Annex 1

Wreck Prohibition Notice 1/2006

PROHIBITION NOTICE

MAIB DIRECTION No 1/2006

WRECK OF FISHING VESSEL '*BROTHERS*' – 57° 43.61'N 006° 17.58'W

Under the powers contained in:

regulation 9(6) of the Merchant Shipping (Accident Reporting and Investigation) Regulations 2005 (S.I. 2005/881)

and

section 259(2)(d) of the Merchant Shipping Act 1995

the Marine Accident Investigation Branch (MAIB) hereby PROHIBITS access to and/or interference with the wreck of the FV *Brothers* or her equipment and GIVES DIRECTION requiring that the same shall be left undisturbed until further notice, pending further investigation by the MAIB's inspectors.

Diving operations on the wreck are specifically prohibited.

Signed

8 June 2006

Stephen Clinch
Deputy Chief Inspector of Marine Accidents.

Annex 2

MSN 1467 (F) Emergency Position-Indicating Radio Beacons, Float Free Arrangements for Liferafts and Lifejackets on Fishing Vessels

DEPARTMENT OF TRANSPORT

MERCHANT SHIPPING NOTICE No. M.1467

[M Notices M1017 and M1311 are hereby cancelled]

Emergency Position-Indicating Radio Beacons, Float Free Arrangements for Liferafts and Lifejackets on Fishing Vessels

Notice to Builders, Owners, Skippers and Crew of Fishing Vessels

1. The Fishing Vessels (Life-Saving Appliances) Regulations were made on the 18 January 1988. These Regulations give effect to the provisions of the Safety at Sea Act 1986 concerning emergency position-indicating radio beacons (EPIRBs) for fishing vessels of 12 metres or more in length, float free arrangements for the liferafts of fishing vessels of 12 metres or more in length and lifejackets to be carried by fishing vessels of less than 12 metres in length. The lengths referred to in this notice are registered lengths.

2. This notice also makes recommendations, which are non-mandatory, in respect of the carriage of EPIRBs, liferafts and float free arrangements for fishing vessels of less than 12 metres length.

EPIRBs

3. The Regulations require that from at least 15 January 1989 fishing vessels of 12 metres or more in length must carry a type of 406 MHz EPIRB which meets the Department's approval. The performance specifications of approved EPIRBs are to be found in Merchant Shipping Notices issued from time to time.

4. Certain exemptions may be permitted until 15 April 1992 in respect of fishing vessels which have had a 121.5 MHz EPIRB approved by the Department fitted by 15 March 1988, where it has been approved in combination with a liferaft and the liferaft's float free arrangement.

Float Free Arrangements for Liferafts

5. The Regulations require that from at least 15 January 1989 liferafts carried by fishing vessels of 12 metres or more in registered length be fitted with float free arrangements (which meet the Department's approval) whereby the liferafts are automatically released and activated from a sinking vessel.

Lifejackets and Lifejacket Lights

6. The Regulations brought in a requirement from 15 February 1988 for fishing vessels of less than 12 metres in length to carry lifejackets acceptable to the Department as described in the following paragraphs.

7. One adult lifejacket for each adult carried and the vessel should carry one spare lifejacket of that size. In addition, if there are children on board, there should be carried one child's lifejacket for each child carried, and if so, there should be carried one spare child's lifejacket. If there are more than 10 persons on board at least two extra lifejackets must be carried.

8. Each of the lifejackets referred to above must be fitted with a lifejacket light, which again must be to the approval of the Department.

9. Although there is no mandatory requirement for lifejacket lights to be provided in fishing vessels of 12 metres or more in length, the Department continues to recommend that they should be provided in such vessels.

10. In addition, although there is no mandatory requirement for fishing vessels of 12 metres or more in length to be provided with additional lifejackets, the Department continues to recommend that extra lifejackets be carried as follows. If there are more than 16 persons on board, an extra 25 per cent lifejackets should be carried and if more than eight persons are carried, but less than 16, an extra two lifejackets should be carried.

Penalties

11. The Regulations also state the penalties for the owner and the skipper of a vessel for not complying with the requirements of the Regulations. A proven offence in connection with EPIRBs and liferaft float free arrangements will be liable, on summary conviction, to attract a fine not exceeding £2,000, and in the case of lifejackets a fine not exceeding £500.

Recommendations for EPIRBs, Liferafts and Float Free Arrangements for Fishing Vessels Under 12 Metres Length

12. Fishing vessels of less than 12 metres in length are required to carry the life-saving equipment prescribed by Rule 81 of the Fishing Vessel (Safety Provisions) Rules 1975, namely at least two lifebuoys (one with a buoyant line) and six red star distress signals. They are also required to carry lifejackets, as described above, by the Fishing Vessels (Life-Saving Appliances) Regulations 1988.

13. Although there is no mandatory requirement for EPIRBs, liferafts and float free arrangements to be provided in fishing vessels of less than 12 metres in length the Department continues to recommend that they should be provided in such vessels.

14. Experience of casualties to small fishing vessels has shown that liferafts have been effective in providing essential out of water support in a cold climate for crews and many small fishing vessels now carry liferafts.

15. The Department strongly recommends that all fishing vessels under 12 metres in length which go to sea should carry a suitable liferaft for all persons aboard.

16. The liferaft will be additional to the equipment required to be carried under the Rules outlined in paragraph 12 and should be stowed, if practicable, in such a position that it can be easily and quickly launched on either side of the vessel. It should be fitted with a float free arrangement as described in paragraph 5.

17. The liferaft should be serviced in accordance with the manufacturer's instructions.

Department of Transport
Marine Directorate
London WC1V 6LP
September 1991

Dd 9611158 9,000 10/91 Ed(293972)

