

Department for  
***Transport***

# Fishing 2007 Safety Digest



# MAIB

MARINE ACCIDENT INVESTIGATION BRANCH





The Marine Accident Investigation Branch is an independent part of the Department for Transport, (DfT) and is completely separate from the Maritime and Coastguard Agency (MCA). The Chief Inspector of Marine Accidents is responsible to the Secretary of State for Transport. The offices of the Branch are located at Carlton House, Carlton Place, Southampton, SO15 2DZ.

This *Safety Digest* draws the attention of the marine community to some of the lessons arising from investigations into recent accidents.

This information is published to inform the 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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The *Safety Digest* is only available from the Department for Transport, and can be obtained by applying to the MAIB. Other publications are available from the MAIB.

# MAIB

## MARINE ACCIDENT INVESTIGATION BRANCH

**If you wish to report an accident please call our  
24 hour reporting line 023 8023 2527**

The telephone number for general use is  
**023 8039 5500**

The Branch fax number is 023 8023 2459

The e-mail address is **maib@dft.gsi.gov.uk**

**Safety Digests** are available on the Internet:  
**www.maib.gov.uk**





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 2005

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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# Chief Inspector's

***Fishing is, by a large margin,***

**2006 brought a mixture of good news and bad news for fishing. On the positive side, only 19 UK fishing vessels were lost, one of the lowest numbers for years; however, tragically, 16 fishermen lost their lives in accidents, the largest number for some years.**

Ensuring that your boat is in good condition and well fitted out is not just about safety – it also saves you money. The last thing any fisherman wants is a breakdown, broken gear or an accident – all lose you fishing time and cost you.

Please read these articles and think if any of the incidents reported here could have happened to you. Just by thinking about the issues identified in the cases, you could save money, endless hassle and perhaps a life.

In last year's Fishing Digest I drew your attention to a few common sense measures that could dramatically reduce the likelihood of you having an accident. I make no apology for repeating the advice I gave you then.



# Foreword



*the most dangerous profession in the UK.*

## MAINTENANCE CHECKS

- Test your bilge alarm before every trip.
- Turn off your seacocks in harbour – it will prevent your vessel sinking in harbour, and ensure that they are working if you need them in an emergency at sea.
- Check your bilge pumps work.
- Regularly check your hull and hatches.
- Check your fire-fighting equipment.

## DOORS AND HATCHES

- Close doors, hatches and windows as a matter of routine – it's much easier to keep water out than trying to pump it out.
- Use all the dogs on doors and hatches; this will help prevent them from seizing.
- Fit suitable ventilators rather than using doors and windows for ventilation.

## MODIFICATIONS

- Seek professional advice on the effect any modifications will have on your vessel's stability.

## WATCHKEEPING

- Make sure a good lookout is kept at all times – never leave the wheelhouse unattended.

## NETS

- Think through how you shoot and recover your nets, and how you deal with problems such as coming fast. Look at the possible dangers, and how you can reduce them.

## LIFESAVING EQUIPMENT

- Wear inflatable lifejackets on deck. Talk to Seafish or the RNLI to identify a suitable lifejacket that can be worn without getting in the way.
- Keep other lifejackets accessible for emergencies – lifejackets stowed in a container near the wheelhouse have saved lives, and could save yours.
- Ensure you have an in-date liferaft, that it has a good hydrostatic release, and that it is well positioned to float free.
- Fit an EPIRB. It can alert rescue services in the event of your vessel sinking if you don't have time to put out a distress call or GMDSS alert.

*A little preparation can ensure that you and your crew return home safely, whatever the sea throws at you – you owe it to your loved ones.*

*Stephen Meyer*



# Poor Stability and Hull Defects Lead to Fatal Accident



Figure 1: Salvage

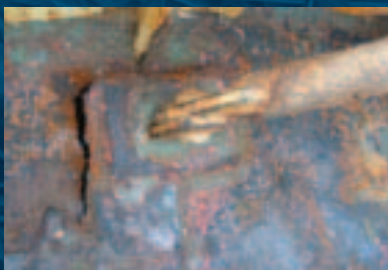


Figure 2: "A" frame supporting frame to deck split



Figure 4: Steering compartment forward bulkhead hole

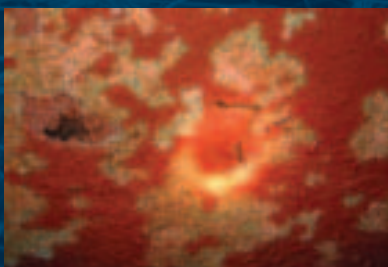


Figure 3: Vee split in hull

## The Lessons

**1** The purchase of a fishing vessel is a major undertaking, and sometimes a clean and shiny appearance can cloud good judgment. Skippers/owners are urged to seek expert advice when considering purchasing a vessel, to ensure that it is fit for the purpose intended. This advice also extends to changes to structure, to ensure that stability, and therefore safety, is not compromised.



## Narrative

An under 10 metre fishing vessel left her home port early in the morning to fish the prawn grounds off the north-east coast. The weather was pleasant with a light westerly breeze and a slight swell. The vessel had been fishing successfully and the skipper and his brother, as the only crew, looked forward to another good day's catch.

During the morning, the weather worsened. A westerly force 6–7 developed and the sea became very confused. Unworried, the brothers hauled in their catch and began steaming back to port. Just before midday, the skipper spoke to his wife by mobile telephone to tell her he was making his way home. Soon afterwards, the trawler was sighted, for the last time, by another local fishing vessel.

Late afternoon, the families of the two men, and local fishermen, became concerned that there was no sign of the vessel. The coastguard was informed and an

air and sea search conducted, assisted by 15 local fishing vessels. Unfortunately there was no sign of the trawler, or of her crew.

Subsequent events included a search for the wreck. The wreck was located, and an underwater survey was carried out, during which the liferaft was found on the seabed and damage to the radar dome noted. The trawler was salvaged (Figure 1) to enable a more detailed structural survey, metallurgical examination of the hull plating and stability tests to be conducted. Neither of the brothers' bodies was found on board.

The investigation found the vessel to be in a poor structural condition. There were splits and holes to her upper deck, hull shell plating and steering gear compartment forward watertight bulkhead (Figures 2, 3 and 4). In addition, the rudder stock gland was leaking, the engine room high level bilge alarm float switch had been disconnected, and one of her bilge pumps was not operational.

It was also found that the vessel's inherent stability was marginal, making her unsuitable for offshore fishing; this was a major factor in her loss.

Understandably, the skipper/owner purchased the vessel believing it to be suitable to cope with the rigours of offshore fishing. Proud of his vessel, he sought to improve her by adding a winch and deck shelter. Unfortunately, in doing so, this additional top weight decreased the vessel's stability.

All the evidence indicates that the trawler began to take water in her steering compartment and her engine room, further reducing her limited stability. The flooding went undetected until the latter stages, when it is believed an attempt was made to pump out the bilges. During the process, the vessel was swamped by seas, downflooding occurred through the open steering gear compartment hatch and she sank rapidly by the stern. There was no time to transmit a "Mayday".

**2** Structural maintenance is an essential element in ensuring a vessel's watertight integrity. Although expensive, it is of comparatively little cost for a potentially great return: preventing the possible loss of a vessel. Hull repairs should be given the highest priority if downflooding and internal flooding is to be prevented.

**3** Bilge level automatic alarms, operational bilge pumps and effective discharge non-return valves are part of the skipper's armoury to deal with flooding. It is essential that they are kept in good working order. Unfortunately, far too many vessels are lost because high-level bilge warning alarms and pumping systems are defective.

**4** This vessel carried a liferaft, despite not being required by regulations to do so. Sadly, in this case, it failed to fully deploy, probably because it became trapped under the radar dome, causing the casing to flood and thus it lost positive buoyancy. Skippers are strongly advised to check stowage positions of liferafts to ensure that they are free from overhead obstructions such as radar domes, fishing gear and mast stays. Further comprehensive advice is provided in MGN 267(F).

# The One That Got Away!



*Similar sea water inlet before accident*

## Narrative

The skipper and crewman of a fairly new, under 10 metre trawler completed hauling their afternoon tow and were making ready to shoot away again. The weather conditions were good with a slight swell running.

The skipper went into the wheelhouse to manoeuvre the boat for shooting, and spotted water washing about down below in the accommodation area. Dashing below, he found water overflowing from the toilet and welling up from drainage holes in the toilet floor. He opened the engine room door and found water almost covering the engine. The skipper immediately notified his crewman of the situation and sent out a distress

## The Lessons

- 1** The vessel had no bilge alarm fitted. Decked vessels should be fitted with effective bilge alarms to give earliest possible warning of water ingress. Owners may also wish to consider the benefits of an extension klaxon and/or a strobe light to give warning when the wheelhouse is unattended.
- 2** Frequently, overboard discharge lines are fitted with non-return valves to reduce the risk of backflooding. Had this been the case in this instance, the speed of flooding would have been greatly reduced.
- 3** The skipper's action in plugging the water entry point with a simple broom handle shows the effectiveness and benefit of carrying a selection of different size plugs to drive into holes or sheared pipework. Had he received early warning, by a bilge alarm, the hole might have been plugged even earlier and prevented the distress situation.
- 4** Fittings are greatly weakened by threading; sea inlets of the stub pipe and flange type have been found to be superior. They are best positioned where they are not convenient to be stood on, and the supporting of associated pipework reduces leverage and vibration.
- 5** Many vessels have foundered due to water being able to flow between compartments. During this incident, watertight integrity was compromised by someone boring drain holes in the floor, again speeding up the flooding process as water flowed back up through these holes.



call. On re-entering the engine room, the skipper attempted to shut off the sea inlets but, unfortunately, by that time they were too deeply submerged.

