

**2nd IHO-HSSC Meeting
Rostock, Germany, 26-29 October 2010**

Report of the Data Quality Working Group (DQWG)

Submitted by:	Chairman, DQWG
Related Documents:	N/A
Related Projects:	None

Chair:	Chris Howlett (UK)
Vice-chair:	Vacant
Secretary:	Michel Huet (IHB)
Member States:	Brazil, Canada, Denmark, Ecuador, Finland, France, Indonesia, Italy, Japan, Korea (Rep of), Netherlands, Slovenia, Sweden, United Kingdom, USA
Expert Contributor Organisations:	CARIS BV, Fugro-Pelagos, Jeppesen, US Merchant Marine Academy, University of New Hampshire, Warsash Maritime College

Meetings Held During Reporting Period

None

Next Meeting

5 November 2010 Rostock, Germany

Work Program

CL17/2010 was issued by the IHB asking Member States to identify which quality indicators they routinely populate in their ENC's. 30 nations replied.

An MSc student has started work on DQWG issues and will complete his dissertation by September 2011.

A CL asking Member States to identify what criteria they use to populate CATZOCs has been prepared and sent to the IHB for distribution.

A paper on DQWG matters will be presented at the Hydro2010 conference being held in Rostock November 2-4 2010.

The 3rd meeting of the DQWG will take place at BSH in Rostock on Friday 5 November 2010 during which the results of the two CLs and any feedback from the paper presented at Hydro2010 will be discussed. A work plan for the following year will also be decided upon.

Over the coming year it is intended to:

- Use the results of the two CLs to recommend a standard for the population of CATZOC from legacy data.
- engage with mariners to develop a meaningful method of display for data uncertainty.
- Identify the constituent variables necessary to define a meaningful uncertainty value for charted depths (for both modern and legacy data). This includes a discussion on

whether it is possible and or necessary to consider the dynamic nature of the seabed type in these calculations.

- With the help of industry develop data quality visualisation prototypes with ECDIS and fully attributed ENCs.
- Determine if any new data quality attributes are required for inclusion in S-101.
- Liaise with other IHO WGs to determine the overlap, especially the TWLWG relating to dynamic tides.

Progress on HSSC Action Items

HSSC1/26. Sweden has prepared a report to be given at HSSC-2.

Problems Encountered

The DQWG is looking at devising a new way of presenting a complex problem. To do this piece meal is very hard and only slow progress has been made as a result. Next year the MSc student will be writing his dissertation and with the 3rd meeting being held at Rostock in November it is hoped that new ideas will be generated which will allow the WG to progress.

Any Other Items of Note

None

Conclusions and Recommended Actions

The WG has only made slow progress over the last year but this progress has allowed some of the thinking to solidify forming a firmer base for future advances. With the 3rd meeting being held in November and the MSc student spending more time on the problem greater advances are expected next year.

Action Required of HSSC

The HSSC is invited to:

- a. note this report
- b. endorse the work program at Annex A

Annex A

DQWG Proposed Work Plan

DQWG Tasks

A Review ISO 19113, Geographic Information-Quality Principles, ISO 19114, Geographic Information-Quality Evaluation Procedures, and ISO 19115, Geographic Information - Metadata and propose relevant enhancements and amendments for incorporation in S-100.

B Monitor and further develop quality indicators for hydrographic data.

C Review and revise as needed existing S-57 quality indicators, including the education of both the mariner and the cartographer, and the development of documentation.

D Review and revise as needed the presentation of data quality, as provided in S-52 and its Presentation Library.

E Investigate ways of ensuring that ECDIS displays provide a clear warning or indication to the mariner on the quality of the underlying survey data, through appropriate use of the attribute CATZOC and/or improvement of the existing display capabilities.

F Propose new data quality topics and other applications for consideration by HSSC.

Task	Work Item	Priority H-high M-medium L-low	Next Milestone	Start Date	End Date	Status P-planned O-ongoing C-completed	Contact Person(s)	Affected Pubs/ Standards	Remarks
A	Review ISO documentation	L		2010	-	P	DQWG	S-100	Not yet started. Will start once resource become available.
B.1	Review what quality indicators are routinely populated in ENC's by HOs	H	Questionnaire published to HOs	2009	2010	C	DQWG	-	Obtain base line of what attributes are captured and why others are not Completed CL17/2010.
B.2	Review how CATZOCs are populated by HOs for legacy data	H	Questionnaire published to HOs	2009	2010	C	DQWG	-	Obtain base line of what criteria for historic and current surveys result in what CATZOC allocation Draft sent to IHB August 2010.
C.1	Revise CATZOC definitions	H		2008	2009	C	DQWG	S-57	Completed CL32/2009
C.2	Review Resolution B1.2 of M-3	H		2009	2009	C	DQWG	M-3	Completed CL43/2009
D.1	Identify mariners perception of quality and quality indicators	H		2010	2011	P	DQWG	-	Questionnaire to understand mariners perception of data quality and how they react to it. Suitable mariners being investigated. Draft to be prepared over next few months.
E.1	Investigate ways to portray data quality to the mariner	H	Requires B.1, B.2 and D.1 to be complete	2010	2011	O	DQWG	-	Possible subject for MSc thesis. MSc student has adopted this as his thesis.
E.2	Demonstrate methods to mariners	H	Follows from E.1	2010	2012	P	DQWG	S-57, S-100	Build possible methods into ENC and ECDIS to demonstrate effectiveness
F.1	Investigate areas of quality concern (other than survey / bathymetry)	M		2010	-	P	DQWG	-	Investigate the merit of supplying quality attributes to other elements of ENC and other publications e.g. sailing directions. Paper being presented to HSSC by Sweden.

Annex B List of Members

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