

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

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.		in instalments, but may not be replaced by a payment in lieu, except where a worker's employment is terminated.
3.4	Records	4.	Exceptions
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.	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.
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.	4.2	Applications for authorisation of individual exceptions should be made in writing to any MCA Marine Office (listed at Annex 2).
3.5.3	Rest periods include days off, and any rest period which is not a rest break.	5.	Enforcement/Remedies
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.	5.1	MCA is the enforcement authority for employer duties in relation to: <ul style="list-style-type: none"> • 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)
3.6	Annual leave	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.)
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	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

Telephone: 023 8032 9216
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

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 European 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 1993¹ 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.

**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	<p>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.</p> <p>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.</p>	<p>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.</p> <p>It is not uncommon for this class of vessel to lose up to 160 days per year because of the factors outlined above.</p> <p>Compensatory rest is available throughout the year due to extremes of tide and weather.</p> <p>It is not uncommon for this class of vessel to lose up to 120 days per year because of the factors outlined above.</p>
CRABBERS	<p>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.</p>	<p>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.</p>
INSHORE DAY BOATS	<p>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.</p>	<p>Compensatory rest is available through out the year due to factors such as weather, season or tide. This may be concentrated during seasonal extremes.</p> <p>It is not uncommon for this class of vessel to lose up to 170 days per year because of the factors outlined above.</p>

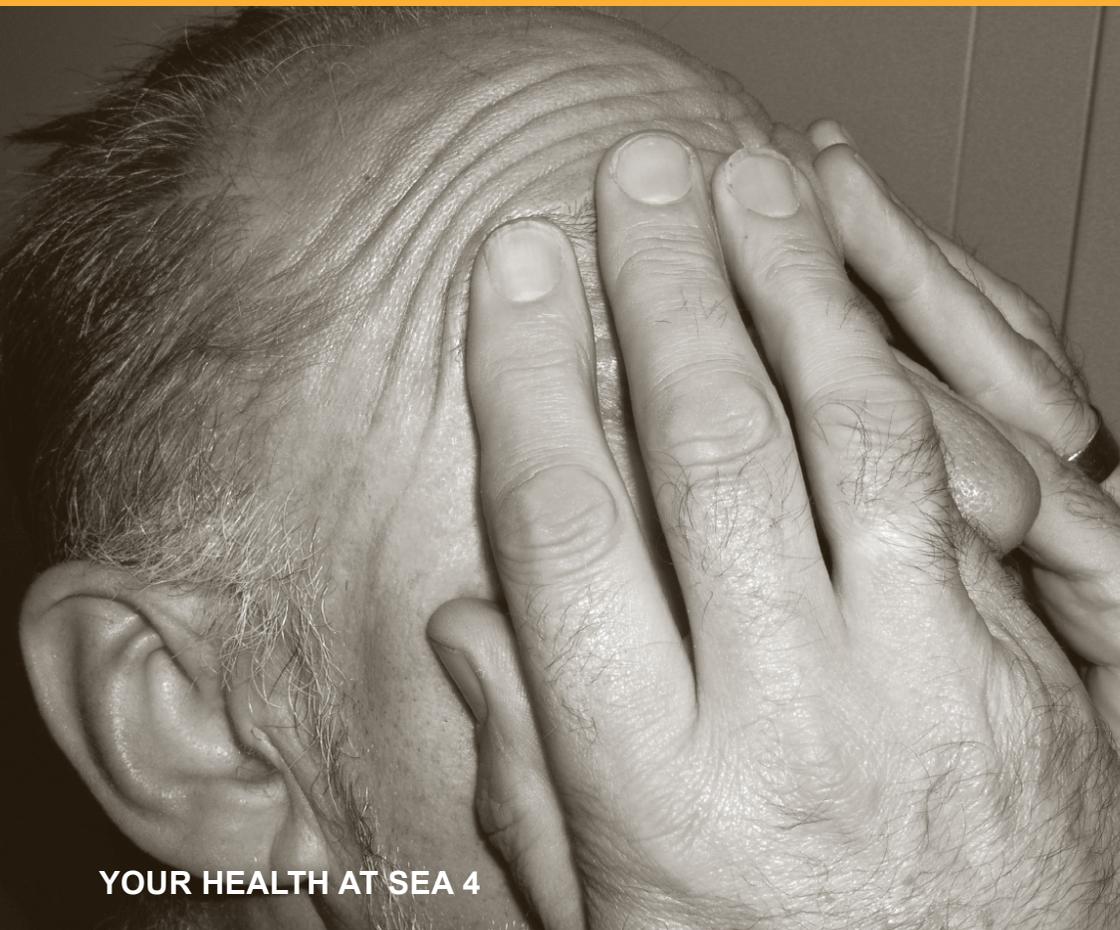
MCA Marine Offices

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|-----|--|--|
| 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
4 th 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
3 rd Floor, Victoria House
Pearson Court, Pearson Way
Teesdale Park
Stockton On Tees TS17 6PT | Tel: 01642 611040
Fax: 01642 614048 |

MCA leaflet *Fatigue in Seafarers*, May 2007

FATIGUE IN SEAFARERS



YOUR HEALTH AT SEA 4

Merchant Vessels
Fishing vessels
Yachts

What is fatigue?

