

# **ACCIDENT REPORT**

#### VERY SERIOUS MARINE CASUALTY

**REPORT NO 14/2022** 

DECEMBER 2022

#### 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.

© Crown copyright, 2022

You may re-use this document/publication (not including departmental or agency logos) free of charge in any format or medium. You must re-use it accurately and not in a misleading context. The material must be acknowledged as Crown copyright and you must give the title of the source publication. Where we have identified any third party copyright material you will need to obtain permission from the copyright holders concerned.

All reports can be found on our website:

www.gov.uk/maib

For all enquiries:

Email: maib@dft.gov.uk Tel: +44 (0)23 8039 5500

## Fatal man overboard from the fishing vessel Reul A Chuain (OB915) in the Sound of Rùm, Scotland on 24 June 2021

## SUMMARY

On the evening of 24 June 2021, *Reul A Chuain* was on passage with three crew to Mallaig, Scotland when a deckhand fell overboard in adverse weather while trying to recover one of the vessel's nets, which had slipped over the stern during heavy rolling. The skipper attempted to recover him from the water but also fell overboard. Neither of them were wearing personal flotation devices.

Both men were recovered by the inexperienced remaining crew member. The skipper was unresponsive and, despite efforts by the vessel's crew and search and rescue personnel, he could not be revived.

The investigation found that control measures identified in the vessel's operational risk assessments had not been implemented immediately after the net was taken on board after the fishing operation ended. This allowed, with the deteriorating weather conditions, for the net to slip overboard, which led to an emergency situation that continued to escalate with dire consequences.

Given the existing extensive safety guidance to fishing vessel owners and skippers, specifically on mitigating the risks of falling overboard, and the requirement for fishermen to wear a personal flotation device or to have measures in place to prevent falling overboard, no recommendations are made in this report.

Image courtesy of Fishing News (published 2019)



Reul A Chuain

Reproduced from Admiralty Chart 2207 and 2208 by permission of HMSO and the UK Hydrographic Office



Figure 1: Extract from UKHO chart showing Mallaig (port of departure/destination), point of last net haul, and accident position (net overboard)

Ν

# **FACTUAL INFORMATION**

## Narrative

On the morning of 23 June 2021, the twin-rigged prawn trawler *Reul A Chuain* (OB915), crewed by its skipper, Lachlan 'Lachie' Robertson, and two deckhands, departed Mallaig, Scotland, bound for fishing grounds west of the Isles of Rùm and Muck (**Figure 1**). The vessel arrived in the afternoon, stopped, and drifted overnight. The skipper planned to fish the following day and return to Mallaig late in the evening.

By 1245 on 24 June, the crew had completed the first trawl of the day and started the second. At 1650, they hauled in the nets and landed the catch on the main deck. After emptying the nets, they stowed them in their usual position on the deck at the stern (**Figure 2**). The skipper set a course for Mallaig at a speed of about 3 knots (kts) while the deckhands sorted the catch and stowed it in boxes. The weather was good with a force 4 south-westerly wind.



Figure 2: Nets stowed at stern (post-accident)

By 1720, most of the catch was sorted and transferred to the fish room. The skipper, who was in the wheelhouse, increased speed to 6.5kts aiming to reach Mallaig in time to unload the catch to the warehouse. The deckhands continued to sort the last of the prawns and stow the boxes in the fish hold. The wind had veered to the north and increased to a force 6, creating a short steep swell that caused *Reul A Chuain* to roll heavily.

At about 1850, the skipper shouted to the deckhands that a net had slipped over the stern and into the water. He put the engine into neutral and made his way aft. The senior of the two deckhands, who had earlier climbed out of the fish hold, headed forward to operate the winch (**Figure 2**) to haul the net retrieval line. The junior deckhand went aft to help the skipper. They attached the hook on the end of the net retrieval line into the net hanging overboard (**Figures 3** and **4**). The skipper then signalled for the senior deckhand to heave in on the winch, and some of the net was brought back on board. They



Figure 3: Net retrieval hook, block, and cod end ropes

repeated the process but, as the net was being heaved up a second time, the hook slipped out of the net's mesh and the tension on the line caused it to shoot up and through the block at the top of the lifting gantry.

