DQWG4-05A Analysis of Responses to IHO DQWG CL59/2010

May 2011 - Sam Harper UKHO

List of Tables

List of Figures

Annexure

A IHO CL59/2010
B Tabulated responses
C Individual responses to IHO CL59/2010

1.0 Introduction

This document serves as a report to the DQWG detailing the analysis of the responses to IHO CL59/2010.

In order for the DQWG to develop improved methods of displaying data quality in ENCs that will be embraced by ENC producers, the nature of how legacy data is assessed for quality must be considered. This is because any modification of the current methods or introduction of new systems potentially represents a significant investment of resources. It is also an aspiration of the DQWG that the mariner is presented with a consistent method of determining the underlying quality of the data in navigational products.

CL59/2010, was sent to all ENC producing IHO member states and included a reporting form designed to ascertain by what criteria CATZOC is being designated for legacy data by ENC producing National Hydrographic Offices.

2.0 Timeline

Table 1 shows the timeline of CL59/2010

Table 1 Timeline of CL597/2010

Date	Action
08/2010	Draft CL sent to members of DQWG

09/2010	CL59/2010 sent to ENC producing member states by IHO
10/2010	Responses received by DQWG Chairman (CH)

3.0 Aims and Structure of CL59/2010

The principle aim of CL59/2010 was to establish what criteria ENC producing Hydrographic Offices are using designate CATZOC for legacy data.

The reporting form attached to CL 59/2010 consisted of a table containing the various allowed CATZOC values, a field where a typical acquisition method could be detailed, and a space for additional comments. Respondents were given a completed example table from the UKHO.

CL59/2010 can be found at Annex A.

4.0 Results and Conclusions

The replies from CL59/2010 were qualitative in nature and have been compiled into an excel spreadsheet with each countries criteria for assessing their legacy data added verbatim. The main themes arising from this study are discussed below. The tabulated results can be found at Annex B.

Twenty five ENC producing countries responded to CL59/2010. Figure 1 shows the percentages of the responding countries that either; assess and populate CATZOC for their legacy data (84%), are in the process of developing a methodology for assessing and populating CATZOC for legacy data (12%), or do not currently assess and populate CATZOC for their legacy data (4%). N.B. One country is equivalent to 4%.

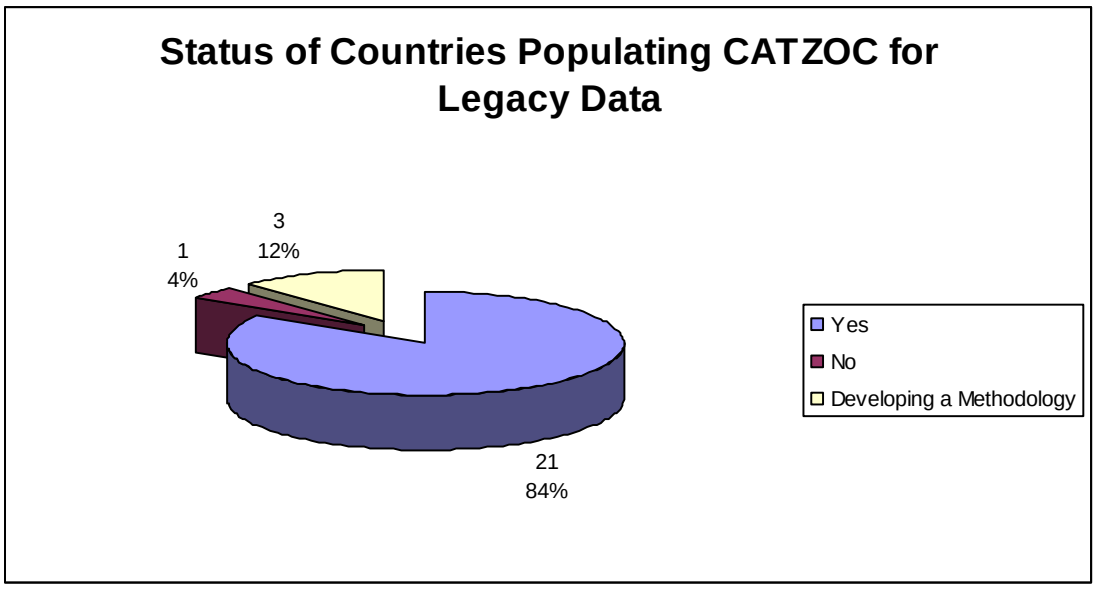

Figure 1 Percentages of countries assessing and populating CATZOC for legacy data

CATZOC A1 and A2 are rarely used by countries in the classification of legacy data. Where they are used the criteria for doing so is fairly consistent. Generally respondents use S-44 as a guide for classifying surveys as A1 or A2. However it is worth noting that some countries map S-44 Special order to CATZOC A1, and 1a to A2, whilst others combine S-44 Special Order and 1a into CATZOC A1.

Three countries apply a blanket classification of CATZOC B to their legacy data, and either have a programme of updating the classification, or do so as new surveys are conducted or new editions are published. One reason quoted for this approach was that CATZOC does not represent the temporal degradation of data quality due to dynamic seabed topography. As a result CATZOC is populated with a maximum of B in all areas other than those with routine resurvey programmes.

CATZOC C is considered by some to be too wide – Australia subdivide the category into C- and C+ in order to reflect the vast difference in the quality of the data. At present it is felt that an old survey that was done to the best standard attainable at the time should not be given the same classification as soundings derived from passage data.

Canada currently populate CATZOC with U for all legacy data. The US, Tunisia and Japan indicated that they are in the process of developing criteria for populating CATZOC for legacy data. The implication therefore is that as most of the countries canvassed have already begun the extensive task of assessing their legacy data, and any new requirements placed upon them by the DQWG may not be welcomed.

Amongst the countries populating CATZOC, many split the surveys so that different values can be assigned for different parts of the survey.

The results from the study show that there is a lack of consistency in the population of CATZOC for legacy data, which poses a serious problem for the mariner.

5.0 Recommendations

DQWG are requested to consider the following points when developing new methods of representing data quality to the mariner:

- At present there is a lack of consistency in the way CATZOC is populated for legacy data. The DQWG should therefore explore whether developing standard guidelines for the classification of legacy data would address this problem.
- The DQWG should take into account the effort that some ENC producers have put into populating CATZOC, and seek to limit

the amount of reassessment that any new data quality method will require.

- The DQWG should consider the comments made by Australia with regard to the broad nature of CATZOC C, and ensure that any new method developed does not contain such ambiguities.
- Any new method of representing data quality should take into account the temporal degradation quality due to dynamic seabed topography.