

## **PART IV FURTHER COMMENT AND DISCUSSION**

### **15 PREVIOUS INCIDENTS AND ACTION TAKEN**

- 15.1 In the last 4 years there have been some 40 accidents in UK waters to small passenger vessels, of Classes V and VI. The large majority were minor, and none except that to *MARCHIONESS* led to death. The incidents involved rather more than 5% of the total number of vessels of those classes at risk (about 780).
- 15.2 Rather earlier - in the early 1980s - there were 3 collisions in the Thames, each of which has in its circumstances a distinct similarity to the present accident: there are differences, in all cases the passenger launch was seen from the larger ship, but there are marked common factors, the most important being the failure of the launch to see the ship coming up on her from astern, apparently because of lack of visibility from her wheelhouse.
- 15.3 Further back in time, and away from the Thames, a very serious accident occurred in Sydney Harbour in 1927 when the 7898-ton ss *TAHITI* collided with and sank the harbour ferry *GREYCLIFFE* with the loss of 40 lives. As with *BOWBELLE* and *MARCHIONESS*, the larger ship was overtaking, with the courses converging but only slightly; until just before the collision when the smaller craft sheered to port across the large ship's bows. Just as with *MARCHIONESS*, there was uncertainty as to whether this was caused by an initial, relatively light, contact, or by interaction, or by a combination of both.
- 15.4 Annex 11 gives a brief note on these four cases, with, in the case of *GREYCLIFFE/TAHITI* an extract from the Report of the Inquiry which could be repeated in this present Report almost word for word.
- 15.5 Following the series of Thames accidents in 1981-83, action was initiated by the Department to improve visibility from the wheelhouse in passenger launches. Inspection showed that in a substantial number of such craft, not exclusively those which like *MARCHIONESS* had been much modified in design over the years, visibility aft was poor. Considerable discussion took place between the Department and launch owners as to how to improve matters and in a number of vessels, including *MARCHIONESS*, a hatch was provided in the wheelhouse top, from which a clear view all round the horizon could be obtained. Other solutions were investigated, and in particular optical devices have been considered and experimented with, not only for Thames launches but for other vessels where all round visibility is bad; but the results to date have not been considered satisfactory by the Department. However, there have been developments in this field which may have rendered this opinion out-of-date, and as mentioned in Section 7.10 further consideration is recommended.
- 15.6 Concern about the accidents, and other incidents which did not lead to actual collision, was not confined to the Department, and in 1982 at the instigation of PLA a meeting was held at which it was decided to set up a River Users Liaison Group. This Group has since discussed many topics of interest to river users but the spur for its inception is clear from the note of that first meeting: "The general consensus of opinion, especially among those who operated the larger vessels, was that something had to be done quickly to prevent a major incident occurring between their craft and a passenger boat".

15.7 It is clear from the minutes of the Liaison Group and other meetings and from correspondence that the operators of the larger ships were particularly concerned that the restricted manoeuvrability of their vessels should be recognized. The Shipping Manager with British Dredging and later East Coast Aggregates (who is now Operations Manager with South Coast Shipping) formally requested in April 1982 that his Company's ships, including BOWBELLE, should be considered hampered vessels and given right of way through the Bridges. This was raised again at a meeting in August 1982 when PLA said that the request could not be met under the interpretation of the Bye-laws as they then stood; however, the suggestion was further considered and in October 1983 PLA agreed to set about changing the Bye-laws. As this would take time, in 1984 the Authority issued a Notice to Mariners advising:-

"Every vessel of less than 40 metres in length.... navigating above Tower Bridge (a) to treat every vessel of 40 metres or more in length and every vessel engaged in towing as a vessel which can safely navigate only within a narrow channel; and therefore (b) not to impede the passage of that vessel".

In 1987, Bye-law 19, already quoted, came into force and the Notice to Mariners therefore lapsed: the effect of the Bye-law is essentially the same, though it does not include specific reference to the over-40 metre vessels being only able to navigate within a narrow channel.

15.8 Also at the meeting in 1983, PLA pointed out that in association with the new arrangements larger vessels ought to display a special signal by night to identify themselves, and tentatively proposed that they should show three red lights horizontally. Representatives of the Department of Transport's District Marine Office at the meeting agreed in principle and undertook to consult their Headquarters. The signal is a modification of the 3 vertical lights given in the Collision Regulations for a deep-draught vessel.