With the net retrieval line now unavailable, the skipper and junior deckhand, standing on either side of the net, tried to pull it inboard by hand. The senior deckhand went aft to assist, climbed on top of the net on the deck, and helped pull it in. The vessel then rolled heavily to port and the net slipped overboard again, taking the senior deckhand with it. As he fell into the water he pushed himself clear of the net, fearing injury or entanglement.

## Man overboard and recovery

The senior deckhand kicked off his boots, swam back to *Reul A Chuain*'s stern, and held onto the trawl net overboard and the stone mat (**Figure 2**). The skipper crossed to where the senior deckhand had been standing, leant over the bulwark and reached down to grasp his hand and help pull him aboard. As he did so the vessel rolled heavily again and the skipper also fell overboard.

The senior deckhand shouted to the junior deckhand to call the coastguard and to fetch the two lifebuoys from the foredeck of *Reul A Chuain*. Having retrieved the lifebuoys the junior deckhand lowered one down to the senior deckhand, who helped the skipper into it. The junior deckhand took off his personal flotation device (PFD) and passed it down to the men in the water. However, it inflated and was blown out of the senior deckhand's reach before he could grab it. The senior deckhand then reached up to grab the other lifebuoy offered by the junior deckhand and placed it around his own body.

At 1906, the junior deckhand made a distress call on very high frequency channel 16, which was immediately answered by the coastguard. At 1911, the coastguard tasked the RNLI all-weather lifeboat (ALB), based at Mallaig, to the distress, followed by a search and rescue helicopter. Three nearby vessels also responded and proceeded towards *Reul A Chuain*'s position.

#### Image courtesy of Fishing News (published 2019)



Figure 4: Diagram of net retrieval hook rig

*Reul A Chuain*'s junior deckhand used the lifebuoy line to pull the skipper to the port side of the vessel. The skipper tried to reboard the vessel by climbing onto one of the tyre fenders hanging over the side (**Figure 5**). As he climbed, the lifebuoy fell to his knees. The junior deckhand tried to help him but *Reul A Chuain* rolled heavily to port and the skipper lost his grip and fell backwards into the water. The lifebuoy lifted the skipper's knees up and forced his upper body and head under the water.

The senior deckhand swam to the skipper and brought him back to the stern. He then pulled the skipper upright in the water and kept him afloat while shouting instructions to the other deckhand. Following the instructions, the junior deckhand lowered the net cod end ropes, which were reeved through the lifting gantry, over the side so that they were close to the two men in the water. He then made his way forward and set the winch ready to heave on the ropes. The senior deckhand wrapped the ropes around the skipper and shouted for the lines to be heaved up. The junior deckhand operated the winch, lifted the skipper out of the water, clear of the bulwark, and lowered him onto the aft deck. He untied the skipper and repeated the process to lift the senior deckhand on board.

*Reul A Chuain*'s senior deckhand, exhausted and debilitated from the cold, went into the accommodation to change into dry clothes. The junior deckhand reported to the coastguard that both men were on board and that the skipper was unresponsive. He then went to the skipper at the stern and started cardiopulmonary resuscitation (CPR), subsequently being assisted a few minutes later by the senior deckhand who had returned to the deck.

#### **Emergency response**

By 1949, one of the nearby vessels, *Ronja Harvester*, had arrived on the scene and manoeuvred alongside *Reul A Chuain*'s starboard side (**Figure 6**). Three of *Ronja Harvester*'s crew transferred across with oxygen and a defibrillator to assist with the CPR of the casualty. The lee created by *Ronja Harvester* enabled the ALB to go alongside and transfer across medical personnel, who then took over the CPR.

