



Office of
Deputy Commissioner
of Maritime Affairs

THE REPUBLIC OF LIBERIA
LIBERIA MARITIME AUTHORITY

Marine Notice

SAF-005
Rev. 06/12

**TO: ALL SHIPOWNERS, OPERATORS, MASTERS AND OFFICERS OF
MERCHANT SHIPS, AGENTS AND RECOGNIZED ORGANIZATIONS**

SUBJECT: Lifeboat and Survival Craft, Servicing and Maintenance

Reference:

- (a) Maritime Regulation 2.35
- (b) Maritime Regulation 10.296 (5)
- (c) SOLAS 1978, as amended, Chapter III
- (d) LSA Code, as amended
- (e) IMO Resolution MSC.81 (70), as amended
- (f) IMO Resolution MSC.317 (89)
- (g) IMO Resolution MSC.320 (89)
- (i) MSC.1/Circ. 1205
- (h) MSC.1/Circ. 1206/Rev.1
- (i) MSC.1/Circ. 1277
- (j) MSC.1/Circ. 1326
- (k) MSC.1/Circ. 1327
- (l) MSC.1/Circ. 1392
- (m) MSC.1/Circ. 1393
- (n) MSC.1/Circ. 955

Augments: Marine Notice SAF-001, dated 06/12

PURPOSE:

This Notice addresses a number of issues and requests involving Lifesaving Appliances and Survival Craft and launching appliances aboard Liberian Flag vessels which have been presented to the Office of the Deputy Commissioner for interpretation and clarification of its policy.

BACKGROUND:

After the MSC meeting in May of 2002, the Maritime safety Committee identified the following as causes for these accidents, to which special attentions should be paid:

- Failure of on-load mechanism,
- Inadvertent operation of on load mechanism,
- Inadequate maintenance of lifeboats, davits and launching equipment,
- Communication failure,
- Lack of familiarity with the lifeboats, davits, equipment and associated controls,
- Unsafe practices during lifeboat drills and inspections, and

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Inquiries concerning the subject of this Notice should be directed to the Office of the Deputy Commissioner, Republic of Liberia, the Liberian International Ship & Corporate Registry, 8619 Westwood Center Dr., Suite 300, Vienna, VA 22182, USA

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- Design faults other than on-load release.

There have been several accidents which have been related to defective lifeboat on load release hooks. As a result, IMO's Maritime Safety Committee adopted reference (f) which added paragraph 5 to SOLAS III/1 requiring that lifeboat release mechanisms not complying with the new LSA requirements found in reference (d) shall be replaced by the first scheduled drydocking after 1 July 2014, but no later than 1 July 2019. The Maritime Safety Committee also adopted reference (g); amending 4.4.7.6 of reference (d) to require new subparagraphs .2 to .6 regarding the on load release mechanism.

In the interim, to help protect the seafarer from injury due to defective on load release hooks, IMO developed reference (k), recommending the use of Fall Preventer Devices when needed.

References (l) and (m), further encourage the use of fall preventer devices when needed. Reference (l) provided guidelines for evaluation and replacement of lifeboat release and retrieval systems, and references (l) and (m) further encouraged all parties to take further action to evaluate lifeboat release and retrieval systems based on the guidelines. See paragraph 4.4 of this Marine Notice for additional guidance.

APPLICABILITY:

This Notice applies to Owners, Masters, Ships Officers, Nautical Inspectors, and authorized Recognized Organization (RO) (the vessel's Classification Society which has been recognized and authorized to act on behalf of the Liberian Administration), when performing drills and surveys on board Liberian flagships.

REQUIREMENTS:

1.0 Certification

- 1.1 All Survival Craft are to be reviewed for compliance with the appropriate SOLAS regulation and acceptability by the Recognized Organization of the vessel at the time of installation and their condition verified at all subsequent safety equipment surveys. Any substandard or unapproved appliance or equipment is to be replaced. All survival craft are to be equipped as prescribed in reference (c) and complying with the requirements of reference (d).
- 1.2 Survival craft approved by a major maritime authority, such as the USCG, UKMCA, and the Ministries of Transport or Maritime Directorates of Japan, France, Italy, Germany, Norway, Korea, China, Russian Federation, Canada, Australia, Brazil or by an IACS member on behalf of a national maritime authority are acceptable for vessels registered with the Republic of Liberia. The Administration will also accept equipment that has been approved under the EU Marine Equipment Directive.
- 1.3 Manufacturers of lifesaving appliances are responsible for ensuring that the standards of life-saving appliances and arrangements are in accordance with the requirements of reference (d) and for providing documentation that these standards are met.
- 1.4 Lifesaving appliances installed before 01 July 1999, which were manufactured and tested in accordance with previous SOLAS Convention requirements and reference (e), may continue to be used as long as it remains in serviceable condition.

