



The Code of Practice for the Safety of Small Fishing Vessels of less than 15m Length Overall

Notice to all Designers, Builders, Owners, Employers, Skippers and Crew of Fishing Vessels

This notice should be read in conjunction with the Fishing Vessels (Code of Practice) Regulations 2017 No.943 and replaces MSN 1813 – The Code of Practice for the Safety of Fishing Vessels of less than 15m Length Overall

Summary

This Notice provides a Code of Practice for the Safety of Small Fishing Vessels of less than 15m Length Overall, replacing MSN 1813. It takes into account MAIB investigation findings. The main changes from MSN 1813 are:

- Liferrafts required on open vessels of 7m Registered Length (L) to less than 15m (LOA) and decked vessels of 7m (L) to less than 10m (L), to come into force on 23 October 2019 for existing vessels only, new vessels must comply immediately;
- Vessels built prior to 16 July 2007 newly entering the fishing industry must have a Certifying Authority Survey prior to registration and MCA Inspections of the vessel are required at change of ownership;
- Emergency drills are now required;
- Radar Reflectors are now to be fitted to all vessels;
- Bilge Alarms required for Open vessels (7m (L) -15m Length Overall (LOA));
- Certificates to be issued for Small Fishing Vessels;
- Substantial modifications, fitting of new gear or changes to the mode of fishing to be approved by MCA prior to work taking place;
- EPIRBs with a built in GPS receiver capable of transmitting the position to a satellite are required all vessels of 10m (L) and over. Vessels less than 10m may have PLBs with a GPS receiver for each crew member or an EPIRB with a built in GPS receiver. EPIRB and PLB requirements to come into force on 23 October 2019 for existing vessels only, new vessels must comply immediately;
- Stability requirements for new or significantly modified vessels of 12m (L) – 15m (LOA)
- Carbon Monoxide Monitors for vessels with enclosed spaces which contains a fired cooking or heating appliance or where engine exhausts penetrate those spaces.

The Code strongly recommends fishermen wear Personal Flotation Devices.

THE CODE ALSO PROVIDES GUIDANCE FOR OWNERS AND SKIPPERS OF VESSELS OF LESS THAN 12M ON HOW TO ASSESS THE STABILITY OF THEIR VESSEL.



1.0 Introduction

1.1 This Merchant Shipping Notice is associated with The Fishing Vessels (Code of Practice) Regulations 2017 No. 943. It sets out the full text of the Code of Practice for the Small Safety of Fishing Vessels of less than 15m Length Overall (the Code). This Code comes into force on 23 October 2017.

2.0 Background

2.1 The Regulations give statutory force to the Code and replaces the requirements of the following Regulations as they apply to fishing vessels under 15 metres Length Overall (LOA);

- the Fishing Vessels (Code of Practice for the Safety of Small Fishing Vessels) Regulations 2001 (S.I. 2001/9) as amended by the Fishing Vessels (Safety of 15-24 Metre Vessels) Regulations 2002 (S.I. 2002/ 2201).

3.0 The Revised Code

3.1 The Code contained within this MSN sets out the full text of The Code of Practice for the Safety of Small Fishing Vessels.

3.2 The previous Code MSN1813 was subject to a review by MCA, industry and other interested bodies and this Notice and the revised Code contained herein have been developed as a result of that review. The aim of the review was to update existing requirements in order to improve the safety of fishing vessels in foreseeable operating conditions, and the survival of the crew in the event of an accident.

4.0 Changes applied to the revised Code

4.1 This Code sets out a number of new requirements based on recommendations from the MAIB and investigations of past incidents.

4.2 The new requirements applied in this Code include:

- Liferafts are required for open vessels of 7m Registered Length (L) to less than 15m (LOA) and decked vessels of 7m (L) to less than 10m (L). This requirement comes into force on 23 October 2019 for existing vessels. New vessels must comply immediately. Vessels required to carry liferafts under MSN 1813 must continue to comply with the requirements to carry a liferaft;
- Vessels built prior to 16 July 2007 newly entering the fishing industry must undergo an Registration Survey by a Certifying Authority prior to registration as a fishing vessel (already required under Registration Regulations but to be made more explicit for potential vessel owners in the Code);
- Inspection of vessels will now take place when the ownership of the vessel changes;
- Monthly emergency drills are to take place;
- Radar Reflectors to be fitted to all vessels, previously only required on open vessels of 7m (L) -12m (L);
- Bilge Alarms for open vessels 7m (L) -15m (LOA), previously this was only for decked vessels;



- Certificates to be issued when a vessel has satisfactorily undergone its Code inspection;
- Significant repairs, substantial modifications or alterations affecting the vessel's dimensions, structure or stability, the removal or repositioning of machinery or engines, changes in the vessel's mode of fishing and/or its gear or the fitting of additional equipment shall only be undertaken after consultation and with the MCA's approval to ensure it complies with the requirements of the Code, as applicable to a new vessel, to the satisfaction of the MCA.
- EPIRBs and/or Personal Locator Beacons with a built in GPS receiver capable of transmitting the position to a satellite are required as follows:
 - An EPIRB for all vessels of 10m (L) and over (vessels that are operated single handed may replace the EPIRB with a Personal Locator Beacon);
 - One EPIRB or Personal Locator Beacons for all crew members on vessels of less than 10m (L);
- The requirement for EPIRBs and PLBs comes into force on 1 October 2019 for existing vessels. New vessels must comply immediately.
- Carbon Monoxide Monitors for vessels with enclosed spaces which contains a fired cooking or heating appliance or where an engine exhaust penetrates that space;
- The requirements for Stability for vessels of 12m (L) to less than 15m (LOA) were inadvertently removed from legislation when the 15-24m Code came into force. With the agreement of Industry, these are being reintroduced into this Code for new vessels, which are defined as vessels the keel of which was laid or the construction commenced on or after 23 October 2017, vessels joining the Register after that date or vessels significantly modified after that date.
- The requirements for the carriage of Satellite Emergency Position Indicating Radio Beacons (PLBs) (EPIRBs) and Personal Locator Beacons for existing vessels will not come into force until 23 October 2019. The requirements for Liferrafts on open vessels of 7m Registered Length and over and decked vessels of 7m (L) to less than 10m (L) will also not come into force until 23 October 2019. **Vessels registering as fishing vessels for the first time, or re-registering after an absence of 6 months or more, on or after 23 October 2017, must comply with all the requirements of the Code immediately.**

4.3 The requirements from MSN 1813 still apply in respect of:

- safety equipment to be carried on the vessel appropriate to its length and construction;
- annual self-certification that the vessel complies with the Code, by declaring that the safety equipment has been properly maintained and serviced in accordance with manufacturers' recommendations;
- presenting the vessel for inspection at intervals not exceeding five years from the date of last inspection in accordance with the provisions of section 3.2;



- ensuring that new vessels are constructed and outfitted in accordance with the latest release of the construction and outfit standards issued by a Certifying Authority;
- to ensure that vessels of 15m (LOA) and over which operate solely in categorized waters, comply with this code as an alternative to complying with the Code of Safe Working Practice for the Construction and Use of 15 metres (LOA) to less than 24 metre Registered Length (L) Fishing Vessels, shall report their intentions to the nearest Coastguard Operations Centre before proceeding outside categorized waters.

4.4 Due to the numbers of fishermen that have died after falling overboard, the Code recommends that all crew, whilst working on the open deck of a vessel that is underway, wear a Personal Flotation Device or a safety harness. This is not a mandatory requirement. Attention is also drawn to The Merchant Shipping and Fishing Vessels (Personal Protective Equipment) Regulations 1999 which set out the general rule that Personal Protective Equipment must be used when risks cannot be avoided or reduced to an acceptable level. MSN 1870 (The Merchant Shipping and Fishing Vessels (Personal Protective Equipment Regulations 1999) says that for any work where there is reasonable foreseeable risk of going overboard then a lifejacket or Personal Flotation Device should be worn.

5.0 Stability of Small Fishing Vessels

5.1 The stability of small fishing vessels remains a serious concern and although this Code does not make any mandatory requirements for vessel of less than 12m, the MCA strongly recommends the following:

- for vessels under 12m joining the Register, owners and skippers apply the stability criteria set out in this Code for vessels of 12m and above; and
- for existing vessels already on the Register, owners and skippers should follow the guidance set out in the Code in Section 5 and Annex 5.

6.0 Additional Guidance

6.1 The guidance contained in this section of the Code is a reminder of other statutory requirements, which are relevant to fishing vessels covered by the Code. It does not form part of the statutory requirements under the Fishing Vessels (Codes of Practice) Regulations 2017.

6.2 An owner will be required to ensure that an appropriate and up to date health and safety risk assessment has been completed in accordance with the Merchant Shipping and Fishing Vessels (Health and Safety at Work) Regulations 1997.



More Information

Vessel Standards Branch
Maritime and Coastguard Agency
Bay 2/21
Spring Place
105 Commercial Road
Southampton
SO15 1EG

Tel : +44 (0) 203 8172454
e-mail: david.fenner@mca.gov.uk

Website Address: www.gov.uk/government/organisations/maritime-and-coastguard-agency

General Inquiries: infoline@mca.gov.uk

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Agency

THE CODE OF PRACTICE FOR THE SAFETY OF SMALL FISHING VESSELS OF LESS THAN 15 METRES LENGTH OVERALL

**Vessel Standards Branch
Bay 2/21**

**The Maritime and Coastguard Agency
Spring Place
105 Commercial Road
Southampton SO15 1EG
Telephone: 0203 817 2000**

<https://www.gov.uk/government/organisations/maritime-and-coastguard-agency>

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1.0 FOREWORD

- 1.1 The aim of this Code of Practice is to improve safety in the less than 15 metres Length Overall (LOA) sector of the fishing industry and to raise the safety awareness of all those involved with the construction, operation and maintenance of such vessels.
- 1.2 The content of the Code has been the subject of extensive discussion with representatives of the small vessel sector of the fishing industry within a steering committee set up by the Fishing Industry Safety Group to oversee the Code's development. If the Code needs to be up-dated at any time to take account of new statutory requirements that apply to vessels operating under the Code, the organisations involved in the development of the Code will be consulted.

2.0 APPLICATION

- 2.1 This Code applies to all fishing vessels, registered in the UK, of less than 15 metres Length Overall (LOA) in accordance with the Fishing Vessels (Codes of Practice) Regulations 2017 No. 943. Vessels of 15 metres (LOA) to less than 24 metres Registered Length (L) operating solely in categorized waters may as an alternative comply with the requirements of this code for decked vessels of 12 metres (L) to less than 15 metres (LOA).
- 2.2 For vessels built **on or after 23 October 2017**, references to Registered Length mean the Registered Length as defined in The Statutory Instrument 1998 No. 1916 The Merchant Shipping (Tonnage) (Fishing Vessels) (Amendment) Regulations 1998.
- 2.3 For vessels built before this date, the Registered Length means the registered length shown on the vessel's certificate of registry.

2.4 PHASE IN REQUIREMENTS

- 2.5 The requirements for the carriage of Satellite Emergency Position Indicating Radio Beacons (EPIRBs) and Personal Locator Beacons (PLBs) for vessels on the Register before 23 October 2017 will not come into force until 23 October 2019. The requirements for Liferafts on open vessels of 7m Registered Length and over and decked vessels of 7m (L) to less than 10m (L) will also not come into force until 23 October 2019 for vessels on the Register before 23 October 2017.
- 2.6 Vessels joining the Register on or after 23 October 2017, including those that have been deregistered for 6 months or more will be required to comply with the requirements for Satellite EPIRBs, Personal Locator Beacons and Liferafts from the date they or re-join the Register.

3.0 CODE REQUIREMENTS

Safety equipment

- 3.1 The vessel owner shall ensure that the vessel complies with the checklist of safety equipment requirements appropriate to the length and construction of the vessel contained in Annexes 1.1 - 1.6 to the Code

Inspection and Certification of fishing vessels

- 3.2 The vessel owner shall present the vessel for inspection on first registration, *at change of ownership* and at intervals not exceeding five years from the date of last inspection for a Certificate Renewal Inspection. If owners wish to present their vessels as a group to be inspected on the same day, the surveyor should be contacted to make the necessary arrangements.

- 3.3 On satisfactory completion of the inspection, a Small Fishing Vessel Certificate will be issued. The Small Fishing Vessel Certificate may remain in force for 5 years from the date of its issue or such shorter periods as may be specified by the Maritime and Coastguard Agency (MCA).
- 3.4 A vessel may be inspected by the MCA at any time to check compliance with Code requirements.
- 3.5 The MCA may cancel a Small Fishing Vessel Certificate if satisfied:
- Ñ that the certificate has been issued based upon false or erroneous information;
 - Ñ that since the issue of the certificate, the hull, equipment or machinery have sustained any damage or are otherwise inadequate for their intended service;
 - Ñ that the vessel has been substantially modified or altered or changed its mode of fishing without due authorisation by the MCA;
 - Ñ that another Fishing Vessel Certificate has been issued in respect of the vessel; or
 - Ñ that the vessel has ceased to be registered as a fishing vessel in the United Kingdom.

Annual self-certification

- 3.6 The vessel owner shall ensure that every year, within 1 month of the anniversary of the vessel's registration they (or other competent person(s) employed by them) inspects the vessel to confirm that the:
- .1 safety equipment carried on board the vessel has been suitably maintained and serviced in accordance with the manufacturer's instructions; and
 - .2 safety and other specified equipment continues to comply with the checklist appropriate to the length and construction of the vessel: and
 - 3 a health and safety risk assessment has been completed and given or explained to the crew.

On completion of these annual checks, the owner must sign a self-certification declaration as contained in the Specimen Certificate at Annex 6 confirming that the vessel complies with the Code, and retain a copy of the declaration on board for inspection purposes.

Vessel Modifications

- 3.7 Substantial modifications, either funded through grants or other means, or alterations affecting the vessel's dimensions, structure or stability, the removal or repositioning of machinery or engines, changes in the vessel's mode of fishing and/or its gear or the fitting of additional equipment shall be investigated, prior to making any changes, to ensure that the vessel will continue to comply with the required stability criteria. In addition such modifications or alterations to any vessel shall only be carried out after consultation and with the approval of the MCA.
- 3.8 The Heel Test as set out in MGN 503 can indicate whether stability has been significantly changed as a result of modifications made to the vessel, its gear or gear handling arrangement or other changes. The heel test can be repeated to assess modifications to the vessel or to assess the effects of cumulative weight gain over time. It is essential that the repeat test is conducted with the vessel arrangement and test weight being as close as possible to the previous test.