At 2026, a helicopter paramedic was winched on board *Ronja Harvester* and then transferred to *Reul A Chuain*. The helicopter paramedic advised the coastguard that CPR was ongoing. Meanwhile, *Reul A Chuain*'s deckhands rerigged the net retrieval hook, recovered the net and secured it. At 2035, despite the efforts of the rescue personnel, the helicopter paramedic declared the skipper deceased. The pathologist later recorded his cause of death as *immersion in water*.

The helicopter paramedic and *Ronja Harvester*'s crew left *Reul A Chuain* shortly afterwards and their units were released from the scene by the coastguard. *Reul A Chuain*'s crew secured the vessel for passage and the senior deckhand steered it back to Mallaig escorted by the Mallaig ALB. At 0030 on 25 June, supported on board by three lifeboat crew, *Reul A Chuain* berthed at Mallaig.

## **Reul A Chuain**

*Reul A Chuain* was wooden hulled and built in Denmark in 1959 as a seine<sup>1</sup> fishing vessel. Several structural modifications had been made in its lifetime to facilitate changes in fishing methods.

After varied ownership, *Reul A Chuain* was bought by Mr Robertson in 1999. He relocated it to Mallaig and registered it in Oban with the fishing number OB915. The vessel was rerigged as a side dredger to catch scallops and the Maritime and Coastguard Agency (MCA) subsequently surveyed it and issued it with a fishing vessel certificate.

In about 2007, *Reul A Chuain*'s skipper fitted a trawl arrangement at the stern to catch prawns when not fishing for scallops. The nets were towed from the stern by wires that ran from the forward winch through blocks aft of the wheelhouse. In 2013, during an MCA 5-yearly survey, a statutory roll test was conducted to assess the vessel's stability. The stability report noted that the nets were stowed in a bin at the stern. The stowed net arrangement, measured following the accident, was 1.4m high at its peak. The height of the net stowage above the bulwark during daily operation was uncertain.

<sup>&</sup>lt;sup>1</sup> Danish seine netting is a traditional fishing method that uses a trawl net and long drag lines to encircle an area.



Figure 5: Tyre fender positions



Figure 6: *Ronja Harvester* starboard side alongside the starboard side of *Reul A Chuain*, with the Mallaig ALB waiting to assist

7

The vessel's last full MCA survey was conducted in April 2018. The most recent intermediate inspection<sup>2</sup> was undertaken on 11 March 2021.

*Reul A Chuain* had a main deck bulwark height that ranged from 700mm at the bow and stern to 620mm amidship. There were no dedicated strong points or sockets to attach safety rails, stanchions, or to rig guard wires.

Lifejackets and PFDs were on board for each crew member; however, only the junior deckhand regularly wore one. The PFDs were manufactured in 2013, were in good condition and showed little signs of use. Their service records had not been completed. All the other statutory safety equipment was in date. Safety belts or harnesses, with lifelines (restraint arrangements) were not normally used on board during deck operations and none were found on the vessel during the investigation. The vessel was equipped with a Lalizas LifeLink man overboard recovery system that was stowed forward; however, the surviving crew were unaware of its presence on board *Reul A Chuain*.

#### Crew

All of the crew were share<sup>3</sup> fishermen who had completed the four mandatory SeaFish Industry Authority (Seafish) safety courses<sup>4</sup>. The skipper and senior deckhand had also completed a safety awareness and risk assessment course, which was required for crew with 2 years' experience or more. Neither of the deckhands had completed practical man overboard drills during their time on board.

The 61-year-old skipper, Lachlan Robertson, was a British national who had been a career fisherman since his teens and had owned a variety of fishing vessels. He was 1.75m tall, weighed about 80kg and had no known health issues.

The senior deckhand was a 34-year-old Romanian national who lived in the UK and had served as a seaman on various merchant ships since leaving school. Around 2015, he decided to pursue work on fishing vessels. He gained employment in Mallaig through a family contact and had worked on several fishing vessels, during which time he gained his Under 16.5m Skipper's Certificate<sup>5</sup>. He had worked on *Reul A Chuain* for 1 year.

