

**MAIB**  
MARINE ACCIDENT INVESTIGATION BRANCH

# Safety Digest



**Fishing  
2014g**

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Published May 2014

# MAIB

MARINE ACCIDENT INVESTIGATION BRANCH

The role of the MAIB is to contribute to safety at sea by determining the causes and circumstances of accidents, and working with others to reduce the likelihood of such causes and circumstances recurring in the future.

Extract from  
The Merchant Shipping  
(Accident Reporting and Investigation)  
Regulations 2012 – Regulation 5:

*“The sole objective of the investigation of a safety investigation into an accident under these Regulations shall be the prevention of future accidents through the ascertainment of its causes and circumstances. It shall not be the purpose of such an investigation to determine liability nor, except so far as is necessary to achieve its objective, to apportion blame.”*

The Marine Accident Investigation Branch (MAIB) examines and investigates all types of marine accidents to or on board UK vessels worldwide, and other vessels in UK territorial waters.

Located in offices in Southampton, the MAIB is a separate, independent branch within the Department for Transport (DfT). The head of the MAIB, the Chief Inspector of Marine Accidents, reports directly to the Secretary of State for Transport.

This Safety Digest draws the attention of the fishing community to some of the lessons arising from investigations into accidents and incidents.

This information is published to inform fishing industry and the public of the general circumstances of marine accidents and to draw out the lessons to be learned.

The sole purpose of the Safety Digest is to prevent similar accidents happening again. The content must necessarily be regarded as tentative and subject to alteration or correction if additional evidence becomes available. The articles do not assign fault or blame nor do they determine liability. The lessons often extend beyond the events of the incidents themselves to ensure the maximum value can be achieved.

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This publication can also be found on our website:  
[www.maib.gov.uk](http://www.maib.gov.uk)



## Glossary

AIS	-	Automatic Identification System
CPR	-	Cardiopulmonary Resuscitation
DSC	-	Digital Selective Calling
EPRIB	-	Emergency Position Indication Radio Beacon
kg	-	kilogram
kt	-	knot
LOLER	-	Lifting Operations and Lifting Equipment Regulations 1998
MCA	-	Maritime and Coastguard Agency
MGN	-	Marine Guidance Note
nm	-	nautical miles
PFD	-	Personal Flotation Device
PLB	-	Personal Locator Beacon
PURWER	-	Provision and Use of Work Equipment Regulations 1998
VHF	-	Very High Frequency

# Chief Inspector's Foreword

**Fishing continues to be, by a large margin, the most dangerous profession in the UK**

This edition of the MAIB's Safety Digest is the third in a series which focuses exclusively on the safety lessons learned from accidents that have occurred in the fishing industry.

Please take the time to read the articles. Think about whether something similar could happen on your boat. By thinking about these cases, especially the safety lessons identified in each article, you will be in a better position to learn from the mistakes of others and avoid unnecessary harm to you, your crew and your livelihoods.

Safe fishing.

*Steve Clark*





# 1 Tragedy Close to Home

## Narrative

An under 10m steel fishing vessel sank while heading back to its mooring in rough seas and poor weather conditions. The owner, who was the only person on board, tragically lost his life.

The owner had checked the weather before he departed, and the forecast indicated that the wind would decrease to Force 3 for a time before increasing to Force 5 to 6. As the local conditions at the time appeared to be corresponding with this lull, he decided to spend the morning operating close to shore before the weather picked up. However, by lunchtime the weather had seriously deteriorated, and the owner made a call ashore using his mobile phone to say that he was heading back in to his mooring as the weather was 'horrendous'. Nothing else was heard from the vessel, and no distress signal was received. It was later established that she had disappeared off a local radar system a short while later. The radar also indicated

that the vessel was making around 4 knots when she disappeared, with a local weather data confirming that there would have been winds gusting up to Force 8 on her port bow at the time of the loss.

A couple of hours later the vessel was reported as overdue to the coastguard, which initiated an extensive search. Sadly, only minor items of debris from the vessel were found. The vessel was located on the seabed the following day and was consequently recovered, but with no trace of the owner.

Subsequent examination of the vessel found that the hull was intact, with both of the deck hatches in place and with no obvious source of initial downflooding that might have contributed to the loss. The wheelhouse door was, however, missing and the displacement of some of the wheelhouse windows from their frames, along with the movement of other items on board, suggested that the vessel had most likely been overcome by the seas, and had capsized suddenly.

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**“The owner, who was the only person on board, tragically lost his life.”**



## Remember

# The Lessons

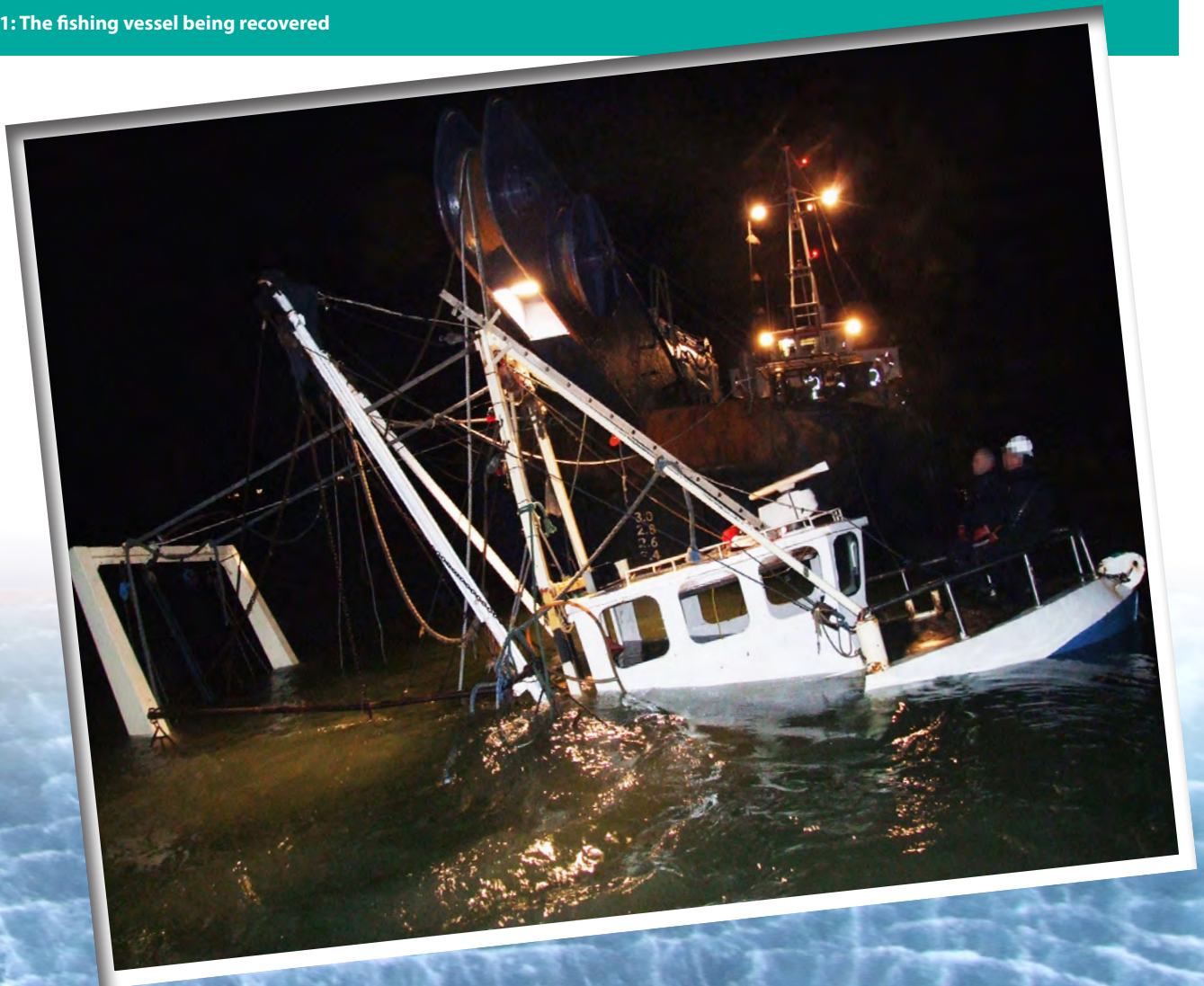
**1.** Although the owner was expecting the weather to deteriorate, he was almost certainly not expecting it to be as bad as it turned out. Had he anticipated such a deterioration in the weather, he would have headed back in earlier as Force 8 was in excess of his normal operational limit. Forecasts are just that, only a prediction of what is likely to happen; they don't always get it spot on. They also tend to differ depending on the data used and the calculation methods employed. It does no harm to consult a second or third forecast before deciding how long to put to sea for.

**2.** Various modifications had been made to the vessel over the years, including the fitting of a substantial gantry. Such changes would have reduced the stability and freeboard, and possibly contributed to this loss. Although there are no statutory stability requirements for under 15m fishing vessels, it is advisable to be aware of your vessel's stability, and to consider how this will be affected by any proposed structural alterations. One way of doing this is to consult a qualified naval architect; another is to attend the well-received Seafish Stability Awareness course.

**3.** Although there is no regulatory requirement for a vessel of this size to carry an EPIRB, liferaft or Digital Selective Calling (DSC) capable VHF radio, all are recommended. None were on board this vessel (there was a VHF, but not DSC), and it is not inconceivable that any or all of these items might have helped identify that she was in difficulty and, indeed perhaps have saved the owner's life.

**4.** The skipper had previously been in the habit of using a personal locator beacon while he was operating single-handedly. He had, however, recently stopped using this. Again, particularly when operating alone, the use of a locator beacon such as this might have ensured his survival. No one pretends that equipment such as EPIRBs and liferafts are cheap, but what value do you place on your life?

Figure 1: The fishing vessel being recovered



# Lookout! Where?

## Narrative

Two wooden fishing vessels had spent the day trawling about 25 miles from their home port; the weather conditions and visibility had been good and the catch wasn't too bad. Boat A was crewed by her skipper and two deckhands while Boat B, which was almost 15m long and fitted with a substantial accommodation housing and shelter, was being sailed single-handed by her skipper.

By 1750, Boat A had finished her last tow of the day and began to head back home. It was dark so the skipper had switched on her navigation lights along with the floodlights on the aft deck. The skipper saw one radar target on the starboard bow, which was also returning to harbour. Having set the autopilot and adjusted the throttle to give a speed of about 5 knots, the skipper left the wheelhouse and went to the fully enclosed shelter to help the deckhands sort the catch. He occasionally returned to the wheelhouse, but he did not see any other vessels.

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**“Illuminating a boat like a Christmas tree and then assuming that everyone else will keep well away might seem like a sound plan, but it doesn't work when other skippers in the area have the same idea.”**

At about 1800, the skipper of Boat B also decided that he had done enough for the day, and stopped his vessel. He then started to bring his catch inboard and stow the gear. The vessel's navigation lights and deck floodlights had already been turned on. At 1840, as the skipper recovered a stray line from the starboard quarter, he felt and heard a loud thud. He ran forward past the accommodation to investigate, and found Boat A embedded into his vessel's port bow. He immediately looked into the fish hold and saw that it was rapidly flooding.

The skipper went to the wheelhouse and informed the coastguard about the collision via VHF radio. He then shouted across to Boat A, and asked her skipper, who had also felt a thud and had run to his wheelhouse, to pick him up from the stern. By the time Boat B's skipper had stepped across on to Boat A, his vessel had started to go down by the head and list to port. She foundered seconds later.

Following the collision, the skipper of Boat B improved the visibility from his wheelhouse by modifying the wheelhouse deckhead (Figure 2).





## Remember

# The Lessons

**1.** Illuminating a boat like a Christmas tree and then assuming that everyone else will keep well away might seem like a sound plan, but it doesn't work when other skippers in the area have the same idea. Although the chances of two fishing boats being in the same spot at the same time might seem low, they increase considerably at the end of a day's fishing when everyone is heading home but not looking where they are going. Sorting the fish before getting alongside might save

some time on the night, but keeping a proper lookout can save a lot more time and money in the long run.

**2.** Working single-handed is hard work at the best of times, but it is also dangerous when the visibility from the working decks is obscured by accommodation housings and shelters, and the skipper is focused on his work on deck. When working single-handed, the ability to keep a proper lookout is just as important as being able to manage the gear.

**3.** Poor visibility from the wheelhouse has been a contributory factor in several previous accidents involving fishing vessels. In this case, Boat A had a shelter which, with equipment fitted to the deck, might have obscured her skipper's view of Boat B during his occasional checks. Is the visibility from your wheelhouse good enough?

Figure 2: View of the modified wheelhouse



# Fatal Chain of Events

## Narrative

A crew member was lost overboard from a twin rig trawler during shooting operations, in darkness and moderate to rough sea conditions. Unfortunately, despite the best efforts of his crew mates, including one who jumped into the sea to assist, he could not be rescued.

The vessel had shot her gear and the crew were attaching the three towing chains to the trawl wires. After attaching the port and starboard towing chains, two crewmen were in the process of attaching the centre chain. Once attached, the load on the trawl wires was transferred onto the chains. During this time, one crewman became caught between the chains and the vessel's bulwark rail, and was carried overboard as the load came onto the chains.

The man overboard managed to grab hold of the trawl wire, which was quickly hauled up in an attempt to recover him. However, unfortunately he was unable to hold on long enough to be pulled on board and was swept away from the boat and into the darkness.

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**“Seeing that the casualty was unable to help himself, probably due to cold and water ingestion, the vessel's skipper jumped into the sea, without protective clothing, in an attempt to help his colleague.”**

Recognising the boat's lack of manoeuvrability with the trawl gear deployed, the skipper immediately ordered the wires to be cut using a petrol-powered angle grinder. The boat was quickly turned around and the crew located their colleague in the darkness by listening for his calls for help. Life-rings were thrown to him, but he was unable to hold on, and once again he drifted away from the boat. The skipper again manoeuvred the boat alongside and life-rings were thrown to the man overboard. Seeing that the casualty was unable to help himself, probably due to cold and water ingestion, the vessel's skipper jumped into the sea, without protective clothing, in an attempt to help his colleague. Unfortunately he was unsuccessful and the skipper, too, began to succumb to the effects of the cold water.

