

June 2009 Amendments to SOLAS 1974 - Carriage Requirements for Electronic Chart Display and Information System (ECDIS) on Indian ships

M.S. Notice 03 of 2012

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Dated: 27th Jan

Subject: June 2009 Amendments to SOLAS 1974 - Carriage Requirements for Electronic Chart Display and Information System (ECDIS) on Indian ships.

Back ground:

1. The Maritime Safety Committee (MSC) of International Maritime Organisation during its 86th Session had adopted the resolution MSC.282 on 5th June 2009 which contains various amendments to International Convention for the Safety of Life at Sea 1974 (SOLAS 74) including the said amendments for fitment of ECDIS as per Reg. 19 of Chapter - V of SOLAS. i.e. 'Carriage Requirements for ship borne navigational systems and equipment'. It is to be noted that these amendments to SOLAS entered into force on 01st January 2011 internationally. Also, Regulation 27 of Chapter V of SOLAS requires all Nautical Charts and publications on board ship to be adequate for the intended Voyage and maintained up to date.

Enforcement Provisions:

2. India has ratified/acceded SOLAS 1974 and subsequent protocols thereafter. It has been proposed to incorporate these provisions in the new draft Merchant Shipping (Safety of Navigation) Rules, 2012 and this draft rules is under consideration of Govt. of India for promulgation. This may however take some time therefore in the interim, the Director General of Shipping issues the following directives in respect of Carriage of ECDIS on Indian ships. These directives are enforced under section 406 (3) of Indian Merchant Shipping Act 1958 (as amended) as conditions of granting GTL.

SOLAS requirements - with respect of carriage of ECDIS for convention ship:

ship: 3. In view of 2009 amendments to SOLAS, under Chapter V - Safety of Navigation, Regulation 19.2.10 has been added. This regulation is being applied to all Indian ships engaged on International voyages. All Indian ships engaged on International voyages shall be required to be fitted with ECDIS. The requirements for compliance for various category of ships and time frame for fitment is as follows-

- i. Passenger ships of 500 gross tonnage and upwards constructed on or after 1st July 2012;
- ii. Tankers of 3,000 gross tonnage and upwards constructed on or after 1st July 2012;
- iii. Cargo ships other than tankers, of 10,000 gross tonnage and upwards constructed on or after a proposed date of 1st July 2013;
- iv. Cargo ships other than tankers of 3,000 gross tonnage and upwards but less than 10,000 gross tonnage constructed on or after 1st July 2014;
- v. Passenger ships of 500 gross tonnage and upwards constructed before 1st July 2012, not later than the first survey" on or after 1st July 2014;
- vi. Tankers of 3,000 gross tonnage and upwards constructed before 1st July 2012, not later than the first survey" on or after 1st July 2015;

- vii. Cargo ships, other than tankers, of 50,000 gross tonnage and upwards constructed before 1st July 2013, not later than the first survey" on or after 1st July 2016;
- viii. Cargo ships, other than tanker, of 20,000 gross tonnage and upwards but less than 50,000 gross tonnage constructed before 1st July 2013, not later than the first survey" on or after 1st July 2017; and
- ix. Cargo ships, other than tankers, of 10,000 gross tonnage and upwards but less than 20,000 gross tonnage constructed before 1st July 2013, not later than the first survey" on or after 1st July 2018.

"Note: Refer to the Unified interpretation of the term "first survey" referred to in SOLAS regulations (MSC.1/Circ.1290)

Fitment of ECDIS for ships solely engaged in Indian coastal voyages:

4. All Indian ships engaged in the Indian Coastal voyages shall be required to be equipped with ECDIS as per the time schedule stated below:-

- i. Passenger ships of 500 GT and upwards constructed on or after 1st July 2012;
- ii. Tankers of 3000 GT and upwards constructed on or after 1st July 2012; and
- iii. Cargo ships other than tankers of 10000 GT and upwards constructed on or after 1st July 2014; shall also be fitted with ECDIS; and
- iv. However, existing Passenger ships, Cargo ships and Tankers operating exclusively on Indian Coastal voyages are exempted from the compliance with the fitment of ECDIS.