Construction and Outfit Standards

- 3.9 In addition to the requirements contained in sections 3.1 to 3.6 and 3.18 to 3.41, vessels wishing to join the UK Register as a fishing vessel for the first time have to demonstrate that their vessel's construction and in the case of vessels 7m and over registered length, their outfit, is of a suitable standard.
- 3.10 For vessels built on or after 16 July 2007, (hereafter referred to as a "New Vessel") and registering as a fishing vessel for the first time, the construction and outfit must conform to the recognised standard of a Certifying Authority for small Fishing Vessels or an equivalent standard recognised by the MCA as suitable for Fishing Vessels, such as those of a Recognised Organisation. Failure to do so will result in the vessel not being registered, On first registration of a new vessel, the owner shall supply the required hull construction and outfit certificates to the Registry of Shipping and Seamen (RSS), together with the Small Fishing Vessel Certificate in order that the vessel can be registered. A Certifying Authority means the MCA or a person authorised by the MCA to appoint persons or organisations for the purpose of examining vessels and issuing and signing Certificates of Construction and Outfit for vessels built on or after 16 July 2007 or Survey Reports for vessels built prior to that date.
- 3.11 For vessels built prior to 16 July 2007, owners will be required to prove that the condition of the vessel is satisfactory. This is carried out through a Certifying Authority who will complete a registration survey. This survey will examine the vessel's structure and, in the case of vessels of 7m and over, their outfit, against the Fishing Vessels Construction and Outfit Standards of a Certifying Authority or an equivalent recognised by the MCA as suitable for Fishing Vessels, such as those of a Recognised Organisation. The MCA will then examine the Certifying Authority's Survey Report, and either allow registration or require the owner to address areas of concern. Registration will not be allowed to proceed until areas of concern have been addressed to the satisfaction of the MCA and the Certifying Authority. When registering the vessel the owner shall supply the Survey Report from the Certifying Authority and the Small Fishing Vessel Certificate to RSS in order that the vessel may be registered. Alternatively, the vessel should comply with an equivalent standard recognised by the MCA as suitable for fishing vessels.
- 3.12 Vessels that have previously been on the UK Register, but that are currently off the Register for any reason and apply to re-register after a period of 6 months or more have elapsed since they left the Register will be treated in accordance with 3.11 above, regardless of vessel's age.
- 3.13 For all vessels (whether new build or not), an MCA safety inspection must follow the Certifying Authority's registration survey or the issue of a Certification of Construction and Outfit, as applicable. The MCA inspection will cover the requirements of this Code, the crew qualifications, and any other mandatory requirements.
- 3.14 To register a Fishing Vessel built on or after 16 July 2007 the following is required:

Vessel Length	Hull Construction Certificate issued by a Certifying Authority	Outfit Compliance Certificate issued by a Certifying Authority	Safety Checklist (Annex 1.1-1.6)	Stability Information
Less than 7 metres (L)	Yes	Recommended	Yes	Recommended
7 metres (L) to less than 12 metres (L)	Yes	Yes	Yes	Recommended
12 metres (L) to less than 15 metres (LOA)	Yes	Yes	Yes	Yes

3.15 To register a fishing vessel built before 16 July 2007, the following is required;

Vessel Length	Registration Survey by a Certifying Authority	Safety Checklist (Annex 1.1-1.6)	Stability Information
Less than 7 metres (L)	Yes	Yes	Recommended
7 Metres (L) to less than 12 metres (L)	Yes	Yes	Recommended
12 metres (L) to less than 15 metres (LOA)	Yes	Yes	Yes

3.16 Before purchasing an existing vessel or commissioning a new build vessel you are advised to seek professional advice on:

- the suitability of the vessel for its intended mode of fishing; and
- the suitability of the vessel to be registered as a fishing vessel.

Personal Flotation Devices

3.17 All crew, whilst working on the open decks of fishing vessels at sea or in categorised waters are strongly recommended to wear Personal Flotation Devices and/or use Safety Lines. See Guidance in Annex 2 for further information. (See clarification below of “Open Decks” and “Sea”)

“Open Decks”; anywhere on a sea going vessel that is exposed and not within a weathertight or watertight area or within the shelterdeck area of a vessel.

“Sea” in the context of ‘at sea’ means all waters outside a safe haven and “safe haven” means a harbour or shelter of any kind which affords entry, subject to prudence in the weather conditions prevailing, and protection from the forces of weather. Details of categorised waters can be found in MSN 1837 or any superseding MSN.

Emergency Procedures

Inspections of life saving equipment and fire appliances

3.18 Inspections of the life-saving equipment and fire appliances shall be made at intervals of not more than one month.

Drills

3.19 The skipper and crew shall ensure that they are familiar in the use of all lifesaving and fire appliances and equipment with which the vessel is provided and shall ensure that all members of the crew know where the equipment is stowed. Related training shall be carried out in drills, including flooding drills, held in port or at sea, at intervals of not more than one month. Further information is contained in MGN 570 (F) Fishing Vessels: Emergency Drills or any superseding document. Information on how to prevent Man Overboard situations occurring is contained in MGN 571 (F) Fishing Vessels: Prevention of Man Overboard.

3.20 The drills referred to in section 3.19 shall ensure that the crew thoroughly understand and are exercised in the duties which they have to perform with respect to the handling and operation of all life-saving, fire-fighting, flooding controls and survival equipment. If a vessel carries 5 or more

crew, a muster list shall be provided with clear instructions for each member of the crew, which shall be followed in case of emergency. An example Muster List is contained in MGN 570.

Records of Inspections and Drills

3.21 The times, dates and particulars of inspections and drills shall be recorded and available for future inspection.

Vessels of 15 metres (LOA) and over

3.22 Where vessels of 15 metres (LOA) and over which operate solely in categorized waters, comply with this Code as an alternative to complying with the Code of Safe Working Practice for the Construction and Use of 15 metre (LOA) to less than 24 metre (L) Fishing Vessels, they shall in addition to 3.9 to 3.16, 3.18 to 3.21 and 3.24 to 3.41, report their intentions to the nearest Marine Office before proceeding outside categorized waters.

Penalties and Detention

3.23 If in the course of an inspection a vessel that is found:

- not to have been adequately equipped;
- not to have properly maintained safety equipment;
- not to be self-certified in accordance with the Code; or
- to be in an unsafe condition to proceed to sea,

may be liable to detention by officers from the MCA. In order to be released the vessel must be inspected by the MCA and this will be charged at the fee rate prescribed in the relevant Merchant Shipping Fees regulations. An owner whose vessel fails to comply with the Code or who makes a false declaration may be liable to prosecution. A skipper who fails to operate the vessel in accordance with the Code may also be liable to prosecution.

Stability of all fishing vessels of 12 metres (L) to less than 15 metres (LOA) built, or joining the Register after the entry into force of this Code

General Requirements

3.24 All fishing vessels of 12 metres (L) to less than 15 metres (LOA) built or joining the Register after the date of entry into force of this Code shall be provided with approved stability information to the satisfaction of the MCA, in accordance with MGN 281(F), for the vessels' intended operation. Placement of the draught marks shall be witnessed by the MCA. Vessels of 12 metres (L) to less than 15 metres (LOA) built before the entry into force of this Code and already Registered as Fishing Vessels are recommended to comply with these requirements.

3.25 The approved stability information shall contain the information and particulars that are detailed in Annex 3.

3.26 All vessels shall be sufficiently stable when intact in the conditions of service for which they are intended.

3.27 The skipper shall take the precautionary measures necessary to maintain adequate stability of the vessel. See Section 5 below for additional guidance.

- 3.28 Information on the vessel's stability shall be available on board and accessible to those on watch.
- 3.29 Instructions supplied concerning the vessel's stability shall be strictly observed by those on watch.
- 3.30 Stability information shall be checked and the continuing validity confirmed at certificate renewal by verifying the vessel's lightship details held by the MCA. When changing, repositioning or adding equipment that adds or removes significant weight or places the weight at a different height, either higher or lower, e.g. fishing gear, winches, or shelters, advice shall be sought from MCA on the effect this could have on the stability of the vessel before the changes are made.

All vessels

- 3.31 The carriage of unnecessary spare gear, stores and parts, the accumulation of debris and the cumulative effects of minor modifications over time can adversely affect the vessel's stability. Attention shall be made to limiting these effects.
- 3.32 Where a stability information book is NOT currently required, it is strongly recommended that a record book be maintained which contains:
- results of rolling or heeling tests conducted per MGN 503 (to facilitate detection of changes in stability);
 - size and positioning of Wolfson Guidance Freeboard Marks (to provide direct guidance on safe loading & lifting).
- 3.33 Additional Guidance on Stability is contained in Section 5 below.

Intact Stability Criteria for Vessels Requiring a Stability Information Booklet

- 3.34 Vessels shall, for the operating conditions and circumstances set out in Annex 3 including icing allowances when applicable, and in all foreseeable operating conditions, satisfy the following stability criteria after due correction for the free surface effects of liquids in tanks:
- i the area under the curve of righting levers (GZ curve) should not be less than:
 - (a) 0.055 metre-radians up to an angle of 30°;
 - (b) 0.090 metre-radians up to an angle of 40° or such lesser angle of heel at which the lower edges of any openings in the hull, superstructures, deckhouses or companionways, being openings that cannot be closed weathertight, are immersed;
 - (c) 0.030 metre-radians between the angles of heel of 30° and 40° or such lesser angle as defined in (b);
 - ii the righting lever (GZ) should be at least 200 millimetres at an angle of heel equal to or greater than 30° ;
 - iii the maximum righting lever (GZ) should occur at an angle of heel not less than 25°;
 - iv in the upright position the transverse metacentric height (GM) should not be less than 350 millimetres.

3.35 If a vessel with beam to depth ratio greater than 2.5, such as a catamaran or multihull type does not meet the stability criteria given in section 3.34, the vessel should meet the following criteria:-

- i the area under the righting lever curve (GZ Curve) should not be less than 0.085 metre radians up to $\theta_{GZ_{max}}$ when $\theta_{GZ_{max}} = 15^\circ$ and 0.055 metre-radians up to $\theta_{GZ_{max}}$ when $\theta_{GZ_{max}} = 30^\circ$.

When the maximum righting lever, GZ_{max} , occurs between $\theta = 15^\circ$ and $\theta = 30^\circ$ the required area under the GZ Curve up to $\theta_{GZ_{max}}$ should not be less than:

$$A = 0.055 + 0.002(30^\circ - \theta_{GZ_{max}}) \text{ metre-radians}$$

where: $\theta_{GZ_{max}}$ is the angle of heel in degrees at which the righting lever curve reaches its maximum.

- ii the area under the righting lever curve between $\theta = 30^\circ$ and $\theta = 40^\circ$ or between $\theta = 30^\circ$ and the angle of downflooding θ_f , if this angle is less than 40° , should not be less than 0.03 metre-radians;
- iii the righting lever GZ should not be less than 0.2 metre at an angle of heel of 30 degrees;
- iv the maximum righting lever should occur at an angle not less than 15 degrees; and
- v the initial metacentric height GM_0 should not be less than 0.35 metre.

3.36 For vessels engaged on single or twin boom fishing the values of dynamic stability, righting lever and metacentric height given in sections 3.34 i), ii), iv) and 3.35 i), ii), iii), v) respectively shall be increased by 20%.

Damage Stability requirements for multihull vessels

3.37 In addition to complying with the intact stability criteria in sections 3.34 to 3.36 multihull vessels should comply with the requirements of Annex 4 below.

Lightship Particulars

3.38 The lightship weight, vertical centre of gravity (VCG) and longitudinal centre of gravity (LCG) should be determined from the results of an inclining experiment. Guidelines for the procedure on carrying out of an inclining experiment can be found in the Instructions for the Guidance of Surveyors on Stability Approval (MSIS 9), Chapter 1, Annex 3¹.

3.39 An inclining experiment may not produce satisfactory results for vessels such as multihulls where the VCG is less than one third of the GM over the range of standard operating conditions. In such cases the LCG should be obtained by lightweight survey (MSIS 9, Chapter 1, Annex 1) or by weighing with two gauges (e.g. one fore and one aft). The lightship VCG may be obtained by an accurate weight estimate calculation with a suitable margin added, in no case should the lightship VCG be taken below main deck level. Details of the estimated lightship weight, LCG and VCG should be submitted to the MCA at an early stage for verification.

3.40 The lightship weight may include a margin for growth, up to 5% of the lightship weight at the discretion of the MCA, positioned at the LCG and vertical centre of the weather deck amidships

¹ http://www.dft.gov.uk/mca/mcga07-home/shipsandcargoes/mcgashipsregsandguidance/mcga-dqs-ss_guidance_to_surveyors.htm

or the lightship VCG, whichever is higher. (The lightweight margin should not be used in practice to increase maximum cargo-deadweight).

- 3.41 For any newly built ship with known differences from a sister ship, a detailed weights and centres calculation to adjust the lead ship's lightship properties should be carried out.
- i) The lightship properties for the new ship may be assessed by carrying out a lightweight survey. The deviation in lightship displacement should not exceed 2% of the lightship displacement of the sister ship. In addition, the deviation in lightship LCG should not exceed 1% of the LBP of the sister ship LCG. Where the deviation is within these limits the actual lightship weight and LCG derived from the lightship check should be used in conjunction with the higher of either the lead ship's VCG or the calculated value.
 - ii) Subject to the agreement of the MCA, the requirement for an inclining test may be dispensed with in cases where the margins on intact and damage stability are sufficient to permit minor changes in VCG, e.g. a minimum of 10% margin on intact and damage stability criteria requirements, and the weight difference can be accurately assessed to the satisfaction of the MCA. In addition the vessel must be similar in all respects and the MCA must be satisfied with the procedure and accuracy of the original inclining. Small modifications, for which an accurate assessment by calculation may be taken into account, are acceptable. Where lightship particulars of a vessel are based on a lightship survey the inclining report for the 'lead' sister vessel should be included in the stability information of the subsequent sister/s.
 - iii) Where the deviation exceeds either of these limits, an inclining test should be carried out.
 - iv) A sister ship is defined as a ship built under the survey of a Certifying Authority, by the same yard from the same plans and within five years of the new ship.

