

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 man overboard while boarding the fishing boat *Constant Friend* (N83) at Kilkeel Harbour on 23 September 2017

SUMMARY

At approximately 2342 (UTC¹ +1) on 23 September 2017, a Filipino crewman from the fishing boat *Constant Friend* fell into the water at Kilkeel Harbour while attempting to board the boat from the fishing boat *Silver Harvester*. *Silver Harvester* was moored inboard of *Constant Friend* and alongside the quay adjacent to the fish market buildings in the harbour (**Figure 1**).

The crewman was recovered from the water by his crewmates, who commenced CPR². He was later transferred to hospital but died in intensive care on 28 September.

To gain access to *Constant Friend*, the crewman was required to climb over the guardrails of both vessels. This was inherently hazardous. The risk of slip or fall was further increased because it was dark, the surfaces were wet, and the vessels were moving significantly. Additionally, the crewman's consumption of alcohol had probably adversely affected his reaction time, co-ordination and perception of risk.



Figure 1: *Constant Friend* alongside *Silver Harvester*

¹ Universal Co-ordinated Time

² Cardiopulmonary resuscitation

A recommendation has been made to the Maritime and Coastguard Agency to revise its guidance on the safe means of access to fishing vessels. Recommendations have also been made to *Constant Friend's* owner to take account of the increased risk of a crew member falling as a result of adverse environmental conditions when returning to the boat from shore leave, and to develop a contact card and procedure for crew use in dealing with emergency situations in port.

Factual Information

Access to *Constant Friend*

To access *Constant Friend*, the crew needed to board *Silver Harvester* from the quayside (**Figure 2**). There were vertical ladders set into the quay wall at the forward and aft ends of *Silver Harvester*. At the time of the accident, *Silver Harvester's* guardrails were approximately level with the quay, which meant that access could be achieved by climbing over the boat's guardrails directly from the quayside. To cross from *Silver Harvester* to *Constant Friend*, crew had to climb over the guardrails of one boat, step across the intervening gap, and then climb over the guardrails of the other boat (**Figure 3**).

Narrative

At approximately 2030 on 23 September, Jory Lacuesta and two other crew from *Constant Friend* went ashore to socialise in the British Legion Club in the port of Kilkeel. The three arrived in the club at about 2100, and stayed for about 1½ hours, during which time each consumed three large whiskies. Two of the crew decided to return to the boat; Jory chose to remain. On returning to *Constant Friend*, one of the crew went to bed. The other sat in the wheelhouse and telephoned his wife while waiting for Jory to return.

Jory was recorded on CCTV³ walking unsteadily along the quayside. At around 2335, he paused to converse with people in a taxi just before reaching the fish market buildings. He then proceeded to the berth and climbed onto *Silver Harvester*. The crewman in *Constant Friend's* wheelhouse saw Jory board *Silver Harvester* but lost sight of him as he reached the guardrail adjacent to *Constant Friend*. CCTV footage showed Jory on the deck of *Silver Harvester* at 2342. Shortly afterwards, the crewman in the wheelhouse heard a noise. He went out on deck and then realised that Jory had fallen between the two boats. He immediately called the remaining three crew from the accommodation, collected a torch and began searching for Jory.

After several minutes, the crew saw Jory's foot and were able to secure him using a lightweight boathook designed for manoverboard recovery. A boarding ladder was lowered to the waterline and a rope tied around Jory's waist. He was recovered to the deck of *Silver Harvester*, where the crew commenced CPR. As CPR continued, one of the other crewmen telephoned the Fishermen's Mission to report the accident. They then wrapped Jory in a duvet and carried him to the mission.

Having received the call from *Constant Friend's* crewman, the Fishermen's Mission duty officer immediately telephoned the local RNLI lifeboat's coxswain who, at 2400, called CGOC⁴ Belfast and requested that it page the rest of the lifeboat crew. Two of the lifeboat crew, along with two members of the CRT⁵, arrived at the mission and resumed CPR efforts. An automatic defibrillator⁶ from the harbour was used and this indicated, on two occasions, that a shock should be applied.

