

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

“The sole objective of the investigation of an accident under the Merchant Shipping (Accident Reporting and Investigation) Regulations 2012 shall be the prevention of future accidents through the ascertainment of its causes and circumstances. It shall not be the purpose of an such investigation to determine liability nor, except so far as is necessary to achieve its objective, to apportion blame.”

NOTE

This report is not written with litigation in mind and, pursuant to Regulation 14(14) of the Merchant Shipping (Accident Reporting and Investigation) Regulations 2012, shall be inadmissible in any judicial proceedings whose purpose, or one of whose purposes is to attribute or apportion liability or blame.

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Fatal fall overboard from the fishing vessel *Eder Sands* (UL 257) approximately 150 nautical miles west of Ireland on 7 October 2022

SUMMARY

At about 1915¹ on 7 October 2022, a deckhand from the UK registered gill netter *Eder Sands* fell overboard while the vessel was shooting a net approximately 150 nautical miles west of Ireland. Despite an extensive 21-hour search that involved other vessels and fixed-wing aircraft, the crew member was not found.



Eder Sands

The investigation concluded that the deckhand fell overboard while he was holding a bight of rope attached to the net and standing in a position where there were no guard rails to prevent his fall. It also found that it was probable that once in the water he slipped out of his auto-inflate lifejacket because the waist strap was not fully tightened. Without any means of flotation, he quickly succumbed to the effects of the cold water and drowned.

The MAIB has made recommendations to the owner of *Eder Sands* to review their procedure and risk assessment for shooting nets and ensure that crew know how to wear their personal flotation devices correctly. The vessel's owner has also been recommended, as part of this risk assessment process, to review the suitability of these lifejackets and consider the provision of personal locator beacons for their crew. The Maritime and Coastguard Agency has been recommended to review and update its guidance to fishing vessel owners to ensure that risk assessments consider the suitability of personal flotation devices provided to their crew.

FACTUAL INFORMATION

Narrative

Eder Sands sailed from its home port of Santa Uxía de Ribeira, Spain on 9 September 2022 and started fishing on 13 September, shooting and hauling between two and three of its 5 nautical mile (nm) long gill nets per day.

¹ All times are universal time coordinated (UTC).

At about 1745 on 7 October 2022, *Eder Sands* was approximately 150nm west of Ireland (**Figure 1**) on a southerly heading at about 5 knots (kts) when the crew laid an anchor weight and marker buoys and began to shoot a gill net. The wind was from the west at about 8kts, accompanied by a 1-metre (m) sea from the same direction. Sunset was at 1823.

At about 1900, as the last of the net was about to be laid, the skipper called the on-watch crew to the upper deck. On arrival, the three deckhands took up their usual positions, one close to the vessel's stern and the other two tending the net marker buoys next to the starboard wheelhouse door. The upper deck was lit by deck lights and all three deckhands were each wearing foul weather dungarees, boots and an auto-inflate lifejacket. The deckhand at the stern was standing on the lid of a storage locker above the vessel's main deck, in line with the top of the bulwarks (**Figures 2 and 3**); he was holding on to a bight of buoy line (**Figure 4**).

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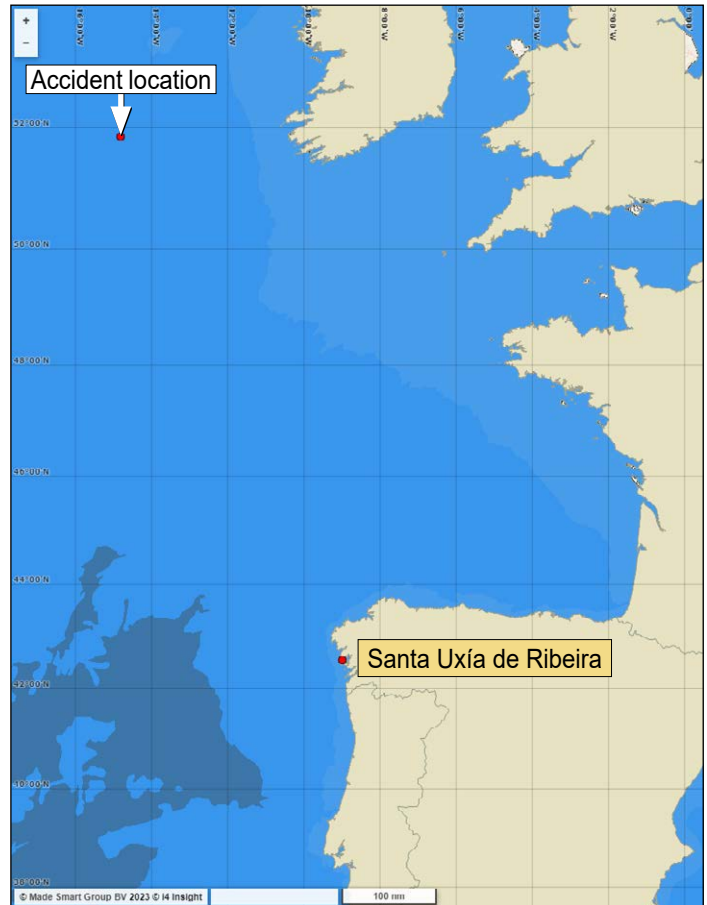