The men donned their lifejackets and made preparations to abandon the vessel. Another trawler fishing nearby came immediately to their rescue and, after attaching a towline, took both men on board. Both were unharmed. The rescuing vessel set off towards the beach, which was fairly close, with the sinking vessel under tow. She was successfully beached in shallow water just as she finally foundered.

At low tide, the skipper rowed out in a dinghy and went aboard

the boat with a salvage pump. As much water as possible was removed from her engine room, and a search was carried out for the cause of ingress. Sea water could be seen welling up through the hull at one point and, upon investigation, the skipper pulled on a sea inlet pipe to find that the sanitary supply line was adrift from the hull at a point below the shut off valve. The skipper probed in the water with a broom handle and could see that at times he was reducing the surge. He shaped the end of the handle into a plug and, after locating the ingress point, drove the broom handle into the sheared inlet hole, thus preventing further ingress. The vessel was

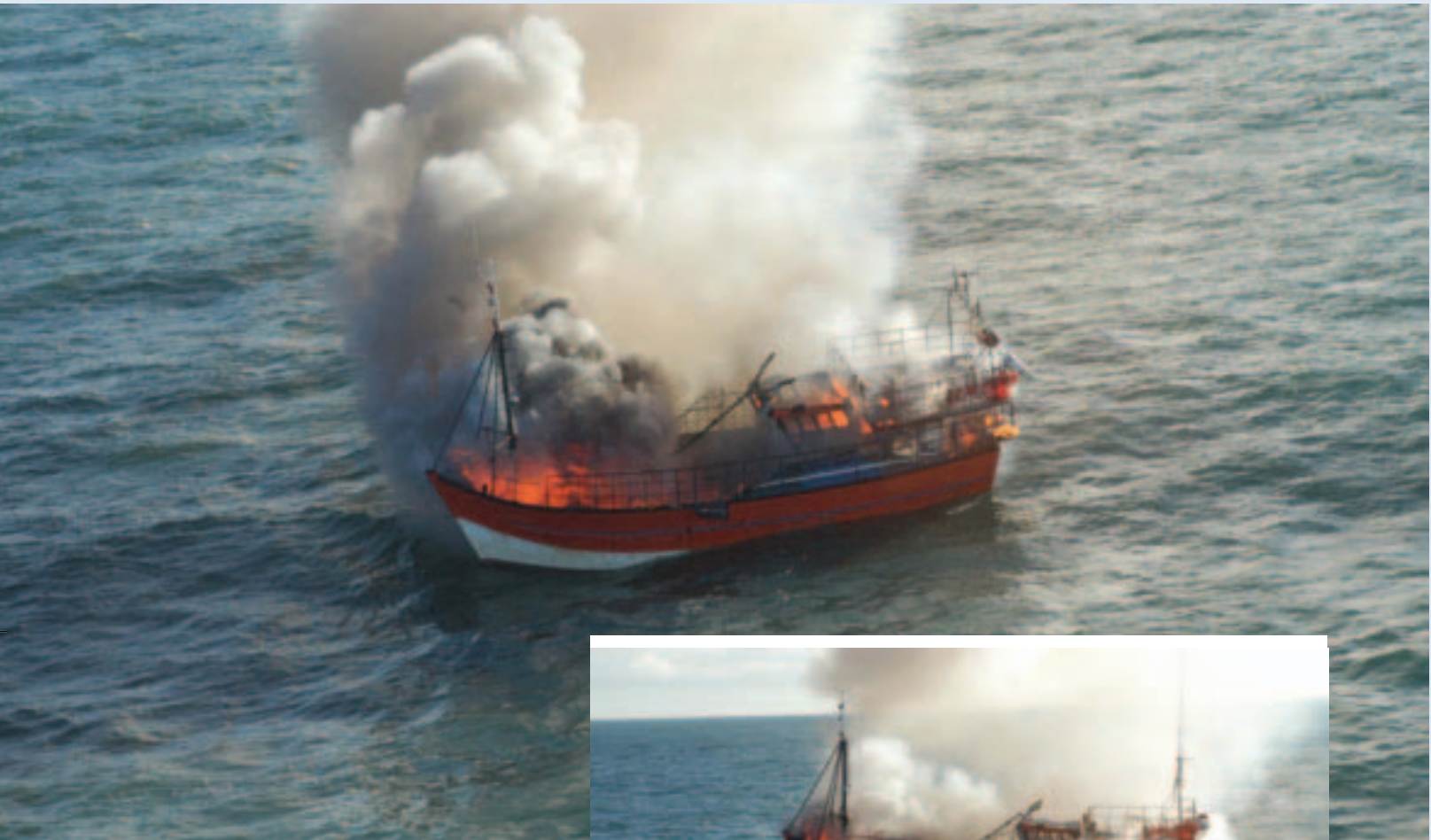
then pumped dry, and at high tide she was refloated and towed to port for inspection and repair.

The vessel sustained no damage to her hull when she beached, but she did suffer serious water damage to machinery and electrics. Subsequent inspection showed various contributory factors to the flooding: the sheared sea inlet was threaded into a pad on the boat's side; the inlet fitting was unduly long and set at a convenient height for standing on; the vessel did not have non-return valves in her overboard discharges; no bilge alarm was fitted; holes were bored in the watertight toilet deck into the engine room to assist drainage when cleaning.

*Sheared fitting after accident*



# A Fire Detection System Can Help Save Your Vessel





## Narrative

In darkness, while on passage from one port to another, the deck lights of a potting fishing vessel suddenly lit up. Taken by surprise, the skipper/owner turned the wheelhouse switch to the off position, but the lights remained on. He then tried, unsuccessfully, to switch on the galley lights.

Because the fuse boxes were in the forward auxiliary generator hold, the skipper went out on deck and opened the access hatch to the space. He was met by thick black acrid smoke. He quickly closed the hatch and returned to the wheelhouse, where he alerted the coastguard that he had a fire on board.

The skipper switched on the cabin lights and called the two deckhands, who were sleeping. But the lights would not illuminate. He then returned to the forward hatch and, on opening it, saw flames in the hold.

He went back to the wheelhouse and tried to call the coastguard again, but found that the VHF radio would not transmit or receive. He looked in the compartment under the wheelhouse deck where the emergency batteries were fitted, and saw smoke emanating from it. He then tried to use the hand-held VHF set, but the battery was flat.

One of the deckhands went to the forward hatch and touched it with the back of his hand. It was hot. He took the continuously running deck wash hose and cooled the hatch with seawater. Once it was sufficiently cool, he was able to open the hatch and direct the water into the hold. But this had little effect, so he closed the hatch and sealed it to restrict the supply of oxygen to the fire.

In the meantime, following the initial call from the fishing vessel, the coastguard had alerted other vessels in the vicinity of the casualty. The nearest, which was 4 miles away, was a large ferry, which then diverted from her passage towards the reported position of the casualty.

Using searchlights, the ferry found the fishing vessel, created a lee for the casualty and illuminated the scene. Soon after arriving on scene, the ferry's staff could see flames on the fishing vessel's deck. The RNLI lifeboat soon arrived on scene, took the three crew members off the fishing vessel and returned to her station.

The fishing vessel remained afloat and on fire until later that afternoon, at which time the fuel tanks exploded and the vessel foundered.

## The Lessons

**1** The fishing vessel was not fitted with a fire detection system in either her forward auxiliary generator hold or her engine room. Had one been fitted, this would have alerted the crew at a much earlier stage and would have given them a chance to fight the fire before it had time to take hold.

**2** The electrical fault, which was probably the cause of the fire, also affected the charging of the emergency batteries and, in turn, the power to the radio sets. Therefore, it is essential to ensure that backup hand-held VHF sets are fully charged at all times.

**3** The crew member who attempted to extinguish the fire used correct fire-fighting techniques, such as touching hot spots with the back of his hand and sealing a space which is on fire to starve it of oxygen. He clearly demonstrated the value of having attended a fire-fighting course.

# Didn't Feel a Thing

## Narrative

On completion of a 2-week refit, a fishing vessel sailed for the fishing grounds. During the departure, the skipper realised that the buoys and navigational tracks had been removed from the chart plotter, which had recently been upgraded. These were re-installed as the passage progressed. The navigational watch was then handed over to a deckhand, and the skipper went to the engine room to conduct several routine checks before going to bed.