15.9 In June 1984 following further consideration by PLA, their proposal was amended to three red lights in a vertical triangle. This revised proposal was submitted to the District Office who referred it to their Headquarters, and in October 1984 the then Principal Nautical Surveyor, London District, wrote back to PLA saying that the Department wished for re-consideration because:-

- .1 three red lights in a triangle would appear from some aspects as two red lights vertically disposed, ie the signal for a vessel not under command:
- .2 there would be a difficulty in positioning the triangle relative to foremast and side lights in order to make it clearly distinguishable and unambiguous:
- .3 the addition of three more lights to those already required was considered to be impracticable and unnecessary.

It would appear that further discussion took place to no avail, and in May 1985 PLA wrote to East Coast Aggregates:

"it appears impracticable for agreement to be reached on a form of lights which will not conflict in some way with existing signals in the International Regulations for Preventing Collisions at Sea. We are therefore proceeding with the Bye-law amendment without a specific identification signal".

15.10 Meanwhile, within British Dredging and East Coast Aggregates, the Shipping Manager had taken other steps besides making representations to PLA. In his evidence he recalls that he had long discussions with Masters; had the ships provided with portable VHF sets which were intended principally for communication between fo'c'sle and wheelhouse; and issued an amendment to Company's Standing Orders specifically relating to look-out and watchkeeping in the Thames. This amendment survived until 1987 when the Orders were revised; on the decision of the then Director of East Coast Aggregates (now deceased) it was not included in the new document. The Shipping Manager unfortunately did not keep a copy of the amendment, but he has provided a memo to Masters, going back to November 1981 which, while making no specific reference to look-outs, points out the possibility of a major incident with a pleasure craft and stresses the 'absolute necessity' of strict observance of Standing Orders. A further memo in November 1983 brought Masters up-to-date with the discussions with PLA, and the proposed amendment to Bye-laws including the (still then expected) associated special signal; and reminded them of the need for extreme caution in the River. Another step taken on the initiative of the Masters of the three 'BOW' dredgers trading up the River was to post an officer forward with the look-out for the passage through the Bridges; but this practice was dropped in BOWBELLE (but not the other two ships) after a few years.

15.11 It is, therefore, clear that the incidents of the early 1980s were recognized at the time as providing a warning of the possibility of a major accident. It seems however that as time passed the perceived need for special caution gradually relaxed. The Notice to Mariners and the Bye-law which replaced it appeared to be having the desired effect, and indeed the Harbour Master of the Port of London, said as much in a letter to East Coast Aggregates in May 1985; and their reply, from the General Manager, did not dissent. This contrasts with a letter to the Harbour Master from the Shipping Manager only a year earlier, in which he expressed himself:-

“somewhat disturbed to find that we are entering yet another summer season with this problem of recognition of our difficulties in navigating above bridges unconfirmed and while we will continue to do everything in our power to prevent a serious accident occurring, we have to say that the possibility still exists.”

15.12 There remains to be considered the extent to which all this has a bearing on the accident now under Inquiry. It has already been said that Bye-law 19 does not go far enough, but nonetheless it is clear that if it had been followed the accident would not have happened. Whether a more strongly worded Bye-law would have prevented the accident in that MARCHIONESS would not have used the centre arches is open to speculation. It is doubtful because, coming back again to the fundamental point that MARCHIONESS was unaware of the other ship's presence, her Skipper would probably still have used mid-channel, legitimately as it would have seemed to him even under stronger Regulations, so as to overtake HURLINGHAM.

15.13 This leads naturally to the question: would the proposed signal rejected by the Department have made BOWBELLE so much more conspicuous that she would have been seen? Clearly it might possibly have done so. But it is clear that the signal was intended to indicate that the vessel showing it was more than 40 metres in length and was therefore to be given priority: it was an identification signal, not a signal primarily aimed at increasing conspicuity. It is not thought that it would have had the eye-catching effect of the white light which is now displayed over the bow. (It is perhaps curious that, given the concern over the look-out capability of launches, the question of making other vessels more readily visible did not receive more attention as a matter in its own right. Indeed,

in one letter from PLA to British Dredging in 1983, a floodlight over the bow was mentioned as a possibility but only in passing; it is understood that the reason for the idea not being followed up was that there was some fear of the lights causing glare).

