Report on the investigation of

a fatal accident to a man overboard

from the fishing vessel

Osprey (INS130)

in Lochinver Harbour

20 April 2002

Marine Accident Investigation Branch
First Floor
Carlton House
Carlton Place
Southampton
United Kingdom
SO15 2DZ

Report No 3/2003
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Extract from

The Merchant Shipping

(Accident Reporting and Investigation)

Regulations 1999

The fundamental purpose of investigating an accident under these Regulations is to determine its circumstances and the cause with the aim of improving the safety of life at sea and the avoidance of accidents in the future. It is not the purpose to apportion liability, nor, except so far as is necessary to achieve the fundamental purpose, to apportion blame.

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GLOSSARY OF ABBREVIATIONS AND ACRONYMS

CCTV	:	Close Circuit Television
CPR	:	Cardiopulmonary Resuscitation
HSE	:	Health & Safety Executive
RNLI	:	Royal National Lifeboat Institution
UTC	:	Universal Co-ordinated Time
VHF	:	Very High Frequency

SYNOPSIS

On 20 April 2002, a crew member from the fishing vessel *Osprey*, fell from a ladder between the vessel and Lochinver quay. He drowned.

Osprey was returning from fishing for prawns in the North Minches, off the Scottish coast. Her skipper decided to land the catch at Lochinver quay and collect a new net, so he called Lochinver harbour office to tell them of his intentions. When the vessel arrived at the harbour later that day, the quay was quiet, there was no-one around. The skipper decided to unload his catch first before seeking help with the new net. Conditions were calm, and although it was dark, the quay and vessel were both lit.

As the vessel approached the market quay, her skipper swung the stern in, and applied some stern thrust to check her forward motion. One of the crew members stepped off the gunwale and on to a quay ladder to enable him to receive mooring lines on the quayside. As he neared the top, he fell into the water, between *Osprey* and the quay.

Although close to the quay, the crew member was unable to grab the ladder, so the skipper, seeing the difficulty he was in, threw him a lifebuoy. The crew member could not reach it so the skipper tried again, once more without success. The skipper, therefore, attempted to move the vessel closer, but as he did so, a second crew member entered the water to rescue his colleague, having first removed his outer clothing. The second crew member swam to the lifebuoy, and took hold of his colleague who, by that time, was unconscious. Both men were dragged back to *Osprey* where, with difficulty, they were pulled on board. CPR was administered to the casualty.

After several unsuccessful attempts to resuscitate the casualty, the skipper rang the emergency services using his mobile telephone, knowing that an ambulance was parked close by. After further futile attempts to revive him, the skipper moved *Osprey* around to some concrete steps to provide the paramedics (who had still not arrived) easier access. Using the radio, he then called the coastguard, who began to co-ordinate the rescue effort. A local coastguard and lifeboat man arrived on the scene and took over until the paramedics arrived, some 20-25 minutes later. The crew member was pronounced dead 10 minutes later.

The reason for the crew member falling from the ladder must be speculative. Although it complied with the regulations (Dock Regulations 1988) its ergonomic design was poor and might have led to the fall. However, it is a common design of ladder and the skipper had previous experience of far worse landing facilities.

A letter has been sent to the owner with regard to risk assessment and emergency procedures. The report also recommends that the Health and Safety Executive (HSE) determines if this type of ladder contributes significantly to accidents in dockyards and harbours.

Figure 1

Osprey - port side view

SECTION 1 - FACTUAL INFORMATION

1.1 PARTICULARS OF FV *OSPREY* AND ACCIDENT

Vessel details

Registered owner and skipper	:	Mr John Crockett
Port of registry	:	Inverness (INS130)
Flag	:	UK
Type	:	Fishing vessel (prawn trawler)
Built	:	1970 at Buckie
Classification society	:	-
Construction	:	Wood
Length overall	:	21.69m
Gross tonnage	:	92
Engine power and/or type	:	216kW
Service speed	:	8 knots
Other relevant info	:	Single screw

Accident details

Time and date	:	2240, 20 April 2002
Location of incident	:	58° 8.9' N 005° 14.6' W, Lochinver Fish Market Quay
Persons on board	:	Four
Injuries/fatalities	:	One crewman drowned
Damage	:	None

1.2 BRIEF DESCRIPTION OF VESSEL

The fishing vessel *Osprey* was built in 1970 at Buckie **(Figure 1)**. She is of wooden construction with a central wheelhouse. She is fitted with a shelter deck over the central portion of the vessel, open at either end, and a whaleback forward. The shelter and whaleback are both of steel construction and well-rounded on their upper edges. This ensures good water shedding at sea, but does prevent safe access ashore from on top of the shelter deck and whaleback. Entry into the vessel is via a door at the aft end of the shelter deck.

The main trawl winch is situated immediately aft of the whaleback **(Figure 2)**. The net drum and gallows are behind the wheelhouse. She is also fitted with a power block **(Figure 3)**.

1.3 CREW

Osprey had a crew of four at the time of the accident.

The 39 year old skipper, John Crockett, had been fishing for 25 years. His fishing experience included single and pair trawling, as well as seine netting. He had owned and skippered *Osprey* for 6 years, during which time he had been prawn fishing. He held a Full Mate and Special Certificate and had attended all the mandatory safety courses. Additionally, he had attended a 5 day combined offshore survival course.

Crewman Daniel Macpherson, aged 58, had fished since the age of 15 in a variety of vessels. He had worked with John Crockett for the last 10 years. He had attended the three mandatory safety courses. Dan had also experienced falling overboard himself during his fishing career.

Crewman Raymond Murray, aged 49, had fished since the age of 15. He, too, had served on board a variety of fishing vessels. He had crewed for John Crockett for 3½ years and had attended the mandatory safety courses.

Crewman Mike Simpson, was aged 48. He had also fished from the age of 15. He had worked on board *Osprey* since Christmas 2001.

1.4 ENVIRONMENTAL CONDITIONS

At the time of the accident, conditions in the harbour were calm and there was no wind. It was dry but there was some condensation on surfaces. There had also been some rain while on the way to Lochinver. It was dark, but the harbour was lit by floodlights and *Osprey* had her deck lights on. There was a flood tide running, with low water occurring at 1822, some 3 hours before the incident. It is estimated that the water temperature was 8 to 9°C.