Forty five minutes later, during the early hours of the morning, the fishing vessel collided with the port quarter of an 86,000grt ore carrier, which was anchored in a designated area.

The skipper was woken by the boat manoeuvring. He went to the wheelhouse from where he saw the ore carrier directly astern.

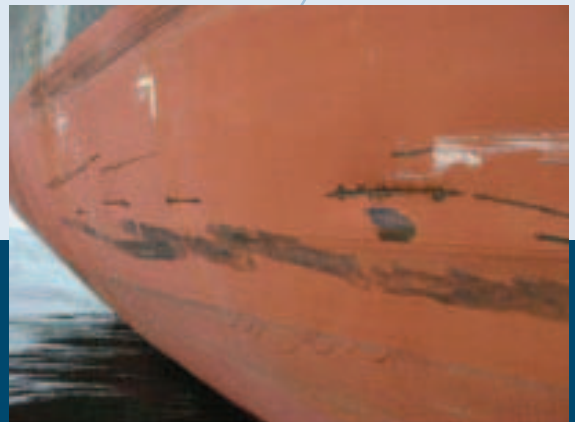
The deckhand on watch admitted that he had 'noddled off' but stated that there had been no collision. As the deckhand was obviously tired, the skipper woke another deckhand to take the watch. The skipper then returned to bed. The vessel was fitted with a watch alarm, but this had been disabled during the refit.

The ore carrier reported the collision to the local port authority, which relayed the information to the coastguard. The coastguard then contacted the fishing vessel via VHF radio to check that she was OK. The deckhand on watch

confirmed this to be the case. The previous watchkeeper had admitted to him that he had 'bumped the boat', but did not amplify further.

When the crew mustered for work about 3 hours after the collision, the skipper was informed of the call made by the coastguard. He immediately turned on the deck working lights and saw that a davit arm was damaged. As this meant the vessel was unable to fish, the skipper decided to return to harbour. Fortunately, the damage to neither vessel was serious (Figures).

*Shell plating damage to ore carrier*



## The Lessons

**1** After extended periods alongside, it is prudent to make sure that all systems are working correctly before sailing. This is sometimes easier said than done, particularly during the latter stages of a refit or maintenance period, when there is a rush to complete work outstanding, and masters and skippers are frequently under pressure to sail as soon as possible. However, the time and effort invested in testing equipment alongside can save serious embarrassment at sea.

**2** Numerous accidents at sea result from lone bridge and wheelhouse watchkeepers falling asleep, particularly during the early hours of the morning. Fatigue is a persistent problem, which can only be properly overcome by ensuring watchkeepers are well rested, and that their body clocks have adapted to working unusual hours. Where this is not possible, by ensuring that watchkeepers are not left alone, and that watch alarms are fitted and used, at least they can be prevented from falling asleep for extended periods during which dangerous situations can develop.





*Damage to fishing vessel*

**3** A ship can only operate safely if the relationships among her crew are open and honest. Every person is likely to make an error or lapse at some stage. When a mistake is made, or something is seen which is not as it should be, it is extremely important that it is reported as soon as possible. If it is not, valuable time is lost in investigating resultant problems, and the taking of remedial action. Honesty is the best policy.

**4** The occasions on which a master or skipper is required to be called, varies considerably between companies and the individuals concerned. There are no hard and fast rules. However, when a master or skipper does not formalise the occasions he wishes to be called, through written orders, a heavy reliance is placed on the judgment of a watchkeeper. In this respect, many masters and skippers have been disappointed, embarrassed, and probably furious.

# With the Best of Intentions...

## Narrative

The owner of a 14 metre potter had looked at the shooting operation on his vessel and, recognising the number of fishermen who had been lost overboard by being caught in a bight of line, decided to modify his boat. In effect, he did a risk assessment and took action on its results; a commendable initiative.

To avoid the hazard of a bight around an ankle, it was decided to move the crewman handling the pots well away from any lines on the deck. This was done by putting a hinged door in the bulwark at one side of the deck which, when opened, allowed the pots to be drawn across the deck by the

vessel's forward motion, with only limited intervention from the crew (see Figure).

This arrangement appeared to work well for several months, until a crewman was left working alone on deck one day, just after a string of pots had been shot. The weather conditions were reasonable, but the vessel was rolling a fair amount. He finished the job he was doing and walked past the still open shooting door to return to the wheelhouse. Unseen and unheard by the rest of the crew, the crewman lost his footing and fell overboard through the open door.

His absence was quickly noticed. The skipper broadcast a "Mayday" and turned the vessel around to retrace its track. A number of aircraft and surface vessels took part in the search, but nothing of the crewman was found. He had been wearing nothing to give him any buoyancy.



## The Lessons

- 1** The owner's risk assessment did not extend to considering the hazards associated with the modifications, namely the dangers of the open shooting door.
- 2** Whenever a risk assessment suggests modifications to equipment or procedures might be beneficial, the hazards associated with the changes should be run through a new risk assessment. Only if the level of risk is reduced by the proposed changes are those changes worthwhile.
- 3** The practice of blocking off a second access route between the working deck and the wheelhouse forced this crew to walk past the shooting door, which was a substantial hazard when open.
- 4** Once in the water, the crewman was unable to stay afloat because he was not wearing a lifejacket or other buoyancy aid. His loss from the vessel had been noticed so quickly that, had he been able to remain afloat, for even a few minutes, he might have been safely recovered.



# A Continuous Navigational Watch Must Be Kept

## Narrative

A prawn trawler (Figure 1) was returning to port after a night's fishing. The skipper was helping the deckhand tail prawns on the working deck, but was periodically returning to the wheelhouse to attend to the navigational watch. He saw another small fishing vessel ahead during one of the periods when he was looking out. The skipper thought that this vessel was either hauling or shooting pots, and was underway at about 2 knots, in which case he would pass well astern of her. Having made this assumption, he returned to the working deck, thinking that he was safe. But the other fishing vessel was in fact adrift, and was not under command, after having suffered an engine failure. The vessels collided about 10 minutes later.

Both fishing vessels were a little less than 10 metres in length. The wind was force 2 and the visibility was good. The trawler was steaming at slow speed to give the crew time to tail the prawns before reaching port. The other fishing vessel was a potter (Figure 2), and had broken down when on passage to her grounds.

About 15 minutes before the collision, the potter's skipper saw the prawn trawler and steered to pass well in front of her. However, the problem with his vessel's engine led to him stopping directly ahead of her. He tried to attract attention by using his VHF radios and a portable foghorn, but these messages were not heard. No one appeared to be in the other vessel's wheelhouse. The skipper and his deckhand watched the trawler as it

bore down on them, and they jumped onto the other vessel once the collision had taken place. It was just as well that they did this, because the potter's hull was penetrated and she flooded and sank shortly after the impact.

The prawn trawler had just two crew members, although three was optimum. It was difficult to get people to take up fishing in the vessel's home port and an untrained eastern European labourer had been employed.

The liferaft had recently been fitted to the potter and had been supplied free under a local initiative. However, it failed to deploy when the vessel sank – either because the hydrostatic release was incorrectly fitted, or because it became snagged in the mast or rigging.

## The Lessons

**1** The skipper of the prawn trawler was away from the wheelhouse for at least 10 minutes before the collision. It is not acceptable to leave the wheelhouse to help with processing the catch; a continuous navigational watch must be kept. The collision regulations are quite clear on this.

**2** The difficulty in recruiting should not be used as an excuse for dangerous practice. The skipper should have been in the wheelhouse dealing solely with the navigational watch while the prawn trawler was steaming. It was therefore probably necessary either for two deckhands to be on board to deal with the labour intensive task of tailing the prawns, or for the task to be carried out when the vessel was safely back in harbour.

**3** It is possible that the liferaft on the potter failed to deploy because it had been incorrectly fitted or poorly sited. The free issue of liferafts is an excellent safety initiative, but they must be installed correctly. Fishermen who fit liferafts should follow the instructions very carefully. If there is any doubt about the correct procedure, assistance from an experienced seafarer such as a lifeboat man or harbourmaster should be sought.

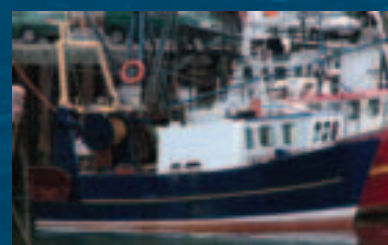


Figure 1

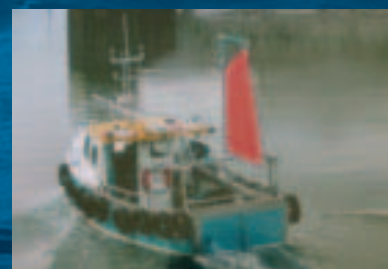


Figure 2

# Capsize – a Question of Stability

## Narrative

A 26 metre mussel dredger (Figure 1) converted from a Dutch river barge, built in 1908, was flagged into the UK register in 2002 having been inclined and surveyed. An MCA approved stability book was produced, setting out loading conditions, but it was not normal practice to hold it on board. Modifications, which added weight to the vessel, were made following inclining, but the MCA was not notified.