4.0 **ADDITIONAL GUIDANCE**

- 4.1 The guidance contained in this section is a reminder of other statutory requirements, which are relevant to fishing vessels covered by this Code. It does not form part of the statutory requirements under the Fishing Vessels (Codes of Practice) Regulations 2017.

Risk Assessments

- 4.2 The Merchant Shipping and Fishing Vessels (Health and Safety at Work) Regulations 1997 require employers to make a suitable and sufficient assessment of the risks to the health and safety of workers arising in the normal course of their activities or duties. Guidance on these regulations and on the principals of risk assessment is contained in a Marine Guidance Note (currently MGN 20 (M&F)). Although share fishermen are not currently considered workers, it is strongly recommended that a risk assessment is done, regardless of the number of crew and their employment status.
- 4.3 A risk assessment is intended to be a careful examination of the vessel's procedures or operations which could cause harm, so that decisions can be made as to whether adequate control measures are in place to reduce those risks to an acceptable level or whether more should be done.
- 4.4 The assessment should first identify the hazards that are present and then establish whether a hazard is significant and whether it is already covered by satisfactory precautions to control the risk, including consideration of the likelihood of the failure of those precautions that are already in place.

- 4.5 The health and safety risk assessment must also be reviewed regularly, (at least annually) to ensure that it remains appropriate to the vessel's fishing method and operation. If there has been a change of fishing method or of operational practice, the assessment must also be reviewed accordingly.
- 4.6 Risk assessments of the vessel are particular to each employer. When a vessel is sold, the new owner must complete, or arrange the completion of a new risk assessment and self-certification.
- 4.7 All members of the crew shall be informed of all measures to be taken regarding health and safety on board the vessel. Such information must be easily understood and promulgated for all to see by the persons concerned. All members of the crew must sign aforementioned Risk Assessment to agree it has been understood.
- 4.8 Where risks to the health and safety of the crew cannot be prevented or sufficiently controlled by collective or technical means of protection, they must be provided with personal protective equipment.
- 4.9 Personal protective equipment in the form of clothing or over clothing shall be in bright colours, contrasting with the marine environment and clearly visible. Reference must be made to The Merchant Shipping and Fishing Vessels (Personal Protective Equipment) Regulations 1999, No 2205, MSN 1870 and MGN 311, or any superseding documents.

Basic Safety Training Requirements on All Fishing Vessels

New Entrants

- 4.10 A new entrant is defined as a person who is for the first time gainfully employed or engaged as a crew member on a commercial fishing vessel registered in the United Kingdom.
- 4.11 Before starting work as a fisherman all new entrants must have completed the following course:
- 1 day Basic Sea Survival.
- 4.12 Within 3 months of starting work, all new entrant fisherman must complete the following additional courses:
- 1 day Basic Fire Fighting and Prevention;
 - 1 day Basic First Aid; and
 - 1 day Basic Health and Safety (only required of new entrants after 01 January 2005).
- 4.13 Upon completion of these four courses, new entrants should apply to Seafish for a New Entrant photo identification card verifying their compliance with these requirements.

Experienced Fishermen

- 4.14 An experienced fisherman is defined as a person who has been working as a fisherman for two years or more.
- 4.15 In addition to the courses required of new entrants (above), all experienced fishermen, regardless of whether they hold a Certificate of Competency, must complete the following course:
- 1 day Safety Awareness and Risk Assessment.

4.16 Upon completion of this course, experienced fishermen are recommended to apply to Seafish for an Experienced Fisherman photo identification card verifying their compliance with this requirement.

Merchant Navy STCW basic safety training.

4.17 For those working or wanting to work in the maritime industry outside the fishing industry it is necessary for them to hold Seafarers Training Certification and Watchkeeping (STCW) basic safety training certificates. With this in mind it is agreed that the following STCW courses may be used in place of the some of the New Entrant Courses:

Basic STCW Safety Course	Fishermen’s Basic Safety Training Course
Personal Survival Techniques STCW Ref. A-VI/1-1	Sea Survival
Fire Prevention and Fire Fighting STCW Ref. A-VI/1-2	Fire Fighting and Prevention
Elementary First Aid STCW Ref. A-VI/1-3	First Aid

4.18 The MCA will accept STCW basic safety training approved by any Maritime Administration which is signatory to the STCW Convention.

4.19 Courses from other providers and foreign governments are also accepted as equivalent to certain UK courses. All require documentary evidence or verification from a training provider. Currently the majority of the one day courses do not have an expiry date.

Provider/Course	Basic Sea Survival	Basic Health And Safety	Basic Fire Fighting	Basic First Aid	Safety Awareness
RYA/DfT ¹	Yes	No	No	Yes	No
Belgium ²	Yes	No	Yes	Yes	No
Spain ²	Yes	No	Yes	Yes	No
Republic of Ireland ²	Yes	No	Yes	Yes	No
The Netherlands ²	Yes	No	Yes	Yes	No
Denmark/Faroe Islands ²	Yes	No	Yes	Yes	No
Iceland ²	Yes	No	Yes	Yes	No
Lithuania ²	Yes	No	Yes	Yes	No
UK Royal Navy ³	Yes	No	Yes	Yes	No
RNLI	No	No	Yes	No	No

1. Inshore skipper ticket.

2. Fishing Basic Safety Course equivalents

3. On completion of Royal Navy Basic Training

- 4.20 The Safety Awareness and Risk Assessment course and the Basic Health and Safety courses have no STCW alternatives. Any fishermen coming from outside the UK must, regardless of whether they have undertaken the Merchant Navy STCW basic safety training, undertake the Basic Health and Safety course before commencing work for the first time on a UK Registered fishing vessel.

Additional Voluntary Training Courses

- 4.21 Seafish offer a number of voluntary training courses in Navigation, Engineering and Stability.
- 4.22 Completion of these courses (with the addition of the Royal Yachting Association's GMDSS Short Range Certificate for radio operators) make up the requirements for the Seafish Under 16.5m Skipper's Certificate, which is also accepted by the MCA for use on small commercial vessels.
- 4.23 Seafish also currently offer other voluntary courses for new entrant fishermen. These include:
- Introduction to Commercial Fishing - a 3-week induction course for those wanting to begin a career in fishing
 - Sea Fishing Apprenticeship - a year-long course for new entrants developed in collaboration with the Maritime Skills Alliance
- 4.24 Further details and up to date information on training can be found on <http://www.seafish.org/training>
- 4.25 A GMDSS Short Range Certificate (SRC) can be accepted for operation in A1 area, and GMDSS Long Range Certificate (LRC) for operations in A1, A2, A3 or A4 areas; these can be undertaken at the nearest Nautical College. For guidance on Sea Areas see Annex 2 – Radio.

Winches, tackles and hoisting gear

- 4.26 Every vessel that is provided with winches, tackles and hoisting gear shall have such gear properly installed having regard to the intended service of the vessel.
- 4.27 All hoisting gear, hauling gear and related equipment shall satisfy the requirements of The Merchant Shipping and Fishing Vessels (Provisions and Use of Work Equipment) Regulations 2006 No. 2183 and the Merchant Shipping and Fishing Vessels (Lifting Operations and Lifting Equipment) Regulations 2006 No. 2184 as applicable.
- 4.28 All equipment used in hoisting/hauling should be used only by a competent person and must be inspected and examined at regular intervals and a written record shall be made of all such tests and examinations.
- 4.29 All parts of hauling gear, hoisting gear and related equipment must be maintained in good repair and working order.
- 4.30 The controls for the hauling and hoisting gear shall be installed in an area sufficiently large enough to enable operators to work unhindered.
- 4.31 The hauling and hoisting gear shall also have appropriate safety devices for emergencies, including emergency stop facilities. A duplicate set of emergency stop facilities is to be provided in the wheelhouse.

- 4.32 The gear operator must have a clear view of the gear and any crew member working near it.
- 4.33 If hauling gear is controlled from the wheelhouse, the operator must also have a clear view of the crew working near the gear, either directly or via any other suitable medium. All operators, in the wheelhouse or on deck shall give exclusive attention to that task and must not carry out other tasks while operating the equipment.
- 4.34 A reliable communications system must be used between the wheelhouse and the working deck and the crew shall be trained in the use of hand signals.
- 4.35 A sharp look out must always be maintained and the crew warned of the imminent danger of heavy oncoming seas during fishing operations or when other work is being undertaken on deck.
- 4.36 Contact with bare ropes and warps and with moving parts of the equipment shall be minimized by installing protective devices.
- 4.37 The following control measures shall be installed for restricting moving masses (on vessels with trawl doors or codends):
- (i) devices to immobilise the trawl doors;
 - (ii) devices to control the swinging motion of the codend.
- 4.38 The crew must be trained in the use of fishing gear and hauling and hoisting equipment.
- 4.39 Further advice on how to stay safe whilst using Deck Machinery can be seen here <http://rnli.org/safety/respect-the-water/activities/commercial-fishing>

Radio Licences and Qualifications

- 4.40 All vessels fitted with a radio must have a radio licence, which can be obtained from:

<http://licensing.ofcom.org.uk/radiocommunication-licences/ships-radio/>

The contact details of the licencing team are:

Spectrum Licensing
Riverside House
2a Southwark Bridge Road
London
SE1 9HA

Spectrum Licensing
Tel: 020 7981 3131 or 0300 123 1000
Fax: 020 7981 3235
Textphone: 020 7981 3043 or 0300 123 2024 - Please note that these numbers only work with special equipment used by people who are deaf or hard of hearing.
E-mail: spectrum.licensing@ofcom.org.uk

- 4.41 Failure to obtain a radio licence (which also records the Ship's unique Maritime Mobile Service Identity (MMSI) (DSC Identifying Code)) may result in the DSC function operating incorrectly in an emergency, as unregistered identifying codes are re-allocated.
- 4.42 Vessels with operational Radio kit, for example GMDSS or VHF, must have a person on board with the appropriate operators certificate. Further information on obtaining an operators certificate can be obtained from MCA Seafarer Training and Certification Branch on 023 8032 9231 by email exams@mcga.gov.uk

MARPOL Placards

- 4.43 A MARPOL Placard is contained at Annex 7 which sets out the restrictions on waste disposal. This should be displayed and/or shown to the crew.

Hard Points/Towing Points

- 4.44 Operations such as towing impose great loads on ropes, warps, gear and equipment. MGN 308 – Mooring, Towing or Hauling Equipment on All Vessels – Safe Installation and Safe Operation provides updated advice on the safe installation, maintenance and use of mooring, towing and hauling equipment.

5.0 STABILITY GUIDANCE FOR ALL VESSELS OF LESS THAN 12M REGISTERED LENGTH AND EXISTING VESSELS OF LESS 15M (LOA)

- 5.1 Guidance on Stability is contained in Annex 5 of the Code and in MGN 503 and MGN 427, or any subsequent documents. This MGN states that any vessel must be stable for its intended purpose and it is reasonable to expect that naval architectural skills will be employed during the design and construction process to ensure that the vessel is safe for use. MCA recommends that all purchasers ask for stability information from builders. It should be noted that a hull designer/builder may well have ensured stability is adequate for the design but the equipment, layout of down-flooding points etc. may differ significantly once an owner has fitted out the vessel, invalidating the designer's assumptions and providing a false sense of security to the owner/operator and the owner/operator/skipper should take into account the remainder of this section when considering stability.
- 5.2 While no specific statutory requirements exist for the stability of small fishing vessels, the owner, skipper and others do have legal responsibilities as detailed under the Merchant Shipping and Fishing Vessels (Health and Safety at Work) Regulations 1997.
- 5.3 For example their duties include ensuring, as far as is reasonably practicable:
- Systems of work that are, so far as reasonably practicable, safe and without risk to health;
 - Safe arrangements for the use, handling, and stowage and transportation of articles and substances;
 - There is provision of information, instruction, training and supervision necessary to ensure health and safety of workers and other persons.
- 5.4 In the absence of specific statutory requirements for stability and subsequent approval of stability by MCA, owners may use other methods to assess stability and support skippers and fishermen to meet their health and safety general duties and responsibilities. It is not acceptable to do nothing and assume the vessel's stability is satisfactory. It is always better to assess the situation or obtain professional advice and MGNs 503 and 427(F), or subsequent amending MGNs, help by providing

additional information for this process. In short, MCA is providing a number of methods you may find helpful. MCA Fishing Vessel Surveyors cannot decide which method of stability assessment is best for your vessel (that is for owners/ skippers and crews to decide), but can assist in discussing the pros and cons of each method and may be able to identify specific risks/ similar vessels/ fishing methods which may assist owners/skippers and crews in coming to a decision on which stability assessment method best fits their vessel.

5.5 Further advice on how to maintain the stability of your vessel can be obtained from: <http://rnli.org/safety/respect-the-water/activities/commercial-fishing>

6.0 APPEAL PROCEDURES

6.1 If an owner is dissatisfied with an inspection then this should in the first instance be discussed with the person who carried out the inspection.

6.2 If agreement cannot be reached with the person who carried out the inspection the owner may refer the matter to the Consultant Surveyor (Fishing Vessels) in the Region where the vessel was inspected.

6.3 Should the above procedure fail to resolve the dispute, the owner may refer the matter to the Director of Maritime Safety and Standards at MCA Headquarters, and, if necessary, to the MCA Chief Executive.

6.4 If an owner is still not content with the way in which the complaint has been handled, the owner may serve notice, within twenty one days, of the completion of the procedure given in sections 6.1 to 6.3 above, on the MCA that their dispute be referred to a single arbitrator appointed by agreement between the MCA and the owner.

6.5 A person should not be qualified for appointment as an arbitrator unless that person is:

- (i) a person holding a certificate of competency as a deck officer, marine engineer officer or equivalent;
- (ii) a naval architect;
- (iii) a person with special experience of the fishing industry;
- (iv) a member of the Chartered Institute of Arbitrators; or
- (v) a person holding a Certificate of Competency (Fishing Vessels) Class 1.

