

Report of the Chief Inspector of Marine Accidents
into the collision between

THE PASSENGER LAUNCH MARCHIONESS

and

MV BOWBELLE

with loss of life
on the River Thames
on 20 August 1989

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5th June 1990

*The Right Honourable Cecil Parkinson MP
Secretary of State for Transport*

Sir

In pursuance of Regulation 9 of the Merchant Shipping (Accident Investigation) Regulations 1989, I submit my Report following the Inspector's Inquiry into the collision between the passenger launch MARCHIONESS and the aggregate dredger BOWBELLE which occurred in the River Thames on 20 August 1989.

Within my Report there are a number of references to the Interim Report and the recommendations for immediate action which accompanied that report. Those recommendations were well publicised, but the Report itself was not published. The Interim Report was prepared by the inspectors within two weeks of the accident taking place and covered their findings at that stage of their inquiry. That Report is now superseded by my Report, but the recommendations are incorporated within my Report.

I wish to place on record appreciation for the co-operation extended to the Inspectors, who carried out the Inquiry, by the many parties concerned and particularly those who faced the horrendous ordeal of that night.

Acknowledgement is made to Professor T C D Whiteside MBE, MRCP, PhD, FRAeS for his research into the human factor elements of the accident and Messrs W S Atkins Engineering Sciences Ltd and ABP Research and Consultancy Ltd for their research into tides. Thanks are also extended to the staff of the Department's Marine Office at Orpington from where much of the Inquiry was, for convenience, carried out and whose resources were freely given.

My report would not be complete without recognition of the acts of bravery and skill which were performed during the search and rescue operation. These were not limited to the crews of the vessels involved in this operation, but included a number of passengers.

I am, Sir,
Your obedient servant

**Captain P B Marriott
Chief Inspector of Marine Accidents**

NOTES

- 1. The term “the Department” is used throughout this Report and refers to The Department of Transport, Marine Directorate, unless otherwise stated.**
- 2. All times are BST.**
- 3. The word “visibility” is extensively used in this Report to mean the arc of vision from a given position, rather than in the more common sense of range.**

1. SUMMARY

At approximately 0146 hrs on 20 August 1989, the passenger launch MARCHIONESS and the aggregate dredger BOWBELLE, both bound down river, collided in the River Thames just up stream of Cannon Street Railway Bridge. As a result the MARCHIONESS sank.

A search and rescue operation was swiftly mounted under the co-ordination of the "Thames" Division, Metropolitan Police, but despite this 51 of those on board MARCHIONESS lost their lives. There were 80 survivors, the majority of whom were picked up by Police launches or by the launch HURLINGHAM, which was in the immediate vicinity.

The Skipper of the MARCHIONESS is among those lost and, without his evidence, it is impossible to re-construct exactly the circumstances of the collision. It is clear, however, that although it was a fine moonlit night and in both vessels the wheelhouse was properly manned (and in BOWBELLE two seamen were posted forward) neither vessel was aware of the other until too late to take effective avoiding action; and this was the main cause of the collision. In each vessel the maintenance of a good look-out was seriously hampered as a result of design, so that visibility from the wheelhouse was seriously restricted; and in neither vessel were sufficient steps taken to overcome this difficulty. A further major contributory factor was the failure of MARCHIONESS to keep to the starboard side of the channel: this is linked to the failure of look-out in that her Skipper plainly thought that the channel was clear.

The failure in look-out, especially in BOWBELLE who, as the overtaking vessel had the overriding duty to keep clear; the design faults; and the failure of MARCHIONESS to keep to starboard, all stem in part from bad practices which have grown up over many years. Some consideration of the responsibility for these practices is addressed later in the Report; but, more important than who was at fault, is the vital need for remedy. The recommendations given in Section 19, if followed, will it is believed avoid a similar accident in the future.

PART I FACTUAL ACCOUNT

2. BRIEF PARTICULARS OF SHIPS

MARCHIONESS

Port of Registry: London
Official Number: 147526
Gross Tonnage: 46.19
Length: 85.5 feet (26.06 metres)
Built: 1923, at Oxford
Engine: Extensive conversion took place in 1979 and 1981
6 cylinder Thornycroft Compression Ignition
Owner: Tidal Cruises Limited
Lambeth Pier
Albert Embankment
London SE1

The vessel is a Class V passenger launch operating within smooth water limits on the River Thames. She held a Passenger Certificate issued by the Department of Transport for 149 passengers plus 2 crew, above Greenwich and for 80 passengers plus 2 crew between Greenwich and Gravesend.