The vessel was arranged with a single continuous double bottom extending only under the two holds. A “tell tale” pipe with valve fitted in the after engine room drained any water which accumulated in the double bottom.

The skipper noticed that there was a trickle of water coming from the pipe, but was unconcerned about it and did not investigate it further. There were no wing tanks to aid buoyancy.

On sailing, the weather was fine and the skipper and two crew were relaxed as they approached the mussel seed beds. All was normal, but the collection of the wild mussels was curtailed because of a failure of a steel wire rope used in the dredging operation. At that point, the skipper

believed he had about 15 tonnes of mussels on board in the after of the two holds. This estimate was based on his experience of the volume taken up with previous dredgings. In fact, he had about 60% spoil in his catch, which consisted of large stones and gravel, with the amount totalling nearer 30 tonnes.

The return trip to the mussel bed to be seeded with the catch was uneventful. At 0230, the weather was fine, the water flat and there was no hint of the



Figure 1:  
General view of the vessel

## The Lessons

During the accident investigation, it was found that the double bottom “tell tale” pipe isolating valve was blocked. Once cleared, water gushed out, proving that the double bottom was flooded. The cause of ingress was found to be plate corrosion in the after hold bilge suction well (Figure 4). Now this is not a big problem if the double remains pressed full, but the slight drainage into the engine room removed some water, which resulted in a large free surface effect.

It was also found that the mussel seed contained large stones and a considerable amount of gravel. This increased the weight of the catch and exceeded the maximum loading condition as set out in the stability book. During discussions, neither the owner nor the skipper was aware of the vessel's maximum loading condition as set out in the stability book.

Following remodelling of the stability of the vessel, it was found that the probable cause of capsize was an obstructed seeding hatch. This led to an increase in the water level in the after hold, coupled with free surface in the double bottom and a cargo shift.



impending disaster. The skipper did his usual positional checks and opened the centreline circular seeding hatch at the after end of the hold. He noticed water entering the hold as normal. He then started the high pressure salt water “slusher” pump used to drive the mussels out of the seeding hatch using the directional “slusher” jet (Figure 2).

The skipper began his usual 2–3 knot circular seeding pattern. One of the crew was operating the “slusher” jet, the other crewman was adjacent to the after hold. He believed the water level in the hold was higher than usual, but did not recognise the significance of this, so did not inform the skipper. After about 5 minutes, the skipper turned to starboard and the vessel listed

about 10–15 degrees into the turn. Instead of righting herself as expected, she continued to slowly list over, submerging the deck edge, which resulted in downflooding of the forward hold. The vessel continued to roll over, coming to rest on top of the mussel bed, leaving her port side clear of the water (Figure 3).

The skipper managed to collect two lifejackets and the hand-held VHF radio before joining the two crewmen on the port side of the hull. The coastguard was alerted and a lifeboat rescued the crew soon after. Happily, there were no injuries – other than severely dented pride.

Salvage was agreed and the MAIB was subsequently able to closely examine the vessel.



Figure 2: Slusher jet



Figure 3: Vessel capsized



Figure 4: Plate corrosion

The following lessons have been identified from this accident:

- 1** It is no use signing the stability book just to satisfy a regulatory requirement. It is a live document which must be carried on board for reference purposes to check that loading conditions are not exceeded. Keeping the book in an office serves no purpose!
- 2** It would be very helpful to skippers if holds were indicated internally with a load line, to ensure that loading is not exceeded. A welded plate could serve such a purpose.
- 3** If water is seen to be leaking from a “tell tale” system it should be investigated without delay. The investigation does not end there: the cause of water ingress must be determined and rectified. Your life could depend on it.

- 4** Where additions or disposition to weights are made to the vessel, the MCA should be notified, as stipulated in the stability book, so that the effect on stability can be assessed.
- 5** In this case, the catch had an unusual amount of spoil. Remember that gravel, and to a slightly lesser extent stone, acts in a fluid manner and can easily shift, especially when under water in flooded holds.
- 6** Should you notice anything unusual, don’t keep it to yourself. Had the crewman alerted the skipper about the increased water level in the hold, he might have considered the seeding hatch to be obstructed, and taken corrective action.

# Collision and Sinking Trawling

## Narrative

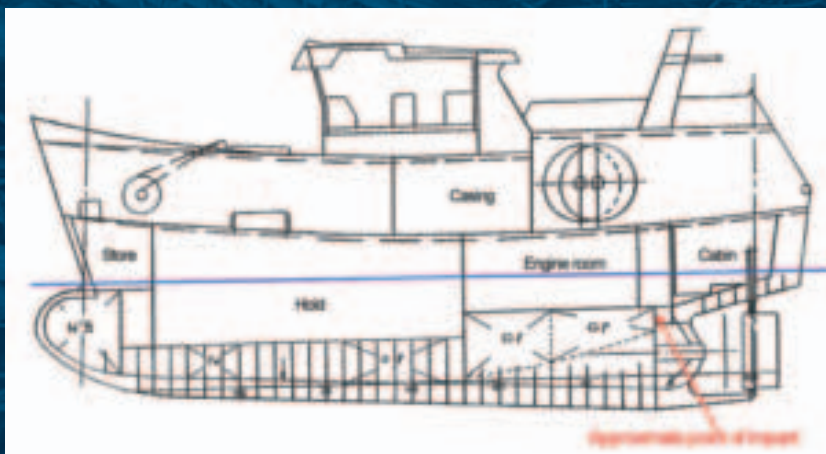
Two steel trawlers had been pair trawling together for about 2 months. On this particular trip both sailed with a crew of 5, including 2 Latvian crew members on each vessel. The weather was reasonable, with a wind force 4 to 5, and this was to be the last haul before returning to shore.

The vessels clutched in their hydraulics and removed the towing chains in preparation to haul. The skipper of the first vessel set his autopilot to 15° starboard helm. Shortly after, the auxiliary engine of this vessel shut down. The skipper started his second auxiliary engine and left the wheelhouse to go to the pump room to change over the

hydraulics, and other services, onto the running generator. On his way to the pump room, the skipper indicated to one of his crew to go to the wheelhouse to take over the watch. He then continued on to the pump room as intended. On returning from the pump room, after changing over the services, the skipper met the crew member on the open deck; he had misinterpreted the skipper's signals and had followed him to the pump room, leaving the wheelhouse unattended.

Meanwhile, the skipper on the second vessel had started to haul, and was donning his oilskins in the wheelhouse when he looked up to

see the other vessel coming straight at him. Although he took avoiding action, by releasing the haul and swinging his vessel to starboard, it was too late and the vessels collided, with the oncoming vessel striking the other at frame 6, the bulkhead situated between the engine room fuel tanks and crew accommodation. The bulbous bow penetrated the vessel's hull, and sea water immediately began to flood into the accommodation spaces, which started to fill rapidly. The skipper, realising his vessel was badly damaged, put out a "Mayday" call on VHF channel 16 and ordered his crew to launch the liferafts. He then ordered his



## The Lessons

**1** The standard of lookout and communication between the vessels was poor and contributed directly to this accident. Pair trawling is an inherently dangerous operation; the MAIB has investigated a number of accidents which have occurred while engaged in such procedures. Extreme vigilance and good communication, at all times, is essential if the operation is to be conducted safely. This is particularly true while shooting and hauling nets.



# While Pair

Latvian crew members to transfer to the first vessel by liferaft while he, and his remaining crew, assessed the state of his vessel. This they did. However, they failed to use the lifejackets provided, even though these were available.

On realising that the vessel was flooding rapidly, the skipper decided to abandon ship, and all crew members transferred, via the liferaft, to the adjacent vessel. Again, even though they were available, the crew failed to use their lifejackets during the transfer. The badly damaged vessel sank some moments later.

The EPIRB floated free and activated.

The “Mayday” call was picked up by a nearby offshore platform, which launched a rescue boat to the scene and alerted the Coastguard of the incident. Fortunately, the first fishing vessel had suffered little damage from the collision and was able to return to port with all the crew members from both vessels safely on board.



**2** The skipper of the first vessel left his wheelhouse unattended while he went to the pump room to change over services after starting his standby generator. During this period, his vessel's heading changed to a collision course with the other vessel, without warning. To leave the wheelhouse unattended for any period is unacceptable, and endangers both your own vessel and those around you.

**3** The use of foreign national crew within the fishing industry is an increasing practice. This is perfectly legitimate; however the ability to communicate effectively, particularly during an emergency situation, is essential for the safe operation of the vessel and all its crew. On this occasion, the skipper recognised this and controlled any risk by evacuating these crew members early in the emergency. This, however, left him with fewer crew members to tackle the flooding.