- 1.5 Testing of life saving appliances installed on or after 1 July 1999 are required to meet the requirements in reference (e) as amended.
- 1.6 Testing of life saving appliances installed after 1 July 2010 are required to meet the requirements in reference (c) above.

2.0 Servicing

- 2.1 Inflatable life rafts, marine evacuation systems, and inflated rescue boat, are to be serviced at approved manufacturer certified servicing facilities. Such servicing facilities that are approved by a State which is Party to reference (c), and acceptable to the vessel Recognized Organization or servicing facilities that have been approved by a Liberian Recognized Organization on behalf of a Party to the reference (c) are acceptable to the Administration, provided, the approvals are in compliance with reference (c). Vessel Owners and Agents should consult closely with their Recognized Organization when selecting a service station to ensure that it meets the requirements of the applicable rules.
- 2.2 Inflatable life rafts, and marine evacuation systems: As Liberia has implemented HSSC for ships registered under the Liberian flag and in pursuance of the HSSC's objectives to "simplify survey requirements, thereby reducing the burden on Administrations, operators of ships and the crews of ships" as outlined in reference (n) the servicing intervals of inflatable life rafts and marine evacuation systems for ships may be in concert with the terms of the HSSC annual, periodical and renewal survey stipulated in the 1988 SOLAS Protocol notwithstanding regulations III/20.8, III/20.9 and IV/15.9 of the 1974 SOLAS Convention, as amended". Therefore the annual servicing interval may be carried out up to -/+ 3 months of the due date for a cargo ship.
- 2.3 Inflatable rescue boats: These are to be serviced in accordance with the manufacturers' instructions. The rescue boat must be serviced by an approved facility acceptable to the vessel's Recognized Organization.
- 2.4 Hydrostatic release units: Hydrostatic release units other than disposable units shall be serviced annually at a servicing station that is competent to service them. The annual servicing interval may be carried out up to -/+ 3 months of the due date for a cargo ship. Disposable units shall be replaced when required.
- 2.5 Inflatable liferafts on Passenger Vessels: The Office of the Deputy Commissioner recognizes that annual servicing of the large numbers of liferafts required for passenger ships under their unique voyage conditions may impose unnecessary difficulties. The Office of the Deputy Commissioner therefore approves the servicing of liferafts in smaller more manageable groups throughout the certification year. Each liferaft, however, must be serviced by its servicing due date so that no unit will be beyond the 12 month servicing interval at the time of renewal of the Passenger Ship Safety Certificate.

3.0 Liferafts

3.1 Capacity:

- .1 Where the ship is provided with totally enclosed lifeboats on each side, then the life rafts required under regulation III/31.1.1.2 of reference (c), accommodating the total number of persons on board and are each of a mass less than 185 kg, may be stowed at a position providing for easy side-to-side transfer on a single open deck level. Where appropriate, portable guard rails or bulwarks should be provided to facilitate launching.
- .2 Where the ship is fitted with a single free-fall lifeboat launched from the stern, then the life rafts required under SOLAS III/31.1.2.2 capable of accommodating the total number of persons on board shall be carried on each side of the ship. The life rafts on at least one side of the ship shall be served by launching appliances.

3.2 Embarkation:

1. The acceptable means of embarkation for remotely located survival craft shall meet the requirements for an embarkation ladder found in 6.1.6 of reference (d). The Administration may accept a similar system on a case by case basis if it provides similar safety features as an embarkation ladder. If necessary, the Administration will grant dispensations to existing vessels to give additional time to comply with this requirement.
2. A knotted rope is no longer accepted as a means of enabling descent to the water in a controlled manner for embarkation of remotely located survival craft. This is applicable to both new ships and to existing ships. Existing ships should have an acceptable means of embarkation by the vessel's first safety equipment survey after 1 July 2008.