Figure 1: The accident location

For illustrative purposes only: not to scale

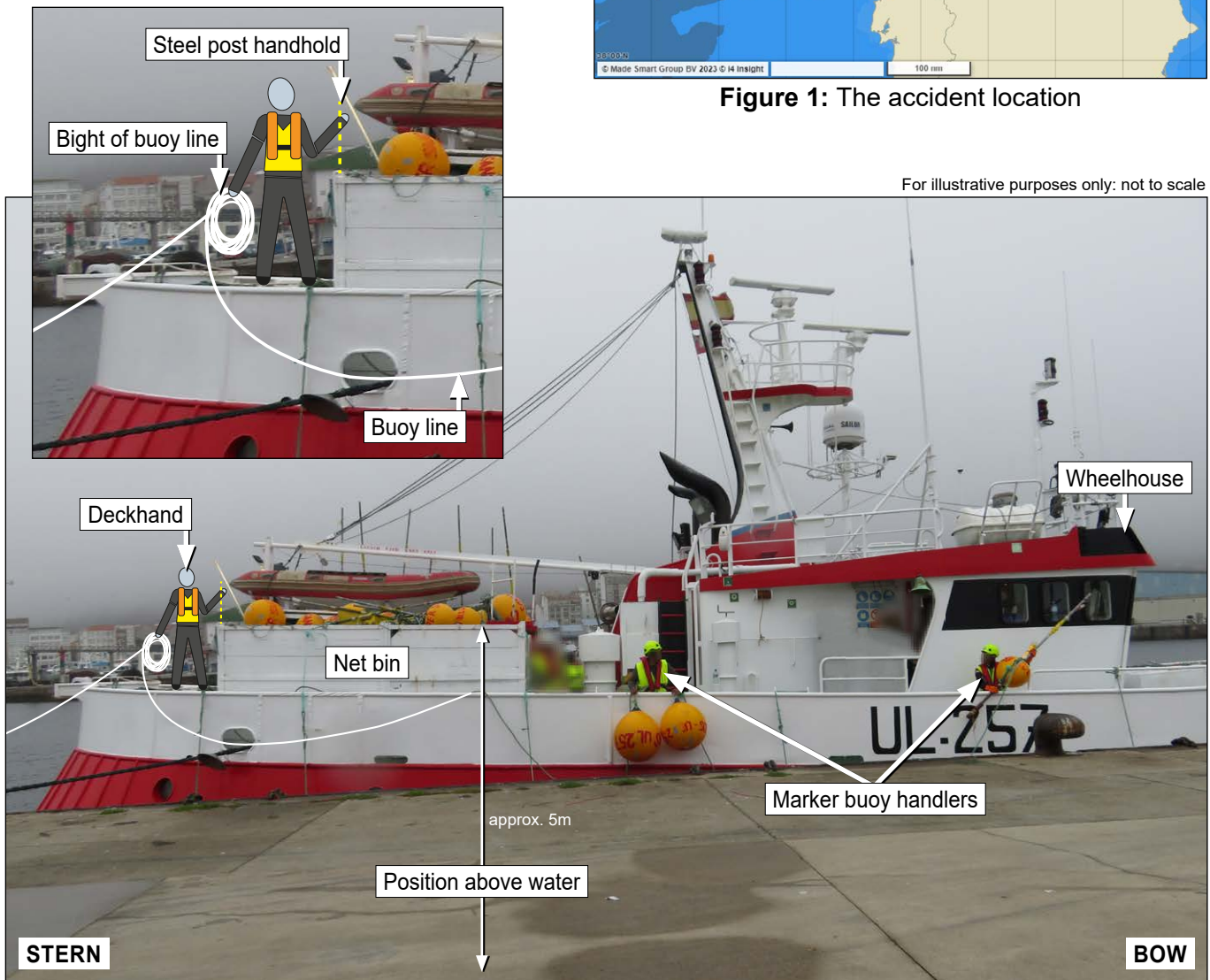


Figure 2: Reconstruction, showing the positions of the deckhands during the final phase of shooting the net

At about 1915, as the skipper was turning *Eder Sands* slowly to starboard, the deckhand at the stern shouted to stop the vessel and call the bosun. In response, the skipper used astern power to stop the vessel and sounded the crew alarm and whistle.

About 30 seconds later, one of the crew arriving on deck saw the deckhand at the stern fall overboard, holding a bight of line in his hand. They informed the skipper who ordered the three net marker buoys to be released. Other members of the crew then threw the port and starboard lifebuoys with their smoke and light floats overboard, along with one of the vessel's foam abandonment lifejackets.