Figure 2

Osprey foredeck area and main winch

Figure 3

Osprey stern view

1.5 NARRATIVE OF EVENTS

All times are UTC.

Osprey departed Lochinver harbour on Wednesday 17 April 2002 to fish for prawns in the North Minches, off the Scottish coast. Her crew were using prawn hopper nets to catch high quality prawns. Over the next few days, their working routine was fairly relaxed; they only worked for 1 to 2 hours and then had 4 hours off. This allowed them plenty of time to rest in between. However, the skipper only really rested between 2300 and 0500 each day, at which time the vessel was laying to with one crewman on watch.

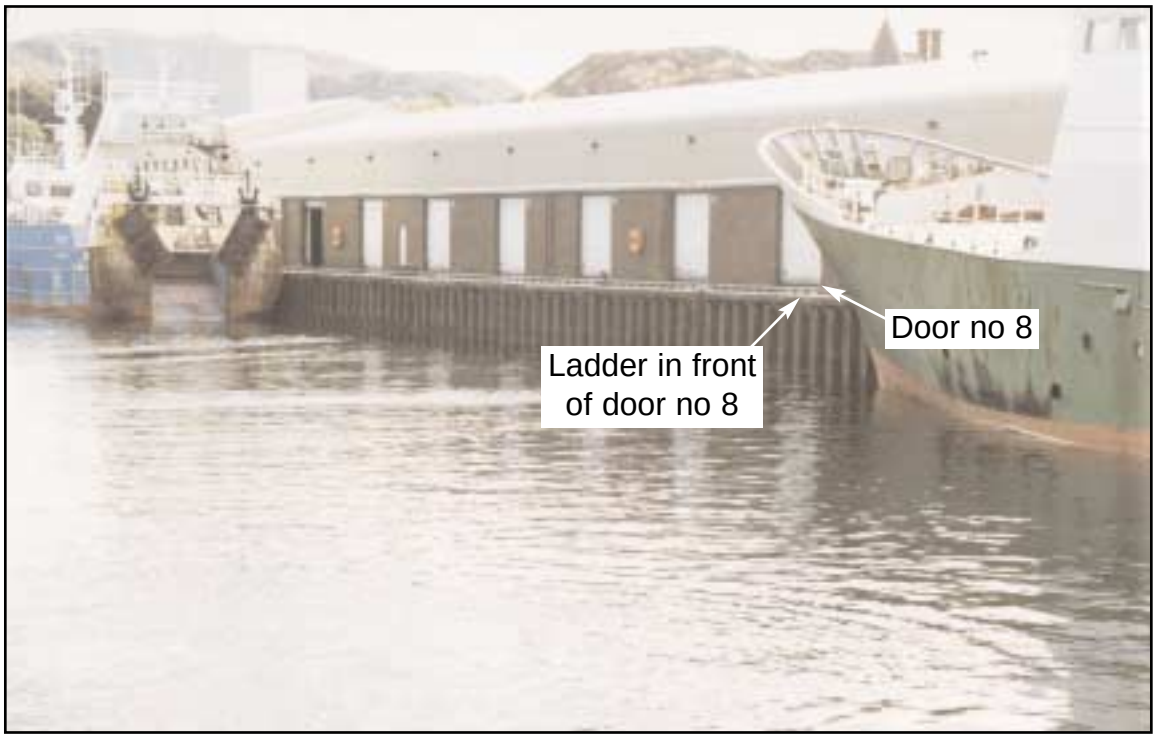
On Saturday 20 April, the skipper decided to land the catch and pick up a new net. He called Lochinver harbour office and informed them of his intentions, asking for assistance with loading the new net. At approximately 2130, *Osprey* entered Lochinver harbour. The new net was on the mending berth, but there was no one on the shore. It transpired that a member of the harbour staff had been trying to contact *Osprey* to find out their arrival time, but after several unsuccessful attempts had decided to wait no longer. The skipper, therefore, decided to unload the catch at the market quay before finding someone to provide fork-lift assistance with the new net.

The skipper headed into the market quay. At 2140, all the crew were at their stations for coming alongside. The skipper brought *Osprey* alongside the quay next to the ladder in front of door number 8 **(Figure 4)**. The ladder in question was steel runged and it was recessed into the quay. Daniel MacPherson was standing on the whaleback with the head line. Raymond Murray was standing on the port side aft, near the gallows, ready with the stern line. Mike Simpson was on the port side of the main deck just at the aft end of the whaleback, ready to step on to the shore ladder using the gunwale as a step **(Figure 5)**. His intention was to climb the ladder to the quayside some 8 to 10 feet above the deck to receive the mooring lines. The skipper was in the wheelhouse, from where he had a clear view forward **(Figure 6).** The port wheelhouse window was lowered to give a good view aft and to aid communication with the crew on deck. This procedure had been carried out many times before.

The skipper headed towards the quayside, swinging the stern to port to bring the vessel's port side towards the quay, and applied astern power to check the vessel's forward motion. The skipper and Daniel MacPherson saw Mike Simpson get on to the ladder **(Figure 7)** and start climbing. Shortly after, he fell into the harbour between the quayside and *Osprey*. Daniel MacPherson, on the whaleback, heard the splash as he fell in and then raised the alarm.

When he fell, he was wearing a shirt, jogging bottoms, an Arran jumper, bib and brace oilskin trousers and boots. The boots were not present when he was recovered.

Figure 4



Lochinvar Market Quay (ladder highlighted)

Figure 5

Osprey, foredeck area from where Mike Simpson steppped on to quay ladder

Figure 6

Skipper’s view from wheelhouse

Figure 7

Market quay ladder concerned

1.6 RECOVERY AND FIRST-AID

The skipper and second crewman were alerted by a shout, and both headed forward to assist. Although Mike Simpson was thrashing about in the water close to the quay ladder, he seemed unable to reach it. The skipper threw him a lifebuoy, which had been stowed under the whaleback but, although it came very close to him, he could not grab hold of it. The lifebuoy was pulled back and re-thrown. He again made no attempt to grab it. *Osprey* and the casualty had, by that time, drifted away from the quayside. The skipper decided to try and get *Osprey* alongside the casualty to recover him quickly. Once in the wheelhouse, the skipper gave the vessel a kick ahead and shouted for some directions from up forward. He received no reply, so checked the forward motion, and ran back to the forward end of the vessel.