6.6 The final allocation of costs will depend on the arbitrator's decision. If the decision is in the favour of the owner, the arbitrator may award the owner such compensation as the arbitrator thinks fit in addition to allocating costs.

6.7 The Ombudsman (also called the Parliamentary Commissioner for Administration) plays an important role as the final step on the complaints ladder, and provides a fully independent channel for reviewing complaints. If an owner wishes to complain to the Ombudsman, they should write to their MP, and ask him or her to refer it to the Ombudsman.

6.8 Usually, before an owner can complain to the Ombudsman's Office, they will expect the owner to have put their complaint to the Agency first, using the MCA's internal complaints procedure.

**CODE OF PRACTICE FOR THE SAFETY OF SMALL FISHING VESSELS:
CHECK LIST OF REQUIREMENTS: SEE ADDITIONAL GUIDANCE IN ANNEX 2**

Equipment need not be MCA approved provided it is fit for its intended purpose.

OPEN Vessels less than 7 metres (L)

Item	Remarks/compliance	Expiry/Service Date
Lifejackets – 1 per person		
1 Lifebuoy (with 18 metre buoyant line attached)		
2 Parachute Flares		
2 Hand-held Flares		
1 Smoke Signal, buoyant or hand held		
1 Fire Bucket + Lanyard		
1 Multi-purpose Fire Extinguisher (fire rating 5A/34B) – if vessel has in-board engine (extinguisher should be capable of dealing with all fire types, including hydrocarbons)		
1 Fire Blanket (light duty) if vessel has galley or cooking area		
1 Satellite EPIRB or Personal Locator Beacon(s) - 1 per person		
VHF Radio – DSC fixed or hand held.		
Bailer		
Approved Navigation Lights & Sound Signals		
Anchor and cable/warp		
Compass		
Waterproof Torch		
Medical Kit in accordance with The Merchant Shipping and Fishing Vessels (Medical Stores) Regulations 1995 No.1802 or any superseding regulations		
Radar Reflector		
CO Alarms for every enclosed space that has a fired cooking or heating appliance or where engine exhausts penetrate the wheelhouse or crew space		

Note: The checklist represents the minimum safety equipment requirements and owners should consider carrying additional safety equipment. It is recommended that if you carry Personal Locator Beacons, a Satellite EPIRB should also be carried and if you carry an EPIRB, that you carry Personal Locator Beacons for each member of the crew. Carriage of a liferaft is also recommended. Coastguard Operations Centres maintain a listening watch only on VHF Channel 16. The primary means of distress and urgency alerting should be via VHF DSC.

Substantial modifications or alterations affecting the vessel's dimensions, structure or stability, the removal or repositioning of equipment, changes in the vessel's mode of fishing and/or its gear or the fitting of additional equipment shall be investigated, prior to making any changes, to ensure that the vessel is stable for its intended purpose and/or will continue to comply with the stability requirements of this Code. In addition such modifications or alterations shall only be carried out after consultation and with the approval of the MCA.

**CODE OF PRACTICE FOR THE SAFETY OF SMALL FISHING VESSELS:
CHECK LIST OF REQUIREMENTS: SEE ADDITIONAL GUIDANCE IN ANNEX 2**

Equipment need not be MCA approved provided it is fit for its intended purpose.

OPEN Vessels 7 metres (L) and above to less than 12 metres (L)

Item	Remarks/compliance	Expiry/Service Date
Liferaft(s) - sufficient capacity for all persons on board vessel and appropriate for area of operation – See Annex 2 for guidance		
Lifejackets - 1 per person		
2 Lifebuoys (1 with 18 metre buoyant line attached) or 1 Lifebuoy (with 18 metre buoyant line) +1 Buoyant Rescue Quoit		
3 Parachute Flares		
2 Hand-held Flares		
1 Smoke Signal (buoyant or hand held)		
1 Multi-purpose Fire Extinguisher (fire rating 5A/34B)		
1 Multi-purpose Fire Extinguisher for oil fires (fire rating 13A/113B)		
1 Fire Blanket (light duty) in galley or cooking area (if applicable)		
1 Fire Pump + Hose and 1 Fire Bucket and lanyard		
1 Satellite EPIRB (for Vessels of 10m L and over) (Vessels of 10m and over that are single handed may replace the EPIRB with a Personal Locator Beacon)		
1 Satellite EPIRB or Personal Locator Beacon(s) – 1 per person (for vessels of 7m (L) to less than 10m (L))		
VHF Radio – DSC fixed or hand held		
Bilge Alarm, if bilge not visible		
Bilge Pump		
Approved Navigation Lights & Sound Signals		
Anchor and cable/warp		
Compass		
Waterproof Torch		
Medical Kit in accordance with The Merchant Shipping and Fishing Vessels (Medical Stores) Regulations 1995 No.1802 or any superseding regulations		
Radar Reflector		
CO Alarms for every enclosed space that has a fired cooking or heating appliance or where engine exhausts penetrate the wheelhouse or crew space		

Note: The checklist represents the minimum safety equipment requirements and owners should consider carrying additional safety equipment. It is recommended that if you carry the Satellite EPIRB, you also carry Personal Locator Beacons for each member of the crew, and if you carry Personal Locator Beacons, you also carry a Satellite EPIRB. The liferaft, which is mandatory, should be fitted in accordance with the manufacturer's instructions. Coastguard Operations Centres maintain a listening watch only on VHF Channel 16. The primary means of distress and urgency alerting should be via VHF DSC

Substantial modifications or alterations affecting the vessel's dimensions, structure or stability, the removal or repositioning of equipment, changes in the vessel's mode of fishing and/or its gear or the fitting of additional equipment shall be investigated, prior to making any changes, to ensure that the vessel is stable for its intended purpose and/or will continue to comply with the stability requirements of this Code. In addition such modifications or alterations shall only be carried out after consultation and with the approval of the MCA.

**CODE OF PRACTICE FOR THE SAFETY OF SMALL FISHING VESSELS:
CHECK LIST OF REQUIREMENTS: SEE ADDITIONAL GUIDANCE IN ANNEX 2**

Equipment need not be MCA approved provided it is fit for its intended purpose.

OPEN Vessels 12 metres (L) and above to less than 15 metres (LOA)

Item	Remarks/compliance	Expiry/Service Date
Liferaft(s) - Sufficient capacity for all persons on board vessel and appropriate for area of operation – See Annex 2 for guidance		
Lifejackets - 1 per person + 2 spare		
2 Lifebuoys (1 with 18 metre buoyant line attached) or 1 Lifebuoy (with 18 metre buoyant line) +1 Buoyant Rescue Quoit		
3 Parachute Flares		
2 Hand-held Flares		
1 Smoke Signal (buoyant or hand held)		
1 Multi-purpose Fire Extinguisher (fire rating 5A/34B)		
1 Multi-purpose Fire Extinguisher for oil fires (fire rating 13A/113B)		
1 Fire Blanket (light duty) in galley or cooking area (if applicable)		
1 Fire Pump + Hose <u>and</u> 1 Fire Bucket and Lanyard		
VHF Radio – DSC fixed and hand held		
1 Satellite EPIRB (Vessels that are single handed may replace the EPIRB with a Personal Locator Beacon)		
Bilge Alarm, if bilge not visible		
Bilge Pump		
Approved Navigation Lights & Sound Signals		
Anchor and cable/warp		
Compass		
Waterproof Torch		
Medical Kit in accordance with The Merchant Shipping and Fishing Vessels (Medical Stores) Regulations 1995 No.1802 or any superseding regulations		
Approved Stability book in accordance with MGN 281 for New Vessels only		
Radar Reflector		
CO Alarms for every enclosed space that has a fired cooking or heating appliance or where engine exhausts penetrate the wheelhouse or crew space		

Note: The checklist represents the minimum safety equipment requirements and owners should consider carrying additional safety equipment. In addition to the Satellite EPIRB, Personal Locator Beacons are also recommended for all crew on vessels that are not single handed. The liferaft, which is mandatory, should be fitted in accordance with the manufacturer's instructions. Coastguard Operations Centres maintain a listening watch only on VHF Channel 16. The primary means of distress and urgency alerting should be via VHF DSC.

Substantial modifications or alterations affecting the vessels dimensions, structure or stability, the removal or repositioning of equipment, changes in the vessel's mode of fishing and/or its gear or the fitting of additional equipment shall be investigated, prior to making any changes, to ensure that the vessel ensure that the vessel is stable for its intended purpose and/or will continue to comply with the stability requirements of this Code. In addition such modifications or alterations shall only be carried out after consultation and with the approval of the MCA.

**CODE OF PRACTICE FOR THE SAFETY OF SMALL FISHING VESSELS:
CHECK LIST OF REQUIREMENTS: SEE ADDITIONAL GUIDANCE IN ANNEX 2**

Equipment need not be MCA approved provided it is fit for its intended purpose.

DECKED Vessels of less than 10 metres (L)

“Decked vessels” means a vessel with a continuous watertight weather deck that extends from stem to stern and has positive freeboard throughout, in any condition of loading the vessel.

Item	Remarks/compliance	Expiry/Service Date
Liferaft(s) (for vessels of 7 metres (L) and over) - sufficient capacity for all persons on board vessel and appropriate for area of operation – See Annex 2 for guidance		
Lifejackets - 1 per person		
2 Lifebuoys (1 with 18 metre buoyant line attached) or 1 Lifebuoy (fitted with 18 metre buoyancy line) +1 Buoyant Rescue Quoit		
3 Parachute Flares		
2 Hand-held Flares		
1 Smoke Signal (buoyant or hand held)		
1 Multi-purpose Fire Extinguisher (fire rating 5A/34B)		
1 Multi-purpose Fire Extinguisher for oil fires (fire rating 13A/113B)		
Gas Detector		
1 Fire Blanket (light duty) in galley or cooking area (if applicable)		
Fire Detectors		
1 Fire Pump + Hose and 1 Fire Bucket and lanyard		
1 Satellite EPIRB or Personal Locator Beacon(s) – 1 per person		
VHF Radio – DSC fixed or hand held		
Bilge Pump		
Bilge Level Alarm		
Approved Navigation Lights & Sound Signals		
Anchor and cable/warp		
Compass		
Waterproof Torch		
Medical Kit in accordance with The Merchant Shipping and Fishing Vessels (Medical Stores) Regulations 1995 No.1802 or any superseding regulations		
Radar Reflector		
CO Alarms for every enclosed space that has a fired cooking or heating appliance or where engine exhausts penetrate the wheelhouse or crew space		

Note: The checklist represents the minimum safety equipment requirements and owners should consider carrying additional safety equipment. It is recommended that if you carry the Satellite EPIRB, you also carry Personal Locator Beacons for each member of the crew, and if you carry Personal Locator Beacons, you also carry a Satellite EPIRB. The liferaft, which is mandatory for vessel of 7 metres (L) and over and strongly recommended for vessels under 7 metres (L), should be fitted in accordance with the manufacturer's instructions.

Coastguard Operations Centres maintain a listening watch only on VHF Channel 16. The primary means of distress and urgency alerting should be via VHF DSC. Substantial modifications or alterations affecting the vessel's dimensions, structure or stability, the removal or repositioning of equipment, changes in the vessel's mode of fishing and/or its gear or the fitting of additional equipment shall be investigated, prior to making any changes, to ensure that the vessel ensure that the vessel is stable for its intended purpose and/or will continue to comply with the stability requirements of this Code. In addition such modifications or alterations shall only be carried out after consultation and with the approval of the MCA.

CODE OF PRACTICE FOR THE SAFETY OF SMALL FISHING VESSELS: CHECK LIST OF REQUIREMENTS: SEE ADDITIONAL GUIDANCE IN ANNEX 2

Equipment need not be MCA approved provided it is fit for its intended purpose.

DECKED Vessels 10 metres and above (L) to less than 12 metres (L)

“Decked vessel” means a vessel with a continuous watertight weather deck that extends from stem to stern and has positive freeboard throughout, in any condition of loading the vessel.

ITEM	Remarks/compliance	Expiry/Service Date
Lifejackets - 1 per person + 2 spare		
Liferaft(s) - sufficient capacity for all persons on board vessel and appropriate for area of operation – See Annex 2 for guidance		
2 Lifebuoys (1 with 18 metre buoyant line attached) or 1 Lifebuoy (fitted with 18 metre buoyant line) +1 Buoyant Rescue Quoit		
3 Parachute flares		
2 Hand-held flares		
1 Smoke Signal (buoyant or handheld)		
Gas Detector		
1 Fire Blanket (light duty) in galley or cooking area (if applicable)		
Fire Detectors		
1 Fire Pump and hose, 2 Multi-purpose Fire Extinguishers (fire rating 5A/34B and 13A/113B), 1 Fire Bucket and lanyard, 1 fixed Fire Extinguishing system for the machinery space		
1 Multi-purpose Fire Extinguisher for oil fires (fire rating 13A/113B)		
1 Satellite EPIRB (Vessels that are single handed may replace the EPIRB with a Personal Locator Beacon)		
VHF Radio - DSC fixed and hand held		
Bilge Pump		
Bilge Level Alarm		
Approved Navigation Lights & Sound Signals		
Anchor and cable/warp		
Compass		
Waterproof Torch		
Medical Kit in accordance with The Merchant Shipping and Fishing Vessels (Medical Stores) Regulations 1995 No.1802 or any superseding regulations		
Radar Reflector		
CO Alarms for every enclosed space that has a fired cooking or heating Appliance or where engine exhausts penetrate the wheelhouse or crew space		

Note: The checklist represents the minimum safety equipment requirements and owners should consider carrying additional safety equipment. In addition to the Satellite EPIRB, Personal Locator Beacons are recommended for all crew on vessels that are not single handed. The liferaft, which is mandatory, should be fitted in accordance with the manufacturer's instructions.

Coastguard Operations Centres maintain a listening watch only on VHF Channel 16. The primary means of distress and urgency alerting should be via VHF DSC.

Substantial modifications or alterations affecting the vessel's dimensions, structure or stability, the removal or repositioning of equipment, changes in the vessel's mode of fishing and/or its gear or the fitting of additional equipment shall be investigated, prior to making any changes, to ensure that the vessel ensure that the vessel is stable for its intended purpose and/or will continue to comply with the stability requirements of this Code. In addition such modifications or alterations shall only be carried out after consultation and with the approval of the MCA.