One dictionary defines “Fatigue” as follows;

- 1 *Physical or mental weariness resulting from exertion*
- 2 *Something such as tiring effort or activity, that causes weariness*

www.dictionary.reference.com

It is difficult to explain fatigue in one definitive statement. What is clear, however, is that anyone can be subject to fatigue given exposure to certain factors. It is probably easier to understand how fatigue manifests itself and the consequential effects on our ability to perform both physically and mentally.

This leaflet aims to explain what factors can lead to fatigue, how to identify the signs of fatigue and, more importantly, how to go about resolving the problem of fatigue and thus assure the safety of the seafarer and the continued safe operation of the ship.

What causes fatigue?

Following a recent study commissioned by the MCA and supported by both the Health and Safety Executive (HSE) and Nautilus UK, the following factors were identified as contributing to fatigue:

- **Shortage of sleep / poor quality sleep**
restlessness, disturbed sleep, inability to relax fully, rough weather restricting sleep.
- **Negative environmental factors**
such as noise and vibration.
- **High job demands / high stress**
taking on other jobs outside normal duties such as paperwork.
- **Frequent port turnarounds**
which interrupt standard working patterns.
- **Adverse weather conditions**
fighting against the elements both the cold and wet or intense heat.
- **Consistently working more than 12 hrs a day**
There is a demonstrable link between both the number of hours we work and sleep deprivation.



What are the physical effects of fatigue?

Fatigue can show itself in a number of different ways in terms of both our physical and mental ability.

Common indicators are:

- **Increasingly frequent lapses in performance** – making obvious mistakes or omissions
- **Slower reaction times and a reduced state of alertness** – being unable to anticipate potential problems and to take appropriate preventative action.
- **Memory problems** – inability to retain or take on any new information, concentration span is also notably reduced. A fatigued seafarer may find themselves completing tasks out of order, or in some cases overlooking tasks completely.
- **Cutting corners to get the job done**
- **Lack of concentration** – reduced awareness and alertness to detail or a potential situation arising which may compromise safety. With the inability to think logically, you may find yourself taking unusual risks, with decisions being based on poor judgement of distance, time, speed or even incorrect calculations.
- **Subjective desire to rest and an aversion to further work with an objective decrease in performance** – responding slowly to situations. Experiencing a constant desire to rest and spend as little time on the task as possible, in favour of seeking rest and relaxation.

Why should it matter if I'm fatigued?

“Reduced safety due to fatigue will increase the risk of accidents that may lead to loss of life, environmental damage and huge economic cost.”

Seafarer Fatigue: The Cardiff Research Programme



Fatigue is a result of a cumulative set of factors. For example; if an individual is deprived of sleep and this is left unresolved without suitable rest, then it can combine with other fatigue-inducing factors such as long working hours, and perhaps also adverse weather conditions, to cause a state of fatigue.

In transport many jobs are safety-critical and there is likely to be a strong association between risk factors for fatigue and reduced safety. Not only may this expose an individual to an increased risk of injury, but it may also put others at risk and affect your general state of health and overall well-being.

In terms of the overall effect on the ship's operation, fatigue may result in an accident or in a greater risk of collision or environmental damage due to poorer performance.

How can I tell if I'm suffering with fatigue?

Here are a few questions to ask yourself:



MOOD

- Do I feel stressed?
- Am I more irritable than usual?
- Am I easily frustrated by tasks?
- Do I feel like I just can't be bothered and don't want to co-operate with others?

ALERTNESS / SLEEPINESS

- Do I feel tired and yawn all the time?
- Do I fall asleep for small amounts of time?
- Do I behave automatically to save thinking?
- Am I having difficulty concentrating?
- Am I forgetting to do things more and more?
- Am I finding it increasingly difficult to perform more than one task at once?

What can I do if I'm suffering from fatigue?

Practical steps to resolve a temporary problem would be to:

- Alert your head of department or responsible officer
- Take a break
- Have a nap (40 mins if work will resume shortly after waking). A longer nap (about 2 hours) is better. This should also allow for a 30 minute "wake up" phase.
- Have a drink – water is best, avoid caffeine (if within 4 hours of a sleep period)
- Have something to eat (not too heavy)



For a longer term problem:

- Discuss your work schedule with your Manager.
- Try to ensure you are well rested before starting work.
- Try to identify with your Manager any other reasons for your fatigue such as environmental factors.
- Agree with your Manager what actions you can both take to alleviate your fatigue

Sleep well... zzzzzzzz



Further reading

- Seafarer Fatigue: The Cardiff Research Programme – Prof Andy Smith, Paul Allen & Emma Wadsworth / November 2006
www.mcga.gov.uk/c4mca/research_report_464.pdf
- Code of Safe Working Practices for Merchant Seamen
- Merchant Shipping (Hours of Work) Regulations 2002
- Merchant Shipping Notice MSN 1767 Hours of Work, Safe Manning & Watchkeeping revised provisions from the 1 September 2002
- Imo Resolution A890(21) as amended by A955(23)
- Merchant Shipping & Fishing Vessels (Health and Safety at Work Regulations) 1997
- STCW 95

See also the leaflet Safety Management at Sea 6
“Managing Fatigue in Seafarers” (MCA/182)

Leaflet produced by;
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Maritime and Coastguard Agency

The leaflet contains notes on good practice which are not compulsory, but which you may find helpful in considering what you need to do.

