MAIB
MARINE ACCIDENT INVESTIGATION BRANCH

ACCIDENT REPORT

VERY SERIOUS MARINE CASUALTY | REPORT NO 5/2012 | MARCH 2012

Fatal man overboard
FV *ABOUT TIME*
off Pembrokeshire
14 June 2011

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SUMMARY

On the morning of 14 June 2011, the 11.9m potting vessel *About Time* was proceeding towards Milford Haven from her fishing grounds. At some time between 0639 and 0731 (UTC+1)[1], one of the vessel's deckhands, Māris Ozoliņš, was lost overboard. The accident was not seen by any of the other members of the vessel's crew and the fact that Māris was missing was not discovered until 0812. Despite an extensive air and sea search, he was not found.

The absence of witness or physical evidence following the accident has prevented the MAIB from establishing the exact causes and circumstances. However, it is most likely that Māris fell over the vessel's starboard bulwark, possibly as a result of tripping or slipping on a large pile of back ropes from three strings of pots that were stowed on the deck. The deckhand had been wearing flip-flops, which would have increased the likelihood of a slip or trip, and he was not wearing a personal flotation device (PFD) or a personal locator beacon (PLB) when he fell overboard.

The owner of *About Time* has been recommended to take action to improve both the safety of the working practices on board, and the hazard awareness of the vessel's crew.

[1] All times in this report are UTC+1, unless otherwise stated.

Figure 1: *About Time* - showing arrangement of whelk pots and ropes at time of accident

FACTUAL INFORMATION

Background

About Time **(Figure 1)** was an 11.9m UK-registered potting vessel, owned and operated by her skipper. The crew also consisted of two Latvian deckhands, one of whom was Māris Ozoliņš, the deceased. All three crewmen were share fishermen who lived on board the vessel. The vessel normally stayed alongside in port, or occasionally at anchor overnight and undertook fishing during the day.

The vessel carried out a variety of different types of static gear fishing around the UK coastline. She had been based in Milford Haven, and was potting for whelks in the 7 weeks before the accident. In the days leading up to the accident the skipper had been preparing the vessel to relocate to Dorset and had been bringing the static fishing gear into port. On each such trip, the pots had been piled up at the aft end of the working deck, with the back ropes stowed in large bags ready to be landed ashore for transfer by road. Each string consisted of around 60 pots attached by a toggle system to rope strops on a 0.6-mile long back rope. Both the back rope and strops were 12mm in diameter.

Narrative

At 0312 on 14 June 2011, *About Time* departed Milford Haven for the fishing grounds **(Figure 2)**, about 7 miles to the south-west of St Ann's Head, to recover the remaining six strings of whelk pots. The skipper had risen at 0300 and navigated the vessel out of port, while the two deckhands remained asleep in the cabin below.

At 0445, the skipper woke both deckhands and, at 0505, they started hauling the gear on deck while the skipper remained in the wheelhouse. Three strings of pots were successfully recovered on deck, along with an estimated 0.4 tonne of whelks. The whelks were bagged and stowed on the starboard side, causing a slight starboard list.

The pots were piled up at the aft end of the working deck, with the ropes left in a pile near the hauler on the starboard side of the deck **(Figures 3** and **4)**. It was not unusual for the vessel to have this amount of gear on deck. As the height of tide was going to prevent the immediate landing of the pots at Milford Haven, the skipper decided he would shoot the three strings, unbaited, in a sheltered location within the estuary. He then intended to head back out to the fishing grounds to recover the remaining three strings and return to port. Once the fishing gear had been landed in Milford Haven, the skipper planned to take *About Time* to Dorset, picking up the three strings in the estuary en route.

At 0624, the skipper started to steam *About Time* back towards Milford Haven. Māris and the other deckhand had been cleaning the working deck and then got changed. Māris made some coffee while the other deckhand started to watch a DVD in the cabin.

