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Ref. T2-OSS/2.7

SN.1/Circ.266
22 October 2007

## MAINTENANCE OF ELECTRONIC CHART DISPLAY AND INFORMATION SYSTEM (ECDIS) SOFTWARE

1        The Sub-Committee on Safety of Navigation (NAV), at its fifty-third session (23-27 July 2007), considered the issue of maintenance of Electronic Chart Display and Information System (ECDIS) software and agreed that proper maintenance of ECDIS software was an important issue for ensuring the safety of navigation.

2        The Maritime Safety Committee, at its eighty-third session (3 to 12 October 2007), concurred with the Sub-Committee's views, approved the Guidance on maintenance of Electronic Chart Display and Information System (ECDIS) software, as set out in the annex and encouraged their use by the relevant authorities.

3        Member Governments are invited to bring the attached SN circular to the attention of all concerned for information and in particular to ensure that mariners always have the latest safety related information available to them.

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**ANNEX**

1       The amendments, made in the year 2000, to the International Convention for the Safety of Life at Sea (SOLAS) accepted that ECDIS may meet the chart carriage requirements of SOLAS. ECDIS Performance Standards have been adopted by IMO and in turn refer to the International Hydrographic Organization (IHO) Standards that govern the transfer and presentation of the chart information used in ECDIS.

2       ECDIS in operation comprises hardware, software and data. It is important for the safety of navigation that the application software within the ECDIS works fully in accordance with the Performance Standards and is capable of displaying all the relevant digital information contained within the Electronic Navigational Chart (ENC).

3       ECDIS that is not updated for the latest version of IHO Standards may not meet the chart carriage requirements as set out in SOLAS regulation V/19.2.1.4.

4       In January 2007, Supplement No.1 to the IHO ENC Product Specification[1] was introduced in order to include, within the ENC, the recently introduced IMO requirements for Particularly Sensitive Sea Areas (PSSA), Archipelagic Sea Lanes (ASL) and to cater for any future Safety of Navigation requirements.

5       Any ECDIS which has not been upgraded to the latest version of the Product Specification or the S-52 Presentation Library[2] may be unable to correctly display the latest charted features. Additionally the appropriate alarms and indications may not be activated even though the features have been included in the ENC. Similarly any ECDIS which is not updated to be fully compliant with the S-63 Data Protection Standard may fail to decrypt or to properly authenticate some ENCs, leading to failure to load or install.

6       In 2007, the status of IHO standards governing ECDIS are:

| IHO ECDIS Standards | Current Edition |
| --- | --- |
| Electronic Navigational Chart (ENC) | S-57 Edition 3.1, S-57 Edition 3.1.1 and S-57 Maintenance Document (Cumulative) Number 8 |
| Raster Navigational Chart (RNC) | S-61 Edition 1.0 |
| ECDIS Display and Presentation | S-52 PresLib Edition 3.3 (to be replaced by Ed 3.4 on 1 Jan 2008) |
| ENC Data Protection | S-63 Edition 1.0 |

However, a list of all the current IHO standards is maintained within the ENC/ECDIS section of the IHO website (www.iho.int).

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[1]      S-57 Appendix B.1, ENC Product Specification, ed. 3.1.1.

[2]      S-52 Appendix 2, Annex A, Presentation Library, ed. 3.3.

7       The need for safe navigation requires that manufacturers should provide a mechanism to ensure software maintenance arrangements are adequate. This may be achieved through the provision of software version information using a website. Such information should include the IHO Standards which have been implemented.

8       Administrations should inform shipowners and operators that proper ECDIS software maintenance is an important issue and that adequate measures need to be implemented by masters, shipowners and operators in accordance with the International Safety Management (ISM) Code.

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