Luckily, but with difficulty, the remaining crew were able to recover their skipper from the water. However, despite a concentrated search and rescue operation, the casualty was not recovered even though he was wearing a flotation jacket.

The trawler's skipper was airlifted to hospital suffering from hypothermia after an estimated 10 to 15 minutes in the sea.



## Remember

# The Lessons

**1.** The two crewmen attaching the towing chains secured the port and starboard sides before attaching the centre chain. This placed them in an area of danger because a winch brake band could have rendered while they were attaching the centre chain. Attaching the centre chain first would have allowed the port and starboard sides to be secured from a position of relative safety - while standing on the fore side of the chains.

**2.** Transferring tension from the winch onto the towing chains should be monitored continually and in direct communication with the winch operator. Thereafter, slack wire from the winch should be pulled off only when the load has been fully transferred, and again carried out in a position of safety so that if a chain or connecting piece renders, the risk to crew members is minimised.

**3.** The casualty was wearing a 50 Newton flotation jacket. Although these do provide a degree of thermal protection, they are classified for "swimmers in sheltered waters use and where help is close at hand"; they are not lifejackets, and will not keep the wearer's face and mouth clear of the sea if they become unconscious. An inflatable lifejacket, on the other hand, gives no thermal protection. If not too cumbersome, both a lifejacket and thermal protection should be worn when on exposed open decks; this will maximise the chances of recovery in the event of going overboard.

**4.** The skipper's valiant attempt to rescue his crewmate almost cost him his own life. Wherever possible, thermal protective clothing and a lifejacket should be donned before entering the sea, and a lifeline attached for recovery.

**5.** This skipper's quick action in ordering the wires to be cut maximised the chances of gaining manoeuvrability of the vessel. Angle grinders, such as the one used in this instance, are now readily available. These enable the gear to be cut away if necessary and do not need to be plugged in to a boat's electric supply. Survival times of a man overboard can be counted in minutes and seconds, so no time should be wasted hauling gear which could be jettisoned and recovered later.

Figure 3: Demonstration of where the crewman was standing at the time of the incident



# Carbon Monoxide Kills

## Narrative

A fisherman died when he was poisoned by carbon monoxide produced by a petrol engine-driven salvage pump on board a trawler employed as a guard ship. Two other fishermen were also poisoned by the gas; they were airlifted to hospital and recovered fully following treatment.

After breakfast two fishermen took a petrol engine-driven salvage pump (Figure 4) into the fish hold to pump out oily water from a void space. One of them started the engine, but the pump would not prime. He persevered for over an hour to get the pump to work with the engine running for most of that time.

The fish hold - similar to most fish holds - had no forced ventilation system and the hatches, except for a small access hatch, were left closed. The pump was labelled *'The engine emits toxic carbon monoxide. Do not use in an enclosed space'* (Figure 5).

The first fisherman continued to work in the hold until he collapsed from the effects of the carbon monoxide which had quickly filled the space. The second fisherman went into the fish hold to help, and then ran to tell the skipper what had happened.

There was no gas monitor on board so the crew were not able to check whether the fish hold was safe to enter in order to rescue their collapsed colleague. Similarly,

they were unable to enter the toxic atmosphere of the fish room safely as there was no breathing apparatus on board to allow this.

The three remaining crewmen then risked their lives, and two were seriously affected by carbon monoxide, as they entered the fish hold to try to rescue the collapsed man.



Figure 4: Pramac MP 36-2 petrol engine-powered pump



## Remember

# The Lessons

The risks of using petrol or diesel-driven portable pumps are well known. Despite knowing these dangers, and warning signs being placed on the equipment, tragic accidents like this one still happen.

**1.** Do not use portable petrol or diesel engine-driven pumps in enclosed spaces, such as fish holds, unless the engine exhaust is vented to fresh air outside the space.

**2.** Ensure you are fully aware of the risks of carbon monoxide poisoning.

**3.** Think about the risks of operating portable pumps on board your boat, and where these should be best placed to avoid the risk of carbon monoxide poisoning.

**4.** The temptation to rescue a crewman from an enclosed space such as a fish hold can be overwhelming. However, no attempt should be made to enter the space, which may be hazardous, unless suitable rescue equipment, including breathing apparatus, is available and used. In most cases you should seek help from the emergency services or other vessels fitted with suitable rescue equipment.



Figure 5: Warning notice on the petrol tank

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**“The three remaining crewmen then risked their lives, and two were seriously affected by carbon monoxide, as they entered the fish hold to try to rescue the collapsed man.”**

# Rock and Roll

## Narrative

The skipper and crewman of a 10 metre fishing vessel were on the aft deck, preparing bait and listening to music via a loudspeaker as the vessel headed towards the first string of pots due to be hauled that day. The vessel's wheelhouse was thus unmanned when the men noticed that she was listing and starting to bodily sink. Before the men had time to send a distress call or get to their lifejackets, the vessel rolled over and sank.

Fortunately for the men, who were left in the water clinging to pot marker buoys which had floated free as the vessel sank, the sinking had been seen by a nearby fishing vessel, which proceeded to the scene and recovered them from the water. They were taken back to port; wet, but otherwise unharmed. The vessel was later salvaged and the cause of the sinking was found to have been water entering the engine space via a sea water suction hose, which had become detached from the sea cock. This was a valve with a 2 inch diameter, through which water would have flowed into the engine

space at approximately 350 litres per minute. This meant that, on average, 1 tonne of water would have entered the vessel for each music track the men had listened to!

The vessel had two bilge pumps, one of which was fitted with an integral bilge alarm. The alarm sounder was located on the instrument panel in the wheelhouse, but this was not heard by either of the men outside, above the loud sound of the music.

The vessel sank very rapidly and the skipper, who was not a strong swimmer, realised that in different circumstances he and his colleague might not have been rescued. He subsequently attended a swimming course at a local swimming pool and now fully understands the importance of wearing a lifejacket when working on deck.

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**“ This meant that, on average, 1 tonne of water would have entered the vessel for each music track the men had listened to!”**



## Remember

# The Lessons

**1.** This case illustrates the importance of someone remaining in the wheelhouse when on passage. This is obviously essential to meet the requirements for keeping a proper lookout, but it is equally important to be able to monitor alarms, including the bilge alarm, to enable corrective action to be taken in sufficient time to prevent the loss of the vessel.

**2.** The men found themselves in the water - without lifejackets and without having the time to transmit a "Mayday".

Once again, the importance of wearing lifejackets when working on deck is clearly demonstrated.

**3.** Music playing via a loudspeaker meant that the crew were unable to monitor audible alarms or their VHF radio while they were on deck. This was not a safe way of operating the vessel, and it is notable that, later, when installing a new engine and rewiring the boat, the owner ensured that the bilge alarm and not the music channel was connected to the deck loudspeaker.



Figure 6 - Vessel on slipway after recovery

# A Flukey Escape

## Narrative

A gill netter was shooting the last of her 10 nets over the stern. It was dark, mid-winter, and a 3m swell was running. A deckhand saw a problem with the net and stepped over the low pound boards into the area containing the rope joining the net to its anchor (Figure 7). He was immediately snagged by the rope and pinned against the port side safety rail and gunwale by the net's anchor as it ran out.

On hearing a shout from the deckhand, the skipper immediately throttled back the engine. The crewman and net anchor were then catapulted overboard. He was dragged underwater and, although injured and not wearing a lifejacket, he managed to free himself from the anchor and rope and surfaced close to the vessel. The deckhand was already exhausted and close to giving up.

The skipper saw the deckhand surface about 4m from the vessel's port side and, having already put the engine astern, he manoeuvred his vessel towards the casualty. Assisted by a second deckhand and the rolling of the vessel, the skipper pulled him back on board, albeit with some difficulty. The casualty was cold and physically exhausted.

The vessel immediately headed for port and the skipper arranged for an ambulance to meet her on arrival. The ambulance controller made the coastguard aware of the accident. A lifeboat was launched and escorted the gill netter into port where the injured deckhand was transferred to an ambulance and taken to hospital. He suffered a fractured rib and soft tissue damage.

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**“Crew must be made aware of the dangers of working on deck, and appropriate practices must be adopted and enforced. Lost or damaged gear can be replaced; a life cannot.”**





## Remember

# The Lessons

**1.** Working decks are often cramped, and are potentially dangerous areas, particularly when shooting and hauling. To reduce the risk of entanglement, many vessels try to keep crew away from moving gear by fitting physical barriers such as pound boards. However, these are only effective if they are kept in place and not ignored. Crew must be made aware of the dangers of working on deck, and appropriate practices must be adopted and enforced. Lost or damaged gear can be replaced; a life cannot.

**2.** It is highly likely that the deckhand would have lost consciousness and drowned had he not been recovered so

quickly. Accidentally falling, or being pulled into the sea frequently results in cold water shock, which can cause even the fittest of people and the strongest of swimmers to quickly lose consciousness or the will to continue. When this occurs, lifejackets not only keep a person afloat, they also ensure that a person's head is kept clear of the water. This allows them to breathe, and therefore substantially increases their chances of survival.

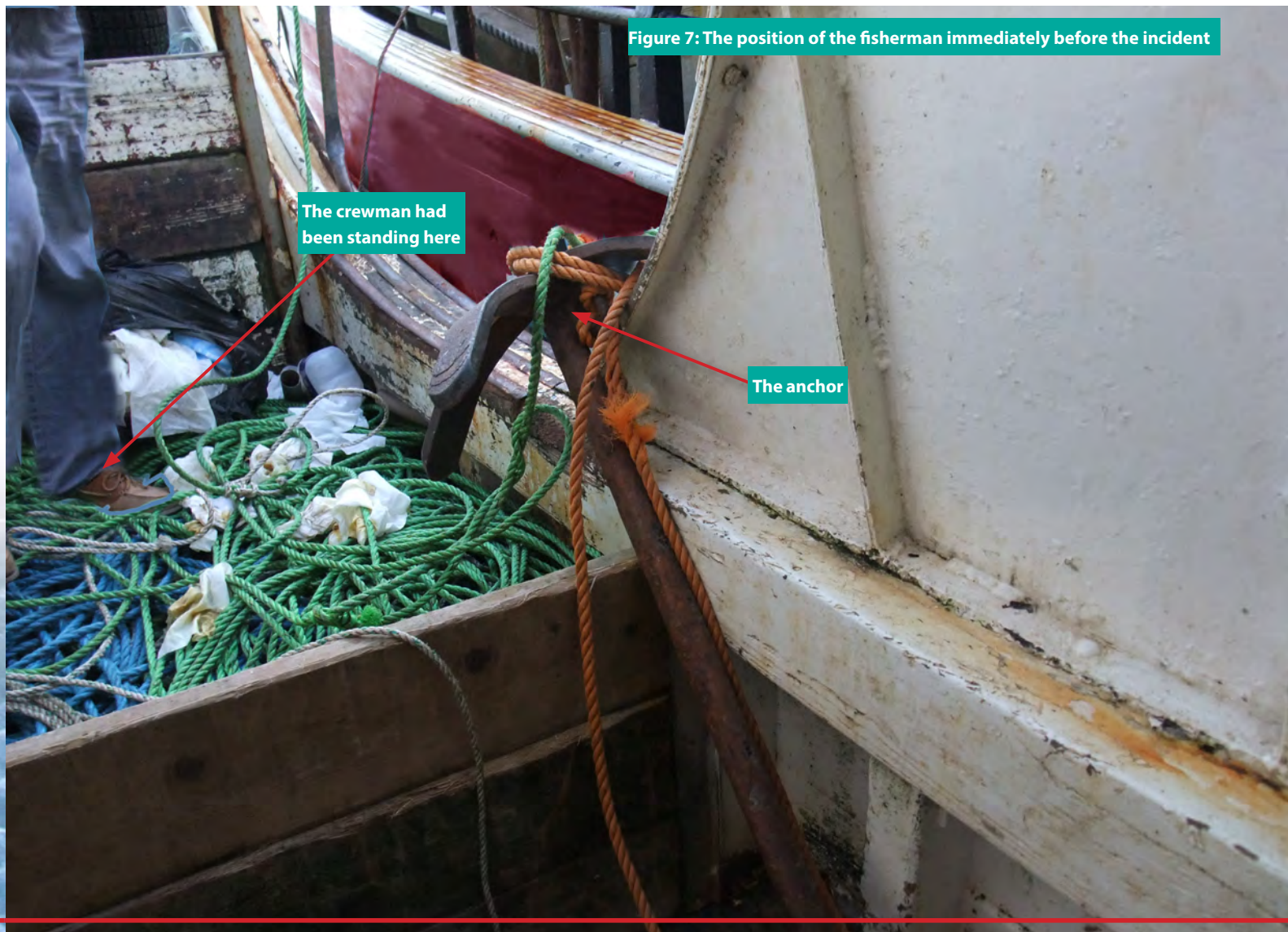
**3.** It was the skipper's quick thinking that kept this boat close to the casualty. And this enabled him to be seen quickly. Many other fishermen who have fallen overboard have been less fortunate. To

avoid delays in finding a person who has fallen overboard, not only must a boat be properly equipped with aids - such as man overboard markers - to help locate them in the water, but also crew must be aware and practised in the actions to be taken.

**4.** The methods adopted for recovering a person from the water vary from vessel to vessel, and depend on the equipment available and a vessel's freeboard. Whatever method is intended to be used, the possibility of a casualty being unconscious or unable to help himself must be taken into account.

**5.** When you have an emergency on board, it is sensible to let the coastguard know, even if you do not require assistance. Situations can change rapidly, and the coastguard will be much better placed to respond if it has been forewarned.