BOWBELLE

Port of Registry: London
Official Number: 306078
Gross Tonnage: 1474.92
Length: 262.2 feet (79.91 metres)
Beam: 44.4 feet (13.53 metres)
Deadweight: 1880 tons
Built: 1964, at Troon
Engine: 8 cylinder Diesel developing 1371 KW, and giving a service speed of 11.75 knots
Owner: East Coast Aggregates
Manager: South Coast Shipping Company Limited
Canute Chambers
Canute Road
Southampton SO1 1AB

The vessel is an aggregates suction dredger. She holds the appropriate certificates for a vessel of this type, of Class VIII.

3. NARRATIVE

3.1 BOWBELLE left the Metro Greenham Aggregates berth at Nine Elms Reach at 0112 hrs on 20 August, bound for the Shipwash dredging grounds. She was in ballast, drawing approximately 2.0 metres forward and 3.2 metres aft and, therefore, trimmed some 1.2 metres by the stern. The Master, 31 years old and holding a Class 1 (Master Mariner) Certificate of Competency which he gained in October 1988, had been appointed to BOWBELLE as his first command in May 1989. He had served with East Coast Aggregates' dredgers since 1987 and had considerable experience of Thames navigation. The ship carried a total complement of 9, including 2 deck officers besides the Master. The Master was well rested, having had the previous night in port and also having slept in the afternoon.

3.2 MARCHIONESS left Charing Cross Pier at a time not precisely recorded but probably about 0125 hrs for a night time cruise. The Skipper, 29 years old, was a licensed Waterman and well experienced on the river. The only other full time crew member was the Mate, aged 21, who is an apprentice Waterman; there were also 2 bar staff and a number of passengers estimated by the Mate (who survived the accident) at 110. There was, however, no actual count made and the true number was substantially more, and appears to have been 127, giving a total complement of 131; see Section 3.10. She had been chartered to celebrate the birthday of two gentlemen; the passengers were their guests.

The planned cruise, for which (as is common on night-time river cruises) a disco had been provided as part of the entertainment, would have taken MARCHIONESS down river as far as the Tower, then back to Charing Cross to land some of the passengers, then down river again to Greenwich returning to Charing Cross about 0545 hrs. MARCHIONESS (with the same Skipper and Mate) had already completed an evening cruise between 1900 hrs and 2245 hrs on 19 August; it has not been possible to establish how much rest the Skipper had had before that, but he had been off duty for at least 15 hours.

3.3 The weather was fine with a full moon and good visibility. The moon was on the starboard bow to both vessels as they headed down river, bearing SE'ly with an altitude of about 35 degrees. There was a flood tide, high water at London Bridge being 0448 hrs.

3.4 BOWBELLE reported to Thames Navigation Service (TNS) (Woolwich Radio) at 0103 hrs that she was singling up ready to depart. She reported again at Vauxhall Bridge (0120 hrs) and Waterloo Bridge (0135 hrs). For the benefit of other river users Woolwich included her as being outward bound 'through bridges' in the routine half-hourly information broadcasts at 0115 hrs and 0145 hrs; this was normal practice. No broadcasts were made by or concerning MARCHIONESS, which was also normal.

3.5 Both vessels passed through the centre arch of Blackfriars Bridge. Above Southwark Bridge MARCHIONESS overtook another cruise boat, the HURLINGHAM (also on a night-time disco cruise), and soon afterwards HURLINGHAM was also overtaken by BOWBELLE. In the latter vessel the Master was conning the vessel and the Second Mate was steering. (It is customary for the officer of the watch to steer during the passage through the bridges, under the supervision of the Master, but largely using his own judgement.) Both officers hold Thames Pilotage Exemption Certificates. The Chief Engineer was also on the Bridge, the Third Engineer was on watch in the Engine Room, and two seamen were on the fo'c'sle: one seamen was the look-out and the other was

standing by to raise the mast once the vessel was clear of Tower Bridge. The engine was at half ahead and the ship was making good a speed of about 5½ knots. The MARCHIONESS was being conned and steered by the Skipper, and at about this time he was joined by the Mate. MARCHIONESS's speed appears to have been no more than about 3 knots made good, possibly rather less. Both vessels passed through the centre arch of Southwark Bridge and shaped to pass through the centre of Cannon Street Railway Bridge, about three-quarters of a cable down stream. Before they reached that Bridge, at about 0146 hrs, collision occurred.