- 15.14 Finally, there is the practice voluntarily adopted in the BOW ships of posting an officer forward. The Operations Manager points out in his evidence that, since for the passage through the Bridges the other Mate is steering, for that time both deck officers as well as the Master are on duty; the practice was dropped in BOWBELLE so as to give one of the officers an increased period of rest. (The change, it should be said, preceded the appointment of the Master who was in command at the time of the accident.) Clearly it is once more pure speculation whether the presence of an officer forward would have prevented the collision. Since the accident South Coast Shipping have made the practice a requirement for their ships in the River, and with the particular problems of visibility with the dredgers, they are wise to have done so; but, in general, an experienced and properly instructed Able Seaman should be fully capable of carrying out look-out duties in any waters, and such a requirement is not necessary for all ships.

## 16. THE PROBABLE COURSE OF EVENTS

- 16.1 Until very shortly before the collision, the passage down river of both craft was uneventful and there is nothing to add to the account already given in Section 3 of this Report. It is only in the last minute or less that the picture becomes at all confused. Until then, it seems entirely clear that the vessels were on parallel courses, which had they been maintained would have resulted in BOWBELLE overtaking MARCHIONESS with 12 - 14 metres of clear water. However, in those last few moments these courses fatally converged.
- 16.2 It has already been said that it appeared to the two men forward in BOWBELLE that MARCHIONESS altered course to port. There is a good deal of evidence to support this, in particular one witness ashore thinking that MARCHIONESS was steering to port of the direct down river course, by about 30 degrees according to his estimate. Other evidence varies. It appeared to the Skipper of HURLINGHAM that BOWBELLE was heading for No 2 arch of Cannon Street Bridge, that is the arch to the north of the central arch, and then altered to starboard. This would equally well account for the two vessels converging; but it seems unlikely that BOWBELLE would wish to use the northern arch, which was on the wrong side of the river for her; and indeed, given the short distance relating to her length between Southwark and Cannon Street Bridges, to go through the centre arch of the former and the northern arch of the latter would be a difficult and possibly hazardous manoeuvre. Bearing in mind as well that the central arches of the two bridges are not quite in alignment, there is no reason to doubt the account given by the Second Mate, her helmsman, who says:-

“The vessel approached Southwark Bridge and I lined the bow up for the centre of the central arch. As the bow came out of the other side I turned the vessel to Starboard slowly until the stern came clear of Southwark Bridge and then lined the vessel up on the second column of the south pier of the central arch of Cannon Street Bridge. I then put the helm to port and brought the head round towards the northern half of the central arch.”

It could well be that this alteration to port would give to a vessel astern the impression that BOWBELLE was heading for No 2 arch.

- 16.3 Perhaps more significant is the alteration to starboard made as BOWBELLE emerged from Southwark Bridge. Though it was only slight, it was sufficient to be noticed by some passengers in HURLINGHAM and will clearly - albeit momentarily - have led to some convergence and to BOWBELLE's bow being closer to MARCHIONESS than would otherwise have been the case. Perhaps at this stage the interactive effect referred to in Section 6.6 above came into play so that MARCHIONESS fell off to port.
- 16.4 Thus, the bulk of the evidence suggests a course of events something like the following, beginning upstream of Southwark Bridge. All those vessels concerned were heading for that Bridge: HURLINGHAM for the southern arch and MARCHIONESS and BOWBELLE for the centre arch. MARCHIONESS overtook HURLINGHAM and passed through the bridge probably close to the southern pier of the central arch, very shortly before BOWBELLE passed through the middle of the arch; therefore on MARCHIONESS's quarter and already quite close. When she had cleared the bridge MARCHIONESS may have found herself heading roughly for the southern pier of Cannon Street centre arch, perhaps because of a tidal eddy caused by the bridge piers, and altered to port to gain the

middle of the fairway; or she may have yawed to port because of the first effects of interaction. Either way, the result was that the Skipper looking ahead saw his vessel now lined up not only for Cannon Street but also for London Bridge: he therefore did not alter back to starboard but accepted and steadied on the new course. The perceived effect was an alteration to port by MARCHIONESS, not by as much as the 30 degrees suggested by the observer quoted above (it is very difficult to judge by eye the course of a vessel not directly ahead or astern of the observer) but sufficient, combined with BOWBELLE's alteration to starboard as she emerged from Southwark Bridge, to put the two vessels on a converging course with each other. At such short range, and with those in charge of the navigation in both vessels unaware of the other's presence, collision or at least a very close quarters situation was inevitable.