Figure 7: The position of the fisherman immediately before the incident



# Who Will Help Me If Something Goes Wrong?

## Narrative

A lone fisherman took an 8m potter out to fish for the first time. Previously, he had either crewed for the owner or, when skipper, had taken a second crewman with him.

The exact course of events will never be known for certain, but it is likely that the fisherman was either knocked or dragged overboard when the back rope came off the rope hauler as the creels were being hauled on board.

A fresh wind was blowing against a spring tidal flow, and the swell steepened closer to the shore where the boat was working, making it roll. The boat was fitted

with a potting roller at the gunwale rather than a more traditional davit and open block arrangement (Figure 8). While this reduced the work of handling the creels, there was always a chance that, if the boat yawed, the lead of the back rope could change, allowing the rope to come out of the hauler.

The fisherman was not wearing a PLB or a PFD. The alarm was not raised until several hours after he fell overboard.

His body has not been found.

**“The pros and cons of wearing PFDs are well known. However, in this case if one had been worn, and a PLB had activated, the rescue services might have had sufficient time to find the fisherman alive.”**

## Remember

# The Lessons

**1.** The condition in which the boat was found after the accident, its contents, and the location of its gear, provided significant clues as to how the accident happened. It is considered most likely that the fisherman was knocked or dragged overboard when the tensioned back rope led aft on the potting roller, allowing the back rope to ride out of the 'V' hauler.

Careful boat handling is needed to make sure that the back rope leads onto the hauler correctly. This is best achieved by steering the boat so that the back rope leads from an angle forward of the beam. However, this is not always easy to achieve, particularly when working alone in demanding weather and tide conditions. If the back rope is allowed

to lead from aft of the beam, there is a chance that it will ride out of the hauler, and the tension from the other creels still in the sea will quickly drag any creels that are on board back over the side. A modification to the system, such as the fitting of an additional vertical roller on the baiting table, can help prevent this from happening (Figure 9).

Single-handed fishing introduces new hazards and increases the threat from existing hazards as the workload grows. There is nobody else to raise the alarm or help in an emergency, so fishermen working alone must consider how they might raise the alarm. Help could be some time in coming, and lone fishermen should think about how best to use lifelines to prevent them

from falling into the sea, and personal flotation and location devices to improve their chances of survival if they do go overboard.

**2.** The pros and cons of wearing PFDs are well known. However, in this case if one had been worn, and a PLB had activated, the rescue services might have had sufficient time to find the fisherman alive.

Fishermen operating single-handedly should carefully consider the benefits of carrying a PLB to alert the coastguard of a problem, and wearing a PFD to increase their survival time while rescue is on its way.

**3.** The topics discussed above are not just for the fisherman's benefit. Death, and a missing body, causes grief and great stress to relatives and friends. If you have any reservations about the usefulness of PLBs and PFDs, think about the effect your loss at sea will have on your loved ones.

Figure 8: Potter showing potting roller - fishing single-handedly



Figure 9: Additional vertical roller fitted close to the 'V' hauler

# Mind Your Back

## Narrative

The crew of a twin beam scallop dredger had hauled the beams inboard and had secured them in position with the safety chains ready to empty the catch of scallops.

One crewman stood on the port conveyor and attached the gilson wire to the tipping bar (Figure 10). The trawl block was then hauled and tensioned. The main trawl wire parted and the trawl block and bridle chains fell onto the crewman below. As he was hit by the bridle chains, he fell from the conveyor onto the deck. The crewman was in considerable pain and had difficulty breathing.

The crew considered what action to take, and contacted the owner for advice. Meanwhile another company vessel, with a more experienced skipper on board, came alongside to assist.

As the injured man's condition deteriorated, one of the crewmen contacted the coastguard, who established communication with a doctor. The doctor requested helicopter evacuation for the injured man, who was subsequently airlifted to hospital for treatment. The crewman went on to make a full recovery.

## Remember

# The Lessons

**1.** The main trawl wire parted because it was worn and had become brittle; this was not unexpected as the trawl wire had parted on several previous occasions.

Regular inspection of wires, particularly those that are used heavily, such as trawl wires, is essential to ensure they are safe for use.

**2.** A vessel's owner and skipper are responsible for ensuring that lifting and work equipment is suitable for use, as required by the LOLER and PUWER regulations.

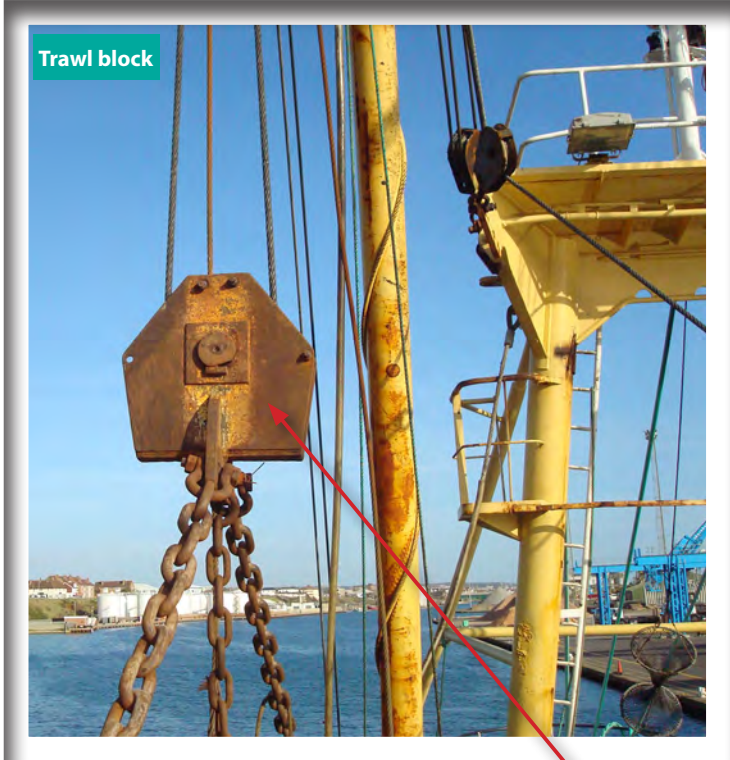
To ensure that crew are working in a safe environment, a planned maintenance system is required by law to verify that

fishing gear is suitable for use. The skipper and owner are legally and morally responsible for the safety of the crew.

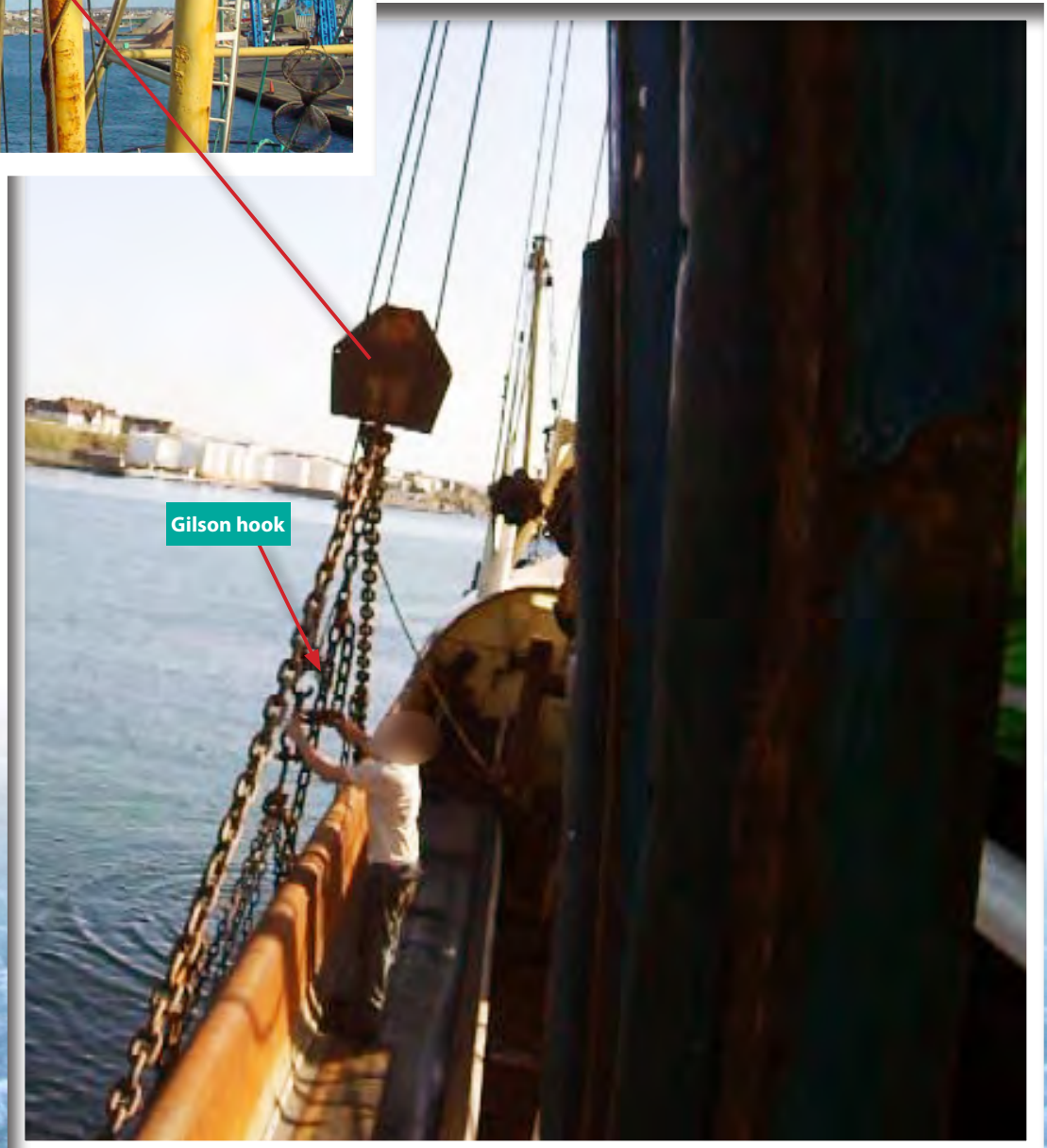
**3.** The crew chose to delay contacting the coastguard to evaluate the condition of the injured man.

**4.** Letting the coastguard know of a problem as soon as possible will ensure that the emergency services are aware of the situation and can provide the optimum response.





**“Regular inspection of wires, particularly those that are used heavily, such as trawl wires, is essential to ensure they are safe for use.”**



**Figure 10: Crewman standing on catch bin attaching gilson wire**

# Anchor of Hope

## Narrative

After a day's fishing a skipper decided to drop anchor and lay over in a sheltered bay. The skipper set his new 20kg "look-alike" Bruce anchor in calm conditions, with a trip rope to aid recovery, and then retired for the night with no watch set.

Thirty minutes later, the skipper heard the chain rumbling across the seabed and got up, to discover the vessel was almost aground. He promptly raised the rest of the crew and hauled in on the anchor chain; only the anchor shank was on the end of it. They picked up the trip buoy, and on hauling in the line found the remainder of the anchor attached.



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**“Beware the danger of cut-price look-alike equipment and, wherever possible, ask for a bona-fide test certificate on cast items such as anchors and blocks.”**

Figure 11: "Look-alike" Bruce anchor



## Remember

# The Lessons

**1.** It was the skipper's vigilance (or ability to sleep with one eye open) that prevented this boat from grounding.

There were sufficient crew to have allowed for an anchor watch to be set. This would have been a prudent measure reducing the potential consequences of the anchor dragging, gear parting, or for the boat to be in collision with other vessels. The additional benefit of setting an anchor watch is that it should enable the other crew to sleep soundly and obtain quality rest.

**2.** Beware the danger of cut-price look-alike equipment and, wherever possible, ask for a bona-fide test certificate on cast items such as anchors and blocks.

**3.** After dropping anchor, ensure it is well and truly set by putting strain on the gear while attempting to make sternway. Not only will this set the anchor and establish if it is holding, but it may also highlight weak points in the ground gear.



Figure 12: Flawed casting in the shank

Figure 13: Recovered head and parted shank



# Balancing Act

## Narrative

A deckhand on board a scallop dredger fell overboard as he was emptying a dredge bag. He had been standing on the port dredge beam, which was suspended and almost level with the gunwale when the dredge bag lifting becket parted.

The deckhand was a seasoned fisherman but was new to scallop dredging and had worked on board for only 5 weeks. He had signed the Seafish Fishing Vessel Safety Folder to confirm that he had received a safety induction from the skipper, which included maintaining a secure hold of a suspension chain while attending to the dredge bags. However, he had not attended a safety awareness course and the risk assessment form neither identified any significant risk nor recorded any control measures against falling overboard.

The deckhand was not wearing a personal flotation device or a safety harness when he stepped onto the elevated dredge beam, and it was not the practice for deckhands to do so. On this occasion, he let go of the suspension chain (Figure 14) to facilitate the emptying of one of the dredge bags. As he grasped the dredge bag with both hands, the lifting becket parted, causing him to fall forward and, with no protection from the bulwark, to continue to fall overboard.

Despite the quick reactions of the skipper and crew, the deckhand sank below the sea surface before he could be rescued. Although an extensive search and rescue operation followed, his body was not recovered.

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**“As he grasped the dredge bag with both hands, the lifting becket parted, causing him to fall forward and, with no protection from the bulwark, to continue to fall overboard.”**





## Remember

# The Lessons

**1.** The lifting becket parted at a point of attachment to the dredge bag which was prone to wear. A robust inspection and maintenance regime for the working gear might have identified the wear and have prevented the failure. Ensure you have a regime that does so.

