

Reference: IHB Circular Letter 52/2000 dated 14 December 2000

### **S-57 – FUTURE DEVELOPMENTS AND CURRENT STATUS**

Dear Sir,

S-57 is the IHO standard for the exchange of digital hydrographic data and its current edition is Edition 3.1. To date, it has been used almost exclusively for encoding Electronic Navigational Charts (ENCs). However, S-57 is intended to support all types of hydrographic data. In order to meet this requirement, S-57 needs expanding to include additional data types such as bathymetric and matrix data. This is the task of the S-57 Edition 4 sub-Working Group, which is a sub-group of the Transfer Standard Maintenance and Applications Development Working Group (TSMAD). TSMAD is a Working Group of the IHO Committee on Hydrographic Requirements for Information Systems (CHRIS), which is tasked with maintaining and developing S-57.

The Edition 4 sub-Working Group will base its results to the greatest extent possible on the geospatial data standards produced by, or under development by, the International Standards Organization Technical Committee 211 (ISO TC211). This will maximise the probability that data conforming to Edition 4 will be able to be created, read and manipulated by Commercial-off-the-Shelf (COTS) software. During the development of Edition 4 there will be maximum liaison between the sub-Working Group and all other interested parties (equipment manufacturers, maritime administrations, type approval organisations, mariners' representatives, product distributors, etc). The current target date for completing the work is 2004. For further details on this activity please see the IHO website "S-57 Edition 4.0 Development" page <http://www.iho.shom.fr>.

It is recognized that, for the foreseeable future, the majority of hydrographic offices, equipment manufacturers and mariners may wish to continue to use ENCs conforming to S-57 Edition 3.1. It is therefore proposed that, even after Edition 4.0 is published, Edition 3.1 will remain valid for as long as required, for the benefit of those who wish to continue to produce and use ENCs conforming to Edition 3.1. However, it is not considered practical to have three editions of S-57 supported and available at one time. Accordingly, it is proposed that support for S-57 Edition 3.0 will cease from December 2004. All ENC producers are, therefore, encouraged to move to S-57 Edition 3.1 as soon as possible. If any Member State foresees difficulties in meeting the proposed deadline, please advise the IHB as soon as possible.

At the same time as commencing work on the development of S-57 Edition 4.0, the IHO CHRIS Committee decided to freeze all portions of S-57 Edition 3.1. This decision has had the following consequences:

- a. S-57 Appendix B1 Annex A “Use of the Object Catalogue for ENC” will no longer be updated by new editions following TSMAD meetings. The last version of this document, which is available on the IHO website, is therefore Edition 2.1.
- b. S-57 Appendix A Annex A “IHO Codes for Producing Agencies” and S-57 Appendix B1 Annex C “Recommended ENC Validation Checks” may both be subject to future change, either because new producer codes are required, or because new validation checks have been identified. These two documents have therefore been removed from S-57 Edition 3.1 and re-published as stand-alone documents, IHO Publications S-62 Edition 1.0 and S-58 Edition 1.0, respectively. Both documents are available on the IHO Web site and maintained by TSMAD.

The frozen version of S-57 Edition 3.1 therefore comprises:

- An Explanatory Booklet – *Revised edition, October 2002.*
- S-57 Main Document (Part 1, Part 2, Part 3, Annexes A & B.) - *Edition 3.1, November 2000.*
- Appendix A (Object Classes and Attributes) - *Edition 3.1, November 2000.*
- Appendix A - Annex B (Attributes/Object Classes Cross Reference) - *Edition 3.1, November 2000.*
- Appendix B1 (ENC Product Specification) - *Edition 2.0, November 2000.*
- Appendix B1 - Annex A (Use of the Object Catalogue for ENC) - *Edition 2.1, April 2002.*
- Appendix B1 - Annex B (CRC Coding) - *Edition 1.0, November 1996.*
- Appendix B1 - Annex D (INT1/S-57 Cross Reference) - *Edition 1.0, November 2000.*
- Appendix B2 (Object Catalogue Data Dictionary Product Specification) - *Edition 2.0, November 2000.*

Changes to the current edition of S-57 have so far been reflected in a Cumulative Maintenance Document (MD), of which new versions were produced following TSMAD meetings. At the December 2001 meeting of TSMAD, it was decided that the new Maintenance Document issued following that meeting (MD No.8) would be the last one issued for S-57 Editions 3.0 and 3.1. Cumulative MD No. 8, dated March 2002, including clarifications which apply to S-57 Editions 3.0 and 3.1, is available from the IHO website.

## ENCs

Producers of ENCs **must** encode them in accordance with the ENC Product Specification, including its annexes, and with the clarifications from MD No.8. It is strongly recommended that, as a minimum, such producers also use the various ENC quality assurance software packages, which incorporate the Recommended ENC Validation Checks (Publication S-58).

TSMAD is also developing a Frequently Asked Questions (FAQ) section and an ENC Encoding Bulletins section on the IHO website, specifically for ENC encoding issues. IHO Member States are encouraged to advise their ENC encoding staff and other contacts about these new sections. It is expected that these will be available early in 2003.

On behalf of the Directing Committee  
Yours sincerely,

*(original signed)*

Rear Admiral Kenneth BARBOR  
Director