- 16.5 There are three possible reasons for MARCHIONESS getting more broadly across BOWBELLE's bow at the last moment. There may have been initially an impact well aft on the port quarter, relatively light but enough to swing the boat round to port; interaction between the two vessels may have led to loss of control of the smaller craft and caused the swing; or the Skipper, hearing the Mate's warning, may have altered to port in a last minute attempt to get clear. These possibilities are not mutually exclusive; interaction is likely to have been the major factor, probably augmented by physical contact: the former has already been mentioned (Section 6.5), and the latter is supported to considerable extent by witness evidence and by the presence of a scuff mark on the boat's port quarter.
- 16.6 The tracks followed by the two vessels after they had passed Southwark Bridge, as they have been deduced, are shown at Annex IC. It is stressed that they are at best no more than approximation; in particular, and especially since the Skipper cannot speak for himself, the track of MARCHIONESS represents no more than the hypothesis which best seems to fit the evidence.
- 16.7 But more important than the mechanics of the collision is the question: why was so dangerous a situation allowed to develop? Part of the answer will be apparent from the preceding sections of this Report; in the next section the difficult matter of the responsibility of the various bodies and individuals concerned is considered.

## 17. RESPONSIBILITY

### Introductory Note

The Merchant Shipping (Accident Investigation) Regulations 1989, under which the Inquiry has been conducted, lay down at Regulation 4 that:-

“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”.

It is manifest that in an accident such as this, consideration of fault in the course of the investigation is inevitable. This consideration must extend to some review of the various responsibilities of bodies and individuals, not only for completeness but also in fairness to all those concerned. In this sense some apportionment of blame is necessary to the purposes of the investigation. It is not necessary to apportion blame in the sense of dividing responsibility on a percentage basis. The following paragraphs must be read with this in mind; and, in particular, no significance is to be attached to the order in which those concerned are listed.

#### 17.1 The Master, BOWBELLE

The Master, both as Captain and as the officer in charge of his ship's navigation at the time of the collision, was responsible under the Port of London Authority Act, as well as general Merchant Shipping law, for navigating with due care and attention. More specifically, under the International Regulations for Preventing Collisions at Sea (“the Collision Regulations”), the PLA Bye-laws and the ordinary practice of seamen he was required to:-

- .1 Ensure that a proper look-out was kept by all available means;
- .2 Proceed at a safe speed appropriate to the circumstances and conditions; and
- .3 Keep out of the way of any vessel his ship was overtaking.

No doubt if he had been aware of the presence of MARCHIONESS he would have conformed with the third requirement. It follows that consideration of his responsibility for the collision rests on the extent to which he ensured that a proper look-out was kept and that his ship was proceeding at a safe speed. It is convenient to deal with the latter point first.

Several witnesses described BOWBELLE as going fast, but this of course is a relative term and, furthermore, speeds of vessels in a waterway are apt to be over-estimated. In fact, there is good evidence of BOWBELLE's speed. She was recorded as passing Vauxhall Bridge at 0120 hrs and approaching Waterloo Bridge, 14 cables downstream, at 0135 hrs. The collision occurred a further 9 cables downstream at 0146 hrs. For a short time, passing Westminster, the engine was at slow ahead; otherwise it was at half ahead.

Thus, speed at the time of collision will have been slightly more than the average speed from Vauxhall of 5.3 knots. Taking "approaching" Waterloo Bridge to mean one cable from it, she covered a mile in 11 minutes, giving 5.5 knots: this must be a close approximation to her actual speed. This conforms with the requirement of the Collision Regulations and the PLA Bye-laws.