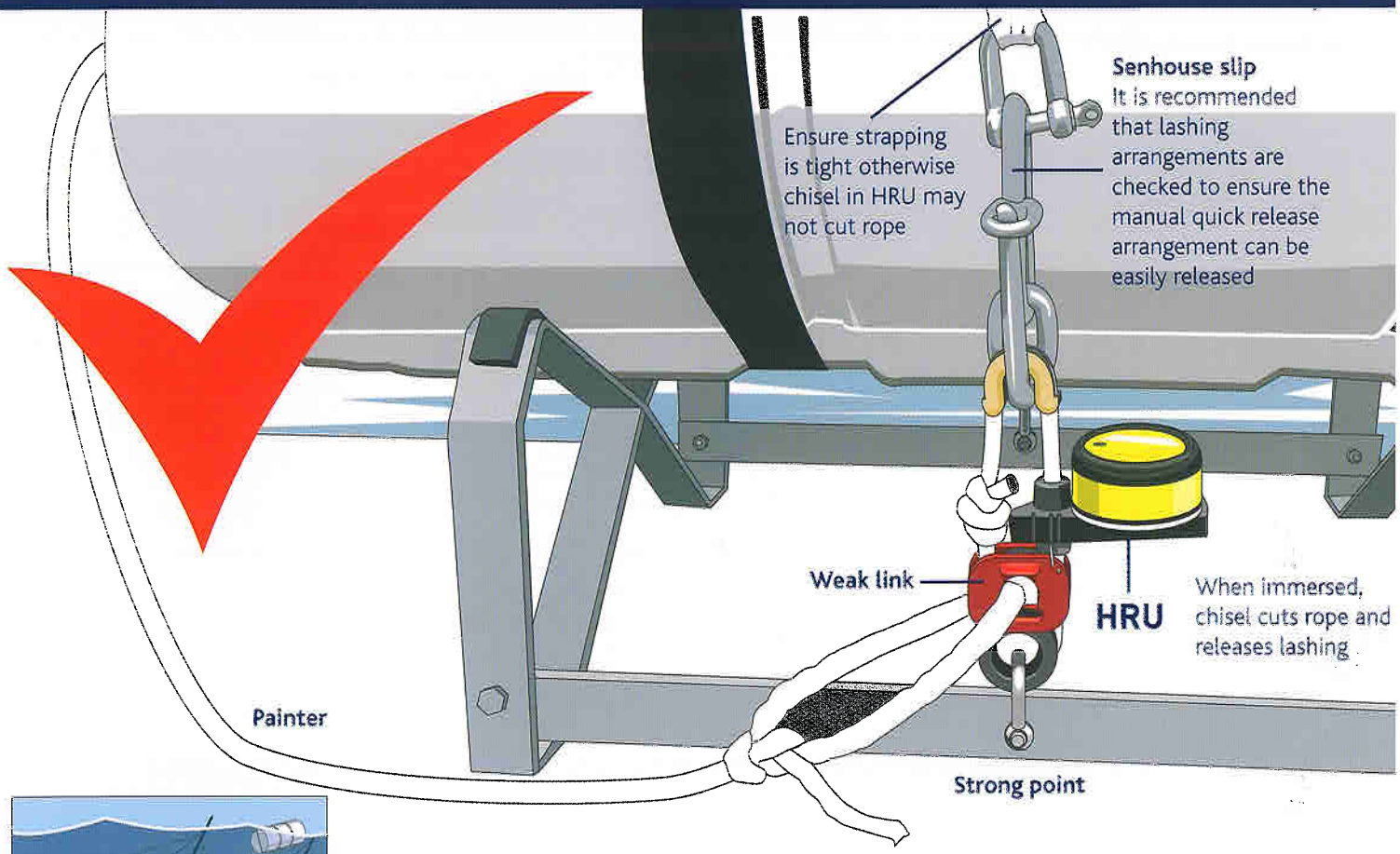
Annex 3

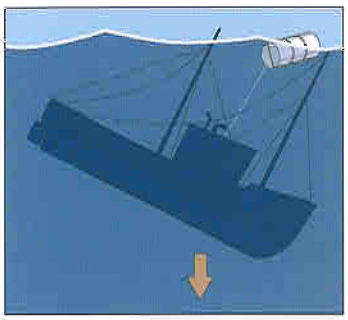
RNLI Fishing Safety - Hydrostatic Release Unit (HRU) Installation Guide

RNLI FISHING SAFETY

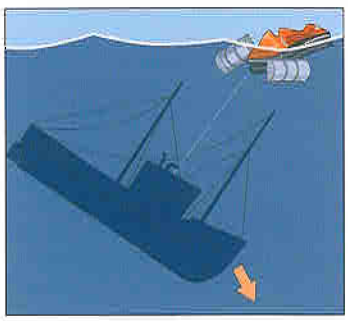
HYDROSTATIC RELEASE UNIT (HRU) INSTALLATION

RNLI Lifeboats



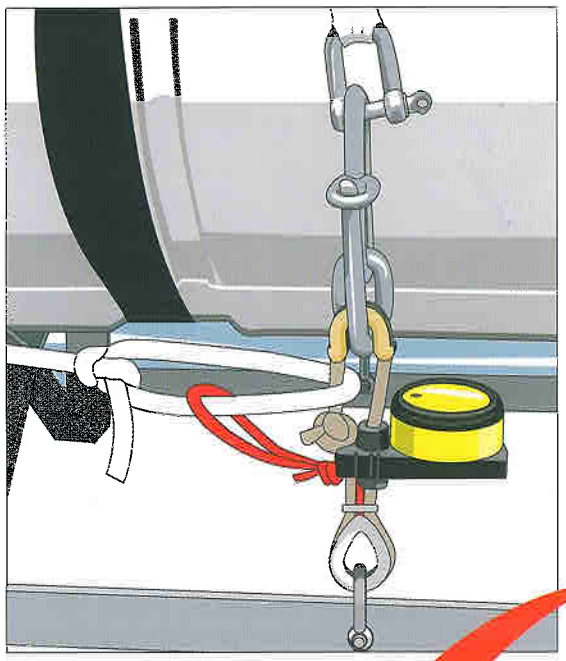


1. If vessel sinks, Hydrostatic Release Unit activates and liferaft attempts to float to surface



2. Tension on painter will cause liferaft to inflate

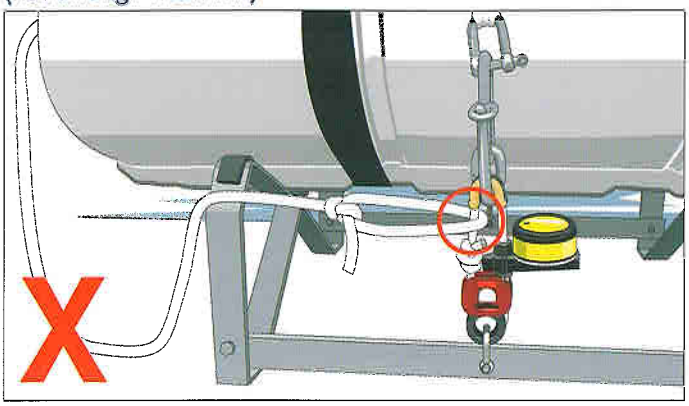
3. Tension on weak link will cause it to break ensuring liferaft does not go down with the boat



Correct installation of older version HRU

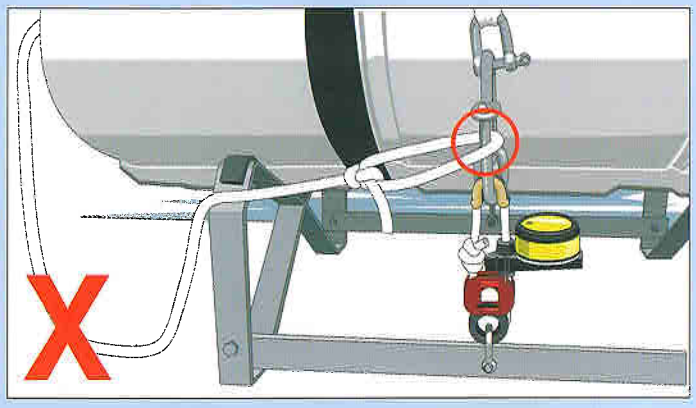
X INCORRECT INSTALLATION OF HRU

Painter secured to HRU
(not through weak link)



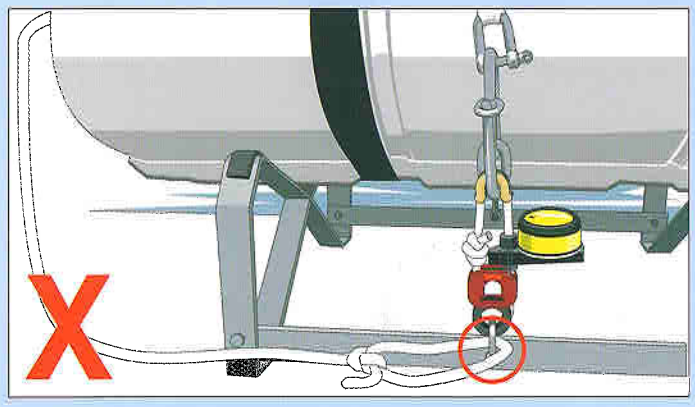
1. HRU will activate
2. Liferaft will be released but will **NOT** automatically inflate and will eventually drift away

