Martin

On 04/25/2017 11:27 AM, Thierry Schmitt wrote:

> Dear colleagues, (sorry for cross-posting)  
>  
> The IHO crowdsourced bathymetry (CSB) working group (CSBWG) was tasked  
> to provide guidance on how the IHO could encourage and promote  
> crowdsourcing by vessels and craft whilst on passage using standard  
> fitted equipment. The resulted document is provided attached to this email.  
> It is dedicated to mariners (professional or recreative) and aims at  
> presenting and advising the best practices for bathymetric data  
> collection.  
>  
> We would like to have your feedback or comments.  
>  
> Could you please provide them either to me or Jennifer Jenks (Chair of  
> the CSBWG) before the 13th of May.  
>  
> Thank you for your help.  
>  
> Thierry  
>

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From: Cecile PERTUISOT <Cecile.Pertuisot@ifremer.fr>

To: Thierry Schmitt <thierry.schmitt@shom.fr>

Cc:

Bcc:

Date: Thu, 4 May 2017 10:49:34 +0200

Subject: Re: Review of the Crowd Source bathymetry working group draft document

Bonjour Thierry,

merci pour le document. Seuel remarque de mise en forme: les numéros des figures auxquelles tu renvoies ne sont pas à jour dans les paragraphes.

A qui allez-vous le distribuer? Chaque Trusted Node le diffuse à sa guise au niveau national? Comment toucher les particuliers?

Cécile

Le 25/04/2017 à 11:23, Thierry Schmitt a écrit :

Dear colleagues, (sorry for cross-posting)

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Thank you for your help.

Thierry

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Cécile Pertuisot  
IFREMER Centre de Bretagne  
Service SISMER  
CS 10070 - 29280 PLOUZANE - FRANCE

TEL: +33(0)2.98.22.42.12 FAX: +33(0)2.98.22.46.44

Email: [cecile.pertuisot@ifremer.fr](mailto:cecile.pertuisot@ifremer.fr) WWW : <http://www.ifremer.fr/sismer/>

\*\*\*\*\*

----- Forwarded message -----

From: Emma Fowler <[emma.fowler@chartworld.com](mailto:emma.fowler@chartworld.com)>

To: Thierry Schmitt <[thierry.schmitt@shom.fr](mailto:thierry.schmitt@shom.fr)>

Cc: Jennifer Jencks <[jennifer.jencks@noaa.gov](mailto:jennifer.jencks@noaa.gov)>

Bcc:

Date: Sun, 14 May 2017 16:46:31 +0000

Subject: RE: [gebco\_folk] Review of the Crowd Source bathymetry working group draft document

Dear Thierry,

Apologies for the slightly delayed feedback from SevenCs.

The document describes the technical, administrative, and legal aspects of CSB data collection very well and to great level of detail. Deliberately it does not address the end -user as mentioned.

Although CSB has many potential end-users and in varying end-user applications, the question is what does the end-user need to make use of the data: At this stage he/she can download thousands of datasets from the "IHO Data Centre for Digital Bathymetry (DCDB)" website - which points to a NOAA map server. But to be able use it you must have at least some basic knowledge about geo-spatial data. Also you must have the right tools to manage the data, to visualize and process the data to make it usable for the common user.

If this is truly "*dedicated to mariners/seagoers and aims at presenting and advising the best practices for bathymetric data collection*" the big challenge that I see that remains is to develop a concept or several concepts that enable creation of a product for the common user who is not a GIS expert.

Best Regards

Emma Fowler

Sales Director APAC

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[www.sevencs.com](http://www.sevencs.com)

Trade register: Amtsgericht Hamburg HRB 102941

Director: Mr Jochen Rudolph

-----Original Message-----

From: gebco\_folk [mailto:[gebco\\_folk-bounces@mailman.ngdc.noaa.gov](mailto:gebco_folk-bounces@mailman.ngdc.noaa.gov)] On Behalf Of Thierry Schmitt

Sent: 25 April 2017 16:58

To: [gebco\\_folk@mailman.ngdc.noaa.gov](mailto:gebco_folk@mailman.ngdc.noaa.gov)

Cc: Jennifer Jencks

Subject: [gebco\_folk] Review of the Crowd Source bathymetry working group draft document

Dear colleagues,

The crowdsourced bathymetry (CSB) working group (CSBWG) was tasked to provide guidance on how the IHO could encourage and promote crowdsourcing by vessels and craft whilst on passage using standard fitted equipment. The resulted document is provided attached to this email.

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Thank you for your help.

Thierry

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Thierry Schmitt - Expert en bathymétrie et produits numériques SHOM -- French HO

NEW PHONE NUMBER -- 02 56 31 21 95

----- Forwarded message -----

From: <HRSM-group@emodnet-bathymetry.eu>

To: <HRSM-group@emodnet-bathymetry.eu>

Cc:

Bcc:

Date: Thu, 27 Apr 2017 08:00:07 +0000

Subject: SV: Review of the Crowd Source bathymetry working group draft document

Hi all,

It is the Solas regulations and the IMO "Performance Standards" that is the reason to the standard use of 1500 m/s when it comes to navigational echosounders built for merchant vessels.