3.3 Life rafts for Ro/Ro Passenger vessels: Effective 1 January 2010, the existing paragraph 2.5 of regulation III/26 of reference (c) is replaced by the following: "Life rafts carried on Ro-Ro passenger ships shall be fitted with a search and rescue locating device in the ratio of one search and rescue locating device for every four life rafts. The search and rescue locating device shall be mounted inside the life raft so its antenna is more than one metre above the sea level when the life raft is deployed, except that for canopied reversible life rafts the search and rescue locating device shall be so arranged as to be readily accessed and erected by survivors. Each search and rescue locating device shall be arranged to be manually erected when the life raft is deployed. Containers of life rafts fitted with search and rescue locating devices shall be clearly marked."

4.0 Lifeboats: Masters and vessel operators should be familiar with reference (f), IMO Circular MSC.1206 Rev.1, "Measures to Prevent Accidents with Lifeboats." This circular includes guidelines for periodic servicing and maintenance of lifeboats, launching appliances and on-load release gear, as well as specific procedures for maintenance and servicing. The applicable guidance in this circular should be followed.

4.1 Examination and testing: With regards to the SOLAS requirements for examination and testing of lifeboats, lifeboat launching appliances and on load release gear and taking into account the guidelines found in reference (f) this Administration has established the

following procedure for the annual and five year thorough examination and testing of lifeboat launching appliances and on-load release gear.

- .1 The examination and testing should be carried out by:
 - .1 manufacturer, or
 - .2 service personnel properly trained and certified by the manufacturer, or
 - .3 non-manufacturer certified third party service personnel acceptable to the flag Administration and in the presence of a class society surveyor.
 - .2 The five year test must always be conducted in the presence of a class surveyor no matter who conducts it.
 - .3 In order to receive authorization from the Administration to use a non-manufacturer certified third party to conduct the examination and testing of lifeboats, lifeboat launching appliances and on load release gear, the ship management company will need to submit the following to technical@liscr.com:
 - .1 Make, model, and manufacturer of the lifeboat, the lifeboat davits, and the on load releasing gear on board the vessel.
 - .2 Year of manufacture of the lifeboat, the lifeboat davits, and the onload releasing gear.
 - .3 Confirmation that the manufacturer's service and maintenance manuals are available on board for the lifeboat, the associated launching appliance and the on-load release gear.
 - .4 Name and qualifications of nominated non-manufacturer certified third party service facility and the certified servicing personnel who will be tasked with conducting the service. Provide copies of any certification currently held by the facility and its personnel for servicing and examination of lifeboats and their associated launching gear that may have been issued by other lifeboat manufacturers, class societies, or government Administrations.
 - .5 Name of the shipyard and/or location where the thorough examination will be conducted.
 - .6 Proposed date of commencement of the survey.
- 4.2 Damage: When any lifeboat is damaged and declared unseaworthy or is found in need of repair and no replacement boat is readily available, life raft(s) with aggregate capacity at least equal to that of the lifeboat may be substituted, as a temporary measure, but only with specific approval of the Office of the Deputy Commissioner, provided the minimum survival craft capacity prescribed by reference (c) is maintained. These temporary measures will be limited to the minimum period of time required for replacement and, in general, will not exceed three (3) months. Requests for such approvals should be submitted to: technical@liscr.com.
- 4.3 On Load Release and Retrieval Mechanisms - New SOLAS Requirements: New SOLAS regulation III/1.5, which is expected to enter into force on 1 January 2013, requires that for all ships, on-load release mechanisms not complying with paragraphs 4.4.7.6.4 to 4.4.7.6.6 of reference (d), as amended by reference (g), be replaced or modified not later than the next scheduled dry-docking after 1 July 2014, but not later than 1 July 2019.
- .1 Ships built after 1 July 2014 shall comply with reference (d), as amended by

