

9th Meeting of the IHO Inter-Regional Coordination Committee (IRCC9)

Paramaribo, Suriname, 12-14 June 2017

Draft New Edition 2.0.0 of the IHO Publication C-17 *Spatial Data Infrastructures "The Marine Dimension"* – Guidance for Hydrographic Offices

Submitted by:	MSDIWG Chair
Related Documents:	a) CL 58/2015 b) CL 42/2016 c) CL 59/2016 d) IHO Resolution 2/2007
Related Projects:	nil

Background:

1. The Inter-Regional Coordination Committee (IRCC) at its seventh meeting in Mexico City in June 2015 (CL 58/2015) endorsed the Work Plan of MSDIWG which included revising and extending the content of edition 1.1.0 of the IHO Publication C-17 *Spatial Data Infrastructures "The Marine Dimension" - Guidance for Hydrographic Offices*. At its eighth meeting in Abu Dhabi in May 2016 (CL 42/2016), the IRCC tasked the IHO Secretariat to circulate the draft new edition 2.0.0 of C-17 seeking comments from Member States and other stakeholders, as required by the IHO Resolution 2/2007.

New standards development:

2. The IHO Secretariat circulated the draft New Edition 2.0.0 of C-17 by CL 59/2016 and the comments received were reviewed by the MSDWG8 (31 January to 2 February 2017). The comments received and the responses from the WG are listed in the Annex.

3. The revised draft New Edition 2.0.0 of C-17 took into consideration the comments received and is now available under *Draft Publications for discussion* at:

www.iho.int → Standards & Publications → Download

4. The MSDWG seeks the endorsement of the IRCC to the draft New Edition 2.0.0 of the IHO Publication C-17 *Spatial Data Infrastructures "The Marine Dimension" - Guidance for Hydrographic Offices* and subject to this endorsement, submits the publication to the IHO Council for endorsement.

Actions Required of IRCC:

5. IRCC is invited to:

- a) **Note** the report;
- b) **Endorse** the draft New Edition 2.0.0 of the IHO Publication C-17 *Spatial Data Infrastructures "The Marine Dimension" - Guidance for Hydrographic Offices* and submit the publication to the IHO Council;
- c) **Take** any other actions as appropriate.

**MEMBER STATES' RESPONSES TO IHO CL 59/2016 AND COMMENTS FROM THE
MARINE SPATIAL DATA INFRASTRUCTURES WORKING GROUP**

Note: responses from the MSDIWT are given along the text in *italics*

COMMENTS ON CL 59/2016

BELGIUM

Thank you for the interesting document. The Flemish Hydrography has no remarks on the document.

Response from the MSDIWG Chair: I thank Belgium for the support.

CHILE

We have given close attention to the draft version of the new edition of the IHO Publication C-17, which has also been examined by the national agency in charge of SDI matters.

We acknowledge the work conducted by the MSDIWG and we consider that the new edition provides a useful guiding tool, having in mind a collaborative and integrated work and being in line with the principles set by the UN-GGIM agenda.

We consider that the content of the publication is at the level of recommendations offering a guide to manage the marine component of SDI, without the intention of imposing any mandatory regulation, as many details may fall under the exclusive national responsibilities.

Response from the MSDIWG Chair: I thank Chile for the support.

CROATIA

Please find below Croatian comments related to IHO CL 59/2016.

"Croatia welcomes the IHO (MSDIWG) efforts to create the draft new edition 2.0.0 of IHO publication C-17 *Spatial Data Infrastructures "The Marine Dimension" - Guidance for Hydrographic Offices*.

The presented draft of IHO publication C-17 is an excellent guide for national hydrographic offices to fully understand the MSDI concept and implement it along its own business processes.

Croatia has no additional comments on the draft new edition 2.0.0 of IHO publication C-17 but uses this occasion to provide brief information regarding the MSDI development in Croatia.

In Croatia, the State Geodetic Administration (SGA) is the Croatian NSDI National Contact Point in the implementation of the INSPIRE Directive. In the Register of subjects 41 NSDI subjects are reported and in the Register of spatial data sources 212 sources of spatial data are reported.

Hydrographic Institute of the Republic of Croatia (HHI) is also reported as subject in the Register of NDSI subjects and reported seven spatial data sources in the Register of spatial data sources."

Response from the MSDIWG Chair: I thank Croatia for the support and for providing the brief information about the national infrastructure.

CUBA

Cuba has no comments to the CL 59/2016 *Call for Comments on Draft New Edition 2.0.0 of IHO Publication C-17 - Spatial Data Infrastructures "The Marine Dimension" - Guidance for Hydrographic Offices*.

