



**Department of Economic Development
Isle of Man Ship Registry Consultation:
Proposed update to legislation implementing
SOLAS III
Life-saving appliances and arrangements**

This consultation paper sets out the Isle of Man Government's proposals to make new Regulations to give effect to the latest version of Chapter III of the International Convention for the Safety of Life at Sea 1974 (SOLAS).

The Regulations give effect to SOLAS Chapter III up to and including amendments adopted by IMO Resolution MSC.350(92).

We would be grateful for any comments on the proposed implementation of SOLAS as detailed in this consultation paper (preferably by email) to:

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This consultation will close at 5.00pm on 24th February 2017.

SECTION 1

Overview of the draft SOLAS Chapter III Regulations

1. Introduction

SOLAS Chapter III contains the requirements for life-saving appliances and arrangements. This includes requirements for lifeboats, rescue boats and lifejackets according to the type of ship the equipment is fitted on. Specific technical requirements for life-saving appliances are contained in the International Life-Saving Appliance (LSA) Code which is mandatory in accordance with SOLAS Chapter III.

The Isle of Man Ship Registry intends to write new Regulations "the Regulations" in order to enact the latest version of SOLAS Chapter III and the LSA Code. The intention is for the Regulations to follow the SOLAS requirements and where interpretation is required this is included in the Annex to this Consultation.

In this Consultation reference to the "latest version of SOLAS Chapter III" means all of the amendments made to that Chapter up to and including the amendments contained in IMO Resolution MSC.350(92).

2. Application

The Regulations will apply to a Manx ship which engages on international voyages wherever it may be except for:

- (a) high-speed craft;
- (b) commercial yachts which comply with the Large Commercial Yacht Code (LY1, LY2 or LY3);
- (c) MODUs;
- (d) pleasure vessels;
- (e) fishing vessels;
- (f) ships of war or troopships;
- (g) ships not propelled by mechanical means; and
- (h) wooden ships of primitive build.

The Regulations will also apply to all foreign ships which engage on international voyages whilst they are within the territorial waters of the Island except for those listed in paragraphs (a) to (h).

The main provisions of the new Regulations are:

3. Requirement to comply with SOLAS Chapter III

3.1 A Manx ship must comply with the requirements of SOLAS Chapter III as apply in relation to a ship of its description.

- a. A ship constructed **on or before 30 June 1986** must comply with:
 - SOLAS Chapter III including all amendments up to and including those adopted by IMO Resolution MSC.1(XLV) on 20 November 1981 which came in to force on 1 September 1984; and

- the regulations of the latest version of SOLAS Chapter III as prescribed in 3.2 & 3.3 below.
- b. A ship constructed **on or after 1 July 1986** up to and including **30 June 1998**:
- Chapter III of SOLAS including all amendments made to that Chapter up to and including those adopted by IMO Resolution MSC.27(61) on 11 December 1992 which came into force on 1 October 1994; and
 - the regulations of the latest version of SOLAS Chapter III as prescribed in 3.2 & 3.3 below.
- c. A ship constructed **on or after 1 July 1998** must comply with:
- Chapter III of SOLAS including all amendments made to that Chapter up to and including those adopted by IMO Resolution MSC.350(92) which entered into force on 01 January 2015.

3.2 Ships constructed on or before 30 June 1998 must also:

Ensure that when LSA or arrangements on such ships are replaced or such ships undergo repairs, alterations or modifications of a major character which involve replacement of or any addition to, their existing LSA or arrangements, such LSA or arrangements, in so far as is reasonable and practicable, comply with the latest requirements of SOLAS III. However, if a survival craft other than an inflatable liferaft is replaced without replacing its launching appliance, or vice versa, the survival craft or launching appliance may be of the same type as that replaced.