At around 0005 on 24 September, the Fishermen's Mission duty officer and CGOC Belfast independently called for an ambulance to attend; two ambulances arrived at 0032. The ambulance paramedics took

³ Closed circuit television

⁴ Coastguard Operations Centre

⁵ Coastguard Rescue Team

⁶ A defibrillator is a device that gives a high energy electric shock to the heart through the chest wall to someone who is in cardiac arrest.



Figure 2: Quayside to *Silver Harvester* access



Figure 3: *Constant Friend* berthed alongside *Silver Harvester*

over care of the casualty and, at 0229, he was admitted to Daisy Hill Hospital. Subsequently, Jory was transferred to Craigavon Area Hospital intensive care unit, where he passed away on the afternoon of 28 September.

FV *Constant Friend*

Constant Friend was a 16.34m long United Kingdom (UK) fishing boat registered in Newry. It was built in 1994 by Macduff Shipyards Limited.

At the time of the accident, the boat was operated from the port of Kilkeel and was part of the Sea Source fishermen's co-operative of Kilkeel which, in turn, was a member of the Anglo North Irish Fish Producers Organisation (ANIFPO).

Constant Friend was rigged as a stern trawler, with prawns as its target species. It also operated as a guardship employed by Sea Source Offshore, a division of the Sea Source Group, to protect energy sector assets (i.e. renewable energy, underwater cables, etc).

The boat was surveyed by the Maritime and Coastguard Agency (MCA) in June 2017, and a UK Fishing Vessel Certificate, valid to 13 September 2022, was issued. A Workboat Certificate, valid to 13 September 2022, and a UK Loadline Exemption Certificate, valid to 13 September 2018, were also issued. At the same time, the boat successfully passed a survey for guardship duty.

In 2008, the MCA had carried out a Fishing Vessel Accommodation survey on board *Constant Friend*. This was designed to assess whether it was safe for migrant workers employed on UK registered fishing vessels to continue to live on board when the boat was alongside. The form used during the survey showed no mark or comment made against the checklist item relating to safe means of escape to shore.

Crew

Constant Friend normally operated with a complement of six, which comprised five Filipino crewmen and the skipper, who was a UK national. The Filipinos were on 10-month contracts and lived on board the boat throughout the duration of their contract.

The skipper held mandatory basic safety training certificates in safety awareness, sea survival, fire-fighting and prevention, and first-aid. He also held a voluntary Seafish⁷ Under 16.5m Skipper's Certificate.

The Filipino crew all held STCW⁸ safety training certificates issued in the Philippines. Additionally, Jory held a mandatory UK basic safety training certificate in safety awareness.

Jory was 50 years old with a height of 1.67m, weight of 60kg and a BMI⁹ of 21.5. He had worked as a fisherman for over 20 years. This was his second contract on board *Constant Friend*, which he last joined on 14 May 2017. At the time of the accident, Jory was wearing training shoes.

Environmental conditions

At 2300 on 23 September, the weather was dry and clear although the ground was wet from rain that had fallen earlier in the evening. Winds of up to 25 knots from the south earlier in the day had left a residual swell in the harbour. The swell caused the moored boats to move significantly at their moorings, causing the gap between *Constant Friend* and *Silver Harvester* to vary. The sea water temperature within the harbour was approximately 13°C. The predicted time of high water was 0255 on 24 September.

⁷ Seafish is a Non-Departmental Public Body set up by the Fisheries Act 1981 to improve efficiency and raise standards across the seafood industry.

⁸ International Convention on Standards, Training and Certification of Seafarers 1978, as amended.

⁹ Body Mass Index.

Cause of death

No postmortem examination was carried out. The death certificate issued at Craigavon Area Hospital recorded the cause of death as '1(a) Hypoxic Ischaemic Brain Injury' and '1(b) Drowning'.

Typical causes of hypoxic-ischaemic brain injury include cardiac arrest, respiratory arrest, near-drowning, and other forms of incomplete suffocation. These expose the entire brain to potentially injurious reductions of oxygen (i.e. hypoxia) and/or diminished blood supply (ischaemia).