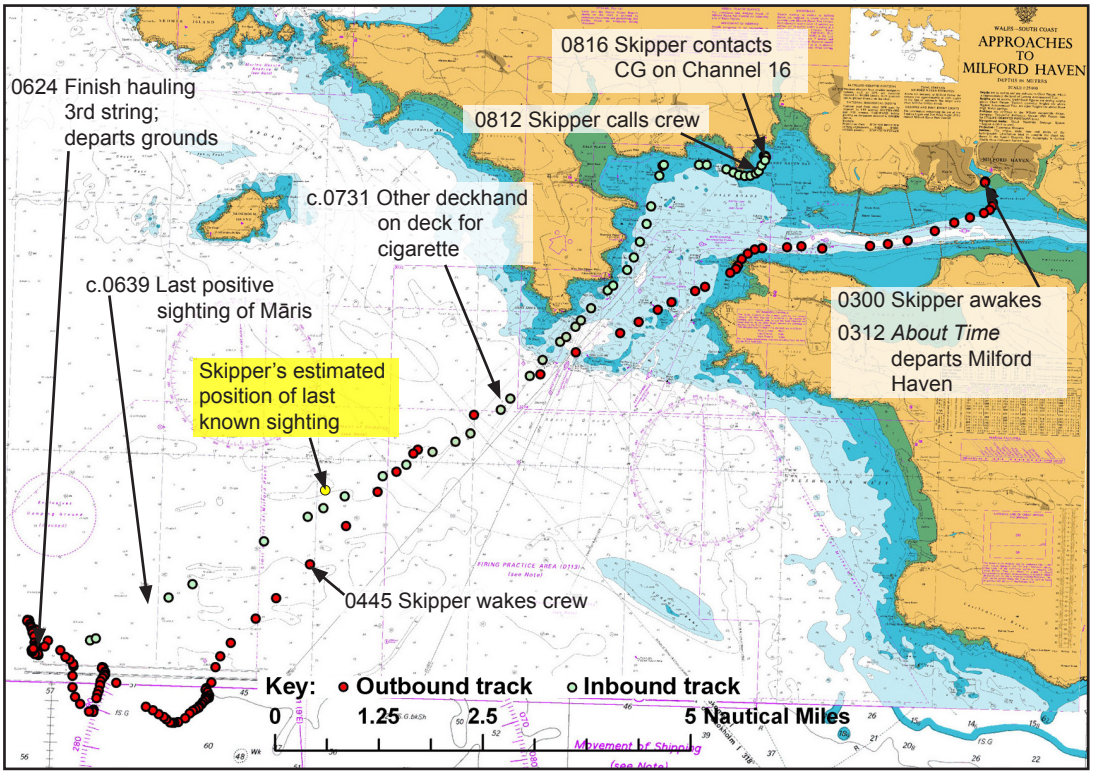


Figure 2: Chart showing track of vessel

The last confirmed sighting of Māris was in the wheelhouse at about 0639. He was wearing a t-shirt, jogging bottoms and flip-flops. At 0731, during a break in the DVD, the other deckhand went up on deck to smoke a cigarette. Although he did not see Māris, he was unconcerned; Māris often sat on the wheelhouse roof to have some privacy.