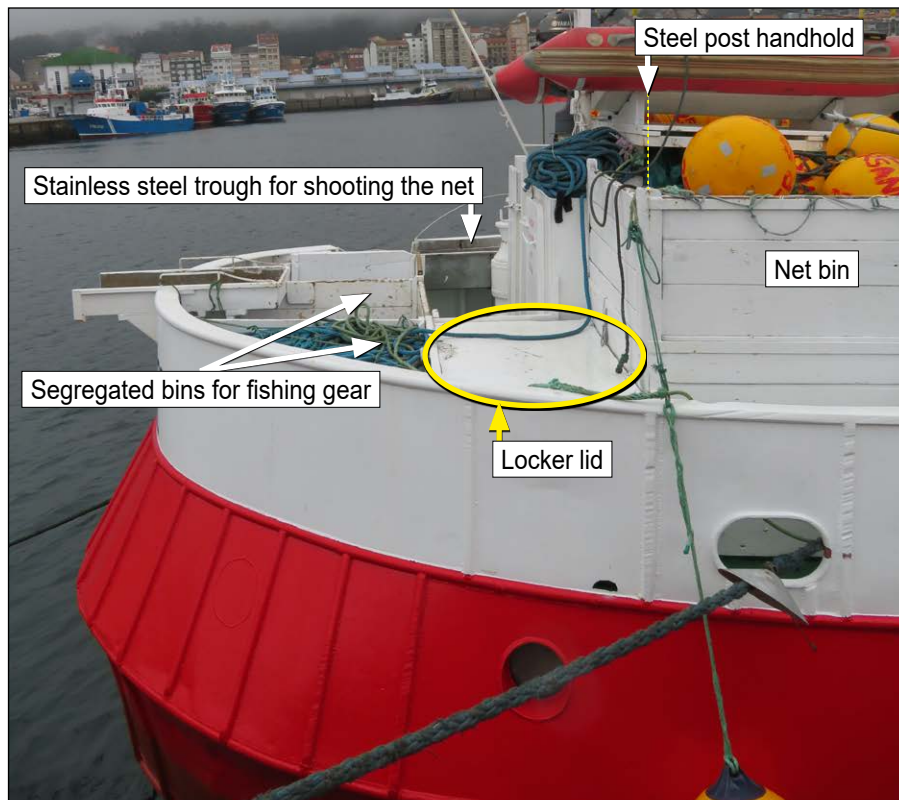


Figure 3: The fishing gear stowage arrangement at the stern

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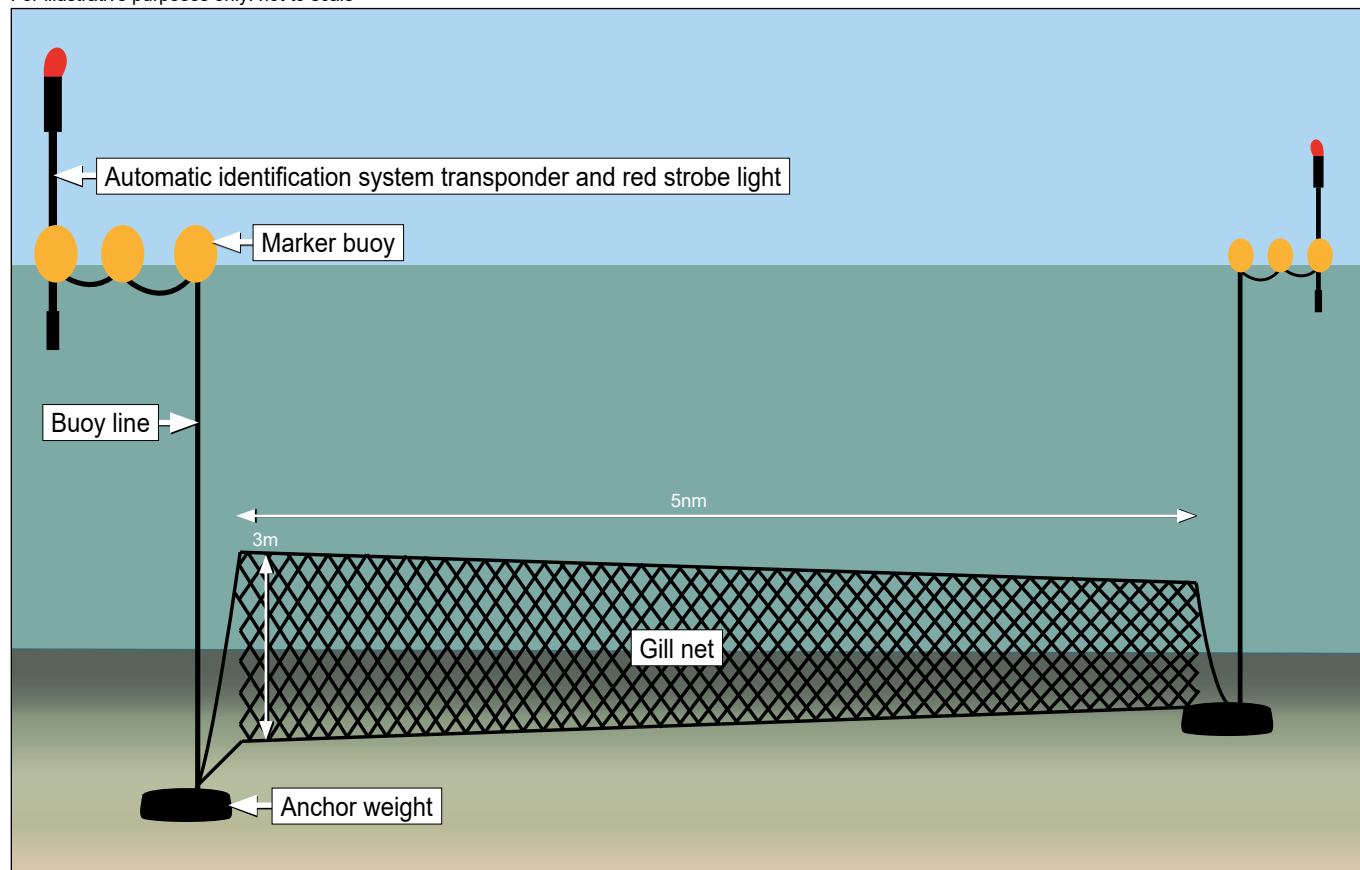


Figure 4: The fishing gear arrangement

The skipper drove *Eder Sands* ahead prior to reversing the vessel's course. As he did so, some of the crew briefly spotted the deckhand in the water close to a marker buoy; his head was visible, but they could not see his lifejacket. The skipper manoeuvred *Eder Sands* back towards the marker buoy and the crew used the vessel's searchlights to try and locate the missing deckhand, without success.