Response from the MSDIWG Chair: noted.

FRANCE

In response to the circular letter in reference, I have the honor to inform you that France propose to include the content of paragraph 6 "data duplication and conflict" in paragraph 7 "why is MSDI important to IHO?". In effect the lines in paragraph 6 explain why a MSDI is important to HOs.

Original in French:

En réponse à la lettre circulaire de référence, j'ai l'honneur de vous informer que la France propose d'inclure le contenu du paragraphe 6 "data duplication and conflict" dans le paragraphe 7 "why is MSDI important to IHO?". En effet, les quelques lignes du chapitre 6 expliquent en quoi MSDI est important pour les services hydrographiques.

Response from the MSDIWG Chair: I thank France for the suggestion but we consider that a separate paragraph highlights this important content.

MEXICO

Following the instructions of the General Directorate of Oceanography, Hydrography and Meteorology and referring to the Circular Letter N° 59/2016 dated 28th October 2016, concerning the Call for comments on draft new edition 2.0.0 of IHO Publication C-17 - *Spatial Data Infrastructures: "The Marine Dimension" - Guidance for Hydrographic Offices*, we inform you that, after having reviewed the publication, it was determined that it is very well structured and clear; for that reason we have neither comments nor any proposal of amendments.

Response from the MSDIWG Chair: I thank Mexico for the support.

NETHERLANDS

The Netherlands is pleased with the new version 2.0.0 of document IHO C-17. It is comprehensive and well written. We wish to compliment the MSDIWG for this achievement. There are some aspects of SDI that could be given more attention in the next version:

1. Paragraph 9.1 is essential. SDI does not just cost resources, it also provides many advantages to HOs. The most important one is missing: being part of SDI allows for easier access to spatial data sets of other parties that HOs need but not produce themselves. Not having to obtain a copy anymore is an important efficiency gain as well as an investment in the quality of the acquisition process.
2. Rightfully, there is attention for the developments within the framework of UN-GGIM. A reference to the UN-GGIM Statement of Shared Guiding Principles would be appropriate.
3. Data ingestion from third parties, such as crowd-sourced bathymetry, is, in our view, part of an SDI too. This is demonstrated by e.g. the EMODNet Data Ingestion project. The discussion on the role third party data can play for the SDI participants deserves its own Section.

I hope that the MSDI WG finds these comments helpful.

Response from the MSDIWG Chair: I thank the Netherlands for the support. The comment on the access to spatial data is indeed implicit in the actual text. A reference to the UN-GGIM Statement of Shared Guiding Principles was added. Expanding the content for third party data will be considered in a future revision.

PERU

I am pleased to address to you to greet you and, at the same time, to refer to your Circular Letter N° 59/2016 dated 28 October 2016, in which you ask for comments from Member States on Draft new Edition 2.0.0 of IHO Publication C-17 - *Spatial Data Infrastructures "The Marine Dimension"*.

To this respect, I am informing you that this Directorate has evaluated the above mentioned document, and we are in favour of the development of such a tool, outlining both the improvement of fundamentals and steps to implement a Marine Spatial Data Infrastructure (MSDI), and the roles of an Hydrographic Office (HO), for a better management of this tool in the Hydrographic Offices.

I take this opportunity to renew my personal esteem.

Response from the MSDIWG Chair: I thank Peru for the support.

SPAIN

Como contestación a la Carta Circular número 59/2016 de la OHI, tengo el placer de informarle que este Instituto Hidrográfico de la Marina está de acuerdo con el Proyecto de Nueva Edición 2.0.0 de la publicación C-17 de la OHI – Infraestructura de Datos Espaciales: "La Dimensión Marítima" - Guía para los Servicios Hidrográficos, y no tiene ningún comentario que hacer al respecto.

Response from the MSDIWG Chair: noted.

UNITED KINGDOM

With regards to the above Circular Letter, UK considers the draft of Edition 2.0.0 of C-17 to be a significant improvement upon the previous edition. It is far more comprehensive, and easier to read. We appreciate the opportunity to comment and hope that our comments attached will contribute to further improvements.

UK comments on Draft New Edition 2.0.0 of C-17

Principles:

1. Under 'IHO Policy' on page 4, the purpose of C-17 is described as 'a definitive procedural guide to establishing the role of the national hydrographic authority in MSDI'. Of the 25 pages of the main body, 15 pages are describing MSDI principles to justify reasons for needing it, with only a few pages on how to implement. Greater focus on how to establish an MSDI would be of value.
2. For SDI to be effective, emphasis must be placed on the availability and accessibility of quality geospatial data from authoritative sources. C-17 has insufficient emphasis on the importance of access to data of defined quality.

