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Introduction

- 1 This Guidance for authorization of service provider applies to ship owners, service providers and all Myanmar flagged ships subject to the International Convention for the Safety of Life at Sea (SOLAS).
- 2 The International Convention for the Safety of Life at Sea (SOLAS) requires that survival craft and rescue boats shall be serviced at approved servicing facilities. The Department of Marine Administration (DMA) does not approve service providers for other equipment unless the approval is mandated by convention requirements.
- 3 The DMA recognizes servicing facilities approved by a State which is Party to the SOLAS Convention or by an RO on behalf of the DMA or other Party to the SOLAS Convention. There are presently no servicing facilities in the Republic of the Union of Myanmar.
- 4 The DMA does not, however, maintain an exhaustive list of every world-wide service station so recognized. As a result, the DMA relies upon the local knowledge and the extensive network of RO offices. The RO station offices should know the suitability of such service stations in their area. The service station recommended by the RO will be acceptable to the DMA.
- 5 This Guidance for authorization of service provider is herewith set out by DMA stated in the Directive 08/2018 on 22nd January 2018.

Part I.

Interim recommendation on conditions for Authorization of Service Providers for Lifeboats, Launching Appliances and On-load Release Gear (Reference: IMO MSC. 1 /Circ. 1277 and its Annex)

1 The Maritime Safety Committee of IMO, at its eighty-fourth session (7 to 16 May 2008), approved the Interim Recommendation on conditions for authorization of service providers for lifeboats, launching appliances and on-load release gear, set out in the annex of MSC. 1/Circ. 1277.

2 The Department of Marine Administration (DMA) uses the Interim Recommendation when applying the relevant provisions of SOLAS regulation III/20 and the Guidelines for periodic servicing and maintenance of lifeboats, launching appliances and on-load release gear (MSC.1/Circ.1206), and hereby brings it to the attention of all parties concerned.

3 The thorough examination, operational testing, repair, and overhaul of lifeboats, launching appliances and on-load release gear are carried out in accordance with SOLAS regulation III/20 by service providers authorized or accepted/recognized by the DMA. The Service providers shall be qualified in these operations for each make and type of equipment for which they provide the service. Such qualification should include, as a minimum:

3.1 employment and documentation of personnel certified in accordance with a recognized national, international or industry standard as applicable, or an equipment manufacturer's established certification program. In either case, the certification program should be based on the guidelines in the appendix for each make and type of equipment for which service is to be provided;

3.2 availability of sufficient tools, and in particular any specialized tools specified in the equipment manufacturer's instructions, including portable tools as needed for work to be carried out on board ship;

3.3 access to sufficient materials, spare parts and accessories as specified by the equipment manufacturer for repairing lifeboats, launching appliances and on-load release gear, as applicable;

3.4 for servicing and repair work involving disassembly or adjustment of on-load release mechanisms, availability of the equipment manufacturer's specifications, and genuine replacement parts as specified or supplied by the equipment manufacture and

3.5 a documented quality system, to include at least the following:

3.5.1 code of conduct for the relevant activity;

3.5.2 maintenance and calibration of equipment;

3.5.3 training programmes for personnel;

3.5.4 supervision and verification to ensure compliance with operational procedures;

- 3.5.5** recording and reporting of information;
- 3.5.6** quality management of subsidiaries and agents;
- 3.5.7** job preparation; and
- 3.5.8** periodic review of work process procedures, complaints, corrective actions and issuance, maintenance and control of documents.

A documented quality system complying with the most current version of the ISO 9000 series and including the above items, would be considered acceptable.

4 The DMA will arrange for regular inspections of service providers in Myanmar to ensure that work continues to be carried out based on this interim recommendation, and will withdraw the authorization of service providers who are not in compliance. For service providers situated in other countries, the DMA may accept or recognize service providers authorized, checked or inspected by surveyors nominated for the purpose or by recognized organizations or by other SOLAS Contracting Governments.

5 The DMA will ensure that information regarding authorized service providers for lifeboats, launching appliances and on-load release gear is made available to mariners.

6 The DMA will take appropriate measures to ensure that national manufacturers of equipment certified under SOLAS chapter III for installation and use onboard ships undertake to ensure that equipment, instructions, specialized tools, spare parts, training and accessories, as required, are available to independent service providers in a timely and cost effective manner.

7 In cases where an equipment manufacturer is no longer in business or no longer provides technical support, the DMA may authorize service providers for the equipment on the basis of prior authorization for the equipment and/or long term experience and demonstrated expertise as an authorized service provider.

8 The contents of this interim recommendation apply equally to manufacturers when they are acting as service providers.

Part II.

Guideline for Certification of Personnel for Servicing and Maintenance of Lifeboats, Launching Appliances and On-load Release Gear (Reference: Appendix of IMO MSC. 1 /Circ. 1277)

1 General

1.1 The objective of this Guideline is to establish standards for certification of personnel for servicing and maintenance of lifeboats, launching appliances and on-load release gear, based on annex 1 to MSC.1/Circ.1206.

1.2 Personnel for the work specified in paragraph 12 of annex 1 to MSC.1/Circ.1206 should be certified in accordance with a certification programme based on these Guidelines.

2 Education and training

2.1 Education and training for initial certification of personnel should address, as a minimum:

2.1.1 causes of lifeboat accidents;

2.1.2 relevant rules and regulations, including international conventions;

2.1.3 design and construction of lifeboats, including on-load release gear and launching appliances;

2.1.4 education and practical training in the procedures specified in annex 1 of MSC.1/Circ.1206 for which certification is sought;

2.1.5 detailed procedures for thorough examination, operational testing, repair and overhaul of lifeboat, launching appliances and on-load release gear, as applicable; and

2.1.6 procedures for issuing a report of service and statement of fitness for purpose based on MSC.1/Circ.1206 (annex 1, paragraph 15).