**2.** Risk assessments for the bag lifting/dredge discharge activity had been incorrectly calculated by the skipper - despite him having previously attended a safety awareness course - and indicated a lack of understanding of the concept. Guidance on risk assessment is provided in the MCA's Marine Guidance Note (MGN

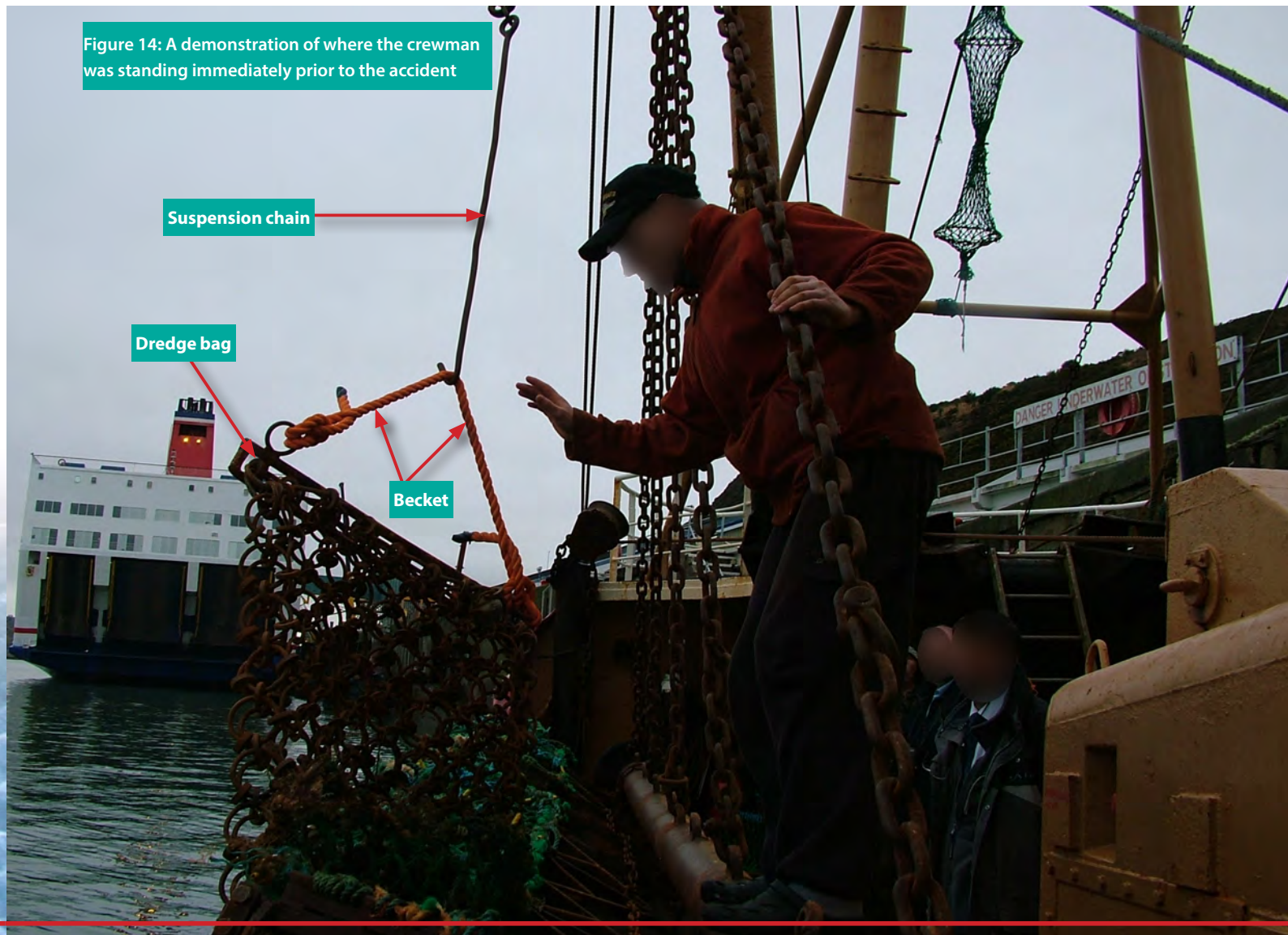
20 (M+F), the Seafish Fishing Vessel Safety Folder and the Fishermen's Safety Guide. Risk assessment is an important tool to help identify and reduce risks to safety in a dangerous working environment. Make sure you understand the process and then apply it.

**3.** The fitting of a 'tipping bar', commonly used on scallop dredgers, would have enabled all the dredge bags to be inverted at the same time and have avoided the need for deckhands to step onto the dredge beam or to lean over the gunwale. The best way to control a risk is to remove the hazard altogether.

**4.** The wearing of a lifejacket would have significantly improved the deckhand's chances of survival. The provision of a lifejacket or other personal flotation device is mandatory where there is a reasonably foreseeable risk of a crew member falling overboard. Develop a habit of always wearing one when working on deck.

**5.** Although the crew responded rapidly to the man overboard, they were ill-prepared to mount a successful recovery. Equipment required to assist the recovery of a person from the water was not available on board and no emergency drills had been conducted which would otherwise have ensured that correct procedures were followed.

Figure 14: A demonstration of where the crewman was standing immediately prior to the accident



# Snagging Can Lead to Loss of Vessel and Lives

## Narrative

A 13m, twin-rig trawler had been fishing for prawns in a deep-water estuary when her fishing gear became snagged on an underwater obstruction. The crew made a number of unsuccessful attempts to free the gear by shortening in and then shooting away. When the gear was finally shot away and the winch brakes had been applied, the vessel swung to port and water came over the port quarter bulwark. The vessel then rapidly capsized to port. While she was heeling, the crew scrambled over the starboard side and entered the water. They were not wearing lifejackets.

People ashore alerted the coastguard, which issued a “Mayday Relay” and began to allocate resources. A nearby trawler saw the capsized vessel, hauled in her gear, proceeded to the scene, and requested another vessel to inform the coastguard of her actions.

Meanwhile, the capsized vessel foundered by the stern and her liferaft released automatically. The three crew members managed to reach the liferaft and await rescue. Soon afterwards, the nearby trawler picked them up and took them into harbour, from where they were conveyed to the local hospital and treated for hypothermia.

## Remember

# The Lessons

**1.** Although snagging in some areas is a daily occurrence, it can normally be quickly overcome. However, on this occasion, the snag did not readily release the gear; this should have alerted the crew to take extra precautions. They should have battened down the hatches and vents, and donned lifejackets in case the vessel capsized.

**2.** If a snag does not readily clear, thought should be given to releasing and buoying off the gear, which could be picked up by other means at a later date. Better to be safe than to place the vessel and crew in jeopardy.

**3.** The MCA’s MGN 265 (F) gives advice on the recovery of snagged gear, and strongly warns that winches should not be braked and used in conjunction with a vessel’s motions in an attempt to free it. Think before taking extreme measures.

**4.** Vessels that witness an accident and are in a position to be quickly on-scene should make their intentions immediately and directly known to the coastguard. This will enable the coastguard to effectively co-ordinate search and rescue operations and quickly direct appropriate resources to the scene.

Figure 15: Photograph of vessel



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**“While she was heeling, the crew scrambled over the starboard side and entered the water. They were not wearing lifejackets.”**



# Clocked by a Block

## Narrative

A crewman on a scallop dredger suffered a fractured skull after an overhead block failed and came down upon his head.

The two-man vessel was lifting her loaded dredges inboard by means of an overhead block; the lifting strain had just been applied when the block failed by the collar of the swivel eye and fell on the deckhand. The skipper immediately administered first-aid, ran off the fishing

gear and made ashore as quickly as possible, contacting the coastguard at the same time. A lifeboat and helicopter were tasked and the injured man was transferred to hospital, where he underwent surgery for his injuries.

A critical sample of the failed equipment was recovered for inspection and testing along with the partner block from the other side. This revealed that uneven loading of the failed swivel eye fitting, caused by continual sideways pressure, was the primary factor why the block failed.

## Remember

# The Lessons

**1.** The block that was being used was unsuitable for the job. There was no need for this vessel to be using a block with such a wide swallow. This width allowed the wire travel several inches across the sheave until it abutted the outside cheek of the block, resulting in uneven loading on the swivel eye shank, by the collar. This continuous uneven loading induced fatigue and ultimate failure at that point.

All blocks are at their strongest when the strain is applied in a straight line pull. Always ensure the proper type of block is employed for the job. Also, avoid using inappropriate blocks - even for a jury rig, because temporary fittings often end up in place permanently.

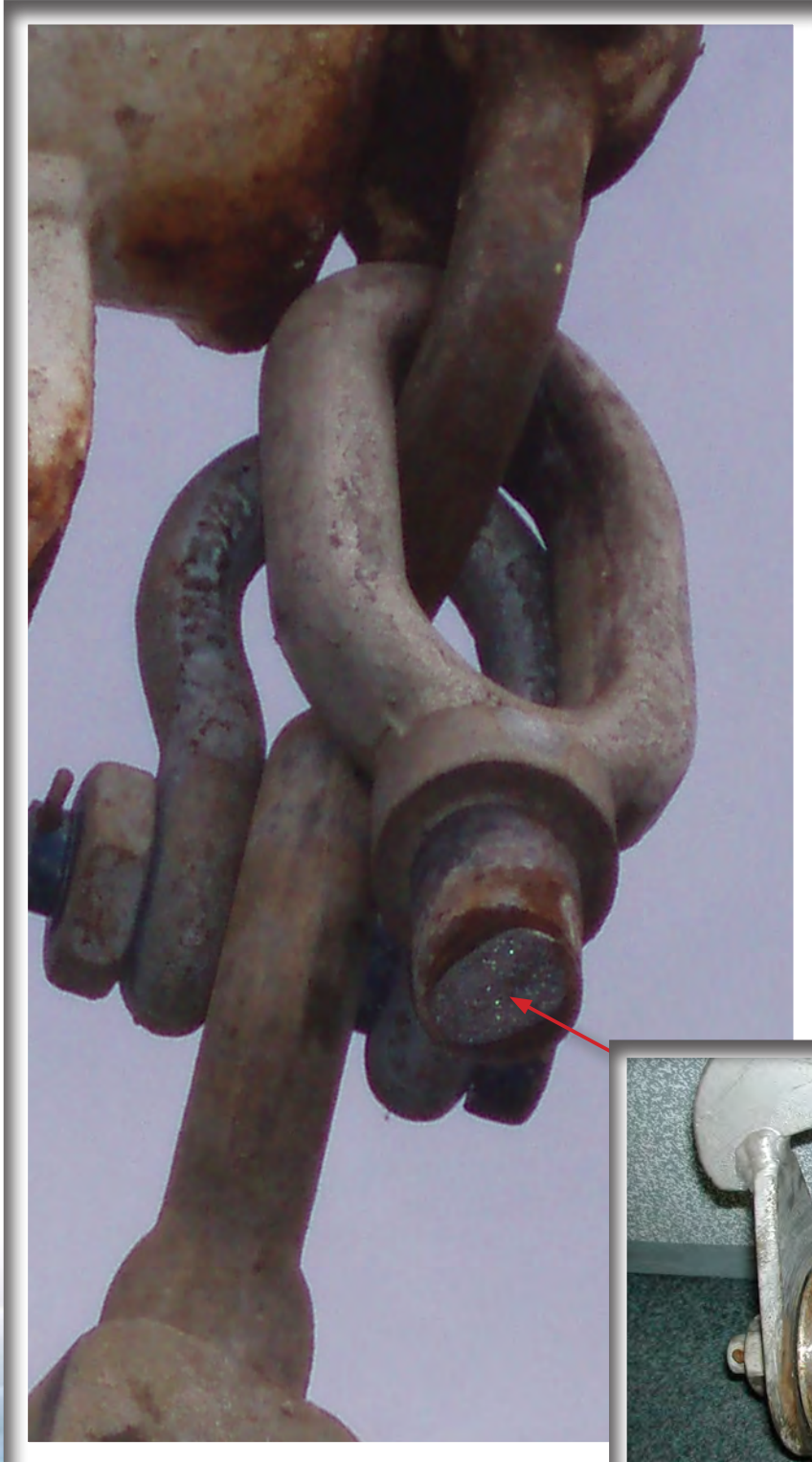
**2.** Inspect all overhead equipment - not just blocks - regularly (and keep a record of inspections). These blocks were regularly greased, and sideways loading, evidenced by the wear on the cheek plates and sheave, must have been apparent to whoever did the greasing. If something doesn't look right it generally isn't right; so do something about it straightaway.

**3.** In fishing vessel operations it is impossible to keep clear of all overhead lifting devices. Nevertheless, avoid standing under loads whenever possible - especially when the load is initially applied, as was the case in this accident. Do not stand below loads if you don't have to.

**4.** Wear a hard hat when involved in lifting operations or working near overhead loads. Hard hats are mandatory in every other hazardous industry, so why should fishing be any different?

**5.** The skipper's actions following this accident were commendable in getting the casualty to safety as quickly as possible by immediately jettisoning his fishing gear and contacting the coastguard. Depending upon the distress situation (which this was), seriously consider jettisoning fishing gear unless it is needed to keep the vessel from drifting or to keep her on the right wind, or dampen her rolling motion. The gear can always be retrieved later.





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**“Wear a hard hat when involved in lifting operations or working near overhead loads. Hard hats are mandatory in every other hazardous industry, so why should fishing be any different?”**



**Figure 16: Corrosion visible on overhead block and swivel eye**

# Fire-Fighting Drills – a Sound Investment

## Narrative

The skipper and two crew of a wooden hulled stern trawler had enjoyed a successful week's fishing. They were all looking forward to a well earned weekend of rest as they prepared for their last haul before returning to port.

As usual, the skipper was in the wheelhouse as the crew were at the stern preparing to haul in the fishing gear. As the skipper reduced the main engine speed to engage the hydraulic pump clutch, the engine room fire alarm sounded in the wheelhouse. The skipper alerted the crew as he went to the engine room and carefully "cracked" open the door. He did not need to enter the engine room to see that a fire had developed around the main engine turbo charger.

