



FISHING VESSELS: Emergency Drills

Notice to all Owners, Operators, Managing Agents, Skippers and Crew

This note replaces MGN 430 (F) and should be read in conjunction with MGN 571 – Preventing Man Overboard, MSN 1871 The Code of Practice for the Safety of Small Fishing Vessels, MSN 1872, The Code of Safe Working Practices for the Construction and Use of 15m Length Overall to less than 24m Registered Length Vessels, and MSN 1873, The Code of Practice for the Construction and Safe Operation of Fishing Vessels of 24m Registered length and over.

Summary

This Note provides guidance on scenarios for different types of emergency drills, which MCA surveyors may ask to see, sets out what the crew need to demonstrate and the key issues.

Quick rescue of Man Overboard is vital due to the dangers of Cold Water shock and Hypothermia and the Note sets out what to consider in order to be best prepared for such a situation.

This Note also sets out the conduct of checks that MCA surveyors will make regarding drills. Surveyors will:

- witness emergency drills as part of the survey or inspection on the vessel or at any other time as deemed necessary by the MCA.
- confirm that emergency drills (Fire, Collision/Grounding, Man Overboard, Abandon ship, Anchoring) are practiced monthly and when a new crew member joins the vessel.
- if practicable, and when there is no evidence that drills have been conducted and it is considered the crew are not trained for an emergency, ask vessels to proceed from the harbour to a safe anchorage to undertake anchoring drills. This increases the validity of the drill and provides a more challenging, realistic environment.

The Note sets out the guidance on possible requirements of skippers and crew during emergencies which can be demonstrated during drills and musters. **It should be noted that this guidance is generic and it is the owner, skipper and crew who should decide what steps are necessary and who should undertake them.**



1. Introduction

- 1.1 Recent Marine Accident Investigation Branch investigations have highlighted the importance of drills when dealing with emergencies.
- 1.2 With the introduction of MSN 1871, vessels under 15m are also now required to conduct regular drills, including vessels that are single handed. This Note has therefore been developed to provide guidance to both single handed and crewed vessels on how to practice drills.
- 1.3 Drills are however the response to an emergency and as Man Overboard is still the biggest cause of fatalities from fishing vessels, preventing Man Overboard from occurring is the best option. Advice on preventing Man Overboard is contained in MGN 571.

2.0 Drills Guidance

- 2.1 This Notice provides drill guidance on various scenarios and checklists for the following emergency situations which can be used for practicing:

Drills for Single Handed vessels

- Man Overboard;
 - Abandon Ship; and
 - Rescue another vessel's casualty from the water;
- Fire;
- Hull Damage/Taking Water/Sinking;
- Collision/ Grounding.

Drills for Crewed vessels

- Muster Stations Drills;
 - Fire;
 - Collision/ Grounding;
 - Hull Damage/Taking Water/Sinking;
 - Collision/ Grounding;
 - Abandon ship.
- 2.2 The checklists in Annexes A to C have been prepared taking into account guidance in IAMSAR Volume III and are intended to assist you in the event of an onboard emergency, and to provide a template for running drills on board to train the crew in the initial actions they must take when an emergency situation occurs.
 - 2.3 Attending surveyors will witness the crew undertaking suitable emergency drills. Guidance for surveyors, skippers and crew specific to fishing vessels is annexed to this notice. If practicable, and when there is no evidence that drills have been conducted and it is considered the crew are not trained for an emergency, vessels will be asked to proceed from the harbour to a safe anchorage to undertake anchoring drills. This increases the validity of the drill and provides a more challenging, realistic environment. The attending surveyor will take into account the weather conditions and other safety aspects when deciding if the vessel will be asked to proceed from harbour for a drill.



- 2.4 In addition, attending surveyors will satisfy themselves that the emergency drills as required by MSN 1871, MSN 1872 or MSN 1873 have been carried out and correctly documented.
- 2.5 Providing that all of the above are found to be satisfactory and in accordance with the relevant legislation, the vessel's certificate may be renewed/endorsed. If however any of the above is found to be unsatisfactory or not proven then it will be noted on the Report of Inspection/Survey as a deficiency and the vessel's certificate will not be renewed or endorsed until drills are completed satisfactorily.

3.0 Man Overboard

- 3.1 In the ten years to 2015, 83 fishermen lost their lives and of these 38 were man overboard. In 2016, the MAIB has had to investigate a further six fatal accidents which are potentially involving man overboard. Although the latter part of this MGN provides guidance on responding to emergencies, it is clear that falling overboard is highly likely to result in death and therefore it is better to prevent Man Overboard from happening.
- 3.2 There are a number of considerations that should be taken into account when considering recovery of a Man Overboard.
- 3.3 Firstly, unless a person is rescued within 5 minutes, it is highly likely that they will be either unable to help themselves or unconscious. The stages that a person in the water goes through are:

Cold Shock - Stage 1 - Death can occur within 5 minutes

- On immersion, the victim experiences hyperventilation and increases in blood pressure and pulse rates;
- This increases the risk of drowning or heart failure;
- Pulse rates and breathing do not return to normal until after about five minutes of immersion.

Swimming Failure - Stage 2 - Death can occur within 10-15 minutes

- If the victim survives the cold shock stage, then the cold water rapidly cools the nerves and muscles of the limbs. This causes inability to conduct simple survival actions requiring manual dexterity such as climbing into a life raft, holding a becketed line or unwrapping and firing a flare;
- When attempting to swim without the aid of a lifejacket, the body angle of attack traveling through the cold, dense water is increased. Scientific tests have shown that at the start of a swim the angle of attack is likely to be 18° and at the point of failure will have reached 35°. At the same time, swimming strokes become shorter, more rapid and uncontrolled;
- This results in drowning through swimming failure as the victim becomes more vertical in the water, the leg movements become ineffective, the victim becomes exhausted, inhales the next wave and drowns;
- **Swimming ability in warm water bears no relationship to that in cold water.**



Hypothermia - Stage 3 - Death after 30 minutes

- As the deep body temperature falls, human's lapse into unconsciousness;
- Death may occur in two ways - drowning through incapacitation and cardiac arrest.

