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**DQWG Letter : 02/2017**

Date 05 July 2017

Dear Colleagues

**Subject: DQWG Action 11/18 Update roadmap of DQWG**

At DQWG meeting 12, an ongoing action point was identified: to update the roadmap of DQ in S-10x.

The minutes of the meeting Annex C provides a list of decisions and actions arising from DQWG12. Based on this list, the assumption that the new TORs will be adopted by the HSSC, I have drawn a roadmap for the remaining of the year 2017 and 2018. You will find this roadmap provided as Annex A to this Letter.

I would kindly ask you, at your earliest convenience, to review this agenda and provide feedback and suggestions. Please return your comments no later than 08 Sep 2017.

Thank you

Rogier Broekman

Chair DQWG

ANNEX A: DQWG Roadmap 2017-2018

This paper addresses the roadmap for the Data Quality Working Group for the period 2017-2018.

The Mission of the IHO is to create a global environment in which States provide adequate and timely hydrographic data, products and services and ensure their widest possible use.

Data quality and communication of data quality is a pre-condition to ensure the widest possible use.

The Data Quality Working Group (DQWG) is part of the Working Groups (WGs) residing under the IHO Hydrographic Services and Standards Committee. (HSSC). The objective of the HSSC is to

promote and coordinate the development of standards, specifications and guidelines for official products and services to meet the requirements of mariners and other users of hydrographic information. (ref Terms of Reference).

The DQWG has proposed new TORs to HSSC. The objective of the DQWG is to ensure that the data quality aspects are addressed in an appropriate and harmonized way for all S-100 based product specifications.

The table below lists the present WGs under HSSC and their objectives:

|  |  |  |
| --- | --- | --- |
| Working Group | Abbreviation | Objectives |
| S-100 | S-100WG | Maintain, develop and extend S-100 – Universal Hydrographic Data Model; |
| Maintain, develop and extend S-99 – Operational Procedures for the Organization and Management of the S-100 Geospatial Information Registry. |
| Supervise the management and development of the  S-100 Geospatial Information Registry. |
| Advise and support the development and maintenance of S-100 based product specifications in liaison with the relevant IHO bodies and non-IHO entities. |
| Monitor the development of other relevant international standards. |
| ENC Standards and Maintenance | ENCWG | To maintain IHO standards which apply to ENC production and display: |
| S-52 – Specifications for Chart Content and Display Aspects of ECIS. |
| S-57 – IHO Transfer Standard for Digital Hydrographic Data (including its components). |
| S-58 – Recommended ENC Validation Checks. |
| S-62 – List of Data Producer Codes. |
| S-64 – IHO Test Data Sets for ECDIS. |
| S-65 – ENC: Production, Maintenance and Distribution Guidance. |
| S-66 – Facts about Electronic Charts and Carriage Requirements. |
| Nautical Cartography | NCWG | To provide expert and authoritative advice and guidance to relevant IHO bodies and non-IHO entities on the concepts of nautical cartography, including: |
| Its application to nautical charts existing in any physical or digital form. |
| The development of specifications for symbolization of any data required to be displayed on nautical charts. |
| The integration of the nautical chart and other cartographic products for e-Navigation. This includes resolving portrayal issues related to the simultaneous display of a nautical chart in combination with navigational information and non-navigational information within an integrated navigation system. |
| Nautical Information Provision | NIPWG | To develop and maintain guidance, resolutions and specifications in order to provide shipboard users the necessary and up-to-date information in a timely manner to allow for the planning of a safe route for the intended voyage and the safeguarding of the ship’s navigation throughout the voyage. |
| Data Quality | DQWG | To ensure that the data quality aspects are addressed in an appropriate and harmonized way for all S-100 based product specifications. |
| Tides, Water Level and Currents | TWCWG | To provide technical advice and coordination on matters related to tides, water levels,  currents and vertical datum, including integrated water level/current data models. |
| To support the development and maintenance of related specifications in liaison with the relevant IHO bodies and non-IHO entities. |
| To develop and maintain the IHO publications for which the WG is responsible. |
| Hydrographic Dictionary | HDWG | Review and update the different volumes (English, French, and Spanish) of the Hydrographic Dictionary on a continuous basis. |
| Liaise with other IHO bodies developing publications containing glossaries to ensure consistency. |
| Liaise with bodies of other organizations developing dictionaries and/or glossaries. |
| Advisory Board on the Law of the Sea | ABLOS | Provide advice, guidance and, where applicable, offer expert interpretation of the hydrographic, geodetic and marine geo-scientific aspects of the Law of the Sea to the parent Organizations, their Member States or to other organizations on request. |
| Review State practice and jurisprudence on Law of the Sea matters which are relevant to the work of the Board so as to be in a position to Provide expert advice when needed. |
| Study, promote and encourage the development of appropriate techniques in the application of the technical provisions contained within the UN Convention on the Law of the Sea. |
| Issue, review and update ABLOS publications as necessary and to review the relevant IHO Special Publications. |