Prepared and published by the Maritime & Coastguard Agency

Published May 2007 MCA/181

Extract from Seafish *Fishing Vessel Safety Folder*, May 2007

How likely that harm may occur (L)		How harmful (H)	
1	Very unlikely	1	Slightly harmful
2	Unlikely	2	Harmful
3	Likely	3	Very harmful

Risk Factors (L x H)	
1	- No action is needed
2	- Can be tolerated, but make sure that it does not become worse
3/4	- Take action but subject to it being reasonable and sensibly possible
6	- Must be attended to, you must reduce the risk
9	- Cannot be accepted and work/activity must not continue

Standard Risk Assessment Form			ALL VESSELS			
Activity or area	Possible hazards	Possible Consequences	L	H	LxH	Control measures necessary with respect to your vessel
Fouled Gear/Gear Mending	Leaning over the rail to reach	Falling overboard				
	Gear suddenly frees	Falls resulting in injury or man overboard				
	Frayed wires	Lacerated hands				
	Angle grinders	Eye injuries Electric shock				
	Lifting of heavy items	Serious injuries				
	Inadequate tools	Frustration, delays, accidents				
Wheelhouse Operations	Falling asleep on watch	Vessel loss, deaths				
	Leaving the wheelhouse unattended	Vessel loss, deaths				
	Inexperience	Vessel loss, deaths				
Galley	Inexperienced persons	Burns, scalds, cuts, fire				
	Cluttered working areas	Trips and falls				
	Slippery floor	Slips				
	Lack of hygiene	Food poisoning, Disease				
	The condition of LPG (Calor gas) equipment	Explosion, fire, vessel loss, deaths				
Other						

Assessment Date Review Date Review Date

Signature Signature Signature

How likely that harm may occur (L)		How harmful (H)	
1	Very unlikely	1	Slightly harmful
2	Unlikely	2	Harmful
3	Likely	3	Very harmful

Risk Factors (L x H)	
1	- No action is needed
2	- Can be tolerated, but make sure that it does not become worse
3/4	- Take action but subject to it being reasonable and sensibly possible
6	- Must be attended to, you must reduce the risk
9	- Cannot be accepted and work/activity must not continue

Standard Risk Assessment Form		ALL VESSELS				
Activity or area	Possible hazards	Possible consequences	L	H	L X H	Control measures necessary with respect to your vessel
Boarding and leaving the vessel	Use of ladder or gangway	Falling onto vessel or into water – serious injuries or death	1	3	3	<i>The ladder is in good order.</i>
	<p>Considering a ladder that is in good order:</p> <p>Because the ladder is in good condition, it is very unlikely that anyone will fall. Enter 1 in 'L' column</p> <p>The consequence of a fall could be fatal, very harmful. Enter 3 in 'H' column.</p>					Take action but subject to it being reasonable and sensibly possible. Although a ladder will always present a risk, there is no other reasonable and sensible means of boarding the vessel.
	Use of ladder or gangway	Falling onto vessel or into water – serious injuries or death	2	3	6	<i>Request the Harbour Authority to repair the damaged ladder. Shall berth elsewhere if possible. Crew warned of danger.</i>
<p>Considering a ladder that is damaged:</p> <p>Say, it's bent halfway down, or there are no suitable hand holds at the top.</p> <p>The damage is such that it is still unlikely that anyone will fall. Enter 2 in 'L' column. (Note: if the ladder is severely damaged it would then be likely that someone would fall).</p> <p>The consequences of a fall could be fatal, very harmful. Enter 3 in 'H' column</p>					Must attend to the hazard and reduce the risk. If there is no option but to continue to use the ladder, the crew must be cautioned to take the greatest care. Note: if the ladder was severely damaged, which would necessitate 3 in the L column, L x H would then be 9. This would require the ladder not to be used at all, until repairs had been made.	

Example of Risk Assessment Completion

Extract (pp.22, 26, 54-57) from MCA booklet *Fishermen's Safety Guide*, January 2008

Skipper/crew health

Do you keep yourself fit and alert?

Are you well enough to go to sea?

Eat sensible meals; try to get what sleep you need; dress so that you are warm, and, as far as possible, dry and safely protected.

Fatigue causes impaired judgement and results in mistakes and accidents. If the vessel is fitted with a watch alarm; make sure that it is switched on and operational. Ensure that the watch alarm has a repeater in the cabin or is loud enough to be heard throughout the vessel.



Although nowadays, very few fishermen will drink alcohol while at sea, deaths and injuries still occur when crew members, who have been drinking ashore, fall either into the water or down onto the vessel, when attempting to board.

Drug abuse occurs in all walks of life and anyone who is under the influence of drugs on a fishing vessel poses a major hazard to himself and other crew members and the vessel.

Remember that the effects of alcohol and drugs last for several hours and being in charge of the vessel, or operating machinery, after drinking or taking drugs will put you yourself and others at risk. If you are aware of a fellow crew member being under the influence of alcohol and/or drugs then tell the skipper immediately.

Please see the MCA's Marine Guidance Notes; MGN 331 (M+F) The Merchant Shipping and Fishing Vessels (Provision and Use of Work Equipment) Regulations 2006 and MGN 332 (M+F) The Merchant Shipping & Fishing Vessels (Lifting Operations and Lifting Equipment) Regulations 2006. Please see page 63 for details of how to obtain these MGNs.

Electrical installations

Only use qualified people to install and maintain electrical systems.

Are switchboards on vessels clearly marked and fuses/circuit breakers checked to ensure that they are the correct rating? Are the correct rated fuses being used? Using the wrong fuses may result in short circuits, fire danger and electrocution.

Is electrical equipment such as switchboards, fuse boxes, etc, protected from water leaks as this leads to short circuits and fire dangers?