By then, Daniel MacPherson had stripped off his oilskins and boots and had climbed down into the water to assist the casualty who, by then, was struggling, with his head submerged. He swam towards him and took hold of him with one hand and held on to the lifebuoy with the other. The two men in the water were pulled back to the vessel, and the casualty was recovered from the water first, because, by that time, he was unconscious. This process was difficult, and involved the skipper having to climb over the side to help lift the casualty aboard.

Once on deck, the skipper attempted CPR but he was concerned because no water had come out of the casualty's mouth, and he couldn't find a pulse. He then became aware that Raymond Murray was having difficulty recovering Daniel MacPherson. Conscious of the danger posed by hypothermia and exhaustion, the skipper decided to help recover Daniel MacPherson first, before returning to the casualty. This, again, was managed with some difficulty. Once on board, Daniel MacPherson went below to change his clothes and get warm. The skipper and second crewman returned to administering CPR to the casualty.

The skipper realised quickly that he had not requested any medical assistance from the emergency services. Remembering that the ambulance for Lochinver was parked just up the road, he rang the emergency services using his mobile telephone. He returned to provide first-aid, but it was apparent that it was having no effect on the casualty's condition. The skipper decided to take *Osprey* round to the concrete steps on the other side of the West Finger Jetty, to enable paramedics to reach the vessel more quickly. By that time, *Osprey* had drifted away from the quay, and it was a short trip to the steps where the vessel was quickly secured. Once made fast, attention returned to the casualty.

By 2200, the skipper was wondering where the paramedics were. Using the VHF radio, he called the coastguard and, within 5 minutes, two men arrived at the berth. The two men, a local retained coastguard and a lifeboat crewman, took over the first-aid effort while awaiting the paramedics.

It transpired that the paramedics had been waiting for *Osprey* at the Old Market Quay, and had been given the message that she was 10 minutes out from Lochinver harbour and on her way in. They eventually arrived on scene at 2230, because one of the ambulance crew happened to notice the coastguard's car at the end of the West Finger Jetty, so they went to find out what was going on.

A doctor also arrived on scene shortly after and, at 2240, Mike Simpson was pronounced dead. The postmortem determined that the cause of death was drowning.

1.7 LIFESAVING EQUIPMENT

None of the crew was wearing lifejackets at the time of the accident. Six standard solid foam lifejackets were stored in the accommodation, and a single inflatable lifejacket was stored in the wheelhouse for the on-watch crewman.

The skipper knew that forcing his crew to wear lifejackets would probably have been met with resentment, and possibly have led to them looking elsewhere for work. The pool of available crew was so small that the skipper recognised that if this happened, he would be unable to operate.

A lifebuoy attached to a safety line was positioned under the whaleback. The second crewman used this to recover the casualty from the water.

1.8 INITIAL INVESTIGATION

The local police began their own investigation shortly after the incident.

An HSE inspector visited Lochinver on 24 April to check for any hardware or operational problems concerning the harbour. None were found that were worthy of comment. The recessed quay ladder **(Figure 7)** was inspected, and appeared to be in good condition with no missing rungs. The HSE then formally handed over the investigation to the MAIB on 25 April, in accordance with the HSE/MCA/MAIB Memorandum Of Understanding.

Some digital CCTV footage of *Osprey* coming alongside the market quay was available but, unfortunately, was not complete by the time any external authorities saw it. This was because of a problem with the write-over time being reset to 4 days rather than 7 days when the system had last been repaired. The footage ended just as *Osprey* came alongside.

SECTION 2 - ANALYSIS

2.1 AIM

The purpose of the analysis is to determine the contributory causes and circumstances of the accident as a basis for making recommendations to prevent similar accidents occurring in the future.

2.2 CAUSE OF ACCIDENT

The precise reason why Mike Simpson fell from the ladder will never be known, but it is possible to suggest some likely causes:

- Although there was no frost in the air, condensation was present. A steel ladder would certainly attract condensation, thus making the rungs slippery.
- Some seaweed or other material might have been deposited on the ladder at high water and, as it was dark, it might not have been visible.
- Oil might have been present on *Osprey*'s deck as a result of oiling the main trawl winch. Oil might have been picked up on the crewman's boots, causing him to slip on the ladder.
- Mike Simpson might have missed his footing or handhold in the relative darkness. This might have been while he stepped from the top of the ladder, as there were no handrails, only a simple handhold on the quay.
- Lastly, a medical reason, undetected by the postmortem, might have made Mike Simpson have a blackout or muscle spasm, causing him to lose his grip.

2.3 HARBOUR FACILITIES

Lochinver harbour is a modern fishing port with good facilities. Although not manned 24 hours a day, harbour staff are available if requested. It would appear that, although the skipper had informed the harbour authorities he was coming in that evening, the shore staff were unsure of a time of arrival. After several attempts to contact *Osprey,* they left the harbour. For smaller fishing vessels under 24m in length, providing assistance for coming alongside was not an essential role for harbour staff. If they happened to be around they would help, but, generally, skippers were expected to use their crews to make fast.

Negotiating the ladder on the market quay obviously contributed greatly to the difficulty in coming alongside the quay. This process is frequently carried out by fishing vessels all over the British Isles. Mike Simpson had stepped from vessels, to quay ladders, on many occasions during his career as a fisherman. Many times in the past the skipper had used ladders and quays which were in a far worse condition. However, could anything have been done to improve this ladder, and make it safer to use?

It would appear that, even though the harbour was constructed before the Dock Regulations 1988 came into force, the ladder complied with its requirements, which state:

> *7(1) Access to ship- where no safer means of access can be provided, a system of fixed ladders should be provided on shore where there is regular need for them. Any such ladders should be adequately protected from damage by ships, be recessing, fendering or otherwise.*
>
> *7(4) All ladders (whether portable or not) shall be of good construction, sound material, of adequate strength for the purpose for which they are used, free from patent defect and properly maintained.*
>
> *7(5) A ladder shall not be used unless-*
>
> *a) effective measures are taken to prevent it from slipping or falling; and*
>
> *b) it extends to at least 1m above the place of landing to which it provides access, or there is other adequate handhold.*

In this case, an adequate handhold is provided on the quay some 0.3m from the quay edge **(Figure 7)**. However, it would be far more difficult to use than two handrails which extend 1m above the quay. Negotiating the top of this ladder was difficult. From an ergonomic point of view, the ladder is poorly designed; it is used mainly when there is a need to keep a quay clear of vertical obstructions (to allow the operation of cranes and forklifts for example). Unfortunately, this design of ladder is very common throughout the British Isles, and it is not known whether it contributes significantly to the number of dockside accidents nationally. A recommendation is made to the HSE to investigate whether these types of ladder present a significant risk to harbour/dock safety. This work can then feed into the review being conducted by the HSE of the Approved Code of Practice to the Docks Regulations, *Safety in Docks*. Guidance on dock/quayside ladders, and, in particular, their ergonomic design, can be provided to ensure the risk of using these ladders is reduced to as low as is reasonably practical.