2.2 The education and training for the personnel should include practical technical training on actual inspection and maintenance using the equipment (lifeboats, launching appliances and/or on-load release gear) for which the personnel are to be certified. The technical training should include disassembly, reassembly, correct operation and adjustment of the equipment. Classroom training should be supplemented by field experience in the operations for which certification is sought, under the supervision of an experienced senior certified person.

2.3 Prior to issuance of certification, a competency assessment should be satisfactorily completed, using the equipment for which the personnel are to be certified.

3 Terms of validity of certificates and update training

3.1 Upon completion of training and competency assessment, a certificate should be issued defining the level of qualification and the scope of the certification (e.g., makes and types of equipment). The expiry date should clearly be written on the certificate. The expiry date should be within three years from the date of issuance of the certificate.

3.2 A competency assessment, and refresher training as appropriate, on the basis of that assessment, should be conducted to renew the certification.

Part III.

Requirements for Maintenance, Thorough Examination, Operational Testing, Overhaul and Repair of Lifeboats and Launching Appliances and Release Gear (Reference: IMO Resolution MSC. 402 (96), 19 May 2016)

By resolution MSC.402(96), IMO adopted amendments to regulations III/3 and III/20 of the International Convention for the Safety of Life at Sea, 1974 ("the Convention"), concerning maintenance, thorough examination, operational testing, overhaul and repair of lifeboats and rescue boats, launching appliances and release gear.

The Department of Marine Administration (DMA) notes that the aforesaid Requirements will take effect on 1 January 2020 upon entry into force of the associated amendments to regulations III/3 and III/20 of the Convention. Therefore it is hereby brought to the attention of all parties concerned for the necessary preparation and the early implementation.

The DMA takes appropriate measures to ensure that national manufacturers of equipment certified under chapter III of the Convention for installation and use on board ships undertake to ensure that equipment, instructions, specialized tools, spare parts, training and accessories, as required, are available to independent service providers in a timely and cost-effective manner.

1 General

1.1 The objective of these Requirements for maintenance, thorough examination, operational testing, overhaul and repair of lifeboats and rescue boats, launching appliances and release gear (the Requirements) is to establish a uniform, safe and documented standard for maintenance, thorough examination, operational testing, overhaul and repair of the equipment.

1.2 The detailed procedures covered by these Requirements are provided in section 6 of this Part.

1.3 These Requirements relate to the following regulations:

1.3.1 SOLAS regulation III/20 - Operational readiness, maintenance and inspections; and

1.3.2 SOLAS regulation III/36 – Instructions for onboard maintenance.

1.4 The Company, who is defined in SOLAS Reg. IX/1.2, shall ensure that maintenance, thorough examination, operational testing, overhaul and repair on board its ships is conducted in accordance with these Requirements and SOLAS regulation III/20. The Company shall establish and implement health, safety and environment (HSE) procedures covering all activities set out in these Requirements.

1.5 The personnel carrying out maintenance, thorough examination, operational testing overhaul and repair as described in paragraphs 4.2 and 4.3 shall be certified by an authorized service provider in accordance with the requirements specified in section 8. When performing such activities on board ships they shall comply with health, safety and environment (HSE) instructions and procedures established by the Company.

2 Application

2.1 These Requirements shall apply to the maintenance, thorough examination, operational testing, overhaul and repair of:

- 2.1.1 lifeboats (including free-fall lifeboats), rescue boats and fast rescue boats; and
- 2.1.2 launching appliances and on-load and off-load release gear for lifeboats (including primary and secondary means of launching appliances for free-fall lifeboats), rescue boats, fast rescue boats and davit-launched liferafts.

2.2 For the purpose of these Requirements:

2.2.1 Authorized service provider means an entity authorized by the DMA in accordance with section 3 and section 7 of this Part.

2.2.2 Equipment means the aforementioned equipment to which the Requirements apply.

2.2.3 Manufacturer means the original equipment manufacturer or any entity which has taken legal and legitimate responsibilities for equipment when the original equipment manufacturer no longer exists or supports the equipment.

2.2.4 Off-load release mechanism means a release mechanism which releases the survival craft/rescue boat/fast rescue boat when it is waterborne or when there is no load on the hooks.

2.2.5 On-load release mechanism means a release mechanism which releases the survival craft/rescue boat/fast rescue boat with load on the hooks.

2.2.6 Repair means any activities requiring disassembly of equipment, or any other activities outside the scope of the instructions for on-board maintenance and for emergency repair of life - saving appliances prepared in accordance with SOLAS regulations III/36.2 and III/35.3.18, respectively.

2.2.7 Overhaul means a periodical activity defined by the manufacturer that proves continued fitness for purpose for a defined period subject to correct maintenance.

3 Authorization

3.1 The Company shall ensure that the thorough examination, operational testing, repair and overhaul of equipment (see paragraphs 4.2 and 4.3) shall be carried out in accordance with SOLAS regulation III/20 by service providers authorized in accordance with section 7.

3.2 The requirements in section 7 shall equally apply to manufacturers when they are acting as authorized service providers.

4 Qualification Levels and Certification

4.1 Weekly and monthly inspections and routine maintenance as specified in the equipment maintenance manual(s), shall be conducted by authorized service providers, or by shipboard personnel under the direction of a senior ship's officer in accordance with the maintenance manual(s).

4.2 Annual thorough examinations and operational tests, as described in section 6.2, shall be conducted by certified personnel of either the manufacturer or an authorized service provider in accordance with section 7 and section 8. The service provider may be the ship operator provided that it is authorized in accordance with section 3 and section 7.

4.3 Five-year thorough examination, any overhaul, overload operational tests*, as described in section 6.3, and repair shall be conducted by certified personnel of either the manufacturer or an authorized service provider in accordance with section 7 and section 8.

(* See SOLAS regulations III/20.11.1.2, III/20.11.2.2 and III/20.11.3.2.)

5 Reports and Records

5.1 All reports and checklists shall be completed and signed by the person who carries out the inspection and maintenance work and countersigned by the Company's representative or the ship's master.

5.2 Records of maintenance, thorough examination, operational testing, overhaul and repair shall be updated and filed on board the ship for the service life of the equipment.