Painter secured to senhouse slip



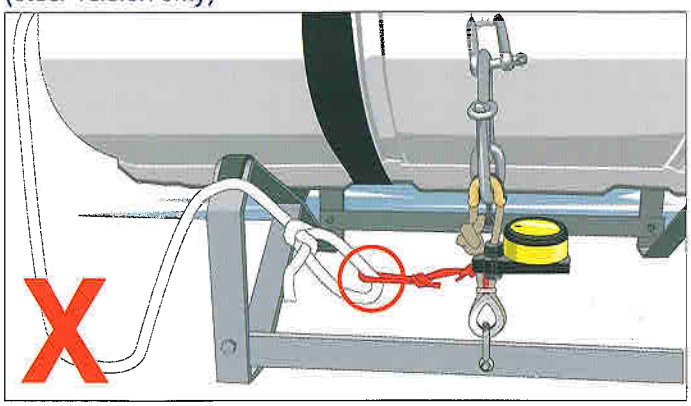
1. HRU will activate
2. Liferaft will float free and eventually inflate
3. Because the painter is secured to the slip, the liferaft will **NOT** be released to the surface

Painter secured directly to strong point



1. HRU will activate
2. Liferaft will float free and eventually inflate
3. Because the painter is secured directly to the strong point, the liferaft will **NOT** be released to the surface **EVEN IF** it is attached to the weak link as well

Painter secured only to weak link
(older version only)



1. Will work correctly for automatic release, but:
2. If liferaft is thrown overboard in an emergency (or comes adrift at sea) it may be lost

To contact the fishing safety team please telephone **0800 328 0600** or
email: fishingsafety@rnli.org.uk www.rnli.org.uk

RNLI Lifeboats

Annex 4

MGN 267 (F) The Location and Stowage of Liferafts and Emergency Positioning Radio Beacons (EPIRB's) on UK Registered Fishing Vessels

Maritime and Coastguard Agency

MARINE GUIDANCE NOTE

MGN 267 (F)

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

Notice to Designers, Builders, Owners, Skippers and Crews, of Fishing Vessels.

This notice should be read in conjunction with MGN 104 Stowage and Float Free Arrangements for Inflatable Liferafts, and supersedes MGN 130 (F).

Summary

- This note gives guidance on suitable stowage positions and other measures that will significantly reduce the possibility of a liferaft or an EPIRB becoming trapped or snagged when being deployed automatically from a sinking fishing vessel.

1. LIFERAFTS

1.1 To enhance the chances of successful deployment in an abandon ship emergency, the Maritime and Coastguard Agency strongly recommends that for liferaft containers:

(a) The owner/skipper should review the liferaft stowage arrangement on the vessel and consider:

(i) Are the liferaft containers stowed in an area that is free from overhead obstructions, and as far away from bulkheads, railings and other vertical structures as is possible?

(ii) Does the vessel have rigging, equipment or structure which could interfere with the deployment of a liferaft?

(b) A liferaft container may be released when the vessel is on its side or at some other extreme angle of heel and trim. A deep cradle should allow for this but be designed to avoid inadvertent release.

(c) Manual launching may also be necessary, and any arrangement should allow this to be easily achieved.

(d) The arrangement should allow easy access for crew from their normal working positions.

1.2 Of the 104 fatalities from vessel losses between 1992 and 2000, 69 were never found, and it is possible that a significant proportion of these losses were because of the incorrect operation of life saving equipment. As a result of one of these incidents the Maritime and Coastguard Agency commissioned a research project to find out:

(a) why some liferafts failed to reach the surface; and

(b) the optimum positions for the stowage of inflatable liferaft containers.

1.3 Phase 1 was undertaken by the Wolfson Unit for Marine Technology and Industrial Aerodynamics, and involved conducting a series of tank tests using two models of common fishing vessel types. This investigated the behaviour of a sinking vessel.

1.4 This work concluded that a liferaft positioned away from fishing gear and structures would have a much greater chance of reaching the surface from a sinking vessel than a more traditional aft mounted liferaft.

1.5 The research from Phase 1 showed that:

(a) Because of masts, rigging and fishing gear on beam trawlers, when compared with other fishing vessels, there is an increased likelihood of liferaft containers and/or painters becoming fouled and snagged on superstructure and/or fishing gear; and therefore being prevented from reaching the surface.

(b) Due to variations in fishing vessel design and operation, the attitude (angles to port, starboard, forward and aft) that the vessel takes up as it sinks is difficult to predict.

(c) In some cases the container may become so fouled or jammed that it cannot deploy automatically.

(d) More commonly, when the liferaft container is released by the Hydrostatic Release Unit, the painter becomes fouled as the liferaft ascends to the surface. As a result, the painter weak link does not break and the liferaft will not reach the surface.

1.6 Phase 2 was undertaken by the Inflatable Safety and Survival Equipment Trade Association (ISSETA), working with SEAFISH and the Maritime and Coastguard Agency.

1.7 A six person liferaft in a rectangular container was placed on the bow of a beam trawler for a trial period of two years, in addition to the existing liferafts, to prove that a liferaft could cope with the conditions encountered. (The report is attached).

1.8 The research from Phase 2 showed that:

(a) The trial of the liferaft on the bow showed that over the two years of service the case and liferaft itself remained in good condition with no degradation. The Hydrostatic Release Unit was also found to operate as required when tested. (The Hydrostatic Release Unit was of a type which would operate at 6-10 metres depth to avoid accidental operation caused by seas shipped over the bow).

(b) A liferaft stowed forward, properly fitted with a suitable Hydrostatic Release Unit and protection from waves will provide an effective alternative to stowing both liferafts aft.

1.9 For vessels with little rigging or obstruction, alternative actions could include:

(a) The possibility of local structures hindering the container's deployment can be minimised by incorporating angled stanchions to guide the container upwards and past the obstruction.

(b) To reduce the possibility of automatic deployment failure occurring as a result of the painter snagging on wires used for rigging etc., consideration should be given to the fitting of smooth sheathing over wires in areas close to where liferafts will float free.

2. EMERGENCY POSITIONING INDICATING RADIO BEACONS (EPIRBs).

2.1 Tank tests also provided information on the conditions for automatic deployment of EPIRBs. From this the following advice is given on the siting of this equipment:

2.2 To provide the best conditions for automatic deployment, the EPIRB should be sited so that it can float free and clear regardless of the attitude of the vessel during or following capsize. The wheelhouse top is the favoured position, although rigging, masts, equipment etc. could indicate that an alternative position should be found. Access should be easy so that the EPIRB can be manually activated and placed in the liferaft if abandoning ship.

2.3 If the EPIRB is placed on one side of the vessel, or immediately behind the wheelhouse then the likelihood of correct deployment is much reduced.