**4** A “Mayday” call was initiated immediately following the accident. This was a commendable action because it thwarted any possible delay had the situation worsened. However, the use of VHF Channel 16 for this call restricted those able to receive it to the local area of the incident, and might not have alerted the coastguard, who are best placed to co-ordinate any rescue operation. For this reason, any such emergency call should be initiated via DSC, on an appropriate frequency, to ensure it is received and acted upon. There is, of course, nothing lost by making a VHF “Mayday” call in *addition* to activating the DSC, if time and circumstance permits.

# Water in the Bilges

## Narrative

A 16 year old, 24.5m steel trawler was 7 days into her usual 10-day period at sea, when she flooded and sank. She was operating in deep water, and towing for about 6 hours at a time. All had been going well, with the gear shot away at about 1800. The catch was processed by 1930, the skipper took the towing watch and the other three crew members went to bed.

At about 2130, the engine room bilge alarm sounded. This was not unusual, as the generally small amount of water that got into the bilges could, if the boat was rolling, slop around and set the alarm off. With a 3 metre swell running, this was initially thought to be the case, so the driver was called to pump the bilges.

On arriving in the engine room, the driver started the bilge pump and then returned to the wheelhouse. He checked the overboard discharge to ensure that water was coming out, and spent the next half-hour chatting to the skipper. At approximately 2200, a gearbox high oil pressure alarm went off, so the driver returned to the engine room. He found the water level now halfway up the engine, and returned to the wheelhouse to inform the skipper. The skipper went to the engine room, saw how much water there was, and returned to the wheelhouse. The skipper then instructed the driver to wake the remaining crew. He did this, and then returned to the engine room, where he attempted to shut the seacocks. These were situated just

below deck plate level, and were now under about 0.9 metre of water. No extension spindle or remote closing device was fitted to the sea cocks, and all attempts to close them were unsuccessful.

While the driver was in the engine room, the skipper told the other crew men to launch the liferaft and don their lifejackets. On returning to the cabin to fetch the lifejackets, it was noted that there was water on the deck. The liferaft was launched and the youngest member of the crew was put into it to fend it off the boat's side.

The skipper had, by that time, broadcast a distress message on 2182kHz, which was received by the coastguard. The SAR helicopter was scrambled with a salvage pump on board, and a

## The Lessons

**1** The fact that there was water in the bilges, and that this had set the bilge alarm off, was not unusual. However, it is good practice to check around the engine room and see if there is an obvious cause for the water being there.

**2** By the time the driver made his second visit to the engine room, the water was too deep for him to be able to reach the seacocks. Had they been fitted with extended spindles, or had another remote closing apparatus been available, the seacocks could have been closed from above the level of the water. This could have stopped the ingress of water and saved the vessel.

**3** Had a portable bilge pump been carried on board, as recommended, it might have been possible to reduce the floodwater level and gain access to the seacocks.

**4** The early launch of the liferaft, and the well ordered evacuation of the vessel is to be commended.

**5** The fishing vessel that picked up the survivors had not responded to the coastguard's distress relay, and the coastguard therefore did not know that the fishing vessel was in the vicinity. A lot of effort was wasted by the coastguard co-ordinating the responses of other vessels which were much further away.



# — So What?

“Mayday” relay was broadcast to inform other shipping. A number of other vessels responded to this, and the coastguard began organising the recovery of the crew members. The skipper was advised to put the EPIRB and hand-held VHF in to the liferaft, which he did.

Shortly after that, the vessel lost electrical power. With the radios now working from the emergency power supplies, the coastguard could no longer hear the fishing vessel, but the fishing vessel could hear the coastguard. It was decided to abandon the fishing vessel, with water in the cabin, the engine room almost full of water and the deck awash.

The coastguard received a call from another fishing vessel saying that they were alongside and

taking the men from the liferaft. This second fishing vessel had not responded to the initial call from the coastguard. The four crew members were put ashore from the

second fishing boat later the following morning.

The vessel sank in about 200m of water, about 2 hours after the flooding was first discovered.



**6** The distress call on 2182kHz should have included the use of the DSC alert on 2187.5kHz, since ships are no longer required to maintain watch on 2182kHz. It was fortunate that the transmission was heard by the coastguard, which maintains a speaker watch at selected stations around the coast.

# Rapid Capsize Causes Loss of Life

## Narrative

An 8.7m potting vessel (Figure 1) capsized rapidly and without warning while starting out on passage back to her home port at the end of a day's fishing. The two crew members were thrown into the sea; neither was wearing a lifejacket. The vessel righted herself, and the deckhand returned to the partially submerged hull and was able to release the liferaft. He managed to inflate it, and board it from the water. The skipper, who had been seen on the surface, was lost from view before the deckhand could paddle the liferaft to him and was not seen again. The vessel sank shortly afterwards.

Analysis of the evidence indicated that flooding of the engine space, caused by a failure in the salt water cooling system, probably led to the loss. The vessel was not fitted with an operational bilge alarm, and there was no other warning that flooding was taking place. The engine space extended the length and width of the working deck, and had a free surface area of over half the vessel's water plane area. Consequently, the amount of floodwater to cause instability did not have to be great. This could be why neither crew member noticed any change in the handling of the vessel before she capsized.

The liferaft had not been serviced for many years (more than 12), and it was fortunate that it inflated when the deckhand pulled the painter, particularly as the gas cylinder was badly corroded (Figure 2). The condition of the liferaft fabric and equipment was also very poor, resulting in the deckhand spending a very uncomfortable night in it. The flares, torch and liferaft lights did not work, and no reflective tape was fitted to the canopy.

The vessel had not carried an EPIRB, so the search for survivors did not begin until a number of hours after the accident, by which time it was dark. During the night,

Figure 1





the raft was almost impossible to see without any form of illumination. The buoyancy tubes were leaking air, and the floor was leaking water, so the deckhand spent most of the night either pumping or bailing.

Fortunately, after being sighted by a passing ferry the next day, the deckhand was airlifted to safety. The skipper's body was recovered from the sea bed near the wreck some time later.



Figure 2

## The Lessons

**1** Bilge alarms have been mentioned many times before in Safety Digest articles. They are a vital piece of safety equipment, and must be tested before the start of every voyage to ensure they are working. Bilge alarms should be fitted in all the main compartments, but especially in the engine space. A single alarm is sufficient if it is robust and of good quality; better still, two units can be fitted.

**2** Lifejackets are another regular feature of the Safety Digest, and their importance cannot be overemphasised. Over many years, MAIB inspectors have heard all the arguments highlighting the problems associated with the constant wearing of self-inflating lifejackets. But the problems are minor in comparison to those faced by a person in the water, with no support. Many fishermen have recognised this and now wear

lifejackets all the time when working. The rapid capsizing of fishing vessels is relatively common; the wearing of lifejackets is one of the main defences to try to ensure that lives are not lost. Many fishermen would be alive today if they had been wearing a lifejacket, including, very probably, the skipper of this vessel.

**3** A fishing vessel of this size does not have to carry a liferaft, although the benefit of having one has been dramatically demonstrated by this accident. Government agencies in many parts of the country now issue liferafts free of charge, so if you own a small fishing vessel, you should take advantage of this initiative if it is available. Once a liferaft is installed, it should be serviced in accordance with the manufacturer's instructions.

# Delay Structural Repairs at Your Peril

## Narrative

An experienced skipper of an 11 metre prawn trawler was well known around the many landing ports he used, as a “colourful” character, enjoying life to the full.

The skipper had mixed success at fishing, so money was fairly tight. This might help to explain the extremely poor condition of the vessel (Figure 1). On many occasions, harbour authorities and other skippers had advised him to attend to the poor – and in their view, dangerous – structural condition of his vessel. There were holes and splits in the weather and forecastle deck and bulwarks. The fish hold did not have a watertight cover or even a tarpaulin to cover

the hatch boards, and there was virtually no paint protection to prevent hull corrosion (Figure 2).

Over the years, some attempts had been made to carry out patch repairs to the deck. But these had to be frequently abandoned because of the lack of parent metal to weld to and could be considered as only temporary measures. Perhaps this was because permanent repairs would have been too costly and burdensome for a commercial venture that was, at best, marginal. Although regarded as a capable skipper, those who knew him, found it extremely difficult to balance this with his ambivalent attitude

towards the condition of his vessel.

On the final day of sailing, the wind was force 3–4 and sea state 2–3. It was a fairly pleasant day. The skipper took his vessel to a well known, fertile fishing ground, which bordered on a steep contour. Throughout the day, the weather deteriorated and other vessels in the vicinity returned to port, their skippers fully expecting the prawn trawler to follow them in. It did not. The last positive sighting of the vessel was as she was still trawling in deep water near the contour.

The skipper’s operational pattern varied, so his acquaintances were not surprised that he did not return to his

## The Lessons

It is very difficult to understand why the skipper did not heed the advice of his peers, harbour authorities and contractors, and deal with the severe hull and bulwark plate wastage. It must have been abundantly clear to him that the vessel was in a poor material state and was at severe risk of flooding, but he was happy to risk his life and take it to sea. Sadly, in this case it was once too often.