The junior deckhand was a 21-year-old British national who had worked ashore since leaving school but had started work on *Reul A Chuain* in February 2021, which was 4 months before the accident.

#### Safety management

The SafetyFolder<sup>6</sup> system was used to assist the management of safety on board *Reul A Chuain* and a paper copy, dated 2013, was in use at the time of the accident. It contained emergency procedures for various scenarios, including man overboard recovery. The procedure for man overboard recovery made no reference to the LifeLink equipment on board. The folder contained up-to-date records for crew certification and a safety equipment register. The section for safety drills was blank with a note to *see logbook*, but no applicable entries were found in the skipper's diary in the wheelhouse that he used as a logbook. The safety folder's contents had been sighted by the two deckhands.

In 2013, the skipper had completed several risk assessments for fishing operations in the format provided in the safety folder. There was no record that these had been reviewed or amended since that time.

<sup>&</sup>lt;sup>2</sup> Intermediate inspections are required to be undertaken between 2 and 3 years after the mandatory survey for a fishing vessel certificate.

<sup>&</sup>lt;sup>3</sup> The crew each received a share of the profit from each catch instead of a fixed salary.

<sup>&</sup>lt;sup>4</sup> Basic sea survival, basic firefighting and prevention, basic health and safety and basic first aid.

<sup>&</sup>lt;sup>5</sup> This was a voluntary qualification introduced by Seafish to improve safety in the under 16.5m sector of the fleet. The qualification covered navigation, engineering, stability, and radio operation.

<sup>&</sup>lt;sup>6</sup> The SafetyFolder is a free service to help fishing vessel owners/skippers manage the safety of their vessel(s) <u>https://www.safetyfolder.co.uk/</u>

A risk assessment for trawling identified one of the hazards as *stowage of gear* and remarked that the consequences were:

- gear falling on the crew leading to injury, and
- shifts in load leading to instability and capsize

Stated control measures were, among others: *System of tying down, strong points for lashings etc* [sic]. The nets were not routinely lashed at the end of the day's fishing.

Another assessment for *Working Onboard* identified a hazard as *poor stowage of equipment*, and noted the consequences as *shifts in load leading to instability, injury or death*.

The control measures for this hazard were:

• Any equipment to be properly stowed, lashed down, adequate strong points available.

The safety folder also contained risk assessments for other activities that identified falling overboard as a hazard, which included *Working on an open deck* and identified the hazards as:

- Falling or being swept overboard leading to injury and death, and
- Exposure to elements leading to injury or illness

The listed control measures were:

• Correct PPE to be worn. Remove any unnecessary obstructions. Provide non-slip deck coatings. Install handrails where suitable.

#### Fishermen's Safety Guide

The MCA's Fishermen's Safety Guide<sup>7</sup> (the guide) provided guidance on health and safety best practice and the application of regulations for the safe operation of fishing vessels. It presented practical advice to crews in all areas of vessel operation. The guide helped crew identify hazards, assess risks and put control measures in place.

The guide emphasised that training drills needed to be completed monthly and should include man overboard recovery. It offered advice on what could go wrong, and what crews could do about it.

On man overboard it advised that crew should know their roles and where to find and how to use equipment. It also included a step-by-step guide on how to prepare for someone going overboard:

Ensure the crew are wearing PFDs, even if you think the risk of going overboard has been eliminated, unless an inflated PFD will make it difficult to escape the space a person is in.

The guide went on to state:

Make sure anyone involved in the rescue wears a PFD and lifeline, and only as a last resort, if the recovery necessitates one crew member entering the water, ensure the person is suitably protected. [sic]

#### Man overboard prevention and drills

The MCA's Marine Guidance Note (MGN) 571 (F) *Fishing Vessels: Prevention of Man Overboard* provided guidance on how to assess the risk of going overboard and preventing it from happening. It gave information on the effects of immersion in water, including cold water shock and hypothermia. Additionally, it provided specific guidance on separating crew from risk and, where this was not possible, the protective equipment to be used or worn.