Stage 4 - Death during or soon after rescue

- About 20% of rescued survivors die. Most die from drowning in the process or soon after rescue;
- For the hypothermic victim who has been in the water for some time, being pulled out of the water, particularly in a vertical position causes a massive loss of blood pressure. This is complicated by the reinstatement of gravity, decreasing blood volume, increased blood viscosity and a diminished work capacity of the cold heart.
- **In laymen's terms this is really a massive faint from which the cold victim cannot recover.**

3.4 As time is vital, when deciding how you will rescue a person from the water you should:

1. Have a plan for recovering a conscious person;
2. Have a plan for recovering an unconscious person;
3. Have the ability to locate a person in the water (visual means or otherwise) – ensure you have sufficient search lights and/or rings on board;
4. Have a means to get hold of and recover an unconscious person;
5. Have a life buoy at the aft end and or near to the place where the chances of falling overboard are the highest;
6. Have equipment practical for the vessel;
7. Know how to use the equipment you have on board;
8. Practice using the equipment;
9. Make sure the retrieval equipment is usable with the levels of manning on board – ensure it can be operated by the crew if one of them has gone overboard;
10. Conduct and record man overboard drills to familiarise your crew with the procedures;
11. Review the Drills with the crew and put in place any improvements identified;
12. Have a written down the plan and procedures for recovering the casualty for the benefit of the crew;
13. Ensure the crew are wearing PFDs when there is a risk of going overboard;
14. If the recovery necessitates one crew member entering the water, ensure the person is suitably protected;



15. If working single handed, put in place a means to get yourself back on board.

3.5 If you have considered all these option, then the chances of a successful recovery will be increased

More Information

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ANNEX A: EMERGENCY DRILLS

It is mandatory that emergency drills be carried out monthly on all United Kingdom fishing vessels and a record of these drills should be kept. An entry should be made if one of these drills has been missed along with a reason why. An emergency drill should also be carried out when a new crew member joins the vessel.

The following is guidance for musters and drills both for regular practice and for being witnessed during inspections and surveys.

Drills for Single Handed vessels

- Man Overboard
 - Abandon Ship; and
 - Rescue another vessel's casualty from the water
- Fire;
- Hull Damage/Taking Water/Sinking Guidance
- Collision/ Grounding;

Drills for Crewed vessels

- Muster Stations Drills
- Fire;
- Collision/ Grounding;
- Hull Damage/Taking Water/Sinking Guidance
- Collision/ Grounding;
- Abandon ship

The drill should refresh basic safety training and add an element of reality of working as part of a team on board their own vessel. In witnessing a safe and effective drill, it is important that as many of the regular crew are present as possible.

Drills cannot replace the written risk assessment but are a vital part of the necessary control measures within that risk assessment.

It is essential that all crew members undertake drills and play their part in the safe day to day running of the vessel.

In addition to ensuring as many of the crew attend, it is important that they are engaged and involved in the drill scenarios.

A debrief session should take place after each drill to identify weaknesses, areas for improvement as well as what went well.

Use drills as an additional opportunity to inspect emergency gear and test equipment.



ANNEX B - SINGLE HANDED VESSELS

Man Overboard

If you operate single handed, it will be very difficult to get yourself back on board your vessel.

You should therefore take all possible measures to ensure that the risk of going overboard is minimised and, if at all possible, eliminated.

You should also consider whether there are adjustments to the vessel that you can make or equipment that you can place over the side of the vessel that will make it easier for you to get back on board.

You should also ensure that you wear a Personal Flotation Device and a Personal Locator Beacon. Personal Locator Beacons shall comply with EN 302 152 and be registered in accordance with The Merchant Shipping (EPIRB Registration) Regulations SI 2000, No. 1850 and Merchant Shipping Notice 1816 (M&F) – Mandatory Registration of Electronic Position indicating Radio Beacons (EPIRBs).

Doing this will alert the Coastguard, allow you to survive the effects of cold water and provide more time for you to be successfully rescued.

However, there are also circumstances where you might have to abandon ship or rescue someone else from the water who has fallen in from another vessel. By practising for these situations, you will be able to respond quickly and successfully.



Scenario 1 – Abandon Ship

1. Mayday
2. Put on all warm clothing / waterproofs
3. Don Lifejacket
4. Collect all relevant LSA (Flares, Hand held radio, PLB, Torch etc.)
5. If fitted with Liferaft / EPIRB make ready for use.
6. If time allows confirm abandoning vessel by VHF

Abandon Ship

The following provides guidance on the actions of the vessel's skipper. These actions are generic and may vary from vessel to vessel and it is recommended that you identify the requirements particular to your vessel through practice drills.