There remains the question of look-out. The fact that it is difficult to keep a proper look-out from BOWBELLE's wheelhouse has already been emphasized; there is no doubt that the Master was fully aware of the problem and he took the first and most important step to deal with it by posting an experienced rating on the fo'c'sle head. He did not, however, require that all sightings should be reported to him, instead leaving reports to the rating's discretion. It is notable that the man concerned indeed did not consider keeping a look-out to be his chief function: his evidence is that he thought his main duty was to stand-by ready to let go the anchor if needed. Nor did the Master, in the absence of a telephone link between fo'c'sle and wheelhouse, provide any alternative means of reporting even though hand-held VHF sets were on board. It should be said that in both these respects the Master was simply conforming to pre-existing practice, adopted by others more experienced than he; the alternative Master of BOWBELLE gave look-outs (including the seaman who was on duty as look-out at the time of the accident) orders "to report anything untoward happening ..they warn me by a shout from the fo'c'sle". Further, the Master was under the impression (mistakenly, it appears from examination of the equipment after the event) that only one of the VHF sets on board was serviceable. But on the first point, it is not sufficient for a Master to accept an unsatisfactory practice simply because it has gone on before he took command; and on the second point, if he thought the VHF sets unserviceable he should have had them replaced or repaired.

In sum, despite the difficulties, it was possible to keep an efficient look-out from BOWBELLE if sufficient thought was given to the problem; the Master had given it thought but not to sufficient depth.

It is not thought that the Master's own failure to see MARCHIONESS necessarily indicates any lack of alertness on his part. The reach above the scene of the accident is straight, and it is therefore probable that the launch was in the blind arc from the wheelhouse for virtually the entire time that she ought to have been in view.

Finally, it is necessary to give some consideration to the Master's action after the collision. His first action was to regain control of his vessel, which was lost as a result of the impact so that she struck Cannon Street Bridge. Having done this, he reported to PLA at Woolwich by radio and with their agreement cleared the area. It can be argued that it would have been better if he had anchored below Cannon Street and lowered his lifeboats to join in the search for survivors. It can also be argued that it was more sensible, given that the life-boats do not have engines and the immediate presence of small craft far more suitable for rescue purposes, for BOWBELLE to do as she did and leave the area clear. It is clear from the tape recording of the exchange of messages on VHF, that the Master's decision does not in any way reflect a lack of regard for the fate of those on board MARCHIONESS; nor did it have any bearing on the tragic result of the accident. No blame is attached to the Master in this respect.



## **BOWBELLE: Other Personnel**

- 17.2 The seaman, who was the look-out, first saw MARCHIONESS at about the time of passage through Southwark Bridge, but for reasons already explained failed to report his sighting. He cannot be blamed for obeying orders. The possible reasons for his not noticing MARCHIONESS earlier are given in Section 7.7; the failure in any case is irrelevant since it is clear that he would not have reported her.
- 17.3 The Second Mate, who was the officer of the watch, was concentrating on steering the ship and cannot be considered to have had any responsibility for the accident.
- 17.4 The alternate Master was promoted to command in 1986 and is therefore the senior of the two men, and though in South Coast Shipping's fleet this does not give him any direct authority (their system does not provide for a "Senior Master", the Master for the time being, being fully in command) clearly his practice would be likely to influence that of the younger man. His order to look-outs has already been quoted but the practice it spelt out was no more novel to him than it was to the Master at the time of the accident, it is long-standing and it is neither practicable nor desirable to trace its antecedents. The important thing is that it should be changed, and this has been done. Under the circumstances, it is not reasonable to say more on the alternate Master than that he was one among many who have allowed a bad practice to continue.
- 17.5 **British Dredging, East Coast Aggregates and South Coast Shipping**

BOWBELLE was built for the British Dredging Group as one of three ships intended, at least in part, for trading to the River Thames. In the last 10 years she has been operated by British Dredging Sand and Gravel Ltd, East Coast Aggregates and South Coast Shipping.

British Dredging Group fall first to be considered as having been, with the builders, responsible for the design of BOWBELLE. That was in 1964 and at this distance of time to attempt to identify any specifically responsible individuals would be not only difficult but also unreasonable. Nonetheless, it would be unjust to both Masters and others who have had to cope with the problems caused by the design not to spell out the fact that the failure to make proper provision for visibility from the ship's bridge was a major factor in the accident, and those concerned must bear some of the responsibility.

It would also be unfair not to add that those concerned with BOWBELLE's design are by no means alone in failing to recognise the need for a good view from the bridge. In another recent accident, fortunately with no serious consequences, a fishing vessel struck a small craft, and the subsequent investigation showed that from the wheelhouse of the fishing vessel there was a blind arc right ahead, of more than 40 degrees from the helmsman's position. (MAIB are making strong recommendations to the Department about this case).