<sup>&</sup>lt;sup>7</sup> https://www.gov.uk/government/publications/fishermens-safety-guide

MGN 570 (F) *Fishing Vessels: Emergency Drills* provided drill guidance and checklists for a variety of emergency situations. The man overboard section outlined a number of factors to consider when deciding how to recover a man overboard, such as:

- have a plan for recovering a conscious or unconscious person;
- have a means to get hold of and recover an unconscious person;
- have equipment practical for the vessel;
- know how to use the equipment on board;
- practice with the equipment; and
- ensure crew are wearing PFDs when there is a risk of going overboard.

#### Fishing vessel regulation

The construction and operation of *Reul A Chuain* was regulated by Merchant Shipping Notice (MSN) 1872 Amendment 1 (F) – *Code of Safe Working Practice for the Construction and Use of Fishing Vessels of 15m Length Overall to less than 24m Registered Length* (the Code).

Within the Code there was a requirement that:

In accordance with the guidance in MGN 588 (F)<sup>s</sup> or any superseding document, 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. The measures eliminating the risk of Man Overboard must be documented in a written risk assessment. MGN 571 contains guidance on preventing Man Overboard.

For vessels built before 23 November 1995, MSN 1872 (F) required a minimum bulwark, rail, or wire height of 915mm. The Fishing Vessels (Safety Provisions) Rules 1975 permitted vessels built before May 1975 to be exempted from the 915mm fixed bulwark height requirement if:

(a) there would be unreasonable interference with the efficient operation of the vessel if such minimum height were adhered to at that point; and

(b) adequate protection is provided at that point.

Both sets of regulations required that crew were provided with restraint arrangements as adequate protection when there was a risk of falling overboard.

Section 63 (7) of The Fishing Vessels (Safety Provisions) Rules 1975 specified that, *In every such vessel an adequate number of lifelines and safety belts shall be provided*.

During surveys or inspections of fishing vessels, Marine Survey Instructions for the Guidance of Surveyors (MSIS) 27, Instructions to Surveyors – Fishing Vessels Chapter 1, section 1.28.3, stated:

All Exemptions should be reviewed at each survey or inspection with a view to minimizing the need for them. It is understood that some exemptions may not be possible to remove without significant modification. Others can be removed as new systems or technology allow. [sic]

Section 1.28.4 of MSIS 27 went on to assert that:

*Pre 1975 vessels exemptions should be reviewed at each renewal survey as they have been accepted as not possible to remove without significant modification and are detailed in the Hand Book of Exemptions.* 

The Handbook of Exemptions in relation to protection of crew stated:

Bulwarks Guard Rails – Protection to a height of 915mm is required.

<sup>&</sup>lt;sup>8</sup> MGN 588 (F) Amendment 1 – Compulsory provision and wearing of PFDs on fishing vessels.

Where exemption is granted to allow existing arrangements to be accepted which do not provide a full bulwark height and portable wire guards no exemption would be granted for the provision of lifelines and safety belts to allow safe access about the deck in heavy weather.

Surveys carried out for the renewal of *Reul A Chuain*'s fishing vessel certificate documented the review of exemptions granted to the vessel due to its age, and showed that none had been removed.

During the interim inspection carried out in 2021, the surveyor made no reference to any safety harness or lifelines being present on board.

#### Survivability in cold water

The skipper was wearing a T-shirt, sweatshirt, fleece, jeans, oilskin trousers, and sea boots when he fell overboard. He was not wearing a PFD. He had likely been in the water for about 20 minutes before being rescued. The average June water temperature in the Sound of Rùm was 12°C.

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 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, grip, and reboard a boat.

Hypothermia occurs when the human body's core temperature drops below 35°C (normal body temperature is around 37°C). Depending on circumstances, this can occur after 30 minutes. The body's core temperature can continue to drop even after the casualty has been recovered from the water if rewarming efforts are ineffective.

