14 August 2012

To: Shipowners / Ship Managers / Ship Masters and Classification Societies

Dear Sir/Madam,

**Mandatory Carriage and Training Requirements for**

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

The implementation schedule for the mandatory carriage of ECDIS on ships is as follows:

<table>
<thead>
<tr>
<th>Ship Type</th>
<th>Gross Tonnage</th>
<th>Construction Date</th>
<th>Implementation Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passenger ships</td>
<td>500 GT and upwards</td>
<td>on or after 1 July 2012</td>
<td>on or after 1 July 2012</td>
</tr>
<tr>
<td></td>
<td></td>
<td>before 1 July 2012</td>
<td>not later than the first survey on or after 1 July 2014</td>
</tr>
<tr>
<td>Tankers</td>
<td>3,000 GT and upwards</td>
<td>on or after 1 July 2012</td>
<td>on or after 1 July 2012</td>
</tr>
<tr>
<td></td>
<td></td>
<td>before 1 July 2012</td>
<td>not later than the first survey on or after 1 July 2015</td>
</tr>
<tr>
<td>Cargo ships, other than tankers</td>
<td>10,000 GT and upwards</td>
<td>on or after 1 July 2013</td>
<td>on or after 1 July 2013</td>
</tr>
<tr>
<td></td>
<td>3,000 GT and upwards but less than 10,000 GT</td>
<td>on or after 1 July 2014</td>
<td>on or after 1 July 2014</td>
</tr>
<tr>
<td></td>
<td>50,000 GT and upwards</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>20,000 GT and upwards but less than 50,000 GT</td>
<td>before 1 July 2013</td>
<td>not later than the first survey on or after 1 July 2016</td>
</tr>
<tr>
<td></td>
<td>10,000 GT and upwards but less than 20,000 GT</td>
<td></td>
<td>not later than the first survey on or after 1 July 2017</td>
</tr>
</tbody>
</table>

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The ECDIS regulation requires both primary and back up system to meet its functional requirements, as well as training of the deck officers in the use of the ECDIS equipment.

In view of the above, the following back-up arrangements on board Hong Kong registered ships should be used in order to comply with the requirements of SOLAS regulation V/19.2.1.5:

<table>
<thead>
<tr>
<th>Primary System</th>
<th>Back-up Arrangement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ECDIS operating with electronic navigational chart (ENC) mode</strong></td>
<td>EITHER a 2\textsuperscript{nd} 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,</td>
</tr>
<tr>
<td></td>
<td>OR</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</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>
As for the training requirements, the STCW 2010 Manila Amendments introduced ECDIS training requirements for masters and deck officers. These new requirements come into full implementation on 1st January 2017. IMO has issued guidance in circular STCW.7/Circ.18 (see Annex 1) on training requirements for masters and deck officers onboard vessel fitted with ECDIS.

This Department had issued instructions to Classification Societies regarding the proper arrangements when including ECDIS in the Cargo Ships Safety Equipment Certificate (SEC) (see Annex II).

For early implementation of ECDIS requirements, the ship’s owner should consult their ship’s RO before consider registering ECDIS on the Form E of SEC. If the necessary trainings as per STCW.7/Circ.18 are not complied with, the use of paper chart should remains as the primary mean of safe navigation. And proper entry of the use of paper chart on the Form E of SEC by the RO is considered necessary to reflect actual ECDIS’s status on board.

If early implementation of ECDIS has already been registered on Form E of SEC as the primary means of safe navigation, but the necessary trainings are not provided for the master and all navigational officers on board the ship, the SEC should be re-issued by the RO indicating that the use of paper charts is primary means of safe navigation, otherwise ECDIS should not be registered on Form E of SEC before date of entry into force.

Should you have any query on this matter, please do not hesitate to contact us.

Telephone Number: - (852) 2852 4510
Fax Number: - (852) 2545 0556
e-mail Address: - ss_css@mardep.gov.hk

Yours faithfully,

(S.H. Tse)
Senior Surveyor/Cargo Ships Safety Section
for Director of Marine
ELECTRONIC CHART DISPLAY AND INFORMATION SYSTEMS (ECDIS) TRAINING

1 The Sub-Committee on Standards of Training and Watchkeeping, at its forty-third session (30 April to 4 May 2012), considered the need for guidance on ECDIS training. The information presented below aims to assist Member Governments, Parties to the STCW Convention, companies and seafarers in ensuring that training programmes in the use of ECDIS provided to masters and officers' certificated under chapter II or VII of the STCW Convention serving on ships fitted with ECDIS takes into account:

1.1 the mandatory carriage of ECDIS, as required by SOLAS regulation V/19.2.10, which will be subject to a staged entry into force between 1 July 2012 and 1 July 2018;