The skipper shut the door, went to the accommodation area and got a dry-powder extinguisher, which he discharged into the fire. He then shut the door again and opted to leave the engine running to enable him to haul in the fishing gear. The main engine was shut down a few minutes later. In the meantime, the skipper notified the coastguard, who activated two lifeboats and a rescue helicopter.

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**"The crew dealt with the fire in a competent and confident manner because they had been trained and drilled for the eventuality. This was a small investment for the likelihood of saving the vessel from severe damage – remember - TRAINING PAYS!"**

By now the crew, who had regularly exercised fighting an engine room fire, had blocked off the engine room vents, carried out boundary cooling on the deck using the hand-operated deckwash pump, and monitored the deck and adjacent bulkheads for a rise in temperature – none was observed.

As the helicopter circled the vessel the pilot switched on his thermal imaging camera, but no significant hot spots were found, suggesting the fire had been extinguished. The casualty was subsequently escorted safely into harbour by the lifeboats.

On investigation, it was found that the lubricating oil supply pipe to the turbo charger had suffered from fatigue cracking at its brazed connection to the oil distribution block (Figure 17). This caused oil to be sprayed onto the hot turbo-charger, where it ignited. The pipe braze failure was caused by critical vibration stresses because the pipe was inadequately clamped.

The development of the fire was reduced by the heat shield cowling around the turbo charger. As result of this and the crew's prompt actions, damage was extremely light, and even the plastic fittings in the immediate vicinity of the fire were unaffected.



## Remember

# The Lessons

The crew's prompt actions in containing the fire were well considered. They had all attended the mandatory fire-fighting course and, importantly, had regularly practised fire drills and had discussed what they would do in the event of an engine room fire. However, the skipper's decision to leave the engine running to recover the fishing gear after the fire had apparently been extinguished, was risky, and could easily have led to re-ignition of the fire.

**1.** There have been many cases of engine room fires resulting from vibration-induced fuel and oil pipe failures. It is good engineering practice to regularly check the effectiveness of pipe clamping arrangements while the engine is running.

**2.** Do examine brazed connections, especially on the underside, to check the integrity of the joint, and do NOT delay

repairs. The use of a mirror set will help determine the condition of connections in awkward positions.

**3.** Consider carefully if it is safe to run equipment after a fire. In this case, there was a real risk of re-ignition as the engine was run to recover the fishing gear. The skipper did have the option to buoy off the gear for later recovery.

**4.** The crew dealt with the fire in a competent and confident manner because they had been trained and drilled for the eventuality. This was a small investment for the likelihood of saving the vessel from severe damage – remember - TRAINING PAYS!

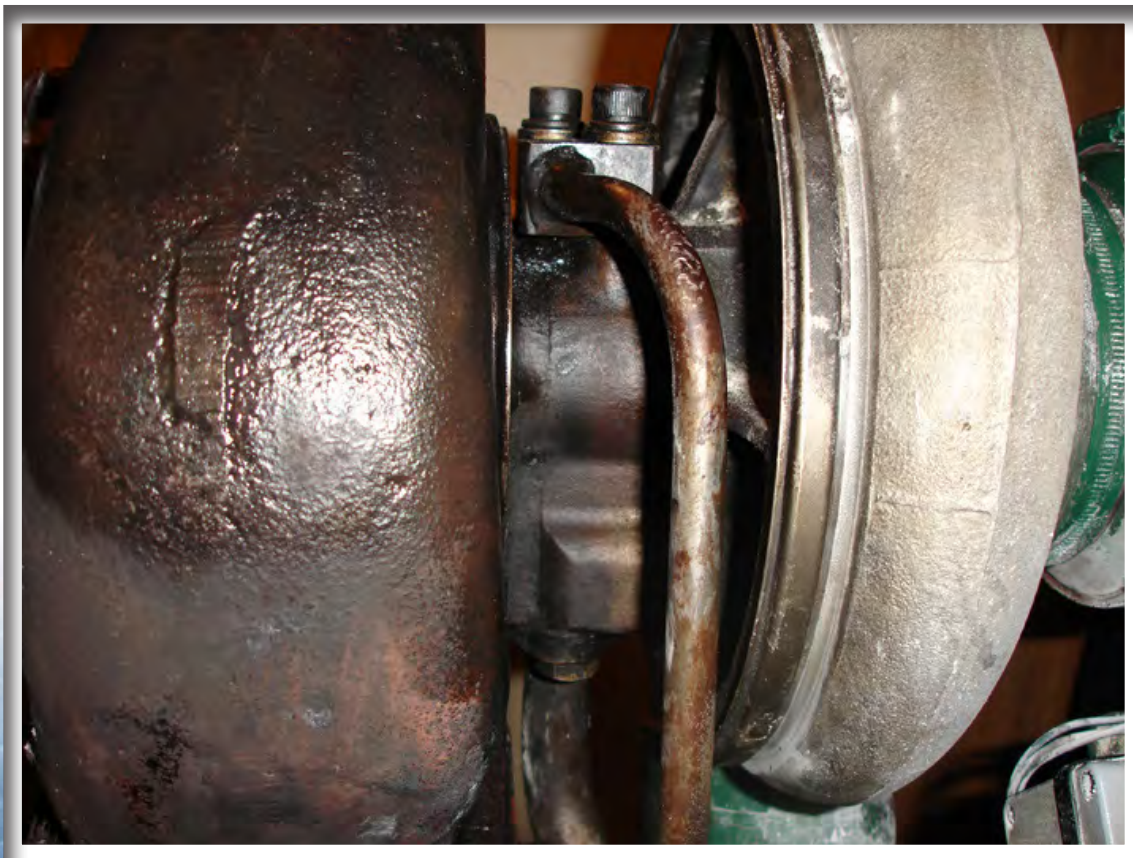


Figure 17: Failed turbo-charger lubricating oil pipe brazed connection

# Prompt Actions Avert a Tragedy

## Narrative

A fisherman working on a small creel boat had a lucky escape after his leg became caught in the back rope during shooting operations, dragging him overboard and down to a depth of up to 40 metres. It is unknown whether the fisherman had gone aft to help a fellow crewman who had also, momentarily, become caught in the back rope, or if he had gone aft to help clear a creel that was wedged in the stern shooting opening. Realising what had happened, the skipper of the boat stopped his engine, cut the back rope and steamed round to the marker buoy to haul in the fleet of creels and recover his colleague.

The skipper also made a distress call straightaway to alert the coastguard, and he told them about the situation.

The skipper and one remaining crewman hauled in the creels and managed to recover the fisherman back on board, but by that time he had been submerged for several minutes and was showing little sign of life. The two men carried out cardio-pulmonary resuscitation (CPR) until he began to cough and eventually breathe freely. They then placed the fisherman in the recovery position and kept him warm until the coastguard helicopter (which had been despatched within 5 minutes of the skipper's

call) arrived on scene to take him to hospital. The fisherman was kept in intensive care for 11 days, but went on to make a full recovery.

**“The skipper’s early call to the coastguard and the swift despatch of the rescue helicopter ensured that the injured fisherman received the required medical attention as quickly as possible.”**



Figure 18: Creel and stern opening





## Remember

# The Lessons

**1.** The skipper was not aware that either of the crewmen had gone aft, and at the time that the fisherman was dragged overboard, the boat was still making way at the normal speed for shooting creels. The first crewman had gone aft to free a creel that had become jammed in the stern opening. If crew need to go aft to clear fishing gear, it is essential there is a system in place that ensures the skipper is aware of their intention. He can then reduce speed, take the weight of the back rope and in turn reduce the risk of harm before they do so.

**2.** The creels on this vessel could become wedged if they went through the stern opening at certain angles. A wider opening or a smaller creel would have solved this, and might have avoided the need for either man to put himself in danger by going aft to clear the jam. It is important to consider all possible hazards when designing the working arrangement on a boat.

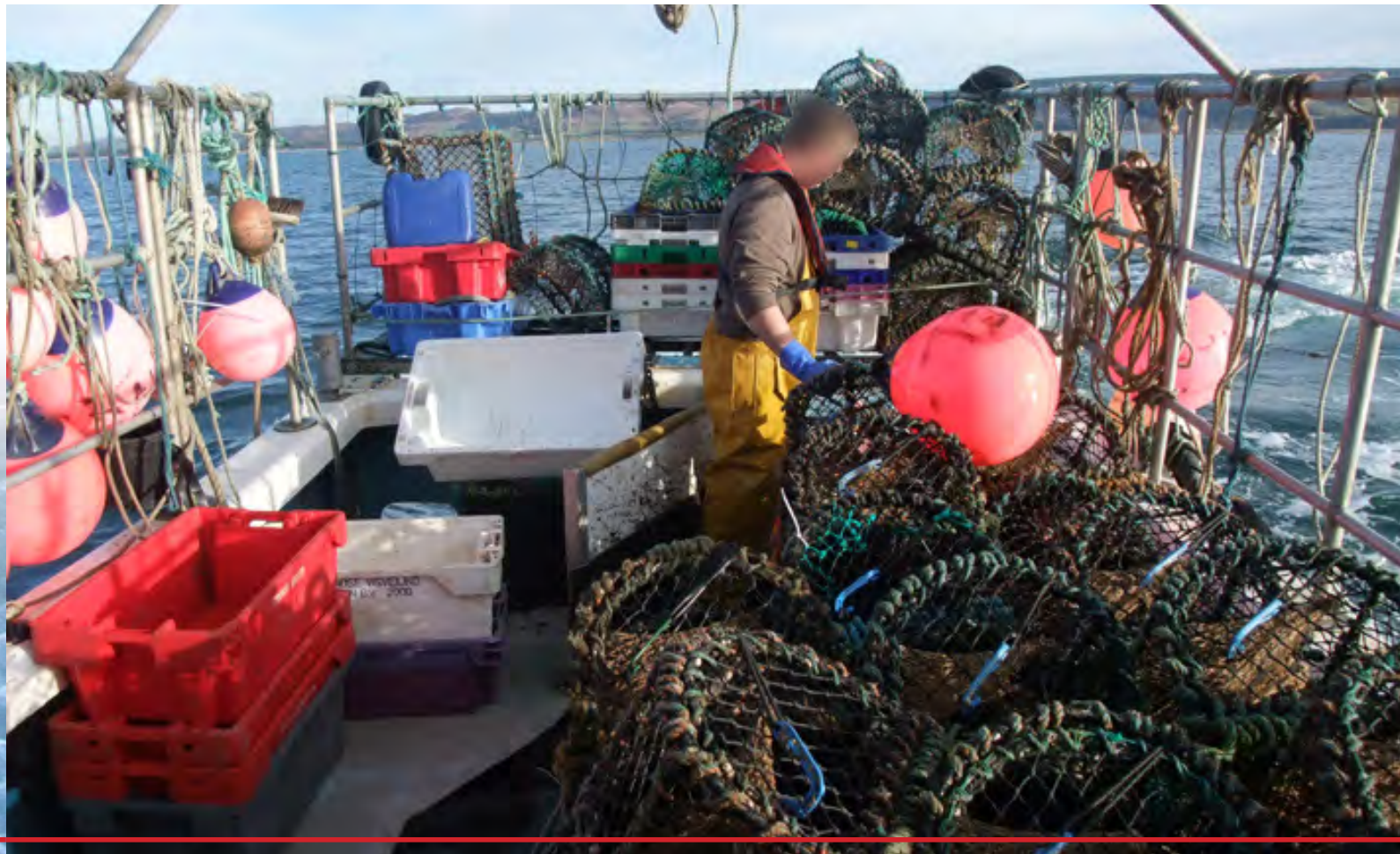
**3.** Poor housekeeping meant that areas where the men could have stood in order to avoid coming in to close contact with the back rope, were filled with spare creels. The safety benefits of a

self-shooting arrangement are lost if the routine working of the boat still requires the crew to come in close contact with the back rope.

**4.** The skipper's early call to the coastguard and the swift despatch of the rescue helicopter ensured that the injured fisherman received the required medical attention as quickly as possible. If faced with an emergency situation, the seafarer should not hesitate to make a distress call on channel 16 – the call can always be downgraded at a later time.

**5.** It is rare for a fisherman who has been dragged overboard in this way to survive. The techniques that the skipper and the other crewman had learned on first-aid courses undoubtedly helped them to save their workmate's life. It is essential that all seafarers receive first-aid training and refresh their knowledge at regular intervals.

Figure 19: Working deck with a crewman standing in the position where the man was dragged overboard



# When Late Detection is Just Too Late

## Narrative

During the early evening watch, a container ship was transiting a shipping lane between two traffic separation schemes where concentrations of fishing vessels were often encountered. The container ship was making good a course of 240° at a speed of 18kts.

On watch were the master, and a cadet, who was acting as the lookout. At times, the isolated rain showers reduced visibility to between 1 and 2nm, but only one of the two operational radars fitted was in use. It was getting dark and there was a moderate sea and swell.

The master checked the vessel's planned course and heading on the autopilot; he also satisfied himself that there were no radar targets which would pose a problem. As everything was quiet, the master took the opportunity to inspect the deck logbook and found that the entries were incomplete. Consequently, he called the second officer to the bridge and started to explain to him the errors of his ways.

During this conservation, the cadet reported a single light fine on the container ship's port bow. The master again checked the radar display, but he still could not see any targets ahead so he looked at the light through binoculars. He saw that the light was on a fishing vessel, which he quickly assessed his ship to be overtaking.

To allow more sea room between the two vessels, the master adjusted the autopilot heading 10° to starboard. Moments later, as the master was adjusting the radar's sea and rain clutter controls to try and locate the fishing vessel, the cadet reported that the light was now very close. The master was shocked to see that the light was now so close that he immediately switched the steering to manual and ordered the second officer to put the helm "hard to starboard". It was too late. The fishing vessel was towing her fishing gear on a north-easterly course at slow speed and had already crossed onto the container ship's starboard bow. The container ship struck the fishing vessel's starboard side causing the fishing vessel to list heavily to port and throwing two of the fishing vessel's deckhands overboard. Neither of the deckhands were wearing lifejackets.