CODE OF PRACTICE FOR THE SAFETY OF SMALL FISHING VESSELS: CHECK LIST OF REQUIREMENTS: SEE ADDITIONAL GUIDANCE IN ANNEX 2

Equipment need not be MCA approved provided it is fit for its intended purpose.

DECKED Vessels 12m and above (L) to less than 15 metres (LOA)

“Decked vessel” means a vessel with a continuous watertight weather deck that extends from stem to stern and has positive freeboard throughout, in any condition of loading the vessel.

ITEM	Remarks/compliance	Expiry/Service Date
Lifejackets - 1 per person and 2 spare		
Liferaft(s) - sufficient capacity for all persons on board vessel and appropriate for area of operation – See Annex 2 for guidance		
2 Lifebuoys (1 with 18 metre buoyant line attached) or 1 Lifebuoy (fitted with 18 metre buoyant line) +1 Buoyant Rescue Quoit		
3 Parachute flares		
2 Hand-held flares		
1 Smoke Signal (buoyant or handheld)		
Gas Detector		
1 Fire Blanket (light duty) in galley or cooking area (if applicable)		
Fire Detectors		
1 Fire Pump and hose, 2 Multi-purpose Fire Extinguishers (fire rating 5A/34B and 13A/113B), 1 Fire Bucket and lanyard, 1 fixed Fire Extinguishing system for the machinery space		
1 Multi-purpose Fire Extinguisher for oil fires (fire rating 13A/113B)		
VHF Radio - DSC fixed and hand held		
1 Satellite EPIRB (Vessels that are single handed may replace the EPIRB with a Personal Locator Beacon)		
Bilge Pump		
Bilge Level Alarm		
Approved Navigation Lights & Sound Signals		
Anchor and cable/warp		
Compass		
Waterproof Torch		
Medical Kit in accordance with The Merchant Shipping and Fishing Vessels (Medical Stores) Regulations 1995 No.1802 or any superseding regulations		
Approved Stability Book in accordance with MGN 281 or roll test for existing vessel (New Vessels only)		
Radar Reflector		
CO Alarms for every enclosed space that has a fired cooking or heating Appliance or where engine exhausts penetrate the wheelhouse or crew space		

Note: The checklist represents the minimum safety equipment requirements and owners should consider carrying additional safety equipment. In addition to the Satellite EPIRB, Personal Locator Beacons are recommended for all crew on vessels that are not single handed. The liferaft, which is mandatory, should be fitted in accordance with the manufacturer's instructions.

Coastguard Operations Centres maintain a listening watch only on VHF Channel 16. The primary means of distress and urgency alerting should be via VHF DSC

Substantial modifications or alterations affecting the vessel's dimensions, structure or stability, the removal or repositioning of equipment, changes in the vessel's mode of fishing and/or its gear or the fitting of additional equipment shall be investigated, prior to making any changes, to ensure that the vessel ensure that the vessel is stable for its intended purpose and/or will continue to comply with the stability requirements of this Code. In addition such modifications or alterations shall only be carried out after consultation and with the approval of the MCA.

GUIDANCE ON REQUIREMENTS CONTAINED IN THE CODE FOR SURVEYORS, INSPECTORS AND FISHERMEN

Anchors & Cables

For new vessels these shall be in accordance with the most recent version of Certifying Authority construction standards. An existing vessel shall carry a suitable means of anchoring and chain cable or warp of a length suitable for the intended area of operation, attached and ready for use.

Bilge level alarm

This shall provide warning when working inside or outside the wheel house. When a watertight bulkhead is fitted sensors shall be fitted in the fish hold and engine room.

In all vessels, a bilge alarm system is to be fitted in the wheelhouse with audible and visible indication at helm/control position. Bilge level sensors are to be fitted in the machinery space and fish room/hold. Sensors shall also be fitted in any compartment which has a bilge suction if the level of bilge water cannot be readily checked visually without entering the compartment

Carbon Monoxide Alarms

Carbon Monoxide (CO) Alarms shall be installed in every enclosed space that contains a fired cooking or heating appliance and where an engine exhaust penetrates through the wheelhouse or crew space. Fired appliances apply to, but may not be limited to, appliances fired by LPG, diesel or paraffin. CO Alarms are not required when heating or cooking is undertaken using electrical cookers or heaters.

CO Alarms shall be of the Lithium Battery type and installed, regularly tested, maintained and replaced in accordance with the manufacturer's guidance.

Signs of CO include:

- staining, sooty smears or discolouration of surfaces around an appliance or its flue;
- appliances that are difficult to light, keep lit or burn weakly;
- burners with yellow or orange or "floppy" flames that threaten to go out;
- an unfamiliar or burning smell when an LPG or oil appliance is on;
- smelling engine exhaust fumes regularly inside the space.²

CO Alarms are a useful back-up precaution but must NOT be regarded as a substitute for proper installation and maintenance of gas equipment by a Gas Safe registered engineer. When you buy a carbon monoxide alarm, ensure it meets current safety standards (BS EN 50291-1) and carries the Kitemark.

Cooking and Heating Appliances

Appliances that are purchased shall meet the latest standards and be suitable for use on boats and be installed and serviced regularly (at least annually) by qualified persons. Repairs shall only be undertaken using proprietary components. Vents and flues shall be checked for damage and blockages.

² Source: Boat Safety Scheme and CoGDEM

Electrical systems

Due to fires on board fishing vessels, insulation testing of electrical systems is undertaken regularly and records maintained to confirm this has taken place. Further details can be found in Chapter 6, paragraph 6.3.1 of the Instructions for the Guidance of Surveyors MSIS 27 Survey and Inspection of Fishing Vessels <https://www.gov.uk/government/publications/survey-and-inspection-of-fishing-vessels-chapters-1-to-17-msis-27>

The risks of electric shock are much greater on board ship than they are normally ashore because wetness (including sweating), high humidity and high temperature reduce the contact resistance of the body. In those conditions, severe and even fatal shocks may be caused at voltages as low as 60V. It should also be borne in mind that cuts and abrasions significantly reduce skin resistance.

Electronic Aids to Navigation

Any electronic aids to navigation shall be tested frequently and well maintained. Reference shall be made to MGN 379 – Navigation: Use of Electronic Navigation Aids, or any superseding information or guidance documents. This Guidance Note emphasises the need for correct use of navigational equipment by watch-keepers and in particular to:

- Be aware that each item of equipment is an aid to navigation.
- Be aware of the factors which affect the accuracy of position fixing systems.
- Appreciate the need to cross check position fixing information using other methods.
- Recognise the importance of the correct use of navigational aids and knowledge of their limitations.
- Be aware of the dangers of over-reliance on the output from, and accuracy of, a single navigational aid.

It should be noted that if the vessel has Automatic Identification Systems (AIS) installed, it shall meet IMO performance standards (Class A). IMO Resolution A.1106(29), “Revised Guidelines for the onboard use of Automatic Identification System”, contains further information on the use of AIS.

AIS, if fitted, shall remain on and operational at all times and may only be switched off if the skipper considers this necessary in the interests of safety or security of the vessel. Although for such vessels the fitting and operational use of AIS is not mandatory, when such equipment is being voluntarily fitted then the obligations as outlined in MGN 79, Safety Equipment and Pollution Prevention Equipment Carried in Excess of Statutory Requirements, shall be complied with.

EPIRBs

Every EPIRB shall:

- i) be fitted with a float free arrangement, whose operation will cause it to activate;
- ii) be stowed in such a position that it is protected from possible damage and is easily removable from its mounting for placing in any survival craft (reference shall be made to MGN 267(F) - The Location and Stowage of Liferafts and Emergency Positioning Radio Beacons (EPIRBs) on UK Registered Fishing Vessels;
- iii) have the float-free arrangement routinely replaced or serviced in accordance with the manufacturer’s instructions;
- iv) have the power source replaced whenever necessary and at least before its expiry date;
- v) be registered, reference shall be made to The Merchant Shipping (EPIRB Registration)

Regulations SI 2000, No. 1850 and Merchant Shipping Notice 1816 (M&F) – Mandatory Registration of Electronic Position indicating Radio Beacons (EPIRBs);

- vi) on renewal, conform to IMO Resolution A.810 (19). The Radio and Telecommunication Terminal Directive Declaration of Conformity shall include reference to IEC 61097-2 or EN 300 066 or the Marine Equipment Directive Annex referenced by the Compliance Certificate shall be A.1/5.6; and
- vii) transmit the position obtained from a built-in GPS receiver to satellite.

Reference shall also be made to MGN 267 - The Location and Stowage of Liferrafts and Emergency Positioning Radio Beacons (EPIRBs) on UK Registered Fishing Vessels

All 406 MHz beacons (EPIRB or PLB) fitted to a United Kingdom vessel must be registered. Changes to registered beacons must also be notified. The effectiveness of a 406 MHz beacon as a Search and Rescue (SAR) aid depends upon correct registration details being available to the SAR services. If they are not, here is the potential to jeopardise SAR operations, including looking for the wrong vessel, or stopping a search because it might appear that the vessel with which the beacon is registered is not in distress.

The beacon manufacturers normally provide two or more identical registration cards on which vessel operators shall enter the required details, but these are also available from the Royal Yachting Association (Global Maritime Distress Safety System (GMDSS) Guidelines), Ofcom registration documentation and from the MCA via our website or the EPIRB Registry itself. One is to be returned to the manufacturer as a warranty, while another is sent to the competent authority. Any spare forms shall be retained by the beacon owner.

Beacons that operate within the 406 MHz band must be registered with the MCA. The completed form or any registration queries shall be sent to:

The UK Beacon Registry
The Maritime and Coastguard Agency
MRCC Falmouth
Castle Drive
Pendennis Point
Falmouth
Cornwall TR11 4WZ

Tel: 020 3817 2006
Fax: 01326 319264

Email: UKBeacons@mcga.gov.uk

Online registration: www.gov.uk/406beacon

Office hours: Mon – Thurs: 08:45 – 16:45 Fri: 08:45 – 16:15

Outside office hours or in the case of an alert:

Falmouth Coastguard Operations room: Tel: 01326 317575

The beacon supplier or the EPIRB Registry will help you complete the card correctly if you need assistance.

Further details on EPIRB and PLB Registration are contained in MSN 1816 (M&F) Mandatory Registration of Emergency Position Indicating Radio Beacons (EPIRBs), or any superseding document.

Flares and smoke signals

Shall be of an approved type, within their expiry date and stored in a water proof container. It should be noted that handheld signals burn for approximately 60 seconds, whilst buoyant signals burn for up to 3 minutes.

Fire buckets

Shall be heavy duty with a Lanyard. Buckets need not be made of steel.

Fire Detectors

Battery powered fire detectors and alarms may be suitable under certain circumstances for accommodation only where easily audible from the wheelhouse and/or deck, and would be assessed on a case by case basis by the Surveyor to check their suitability for purpose.

For engine spaces remote from the wheelhouse a battery operated fire detector is unsuitable as it is extremely unlikely that the alarm will be audible.

Therefore for this type of engine space an alarm which is audible and also visual shall be provided in the wheelhouse. A selection of detector models is available which can be connected to each other such that an alarm in the engine space also triggers an alarm in the wheelhouse. Advice on these types is available from the MCA.

In essence a fire detector for engine spaces shall be fit for purpose and may be a combination of smoke and/or optical detectors connected by wire to a similar alarm in the wheelhouse.

Fire Extinguishers (Portable)

Fire on board a vessel can, if it is not controlled, lead to the loss of the vessel and/or serious injuries. The checklists in this Code of Practice give a minimum requirement for the extinguishers to be carried on Fishing Vessels. When extinguishers are replaced, new extinguishers shall comply with BS EN 3, or the Marine Equipment Directive (96/98/EC as amended by 2002/75/EC).

There are two sizes quoted in the checklists:

Designation	Equivalent Dry Powder	Equivalent Foam
5A/34B	1 Kg ABC Dry powder	1.75 Litre. AFFF
13A/113B	4 Kg ABC Dry powder	2 Gallon or 6 Litres. AFFF

The designation gives a measure of the ability of the extinguisher.

'A' indicates a wood based fire; the number indicates fire size which has been used to test the extinguisher.
'B' indicates a liquid based fire; the number indicates the size of fire, which has been used to test the extinguisher.

Where it is not practicable to carry or store a large fire extinguisher, an alternative is to carry a combination of others to make up the required capacity. Add the numbers before the 'A' and the 'B' together, and if these exceed the total required the extinguishers will provide an equivalent capacity, e.g. two 8A/70B extinguishers would give a capacity of 16A/140B, which is greater than the required 13A/113B.

In any case the minimum acceptable size of extinguisher acceptable would be 5A/34B. A fire may require more than one smaller extinguisher to put it out.

Fire extinguishers shall be serviced and maintained at the manufacturer's recommended service intervals by a formal service station approved by the manufacturer. In the case of sealed units, these shall be replaced when they reach their expiry date.

Halon, in any form, is not authorised for use.

Fire extinguishers (Fixed)

For existing vessels with fixed systems in machinery spaces where the space is never occupied an automatic discharge system may remain acceptable if it is already installed, subject to the agreement of an MCA surveyor, providing that an indication of discharge is given. New vessels are not permitted to have this arrangement and existing vessels are not permitted to install such arrangements.

Automatic Insert gas aerosol systems are not acceptable when fitted without the ability to make the compartment gastight prior to the release of the agent. AFFF or dry powder systems have been accepted in other vessels.

For machinery spaces that can be occupied, the system shall be designed and installed in accordance with its manufacturers' instructions. These spaces shall incorporate an advance warning alarm system, within the space, (audible and visual). The space shall be able to be made gastight to contain the extinguishing agent, and to starve the oxygen supply. Systems fitted shall be based on the class of fire risk.

Fire blankets

For the galley or cooking appliance shall be of light duty to BS EN 7944 (this standard has superseded 6575) or a recognised equivalent BS EN 1869.

Fire pumps

Can be a hand pump or any other pump that supplies water from the sea onto the deck with a hose suitable for fire-fighting purposes. Engine driven pumps are acceptable but are liable to failure in the event of an engine compartment fire.