- 3.6 In BOWBELLE, the two seamen on the fo'c'sle had first noticed MARCHIONESS at about the time of passage through Southwark Bridge, that is less than a minute before impact. They are emphatic that when they saw the boat she was some 3 points on the starboard bow, about 45 metres off and apparently on a parallel course and, therefore, about to be overtaken; the passing would be close but not unusually so for the river. They apprehended no danger and made no report to the wheelhouse; this accorded with their normal practice of only reporting when hazard was perceived. It appears from their evidence that MARCHIONESS then altered to port so as to converge; they attempted to shout a warning, which was heard by a few passengers on the deck of MARCHIONESS, but not in either vessel's wheelhouse, perhaps because of the noise of the disco which was in progress on the boat. (The noise from the disco was commented on by witnesses ashore). No-one in BOWBELLE's wheelhouse saw MARCHIONESS at all before the collision.
- 3.7 In MARCHIONESS, shortly after she passed Southwark Bridge, the Mate, who was standing half in and half out of the wheelhouse, looked aft over the port quarter and saw the dredger very close. He shouted a warning and thinks that the Skipper put the throttle full ahead. (It was found at full ahead when the vessel was raised). The fact that he saw BOWBELLE over the port quarter tends to support the evidence that the vessels were converging, though he also says that MARCHIONESS 'appeared to be shaping up for the central arch of Cannon Street Bridge in a normal way' which would suggest a less marked convergence than the BOWBELLE statements imply. The Mate is, however, unable to be positive about the course the Skipper was following.
- 3.8 There is a slight bend in the river, and the centre arches of Southwark Bridge and the next two bridges downstream - Cannon Street and London - are not quite in alignment, as can be seen from the chartlets at Annex 1A and 1B and (very clearly) from the photographs at Annexes 2 and 3. Both vessels therefore needed to alter course a little to port after clearing Southwark Bridge. However, to make it easier to line up for Cannon Street and London Bridges, BOWBELLE initially - as she began to emerge from Southwark Bridge - made a small alteration to starboard: if MARCHIONESS came to port at the same time, this would account at least in part for the courses converging, though as discussed further at Sections 6 and 16 of this Report, there were probably other factors. As the vessels closed each other, the angle of convergence was much increased (this is discussed in Section 16.5) and MARCHIONESS came athwart BOWBELLE's bow. There was heavy impact abaft amidships on MARCHIONESS's port side, which rolled her over to starboard beyond her beam ends. Damage extended from the deck to well past the keel, showing that BOWBELLE virtually pushed the smaller craft under. She continued to pivot on the bow, and passed down BOWBELLE's port side, floating on her side, but water must have been flooding in freely throughout her length through all her deck openings.
- 3.9 One of the bar staff recalls that BOWBELLE's anchor 'came in through the window' of the upper saloon. When MARCHIONESS was raised, this saloon, which was a superstructure of very light construction, was found to have been completely torn away - probably by

the anchor. (This was fortunate for those within.) MARCHIONESS floated on her side long enough for the Mate, who had been thrown into the water, to clamber on to her port side and open a door which led into the dance deck, allowing some passengers inside to escape; she then sank, having drifted to a position about $\frac{1}{3}$ cable East of Southwark Bridge and $\frac{1}{2}$ cable from the North Bank. With a strong flood tide (see Section 6) this implies that she sank within about a minute of the collision.

- 3.10 The alarm was raised by a VHF call timed at 01-46-11 from the HURLINGHAM and a search and rescue operation was very quickly mounted, under the control of the Police. This operation involved numerous craft augmented by helicopters, but despite their efforts there was heavy loss of life. Because there was no record of passenger numbers, uncertainty remained as to the number lost for some considerable time; but it has been established that the correct figure is 51. There were 80 survivors.
- 3.11 The force of the impact caused BOWBELLE to lose control and she struck successively first the southern pier of the central arch of Cannon Street Bridge, and then the northern pier. She sustained some damage but there were no injuries to those on board.
- 3.12 The wreck of MARCHIONESS was located and recovered later on 20 August in the position given in Section 3.9. 24 bodies were found in the wreck, the remaining 27 being recovered from the river. The upper saloon was recovered separately, from a position nearby.