ECDIS Implementation Requirements

Since 2002 it has been an option for vessels to be fitted with an Electronic Chart Display and Information System (ECDIS) along with a backup arrangement as a means of fulfilling the requirement under SOLAS regulation V/19 for the vessel to carry nautical charts for the intended voyage. This option is now being changed into a mandatory requirement as at a meeting of the IMO Maritime Safety Committee in May / June 2009 further amendments to SOLAS regulation V/19 were made to make the carriage of ECDIS mandatory on vessels engaged in international voyages with an expected date of entry into force of 1st January 2011.

The implementation schedule for the carriage of ECDIS on new and existing vessels is as follows:

- New passenger vessels of 500 GT and upwards constructed on or after 1st July 2012.
- New tankers of 3,000 GT and upwards constructed on or after 1st July 2012.
- New cargo ships, other than tankers, of 10,000 GT and upwards constructed on or after 1st July 2013.
- New cargo ships, other than tankers, of 3,000 GT and upwards but less than 10,000 GT constructed on or after 1st July 2014.
- Existing passenger ships of 500 GT and upwards constructed before 1st July 2012 not later than the first survey on or after 1st July 2014.
- Existing tankers of 3,000 GT and upwards constructed before 1st July 2012 not later than the first survey on or after 1st July 2015.
- Existing cargo ships other than tankers of 50,000 GT and upwards constructed before 1st July 2013 not later than the first survey on or after 1st July 2016.

- Existing cargo ships other than tankers, of 20,000 GT and upwards but less than 50,000 GT constructed before 1st July 2013 not later than the first survey on or after 1st July 2017.
- Existing cargo ships other than tankers, of 10,000 GT and upwards but less than 20,000 GT constructed before 1st July 2013 not later than the first survey on or after 1st July 2018.

As can be seen from the above there are no mandatory carriage requirements for existing cargo ships of less than 10,000 GT.

Vessels may be exempted from the requirements of the new regulation by their Flag State when the vessel is to be permanently taken out of service within two years of the implementation dates noted above.

The new regulations will not only require new equipment comprising a primary and backup system to be fitted, but also the training of deck officers in the use of the equipment, changes in the provision of charts and chart corrections to the vessel from shore, and changes to the Safety Management System. Members are referred to the IMO circular.51/Circ.276 on 'Transitioning from Paper Chart to Electronic Chart Display and Information Systems (ECDIS) Navigation' for additional guidance and information.

When sourcing ECDIS equipment for a vessel it is necessary to ensure that the equipment is type approved for use. Type approval and testing in line with the requirements of the International Electrotechnical Committee based on the IMO ECDIS performance standards is carried out by either the Flag State or their appointed recognised organisations or Classification Societies.

In addition to the primary ECDIS unit using electronic navigational charts (ENCs) which are vector charts, the Flag State will also need to be consulted to check what back-up arrangements are acceptable, as the requirements vary. The systems that may be acceptable could be a second ECDIS unit using ENCs maintained by an independent power supply, a chart radar, a second ECDIS unit using raster navigational charts (RNCs) which are digital copies of paper charts, maintained by an independent power supply, a folio of fully corrected paper navigational charts covering the operating area / intended voyage or a combination of the latter two options. Some Administrations may allow the use of RNCs in ECDIS for primary navigation in areas where ENCs are not available at an appropriate scale for navigation, provided the use of RNCs is supplemented by the use of corrected paper navigational charts.

Although at present there is no specific IMO requirement for deck officers to undergo ECDIS training, it is an ISM requirement that ships officers are adequately trained in the use of equipment fitted onboard and an STCW requirement that mariners on vessels are competent to carry out the duties expected of them. Therefore Members should ensure that their ships’ deck officers have attended an approved generic ECDIS operators course based on the IMO standards model (IMO Model Course 1.27 on Operational Use of Electronic Chart Display and Information Systems), and that type specific training is provided by the equipment manufacturers to their officers to ensure they are fully familiar with the equipment fitted onboard their vessel.

Although some of the implementation deadlines are many years away it is strongly advised that Members plan their implementation strategy well in advance to ensure they are in compliance with Flag State requirements prior to the implementation deadlines.

For further information on this or other Loss Prevention topics please contact the Loss Prevention Department, Steamship Insurance Management Services Ltd.

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