The skipper was sitting in the wheelhouse reading a book, with

Photographs courtesy of Maritime and Coastguard Agency

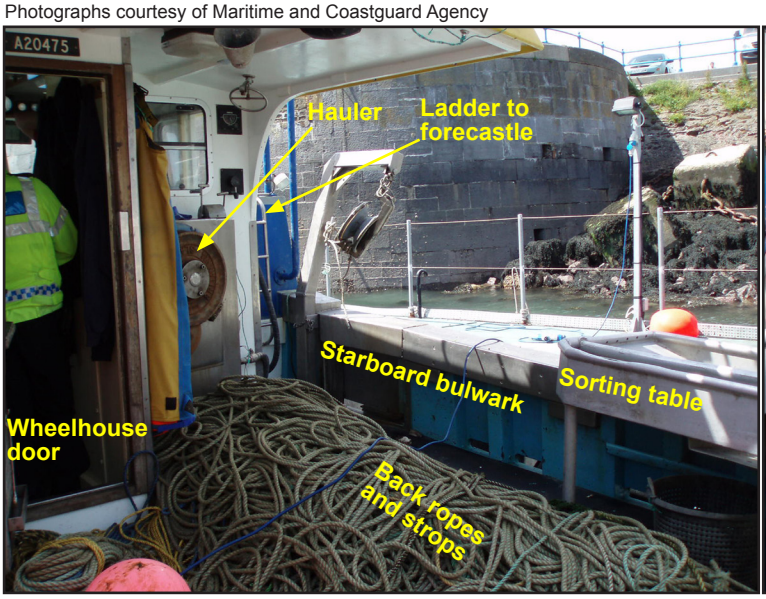


Figure 3: View looking forward to starboard

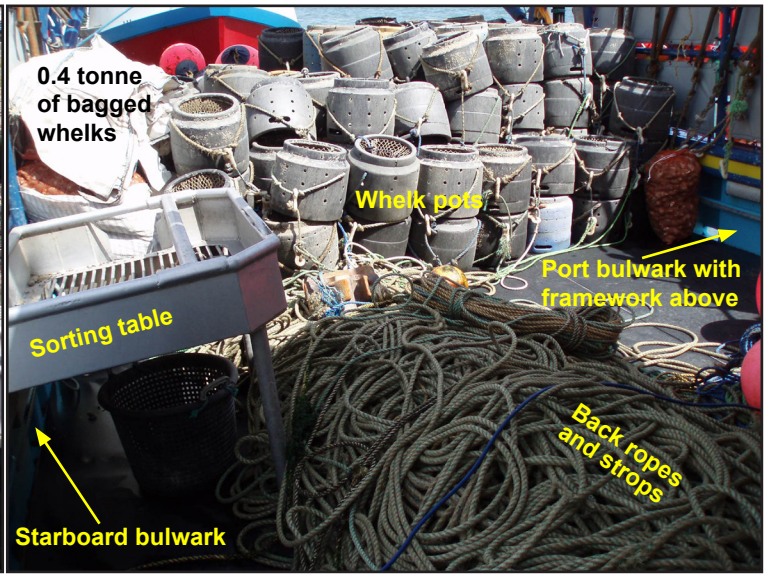


Figure 4: View looking aft to port

the aft wheelhouse door and starboard window open. The sea was slight to moderate, with a south to south-westerly wind of Force 2-3 and good visibility. The vessel's movement was reported to be minimal. The air and sea temperatures were recorded as 12.6°C and 12.7°C respectively.

At 0812, with *About Time* now in the estuary, the skipper called the crew to prepare to shoot the pots. Although the other deckhand appeared from the cabin below, there was no sign of Māris. A search of the vessel quickly confirmed that he was missing; his mobile phone was still in the wheelhouse, as were his mug and cigarette lighter.

At 0816, the skipper contacted Milford Haven coastguard on VHF radio Channel 16 to report the missing crewman; he did not issue a Digital Selective Calling (DSC) alert. When asked by the coastguard for the position of the last known sighting of Māris, the skipper mistakenly provided his vessel's current position. *About Time* was now proceeding back out to sea at full speed with the remaining deckhand standing on the wheelhouse roof, searching with binoculars for any sign of Māris.

At 0826 the skipper once more provided *About Time*'s current position as the last known sighting of Māris. This was queried by Milford Haven coastguard and, at 0830, the skipper realised his error and provided an estimated position for the last known sighting of 51° 38.5'N 005° 14.9W **(Figure 2)**. This was based on an estimate that Māris had been last seen 45 to 60 minutes prior to the time it was recognised he was missing. In fact, Māris had last been seen about 90 minutes before this time.

At 0833, the coastguard broadcast a "Mayday Relay"[2] and then co-ordinated an extensive search and rescue (SAR) operation involving an RAF helicopter, 3 RNLI lifeboats, 14 leisure and commercial vessels, two coastguard rescue teams and island wardens. During the SAR operation, the coastguard consulted with Milford Haven Port Authority to obtain accurate positions and timings for *About Time*'s original track, which were then used to update the coastguard's computer-generated drift model.