It must be remembered that the quay ladders are not only used for crew access to the shore when coming alongside. Once moored, crew will still use them for access to and from the quay, and a slip or fall in this case may result in serious injury.

2.4 EMERGENCY PROCEDURES

Once the crewman was in the water, it was obvious that he needed to be retrieved as soon as possible. The water was very cold (approximately 8 to 9°), and the casualty was wearing what became very heavy clothing. Even ‘good swimmers’ can still be susceptible to ‘cold shock’ within the first 2 minutes of being in the water, and this leads to gasping and rapid exhaustion. In a situation such as this, it is very easy to panic and forget simple rules. Initially, there

seemed to be little problem, as the incident occurred very close to the ladder. Very quickly it became clear that the casualty was able to reach neither the ladder, nor the lifebuoy which was thrown to him. This made the rescue very difficult and, quite rightly, the skipper did not want anybody else in the water. With the benefit of hindsight, a strategically placed boat hook, or other such device, would have been helpful at this time. The skipper had tried to move *Osprey* closer to the casualty, but this action was overtaken by other events as Daniel MacPherson went into the water to help.

Jumping in to try and help somebody in the water is a very brave thing to do, but it must only be as a last resort. In this instance, outer clothes and boots were removed before entering the water and entry was not by jumping, because he did not want a wave to swamp the casualty. As a result of the cold water temperature, Daniel MacPherson experienced great difficulty swimming, and, by the time he reached the casualty, he was exhausted. Simply hanging on required considerable effort.

Recovery of a man overboard, especially when he is unconscious, is never straightforward. However, considering, and deciding what should happen, during emergencies such as man overboard, fire, abandoning ship, flooding and helicopter rescue, is an essential part of conducting a fishing vessel risk assessment. Although no two man overboard incidents will ever be the same, it is possible to develop a basic procedure, which the crew can follow in an emergency. Practising the procedure also contributes tremendously to the success rate. Canadian west coast fishermen are required to carry out drills regularly according to regulations. Conducting effective drills ensures the crew are practising safety and are ready for an emergency. The UK pamphlet 'Man Overboard Procedures for Fishing Vessels' is included at **Annex 1** for general guidance.

The skipper and crew had not conducted a risk assessment for their vessel, mainly because they were awaiting the opportunity to attend the relevant course. Fishing vessels with smaller crews have greater problems getting on these courses because a course will only run if there are sufficient people available at the time to attend. This should not, however, prevent fishermen from conducting a risk assessment until they have done so. The risk assessment is required for the fishermen's benefit. Sitting down and thinking through the various risks involved with their fishing operations will hopefully remind all involved when greater caution is required. A risk assessment could perhaps have also picked up the hazard of oil on deck, and resulted in better maintenance regimes for deck machinery.

It is of particular relevance that the new Code of Practice[1], which came into force on 23 November 2002, requires all fishing vessels to carry a lifesaving appliance, which provides a means of recovering a person from the water. Section 7 of the Code is included at **Annex 2**.

[1] The Code of Safe Working Practice for the Construction and Use of 15 metre Length Overall to less than 24 metre Registered Length Fishing Vessels, MSN 1770 (F)

The skipper notified the emergency services as soon as the casualty was back on board *Osprey*. Unfortunately, he called the ambulance service direct via a mobile telephone, believing he would get a faster response. He knew the ambulance was parked nearby and could be there in minutes. It was only approximately 10 minutes later that the skipper called the coastguard, which co-ordinated emergency personnel. Even so, there was some confusion, as it was discovered later that the ambulance had been called and was waiting for *Osprey* to arrive at the Old Market Quay, believing that she was on her way into Lochinver harbour. Providing clear and concise information to the coastguard is essential if emergency services are to be effective. The coastguard can also obtain an approximate position by using radio direction finding equipment, which is not possible when using a mobile telephone. Generally speaking, the coastguard should be notified first for maritime emergencies to allow effective co-ordination of the rescue services. Ideally, a crew member not involved in any emergency response should contact the coastguard or, if crew numbers make this impractical, as soon as it is convenient to do so.

2.5 LIFESAVING EQUIPMENT

This accident provides yet further evidence of the benefit of personal flotation devices. None of the crew was wearing one. Had Mike Simpson been wearing a lifejacket, the outcome could have been very different. The usual argument for not wearing lifejackets is that they are too bulky and get in the way, but even this is not applicable in this instance. Putting on an inflatable lifejacket as you come alongside is not an overly onerous task, and it may save your life. Any hazardous duty which endangers the crew, and increases the risk of falling overboard, should necessitate the wearing of one. In this instance, had a lifejacket been worn, the rush against time would certainly have been avoided, because the crew would have known that the man in the water could float without assistance.

Since the accident, the skipper has purchased inflatable lifejackets for his crew. However, it appears that there is still a reluctance to wear them. Sixty five people died as a result of falling overboard from UK fishing vessels between 1990 and 2001 – that is 25% of all work-related deaths on UK fishing vessels. It is more than likely that many of these lives would have been saved if they had been wearing a lifejacket or other personal flotation device.

Clearly, the lifebuoy played an essential part in this accident, as it enabled the crew member attempting the rescue, to stay afloat while he held on to the casualty. It was readily available, and was deployed easily, complete with lifeline. Careful positioning and securing of lifebuoys will always ensure that they are effective when required.

SECTION 3 - CONCLUSIONS

3.1 CONTRIBUTING FACTORS

Mike Simpson drowned because:

- The cold water temperature led to ‘cold shock’ which caused rapid incapacitation.
- The clothing worn at the time became very heavy once in the water, making swimming very difficult.
- He did not wear a lifejacket.

