INTERNATIONAL HYDROGRAPHIC ORGANIZATION

ORGANISATION HYDROGRAPHIQUE INTERNATIONALE

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REQUIREMENT TO PROVIDE MEANINGFUL CATZOC INFORMATION IN ENCs

References:

A. IHO CL 41/2009 dated 17 June 2009 - *86th session of the IMO Maritime Safety Committee*;

B. IHO CL 8/2017 dated 25 January - *Outcome of the eighth meeting of the Hydrographic Services and Standards Committee (HSSC)*;

C. IRCC9-09A - *Input from HSSC 8*;

D. IHO Publication S-57 - Appendix B.1 - Annex A - *Use of the Object Catalogue for ENC - Edition 4.0.0, June 2014*;

E. IHO Publication S-4 - *Regulations of the IHO for International (INT) Charts and Chart Specifications of the IHO, Edition 4.7.0, July 2017.*

F. Minutes (draft) of the 12th meeting of the Data Quality Working Group.

G. Joint RENC Letter (IC-ENC & PRIMAR) dated 5 July 2017 - *Proposed Joint RENC policy on IHO Secretariat's use of ENC CATZOC file analysis.*

Dear Hydrographer,

1. As reported in Reference A, the Maritime Safety Committee of the International Maritime Organization (IMO) adopted in 2009 a number of amendments to the International Convention for the Safety of Life at Sea (SOLAS) that entered into force on 1 July 2011. Amendments to Regulation 19 of Chapter V (Safety of Navigation), require that new and existing vessels must be fitted with Electronic Chart Display and Information Systems (ECDIS) according to a rolling timetable. The final class of vessels will be required to comply with this requirement not later than the first survey on or after 1 July 2018.

2. As the end of the rolling timetable approaches, many SOLAS vessels have chosen to sail completely paperless using only ENCs and ECDIS as the primary reference for safe navigation. The advantages of using digital charts over paper are undisputed, however these advantages are eroded if the data within the ENC does not match or exceed the information included on the corresponding paper charts.

3. At its 8th meeting in November 2016 (see Reference B), the IHO Hydrographic Services and Standards Committee (HSSC) noted that a major source of discontent from mariners in relation with ENC quality indicators was caused by the fact that many Hydrographic Offices (HOs) were not populating meaningful CATZOC (Category of Zone of Confidence) values in their ENCs. As agreed

by the HSSC (action HSSC8/34), the issue was reported to the 9th meeting of the Inter-Regional Coordination Committee in June 2017 (Reference C).

4. The encoding of the ENC object class M_QUAL for depth areas with a CATZOC value 6: zone of confidence "U" (data not assessed), whilst allowable in S-57, gives no information for the mariner to allow for a informed assessment of Under Keel Clearance (UKC). Without a qualitative CATZOC value, mariners are then forced to adopt a worst case scenario when determining their UKC margins, and this is resulting in some ports being indicated unnecessarily as out of bounds for their vessels.

5. It has recently been brought to the attention of the ENC Standards Maintenance Working Group (ENCWG) that Port State Control officers and vetting inspectors are increasingly requiring evidence that navigators have taken the value of CATZOC into account when planning routes. This obviously cannot be achieved if there is insufficient bathymetric data quality information contained within the ENC. In many cases when the CATZOC value encoded within the ENC is "U", the source diagram on the corresponding paper chart from the same charting authority will carry more information. This has a cost implication for the shipping industry with many companies being forced to buy the equivalent paper chart to stop a vessel either being detained or served with a deficiency when inspected.

6. It is therefore of paramount importance that all HOs review their current ENC production processes and make changes where necessary to encode values of CATZOC for ENCs in accordance with the guidance at Reference D.

7. Noting that clause B-292.2 of Reference E indicates that charts of scale 1:500 000 and larger should be considered for source diagrams, it follows that the review of ENCs recommended in paragraph 6 should take in to account those ENCs compiled at a compilation scale of 1:500 000 or larger.

8. In addition, it should be noted that at its 12th meeting in June 2017, the Data Quality Working Group (DQWG) agreed to prepare a proposal to be submitted at the 9th meeting of the HSSC to invite ENC Producers to share their best practices and national guidance, if any, on the way CATZOC values are populated (See Reference F, Action DQWG12/09). This action aims in particular to harmonize the population of CATZOC values as far as possible, so as to ensure a smooth future conversion of S-57 ENCs to S-101 ENCs in a consistent manner across all ENC Producers.

9. Finally, the attention of Member States is drawn to the proposal made in the Joint RENC letter at Reference G through which the IHO Secretariat suggests that CATZOC composite reports be provided to the conferences and meetings of the Regional Hydrographic Commissions (or their International Charting Coordination Working Groups), on a case-by-case basis, to assess and monitor the status of CATZOC information available to end-users, and to support risk assessment analysis.

Yours sincerely,

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Secretary-General