A blood test taken shortly after Jory had been admitted to hospital showed that he had a blood alcohol concentration (BAC) of 291 milligrams per 100 millilitres of blood.

Kilkeel Harbour

Kilkeel Harbour is a fishing port located on the east coast of Northern Ireland. It is home to Northern Ireland's largest fishing fleet with a broad spread of boats landing their catch at the harbour's fish market. The harbour also houses fish-processing factories, and boat building and repair facilities. At the time of the accident, 55 over 10m length and 10 less than 10m length boats were registered with Kilkeel as their home port.

Up to four fishing boats were often berthed alongside each other parallel to the quay wall (**Figure 4**). Access to the boats required crews to climb over guardrails and to step across the gap between adjacent boats. The berths were well-illuminated at night by regularly spaced high pressure sodium lamps (**Figure 5**).



Figure 4: Kilkeel Harbour (historical photograph)



Figure 5: Quayside lighting

Regulation and guidance relating to vessel access

The Merchant Shipping and Fishing Vessels (Health and Safety at Work) Regulations 1997 require that a suitable and sufficient risk assessment is made pertaining to the risk to the health and safety of workers in the normal course of their activities or duties.

Constant Friend's owner was also required to comply with The Fishing Vessels (Safety of 15-24 Metre Vessels) Regulations 2002 and, consequently, with the Code of Safe Working Practice for the Construction and Use of 15 metre length overall (LOA) to less than 24 metre registered length (L) Fishing Vessels (MSN¹⁰ 1770(F)). MSN 1770(F) Chapter 6 - Protection of Personnel - Paragraph 6.1.3.12 stated:

'A gangway or other suitable means, providing an appropriate and safe means of boarding the vessel should be available.'

MSN 1770(F) was replaced by MSN 1872(F) on 23 October 2017. Paragraph 6.1.3.12 of the revised Code states:

'A gangway with a net underneath, accommodation ladder or other suitable means providing an appropriate and safe means of boarding and leaving the vessel shall be available.'

¹⁰ Merchant Shipping Notice.

MGN¹¹ 337(M+F) - Provision of Safe Means of Access to Fishing and Other Small Vessels – provides additional guidance. It lists five general means of access to a vessel, including stepping directly onto the vessel from a quay, wall, pier, another vessel or a pontoon provided that any gap is kept to a minimum and that a lifebelt with line is immediately to hand. It also asserts that seafarers have their own part to play in minimising risks to themselves. This includes avoiding alcohol.



Figure 6: Level access

Further guidance is available in the Ports Skills and Safety publication SIP021 – Safe Access to Fishing Vessels and Small Craft in Ports, which contains 15 sections covering specific aspects of vessel access. Section 4 addresses co-operation and co-ordination between the port authority and its users, and recommends regular meetings to discuss access requirements and concerns. Section 6 reiterates the increased risk associated with consumption of alcohol. Section 9 allows for access by stepping directly from one vessel to another, provided such access is level and requires only a short step (Figure 6).

Regulation and guidance relating to non-EEA fishing crew

Employment of non-European Economic Area (EEA) fishing crew is subject to the Immigration Act 1971, which deals with seamen (including fishers) transit visas to join vessels and subsequent shore leave in the UK.

Under Section 8(1) of the Act, there are defined exceptions for seamen, aircrews and other special cases, which allow them to enter the UK without leave if they are under an engagement to leave the UK as crew of that ship or aircraft:

'8(1) Where a person arrives at a place in the United Kingdom as a member of the crew of a ship or aircraft under an engagement requiring him to leave on that ship as a member of the crew, or to leave within seven days on that or another aircraft as a member of its crew, then unless either —

(a) there is in force a deportation order made against him; or

(b) he has at any time been refused leave to enter the United Kingdom and has not since then been given leave to enter or remain in the United Kingdom; or

(c) an immigration officer requires him to submit to examination in accordance with Schedule 2 to this Act;

he may without leave enter the United Kingdom at that place and remain until the departure of the ship or aircraft on which he is required by his engagement to leave.'