3.3 All ships must also:

Comply with the following Regulations from the latest version of SOLAS Chapter III (where relevant to a ship of its description):

- a. Regulation 1.5 Application (lifeboat on-load release mechanism);
- b. Regulation 6.2 Radio life-saving appliances;
- c. Regulation 7 Personal life-saving appliances – regarding infant and adult lifejackets;
- d. Regulation 8 Muster list and emergency instructions;
- e. Regulation 9 Operating instructions;
- f. Regulation 17-1 Recovery of persons from water;
- g. Regulation 19 Emergency training and drills;
- h. Regulation 20 Operational readiness, maintenance and inspections;
- i. Regulation 26 Additional requirements for ro-ro passenger ships – regarding fast rescue boats;
- j. Regulation 28 Helicopter landing and pick-up areas;
- k. Regulation 30 Drills;
- l. Regulation 31.2 Survival craft and rescue boats;
- m. Regulation 32.2 Life jacket lights;
- n. Regulation 32.3 Immersion suits; and
- o. Regulation 35 Training manual and on board training aids.

4. Requirement to comply with the International Life-Saving Appliance Code

Regulation 34 of SOLAS Chapter III requires all life-saving appliances and arrangements to comply with the International Life-Saving Appliance Code or "LSA Code".

The LSA Code was adopted on 4 June 1996 by resolution MSC.48(66) and came into force on 1 July 1998. The Regulations will require ships to comply with the LSA Code including all amendments to that Code up to and including those adopted by IMO Resolution MSC.368(93).

5. Approvals, type approvals, equivalent arrangements, exemptions and waivers

There are various circumstances in SOLAS Chapter III where approval or type approval is required and certain situations where equivalent arrangements, exemptions and waivers may be granted.

a. Approvals

Where SOLAS Chapter III, or any part of the LSA Code, requires anything to be approved by the Administration, it must be approved by the Ship Registry or a Recognised Organisation.

Testing

Before life-saving appliances are approved they must be tested, to confirm that they comply with the requirements of SOLAS III and the LSA Code as follows:

- a. in accordance with the recommendation on testing of life-saving appliances adopted by IMO Resolution A.689(17). For life-saving appliances installed on board on or after 01 July 1999, refer to the Revised recommendations on testing of life-saving appliances adopted by the Maritime Safety Committee of the Organization by Resolution MSC.81(70); or
- b. have successfully undergone, to the satisfaction of the Administration or a Recognised Organisation, tests which are substantially equivalent to those specified in paragraph (a).

NOTE - Life-saving appliances which:

- have been installed onboard on or after 01 July 2010 must meet the applicable requirements of MSC.81(70) or an equivalent standard; or
- were installed on board before 1 July 2010 may meet the applicable requirements of Resolution A.521(13), previous versions of Resolutions A.689(17), or an equivalent standard and may continue in use on the ship on which they are presently installed, as long as they remain suitable for service.

b. Type approvals

All equipment requiring type approval must be accompanied by a type approval certificate issued by -

- a Recognised Organisation listed in MSN 20; or
- a Recognised Organisation on behalf of a national Administration; or
- the Ship Registry.

If the equipment has been issued with a type approval certificate by another organisation it may only be used or fitted with the consent of the Ship Registry.

Equipment which has been certified under the Marine Equipment Directive (MED) is acceptable to be used on Isle of Man registered vessels, although it is not a mandatory requirement that equipment has been certified under the MED.

Except when it is a Convention requirement, individual test certificates are not required in addition to the type approval certificate.

c. Equivalent arrangements, exemptions and waivers

The Ship Registry may permit equivalent arrangements, exemptions and waivers on a case by case basis and they will only be valid if they are in writing and if any conditions stated are complied with.

6. Foreign ships

A foreign ship in the territorial waters of the Island, must comply with such of the requirements of SOLAS Chapter III, as apply in relation to a ship of its description.

A foreign ship in a port of the Island may be subject to inspection.

If an inspector carries out an inspection on a foreign ship in a port of the Island, and certificates required by regulation 12 or 13 of SOLAS Chapter I are not produced, have expired or ceased to be valid, the ship may be detained.

A foreign ship may also be detained if the inspector has clear grounds for believing that the condition of the ship or its equipment does not correspond substantially with the particulars of the certificate or the ship and its equipment are not in compliance with the provisions of SOLAS Chapter I Regulation 11(a) and (b).

7. Company's responsibility

It is the responsibility of the Company to ensure a ship complies with the requirements of the Regulations.