One of the deckhands lost overboard was quickly recovered by the fishing vessel, but the second was in the water for over 30 minutes until he was eventually found and recovered by the container ship's rescue boat. The fishing vessel suffered substantial damage during the collision (Figure 20) and had to be towed back to port. The fishing vessel was fitted with a Class B AIS which was switched on but was set to receive data only.



## Remember

# The Lessons

**1.** Radars are excellent, and it would be difficult to operate ships safely without them. However, although their increased sophistication and reliability is a positive, they are not infallible. Radars invariably require a degree of fine tuning, and two are always better than one.

**2.** When all seems quiet during a bridge watch, it is very easy for bridge watchkeepers to focus their attention on other matters. Consequently, when a problem suddenly crops up valuable time is lost while he or she takes stock of the situation, and decisions are frequently

based on scanty information. Bridge watchkeepers, including masters, must keep their eye on the ball at all times. If they don't, they are likely to compromise their vessel's safety.

**3.** Recovering persons from the water is virtually never straightforward, particularly at night in rough sea conditions. In this case, both the fishing

vessel skipper and the crew of the container ship were sufficiently well trained to respond positively to the situation. Nonetheless, the recovery of the deckhands would have been made easier and their chances of survival increased had they been wearing lifejackets when working on deck.

**4.** Many fishing vessel skippers choose not to transmit on AIS because they do not want to let their rivals know where they are. This action might make commercial sense but it makes no sense when a fishing vessel is operating in or near busy shipping lanes.

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**“Bridge watchkeepers, including masters, must keep their eye on the ball at all times. If they don't, they are likely to compromise their vessel's safety.”**

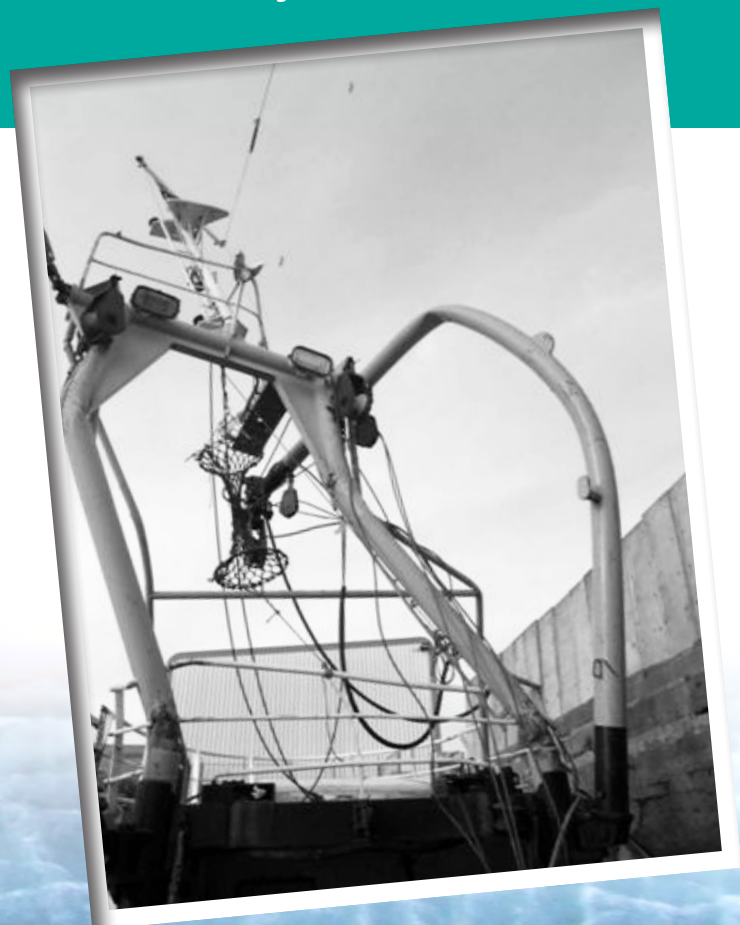


Figure 20: Damage sustained to the fishing vessel

# Ready? Aye, Ready

## Narrative

A trawler was leaving harbour during the small dark hours when suddenly the engine stopped without warning or change in engine note. The skipper immediately realised that his propeller was probably fouled and that he had little time before the boat would be driven onto the nearby harbour entrance rocks. He always kept his anchor ready for such eventualities and was able to let it go without delay, which brought the stricken craft up just clear of the rocks. The skipper

contacted the coastguard, who immediately tasked a lifeboat to assist. The lifeboat duly arrived and soon had the disabled craft under tow.

Once back in the safety of the harbour, the skipper was able to beach his boat and make an inspection at low tide. Drying out revealed that the propeller was indeed fouled by a section of double, 8mm thick netting that had either been discarded carelessly or, more probably, torn from a trawl belly and carried by the tide towards the shore.

## Remember

# The Lessons

**1.** This forward thinking skipper had his anchor ready for immediate use. In situations such as this, self-help is often the only help available.

The anchor is a vital part of safety equipment and should be maintained as such. It would have been of little value to this skipper if he'd had to break it out from under piles of gear or seek and attach an unprepared chain.

**2.** The skipper recognised the signs of propeller fouling: the engine stopping suddenly, without gradual power loss, or the engine miss-firing. Dropping the anchor first was the most sensible and effective time-buying solution available to him. It arrested the boat's drift and bought time for investigating the cause.



Figure 21: Net fouling propeller

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**“This forward thinking skipper had his anchor ready for immediate use. In situations such as this, self-help is often the only help available.”**



# Drum Roll – But No Fanfare

## Narrative

A skipper was on deck tidying and stowing the nets after a day's trawling. As he walked past the winch his oilskin coat became caught in the warping drum of the trawl winch, which had been left running once the gear had been brought inboard. Unfortunately, the stop lever was out of the skipper's reach as he was pulled around the drum end and thrown heavily onto the deck.

Fortunately, there was a crewman on board the vessel that day, which was unusual as the skipper normally worked single handed. The crewman was able to stop the winch before the skipper was taken around the drum again. However, the skipper was already badly injured, having fractured his leg in three places as well as injuring his back and thigh.

The crewman summoned help via his mobile telephone, which led to the coastguard co-ordinating the skipper's medical evacuation to hospital by a rescue helicopter.

Figure 22\*: View of the working deck where the accident occurred



## Remember

# The Lessons

**1.** Although the skipper - a very experienced fisherman - was badly injured, the outcome could have been far worse. He normally worked single handed, and it is possible that had he been alone on the day of the accident he would not have survived. This accident demonstrates the potential dangers of single handed operation.

**2.** The nets had been recovered before the accident, but the winch had not been stopped before the skipper began to tidy up the deck. Do not leave a winch turning unnecessarily.

**3.** The skipper was wearing a full length oilskin, the back of which caught in the drum end. To avoid entrapment accidents, ensure the clothing you wear is not unnecessarily loose.

Figure 23\*: The skipper's injured leg



**“He normally worked single handed, and it is possible that had he been alone on the day of the accident he would not have survived.”**



# I Thought You Said the Fore Peak Was Empty

## Narrative

A 30m scallop dredger was at sea in moderate weather. The crew felt that the vessel was behaving as though the fore peak tank was ballasted, whereas they believed it to be empty. They started the ballast pump and began pumping out water. After some time, water was still being pumped out and the crew decided to investigate further.

They removed the tank lid from the fore peak and were alarmed to find the sea washing in and out through a hole in the starboard side. Leaning over the side of the boat, they could see a section of shell plating at the waterline, opening and closing the hole as it moved about in the seaway.

The skipper revised his fishing plans and headed straight for the nearest major port. They arrived safely and took a drying out berth. At low tide, the full extent of the damage was revealed, with a hole of about 1.8m x 0.8m in the shell plating on the starboard side.

Detailed examination of the fore peak found that of the four frames, two had wasted and come away from the shell plating completely, and another was attached by only half its length. The shell plating had been unsupported and flexed as the boat moved through the sea. The plating was in good condition, but a crack had developed which had then spread, allowing the sea to leak in. The crack had then got bigger, until the force of the sea tore the plating open like a tin can. Fortunately, the collision bulkhead, at the aft end of the fore peak tank, was in good condition and saved the vessel from flooding uncontrollably.

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**“ Get into the habit of thoroughly checking one compartment each month.”**





## Remember

# The Lessons

**1.** The crew have since recognised the need to check ballast tanks and void spaces periodically for signs of damage or general deterioration. If you know what it should look like, it is much easier to spot potential problems. Get into the habit of thoroughly checking one compartment each month.

**2.** When you are checking compartments, look carefully at coatings, and remove them if necessary to look at the material underneath. In this case the

coating looked fine, and it was only when crew looked more closely at the frames that their true condition was discovered.

**3.** Before you enter a ballast tank or void space, make sure it is properly ventilated. Corrosion uses up the oxygen in the air, and there are cases where people have gone into a tank, collapsed and died<sup>1</sup>. Sometimes crew mates try to rescue them and, sadly, they too have

<sup>1</sup> MAIB report into the death of three crewmen in an enclosed space on the *ERRV Viking Islay*. Report No 12/2008 July 2008.

lost their lives in the attempt. In this case, the compartment had been well (if unintentionally) ventilated, but in normal circumstances it is good practice to use ventilation fans to blow fresh air into the compartment for 24 hours and use analysing equipment to check that the atmosphere is safe to breathe before entering.

**4.** It is always a good idea to tell the Coastguard if your vessel has been damaged, even if you do not need help or are in immediate danger. This helps them to be more prepared and to take action if the situation does get worse.

**5.** Finally, the collision bulkhead saved the boat from being lost. Collision bulkheads have more uses than their name suggests, and should be kept in good condition.



Figure 24: Shell plating damage

\* Photograph courtesy of MCA

# Shooting Pots Ends Tragically

## Narrative

At the end of a day at sea spent fishing and relocating sets of gear before the onset of bad weather, the owner of a potter was throwing the last set of pots overboard before heading for home.

The potter was fitted with a stern shooting door that enabled a single set of pots to be shot over the stern with the crew safe in the wheelhouse. When more than one set was carried, such as when moving gear, the stern door was closed and the more traditional, and riskier, method of lifting the pots overboard was employed.

As one of the last pots was being lifted overboard, the crewman in the wheelhouse heard the owner shout; he turned round and saw the owner standing at the stern, with the backrope caught around his leg. The owner did not have a knife to hand and the crewman threw the engine control full astern. Unfortunately, the weight on the backline was too great and the owner was pulled overboard.

The crewman reacted quickly. He led the remaining backline up to the hauler and pulled the owner back to the surface. The owner was unconscious. With some difficulty, the crew pulled him back on board but, sadly, despite valiant efforts to revive him and a swift airlift to a nearby hospital, he died.

## Remember

# The Lessons

**1.** The most common cause of death on creel boats is falling or being dragged overboard. Most of these accidents happen while shooting pots. The greatest risk to crew working on creel fishing boats is becoming caught in the back rope. Separating crewmen from the back rope, by methods such as using a stern shooting door, reduces the chance of them becoming entangled. Where this is not possible, other ways of keeping people clear of the back rope should be carefully considered. The

fitting of rope pounds or dividers can create an effective barrier, with little lost deck space. Seafish1 provides practical guidance on possible ways to reduce the dangers while potting.1 [www.seafish.org/resources/publications](http://www.seafish.org/resources/publications)

**2.** The owner did not carry a knife and there were none available for him to use to cut the back rope. Carrying a knife, or having one immediately available, could mean the difference between life and death.

**3.** None of the crew wore lifejackets or personal flotation devices. In most cases, lifejackets would assist rather than hinder the wearer to keep afloat, even if the wearer is trapped in a backline.

**4.** The owner and crew had never considered how to recover a trapped, unconscious crewman back on board. In the event, they found it was much more difficult than they had imagined. Think carefully how you might recover someone from the water on your boat and practise this drill regularly.



Closed stern shooting door

“ The owner did not carry a knife and there were none available for him to use to cut the back rope. Carrying a knife, or having one immediately available, could mean the difference between life and death.”

Figure 25: Stern view of potter



Hauling block and davit

Hauler

Figure 26: Forward view of potter



# Siesta Disaster

## Narrative

A day-working creel vessel went aground while steaming close to the shore. The boat was steering by autopilot, with the skipper and a deckhand in the wheelhouse and a further crew man resting below in bed.

The boat was shifting grounds for an hour before her last fleet of creels was shot for the day. They sailed at 0700, and the crew worked hard in the fresh air all morning hauling and shooting creels. While shifting grounds, the skipper and deckhands took the opportunity to eat a late lunch. The full stomachs and earlier exertion combined with the gentle rolling

of the vessel and the warm wheelhouse to create a sleepy atmosphere, and the deckhand soon fell asleep on a bench seat, knowing that his capable skipper was keeping a good watch. At some point after this the skipper also nodded off, to be awoken by the vessel grounding on a rocky foreshore.

Unfortunately, they were unable to get the vessel off the rocks immediately and were forced to abandon ship as the boat lay over dramatically in the ebbing tide. Neap tides and strong onshore winds in the following days resulted in the boat being completely destroyed before she could be salvaged.