- 17.6 British Dredging and their successor company, East Coast Aggregates, operated BOWBELLE for many years, including the early 1980s when major concern was first felt about the possibility of a grave accident with a pleasure launch. It will be clear from Section 15 that they took this possibility very seriously, and that the steps which they took were appropriate; and partly because of them the situation improved. It is no doubt because of

this improvement that the Company's officers ashore and at sea allowed the problem to slip from the forefront of their consciousness. It is not suggested that it was forgotten, but its particular importance lost emphasis. Thus, when in 1987 the Company's Standing Orders were revised, the amendment to the previous edition relating to watchkeeping and look-out in the Thames was dropped; the matter of a special signal to be shown by the ships was no longer pursued after 1985; and the practice of having an officer positioned forward for the river passage was, in BOWBELLE, discontinued.

- 17.7 In June 1988, operational management of BOWBELLE and the other ECA ships was transferred to South Coast Shipping, another Company within the RMC Group. There was some transfer of staff, including the Shipping Manager with British Dredging and East Coast Aggregates, who became Operations Manager for the combined fleet. He gives the impression of being capable and conscientious, and having the interests of his ships and their men very much at heart. He and his colleagues ashore provide South Coast Shipping with a strong management structure; and the Company have good machinery to ensure close and regular contact between senior management ashore and ships' Masters. This includes frequent reporting by Masters to the General Manager, regular formal meetings and visits to the ships by senior staff. Despite this, it is considered that the management did not fully realise how serious was the problem in conning BOWBELLE in restricted waters. Partly this stems from the degree of relaxation ashore and afloat mentioned in the previous paragraph; partly, perhaps from re-organisation following the merger of the two companies' fleets; and partly - going back to the time of the earlier incidents - from the fact, which is plain from documents and from the Operation Manager's own evidence, that at that time all the operators of the larger vessels in the Thames thought that the problems revealed by those incidents resulted almost entirely from the manner of operation of the passenger launches, so that they had less regard than they might have done for the contribution made by their own ships. It will be apparent that all this mainly boils down to simple human nature, and its relevance to the accident is questionable. Nonetheless, if the problems of conning the BOW ships had been more completely recognised in all their aspects, and more fully kept in mind, it is possible that this would have led to discussions whereby a young and recently appointed Master might have more fully appreciated not just the difficulty, but the means to overcome it.

There is one weakness in the South Coast management structure (despite its good points) which may possibly have been significant and which, in any case, should be remedied. That is that there is no specific designated person ashore responsible for technical and safety aspects, as is recommended in Merchant Shipping Notice No M. 1188. The Senior Superintendent states that the function is carried out by himself and the Marine Manager, but this has not been promulgated in any formal way. It is recommended that the appointment should be made formal and should preferably be vested in one senior man rather than shared between two. The appointed person should be incorporated in the lines of communications between ship and shore, and the system for exchange of information, in which he should have a key role, should be clearly laid down. This change should not be made at the expense of the existing system, which is fundamentally sound, but should complement it.

## 17.8 The Skipper, MARCHIONESS

The Skipper of MARCHIONESS was, like the Master of BOWBELLE, responsible under the PLA Act for navigating with due care and attention. Under the Collision Regulations and the PLA Bye-laws he was required to:-

- .1 Ensure that a proper look-out was kept at all times;
- .2 Proceed at a safe speed; and
- .3 Avoid impeding the passage of a vessel of more than 40 metres in length.

There seems no doubt that the Skipper would have complied with the third requirement if he had been aware of BOWBELLE's presence; and as BOWBELLE was going at a safe speed in the sense of the term as used in the Collision Regulations, so clearly was MARCHIONESS as she was proceeding even more slowly. The question of the Skipper's conduct thus condenses to the matter of look-out.