The mate took control of the vessel so that the skipper could report the emergency on very high frequency (VHF) and medium frequency radio. After making “Mayday” calls and activating the Digital Selective Calling (DSC)² alarm at about 1935, the skipper informed the owner of *Eder Sands* via satellite phone. At 1939, the owner then contacted their UK agent who informed HM Coastguard in the UK, which in turn notified its Irish counterparts that one of *Eder Sands*’ deckhands had fallen overboard at 2018.

Shortly after 2000, the crew of *Eder Sands* sighted a boot and glove close to the lifebuoys and foam lifejacket, but there was no sign of either the deckhand or his auto-inflate lifejacket. Concerned that the missing deckhand might have been trapped in the fishing gear, the skipper ordered the crew to grapple and recover the buoy line. The crew recovered the buoy line but did not find the missing deckhand, so they cut the line and continued the search.

Meanwhile, the crews of other fishing vessels in the area had responded to the VHF “Mayday” call and were coordinated by the Irish Coast Guard to join the search. During the early morning and afternoon of 8 October, UK and Irish fixed-wing aircraft also joined the search. The lifebuoys, foam lifejacket and boot were sighted, but neither the missing deckhand nor his auto-inflate lifejacket were found.

At 1604 on 8 October, the Irish Coast Guard terminated the search for the deckhand due to the deteriorating weather forecast and fading light.

Vessel

Eder Sands was a UK registered 38.2m long gill netter that operated from north-west Spain and fished for monkfish. The vessel was operated under a UK Fishing Licence and owned by Ondar Fishing Company Limited, a company registered in the vessel’s home port in Spain. The fishing gear comprised 5nm long, 3m high gill nets held in position with anchor weights and marked at each end by three marker buoys, the last of which carried an automatic identification system transponder and red strobe light (**Figure 4**). The vessel’s operating pattern was to remain at sea for approximately 2 months and then return to harbour to land its catch and embark stores.

Crew

Eder Sands was operated by 20 crew: a Spanish master, mate, chief engineer and bosun and 16 Indonesian nationals. The working languages on board were Spanish and Indonesian.

The Indonesian crew joined the vessel on 3 September 2022, six days before departure. On 9 September, they completed one day of safety training during which they practised firefighting and emergency drills. This induction training was recorded in the vessel’s safety folder. There was no record that the crew had completed man overboard training or that they had been instructed in the correct use of the auto-inflate lifejackets that were used when working on deck.

Once the vessel was at sea the crew were taught the procedure for shooting and hauling nets. At the time of the accident, the crew had yet to complete the required Safety Awareness or Basic Health and Safety courses but, in line with the MCA’s instructions to surveyors³, they had been granted a 3-month dispensation and were required to complete the training by 3 December 2022.

The deceased

The deceased deckhand was Salikin, a 36-year-old Indonesian national who had served on a variety of fishing vessels in Indonesia and overseas. This was his first contract on board *Eder Sands* or a UK registered fishing vessel. He was a competent swimmer and had completed sea survival, firefighting and first aid training as part of his International Convention on Standards of Training and Watchkeeping basic safety training in Indonesia.

² Digital Selective Calling is a digital alerting system that, on the press of a single button, can send a vessel’s identity, position and the nature of its distress to all DSC-equipped vessels and shore stations within range.

³ Instructions for the Guidance of Surveyors on Crew qualifications and Training MSIS 27.14 Rev 10.21 (section 14.5).

It was estimated that Salikin had participated in shooting and hauling *Eder Sands*' nets on approximately 30 occasions before the accident.

Safety management

Eder Sands was certified in accordance with Merchant Shipping Notice (MSN) 1873 (F), Amendment 1, *The Code of Practice for the Construction and Safe Operation of Fishing Vessels of 24m Registered Length and Over*. Published in November 2018, MSN 1873 (F) stated that employers were required under the *Merchant Shipping and Fishing Vessels (Health and Safety at Work) Regulations 1997* to make *suitable and sufficient assessment of the risk to health and safety of fishermen...arising in the normal course of their activities or duties*⁴.

To assist with compliance with the International Labour Organization *Work in Fishing Convention*⁵ and MSN 1873 (F), the fishing industry developed the voluntary Fishing Safety Management Code (FSM Code). Guidance on this was published in the MCA's Marine Guidance Note (MGN) 596 (F), *Fishing Safety Management Code*⁶, which promoted the creation of a safety management system (SMS) for fishing vessels. MGN 596 (F) recommended that an SMS should consist of certain documents and records, including:

- *The Safety Management Manual;*
- *Company Safety and Environmental Policies;*
- *All crew certification and training records;*
- *Vessel Operation (operating procedures and the risk assessment);*
- *Testing/Certification relating to the lifesaving appliances and fire-fighting equipment;*
- *Records of drills and safety training.*⁷

MGN 596 (F) also advised that:

*The Owner should establish procedures by which the vessel's crew where applicable receive relevant information on the safety management system in a working language or languages understood by them.*⁸ [sic]

The owner of *Eder Sands* had created a safety folder, written in English, based on the format posted on the Safety Folder website⁹. In addition, the vessel carried a Risk Assessment Manual, translated into Spanish, English and Indonesian, which covered various activities on board. While the combined scope of both documents covered many of the SMS elements recommended in the FSM Code, neither described the vessel's operating procedures such as shooting nets.

The safety folder's risk assessments for shooting and hauling nets identified four hazards: working fast, becoming caught in the hauler, being hit by a pot marker and winch injuries. The mitigation measures for these were to wear gloves; remove snag hazards such as loose clothing, watches and jewellery; carry a sharp knife; wear a PFD and goggles; and use a lifeline (safety harness). There was no mention of the hazard of becoming entangled in the fishing gear, although on the stern the net lines and weights had been stored in segregated bins and the net was laid via a stainless steel shooting trough to separate the crew from the fishing gear (**Figure 3**). The Risk Assessment Manual advised the crew *that the ropes that accompany the fishing gear should not be grabbed*¹⁰. Neither document *mentioned* the risk associated with one of the crew being required to work at height.