#### Fishing vessel man overboard statistics

In the 10 years before this accident, MAIB records show that 38 commercial fishermen lost their lives after falling overboard. Of this total, 35 fatalities (92%) involved fishermen either not wearing a PFD or, where the wearing of a PFD was not recorded, unlikely to have been wearing one.

## **ANALYSIS**

#### **Overview**

*Reul A Chuain*'s skipper died from immersion in water after falling overboard while attempting to rescue the senior deckhand. He was not wearing a restraint arrangement, which would have prevented his fall overboard, nor a PFD, which would have increased his chance of survival once in the water. While the skipper and senior deckhand had extensive fishing experience at sea, the sequence of events that led to the falls overboard and subsequent rescue attempts resulted from poor work practices, infrequent emergency drills, and consequently a lack of familiarity with rescue techniques and equipment.

#### Stowage and recovery of the net

The stowed nets protruded above the 700mm bulwark and made them vulnerable in adverse weather. Recovery of the nets during fishing was a daily operation for the crew and the nets' stowage position was unchangeable. The situation changed when *Reul A Chuain* encountered unexpected bad weather that caused the vessel to roll heavily and an unlashed net to slip overboard. The net recovery operation then changed when the net hook became unusable and the conditions made rerigging it impractical and risky. The decision to recover the net by hand may have been a logical solution, but it introduced additional risks on the cluttered deck that the crew had not considered. The risk assessments found on board *Reul A Chuain* appeared to cover the risks associated with the vessel's operation. Poor stowage of equipment was identified as a hazard and the listed control measure was for equipment to be stowed appropriately and lashed down. Despite this, the nets had not been lashed down at the end of fishing and before starting passage to port.

#### The falls overboard

*Reul A Chuain*'s senior deckhand placed himself in a vulnerable position by standing on top of the nets to help pull them in. Furthermore, he was neither wearing a safety harness and lifeline to prevent a fall overboard nor a PFD. Once he had fallen overboard, he required assistance to reboard the vessel as there was no foothold.

Having seen the senior deckhand fall overboard, the skipper's action to reach down to help him in the water below was probably instinctive and without thought for his own safety or the consequences. The skipper's position by the low bulwark, the vessel's continued rolling and the additional force required to assist the senior deckhand likely caused him to overbalance and then fall overboard, leaving the inexperienced junior deckhand to cope on his own with two men in the water.

#### Survivability in cold water

It is likely that the skipper's initial fall into the water, the effect of the waves and the induced stress and confusion, combined with his later incapacitation due to the lifebuoy around his knees, caused him to inhale water. Reported observations during the attempted resuscitation were consistent with water inhalation.

After his initial fall overboard, the skipper would have expended a significant amount of energy trying to remain afloat. Additionally, the cold water would have limited his capacity to operate within minutes of immersion, and cold water shock and hypothermic effects would have caused stress in his system.

MAIB statistics have consistently shown that survivability following a man overboard is more likely if a PFD or lifejacket is worn.

#### **Casualty recovery**

The junior deckhand had not taken part in a practical man overboard drill on *Reul A Chuain* and consequently was unaware of the presence of any man overboard recovery equipment. Although the skipper had talked him through emergency scenarios during his time on board, his focus was on operating the fishing gear. The junior deckhand was unprepared to respond when faced with the situation of both his colleagues falling into the water in adverse weather. However, despite unfamiliarity with the operation of the winch, he managed to successfully follow the senior deckhand's instructions to set it up and use it to recover both men. The junior deckhand subsequently applied his training to perform CPR on the skipper in an attempt to save his life.

#### **Regulatory oversight**

The MCA's 5-yearly surveys and intermediate inspections of *Reul A Chuain* enabled surveyors to assess the vessel and issue it with a fishing vessel certificate for operation. However, surveyor's inspections are carried out in port and are thereby limited to the presentation of the vessel, its equipment and paperwork on the day of the survey or inspection. Surveyors do not have oversight of a vessel's day-to-day operations once it is at sea and cannot know if risk mitigation measures are regularly applied.