The MCA has issued guidance under a voluntary code of practice (MGN 413(F)), which recognises the social and practical responsibilities of employing non-EEA crew on UK-flagged vessels. It warns of the dangers of alcohol consumption, particularly while on duty, and recommends that shore leave be facilitated when authorised by the now defunct UK Border Agency¹².

¹¹ Marine Guidance Note.

¹²The UK Border Agency was the border control agency of the UK Government and part of the Home Office. It was superseded by UK Visas and Immigration, UK Border Force and Immigration Enforcement in April 2013. Border Force is responsible for frontline border control operations at air, sea and rail ports in the UK.

Risk assessment

A documented risk assessment for boarding and leaving *Constant Friend* had been carried out. It listed five hazardous areas/activities, including 'crossing other boats' and 'quayside'. With regard to both areas/activities, it identified a hazard of slippery surfaces and falling into the water leading to hypothermia or drowning. It listed the wearing of PFD¹³s and hard hats as mitigation, which reduced the risk level to low.

Alcohol policy

The fishing vessel safety folder for *Constant Friend* when operating as a guardship contained a section entitled 'Alcohol & Drugs Policies and Procedures'. This recognised that drugs, alcohol and other intoxicants could have a detrimental effect on the health and safety of individuals and co-workers. It went on to state that fishermen were expected to be in a suitable mental and physical condition at work to perform their duties in a satisfactory manner. The policy also included a provision for random drug and alcohol testing.

Previous similar accidents

On 9 November 2013, the skipper of the fishing vessel *Horizon II* fell into the water at Royal Quays marina, North Shields, while boarding the fishing vessel *New Dawn*. The skipper, who had consumed alcohol, had spent the evening ashore and was returning to his vessel, which was berthed outboard of *New Dawn*. The skipper was recovered from the water by the crew of an RNLI inshore lifeboat, but did not survive.

The skipper had his right foot on the lower horizontal guardrail, and was holding onto the top rail as he attempted to swing his left leg over *New Dawn*'s 1m high guardrails (**Figure 7**). As he did so, he appeared to lose his balance, lost his grip on the wet bulwark guardrail and fell into the water. As he fell, he struck his head on one of the pier's coping stones.



Figure 7: Climbing over *New Dawn*'s guardrail

The European Marine Casualty Investigation Platform (EMCIP) database lists 24 accidents between 1994 and 2016 that resulted in the death of fishermen boarding UK fishing boats. Alcohol was listed as a contributing factor in 17 of the accidents.

ANALYSIS

The accident

Jory slipped and/or lost his grip when climbing over guardrails or stepping between *Silver Harvester* and *Constant Friend* at night, when the moored vessels were moving significantly. Without any means of fall prevention in place, he passed between the boats and entered the water. He then partially drowned before being rescued despite the prompt actions of the crew and the availability of manoverboard rescue equipment.

¹³Personal Flotation Device.

Access arrangements

While MSN1872 (F) specifies the use of a gangway and net, it acknowledges that safe access may be achieved by other appropriate means. In this regard, the Port Skills and Safety publication SIP021 allows the practice of stepping directly from one vessel to another provided such access is level and requires only a short step (**Figure 6**).

There were no boarding gates or removable sections of guardrail on either *Constant Friend* or *Silver Harvester*. This meant that although only a short step was required to pass between the boats, particularly around amidships where the decks of the two boats were level, access to *Constant Friend* still required climbing over the guardrails of both boats.

Balancing on a vessel's coaming or fish plate to climb over guardrails is inherently hazardous, and the risk of a slip or fall is increased at night, in wet and slippery conditions, and when the vessel is moving, whether or not the individual has consumed alcohol. Had *Silver Harvester* and *Constant Friend* both been equipped with a guardrail gate, or similar arrangement, around the midships area, such that the guardrail openings could be aligned during berthing, a much safer means of access for the crew could have been provided and this tragic accident prevented.