5.3 When thorough examination, operational testing, overhaul and repair are completed, a statement confirming that the lifeboat arrangements remain fit for purpose shall be promptly issued by the manufacturer or authorized service provider that conducted the work. A copy of valid documents of certification and authorization as appropriate shall be included with the statement.

6 Specific Procedures for Inspection, Maintenance, Thorough Examination, Operational Testing, Overhaul and Repair

6.1 General/Maintenance

6.1.1 Any inspection, maintenance, thorough examination, operational testing, overhaul and repair shall be carried out according to the maintenance manuals and associated technical documentation developed by the manufacturer.

6.1.2 A full set of maintenance manuals and associated technical documentation as specified in paragraph 6.1.1 shall be available on board.

6.1.3 The maintenance manuals and associated technical documentation as specified in paragraph 6.1.1 shall include the items listed in sections 6.2 and 6.3 as a minimum and shall be kept up to date by the Company taking into account relevant information provided by the manufacturer.

6.2 Annual thorough examination and operational test

6.2.1 All items listed in checklists for the weekly/monthly inspections required by SOLAS regulations III/20.6 and III/20.7 also form the first part of the annual thorough examination.

6.2.2 Records of inspections and routine on-board maintenance carried out by the ship's crew and the applicable certificates for the equipment shall be reviewed.

6.2.3 For lifeboats (including free-fall lifeboats), rescue boats and fast rescue boats, the following items shall be thoroughly examined and checked for satisfactory condition and operation:

6.2.3.1 condition of the boat structure including fixed and loose equipment (including a visual examination of the external boundaries of the void spaces, as far as practicable);

6.2.3.2 engine and propulsion system;

6.2.3.3 sprinkler system, where fitted;

6.2.3.4 air supply system, where fitted;

6.2.3.5 maneuvering system;

6.2.3.6 power supply system;

6.2.3.7 bailing system;

6.2.3.8 fender/skate arrangements; and

6.2.3.9 rescue boat righting system, where fitted.

6.2.4 For release gear of lifeboats (including free-fall lifeboats), rescue boats, fast rescue boats

and liferafts, the following shall be thoroughly examined for satisfactory condition* and operation after the annual operational test of the winch brake with the empty boat or equivalent load, as required by paragraph 6.2.10:

- 6.2.4.1** operation of devices for activation of release gear;
- 6.2.4.2** excessive free play (tolerances);
- 6.2.4.3** hydrostatic interlock system, where fitted;
- 6.2.4.4** cables for control and release; and
- 6.2.4.5** hook fastening.

Note 1. The setting and maintenance of release gear are critical operations with regard to maintaining the safe operation of lifeboats (including free-fall lifeboats), rescue boats, fast rescue boats and davit launched liferafts. Utmost care shall be taken when carrying out all inspection and maintenance operations on the equipment.

Note 2. No maintenance or adjustment of the release gear shall be undertaken while the hooks are under load.

6.2.5 The operational test of davit-launched lifeboats' and rescue boats' on-load release function shall be carried out as follows:

- 6.2.5.1** position the boat partially in the water such that the mass of the boat is substantially supported by the falls and the hydrostatic interlock system, where fitted, is not triggered;
- 6.2.5.2** operate the on-load release gear;
- 6.2.5.3** reset the on-load release gear; and
- 6.2.5.4** examine the release gear and hook fastening to ensure that the hook is completely reset and no damage has occurred.

6.2.6 The operational test of davit-launched lifeboats' and rescue boats' off-load release function shall be carried out as follows:

- 6.2.6.1** position the boat so that it is fully waterborne;
- 6.2.6.2** operate the off-load release gear;
- 6.2.6.3** reset the off-load release gear; and
- 6.2.6.4** recover the boat to the stowed position and prepare for operational readiness.

During the test, prior to hoisting, it shall be checked that the release gear is completely and properly reset. The final turning-in of the boat shall be done without any persons on board.

6.2.7 The operational test of the free-fall lifeboat release function shall be carried out as follows:

- 6.2.7.1** engage the arrangements for the test without launching the lifeboat, required by paragraph 4.7.6.4 of the LSA Code, as specified in the manufacturer's operating instructions;
- 6.2.7.2** if required to be on board, ensure that the operator is properly seated and secured in the seat location from which the release mechanism is to be operated;

(*Hanging-off pennants may be used for this purpose but should not remain connected at other times, such as when the lifeboat is normally stowed and during training exercises. The release gear is to be examined prior to its operational test. The release gear is to be re-examined after its operational test and the operational test of the winch brake. Special consideration shall be given to ensure that no damage has occurred during the winch brake test, especially to the hook fastening.)

- 6.2.7.3** operate the release mechanism to release the lifeboat;
- 6.2.7.4** reset the lifeboat in the stowed configuration;
- 6.2.7.5** repeat the procedures referred to in .2 to .4 above, using the back-up release mechanism, if applicable;
- 6.2.7.6** remove the arrangements for the test without launching the lifeboat, required by paragraph 4.7.6.4 of the LSA Code; and
- 6.2.7.7** verify that the lifeboat is in the ready to launch stowed configuration.

6.2.8 The operational test of the davit-launched liferaft automatic release function shall be carried out as follows:

- 6.2.8.1** manually release the hook with a load of 150 kg on the hook;
- 6.2.8.2** automatically release the hook with a dummy weight of 200 kg on the hook when it is lowered to the ground; and
- 6.2.8.3** examine the release hook and hook fastening to ensure that the hook is completely reset and no damage has occurred.
- 6.2.8.4** If a raft is used for the test instead of a dummy weight, the automatic release function shall release the raft when waterborne.