A 'Company' means "the owner of a ship to which the Regulations apply or any other organisation or person such as the manager, or the bareboat charterer, who has assumed responsibility for operation of the ship from the owner and who, on assuming such responsibility, has agreed to take over all the duties and responsibilities imposed on the Company by the SOLAS Convention.

8. Offences and penalties

The Regulations contain provisions relating to offences and penalties for non-compliance.

A company which fails to comply with the regulations commits an offence and is liable on conviction on information to custody for not more than 2 years, a fine, or both; and on summary conviction to a fine not exceeding £5,000.

It is a defence for a person charged under the Regulations to show that he or she took all reasonable steps to avoid the commission of the offence.

Annex

Interpretation of SOLAS Chapter III requirements

SOLAS Chapter III requires the ship's Flag Administration to determine how a ship must implement certain requirements. Where SOLAS III requires a decision to be made by the Ship Registry, and an interpretation has been made or permission has been given, this is stated in the table below.

*References to SOLAS III page numbers in the Annex are from SOLAS consolidated edition 2014. The Regulations have only been summarised and the SOLAS text should be referred to for the full regulation.

SOLAS consolidated edition 2014 Regulation*	Summary of the SOLAS Chapter III Regulations	IOM Ship Registry's requirements
REG 1.5 Page 231	<p><u>Lifeboat on-load release mechanism</u> Not later than the first scheduled dry-docking after 1 July 2014, but not later than 1 July 2019, lifeboat on-load release mechanisms not complying with paragraphs 4.4.7.6.4 to 4.4.7.6.6 of the Code shall be replaced with equipment that complies with the Code. Refer to MSC.1/Circ.1392.</p>	<p>The Ship Registry strongly recommends the use of fall preventer devices (FPDs). The definition of FPDs is stated in MSC.1/Circ.1466. If FPDs are fitted they must be fitted in accordance with MSC.1/Circ.1327 and employed for each existing lifeboat release and retrieval system, until the system is:</p> <ul style="list-style-type: none"> • evaluated and found to be in compliance with MSC.1/Circ.1392; or • modified then evaluated and found to be in compliance with MSC.1/Circ.1392; or • replaced by a new lifeboat release and retrieval system. <p>The use of FPDs must be documented in the ship's safety management system and onboard training manual. The arrangements and any necessary modifications to the existing equipment are to be approved by Class</p>
REG 1.5 Page 231	<p><u>Lifeboat on-load release mechanism (continued)</u> Not later than the first scheduled dry-docking after 1 July 2014, but not later than 1 July 2019, lifeboat on-load release mechanisms not complying with paragraphs 4.4.7.6.4 to 4.4.7.6.6 of the Code shall be replaced with equipment that complies with the Code. Refer to MSC.1/Circ.1392.</p>	<p>Recognised Organisations are fully authorised to conduct the following work on behalf of the Ship Registry.</p> <p>Replacement of Lifeboat Release and Retrieval Systems (RRS), not meeting SOLAS III/1.5, in accordance with MSC.1/1392 Paragraphs 18-26 including:</p> <ol style="list-style-type: none"> i. Review and approval of replacement Lifeboat RRS (MSC.1/Circ.1392 Paragraph 20) ii. Discretion to decide if the hook fixed structural connections need not be replaced (MSC.1/Circ.1392 Paragraph 21)