3.2 FINDINGS

1. No harbour personnel were present to assist with coming alongside. [2.3]
2. The crew were familiar with the process of coming alongside as they had done so many times before. [2.3]
3. The crew employed on *Osprey* had extensive experience. [2.3]
4. No risk assessment had been conducted for the vessel. [2.4]
5. There was no manoverboard procedure. [2.4]
6. The water temperature was only 8°C. [2.4]
7. None of the crew was wearing lifejackets. [2.5]
8. It was very difficult to recover the casualty on board. Lifesaving equipment to do this very task has been required by fishing vessel regulations since 22 November 2002. [2.4]
9. The ambulance service was called first; it would have been better to have called the coastguard. [2.4]
10. The quay ladder did not have handrails extending above the quay, but it still met the requirements of the Docks Regulations 1988. [2.4]

SECTION 4 - ACTION TAKEN

The Chief Inspector has written to Mr J Crockett (owner/skipper), regarding the following safety issues which have arisen as a result of this investigation:

a) Risk assessment and emergency procedures.

b) Lifejackets.

SECTION 5 - RECOMMENDATIONS

The **Health and Safety Executive, as the regulatory authority for docks**, is recommended to:

1. Review previous accidents involving recessed ladders in quay/dock walls to establish if the type of ladder presents a major risk to safety, and whether the design needs to be changed.

Lochinver Harbour Authority is recommended to:

2. Review its policy with respect to the provision of shore assistance in making smaller fishing vessels fast alongside its quays.

Marine Accident Investigation Branch
January 2003

ANNEX 1

Safety on the Sea - Manoverboard Procedures for Fishing Vessels

MAN OVERBOARD PROCEDURES FOR FISHING VESSELS

SAFETY ON THE SEA

FOREWORD

Whether your boat is large or small, commercial or pleasure, this booklet provides useful basic guidance on preventing and, if necessary, dealing with Man Overboard situations. The intention is to cover the principles so that readers can develop them for use aboard their own boats where equipment and circumstances will differ.

This booklet has been produced by the RNLI's Sea Safety Liaison Working Group which has representation from the following organisations and agencies:-

British Marine Industries Federation (BMIF)
Coastguard Agency (COASTGUARD)
Marine Safety Agency (MSA)
Royal Life Saving Society (RLSS UK)
Royal National Lifeboat Institution (RNLI)
Royal Yachting Association (RYA)

In addition the booklet has been approved by:-

National Federation of Fishermen's Organisations (NFFO)
Scottish Fishermen's Federation (SFF)
Northern Ireland Fishermen's Federation (NIFF)
Sea Fish Industry Authority (SFIA)

Further copies are available from any of the organisations/agencies mentioned above. See back pages for addresses and telephone numbers.

Let's Face Facts

Quote from an ex-fishing skipper who is a serving lifeboat coxswain.

"Could you as a skipper of a fishing vessel cope with the reality of tragedy at sea?

Could you come ashore and tell a wife or mother that their loved one has been lost?

Would you be filled with doubt on how you reacted to a 'Man Overboard' situation?

Would you keep asking yourself 'Could I have done more? Should I have reacted differently? Just where was that piece of life saving equipment that would have made all the difference?'"

PREVENTION

- Many lives are lost from cold shock and drowning or through loss of consciousness brought on by hypothermia. You can reduce the risks by wearing:-
  - effective protective clothing - a waterproof outer covering plus several thin layers will give better protection than one thick layer.
  - a suitable working lifejacket or buoyancy aid fitted with a **safety harness** and D ring. The lifejacket should be fitted with retro reflective tape and a light to assist location at night.
  - choose a lifejacket or buoyancy aid which will withstand the rigours of your workplace and which will not snag on deck machinery or fishing gear.
- Many fishing vessels are fitted with shelter decks which provide a safer working area for fishermen - this does however make it more difficult to recover a person who has gone overboard.
- When working on deck be aware of the potential hazards - blocks, wires, fishing gear. Make sure loose gear not being used is securely stowed.
- Never stand in a bight of rope or hold on to gear which is deployed over the side.

- In heavy weather or other potentially dangerous working situations on deck when there is a risk of being thrown overboard, consideration should be given to using a safety line
- Man Overboard drills should be practiced regularly
  – Practice makes perfect!

  *Training courses in basic sea survival and fire fighting are mandatory for all fishermen born on or after 1/3/54 (1989 Safety Training Regs for F/Vs) and more information about them can be obtained from the **SFIA Tel 01482 327837** and the **MSA Tel 01703 329100**

In recent years considerable research, backed up by extensive sea trials, has been carried out to identify suitable close fitting inflatable lifejackets, buoyancy aids and protective clothing for use within the industry. This research has been co-ordinated by the **MSA** and **SFIA**, and has involved manufacturers of such equipment. Advice can be obtained from either organisation (see inside back cover for details).

ACTION

If you see somebody go overboard in good visibility

- Raise the alarm by shouting **"Man Overboard!"** to alert all on board
- Immediately throw the lifebuoy together with its smoke float/light unit overboard. The person in the water may not be able to reach it, however it will mark his approximate position.
- Ensure that the helmsman is aware of the situation. He should mark the vessels position - most navaids have a MOB function. It may prove vital if contact is lost with the person in the water.
- Act as lookout, or ensure that somebody else does, watch the person in the water and point at them continuously. Keep the helmsman advised.
- If it is safe and depending on how the fishing gear is deployed the helmsman should start to turn as quickly as possible. Delay increases distance and the possibility of losing sight of the person in the water.
- In most circumstances and weather conditions, recovery of a person from the water should be carried out from the weather side of your vessel. This prevents the vessel from drifting down on top of them and reduces the risk of ropes and heaving lines, being used for the recovery, from fouling the propeller.
- Deploy a scrambling net or ladder if possible.
- Have a heaving line ready to throw to the person in the water in case it is difficult to manoeuvre alongside them.
- A boat hook can assist in getting the person back alongside.

If you see somebody go overboard in poor visibility

- Raise the alarm by shouting **"Man Overboard!"**
- Immediately throw the lifebuoy together with its smoke float/light unit overboard. The person in the water may not be able to reach it, however it will mark his approximate position.
- Ensure that the helmsman is aware of the situation. He should mark the vessels position - most navaids have a MOB function. It may prove vital if contact is lost with the person in the water.
- In poor visibility or when the weather and sea state are heavy, the 'Williamson Turn' is a good way for the helmsman to get back on to a reciprocal course which will take you back down the track.
  - Put the helm hard over to starboard and add *60° to your initial course.
  - On the new heading, put the helm hard over to port.
  - When the compass is reading the initial course + 180° steer a reciprocal course and the casualty should be ahead of you.
- In heavy weather the reciprocal course may bring the sea astern or on the quarter in which case a short approach head to sea may be more appropriate.