Primary Action	Secondary Action	Vessel Dependent Action	Skipper Awareness
Prepare for Abandon ship	<ul style="list-style-type: none"> • Collect lifejacket, VHF Portable radio, first aid kit, flares, PLB, Torch, and remaining equipment and grab bag. • Do not attempt to save personal items • Don warm clothing 		<ul style="list-style-type: none"> • Understand most suitable place to store lifejacket • Access lifejacket quickly • Know how to don lifejacket • Be aware of suitable clothing
Transmit distress call and message	<ul style="list-style-type: none"> • DSC alert, voice transmission, state position, and any injuries 		<ul style="list-style-type: none"> • Be aware of correct procedure
Prepare Liferaft and secure painter	<ul style="list-style-type: none"> • Get grab bag, first aid kit, Portable VHF, flares and water • Pay due attention to weather for boarding • Issue Abandon ship order 	<ul style="list-style-type: none"> • Deploy liferaft 	<ul style="list-style-type: none"> • Know how to release and deploy a liferaft • Know where to make fast a painter • Know how to pull a painter
Abandon vessel			Know how to board a liferaft
Cut painter at last minute	<ul style="list-style-type: none"> • After cutting, where possible, stay reasonably close to the vessel to increase chances of rescue 	<ul style="list-style-type: none"> • Deploy EPIRB/SART/ PLB 	<ul style="list-style-type: none"> • Know how to activate EPIRBs/SARTs/PLBs

Abandoning the Vessel

If possible survival craft should be boarded dry, but if it is necessary to abandon a vessel by jumping directly into the water, the following procedure should be followed.

Hold lifejacket, block off nose and mouth, keep feet together, check below, avoid obstructions, jump feet first, look ahead parallel to horizon, attempt to land near and slightly ahead of survival craft. Do not jump into boats or on top of liferafts, you may injure yourself or other or damage the craft.



In the Water

A survivor in the water should swim away from a sinking vessel as quickly as possible since when it founders wreckage and debris may surface with great force along with oil.

Get out of the water as soon as possible and remember swimming increases the rate of heat loss, try to slow the onset of hypothermia.

Scenario 2 – Rescue of casualty from water.

1. Life ring deployment (to mark casualty position)
2. Mayday Relay
3. Get alongside casualty
4. Attempt recovery if equipped, or
5. Try to keep casualties airway clear until rescue - if safe to do so

Rescue of a casualty off another vessel from the water

The following provides guidance on the actions of a vessel's skipper when rescuing someone who has fallen overboard from another vessel. These actions are generic and may vary from vessel to vessel and it is recommended that you identify the requirements particular to your vessel through practice drills

Primary Action	Secondary Action	Vessel Dependant Action	Skipper Awareness
Throw a life-ring in to the sea as close as possible to person overboard	<ul style="list-style-type: none"> • Throw lifebuoy close to MOB if seen going overboard • If not seen consider light/smoke float to mark position for SAR and search vessel 	<ul style="list-style-type: none"> • Press MOB on Nav Aid 	<ul style="list-style-type: none"> • Know how to maintain awareness of MOB location • Know how to activate light/smoke float • Know why a light/smoke float will assist
Inform the coastguard via DSC and / or ch16 Mayday	<ul style="list-style-type: none"> • Keep SAR and vessels aware of situation. 		<ul style="list-style-type: none"> • Be aware of correct procedure
Commence recovery procedure	<ul style="list-style-type: none"> • Commence Williamson turn (if gear in and navigation allows) 	<ul style="list-style-type: none"> • Haul gear • Prepare liferaft • Prepare MOB recovery system • Organise dry clothing and first aid equipment 	<ul style="list-style-type: none"> • Know how to release and deploy liferaft • Recover crew using MOB systems on board • Know the limitations of the MOB systems • Know what first aid requirements to anticipate



Fire Drill

Purpose

To demonstrate:

- knowledge of ship board equipment and vents;
- donning and use of breathing equipment (if applicable);
- practical use of hoses and nozzles;
- safe and effective fire-fighting techniques are employed; and
- use of fixed fire suppression gas systems.

During this fire drill the main fire-fighting hoses will be deployed and demonstrated. Once the surveyor is satisfied that the condition of the hoses and nozzles are to standard then the vessel will simulate “dead ship” and the emergency lights, fire hoses and equipment will be tested.

Scenario

Fire reported in area of high fire risk e.g. engine room, galley or spaces with electrical heaters. Prepare to fight the fire and prevent the fire from spreading to other areas of the vessel.

Key Issues

The key issues are:

- knowledge of shipboard fire-fighting equipment;
- all vents closed and fans stopped;
- fire mains and hoses proved;
- emergency pumps and hoses proved;
- breathing equipment and safety procedures acceptable;
- use of gas suppression systems understood and appreciated; and
- limitations of fire-fighting equipment carried appreciated.

A useful way to remember how to deal with fires is:

- F** Find and locate fire and determine type (wood/paper, oil, electrical)
- I** Inform by raising the alarm
- R** Restrict by containing the fire (close fire doors, vents, stop fans activate fuel pump stops and quick closing valves)
- E** Evacuate and Extinguish. If there are others on board, make sure they are not in adjacent areas and clear the area. Extinguish if safe to do so.



Fire Fighting Guidance

The following provides guidance on the actions required. These actions are generic and may vary from vessel to vessel and it is recommended that you identify the requirements particular to your vessel through practice drills.

Primary Action	Secondary Action	Vessel Dependant Action	Skipper Awareness
Restrict the fire if possible by closing hatches	<ul style="list-style-type: none"> Close ventilation flaps, fans and doors 		<ul style="list-style-type: none"> Know how to respond to fuel stops activating
Call the Coastguard	<ul style="list-style-type: none"> Don Warm clothing and lifejacket Send DSC alert, followed by voice transmission 		<ul style="list-style-type: none"> Be aware of correct procedure to alert CG Understand most suitable place to store lifejacket Access lifejackets quickly Know how to don lifejacket
Prepare life saving equipment and fire- fighting equipment		<ul style="list-style-type: none"> Consider deploy liferaft Ensure access of liferaft away from heat and smoke 	<ul style="list-style-type: none"> Know where LSA is Know how to deploy LSA Know how to release and operate liferaft
If safe, extinguish the fire with due caution to size of fire etc Or escape via liferaft or abandon to water (inform coastguard)	<ul style="list-style-type: none"> Monitor vessel stability Proceed to Abandon Ship 	<ul style="list-style-type: none"> If Emergency fuel stops activate how will this affect ability to fight fire Prime emergency fire hoses and pumps in case emergency fuel stops activate Dons fire-fighting outfit and Breathing gear if available Use available and appropriate fire-fighting equipment 	<ul style="list-style-type: none"> Know where Firefighting equipment is Know how to deploy Fire-fighting equipment Know what fire-equipment to use and when Know how to don fire-fighting outfit Know how to use Breathing apparatus



Hull Damage/Taking Water/Sinking Guidance

The following provides guidance on the actions required. These actions are generic and may vary from vessel to vessel and it is recommended that you identify the requirements particular to your vessel through practice drills.

