



PANAMA MARITIME AUTHORITY

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MERCHANT MARINE CIRCULAR MMC-218

To: Ship-owners/Operators, Legal Representatives of Panamanian Flagged Vessels, Panamanian Merchant Marine Consulates and Recognized Organizations (RO's)

Subject: Electronic Charts and Publications in regards to the Carriage Requirements and Crew Training on board Panama Flagged vessels.

Reference: a) Resolution MSC.282 (86), adopted by Resolution 106-OMI-85-DGMM.
b) International Convention on Safety of Life at Sea, 1974 (SOLAS 74), Chapter V (including 2009 Amendments), Regulations 19.2.1.4, 19.2.1.5 and 27
c) IMO Maritime Safety Committee Resolution MSC.232(82), Appendix 6

This Circular complements MMC No. 107

The purpose of this Circular is to inform all ship-owners, operators, Recognized Organizations, Master and officers of vessels registered in our Flag the entry in force of Resolution 106-OMI-85-DGMM of November 22, 2010 by which this Administration adopts Resolution MSC.282 (86) that included, among several amendments, modifications on the carriage requirements of adequate and up-to-date charts and nautical publications necessary for the vessel's intended voyage and the implementation of the mandatory use of ECDIS for applicable vessels. This Circular provides detailed requirements for the carriage of nautical charts and publications in order to ensure the safety of navigation and protection of the environment as well as the standards requirements for ECDIS on board the applicable vessels and the crew certification to demonstrate competency in the use of ECDIS.

Only nautical charts and publications "issued officially by or on the authority of a Government, authorized Hydrographic Office or other relevant government institution"(SOLAS V/2.2) can be used to meet the carriage requirement.

I. Nautical Charts Requirement

- 1 All vessels should carry an adequate portfolio of corrected up-to-date nautical charts necessary to plan and display the vessel's route for the intended voyage, including the approach and details for every port of call, and to plot and monitor the vessel's position throughout the voyage. These charts must be of an appropriate scale and have enough detail to make a safe navigation through the corresponding area. In addition, vessels shall carry nautical charts that might be needed to safely enter a harbor of safe refuge along the intended route.
- 2 As provided by Regulation 19.2.1.4 of reference (b) above, vessels may use an Electronic Chart Display and Information System (ECDIS) to either partly or fully fulfill this chart carriage requirement, provided however, and bearing in mind that a worldwide ECDIS portfolio of Electronic Navigational Charts (ENC) coverage has not yet been achieved, the following conditions are met:

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- .1 An appropriate portfolio of back-up paper charts is onboard and ready for use wherever ENC coverage is not available. The number of charts kept as a back-up shall be decided by the owner or Master, and they must be of sufficient number and scale to ensure safe navigation to a port of safe refuge where electronic chart navigation becomes impossible.
 - .2 Other back up arrangements, including a second ECDIS, may be used to meet the back-up requirement of Regulation 19.2.1.5 of reference (b) above, subject to appropriate consideration being given to 2.1 above and 2.4 below.
 - .3 It should be possible to operate ECDIS and all equipment for its normal functioning when supplied by an emergency source of electrical power in accordance with Chapter II-1, Regulation 43.2.4, of the 1974 SOLAS Convention.
 - .4 Changing from one source of power supply to another or any interruption of the supply for a period of up to 45 seconds should not require the equipment to be manually re-initialized (reference (c) above).
- 3 Please be informed that ships to which Regulation V/19.2.10 of SOLAS 74 (as amended) applies shall comply with the carriage requirements for ECDIS detailed therein, and 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).
 - 4 In addition, considering that training is a key element in the successful and safe transition to electronic navigation, all ship's officers in charge of a navigational watch on board the vessels to which the ECDIS is mandatory must attend, as a minimum, an approved generic ECDIS operator training course based on the IMO standard model. This requirement shall be met through type specific training provided by the ECDIS manufacturer.

II. Nautical Publications Requirement

- 1 For Nautical publications carriage requirements, all interested parties shall refer to our MMC No. 107 for guidance. Moreover, Masters should ensure that any additional nautical publication required by port state regulations for ports where the vessel will be calling during a voyage are onboard and corrected with the latest published corrections.
- 2 Electronic nautical publications may be used to either partly or fully fulfill the requirements of reference (b) above provided the following conditions are met:
 - .1 Nautical publications required for voyage planning (examples include sailing directions, coast pilots, light lists, etc.): Either an electronic or paper back-up must be provided. All back-up copies must be corrected and ready for use when needed. When an electronic back-up is carried, portions of the publication needed for the planned voyage should be printed and included with the voyage plan.
- 3 Carriage requirements for other publications are detailed in MMC No. 107 and 108.

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