**HONG KONG MERCHANT SHIPPING INFORMATION NOTE**

**Electronic Chart Display and Information Systems (ECDIS)**

**To:** Shipowners, Ship Managers, Ship Operators, Ship Masters, Officers and Classification Societies

**Summary**

This Note provides guidance to those Hong Kong registered ships intending to employ ECDIS to meet the mandatory carriage requirements under SOLAS. This Note supersedes Hong Kong Merchant Shipping Information Note No. 4/2004.

**Mandatory Carriage of ECDIS**

1. Mandatory carriage of ECDIS for passenger ships, tankers and other cargo ships is stipulated in SOLAS Regulation V/19.2.10. The implementation dates for the above requirement is subject to a staged entry into force schedule between 1 July 2012 and 1 July 2018 as follows:

<table>
<thead>
<tr>
<th>Ship Type</th>
<th>Ship Size</th>
<th>New ships (constructed on or after)</th>
<th>Existing ships</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passenger ships</td>
<td>500 GT and upwards</td>
<td>1 July 2012</td>
<td>Not later than 1st renewal survey on or after 1 July 2014</td>
</tr>
<tr>
<td>Oil tankers</td>
<td>3,000 GT and upwards</td>
<td>1 July 2012</td>
<td>Not later than 1st survey on or after 1 July 2015</td>
</tr>
<tr>
<td>Other cargo ships</td>
<td>50,000 GT and upwards</td>
<td>1 July 2013</td>
<td>Not later than 1st survey on or after 1 July 2016</td>
</tr>
<tr>
<td></td>
<td>20,000 GT and upwards but less than 50,000 GT</td>
<td>1 July 2013</td>
<td>Not later than 1st survey on or after 1 July 2017</td>
</tr>
<tr>
<td></td>
<td>10,000 GT and upwards but less than 20,000 GT</td>
<td>1 July 2013</td>
<td>Not later than 1st survey on or after 1 July 2018</td>
</tr>
<tr>
<td></td>
<td>3,000 GT and upwards but less than 10,000 GT</td>
<td>1 July 2014</td>
<td>retrofitting is not required for ships less than 10,000 GT</td>
</tr>
</tbody>
</table>

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2. Shipowners of the Hong Kong registered vessels can apply for exemption from the application of the above requirements for their ships which will be taken permanently out of service within two years after the implementation date as specified in the above schedule.

**Performance Standards**

3. Depending upon the date of installation, ECDIS shall be type-approved to meet the performance standards as specified in resolution MSC.232(82) or resolution A.817(19), as amended by resolutions MSC.64(67) and MSC.86(70).

4. In accordance with the above performance standards, ECDIS is permitted to be operated in two modes:

   (a) ECDIS mode when Electronic Navigational Chart (ENC) data is used; and

   (b) Raster Chart Display System (RCDS) mode when ENC data is not available.

5. As the RCDS mode cannot perform the full functions as the ECDIS mode does because it has a number of technical limitations, RCDS mode should always be used in conjunction with an appropriate portfolio of up-to-date paper charts. Ship masters and officers are advised to note the technical limitations of RCDS mode and the differences between RCDS and ECDIS as outlined in the IMO Safety of Navigation circular SN/Circ.207/Rev.1. Attention is also drawn to the IMO circular SN/Circ.276 which provides guidance and information to assist those involved with the transition from paper chart to ECDIS navigation.

**Back-up Arrangement**

6. In order to comply with SOLAS regulation V/19.2.1.5, shipowners, ship managers, ship operators, ship masters and classification societies should ensure that the following back-up arrangement of ECDIS is provided on board when ECDIS is used as primary means of navigation on board Hong Kong registered ships:
<table>
<thead>
<tr>
<th>Main System</th>
<th>Back-up Arrangement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ECDIS operating with electronic navigational chart (ENC) mode</strong></td>
<td><strong>EITHER</strong> a 2nd independent ECDIS, which has a separate power supply and data input, operating with electronic navigational chart (ENC) mode. The back-up ECDIS must have the chart database and voyage plan loaded before commencement of the intended voyage. In confined waters the back-up arrangements must also be in operational mode, <strong>OR</strong></td>
</tr>
<tr>
<td></td>
<td>An appropriate up-to-date folio of paper nautical charts necessary for the intended voyages. The charts are to be of a scale that will show sufficient details of topography, navigational hazards, navaids, charted routes, and traffic separation schemes to provide the mariner with necessary knowledge to ensure safe navigation.</td>
</tr>
<tr>
<td><strong>ECDIS operating in the Raster Chart Display System (RCDS) mode may be used where the relevant ENC is not available for the area.</strong></td>
<td>An appropriate up-to-date folio of paper nautical charts necessary for the intended voyages. The charts are to be of a scale that will show sufficient details of topography, navigational hazards, navaids, charted routes, and traffic separation schemes to provide the mariner with necessary knowledge to ensure safe navigation.</td>
</tr>
</tbody>
</table>
ECDIS Training

7. All navigation officers including masters of Hong Kong registered vessels are required to have completed both generic and type-specific training, provided that ECDIS is the primary means of navigation on board their vessels. Completion of an ECDIS training programme based on the IMO Model Course 1.27 on Operational Use of Electronic Chart Display and Information Systems (ECDIS) or equivalent course which has been approved by HKMD or other administrations recognized by HKMD will be accepted as meeting the ECDIS generic training requirements. Type-specific training should also be provided on the make and model of ECDIS fitted on board the ships on which the navigating officers are serving. The manufacturer, manufacturer’s approved agent or a trainer who has completed such a programme and appointed by the company will be accepted to provide the type-specific training. A record of ECDIS type-specific training attended by ship’s officers should be kept on board for the inspection of PSC officers. The ISM Code requires companies to ensure seafarers are provided with familiarization training including ECDIS fitted on board and a record of such familiarization should be maintained.

8. The 2010 Manila Amendments to the STCW Convention and Code specified ECDIS training requirements for masters and deck officers and these requirements will come into full implementation on 1st January 2017. Shipowners, ship managers, ship operators, ship masters and officers are invited to note the guidance in IMO circular STCW.7/Circ.18 on ECDIS training.

Entry in Safety Equipment Certificate (SEC)

9. Although HKMD has no objection for the early implementation of using ECDIS as the primary means of navigation, classification societies should check the entry into force date on the mandatory carriage of ECDIS for that particular ship before registering ECDIS on the Safety Equipment Certificate (SEC). If ECDIS is registered in the SEC as the means of navigation, navigating officers on board that vessel are required to have completed both the generic and type-specific training. Otherwise, Hong Kong registered vessels may encounter problems with PSC inspections.

Operating Anomalies Identified within ECDIS

10. An ECDIS anomaly is an unexpected or unintended behaviour of an ECDIS unit which may affect the use of the equipment or navigational decisions made by the user. A number of ECDIS operating anomalies have been identified by the IMO which issued the circular SN.1/Circ.312 to provide information and guidance to assist all those involved in the use of ECDIS.
11. The above resolutions and circulars can be found on the webpage of Marine Department (http://www.mardep.gov.hk/en/msnote/msin.html) as attachments to this Note.

12. Shipowners, ship Managers, ship operators, ship masters, officers and classification societies are reminded to note the above resolutions and circulars and take necessary actions as appropriate.

13. This Note supersedes Hong Kong Merchant Shipping Information Note No. 4/2004.

Marine Department
Multi-lateral Policy Division

18 September 2012