6.2.9 For launching appliances for lifeboats(including free-fall lifeboats), rescue boats, fast rescue boats and liferafts, the following items shall be examined for satisfactory condition and operation:

- 6.2.9.1** davit or other launching structures, in particular with regard to corrosion, misalignments, deformation and excessive free play;
- 6.2.9.2** wires and sheaves, possible damage such as kinks and corrosion;
- 6.2.9.3** lubrication of wires, sheaves and moving parts; and
- 6.2.9.4** if applicable:
 - 6.2.9.4.1** functioning of limit switches;
 - 6.2.9.4.2** stored power systems;
 - 6.2.9.4.3** hydraulic systems; and
- 6.2.9.5** for winches:
 - 6.2.9.5.1** inspecting the braking system in accordance with winch manual;
 - 6.2.9.5.2** replacing brake pads, when necessary;
 - 6.2.9.5.3** winch foundation; and
 - 6.2.9.5.4** if applicable:
 - 6.2.9.5.4.1** remote control system; and
 - 6.2.9.5.4.2** power supply system.

6.2.10 For winches of the launching appliances for lifeboats (including free-fall lifeboats), rescue boats, fast rescue boats and liferafts, annual operational testing shall be done by lowering the empty craft or boat or equivalent load. When the craft has reached its maximum lowering speed and before the craft enters the water, the brake shall be abruptly applied. Following these tests, the stressed structural parts shall be reinserted* where the structure permits the reinsertion.

(*In loading the craft or boat for this test, precautions should be taken to ensure that the stability of the craft or boat is not adversely affected by free surface effects or the raising of the centre of gravity.)

6.3 Five-year thorough examination, overhaul and overload operational test

6.3.1 The five-year operational test of the winches of the launching appliances shall be carried out with a proof load equal to 1.1 times the weight of the survival craft or rescue boat and its full complement of persons and equipment. When the proof load has reached its maximum lowering speed, the brake shall be abruptly applied.

6.3.2 Following these tests, the stressed structural parts shall be reinserted* where the structure permits the reinsertion.

6.3.3 The operational tests and overhaul at five-year intervals of release gear for lifeboats (including free-fall lifeboats), rescue boats, fast rescue boats and liferafts shall include:

6.3.3.1 dismantling of hook release units;

6.3.3.2 examinations with regard to tolerances and design requirements;

6.3.3.3 adjustment of release gear system after assembly;

6.3.3.4 operational tests as per paragraphs 6.2.5, 6.2.6, 6.2.7 or 6.2.8 above, as applicable, but with a load equal to 1.1 times the weight of the survival craft or rescue boat and its full complement of persons and equipment; and

6.3.3.5 examinations of vital parts with regard to defects and cracks*.

6.3.4 Any other overhaul if required shall be carried out in accordance with paragraph 6.3.3.

7. Requirements for Authorization of Service Providers

7.1 Authorization as required by paragraph 3.1 shall include, as a minimum, demonstration of:

7.1.1 employment and documentation of personnel certified in accordance with a recognized national, international or industry standard as applicable, or a manufacturer's established certification programme. In either case, the certification programme shall comply with section 8 for each make and type of equipment for which service is to be provided;

7.1.2 availability of sufficient tools, and in particular any specialized tools specified in the manufacturer's instructions, including portable tools as needed for work to be carried out on board ship;

7.1.3 access to appropriate parts and accessories as specified for maintenance and repair;

7.1.4 availability of the manufacturer's instructions for repair work involving disassembly or adjustment of on-load release mechanisms and davit winches; and

7.1.5 a documented and certified quality system, which covers at least the following:

7.1.5.1 code of conduct for personnel involved in the relevant activity;

7.1.5.2 maintenance and calibration of measuring tools and gauges;

7.1.5.3 training programmes for personnel;

7.1.5.4 supervision and verification to ensure compliance with operational procedures;

7.1.5.5 recording and reporting of information;

7.1.5.6 quality management of subsidiaries and agents;

(* In loading the craft or boat for this test, precautions should be taken to ensure that the stability of the craft or boat is not adversely affected by free surface effects or the raising of the centre of gravity.)

(* Non-destructive examination (NDE) techniques, such as dye penetrants (DPE), may be suitable.)

7.1.5.7 job preparation; and

7.1.5.8 periodic review of work process procedures, complaints, corrective actions and issuance, maintenance and control of documents.

Note: A documented quality system complying with the most current version of the ISO 9000 series and including the above items would be considered acceptable.

7.2 The DMA will ensure that information regarding authorized service providers is made available.

7.3 In cases where a manufacturer is no longer in business or no longer provides technical support, the DMA may authorize service providers for the equipment on the basis of prior authorization for the equipment and/or long-term experience and demonstrated expertise as an authorized service provider.

7.4 Issuance and maintenance of authorization document:

7.4.1 upon successful initial audit of a service provider, an authorization document shall be issued by the DMA defining the scope of services provided

(e.g. makes and types of equipment). The expiry date shall be clearly written on the document;

7.4.2 the DMA will ensure that work continues, e.g. by periodic audit, to be carried out in accordance with these Requirements, and shall withdraw the authorization of service providers who are not in compliance; and

7.4.3 the DMA may accept or recognize service providers authorized by other DMA or by their Recognized Organizations.

8. Requirement for Certification of Personnel

8.1 Personnel for the work specified in paragraphs 4.2 and 4.3 shall be certified by the manufacturer or authorized service provider for each make and type of the equipment to be worked on in accordance with the provisions in this section.

8.2 Education and training

8.2.1 Initial certification shall be issued only to personnel having completed education, training and competence assessment. Education shall address, as a minimum:

8.2.1.1 relevant rules and regulations, including international conventions;

8.2.1.2 design and construction of lifeboats(including free-fall lifeboats),rescue boats and fast rescue boats, including on-load release gear and launching appliances;

8.2.1.3 causes of lifeboat and rescue boat accidents;

8.2.1.4 education and practical training in the procedures specified in section 6 for which certification is sought;

8.2.1.5 detailed procedures for thorough examination, operational testing, repair and overhaul of lifeboat (including free-fall lifeboats), rescue boats and fast rescue boats, launching appliances and on-load release gear, as applicable;

8.2.1.6 procedures for issuing a report of service and statement of fitness for purpose based on paragraph 5.3; and

8.2.1.7 work, health and safety issues while conducting activities on board.