As an experienced Waterman, the Skipper will have been well aware of the need to look out for large vessels coming up from astern; indeed an apprentice Waterman who very recently received instruction from him said in his statement that he was told to "look out for the BOW boats" every two hours after the ebb tide. No doubt, also, the Skipper was well aware of the difficulty in looking aft from MARCHIONESS's wheelhouse, and of the means available to overcome it. He must also have been aware of the rather inconspicuous lights shown by such vessels as BOWBELLE above Tower Bridge, when their masts are down. The Skipper lost his life in the accident, and any criticism of him must therefore be made reluctantly and with his inability to answer it in mind, but it must be concluded that he did not look aft in the few minutes before the collision, or at least that he did not look sufficiently thoroughly. The possibility that BOWBELLE was hidden from view from MARCHIONESS has been considered but considering the course of the river and the fact that both vessels had used the centre arches of bridges, this is not likely.

It must be added that a good look-out is required by hearing as well as by sight. There is no apparent explanation for the Skipper failing to hear the broadcast information about BOWBELLE other than the background noise of the disco; perhaps coupled with a degree of tiredness, not amounting to exhaustion but sufficient to dull awareness.

## 17.9 Tidal Cruises Ltd

The rather "hands off" method of management adopted by Tidal Cruises Ltd will be apparent from Section 5.2. It is not intended to criticise them for it: Thames Watermen are a notably independent body of men and an attempt to exercise close control from a desk ashore would probably lead to more problems than it would solve. They should, however, take steps to ensure that in future the same crew should not undertake two successive night cruises; see Section 9.8.

However, the firm must also be looked at as having been responsible for the re-design of MARCHIONESS when she was substantially altered, leading to the poor view aft, (see Annex 14). This, like the poor view ahead from BOWBELLE, very substantially contributed to the accident. At first sight it is particularly surprising that the two partners in Tidal Cruises Ltd, should permit such a design since both are experienced Watermen,

and they must have recognised the difficulties it would bring. They considered the difficulties would be overcome by Skippers; it is tragic that they have been proved wrong.

#### 17.10 The Port of London Authority

The PLA are responsible for regulating navigation on the Thames. Clearly this does not mean that they take over direct responsibility from Masters or Skippers; but they set down requirements within which ships must operate, impose a measure of control (but only to the extent necessary for smooth working on the river) and provide various services.

Strong representations were made to the PLA by British Dredging and others in the early 1980s as a result of which Bye-law 19 was introduced: this gave some priority to larger vessels above Tower Bridge because of their restricted freedom to manoeuvre. In effect, this Bye-law does no more than apply Rule 18 of the Collision Regulations under which “if the circumstances of the case admit” vessels are to “avoid impeding the safe passage” of a vessel which, by reason of her draught, is “severely restricted in her ability to deviate from the course she is following”. Ships such as BOWBELLE, though not large by deep-sea standards, clearly fall within this definition when on passage through the Thames bridges.

In one view, put forward by the Shipping Manager of British Dredging, the Bye-law did not go far enough: ships like the BOW dredgers are not just restricted in their ability to alter course, they are absolutely unable to do so except within very narrow limits, and they are also restricted in their ability to reduce speed for it is vital not to lose steerage way when approaching a bridge. He sought special status as “hampered vessels” for his ships. But, while the force of his argument is recognised, it is difficult to see how legislation would have completely met it without imposing traffic segregation and that, as has been said in Section 10.3, is not practicable.

However, Bye-law 19 could, without going as far as that, have been strengthened by prohibiting the use of centre arches by small vessels except in case of necessity. Moreover, even without this specific requirement, strict application of Rule 9 of the Collision Regulations, as discussed in Section 10.2 above, would have had much the same effect. It will be apparent from that Section that the Authority did take steps to enforce Rule 9, but it will also be evident that, despite this, the Rule continued often to be flouted. Whether in the particular circumstances stronger action to enforce the Rule would have led to the collision being avoided is doubtful: see Section 15.12.

#### 17.11 The Department of Transport

The Department are responsible under the Merchant Shipping Acts for “the general superintendence of all matters relating to merchant shipping and seamen”. This responsibility is not confined to sea going craft and, despite PLA’s measure of authority referred to in the preceding paragraph, both vessels involved in this accident come within the ambit of the Merchant Shipping Acts and the Department’s Regulations; as do other vessels using the Thames. The Department’s responsibility does not, of course, extend to the general operation and maintenance of ships, which fall to the owner.

One way in which the Department seeks to maintain standards and fulfil its role is by examining accidents and seeking to apply the lessons which they demonstrate. Annex 11

refers to past accidents involving small passenger craft and gives a short account of three cases which, to some extent, fore-shadowed the present tragedy: in each instance lack of visibility from the wheelhouse of the launch was a major factor. Action was initiated by the Department to improve matters, as is described in Section 15.5.