Primary Action	Secondary Action	Vessel Dependent Action	Skipper should be aware of
Prepare for Emergency	<ul style="list-style-type: none"> Don Warm clothing and lifejacket 		<ul style="list-style-type: none"> Understand most suitable place to store lifejacket Access lifejacket quickly Know how to don lifejacket Be aware of suitable clothing
Check for Water ingress	<ul style="list-style-type: none"> Check location and amount of water ingress Take tank soundings, it might be a fore peak tank breach rather than a hold 	<ul style="list-style-type: none"> Monitor bilge pumps and alarms 	<ul style="list-style-type: none"> Be aware of how to check alarms Be aware of methods for stopping water ingress Be aware how to take tank soundings
Inform Coastguard via DSC	<ul style="list-style-type: none"> Send DSC Alert and follow up with VHF call 		<ul style="list-style-type: none"> Be aware of correct procedure
Prepare to fight flooding	<ul style="list-style-type: none"> Collect damage control kit 	<ul style="list-style-type: none"> Consider if bailer/ bucket will remove water Consider if pumps will cope Consider if additional pumps will help Request portable pumps 	<ul style="list-style-type: none"> Be aware of bilge pump capabilities Be aware how to operate bilge pumps Be aware how to use damage control kit
Prepare LSA		<ul style="list-style-type: none"> Secure liferaft in safe area Provide safe means of boarding 	<ul style="list-style-type: none"> Know how to release and deploy liferaft
Consider Abandon Ship	<ul style="list-style-type: none"> Close oil and fuel vents Consider stability of vessel 		



Collision or Grounding Guidance

The following provides guidance on the actions required. These actions are generic and may vary from vessel to vessel and it is recommended that you identify the requirements particular to your vessel through practice drills.

Primary Action	Secondary Action	Vessel Dependent Action	Skipper should be aware of
Prepare for Emergency	<ul style="list-style-type: none"> Don warm clothing and Lifejacket 		<ul style="list-style-type: none"> Understand most suitable place to store lifejacket Access lifejacket quickly Know how to don lifejacket Be aware what clothing is suitable
Check for damage	<ul style="list-style-type: none"> Check location of damage and watertight integrity In a collision check the other vessels situation and render assistance if necessary 		<ul style="list-style-type: none"> Know how to conduct a check of the vessel Be aware of methods for stopping water ingress
Call Coastguard if assistance required	<ul style="list-style-type: none"> Send DSC Alert and follow up with VHF call 		<ul style="list-style-type: none"> Be aware of correct procedure
Prepare to fight flooding	<ul style="list-style-type: none"> Cut off electrical power in area Shore up area 	<ul style="list-style-type: none"> Start bilge pumps and monitor bilge alarms Turn off seacocks 	<ul style="list-style-type: none"> How to stop electrical power Know location of seacocks and how to turn off Be aware of bilge pump capabilities Be aware how to operate bilge pumps
Prepare LSA		<ul style="list-style-type: none"> Consider deploy liferaft 	<ul style="list-style-type: none"> Know how to release/deploy a liferaft for launching
Identify route to safety	<ul style="list-style-type: none"> Check that it is safe and possible to proceed to a safe area or refuge 		<ul style="list-style-type: none"> Know how to use Nav Aids
Consider anchors to stop going further aground			<ul style="list-style-type: none"> Know how to deploy anchors Wear appropriate PPE for anchor deployment Know lengths of cable deployed Know how to deploy anchor safely.
Reduce weight of vessel to decrease draught			<ul style="list-style-type: none"> Know what could be taken off vessel to decrease weight
If cannot refloat or damage too great remain grounded	<ul style="list-style-type: none"> Decide on abandon ship 		



ANNEX C - CREWED VESSELS

Muster Stations Drill

Purpose

The crew will demonstrate:

- awareness of their personal muster station and that they can don a lifejacket quickly and correctly;
- that those allocated to the lifeboat or liferaft deck can prepare a liferaft for manual launching; and
- that those responsible for other duties undertake them quickly and competently.

Scenario

The vessel will simulate working conditions as if the vessel were fishing with crew asleep in cabins. The crew alarm will be activated and the crew will go to muster stations dressed appropriately to abandon ship, with warm clothing and lifejackets correctly donned.

Crew “asleep” in the cabin will exit the cabin using the emergency escapes. The “duty watch” will close all doors and vents on way to the muster station.

Key Issues

The key issues are:

- crew alarm activated and suitable;
- crew to correct muster stations;
- crew suitably dressed in warm clothing and lifejackets;
- liferafts made ready for deployment;
- duties as posted on Muster List completed; and
- stowage of lifejackets, risks understood and acceptable.

The crew will be accounted for and a report made to the skipper.

Liferafts will be “made ready” to deploy manually but will not be deployed.

Lifejacket Storage Position

Careful thought needs to go into deciding where to store the lifejackets, they need to be stored where there is airflow and where they will not get damp. Access to the lifejackets should be the main concern of the crew, they will be using emergency exits and access to inside the vessels should not be allowed. Can the crew therefore access the lifejackets easily?