Further Information

Further information on the contents of this Notice can be obtained from:

Fishing Safety Branch
Maritime and Coastguard Agency
Spring Place
105 Commercial Road
SO15 1EG

Telephone: 023 8032 9130
Fax: 023 8032 9173

Maritime and Coastguard Agency
Website Address: http://www.mcga.gov.uk

File Ref: MS/088/001/0390

Published: 04/04

Department for Transport

The MCA is an executive agency of the Department for Transport

Safer Lives, Safer Ships, Cleaner Seas

Annex 5

MSN 1732 (M+F) Mandatory Registration of Emergency Position Indicating Radio Beacons (EPIRB's)

Maritime and Coastguard Agency

MSN 1732 (M + F)

Mandatory Registration of Emergency Position Indicating Radio Beacons (EPIRBs)

Notice to Owners, Masters and Skippers of all vessels that carry EPIRBs

Summary

This Notice is issued to draw attention to, and give advice regarding *The Merchant Shipping (EPIRB Registration) Regulations 2000.*

Key Points:-

- Any 406 MHz or 1.6GHz EPIRB fitted to a United Kingdom vessel must be registered with the appropriate authority.
- Any changes regarding an EPIRB, which is already registered must also be notified to that authority.
- It is an offence by the Owner and/or the Operator if either of the above requirements are not carried out.

1. This Notice is associated with The Merchant Shipping (EPIRB Registration) Regulations 2000. It draws attention to the requirements of those Regulations and offers information which will assist in complying.

2. The Regulations have been introduced following consultation with Industry and other interested bodies. They were developed because a need was identified to ensure that details held on EPIRB registers are as accurate as possible. This stemmed from a number of incidents in which those details were found to be erroneous or obsolete.

Need for accurate and timely registration details

3. The effective operation of an EPIRB depends upon correct registration details being available to the Search and Rescue (SAR) services. If they are not, there is the potential for any SAR operation being seriously jeopardised. The incorrect vessel might be sought, or an operation cancelled because it might appear that the vessel with which the EPIRB is registered is not in distress. This situation could easily have fatal consequences because SAR services could be seriously delayed and, by the time they were able to locate the vessel in distress, it might well be too late and there could be loss of life.

Procedure for Registration

4. The EPIRB manufacturers normally provide two cards on which vessel operators should enter the required details. The first is returned to the manufacturer, the second is returned to the competent authority.

a) EPIRBs which operate within the 406MHz band must be registered with the Maritime and Coastguard Agency (MCA). The full contact details are:-

The EPIRB Registry
MCA Southern Region (Falmouth)
Pendennis Point
Castle Drive
Falmouth
TR11 4WZ

Tel. 01326-211569
Fax. 01326-319264

The EPIRB supplier or the EPIRB Regulator will help you complete the card correctly if assistance is required.

b) EPIRBs which operate within the 1.6GHz band must be registered with:-

INMARSAT Ltd
Customer Activation Group
99 City Road
EC1Y 1AX

Registrations are handled by facsimile only to Customer Activation Group on
Fax: 0207 728 1142 or
Fax: 0207 528 0898

Enquiries only by telephone on

Tel: 0207 728 1000 (switchboard)
Tel: 0207 728 1372 - Customer Activation Group

To save time and resources a single point of contact should be registered by operators for all UK ships[1] that they operate.

Change of details

5. The EPIRB Regulators will automatically contact all registered EPIRB holders every two years to verify individual EPIRB registration details remain current. In the interim it is essential that any change(s) to registration details relating to an EPIRB already registered, are notified to the relevant registration authority as indicated in 4(a) and 4 (b) above.

Offences

6. To secure full compliance with these measures the MCA proposes to make failure to comply with any of the requirements of these Regulations an offence. The proposed penalties are a fine not exceeding £1,000 for contravention's of Regulations 4(1) or 5 and £500 for contravention's of Regulation 4(3).

Radio Safety Branch
Maritime and Coastguard Agency
Spring Place
105 Commercial Road
SOUTHAMPTON
SO15 1EG

Tel: 02380 329137
Fax: 02380 329204

MNA 136/02/48

April 2000

[DETR Logo]

[1] The term 'ship' has the same meaning as in the Merchant Shipping Act 1995 section 313(1) namely that includes every description of vessel used in navigation.

Annex 6

MSN 1779 (M+F) Changes in the Requirements to SOLAS Chapter IV: Radio Communications

Maritime and Coastguard Agency

MERCHANT SHIPPING NOTICE

MSN 1779 (M+F)

CHANGES IN THE REQUIREMENTS TO SOLAS CHAPTER IV: RADIOCOMMUNICATIONS

Notice to shipowners, Builders, Masters and Officers, shore based maintenance providers, equipment manufacturers, classification societies, and all other parties concerned.

This Notice should be read in conjunction with MSN 1690

Summary

Key Notes:

1. This Notice specifies the changes in requirements for ships subject to SOLAS Chapter IV concerning radiocommunications, which came into force on **1 July 2002.**

2. The purpose of these guidelines is to:

- Establish standardised procedures and minimum levels of service for the testing and maintenance of satellite EPIRBs to ensure maximum reliability whilst minimising the risk of false distress alerting.

- To advise that all two-way communication equipment carried on board a ship which is capable of automatically including the ship's position in the distress alert shall be automatically provided with this information from an internal or external navigation receiver, if either is installed.

3. This Notice should be read in conjunction with the Merchant Shipping (Radio Installations) Regulations 1998 and Merchant Shipping Notices 1714 and 1690.

Introduction

1. With effect from 1 July 2002 a number of amendments to the International Convention for the Safety of Life at Sea 1974 (SOLAS) came into force concerning position updating of shipborne two-way communication equipment and the annual testing of satellite Emergency Position Indicating Radio Beacons (EPIRBs).

2. Subject to the following paragraphs and to the provisions of individual regulations in SOLAS Chapters IV and V, these amendments apply to ships as described in The Merchant Shipping (Radio Installation) Regulations 1998.

SOLAS REGULATION 15:
Maintenance Requirements

3. The following new paragraph 9 has been added after existing paragraph 8: *Satellite EPIRBs shall be tested at intervals not exceeding 12 months for all aspects of operational efficiency with particular emphasis on frequency stability, signal strength and coding. The test may be conducted on board the ship or at an approved testing or servicing station.*
(The requirements for annual testing are given in MSC/Circ.1040 reproduced in Annex I).

4. The Maritime Safety Committee has approved Guidelines for shore-based maintenance of satellite EPIRBs (see Annex II). It should be noted that .12 of MSC 1040 requires maintenance by an approved shorebased maintenance provider. The UK Administration accepts organisations nominated and approved by the EPIRB manufacturer to carry out shorebased maintenance. Shorebased maintenance shall be carried out, in accordance with the requirements of MSC/Circ 1039 (reproduced in annex 2), at an interval not exceeding five years or when battery replacement is due.

SOLAS REGULATION 18:
Position Updating

5. The following new regulation 18 is added after existing regulation 17: *All two-way communication equipment carried on board a ship to which this chapter applies which is capable of automatically including the ship's position in the distress alert shall be automatically provided with this information from an internal or external navigation receiver, if either is installed. If such a receiver is not installed, the ship's position and the time at which the position was determined shall be manually updated at intervals not exceeding 4 h, while the ship is under way, so that it is always ready for transmission by the equipment.*
Although there is provision for the circumstances where a navigation receiver is not installed, Regulation 19 2.1.6 of Chapter V of SOLAS requires from 1 July 2002 the carriage of a Global Navigation Satellite System receiver.

SOLAS CHAPTER IV REGULATION 13

6. Regulation 13 paragraph 8 requires a radio installation *including the navigation receiver referred to in regulation 18, to have means provided to ensure the continuous supply of such information in the event of failure of the ship's main or emergency source of electrical power.*
Existing ships are also advised to ensure that equipment referred to in paragraph 6 above is connected to the ships Radio Reserve power supply.