		<ul style="list-style-type: none"> iii. Witnessing the installation (MSC.1Circ.1392 Paragraph 23) iv. Witnessing the post installation testing (MSC.1Circ.1392 Paragraph 25) - For compliance with MSC.1/Circ.1392 the Ship Registry accepts simulation of the 5 knot test by means of lowering into an approximate 5 knot tidal stream or lowering into the wake of a tug, but also to simulate as best as possible what that would be like if the lifeboat was used in an emergency. v. Issuing the Statement of Acceptance as per MSC.1/Circ.1392 Appendix 4 (MSC.1/Circ. 1392 Paragraph 26) <p>It is the Ship Registry's interpretation of the LSA code that this is also applicable to Rescue Boats and as such if a hook on a rescue boat is an on-load release mechanism the same procedures must be followed. As III/1.5 and Circ.1392 do not refer to rescue boats a hook replacement should be made if the arrangement is patently unsafe.</p>
REG 6.5.2 Page 236	<p><u>Public address system</u> The public address system shall be clearly audible above the ambient noise in all spaces, prescribed by paragraph 7.2.2.1 of the Code, and shall be provided with an override function controlled from one location on the navigation bridge and such other places on board as the Administration deems necessary, so that all emergency messages will be broadcast if any loudspeaker in the spaces concerned has been switched off, its volume has been turned down or the public address system is used for other purposes.</p>	The Public Address system must meet the unified interpretation in MSC.1/Circ.1530.
REG 6.5.3.2 Page 236	<p><u>Public address system</u> The public address system and its performance standards shall be approved by the Administration having regard to the recommendations adopted by the Organization.</p>	The approvals will be delegated to Recognised Organisations and carried out in accordance with MSC/Circ.808.
REG 7.2.1.5 Page 237	<p><u>Adult lifejackets</u> If the adult lifejackets provided are not designed to fit persons</p>	'Sufficient' is defined as meaning that all persons on board should have a lifejacket that fits their weight and size.

	weighing up to 140 kg and with a chest girth of up to 1,750 mm, a sufficient number of suitable accessories shall be available on board to allow them to be secured to such persons.	
REG 7.2.2 Page 237	<u>Lifejackets</u> Lifejackets shall be so placed as to be readily accessible and their position shall be plainly indicated. Where, due to the particular arrangements of the ship, the lifejackets provided in compliance with the requirements of paragraph 2.1 may become inaccessible, alternative provisions shall be made to the satisfaction of the Administration which may include an increase in the number of lifejackets to be carried.	This would be determined by the Ship Registry on a case by case basis.
REG 7.3 Page 238 REG 22.4 Page 251 REG 32.3.2 Page 257	<u>Immersion suits (rescue boats and MES)</u> An immersion suit, complying with the requirements of section 2.3 of the Code or an anti-exposure suit complying with section 2.4 of the Code, of an appropriate size, shall be provided for every person assigned to crew the rescue boat or assigned to the marine evacuation system party. If the ship is constantly engaged in warm climates* where, in the opinion of the Administration thermal protection is unnecessary, this protective clothing need not be carried. <u>Immersion suits on passenger ships</u> If the ship is constantly engaged on voyages in warm climates where, in the opinion of the Administration, they are unnecessary. <u>Immersion suits</u> An immersion suit of an appropriate size, complying with the requirements of section 2.3 of the Code shall be provided for every person on board the ship. However, for ships other than bulk carriers, as defined in regulation	The Ship Registry defines warm climates as being between 30 degrees North/South. Where ships are operating exclusively in this zone, the Ship Registry will consider waiving the requirement in Reg 7.3. Where immersion suits are not carried we recommend ships carry anti-exposure suits or thermal protective life jackets, taking into account the information in MSC/Circ.1046.

	IX/1, these immersion suits need not be required if the ship is constantly engaged on voyages in warm climates* where, in the opinion of the Administration, immersion suits are unnecessary.	
REG 32.3.3 Page 258	<u>Immersion suits</u> If a ship has any watch or work stations which are located remotely from the place or places where immersion suits are normally stowed, including remotely located survival craft carried in accordance with regulation 31.1.4, additional immersion suits of an appropriate size shall be provided at these locations for the number of persons normally on watch or working at those locations at any time.	10% additional (minimum 2) immersion suits are required for people working at remote control stations such as the bridge and engine room. Liferafts, if located at the aft/forward end of the ship and at a distance of more than 100m from the closest survival craft should be regarded as "remotely located survival craft" and at least a further 2 additional immersion suits should be provided at this location.
REG 20.7 Page 247	<u>Monthly inspections (immersion suits)</u>	<ul style="list-style-type: none"> a. Immersion suits and anti-exposure suits must be inspected in accordance with MSC/Circ.1047 and MSC/Circ.1114. b. Immersion suits are now being produced in airtight packaging to reduce degradation. Such immersion suits need not be inspected in accordance with the full requirements of MSC/Circ.1047 but should still be inspected monthly in as much detail as reasonably possible, and in accordance with the manufacturer's instructions, without compromising the air tightness of the packaging. In order to be able to meet this requirement, the air tight packing must be transparent. c. If any faults are found with airtight packaging or there are any signs of damage the immersion suit must be removed from its packaging and tested in accordance with MSC/Circ.1047. Following this inspection if any defects are found a further 25% of the packaged immersion suits should be removed from their packaging and inspected in accordance with MSC/Circ.1047. If any further defects are found all of the suits must be inspected in accordance with MSC/Circ.1047. d. Airtight packaged suits must be subjected to a pressure test (in accordance with MSC/Circ.1114) at intervals not exceeding three years, by an authorised service

