Report of the investigation

into a man overboard from

the UK registered passenger ferry

HOTSPUR IV

at Town Quay, Southampton

on 15 October 1999

Extract from

The Merchant Shipping

(Accident Reporting and Investigation)

Regulations 1999

The fundamental purpose of investigating an accident under these Regulations is to determine its circumstances and the causes with the aim of improving the safety of life at sea and the avoidance of accidents in the future. It is not the purpose to apportion liability, nor, except so far as is necessary to achieve the fundamental purpose, to apportion blame.

CONTENTS

GLOSSARY OF ABBREVIATIONS

m	Metre
mm	Millimetre
MAIB	Marine Accident Investigation Branch
MCA	Maritime and Coastguard Agency
UTC	Universal Co-ordinated Time

SYNOPSIS

The accident was reported to the Marine Accident Investigation Branch (MAIB) on 15 October 1999. Enquiries began that day and on 21 October the owners were notified in writing that the accident would be investigated.

Mr David Lyons, a deckhand on the Class V passenger ferry *Hotspur IV*, slipped and fell overboard while throwing the forward mooring rope ashore. He struck his head during the fall, cutting his forehead, but managed to swim to the pontoon berth, where he was pulled from the water. After treatment, he was released from hospital the same day.

Recommendations have been made to White Horse Ferries Ltd concerning training, the provision of non-slip safety shoes for shipboard staff, and the application of a non-slip deck covering in way of the mooring positions. The Maritime and Coastguard Agency (MCA) is recommended to review the adequacy of the bulwark height on board *Hotspur IV*.

VESSEL AND INCIDENT PARTICULARS

Vessel

Name	:	*Hotspur IV*
Port of registry	:	Southampton
Type	:	Class V passenger ferry
Crew	:	Three
Registered length	:	49.53m
Construction	:	Steel hull and wooden deck
Built	:	1946
Registered owners	:	White Horse Ferries Ltd
Position of accident	:	Alongside ferry berth at Town Quay, Southampton
Time and date	:	About 0950 (UTC+1) on 15 October 1999
Injuries	:	One person

SECTION 1 FACTUAL INFORMATION

All times are Universal Co-ordinated Time (UTC) + 1.

1.1 Ferry operations

The ferry service runs between Hythe Pier and Southampton Town Quay, leaving each terminus every half-an-hour to keep to the published timetable. *Hotspur IV* is the reserve ferry which is used when the catamaran ferry *Great Expectations* has to be withdrawn from service. *Hotspur IV* had been in continuous service for a number of weeks before the accident while *Great Expectations* was having new engines fitted.

Passengers can only board *Hotspur IV* on the port side, so she always berths port side alongside. On leaving Town Quay, the skipper waits until either he can see that the forward bollard is clear or he receives a signal from the forward deckhand. He then swings the bow around to starboard through an arc of about 30°, keeping the stern against the pontoon, before manoeuvring the vessel clear. This gives the deckhand at the aft mooring position ample time to let go and place the mooring rope on the pontoon, but his colleague at the forward mooring position has to be quicker. If the bow of the ferry has already begun to swing away from the pontoon, the rope has to be thrown.

1.2 Narrative

At 0600 on Friday 15 October 1999, Mr Lyons started work on *Hotspur IV*. Until the vessel sailed at 0630, he was engaged in a variety of activities on the ferry and on the pontoon which it was moored alongside.

Between 0630 and 0900, Mr Lyons's duties included handling the aft mooring rope. At about 0900, the deckhand who handled the forward mooring rope had to leave the vessel at short notice, so Mr Lyons took over his position. He was joined by a replacement deckhand, who handled the aft mooring rope.

Mr Lyons was at the forward mooring position as *Hotspur IV* prepared to leave the pontoon at Town Quay to begin the 0950 crossing to Hythe. This was the second occasion that day he had handled the forward mooring rope on departure from Town Quay. He released the rope and threw it with both hands on to the guardrails of the pontoon. As he threw the rope, his feet slipped and he fell over the bulwark rail and into the water. He swam to the pontoon, which was only a few metres away, but was unable to haul himself out of the water without assistance.

The deckhand at the aft mooring position saw Mr Lyons fall overboard and immediately shouted "man overboard". This was heard by the master, who stopped the engines and then manoeuvred the ferry back alongside the pontoon.

Once *Hotspur IV* was alongside, the other deckhand, with the help of a passenger, pulled Mr Lyons out of the water and on to the pontoon. They saw that he was bleeding profusely from a cut above his left eye and had clearly struck his head on the side of the ferry as he fell. First aid was administered and an ambulance was called to take Mr Lyons

to hospital. He was released from hospital the same day after receiving a thorough check-up and treatment for the cut to his forehead.

1.3 Deck layout

The mooring bollards on *Hotspur IV* are positioned on the port side bulwark rail forward and aft. The deck is wooden with caulked seams. It is overlaid with a thick, non-slip surface between the gangway and the door to the passenger accommodation. In the area around the mooring positions the deck is bare apart from a 150mm-wide margin board, which is painted black.

Following the accident, the deck area around the mooring bollards was examined. It showed that the wooden deck was slippery when wet.

The height of the bulwarks on *Hotspur IV* is about 750mm, which is less than the 915mm height required by the Maritime and Coastguard Agency (MCA) in its *Instructions for the Guidance of Surveyors*.