DQWG has a relationship to all other WGs except from HDWG and ABLOS. The strongest relation is with S-100WG. The S-100 Master plan (edition 1.0.0 June 2015) describes the S10x data product specifications based on the S-100 Model:

|  |  |
| --- | --- |
| Main | Specifies what is need to build a complete product: |
| Feature types |
| Geometry |
| Data formats and file size |
| Metadata |
| Feature Catalogue | Features |
| Attributes |
| Enumerates |
| Bindings |
| Point, Curve or Surface |
| Portrayal Catalogue | Symbols, Line Styles and Area Fills |
| Rule for how the feature attribute combination must be portrayed |
| Data Classification and Encoding Guide | Contains the guidance for how the data should be encoded by the data producer |
| Useful as a template for building the feature catalogue |
| Exchange Format | Data format that is used for data exchange: |
| ISO 8211 – normally used for ECDIS |
| GML – good for exchanging information outside of the ECDIS arena |
| XML – text based data exchange for both ECDIS and non-ECDIS |

S-100 based product specifications are:

|  |  |  |
| --- | --- | --- |
| No | Title | Edition (05 July 2017) |
| S-101 | Electronic Navigational Chart | Draft Product Specification (Ed 0.0.2 – Jan 2016) |
| Data Capture and Encoding Guide Working Documents (Ed. 0.0.2 Clean – March 2017) |
| Feature Catalogue (Ed. 0.9.0 – March 2017) |
| S-102 | Bathymetric Surface | Ed 1.0.0 (April 2012) |
| S-103 | Sub-surface Navigation | Planned |
| S-104 | Tidal Information for Surface Navigation | Under Development |
| S-111 | Surface Currents | Surface Current Product Specification Proposed S-111 – Draft 1.0 – March 2014) |
| S-112 | Dynamic Water Level Data | Meteorological and Hydrographic AIS Application-Specific Message Dynamic Water Level Data Product Specification (draft 0.0.0 November 2014) |
| S-121 | Maritime Limits and Boundaries | Under Development |
| S-122 | Marine Protected Areas | MPA Draft Product Specification (version x.x.x. dated 28 June 2015) |
| S-123 | Radio Services | Under Development |
| S-124 | Navigational Warnings | Under Development |
| S-125 | Navigational Services | Under Development |
| S-126 | Physical Environment | Under Development |
| S-127 | Traffic Management | Under Development |
| S-128 | Catalogues of Nautical Products | Planned |
| S-129 | Under Keel Clearance | Draft S-129 product specification v0.1 (March 2017) |
| S-1xx | Marine Services | Planned |
| S-1xx | Digital Mariner Routeing Guide | Planned |
| S-1xx | Harbour Infrastructure | Planned |
| S-1xx | Social/Political | Planned |

Under Keel Clearance and DQ have a close relationship as both deal with uncertainty and risk. Liaison between the two WGs should be promoted.

Calendar of IHO WGs:

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| WG | Month (2017) | | | | | | | | | | | | Month (2018) | | | | | | | | | | | |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 1  0 | 1  1 | 1  2 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 1  0 | 1  1 | 1  2 |
| S-100 |  |  |  |  |  |  |  |  | X |  |  |  |  |  |  | X |  |  |  |  |  |  |  |  |
| ENC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X |  |  |  |  |  |  |  |  |
| NC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X |  |  |  |  |
| NIP |  |  |  |  |  |  |  |  |  |  |  |  |  | X |  |  |  |  |  |  |  |  |  |  |
| DQ |  |  |  |  |  |  |  |  |  |  |  |  | X |  |  |  |  |  |  |  |  |  |  |  |
| TWC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X |  |  |  |  |  |  |  |  |
| HD |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ABLOS |  |  |  |  |  |  |  |  |  | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| HSSC |  |  |  |  |  |  |  |  |  |  | X |  |  |  |  |  | X |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| S101PT |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X |  |  |  |  |  |  |  |  |
| S121PT |  |  |  |  |  |  |  |  |  |  |  | X |  |  |  |  |  |  |  |  |  |  |  |  |
| S129PT |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Based on the above the Roadmap of DQWG is:

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| --- | --- | --- |
| Year | Period | Deliverable |
| 2017 | Q3 | DQWG Action 12/04, 12/05, 12/07, 12/08, 12/09,12/10, 12/11, 12/12, 12/15, 12/16, 12/17 |
| Q4 | DQWG Action 12/06, 12/14, 12/18 |
| Review S-101 Data Capture and Encoding Guide Working Documents (Ed. 0.0.2 Clean – March 2017) |
| Investigate and advise on possible legal aspects of data quality in product specifications, review “JRC Technical Reports, Data Quality in Inspire: Balancing Legal Obligations with Technical Aspects” |
| 2018 | Q1 | Liaise with S-102, S-111, S-112, S-122, S-129 to identify quality needs |
| Provide WG and PT a checklist aiming to develop, when appropriate, data quality components within product specifications |
| Q2 | Advise on the ways ECDIS displays data quality information of product specifications |
| Q3 | Provide guidance on data quality aspects to hydrographic offices, in particular to ensure harmonized implementation |
| Q4 | Provide data quality educational material for the use of mariners; S-67 publication |

Document history:

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| --- | --- | --- |
| **Date** | **Version** | **Remarks** |
| 05 July 2017 | Initial draft | None |
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