Steelwork repairs and plate replacement is never cheap. But the potential consequences for not doing so are far mostly costly, and traumatic.

The following lessons can be drawn from this accident:

**1** Skippers and owners of fishing vessels must ensure their vessels are safe to proceed to sea. This means that watertight hatches and doors should, indeed, be watertight and the structure should be in a seaworthy condition. Do not delay repairs – the situation will only get worse.

**2** The condition of a ship’s hull will inevitably deteriorate over time. However, ensuring that the paint preservation is intact and regularly touched up, is one, relatively cheap and effective way of protecting structure against corrosion. In this particular vessel, it was difficult to find evidence of any external paint coatings.



departure port. However, 9 days after the last sighting of the trawler, his now concerned family and friends contacted the coastguard to report that the vessel had not been seen for some while. Despite a radio and widespread harbour search, the trawler could not be located.

A further 9 days passed before a fishing vessel picked up a sonar contact and nets in the vicinity where the trawler was last seen. Subsequent remotely operating vehicle surveys identified the contact as the missing vessel. Her trawl gear was deployed and it appeared that one trawl door was buried under the seabed.

Sadly, 9 more days passed before the skipper's body was found on a remote stretch of the coastline.

It is likely that the vessel's trawl gear came "fast" during the evening of the last sighting. In attempting to free the gear, or during the process of coming "fast", it is probable that the deck edge became submerged, rapid



Figure 1

downflooding occurred through holes in the weather deck and the non-watertight fish hold hatch, causing

the vessel to founder. As there was no "Mayday" alert, the foundering is likely to have happened very quickly.

Figure 2



**3** Regularly examine upper deck, non-watertight hatch arrangements. The risk of downflooding through fish hold hatches that are fitted with boards can be much reduced by fitting tarpaulin covers over them.

# Mobile Phone Causes



## Narrative

A 23m long fishing vessel grounded at night close to a light beacon. She had been returning to her home port after 18 days on guard duty near a North Sea pipeline.

The experienced skipper was on watch when she grounded only a few miles from a harbour entrance.

The crew of five comprised the skipper, three deckhands and a cook. The crew were suitably qualified, with the skipper holding a Class 2 (Fishing Vessel) certificate.

The vessel had been at sea twice as long as her normal fishing trips, but the guard ship work was considered relaxing by comparison. The skipper usually carried out the day watch between 0730 and 2230, and two crew members split the night watch.

At the beginning of the trip, the vessel had been well equipped for navigation, with two radars (one of

## The Lessons

**1** The skipper received no help from his crew during this late night passage, despite having no radars and despite having been in the wheelhouse alone for most of the previous day. The crew were available, and had not been working long hours. A crew member posted to look out would have been sufficient to alert him that the ship was about to hit a light beacon.

**2** As well as not using his human resources, the skipper failed to use the available equipment to assist him navigate the vessel safely. He had an electronic chart plotter which was switched on and running but, because it was not supposed to be used for navigation, he left its lights turned down and did not refer to it. In the absence of any radars, it would have been prudent to refer to the chart plotter, at least for warning purposes and general guidance.

**3** The skipper had made the approach to his home port many times before, and in all weathers. Although the lack of any radar was a concern, it was not sufficient to overcome the complacency that this familiarity engendered. He thought he knew exactly where he was – but he was wrong. It is very difficult to judge direction and distances at night, irrespective of how well you know the area.

**4** To make matters worse, the skipper allowed himself to become distracted at a critical moment, by a mobile telephone call. Mobile phones have a role to play in modern communications, but their use in the wheelhouse should be very carefully controlled.



# Grounding

which was an ARPA), three electronic chart plotters (one of which plotted continuously) and two GPS. However, on the second day of the duty period, the radar which was not fitted with ARPA failed and could not be repaired on board.

The final return passage to port was carried out late at night, and recent strong winds had left a large swell. During the 5 hour passage, the skipper was at the helm and was, mostly, alone in the wheelhouse. He made several course corrections to avoid other vessels.

Two hours into the passage, the ARPA radar also failed. The skipper replaced the fuses but was unable to re-start the radar. He usually relied heavily on the radar for navigational guidance when making a landfall. However, he allowed the vessel to continue on

the same heading, expecting to make fine course adjustments when he could see the lights of the port. To aid his night vision, he dimmed all the bridge equipment lights, effectively making them unusable.

The skipper noticed the lights of the port gradually appearing as he neared the coast. He allowed the vessel to continue on the same heading toward a light beacon, which was situated on rocks about 2 cables from the shore and which marked the southern entrance to a wide bay. The skipper intended to pass quite close to the north of the beacon in order to line up for the harbour entrance. The characteristic of the beacon was a white flash once every 10 seconds, and the direction from which the fishing vessel was approaching could be lost easily among the background lights of the port.

As the vessel approached the light beacon and the bay, the skipper's mobile telephone rang. His wife wanted to know what time he would be home. During the ensuing conversation, the vessel grounded less than 100m from the light beacon.

The skipper contacted the harbour office, which immediately contacted the Coastguard. Lifeboats and a helicopter were tasked and the vessel crew were winched to safety a short while later.

Due to difficulties in salvaging the vessel, which had been holed in various compartments, and the sea conditions preventing easy access, she became a constructive total loss.



# Loss of “Rulebeater”

## Narrative

A 9.8m long fishing vessel (photograph) with two people on board was swamped by a wave which came over her stern while her trawl was snagged on a seabed obstruction. Floodwater was trapped in the shelter, and the vessel capsized before the water could escape through the freeing ports.

When he realised that the net was snagged, the skipper reduced power to dead slow ahead. The autopilot was then set to keep the vessel steering in the same direction (downwind) while the skipper heaved the vessel back towards the trawl. The trawl warps and trawl doors were hauled on board, and some of the bridles were wound on the winch.

The length of the gear to the fastener was then about 210m and the depth of water was about 55m when the skipper used a substantial burst of engine power to try to break free. A wave broke over the stern at this time and swamped the shelter. The vessel did not have enough freeboard and buoyancy aft to resist the downforce on the stern caused by the use of the engine and the tension in the bridle wires. The engine was put into neutral, but the freeboard had reduced, and this resulted in more waves coming on board. It became clear to the crew that the boat was about to founder.

The deckhand was aft and was able to jump overboard as the vessel started listing to port. The

skipper was at the forward end of the shelter and he made his escape through a hatch on the starboard side just as the vessel capsized. There was no time to make a distress call or retrieve the lifejackets that were stowed in the wheelhouse.

The crew found themselves in the water and were lucky to find two lifebuoys that floated up as the vessel sank. Shortly afterwards, the vessel's liferaft appeared and began inflating. The crew boarded it and, after spending a worrying 5 hours afloat, were eventually seen and rescued by a passing vessel.

The fishing vessel had been fairly new and, like many modern vessels, the build philosophy had

## The Lessons

**1** The commercial advantages to be gained by “rulebeaters” like this one must be weighed against any resultant reductions in safety-critical areas like freeboard. The builders and first owners of this vessel had no idea that she was dangerous under certain conditions. Research is currently being carried out which will probably lead to new regulations on minimum freeboard. In the meantime, owners of “rulebeaters” similar to this one should carefully consider whether the amount of freeboard on their vessel is appropriate and safe.

**2** The standard for workboats provides useful guidance. A fishing vessel with a continuous watertight weather deck and a length of 9.8m would require a minimum freeboard of 415mm when fully

loaded. If your vessel meets this description, but with reduced freeboard, you need to be aware that she suffers from a lack of buoyancy which may substantially reduce her capability to survive in certain circumstances.

**3** The area of freeing ports on this vessel did not meet the basic minimum guidance. When the effect of the shelter was taken into account, her freeing ports were woefully inadequate. Trapped water on a vessel can easily cause capsize, and adequate means for water to quickly escape should be provided. If your vessel has a shelter which could trap water on the after deck, try to avoid operating while stationary and stern-to the sea waves.



# With Poor Freeboard

been to maximise the fishing capacity while keeping the length under 10m so that the owner would

not have to purchase a fishing quota. Heavy equipment was installed including: a main engine

capable of providing 265kW (but de-rated to 228kW); a trawl winch with a core pull of 5.3 tonne; two net drums each with a core pull of 2.1 tonne; heavy nets; a shelter; and an extensive suite of bridge equipment.

There was no minimum freeboard requirement for a fishing vessel of this size, but there was for an equivalent sized workboat. If the workboat standard had been applied to this vessel, she would have been about 5 tonnes too heavy. She was overloaded with equipment and fittings, and her freeboard and buoyancy were inadequate as a result.



# Aggregate



## The Lessons

**1** Both the owner and skipper failed to notice the serious stability implications of the bags having no means of drainage. Using these bags had the same effect as blocking the vessel's freeing ports, because water could not escape. Be aware of the dangers of water trapped on deck. It can happen quickly and unexpectedly. Always ensure that freeing ports are kept clear, and that containers on deck have adequate drainage holes.