Figure 27: The abandoned vessel

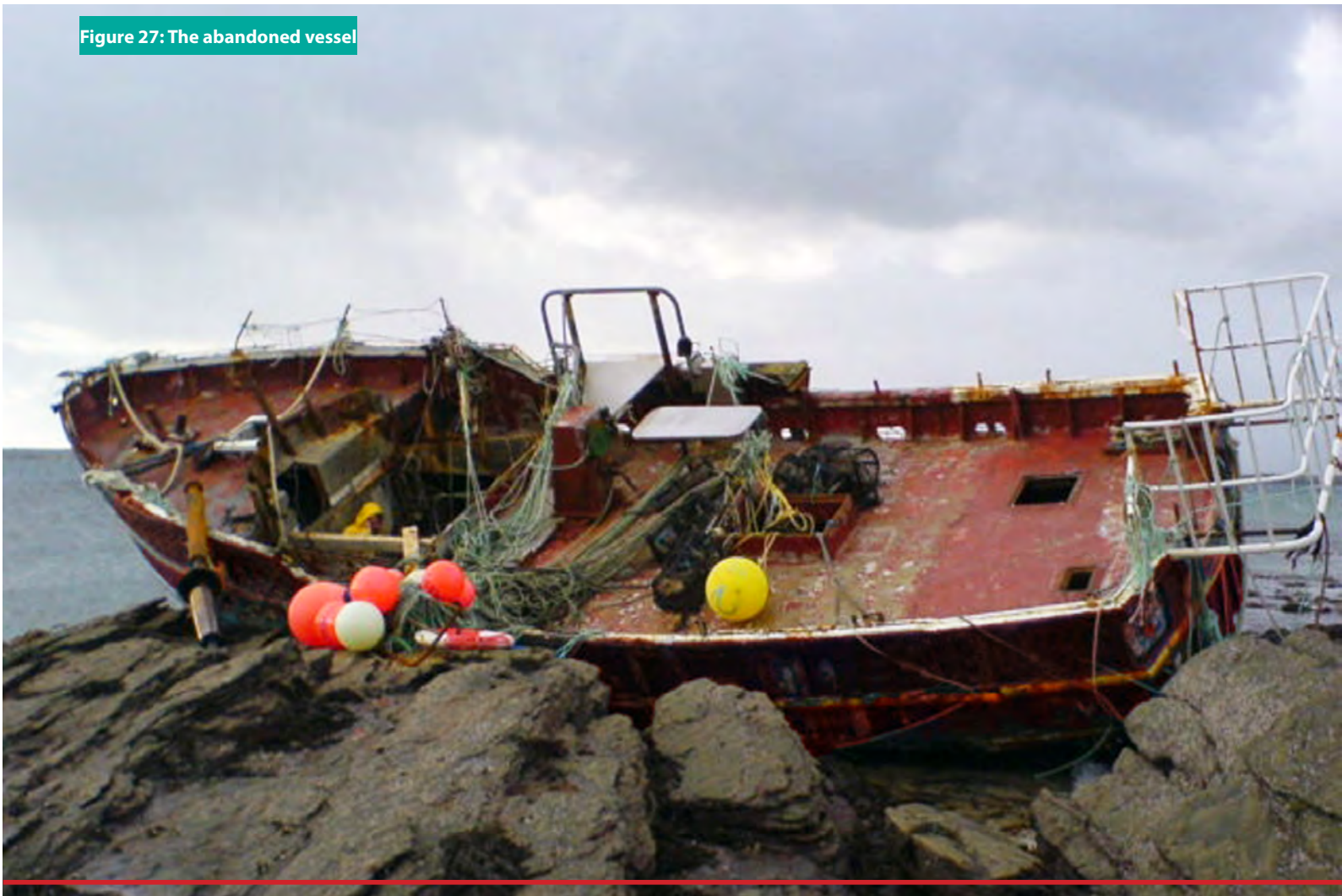


Figure 28: Fishing vessel aground on the rocks



## Remember

# The Lessons

**1.** This was not an issue of fatigue; the crew were getting adequate sleep every night. This accident was caused by something that everyone has encountered at some time: a good meal, a warm atmosphere and lack of stimulation. All are ideal ingredients for nodding off. Counteract this sleepy feeling by: ensuring there is sufficient through ventilation (not just an open leeward window); getting off the seat and standing up to steer; drinking a cup of coffee; and switching on the radio, even if it does wake up your mate in the corner. And then, why not persuade him to take the wheel.

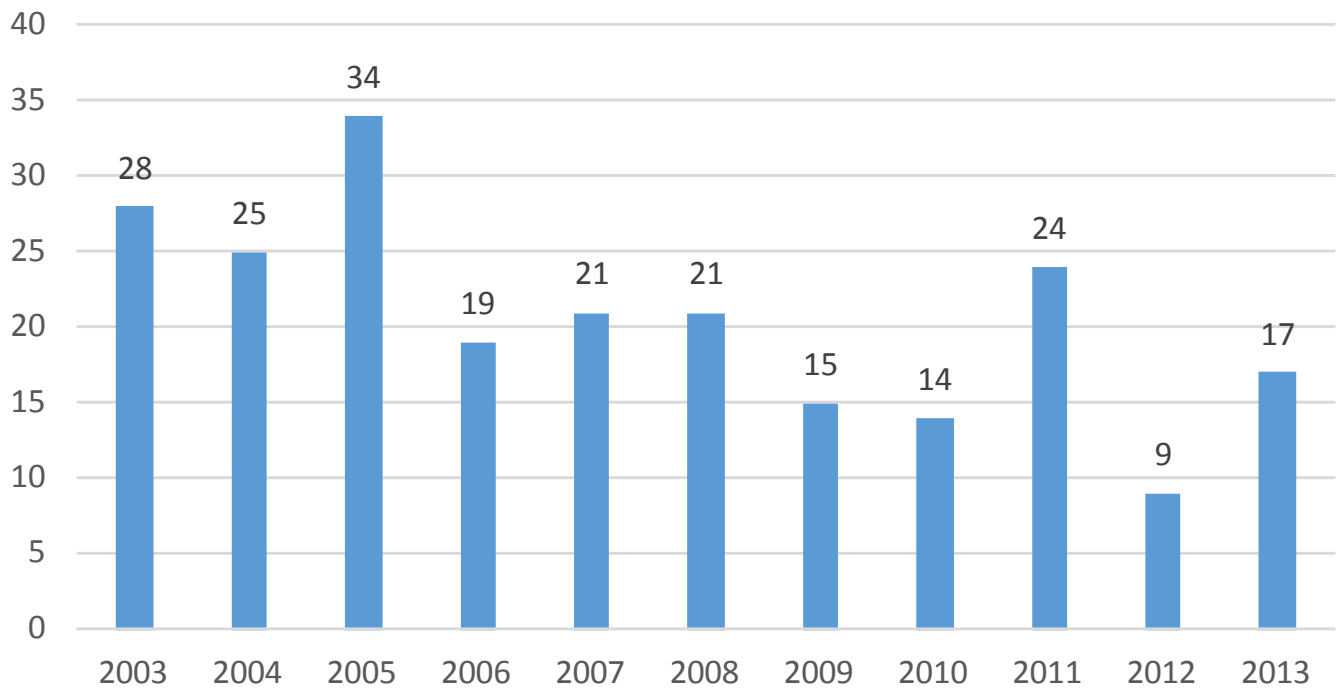
**2.** Fit a watch alarm onto the autopilot and make sure the reset switch is far enough away to force you to get off the wheelhouse seat to reset it every few minutes. Additionally, make sure the siren is loud enough to sound throughout the boat on its secondary alarm mode, not just in the wheelhouse. In the absence of anything else, resetting the watch alarm will hopefully provide the stimulation needed to prevent that “afternoon nap” feeling. Radar guard zones and echo sounder shallow water alarms can also help to give warnings of impending danger.



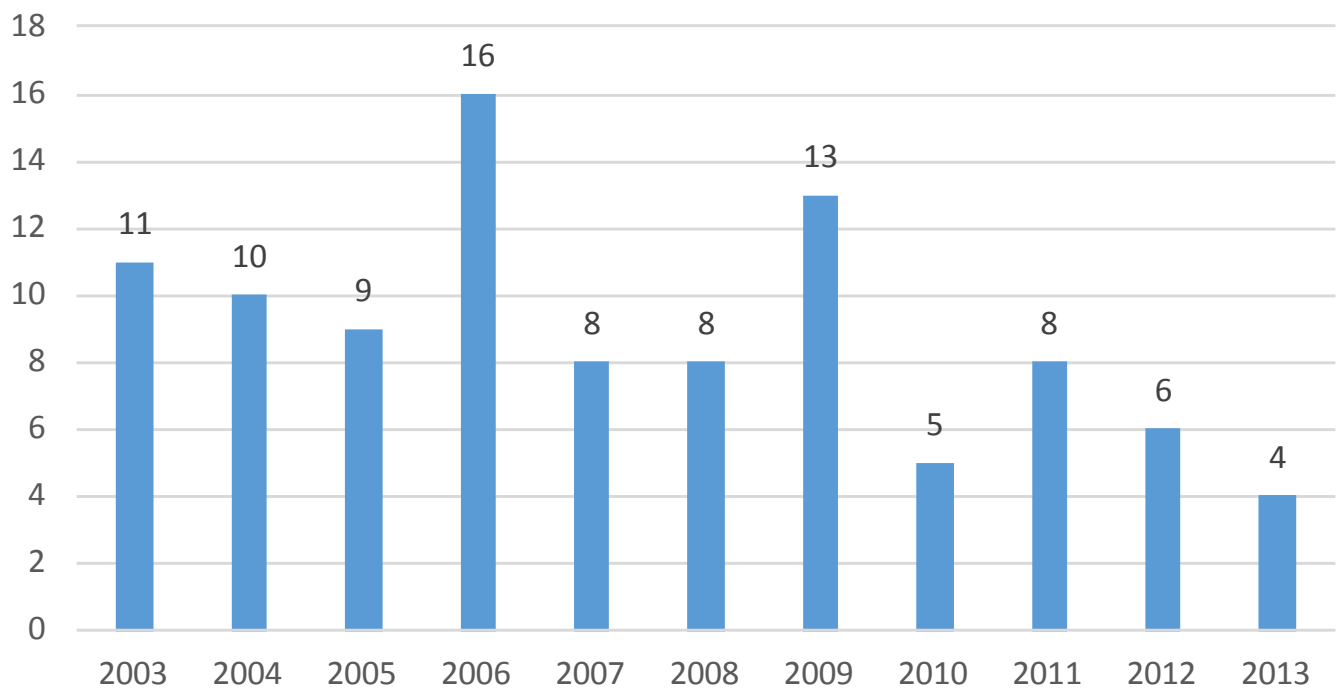
**“This accident was caused by something that everyone has encountered at some time: a good meal, a warm atmosphere and lack of stimulation. All are ideal ingredients for nodding off.”**

# Fishing Vessel Accident Statistics

## UK fishing vessel losses 2003-2013



## Deaths 2003-2013



# MAIB Published Reports

## List of fishing vessel accident reports published since 1999

**About Time** – Fatal man overboard off Pembrokeshire on 14 June 2011.

**Achieve** – foundering and the death of crew member north-west of the Island of Taransay, Western Isles on 21 February 2013.

**Admiral Blake [and mv Boxford]** – collision 29 nm south of Start Point, English Channel on 11 February 2011.

**Alma C** – fatality on vessel, on Turbot Bank about 55 miles west-by-south of Thyboron in Denmark on 25 January 2001.

**Amber** – loss of vessel in the Firth of Forth on 6 January 2003.

**Amber Rose** – foundering with the loss of one life off the Isle of Man on 15 October 1998.

**Amy Harris III** – engine room fire, South of the Isle of Arran on 16 January 2013.

**Angela** – capsized and foundering in the North Sea on 6 February 2000.

**Annandale** – flooding and foundering 16 miles north-north-east of the Shetland Islands on 23 March 2000.

**Arosa** – grounding and total loss of vessel on Doonguddle rock off the west coast of Ireland with the loss of 12 crew members on 3 October 2000.

**Astra II** – loss of two crewmen attempting to board vessel while berthed at Carlost pier, Loch Harport, Isle of Skye on 2 April 2000.

**Aqua-Boy** – grounding on Sound of Mull on 11 November 2006.

**Aquila** – capsized with the loss of three lives, Bo Faskadale Reef, Ardnamurchan on 20 July 2009.

**Atlantic Princess** – man overboard from vessel in the English Channel on 23 November 2000.

**Audacious (part of combined report [also see Chloe T])** – flooding and foundering 45 miles east of Aberdeen on 10 August 2012.

**Aurelia** – flooding and loss of vessel 78 miles west of St Kilda on 13 August 2001.

**Auriga** – loss of vessel off Portavogie, Northern Ireland on 30 June 2005.

**Be Ready** – fire on board vessel while fishing 30 miles north-west of the Orkney Islands on 22 January 2000.

**Betty G** – capsized while beam trawling in Lyme Bay on 23 July 2012.

**Betty James** – grounding and subsequent loss of vessel off Isle of Rhum on 10 July 2000.

**Beverley Ann II [and mv Cypress Pass]** – collision on 9 March 1999.

**Blithe Spirit/Lady Hamilton** – collision between fishing vessels in Falmouth Bay, Cornwall on 3 October 2007.

**Blue Angel** – man overboard west of Gigha on 6 January 2011.

**Blue Hooker** – loss of vessel with two lives off Blackchurch Rock, North Devon on 12 November 1998.

**Blue Sinata** – foundering in Weymouth Bay on 8 September 2005 with loss of one life.

**Bounty** – loss of vessel off Portavogie, Northern Ireland on 30 June 2005.

**Breadwinner (part of combined report [also see Discovery])** – loss of the skipper while fishing single-handedly 5.5 miles east of Score Head, Bressay on 20 January 2011.

**Brothers** – grounding with the loss of two lives off Eilean Trodday on 1 June 2006.

**Catrina** – capsized south of Newhaven on 13 October 1998.

**Celtit [and mv Sand Heron]** – collision in NE Traffic Lane, Dover TSS on 30 July 2001.

**Charisma** – capsized with the loss of one crew member in Carlingford Lough on 30 January 2002.

**Chelaris J** – capsized and sinking with the loss of all crew members, Banc de la Schôle (near Alderney) on 1 October 2003.

**Chloe T (part of combined report [also see *Audacious*])** – flooding and foundering 17 miles south west of Bolt Head, Devon on 1 September 2012.

