



Office of  
Deputy Commissioner  
of Maritime Affairs

**THE REPUBLIC OF LIBERIA**  
LIBERIA MARITIME AUTHORITY

**Marine Notice**

**NAV-001**  
**Rev. 06/12**

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**TO: ALL SHIPOWNERS, OPERATORS, MASTERS AND OFFICERS OF MERCHANT SHIPS, AND AUTHORIZED CLASSIFICATION SOCIETIES**

**SUBJECT: Safety of Navigation - Nautical Charts, Publications and Notices to Mariners**

**References:**

- (a) **Maritime Law 10.296(5)**
- (b) **SOLAS 74, as amended, Chapter V, Regulations 18, 19 and 27**
- (c) **Resolution MSC 191 (79)**
- (d) **Resolution MSC.232(82)**
- (e) **Resolution MSC.252(83)**
- (f) **Resolution MSC-282 (86)**
- (g) **Resolution A.817 (19), as amended by MSC.64 (67), and MSC.86 (70)**
- (h) **MSC Circular 982**
- (i) **MSC Circular 1179**

**Supersedes: Marine Notice NAV-001, dated 6/01**  
**Marine Operations Note 01-2005**

**PURPOSE:**

This Notice provides advice and guidance to mariners on the importance of maintaining a regular and efficient system of charts and publications, corrections, and use of electronic updating services.

**APPLICABILITY:**

This Notice provides advice and guidance to mariners on the importance of maintaining a regular and efficient system of charts and publications, corrections, and use of electronic updating services. It also provides notice of new Electronic Chart Display and Information System (ECDIS) carriage requirements at section 1.4.

Regulation II/1-3 of the STCW Convention, as amended, requires approved training in the use of ECDIS. Specific requirements can be found in Liberian publication RLM-118 - Requirements for Merchant Marine Personnel Certificates.

**1.0 REQUIREMENTS:**

1.1 It is essential that any nautical publication which is liable to be affected by changes in

navigational or hydrographic conditions be corrected and updated by every available means, primarily through Notice To Mariners, and additionally by Radio Navigational Warnings, e.g., NAVTEX, and Safety NET. The regular use of an electronic digitized notice to mariners chart correction service is authorized, provided it meets the applicable requirements of reference (b).

- 1.2 All ships irrespective of size shall have nautical charts and nautical publications to plan and display the ship's route for the intended voyage and to plot and monitor positions throughout the voyage. A type approved electronic chart display and information system (ECDIS) operated with either part of, or full sets of Electronic Navigational Charts (ENC) is accepted as meeting the chart carriage requirements. Where ECDIS is used to fulfill this requirement the ship will be provided with adequate back up arrangements meeting the requirements of regulation V/19.2.1.4 of reference (b), which may be nautical charts adequate for the intended voyage, or a backup ECIDS (see section 2.0 for acceptance of a backup ECDIS).
- 1.3 The electronic chart and information system and all electronic publications used for navigation shall be sufficient for the trade route, adequate for navigation and maintained up-to-date for the intended voyage as required by regulation V/27 of reference (b).
- 1.4 Resolution MSC 282(6) was adopted on 5 June 2009 and entered into force on 1 January 2011 amending SOLAS Chapter V, Regulation 19 to add new paragraphs 2.10 and 2.11 requiring the fitting of ECDIS, as follows:

“2.10 Ships engaged on international voyages shall be fitted with an Electronic Chart Display and Information System (ECDIS) as follows:

- .1 passenger ships of 500 gross tonnage and upwards constructed on or after 1 July 2012;
- .2 tankers of 3,000 gross tonnage and upwards constructed on or after 1 July 2012;
- .3 cargo ships, other than tankers, of 10,000 gross tonnage and upwards constructed on or after 1 July 2013;
- .4 cargo ships, other than tankers, of 3,000 gross tonnage and upwards but less than 10,000 gross tonnage constructed on or after 1 July 2014;
- .5 passenger ships of 500 gross tonnage and upwards constructed before 1 July 2012, not later than the “first survey” on or after 1 July 2014;
- .6 tankers of 3,000 gross tonnage and upwards constructed before 1 July 2012, not later than the first survey on or after 1 July 2015;
- .7 cargo ships, other than tankers, of 50,000 gross tonnage and upwards constructed before 1 July 2013, not later than the first survey on or after 1 July 2016;
- .8 cargo ships, other than tankers, of 20,000 gross tonnage and upwards but less than 50,000 gross tonnage constructed before 1 July 2013, not later than the first survey on or after 1 July 2017; and
- .9 cargo ships, other than tankers, of 10,000 gross tonnage and upwards but less than 20,000 gross tonnage constructed before 1 July 2013, not later than the first survey on or after 1 July 2018.

2.11 Administrations may exempt ships from the application of the requirements of paragraph 2.10 when such ships will be taken permanently out of service within two years after the implementation date specified in subparagraphs .5 to .9 of paragraph 2.10.”

Sufficient planning should be anticipated to comply with these new regulatory requirements well in advance of the applicable “first survey” date. Refer to the Unified interpretation of the term “first survey” referred to in SOLAS regulations (MSC.1/Circ.1290).