**2** Fishermen on small vessels should consider wearing constant wear buoyancy aids all the time at sea. The MAIB frequently comes across accidents where vessels capsize suddenly, with little or no warning. In such a circumstance, it is too late to scramble around to find the lifejackets which are often stowed in the most inaccessible location.



# Bags Sink Mussel Dredger

## Narrative

Over the years, fishermen have thought of many ideas to reduce time spent alongside and unloading the catch. Recently, some fishermen have taken to loading their shellfish catch into 1 cubic metre aggregate bags, which are more commonly used in the building industry by builders' merchants. These bags are stowed on the open deck and unloaded quickly by crane.

This practice had been adopted by the owner and skipper of a 9 metre mussel dredger fishing out of a port in southern England.

The vessel, with a crew of three, had a successful day's fishing, and was heading back to port with a good catch when the weather deteriorated unexpectedly

and she experienced strong winds and large seas. As the vessel closed her home port, her engine failed and she began rolling heavily and shipping seas which started to fill the bags on deck.

The vessel began to list, or possibly loll, to one side and the skipper, realising the danger the vessel was in, broadcast a "Mayday" on VHF channel 16. The local lifeboat was launched and a nearby yacht headed for their position. The vessel's movement began to be of grave concern to the skipper as she laboured in the heavy seas, so he ordered the crew to launch the liferaft and to prepare to abandon ship. As the crew

carried out his instructions, the vessel rolled onto her side, throwing them into the sea. She sank a few minutes later.

The liferaft had been launched, but it was taken down to the seabed, trapped in the rigging. Not all the crew were wearing lifejackets, despite some warning of the impending capsizing.

Fortunately, the men were in the water only a short time before the yacht was on scene, and they were able to clamber on board to safety. The fishermen were later transferred to the lifeboat and returned to shore. No one suffered lasting injuries.



# Are Lifejackets Really Too Much Trouble?

## Narrative

A skipper and his deckhand were hauling a string of pots on an 11 metre fishing vessel.

The skipper was guiding the line over a snatch block hanging from gallows extending beyond the side of the vessel. He was also controlling the vessel's heading, speed and hauler using local controls. The deckhand was further inboard, removing catch from the pots, re-baiting and stacking them. He had his back towards the skipper.

The skipper screamed and the deckhand turned to find him hanging from the snatch block with his legs in the water. Before the deckhand could take any action, the skipper slipped into the water.

After cutting free the string of pots, the deckhand went to the wheelhouse, turned the vessel and came alongside the skipper. He also called for help on Channel 16 VHF.

He first attempted to bring the skipper close alongside by using a boathook. The skipper was able to grab one end, but the boathook slipped from the grasp of both men and fell into the sea. The boat was still moving through the water and the skipper fell astern.

The deckhand again manoeuvred the boat alongside the skipper, from the wheelhouse, but by this stage the skipper was face-down in the water.

Using a grapple, the deckhand was able to get a line on the skipper and, passing this line over the block and hauler sheave, lifted the skipper's head and torso clear of the water. Unable to lift the unconscious man inboard, on his own, he waited a few minutes until the skipper of a nearby boat came alongside to assist. Together they dragged the skipper inboard and began attempts to resuscitate him.

A lifeboat came alongside a few minutes later, with a doctor among its crew. In spite of the doctor's help, and being airlifted to hospital, the skipper lost his life.

## The Lessons

**1** Had he been wearing a lifejacket, the skipper would have significantly increased his chances of being recovered alive. The small extra degree of discomfort from wearing a lifejacket on deck – and it is only small with modern self-inflating types – is surely worth the greatly increased chance of surviving going over the side.

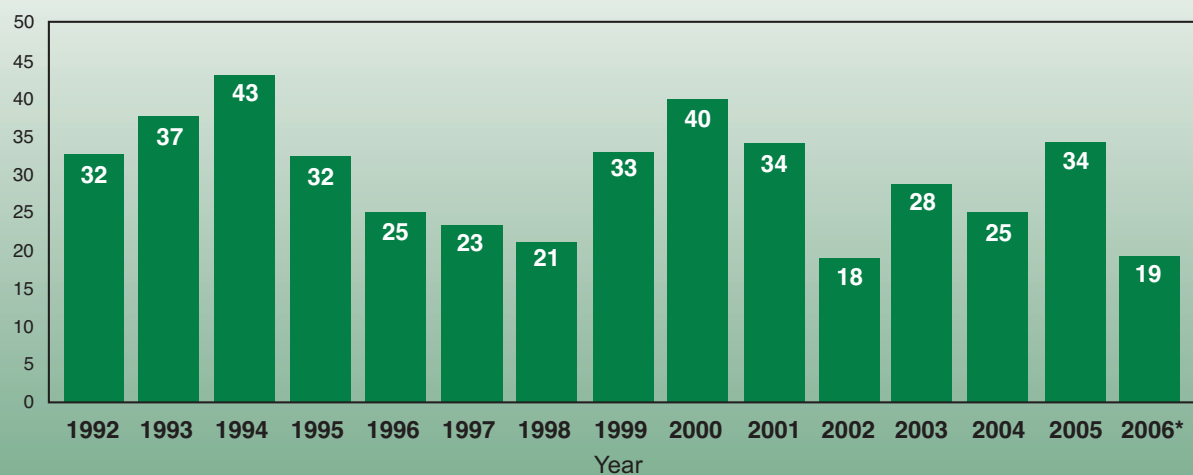
**2** The skipper had been very conscientious in carrying out a full written risk assessment. From this, he had identified that there was a risk from going overboard when shooting and hauling. His control measure, to reduce the risk from that hazard, was to wear a lifejacket. It is unfortunate he did not follow his own judgment.





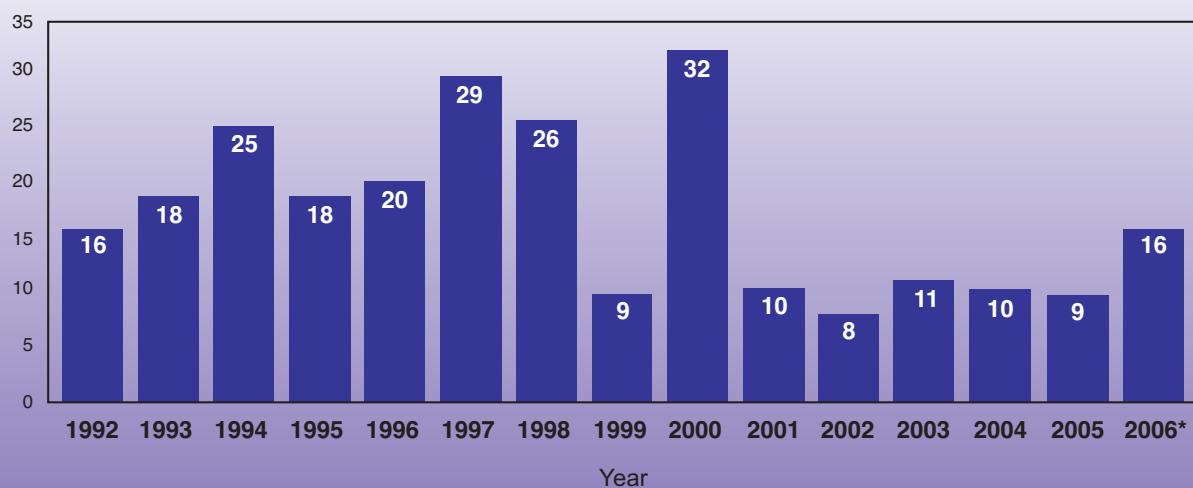
# Fishing vessel accident

Fishing Vessel Losses 1992–2006



\* Figures for 2006 are provisional at time of publication. (May 2007)

Deaths 1992–2006





# statistics

## Fishing Vessel Accident Statistics 1997–2006

YEAR	LOSS OF LIFE					PERSONAL ACCIDENTS	VESSELS LOST
	Lost with vessel	Fell overboard	Involved Machinery	Onboard Accidents	Total		
1997	16	7	0	6	29	106	23
1998	18	5	0	3	26	89	21
1999	3	4	0	2	9	72	33
2000	21	6	2	3	32	73	40
2001	1	6	0	3	10	77	34
2002	4	4	0	0	8	47	18
2003	4	5	1	1	11	59	28
2004	7	3	0	0	10	60	25
2005	1	6	0	2	9	53	34
2006*	10	4	1	1	16	53	19
TOTAL	85	50	4	21	160	689	275

\* Figures for 2006 are provisional at time of publication. (May 2007)

**UK Fishing Vessels 2006**  
(PROVISIONAL FIGURES)

**1** Fatal accidents (showing number of deaths)  
**X** Vessels lost

The map shows the following locations and symbols:

- Shetland Islands:** 1 fatal accident, 1 vessel lost.
- Orkney Islands:** 1 fatal accident, 1 vessel lost.
- Hebrides:** 1 fatal accident, 1 vessel lost.
- Scotland:** 1 fatal accident, 1 vessel lost.
- England:** 1 fatal accident, 1 vessel lost.
- Wales:** 1 fatal accident, 1 vessel lost.
- Ireland:** 1 fatal accident, 1 vessel lost.
- English Channel:** 1 fatal accident, 1 vessel lost.
- Celtic Sea:** 1 fatal accident, 1 vessel lost.
- North Sea:** 1 fatal accident, 1 vessel lost.