Batteries give off hydrogen gas which will cause an explosion if ignited. Do not smoke or allow a naked flame near batteries.

Emergency drills *(see also section 5: Emergencies)*

Emergency situations require all persons on board to react in an effective manner and without panic. Whilst it is expected that all persons will have completed basic training in survival, first aid and fire fighting, it is also essential that regular training and practice takes place to ensure that the crew can react properly in various situations.

- What problems could arise that would trigger 'emergency situations'?
- Does each crew member know what to do in such situations?
- How often are emergency drills practised?
- Do you know where the fire fighting and lifesaving equipment is stowed?
- Do you know how to operate such equipment?

On every vessel, all on board should be aware of what they should do and the equipment to use to cope with various types of emergency. Situations need to be discussed and courses of action planned.

Equipment may need to be obtained and located where it will be to hand if required. The layout of each vessel and fishing methods used will impose particular problems and it is essential that solutions are found before facing these problems in a real emergency. It is often too late to ask questions when an emergency has occurred.

time to time if they can breathe on their own. If they can, stop blowing into the lungs, but watch in case they stop breathing again.

Heart stopped

If the casualty's heart has stopped, their breathing will also stop. Listen to the chest for heart sounds.

Make certain that they are lying on a hard surface. If you are sure that their heart has stopped, place the heel of your hand on the lower half of the breast bone, with your second hand over your first. Keep your arms straight, and press the breast bone down 3½ to 5cms, for half a second. Maintain a rate of about 100 times a minute and after every 30th compression; blow into the lungs two times as indicated in the 'Breathing Stopped' section.

Continue pushing and blowing, listening every so often to see if the heart has restarted. If a pulse is found then carry on, as indicated in the 'Breathing Stopped' section, until the casualty is breathing by themselves. Check the heart regularly because it may stop again.

Abandon ship

On joining your vessel make sure that you know how to release and operate the life raft. It should be stowed securely where it cannot be easily damaged, but it can be launched quickly.

The life raft must be capable of being automatically released and activated from a sinking vessel. Such float free arrangements are achieved by securing the life raft's painter to a Hydrostatic Release Unit (HRU). Do not put anything on top of the life raft or other emergency gear.

Find where the lifejackets, portable emergency radio and flares, etc are kept and how they work.

Do not abandon the ship unless the skipper orders you to do so. Often you are safer in a stricken vessel than you would be in the life raft. If you abandon ship put on as much warm clothing as time and circumstances allow. Then put on your lifejacket, and fasten it properly. If you are working below deck, keep warm outer clothing close at hand for use in an emergency. If you have time, take the vessel's EPIRB with you and stream it behind the life raft.

Manually launching the life raft

Before launching ensure that the painter is untied from the HRU and made fast to a strong point. Make sure that the water in the launching area is clear of people or obstructions.

After launching, pull and keep pulling on the painter until inflation occurs; there may be as much as 72 metres of painter within the life raft which must be fully withdrawn and given a sharp pull, before inflation can occur. Wait until the buoyancy tubes are fully inflated before boarding.

Premature boarding may prevent proper inflation. If possible, board the life raft without entering the water. It is important to keep out of the water to reduce the effects of the cold.

Never jump onto the canopy of a life raft. Jumping onto the canopy could cause injuries to yourself or a person already inside and may damage the canopy.

While waiting for others to board prevent the raft(s) from chafing alongside the vessel to avoid damage to the fabric of the life raft.

If you go into the water

If it is necessary to enter the water, choose a suitable place to leave the vessel bearing in mind:

- the drift of the vessel; it may drift towards you faster than you can swim away;
- position of the life raft in the water, the raft may drift more quickly than you can swim;
- the sea state;
- other hazards e.g. burning oil.

Do not jump into the water if there is an alternative method such as an over-side ladder or by means of a rope or fire hose. Unless it is unavoidable, do not jump from higher than 4.5 metres into the water.

Before jumping into the water ensure that your lifejacket is securely tied and hold it down by crossing your arms over your chest; block off your nose and mouth with one hand; keep your feet together; check below to avoid obstructions; look straight ahead; jump feet first.

Do not look down when jumping as it makes you unstable and likely to fall forward.

Once in the water your body heat will be lost more rapidly than it can be generated. This leads to cold water shock, hypothermia (cold exposure), unconsciousness and death. Extra clothing will help to prevent cold water shock and help to delay the onset of hypothermia.

Get into the life raft as soon as possible. Otherwise get clear of the vessel but do not swim aimlessly. Float as still as possible in your lifejacket. Swimming increases heat loss.

Activate the lifejacket light, if you have one, and use the whistle to attract attention to your position.

If possible, form a group with other survivors in the water. There is safety in numbers and a group is more easily located.

Boarding the life raft unaided from the water is a difficult operation. Make maximum use of available foot and hand holds. It may help, if you can, to bob down and use the buoyancy of your lifejacket to help you out of the water.



In the life raft

Once all persons are in the life raft cut or slip the painter. (Use the safety knife provided, stowed near the entrance, in the life raft).

Manoeuvre clear of the vessel's side and any other obstructions. Getting clear of obstructions avoids the risk of damage to the survival craft.

Life rafts can drift rapidly. The drogue or sea anchor reduces the rate of drift and therefore assists those that are searching for you. It holds the entrance at right angles to the weather; helps to steady the craft and greatly improves the stability in rough weather. If there is water in the life raft then bail this out with the bailer provided.