- reference (g).
- .2 Ships built between 20 May 2012 but before 1 July 2014 shall be required to show that systems comply with reference (d), as amended by reference (g).
 - .3 Ships built prior to 20 May 2012 shall have an assessment conducted in accordance with reference (l).
- 4.3.1 **Manufacturers Self-Assessment:** Considering that paragraphs 4.4.7.6.4 to 4.4.7.6.6 of reference (d) represent important safety improvements, manufacturers will need to carry out a self-assessment of their existing lifeboat release and retrieval systems in accordance with these Guidelines at the earliest available opportunity, but not later than 1 July 2013. The manufacturer shall submit the results of the self-assessment, along with the applicable approval certificate, all associated supporting design calculations, plans and testing documentation to the Recognized Organization acting on behalf of the Administration. The design information shall include the specification and the installation instructions for the complete operating system as well as all safety instructions regarding the operating system and any interlocks provided.
- 4.3.2 **Recognized Organizations:** Upon receipt of the results of the manufacturer self-assessment, the Recognized Organizations acting on behalf of Liberia Maritime Authority, are to carry out a design review to check that the type of existing lifeboat release and retrieval systems comply with paragraphs 4.4.7.6.4 to 4.4.7.6.6 of reference (d). In addition, after a successful completion of the design review, the RO shall witness a performance test conducted by the manufacturer for each type of lifeboat release and retrieval systems to ensure compliance with paragraphs 4.4.7.6.4 to 4.4.7.6.6 of the reference (d). The performance test shall be conducted using the test specified in appendix 1 to the IMO Guidelines (reference (l)).
- 4.3.3 **Evaluations:** The evaluations mentioned in paragraph 4.3.1 and 4.3.2 above should be completed no later than 1 July 2013. Therefore manufacturers are encouraged to complete the self-assessment as soon as possible so that the design review and performance test can be conducted by the ROs no later than 01 July 2013.
- 4.3.4 **Lifeboat Release and Retrieval System Categorization:** Depending on the outcome of the evaluation, every lifeboat release and retrieval system should be categorized as being either compliant, compliant after modification or non-compliant. Thereafter:
- .1 systems categorized as being compliant, or compliant after modification, may remain in service; and
 - .2 every system categorized as being non-compliant should be replaced with a new system or modified to be made compliant.
- 4.3.5 **Overhaul Examination:** Not later than the first scheduled dry-docking after 1 July 2014, every lifeboat release and retrieval system of a type found to be compliant in respect of the existing lifeboat release and retrieval system evaluation should be subject to an overhaul examination according to annex 1 of reference (h), to the measures to prevent accidents with lifeboats by the manufacturer or by one of their representatives. The examination also includes verification that the system examined is of the same type as the system that passed the evaluation and is suitable for the ship.

The scope of the overhaul examination should also include a detailed assessment of the condition of the components of the lifeboat release and retrieval system to observe the extent of wear, corrosion, erosion and other types of material degradation that may have occurred. Upon satisfactory completion of the overhaul examination, the manufacturer or one of their representatives should issue a factual statement to confirm this, for retention on board.

- 4.3.6 The Recognized Organizations acting on behalf of the Administration, should, when applying SOLAS regulation III/1.5, ensure that an evaluation of the type of existing lifeboat release and retrieval system is undertaken, for compliance with paragraphs 4.4.7.6.4 to 4.4.7.6.6 of the reference (d) in accordance with these Guidelines. A flowchart of the lifeboat release and retrieval system evaluation process is set out in appendix 2 of reference (l).

4.4 Fall Preventer Device (FPD) can be used to minimize the risk of injury or death by providing a secondary alternate load path in the event of failure of the on-load hook or its release mechanism or of accidental release of the on-load hook. However, FPDs should not be regarded as a substitute for a safe on-load release mechanism. In the interest of safety to ships crew, the Liberian Administration concurs with mandating the use of FPDs on ships fitted with lifeboat on-load release systems in accordance with reference (k), until such time as the on-load release gear has either been found to be in compliance with the reference (d) requirements, as noted in section 4.3 or has been replaced with a compliant system.

Therefore, in accordance with reference (k) the guidelines for the fitting and use of fall preventer devices, FPDs shall be employed for each existing lifeboat release and retrieval system until the system is:

- .1 found compliant with the reference (d); or
- .2 modified and found compliant with reference (d); or
- .3 found compliant with paragraphs 4.4.7.6.4 to 4.4.7.6.6 of the reference (d); and paragraphs 16 and 17 (overhaul examination) of the Guidelines; or
- .4 modified and found compliant with paragraphs 4.4.7.6.4 to 4.4.7.6.6 of reference (d) and paragraphs 16 and 17 (overhaul examination) of these Guidelines; or
- .5 replaced by a new compliant lifeboat release and retrieval system.

FPDs shall be designed, installed, inspected, and utilized in accordance with IMO Guidelines contained in reference (k).