ANNEX 1

GUIDELINES ON ANNUAL TESTING OF 406 MHz SATELLITE EPIRBs (MSC Circular 1040)

1. The annual testing of 406 MHz satellite EPIRBs is required by new SOLAS regulation IV/15.9 entering into force on 1 July 2002.

2. The testing should be carried out using suitable test equipment capable of performing all the relevant measurements required in these guidelines. All checks of electrical parameters should be performed in the self-test mode, if possible.

3. The examination of the installed 406 MHz satellite EPIRB should include:

.1 checking position and mounting for float-free operation;

.2 verifying the presence of a firmly attached lanyard in good condition; the lanyard should be neatly stowed, and must not be tied to the vessel or the mounting bracket;

.3 carrying out visual inspection for defects;

.4 carrying out the self-test routine;

.5 checking that the EPIRB identification (15 Hex ID and other required information) is clearly marked on the outside of the equipment;

.6 decoding the EPIRB 15 Hexadecimal Identification Digits (15 Hex ID) and other information from the transmitted signal, checking that the decoded information (15 Hex ID or MMSI/callsign data, as required by the Administration) is identical to the identification marked on the beacon;

.7 checking registration through documentation or through the point of contact associated with that country code;

.8 checking the battery expiry date;

.9 checking the hydrostatic release and its expiry date, as appropriate;

.10 checking the emission in the 406 MHz band using the self-test mode or an appropriate device to avoid transmission of a distress call to the satellites;

.11 if possible, checking emission on the 121.5 MHz frequency using the self-test mode or an appropriate device to avoid transmission of a distress call to the satellites;

.12 checking that the EPIRB has been maintained by an approved shore-based maintenance provider at intervals required by the Administration;

.13 after the test, remounting the EPIRB in its bracket, checking that no transmission has been started; and

.14 verifying the presence of beacon operations.

ANNEX 2

GUIDELINES FOR SHORE-BASED MAINTENANCE OF SATELLITE EPIRBS (MSC Circular 1039)

1. Introduction

1.1 The purpose of these guidelines is to establish standardised procedures and minimum levels of service for the testing and maintenance of satellite EPIRBs to ensure maximum reliability whilst minimising the risk of false distress alerting.

1.2 The guidelines are intended to be applicable both to 406 MHz EPIRBs and to L-band EPIRBs, as either type may be carried to comply with the requirements of SOLAS regulation IV/7.1.6. EPIRBs may include 121.5 MHz transmitters, or Global Navigation Satellite System (GNSS) receivers.

1.3 The guidelines also apply to service exchange EPIRBs which should be properly encoded to match the appropriate registration database.

2. Shore-based maintenance (SBM) provider

2.1 The SBM provider should:

.1 have a quality control system audited by a competent authority in respect of its servicing operation;

.2 have access to adequate calibrated test equipment and facilities to carry out the SBM in accordance with these guidelines;

.3 have access to batteries and other spare parts to the original equipment specifcation;

.4 have access to up-to-date technical manuals, service bulletins and the latest software versions as provided by the original equipment manufacturer;

.5 keep records of maintenance, available for inspection by the Administration as may be required;

.6 ensure that all personnel responsible for supervising and for carrying out the maintenance procedures are adequately trained and fully competent to perform their duties; and

.7 issue a shore-based maintenance report with a list of the test results and maintenance performed.

3. Prevention of false distress alerts

3.1 Throughout the testing and maintenance process, **great care must be taken to avoid the transmission of false distress alerts.** The transmissions may be picked up by aircraft as well as satellites.

3.2 A radio-frequency-screened room or enclosure should be used for all maintenance procedures involving, or likely to involve, any transmission from an EPIRB.

3.3 Provision of a 121.5 MHz monitor receiver is required; this will pick up the homing transmitter and give a warning if the EPIRB is accidentally activated outside the screened enclosure.

3.4 If a distress signal is transmitted accidentally, the local RCC should be contacted immediately and informed of the co-ordinates of the test site.

4. Maintenance service interval

4.1 406 MHz satellite EPIRBs should be inspected and tested in accordance with MSC/Circ.1040.

4.2 Shore-based maintenance of all satellite EPIRBs, as defined in paragraph 1.2, should be carried out in accordance with these guidelines at intervals specified by the flag Administration and not exceeding 5 years. It is recommended that the maintenance be performed at the time when the battery is to be changed.

5. Self-test

5.1 Prior to carrying out any maintenance and, upon completion, a self-test should be performed, following the instructions on the equipment, and the results noted.

5.2 Attention is drawn to paragraph 3 on the prevention of false distress alerts. Avoidance of live transmissions is required to prevent unnecessary loading of the satellite channels.

5.3 It should be verified that the self-test mode operates properly. This check could be performed by holding the switch in self-test

mode position for 1 min after the first self-test mode burst transmission. All transmissions should cease after releasing the self-test mode switch. Additionally, for 406 MHz satellite EPIRBs which received the COSPAS-SARSAT type approval after October 1998 (Type Approval Certificates 106 and higher) the number of self-test bursts should be verified to be no more than one.

6. Battery change

6.1 The main battery should be changed in accordance with the manufacturer's recommendations, including the replacement of any other routine service parts (e.g. seals, memory battery, desiccant).

6.2 The removed batteries should be disposed of in accordance with the manufacturer's and/or national/local recommendations.

6.3 After having changed the battery, the new expiration date should be displayed on the exterior surface of the EPIRB.

7. Satellite distress transmission

7.1 The satellite EPIRB should be activated in its normal transmitting mode (i.e. not just self-test). Attention is drawn to paragraph 3 on the prevention of false distress alerts. Where seawater contacts are fitted, these should be connected together to activate the EPIRB.

7.2 The transmitted signal should be checked with a suitable test receiver to verify the signal integrity and coding.

7.3 The frequency of the transmitted signal should be recorded and verified to be within the limits required by the specification to which it is approved.

7.4 The output power of the transmitter should be checked in the self-test mode. A simple method of the emission verification, such as a low sensitivity receiver placed at an unobstructed distance of at least 3 m from the EPIRB antenna, may be used for this check. The original equipment manufacturer may suggest an appropriate method to verify the output power. Attention is drawn to paragraph 3 on the prevention of false distress alerts.

8. 121.5 MHz homing transmission

8.1 The satellite EPIRB should be activated in it's normal transmitting mode (i.e. not just self-test). Attention is drawn to paragraph 3 on the prevention of false distress alerts. Where seawater contacts are fitted, these should be connected together to activate the EPIRB.

8.2 The transmitted signal should be checked with a suitable test receiver for the characteristic swept tone modulation.

9. Global Navigation Satellite System (GNSS)

9.1 Some satellite EPIRBs are designed to transmit a position derived from a GNSS receiver, which may be internal or external to the EPIRB.

9.2 The original equipment (EPIRB) manufacturer should be consulted for a method of testing the correct operation of this function, e.g.: by using a GNSS repeater/simulator or external input. This test may involve a live transmission from the EPIRB and should be performed in a screened room or enclosure in accordance with paragraph 3.2. Attention is drawn to paragraph 3 on the prevention of false distress alerts.