8.2.2 Training shall include practical technical training on thorough examination, operational testing, maintenance, repair and overhaul techniques using the equipment for which the personnel are to be certified. The technical training shall include disassembly, reassembly, correct operation and adjustment of the equipment. Classroom training shall be supplemented by field experience in the operations for which certification is sought, under the supervision of a certified person.

8.2.3 Prior to issuance of certification, a competency assessment shall be satisfactorily completed, using the equipment for which the personnel are to be certified.

8.3 Validity of certificates and renewal

8.3.1 Upon completion of training and competency assessment, a certificate shall be issued defining the level of qualification and the scope of the certification (i.e. makes and types of equipment and specifically state which activities in paragraphs 4.2 and 4.3 are covered by the certification). The expiry date shall clearly be written on the certificate and shall be three years from the date of issue. The validity of any certificate shall be suspended in the event of any shortfall in performance and only revalidated after a further competency assessment.

8.3.2 A competency assessment shall be conducted to renew the certification. In cases where refresher training is found necessary a further assessment shall be carried out after completion.

PART IV
RECOMMENDATION ON CONDITIONS FOR THE APPROVAL OF
SERVICING STATIONS FOR INFLATABLE LIFERAFTS
(Reference: IMO resolution A.761 (18))

THE ASSEMBLY,

RECALLING Article 15(j) of the Convention on the International Maritime Organization concerning the functions of the Assembly in relation to regulations and guidelines concerning maritime safety,

NOTING that regulation III/19.8.1 of the International Convention for the Safety of Life at Sea, 1974, as amended, requires that every inflatable liferaft shall be serviced at intervals not exceeding 12 months but that, where it appears proper and reasonable, the Administration may extend this period to 17 months and that inflatable liferafts shall be serviced at an approved servicing station which is competent to service them, maintains proper servicing facilities and uses only properly trained personnel,

NOTING ALSO resolution A.693(17) on the conditions for the approval of servicing stations for inflatable liferafts,

HAVING CONSIDERED the recommendation made by the Maritime Safety Committee at its sixty-second session,

1. **ADOPTS** the Recommendation on Conditions for the Approval of Servicing Stations for Inflatable Liferafts, set out in the annex to the present resolution;
2. **INVITES** Governments to inspect servicing stations for inflatable liferafts within their authority in accordance with that Recommendation;
3. **AUTHORIZES** the Maritime Safety Committee to keep the Recommendation under review and to adopt, when appropriate, amendments thereto;
4. **REVOKES** resolution A.693(17).

Note: As advised by the IMO Maritime Safety Committee, the Department of Marine Administration (DMA) uses that recommendation to inspect servicing stations for inflatable liferafts.

**RECOMMENDATION ON CONDITIONS FOR THE
APPROVAL OF SERVICING STATIONS FOR
INFLATABLE LIFERAFTS**

General

1 The Department of Marine Administration (DMA) shall ensure that the periodic survey of inflatable liferafts is performed at servicing stations that have demonstrated competence to service and repack rafts, maintain an adequate facility and use only properly trained personnel. In order to be approved, servicing stations should have demonstrated this capability for inflatable liferafts of each manufacturer whose liferafts they are competent to service and should comply with the following:

- .1** servicing of inflatable liferafts should be carried out in fully enclosed spaces only. There should be ample room for the number of inflatable liferafts expected to be serviced at any one time; the ceiling should be sufficiently high to allow the largest liferafts to be serviced to be turned over when inflated, or an equally efficient means to facilitate inspection of bottom seams should be provided;
- .2** the floor should be provided with a clean surface sufficiently smooth to ensure that no damage will occur to the liferaft fabric;
- .3** the servicing space should be well lit, provided that direct rays of sunlight do not enter the space;
- .4** the temperature and, when necessary, the relative humidity in the servicing space should be sufficiently controlled to ensure that servicing and repairs can be effectively carried out;
- .5** the servicing space should be efficiently ventilated, but be free from draughts;
- .6** separate areas or rooms should be provided for:
 - 6.1** liferafts awaiting servicing, repair or delivery;
 - 6.2** the repair of glass-fibre containers and the painting of compressed gas cylinders;
 - 6.3** materials or spare parts;
 - 6.4** administrative purposes;
- .7** means should be provided in the liferaft storage space to ensure that liferafts in containers or valises are neither stored on top of each other in more than two tiers unless supported by shelving nor subjected to excessive loads;
- .8** spare and obsolete pyrotechnics should be stored in a separate, safe and secure magazine well away from the servicing and storage spaces;
- .9** sufficient tools should be available for the servicing of liferafts and

release gear in accordance with the requirements of the manufacturer, including:

- 9.1 suitable and accurate manometers or pressure gauges, thermometers and barometers which can be easily read;
- 9.2 one or more air pumps for inflating and deflating liferafts, together with a means of cleaning and drying the air and including the necessary high-pressure hoses and adapters;
- 9.3 a scale for weighing inflation gas cylinders with sufficient accuracy;
- 9.4 sufficient gas for blowing through the inlet system of the liferafts;
- .10 procedures should be established to ensure that each gas cylinder is properly filled and gastight before fitting to a liferaft;
- .11 sufficient materials and accessories should be available for repairing liferafts, together with replacements of the emergency equipment to the satisfaction of the manufacturer;
- .12 when servicing davit-launched liferafts, adequate means should be provided for overload testing of such liferafts;
- .13 servicing and repair work should only be carried out by qualified persons who have been adequately trained and certificated by the liferaft manufacturer. The training procedure should ensure that servicing personnel are made aware of changes and new techniques;
- .14 arrangements should be made for the manufacturer to make available to the service station:
 - 14.1 changes to servicing manuals, servicing bulletins and instructions;
 - 14.2 proper materials and replacement parts;
 - 14.3 bulletins or instructions from the DMA;
 - 14.4 training for servicing technicians;
- .15 smoking should not be allowed in the servicing and packing areas.

2. After initial approval, DMA should arrange for the frequent inspection of servicing stations to ensure that manufacturer support is up to date and effective and that the requirements of this Recommendation are complied with.