Close the life raft entrance once everyone is inside. This keeps out the cold and wet and keeps in the warmth generated by the occupants. If available put on a thermal protective aid. Post a lookout.

Maintain the life raft. Inflate the floor for insulation against the cold, bail out the water and check for damage or leaks. Ventilate the life raft by maintaining a small opening.

Take sea sickness tablets as early as possible. Most people, including 'hardened' fishermen suffer from seasickness in life rafts. Seasickness results in loss of body fluid and incapacitation.

Rig the radar reflector and EPIRB or SART if available.

Maximising your chances of survival

Regardless of how near to you the rescue services may be you must take action from the outset to safeguard yourself against immediate threats to your life. First and foremost, protection should be against the dangers of the environment. Protection has a higher priority than indicating location, and as it is possible to survive many days without water and many weeks without food, both protection and location have higher priorities than food and water.

Do not attempt to sail away from the area of the vessel as the search for survivors will start at the last known position of the vessel. If you have a portable radio with you then transmit a Mayday message. If an EPIRB or radar transponder is available switch it on. Rescuers can 'home in' on these signals.

Distress flares and rockets should be used sparingly, and only when there is a likelihood of them being seen. Ensure that when using flares and rockets you follow the manufacturer's instructions.

If the sun is shining the daylight signalling mirror can be used to attract attention. If sighted by a searching aircraft it may be some time before rescue is at hand but your location will be known.

The most common cause of death is cold water shock and drowning; usually because people get too cold to help themselves. Even after boarding a life raft you could die of hypothermia if you have not taken the necessary precautions. The epic survival voyages which attract so much publicity have nearly all occurred in tropical waters. Survival at sea for even a short period is dependant upon adequate preparation and knowledge of survival techniques. Different vessels have different types of survival equipment. Do you know which types are on board, where they are and how to use them? If not then find out. You are not a survivor until you have been rescued.

MGN 414 (F) Fishing Vessels - Domestic and Overseas Management
Beyond European Waters

FISHING VESSELS – Domestic and Overseas Management Beyond European Waters

Notice to all Owners, Employers, Managers, Skippers and Crews of Domestic and Overseas Fishing vessels

This notice replaces MGN 336(F)

Summary

This note provides guidance for owners and skippers when they are operating their vessel outside UK waters.

Key Points

- All types of surveys must be undertaken regardless of the vessels location;
- Owners must be in control of the operation of the vessel and the responsibility and accountability of the skipper must be established;
- Vessels should be visited at regular intervals to effectively monitor the vessels safety and a means of communication established between skipper owner and agent to ensure items relating to safety are addressed;
- Risk Assessments should be undertaken and all crew should read and implement it;
- There must be people on board with good maritime English;
- All crew must comply with MGN 411;
- Arrangements must be in place to ensure the vessel can be properly repaired regardless of location;
- Spares (and tools) should be carried, such as bilge pumps, cooling water pumps pipe work, hydraulic equipment etc;
- Engine spares should be carried especially when operating in remote areas;
- All safety equipment must remain serviceable and in date so ways of servicing should be identified, it may be prudent in remote areas to service and update equipment prior to departure.

1. Introduction/ Background

1.1 A Marine Accident Investigation Branch (MAIB) investigation found that a fishing vessel operating from the west coast of Africa did not have access to adequate spares, technical support and repair facilities.

1.2 The bilge pumping capability of the vessel had become deficient and a petrol driven, portable salvage pump was used as the only means of pumping bilges. Sadly, this led to carbon monoxide poisoning and death of one crew member whilst using the pump inside

the engine room. It was fortunate that more deaths did not occur when rescue attempts were made (including the local rescue services).

2. Managing Fishing Vessels

- 2.1 Owners are reminded that the requirement for surveys; renewals, intermediates and annuals where required, still stand regardless of where the vessel is deployed.
- 2.2 The day-to-day management of all fishing vessels is paramount to safety. Communication, as in any other business, is vital and it is up to the crew and shore-side support to communicate regularly and effectively.
- 2.3 All fishing vessels need to be well managed and this may be particularly difficult to achieve for vessels operating outside familiar European ports. Some form of management system should be adopted to monitor and assist such vessels.
- 2.4 Management systems need not be “long-winded” affairs and simplicity is the key (a term often used in management is “KIS” - Keep It Simple!).
- 2.5 Owners and skippers operating (but not limited to) fishing vessels outside the European regime should discuss and address the following items BEFORE the operation commences:-

2.5.1 Control

- The owner should make provision for controlling the whole operation. Strategy, allocation of resources, action plans and correction of major deviations should be addressed.
- The authority of the skipper should be established with the owner, including responsibility and accountability.
- The relationship between the owner and the administration through the managing agent is important to establish.

2.5.2 Monitoring

- The vessel’s Risk Assessment¹ should be reviewed and updated as necessary.
- Effective means of monitoring the safety of the vessel should be identified. Rather than relying entirely on the skipper, it may be prudent to visit the vessel at regular intervals and independently assess items affecting safety.
- The owner should fully investigate the reason and action taken whenever the vessel diverts for repair.
- Minor and major incidents affecting the safety of the vessel should be reported to the owner and, when applicable, the class society, to the Marine Accident Investigation Branch (MAIB)².

2.5.3 Communication

- All members of the crew should be made aware of, read and implement the vessel’s risk assessments. Procedures, written in “checklist format”, may assist with this requirement.