4.5 Lifeboat Air Support Systems

- .1 **Periodic Inspections:** In accordance with the manufacturer's instructions and guidelines the air support system shall be subject to periodic inspection carried out by the vessel's crew on a monthly basis as required by Regulation 20.7 of reference (c).
- .2 **Annual Examinations:** All lifeboat air support systems and bottles shall be examined at least annually by the attending class society surveyor as part of the annual statutory survey for the Safety Equipment Certificate (SEC) or MODU Code certificate.
- .3 **Recharging:** If the air pressure in the bottles should fall below ten percent (10%) of the normal full level air pressure, then the air bottles should be recharged in accordance with the manufacturer's instructions and guidelines. The air bottle can only be

recharged on board from an air compressor that has been certified for providing air that is fit for human consumption. When applicable, the on board air supply air recharging systems should be checked for air quality as part of the annual statutory survey for the SEC or MODU Code certificate. If the ship is not equipped with such an air compressor then the bottle must be sent ashore to an authorized service facility for recharging or exchange.

- .4 Hydrostatic testing: Hydrostatic testing of lifeboat air support bottles shall be carried out once every five years or in accordance with the recommendations of the bottle manufacturer whichever is due the earliest. The air support bottles shall also be hydrostatically tested prior to refilling a bottle that has been discharged. The hydrostatic test date must be permanently marked on the bottles or, if the bottles are made of a material that cannot be stamped with the date, a tag indicating the hydrostatic test date should be securely attached to the bottles. Intervals for hydrostatically testing cylinders of the ultra lightweight type may vary and will depend upon the requirements of the cylinder manufacturer and the vessel's Recognized Organization. Servicing of the cylinders must be performed to the satisfaction of the Recognized Organization surveyor.
- .5 Gauges: The accuracy of the primary pressure gauge and secondary air pressure gauge shall be verified at least once every five years or in accordance with the recommendations of the bottle manufacturers whichever comes first. Verification of the gauges must be performed to the satisfaction of the Recognized Organization surveyor.

4.6 Manuals: The Administration encourages owners/managers to develop user-friendly manuals for operation and maintenance of lifeboat systems including launching appliances. These manuals should be easy to understand and reflect the equipment used on board the ship. The use of video materials in conjunction with printed manuals can be an effective tool.

The manual for a lifeboat system including launching appliance should be developed with the collaboration of manufacturers of the lifeboat and the launching appliance and preferably be a single document.

- .1 The operation and maintenance manual for a lifeboat system may contain the following information:
 - .1 General
 - .2 Method of checking proper closure of release hooks
 - .3 Launching operation
 - .3.1 Preparation before launching
 - .3.2 Setting painter
 - .3.3 Release of safety pin for winch hand brake lever
 - .3.4 Release of davit arm stop
 - .3.5 Boarding the lifeboat
 - .3.6 Launching procedure
 - .3.7 Release gear operation
 - .3.8 Painter release and lifeboat operation
 - .4 Recovery operation
 - .4.1 Resetting procedure of release hook
 - .4.2 Recovery procedure

- .4.3 Stowage procedure
- .5 On-load/off-load release gear system
 - .5.1 General
 - .5.2 Fore and aft hook units
 - .5.3 Release handle unit
 - .5.4 Hydrostatic interlock unit
- .6 Inspection and maintenance
 - .6.1 General precautions
 - .6.2 Inspection and maintenance of lifeboat and release gear system
 - .6.3 Inspection and maintenance of launching appliances (davits and winches).

5.0 General Safety Precautions Concerning Lifeboats

- 5.1 It is of the utmost importance that the officers and crewmembers are familiar with and confident that they will be able to safely use the lifesaving apparatus.
- 5.2 When servicing davits in the stowed position, the Harbor Safety Pins or other similar Safety devices must be in place to ensure the davits cannot be accidentally moved.
- 5.3 When personnel are in the stowed lifeboats, the hanging-off pendants should be used to prevent the boat from being accidentally released and dropped from the releasing gear.
- 5.4 All launching apparatus should receive regular maintenance by persons who are familiar with and able to follow the manufacturer's instructions.
- 5.5 Checklists should be developed and used to ensure that all safety precautions are in place before personnel perform maintenance or inspections.
- 5.6 Checklists should be developed and used to ensure that standard safety precautions and operating procedures are followed including proper stowing/securing after use.
- 5.7 No additional securing arrangements should be used which are not included in the lowering/free-fall instructions except for additional securing devices during extreme heavy weather, which must be removed as soon as the weather moderates.

These standard procedures should be included in each vessel's safety management system as applicable.

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