Many other aspects of safety on the river have been addressed by the Department in the last few years, but apart from inspection by Surveyors to ensure that the navigation lights are correct, no particular attention has been paid to any steps to improve the conspicuity of passenger launches, for in all the previous incidents the launch concerned was observed in good time. It should be mentioned that a proposal was made to the Department that the "River Buses" should show a distinguishing flashing light, but it is understood this was rejected because the policy - in accordance with international agreement reflected in the Collision Regulations - is to restrict the use of flashing lights to air-cushion vessels (hovercraft): this is so as to distinguish them from other craft not only because of their speed but also because of their great susceptibility to leeway which renders their aspect as indicated by the normal navigation lights confusing. In any event, as the proposal was specifically and solely in relation to the fast catamaran craft, its rejection is of no relevance to the present accident.

It is implicit in several of the recommendations that it is not considered that, in all respects, action taken by the Department in the last few years has gone as far as it should have, and in particular it will be clear from Section 7.10 that it is not considered the steps taken to improve visibility from the wheelhouse of launches were adequate; but these comments are made with the benefit of hindsight. Furthermore, in practice when action is taken by the Department or any responsible authority, it needs, in order that it carries with it the will to comply, the backing of clear evidence that it is necessary; and this unfortunately tends to mean the evidence of a serious accident. Given that the accidents which occurred in the early part of this decade in the Thames were in fact (as opposed to potential) minor, it is considered unrealistic to suggest that more severe measures could have been successfully pursued.

It is at first sight surprising that no action was taken to make the larger ships more conspicuous. The proposed signal of three red lights, discussed in Sections 15.9 and 15.13, was plainly intended purely to further identify a ship already seen, and it was on this basis that the Department rejected it. Their reasons are legitimate: in particular, if, as could well happen, the signal was taken to be that of a vessel not under command and the vessel's other lights were not recognised, it would signify no hazard to a vessel seeing it astern: it would appear to indicate a small vessel stopped in the water. The fact that no-one appreciated that what was really needed was a signal which would, above all, be noticed probably stems from the essential philosophy of the Collision Regulations, as mentioned in Section 7.6, with which all seamen are imbued. Since neither PLA nor the vessels' operators took the point, it is perhaps understandable that the Department, at one further remove, failed to do so.

All this begs the question of design: whether designs such as that of MARCHIONESS, and equally BOWBELLE, ought to have been allowed by the Department in the first place. They ought not. As has been said earlier in the Report there were not, and indeed there still are not, any specific requirements laid down to ensure that design properly caters for the keeping of an efficient watch and look-out, but it is surely plain that design should help, not hinder, the task, and that this ought to be the concern not only of the designer but also of marine administrations. But to attach responsibility to any individual for failing to recognise this would not merely be difficult, it would be impossible, for the fault was simply part of a malaise which for many years affected not just the Department but

the entire maritime community; namely, a widespread lack of appreciation of the importance of operation matters.

This could be subject of a separate treatise, but it is probably sufficient for the present to describe it as a pre-occupation with the details of equipment at the expense of regard for the ship's operation as a whole; even more simply, with things rather than people. It is believed that the tide has turned and that the pre-eminent importance of good ship management in the broader sense is now being recognised by the Department and within the shipping industry as a whole. If this is right, then in the future such matters as the design of ships and their equipment will be looked at in total and, as they should be, first with an eye to the people who will have to operate them. If this is done, the real lesson of the MARCHIONESS tragedy will have been learnt.

- 17.12 To sum up this long but important section of this Report, it is inescapable that those in charge of the navigation of both vessels concerned must bear a large measure of responsibility; but they share it with those who provided them, in each vessel, with a conning position which was quite unsuitable. Their failure to overcome difficulties which, though great, were not insuperable followed partly from their own faults on the night and partly from bad practice which had grown up over the years among river users. Their failings of execution, and the earlier faults of others which contributed to them, came not from incompetence but rather from compromise in setting or accepting standards which were not high enough. They also stem from failure, widespread over many years among those with senior responsibility in the shipping industry, to look at the design and operation of ships as a complete and integrated whole.

No one act or omission by a single individual is found to have been especially responsible for the accident.