- Items affecting safety should be reported by any crew member to the skipper and/or owner. Reporting should be actively encouraged.
- Regular agreed means of communication between the skipper owner and agent should be established to address items affecting safety.

It is both extremely important and a legal requirement to have aboard personnel with good maritime English for key safety communications in an emergency.

2.5.4 Implementation

- Sufficient and suitably qualified crew should be appointed to the vessel. All crew members should have completed mandatory safety training courses (fire-fighting, first aid, sea survival and safety awareness). Reference should also be made to MGN 411(M&F).
- Each crew member should be aware of, and practise, their specific duties in an emergency. Drills (Fire, Abandon Ships and Man Overboard) should be carried out at regular intervals (at least monthly) and be suitably recorded. Drills will be witnessed by Surveyors at intermediate and renewal surveys. A publication, "Safety Drills and Procedures" and the accompanying folder and CD can be obtained by quoting MCA/212 and MCA/213, from EC Group at:

EC Group
 Europa Park
 Magnet Road
 Grays
 Essex
 RM20 4DN
 Telephone number: 0845 603 2431
 Email address: mca@ecgroup.co.uk

- Maintenance of the vessel and safety equipment should be carried out and reported to the owner. The following points should be considered in particular:-

a) Repair Facilities

These may be lacking in remote ports. Alternative means should be provided and may involve either:

- i) the vessel diverting to a suitable port for repairs; or
- ii) a suitable repair company, or agent, travelling to the vessel to carry out repairs.

The appointment of a suitable ship's agent (or "husband") may be necessary to assist with facilitating repairs.

b) Spare Gear

Additional spares (and associated tools) should be carried on vessels that do not have access to repair facilities; for example those for:

Bilge pumps
 Cooling water pumps
 Repair of pipe work (e.g. emergency repair kits)
 Hydraulic equipment
 Fuses/Circuit breaker parts

If the vessel is classed it should carry the minimum spares required by the Classification Society.

c) Engine Spares

It is also recommended that vessels operating long-term in remote areas carry main and auxiliary engine spares on board; for example:-

Piston (including rings)
Connecting rod
Cylinder head (including valves)
Cylinder liner

The above lists are suggested spare parts and should not be considered exhaustive.

2.5.5 **Safety Equipment**

- Means of servicing safety equipment should be identified. Service/supply agents for fire extinguishers, liferafts, flares, EPIRBS etc. may be in short supply, but this does not mean that they should be overlooked.
- It is the responsibility of the owner and skipper to ensure that all life saving apparatus, including liferafts, fire fighting equipment and radio equipment, including EPIRBS, remain serviceable and in date for inspection.
- If service stations are not available in the intended area of operation, it may be prudent to fully service and update safety equipment prior to departure.
- Fire detection and safety equipment should be tested regularly and an entry made in the log.

¹ It is a legal requirement that fishing vessels carry out a Risk Assessment, to identify and reduce associated hazards. Further guidance may be found within MGN 20(M+F) and from SEAFISH.

² Requirements detailed in Statutory Instrument (SI) No.881 Of 2005 - The Merchant Shipping (Accident Reporting and Investigation) Regulations, and MGN 289.

More Information

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MGN 313 (F) Keeping a Safe Navigational Watch on Fishing Vessels

KEEPING A SAFE NAVIGATIONAL WATCH ON FISHING VESSELS

Notice to all Owners, Operators, Skippers, and Crews of Fishing Vessels

This note supersedes MGN84(F) and should be read in conjunction with MSN1781(M+F) Distress Signals and Prevention of Collisions, MGN266 (F) Guidance on the Interpretation of SOLAS Chapter Five for Fishing Vessels, MGN 137 (M+F) Look-out During Periods of Darkness and Restricted Visibility and MGN 202 (M+F) Navigation in Fog.

Summary

This notice explains the need to maintain a proper navigational watch at all times.
Key points.

- Watches must be kept by competent people;
- A Proper lookout should be kept at all times;
- Check the vessels position by all available means;
- The activities of all other vessels in the area should be monitored;
- Sufficient rest should be taken before a watch.

1. Introduction/ Background

1.1 Investigations into collisions, groundings and near misses involving fishing vessels have continued to show that poor watchkeeping is a major cause. In many cases one or more of the following were important factor(s):

- An unqualified or inexperienced person in charge of the watch;
- Only one person on the watch (regardless of whether a watch alarm was fitted);
- A poor lookout and/or radio watch being kept;
- Distraction by TV in the wheelhouse;
- Divided command;
- Fatigue, alcohol, prescription drugs or a combination of any of these.

2. What are the Arrangements of a Safe Navigational Watch?

2.1 Even where there is no statutory requirement for certificated officers, it is still essential that watchkeepers are always experienced, capable, and have been instructed in their duties. This is especially vital if you are making a landfall, navigating close to the coast, in restricted visibility, severe weather conditions or in areas where there is dense traffic.

2.2 While deciding the composition of the watch the following factors should be taken into account:

- The wheelhouse must not be left unattended at any time;
- The weather conditions, visibility and time of day. Although the size of the crew and the wheelhouse may not permit a continuous two person watch, two people should always be on watch during the hours of darkness and in poor weather conditions;
- The proximity of navigational hazards and any other hazards which may require additional navigational duties to be undertaken;
- The use and operational condition of navigational aids such as radar, echo sounder, automatic pilot, and position-fixing equipment(s).
- Any unusual demands on the navigational watch that may arise as a result of fishing operations.