⁴ MSN 1873 (F), section 6.1.2.1

⁵ International Labour Organization *Work in Fishing Convention*, 2007 (No.188) was implemented in the UK in 2018.

⁶ MGN 596 (F), *Fishing Safety Management Code: Helping to improve the management of safety on Fishing Vessels*.

⁷ The full list of documents and records to be included in an SMS is detailed at MGN 596 (F), section 3.2

⁸ MGN 596(F) paragraph 6.6

⁹ <https://www.safetyfolder.co.uk/>

¹⁰ Cualtis risk assessment manual, page 62.

Working at height

The Merchant Shipping and Fishing Vessels (Health and Safety at Work) (Work at Height) Regulations 2010¹¹ applied for *Eder Sands*. Extracts from the regulations relevant to this accident included:

- Work at height means work in any place on a ship, including work in close proximity to the ship's side.
- The employer shall ensure that work at height is properly planned, appropriately supervised and carried out in a manner which is so far as is reasonably practicable safe, and that the planning includes the selection of work equipment.
- The employer shall ensure that temporary work is not carried out at height where it is reasonably practicable to carry out the work safely otherwise than at height.
- When providing work equipment, the employer shall give collective protection measures priority over personal protection measures.
- Collective safeguard means a system or device to prevent or arrest workers in general from falling while working at height, including a guard rail, barrier or safety net but excluding equipment for preventing or arresting the fall of an individual worker.

The crew of *Eder Sands* had developed their own local, undocumented procedure for shooting nets and the final stage of this process required three deckhands to be on deck. The practice was that the more experienced deckhand would stand on the lid of the storage locker beside the bulwark at the stern of the vessel (**Figures 2 and 3**), which allowed them to simultaneously observe the laying of the fishing gear (net, anchor weight and buoy line) and communicate by voice with the two deckhands holding the marker buoys and the skipper or mate in the wheelhouse. The lid of the storage locker, which was about 4m above the waterline, had no guard rails but a steel post had been welded into the net bin next to the storage locker to provide a handhold. Post-accident, the steel post was found to have sheared off.

The deckhand positioned at the stern of the vessel usually held a bight of buoy line in their free hand, throwing it over the side when they shouted to their two colleagues to release the marker buoys.

Personal flotation devices

MSN 1873 (F), Amendment 1, stated that... *unless measures are in place which eliminate the risk of fishermen falling overboard, all fishermen must be provided with and must wear, PFDs or safety harnesses.*¹²

It further instructed that a personal flotation device (PFD) should be *a lifejacket or a buoyancy aid of at least 150N¹³ or wearable buoyancy device of at least 50N that provides buoyancy in the water.*¹⁴

MSN 1870 (M+F), *The Merchant Shipping and Fishing Vessels (Personal Protective Equipment) Regulations 1999*, stated that personal protective equipment (PPE) must be "suitable", the definition of which included being *appropriate for the risks to which the seafarer or other worker is exposed and to the task which they are performing without itself leading to any increased risk.*¹⁵

MSN 1870 (M+F) also referred to MGN 588 (F), Amendment 1, *Compulsory Provision and Wearing of Personal Flotation Devices on Fishing Vessels*, which advised fishing vessel owners and skippers that PFDs should meet defined performance standards¹⁶ and that:

PFDs must always be worn in accordance with Manufacturers' donning instructions, which should be displayed in a prominent place. [sic]

¹¹ Statutory Instrument 2010 No. 332, which was amplified in MGN 410 (M+F).

¹² MSN 1873 (F), section 6.1.1.3

¹³ Newton – a metric measurement of force used to indicate how much buoyancy a lifejacket has. 10 Newtons is equivalent to 1kg of buoyancy.

¹⁴ MSN 1873 (F), section 6.1.1.3.(ii)

¹⁵ MSN 1870 (M+F), section 2.2

¹⁶ MSN 1870 (M+F), *The Merchant Shipping and Fishing Vessels (Personal Protective Equipment) Regulations 1999*, Amendment 3.

And:

correct adjustment/fitting to suit the wearer is essential, every time the PFD is donned (especially if the PFD is used by other crew members).¹⁷

It also stated that:

The fishing vessel owner should familiarise themselves with the capabilities of PPE, and its limitations and select equipment appropriate to the risk.

MGN 588 (F) provided no guidance on how to assess the suitability of PFDs or that owners should consider providing PFDs with lights, spray hoods or personal locator beacons (PLB).

The owner of *Eder Sands* provided the crew with 170N auto-inflate lifejackets to wear while working on deck (**Figure 5**). These were compliant with the International Organization for Standardization (ISO) performance standard prescribed in the regulations¹⁸ and were equipped with the mandatory accessories of whistle, lifting loop and retroreflective strips. The lifejackets were not fitted with spray hoods, lights, crotch straps or PLBs.

The lifejackets were secured in place on the wearer by a buckled and tightened waist strap; there was no requirement in the ISO standard for a crotch strap. Posters and donning instructions displayed on board *Eder Sands* referred to the availability of the foam-filled abandonment lifejackets. There were no posters for the auto-inflate lifejackets nor were there instructions to the wearer on how they should be worn.