*Reul A Chuain*'s safety folder appeared to have been completed correctly; however, risk assessments had not been updated for some time and several risk mitigation measures were not routinely applied by the crew once the vessel was at sea.

The permitted low bulwark heights of *Reul A Chuain* meant that there was an increased risk of falling overboard. There was no requirement to fit safety rails or guard wires as this would have interfered with the operation of the vessel. The alternative was the provision of restraint arrangements where there was a risk of falling overboard. However, the crew did not wear restraint arrangements, and not all the crew routinely wore PFDs when working on deck.

## CONCLUSIONS

- The net falling over the stern was an emergency situation. The crew became task focused to bring it back on board and did not take a moment to step back and reassess the risks to either themselves or each other.
- The volume of the trawl nets at the stern resulted in them being above the height of the bulwark in the stowage area; they were not secured, and partially fell overboard when *Reul A Chuain* rolled in heavy weather. The subsequent net recovery was hampered by the failure of the net hook, which prompted the senior deckhand to put himself in danger to try and help recover the net by hand.
- The net retrieval operation changed when the hook slipped out, and the process was not fully reassessed for risks. Consequently, when the senior deckhand climbed onto the net he was neither wearing a restraint arrangement nor one of the PFDs that were on board. The senior deckhand fell overboard because he was standing on the net, attempting to bring it back on board, when it slipped overside as the vessel rolled heavily.
- The skipper fell overboard because he leant over the side while attempting to help the senior deckhand back on board. The vessel was rolling heavily and he was not wearing a fall prevention harness.
- Lachlan Robertson died from the effects of immersion in water. His chances of survival would have been improved had he worn his PFD.
- *Reul A Chuain*'s crew had not practised man overboard recovery and were unfamiliar with the vessel's man overboard recovery equipment. Therefore, the reaction to the senior deckhand going overboard was ineffective.
- *Reul A Chuain*'s low bulwark increased the risk of falling overboard but the vessel had been granted an exemption from the regulations due to its age, type of operations and the mandatory provision of restraint arrangements for the crew. The vessel's risk assessments recognised this hazard and identified the use of restraint arrangements and PFDs as mitigation measures.
- The mitigation measures identified in *Reul A Chuain*'s risk assessment concerning falling overboard were not routinely implemented on the vessel. Restraint arrangements were not found on board *Reul A Chuain* by the MAIB during its post-accident investigation.
- The junior deckhand managed to recover both men, transmit a distress call to the coastguard, perform CPR, and assist search and rescue personnel. These actions were commendable given his limited experience.

## **ACTION TAKEN**

## **MAIB** actions

The MAIB has issued a safety flyer to the fishing industry, summarising advice provided in MCA publications.

## RECOMMENDATIONS

In view of the safety flyer and other guidance currently promulgated to the fishing industry, no recommendations have been made.

## **VESSEL PARTICULARS**

Vessel's name	Reul A Chuain
Flag	UK
Classification society	Not applicable
IMO number/fishing numbers	OB915
Туре	Prawn trawler/scallop dredger
Registered owner	Privately owned
Year of build	1959
Construction	Wood
Length overall	18.0m
Registered length	16.4m
Gross tonnage	47
Minimum safe manning	Not applicable
Authorised cargo	Not applicable

# **VOYAGE PARTICULARS**

Port of departure	Mallaig, Scotland
Port of arrival	Mallaig
Type of voyage	Coastal fishing
Cargo information	Boxed prawns
Manning	3

# MARINE CASUALTY INFORMATION

Date and time	24 June 2021 at about 1900
Type of marine casualty or incident	Very Serious Marine Casualty
Location of incident	Sound of Rùm, Scotland 56°57'N 006°11'W
Place on board	Stern
Injuries/fatalities	1 fatality
Damage/environmental impact	None
Vessel operation	In transit
Voyage segment	Mid-water
External & internal environment	Wind: N force 6, rough sea. Daylight: overcast
Persons on board	3