9.3 A test receiver should be used to verify that the signal transmitted by the satellite EPIRB contains the correctly encoded position data derived from the GNSS receiver. Attention is drawn to paragraph 3 on the prevention of false distress alerts.

10. Waterproof integrity

10.1 The satellite EPIRB should be inspected for any signs of damage or cracks to the casing, or of water ingress. Any damaged item should be replaced in accordance with the manufacturer's recommended procedures.

10.2 The satellite EPIRB should be tested for waterproof integrity at the end of the SBM. The equipment manufacturer may suggest an appropriate method to test the integrity of the EPIRB.

10.3 One method involves immersing the equipment in hot water (20-30°C above ambient) for a period of 1 min. It can be readily seen if there are any problems with the seals, as the air inside the beacon expands and

escapes as a stream of bubbles. This test should not be carried out with cool water, as the water may be drawn into the equipment without showing significant release of air bubbles.

10.4 Satellite EPIRBs equipped with seawater switches should have this function disabled during the immersion test to prevent activation, unless the complete test is performed inside a screened room. This disabling may be achieved by immersing the EPIRB complete with a mounting bracket if the bracket includes an interlock to prevent activation before release. In some cases the EPIRB contains an inversion switch, so it will not be activated if immersed in the inverted position. The manufacturer should be consulted for specific guidance.

11. Labelling

11.1 As a minimum, the equipment external labelling should be checked for the following details:

.1 manufacturer's serial number. This identifies the equipment, even if the programmed data (e.g. MMSI or callsign) is later changed;

.2 the transmitted identification code:

- for L-band EPIRBs, it will be the Inmarsat System Code; and
- for 406 MHz EPIRBs, this will be the beacon 15 Hexadecimal Identification (15 Hex ID) and other encoded identification information (MMSI / callsign) as required by the Administration. It should be verified that the label matches the information decoded from the self-test mode transmission using the test receiver. For the COSPAS-SARSAT location protocol beacons, the 15 Hex ID should correspond to position data set to default values;

.3 the expiration date of the battery; and

.4 the date when the next shore-based maintenance is due (see paragraph 12.1).

11.2 The above checks also apply if a replacement EPIRB is provided by the SBM provider.

12. Shore-based maintenance report and other documentation

12.1 The results of shore-based maintenance should be provided in the form of a shore-based maintenance report, a copy of which is to be kept on board, and a label affixed to the exterior of the beacon detailing the name of the SBM provider and the date when the next shore-based maintenance is due.

12.2 The SBM provider may affix a tamperproof seal or similar device on completion of the SBM.

12.3 Before returning the beacon to the owner, or when providing a replacement beacon, the SBM provider should check the registration details with the beacon registry, where practicable.

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Department for Transport

The MCA is an executive agency of the Department for Transport

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Annex 7

MSN 1786 (F) Application of the Fishing Vessels (Working Time: Sea-fisherman) Regulations 2004

Maritime and Coastguard Agency

MERCHANT SHIPPING NOTICE

MSN 1786 (F)

Application of the Fishing Vessels (Working Time: Sea-fishermen) Regulations 2004

Notice to Owners, Operators, Skippers and all crew on sea-fishing vessels

This Notice takes effect from 16 August 2004 and should be read in conjunction with the Regulations.

Summary

This Merchant Shipping Notice contains the detailed mandatory requirements specified by the Secretary of State under the Fishing Vessels (Working Time: Sea-fishermen) Regulations 2004 which come into force on 16 August 2004. It gives guidance on the application of the Regulations. However the Regulations do not apply to the self-employed, including self-employed share fishermen.

Key points

Parts 1 to 3 explain the requirements of the Regulations which:-

- apply to United Kingdom fishing vessels wherever they may be;
- specify that a worker's working time shall not exceed 48 hours per seven day period averaged over 52 weeks;
- entitle a worker to adequate rest, and the total hours of rest are to be not less than 10 hours in any 24 hour period and 77 hours for each seven days;
- entitle a worker to a free, confidential health assessment before becoming a night worker and require an employer to move a night worker to other duties, where possible, if night working is causing problems with the worker's health;
- require a worker to be given reasonable rest breaks if the pattern of work puts a worker's health at risk, particularly if the work is monotonous;
- entitle a worker to paid annual leave of at least four weeks;
- permit exceptions to the limits on hours of rest for objective and technical reasons or reasons concerning the organisation of work. The Fishing Industry Code of Practice on Working Time Standards at Annex 1 to this MSN constitutes an approved exception. Provided the conditions in the Code are met, an individual application for an exception need not be made. Individual exceptions in circumstances falling outside those in the Code may also be permitted, subject to authorisation by MCA; and
- permit a skipper to require a worker to work any hours of work in an emergency.

Part 4 sets out the way in which duties will be enforced and the remedies available to workers where they do not receive their entitlements.

1.0 Introduction and Background

1.1 The Fishing Vessels (Working Time: Sea-Fishermen) Regulations 2004 (referred to in this notice as "the Regulations"), which come into force on 16 August 2004 introduce new working time rules for employed sea-fishermen. They are based on Directive 93/104/EC (the Working Time Directive) as amended by the Horizontal Amending Directive (HAD) (2000/34/EC).

2. Application and Definitions

2.1 The Regulations apply to United Kingdom fishing vessels wherever they are. The Regulations relating to detention of vessels apply also to fishing vessels registered in other EU Member States while those vessels are in UK waters.

2.2 They place duties on the employers of sea-fishermen on these vessels, and provide certain entitlements to those workers.

2.3 "employment" means employment under a contract.

2.4 "working time", means:

(a) any period during which the worker is working, at his employer's disposal and carrying out his activities or duties,

(b) any time during which he is receiving relevant training.

2.5 "relevant training" means work experience provided pursuant to a training course or programme, training for employment, or both, other than work experience or training-

(a) the immediate provider of which is an educational institution or a person whose main business is the provision of training; and

(b) which is provided on a course run by that institution or person.

2.6 "worker" means a person employed aboard a United Kingdom fishing vessel.

2.7 The Regulations do not apply to the self-employed, including self-employed share fishermen.

3. Duties and Entitlements

3.1 Maximum working time

3.1.1 The Regulations require employers to take all reasonable steps to ensure that a worker's working time does not exceed 48 hours per week averaged over a 52 week reference period. The calculation of the average weekly working time takes account of a worker's absence during the reference period because of paid annual leave, maternity, paternity, adoption or parental leave, or sickness, by adding the hours worked during the period immediately following the reference period for the same number of days as those when work was missed.

3.2 Health Assessment and Transfer of Night Workers to Day Work

3.2.1 The employer has a duty to ensure that any worker required to do night work has the opportunity for a free health assessment – i.e. at no cost to the worker. If a doctor finds that a worker's health is suffering, and there is a connection with night work, the employer must, wherever possible, move that worker to day work to which he is suited.

3.2.2 Night work generally means between 11pm and 6am, or any period specified in a relevant agreement, but in any case a period of not less than 7 hours, which must include the period from midnight to 5am (local time).

3.2.3 A night worker is one who:
- as a normal part of his duties, works more than 3 hours of his daily work time at night; or,
- is likely to work an agreed proportion of his annual working time during night time.

3.3 Rest breaks

3.3.1 Where the pattern of hours of work may jeopardise the health and safety of a worker, and particularly where the work is monotonous, the employer must provide reasonable rest breaks. There is no statutory definition of a rest break, but MCA would generally consider any rest of less than 30 minutes to be a "rest break".