Based on the ephemeral data, guidance used by the coastguard during such operations indicated a predicted survival time for a person in the water of about 5 hours. Māris was not found, and the official search was terminated at 1503. However, a number of the units involved continued to search, without success, beyond this time.

Manning

The 46-year old skipper was a UK national and had owned *About Time* for 3 years. He had approximately 23 years' fishing experience on various vessels. He obtained his second hand limited certificate in 2001 and completed the mandatory Seafish[3] safety awareness training course in 2004.

Māris Ozoliņš was 28 years old and had worked as a deckhand on *About Time* for around 2 years, having previously held a number of shore-based

[2] Mayday Relay: Distress call broadcast by another station on behalf of a vessel in distress.

[3] Seafish – the Sea Fish Industry Authority works across all sectors of the UK seafood industry to promote good quality and sustainable seafood, and to improve the safety and standards of training for fishermen.

jobs in his native country of Latvia. Of the four required Seafish safety training courses, he had completed only the basic sea survival course, in 2009. He was reported to be a good swimmer.

Māris had returned to the vessel the week before the accident, having spent about 1 month in Latvia on leave. He was well rested and was not reported to be suffering from any stress or illness at the time of the accident. There was no evidence to suggest he might have been under the influence of alcohol or drugs. Māris got on well with the skipper and the other deckhand, and was reported to be behaving normally prior to the accident.

The other deckhand was 43 years old and also a Latvian national. He had worked as a fisherman in the UK for about 5 years, the last 2½ years of which were spent on *About Time*. He obtained the Seafish basic fire-fighting and prevention, basic sea survival, and basic first aid certificates in 2007. He had not attended the Seafish safety awareness course.

About Time

About Time was built in 1987 and had a flush working deck aft, with an opening in the transom bulwark through which to deploy the pots. An hydraulic hauler was situated on the starboard aft bulkhead of the wheelhouse and was used for recovering the pots on the starboard side, forward of a sorting table. A ladder was fitted forward of this area to access the raised forecastle and wheelhouse roof, which had two skylights.

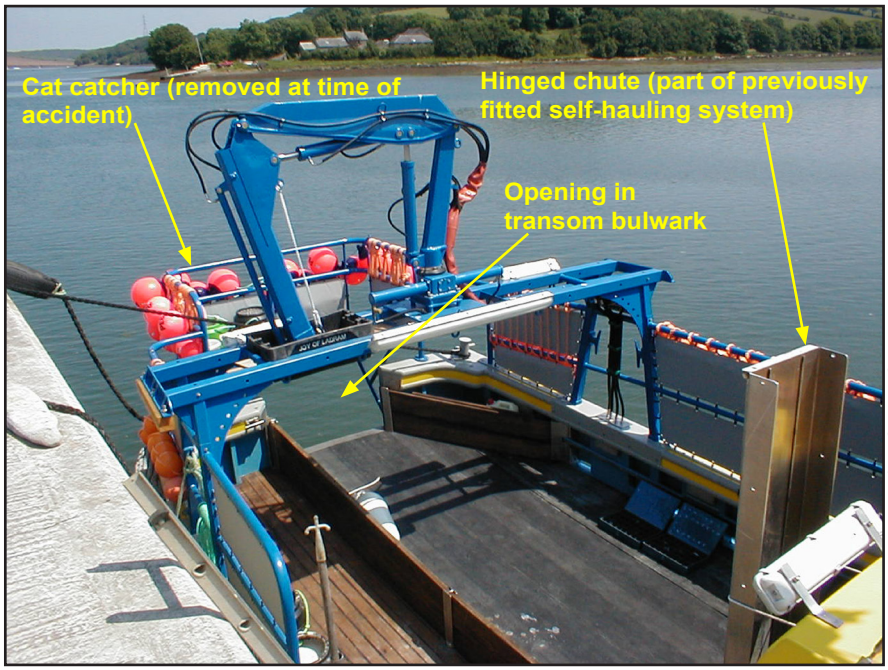
In 2005, the vessel's previous owner had installed a self-hauling system on the starboard side **(Figure 5)** which incorporated an area to segregate the crew from the fishing gear. This system was removed when the previous owner changed fishing mode to trawling for scientific research purposes. Although the current owner reverted to dedicated potting, he did not reinstate the self-hauling system or segregation area.