Risk controls

The documented risk assessment for boarding and leaving *Constant Friend* had identified the hazard of slippery surfaces, and of falling in the water leading to hypothermia or drowning. However, while the vessel was well equipped to deal with a man overboard situation, the identified control measures of wearing PFDs and hard hats did nothing to reduce the risk of falling in while boarding. On 23 September, it was fortunate that another member of the crew decided to remain in the wheelhouse to check his colleague returned on board safely, though on this occasion his prompt actions to initiate a rescue were not successful in saving Jory's life.

Constant Friend's documented risk assessment included control measures that focused on the working environment and did not address fall prevention. Had the risk assessment focused more thoroughly on the need to prevent crew falling in when boarding or leaving the boat, it might have recognised that the existing boarding arrangements were inherently dangerous and, therefore, might have prompted more appropriate controls to be developed. Such controls include the provision of guardrail gates and a formal arrangement for a nominated crewman to monitor and assist individuals boarding the boat.

Alcohol consumption

The UK driving limit for BAC is 80 milligrams per 100 millilitres of blood. Each unit of alcohol can increase BAC by 15 milligrams. Ten minutes after having a drink, 50% of the alcohol will be in the bloodstream and, generally, after the first hour, the body breaks down one unit of alcohol per hour. With a BAC of 291 milligrams per 100 millilitres of blood after his admission to hospital, it is likely that Jory had a level in excess of 300 milligrams per 100 millilitres of blood at the time of the accident.

Although Jory had used the same method for boarding *Constant Friend* many times previously, on this occasion the combination of adverse environmental conditions and the level of alcohol in his system is likely to have adversely affected his risk perception, reaction time and co-ordination, which caused him to fall.

Living on board

Employment of non-EEA migrant workers is common on many UK fishing boats. Under the Immigration Act 1971, migrant workers can only be employed on boats which operate outside of UK territorial waters and cannot be employed on boats which fish wholly or mainly within the 12nm limit.

Constant Friend's fishing trips were normally approximately 5 days' duration as the condition of the catch deteriorated when retained on board for longer periods. With the advent of migrant crews and the associated visa restrictions, living on board for the duration of their contract has become the norm for non-EEA fishermen. This was the case on *Constant Friend*.

Very few fishing boats are designed with long-term living on board as a consideration. As this is now largely the default option, it places additional safety and social responsibilities on the owner, and a consequent need to address all additional risks associated with living on board, including access to and from the boat.

Notwithstanding their transit visa restrictions, non-EEA crews could, in accordance with Section 8(1) of the Immigration Act 1971, proceed and remain ashore overnight to avoid the increased risk of boarding a boat having consumed alcohol ashore. However, MGN 413(F) advises that shore leave is dependent on authorisation first being given by the UK Border Agency (now Border Force).

Clarification of any requirement to seek authorisation by Border Force and the procedure to be followed to meet that requirement would enable a more informed determination of the risk control options available to fishing boat owners in terms of granting crew shore leave and ensuring that safe access to and from the boat is maintained.

Rescue and resuscitation

With Jory's crewmates immediately on hand, the rescue attempt was quickly underway. Prompt action by the crewman in the wheelhouse to alert the other crew and gather torches could, in other circumstances, have altered the eventual outcome.

The boat was well equipped with manoverboard rescue equipment, including a lightweight boathook that was used to hold Jory while a boarding ladder was lowered to allow the crew to recover him to the deck of *Silver Harvester*. Although the rescue efforts were timely, an omission to alert emergency services introduced an unnecessary delay in the arrival of an ambulance and paramedics.

If a casualty is unconscious and not breathing, it is vital to immediately commence and maintain CPR, and to alert the emergency services as soon as possible. Although CPR was initiated by the crew at the scene, moving Jory to the mission resulted in an interruption to the resuscitation efforts. Furthermore, the crew notified only the Fishermen's Mission, and then only after they had recovered Jory from the water. The Fishermen's Mission's duty officer then called the local RNLI lifeboat's coxswain who, in turn, alerted the coastguard. While the interruption to CPR and the delay in the arrival of the emergency services could have been prevented, it is uncertain what effect these factors had on the eventual outcome of the accident.