		<p>provider. Immersion suits that are over 10 years old should be serviced annually by an authorised service provider.</p> <p>e. A sufficient number of suits must be kept without airtight packaging for use in drills.</p>
REG 8.2 Page 238	<p><u>Muster list and emergency instructions</u> Clear instructions to be followed in the event of an emergency shall be provided for every person on board. In the case of passenger ships these instructions shall be drawn up in the language or languages required by the ship's flag State and in the English language.</p>	<p>For passenger ships the instructions shall be drawn up in English and additionally in any other language that is normally spoken by a majority of the passengers.</p>
REG 10.4 Page 239	<p><u>Survival craft</u> A deck officer or certificated person shall be placed in charge of each survival craft to be used. However, the Administration, having due regard to the nature of the voyage, the number of persons on board and the characteristics of the ship, may permit persons practised in the handling and operation of liferafts to be placed in charge of liferafts in lieu of persons qualified as above. A second-in-command shall also be nominated in the case of lifeboats.</p>	<p>For liferafts the Ship Registry may accept a person practised in the handling and operation of liferafts in lieu of a deck officer or certificated person on a case-by-case basis.</p> <p><u>For passenger ships</u></p> <p>a. For every lifeboat boarded at the stowed position and capable of release and lowering from inside the boat – 2 certificated persons are required per lifeboat.</p> <p>b. For every lifeboat boarded at the stowed position and capable of being lowered from inside the boat after release externally – 2 certificated persons per lifeboat, plus 1 additional person for every 2 boats.</p> <p>c. For every lifeboat both released and lowered from the ship – 3 certificated persons per lifeboat</p> <p>d. For each davit launched liferaft – 1 certificated person per liferaft plus 1 additional person for each davit.</p> <p>e. For each Marine Escape System – 4 certificated persons per system plus 1 additional person for each raft associated with the system.</p> <p>'Certificated person' means a member of the crew who holds a certificate of proficiency in survival craft and rescue boats (other than fast rescue boats) issued in accordance with the STCW Regulation VI/2.1.</p>
REG 11.7 Page 239	<p><u>An embarkation ladder</u> complying with the requirements of paragraph 6.1.6 of the Code extending, in a single length, from the deck to the waterline in the lightest seagoing condition under all conditions of trim of up to</p>	<p>This would be determined by the Ship Registry on a case by case basis. Full details of the approved device must be submitted to the Ship Registry.</p>