Periods taken as rest breaks are not counted in the calculation of hours of rest for the purposes of regulation 6.

3.4 Records

3.4.1 The employer is required to keep records adequate to demonstrate that employed sea-fishermen are receiving the minimum rest to which they are entitled, subject to any exceptions which may be approved under regulation 13 and that the requirements on health assessments for night workers have been complied with.

3.4.2 If it is possible to derive this information from records which an employer keeps for some other purpose, then separate records need not be kept. Records must be kept for two years from the date on which they are made.

3.5 Rest periods

3.5.1 Regulation 7(1) entitles a worker to "adequate rest", so that safety and health are not jeopardised as a result of fatigue.

3.5.2 Regulation 7(3) requires that every worker shall have minimum rest of 10 hours in any 24-hour period and of 77 hours in any 7-day period. This provides a safeguard against excessive hours being worked over periods shorter than the reference period. Under Regulation 7(4) daily hours of rest may be divided into no more than two periods, one of which shall be at least six hours in length, and the interval between consecutive such periods shall not exceed 14 hours.

3.5.3 Rest periods include days off, and any rest period which is not a rest break.

3.5.4 It should be borne in mind that one long break is more effective than a number of relatively short breaks in providing adequate rest.

3.6 Annual leave

3.6.1 For the purposes of these regulations, a worker is entitled in each year to a period of annual leave totalling at least four weeks, for which he is entitled to be paid at the rate of a week's pay in respect of each week of leave. Annual leave may be taken in instalments, but may not be replaced by a payment in lieu, except where a worker's employment is terminated.

4. Exceptions

4.1 Regulation 13 explains that exceptions to the limits for rest described at 3.5.2 above may be authorised. Such exceptions shall, so far as possible, comply with the standards laid down but may take account of more frequent or longer leave periods or compensatory leave. Provided that the objective or technical reasons, or reasons having to do with the organisation of the work apply, as set out in the Fishing Industry Code of Practice at Annex 1 to this Notice, it is not necessary for individual employers to apply for an exception nor is a separate application needed for each exception. It will also be possible to apply for individual exceptions to cover circumstances which fall outside the Code However the Secretary of State retains the right to alter or cancel any exception if it appears that the health and safety of workers are being compromised.

4.2 Applications for authorisation of individual exceptions should be made in writing to any MCA Marine Office (listed at Annex 2).

5. Enforcement/Remedies

5.1 MCA is the enforcement authority for employer duties in relation to:

- maximum working hours (reg 6(2));
- provision of health assessment for night workers (reg 8(1));
- transfer of night workers to day work on advice of a medical practitioner (reg 8(4));
- provision of adequate rest breaks (reg 9)

5.2 Regulation 15 requires an employer to provide MCA with information on night workers when required to do so. (MCA surveyors have powers under the Merchant Shipping Act to have access to any ship, company offices and company records relating to compliance with Merchant Shipping legislation.)

5.3 If a worker considers that his entitlements under the Regulations to adequate rest or

annual leave are being denied he may complain to an employment tribunal or to the Advisory, Conciliation and Arbitration Service (ACAS) (Tel. 08457 47 47 47).

6. Further Information

6.1 Questions on these regulations should be directed to MCA's Seafarer Health and Safety Branch. They may be e-mailed to:

seafarer_health&safety@mcga.gov.uk

Alternatively, the address is:
Seafarer Health and Safety Branch
Maritime and Coastguard Agency
Bay 2/09 Spring Place
105 Commercial Road
Southampton
SO15 1EG

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Fax: 023 8032 9251
MCA Website Address: http://www.mcga.gov.uk

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Department for Transport

The MCA is an executive agency of the Department for Transport

ANNEX 1

FISHING INDUSTRY CODE OF PRACTICE ON WORKING TIME STANDARDS

Preamble

Fishing is a hunting activity. It deals with a highly perishable commodity and operates in an unpredictable working environment. These require that work activities must be prioritised to ensure the safety of the vessel, the effective prosecution of fishing operations and the rapid initial processing, icing and refrigeration of the catch.

1. Purpose

In recognition of Europeanl Directives 93/104/EC and 2000/34/EC, the purpose of this *Code of Practice* is to apply common standards of working time throughout the fishing industry, to ensure that the crews of fishing vessels receive adequate rest, thereby minimising risk to health and safety arising from fatigue.

2. Self-employed Fishermen

This *Code* recognises that the limits in the Working Time Directive cannot be enforced against self-employed fishermen. However they should regard the *Code's* limits on working hours as useful benchmarks to avoid excessive hours.

3. Skippers

Insofar as the masters of fishing vessels meet the conditions set out in article 17(1) of Council Directive 93/104/EC of 23 November 1993[1] it is for the individual master/skipper to determine his/her own compensatory rest and compensatory leave periods, within the context of the principles of the protection of health and safety and the overall safety of the vessel,

4. Working Time Standards

This Code acknowledges the merit of applying working time standards to all personnel aboard fishing vessels. Directive 2000/34/EC recognises the distinctive characteristics of the sea-fishing sector and provides that, in accordance with the general principles of the protection of the health and safety of workers, Member States may allow exemptions from daily and weekly rest periods within it. It is in line with the spirit of the Directive that this Code complies with the standards laid down in the Directive as far as practically possible.

5. Scope for Compensatory Rest

Within the pattern of activity of most fishing vessels, there is considerable scope for compensatory rest and relaxation when the vessel is steaming to and from the fishing grounds, between operations and when the vessel is in port. The application of compensatory rest periods to offset those occasions when the standards set out in Clause 7 below are not met for operational or technical reasons or for reasons having to do with the organisation of the work, is, therefore, a central feature of this Code.

[1] Article 17(1) "1. With due regard to the general provisions of the protection of the safety and health of workers, member States may derogate from Articles 3, 4, 5, 6, 8 or 16 when, on account of the specific characteristics of the activity concerned, the duration of the working time is not measured and/or predetermined or can be determined by the workers themselves, and particularly in the case of ...managing executives or other persons with autonomous decision-taking powers,"

6. Definitions

For the avoidance of doubt and for the purposes of this *Code* working time shall be as defined in regulation 2 of the Fishing Vessels (Working Time: Sea-fishermen) Regulations 200X.

7. Working Time Standards

Subject to the exceptions and compensatory arrangements, the following working time standards shall apply:

Minimum Daily Rest

10 hours rest in any 24 hour period

Minimum Weekly Rest

77 hours in a 7 day period

Annual Limits

A maximum of 2304 hours

Rest Periods

Rest periods may be divided into no more than two rest periods, one of which shall be at least six hours in length and the interval between consecutive periods shall be at least six hours in length.

8. Annual Leave

Under the Working Time Directive employed fishermen are entitled to paid annual leave. The normal patterns of work and remuneration in the fishing industry incorporate both minimum requirements for annual leave and payment for such, into the usual operational patterns of the vessels and the system of remuneration by trip.

9. Exceptions and Compensatory Leave

For objective or technical reasons or for reasons having to do with the organisation of the work, the standards in Clause 7 above may not be able to be met. In such cases, while the standards will remain as a benchmark, exceptions to the limits may be allowed provided that the general principles of the health and safety of the workers are respected. Such exceptions should take account of more frequent or longer leave periods or the granting of compensatory leave.