3. Fitness for Duty

3.1 Both the skipper and the watchkeepers should take full account of the quality and quantity of rest taken when determining fitness for duty. Particular dangers may exist when the watchkeeper is alone. It is all too easy to fall asleep, especially while sitting down in an enclosed wheelhouse. Watchkeepers should ensure they remain alert by moving around frequently, and ensuring good ventilation.

4. Navigation

4.1 The Merchant Shipping (Safety of Navigation Regulations) requires that all voyages are planned, taking into account any relevant information, and courses should be checked before departure.

4.2 It is important that watch keepers maintain a close watch on their own vessel and always know the position, speed and course steered. Most groundings occur when the position is not being monitored and the watchkeeper thinks that the vessel is in safe water.

4.3 The watchkeeper should be aware of the location, operation and limitation of all safety and navigational equipment on board.

4.4 The person in charge of a navigational watch should not undertake any other duties that would interfere with the safe navigation of the vessel.

4.5 Unfortunately it may not be possible to rely on every give-way vessel to keep clear. It is therefore vital to monitor the movement of ALL traffic. Remember that a vessel engaged in fishing does not always have the right of way. In restricted visibility, even with gear extended, a fishing vessel has no special privileges.

4.6 Domestic radios, cassette players and television sets and other recreational items should never be used in the wheelhouse when they will distract a watchkeeper from their duties. The proper place for such items, especially television sets, is in the accommodation.

5. Navigational Equipment

5.1 Watchkeepers should make effective use of all available navigational equipment and not hesitate to use the helm, engines and sound signals. The radar should be used as an aid. There is no substitute for keeping a good visual lookout.

5.2 It is strongly recommended that any automatic pilot fitted should incorporate a watch alarm. It is a good practice to extend the installation of a watch alarm to vessels not fitted with automatic pilot. A watch alarm should be fitted on board ALL vessels where there may be one person on navigational watch. The watch alarm will not only alert the watchkeeper but also other member(s) of the crew. However, a watch alarm should not be relied upon exclusively.

5.3 Over-reliance on video plotters has been a factor in several recent collisions and groundings. Using an electronic system does not remove the need for proper passage planning and navigation, using appropriately scaled paper charts.

5.4 Assessments or assumptions based on video plotters alone are dangerous and unreliable. A video plotter used for fishing purposes is not adequate for safe navigation.

5.5 If a video plotter is used, it is imperative to be aware of its limitations and a cross-check should always be made about the accuracy of your position, course and speed. Equipment of this type may be used as an aid to navigation, but it cannot replace the fundamental need to maintain a visual lookout.

5.6 Information, charts, routes and waypoints may be stored for future reference. However, stored data should always be checked and used with caution, especially if transferred between vessels. The data should be applicable to the vessel's specific condition and voyage, and always kept up to date.

5.7 Electronic magnetic compasses may be unsuitable for use within a steel wheelhouse.

5.8 Groundings have been caused by the improper functioning of this equipment linked to an auto-pilot. When a heading reference is required for navigational equipment such as an auto-pilot or radar, it is recommended that a transmitting magnetic compass (rather than an electronic magnetic compass) be fitted.

6. Navigational Duties and Responsibilities

6.1 The person in charge of the watch should:

- keep watch in the wheelhouse, which should never be left unmanned;
- continue to be responsible for the navigation of the vessel, despite the presence of the skipper, until it is mutually agreed that the skipper has taken over;
- notify the skipper when in any doubt as to what action to take in the interest of safety;
- not hand over to someone who is obviously not capable of taking over the watch. If there is any doubt the skipper should be advised accordingly;
- on taking over a watch establish the vessel's estimated or actual position and confirm the intended track course and speed. Any danger(s) to navigation which is likely to be encountered during the watch should be noted;
- maintain a proper log of all movements and activities during the watch that relate to the navigation of the vessel.

7. Look-out

7.1 It is absolutely essential that a proper look-out is kept at all times. Casualties to fishing vessels, resulting in loss of life, continue to occur because of the lack of a look-out. In addition to assessing the situation and risk of collision, stranding and other navigation dangers, the duties of the look-out should include the detection of other vessel(s) and/or aircraft in distress, shipwrecked persons, wrecks and debris, plus anything out of the ordinary.

7.2 The look-out must give full attention to keeping a proper look-out and no other duties should be undertaken which could interfere with that task. The duties of the look-out and helmsman are separate and the helmsman is not considered to be the look-out while steering except where an unobstructed all round view is provided and there is no impairment of night vision or other impediment. The watchkeeper may be the sole look-out during daylight hours provided that it is safe to do so and assistance is immediately available.

8. Weather Conditions

8.1 The watchkeeper should take early action to notify the skipper when adverse changes in the weather could affect the safety of the vessel, including the possibility of icing occurring.

9. Navigation with Pilot Embarked

9.1 The presence of a pilot on board does not relieve the skipper or watchkeepers from their duties and obligations. The skipper and pilot should exchange information regarding navigational procedures, local conditions and, the vessel's characteristics. The skipper should co-operate closely with the pilot. An accurate check of the vessel's position and movement should be maintained.

Further Information

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

Fishing and Code Vessels Safety Branch
Bay 2/05
Maritime and Coastguard Agency
Spring Place
105 Commercial Road
Southampton
SO15 1EG

Tel : +44 (0) 23 8032 9163
Fax : +44 (0) 23 8032 9447
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**MGN 267 (F) The Location and Stowage of Liferafts and Emergency
Positioning Radio Beacons (EPIRBs) on UK Registered Fishing Vessels**

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.