Lifejacket donning instructions should relate to the lifejacket types carried on the vessel. More than one type of lifejacket means displaying more than one type of lifejacket donning instructions which need to be displayed where the lifejackets are stored and in crew areas.

Misuse of the Emergency Alarm

The emergency alarm should be distinctly different from the call system used to call the crew out on deck to haul the gear.

Man Overboard Drill

Purpose

To demonstrate

- that the crew can conduct an effective search of the vessel;
- the crew are able to quickly launch the rescue boat or operate recovery equipment to recover a person from the water; and
- the rescue boat crew are aware of the effects of hydrostatic squeeze and how it will affect a casualty suffering from hypothermia.
- The crew are able to recover a person who is either unable to help themselves or unconscious from the water

Scenario

The crew will undertake a “man overboard” drill and will launch and man the rescue boat or deploy the recovery equipment. The rescue boat will be readied and swung out to a side specified by the attending surveyor and launched into the water in a safe and controlled manner.

A member of the crew is believed to have fallen overboard and has not been seen for some time. The attending surveyor will indicate when this crew member was last seen and if the crewman was seen to have fallen overboard.

Key Issues

The key issues are

- Recovery equipment deployed to the rescue area
- rescue boat stores to correct scale (as applicable) and serviceable;
- rescue boat launched in safe manner, crew suitably dressed;
- rescue boat and davit in serviceable condition; and
- search undertaken of vessel for missing crew member.

On completion of this drill the rescue boat will be recovered to the vessel and readied for immediate use.



Man Overboard Recovery System

There are several “man overboard” recovery systems in use on board fishing vessels at this time, Jason’s Cradle and Markus Net to name just two. These systems are permitted to replace rescue boats only when an exemption has been applied for and granted.

Crews should be well trained in the use of these systems and appreciate the limitations of the use of these recovery systems in poor weather conditions as well as fine.

Key Issues

The key issues are:

- system inspected and serviced;
- crew well trained in the use of the system carried;
- system deployed correctly;
- first aid requirements anticipated; and
- system re-stowed and readied for immediate use.



Man Overboard Guidance

The following provides guidance on the actions of the vessel's skipper and crew. These actions are generic and may vary from vessel to vessel and it is recommended that you identify the requirements particular to your vessel through practice drills.

Primary Action	Secondary Action	Vessel Dependant Action	Skipper/Crew Awareness
Throw a life-ring in to the sea as close as possible to person overboard	<ul style="list-style-type: none"> • Throw lifebuoy close to MOB if seen going overboard • If not seen consider light/smoke float to mark position for SAR and search vessel • Collect details of missing crewman for skipper • Post lookouts 	<ul style="list-style-type: none"> • Press MOB on Nav Aid 	<ul style="list-style-type: none"> • Know how to maintain awareness of MOB location • Know how to activate light/smoke float • Know why a light/smoke float will assist • Know how to search vessel effectively
Raise the alarm	<ul style="list-style-type: none"> • Sound main crew alarm • Crew to muster stations with warm clothing/lifejackets on 		<ul style="list-style-type: none"> • Be aware of muster station • Understand most suitable place to store lifejackets • Access lifejackets quickly • Know how to don lifejackets
Inform the coastguard via DSC and / or ch16 Mayday	<ul style="list-style-type: none"> • Keep SAR and vessels aware of situation. 		<ul style="list-style-type: none"> • Be aware of correct procedure
Commence recovery procedure	<ul style="list-style-type: none"> • Commence Williamson turn (if gear in and navigation allows) 	<ul style="list-style-type: none"> • Haul gear • Prepare rescue boat/liferaft • Prepare MOB recovery system • Organise dry clothing and first aid equipment 	<ul style="list-style-type: none"> • Know how to release and deploy liferaft/ rescue boat • Recover crew using MOB systems on board • Know the limitations of the MOB systems • Know what first aid requirements to anticipate



Fire Drill

Purpose

To demonstrate:

- knowledge of ship board equipment and vents;
- donning and use of breathing equipment;
- practical use of hoses and nozzles;
- safe and effective fire-fighting techniques are employed;
- safe and effective techniques used when considering rescue of crew: and
- use of fixed fire suppression gas systems.

During this fire drill the main fire-fighting hoses will be deployed and demonstrated. Once the surveyor is satisfied that the condition of the hoses and nozzles are to standard then the vessel will simulate “dead ship” and the emergency lights, fire hoses and equipment will be tested.

Scenario

Fire reported in area of high fire risk e.g. engine room, galley or spaces with electrical heaters. Prepare to fight the fire and prevent the fire from spreading to other areas of the vessel.

Key Issues

The key issues are

- knowledge of shipboard fire-fighting equipment;
- all vents closed and fans stopped;
- fire mains and hoses proved;
- emergency pumps and hoses proved;
- breathing equipment and safety procedures acceptable;
- use of gas suppression systems understood and appreciated; and
- limitations of fire-fighting equipment carried appreciated.

A useful way to remember how to deal with fires is:

- F** Find and locate fire and determine type (wood/paper, oil, electrical)
- I** Inform by raising the alarm
- R** Restrict by containing the fire (close fire doors, vents, stop fans activate fuel pump stops and quick closing valves)
- E** Evacuate and Extinguish. If there are others on board, make sure they are not in adjacent areas and clear the area. Extinguish if safe to do so.



Fire-Fighting Guidance

The following provides guidance on the actions of the vessel's skipper and crew. These actions are generic and may vary from vessel to vessel and it is recommended that you identify the requirements particular to your vessel through practice drills.