3. DMA should ensure that information regarding servicing facilities for inflatable liferafts is made available to mariners.

Servicing of inflatable liferafts

4 The following tests and procedures should be carried out, except where noted otherwise, at every servicing of an inflatable liferaft fitted as life-saving equipment.

5 Inflatable liferaft servicing should be carried out in accordance with the appropriate manufacturer's servicing manual. Necessary procedures should include, but not be limited to, the following:

- .1** inspection of the container for damage;
- .2** inspection of the folded liferaft and the interior of the container for signs of dampness;
- .3** a gas inflation (GI) test should be carried out at 5-year intervals, and when undertaking a gas inflation test, special attention should be paid to the effectiveness of the relief valves. The folded liferaft should be removed from its container before activating the fitted gas inflation system. After gas inflation has been initiated, sufficient time should be allowed to enable the pressure in the buoyancy tubes to become stabilized and the solid particles of CO₂ to evaporate. After this period the buoyancy tubes should, if necessary, be topped up with air, and the liferaft subjected to a pressure holding test over a period of not less than one hour, during which the pressure drop will not exceed 5% of the working pressure;
- .4** each liferaft should be subjected to the necessary additional pressure (NAP) test as described in appendix 1, or any other similar test recommended by the manufacturer, at yearly intervals after the tenth year of the liferaft's life unless earlier servicing is deemed necessary as a result of visual inspection. After allowing sufficient time for the liferaft to regain fabric tension at working pressure, the liferaft should be subjected to a pressure holding test over a period of not less than one hour, during which the pressure drop will not exceed 5% of the working pressure;
- .5** when a NAP or GI test is not required, a working pressure (WP) test should be carried out (see appendix 2), by inflation of the liferaft with dry compressed air, after removing it from the container shell or valise and from its retaining straps, if fitted, to at least the working pressure, or to the pressure required by the manufacturer's servicing manual if higher. The liferaft should be subjected to a pressure holding test over a period of not less than one hour, during which the pressure drop will not exceed 5% of the working pressure;
- .6** while inflated, the liferaft should be subjected to a thorough inspection inside and out in accordance with the manufacturer's instructions;
- .7** the floor should be inflated, checked for broken reeds and tested in accordance with the manufacturer's instructions;

- .8 the seams between floor and buoyancy tube should be checked for slippage or edge lifting;
- .9 with the buoyancy tube supported at a suitable height above the service floor, a person weighing not less than 75 kg should walk/crawl around the perimeter of the floor for the entire circumference and the floor seams should be checked again. Manufacturers may substitute any other seam test which will determine the integrity of the floor seam until the next inspection is due. This test should be carried out at yearly intervals after the tenth year of the liferaft's life;
- .10 after deflation, arch roots should be checked in accordance with the manufacturer's instructions;
- .11 all items of equipment should be checked to ensure that they are in good condition and that dated items are replaced at the time of servicing if there is less than 6 months remaining before the expiry date approved by the DMA;
- .12 davit-launched liferafts should be subjected to a 10% overload suspension test at every second servicing;
- .13 a check should be made to ensure that the liferaft and the atmosphere are dry when the liferaft is being repacked;
- .14 the required markings should be updated and checked;
- .15 a record of servicing should be maintained for at least 5 years after the date of service;
- .16 statistical records should be prepared on all liferafts serviced, indicating, in particular, defects found, repairs carried out and units condemned and withdrawn from service. Such statistics should be available to the DMA.

Responsibilities of manufacturers, DMA and ship owners

7 In order to ensure that the servicing of inflatable liferafts is effectively conducted to provide reliable survival craft in an emergency, manufacturers, DMA and ship owners have parallel and overlapping responsibilities; these include, but are not limited to, the following:

- .1 Manufacturers are responsible for:
 - .1.1 ensuring that their liferafts can be adequately serviced in accordance with this Recommendation or with any additional requirements necessary for that particular product and design and thereto accredit a sufficient number of servicing stations;
 - 1.2 ensuring that each servicing station accredited by them for servicing and repair of their liferafts has qualified persons whom they have adequately trained and certificated to perform such work and who are aware of any changes or new techniques;

- 1.3 keeping DMA fully informed as to the list of servicing stations accredited by them and any changes thereto;
- 1.4 making available to service stations:
 - changes to servicing manuals, servicing bulletins and instructions;
 - proper materials and replacement parts;
 - bulletins or instructions from the DMA;
- 1.5 keeping DMA fully informed of any shipping casualties known to them and involving their liferafts; and also of any failures of liferafts, other than failures during inspections which are known to them; and
- 1.6 informing ship owners whenever possible of any deficiency or danger known to them and related to the use of their liferafts and taking whatever remedial measures they deem necessary;
- .2 The DMA are responsible for conducting periodic checks of servicing stations to determine compliance with this recommendation and for checking quality assurance by spot checks or inspections that are deemed to be adequate to achieve compliance;
- .3 Ship owners are responsible for ensuring, as a minimum requirement, that all liferafts fitted as life• saving equipment are approved and are serviced at the appropriate intervals at an approved servicing station. Whenever practicable, a representative of the ship owner should be in attendance during service.

Appendix 1

Necessary additional pressure (NAP) test

1 Plug the pressure relief valves.

2 Gradually raise the pressure to the lesser of 2.0 times the working pressure or that sufficient to impose a tensile load on the inflatable tube fabric of at least 20% of the minimum required tensile strength.

3 After 5 minutes, there should be no seam slippage, cracking, or other defects (resolution A.521 (13), part 1, paragraph 5.18.4.1), or significant pressure drop. If cracking in the buoyancy tubes is audible, the liferaft should be condemned; if no cracking is heard, the pressure in all buoyancy chambers should be reduced simultaneously by removing the plugs from the pressure relief valves.