The degree and regularity to which the standards laid down in Clause 7 will be met and compensatory rest required will vary according to the type of fishing vessel, method of fishing and area of operation. However there are constraints to the strict application of limits on working time which arise from the nature of fishing as an occupation. For example, operational parameters and working patterns are, to a considerable degree, dictated by external factors such as weather, seasonal fishing, quota constraints, tidal conditions and daylight hours.

10. Fleet Specific Constraints

The table in ATTACHMENT A illustrates common working patterns within some specific fisheries. The table describes some of the objective technical/operational circumstances in which exceptions from the standards laid down in Clause 7 may be required and for which compensatory rest/leave may need to be made available.

11. Endorsement

This Code of Best Practice is recognised and commended by

The National Federation of Fishermen's Organisations
The Scottish Fishermen's Federation
The Northern Ireland Fishermen's Federation

and other sea-fishermen represented on the Fishing Industry Safety Group.

ATTACHMENT A

OBJECTIVE TECHNICAL/OPERATIONAL CIRCUMSTANCES IN WHICH EXCEPTIONS FROM THE STANDARDS MAY BE PERMITTED IN SPECIFIC FISHERIES

FLEET SEGMENT	OPERATIONAL AND TECHNICAL FACTORS	COMPENSATORY REST FACTORS
GILL NETTERS	Gill netters' operational patterns are to a large degree dictated by tides. It is not possible to work static nets during spring tides. Work time is therefore concentrated on the two weeks in the month when the neap tides occur.	Compensatory rest is available during the two weeks when the vessels are unable to work their gear. Due to the tidal nature this type of fishing and extreme weather conditions it is not uncommon for this class of vessel to lose up to 170 working days per year.
BEAM TRAWLERS	Beam trawlers target prime species in the main. It is not possible to tow the gear for long periods of time, as the catch will be subject to damage and spoilage due to abrasion in the net. Long tows would result in increased debris (sand/stones) in the gear damaging catch and increasing weight in the gear. This would risk the safety of the vessel. Work time is therefore concentrated around regular hauls throughout the trip.	Compensatory rest is available in periods steaming to and from the grounds, between hauls and between trips. Short tows, small quantities of prime fish result in relatively short time on deck and longer overall periods of rest. Due to extreme weather conditions it is not uncommon for this class of vessel to lose up to 130 working days per year.
WHITE FISH TRAWLERS	Work time is concentrated around the hauling operations and working the catch. Heavy fishing will routinely result in a requirement for prolonged periods of intensive work in order to gut, ice, stow and process the catch (which might include freezing). Snagging of gear and subsequent repair could also result in periods of intensive work.	Compensatory rest is available in periods steaming to and from the grounds, between hauls and between trips. A system of crew rotation is also common (in particular on the larger vessels operating longer trips) Although dependant on the size of vessel and area of operation due to extreme weather conditions it is not uncommon for this class of vessel to lose up to 130 working days per year.

FLEET SEGMENT	OPERATIONAL AND TECHNICAL FACTORS	COMPENSATORY REST FACTORS
NEPHROP TRAWLERS	**Traditional single net:** Operational parameters are generally set by natural phenomena such as daylight and tide. Work time is concentrated on favourable weather and tidal conditions. **Twin rig:** Vessels tend to be bigger and more powerful and as result tows are generally longer. Work time is concentrated between tows working the catch and preparing the decks ahead of the next haul.	Compensatory rest is available throughout the year due to unfavourable weather and tidal conditions. This may be concentrated on spring tides or periods of prolonged poor weather. It is not uncommon for this class of vessel to lose up to 160 days per year because of the factors outlined above. Compensatory rest is available throughout the year due to extremes of tide and weather. It is not uncommon for this class of vessel to lose up to 120 days per year because of the factors outlined above.
CRABBERS	Larger crabbers at sea for more than one day often work from first light. Work time is then concentrated for the period of time taken to haul and re-shoot the gear.	Compensatory rest is available in periods steaming to and from the grounds. It is uncommon for hauling to continue through the hours of darkness. Compensatory rest is often available on the basis of crew rotation. Due to extreme weather conditions it is not uncommon for this class of vessel to lose up to 120 working days per year.
INSHORE DAY BOATS	Diversity in mode of fishing characterises the inshore fleet. Work time is dictated by weather, season and tide and is, therefore, concentrated on periods of good weather and suitable tides/seasons.	Compensatory rest is available through out the year due to factors such as weather, season or tide. This may be concentrated during seasonal extremes. It is not uncommon for this class of vessel to lose up to 170 days per year because of the factors outlined above.

Annex 2

MCA Marine Offices

1.	**Aberdeen** Marine Office Blaikies Quay Aberdeen AB11 5EZ	Tel: 01224 597 900 Fax: 01224 571 920
2.	**Belfast** Marine Office Bregenz House Quay Street Bangor Northern Ireland BT20 5ED	Tel: 0289 147 5300 Fax: 0289 147 5321
3.	**Cardiff** Marine Office Anchor Court Keen Road Cardiff CF24 5JW	Tel: 02920 448822 Fax: 02920 448810
4.	**Dover** Marine Office Langdon Battery Swingate Dover CT15 5NA	Tel: 01304 227710 Fax: 01304 218505
5.	**Falmouth** Marine Office Pendennis Point Castle Drive Falmouth Cornwall TR11 4WZ	Tel: 01326 310811
6.	**Glasgow** Marine Office Navy Buildings Eldon Street Glasgow PA16 7QY	Tel: 01475 5533550
7.	**Great Yarmouth** Marine Office 4th Floor Havenbridge House Great Yarmouth NR30 1HZ	Tel: 01493 744300 Fax: 01493 744329
8.	**Harwich** Marine Office East Terrace Walton-on-Naze Essex CO14 8PY	Tel: 01255 682107
9.	**Hull(Beverley)** Marine Office Crosskill House Mill Lane, Beverley North Humberside HU17 9JB	Tel: 01482 866 606 Fax: 01482 869 989
10.	**Leith** Marine Office Suite 3, Waterside House 46, The Shore Leith, Edinburgh EH6 6QU	Tel: 0131 554 5488 Fax: 0131 554 7689

11.	**Liverpool** Marine Office Hall Road West Crosby Liverpool L23 8SY	Tel: 0151 931 6600 Fax: 0151 931 6615
12.	**London** Marine Office Central Court, 1B Knoll Rise, Orpington Kent BR6 0JA	Tel: 01689 890 400 Fax: 01689 890 446
13.	**Milford Haven** Marine Office Gorsewood Drive, Hakin Milford Haven Pembrokeshire SA73 3HB	Tel: 01646 693272
14.	**Newcastle** Marine Office MCA Tyne Compass House Unit 1, Tyne Dock South Shields, Tyne and Wear NE34 9PY	Tel: 0191 496 9900 Fax: 0191 496 9901
15.	**Plymouth** Marine Office New Fish Market Baylys Wharf, Fish Quay Plymouth PL4 OLH	Tel: 01752 266 211 Fax: 01752 225 826
16.	**Shetland** Marine Office The Knab, Knab Road Lerwick Shetland ZE1 0AX	Tel: 01595 743514
17.	**Southampton** Marine Office Spring Place 105 Commercial Road Southampton SO15 1EG	Tel: 023 80329329 Fax: 023 80329351
18.	**Stockton On Tees** Marine Office 3rd Floor, Victoria House Pearson Court, Pearson Way Teesdale Park Stockton On Tees TS17 6PT	Tel: 01642 611040 Fax: 01642 614048