Other locations marked include: Shetland, Orkney Islands, Hebrides, Scotland, England, Wales, Ireland, English Channel, Celtic Sea, North Sea, and various banks and shoals.



# MAIB published reports

## Fishing vessel accident reports published since 1999

**Alma C** – report on the death of Michael John Beedie, a fisherman from the fishing vessel Alma C, on Turbot Bank about 55 miles west-by-south of Thyboron in Denmark on 25 January 2001

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

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

**Angela** – capsized and foundering of a fishing vessel in the North Sea on 6 February 2000

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

**Arosa** – grounding and total loss of UK fishing 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 the vessel while berthed at Carbost pier, Loch Harport, Isle of Skye on 2 April 2000

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

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

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

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

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

**fv Beverley Ann II/Cypress Pass** – collision between vessels on 9 March 1999

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

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

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

**Bro Axel/fv Noordhinder** – near miss between Bro Axel and fv Noordhinder and the subsequent grounding of Bro Axel at Milford Haven 5 December 2002

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

**Catrina** – capsized of a UK registered fishing vessel south of Newhaven on 13 October 1998

**Celtic King/De Bounty** – collision between UK registered feeder container ship Celtic King and Belgian registered fv De Bounty to the south of The Smalls traffic separation scheme off the south-west coast of Wales on 19 March 2000

**Charisma** – capsized of the fishing vessel Charisma (OB588) with the loss of one crew member in Carlingford Lough on 30 January 2002

**Chelaris J** – capsized and sinking of the fishing vessel Chelaris J (GU323) and loss of all crew members Banc de la Schôle (near Alderney) 1 October 2003

**Chelaris J** – le chavirement et le naufrage du bateau de pêche Chelaris J (GU323) avec la perte de tous les membres de l'équipage, Banc de la Schôle (près d'Alderney), 1er octobre 2003

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

**Constancy** – sinking of a fishing vessel on 30 July 1998 with the loss of one life

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

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

**De Kaper** – fire on board a trawler off Hanstholm, Denmark on 12 February 1999

**Donna M** – capsized of a fishing vessel off the Orkney Islands with the loss of two lives on 31 August 1999

**Dunan Star** – fatal accident on board a fishing vessel 1.5 miles south-west of the Isle of Arran on 10 August 2000

**Elegance** – investigation into 2 engine room fires, subsequent flooding and foundering of the fishing vessel Elegance 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 of the fishing vessel Elhanan T on 14 August 2003

**mv Elm/mfv Suzanne** – near miss incident on 11 February 1999

**Emerald Dawn (one of trilogy)** – capsized and foundering of fishing vessel off Kilkeel with the loss of one life on 10 November 2004

**Emerald Star** – investigation of Emerald Star making contact with Chevron Texaco Number 6 berth at Milford Haven on the evening of 18 January 2006

**European Tideway and Vrouw Grietje** – collision between vessels in the North Sea on 16 October 2000

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

**Flamingo** – capsized of a fishing vessel east of Harwich on 7 July 2002

**Fleur de Lys** – explosion on board vessel which then foundered 18 miles south-east of Portland Bill on 16 April 2000

**Fraoch Ban** – capsized of a fishing vessel off the coast of the Shetland Islands on 15 August 1999

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

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

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

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

**Greenhill** – grounding and subsequent foundering of fv Greenhill off Ardglass, Northern Ireland 19 January 2006

**Gudermes and Saint Jacques II** – collision between vessels in the Dover Strait on 23 April 2001

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

**Harvest Hope** – capsized and foundering of the fv Harvest Hope 40 miles north-east of Peterhead on 28 August 2005

**Harvester/Strilmoy** – collision between fv Harvester and mv Strilmoy in the North Sea on 4 November 2005

**Horizonte Claro** – grounding of a fishing vessel on Soyey Island, Loch Inver, on 21 October 2000

**Jann Denise II (one of trilogy)** – foundering of fishing vessel 5 miles SSE of the River Tyne 17 November 2004 with the loss of her two crew

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

**Kathryn Jane (one of trilogy)** – foundering of fishing vessel 4.6nm west of Skye on or about 28 July 2004 with the loss of the skipper and one possible crew member

**Kingfisher II** – investigation of the fire on board the fishing vessel Kingfisher II whilst on passage to recover creels, 5 miles east of North Uist on 26 April 2004

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

**Lomur** – grounding of a fishing vessel in the approaches to Scalloway, Shetland Islands on 14 June 2001

**Luc and Toisa Puffin** – collision between two vessels 8.5 miles due east of the river Tyne on 13 June 1999

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

**Marbella/Bravo Delta offshore platform** – collision between UK registered fishing vessel and offshore platform in the Rough Gas Field about 25 miles south-east of Flamborough Head on 8 May 2002

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

**Mathilda and fv Lady Hamilton of Helford** – near miss incident between Mathilda and fv Lady Hamilton of Helford, 7 miles east-south-east of Lizard Point, Cornwall on 28 June 2001

**Noordster** – investigation of the capsize of the fishing vessel Noordster Z122 with the loss of three crew 11.5nm south of Beachy Head on 13 December 2005

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

**Opportune** – man overboard fatality from a fishing vessel 35 miles east of Wick on 23 February 2000

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

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

**fv Our Sarah Jayne/Thelisis** – collision between vessels in the Thames Estuary on 20 June 2001

**Pamela S** – capsize and foundering of fv Pamela S IH308 in Carmarthen Bay on 17 June 2006 with the loss of one life

**Pescalanza** – sinking of a fishing vessel with the loss of six lives on 2 November 1998

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

**Primrose** – grounding of vessel on the Island of Rhum on 15 June 2001

**Purbeck II** – injury of crew member on board on 7 June 1999

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

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

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

**Radiant Star III** – foundering of a fishing vessel 60 miles northeast of Fraserburgh on 6 August 1999

**Random Harvest** – flooding of a fishing vessel south-west of Brighton on 3 July 1999

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

**Reno and Ocean Rose** – collision between Reno and Ocean Rose off Whitby, North Sea 6 March 2004.

**Resplendent** – grounding of a fishing vessel in Bluemull Sound Shetland Islands on 13 June 2001

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

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

**mv Sand Heron and fv Celtit** – collision between vessels NE Traffic Lane, Dover TSS on 30 July 2001

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

**Sian Elizabeth** – investigation of the injury to a member of the crew on board the fishing vessel Sian Elizabeth 3 miles north of Kings Lynn on 14 September 2006

**Silvery Sea/Merkur** – collision between Merkur/Silvery Sea which then foundered about 35 miles west of Esbjerg, Denmark with the loss of five lives on 14 June 1998

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

**Solway Harvester** – summary report on the investigation of the capsize and sinking of fv Solway Harvester 11 miles east of the Isle of Man on 11 January 2000 with the loss of 7 lives

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

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

**Suzanne** – see Elm

**Tullaghmurphy Lass** – sinking of a fishing vessel with the loss of three lives in the Irish Sea on 14 February 2002

**Union Arbo/Philomena** – collision between Bahamian cargo ship Union Arbo and UK fv Philomena about 10 miles south of Newlyn, Cornwall on 2 September 1999

**Van Dijck** – loss overboard of a fisherman from fishing vessel while fishing 30 miles south-west of Guernsey on 16 April 2001

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

**Wakil II** – investigation of an accident to the skipper of a fishing vessel 3.5 miles south-west of St Bees Head on 10 April 2000

## SAFETY DIGEST

**MAIB Safety Digest 1/2006** – Published April 2006

**MAIB Safety Digest 2/2006** – Published August 2006

**MAIB Safety Digest 3/2006** – Published December 2006

Copies of the Safety Digest publication can be obtained, free of charge, on application to the Marine Accident Investigation Branch (Mrs Jan Hawes – 023 8039 5523).

## GLOSSARY of abbreviations

<b>ARPA</b>	Automatic Radar Plotting Aid
<b>DSC</b>	Digital Selective Calling
<b>EPIRB</b>	Emergency Position Indicating Radio Beacon
<b>GMDSS</b>	Global Maritime Distress and Safety System
<b>GPS</b>	Global Positioning System
<b>kW</b>	kilowatt
<b>"Mayday"</b>	The International Distress Signal (spoken)
<b>MCA</b>	Maritime and Coastguard Agency
<b>MGN</b>	Marine Guidance Note
<b>RNLI</b>	Royal National Lifeboat Institution
<b>SAR</b>	Search and Rescue
<b>VHF</b>	Very High Frequency





# MAIB

MARINE ACCIDENT INVESTIGATION BRANCH

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# MAIB

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