The standard clearly states that the echosounder shall use 1500m/s and be capable of sounding from 2m and down to 200m below the keel. Most likely this has been chosen in order to guarantee the the system rather indicates a to shallow depth than risking the opposite. In the same standard the demands of the PRF is set very low *"12 pulses per minute on the deep range and 36 pulses per minute on the shallow range."*

The standard also specifies that the system should be able to fulfil the depth detection accuracies *"when the ship is rolling + 10° and/or pitching + 5°"*, most likely leading to a transducer with an opening angle of 20 degrees or wider to keep nadir within the beam when the ship rolls 10°. These demands can be achieved by the use of a 200kHz system but when it comes to performance on greater depths, it will be hard to reach more than perhaps 300m using such large beamwidths.

Many echosounders can though be fitted with additional transducers and frequencies and then achieve much better depth performances and so on, but still by the use of a fixed 1500m/s sound velocity. The possibility to change the sound velocity is the main difference between a Navigation- and a Survey-Echosounder.

When it comes to echosounders made for pleasure boats it is normally much harder to get any information about the transducers opening angles and so on. Many such systems also use 1500m/s, but some has chosen lower velocities. I know that some echosounders has been using 1460m/s.

On page 18 in this standard you can find the IMO standards for navigational echosounders: [http://www.imo.org/en/KnowledgeCentre/IndexofIMOResolutions/Maritime-Safety-Committee-\(MSC\)/Documents/MSC.74\(69\).pdf](http://www.imo.org/en/KnowledgeCentre/IndexofIMOResolutions/Maritime-Safety-Committee-(MSC)/Documents/MSC.74(69).pdf)

Regards,

**Hans Öiås**

**Senior Expert – Hydrography**

**Swedish Maritime Administration**

**Hydrographic Office**

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**Från:** [HRSM-group-owner@emodnet-bathymetry.eu](mailto:HRSM-group-owner@emodnet-bathymetry.eu) [mailto:[HRSM-group-owner@emodnet-bathymetry.eu](mailto:HRSM-group-owner@emodnet-bathymetry.eu)] **För** Martin Jakobsson

**Skickat:** den 27 april 2017 07:58

**Till:** [HRSM-group-owner@emodnet-bathymetry.eu](mailto:HRSM-group-owner@emodnet-bathymetry.eu)

**Ämne:** Re: Review of the Crowd Source bathymetry working group draft document

Hi Martin et al.,

You raise a very important point, if the applied speed of sound applied can be recorded is a huge help for us who compile all data. Most echo sounders today have the ability to set a sound speed, and per default it use to be set to 1500 m/s which is higher than we normally measure. It is an issue when we get data where the applied sound speed is unknown. Many loggers use NMEA sentences to store the recorded data and to my knowledge it does not contain a sentence for applied sound speed. But I have not worked much with the different loggers that collect crowd source data yet, perhaps it has been accommodated to store the sound speed.

Cheers

Martin

On 4/26/2017 4:22 PM, Martin Verlaan wrote:

Hi Thierry,

I am no expert in this, but I would expect a knob on the echo sounder to tune the local speed of sound, but private ship owners will not typically carry out ctd's.

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11/1/2017

National Oceanic and Atmospheric Administration Mail - CSB corrections from GEBCO, EMODNET and SHOM

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**Martin Jakobsson**

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Head of Department

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From: Martin Jakobsson <[HRSM-group@emodnet-bathymetry.eu](mailto:HRSM-group@emodnet-bathymetry.eu)>

To: HRSM-group@emodnet-bathymetry.eu

Cc:

Bcc:

Date: Thu, 27 Apr 2017 07:57:57 +0200

Subject: Re: Review of the Crowd Source bathymetry working group draft document

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**Martin Jakobsson**

Professor of Marine Geology and Geophysics

Head of Department



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



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#### 6 attachments

-  **Deltares\_Martin\_Verlaan\_Review of the Crowd Source bathymetry working group draft document.eml**  
6K
-  **Ifremer\_Pertuisot\_Review of the Crowd Source bathymetry working group draft document.eml**  
7K
-  **SevenCs\_Fowler\_[gebco\_folk] Review of the Crowd Source bathymetry working group draft document.eml**  
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-  **SMA\_HansOias\_SV Review of the Crowd Source bathymetry working group draft document.eml**  
25K
-  **Stockholm\_U\_Martin\_Jakobsson\_Review of the Crowd Source bathymetry working group draft document.eml**  
13K
-  **CSB-Guidance\_Document-v3.10\_PM.docx**  
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