The investigation found no maintenance or inspection records for *Eder Sands*' auto-inflate lifejackets, but they had been replaced annually and appeared in good condition. The investigation noted that the crew shared the auto-inflate lifejackets and had adopted the practice of leaving the waist strap buckled and loose so that they could quickly put on or remove the lifejacket by slipping it over their head (**Figure 6**). *Eder Sands* did not carry PLBs for its crew.



Figure 5: The auto-inflate lifejackets carried on *Eder Sands*



Figure 6: Deckhand wearing an auto-inflate lifejacket with loose waist strap

Post-accident lifejacket trials

The MAIB conducted lifejacket trials (**Figure 7**) using the same make and model of auto-inflate lifejackets as those worn by the crew of *Eder Sands*. The trials established that:

- if the waist strap was correctly adjusted, the lifejacket operated as designed and remained in place on the user when entering the water from a height of up to 4m; and

¹⁷ MGN 588 (F), section 7.5.3

¹⁸ MSN 1870 (M+F), Annex 1, 12, ISO 12402-3:2020, the international standard for personal flotation devices – Part 3: Lifejackets, performance level 150 – safety requirements.

- when the waist strap was loose, the wearer consistently slipped out of the lifejacket harness when the lifejacket automatically inflated after the person entered the water from a height of 1.5m.

The results of the trials also demonstrated that an inflated, but unoccupied, lifejacket was quickly blown away across the surface of the water in simulated winds and that an unlit lifejacket was almost impossible to see in the dark unless one of its retroreflective strips was directly illuminated by a light.

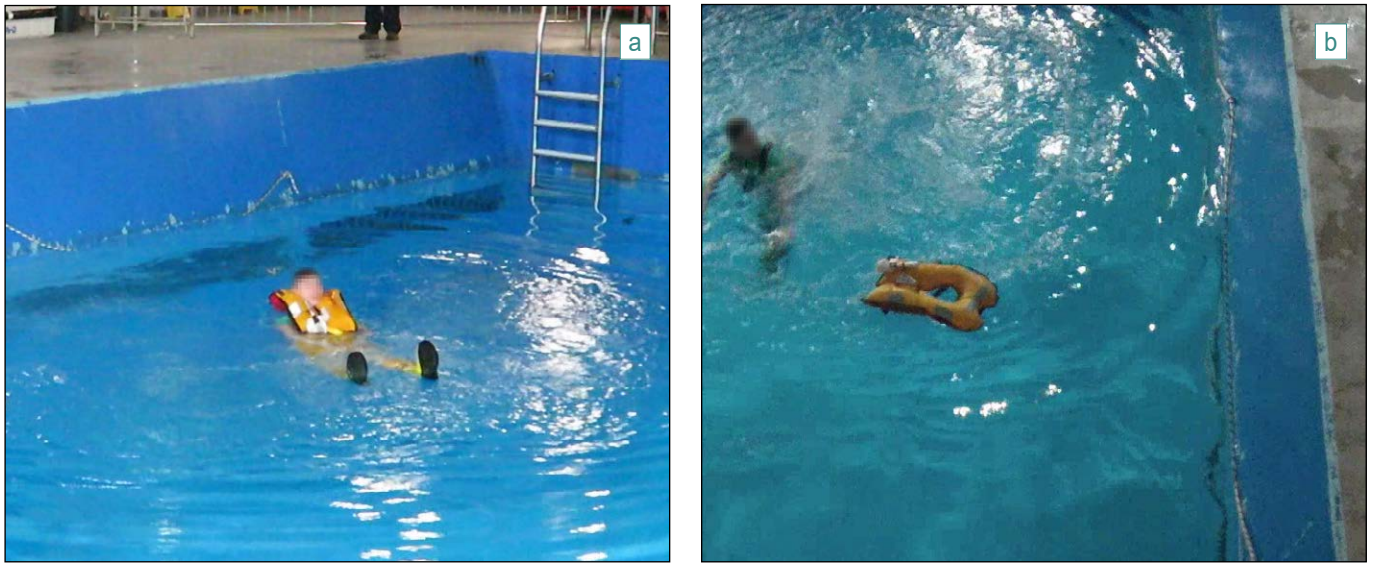


Figure 7: MAIB trial showing the effects of a person entering the water from 1.5m wearing a personal flotation device with a correctly adjusted waist strap (a) and with loose waist strap (b)

Cold water

The sea water temperature was estimated to be 14.8°C on the night of the accident.

Sudden immersion in water temperatures of less than 15°C can result in cold water shock and/or cold incapacitation. Cold water shock happens within the first 30 seconds to 2 minutes and is associated with a gasp reflex, hyperventilation and a rapid increase in heart rate and blood pressure as the body encounters the cold water. Panic can cause hyperventilation to continue after the initial physiological effects of cold water shock have subsided.

Cold incapacitation usually occurs within 2 to 15 minutes of entering the water. The blood vessels become constricted as the body tries to preserve heat and protect vital organs. This results in the blood flow to the extremities being restricted, causing cooling and consequent deterioration in the functioning of muscles and nerve ends. Hands and feet lose useful movement, leading to the progressive incapacitation of arms and legs and impeding the ability to swim.

Industry guidance

The MCA *Fishermen's Safety Guide*¹⁹ highlighted the dangers of shooting nets and advised crew to keep clear of ropes and nets. The guide also emphasised the safety lessons from the MAIB investigations into the fatalities on board *Pauline Mary* (MAIB report 8/2017²⁰) and *Enterprise* (MAIB report 5/2018²¹) where crew members became entangled in fishing gear and were dragged overboard.