Primary Action	Secondary Action	Vessel Dependant Action	Skipper/Crew Awareness
Raise the alarm on discovery of smoke or fire			
Restrict the fire if possible by closing hatches	<ul style="list-style-type: none"> • Report progress to skipper • Close ventilation • Flaps, fans and doors 		<ul style="list-style-type: none"> • Know how to respond to fuel stops activating • Know how to communicate effectively with each other
Muster crew and call the Coastguard	<ul style="list-style-type: none"> • Don Warm clothing and lifejackets • Send DSC alert, followed by voice transmission 	<ul style="list-style-type: none"> • Account for crew 	<ul style="list-style-type: none"> • Be aware of correct procedure to alert CG • Be aware of muster station • Understand most suitable place to store lifejackets • Access lifejackets quickly • Know how to don lifejackets
Prepare life saving equipment and fire-fighting equipment		<ul style="list-style-type: none"> • Consider deploy liferafts/rescue boats • Ensure access of liferafts away from heat and smoke 	<ul style="list-style-type: none"> • Know where LSA is • Know how to deploy LSA • Know how to release and operate liferafts/rescue boats
If safe, extinguish the fire with due caution to size of fire etc Or escape via liferaft or abandon to water (inform coastguard)	<ul style="list-style-type: none"> • Report Progress to skipper • Set up fire party • Monitor vessel stability • Proceed to Abandon Ship 	<ul style="list-style-type: none"> • If Emergency fuel stops activate how will this affect ability to fight fire • Prime emergency fire hoses and pumps in case emergency fuel stops activate • Crew member dons fire-fighting outfit and breathing gear • Check and clear compartments before using CO2 – also clear CO2 firing point • Check water ingress from hoses and FF appliances, 	<ul style="list-style-type: none"> • Know where Firefighting equipment is • Know how to deploy Fire-fighting equipment • Know what fire equipment to use and when • Know how to don firefighting outfit • Know how to use Breathing apparatus • Know how to ensure compartments are clear before CO₂ used



Hull Damage/Taking Water/Sinking Guidance

The following provides guidance on the actions of the vessel's skipper and crew. These actions are generic and may vary from vessel to vessel and it is recommended that you identify the requirements particular to your vessel through practice drills.

Primary Action	Secondary Action	Vessel Dependent Action	Skipper/Crew Awareness
Sound Alarm	<ul style="list-style-type: none"> Crew to muster stations with warm clothing/lifejackets on 		<ul style="list-style-type: none"> Be aware of muster station Understand most suitable place to store lifejackets Access lifejackets quickly Know how to don lifejackets Be aware of suitable clothing
Check for Water ingress	<ul style="list-style-type: none"> Check location and amount of water ingress Take tank soundings, it might be a fore peak tank breach rather than a hold 	<ul style="list-style-type: none"> Monitor bilge pumps and alarms 	<ul style="list-style-type: none"> Be aware of how to check alarms Be aware of methods for stopping water ingress Be aware how to take tank soundings
Inform Coastguard via DSC	<ul style="list-style-type: none"> Send DSC Alert and follow up with VHF call 		<ul style="list-style-type: none"> Be aware of correct procedure
Prepare to fight flooding	<ul style="list-style-type: none"> Keep skipper aware of water levels/speed of ingress Collect damage control kit 	<ul style="list-style-type: none"> Consider if bailer/bucket will remove water Consider if pumps will cope Consider if additional pumps will help Request portable pumps 	<ul style="list-style-type: none"> Be aware of bilge pump capabilities Be aware how to operate bilge pumps Able to conduct effective communication with skipper Be aware how to use damage control kit
Prepare LSA		<ul style="list-style-type: none"> Secure liferafts/rescue boats in safe area Provide safe means of boarding 	<ul style="list-style-type: none"> Know how to release and deploy liferaft
Consider Abandon Ship	<ul style="list-style-type: none"> Close oil and fuel vents Consider stability of vessel 	<ul style="list-style-type: none"> Consider evacuation of non-essential crew 	



Collision or Grounding Guidance

The following provides guidance on the actions of the vessels skipper and crew. These actions are generic and may vary from vessel to vessel and it is recommended that you identify the requirements particular to your vessel through practice drills.

Primary Action	Secondary Action	Vessel Dependent Action	Skipper/Crew Awareness
Sound alarm	<ul style="list-style-type: none"> • Crew to muster stations with warm clothing/lifejackets on 		<ul style="list-style-type: none"> • Be aware of muster station • Understand most suitable place to store lifejackets • Access lifejackets quickly • Know how to don lifejackets
Check for damage	<ul style="list-style-type: none"> • Check location of damage and watertight integrity • Report to skipper • In a collision, check the other vessels situation and render assistance 	<ul style="list-style-type: none"> • Check for injured/trapped crew • Crew tasked to stop water ingress 	<ul style="list-style-type: none"> • Know how to conduct a check of the vessel • Be aware of methods for stopping water ingress • Be aware of how to check on other vessels situation
Call Coastguard if assistance required	<ul style="list-style-type: none"> • Send DSC Alert and follow up with VHF call 		<ul style="list-style-type: none"> • Be aware of correct procedure
Prepare to fight flooding	<ul style="list-style-type: none"> • Cut off electrical power in area • Shore up area • Report progress to skipper 	<ul style="list-style-type: none"> • Start bilge pumps and monitor bilge alarms • Turn off seacocks 	<ul style="list-style-type: none"> • How to stop electrical power • Know location of seacocks and how to turn off • Be aware of bilge pump capabilities • Be aware how to operate bilge pumps • Able to conduct effective communication with skipper
Prepare LSA		<ul style="list-style-type: none"> • Consider deploy liferaft/rescue boat 	<ul style="list-style-type: none"> • Know how to release/deploy a liferaft for launching
Identify route to safety	<ul style="list-style-type: none"> • Check that it is safe and possible to proceed to a safe area or refuge 		<ul style="list-style-type: none"> • Know how to use Nav Aids
Consider anchors to stop going further aground			<ul style="list-style-type: none"> • Know how to deploy anchors • Wear appropriate PPE for anchor deployment • Know lengths of cable deployed • Know how to deploy anchor safely. • Communication between wheelhouse and anchor party acceptable.
Reduce weight of vessel to decrease draught			<ul style="list-style-type: none"> • Know what could be taken off vessel to decrease weight
If cannot re-float or damage too great remain grounded	<ul style="list-style-type: none"> • Decide on abandon ship 		



Abandon Ship Guidance

The following provides guidance on the actions of the vessel's skipper and crew. These actions are generic and may vary from vessel to vessel and it is recommended that you identify the requirements particular to your vessel through practice drills.