- | | | |
|---|---|--|
| <p>1. LIFERAFTS</p> <p>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:</p> <p>(a) The owner/skipper should review the liferaft stowage arrangement on the vessel and consider:</p> <p>(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?</p> <p>(ii) Does the vessel have rigging, equipment or structure which could interfere with the deployment of a liferaft?</p> <p>(b) A liferaft container may be released when the vessel is on its side or at some other</p> | <p>(c) Manual launching may also be necessary, and any arrangement should allow this to be easily achieved.</p> <p>(d) The arrangement should allow easy access for crew from their normal working positions.</p> <p>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:</p> <p>(a) why some liferafts failed to reach the surface; and</p> | <p>extreme angle of heel and trim. A deep cradle should allow for this but be designed to avoid inadvertent release.</p> |
|---|---|--|

- (b) the optimum positions for the stowage of inflatable liferaft containers. 1.8 The research from Phase 2 showed that:
- 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. (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).
- 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. (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.
- 1.5 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. 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) 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. (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.
- (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. **2. EMERGENCY POSITIONING INDICATING RADIO BEACONS (EPIRBs).**
- 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. 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:
- 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). 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 capsizing. 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:

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

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Safer Lives, Safer Ships, Cleaner Seas

Department for
Transport

The MCA is an executive agency
of the Department for Transport

MAIB flyer to fishing industry highlighting lessons learnt from this accident

FLYER TO THE FISHING INDUSTRY

KERLOCH:

GROUNDING AND FOUNDERING



Image courtesy of Trawler Photos

Kerloch

The Jersey-registered 15.45m crabber *Kerloch* (J235) was returning to port late on the afternoon of 20 February 2010, when she ran aground on Crow Rock, off the Pembrokeshire coast.

During the week prior to the accident, the vessel had been potting off Lundy Island and landing every 2 to 3 days at Milford Haven. The crew had been working up to 18 hour shifts; the skipper in the wheelhouse operating the winch, while the three deckhands attended to the gear. Each of the crew also took a lone 1.5 hour watch in the wheelhouse, either during overnight breaks at the grounds, or as the vessel steamed to and from port.

The day of the accident saw lovely clear weather, and the crew had been potting since the early hours. At lunchtime, the skipper decided to head in to land and re-store, and elected to take the entire 6 hour navigational watch back to port; he thought the deckhands seemed tired, while he felt fresh.

The voyage was initially uneventful, but as the vessel approached the Welsh coastline, a combination of the warm, unventilated wheelhouse, the low sun and slight sea, contributed to the skipper falling asleep in his chair. A functional watch alarm was reported to be in the wheelhouse, but this could be cancelled from the skipper's chair.

The heavy impact of the grounding immediately woke both the skipper and the crew below in their bunks. They quickly mustered on the shelterdeck top and donned lifejackets, as *Kerloch* began to adopt a significant bow trim. One of the liferafts was manually deployed, which they abandoned into as the vessel rapidly sank. The skipper then contacted the coastguard using a mobile telephone while one of the crew deployed a flare. A nearby fishing vessel immediately proceeded to the scene, recovering the liferaft and crew, who were transferred to a lifeboat and then taken to Milford Haven. The EPIRB activated over 3 days later.

The Lessons

Although this accident resulted in the vessel's loss, it is fortunate that the crew were uninjured. With a different set of circumstances, the outcome could have been far worse. This accident highlights a number of safety lessons:

1. The crabbing industry, like many sectors, has been hard hit by rising costs and lower market prices, which has led to a culture of long working hours and limited rest. Such pressures are real, but owners, managers and skippers still need to consider all possible opportunities for ensuring crew are properly rested and fit to work, whether this is through compensatory rest, or revised manning.
2. It is not difficult to envisage the skipper falling asleep after a hard week's work, while sitting in the comfort of his chair in the warm, stuffy wheelhouse in the late afternoon sunshine. It is important to ensure there are stimuli present to assist watchkeepers in staying alert, and not to remain seated for extended periods.
3. An effective bridge watch alarm is one such way of providing a stimulus. The alarm on *Kerloch* was however clearly ineffective; a good alarm should require the watchkeeper to move from his chair to deactivate it, and when not cancelled on the bridge, should alert other crew members in the vessel.
4. Best practice was evident on board the vessel, with the stowage of the lifejackets in a dedicated container on deck adjacent to the liferafts. This allowed the crew to quickly don their lifejackets in the face of the developing crisis without having to waste valuable time searching for and retrieving them.
5. The abandonment, although successful, could have been improved in a number of areas. The vessel's DSC radio alert was not activated, and neither a hand-held VHF radio nor the EPIRB were removed and taken to the liferaft. The latter would have provided positional data to emergency services. It was fortunate that the mobile phone used to make the 999 call had network coverage and battery power. During the abandonment, the liferaft painter was cut and held onto by one of the crew before they boarded; if this had been inadvertently released, the raft could have drifted away without them. Training and regular drills are both key to ensuring emergency preparedness.
6. The reasons for the failure of the EPIRB to transmit immediately after the sinking are not known, as the unit could not be recovered. Although fitted in a proprietary stowage, apparently clear of obstructions, the fact that the EPIRB appears not to have floated clear of the vessel when she sank emphasises the importance of considering carefully its installation position.

This flyer and the MAIB's investigation report are posted on our website:

www.maib.gov.uk

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