ACTION

- During the hours of darkness a white parachute flare, which will pick up the retro reflective tape on clothing, can be used to illuminate the area. Remember night vision will be impaired if you look at the flare.

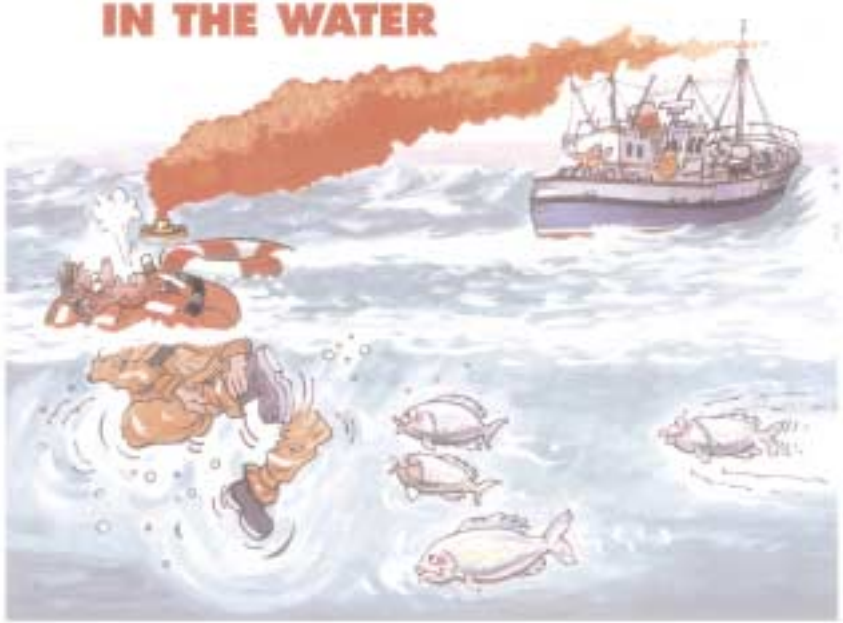
Additional follow-up action

The following additional actions should also be considered depending on the circumstances:-

- Sound an alarm of 6 short blasts if there are other vessels in the vicinity.
- Initiate a Pan broadcast.
- Hoist O (Oscar) flag meaning Man Overboard.

- Advise Coastguard of the situation.
- Consider starting an appropriate search pattern if the person in the water is still missing.

IN THE WATER



If you fall or are washed overboard the actions mentioned below will assist you to survive until you can be recovered:-

- Tighten up the wrist, ankle and neck fastenings of your protective clothing to reduce heat loss and the onset of hypothermia. Do not attempt to swim back to the vessel for the same reasons.
- In rough conditions, turn your back to the waves to keep your mouth and nose clear of spray.
- Look for the lifebuoy which may be close by. If you can reach a lifebuoy, invert it over an upraised arm thence over your head and shoulders. Remain calm, keep your legs close together and restrict your movements to stop flushing cold water under your clothing.

IN THE WATER

- It is essential to conserve as much energy as possible – you will need it to assist with your recovery from the water.
- If wearing a lifejacket remember to activate the light at night. Use the whistle to assist those searching for you. You can increase your buoyancy with some types of lifejacket by additional oral inflation – in cold water you may need to do this.
- What ever your situation conserve your body heat – the greatest threat to your survival is from the cold. **Remember** in UK waters during the winter your ability to assist in your rescue will be greatly diminished after ten to fifteen minutes.
- If you are not wearing protective clothing or any of the safety equipment advised in this booklet **– Good Luck, you'll need it!!**

RECOVERY

In recent years a lot has been written about the problems of recovering fishermen who have either fallen or been washed overboard.

There are a variety of proprietary MOB rescue systems which are adaptable for most vessels and circumstances.

For fishing vessels without a dedicated MOB rescue system the undermentioned options should be considered:-

- A technique of circling a person in the water whilst towing a lifebuoy on a line is an effective way of making contact particularly in heavy weather. Never throw a lifebuoy directly at a person in the water.

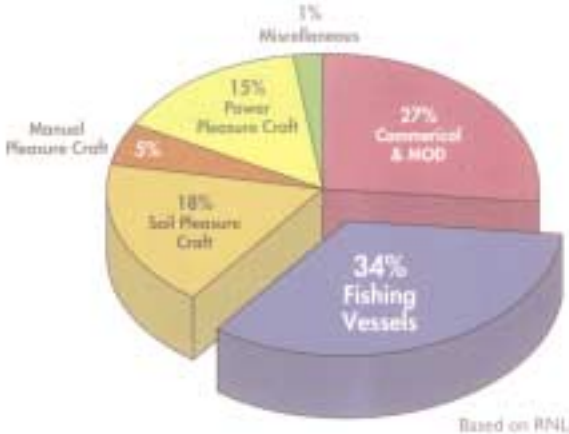
RECOVERY

- A conscious person in the water can be recovered using a rigid ladder, scrambling net or any device which can be climbed. A scrambling net has the further advantage of allowing the person in the water to make themselves fast in it so that you can haul them on board.
- A lifting strap passed round the back and under the arms of a person in the water, attached to a suitable recovery rope can prove invaluable. Recovery on board can be assisted by using a creel net hauler or a mechanical lifting device.
- An inflatable dinghy or liferaft provides another option for recovery. Partial deflation of part of the sponson can assist the recovery of the person into the dinghy or liferaft.
- A parbuckle can be improvised using ropes or a net in order to recover a person from the water.
- All the options mentioned are greatly assisted if the person in the water is wearing a lifejacket and harness onto which a line can be easily clipped to provide assistance from the deck - **Remember** lives have been lost because of delays in recovery after successfully getting alongside people in the water.
- Crew members effecting the rescue of a person from the water should wear a lifejacket complete with harness and lifeline to ensure they do not get pulled into the water as well - this is vital if a crew member goes over the side to assist in a rescue.
- A rescuer should only enter the water as a **last resort. Don't** compromise your own safety and do not leave your vessel dangerously undermanned.