Gas Detector

Suitable means for detecting the leakage of gas (i.e. Liquefied Petroleum Gas, Butane, Propane or other flammable gases) shall be provided in a compartment containing a gas-consuming appliance or in any adjoining space or compartment into which the gas, of greater density than air, may seep.

Gas detector's heads shall be securely fixed in the lower part of the compartment in the vicinity of the gas-consuming appliance and other space(s) into which gas may seep. In areas where the detector head is susceptible to damage in the lowest part of the compartment (e.g. engine space bilge) the detector head shall at least be fitted below the lowest point of ignition.

The detection system shall incorporate a visible and audible alarm, which can be heard in the space concerned and the control position with the vessel in operation.

The detection system shall be capable of being tested and be tested on a regular basis whilst the vessel is in service and shall include a test of the detector head operation as well as the alarm circuit, in accordance with the manufacturer's instructions.

The detection equipment shall be maintained in accordance with the manufacturer's requirements.

A suitable notice, detailing the action to be taken when an alarm is given by the gas detection system, shall be displayed prominently in the vessel.

Lifejackets and Personal Flotation Devices (PFDs)

One lifejacket per person shall be carried, fitted with MED light, whistle and reflective tape.

A vessel is required to carry life-saving appliances (LSA) including lifejackets for all persons on-board through regulation forming part of the "Statutory LSA". These Statutory Lifejackets are of a type designed, tested and maintained to a standard appropriate to the vessel type and area of operation. These lifejackets are to provide persons buoyancy in an abandon ship scenario.

Lifejackets shall be stowed either in a deckhouse or other dry and readily accessible position or best alternative position and have stowage positions clearly and permanently marked.

A statutory lifejacket can be very bulky in nature, cumbersome to move in when worn on deck, however once in the water, they provide a high level of buoyancy for the wearer awaiting rescue.

A PFD can be a lifejacket or a buoyancy aid or wearable buoyancy device that also provides persons buoyancy in the water. The intended use of a PFD is to be constantly worn when on deck in case of falling overboard, rather than intentionally entering the water or survival craft during an abandon ship scenario.

A PFD can be much smaller and more streamlined such as a waistcoat styled buoyancy aid enabling the user to continue to perform tasks whilst wearing it on deck, with the added level of safety that should they fall overboard, the PFD will offer them added buoyancy and increase the chances of survival until recovered.

In the event of an abandon ship scenario, individuals should, if time permits, remove their PFDs and don the statutory lifejacket provided on the vessel, which will offer them a higher level of buoyancy than their PFD and a greater chance of survival.

A lifeline and harness attaching the person to the vessel may be worn, instead of or in addition to the PFD. Lifejackets shall be of the solid-filled type, or if inflatable shall comply with EN ISO 12402, with gas inflation and at least 150 Newtons buoyancy.

Inflatable Lifejackets shall be serviced and maintained at the manufacturers recommended service intervals by a service station authorised or approved by the manufacturer of the product.

Liferafts

Any liferafts which can be demonstrated to have been purchased prior to 23 October 2017 and currently on fishing vessels of less than 15m may continue to be used until 23 October 2022, after which, all vessels required to carry liferafts shall comply with the requirements set out below, subject to the phase out requirements for ORC Liferafts in MGN553.

Vessels Operating 150 miles or more from a safe haven

- .1 shall be provided with liferafts of such number and capacity that, in the event of any one liferaft being lost or rendered unserviceable, there is sufficient capacity remaining for all on board; and
The liferafts provided shall;
- .2 be constructed to SOLAS standard and to the Marine Equipment Directive Standards (MED), have insulated floor and insulated canopy and be equipped with a "SOLAS A PACK³"; and
- .3 be contained in fibre reinforced plastic (FRP) containers (which may be a suitable container other than a SOLAS container) stowed on the weather deck or in an open space, accessible in all weather

³ SOLAS "A" PACK requirements can be found in MSN 1676 (M+F), Schedule 4, Part 6.

conditions and shall be fitted with float free arrangements (hydrostatic release units) so that the liferafts float free, inflate and break free automatically.

Vessels Operating 60 miles to less than 150 miles from a safe haven.

- .1 The liferaft requirements apply as they do for vessels operating 150 miles or more from a safe haven except that, the liferaft need not have an insulated floor or insulated canopy where the vessel operates exclusively in waters having a temperature of 10 degrees centigrade or higher (see notes). The certification shall clearly show this limitation, or;

Liferafts built to the ISO 9650 – Small Craft Inflatable Liferafts, Part 1, Type 1, Group A standard, provided the liferaft(s) are fitted with a boarding ramp; are equipped to the level of “SOLAS A PACK⁴”, which may, where necessary, include a “grab bag” to supplement the equipment integral to the liferaft; and are certificated as compliant with Part 1, Group A and Part 3 of ISO 9650 from March 2005 onwards, are acceptable.

Compliance certification issued by one of the EC notified bodies responsible for approval of life saving appliances, described in the Marine Equipment directive (www.MARED.org), will be recognised as full third party verification of compliance.

- .2 The liferaft capacity shall accommodate at least the total number of persons on board.
- .3 Liferafts, shall be contained in FRP containers (which may be a suitable container other than a SOLAS container) stowed on the weather deck or in an open space, accessible in all weather conditions and shall be fitted with float free arrangements (hydrostatic release units) so that the liferafts float free, inflate and break free automatically.

Vessels Operating less than 60 miles from a safe haven;

- .1 if operating outside Sea Area A1 (see guidance below on Radio), shall be provided with liferafts of such number and capacity that, in the event of any one liferaft being lost or rendered unserviceable, there is sufficient capacity remaining for all on board and if operating inside Sea Area A1 shall be provided with liferaft capacity to accommodate at least the total number of persons on board;
- .2 the liferaft(s) provided shall be either;
 - i) be constructed to SOLAS standard and to the Marine Equipment Directive Standards (MED), have insulated floor and insulated canopy except that the liferaft(s) shall be equipped with “SOLAS B PACK”; or
 - ii) built to the ISO 9650 – Small Craft Inflatable Liferafts, Part 1, Type 1, Group A standard, provided the liferaft(s) are fitted with a boarding ramp; are equipped to the level of “SOLAS B PACK”, which may, where necessary, include a “grab bag” to supplement the equipment integral to the liferaft, and are certificated as compliant with Part 1, Group A and Part 3 of ISO 9650 from March 2005 onwards.

Liferafts carried in vessels which operate in up to 60 miles from a safe haven outside the UK Search and Rescue Region, where the sea temperature is less than 10 degrees centigrade, shall have an insulated floor and insulated canopy.

Liferafts shall be carried either;

⁴ SOLAS “B” PACK requirements can be found in MSN 1676 (M+F), Schedule 4, Part 6.

- i) in approved FRP containers stowed on the weather deck or in an open space, accessible in all weather conditions and fitted in a float free arrangement so that the liferafts float free, inflate and break-free automatically.

Reference shall also be made to the following:

- MGN 267 - The Location and Stowage of Liferafts and Emergency Positioning Radio Beacons (EPIRBs) on UK Registered Fishing Vessels.

Vessels operating less than 3 miles from shore may use open reversible liferafts constructed to SOLAS standard or MED approved. Liferaft(s) shall be equipped to a level equivalent to a “DfT E” pack⁵. This may, where necessary, include a “grab bag” to supplement the equipment integral to the liferaft.

Liferafts shall be periodically serviced:

- if SOLAS, in compliance with MGN 548 (M+F) “Life-Saving Appliances – Inflatable SOLAS Certificated Liferafts, Lifejackets, Marine Evacuation Systems, and repair of Inflatable Rescue Boats – Servicing Requirements and Approved Service Stations: or
- if non-SOLAS, in accordance with MGN 553 (M+F) “Life-Saving Appliances – Inflatable Non-SOLAS Liferafts, Lifejackets, Marine Evacuation Systems, Danbuoys and Lifebuoys – Technical Standards and Servicing Requirements.

MGN 548 states that SOLAS certificated inflatable LSA including liferafts and lifejackets, systems shall be serviced every 12 months, and every effort shall be made to ensure that it is carried out on time. In exceptional cases, when it is clearly impracticable to comply with this annual servicing requirement, the MCA may consider whether the servicing could be deferred for a period not exceeding 5 months. In such cases, owners or skippers should apply to their local MCA Marine Office, explaining their reason in writing for seeking deferment, using the details at the end of MGN 548. MGN 548 shall be referred to for further information regarding servicing.

MGN 553 states that except where MCA requirements require more frequent servicing, non-SOLAS inflatable liferafts accepted on board UK commercial vessels are required to be serviced in accordance with the manufacturer’s instructions by a Service Station authorised or approved by the manufacturer of the product. It is recommended that manufacturers and Service Stations follow the standard in Annex 1 of MGN 553 for conditions of Service Stations and conduct of servicing for non-SOLAS inflatable liferaft. The exception to this is where a vessel carries an ORC liferaft ahead of the formal phase out described in section 3.2 of MGN 553, the liferafts must be serviced annually.

Before submitting non-SOLAS inflatable liferafts to a Service Station, vessel owners and skippers, shall check that the station is capable of servicing the particular make and model of equipment by requesting sight of manufacturer accreditation/certification, if necessary to verify the capability of the station to service the raft.

It is recommended that owners or skippers of fishing vessels should check that the Service Station has been approved/accredited (as applicable) by the manufacturer. If in any doubt, owners or skippers should contact the manufacturer to be certain that the authorisation is in place.

During re-installation of liferafts after servicing, Service Stations and owners/skippers should be mindful of specially configured liferafts. Correct re-installation on the vessel is paramount for the safe operation in an emergency.

MGN 553 shall be referred to for further information.

⁵ DfT E Pack requirements can be found in MSN 1676 (M&F), Schedule 4, Part 4

Inflatable liferaft hydrostatic release units (other than the types which have a date limited life and are test fired prior to disposal) shall be serviced annually at a service station approved by the manufacturer. It is important to remember that the painter must be secured to the vessel correctly.

Notes: A safe haven means a harbour or shelter of any kind which affords safe entry and protection from the force of weather.

Sea temperature data may be found in sources such as the Admiralty Pilot for a given sea area and period.

To facilitate rapid abandonment in an emergency, where a liferaft 'grab bag' is provided, it shall be in an accessible position known to all on board.

Equipment carried in the 'grab bag' does not count towards the equipment the vessel itself must ordinarily carry.

Lifebuoys

Shall be marked with the vessel name and port of registry or fishing vessel number and fitted with reflective tape and may be circular or horseshoe or torpedo in shape.

At least one lifebuoy shall be so placed as to be readily accessible to the persons on board and shall always be capable of being rapidly cast loose and shall not be permanently secured in any way.

Medical Kit

A first aid kit shall be of Category 'C' standard for vessels staying up to 60 nautical miles from shore and Category 'B' for vessels operating between 60 and 175 Nautical miles from the nearest port. MSN 1768 (M+F) provides guidance on the contents which shall be included.

Navigation lights and sound signals:

The following is extracted from Merchant Shipping Notice 1781 for guidance purposes.

1. Any vessel that operates between sunset and sunrise or in times of restricted visibility must exhibit the navigation and fishing lights which are required by this Code and MSN 1781, shapes and use sound signals as prescribed in the Collision Regulations.
2. A masthead light or all round white light of 2-miles range (3 miles if over 12 metres length overall (LOA)) positioned at least 1 metre higher than sidelights.
3. Sidelights of 1 mile (2 miles if over 12 metres LOA) range at a height above the uppermost continuous deck not greater than three-quarters the height of the masthead light. They shall not be sited so as to be interfered with by deck lights.
4. A Stern light of 2-mile range if the masthead light (number 2) is carried.
5. An all-round white light of 2 mile range when trawling or fishing used together with that in number 7 below (it may also on its own be used as an anchor light). An all-round white anchor light is required if anchored in or near a narrow channel, fairway or anchorage, or where other vessels normally navigate.
6. The all-round white light (number 5) to be more than 2.5 metres above the gunwales and above the sidelights (number 3) at more than twice the distance between the vertical lights (numbers 5 and 7).
7. An all-round light (green if trawling, red if fishing other than trawling) at least 1 metre above the all-round white light (number 5) and of 2 mile range.

8. Alternatively, a vessel under 7 metres, with speed less than 7 knots may instead of the above lights exhibit one all-round white light of 2 mile range and if practical, sidelights or a combination lantern.
9. All vessels must have a means of making sound signals (Vessels over 12 metres LOA must have a whistle which will comply with the specification in MSN 1781).
10. Shapes commensurate with the size of the vessel, (Fishing – two cones apexes together one above the other, Anchor – Ball)

MGN 393 (M&F) - Navigation Light Units: Maintenance and the Use of New Technology Light Sources, such as Light Emitting Diodes (LEDs), as Navigation Lights on SOLAS and non-SOLAS Vessels provides guidance on the requirements and performance standards, for new technology light sources such as LED Lights. In addition, LED lights shall comply with ISO19009.

Personal Locator Beacons

Personal Locator Beacons shall comply with EN 302 152 and be registered in accordance with The Merchant Shipping (EPIRB Registration) Regulations SI 2000, No. 1850 and Merchant Shipping Notice 1816 (M&F) – Mandatory Registration of Electronic Position indicating Radio Beacons (EPIRBs).

Personal Locator Beacons should be worn whilst working on the open decks of fishing vessels at sea. When not being worn they should be stowed either in a deckhouse or other dry and readily accessible position. Personal Locator Beacons shall also be maintained in accordance with the manufacturer's instructions.

Radio

When operating offshore in Sea Area A1, a VHF radio shall be adequate to contact a coastal radio station in good conditions. For vessels operating in Sea Areas 2 and beyond it is strongly recommended that additional means of communication with greater range such as a Medium Frequency (MF) radio are carried. Vessels with Liferafts shall carry a Portable VHF Radio.

Sea Areas are defined as follows:

- A1 means an area within the radiotelephone coverage of at least one VHF coast station in which continuous DSC alerting is available, as may be defined by a Contracting Government.
- A2 means an area, excluding sea area A1, within the radiotelephone coverage of at least one MF coast station in which continuous DSC alerting is available, as may be defined by a Contracting Government.
- A3 means an area, excluding sea areas A1 and A2, within the coverage of an Inmarsat geostationary satellite in which continuous alerting is available (76 °N and 76 °S).
- A4 means an area outside sea areas A1, A2 and A3.