A framework, incorporating tarpaulin sheets, was fitted to the bulwarks on the port side and aft on the starboard side to provide crewmen working on deck with a degree of shelter from the elements. The framework was not fitted to the bulwark forward on the starboard side, which measured 610mm in height at its lowest point.

About Time's major below-deck compartments, from forward to aft, consisted of: a cabin, accessed from the wheelhouse; the engine room, accessed from the cabin; and the fish hold, which was accessed from deck. The cabin included three berths, a shower and a small kitchen area. There were no onboard toilet facilities; these were not required for a vessel of this size. The deckhands normally relieved themselves on deck and then used the deck wash hose to clean the area. It had become custom on board that Māris relieved himself on the more protected port side of the working deck.

Bulwark height requirement

There is no bulwark height requirement for fishing vessels of less than 15m length overall built prior to 2001. However, in accordance with Merchant Shipping Notice (MSN) 1813 (F) – The Fishing Vessels Code of Practice for the Safety of Small Fishing Vessels (2007), vessels built after April 2001 must comply with the latest release of the Seafish Construction and Outfit Standards. These require an under 15m fishing vessel to have bulwarks, guardrails or wires of not less than 1000mm above deck level. The Standards also specify that where there may be unreasonable interference with the vessel's operation, the fixed



Photograph courtesy of Maritime and Coastguard Agency

Figure 5: View looking aft showing previously fitted self-hauling system and segregated working area in 2005

bulwark height may be reduced, so long as an overall height of 1000mm is maintained with the use of portable wires/stanchions.

Risk assessment

In January 2011 the owner had prepared a written risk assessment for *About Time*'s operations, using the templates contained in Issue 2 (May 2007) of the Seafish Fishing Vessel Safety Folder. This had identified the provision of lifejackets, to be "worn when conditions dictate", as a control measure against falling overboard and drowning while working on deck. Control measures of a "Clear deck" and "Non-slip matting" had been identified for the hazard of slips and falls due to an unsafe deck area while "handling the catch".

Working and off-duty practices

Although the crew wore appropriate footwear while working on deck, Māris generally wore flip-flops while off duty on board the vessel. Three PFDs were on board and there was evidence to indicate that these were worn in poor weather. No PLBs were carried and no emergency drills were conducted on board.

There is no existing statutory requirement for the wearing of PFDs or PLBs on fishing vessels. The Maritime & Coastguard Agency (MCA) is currently planning to introduce the mandatory use of PFDs on fishing vessels.

Guidance

Best practice guidance regarding housekeeping on deck, emergency drills, and the wearing of lifejackets and appropriate footwear on fishing vessels exists in various documents, including the MCA's Fishermen's Safety Guide (2008) and the European Handbook for the Prevention of Accidents at Sea and the Safety of Fishermen (2007).

ANALYSIS

The cause of the accident

It is most likely that Māris fell overboard between 0639 and 0731. The fact that he was not discovered missing until 0812 was because he was off duty, and both the skipper and the other deckhand had no reason to doubt that he was somewhere else on board. Māris's possible locations were limited to the wheelhouse roof, the working deck, or somewhere in transit between the two.

Sea conditions were reported as good for the period when Māris went missing, and it is unlikely that vessel movement alone contributed to his falling overboard. Further, Māris was well-rested and there was no indication of his being under the influence of alcohol or drugs. He was described as fit and healthy, and behaving normally prior to the accident.

There were no toilet facilities on board *About Time* and it is possible that Māris fell while attempting to relieve himself over the starboard side. However, Māris usually used the more protected port side of the working deck for this purpose, which would also have been preferable on the day given the wind direction.