In a joint collaboration, the Royal Yachting Association (RYA) and Royal National Lifeboat Institution (RNLI) produced a *How to Fit a Lifejacket Correctly*²² video that explained how to wear an auto-inflate lifejacket correctly and described the importance of making sure lifejacket straps were tightened.

¹⁹ Section 5, May 2020.

²⁰ <https://www.gov.uk/maib-reports/man-overboard-from-potting-fishing-vessel-pauline-mary-with-the-loss-of-1-life>

²¹ <https://www.gov.uk/maib-reports/man-overboard-from-potter-enterprise-with-loss-of-1-life>

²² https://www.youtube.com/watch?v=T4v_D8jC4Uk

The Fishing Industry Safety Group (FISG) and the RNLI had also provided guidance on the selection and fitting of PFDs for commercial fishing as part of its Home and Dry campaign²³. This stated that 275N lifejackets were recommended for offshore use, and highlighted the benefits of additional lifejacket features such as lights and spray hoods.

Previous similar accidents

The recent MAIB investigation into the fatal person overboard from the stern trawler *Copious* (MAIB report 3/2023²⁴) found that the incorrectly worn auto-inflate lifejacket did not hold the crew member's airway clear of the water.

ANALYSIS

The accident

The deckhand fell overboard from *Eder Sands* while he was standing on the unguarded lid of a storage locker while holding on to a bight of buoy line as the net was being shot. He was wearing an auto-inflate lifejacket when he fell but, despite a 21-hour search by other vessels and fixed-wing aircraft, neither he nor his lifejacket were found.

Shooting nets

In the absence of any guidance in the vessel's safety folder the crew of *Eder Sands* had developed their own local, unwritten procedure for shooting nets. This was unsafe because it required a deckhand to stand on the locker lid, which had no means of preventing them falling overboard, such as guard rails or a safety harness and tether. The procedure also required this crew member to handle the fishing gear when throwing the bight of buoy line over the side to finish shooting the net.

The risk assessments for this process were generic, high-level and did not accurately reflect the hazards involved. For example, they did not identify the risk to the crew member at the stern of falling overboard from the unguarded locker lid 4m above the waterline. Although the Risk Assessment Manual did identify the risk of a crew member becoming entangled in fishing gear during shooting, as highlighted in the MCA's *Fishermen's Safety Guide*, mitigation of this risk was not reflected in the safety folder.

The importance of clear, safe and effective procedures for routine but potentially hazardous activities such as hauling and shooting nets cannot be underestimated, especially on board a vessel operating with a large multinational crew. The provision of effective and compliant guard rails/bulwarks or, where this is not feasible, the requirement to wear a safety harness in exposed working areas all help ensure that the risk of a crew member falling overboard is reduced to a safe level. To prevent entanglement in the net and being dragged overboard, the procedures must also ensure that crew do not handle fishing gear during the final stages of the shooting process. Moreover, to ensure that the crew are able to follow this procedure, and in line with recommended practice detailed in the FSM Code, the SMS needs to be available in the vessel's working languages.

It is impossible to determine what caused the deckhand to fall overboard; however, the lack of a guard rail/bulwark or safety harness and tether combined with the dangerous practice of holding on to a bight of fishing gear meant that there was nothing to prevent him falling from the vessel and entering the water. Post-accident, the steel post sometimes used as a handhold by deckhands standing on the lid of the storage locker at the rear of the vessel was found to have sheared off; the use of this handhold was unsafe and it did not adequately mitigate this risk.

Personal flotation devices

As neither the missing deckhand nor his auto-inflate lifejacket were recovered it was not possible to determine why his lifejacket did not keep him afloat. When the deckhand was briefly sighted his head

²³ <https://www.homeanddry.uk/wp-content/uploads/2021/04/lifejacket-guidance-for-commercial-fishing.pdf>

²⁴ <https://www.gov.uk/maib-reports/person-overboard-from-stern-trawler-copious-with-loss-of-1-life>

was seen but not his lifejacket. Therefore, it is likely that either his lifejacket failed to inflate or that, with the waist strap loose, he slipped out of its harness as it inflated and the unoccupied, unlit lifejacket then blew away from the scene without anyone noticing.

Although there were no inspection or maintenance records for *Eder Sands*' lifejackets, they were less than a year old and in good condition; it is therefore considered unlikely that the deckhand's lifejacket failed to inflate when he entered the water. Instead, as the MAIB's trials demonstrated, it is more likely that the crew's habit of wearing the lifejacket with the waist strap loose meant that the deckhand probably slipped out of his lifejacket as it inflated when he entered the water. Wearing heavy foul weather dungarees and without an inflated lifejacket to keep him afloat, the deckhand would have been vulnerable to the effects of the relatively cold water, slipped beneath the surface and drowned.

The crew had not been instructed in how to wear their lifejackets correctly during training, copies of the manufacturer's instructions were not displayed within the vessel and the practice of wearing the lifejackets with loose straps went unchallenged by the officers on board. Without appropriate training and oversight there was no mechanism to ensure that the crew wore their lifejackets in accordance with the manufacturer's instructions to make sure that they functioned as intended if a crew member fell into the water.

Eder Sands, as one of the larger fishing vessels on the UK Ship Register, routinely operated 24 hours a day, often in bad weather, hundreds of miles offshore. The safe recovery of a person in the water was therefore largely reliant on the crew's ability to quickly locate them. The owners had selected PFDs that were compliant with the ISO standard as permitted by MSN 1870 (M+F) and were not fitted with optional accessories. This MSN also stated that personal protective equipment must be *appropriate for the risks to which the seafarer ...is exposed*²⁵. Given *Eder Sands*' operating pattern, the 170N auto-inflate lifejackets which were not fitted with spray hoods, lights, crotch straps or PLBs could not be judged as "appropriate" in accordance with the MSN. This may be because the vessel's owners were based in Spain and were unaware of the RNLI, RYA and FISG advice to the fishing industry on choosing an appropriate lifejacket as this information was not reflected in MGN 588 (F). Additionally, this MGN did not advise owners of the MSN 1870 (M+F) requirement to review the suitability of the PFDs provided to their crew against the operational risks.