Primary Action	Secondary Action	Vessel Dependent Action	Skipper/Crew Awareness
Sound Alarm			
Muster Crew	<ul style="list-style-type: none"> • Crew to muster stations with warm clothing/lifejackets on • Account for crew 		<ul style="list-style-type: none"> • Be aware of muster station • Understand most suitable place to store lifejackets • Access lifejackets quickly • Know how to don lifejackets • Be aware of suitable clothing
Transmit distress call and message	<ul style="list-style-type: none"> • DSC alert, voice transmission, state position, crew numbers and any injuries 		<ul style="list-style-type: none"> • Be aware of correct procedure
Prepare liferafts and secure painter	<ul style="list-style-type: none"> • Get grab bag, first aid kit, Portable VHF, flares and water • Pay due attention to weather for boarding • Issue Abandon ship order 	<ul style="list-style-type: none"> • Tether liferafts together if more than 1 • Deploy rescue boat 	<ul style="list-style-type: none"> • Know how to release and deploy a liferaft/rescue boat • Know where to make fast a painter • Know how to pull a painter • Know how to board a liferaft/rescue boat
Abandon vessel			
Cut painter at last minute	<ul style="list-style-type: none"> • After cutting, where possible, stay reasonably close to the vessel to increase chances of rescue 	<ul style="list-style-type: none"> • Deploy EPIRB/SART/ PLB 	<ul style="list-style-type: none"> • Know how to activate EPIRBs/SARTs/PLBs

Abandoning the Vessel

If possible survival craft should be boarded dry, but if it is necessary to abandon a vessel by jumping directly into the water, the following procedure should be followed.

Hold lifejacket, block off nose and mouth, keep feet together, check below, avoid obstructions, jump feet first, look ahead parallel to horizon, attempt to land near and slightly ahead of survival craft. Do not jump into boats or on top of liferafts, you may injure yourself or others or damage the craft.



In the Water

A survivor in the water should swim away from a sinking vessel as quickly as possible since when it founders wreckage and debris may surface with great force along with oil.

Get out of the water as soon as possible and remember swimming increases the rate of heat loss, try to slow the onset of hypothermia.



ANNEX D - Medical emergencies checklist

1. Deliver first aid, and make initial assessment
2. Contact Coastguard for advice/medivac
3. Prepare casualty for evacuation, include
4. medical details (see helicopter operations checklist)

Attach any records / relevant information to casualty (passport if abroad)



ANNEX E – MUSTER LISTS EXPLAINED

Muster List

Muster lists are to inform the seaman where to go and what to do in the event of an alarm and one of the first tasks of a new crew member is to find out where he is expected to muster and his duties in the event of an alarm sounding.

The lists should contain the information required to muster the crew together at any given moment. Use of bunk or cabin numbers will enable the crew to establish their muster point and save you time on making new lists when crew leave or join the vessel. Don't forget to allow for additional crew members or other persons carried. Keep muster points to a minimum and in areas easily monitored from the wheel house.

Lists should also clearly state initial duties and responsibilities in the case of an emergency. Crew mustered at the liferafts deck should prepare the liferafts for manual launching when the command has been given. The Chief Engineer will close up engine room and ensure all vents and fans throughout the vessel are shut down.

The pages at the end of this notice contain muster lists for vessels with small or large crew numbers.

Muster lists are in three stages which are:

Stage 1: Muster Station

At the sounding of any alarm the crew will dress in warm clothing suitable to abandon ship and a lifejacket (with light) donned correctly and proceed to allocated muster stations, closing doors on their way through and remain there until released. Crewmen turning up with T-shirts will not last long in a liferaft in the winter and even summer nights can be cold enough to induce hypothermia.

After confirming their presence and the nature of the emergency, consider whether it is safe to close ventilators and undertake their emergency tasks. Crew allocated a muster station at a liferaft or lifeboat stowage position will prepare the craft for manual deployment, not deploying until ordered to do so by the skipper or ship's officer.

Consideration should be given both to the boarding of the liferafts when deployed and the positioning of boarding ladders may be beneficial.

The actions for Stage 2 will vary depending on the nature of the emergency. Therefore two options for Stage 2 are set out below.

Stage 2: Fire Fighting

Once all the crew have been accounted for and liferafts / lifeboats deployed and readied for use the crew guided by the mate will undertake fire fighting duties as detailed and practiced. At least two crew members should be allocated to breathing apparatus and the safety line signals should be known by all. The skipper will be busy enough transmitting safety or distress traffic on the vessel's radio equipment. Ensure all vents



are closed including those which may be within the winch or other deck housing; all vent fans should be stopped.

A further muster of the crew should be undertaken before firing of the CO₂, or other fire smothering gas, to ensure that no persons are in the space about to be filled with the gas. Evacuation of the immediate area of the gas bottles should also be considered due to possible leaks from the valves. Gas bottles should be checked to confirm that the gas from all bottles has been deployed, a “tell tale” sign would be “frosting” of the bottom of each bottle.

Stage 2: Man Overboard

Lookouts should be posted and communications agreed; the first aid kit, recovery system and blankets should be available and deployed. A course should be plotted, reversed and Pan Pan or Mayday DSC alert and voice broadcast sent. The crewman who is suspected to have fallen overboard should be identified and the crew questioned as to last sighting of this person.