Coastguard Operations Centres "CGOC's" maintain a listening watch on VHF Channel 16 via loudspeaker. The primary means of distress and urgency alerting should be via VHF DSC. On MF, the only means of distress and urgency alerting available is via MF DSC.

The CGOC's provide the UK's Radio Medical Advice Service for vessels at sea. To seek medical advice or medical evacuation, call the Coastguard on VHF Radio whereupon you will be placed in direct contact with the appropriate medical expertise. This service is free.

Radar Reflectors

Vessels shall have, if less than 150gt, and if practicable, a radar reflector or other means to enable detection by ships navigating by radar at both 9 and 3 GHz.

Storage of flammable liquids

The guidance on storage of flammable liquids, dusts, gases and solids can be found at <http://www.hse.gov.uk/fireandexplosion/index.htm>

INFORMATION AS TO STABILITY OF NEW FISHING VESSELS OF 12M REGISTERED LENGTH TO LESS THAN 15M LENGTH OVERALL

The Stability book to be kept on board the vessel pursuant to the requirements of this Code, shall contain the following information:

1. A statement of the vessel's name, port of registry, official number, registration letters, principal dimensions, date and place of build, gross and net tonnage displacement and minimum freeboard in the deepest foreseeable operating condition.
2. A profile plan of the vessel drawn to scale showing the names of all compartments, tanks, storerooms, crew accommodation spaces and the position of the mid-point of the length between perpendiculars (LBP).
3. A tabular statement of the capacities and position of the centres of gravity, longitudinally and vertically for every compartment available for the carriage of cargo, fuel, stores, feed water, domestic water, water ballast, crew and effects. The free surface function defined in paragraph 9 below should also be included for each tank designed to carry liquid. Details of the centroid of the total internal volume of the fish-hold(s) should be included in such information. The calculation may take into account the effect of assuming a void space between the top of the catch and the underside of the deckhead provided that under normal operating conditions, control of loading in the hold is such that the actual void space above the catch will always be equal to or greater than that assumed in such a calculation.
4. Where deck cargo and or stores is carried by a vessel the estimated maximum weight and disposition of such deck cargo should be included in the information in the appropriate operating conditions, and show compliance with the stability criteria set out in the Code.
5. A diagram or tabular statement should be provided showing for a suitable range of mean draughts and at the trim stated, the following hydrostatic particulars of the vessel:
 - (i) the heights of the transverse metacentres;
 - (ii) moments to change trim one centimetre;
 - (iii) tonnes per centimetre immersion;
 - (iv) longitudinal position of the centre of flotation;
 - (v) vertical and longitudinal positions of the centre of buoyancy;
 - (vi) displacement in tonnes.

Where a vessel has a raked keel, the same datum (a horizontal line through the intersection of the hull moulded line with the vessel centreline, amidships) should be used for the hydrostatics as employed in determining the information required in paragraph 3 above. In such cases full information should be included in respect of the rake and dimensions of the keel and may be given in the form of a diagram. The positioning of the draft marks relative to this datum should be included on such a diagram.

6. A diagram or table should be provided showing cross curves of stability indicating the assumed position of the axis from which the righting levers are measured and the trim which has been assumed. Where a vessel has a raked keel a horizontal datum through the intersection of the hull moulded line with the vessel centreline, amidships, should be used. **On existing vessels, any datum other than a**

horizontal line through the intersection of the hull moulded line with the vessel centreline, amidships, should be clearly defined.

7. The information provided under paragraphs 5 and 6 above should be at such a nominal trim that represents accurately the vessel in all normal operating trims. Where calculations show that there are significant numerical variations in these operating trims the information provided under paragraphs 5 and 6 above should be repeated over such a range of trims to allow an accurate interpolation of such information at any normal operating trim.
8. Superstructure deckhouses, companionways located on the freeboard deck, including hatchway structures may be taken into account in deriving such cross-curves of stability provided that their location, integrity and means of closure will effectively contribute to the buoyancy.
9. An example should be included in such information to show the corrections applied to the transverse metacentric height and righting levers (GZ) for the effects of the free surfaces of liquids in tanks and should be calculated and taken into account as follows:

- (i) the metacentric height in metres should be reduced by an amount equal to the total of the free surface functions for each tank divided by the vessel's displacement in tonnes. For each tank the free surface function is given by:

$$1.025 \times \frac{i}{\Delta}$$

where ρ = specific gravity of the liquid; i = transverse moment of inertia of the surface

$$i = \frac{\rho L B^3}{12}$$

$$\text{i.e. correction} = \frac{\text{Sum of } i}{\Delta}$$

- (ii) the righting lever (GZ) curves should be corrected by either:
- (a) adding the free surface correction calculated under (i) above to the value in metres of the calculated height of centre of gravity of the vessel above datum; or
- (b) making direct calculations of the heeling moment due to the liquid surface being inclined at the selected angle of heel where such calculations take proper account of the position of liquid surface in relation to the geometric configuration of the tank. The correction to the righting lever (GZ) at any selected angle of heel should then be the summation of the individual heeling moments of the tanks considered, divided by the vessel's displacement.

10. A stability statement and diagram should be provided for the usual condition of the vessel:

- (a) in the lightship condition:

the vessel should be assumed to be empty except for liquids in machinery and in piping systems including header tanks. The weight and position of the centre of gravity of any permanent ballast or fishing gear should be indicated;

- (b) in each of the following circumstances so far as they may be applicable to the vessel in its foreseeable operating conditions:

- (i) on departure from port:

the vessel should be assumed to be loaded with the necessary equipment, materials and supplies including ice, fuel, stores and water;

- (ii) on arrival at fishing grounds:
as sub-paragraph (i) above but account taken of the consumption of fuel and stores;
- (iii) on arrival at fishing grounds:
as sub-paragraph (ii) above but the appropriate icing-up allowance as set out in paragraph 14 below should be taken into account;
- (iv) on departure from fishing grounds:
the vessel should be assumed to be loaded with its maximum catch but account taken of the consumption of fuel and stores;
- (v) on departure from fishing grounds:
as sub-paragraph (iv) above but the appropriate icing-up allowance as set out in paragraph 14 below should be taken into account;
- (vi) on departure from fishing grounds:
the vessel should be assumed to be loaded with 20% of its maximum catch but account taken of the consumption of fuel and stores;
- (vii) on departure from fishing grounds:
as sub-paragraph (vi) above but the appropriate icing-up allowance as set out in paragraph 14 below should be taken into account;
- (viii) on arrival at port with maximum catch:
account should be taken of the consumption of fuel and stores;
- (ix) on arrival at port with 20% maximum catch:
account should be taken of the consumption of fuel and stores;
- (x) if any part of the catch normally remains on deck, further statements and diagrams appertaining to that condition in all the appropriate circumstances set out in subparagraphs (iv) to (ix) inclusive should be provided;

The total free surface correction for the effect of liquid in tanks should be applied to each loading condition set out in the foregoing provisions of this paragraph. The free surface correction should take into account the amounts of fuel, lubricating oil, feed and fresh water in the vessel in each such loading condition.

- (c) Working instructions, specifying in detail the manner in which the vessel is to be loaded and ballasted, should be included within the Trim and Stability Manual. The instructions should generally be based upon the conditions that are specified in paragraph (b) above. For vessels in which no provision has been made for the carriage of deck cargo, the working instructions should also contain the following statement:

"Provision has not been made within the vessel's stability for deck stowage of catch. Catch landed on deck should be stowed below as soon as is possible and prior to landing further catch"

11. Where provision is made in a particular area of the vessel for the washing and cleaning of the catch which could lead to an accumulation of loose water a further statement and diagram should be provided appropriate to that condition which takes into account the adverse effects of such loose water, it being assumed that:
- (i) the amount of loose water on deck is determined by the size and disposition of the retaining devices; and
 - (ii) in all other respects the vessel is loaded in accordance with (iv) or (vi) of paragraph 10 above, whichever is the less favourable with regard to the vessel's stability.
12. Each stability statement should consist of:
- (i) a profile drawn to a suitable scale showing the disposition of the deadweight components;
 - (ii) a tabular statement of all the components of the displacement including weights, positions of centres of gravity, transverse metacentric height corrected for free surface effects, trim and draughts;
 - (iii) a diagram showing a curve of righting levers (GZ), corrected for free surface effects and derived from the cross-curves of stability, showing, if appropriate, the angle at which the lower edges of any opening which cannot be closed watertight will be immersed. The diagram should also show the corresponding numerical values of the stability parameters defined in section 3.34 and 3.36 or 3.35 and 3.36 of this Code.
13. The information provided under sub-paragraph (iii) of paragraph 12 above should be supplemented by a graph or tabular statement showing the maximum permissible deadweight moment over a range of draughts which should cover foreseeable operating conditions. At any given draught this maximum permissible deadweight moment value is the total vertical moment about a convenient base line, of all the component weights of the total deadweight which, at that draught, will ensure compliance with the minimum stability criteria requirements of the Code. If an allowance for the weight due to icing-up is required, this should be taken into account by a suitable reduction in the permissible moment. Where the stability information is supplied in accordance with the requirements of this paragraph the tabular statement required in accordance with sub-paragraph 12(ii) above should include the deadweight moment appropriate to each condition and an example should be added to the stability information to demonstrate the assessment of the stability.
14. The icing-up allowance which represents the added weight due to ice accretion on the exposed surfaces of the hull, superstructure, deck, deckhouses and companionways should be calculated as follows:
- (i) full icing allowance:

all exposed horizontal surfaces (decks, house tops, etc.) should be assumed to carry an ice weight of 30 kilogrammes per square metre.

The projected lateral area of the vessel above the waterline (a silhouette) should be assumed to carry an ice weight of 15 kilogrammes per square metre. The height of the centre of gravity should be calculated according to the heights of the respective areas and in the case of the projected lateral area the effect of sundry booms, rails, wires, etc., which will not have been included in the area calculated should be taken into account by increasing by 5% the weight due to the lateral area and the moment of this weight by 10%.

This allowance should apply in winter (1st November to 30th April inclusive in the northern hemisphere) to vessels which operate in the following areas:

- (a) the area north of latitude 66°30'N. between longitude 10°W. and the Norwegian Coast;
- (b) the area north of latitude 63°N. between longitude 28°W. and 10°W.;
- (c) the area north of latitude 45°N. between the North American continent and longitude 28°W.;
- (d) all sea areas north of the European, Asian and North American continents east and west of the areas defined in (a), (b) and (c) above;
- (e) Bering and Okhotsk seas and Tatar Strait;
- (f) South of latitude 60°S.

- (ii) Half of the full icing allowance:

this should be taken as one half of that calculated under sub-paragraph (i) of this paragraph and should apply in winter to vessels which operate in all areas north of latitude 61°N. between longitude 28°W. and the Norwegian Coast and south of the areas defined as the lower limit for the full icing allowance between longitude 28°W. and the Norwegian Coast.

- 15.** Information should be provided in respect of the assumptions made in calculating the condition of the vessel in each of the circumstances set out in paragraph 10 above for the following:
 - (i) duration of the voyage in terms of days spent in reaching the fishing grounds, on the grounds and returning to port;
 - (ii) the weight and disposition of the ice in the hold at departure from port including the heights of stowage;
 - (iii) consumption rates during the voyage for fuel, water, stores and other consumables;
 - (iv) ratio by weight of the ice packed with the catch in the fish hold;
 - (v) melting rates for each part of the voyage of the ice packed with the catch and the ice remaining unused in the hold.
- 16.** A copy of a report of an inclining test of the vessel and the derivation therefrom of the lightship particulars should be provided.
- 17.** A statement should be given by or on behalf of the owner of the vessel that the statements and diagrams supplied with respect to the operating conditions set out in paragraph 10 above are based on the worst foreseeable service conditions in respect of the weights and disposition of fish carried in the hold or on deck, ice in the hold, fuel, water and other consumables.
- 18.** Maximum free surface moments should be included within the Loaded Departure condition, and as a minimum, factored according to tank percentage fill for all other conditions.
- 19.** Generally, buoyant structures intended to increase the range of positive stability should not be provided by fixtures to superstructures, deckhouse, masts or rigging.

DAMAGE STABILITY REQUIREMENTS FOR MULTIHULL FISHING VESSELS OF 12M REGISTERED LENGTH TO LESS THAN 15M LENGTH OVERALL

Damage Stability Criteria for Multihull Vessels

- 1.1 This section applies to all new multihull vessels and vessels being significantly modified.
- 1.2 Multihull vessels should be fitted with engine rooms that are separated by a watertight bulkhead.
- 1.3 In assessing survivability, the following standard permeabilities should be used:-

Space	Permeability %
Appropriated for stores	60
Appropriated for stores but not by a substantial quantity thereof	95
Appropriated for accommodation	95
Appropriated for machinery	85

Appropriated for liquids 0 or 95 whichever results in the more onerous requirements.

Other methods of assessing floodable volume may be considered, to the satisfaction of the MCA.

- 1.4 In assessing survivability the vessel should meet the damage stability criteria for one of two methods. The first (denoted Option 1) considers minor hull damage scenarios with limited equilibrium trim and heel angles after damage. This has historically been used by monohulls and some catamarans. The second method (denoted Option 2) considers minimum length single compartment damage scenarios with more onerous residual stability, combined with increased allowable equilibrium angles after damage. This Option 2 has been developed to address particular stability issues raised by low waterplane area vessels with deep hulls which typically have large intact freeboards such as catamarans.

2. Damage Stability, Option 1:

- 2.1 Vessels should be so arranged that after minor hull damage or failure of any one hull fitting in any one watertight compartment, it will satisfy the residual stability criteria below. This may be achieved by fitting water-tight subdivision or alternative methods to the satisfaction of the MCA. Minor damage should be assumed to occur anywhere in the vessel but not on a watertight subdivision.
- 2.2 In the damaged condition, the residual stability should be such that:
- .1 the angle of equilibrium does not exceed 7 degrees from the upright,
 - .2 the resulting righting lever curve has a range to the downflooding angle of at least 15 degrees beyond the angle of equilibrium,
 - .3 the maximum righting lever within that range is not less than 100mm,
 - .4 the area under the curve is not less than 0.015 metre radians.