Fundamental errors:

3. Section 2 states that 'Spatial data is usually stored as coordinates and topology', but it must also include some coding or attributes to say what it is.
4. Section 3 states that 'Ship-borne survey will over time become the capture platform of last resort'. Although other platforms exist, to achieve high quality bathymetric survey there is no intention to move away from ship-borne equipment.
5. Section 8.6 incorrectly states that IALA is 'establishing the maritime digital infrastructure by developing a common data structure using S-100 ...'.

General comments:

6. The structure of sections on how to implement ('MSDI involvement') are not clear. Section 9.3 is called 'Step by step approach to MSDI involvement' but is little more than a list of 18 one-liners. There is also then section 11 called 'Steps required to be taken by HOs to make MSDI happen', with 10 steps which overlap with the previous 18.
7. Inconsistent use of SDI and MSDI which is confusing. Page 18 even refers to the marine component of an MSDI which is either tautology, or suggesting that an MSDI is more than marine information.
8. The focus on training is not specific to MSDI. Need for competence in MSDI is no different to the need for competence in any technology. The introduction of a 5th pillar is unnecessary.

Unsubstantiated comments and opinions:

Values quoted should cite references. Opinion is not appropriate in such a guide.

9. Section 3 - 'value of geospatial data has fallen by approximately 80% in the last 5 years';
10. Section 4 - '5 million potential users';
11. Section 8.3 - 'We have arrived at a tipping point heralding a new era ...'
12. Section 13 - 'no doubt that there has never been a more urgent need for a paradigm shift in how we inhabit our planet'.
13. Section 13 - 'the geospatial industry, as we know it, has reached an existential moment.'
14. Section 2.1.5 states that there is a lack of understanding of MSDI in the HO community. Although this may be true, it is not necessary to state it within such a document.
15. Section 9 implies that HOs are not good at articulating the case for MSDI. Although this may be true, it need not be stated in such a document, and in any event it could be argued that as a supplier of the data for MSDI, it is not the role of the HO to champion the need.

Added value:

16. It might be helpful to refer to the Copernicus Programme. Copernicus is the world's largest single Earth Observation (EO) programme and directed by the European Commission in partnership with the European Space Agency (ESA). It aims at achieving a global, continuous, autonomous, high quality, wide range satellite Earth Observation capacity. There is a particularly strong emphasis upon the marine domain, providing accurate, timely and easily accessible information on a mostly free Open Source basis.
More details at <http://marine.copernicus.eu/> and <http://emeroencv.copernicus.eu/>
17. Section 6 Data Duplication and Conflict - It is vital to publicize and promote which organisation is the authority for a particular dataset, and that the same data used or distributed elsewhere has proper citation.
18. Section 8.7 Emergency Planning and Response - To effectively support the disaster management community, the minimum geospatial data needed in an emergency situation needs to be identified (sometimes referred to as 'Fundamental Operational Data'). The organisations responsible for the production and provision of such datasets should consider these data a priority when developing MSDI.
19. Section 9.4 - Understanding the variety of potential users of the MSDI and their specific needs can better inform decision making regarding content, accessibility and metadata. This is particularly true of non-traditional users of HO office data (i.e. those outside the navigation community including, but not limited to, academia, research entities, humanitarian organisations, civil groups, governments). Additional consideration should be given to the accessibility of data in this context, as specialist formats used by HOs worldwide are inappropriate for other users, who are increasingly looking to improve sharing of the world's geospatial data through quality, open standards. Care must be taken that users from all backgrounds understand the data and what uses are appropriate, through proper attribution and provision of metadata

Response from the MSDI WG Chair: I thank UK for the positive words and for the comments to which I present the following considerations:

1. *The intention is surely to combine the understanding of MSDI and the means to implement it both in the main text and in the annexes. Examples are welcomed for the next revision of the publication.*
2. *Noted and I invite for more specific inputs for the next revision of the publication.*
3. *Amended to be more explicit in the preceding paragraph.*
4. *Noted and amended to be less stringent.*
5. *Noted. Paragraph amended.*
6. *Noted.*
7. *Noted and amended page 18.*
8. *Noted.*
9. *to 13. Noted. These are the views and considerations from the MSDI WG.*
14. *The WG considered that it is important to highlight the lack of understanding in some HOs.*
15. *This publication is about helping HOs to place themselves beyond data suppliers.*
16. *Noted.*
17. *Noted. Authoritative data is covered elsewhere.*
18. *Noted.*

*19. Noted. Section 9.4 amended accordingly.
As a general comment, I invite UK to engage actively in the next revision of this publication.*