- 1.5 The installation of the ECDIS as with all navigation equipment should be conducted following the guidance found in reference (e) regarding performance standards for integrated navigation systems. Further, when developing or changing the bridge layout it is advisable to take into consideration the “Guidelines On Ergonomic Criteria For Bridge Equipment And Layout found in reference (h).
- 1.6 The Administration accepts the use of Raster Chart Display Systems (RCDS) when ENC charts are not available, provided the vessel operator has trained the crew in the use of the RCDS. As the RCDS may appear distorted, a folio of paper pack up charts for the areas not covered by ENCs must be maintained on board.
- 1.7 The Administration also accepts Sailing Directions, List of Lights, Notices to Mariners, Tide Tables and other nautical publications necessary for the intended voyage in electronic digital format, as meeting the requirements of Regulation V/27 of reference (b), provided the electronic chart display, information system and back up arrangements allow instant access at any time to the nautical publications without distortion or obstruction of the chart display. In addition, the ship’s crew must have access to information provided officially or on behalf of a government authorized Hydrographic Office or other relevant government institution and the ships master and navigational officers must be properly trained in the use of the system.
- 1.8 Chapter V, Regulation 27 of reference (b) further requires “Nautical charts and publications, such as sailing directions, lists of lights, notice to mariners, tide tables and all other nautical publications necessary for the intended voyage shall be adequate and up to date.” Uncorrected charts and publications have proven to be a source of problems with port State control inspections. While it is appreciated that many vessels may be engaged in worldwide trading calling at ports in countries where Notices to Mariners and other publications may not be available, it is possible to order well in advance the current editions of sailing directions, tide and current tables, charts and chart corrections for delivery to the ship on a regular basis, or subscribe to a digitized notice to mariners chart correction service.
- 1.9 A concise guide to the proper correction of charts has been published by the UK Admiralty Charts and Publications. Designed to be easy to use, the guide provides a range of examples of chart correcting techniques for the use of shipboard navigators. The publication, which is available from Admiralty Charts Agents (see Catalogue No. NP294 – How To Keep Your Admiralty Products Up To Date) provides guidance on SOLAS best practice, which of course will be a basis for ISM Code auditing.
- 1.10 Liberian Nautical Inspectors have been instructed to pay particular attention to the carriage on board of charts and nautical publications appropriate to the service in which the ship is engaged. In the event that a Nautical Inspector determines the charts/publications are inadequate, or that an efficient correction procedure does not exist, the ship may be prevented from proceeding to sea on its intended voyage until action is taken to correct the situation.

- 1.11 Masters and Officers should be aware of the danger of navigating without adequate under keel clearance. The practice of navigating through waters barely adequate in depth with a finely assessed under keel clearance based upon predicted tidal heights is not recommended, as the actual tidal rises may be appreciably lower than predicted. Wind conditions which may cause negative tidal surges should always be considered. Charted depths or soundings may not be current or may be based on surveys taken many years in the past.
- 1.12 There are areas where the information on a chart is questionable and caution is advised. Reference (i) identified the coastal waters of the Niger Delta and the areas off the South China and Java Seas as areas of high concern. Mariners should be cautious when using such information
- 1.13 Even charts based on recent surveys may not show all seabed obstructions or the shallowest depths. Hydrographic surveys have inherent technical limitations, due partly in some offshore areas to difficulties in accurately calculating tidal ranges. Furthermore, in some cases the depth of the seabed is constantly changing. Nautical charts should, therefore, not be absolutely relied upon in their representation of depth, and when tidal predictions are applied to the chart as if they were actual tide levels, the uncertainties are thereby compounded.
- 1.14 In areas such as estuaries and approaches to ports, where optimum under keel clearance cannot be obtained, Masters should carefully consider what is an appropriate speed having regard to the 'squat' characteristics of their particular ship. Masters are cautioned against being influenced by any interests outside the ship, commercial or otherwise, to proceed at a speed inconsistent with safe navigation.

## **2.0 ACCEPTANCE OF BACKUP ECDIS (see Regulation V/19.2.1.4 of reference (b))**

- 2.1 This Administration will accept a second ECDIS as meeting the back up arrangement for areas where coverage is provided by Electronic Navigation Charts. provided:
- The ECDIS is Type approved in accordance with relevant international standards (reference (g));
    - If installed on or after 1 January 2009 (see reference (d)); and,
    - If installed on or after 1 January 2000 but before 1 January 2009 (see resolutions MSC.64 (67), Annex 5 and MSC.86 (70), Annex 4)).
  - The ECDIS unit was tested and licensed by an officially accredited Prototype Test Center in accordance with IMO and the International Electrotechnical Commission (IEC) standards
  - The backup ECDIS is loaded with the relevant ENC's and connected to systems providing continuous position fixing capabilities at the start of the voyage.
  - Both systems are independent and connected to the main and emergency power supplies.
  - The vessel will receive updates for the electronic charts and publications from an authorized supplier.
  - There is a sufficient portfolio of updated paper charts for any area on its trade route not covered by ENC's
- 2.2 When paper charts are used as the back-up, the charts shall include: The planned route; and the ship's position will be updated regularly in narrow channels to enable the safe take over

of ECDIS functions should the system fail.

### **3.0 PAPER NAUTICAL CHARTS AND PUBLICATIONS AS THE PRIMARY MEANS OF NAVIGATION:**

As an alternative, operators w of vessels with ECDIS installed may continue to use paper nautical charts and publications as the primary means of navigation.

#### **3.1 When a vessel operator choses to use paper nautical charts and publications:**

- The Recognized Organization shall provide a notation on the Form E of the Safety Equipment Certificate which indicates that the ECDIS is installed as required, but that the vessel operator has elected to continue using paper nautical charts and publications as the primary means of navigation on this vessel.
- Paper nautical charts and publications used for navigation shall be sufficient for the trade route, adequate for navigation and maintained up-to-date for the intended voyage in accordance with regulation V.27 of reference (b).

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