- .5 this damage should not cause the vessel to float at a waterline less than 75mm from the weatherdeck at any point.

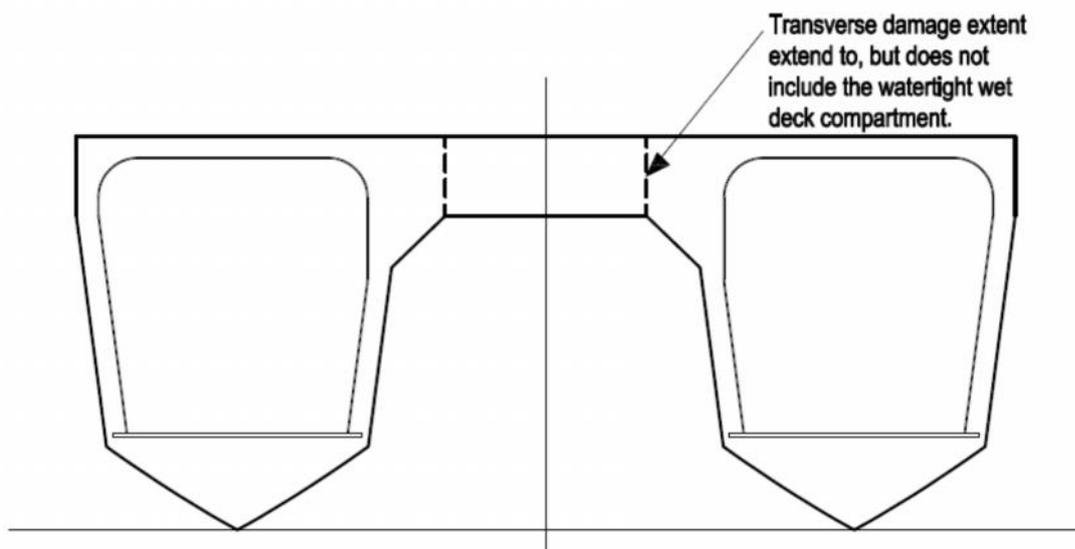
3 Damage Stability, Option 2:

3.1 Damaged Stability should be calculated with any one compartment flooded. The extent of damage should be:

- .1 A damage length of 10% Length should be considered in the calculations. Where the distance between two transverse watertight bulkheads is less than the damage length, one or more bulkheads should be disregarded in the damage stability calculations, such that the compartment length considered is equal to or greater than the damage length. The damage length given above need not be applied within the forepeak and aftpeak compartment(s).
- .2 The transverse extent of damage should be up to and including the centreline of the vessel. A catamaran need only be considered to have damaged the full width of one hull, provided the two hulls are totally independent i.e. there are no cross connecting spaces that could allow flooding to progress into the other hull. See Figure 1. Trimarans should be considered to have damaged wing and centre compartments up to the centre line of the vessel.
- .3 The vertical extent of damage should be taken for the full vertical extent of the vessel, and
- .4 The shape of the damage should be assumed to be a rectangular block.

Watertight compartments aft of the transom that do not form part of the hull length and do not extend below the design waterline (such as overhangs and appendages) need not be considered in the damaged length assessment.

Figure 1



3.2 Spaces that are normally occupied at sea are to be provided with at least two independent means of escape preferably at opposite sides / ends of the superstructure that allow positive freeboard independent of its location.

- 3.3 Any weathertight doors or openings leading from undamaged spaces, that are normally occupied at sea, to the weatherdeck should be regarded as downflooding points for the purposes of the damage stability calculation.
- 3.4 Damage to all the compartments of each hull of a multihull vessel forward of a point 5%L aft of the forward extremity of the watertight hulls shall be assessed to ensure that it does not result in a more onerous damaged stability condition.
- 3.5 In the damaged condition, the residual stability and damaged waterline should be such that:
1. the angle of equilibrium (combined heel and trim) does not exceed 15 degrees from the upright, sufficient non-slip deck surfaces and suitable holding points e.g. rails, grab bars etc., are provided along escape routes and accessing escape routes. Additionally, practical consideration should be given to the means of accessing, launching and embarking liferafts.
 2. the resulting righting lever curve has a range to the downflooding angle of at least 20 degrees beyond the angle of equilibrium,
 3. the maximum righting lever within that range is not less than 200mm, and
 4. the area under the curve is not less than 0.045 metre radians.
 5. the final equilibrium waterline should be below the lowest point of any opening which is not closed by an approved watertight closure. This includes air pipes, hatch covers, doors and any other weathertight closure.
 6. this damage should not cause the vessel to float with a freeboard less than 75mm from the lowest point of the weatherdeck. This may be relaxed on application to the Administration, provided that all of the following are met:
 - .1 the immersed portion of the weather deck is not a life saving appliance storage area;
 - .2 it is not part of an assembly station, evacuation point or part of an evacuation route; and
 - .3 that no more than 10% L of the deck edge on the damaged side is immersed in the process, and that negative freeboard measured from the deck edge is limited to a maximum of 300 mm.

ADDITIONAL STABILITY GUIDANCE FOR ALL VESSELS

Capsizing due to insufficient stability is a major cause of fatalities for boats under 24m length, especially those under 15m. The risk of capsize increases as:

- the effective centre-of-gravity increases in height, and
- the freeboard is reduced due to overloading.

CENTRE OF GRAVITY (CG)

This is the name given to the theoretical position through which the weight of the vessel and everything it is loaded with reacts with the buoyancy of the hull, to create a righting moment that resists capsize.

EVERY VESSEL WILL CAPSIZE WHEN THE CG BECOMES TOO HIGH!

BE AWARE THAT ACTIONS YOU TAKE BOTH ON SHORE AND AT SEA CAN AFFECT THE CG AND THEREFORE THE HEIGHT OF THE CG.

The main causes of the CG increasing are:

- weight growth over time created by any weights added above the deck, such as: masts, gantries, derricks, net drums, gutting shelters, pots, creels, etc, THEREFORE:
 - consider the effect of any vessel modifications on the stability before *and especially after* making them;
 - check the drafts or freeboards at annual intervals so see if the vessel has got significantly heavier.
- too much catch being loaded on deck instead of being stowed in the fish room, THEREFORE:
 - stow fish below as soon as practicable

HIDDEN DANGERS WHILST FISHING: two factors cause a substantial rise in the effective CG whilst fishing:

- when lifting with a crane or derrick, the effective CG of the load is at the head of the lifting device, even when the load is only just above the deck, THEREFORE:
 - do not exceed the safe working load of any lifting device;
 - if you have a Stability Book, check for stability limits before you sail on safe lifting capacity;
 - stop any lifting operation well before any part of the deck is submerged.
- “free-surface effect” caused by loose water (or fish) rushing from side to side as soon as the vessel heels. This is true of both water-on-deck and liquids in tanks that are not empty or completely full, THEREFORE:

- keep all scuppers and freeing ports clear at all times;
- use pound boards to limit the movement of loose fish, whether on deck or stowed below;
- keep tanks either pressed full or empty whenever possible;
- divide wide tanks by installing longitudinal watertight divisions (NOT baffles);
- keep the level of bilge water low.

Swamping of the working deck is particularly dangerous because:

- the weight of water in itself raises the actual CG, and
- it also creates a massive free-surface raising the effective CG, and
- the weight of water reduces the freeboard and so increases the vulnerability to further swamping.

Effective freeing ports and scuppers are vital for quickly removing shipped water and so maintaining stability.

OVERLOADING:

EVERY VESSEL WILL CAPSIZE IF IT IS OVERLOADED!

The main causes of overloading are:

- weight growth of the vessel itself, causing it to float deeper in the water, THEREFORE:
 - check the drafts or freeboards at annual intervals to see if the vessel has got heavier and,
 - if it has, either remove the extra weight or reduce the catch you take on board.

Note: Freeboard is the distance between the water and the working deck of the vessel.

- taking on board so much catch that the freeboard is substantially reduced, THEREFORE:
 - know your minimum safe freeboard and stick to it. Don't be tempted to load too big a catch – you may not live to land it!
 - fit a Freeboard Guidance Mark, it's FREE – see MGN 427(F) or any superseding document, or <http://www.safetyfolder.co.uk/freeboard.php>
- lifting an excessive load or heaving back too hard on fouled fishing gear, THEREFORE:
 - stop any lifting operation well before any part of the deck is submerged.

FREEBOARD GUIDANCE MARK

The Safety Folder contained in <http://www.safetyfolder.co.uk/freeboard.php> contains guidance information which is intended to provide fishermen with some indication of their level of safety in terms of their loading and lifting, and in relation to the seastate. The method was developed in Research Project 559 conducted for the MCA. Although it is simple for the user, the development incorporated the findings of extensive model tests on a wide range of hull forms and loading cases, and may be applied to any type of vessel.

The only vessel dimensions required for the calculation are the overall length and beam. The freeboards and associated sea states will then be calculated for your vessel, and a Stability Notice is automatically generated ready to be placed on board. It also provides the dimensions of and a template for the Freeboard Guidance Mark.

The basic recommendation is for all vessels to display a Stability Notice in a prominent position in the wheelhouse. This notice provides guidance on how certain loading or lifting operations will reduce the safety of the vessel, and on the limiting seastates in which such operations should be conducted. Three safety zones are defined, and assigned the colours green, amber and red on the Stability Notice to represent their relative levels of safety.

Intended for vessels with no stability information the guidance is based on the residual freeboard when loaded or lifting heavy loads, and the freeboards referred to on the Stability Notice should be marked on the side of the vessel using a standard Freeboard Guidance Mark. The mark should be positioned at the lowest freeboard, or where the freeboard becomes lowest when lifting, or mid-way between the two where these positions are very different.

The freeboard mark shows the degree of risk of capsizing in relation to the sea state. The risk level is indicated whether or not over-side loads are being lifted. It is NOT a load line mark such as is used on merchant ships only when the vessel is upright.

It is not expected that fishermen will attempt to view the freeboard guidance marks when loading at sea, but that they will become familiar with their location to increase their awareness of how the residual freeboard affects their level of safety. Capsize prediction cannot be precise because there are too many changing factors. This approximate method of guidance should help to increase awareness of the dangers of low freeboard, and of heeling vessels to large angles by lifting heavy loads.

REMEMBER:

WHEN YOUR FREEBOARD IS GONE – SO IS YOUR SURVIVABILITY!

BECAUSE:

As the effective CG height is increased, AND as the freeboard is reduced the ability of the vessel to resist the energy of the waves is rapidly reduced. Both dangers have capsized fishing vessels even in flat calm conditions, often resulting in fatalities.

When the freeboard is zero (i.e.: the weather deck is on the waterline), the slightest disturbance will capsize the vessel.

LEARN MORE ABOUT STABILITY

Attend a one-day Basic Stability Awareness Course at Seafish – for details visit <http://seafishonlinetraining.co.uk/course/index.php?categoryid=10>

How to check your freeboard and stability: refer to MGNs 503 (F) and 427(F). MGNs are available at: <https://www.gov.uk/government/collections/marine-guidance-notice-mgns>



UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND SMALL FISHING VESSEL CERTIFICATE

Issued under the Provisions of the Fishing Vessels (Codes of Practice) Regulations 2017 No. 943 under the Authority of the Government of the United Kingdom of Great Britain and Northern Ireland by the Maritime and Coastguard Agency, an Executive Agency of the Department for Transport.

Particulars of Vessel

Name of Vessel			
Official RSS Number		Fishing Number	
Port of Registry		Registered Length	
Date on which keel was laid		Overall Length	
	(Month)	(Year)	

THIS IS TO CERTIFY:

- i) *that the vessel has been inspected and found to comply with the requirements of the Code of Practice for the Safety of Small Fishing Vessels of less than 15m Length Overall that are applicable;*
- ii) *that the life saving appliances are sufficient for a total of persons;*
- iii) *that the vessel is fitted with the lights, shapes and sound signals to comply with the International Regulations for the Prevention of Collisions at Sea and is fitted with navigational equipment and carries nautical publications in accordance with the Code;*
- iv) *that the vessel complies with the requirements of the requirements of the Merchant Shipping (Radio)(Fishing Vessels) Regulations 1999.*

Completion date of the Inspection on which this Certificate is based.

This Certificate is valid until subject to the Annual Self Certification being completed

Signature Name

Signature of Authorised Official Issuing the Certificate

Place Date

Any unauthorised modification to the vessel or its equipment may invalidate this certificate or endanger the crew. If you intend to modify the vessel seek professional guidance and inform the MCA in advance to seek MCA approval.

This Certificate is no longer valid on change of ownership of the vessel and application to MCA should be made to inspect the vessel and renew the certificate.

ANNUAL SELF-CERTIFICATION

I, as Owner, will verify each year that the vessel continues to comply with the requirements of the Code and sign this Annual Self-Certification form to Certify this has been done.

Signature Name
Signature of Owner

Date

Name of Owner	<input type="text"/>	
	<input type="text"/>	
Address of Owner	<input type="text"/>	
	<input type="text"/>	
	<input type="text"/>	
Post Code	<input type="text"/>	
	<input type="text"/>	

I CERTIFY, IN RESPECT OF THIS VESSEL THAT:

- i) The safety equipment has been checked in accordance with the appropriate checklist relevant to the vessel contained within the Code of Practice for the Safety of Small Fishing Vessels of less than 15m Length Overall;
- ii) Such safety equipment carried is in accordance with the requirements of the Code;
- iii) The Safety equipment has been properly maintained and serviced in accordance with manufacturers recommendations;
- iv) Where applicable, a risk assessment* of work activities has been completed in accordance with the Merchant Shipping and Fishing Vessels (Health and Safety at Work) Regulations 1997; and

* The Risk Assessment is written **YES/NO** (Delete as appropriate)

The Annual Self-Certification by the owner shall take place within three months either side of the anniversary date of the Completion date of the Inspection.

1st Anniversary Signature of Owner 2nd Anniversary Signature of Owner 3rd Anniversary Signature of Owner 4th Anniversary Signature of Owner	<input type="text"/>	Date	<input type="text"/>
	<input type="text"/>	Date	<input type="text"/>
	<input type="text"/>	Date	<input type="text"/>
	<input type="text"/>	Date	<input type="text"/>

