

11th CHRIS MEETING
IHB, Monaco, 16-19 November 1999

IHO WORKSHOP ON ENC UPDATING
Mobile, Alabama, USA, 3-4 May 1999

SUMMARY

There were approximately 50 attendees at this workshop which took place at the Adam's Mark Hotel, Mobile, USA, and which was organized by the IHB with kind assistance from the US National Ocean Service. The Workshop, chaired by Rear Admiral Neil GUY, IHB Director, aimed at:

1. identifying any problems arising from the implementation of IHO specifications related to updating the Electronic Navigational Chart (ENC), as contained in the 1996 released IHO publications S-57 (Edition 3.0) and S-52 Appendix 1 (3rd Edition), and
2. agreeing on procedures for the timely dissemination of ENC updates, further addressing issues like pricing, encryption, legal status and harmonisation with paper charts.

The participants in the Workshop represented 16 IHO Member States, the European RENC (PRIMAR), the IHB, 10 commercial companies and one Non-Member State. Dr. Lee ALEXANDER (P and H Marine Associates, USA) served as Rapporteur for the Meeting.

As an introduction to the Workshop, the following presentations were made by representatives from commercial companies and Hydrographic Offices, on their experience on electronic chart updating:

- *ENC Updating in the Context of Regular IHO Hydrographic Activity*, by Mr. Andrey SABAJDASH, Morintech, Russia (sab@morintech.spb.su);
- *DNC Database and VPF Database Update (VDU)*, by Cdr. Mike O'LOUGHLIN, NIMA-USA (OloughlM@nima.mil);
- *ASPO Systems' Experience with ENC Updates: Feedback*, by Hannu PEIPONEN, ASPO Systems Oy, Finland (Hpeiponen@asposys.fi);
- *Technical Issues in Supporting Incremental Update Generation for ENC*, by Mr. Peter WOODSFORD, Laser-Scan, Cambridge, UK (peterw@lsl.co.uk);
- *PRIMAR – Official ENC Service*, by Mr. Robert SANDVIK, PRIMAR, Stavanger, Norway (Robert.Sandvik@primar.org);
- *Temporary and Preliminary Notice to Mariners and the ENC*, by Mr. Barrie GREENSLADE, UK HO, Taunton, UK (enc@enc.hydro.gov.uk);

- *Canadian S-57 Updating Experience*, by Mr. Joel BOX, NDI, St. John's, Newfoundland, Canada (jbox@ndi.nf.ca);
- *Experience and Some Comments on ENC Updating*, by Mr. Andrey VOROBIEV, Transas Marine, St. Petersburg, Russia (Andrey.Vorobiev@transas.com);
 - *ENC Updating with Hydrographic Object Manager NT*, by Mr. Mike GOURLEY, Universal Systems Ltd., Fredericton, NB, Canada (gourley@universal.ca).

Copies of these presentations may be obtained from their authors. The workshop was then divided up into three smaller working groups to consider specific aspects of production, dissemination and implementation of ENC updates.

Issues dealing with production of ENC updates included:

- Production and quality control of update messages, and consistency of dataset - contents;
- New updating requirements arising from HOs producing ENC's from source data as opposed to paper charts;
- Errors in ER (ECDIS Revision) data; and
- Display of updates by the mariner.

Issues concerning the dissemination of ENC updates included:

- Encryption mechanism for update messages and its impact on data corruption and piracy;
- Type of update service which Hydrographic Offices intend to provide, including packaging and distribution media options;
- Mechanism of charging customers; Co-ordination of ENC Updates and Notices to Mariners; and
- the future of the IHO publication S-52 Appendix 1.

Implementation of ENC updates addressed the following :

- Legal Status of digital updates from a SOLAS perspective;
- Impact of data encryption on interoperability of the update message and various types of ECDIS; and
- Non-uniformity of ENC encryption processes.

In conclusion, the Workshop identified a number of required actions (to be undertaken or initiated by the IHB), with regard to ENC updating, including:

- Producing a combined list of ENC QC/QA checks to be performed;
- Advising IHO Member States of the ENC/update pricing structure and services of other Member States;
- Considering the re-establishment of an IHO Updating Working Group;
- Advising IHO Member States to co-ordinate their updating procedures with the paper chart providers;

- Promoting the use of the Open ECDIS Forum (www.openecdis.org) as a vehicle for Working Group and Committee activities.