**Christine Nielsen** – flooding and foundering, 120 miles north-east of the River Tyne on 18 March 2001.

**Constancy** – sinking on 30 July 1998 with the loss of one life.

**Constant Faith** – loss of vessel about 100 miles north-north-east of Peterhead on 30 June 2001.

**Crimond II** – loss of vessel, 30 miles north-east of Scarborough on 24 April 2001.

**Danielle** – major injuries sustained by deckhand, 17 miles south-south-east of Falmouth on 6 June 2006.

**De Bounty [and mv *Celtic King*]** – collision to the south of The Smalls traffic separation scheme off the south-west coast of Wales on 19 March 2000.

**De Kaper** – fire off Hanstholm, Denmark on 12 February 1999.

**Denarius** – Fire and abandonment of vessel 83 miles north-north-east of Kinnaird Head on 9 July 2012.

**Discovery (part of combined report [also see *Breadwinner*])** – loss of the skipper during single-handed fishing operations 3 miles east of Fraserburgh on 9 October 2010.

**Donna M** – capsize off the Orkney Islands with the loss of two lives on 31 August 1999.

**Dunan Star** – fatal accident, 1.5 miles south-west of the Isle of Arran on 10 August 2000.

**Elegance** – two engine room fires, subsequent flooding and foundering, 30 miles north-west of Shetland on 30 January 2004 and 8.5 miles west of Shapinsay on 5 March 2004.

**Elhanan T** – flooding and foundering on 14 August 2003.

**Emerald Dawn (part of trilogy 2004 [also see *Jann Denise II, Kathryn Jane*])** – capsize and foundering off Kilkeel with the loss of one life on 10 November 2004.

**Emerald Star** – contact with Chevron Texaco Number 6 berth at Milford Haven 18 January 2006.

**Etoile des Ondes [and mv *Alam Pintar*]** – collision 15 miles north of the Cherbourg peninsula on 20 December 2009, resulting in one fatality and the loss of the fishing vessel.

**Fishing Vessel Safety Study 1/2002** – analysis of fishing vessel accident data 1992 to 2000.

**Fishing Vessel Safety Study 1992 to 2006** – analysis of UK fishing vessel safety.

**Flamingo** – capsize east of Harwich on 7 July 2002.

**Fleur de Lys** – explosion and subsequent foundering 18 miles south-east of Portland Bill on 16 April 2000.

**Fraoch Ban** – capsize off the coast of the Shetland Islands on 15 August 1999.

**Geeske** – death of one person off Beachy Head on 9 December 1998.

**Gemma Fidelis** – fatal accident, 9 miles east of the River Tees on 23 October 2001.

**Girl Alice** – loss of skipper, 1.5 miles south-east of Burnmouth on 19 November 2000.

**Golden Promise** – grounding on the Island of Stroma on 7 September 2011.

**Gradeley** – man overboard fatality off the west coast of the Island of Mull on 28 October 1999.

**Greenhill** – grounding and subsequent foundering off Ardglass, Northern Ireland on 19 January 2006.

**Harbour Lights** – loss of vessel off Polperro, Cornwall on 8 January 2000 with the loss of one life.

**Harvest Hope** – capsize and foundering 40 miles north-east of Peterhead on 28 August 2005.

**Harvester [and mv *Strilmoy*]** – collision in the North Sea on 4 November 2005.

**Heather Anne** – capsize and foundering in Gerrans Bay, Cornwall on 20 December 2011 resulting in the loss of one crewman.

**Horizonte Claro** – grounding on Soyea Island, Loch Inver, on 21 October 2000.

**Jack Abry II** – grounding on Isle of Rum on 31 January 2011

**Jann Denise II (part of trilogy 2004 [also see *Emerald Dawn, Kathryn Jane*])** – foundering 5 miles south-south-east of the River Tyne on 17 November 2004 with the loss of two crew.



**Jasper III** – foundering 90 miles north-east of Fraserburgh on 10 September 1999.

**JCK** – foundering with the loss of skipper in Tor Bay on 28 January 2013.

**Karen** – grounding at the entrance to Ardglass Harbour, County Down, Northern Ireland on 3 January 2011

**Kathryn Jane (part of trilogy 2004 [also see Emerald Dawn, Jann Denise II])** – foundering 4.6nm west of Skye on or about 28 July 2004 with the loss of skipper and one possible crew member.

**Kerloch** – grounding and subsequent foundering at Crow Rock, off Linney Head, Wales on 20 February 2010.

**Kingfisher II** – fire while on passage to recover creels, 5 miles east of North Uist on 26 April 2004.

**Kirsteen Anne** – loss of vessel in the Firth of Lorn on 31 December 2002 with the loss of two crew.

**Korenbloem (part of trilogy 2010 [also see Optik, Osprey III])** – fatality resulting from a man overboard in the Dover Strait on 6 November 2009.

**Lady Hamilton** – see *Blithe Spirit*.

**Lady Hamilton of Helford [and mv Mathilda]** – near miss 7 miles east-south-east of Lizard Point, Cornwall on 28 June 2001.

**Lomur** – grounding in the approaches to Scalloway, Shetland Islands on 14 June 2001.

**Luc [and mv Toisa Puffin]** – collision 8.5 miles due east of the river Tyne on 13 June 1999.

**Lynn Marie [and mv Philipp]** – collision 6nm south of the Isle of Man on 9 April 2011.

**Lysfoss** – grounding in the Sound of Mull, Scotland on 7 May 2001

**Maggie Ann** – man overboard in Cardigan Bay on 12 February 2009, resulting in one fatality.

**Marbella [and Bravo Delta offshore platform]** – collision in the Rough Gas Field about 25 miles south-east of Flamborough Head on 8 May 2002.

**Mariama K** – carbon monoxide poisoning on board vessel in Douarnenez, France on 10 June 2000, resulting in one fatality.

**Meridian** – loss of the fishing vessel with the loss of four crew, 160nm due east of Aberdeen on 26 October 2006.

**Moyuna** – grounding at the entrance to Ardglass Harbour, Northern Ireland on 21 November 2011.

**Noordhinder [and mv Bro Axel]** – near miss and the subsequent grounding of *Bro Axel* at Milford Haven on 5 December 2002.

**Noordster** – capsize with the loss of three crew 11.5nm south of Beachy Head on 13 December 2005.

**Ocean Rose [and mv Reno]** – collision off Whitby, North Sea on 6 March 2004.

**Ocean Star** – failure of a warp block on board vessel north of the Shetland Islands resulting in one fatality on 26 November 2001.

**Olivia Jean** – injury on board the vessel, 17nm south-south-east of Beachy Head in the English Channel on 10 October 2009.

**Opportune** – man overboard fatality 35 miles east of Wick on 23 February 2000.

**Optik (part of trilogy 2010 [also see Korenbloem, Osprey III])** – loss overboard of crew member, 8 miles south-east of Arbroath on 18 November 2009 resulting in one fatality.

**Osprey** – fatal accident to a man overboard in Lochinver Harbour on 20 April 2002.

**Osprey III (part of trilogy 2010 [also see Korenbloem, Optik])** – fatality resulting from a man overboard in the Moray Firth on 11 November 2009.

**Our Boy Andrew** – fatal accident 9 miles east of Eddystone Rocks on 24 March 2011

**Our Nicholas** – grounding and loss of vessel near the entrance to Stornoway Harbour on 24 July 2001.

**Our Sarah Jayne [and mv Thelisis]** – collision in the Thames Estuary on 20 June 2001.

**Pamela S** – capsize and foundering in Carmarthen Bay on 17 June 2006 with the loss of one life.

**Pescalanza** – sinking with the loss of six lives on 2 November 1998.

**Philomena** – fatal accident on board vessel in the Moray Firth on 6 March 2001.

**Philomena [and mv Union Arbo]** – collision about 10 miles south of Newlyn, Cornwall on 2 September 1999.

**Primrose** – grounding on the Island of Rum on 15 June 2001.

**Prospect** – grounding on Skibby Baas and foundering in the north entrance to Lerwick Harbour, Shetland Islands on 5 August 2013.

**Purbeck II** – injury to crew member on 7 June 1999.

**Purbeck Isle** – foundering 9 miles south of Portland Bill, England on 17 May 2012 resulting in the loss of three crew.

**Purdy** – man overboard fatality from vessel at Shipwash Bank off Harwich, on 17 July 1999.

**Rachel Harvey** – grounding and loss of vessel off Peninnis Head on 1 October 1999.

**Radiant** – capsize and foundering about 45 miles north-west of the Isle of Lewis with the loss of one life on 10 April 2002.

**Radiant Star III** – foundering 60 miles north-east of Fraserburgh on 6 August 1999.

**Random Harvest** – flooding south-west of Brighton on 3 July 1999.

**Rebecca Kay** – loss of vessel off Bideford Bar Buoy on 20 April 2001.

**Resplendent** – grounding in Bluemull Sound, Shetland Islands on 13 June 2001.

**Ross Alcedo** – fire while underway about 32 miles north-west of the Isles of Scilly on 16 January 2000.

**Royalist (part of dual report [also see Shark])** – foundering on 23 January 2008.

**Saint Jacques II [and mv Gudermes]** – collision in the Dover Strait on 23 April 2001.

**Sally Jane** – capsize alongside in Shoreham Harbour on 27 July 1998.

**Sapphire II/Silver Chord** – collision between fishing vessels resulting in the foundering of Sapphire II off Stornoway, Scotland on 12 January 2011.

**Sarah Jayne** – capsize and foundering with the loss of one life, 6nm east of Berry Head, Brixham on 11 September 2012.

**Shark (part of dual report [also see Royalist])** – fire on 19 January 2008.

**Sharona** – flooding and foundering 80 miles north-east of Peterhead on 3 August 1999.

**Sian Elizabeth** – injury to crew member of the crew 3 miles north of Kings Lynn on 14 September 2006.

**Silver Chord** – see *Sapphire II*.

**Silvery Sea [and mv Merkur]** – collision resulting in the foundering of the fishing vessel about 35 miles west of Esbjerg, Denmark with the loss of five lives on 14 June 1998.

**Solstice II** – fatal accident to crew member, 25 miles south-west of Rockall on 13 May 2000.

**Solway Harvester** – capsize and sinking 11 miles east of the Isle of Man on 11 January 2000 with the loss of seven lives.

**Speedwell** – foundering with the loss of skipper in the Firth of Lorn on 25 April 2013.

**St Amant** – loss of a crewman off the coast of north-west Wales on 13 January 2012.

**Sundance** – capsize and foundering off Gilkicker Point, East Solent with the loss of one life on 10 September 2001.

**Suzanne [and mv Elm]** – near miss on 11 February 1999.

**Tullaghmurry Lass** – sinking with the loss of three lives in the Irish Sea on 14 February 2002.

**Van Dijck** – loss overboard of fisherman 30 miles south-west of Guernsey on 16 April 2001.

**Vellee** – flooding and foundering in the Little Minch on 6 August 2011.

**Vertrauen** – loss of vessel about 75 miles north-east of Peterhead on 19 July 2001.

**Vidar** – fatal man overboard off Milford Haven on 28 January 2013.

**Vision II** – fire while alongside at Fraserburgh on 1 August 2008 resulting in three fatalities.

**Vrouw Grietje [and mv European Tideway]** – collision in the North Sea on 16 October 2000.

**Wakil II** – accident to skipper 3.5 miles south-west of St Bees Head on 10 April 2000.

**Zenith** – fatal man overboard 29 miles south-east of Kilkeel on 29 January 2012.

**Zhe Ling Yu Yun 135 [and mv Cosco Hong Kong]** – collision in the East China Sea, resulting in the loss of 11 lives from the fishing vessel on 6 March 2011.

# MAIB online resources



The screenshot shows the MAIB Twitter profile page. The header features the MAIB logo and a background image of a lifebuoy in the sea. The profile information includes the name 'MAIB', handle '@maibgovuk', location 'Southampton', website 'maib.gov.uk', and a join date of 'April 2012'. The 'Tweets' section shows a tweet from May 15: 'New investigation. Fatal man overboard from the UK registered #Barnacle III in North Minch on 13 May 14.' Below it is a retweet from 'BBC North East Scot' dated May 12: 'PICTURE UPDATE: #Buckie boat #Shalmer is raised by #Orkney firm @GreenMarineUK after sinking in #Scrabster harbour'.



The screenshot shows the MAIB Facebook page. The header includes the MAIB logo and the page name 'Marine Accident Investigation Branch' with a 4.8 star rating and 1,089 likes. The page is categorized as a 'Government Organisation'. The main content area features a post about a 'fatal man overboard from the UK registered fishing vessel BARNACLE III (CY97) in North Minch on 13 May 2014'. A map shows the location of the incident in North Minch. The right-hand sidebar lists several likes from entities like 'SAFETY4SEA', 'Trinity House', and 'Northern Lighthouse Board'.

The screenshot shows the MAIB YouTube channel page. The header displays the YouTube logo, channel name 'Marine Accident Investigation Branch', and subscriber/view counts. The main content area shows a video thumbnail with the title 'Man overboard - MAIB til'. A large red play button icon is overlaid on the bottom left of the screenshot.

The screenshot shows a webpage from the MAIB website, specifically an 'Accident Investigation Report 7/2014'. The page has a navigation menu with 'Home', 'Report on Accidents', 'Publications', 'Latest news', 'Resources', 'About us', and 'Links'. The report details include the 'Prospect' vessel, incident date of '05 August 2013', and category of 'Fishing vessels'. A 'Download report' button is visible with a file size of '2,300.62 kb'. A blue house icon is overlaid on the bottom right of the screenshot.

[twitter.com/maibgovuk](https://twitter.com/maibgovuk) | [facebook.com/maib.gov](https://facebook.com/maib.gov) | [youtube.com/user/maibgovuk](https://youtube.com/user/maibgovuk) | [maib.gov.uk](https://maib.gov.uk)