CONCLUSIONS

- Jory slipped and/or lost his grip when climbing over guardrails or stepping between *Silver Harvester* and *Constant Friend*, at night, when the moored vessels were moving significantly. Without any means of fall prevention in place, he passed between the vessels and entered the water.
- An immediate rescue attempt would not have been initiated had Jory's crewmates not taken the initiative of monitoring his return to the boat.
- Had the risk assessment focused more thoroughly on the need to prevent crew falling in when boarding or leaving the boat, it might have recognised that the existing boarding arrangements were inherently dangerous and, therefore, might have prompted more appropriate controls to be developed. Such controls include the provision of guardrail gates and a formal arrangement for a nominated crewman to monitor and assist individuals boarding the boat.

- Although Jory had used the same method to board *Constant Friend* on many previous occasions, adverse environmental conditions combined with the level of alcohol in his system are likely to have affected his risk perception, reaction time and co-ordination, which caused him to fall.
- Clarification of any requirement to seek authorisation by Border Force and the procedure to be followed to meet that requirement would enable a more informed determination of the risk control options available to fishing boat owners in terms of granting crew shore leave and ensuring that safe access to and from the boat is maintained.
- The interruption to CPR and the delay in the arrival of the emergency services could have been prevented. However, it is uncertain what effect they had on the eventual outcome of the accident.

ACTION TAKEN

The **MAIB** has:

Issued a Safety Flyer to the fishing industry to highlight the lessons to be learned from this accident.

RECOMMENDATIONS

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

- 2018/109** Review and amend MGN 337(M+F) – Provision of Safe Means of Access to Fishing and Other Small Vessels – to highlight the need for risk assessments to specifically include the hazards associated with crew members proceeding to and from the shore for recreational activities. The guidance should include suggested control measures such as the provision of guardrail gates and a formal arrangement for a nominated crewman to monitor and assist individuals boarding the boat.
- 2018/110** Review and amend MGN 413(F) – Voluntary Code of Practice for Employment of non-European Economic Area (EEA) Fishing Crew – to clarify the requirement, or otherwise, to seek Border Force authorisation before allowing non-EEA fishing crew to proceed ashore for local leave.

The **owner of *Constant Friend*** is recommended to:

- 2018/111** Review *Constant Friend's* risk assessment relating to boarding and leaving the boat. The risk assessment should include the hazards associated with crew members proceeding to and from the shore for recreational activities, and take into account the increased risk of a crew member falling in as a result of adverse environmental conditions. Suggested control measures for consideration include the provision of guardrail gates and a formal arrangement for a nominated crewman to monitor and assist individuals boarding the boat.
- 2018/112** Develop a contact card and procedure to enable crew to directly and immediately alert the emergency services (when in port).

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

SHIP PARTICULARS

Vessel's name	<i>Constant Friend</i>
Flag	UK
Classification society	Not applicable
IMO number/fishing numbers	9085986/N83
Type	Stern trawler
Registered owner	Privately owned
Manager(s)	Not applicable
Year of build	1994
Construction	Steel
Length overall	18.54m
Registered length	16.34m
Gross tonnage	152
Minimum safe manning	Not applicable
Authorised cargo	Fish

VOYAGE PARTICULARS

Port of departure	Kilkeel
Port of arrival	Kilkeel
Type of voyage	Not applicable
Cargo information	None
Manning	6

MARINE CASUALTY INFORMATION

Date and time	23 September 2017, 2342
Type of marine casualty or incident	Very Serious Marine Casualty
Location of incident	Kilkeel, Fish Market Quay
Place on board	Main deck
Injuries/fatalities	One fatality
Damage/environmental impact	None
Ship operation	Alongside
Voyage segment	In port
External & internal environment	Fresh breeze, air temperature 15°C, water temperature approximately 13°C, swell in the harbour
Persons on board	5