It is possible that Māris fell overboard while climbing the ladder on the starboard side of the wheelhouse so he could sit on the wheelhouse roof, which he was accustomed to do. However, as the starboard wheelhouse window was open the skipper would probably have noticed had Māris fallen overboard while climbing the ladder right beside him. While it is possible that the skipper had not registered Māris climbing up to the wheelhouse roof, the skylights in the roof and likely noise made by someone moving around above his head would almost certainly have alerted the skipper to Māris's presence there, or of him falling off.

The most significant hazard on *About Time*'s deck was the large pile of back ropes on the starboard side by the hauler that created a slip and trip hazard. The back ropes also had the effect of reducing the height of the bulwark in that area. The vessel's slight list to starboard further increased the risk of anyone falling overboard when standing on top of the ropes. Consequently, the most probable cause of Māris's loss appears to have been him slipping or tripping while on the starboard side of the deck (other boundary areas of the vessel were well protected), either as he was relieving himself or as he was moving towards the wheelhouse ladder, which led to him falling over the low bulwark.

Housekeeping on deck

The back ropes and strops from the three strings of pots had been piled up on deck aft of the hauler. Given that the pots were later to be redeployed, the skipper considered it unnecessary to stow the ropes in bags, a process which had previously been undertaken when the gear was to be landed, or to move them away from the starboard side.

There were no means available to easily segregate the ropes from the crew working on or moving around the deck. The vessel's layout, with a forward engine room, meant there was no convenient means of creating a below-deck rope store. The vessel's previous owner had incorporated a segregated working area on the starboard side as part of a self-hauling system, but had later removed this. Although this would not have eradicated the problem of a large amount of rope on deck, the segregation would have provided a safe walkway adjacent to the bulwark and a physical barrier between the crew and the gear during hauling and shooting operations.

The vessel's risk assessment had identified a "clear deck" as one of the control measures for preventing slips, trips and falls. It had, however, not identified the additional hazards associated with carrying the gear on deck or the resultant increased risk of falling overboard. Had the "clear deck" control measure been strictly applied or provision been made for the crew to move safely around the gear on deck in accordance with best practice guidance, the risk of a slip or trip would have been significantly reduced.

Use of appropriate footwear

It was reported that Māris regularly wore flip-flops when off duty on the vessel. Their loose-fitting design, inadequate protection qualities and smooth soles made them unsuitable footwear for transiting a hazardous area, such as a pile of rope on a moving platform. The wearing of flip-flops on the working deck was inappropriate and increased the risk of Māris slipping or tripping.

Despite the identified control measures of a "clear deck" and "non-slip matting", the vessel's risk assessment did not identify the need for appropriate footwear to be worn on deck at all times in accordance with best practice guidance.

Neither Māris nor the other deckhand had attended the required safety awareness course. Had they done so, their appreciation of the onboard hazards and risks, including those associated with moving around on deck while wearing flip-flops, would probably have been enhanced.

Use of PFDs and PLBs

The vessel's risk assessment stated that PFDs were to be worn on board the vessel as "conditions dictate", and there was evidence to confirm their use on deck in poor weather. However, on the day of the accident, the weather conditions were good and Māris was not wearing a PFD.

Although Māris was reported to be a good swimmer, his survival chances, as a result of increased buoyancy and visual detectability, would have been greatly improved had he been wearing a PFD. Although not required to be carried on board, had Māris been wearing a PLB, his position would have been immediately known, again greatly increasing his chances of survival. The MCA is currently planning to introduce mandatory use of PFDs on fishing vessels; the circumstances of this accident provide a compelling argument in support of this initiative.

Bulwark height

There is no statutory minimum bulwark height for vessels of *About Time*'s size and age. However, the bulwark on her starboard side was some 390mm lower than the 1000mm height required for a vessel of the same size built after April 2001.

Although low bulwarks on a potter are advantageous for recovering the gear, they increase the probability of someone falling overboard. While the risk assessment had identified the use of lifejackets as a control measure against a fatality resulting from a man overboard, there had been no consideration to addressing the increased risk of a man overboard in the first place due to the low bulwarks. Had this been identified, possible control measures could have included the rigging of portable stanchions and guard wires to increase the effective bulwark height when the vessel was not recovering the gear, as allowed in the Seafish Construction Standard for newer vessels.