1.4 Mr Lyons's background and experience

Mr Lyons has worked for White Horse Ferries Ltd on a part-time basis for the last three years. He is employed as a deckhand on either *Hotspur IV* or the catamaran *Great Expectations*.

He usually worked the aft mooring rope. On this occasion, however, he was standing-in for the deckhand who had been working the forward mooring rope until he had to leave the vessel at short notice.

Mr Lyons had no previous marine experience. On one occasion, the master of the ferry had shown him the correct way to make the mooring rope fast to the bollard but, apart from that, he had received no training in handling mooring ropes.

Mr Lyons is over 55 years old and 1.85 m (6'-1") tall.

1.5 Mr Lyons's footwear

Mr Lyons was wearing a new pair of shoes when the accident occurred. The shoes had a soft, man-made sole with a good tread, but they were not approved non-slip safety shoes.

Following the accident, White Horse Ferries Ltd sent a memorandum to its crews instructing them to ensure that they wore suitable shoes. White Horse Ferries Ltd does not issue footwear to its crews.

1.6 Other information

White Horse Ferries Ltd does not require the deck crew of *Hotspur IV* to wear lifejackets and none are provided, apart from the mandatory lifejackets to be carried by all vessels in case of abandonment. These are unsuitable for routine deck duties. The wearing of lifejackets by crew working on deck, where they are protected from falling overboard by guardrails or bulwarks, is usually unnecessary.

Hotspur IV has operated on the ferry route between Southampton and Hythe for over 50 years. During this time, as far as is known, there has only been one other incident involving a man overboard. That incident resulted in a fatality and occurred when a crewman was dragged overboard by a length of steel belting, which had come loose and which he was attempting to secure.

SECTION 2 ANALYSIS

2.1 The cause of the accident

There was insufficient grip between the soles of Mr Lyons's shoes and the deck to resist the vigour with which he threw the mooring rope ashore. So his feet slipped and he fell on to the bulwark rail which caught him at a point well below his waist. His momentum pivoted him about the bulwark rail, and he went over the side and into the water, striking his head on the belting as he fell.

That he chose to throw the rope with both hands, suggests that the bow of *Hotspur IV* had swung well away from the pontoon by the time he was ready to throw the rope ashore, requiring extra effort if the rope was to reach its stowage position.

2.2 Preventing a similar accident

Slipping on the wet timber deck was the underlying cause of this accident. To prevent a recurrence, the crew should wear approved non-slip safety shoes. Because this hazard exists on board *Hotspur IV*, White Horse Ferries Ltd has a duty to provide its shipboard employees with suitable footwear as required by *The Merchant Shipping and Fishing Vessels (Protective Equipment) Regulations 1999*. The company should also consider applying a suitable non-slip covering to the deck in way of the mooring positions.

The accident has shown that on *Hotspur IV* it is potentially unsafe to use both hands to throw ropes ashore. On this ferry the old adage *one hand for the ship and one hand for yourself* should be scrupulously observed. White Horse Ferries Ltd should establish a procedure for the safe handling of ropes on this vessel and ensure that all shipboard staff are trained in it. When practicable, the master should delay swinging the bow away from the pontoon sufficiently to enable the deckhand to pass the forward rope ashore without undue effort.

Hotspur IV has operated satisfactorily for over 50 years with a bulwark height of about 750mm. The relatively low bulwark height is a latent hazard which had not been recognised by Mr Lyons or White Horse Ferries Ltd. However, with sufficient care the hazard can be controlled

It is unknown how the mooring arrangements at the landing stages have changed over the years. But they have remained unchanged for at least six years, during which time there have been no other man overboard incidents.

SECTION 3 CONCLUSIONS

3.1 Findings

1. Mr Lyons fell overboard because his feet slipped on the wet deck as he was throwing a mooring rope ashore. [2.1,2.2]

2. He was not wearing approved non-slip safety shoes, and the deck was bare wood. [2.2]

3. He chose to throw the rope with both hands, probably because the bow of *Hotspur IV* had swung well away from the pontoon by the time he was ready to pass the rope ashore. [2.1]

4. The bulwarks were too low to prevent him falling overboard after slipping. [2.1,2.2]

5. The relatively low bulwark height is a latent hazard but, with sufficient care, the hazard can be controlled. [2.2]

3.2 Causes

Immediate cause

Mr Lyons slipped while throwing a mooring rope ashore. [2.1,2.2]

Contributory factors

1. Insufficient grip between the soles of Mr Lyons' shoes and the wet wooden deck.

2. Undue effort required to throw mooring rope ashore because bow had swung away from the pontoon. [2.1]

3. The use of two hands to throw the mooring rope. [2.1]

4. Lack of awareness of the latent hazard posed by the relatively low bulwark height. [2.2]

SECTION 4 RECOMMENDATIONS

White Horse Ferries Ltd is recommended to:

1. Provide its shipboard employees with approved non-slip safety shoes suitable for use on wet wooden decks.

2. Establish a procedure for the safe handling of ropes on *Hotspur IV* and ensure that all shipboard staff are trained in it.

3. Consider applying a suitable non-slip deck covering in way of the mooring positions.

The Maritime and Coastguard Agency is recommended to:

4. Review the adequacy of the bulwark height on *Hotspur IV*.

Marine Accident Investigation Branch
December 1999