THE STATISTICS

Man Overboard – an ongoing problem!

All Launches to Man Overboard incidents (1990–95)



Based on RNLI Statistics

Lives lost in Man Overboard incidents (1990-95)

During the last six years Man Overboard situations have resulted in 99 launches to fishing vessels and 45 lives lost.

Don't become one of these statistics!

ADDITIONAL INFORMATION

Advice on the information detailed in this booklet and on the requirements of current safety legislation, recommended safety provisions and training is available from your local MSA Marine office or from MSA Headquarters.

Local MSA Offices

South of England District*
Spring Place
105 Commercial Road
Southampton
Hampshire
SO15 1EG
Tel: 01703 329329
Fax: 01703 329351

Scotland and Northern Ireland District
District Marine Office
Blaikies Quay
Aberdeen
AB9 2AZ
Tel: 01224 574122
Fax: 01224 571920

North England and Wales District
Crosskill House
Beverly, Hull
North Humberside
HU17 9JB
Tel: 01482 866606
Fax: 01482 869989

*Also MSA Headquarters.

Addresses and contact numbers for SFIA and the Fishing Federations.

NFFO Offices
Marsden Road, Fish Docks
Grimsby DN31 3SG
Tel: 01472 352141
Fax: 01472 242486

SFF
16 Bon Accord Crescent
Aberdeen AB1 2DE
Tel: 01224 582583
Fax: 01224 574958

NIFF
1 Coastguard Cottages
The Harbour Portavogie
Co. Down BT22 1BA
Tel: 01247 771946

SFIA
Headquarters
18 Logie Mill
Logie Green Road
Edinburgh EH7 4HG
Tel: 0131 558 3331
Fax: 0131 558 1442

SFIA
Training Division
St. Andrew's Dock
Hull
HU3 4QE
Tel: 01482 327837

WHO WE ARE:	WHAT WE DO:
BMIF British Marine Industries Federation Meadlake Place, Thorpe Lea Road Egham, Surrey TW20 8HE Tel: 01784 473377	We are the trade federation for the UK marine industry. Our primary objective is to represent members' interests. We are equally committed to ensuring that the growth of boating and water-based leisure is achieved through a harmonious relationship with the environment.
COASTGUARD The Coastguard Agency Spring Place, 105 Commercial Road Southampton, Hampshire SO15 1EG Tel: 01703 329100	Our aim is to minimize loss of life at sea and on the coasts of the UK, and to minimise pollution from ships to the seas and coastline of the UK. We coordinate search and rescue.
MSA Marine Safety Agency Spring Place 105 Commercial Road Southampton, Hampshire SO15 1EG Tel: 01703 329100	We are the Government body responsible for marine safety. Our aim is to develop, promote and, if necessary, enforce high standards of marine safety and to minimise the risk of pollution of the marine environment from ships.
RLSS (UK) The Royal Life Saving Society UK Mountbatten House Studley, Warwickshire B80 7NN Tel: 01527 853943 Registered Charity No. 279782	Our aim is to prevent loss of life through drowning and asphyxiation, and we are the principal provider of lifeguard training throughout the UK.
RNLI Royal National Lifeboat Institution West Quay Road Poole, Dorset BH15 1HZ Tel: 01202 671133 Registered Charity No. 209603	We exist to preserve life from disaster at sea. This is achieved by providing a fleet of lifeboats, with 24 hour cover, and crewed by well-trained volunteers. In addition, we work with other national organisations to promote sea safety. We are funded entirely by voluntary contributions.
RYA Royal Yachting Association RYA House, Ramsey Road Eastleigh, Hampshire SO50 9YA Tel: 01703 627400	We are the governing body representing sailing, windsurfing and motorboating in the UK. We offer a wide range of benefits and advice plus full training courses for all types of recreational craft.

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ANNEX 2

Section 7 of the Fishing Vessel Code of Safe Working Practice for the Construction and Use of 15 metre length overall (LOA) to less than 24 metre registered length (L) Fishing Vessels

MERCHANT SHIPPING NOTICE

Maritime and Coastguard Agency

MSN 1770 (F)

The Fishing Vessels Code of Safe Working Practice for the Construction and Use of 15 metre length overall (LOA) to less than 24 metre registered length (L) Fishing Vessels

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

This Notice should be read in conjunction with the Fishing Vessels (Safety of 15-24 Metre Vessels) Regulations SI 2002.

Summary

This notice draws attention to the Fishing Vessels (Safety of 15-24 Metre Vessels) Regulations 2002 and incorporates the full text of the Code of Safe Working Practice for the Construction and Use of 15 metre (LOA) to less than 24 metre (L) Fishing Vessels.

1. This Merchant Shipping Notice is associated with The Fishing Vessels (Safety of 15-24 Metre Vessels) Regulations 2002. It sets out the full text of the Code of Safe Working Practice for the Construction and Use of 15 metre (LOA) to less than 24 metre (L) Fishing Vessels (the Code).

2. The Regulations give statutory force to the Code and replaces the requirements of the following Regulations as they apply to fishing vessels from 15 metres (LOA) to less than 24 metres (L):

   - the Fishing Vessels (Safety Provisions) Rules 1975;
   - the Merchant Shipping (Crew Accommodation)(Fishing Vessels) Regulations 1975;
   - the Fishing Vessels (Life Saving Appliance) Regulations 1988.

3. The Regulations and the Code have been introduced following consultation with the industry and other interested bodies and represents the second stage of a wider review of requirements aimed at increasing the safety of fishing vessels and survival of the crew in the event of an accident.

4. To comply with the Code, vessel owners will be required to:

   - to meet the requirements for the construction and use of fishing vessels as set out in the Code;
   - complete the annual self-certification in the form laid out in Annex 2 of the Code;
   - present new vessels for survey during and on completion of construction, or on transfer to the UK Register prior to issue of a UK certificate;
   - present the vessel for renewal survey at intervals not exceeding 5 years;
   - present the vessel for inspection mid point in the survey cycle;
   - to present the vessel for survey prior to completing major repairs or modifications.

5. Additional guidance is contained in Marine Guidance Note MGN224(F) and outlines the main statutory requirements and responsibilities for new and existing vessels.