Actions taken, post-accident

Best practice dictates that a DSC alert should have been issued on discovering that Māris was missing. However, the skipper was able to alert the coastguard by using VHF radio Channel 16.

It is likely that the skipper provided incorrect information to the coastguard regarding Māris's last known sighting owing to the shock and stress he experienced on discovering the deckhand was missing. When the skipper realised his mistake, the position and time he provided to the coastguard were for a later point in the vessel's passage than was the case for the last sighting. The SAR operation was extensive, with multiple assets searching a wide area over an extended period based on computer modelling. However, had the skipper provided the coastguard with an early and more accurate position and time for the last known sighting of Māris, this area would have been searched earlier and the overall computed search area would have been more comprehensive. The skipper did not conduct onboard emergency drills. Had he done so, in accordance with best practice guidance, it is possible that his initial response and information provision would have been more accurate.

CONCLUSIONS

- The most probable cause of Māris falling overboard was a slip or trip while on the starboard side of the deck. The presence of a large pile of rope in this area increased the risk of this occurring and reduced the effective height of the bulwark.

- The vessel's risk assessment did not consider the hazards associated with the carriage of the fishing gear on deck. There was no means of segregating the ropes on deck from the crew, either while working with the gear or with the gear embarked while on passage.

- Had provision been made for the crew to move safely around the gear on deck in accordance with best practice guidance, the risk of a slip or trip leading to a fall overboard would have been significantly reduced.

- The wearing of flip-flops on deck was inappropriate and would have increased the risk of Māris slipping or tripping on deck. The vessel's risk assessment did not identify the need for appropriate footwear to be worn on deck at all times, in accordance with best practice guidance.

- Had Māris completed the required Seafish safety awareness course, his appreciation of the onboard hazards and risks would probably have been greater.

- Had Māris been wearing a PFD and PLB when he fell overboard, his survival chances would have been significantly increased.

- There is no minimum height requirement for bulwarks on vessels the size and age of *About Time*. Although the low bulwark height on the vessel's starboard side increased the probability of someone falling overboard, the vessel's risk assessment had not identified this as a specific hazard.

- Had the skipper conducted onboard emergency drills, in accordance with best practice guidance, it is possible that his initial response and information provision would have been more assured.

RECOMMENDATIONS

The owner of *About Time* is recommended to:

2012/105 Refer to the available industry best practice guidance and review the risk assessment for *About Time* and any other vessels he may own, to identify measures to improve onboard safety by:

- Identifying the hazards posed during the transportation of fishing gear on deck and ensuring the effective segregation of the crew from the gear;

- Ensuring the use of appropriate footwear at all times;

- Evaluating the hazards posed by low bulwarks;

- Appraising the use of personal flotation devices (PFDs) and personal locator beacons (PLBs);

- Ensuring all crew have completed the mandatory safety training courses.

SHIP PARTICULARS

Vessel's name	*About Time*
Flag	United Kingdom
Classification society	Not applicable
IMO number/Fishing number	Not applicable/PE 8
Type	Fishing vessel – potter
Registered owner	Privately owned
Manager(s)	Not applicable
Construction	Wood
Length overall	11.9 metres
Registered length	11.2 metres
Gross tonnage	15.57
Minimum safe manning	Not applicable
Authorised cargo	Not applicable

VOYAGE PARTICULARS

Port of departure	Milford Haven
Port of arrival	Milford Haven
Type of voyage	Coastal
Cargo information	None
Manning	3

MARINE CASUALTY INFORMATION

Date and time	14 June 2011 between 0639 and 0731 (UTC+1)
Type of marine casualty or incident	Very Serious Marine Casualty
Location of incident	Off Pembrokeshire coast
Place on board	External deck
Injuries/fatalities	One fatality
Damage/environmental impact	None
Ship operation	On passage
Voyage segment	Transit
External & internal environment	Wind south to south-westerly Force 2-3. Sea state slight-moderate. Visibility good.
Persons on board	3