

1st IHO-HSSC Meeting
The Regent Hotel, Singapore, 22-24 October 2009

Report of the Data Quality Working Group

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

Chair:	Chris Howlett (UK)
Vice-Chair:	Vacant
Secretary:	Vacant
Member States:	Brazil, Denmark, Ecuador, Finland, France, Indonesia, Japan, Netherlands, Sweden, UK, USA
Expert Contributor Organisations:	CARIS BV, Fugro-Pelagos, Jeppesen, US Merchant Marine Academy, University of New Hampshire, Warsash Maritime College
See Annex A for full details	

Meetings Held During Reporting Period

10 – 11 May 2009 Norfolk, Virginia

Next Meeting

None planned

Work Program

See proposed work program at Annex B.

- Develop an understanding of how data quality is used among member states.
- Develop a questionnaire on what mariners would expect of data quality.
- Develop system for denoting data quality.
- Develop demo systems.
- Demonstrate the system to users and refine as necessary.

Progress on HSSC Action Items

Action CHRIS20/25: The review and modification of CATZOC definitions was concluded and the revised definitions, to bring CATZOC values into line with S-44 orders of survey and to remove the term 'all' from the definitions of CATZOC A1 and A2 were subsequently promulgated by CL32/2009 and have been accepted.

Action CHRIS20/32: Prior to the 2nd DQWG meeting, held in Norfolk, Virginia 10-11 May the HSSC asked the DQWG to review Resolution B1.2 of M-3. This was done at the meeting and the recommendation was subsequently made that the entire resolution be deleted from M-3, on the grounds that this matter was now fully covered by S-44. This recommendation was promulgated to Member States via CL43/2009 and has now been accepted.

Problems Encountered

The fundamental problem of the DQWG is to define a better way of depicting the quality of the underlying data that has been compiled into the chart or ENC to the mariner. This is very much a conceptual problem that requires a dedication of thought that is hard for volunteers from member states and industry to support. Because of the requirement for participants to immerse themselves in

this type of conceptual study and the fact that existing members can do little more than 'dip in and out' during breaks from their day to day work progress has been and will continue to be slow.

One way of speeding up the work in this area would be to get this study undertaken by a graduate student as an MSc thesis. The chair is pursuing this with a student about to start an MSc in Hydrography at Plymouth University.

Once the general concept of how to portray quality to the mariner has been decided upon the member states and expert contributors can focus on implementing the idea into existing standards, software and products – tasks much more suited to the part time nature of WG activities.

Any Other Items of Note

None

Conclusions and Recommended Actions

Adopt the DQWG Work Plan contained in Annex B.

Justification and Impacts

None

Action Required of HSSC

The HSSC is invited to note this report and endorse the Work Plan.

HSSC participants are invited to consider their level of resource provision to the work of DQWG with a view to increasing their active contribution in order to advance the Work Plan.

Annex A

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Annex B

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/Standard	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	P	DQWG	-	Obtain base line of what attributes are captures and why others are not.
B.2	Review how CATZOCs are populated by HOs	H	Questionnaire published to HOs	2009	2010	P	DQWG	-	Obtain base line of what criteria for historic and current surveys result in what CATZOC allocation.
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	M		2010	2010	P	DQWG	-	Questionnaire to understand mariners perception of data quality and how they react to it
E.1	Investigate ways to portray data quality to the mariner	M	Requires B.1, B.2 and D.1 to be complete	2010	2011	P	DQWG	-	Possible subject for MSc thesis.
E.2	Demonstrate methods to mariners	M	Follows from E.1	2011	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)	L		2010	-	P	DQWG	-	Investigate the merit of supplying quality attributes to other elements of ENC and other publications e.g. Sailing Directions etc.