It is important that fishing vessel owners fully risk assess their vessel's operations to ensure that the working PFDs provided to their crew are of a suitable standard and include appropriate features to mitigate the hazards of falling overboard in the working environment. It would also be appropriate for the MCA to review and consolidate its guidance to owners to ensure that it is aligned with wider industry advice on the need to select, record and maintain appropriate PFDs on board their fishing vessels.

Emergency response

The search and rescue activity, including the involvement of the other vessels and fixed-wing aircraft, focused on the datum established by the boot, glove and marker buoy that *Eder Sands* located just after the accident. This meant that it is likely the deckhand would have been quickly found had he been on the surface. Moreover, given that *Eder Sands* was operating on its own, about 150nm offshore, it is highly unlikely that the 30-minute delay in informing the Irish Coast Guard that one of the crew had fallen overboard affected the outcome of this accident.

CONCLUSIONS

- The deckhand fell overboard from *Eder Sands* because he was standing on an unguarded platform close to the vessel's stern and holding on to a bight of buoy line as the net was being shot. There was no safe procedure in place for working at height and, without guard rails or a safety harness and tether, there was nothing to prevent his fall.
- The crew were accustomed to wearing their auto-inflate lifejackets with the waist straps loose. It is probable that the deckhand slipped out of his lifejacket as it inflated as he entered the water, and that

²⁵ MSN 1870 (M+F), section 2.2

it was then blown away from the scene. Once in the water, the deckhand quickly succumbed to the effects of cold water and drowned due to a combination of the heavy foul weather clothing he was wearing and the loss of any means of flotation.

- *Eder Sands* routinely operated 24 hours a day while hundreds of miles from shore. Although compliant, the lifejackets on board the vessel were not fitted with lights, spray hoods, crotch straps or PLBs. Without these additions the chances of location and survival of a man overboard were reduced.
- The delay in alerting maritime search and rescue authorities did not impact the effectiveness of the 21-hour search for the missing deckhand or the outcome of the accident.
- The MCA guidance did not advise fishing vessel owners of the MSN 1870 (M+F) requirement to review the suitability of PFDs to ensure they are appropriate for the risks, nor did it reflect fishing industry advice on the choice of appropriate lifejackets.

ACTION TAKEN

MAIB actions

The **Marine Accident Investigation Branch** has issued a safety flyer to the fishing industry highlighting the lessons to be learned from this accident.

RECOMMENDATIONS

The **Maritime and Coastguard Agency** is recommended to:

2024/103 Review and revise MGN 588 (F) to:

- advise fishing vessel owners of the requirement in MSN 1870 (M+F) to review the suitability of personal flotation devices to ensure they are appropriate for the risks to which the seafarer is exposed; and
- ensure that it reflects fishing industry advice on the selection of personal flotation devices with safety features appropriate to the vessel's operation, including lights, crotch straps, spray hoods and personal locator beacons.

Ondar Fishing Company Limited is recommended to:

2024/104 Amend its safety management system in accordance with MGN 596 (F) and make it available to the crew in the working languages of the vessel and ensure that it includes:

- formal written operational procedures for shooting and hauling nets;
- accurate vessel-specific risk assessments for shooting and hauling the nets and working at height, including the implementation of appropriate control measures to ensure the safety of the crew at all times;
- a requirement to record the inspection and maintenance of each personal flotation device carried on board.

2024/105 In light of the risk assessments conducted in accordance with recommendation 2024/104, review the suitability of the personal flotation devices on board *Eder Sands* to ensure this equipment supports the survival and swift location and recovery of any crew that have fallen overboard; this process should consider the provision of a light, spray hood and personal locator beacon.

2024/106 Take action to ensure that its crew follow the guidance in MGN 588 (F) and wear their working personal flotation devices in accordance with the manufacturer's instructions.

Safety recommendations shall in no case create a presumption of blame or liability

VESSEL PARTICULARS

Vessel's name	<i>Eder Sands</i>
Flag	UK
Classification society	Bureau Veritas
IMO number/fishing numbers	7326051/UL 257
Type	Gill netter
Registered owner	Ondar Fishing Company Limited
Manager(s)	Transportes Alvarez e Hijos S.A.
Construction	Steel
Year of build	1974
Length overall	38.2m
Registered length	32.7m
Gross tonnage	307
Minimum safe manning	Not applicable
Authorised cargo	Not applicable

VOYAGE PARTICULARS

Port of departure	Santa Uxía de Ribeira, Spain
Port of arrival	Santa Uxía de Ribeira, Spain
Type of voyage	Fishing
Cargo information	Monkfish
Manning	20

MARINE CASUALTY INFORMATION

Date and time	7 October 2022 at about 1915
Type of marine casualty or incident	Very Serious Marine Casualty
Location of incident	North Atlantic, approximately 150nm west of Ireland
Place on board	Upper deck
Injuries/fatalities	1 fatality
Damage/environmental impact	Not applicable
Ship operation	Shooting fishing gear
Voyage segment	Mid-water
External & internal environment	Wind westerly at 8kts; 1m seas; dark, with good visibility; estimated sea temperature 14.8°C.
Persons on board	20