Fitment of ECDIS on High Speed Crafts operating in Coastal Waters of India:

5. In accordance with, the amendments to High Speed Craft code 2000 adopted vide MSC Resolution MSC.222 (82) vide Para 13.8.2, the High Speed craft shall be fitted with an ECDIS as given below:

- i. craft constructed on or after 1st July 2008;
- ii. craft constructed before 1st July 2008, not later than 1st July 2010; if it is engaged on international voyages"

6. All Indian High Speed Crafts operating in Indian coastal waters shall be fitted with ECDIS as per the tonnage and time frame as stated below -

- i. HS Crafts of less than 150 GT - ECDIS requirements are permanently exempted.
- ii. HS Crafts of 150 GT or more - ECDIS should be fitted not later than 01.07.2012 or the next scheduled dry dock.

Exceptions from fitment of ECDIS:

7. The requirements of ECDIS shall not be applicable to the following -

- i. Warships, Naval Auxiliaries and other ships owned or operated only on Govt. non commercial service;
- ii. Fishing vessel,
- iii. Ships not propelled by mechanical means;
- iv. wooden ships of primitive built
- v. ships which will be permanently taken out of service within two years after the implementation date.
- vi. If a vessel described in para 3 (d) is, under exceptional circumstances, required to make an International voyage

Owners/ operators of ships falling under 6 (e) and 6 (f) may approach the Directorate for grant of exemption/relaxation from ECDIS requirement well in advance.

Performance Standards for ECDIS:

8. All Indian ships fitted with ECDIS equipment as specified above shall meet the following performance standards set out by the International Maritime Organization (IMO).

- i. if installed on or after 1 January 2009, it shall conform to performance standards not inferior to those specified in the Annex to resolution MSC.232(82); and
- ii. if installed on or after 1 January 1996 but before 1 January 2009, it shall conform to performance standards not inferior to those specified in the Annex to resolution A.817(19), as amended by resolutions MSC.64(67) and MSC.86(70).

Acceptance of ECDIS as an Aid to Navigation:

9. Regulations V/19 and V/27 of the International Convention for the Safety of Life at Sea (SOLAS) 1974 as amended under Chapter V - Safety of Navigation requires all ships to carry adequate and up-to-date nautical charts, sailing directions, lists of lights, notices to mariners, tide tables and all other nautical publications necessary for the intended voyage.

10. Considering the fact that up-to-date charts and other nautical publications required by Regulations V/19 and V/27 of the SOLAS 1974 as stated above can be provided and displayed electronically on board ships by Electronic Chart Display and Information System, ECDIS equipment conforming to the performance standards specified by IMO, with adequate 'back-up arrangements' shall be accepted as evidence of complying with Regulation V/19 and V/27 of the SOLAS 1974 pertaining to carriage of up-to-date charts and publications.

11. Electronic Navigational Charts (ENC's) and Raster Charts published by officially recognized agencies such as Admiralty Chart service, Indian Hydrographic office etc, shall only be accepted for use in ECDIS. Also, ECDIS should have provision for weekly updates either by automatic means or manually.

(Note: For definitions of ECDIS, ENC, Raster Charts etc. please refer to IMO performance standards prescribed in MSC.232 (82))

Back up arrangements for ECDIS:

12. Indian ships fitted with ECDIS equipment conforming to the performance standards prescribed in MSC. 232(82), the following back up arrangements are acceptable-

1. A second fully compliant ECDIS with independent power supply and taking inputs from different sensors i.e. independent GPS and AIS which are not connected to the first ECDIS or,
2. A full folio of paper charts and Nautical Publications corrected for the latest Notices to Mariners, for the intended voyage.

Indian ships fitted with ECDIS equipment conforming to the performance standards of Resolution A. 817 (19) as amended, the accepted back up arrangements may be as specified in Para 11 (b) above.

Use of ECDIS in Raster Chart Display System (RCDS) mode:

14. Recognizing the fact that Electronic Navigational Charts (ENCs) for some of the areas are not yet available, the ECDIS equipment shall be used in RCDS mode with Raster Navigational Chart (RNC) for these areas, provided an appropriate folio (as per the list specified by IHO/NHO) of up-to-date paper charts and nautical publications should be carried on board and be readily available to the mariner. ECDIS in RCDS mode shall only be used in conjunction with an appropriate up-to-date paper charts.