4 Liferaft manufacturers should include tables in their servicing manuals of exact NAP test pressures corresponding to their particular tube sizes and fabric tensile strength requirements, calculated according to the equation:

$$p(\text{kg /cm}^2) = \frac{2 \times \text{tensile strength (kg per 5 cm)}}{25 \times \text{diameter (cm)}}$$

Appendix 2

Frequency of NAP tests: working pressure (WP), gas inflation (GI) and floor seam strength (FS)

Servicing intervals	Test method
End of first year	WP test
End of second year	WP test
End of third year	WP test
End of fourth year	WP test
End of fifth year	GI test
End of sixth year	WP test
End of seventh year	WP test
End of eighth year	WP test
End of ninth year	WP test
End of tenth year	GI test+ FS
Eleventh to fourteenth year	NAP test+ FS
Fifteenth year	GI test + NAP + FS
Sixteenth to nineteenth year	NAP test+ FS
Twentieth year	GI test+ NAP+ FS
Twenty-first to twenty-fourth year	NAP test+ FS
Twenty-fifth year onwards	GI test + NAP + FS

NAP - Necessary additional pressure test (appendix 1)

WP - Working pressure (compressed air)

GI - Gas inflation (fitted gas)

FS - Floor seam

PART V
ADOPTION OF AMENDMENTS TO THE RECOMMENDATION ON CONDITIONS
FOR THE APPROVAL OF SERVICING STATIONS FOR INFLATABLE
LIFERAFTS (RESOLUTION A.761(18))
(Reference: Resolution MSC 55(66))

THE MARITIME SAFETY COMMITTEE,

RECALLING Article 28(b) of the Convention on the International Maritime Organization concerning the functions of the Committee,

RECALLING ALSO that the Assembly, when adopting resolution A.761(18) on Recommendation on conditions for the approval of servicing stations for inflatable liferafts, authorized the Committee to keep this Recommendation under review and to adopt, when appropriate, amendments thereto,

RECOGNIZING the recent technological advancement made in testing procedures for inflatable liferafts and with a view to improving their safety standard,

HAVING CONSIDERED the recommendation made by the Sub-Committee on Life-Saving, Search and Rescue, at its twenty-sixth session, upon review of the Recommendation,

1. ADOPTS the Amendments to the Recommendation on Conditions for the Approval of Servicing Stations for Inflatable Liferafts (Annex to resolution A.761(18)), set out in the Annex to the present resolution;
2. INVITES Governments to inspect servicing stations for inflatable liferafts within their authority in accordance with the Recommendation as amended by the present resolution

Note: As advised by the IMO Maritime Safety Committee, the Department of Marine Administration (DMA) uses the recommendation as amended by the present resolution to inspect servicing stations for inflatable liferafts.

ANNEX

AMENDMENTS TO THE RECOMMENDATION ON CONDITIONS FOR THE APPROVAL OF SERVICING STATIONS FOR INFLATABLE LIFERAFTS (RESOLUTION A.761(18), ANNEX)

1 Replace the text of subparagraph 5.4 by the following:

".4 each liferaft should be subjected to the necessary additional pressure (NAP) test as described in appendix 1, at yearly intervals after the tenth year of the liferaft's life unless earlier servicing is deemed necessary as a result of visual inspection. After allowing sufficient time for the liferaft to regain fabric tension at working pressure, the liferaft should be subjected to a pressure holding test over a period of not less than one hour during which the pressure drop should not exceed 5% of the working pressure;"

2 Replace the text of subparagraph 5.9 by the following:

".9 with the buoyancy tubes supported by a system which leaves the floor seams unsupported, at a suitable height above the service floor as shown in appendix 3, a person weighing not less than 75 kg should walk/crawl around the perimeter of the floor for the entire circumference and the floor seams should be checked again. Manufacturers may substitute this test with another test which will determine the integrity of the floor seam until the next inspection is due. This test should be carried out at yearly intervals after the tenth year of the liferaft's life;"

3 Replace the text of subparagraph 5.12 by the following:

".12 davit-launched liferafts should be subject to a 10% overload suspension test at every second servicing. The floor seam (FS) test required in the eleventh and subsequent years need not be carried out for davit launched liferafts at servicings when the overload suspension test is conducted;"

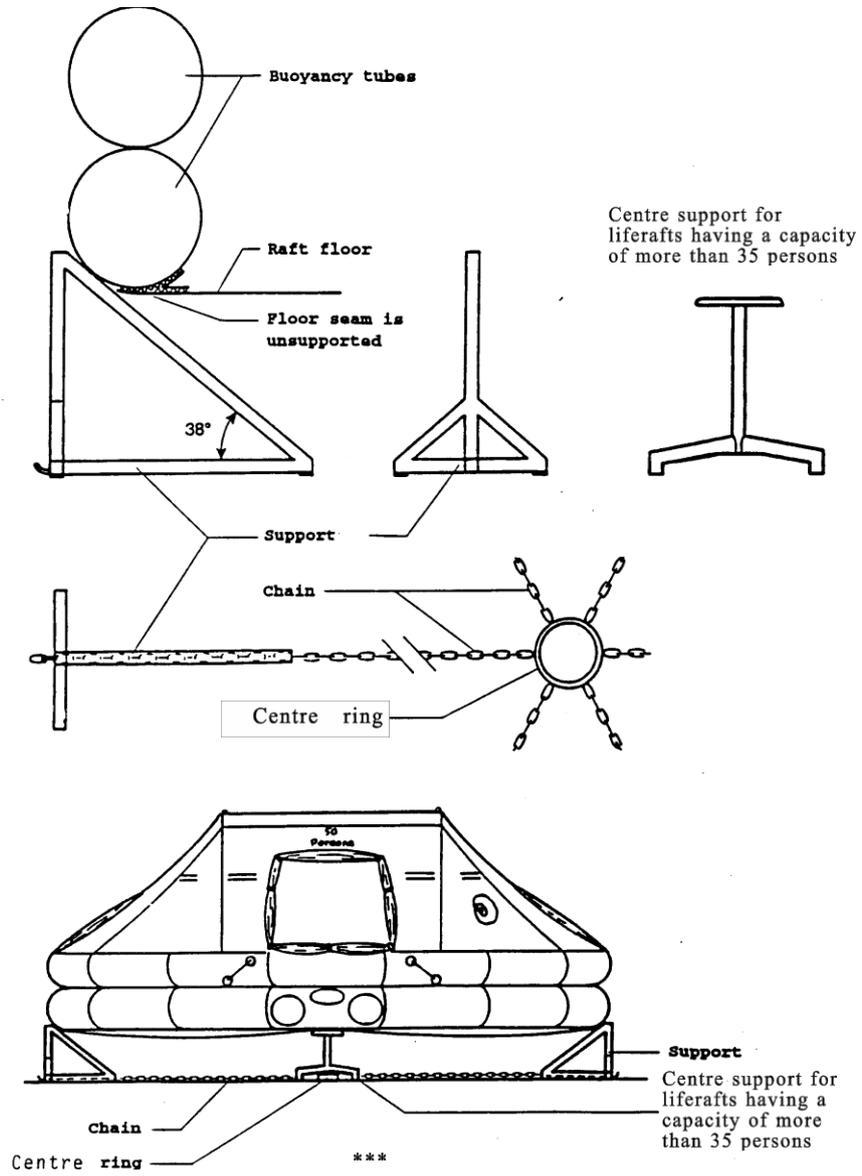
4 Replace the text of subparagraph 6.2 by the following:

".2 the DMA is responsible for the approval of servicing stations for inflatable liferafts and for conducting periodic checks to determine compliance with this recommendation and for checking quality assurance by such checks or inspections as are deemed to be adequate to ensure compliance. However, for the approval of servicing stations for inflatable liferafts situated in other countries, the DMA may accept or recognize servicing stations approved, checked or inspected by surveyors nominated for the purpose or recognized organizations or by other SOLAS Contracting Governments;"

5 Add after the appendix 2 an appendix 3 - Guidelines for floor seam test supports, as attached.

APPENDIX 3

GUIDELINES FOR FLOOR SEAM TEST SUPPORTS (REF. PARAGRAPH 5.9)



Part VI.

The Procedure for Authorization or Acceptance and Recognition of Service Provider for Survival craft, Rescue boats, Launching Appliances and On-load Release Gear

1. Standard Operating Procedure for Authorization or Recognition and Acceptance of Service Providers

1.1 Policy

To ensure the competent service providers for maintenance and testing of survival craft, rescue boats, launching appliances and on-load release gear onboard are authorized or recognized and recognized and accepted in accordance with the requirements of relevant IMO guidelines for the safe operation of the ships.

1.2 Purpose

To provide parties concerned with all available information and requirements related to the authorization or recognition and acceptance of service providers for stringent compliance with and uniform application of this procedure.

1.3. Responsibilities

1.3.1 The Recognized Organizations are responsible for monitoring and verification of thorough examination, operational testing, repair, and overhaul of survival craft, rescue boats, launching appliances and on-load release gear on behalf of the DMA.

1.3.2 The Service Providers are responsible for carrying out the thorough examination, operational testing, repair, and overhaul of survival craft, rescue boats, launching appliances and on-load release gear maintenance and the testing of survival craft, rescue boats, launching appliances and on-load release gear in accordance with the relevant requirements of SOLAS 1974, as amended, taking into account the IMO Resolution MSC. 402 (96).

1.3.3. The Ship's Owners/Ship's Masters are responsible for the engagement of

- .1** the Service Providers, who are authorized or recognized and accepted by the Department of Marine Administration (DMA) whenever the thorough examination, operational testing, repair, and overhaul of survival craft, rescue boats, launching appliances and on-load release gear maintenance and the testing of survival craft, rescue boats, launching appliances and on-load release gear take place, and
- .2** the Recognized Organizations.

1.4 Authorization or Recognition and Acceptance

1.4.1 Authorization

In case when there are Service Provider in Myanmar and upon their request, they shall be checked, inspected and certified in accordance with the IMO MSC.1/Circ. 1277 (Guideline for Certification of Personnel for Servicing and Maintenance of Survival craft, rescue boats, Launching Appliances and On-load Release Gear) by one of the Recognized

Organizations who will be nominated by the DMA enabling the DMA to consider and grant the Authorization. Once any Service Provider is authorized, the DMA will bring it by Directive and/or Guidance to the attention of all parties concerned.

1.4.2 Recognition and Acceptance

The DMA recognizes and accepts the service providers authorized by other SOLAS Contracting Governments or by their Recognized *Organizations* or checked, inspected and certified by Recognized Organizations of Myanmar.

1.5. List of Service Providers, Authorized by the DMA

The list of Service Providers, Authorized by the DMA is attached to the Annex 1 of Guidance for Authorization of Service Providers for Survival craft, rescue boats, Launching Appliances and On-load Release Gear.

1.6 List of Recognized Organizations

The list of Recognized Organizations is attached to the Annex 2 of Guidance for Authorization of Service Providers for Survival craft, rescue boats, Launching Appliances and On-load Release Gear.

1.7 References

1.7.1 SOLAS 1974, as amended

1.7.2 IMO MSC.1/Circ. 1277

1.7.3 IMO Resolution MSC. 402 (96)

1.8 Records

1.8.1 The documents related to the Authorization of Service Providers.

1.8.2 The record of thorough examination, operational testing, repair, and overhaul of survival craft, rescue boats, launching appliances and on-load release gear on board Myanmar flagged ships.

The records shall be retained on board Myanmar flagged ships for the service life of the equipment.

Annex 1

List of Service Providers, Authorized by the DMA

There are presently no servicing facilities in the Republic of the Union of Myanmar.

Annex 2

List of Recognized Organizations

The following Recognized Organizations may undertake authorization of Service Providers for Survival craft, rescue boats, Launching Appliances and On-load Release Gear.

1. Nippon Kanji Kyokai (Class NK)
2. Lloyd's Register (LR)
3. American Bureau of Shipping (ABS)
4. Bureau Veritas (BV Class)
5. Korean Register of Shipping (KR)
6. China Classification Society