6. Fishing Vessels between 12 metres in registered length and less than 15 metres length overall will, from 23 November 2002, have to comply with the revised Code of Practice for Small Fishing Vessels. MSN 1756 Amendment No. 1 amends MSN 1756(F) – "The Fishing Vessel Code of Practice for the Safety of Small Fishing Vessels under 12 metres in length" and introduces the new requirements for these vessels.

Fishing Vessel Safety Policy
Maritime and Coastguard Agency,
Spring Place,
105 Commercial Road,
Southampton SO15 1EG.

Tel: 023 8032 9154
Fax: 023 8032 9173
June 2002

File ref. MS 088/001/0419

Safer Lives, Safer Ships, Cleaner Seas

Department for **Transport**

An executive agency of the Department for Transport

CHAPTER 7 (LIFE-SAVING APPLIANCES)

7.1 LIFE SAVING APPLIANCES

7.1.1 General

7.1.1.1 Life saving appliances that are required to be of approved type should either have MCA type approval or be approved to SOLAS 1974 convention requirements, as amended, by a signatory Administration to that convention, or by a recognised classification society

7.1.1.2 Life saving appliances that are not required by this chapter to be of approved type should be to the satisfaction of the Certifying Authority.

7.1.1.3 Adequate instructions for use should be provided with each life saving appliance and also adjacent to its stowage position when appropriate.

7.1.1.4 Life saving appliances intended for use in the sea should be fitted with retro reflective markings to the satisfaction of the Certifying Authority

7.1.2 Vessel Requirements

7.1.2.1 The following life saving appliances should be provided:

i) at least two liferafts of approved type, each able to accommodate all persons onboard. One of the liferafts should be capable of being launched from either side of the vessel. Vessels which operate in sea area A1*, that are not engaged in trawling with beams may, as an alternative to complying with this requirement, be fitted with just one liferaft, provided it is of sufficient capacity to accommodate all persons on board and capable of being launched from either side of the vessel;

*ie sea area A1 as defined in The Merchant Shipping (Radio) (Fishing Vessels) Regulations SI 1999 No. 3210, meaning an area within the Radiotelephone coverage of at least one VHF coast station in which continuous DSC alerting is available, and specified as such an area in Volume 5 of the Admiralty list of Radio Signals.

ii) a lifejacket of approved type for every person on board plus an additional two lifejackets;

iii) at least two lifebuoys, one of which should be provided with a self igniting light and self activating smoke signal and the other provided with a buoyant line of at least 18 metres in length, all of approved type;

iv) means of recovering a person from the water;

v) a line throwing appliance of approved type, with minimum two shot capability;

vi) 6 rocket parachute flares, of approved type; and
2 buoyant smoke signals, of approved type; and
4 red hand flares, of approved type;

vii) one hand held VHF radio, of an approved type;

viii) one float free satellite EPIRB, of an approved type.

7.1.3 **Availability, Stowage and Maintenance of Survival Craft and Life Saving Appliances**

7.1.3.1 All items of life-saving and survival equipment required by this Code should:

i) be periodically serviced in accordance with the manufacturers instructions;

ii) be mounted or stowed correctly in their assigned locations;

iii) be maintained in good working order and be ready for use;

iv) be checked before the vessel leaves port and whilst at sea;

v) be inspected at regular intervals.

Refer to MGN 62 (M+F) – Servicing of Inflatable Liferafts, Inflatable Boats, Inflatable Lifejackets and Hydrostatic Release Units, for further guidance on servicing of inflatable equipment and Hydrostatic release units.

7.1.3.2 Liferafts should:

i) be readily available for safe and rapid use in an emergency, taking into account any adjacent fire risk;

ii) be capable of being launched under unfavourable conditions of trim and with the vessel heeled 15° either way;

iii) be stowed in such a manner as to permit them to float free from their stowage, inflate and break free from the vessel in the event of its sinking;

iv) be stowed clear of any overhanging projections, gear or rigging that could impede the liferafts float free operation;

v) be provided with SOLAS B pack equipment or equivalent.

Refer to MGN 104 (M+F) – Stowage and Float Free Arrangements for Inflatable Liferafts, and 130 (F) – The Stowage of Liferafts and EPIRBs on UK Registered Fishing Vessels, for further guidance on stowage and float free arrangements.

Note: Lashings if used, should be fitted with an automatic (hydrostatic) release system of an approved type. The liferaft and any hydrostatic securing and release system should be installed strictly in accordance with the manufacturers instructions. Liferafts and serviceable hydrostatic release units should be serviced annually by an authorised agency. Non-serviceable hydrostatic release units should be replaced by their expiry date.

7.1.3.3 Every EPIRB should:

i) be fitted with a float free arrangement, whose operation will cause it to activate;

ii) be stowed in such a position that it is protected from possible damage and is easily removable from its mounting for placing in any survival craft;

iii) have the float-free arrangement routinely replaced or serviced in accordance with the manufacturers instructions;

iv) have the power source replaced whenever necessary and at least before its expiry date;

v) be registered, reference should be made to The Merchant Shipping (EPIRB Registration) Regulations SI 2000, No. 1850. Specific guidance is given in Marine Guidance Note MGN 150 (M+F) – Guidance on EPIRB Registration.

vi) comply with IMO Resolution A810 (19)/ETS 300 062 (second edition) when renewed.

7.1.3.4 Lifejackets should:

i) be stowed either in a deckhouse or other dry and readily accessible position;

ii) have stowage positions clearly and permanently marked;

iii) be provided with a light complying with SOLAS 1974 as amended;

iv) be serviced in accordance with the manufacturer's instructions.

7.1.3.5 Lifebuoys should:

i) be stowed near the bridge or on an exposed working deck;

ii) not be permanently secured;

iii) be marked with the vessel name and port of registry or fishing vessel number.

7.1.3.6 Line throwing appliances and pyrotechnic signals should:

i) be stowed on or near the bridge in a dry and readily accessible location, clearly marked;

ii) be packed in suitable containers.

7.1.4 **Embarkation into liferafts**

7.1.4.1 Arrangements should be made for warning the crew when the vessel is about to be abandoned.

7.1.4.2 For vessels with embarkation areas, positioned more than 3 metres above the waterline, ladders or other suitable means should be provided to allow for safe embarkation into the liferafts.

7.1.4.3 Liferaft launching and embarkation positions (including the water into which the liferaft is launched) should be illuminated by means of both main and emergency sources of power.