Necessity of Paper Charts:

15. Even though a vessel fitted with two sets of ECDIS (complying with MSC.232 (82)) with independent power supply and independent position input, fully complies with the regulations V/19 and V/27 of SOLAS 1974 Chapter V, it is recommended that an appropriate minimum number of paper charts covering the ports, coastal and sea areas posing or likely to pose dangers to navigation during the intended voyage for reference to be maintained as an additional back up in the event of exigencies of service or failure of power or other reasons beyond the control of the master. This additional back up of paper charts is only a recommendation to the companies and need not be verified during survey/inspection by Flag or Recognized organizations.

Training and Certification:

16. All deck officers onboard the Indian ships fitted with ECDIS equipment shall undergo the STCW 2010 compliant DGS approved ECDIS course and obtain appropriate certificate. However deck officers who had completed the approved ECDIS training of 5 days duration as per the IMO Model course 1.27 (pre-revised) can work on vessels fitted with ECDIS until 31.12.2016 or the date of up-gradation of COC which ever is earlier. In addition, all deck officers shall complete training for the 'specific type' of ECDIS equipment installed on the Indian ships on which they are working. If the approved ECDIS training based on the IMO model course includes training on the type of equipment installed on their ships, there shall be a clear statement to this effect in the Certificate failing which an additional training would need to be undertaken. This can be in form of Computer based training supplied by the manufacturer of the ECDIS equipment before joining the vessel. An original of certificate pertaining to said training shall be available on board.

Joining a vessel at short notice with no ECDIS training:

17. In case where a deck officer is being required to join a vessel at short notice, due to exceptional circumstances and if he has not undergone ECDIS training for the 'specific type' of ECDIS onboard, the Company shall provide ECDIS training onboard, by way of Computer Based Training or equivalent training, which satisfies the requirements of IMO Model Course. This training shall be deemed acceptable to the Directorate General of shipping demonstrating full familiarity with ECDIS and the equipment on board such ship. A record of this training shall be maintained by the master of such ship. No responsibility for a watch shall be given until the Officer has completed training to the satisfaction of the Master. This permission shall be granted only on a case to case basis and the Directorate General of Shipping shall be informed prior to the joining of ship by such officer/ crew member.

ISM Code compliance:

18. If an Indian Ship intends to operate with ECDIS only, without paper charts, the same shall be listed as part of the critical equipment as described by ISM code 10.3 (Maintenance of the ship and equipment). Accordingly, the owner and the master of the ship shall ensure regular testing of the standby arrangements to be undertaken as per the periodicity and procedure specified in the company's safety management system. The IMO amendments relating to ECDIS shall be suitably reflected in the Company's safety management system. Company shall ensure that proper Risk Assessment is being done, while transiting from use of paper charts to ECDIS.

19. The Company and the master of the ship have a responsibility to ensure all personnel are given proper familiarisation with their duties including their responsibilities with respect to safe operation and maintenance of ECDIS equipment. The Company shall also provide detailed guidelines with regard to the training of deck officers in starting, operating, testing and periodical maintenance of ECDIS equipment. A copy of operational manual of ECDIS shall be made available on bridge.

Second hand acquisition:

20. All such vessels shall be considered as if ordered for registration under Indian flag vessel on day of their 'keel laid date' for the purpose of this M.S. Notice No. 3 of 2012. No favorable treatment shall be extended to second hand acquisitions.

Survey and certifications:

21. For the purpose of efficient and effective navigational systems, equipments and associated arrangements including carriage of ECDIS equipment, the Indian ship shall be inspected and surveyed by the Authorized Official of the Directorate, MMD or the Recognized Organization approved by the Central Government to verify the compliance with this notice and on satisfactory completion of inspection/survey, the ship shall be issued with appropriate certificate in accordance with provision of M.S. Act 1958 (as amended)

Conclusion

22. Keeping in view the aforesaid amendments Ship Master / Ship Owners / Ship Managers/ Ship Operators and all concerned are hereby informed that appropriate measures need to be taken by them to give full & complete effect to these amendments as per Regulation 19.2.10 of Chapter V of SOLAS towards ECDIS requirements.

23. Co-operation of all concerned is therefore solicited to enhance efficiency of safety of navigation and maritime traffic.

24. This M.S. Notice is issued with the approval of the Director General of Shipping & Ex-officio Addl. Secretary to Govt. of India.

Sd/-

(Capt. S.I. Abul Kalam Azad)

Nautical Surveyor

[Encl: MSC Resolution. 232 \(82\)](#)