1.2 the 2010 Manila Amendments to the STCW Convention and Code which have introduced ECDIS training for master and officers;

1.3 the transitional provisions of the 2010 Manila Amendments which require seafarers to be trained according to the new competence standards before 1 January 2017;

1.4 that there is, however, for some ships, a potential training gap associated with the ECDIS carriage requirement. Masters and officers certificated under chapter II of the STCW Convention on ships fitted with ECDIS, might not have received ECDIS training satisfying the requirements of the 2010 Manila Amendments. This potential gap may occur up to 1 January 2017;

1.5 masters and officers certificated under chapter II of the STCW Convention serving on board ships fitted with ECDIS are to be familiarized (in accordance with STCW regulation II/14) with the ship's equipment including ECDIS;

1.6 ECDIS manufacturers are encouraged to provide resources, such as type-specific materials, which could be provided on a CD or DVD. These resources may form part of the ECDIS familiarization training;

1.7 while there may be no requirement for masters and officers serving on vessels fitted with ECDIS to meet the 2010 Manila Amendments before 1 January 2017, it is encouraged that, prior to serving on such vessels, these seafarers should be provided with generic training, for example, the IMO model course 1.27;

\[1\] Training and assessment in the use of ECDIS is not required for those who serve exclusively on ships not fitted with ECDIS. This limitation shall be reflected in the endorsements issued to the seafarer concerned (refer to tables A-II/1 and A-II/2 of the STCW Code).
after 1 January 2017, all masters and officers serving on ships fitted with ECDIS certificated under chapter II of the STCW Convention shall have undertaken appropriate generic ECDIS training (which may be based upon IMO model course 1.27), meeting the competence requirements of the 2010 Manila Amendments to the STCW Convention and Code;

regulation I/14, paragraph 1.5 of the STCW Convention, as well as sections 6.3 and 6.5 of the International Safety Management (ISM) Code, requires companies to ensure seafarers are provided with familiarization training. A ship safety management system should include familiarization with the ECDIS equipment fitted, including its backup arrangements, sensors and related peripherals. To assist Member Governments, Parties to the STCW Convention, companies and seafarers, a record of such familiarization should be provided;

Administrations should inform their port State control officers of the requirements for ECDIS training as detailed in paragraph 9 above. A certificate of competency issued in accordance with the 2010 Manila Amendments would be prima facie evidence of generic ECDIS training; however, a record of the ship specific familiarization of the ECDIS should be provided; and

attention is also drawn to STCW.7/Circ.17 – Advice for port State control officers on transitional arrangements leading up to the full implementation of the requirements of the 2010 Manila Amendments to the STCW Convention and Code on 1 January 2017 and STCW.7/Circ.16 – Clarification of transitional provisions relating to the 2010 Manila Amendments to the STCW Convention and Code.

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2 Training and assessment in the use of ECDIS is not required for those who serve exclusively on ships not fitted with ECDIS. This limitation shall be reflected in the endorsements issued to the seafarer concerned (refer to tables A-II/1 and A-II/2 of the STCW Code).
To: 9 Classification Societies

Carriage of ECDIS – PSC Intervention

The mandatory carriage requirements for Electronic Chart Display and Information System (ECDIS) were stipulated in SOLAS Regulation V/19.2.10, subject to a staged entry into force between 1 July 2012 and 1 July 2018.

The 2010 Manila Amendments to the STCW Convention and Code specified training requirements for navigation officers on the safe and operational use of ECDIS. However, for some ships which have been fitted with ECDIS equipment, the navigation officers may not have received ECDIS training yet to satisfy the requirements of the 2010 Manila Amendments. This potential training gap may occur up to 1 January 2017.

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We recently noted that some Hong Kong registered ships fitted with ECDIS equipment are intervened by PSC officers in that there is no evidence that the navigation officers are trained in operating the ECDIS equipment fitted on board for navigation purposes. We also noted on these ships, the Cargo Ships Safety Equipment Certificate (SEC) indicated the use of ECDIS on board for navigation.

While we have no objection for the early implementation of ECDIS requirements, it is considered necessary for ROs to check the entry into force date on the carriage of ECDIS for that particular ship before consider registering ECDIS on the SEC. If it is intended before the entry into force date to register ECDIS on the SEC and using ECDIS for navigation, it will be essential to ensure that the navigation officers on board that ship are properly trained (both generic and type specific) on the use of ECDIS for navigation, or else ECDIS should not be registered on the SEC and the use of paper charts should remain as the primary means for navigation. Otherwise, HK registered ships may encounter problems with PSC inspections.

Should you have any query on this matter, please do not hesitate to contact us.

Yours sincerely,

[Signature]

(Patrick C.H. TSO)

Chief/Technical Policy
for Director of Marine

PCHT/st