	<p>10° and a list of up to 20° either way shall be provided at each embarkation station or at every two adjacent embarkation stations for survival craft launched down the side of the ship. However, the Administration may permit such ladders to be replaced by approved devices to afford access to the survival craft when waterborne, provided that there shall be at least one embarkation ladder on each side of the ship. Other means of embarkation enabling descent to the water in a controlled manner may be permitted for the liferafts required by regulation 31.1.4.</p>	
<p>REG 12 Page 240</p>	<p><u>Launching stations</u> Launching stations shall be in such positions as to ensure safe launching having particular regard to clearance from the propeller and steeply overhanging portions of the hull and so that, as far as possible, survival craft, except survival craft specially designed for free-fall launching, can be launched down the straight side of the ship. If positioned forward, they shall be located abaft the collision bulkhead in a sheltered position and, in this respect; the Administration shall give special consideration to the strength of the launching appliance.</p>	<p>Where required, approval of launching stations will be delegated to ROs.</p>
<p>REG 17.3 Page 242</p>	<p><u>Rescue boats</u> All rescue boats shall be capable of being launched, where necessary utilizing painters, with the ship making headway at speeds up to 5 knots in calm water.</p>	<p>The launching test at 5 knots for lifeboats required on cargo ships of 20,000GT and above and rescue boats carried on every ship, not just in the first series. The Ship Registry accepts simulation of the 5 knot test by means of lowering into an approximate 5 knot tidal stream or lowering into the wake of a tug.</p>
<p>REG 17.5 Page 242</p>	<p><u>Rescue boat embarkation and recovery arrangements</u> shall allow for safe and efficient handling of a stretcher case. Foul weather recovery strops shall be provided for safety if heavy fall blocks constitute a danger.</p>	<p>Lifeboats which are also rescue boats, need not be fitted with recovery strops if a chain or wire of adequate strength and flexibility is fitted between the lower fall block and the attachment to the lifting hooks. For this purpose the length of the chain or wire, including the link for attachment to the lifting hook, should be at least 1.25m. In the case of recovery strops and hanging off pendants</p>

		<p>certificates of test should be provided on board.</p> <p>When considering the strength and the testing of the components, the following factors of safety should be used:</p> <ul style="list-style-type: none"> • Hanging off pendants and davit structure, a working load consisting of the weight of the rescue boat, equipment and provisions plus six (6) persons at 82.5kg • Hanging off pendants (based upon the breaking strength of the wire and recovery strops) should have a factor of safety of at least 6. • The hanging off pendant attachments on the davit should be designed with a factor of safety of at least 4.5. The davit structure should also maintain a factor of safety of 4.5 when hanging off the working load with the ship trimmed up to 10 degrees and listed up to 20 degrees each side. To be tested at weight of fully stored boat plus 6 persons at 82.5kg. <p>Where the recovery arrangements entail disembarkation at a deck level other than the embarkation deck, bousing arrangements should be provided for both decks.</p>
<p>REG 20.3.1 Page 246</p>	<p><u>Maintenance, testing and inspections of life-saving appliances</u> shall be carried out based on the guidelines developed by the Organization* and in a manner having due regard to ensuring reliability of such appliances.</p>	<p>Maintenance, testing and inspections of life-saving appliances should be undertaken in accordance with MSC/Circ.1206 (Rev 1).</p> <p>Weekly and monthly inspections, and routine maintenance as defined by the manufacturer, should be conducted under the direct supervision of a competent person. Definition of competent person is:</p> <ul style="list-style-type: none"> • A person who is trained and has the necessary skills, practical experience and knowledge of the type of lifting appliances and gears which he is required to inspect. He is to be provided with the necessary tools and spare parts together with manufacturers recommended maintenance instructions. • The person is not necessarily a member of the ship's crew but may be Master, Chief Engineer, Chief Officer or Second Engineer subject to the above criteria. <p>The thorough examination, operational testing, repair, and overhaul of lifeboats, launching appliances and on-load release gear carried out in accordance with SOLAS Reg III/20 can be carried out by:</p>

		<ul style="list-style-type: none"> • The Original Equipment Manufacture; or • a service provider approved by the Original Equipment Manufacture; or • a service provider may be used where an equipment manufacture is no longer in business or no longer provides technical support. <p>Because there are not any service providers on the Isle of Man, the IOM Ship Registry accepts service providers which have been authorised by the local Administration or an IOM Recognised Classification Society where the service provider has its principal place of business.</p>
<p>REG 20.8.3.3 Page 247</p>	<p><u>Inflatable liferaft arrangements</u> An Administration which approves new and novel inflatable liferaft arrangements pursuant to regulation 4 may allow for extended service intervals on the following conditions:</p>	<p>SLS.14/Circ.318 and SLS.14/Circ.264 permit extended service intervals (of up to 30 months) for certain, specified liferafts. Refer to the circular letter for full list of liferafts and conditions under which extended service intervals are accepted.</p>