The vessel should be searched to ensure that the crewman is not still on board.

Stage 3: Abandon Ship

The order is to be given by the skipper or master and relayed to the crew via the mate or ship’s officers. Where possible announcements by tannoy should be avoided as it is likely to induce panic. Information should be given on the muster list as to which liferaft or lifeboat that each crew member is assigned.

At the order given by the skipper the crew will prepare to abandon ship, no crew member will be given access to the inside of the vessel but will proceed to their designated liferaft or lifeboat. All lifeboats or liferafts should be launched if possible and manned, not forgetting the EPIRB, additional first aid kit, additional distress flares, portable VHF radios and the SARTs if carried. Some crew members will have been allocated special tasks, deploy EPIRB or take additional flares, first aid kit or SART.

The liferafts should be secured together where possible and remain in the vicinity of the vessel or the last known position which was broadcast with the distress message or DSC information. Consideration should be given to a “grab bag” prepared with items to aid survival such as bottled water and tinned high energy chocolate or sugar sweets. Remember survival course training regarding safety and hypothermia.

The following pages are examples of muster lists. You should prepare your own muster lists based on your own vessel layout, equipment and number of crew.



Muster List (Larger Vessels)
Name of Fishing Vessel:

Crew Member	Stage 1 Muster at muster station with warm clothing and lifejacket securely fastened	Stage 2 Form work parties to save the ship and attend to casualties	Stage 3 Abandon ship on verbal order of the skipper
	Muster Point	Emergency Parties	Abandon Ship
Skipper	Muster point 1. Wheel House Don lifejacket. Inform Coastguard by radio.	Maintain communications with Coastguards.	Issue Verbal command Broadcast Mayday. Deploy EPIRB and portable VHF. Ensure all crew has embarked to liferafts. Take charge of liferaft No 1.
Mate	Muster point 1. Wheel House Don lifejacket Account for all crew.	Take charge of emergency parties.	Broadcast to crew, abandon ship to liferafts. Deploy first aid kit, flares, SART and take charge of liferaft No 2.
Bunk 3 Engineer	Muster point 2. Boat Deck Don lifejacket. Ready liferafts for deployment.	Under mates direction undertake first aid duties.	Deploy liferaft to lee side of vessel, secure painter. Abandon ship to liferaft 1.
Bunk 4	Muster point 2. Boat Deck Don lifejacket. Ready liferafts for deployment.	Under mates direction.	Deploy liferaft to lee side of vessel, secure painter. Abandon ship to liferaft 2.
Bunk 5	Muster point 3. Fish Room Hatch Don lifejacket await further orders.	Under mates direction.	Abandon ship to liferaft 1.
Bunk 6	Muster point 3. Fish Room Hatch Don lifejacket await further orders.	Under mates direction.	Abandon ship to liferaft 2.
Bunk 7	Muster point 3. Fish Room Hatch Don lifejacket await further orders.	Under mates direction.	Abandon ship to liferaft 1.
Bunk 8	Muster point 3. Fish Room Hatch Don lifejacket await further orders.	Under mates direction.	Abandon ship to liferaft 2.
Bunk 9	Muster point 3. Fish Room Hatch Don lifejacket await further orders	Under mates direction.	Abandon ship to liferaft 1.
Bunk 10	Muster point 3. Fish Room Hatch Don lifejacket await further orders.	Under mates direction.	Abandon ship to liferaft 2.
Bunk 11	Muster point 3. Fish Room Hatch Don lifejacket await further orders.	Under mates direction.	Abandon ship to liferaft 1.
Bunk 12	Muster point 3. Fish Room Hatch Don lifejacket await further orders.	Under mates direction.	Abandon ship to liferaft 2.
Additional Crew	Muster point 2. Fish Room Hatch Don lifejacket await further orders.	Under mates direction.	Abandon ship to liferafts as directed by the mate.



Muster List (Smaller Vessels)

Name of Fishing Vessel:

Crew Member	Stage 1 Muster at muster station with warm clothing and lifejacket securely fastened	Stage 2 Form work parties to save the ship and attend to casualties	Stage 3 Abandon ship on verbal order of the skipper
	Muster Point	Emergency Parties	Abandon Ship
Skipper	Muster point 1. Wheel House Don lifejacket. Inform Coastguard by radio.	Maintain communications with Coastguards.	Issue Verbal command Broadcast Mayday. Deploy EPIRB and portable VHF. Ensure all crew has embarked to liferafts. Take charge of liferaft No 1.
Mate	Muster point 1. Wheel House Don lifejacket account for all crew.	Take charge of emergency parties.	Broadcast to crew, abandon ship to liferafts. Deploy first aid kit, flares, SART and take charge of liferaft No 2.
Bunk 3 Engineer	Muster point 2. Boat Deck Don lifejacket. Ready liferafts for deployment.	Under mates direction undertake first aid duties.	Deploy liferaft to lee side of vessel, secure painter. Abandon ship to liferaft 1.
Bunk 4	Muster point 2. Boat Deck Don lifejacket. Ready liferafts for deployment.	Under mates direction.	Deploy liferaft to lee side of vessel, secure painter. Abandon ship to liferaft 2.
Bunk 5	Muster point 3. Fish Room Hatch Don lifejacket await further orders.	Under mates direction.	Abandon ship to liferaft 1.
Bunk 6	Muster point 3. Fish Room Hatch Don lifejacket await further orders.	Under mates direction.	Abandon ship to liferaft 2.
Additional Crew	Muster point 2. Fish Room Hatch Don lifejacket await further orders.	Under mates direction.	Abandon ship to liferafts as directed by the mate.

